



## DRILL STEM TEST REPORT

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

2117 anal Blvd Hays KS 676601

ATTN: Jeremy Schwartz

### **Hickey 1-2**

#### **2-18-14w Barton**

Start Date: 2014.07.03 @ 10:20:00

End Date: 2014.07.03 @ 18:41:00

Job Ticket #: 18595                      DST #: 4

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

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Shelby Resources L.L.C  
 2117 anal Blvd Hays KS 676601  
 ATTN: Jeremy Schwartz

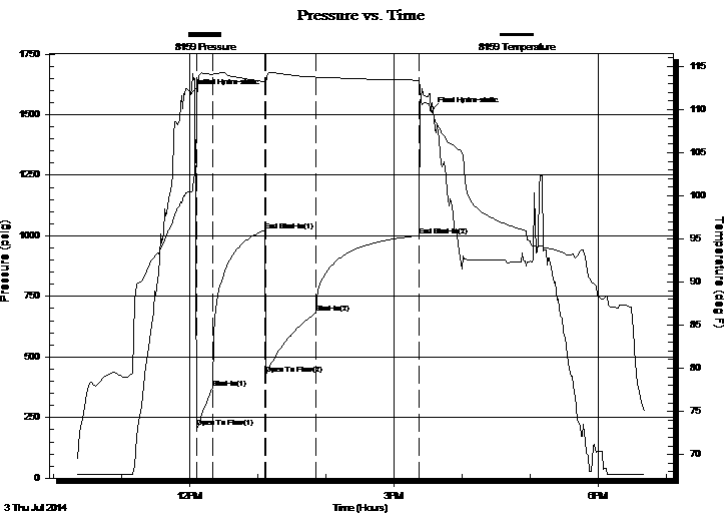
**2-18-14w Barton**  
**Hickey 1-2**  
 Job Ticket: 18595 **DST#: 4**  
 Test Start: 2014.07.03 @ 10:20:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 12:05:30  
 Time Test Ended: 18:41:00  
 Interval: **3352.00 ft (KB) To 3363.00 ft (KB) (TVD)**  
 Total Depth: 3363.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Shane Konzem  
 Unit No: 3330/30/Great Bend  
 Reference Elevations: 1986.00 ft (KB)  
 1977.00 ft (CF)  
 KB to GR/CF: 9.00 ft

**Serial #: 8159 Outside**  
 Press@RunDepth: 1001.40 psig @ 3360.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2014.07.03 End Date: 2014.07.03 Last Calib.: 2014.07.03  
 Start Time: 10:20:00 End Time: 18:41:00 Time On Btm: 2014.07.03 @ 12:01:00  
 Time Off Btm: 2014.07.03 @ 15:32:30

**TEST COMMENT:** 1st Open/ 15 Minutes. Strong blow built to bottom of 5 gallon bucket in 45 seconds.  
 1st Shut In/ 45 Minutes. Blow back built to 10 inches into water.  
 2nd Open/ 45 Minutes. Strong blow built to bottom of 5 gallon bucket in 1 minute and 15 seconds.  
 2nd Shut In/ 90 Minutes. Weak surface blow back.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1586.92	100.45	Initial Hydro-static
5	209.29	111.14	Open To Flow (1)
19	372.22	114.09	Shut-In(1)
65	1022.26	113.27	End Shut-In(1)
66	429.92	113.04	Open To Flow (2)
110	682.73	113.77	Shut-In(2)
201	1001.40	113.42	End Shut-In(2)
212	1514.54	109.80	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	2296 feet 100% Gas.	0.00
1542.00	100% Oil	19.65
62.00	20% w ater, 20% Gas, 60% oil.	0.87
62.00	40% mud, 30% Water, 15% oil, 15% gas	0.87
62.00	50% mud, 35% w ater, 10% oil, 5% gas	0.87
62.00	30% mud, 65% w ater, 5% oil.	0.87

## Gas Rates

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



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TOOL DIAGRAM

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## Tool Information

Drill Pipe:	Length: 3123.00 ft	Diameter: 3.80 inches	Volume: 43.81 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: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 88000.00 lb
			<u>Total Volume: 44.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	3352.00 ft			Final 79000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	34.00 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			3334.00	
Hydraulic tool	5.00			3339.00	
Jars	6.00			3345.00	
Safety Joint	2.00			3347.00	
Packer	5.00			3352.00	23.00      Bottom Of Top Packer
Anchor	6.00			3358.00	
Recorder	1.00	8524	Inside	3359.00	
Recorder	1.00	8159	Outside	3360.00	
Bull Plug	3.00			3363.00	11.00      Anchor Tool
<b>Total Tool Length:</b>	<b>34.00</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: 44.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4800.00 ppm			
Filter Cake: 1.00 inches			

