



DRILL STEM TEST REPORT

Prepared For: **Edison Operating Company**

8100 e.22nd St.bldg 1900
Wiochita, Kansas 67226

ATTN: Derek Patterson

Knop #1-27

27-19s-12w Barton

Start Date: 2017.07.17 @ 08:10:00

End Date: 2017.07.18 @ 00:00:00

Job Ticket #: 01178 DST #: 1

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

Printed: 2017.07.18 @ 01:48:23



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Job Ticket: 01178

DST#: 1

Test Start: 2017.07.17 @ 08:10:00

GENERAL INFORMATION:

Formation: **Kansas City "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:48:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: 3160.00 ft (KB) To 3182.00 ft (KB) (TVD)

Reference Elevations: 1832.00 ft (KB)

Total Depth: 3182.00 ft (KB) (TVD)

1823.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 93335 Outside

Press@RunDepth: 925.61 psig @ 3177.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2017.07.18 End Date: 2017.07.19

Last Calib.: 2017.07.18

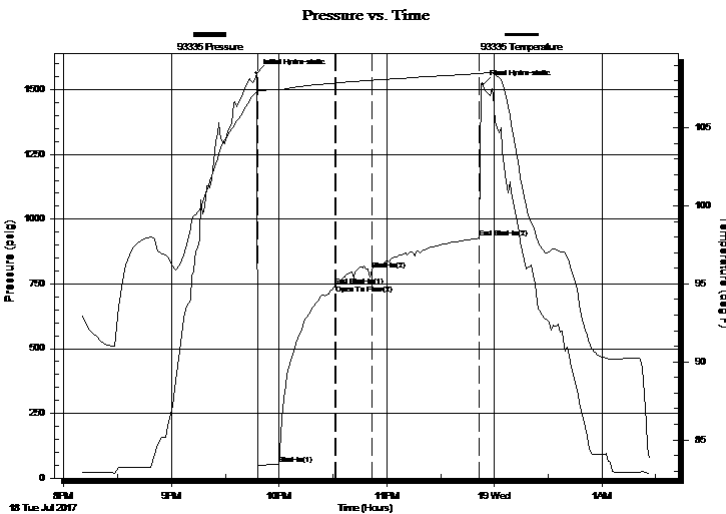
Start Time: 20:10:00 End Time: 20:26:30

Time On Btm: 2017.07.18 @ 21:47:30

Time Off Btm: 2017.07.18 @ 23:53:30

TEST COMMENT: 1st Opening 12 Minutes weak blow for 8 minutes and died
 1st shut-in 30 minutes no blow back
 2nd opening 20 minutes no blow
 2nd shut-in 60 minutes no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1563.57	107.31	Initial Hydro-static
1	50.32	107.38	Open To Flow (1)
12	52.69	107.44	Shut-In(1)
44	741.46	107.86	End Shut-In(1)
44	745.54	107.87	Open To Flow (2)
64	802.92	108.04	Shut-In(2)
124	925.61	108.47	End Shut-In(2)
126	1519.31	108.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Drilling mud	0.07

Gas Rates

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



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DST#: 1

Test Start: 2017.07.17 @ 08:10:00

GENERAL INFORMATION:

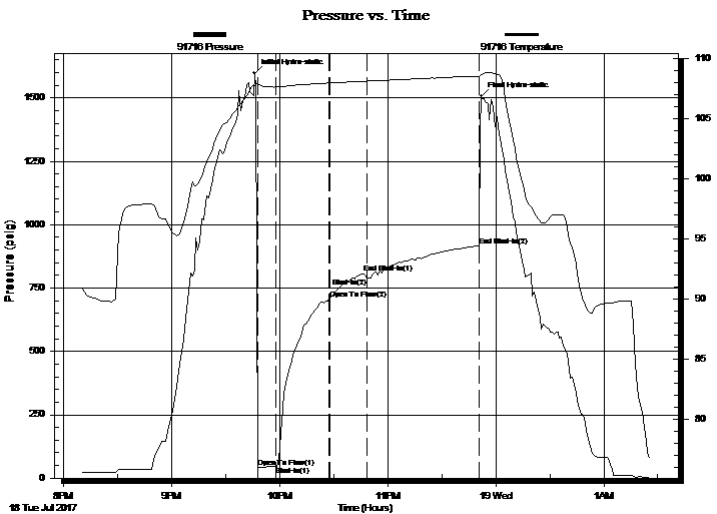
Formation: **Kansas City "B"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 09:48:00 Tester: Gene Budig
 Time Test Ended: 00:00:00 Unit No: 1
 Interval: **3160.00 ft (KB) To 3182.00 ft (KB) (TVD)** Reference Elevations: 1832.00 ft (KB)
 Total Depth: 3182.00 ft (KB) (TVD) 1823.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 9.00 ft

Serial #: 91716 Inside

Press@RunDepth: 916.23 psig @ 3177.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2017.07.18 End Date: 2017.07.19 Last Calib.: 2017.07.18
 Start Time: 20:10:00 End Time: 01:26:00 Time On Btm: 2017.07.18 @ 21:46:00
 Time Off Btm: 2017.07.18 @ 23:52:00

TEST COMMENT: 1st Opening 12 Minutes weak blow for 8 minutes and died
 1st shut-in 30 minutes no blow back
 2nd opening 20 minutes no blow
 2nd shut-in 60 minutes no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1597.25	107.74	Initial Hydro-static
2	44.05	107.92	Open To Flow (1)
12	45.85	107.63	Shut-In(1)
42	709.07	107.96	End Shut-In(1)
42	705.43	107.97	Open To Flow (2)
63	791.41	108.12	Shut-In(2)
125	916.23	108.53	End Shut-In(2)
126	1505.55	108.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Drilling mud	0.07

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Edison Operating Company

27-19s-12w Barton

8100 e.22nd St.bldg 1900
Wiochita, Kansas 67226

Knop #1-27

Job Ticket: 01178

DST#: 1

ATTN: Derek Patterson

Test Start: 2017.07.17 @ 08:10:00

Tool Information

Drill Pipe:	Length: 3141.00 ft	Diameter: 3.80 inches	Volume: 44.06 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:	48000.00 lb
			<u>Total Volume: 44.06 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3160.00 ft			Final	38000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	49.00 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			3138.00	
Hydraulic tool	5.00			3143.00	
Jars	5.00			3148.00	
Safety Joint	2.00			3150.00	
Top Packer	5.00			3155.00	
Packer	5.00			3160.00	27.00 Bottom Of Top Packer
Anchor	17.00			3177.00	
Recorder	0.00	91716	Inside	3177.00	
Recorder	0.00	93335	Outside	3177.00	
Bullnose	5.00			3182.00	22.00 Anchor Tool
Total Tool Length:	49.00				



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FLUID SUMMARY

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Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Drilling mud	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

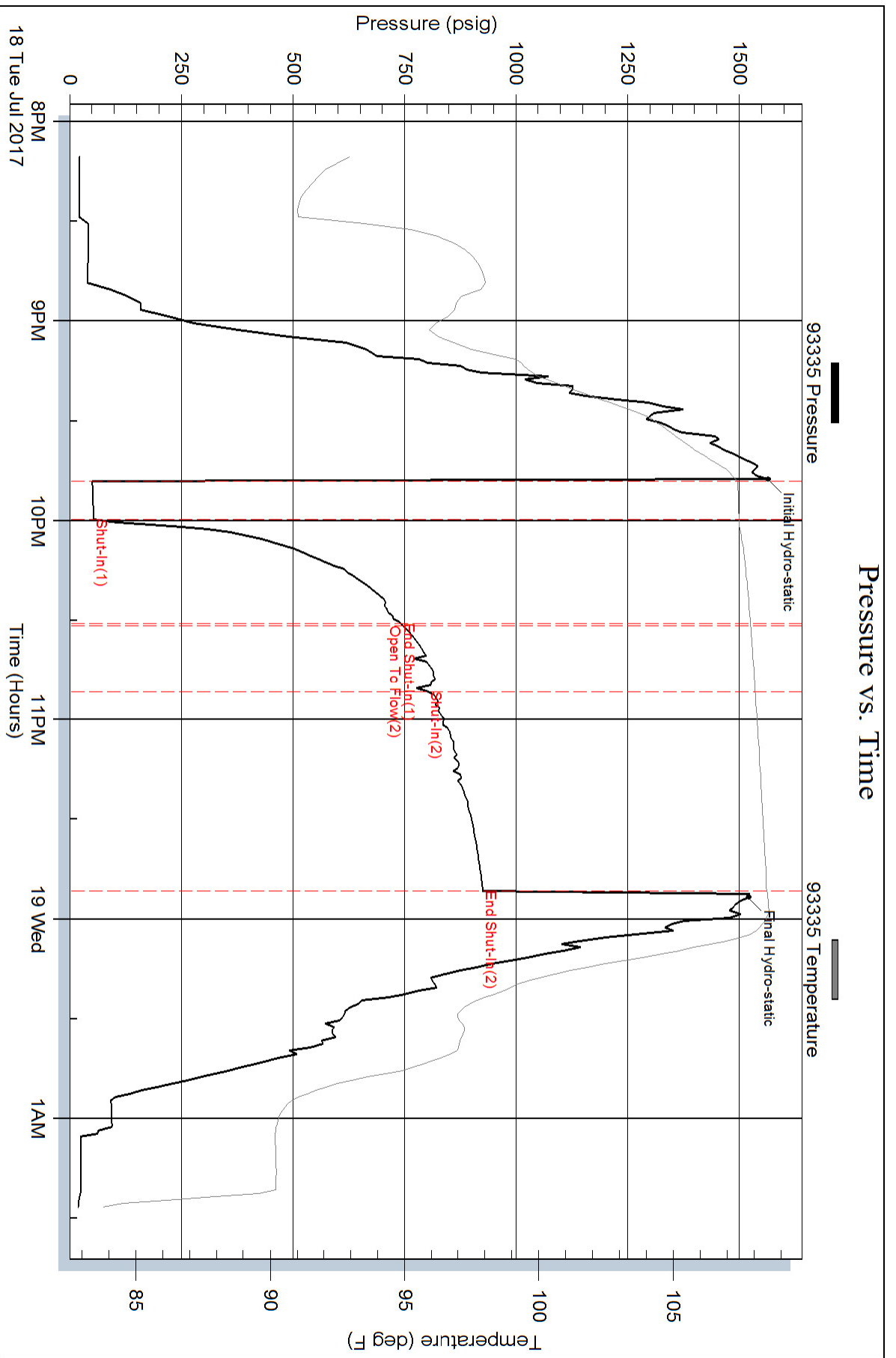
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



Pressure vs. Time

