

McCoy, Ian

From: Appleby, Kimberly
Sent: Wednesday, January 5, 2022 10:35 AM
To: McCoy, Ian
Cc: Davis, Brian G.; Villinger, Katrin
Subject: RE: COC for RQ-2022-01-03-20
Attachments: RQ-2022-01-03-20_01042022_edit.pdf

Good morning,

Yes the two MI-FW-QLDC jugs are good to be logged in. Thank you for catching that. Attached is the edited paperwork with those two bottles now included, in case you need it.

Thank you,
Kim

From: McCoy, Ian
Sent: Wednesday, January 5, 2022 9:58 AM
To: Davis, Brian G. <Brian.G.Davis@FloridaDEP.gov>
Cc: Appleby, Kimberly <Kimberly.Appleby@FloridaDEP.gov>; Villinger, Katrin <Katrin.Villinger@FloridaDEP.gov>
Subject: RE: COC for RQ-2022-01-03-20

Good morning, looking over the paperwork, I see one of the samples was left off. I can add it no problem but I wanted to have a paper trail before I make edits.

Just to confirm, the two MI-FW-QLDC jugs received for site "Big Davis Creek S fork @ US 1/20030356" are good to login?

Ian McCoy
Florida DEP Receiving
Lab Support Staff
Phone - 850-245-8062

From: Davis, Brian G. <Brian.G.Davis@FloridaDEP.gov>
Sent: Tuesday, January 4, 2022 5:02 PM
To: Lab.Receiving <Lab.Receiving@floridadep.gov>
Cc: Appleby, Kimberly <Kimberly.Appleby@FloridaDEP.gov>; Villinger, Katrin <Katrin.Villinger@FloridaDEP.gov>
Subject: COC for RQ-2022-01-03-20

COC for RQ-2022-01-03-20 is attached.

I accidently rubbed ketchup in my eyes.

Now I have Heinzsight!

**Brian G Davis**

Florida Department of Environmental
Protection

Division of Environmental Assessment
and Restoration

Environmental Specialist II

Northeast Regional Operating Center

Brian.G.Davis@FloridaDEP.gov

Office: 904-256-1568

RQ- 2022-01-03-20

Login Checklist

Login Station ID: #2

Shipping Method: FedEx | UPS | HD | Greyhound

Date/Time of Receipt: 1/5/2022 9:05

*Cooler Temperature	Samples Frozen?	* All Samples in Cooler Preserved with		Number of Sample Containers in Cooler	Evidence Tape				Waybill Tracking #
					Present?		*Intact?		
	YES	HNO ₃	Formalin		Yes	No	Yes	No	
1.4 0.9				10		✓			55 5225 5540 1142 5225 5542 5257
						✓			

COOLER CHECK

*All samples received on ice unless otherwise noted. HNO₃ and Formalin preserved samples do NOT have a temperature requirement.

- If the temperature of a cooler exceeds 6.0 oC (above 10.0 oC for W-1-4-DIOX and microbiology) or received without ice, identify affected samples in an NCR. NCR# _____
- DOH coolers can exceed 2.0 °C above the standard temperature (6.0 or 10.0 °C for W-1-4-DIOX) without login confirmation from customer for samples requiring ice preservation; identify affected samples in an NCR. NCR# _____
- If cooler or samples are received with a damaged Evidence Seal; identify the affected samples in an NCR. NCR# _____
- If coolers or samples are received late; identify the affected samples in an NCR. NCR# _____

Chain of Custody/ Field Sheet(s) Included?

Yes ☒ No ☐

Micro-Biology Overflow Chain of Custody/ Field Sheet(s) Included?

Yes ☐ No ☒

CONTAINER CHECK

Evidence Tape on Bottles?

Yes ☐ No ☐ NA ☒

Evidence Tape intact?

Yes ☐ No ☐

If Criminal, photographs taken?

Yes ☐ No ☐

Containers intact?

Yes ☒ No ☐

Caps on tight?

Yes ☒ No ☐

Sufficient Sample Volume:

Yes ☒ No ☐If NO is checked above, generate an NCR listing affected sample IDs in its appropriate category. NCR# _____

CHLORINE CHECK REQUIRED? (Blue dot on container)

Yes ☒ No ☒

Init: IM

IM 1/5/22

Chlorine detected? (One container checked per Field ID)

Yes ☐ No ☒

Init: IM

IM

If chlorine is detected, generate an NCR listing affected sample IDs . NCR# _____

PRESERVATION CHECK (EXCLUDING SAMPLES SENT TO OVERFLOW LABS, "OV-")

**Acid Preserved Samples: pH < 2.0?

Yes ☒ No ☐ NA ☐

Init: IM

**W-1-4-DIOX (Green dot on container) preserved to pH < 4.0?

Yes ☐ No ☒ NA ☐

Init: IM

If samples were not preserved correctly, generate an NCR listing affected sample IDs . NCR# _____

Coolers Unpacked/Checked by: IM

Date: 1/5/2022

Event contains NCRs (Y/N)? ☒

Event ID:

SCI's wbid 2323, 2549

NE-DIST-2022-01-05-01 (SMP)

Date Received: 05-JAN-2022 09:05

Login Checklist

Login Preservation Equipment

Lot # & Exp: Date

Additional Comments:

Infrared Thermometer ID:	IR TEMP GUN #2 exp:10/19/22
pH Test Strips 0 – 6	
pH Paper 0 – 3	
pH Paper 0 – 13	207621 exp: 3/15/24
Chlorine Test Strips	9281 exp: 08/2022

ENCORE SAMPLES

S-VOC-MS samples in Encores must be frozen within 48 hours of collection.

Were Encore samples received? Yes _____ Init: _____

Date and time placed in freezer _____

Were all samples placed in freezer within 48 hours of collection? Yes _____ No _____

If no, were samples shipped on dry ice? Yes _____ No _____

If S-VOC-MS samples were not preserved correctly, generate an NCR listing affected sample IDs . NCR# _____

FOR CLEAN LAB USE ONLY – Total Mercury Preservation Check(W-HG-AF;W-HG-AF-F):

Samples preserved within 48 hours? Yes _____ No _____

Date and time samples preserved: _____

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHAIN OF CUSTODY FORM

Date: 1/4/2022 **Collected By:** Kimberly Appleby, Katrin Villinger
Customer: NE-DIST **Sampling Agency:** FDEP
RQ: RQ-2021-01-03-20 **Project ID:** SMP

PLEASE RETURN THE ORIGINAL OF THIS FORM WITH SAMPLE SUBMITTAL
FORMS AND THE COOLER PACKING WORKSHEET TO THE LAB

Number of Coolers Shipped: 2

Delivery Method: FedEx

FIELD ID (Labels) submitted under this RQ for this collection date.

Site Location	Field ID/WIN ID
BIG DAVIS Creek, S.Fork @ US 1	 20030356

RELINQUISHED BY (SIGNATURE):

Katrin Villinger

DATE/TIME: 1/4/2022
1600EST

THIS SECTION TO BE COMPLETED BY LABORATORY

Rec'd/Inspected By:

IM

Rec'd/Inspected Date:

1/5/22

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there are qualified data on this page

Meter ID: 54.126

RQ: 2022-01-03-20

Project: SMP Big Dams

Creek SCI

- Notes: (1) Always wait for meter to stabilize before recording any readings.
 (2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).
 (3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 11/10/21

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro-meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	<u>K m Appleby</u>	<u>1/4/22</u>	<u>831</u>	<u>21.2</u>	<u>768.2</u>	<u>9.0</u>	<u>-</u>	<u>101.6</u>	<u>-</u>	<u>1.022</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>↓</u>	<u>↓</u>	<u>833</u>	<u>21.2</u>	<u>768.2</u>	<u>9.0</u>	<u>8.99</u>	<u>101.2</u>	<u>-</u>	<u>1.022</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>↓</u>	<u>↓</u>	<u>1625</u>	<u>24.3</u>	<u>766.2</u>	<u>8.4</u>	<u>8.413</u>	<u>100.6</u>	<u>-</u>	<u>1.022</u>	<u>P/F</u>	<u>L/F</u>
CCV											<u>P/F</u>	<u>L/F</u>

DO Acceptance criteria from Table ± 0.3 mg/L Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.
 Optical: DO gain range 0.85 to 1.15 (Pro DSS 0.75 to 1.50); DO charge N/A. Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	<u>K m Appleby</u>	<u>1/4/22</u>	<u>840</u>	<u>210917B</u>	<u>9/2022</u>	<u>1000</u>	<u>1000</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>↓</u>	<u>↓</u>	<u>841</u>	<u>210426A</u>	<u>5/2022</u>	<u>100</u>	<u>102.8</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>↓</u>	<u>↓</u>	<u>1139</u>	<u>211122B</u>	<u>12/2022</u>	<u>1413</u>	<u>1398</u>	<u>P/F</u>	<u>L/F</u>
CCV								<u>P/F</u>	<u>L/F</u>

