

Killearn Chain of Lakes Outlet, Alford Arm Tributary,
Lake Arrowhead and Ochlockonee River

Central Laboratory Submittal Form

last revised Apr 7, 2016

Customer: WQAP

Requester: Benjamin Ralys

Field Report Prepared By:

R. Wiwi

Project ID: SMP

Collected By:

C. Musson, R. Wiwi

Sampling Agency:

Location Alford Arm Tributary at Buck Lake Rd.	☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4/20/16 Time 10:20	Eastern Central	Composite end Date Time	Bottle Group(s) (See pg 2)
Field ID G1WA0017	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 2.95	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	B
STORET # G1WA0017	Temp (C) 19.33	pH 5.57	Sample Depth 0.3	Sp. Conductance (umho/cm) 32	
Latitude 30.46363	☐ dd ☐ dms	Longitude -84.17115	☐ dd ☐ dms	Salinity (ppt) 0.01	Comments
Location Killearn Chain of Lakes Outlet at Velda Dairy Rd. across from Mint Hill Church	☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4/20/16 Time 13:10	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID G1WA0015	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 7.13	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	B, C
STORET #	Temp (C) 20.89	pH 6.24	Sample Depth 0.2	Sp. Conductance (umho/cm) 41	
Latitude 30.53735	☐ dd ☐ dms	Longitude -84.22847	☐ dd ☐ dms	Salinity (ppt) 0.02	Comments
Location Lalse Kauturk Outlet at Centerville Rd.	☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4/20/16 Time 1:45	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID Kauturk Bloom 4.20.2016	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	Additional Bottles
STORET # NA	Temp (C)	pH	Sample Depth 0.3	Sp. Conductance (umho/cm)	
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments Bloom sample
Location Lake Arrowhead at boat dock at Turtle Crk Ln near outlet	☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4/20/16 Time 14:10	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID G1WA0004	Matrix (type, e.g., Salt, Fresh, etc) Fresh	Diss. Oxygen 10.77	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L)	B
STORET # G1WA0004	Temp (C) 23.56	pH 7.07	Sample Depth 0.3	Sp. Conductance (umho/cm) 83	
Latitude 30.568517	☐ dd ☐ dms	Longitude -84.218058	☐ dd ☐ dms	Salinity (ppt) 0.04	Comments

Relinquished By: [Signature]	Date/Time 4/20/16 4:40	Shipping Method	Number of Coolers Shipped:	Received By: [Signature]	Date/Time 4/20/16 1640
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*collection time taken from container and written
in by S. Kitchen*

Group: A	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab _____
	ALKALINITY					
	TURBIDITY					
	W-CL-IC					
	W-COLOR					
	W-F					
	W-TDS					
	W-TSS					
Group: A	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab _____
	BOD-UNIN					
Group: A	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab _____
	CHLSUITE-W					
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	HNO3	Enter Number of Bottles Sent to Lab _____
	W-ICP					
	W-ICPMS					
Group: A	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab _____
	W-NH3					
	W-NO2NO3					
	W-S-A-TP					
	W-TKN					
	W-TOC					
Group: A	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	ICE-FLTR	Enter Number of Bottles Sent to Lab _____
	W-PO4-F					
Group: B	Bottle Type:	P-1L	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab _____
	ALKALINITY					
	TURBIDITY					
	W-CL-IC					
	W-COLOR					
	W-F					
	W-TDS					
	W-TSS					
Group: B	Bottle Type:	P-1L	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab _____
	BOD-UNIN					

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Lake Arrowhead and Ochlockonee River

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Customer: WQAP

Requester: Benjamin Ralys

Field Report Prepared By:

R. Wiwi

Project ID: SMP

Collected By:

C. Mussan, R. Wiwi

Sampling Agency:

