

WELD COUNTY, COLORADO

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SECTION 4, 7-4-N, R.61-W

SECTION 5, 7-4-N, R.60-W

SECTION 6, 7-4-N, R.59-W

SECTION 7, 7-4-N, R.58-W

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Pipeline Pressure Test Documentation

Pressure Test Report

Form :

Revision
3

Revision Date

Project Name : Lindsey 4" Oil
AFE No. : PWCAP-J9616

Contractor / Testing Company : Northwinds of Wyoming

Technician : Christian Diaz

Test Section No. : 1 of 1

From Station No. : 0+00

Test Description : 4" line along with all above ground appurtenances (Fab / Interconnect Piping)

To Station No. : 48+67

Test Type : Hydro

Start of Test Period :

Date : 11/16/2021

Time : 3:30 AM

Min. Test Duration : 8Hr

End of Test Period :

Date : 11/16/2021

Time : 3:16 PM

Class Location : 1

Low Strength Pipe : O.D. : 4.500

W.T. : 0.188

SMYS : 52,000

Grade : X-52

Station Piping :

Test Medium : Water

Source of Medium :

City of Greeley

Corrosion Inhibitor : No

Inhibitor Type :

NA

Rate :

NA

Leak Detection : No

Material Type :

NA

Rate :

NA

Deadweight Tester : Mfg. : NA

Serial # : NA

Calibration Date : NA

Deadweight Tester Location : Station No. (ESN) :

Elevation (ft) :

Pressure Recorder : Mfg. : Barton

Serial # : 242E-2671

Calibration Date : 4/21/2021

Pipe Temp. Recorder : Mfg. : Barton

Serial # : 242E-2671

Calibration Date : 4/21/2021

Target Test Pressure Range

Pre-approved Target Test Pressure : 2,019.0 psig

Maximum Test Pressure : 2,220.0 psig

Max Elevation Change : 73

Minimum Test Pressure : 1,850.0 psig

Time	Pressure (psig)	Pipe Temp.	Amb. Temp.	Weather	Visual Inspection	Comments
3:30 AM	0	53	50	Calm/Cloudy	Yes	Hold at 0 PSI 15Min
3:45 AM	0	53	48	" "	"	Build to 25%
3:46 AM	520	53	48	" "	"	Hold at 25% 15Min
4:01 AM	528	58	47	" "	"	Build to 75%
4:48 AM	1,500	55	46	" "	"	Hold at 75% 15Min
5:03 AM	1,502	55	45	" "	"	Build to 100%(Target PSI)
5:20 AM	2,039	54	45	Calm/Cloudy	Yes	Hold at Target PSI 15Min
5:35 AM	2,039	53	45	" "	"	Start Test
5:50 AM	2,039	53	45	" "	"	Pressure Stable
6:05 AM	2,039	52	45	" "	"	Pressure Stable
6:20 AM	2,040	52	45	" "	"	Pressure Stable/Rising
6:35 AM	2,040	51	45	" "	"	Pressure Stable
7:05 AM	2,040	51	45	Calm/Cloudy	Yes	Pressure Stable
7:35 AM	2,040	51	45	" "	"	Pressure Stable
8:05 AM	2,040	51	45	" "	"	Pressure Stable
8:35 AM	2,040	53	44	" "	"	Pressure Stable
9:05 AM	2,040	53	44	" "	"	Pressure Stable
9:35 AM	2,040	52	44	" "	"	Pressure Stable
10:05 AM	2,040	51	45	Calm/Cloudy	Yes	Pressure Stable
10:35 AM	2,040	51	45	" "	"	Pressure Stable
11:05 AM	2,040	53	46	" "	"	Pressure Stable
11:35 AM	2,040	53	46	" "	"	Pressure Stable

Having water pump issues (surging) and add additional pump.

