Last Edit Date: 03/05/2025

NERRS SWMP Water Quality Calibration Log

Reserve: GTM | Station Name: PI | CDMO Raw File Name: gtmpiwq011425

Datasonde and Probe Identification Numbers

	Sonde Code	Serial Number		Serial Number	Model Number
Datasonde:	EXO210122020-2	20H100465	pH:	16A102347/23E100229	599701
Vented:	No	Model Number	RP DO:		
Nickname:	Irma	EXO2	ODO:	17L100140	599100-01
			Turbidity:	13H100225	599101-01
			Conductivity:	20G104544	599827
			Chl/TotAlg:	19J105327	599103-01
			EXO Wiper:	23G100412	599090-01

Datasonde Maintenance

Date of Calibration: 01/13/2025 mm/dd/yyyy | Technician(s): Megan Howkins

	Central/TURB	ODO	CHL		Central/TURB	ODO	CHL
Wiper(s) Replaced:	Yes			Wiper parks 180° from optics:	Yes		
Batteries Replaced:	Yes			DO/ODO membrane replaced:	No		
Format Flash Disk:				Membrane integrity test:			

Comments: fDOM SN: 20C201713

Pre/Post Deployment Calibration

Pre-Deployment						Post-Deployment		Sensor Diagnostics	
Standards		**Before Cal**	**Calibrated**		**Error**			**Pre-Deployment**	
Temp	19.76 °C	19.813 °C			No	Check Date	02/12/202		
RP % DO @ 100% sat	%	%	%			%	%	RP DO chrg (range 25-75)	
BP @ cal (Rapid Pulse)	mm Hg							RP DO gain (0.7-1.4)	
Optical %DO @ 100% sat	103.5 %	101.2 %			No	100.2 %	100.3 %	Optical DO gain (6600: 0.7-1.4, EXO: 0.87-1.25)	1.03
BP @ Cal (Optical)		767.7 mm Hg				761.7 mm Hg		RP DO warm up test (hi/lo)	
Baro. Pres. (Depth Calib)		765.7 mm Hg	(760.0 for vented sonde)			761.7 mm Hg	(760.0 for vented)	Cell const (6600: 4.6-5.45, EXO CT2: 4.59-5.61, WPD EXO: 0.419-0.519)	0.47
Depth	0.077 offset	0.101 m	0.077 m		No	0.034 m	0.023 offset	pH 7 (0 +/- 50 mV)	-43.8
Station Offset								pH 10 (-180 +/- 50 mV)	-223.0
Level	0.0 offset						0.0 offset	pH 4 (+180 +/- 50 mV)	138.4
SpCond	50.0 mS/cm	50.054 mS/cm	50.0 mS/cm		No	49.738 mS/cm		Calculated pH slope	179.2
ph 7	7.02	7.02	7.02		No	7.12		(<155 is suspect)	
ph 10	10.06	10.08	10.06		No	10.11		(4/7 will result in negative slope)	
ph 4	4.0	3.9	3.99		No	4.16			
Turb	0.0 NTU/FNU	0.04 NTU/FNU	0.0 NTU/FNU		No	-0.02 NTU/FNU		**Post-Deployment**	
Turb	124.0 NTU/FNU	124.99 NTU/FNU	124.0 NTU/FNU		No	NTU/FNU		RP DO chrg (range 25-75)	
Rhodamine WT Temp		19.622 °C				21.957 °C		RP DO warm up test (hi/lo)	
Chl (0)	0.0 ug/L	0.06 ug/L	0.0 ug/L		No	-0.04 ug/L		pH 7 (0 +/- 50 mV)	-48.7
Chl (118)	6600:118.6 ug/L	68.73 ug/L	68.4 ug/L		No	ug/L	6600:113.9	pH 10 (-180 +/- 50 mV)	-228.5
	EXO: 68.9 ug/L						EXO: 66.0	pH 4 (+180 +/- 50 mV)	129.8
Battery voltage		5.29 V	(remove ext. power -650,6038)			4.96 V	(remove ext. power)	Calculated pH Slope (<155 is suspect)	179.8

Programming

Interval:	15 min	Start date:	01/14/2025 mm/dd/yyyy	Start time (STD):	05:00:00 24 hh:mm:ss
Duration:	365 days	sonde file name:	PI011425	Battery life:	134.75 days
Free memory:	24286.28 days	Set clock (status):	Yes Y or N	Free memory (status):	98.95 bytes (k) or %

Parameters recorded:

Temp:	Yes	Sp Cond:	Yes	Salinity:	Yes
DO % sat:	Yes	DO Conc.:	Yes	Depth/Level:	Yes
pH:	Yes	Turbidity:	Yes	Chlorophyll:	Yes
		pH mV:	Yes	Battery Voltage:	Yes

Comments-Pre: fDOM Calibrated: 0.19, 0.00 RFU; 110.36, 100.9 RFU; 0.20, 0.00 QSU; 325.46, 302.7 QSU; TAL CHLa RFU DI: 0.03, 0.00; 20C Rhod (std 17.0): 17.07, 17.01

Comments-Post: temp: 21.033C, 21.01C; fDOM: 1.30QSU, 0.32RFU; TAL RFU: 0.00; pH 4 failed post cal

Last Edit Date: 03/05/2025

NERRS SWMP Water Quality Field Log

Deployment Information

First Sample Time:14:00

Date Deployed: 01/14/2025 mm/dd/yyyy * **Time:** 13:50 hh:mm (24hr) **White Towel:** Yes

Technician(s): Megan Howkins, Katrin Villinger

Field Data:

Water Temp	11.668	°C	DO Percent	94.9	%
Sp Cond	39.274	mS/cm	DO Conc.	8.8	mg/L
Salinity	24.98	psu	Other	3.3	

Instrument Type: EXO2

Comments: cold, windy, no clouds, outgoing tide

Infield Maintenance: Note changes to site during deployment, sonde tube maintenance, biofouling removal, etc.

Date: 02/11/2025 mm/dd/yyyy **Duration:** 4 min **Maintenance:** ram rod

Comments: no fouling in housing

Retrieval Information

Last Sample Time:11:45

Date Retrieved: 02/11/2025 mm/dd/yyyy **Time:** 11:47 hh:mm (24hr) **White Towel:** Yes

Technician(s): Megan Howkins, Katrin Villinger

Field Data:

Water Temp	19.724	°C	DO Percent		%
Sp Cond	36.07	mS/cm	DO Conc.		mg/L
Salinity	22.83	psu	Other	8.19	

Instrument Type: EXO2

Fouling Presence:

Type: A=algae, B=barnacles, C=crabs, E=eggs, F=fish, H=hydroids, MD=mud, S=sponges, SI=silt, SL=shell SP=shrimp, T=tunicates, W=worm, O=other, N=none

Amount: H=heavy, M=moderate, L=light *(e.g. A/H, B/L)*

Sonde/Guard	N	External Screen	N	Chlorophyll	N
Temp/Cond	N	Dissolved Oxygen	N		
pH	N	Turbidity	N		

Comments: no fouling on sonde

File Retrieval

Sonde Filename: PI011425 **Probe Malfunction:** Yes

Comments: