



RQ-2020- 03-09-04
Customer: WAS-SECT
Project ID: Merritt's Mill Pond BMAP

Lab Page ____ of ____

Collected By: MA Eckler Curtis Musso
Field Report Prepared By: MA Eckler
Sampling Agency: 21FLWQA

Merritt's Mill Pond 500 Meters Upstream Of Dam

WIN ID/Field ID:



G2WA0009

Comments:

NO Hard → Please
Have Person Ordering Kits
Add Hubs to Metals Kit

Matrix: Fresh / Marine

(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 (PPTth)
3/11/2020	10:15 EST / CST	11.90	29.2	19.33	8.17	0.3	3.3 ☒ VOB (S)	3.3	ME 277 277	0.13

Central Lab please use top row for login purposes

10:20 EST / CST	11.86	128.7	19.28	8.09	2.8	3.3	3.3	277	0.13
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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 Lot # <u>MSH-9702100</u> Exp: <u>7/22/2020</u>	☒ Ice ☒ H2SO4* ☒ <2		1	A
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☐ W-HARD Lot # <u>MA-9189080</u> Exp: <u>7/08/2020</u>	☒ Ice ☒ HNO3* ☒ <2		1	A
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter Filter Lot # <u>16803885</u> Syringe Lot # <u>9056849</u>	☒ Ice			A
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			
Periphyton (PT-50ML)	☒ ALGAE-ID	☒ Ice		1	B AME
Microbiology (Contract Lab Bottle)	☐ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab	☐ Ice			
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐ See Notes	☐ 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 ☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)	☐ Ice			

Name:

MA Eckler

Signature:

MA Eckler

Date:

3/11/2020

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End

of Day CCV

Yes / No

80

WIN Station Name: Merritt's Mill Pond 500 Meters Upstream Of Dam

Date: 3/11/20
(mm/dd/yyyy)

WIN/ Field ID: G2WA0009

WBID: 180A

Latitude: 30.755

(Decimal Degrees)

County: Jackson

ORG ID: 21FLWQA

Longitude: -85.1881

(Decimal Degrees)

Receiving Body of Water: Chipola River

RQ-2020- U3-U9-U4

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Curtis Musson		X		X	X
Mike Eckles	X		X		

Sampling Equipment	
☒ Sample Container	☐ Van Dorn
☒ Syringe	☐ Pole
☐ Dipper	☐ Other
Depth Measured with <u>Sonar #1</u>	
Equipment ID	
Collection Method	
☐ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☒ Gasoline Motor

Water Level: Dry/ Pooled/ Low / <u>Normal</u> / High / Flooded		Meter ID# <u>Biology #2</u>	
Photos: Yes / <u>No</u>	Flow: No Flow / Flowing / <u>NA</u>	Tide: Rising/ Falling/ Slack/ <u>NA</u>	Tide Times: High <u>NA</u> Low <u>NA</u>
Biological Samples Collected: None HA SCI RPS <u>Algae ID</u> LVS LVI Other:			
SBIO ID Numbers: SBIO-ID: <u>80834</u>		HA-ID:	RPS-ID: <u>9563</u>
Macrophyte-ID:		LIMS#:	

Contains 1.1 H2SO4
Lot No. SA9203100
Expires 07/22/20
See Safety Data Sheet (SDS)

Contains 1.1 HNO3
Lot No. NA9189080
Expires 07/08/20
See Safety Data Sheet (SDS)

ite Sample

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

Blank

Time Zone: EST CEN Time:	Field ID: (Blank Type_DDMMYYYY)
DI Source:	Location:
☐ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank	Equipment ID:

LIMS EVENT ID: <u>WAS-SECT-2020-03-11-01</u>	WIN Import ID:
Enter Field Parameters, Verify Station ID In LIMS DMT: <u>BAE 3/26/20</u> (Initials/Date)	QC Station ID, Field Parameters In LIMS DMT: <u>CM 3/27/2020</u> (Initials/Date)
Scan/Save Field Sheets <u>CM 3/27/2020</u> (Initials/Date)	Migrate Data to WIN: Verify Data In WIN: (Initials/Date)

Entered by: ~~LEE~~ 3/26/20
 QC by: CM 3/27/2020
 Authorized: CM 3/27/2020

WIN ID/Field ID:



G2WA0009

SBI0: 90934 RPS: 9563

Rapid Periphyton Survey Field Sheet

COUNTY					Date: 3-11-2020					Investigators: Cuthbertson																
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	STORET Station Number:																
0	1	6	Yes		60	1	6	Yes		Secchi depth 3.3 VOB Estimated? N # points ranked 4-6 99 total points assessed 66 % points ranked 4-6 67% Check accompanying data collected at same site/date. Algal mat sample ☒ Linear Veg Survey ☐ Habitat Assessment ☐ SCI/Biorecon ☐ Water sample ☐ RQ-2020-03-09-04																
	2	N				2	N																			
	3	6				3	N																			
	4	6				4	N																			
	5	N		0		5	N		0																	
	6	N				6	6																			
	7	N				7	6																			
	8	6	Yes			8	6	Yes																		
	9	6	Yes			9	6	Yes																		
10	1	6	Yes		70	1	6	Yes		<table border="1"> <thead> <tr> <th colspan="2">Algal Thickness Rank</th> </tr> </thead> <tbody> <tr> <td>N</td> <td>rough, no algae, slimy, algae up to 1mm</td> </tr> <tr> <td>3</td> <td>>1mm - 6mm</td> </tr> <tr> <td>4</td> <td>>6mm - 20mm</td> </tr> <tr> <td>5</td> <td>>20mm - 10 cm</td> </tr> <tr> <td>6</td> <td>>10 cm</td> </tr> </tbody> </table>					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
	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																								
	2	6				2	6																			
	3	N				3	6	N																		
4	N			4	6	N																				
5	N		0	5	6	N	0																			
6	N			6	6																					
7	6			7	6																					
8	6	Yes		8	6	Yes																				
9	6	Yes		9	6	Yes																				
20	1	6	Yes		80	1	6	Yes																		
	2	6				2	6	N																		
	3	N				3	6	N																		
	4	6				4	6																			
	5	6		0		5	6	N	0																	
	6	6				6	6																			
	7	N				7	6																			
	8	6	Yes			8	6	Yes																		
	9	6	Yes			9	6	Yes																		
30	1	6	Yes		90	1	6	Yes																		
	2	6				2	6	N																		
	3	6	N			3	6	N																		
	4	6				4	6	N																		
	5	6		0		5	6	N																		
	6	6	N			6	6																			
	7	6				7	6																			
	8	6	Yes			8	6	N	Yes																	
	9	6	Yes			9	6	Yes																		
40	1	6	Yes		100	1	6	Yes																		
	2	6	N			2	6	N																		
	3	6				3	6	N																		
	4	6				4	6	N																		
	5	6		0		5	6		0																	
	6	6				6	6																			
	7	6	N			7	6																			
	8	6	Yes			8	6	Yes																		
	9	6	Yes			9	6	Yes																		
50	1	6	Yes		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%.																					
	2	6																								
	3	6	N																							
	4	6																								
	5	6		0																						
	6	6																								
	7	6																								
	8	6	N	Yes																						
	9	6	Yes																							

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

Meter ID: Bio#2

RQ: 2020-03-09-04

Project: BMAP

Goldly "X" this box is for use only if the data on this page is questionable.

