



DRILL STEM TEST REPORT

Prepared For: **GRAND MESA OPERATING**

1700 N WATERFRONT
PKWY BLDG 600
WICHITA KS 67206

ATTN: BOB PETERSON

34-12S-32W LOGAN

SMITH 1-34

Start Date: 2010.11.16 @ 03:00:00

End Date: 2010.11.16 @ 10:25:00

Job Ticket #: 1050 DST #: 4

Eagle Testers LLC.

P.O.Box 1011, Great Bend, KS 67530

620-617-7548

Printed: 2010.11.16 @ 03:14:21

GRAND MESA OPERATING
SMITH 1-34
34-12S-32W LOGAN
DST # 4
LKC-K-
2010.11.16



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GENERAL INFORMATION:

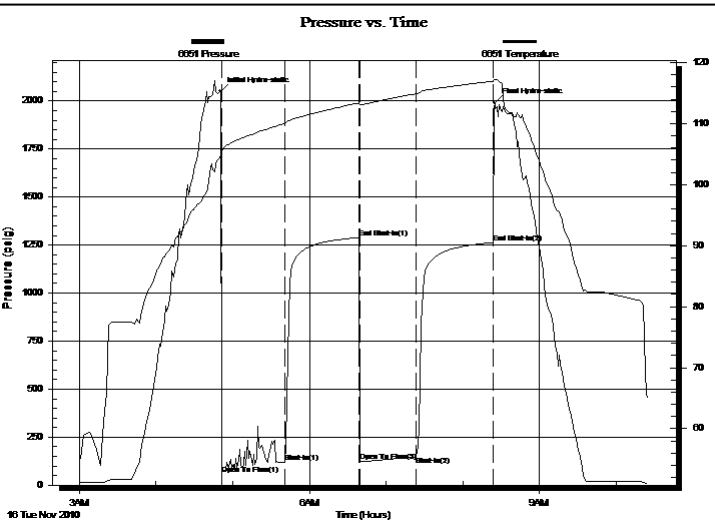
Formation: **LKC-K-**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:51:00
 Time Test Ended: 10:25:00
 Interval: **4218.00 ft (KB) To 4252.00 ft (KB) (TVD)**
 Total Depth: 4252.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: DAVID NICHOLS
 Unit No: 15
 Reference Elevations: 2984.00 ft (KB)
 2978.00 ft (CF)
 KB to GR/CF: 6.00 ft

Serial #: 6651

Inside

Press @ Run Depth: 148.53 psig @ 4248.00 ft (KB) Capacity: 14000.00 psig
 Start Date: 2010.11.16 End Date: 2010.11.16 Last Calib.: 2010.11.16
 Start Time: 03:00:00 End Time: 10:25:00 Time On Btm: 2010.11.16 @ 04:50:30
 Time Off Btm: 2010.11.16 @ 08:25:00

TEST COMMENT: 45-INITIAL OPENING WEAK BLOW BUILT TO 1 1/2 INTO WATER
 60-INITIAL SHUT IN NO BLOW BACK
 45-FINAL OPENING WEAK BLOW BUILT TO 6 INCHES INTO WATER
 60-FINAL SHUT IN NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2050.48	104.69	Initial Hydro-static
1	56.70	103.77	Open To Flow (1)
50	121.43	110.02	Shut-In(1)
108	1288.92	113.39	End Shut-In(1)
109	123.27	113.12	Open To Flow (2)
154	148.53	114.90	Shut-In(2)
213	1263.66	116.95	End Shut-In(2)
215	1991.51	117.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	MUD WITH A SKIM OF OIL 100%MUD	0.49
60.00	MUD CUT WATER 30%MUD 70%WATER	0.68
60.00	MUDDY WATER 20%MUD 80%WATER	0.88

Gas Rates

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



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TOOL DIAGRAM

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Tool Information

Drill Pipe:	Length: 4075.00 ft	Diameter: 3.88 inches	Volume: 59.59 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 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: 75000.00 lb
			<u>Total Volume: 60.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	0.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	4218.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	57.00 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			4200.00	
HYD S.I. Tool	5.00			4205.00	
jars	6.00			4211.00	
safty joint	2.00			4213.00	
TRAVEL COLER	2.00			4215.00	
Packer	3.00			4218.00	23.00 Bottom Of Top Packer
travel collar	2.00			4220.00	34.00 Tool Interval
Packer	3.00			4223.00	
Anchor	24.00			4247.00	
Recorder	1.00	6651	Inside	4248.00	
Recorder	1.00	13772	Outside	4249.00	
BULL PLUG	3.00			4252.00	1000056.00 Bottom Packers & Anchor

Total Tool Length: 57.00



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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: 48.00 sec/qt
Water Loss: 9.20 in³
Resistivity: ohm.m
Salinity: 3000.00 ppm
Filter Cake: 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
100.00	MUD WITH A SKIM OF OIL 100%MUD	0.492
60.00	MUD CUT WATER 30%MUD 70%WATER	0.683
60.00	MUDDY WATER 20%MUD 80%WATER	0.877

Total Length: 220.00 ft Total Volume: 2.052 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

