

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0387
CALIBRATION DATE: 23-Jan-10p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.4004

Voffset = -0.4789

Tau20 = 1.08

A = -1.7359e-003

B = 2.0195e-004

C = -3.9039e-006

E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4 H1 = -3.30000e-2

D2 = -4.64803e-2 H2 = 5.00000e+3

H3 = 1.45000e+3

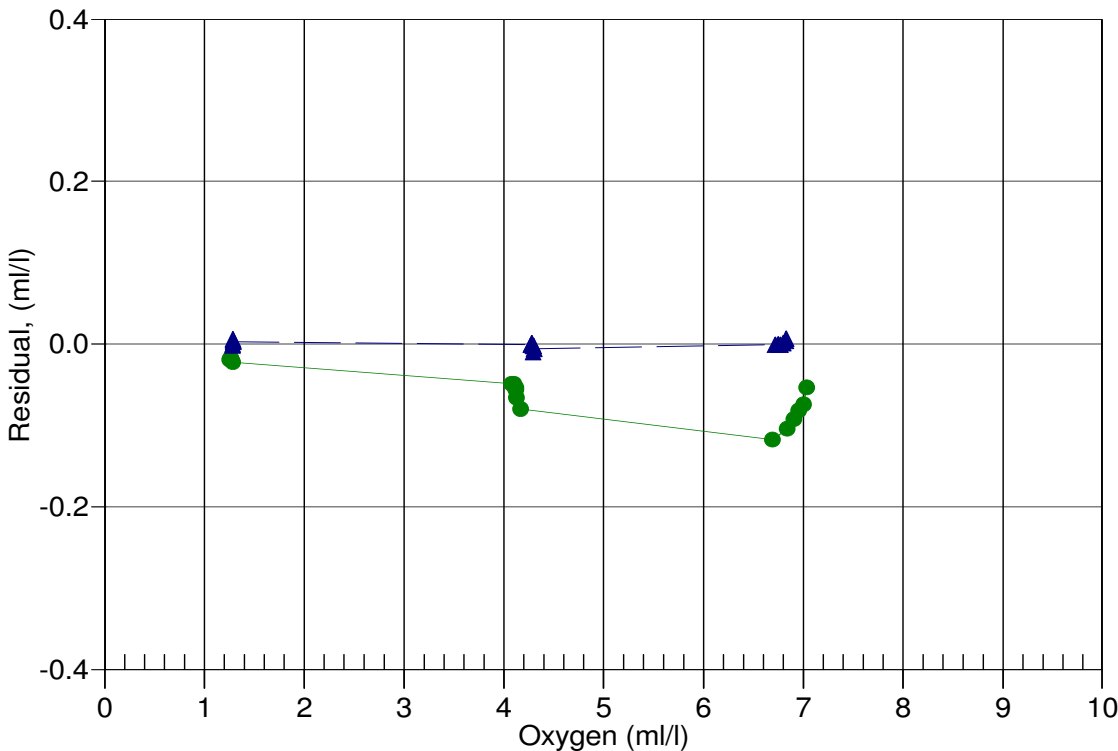
BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(VOLTS)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.28	2.00	0.01	0.809	1.28	-0.00
1.28	6.00	0.01	0.848	1.28	-0.00
1.28	30.00	0.02	1.073	1.29	0.01
1.28	26.00	0.02	1.033	1.29	0.00
1.28	20.00	0.01	0.978	1.29	0.00
1.29	12.00	0.01	0.905	1.29	0.00
4.27	30.00	0.02	2.449	4.27	-0.00
4.28	26.00	0.02	2.320	4.28	0.00
4.29	20.00	0.01	2.137	4.29	-0.00
4.29	2.00	0.01	1.586	4.28	-0.01
4.30	12.00	0.01	1.900	4.30	-0.00
4.30	6.00	0.01	1.716	4.30	-0.01
6.72	30.00	0.02	3.575	6.72	-0.00
6.74	26.00	0.02	3.380	6.74	-0.00
6.77	20.00	0.01	3.097	6.77	-0.00
6.80	12.00	0.01	2.727	6.80	0.00
6.82	6.00	0.01	2.444	6.83	0.00
6.82	2.00	0.01	2.247	6.83	0.01

$$\text{Oxygen (ml/l)} = \text{Soc} * (\text{V} + \text{Voffset}) * (1.0 + \text{A} * \text{T} + \text{B} * \text{T}^2 + \text{C} * \text{T}^3) * \text{OxSol}(\text{T},\text{S}) * \exp(\text{E} * \text{P} / \text{K})$$

V = voltage output from SBE43, T = temperature [deg C], S = salinity [PSU] K = temperature [deg K]

OxSol(T,S) = oxygen saturation [ml/l], P = pressure [dbar], Residual = instrument oxygen - bath oxygen

Date, Delta Ox (ml/l)



● 13-Jun-09p 1.0132
▲ 23-Jan-10p 1.0000