



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

March 2017

PAGE 1 OF

Data Qualified?

Yes / No

Location/STORET Station Name: Black Lake

Date: 08/28/2017
(mm/dd/yyyy)

STORET # G1SW0077

WBID: 1464A

Latitude: 28.19073889

(Decimal Degrees)

County: PASCO

RQ - 2017-08-07-42

ORG ID: 21FLTPA

Longitude: -82.57661389

(Decimal Degrees)

Receiving Body of Water:

Field ID: G1SW0077

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Curtis Masson						X	X		
Jason Skors					X		X	X	

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# Biology #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	1340	0.3	4.0	6.44	86.2	7.01	0.04	0.9	97	30.61	
CEN	1338	3.8		0.50	6.2	6.18	0.14		302	26.81	

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

SBIO ID Numbers: SBIO-ID: 77942 RPS-ID: Macrophyte-ID: 10730 LIMS#: 1926052

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	SA163030	06/12/18	☐ <2
Metals	☐ W-ICPM5 ☐ 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-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 ☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Ice ☐ Other			

Notes:
Permission granted 2017 by property manager. Access off of Black Lake Rd. combo on gate is "BOAT" be sure to lock all gates as cows on property. Launch by dock but be cautious of moccasins breeding under the old boat.
Kit A, LVI

STORET →
Field ID →
Black Lake
Center



Signature: [Signature]

Date: 8/28/2017

Field Parameters Entered into LIMS: SM 09/25/2017
(Initials/Date)

Field Parameters QC in LIMS: (Initials/Date)

Date Migrated to STORET: Event 08-29-02
(Initials/Date)

Field Sheets Scanned/Saved: SM 09/26/2017
(Initials/Date)

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Black Lake					County: Pasco					Date: 8-28-17				
Analyst: COREY MUSSEN / Jason Steffis					Signature: [Signature]					STORET: G1SW0077				
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 3, 6, 9, 12				
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	2	5	8	11	Collected? (v)	SPECIES	2	5	8	11	Collected? (v)			
Acer rubrum	X	X	X			Habenaria repens				X				
Alternanthera philoxeroides	X			X		Hydrilla verticillata								
Andropogon sp.						Hydrocotyle sp.	X			X				
Azolla filiculoides (A. caroliniana)						Hrdolea quadrivalis								
Baccharis sp.						Hygrophila polysperma								
Bacopa caroliniana						*Hypericum fasciculatum								
Bacopa monnieri						*Hypericum hypericoides								
Bidens laevis						*Hypericum myrtifolium								
Bidens mitis						Ilex cassine	X	X	X					
Blechnum serrulatum	X	X	X	X		Ipomoea aquatica								
Boehmeria cylindrica	X	X	X			Ipomoea sagittata								
Brasenia schreberi						Iris pseudacorus								
Cabomba caroliniana						Itea virginica								
Casuarina equisetifolia						Juncus effusus								
Centella asiatica						*Juncus marginatus								
Cephalanthus occidentalis	X	X	X	X		*Juncus megacephalus								
Ceratophyllum demersum						Juncus repens								
Chara sp.						*Juncus scirpoides								
Cladium jamaicense						Lachnanthes caroliniana								
Cliftonia monophylla						Leersia hexandra								
Colocasia esculenta						Landoltia punctata (Spirodela punctata)								
*Commelina						Lemna sp.								
Crinum americanum						Leucothoe racemosa (Eubotrys racemosa)								
* Cyperus alternifolius (C. involucratus)						Limnium spongia								
Cyperus articulatus						Limnophila sessiliflora								
Cyperus haspan						Liquidambar styraciflua								
*Cyperus lecontei						*Ludwigia arcuata								
*Cyperus polystachyos						*Ludwigia leptocarpa								
*Cyperus odoratus	X	X		X		*Ludwigia linearis								
*Cyperus surinamensis						*Ludwigia octovalvis								
Cyrtilla racemiflora						* Ludwigia peruviana					X			
Decodon verticillatus	X					*Ludwigia repens								
Diodia virginiana						*Ludwigia <i>gradiflora</i>	X				X			
*Echinochloa crus-galli						Luziola fluitans (Hydrochloa carolinensis)								
*Echinochloa muricatum						Lycopus virginicus	X	X			X			
Echinochloa walteri						Lyonia lucida								
Eclipta prostrata (E. alba)						Magnolia virginiana								
Egeria densa						Mayaca fluviatilis								
Eichhornia crassipes						Melaleuca quinquenervia								
*Eleocharis baldwinii	X			X		Micranthemum glomeratum								
*Eleocharis						Micranthemum umbrosum								
Eleocharis cellulosa						Mikania scandens	X	X			X			
Eleocharis equisetoides						Mimosa pigra								
Eleocharis interstincta						Myrica cerifera	X	X	X	X	X			
*Eriocaulon compressum						<i>Cyperus unknown</i> *	X	X	X	X	X			
*Eriocaulon decangulare														
Eupatorium capillifolium	X			X										
*Fuirena														
Fuirena scirpoidea														
Gordonia lasianthus														

