



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

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

SENSOR SERIAL NUMBER: 0154
CALIBRATION DATE: 12-Feb-20

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:

Soc = 0.4652
Voffset = -0.5013
Tau20 = 0.98

A = -3.9574e-003
B = 1.9740e-004
C = -2.9079e-006
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)
1.11	2.00	0.00	0.750	1.11	-0.00
1.11	6.00	0.00	0.781	1.12	0.00
1.12	12.00	0.00	0.828	1.12	-0.00
1.13	20.00	0.00	0.892	1.13	-0.00
1.15	26.00	0.00	0.944	1.14	-0.00
1.16	30.00	0.00	0.981	1.16	-0.00
3.83	12.00	0.00	1.620	3.83	0.00
3.83	2.00	0.00	1.359	3.83	-0.00
3.84	6.00	0.00	1.467	3.84	0.00
3.86	20.00	0.00	1.837	3.86	0.00
3.86	26.00	0.00	1.996	3.87	0.00
3.87	30.00	0.00	2.107	3.87	0.00
6.58	2.00	0.00	1.973	6.58	-0.00
6.61	6.00	0.00	2.162	6.61	-0.00
6.64	12.01	0.00	2.440	6.64	-0.00
6.67	20.00	0.00	2.810	6.67	-0.00
6.69	30.00	0.00	3.275	6.69	-0.00
6.69	26.00	0.00	3.089	6.69	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

