

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Special

Boldly "X" this box if there are qualified data on this page.

Meter ID: 155071 RQ: 2022-03-07-61 Project: Eglin Middle

- Notes: (1) Always wait for meter to stabilize before recording any readings. *Rocky*
 (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 11/4/21

DO FDEP 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.	<i>NM</i>	<i>3/16/22</i>	<i>0730</i>	<i>21.2</i>	<i>760</i>	<i>8.9</i>	<i>8.9</i>	<i>99.9</i>			<i>P / F</i>	<i>(L) F</i>
ICV	<i>↓</i>	<i>↓</i>	<i>0732</i>	<i>21.3</i>	<i>760</i>	<i>8.9</i>	<i>8.86</i>	<i>100.0</i>			<i>(P) F</i>	<i>(L) F</i>
CCV	<i>↓</i>	<i>↓</i>	<i>1430</i>	<i>22.6</i>	<i>759</i>	<i>8.6</i>	<i>8.74</i>	<i>101.8</i>			<i>(P) F</i>	<i>(L) F</i>
CCV											<i>P / F</i>	<i>L / F</i>

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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	<i>NM</i>	<i>3/16/22</i>	<i>0734</i>	<i>21025C</i>	<i>6/22</i>	<i>1000</i>	<i>1000</i>	<i>P / F</i>	<i>(L) F</i>
ICV	<i>↓</i>	<i>↓</i>	<i>0736</i>	<i>21026B</i>	<i>6/22</i>	<i>100</i>	<i>103</i>	<i>(P) F</i>	<i>(L) F</i>
CCV	<i>↓</i>	<i>↓</i>	<i>1432</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>102</i>	<i>(P) F</i>	<i>(L) F</i>
CCV								<i>P / F</i>	<i>L / F</i>

Conductivity Acceptance criteria ± 5%

pH FDEP 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.	<i>NM</i>	<i>3/16/22</i>	<i>0738</i>	<i>21374</i>	<i>6/23</i>	<i>7.</i>	<i>20.9</i>			<i>P / F</i>	<i>(L) F</i>
Calibr.	<i>↓</i>	<i>↓</i>	<i>0740</i>	<i>21378</i>	<i>7/23</i>	<i>4.</i>	<i>↓</i>			<i>P / F</i>	<i>(L) F</i>
Calibr.	<i>↓</i>	<i>↓</i>	<i>0742</i>	<i>205284</i>	<i>10/22</i>	<i>10.</i>	<i>↓</i>			<i>P / F</i>	<i>(L) F</i>
ICV	<i>↓</i>	<i>↓</i>	<i>0744</i>	<i>215478</i>	<i>7/23</i>	<i>40</i>	<i>↓</i>	<i>4.12</i>	<i>148.9</i>	<i>(P) F</i>	<i>(L) F</i>
CCV	<i>↓</i>	<i>↓</i>	<i>1436</i>	<i>213754</i>	<i>6/23</i>	<i>7.0</i>	<i>21.1</i>	<i>7.15</i>	<i>-315</i>	<i>(P) F</i>	<i>(L) F</i>
CCV										<i>P / F</i>	<i>L / F</i>

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50;

mV pH 4 Range +180 ± 50;

mV pH 10 Range -180 ± 50;

If mV are recorded: slope from 7 to 10 _____, slope from 4 to 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: 11/4/21

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	<i>NM</i>	<i>3/16/22</i>		<i>0.00</i>	<i>0.00</i>	<i>(P) F</i>	<i>(L) F</i>

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria ± 5% or ± 0.05m, whichever is greater.

COMMENTS:

G3NW0226. Middle Rocky Creek. Eglin Air Force Base Restoration. SCI.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHAIN OF CUSTODY FORM

Date: 3/16/2022
Customer: NW-DIST
RQ: RQ-2022-03-07-61

Collected By: Nathan Mulkey, Frank Butera
Sampling Agency: FDEP
Project ID: SPPROJECTS

PLEASE RETURN THE ORIGINAL OF THIS FORM WITH SAMPLE SUBMITTAL
FORMS AND THE COOLER PACKING WORKSHEET TO THE LAB

Number of Coolers Shipped: 1

Delivery Method: FedEx

FIELD ID (Labels) submitted under this RQ for this collection date.

Site Location	Field ID/WIN ID
Middle Rocky Creek	 G3NW0226

RELINQUISHED BY(SIGNATURE):



DATE/TIME: 3/16/2022
1600CEN

THIS SECTION TO BE COMPLETED BY LABORATORY

Rec'd/Inspected By:

Rec'd/Inspected Date:

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

SPECIAL PROJECTS FIELD SHEET Special_Project_Name

January 2022

Meter Passed End

of Day CCV

Yes / No

WIN Station Name: Middle Rocky Creek

Date: 3/16/2022

WIN/Field ID: G3NW0226

WBID: 483

ENR:

Latitude: 30.60724

County: OKALOOSA

Org ID: 21FLPNS

Longitude: -86.39525

Receiving Body of Water: Little Rock Creek

RQ- 2022-03-07-61

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Nathan Mulkey	x	x		x	x
☒	Frank Butera			x		
☐						
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☒ Syringe	☐ Pole
Depth measured with: Meter	
Secchi Equipment ID:	

Collection Method	
☒ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☐ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded		Meter ID# 155077 (ProDSS)	
Photos: YES	Flow: FLOW	Tide:	Tide Times: High: Low:
Biological Samples Collected: ☐ None ☒ HA ☒ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:			
SBIO ID Numbers: SBIO ID: 83838. HA ID: 17242. RPS ID: 9894.			
Notes: / SCI COLLECTION TIME: 1100			

Duplicate Sample	
Time Zone: CEN Time: Field ID:	(WIN ID_DUP)
WIN DMT Activity ID:	

Blank	
Time Zone: Time: Field ID:	(Blank Type_DDMMYYYY)
DI Source: Location:	
DI Type: Equipment ID:	

DI Container (Name/ID):	DI Container Type:
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LIMS EVENT ID: 2313048

WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT:

(Initials/Date)

QC Station ID, Field Parameters In LIMS DMT:

(Initials/Date)

Scan/Save Field Sheets NM/ 03-17-2022

(Initials/Date)

Migrate Data to WIN:

(Initials/Date)

Verify Data In WIN:

(Initials/Date)



RQ-2022-03-07-61

Customer: NW-DIST

Project ID: SPECIAL PROJECTS

Collected By: Nathan Mulkey, Frank Butera

Field Report Prepared By: Nathan Mulkey

Sampling Agency: FDEP

Place Label Here						Comments: Microbiology sample(s) submitted to contract laboratory.					
WIN ID/Field ID:											
Location:		Middle Rocky Creek									
Matrix: Fresh						(Check one) ☒ 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 (PPT)	
3/16/2022	1020 CEN	9.3	98.5	18.1	4.33	0.15	0.3 ☒ VOB (S)	0.3	11.9	0	
	CEN						Central Lab please use top row for login purposes				
Parameter Suite		Parameter Methods				Preservation		pH Check	# Bottles sent to Lab	Bottle Group	
Preserved Nutrients (P-500ML)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				☒ Ice ☒ H2SO4*		☒ <2	1	A	
		Lot #	1105060		Exp:		4/30/22				
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☒ HNO3*		☒ <2	1	A	
		Lot #	1105100		Exp:		6/7/22				
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☒ Ice			1	A	
BOD (BP-1L)		☐ OV-BODUNIN				☐ Ice					
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	A	
Physical/Aggregate (Fresh) (P-1L)		☒ TDS ☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CLIC / W-COLOR / W-SO4-IC / W-				☒ 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			2	B	
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice					
Microbiology (Contract Lab Bottle)		☒ Coli ☐ Coli ☐ Enterococci				☒ Ice			1	A	
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3				☐ Ice					
Tracers (BG-500ML)		☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice		MCAA Exp.			
Pesticides (BG-500ML) (BG-1L)		☒ W-E8321-DI ☒ WE8321-MS ☒ W-PSNP-TQ ☐ W-CT-CL-R				☒ Ice		MCAA Lot#	5	A	
		☐ W-PCL-TQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution) ☐ W-TR-SQ-R									
		☐ W-PCB-TQ-R									
Phytoplankton/Periphyton		☐ DTY-QN-C ☐ PKD-QN-C				☐ Ice					
Name: Nathan Mulkey Frank Butera					Signature:					Date: 03/16/2022	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

Site Name Middle Rocky Creek

Date: 03/16/2022

Field ID G4NW0226 Storet G4NW0226

Project: Special Projects/ Eglin Air Force Base

Visit ID 83838

RQ: 2022-03-07-61

RPS ID 9894

LIMS ID: 2313048

Macro ID N/A

WBID: 483

HA ID 17242

☒ SCI

☐ RPS/LVS Only

☒ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial FB

☐ Date and Initial QA: _____

☒ RPS entered in SBIO Initial FB

☐ Date and Initial QA: _____

☐ LVS entered in SBIO Initial _____

☐ Date and Initial QA: _____

☐ < 2 m² vegetation

☐ Plants getting verified

Date submitted: _____

☐ Plants verified

Date returned: _____

☐ RPS authorized in SBIO

☐ Date and Initial: _____

☐ RPS score: _____

☐ Macro authorized in SBIO

☐ Date and Initial: _____

☐ LVS Score: _____

☐ SCI complete: _____

SCI Score: _____

☒ Add SBIO-ID, HA-ID, RPS-ID, MACROPHYTE-ID and LIMS# to field sheet in database

DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID 83838 ORG ID 21FLPNS LATITUDE 30.60707
 COUNTY Oklahoma STORET # G3NW0226 LONGITUDE 86.39556
 DATE 03/16/2022 TIME 10:30 SAMPLING AGENCY DEP NWROC
 SITE NAME Middle Rocky Creek
 FIELD ID/NAME G3NW0226 RECEIVING BODY OF WATER Little Rocky Creek
 RIPARIAN ZONE / STREAM FEATURES RA-2022-03-07-61 WSD 483 Line 23/3048

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☒ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industry ☐ Other (Specify) ☒ <u>RAFS</u>							Landscape Development Intensity Index (LDI)
Local Watershed Erosion (select one): ☐ None ☐ Slight ☒ Moderate ☐ Heavy Local Watershed NPS Pollution: ☐ No evidence ☒ Slight ☐ Moderate ☐ Heavy							Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>3.0</u> m wide <u>33</u> m/s <u>3</u> m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>710</u> Right Bank: <u>710</u>				Hydrologic Modification Score (per FT 3101) <u>1-2</u>			
High Water Mark: <u>0.8</u> + <u>0.7</u> = <u>1.5</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No			
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe				Canopy Cover % <u>84%</u> ☐ Open ☐ Lightly Shaded (11-45%) ☒ Heavily Shaded ☐ Moderate Shaded (46-80%)			

SEDIMENT / SUBSTRATE

Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse		Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify):		Smothering of Substrates Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Algae Smothering: None ☐ Slight ☐ Moderate ☒ Severe ☐	
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☐ LVS ☐ LCI ☐ BioRecon % Coverage INVERT # Times Sampled PERI # Times Sampled Woody Debris (Snags) <u>14.6</u> <u>5</u> Undercut Banks / Roots <u>3.4</u> <u>5</u> Leaf Packs or Mat <u>1.0</u> <u>5</u> Aquatic Vegetation <u>0.1</u> <u>1</u> Rock or Shell Rubble <u>0.1</u> <u>1</u> Sand <u>80.2</u> <u>34</u> <u>(PS)</u> Mud / Muck / Silt <u>1</u> <u>1</u> Other <u>Gravel</u> <u>1</u> Other			WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.15</u> <u>18.1</u> <u>4.33</u> <u>9.30</u> <u>98.5</u> <u>11.9</u> <u>0.00</u> <u>0.3</u> Mid: <u>150</u> <u>155</u> <u>477</u> Bottom: <u>1.3</u> Meter ID: <u>150155477</u>		
Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐		Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐		Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐	
Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☐ Yes ☐ No Lot Number: Exp:		Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐		System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☐	
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☐ ☐ ☒ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☒ ☐ ☐ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐		AMBIENT FIELD CONDITIONS / NOTES: <u>Artillery barrage in little to close for</u> <u>collapsing bridge above 100m mlt.</u> ☒ The antecedent hydrologic conditions have been met to my best knowledge.			
SAMPLING TEAM <u>Frank Burton, Nathan Mulkey</u>			SIGNATURE <u>Frank Burton</u>		DATE <u>03/16/2022</u>



RQ-2022-03-07-61

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: <u>21FLPWS</u>		STORET STATION NUMBER: <u>G3NW0226</u>	DATE (MM/DD/YY): <u>3/14/2022</u>	RECEIVING BODY OF WATER: <u>Little Rock Creek</u>
REMARKS:	COUNTY: <u>Cherokee SA</u>	LOCATION: <u>Middle Rock Creek</u>	FIELD ID/NAME: <u>G3NW0226</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock)	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity <u>15</u>	20 19 18 17 16	<u>15</u> 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>13</u>	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent <u>19-8%</u> 15 14 <u>13</u> 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>24</u>	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 <u>20</u> 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or space occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering <u>16</u> ----- Primary Score <u>64</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 <u>16</u>	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 12 11	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.	Good sinuosity within old channelized area. Evidence of dredging or straightening in the past (>25 yrs) but mostly recovered.	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.
Artificial Channelization <u>24</u>	<u>20</u> 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the woody root zone with few raw, eroded areas.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the woody root zone with raw, eroded areas.
Right Bank <u>10</u> Left Bank <u>10</u>	<u>10</u> 9	8 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank <u>10</u> Left Bank <u>10</u>	<u>10</u> 9	8 7 6	5 4	3 2 1
Riparian Zone Vegetation Quality	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (no expected plant community given sunlight & habitat conditions).
Right Bank <u>10</u> Left Bank <u>10</u> ----- Secondary Score <u>80</u>	<u>10</u> 9	8 7 6	5 4	3 2 1

144

TOTAL SCORE

144/160 = 90%

Date: <u>3/16/2022</u>	Analyst: <u>Frank Butera</u>	Signature: <u>[Signature]</u>
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SRIO ID 83838

HA ID 17242

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Middle Rocky Creek</u>					County: <u>Oklahoma</u>		Date: <u>3/16/2022</u>		Investigators: <u>K. Butler, N. Mulkey</u>	
Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	
<u>25</u> <u>0</u> <u>3.3</u>	1	N	N		<u>60</u> <u>3.3</u>	1	N	N		
	2					2				
	3					3				
	4	N				4				
	5	N		<u>25</u>		5			<u>96</u>	
	6	N		<u>25</u>		6				
	7					7				
	8					8				
	9					9				
<u>10</u> <u>5.3</u>	1	N	N		<u>70</u> <u>3.4</u>	1	N	N		
	2					2				
	3	N				3				
	4	N				4				
	5			<u>30</u>		5			<u>92</u>	
	6					6				
	7					7				
	8					8				
	9					9				
<u>20</u> <u>3.2</u>	1	N	N		<u>80</u> <u>3.8</u>	1	N	N		
	2					2				
	3					3				
	4					4				
	5			<u>96</u>		5			<u>72</u>	
	6					6				
	7					7				
	8					8				
	9					9				
<u>30</u> <u>4.8</u>	1	N	N		<u>90</u> <u>2.5</u>	1	N	N		
	2					2				
	3					3				
	4	N				4				
	5			<u>53</u>		5			<u>90</u>	
	6					6				
	7					7				
	8					8				
	9					9				
<u>40</u> <u>3.0</u>	1	N	N		<u>100</u> <u>2.5</u>	1	N	N		
	2					2				
	3					3				
	4					4				
	5			<u>96</u>		5			<u>85</u>	
	6					6				
	7					7				
	8					8				
	9					9				
<u>50</u> <u>7.2</u>	1	N	N		Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached. Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank. Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6. Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.					
	2									
	3									
	4	N								
	5	N		<u>71</u>						
	6	N								
	7									
	8									
	9									

STORET Station Number:

G3NWO226

Secchi depth 0.3
Estimated? N

points ranked 4-6 4
total points assessed 99
% points ranked 4-6

Check accompanying data collected at same site/date.
Algal mat sample NA
Linear Veg Survey NA
Habitat Assessment ✓
SCI/Biorecon ✓
Water sample ✓
RQ-2022-03-07-61

Algal Thickness Rank	
N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

SBIO ID. 83838
RPS ID. 9894

Waterbody: Middle Rocky Creek	Date: 3/16/22	County: Oklahoma	Storet Number: 63PW022
Analyst: F Butler	Signature: F. Butler		
Comments: $< 2m^2$ vegetation			

Instructions: Note taxa growing in the water with a checkmark if present. "D" if dominant, and "C" if codominant (dominance only if 1m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)	HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100			0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
<i>Alternanthera philoxeroides</i>												<i>Micranthemum glomeratum</i>											
<i>Bacopa caroliniana</i>												<i>Micranthemum umbrosum</i>											
<i>Bacopa monnieri</i>												<i>Myriophyllum aquaticum</i>											
<i>Bidens mitis</i>												<i>Najas guadelupensis</i>											
<i>Boehmeria cylindrica</i>												<i>Nuphar luteum</i>											
<i>Centella asiatica</i>												<i>Orontium aquaticum</i>											
<i>Ceratophyllum demersum</i>												<i>Panicum hemitomon</i>											
<i>Chara</i>												<i>Panicum repens</i>											
<i>Cicuta maculata</i>												<i>Panicum rigidulum</i>											
<i>Cladium jamaicense</i>												<i>Pistia stratioides</i>											
<i>Colocasia esculenta</i>												<i>Polygonum glabra</i>											
<i>Commelina diffusa</i>												<i>Polygonum hydropiperoides</i>											
<i>Commelina virginica</i>												<i>Polygonum punctatum</i>											
<i>Crinum americanum</i>												<i>Pontedaria cordata</i>											
<i>Diodia virginiana</i>												<i>Potamogeton illinoensis</i>											
<i>Eichhornia crassipes</i>												<i>Ruellia simplex</i>											
<i>Eleocharis (wispy viviparous)</i>												<i>Sacciolepis striata</i>											
<i>Hydrilla verticillata</i>												<i>Sagittaria kurziana</i>											
<i>Hydrocotyle</i>												<i>Sagittaria lancifolia</i>											
<i>Hygrophila polysperma</i>												<i>Sagittaria latifolia</i>											
<i>Hymenocallis</i>												<i>Salvinia minima</i>											
<i>Lachnanthes caroliniana</i>												<i>Samolus parviflora</i>											
<i>Landoltia punctata</i>												<i>Saururus cernuus</i>											
<i>Lemna</i>												<i>Sparganium americanum</i>											
<i>Limnophila sessiflora</i>												<i>Typha</i>											
<i>Ludwigia leptocarpa</i>												<i>Vallisneria americana</i>											
<i>Ludwigia palustris</i>												<i>Zizania aquatica</i>											
<i>Ludwigia peruviana</i>																							
<i>Ludwigia repens</i>																							
<i>Luziola fluitans</i>																							
					</																		

Document Reference # 05.1.0

Sampler's initials : NA

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Date/Time: 3/16/22 1328

Date/Time: 03/16/22 11328

[illegible]

Surface water, no chlorine expected

RQ - 2022-03-07-61

Phone: 850-595-8300

Sampler's name: Nathan Mulkey, Frank Butera

²Type codes: G = grab, C = composite, X =

³ Recorded using IRT-2