SEA-BIRD SCIENTIFIC
Sea-Bird Scientific
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SENSOR SERIAL NUMBER: 21147
CALIBRATION DATE: 22-Aug-19

SBE 37 V2 PRESSURE CALIBRATION DATA
2900 psia S/N 5059700

COEFFICIENTS:

PA0 =	3.662260e-001	PTCA0 =	5.252788e+005
PA1 =	9.196733e-003	PTCA1 =	-6.611921e+000
PA2 =	3.853759e-011	PTCA2 =	3.764163e-001
PTEMPA0 =	-9.612412e+001	PTCB0 =	1.021578e+002
PTEMPA1 =	3.987512e-002	PTCB1 =	3.275655e-004
PTEMPA2 =	1.140494e-006	PTCB2 =	0.000000e+000

PRESSURE SPAN CALIBRATION

PRESSURE (PSIA)	INSTRUMENT OUTPUT (counts)	THERMISTOR OUTPUT (counts)	COMPUTED PRESSURE (PSIA)	RESIDUAL (%FSR)
14.66	526880.0	2753.0	14.73	0.00
614.87	592119.0	2708.0	615.02	0.01
1214.88	657306.0	2763.0	1214.76	-0.00
1714.81	711615.0	2764.0	1714.85	0.00
2314.75	776739.0	2765.0	2314.83	0.00
2914.66	841799.0	2765.0	2914.55	-0.00
2314.75	776744.0	2765.0	2314.87	0.00
1714.83	711614.0	2765.0	1714.83	0.00
1214.87	657310.0	2765.0	1214.79	-0.00
614.89	592116.0	2766.0	614.75	-0.00
14.65	526874.0	2765.0	14.62	-0.00

THERMAL CORRECTION

TEMP (°C)	THERMISTOR OUTPUT (counts)	INSTRUMENT OUTPUT (counts)
32.50	2973	527088.84
29.00	2898	527032.53
24.00	2790	526965.58
18.50	2671	526913.61
15.00	2594	526891.90
4.50	2363	526884.03
1.00	2287	526901.42

TEMPERATURE (°C)	SPAN
-5.50	102.16
34.49	102.17

y = thermistor output (counts)

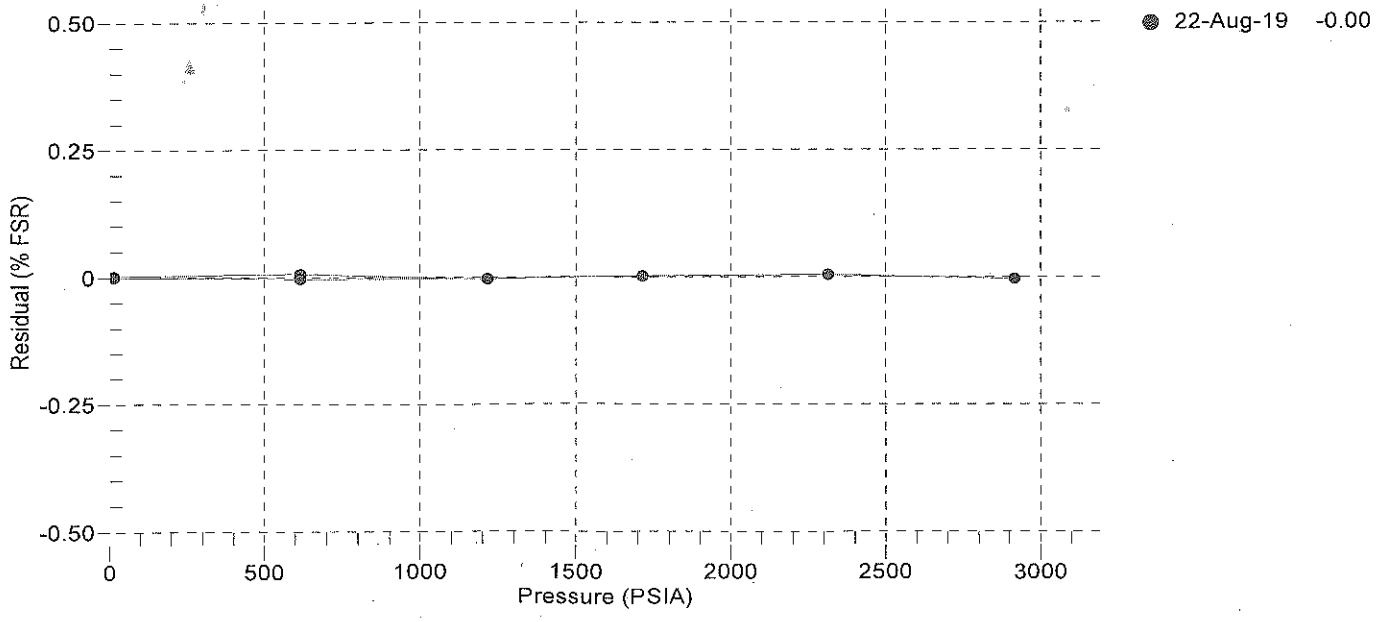
$t = PTEMPA0 + PTEMPA1 * y + PTEMPA2 * y^2$

$x = \text{instrument output} - PTCA0 - PTCA1 * t - PTCA2 * t^2$

$n = x * PTCB0 / (PTCB0 + PTCB1 * t + PTCB2 * t^2)$

$\text{pressure (PSIA)} = PA0 + PA1 * n + PA2 * n^2$

Residual (%FSR) = (computed pressure - true pressure) * 100 / Full Scale Range



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SENSOR SERIAL NUMBER: 21147
CALIBRATION DATE: 25-Aug-19

SBE 37 V2 CONDUCTIVITY CALIBRATION DATA
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

COEFFICIENTS:

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g = -1.011383e+000
h =  1.409476e-001
i = -2.747217e-004
j =  3.966392e-005

CPcor = -9.5700e-008
CTcor =  3.2500e-006
WBOTC =  2.4845e-007
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BATH TEMP (° C)	BATH SAL (PSU)	BATH COND (S/m)	INSTRUMENT OUTPUT (Hz)	INSTRUMENT COND (S/m)	RESIDUAL (S/m)
22.0000	0.0000	0.00000	2683.03	0.00000	0.00000
1.0000	34.8377	2.97762	5326.30	2.97762	-0.00000
4.5000	34.8163	3.28472	5526.93	3.28473	0.00000
15.0000	34.7744	4.26702	6123.93	4.26701	-0.00000
18.5000	34.7664	4.61246	6320.21	4.61246	-0.00001
23.9999	34.7577	5.17086	6624.90	5.17087	0.00001
29.0000	34.7534	5.69317	6897.38	5.69317	-0.00001
32.5000	34.7514	6.06595	7085.03	6.06550	-0.00045

f = Instrument Output(Hz) * sqrt(1.0 + WBOTC * t) / 1000.0

t = temperature (°C); p = pressure (decibars); δ = CTcor; ε = CPcor;

Conductivity (S/m) = $(g + h * f^2 + i * f^3 + j * f^4) / (1 + \delta * t + \varepsilon * p)$

Residual (Siemens/meter) = instrument conductivity - bath conductivity