



Sea-Bird Scientific  
 13431 NE 20<sup>th</sup> Street  
 Bellevue, WA 98005  
 USA

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

SENSOR SERIAL NUMBER: 1230  
 CALIBRATION DATE: 11-May-23

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:            A = -5.2019e-003  
 Soc = 0.5723                B = 2.4785e-004  
 Voffset = -0.5001         C = -3.4490e-006  
 Tau20 = 1.53                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)
1.18	30.00	0.00	0.901	1.18	0.00
1.18	26.00	0.00	0.875	1.18	-0.00
1.19	12.00	0.00	0.785	1.19	-0.00
1.20	20.00	0.00	0.841	1.20	-0.00
1.20	6.00	0.00	0.747	1.20	-0.00
1.21	2.00	0.00	0.720	1.21	0.00
3.93	26.00	0.00	1.746	3.93	0.00
3.94	30.00	0.00	1.836	3.94	-0.00
3.94	20.00	0.00	1.619	3.94	-0.00
3.95	12.00	0.00	1.447	3.95	0.00
3.96	6.00	0.00	1.313	3.96	-0.00
3.97	2.00	0.00	1.223	3.97	0.00
6.70	30.00	0.00	2.773	6.70	0.00
6.76	2.00	0.00	1.732	6.76	-0.00
6.78	6.00	0.00	1.892	6.78	0.00
6.80	12.00	0.00	2.129	6.80	0.00
6.88	20.00	0.00	2.454	6.88	-0.00
6.89	26.00	0.00	2.682	6.89	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)

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

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

