



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Major Lake Center

Date: 05/30/2019
(mm/dd/yyyy)

WIN/ Field ID: G3TLHR0011

WBID: 526B

Latitude: 30.4982

County: Washington

ORG ID: 21FLTLHR

Longitude: 85.7144
(Decimal Degrees)

Receiving Body of Water: NA

RQ- 2019-05-13/65
(Decimal Degrees)

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
J. Burckhardt									
J. Woods									

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 Meter ID# _____ Matrix: Fresh / Marine / DI

Photos: Yes / No Flow: No Flow / Intestinal / Flowing / NA 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	1215	7.2	0.3	4.8	7.28	98.3	5.66	0.01	15.7	31.1
CEN	1218		6.7		2.10	225	5.38	0.01	18.0	18.9

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

SBIO ID Numbers: SBIO-ID: HA-ID: RPS-ID: 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	9010030		☒ <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-CH-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:

Field/WIN ID →
Location ↓



G3TLHR0011



MAJOR LAKE CENTER

Signature: [Signature]

Date: 05/30/19

LIMS EVENT ID: _____ WIN Import ID: _____

Enter Field Parameters, Verify Station ID in LIMS DMT: _____ QC Station ID, Field Parameters in LIMS DMT: _____

Scan/Save Field Sheets _____ Migrate Data to WIN: _____ Verify Data in WIN: _____
(Initials/Date) (Initials/Date) (Initials/Date)

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ **MACROPHYTE ID:** _____ **LATITUDE:** _____
COUNTY: Washington **STORET #:** G3TLHRC01 **LONGITUDE:** _____
DATE: 05/30/19 **TIME:** 1215 **SAMPLING AGENCY:** 8034
SITE NAME: Major Lake **WBID:** 526B
FIELD ID/NAME: G3TLHRC011 **LAKE SIZE:** _____ **RQ:** 2019-05-13-63

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category - from GIS):										LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)				
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)							
<u>70</u>	<u>10</u>			<u>20</u>										
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy										Artificially Impounded				
Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy										☐ Yes ☒ No				
STORMWATER INPUTS		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						
<u>18</u>		20	19	18	17	16	15	14	13	12	11			
LAKESIDE ALTERATIONS		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected)		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)						
<u>17</u>		20	19	18	17	16	15	14	13	12	11			
BUFFER ZONE		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						
<u>15</u>		20	19	18	17	16	15	14	13	12	11			

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>940030</u> Exp. Date: _____ Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ 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>31.1</u> <u>5.66</u> <u>7.24</u> <u>98.3</u> <u>15.7</u> <u>0.01</u> Mid-Depth: _____ Bottom: <u>6.7</u> <u>16.9</u> <u>5.38</u> <u>2.10</u> <u>22.5</u> <u>18.0</u> <u>0.01</u>								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____			
Sediment Type: (may check more than one) ☒ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____								Sediment Odors: ☒ Normal ☐ Other (Specify): _____ ☐ Anaerobic			
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 ☒ ☐ ☐ ☐			
Weather Conditions: <u>Clear</u>								Additional Notes:			
SAMPLING TEAM: <u>J. Burchett, J. Woods</u>								SIGNATURE: <u>[Signature]</u>			
DATE: <u>05</u>											

