

## DRILL STEM TEST REPORT

Prepared For: **Berexco**

PO Box 20380  
Wichita KS 67208

ATTN: Bryan Bynog

**23 17 25W Ness KS**

**Shearer #7**

Start Date: 2008.04.08 @ 10:17:00

End Date: 2008.04.08 @ 17:37:50

Job Ticket #: 31854                      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**

Berexco  
 PO Box 20380  
 Wichita KS 67208  
 ATTN: Bryan Bynog

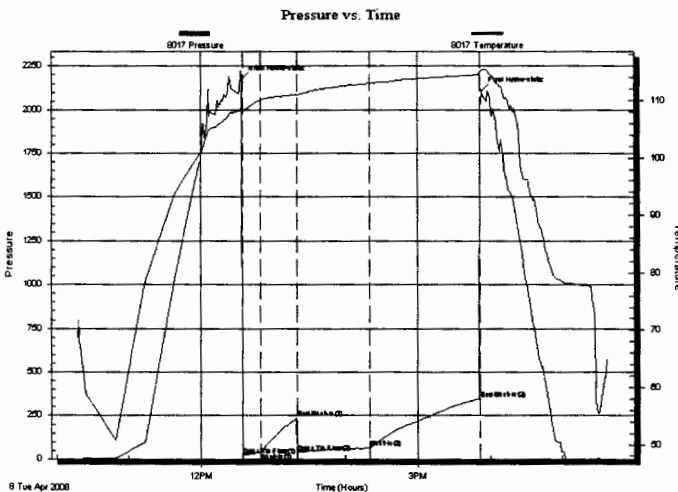
**Shearer #7**  
**23 17 25W Ness KS**  
 Job Ticket: 31854 **DST#: 1**  
 Test Start: 2008.04.08 @ 10:17:00

**GENERAL INFORMATION:**

Formation: **Ft. Scott**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole  
 Time Tool Opened: 12:35:20 Tester: Chuck Smith  
 Time Test Ended: 17:37:50 Unit No: 37  
 Interval: **4270.00 ft (KB) To 4340.00 ft (KB) (TVD)** Reference Elevations: 2494.00 ft (KB)  
 Total Depth: 4340.00 ft (KB) (TVD) 2483.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

**Serial #: 8017 Inside**  
 Press@RunDepth: 65.62 psig @ 4273.00 ft (KB) Capacity: 7000.00 psig  
 Start Date: 2008.04.08 End Date: 2008.04.08 Last Calib.: 2008.04.08  
 Start Time: 10:17:01 End Time: 17:37:50 Time On Btm: 2008.04.08 @ 12:34:40  
 Time Off Btm: 2008.04.08 @ 15:53:00

**TEST COMMENT:** IF 9 1/2 " blow  
 ISI No return  
 FF BOB @ 13 min.  
 FSI Weak surface return died @ 10 min.



**PRESSURE SUMMARY**

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2176.09         | 108.68       | Initial Hydro-static |
| 1           | 21.58           | 107.64       | Open To Flow (1)     |
| 16          | 37.53           | 110.02       | Shut-In (1)          |
| 46          | 233.93          | 111.05       | End Shut-In (1)      |
| 46          | 38.66           | 111.01       | Open To Flow (2)     |
| 106         | 65.62           | 113.00       | Shut-In (2)          |
| 197         | 347.96          | 114.51       | End Shut-In (2)      |
| 199         | 2109.66         | 115.40       | Final Hydro-static   |

**Recovery**

| Length (ft) | Description             | Volume (bbl) |
|-------------|-------------------------|--------------|
| 90.00       | GM 5%G 95%Mw /scum of O | 0.44         |
| 0.00        | 530 GIP                 | 0.00         |
|             |                         |              |
|             |                         |              |
|             |                         |              |

**Gas Rates**

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Berexco

**Shearer #7**

PO Box 20380  
Wichita KS 67208

**23 17 25W Ness KS**

Job Ticket: 31854

**DST#: 1**

ATTN: Bryan Bynog

Test Start: 2008.04.08 @ 10:17:00

### Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 4055.00 ft | Diameter: 3.00 inches | Volume: 35.45 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: 28000.00 lb  |
| Drill Collar:             | Length: 200.00 ft  | Diameter: 2.25 inches | Volume: 0.98 bbl               | Weight to Pull Loose: 62000.00 lb  |
|                           |                    |                       | <u>Total Volume: 36.43 bbl</u> | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 13.00 ft           |                       |                                | String Weight: Initial 42000.00 lb |
| Depth to Top Packer:      | 4270.00 ft         |                       |                                | Final 43000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 70.00 ft           |                       |                                |                                    |
| Tool Length:              | 98.00 ft           |                       |                                |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                                    |
| Tool Comments:            |                    |                       |                                |                                    |

### Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub  | 1.00        |            |          | 4243.00    |                               |
| Shut In Tool     | 5.00        |            |          | 4248.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 4253.00    |                               |
| Jars             | 5.00        |            |          | 4258.00    |                               |
| Safety Joint     | 3.00        |            |          | 4261.00    |                               |
| Packer           | 5.00        |            |          | 4266.00    | 28.00 Bottom Of Top Packer    |
| Packer           | 4.00        |            |          | 4270.00    |                               |
| Stubb            | 1.00        |            |          | 4271.00    |                               |
| Perforations     | 2.00        |            |          | 4273.00    |                               |
| Recorder         | 0.00        | 8017       | Inside   | 4273.00    |                               |
| Recorder         | 0.00        | 8351       | Inside   | 4273.00    |                               |
| Change Over Sub  | 1.00        |            |          | 4274.00    |                               |
| Drill Pipe       | 60.00       |            |          | 4334.00    |                               |
| Change Over Sub  | 1.00        |            |          | 4335.00    |                               |
| Bullnose         | 5.00        |            |          | 4340.00    | 70.00 Bottom Packers & Anchor |

**Total Tool Length: 98.00**



**TRILOBITE**  
TESTING, INC

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Berexco

**Shearer #7**

PO Box 20380  
Wichita KS 67208

**23 17 25W Ness KS**

Job Ticket: 31854

**DST#: 1**

ATTN: Bryan Bynog

Test Start: 2008.04.08 @ 10:17:00

### 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description             | Volume<br>bbbl |
|--------------|-------------------------|----------------|
| 90.00        | GM 5%G 95%M w/scum of O | 0.443          |
| 0.00         | 530 GIP                 | 0.000          |

Total Length: 90.00 ft      Total Volume: 0.443 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

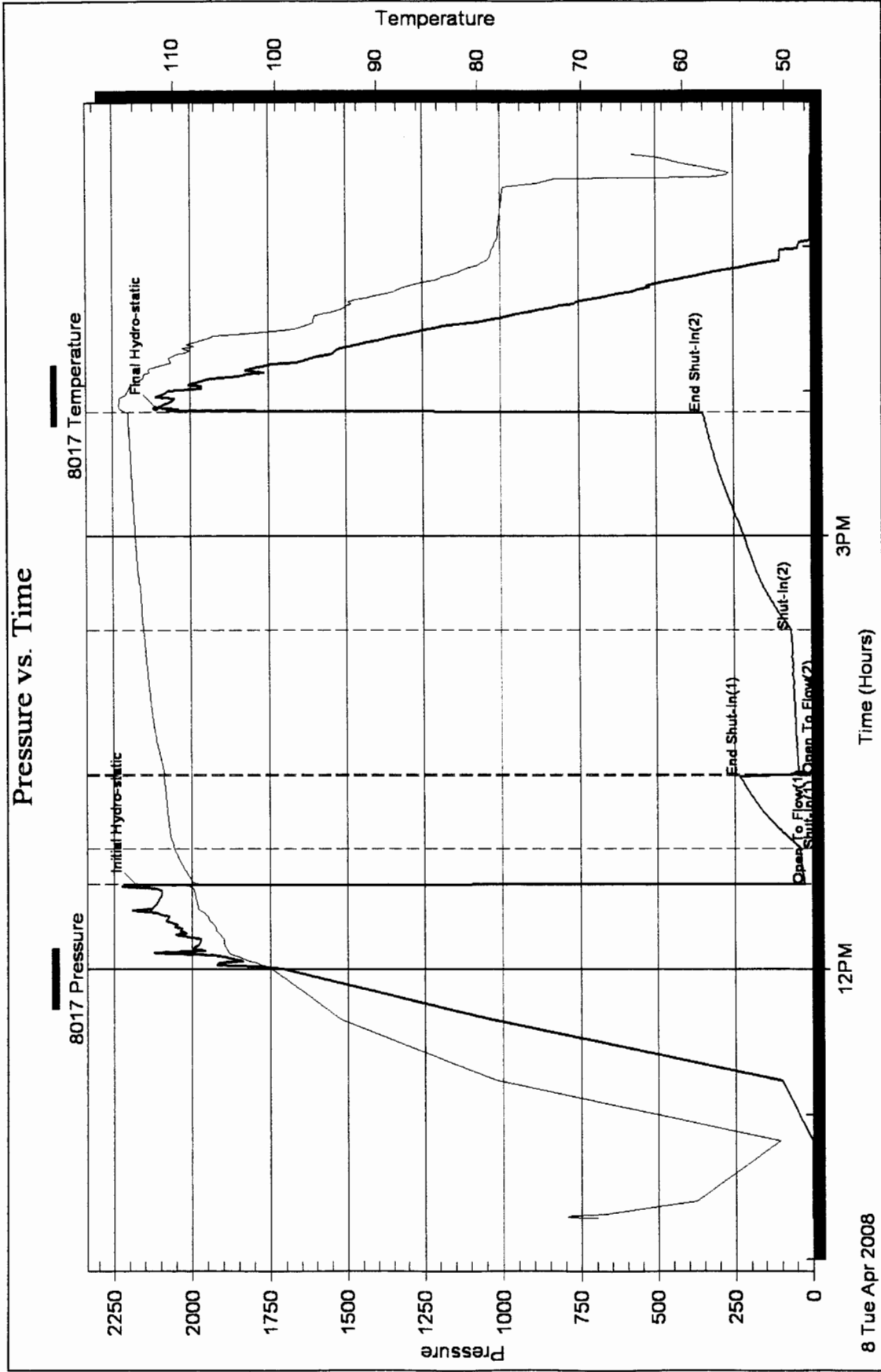
Serial #:

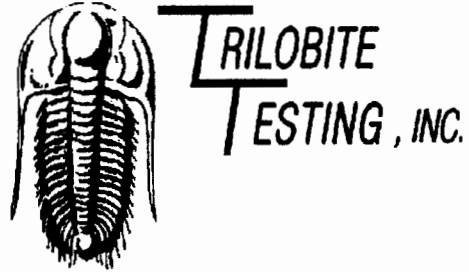
Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Berexco**

PO Box 20380  
Wichita KS 67208

ATTN: Bryan Bynog

**23 17 25W Ness KS**

**Shearer #7**

Start Date: 2008.04.09 @ 06:39:00

End Date: 2008.04.09 @ 15:09:30

Job Ticket #: 31855                      DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



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**DRILL STEM TEST REPORT**

Berexco  
PO Box 20380  
Wichita KS 67208  
ATTN: Bryan Bynog

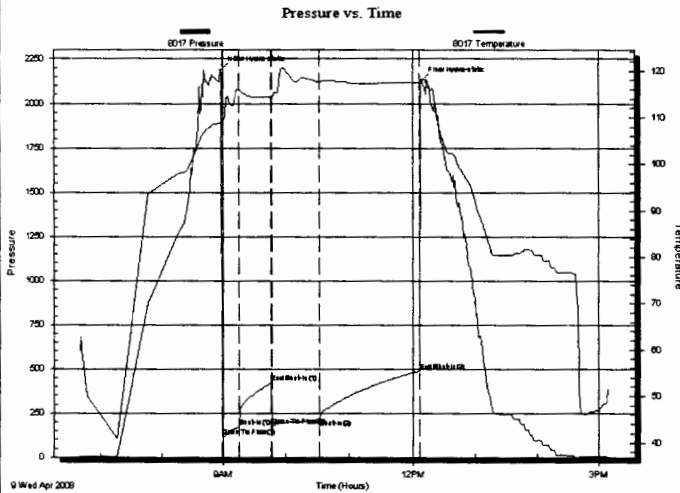
**Shearer #7**  
**23 17 25W Ness KS**  
Job Ticket: 31855 **DST#: 2**  
Test Start: 2008.04.09 @ 06:39:00

**GENERAL INFORMATION:**

Formation: **Mississippian**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 08:59:30  
Time Test Ended: 15:09:30  
Interval: **4354.00 ft (KB) To 4412.00 ft (KB) (TVD)**  
Total Depth: 4412.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole  
Tester: Chuck Smith  
Unit No: 37  
Reference Elevations: 2494.00 ft (KB)  
2483.00 ft (CF)  
KB to GR/CF: 11.00 ft

