



DRILL STEM TEST REPORT

Prepared For: **Edison Operating Company LLC**

8100 East 22nd Street North
Building 1900
Wichita, Kansas 667226

ATTN: Adam Kennedy

Kuhn #1-17

17-19s-12w Barton

Start Date: 2019.11.03 @ 02:02:00

End Date: 2019.11.03 @ 08:01:00

Job Ticket #: 01385 DST #: 1

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

Printed: 2019.11.03 @ 08:23:37



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DST#: 1

Test Start: 2019.11.03 @ 02:02:00

GENERAL INFORMATION:

Formation: LANSING A-B

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:05:00

Time Test Ended: 08:01:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: 3178.00 ft (KB) To 3225.00 ft (KB) (TVD)

Reference Elevations: 1882.00 ft (KB)

Total Depth: 3225.00 ft (KB) (TVD)

1874.00 ft (CF)

Hole Diameter: 7.78 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9119

Inside

Press@RunDepth: 938.26 psig @ 3219.84 ft (KB)

Capacity: 5000.00 psig

Start Date: 2019.11.03

End Date: 2019.11.03

Last Calib.: 2019.11.03

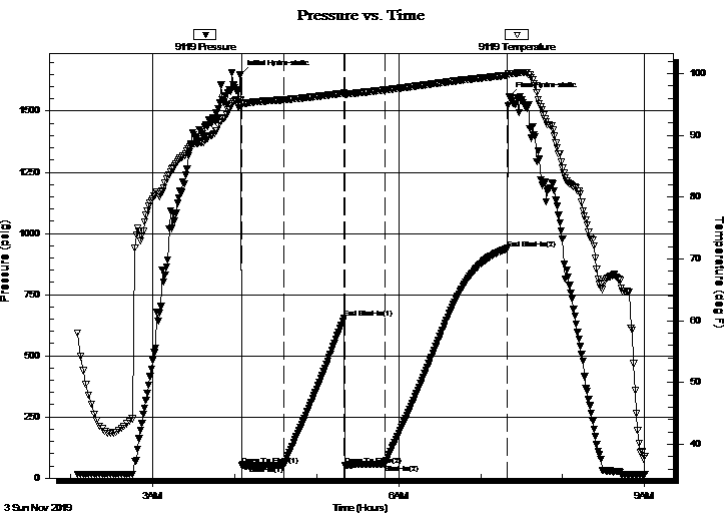
Start Time: 02:02:00

End Time: 09:00:30

Time On Btm: 2019.11.03 @ 04:04:30

Time Off Btm: 2019.11.03 @ 07:21:00

TEST COMMENT: 1st Opening 30 Minutes weak building blow built to the bottom of a 5 gallon bucket in 14 minutes
 1st Shut-In 45 Minutes no blow back
 2nd Opening 30 Minutes strong blow bob immediately bled off bob in 9 minutes
 2nd Shut-In 90 Minutes blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1649.64	95.75	Initial Hydro-static
1	53.16	95.25	Open To Flow (1)
32	52.88	95.77	Shut-In(1)
76	654.29	96.86	End Shut-In(1)
76	53.88	96.72	Open To Flow (2)
106	58.42	97.35	Shut-In(2)
195	938.26	99.73	End Shut-In(2)
197	1557.31	99.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1050 feet of gas in the pipe	0.00
30.00	oil cut mud 80%Mud 20% Oil	0.42

Gas Rates

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



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Total Depth: 3225.00 ft (KB) (TVD)

1874.00 ft (CF)

Hole Diameter: 7.78 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9139 Outside

Press@RunDepth: 941.44 psig @ 3219.84 ft (KB)

Capacity: 5000.00 psig

Start Date: 2019.11.03

End Date: 2019.11.03

Last Calib.: 2019.11.03

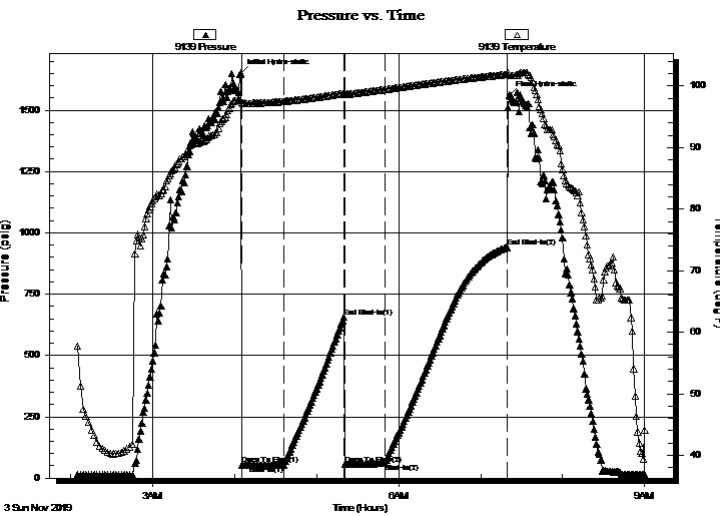
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PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1650.69	97.68	Initial Hydro-static
1	54.95	97.32	Open To Flow (1)
32	53.85	97.50	Shut-In(1)
76	655.74	98.80	End Shut-In(1)
76	56.50	98.65	Open To Flow (2)
106	60.14	99.43	Shut-In(2)
195	941.44	101.89	End Shut-In(2)
197	1560.86	101.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1050 feet of gas in the pipe	0.00
30.00	oil cut mud 80%Mud 20% Oil	0.42

Gas Rates

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



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TOOL DIAGRAM

Edison Operating Company LLC

17-19s-12w Barton

8100 East 22nd Street North
 Building 1900
 Wichita, Kansas 667226
 ATTN: Adam Kennedy

Kuhn #1-17

Job Ticket: 01385

DST#: 1

Test Start: 2019.11.03 @ 02:02:00

Tool Information

Drill Pipe:	Length: 3168.00 ft	Diameter: 3.80 inches	Volume: 44.44 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: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: 44.44 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3178.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.84 ft			
Tool Length:	76.84 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			3153.00	
Hydraulic tool	5.00			3158.00	
Jars	5.00			3163.00	
Safety Joint	5.00			3168.00	
Packer	5.00			3173.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	3178.00	
Anchor	4.00			3182.00	
Change Over Sub	0.75			3182.75	
Drill Pipe	31.34			3214.09	
Change Over Sub	0.75		Inside	3214.84	
Anchor	5.00			3219.84	
Recorder	0.00	9119	Inside	3219.84	
Recorder	0.00	9139	Outside	3219.84	
Bullnose	5.00			3224.84	46.84 Bottom Packers & Anchor

Total Tool Length: 76.84



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FLUID SUMMARY

Edison Operating Company LLC

17-19s-12w Barton

8100 East 22nd Street North
 Building 1900
 Wichita, Kansas 66726
 ATTN: Adam Kennedy

Kuhn #1-17

Job Ticket: 01385

DST#: 1

Test Start: 2019.11.03 @ 02:02:00

Mud and Cushion Information

Mud Type: Gel Chem
 Mud Weight: 9.00 lb/gal
 Viscosity: 54.00 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: psig

Oil API: deg API
 Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1050 feet of gas in the pipe	0.000
30.00	oil cut mud 80%Mud 20% Oil	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time

