



## DRILL STEM TEST REPORT

Prepared For: **FG Holl Company LLC**

9431 E. Central STE 100  
Wichita Kansas, 67208-2563

ATTN: Frank Greenbaum

**Mermis "B" #1-31**

**31-20s-15w-Barton**

Start Date: 2013.04.21 @ 16:30:00

End Date: 2013.04.21 @ 22:53:00

Job Ticket #: 17572                      DST #: 3

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2013.04.21 @ 23:12:27



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FG Holl Company LLC  
 9431 E. Central STE 100  
 Wichita Kansas, 67208-2563  
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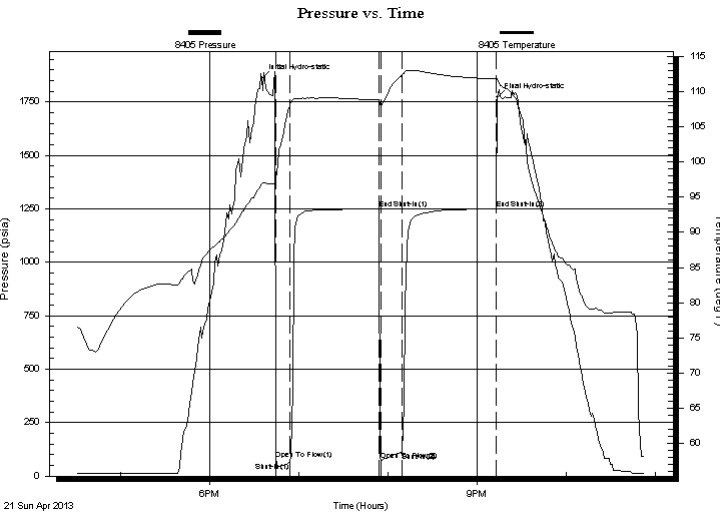
**31-20s-15w-Barton**  
**Mermis "B" #1-31**  
 Job Ticket: 17572      **DST#: 3**  
 Test Start: 2013.04.21 @ 16:30:00

### GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 18:44:30 Tester: Shane Konzem  
 Time Test Ended: 22:53:00 Unit No: 3330/50/Great Bend  
 Interval: **3780.00 ft (KB) To 3791.00 ft (KB) (TVD)** Reference Elevations: 2001.00 ft (KB)  
 Total Depth: 3791.00 ft (KB) (TVD) 1993.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

**Serial #: 8405 Inside**  
 Press @ RunDepth: 112.58 psia @ 3787.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2013.04.21 End Date: 2013.04.21 Last Calib.: 2013.04.21  
 Start Time: 16:30:00 End Time: 22:53:00 Time On Btm: 2013.04.21 @ 18:35:00  
 Time Off Btm: 2013.04.21 @ 21:13:30

**TEST COMMENT:** 1st Open/ 6 Minutes. Strong blow that built to the bottom of a 5 gallon bucket in 30 seconds.  
 1st Shut In/ 60 Minutes. No blow back  
 2nd Open/ 15 Minutes. Good blow built to bottom of 5 gallon bucket in 1 minute 30 seconds. No gas to surface.  
 2nd Shut In/ 60 Minutes. No blow back.



### PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1860.58	96.92	Initial Hydro-static
10	77.27	97.59	Open To Flow (1)
19	63.98	108.23	Shut-In(1)
79	1249.61	108.84	End Shut-In(1)
80	73.78	108.03	Open To Flow (2)
95	112.58	112.42	Shut-In(2)
158	1248.79	111.82	End Shut-In(2)
159	1771.15	111.93	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
60.00	100% mud	0.84
120.00	100% w ater	1.68
0.00	chloride recov 32000 ppm,	0.00
0.00	resist recov .23 ohms at 40 degrees.	0.00

### Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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**Mermis "B" #1-31**

Job Ticket: 17572

**DST#: 3**

ATTN: Frank Greenbaum

Test Start: 2013.04.21 @ 16:30:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:44:30

Time Test Ended: 22:53:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane Konzem

Unit No: 3330/50/Great Bend

**Interval: 3780.00 ft (KB) To 3791.00 ft (KB) (TVD)**

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3791.00 ft (KB) (TVD)

1993.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8400 Outside**

Press @RunDepth: 1250.52 psia @ 3788.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.04.21

End Date: 2013.04.21

Last Calib.: 2013.04.21

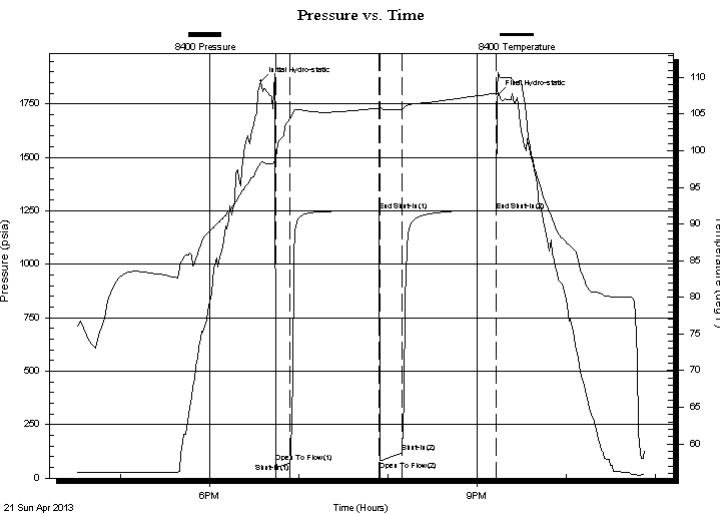
Start Time: 16:30:00

End Time: 22:52:30

Time On Btm: 2013.04.21 @ 18:34:30

Time Off Btm: 2013.04.21 @ 21:14:00

**TEST COMMENT:** 1st Open/ 6 Minutes. Strong blow that built to the bottom of a 5 gallon bucket in 30 seconds.  
1st Shut In/ 60 Minutes. No blow back  
2nd Open/ 15 Minutes. Good blow built to bottom of 5 gallon bucket in 1 minute 30 seconds. No gas to surface.  
2nd Shut In/ 60 Minutes. No blow back.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1856.96	98.34	Initial Hydro-static
10	74.80	99.03	Open To Flow (1)
20	71.70	104.39	Shut-In(1)
80	1251.04	105.80	End Shut-In(1)
80	80.94	105.89	Open To Flow (2)
95	120.79	105.66	Shut-In(2)
158	1250.52	107.82	End Shut-In(2)
160	1796.07	110.68	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	100% mud	0.84
120.00	100% water	1.68
0.00	chloride recov 32000 ppm,	0.00
0.00	resist recov .23 ohms at 40 degrees.	0.00

## Gas Rates

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



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**TOOL DIAGRAM**

FG Holl Company LLC  
 9431 E. Central STE 100  
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**31-20s-15w-Barton**  
**Mermis "B" #1-31**  
 Job Ticket: 17572      **DST#: 3**  
 Test Start: 2013.04.21 @ 16:30:00

**Tool Information**

Drill Pipe:	Length: 3777.00 ft	Diameter: 3.80 inches	Volume: 52.98 bbl	Tool Weight: 2000.00 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: 52.98 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3780.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	39.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
SHut-InTool	5.00		Inside	3757.00	
Hydraulic Tool	5.00			3762.00	
Jars	6.00			3768.00	
Safety Joint	2.00			3770.00	
Packer	5.00			3775.00	28.00      Bottom Of Top Packer
Packer	5.00			3780.00	
Anchor	6.00			3786.00	
Recorder	1.00	8405	Inside	3787.00	
Recorder	1.00	8400	Outside	3788.00	
Bullnose	3.00			3791.00	11.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>39.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

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### 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:	ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 4800.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	100% mud	0.842
120.00	100% water	1.683
0.00	chloride recov 32000 ppm,	0.000
0.00	resist recov .23 ohms at 40 degrees.	0.000

Total Length: 180.00 ft      Total Volume: 2.525 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

### Pressure vs. Time

