



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAGE ____ OF ____

Field ID:



FIELD SHEET

Date:

Time:

G4NE0105 10122016

Data Qualified?

Yes / No

STORET Station Name:

Cross Creek at SR 325

Date: 10/12/2016

(mm/dd/yyyy)

STORET Station ID:

20020131

Latitude: 29.4863

(Decimal Degrees)

WBID: 2754 RQ-2016-10-10-15

ORG ID: 21 FLA

Longitude: 82.16517

(Decimal Degrees)

Receiving Body of Water: Lochloosa / orange lake

Field ID:

County: Alachua

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
JParrish									
B Davis									

Sampling Equipment	
☐ Sample Container	☐ Van Dorn ☒ Pole
☐ Carboy	☐ Syringe
☐ Dipper	☐ Other
Equipment ID	
Collection Method	
☐ Wading From	☐ Via Boat
☒ Shore	☐ Canoe/Kayak
☐ Other (note below)	☐ Electric
	☐ Motor

Water Level: Dry / Low / Normal / High / Flooded

Meter ID# PSI # 3

Photos: Yes / No

Matrix: Fresh / Marine / DI

Tide Falling: Yes / No / X

Time Zon	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk(m)	Sp COND (µmhos/cm)	Temp. (C°)
EST	1250	0.3	1	2.3	27%	6.99	0.05	0.5	105	23.0
CEN										

Biological Samples Collected: None HA SCI LVS RPS LVI Other

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH
Preserved Nutrients	☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-TOC / ☒ W-S-A-TP	☒ Ice ☒ H2SO4			☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO2			☐ <2
Filtered Nutrients	☒ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
BOD	☐ BOD-UNIN	☐ Ice			
Physical/Aggregate (Kit A)	☒ Alkalinity / ☒ W-F / ☒ W-TSS / ☒ TURBIDITY / ☒ W-CH-IC / ☒ W-COLOR / ☒ W-SO4-IC / ☒ W-TDS	☒ Ice			
Physical/Aggregate (Kit B)	☐ Alkalinity / ☐ W-F / ☐ W-TSS / ☐ TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococcus ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

Contains
1:1
Sulfuric Acid
SA-6209120
EXP. 07/27/17
Warning!
See SDS

Active Sticker(s) Here
(Available)

Notes:

Field ID:

Date:

Time:



G4NE0105 10122016

Cross Creek at SR 325



20020131

Signature:

Date: 10/12/16

Field Parameters Entered into LIMS:

Field Parameters QC in LIMS:

Date Migrated to STORET:

Field Sheets Scanned/Saved:

(Initials/Date)

(Initials/Date)

(Initials/Date)

