



DRILL STEM TEST REPORT

Prepared For: **SHELBY RESOURCES LLC**

2717 CANAL BLVD SUITE C
HAYS , KnaA 67601

ATTN: JEREMY SCHWARTZ

FRICK FAMILY FARMS 1

18-22S-16W PAWNEE

Start Date: 2016.10.06 @ 01:25:00

End Date: 2016.10.06 @ 00:00:00

Job Ticket #: 01134 DST #: 4

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

Printed: 2016.10.06 @ 09:24:15



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DST#: 4

Test Start: 2016.10.06 @ 01:25:00

GENERAL INFORMATION:

Formation: **LOWER SIMPSON SAND**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **4041.00 ft (KB) To 4049.00 ft (KB) (TVD)**

Reference Elevations: 2026.00 ft (KB)

Total Depth: 4041.00 ft (KB) (TVD)

2016.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 9139

Inside

Press@RunDepth: 1352.11 psia @ 4044.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2016.10.06

End Date:

2016.10.06

Last Calib.:

2016.10.06

Start Time: 01:25:00

End Time:

09:00:00

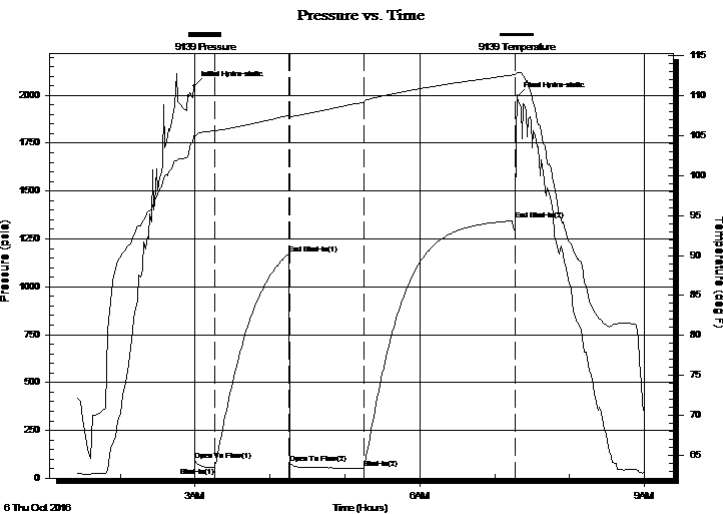
Time On Btm:

2016.10.06 @ 02:59:30

Time Off Btm:

2016.10.06 @ 07:18:00

TEST COMMENT: 1ST OPENING 15 MINUTES FAIR BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 6 MINUTES
1ST SHUT-IN 60 MINUTES NOP BLOW BACK
2ND OPENING 60 MINUTES STRONG BLOW DECREASED TO A WEAK STEADY 2 INCH BLOW
2ND SHUT-IN 120 MINUTES NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2048.14	105.17	Initial Hydro-static
1	91.91	104.87	Open To Flow (1)
16	57.24	105.62	Shut-In(1)
76	1173.78	107.55	End Shut-In(1)
77	78.27	107.32	Open To Flow (2)
136	52.37	109.21	Shut-In(2)
257	1352.11	112.67	End Shut-In(2)
259	1994.99	112.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OIL CUT MUD 20 OIL 80 MUD	0.10
0.00	2150 GAS IN THE PIPE	0.00

Gas Rates

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



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Job Ticket: 01134

DST#: 4

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GENERAL INFORMATION:

Formation: **LOWER SIMPSON SAND**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **4041.00 ft (KB) To 4049.00 ft (KB) (TVD)**

Reference Elevations: 2026.00 ft (KB)

Total Depth: 4041.00 ft (KB) (TVD)

2016.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 91716 Outside

Press@RunDepth: 1356.44 psia @ 4044.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2016.10.06

End Date: 2016.10.06

Last Calib.: 2016.10.06

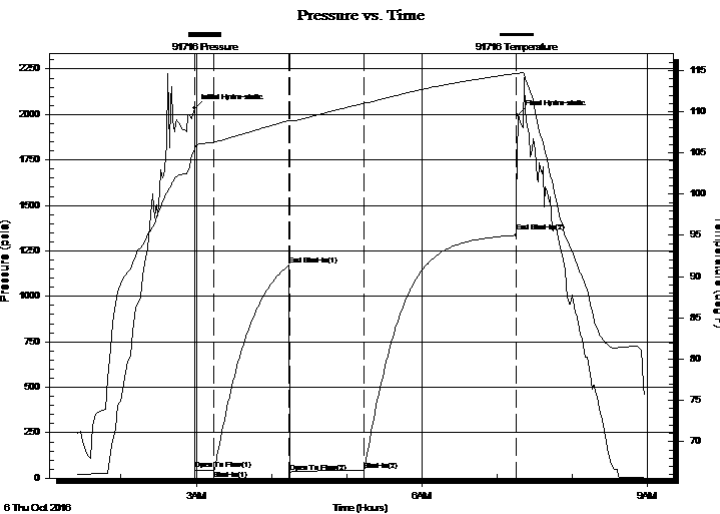
Start Time: 01:25:00

End Time: 08:57:30

Time On Btm: 2016.10.06 @ 02:58:30

Time Off Btm: 2016.10.06 @ 07:16:30

TEST COMMENT: 1ST OPENING 15 MINUTES FAIR BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 6 MINUTES
1ST SHUT-IN 60 MINUTES NOP BLOW BACK
2ND OPENING 60 MINUTES STRONG BLOW DECREASED TO A WEAK STEADY 2 INCH BLOW
2ND SHUT-IN 120 MINUTES NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2033.25	105.42	Initial Hydro-static
1	47.69	105.61	Open To Flow (1)
16	44.74	106.31	Shut-In(1)
76	1172.53	108.95	End Shut-In(1)
76	34.02	108.93	Open To Flow (2)
136	42.26	111.00	Shut-In(2)
257	1356.44	114.63	End Shut-In(2)
258	1996.94	114.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OIL CUT MUD 20 OIL 80 MUD	0.10
0.00	2150 GAS IN THE PIPE	0.00

Gas Rates

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



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TOOL DIAGRAM

SHELBY RESOURCES LLC

18-22S-16W PAWNEE

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DST#: 4

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Test Start: 2016.10.06 @ 01:25:00

Tool Information

Drill Pipe:	Length: 3949.00 ft	Diameter: 3.80 inches	Volume: 55.39 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: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 84000.00 lb
			Total Volume: 55.83 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4041.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	8.00 ft			
Tool Length:	37.00 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			4017.00	
Hydraulic tool	5.00			4022.00	
Jars	7.00			4029.00	
Safety Joint	2.00		Fluid	4031.00	
Top Packer	5.00			4036.00	
Packer	5.00			4041.00	29.00 Bottom Of Top Packer
Anchor	3.00			4044.00	
Recorder	0.00	9139	Inside	4044.00	
Recorder	0.00	91716	Outside	4044.00	
Bullnose	5.00			4049.00	8.00 Anchor Tool
Total Tool Length:	37.00				



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FLUID SUMMARY

SHELBY RESOURCES LLC

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Job Ticket: 01134

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Test Start: 2016.10.06 @ 01:25:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 65.00 sec/qt
Water Loss: 7.20 in³
Resistivity: ohm.m
Salinity: 4200.00 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
20.00	OIL CUT MUD 20 OIL 80 MUD	0.098
0.00	2150 GAS IN THE PIPE	0.000

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

