



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Deutscher Oil Operations

27-12s-20w Ellis KS

130 Ave
Ellis KS, 67637

Armbrister 1-27

ATTN: Richard Bell

Job Ticket: 53801

DST#: 3

Test Start: 2013.05.20 @ 13:40:00

GENERAL INFORMATION:

Formation: **LKC " I & J "**

Deviated: No Whipstock: 2215.00 ft (KB)

Time Tool Opened: 15:14:30

Time Test Ended: 19:55:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

Interval: 3685.00 ft (KB) To 3735.00 ft (KB) (TVD)

Reference Elevations: 2215.00 ft (KB)

Total Depth: 3735.00 ft (KB) (TVD)

2210.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8322 Outside

Press @ Run Depth: 162.35 psig @ 3700.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.20 End Date: 2013.05.20

Last Calib.: 2013.05.20

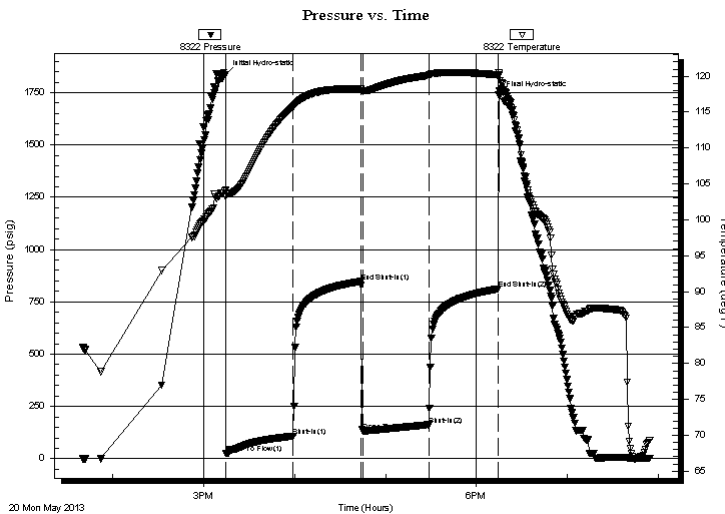
Start Time: 13:40:01 End Time: 19:54:20

Time On Btm: 2013.05.20 @ 15:14:20

Time Off Btm: 2013.05.20 @ 18:14:40

TEST COMMENT: 45-IFP- Surface Blow in 4 min. Surging Building to 7 1/2 in.
45-ISIP- No Blow
45-FFP- Surface Blow in 3 min. Building to 7 in.
45-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1834.91	104.12	Initial Hydro-static
1	24.77	103.23	Open To Flow (1)
45	108.79	115.72	Shut-In(1)
90	847.60	118.22	End Shut-In(1)
91	133.70	117.97	Open To Flow (2)
134	162.35	120.10	Shut-In(2)
180	811.74	120.19	End Shut-In(2)
181	1737.41	120.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
262.00	MCW 25% m 75% w	2.55

* Recovery from multiple tests

Gas Rates

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



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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:

41000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6300.00 ppm

Filter Cake: 0.50 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
262.00	MCW 25% _m 75% _w	2.546

Total Length: 262.00 ft Total Volume: 2.546 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .180 @ 69

