



DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating Co.**

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

ATTN: Steve Stribling

9/14S/31W/Gove

Hund 3-9

Start Date: 2011.07.13 @ 10:17:00

End Date: 2011.07.13 @ 15:37:00

Job Ticket #: 16596 DST #: 2

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

Printed: 2011.07.13 @ 13:55:31



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Job Ticket: 16596

DST#: 2

Test Start: 2011.07.13 @ 10:17:00

GENERAL INFORMATION:

Formation: **Upper Fort Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:12:30

Time Test Ended: 15:37:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3225 Scott City

Interval: 4455.00 ft (KB) To 4485.00 ft (KB) (TVD)

Reference Elevations: 2937.00 ft (KB)

Total Depth: 4485.00 ft (KB) (TVD)

2932.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6748 Outside

Press @ Run Depth: 45.27 psig @ 4482.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2011.07.13

End Date: 2011.07.13

Last Calib.: 2011.07.13

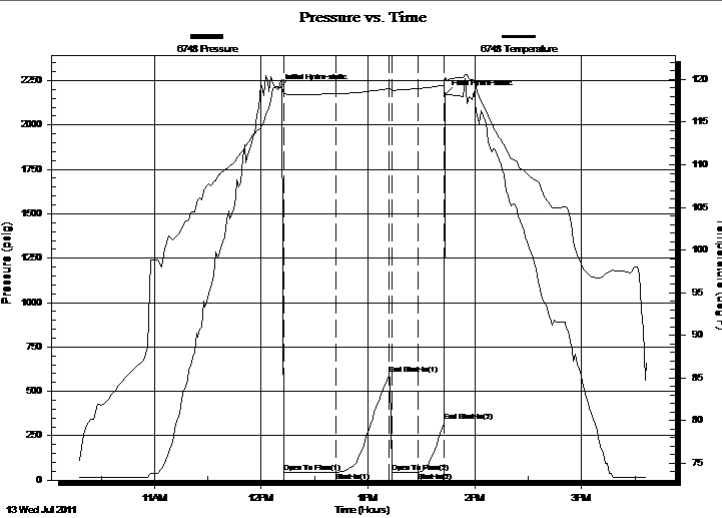
Start Time: 10:17:00

End Time: 15:37:00

Time On Btm: 2011.07.13 @ 12:10:00

Time Off Btm: 2011.07.13 @ 13:43:30

TEST COMMENT: 1ST Open 30 Minutes/Weak Surface blow/Blow died in 19 minutes
 1ST Shut In 30 Minutes/No Blow Back
 2ND Open 15 Minutes/No Blow
 2ND Shut In 15 Minutes/No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2206.46	119.09	Initial Hydro-static
3	43.56	118.40	Open To Flow (1)
32	44.61	118.33	Shut-In(1)
62	594.90	118.91	End Shut-In(1)
64	44.84	118.75	Open To Flow (2)
78	45.27	118.94	Shut-In(2)
93	334.49	119.34	End Shut-In(2)
94	2171.76	120.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100%	0.01

Gas Rates

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



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Unit No: 3225 Scott City

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Reference Elevations: 2937.00 ft (KB)

Total Depth: 4485.00 ft (KB) (TVD)

2932.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6749 Inside

Press @ Run Depth: 337.16 psig @ 4481.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2011.07.13

End Date: 2011.07.13

Last Calib.: 2011.07.13

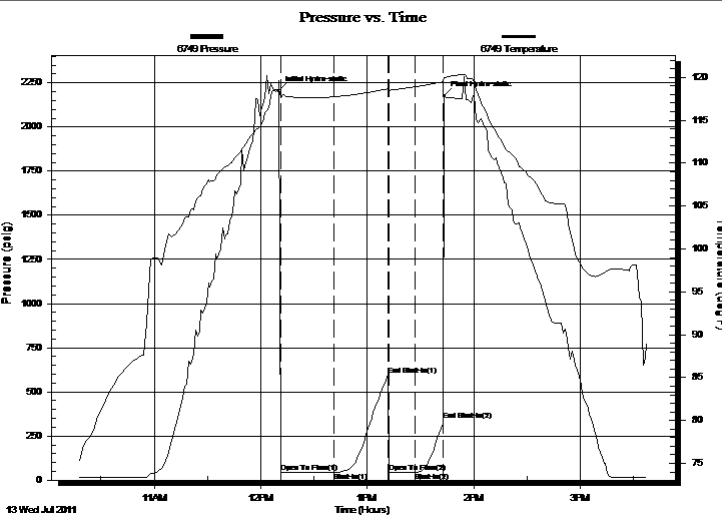
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TEST COMMENT: 1ST Open 30 Minutes/Weak Surface blow/Blow died in 19 minutes
 1ST Shut In 30 Minutes/No Blow Back
 2ND Open 15 Minutes/No Blow
 2ND Shut In 15 Minutes/No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2204.05	118.61	Initial Hydro-static
2	42.03	117.69	Open To Flow (1)
32	44.63	117.74	Shut-In(1)
62	596.62	118.67	End Shut-In(1)
63	44.57	118.37	Open To Flow (2)
77	45.14	118.91	Shut-In(2)
93	337.16	119.49	End Shut-In(2)
94	2176.83	120.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100%	0.01

Gas Rates

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



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TOOL DIAGRAM

Grand Mesa Operating Co.

