



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4 Laboratory Services and Applied Science Division
980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 23-0275
Project: 23-0275, South Utica POTW Recon - Reported by Kristin Trapp

August 11, 2023

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 23-0275, South Utica POTW Recon

FROM: Kristin Trapp
LSB Inorganic Chemistry Section Chief

THRU: Stacie Masters, Chief
Laboratory Services Branch

TO: Asher Sampong

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:

Method Used:

Accreditations:

Classical/Nutrient Analyses (CNA)

Demand

SM 5210B (Water)

ISO



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Sample Disposal Policy

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SAMPLES INCLUDED IN THIS REPORT

Project: 23-0275, South Utica POTW Recon

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
23-0275-001	E232905-01	Wastewater	7/19/23 13:36	7/21/23 7:30



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980 College Station Road, Athens, Georgia 30605-2700
D.A.R.T. Id: 23-0275
Project: 23-0275, South Utica POTW Recon - Reported by Kristin Trapp

DATA QUALIFIER DEFINITIONS

A The analyte was analyzed in replicate. Reported value is an average value of the replicates.

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO Accredited to ISO/IEC 17025:2017 and accreditation requirements for Forensic Science Testing Laboratories.

Refer to the certificate and scope of accreditation FT-0330 at:
<http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd>

NR Not accredited for this test.

DW Accredited for conformance with ISO/IEC 17025:2017 and testing elements in the Fifth Edition of the Manual for the Certification of Laboratories Analyzing Drinking Water, EPA 815-R-05-004, 2005.

Refer to the certificate and scope of accreditation AT-2628 at:
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ISO/DW Accredited to ISO/IEC 17025:2017 and accreditation requirements for Forensic Science Testing Labs, and conformance with ISO/IEC 17025:2017 and testing elements in the Manual for the Certification of Laboratories Analyzing Drinking Water.



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Project: 23-0275, South Utica POTW Recon - Reported by Kristin Trapp

Classical/Nutrient Analyses

Project: 23-0275, South Utica POTW Recon

Sample ID: 23-0275-001

Lab ID: E232905-01

Station ID: EFF001

Matrix: Wastewater

Date Collected: 7/19/23 13:36

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1640606	BOD, 5 Day	24	A	mg/L	2.0	7/21/23 9:04	7/26/23 10:30	SM 5210B



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Classical/Nutrient Analyses (CNA) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2307033 - C SM5210 BOD

Blank (2307033-BLK1)

Prepared: 07/21/23 Analyzed: 07/26/23

SM 5210B

BOD, 5 Day

U

2.0

mg/L

U

LCS (2307033-BS1)

Prepared: 07/21/23 Analyzed: 07/26/23

A

SM 5210B

BOD, 5 Day

206.10

2.0

mg/L

198.00

104

84.6-115.4



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Notes and Definitions for QC Samples

- U The analyte was not detected at or above the reporting limit.
- A The analyte was analyzed in replicate. Reported value is an average value of the replicates.



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Project: 23-0275, South Utica POTW Recon - Reported by Floyd Wellborn

July 25, 2023

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 23-0275, South Utica POTW Recon

FROM: Floyd Wellborn
LSB Technical Advisor

THRU: Stacie Masters, Chief
Laboratory Services Branch

TO: Asher Sampong

Attached are the final results for the analytical groups listed below. This report shall not be reproduced except in full without approval of the Region 4 laboratory. These analyses were performed in accordance with the Laboratory Services Branch's Laboratory Operations and Quality Assurance Manual (LSB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the LSB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Chapter 5 of the LSB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:

Method Used:

Accreditations:

Classical/Nutrient Analyses (CNA)

Solids

USGS I-3765-85 (Water)

ISO



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Project: 23-0275, South Utica POTW Recon - Reported by Floyd Wellborn

Sample Disposal Policy

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SAMPLES INCLUDED IN THIS REPORT

Project: 23-0275, South Utica POTW Recon

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
23-0275-001	E232905-01	Wastewater	7/19/23 13:36	7/21/23 7:30



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D.A.R.T. Id: 23-0275

Project: 23-0275, South Utica POTW Recon - Reported by Floyd Wellborn

DATA QUALIFIER DEFINITIONS

None

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

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Classical/Nutrient Analyses

Project: 23-0275, South Utica POTW Recon

Sample ID: 23-0275-001

Lab ID: E232905-01

Station ID: EFF001

Matrix: Wastewater

Date Collected: 7/19/23 13:36

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642818	Total Suspended Solids	33		mg/L	5.0	7/21/23 8:47	7/21/23 8:47	USGS I-3765-85



