Lab Page _____ of _____

RQ-~~2021~~- 2022-10-10-#61 Collected By: Woods / Burtchett
Customer: Field Report Prepared By: Jon Woods
Project ID: SMP Sampling Agency: 21FGTLHR

WIN ID / Field ID → G1TLHR0200 ***Location*** Lake Talquin West End	**Comments:**
Matrix: (Fresh) / Marine	(Check one) [X] 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)
10/12/22	1235 (EST) / CST	9.55	116.1	25.2	8.46	0.3	1.1 [ ] VOB (S)	11.1	73.5	0.03
	Central Lab please use top row for login purposes									
	1238 (EST) / CST	3.91 ~~1238~~ JW	46.1	23.6	6.67	9.1			73.6	0.03

Parameter Suite	Parameter Methods			Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	[X] W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			[X] Ice [X] $H2SO_4$*	[X] <2	1	A
	Lot #	2229010	**Exp:**	8/30/23			
Metals (P-500ML)	[X] W-ICPMS [X] W-ICP [X] W-HARD			[X] Ice [X] HNO_3*	[X] <2	1	A
	Lot #	1105100	**Exp:**	6/7/23			
Filtered Nutrients (P125ML)	[ ] W-PO4-F [ ] Field Filtered 0.45 µm Filter			[ ] Ice			
	Filter Lot #						
	Syringe Lot #						
Chlorophyll (BP-1L)	[X] CHLSUITE-W			[X] Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	[X] Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS			[X] 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			
Periphyton (PT-50ML)	[ ] ALGAE-ID			[ ] Ice			
Microbiology (Contract Lab Bottle)	[X] E Coli [ ] F Coli [ ] Enterococci [ ] Contract Lab			[X] Ice		1	A
Molecular (QPCR-P-500ML)	[ ] PCR-HF183 [ ] PCR-BacR [ ] PCR-DG3 [ ] PCR-GULL2 [ ] PCR-GFD [ ] See Notes			[ ] Ice			
Tracers (BG-500ML)	[ ] W-E8321-DI [ ] W-E8321-MS			[ ] Ice			
Pesticides (BG-500ML) (BG-1L)	[X] W-E8321-DI [X] WE8321-MS [X] W-PSNP-TQ [X] W-CT-CL-R [X] W-PCL-SQ-R [X] W-CARB-AA (5 ml of MCAA** Buffer Solution)			[X] Ice		6	A
	Lot # 128343 2/4/23						

Name:	Signature:	Date:
Jon Woods	JWoods	10/12/22

*2.0 ml of Preservative used unless noted otherwise.
**MCAA: Monochloroacetic acid buffer solution

12401

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Lake Talquin	County: Leon(?)	Date: 10/12/22
Analyst: J. Burkett	Signature: Jake	STORET:

Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold= FLEPPC invasive exotic.

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.

Lake units sampled (circle one group):
1, 4, 7, 10 2, 5, 8, 11
3, 6, 9, 12

SPECIES	3	6	9	12	Collected? (√)
Acer rubrum	✓	✓	✓	✓	
Alternanthera philoxeroides	✓	✓		✓	
Andropogon sp.					
Azolla filiculoides (A. caroliniana)					
Baccharis sp.	✓	✓		✓	
Bacopa caroliniana		✓			
Bacopa monnieri					
Bidens laevis	✓	✓		✓	
Bidens mitis	•	✓		✓	
Blechnum serrulatum					
Boehmeria cylindrica		✓	✓	✓	
Brasenia schreberi					
Cabomba caroliniana					
Casuarina equisitifolia					
Centella asiatica					
Cephalanthus occidentalis		✓		✓	
Ceratophyllum demersum		✓			
Chara sp.					
Cladium jamaicense					
Cliftonia monophylla					
Colocasia esculenta	✓	✓	✓	✓	
Commelina					
Crinum americanum	✓	✓			
***Cyperus alternifolius** (C. involucratus)					
Cyperus articulatus					
Cyperus haspan					
*Cyperus lecontei					
*Cyperus polystachyos					
*Cyperus odoratus	✓	✓			
*Cyperus surinamensis					
Cyrilla racemiflora	✓	✓		✓	
Decodon verticillatus					
Diodia virginiana					
*Echinochloa crus-galli					
*Echinochloa muricatum					
Echinochloa walteri		✓		✓	
Eclipta prostrata (E. alba)					
Egeria densa					
Eichhornia crassipes	✓	✓		✓	
*Eleocharis baldwinii	✓	✓		✓	
*Eleocharis					
Eleocharis cellulosa					
Eleocharis equisetoides					
Eleocharis interstincta					
*Eriocaulon compressum					
*Eriocaulon decangulare					
Eupatorium capillifolium	✓	✓	✓	✓	
*Fuirena squarrosa		✓			
Fuirena scirpoidea					
Gordonia lasianthus					

