Sea-Bird Scientific
13431 NE 20th Street
Bellevue, WA 98005
USA

+1 425-643-9866
seabird@seabird.com
www.seabird.com

SENSOR SERIAL NUMBER: 0113
CALIBRATION DATE: 25-Jan-19

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:
Soc = 0.4737
Voffset = -0.4977
Tau20 = 1.53

A = -3.9389e-003
B = 1.9794e-004
C = -3.0160e-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)
1.15	2.00	0.00	0.750	1.15	-0.00
1.15	6.00	0.00	0.781	1.15	-0.00
1.16	12.00	0.00	0.830	1.16	-0.00
1.18	20.00	0.00	0.897	1.18	-0.00
1.19	26.00	0.00	0.950	1.19	0.00
1.21	30.00	0.00	0.992	1.21	0.00
3.95	2.00	0.00	1.365	3.95	0.00
3.96	6.00	0.00	1.474	3.96	0.00
3.98	12.00	0.00	1.638	3.98	0.00
4.02	20.00	0.00	1.864	4.02	0.00
4.04	26.00	0.00	2.033	4.04	-0.00
4.08	30.01	0.00	2.164	4.08	0.00
6.77	2.00	0.00	1.984	6.77	-0.00
6.78	6.00	0.00	2.169	6.78	0.00
6.86	12.02	0.00	2.466	6.86	-0.00
6.93	20.00	0.00	2.853	6.93	-0.00
6.96	30.03	0.00	3.336	6.95	-0.00
6.97	26.00	0.00	3.149	6.98	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)

$$\text{Oxygen (ml/l)} = \text{Soc} * (V + \text{Voffset}) * (1.0 + A * T + B * T^2 + C * T^3) * \text{Oxsol}(T,S) * \exp(E * P / K)$$

Residual (ml/l) = instrument oxygen - bath oxygen