



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

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

SENSOR SERIAL NUMBER: 2040
CALIBRATION DATE: 14-Feb-20

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:
Soc = 0.4934
Voffset = -0.4974
Tau20 = 1.17
A = -4.4651e-003
B = 2.2217e-004
C = -3.0650e-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)
1.11	6.00	0.00	0.761	1.11	0.00
1.11	12.00	0.00	0.804	1.11	-0.00
1.11	2.00	0.00	0.733	1.11	0.00
1.12	20.00	0.00	0.863	1.12	-0.00
1.13	26.00	0.00	0.907	1.12	-0.00
1.13	30.00	0.00	0.937	1.13	0.00
3.83	2.00	0.00	1.306	3.83	-0.00
3.83	6.00	0.00	1.407	3.83	-0.00
3.84	12.00	0.00	1.557	3.84	0.00
3.84	30.00	0.00	1.995	3.84	0.00
3.84	20.00	0.00	1.752	3.84	-0.00
3.84	26.00	0.00	1.896	3.84	-0.00
6.57	2.00	0.00	1.885	6.57	-0.00
6.59	6.00	0.00	2.061	6.59	0.00
6.62	12.00	0.00	2.327	6.62	-0.00
6.64	30.00	0.00	3.085	6.64	-0.00
6.65	20.00	0.00	2.671	6.65	-0.00
6.67	26.00	0.00	2.927	6.67	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