**Serial #: 8017 Inside**  
Press@RunDepth: 215.57 psig @ 4356.00 ft (KB) Capacity: 7000.00 psig  
Start Date: 2008.04.09 End Date: 2008.04.09 Last Calib.: 2008.04.09  
Start Time: 06:39:01 End Time: 15:09:30 Time On Btm: 2008.04.09 @ 08:58:20  
Time Off Btm: 2008.04.09 @ 12:09:09

TEST COMMENT: IF BOB @ 5 min.  
ISI Weak surface return  
FF BOB @ 30 min.  
FSI Surface return died @ 18 min.



**PRESSURE SUMMARY**

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2187.37         | 108.88       | Initial Hydro-static |
| 2           | 116.77          | 108.70       | Open To Flow (1)     |
| 18          | 172.32          | 115.82       | Shut-In(1)           |
| 49          | 420.44          | 114.30       | End Shut-In(1)       |
| 49          | 175.69          | 114.10       | Open To Flow(2)      |
| 95          | 215.57          | 117.68       | Shut-In(2)           |
| 189         | 489.66          | 117.43       | End Shut-In(2)       |
| 191         | 2129.32         | 118.11       | Final Hydro-static   |

**Recovery**

| Length (ft) | Description              | Volume (bbl) |
|-------------|--------------------------|--------------|
| 60.00       | GWOCM 15%G 3%W 12%O 70%M | 0.30         |
| 180.00      | GWOCM 32%G 8%W 15%O 45%M | 1.04         |
| 120.00      | GOCM 30%G 15%O 55%M      | 1.05         |
| 120.00      | GOCM 12%G 8%O 80%M       | 1.05         |
| 0.00        | 120' GIP                 | 0.00         |

**Gas Rates**

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Berexco  
PO Box 20380  
Wichita KS 67208  
  
ATTN: Bryan Bynog

**Shearer #7**  
**23 17 25W Ness KS**  
Job Ticket: 31855      **DST#: 2**  
Test Start: 2008.04.09 @ 06:39:00

**Tool Information**

|                           |                    |                       |                                |   |
|---------------------------|--------------------|-----------------------|--------------------------------|---|
| Drill Pipe:               | Length: 4152.00 ft | Diameter: 3.00 inches | Volume: 36.30 bbl              | Tool Weight: 2000.00 lb                   |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer: 28000.00 lb         |
| Drill Collar:             | Length: 200.00 ft  | Diameter: 2.25 inches | Volume: 0.98 bbl               | Weight to Pull Loose: 55000.00 lb         |
|                           |                    |                       | <b>Total Volume: 37.28 bbl</b> | Tool Chased 0.00 ft                       |
| Drill Pipe Above KB:      | 18.00 ft           |                       |                                | String Weight: <b>Initial</b> 43000.00 lb |
| Depth to Top Packer:      | 4354.00 ft         |                       |                                | <b>Final</b> 45000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |   |
| Interval between Packers: | 58.00 ft           |                       |                                |   |
| Tool Length:              | 78.00 ft           |                       |                                |   |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |   |
| Tool Comments:            |                    |                       |                                |   |

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                     |
|------------------|-------------|------------|----------|------------|------------------------------------|
| Change Over Sub  | 1.00        |            |          | 4335.00    |                                    |
| Shut In Tool     | 5.00        |            |          | 4340.00    |                                    |
| Hydraulic tool   | 5.00        |            |          | 4345.00    |                                    |
| Packer           | 5.00        |            |          | 4350.00    | 20.00      Bottom Of Top Packer    |
| Packer           | 4.00        |            |          | 4354.00    |                                    |
| Stubb            | 1.00        |            |          | 4355.00    |                                    |
| Perforations     | 1.00        |            |          | 4356.00    |                                    |
| Recorder         | 0.00        | 8017       | Inside   | 4356.00    |                                    |
| Recorder         | 0.00        | 8351       | Inside   | 4356.00    |                                    |
| Perforations     | 18.00       |            |          | 4374.00    |                                    |
| Change Over Sub  | 1.00        |            |          | 4375.00    |                                    |
| Drill Pipe       | 31.00       |            |          | 4406.00    |                                    |
| Change Over Sub  | 1.00        |            |          | 4407.00    |                                    |
| Bullnose         | 5.00        |            |          | 4412.00    | 58.00      Bottom Packers & Anchor |

