TEST SPECIFICATIONS

Rangeview Pipeline Gathering System Hydrostatic Pressure Test

LDS 1W Well Connect

Date:	Select Routing:
17-Jun-2016	

Test Number: 1 of 1

Project Name:	Project I.D. / AFE Number	Facility Name or Number
Rangeview Pipeline Gathering System	15W021A	LDS 1W Well Connect (South)

Installation Location (M.P. or S.S.):			State:	County/Parish:	Class Location Designation		Selected Design Pressure		Planned MAOP	
0+00	to	5+60	CO	Weld		2		1480		1400

Project Description:

Hydrostatic pressure test of the 4" well connect pipeline.

Testing at 1.25*MAOP = 1850 minimum test pressure. **2225 psig Target Test Pressure at Chart Location**

Max Test Pressure for ANSI 600 Valves and Fittings is 2660 psig where they are located.

Test shall be compliant with all test specifications in Exhibit D "Pipeline Construction Specifications" and all other Construction Documents.

LEAK ONLY TEST ☐ STRENGTH TEST ☑ FABRICATION ☐ NEW CONSTRUCTION ☑ REPLACEMENT ☐ RETEST ☐ REFERENCE DRAWINGS ATTACHED ☐

POST-INSTALLATION TEST ☑ PRE-INSTALLATION TEST ☐

Test Design Criteria

Minimum Component Characteristics

Pipe Information

O.D.	4.5
Wall Thickness	0.188
SMYS	52,000

Valve/Flange ANSI Class Rating
600# Valves/Fittings

Test Pressure Calculations

☐ Input minimum and maximum pressure of test
☐ Input minimum and maximum %SMYS of test

	Pressure (psig)	% PIPE SMYS
Max. Test Pressure (Pipe)	2598	59.8%
Max. Test Pressure (Valves and Fittings)	2660	61.2%
Min.	1850	42.6%

Test Section - Reference Data

Test Medium	Water	
Test Duration	8	Hours (min)
Section Length	560	Ft.
Section Fill Volume	463	Gal
Max. Elevation Change	8	Ft.

Station Equations:

	1	2	3
Back	0+00	0+00	0+00
Ahead	0+00	0+00	0+00

Test Pressures

Location	Station	Elevation (feet)	Max. psig.	% SMYS @ Max.	Min. psig.	% SMYS @ Min.	Variance psig.	Target psig.	% SMYS @Target
BEGIN -	0+00	4618	2,598	59.8%	1,853	42.7%	745	2,225	51.2%
HIGH ELEVATION	5+60	4626	2,595	59.7%	1,850	42.6%	745	2,222	51.1%
LOW ELEVATION	0+00	4618	2,598	59.8%	1,853	42.7%	745	2,225	51.2%
END	5+60	4626	2,595	59.7%	1,850	42.6%	745	2,222	51.1%
Chart Location (Test Point)	**0+00**	**4618**	**2,598**	**59.8%**	**1,853**	**42.7%**	**745**	**2,225**	**51.2%**

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.

Test shall be compliant with all test specifications in Exhibit D "Pipeline Construction Specifications" and all other Construction Documents.

PRE-TEST SPECIFIED / REVIEWED BY:		TEST PERFORMED / ACCEPTED BY:		POST-TEST REVIEWED BY:	
Originator (Signature)	Date:	Test Performed by (Signature):	Date: 6/28/16	Compliance (signature)	Date:
Designed Reviewed if applicable (Signature)	Date:	Company Name (for Contractor or for Employee):	Date:	Engineering or Operations (Signature)	Date:
Compliance (Signature)	Date:	Witnessed & Accepted by Company Representative: (Signature)	Date: 6-28-14	Actual MAOP	

LIQUID PIPELINE PRESSURE TEST REPORT

Pressure Test Number 1 OF 1

MOP of tested facility is 1,400 PSIG

Company: SADDLE BUTTE P/L
Operations Area: RANGEVIEW P/L
Project: RANGEVIEW P/L GATHERING SYSTEM
AFE: 15W021A
Pipeline: LDS IN WELL CONNECT OFF COUNTY RD. 60 1/2
Section:

Station or Milepost From: 0+00 To: 5+60

INSTRUCTIONS

In this worksheet, cells containing formulas are protected against input.
Cells with BLUE text labels allow or require input.

