



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: 2011.06.04 @ 07:30:00

End Date: 2011.06.04 @ 16:24:00

Job Ticket #: 15795 DST #: 5

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

Printed: 2011.06.06 @ 09:34:15

Grand Mesa Operating
Hess 2-33
33/13S/31W/Gove
DST # 5
Lansing zone H//J
2011.06.04



DRILL STEM TEST REPORT

Grand Mesa Operating
 1700 N Waterfront Parkway
 Building 600
 Wichita, KS 67206+5514
 ATTN: Steve Stribling

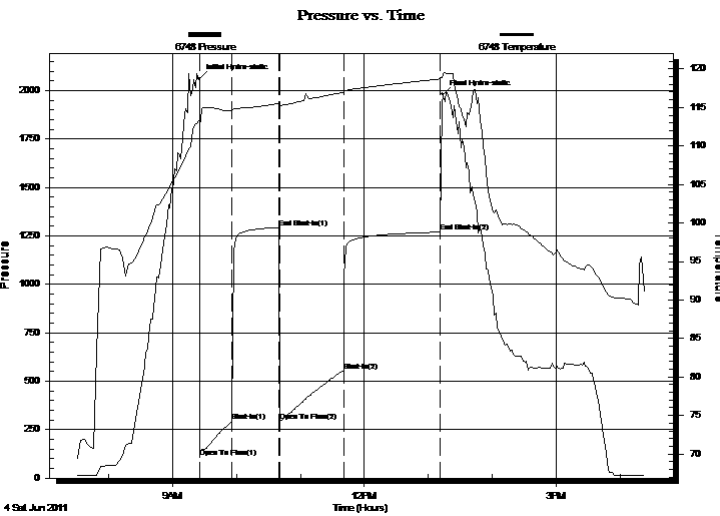
Hess 2-33
33/13S/31W/Gove
 Job Ticket: 15795 **DST#: 5**
 Test Start: 2011.06.04 @ 07:30:00

GENERAL INFORMATION:

Formation: **Lansing zone H/WJ**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:25:30
 Time Test Ended: 16:24:00
 Interval: **4072.00 ft (KB) To 4160.00 ft (KB) (TVD)**
 Total Depth: 4160.00 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: 554.77 psig @ 4157.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2011.06.04 End Date: 2011.06.04 Last Calib.: 2011.06.04
 Start Time: 07:31:00 End Time: 16:24:00 Time On Btm: 2011.06.04 @ 09:25:00
 Time Off Btm: 2011.06.04 @ 13:13:30

TEST COMMENT: 1ST Open 30 Minutes/Good blow /Blow built to bottom of bucket in 4 minutes
 1ST Shut In 45 Minutes/Blow back built to 12 inches in 25 min/Died to 8 inches
 2ND Open 60 Minutes/Good blow /Blow built to bottom of bucket in 4 Minutes
 2ND Shut In 90 Minutes/Blow back built to 12 inches in 15 min/Died 47 minutes later



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2061.48	113.33	Initial Hydro-static
1	109.32	112.82	Open To Flow (1)
32	295.10	114.53	Shut-In(1)
75	1293.66	115.54	End Shut-In(1)
76	291.73	115.23	Open To Flow (2)
136	554.77	116.94	Shut-In(2)
227	1270.10	118.70	End Shut-In(2)
229	1979.55	119.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1800.00	Gas in pipe 100%	25.16
1160.00	Clean gassy oil Gas 35% Oil 65%	16.96
120.00	Mud cut oil 40% Mud 60% Oil	1.75

Gas Rates

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



DRILL STEM TEST REPORT

Grand Mesa Operating
 1700 N Waterfront Parkway
 Building 600
 Wichita, KS 67206+5514
 ATTN: Steve Stribling

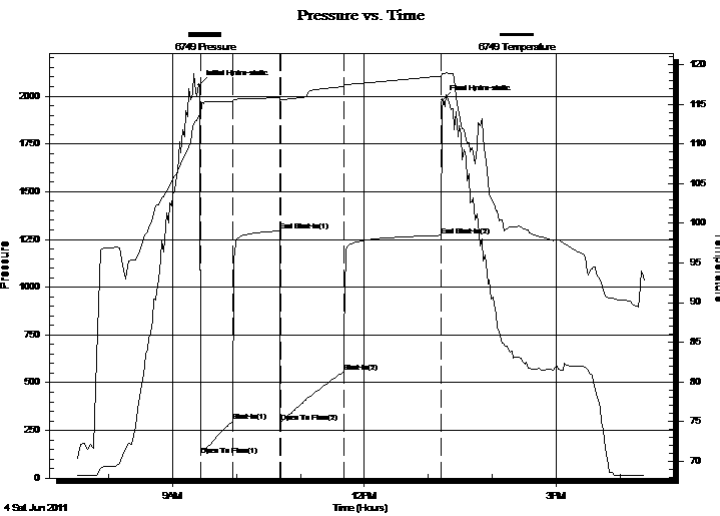
Hess 2-33
33/13S/31W/Gove
 Job Ticket: 15795 **DST#: 5**
 Test Start: 2011.06.04 @ 07:30:00

GENERAL INFORMATION:

Formation: **Lansing zone H/WJ**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:25:30
 Time Test Ended: 16:24:00
 Interval: **4072.00 ft (KB) To 4160.00 ft (KB) (TVD)**
 Total Depth: 4160.00 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 #: 6749 Inside
 Press @ Run Depth: 1271.15 psig @ 4156.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2011.06.04 End Date: 2011.06.04 Last Calib.: 2011.06.04
 Start Time: 07:31:00 End Time: 16:24:00 Time On Btm: 2011.06.04 @ 09:25:00
 Time Off Btm: 2011.06.04 @ 13:13:30

TEST COMMENT: 1ST Open 30 Minutes/Good blow /Blow built to bottom of bucket in 4 minutes
 1ST Shut In 45 Minutes/Blow back built to 12 inches in 25 min/Died to 8 inches
 2ND Open 60 Minutes/Good blow /Blow built to bottom of bucket in 4 Minutes
 2ND Shut In 90 Minutes/Blow back built to 12 inches in 15 min/Died 47 minutes later



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2059.73	113.73	Initial Hydro-static
1	121.86	113.53	Open To Flow (1)
32	296.50	115.36	Shut-In(1)
76	1294.40	115.93	End Shut-In(1)
77	293.12	115.67	Open To Flow (2)
136	555.15	117.24	Shut-In(2)
227	1271.15	118.57	End Shut-In(2)
229	1981.41	118.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1800.00	Gas in pipe 100%	25.16
1160.00	Clean gassy oil Gas 35% Oil 65%	16.96
120.00	Mud cut oil 40% Mud 60% Oil	1.75

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Operating
 1700 N Waterfront Parkway
 Building 600
 Wichita, KS 67206+5514
 ATTN: Steve Stribling

Hess 2-33
33/13S/31W/Gove
 Job Ticket: 15795 **DST#: 5**
 Test Start: 2011.06.04 @ 07:30:00

Tool Information

Drill Pipe:	Length: 3926.00 ft	Diameter: 3.88 inches	Volume: 57.41 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:	68000.00 lb
			<u>Total Volume: 58.00 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	2.75 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	4072.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	88.00 ft				
Tool Length:	116.75 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			4048.25	
Hydraulic tool	5.00			4053.25	
Change over sub	0.75			4054.00	
Jars	6.00			4060.00	
Safety Joint	2.00			4062.00	
Packer	5.00			4067.00	28.75 Bottom Of Top Packer
Packer	5.00			4072.00	
Anchor	4.00			4076.00	
change over sub	0.75			4076.75	
drill pipe	62.50			4139.25	
change over sub	0.75			4140.00	
anchor	15.00			4155.00	
Recorder	1.00	6749	Inside	4156.00	
Recorder	1.00	6748	Outside	4157.00	
bull plug	3.00			4160.00	88.00 Bottom Packers & Anchor

Total Tool Length: 116.75



DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating

Hess 2-33

1700 N Waterfront Parkway
 Building 600
 Wichita, KS 67206+5514
 ATTN: Steve Stribling

33/13S/31W/Gove

Job Ticket: 15795

DST#: 5

Test Start: 2011.06.04 @ 07:30:00

Mud and Cushion Information

Mud Type: Gel Chem
 Mud Weight: 9.00 lb/gal
 Viscosity: 62.00 sec/qt
 Water Loss: 6.19 in³
 Resistivity: ohm.m
 Salinity: 4000.00 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

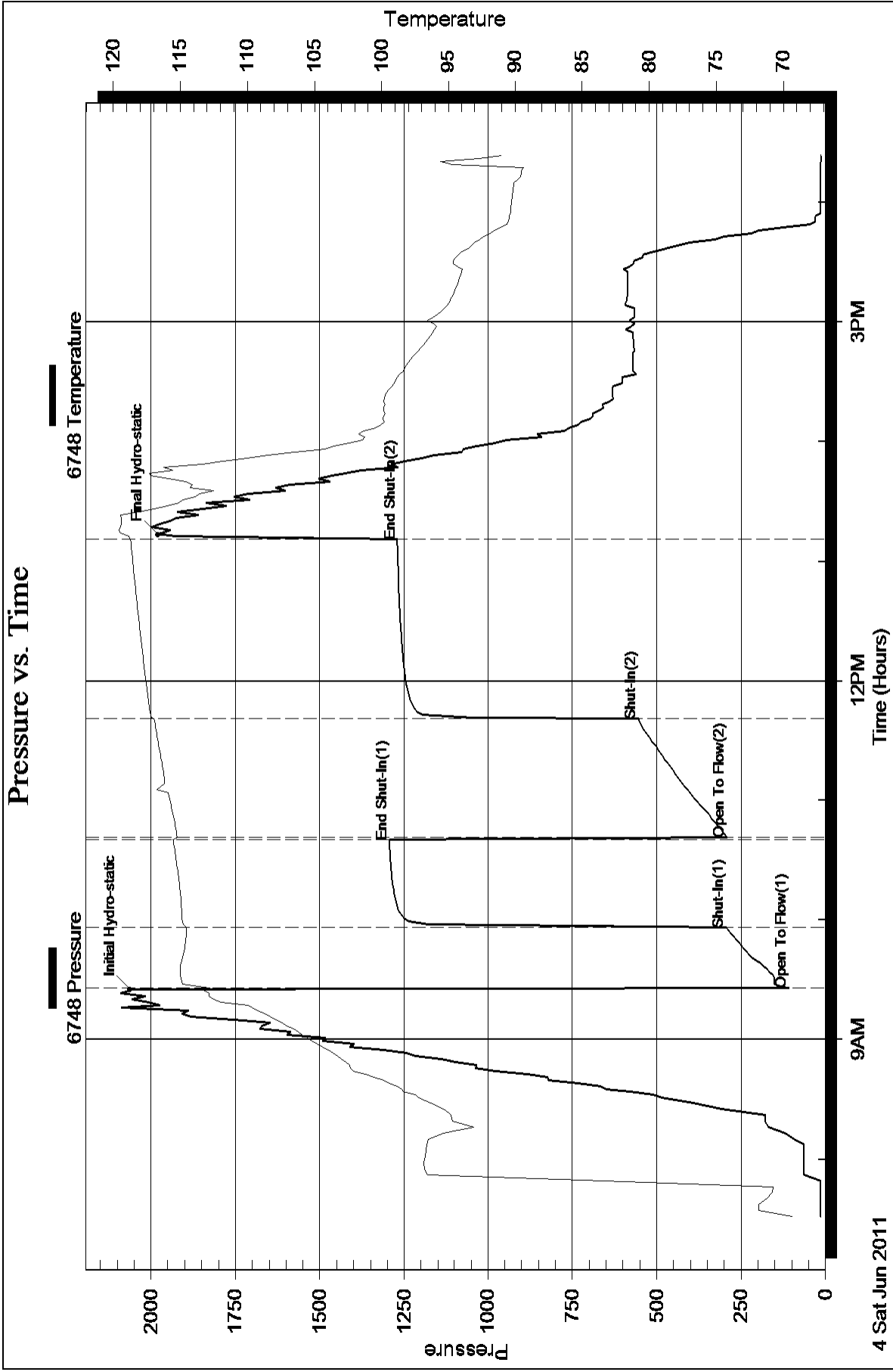
Length ft	Description	Volume bbl
1800.00	Gas in pipe 100%	25.159
1160.00	Clean gassy oil Gas 35% Oil 65%	16.964
120.00	Mud cut oil 40% Mud 60% Oil	1.755

Total Length: 3080.00 ft Total Volume: 43.878 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity of oil 38
 Circulating Sub Yes



Serial #: 6749

Inside

Grand Mesa Operating

33/13S/31W/Gove

DST Test Number: 5

