

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0444
CALIBRATION DATE: 30-Mar-17

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:
Soc = 0.5326
Voffset = -0.4990
Tau20 = 1.09
A = -4.6883e-003
B = 2.2572e-004
C = -3.4371e-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	2.00	0.00	0.722	1.14	-0.01
1.15	12.00	0.00	0.793	1.15	-0.00
1.15	6.00	0.00	0.751	1.15	-0.01
1.16	20.00	0.00	0.852	1.16	0.00
1.17	26.00	0.00	0.899	1.17	0.00
1.18	30.00	0.00	0.933	1.19	0.01
3.93	2.00	0.00	1.269	3.93	-0.00
3.95	6.00	0.00	1.368	3.95	-0.00
3.98	20.00	0.00	1.713	3.98	0.00
3.99	26.00	0.00	1.861	4.00	0.01
3.99	12.00	0.00	1.523	3.99	0.00
4.01	30.00	0.00	1.968	4.01	0.01
6.76	2.00	0.00	1.822	6.76	0.00
6.81	6.00	0.00	1.999	6.81	0.00
6.85	30.00	0.00	3.003	6.84	-0.01
6.85	12.00	0.00	2.257	6.85	-0.00
6.99	20.00	0.00	2.627	6.99	-0.00
7.04	26.00	0.00	2.898	7.04	-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

