



DRILL STEM TEST REPORT

Prepared For: **SHELBY RESOURICES LLC**

2717 CANAL BLVD SUITE C
HAYS, KANSAS 67601

ATTN: JEREMY SCHWARTZ

NANCY 5-17

17-17S-13W

Start Date: 2017.02.16 @ 08:40:00

End Date: 2017.02.16 @ 00:00:00

Job Ticket #: 01150 DST #: 4

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

Printed: 2017.02.16 @ 15:08:26



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Job Ticket: 01150

DST#: 4

ATTN: JEREMY SCHWARTZ

Test Start: 2017.02.16 @ 08:40:00

GENERAL INFORMATION:

Formation: **ARBUCKLE**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:46:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3420.00 ft (KB) To 3456.00 ft (KB) (TVD)**

Reference Elevations: 1972.00 ft (KB)

Total Depth: 3456.00 ft (KB) (TVD)

1961.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 9139

Inside

Press@RunDepth: 1032.54 psia @ 3451.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.02.16

End Date: 2017.02.16

Last Calib.: 2017.02.16

Start Time: 08:40:00

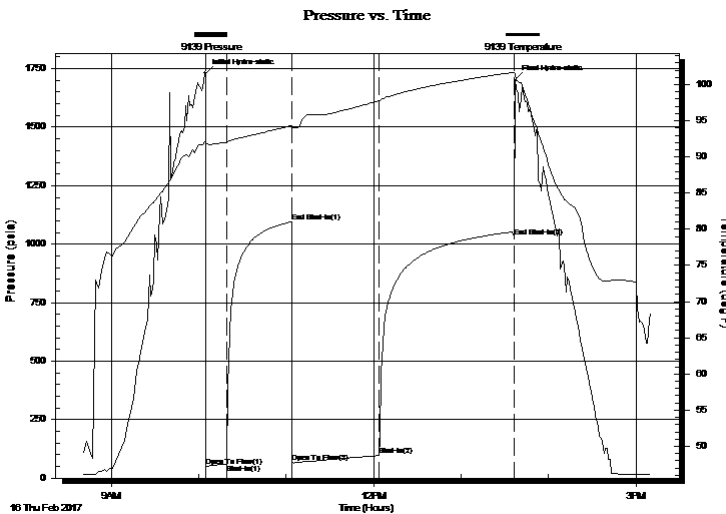
End Time: 15:10:30

Time On Btm: 2017.02.16 @ 10:04:30

Time Off Btm: 2017.02.16 @ 13:37:00

TEST COMMENT: 1ST OPENING 15 MINUTES WEAK BLOW BUILT TO 2 INCHES INTO THE WATER
1ST SHUT-IN 45 MINUTES NO BLOW BACK
2ND OPENING 60 MINUTES WEAK BLOW BUILT TO 5 1/2 INCHES INTO THE WATER
2ND SHUT-IN 90 MINKUTES NO BLOW BACK

PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1730.76	92.24	Initial Hydro-static
1	52.27	91.82	Open To Flow (1)
15	60.60	92.03	Shut-In(1)
59	1095.77	94.34	End Shut-In(1)
60	66.27	93.96	Open To Flow (2)
119	96.60	97.74	Shut-In(2)
212	1032.54	101.68	End Shut-In(2)
213	1703.12	101.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	clean oil	0.07
35.00	oil cut mud 10 oil 90 mud	0.17
60.00	oil cut mud 5 oil 95 mud	0.30

Gas Rates

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



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NANCY 5-17

Job Ticket: 01150

DST#: 4

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GENERAL INFORMATION:

Formation: **ARBUCKLE**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:46:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3420.00 ft (KB) To 3456.00 ft (KB) (TVD)**

Reference Elevations: 1972.00 ft (KB)

Total Depth: 3456.00 ft (KB) (TVD)

1961.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: **91716** Outside

Press@RunDepth: 1049.43 psia @ 3451.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.02.16

End Date: 2017.02.16

Last Calib.: 2017.02.16

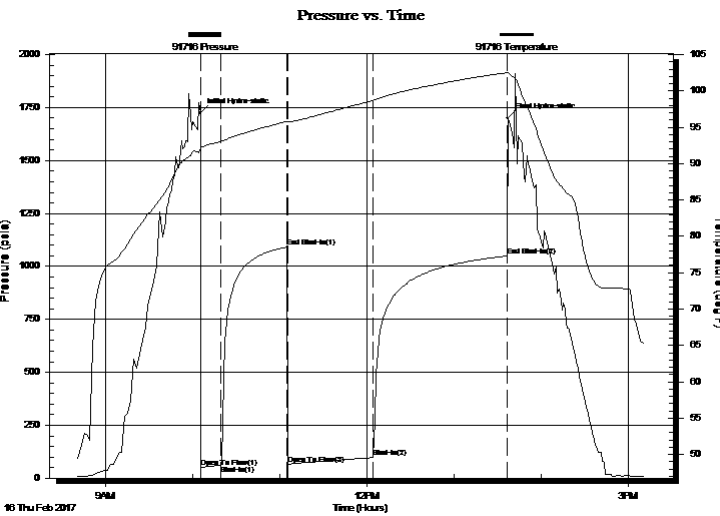
Start Time: 08:40:00

End Time: 15:11:00

Time On Btm: 2017.02.16 @ 10:05:00

Time Off Btm: 2017.02.16 @ 13:37:00

TEST COMMENT: 1ST OPENING 15 MINUTES WEAK BLOW BUILT TO 2 INCHES INTO THE WATER
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2ND OPENING 60 MINUTES WEAK BLOW BUILT TO 5 1/2 INCHES INTO THE WATER
2ND SHUT-IN 90 MINKUTES NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1725.55	92.04	Initial Hydro-static
1	50.34	92.26	Open To Flow (1)
14	60.64	93.04	Shut-In(1)
60	1091.70	95.82	End Shut-In(1)
60	65.71	95.81	Open To Flow (2)
119	97.08	98.70	Shut-In(2)
212	1049.43	102.52	End Shut-In(2)
212	1700.98	102.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	clean oil	0.07
35.00	oil cut mud 10 oil 90 mud	0.17
60.00	oil cut mud 5 oil 95 mud	0.30

Gas Rates

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



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TOOL DIAGRAM

SHELBY RESOURICES LLC

17-17S-13W

2717 CANAL BLVD SUITE C
HAYS, KANSAS 67601

NANCY 5-17

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DST#: 4

ATTN: JEREMY SCHWARTZ

Test Start: 2017.02.16 @ 08:40:00

Tool Information

Drill Pipe:	Length: 3187.00 ft	Diameter: 3.80 inches	Volume: 44.71 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: 200009.0 lb
Drill Collar:	Length: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 45.74 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3420.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	65.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3396.00	
Hydraulic tool	5.00			3401.00	
Jars	7.00			3408.00	
Safety Joint	2.00		Fluid	3410.00	
Top Packer	5.00			3415.00	
Packer	5.00			3420.00	29.00 Bottom Of Top Packer
Anchor	31.00			3451.00	
Recorder	0.00	9139	Inside	3451.00	
Recorder	0.00	91716	Outside	3451.00	
Bullnose	5.00			3456.00	36.00 Anchor Tool
Total Tool Length:	65.00				



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FLUID SUMMARY

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Test Start: 2017.02.16 @ 08:40:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 68.00 sec/qt
Water Loss: 8.00 in³
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: psia

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	clean oil	0.074
35.00	oil cut mud 10 oil 90 mud	0.172
60.00	oil cut mud 5 oil 95 mud	0.295

Total Length: 110.00 ft Total Volume: 0.541 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

