



# NPDES Compliance Sampling Inspection Report

City of Batavia Water Pollution Control Plant

5 Treadeasy Avenue  
Batavia, NY 14020

NPDES Permit #: NY0026514

Inspection Dates: April 28-29, 2022

**Report Prepared by:**

**THUAN TRAN** Digitally signed by THUAN TRAN  
Date: 2022.06.10 07:56:57 -04'00'

Thuan Tran; Physical Scientist

Date: Monday, June 6, 2022

**Report Approved by:**

**PHILIP COCUZZA** Digitally signed by PHILIP  
COCUZZA  
Date: 2022.06.08 14:46:50 -04'00'

Phil Cocuzza, Chief  
Monitoring Operations Section

Date: \_\_\_\_\_

## 1.0 OBJECTIVE

On April 28-29, 2022, at the request of the New York State Department of Environmental Conservation (NYSDEC), the United States Environmental Protection Agency (USEPA) conducted a National Pollutant Discharge Elimination System (NPDES) Compliance Sampling Inspection (CSI) at the City of Batavia Water Pollution Control Plant (WPCP). The objective of the CSI was to gather information necessary to determine compliance with the requirements and limitations of the NPDES Permit; NY0026514.

## 2.0 KEY PARTICIPANTS

Listed below are key inspection participants and contact information, grouped by organization.

### U.S. Environmental Protection Agency

Thuan Tran; Physical Scientist, Lead Inspector  
732-321-4455; email: [tran.thuan@epa.gov](mailto:tran.thuan@epa.gov)  
Robert Morrell; Geologist

### New York State Department of Environmental Conservation (NYSDEC)

Pradeep Jangbari; Environmental Engineer  
585-226-5321; email: [Pradeep.jangbari@dec.ny.gov](mailto:Pradeep.jangbari@dec.ny.gov)  
Michele Vincent; Environmental Engineer  
585-226-5468; email: [michele.vincent@dec.ny.gov](mailto:michele.vincent@dec.ny.gov)

### City of Batavia Water Pollution Control Plant (WPCP)

Kevin Volk; Chief Plant Operator  
585-345-6412; email: [kvolk@batavianewyork.com](mailto:kvolk@batavianewyork.com)  
John Sanko; Industrial Pretreat Program

## 3.0 FACILITY DESCRIPTION

### 3.1 General Information

The City of Batavia WPCP began operating in 1990 as a 5.5 million gallons per day (MGD) treatment facility. The facility is located at 5 Treadeasy Avenue that replaced the City's old mechanical wastewater treatment plant which was located on the south bank of Tonawanda Creek east of River Street. The City of Batavia WPCP is a natural treatment process and is categorized as Standard Industrial Classification (SIC) 4952-Sewerage Systems and the North American Industry Classification System (NAICS) 221320-Sewage Treatment Facilities. The City of Batavia WPCP employs four (4) personnel and operates between 7:00AM to 3:15PM, Monday to Sunday.

The City of Batavia WPCP serves the City of Batavia, portion of the Town of Batavia and some industrial users. Wastewater is conveyed to the WPCP through the sewer collection system with the assistance of thirteen (13) pump stations with the Central and O-AT-KA

pump stations having backup generators. In addition, the WPCP receives approximately 10,000 gallons of septage per day.

### 3.2 Process Information

Incoming wastewater is monitored by a Parshall Flume with an ultrasonic flow sensor. From the Parshall Flume, the influent continues to the preliminary treatment processes consisting of screening and grit removal. Screening is provided by the Mechanical Bar Screen to remove rags and large solids that are greater than ¼ inch in diameter. The wastewater passes the bar screen and flows into the Aerated Grit Chamber. Heavy solids settled to the bottom of the grit chamber while the waste stream splits between Aeration Ponds #1 and #2. Effluent from Aeration Ponds #1 & #2 is directed into Aeration Pond #3. Aluminum sulfate (Alum) is dosed into Aeration Pond #3 effluent as the wastewater flows into Secondary Pond #1 for phosphorus removal. The effluent continues to Secondary Pond #2 for further natural treatment. The effluent from Secondary Pond #2 is directed into the lift station that pumps it to Tertiary Pond #1. The wastewater continues sequentially to Tertiary Pond #2, followed by Tertiary Pond #3 and finally Tertiary Pond #4. From Tertiary Pond #4, the effluent splits between the wetlands and the discharged pipe. Approximately 20% of the effluent flow continues to the wetlands where it is monitored by a 3-foot rectangular weir with an ultrasonic flow sensor. The effluent is further treated by natural means through Wetland #1, followed by Wetland #2 and last Wetland #3. The bulk of the effluent is monitored by a 5-foot rectangular weir with an ultrasonic flow sensor. The effluent continues in the discharged pipe. The two flows come together at the pH Control/Post Aeration Chamber. After post-aeration, the effluent flows to the sampling pit and continues to Tonawanda Creek where it discharges via Outfall 001.

Rags and large objects are removed from the Mechanical Bar Screen. Grits are removed from the Aerated Grit Chamber. Rags, large objects, and grits are disposed of at a landfill. The filtrate from rags, large objects, and grit removal is directed to the head of the Mechanical Bar Screen for treatment. Sludge in the ponds has never been removed except for Aeration Pond #1 and the Secondary Pond #1. The sludge from Aeration Pond #1 was removed in 2004/2005 by Waste Management (WM) due to elevated metal concern. Sludge from Secondary Pond #1 was removed in 2016 and was disposed of in a landfill in Canada.

### 3.3 Facility Self-Monitoring Information

The City of Batavia WPCP operators perform sample collection for process control, permit compliance, and industrial user compliance verification. Collected samples are analyzed in-house, as well as, contracted out. Parameters analyzed in-house are 5-day Carbonaceous Biochemical Oxygen Demand (cBOD5), Total Suspended Solids (TSS), pH, Temperature, Settleable Solids (SS) and Dissolved Oxygen (DO).

