



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE 1 OF 16

Data Qualified?

Yes / No

March 2017

Location/STORET Station Name: Pine Hill Lake Middle

Date: 07/25/2017

(mm/dd/yyyy)

STORET # G1WA0054

WBID: 564B

Latitude: 30.58492

(Decimal Degrees)

County: Leon

RQ - 2017-06-05-45

ORG ID: 21FLWQA

Longitude: -84.2195

(Decimal Degrees)

Receiving Body of Water: Petty Gulf Lake

Field ID: G1WA0054_07252017

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Curtis Musson						
Blake Spencer						

Sampling Equipment	
☒ Sample Container	☐ Van Dorn ☐ Pole
☐ Carboy	☐ Syringe
☐ Dipper	☐ Other
Equipment ID	

Collection Method	
☐ Wading	☒ Via Boat
☐ From Shore	☒ Canoe/Kayak
☐ Other (note below)	☐ Electric Motor
	☐ Gasoline Motor

Water Level: Dry / Pooled / Low / Normal / High / Flooded		Matrix: Fresh / Marine / DI	
Meter ID# Bio #2		Photos: Yes / No	
		Tide Falling: Yes / No / NA	

Time Zone	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	1115	.3m	1.4m	8.45	113.9	7.45	.02	VOB	44	31.18
CEN										

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

SBIO ID Numbers: SBIO-ID: 77783 RPS-ID: Macrophyte-ID: 10573 LIMS#: 1916192

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	SA-7093010	4/3/18	☒ <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-CI-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci ☐ qPCR	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R	☐ Ice			
	☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Other			

Contains

1:1

Sulfuric Acid

SA-7093010

EXP: 04/03/18

Warning!

See SDS

Sticker(s) Here

(available)

Notes:

LVI
Kit A

STORET ↓

Pine Hill
Lake Middle

G1WA0054

Field ID →

Pine Hill
Lake Middle

July 25, 2017



G1WA0054_07252017

Signature:

Date:

Field Parameters Entered into LIMS:

CM 7-27-17

Field Parameters QC in LIMS:

Date Migrated to STORET:

(Initials/Date)

Field Sheets Scanned/Saved:

CM 7-31-17

(Initials/Date)

(Initials/Date)

(Initials/Date)

SBto 77783

Macro ID 77783

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Pine Hill</u>	County: <u>Leon County</u>	Date: <u>7/25/17</u>
Analyst: <u>Bale Spencer</u>	Signature: <u>[Signature]</u>	STORET: <u>G1W40054</u>
Except where noted as "sp." species level identification required. *Genera that may require lab verification*		Lake units sampled (circle one group):
Plants in bold= FLEPPC invasive exotic.		1, 4, 7, 10 2, 5, 8, 11
It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.		<u>3, 6, 9, 12</u>

SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	Collected? (✓)
Acer rubrum	X	X	X	X		Habenaria repens	X	X			
Alternanthera philoxeroides	X	X	X	X		Hydrilla verticillata					
Andropogon sp.						Hydrocotyle sp.	X	X	X	X	
Azolla filiculoides (A. caroliniana)						Hrdolea quadrivalis	X	X	X	X	
Baccharis sp.			X	X		Hygrophila polysperma					
Bacopa caroliniana	X		X			*Hypericum fasciculatum					
Bacopa monnieri						*Hypericum hypericoides					
Bidens laevis						*Hypericum myrtifolium					
Bidens mitis	X	X		X		Ilex cassine					
Blechnum serrulatum						Ipomoea aquatica					
Boehmeria cylindrica	X		X	X		Ipomoea sagittata					
Brasenia schreberi	X	X		X		Iris pseudacorus					
Cabomba caroliniana						Itea virginica					
Casuarina equisetifolia						Juncus effusus	X				
Centella asiatica						*Juncus marginatus		X			
Cephalanthus occidentalis	X	X	X	X		*Juncus megacephalus					
Ceratophyllum demersum						Juncus repens					
Chara sp.	X	X	X	X		*Juncus scirpoides					
Cladium jamaicense						Lachnanthes caroliniana					
Cliftonia monophylla						Leersia hexandra	X				
Colocasia esculenta	X	X	X	X		Landoltia punctata (Spirodela punctata)					
*Commelina						Lemna sp.					
Crinum americanum						Leucothoe racemosa (Eubotrys racemosa)					
*Cyperus alternifolius (C. involucratus)				X		Limnobium spongia	X	X		X	
Cyperus articulatus						Limnophila sessiliflora					
Cyperus haspan						Liquidamber styraciflua	X		X	X	
*Cyperus lecontei						*Ludwigia arcuata					
*Cyperus polystachyos						*Ludwigia leptocarpa					
*Cyperus odoratus						*Ludwigia linearis	X				
*Cyperus surinamensis						*Ludwigia octovalvis					
Cyrilla racemiflora						*Ludwigia peruviana					
Decodon verticillatus						*Ludwigia repens	X	X	X	X	
Diodia virginiana	X	X				*Ludwigia <u>grandiflora</u>	X	X	X	X	
*Echinochloa crus-galli						Luziola fluitans (Hydrochloa carolinensis)	X	X	X	X	
*Echinochloa muricatum						Lycopus virginicus					
Echinochloa walteri						Lyonia lucida					
Eclipta prostrata (E. alba)						Magnolia virginiana					
Egeria densa						Mayaca fluviatilis	X	X	X	X	
Eichhornia crassipes	X		X			Melaleuca quinquenervia					
*Eleocharis baldwinii						Micranthemum glomeratum		X	X		
*Eleocharis <u>viripalensis</u>	X	X	X			Micranthemum umbrosum					
Eleocharis cellulosa						Mikania scandens			X	X	
Eleocharis equisetoides						Mimosa pigra					
Eleocharis interstincta						Myrica cerifera	X	X	X	X	
*Eriocaulon compressum						<u>Carex glaucescens</u>	X				
*Eriocaulon decangulare											
Eupatorium capillifolium											
*Fuirena											
Fuirena scirpoidea											
Gordonia lasianthus											

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Pine Hill Lake</u>					Date: <u>7-25-17</u>						
SPECIES	3	6	9	12	Collected? (✓)	SPECIES	3	6	9	12	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana					
*Myriophyllum heterophyllum						Salvinia minima			X	X	
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum	X	X	X	X	
Myriophyllum spicatum						Saururus cernuus		X			
*Najas filifolia						Schinus terebinthifolius					
*Najas guadalupensis						*Schoenoplectus californicus					
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani (Scirpus validus)					
Nitella spp.						Scirpus cubensis (Oxycaryon cubense)					
Nuphar sp.						Scirpus cyperinus	X				
Nymphaea odorata						*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.			X	X	
Panicum hemitomon						Thalia geniculata					
Panicum repens	X	X	X	X		Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum	X	X	X	X	
*Paspalum repens						Typha sp.					
Paspalum urvillei	X	X	X	X		Urochloa mutica (Brachiaria mutica)					
Peltandra sp.						*Utricularia gibba (U. biflora)					
Persea sp.						*Utricularia floridana					
Pennisetum purpureum						*Utricularia foliosa					
Phragmites australis						*Utricularia inflata					
Pinus elliotii	X	X	X	X		*Utricularia purpurea					
Pistia stratioides						*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
*Polygonum hydropiperoides	X	X	X	X		*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata						Woodwardia virginica					
*Potamogeton diversifolius	X	X	X			Xyris sp.			X	X	
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata											
*Rhexia mariana	X		X	X		Arundinaria gigantea	X				
*Rhynchospora corniculata	X					Juncus elliotii	X				
*Rhynchospora inundata											
Rhynchospora tracyi						Rhynchospora glomerata		X	X		
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata	X	X	X	X							
*Sagittaria filiformis	X	X	X	X							
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

