



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Bickle Energies, LLC

2052 250th Ave.  
Hays, KS 67601

ATTN: Jeff Burk

**S21-12s-32w Logan/KS**

**Younkin RDC #1**

Job Ticket: 64618

**DST#: 1**

Test Start: 2015.12.02 @ 13:00:00

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:25:00

Time Test Ended: 22:27:49

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Smith

Unit No: 61

**Interval: 4544.00 ft (KB) To 4580.00 ft (KB) (TVD)**

Reference Elevations: 2999.00 ft (KB)

Total Depth: 4580.00 ft (KB) (TVD)

2994.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8357 Inside**

Press @ Run Depth: 65.12 psig @ 4548.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.12.02

End Date: 2015.12.02

Last Calib.: 2015.12.02

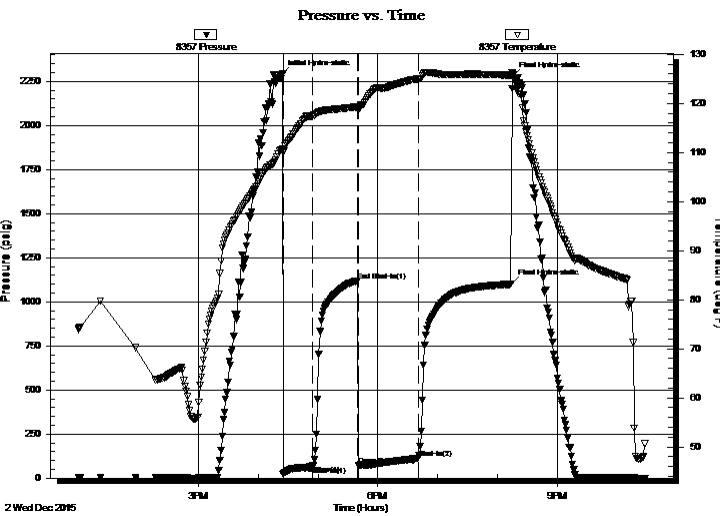
Start Time: 13:00:02

End Time: 22:27:49

Time On Btm: 2015.12.02 @ 16:23:40

Time Off Btm: 2015.12.02 @ 20:13:30

**TEST COMMENT:** 30- B.O.B. @ 19 min.  
45- 1" Return.  
60- B.O.B. @ 15 min.  
90- 5" Return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2289.13	110.59	Initial Hydro-static
2	23.14	109.92	Open To Flow (1)
31	65.12	117.30	Shut-In(1)
76	1118.86	119.28	End Shut-In(1)
77	70.74	118.88	Open To Flow (2)
137	113.09	124.98	Shut-In(2)
230	1099.72	125.75	Final Hydro-static
232	2279.83	126.15	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	API: 23 @ 30 Degrees F = 26.	0.00
120.00	GOCM 30g 25o 45m	1.68
140.00	GMCO 20g 25m 55o	0.69
0.00	740' GIP	0.00

## Gas Rates

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



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## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

26 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

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
0.00	API: 23 @ 30 Degrees F = 26.	0.000
120.00	GOCM 30g 25o 45m	1.683
140.00	GMCO 20g 25m 55o	0.688
0.00	740' GIP	0.000

Total Length: 260.00 ft

Total Volume: 2.371 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8357

Inside

Bickle Energies, LLC

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DST Test Number: 1

