

wood.

Pressure Test Record

| | | | |
|--|--|---|---|
| Project Name / No.: <u>Confluence Platte 2 1/2" Flowlines</u> | | P&ID No. <u>112054.01</u> | |
| Test Package #: | | | |
| System: | | | |
| Applicable Code: | | Design Pressure: _____ PSIG | |
| <input checked="" type="checkbox"/> Above Ground Piping | <input checked="" type="checkbox"/> Below Ground Piping | <input type="checkbox"/> Vessel/Other | |
| Test Type: <input type="checkbox"/> Hydrostatic | <input checked="" type="checkbox"/> Pneumatic: <input type="checkbox"/> Leak | <input type="checkbox"/> Service <input type="checkbox"/> Other | |
| Test Medium: <u>Nitrogen</u> | Required Pressure: <u>3710-3810</u> PSIG | Actual Pressure: _____ PSIG | |
| Required Test Pressure Hold Time: <u>8</u> Hours <u>30</u> Minutes | Average Temperature: _____ °F | | |
| Ambient Temperature: _____ °F | Test Start Time: <u>930A</u> | Test Finish Time: <u>530P</u> | Actual Test Hold Time: <u>8</u> Hour <u>30</u> Min. |
| Allowable Leakage/Pressure Drop: | Actual Leakage/Pressure Drop: <u>20 PSI</u> | | |
| Test Acceptable: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | |
| If Test Not Acceptable; State Why: | | | |
| | | | |
| | | | |
| CALIBRATION DATA | | | |
| Chart Recorder ID: _____ | Calibration Date: _____ | Static Range: _____ | |
| Chart Recorder ID: _____ | Calibration Date: _____ | Static Range: _____ | |
| Pressure Gauge ID: _____ | Calibration Date: _____ | Gauge Range: _____ | |
| Pressure Gauge ID: _____ | Calibration Date: _____ | Gauge Range: _____ | |
| Deadweight ID: <u>250040</u> | Calibration Date: <u>6/6/18</u> | Weight Range: <u>10,000 PSIG</u> | |
| Lines Included: _____ | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| TEST ACCEPTANCE | | | |
| Test Performed By: <u>Justin Downey</u> | Date: <u>10/2/18</u> | | |
| Wood Superintendent: _____ | Date: _____ | | |
| Client Representative: _____ | Date: _____ | | |
| Other: _____ | Date: _____ | | |

Pressure Test Record

Form 15000-0022 Rev B
Revision Date: March 2018





7200 E. Dry Creek Rd, Suite C-102, Centennial, CO 80112
 Ph: 303-804-0867 Call Apex Instruments.com

Calibration Certificate

Certificate Number: 185544

Customer: Cross Country Pipeline Supply
 Aurora, CO

Manufacturer: Crystal Engineering
Model Number: nVision 10,000 psi
Serial Number: 250040
Description: Pressure Module
Procedure: CRY_P_nVPM
Calibrated To: Manufacturer's Specifications
Technician: Steven Laupan

Tolerance Spec:
 0 to 30% of FS: $\pm 0.016\%$ of FS
 30% to 110% of FS: $\pm 0.05\%$ of FS

Calibration Date: 6/6/2018
Due Date: 6/6/2019
As Found: In Tolerance
As Left: As Found
Temperature: 73 F
Humidity: 34 %

Technician Notes:

As Left Usage: 1,0028

Approved Signatory:

Apex Instruments certifies that the instrument listed above meets the specifications of the manufacturer's calibration. Standards used are traceable to the National Institute of Standards and Technology (NIST), or have been derived from accepted reference, national physical constants, or through the use of the ratio method of self-calibration techniques.

Methods used are in accordance with the procedures listed above. This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans or corrections. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

This certificate does not guarantee the continued performance of the instrument listed above. Any modifications or workless performed hereafter may void this certificate.

This certificate is not to be reproduced other than in full, except with prior written approval from Apex Instruments Inc.

| Description | Standards Used | | | |
|------------------------------|----------------------|---------------|------------------|------------|
| | Model Number | Serial Number | Calibration Date | Due Date |
| Electronic Deadweight Tester | RPM4-EOWT A100MA-01M | 1709 | 11/13/2017 | 11/13/2018 |
| | | | | APX00024 |



Certificate Number: 185544

| Complete Input 1000PSI Test Description | Normal | As Found - As Left | Tolerance (++) | UIT Error | Status |
|---|--------------|--------------------|----------------|-----------|--------|
| 0 | -0.01 psi | 0.0 psi | 1.5 psi | 0.0 psi | Pass |
| 2000 | 2000.91 psi | 2001.0 psi | 1.5 psi | 0.1 psi | Pass |
| 4000 | 3999.97 psi | 4000.0 psi | 2.0 psi | 0.0 psi | Pass |
| 6000 | 5999.99 psi | 6000.1 psi | 3.0 psi | 0.2 psi | Pass |
| 8000 | 8000.37 psi | 8001.0 psi | 5.0 psi | 0.6 psi | Pass |
| 10000 | 10000.46 psi | 10001.2 psi | 4.0 psi | 0.8 psi | Pass |
| 8000 | 7999.29 psi | 8000.0 psi | 4.0 psi | 0.7 psi | Pass |
| 6000 | 6001.27 psi | 6002.0 psi | 3.0 psi | 0.7 psi | Pass |
| 4000 | 3999.99 psi | 4000.0 psi | 2.0 psi | 0.3 psi | Pass |
| 2000 | 2000.74 psi | 2001.1 psi | 1.5 psi | 0.4 psi | Pass |
| 0 | -0.03 psi | 0.0 psi | 1.5 psi | 0.0 psi | Pass |

-- End of measurement results--





720 E. Dry Creek Rd. STE C-102, Centennial, CO 80112
Ph: 303-804-0857 CalLab@Apex-Instruments.com

Calibration Certificate

Certificate Number: 185543

Customer:

Cross Country Pipeline Supply
Aurora, CO

Manufacturer:

Crystal Engineering

Model Number:

nVision RTD100

Serial Number:

252269

Description:

Temperature Module (RTD)

Procedure:

CRY_R_RTD100p

Calibrated To:

Manufacturer's Specifications

Technician:

Steven Laupan

Tolerance Specs:

Range 0 to 400 ohms; -325 to 1622 degF (PT100-0.0025)

Resistance 0 to 100% of FS \pm (0.015% of Rtd + 0.02 ohms)

Class B Probe Temperature Deviation: \pm (0.3 + 0.0057) deg C

Technician Notes:

As Found: Indeterminate - Upon receipt, the RTD terminal connector was found to be worn out and provided inconclusive "As Found" data. As a result, no "As Found" data was recorded and the connector was replaced. However, no adjustments were required to achieve the "As Left" results.

As left user set: 1.00000

As left RC: 100.000

Approved Signatory:

SCAL

Apex Instruments certifies that the instrument listed above meets the specifications of the manufacturer at the completion of its calibration. Standards used are traceable to the National Institute of Standards and Technology (NIST), or have been defined from accepted values, national physical constants, or through the use of the ratio method of self-calibration techniques.

Methods used are in accordance with the procedures listed above. This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans or complex. No allowance has been made for the feasibility of the test device due to size, time, etc. Such allowances would be made by the customer as needed.

This certificate does not guarantee the continued performance of the instrument listed above. Any modifications or services performed hereafter may void this certificate.

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| Standards Used | | | |
|-------------------------------------|-------------------|---------------|----------|
| Description | Model Number | Serial Number | ID |
| Digital Multimeter, 6 1/2 Digit | 3459A | 3823A11080 | APX00012 |
| Reference Thermometer Readout / PRT | 1502A / 5528-12-D | 884070 / 3026 | APX00014 |
| Traceable Resistor | 1433-2B | E4-17295104 | APX02856 |



APX000005

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Apex Instruments Inc.

Certificate Number: 185543

6/7/2018

Cycle nVision RTD100 w/Probe

Manual Template

Test Description

Resistance Standards

5 Ohms

100 Ohms

300 Ohms

300 Ohms

400 Ohms

RTD Probe Verification

Class B Probe / PRT100-0.0025

Serial Number

31 F

250 F

Test Results

5.00 Ω

100.00 Ω

199.99 Ω

299.99 Ω

400.00 Ω

As Left

0.02 Ω

0.03 Ω

0.04 Ω

0.04 Ω

0.04 Ω

UUT Error

0.00 Ω

0.00 Ω

-0.01 Ω

-0.01 Ω

0.00 Ω

Status

Pass

Pass

Pass

Pass

Pass

252269-1

Pass

Pass

- End of measurement results -



APX000005

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