Last Edit Date: 03/31/2025

NERRS SWMP Water Quality Calibration Log

Reserve: GTM | Station Name: PI | CDMO Raw File Name: gtmpiwq021125

Datasonde and Probe Identification Numbers

	Sonde Code	Serial Number		Serial Number	Model Number
Datasonde:	EXO210122020	20H100464	pH:	24G104085	577602
Vented:	No	Model Number	RP DO:		
Nickname:	Matthew	EXO2	ODO:	15C105033	599100-01
			Turbidity:	13K102042	599101-01
			Conductivity:	24H100562	599827
			Chl/TotAlg:	20C000096	599103-01
			EXO Wiper:	12L101282	599090-01

Datasonde Maintenance

Date of Calibration: 02/10/2025 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: 20C201718

Pre/Post Deployment Calibration

Pre-Deployment						Post-Deployment			Sensor Diagnostics	
Standards		**Before Cal**	**Calibrated**		**Error**				**Pre-Deployment**	
Temp	20.95 °C	20.991 °C			No	Check Date	03/05/202			
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	99.2 %	101.0 %			No	%	%		Optical DO gain (6600: 0.7-1.4, EXO: 0.87-1.25)	1.07
BP @ Cal (Optical)		768.8 mm Hg				756.7 mm Hg			RP DO warm up test (hi/lo)	
Baro. Pres. (Depth Calib)		767.2 mm Hg	(760.0 for vented sonde)			756.7 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	0.098 offset	0.183 m	0.098 m		No	-0.049 m	-0.045 offset		pH 7 (0 +/- 50 mV)	-16.0
Station Offset									pH 10 (-180 +/- 50 mV)	-193.3
Level	0.0 offset						0.0 offset		pH 4 (+180 +/- 50 mV)	163.3
SpCond	50.0 mS/cm	50.262 mS/cm	50.0 mS/cm		No	50.09 mS/cm			Calculated pH slope	177.3
ph 7	7.02	7.11	7.02		No	7.12			(<155 is suspect)	
ph 10	10.06	10.12	10.06		No	10.16			(4/7 will result in negative slope)	
ph 4	4.0	4.06	3.99		No	4.04				
Turb	0.0 NTU/FNU	0.07 NTU/FNU	0.0 NTU/FNU		No	-0.05 NTU/FNU			**Post-Deployment**	
Turb	124.0 NTU/FNU	118.62 NTU/FNU	124.0 NTU/FNU		No	NTU/FNU			RP DO chrg (range 25-75)	
Rhodamine WT Temp		21.863 °C				21.527 °C			RP DO warm up test (hi/lo)	
Chl (0)	0.0 ug/L	-0.03 ug/L	-0.01 ug/L		No	0.08 ug/L			pH 7 (0 +/- 50 mV)	-21.0
Chl (118)	6600:114.1 ug/L	66.76 ug/L	66.02 ug/L		No	ug/L	6600:114.8		pH 10 (-180 +/- 50 mV)	-199.7
	EXO: 66.2 ug/L						EXO: 66.6		pH 4 (+180 +/- 50 mV)	160.3
Battery voltage		5.47 V	(remove ext. power -650,6038)			5.23 V	(remove ext. power)		Calculated pH Slope (<155 is suspect)	178.7

Programming

Interval:	15 min	Start date:	02/11/2025 mm/dd/yyyy	Start time (STD):	05:00:00 24 hh:mm:ss
Duration:	365 days	sonde file name:	PI021125	Battery life:	129.72 days
Free memory:	24249.65 days	Set clock (status):	Yes Y or N	Free memory (status):	98.80 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: -0.06, 0.00 RFU; 97.36, 100.90RFU; 0.15, 0.01QSU; 290.66, 299.99 QSU; TAL CHLa RFU DI: -0.05, 0.00; 22C Rhod (std 16.4): 16.67, 16.39

Comments-Post: temp: 20.804C, 20.78C; fDOM: 0.43QSU, 0.27RFU; TAL RFU: 0.05; DO sensor failed for entire deployment

Last Edit Date: 03/31/2025

NERRS SWMP Water Quality Field Log

Deployment Information

First Sample Time:12:00

Date Deployed: 02/11/2025 mm/dd/yyyy * **Time:** 11:54 hh:mm (24hr) **White Towel:** Yes

Technician(s): Megan Howkins, Katrin Villinger

Field Data:

Water Temp	19.724	°C	DO Percent	%	Instrument Type: EXO2
Sp Cond	36.07	mS/cm	DO Conc.	mg/L	
Salinity	22.83	psu	Other	8.19	

Comments: partly cloudy, calm water surface, strong outgoing tide

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

Date: 03/04/2025 mm/dd/yyyy **Duration:** 5 min **Maintenance:** ram rod

Comments: no fouling

Retrieval Information

Last Sample Time:11:00

Date Retrieved: 03/04/2025 mm/dd/yyyy **Time:** 11:01 hh:mm (24hr) **White Towel:** Yes

Technician(s): Megan Howkins, Katrin Villinger

Field Data:

Water Temp	17.127	°C	DO Percent	90.3	% Instrument Type: EXO2
Sp Cond	39.212	mS/cm	DO Conc.	7.48	mg/L
Salinity	25.04	psu	Other	4.41	

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

File Retrieval

Sonde Filename: PI021125 **Probe Malfunction:** Yes

Comments: