



February 20, 2020

Service Request No:J2000694

Mr. Jeremy Parrish
Florida DEP
8800 Baymeadows Way West
Jacksonville, FL 32256-7577

Laboratory Results for: St. Augustine

Dear Mr.Parrish,

Enclosed are the results of the sample(s) submitted to our laboratory February 06, 2020
For your reference, these analyses have been assigned our service request number **J2000694**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance with the TNI 2016 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Candice Turner
Project Management
Assistant

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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Jacksonville Laboratory
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Client: Florida Department of Environmental Protection
(DEP)
Project: St. Augustine
Sample Matrix: Water

Service Request: J2000694

Date Received: 02/06/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier I level requested by the client.

Sample Receipt:

Six water samples were received for analysis at ALS Environmental on 02/06/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Microbiology:

Method ASTM D6503-99: Sample(s) J2000694 (4-6) were removed from the incubator and read on 2/7/20 1550.

Method SM 9222 D: Sample(s) J200694-004 were removed from the incubator and read on 2/7/20 1424.

Method SM 9223 B: Sample(s) J2000694 (1-4) were removed from the incubator and read on 2/7/20 1539.

Approved by CanDice Turner

Date 02/11/2020

SAMPLE DETECTION SUMMARY

CLIENT ID: 27010059	Lab ID: J2000694-001
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Analyte	Results	Flag	MDL	MRL	Units	Method
Escherichia coli	1550			1.0	MPN/100m L	SM 9223 B

CLIENT ID: 27010076	Lab ID: J2000694-002
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Analyte	Results	Flag	MDL	MRL	Units	Method
Escherichia coli	921			1.0	MPN/100m L	SM 9223 B

CLIENT ID: 27010061	Lab ID: J2000694-003
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Analyte	Results	Flag	MDL	MRL	Units	Method
Escherichia coli	649			1.0	MPN/100m L	SM 9223 B

CLIENT ID: 27010138	Lab ID: J2000694-004
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Analyte	Results	Flag	MDL	MRL	Units	Method
Coliform, Fecal	48			2.0	CFU/100m L	SM 9222 D

CLIENT ID: 27010055	Lab ID: J2000694-005
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Analyte	Results	Flag	MDL	MRL	Units	Method
Enterococcus	780			10	MPN/100m L	ASTM D6503-99

CLIENT ID: 27010055 DUP	Lab ID: J2000694-006
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Analyte	Results	Flag	MDL	MRL	Units	Method
Enterococcus	440			10	MPN/100m L	ASTM D6503-99



Sample Receipt Information

ALS Environmental—Jacksonville Laboratory
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www.alsglobal.com

Client: Florida Department of Environmental Protection (DEP)
Project: St. Augustine/RQ-2020-02-03-22

Service Request:J2000694

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J2000694-001	27010059	2/6/2020	0935
J2000694-002	27010076	2/6/2020	1015
J2000694-003	27010061	2/6/2020	1050
J2000694-004	27010138	2/6/2020	1125
J2000694-005	27010055	2/6/2020	1230
J2000694-006	27010055 DUP	2/6/2020	1235

Cooler Receipt Form

Client: FDEP Service Request #: 32000694
 Project: St. Augustine Shipping paid by ALS? Yes ☒ No ☐ N/A
 Cooler received on 2/6/2020 and opened on 2/6/2020 by BB
 COURIER: ALS UPS FEDEX DHL ☒ Client Other _____ Airbill # _____