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Majes Lake</u>		County: <u>Washington</u>		Date: <u>5/30/19</u>						
Analyst: <u>Jon Wards</u>		Signature: <u>[Signature]</u>		STORET:						
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold = FLEPPC invasive exotic.				Lake units sampled (circle one group): 1, 4, 7, 10 2, 5, 8, 11 <u>3, 6, 9, 12</u>						
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.										
SPECIES	9	12	3	6	Collected? (✓)	SPECIES				Collected? (✓)
Acer rubrum						Habenaria repens				
Alternanthera philoxeroides						Hydrilla verticillata				
Andropogon sp.						Hydrocotyle sp.				
Azolla filiculoides (A. caroliniana)						Hygrophila polysperma				
Baccharis sp.						*Hypericum fasciculatum	✓	✓		✓
Bacopa caroliniana						*Hypericum hypericoides				
Bacopa monnieri						*Hypericum myrtifolium				
Bidens laevis						Ilex cassine				
Bidens mitis						Ipomoea aquatica				
Blechnum serrulatum						Ipomoea sagittata				
Boehmeria cylindrica						Itea virginica				
Brasenia schreberi				✓		Juncus effusus				
Cabomba caroliniana	✓					*Juncus marginatus				
Casuarina equisetifolia						*Juncus megacephalus				
Centella asiatica						Juncus repens				
Cephalanthus occidentalis						*Juncus scirpoides				
Ceratophyllum demersum						Lachnanthes caroliniana				
Chara sp.						Leersia hexandra		✓		
Cladium jamaicense						Landoltia punctata (Spirodela punctata)				
Cliftonia monophylla						Lemna sp.				
Colocasia esculenta						Leucothoe racemosa (Eubotrys racemosa)				
*Commelina						Limnium spongia				
Crinum americanum						Limnophila sessiliflora				
*Cyperus alternifolius (C. involucratus)						Liquidambar styraciflua				
Cyperus articulatus						*Ludwigia arcuata				
Cyperus haspan						*Ludwigia leptocarpa				
*Cyperus lecontei						*Ludwigia linearis				
*Cyperus polystachyos						*Ludwigia octovalvis				
*Cyperus odoratus						*Ludwigia peruviana				
*Cyperus surinamensis						*Ludwigia repens				
Cyrtilla racemiflora	✓	✓	✓	✓		*Ludwigia				
Decodon verticillatus						Luziola fluitans (Hydrochloa carolinensis)				
Diodia virginiana						Lyonia lucida				
*Echinochloa crus-galli						Magnolia virginiana				
*Echinochloa muricatum						Mayaca fluviatilis				
Echinochloa walteri						Melaleuca quinquenervia				
Eclipta prostrata (E. alba)						Micranthemum glomeratum				
Egeria densa						Micranthemum umbrosum				
Eichhornia crassipes						Mikania scandens				
*Eleocharis baldwinii	✓			✓		Mimosa pigra	✓	✓	✓	✓
*Eleocharis Viviparous	✓			✓		Myrica cerifera				
Eleocharis cellulosa										
Eleocharis equisetoides										
Eleocharis interstincta										
*Eriocaulon compressum										
*Eriocaulon decangulare										
Eupatorium capillifolium										
*Fuirena	✓	✓	✓	✓						
Fuirena scirpoidea	✓	✓	✓	✓						
Gordonia lasianthus										

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

STORET STATION NUMBER: G 3TLH R0011	DATE (M/D/Y) 05/30/19	LAKE NAME Major		FIELD ID / NAME: G 3TLH R0011
ECO-REGION:	COUNTY: Washington	SAMPLING LOCATION/DESCRIPTION: Center of Lake		LAKE SIZE:
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	Poor
Secchi 20	Secchi >3 m Or VOB 20 19 18 17 16	3 2.6 2.2 1.8 1.4 15 14 13 12 11	1.0 0.9 0.8 0.7 0.6 10 9 8 7 6	0.5 0.4 0.3 0.2 0.1 5 4 3 2 1
Vegetation Quality 16	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa 20 19 18 17 16	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants 15 14 13 12 11	Large masses (21%- 40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats 10 9 8 7 6	Lake choked (>40%) with nuisance macrophytes (duckweed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed) 5 4 3 2 1
Stormwater Inputs 18	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 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	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1
Bottom Substrate Quality 19	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present 20 19 18 17 16	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present 15 14 13 12 11	Moderate layer of CPOM/mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom 10 9 8 7 6	Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth or nuisance plants (Hydrilla) cover bottom 5 4 3 2 1
Lakeside Adverse Human Alterations 17	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) 20 19 18 17 16	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected 15 14 13 12 11	Many structures, roads or other human disturbance visible (50%-70%) lakeside affected 10 9 8 7 6	Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1
Upland Buffer Zone 15	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11	50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6	< 29% of shoreline with >18m buffer 5 4 3 2 1
Adverse Watershed Land Use 16	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 123	COMMENTS:			
ANALYSIS DATE: 05/30/19	ANALYST: J. Burchett	SIGNATURE: 		

Customer: TLH-ROC

Requester: Michael Eckles

Field Report Prepared By:

Project ID: SMP

Collected By: J. Butcher, J. Woods

Sampling Agency: 8234

Location

[illegible]

Relinquished By:

Date/Time 5/31/19: 919

Shipping Method

Number of Coolers Shipped:

Received By:

Date/Time

5/31/15 0919

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: 154177

RQ-

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 4/1/19

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	5/30/19	759	22.4	7564	8.6	8.63	99.5	-	0.94	P/F	L/F
ICV	"	✓	809	19.4	7565	9.1	9.0	99.0	-	-	P/F	L/F
CCV	"	✓	1645	27.4	754.8	7.9	7.85	99.4	-	-	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	5/30/19	801	180621C	07/19	1000	1000	P/F	L/F
ICV	"	✓	811	2808884	07/20	100	103	P/F	L/F
CCV	"	✓	1647	2808884	07/20	100	100	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	5/30/19	803	180621E	01/20	7.01	20.1	7.02	-2.3	P/F	L/F
Calibr.	"	✓	805	190405B	10/20	4.00	18.8	4.00	172.4	P/F	L/F
Calibr.	"	✓	807	180621F	01/20	10.06	19.6	10.06	-173.0	P/F	L/F
ICV	"	✓	813	180621F	01/20	10.06	19.9	10.06	-172.8	P/F	L/F
CCV	"	✓	1649	190405B	10/20	4.01	22.9	3.98	175.4	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 10 170.7, slope from 4 to 7 174.7 (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: 4/1/19

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	5/30/19	757	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:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?

