



DRILL STEM TEST REPORT

Prepared For: **YOUNGER ENERGY COMPANY**

9415 E. HARRY SUITE 403
BUILDIONG 400
WICHITA, KANSAS 67207

ATTN: KEITH REAVIS

SCHARTZ 2-34

34-21S-15W PAWNEE

Start Date: 2015.12.08 @ 01:20:00

End Date: 2015.12.08 @ 09:02:00

Job Ticket #: 01204 DST #: 2

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2015.12.08 @ 09:41:58



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Test Start: 2015.12.08 @ 01:20:00

GENERAL INFORMATION:

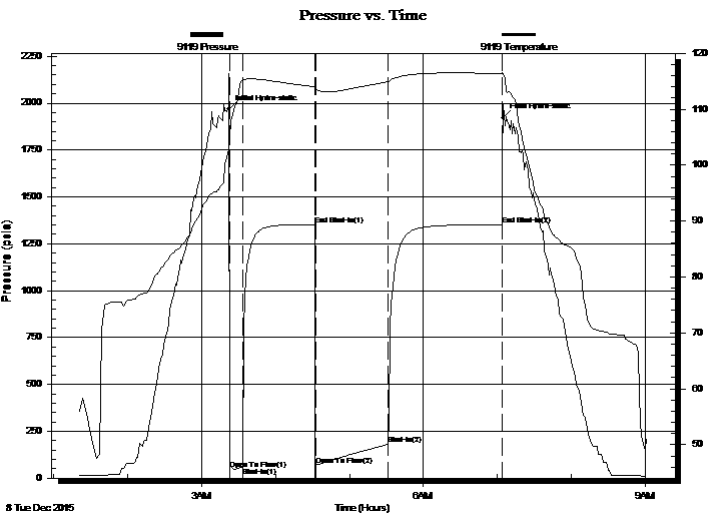
Formation: **ARBUCKLE**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:23:00
 Time Test Ended: 09:02:00
 Interval: **3925.00 ft (KB) To 3931.00 ft (KB) (TVD)**
 Total Depth: 3931.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: GENE BUDIG
 Unit No: 1
 Reference Elevations: 1978.00 ft (KB)
 1970.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 9119

Inside

Press@RunDepth: 1351.62 psia @ 3926.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2015.12.08 End Date: 2015.12.08 Last Calib.: 2015.12.08
 Start Time: 01:20:00 End Time: 09:01:00 Time On Btm: 2015.12.08 @ 03:21:30
 Time Off Btm: 2015.12.08 @ 07:04:30

TEST COMMENT: 1ST OPENING 10 MINUTES WEAK BUILDING BLOW BUILT TO 10 INCHES INTO THE WATER
 1ST SHUT-IN 60 MINUTES NO BLOW BACK
 2ND OPENING 60 MINUTES WEAK BUILDING BLOW BUILT TO BOTTOM OF THE BUCKET IN 25 MINUTES
 2ND L;SHUT-IN 90 MINUTES-WEAK BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1965.83	102.72	Initial Hydro-static
1	46.89	103.81	Open To Flow (1)
12	59.22	115.09	Shut-In(1)
70	1352.04	114.03	End Shut-In(1)
71	68.71	113.56	Open To Flow (2)
130	180.66	114.90	Shut-In(2)
222	1351.62	116.38	End Shut-In(2)
223	1920.70	116.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GAS IN THE PIPE	0.84
110.00	CLEAN GASSY OIL GAS 85 OIL	1.54
60.00	OIL CUT MUDDY WATER	0.84
0.00	20 OIL 15 MUD 65 WATER	0.00
120.00	SLIGHTLY OIL AND MUD CUT WATER	1.68
0.00	1 OIL 6 MUD 93 WATER	0.00

Gas Rates

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



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DST#: 2

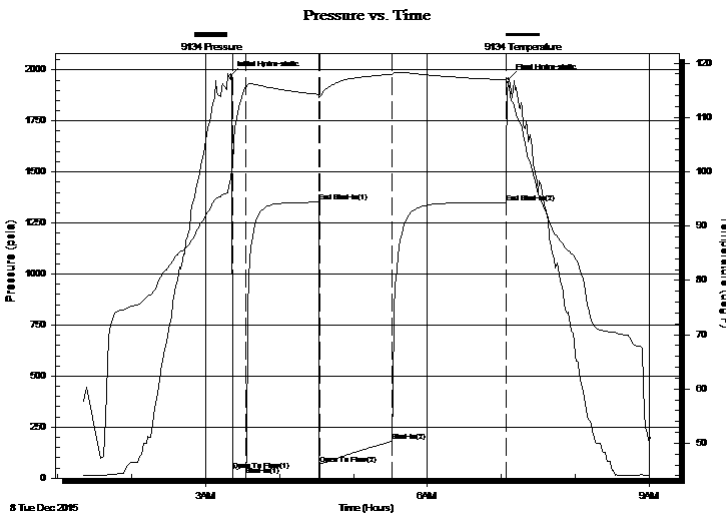
Test Start: 2015.12.08 @ 01:20:00

GENERAL INFORMATION:

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 Test Type: Conventional Bottom Hole (Initial)
 Tester: GENE BUDIG
 Unit No: 1
 Reference Elevations: 1978.00 ft (KB)
 1970.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 9134 Outside
 Press@RunDepth: 1351.29 psia @ 3926.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2015.12.08 End Date: 2015.12.08 Last Calib.: 2015.12.08
 Start Time: 01:20:00 End Time: 09:01:00 Time On Btm: 2015.12.08 @ 03:20:30
 Time Off Btm: 2015.12.08 @ 07:06:00

TEST COMMENT: 1ST OPENING 10 MINUTES WEAK BUILDING BLOW BUILT TO 10 INCHES INTO THE WATER
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 2ND OPENING 60 MINUTES WEAK BUILDING BLOW BUILT TO BOTTOM OF THE BUCKET IN 25 MINUTES
 2ND L;SHUT-IN 90 MINUTES-WEAK BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1974.61	99.12	Initial Hydro-static
2	39.66	100.66	Open To Flow (1)
12	59.18	115.50	Shut-In(1)
71	1351.65	114.25	End Shut-In(1)
72	69.54	113.79	Open To Flow (2)
131	180.75	117.94	Shut-In(2)
223	1351.29	116.94	End Shut-In(2)
226	1956.79	115.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GAS IN THE PIPE	0.84
110.00	CLEAN GASSY OIL GAS 85 OIL	1.54
60.00	OIL CUT MUDDY WATER	0.84
0.00	20 OIL 15 MUD 65 WATER	0.00
120.00	SLIGHTLY OIL AND MUD CUT WATER	1.68
0.00	1 OIL 6 MUD 93 WATER	0.00

Gas Rates

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



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TOOL DIAGRAM

YOUNGER ENERGY COMPANY

34-21S-15W PAWNEE

9415 E. HARRY SUITE 403
 BUILDING 400
 WICHITA, KANSAS 67207
 ATTN: KEITH REAVIS

SCHARTZ 2-34

Job Ticket: 01204

DST#: 2

Test Start: 2015.12.08 @ 01:20:00

Tool Information

Drill Pipe:	Length: 3907.00 ft	Diameter: 3.80 inches	Volume: 54.80 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.76 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	68000.00 lb
			<u>Total Volume: 54.80 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial	54000.00 lb
Depth to Top Packer:	3925.00 ft			Final	56000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	6.00 ft				
Tool Length:	28.00 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			3908.00	
Hydraulic tool	5.00			3913.00	
Safety Joint	2.00		Fluid	3915.00	
Top Packer	5.00			3920.00	
Packer	5.00			3925.00	22.00 Bottom Of Top Packer
Anchor	1.00			3926.00	
Recorder	0.00	9119	Inside	3926.00	
Recorder	0.00	9134	Outside	3926.00	
Bullnose	5.00			3931.00	6.00 Anchor Tool
Total Tool Length:	28.00				



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FLUID SUMMARY

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Mud and Cushion Information

Mud Type: Gel Chem
 Mud Weight: 9.00 lb/gal
 Viscosity: 46.00 sec/qt
 Water Loss: 10.40 in³
 Resistivity: ohm.m
 Salinity: 10000.00 ppm
 Filter Cake: 1.00 inches

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

Oil API: 33 deg API
 Water Salinity: 18 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GAS IN THE PIPE	0.842
110.00	CLEAN GASSY OIL GAS 85 OIL	1.543
60.00	OIL CUT MUDDY WATER	0.842
0.00	20 OIL 15 MUD 65 WATER	0.000
120.00	SLIGHTLY OIL AND MUD CUT WATER	1.683
0.00	1 OIL 6 MUD 93 WATER	0.000
120.00	SLIGHTLY MUDDY WATER WITH A TRACE O	1.683
0.00	TRACE OF OIL 3 MUD 97 WATER	0.000
0.00	CHKLORIDES 18,000 GRAVITY 33 CORRECTI	0.000

Total Length: 470.00 ft Total Volume: 6.593 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time