- 1 Were custody seals on outside of cooler? Yes ☐ No ☒
 If yes, how many and where? #: _____ on lid other _____
- 2 Were seals intact and signature and date correct? Yes ☐ No ☒ N/A
- 3 Were custody papers properly filled out? Yes ☒ No ☐ N/A
- 4 Temperature of cooler(s) upon receipt (Should be 0°C and ≤ 6°C) 04°C
- 5 Thermometer ID T24
- 6 Temperature Blank Present? Yes ☐ No ☒
- 7 Were Ice or Ice Packs present Ice ☒ Ice Packs _____ No ☐
- 8 Did all bottles arrive in good condition (unbroken, etc....)? Yes ☒ No ☐ N/A
- 9 Type of packing material present Netting _____ Vial Holder _____ Bubble Wrap _____
 Paper _____ Styrofoam _____ Other ☒ N/A
- 10 Were all bottle labels complete (sample ID, preservation, etc....)? Yes ☒ No ☐ N/A
- 11 Did all bottle labels and tags agree with custody papers? Yes ☒ No ☐ N/A
- 12 Were the correct bottles used for the tests indicated? Yes ☒ No ☐ N/A
- 13 Were all of the preserved bottles received with the appropriate preservative?
 HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2
 Preservative additions noted below Yes ☐ No ☒ N/A
- 14 Were all samples received within analysis holding times? Yes ☒ No ☐ N/A
- 15 Were VOA vials free of air bubbles greater than 6mm? If present, note below Yes ☐ No ☒ N/A
- 16 Where did the bottles originate? ALS ☐ Client ☒

Sample ID	Reagent	Lot #	ml added	Initials Date/Time

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date:

From: [Appleby, Kimberly](#)
To: [Mirabito, Anthony](#)
Subject: RE: Sampling Time Verification
Date: Thursday, February 13, 2020 10:04:56 AM

Hello,

Sorry for the confusion. The correct sampling time is 11:25.

Thank you,
Kimberly

From: Mirabito, Anthony <Anthony.Mirabito@FloridaDEP.gov>
Sent: Thursday, February 13, 2020 9:15 AM
To: Appleby, Kimberly <Kimberly.Appleby@FloridaDEP.gov>
Subject: Sampling Time Verification

Good Morning Kimberly,

I was just wanting to verify the sampling time for 27010138 for RQ-2020-02-03-22. It looks like on the report sent to Receiving that there are two sampling times 11:25 and 11:28 but the chain of custody lists 11:28. Is this the correct one? I have attached the report sent to Receiving as this also contains the chain of custody. Let me know if you have any questions.

Thanks,
Anthony

Candice Turner

From: Mirabito, Anthony <Anthony.Mirabito@FloridaDEP.gov>
Sent: Thursday, February 13, 2020 9:06 AM
To: Candice Turner
Subject: [EXTERNAL] - Verifying Start Times
Attachments: NE-DIST-2020-02-10-01 report and coc.pdf

CAUTION: This email originated from outside of ALS. Do not click links or open attachments unless you recognize the sender and are sure content is relevant to you.

Good Morning Candice,

I was wanting to verify the receiving time and the start time for a few samples for RQ-2020-02-03-22. Samples 27010059, 27010076 and 27010061 all have a start time of 15:35 but a receiving time of 15:41. Would you be able to look into this? Also samples 27010138, 27010055 and 27010055 DUP have a start time of 15:49 which is 8 minutes after being received, is that correct? Let me know if you have any questions.

Thanks!
Anthony



From: [Kalmbacher, Amy](#)
To: [Mirabito, Anthony](#)
Subject: RE: RQ-2020-02-03-22 Receiving Time
Date: Wednesday, February 19, 2020 4:22:03 PM

Hi Anthony:

I think that I must have made the mistake when recording in military time – I believe that it should have been 14:40 (2:40 pm) and then the time received by the staff at ALS should have been 14:41. I fear that he just added 1 minute to my mistaken time of 15:41. I hope that helps, it's the only way that I can think to explain it.

Amy

From: Mirabito, Anthony
Sent: Wednesday, February 19, 2020 9:20 AM
To: Kalmbacher, Amy <Amy.Kalmbacher@dep.state.fl.us>
Subject: RQ-2020-02-03-22 Receiving Time

Good Morning Amy,

I was wondering if you would be able to confirm the receiving time for RQ-2020-02-03-22 as 15:41 like the chain of custody shows. I am asking because in the report by ALS they have sample start time before the receiving time and they spoke with the analyst who confirm their start times are correct. I have attached the report from ALS which also contains the chain of custody. Let me know if you have any questions.