Yes / No

WIN Station Name: Dunford Lake

Date: 05/30/2019
(mm/dd/yyyy)

WIN/ Field ID: G3TLHR0010

WBID: 526A

Latitude: 30.55016

(Decimal Degrees)

County: Washington

ORG ID: 21FTLHR

Longitude: 85.6795

(Decimal Degrees)

Receiving Body of Water: Lucas Lake?

RQ: 2019-05-13-65

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment		
<u>J. Burchett</u> <u>J. Woods</u>					☒	☒	☒	☒	☒	☒ 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# 15477 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	1035	6.2	0.3	1.4	6.38	84.8	5.68	0.01	14.4	30.4
CEN			5.7		6.56	6.0	5.62	0.01	22.6	17.0

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

SBIO ID Numbers: SBIO-ID: HA-ID: RPS-ID: 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	9010030		☐ <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-QIDC	☐ 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:

Field/WIN ID → G3TLHR0010
Location ↓ DUNFORD LAKE

Signature: [Signature] Date: 05/30/19

LIMS EVENT ID: WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: QC Station ID, Field Parameters In LIMS DMT:

Scan/Save Field Sheets (Initials/Date) Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)

Customer: TLH-ROC

Project ID: SMP

Requester: Michael Eckles

Collected By: J. Butcher

Field Report Prepared By: J. Butcher

Sampling Agency: 8234

Location		Collection (comp begin or grab)		Composite end		Bottle Group(s)	
Field ID	WIN/S	Comp Grab	Date	Time	mg/L	% sat	Total Res. Chlorine (mg/L)
Field/WIN ID →		Date 5/30/19		Time 1035	Diss. Oxygen 6.38		Total Res. Chlorine
Location →		Matrix (type, e.g., Salt, Fresh, etc) Fresh		pH 5.66		Sp. Conductance (umho/cm) 149	
Latitude		Temp (C) 30.4		Sample Depth 0.3		ft 0 m	
Longitude		Salinity (ppt) 0.01		Comments		A	
Field/WIN ID →		Date 5/30/19		Time 1215	Diss. Oxygen 7.28		Total Res. Chlorine
Location →		Matrix (type, e.g., Salt, Fresh, etc) Fresh		pH 5.66		Sp. Conductance (umho/cm) 157	
Latitude		Temp (C) 31.1		Sample Depth 0.3		ft 0 m	
Longitude		Salinity (ppt) 0.01		Comments		A	
Field ID		Collection (comp begin or grab)		Composite end		Bottle Group(s)	
WIN/STORET #		Date		Date		Date	
Latitude		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		mg/L Total Res. Chlorine	
Longitude		Temp (C)		Sample Depth		ft 0 m	
Salinity (ppt)		pH		Sp. Conductance (umho/cm)		mg/L	
Comments		Comments		Comments		Comments	
Field ID		Collection (comp begin or grab)		Composite end		Bottle Group(s)	
WIN/STORET #		Date		Date		Date	
Latitude		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		mg/L Total Res. Chlorine	
Longitude		Temp (C)		Sample Depth		ft 0 m	
Salinity (ppt)		pH		Sp. Conductance (umho/cm)		mg/L	
Comments		Comments		Comments		Comments	

Relinquished By: JB	Date/Time: 5/31/19 919	Shipping Method: HD	Number of Coolers Shipped: 1	Received By: [Signature]	Date/Time: 5/31/19 0919
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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: 154177

RQ-

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 4/1/19

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	5/30/19	759	22.4	7564	8.6	8.63	99.5	-	0.96	P/F	L/F
ICV	"	✓	809	19.4	7565	9.1	9.0	99.0	-	-	P/F	L/F
CCV	"	✓	1645	27.4	754.8	7.9	7.85	99.4	-	-	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	5/30/19	801	180621C	07/19	1000	1000	P/F	L/F
ICV	"	✓	811	2808884	07/20	100	103	P/F	L/F
CCV	"	✓	1647	2808884	07/20	100	100	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	5/30/19	803	180621E	01/20	7.01	20.1	7.02	-2.3	P/F	L/F
Calibr.	"	✓	805	190405B	10/20	4.00	18.8	4.00	172.4	P/F	L/F
Calibr.	"	✓	807	180621F	01/20	10.06	19.6	10.06	-173.0	P/F	L/F
ICV	"	✓	813	180621F	01/20	10.06	19.9	10.06	-173.8	P/F	L/F
CCV	"	✓	1649	190405B	10/20	4.01	22.9	3.78	175.4	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 10 170.7, slope from 4 to 7 174.7 (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: 4/1/19

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	5/30/19	757	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: