

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0684
CALIBRATION DATE: 11-Jan-17

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:

Soc = 0.4157
Voffset = -0.5080
Tau20 = 1.42

A = -4.5481e-003
B = 2.7895e-004
C = -3.9172e-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)
1.13	6.00	0.00	0.827	1.13	0.00
1.14	12.00	0.00	0.879	1.14	-0.00
1.15	2.00	0.00	0.794	1.14	-0.00
1.16	20.00	0.00	0.951	1.16	-0.00
1.17	26.00	0.00	1.002	1.17	0.00
1.18	30.00	0.00	1.040	1.18	0.00
3.88	2.00	0.00	1.481	3.88	-0.00
3.90	12.00	0.00	1.778	3.90	0.00
3.91	20.00	0.00	2.004	3.91	-0.00
3.92	6.00	0.00	1.610	3.92	0.00
3.92	26.00	0.00	2.167	3.92	0.00
3.95	30.00	0.00	2.290	3.95	0.00
6.63	2.00	0.00	2.169	6.63	-0.00
6.65	12.00	0.00	2.675	6.65	-0.00
6.66	30.00	0.00	3.510	6.66	-0.00
6.67	20.00	0.00	3.057	6.67	0.00
6.69	26.00	0.00	3.337	6.69	0.00
6.69	6.00	0.00	2.392	6.70	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

