Last Edit Date: 04/11/2025

NERRS SWMP Water Quality Calibration Log

Reserve: GTM | Station Name: PI | CDMO Raw File Name: gtmpiwq030425

Datasonde and Probe Identification Numbers

	Sonde Code	Serial Number		Model Number
Datasonde:	EXO210122020-2	20H100465		
Vented:	No	Model Number		
Nickname:	Irma	EXO2		

	Serial Number	Model Number
pH:	16A102347/23E100229	599701
RP DO:		
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: 03/03/2025 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	20.03 °C	20.109 °C			No	Check Date	03/27/202		
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	100.9 %	101.0 %			No	100.7 %	100.8 %	Optical DO gain (6600: 0.7-1.4, EXO: 0.87-1.25)	1.03
BP @ Cal (Optical)		767.9 mm Hg				771.0 mm Hg		RP DO warm up test (hi/lo)	
Baro. Pres. (Depth Calib)		767.6 mm Hg	(760.0 for vented sonde)			771.0 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	0.103 offset	0.116 m	0.103 m		No	0.239 m	0.15 offset	pH 7 (0 +/- 50 mV)	-43.7
Station Offset								pH 10 (-180 +/- 50 mV)	-223.4
Level	0.0 offset						0.0 offset	pH 4 (+180 +/- 50 mV)	135.6
SpCond	50.0 mS/cm	49.946 mS/cm	50.0 mS/cm		No	49.908 mS/cm		Calculated pH slope	179.7
ph 7	7.02	7.04	7.02		No	7.15		(<155 is suspect)	
ph 10	10.06	10.04	10.06		No	10.15		(4/7 will result in negative slope)	
ph 4	4.0	4.04	4.0		No	4.15			
Turb	0.0 NTU/FNU	-0.02 NTU/FNU	-0.01 NTU/FNU		No	-0.01 NTU/FNU		**Post-Deployment**	
Turb	124.0 NTU/FNU	122.25 NTU/FNU	124.02 NTU/FNU		No	NTU/FNU		RP DO chrg (range 25-75)	
Rhodamine WT Temp		20.635 °C				21.885 °C		RP DO warm up test (hi/lo)	
Chl (0)	0.0 ug/L	-0.01 ug/L	0.01 ug/L		No	-0.02 ug/L		pH 7 (0 +/- 50 mV)	-51.5
Chl (118)	6600:116.5 ug/L	68.36 ug/L	66.98 ug/L		No	ug/L	6600:114.1	pH 10 (-180 +/- 50 mV)	-230.2
	EXO: 67.7 ug/L						EXO: 66.1	pH 4 (+180 +/- 50 mV)	128.0
Battery voltage		5.57 V	(remove ext. power -650,6038)			5.15 V	(remove ext. power)	Calculated pH Slope (<155 is suspect)	178.7

Programming

Interval:	15 min	Start date:	03/04/2025 mm/dd/yyyy	Start time (STD):	05:00:00 24 hh:mm:ss
Duration:	365 days	sonde file name:	PI030425	Battery life:	133.75 days
Free memory:	24248.82 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 DI: 0.40 QSU, 0.23RFU; TAL CHLa RFU DI: 0.01, 0.00; 21C Rhod (std 16.7): 16.98, 16.70

Comments-Post: temp: 21.171C, 21.15C; fDOM: 0.02 RFU, 0.56 QSU; TAL RFU: -0.03; wiper brush fell off.

Last Edit Date: 04/11/2025

NERRS SWMP Water Quality Field Log

Deployment Information

First Sample Time:11:15

Date Deployed: 03/04/2025 mm/dd/yyyy * **Time:** 11:06 hh:mm (24hr) **White Towel:** Yes

Technician(s): Megan Howkins, Katrin Villinger

Field Data:

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

Instrument Type: EXO2

Comments: partly cloudy, strong SE winds, strong incoming current

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

Date: 03/26/2025 mm/dd/yyyy **Duration:** 7 min **Maintenance:** ram rod

Comments: light soft fouling cleared

Retrieval Information

Last Sample Time:10:30

Date Retrieved: 03/26/2025 mm/dd/yyyy **Time:** 10:35 hh:mm (24hr) **White Towel:** Yes

Technician(s): Megan Howkins

Field Data:

Water Temp	20.458	°C	DO Percent	89.0	%
Sp Cond	36.747	mS/cm	DO Conc.	7.0	mg/L
Salinity	23.29	psu	Other	7.65	

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

File Retrieval

Sonde Filename: PI030425 **Probe Malfunction:** No

Comments: potential DO dropouts on the KOR graph display