

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2940
CALIBRATION DATE: 09-Jul-15

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:

Soc = 0.4618
Voffset = -0.5183
Tau20 = 1.25

A = -3.9966e-003
B = 2.1450e-004
C = -2.9593e-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)
1.31	20.00	0.00	0.973	1.31	-0.00
1.32	12.00	0.00	0.904	1.31	-0.00
1.33	26.00	0.00	1.032	1.33	0.00
1.34	30.00	0.00	1.069	1.34	0.00
1.37	6.00	0.00	0.864	1.37	-0.00
1.38	2.00	0.00	0.830	1.38	0.00
4.06	12.00	0.00	1.711	4.06	-0.00
4.08	6.00	0.00	1.550	4.08	0.00
4.08	20.00	0.00	1.931	4.08	-0.00
4.08	2.00	0.00	1.438	4.08	-0.00
4.10	26.00	0.00	2.102	4.11	0.00
4.12	30.00	0.00	2.217	4.12	0.00
6.85	2.00	0.00	2.062	6.85	-0.00
6.86	6.00	0.00	2.255	6.87	0.00
6.87	12.00	0.00	2.536	6.87	-0.00
6.88	20.00	0.00	2.905	6.89	0.00
6.94	26.00	0.00	3.192	6.93	-0.00
6.97	30.00	0.00	3.392	6.97	-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

