Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1069 SBE 63 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 01-Jul-15

COEFFICIENTS:

A0 = 1.0513e+000	B0 = -2.0567e-001	C0 = 1.0978e-001	E = 1.1000e-002
A1 = -1.5000e-003	B1 = 1.5444e+000	C1 = 4.6656e-003	
A2 = 3.3684e-001		C2 = 6.3253e-005	

BATH OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (µsec)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
0.897	30.00	0.00	29.06	0.900	0.004
0.932	26.00	0.00	29.73	0.936	0.004
0.969	20.00	0.00	30.94	0.972	0.003
1.040	12.00	0.00	32.55	1.040	-0.000
1.141	6.00	0.00	33.61	1.138	-0.003
1.228	2.00	0.00	34.30	1.222	-0.006
2.408	30.00	0.00	21.52	2.408	0.000
2.550	26.00	0.00	22.07	2.550	-0.000
2.688	20.00	0.00	23.27	2.690	0.002
3.196	12.00	0.00	24.27	3.198	0.002
3.615	6.00	0.00	25.27	3.620	0.005
3.892	30.00	0.00	17.78	3.889	-0.003
3.965	2.00	0.00	25.95	3.970	0.005
4.133	26.00	0.00	18.26	4.129	-0.004
4.571	20.00	0.00	19.00	4.567	-0.004
5.321	12.00	0.00	20.09	5.318	-0.003
5.591	30.00	0.00	15.19	5.594	0.003
5.931	26.00	0.00	15.62	5.934	0.003
6.090	6.00	0.00	20.93	6.089	-0.001
6.540	20.00	0.00	16.31	6.539	-0.002
6.694	2.00	0.00	21.57	6.694	0.000
7.621	12.00	0.00	17.28	7.622	0.001
8.710	6.00	0.00	18.06	8.712	0.002
9.183	2.00	0.00	18.98	9.180	-0.003

T = temperature (°C) , P = pressure (dbar), U = Instrument output (µsec)

S_{corr} (salinity correction function) = 1.0 for calibration in DI water

See the user manual for more information on S_{corr} calculation

V = U / 39.457071

Oxygen (ml/l) = $\{((A0 + A1*T + A2 * V^2)/(B0 + B1 * V) - 1.0)/(C0 + C1 * T + C2 * T^2)\} * S_{corr} * \exp(E * P / T + 273.15)$

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