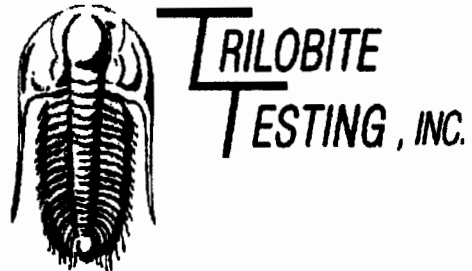


15-167-23537



## DRILL STEM TEST REPORT

Prepared For: **TDI**

1310 Bison Rd  
Hays, Ks  
67601

ATTN: Herb Deinis

**31 14 15 Russell KS**

**Wahl #1**

Start Date: 2008.09.29 @ 16:52:55

End Date: 2008.09.29 @ 22:15:49

Job Ticket #: 33129                      DST #: 1

RECEIVED  
KANSAS CORPORATION COMMISSION

**NOV 03 2008**

CONSERVATION DIVISION  
WICHITA, KS

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

TDI

1310 Bison Rd  
Hays, Ks  
67601  
ATTN: Herb Deinis

Wahl #1

31 14 15 Russell KS

Job Ticket: 33129

DST#: 1

Test Start: 2008.09.29 @ 16:52:55

### GENERAL INFORMATION:

Formation: **Pleasanton / Cong.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:44:20

Time Test Ended: 22:15:49

Test Type: Conventional Bottom Hole

Tester: Brian Fairbank

Unit No: 41

Interval: **3372.00 ft (KB) To 3460.00 ft (KB) (TVD)**

Total Depth: 3460.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 1916.00 ft (KB)

1908.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: **8371** Outside

Press@RunDepth: 1073.49 psig @ 3378.00 ft (KB)

Start Date: 2008.09.29

End Date:

2008.09.29

Start Time: 16:52:55

End Time:

22:15:49

Capacity: 7000.00 psig

Last Calib.: 2008.09.29

Time On Btm: 2008.09.29 @ 18:43:50

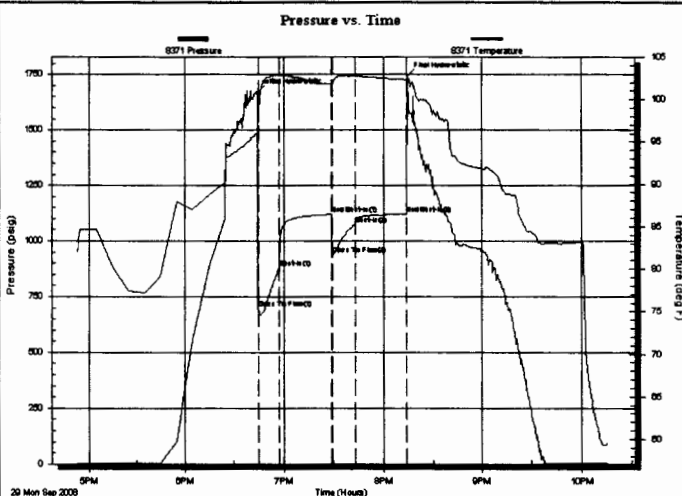
Time Off Btm: 2008.09.29 @ 20:14:20

TEST COMMENT: IFP - BOB 20 sec.

ISI - sur blow back - died 8 min.

FFP - BOB 40 sec.

FSI - no blow back



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1667.43         | 95.98        | Initial Hydro-static |
| 1           | 698.21          | 96.22        | Open To Flow (1)     |
| 14          | 881.43          | 102.81       | Shut-In(1)           |
| 45          | 1119.66         | 101.87       | End Shut-In(1)       |
| 46          | 938.44          | 101.84       | Open To Flow (2)     |
| 59          | 1073.49         | 102.74       | Shut-In(2)           |
| 90          | 1120.88         | 102.31       | End Shut-In(2)       |
| 91          | 1743.35         | 102.52       | Final Hydro-static   |

### Recovery

| Length (ft) | Description  | Volume (bbl) |
|-------------|--------------|--------------|
| 120.00      | MW 97%W, 3%M | 1.40         |
| 1895.00     | reversed out | 26.58        |
| 235.00      | WM 3%W, 97%M | 3.30         |
|             |              |              |
|             |              |              |
|             |              |              |

### Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

TDI

1310 Bison Rd  
Hays, Ks  
67601  
ATTN: Herb Deinis

**Wahl #1**

**31 14 15 Russell KS**

Job Ticket: 33129      **DST#: 1**

Test Start: 2008.09.29 @ 16:52:55

### Tool Information

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3326.00 ft | Diameter: 3.80 inches | Volume: 46.66 bbl              | Tool Weight:           | 2500.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer:  | 25000.00 lb |
| Drill Collar:             | Length: 31.00 ft   | Diameter: 2.25 inches | Volume: 0.15 bbl               | Weight to Pull Loose:  | 60000.00 lb |
|                           |                    |                       | <b>Total Volume: 46.81 bbl</b> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 5.00 ft            |                       |                                | String Weight: Initial | 45000.00 lb |
| Depth to Top Packer:      | 3372.00 ft         |                       |                                | Final                  | 57000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                                |                        |             |
| Interval between Packers: | 93.00 ft           |                       |                                |                        |             |
| Tool Length:              | 113.00 ft          |                       |                                |                        |             |
| Number of Packers:        | 2                  | Diameter:             | 6.75 inches                    |                        |             |
| Tool Comments:            |                    |                       |                                |                        |             |

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                     |
|------------------|-------------|------------|----------|------------|------------------------------------|
| Shut In Tool     | 5.00        |            |          | 3357.00    |                                    |
| Hydraulic tool   | 5.00        |            |          | 3362.00    |                                    |
| Packer           | 5.00        |            |          | 3367.00    | 20.00      Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 3372.00    |                                    |
| Stubb            | 1.00        |            |          | 3373.00    |                                    |
| Perforations     | 4.00        |            |          | 3377.00    |                                    |
| Change Over Sub  | 1.00        |            |          | 3378.00    |                                    |
| Recorder         | 0.00        | 8018       | Inside   | 3378.00    |                                    |
| Recorder         | 0.00        | 8371       | Outside  | 3378.00    |                                    |
| Blank Spacing    | 63.00       |            |          | 3441.00    |                                    |
| Change Over Sub  | 1.00        |            |          | 3442.00    |                                    |
| Perforations     | 20.00       |            |          | 3462.00    |                                    |
| Bullnose         | 3.00        |            |          | 3465.00    | 93.00      Bottom Packers & Anchor |

**Total Tool Length: 113.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

TDI

Wahl #1

1310 Bison Rd  
Hays, Ks  
67601  
ATTN: Herb Deinis

31 14 15 Russell KS  
Job Ticket: 33129      DST#: 1  
Test Start: 2008.09.29 @ 16:52:55

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 48.00 sec/qt  
Water Loss: 8.76 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 4500.00 ppm  
Filter Cake: inches

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

Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

| Length<br>ft | Description  | Volume<br>bbl |
|--------------|--------------|---------------|
| 120.00       | MW 97%W, 3%M | 1.401         |
| 1895.00      | reversed out | 26.582        |
| 235.00       | WM 3%W, 97%M | 3.296         |

Total Length: 2250.00 ft      Total Volume: 31.279 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

