



DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating**

1700 N Waterfront Parkway
Building 600
Wichita, KS 67206+5514

ATTN: Steve Stribling

33/13S/31W/Gove

Hess 2-33

Start Date: 2011.06.02 @ 17:46:00

End Date: 2011.06.03 @ 01:33:00

Job Ticket #: 15794 DST #: 4

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

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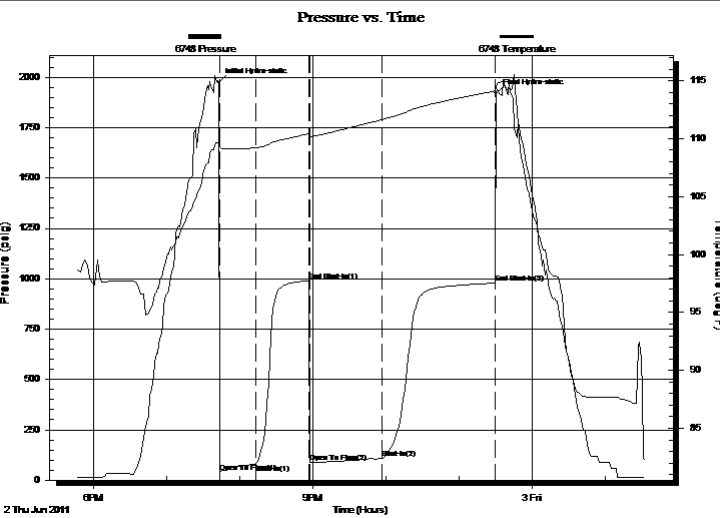
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 Job Ticket: 15794 **DST#: 4**
 Test Start: 2011.06.02 @ 17:46:00

GENERAL INFORMATION:

Formation: **Lansing Zone E**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:43:30
 Time Test Ended: 01:33:00
 Interval: **3992.00 ft (KB) To 4012.00 ft (KB) (TVD)**
 Total Depth: 4012.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ken Swinney
 Unit No: 3325 Scott City/94
 Reference Elevations: 2877.00 ft (KB)
 2872.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6748 Outside
 Press @ Run Depth: 978.00 psig @ 4009.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2011.06.02 End Date: 2011.06.03 Last Calib.: 2011.06.02
 Start Time: 17:47:00 End Time: 01:33:00 Time On Btm: 2011.06.02 @ 19:42:30
 Time Off Btm: 2011.06.02 @ 23:30:30

TEST COMMENT: 1ST Open 30 Minutes/Weak blow /Built to 2 3/4 inches in bucket of water
 1ST Shut In 45 Minutes/No blow back
 2ND Open 60 Minutes/Weak building blow /Built to 6 inches in bucket of water
 2ND Shut In 90 Minutes/No blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1975.08	109.69	Initial Hydro-static
1	40.59	109.29	Open To Flow (1)
31	80.80	109.21	Shut-In(1)
74	990.64	110.42	End Shut-In(1)
75	89.63	110.18	Open To Flow (2)
135	108.13	111.64	Shut-In(2)
228	978.00	114.12	End Shut-In(2)
228	1919.54	114.44	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
95.00	Clean gassy oil 90% oil 10% gas	0.47
100.00	Oil cut mud 30% oil 70% mud	1.22

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



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TOOL DIAGRAM

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 Job Ticket: 15794 **DST#: 4**
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Tool Information

Drill Pipe:	Length: 3861.00 ft	Diameter: 3.88 inches	Volume: 56.46 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 57.05 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	54000.00 lb
Depth to Top Packer:	3992.00 ft			Final	54000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	20.00 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
Shut-in tool	5.00			3968.00	
Hydraulic tool	5.00			3973.00	
Change over sub	1.00			3974.00	
Jars	6.00			3980.00	
Safety Joint	2.00			3982.00	
Packer	5.00			3987.00	29.00 Bottom Of Top Packer
Packer	5.00			3992.00	
Anchor	15.00			4007.00	
Recorder	1.00	6749	Inside	4008.00	
Recorder	1.00	6748	Outside	4009.00	
Bullnose	3.00			4012.00	20.00 Bottom Packers & Anchor

Total Tool Length: 49.00



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FLUID SUMMARY

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Mud and Cushion Information

Mud Type: Gel Chem
 Mud Weight: 9.00 lb/gal
 Viscosity: 53.00 sec/qt
 Water Loss: 7.60 in³
 Resistivity: ohm.m
 Salinity: 6400.00 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
95.00	Clean gassy oil 90% oil 10% gas	0.467
100.00	Oil cut mud 30% oil 70% mud	1.220

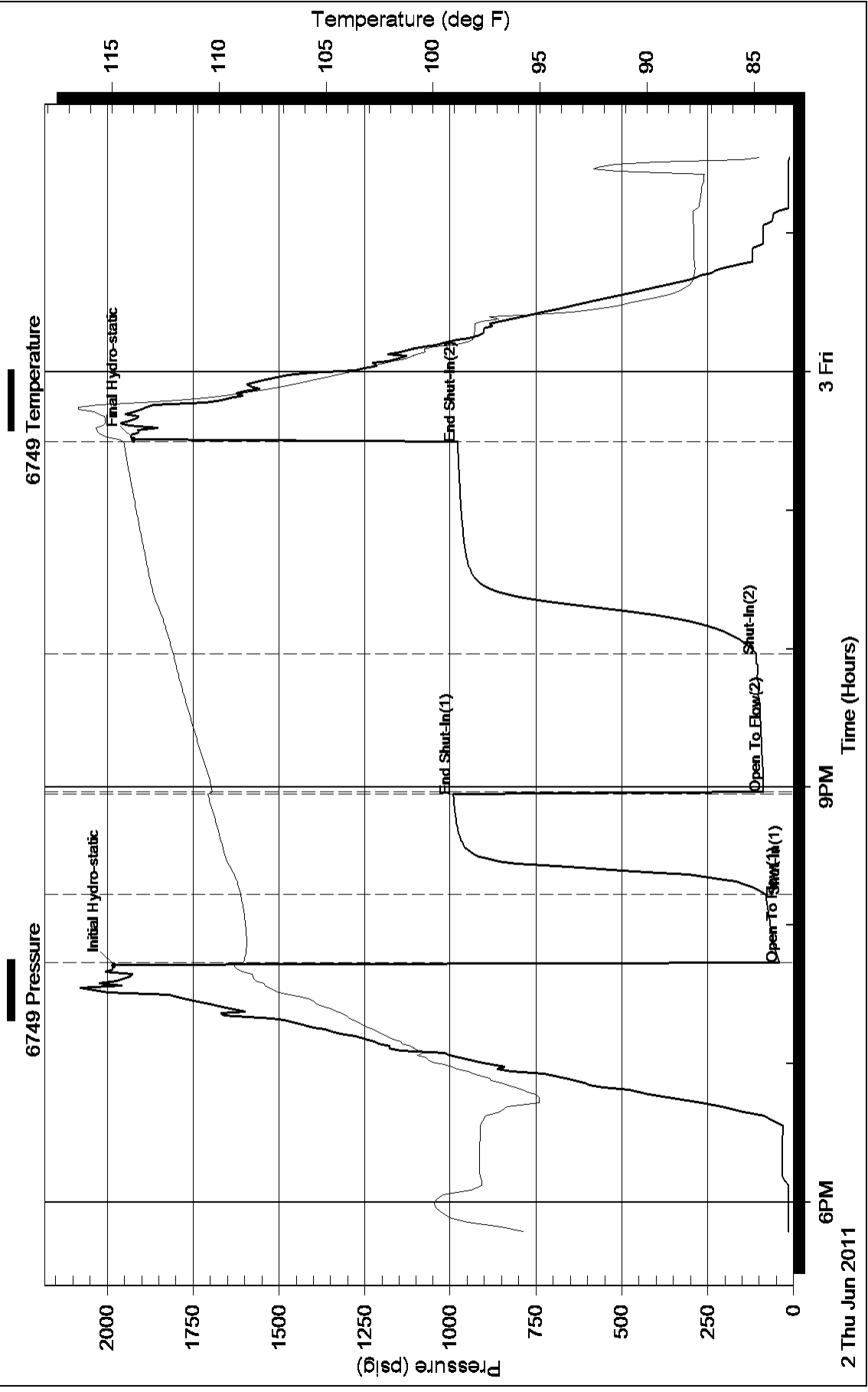
Total Length: 195.00 ft Total Volume: 1.687 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity of oil 35

Pressure vs. Time



Pressure vs. Time

