



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

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

SENSOR SERIAL NUMBER: 0910
CALIBRATION DATE: 16-Apr-24

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:
Soc = 0.4106
Voffset = -0.5039
Tau20 = 0.93
A = -1.9566e-003
B = 9.9297e-005
C = -1.6526e-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)
1.14	2.00	0.00	0.791	1.14	-0.00
1.14	6.00	0.00	0.826	1.14	-0.00
1.15	12.00	0.00	0.880	1.15	-0.00
1.17	20.00	0.00	0.956	1.17	-0.00
1.18	26.00	0.00	1.016	1.18	0.00
1.18	30.00	0.00	1.058	1.19	0.01
3.93	2.00	0.00	1.496	3.93	-0.00
3.94	6.00	0.00	1.616	3.94	0.00
3.97	12.00	0.00	1.802	3.97	0.00
3.99	20.00	0.00	2.050	3.99	-0.00
4.00	26.00	0.00	2.244	4.00	0.00
4.01	30.00	0.00	2.377	4.01	0.00
6.75	2.00	0.00	2.209	6.75	0.00
6.80	6.00	0.00	2.420	6.80	0.00
6.86	12.00	0.00	2.746	6.86	-0.00
6.90	30.00	0.00	3.722	6.89	-0.01
6.92	20.00	0.00	3.186	6.92	-0.00
6.97	26.00	0.00	3.534	6.97	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