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: Black Lake, Pasco County					Date:						
SPECIES	2	5	8	11	Collected? (✓)	SPECIES	2	5	8	11	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana					
*Myriophyllum heterophyllum						Salvinia minima	X			X	
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius		X			
*Najas guadalupensis						*Schoenoplectus californicus					
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani (Scirpus validus)					
Nitella spp.						Scirpus cubensis (Oxycaryon cubense)					
Nuphar sp.	X	X		X		Scirpus cyperinus					
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.					
Panicum hemitomon		X				Thalia geniculata					
Panicum repens	X	X		X		Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum					
*Paspalum repens						Typha sp.	X	X		X	
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.						*Utricularia gibba (U. biflora)					
Persea sp.						*Utricularia floridana					
Pennisetum purpureum						*Utricularia foliosa					
Phragmites australis						*Utricularia inflata					
Pinus elliotii						*Utricularia purpurea					
Pistia stratioides						*Utricularia cornuta					
Pluchea sp.	X			X		*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
*Polygonum hydropiperoides	X		X			*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum						Wolffella spp.					
Pontederia cordata	X			X		Woodwardia virginica	X	X	X	X	
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)						<i>Pond Apple - Annona glabra</i>	X				
Proserpinaca pectinata						<i>polygonum monspeliensis</i>		X			
*Rhexia						<i>Neprolepsis</i>			X		
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

Several fern

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: 28.19073889
 COUNTY: Pasco STORET #: G1SW0077 LONGITUDE: -82.57661389
 DATE: 08/28/2017 TIME: 1340 SAMPLING AGENCY: FDEP
 SITE NAME: Black Lake WBID: 1464A
 FIELD ID/NAME: G1SW0077 LAKE SIZE: 6.33 Acre RQ: 2017-08-07-42

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) ☐							LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI:						
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy							Artificially Impounded ☐ Yes ☒ No						
Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy							Land Use Source & Year:						
STORMWATER INPUTS 15		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 14		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 13		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					

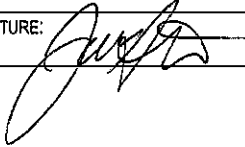
WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH<2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # 54163030 Exp. Date: 06/12/2018 Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High							Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____						
Meter Readings: Top: 0.3 30.61 7.01 6.44 80.2 97 0.04 Mid-Depth: _____ Bottom: 3.8 26.81 6.18 6.50 6.2 302 0.14							Water Surface Oils: ☐ None ☐ Sheen/Slick ☐ Glob ☐ Other _____						
Meter ID: Biology #12							Clarity: ☐ Clear ☐ Opaque ☐ Turbid ☒ Slightly Turbid						
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 ☒ ☐ ☐ ☐						
Weather Conditions: mostly overcast, light sprinkle rain, 80's													
SAMPLING TEAM: Musson, SPERS							SIGNATURE: [Signature]						
DATE: 8/28/17													

