



## DRILL STEM TEST REPORT

Prepared For: **Southwind Petroleum Corp**

1400 W 14th St Wichita KS 67203+2901

ATTN: Bob Williams

**Eileen Hagerman #4-4**

**4-20s-16w Pawnee**

Start Date: 2014.01.13 @ 00:45:00

End Date: 2014.01.13 @ 08:31:00

Job Ticket #: 17048                      DST #: 1

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

Printed: 2014.01.14 @ 10:42:24



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 ATTN: Bob Williams

**4-20s-16w Pawnee**  
**Eileen Hagerman #4-4**  
 Job Ticket: 17048 **DST#: 1**  
 Test Start: 2014.01.13 @ 00:45:00

## GENERAL INFORMATION:

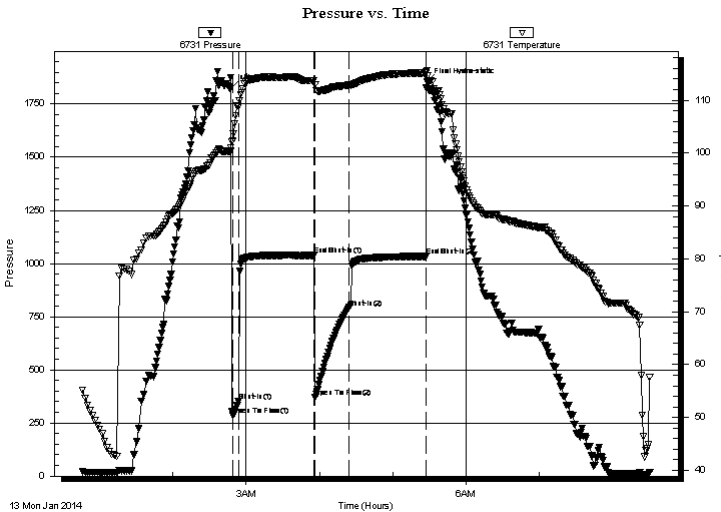
Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:49:00  
 Time Test Ended: 08:31:00  
 Interval: **3706.00 ft (KB) To 3750.00 ft (KB) (TVD)**  
 Total Depth: 3750.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jared Scheck  
 Unit No: 3335-Great Bend-30  
 Reference Elevations: 2024.00 ft (KB)  
 2016.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 6731

Press@RunDepth: 790.92 psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2014.01.13 End Date: 2014.01.13 Last Calib.: 2014.01.13  
 Start Time: 00:45:00 End Time: 08:31:00 Time On Btm: 2014.01.13 @ 02:47:00  
 Time Off Btm: 2014.01.13 @ 05:28:00

**TEST COMMENT:** 1st Opening 5 Minutes-Strong blow built bottom of bucket in 1 minute  
 1st Shut-in 60 Minutes-Bottom of bucket blow back  
 2nd Opening 30 Minutes-Strong blow built bottom of bucket in 1 minute  
 2nd Shut-in 60 Minutes-Bottom of bucket blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1823.85	100.34	Initial Hydro-static
2	287.78	102.39	Open To Flow (1)
7	351.02	108.85	Shut-In(1)
69	1038.80	113.72	End Shut-In(1)
70	369.92	112.92	Open To Flow (2)
97	790.92	112.83	Shut-In(2)
160	1034.35	115.15	End Shut-In(2)
161	1853.36	115.64	Final Hydro-static

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
600.00	Spot oil cut mud w ater 1%oil 4%mud95%	8.42
420.00	mud w ater 5%mud 95%w ater	5.89
600.00	mud w ater 5%mud 95%w ater	8.42

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



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## GENERAL INFORMATION:

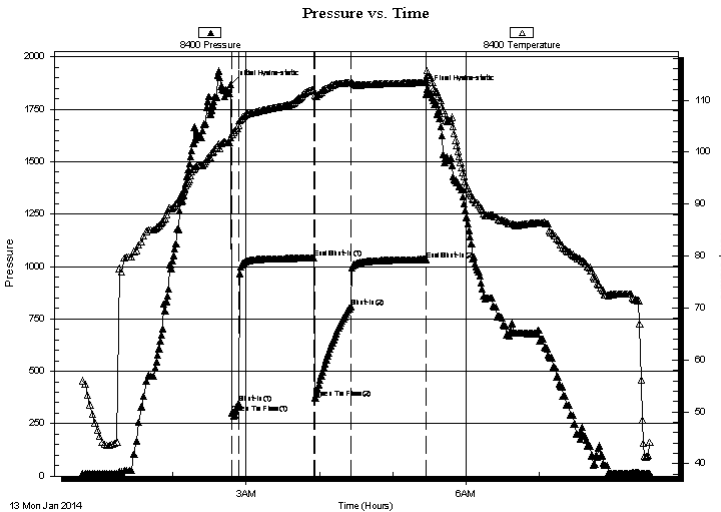
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 Deviated: No Whipstock: ft (KB)  
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 Interval: **3706.00 ft (KB) To 3750.00 ft (KB) (TVD)**  
 Total Depth: 3750.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jared Scheck  
 Unit No: 3335-Great Bend-30  
 Reference Elevations: 2024.00 ft (KB)  
 2016.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 8400

Press@RunDepth: 1033.37 psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2014.01.13 End Date: 2014.01.13 Last Calib.: 2014.01.13  
 Start Time: 00:45:00 End Time: 08:30:30 Time On Btm: 2014.01.13 @ 02:47:30  
 Time Off Btm: 2014.01.13 @ 05:28:00

**TEST COMMENT:** 1st Opening 5 Minutes-Strong blow built bottom of bucket in 1 minute  
 1st Shut-in 60 Minutes-Bottom of bucket blow back  
 2nd Opening 30 Minutes-Strong blow built bottom of bucket in 1 minute  
 2nd Shut-in 60 Minutes-Bottom of bucket blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1868.87	102.74	Initial Hydro-static
1	301.03	103.41	Open To Flow (1)
6	349.41	105.16	Shut-In(1)
68	1040.38	112.02	End Shut-In(1)
69	374.08	110.82	Open To Flow (2)
98	808.75	113.33	Shut-In(2)
160	1033.37	113.42	End Shut-In(2)
161	1843.12	115.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
600.00	Spot oil cut mud w ater 1%oil 4%mud95%	8.42
420.00	mud w ater 5%mud 95%w ater	5.89
600.00	mud w ater 5%mud 95%w ater	8.42

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Southwind Petroleum Corp  
 1400 W 14th St Wichita KS 67203+2901  
 A T T N : Bob Williams

**4-20s-16w Pawnee**  
**Eileen Hagerman #4-4**  
 Job Ticket: 17048      **DST#: 1**  
 Test Start: 2014.01.13 @ 00:45:00

**Tool Information**

Drill Pipe:	Length: 3688.00 ft	Diameter: 3.80 inches	Volume: 51.73 bbl	Tool Weight: 1000.00 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: 60000.00 lb
			<u>Total Volume: 51.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 32000.00 lb
Depth to Top Packer:	3706.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	72.00 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			3683.00	
Hydraulic Tool	5.00			3688.00	
Jars	6.00			3694.00	
Safety Joint	2.00			3696.00	
Packer	5.00			3701.00	28.00      Bottom Of Top Packer
Packer	5.00			3706.00	
Anchor	39.00			3745.00	
Recorder	1.00	6731	Inside	3746.00	
Recorder	1.00	8400	Outside	3747.00	
Bullnose	3.00			3750.00	44.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>72.00</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: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 3000.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
600.00	Spot oil cut mud w ater 1%oil 4%mud95%w at	8.416
420.00	mud w ater 5%mud 95%w ater	5.891
600.00	mud w ater 5%mud 95%w ater	8.416

Total Length: 1620.00 ft      Total Volume: 22.723 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: chlorides35,000

