



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Russ Mill Creek @ Union Rd

Date: 4-22-19
(mm/dd/yyyy)

WIN/ Field ID: G2TLHR0037

WBID: 199

Latitude: 30.8523

County: Jackson

ORG ID: 21FTLHR

Longitude: 85.3417

Receiving Body of Water: Waddells Mill Creek

RQ- 2019-02-18-31
(Decimal Degrees)

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Paul Blair					☒	☒	☒	☒	☒
Jade Burtchett					☒	☒	☒	☒	☒

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☐ Syringe	
☐ Dipper	☐ Other	
Depth Measured with _____		
Equipment ID _____		

Collection Method		
☒ Wading	☐ Canoe/Kayak	
☐ From Shore	☐ Electric Motor	
☐ Other	☐ Gasoline Motor	

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded
Photos: Yes / No Flow: No Flow / Intertidal / Flowing / NA
Meter ID# 154177 Matrix: Fresh / Marine / DI
Tide: Rising/ Falling/ Slack/ NA Tide Times: High Low

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)
EST	10:40	0.4	0.2	0.4	8.92	95.6	7.7	0.12	247	18.7
CEN										

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

SBIO ID Numbers: SBIO-ID: 79613 HA-ID: 15420 RPS-ID: 9338 Macrophyte-ID: LIMS#:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	8344070	12-10-19	☒ <2
Metals	☒ W-ICPMS ☐ W-ICP	☒ Ice ☒ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☒ MI-FW-QLDC	☒ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci	☐ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD	☐ Ice			
Tracers	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides	☒ W-PSNP-TQ ☐ W-CT-CL-R ☒ W-E8321-DI ☐ W-PCL-SQ-R ☒ WE8321-MS ☐ W-CARB-AA	☒ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			

Notes: Clear cutting of trees recently along right bank.

G2TLHR0037
Place Label Here

Signature: Paul Blair

Date: 4-22-19

LIMS EVENT ID: TLH-RQC-2019-04-22-01

WIN Import ID:

Enter Field Parameters, Verify Station ID in LIMS DMT: 26 5/20/19

QC Station ID, Field Parameters in LIMS DMT:

Scan/Save Field Sheets 26 5/20/19 (Initials/Date)

Migrate Data to WIN:

Verify Data in WIN:

(Initials/Date)

(Initials/Date)

(Initials/Date)

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

SAMPLING AGENCY: <u>8034</u>		STORET STATION NUMBER: <u>G2</u>	DATE (MM/DD/YY): <u>4-22-19</u>	RECEIVING BODY OF WATER: <u>Nadells Creek</u>
REMARKS:	COUNTY: <u>Jackson</u>	LOCATION: <u>G2TLHR0037/Russ Mill Creek</u>	FIELD ID/NAME: <u>G2TLHR0037</u>	

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>3</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>3</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 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>12</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 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 <u>14</u> ----- Primary Score <u>32</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 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	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>20</u>	20 19 18 17 16	15 14 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>10</u> Left Bank <u>10</u>	10 9	8 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>2</u> Left Bank <u>10</u>	10 9	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>2</u> Left Bank <u>10</u> ----- Secondary Score <u>64</u>	10 9	8 7 6	5 4	3 2 1

96

TOTAL SCORE

Date: <u>4-22-19</u>	Analyst: <u>Paul Blair/Nade Burtchett</u>	Signature: <u>Paul Blair</u>
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DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID G2TLHR0037 ORG ID _____ LATITUDE _____
COUNTY Jackson STORET # _____ LONGITUDE _____
DATE 4-22-19 TIME 11:00 SAMPLING AGENCY 8034
SITE NAME Russ Mill Creek @ Union Rd
FIELD ID/NAME G2TLHR0037 RECEIVING BODY OF WATER Waddells Mill Creek

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)
<u>20</u>	<u>10</u>	<u>60</u>		<u>10</u>			

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: 718 Right Bank: 5m

Hydrologic Modification Score (per FT 3101) _____

High Water Mark: 0.2 + 0.4 = 0.4 ^{0.6}
(m) (above present water level) (present depth) (above bed)

Artificially Impounded ☐ Yes ☒ No

Artificially ☒ No ☐ Mostly recovered, more sinuous

Channelized: ☐ Some recovery ☐ Recent, severe

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

Typical Width (m) Depth (m)/Velocity (m/sec) Transect

<u>6m</u> m wide	<u>0.16</u> m/s	<u>0.16</u> m/s	<u>0.16</u> m/s
<u>0.3</u> m deep	<u>0.4</u> m deep	<u>0.2</u> m deep	

