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SENSOR SERIAL NUMBER: 1753
CALIBRATION DATE: 25-Mar-25

SBE 63 OXYGEN TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

TA0 = 7.086594e-04 TA2 = 8.509131e-07
TA1 = 2.490701e-04 TA3 = 9.675747e-08

BATH TEMP (° C)	INSTRUMENT OUTPUT(V)	INST TEMP (° C)	RESIDUAL (° C)
1.9999	1.12118	1.9998	-0.00008
2.0000	1.12116	2.0004	0.00044
2.0001	1.12118	1.9998	-0.00028
2.0002	1.12117	2.0001	-0.00007
6.0000	0.99686	5.9999	-0.00010
6.0001	0.99685	6.0002	0.00014
6.0002	0.99685	6.0002	0.00004
6.0004	0.99685	6.0002	-0.00016
11.9998	0.83081	12.0001	0.00026
11.9998	0.83081	12.0001	0.00026
12.0002	0.83081	12.0001	-0.00014
12.0002	0.83081	12.0001	-0.00014
19.9998	0.64687	19.9999	0.00005
20.0000	0.64687	19.9999	-0.00015
20.0000	0.64687	19.9999	-0.00015
20.0001	0.64687	19.9999	-0.00025
26.0000	0.53466	26.0003	0.00033
26.0000	0.53467	25.9997	-0.00026
26.0001	0.53466	26.0003	0.00023
26.0001	0.53466	26.0003	0.00023
29.9996	0.47073	29.9994	-0.00023
29.9999	0.47072	30.0000	0.00014
29.9999	0.47072	30.0000	0.00014
30.0003	0.47072	30.0000	-0.00026

V = Instrument Output (Volts)

$L = \ln(100000 * V / (3.3 - V))$

Temperature ITS-90 (°C) = $1 / (TA0 + (TA1 * L) + (TA2 * L^2) + (TA3 * L^3)) - 273.15$

Residual (°C) = instrument temperature - bath temperature

