



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4**

**Laboratory Services & Applied Science Division
Water Quality Section
980 College Station Road
Athens, Georgia 30605-2720**

October 27, 2021

MEMORANDUM

SUBJECT: Progress Rail Final Report
Covington, KY
LSASD Project ID: 21-0331

FROM: Chris McHugh, Environmental Engineer *Christopher McHugh*
Water Quality Section

THRU: Greg White, Chief
Water Quality Section

TO: Jairo Castillo-Valenzuela, P.E., Chief
Wastewater Enforcement Section
Enforcement & Compliance Assistance Division

Attached is the Final Report for the Progress Rail NPDES Reconnaissance Sampling Inspection.

If you have any questions concerning the sampling event, please call me at (706) 410-4082 or email me at mchugh.christopher@epa.gov.

Attachments:

cc (via email) : Dennis Sayre, ECAD
: Sandra Aker, ECAD

Mission: To provide sound Science to our customers through superior environmental evaluation

Vision: To be a solutions-oriented organization, and seen as a leader in sound science through innovation, responsive customer service, and cutting-edge expertise

Project ID: 21-0331

**NPDES Reconnaissance Sampling
Inspection Report**

Progress Rail

**Progress Rail Services
8587 Railroad Drive
Covington, Kenton County,
Kentucky**

**Project Date: September 1, 2021
Final Report Date: October 27, 2021**

Project Leader: Chris McHugh
Water Quality Section
Field Services Branch
Laboratory Services & Applied Science
Division
USEPA – Region 4
980 College Station Road
Athens, Georgia 30605-2720

The ANSI National Accreditation Board attests that U.S. EPA Region 4 Laboratory Services and Applied Science Division fulfills the requirements of ISO/IEC 17025:2017 ANAB Forensic Testing & Calibration AR 3125:2019 in the field of Forensic Testing. The activities contained in this report fall within the scope of accreditation, Certificate Number: FT-0330. Expires 31 July 2022.



LSASD
LABORATORY SERVICES & APPLIED SCIENCE DIVISION

Requestor:

Jairo Castillo Chief
Water Enforcement Branch
Enforcement and Compliance Assurance
Division
USEPA – Region 4
61 Forsyth Street SW
Atlanta, GA, 30303-8960

Analytical Support:

Inorganic Chemistry Section
Laboratory Services and Applied Science
Division
980 College Station Rd Athens, GA 30605

Approvals:

LSASD Project Leader:

Chris McHugh
Water Quality Section
Field Services Branch

Approving Official:

Greg White, Chief
Water Quality Section
Field Services Branch

Table of Contents

1. INTRODUCTION.....	4
2. SUMMARY	4
3. SAMPLE ANALYSIS RESULTS	5

List of Tables and Figures

TABLE 1 – INSPECTION PERSONNEL	4
TABLE 2 – EPA SAMPLE RESULTS VS. PERMITTED LIMITS	5
TABLE 3 – SAMPLE COLLECTION POINTS.....	5

**NPDES Sampling Evaluation
Progress Rail (Permit No. KY0100137)**

1. Introduction

On September 1, 2021, a representative of the U.S. Environmental Protection Agency (USEPA) Region 4 Laboratory Services and Applied Science Division (LSASD) conducted a National Pollutant Discharge Elimination System (NPDES) Reconnaissance Sampling Evaluation at Progress Rail in Taylor Mill, Kentucky. The evaluation was requested by the ECAD Water Enforcement Branch as part of the agency's goal to address significant non-compliance (SNC) facilities. Grab samples collected at EFF004 were analyzed for total suspended solids (TSS), Ammonia (NH₃), and Carbonaceous Biochemical Oxygen Demand (CBOD₅) and EFF002 for TSS, listed on the issued NPDES Permit KY0100137. The inspection followed the procedures listed in the LSASD Project No. 21-0331 Sample and Analysis Plan (SAP). Table 1 lists the sampling participants.

Table 1 – Inspection Personnel

Inspector	Organization	Date(s) on site
Chris McHugh	USEPA Region 4 LSASD	9/1/21
Zach Jeppson	Environmental Health and Safety Manager (EHS)	9/1/21

2. Summary

The analytical results from the effluent discharge EFF002 and EFF004 were within the NPDES permitted limits. During the inspection, the EHS disclosed the plans for various stormwater management measures (sweeper for pavement areas, fabric and coarse aggregate in ditches, additional concrete in high traffic areas) to be added to the facility grounds that will better control the particulates that enter the stormwater collection system. Additionally, adding vegetation to the rock-lined channel may further mitigate washout during heavy rain events and potentially lower the TSS discharge at EFF001, 002, 003. The additional measures added over the last year should address the periodic TSS permit limit exceedances. It is recommended that ECAD follow-up with the Kentucky Department of Environmental Protection (KDEP) to evaluate future NPDES compliance.

