

CHECK LIST FOR WATER CHEMISTRY DATA ASSOCIATED WITH EVEL
BIOASSESSMENT

RQ#: 7016-05-09-02 EventID# _____

Sampling Date: 5-12-14 Sampling Crew: JULY ASHTON, ELEAN GUNDAWON DRESHEIT

Site(s)/STORET #: 61SW0041

STORET /LIMS:

Sonde: Pass/ failed CCV

Parameter(s): _____

- ☐ 1. Spread Sheet (LIMS Input) _____ / _____
Initials Date
- ☐ 2. QC 1 _____ / _____ ☐ 3. QC 2 _____ / _____
Initials Date Initials Date
- ☐ 4. SIM File Generated _____ / _____
Initials Date
- ☐ 5. STORET Upload _____ / _____
Initials Date

Biology:

SBIO ID# _____
VPDB ID# _____

- ☐ 6. Site and Event established in SBio?
- ☐ 7. Habitat Data and YSI Entered Into SBIO _____ / _____
Initials Date
- ☐ 8. Habitat Data and YSI QC _____ / _____
Initials Date
- ☐ 9. SBio data marked complete _____ / _____
Initials Date
- ☐ 10. Macrophyte Data Entered into VPDB _____ / _____
Initials Date
- ☐ 12. Field Paperwork Filed In Biology Lab _____ / _____
Initials Date
- ☐ 13. Macrophyte Data QC _____ / _____ 11. Macrophyte Data Marked Complete _____ / _____

Site:					Date:						
SPECIES	9	6	12	3	Collected? (✓)	SPECIES	9	6	12	3	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana					
*Myriophyllum heterophyllum						Salvinia minima	X	X	X	X	
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*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					
Nymphaea odorata	X		X	X		*Sesbania					
Nymphoides aquatica						Solidago sp.					
Nyssa sylvatica var. biflora						Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.					X
Panicum hemitomon						Thalia geniculata					
Panicum repens						Thelypteris palustris					
Paspalidium geminatum	X	X	X			Triadenum virginicum					
*Paspalum repens	X					Typha sp.					
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.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
*Polygonum hydropiperoides						*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata	X	X	X	X		Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)						VITIS	X	X	X		
Proserpinaca pectinata											
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora tracyi											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											

Date:

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: _____
COUNTY: HILLS STORET #: 615100012 LONGITUDE: _____
DATE: 5-12-14 TIME: 6:500041 SAMPLING AGENCY: FOEP
SITE NAME: LAKE RALEIGH 11:22 WBID: 1513C
FIELD ID/NAME: _____ LAKE SIZE: L RQ: 2014-05-09-62

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>97</u>				<u>3</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>16</u>		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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>18</u>		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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>16</u>		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 # _____ Exp. Date: _____ Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____							
Meter Readings: Top: <u>0.3</u> <u>18.3</u> <u>5.9</u> <u>1.8</u> <u>19</u> <u>113</u> <u>0.05</u> Mid-Depth: _____ Bottom: _____								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____							
Meter ID: _____								Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☒ Clear ☐ Tannic ☐ Green							
Sediment Type: (may check more than one) ☒ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____								SECCHI (M): <u>2.3</u> Total Station Depth (M): <u>6.7</u> VOB: ☐							
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								Sediment Odors: ☒ Normal ☐ Anaerobic ☐ Other (Specify): _____							
Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☒ ☐ Nuisance Plants ☐ ☐ ☐ ☒ Submersed Plants ☐ ☐ ☒ ☐ Exotic Apple Snails ☒ ☐ ☐ ☐								Additional Notes:							

Weather Conditions :

SAMPLING TEAM: Shay Anton, Kevin Carson, DREW LIA SIGNATURE: [Signature] DATE: 5-12-14