General Information	· Complete this Report and attached necessary exhibits for all SBP installed pipelines or pipeline segments or those re-qualified for service. · Fill in all applicable information. If information is not applicable, write NA in the corresponding space on the Report.
Pipe Data	· Record the details for each pipe section tested, including lengths, line fill, pipe fittings, etc. · Add together pipe section lengths and line fill for a total pipe section length and line fill.
Test Water Data	· Enter water source information (i.e., from municipal supply, well, river, lake, pond) in the Test Log or notes section of the Report. · Source water temperature compared to ground temperature can assist with understanding the time for the water to stabilize.
Pressure Calculations	· Elevation of high and low points and the elevation of the test pressure measure sites is required for calculation of the target test pressures.
Test Log	· Fill out the Test Log at the time of the test. This is the actual log of the test. · From the start of filling the test section, record pressure readings from the calibrated test gauge or deadweight tester used in the test. · Record the test pressure and temperatures at intervals of 30 minutes to an hour and as necessary to represent the test pressure during the test period. · The below ground pipe temperature sensor should be placed away from exposed pipe and far enough from the water injection point so that water injected will not affect the readings. · In the Remarks column, enter start of test, end of test, and any remarks concerning unusual events, such as liquid added or withdrawn, weather conditions, etc.
Notes	· Enter all pertinent comments about the test, including such things as weather conditions, radical weather changes, equipment malfunctions, or any other noteworthy event that may affect testing.
Profile	· An elevation profile is required for any test section where the elevation varies more than 100 feet. The following items should be noted on the profile: - Location and elevation where test pressure measurements are taken - High and low points - Stationing or mileposts - Horizontal and vertical scale of the drawing · Elevation data is available in electronic format from the KPL mapping system. · If electronic elevation data is not available, take profile elevations from survey information or from U.S. Geological Service 7 1/2 minute topographical maps.
Failure Log	· Record each failure event that causes the line to be taken "off test". · Enter the date, time, and pressure at the time of failure. · List the apparent cause of the failure if the actual cause cannot be determined. Pipe seam failure or leaking flange, for example, could be entered as the cause of test failure. · Describe the repair method (i.e., changed-out pipe or tightened flange).
Supplementary Documentation	· Check each supplementary documentation attached as part of this test record (i.e., test charts and/or equipment certifications). · Write the corresponding Exhibit Number on the attached supplementary documentation.
Certification	· Signatures of the Company and Contractor representatives in charge of the test are MANDATORY.

Location of Test Point	Elevation of Test Point	High Point	Low Point
P/L TIE-IN	4,626 Ft. (Elevation)	4,626 Ft. (Elevation)	4,618 Ft. (Elevation)
5+60	5+60 Ft. (Station)	5+60 Ft. (Station)	0+00 Ft. (Station)
		Location Name	Location Name

Target MOP: 1,400	Test Duration: hr 8	Start Point	End Point
Target Test Pressure Range 2,205	High Point 4,626 / Low Point 4,618	4,618 Ft. (Elevation)	4,626 Ft. (Elevation)
1st Min: 560 Maximum:		0+00 Ft. (Station)	0+00 Ft. (Station)
2nd Min: 1,120		LDS 1W Location Name	LDS 1W Location Name

TEST LOG

DATE	TIME	PRESSURE	AMBIENT TEMP	BELOW GROUND TEMP	ABOVE GROUND TEMP	REMARKS
6/29/16	7:01	0				PRESSURING TO FIRST HOLD
AM	7:08	612	61°	68°	72°	FIRST HOLD 15 MINUTES.
	7:23	610	63°	68°	76°	PRESSURING UP FOR SECOND HOLD
	7:25	1,124	63°	68°	77°	SECOND HOLD 15 MINUTES
	7:40	1,121	63°	68°	78°	PRESSURING UP FOR THIRD HOLD
	7:45	1,688	63°	68°	78°	THIRD HOLD 15 MINUTES
	7:57	1,688	63°	68°	79°	PRESSURING UP TO TEST PRESSURE
	7:59	2,275	63°	68°	80°	FOURTH HOLD FOR 15 MINUTES
	8:15	2,270	62°	68°	80°	START TEST
	8:30	2,273	62°	68°	80°	CLOUDY
	8:45	2,277	64°	68°	80°	
	9:00	2,278	68°	68°	80°	SUNNY TO PARTLY CLOUDY
	9:15	2,265	68°	68°	80°	
	9:30	2,294	69°	68°	80°	
	9:45	2,305	69°	68°	80°	
	10:00	2,320	73°	68°	86°	
	10:15	2,336	73°	68°	86°	
	10:30	2,359	74°	68°	86°	
	10:45	2,376	75°	68°	89°	SUNNY
	11:00	2,400	75°	68°	91°	
*	11:01	2,369				BLED DOWN
	11:15	2,390	77°	68°	93°	
	11:30	2,415	78°	68°	95°	
	11:45	2,444	80°	68°	96°	
*	11:54	2,369				BLED DOWN
PM	12:00	2,378	81°	68°	99°	
	12:15	2,408	81°	68°	99°	
	12:30	2,439	85°	68	100°	SUNNY
	12:45	2,460	84°	68°	102°	
	1:00	2,487	88°	68°	102°	
*	1:01	2,369				BLED DOWN
1:15	1:30	2,393	85°	68°	102°	
1:30	1:45	2,421	86°	68°	104°	
1:45	2:00	2,443	86°	68	106°	
	2:00	2,467	91°	68°	107°	
	2:02	2,371				BLED DOWN
	2:15	2,388	88°	68°	108°	
	2:30	2,399	90°	68°	109°	

