

**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **American Warrior**

PO Box 399  
Garden City KS 67846

ATTN: James Dilts

**23 34 7W Harper KS**

**Walker # 1-23**

Start Date: 2008.03.19 @ 06:15:01

End Date: 2008.03.19 @ 14:59:31

Job Ticket #: 31176      DST #: 1

RECEIVED  
KANSAS CORPORATION COMMISSION

**JUL 17 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

American Warrior  
PO Box 399  
Garden City KS 67846  
ATTN: James Dilts

**Walker # 1-23**

**23 34 7W Harper KS**

Job Ticket: 31176

DST#: 1

Test Start: 2008.03.19 @ 06:15:01

### GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:42:31

Time Test Ended: 14:59:31

Test Type: Conventional Bottom Hole

Tester: Jerry Adams

Unit No: 45

Interval: **4657.00 ft (KB) To 4671.00 ft (KB) (TVD)**

Total Depth: 4671.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1366.00 ft (KB)

1356.00 ft (CF)

KB to GR/CF: 10.00 ft

**Serial #: 6798**

**Inside**

Press@RunDepth: 66.45 psig @ 4658.00 ft (KB)

Start Date: 2008.03.19

End Date:

2008.03.19

Capacity: 7000.00 psig

Last Calib.: 2008.03.19

Start Time: 06:15:02

End Time:

14:59:31

Time On Btm: 2008.03.19 @ 08:41:01

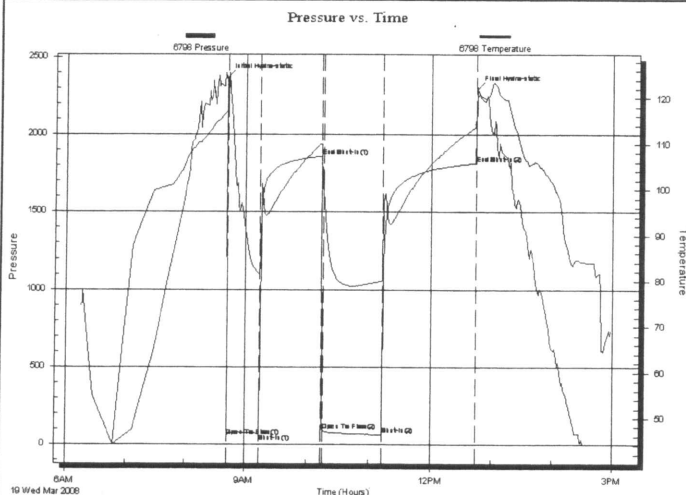
Time Off Btm: 2008.03.19 @ 12:45:01

TEST COMMENT: IF Strong blow BOB in 5 secs. GTS in 3 mins. see gas flow report

ISI No blow

FF Strong blow BOB immediately

FSI No blow



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2365.69         | 116.99       | Initial Hydro-static |
| 2           | 51.69           | 118.81       | Open To Flow(1)      |
| 33          | 72.52           | 81.44        | Shut-In(1)           |
| 93          | 1858.21         | 110.06       | End Shut-In(1)       |
| 95          | 90.01           | 99.42        | Open To Flow(2)      |
| 153         | 66.45           | 80.12        | Shut-In(2)           |
| 243         | 1815.35         | 113.63       | End Shut-In(2)       |
| 244         | 2294.66         | 120.28       | Final Hydro-static   |

### Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 0.00        | 4639' GIP   | 0.00         |
| 0.00        |             | 0.00         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

### Gas Rates

|                | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|----------------|-----------------|------------------|
| First Gas Rate | 0.75           | 13.00           | 427.98           |
| Last Gas Rate  |                |                 |                  |
| Max. Gas Rate  | 0.75           | 17.00           | 490.46           |



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

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

American Warrior

**Walker # 1-23**

PO Box 399  
Garden City KS 67846

**23 34 7W Harper KS**

Job Ticket: 31176

**DST#: 1**

ATTN: James Dilts

Test Start: 2008.03.19 @ 06:15:01

### Tool Information

|                           |                    |                         |                   |                                    |
|---------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 4515.00 ft | Diameter: 3.80 inches   | Volume: 63.33 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: 124.00 ft  | Diameter: 2.25 inches   | Volume: 0.61 bbl  | Weight to Pull Loose: 72000.00 lb  |
|                           |                    | Total Volume: 63.94 bbl |                   | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 10.00 ft           |                         |                   | String Weight: Initial 66000.00 lb |
| Depth to Top Packer:      | 4657.00 ft         |                         |                   | Final 66000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                         |                   |                                    |
| Interval between Packers: | 14.00 ft           |                         |                   |                                    |
| Tool Length:              | 42.00 ft           |                         |                   |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches   |                   |                                    |
| Tool Comments:            |                    |                         |                   |                                    |

