



DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E Harry Street Suite 403 Wichita KS
67207+5083

ATTN: Kent Matson

MorrisonLutherUnit#1

06-21s-13w Stafford

Start Date: 2014.06.27 @ 06:11:00

End Date: 2014.06.27 @ 14:22:00

Job Ticket #: 18591 DST #: 9

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

Printed: 2014.06.27 @ 15:41:51



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06-21s-13w Stafford

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MorrisonLutherUnit#1

Job Ticket: 18591

DST#: 9

ATTN: Kent Matson

Test Start: 2014.06.27 @ 06:11:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:58:00

Time Test Ended: 14:22:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3330-Great Bend-20

Interval: **3598.00 ft (KB) To 3660.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3360.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8159

Press@RunDepth: 1247.72 psig @ ft (KB)

Capacity: psig

Start Date: 2014.06.27

End Date: 2014.06.27

Last Calib.: 1899.12.30

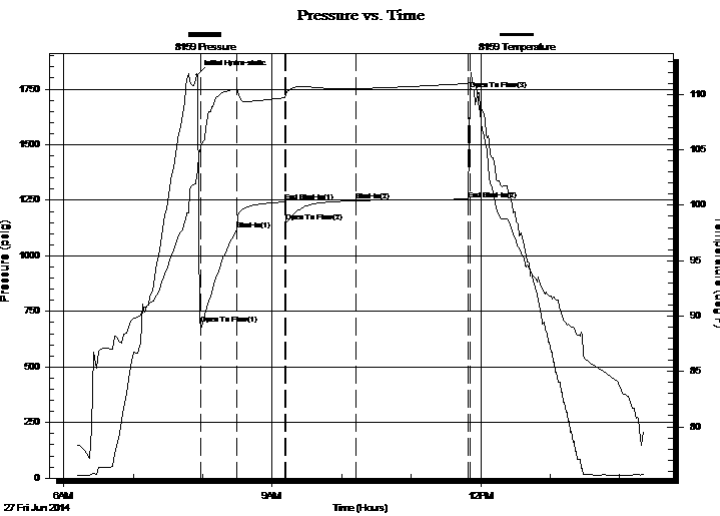
Start Time: 06:11:00

End Time: 14:22:00

Time On Btm: 2014.06.27 @ 07:55:30

Time Off Btm:

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 1 1/2 minutes
1st Shut-in 45 Minutes-No blow back
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 1 /2 minutes
2nd Shut-in 90 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1815.51	103.04	Initial Hydro-static
3	693.18	105.17	Open To Flow (1)
34	1116.93	110.47	Shut-In(1)
76	1243.18	109.69	End Shut-In(1)
77	1155.45	109.96	Open To Flow (2)
137	1247.72	110.53	Shut-In(2)
234	1254.69	110.98	End Shut-In(2)
235	1747.15	111.12	Open To Flow (3)

Recovery

Length (ft)	Description	Volume (bbl)
2460.00	spot oil mud w ater / 1%oil10%mud89%w	34.51
0.00	chlorides 23,000	0.00

Gas Rates

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



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DST#: 9

ATTN: Kent Matson

Test Start: 2014.06.27 @ 06:11:00

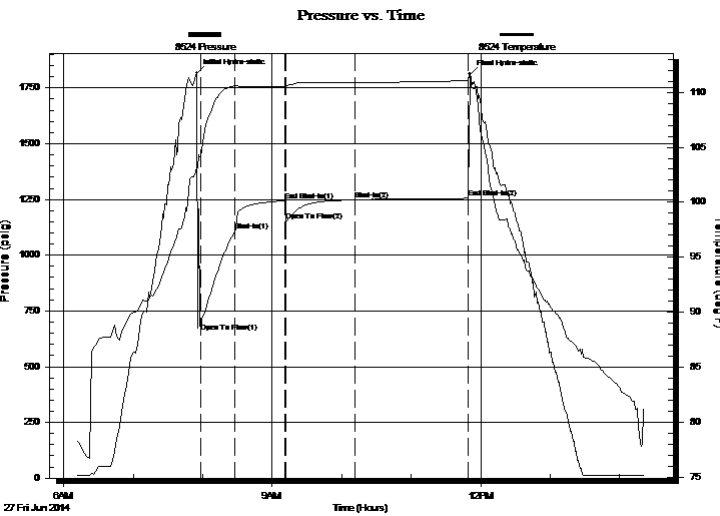
GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 07:58:00
 Tester: Jared Scheck
 Time Test Ended: 14:22:00
 Unit No: 3330-Great Bend-20
 Interval: **3598.00 ft (KB) To 3660.00 ft (KB) (TVD)**
 Reference Elevations: 1908.00 ft (KB)
 Total Depth: 3360.00 ft (KB) (TVD)
 1900.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 8.00 ft

Serial #: 8524

Press@RunDepth: 1255.19 psig @ ft (KB) Capacity: psig
 Start Date: 2014.06.27 End Date: 2014.06.27 Last Calib.: 1899.12.30
 Start Time: 06:11:00 End Time: 14:21:30 Time On Btm: 2014.06.27 @ 07:55:00
 Time Off Btm: 2014.06.27 @ 11:50:30

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 1 1/2 minutes
 1st Shut-in 45 Minutes-No blow back
 2nd Opening 60 Minutes-Strong blow built bottom of bucket in 1 /2 minutes
 2nd Shut-in 90 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1816.32	103.39	Initial Hydro-static
3	656.21	104.08	Open To Flow (1)
33	1109.20	110.59	Shut-In(1)
76	1243.31	110.53	End Shut-In(1)
77	1154.61	110.51	Open To Flow (2)
136	1247.97	110.90	Shut-In(2)
235	1255.19	111.07	End Shut-In(2)
236	1810.35	111.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2460.00	spot oil mud w ater / 1%oil10%mud89%w	34.51
0.00	chlorides 23,000	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

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MorrisonLutherUnit#1

Job Ticket: 18591

DST#: 9

ATTN: Kent Matson

Test Start: 2014.06.27 @ 06:11:00

Tool Information

Drill Pipe:	Length: 3589.00 ft	Diameter: 3.80 inches	Volume: 50.34 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: 80000.00 lb
			<u>Total Volume: 50.34 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3598.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.00 ft			
Tool Length:	90.00 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			3575.00	
Hydraulic tool	5.00			3580.00	
Jars	6.00			3586.00	
Safety Joint	2.00			3588.00	
Packer	5.00			3593.00	28.00 Bottom Of Top Packer
Packer	5.00			3598.00	
Anchor	4.00			3602.00	
Change Over Sub	0.75			3602.75	
Drill Pipe	31.50			3634.25	
Change Over Sub	0.75			3635.00	
Anchor	20.00			3655.00	
Recorder	1.00		Inside	3656.00	
Recorder	1.00		Outside	3657.00	
Bull Plug	3.00			3660.00	62.00 Bottom Packers & Anchor

Total Tool Length: 90.00



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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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

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
2460.00	spot oil mud w ater / 1%oil10%mud89%w ater	34.507
0.00	chlorides 23,000	0.000

Total Length: 2460.00 ft Total Volume: 34.507 bbl

Num Fluid Samples: 0

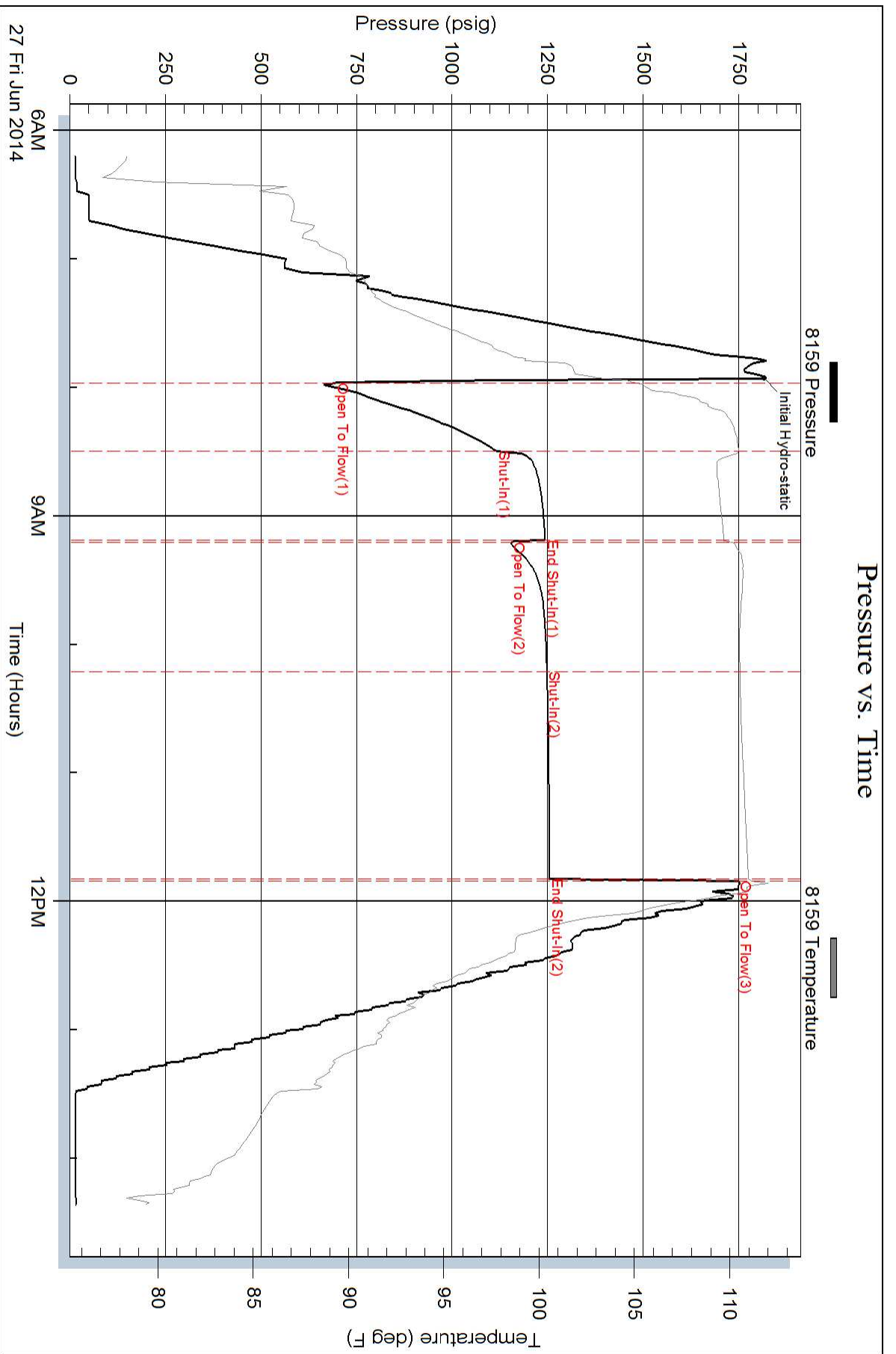
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Pressure vs. Time

