



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Thoroughbred Associates LLC

20/4s/35w Rawlins KS

8100 E 22nd St N
Bldg 600 STE F
Wichita, KS 67226
ATTN: Phil Askey

Cozza #1-20

Job Ticket: 62832

DST#: 1

Test Start: 2015.07.23 @ 21:17:00

GENERAL INFORMATION:

Formation: **Lans. "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:41:45

Time Test Ended: 05:51:00

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

Interval: 4122.00 ft (KB) To 4180.00 ft (KB) (TVD)

Total Depth: 4180.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3268.00 ft (KB)

3263.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 414.55 psig @ 4123.00 ft (KB)

Start Date: 2015.07.23

End Date: 2015.07.24

Start Time: 21:17:05

End Time: 05:51:00

Capacity: 8000.00 psig

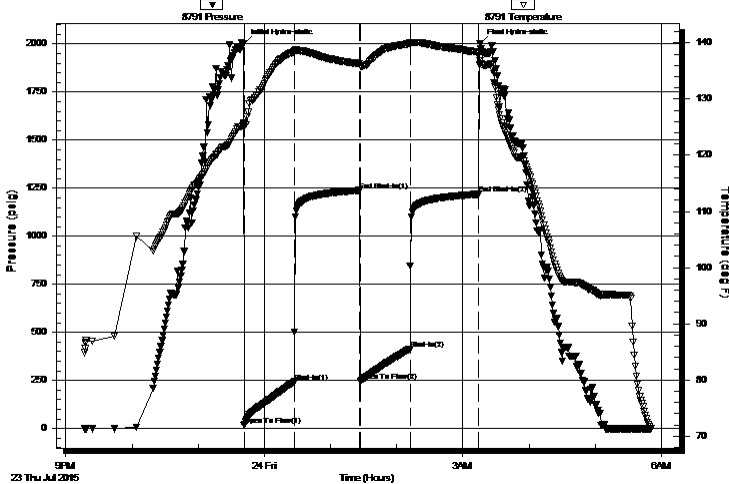
Last Calib.: 2015.07.24

Time On Btm: 2015.07.23 @ 23:41:30

Time Off Btm: 2015.07.24 @ 03:15:30

TEST COMMENT: 45 - IF: Blow built to BOB (11") at 11 1/4 min.
60 - ISI: No blow back
45 - FF: Blow started at 1 min., built to BOB at 14 1/4 min.
60 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2002.05 | 125.69 | Initial Hydro-static |
| 1 | 17.34 | 125.01 | Open To Flow (1) |
| 46 | 242.86 | 138.39 | Shut-In(1) |
| 105 | 1238.18 | 136.28 | End Shut-In(1) |
| 106 | 247.32 | 135.86 | Open To Flow (2) |
| 151 | 414.55 | 139.79 | Shut-In(2) |
| 213 | 1218.73 | 138.32 | End Shut-In(2) |
| 214 | 2001.78 | 136.83 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------------------|--------------|
| 435.00 | SMCW w/trace oil 96% w, 4% m | 5.01 |
| 125.00 | MCW w/trace oil 88% w, 12% m | 1.75 |
| 315.00 | MW w/trace oil 54% w, 46% m | 4.42 |
| 5.00 | SMCO 92%o, 8%m | 0.07 |
| | | |
| | | |

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
Mud Weight: 9.00 lb/gal
Viscosity: 69.00 sec/qt
Water Loss: 6.39 in³
Resistivity: ohm.m
Salinity: 1300.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 32 deg API
Water Salinity: 26000 ppm

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------------------------|---------------|
| 435.00 | SMCW w/trace oil 96% w , 4% m | 5.009 |
| 125.00 | MCW w/trace oil 88% w , 12% m | 1.753 |
| 315.00 | MW w/trace oil 54% w , 46% m | 4.419 |
| 5.00 | SMCO 92%o, 8%m | 0.070 |

Total Length: 880.00 ft Total Volume: 11.251 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity = 33.2 api @ 72 deg F Corrected Gravity = 32 api
RW = .272 ohms @ 69.1 deg F Chlorides = 26,000 ppm

