

<div style="text-align: center;"> TEST SPECIFICATIONS Black Diamond Gathering, LLC - Pressure Test Bayswater Leffler </div>										Rev3	
										Date: 2-Apr-2020	
Project Name: Bayswater Leffler - OIL - 4" Lateral					Project I.D. / AFE Number: 5000560		Facility Name or Number: Bayswater Leffler - BDO-04-LVD-100-L2				
Contractor / Testing Company: Northwinds of Wyoming Construction					Technician:						
Installation Location (M.P. or S.S.):			State:	County/Parish:	Class Location Designation	N/A	Selected Design Pressure	Planned MAOP			
0+00 to 3+19			CO	Weld			1480		1480		
Lat: 40°33'10.31"N to 40°33'10.81"N											
Long: 104°45'9.23"W to 104°45'5.80"W											
Project Description:											
Hydrostatic pressure test of 319" of 4" Carbon Steel.											
Testing at 1.25*MAOP = 1850 psig minimum test pressure. 2,033 psig Target Test Pressure at Chart Location											
Max Test Pressure for ANSI 600 Valves and Fittings is 2660 psig where they are located.											
LEAK ONLY TEST <input type="checkbox"/> STRENGTH TEST <input type="checkbox"/> FABRICATION <input type="checkbox"/> NEW CONSTRUCTION <input checked="" type="checkbox"/> REPLACEMENT <input type="checkbox"/> RETEST <input type="checkbox"/> REFERENCE DRAWINGS ATTACHED <input type="checkbox"/>											
POST-INSTALLATION TEST <input type="checkbox"/> PRE-INSTALLATION TEST <input type="checkbox"/>											
Test Design Criteria					Test Section - Reference Data						
Minimum Component Characteristics			Test Pressure Calculations								
Pipe Information			<input type="checkbox"/> Input minimum and maximum pressure of test <input type="checkbox"/> Input minimum and maximum %SMYS of test			Test Medium: Water Test Duration: 8 hour Section Length: 319 Ft. Section Fill Volume: 264 Gal Max. Elevation Change: 5 Ft.					
O.D. 4.5 Wall Thickness 0.188 SMYS 52,000 Grade X52			Pressure (psig) % PIPE SMYS Max. Test Pressure (Pipe) 2220 51.1% Max. Test Pressure (Valves and Fittings) 2220 51.1% Min. 1850 42.6%			Station Equations: 1 2 3 Back 0+00 0+00 0+00 Ahead 0+00 0+00 0+00					
Valve/Flange ANSI Class Rating 400# Valves/Fittings											
Test Pressures											
Location	Station	Elevation (feet)	Max. psig.	% SMYS @ Max.	Min. psig.	% SMYS @ Min.	Variance psig.	Target psig.	% SMYS @ Target		
BEGIN -	0+00	4896	2,220	51.1%	1,852	42.6%	368	2,036	46.9%		
HIGH ELEVATION	3+19	4901	2,218	51.0%	1,850	42.6%	368	2,033	46.8%		
LOW ELEVATION	0+00	4896	2,220	51.1%	1,852	42.6%	368	2,036	46.9%		
END	3+19	4901	2,218	51.0%	1,850	42.6%	368	2,033	46.8%		
Chart Location (Test Point)	3+19	4901	2,218	51.0%	1,850	42.6%	368	2,033	46.8%		
REMARKS:											
ASME B16.5 2.6 System Hydrostatic Testing 2003:											
Flanged joints and flanged fittings may be subjected to system hydrostatic tests at a pressure of 1.5 times the 38°C (100°F) rating rounded off to the next higher 1 bar (25 psi) increment. Testing at any higher pressure is the responsibility of the user, taking into account the requirements of the applicable code or regulation.											
PRE-TEST APPROVAL / REVIEWED BY:											
Originator/Project Manager (Signature): Craig Melton		Date: 04/02/2020		TEST PERFORMED / ACCEPTED BY:		POST-TEST REVIEWED BY:					
Designed Reviewed if applicable (Signature):		Date:		Test Performed by (Signature):		Date: 4-20-2020		Construction Manager (signature):			
				Company Name (for Contractor or for Employee): Northwinds of Wyoming		Date: 4-20-2020		Date: 4-20-2020			
Compliance (Signature):		Date:		Witnessed & Accepted by Company Representative (Signature):		Date: 4-20-2020		Actual MAOP			



Pipeline Pressure Test Documentation

Pressure Test Report

Form :

