



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Culbreath Oil & Gas Co, Inc

3 11s 32w Logan, Ks

3801 S.Yale Ave.
Tulsa, Oklahoma 74135

Boyd #2-3

Job Ticket: 61806

DST#: 3

ATTN: Steve Murphy

Test Start: 2015.07.20 @ 16:26:00

GENERAL INFORMATION:

Formation: **LKC I & J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:22:00

Time Test Ended: 23:43:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

Interval: 4226.00 ft (KB) To 4278.00 ft (KB) (TVD)

Reference Elevations: 3035.00 ft (KB)

Total Depth: 4278.00 ft (KB) (TVD)

3030.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8365

Inside

Press @ Run Depth: 283.44 psig @ 4227.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.07.20

End Date:

2015.07.20

Last Calib.:

2015.07.20

Start Time: 16:26:05

End Time:

23:43:44

Time On Btm:

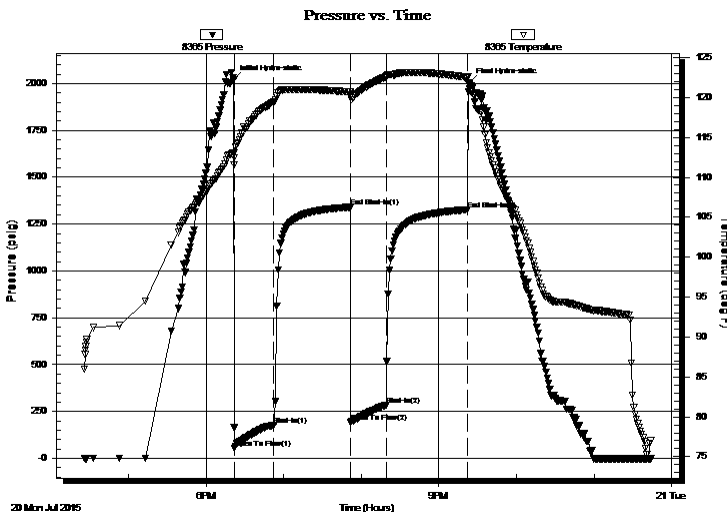
2015.07.20 @ 18:21:30

Time Off Btm:

2015.07.20 @ 21:23:15

TEST COMMENT: IF: BOB @ 5.5 min.
IS: BOB @ 11 min.
FF: BOB @ 1 min.
FS: BOB @ 5 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2022.58	113.02	Initial Hydro-static
1	52.10	112.45	Open To Flow (1)
31	175.99	119.43	Shut-In(1)
90	1340.28	120.68	End Shut-In(1)
91	194.10	120.10	Open To Flow (2)
118	283.44	122.60	Shut-In(2)
181	1327.01	122.53	End Shut-In(2)
182	2003.10	121.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
260.00	mcw 15m 85w (oil spots)	2.57
120.00	gmco 50g 30o 20m	1.68
300.00	go 45g 55o	4.21
0.00	1970 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



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FLUID SUMMARY

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DST#: 3

ATTN: Steve Murphy

Test Start: 2015.07.20 @ 16:26:00

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:

36000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
260.00	mcw 15m 85w (oil spots)	2.572
120.00	gmco 50g 30o 20m	1.683
300.00	go 45g 55o	4.208
0.00	1970 GIP	0.000

Total Length: 680.00 ft Total Volume: 8.463 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw .18 @77f = 36000ppm

