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SENSOR SERIAL NUMBER: 0042
CALIBRATION DATE: 15-May-19

SBE 49 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

COEFFICIENTS:

a0 = 6.921755e-004
a1 = 3.255663e-004
a2 = -6.434695e-006
a3 = 3.569666e-007

BATH TEMP (° C)	INSTRUMENT OUTPUT (counts)	INST TEMP (° C)	RESIDUAL (° C)
1.0000	698804.136	1.0000	-0.0000
4.5000	617649.153	4.5001	0.0001
15.0000	412672.458	14.9999	-0.0001
18.5000	356679.593	18.5000	-0.0000
23.9999	279942.102	24.0000	0.0001
29.0000	220927.017	28.9999	-0.0001
32.5000	185005.288	32.5000	0.0000

n = Instrument Output (counts)

$MV = (n - 524288) / 1.6e+007$

$R = (MV * 2.295e+010 + 9.216e+008) / (6.144e+004 - MV * 5.3e+005)$

Temperature ITS-90 (°C) = $1 / \{a0 + a1[\ln(R)] + a2[\ln^2(R)] + a3[\ln^3(R)]\} - 273.15$

Residual (°C) = instrument temperature - bath temperature