Thanks,
Anthony



Miscellaneous Forms

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FLORIDA DEP DATA QUALIFIERS

- B Results based upon colony counts outside the acceptable range.
- D Measurement was made in the field.
- H Value based on field kit determination; results may not be accurate.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J Estimated value (one of the following reasons is discussed in the project case narrative).
1. The result may be inaccurate because the surrogate recovery limits have been exceeded.
 2. No known quality control criteria exists for the component.
 3. The reported value failed to meet the established quality control criteria for either precision or accuracy.
 4. The sample matrix interfered with the ability to make any accurate determination (e.g., primary and confirmation results show greater than 40% RPD).
 5. The data is questionable because of improper laboratory or field protocols (e.g., GC/MS Tune did not meet method criteria).
- K Off scale low. The value is less than the lowest calibration standard but greater than the method reporting limit (MRL).
- L Off scale high. The analyte is above the upper limit of the linear calibration range.
- M The MDL/MRL has been elevated because the analyte could not be accurately quantified due to matrix interference.
- N Presumptive evidence of the analyte. Confirmation was not performed.
- Q Sample held beyond the accepted holding time.
- T Value reported is less than the laboratory method detection limit. The value is reported for informational purposes only.
- U Indicates that the compound was analyzed for but not detected.
- V Indicates that the analyte was detected in both the sample and the associated method blank.
- Y The laboratory analysis was from an improperly preserved sample.
- Z Too many colonies were present (TNTC). The numeric value represents the filtration volume.



Jacksonville Lab ID # for State Certifications¹

Agency	Number	Expiration Date
Department of Defense	66206	6/30/2020
Florida Department of Health	E82502	6/30/2020
Georgia Department of Natural Resources	958	6/30/2020
Kentucky Division of Waste Management	123042	6/30/2020
Louisiana Department of Environmental Quality	02086	6/30/2020
Maine Department of Health and Human Services	2019004	2/3/2021
New York State Department of Health	12113	4/1/2020
North Carolina Department of Environment and Natural Resources	527	12/31/2019
South Carolina Department of Health and Environmental Control	96021001	6/30/2019
Texas Commission on Environmental Quality	T104704197-19-12	5/31/2020
Virginia Environmental Accreditation Program	460191	12/14/2019

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



ACRONYMS

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Florida Department of Environmental Protection (DEP)
Project: St. Augustine/RQ-2020-02-03-22

Service Request: J2000694

Sample Name: 27010059
Lab Code: J2000694-001
Sample Matrix: Water

Date Collected: 02/6/20
Date Received: 02/6/20

Analysis Method
SM 9223 B

Extracted/Digested By

Analyzed By
ASOTO

Sample Name: 27010076
Lab Code: J2000694-002
Sample Matrix: Water

Date Collected: 02/6/20
Date Received: 02/6/20

Analysis Method
SM 9223 B

Extracted/Digested By

Analyzed By
ASOTO

Sample Name: 27010061
Lab Code: J2000694-003
Sample Matrix: Water

Date Collected: 02/6/20
Date Received: 02/6/20

Analysis Method
SM 9223 B

Extracted/Digested By

Analyzed By
ASOTO

Sample Name: 27010138
Lab Code: J2000694-004
Sample Matrix: Water

Date Collected: 02/6/20
Date Received: 02/6/20

Analysis Method
ASTM D6503-99
SM 9222 D
SM 9223 B

Extracted/Digested By

Analyzed By
ASOTO
ASOTO
ASOTO

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Florida Department of Environmental Protection (DEP)
Project: St. Augustine/RQ-2020-02-03-22

Service Request: J2000694

Sample Name: 27010055
Lab Code: J2000694-005
Sample Matrix: Water

Date Collected: 02/6/20
Date Received: 02/6/20

Analysis Method
ASTM D6503-99

Extracted/Digested By

Analyzed By
ASOTO

Sample Name: 27010055 DUP
Lab Code: J2000694-006
Sample Matrix: Water

Date Collected: 02/6/20
Date Received: 02/6/20

Analysis Method
ASTM D6503-99

Extracted/Digested By

Analyzed By
ASOTO



Sample Results

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Microbiology

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Analytical Report

Client: Florida Department of Environmental Protection (DEP)
Project: St. Augustine/RQ-2020-02-03-22
Sample Matrix: Water
Sample Name: 27010138
Lab Code: J2000694-004

Service Request: J2000694
Date Collected: 02/06/20 11:25
Date Received: 02/06/20 14:41
Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Coliform, Fecal	SM 9222 D	48	CFU/100mL	2.0	2	02/06/20 16:16	
Enterococcus	ASTM D6503-99	10 U	MPN/100mL	10	10	02/06/20 15:49	

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Analytical Report

Client: Florida Department of Environmental Protection (DEP)
Project: St. Augustine/RQ-2020-02-03-22
Sample Matrix: Water
Sample Name: 27010055
Lab Code: J2000694-005

Service Request: J2000694
Date Collected: 02/06/20 12:30
Date Received: 02/06/20 14:41
Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Enterococcus	ASTM D6503-99	780	MPN/100mL	10	10	02/06/20 15:49	

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Analytical Report

Client: Florida Department of Environmental Protection (DEP)
Project: St. Augustine/RQ-2020-02-03-22
Sample Matrix: Water
Sample Name: 27010055 DUP
Lab Code: J2000694-006

Service Request: J2000694
Date Collected: 02/06/20 12:35
Date Received: 02/06/20 14:41
Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Enterococcus	ASTM D6503-99	440	MPN/100mL	10	10	02/06/20 15:49	

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Analytical Report

Client: Florida Department of Environmental Protection (DEP)
Project: St. Augustine/RQ-2020-02-03-22
Sample Matrix: Water
Sample Name: 27010059
Lab Code: J2000694-001

Service Request: J2000694
Date Collected: 02/06/20 09:35
Date Received: 02/06/20 14:41
Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Escherichia coli	SM 9223 B	1550	MPN/100mL	1.0	1	02/06/20 15:35	

ALS Group USA, Corp.
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Analytical Report

Client: Florida Department of Environmental Protection (DEP)
Project: St. Augustine/RQ-2020-02-03-22
Sample Matrix: Water
Sample Name: 27010076
Lab Code: J2000694-002

Service Request: J2000694
Date Collected: 02/06/20 10:15
Date Received: 02/06/20 14:41
Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Escherichia coli	SM 9223 B	921	MPN/100mL	1.0	1	02/06/20 15:35	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Florida Department of Environmental Protection (DEP)
Project: St. Augustine/RQ-2020-02-03-22
Sample Matrix: Water
Sample Name: 27010061
Lab Code: J2000694-003

Service Request: J2000694
Date Collected: 02/06/20 10:50
Date Received: 02/06/20 14:41
Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Escherichia coli	SM 9223 B	649	MPN/100mL	1.0	1	02/06/20 15:35	



QC Summary Forms

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Microbiology

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Analytical Report

Client: Florida Department of Environmental Protection (DEP)
Project: St. Augustine/RQ-2020-02-03-22
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: J2000694-MB

Service Request: J2000694
Date Collected: NA
Date Received: NA
Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Coliform, Fecal	SM 9222 D	1.0 U	CFU/100mL	1.0	1	02/06/20 16:16	
Enterococcus	ASTM D6503-99	1.0 U	MPN/100mL	1.0	1	02/06/20 15:49	
Escherichia coli	SM 9223 B	1.0 U	MPN/100mL	1.0	1	02/06/20 15:35	