



## DRILL STEM TEST REPORT

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

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

ATTN: Ryan Greenbaum

### **Foster Unit #1-5**

### **5-20s-16w Pawnee**

Start Date: 2012.06.05 @ 08:45:00

End Date: 2012.06.05 @ 15:37:59

Job Ticket #: 15869                      DST #: 2

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

Printed: 2012.06.06 @ 03:58:20

F.G.Holl Company    5-20s-16w Pawnee    Foster Unit #1-5    DST # 2    Arbuckle    2012.06.05



# DRILL STEM TEST REPORT

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**5-20s-16w Pawnee**  
**Foster Unit #1-5**  
 Job Ticket: 15869 **DST#: 2**  
 Test Start: 2012.06.05 @ 08:45:00

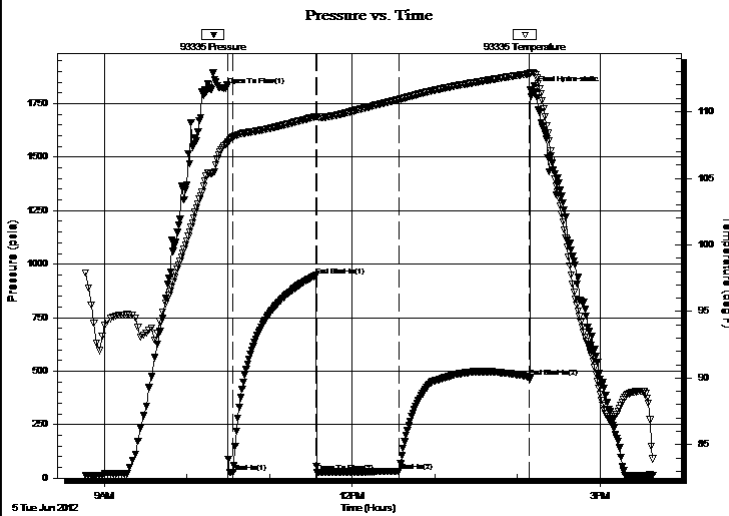
## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:29:30  
 Time Test Ended: 15:37:59  
 Interval: **3750.00 ft (KB) To 3760.00 ft (KB) (TVD)**  
 Total Depth: 3760.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3335-42  
 Reference Elevations: 2038.00 ft (KB)  
 2030.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 93335 Inside

Press @ RunDepth: 30.70 psia @ 3756.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2012.06.05 End Date: 2012.06.05 Last Calib.: 2012.06.06  
 Start Time: 08:45:00 End Time: 15:37:59 Time On Btm:  
 Time Off Btm: 2012.06.05 @ 14:09:30

**TEST COMMENT:** 1st Opening 05 Minutes strong blow built to the bottom of a 5 gallon bucket immediately  
 1st Shut-In 60 Minutes-No blow back  
 2nd Opening 60 Minutes-Strong blow built to the bottom of a 5 gallon bucket immediately  
 2nd Shut-In 90 Minutes-fair blow back w with gas to surface



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1834.44	107.65	Open To Flow (1)
4	27.70	108.09	Shut-In(1)
64	946.89	109.64	End Shut-In(1)
65	28.30	109.64	Open To Flow (2)
125	30.70	110.91	Shut-In(2)
219	472.25	112.85	End Shut-In(2)
220	1813.37	112.89	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	very slightly oil cut mud 1% Oil 99%Mud	0.28
0.00	There was a good show of free oil in the	0.00
0.00	tool-Gas to surface on the final shut-in	0.00

## Gas Rates

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



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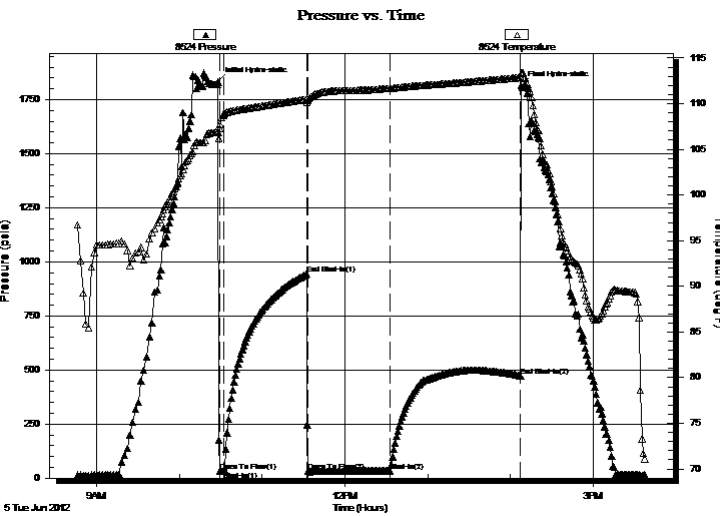
**5-20s-16w Pawnee**  
**Foster Unit #1-5**  
 Job Ticket: 15869      **DST#: 2**  
 Test Start: 2012.06.05 @ 08:45:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 10:29:30  
 Time Test Ended: 15:37:59  
 Interval: **3750.00 ft (KB) To 3760.00 ft (KB) (TVD)**  
 Total Depth: 3760.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3335-42  
 Reference Elevations: 2038.00 ft (KB)  
 2030.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8524      Outside**  
 Press @ Run Depth: 472.83 psia @ 3757.00 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2012.06.05      End Date: 2012.06.05      Last Calib.: 2012.06.06  
 Start Time: 08:45:00      End Time: 15:38:00      Time On Btm: 2012.06.05 @ 10:28:00  
 Time Off Btm: 2012.06.05 @ 14:08:00

**TEST COMMENT:** 1st Opening 05 Minutes strong blow built to the bottom of a 5 gallon bucket immediately  
 1st Shut-In 60 Minutes-No blow back  
 2nd Opening 60 Minutes-Strong blow built to the bottom of a 5 gallon bucket immediately  
 2nd Shut-In 90 Minutes-fair blow back w ith gas to surface



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1830.90	106.89	Initial Hydro-static
1	32.52	107.33	Open To Flow (1)
4	30.45	108.85	Shut-In(1)
64	942.69	110.50	End Shut-In(1)
65	32.20	110.41	Open To Flow (2)
125	33.84	111.66	Shut-In(2)
220	472.83	112.88	End Shut-In(2)
220	1813.73	113.35	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	very slightly oil cut mud 1% Oil 99%Mud	0.28
0.00	There w as a good show of free oil in the	0.00
0.00	tool-Gas to surface on the final shut-in	0.00

## Gas Rates

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



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**TOOL DIAGRAM**

F.G.Holl Company  
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**5-20s-16w Pawnee**  
**Foster Unit #1-5**  
 Job Ticket: 15869      **DST#: 2**  
 Test Start: 2012.06.05 @ 08:45:00

**Tool Information**

Drill Pipe:	Length: 3754.00 ft	Diameter: 3.80 inches	Volume: 52.66 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.86 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	48000.00 lb
			<u>Total Volume: 52.66 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3750.00 ft			Final	40000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	10.00 ft				
Tool Length:	33.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut-In Tool	5.00			3732.00		
Hydraulic Tool	5.00			3737.00		
Jars	6.00			3743.00		
Safety Joint	2.00			3745.00		
Packer	5.00			3750.00	23.00	Bottom Of Top Packer
Perforations	5.00			3755.00		
Recorder	1.00	93335	Inside	3756.00		
Recorder	1.00	8524	Outside	3757.00		
Bull Plug	3.00			3760.00	10.00	Anchor Tool
<b>Total Tool Length:</b>	<b>33.00</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: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 3200.00 ppm			
Filter Cake: 1.00 inches			

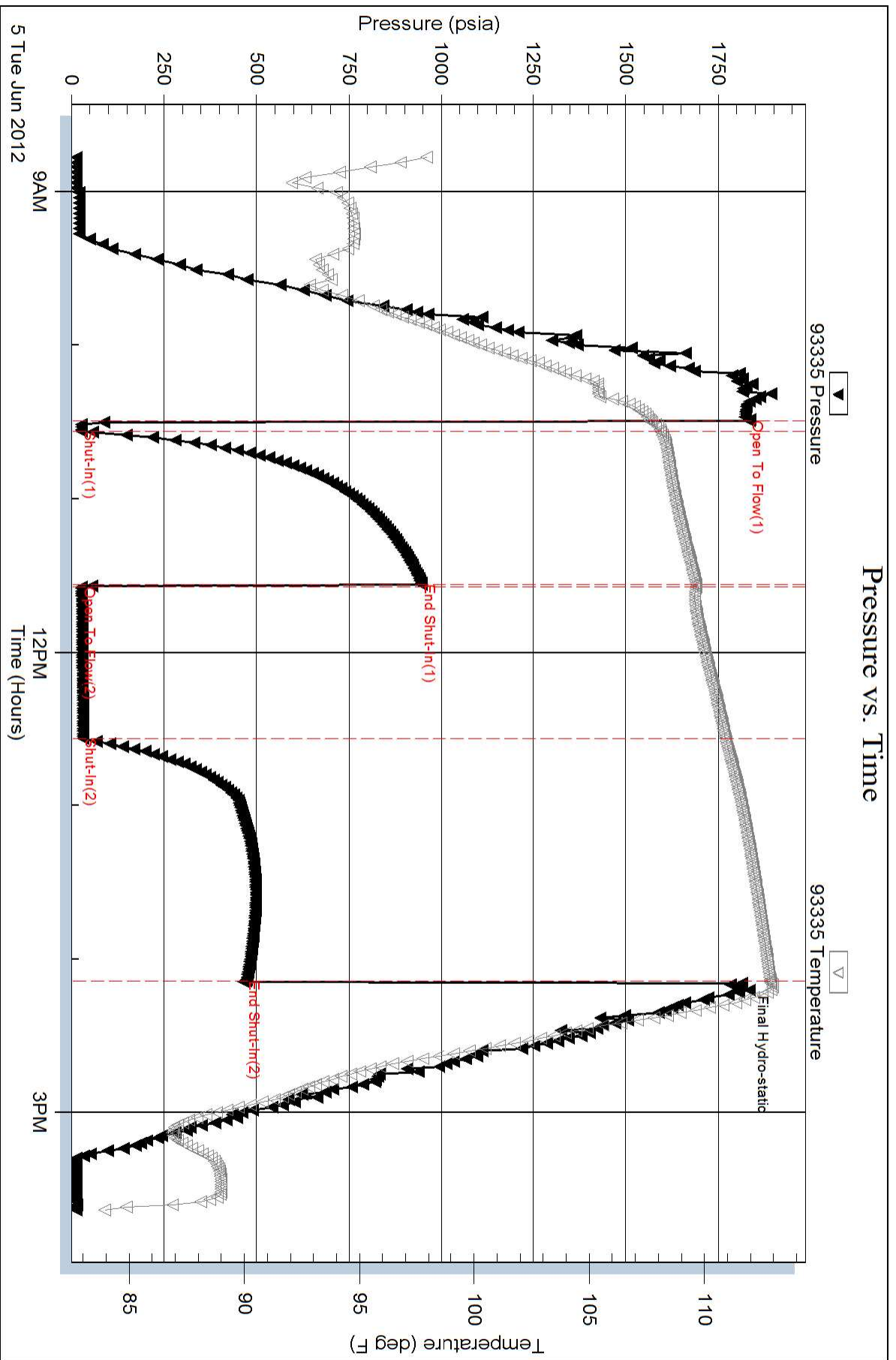
### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	very slightly oil cut mud 1% Oil 99%Mud	0.281
0.00	There was a good show of free oil in the	0.000
0.00	tool-Gas to surface on the final shut-in	0.000

Total Length: 20.00 ft      Total Volume: 0.281 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time