Revision
3

Revision Date

Project Name : Bayswater Leffler

AFE No. : 5000560

Contractor / Testing Company : Northwinds of Wyoming Construction

Technician : Javier

Test Section No. : 0

From Station No. : 0+00

Test Description : hydrostatic test of 319' of 4" carbon steel

To Station No. : 3+19

Test Type : Subpart E Test

Start of Test Period : Date : 4-20-2020

Time : 6:15 AM

Min. Test Duration : 8 hour

End of Test Period : Date : 4-20-2020

Time : 4:45 PM

Class Location : Not Applicable (Liquids)

Low Strength Pipe : O.D. : 4.500 W.T. : 0.188 SMYS : 52,000 Grade : X52 Station Piping : Yes

Test Medium : Water Source of Medium : N/A

Corrosion Inhibitor : No Inhibitor Type : N/A Rate : N/A

Leak Detection : No Material Type : N/A Rate : N/A

Deadweight Tester : Mfg : Crystal Eng. Serial # : 916670

Calibration Date : 1-3-2020

Deadweight Tester Location : Station No. (ESN) : 3+19 Elevation (ft) : 4,901

Pressure Recorder : Mfg : Barton Serial # : 265A-3511

Calibration Date : 1-2-2020

Pipe Temp. Recorder : Mfg : Barton Serial # : 202A-121213