**Total Tool Length: 78.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Berexco

**Shearer #7**

PO Box 20380  
Wichita KS 67208

**23 17 25W Ness KS**

Job Ticket: 31855

**DST#: 2**

ATTN: Bryan Bynog

Test Start: 2008.04.09 @ 06:39:00

### 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:

23000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description              | Volume<br>bbl |
|--------------|--------------------------|---------------|
| 60.00        | GWOCM 15%G 3%W 12%O 70%M | 0.295         |
| 180.00       | GWOCM 32%G 8%W 15%O 45%M | 1.038         |
| 120.00       | GOCM 30%G 15%O 55%M      | 1.049         |
| 120.00       | GOCM 12%G 8%O 80%M       | 1.049         |
| 0.00         | 120' GIP                 | 0.000         |

Total Length: 480.00 ft      Total Volume: 3.431 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

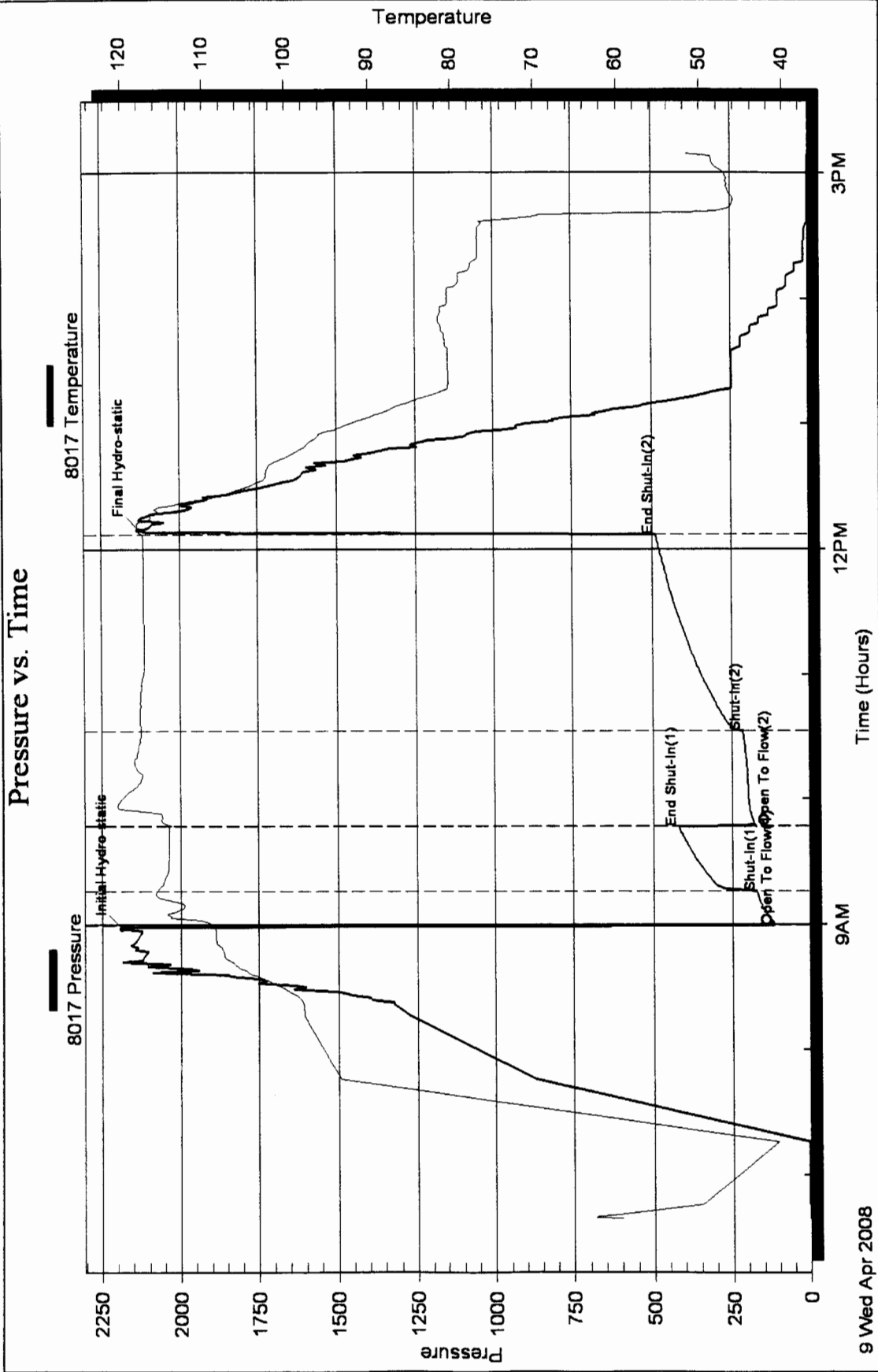
Recovery Comments: RW .286 @ 70 degrees F = 23000 chlorides.

Serial #: 8017

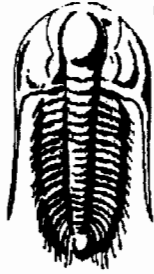
Inside Berexco

23 17 25W Ness KS

DST Test Number: 2



9 Wed Apr 2008



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Berexco**

PO Box 20380  
Wichita KS 67208

ATTN: Bryan Bynog

**23 17 25W Ness KS**

**Shearer #7**

Start Date: 2008.04.09 @ 12:21:06

End Date: 2008.04.09 @ 21:16:21

Job Ticket #: 31856                      DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE TESTING, INC**

**DRILL STEM TEST REPORT**

Berexco  
 PO Box 20380  
 Wichita KS 67208  
 ATTN: Bryan Bynog

**Shearer #7**  
**23 17 25W Ness KS**  
 Job Ticket: 31856 **DST#: 3**  
 Test Start: 2008.04.09 @ 12:21:06

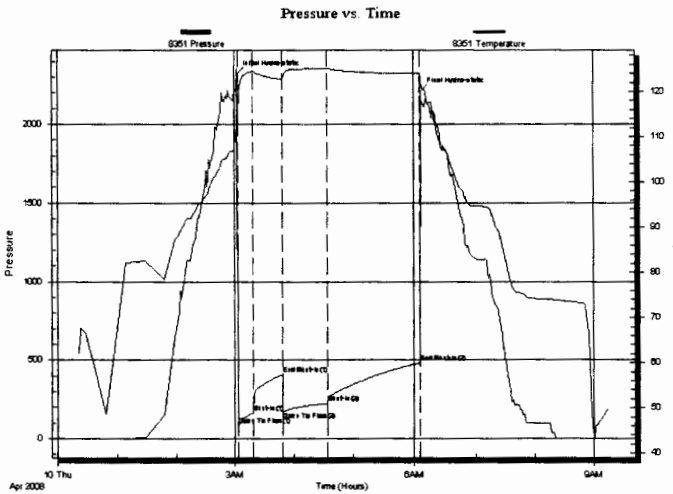
**GENERAL INFORMATION:**

Formation: **Mississippian**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:03:06  
 Time Test Ended: 21:16:21  
 Interval: **4410.00 ft (KB) To 4416.00 ft (KB) (TVD)**  
 Total Depth: 4416.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole  
 Tester: Chuck Smith  
 Unit No: 37  
 Reference Elevations: 2494.00 ft (KB)  
 2483.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 8351** Inside  
 Press@RunDepth: 224.24 psig @ 4411.00 ft (KB) Capacity: 7000.00 psig  
 Start Date: 2008.04.10 End Date: 2008.04.10 Last Calib.: 2008.04.10  
 Start Time: 00:21:11 End Time: 09:16:21 Time On Btm: 2008.04.10 @ 03:02:51  
 Time Off Btm: 2008.04.10 @ 06:06:21

TEST COMMENT: IF BOB @ 5 min.  
 ISI 1 " return  
 FF BOB @ 24 min.  
 FSI 1/2 " return



**PRESSURE SUMMARY**

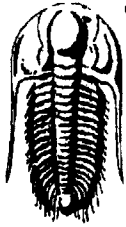
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2319.71         | 111.94       | Initial Hydro-static |
| 1           | 84.33           | 110.71       | Open To Flow (1)     |
| 16          | 164.59          | 124.42       | Shut-In (1)          |
| 46          | 409.21          | 122.72       | End Shut-In (1)      |
| 46          | 169.78          | 122.70       | Open To Flow (2)     |
| 91          | 224.24          | 125.14       | Shut-In (2)          |
| 183         | 482.15          | 123.94       | End Shut-In (2)      |
| 184         | 2204.98         | 123.23       | Final Hydro-static   |

