



March 08, 2018

Service Request No:J1801587

Sara Armour
Florida Department of Environmental Protection
Bureau of Laboratories
2600 Blair Stone Road
Tallahassee, FL 32399

Laboratory Results for: FDEP-NE ROC

Dear Sara,

Enclosed are the results of the sample(s) submitted to our laboratory March 05, 2018
For your reference, these analyses have been assigned our service request number **J1801587**.

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 to the NELAC 2003 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

Gina Bondani
Project Manager

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Table of Contents

CoverLetter	1
Table of Contents	2
Narrative Documents	3
Narrative Documents	4
Hit Summary List	5
Sample Receipt Information	6
Sample Cross-Reference	7
Chain Of Custody	8
Miscellaneous Forms	10
Qualifiers	11
Acronyms	13
Analyst Summary	14
Sample Results	16
Microbiology	17
ASTM D6503-99 - General Chemistry Parameters	
Enterococcus Report - Microbiology	18
SM 9223 B - General Chemistry Parameters	
Qntray EC C Report - Microbiology	19



Narrative Documents

ALS Environmental—Jacksonville Laboratory
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Phone (904) 739-2277 Fax (904) 739-2011
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Client: Florida DEP
Project: FDEP-NE ROC/RQ-2018-03-05-25
Sample Matrix: Water

Service Request: J1801587
Date Received: 3/5/18

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier I data deliverables. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

6 water samples were received for analysis at ALS Environmental on 3/5/18. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at $\leq 6^{\circ}\text{C}$ upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Microbiology Analyses:

SM9223B: Incubation end time and sample read time is 3/6/18 19:59.

ASTM D6503: Incubation end time and sample read time is 3/6/18 19:56.

Approved by  Date 3/8/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: 20030848		Lab ID: J1801587-001				
Analyte	Results	Flag	MDL	PQL	Units	Method
Escherichia coli	318		10	10	MPN/100m	SM 9223 B
CLIENT ID: 20030653		Lab ID: J1801587-002				
Analyte	Results	Flag	MDL	PQL	Units	Method
Escherichia coli	309		10	10	MPN/100m	SM 9223 B
CLIENT ID: 20030123		Lab ID: J1801587-003				
Analyte	Results	Flag	MDL	PQL	Units	Method
Enterococcus	130		10	10	MPN/100m	ASTM
CLIENT ID: 20030897		Lab ID: J1801587-004				
Analyte	Results	Flag	MDL	PQL	Units	Method
Escherichia coli	309		10	10	MPN/100m	SM 9223 B
CLIENT ID: 20030316		Lab ID: J1801587-005				
Analyte	Results	Flag	MDL	PQL	Units	Method
Escherichia coli	31		10	10	MPN/100m	SM 9223 B
CLIENT ID: 20030537		Lab ID: J1801587-006				
Analyte	Results	Flag	MDL	PQL	Units	Method
Escherichia coli	323		10	10	MPN/100m	SM 9223 B



Sample Receipt Information

ALS Environmental—Jacksonville Laboratory
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Client: Florida DEP
Project: FDEP-NE ROC/RQ-2018-03-05-25

Service Request:J1801587

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1801587-001	20030848	3/5/2018	0940
J1801587-002	20030653	3/5/2018	1035
J1801587-003	20030123	3/5/2018	1140
J1801587-004	20030897	3/5/2018	1240
J1801587-005	20030316	3/5/2018	1305
J1801587-006	20030537	3/5/2018	1405

Cooler Receipt Form

Client: FDEP-NE ROC Service Request #: J1801587
 Project: RQ-2018-03-05-25 Shipping paid by ALS? ☒ Yes ☐ No ☐ N/A
 Cooler received on 3/5/18 and opened on 3/5/18 by SW
 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 N/A
- 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) 4.8°C
- 5 Thermometer ID 7124
- 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
- 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:



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	7/31/2018
Florida Department of Health	E82502	6/30/2018
Georgia Department of Natural Resources	958	6/30/2018
Kentucky Division of Waste Management	123042	6/30/2018
Louisiana Department of Environmental Quality	02086	6/30/2018
Maine Department of Health and Human Services	2015002	2/3/2019
North Carolina Department of Environment and Natural Resources	527	12/31/2018
Pennsylvania Department of Environmental Protection	68-04835	8/31/2018
South Carolina Department of Health and Environmental Control	96021001	6/30/2018
Texas Commission on Environmental Quality	T104704197-16-8	5/31/2018
Virginia Environmental Accreditation Program	460191	12/14/2018

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 DEP
Project: FDEP-NE ROC/RQ-2018-03-05-25

Service Request: J1801587

Sample Name: 20030848
Lab Code: J1801587-001
Sample Matrix: Water

Date Collected: 03/5/18
Date Received: 03/5/18

Analysis Method
SM 9223 B

Extracted/Digested By

Analyzed By
VSPEARS

Sample Name: 20030653
Lab Code: J1801587-002
Sample Matrix: Water

Date Collected: 03/5/18
Date Received: 03/5/18

Analysis Method
SM 9223 B

Extracted/Digested By

Analyzed By
VSPEARS

Sample Name: 20030123
Lab Code: J1801587-003
Sample Matrix: Water

Date Collected: 03/5/18
Date Received: 03/5/18

Analysis Method
ASTM D6503-99

Extracted/Digested By

Analyzed By
VSPEARS

Sample Name: 20030897
Lab Code: J1801587-004
Sample Matrix: Water

Date Collected: 03/5/18
Date Received: 03/5/18

Analysis Method
SM 9223 B

Extracted/Digested By

Analyzed By
VSPEARS

Sample Name: 20030316
Lab Code: J1801587-005
Sample Matrix: Water

Date Collected: 03/5/18
Date Received: 03/5/18

Analysis Method
SM 9223 B

Extracted/Digested By

Analyzed By
VSPEARS

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Florida DEP
Project: FDEP-NE ROC/RQ-2018-03-05-25

Service Request: J1801587

Sample Name: 20030537
Lab Code: J1801587-006
Sample Matrix: Water

Date Collected: 03/5/18
Date Received: 03/5/18

Analysis Method
SM 9223 B

Extracted/Digested By

Analyzed By
VSPEARS



Sample Results

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Microbiology

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Florida DEP
Project: FDEP-NE ROC/RQ-2018-03-05-25
Sample Matrix: Water
Analysis Method: ASTM D6503-99

Service Request: J1801587
Date Collected: 03/5/18
Date Received: 03/5/18
Units: MPN/100mL
Basis: NA

Enterococcus

Sample Name	Lab Code	Result	PQL	Dil.	Date Analyzed	Q
20030123	J1801587-003	130	10	10	03/05/18 18:43	
Method Blank	J1801587-MB	1.0 U	1.0	1	03/05/18 18:43	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Florida DEP
Project: FDEP-NE ROC/RQ-2018-03-05-25
Sample Matrix: Water
Analysis Method: SM 9223 B

Service Request: J1801587
Date Collected: 03/5/18
Date Received: 03/5/18
Units: MPN/100mL
Basis: NA

Escherichia coli

Sample Name	Lab Code	Result	PQL	Dil.	Date Analyzed	Q
20030848	J1801587-001	318	10	10	03/05/18 17:16	
20030653	J1801587-002	309	10	10	03/05/18 17:16	
20030897	J1801587-004	309	10	10	03/05/18 17:16	
20030316	J1801587-005	31	10	10	03/05/18 17:16	
20030537	J1801587-006	323	10	10	03/05/18 17:16	
Method Blank	J1801587-MB	1.0 U	1.0	1	03/05/18 17:16	