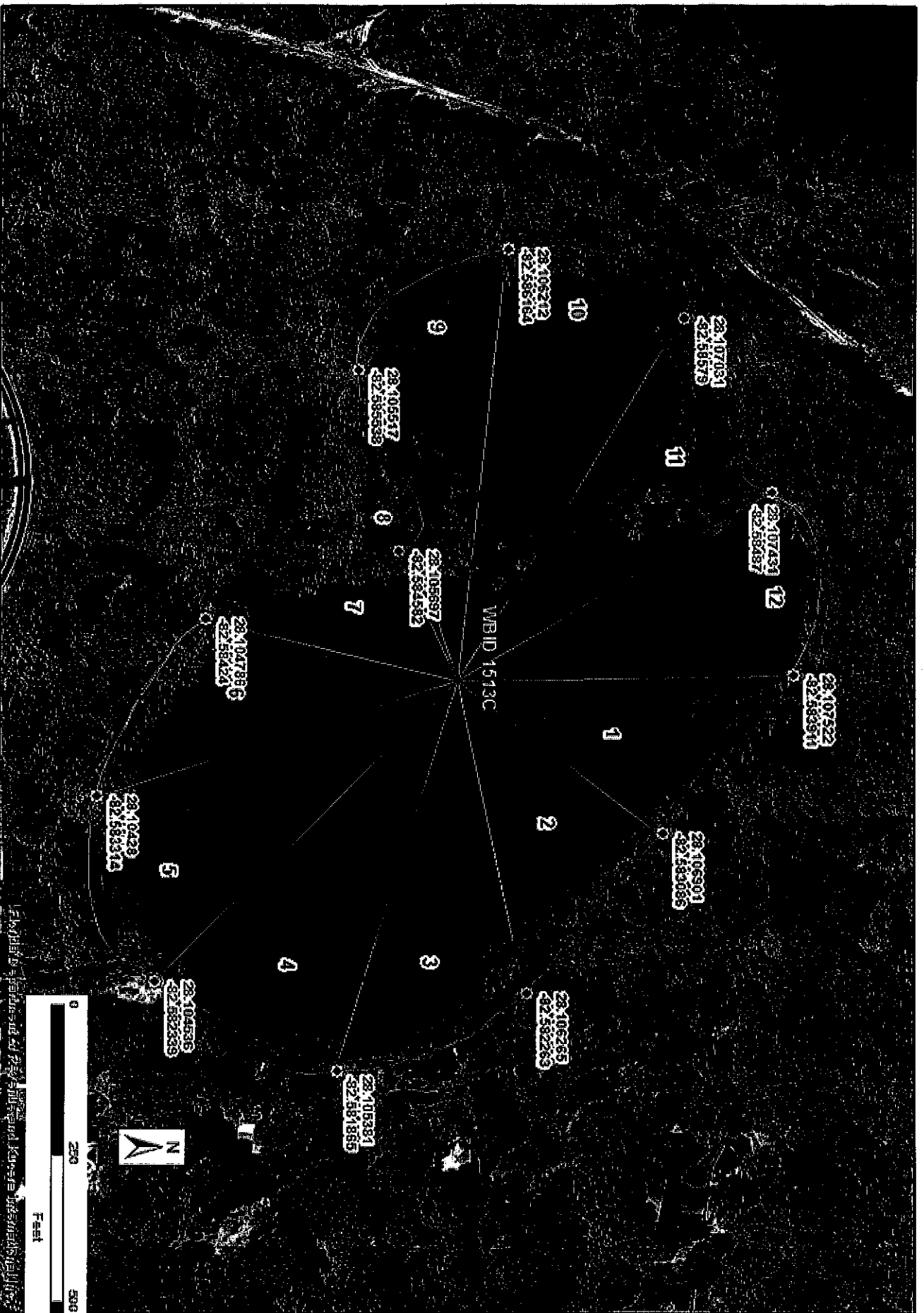
DEP Form FD 9000-6: Lake Habitat Assessment Field Sheet

STORET STATION NUMBER: <i>G15W0041</i>	DATE (M/D/Y) <i>5-12-16</i>	LAKE NAME <i>LAKE RALEIGH</i>		FIELD ID / NAME:																
ECO-REGION: <i>G15W0041</i>	COUNTY: <i>HILLS.</i>	SAMPLING LOCATION/DESCRIPTION:		LAKE SIZE: <i>L</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	Poor																
Secchi	Secchi > 3 m Or VOB	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			
	<i>13</i>		15	14	<i>13</i>	12	11	10	9	8	7	6	5	4	3	2	1			
Vegetation Quality	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa <i>13</i>	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	<i>13</i>	12	11	10	9	8	7	6	5	4	3	2	1
Stormwater Inputs	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation <i>16</i>	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	<i>16</i>	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Bottom Substrate Quality	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present <i>19</i>	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 Alterations	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) <i>18</i>	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	<i>18</i>	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Upland Buffer Zone	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer <i>16</i>	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	<i>16</i>	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Adverse Watershed Land Use	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 <i>16</i>																			
	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

TOTAL SCORE		COMMENTS:
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ANALYSIS DATE: <i>5-12-16</i>	ANALYST: <i>JAY ASHBY</i>	SIGNATURE: <i>Jay Ashby</i>
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LVI Map for LAKE RALEIGH, WBID 1513C





FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

February 2016

A-KIT

PAGE 1 OF 1

Data Qualified?
Yes / No

STORET Station Name: LAKE RALEIGH

Date: 05/12/2016
(mm/dd/yyyy)

STORET Station ID: 41520 G1SW0041

Latitude: 28° 6' 22.53" N
(Decimal Degrees)

WBID: 1513C RQ- 2016-05-09-62 ORG ID: 21FLTPA

Longitude: 82° 35' 1.67" W
(Decimal Degrees)

Receiving Body of Water: Field ID: G1SW0041

County: HILLSBOROUGH

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
JUDY ASHTON									
EDGAR GUERRON OREJUELA									

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 / Low / Normal / High / Flooded Matrix: Fresh / Marine / DI

Meter ID# BUSDA 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	11:22	0.3	6.7	1.8	19	5.9	0.05	2.3	113	18.3
CEN		6.2		6.8	84	6.0	0.05		107	26.9

Biological Samples Collected: None HA SCI LVS RPS (LVI) Other

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			☒ <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			
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 ☐ Enteroc ☐ QPCR	☐ Ice			
Periphyton	☐ ALGAE-ID	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R	☐ Ice			
	☐ W-RC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Other			

Flow m/s "J" Qualify Flow

Notes:	RQ-2016-05-09-62 G1SW0041 Date: 05-12-2016 Time: Field ID: G1SW0041
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Signature: [Signature] Date: 5-12-16

Field Parameters Entered into LIMS: SC 05-17-16 Field Parameters QC in LIMS: [Blank]
(Initials/Date) (Initials/Date)

Date Migrated to STORET: [Blank] Field Sheets Scanned/Saved: [Blank]
(Initials/Date) (Initials/Date)

FedEx Package
Express US Airbill
Tracking Number 8094 7802 6810

1 From Please print and press hard.
Date 5-12-14 Senders FedEx Account Number

Sender's Name FDEP Phone 813, 470-5770

Company

Address 13651 N. Telecom Pkwy

City Tampa Tenn State FL ZIP 33637

2 Your Internal Billing Reference

Free 2 characters will appear on invoice.

3 To Recipient's Name SAMPLE RECEIVING Phone 850, 245-8085

Company FLORIDA DEP/CHEMISTRY SECTION

Address 2600 BLAIRSTONE RD

We cannot deliver to PO boxes or P.O. ZIP codes.

Dep. Room/Building

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City TALLAHASSEE State FL ZIP 32399

0121555852

Form ID No. 0215

4 Express Package Service

To meet location.

Packages up to 150 lbs.
For packages over 150 lbs., use the
FedEx Express Freight DS form.

☐ FedEx First Overnight
Expedited service, next business day delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ FedEx 2Day AM
Second business morning.
Saturday Delivery NOT available.

☒ FedEx Priority Overnight
Next business morning. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ FedEx 2Day
Second business afternoon. Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ FedEx Standard Overnight
Next business afternoon.
Saturday Delivery NOT available.

☐ FedEx Express Saver
Third business day.
Saturday Delivery NOT available.

5 Packaging

*Declared value limit \$500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options

From may apply. See the FedEx Service Guide.

☐ Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day AM, or FedEx Express Saver.

☐ No Signature Required
Package may be left without obtaining a signature for delivery.

☐ Direct Signature
Someone at recipient's address may sign for delivery.

Does this shipment contain dangerous goods?
one box must be checked.

☒ No ☐ Yes
Yes: ☐ Yes per recipient's signature required. ☐ Yes per recipient's signature required.

☐ Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Restrictions apply for dangerous goods - see the current FedEx Service Guide.

☐ Dry Ice ☐ Cargo Aircraft Only

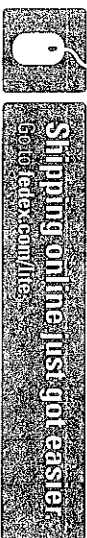
7 Payment Bill to:

Sender ☐ Recipient ☒ Third Party ☐ Credit Card ☐ Cash/Check

FedEx Account No. 4490-2262-9

Invoice Date

Total Packages 1 Total Weight 56 lbs 3.00 Total Declared Value \$6.11



Your liability is limited to \$500 unless you declare a higher value. See back for details. By using this shipping service you agree to the service conditions on the back of the airbill and to the current FedEx Service Guide, including terms that limit our liability.

6.11

PULL AND RETAIN THIS COPY BEFORE AFFIXING TO THE PACKAGE. NO POUCH NEEDED.

Request Number: RQ-2016-05-09-62

Raleigh, Worrell LVI

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Page 1 of 2

last revised Apr 7, 2016

Customer: SW-DIST

Project ID: SMP

Requester: Judy Ashton

Field Report Prepared By:

Collected By:

Judy Ashton, E. Guzman-Sanchez, Inc.

Sampling Agency:

Location	RQ-2016-05-09-62 G1SW0041		Collection (comp begin or grab)		Composite end		Bottle Group(s)
Field ID	Date: 05-12-2016	Time: 11:22	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	mg/L	Total Res. Chlorine	(See pg 2)
STORET #	Field ID: G1SW0041		Temp (C)	pH	% sat		A
Latitude	dd dms	Longitude	dd dms	Sample Depth	ft	Sp. Conductance (umho/cm)	
Location	RQ-2016-05-09-62 G1SW0010		Collection (comp begin or grab)		Composite end		Bottle Group(s)
Field ID	Date: 05/12/16	Time: 14:55	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	mg/L	Total Res. Chlorine	A
STORET #			Temp (C)	pH	% sat		
Latitude	dd dms	Longitude	dd dms	Sample Depth	ft	Sp. Conductance (umho/cm)	
Location	RQ-2016-05-09-62 G1SW0010		Collection (comp begin or grab)		Composite end		Bottle Group(s)
Field ID	Date: 05/12/16	Time: 14:55	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	mg/L	Total Res. Chlorine	A
STORET #			Temp (C)	pH	% sat		
Latitude	dd dms	Longitude	dd dms	Sample Depth	ft	Sp. Conductance (umho/cm)	
Location	RQ-2016-05-09-62 G1SW0010		Collection (comp begin or grab)		Composite end		Bottle Group(s)
Field ID	Date: 05/12/16	Time: 14:55	Matrix (type, e.g., Salt, Fresh, etc)	Diss. Oxygen	mg/L	Total Res. Chlorine	A
STORET #			Temp (C)	pH	% sat		
Latitude	dd dms	Longitude	dd dms	Sample Depth	ft	Sp. Conductance (umho/cm)	

Relinquished By:

Date/Time 5-12-16 5:00

Shipping Method

Fed Ex

Number of Coolers Shipped:

Received By:

Date/Time

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