UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: **6/4/2018**

Subject: **Review of Region 5 Data for Central Sands**

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

From: **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.

Anna Knoebel

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

Attached are Results for: **Central Sands**

Analyses included in this report:

Anions by IC

Report Name: 1805005,1805007 Anions by IC FINAL Jun 04 18 1340

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	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

Accredited Analyses included in this Report

ANAB ACCREDITED TESTING LABORATORY

Method: ***EPA 300.0 in Water***
Analysis: ***Anions by IC***

Analyte	Certifications
Fluoride	ISO/IEC 17025:2005
Chloride	ISO/IEC 17025:2005
~~Nitrite as NO2~~	~~ISO/IEC 17025:2005~~
Sulfate as SO4	ISO/IEC 17025:2005
Bromide	ISO/IEC 17025:2005
~~Nitrate - NO3~~	~~ISO/IEC 17025:2005~~
~~Orthophosphate as PO4~~	~~ISO/IEC 17025:2005~~

Not included in report

REVIEWED
By AK at 1:51 pm, Jun 04, 2018

Analytes not listed above are not accredited by ANAB.

Environmental Protection Agency Region 5
Chicago Regional Laboratory

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

Water Division, WECA Region 5	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

ANALYSIS CASE NARRATIVE – Anions by IC

Work order #: 1805005, 1805007
Analyst: Anna Knoebel
Phone #: (312) 353-9467

General Information

Ninety-eight water samples for Anions by IC (fluoride, chloride, sulfate, and bromide) were received on May 2, 2018 and May 4, 2018. All holding times were met.

Sample Analysis and Results

The samples were analyzed May 8 – 18, 2018 for Anions by IC in water using CRL SOP AIG045A, Version #7 (SOP based on EPA 300.0). The data reported herein meets any laboratory specifications referenced in the sampling QAPP titled "*FINAL_2018 GW Sampling Plan4_27_2018.pdf*" and the requirements referenced in CRL SOP AIG045A, Version #7 (SOP based on EPA 300.0) except for those listed in the QC section below.

Quality Control

Matrix Spike (MS)

The sulfate matrix spike recoveries for samples 1805005-35 (C8a, 76 %), 1805007-08 (D7a, 47 %), 1805007-18 (D11a, 76 %), 1805007-28 (E4a, 56 %), and 1805007-44 (E9b, 19 %) were below the acceptance criteria (80 – 120 %). The chloride matrix spike recoveries for samples 1805007-08 (D7a, 72 %), 1805007-18 (D11a, 73 %) and 1805007-44 (E9b, 62 %) were also below the acceptance criteria (80 – 120 %). The results were qualified "L" (The identification of the analyte is acceptable; the reported value may be biased low. The actual value is expected to be greater than the reported value).

Duplicate (DUP)

The sulfate (12 %) and chloride (14 %) %RPD for sample 1805005-15 (B2b) were above the acceptance limit (< 9%). The results were qualified "J" (The identification of the analyte is acceptable; the reported value is an estimate).

Continuing Calibration Blank (CCB)

A CCB result (0.08 mg/L) for sulfate was above the MDL (0.07 mg/L). A CCB result (0.36 mg/L) for chloride was also above the MDL (0.05 mg/L). Sulfate and chloride were below the MDL in the other blanks. The blank contamination is most likely due to carryover from the high levels of sulfate in the samples. Sample results were not affected by the blank contamination because they were non-detect or more than ten times the CCB result, no qualifiers were necessary.

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

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Water Division, WECA Region 5	Project:	Central Sands	
77 West Jackson Boulevard	Project Number:	CB022018	**Reported:**
Chicago IL, 60604	Project Manager:	Cheryl Burdett	Jun-04-18 13:40

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 Manager:** **Angela Ockrassa Davis**
Project: **Central Sands** **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 Date Received: May-02-18 09:55
Logged In By: Robert Snyder 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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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 Manager:** Angela Ockrassa Davis
Project: Central Sands **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, sullfate.
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 Manager:** **Angela Ockrassa Davis**
Project: **Central Sands** **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 Date Received: May-04-18 10:00
Logged In By: Robert Snyder 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

