

Date of Request: 30-JUL-2018  
 Created By: MUSSON\_C On: 30-JUL-2018  
 Modified By: MUSSON\_C On: 30-JUL-2018  
 Customer: WAS-SECT  
 Project: SMP  
 Division:  
 District:  
 Sampling Event: Little R., Black C., Wards C., Caney C.

**Send Coolers To:**

Phone: 850-245-8453  
 2600 Blair Stone Rd

Tallahassee, FL 32399  
 Attn: Curtis Musson

Program Module Number:  
 Priority: 3  
 Event Status: P  
 Criminal Investigation: NO  
 Chemistry Request Reviewed By:  
 Biology Request Reviewed By:  
 Sampling Kit Required: YES Ship on: 20-AUG-2018  
 Sampling Kit Shipped:  
 Sampling Kit Packed By:  
 Preservatives Needed: NO  
 Date to Receive Samples: 05-SEP-2018  
 Received By:

**Send Final Report To:**

2600 Blair Stone Rd

Tallahassee, FL 32399  
 Attn: Curtis Musson

Report Type: Final Only  
 FTP Data: NO  
 QC Report: YES  
 Date Log: NO  
 Authorization Log: NO

Comments: Group A: Nutrients, Metals, E. coli  
 Group B: Tracers, PCR-BacR, PCR-HF183  
 Group C: QC Blank: Nutrients, Metals, E. coli, Tracers  
 Group D: QC DUP: Nutrients, Metals, E. coli, Tracers, PCR-BacR, PCR-HF183  
 Packing Notes:  
 No FedEx Labels  
 No Trash Bags

**Bottle Group A (Water) With 4 Samples:**

| Bottle Type:                                                                          | Number of Bottles: | Preserved With:                                                                                                                                |
|---------------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| ALKALINITY<br>Total Alkalinity                                                        | Template: DEFAULT  | (SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO <sub>3</sub> /L                                                                       |
| CHLSUITE-W<br>Chlorophyll-a, Corrected<br>Chlorophyll-a, Uncorrected<br>Phaeophytin-a | Template: DEFAULT  | (SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry                                   |
| ECOLI-18QT<br>Escherichia Coli-Quanti-Tray                                            | Template: DEFAULT  | (SM 9223 Quanti-Tray) Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems                                       |
| TURBIDITY<br>Turbidity                                                                | Template: DEFAULT  | (EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices                                                                                             |
| W-CL-IC<br>Chloride                                                                   | Template: DEFAULT  | (EPA 300.0 Rev. 2.1) Chloride in aqueous matrices                                                                                              |
| W-COLOR<br>Color (true)                                                               | Template: DEFAULT  | (SM 2120 B) True Color measured at 450 nm                                                                                                      |
| W-F<br>Fluoride                                                                       | Template: DEFAULT  | (SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)                                           |
| W-ICP<br>Calcium                                                                      | Template:          | (EPA 200.7 Rev. 4.4) Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects |

**Bottle Group A (Water) With 4 Samples:**

| Bottle Type:      | Number of Bottles: | Preserved With:                                                                                                                                |
|-------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| W-ICP             | Template:          | (EPA 200.7 Rev. 4.4) Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects |
| Chromium          |                    |                                                                                                                                                |
| Iron              |                    |                                                                                                                                                |
| Magnesium         |                    |                                                                                                                                                |
| Nickel            |                    |                                                                                                                                                |
| Potassium         |                    |                                                                                                                                                |
| Sodium            |                    |                                                                                                                                                |
| Zinc              |                    |                                                                                                                                                |
| W-ICPMS           | Template:          | (EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects                    |
| Arsenic           |                    |                                                                                                                                                |
| Cadmium           |                    |                                                                                                                                                |
| Copper            |                    |                                                                                                                                                |
| Lead              |                    |                                                                                                                                                |
| Silver            |                    |                                                                                                                                                |
| W-NH3             | Template: DEFAULT  | (EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L                                                                                     |
| Ammonia-N         |                    |                                                                                                                                                |
| W-NO2NO3          | Template: DEFAULT  | (EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L                                                                             |
| NO2NO3-N          |                    |                                                                                                                                                |
| W-PO4-F           | Template: DEFAULT  | (EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L                                                       |
| O-Phosphate-P     |                    |                                                                                                                                                |
| W-S-A-TP          | Template: DEFAULT  | (EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L                                                                            |
| Total-P           |                    |                                                                                                                                                |
| W-SO4-IC          | Template: DEFAULT  | (EPA 300.0 Rev. 2.1) Sulfate in aqueous matrices                                                                                               |
| Sulfate           |                    |                                                                                                                                                |
| W-TDS             | Template: DEFAULT  | (SM 2540 C-97) Total Dissolved Solids in aqueous matrices                                                                                      |
| TDS               |                    |                                                                                                                                                |
| W-TKN             | Template: DEFAULT  | (EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices                                                                               |
| Kjeldahl Nitrogen |                    |                                                                                                                                                |
| W-TOC             | Template: DEFAULT  | (SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices                                                                                 |
| Organic Carbon    |                    |                                                                                                                                                |
| W-TSS             | Template: DEFAULT  | (SM 2540 D-97) Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample                                                  |
| TSS               |                    |                                                                                                                                                |