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	<u>K m Appleby</u>	<u>1/4/22</u>	<u>849</u>	<u>2109M2S</u>	<u>9/2023</u>	<u>7.01</u>	<u>22.0</u>	<u>7.01</u>	<u>-34.0</u>	<u>P/F</u>	<u>L/F</u>
Calibr.	<u>↓</u>	<u>↓</u>	<u>850</u>	<u>2107FS1</u>	<u>8/2023</u>	<u>4.00</u>	<u>22.1</u>	<u>4.00</u>	<u>143.9</u>	<u>P/F</u>	<u>L/F</u>
Calibr.	<u>↓</u>	<u>↓</u>	<u>852</u>	<u>2108H37</u>	<u>2/2023</u>	<u>10.03</u>	<u>22.2</u>	<u>10.03</u>	<u>-36.1</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>↓</u>	<u>↓</u>	<u>854</u>	<u>2108FS1</u>	<u>8/2023</u>	<u>4.00</u>	<u>22.3</u>	<u>4.03</u>	<u>143.0</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>↓</u>	<u>↓</u>	<u>1641</u>	<u>2109M2S</u>	<u>9/2023</u>	<u>7.01</u>	<u>22.9</u>	<u>7.06</u>	<u>-36.6</u>	<u>P/F</u>	<u>L/F</u>
CCV										<u>P/F</u>	<u>L/F</u>

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ; mV pH 4 Range $+180 \pm 50$; mV pH 10 Range -180 ± 50 ;
 If mV are recorded: slope from 7 to 10 172.1, slope from 4 to 7 177.9 (both must be between 165 and 180 mV)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: 11/10/21

If NO, what will be used? Secchi Disk Line / Sonar Unique ID: _____; Date of last verification: _____

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value, meters	Pass / Fail	Lab / Field
Pressure mode in air	<u>K m Appleby</u>	<u>1/4/22</u>	<u>855</u>	<u>0.00</u>	<u>0.00</u>	<u>P/F</u>	<u>L/F</u>

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS:



RQ-2021-01-03-20

Customer: WQAP

Project ID: SMP

Collected By: Kimberly Appleby, Katrin Villinger

Field Report Prepared By: Kimberly Appleby

Sampling Agency: FDEP

Place Label Here						Comments:				
WIN ID/Field ID:  20030356										
Location: BIG DAVIS Creek, S.Fork @ US 1										
Matrix: Fresh						(Check one) ☒ GRAB ☐ COMPOSITE				
Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPT)
1/4/2022	1040 EST	8.06	78.7	14.3	6.93	0.3	0.56 ☒ VOB (S)	0.56	208.9	0.1
	EST									
Parameter Suite		Parameter Methods				Preservation		pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				☒ Ice ☒ H2SO4*		☒ <2	1	A
		Lot #	SA1105060		Exp:	04/30/22				
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☒ HNO3*		☒ <2	1	A
		Lot #	NA1105100		Exp:	06/07/22				
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A
		Filter Lot #	R1EB01329							
		Syringe Lot #								
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	A
Physical/Aggregate (Fresh) (P-1L)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CHC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice			1	A
Physical/Aggregate (Marine) (P-1L)		☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY				☐ Ice				
Macroinvertebrates (PJ-2L)		☒ MI-FW-QLDC	Formalin Lot #	928091819TK, 10303102020CS		☒ Formalin			2	B
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice				
Microbiology (Contract Lab Bottle)		☒ E Coli ☐ F Coli ☐ Enterococci				☒ Ice			1	A
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD				☐ Ice				
Tracers (BG-500ML)		☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice				
Pesticides (BG-500ML) (BG-1L)		☒ W-E8321-DI	☒ WE8321-MS	W-PSNP-TQ		☒ W-CT-CL-R	☒ Ice		4	A
Phytoplankton/Periphyton		W-PCL-TQ-R				DTY-QN-C PKD-QN-BV		☐ Ice		
Name: Kimberly Appleby Katrin Villinger						Signature: 			Date: 01/04/2022	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

Updated Form

-EM 1/5/22



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PLAN FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: BIG DAVIS Creek, S.Fork @ US 1 Date: 1/4/2022

WIN/Field ID: 20030356 WBID: 2356 ENR: Latitude: 30.151822

County: Duval Org ID: 21FLA Longitude: -81.524612

Receiving Body of Water: Julington Creek RQ: 2021-01-03-20

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Kimberly Appleby	☒	☒			
☒	Katrin Villinger			☒		
☒	Brian Davis				☒	☒
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☐ Syringe	☐ Pole
Depth measured with: Meter	
Secchi Equipment ID:	
Collection Method	
☒ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☐ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded		Meter ID# STITCH	
Photos: YES	Flow: FLOW	Tide:	Tide Times: High: Low:
Biological Samples Collected: ☐ None ☒ HA ☒ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:			
SBIO ID Numbers:			
Notes: PARTLY CLOUDY			