Reviewed By Date

1805007

US EPA Region 5 Chicago Regional Laboratory

Client:	Water Division, WECA Region 5	Project Manager:	Angela Ockrassa Davis
Project:	Central Sands	Project Number:	CB022018

PROJECT COMMENTS: Anions: Chloride, fluoride, bromide, sullfate.
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	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

Anions by Ion Chromatography, EPA 300.0 (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
Fluoride	**0.06**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**4.61**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**7.02**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-08-18
Chloride	**1.16**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**5.98**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-08-18
Chloride	**1.21**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**9.84**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.06**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-08-18
Chloride	**0.85**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**5.01**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.08**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-08-18
Chloride	**0.75**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**8.79**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

Anions by Ion Chromatography, EPA 300.0 (modified)
US EPA Region 5 Chicago Regional Laboratory

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-08-18
Chloride	**0.77**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**6.44**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**1.00**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**5.18**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.08**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**0.76**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**7.98**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**U**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**U**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**U**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.07**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**1.01**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**26.5**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

Anions by Ion Chromatography, EPA 300.0 (modified)
US EPA Region 5 Chicago Regional Laboratory

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
Fluoride	**0.06**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**0.53**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**10.7**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.08**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**0.71**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**8.18**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.09**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**1.10**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**7.87**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.08**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**2.77**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**8.81**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**0.50**	J	0.05	0.12	"	"	"	"	"
Sulfate as SO4	**5.10**	J	0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

Environmental Protection Agency Region 5
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Water Division, WECA Region 5	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

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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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**19.5**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**26.3**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**2.09**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**6.72**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**35.0**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**66.3**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.10**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**26.7**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**112**		0.14	0.25	"	2	"	"	May-18-18
Bromide	**U**		0.03	0.12	"	1	"	"	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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**0.73**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**7.79**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

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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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**0.70**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**6.53**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**34.4**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**29.2**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**3.33**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**15.7**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**30.0**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**40.9**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**5.75**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**11.5**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-10-18
Chloride	**38.8**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**90.4**		0.14	0.25	"	2	"	"	May-18-18
Bromide	**0.12**		0.03	0.12	"	1	"	"	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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**50.5**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**101**		0.14	0.25	"	2	"	"	May-18-18
Bromide	**0.14**		0.03	0.12	"	1	"	"	May-09-18

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**43.5**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**54.7**		0.07	0.12	"	"	"	"	"
Bromide	**0.16**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.09**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**29.5**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**88.9**		0.14	0.25	"	2	"	"	May-18-18
Bromide	**0.17**		0.03	0.12	"	1	"	"	May-09-18

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**33.6**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**52.5**		0.07	0.12	"	"	"	"	"
Bromide	**0.13**		0.03	0.12	"	"	"	"	"

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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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**35.9**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**95.2**		0.14	0.25	"	2	"	"	May-18-18
Bromide	**0.15**		0.03	0.12	"	1	"	"	May-09-18

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
Fluoride	**U**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**U**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**U**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.02**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**0.73**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**1.05**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**37.3**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**93.7**		0.14	0.25	"	2	"	"	May-18-18
Bromide	**0.15**		0.03	0.12	"	1	"	"	May-09-18

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**15.9**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**44.5**	L	0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**1.84**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**15.9**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**3.66**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**16.4**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**U**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**0.56**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**6.69**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**6.93**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**3.35**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.07**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**31.3**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**2.03**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**0.78**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**8.99**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.10**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**0.92**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**6.69**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.09**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**1.68**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**0.91**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.07**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**1.34**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**0.93**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.08**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**0.60**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**6.46**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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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
Fluoride	**0.11**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**1.27**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**7.34**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.07**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**0.53**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**7.67**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.07**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**0.83**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**4.92**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.06**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**17.3**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**44.3**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.11**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**38.8**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**90.1**		0.14	0.25	"	2	"	"	May-18-18
Bromide	**0.13**		0.03	0.12	"	1	"	"	May-09-18

Environmental Protection Agency Region 5
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Water Division, WECA Region 5	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

