

Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA

Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 2942

SBE 43 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 03-May-17

COEFFICIENTS:

Soc = 0.4771

Voffset = -0.5379

Tau20 = 1.30

A = -4.0250e-003

B = 2.0389e-004

C = -3.2146e-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	0.773	1.08	-0.01
1.09	6.00	0.00	0.803	1.08	-0.01
1.10	12.00	0.00	0.851	1.10	-0.00
1.13	20.00	0.00	0.919	1.13	0.00
1.16	26.00	0.00	0.977	1.16	0.01
1.16	30.00	0.00	1.013	1.17	0.01
3.86	6.00	0.00	1.484	3.86	0.00
3.89	2.00	0.00	1.386	3.89	-0.00
3.89	12.00	0.00	1.648	3.90	0.00
3.92	20.00	0.00	1.863	3.92	0.00
3.94	26.00	0.00	2.030	3.95	0.01
3.96	30.00	0.00	2.149	3.97	0.01
6.69	6.00	0.00	2.178	6.70	0.00
6.80	2.00	0.00	2.023	6.80	-0.00
6.82	20.00	0.00	2.839	6.81	-0.00
6.82	30.00	0.00	3.304	6.81	-0.01
6.85	26.00	0.00	3.128	6.85	-0.00
6.91	12.00	0.00	2.507	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