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

STORET STATION NUMBER: G1SW0077	DATE (M/D/Y) 08/28/17	LAKE NAME Black Lake		FIELD ID / NAME: G1SW0077
ECO-REGION: Southwestern Florida Flatwoods	COUNTY: Pasco	SAMPLING LOCATION/DESCRIPTION: Black Lake Center, Pasco County		LAKE SIZE: 6.33 Acre
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 90	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 15	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 14	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 13	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16	89%-94% 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 12	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	92	COMMENTS:
-------------	----	-----------

ANALYSIS DATE: 8/28/17	ANALYST: Munson / Storr	SIGNATURE: 
---------------------------	----------------------------	---

WBID 1644A BLACK LAKE

28.1915N, 82.5771W

28.1915N, 82.5766W

28.1913N, 82.5762W

28.1912N, 82.5758W

28.1908N, 82.5757W

28.1904N, 82.5759W

28.1901N, 82.5762W

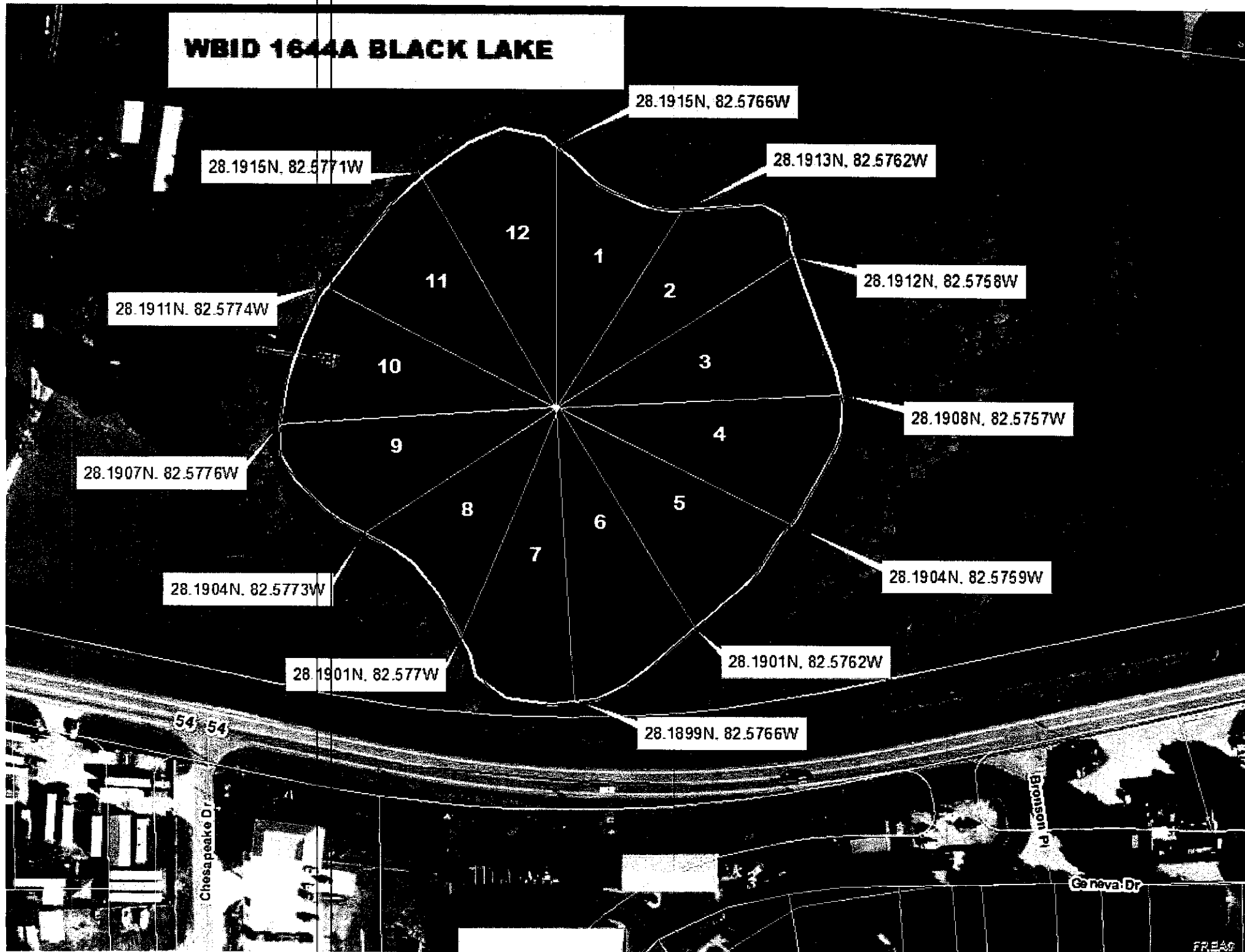
28.1899N, 82.5766W

28.1901N, 82.577W

28.1904N, 82.5773W

28.1907N, 82.5776W

28.1911N, 82.5774W



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Central Lab Sample Submittal Form

Request Number: RQ-2017-08-07-42

Tampa Lakes Team 1

Customer: WQ-ASSESS

Project ID: SMP

Requester: Curtis Musson

Collected By: Curtis Musson

Field Report Prepared By: Curtis Musson

Sampling Agency: FDEP

Page 1 of 1

Location

STORET #
Field ID →
Black Lake
Center



GISW0077

☐ Comp
☒ Grab

Collection (comp begin or grab)
Date 8-28-17 Time 1340

Matrix (Salt, Fresh)
Fresh

Diss. Oxygen (mg/L)
6.44

Temp (C)
30.61

pH
7.01

Sample Depts (m)
0.3

Sp. Conductance (umho/cm)
97

Salinity (ppt)
0.04

Comments
LVI

Longitude (Decimal Degrees)
-82.57661389

Latitude (Decimal Degrees)
28.19073889

Bottle Group(s)
A

Time

Collection (comp begin or grab)