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 _____

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.	Curtis Musson	3/11/20	711	19.54	760	9.18	9.18	100.0	58.4	-	P/F	O/F
ICV	Curtis Musson	3/11/20	713	19.52	760	9.18	9.18	58.4	58.4	-	P/F	O/F
CCV	Ben Harden	03/11/20	1529	20.08	760	9.1	9.38	100.0			P/F	O/F
CCV								103.3			P/F	L/F

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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	3/11/20	715	191120D	12/2020	1000	1000	P/F	O/F
ICV	Curtis Musson	3/11/20	717	191120D	12/2020	1000	1002	P/F	O/F
CCV	Ben Harden	03/11/20	1505	2908031	08/2021	100.0	101	P/F	O/F
CCV								P/F	L/F

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.	Curtis Musson	3/11/20	720	190618B	12/2020	7.02	20.22	7.02	-40	P/F	O/F
Calibr.	Curtis Musson	3/11/20	723	200221A	09/2021	4.00	20.15	4.00	134	P/F	O/F
Calibr.	Curtis Musson	3/11/20	726	190618C	12/2020	10.05	20.30	10.05	-208	P/F	O/F
ICV	Curtis Musson	3/11/20	729	190618C	12/2020	10.05	20.15	10.03	-208	P/F	O/F
CCV	Ben Harden	03/11/20	1509	200221A	09/2021	4.00	20.06	4.05	129.9	P/F	O/F
CCV										P/F	L/F

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 _____, slope from 4 to 7 _____ (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: _____

If NO, what will be used? (circle one) 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	Curtis Musson	3/11/20	728	0.00	0.00	P/F	O/F

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

COMMENTS:

Florida Department of Environmental Protection

Central Laboratory Submittal Form

Customer: WAS-SECT

Project ID: BMAP

Requester: Curtis Musson

Field Report Prepared By: Curtis Musson

Collected By: Curtis Musson

Sampling Agency: FDEP

Merritt's Mill Pond 500 Meters Upstream Of Dam		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 3.11.20 Time 1015		Eastern Central	Composite end Date — Time —		Bottle Group(s) (See pg 2)	
WIN ID/Field ID:  G2WA0009		Matrix (type, e.g., Salt, Fresh, etc) A-Fresh, B-Biology		Diss. Oxygen 129.2		☐ mg/L ☒ % sat	Total Res. Chlorine (mg/L) —		A, B	
Latitude ☐ dd ☐ dms Longitude ☐ dd ☐ dms		Temp (C) 19.33 pH 8.17		Sample Depth 0.3		☐ ft ☒ m	Sp. Conductance (umho/cm) 277			
		Salinity (ppt) 0.13		Comments						
Merritt's Mill Pond Mid Under Powerlines		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 3.11.20 Time 1130		Eastern Central	Composite end Date — Time —		Bottle Group(s)	
WIN ID/Field ID:  G2WA0008		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 127.8		☐ mg/L ☒ % sat	Total Res. Chlorine (mg/L) —		A	
Latitude ☐ dd ☐ dms Longitude ☐ dd ☐ dms		Temp (C) 20.38 pH 7.57		Sample Depth 0.3		☐ ft ☒ m	Sp. Conductance (umho/cm) 284			
		Salinity (ppt) 0.14		Comments						
Merritt's Mill Pond 600 Meters Downstream Of Jackson Blue Sp		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 3.11.20 Time 1205		Eastern Central	Composite end Date — Time —		Bottle Group(s)	
WIN ID/Field ID:  G2WA0007		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 94.4		☐ mg/L ☒ % sat	Total Res. Chlorine (mg/L) —		A	
Latitude ☐ dd ☐ dms Longitude ☐ dd ☐ dms		Temp (C) 20.65 pH 7.54		Sample Depth 0.3		☐ ft ☒ m	Sp. Conductance (umho/cm) 288			
		Salinity (ppt) 0.14		Comments						
Shangri La Spring Vent		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 3.11.20 Time 1220		Eastern Central	Composite end Date — Time —		Bottle Group(s)	
WIN ID/Field ID:  G2WA0022		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 82.8		☐ mg/L ☒ % sat	Total Res. Chlorine (mg/L) —		A	
Latitude ☐ dd ☐ dms Longitude ☐ dd ☐ dms		Temp (C) 20.52 pH 7.39		Sample Depth 0.3		☐ ft ☒ m	Sp. Conductance (umho/cm) 322			
		Salinity (ppt) 0.15		Comments						

Relinquished By: Curtis Musson	Date/Time: 3.11.20 / 2:55 PM	Shipping Method: Drop OFF	Number of Coolers Shipped: 2	Received By: KIK	Date/Time: 3.11.20 / 14:55
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Group: A	Bottle Type:	P-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
	ALKALINITY						
	TURBIDITY						
	W-CL-IC						
	W-COLOR						
	W-F						
	W-SO4-IC						
	W-TDS						
	W-TSS						
Group: A	Bottle Type:	BP-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
	CHLSUITE-W						
Group: A	Bottle Type:	P-500ML	# of Bottles: 4	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	4
	W-ICP						
	W-ICPMS						
							LOT# NA9189080 Exp 7.8.20
Group: A	Bottle Type:	P-500ML	# of Bottles: 4	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	4
	W-NH3						
	W-NO2NO3						
	W-S-A-TP						
	W-TKN						
	W-TOC						
							LOT# SA9203100
							Exp 7.22.2020
Group: A	Bottle Type:	P-125ML	# of Bottles: 4	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	4
	W-PO4-F						
Group: B	Bottle Type:	PT-50ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	ALGAL_ID						

Cooler Packing Worksheet for Request: RQ-2020-03-09-04

Merritt's Mill Pond BMAP

Ship Cooler On: 3/5/2020

Customer/Project: WAS-SECT/BMAP

Assigned To: SHAIK_A

Requester: Curtis Musson

Priority: 3

850-245-8453

2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:

No preservatives needed.

Group A: Nutrients, Metals x4

Group B: Algal_ID x1

Packing Notes:

No Fedex Labels

No Trash Bags

Requested Analyses:

Bottle Group: A

of Sites: 4

Container ID: P-1L

Qty: 4

Preservation: ICE

Lot #

00076335

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

W-SO4-IC

W-TDS

W-TSS

Description

Alkalinity in aqueous matrices as mg CaCO3/L

Turbidity in aqueous matrices

Chloride in aqueous matrices

True Color measured at 450 nm (not valid for NPDES monitoring)

Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)

Sulfate in aqueous matrices

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Container ID: BP-1L

Qty: 4

Preservation: ICE

Lot #

0268908

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: P-500ML

Qty: 4 Preservation: HNO3

Lot # 00076643

Description: Plastic Bottle 500 mL

Affix RED nitric acid dot to container.

Analysis

W-ICP

W-ICPMS

Description

Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

Container ID: P-500ML

Qty: 4 Preservation: ICE And H2SO4

Lot # 00076643

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH3

W-NO2NO3

W-S-A-TP

W-TKN

W-TOC

Description

Ammonia in aqueous matrices as mg N/L

Nitrite/Nitrate in aqueous matrices as mg N/L

Total Phosphorus in aqueous matrices as mg P/L

Total Kjeldahl Nitrogen in aqueous matrices

Nonpurgeable Organic Carbon in aqueous matrices

Container ID: P-125ML

Qty: 4 Preservation: FILTER-ICE

Lot # 00076883

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Bottle Group: B

of Sites: 1

Container ID: PT-50ML

Qty: 1 Preservation: ICE

Lot # 03775003

Description: Plastic Tube 50 mL

Analysis

ALGAL_ID

Description

Qualitative assessment of algal taxa present without counts

Cooler Packed By: [Signature]

Number of Coolers: 1

Date: 3-3-20

Kit must also include:

- ☒ Field Sheets
- ☒ Temperature Control Bottle
- ☒ FedEx Bills, if applicable
- ☒ Plastic Bags/Zip Ties
- ☒ Acid Labels (sets of 24)

If Preservation Included:

ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____

PLEASE RETURN ALL COOLERS FOR RQ-2020-03-09-04