

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: 3513

SBE 43 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 08-Apr-17

COEFFICIENTS:

Soc = 0.4859

Voffset = -0.4432

Tau20 = 1.21

A = -3.6678e-003

B = 1.8607e-004

C = -2.6407e-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)
1.10	12.00	0.00	0.751	1.10	0.00
1.10	6.00	0.00	0.708	1.10	-0.00
1.11	2.00	0.00	0.680	1.11	0.00
1.13	20.00	0.00	0.816	1.13	0.00
1.15	26.00	0.00	0.865	1.15	-0.00
1.15	30.00	0.00	0.897	1.15	0.00
3.85	2.00	0.00	1.268	3.85	-0.00
3.86	12.00	0.00	1.519	3.86	0.00
3.88	6.00	0.00	1.374	3.88	0.00
3.88	30.00	0.00	1.973	3.88	0.00
3.90	20.00	0.00	1.728	3.89	-0.01
3.91	26.00	0.00	1.883	3.91	0.00
6.60	6.00	0.00	2.029	6.61	0.00
6.64	2.00	0.00	1.864	6.64	0.00
6.64	30.00	0.00	3.065	6.64	-0.00
6.68	12.00	0.00	2.306	6.68	-0.00
6.72	20.00	0.00	2.664	6.73	0.00
6.78	26.00	0.00	2.940	6.78	-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