Eastern Central

Date

Time

Matrix (Salt, Fresh)

Diss. Oxygen (mg/L)

Temp (C)

pH

Sample Depts (m)

Sp. Conductance (umho/cm)

Salinity (ppt)

Comments

Longitude (Decimal Degrees)

Latitude (Decimal Degrees)

Location

STORET #
Field ID →
Wyndham
Lake Center



GISW0079

☐ Comp
☒ Grab

Collection (comp begin or grab)
Date 8-28-17 Time 1330

Matrix (Salt, Fresh)
Fresh

Diss. Oxygen (mg/L)
6.72

Temp (C)
31.29

pH
7.67

Sample Depts (m)
0.3

Sp. Conductance (umho/cm)
174

Salinity (ppt)
0.08

Comments
LVI

Longitude (Decimal Degrees)

Latitude (Decimal Degrees)

Bottle Group(s)
A

Time

Collection (comp begin or grab)

Eastern Central

Date

Time

Matrix (Salt, Fresh)

Diss. Oxygen (mg/L)

Temp (C)

pH

Sample Depts (m)

Sp. Conductance (umho/cm)

Salinity (ppt)

Comments

Longitude (Decimal Degrees)

Latitude (Decimal Degrees)

Location

Field ID

STORET #

☐ Comp
☐ Grab

Collection (comp begin or grab)
Date

Matrix (Salt, Fresh)

Diss. Oxygen (mg/L)

Temp (C)

pH

Sample Depts (m)

Sp. Conductance (umho/cm)

Salinity (ppt)

Comments

Longitude (Decimal Degrees)

Latitude (Decimal Degrees)

Bottle Group(s)

Time

Collection (comp begin or grab)

Eastern Central

Date

Time

Matrix (Salt, Fresh)

Diss. Oxygen (mg/L)

Temp (C)

pH

Sample Depts (m)

Sp. Conductance (umho/cm)

Salinity (ppt)

Comments

Longitude (Decimal Degrees)

Latitude (Decimal Degrees)

Relinquished By: Curtis Musson

Date/Time 8/28/17/1650

Number of Coolers 1

Received By:

Date/Time

Group: A	Bottle Type: ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
Group: A	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
Group: A	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	P-500ML	# of Bottles: 2	Preservative: ICE And H2SO4		Enter Number of Bottles Sent to Lab	2
Group: A	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 2	Preservative:	ICE-FLTR	Enter Number of Bottles Sent to Lab	2