Pace Analytical Laboratory Services, Inc. in Melville, New York is contracted to analyzed for Total Phosphorus, Total Kjeldahl Nitrogen (TKN), Ammonia-Nitrogen (NH<sub>3</sub>), Metals [Chromium (Cr), Lead (Pb), Copper (Cu), Nickel (Ni) and Zinc (Zn)] and Hexavalent Chromium (Cr+6). Alpha Analytical, Inc. in Westborough, Massachusetts, is contracted to analyzed Total Cyanide (CN) and Total Phenolics.

The contract laboratories provide preserved and unpreserved sample containers to the City of Batavia WPCP. The composite sample is distributed between the sample containers by the facility operators and are refrigerated. A courier from the laboratory comes to pick up the samples.

#### **4.0 EPA SAMPLING/INSPECTION ACTIVITIES**

##### **4.1 Sampling Activities**

ISCO automatic composite samplers were programmed to take 96 sample aliquots during the 24-hour sampling event at the effluent monitoring location. The 24-hour composite sample was collected and analyzed for cBOD<sub>5</sub>, TSS, NH<sub>3</sub>, Phosphorus, TKN, Phosphorus, Total Phenolics, Total CN, and Metals (Cr, Cu, Pb, Ni, and Zn). A grab sample was collected and analyzed for Cr+6.

On-site grab samples were collected and analyzed for pH, Temperature, SS, DO, and Total Residual Chlorine (TRC).

In addition, an ISCO automatic composite sampler was programmed to take 96 sample aliquots during the 24-hour sampling event at the influent monitoring location. The 24-hour composite sample was collected and analyzed for cBOD<sub>5</sub>, TSS, NH<sub>3</sub>, and TKN.

All sample containers, preservation techniques and holding times were in accordance with USEPA requirements specified in 40 CFR Part 136. Signed and dated custody seals were placed across the lids and along the sides of the sample containers. The custody sealed sample containers were placed inside plastic sample bags and sealed up. All samples were transported on ice to the USEPA Laboratory in Edison, New Jersey for analysis.

Effluent flow monitoring data were obtained directly from the City of Batavia WPCP instrumentations which were last calibrated on April 20, 2022.

Split samples were collected and given to the facility representative. The facility representative did not want split sample for hexavalent chromium.

##### **4.2 Inspection Activities**

An NPDES Compliance Sampling Inspection at the City of Batavia Water Pollution Control Plant was conducted on April 28-29, 2022. The inspectors met with Kevin Volk, City of Batavia WPCP Chief Operator; John Sanko, City of Batavia WPCP Industrial Pretreat Program; Michele Vincent, NYSDEC Environmental Engineer; and Pradeep Jangbari,

NYSDEC Environmental Engineer. Inspector’s credentials were presented, and business cards were provided. The facility’s representatives were explained that the inspection purpose with supporting on-site activities was to determine if the City of Batavia WPCP is in compliance with their NPDES Permit; NY0026514, as well as State and Federal Regulations.

Supporting on-site activities consist of collecting samples from the treatment plant influent and effluent monitoring locations, observing and evaluating the monitoring locations, observing and evaluating the flow monitoring equipment, interviewing and evaluating the facility’s sampling protocol, touring and evaluating the wastewater treatment plant, reviewing and evaluating the chain-of-custody, sample containers, sample preservation, and analytical data, as well as interviewing the facility’s representatives.

The facility’s representatives were briefed on the inspection activities throughout the inspection and during the closing conference. On-site sample results and concerns discovered during the inspection were communicated so that the facility’s representatives understood their responsibilities to comply with the conditions and limitations set forth in the NPDES Permit, as well as State and Federal Regulations.

4.3 Deviations and/or Environmental Conditions

Due to the pH exceedance and the potential pH increase contribution of the limestone lining around the ponds, NYSDEC requested EPA to perform a pH check on the ponds and wetlands using pH indicator strips. The pH in Aeration Ponds #1, #2 & #3 was determined to be approximately 6 Standard Units (SU). The pH in Secondary Ponds #1 & #2 was determined to be approximately 8 SU. The pH in Tertiary Ponds #1 & #2 was determined to be approximately 8 SU. The pH in Tertiary Ponds #3 & #4 was determined to be between 8-9 SU. The pH in Wetland #1 was determined to be approximately 6 SU. The pH in Wetlands #2 & #3 was determined to be between 5-6 SU.

In addition, algae were observed in all the ponds except for the aeration ponds. As a result, algae were observed discharging into Tonawanda Creek.

**5.0 ANALYTICAL RESULTS**

**City of Batavia Water Pollution Control Plant  
Inspection Dates: April 28-29, 2022  
Seasonal Permit: November 1 – May 31**

Parameter	Units	Permit Limit	EPA Result
Flow	MGD	12.0	4.068
cBOD5	mg/l	25 (Monthly Average)	13.9
cBOD5	mg/l	40 ( 7-Day Average)	13.9
cBOD5 Loading	lbs./day	2502 (Monthly Average)	471.6
cBOD5 Loading	lbs./day	4003 (7-Day Average)	471.6
cBOD5 Removal	%	>/= 85	92
TSS	mg/l	30 (Monthly Average)	<b>33</b>
TSS	mg/l	45 (7-Day Average)	33
TSS Loading	lbs./day	3002 (Monthly Average)	1120

Parameter	Units	Permit Limit	EPA Result
TSS Loading	lbs./day	4504 (7-Day Average)	1120
TSS Removal	%	>/= 85	<b>76 (24)</b>
Ammonia	mg/l	9.5	0.55
TKN	mg/l	Monitor	5.64
Phosphorus	mg/l	1.0	0.646
Cyanide, T	mg/l	0.007 (Daily Max.)	<b>0.011</b>
Phenolics, T	mg/l	0.008 (Daily Avg.)	U
Metals:	---	----	----
Chromium (Cr)	mg/l	0.45 (Daily Max.)	U J
Copper	mg/l	0.025 (Type II)	U J
Lead	mg/l	0.008 (Daily Max.)	U
Nickel	mg/l	0.10 Type II)	0.02
Zinc	mg/l	0.10 (Type II)	U
Hexavalent Cr	mg/l	0.02 (Daily Max.)	U
TRC	mg/l	Sampling Purpose	Zero
Settleable Solids (SS)	ml/l	0.3 (Daily Max.)	Trace
pH	SU	6.0 to 9.0	<b>9.04</b>
Temperature	°C	Monitor	9.5

**Notes:** U = the analyte was not detected at or above the Reporting Limit.  
J = the identification of the analyte is acceptable; the reported value is an estimate.

## 6.0 FINDINGS

### 6.1 Sampling Result Findings

The EPA analytical results obtained during this inspection show the following parameter(s) as being outside of the acceptable limits:

6.1.1 The monthly average for Total Suspended Solids (TSS) is 30 milligrams per liter (mg/l). The analytical result for TSS was determined to be 33 mg/l.

6.1.2 According to Footnote 1 of the NPDES permit, the percent removal for the 5-day carbonaceous Biochemical Oxygen Demand (cBOD<sub>5</sub>) and TSS “... *effluent shall not exceed 15% and 15% of influent concentration values for cBOD5 and TSS.*” The calculated percent removal for TSS was determined to be 24 percent.

6.1.3 The daily maximum limit for total cyanide is 0.007 mg/l. The analytical result for total cyanide was determined to be 0.011 mg/l.

6.1.4 According to the NPES permit, the discharged effluent pH range must be greater than or equal to 6.0 Standard Unit (SU) and equal to or less than 9.0 SU. The on-site analytical pH result was determined to be 9.04 SU.

## 6.2 Inspection Findings

In addition to the sampling, an inspection of the facility operations was conducted as discussed in Section 4.2. During this inspection the following observations were noted which may contravene the requirements of the permit or the applicable regulations:

6.2.1 The fine bubble diffusers in Aeration Ponds #1 & #2 are unevenly distributing air flow. Some of the fine bubble diffusers are either damaged or clogged preventing the air diffusers from operating properly. Solids were observed accumulating at multiple dead zones and along the banks of the ponds. According to 40 CFR Part 122.41(e) – Proper Operation and Maintenance, it states, “*The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.*” Furthermore Title 6 of the NYCRR Part 750-2.8(a)(2)(i) - Disposal System Operation and Quality Control, it states, “*The permittee shall, at all times, properly operate and maintain all disposal facilities, which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance also includes as a minimum, the following:*

- (i) *A preventative maintenance program for all critical facilities and systems of treatment and control (or related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. A facility or system is critical if it contains process equipment that is essential for proper operation and necessary to achieve compliance with the applicable SPDES permit effluent limits.*”

6.2.2 The facility is performing a 3-point calibration curve for pH. The facility starts the pH calibration with the 7-buffer solution, followed by the 4-buffer solution, then finally the 10-buffer solution. This is incorrect. According to Section 4 – Procedure for the Hydrogen Ion Method 4500-H+ B-2011 in Standard Methods for the Examination of Water and Wastewater, 22<sup>nd</sup> Edition, it states, “*Before use, remove electrodes from storage solution, rinse, blot dry with a soft tissue, place in initial buffer solution, and set the isopotential point. Select a second buffer within 2 pH units of sample pH and bring sample and buffer to same temperature. ....Remove electrodes from first buffer, rinse thoroughly with distilled water, blot dry and immerse in second buffer. ....Remove electrodes from second buffer, rinse thoroughly with distilled water and dry electrodes as indicated above. Immerse in third buffer below pH 10, approximately 3 pH units different from the second; the reading should be within 0.1 unit for the pH of the third buffer.*”

6.2.3 The facility is using plastic tubing and plastic composite container to collect 24-hr composite sample for total phenol. This is incorrect. Under 40 CFR Part 136: Table II-Required Containers, Preservation Techniques, and Holding Times, the

container use for phenol is “G” which references to Footnote 1 as “GLASS”. According to Section 3 – Sampling for Total Phenolics Method-5530 B-2010 in Standard Methods for the Examination of Water and Wastewater, 22<sup>nd</sup> Edition, it states, “Use glass containers for collecting phenol samples.”

6.2.4 Algae were observed in the Secondary Ponds, Tertiary Ponds and the discharged effluent into Tonawanda Creek which was confirmed by Mr. Kevin Kolk, City of Batavia WPCP Chief Plant Operator. According to Title 6 of the NYCRR Part 750-2.8(a)(6) - Disposal System Operation and Quality Control, it states, “The permittee and operator shall operate the wastewater treatment facility in such a manner as to minimize odors and other nuisance conditions to a degree that is achievable when compared to standard practices for operation of such wastewater treatment facilities.”

6.2.5 The City of Batavia WPCP conducts Standard Industrial User (SIU) permit compliance sampling for O-AT-KA Milk Products Cooperative, Inc. A few issues were discovered during the Pretreatment Compliance Sampling Inspection at O-AT-KA Milk Products Cooperative, Inc. on April 26-27, 2022.

6.2.5.1 Total Toxic Organics (TTO) is one of the general parameters on O-AT-KA Milk Products Cooperative, Inc. SIU permit. TTO is a parameter that reflects the electroplating industry. According to the electroplating category under 40 CFR Part 413.02(i), “The term *TTO* shall mean total toxic organics, which is the summation of all quantifiable values greater than 0.01 milligrams per liter for the following toxic organics:” TTO consists of Volatile Organic Analytes (VOA), Non-Volatile Organic Analytes (NVOA), Polychlorinated Biphenyls (PCBs) & Pesticides. On the SIU permit, only VOAs plus xylenes are collected and analyzed.

6.2.5.2 A rope and stainless-steel cup are used to collect the discharged effluent, then transferred into the sample containers for Oil & Grease and Total Petroleum Hydrocarbons. This is incorrect. According to “Sample Collection, Preservation, and Storage” of Section 8.3 for Hexane Extractable Material (HEM): N-Hexane Extraction and Gravimetry and Silica Gel Treated HEM (SGT-HEM): Silica Gel Treatment and Gravimetry (EPA Method 1664), it states, “The high probability that extractable matter may adhere to sampling equipment and result in measurements that are biased low precludes the collection of composite samples for determination of oil and grease. Therefore, samples must be collected as (direct) grab samples.”

6.2.5.3 A rope and stainless-steel container are used to collect water sample for VOA. The sample in the container is transferred into the glass vials. Under Section 9: Sample Collection, Preservation, and Handling from the EPA Method 624, it states, “Collect the sample as a grab sample in a glass container having a total volume of at least 25 mL. Fill the sample bottle just to overflowing in such a manner that no air bubbles pass through the sample

*as the bottle is being filled. Seal the bottle so that no air bubbles are entrapped in it.”*

## **7.0 ATTACHMENTS**

- Attachment #1.** The City of Batavia WPCP is permitted to continue operation under the expired NPDES permit under the State Administrative Procedures Act (SAPA).
- Attachment #2.** The City of Batavia WPCP treats incoming wastewater through a natural treatment process.
- Attachment #3.** The Chain of Custody for Samples was submitted and received by the USEPA Region 2 Laboratory on Friday, April 29, 2022.
- Attachment #4.** The Analytical Data for the City of Batavia WPCP sampling inspection was received on May 17, 2022.

## **8.0 PHOTOGRAPHS**

- Photo #1.** An ISCO automatic composite sampler was programmed to collect water sample of the incoming wastewater before the Mechanical Bar Screen.
- Photo #2.** ISCO automatic composite samplers were programmed to collect treated effluent at the effluent monitoring location.
- Photo #3.** Algae were observed discharging from the City of Batavia outfall into the Tonawanda Creek.

# **7.0 Attachments**

## **NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**Division of Environmental Permits**

625 Broadway, 4th Floor, Albany, New York 12233-1750

P: (518) 402-9167 | F: (518) 402-9168 | [deppermitting@dec.ny.gov](mailto:deppermitting@dec.ny.gov)

[www.dec.ny.gov](http://www.dec.ny.gov)

April 5, 2019

Matthew J. Worth  
Director of Public Works  
City of Batavia  
10 W Main St  
Batavia, NY 14020

Re: Batavia – C STP SPDES Renewal Permit Application  
DEC ID# 8-1824-00125/00004, SPDES# NY0026514

Dear Mr. Worth,

On March 8, 2019, the Department received an application to renew the above-referenced State Pollutant Discharge Elimination System (SPDES) permit. The application was timely and sufficient. Therefore, the current permit will remain in effect in accordance with the State Administrative Procedures Act.

The Department will, at some point in the future, undertake a full technical review of the SPDES discharge to determine the need to incorporate new permit requirements under the Federal Clean Water Act. The timing of the Department's full technical review will be determined by the ranking of the discharge under the Environmental Benefit Permit Strategy (EBPS). The EBPS utilizes criteria to score and rank a wastewater discharge, giving priority for technical review to those discharges with the greatest potential to cause environmental harm. To initiate a full technical review, the Department will send you a "Request for Information" seeking data to be used in the evaluation of the discharge and in the establishment of provisions proposed for inclusion in the permit.

No further action is required on your part at this time. In accordance with the Uniform Procedures Act, the Department has suspended its review of your application and will resume review upon receipt of your response to the "Request for Information".

If you have any technical questions, please contact Carol Lamb-Lafay at [carol.lamb-lafay@dec.ny.gov](mailto:carol.lamb-lafay@dec.ny.gov). For assistance with permitting questions, please contact me at [michael.schaefer@dec.ny.gov](mailto:michael.schaefer@dec.ny.gov) or at (518) 402-9167.



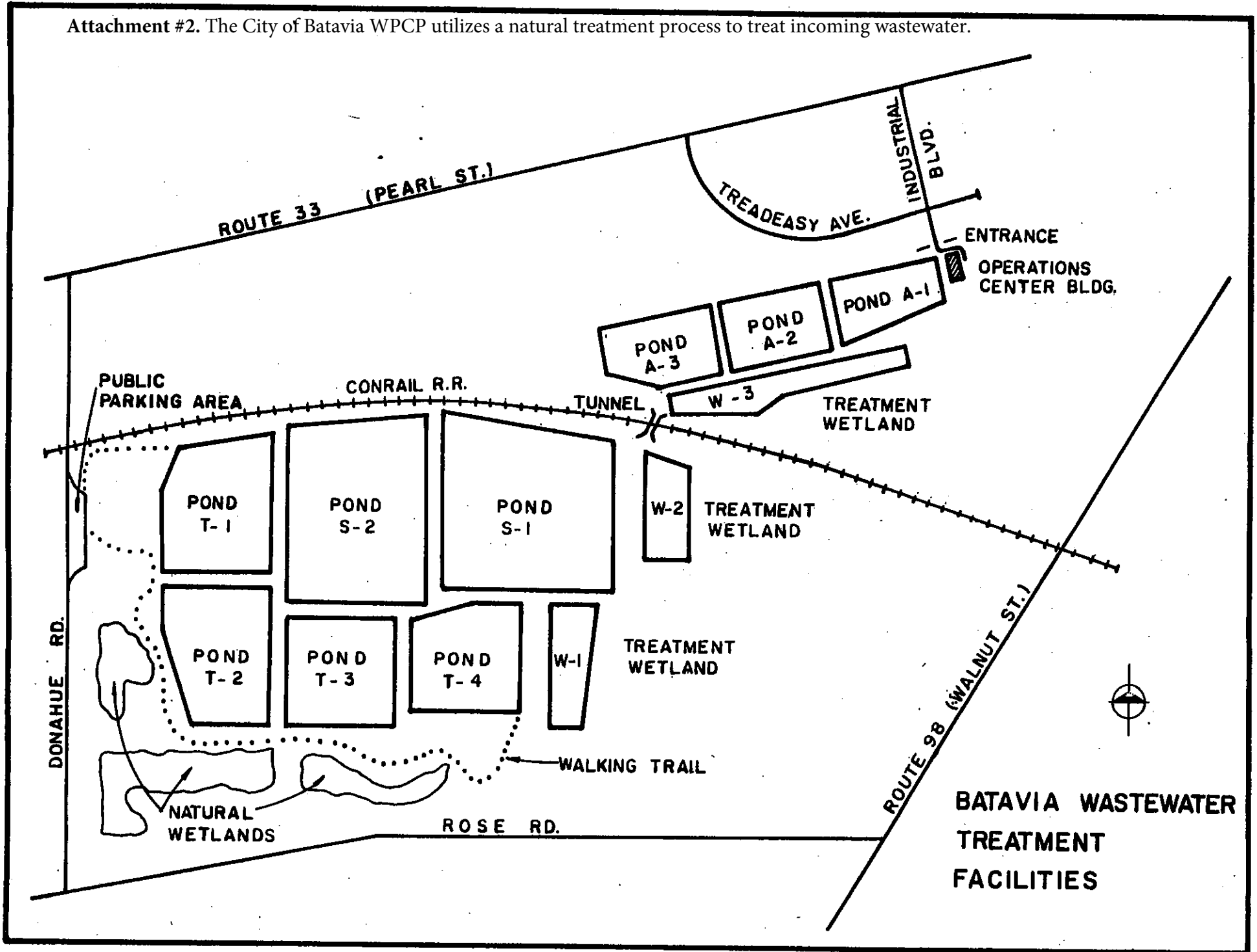
Sincerely,

A handwritten signature in blue ink that reads "Michael Schaefer". The signature is written in a cursive style with a large initial 'M'.

Michael Schaefer  
Environmental Analyst

ec: NYSDEC: Carol Lamb-Lafay, Cheri Jamison, Karis Manning, Scott Sheeley

Attachment #2. The City of Batavia WPCP utilizes a natural treatment process to treat incoming wastewater.



CHAIN OF CUSTODY/ FIELD DATA FORM

SURVEY NAME & LOCALITY City of Batavia Water Pollution Control Plant

PROJECT LEADER Thuan Tran

PROGRAM: SF  :

SITE ID \_\_\_\_\_

OPERABLE UNIT \_\_\_\_\_

PROGRAM RESULTS CODE \_\_\_\_\_

Decision Unit Code Y206 RCRA  D210 RCRA ENF  D307 NPDES  B304 SDWA  C215 AM  B224 CAA  A305 TSCA  L306 OD  B253 FIFRA  CRIMINAL ENF

Permit #: LAB ID/ FIELD ID	CONTEINERS # OF	MATRIX	CHECK IF SPLIT SAMPLE	DESCRIPTION & INSTRUCTIONS INCLUDING LOCATION, ESTIMATED CONCENTRATIONS, SPECIAL REPORTING LIMITS,	Res CL Checked	Preservative (circle)	Collection Time (24hr clock) Begin End		Collection Date mm/dd/yy
							NY0026514		
Outfall 001 - Comp.	7	A	<input checked="" type="checkbox"/>	2, 1-liter plastic bottles: cBOD5: 24-Hr Comp.	<input type="checkbox"/>	2204063-01	9:45AM	9:30AM	4/28-29/22
		A	<input checked="" type="checkbox"/>	1, 500-ml plastic bottle: TSS: 24-Hr Comp.	<input type="checkbox"/>		9:45AM	9:30AM	4/28-29/22
		A	<input checked="" type="checkbox"/>	1, 500-ml plastic bottle: NH3/TKN/Phosphorus: 24-Hr Comp.	<input type="checkbox"/>	01	9:45AM	9:30AM	4/28-29/22
		A	<input checked="" type="checkbox"/>	1, 250-ml plastic bottle: Metals*: 24-Hr Comp.	<input type="checkbox"/>	02	9:45AM	9:30AM	4/28-29/22
		A	<input checked="" type="checkbox"/>	1, 250-ml plastic bottle: Cyande, T: 24-Hr Comp.	<input type="checkbox"/>	05	9:45AM	9:30AM	4/28-29/22
		A	<input checked="" type="checkbox"/>	1, 250-ml Amber jar: Phenolics: 24-Hr Comp.	<input type="checkbox"/>	01	9:45AM	9:30AM	4/28-29/22
Effluent 001 - Grab	1	A	<input type="checkbox"/>	1, 250-ml plastic bottle: Hexavalent Chromium: Grab	<input type="checkbox"/>	-02	9:56A		4/29/2022
Influent - Comp.	3	A	<input checked="" type="checkbox"/>	1, 1-liter plastic bottle: cBOD5: 24-Hr Comp.	<input type="checkbox"/>	-03	10:05AM	9:50AM	4/28-29/22
		A	<input checked="" type="checkbox"/>	1, 250-ml plastic bottle: TSS: 24-Hr Comp.	<input type="checkbox"/>		10:05AM	9:50AM	4/28-29/22
		A	<input checked="" type="checkbox"/>	1, 250-ml plastic bottle: NH3/TKN: 24-Hr Comp.	<input type="checkbox"/>	01	10:05AM	9:50AM	4/28-29/22

COMMENTS & SPECIAL REQUIREMENTS:

Note: Metals\*: Chromium, Copper, lead, Nickel and Zinc

5/3/22

Preservative Added & Checked  
 0=ice 7=FAS  
 1=H2SO4 pH<2 8=ZnAc  
 2=HNO3 pH<2 9=NaOH pH>12  
 3=HCl pH<2 10=NH4Cl  
 4=Na2S2O3  
 5=NaOH pH>9  
 6=Ascorbic Acid

