



## DRILL STEM TEST REPORT

Prepared For: **Shelby Resources L.L.C**

2717 Canal Blvd Hays KS 67601

ATTN: Jeremy Schwartz

### **Slattery Unit #1-16**

#### **16-18-14w Barton**

Start Date: 2013.10.14 @ 20:16:00

End Date: 2013.10.15 @ 03:19:30

Job Ticket #: 18449                      DST #: 4

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

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 Test Start: 2013.10.14 @ 20:16:00

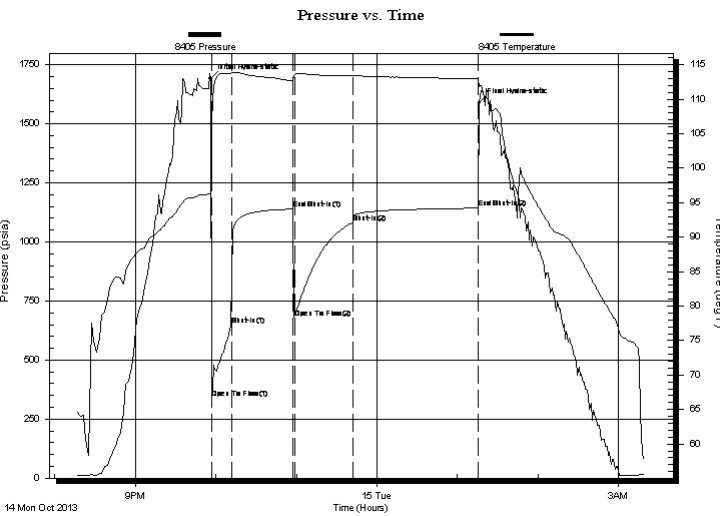
## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 21:57:00 Tester: Jared Scheck  
 Time Test Ended: 03:19:30 Unit No: 3320-Great Bend-40  
 Interval: **3467.00 ft (KB) To 3474.00 ft (KB) (TVD)** Reference Elevations: 1956.00 ft (KB)  
 Total Depth: 3474.00 ft (KB) (TVD) 1943.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 13.00 ft

## Serial #: 8405

Press@RunDepth: 1082.23 psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2013.10.14 End Date: 2013.10.15 Last Calib.: 2013.10.15  
 Start Time: 20:16:00 End Time: 03:19:30 Time On Btm: 2013.10.14 @ 21:56:00  
 Time Off Btm: 2013.10.15 @ 01:16:30

**TEST COMMENT:** 1st Opening 15 Minutes-Strong blow built bottom of bucket in 1 minute  
 1st Shut-in 45 Minutes-No blow back  
 2nd Opening 45 Minutes-Strong blow built bottom of bucket in 2 minutes  
 2nd Shut-in 90 Minutes-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1691.65	96.29	Initial Hydro-static
1	339.98	106.59	Open To Flow (1)
16	646.94	113.74	Shut-In(1)
62	1139.41	112.69	End Shut-In(1)
63	679.86	113.37	Open To Flow (2)
106	1082.23	113.37	Shut-In(2)
200	1142.80	112.97	End Shut-In(2)
201	1589.10	111.89	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	mud w ater 5% mud 95% w ater	0.59
1800.00	w ater 100%	23.34
0.00	chlorides 30,000 resistivity .25@65 degr	0.00

## Gas Rates

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



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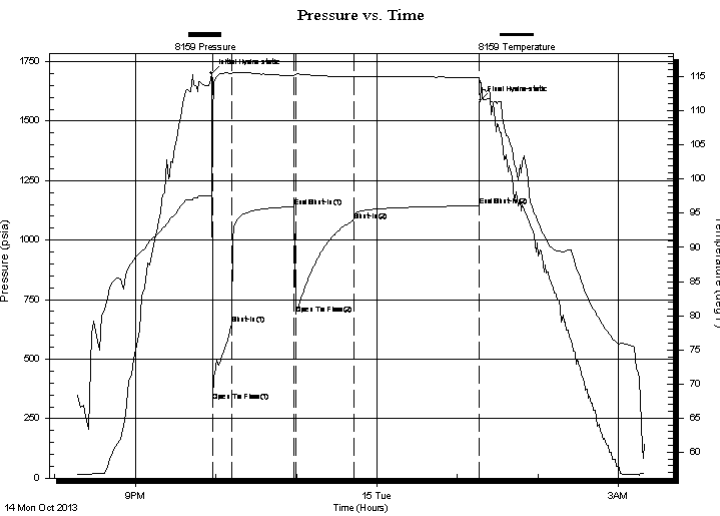
## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 21:57:00 Tester: Jared Scheck  
 Time Test Ended: 03:19:30 Unit No: 3320-Great Bend-40  
 Interval: **3467.00 ft (KB) To 3474.00 ft (KB) (TVD)** Reference Elevations: 1956.00 ft (KB)  
 Total Depth: 3474.00 ft (KB) (TVD) 1943.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 13.00 ft

## Serial #: 8159

Press@RunDepth: 1143.92 psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2013.10.14 End Date: 2013.10.15 Last Calib.: 2013.10.15  
 Start Time: 20:16:00 End Time: 03:19:30 Time On Btm: 2013.10.14 @ 21:56:30  
 Time Off Btm: 2013.10.15 @ 01:17:00

**TEST COMMENT:** 1st Opening 15 Minutes-Strong blow built bottom of bucket in 1 minute  
 1st Shut-in 45 Minutes-No blow back  
 2nd Opening 45 Minutes-Strong blow built bottom of bucket in 2 minutes  
 2nd Shut-in 90 Minutes-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1701.41	97.61	Initial Hydro-static
1	323.80	109.49	Open To Flow (1)
16	645.58	115.50	Shut-In(1)
62	1140.24	115.18	End Shut-In(1)
63	688.38	115.39	Open To Flow (2)
106	1081.89	115.02	Shut-In(2)
200	1143.92	114.92	End Shut-In(2)
201	1586.75	114.16	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	mud w ater 5% mud 95% w ater	0.59
1800.00	w ater 100%	23.34
0.00	chlorides 30,000 resistivity .25@65 degr	0.00

## Gas Rates

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



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**TOOL DIAGRAM**

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**Tool Information**

Drill Pipe:	Length: 3130.00 ft	Diameter: 3.80 inches	Volume: 43.91 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: 330.00 ft	Diameter: 2.25 inches	Volume: 1.62 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 45.53 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	3467.00 ft			Final	80000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	7.00 ft				
Tool Length:	30.00 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			3449.00	
Hydraulic Tool	5.00			3454.00	
Jars	6.00			3460.00	
Safety Joint	2.00			3462.00	
Packer	5.00			3467.00	23.00      Bottom Of Top Packer
Anchor	2.00			3469.00	
Recorder	1.00	8405	Inside	3470.00	
Recorder	1.00	8159	Outside	3471.00	
Bullnose	3.00			3474.00	7.00      Anchor Tool
<b>Total Tool Length:</b>	<b>30.00</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: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.20 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 4000.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	mud w ater 5% mud 95% w ater	0.590
1800.00	w ater 100%	23.336
0.00	chlorides 30,000 resistivity .25@65 degr	0.000

Total Length: 1920.00 ft      Total Volume: 23.926 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