**Bottle Group B (Water) With 1 Samples:**

| Bottle Type:    | Number of Bottles: | Preserved With:                                                                                                                               |
|-----------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| PCR-BACR        | Template: DEFAULT  | (SOP-PCR-1.4) Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction |
| *BacR-qPCR      |                    |                                                                                                                                               |
| PCR-HF183       | Template: DEFAULT  | (SOP-PCR-1.0) Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction     |
| *HF183-qPCR     |                    |                                                                                                                                               |
| W-E8321-DI      | Template:          | (EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS                                                       |
| *Acesulfame K   |                    |                                                                                                                                               |
| *Sucralose      |                    |                                                                                                                                               |
| W-E8321-MS      | Template: DEFAULT  | (EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS                                                       |
| *Acetaminophen  |                    |                                                                                                                                               |
| *Carbamazepine  |                    |                                                                                                                                               |
| *Fluridone      |                    |                                                                                                                                               |
| *Hydrocodone    |                    |                                                                                                                                               |
| *Ibuprofen      |                    |                                                                                                                                               |
| *Imazapyr       |                    |                                                                                                                                               |
| *Naproxen       |                    |                                                                                                                                               |
| *Primidone      |                    |                                                                                                                                               |
| *Pyraclostrobin |                    |                                                                                                                                               |
| *Triclopyr      |                    |                                                                                                                                               |
| 2,4-D           |                    |                                                                                                                                               |
| Bentazon        |                    |                                                                                                                                               |
| Diuron          |                    |                                                                                                                                               |

**Bottle Group B (Water) With 1 Samples:**

| Bottle Type:                                            | Number of Bottles: | Preserved With:                                                                         |
|---------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------|
| W-E8321-MS<br>Fenuron<br>Imidacloprid<br>Linuron<br>MCP | Template: DEFAULT  | (EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS |

**Bottle Group C (Water) With 1 Samples:**

| Bottle Type:                                                                                                                                                                                                                                    | Number of Bottles: | Preserved With:                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| ALKALINITY<br>Total Alkalinity                                                                                                                                                                                                                  | Template: DEFAULT  | (SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO <sub>3</sub> /L                                                                       |
| CHLSUITE-W<br><br>Chlorophyll-a, Corrected<br>Chlorophyll-a, Uncorrected<br>Phaeophytin-a                                                                                                                                                       | Template: DEFAULT  | (SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry                                   |
| ECOLI-18QT<br><br>Escherichia Coli-Quanti-Tray                                                                                                                                                                                                  | Template: DEFAULT  | (SM 9223 Quanti-Tray) Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems                                       |
| TURBIDITY<br>Turbidity                                                                                                                                                                                                                          | Template: DEFAULT  | (EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices                                                                                             |
| W-CL-IC<br>Chloride                                                                                                                                                                                                                             | Template: DEFAULT  | (EPA 300.0 Rev. 2.1) Chloride in aqueous matrices                                                                                              |
| W-COLOR<br>Color (true)                                                                                                                                                                                                                         | Template: DEFAULT  | (SM 2120 B) True Color measured at 450 nm                                                                                                      |
| W-E8321-DI<br>*Acesulfame K<br>*Sucralose                                                                                                                                                                                                       | Template:          | (EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS                                                        |
| W-E8321-MS<br>*Acetaminophen<br>*Carbamazepine<br>*Fluridone<br>*Hydrocodone<br>*Ibuprofen<br>*Imazapyr<br>*Naproxen<br>*Primidone<br>*Pyraclostrobin<br>*Triclopyr<br>2,4-D<br>Bentazon<br>Diuron<br>Fenuron<br>Imidacloprid<br>Linuron<br>MCP | Template: DEFAULT  | (EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS                                                        |
| W-F<br><br>Fluoride                                                                                                                                                                                                                             | Template: DEFAULT  | (SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)                                           |
| W-ICP<br><br>Calcium<br>Chromium<br>Iron<br>Magnesium<br>Nickel<br>Potassium<br>Sodium<br>Zinc                                                                                                                                                  | Template:          | (EPA 200.7 Rev. 4.4) Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects |
| W-ICPMS<br><br>Arsenic                                                                                                                                                                                                                          | Template:          | (EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects                    |

**Bottle Group C (Water) With 1 Samples:**

| Bottle Type:      | Number of Bottles: | Preserved With:                                                                                                             |
|-------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------|
| W-ICPMS           | Template:          | (EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects |
| Cadmium           |                    |                                                                                                                             |
| Copper            |                    |                                                                                                                             |
| Lead              |                    |                                                                                                                             |
| Silver            |                    |                                                                                                                             |
| W-NH3             | Template: DEFAULT  | (EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L                                                                  |
| Ammonia-N         |                    |                                                                                                                             |
| W-NO2NO3          | Template: DEFAULT  | (EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L                                                          |
| NO2NO3-N          |                    |                                                                                                                             |
| W-PO4-F           | Template: DEFAULT  | (EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L                                    |
| O-Phosphate-P     |                    |                                                                                                                             |
| W-S-A-TP          | Template: DEFAULT  | (EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L                                                         |
| Total-P           |                    |                                                                                                                             |
| W-SO4-IC          | Template: DEFAULT  | (EPA 300.0 Rev. 2.1) Sulfate in aqueous matrices                                                                            |
| Sulfate           |                    |                                                                                                                             |
| W-TDS             | Template: DEFAULT  | (SM 2540 C-97) Total Dissolved Solids in aqueous matrices                                                                   |
| TDS               |                    |                                                                                                                             |
| W-TKN             | Template: DEFAULT  | (EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices                                                            |
| Kjeldahl Nitrogen |                    |                                                                                                                             |
| W-TOC             | Template: DEFAULT  | (SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices                                                              |
| Organic Carbon    |                    |                                                                                                                             |
| W-TSS             | Template: DEFAULT  | (SM 2540 D-97) Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample                               |
| TSS               |                    |                                                                                                                             |

**Bottle Group D (Water) With 1 Samples:**

| Bottle Type:                 | Number of Bottles: | Preserved With:                                                                                                                               |
|------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| ALKALINITY                   | Template: DEFAULT  | (SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO3/L                                                                                   |
| Total Alkalinity             |                    |                                                                                                                                               |
| CHLSUITE-W                   | Template: DEFAULT  | (SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry                                  |
| Chlorophyll-a, Corrected     |                    |                                                                                                                                               |
| Chlorophyll-a, Uncorrected   |                    |                                                                                                                                               |
| Phaeophytin-a                |                    |                                                                                                                                               |
| ECOLI-18QT                   | Template: DEFAULT  | (SM 9223 Quanti-Tray) Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems                                      |
| Escherichia Coli-Quanti-Tray |                    |                                                                                                                                               |
| PCR-BACR                     | Template: DEFAULT  | (SOP-PCR-1.4) Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction |
| *BacR-qPCR                   |                    |                                                                                                                                               |
| PCR-HF183                    | Template: DEFAULT  | (SOP-PCR-1.0) Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction     |
| *HF183-qPCR                  |                    |                                                                                                                                               |
| TURBIDITY                    | Template: DEFAULT  | (EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices                                                                                            |
| Turbidity                    |                    |                                                                                                                                               |
| W-CL-IC                      | Template: DEFAULT  | (EPA 300.0 Rev. 2.1) Chloride in aqueous matrices                                                                                             |
| Chloride                     |                    |                                                                                                                                               |
| W-COLOR                      | Template: DEFAULT  | (SM 2120 B) True Color measured at 450 nm                                                                                                     |
| Color (true)                 |                    |                                                                                                                                               |
| W-E8321-DI                   | Template:          | (EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS                                                       |
| *Acesulfame K                |                    |                                                                                                                                               |
| *Sucralose                   |                    |                                                                                                                                               |
| W-E8321-MS                   | Template: DEFAULT  | (EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS                                                       |
| *Acetaminophen               |                    |                                                                                                                                               |
| *Carbamazepine               |                    |                                                                                                                                               |
| *Fluridone                   |                    |                                                                                                                                               |
| *Hydrocodone                 |                    |                                                                                                                                               |
| *Ibuprofen                   |                    |                                                                                                                                               |
| *Imazapyr                    |                    |                                                                                                                                               |
| *Naproxen                    |                    |                                                                                                                                               |