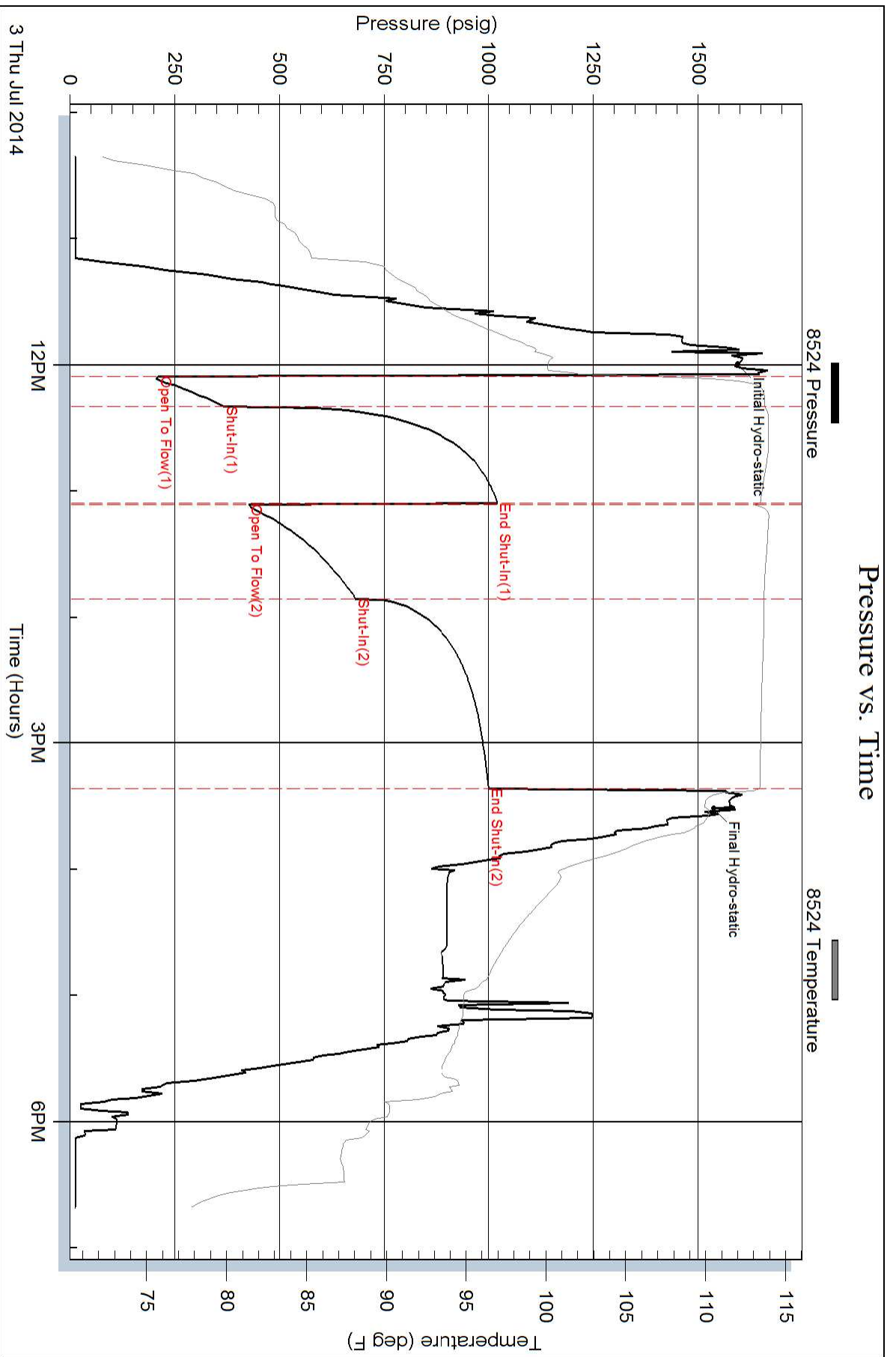
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2296 feet 100% Gas.	0.000
1542.00	100% Oil	19.653
62.00	20% w ater, 20% Gas, 60% oil.	0.870
62.00	40% mud, 30% Water, 15% oil, 15% gas	0.870
62.00	50% mud, 35% w ater, 10% oil, 5% gas	0.870
62.00	30% mud, 65% w ater, 5% oil.	0.870
0.00	Chloride recov 24000 ppm	0.000
0.00	resist recovery .22 ohms at 50 degrees.	0.000
0.00	Gravity of oil w as 40 corrected.	0.000

Total Length: 1790.00 ft      Total Volume: 23.133 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time

