

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0222

SBE 43F OXYGEN CALIBRATION DATA

CALIBRATION DATE: 29-Mar-13

## COEFFICIENTS

Soc = 3.1330e-004 (DI)

Foffset = -829.21

Tau20 = 1.54

A = -3.1214e-003

B = 1.6000e-004

C = -2.7282e-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(Hz)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.22	2.00	0.12	1235.49	1.22	-0.00
1.23	6.00	0.11	1284.82	1.23	0.00
1.24	12.00	0.10	1363.58	1.24	0.00
1.26	20.00	0.09	1475.13	1.26	0.00
1.29	26.00	0.09	1570.61	1.29	0.00
1.30	30.00	0.09	1633.88	1.30	0.01
4.11	2.00	0.12	2191.42	4.10	-0.01
4.12	12.00	0.10	2606.13	4.12	-0.00
4.12	6.00	0.11	2359.03	4.12	-0.00
4.15	20.00	0.09	2953.14	4.15	-0.01
4.18	26.00	0.09	3228.36	4.18	-0.00
4.23	30.00	0.09	3446.23	4.23	0.00
7.00	30.00	0.09	5156.26	7.00	0.00
7.07	26.00	0.09	4887.01	7.06	-0.00
7.11	20.00	0.09	4474.38	7.11	0.01
7.19	12.00	0.10	3934.40	7.19	-0.00
7.37	6.00	0.11	3568.58	7.37	0.00
7.46	2.00	0.12	3308.21	7.47	0.00

Oxygen (ml/l) = Soc \* (F + Foffset) \* (1.0 + A \* T + B \* T<sup>2</sup> + C \* T<sup>3</sup>) \* OxSol(T,S) \* exp(E \* P / K)

F = frequency output from SBE43F, 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)

