



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

**Date:** 5/22/2018  
**Subject:** Review of Region 5 Data for Central Sands  
**To:** Water Division, WECA Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604  
**From:** Anna Knoebel, 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.

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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**

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**Analyses included in this report:**

Nitrate-Nitrite N DA, Enzymatic reduction

Report Name: 1805005,1805007 Nitrate-Nitrite N DA, Enzymatic reduction FINAL May 22 18 1454



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:**  
May-22-18 14:54

**Accredited Analyses included in this Report**



**Method:** *ASTM D7781-14 in Water*  
**Analysis:** *Nitrate-Nitrite N DA, Enzymatic reduction*  
**Analyte**

**Certifications**

Nitrate-Nitrite N	ISO/IEC 17025:2005
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**Analytes not listed above are not accredited by ANAB.**



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

**Reported:**  
May-22-18 14:54

## **ANALYSIS CASE NARRATIVE – Nitrate-Nitrite Nitrogen in Water**

Work Order: 1805005, 1805007

Analyst: Anna Knoebel

Phone #: (312) 353-9467

### **General Information**

Ninety-eight water samples for Nitrate-Nitrite Nitrogen were received on May 2, 2018 and May 4, 2018. All holding times were met.

### **Sample Analysis and Results**

The samples were analyzed for Nitrate-Nitrite Nitrogen in water on May 10, 2018 using CRL SOP AIG031B, Version # 4 (SOP based on NECi Method N070003). The samples were stored in the refrigerator at all times except when in use.

The data reported herein meets any laboratory specifications referenced in the sampling QAPP “*FINAL\_2018 GW Sampling Plan4\_27\_2018.pdf*” and the requirements referenced in CRL SOP AIG031B, Version # 4 (based on NECi Method N070003) except for those listed in the quality control section below.

### **Quality Control**

#### Matrix Spike (MS)

All five matrix spike recoveries were outside the acceptance limit (90 – 110 %). The source samples were not affected by these recoveries and are not qualified because the samples were either non-detect or the spikes were diluted out.

#### Blank Spike (BS)

Four of the eighteen BS sample recoveries were slightly higher than the acceptance limit (90 – 110 %). The samples affected by these spikes were qualified “K” (The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value).

All other quality control audits were within CRL limits or did not result in qualification of the data.



# 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:**  
May-22-18 14:54

**Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	1.79		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	36.9		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	0.12		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18



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:**  
May-22-18 14:54

**Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	1.25		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	4.61		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	0.23	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	4.53	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18



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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:**  
May-22-18 14:54

**Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (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
Nitrate-Nitrite N	0.96	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	33.3	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	28.0	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	0.12	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	42.1	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	3.39	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	27.7	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18



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77 West Jackson Boulevard  
Chicago IL, 60604

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**Reported:**  
May-22-18 14:54

**Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (modified)**  
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**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
Nitrate-Nitrite N	2.62	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	44.3	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	59.2	K	1.00	2.00	mg/L	20	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	36.8	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	25.3	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	31.7	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	37.3	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18



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Water Division, WECA Region 5  
77 West Jackson Boulevard  
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**Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (modified)**  
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**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	36.5	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	17.1	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	2.95	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	2.48	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	0.69	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	8.33		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	16.7		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18



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77 West Jackson Boulevard  
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**Reported:**  
May-22-18 14:54

**Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	0.57	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18





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

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Project Manager: Cheryl Burdett

**Reported:**  
May-22-18 14:54

**Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (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
Nitrate-Nitrite N	2.86		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	32.7		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	21.1		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	23.4		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	20.5		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	50.6		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	0.29		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	1.36		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18



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77 West Jackson Boulevard  
Chicago IL, 60604

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**Reported:**  
May-22-18 14:54

**Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (modified)**  
**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	33.7		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	36.8		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	42.3		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18



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**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	2.29		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	14.3		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	16.2		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	32.2		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18



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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:**  
May-22-18 14:54

**Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (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
Nitrate-Nitrite N	23.9		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	27.2		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	25.7		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	1.52		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	3.15		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	1.58		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	3.16		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	6.58		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18



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77 West Jackson Boulevard  
Chicago IL, 60604

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Project Manager: Cheryl Burdett

**Reported:**  
May-22-18 14:54

**Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (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
Nitrate-Nitrite N	7.40		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	23.3		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	26.8		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	38.7		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	26.9		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	0.15		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	0.15		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18



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**Reported:**  
May-22-18 14:54

**Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	1.13		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	1.22		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18



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**Reported:**  
May-22-18 14:54

**Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (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
Nitrate-Nitrite N	U	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

**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
Nitrate-Nitrite N	20.2		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18



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**Reported:**  
May-22-18 14:54

**Notes and Definitions**

- K The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value.
- \* This Quality Control measure meets the requirements of the CRL SOP for this analyte.
- U Not Detected
- NR Not Reported
- Q QC limit Exceeded