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SENSOR SERIAL NUMBER: 1889
CALIBRATION DATE: 25-Mar-25

SBE 63 OXYGEN TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

TA0 = 6.858299e-04 TA2 = 2.373890e-07
TA1 = 2.554355e-04 TA3 = 1.159463e-07

BATH TEMP (° C)	INSTRUMENT OUTPUT(V)	INST TEMP (° C)	RESIDUAL (° C)
1.9999	1.12481	2.0000	0.00014
2.0000	1.12480	2.0004	0.00035
2.0001	1.12482	1.9997	-0.00036
2.0002	1.12481	2.0000	-0.00016
6.0000	1.00022	6.0001	0.00009
6.0001	1.00021	6.0004	0.00032
6.0002	1.00022	6.0001	-0.00011
6.0004	1.00022	6.0001	-0.00031
11.9998	0.83375	11.9999	0.00015
11.9998	0.83375	11.9999	0.00015
12.0002	0.83375	11.9999	-0.00025
12.0002	0.83374	12.0003	0.00014
19.9998	0.64926	19.9996	-0.00018
20.0000	0.64926	19.9996	-0.00038
20.0000	0.64925	20.0001	0.00010
20.0001	0.64925	20.0001	0.00000
26.0000	0.53668	26.0000	0.00004
26.0000	0.53668	26.0000	0.00004
26.0001	0.53668	26.0000	-0.00006
26.0001	0.53667	26.0006	0.00052
29.9996	0.47253	29.9990	-0.00056
29.9999	0.47251	30.0004	0.00047
29.9999	0.47252	29.9997	-0.00020
30.0003	0.47251	30.0004	0.00007

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