The sanitary wastewater discharged at EFF004 is treated using a conventional wastewater treatment system with a small rectangular clarifier, sand filter, and ultraviolet disinfection.

3. Sample Analysis Results

Following the permit, grab samples were collected at EFF002 and EFF004. Samples weren't collected at EFF001 and EFF03 because there was no way to sample without going into a confined space within the collection system. The sample collected at EFF004 was collected after final UV disinfection in the rectangular discharge channel. The analytical results were within the permitted limits for TSS, NH₃, and CBOD₅. The sample collected at EFF002 was also within permit limits for TSS.

Table 2 – EPA Sample Results vs. Permitted Limits

Analyte	EPA Analytical Results	Permitted Limit	Sample Location
TSS	5.0 mg/L *U	45 mg/L Weekly Avg.	Effluent (EFF004)
NH ₃	0.76 mg/L	3.0 mg/L Weekly Avg.	Effluent (EFF004)
CBOD ₅	7.3 mg/L *A	15 mg/L Weekly Avg.	Effluent (EFF004)
TSS	8.5 mg/L	60 mg/L Daily Maximum	Effluent (EFF002)

DATA QUALIFIER DEFINITIONS

*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.

Table 3 – Sample Collection Points

Outfall	Latitude (N)	Longitude (W)	Description
EFF002	39.002542	-84.466508	Stormwater runoff
EFF004	39.000917	-84.467133	Sanitary Wastewater

Appendix A

The following table lists the total number of pages for each of the Analytical Datasheets for this report. Each document is contained in the PDF portfolio.

R4LIMS ID	Lab ID	Analysis	Total Pages
21-0331	E213608-01 E213608-02	TSS	8
21-0331	E213608-02	Ammonia as N	7
21-0331	E213608-02	CBOD ₅	7

End of Report



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

September 15, 2021

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 21-0331, Progress Rail

FROM: Laura Ackerman
LSB Inorganic Chemistry Section Chief

THRU: John Deatruck, Chief
Laboratory Services Branch

TO: Christopher McHugh

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



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

SAMPLES INCLUDED IN THIS REPORT

Project: 21-0331, Progress Rail

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
21-0331-0002	E213608-01	Wastewater	9/1/21 10:50	9/3/21 8:00
21-0331-0001	E213608-02	Wastewater	9/1/21 11:00	9/3/21 8:00



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

DATA QUALIFIER DEFINITIONS

U The analyte was not detected at or above the reporting limit.

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:

<http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd>

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.



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

Classical/Nutrient Analyses

Project: 21-0331, Progress Rail

Sample ID: 21-0331-0002

Lab ID: E213608-01

Station ID: EFF002

Matrix: Wastewater

Date Collected: 9/1/21 10:50

<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	8.5		mg/L	5.0	9/03/21 9:32	9/07/21 10:40	USGS I-3765-85



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

Classical/Nutrient Analyses

Project: 21-0331, Progress Rail

Sample ID: 21-0331-0001

Lab ID: E213608-02

Station ID: EFF004

Matrix: Wastewater

Date Collected: 9/1/21 11:00

<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	5.0	U	mg/L	5.0	9/03/21 9:32	9/07/21 10:40	USGS I-3765-85



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

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 2109016 - C 2540 Solids										
Blank (2109016-BLK1)					Prepared: 09/03/21 Analyzed: 09/07/21					
USGS I-3765-85										
Total Suspended Solids	U	5.0	mg/L							U
LCS (2109016-BS1)					Prepared: 09/03/21 Analyzed: 09/07/21					
USGS I-3765-85										
Total Suspended Solids	93.800	5.0	mg/L	100.00		93.8	77.1-110			
LCS (2109016-BS2)					Prepared: 09/03/21 Analyzed: 09/07/21					
USGS I-3765-85										
Total Suspended Solids	92.500	5.0	mg/L	100.00		92.5	77.1-110			
LCS (2109016-BS3)					Prepared: 09/03/21 Analyzed: 09/07/21					
USGS I-3765-85										
Total Suspended Solids	90.200	5.0	mg/L	100.00		90.2	77.1-110			
LCS (2109016-BS4)					Prepared: 09/03/21 Analyzed: 09/07/21					
USGS I-3765-85										
Total Suspended Solids	103.90	5.0	mg/L	100.00		104	77.1-110			
LCS Dup (2109016-BSD1)					Prepared: 09/03/21 Analyzed: 09/07/21					
USGS I-3765-85										
Total Suspended Solids	95.300	5.0	mg/L	100.00		95.3	77.1-110	1.59	10	
Duplicate (2109016-DUP1)					Source: E213608-01	Prepared: 09/03/21 Analyzed: 09/07/21				
USGS I-3765-85										
Total Suspended Solids	8.7000	5.0	mg/L		8.5000			2.33	10	
MRL Verification (2109016-PS1)					Prepared: 09/03/21 Analyzed: 09/07/21					
USGS I-3765-85										
Total Suspended Solids	3.0000	5.0	mg/L	5.0000		60.0	57.1-130			MRL-2, U



