

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

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

Meter ID: **PRO DSS Des L**

RQ: **2019-09-23-49**

Project: **Melrose Lakes**

Notes: (1) Always wait for meter to stabilize before recording any readings.

(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

7/11/19

DO DEP 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.	C Ruben	9.24.19	0740	23.4	759	8.5	8.49	100.7%	-	-	P/F	L/F
ICV	↓	↓	0742	23.4	759	8.5	8.49	99.9%	-	-	P/F	L/F
CCV	C Ruben	↓	1553	24.6	758	8.3	8.3	99.7%	-	-	P/F	L/F
CCV											P/F	L/F

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 μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	C Ruben	9.24.19	0744	190711B	7/2020	1000	1001	P/F	L/F
ICV	↓	↓	0747	190711A	7/2020	100	103	P/F	L/F
CCV	↓	↓	1555	190711B	7/2020	1000	997	P/F	L/F
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP 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.	C. Ruben	9.24.19	0750	2902778	1/2021	7.	24.3	7.08	-28.2	P/F	L/F
Calibr.	↓	↓	0752	2904B00	3/2021	4.	24.4	4.04	151.5	P/F	L/F
Calibr.	↓	↓	0754	2810F55	9/2020	10.	24.4	10.00	-200.6	P/F	L/F
ICV	↓	↓	0757	2902778	1/2021	7.0	24.1	7.05	-28.4	P/F	L/F
CCV	C Ruben	↓	1558	2904B00	3/2021	4.0	24.4	4.04	148.5	P/F	L/F
CCV										P/F	L/F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ; mV pH 4 Range $+180 \pm 50$; 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: _____

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	C Ruben	9.24.19	0800	0.00	0.00	P/F	L/F

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

COMMENTS:

51140

Scan/Save Field Sheets _____ Migrate Data to WIN: _____ Verify Data In WIN: _____
(Initials/Date) (Initials/Date) (Initials/Date)



RQ-2019- _____ **Collected By:** _____
Customer: _____ **Field Report Prepared By:** _____
Project ID: _____ **Sampling Agency:** _____

Place Label Here

Comments:

Matrix:

(Check one)

COMPOSITE

GRAB

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)
	CST									
	CST						☐ VOB (S)			

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (BP-1L)	☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP Lot# _____ Exp: _____	☐ Ice ☐ H2SO4	☐ <2		
Metals (P-500ML)	☐ W-ICP W-ICPMS Lot# _____ Exp: _____	☐ Ice ☐ HNO3	☐ <2		
Filtered Nutrients (P125ML)	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☐ Ice			
Chlorophyll (BP-1L)	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh) (P-1L)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
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)	E. coli Fecal Enterococci	☐ Ice			
Molecular (QPCR-P-500ML)	PCR-HF183 PCR-BacR PCR-DG3 PCR-GULL2 PCR-GFD	☐ Ice			
Tracers (BG-500ML)	W-E8321-DI W-E8321-MS	☐ Ice			
Pesticides (BG-500ML) (BG-1L)	W-PSNP-TQ W-CT-CL-R W-CARB-AA W-PCL-SQ-R W-E8321-MS W-E8321-DI	☐ Ice ☐ CH2CICOOH			
Phytoplankton	DTY-QN-C	☐ Ice			

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time:

Scan/Save Field Sheets _____ Migrate Data to WIN: _____ Verify Data In WIN: _____
(Initials/Date) (Initials/Date) (Initials/Date)



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(Check one)

COMPOSITE

GRAB

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)
	CST									
	CST						☐ VOB (S)			

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (BP-1L)	☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP Lot# _____ Exp: _____	☐ Ice ☐ H2SO4	☐ <2		
Metals (P-500ML)	☐ W-ICP W-ICPMS Lot# _____ Exp: _____	☐ Ice ☐ HNO3	☐ <2		
Filtered Nutrients (P125ML)	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☐ Ice			
Chlorophyll (BP-1L)	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh) (P-1L)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
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)	E. coli Fecal Enterococci	☐ Ice			
Molecular (QPCR-P-500ML)	PCR-HF183 PCR-BacR PCR-DG3 PCR-GULL2 PCR-GFD	☐ Ice			
Tracers (BG-500ML)	W-E8321-DI W-E8321-MS	☐ Ice			
Pesticides (BG-500ML) (BG-1L)	W-PSNP-TQ W-CT-CL-R W-CARB-AA W-PCL-SQ-R W-E8321-MS W-E8321-DI	☐ Ice ☐ CH2CICOOH			
Phytoplankton	DTY-QN-C	☐ Ice			

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time:

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Project ID: _____ **Sampling Agency:** _____

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COMPOSITE

GRAB

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)
	CST									
	CST						☐ VOB (S)			

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (BP-1L)	☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP Lot# _____ Exp: _____	☐ Ice ☐ H2SO4	☐ <2		
Metals (P-500ML)	☐ W-ICP W-ICPMS Lot# _____ Exp: _____	☐ Ice ☐ HNO3	☐ <2		
Filtered Nutrients (P125ML)	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☐ Ice			
Chlorophyll (BP-1L)	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh) (P-1L)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
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)	E. coli Fecal Enterococci	☐ Ice			
Molecular (QPCR-P-500ML)	PCR-HF183 PCR-BacR PCR-DG3 PCR-GULL2 PCR-GFD	☐ Ice			
Tracers (BG-500ML)	W-E8321-DI W-E8321-MS	☐ Ice			
Pesticides (BG-500ML) (BG-1L)	W-PSNP-TQ W-CT-CL-R W-CARB-AA W-PCL-SQ-R W-E8321-MS W-E8321-DI	☐ Ice ☐ CH2CICOOH			
Phytoplankton	DTY-QN-C	☐ Ice			

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time:

Scan/Save Field Sheets _____ Migrate Data to WIN: _____ Verify Data In WIN: _____
(Initials/Date) (Initials/Date) (Initials/Date)



RQ-2019- _____ **Collected By:** _____
Customer: _____ **Field Report Prepared By:** _____
Project ID: _____ **Sampling Agency:** _____

Place Label Here

Comments:

Matrix:

(Check one)

COMPOSITE

GRAB

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)
	CST									
	CST						☐ VOB (S)			

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (BP-1L)	☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP Lot# _____ Exp: _____	☐ Ice ☐ H2SO4	☐ <2		
Metals (P-500ML)	☐ W-ICP W-ICPMS Lot# _____ Exp: _____	☐ Ice ☐ HNO3	☐ <2		
Filtered Nutrients (P125ML)	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☐ Ice			
Chlorophyll (BP-1L)	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Fresh) (P-1L)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
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)	E. coli Fecal Enterococci	☐ Ice			
Molecular (QPCR-P-500ML)	PCR-HF183 PCR-BacR PCR-DG3 PCR-GULL2 PCR-GFD	☐ Ice			
Tracers (BG-500ML)	W-E8321-DI W-E8321-MS	☐ Ice			
Pesticides (BG-500ML) (BG-1L)	W-PSNP-TQ W-CT-CL-R W-CARB-AA W-PCL-SQ-R W-E8321-MS W-E8321-DI	☐ Ice ☐ CH2CICOOH			
Phytoplankton	DTY-QN-C	☐ Ice			

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time:

Melrose Lakes

Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: NE-DIST

Requester: Jeremy M. ParrishField Report Prepared By: C Ruben

Project ID: SMP

Collected By: B Davis / C RubenSampling Agency: FDEP DEAR NE-ROC

Location	☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>9.24.19</u> Time <u>1000</u>	<u>Eastern</u> Central	Composite end Date _____ Time _____	Bottle Group(s) (See pg 2)
Field I WIN ID/Field ID:  G2NE1130	Matrix (type, e.g., Salt, Fresh, etc) <u>Fresh</u>	Diss. Oxygen <u>7.31</u>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) _____	B
WIN/S Lake Rosa Center	Temp (C) <u>28.2</u>	pH <u>6.62</u>	Sample Depth <u>0.3</u>	Sp. Conductance (umho/cm) <u>63.3</u>	
Latitude ☐ dd ☐ dms	Salinity (ppt) <u>0.03</u>	Comments			
Location	☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>9.24.19</u> Time <u>1055</u>	<u>Eastern</u> Central	Composite end Date _____ Time _____	Bottle Group(s)
Field II WIN ID/Field ID:  20030980	Matrix (type, e.g., Salt, Fresh, etc) <u>Fresh</u>	Diss. Oxygen <u>5.56</u>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) _____	B
WIN/S Goose Lake	Temp (C) <u>27.6</u>	pH <u>4.80</u>	Sample Depth <u>0.3</u>	Sp. Conductance (umho/cm) <u>60.4</u>	
Latitude ☐ dd ☐ dms	Salinity (ppt) <u>0.03</u>	Comments			
Location	☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>9.24.19</u> Time <u>1140</u>	<u>Eastern</u> Central	Composite end Date _____ Time _____	Bottle Group(s)
Field ID WIN ID/Field ID:  20030922	Matrix (type, e.g., Salt, Fresh, etc) <u>Fresh</u>	Diss. Oxygen <u>4.62</u>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) _____	A
WIN/STO Lake Suggs Ctr	Temp (C) <u>27.0</u>	pH <u>4.76</u>	Sample Depth <u>0.3</u>	Sp. Conductance (umho/cm) <u>63.4</u>	
Latitude ☐ dd ☐ dms	Salinity (ppt) <u>0.03</u>	Comments			
Location	☐ Comp ☒ Grab	Collection (comp begin or grab) Date <u>9.24.19</u> Time <u>1225</u>	<u>Eastern</u> Central	Composite end Date _____ Time _____	Bottle Group(s)
Field II WIN ID/Field ID:  20030454	Matrix (type, e.g., Salt, Fresh, etc) <u>Fresh</u>	Diss. Oxygen <u>3.96</u>	☒ mg/L ☐ % sat	Total Res. Chlorine (mg/L) _____	A
WIN/SI Ross Lake Center	Temp (C) <u>27.8</u>	pH <u>4.31</u>	Sample Depth <u>0.3</u>	Sp. Conductance (umho/cm) <u>70.9</u>	
Latitude ☐ dd ☐ dms	Salinity (ppt) <u>0.03</u>	Comments			

Relinquished By: <u>C Ruben</u>	Date/Time <u>9.24.19 1600</u>	Shipping Method <u>Fedex</u>	Number of Coolers Shipped: <u>2</u>	Received By:	Date/Time
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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:	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:	FILTER-ICE	Enter Number of Bottles Sent to Lab	2
	W-PO4-F						
Group: B	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: B	Bottle Type:	BP-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
	CHLSUITE-W						

Group: B	Bottle Type:	P-500ML	# of Bottles: 2	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	<u>2</u>
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W-NH3
W-NO2NO3
W-S-A-TP
W-TKN
W-TOC

Group: B	Bottle Type:	P-125ML	# of Bottles: 2	Preservative: FILTER-ICE	Enter Number of Bottles Sent to Lab	<u>2</u>
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W-PO4-F