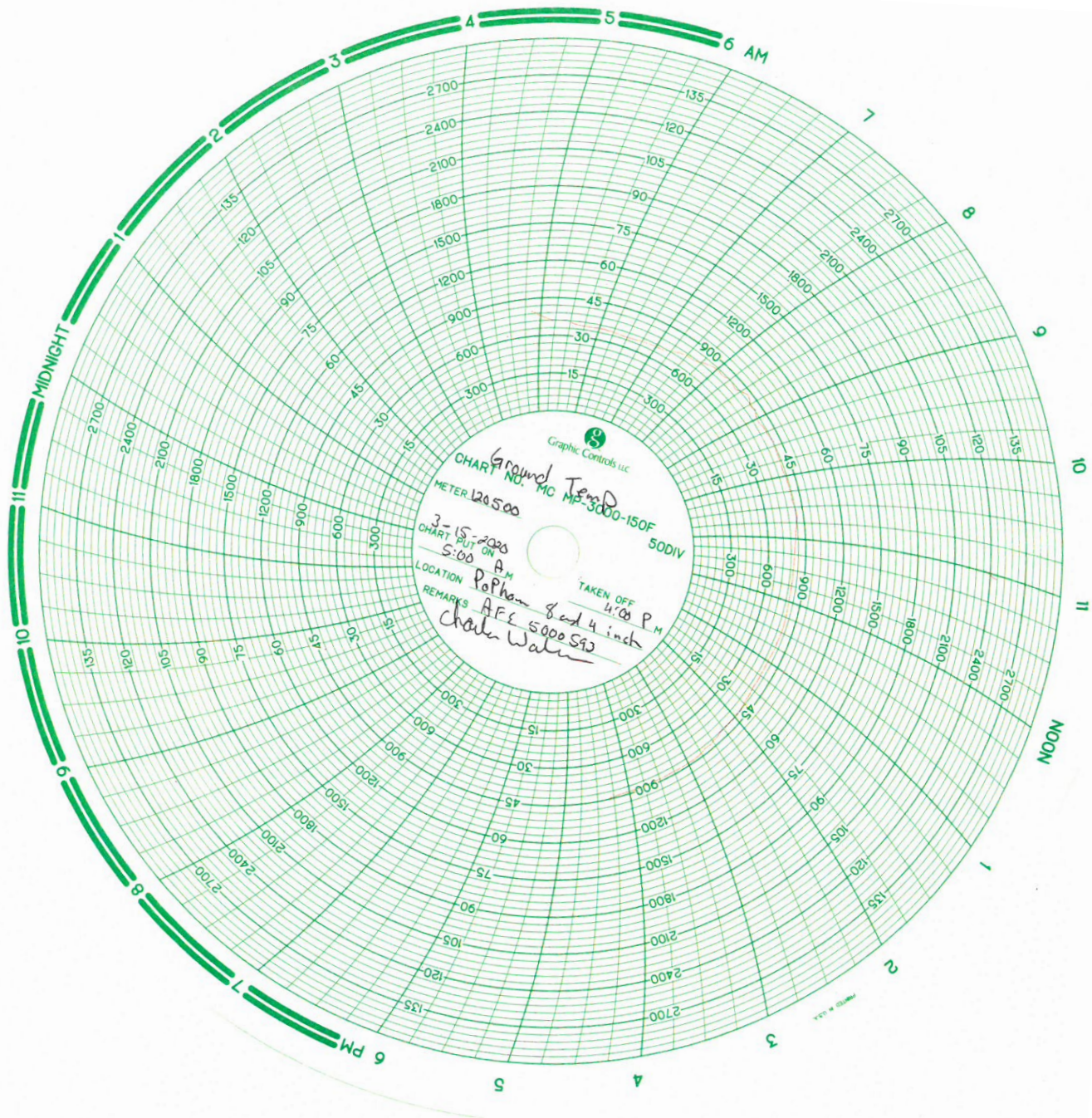


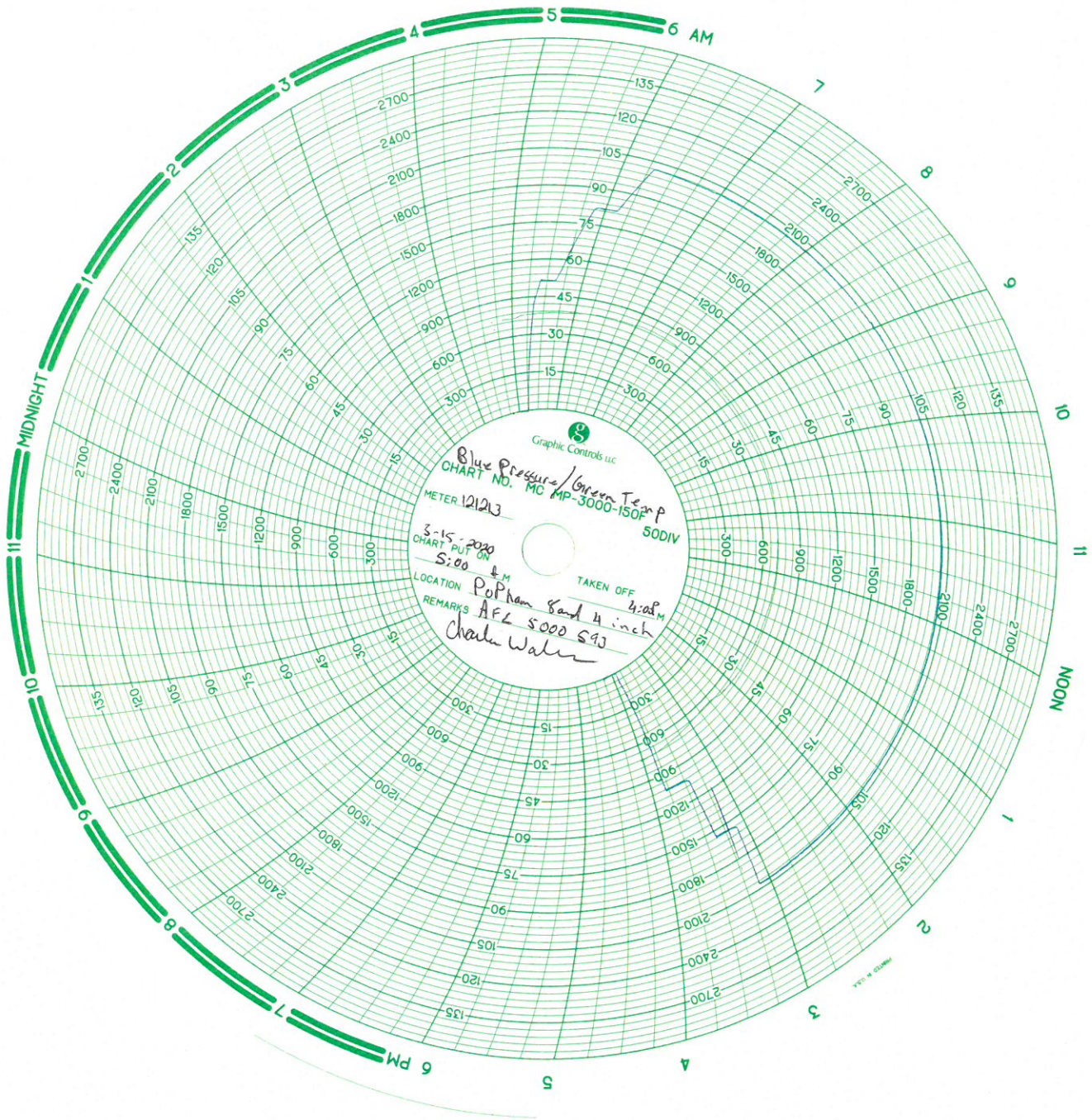
## BDO-04-RVL-100-L3

<div style="text-align: center;"> <b>TEST SPECIFICATIONS</b>  <b>Black Diamond Gathering, LLC - Pressure Test</b>  <b>PDC Popham - OIL - 8" and 4"</b> </div>		Rev3																																																													
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		5-Mar-2020																																																													
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Popham - 8" Mainline and 4" Lateral		Facility Name or Number																																																													
Contractor / Testing Company:		Popham - BDO-08-RVL-100/BDO-4-RVL-100-L3																																																													
Northwinds of Wyoming Construction		Technician																																																													
Installation Location (M.P. or S.S.):		State:	County/Parish:																																																												
0+00 to 135+35		CO	Weld																																																												
Lat: 40.34473	to Lat: 40.33917	Class Location Designation	N/A																																																												
Long: -104.58101	Long: -104.53711	Selected Design Pressure	1480																																																												
		Planned MAOP	1480																																																												
<b>Project Description:</b> PDC Popham - OIL - 8" and 4"  Hydrostatic pressure test of 13,535' of 8" and 4" Carbon Steel. Testing at 1.25*MAOP = 1850 psig minimum test pressure. <b>2017 psig Target Test Pressure at Chart Location</b> 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 checked="" type="checkbox"/>																																																															
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## Pipeline Pressure Test Documentation

Pressure Test Report

Form :

Revision  
3

Revision Date

Project Name : PDC Popham - OIL - 8" and 4"

AFE No. : 5000593

Contractor / Testing Company : Northwinds of Wyoming Construction

Technician : Mammie

Test Section No. : 0

From Station No.: 0+00

Test Description: Popham - OIL - 12,851' of 8" and 684' 4"

To Station No.: 135+35

Test Type : Subpart E Test

Start of Test Period :

Date : 3-15-2020

Time : 5:00 Am

Min. Test Duration : 8 hour

End of Test Period :

Date : 3-15-2020

Time : 4:00 Pm

Class Location : Not Applicable (Liquids)

Low Strength Pipe : O.D. : 8.625

W.T. : 0.219

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

Serial # :

916670

Calibration Date :

1-3-2020

Deadweight Tester Location : Station No. (ESN) :

0+00

Elevation (ft) :

4,745

Pressure Recorder : Mfg

Barton

Serial # :

121213

Calibration Date :

3-01-2020

Pipe Temp. Recorder : Mfg

Barton

Serial # :

242-120500

Calibration Date :

1-13-2020

Pre-approved Target Test Pressure : 2,017.0 psig

Max Elevation Change: 81

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
5:00	0	37	34			
5:15	0	37	35		OK	Build to 1008
5:25	1008	37	36			Hold to 1008
5:40	1008	37	36		OK	Build to 1613
5:50	1613	37	36	Cloudy		Hold 15
6:10	1613	38	36			Build to 2017
6:19	2017	38	36			
6:45	2017	33	36			BEGIN TEST
7:15	2017	38	35			
7:45	2018	39	35			
8:15	2018	39	38			
8:45	2020	39	41			
9:15	2021	38	40			
9:45	2022	37	42			
10:15	2022	37	43			
10:45	2022	37	43			
11:15	2022	36	43			
11:45	2023	36	43			
12:15	2023	36	43	Partly Sunny		
12:45	2023	36	43			
1:15	2023	36	43			
1:45	2023	36	43			
2:15	2023	34	43			
2:45	2023	33	43			END TEST

PDC Popham - OIL - 8" and 4"

5000593

0

[illegible]

### Comments

Recorded Maximum Test Pressure at Chart:

Recorded Minimum Test Pressure at Chart:

	psig
	psig

Accepted

Recorded by :

Emmanuel Zepeda / 9 Zepeda

(Contractor Representative) Print/Sign

3-15-20

(Date)

Witnessed by:

Charles Wallace / Charlie Waller

(Inspector/Integrity Representative) Print/Sign

3-15-20

(Date)

Approved by :

(Inspector/Integrity Representative) Print/Signature: Ralph L. Cox Jr. [Signature]

(Project Mgr./Construction Mgr.) Print/Sign

3-15-2020

(Date)





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	INDICATED VALUE	
	INCREASING READINGS	DECREASING READINGS
PSIG		
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 Fick* 2-10-20

# P-SS-SS-COMPANIES



9700 E. 104<sup>TH</sup> AVE, UNIT F- HENDERSON, CO 80640 - Phone (303)857-7986 - Fax (303)389-4945

## CALIBRATION CERTIFICATE

CERTIFICATE NUMBER: CO

Details +/-: 1.0% ACCURACY

DATE CALIBRATED: 01/13/2020

DUE DATE: 01/13/2021

INDICATED TEMPERATURE RANGE: # 0 – 150°F

INDICATED PRESSURE RANGE: #0 – 3000 PSI

SERIAL NO: 242-120500 ID No: 004255

MANUFACTURER: BARTON/ 12" RECORDER

TYPE OF INSTRUMENT CALIBRATED: TEMPERATURE / PRESSURE RECORDER

INSTRUMENT FINDINGS/STATUS: UNIT IS IN TOLERANCE/ INSTRUMENT MEETS OR EXCEEDS SPECIFICATIONS.

BASED ON INTERNATIONAL STANDARDS OF GRAVITY: (980.665 cm./sq.).

TYPE OF STANDARD USED TO CALIBRATE: REFINERY DEADWEIGHT TEST UNIT SPT.  
(35225-3) SERIAL No. 5268: KESSLER TEST THERMOMETERS; SERIAL NO. CALIBRATION

ALL STANDARD DIRECTLY TRACEABLE TO NATIONAL INSTITUTE OF STANDARDS & TECHNOLOGIES TEST NO: (N.I.S.T.) 2.6/172490 & 6.6/139577.

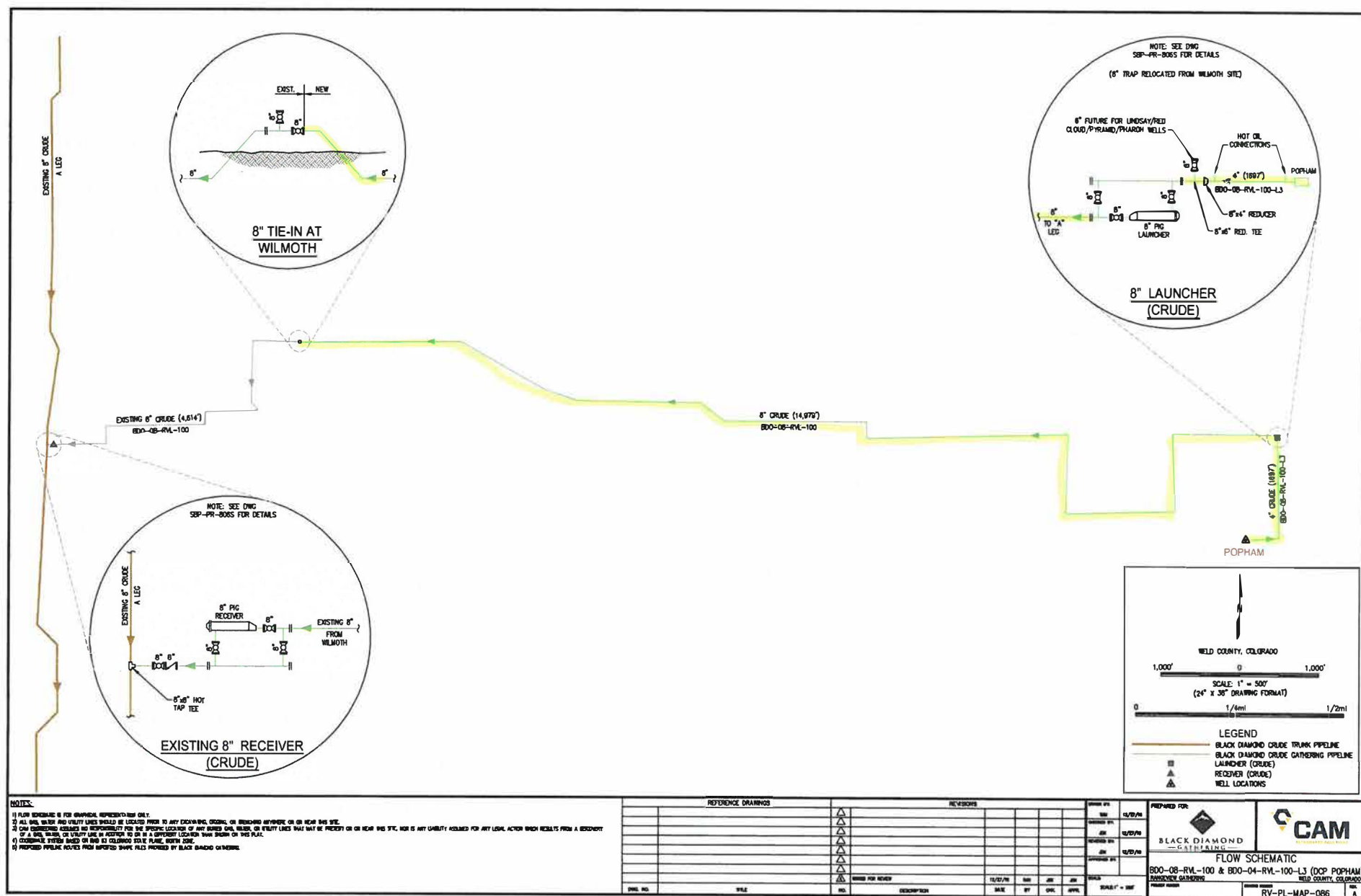
CALCULATED USING MASS VALUES, AREA, AO, AND STATED GRAVITY.  
ROOM TEMPERATURE/HUMIDITY (AT TIME OF TEST): 73°F / 31%.

CALIBRATED BY: NICK BEDFORD

  
SIGNATURE

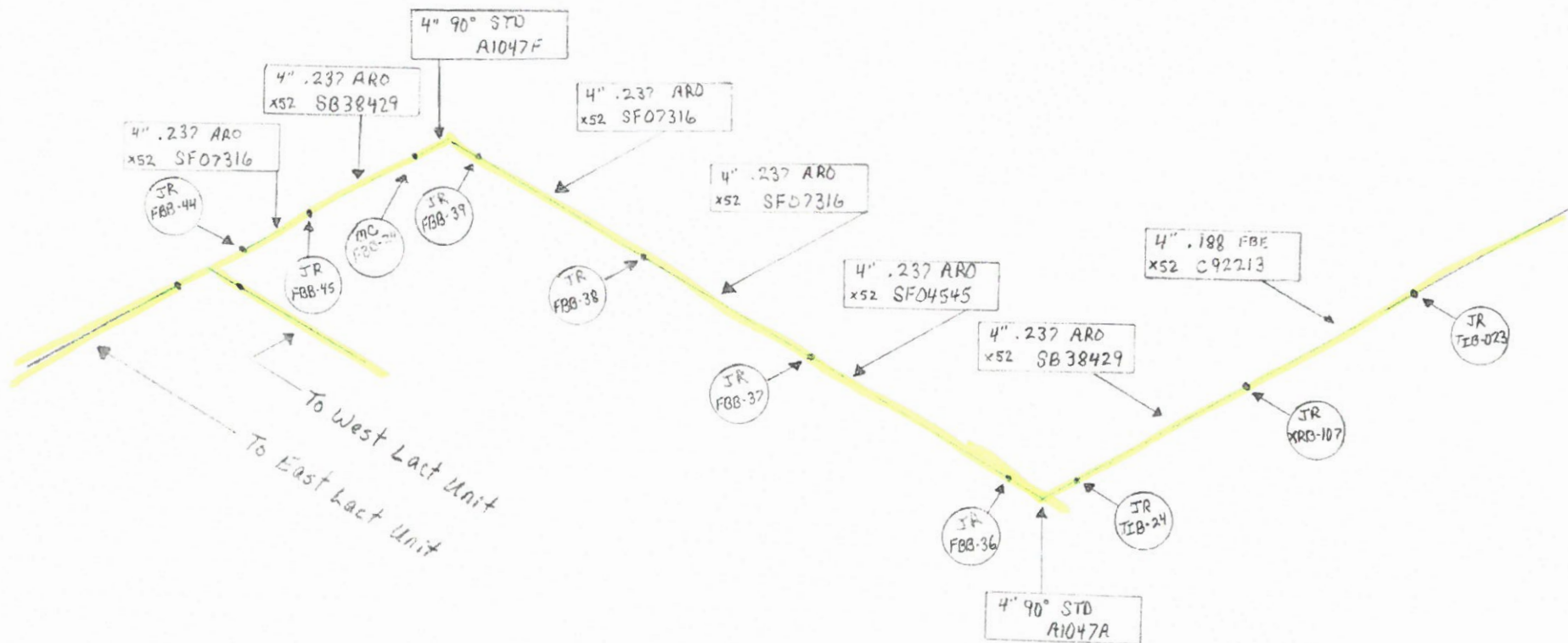


\* hydrotest included all piping from 8" tie in at Wilmoth to the last units at Poppleton

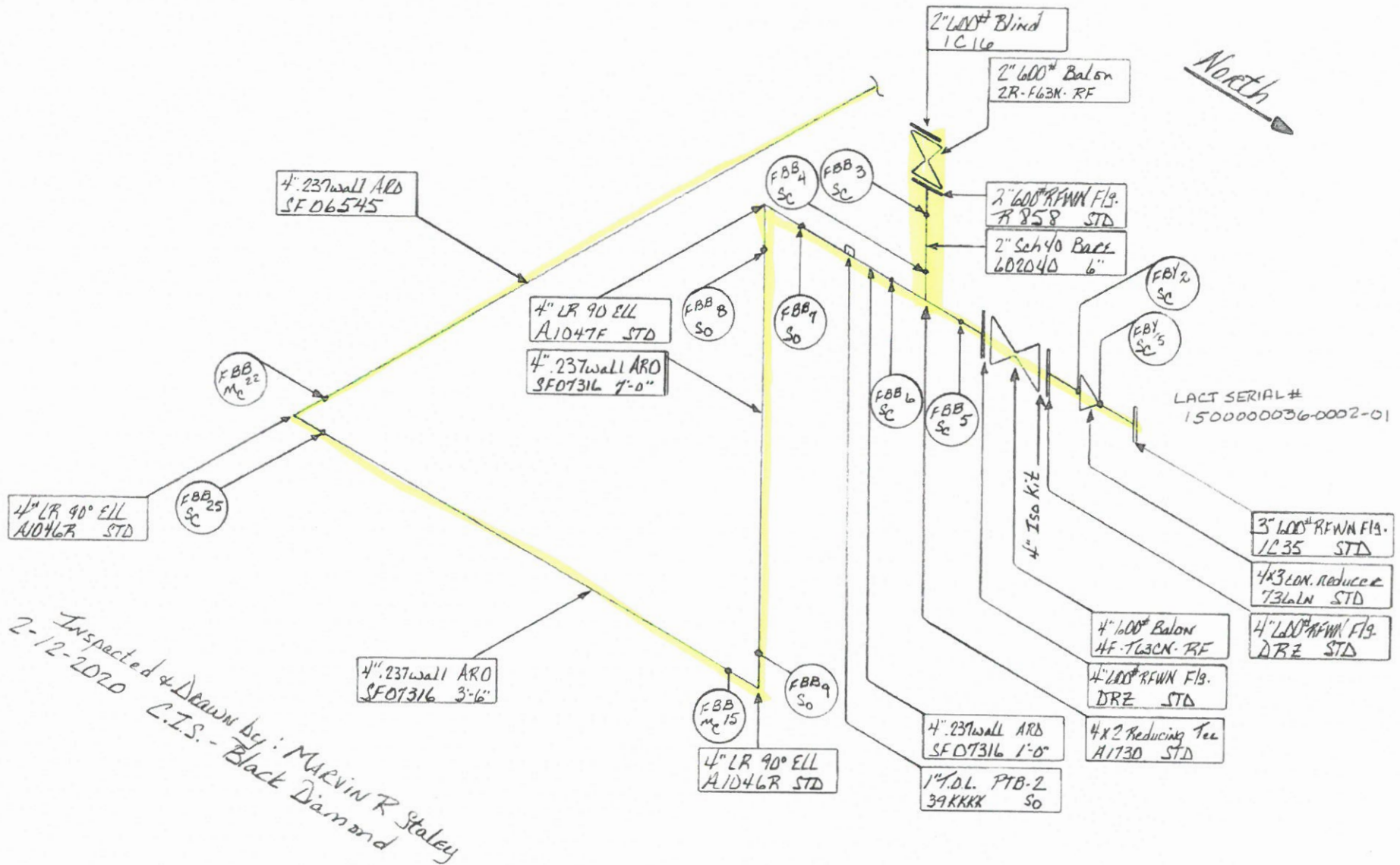


North

Popham  
Underground Pipeing on Pad  
Going to Mainline  
AFE: 5000593  
2-19-20 Paul Oakes

