

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0904
CALIBRATION DATE: 12-Nov-15

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:

Soc = 0.4544
Voffset = -0.5000
Tau20 = 1.09

A = -2.6105e-003
B = 1.3269e-004
C = -2.4145e-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 OX (ml/l)	BATH TEMP (ITS-90)	BATH SAL (PSU)	INSTRUMENT OUTPUT (VOLTS)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
1.17	6.00	0.00	0.795	1.15	-0.01
1.17	20.00	0.00	0.915	1.18	0.01
1.18	26.00	0.00	0.972	1.19	0.02
1.18	12.00	0.00	0.850	1.18	-0.00
1.19	30.00	0.00	1.016	1.21	0.02
1.19	2.00	0.00	0.768	1.17	-0.02
3.92	20.00	0.00	1.881	3.92	0.00
3.93	2.00	0.00	1.397	3.93	-0.00
3.93	12.00	0.00	1.666	3.93	-0.00
3.93	30.00	0.00	2.181	3.94	0.01
3.94	6.00	0.00	1.506	3.94	-0.00
3.95	26.00	0.00	2.065	3.95	0.01
6.65	2.00	0.00	2.021	6.66	0.00
6.70	12.00	0.00	2.486	6.70	-0.00
6.70	20.00	0.00	2.860	6.70	-0.01
6.70	6.00	0.00	2.215	6.71	0.01
6.74	30.00	0.00	3.368	6.73	-0.01
6.74	26.00	0.00	3.167	6.74	-0.00

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

V = voltage output from SBE43, 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