Saddle Butte Pipeline, LLC

TEST LOG (CONTINUED)

DATE	TIME	PRESSURE	AMBIENT TEMP	BELOW GROUND TEMP	ABOVE GROUND TEMP	REMARKS
6-28-16	2:45	2,405	90°	68°	109°	SUNNY
	3:00	2,423	90°	68°	110°	
	3:15	2,444	90°	68°	110°	
	3:30	2,462	93°	68°	110°	GETTING CLOUDY
	3:45	2,451	93°	68°	109°	
	4:00	2,425	91°	68°	107°	TEST COMPLETE
	4:15	2,399	91°	68°	105°	[redacted]
	4:18	1,655	91°	68°	105°	BLED DOWN FIRST HOLD 15 MINUTES
	4:34	1,127	91°	68°	105°	BLED DOWN SECOND HOLD 15 MINUTES
	4:49	565	90°	68°	108	BLED DOWN THIRD HOLD 15 MINUTES
	5:04	0	90°	68°	108	

PRESSURE RECORDER 1:

Mfg. BRATON
Model 12" CHART RECORDER
Serial No. 202A-161894
Range 0-3000 PSI
Notes:

PRESSURE RECORDER 2:

Mfg. BRATON
Model 12" CHART RECORDER
Serial No. 202E-007
Range 0-150°
Notes: BELOW GROUND TEMP

DEADWEIGHT TESTER OR CALIBRATED TEST GAUGE:

Mfg. AMTEK CRYSTAL
Model XPDI
Serial No. 364359
Date of last Calibration 4-29-16
Calibrated by APEX
Range 0-5000 PSI
Notes:

TEMPERATURE RECORDER:

Mfg. BRATON
Model 12" CHART RECORDER
Serial No. 202A-161894
Range 0-150° F
Notes: PIPE TEMP.

CALIBRATION OF TEMPERATURE RECORDER

Temperature recorder reading	Test mercury thermometer reading	Remarks

CALIBRATION OF PRESSURE RECORDER 1

Pressure recorder reading	Deadweight tester reading	Remarks

CALIBRATION OF PRESSURE RECORDER 2

Pressure recorder reading	Deadweight tester reading	Remarks

NOTES

EQUIPMENT CALCULATED MOP SUMMARY WORKSHEET

1. Test Information:

Target MOP 1,400
Enter the desired MOP, if less than pipe internal design pressure.

Date 6-28-16 Time
Test Point Location 5+60
Test Medium WATER Test Duration 8
Specific Gravity of Test Medium
Min. Test Press. at test site 125% of min. MOP + elv. 110%
Maximum allowable % of SMYS = 100%

2. Pipe Specifications:

Manufacture Type NEXTEEL Grade X52
Pipe (#1) O.D. 4.5 SMYS
Wall thickness .188
Length (ft.): 560'
MOP 1,400 Seam Joint Factor Design Factor (F) Volume
Max allowable test pressure, psig

3. Pipe Specifications:

Manufacture Type Grade
Pipe (#2) O.D. SMYS Wall thickness Length (ft.):
MOP Seam Joint Factor Design Factor (F) Volume
Max allowable test pressure, psig

4. Pipe Specifications:

Manufacture Type Grade
Pipe (#3) O.D. SMYS Wall thickness Length (ft.):
MOP Seam Joint Factor Design Factor (F) Volume
Max allowable test pressure, psig

5. Pipe Specifications:

Manufacture Type Grade
Pipe (#4) O.D. SMYS Wall thickness Length (ft.):
MOP Seam Joint Factor Design Factor (F) Volume
Max allowable test pressure, psig

6. Pipe Specifications:

Manufacture Type Grade
Pipe (#5) O.D. SMYS Wall thickness Length (ft.):
MOP Seam Joint Factor Design Factor (F) Volume
Max allowable test pressure, psig

7. Pipe Specifications:

Manufacture Type Grade
Pipe (#6) O.D. SMYS Wall thickness Length (ft.):
MOP Seam Joint Factor Design Factor (F) Volume
Max allowable test pressure, psig

8. Pipe Fittings Specifications:

Manufacture Type Grade
Fitting Description
Pipe Fitting O.D. SMYS Wall thickness
MOP Seam Joint Factor Design Factor (F)
Max allowable test pressure, psig

9. Pipe Fittings Specifications:

Manufacture Type Grade
Fitting Description
Pipe Fitting O.D. SMYS Wall thickness
MOP Seam Joint Factor Design Factor (F)
Max allowable test pressure, psig

10. Pipe Fittings Specifications:

Manufacture Type Grade
Fitting Description
Pipe Fitting O.D. SMYS Wall thickness
MOP Seam Joint Factor Design Factor (F)
Max allowable test pressure, psig

EQUIPMENT CALCULATED MOP SUMMARY WORKSHEET
(continued)

