



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

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

SENSOR SERIAL NUMBER: 1849
 CALIBRATION DATE: 14-Jul-21

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS: A = -3.9691e-003
 Soc = 0.4556 B = 2.2408e-004
 Voffset = -0.4847 C = -2.8813e-006
 Tau20 = 1.44 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 OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (volts)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
1.17	12.00	0.00	0.833	1.17	-0.00
1.17	2.00	0.00	0.752	1.17	-0.00
1.18	6.00	0.00	0.785	1.17	-0.00
1.18	20.00	0.00	0.899	1.18	-0.00
1.20	26.00	0.00	0.950	1.20	0.00
1.21	30.00	0.00	0.988	1.22	0.00
3.97	2.00	0.00	1.392	3.97	0.00
3.98	6.00	0.00	1.506	3.98	0.00
3.99	12.00	0.00	1.670	3.99	-0.00
4.00	20.00	0.00	1.883	4.00	-0.00
4.05	26.00	0.00	2.055	4.05	0.00
4.10	30.00	0.00	2.178	4.10	0.00
6.78	2.00	0.00	2.034	6.78	-0.00
6.81	6.00	0.00	2.230	6.81	-0.00
6.87	12.00	0.00	2.526	6.87	0.00
6.94	20.00	0.00	2.909	6.94	-0.00
7.00	26.00	0.00	3.198	7.00	0.00
7.08	30.00	0.00	3.407	7.08	-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)

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

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