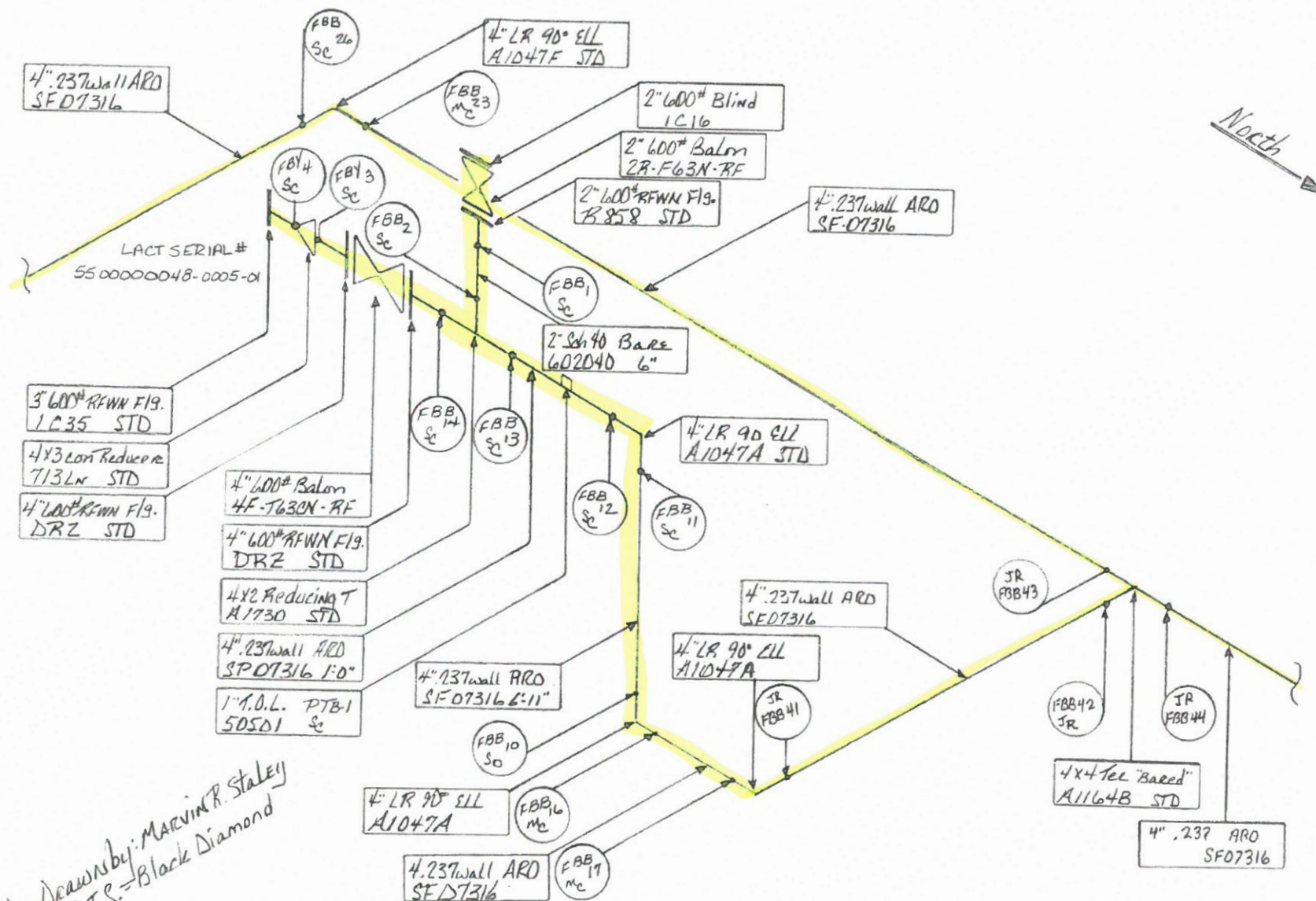






LACT SERIAL#  
1500000036-0002-01

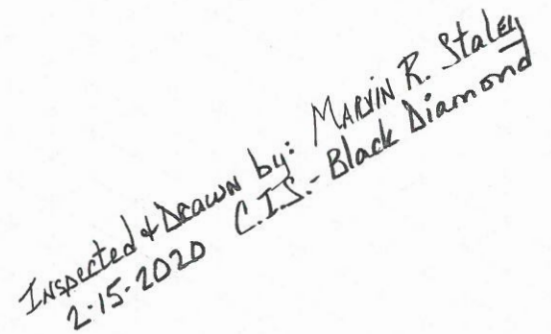
2-12-2020 Inspected & Drawn by: MARVIN R Staley  
C.I.S. - Black Diamond