### Tool Description

| Tool Description          | Length (ft)  | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|---------------------------|--------------|------------|----------|------------|-------------------------------|
| Shut In Tool              | 5.00         |            |          | 4634.00    |                               |
| Hydraulic tool            | 5.00         |            |          | 4639.00    |                               |
| Jars                      | 5.00         |            |          | 4644.00    |                               |
| Safety Joint              | 3.00         |            |          | 4647.00    |                               |
| Packer                    | 5.00         |            |          | 4652.00    | 28.00 Bottom Of Top Packer    |
| Packer                    | 5.00         |            |          | 4657.00    |                               |
| Stubb                     | 1.00         |            |          | 4658.00    |                               |
| Recorder                  | 0.00         | 6798       | Inside   | 4658.00    |                               |
| Recorder                  | 0.00         | 8358       | Inside   | 4658.00    |                               |
| Perforations              | 10.00        |            |          | 4668.00    |                               |
| Bullnose                  | 3.00         |            |          | 4671.00    | 14.00 Bottom Packers & Anchor |
| <b>Total Tool Length:</b> | <b>42.00</b> |            |          |            |                               |



**TRILOBITE**  
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## DRILL STEM TEST REPORT

### FLUID SUMMARY

American Warrior

Walker # 1-23

PO Box 399  
Garden City KS 67846

23 34 7W Harper KS

Job Ticket: 31176

DST#: 1

ATTN: James Dilts

Test Start: 2008.03.19 @ 06:15:01

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 51.00 sec/qt

Water Loss: 8.76 in<sup>3</sup>

Resistivity: 0.00 ohm.m

Salinity: 3500.00 ppm

Filter Cake: 0.20 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 0.00         | 4639' GIP   | 0.000         |
| 0.00         |             | 0.000         |

Total Length: ft

Total Volume: bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

Serial #: GA-1

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE**  
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## DRILL STEM TEST REPORT

