



## DRILL STEM TEST REPORT

Prepared For: **Carrie Exploration & Development**

210 w 22nd Street Hays Ks 67601

ATTN: Jeff Lawler

**Ricker #C-1**

**15-20s-10w Rice**

Start Date: 2013.06.13 @ 21:40:00

End Date: 2013.06.14 @ 03:17:30

Job Ticket #: 17471                      DST #: 5

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

Printed: 2013.06.13 @ 03:47:01



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**15-20s-10w Rice**  
**Ricker #C-1**  
 Job Ticket: 17471      **DST#: 5**  
 Test Start: 2013.06.13 @ 21:40:00

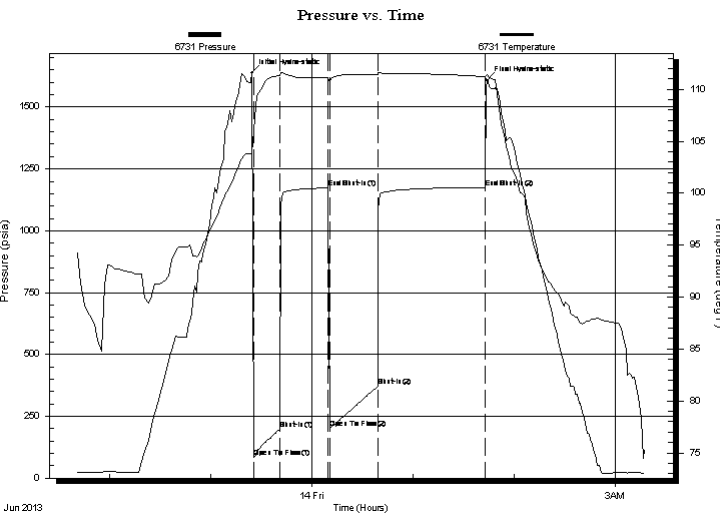
## GENERAL INFORMATION:

<b>Formation:</b> <b>Arbuckle</b>		<b>Test Type:</b> Conventional Bottom Hole (Initial)
<b>Deviated:</b> No      Whipstock:	ft (KB)	<b>Tester:</b> Jared Scheck
<b>Time Tool Opened:</b> 23:25:30		<b>Unit No:</b> 3320-Great Bend -50
<b>Time Test Ended:</b> 03:17:30		<b>Reference Elevations:</b> 1837.00 ft (KB)
<b>Interval:</b> <b>3323.00 ft (KB) To 3392.00 ft (KB) (TVD)</b>		1829.00 ft (CF)
<b>Total Depth:</b> 3392.00 ft (KB) (TVD)		<b>KB to GR/CF:</b> 8.00 ft
<b>Hole Diameter:</b> 7.88 inches	<b>Hole Condition:</b> Fair	

## Serial #: 6731

<b>Press@RunDepth:</b> 370.05 psia @		ft (KB)	<b>Capacity:</b>	psia
<b>Start Date:</b> 2013.06.13	<b>End Date:</b>	2013.06.14	<b>Last Calib.:</b>	1899.12.30
<b>Start Time:</b> 21:40:00	<b>End Time:</b>	03:17:30	<b>Time On Btm:</b>	2013.06.13 @ 23:24:30
			<b>Time Off Btm:</b>	2013.06.14 @ 01:44:00

**TEST COMMENT:** 1st Opening 15 Minutes Strong blow built bottom of bucket in 6 1/2 minutes  
 1st Shut-in 30 Minutes -No blow back  
 2nd Opening 30 Minutes-Strong blow built bottom of buxket in 6 1/2 minutes  
 2nd Shut-in 60 Minutes-No blow back



## PRESSURE SUMMARY

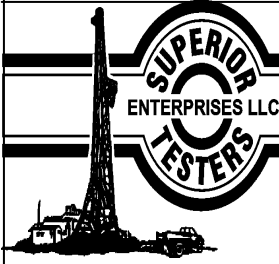
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1637.51	103.89	Initial Hydro-static
1	83.62	106.00	Open To Flow (1)
17	197.34	111.34	Shut-In(1)
45	1173.35	111.10	End Shut-In(1)
46	200.65	110.64	Open To Flow (2)
75	370.05	111.41	Shut-In(2)
139	1175.29	111.22	End Shut-In(2)
140	1609.25	111.41	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
375.00	water	5.26
0.00	Chlorides 30,000 resistivity .15@65 degr	0.00

## Gas Rates

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



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**Ricker #C-1**  
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 Test Start: 2013.06.13 @ 21:40:00

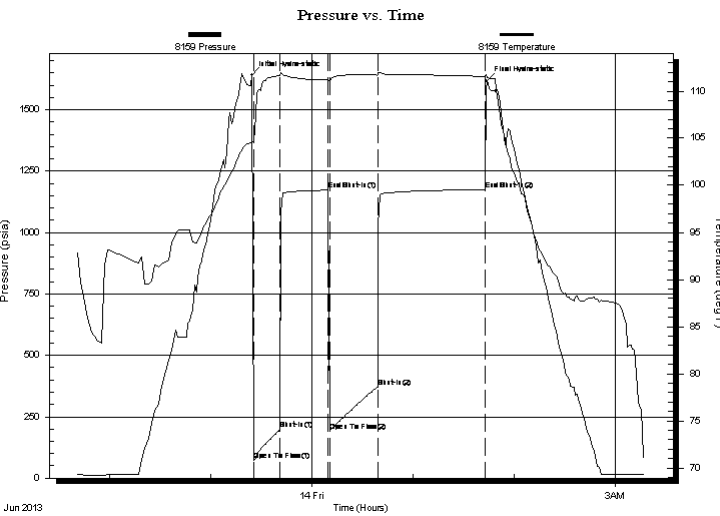
## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 23:25:30 Tester: Jared Scheck  
 Time Test Ended: 03:17:30 Unit No: 3320-Great Bend -50  
 Interval: **3323.00 ft (KB) To 3392.00 ft (KB) (TVD)** Reference Elevations: 1837.00 ft (KB)  
 Total Depth: 3392.00 ft (KB) (TVD) 1829.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

## Serial #: 8159

Press@RunDepth: 1174.26 psia @ ft (KB) Capacity: psia  
 Start Date: 2013.06.13 End Date: 2013.06.14 Last Calib.: 1899.12.30  
 Start Time: 21:40:00 End Time: 03:18:00 Time On Btm: 2013.06.13 @ 23:24:30  
 Time Off Btm: 2013.06.14 @ 01:44:00

**TEST COMMENT:** 1st Opening 15 Minutes Strong blow built bottom of bucket in 6 1/2 minutes  
 1st Shut-in 30 Minutes -No blow back  
 2nd Opening 30 Minutes-Strong blow built bottom of bucket in 6 1/2 minutes  
 2nd Shut-in 60 Minutes-No blow back



## PRESSURE SUMMARY

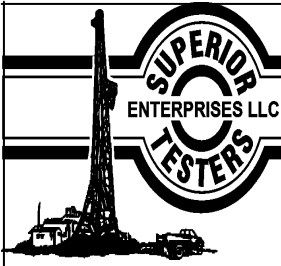
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1641.05	104.66	Initial Hydro-static
1	73.17	104.59	Open To Flow (1)
17	197.49	111.63	Shut-In(1)
45	1172.58	111.17	End Shut-In(1)
46	191.68	111.02	Open To Flow (2)
75	371.75	111.70	Shut-In(2)
139	1174.26	111.56	End Shut-In(2)
140	1617.14	111.46	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
375.00	water	5.26
0.00	Chlorides 30,000 resistivity .15@65 deg	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carrie Exploration & Development  
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**15-20s-10w Rice**  
**Ricker #C-1**  
 Job Ticket: 17471      **DST#: 5**  
 Test Start: 2013.06.13 @ 21:40:00

**Tool Information**

Drill Pipe:	Length: 3334.00 ft	Diameter: 3.80 inches	Volume: 46.77 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:	50000.00 lb
			<u>Total Volume: 46.77 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3323.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	69.00 ft				
Tool Length:	89.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			3308.00	
Hydraulic Tool	5.00			3313.00	
Packer	5.00			3318.00	20.00      Bottom Of Top Packer
Packer	5.00			3323.00	
Anchor	5.00			3328.00	
Change Over Sub	0.75			3328.75	
Drill Pipe	31.50			3360.25	
Change Over Sub	0.75			3361.00	
Anchor	26.00			3387.00	
Recorder	1.00	6731	Inside	3388.00	
Recorder	1.00	8159	Outside	3389.00	
Bullnose	3.00			3392.00	69.00      Bottom Packers & Anchor

**Total Tool Length: 89.00**



# 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:	lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	sec/qt	Cushion Volume:	bbl		
Water Loss:	in <sup>3</sup>	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psia		
Salinity:	ppm				
Filter Cake:	inches				

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
375.00	waterr	5.260
0.00	Chlorides 30,000 resistivity .15@65 degr	0.000

Total Length: 375.00 ft      Total Volume: 5.260 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: chlorides 30,000 resistivity .15 @ 65degrees