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9/14S/31W/Gove

Job Ticket: 16596

DST#: 2

Test Start: 2011.07.13 @ 10:17:00

Tool Information

Drill Pipe:	Length: 4336.00 ft	Diameter: 3.88 inches	Volume: 63.41 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: 64.00 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4455.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	30.00 ft				
Tool Length:	59.00 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			4431.00	
Hydraulic tool	5.00			4436.00	
Change over sub	1.00			4437.00	
Jars	6.00			4443.00	
Safety Joint	2.00			4445.00	
Packer	5.00			4450.00	29.00 Bottom Of Top Packer
Packer	5.00			4455.00	
Anchor	25.00			4480.00	
Recorder	1.00	6749	Inside	4481.00	
Recorder	1.00	6748	Outside	4482.00	
Bullnose	3.00			4485.00	30.00 Bottom Packers & Anchor

Total Tool Length: 59.00



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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: 52.00 sec/qt

Water Loss: 8.79 in³

Resistivity: ohm.m

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud 100%	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

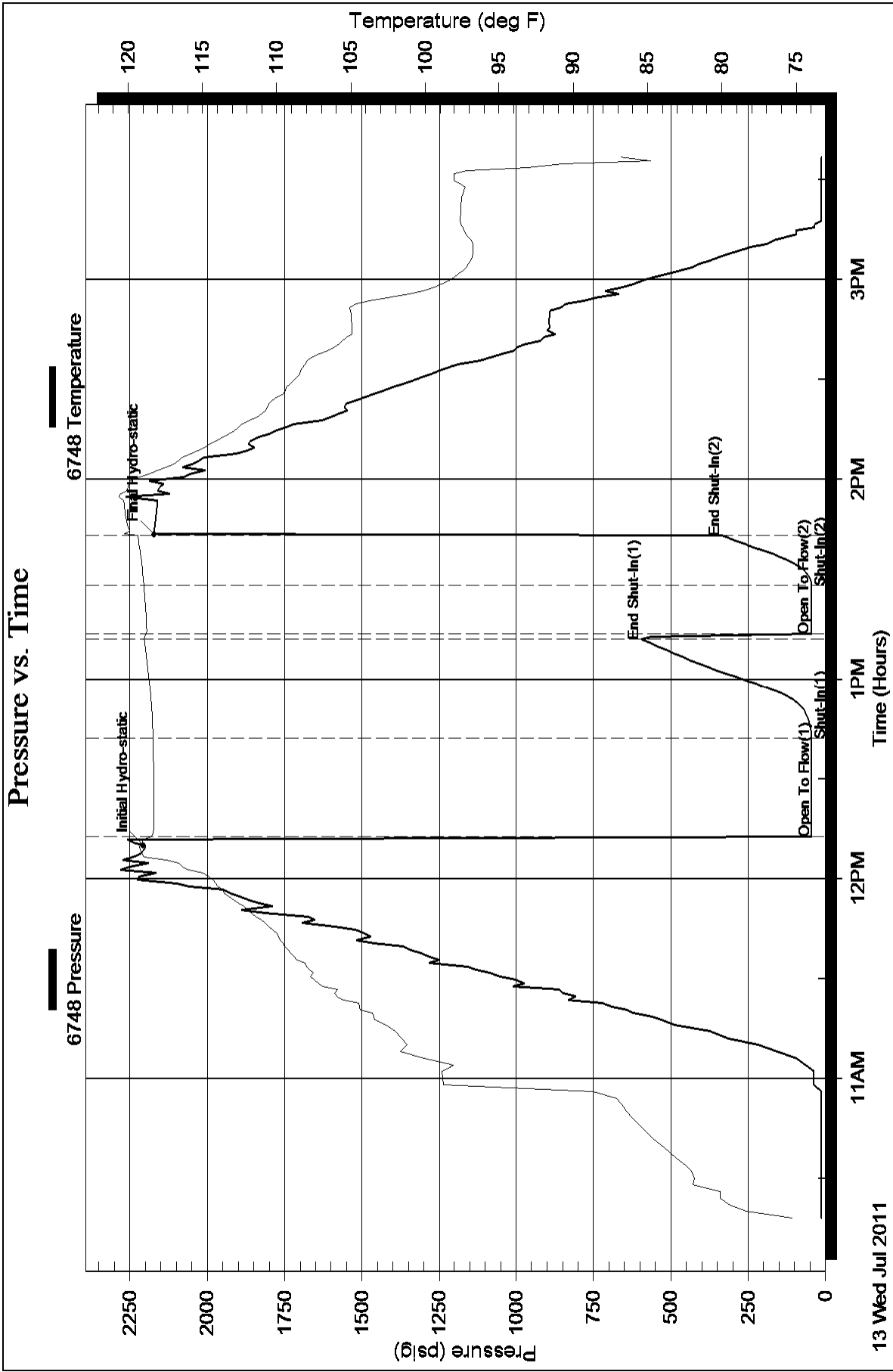
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Pressure vs. Time

