

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2934

SBE 43 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 03-May-17

COEFFICIENTS:

Soc = 0.4398

Voffset = -0.5332

Tau20 = 1.25

A = -4.1956e-003

B = 2.2037e-004

C = -3.3288e-006

E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4

D2 = -4.64803e-2

H1 = -3.300000e-2

H2 = 5.00000e+3

H3 = 1.45000e+3

BATH OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (volts)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
1.08	2.00	0.00	0.787	1.07	-0.01
1.09	6.00	0.00	0.821	1.08	-0.01
1.10	12.00	0.00	0.873	1.10	-0.00
1.13	20.00	0.00	0.947	1.13	0.00
1.16	26.00	0.00	1.009	1.16	0.01
1.16	30.00	0.00	1.046	1.17	0.01
3.86	6.00	0.00	1.559	3.86	-0.00
3.89	2.00	0.00	1.453	3.89	-0.00
3.89	12.00	0.00	1.737	3.90	0.00
3.92	20.00	0.00	1.969	3.93	0.01
3.94	26.00	0.00	2.142	3.94	0.00
3.96	30.00	0.00	2.266	3.96	-0.00
6.69	6.00	0.00	2.313	6.70	0.00
6.80	2.00	0.00	2.144	6.81	0.00
6.82	20.00	0.00	3.022	6.81	-0.01
6.82	30.00	0.00	3.515	6.82	-0.00
6.85	26.00	0.00	3.330	6.85	0.00
6.91	12.00	0.00	2.669	6.91	0.00

V = instrument output (volts); T = temperature (°C); S = salinity (PSU); K = temperature (°K)

Oxsol(T,S) = oxygen saturation (ml/l); P = pressure (dbar)

Oxygen (ml/l) = Soc * (V + Voffset) * (1.0 + A * T + B * T² + C * T³) * Oxsol(T,S) * exp(E * P / K)

Residual (ml/l) = instrument oxygen - bath oxygen

