



## DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating Company**

1700 N Waterfront PKWY Bldg 600 Wichita  
KS 67206+5514

ATTN: Kent Matson

**32-13s-31w Gove**

**Hess #6-32**

Start Date: 2011.09.02 @ 12:48:00

End Date: 2011.09.02 @ 18:12:00

Job Ticket #: 18629                      DST #: 4

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

Printed: 2011.09.02 @ 18:29:02



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Test Start: 2011.09.02 @ 12:48:00

## GENERAL INFORMATION:

Formation: **lower Ft Scott & Vir**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:29:00

Time Test Ended: 18:12:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320-Scott City-70

**Interval: 4438.00 ft (KB) To 4498.00 ft (KB) (TVD)**

Reference Elevations: 2943.00 ft (KB)

Total Depth: 4498.00 ft (KB) (TVD)

2938.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8419 Inside**

Press @ RunDepth: 66.93 psia @ 4494.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.09.02

End Date: 2011.09.02

Last Calib.: 2011.09.02

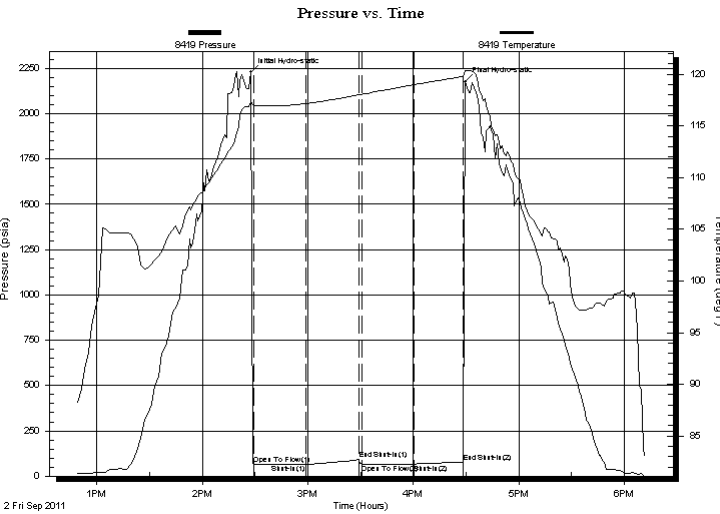
Start Time: 12:48:00

End Time: 18:12:00

Time On Btm: 2011.09.02 @ 14:27:30

Time Off Btm: 2011.09.02 @ 16:29:30

**TEST COMMENT:** 1st Opening 30 Minutes-Very weak surface blow stayed steady throughout open  
1st Shut-in 30 Minutes-NO blow back  
2nd Opening 30 Minutes-Very weak surge did not build  
2nd Shut-in 30 Minutes-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2227.67	117.33	Initial Hydro-static
2	67.82	117.01	Open To Flow (1)
32	65.15	117.17	Shut-In(1)
62	90.34	118.02	End Shut-In(1)
63	67.29	118.06	Open To Flow (2)
93	66.93	119.00	Shut-In(2)
121	78.05	119.80	End Shut-In(2)
122	2176.29	120.37	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud	0.05

## Gas Rates

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



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Total Depth: 4498.00 ft (KB) (TVD)

2938.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8524 Outside**

Press @ RunDepth: 73.75 psia @ 4495.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.09.02

End Date: 2011.09.02

Last Calib.: 2011.09.02

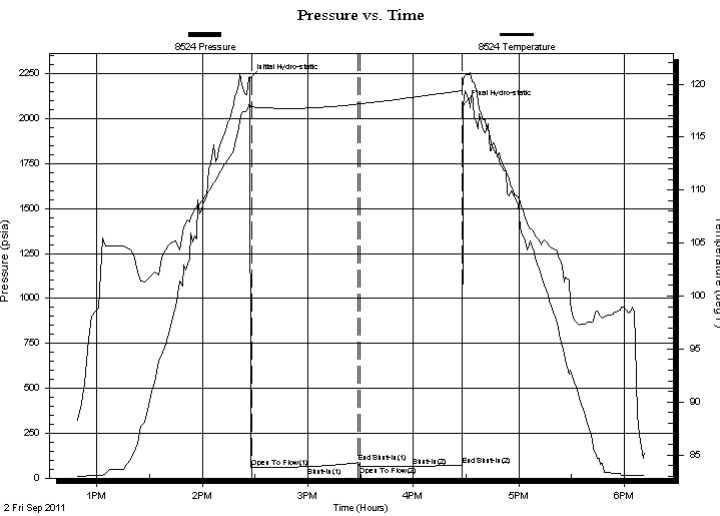
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2nd Shut-in 30 Minutes-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2225.56	118.25	Initial Hydro-static
1	60.94	117.86	Open To Flow (1)
33	62.93	117.73	Shut-In(1)
62	86.11	118.11	End Shut-In(1)
63	63.44	118.13	Open To Flow (2)
93	64.01	118.74	Shut-In(2)
121	73.75	119.37	End Shut-In(2)
122	2077.84	120.41	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud	0.05

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Grand Mesa Operating Company

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Test Start: 2011.09.02 @ 12:48:00

## Tool Information

Drill Pipe:	Length: 4304.00 ft	Diameter: 3.80 inches	Volume: 60.37 bbl	Tool Weight:	1000.00 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 60.96 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	59000.00 lb
Depth to Top Packer:	4438.00 ft			Final	59000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	60.00 ft				
Tool Length:	88.00 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-InTool	5.00		Inside	4415.00	
Hydraulic Tool	5.00			4420.00	
Jars	6.00			4426.00	
Safety Joint	2.00			4428.00	
Packer	5.00			4433.00	28.00 Bottom Of Top Packer
Packer	5.00			4438.00	
Anchor	0.00			4438.00	
Change Over Sub	0.75			4438.75	
Drill Pipe	31.50		Outside	4470.25	
Change Over Sub	0.75		Outside	4471.00	
Anchor	22.00			4493.00	
Recorder	1.00	8419	Inside	4494.00	
Recorder	1.00	8524	Outside	4495.00	
Bullnose	3.00			4498.00	60.00 Bottom Packers & Anchor

**Total Tool Length: 88.00**



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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: 57.00 sec/qt

Cushion Volume: bbl

Water Loss: 9.60 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psia

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud	0.049

Total Length: 10.00 ft      Total Volume: bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8419

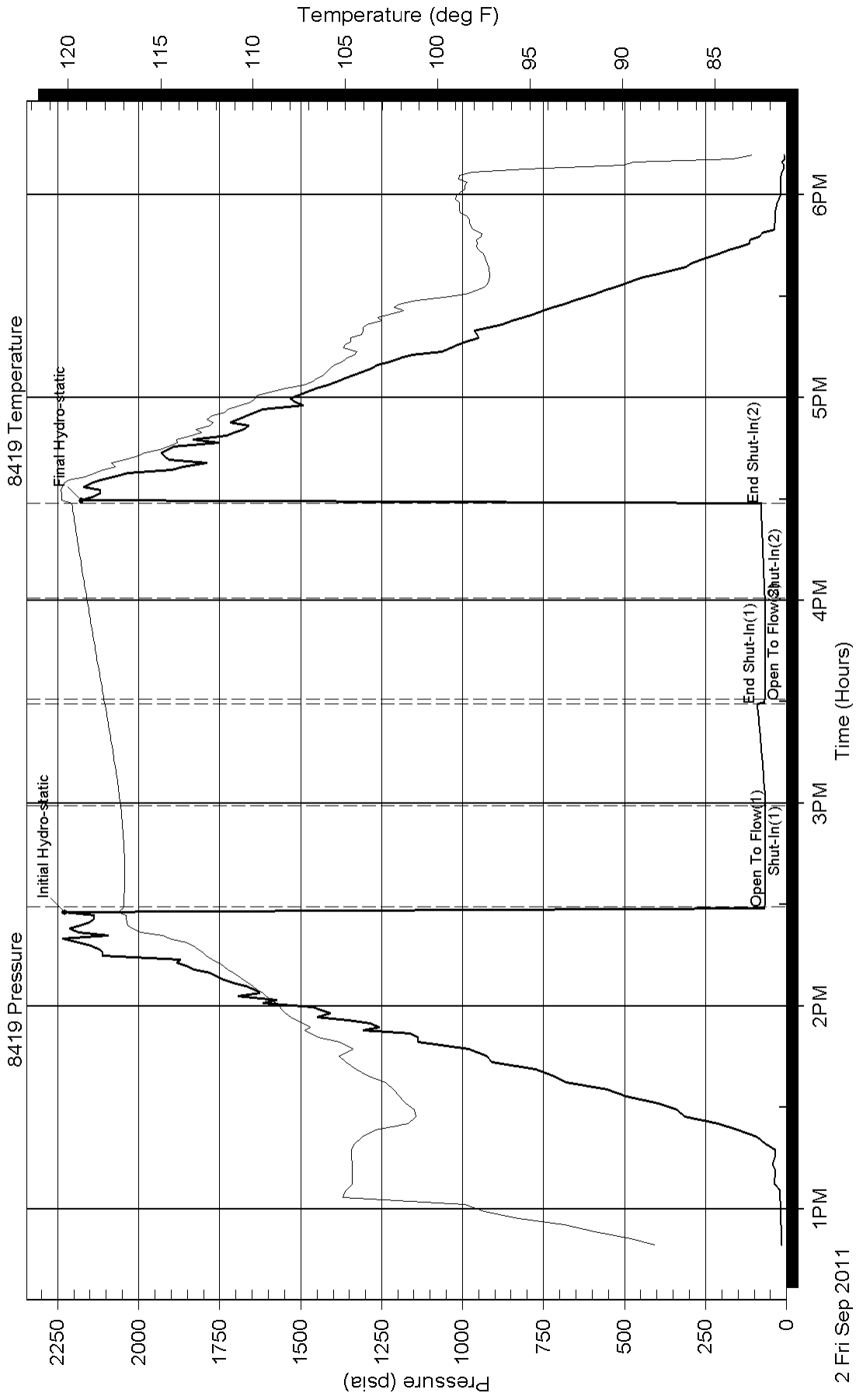
Inside

Grand Mesa Operating Company

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DST Test Number: 4

### Pressure vs. Time



### Pressure vs. Time