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

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



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

September 21, 2021

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 21-0331, Progress Rail

FROM: Laura Ackerman
LSB Inorganic Chemistry Section Chief

THRU: John Deatruck, Chief
Laboratory Services Branch

TO: Christopher McHugh

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)

Ammonia as N

EPA 350.1 (Water)

ISO



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

SAMPLES INCLUDED IN THIS REPORT

Project: 21-0331, Progress Rail

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
21-0331-0001	E213608-02	Wastewater	9/1/21 11:00	9/3/21 8:00



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

DATA QUALIFIER DEFINITIONS

None

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:

<http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd>

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.



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

Classical/Nutrient Analyses

Project: 21-0331, Progress Rail

Sample ID: 21-0331-0001

Lab ID: E213608-02

Station ID: EFF004

Matrix: Wastewater

Date Collected: 9/1/21 11:00

<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	0.76		mg/L	0.050	9/09/21 16:09	9/14/21 10:24	EPA 350.1



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

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 2109018 - C 350.1 Ammonia										
Blank (2109018-BLK1)					Prepared: 09/08/21 Analyzed: 09/14/21					
EPA 350.1										
Ammonia as N	U	0.050	mg/L							U
LCS (2109018-BS1)					Prepared: 09/08/21 Analyzed: 09/14/21					
EPA 350.1										
Ammonia as N	0.96200	0.050	mg/L	1.0000		96.2	90-110			
Matrix Spike (2109018-MS1)					Source: E213607-01		Prepared: 09/08/21 Analyzed: 09/14/21			
EPA 350.1										
Ammonia as N	5.9020	0.10	mg/L	1.0000	4.8760	103	90-110			
Matrix Spike (2109018-MS2)					Source: E213608-02		Prepared: 09/08/21 Analyzed: 09/14/21			
EPA 350.1										
Ammonia as N	1.7520	0.050	mg/L	1.0000	0.76300	98.9	90-110			
Matrix Spike Dup (2109018-MSD1)					Source: E213607-01		Prepared: 09/08/21 Analyzed: 09/14/21			
EPA 350.1										
Ammonia as N	5.8660	0.10	mg/L	1.0000	4.8760	99.0	90-110	0.612	10	
Matrix Spike Dup (2109018-MSD2)					Source: E213608-02		Prepared: 09/08/21 Analyzed: 09/14/21			
EPA 350.1										
Ammonia as N	1.7750	0.050	mg/L	1.0000	0.76300	101	90-110	1.30	10	
MRL Verification (2109018-PS1)					Prepared: 09/08/21 Analyzed: 09/14/21					
EPA 350.1										
Ammonia as N	0.035000	0.050	mg/L	0.050000		70.0	70-130			MRL-2, U



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

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



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

September 22, 2021

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 21-0331, Progress Rail

FROM: Laura Ackerman
LSB Inorganic Chemistry Section Chief

THRU: John Deatrck, Chief
Laboratory Services Branch

TO: Christopher McHugh

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



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

Sample Disposal Policy

Due to limited space for long term sample storage, LSB's policy is to dispose of samples on a periodic schedule. Air samples collected in summa canisters will be disposed of 30 days following the issuance of this report. All other sample media including original samples, sample extracts and or digestates will be disposed of, in accordance with applicable regulations, 60 days from the date of this report.

This sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time. If samples require storage beyond the 60-day period, please contact the Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov.



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

SAMPLES INCLUDED IN THIS REPORT

Project: 21-0331, Progress Rail

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
21-0331-0001	E213608-02	Wastewater	9/1/21 11:00	9/3/21 8:00



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

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:

<http://www.epa.gov/aboutepa/about-region-4s-science-and-ecosystem-support-division-sesd>

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.



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

Classical/Nutrient Analyses

Project: 21-0331, Progress Rail

Sample ID: 21-0331-0001

Lab ID: E213608-02

Station ID: EFF004

Matrix: Wastewater

Date Collected: 9/1/21 11:00

<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>
E1640614	BOD, 5 Day, Carbonaceous	7.3	A	mg/L	2.0	9/03/21 9:44	9/08/21 10:00	SM 5210B



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

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 2109017 - C SM5210 BOD

Blank (2109017-BLK1)

Prepared: 09/03/21 Analyzed: 09/08/21

SM 5210B

BOD, 5 Day, Carbonaceous

U

2.0

mg/L

U

LCS (2109017-BS1)

Prepared: 09/03/21 Analyzed: 09/08/21

SM 5210B

BOD, 5 Day, Carbonaceous

163.50

2.0

mg/L

198.00

82.6

82.1-117.9

A



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: 21-0331

Project: 21-0331, Progress Rail - Reported by Laura Ackerman

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.