SPECIES	3	6	9	12	Collected? (√)
Habenaria repens					
Hydrilla verticillata					
Hydrocotyle sp.					
Hygrophila polysperma					
*Hypericum fasciculatum					
*Hypericum hypericoides					
*Hypericum myrtifolium					
Ilex cassine					
Ipomoea aquatica					
Ipomoea sagittata					
Itea virginica					
Juncus effusus					
*Juncus marginatus					
*Juncus megacephalus					
Juncus repens					
*Juncus scirpoides					
Lachnanthes caroliniana					
Leersia hexandra		✓			
Landoltia punctata (Spirodela punctata)					
Lemna sp.					
Leucothoe racemosa (Eubotrys racemosa)					
Limnobium spongia					
Limnophila sessiliflora					
Liquidamber styraciflua	✓	✓	✓	✓	
*Ludwigia arcuata		✓		✓	
*Ludwigia leptocarpa	✓	✓		•	
*Ludwigia linearis					
*Ludwigia octovalvis					
***Ludwigia peruviana**	✓	✓	✓	✓	
*Ludwigia repens		✓	✓		
*Ludwigia					
Luziola fluitans (Hydrochloa carolinensis)		✓	✓		
Lyonia lucida					
Magnolia virginiana	✓	✓	✓	✓	
Mayaca fluviatilis					
Melaleuca quinquenervia					
Micranthemum glomeratum					
Micranthemum umbrosum					
Mikania scandens					
Mimosa pigra	✓	✓	✓		
Myrica cerifera	✓	✓		✓	
Lycopus sp		✓		✓	
Cicuta maculata		✓			
Bidens alba	✓	✓	✓	✓	
~~Cyperus sp~~		✓			✓
Peplat tr. (?)	✓	✓	✓	✓	
Ipomea sp hagneticola trilobata(?)		✓	✓	✓	✓

?! ?

3/8/23 Needs QC 862206

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: G1TLHR0200 | MACROPHYTE ID: | LATITUDE:
COUNTY: Gadsden | STORET #: | LONGITUDE:
DATE: 10/12/22 | TIME: 1235 | SAMPLING AGENCY: 21FLTLHR
LAKE NAME: Lake Talquin West end | WBID:
FIELD ID/NAME: | LAKE SIZE: | RQ: 2022-10-10-61

WATERSHED / LAKESIDE FEATURES

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

Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
20	30			50			

LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI:

Land Use Source & Year:

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

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

Artificially Impounded ☒ Yes ☐ No

STORMWATER INPUTS 11	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 9 8 7 6	5 4 3 2 1
LAKESIDE ALTERATIONS 9	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)
	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
BUFFER ZONE 8	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 3 2 1

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water:

Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☒ pH<2 ☐ No

Color Sample Taken? ☒ Yes ☐ No Lot # 2229010 Exp. Date: 8/30/23

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:							
Mid-Depth:							
Bottom :							

Meter ID: 154177

Clarity: ☐ Clear ☐ Opaque ☐ Turbid ☒ Slightly Turbid

Color: ☐ Clear ☒ Tannic ☐ Green

SECCHI (M) 1.1 | Total Station Depth (M) 11.1

VOB ☐

Sediment Type: (may check more than one)

☑ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated

☐ Sand/Silt ☑ Organic smooth (muck) ☐ Other (Specify):

Sample Taken? ☐ Yes ☒ No

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	☒	☐	☐	☐

Additional Notes:

Other Conditions : Cloudy

SAMPLING TEAM: Woods / Burkhett **SIGNATURE:** **DATE:** 10/12/22

18161

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

STORET STATION NUMBER: GTCHR0200	DATE (M/D/Y): 10/12/22	LAKE NAME: Lake Talquin	FIELD ID / NAME:
ECO-REGION:	COUNTY: Gadsden	SAMPLING LOCATION/DESCRIPTION: West end	LAKE SIZE:

PARAMETER				
HYDROLOGY	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 ☒
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 10	Secchi >3 m		Secchi(m)			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
	Or VOB	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Vegetation Quality 12	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 (duck-weed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed)				
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Stormwater Inputs 11	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	9	8	7	6	5	4	3	2	1
Bottom Substrate Quality 14	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	10	9	8	7	6	5	4	3	2	1
Lakeside Adverse Human Alternations 9	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	7	6	5	4	3	2	1
Upland Buffer Zone 8	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	3	2	1
Adverse Watershed Land Use 7	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	71	COMMENTS:

ANALYSIS DATE: 10/12/22	ANALYST: Woods / Burtchett	SIGNATURE: