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GeoCorp, Inc.

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 8010 River Road • Huron, Ohio 44839
 P: 419-433-1101 F: 419-433-1102
 17025 Accredited Lab

Certificate of Calibration & Compliance For:

HELIGEAR ACQUISITION CO.
 6006 WEST 73RD ST.
 D/B/A NORTHSTAR AEROSPACE (CHICAGO) INC.
 BEDFORD PARK, IL 60638



NVLAP LAB CODE: 200496-0
 NVLAP is a U.S. Government entity
 administered by the NIST, an agency
 of the Department of Commerce.

Calibration #	R-4957	Temperature	Reading		Correction		ASTM E29 AVG. CORRECTION
			FRONT	BACK	FRONT	BACK	
Degree:	° F	Point					
		200	200.7	200.7	-0.7	-0.7	-0.7
P.O. #:	20160606	400	399.5	399.6	0.5	0.4	0.4
Description: Type: N Thermocouple 21 EA. 2-36N1U1 (1/8" X 36") 6 EA. 2-48N1U1 (1/8" X 48")		600	600.1	600.2	-0.1	-0.2	-0.2
		800	800.9	801.0	-0.9	-1.0	-1.0
		1000	1001.0	1001.1	-1.0	-1.1	-1.0
		1200	1200.0	1200.1	0.0	-0.1	0.0
		1400	1400.9	1401.0	-0.9	-1.0	-1.0
		1600	1600.7	1600.9	-0.7	-0.9	-0.8
		1800	1801.4	1801.6	-1.4	-1.6	-1.5
		2000	2001.1	2001.2	-1.1	-1.2	-1.2
		2200	2201.6	2201.8	-1.6	-1.8	-1.7
		2300	2302.1	2302.3	-2.1	-2.3	-2.2
Spool #	MG15761C						
Test Date:	2/11/2016						
Job #	183426						

This item meets ASTM E230 Special Limits Standard Limits New Calibration Recalibration
 BAC 5621 K, Table IV +/- 2 °F (+/- 1.1° C) to 1000° F, 0.4% above AMS 2750 E Noble Metal +/- 1° F (+/- 0.6° C) or 0.1%
 BAC 5621 K, Table IV, FL 4 +/- 2 °F (+/- 1.1° C) or 0.4% AMS 2750 E Base Metal +/- 2° F (+/- 1.1° C) or 0.4%

The calibrated equipment used for this test, listed below, is maintained in accordance with AMS 2750E, BAC 5621K (no PSD's), ANSII/NCSL Z540-1, ISO 10012, ISO 17025, RPS 953, PWA (F-40). Measurement results are traceable to standards maintained at the NIST. Test methods are per ASTM E220-13, ASTM E230/E230M-12, GEOCORP QW-001-M

NIST SENSOR: 287605 Calibrated: 11/24/2015 Due: 11/24/2016 Type: S	Working Std: A-3795 Calibrated: 1/28/2016 Due: 1/28/2017 Type: S	Instrument: Keithley 2701 S/N: 1030819 Calibrated: 7/28/2015 Due: 7/28/2016	Humidity: 40% Nominal Ambient Temp: 72° F Immersion Depth: 24" tech: bw by: ah
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Estimated uncertainty, k=2, 95%
 Thermocouple Types-K and N: -196° C to < 0° C = .71° C; 0° C to 1093 = .89° C; >1093 to 1344 = 1.9° C
 Thermocouple Type-J: -196° C to < 0° C = .70° C; 0° C to 760° C = .88° C

Noraen Roth
 Noraen Roth
 APPROVED SIGNATORY

Type: N Thermocouple

GRAPH DATA

VARIATION FROM TRUE TEMPERATURE