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

WBID 2754

76976

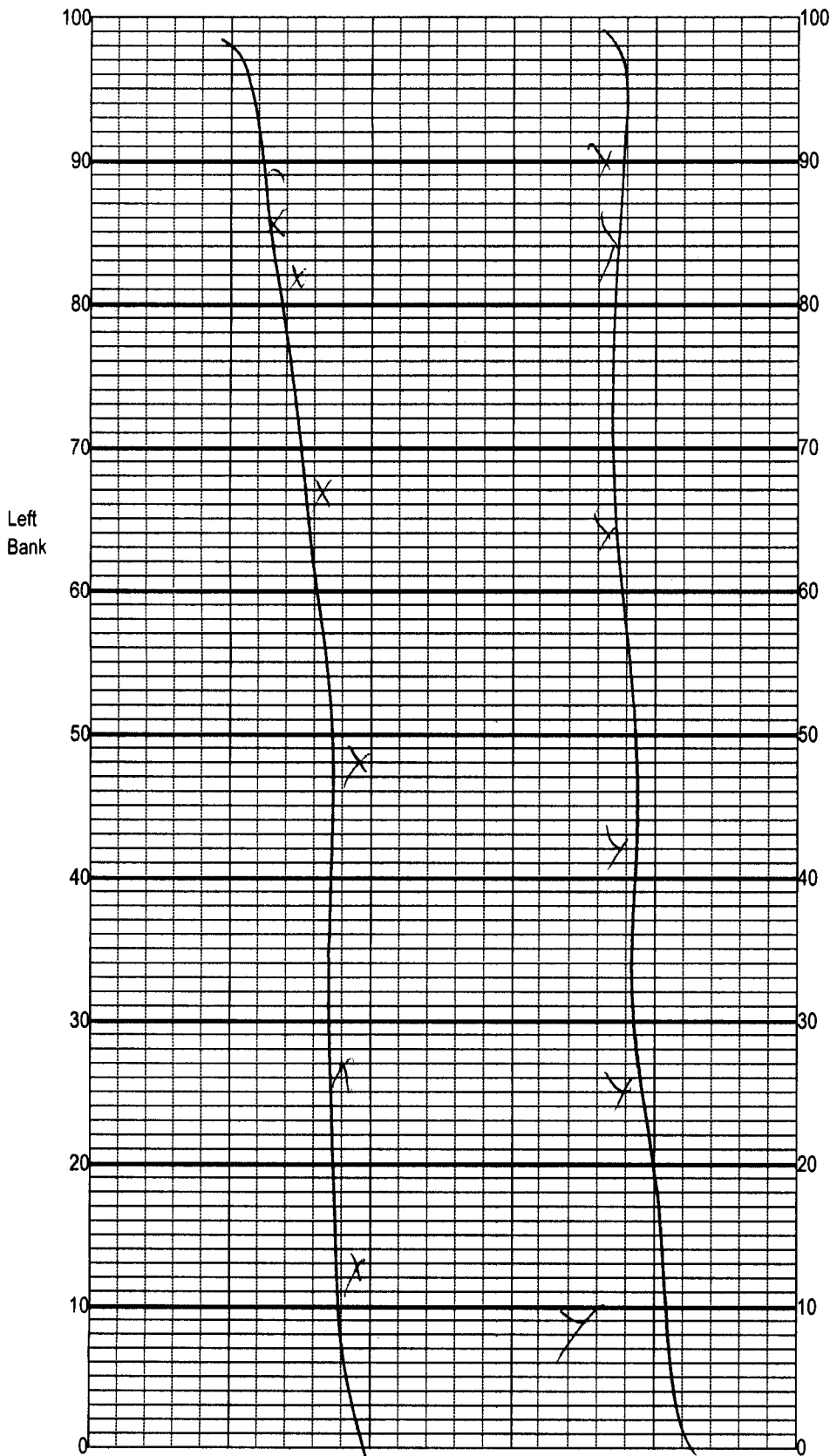
SAMPLING AGENCY: NE ROC		STORET STATION NUMBER: 2002013 1	DATE (MM/DD/YY): 10/12/16	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: Alachua	LOCATION: Cross creek 325	FIELD ID/NAME:	

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>1</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 <u>2</u> <u>1</u>
Substrate Availability <u>1</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 <u>1</u>
Water Velocity <u>10</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 <u>10</u> 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>S</u> Primary Score <u>17</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. <u>5</u> 4 3 2 1
Secondary Habitat Components Artificial Channelization <u>S</u>	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 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. <u>5</u> 4 3 2 1
Bank Stability Right Bank <u>4</u> Left Bank <u>4</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the 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 <u>4</u>	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. <u>3</u> 2 1
Riparian Buffer Zone Width Right Bank <u>3</u> Left Bank <u>3</u>	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 <u>3</u> 2 1
Riparian Zone Vegetation Quality Right Bank <u>4</u> Left Bank <u>4</u> Secondary Score <u>25</u>	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 <u>4</u>	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

44 42 TOTAL SCORE

Date: <u>10/12/16</u>	Analyst: <u>Jeremy Purnell</u>	Signature: <u>Jeremy Purnell</u>
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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: Cross Creek @ 325

