



## DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating**

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

ATTN: Steve Stribling

**4/16S/33W/Scott**

**Dirks 1-4**

Start Date: 2011.06.19 @ 10:51:00

End Date: 2011.06.19 @ 18:48:30

Job Ticket #: 16588                      DST #: 5

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

Printed: 2011.06.19 @ 17:10:48



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Job Ticket: 16588

**DST#: 5**

Test Start: 2011.06.19 @ 10:51:00

## GENERAL INFORMATION:

Formation: **Lansing zone L/Pleas**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:47:30

Time Test Ended: 18:48:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/28

**Interval: 4333.00 ft (KB) To 4395.00 ft (KB) (TVD)**

Reference Elevations: 3068.00 ft (KB)

Total Depth: 4395.00 ft (KB) (TVD)

3063.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6748 Outside**

Press @ RunDepth: 703.17 psig @ 4392.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2011.06.19

End Date: 2011.06.19

Last Calib.: 2011.06.19

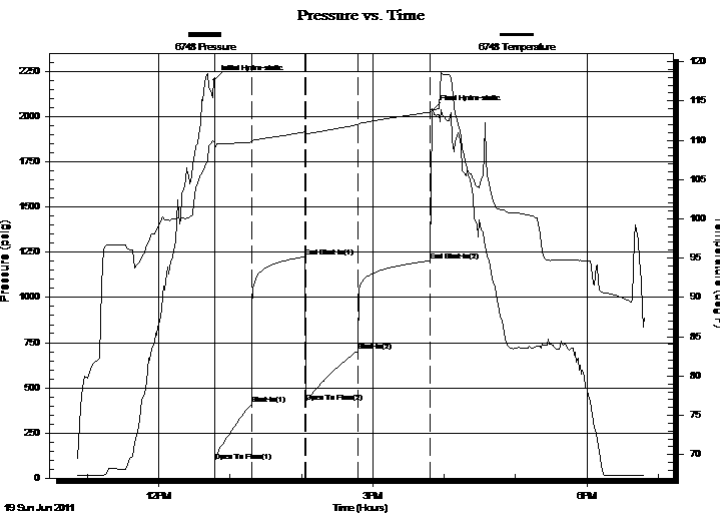
Start Time: 10:51:00

End Time: 18:48:30

Time On Btm: 2011.06.19 @ 12:47:00

Time Off Btm: 2011.06.19 @ 15:50:30

**TEST COMMENT:** 1ST Open 30 Minutes/Fair blow/Blow built to bottom of bucket in 4 Minutes  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 45 Minutes/Fair blow/Blow built to bottom of bucket in 6 Minutes  
 2ND Shut In 60 Minutes/No blow back



## PRESSURE SUMMARY

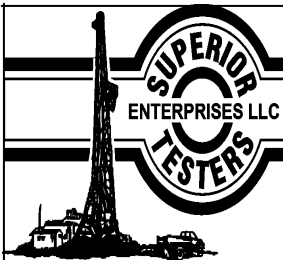
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2204.85	109.90	Initial Hydro-static
1	94.91	108.86	Open To Flow (1)
31	408.57	109.77	Shut-In(1)
76	1225.55	111.05	End Shut-In(1)
77	421.75	110.79	Open To Flow (2)
121	703.17	111.98	Shut-In(2)
182	1202.68	113.57	End Shut-In(2)
184	2037.72	113.86	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1420.00	Muddy water Mud 30% Water 70%	19.60

## Gas Rates

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



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Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/28

Interval: **4333.00 ft (KB) To 4395.00 ft (KB) (TVD)**

Total Depth: 4395.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3068.00 ft (KB)

3063.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6749

Inside

Press @ Run Depth: 1201.69 psig @ 4391.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2011.06.19

End Date: 2011.06.19

Last Calib.: 2011.06.19

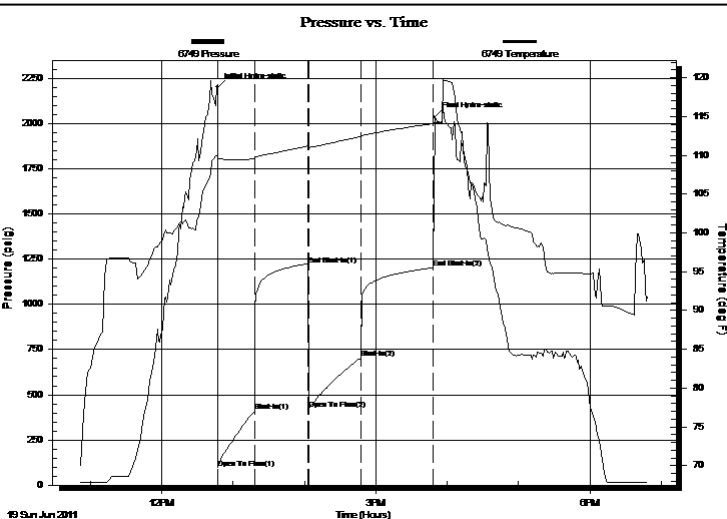
Start Time: 10:51:00

End Time: 18:48:30

Time On Btm: 2011.06.19 @ 12:47:00

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 2ND Shut In 60 Minutes/No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2199.16	110.01	Initial Hydro-static
1	95.54	109.44	Open To Flow (1)
31	409.28	109.58	Shut-In(1)
76	1219.53	111.20	End Shut-In(1)
77	422.05	111.01	Open To Flow (2)
121	703.10	112.40	Shut-In(2)
181	1201.69	114.07	End Shut-In(2)
183	2036.41	114.32	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1420.00	Muddy water Mud 30% Water 70%	19.60