Matrix:	Relinquished By:	Received By:	Time	Date
A=aqueous F=multiphasic B=aqueous (chlorinated) G=solvent C=soil H=biota D=sediment I=oil E=sludge J=other	<i>[Signature]</i>	<i>[Signature]</i>	6:48 PM	4/29/22
	<i>[Signature]</i>	<i>[Signature]</i>	4/29/22 @ 6:48 PM	
	<i>[Signature]</i>	<i>[Signature]</i>		

Direct Issue samples, chilling initiated 5/3/22 revised 10/25/2004



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**Region 2 Laboratory  
2890 Woodbridge Avenue  
Edison , New Jersey 08837  
732-906-6886 Phone  
732-906-6165 Fax**

May 17, 2022

Thuan Tran  
Monitoring & Assessment Branch  
LSASD/MAB  
Edison, NJ 08837

RE: Batavia WPCP - 2204063

Enclosed are the results of analyses for samples received by the laboratory on 04/29/2022. The signature below reflects the laboratory's approval of the reported results. If you have any questions concerning this report, please refer to Project Number 2204063 and contact the laboratory.

Sincerely,

A handwritten signature in black ink, appearing to read "John R. Bourbon". The signature is fluid and cursive.

John R. Bourbon  
Chief, LSASD/LB



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**Region 2 Laboratory**

**Final Report**

**Project: Batavia WPCP - 2204063**

**Project Number: 2204063**

**Project Narrative:**

The National Environmental Laboratory Accreditation Conference Institute (NELAP) is a voluntary environmental laboratory accreditation association of State and Federal agencies. NELAP established and promoted a National Environmental Laboratory Accreditation Program (NELAP) that provides a uniform set of standards for the generation of environmental data that are of known and defensible quality. The EPA Region 2 Laboratory is NELAP accredited. The Laboratory tests that are accredited have met all the requirements established under the NELAP Standards.

Condition Comments

None

Comment(s):

The "Sample Analysis Date and Time" is included in the results section for any analyte with a prescribed holding time of 72 hours or less.

Data Qualifier(s):

- U- The analyte was not detected at or above the Reporting Limit.
- J- The identification of the analyte is acceptable; the reported value is an estimate.
- K- The identification of the analyte is acceptable; the reported value may be biased high.
- L- The identification of the analyte is acceptable; the reported value may be biased low.
- NJ- There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate.



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 2 Laboratory**

**Final Report  
Project: Batavia WPCP - 2204063  
Project Number: 2204063**

Reporting Limit(s):

The Laboratory was able to achieve the appropriate limit for each analyte requested.

**SUMMARY REPORT FOR SAMPLES**

<b>Field ID</b>	<b>Laboratory ID</b>	<b>Matrix</b>	<b>Date Sampled</b>	<b>Date Received</b>
Outfall 001-Comp	2204063-01	Aqueous	04/29/2022 09:30	04/29/2022 18:48
Effluent 001-Grab	2204063-02	Aqueous	04/29/2022 09:56	04/29/2022 18:48
Influent-Comp	2204063-03	Aqueous	04/29/2022 10:05	04/29/2022 18:48



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region 2 Laboratory

Final Report

Project: Batavia WPCP - 2204063

Project Number: 2204063

SUMMARY REPORT FOR METHODS

Analysis	Method	Certification	Matrix
Ammonia [As N]	EPA 350.1 SOP C-80 Rev 2.7	NELAP	Aqueous
Biochemical Oxygen Demand, Carb.	SM 5210B SOP C-21 Rev 2.7	NELAP	Aqueous
Chromium, Hexavalent	HACH 8023 SOP C-96 Rev 2.7	NELAP	Aqueous
Cyanide, Total	EPA 335.4 SOP C-28 Rev 2.7	NELAP	Aqueous
Metals ICP TAL NPDES/DW	EPA 200.7 SOP C-109 Rev 3.6	NELAP	Aqueous
Nitrogen, Total Kjeldahl	EPA 351.2 SOP C-40 Rev2.7	NELAP	Aqueous
Phenolics, Total	EPA 420.4 SOP C-29 Rev 2.7	NELAP	Aqueous
Phosphorus	EPA 365.1 SOP C-68 Rev 2.7	NELAP	Aqueous
Residue, Non-Filterable	SM 2540D SOP C-33 Rev 3.7	NELAP	Aqueous



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Project: Batavia WPCP - 2204063  
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Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
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**Field ID: Outfall 001-Comp**

**Sample ID: 2204063-01**

**Metals ICP**

Chromium	---	U J	5.00	ug/L	B205028	
Copper	---	U J	10.0	ug/L	B205028	
Lead	---	U	8.00	ug/L	B205028	
Nickel	20.4		20.0	ug/L	B205028	
Zinc	---	U	20.0	ug/L	B205028	

**Sanitary**

Ammonia [As N]	0.552		0.100	mg/L	B205062	
Biochemical Oxygen Demand, Carb.	13.9		2.00	mg/L	B204140	05/04/2022 14:02
Cyanide, Total	11.2		10.0	ug/L	B205034	
Nitrogen, Total Kjeldahl	5.64		0.100	mg/L	B205051	
Phenolics, Total	---	U	20.0	ug/L	B205054	
Phosphorus	0.646		0.0500	mg/L	B205006	
Total Suspended Solids	33.0		10.0	mg/L	B205004	

**Field ID: Effluent 001-Grab**

**Sample ID: 2204063-02**

**Sanitary**

Chromium, Hexavalent	---	U	10.0	ug/L	B204139	04/29/2022 19:10
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**Field ID: Influent-Comp**

**Sample ID: 2204063-03**

**Sanitary**

Ammonia [As N]	---	U	0.100	mg/L	B205062	
Biochemical Oxygen Demand, Carb.	175		2.00	mg/L	B204140	05/04/2022 14:02
Nitrogen, Total Kjeldahl	20.6		1.00	mg/L	B205051	
Total Suspended Solids	140		10.0	mg/L	B205004	



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**Metals ICP - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch B205028**

**Blank (B205028-BLK1)**

Arsenic	--- U	8.00	ug/L						
Cadmium	--- U	3.00	ug/L						
Chromium	--- U	5.00	ug/L						
Copper	--- U	10.0	ug/L						
Lead	--- U	8.00	ug/L						
Nickel	--- U	20.0	ug/L						
Selenium	--- U	20.0	ug/L						
Silver	--- U	5.00	ug/L						
Zinc	--- U	20.0	ug/L						

**LCS (B205028-BS1)**

Arsenic	185	8.00	ug/L	200.0		92.7	85-115		
Cadmium	195	3.00	ug/L	200.0		97.3	85-115		
Chromium	195	5.00	ug/L	200.0		97.7	85-115		
Copper	194	10.0	ug/L	200.0		96.9	85-115		
Lead	193	8.00	ug/L	200.0		96.5	85-115		
Nickel	195	20.0	ug/L	200.0		97.6	85-115		
Selenium	184	20.0	ug/L	200.0		92.1	85-115		
Silver	193	5.00	ug/L	200.0		96.4	85-115		
Zinc	191	20.0	ug/L	200.0		95.4	85-115		

**LCS Dup (B205028-BSD1)**

Arsenic	187	8.00	ug/L	200.0		93.4	85-115	0.736	20
Cadmium	198	3.00	ug/L	200.0		99.2	85-115	1.90	20
Chromium	202	5.00	ug/L	200.0		101	85-115	3.11	20
Copper	198	10.0	ug/L	200.0		98.8	85-115	1.93	20
Lead	198	8.00	ug/L	200.0		99.0	85-115	2.59	20
Nickel	198	20.0	ug/L	200.0		99.2	85-115	1.64	20
Selenium	189	20.0	ug/L	200.0		94.4	85-115	2.55	20
Silver	194	5.00	ug/L	200.0		97.1	85-115	0.719	20
Zinc	195	20.0	ug/L	200.0		97.5	85-115	2.08	20



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**Metals ICP - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch B205028**

**Matrix Spike (B205028-MS1)**

**Source: 2204062-01**

Arsenic	199	8.00	ug/L	200.0	ND	99.3	80-120		
Cadmium	195	3.00	ug/L	200.0	ND	97.4	80-120		
Chromium	205	5.00	ug/L	200.0	2.19	101	80-120		
Copper	253	10.0	ug/L	200.0	33.1	110	80-120		
Lead	194	8.00	ug/L	200.0	ND	97.1	80-120		
Nickel	249	20.0	ug/L	200.0	53.1	97.7	80-120		
Selenium	195	20.0	ug/L	200.0	ND	97.6	80-120		
Silver	206	5.00	ug/L	200.0	ND	103	80-120		
Zinc	261	20.0	ug/L	200.0	67.5	96.9	80-120		

**Matrix Spike (B205028-MS2)**

**Source: 2204063-01**

Chromium	213	5.00	ug/L	200.0	ND	106	80-120		
Copper	226	10.0	ug/L	200.0	ND	113	80-120		
Lead	203	8.00	ug/L	200.0	ND	102	80-120		
Nickel	225	20.0	ug/L	200.0	20.4	102	80-120		
Zinc	222	20.0	ug/L	200.0	19.2	101	80-120		

**Matrix Spike Dup (B205028-MSD1)**

**Source: 2204062-01**

Arsenic	190	40.0	ug/L	200.0	ND	95.0	80-120	4.46	10
Cadmium	191	15.0	ug/L	200.0	ND	95.7	80-120	1.79	10
Chromium	197	25.0	ug/L	200.0	ND	98.3	80-120	4.16	10
Copper	230	50.0	ug/L	200.0	33.1	98.3	80-120	9.89	10
Lead	185	40.0	ug/L	200.0	ND	92.3	80-120	5.03	10
Nickel	239	100	ug/L	200.0	53.1	93.1	80-120	3.80	10
Selenium	197	100	ug/L	200.0	ND	98.4	80-120	0.847	10
Silver	195	25.0	ug/L	200.0	ND	97.4	80-120	5.40	10
Zinc	256	100	ug/L	200.0	67.5	94.3	80-120	2.03	10



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**Metals ICP - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch B205028**

**Matrix Spike Dup (B205028-MSD2)**

**Source: 2204063-01**

Chromium	191	25.0	ug/L	200.0	ND	95.7	80-120	10.7	10
Copper	198	50.0	ug/L	200.0	ND	99.0	80-120	13.5	10
Lead	187	40.0	ug/L	200.0	ND	93.5	80-120	8.31	10
Nickel	208	100	ug/L	200.0	20.4	93.8	80-120	7.95	10
Zinc	208	100	ug/L	200.0	19.2	94.6	80-120	6.23	10



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**Sanitary - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch B204139</b>									
<b>Blank (B204139-BLK1)</b>									
Chromium, Hexavalent	--- U	10.0	ug/L						
<b>Blank (B204139-BLK2)</b>									
Chromium, Hexavalent	--- U	10.0	ug/L						
<b>LCS (B204139-BS1)</b>									
Chromium, Hexavalent	342	10.0	ug/L	331.0		103	85-115		
<b>LCS Dup (B204139-BSD1)</b>									
Chromium, Hexavalent	346	10.0	ug/L	331.0		105	85-115	1	20
<b>Matrix Spike (B204139-MS1) Source: 2204063-02</b>									
Chromium, Hexavalent	197	10.0	ug/L	200.0	ND	98	80-120		
<b>Batch B204140</b>									
<b>Blank (B204140-BLK1)</b>									
Biochemical Oxygen Demand, Carb.	--- U	2.00	mg/L						
<b>LCS (B204140-BS1)</b>									
Biochemical Oxygen Demand, Carb.	194		mg/L	198.0		98.0	84.6-115.4		
<b>LCS (B204140-BS2)</b>									
Biochemical Oxygen Demand, Carb.	184		mg/L	198.0		92.7	84.6-115.4		
<b>LCS (B204140-BS3)</b>									
Biochemical Oxygen Demand, Carb.	198		mg/L	198.0		100	84.6-115.4		



