



## DRILL STEM TEST REPORT

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

9431 East Central Suit 100  
Wichita Kansas 6205

ATTN: Rene Husted

**Mull unit #B 1-14**

**14-20s-15w-Barton**

Start Date: 2012.08.15 @ 00:00:00

End Date: 2012.08.15 @ 00:00:00

Job Ticket #: 17786                      DST #: 3

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

Printed: 2012.08.16 @ 00:50:30



# DRILL STEM TEST REPORT

F.G Holl Company  
 9431 East Central Suit 100  
 Wichita Kansas 6205  
 ATTN: Rene Husted

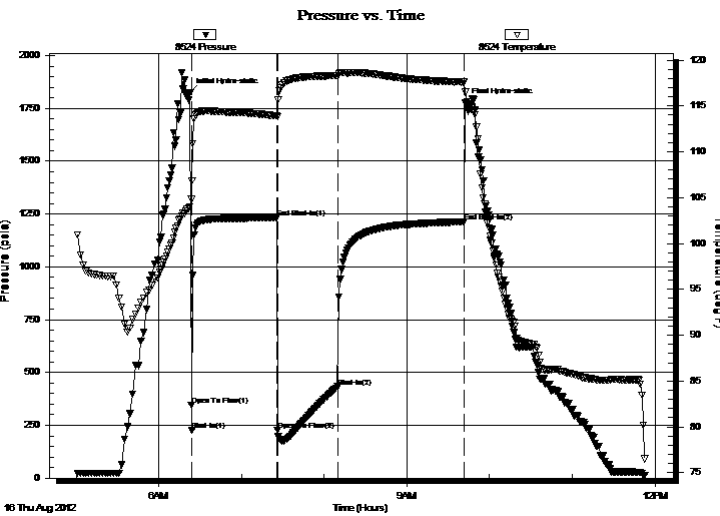
**14-20s-15w-Barton**  
**Mull unit #B 1-14**  
 Job Ticket: 17786 **DST#: 3**  
 Test Start: 2012.08.15 @ 00:00:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Interval: **3706.00 ft (KB) To 3715.00 ft (KB) (TVD)**  
 Total Depth: 3715.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3335  
 Reference Elevations: 2002.00 ft (KB)  
 1994.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8524 Inside**  
 Press @ Run Depth: 1213.01 psia @ 3711.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2012.08.16 End Date: 2012.08.16 Last Calib.: 2012.08.16  
 Start Time: 05:00:00 End Time: 11:53:00 Time On Btm: 2012.08.16 @ 06:22:30  
 Time Off Btm: 2012.08.16 @ 09:42:30

**TEST COMMENT:** 1st Opening 1 Minute Strong blow built to the bottom of a 5 gallon bucket in 30 seconds  
 1st Shut-In 60 Minutes No blow back  
 2nd Opening 45 Minutes Strong blow - Gas to surface in 4 minutes See gas report  
 2nd Shut-In 90 Minutes Weak blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1825.88	103.97	Initial Hydro-static
1	346.04	104.80	Open To Flow (1)
2	224.97	106.84	Shut-In(1)
63	1230.97	113.91	End Shut-In(1)
64	225.75	113.83	Open To Flow (2)
107	432.30	118.30	Shut-In(2)
199	1213.01	117.60	End Shut-In(2)
200	1778.85	116.51	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
210.00	Slightly w atercut gassy oil	2.95
0.00	47%Gas 30%Oil 12%Mud 15%Water	0.00
150.00	Oil and gas cut w ater	2.10
0.00	10%Gas 10%Oil 6% Mud 74%Water	0.00
120.00	Slightly oil cut w ater	1.68
0.00	5%Gas 2%Oil 93%Water	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.75	5.75	89.81
Last Gas Rate	0.50	2.90	19.56
Max. Gas Rate	0.75	5.75	89.81



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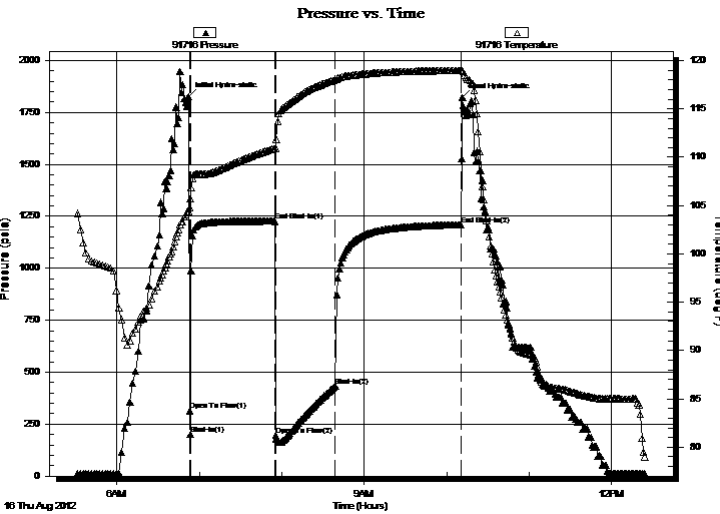
## GENERAL INFORMATION:

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 Time Tool Opened: 00:00:00  
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 Interval: **3706.00 ft (KB) To 3715.00 ft (KB) (TVD)**  
 Total Depth: 3715.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3335  
 Reference Elevations: 2002.00 ft (KB)  
 1994.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 91716 Outside

Press @ Run Depth: 1210.13 psia @ 3712.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2012.08.16 End Date: 2012.08.16 Last Calib.: 2012.08.16  
 Start Time: 05:30:00 End Time: 12:24:00 Time On Btm: 2012.08.16 @ 06:52:00  
 Time Off Btm: 2012.08.16 @ 10:11:30

TEST COMMENT: 1st Opening 1 Minute Strong blow built to the bottom of a 5 gallon bucket in 30 seconds  
 1st Shut-In 60 Minutes No blow back  
 2nd Opening 45 Minutes Strong blow - Gas to surface in 4 minutes See gas report  
 2nd Shut-In 90 Minutes Weak blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1826.00	104.38	Initial Hydro-static
1	315.07	104.79	Open To Flow (1)
2	202.40	105.66	Shut-In(1)
64	1226.24	110.90	End Shut-In(1)
64	198.08	110.94	Open To Flow (2)
107	434.42	118.01	Shut-In(2)
199	1210.13	118.96	End Shut-In(2)
200	1822.47	118.98	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
210.00	Slightly w atercut gassy oil	2.95
0.00	47%Gas 30%Oil 12%Mud 15%Water	0.00
150.00	Oil and gas cut w ater	2.10
0.00	10%Gas 10%Oil 6% Mud 74%Water	0.00
120.00	Slightly oil cut w ater	1.68
0.00	5%Gas 2%Oil 93%Water	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.75	5.75	89.81
Last Gas Rate	0.50	2.90	19.56
Max. Gas Rate	0.75	5.75	89.81



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

F.G Holl Company

**14-20s-15w-Barton**

9431 East Central Suit 100  
Wichita Kansas 6205

**Mull unit #B 1-14**

Job Ticket: 17786

**DST#: 3**

ATTN: Rene Hustedad

Test Start: 2012.08.15 @ 00:00:00

## Tool Information

Drill Pipe:	Length: 3699.00 ft	Diameter: 3.80 inches	Volume: 51.89 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:	lb
			<u>Total Volume: 51.89 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	lb
Depth to Top Packer:	3706.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval between Packers:	9.00 ft				
Tool Length:	32.00 ft				
Number of Packers:	1	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3688.00	
Hydraulic Tool	5.00			3693.00	
Jars	6.00			3699.00	
Safety Joint	2.00			3701.00	
Packer	5.00			3706.00	23.00 Bottom Of Top Packer
Perforations	4.00			3710.00	
Recorder	1.00	8524	Inside	3711.00	
Recorder	1.00	91716	Outside	3712.00	
Bull Plug	3.00			3715.00	9.00 Anchor Tool
<b>Total Tool Length:</b>	<b>32.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

F.G Holl Company

**14-20s-15w-Barton**

9431 East Central Suit 100  
Wichita Kansas 6205

**Mull unit #B 1-14**

Job Ticket: 17786

**DST#: 3**

ATTN: Rene Husted

Test Start: 2012.08.15 @ 00:00:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 74.00 sec/qt  
Water Loss: 9.20 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 7300.00 ppm  
Filter Cake: 1.00 inches

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

Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
210.00	Slightly w atercut gassy oil	2.946
0.00	47%Gas 30%Oil 12%Mud 15%Water	0.000
150.00	Oil and gas cut w ater	2.104
0.00	10%Gas 10%Oil 6% Mud 74%Water	0.000
120.00	Slightly oil cut w ater	1.683
0.00	5%Gas 2%Oil 93%Water	0.000
420.00	Water chlorides 28000	5.891
0.00	5%Gas 95%Water	0.000

Total Length: 900.00 ft      Total Volume: 12.624 bbl

Num Fluid Samples: 0

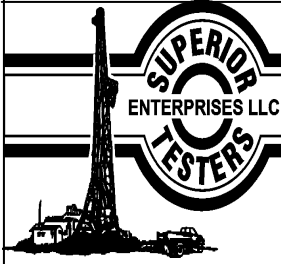
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