Calibration Date : 2-10-2020

Pre-approved Target Test Pressure : 2,033.0 psig

Max Elevation Change : 5

Target Test Pressure Range

Maximum Test Pressure : 2,220.0 psig

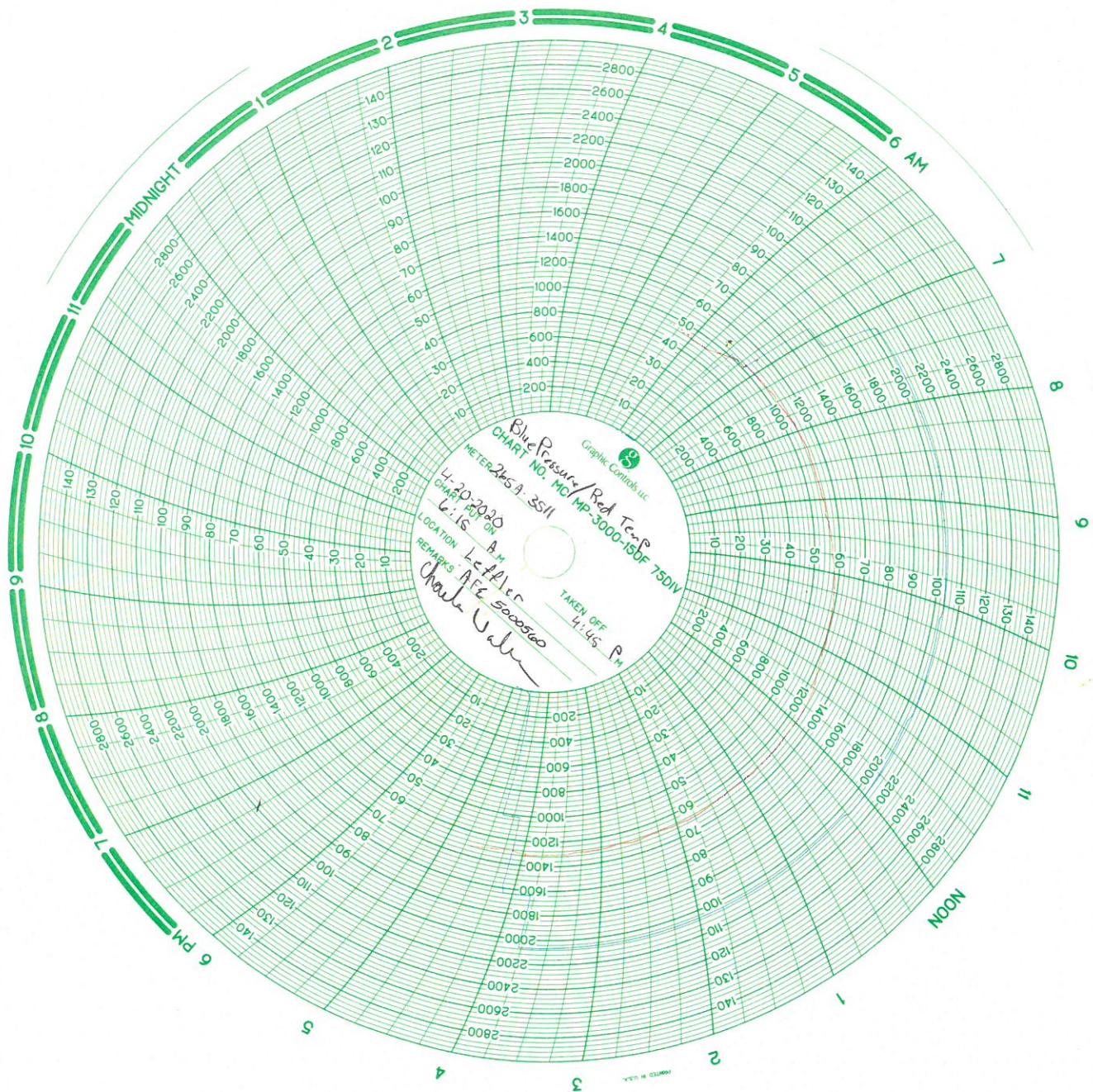
Minimum Test Pressure : 1,850.0 psig

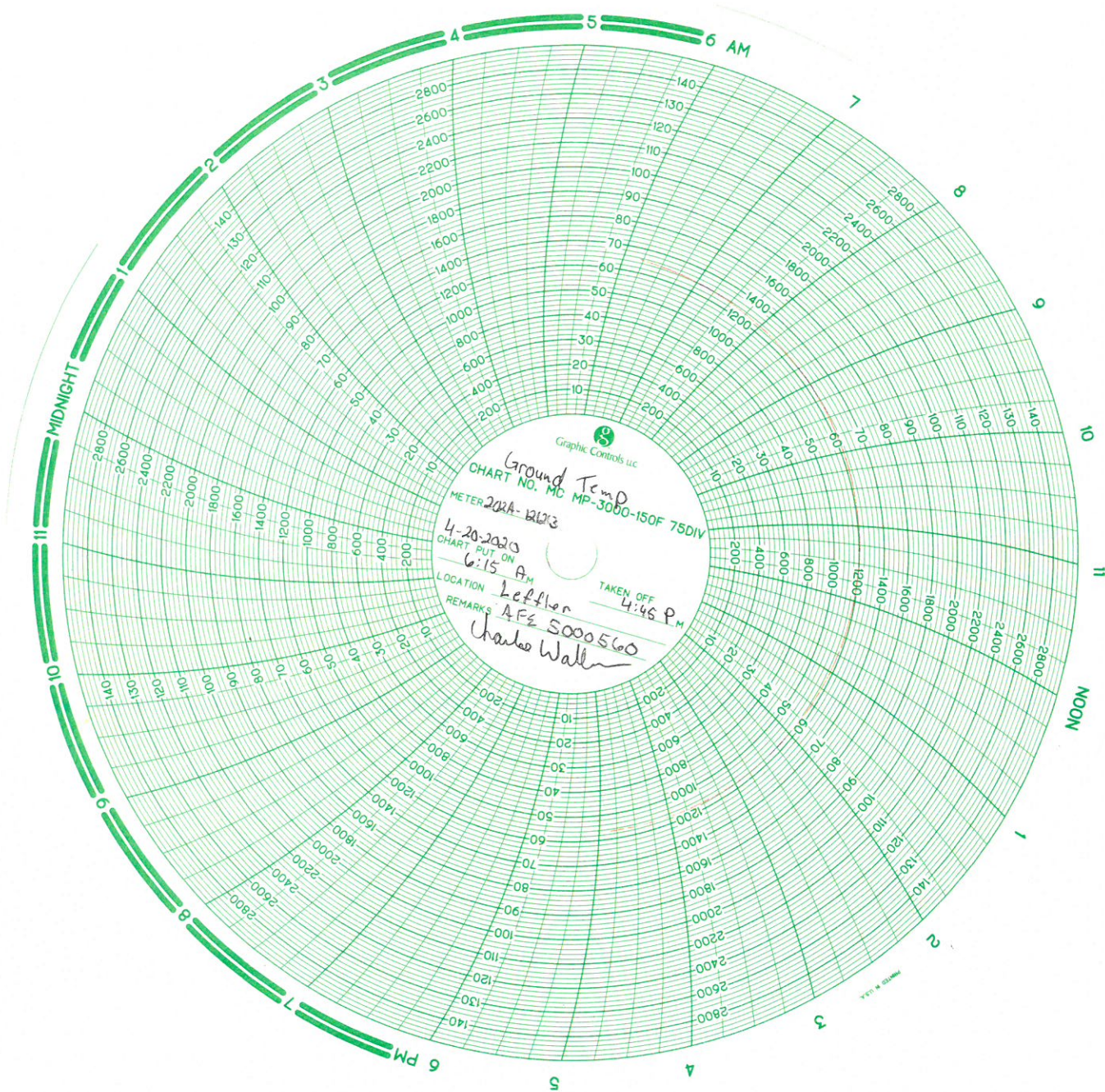
Time	Pressure (psig)	Pipe Temp.	Amb. Temp.	Weather	Visual Inspection	Comments
4-20-20 6:15 AM	0	62	46	Clear		
6:30	0	62	46		OK	Build to 1015
6:32	1014	62	47			Hold 15 min
6:49	1014	62	47		OK	Build to 1626
6:51	1620	62	47			Hold 15 min
7:09	1621	62	48	Sunny	OK	Build to 2037
7:12	2033	62	48	no wind		
7:15	2033	62	50			
* 7:30	2035	62	51			* BEGIN TEST *
7:45	2037	62	51			Pipe is covered
8:00	2040	62	52			with heat available
8:15	2043	61	52			
8:30	2047	61	53			
8:45	2051	61	53			
8:52	2055	61	54			Bleed to 2035
9:00	2038	61	55			
9:30	2045	61	55	Sunny		
10:00	2052	61	56			
10:07	2055	61	56			Bleed to 2035
10:30	2042	61	57			
11:00	2063	61	59			
11:07	2055	60	60			Bleed to 2035
11:30	2043	60	60			
12:00 PM	2053	60	60			