11. Manufactured: Weldolet, etc. O.D. _____ Working Pressure _____
Manufacture Type _____ Grade _____
Fitting Description _____
Max allowable test pressure, psig

12. Manufactured: Pipe Flanges O.D. _____ Working Pressure _____
Manufacture Type _____ Class _____
Temperature Derating Factor (T) _____
Max allowable test pressure, psig

13. Manufactured: Pipe Flanges O.D. _____ Working Pressure _____
Manufacture Type _____ Class _____
Temperature Derating Factor (T) _____
Max allowable test pressure, psig

14. Manufactured: Block Valve Size _____ Working Pressure _____
Manufacture Type _____ Class _____
Temperature Derating Factor (T) _____
Max allowable test pressure, psig

15. Calculated MOPs (psi):

Test Pressure Range @Test Site, psig — 125% to psig | 110% to psig

Note: Add 0 psi to min. test range

Maximum test presssure at test site, psig

CALCULATED TARGET MOP OF PIPELINE SECTION PSIG

FAILURE LOG

FAILURE:

Date: ________ Time: ________________ am / pm Failure Pressure: ____________________

Apparent Cause: ____

____

REPAIR:

Describe Repair Method: ____

____

FAILURE:

Date: ________ Time: ________________ am / pm Failure Pressure: ____________________

Apparent Cause: ____

____

REPAIR:

Describe Repair Method: ____

____

FAILURE:

Date: ________ Time: ________________ am / pm Failure Pressure: ____________________

Apparent Cause: ____

____

REPAIR:

Describe Repair Method: ____

____

FAILURE:

Date: ________ Time: ________________ am / pm Failure Pressure: ____________________

Apparent Cause: ____

____

REPAIR:

Describe Repair Method: ____

____

FAILURE:

Date: ________ Time: ________________ am / pm Failure Pressure: ____________________

Apparent Cause: ____

____

REPAIR:

Describe Repair Method: ____

____

The following marked exhibits are attached as a part of this Test Report:

EXHIBIT NO. 1	☑	Sketch of Tested Piping (including how section is isolated), with material list
EXHIBIT NO. 2	☑	Profile of pipeline section and/or segment
EXHIBIT NO. 3	☑	Pressure Chart, with pressure test number, date, test section name, Inspector name and signature
EXHIBIT NO. 4	☑	Temperature Chart, with pressure test number, date, test section name, Inspector name and signature
EXHIBIT NO. 5	☑	Pressure Recorder Certification Papers
EXHIBIT NO. 6	☑	Temperature Recorder Certification Papers
EXHIBIT NO. 7	☑	Deadweight or Calibrated Test Gauge Certification Papers
EXHIBIT NO. 8	☑	Field test data log, if hand written
EXHIBIT NO. 9	☐	Pressure Test Procedure, if applicaple, with MOP Area Representative and Engineer signature approval

CERTIFICATION

I certify this pipeline or pipeline section has been tested and successfully met the terms of SBP MOP Establishment and Pressure Testing of Pipelines Technical Guideline and, where applicable, the contract document between SBP and its prime contractor.

MOP Area Representative

By: _____ (Please print) _____ (Signature) Date: _____

Engineer

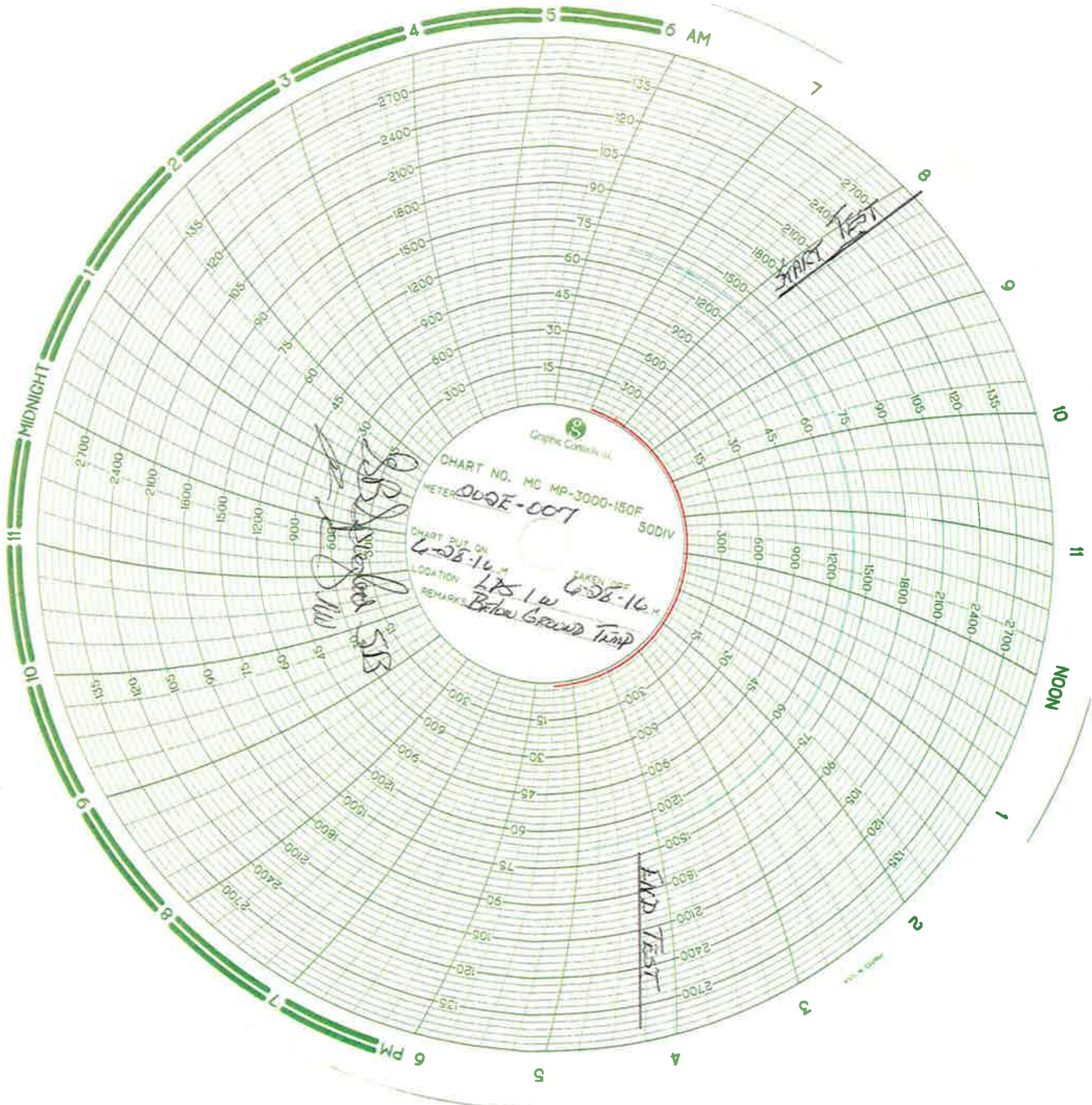
By: _____ (Please print) _____ (Signature) Date: _____

