Login Checklist

RQ- 2021 - 07 - 12 - 57

Login Station ID: # 3

Shipping Method: ~~FedEx~~ | UPS | HD | Greyhound

Date/Time of Receipt: 07/15/2021 / 09:16

*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	
2.5C				11		X			9293 8009 4356

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 X No _____

Micro-Biology Overflow Chain of Custody/ Field Sheet(s) Included? Yes ✓ No X ABB

CONTAINER CHECK

Evidence Tape on Bottles? Yes ____ No ____ NA X

Evidence Tape intact? Yes ____ No ____

If Criminal, photographs taken? Yes ____ No ____

Containers intact? Yes X No ____

Caps on tight? Yes X No ____

Sufficient Sample Volume: Yes X 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 X No _____ Init: ABS /

Chlorine detected? *(One container checked per Field ID)* Yes _____ No X Init: ABS /

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 X No _____ NA _____ Init: ABS /

**W-1-4-DIOX *(Green dot on container)* preserved to pH<4.0? Yes _____ No _____ NA X Init: ABS /

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

Coolers Unpacked/Checked by: ABS / **Date:** 07-15-2021 **Event contains NCRs (Y/N)?** N

Event ID: NE - DIST- 2021 - 07 - 15 - 0\

Login Checklist

Login Preservation Equipment	Lot # & Exp: Date
Infrared Thermometer ID:	IRTG # 3 EXP:10/28/2021
pH Test Strips 0 – 6	Lot # 232518V EXP:NOV 30 2021
pH Paper 0 – 3	N/A
pH Paper 0 – 13	Lot # 231019 EXP:NOV 1 2022
Chlorine Test Strips	0261 2023 / 05

Additional Comments:

ENCORE SAMPLES

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

Were Encore samples received? Yes_____ Init: ABS

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: 7/14/2021
Customer: NE-DIST
RQ: RQ-2021-07-12-57

Collected By: Jeremy Parrish, Jessica Lee
Sampling Agency: FDEP
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: 1

Delivery Method: FedEx

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

Site Location	Field ID/WIN ID
MIRAMAR CR @ GADSEN RD	20030825
MILLER CR @ SCHUMACHER	20030794

RELINQUISHED BY(SIGNATURE):

DATE/TIME: 7/14/2021 1600EST

THIS SECTION TO BE COMPLETED BY LABORATORY

Rec'd/Inspected By: A.SHAIK

Rec'd/Inspected Date: 07-15-2021

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

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

RQ-2021-07-05-33 LSJR West

Meter ID: Desi **RQ:** 2021-07-12-57 **Project:** SMP Mill/Mal

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.	J. Lee	7/14/21	0736	23.4	766.9	8.6	8.6	100.9	--	1.07	(P)/F	(L)/F
ICV	〃		0737	23.4	766.9	8.6	8.59	101.0	–	1.07	(P)/F	(L)/F
CCV	J Parrish	7/14/21	1335	23.5	766.6	8.5	8.60	101.2	–	–	(P)/F	(L)/F
CCV											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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	J. Lee	7/14/21	0739	210426B	5/22	1000	1000	(P)/F	(L)/F
ICV	〃		0741	210426A	5/22	100	101.7	(P)/F	(L)/F
CCV	J Parrish	7/14/21	1337	210426C	5/22	1413	1416	(P)/F	(L)/F
CCV								P/F	L/F

Conductivity Acceptance criteria ± 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.	J. Lee	7/14/21	0744	2012E39	12/22	7.00	23.6	7.00	-14.5	(P)/F	(L)/F
Calibr.	〃	〃	0748	2103G59	3/23	4.00	23.7	4.00	164.1	P/F	L/F
Calibr.	〃	〃	0751	2103F53	9/22	10.01	23.8	10.01	-186.1	(P)/F	(L)/F
ICV	〃	〃	0753	2103G59	3/23	4.00	23.7	4.00	163.5	(P)/F	(L)/F
CCV	J Parrish	〃	1338	2103F53	9/22	10.0	23.5	10.1	-193	(P)/F	(L)/F
CCV										P/F	L/F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50; mV pH 4 Range +180 ± 50; mV pH 10 Range -180 ± 50.
If mV are recorded: slope from 7 to 10 171.6, slope from 4 to 7 178.6 (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	J. Lee	7/14/21	07:54	0.00	0.00	(P)/F	(L)/F

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

COMMENTS:

Form effective August 1, 2018

RQ-2021-07-12-57
Customer: WQAP
Project ID: SMP

Collected By: Jeremy Parrish, Jessica Lee
Field Report Prepared By: Jeremy Parrish
Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID: 20030825

Location: MIRAMAR CR @ GADSEN RD

Comments:

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)
	905 EST	5.54	69.1	26.6	6.88	0.05	0.1 ☒ VOB (S)	0.1	364.7	0.17
7/14/2021										
	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 ☒ $H2SO_4$*	☒ <2	1	A
	Lot # Sa1105060 **Exp:**	4/30/22			
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD	☒ Ice ☒ HNO_3*	☒ <2	1	A
	Lot # Na0344060 **Exp:**	1/4/22			
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice		1	A
	Filter Lot # Ronb35407				
	Syringe Lot #				
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-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 #**	☐ Formalin			
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
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 ☐	☐ 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 X W-PCL-TQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution)	☒ Ice		4	A
Phytoplankton/Periphyton	☐ DTY-QN-C ☐ PKD-QN-BV	☐ Ice			

Name: Jeremy Parrish, Jessica Lee

Signature: Jessica Lee

Date: 07/14/2021

*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

WIN Station Name: MIRAMAR CR @ GADSEN RD **Date:** 7/14/2021

WIN/Field ID: 20030825 **WBID:** 2304 **ENR:** - **Latitude:** 30.2828

County: DUVAL **Org ID:** 21FLA **Longitude:** -81.65

Receiving Body of Water: Lower St. Johns **RQ-** 2021-07-12-57

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
[x] Jeremy Parrish	x		x		
[x] Jessica Lee		x		x	x
[ ]					
[ ]					

Sampling Equipment

- [x] Sample Container
- [ ] Dipper
- [ ] Syringe
- [ ] Carboy
- [ ] Van Dorn
- [ ] Pole

Depth measured with: Meter

Secchi Equipment ID:

Collection Method

- [x] Wading
- [ ] From Shore
- [ ] Other
- [ ] Canoe/Kayak
- [ ] Electric Motor
- [ ] Gasoline Motor

Water Level: [x] Normal [ ] Low [ ] High [ ] Dry [ ] Pooled [ ] Flooded

Meter ID# DESI

Photos:

Flow: FLOW

Tide:

Tide Times: High: Low:

Biological Samples Collected: [x] None [ ] HA [ ] SCI [ ] RPS [ ] Algae ID [ ] LVS [ ] LVI Other:

SBIO ID Numbers:

Notes:

Clear skies, sunny

Duplicate Sample

Time Zone: EST **Time:** **Field ID:** N/A (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 JL 07/14/2021 (Initials/Date) **Migrate Data to WIN:** (Initials/Date) **Verify Data In WIN:** (Initials/Date)

RQ-2021-07-12-57
Customer: WQAP
Project ID: SMP

Collected By: Jeremy Parrish, Jessica Lee
Field Report Prepared By: Jeremy Parrish
Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID: 20030794

Location: MILLER CR @ SCHUMACHER

Comments: Microbiology sample(s) submitted to contract laboratory

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)
	1220 EST	6.2	75.4	25.2	6.82	0.15	0.2 ☒ VOB (S)	0.2	309.2	0.15
7/14/2021										
	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 Lot # Exp:	☐ Ice ☐ H_2SO_4*	☐ <2		
Metals (P-500ML)	☐ W-ICPMS ☐ W-ICP ☐ W-HARD Lot # Exp:	☐ Ice ☐ HNO_3*	☐ <2		
Filtered Nutrients (P125ML)	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter Filter Lot # Syringe Lot #	☐ Ice			
Chlorophyll (BP-1L)	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh) (P-1L)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☐ MI-FW-QLDC Formalin Lot #	☐ Formalin			
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
Microbiology (Contract Lab Bottle)	☒ E Coli ☐ F Coli ☐ Enterococci ☒ Contract Lab	☒ Ice		1	B
Molecular (QPCR-P-500ML)	☒ PCR-HF183 ☒ PCR-BacR ☒ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐	☒ Ice		1	B
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides (BG-500ML) (BG-1L)	W-E8321-DI WEB321-MS W-PSNP-TQ W-CT-CL-R W-PCL-TQ-R W-CARB-AA (5 ml of MCAA** Buffer Solution)	☐ Ice			
Phytoplankton/Periphyton	DTY-QN-C PKD-QN-BV	☐ Ice			

Name: Jeremy Parrish, Jessica Lee

Signature: Jessica Lee

Date: 07/14/2021

*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

WIN Station Name: MILLER CR @ SCHUMACHER **Date:** 7/14/2021

WIN/Field ID: 20030794 **WBID:** 2287A **ENR:** - **Latitude:** 30.3006

County: DUVAL **Org ID:** 21FLA **Longitude:** -81.63

Receiving Body of Water: Lower St. Johns **RQ-** 2021-07-12-57

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
[x] Jeremy Parrish	x		x		
[x] Jessica Lee				x	
[ ]					
[ ]					

Sampling Equipment

- [x] Sample Container
- [ ] Dipper
- [ ] Syringe
- [ ] Carboy
- [ ] Van Dorn
- [x] Pole

Depth measured with: Secchi
Secchi Equipment ID: D1

Collection Method

- [ ] Wading
- [x] From Shore
- [ ] Other
- [ ] Canoe/Kayak
- [ ] Electric Motor
- [ ] Gasoline Motor

Water Level: [x] Normal [ ] Low [ ] High [ ] Dry [ ] Pooled [ ] Flooded

Meter ID# DESI

Photos:

Flow: FLOW

Tide:

Tide Times: High: Low

Biological Samples Collected: [x] None [ ] HA [ ] SCI [ ] RPS [ ] Algae ID [ ] LVS [ ] LVI Other:

SBIO ID Numbers:

Notes:

Clear skies, sunny

Duplicate Sample

Time Zone: EST **Time:** **Field ID:** N/A (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 JL 07/14/2021 (Initials/Date) **Migrate Data to WIN:** (Initials/Date) **Verify Data In WIN:** (Initials/Date)

CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

ALS Environmental

9143 Philips Highway, Suite 200 Jacksonville, FL 32256 / Ph(904) 739-2277 / FAX (904) 739-2011

SR #

ALS Contact: Mandy Sullivan

Client Name: DEP-NE ROC

Project Number: RQ-2021-07-12-57

Report To: ep-Overflowmicro@dep.state.fl.us

Report CC: Miller, Cr, JL, McManai, BSO

Company/Address: 400 Baymeadows Way W, Jacksonville, Fl 32256

Phone #: 904-256-1700

FAX #:

Sampler's Signature:

Sampler's Printed Name: J. Lee

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	Matrix	Preservat	NUMBER OF CONTAINERS	E.Coli (8)	Enterococci (8)	REMARKS
20030794		7/14/21	1120	SW		1	X		Fresh

Preservative Key: 0. None; 1. HCL; 2. HNO3; 3. H2SO4; 4. NaOH; 5. Zn. Acetate; 6. MeOH; 7. NaHSO4; 8. ICE

Special Instructions/Comments: Email Report to: Dep-Overflowmicro@dep.state.fl.us