Date: 10/12/16

Sampler: J Parish

100 m: Latitude _____ Longitude _____
0 m: Latitude _____ Longitude _____
Substrates: Code key, draw proportionate habitat abundance. %
☐ Snags _____
☐ Roots/undercut banks _____
☐ Leaf Packs (or mats) _____
☒ Aquatic Macrophytes <u>41</u>
☐ _____
☐ _____
☐ Pools total # observed = _____ # range expected = _____
Average width <u>20</u> m
Average depth <u>1</u> m
Velocity measured at <u>100</u> meter mark.
WQ & chemistry taken at <u>100</u> 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 M of Macrophytes was observed while doing the LVS? YES or NO

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

WBID 2754

76476

SAMPLE ID _____ ORG ID _____ LATITUDE _____
 COUNTY Alachua STORET # 20020131 LONGITUDE _____
 DATE 10/12/16 TIME 1250 SAMPLING AGENCY _____
 SITE NAME Cross Creek @ 325
 FIELD ID/NAME _____ RECEIVING BODY OF WATER Loc/1059 Lake 8 Orange Lake

RIPARIAN ZONE / STREAM FEATURES

Meter ID: _____

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☐ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ 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 _____ m wide _____ m/s _____ m/s _____ m/s _____ m deep _____ m deep _____ m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>6</u> Right Bank: <u>6</u>				Hydrologic Modification Score (per FT 3101) <u>56</u>				
High Water Mark: <u>0.5</u> + <u>0.6</u> = <u>1.1</u> (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%)				

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 Invert PERI % Coverage # Times Sampled # Times Sampled Woody Debris (Snags) _____ Undercut Banks / Roots _____ Leaf Packs or Mat _____ Aquatic Vegetation <u>21</u> _____ Rock or Shell Rubble _____ Sand _____ Mud / Muck / Silt _____ Other _____ Other _____			WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MGL) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.3</u> <u>23.0</u> <u>6.94</u> <u>2.3</u> <u>27</u> <u>105</u> <u>0.05</u> <u>0.5</u> Mid: _____ Bottom: <u>1.1</u> _____ System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) <u>CAVAL</u>			Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____ Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☒ No Lot Number: _____ Exp: _____		
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☐ ☒ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☐ ☒ ☐ Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐			Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐ Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐ Clarity Clear ☐ Slightly Turbid ☒ Turbid ☒ Opaque ☐			AMBIENT FIELD CONDITIONS / NOTES: <u>29 29 10.69</u> <u>82 09 54.65</u> Hydrologic Disturbance Scoring ☐ 1-2 ☒ 3-4 ☐ 5-6 ☐ 7-8 ☐ 9-10 ☐ The antecedent hydrologic conditions have been met to my best knowledge.		
SAMPLING TEAM <u>Hum LB Davis</u>			SIGNATURE: <u>Jeany Law</u>					

76976

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Cross Creek @ 325 County: Alachua Date: 10/12/16 Investigators: J. Parrish

Transect (m) Point 1=right 9=left Algal Thickness Rank (N-6, X) Estimated Canopy Cover

STORET Station Number: 2002 0131

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	X			60	1	5		
	2	X				2	X		
	3	X				3	X		
	4	X				4	X		
	5	X		0		5	X		0
	6	X				6	X		
	7	X				7	X		
	8	X				8	X		
	9	N				9	3		
10	1	N			70	1	N		
	2	X				2	X		
	3	X				3	X		
	4	X				4	X		
	5	X		0		5	X		0
	6	X				6	X		
	7	X				7	X		
	8	N				8	X		
	9	N				9	N		
20	1	5			80	1	N		
	2	X				2	X		
	3	X				3	X		
	4	X				4	X		
	5	X		0		5	X		0
	6	X				6	X		
	7	X				7	X		
	8	X				8	X		
	9	N				9	N		
30	1	N			90	1	N		
	2	X				2	X		
	3	X				3	X		
	4	X				4	X		
	5	X		0		5	X		0
	6	X				6	X		
	7	X				7	X		
	8	X				8	X		
	9	N				9	N		
40	1	N			100	1	N		
	2	X				2	X		
	3	X				3	X		
	4	X				4	X		
	5	X		0		5	X		0
	6	X				6	X		
	7	X				7	X		
	8	X				8	X		
	9	N				9	4		

Secchi depth 0.5
Estimated? N

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

Check accompanying data collected at same site/date.