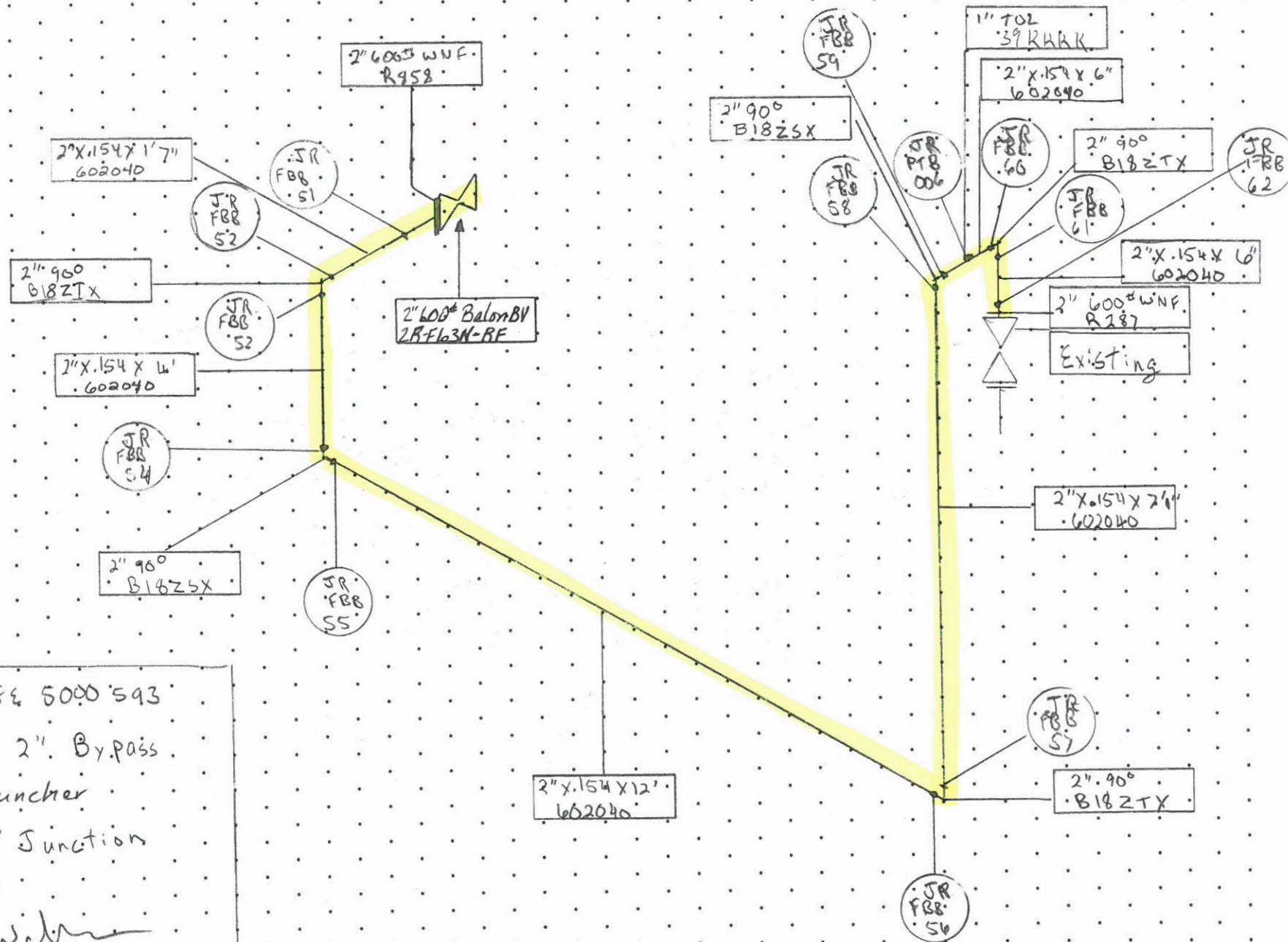


Inspected + Drawn by: MARVIN R. STALEY  
2-15-2020 C.I.S. = Black Diamond



AFE: 5000593

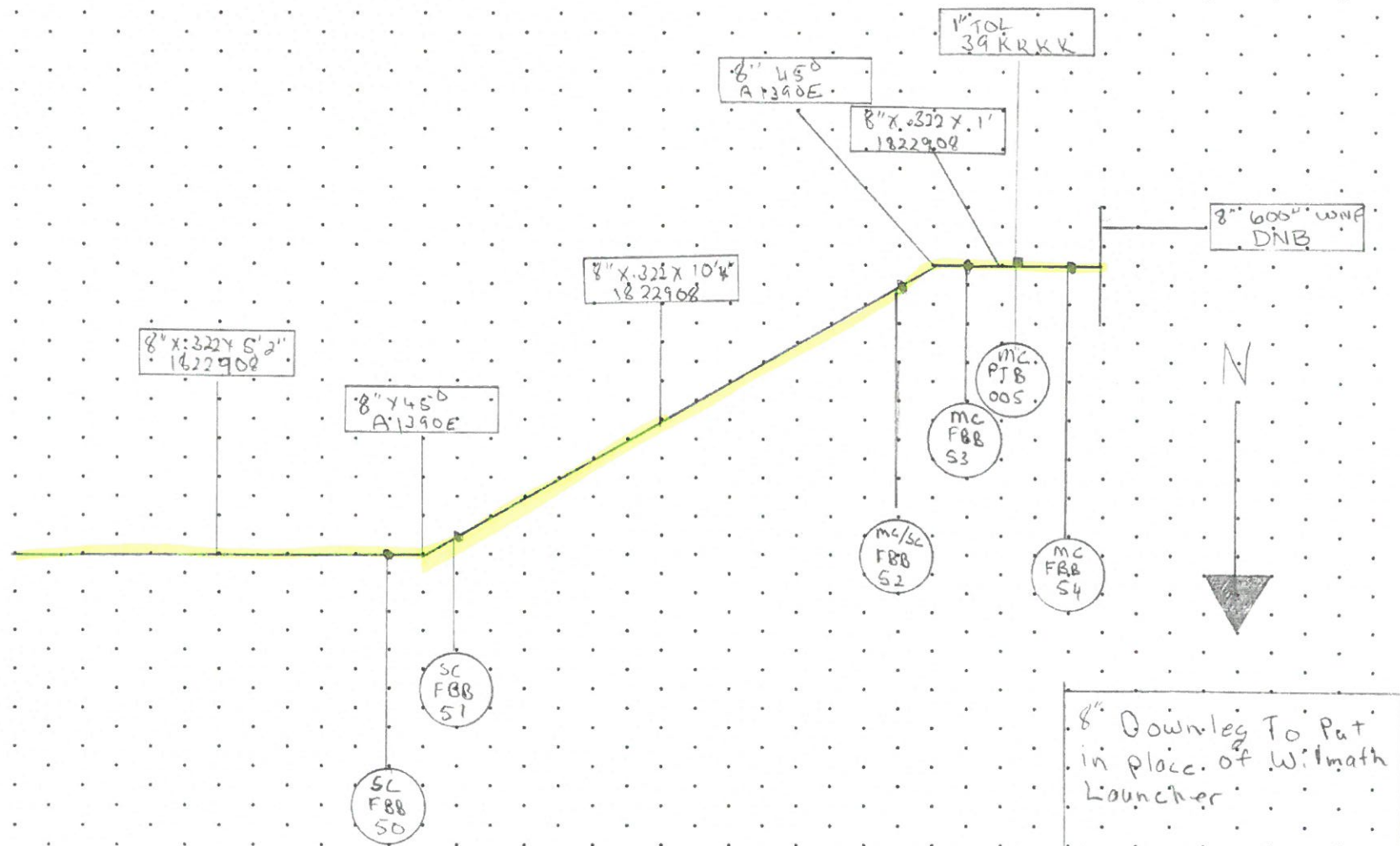




Popham. AFE 5000 593  
 Temporary. 2" Bypass  
 For 8" Launcher  
 AT 4" - 8" Junction  
 3-2-2020

Charlie Welch





8" Downleg To Pat  
in place of Wilmath  
Launcher

Popham 5000593  
2-24-2020  
Charles Walker