



## DRILL STEM TEST REPORT

Prepared For: **Charles N. Griffin**  
P.O.Box 347  
Pratt KS. 67124

ATTN: Bruce Reed

**Belle #2**

**27-32s-12w Barber,KS**

Start Date: 2015.10.08 @ 17:29:35

End Date: 2015.10.08 @ 22:51:20

Job Ticket #: 59797                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.10.12 @ 08:15:50

Charles N. Griffin

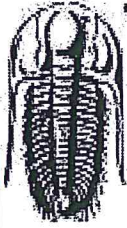
27-32s-12w Barber,KS

Belle #2

DST # 1

Snyderville Sd

2015.10.08



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Charles N. Griffin

27-32s-12w Barber,KS

P.O.Box 347  
Pratt KS. 67124

Belle #2

Job Ticket: 59797

DST#: 1

ATTN: Bruce Reed

Test Start: 2015.10.08 @ 17:29:35

## GENERAL INFORMATION:

Formation: **Snyderville Sd**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:03:35  
 Time Test Ended: 22:51:20

Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gary Pevoteaux  
 Unit No: 80

Interval: **3580.00 ft (KB) To 3630.00 ft (KB) (TVD)**

Reference Elevations: 1503.00 ft (KB)  
 1498.00 ft (CF)

Total Depth: 3630.00 ft (KB) (TVD)

KB to GR/CF: 5.00 ft

Hole Diameter: 7.88 inches Hole Condition: Fair

Serial #: 9124

Outside

Press@RunDepth: 118.89 psig @ 3581.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.10.08

End Date:

2015.10.08

Last Calib.: 2015.10.08

Start Time: 17:29:40

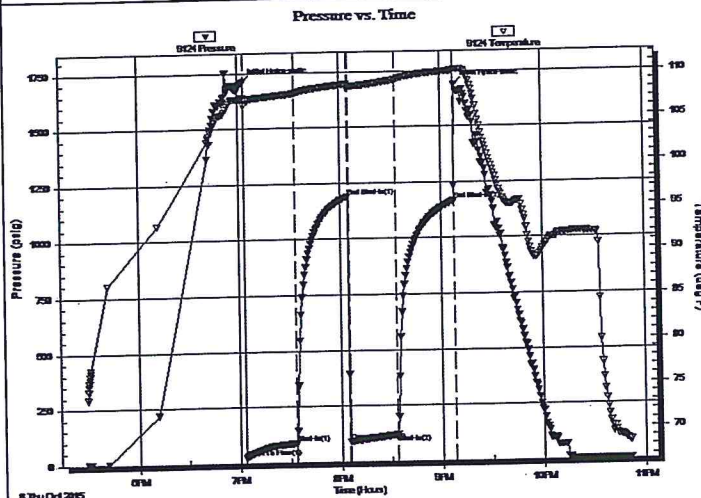
End Time:

22:51:19

Time On Btm: 2015.10.08 @ 19:02:50

Time Off Btm: 2015.10.08 @ 21:08:35

TEST COMMENT: IF:Weak blow . 1 - 2 1/2".  
 IS:No blow .  
 FF:Weak blow . Slow increase to 3 1/2".  
 FS:No blow .



## PRESSURE SUMMARY

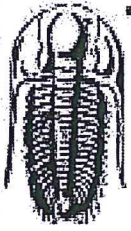
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1708.00	107.21	Initial Hydro-static
1	25.11	106.35	Open To Flow (1)
31	86.22	107.63	Shut-In(1)
62	1189.50	108.62	End Shut-In(1)
63	90.24	108.28	Open To Flow (2)
91	118.89	109.03	Shut-In(2)
125	1164.98	110.01	End Shut-In(2)
126	1686.53	110.15	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 8% <sub>m</sub> 92% <sub>w</sub>	0.59
63.00	SOCMW 1% <sub>o</sub> 31% <sub>m</sub> 68% <sub>w</sub>	0.88
15.00	OCM 4% <sub>o</sub> 96% <sub>m</sub>	0.21

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Charles N. Griffin

27-32s-12w Barber,KS

P.O.Box 347  
Pratt KS. 67124

**Belle #2**

Job Ticket: 59797

DST#: 1

ATTN: Bruce Reed

Test Start: 2015.10.08 @ 17:29:35

## GENERAL INFORMATION:

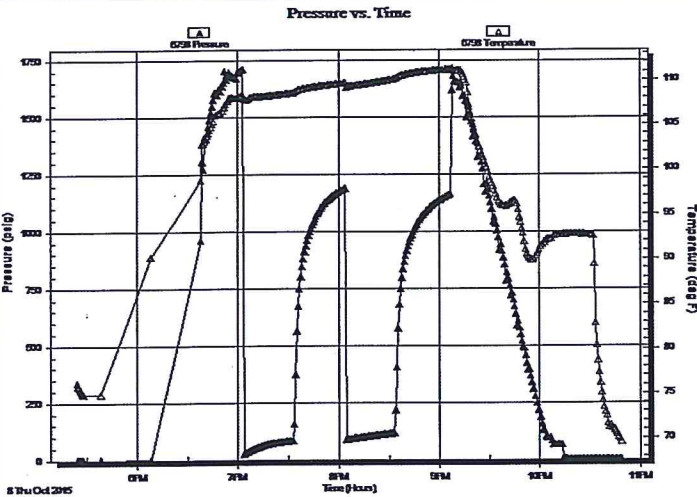
Formation: **Snyderville Sd**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 19:03:35  
 Tester: Gary Pevoteaux  
 Time Test Ended: 22:51:20  
 Unit No: 80  
 Interval: **3580.00 ft (KB) To 3630.00 ft (KB) (TVD)**  
 Reference Elevations: 1503.00 ft (KB)  
 Total Depth: 3630.00 ft (KB) (TVD) 1498.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 KB to GR/CF: 5.00 ft

## Serial #: 6798

Inside

Press@RunDepth: psig @ 3581.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2015.10.08 End Date: 2015.10.08 Last Calib.: 2015.10.08  
 Start Time: 17:24:18 End Time: 22:48:57 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF:Weak blow . 1 - 2 1/2".  
 IS:No blow .  
 FF:Weak blow . Slow increase to 3 1/2".  
 FS:No blow .



## PRESSURE SUMMARY

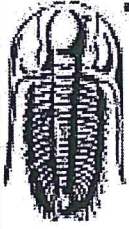
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 8% <sub>m</sub> 92% <sub>w</sub>	0.59
63.00	SOCMW 1% <sub>o</sub> 31% <sub>m</sub> 68% <sub>w</sub>	0.88
15.00	OCM 4% <sub>o</sub> 96% <sub>m</sub>	0.21

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Charles N. Griffin

27-32s-12w Barber, KS

P.O.Box 347  
Pratt KS. 67124

**Belle #2**

Job Ticket: 59797

**DST#: 1**

ATTN: Bruce Reed

Test Start: 2015.10.08 @ 17:29:35

## Tool Information

Drill Pipe:	Length: 3460.00 ft	Diameter: 3.80 inches	Volume: 48.53 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	24000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	62000.00 lb
			<u>Total Volume: 49.12 bbl</u>	Tool Chased	1.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial	49000.00 lb
Depth to Top Packer:	3580.00 ft			Final	49000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	50.00 ft				
Tool Length:	70.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3561.00	
Shut In Tool	5.00			3566.00	
Hydraulic tool	5.00			3571.00	
Packer	4.00			3575.00	20.00 Bottom Of Top Packer
Packer	5.00			3580.00	
Stubb	1.00			3581.00	
Recorder	0.00	9124	Outside	3581.00	
Recorder	0.00	6798	Inside	3581.00	
Perforations	7.00			3588.00	
Blank Spacing	32.00			3620.00	
Perforations	5.00			3625.00	
Bullnose	5.00			3630.00	50.00 Bottom Packers & Anchor

**Total Tool Length: 70.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Charles N. Griffin

**27-32s-12w Barber,KS**

P.O.Box 347  
Pratt KS. 67124

**Belle #2**

Job Ticket: 59797

**DST#: 1**

ATTN: Bruce Reed

Test Start: 2015.10.08 @ 17:29:35

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

91000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.89 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	MW 8% <sub>m</sub> 92% <sub>w</sub>	0.590
63.00	SOCMW 1% <sub>o</sub> 31% <sub>m</sub> 68% <sub>w</sub>	0.884
15.00	OCM 4% <sub>o</sub> 96% <sub>m</sub>	0.210

Total Length: 198.00 ft      Total Volume: 1.684 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .085ohms@73deg

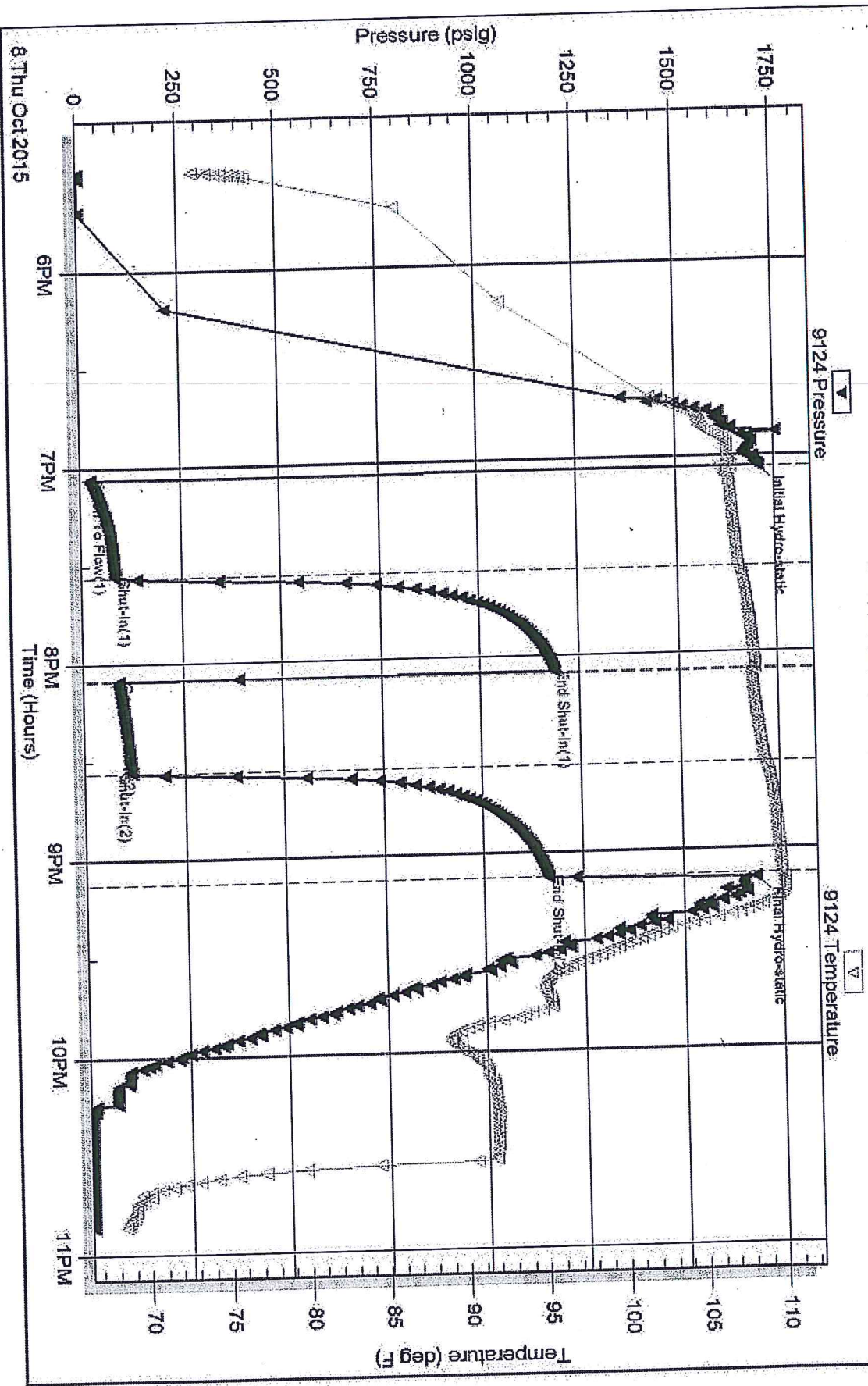
Serial #: 9124

Outside: Charles N. Griffin

Bele #2

DSI Test Number: 1

### Pressure vs. Time



Trialble Testing, Inc

Ref. No: 59797

Printed: 2015.10.12 @ 08:15:51

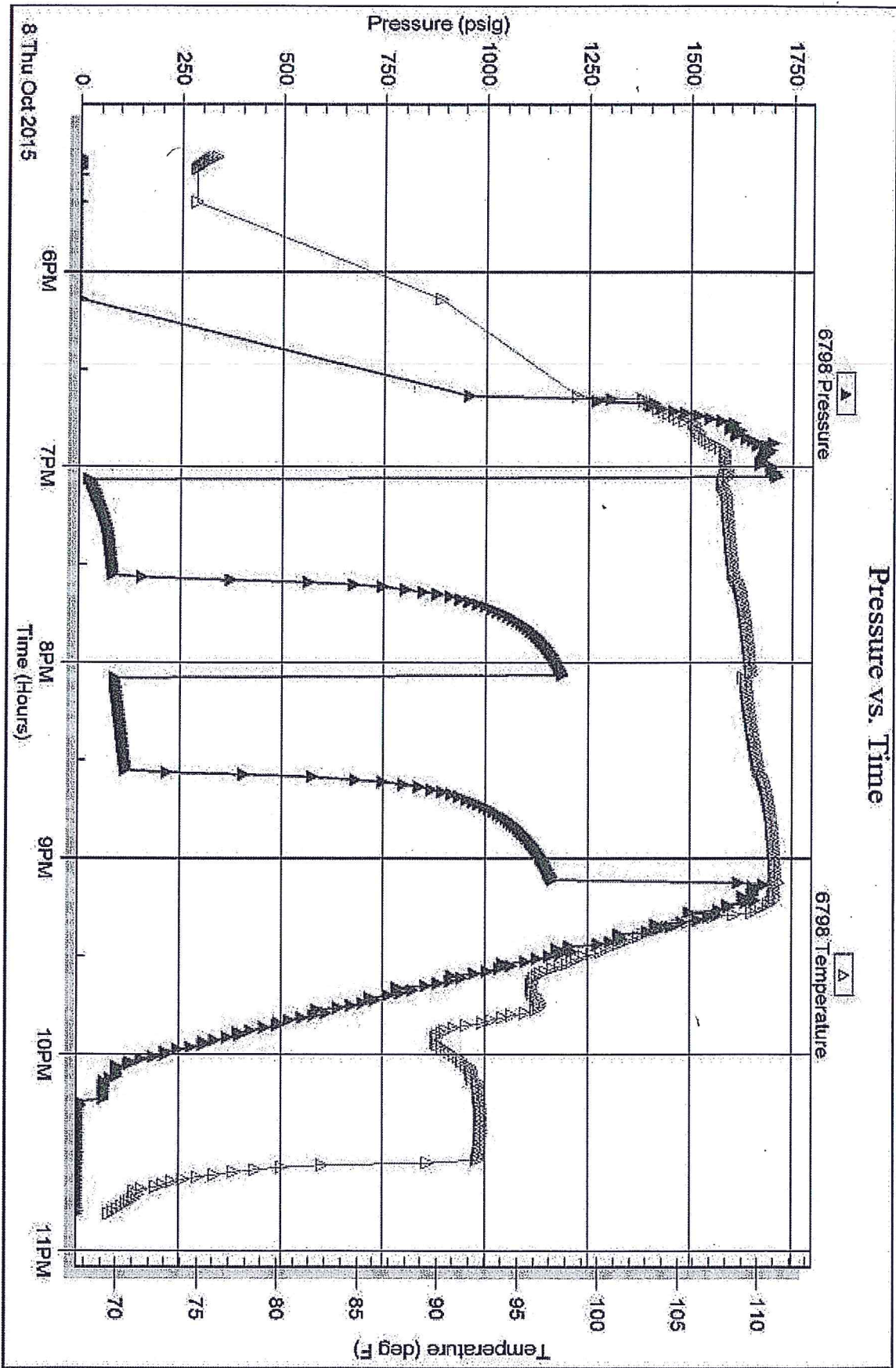
Serial #: 6798

Inside

Charles N. Griffin

Belle #2

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 59797

Printed: 2015.10.12 @ 08:15:52



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 59797

Well Name & No. Belle #2 Test No. 1 Date 10-8-15  
 Company CHARLES N. GRIFFIN Elevation 1503 KB 1498 GL  
 Address P.O. Box 347, PRATT Ks. 67124  
 Co. Rep / Geo. BRUCE REED Rig WW DRUG #4  
 Location: Sec. 27 Twp. 32 S Rge. 12 W Co. BARBER State Ks.

Interval Tested 3580 - 3630' Zone Tested SNYDERVILLE SD.  
 Anchor Length 50' Drill Pipe Run 3460' Mud Wt. 8.9  
 Top Packer Depth 3575' Drill Collars Run 120' Vis 46  
 Bottom Packer Depth 3580' Wt. Pipe Run 0 WL 8-9 cc  
 Total Depth 3630' Chlorides 4,000 ppm System LCM 0  
 Blow Description IF: Weak blow. 1-2 1/2" EST: No blow.

FF: Weak blow. slow increase to 3 1/2" - EST: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>OCM</u>	<u>4</u>	<u>96</u>	<u>0</u>	<u>0</u>
<u>63</u>	<u>SO CMW</u>	<u>1</u>	<u>68</u>	<u>31</u>	<u>0</u>
<u>120</u>	<u>1 MW</u>	<u>92</u>	<u>8</u>	<u>0</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 198 BHT 110° Gravity N/A API RW 0.85 @ 73 °F Chlorides 91,000 ppm  
 (A) Initial Hydrostatic 1708  Test 1050 T-On Location 1640  
 (B) First Initial Flow 25  Jars \_\_\_\_\_ T-Started 1729  
 (C) First Final Flow 86  Safety Joint \_\_\_\_\_ T-Open 1903  
 (D) Initial Shut-In 1190  Circ Sub \_\_\_\_\_ T-Pulled 2106  
 (E) Second Initial Flow 90  Hourly Standby 88+88 T-Out 2251  
 (F) Second Final Flow 119  Mileage 80 X2 RETURNED TO LOAD TOOLS Comments \* RELEASED @ 0658 10/11/15  
 (G) Final Shut-In 1165  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1487  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby 1.5d 20h  
 Accessibility \_\_\_\_\_  
 Sub Total 1226 MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30

Approved By Bruce A. Reed Our Representative Craig Perot

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