



June 18, 2020

Service Request No:J2003101

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



### Laboratory Results for: Moses Creek

Dear Mr.Parrish,

Enclosed are the results of the sample(s) submitted to our laboratory June 16, 2020  
For your reference, these analyses have been assigned our service request number **J2003101**.

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:** Moses Creek  
**Sample Matrix:** Water

**Service Request:** J2003101

**Date Received:** 06/16/2020

### 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:

Five water samples were received for analysis at ALS Environmental on 06/16/2020. 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) J2003101 (3-4) were removed from the incubator and read on 6/17/20 1622.

Method SM 9222 D: Sample(s) J2003101 (3-4) were removed from the incubator and read on 6/17/20 1601.

Results for sample(s) name J2003101 ( 3 AND 4) are based on colony counts outside the optimal range of 20-60 CFU. The data has been qualified. This is an informational flag and does not impact the quality of the data.

Method SM 9223 B: Sample(s) J2003101 (1,2,5) were removed from the incubator and read on 6/17/20 1623.

Approved by CanDice Turner

Date 06/18/2020

### SAMPLE DETECTION SUMMARY

|                            |                             |
|----------------------------|-----------------------------|
| <b>CLIENT ID: G5NE0026</b> | <b>Lab ID: J2003101-001</b> |
|----------------------------|-----------------------------|

| Analyte          | Results | Flag | MDL | MRL | Units         | Method    |
|------------------|---------|------|-----|-----|---------------|-----------|
| Escherichia coli | 20.1    |      |     | 1.0 | MPN/100m<br>L | SM 9223 B |

|                            |                             |
|----------------------------|-----------------------------|
| <b>CLIENT ID: 27010079</b> | <b>Lab ID: J2003101-002</b> |
|----------------------------|-----------------------------|

| Analyte          | Results | Flag | MDL | MRL | Units         | Method    |
|------------------|---------|------|-----|-----|---------------|-----------|
| Escherichia coli | 166     |      |     | 1.0 | MPN/100m<br>L | SM 9223 B |

|                           |                             |
|---------------------------|-----------------------------|
| <b>CLIENT ID: G5NE004</b> | <b>Lab ID: J2003101-003</b> |
|---------------------------|-----------------------------|

| Analyte         | Results | Flag | MDL | MRL | Units         | Method        |
|-----------------|---------|------|-----|-----|---------------|---------------|
| Coliform, Fecal | 140     | B    |     | 1.6 | CFU/100m<br>L | SM 9222 D     |
| Enterococcus    | 631     |      |     | 10  | MPN/100m<br>L | ASTM D6503-99 |

|                            |                             |
|----------------------------|-----------------------------|
| <b>CLIENT ID: G5NE0589</b> | <b>Lab ID: J2003101-004</b> |
|----------------------------|-----------------------------|

| Analyte         | Results | Flag | MDL | MRL | Units         | Method        |
|-----------------|---------|------|-----|-----|---------------|---------------|
| Enterococcus    | 714     |      |     | 10  | MPN/100m<br>L | ASTM D6503-99 |
| Coliform, Fecal | 150     | B    |     | 1.6 | CFU/100m<br>L | SM 9222 D     |

|                            |                             |
|----------------------------|-----------------------------|
| <b>CLIENT ID: 27010050</b> | <b>Lab ID: J2003101-005</b> |
|----------------------------|-----------------------------|

| Analyte          | Results | Flag | MDL | MRL | Units         | Method    |
|------------------|---------|------|-----|-----|---------------|-----------|
| Escherichia coli | 285     |      |     | 1.0 | MPN/100m<br>L | SM 9223 B |



## Sample Receipt Information

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**Client:** Florida Department of Environmental Protection (DEP)  
**Project:** Moses Creek/RQ-2020-04-06-53

**Service Request:**J2003101

**SAMPLE CROSS-REFERENCE**

| <u>SAMPLE #</u> | <u>CLIENT SAMPLE ID</u> | <u>DATE</u> | <u>TIME</u> |
|-----------------|-------------------------|-------------|-------------|
| J2003101-001    | G5NE0026                | 6/16/2020   | 0935        |
| J2003101-002    | 27010079                | 6/16/2020   | 1015        |
| J2003101-003    | G5NE004                 | 6/16/2020   | 1100        |
| J2003101-004    | G5NE0589                | 6/16/2020   | 1125        |
| J2003101-005    | 27010050                | 6/16/2020   | 1200        |

**Cooler Receipt Form**

Client: FDEP Service Request #: 52003101  
 Project: Moses Creek  
 Shipment received on 6/16 and opened on 6/16 by BB Shipping paid by ALS? Yes ☐ No ☒ N/A  
 COURIER: ALS UPS FEDEX DHL ☒ Client Other \_\_\_\_\_ Airbill # \_\_\_\_\_

**Packing Conditions**

Custody seals on outside of cooler? Yes ☐ No ☒  
 If yes, how many and where? #: \_\_\_\_\_ on: lid other \_\_\_\_\_  
 Were seals intact and signature and date correct? Yes ☐ No ☒ N/A

Temperature of cooler(s) upon receipt (0-6°C)

Thermometer ID

Temperature Blank Present?

Temperature preservation?

Type of packing material present

Yes ☐ No ☒  
 Ice Ice Packs None  
 Bubble Wrap Netting Paper  
 Vial Holder Styrofoam Other ☒ N/A

**Sample Conditions**

If No for any items below, note discrepancies in comments section.

COC properly filled out? Yes ☒ No ☐ Didn't arrive  
 Where did the containers originate? ALS ☒ Client ☐  
 All containers arrive in good condition? Yes ☒ No ☐  
 All container labels complete? Yes ☒ No ☐  
 All container labels agree with custody papers? Yes ☒ No ☐ N/A  
 Any samples with unusual characteristics? Typical ☒ Exceptional ☐  
 All samples received with sufficient volume? Yes ☒ No ☐  
 Correct containers used for the tests indicated? Yes ☒ No ☐ N/A  
 All containers received with the appropriate preservative? Yes ☒ No ☐ N/A  
 All samples received within analysis holding times? Yes ☒ No ☐ N/A  
 VOA vials free of air bubbles greater than 6mm? Yes ☒ No ☐ N/A

| Sample ID | Reagent | Lot # | Exp. Date | 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 Certifications<sup>1</sup>

| Agency                                                                    | Number           | Expiration Date |
|---------------------------------------------------------------------------|------------------|-----------------|
| PJLA<br>(DOD/DOE QSM 5.1.1 Accredited,<br>Accreditation Field -Testing)   | 66206 (L18-193)  | 6/30/2020       |
| PJLA<br>(ISO/IEC 17025:2005 Accredited,<br>Accreditation Field - Testing) | 66206 (L18-194)  | 6/30/2020       |
| Florida Department of Health                                              | E82502           | 6/30/2020       |
| Georgia Department of Natural<br>Resources                                | 958              | 6/30/2020       |
| Kentucky Division of Waste<br>Management                                  | 123042           | 6/30/2020       |
| Louisiana Department of<br>Environmental Quality                          | 02086            | 6/30/2020       |
| Maine Department of Health and<br>Human Services                          | FL01294          | 2/3/2021        |
| New York State Department of Health                                       | 121113           | 4/1/2020        |
| North Carolina Department of<br>Environment and Natural Resources         | 527              | 12/31/2020      |
| South Carolina Department of Health<br>and Environmental Control          | 96021001         | 6/30/2020       |
| Texas Commission on Environmental<br>Quality                              | T104704197-20-13 | 5/31/2020       |
| Virginia Environmental Accreditation<br>Program                           | 460191           | 12/14/2020      |

<sup>1</sup> 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.**

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## Analyst Summary report

**Client:** Florida Department of Environmental Protection (DEP)  
**Project:** Moses Creek/RQ-2020-04-06-53

**Service Request:** J2003101

**Sample Name:** G5NE0026  
**Lab Code:** J2003101-001  
**Sample Matrix:** Water

**Date Collected:** 06/16/20**Date Received:** 06/16/20

**Analysis Method**  
SM 9223 B

**Extracted/Digested By**

**Analyzed By**  
ASOTO

**Sample Name:** 27010079  
**Lab Code:** J2003101-002  
**Sample Matrix:** Water

**Date Collected:** 06/16/20**Date Received:** 06/16/20

**Analysis Method**  
SM 9223 B

**Extracted/Digested By**

**Analyzed By**  
ASOTO

**Sample Name:** G5NE004  
**Lab Code:** J2003101-003  
**Sample Matrix:** Water

**Date Collected:** 06/16/20**Date Received:** 06/16/20

**Analysis Method**  
ASTM D6503-99  
SM 9222 D

**Extracted/Digested By**

**Analyzed By**  
ASOTO  
ASOTO

**Sample Name:** G5NE0589  
**Lab Code:** J2003101-004  
**Sample Matrix:** Water

**Date Collected:** 06/16/20**Date Received:** 06/16/20

**Analysis Method**  
ASTM D6503-99  
SM 9222 D

**Extracted/Digested By**

**Analyzed By**  
ASOTO  
ASOTO

**ALS Group USA, Corp.**

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Analyst Summary report

**Client:** Florida Department of Environmental Protection (DEP)  
**Project:** Moses Creek/RQ-2020-04-06-53

**Service Request:** J2003101

**Sample Name:** 27010050  
**Lab Code:** J2003101-005  
**Sample Matrix:** Water

**Date Collected:** 06/16/20  
**Date Received:** 06/16/20

**Analysis Method**  
SM 9223 B

**Extracted/Digested By**

**Analyzed By**  
ASOTO



## Sample Results

**ALS Environmental—Jacksonville Laboratory**  
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## Microbiology

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Analytical Report

**Client:** Florida Department of Environmental Protection (DEP)  
**Project:** Moses Creek/RQ-2020-04-06-53  
**Sample Matrix:** Water  
**Sample Name:** G5NE004  
**Lab Code:** J2003101-003