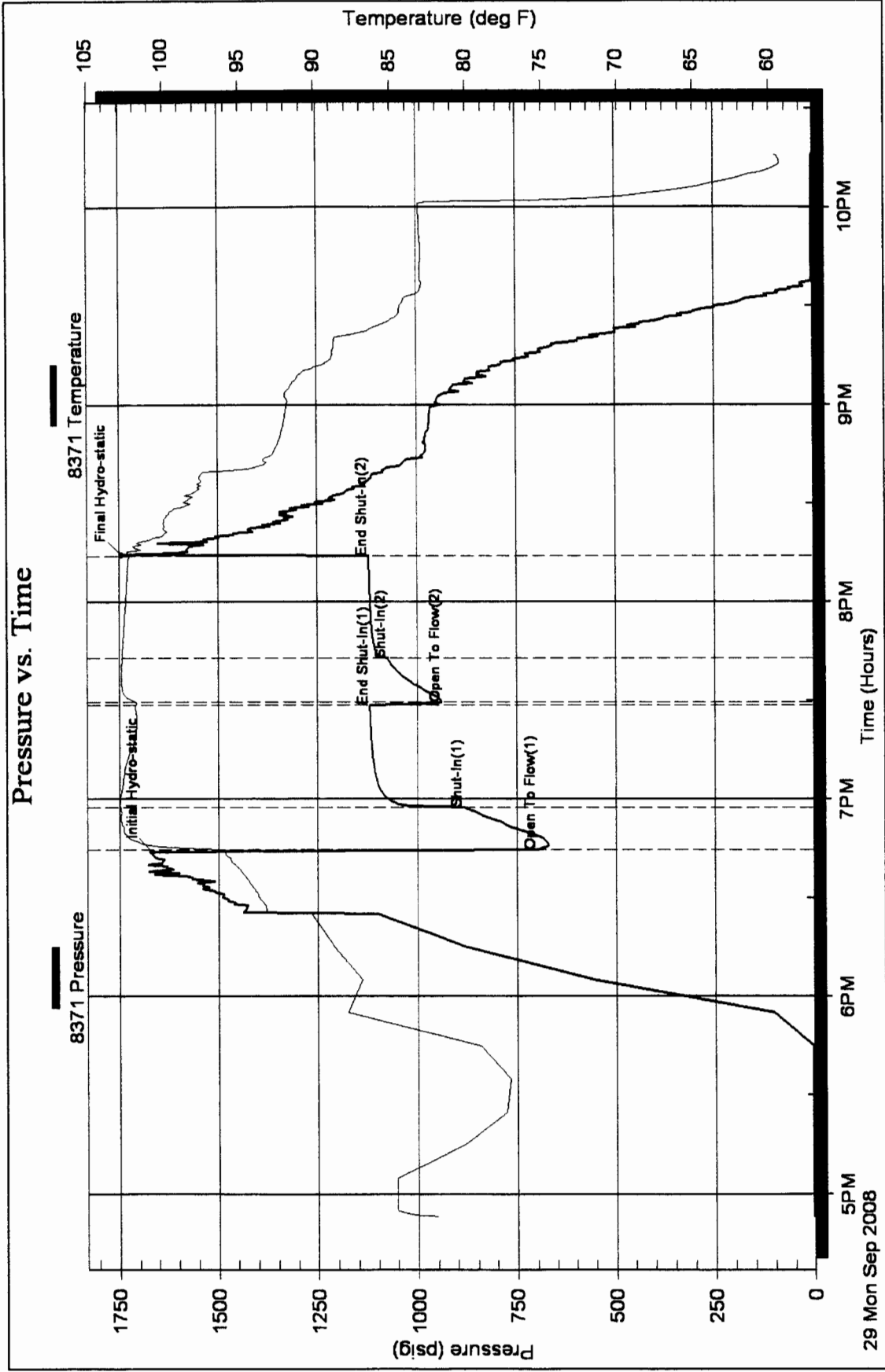
Recovery Comments: RW .219@ 58F = 400000

DST Test Number: 1

31 14 15 Russell KS

Serial #: 8371 Outside TDI

# Pressure vs. Time



Ref. No: 33129

Trilobite Testing, Inc

Printed: 2008.10.08 @ 12:47:42 Page 5