



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

36-4S-35W Rawlins, KS

1515 Wynkoop St. STE #700
Denver, CO 80202

Loeffler #1-36

Job Ticket: 60203

DST#: 5

ATTN: Chris Mitchell

Test Start: 2014.11.03 @ 16:04:00

GENERAL INFORMATION:

Formation: **Pawnee - Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:57:10

Time Test Ended: 23:35:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 4495.00 ft (KB) To 4558.00 ft (KB) (TVD)

Reference Elevations: 3220.00 ft (KB)

Total Depth: 4558.00 ft (KB) (TVD)

3215.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8874

Inside

Press@RunDepth: 25.60 psig @ 4496.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.03

End Date:

2014.11.03

Last Calib.:

2014.11.03

Start Time: 16:05:00

End Time:

23:35:30

Time On Btm:

2014.11.03 @ 17:57:00

Time Off Btm:

2014.11.03 @ 20:50:00

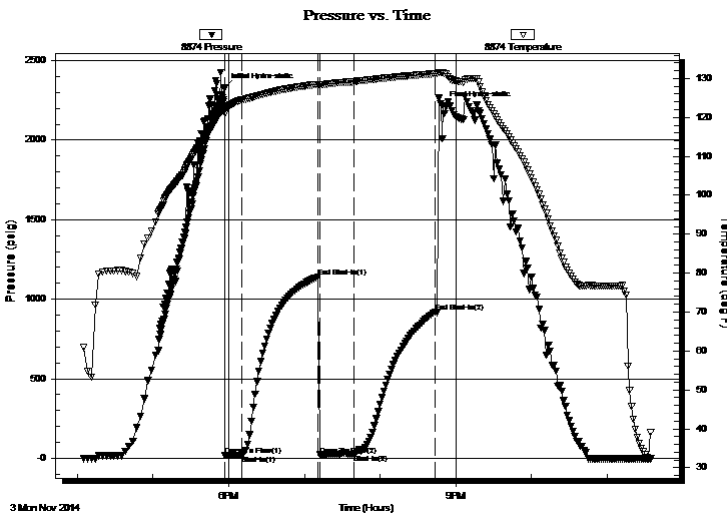
TEST COMMENT: 10 - IF- 1/2 " Blow built to 3/4"

60 - IS- No Return

30 - FF- No Blow

60 - FS- No Return

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2326.96 | 122.55 | Initial Hydro-static |
| 1 | 18.44 | 121.11 | Open To Flow (1) |
| 13 | 20.89 | 124.45 | Shut-In(1) |
| 74 | 1140.42 | 128.53 | End Shut-In(1) |
| 75 | 22.17 | 128.30 | Open To Flow (2) |
| 102 | 25.60 | 129.19 | Shut-In(2) |
| 167 | 919.73 | 131.24 | End Shut-In(2) |
| 173 | 2215.54 | 131.46 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 10.00 | Mud 100M | 0.05 |
| | | |
| | | |
| | | |
| | | |

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:

ppm

Viscosity: 67.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 750.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 10.00 | Mud 100M | 0.049 |

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