**Service Request:** J2003101  
**Date Collected:** 06/16/20 11:00  
**Date Received:** 06/16/20 12:45

**Basis:** NA

General Chemistry Parameters

| Analyte Name    | Analysis Method | Result | Units     | MRL | Dil. | Date Analyzed  | Q |
|-----------------|-----------------|--------|-----------|-----|------|----------------|---|
| Coliform, Fecal | SM 9222 D       | 140 B  | CFU/100mL | 1.6 | 1.6  | 06/16/20 16:16 |   |
| Enterococcus    | ASTM D6503-99   | 631    | MPN/100mL | 10  | 10   | 06/16/20 15:57 |   |

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Analytical Report

**Client:** Florida Department of Environmental Protection (DEP)  
**Project:** Moses Creek/RQ-2020-04-06-53  
**Sample Matrix:** Water  
**Sample Name:** G5NE0589  
**Lab Code:** J2003101-004

**Service Request:** J2003101  
**Date Collected:** 06/16/20 11:25  
**Date Received:** 06/16/20 12:45  
**Basis:** NA

General Chemistry Parameters

| Analyte Name    | Analysis Method | Result | Units     | MRL | Dil. | Date Analyzed  | Q |
|-----------------|-----------------|--------|-----------|-----|------|----------------|---|
| Coliform, Fecal | SM 9222 D       | 150 B  | CFU/100mL | 1.6 | 1.6  | 06/16/20 16:16 |   |
| Enterococcus    | ASTM D6503-99   | 714    | MPN/100mL | 10  | 10   | 06/16/20 15:57 |   |

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Analytical Report

**Client:** Florida Department of Environmental Protection (DEP)  
**Project:** Moses Creek/RQ-2020-04-06-53  
**Sample Matrix:** Water  
**Sample Name:** G5NE0026  
**Lab Code:** J2003101-001

**Service Request:** J2003101  
**Date Collected:** 06/16/20 09:35  
**Date Received:** 06/16/20 12:45  
**Basis:** NA

General Chemistry Parameters

| Analyte Name     | Analysis Method | Result | Units     | MRL | Dil. | Date Analyzed  | Q |
|------------------|-----------------|--------|-----------|-----|------|----------------|---|
| Escherichia coli | SM 9223 B       | 20.1   | MPN/100mL | 1.0 | 1    | 06/16/20 15:47 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** Florida Department of Environmental Protection (DEP)  
**Project:** Moses Creek/RQ-2020-04-06-53  
**Sample Matrix:** Water  
**Sample Name:** 27010079  
**Lab Code:** J2003101-002

**Service Request:** J2003101  
**Date Collected:** 06/16/20 10:15  
**Date Received:** 06/16/20 12:45  
**Basis:** NA

General Chemistry Parameters

| Analyte Name     | Analysis Method | Result | Units     | MRL | Dil. | Date Analyzed  | Q |
|------------------|-----------------|--------|-----------|-----|------|----------------|---|
| Escherichia coli | SM 9223 B       | 166    | MPN/100mL | 1.0 | 1    | 06/16/20 15:47 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** Florida Department of Environmental Protection (DEP)  
**Project:** Moses Creek/RQ-2020-04-06-53  
**Sample Matrix:** Water  
**Sample Name:** 27010050  
**Lab Code:** J2003101-005

**Service Request:** J2003101  
**Date Collected:** 06/16/20 12:00  
**Date Received:** 06/16/20 12:45  
**Basis:** NA

General Chemistry Parameters

| Analyte Name     | Analysis Method | Result | Units     | MRL | Dil. | Date Analyzed  | Q |
|------------------|-----------------|--------|-----------|-----|------|----------------|---|
| Escherichia coli | SM 9223 B       | 285    | MPN/100mL | 1.0 | 1    | 06/16/20 15:47 |   |



## QC Summary Forms

**ALS Environmental - Jacksonville Laboratory**  
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## Microbiology

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Analytical Report

**Client:** Florida Department of Environmental Protection (DEP)  
**Project:** Moses Creek/RQ-2020-04-06-53  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** J2003101-MB

**Service Request:** J2003101  
**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    | 06/16/20 16:16 |   |
| Enterococcus     | ASTM D6503-99   | 1.0 U  | MPN/100mL | 1.0 | 1    | 06/16/20 15:57 |   |
| Escherichia coli | SM 9223 B       | 1.0 U  | MPN/100mL | 1.0 | 1    | 06/16/20 15:47 |   |