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Classical/Nutrient Analyses (CNA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2307032 - C 2540 Solids										
Blank (2307032-BLK1)				Prepared & Analyzed: 07/21/23						
USGS I-3765-85										
Total Suspended Solids	U	5.0	mg/L							U
LCS (2307032-BS1)				Prepared & Analyzed: 07/21/23						
USGS I-3765-85										
Total Suspended Solids	103.00	5.0	mg/L	100.00		103	77.1-110			
LCS Dup (2307032-BSD1)				Prepared & Analyzed: 07/21/23						
USGS I-3765-85										
Total Suspended Solids	102.80	5.0	mg/L	100.00		103	77.1-110	0.194	10	
Duplicate (2307032-DUP1)				Source: E232905-01		Prepared & Analyzed: 07/21/23				
USGS I-3765-85										
Total Suspended Solids	33.500	5.0	mg/L		32.700			2.42	10	
MRL Verification (2307032-PS1)				Prepared & Analyzed: 07/21/23						
USGS I-3765-85										
Total Suspended Solids	3.8000	5.0	mg/L	5.0000		76.0	57.1-130			MRL-2,



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Notes and Definitions for QC Samples

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MRL-2 MRL verification for Non-Potable Water matrix



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August 18, 2023

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 23-0275, South Utica POTW Recon

FROM: Kristin Trapp
LSB Inorganic Chemistry Section Chief

THRU: Stacie Masters, Chief
Laboratory Services Branch

TO: Asher Sampong

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Method Used:

Accreditations:

Classical/Nutrient Analyses (CNA)

Ammonia as N	EPA 350.1 (Water)	ISO
Ammonia/TKN	EPA 351.2 (Water)	ISO
Nitrate and/or Nitrite	EPA 353.2 (Water)	ISO/DW
Phosphorous	EPA 365.1 (Water)	ISO



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SAMPLES INCLUDED IN THIS REPORT

Project: 23-0275, South Utica POTW Recon

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Project: 23-0275, South Utica POTW Recon - Reported by Kristin Trapp

DATA QUALIFIER DEFINITIONS

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ACRONYMS AND ABBREVIATIONS

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Classical/Nutrient Analyses

Project: 23-0275, South Utica POTW Recon

Sample ID: 23-0275-001

Lab ID: E232905-01

Station ID: EFF001

Matrix: Wastewater

Date Collected: 7/19/23 13:36

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7664-41-7	Ammonia as N	3.4		mg/L	0.050	8/08/23 8:32	8/16/23 14:00	EPA 350.1
E17148461	Total Kjeldahl Nitrogen	8.0		mg/L	0.25	8/04/23 12:02	8/07/23 14:31	EPA 351.2
E701177	Nitrate/Nitrite as N	0.050	U	mg/L	0.050	8/09/23 14:43	8/09/23 16:19	EPA 353.2
7723-14-0	Total Phosphorus	1.5		mg/L	0.050	8/14/23 15:53	8/16/23 16:15	EPA 365.1



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Classical/Nutrient Analyses (CNA) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2307035 - C 350.1 Ammonia

Blank (2307035-BLK1)

Prepared: 08/08/23 Analyzed: 08/16/23

EPA 350.1

Ammonia as N U 0.050 mg/L U

LCS (2307035-BS1)

Prepared: 08/08/23 Analyzed: 08/16/23

EPA 350.1

Ammonia as N 0.91200 0.050 mg/L 1.0030 90.9 90-110

Matrix Spike (2307035-MS1)

Source: E232905-01

Prepared: 08/08/23 Analyzed: 08/16/23

EPA 350.1

Ammonia as N 4.4850 0.050 mg/L 1.0030 3.4250 106 90-110

Matrix Spike Dup (2307035-MSD1)

Source: E232905-01

Prepared: 08/08/23 Analyzed: 08/16/23

EPA 350.1

Ammonia as N 4.5100 0.050 mg/L 1.0030 3.4250 108 90-110 0.556 10

MRL Verification (2307035-PS1)

Prepared: 08/08/23 Analyzed: 08/16/23

EPA 350.1

Ammonia as N 0.065000 0.050 mg/L 0.050000 130 70-130 MRL-2

Batch 2307037 - C 351.2 TKN

Blank (2307037-BLK1)

Prepared: 08/04/23 Analyzed: 08/07/23

EPA 351.2

Total Kjeldahl Nitrogen U 0.050 mg/L U

LCS (2307037-BS1)

Prepared: 08/04/23 Analyzed: 08/07/23

EPA 351.2

Total Kjeldahl Nitrogen 1.4380 0.050 mg/L 1.4600 98.5 90-110

Matrix Spike (2307037-MS1)

Source: E232905-01

Prepared: 08/04/23 Analyzed: 08/07/23

EPA 351.2

Total Kjeldahl Nitrogen 9.9150 0.25 mg/L 1.0030 8.0400 187 90-110 XM-1

Matrix Spike Dup (2307037-MSD1)

