



DRILL STEM TEST REPORT

Prepared For: **Captiva 2**

2717 Canal Blvd. Hays
Kansas 67601

ATTN: Charlie Sturdavant

7-22s-16w -Pawnee

Eakin Unit 5-7

Start Date: 2011.10.26 @ 10:36:00

End Date: 2011.10.26 @ 18:43:00

Job Ticket #: 17228 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2011.10.26 @ 20:30:07



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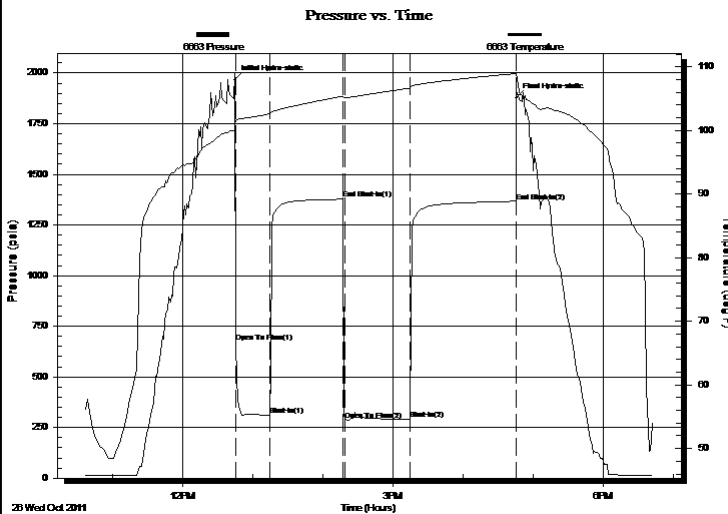
Eakin Unit 5-7
7-22s-16w -Pawnee
 Job Ticket: 17228 **DST#: 1**
 Test Start: 2011.10.26 @ 10:36:00

GENERAL INFORMATION:

Formation: **Conglomerate**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:45:30
 Time Test Ended: 18:43:00
 Interval: **3860.00 ft (KB) To 3894.00 ft (KB) (TVD)**
 Total Depth: 3894.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Ellis
 Unit No: 3315-GB-55 miles
 Reference Elevations: 2021.00 ft (KB)
 2010.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 6663 Outside
 Press @ RunDepth: 288.75 psia @ 3891.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2011.10.26 End Date: 2011.10.26 Last Calib.: 2011.10.26
 Start Time: 10:37:00 End Time: 18:43:00 Time On Btm: 2011.10.26 @ 12:45:00
 Time Off Btm: 2011.10.26 @ 16:46:00

TEST COMMENT: 1st Open 30 minutes Strong blow built to bottom of bucket instantly
 1st Shut in 60 minutes No blow back
 2nd Open 60 minutes Strong blow built to bottom of bucket instantly
 2nd Shut in 90 minutes No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1966.14	101.05	Initial Hydro-static
1	671.03	101.38	Open To Flow (1)
30	311.15	102.65	Shut-In(1)
93	1377.14	105.40	End Shut-In(1)
95	285.47	105.14	Open To Flow (2)
150	288.75	106.69	Shut-In(2)
241	1366.89	108.94	End Shut-In(2)
241	1876.43	109.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	Drilling mud	0.61

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	1.00	26.00	747.47
Last Gas Rate	1.00	23.00	661.22
Max. Gas Rate	1.00	26.00	747.47



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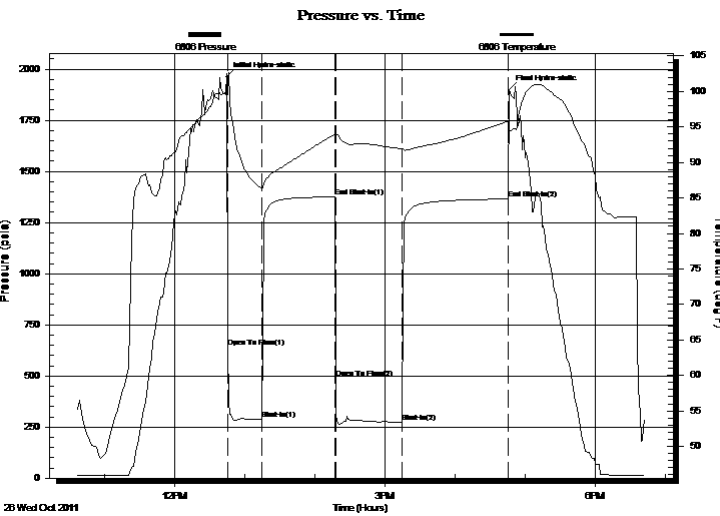
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 Tester: Dustin Ellis
 Unit No: 3315-GB-55 miles
 Reference Elevations: 2021.00 ft (KB)
 2010.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 6806 Inside
 Press @ Run Depth: 1365.67 psia @ 3890.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2011.10.26 End Date: 2011.10.26 Last Calib.: 2011.10.26
 Start Time: 10:37:00 End Time: 18:43:00 Time On Btm: 2011.10.26 @ 12:45:00
 Time Off Btm: 2011.10.26 @ 16:46:30

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 2nd Open 60 minutes Strong blow built to bottom of bucket instantly
 2nd Shut in 90 minutes No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1963.45	99.82	Initial Hydro-static
1	641.39	99.84	Open To Flow (1)
30	287.63	86.31	Shut-In(1)
93	1375.89	93.99	End Shut-In(1)
93	488.09	93.78	Open To Flow (2)
150	273.32	91.89	Shut-In(2)
241	1365.67	95.81	End Shut-In(2)
242	1897.73	94.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	Drilling mud	0.61

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	1.00	26.00	747.47
Last Gas Rate	1.00	23.00	661.22
Max. Gas Rate	1.00	26.00	747.47



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TOOL DIAGRAM

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Tool Information

Drill Pipe:	Length: 3643.00 ft	Diameter: 3.80 inches	Volume: 51.10 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: 213.00 ft	Diameter: 2.25 inches	Volume: 1.05 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 52.15 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3860.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	62.00 ft			
Number of Packers:	2	Diameter: 6.25 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3837.00	
Hydraulic Tool	5.00			3842.00	
Jars	6.00			3848.00	
Safety Joint	2.00			3850.00	
Packer	5.00			3855.00	28.00 Bottom Of Top Packer
Packer	5.00			3860.00	
Perforations	29.00			3889.00	
Recorder	1.00	6806	Inside	3890.00	
Recorder	1.00	6663	Outside	3891.00	
Bull Plug	3.00			3894.00	34.00 Bottom Packers & Anchor
Total Tool Length:	62.00				



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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:	49.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	10.78 in ³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psia		
Salinity:	8600.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
125.00	Drilling mud	0.615

Total Length: 125.00 ft Total Volume: 0.615 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:



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GAS RATES

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Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
1	10	1.00	26.00	747.47
2	20	1.00	23.00	661.22
3	30	1.00	23.00	661.22
4	40	1.00	23.00	661.22
5	50	1.00	23.00	661.22
6	60	1.00	23.00	661.22

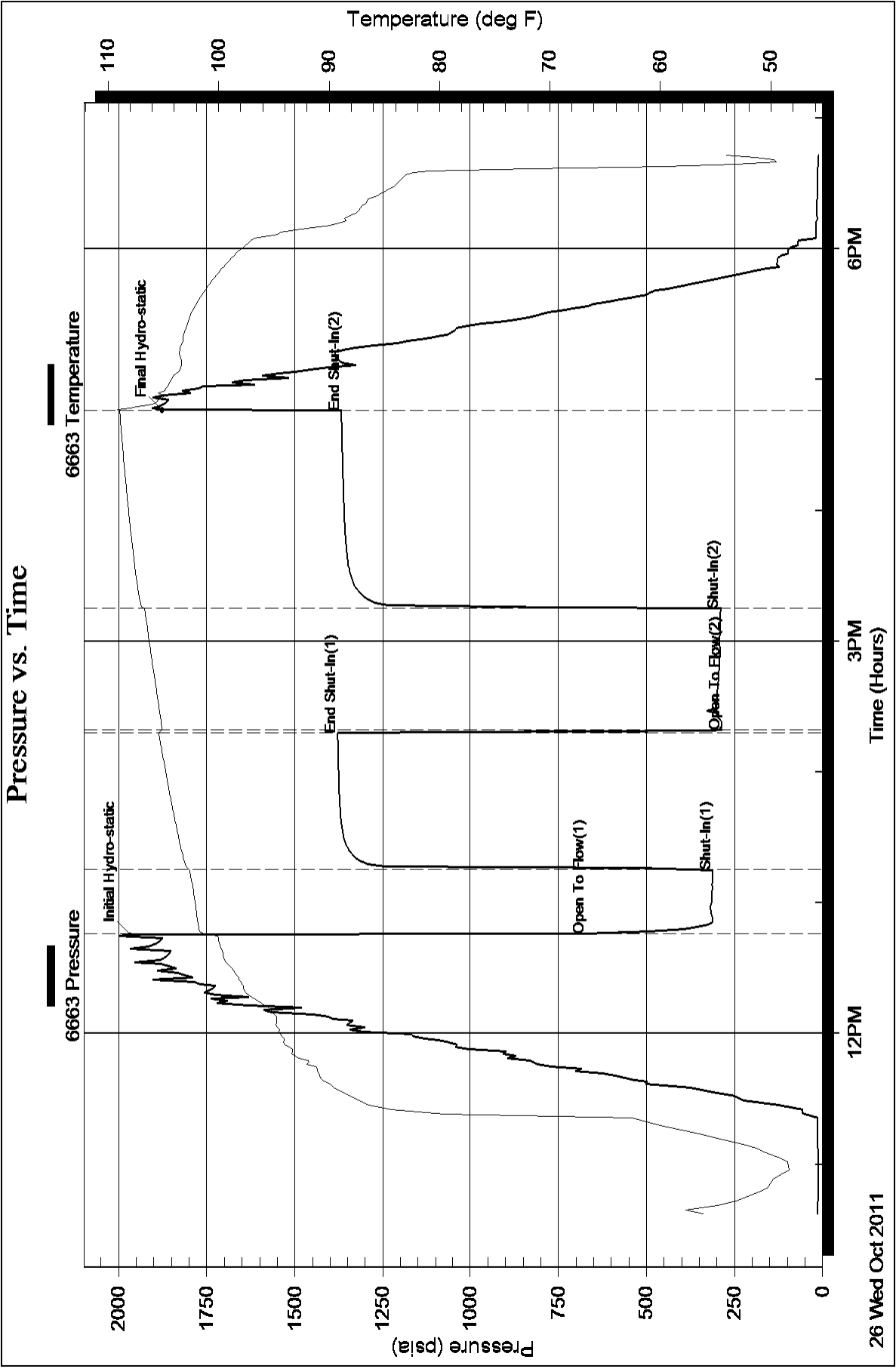
Serial #: 6663

Outside Captiva 2

7-22s-16w -Pawnee

DST Test Number: 1

Pressure vs. Time



Serial #: 6806

Inside Captiva 2

7-22s-16w -Paw.nee

DST Test Number: 1

Pressure vs. Time