Project Name : Bayswater Leffler

AFE No. : 5000560

Test Section No. : 0





Graphic Controls Inc.

Ground Temp
CHART NO. MC MP-3000-150F 75DIV
METER 202A-BL23

4-20-2020
CHART PUT ON
6:15 AM

LOCATION Leftlier
REMARKS AFZ 5000560
TAKEN OFF 4:46 PM

Charles Waller

Cross Country Pipeline Supply CO. Inc

Sales and Service

2251 Rifle Street - Aurora, Colorado 80011

Phone 303.361.6797 Fax 303.361.6836

C-7

NIST CALIBRATION DATA

Model Number	Serial Number	Customer	Range	Accuracy
PRECISION	265A-3511	North Winds	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
	58 DEG	58 DEG
	105 DEG	105 DEG
	150 DEG	150 DEG

PO Number	Sales Order Number	Date of Test
Recalibrated	Recerted	1/2/2020 9:05:05 AM

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	03/01/2019	17-043
Tech Instrumentation	TM99A	Thermometer	03/01/2019	59448

Kolton.H

Signature Kolton Houghton 1-2-2020



9829 E. Easter Ave. • Centennial, CO 80112
303.794.8833 • Fax 303.730.1220
Toll Free 1.800.327.7257
www.jmcinstruments.com

C.L-7

CERTIFIED CALIBRATION

CUSTOMER Cross Country ORDER NO. _____

ITEM Digital Gauge RANGE 0-5000PSIG ITEM NO. 5039-4

TRUE VALUE PSIG	INDICATED VALUE	
	INCREASING READINGS	DECREASING READINGS
0.00	0	0
500.00	499.0	499.1
1000.00	998.1	998.5
1500.00	1497.9	1498.2
2000.00	1997.4	1997.4
2500.00	2496.4	2496.7
3000.00	2996.4	2995.8
3500.00	3494.5	3494.7
4000.00	3995.3	3995.0
4500.00	4494.4	4494.4
5000.00	4992.0	4992.0

Tested On: Deadweight Tester S/N# 1GA4474

Traceable to National Institute of Standards and Technology certificate
17-043

Tested By: BML Date 3 January 2020

Remarks:

Crystal	mod. X P2i	SN 916670
Accuracy is +/-	.25	% of Full Scale or Better
Test Conditions	67 °F; 611	mmHg Atm. Pressure

Cross Country Pipeline Supply CO. Inc

Sales and Service

2251 Rifle Street - Aurora, Colorado 80011

Phone 303.361.6797 Fax 303.361.6836

1478

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	
		100 DEG	100 DEG	
150 DEG	150 DEG			
PO Number		Sales Order Number	Date of Test	
Recalibrated		Recerted	2/10/2020 4:53:32 PM	

