



## 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: 2011.08.31 @ 17:03:00

End Date: 2011.08.31 @ 22:25:00

Job Ticket #: 18627                      DST #: 2

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

Printed: 2011.09.01 @ 10:01:52

Grand Mesa Operating Company  
Hess #6-32  
32-13s-31w Gove  
DST # 2  
Lansing "K zone"  
2011.08.31



# DRILL STEM TEST REPORT

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**DST#: 2**

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Test Start: 2011.08.31 @ 17:03:00

## GENERAL INFORMATION:

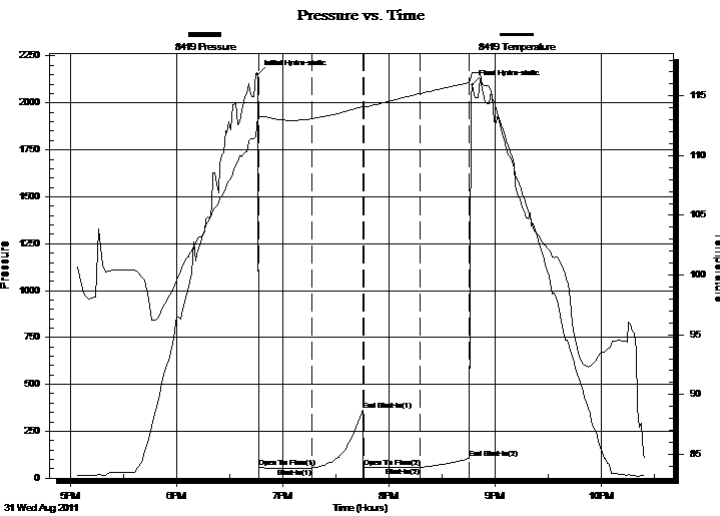
Formation: **Lansing "K zone"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:46:30  
 Time Test Ended: 22:25:00  
 Interval: **4220.00 ft (KB) To 4258.00 ft (KB) (TVD)**  
 Total Depth: 4258.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jared Scheck  
 Unit No: 3320-GB-70  
 Reference Elevations: 2943.00 ft (KB)  
 2938.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 8419

Inside

Press @ Run Depth: 57.65 psia @ 4254.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2011.08.31 End Date: 2011.08.31 Last Calib.: 2011.08.31  
 Start Time: 17:04:00 End Time: 22:25:00 Time On Btm: 2011.08.31 @ 18:45:30  
 Time Off Btm: 2011.08.31 @ 20:47:00

**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 died off  
 2nd Shut-in 30 Minutes-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2152.01	113.36	Initial Hydro-static
1	58.65	113.26	Open To Flow (1)
31	53.77	113.10	Shut-In(1)
60	361.82	114.10	End Shut-In(1)
61	59.92	114.07	Open To Flow (2)
92	57.65	115.19	Shut-In(2)
120	106.09	116.11	End Shut-In(2)
122	2095.38	116.94	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%	0.02

## Gas Rates

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



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**DST#: 2**

ATTN: Kent Matson

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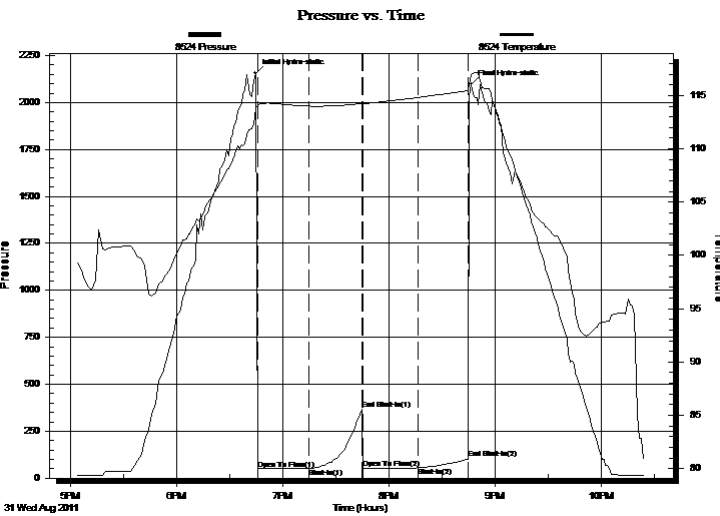
## GENERAL INFORMATION:

Formation: **Lansing "K zone"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:46:30  
 Time Test Ended: 22:25:00  
 Interval: **4220.00 ft (KB) To 4258.00 ft (KB) (TVD)**  
 Total Depth: 4258.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jared Scheck  
 Unit No: 3320-GB-70  
 Reference Elevations: 2943.00 ft (KB)  
 2938.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 8524 Outside

Press @ Run Depth: 103.35 psia @ 4255.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2011.08.31 End Date: 2011.08.31 Last Calib.: 2011.08.31  
 Start Time: 17:04:00 End Time: 22:24:30 Time On Btm: 2011.08.31 @ 18:44:30  
 Time Off Btm: 2011.08.31 @ 20:46:30

**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 died off  
 2nd Shut-in 30 Minutes-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2155.91	113.86	Initial Hydro-static
1	49.30	113.99	Open To Flow (1)
30	52.06	114.01	Shut-In(1)
60	368.42	114.28	End Shut-In(1)
61	52.74	114.26	Open To Flow (2)
92	54.99	114.82	Shut-In(2)
121	103.35	115.46	End Shut-In(2)
122	2095.70	117.01	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%	0.02

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Grand Mesa Operating Company

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**DST#: 2**

ATTN: Kent Matson

Test Start: 2011.08.31 @ 17:03:00

## Tool Information

Drill Pipe:	Length: 4085.00 ft	Diameter: 3.80 inches	Volume: 57.30 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: 57.89 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4220.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	66.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
SHut-InTool	5.00		Inside	4197.00	
Hydraulic Tool	5.00			4202.00	
Jars	6.00			4208.00	
Safety Joint	2.00			4210.00	
Packer	5.00			4215.00	28.00 Bottom Of Top Packer
Packer	5.00			4220.00	
Anchor	33.00			4253.00	
Recorder	1.00	8419	Inside	4254.00	
Recorder	1.00	8524	Outside	4255.00	
Bullnose	3.00			4258.00	38.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>66.00</b>				



# DRILL STEM TEST REPORT

## 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: 56.00 sec/qt

Cushion Volume: bbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psia

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