0.7

TURNAROUND REQUIREMENTS

___ RUSH (SURCHARGES APPLY)

X STANDARD

REQUESTED FAX DATE: N/A

REQUESTED REPORT DATE: N/A

REPORT REQUIREMENTS

I Results Only

II Results + QC Summaries (LCS, DUP, MS/MSD as required)

III. Results + QC and Calibration Summaries

IV Data Validation Report with Raw Data

Edata ___ Yes ___ No

INVOICE INFORMATION

P.O. # B10739

Bill to

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature: J. Lee	Signature: Valerie Spears	Signature	Signature	Signature	Signature
Printed Name: J. Lee	Printed Name: Valerie Spears	Printed Name	Printed Name	Printed Name	Printed Name
Firm: FDEP	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 7/14/21 1250	Date/Time: 7/14/21 1250	Date/Time	Date/Time	Date/Time	Date/Time

SB10 E2641

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

SAMPLING AGENCY:		STORET STATION NUMBER: 20030825	DATE (mm/dd/yy): 7/14/21	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: Duval	LOCATION: Miramar @ Gadsden		FIELD ID/NAME:

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components **Substrate Diversity** 4	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock) 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 (4) 3 2 1
Substrate Availability 2	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 7 6	Less than 5% major productive habitat 5 4 3 (2) 1
Water Velocity 15	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 13 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 5 Primary Score 26	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 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 **Artificial Channelization** 4	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 (17) 16	Good sinuosity within old channelized area. Evidence of dredging or straightening in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 (4) 3 2 1
Bank Stability Right Bank 4 Left Bank 4	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankful to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas. 10 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. 5 (6)	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the woody root zone with raw, eroded areas. 8 (3) 2 1
Riparian Buffer Zone Width Right Bank 2 Left Bank 2	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 (2) 1
Riparian Zone Vegetation Quality Right Bank 3 Left Bank 3 Secondary Score 19 22	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. 10 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). (3) 2 1

26 / 19 / 45

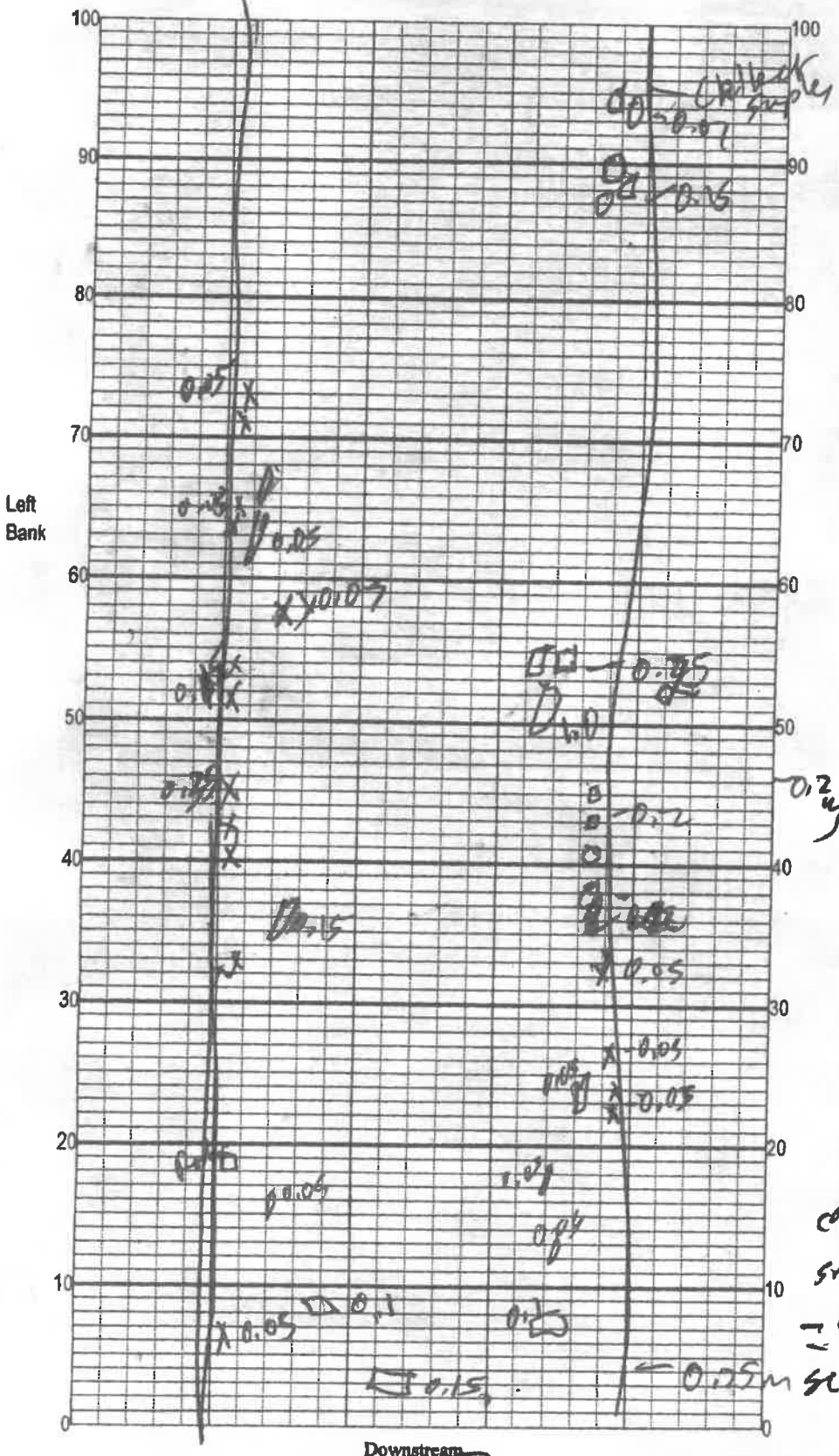
48 **TOTAL SCORE**

Date: 7/14/21	Analyst: Jeremy Parrish / Jessica Lee	Signature: Jeremy Parrish

62-160.800, F.A.C.

Revision Date: January 2017

DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Length of grid represents 100 m of stream (not linear meters).
(Horizontal scale is double vertical scale, draw proportionately).

Location: Hillsboro Gardens

Date: 7/14/21

Sampler: _____

100 m: Latitude	
Longitude	
0 m: Latitude	
Longitude	

Substrates: Code key, draw proportionate habitat abundance. %

☐	Snags	<1
☒	Roots/undercut banks	<1
☐	Leaf Packs (or mats)	____
☐	Aquatic Macrophytes	____
☐	Concrete	<1
☐	_____	____
☐	Pools — total # observed = ____ ; # range expected = ____	

Average width _____ m

Average depth _____ m

Velocity measured at _____ meter mark.

WQ & chemistry taken at _____ 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.

Plants observed / other notes:

2.2 m 0.1 depth

220 total

62-160.800, F.A.C

Revision Date: January 2017

DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID Sho 82641 | ORG ID | LATITUDE 30.2828, -81.65 (JL)
COUNTY Duval | STORET # 20030825 | LONGITUDE -81.65
DATE 7/14/21 | TIME 905 | SAMPLING AGENCY FDEP, NE ROC
SITE NAME Miramar @ Godsden Rd.
FIELD ID/NAME 20030825 | RECEIVING BODY OF WATER Lower St Johns

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify)
				90	10		

Landscape Development Intensity Index (LDI):

Local Watershed Erosion (select one): ☐ None ☐ Slight ☒ Moderate ☐ Heavy

Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy

Width of Riparian Vegetation (m) on Each Buffer Side — Left Bank: 26 Right Bank: 26

Hydrologic Modification Score (per FT 3101): 0

Typical Width (m) Depth (m)/Velocity (m/sec) Transect: 2.2 m wide

m/s	0.25 m/s	m/s
m deep	0.1 m deep	m deep

High Water Mark: 0.5 (m) + 0.1 (above present water level) = 0.6 (present depth) (above bed)

Artificially Impounded: ☒ Yes ☐ No

Artificially Channelized: ☐ No ☐ Some recovery ☐ Mostly recovered, more sinuous ☒ Recent, severe

Canopy Cover %: ☐ Open ☒ Heavily Shaded ☐ Lightly Shaded (11-45%) ☐ Moderate Shaded (46-80%)

SEDIMENT / SUBSTRATE

Sediment Oils: ☐ Absent ☒ Slight ☐ Moderate ☐ Profuse

Sediment Odors: ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☒ Anaerobic ☐ Other (Specify):

Smothering of Substrates:

	None	Slight	Moderate	Severe
Sand Smothering:	☐	☐	☒	☐
Silt Smothering:	☐	☐	☒	☐
Algae Smothering:	☒	☐	☐	☐

SUBSTRATE TYPE

Assessment Tool: ☐ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	<1		
Undercut Banks / Roots	<1		
Leaf Packs or Mat			
Aquatic Vegetation			
Rock or Shell Rubble / Concrete	<1		
Sand			
Mud / Muck / Silt			
Other			
Other			

WATER QUALITY

	Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:	0.05	26.6	6.88	5.54	69.1	364.7	0.17	0.1
Mid:								☒ VOB
Bottom								TOTAL DEPTH 0.1

Meter ID: Desi

Water Odors: Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐

Water Surface Oils: Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐

Water Sample Taken? ☒ Yes ☐ No
Sample Preserved? ☒ Yes ☐ No
Lot Number: see data sheet Exp:

Color: Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐

Algae Sample Taken? ☐ Yes ☒ No
Sample Preserved? ☐ Yes ☒ No
Lot Number: Exp:

Clarity: Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐

ABUNDANCE

	Not Obs.	Rare	Common	Abundant
Periphyton:	☒	☐	☐	☐
Fish:	☐	☐	☒	☐
Aquatic Plants:	☒	☐	☐	☐
Iron/Sulfur Bacteria:	☐	☐	☒	☐

System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐

AMBIENT FIELD CONDITIONS / NOTES:
Clear skies, sunny

☒ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM: Jeremy Parrish + Jessica Lee
SIGNATURE:
DATE: 7/14/21

62-160.800, F.A.C.

Revision Date: January 2017

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Miramar @ Gadsden | County: Duval | Date: 7/14/21 | Investigators: Plansh / Jessica Lee

STORET Station Number: 20036825

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
0	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
10	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
20	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
30	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
40	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
50	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover
60	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
70	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
80	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
90	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			
100	1	N	N	
	2			
	3			
	4			
	5			96
	6			
	7			
	8			
	9			

Secchi depth Estimated?	Yes
# points ranked 4-6	0
total points assessed	99
% 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- 2021-07-12-57

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

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%.

62-160.800, F.A.C.

Revision Date: January 2017

62-160.800, F.A.C.

Revision Date: January 2017

Ebio 8264 | **DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET**

Waterbody: Mimmal badyden | Date: 7/14/21 | County: Duval | Storet Number: 20030825

Analyst: jfrum | Signature: jfrum

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m^2 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 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Alternanthera philoxeroides											
Bacopa caroliniana											
Bacopa monneri											
Bidens mitis											
Boehmeria cylindrica											
Centella asiatica											
Ceratophyllum demersum											
Chara											
Cicuta maculata											
Cladium jamaicense											
Colocasia esculenta											
Commelina diffusa											
Commelina virginica											
Crinum americanum											
Diodia virginiana											
Eichhornia crassipes											
Eleocharis (wispy viviparous)											
Hydrilla verticillata											
Hydrocotle											
Hygrophila polysperma											
Hymenocallis											
Lachnanthes caroliniana											
Landoltia punctata											
Lemna											
Limnophila sessiflora											
Ludwigia leptocarpa											
Ludwigia palustris											
Ludwigia peruviana											
Ludwigia repens											
Luziola fluitans											
If no Dominant or Co-Dominant were selected, indicate with "X"											
Indicate % cover macrophytes per section											
0-5% Macrophyte Coverage											
>5 and ≤10% Macrophyte Coverage											
>10 and ≤25% Macrophyte Coverage											
>25 and ≤50% Macrophyte Coverage											
> 50% Macrophyte Coverage											

