

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0730

SBE 43 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 03-May-17

COEFFICIENTS:

Soc = 0.5673

Voffset = -0.5163

Tau20 = 1.39

A = -4.0660e-003

B = 1.6144e-004

C = -2.7657e-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	0.713	1.07	-0.01
1.09	6.00	0.00	0.739	1.08	-0.01
1.10	12.00	0.00	0.781	1.10	-0.00
1.13	20.00	0.00	0.842	1.13	0.00
1.16	26.00	0.00	0.895	1.16	0.01
1.16	30.00	0.00	0.928	1.17	0.01
3.86	6.00	0.00	1.313	3.86	0.00
3.89	2.00	0.00	1.230	3.89	-0.00
3.89	12.00	0.00	1.455	3.90	0.00
3.92	20.00	0.00	1.648	3.92	0.00
3.94	26.00	0.00	1.800	3.95	0.01
3.96	30.00	0.00	1.912	3.97	0.01
6.69	6.00	0.00	1.898	6.70	0.00
6.80	2.00	0.00	1.765	6.81	0.00
6.82	20.00	0.00	2.479	6.81	-0.01
6.82	30.00	0.00	2.908	6.81	-0.01
6.85	26.00	0.00	2.745	6.85	-0.00
6.91	12.00	0.00	2.182	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