Location Ochlockonee River upstream of SR 12		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4/20/16 Time 15:05	Eastern Central	Composite end Date Time	Bottle Group(s) (See pg 2)
Field ID G1WA0038		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 7.29	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)
STORET # G1WA0038		Temp (C) 19.6	pH 6.53	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm)
Latitude 30.67062	☒ dd ☐ dms	Longitude -84.30511	☒ dd ☐ dms	Salinity (ppt) 0.04	Comments	
Location Ochlockonee River 350m upstream of SR 12		☐ Comp ☒ Grab	Collection (comp begin or grab) Date 4/20/16 Time 15:30	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID G1WA0042		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 7.32	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)
STORET # G1WA0042		Temp (C) 19.08	pH 6.55	Sample Depth 0.3	☐ ft ☒ m	Sp. Conductance (umho/cm) 78
Latitude 30.6720	☒ dd ☐ dms	Longitude -84.3040	☒ dd ☐ dms	Salinity (ppt) 0.04	Comments	
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)
STORET #		Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments	
Location		☐ Comp ☐ Grab	Collection (comp begin or grab) Date Time	Eastern Central	Composite end Date Time	Bottle Group(s)
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L ☐ % sat	Total Res. Chlorine (mg/L)
STORET #		Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Salinity (ppt)	Comments	

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
				R. Wiwi	4/20/16 / 1640

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-TDS						
	W-TSS						
Group: A	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
	BOD-UNIN						
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:	HNO3	Enter Number of Bottles Sent to Lab	2
	W-ICP						
	W-ICPMS						
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						
Group: B	Bottle Type:	P-1L	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab	3
	ALKALINITY						
	TURBIDITY						
	W-CL-IC						
	W-COLOR						
	W-F						
	W-TDS						
	W-TSS						
Group: B	Bottle Type:	P-1L	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab	3
	BOD-UNIN						

Group: B	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 3	Preservative: ICE	Enter Number of Bottles Sent to Lab <u>3</u>
Group: B	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	P-500ML	# of Bottles: 3	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab <u>3</u>
Group: B	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 3	Preservative: ICE-FLTR	Enter Number of Bottles Sent to Lab <u>3</u>
Group: C	Bottle Type: MI-FW-QLDC	PJ-2L	# of Bottles: 4	Preservative: Formalin	Enter Number of Bottles Sent to Lab <u>2</u>
Group: D	Bottle Type: ALGAL_ID	PT-50ML	# of Bottles: 2	Preservative: ICE	Enter Number of Bottles Sent to Lab <u>0</u>

Additional Bottles:
Bottle Type:
Bloom-ID

of Bottles:
3

Preservative:
ICE

sent to Lab: 3

Printed: 4/20/2016 4:42:48 PM

Page 1 of 2

Date of Request: 21-MAR-2016
 Created By: RALYS_B On: 21-MAR-2016
 Modified By: SWANSON_C On: 13-APR-2016
 Customer: WQAP
 Project: SMP
 Division:
 District:
 Sampling Event: Killeam Chain of Lakes Outlet, Alford Arm Tributary, Lake Arrowhead and Ochlockonee River

Send Coolers To:

Phone: 850-245-8443
 2600 Blair Stone Rd
 MS #3560
 Tallahassee, FL 32399-2400
 Attn: Benjamin Ralys

Program Module Number:

Priority: 3
 Event Status: S
 Criminal Investigation: NO
 Chemistry Request Reviewed By: WATTS_J On: 12-APR-2016
 Biology Request Reviewed By: SWANSON_C On: 13-APR-2016
 Sampling Kit Required: YES Ship on: 15-APR-2016
 Sampling Kit Shipped: YES On: 13-APR-2016
 Sampling Kit Packed By: KITCHEN_S
 Preservatives Needed: YES
 Date to Receive Samples: 20-APR-2016
 Received By:

Send Final Report To:

2600 Blair Stone Rd
 MS #3560
 Tallahassee, FL 32399-2400
 Attn: Katrina Sanders

Report Type: Final Only
 FTP Data: NO
 QC Report: YES
 Date Log: NO
 Authorization Log: NO

Comments: 1 - case of Nitric Acid
 1 - case of Sulfuric Acid.

