



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Grand Mesa Operating Company

Hess 1-4

1700 N Waterfront Pkwy BLDG 600 Wichita, KS 67206

4/14/31

ATTN: Mac Armstrong

Job Ticket: 38351

DST#: 3

Test Start: 2010.09.16 @ 06:04:05

GENERAL INFORMATION:

Formation: **k zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:04:45

Time Test Ended: 13:57:14

Test Type: Conventional Bottom Hole

Tester: Mike Roberts

Unit No: 35

Interval: 4210.00 ft (KB) To 4230.00 ft (KB) (TVD)

Reference Elevations: 2917.00 ft (KB)

Total Depth: 4230.00 ft (KB) (TVD)

2912.00 ft (CF)

Hole Diameter: 7.78 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8373

Inside

Press @ Run Depth: 127.47 psig @ 4211.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.09.16

End Date:

2010.09.16

Last Calib.:

2010.09.16

Start Time:

06:04:05

End Time:

13:57:14

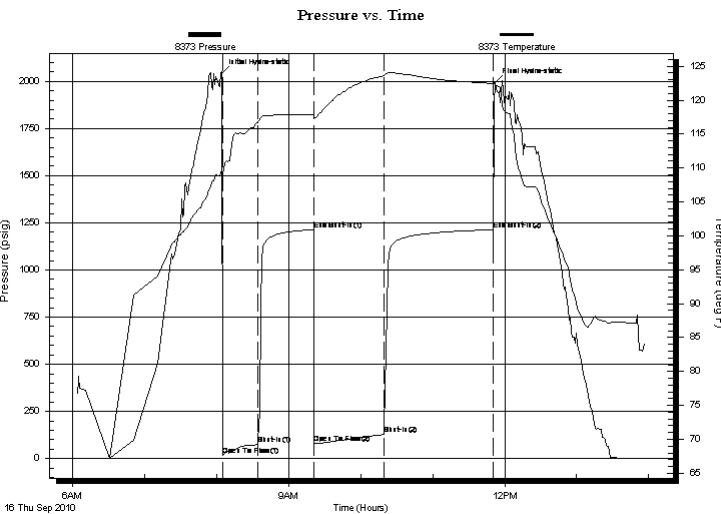
Time On Btm:

2010.09.16 @ 08:04:30

Time Off Btm:

2010.09.16 @ 11:51:44

TEST COMMENT: IF: Built to BOB in 29 min.
IS: return blow built to surface blow
FF: BOB in 27 min
FS: return blow built to 1/8 blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2043.30	109.82	Initial Hydro-static
1	19.31	109.12	Open To Flow (1)
30	74.14	116.70	Shut-In(1)
77	1214.61	117.89	End Shut-In(1)
77	80.46	117.38	Open To Flow (2)
135	127.47	123.57	Shut-In(2)
226	1212.69	122.47	End Shut-In(2)
228	1991.27	122.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP=218 feet	0.00
30.00	free oil	0.15
62.00	mco 40% m 60% o	0.30
62.00	ocmw 2% o 30% m 68% w	0.62
119.00	mcw 5% m 95% w	1.67

Gas Rates

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



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FLUID SUMMARY

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Test Start: 2010.09.16 @ 06:04:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

50000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	GIP=218 feet	0.000
30.00	free oil	0.148
62.00	mco 40%m 60%o	0.305
62.00	ocmw 2%o 30%m 68%w	0.624
119.00	mcw 5%m 95%w	1.669

Total Length: 273.00 ft Total Volume: 2.746 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW=91.1 degrees @ .100=50000ppm

Pressure vs. Time