Duplicate Sample	
Time Zone: EST	Time: Field ID: (WIN ID_DUP)
WIN DMT Activity ID:	

Blank	
Time Zone: Time: Field ID: (Blank Type_DDMMYYYY)	
DI Source: Location:	
DI Type: Equipment ID:	
DI Container (Name/ID):	DI Container Type:

LIMS EVENT ID: WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: (Initials/Date) QC Station ID, Field Parameters In LIMS DMT: (Initials/Date)

Scan/Save Field Sheets BD 01/04/2022 Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)

Updated form 1/5/22
IM

Downstream

4m

$R=1.0$
 $L=0.5$
 $S=0.3$
 $L=0.5$
 $R=2.0$
 $S=0.3$
 $L=0.05$
 $S=1.5$
 $R=0.6$
 $L=0.3$
 $S=0.3$
 $R=1.2$
 $L=0.2$
 $R=1.8$
 $L=0.2$
 $S=1.5$
 $R=3.0$
 $S=1.8$
 $S=4.5$
 $R=1.0$
 $L=0.0$

100 m: Latitude _____ Longitude _____

0 m: Latitude _____ Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

<u>S</u>	Snags	<u>3.0</u>
<u>R</u>	Roots/undercut banks	<u>3.5</u>
<u>L</u>	Leaf Packs (or mats)	<u>0.8</u>
<u> </u>	Aquatic Macrophytes	_____
<u> </u>	_____	_____
<u> </u>	_____	_____
<u>P</u>	Pools	total # observed = <u>3</u> # range expected = <u>3</u>

Average width 3 m 100m

Average depth 0.5 m

Velocity measured at 0 meter mark.

WQ & chemistry taken at 0 meter mark.

Habitat Smothering:
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

Bank Stability:
Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:
Note areas (on map) where natural vegetation is altered or eliminated.

$$S = 9.1300 - 3\%$$
$$S = 4.5m \quad 0.75m \quad 0.2m$$
$$R = 1.5m \quad R =$$
$$L = 0.1m$$
$$R = 10.1 / 50033\%$$
$$L = 2.5 \text{ m} \quad \sin \alpha = 0.8$$

Revision Date: January 2017

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: <u>NEIROC 21FLA</u>		STORET STATION NUMBER: <u>20050356</u>	DATE (MM/DD/YY): <u>1/4/22</u>	RECEIVING BODY OF WATER: <u>Julia for C</u>
REMARKS:	COUNTY: <u>Duke</u>	LOCATION: <u>S. Fork Big Pine Cr @ US 1</u>	FIELD ID/NAME:	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity <u>12</u>	20 19 18 17 16	15 14 13 <u>12</u> 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>7</u>	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 14 13 12 11	6% to 15% major productive habitat 10 9 8 <u>7</u> 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>13</u>	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 <u>13</u> 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering <u>17</u> Primary Score <u>49</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 <u>17</u> 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 12 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.	Good sinuosity within old channelized area. Evidence of dredging or straightening in the past (>25 yrs) but mostly recovered.	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.
Artificial Channelization <u>14</u>	20 19 18 17 16	15 <u>14</u> 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the woody root zone with raw, eroded areas.
Right Bank <u>8</u> Left Bank <u>8</u>	10 9	<u>8</u> 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank <u>9</u> Left Bank <u>10</u>	<u>10</u> <u>9</u>	8 7 6	5 4	3 2 1
Riparian Zone Vegetation Quality	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank <u>10</u> Left Bank <u>10</u> Secondary Score <u>69</u>	<u>10</u> 9	8 7 6	5 4	3 2 1

118

TOTAL SCORE

Date: <u>1/4/22</u>	Analyst: <u>Brian Davis</u>	Signature: <u>B - D</u>
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DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID _____ ORG ID 21FLA LATITUDE 30.151822
 COUNTY Parrish STORET # 20030356 LONGITUDE -81.524612
 DATE 1/4/22 TIME 1040 SAMPLING AGENCY NEROC
 SITE NAME +0401 Big Pine Creek, S Fork @ US 2
 FIELD ID/NAME _____ RECEIVING BODY OF WATER Tulington Creek

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>25%</u> Silviculture _____ Field/Pasture _____ Agricultural _____ Residential <u>25%</u> Commercial <u>25%</u> Industry <u>25%</u> Other (Specify) _____								Landscape Development Intensity Index (LDI) _____	
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy						Typical Width (m) Depth (m)/Velocity (m/sec) Transect _____ <u>0.17</u> <u>3</u> m wide _____ m/s <u>0.2</u> m/s _____ m/s			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>18</u> Right Bank: <u>>18</u>				Hydrologic Modification Score (per FT 3101) _____				_____ m/s _____ m/s _____ m/s	
High Water Mark: <u>0.5</u> + <u>0.56</u> = <u>1.56</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No				_____ m deep <u>0.5</u> m deep _____ m deep	
Artificially: ☐ No ☒ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe				Canopy Cover % ☐ Open ☐ Lightly Shaded (11-45%) ☒ Heavily Shaded ☐ Moderate Shaded (46-80%)					

SEDIMENT / SUBSTRATE

Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse			Sediment Odors ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☒ Anaerobic ☐ Other (Specify): _____			Smothering of Substrates Sand Smothering: ☒ None ☐ Slight ☐ Moderate ☐ Severe Silt Smothering: ☐ None ☐ Slight ☐ Moderate ☒ Severe Algae Smothering: ☒ None ☐ Slight ☐ Moderate ☐ Severe																																		
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon			WATER QUALITY <table border="1"> <thead> <tr> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top: <u>0.3</u></td> <td><u>14.3</u></td> <td><u>6.75</u></td> <td><u>78.7</u></td> <td><u>806</u></td> <td><u>208.9</u></td> <td><u>0.1</u></td> <td><u>0.56</u></td> </tr> <tr> <td>Mid: _____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>☒ VOB</td> </tr> <tr> <td>Bottom: _____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>TOTAL DEPTH <u>0.56</u></td> </tr> </tbody> </table>						Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top: <u>0.3</u>	<u>14.3</u>	<u>6.75</u>	<u>78.7</u>	<u>806</u>	<u>208.9</u>	<u>0.1</u>	<u>0.56</u>	Mid: _____	_____	_____	_____	_____	_____	_____	☒ VOB	Bottom: _____	_____	_____	_____	_____	_____	_____	TOTAL DEPTH <u>0.56</u>
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ABUNDANCE <table border="1"> <thead> <tr> <th></th> <th>Not Obs.</th> <th>Rare</th> <th>Common</th> <th>Abundant</th> </tr> </thead> <tbody> <tr> <td>Periphyton:</td> <td>☐</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Fish:</td> <td>☒</td> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Aquatic Plants:</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Iron/Sulfur Bacteria:</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </tbody> </table>				Not Obs.	Rare	Common	Abundant	Periphyton:	☐	☒	☐	☐	Fish:	☒	☒	☐	☐	Aquatic Plants:	☒	☐	☐	☐	Iron/Sulfur Bacteria:	☒	☐	☐	☐	System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) _____ AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.												
	Not Obs.	Rare	Common	Abundant																																				
Periphyton:	☐	☒	☐	☐																																				
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Iron/Sulfur Bacteria:	☒	☐	☐	☐																																				

SAMPLING TEAM

Kim Appleby, Brian Davis, Katrina Villinger

SIGNATURE:

B. Davis

DATE:

1/4/22

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Big Davis Cr. S. Fork US 2</u>					County: <u>Truett</u>		Date: <u>1/4/22</u>		Investigators: <u>B. Davis, K. Appleby, K. Villalobos</u>	
Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	
0	1	N			60	1	N			
	2	N				2	N			
	3	N				3	N			
	4	N				4	N			
	5	X		96		5	X		96	
	6	X				6	N			
	7	N				7	N			
	8	N				8	N			
	9	N				9	N			
10	1	N			70	1	N			
	2	N				2	N			
	3	N				3	N			
	4	N				4	N			
	5	N		96		5	N		84	
	6	N				6	N			
	7	N				7	N			
	8	N				8	N			
	9	N				9	N			
20	1	X			80	1	N			
	2	N				2	X			
	3	N				3	N			
	4	N				4	N			
	5	N		X		5	N			
	6	N				6	N			
	7	N				7	N			
	8	N				8	N			
	9	N				9	N			
30	1	N			90	1	X			
	2	N				2	N			
	3	N				3	N			
	4	N				4	N			
	5	N		96		5	N			
	6	N				6	N			
	7	N				7	N			
	8	N				8	N			
	9	N				9	N			
40	1	N			100	1	N			
	2	N				2	N			
	3	N				3	N			
	4	N				4	N			
	5	N		96		5	X			
	6	N				6	N			
	7	N				7	N			
	8	N				8	N			
	9	N				9	N			
50	1	N				1	N			
	2	N				2	N			
	3	N				3	N			
	4	N				4	N			
	5	N		96		5	X			
	6	N				6	N			
	7	N				7	N			
	8	N				8	N			
	9	N				9	N			

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.

Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

STORET Station Number:
20030356

Secchi depth 0.56
Estimated? NO

points ranked 4-6 0
total points assessed 90
% points ranked 4-6 0

Check accompanying data collected at same site/date.

Algal mat sample ☐
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒

RQ-2022-01-08-20

Algal Thickness Rank

N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

DEP FORM FC 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Big Davis Creek Date: 1/4/22 County: Barcl Storet Number: 20010356

Analyst: Barcl Davis, Kim Appleby Signature: B-D

Comments: LM2

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	Meter Mark										Specime n collected (check)	HERBACEOUS SPECIES	Meter Mark										Specime n collected (check)
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100			0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	

Alternanthera philoxeroides												Micranthemum glomeratum											
Bacopa caroliniana												Micranthemum umbrosum											
Bacopa monnieri												Myriophyllum aquaticum											
Bidens mitis												Najas guadelupensis											
Boehmeria cylindrica												Nuphar luteum											
Centella asiatica												Orontium aquaticum											
Ceratophyllum demersum												Panicum hemitomon											
Chara												Panicum repens											
Cicuta maculata												Panicum rigidulum											
Cladium jamaicense												Pistia stratioides											
Colocasia esculenta												Polygonum glabra											
Commelina diffusa												Polygonum hydropiperoides											
Commelina virginica												Polygonum punctatum											
Crinum americanum												Pontederia cordata											
Diodia virginiana												Potamogeton illinoensis											
Eichhornia crassipes												Ruellia simplex											
Eleocharis (wispy viviparous)												Sagittaria striata											
Hydrilla verticillata												Sagittaria kurziana											
Hydrocotyle												Sagittaria lancifolia											
Hygrophila polysperma												Sagittaria latifolia											
Hymenocallis												Salvinia minima											
Lachnanthes caroliniana												Samolus parviflora											
Landoltia punctata												Saururus cernuus											
Lemna												Sparganium americanum											
Limnophila sessiflora												Typha											
Ludwigia leptocarpa												Vallisneria americana											
Ludwigia palustris												Zizania aquatica											
Ludwigia peruviana																							
Ludwigia repens																							
Luziola fluitans																							

If no Dominant or Co-Dominant were selected, indicate with "X"

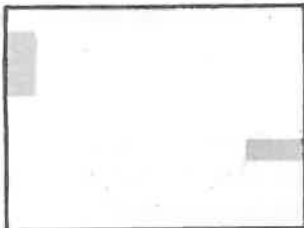
Indicate % cover macrophytes per section

- <5% Macrophyte Coverage
- >5 and ≤10% Macrophyte Coverage
- >10 and ≤25% Macrophyte Coverage
- >25 and ≤50% Macrophyte Coverage
- >50% Macrophyte Coverage

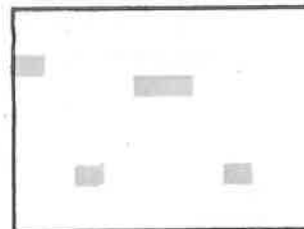
FDEP FORM FD 9000-32 LINEAR VEGETATION SURVEY FIELD SHEET

Percent Cover Categories for macrophytes in a 10 m segment of a stream 5 m wide

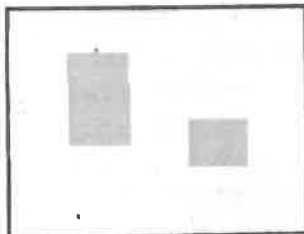
5% Macrophyte Coverage



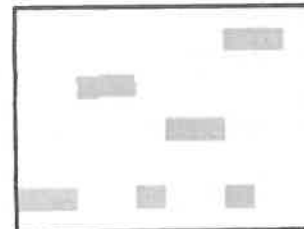
5% Macrophyte Coverage



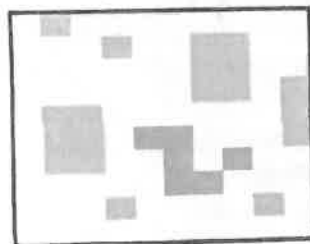
10% Macrophyte Coverage



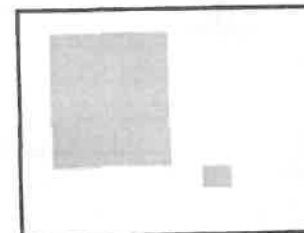
10% Macrophyte Coverage



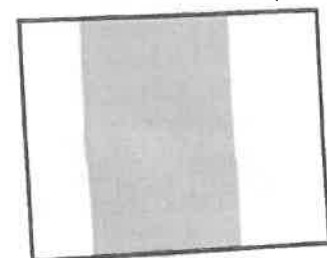
25% Macrophyte Coverage



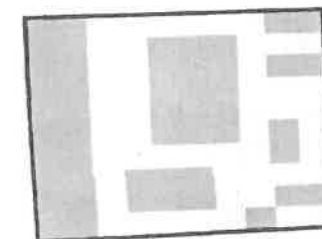
25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage





RQ-2021-01-03-20

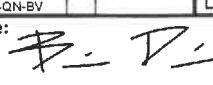
Customer: WQAP

Project ID: SMP

Collected By: Kimberly Appleby, Katrin Villinger

Field Report Prepared By: Kimberly Appleby

Sampling Agency: FDEP

Place Label Here						Comments:				
WIN ID/Field ID:  20030356										
Location: BIG DAVIS Creek, S.Fork @ US 1										
Matrix: Fresh						(Check one) ☒ GRAB ☐ COMPOSITE				
Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPTH)
1/4/2022	1040 EST	8.06	78.7	14.3	6.93	0.3	0.56 ☒ VOB (S)	0.56	208.9	0.1
	EST									
Parameter Suite		Parameter Methods				Preservation		pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				☒ Ice ☒ H2SO4*		☒ <2	1	A
		Lot #		SA1105060		Exp:		04/30/22		
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☒ HNO3*		☒ <2	1	A
		Lot #		NA1105100		Exp:		06/07/22		
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A
		Filter Lot #		R1EB01329						
		Syringe Lot #								
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	A
Physical/Aggregate (Fresh) (P-1L)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CH-IC / W-COLOR / W-SO4-IC / W-TDS				☒ Ice			1	A
Physical/Aggregate (Marine) (P-1L)		☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY				☐ Ice				
Macroinvertebrates (PJ-2L)		☐ MI-FW-QLDC		Formalin Lot # 928091819TK, 10303102020CS		☐ Formalin				
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice				
Microbiology (Contract Lab Bottle)		☒ E Coli ☐ F Coli ☐ Enterococci				☒ Ice			1	A
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD				☐ Ice				
Tracers (BG-500ML)		☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice				
Pesticides (BG-500ML) (BG-1L)		☒ W-E8321-DI		☒ W-E8321-MS		☒ W-PSNP-TQ ☒ W-CT-CL-R		☒ Ice	4	A
		W-PCL-TQ-R		W-CARB-AA (5 ml of MCAA** Buffer Solution)						
Phytoplankton/Periphyton						DTY-QN-C PKD-QN-BV		☐ Ice		
Name: Kimberly Appleby Katrin Villinger						Signature: 			Date: 01/04/2022	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

Original Form, Please ignore 
1/5/22



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PLAN FIELD SHEET

January 2020

Meter Passed End
of Day CCV
Yes / No

WIN Station Name: BIG DAVIS Creek, S.Fork @ US 1 **Date:** 1/4/2022
WIN/Field ID: 20030356 **WBID:** 2356 **ENR:** **Latitude:** 30.151822
County: Duval **Org ID:** 21FLA **Longitude:** -81.524612
Receiving Body of Water: Julington Creek **RQ:** 2021-01-30-20

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Kimberly Appleby	x	x			
☒	Katrin Villinger			x		
☒	Brian Davis				x	x
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☐ Syringe	☐ Pole
Depth measured with: Meter	
Secchi Equipment ID:	
Collection Method	
☒ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☐ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded		Meter ID# STITCH	
Photos: YES	Flow: FLOW	Tide:	Tide Times: High: Low:
Biological Samples Collected: ☐ None ☒ HA ☒ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:			
SBIO ID Numbers:			
Notes: PARTLY CLOUDY			

Duplicate Sample		
Time Zone: EST	Time:	Field ID: (WIN ID_DUP)
WIN DMT Activity ID:		

Blank	
Time Zone:	Time:
DI Source:	Location:
DI Type:	Equipment ID:
DI Container (Name/ID):	DI Container Type:

LIMS EVENT ID: **WIN Import ID:**

Enter Field Parameters, Verify Station ID In LIMS DMT: (Initials/Date) **QC Station ID, Field Parameters In LIMS DMT:** (Initials/Date)

Scan/Save Field Sheets BD 01/04/2022 **Migrate Data to WIN:** (Initials/Date) **Verify Data In WIN:** (Initials/Date)