**GAS RATES**

American Warrior  
PO Box 399  
Garden City KS 67846

**Walker # 1-23**

**23 34 7W Harper KS**

Job Ticket: 31176

**DST#: 1**

ATTN: James Dilts

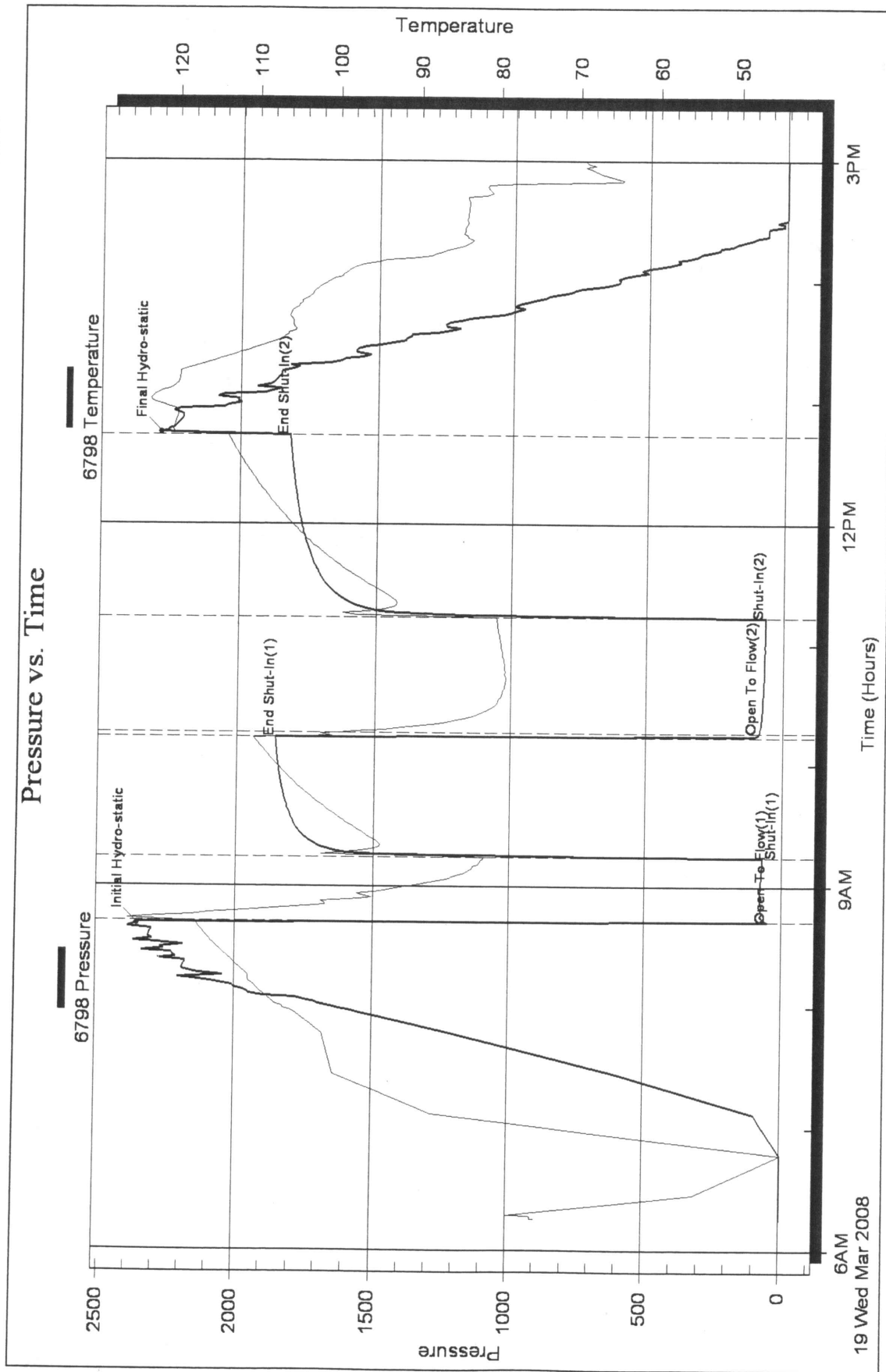
Test Start: 2008.03.19 @ 06:15:01

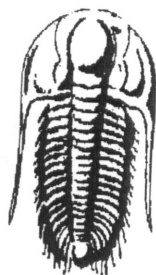
### Gas Rates Information

Temperature: 59 deg C  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

| Flow Period | Elapsed Time | Choke<br>(mm) | Pressure<br>(kPaa) | Gas Rate<br>(m <sup>3</sup> /d) |
|-------------|--------------|---------------|--------------------|---------------------------------|
| 1           | 10           | 0.75          | 13.00              | 427.98                          |
| 1           | 20           | 0.75          | 16.00              | 474.84                          |
| 1           | 30           | 0.75          | 16.00              | 474.84                          |
| 2           | 10           | 0.75          | 17.00              | 490.46                          |
| 2           | 20           | 0.75          | 16.00              | 474.84                          |
| 2           | 30           | 0.75          | 15.00              | 459.22                          |
| 2           | 40           | 0.75          | 14.00              | 443.60                          |
| 2           | 50           | 0.75          | 14.00              | 443.60                          |
| 2           | 60           | 0.75          | 13.00              | 427.98                          |
| 0           | -            | -999999.00    | -999999.00         | -999999.00                      |





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## DRILL STEM TEST REPORT

Prepared For: **American Warrior**

PO Box 399  
Garden City KS 67846

ATTN: James Dilts

**23 34 7W Harper KS**

**Walker # 1-23**

Start Date: 2008.03.21 @ 06:43:05

End Date: 2008.03.21 @ 16:04:35

Job Ticket #: 30352      DST #: 2

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

RECEIVED  
KANSAS CORPORATION COMMISSION

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CONSERVATION DIVISION  
WICHITA, KS



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## DRILL STEM TEST REPORT

American Warrior  
PO Box 399  
Garden City KS 67846  
ATTN: James Dilts

**Walker # 1-23**

**23 34 7W Harper KS**

Job Ticket: 30352

**DST#: 2**

Test Start: 2008.03.21 @ 06:43:05

### GENERAL INFORMATION:

Formation: **Viola**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 09:30:25  
Time Test Ended: 16:04:35

Test Type: Conventional Bottom Hole  
Tester: Leal Cason  
Unit No: 24

Interval: **5065.00 ft (KB) To 5100.00 ft (KB) (TVD)**  
Total Depth: 5100.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1366.00 ft (KB)  
1356.00 ft (CF)  
KB to GR/CF: 10.00 ft

**Serial #: 8166**

**Inside**

Press@RunDepth: 110.71 psig @ 5066.00 ft (KB)

Start Date: 2008.03.21

End Date:

2008.03.21

Start Time: 06:43:10

End Time:

16:04:35

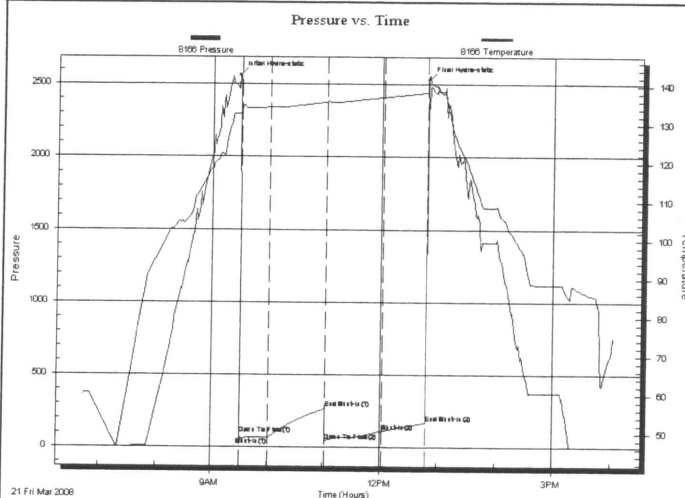
Capacity: 7000.00 psig

Last Calib.: 2008.03.21

Time On Btm: 2008.03.21 @ 09:28:15

Time Off Btm: 2008.03.21 @ 12:48:25

TEST COMMENT: IF Strong blow BOB in 13 mins  
ISI Bled off No blow back  
FF Weak Blow 3 " Died Off to 1/2 "  
FSI No Blow back



### PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2562.13         | 132.61       | Initial Hydro-static |
| 3           | 84.43           | 133.09       | Open To Flow (1)     |
| 34          | 67.45           | 134.38       | Shut-In (1)          |
| 94          | 264.24          | 135.72       | End Shut-In (1)      |
| 94          | 42.31           | 135.98       | Open To Flow (2)     |
| 154         | 110.71          | 136.98       | Shut-In (2)          |
| 199         | 167.20          | 138.19       | End Shut-In (2)      |
| 201         | 2530.91         | 142.01       | Final Hydro-static   |

### Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 123.00      | DM          | 0.60         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

### Gas Rates

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



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## DRILL STEM TEST REPORT

TOOL DIAGRAM

American Warrior

Walker # 1-23

PO Box 399  
Garden City KS 67846

23 34 7W Harper KS

Job Ticket: 30352

DST#: 2

ATTN: James Dilts

Test Start: 2008.03.21 @ 06:43:05

### Tool Information

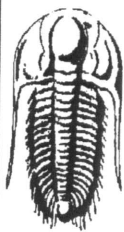
|                           |                    |                         |                   |                                    |
|---------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 4920.00 ft | Diameter: 3.80 inches   | Volume: 69.01 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: 20000.00 lb  |
| Drill Collar:             | Length: 123.00 ft  | Diameter: 2.25 inches   | Volume: 0.60 bbl  | Weight to Pull Loose: 125000.0 lb  |
|                           |                    | Total Volume: 69.61 bbl |                   | Tool Chased 20.00 ft               |
| Drill Pipe Above KB:      | 7.00 ft            |                         |                   | String Weight: Initial 70000.00 lb |
| Depth to Top Packer:      | 5065.00 ft         |                         |                   | Final 70000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                         |                   |                                    |
| Interval between Packers: | 35.00 ft           |                         |                   |                                    |
| Tool Length:              | 64.00 ft           |                         |                   |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches   |                   |                                    |

### Tool Comments:

Hit hard Bridge @ approx 3156 ' Hit another Bridge 20 ' from bottom Slid Tool Last 20 '

### Tool Description

| Tool Description          | Length (ft)  | Serial No. | Position | Depth (ft) | Accum. Lengths          |
|---------------------------|--------------|------------|----------|------------|-------------------------|
| Circulating sub           | 1.00         |            |          | 5037.00    |                         |
| Change Over Sub           | 1.00         |            |          | 5038.00    |                         |
| Shut In Tool              | 5.00         |            |          | 5043.00    |                         |
| Hydraulic tool            | 5.00         |            |          | 5048.00    |                         |
| Jars                      | 5.00         |            |          | 5053.00    |                         |
| Safety Joint              | 3.00         |            |          | 5056.00    |                         |
| Packer                    | 5.00         |            |          | 5061.00    | 29.00                   |
| Packer                    | 4.00         |            |          | 5065.00    | Bottom Of Top Packer    |
| Stubb                     | 1.00         |            |          | 5066.00    |                         |
| Recorder                  | 0.00         | 8166       | Inside   | 5066.00    |                         |
| Recorder                  | 0.00         | 8356       | Outside  | 5066.00    |                         |
| Perforations              | 31.00        |            |          | 5097.00    |                         |
| Bullnose                  | 3.00         |            |          | 5100.00    | 35.00                   |
| <b>Total Tool Length:</b> | <b>64.00</b> |            |          |            | Bottom Packers & Anchor |