Source: E232905-01

Prepared: 08/04/23 Analyzed: 08/07/23

EPA 351.2

Total Kjeldahl Nitrogen 9.6100 0.25 mg/L 1.0030 8.0400 157 90-110 3.12 20 XM-1



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Classical/Nutrient Analyses (CNA) - Quality Control
US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2307037 - C 351.2 TKN

MRL Verification (2307037-PS1)

Prepared: 08/04/23 Analyzed: 08/07/23

EPA 351.2

Total Kjeldahl Nitrogen	0.053000	0.050	mg/L	0.050000		106	70-130			MRL-2
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Batch 2308018 - C 353.2 NO3-NO2

Blank (2308018-BLK1)

Prepared & Analyzed: 08/09/23

EPA 353.2

Nitrate/Nitrite as N	U	0.050	mg/L							U
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LCS (2308018-BS1)

Prepared & Analyzed: 08/09/23

EPA 353.2

Nitrate/Nitrite as N	0.48730	0.050	mg/L	0.50000		97.5	90-110			
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Matrix Spike (2308018-MS2)

Source: E232905-01

Prepared & Analyzed: 08/09/23

EPA 353.2

Nitrate/Nitrite as N	0.50610	0.050	mg/L	0.50000	U	101	90-110			
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Matrix Spike Dup (2308018-MSD2)

Source: E232905-01

Prepared & Analyzed: 08/09/23

EPA 353.2

Nitrate/Nitrite as N	0.50430	0.050	mg/L	0.50000	U	101	90-110	0.356	10	
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MRL Verification (2308018-PS1)

Prepared & Analyzed: 08/09/23

EPA 353.2

Nitrate/Nitrite as N	0.052300	0.050	mg/L	0.050000		105	70-130			MRL-2
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Batch 2308033 - C 365.1 TPhos

Blank (2308033-BLK1)

Prepared: 08/14/23 Analyzed: 08/16/23

EPA 365.1

Total Phosphorus	U	0.010	mg/L							U
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LCS (2308033-BS1)

Prepared: 08/14/23 Analyzed: 08/16/23

EPA 365.1

Total Phosphorus	0.39300	0.010	mg/L	0.39300		100	90-110			
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Laboratory Services and Applied Science Division
 980 College Station Road, Athens, Georgia 30605-2700
 D.A.R.T. Id: 23-0275
 Project: 23-0275, South Utica POTW Recon - Reported by Kristin Trapp

Classical/Nutrient Analyses (CNA) - Quality Control

US-EPA, Region 4, LSASD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2308033 - C 365.1 TPhos

Matrix Spike (2308033-MS1)

Source: E232905-01

Prepared: 08/14/23 Analyzed: 08/16/23

EPA 365.1

Total Phosphorus	2.0000	0.050	mg/L	0.50000	1.5150	97.0	90-110			
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Matrix Spike Dup (2308033-MSD1)

Source: E232905-01

Prepared: 08/14/23 Analyzed: 08/16/23

EPA 365.1

Total Phosphorus	1.9950	0.050	mg/L	0.50000	1.5150	96.0	90-110	0.250	10	
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MRL Verification (2308033-PS1)

Prepared: 08/14/23 Analyzed: 08/16/23

EPA 365.1

Total Phosphorus	0.0090000	0.010	mg/L	0.010000		90.0	70-130			MRL-2, U
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Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
MRL-2	MRL verification for Non-Potable Water matrix
XM-1	Sample background/spike ratio higher than method evaluation criteria

WORK ORDER

Printed: 7/21/2023 8:16:28AM

E232905

US-EPA, Region 4, LSASD

Client: Compliance Monitoring (501E50, 000E50)
Project: South Utica POTW Recon - ASAMPONG

Project Number: 23-0275
Acct # / Location: 000E50 - Compliance Monitoring MS

Project Leader: Sampong, Asher

Date Due: 08/20/23 (30 day TAT)

Received By: Beall, Mike

Date Received: 07/21/23 07:30

Logged In By: Beall, Mike

Date Logged In: 07/21/23 08:13

Samples Received at: 2°C

D.A.R.T. Project ID: 23-0275

Program/Activity:

Site/Waterbody: _()

Analysis	Due	TAT	Expires	Comments
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E232905-01 23-0275-001 / EFF001 [Water / Wastewater] Sampled 07/19/23 13:36

A = 1000mL Plastic

B = 1000mL Plastic

C = 2-Liter Plastic

Ammonia, Distilled	08/20/23 00:00	30	08/16/23 23:59
BOD, 5 Day	08/20/23 00:00	30	07/21/23 13:36
Nitrate and/or Nitrite (Routine)	08/20/23 00:00	30	08/16/23 23:59
Phosphorus (Routine)	08/20/23 00:00	30	08/16/23 23:59
Solids, TSS Water (Routine)	08/20/23 00:00	30	07/26/23 23:59
TKN	08/20/23 00:00	30	08/16/23 23:59