



## DRILL STEM TEST REPORT

Prepared For: **F.G.Holl Company LLC**

9431 East Central Suite 100  
Wichita, Kansas 67206

ATTN: Renee Husted

**Calcara#2-19**

**19-19s-14w**

Start Date: 2017.09.27 @ 11:34:00

End Date: 2017.09.27 @ 00:00:00

Job Ticket #: 01196                      DST #: 4

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2017.09.27 @ 18:17:23



# DRILL STEM TEST REPORT

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Job Ticket: 01196

DST#: 4

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Test Start: 2017.09.27 @ 11:34:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:10:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3550.00 ft (KB) To 3555.00 ft (KB) (TVD)**

Reference Elevations: 1910.00 ft (KB)

Total Depth: 3555.00 ft (KB) (TVD)

1902.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **91716** Outside

Press@RunDepth: 1108.67 psig @ 3550.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2017.09.27

End Date: 2017.09.27

Last Calib.: 2017.09.27

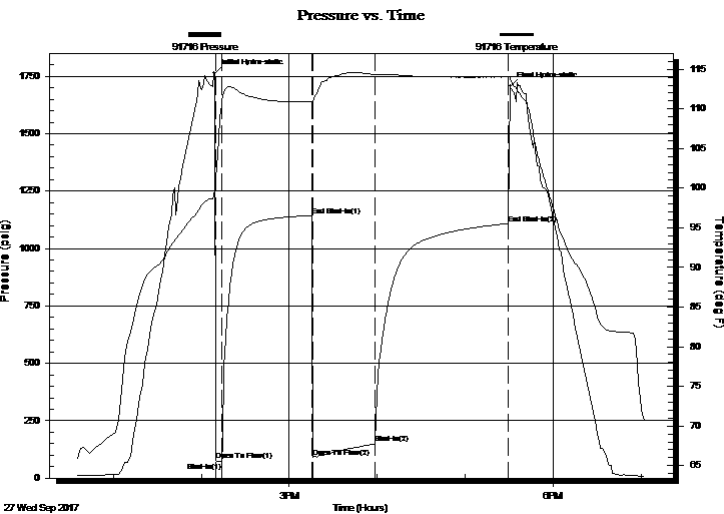
Start Time: 12:35:00

End Time: 19:03:00

Time On Btm: 2017.09.27 @ 14:09:00

Time Off Btm: 2017.09.27 @ 17:31:00

TEST COMMENT: 1st Opring 5 Minutes strong blow built to the bottom of a 5 gallon bucket in 1 minute  
1st Shut-In 60 Minutes fair blow back  
2nd Opening 45 Minutes strong blow gas in 2 minutes see gas flow report  
2nd Shut-In 90 Minutes fair BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1763.44	99.88	Initial Hydro-static
1	78.86	101.39	Open To Flow (1)
5	70.06	111.12	Shut-In(1)
66	1143.53	110.88	End Shut-In(1)
67	92.15	110.93	Open To Flow (2)
110	149.68	114.30	Shut-In(2)
201	1108.67	114.03	End Shut-In(2)
202	1706.26	113.79	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
210.00	Slightly oil cut w water	2.95
0.00	3%Oil 12%Mud 85%Water	0.00
60.00	w ater w ith less than 1/2%Oil	0.84
0.00	4%Mud 96%Water Chlorides 18000	0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	55.00	25.98
Last Gas Rate	0.13	27.00	15.50
Max. Gas Rate	0.13	55.00	25.98



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Reference Elevations: 1910.00 ft (KB)

Total Depth: 3555.00 ft (KB) (TVD)

1902.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9139

Inside

Press@RunDepth: 1124.75 psig @ 3550.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2017.09.27

End Date:

2017.09.27

Last Calib.:

2017.09.27

Start Time: 12:35:00

End Time:

19:03:30

Time On Btm:

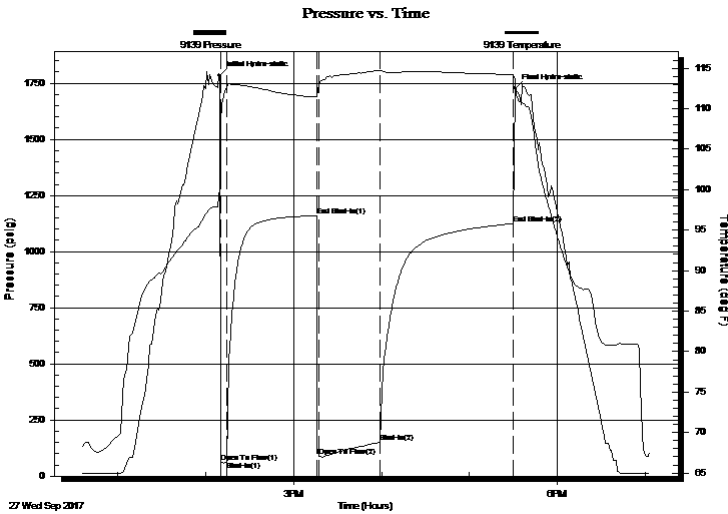
2017.09.27 @ 14:09:30

Time Off Btm:

2017.09.27 @ 17:31:00

TEST COMMENT: 1st Opring 5 Minutes strong blow built to the bottom of a 5 gallon bucket in 1 minute  
1st Shut-In 60 Minutes fair blow back  
2nd Opening 45 Minutes strong blow gas in 2 minutes see gas flow report  
2nd Shut-In 90 Minutes fair BLOW BACK

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1784.40	100.13	Initial Hydro-static
1	63.04	108.44	Open To Flow (1)
5	64.78	112.73	Shut-In(1)
66	1161.48	111.42	End Shut-In(1)
68	87.17	112.96	Open To Flow (2)
110	150.96	114.72	Shut-In(2)
201	1124.75	114.20	End Shut-In(2)
202	1727.89	113.69	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
210.00	Slightly oil cut w water	2.95
0.00	3%Oil 12%Mud 85%Water	0.00
60.00	w ater w ith less than 1/2%Oil	0.84
0.00	4%Mud 96%Water Chlorides 18000	0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	55.00	25.98
Last Gas Rate	0.13	27.00	15.50
Max. Gas Rate	0.13	55.00	25.98



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

F.G.Holl Company LLC

**19-19s-14w**

9431 East Central Suite 100  
Wichita, Kansas 67206

**Calcara#2-19**

Job Ticket: 01196

**DST#: 4**

ATTN: Renee Husted

Test Start: 2017.09.27 @ 11:34:00

## Tool Information

Drill Pipe:	Length: 3550.00 ft	Diameter: 3.80 inches	Volume: 49.80 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	62000.00 lb
			<u>Total Volume: 49.80 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3550.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval between Packers:	5.00 ft				
Tool Length:	30.00 ft				
Number of Packers:	1	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3530.00		
Hydraulic tool	5.00			3535.00		
Jars	5.00			3540.00		
Safety Joint	5.00			3545.00		
Packer	5.00		Fluid	3550.00	25.00	Bottom Of Top Packer
Anchor	0.00			3550.00		
Recorder	0.00	9139	Inside	3550.00		
Recorder	0.00	91716	Outside	3550.00		
Bullnose	5.00			3555.00	5.00	Anchor Tool
<b>Total Tool Length:</b>	<b>30.00</b>					



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## FLUID SUMMARY

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### Mud and Cushion Information

Mud Type: Gel Chem  
 Mud Weight: 9.00 lb/gal  
 Viscosity: 52.00 sec/qt  
 Water Loss: 8.80 in<sup>3</sup>  
 Resistivity: ohm.m  
 Salinity: 6100.00 ppm  
 Filter Cake: 1.00 inches

Cushion Type:  
 Cushion Length: ft  
 Cushion Volume: bbl  
 Gas Cushion Type:  
 Gas Cushion Pressure: psig

Oil API: deg API  
 Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
210.00	Slightly oil cut w ater	2.946
0.00	3%Oil 12%Mud 85%Water	0.000
60.00	w ater w ith less than 1/2%Oil	0.842
0.00	4%Mud 96%Water Chlorides 18000	0.000

Total Length: 270.00 ft      Total Volume: 3.788 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Laboratory Name:

Laboratory Location:

Recovery Comments:

ERROR: undefined  
OFFENDING COMMAND: r

STACK:

94  
250  
3149  
3399