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Grand Mesa Operating

**Dirks 1-4**

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Job Ticket: 16588

**DST#: 5**

Test Start: 2011.06.19 @ 10:51:00

**Tool Information**

Drill Pipe:	Length: 4210.00 ft	Diameter: 3.88 inches	Volume: 61.57 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:	80000.00 lb
			<u>Total Volume: 62.16 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.75 ft			String Weight: Initial	59000.00 lb
Depth to Top Packer:	4333.00 ft			Final	69000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	62.00 ft				
Tool Length:	90.75 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			4309.25	
Hydraulic tool	5.00			4314.25	
Change over sub	0.75			4315.00	
Jars	6.00			4321.00	
Safety Joint	2.00			4323.00	
Packer	5.00			4328.00	28.75 Bottom Of Top Packer
Packer	5.00			4333.00	
Anchor	5.00			4338.00	
change over sub	0.75			4338.75	
drill pipe	30.50			4369.25	
change over sub	0.75			4370.00	
anchor	20.00			4390.00	
Recorder	1.00	6749	Inside	4391.00	
Recorder	1.00	6748	Outside	4392.00	
bull plug	3.00			4395.00	62.00 Bottom Packers & Anchor

**Total Tool Length: 90.75**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

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Test Start: 2011.06.19 @ 10:51:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 57.00 sec/qt  
Water Loss: 9.19 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 8200.00 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
1420.00	Muddy water Mud 30% Water 70%	19.602

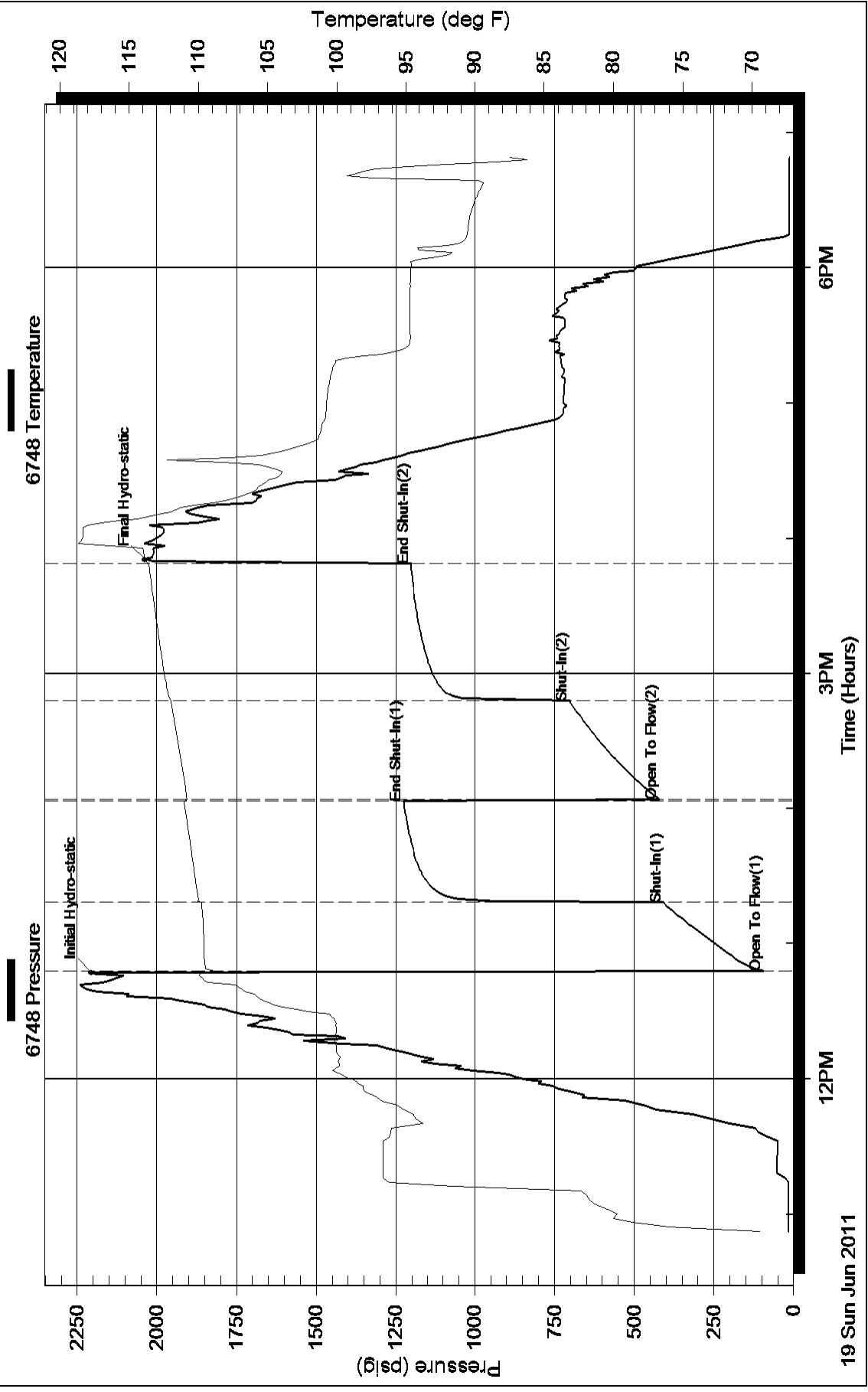
Total Length: 1420.00 ft      Total Volume: 19.602 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments: Circulating Sub Yes  
Recovery Chlorides 29000 ppm

### Pressure vs. Time



Serial #: 6749

Inside

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4/16S/33W/Scott

DST Test Number: 5

### Pressure vs. Time