Macrophyte QC Report

STORET: G1WA0054

Visit ID: 77783

Macrophyte ID: 10573

LIMS ID: 1916192

Sample Date: 7/25/2017

Collector Name: Spencer, Blake

Identifier Name: Spencer, Blake

Macrophyte Sample Comments:

Entered CM 7/31/17

Taxa Name:	Rep 1	Rep 2	Rep 3	Rep 4
<i>Acer rubrum</i>	P	P		P
<i>Alternanthera philoxeroides</i>	P	P	P	P
<i>Arundinaria gigantea</i>	P			
<i>Baccharis</i>			P	P
<i>Bacopa caroliniana</i>	P		P	
<i>Bidens mitis</i>	P	P		P
<i>Boehmeria cylindrica</i>	P		P	P
<i>Brasenia schreberi</i>	P	P		P
<i>Carex glaucescens</i>	P			
<i>Cephalanthus occidentalis</i>	P	P	P	P
<i>Chara</i>	P	P	P	P
<i>Colocasia esculenta</i>	P	P	P	P
<i>Cyperus alternifolius</i>				P
<i>Decodon verticillatus</i>	P	P		
<i>Eichhornia crassipes</i>	P		P	
<i>Eleocharis</i>	P	P	P	
<i>Habenaria repens</i>	P		P	
<i>Hydrocotyle</i>	P	P	P	P
<i>Hydrolea quadrivalvis</i>	P	P	P	P
<i>Juncus effusus</i>	P			
<i>Juncus elliotii</i>	P			
<i>Juncus marginatus</i>			P	
<i>Leersia hexandra</i>	P			
<i>Limnobium spongia</i>	P	P		P
<i>Liquidambar styraciflua</i>	P		P	P
<i>Ludwigia grandiflora</i>	P	P	P	P
<i>Ludwigia linearis</i>	P			
<i>Ludwigia repens</i>	P	P	P	P
<i>Luziola fluitans</i>	P	P	P	P
<i>Lycopus virginicus</i>	P			
<i>Mayaca fluviatilis</i>	D	D	D	D
<i>Micranthemum glomeratum</i>		P	P	
<i>Mikania scandens</i>			P	P

This data has not been fully approved at this time.

Macrophyte QC Report

Taxa Name:	Rep 1	Rep 2	Rep 3	Rep 4
<i>Myrica cerifera</i>	P	P	P	P
<i>Panicum repens</i>	P	P	P	P
<i>Paspalum urvillei</i>	P	P	P	P
<i>Pinus elliotii</i>	P	P	P	P
<i>Polygonum hydropiperoides</i>	P	P	P	P
<i>Potamogeton diversifolius</i>	P	P	P	
<i>Rhexia mariana</i>	P		P	P
<i>Rhynchospora corniculata</i>	P			
<i>Rhynchospora glomerata</i>		P		P
<i>Sacciolepis striata</i>	P		P	P
<i>Sagittaria filiformis</i>	P	P	P	P
<i>Salvinia minima</i>			P	P
<i>Sapium sebiferum</i>	P	P	P	P
<i>Saururus cernuus</i>		P		
<i>Scirpus cyperinus</i>	P			
<i>Taxodium</i>			P	P
<i>Triadenum virginicum</i>	P	P	P	P
<i>Woodwardia virginica</i>			P	P

This data has not been fully approved at this time.

-84.219
30.586

12

3

-84.223
30.587

-84.218
30.585

-84.221
30.586

-84.221
30.583

-84.220
30.582

9

6

-84.220
30.581

-84.221
30.581

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 77783 MACROPHYTE ID: 10573 LATITUDE: _____
 COUNTY: Leon STORET #: GIWA0054 LONGITUDE: _____
 DATE: 7/25/17 TIME: 1115 SAMPLING AGENCY: FDEP
 SITE NAME: Pine Hill Lake Middle WBID: 564B
 FIELD ID/NAME: GIWA0054_07252017 LAKE SIZE: 32.4 Ac RQ: 2017-06-05-45