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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
Fluoride	**0.06**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**31.5**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**25.5**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**34.4**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**2.55**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**29.4**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**25.1**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**63.7**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**93.0**		0.14	0.25	"	2	"	"	May-18-18
Bromide	**0.15**		0.03	0.12	"	1	"	"	May-09-18

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**1.67**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**10.3**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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Water Division, WECA Region 5	Project: Central Sands	
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Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

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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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**0.79**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**6.65**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**U**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**45.7**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**96.9**		0.14	0.25	"	2	"	"	May-18-18
Bromide	**0.13**		0.03	0.12	"	1	"	"	May-09-18

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**27.9**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**67.0**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**2.07**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**1.27**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**U**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**U**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**U**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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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
Fluoride	**U**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**47.0**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**68.5**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**U**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**46.8**	L	0.05	0.12	"	"	"	"	"
Sulfate as SO4	**68.7**	L	0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**41.2**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**112**		0.14	0.25	"	2	"	"	May-18-18
Bromide	**U**		0.03	0.12	"	1	"	"	May-09-18

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**50.6**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**88.8**		0.07	0.12	"	"	"	"	"
Bromide	**0.15**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**66.2**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**86.4**		0.14	0.25	"	2	"	"	May-18-18
Bromide	**0.14**		0.03	0.12	"	1	"	"	May-09-18

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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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-09-18
Chloride	**41.4**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**71.0**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.06**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**4.86**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**10.8**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**22.8**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**28.9**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**22.9**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**29.8**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**21.6**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**31.6**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

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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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**20.6**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**31.5**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**22.5**	L	0.05	0.12	"	"	"	"	"
Sulfate as SO4	**21.4**	L	0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.02**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**34.9**	L	0.05	0.12	"	"	"	"	"
Sulfate as SO4	**60.6**	L	0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**33.2**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**76.3**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.06**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**27.3**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**38.0**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**29.0**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**8.54**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.08**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**1.76**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**13.0**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**27.6**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**8.29**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.07**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**1.59**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**12.6**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**2.01**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**46.7**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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Water Division, WECA Region 5	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

Anions by Ion Chromatography, EPA 300.0 (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
Fluoride	**0.06**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**0.97**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**27.4**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**16.4**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**71.0**	L	0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**33.7**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**62.8**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.03**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-18-18
Chloride	**30.8**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**69.3**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-19-18
Chloride	**28.9**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**61.3**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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Water Division, WECA Region 5	Project: Central Sands	
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Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

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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
Fluoride	**0.06**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**0.48**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**6.00**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**0.69**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**5.59**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.02**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**33.0**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**41.1**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**U**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**32.4**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**47.5**		0.07	0.12	"	"	"	"	"
Bromide	**0.15**		0.03	0.12	"	"	"	"	"

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
Fluoride	**U**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**26.9**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**34.6**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**37.1**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**60.6**		0.07	0.12	"	"	"	"	"
Bromide	**0.14**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.06**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**0.58**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**8.54**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**0.57**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**8.23**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.04**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**1.05**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**10.2**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**U**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**U**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**U**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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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
Fluoride	**U**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**U**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**U**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.06**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**31.2**		0.05	0.12	"	"	"	"	"
Sulfate as SO4	**64.8**		0.07	0.12	"	"	"	"	"
Bromide	**U**		0.03	0.12	"	"	"	"	"

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
Fluoride	**0.05**		0.01	0.02	mg/L	1	B18E016	May-08-18	May-11-18
Chloride	**32.1**	L	0.05	0.12	"	"	"	"	"
Sulfate as SO4	**62.3**	L	0.07	0.12	"	"	"	"	"
Bromide	**0.16**		0.03	0.12	"	"	"	"	"

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Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-04-18 13:40

Notes and Definitions

L	The identification of the analyte is acceptable; the reported value may be biased low. The actual value is expected to be greater than the reported value.
J	The identification of the analyte is acceptable; the reported value is an estimate.
*	This Quality Control measure meets the requirements of the CRL SOP for this analyte.
U	Not Detected
NR	Not Reported
Q	QC limit Exceeded