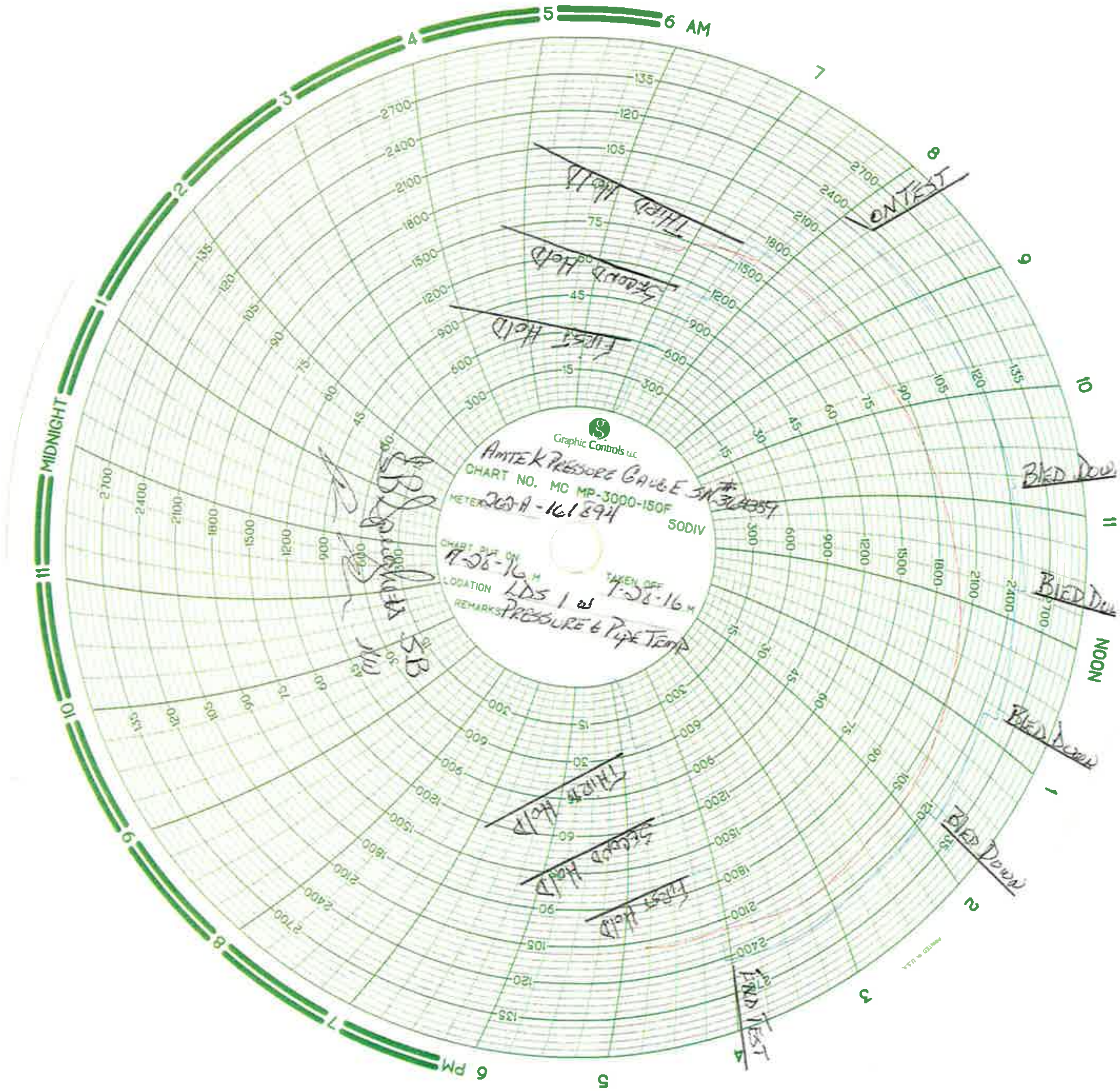
Inspector

By: G. BRETT SPEIGHTS (Please print) G B Speights (Signature) Date: 6-28-16

Name of Testing Contractor NORTHWINDS OF WYOMING

By: Dick Rich (Please print) _____ (Signature) Date: 6-28-16


Graphic Controls
CHART NO. MC MP-3000-150F
METER
50DIV
CHART PUT ON
TAKEN OFF
LOCATION
REMARKS
Below Ground Temp
START TEST
END TEST
MIDNIGHT
NOON
6 AM
6 PM



Graphic Controls LLC
CHART NO. MC MP-3000-150F
50DIV
METER
CHART PUT ON
TAKEN OFF
LOCATION
REMARKS
AMTEK PRESSURE GAUGE
PRESSURE & PIPE TEMP
6 AM
NOON
6 PM
MIDNIGHT
ON TEST
FIRST HOLD
SECOND HOLD
THIRD HOLD
BLED DOWN
END TEST

1374937

APEX INSTRUMENTS
7200 E. Dry Creek Rd. C-102
Centennial, Co. 80112
303-804-0667
cal.lab@apex-instruments.com

Pipeline Supply & Service
9700 E. 104th Ave, Unit F
Henderson, CO 80640

CALIBRATION CERTIFICATE: 10421

Apr 29 2016

Device Informaton:	DUT	Reference
Model	XP2i	RPM4-E-DWT
Manufacturer	Crystal Engineering	Fluke
Serial Number	364359	1709
Pressure Range	0.000 to 5000.000	0.000 to 15000.000
Tolerance	0.02 %FS : < 20% FS 0.1 %Rdg : > 20% FS	0.02% Rdg or 0.002% Span
Data Aquisition Mode	RS232	RS232
Date of Calibration	Apr 29 2016	Oct 23 2015
Calibration Due	Apr 29 2017	Oct 23 2016

Test Information

Test Lable	5,000 psi
Date	Apr 29 2016
Time	12:31:27 PM
Operator	Steven L.
Station ID	CALLABHP3-HP

Conditions

Ambient Pressure	
Ambient Temperature	23 deg C +/- 3 C
Ambient Relative Humidity	20% - 60%

As Received Data:

Test Point	Reference Pressure	DUT Pressure	DUT Raw Output	Abs. Error	"% Span" Error	DUT Tolerance	Status
	psi	psi	psi	psi	%	psi	
1	-0.01	-0.002	-0.002	0.008	0.0001	1.000	Pass
2	1001.40	1001.190	1001.190	-0.210	-0.0042	1.001	Pass
3	1999.44	1999.011	1999.011	-0.429	-0.0085	1.999	Pass
4	3001.76	3001.184	3001.184	-0.576	-0.0115	3.001	Pass
5	4002.18	4001.453	4001.453	-0.727	-0.0146	4.001	Pass
6	5000.72	4999.851	4999.851	-0.869	-0.0175	5.000	Pass
7	3997.29	3996.576	3996.576	-0.714	-0.0143	3.997	Pass
8	2999.21	2998.807	2998.807	-0.403	-0.0080	2.999	Pass
9	1999.21	1999.041	1999.041	-0.169	-0.0034	1.999	Pass
10	999.02	998.981	998.981	-0.039	-0.0008	1.000	Pass
11	-0.03	0.188	0.188	0.218	0.0043	1.000	Pass

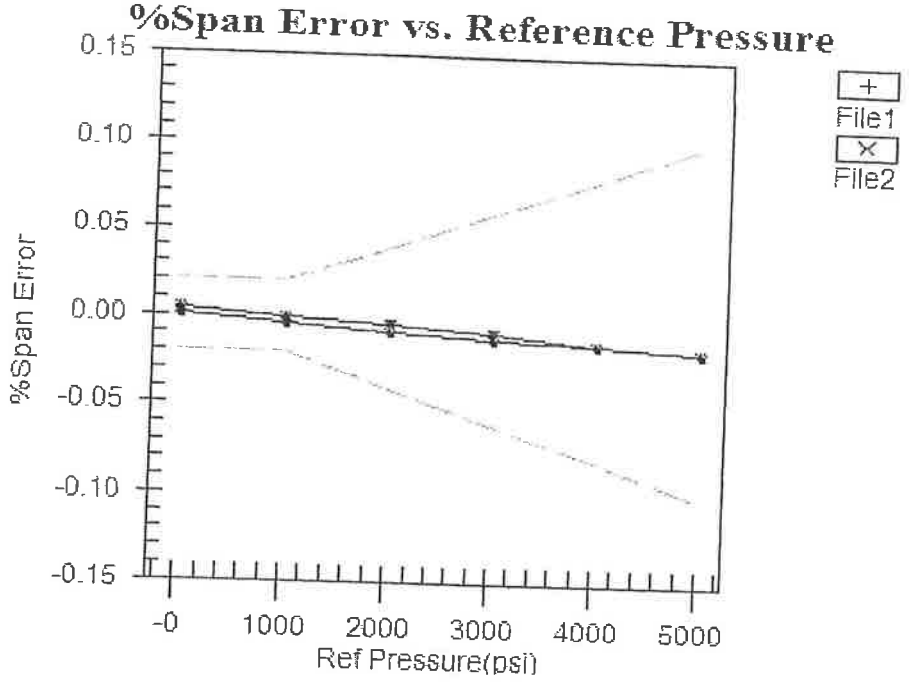
As Received First Order Fit: y = 1.000199E00x + -9.655745E-02

As Left Data:

Test Point	Reference Pressure	DUT Pressure	DUT Raw Output	Abs. Error	"% Span" Error	DUT Tolerance	Status

	psi	psi	psi	psi	%	psi	
1	-0.01	-0.002	-0.002	0.008	0.0001	1.000	Pass
2	1001.40	1001.190	1001.190	-0.210	-0.0042	1.001	Pass
3	1999.44	1999.011	1999.011	-0.429	-0.0085	1.999	Pass
4	3001.76	3001.184	3001.184	-0.576	-0.0115	3.001	Pass
5	4002.18	4001.453	4001.453	-0.727	-0.0146	4.001	Pass
6	5000.72	4999.851	4999.851	-0.869	-0.0175	5.000	Pass
7	3997.29	3996.576	3996.576	-0.714	-0.0143	3.997	Pass
8	2999.21	2998.807	2998.807	-0.403	-0.0080	2.999	Pass
9	1999.21	1999.041	1999.041	-0.169	-0.0034	1.999	Pass
10	999.02	998.981	998.981	-0.039	-0.0008	1.000	Pass
11	-0.03	0.188	0.188	0.218	0.0043	1.000	Pass

As Left First Order Fit: y = 1.000199E00x + -9.655745E-02



APEX Technician - Steven Laupan

This Instrument has been calibrated using standards with accuracies traceable to the National Institute of Standards and Technology, derived from natural physical constants, derived from ratio measurements or compared consensus standards.

P-S-S-COMPANIES

WASATCH SUPPLY | PSS PIPELINE SUPPLY & SERVICE | NORTH STATE SUPPLY NS

9700 E. 104TH 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: 04/12/2016
DUE DATE: 04/12/2017

INDICATED TEMPERATURE RANGE: # 0 – 150°F
INDICATED PRESSURE RANGE: #0 – 3000 PSI
SERIAL NO: 202A-161894
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 DATE: SEPTEMBER 14, 2015

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): 66°F / 25%.

CALIBRATED BY: NICK BEDFORD

P-SS-SS-COMPANIES

WASATCH SUPPLY | PSS PIPELINE SUPPLY & SERVICE | NORTH STATE SUPPLY NS

9700 E. 104TH 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: 06/24/2016
DUE DATE: 06/24/2017

INDICATED TEMPERATURE RANGE: # 0 – 150°F
INDICATED PRESSURE RANGE: #0 – 3000 PSI
SERIAL NO: 202E-007
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.).

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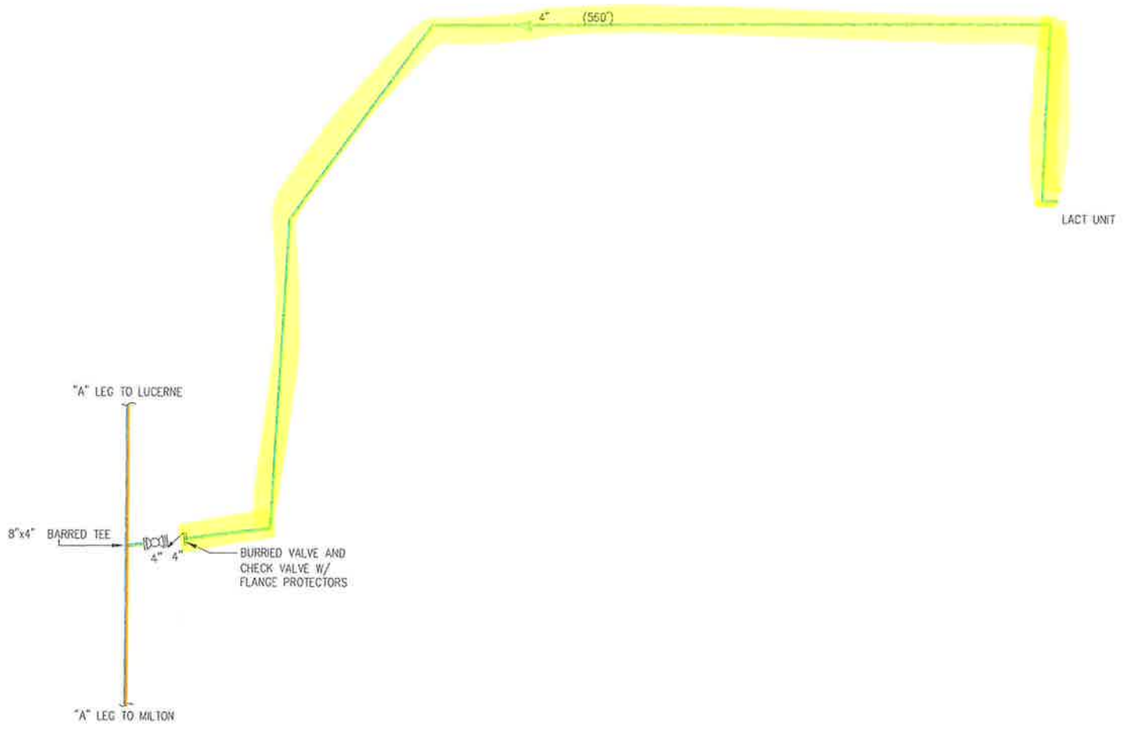
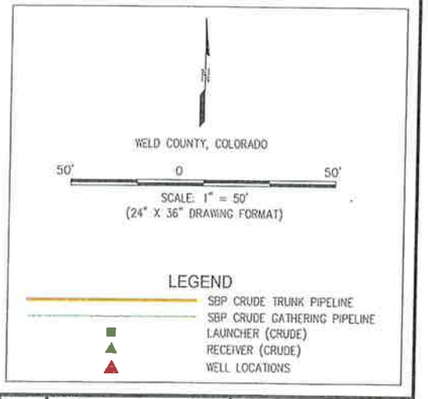
CALCULATED USING MASS VALUES, AREA, AO, AND STATED GRAVITY.
ROOM TEMPERATURE/HUMIDITY (AT TIME OF TEST): 66°F / 25%.

CALIBRATED BY: NICK BEDFORD

CTZ 60.5





NOTES:

1) FLOW SCHEMATIC IS FOR GRAPHICAL REPRESENTATION ONLY.
2) ALL GAS, WATER AND UTILITY LINES SHOULD BE LOCATED PRIOR TO ANY EXCAVATING, DIGGING, OR TRENCHING ANYWHERE ON OR NEAR THIS SITE.
3) AUDUBON ASSUMES NO RESPONSIBILITY FOR THE SPECIFIC LOCATION OF ANY BURIED GAS, WATER, OR UTILITY LINES THAT MAY BE PRESENT ON OR NEAR THIS SITE, NOR IS ANY LIABILITY ASSUMED FOR ANY LEGAL ACTION WHICH RESULTS FROM A DISCOVERY OF A GAS, WATER, OR UTILITY LINE IN ADDITION TO OR IN A DIFFERENT LOCATION THAN SHOWN ON THIS PLAT.
4) COORDINATE SYSTEM BASED ON NAD 83 COLORADO STATE PLANE, NORTH ZONE.
5) PROPOSED PIPELINE ROUTES FROM IMPORTED SHAPE FILES PROVIDED BY SADDLE BUTTE PIPELINE II, LLC.

REFERENCE DRAWINGS

DWG. NO.	TITLE

REVISIONS

NO.	DESCRIPTION	DATE	BY	CHK.	APPR.
1	ISSUED FOR REVIEW	9-24-16	CJD	JK	

DRAWN BY: CJD	09/23/16
CHECKED BY: JK	09/26/16
REVIEWED BY: JK	09/29/16
APPROVED BY:	
SCALE: SCALE: 1" = 50'	

PREPARED FOR: SADDLE BUTTE PIPELINE

audubon Engineering

LDS 1W FLOW SCHEMATIC
RANGEVIEW GATHERING SYSTEM
WELD COUNTY, COLORADO

PROJECT NUMBER

DRAWING NUMBER: PL-MAP-0017

REV. A