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) : <u>WATER</u> Forest/Natural <u>34.2</u> Silviculture <u>9.8</u> Field/Pasture <u>—</u> Agricultural <u>1.1</u> Residential <u>41.6</u> Commercial <u>2.4</u> Industrial <u>5.2</u> Other (Specify) <u>5.6</u>		LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LD: <u>4.0</u>
Local Watershed Erosion (select one) : ☐ None ☒ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution : ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy		Artificially Impounded ☒ Yes ☐ No Land Use Source & Year:
STORMWATER INPUTS <u>9</u>	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16 15 14 13 12 11	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 10 9 8 7 6 5 4 3 2 1
LAKESIDE ALTERATIONS <u>2</u>	Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 20 19 18 17 16 15 14 13 12 11	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6 5 4 3 2 1
BUFFER ZONE <u>3</u>	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16 15 14 13 12 11	Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 10 9 8 7 6 5 4 3 2 1

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH<2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # <u>See field log</u> Exp. Date: <u>4/3/19</u> Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High		Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____ Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____	
Meter Readings: Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat. (%) Cond. (UMHO/CM) Salinity (PPT) Top: <u>0.3</u> <u>31.08</u> <u>7.45</u> <u>8.45</u> <u>113.9</u> <u>44</u> <u>0.02</u> Mid-Depth: _____ Bottom: <u>1.4</u> _____		Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green SECCHI (M) _____ Total Station Depth (M) <u>1.4</u> VOB ☒	
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☒ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____		Sediment Odors: ☒ Normal ☐ Anaerobic ☐ Other (Specify): _____	
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☒ No Lot #: _____ Exp Date: _____ Algal Bloom/Algal ID Sample Taken? Yes ☐ No ☒ Active Vegetation Mgmt? ☒ Yes ☐ No ☐ Don't Know		Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☒ ☐ Nuisance Plants ☐ ☐ ☐ ☒ Submersed Plants ☐ ☐ ☐ ☒ Exotic Apple Snails ☒ ☐ ☐ ☐	
Additional Notes: <u>LIMS # 1916192</u>			
Weather Conditions : <u>Hot, Humid, Partly Cloudy, 95°F</u>			
SAMPLING TEAM: <u>Blake Spencer & Curtis Musson</u>		SIGNATURE: _____ DATE: <u>7/25/17</u>	

