

SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA

Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0436
CALIBRATION DATE: 27-Feb-09

SBE19 PRESSURE CALIBRATION DATA
870 psia S/N 2852184 TCV: 44

QUADRATIC COEFFICIENTS:

PA0 = 5.141158e+002
PA1 = -1.433609e-001
PA2 = 4.094996e-008

STRAIGHT LINE FIT:

M = -1.433068e-001
B = 5.142551e+002

PRESSURE PSIA	INST OUTPUT(N)	COMPUTED PSIA	ERROR %FS	LINEAR PSIA	ERROR %FS
14.78	3486.0	14.86	0.01	14.69	-0.01
180.06	2332.0	180.02	-0.00	180.06	0.00
360.07	1077.0	359.76	-0.03	359.91	-0.02
540.09	-183.0	540.35	0.03	540.48	0.04
720.09	-1436.0	720.07	-0.00	720.04	-0.01
875.09	-2515.0	874.93	-0.02	874.67	-0.05
720.10	-1437.0	720.21	0.01	720.19	0.01
540.11	-183.0	540.35	0.03	540.48	0.04
360.09	1076.0	359.91	-0.02	360.06	-0.00
180.08	2332.0	180.02	-0.01	180.06	-0.00
14.78	3486.0	14.86	0.01	14.69	-0.01

Straight Line Fit:

$$\text{Pressure (psia)} = M * N + B \quad (N = \text{binary output})$$

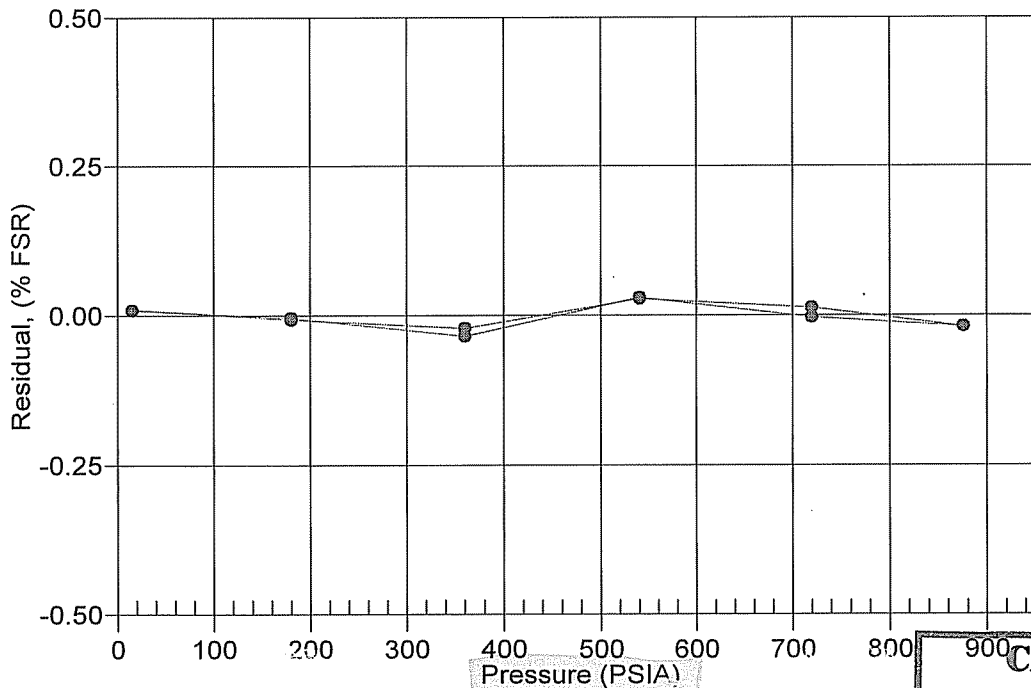
Quadratic Fit:

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

$$\text{Residual} = (\text{instrument pressure} - \text{true pressure}) * 100 / \text{Full Scale Range}$$

Date, Avg Delta P %FS

27-Feb-09 0.00



**CALIBRATION
AFTER
MODIFICATIONS**

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Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0436
CALIBRATION DATE: 19-Feb-09

SBE19 PRESSURE CALIBRATION DATA
500 psia S/N 195991 TCV: 44

QUADRATIC COEFFICIENTS:

PA0 = 2.504445e+002
PA1 = -6.515709e-002
PA2 = 5.067758e-008

STRAIGHT LINE FIT:

M = -6.514112e-002
B = 2.507364e+002

PRESSURE PSIA	INST OUTPUT(N)	COMPUTED PSIA	ERROR %FS	LINEAR PSIA	ERROR %FS
14.74	3630.0	14.59	-0.03	14.27	-0.09
99.99	2318.0	99.68	-0.06	99.74	-0.05
200.01	781.0	199.59	-0.08	199.86	-0.03
300.00	-758.0	299.86	-0.03	300.11	0.02
400.02	-2288.0	399.79	-0.05	399.78	-0.05
500.03	-3818.0	499.95	-0.02	499.45	-0.12
400.01	-2296.0	400.31	0.06	400.30	0.06
300.02	-765.0	300.32	0.06	300.57	0.11
200.03	770.0	200.30	0.06	200.58	0.11
100.02	2310.0	100.20	0.04	100.26	0.05
14.73	3624.0	14.98	0.05	14.67	-0.01

Straight Line Fit:

Pressure (psia) = M * N + B (N = binary output)

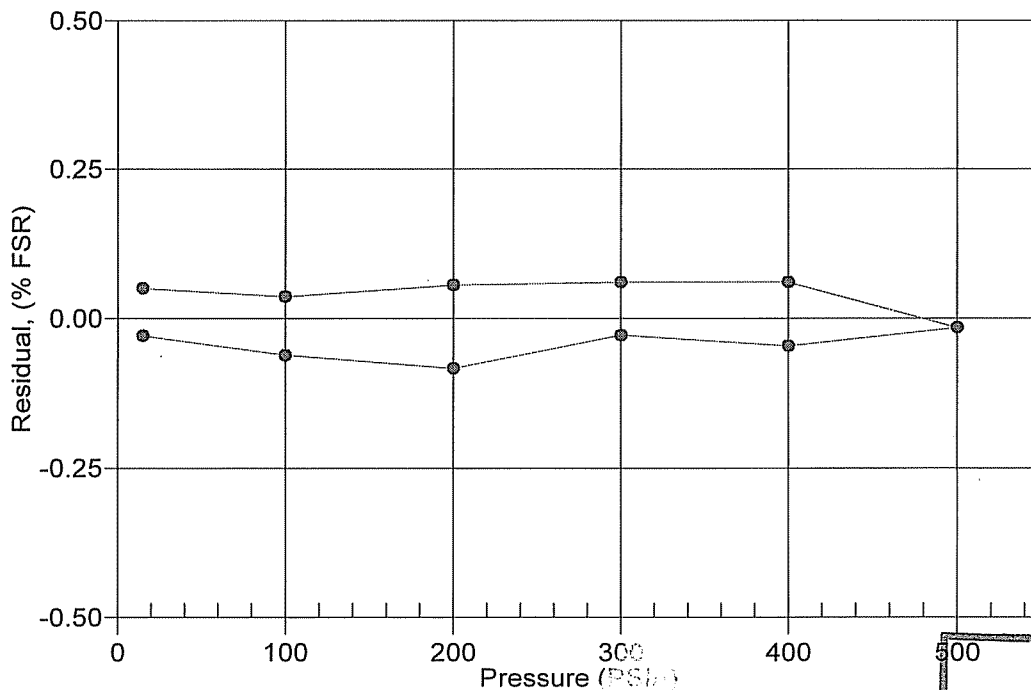
Quadratic Fit:

pressure (psia) = PA0 + PA1 * N + PA2 * N²

Residual = (instrument pressure - true pressure) * 100 / Full Scale Range

Date, Avg Delta P %FS

● 19-Feb-09 -0.00



POST CRUISE CALIBRATION



SEA-BIRD ELECTRONICS, INC.
1808 - 136th Place Northeast, Bellevue, Washington 98005 USA
Phone: (425) 643-9866 Fax: (425) 643-9954 www.seabird.com

Pressure Test Certificate

Customer USGS/Glacier Bay National Park
Job Number 53627A
Date 2/26/2009
Technician JK

Serial Number 193353-0436

Low Pressure (PSI) 50 PSI

Time (Minutes) 15 Minutes

High Pressure (PSI) 500 PSI

Time (Minutes) 30 Minutes

Pass

Fail

Comments

Installed new 870 psi Druck pressure sensor. Replaced the main piston "O"-Rings.