**Recovery**

| Length (ft) | Description               | Volume (bbl) |
|-------------|---------------------------|--------------|
| 360.00      | MCWw /scum of O 15%M 85%W | 2.38         |
| 60.00       | GOMCW 10%G 10%O 20%M 60%W | 0.52         |
| 60.00       | GMWCO 10%G 10%M 10%W 70%O | 0.52         |
| 0.00        | 180' GIP                  | 0.00         |
|             |                           |              |
|             |                           |              |

**Gas Rates**

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Berexco

**Shearer #7**

PO Box 20380  
Wichita KS 67208

**23 17 25W Ness KS**

Job Ticket: 31856

**DST#: 3**

ATTN: Bryan Bynog

Test Start: 2008.04.09 @ 12:21:06

**Tool Information**

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 4207.00 ft | Diameter: 3.00 inches | Volume: 36.78 bbl              | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer: 29000.00 lb  |
| Drill Collar:             | Length: 200.00 ft  | Diameter: 2.25 inches | Volume: 0.98 bbl               | Weight to Pull Loose: 55000.00 lb  |
|                           |                    |                       | <u>Total Volume: 37.76 bbl</u> | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 20.00 ft           |                       |                                | String Weight: Initial 46000.00 lb |
| Depth to Top Packer:      | 4410.00 ft         |                       |                                | Final 47000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 6.00 ft            |                       |                                |                                    |
| Tool Length:              | 29.00 ft           |                       |                                |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                                    |

Tool Comments:

**Tool Description                      Length (ft)    Serial No.    Position    Depth (ft)    Accum. Lengths**

|                           |              |      |        |         |   |
|---------------------------|--------------|------|--------|---------|---|
| Change Over Sub           | 1.00         |      |        | 4388.00 |   |
| Shut In Tool              | 5.00         |      |        | 4393.00 |   |
| Hydraulic tool            | 5.00         |      |        | 4398.00 |   |
| Safety Joint              | 3.00         |      |        | 4401.00 |   |
| Packer                    | 5.00         |      |        | 4406.00 | 23.00            Bottom Of Top Packer   |
| Packer                    | 4.00         |      |        | 4410.00 |   |
| Stubb                     | 1.00         |      |        | 4411.00 |   |
| Recorder                  | 0.00         | 8017 | Inside | 4411.00 |   |
| Recorder                  | 0.00         | 8351 | Inside | 4411.00 |   |
| Bullnose                  | 5.00         |      |        | 4416.00 | 6.00            Bottom Packers & Anchor |
| <b>Total Tool Length:</b> | <b>29.00</b> |      |        |         |   |



**TRILOBITE  
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**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Berexco  
PO Box 20380  
Wichita KS 67208

**Shearer #7**  
**23 17 25W Ness KS**  
Job Ticket: 31856      **DST#: 3**  
Test Start: 2008.04.09 @ 12:21:06

ATTN: Bryan Bynog

**Mud and Cushion Information**

|                                  |                            |                           |
|----------------------------------|----------------------------|---------------------------|
| Mud Type: Gel Chem               | Cushion Type:              | Oil API: 34 deg API       |
| Mud Weight: 9.00 lb/gal          | Cushion Length: ft         | Water Salinity: 22000 ppm |
| Viscosity: 51.00 sec/qt          | Cushion Volume: bbl        |                           |
| Water Loss: 8.78 in <sup>3</sup> | Gas Cushion Type:          |                           |
| Resistivity: 0.00 ohm.m          | Gas Cushion Pressure: psig |                           |
| Salinity: 4000.00 ppm            |                            |                           |
| Filter Cake: 1.00 inches         |                            |                           |

**Recovery Information**

Recovery Table

| Length<br>ft | Description               | Volume<br>bbl |
|--------------|---------------------------|---------------|
| 360.00       | MCWw /scum of O 15%M 85%W | 2.382         |
| 60.00        | GOMCW 10%G 10%O 20%M 60%W | 0.525         |
| 60.00        | GMMCO 10%G 10%M 10%W 70%O | 0.525         |
| 0.00         | 180' GIP                  | 0.000         |

Total Length: 480.00 ft      Total Volume: 3.432 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments: API 33 @ 50 degrees F = 34  
RW .380 @ 60 degrees F = 22000 chlorides.

# Pressure vs. Time

