



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Black Diamond Oil

25 - 5S - 21W - Norton Ks

P.O. Box 641
Hays KS 67601

Kemper B #1

Job Ticket: 53517

DST#: 4

ATTN: Steve Reed

Test Start: 2013.09.11 @ 21:55:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:28:50

Time Test Ended: 05:01:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 41

Interval: 3566.00 ft (KB) To 3619.00 ft (KB) (TVD)

Reference Elevations: 2191.00 ft (KB)

Total Depth: 3619.00 ft (KB) (TVD)

2186.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6752 Inside

Press @ Run Depth: 37.74 psig @ 3567.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.11

End Date:

2013.09.12

Last Calib.: 2013.09.12

Start Time: 21:55:01

End Time:

05:01:00

Time On Btm: 2013.09.12 @ 00:28:40

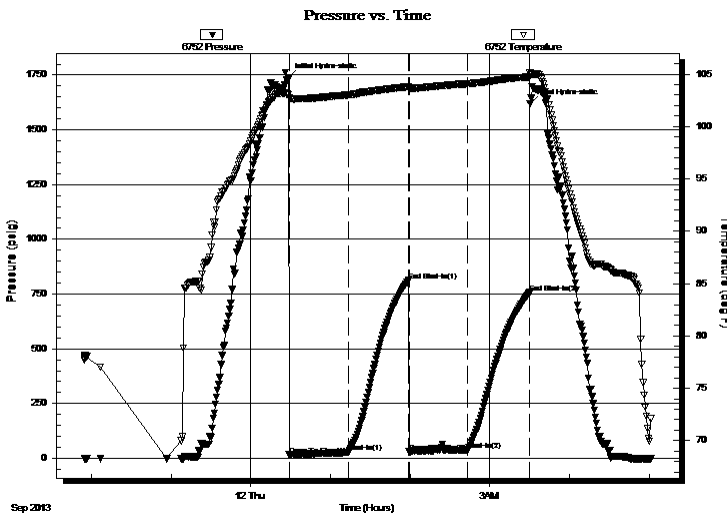
Time Off Btm: 2013.09.12 @ 03:30:09

TEST COMMENT: 45 IF - Surface blow built to 1"

45 ISI - No return

45 FF - No blow

45 FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1738.22	103.07	Initial Hydro-static
1	15.56	102.75	Open To Flow (1)
45	26.52	103.02	Shut-In(1)
91	811.75	103.80	End Shut-In(1)
91	29.16	103.64	Open To Flow (2)
135	37.74	104.07	Shut-In(2)
182	756.94	104.74	End Shut-In(2)
182	1620.77	105.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	OCM - 7%O - 93%M	0.12

Gas Rates

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

* Recovery from multiple tests



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FLUID SUMMARY

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DST#: 4

ATTN: Steve Reed

Test Start: 2013.09.11 @ 21:55:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
25.00	OCM - 7%o - 93%M	0.123

Total Length: 25.00 ft Total Volume: 0.123 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6752

Inside

Black Diamond Oil

Kemper B #1

DST Test Number: 4