Bottle Group A (Water) With 1 Samples:

Bottle Type: P-1L	Number of Bottles: 1	Preserved With: ICE
ALKALINITY	Template: DEFAULT	(SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO ₃ /L
TURBIDITY	Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
W-CL-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
W-COLOR	Template: DEFAULT	(SM 2120 B) True Color measured at 450 nm
Color (true)		
W-F	Template: DEFAULT	(SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
W-TDS	Template: DEFAULT	(SM 2540 C-97) Total Dissolved Solids in aqueous matrices
W-TSS	Template: DEFAULT	(SM 2540 D-97) Total Suspended Solids in aqueous matrices
Bottle Type: P-1L	Number of Bottles: 1	Preserved With: ICE
BOD-UNIN	Template: DEFAULT	(SM 5210 B) BOD, NOT nitrogen-inhibited
Bottle Type: BP-1L	Number of Bottles: 1	Preserved With: ICE
CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry
Bottle Type: P-500ML	Number of Bottles: 1	Preserved With: HNO ₃
W-ICP	Template:	(EPA 200.7 Rev. 4.4) Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects
Calcium		
Chromium		
Iron		
Magnesium		
Nickel		
Potassium		
Sodium		
Zinc		
W-ICPMS	Template:	(EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects
Arsenic		

Bottle Group A (Water) With 1 Samples:

Bottle Type: P-500ML	Number of Bottles: 1	Preserved With: HNO3
W-ICPMS	Template:	(EPA 200.8 Rev. 5.4) Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

Cadmium
Copper
Lead
Silver

Bottle Type: P-500ML	Number of Bottles: 1	Preserved With: ICE And H2SO4
W-NH3	Template: DEFAULT	(EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
W-NO2NO3	Template: DEFAULT	(EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
W-S-A-TP	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
W-TKN	Template: DEFAULT	(EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
W-TOC	Template: DEFAULT	(SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices
Bottle Type: P-125ML	Number of Bottles: 1	Preserved With: ICE-FLTR
W-PO4-F	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Bottle Group B (Water) With 3 Samples:

Bottle Type: P-500ML	Number of Bottles: 3	Preserved With: ICE And H2SO4
W-NH3	Template: DEFAULT	(EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
W-NO2NO3	Template: DEFAULT	(EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
W-S-A-TP	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
W-TKN	Template: DEFAULT	(EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
W-TOC	Template: DEFAULT	(SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices
Bottle Type: P-125ML	Number of Bottles: 3	Preserved With: ICE-FLTR
W-PO4-F	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L
Bottle Type: P-1L	Number of Bottles: 3	Preserved With: ICE
ALKALINITY	Template: DEFAULT	(SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO3/L
TURBIDITY	Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
W-CL-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
W-COLOR	Template: DEFAULT	(SM 2120 B) True Color measured at 450 nm
Color (true)		
W-F	Template: DEFAULT	(SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
W-TDS	Template: DEFAULT	(SM 2540 C-97) Total Dissolved Solids in aqueous matrices
W-TSS	Template: DEFAULT	(SM 2540 D-97) Total Suspended Solids in aqueous matrices
Bottle Type: P-1L	Number of Bottles: 3	Preserved With: ICE
BOD-UNIN	Template: DEFAULT	(SM 5210 B) BOD, NOT nitrogen-inhibited
Bottle Type: BP-1L	Number of Bottles: 3	Preserved With: ICE
CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry

Bottle Group C (Biological) With 2 Samples:

Bottle Type: PJ-2L	Number of Bottles: 4	Preserved With: Formalin
MI-FW-QLDC	Template: DEFAULT	(SOP-IZ06) No. Taxa of FW macroinverts, qual samp, 20 dipnets.

Bottle Group D (Biological) With 2 Samples:

Bottle Type: PT-50ML	Number of Bottles: 2	Preserved With: ICE
ALGAL_ID	Template: DEFAULT	(SOP-AB05) Qualitative assessment of algal taxa present without counts

* - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.

Log-in Checklist

RQ- 2016-04-18-18

Shipping Method: Hand Delivery

Date/Time of Receipt: 4/20/16 / 1640

Cooler ID	Cooler Temperature*	No. Sample Containers in Cooler	Evidence Tape				Tracking # (fill out only if waybill copy is damaged)
			Present?		*Intact?		
			Yes	No	Yes	No	
RED	2.4°C	18		✓			
RED	1.6°C	13		✓			

*If the temperature of a cooler is above 6.0 °C (or above 10.0 °C for W-1-4-DIOX), or if Evidence Seal is damaged, identify the containers in the affected cooler(s) on back of this form.

****Note:** If "No" is checked in any of the fields below, fill out the back of this form with additional details (Field ID, Test IDs, etc.) and generate an NCR.

**Chain Of Custody/ Field Sheet(s) Included? Yes ☒ No ☐

CONTAINER CHECK

**Evidence Tape on Bottles? Yes ☐ No ☒ If yes, is it intact? Yes ☐ No ☐

**Caps on tight? Yes ☒ No ☐ **Containers intact? Yes ☒ No ☐

**Sufficient Sample Volume: Yes ☒ No ☐

CHLORINE CHECK (Blue dot on container)

Check the Box marked "Yes" or "No" for the Presence of Chlorine. If Cl detected, an NCR is required.					
Analysis	Yes	No	Analysis	Yes	No
W-1,4 DIOX			W-PC-AA-SF		
W-AHERB-AA (-AHB-AA-R)			W-PCL-SQ (-R)		
W-BNA (-625, -R)			W-PDQUAT		
W-CARB-AA (-CAB-AA-R)			W-PESTNP-R		
W-ENDO-AA			W-PSCL-TQ		
W-GLYPH			W-PSNP-TQ		
W-NP-AA-SF			W-PST-CL-R		
W-PAH (-R)			W-TR-TQ		
W-PCB-R					

PRESERVATION CHECK (EXCLUDING SAMPLES SENT TO OVERFLOW LABS, "OV-")

**Acid Preserved Samples: pH ≤ 2.0? Yes ☒ No ☐ NA ☐ Init: RKW

**W-1-4-DIOX (Green dot on container) preserved to pH < 4.0? Yes ☐ No ☐ NA ☒ Init: RKW

Coolers Unpacked/Checked by: RKW Date: 4/20/16

NCRs (Y/N)? N

Event ID: WQAP. 2016-04-20-03

NCR #

Log-in Checklist

Samples with Incorrect pH Preservation or presence of Chlorine

Field ID	Bottle Test ID(s)	pH / Cl	Action Taken

Samples in Coolers with Incorrect Preservation or Damaged Evidence Tape

Cooler ID	Field ID	Bottle Test ID(s)

Bottles Not Intact

Field ID	Bottle Test ID(s)	Loose Cap	Damaged Cap		Damaged Container		Evidence Tape Not Intact
			CK	BR	CK	BR	

Samples with Insufficient Volume for Analyses

Field ID	Bottle Test ID(s)	Action Taken

ENCORE SAMPLES

S-VOC-MS samples in Encores must be frozen within 48 hours of collection.

Were Encore samples received? Yes_____ No_____

Date and Time Placed in Freezer _____

Were all samples placed in freezer within 48 hours of collection? Yes_____ No_____

If no, were samples shipped on dry ice? Yes_____ No_____

FOR CLEAN LAB USE ONLY – Methyl Mercury Preservation Check:

Samples Preserved within 48 hours? Yes_____ No_____

Date and time samples preserved: _____

Additional Comments: