

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0113
CALIBRATION DATE: 20-Jan-16

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:
Soc = 0.4002
Voffset = -0.6300
Tau20 = 1.30
A = -2.7955e-003
B = 1.9478e-004
C = -3.2358e-006
E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS
D1 = 1.92634e-4 H1 = -3.300000e-2
D2 = -4.64803e-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)
1.14	12.00	0.00	1.010	1.13	-0.01
1.15	2.00	0.00	0.932	1.16	0.01
1.15	6.00	0.00	0.965	1.16	0.00
1.17	20.00	0.00	1.087	1.16	-0.01
1.17	26.00	0.00	1.141	1.16	-0.01
1.18	30.00	0.00	1.184	1.18	-0.00
3.92	2.00	0.00	1.647	3.92	0.01
3.92	12.00	0.00	1.944	3.92	0.00
3.92	6.00	0.00	1.768	3.93	0.00
3.95	30.00	0.00	2.487	3.95	0.00
3.95	20.00	0.00	2.188	3.95	-0.00
3.96	26.00	0.00	2.369	3.96	0.00
6.68	2.00	0.00	2.363	6.68	-0.01
6.69	30.00	0.00	3.779	6.69	-0.00
6.72	6.00	0.00	2.576	6.71	-0.00
6.72	20.00	0.00	3.278	6.72	-0.00
6.74	26.00	0.00	3.590	6.74	0.00
6.74	12.00	0.00	2.889	6.74	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

