



## 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: 2014.06.25 @ 02:50:00

End Date: 2014.06.25 @ 10:31:00

Job Ticket #: 18588                      DST #: 6

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

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# DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS  
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18588

DST#: 6

ATTN: Kent Matson

Test Start: 2014.06.25 @ 02:50:00

## GENERAL INFORMATION:

Formation: **Lansing J zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:32:30

Time Test Ended: 10:31:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33-Great Bend -20

Interval: **3467.00 ft (KB) To 3490.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3490.00 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: 321.95 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.25

End Date:

2014.06.25

Last Calib.:

2014.06.25

Start Time: 02:50:00

End Time:

10:31:00

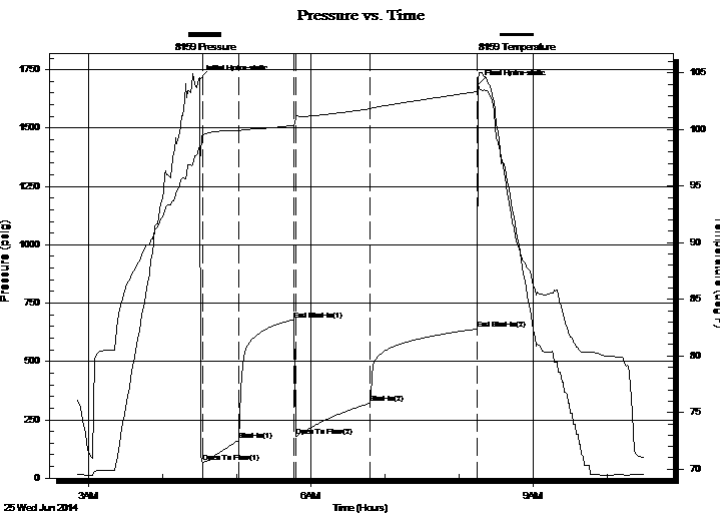
Time On Btm:

2014.06.25 @ 04:30:00

Time Off Btm:

2014.06.25 @ 08:15:30

**TEST COMMENT:** 1st Opening 30 Minutes- Strong blow built bottom of bucket in 45 sec  
1st Shut-in 45 Minutes-Bottom of bucket  
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 3 minutes Gas to surface see gas report  
2nd Shut-in 90 Minutes-Blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1709.96	98.45	Initial Hydro-static
3	67.48	99.42	Open To Flow (1)
32	163.32	99.86	Shut-In(1)
76	679.33	100.37	End Shut-In(1)
78	179.48	101.17	Open To Flow (2)
138	321.95	101.82	Shut-In(2)
225	639.59	103.34	End Shut-In(2)
226	1687.93	104.31	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1140.00	gas oil 30%gas 90%oil	15.99
0.00	2327 gas in pipe	0.00
0.00		0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	-8.00	2.40
Last Gas Rate	0.13	-8.00	2.40
Max. Gas Rate	0.13	-8.00	2.40



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Tester: Jared Scheck

Unit No: 33-Great Bend -20

Interval: **3467.00 ft (KB) To 3490.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3490.00 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: 638.50 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.25

End Date:

2014.06.25

Last Calib.:

2014.06.25

Start Time: 02:50:00

End Time:

10:30:30

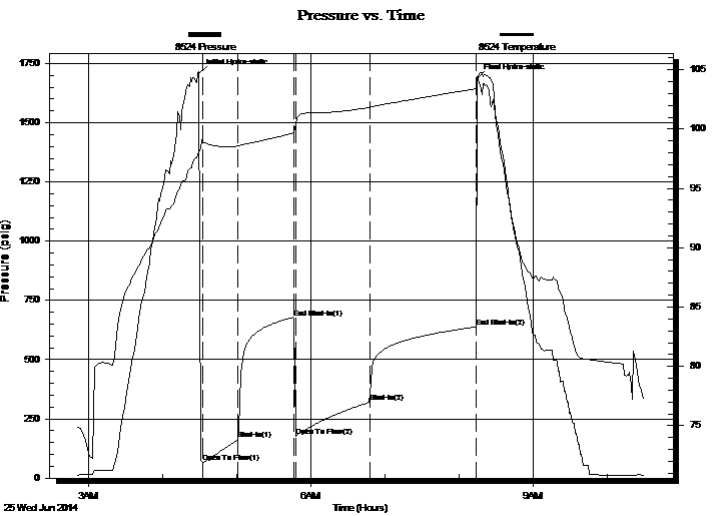
Time On Btm:

2014.06.25 @ 04:29:30

Time Off Btm:

2014.06.25 @ 08:15:00

**TEST COMMENT:** 1st Opening 30 Minutes- Strong blow built bottom of bucket in 45 sec  
1st Shut-in 45 Minutes-Bottom of bucket  
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 3 minutes Gas to surface see gas report  
2nd Shut-in 90 Minutes-Blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1709.07	98.10	Initial Hydro-static
3	65.65	99.02	Open To Flow (1)
32	162.86	98.56	Shut-In(1)
77	676.80	99.69	End Shut-In(1)
78	177.73	100.48	Open To Flow (2)
138	320.73	101.81	Shut-In(2)
225	638.50	103.40	End Shut-In(2)
226	1687.42	103.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1140.00	gas oil 30%gas 90%oil	15.99
0.00	2327 gas in pipe	0.00
0.00		0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	-8.00	2.40
Last Gas Rate	0.13	-8.00	2.40
Max. Gas Rate	0.13	-8.00	2.40



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

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DST#: 6

ATTN: Kent Matson

Test Start: 2014.06.25 @ 02:50:00

## Tool Information

Drill Pipe:	Length: 3467.00 ft	Diameter: 3.80 inches	Volume: 48.63 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: 70000.00 lb
			<u>Total Volume: 48.63 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3467.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	51.00 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			3444.00	
Hydraulic tool	5.00			3449.00	
Jars	6.00			3455.00	
Safety Joint	2.00			3457.00	
Top Packer	5.00			3462.00	
Packer	5.00			3467.00	28.00 Bottom Of Top Packer
Anchor	18.00			3485.00	
Recorder	1.00		Inside	3486.00	
Recorder	1.00		Outside	3487.00	
Bull Plug	3.00			3490.00	23.00 Anchor Tool
<b>Total Tool Length:</b>	<b>51.00</b>				



# DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

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MorrisonLutherUnit#1

Job Ticket: 18588

DST#: 6

ATTN: Kent Matson

Test Start: 2014.06.25 @ 02:50:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 46.00 sec/qt  
Water Loss: 8.20 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 5000.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1140.00	gas oil 30%gas 90%oil	15.991
0.00	2327 gas in pipe	0.000
0.00		0.000

Total Length: 1140.00 ft Total Volume: 15.991 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



# DRILL STEM TEST REPORT

**GAS RATES**

Younger Energy Company

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## Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.13	-8.00	2.40
2	20	0.13	-8.00	2.40
2	30	0.13	-8.00	2.40
2	40	0.13	-8.00	2.40
2	50	0.13	-8.00	2.40
2	60	0.13	-8.00	2.40