**Bottle Group D (Water) With 1 Samples:**

| Bottle Type:      | Number of Bottles: | Preserved With:                                                                                                                                |
|-------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| W-E8321-MS        | Template: DEFAULT  | (EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS                                                        |
| *Primidone        |                    |                                                                                                                                                |
| *Pyraclostrobin   |                    |                                                                                                                                                |
| *Triclopyr        |                    |                                                                                                                                                |
| 2,4-D             |                    |                                                                                                                                                |
| Bentazon          |                    |                                                                                                                                                |
| Diuron            |                    |                                                                                                                                                |
| Fenuron           |                    |                                                                                                                                                |
| Imidacloprid      |                    |                                                                                                                                                |
| Linuron           |                    |                                                                                                                                                |
| MCPP              |                    |                                                                                                                                                |
| W-F               | Template: DEFAULT  | (SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)                                           |
| Fluoride          |                    |                                                                                                                                                |
| W-ICP             | Template:          | (EPA 200.7 Rev. 4.4) Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects |
| Calcium           |                    |                                                                                                                                                |
| Chromium          |                    |                                                                                                                                                |
| Iron              |                    |                                                                                                                                                |
| Magnesium         |                    |                                                                                                                                                |
| Nickel            |                    |                                                                                                                                                |
| Potassium         |                    |                                                                                                                                                |
| Sodium            |                    |                                                                                                                                                |
| Zinc              |                    |                                                                                                                                                |
| W-ICPMS           | Template:          | (EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects                    |
| Arsenic           |                    |                                                                                                                                                |
| Cadmium           |                    |                                                                                                                                                |
| Copper            |                    |                                                                                                                                                |
| Lead              |                    |                                                                                                                                                |
| Silver            |                    |                                                                                                                                                |
| W-NH3             | Template: DEFAULT  | (EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L                                                                                     |
| Ammonia-N         |                    |                                                                                                                                                |
| W-NO2NO3          | Template: DEFAULT  | (EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L                                                                             |
| NO2NO3-N          |                    |                                                                                                                                                |
| W-PO4-F           | Template: DEFAULT  | (EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L                                                       |
| O-Phosphate-P     |                    |                                                                                                                                                |
| W-S-A-TP          | Template: DEFAULT  | (EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L                                                                            |
| Total-P           |                    |                                                                                                                                                |
| W-SO4-IC          | Template: DEFAULT  | (EPA 300.0 Rev. 2.1) Sulfate in aqueous matrices                                                                                               |
| Sulfate           |                    |                                                                                                                                                |
| W-TDS             | Template: DEFAULT  | (SM 2540 C-97) Total Dissolved Solids in aqueous matrices                                                                                      |
| TDS               |                    |                                                                                                                                                |
| W-TKN             | Template: DEFAULT  | (EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices                                                                               |
| Kjeldahl Nitrogen |                    |                                                                                                                                                |
| W-TOC             | Template: DEFAULT  | (SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices                                                                                 |
| Organic Carbon    |                    |                                                                                                                                                |
| W-TSS             | Template: DEFAULT  | (SM 2540 D-97) Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample                                                  |
| TSS               |                    |                                                                                                                                                |

\* - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.