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

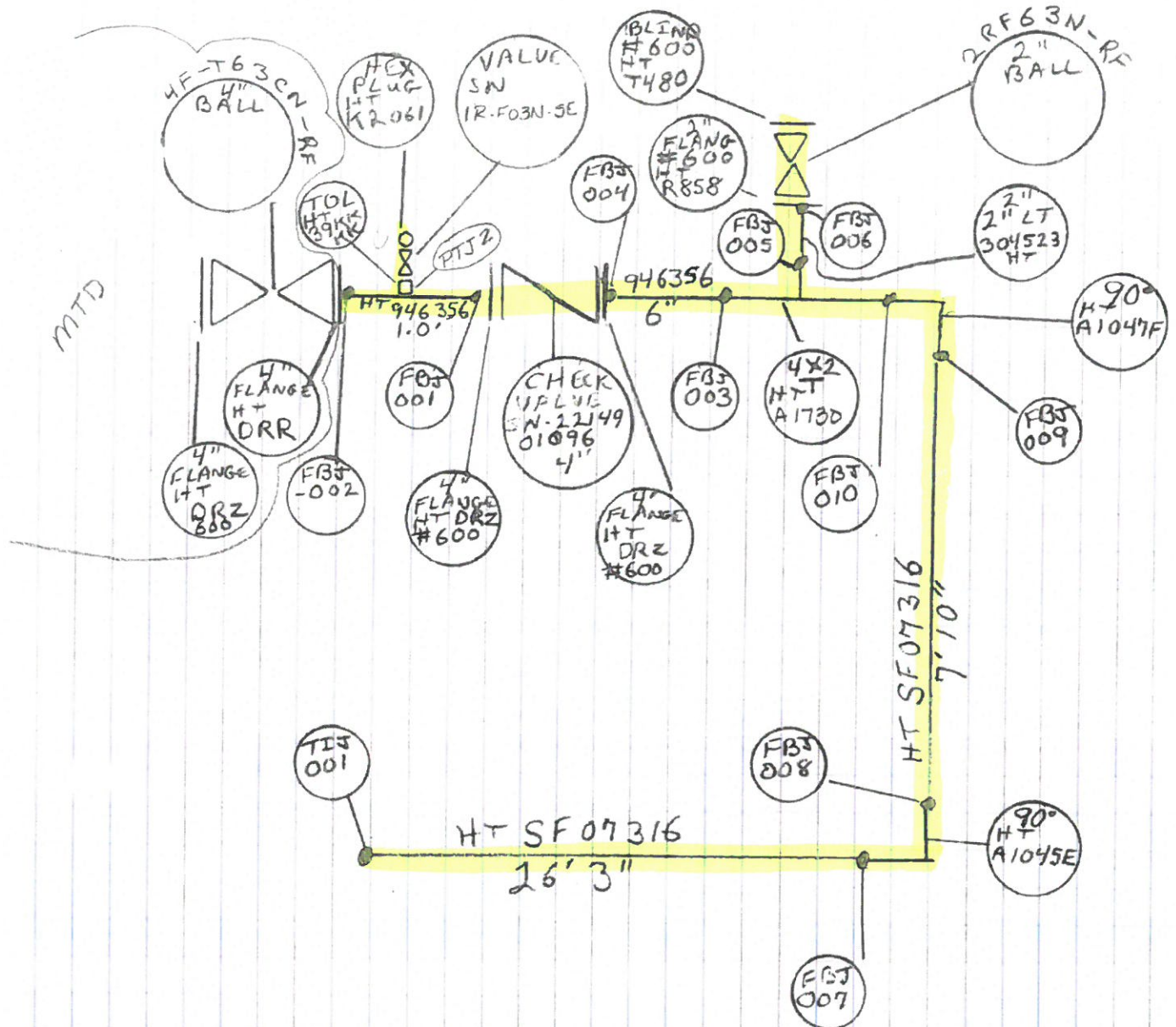
Standard Used:

Manufacturer	Model	Instrument	Calibration Date	Certification #
Perma-Cal	101FTM15B21	Pressure Gauge	03/01/2019	17-043
Tech Instrumentation	TM99A	Thermometer	03/01/2019	59448

Don F.

Signature

Don Erick 2-10-20



LEFFLER 5000560

ALL WELDS BY TR

1-28-2020

Terry Miles
Terry Miles

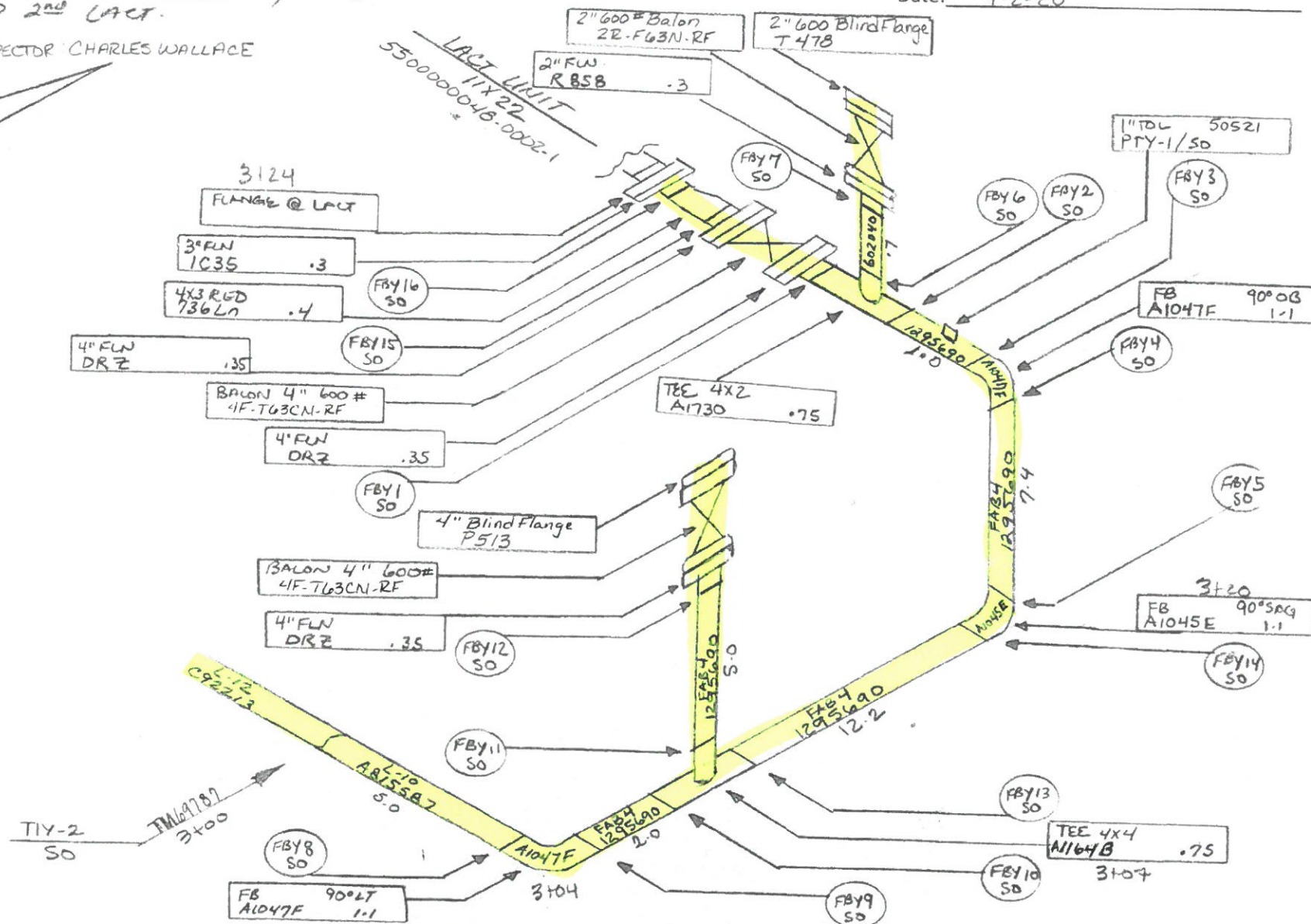
Client: BUCK DIAMOND
 Project: LEFFLER
 WO#: 131560
 Comments: TIE IN TO 11X22 (ACT & FUTURE)
TO 2ND LACT.
 CIS INSPECTOR CHARLES WALLACE



TOPOGRAPHIC

LOYALTY INNOVATION LEGACY

P.C.: T. MARTINEZ
 I-MAN: _____
 R-MAN: _____
 Weather: 21° Cloudy
 Date: 4-2-20



DC File

TMA-040200-LEFFLER
TM 69782 -

BOOK

CKIN- JS218 (TM 69782) V H:

Page _____