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**TESTING, INC**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

American Warrior

**Walker # 1-23**

PO Box 399  
Garden City KS 67846

**23 34 7W Harper KS**

Job Ticket: 30352

**DST#: 2**

ATTN: James Dilts

Test Start: 2008.03.21 @ 06:43:05

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 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: 4500.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 123.00       | DM          | 0.605         |

Total Length: 123.00 ft

Total Volume: 0.605 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8166

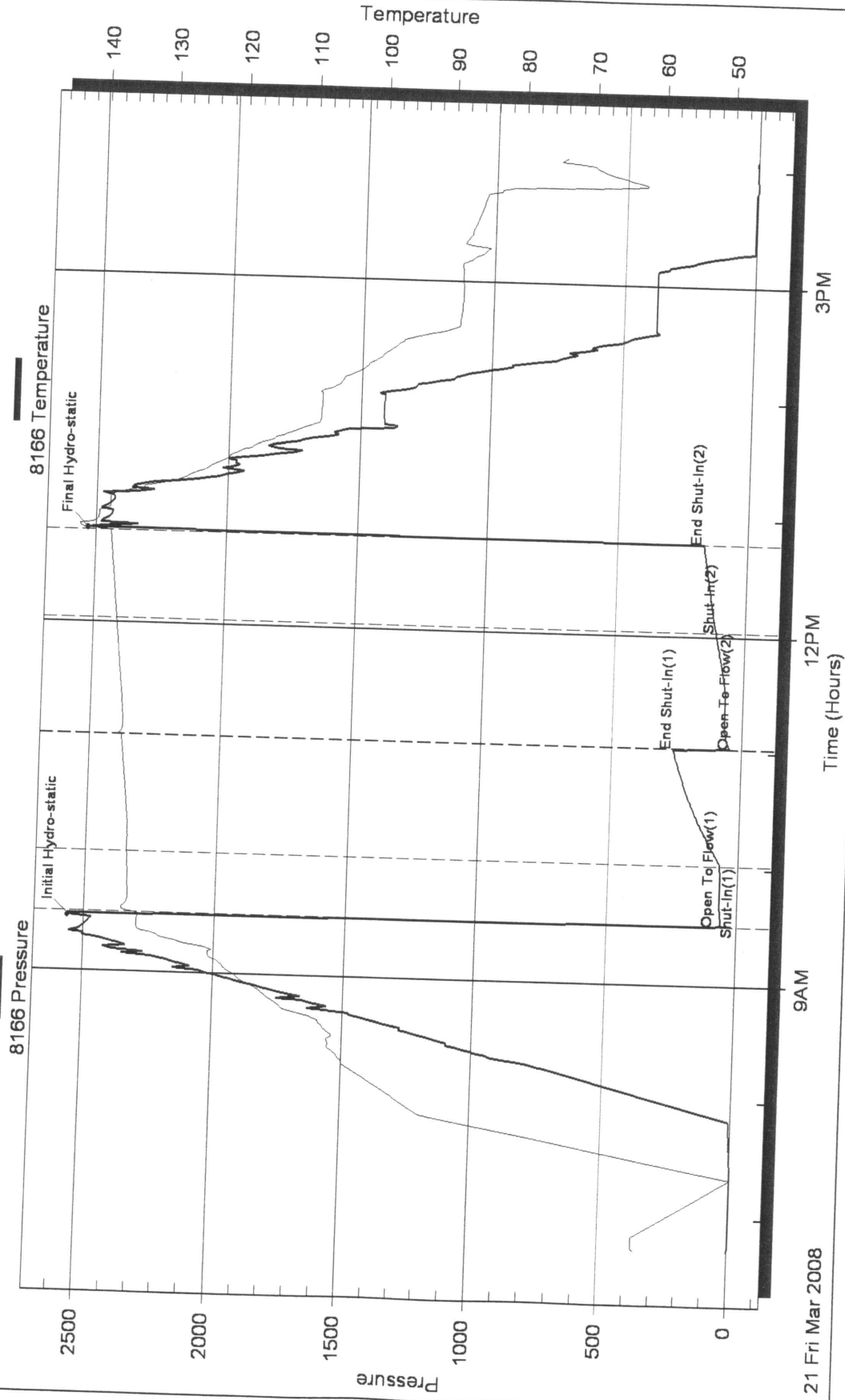
Inside

American Warrior

23 34 7W Harper KS

DST Test Number: 2

## Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 30352

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