

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: 1876 CALIBRATION DATE: 17-Dec-19

## SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS: A = -3.1966e-003 NOMINAL DYNAMIC COEFFICIENTS
Soc = 0.5071 B = 1.3846e-004 D1 = 1.92634e-4 H1 = -3.300000e-2
Voffset = -0.4900 C = -1.6479e-006 D2 = -4.64803e-2 H2 = 5.00000e+3
Tau20 = 1.57 E nominal = 0.036 H3 = 1.45000e+3

BATH OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (volts)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
1.16	6.00	0.00	0.756	1.16	-0.00
1.16	12.00	0.00	0.799	1.16	-0.00
1.16	2.00	0.00	0.727	1.16	-0.01
1.17	20.00	0.00	0.861	1.17	-0.00
1.18	26.00	0.00	0.911	1.19	0.01
1.18	30.00	0.00	0.940	1.19	0.00
3.93	2.00	0.00	1.296	3.93	0.00
3.94	6.00	0.00	1.396	3.94	0.00
3.96	12.00	0.00	1.548	3.96	-0.00
3.97	30.00	0.00	1.998	3.98	0.01
3.97	26.00	0.00	1.899	3.98	0.01
3.97	20.00	0.00	1.749	3.97	-0.00
6.73	2.00	0.00	1.870	6.73	-0.00
6.78	6.00	0.00	2.047	6.78	0.00
6.85	12.00	0.00	2.320	6.85	0.00
6.87	26.00	0.00	2.921	6.87	0.00
6.87	30.00	0.00	3.088	6.86	-0.01
6.90	20.00	0.00	2.675	6.90	-0.01

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) \*  $(1.0 + A * T + B * T^2 + C * T^3) * Oxsol(T,S) * exp(E * P / K)$ 

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