START 8HR HOLD

Project Name :		Lindsey 4" Oil				
AFE No. :		PWCAP-J9616	Test Section No. :		1	

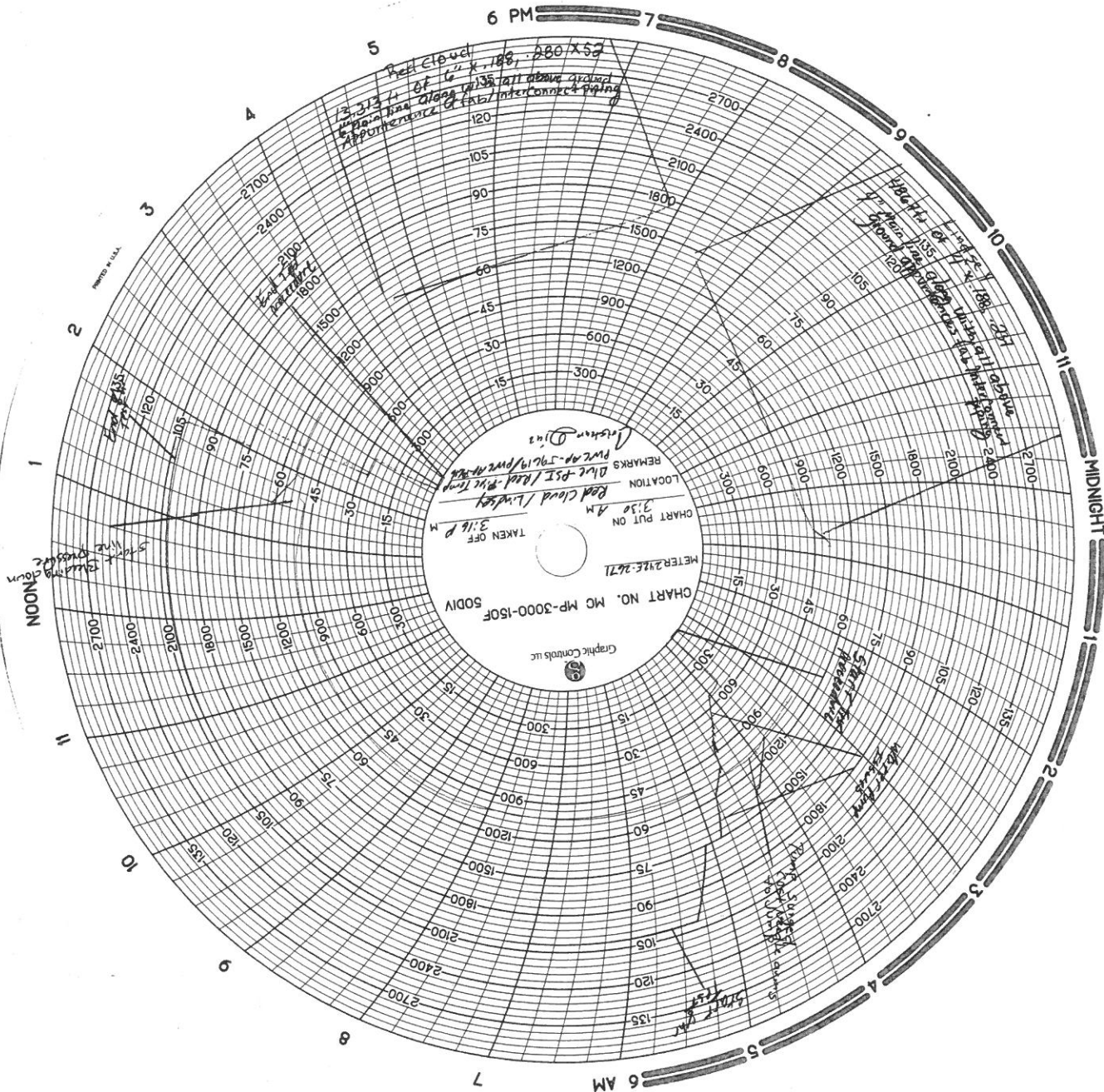
Time	Pressure (psig)	Pipe Temp.	Amb. Temp.	Weather	Visual Inspection	Comments
12:05 PM	2,042	54	47	Calm/Cloudy	Yes	Pressure Stable
12:35 PM	2,042	54	47	" "	"	Pressure Stable
1:05 PM	2,043	54	47	" "	"	Pressure Stabil/Rising
1:35 PM	2,043	52	47	" "	"	End Test
1:50 PM	2,044	52	47	" "	"	Hold 15Min
2:02 PM	1,500	52	47	Calm/Cloudy	Yes	Bleed to 75%
2:17 PM	1,500	56	47	" "	"	Hold at 75% 15Min
2:29 PM	536	56	48	" "	"	Bleed to 25%
2:46 PM	536	56		" "	"	Hold at 25% 15Min
3:01 PM	0			" "	"	Bleed to 0
3:16 PM	0			Calm/Cloudy	Yes	Hold at 0 15Min
Comments						
Had issues with water pump and added a 2nd pump and shows surges on the build line on chart, continue to build to test pressure and upon reaching target PSI, PSI was stable and rising.						

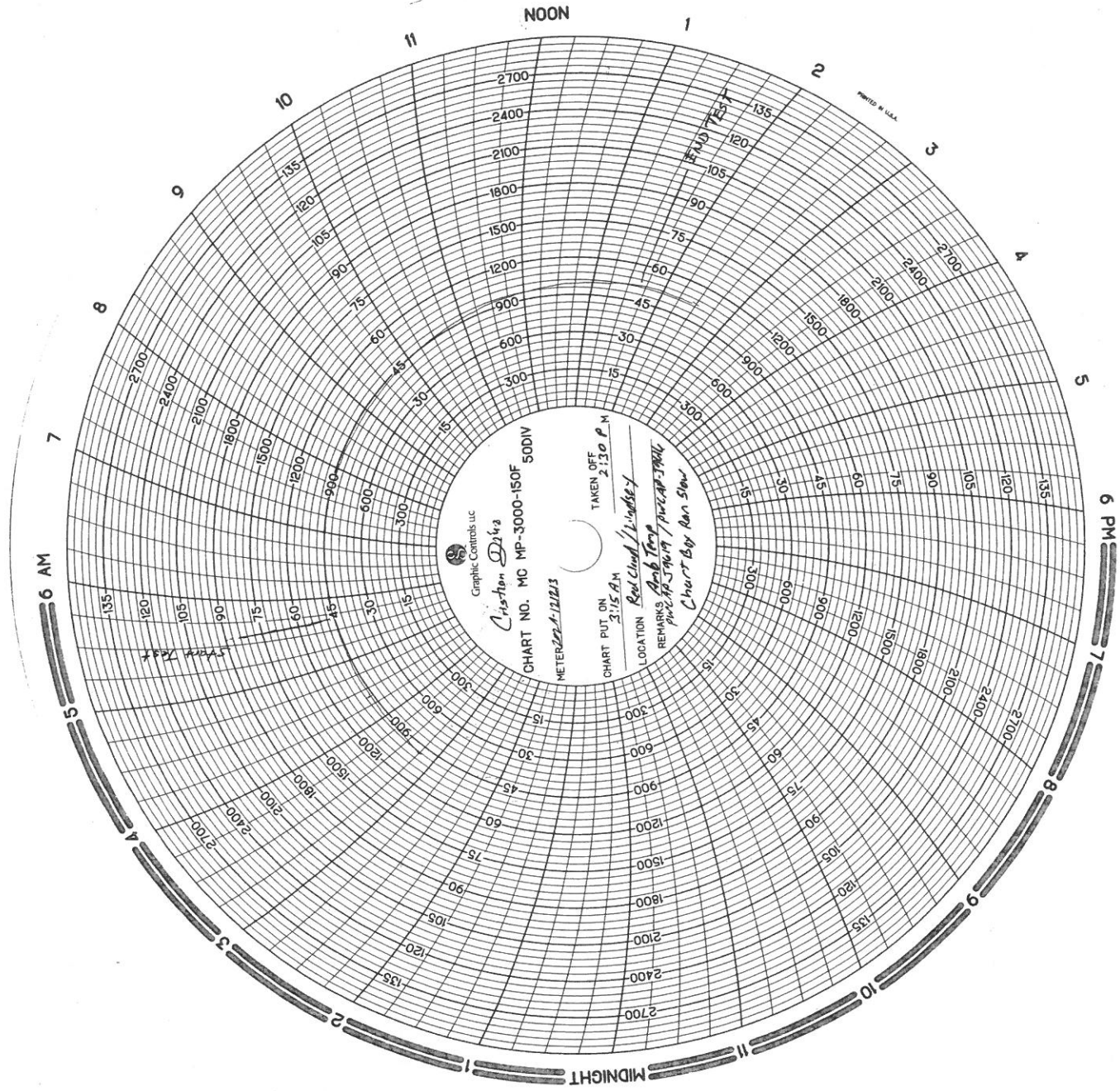
Pressure Test is : Good

Recorded by :	Christian Diaz <i>Christian Diaz</i>	11/16/2021
	(Contractor Representative) Print/Sign	(Date)
Witnessed by:	<i>Darrell Hamilton / Darrell Hamilton</i>	11-16-2021
	(Inspector/Integrity Representative) Print/Sign	(Date)
Approved by :	<i>Wadd</i>	12/1/2021
	(Project Mgr./Construction Mgr.) Print/Sign	(Date)

END 8HR HOLD

As Bleed down occurs the water below ground that is warmer starts to rise as pressure is released, so at each bleed down stage the pipe temp will rise. Temp probe was 3 ft below ground & taped to pipe.





Graphic Controls LLC

Cristian D. 42

CHART NO. MC MP-3000-150F 50DIV

METER 12/12/13

CHART PUT ON 3:15 AM

TAKEN OFF 2:30 P

LOCATION *Red Cloud, Nebraska*

REMARKS *Good Temp
prev 12-5-13-14 / prev 12-14-13-14*

Chart by Dan Sim

PRINTED IN U.S.A.

Cross Country Infrastructure Services, Inc

Sales and Service

2251 Rifle Street - Aurora, Colorado 80011

Phone 303.361.6797 Fax 303.361.6836

NIST CALIBRATION DATA

Model Number	Serial Number	Customer	Range	Accuracy
Barton	202A-121213	NorthWinds of Wyo.	3000# - 150F	1/2%

Work Performed:	Calibration: Output/Reading	Results: Pressure
Calibrate to Mfg. Spec.	0 PSI	0 PSI
	600 PSI	600 PSI
	1200 PSI	1200 PSI
	1800 PSI	1800 PSI
	2400 PSI	2400 PSI
	3000 PSI	3000 PSI
	33 Deg	32 DEG
	62 DEG	62 DEG
	97 DEG	97 DEG
	144 DEG	144 DEG

PO Number	Sales Order Number	Date of Test
Calibrated	Certified	6/1/2021 9:18:16 AM

Remarks: ALL CALIBRATIONS ARE GOOD FOR ONE YEAR FROM DATE OF TEST

Standard Used:

Manufacturer	Model	Instrument	Calibration Date	Certification #
Perma-Cal	101FTM15B21	Pressure Gauge	03/05/2021	17-043
Tech Instrumentation	TM99A	Thermometer	03/05/2021	59448

Don F.

Signature

Don F. 6-1-21

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NIST CALIBRATION DATA

Model Number	Serial Number	Customer	Range	Accuracy
Barton	242E-2671	Northwinds of Wyo.	3000# - 150F	1/2%

Work Performed:	Calibration: Output/Reading	Results: Pressure
Calibrate to Mfg. Spec.	0 PSI	0 PSI
	600 PSI	600 PIS
	1200 PSI	1200 PSI
	1800 PSI	1800 PSI
	2400 PSI	2400 PSI
	3000 PSI	3000 PSI
	33 Deg	33 DEG
	73 DEG	73 DEG
	116 DEG	116 DEG
	149 DEG	149 DEG

PO Number	Sales Order Number	Date of Test
Calibrated	Certified	10/11/2021 12:06:23 PM

Remarks: ALL CALIBRATIONS ARE GOOD FOR ONE YEAR FROM DATE OF TEST

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Standard Used:

Manufacturer	Model	Instrument	Calibration Date	Certification #
Perma-Cal	101FTM15B21	Pressure Gauge	03/05/2021	17-043
Tech Instrumentation	TM99A	Thermometer	03/05/2021	59448

Don F.

Signature Don Frick 10-11-21