Original form, please ignore IM 1/5/22

Date of Request: 09-DEC-2021
 Created By: PARRISH_J On: 09-DEC-2021
 Modified By: JASROTIA_P On: 16-DEC-2021
 Customer: NE-DIST
 Project: SMP
 Division: Division of Environmental Assessment and Restoration
 District: Northeast District
 Event Description: SCI's wbid 2323, 2549

Send Coolers To:

Phone: 904-256-1700
 8800 Baymeadows Way West
 Suite 100
 Jacksonville, FL 32256
 Attn: Jeremy Parrish
 Cooler Ship EMail: Jeremy.M.Parrish@dep.state.fl.us

Priority: 3
 Event Status: S
 Criminal Investigation: NO
 Chemistry Request Reviewed By: AYRES_J On: 16-DEC-2021
 Biology Request Reviewed By: JASROTIA_P On: 16-DEC-2021
 Sampling Kit Required: YES Ship on: 22-DEC-2021
 Sampling Kit Shipped: YES On: 20-DEC-2021
 Sampling Kit Packed By: ROBERTS_Z
 Preservatives Needed: NO
 Date to Receive Samples: 03-JAN-2022
 Logged In By:

Send Final Report To:

8800 Baymeadows Way West
 Suite 100
 Jacksonville, FL 32256
 Attn: Jeremy Parrish
 Report Notification EMail: Jeremy.M.Parrish@dep.state.fl.us

Comments: Group A: Nutrients, Metals, Tracers, Q-PSNP-TQ, Bacteria
 Group B: SCI, Algae_ID

Packing Notes:
 none

Bottle Group A (Water) With 2 Samples:

Bottle Type: P-1L	Number of Bottles: 2	Preserved With: ICE
ALKALINITY	Template: DEFAULT	(SM 2320 B-2011) Alkalinity in aqueous matrices as mg CaCO ₃ /L
TURBIDITY	Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
W-CL-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
W-COLOR	Template: DEFAULT	(SM 2120 B-2011) True Color measured at 450 nm (not valid for NPDES monitoring)
Color (true)		
W-F	Template: DEFAULT	(SM 4500 F-C-2011) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
W-SO4-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Sulfate in aqueous matrices
W-TDS	Template: DEFAULT	(SM 2540 C-2011) Total Dissolved Solids in aqueous matrices
W-TSS	Template: DEFAULT	(SM 2540 D-2011) Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample
Bottle Type: BP-1L	Number of Bottles: 2	Preserved With: ICE
CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry
Bottle Type: P-250ML-WO-THI	Number of Bottles: 2	Preserved With: ICE
ECOLI-18QT	Template: DEFAULT	(SM 9223 B Quanti-Tray) Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems
Bottle Type: BG-500ML	Number of Bottles: 2	Preserved With: ICE
W-E8321-DI	Template: DEFAULT	(EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS
W-E8321-MS	Template: SMP	(EPA 8321B) Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS
Bottle Type: P-500ML	Number of Bottles: 2	Preserved With: HNO ₃
W-HARD	Template: DEFAULT	(SM 2340B) Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃
Hardness		

Bottle Group A (Water) With 2 Samples:

Bottle Type: P-500ML Number of Bottles: 2 Preserved With: HNO3
 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

Barium
 Calcium
 Iron
 Magnesium
 Manganese
 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

*Boron
 Aluminum
 Antimony
 Arsenic
 Beryllium
 Cadmium
 Chromium
 Copper
 Lead
 Nickel
 Selenium
 Silver
 Thallium

Bottle Type: P-500ML Number of Bottles: 2 Preserved With: ICE And H2SO4
 W-NH3 Template: DEFAULT (EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
 W-NO2NO3 Template: DEFAULT (EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
 W-S-A-TP Template: DEFAULT (EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
 W-TKN Template: DEFAULT (EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
 W-TOC Template: DEFAULT (SM 5310 B-2011) Nonpurgeable Organic Carbon in aqueous matrices

Bottle Type: P-125ML Number of Bottles: 2 Preserved With: FILTER-ICE
 W-PO4-F Template: DEFAULT (EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Bottle Type: BG-1L Number of Bottles: 6 Preserved With: ICE
 W-PSNP-TQ Template: DEFAULT (EPA 8270E) Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS

Bottle Group B (Biological) With 2 Samples:

Bottle Type: PJ-2L Number of Bottles: 4 Preserved With: Formalin
 MI-FW-QLDC Template: DEFAULT (SOP-IZ06) No. Taxa of FW macroinverts, qual samp, 20 dipnets.
 Bottle Type: PT-50ML Number of Bottles: 2 Preserved With: ICE
 ALGAL_ID Template: DEFAULT (SOP-AB05) Qualitative assessment of algal taxa present without counts

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