DEP Form FD 9000-6: Lake Habitat Assessment Field Sheet

STORET STATION NUMBER: <i>GIWA0054</i>	DATE (M/D/Y) <i>07/25/17</i>	LAKE NAME <i>Pine Hill</i>		FIELD ID / NAME: <i>GIWA0054-07252017</i>	
ECO-REGION: <i>Tallahassee Hills</i> <i>Valdosta Lake Sink</i>	COUNTY: <i>Leon</i>	SAMPLING LOCATION/DESCRIPTION: <i>Pine Hill Lake Middle</i>		LAKE SIZE: <i>37.4</i>	
PARAMETER	No surface inflow or outflow present, very long water residence time, groundwater seepage dominates ☐	Surface water inflow present, but flow is rare, moderate to long water residence time ☐	Surface water inflow and outflow present (or outflow only), sometimes with visible flow, short water residence time ☐	Impounded, hydrology of system artificially controlled ☒	
HYDROLOGY					
Color	Very clear, uncolored water (benthic sampling appropriate) ☐	Water somewhat tannin stained (benthic sampling appropriate) ☒	Dark, discolored water (water color 20 PCU or higher) ☐	Visibility extremely reduced due to high color ☐	
	Optimal	Suboptimal			Marginal
Secchi <i>12</i>	Secchi >3 m Or VOB 20 19 18 17 16	3 2.6 2.2 1.8 1.4	1.0 0.9 0.8 0.7 0.6	0.5 0.4 0.3 0.2 0.1	
		15 14 13 <i>12</i> 11	10 9 8 7 6	5 4 3 2 1	
Vegetation Quality <i>13</i>	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants	Large masses (21%- 40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats	Lake choked (>40%) with nuisance macrophytes (duckweed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed)	
	20 19 18 17 16	15 14 13 <i>12</i> 11	10 9 8 7 6	5 4 3 2 1	
Stormwater Inputs <i>9</i>	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place	
	20 19 18 17 16	15 14 13 12 11	10 <i>9</i> 8 7 6	5 4 3 2 1	
Bottom Substrate Quality <i>10</i>	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present	Moderate layer of CPOM/ mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom	Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom	
	20 19 18 17 16	15 14 13 12 11	<i>10</i> 9 8 7 6	5 4 3 2 1	
Lakeside Adverse Human Alterations <i>7</i>	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%)	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected	Many structures, roads or other human disturbance visible (50%-70%) lakeside affected	Highly developed or disturbed (>70% of lakeside affected)	
	20 19 18 17 16	15 14 13 12 11	10 9 8 <i>7</i> 6	5 4 3 2 1	
Upland Buffer Zone <i>3</i>	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer	50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer	< 29% of shoreline with >18m buffer	
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 <i>3</i> 2 1	
Adverse Watershed Land Use <i>9</i>	Score the potential effects from adverse human land uses, based on a continuum of amount and type, with least to most adverse as follows: Native vegetation, Silviculture, Pasture or Citrus, Low Density Residential, Row Crops, Commercial, High Density Residential, Urban, Industrial				
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1	
TOTAL SCORE <i>63</i>	COMMENTS: <i>SBIO ID 77783 - Mqro ID 10573</i>				
ANALYSIS DATE: <i>7/25/17</i>	ANALYST: <i>Blake Spenser</i>		SIGNATURE: 		

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

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

Meter Bio #2 RQ- 2017-06-05-45 Project SMD

- 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 1400

Date of Last Temperature Verification 03/06/2017

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.	Blake Spencer	7/24/17	1521	23.02	8.57	8.57	100.0	40.0		Pass	Lab
ICV	Blake Spencer	7/24/17	1523	23.02	8.57	8.58	100.1	40.0		Pass	Lab
CCV	Blake Spencer	7/25/17	1626	26.90	7.997	8.27	103.4	40.0		Pass	Lab
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.	Blake Spencer	7/24/17	1525	170310D	03/2018	1000	1000	Pass	Lab
ICV	Blake Spencer	7/24/17	1527	170614D	06/2018	100	103	Pass	Lab
CCV	Blake Spencer	7/25/17	1633	170310D	03/2018	1000	1007	Pass	Lab
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.	Blake Spencer	7/24/17	1536	170310B	09/2018	7.0	7.00		Pass	Lab
Calibr.	Blake Spencer	7/24/17	1546	161111C	05/2018	4.0	4.00		Pass	Lab
Calibr.	Blake Spencer	7/24/17	1550	170310A	03/2018	10.0	10.00		Pass	Lab
ICV	Blake Spencer	7/24/17	1551	170310A	03/2018	4.0	4.00		Pass	Lab
CCV	Blake Spencer	7/25/17	1644	161111C	05/2018	10.00	10.00		Pass	Lab
CCV										

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

mV pH 4 Range +180 $\pm$ 50;

mV pH 10 Range -180 $\pm$ 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				0.000			

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

Request Number: RQ-2017-06-05-45

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Lab Sample Submittal Form

EVENT: Pine Hill, Tallavanna Lakes

Customer: WQ-ASSESS

Project ID: SMP

Requester: Curtis Musson

Field Report Prepared By: Curtis Musson

Page 1 of 4

Sampling Agency: FDEP

Collected By:

Lake Arrowhead at
Boat Dock At Turtle
Crk Lr Near Outlet

STORET ↓



Q1WA0004

Field ID →

Lake Arrowhead
at boat dock at
Turtle Crk Ln
near outlet

July 25, 2017



Q1WA0004_07252017

Loc

Pine Hill
Lake Middle

STORET ↓



Q1WA0054

Field ID →

Pine Hill
Lake Middle

July 25, 2017



Q1WA0054_07252017

Loc

Petty Gulf
Lake Middle

STORET ↓



Q1WA0022

Field ID →

Petty Gulf
Lake Middle

July 25, 2017



Q1WA0022_07252017

Collection (comp begin or grab)		Collection (comp begin or grab)		Bottle Group(s)
☐ Comp ☒ Grab	Date Time	☐ Comp ☒ Grab	Date Time	
Matrix (Salt, Fresh)	Diss. Oxygen (mg/L)	Sample Depts (m)	Sp. Conductance (umho/cm)	A
Fresh	7.68	0.3	73	
Temp (C)	pH	Comments		
30.11	7.42	LVI		
Salinity (ppt)	Latitude (Decimal Degrees)			A
0.03	Longitude (Decimal Degrees)			
Collection (comp begin or grab)				
☐ Comp ☒ Grab	Date Time	☐ Comp ☒ Grab	Date Time	
Matrix (Salt, Fresh)	Diss. Oxygen (mg/L)	Sample Depts (m)	Sp. Conductance (umho/cm)	A
Fresh	8.45	0.3	61	
Temp (C)	pH	Comments		
31.55	6.97	LVI		
Salinity (ppt)	Latitude (Decimal Degrees)			A
0.03	Longitude (Decimal Degrees)			
Collection (comp begin or grab)				
☐ Comp ☒ Grab	Date Time	☐ Comp ☒ Grab	Date Time	
Matrix (Salt, Fresh)	Diss. Oxygen (mg/L)	Sample Depts (m)	Sp. Conductance (umho/cm)	A
Fresh	7.35	0.3	61	
Temp (C)	pH	Comments		
31.55	6.97	LVI		
Salinity (ppt)	Latitude (Decimal Degrees)			A
0.03	Longitude (Decimal Degrees)			
Collection (comp begin or grab)				
☐ Comp ☒ Grab	Date Time	☐ Comp ☒ Grab	Date Time	

Relinquished By:

Curtis Musson

Date/Time

7/25/17 353PM

Number of Coolers

3

Received By:

C R

Date/Time

7/25/17 12:56

Request Number: RQ-2017-06-05-45

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Lab Sample Submittal Form

SMP

Customer: WQ-ASSESS

Project ID: SMP

Requester: Curtis Musson

Field Report Prepared By: CURTIS MUSSON

Sampling Agency: FDEP

Page 2 of 4

Location:

Collected By:

Field **Tallavanna Lake Middle**

Field ID → **Tallavanna Lake Middle**

ST **July 25, 2017**

STORET ↓

G1WA0045


G1WA0045_07252017

☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>7/25/17</u> Time <u>1436</u>	☒ Eastern ☐ Central	Collection (comp begin or grab) Date <u>/</u> Time <u>/</u>	Bottle Group(s)
Matrix (Salt, Fresh) <u>Fresh</u>	Diss. Oxygen (mg/L) <u>10.92</u>			A, B, C, D
Temp (C) <u>31.92</u>	pH <u>8.75</u>	Sample Depts (m) <u>0.3</u>	Sp. Conductance (umho/cm) <u>260</u>	
Salinity (ppt) <u>0.12</u>	Comments			
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)		

Location

Field ID

STORET #

☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	☐ Eastern ☐ Central	Collection (comp begin or grab) Date Time	Bottle Group(s)
Matrix (Salt, Fresh)	Diss. Oxygen (mg/L)			
Temp (C)	pH	Sample Depts (m)	Sp. Conductance (umho/cm)	
Salinity (ppt)	Comments			
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)		

Location

Field ID

STORET #

☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	☐ Eastern ☐ Central	Collection (comp begin or grab) Date Time	Bottle Group(s)
Matrix (Salt, Fresh)	Diss. Oxygen (mg/L)			
Temp (C)	pH	Sample Depts (m)	Sp. Conductance (umho/cm)	
Salinity (ppt)	Comments			
Latitude (Decimal Degrees)		Longitude (Decimal Degrees)		

Relinquished By:

Date/Time

Number of Coolers

Received By:

Date/Time

SR 7/25/17

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:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	4
	W-NH3						
	W-NO2NO3						
	W-S-A-TP						
	W-TKN						
	W-TOC						
Group: A	Bottle Type:	P-125ML	# of Bottles: 4	Preservative:	ICE-FLTR	Enter Number of Bottles Sent to Lab	4
	W-PO4-F						
Group: B	Bottle Type:	BG-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
	W-AHERB-AA						
	W-GLYPH						
	W-PYR-AA-R						
	W-SUC-AA-R						
	W-UHERB-AA						
Group: B	Bottle Type:	BG-500ML	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
	W-CT-CI-R						
	W-PCL-SQ-R						
Group: B	Bottle Type:	BG-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
	W-PSNP-TQ						
Group: C	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	1
	W-ICP						
	W-ICPMS						

Group: D

Bottle Type: P-250ML-WO-THI
ECOLI-18QT

of Bottles: 1

Preservative: ICE

Enter Number of Bottles Sent to Lab 1

Page ~~3~~ of 3

4/4

Cooler Packing Worksheet for Request: RQ-2017-06-05-45

Pine Hill, Tallavanna Lakes

Ship Cooler On: 5/29/2017

Customer/Project: WQAP/SMP

Assigned To: REYNOLDS_T

Requester: Curtis Musson

Priority: 3

850-245-8453
2600 Blair Stone Rd
MS #3525
Tallahassee, FL 32399-2400
Attn: Curtis Musson

Comments:

No preservatives needed.

Group A: Freshwater Kit
Group B: Organics (Pesticides)
Group C: Metals
Group D: Bacteria (E. Coli)

Packing notes:

4 - Liters of DI water for a Group A Blank

Requested Analyses:

Bottle Group: A

of Sites: 4

Container ID: P-1L

Qty: 4 Preservation: ICE

Lot # 00067590

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

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

Container ID: BP-1L

Qty: 4 Preservation: ICE

Lot # 1199138

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-500ML

Qty: 4 Preservation: ICE And H2SO4

Lot # 00067591

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: ICE-FLTR

Lot # 00066437

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: BG-1L

Qty: 2 Preservation: ICE

Lot # 0006860

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-AHERB-AA

W-GLYPH

W-PYR-AA-R

W-SUC-AA-R

W-UHERB-AA

Description

Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS

Glyphosate in water matrices by HPLC/MS/MS

Pyraclostrobin in water matrices by HPLC/MS/MS

Analysis of sucralose in water matrices by HPLC/MS/MS

Urea herbicides and other chemicals in water matrices by HPLC/MS/MS

Container ID: BG-500ML

Qty: 4 Preservation: ICE

Lot # 044308

Description: Brown Glass Bottle 500ML

Affix BLUE dot to container.

Analysis

W-CT-CI-R

W-PCL-SQ-R

Description

Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization

Organochlorine pesticides in water matrices by GC/MS-SIM

Container ID: BG-1L

Qty: 4 Preservation: ICE

Lot # 00068050

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-PSNP-TQ

Description

Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS

Bottle Group: C

of Sites: 1

Container ID: P-500ML

Qty: 1 Preservation: HNO3

Lot # 00067590

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

Bottle Group: D

of Sites: 1

Container ID: P-250ML-WO-THI

Qty: 1 Preservation: ICE

Lot # 614135

Description:

Analysis

ECOLI-18QT

Description

Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems

Cooler Packed By: W

Number of Coolers: 3

Date: 05/30/17

Kit must also include:

- ☒ Field Sheets
- ☒ Temperature Control Bottle
- ☒ FedEx Bills, if applicable
- ☒ Plastic Bags
- ☒ Zip Ties

If Preservation Included:

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

PLEASE RETURN ALL COOLERS FOR RQ-2017-06-05-45