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**Sanitary - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch B204140</b>									
<b>Matrix Spike (B204140-MS1)</b>		<b>Source: 2204063-03</b>							
Biochemical Oxygen Demand, Carb.	580	2.00	mg/L	396.0	175	102	75-125		
<b>Matrix Spike Dup (B204140-MSD1)</b>		<b>Source: 2204063-03</b>							
Biochemical Oxygen Demand, Carb.	618	2.00	mg/L	396.0	175	112	75-125	6.31	200
<b>Batch B205004</b>									
<b>Blank (B205004-BLK1)</b>									
Residue, Non-Filterable	--- U	10.0	mg/L						
<b>Blank (B205004-BLK2)</b>									
Residue, Non-Filterable	--- U	10.0	mg/L						
<b>LCS (B205004-BS1)</b>									
Residue, Non-Filterable	54.0	10.0	mg/L	54.30		99.4	85-115		
<b>LCS Dup (B205004-BSD1)</b>									
Residue, Non-Filterable	55.0	10.0	mg/L	54.30		101	85-115	1.83	20
<b>Duplicate (B205004-DUP1)</b>		<b>Source: 2204063-01</b>							
Residue, Non-Filterable	33.0	10.0	mg/L		33.0			0.00	20
<b>Batch B205006</b>									
<b>Blank (B205006-BLK1)</b>									
Phosphorus	--- U	0.0500	mg/L						



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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch B205006</b>									
<b>Blank (B205006-BLK2)</b>									
Phosphorus	--- U	0.0500	mg/L						
<b>LCS (B205006-BS1)</b>									
Phosphorus	2.21	0.250	mg/L	2.220		100	90-110		
<b>LCS Dup (B205006-BSD1)</b>									
Phosphorus	2.20	0.250	mg/L	2.220		99	90-110	0.5	20
<b>Matrix Spike (B205006-MS1) Source: 2204062-01</b>									
Phosphorus	1.16	0.0500	mg/L	1.000	0.202	96	90-110		
<b>Matrix Spike (B205006-MS2) Source: 2204063-01</b>									
Phosphorus	1.60	0.0500	mg/L	1.000	0.646	95	90-110		
<b>Batch B205034</b>									
<b>Blank (B205034-BLK1)</b>									
Cyanide, Total	--- U	10.0	ug/L						
<b>Blank (B205034-BLK2)</b>									
Cyanide, Total	--- U	10.0	ug/L						
<b>LCS (B205034-BS1)</b>									
Cyanide, Total	336	10.0	ug/L	370.0		91	90-110		
<b>LCS Dup (B205034-BSD1)</b>									
Cyanide, Total	340	10.0	ug/L	370.0		92	90-110	1	20



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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch B205034**

**Matrix Spike (B205034-MS1)**

**Source: 2204062-01**

Cyanide, Total	519	10.0	ug/L	500.0	10.4	102	90-110		
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**Batch B205051**

**Blank (B205051-BLK1)**

Nitrogen, Total Kjeldahl	--- U	0.100	mg/L						
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**Blank (B205051-BLK2)**

Nitrogen, Total Kjeldahl	--- U	0.100	mg/L						
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**LCS (B205051-BS1)**

Nitrogen, Total Kjeldahl	28.3	0.500	mg/L	26.80		106	90-110		
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**LCS Dup (B205051-BSD1)**

Nitrogen, Total Kjeldahl	28.3	0.500	mg/L	26.80		106	90-110	0	20
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**Matrix Spike (B205051-MS1)**

**Source: 2204063-01**

Nitrogen, Total Kjeldahl	9.49	0.100	mg/L	4.000	5.64	96	90-110		
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**Batch B205054**

**Blank (B205054-BLK1)**

Phenolics, Total	--- U	20.0	ug/L						
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**Blank (B205054-BLK2)**

Phenolics, Total	--- U	20.0	ug/L						
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**Sanitary - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch B205054</b>									
<b>LCS (B205054-BS1)</b>									
Phenolics, Total	4460	100	ug/L	4780		93	90-110		
<b>LCS Dup (B205054-BSD1)</b>									
Phenolics, Total	4770	100	ug/L	4780		100	90-110	7	20
<b>Matrix Spike (B205054-MS1) Source: 2204063-01</b>									
Phenolics, Total	468	20.0	ug/L	500.0	15.5	90	90-110		
<b>Batch B205062</b>									
<b>Blank (B205062-BLK1)</b>									
Ammonia [As N]	--- U	0.100	mg/L						
<b>Blank (B205062-BLK2)</b>									
Ammonia [As N]	--- U	0.100	mg/L						
<b>LCS (B205062-BS1)</b>									
Ammonia [As N]	14.7	0.200	mg/L	14.90		99	90-110		
<b>LCS Dup (B205062-BSD1)</b>									
Ammonia [As N]	15.2	0.200	mg/L	14.90		102	90-110	3	20
<b>Matrix Spike (B205062-MS1) Source: 2204062-01</b>									
Ammonia [As N]	9.72	0.100	mg/L	0.5000	9.78	NR	90-110		
<b>Matrix Spike (B205062-MS2) Source: 2204063-01</b>									
Ammonia [As N]	1.05	0.100	mg/L	0.5000	0.552	100	90-110		

# **8.0 Photographs**

**Photo #1.** An ISCO automatic composite sampler was programmed to collect influent samples.



**Photo #2.** ISCO automatic composite samplers were programmed to collect effluent samples.



**Photo #3.** Algae were observed discharging from the City of Batavia WPCP outfall.

