



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

IA Operating, Inc
9915 W 21st STE B
Wichita, KS 67205
ATTN: Steve Reed

Sec. 13-10s-21w Graham, KS
Beiker Trust #13-1
Job Ticket: 60993 **DST#: 4**
Test Start: 2014.12.08 @ 20:39:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:18:30
Time Test Ended: 03:29:00
Test Type: Conventional Bottom Hole (Reset)
Tester: Phillip Gage
Unit No: 62
Interval: **3845.00 ft (KB) To 3860.00 ft (KB) (TVD)**
Reference Elevations: 2261.00 ft (KB)
Total Depth: 3860.00 ft (KB) (TVD) 2253.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

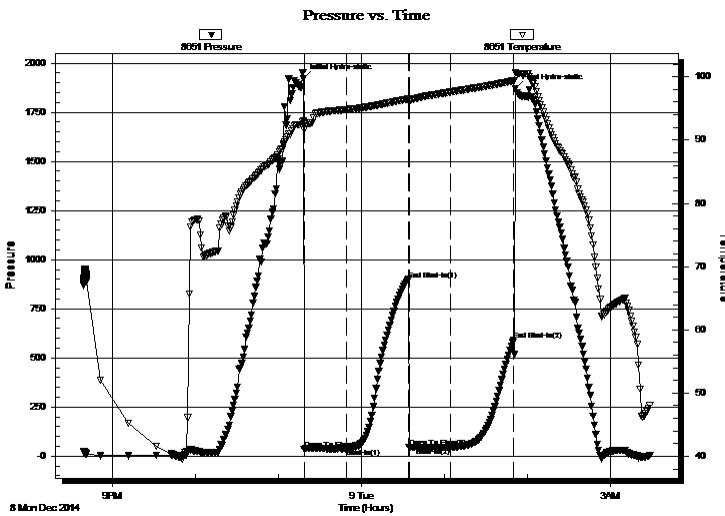
Serial #: 8651

Inside

Press @ Run Depth: 44.67 psig @ 3846.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.12.08 End Date: 2014.12.09 Last Calib.: 2014.12.09
Start Time: 20:39:01 End Time: 03:29:00 Time On Btm: 2014.12.08 @ 23:18:00
Time Off Btm: 2014.12.09 @ 01:51:30

TEST COMMENT: 30-IF-Built to 1 1/4"
45-ISI-No Return
30-FF-Built to 3/4"
45-FSI-No Return

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1920.96 | 92.98 | Initial Hydro-static |
| 1 | 35.90 | 91.59 | Open To Flow (1) |
| 32 | 38.51 | 94.82 | Shut-In(1) |
| 76 | 898.89 | 96.48 | End Shut-In(1) |
| 77 | 45.67 | 96.22 | Open To Flow (2) |
| 107 | 44.67 | 97.59 | Shut-In(2) |
| 152 | 589.19 | 99.39 | End Shut-In(2) |
| 154 | 1870.41 | 100.70 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------|--------------|
| 5.00 | O, 100%o | 0.04 |
| 15.00 | SOCM, 5%o, 95%m | 0.11 |
| | | |
| | | |
| | | |

* 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: 27 deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: ppm |
| Viscosity: 50.00 sec/qt | Cushion Volume: bbl | |
| Water Loss: 8.79 in ³ | Gas Cushion Type: | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | |
| Salinity: 4000.00 ppm | | |
| Filter Cake: 2.50 inches | | |

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-----------------|---------------|
| 5.00 | O, 100%o | 0.037 |
| 15.00 | SOCM, 5%o, 95%m | 0.110 |

Total Length: 20.00 ft Total Volume: 0.147 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 8651

Inside

JA Operating, Inc

Beker Trust #13-1

DST Test Number: 4

Pressure vs. Time

