

## DRILL STEM TEST REPORT

Prepared For: **Bowman William F. dba**

2640 W Rd.  
Natoma, KS 67651

ATTN: Ed Glassman

**21-12-32 Logan,KS**

**Younkin #3**

Start Date: 2011.04.01 @ 06:19:31

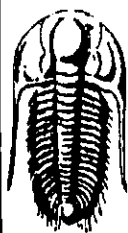
End Date: 2011.04.01 @ 13:53:40

Job Ticket #: 042073      DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



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

## DRILL STEM TEST REPORT

Bowman William F. dba

2640 W Rd.  
Natomia, KS 67651

ATTN: Ed Glassman

**Younkin #3**

**21-12-32 Logan, KS**

Job Ticket: 042073

**DST#: 1**

Test Start: 2011.04.01 @ 06:19:31

### GENERAL INFORMATION:

Formation: **Johnson**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 09:40:56

Time Test Ended: 13:53:40

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Turley**

Unit No: **35**

Interval: **4535.00 ft (KB) To 4610.00 ft (KB) (TVD)**

Total Depth: **4610.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **3024.00 ft (KB)**

**3014.00 ft (CF)**

KB to GR/CF: **10.00 ft**

**Serial #: 8373**

**Inside**

Press@RunDepth: **32.55 psig @ 4536.00 ft (KB)**

Start Date: **2011.04.01**

End Date:

**2011.04.01**

Start Time: **06:19:31**

End Time:

**13:53:40**

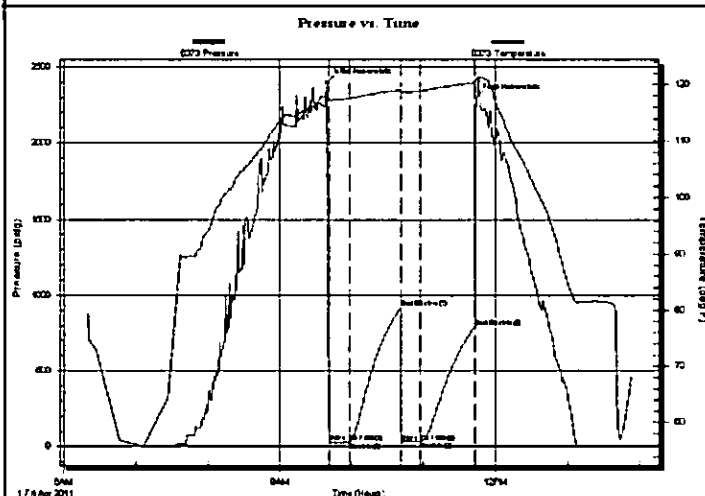
Capacity: **8000.00 psig**

Last Calib.: **2011.04.01**

Time On Btm: **2011.04.01 @ 09:39:11**

Time Off Btm: **2011.04.01 @ 11:43:25**

**TEST COMMENT:** IF: Surface blow died in 8 min.  
IS: No return.  
FF: No blow. Flushed tool no blow.  
FS: No return.



### PRESSURE SUMMARY

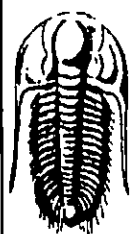
| Time (Mn.) | Pressure (psig) | Temp (deg F) | Annotation           |
|------------|-----------------|--------------|----------------------|
| 0          | 2398.92         | 117.84       | Initial Hydro-static |
| 2          | 26.48           | 117.02       | Open To Flow (1)     |
| 19         | 28.37           | 117.54       | Shut-In(1)           |
| 62         | 914.29          | 119.11       | End Shut-In(1)       |
| 63         | 27.70           | 118.69       | Open To Flow (2)     |
| 78         | 32.55           | 118.92       | Shut-In(2)           |
| 124        | 788.37          | 120.37       | End Shut-In(2)       |
| 125        | 2298.30         | 120.89       | Final Hydro-static   |

### Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 10.00       | mud 100% m  | 0.05         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

### Gas Rates

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



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

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Bowman William F. dba

Younkin #3

2640 W Rd.  
Natomia, KS 67651

21-12-32 Logan, KS

Job Ticket: 042073

DST#: 1

ATTN: Ed Glassman

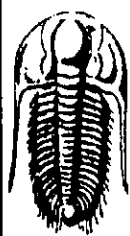
Test Start: 2011.04.01 @ 06:19:31

### Tool Information

|                           |                    |                       |                         |                                    |
|---------------------------|--------------------|-----------------------|-------------------------|------------------------------------|
| Drill Pipe:               | Length: 4298.00 ft | Diameter: 3.80 inches | Volume: 60.29 bbl       | Tool Weight: 1500.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl        | Weight set on Packer: 30000.00 lb  |
| Drill Collar:             | Length: 240.00 ft  | Diameter: 2.25 inches | Volume: 1.18 bbl        | Weight to Pull Loose: 120000.0 lb  |
|                           |                    |                       | Total Volume: 61.47 bbl | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 23.00 ft           |                       |                         | String Weight: Initial 74000.00 lb |
| Depth to Top Packer:      | 4535.00 ft         |                       |                         | Final 74000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                         |                                    |
| Interval between Packers: | 75.00 ft           |                       |                         |                                    |
| Tool Length:              | 95.00 ft           |                       |                         |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                         |                                    |
| Tool Comments:            |                    |                       |                         |                                    |

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Stubb            | 1.00        |            |          | 4516.00    |                               |
| Shut In Tool     | 5.00        |            |          | 4521.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 4526.00    |                               |
| Packer           | 5.00        |            |          | 4531.00    | 20.00 Bottom Of Top Packer    |
| Packer           | 4.00        |            |          | 4535.00    |                               |
| Stubb            | 1.00        |            |          | 4536.00    |                               |
| Recorder         | 0.00        | 8373       | Inside   | 4536.00    |                               |
| Recorder         | 0.00        | 8289       | Outside  | 4536.00    |                               |
| Perforations     | 5.00        |            |          | 4541.00    |                               |
| Change Over Sub  | 1.00        |            |          | 4542.00    |                               |
| Drill Pipe       | 62.00       |            |          | 4604.00    |                               |
| Change Over Sub  | 1.00        |            |          | 4605.00    |                               |
| Bullnose         | 5.00        |            |          | 4610.00    | 75.00 Bottom Packers & Anchor |

Total Tool Length: 95.00



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Bow man William F. dba

**Younkin #3**

2640 W Rd.  
Natoma, KS 67651

**21-12-32 Logan, KS**

Job Ticket: 042073

**DST#: 1**

ATTN: Ed Glassman

Test Start: 2011.04.01 @ 06:19:31

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 10.00        | mud 100%m   | 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:

