



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: 2010.11.15 @ 10:00:00

End Date: 2010.11.15 @ 17:43:30

Job Ticket #: 1049 DST #: 3

Eagle Testers LLC.

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

620-617-7548

Printed: 2010.11.15 @ 10:58:03

GRAND MESA OPERATING
SMITH 1-34
34-12S-32W LOGAN
DST # 3
LKC -J-
2010.11.15



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GENERAL INFORMATION:

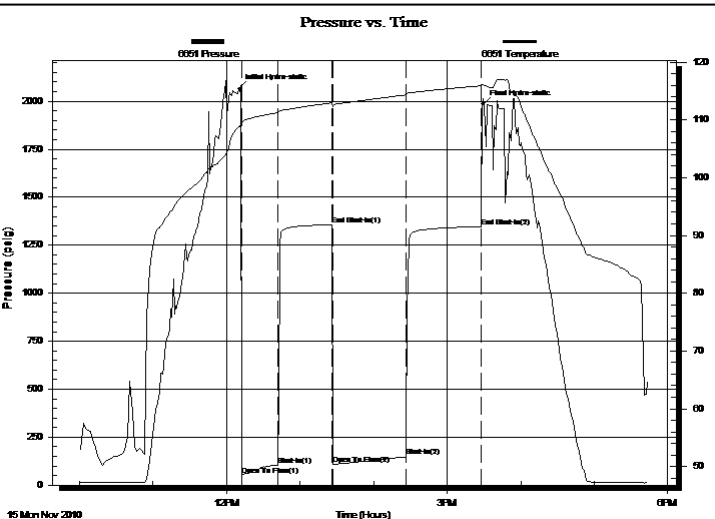
Formation: **LKC -J-**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:12:30
 Time Test Ended: 17:43:30
 Interval: **4193.00 ft (KB) To 4225.00 ft (KB) (TVD)**
 Total Depth: 4225.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Bottom Hole (Initial)
 Tester: 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: 149.34 psig @ 4221.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2010.11.15 End Date: 2010.11.15 Last Calib.: 2010.11.15
 Start Time: 10:00:00 End Time: 17:43:30 Time On Btm: 2010.11.15 @ 12:10:00
 Time Off Btm: 2010.11.15 @ 15:29:00

TEST COMMENT: 30-INITIAL OPENING WEAK BLOW BUILT TO 2 1/2 INCHES INTO WATER
 45-INITIAL SHUT IN NO BLOW BACK
 60-FINAL OPENING WEAK BLOW BUILT TO 5 INCHES INTO WATER
 60-FINAL SHUT IN NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2063.67	108.81	Initial Hydro-static
3	53.00	109.30	Open To Flow (1)
32	104.63	111.22	Shut-In(1)
76	1356.80	112.97	End Shut-In(1)
77	109.22	112.23	Open To Flow (2)
136	149.34	114.30	Shut-In(2)
198	1346.50	115.92	End Shut-In(2)
199	1983.32	116.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	WATER CUT MUD 40%WATER 60%MUD	0.59
90.00	MUDDY WATER SKIM OF OIL	1.32
0.00	20%MUD 80%WATER	0.00

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: 4050.00 ft	Diameter: 3.88 inches	Volume: 59.23 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: 59.82 bbl</u>	Tool Chased 240.00 ft
Drill Pipe Above KB:	0.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	4193.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	55.00 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			4175.00	
HYD S.I. Tool	5.00			4180.00	
jars	6.00			4186.00	
safty joint	2.00			4188.00	
TRAVEL COLER	2.00			4190.00	
Packer	3.00			4193.00	23.00 Bottom Of Top Packer
travel collar	2.00			4195.00	32.00 Tool Interval
Packer	3.00			4198.00	
Anchor	22.00			4220.00	
Recorder	1.00	6651	Inside	4221.00	
Recorder	1.00	13772	Outside	4222.00	
BULL PLUG	3.00			4225.00	1000054.00 Bottom Packers & Anchor

Total Tool Length: 55.00



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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
120.00	WATER CUT MUD 40%WATER 60%MUD	0.590
90.00	MUDDY WATER SKIM OF OIL	1.316
0.00	20%MUD 80%WATER	0.000

Total Length: 210.00 ft Total Volume: 1.906 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RECOVERY CHOLORIDES 36,000

Pressure vs. Time