Algal mat sample N
Linear Veg Survey yes
Habitat Assessment yes
SCI/Biorecon N
Water sample yes

RQ- 2016 10-10-15

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.

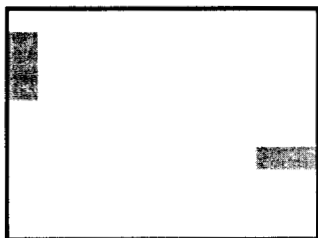
Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

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%.

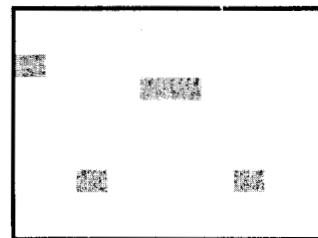
769 16

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

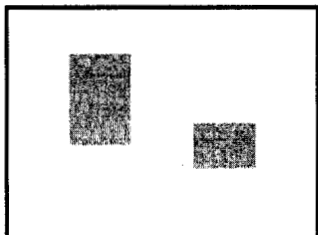
5% Macrophyte Coverage



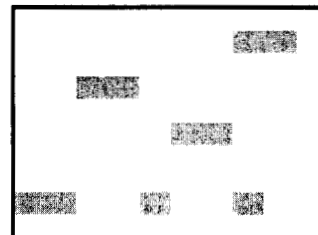
5% Macrophyte Coverage



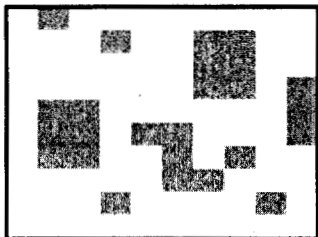
10% Macrophyte Coverage



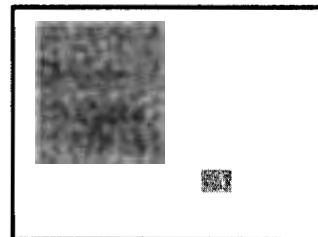
10% Macrophyte Coverage



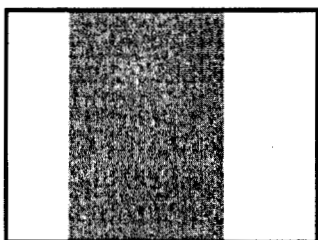
25% Macrophyte Coverage



25% Macrophyte Coverage



50% Macrophyte Coverage



50% Macrophyte Coverage



WB10 2754

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

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

Meter YSI #3RQ- 2016-10-10-15Project Gainesville South

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site

Temperature (Quarterly) FT 1400Date of Last Temperature Verification 03/04/2016

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	J Parnish	10/12/16	730	22.6	8.64	8.64	100	46.1	-	P	L
ICV	J	L	733	22.6	8.64	8.64	100	46.1	-	P	L
CCV	B Davis	10/12/16	1633	23.23	8.54	8.46	99.0	46.1	-	P	L
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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; 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.	J Parnish	10/12/16	735	160616A	6/17	1000	1000	P	L
ICV	J	L	741	160616B	12/16	100	100	P	L
CCV	B Davis	10/12/16	1635	160616A	6/17	1000	1001	P	L
CCV									

Report specific conductance as a whole number with no decimal figure.

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	J Parnish	10/12/16	742	260604	6/18	7.0	7.1	-19.0	P	L
Calibr.						4.0				
Calibr.	J Parnish	10/12/16	744	2516A88	4/17	10.0	10.0	-190.6	P	L
ICV	B Davis	10/12/16	1337	260604	6/18	7.0	7.06	-15.6	P	L
CCV										
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU; mV pH7 Range 0 ± 50 ;mV pH 4 Range $+180 \pm 50$;mV pH 10 Range -180 ± 50 ;

Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air	J Parnish	10/12/16	746	0.000	0.00	P	

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

Scanned 10/24/16