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**GAS RATES**

F.G Holl Company

**14-20s-15w-Barton**

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**Mull unit #B 1-14**

Job Ticket: 17786

**DST#: 3**

ATTN: Rene Husted

Test Start: 2012.08.15 @ 00:00:00

## Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
2	5	0.75	5.75	89.81
2	10	0.75	3.40	53.11
2	15	0.75	2.85	44.52
2	20	0.50	5.40	36.43
2	25	0.50	4.40	29.68
2	30	0.50	3.50	23.61
2	35	0.50	3.25	21.92
2	45	0.50	2.90	19.56

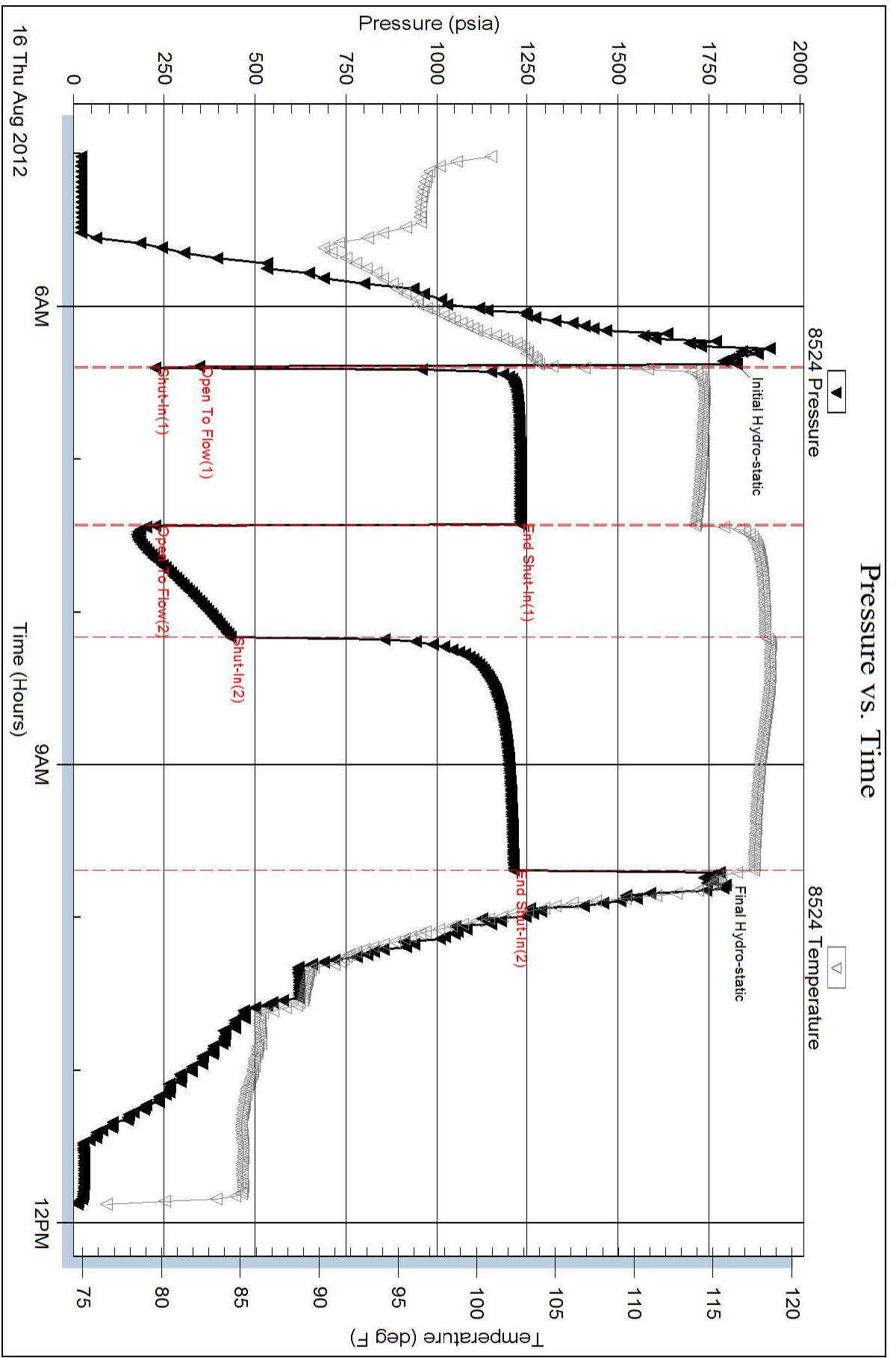
Serial #: 8524

Inside

F.G Holl Company

Mull unit #B 1-14

DST Test Number: 3



Superior Testers Enterprises LLC

Ref. No: 17786

Printed: 2012.08.16 @ 00:50:31

### Pressure vs. Time