HERBACEOUS SPECIES	Meter Mark 0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	Specimen collected (check)
Micranthemum glomeratum											
Micranthemum umbrosum											
Myriophyllum aquaticum											
Najas guadelupensis											
Nuphar luteum											
Orontium aquaticum											
Panicum hemitomon											
Panicum repens											
Panicum rigidulum											
Pistia stratioides											
Polygonum glabra											
Polygonum hydropiperoides											
Polygonum punctatum											
Pontederia cordata											
Potamogeton illinoensis											
Ruellia simplex											
Sacciolepis striata											
Sagittaria kurziana											
Sagittaria lancifolia											
Sagittaria latifolia											
Salvinia minima											
Samolus parviflora											
Saururus cernuus											
Sparganium americanum											
Typha											
Vallisneria americana											
Zizania aquatica											

RQ-2021-07-12-57

Date of Request: 12-JUL-2021
Created By: PARRISH_J On: 12-JUL-2021
Modified By: WATTS_J On: 14-JUL-2021
Customer: NE-DIST
Project: SMP
Division: Division of Environmental Assessment and Restoration
District: Northeast District
Event Description: Miramar Biology

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@floridadep.gov

Priority: 3
Event Status: R
Criminal Investigation: NO
Chemistry Request Reviewed By: WATTS_J On: 14-JUL-2021
Biology Request Reviewed By: JASROTIA_P On: 14-JUL-2021
Sampling Kit Required: NO Ship on:
Sampling Kit Shipped:
Sampling Kit Packed By:
Preservatives Needed: NO
Date to Receive Samples: 12-JUL-2021
Logged In By: SHAIK_A On: 15-JUL-2021

Send Final Report To:

8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Jeremy Parrish
Report Notification EMail: Jeremy.M.Parrish@floridadep.gov

Comments: Group A: (Surf.-Fresh)Nutrients, Metals, PCL-TQR

Packing Notes:

Bottle Group A (Water) With 1 Samples:

Bottle Type: P-1L — Number of Bottles: 1 — Preserved With: ICE

ALKALINITY	Template: DEFAULT	(SM 2320 B-2011) Alkalinity in aqueous matrices as mg CaCO3/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 Color (true)	Template: DEFAULT	(SM 2120 B-2011) True Color measured at 450 nm (not valid for NPDES monitoring)
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: 1 — Preserved With: ICE

CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Bottle Type: P-500ML — Number of Bottles: 1 — Preserved With: HNO3

W-HARD Hardness	Template: DEFAULT	(SM 2340B) Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3
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		

Bottle Group A (Water) With 1 Samples:

Bottle Type: P-500ML Number of Bottles: 1 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
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: 1 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: BG-500ML Number of Bottles: 4 Preserved With: ICE

W-PCL-TQ-R	Template: DEFAULT	(EPA 8270E) Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS

Bottle Type: P-125ML Number of Bottles: 1 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 Group B (Water) With 1 Samples:

Bottle Type: P-250ML-WI-THI Number of Bottles: 1 Preserved With: ICE

NE-ALS-ECQ	Template: DEFAULT	(SM 9223 B Quanti-Tray) E. coli by Colilert/QT by ALS in Jacksonville

Bottle Type: QPCR-P-500ML Number of Bottles: 1 Preserved With: ICE

PCR-BACR	Template: DEFAULT	(SOP-PCR-1.4) Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction
PCR-DG3	Template: DEFAULT	(SOP-PCR-1.5) Detection and quantification of canine-specific DG3 Bacteroides genetic marker with quantitative polymerase chain reaction
PCR-HF183	Template: DEFAULT	(SOP-PCR-1.0) Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction

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