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

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	<u>2.25</u>	<u>710</u>	<u>7</u>
Undercut Banks / Roots	<u>0</u>		
Leaf Packs or Mat	<u>0.16</u>	<u>84</u>	<u>7</u>
Aquatic Vegetation	<u>0</u>		
Rock or Shell Rubble..	<u>0</u>		
Sand.....	<u>97.59</u>	<u>6</u>	<u>6</u>
Mud / Muck / Silt	<u>0</u>		
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:	<u>0.2</u>	<u>18.7</u>	<u>7.7</u>	<u>8.92</u>	<u>95.6</u>	<u>247</u>	<u>0.12</u>	<u>0.4</u>
Mid:								☒ VOB
Bottom								

Meter ID: 154177 TOTAL DEPTH 0.4

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: 8344670 Exp: 12-16-19

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

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

Clarity Clear ☐ Slightly Turbid ☒
Turbid ☐ Opaque ☐

ABUNDANCE

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

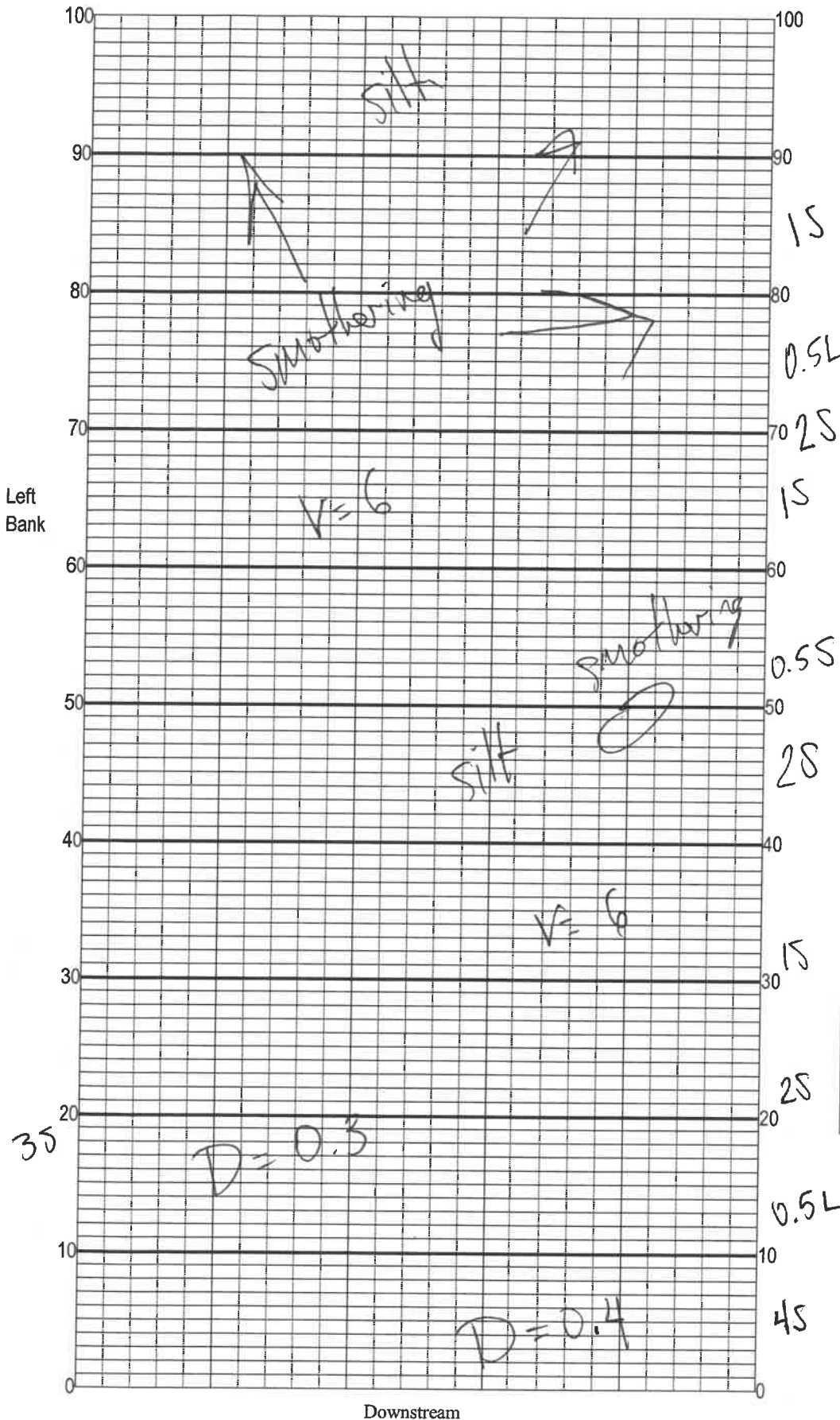
System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐

AMBIENT FIELD CONDITIONS / NOTES:

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

SAMPLING TEAM Blair / Burtchett **SIGNATURE** [Signature] **DATE:** 4-22-19

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



Location: Russ Mill Creek
 Date: 4-22-19
 Sampler: Paul Blair

100 m: Latitude _____
 Longitude _____
 0 m: Latitude _____
 Longitude _____

Substrates: Code key, draw proportionate habitat abundance. %

☐ S	Snags	<u>2.25</u>
☐ R	Roots/undercut banks	_____
☐ L	Leaf Packs (or mats)	<u>0.18</u>
☐ A	Aquatic Macrophytes	_____
☐ K	<u>rock</u>	_____
☐	_____	_____
☐	Pools	total # observed = _____ # range expected = _____

Average width 6 m
 Average depth 0.36 m

Velocity measured at 35 meter mark.

WQ & chemistry taken at 5 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:

S = 13.5
L = 1

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

← 8m →
6m

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Russ Mill Creek G2TLHR0037 County: Jackson Date: 4-22-19 Investigators: Blair/Burtchett

STORET Station Number:

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					2			
	3					3			
	4					4			
	5			90		5			70
	6					6			
	7					7			
	8					8			
	9	N				9	N		

10	1	N			70	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5			85		5			60
	6					6			
	7					7			
	8	N				8	N		
	9	N				9	N		

20	1	N			80	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5			75		5			45
	6					6			
	7					7			
	8	N				8	N		
	9	N				9	N		

30	1	N			90	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5			70		5			36
	6					6			
	7					7			
	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			75		5			25
	6					6			
	7					7			
	8	N				8	N		
	9	N				9	N		

50	1	N			50	1	N		
	2	N				2	N		
	3	N				3	N		
	4	N				4	N		
	5			80		5			
	6					6			
	7					7			
	8	N				8	N		
	9	N				9	N		

Secchi depth 0.4
Estimated?

points ranked 4-6 5
total points assessed 99
% points ranked 4-6 5%

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒
RQ- 2019-02-18-31

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%.

Waterbody: <u>Russ Mill Creek / G2TLHR0037</u>	Date: <u>4-22-19</u>	County: <u>Jackson</u>	Storet Number:
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Storet Number:

Signature: Paul [Signature]

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m² 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.

[illegible]

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: 157177

RQ: 2019-02-18-31

Project: SMP 2019

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 4/19

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. Burtchett	4/22/19	802	19.0	761.6	9.3	9.31	100.2	-	1.01	P/F	L/F
ICV	"	✓	812	18.6	761.7	9.4	9.35	100.0	-	-	P/F	L/F
CCV	"	✓	1500	21.5	760.2	8.8	8.83	99.8	-	-	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 μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	J. Burtchett	4/22/19	804	180621	07/19	1000	1000	P/F	L/F
ICV	"	✓	814	1805F8	05/20	160	103	P/F	L/F
CCV	"	✓	1502	1805F8	05/20	102	102	P/F	L/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.	J. Burtchett	4/22/19	806	180403C	10/19	7.02	18.7	7.03	-47.3	P/F	L/F
Calibr.	"	✓	808	180621D	07/19	4.00	18.8	4.00	128.2	P/F	L/F
Calibr.	"	✓	810	180621F	01/20	10.07	18.2	10.08	-212.6	P/F	L/F
ICV	"	✓	816	180621F	01/20	10.06	19.4	10.06	-213.8	P/F	L/F
CCV	"		1504	180621D	07/19	4.00	20.0	4.13	120.1	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 $+180 \pm 50$;

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: 4/19

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. Burtchett	4/22/19	800	0.000	0.000	P/F	L/F

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

COMMENTS:

Customer: TLH-ROC

Requester: Michael Eckles

Field Report Prepared By: J. Burtchett

Project ID: SMP

Collected By: J. Burtchett P.B. 1a.5

Sampling Agency: 8034

Location	Ross Mill Creek @ Union Rd.										Bottle Group(s)	A
Field ID	G2TLHR0037										A	
WIN/ST	G2TLHR0037											
Latitude	G2TLHR0037											
Field ID	G2TLHR0037										A	
WIN/STORET #	G2TLHR0037											
Latitude	G2TLHR0037											
Location	Russ Mill Creek @ Union Rd.										Bottle Group(s)	B
Field ID	G2TLHR0037										B	
WIN/ST	G2TLHR0037											
Latitude	G2TLHR0037											
Field ID	G2TLHR0037										B	
WIN/STORET #	G2TLHR0037											
Latitude	G2TLHR0037											

Relinquished By: JB/B	Date/Time: 4/22/19	Shipping Method: HD	Number of Coolers Shipped:	Received By: HK	Date/Time: 4.22.19/14:47
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