



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

American Warrior  
PO Box 399  
Garden City, KS 67846  
ATTN: Jason Alm

**Glenn #1-31**  
**31-18s-21w/Ness**  
Job Ticket: 38664      **DST#: 1**  
Test Start: 2010.05.25 @ 16:47:40

## GENERAL INFORMATION:

Formation: **Cherokee Sand**  
Deviated: No      Whipstock:      ft (KB)  
Time Tool Opened: 18:43:10  
Time Test Ended: 23:01:10  
Test Type: Conventional Bottom Hole  
Tester: Tyson Flax  
Unit No: 44  
Interval: **4136.00 ft (KB) To 4160.00 ft (KB) (TVD)**  
Reference Elevations: 2129.00 ft (KB)  
Total Depth: 4160.00 ft (KB) (TVD)      2124.00 ft (CF)  
Hole Diameter: 7.88 inches      Hole Condition: Good      KB to GR/CF: 5.00 ft

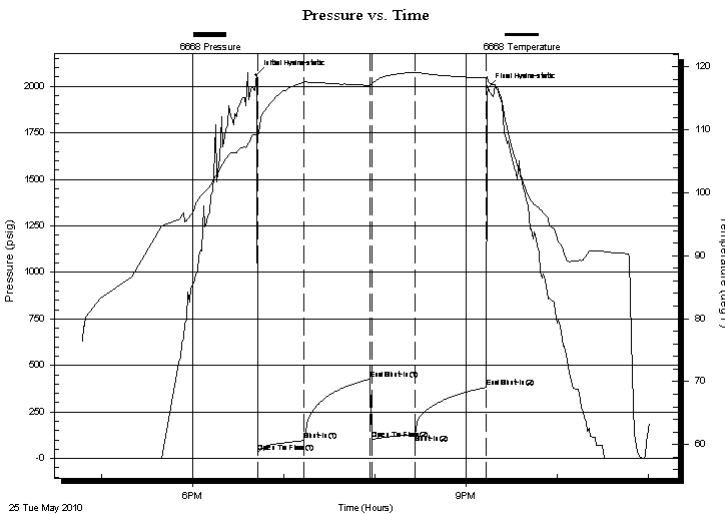
## Serial #: 6668

Inside

Press @ Run Depth: 128.99 psig @ 4137.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2010.05.25      End Date: 2010.05.25      Last Calib.: 2010.05.25  
Start Time: 16:47:41      End Time: 23:01:10      Time On Btm: 2010.05.25 @ 18:42:10  
Time Off Btm: 2010.05.25 @ 21:14:40

TEST COMMENT: IFP-Fair blow built to 10"  
ISI-no blow back  
FFP-Weak blow built to 8"  
FSI-no blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2060.78	109.18	Initial Hydro-static
1	31.73	108.96	Open To Flow (1)
32	96.41	117.57	Shut-In(1)
75	426.98	117.09	End Shut-In(1)
76	101.71	117.25	Open To Flow (2)
105	128.99	119.13	Shut-In(2)
152	382.38	118.24	End Shut-In(2)
153	1993.42	117.78	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 90%W,10%M	0.59
110.00	SOCMW 5%O,75%W,20%M	1.56
20.00	CO	0.28

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

American Warrior  
PO Box 399  
Garden City, KS 67846  
ATTN: Jason Alm

**Glenn #1-31**  
**31-18s-21w/Ness**  
Job Ticket: 38664      **DST#: 1**  
Test Start: 2010.05.25 @ 16:47:40

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 37 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 32000 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 6500.00 ppm		
Filter Cake: inches		

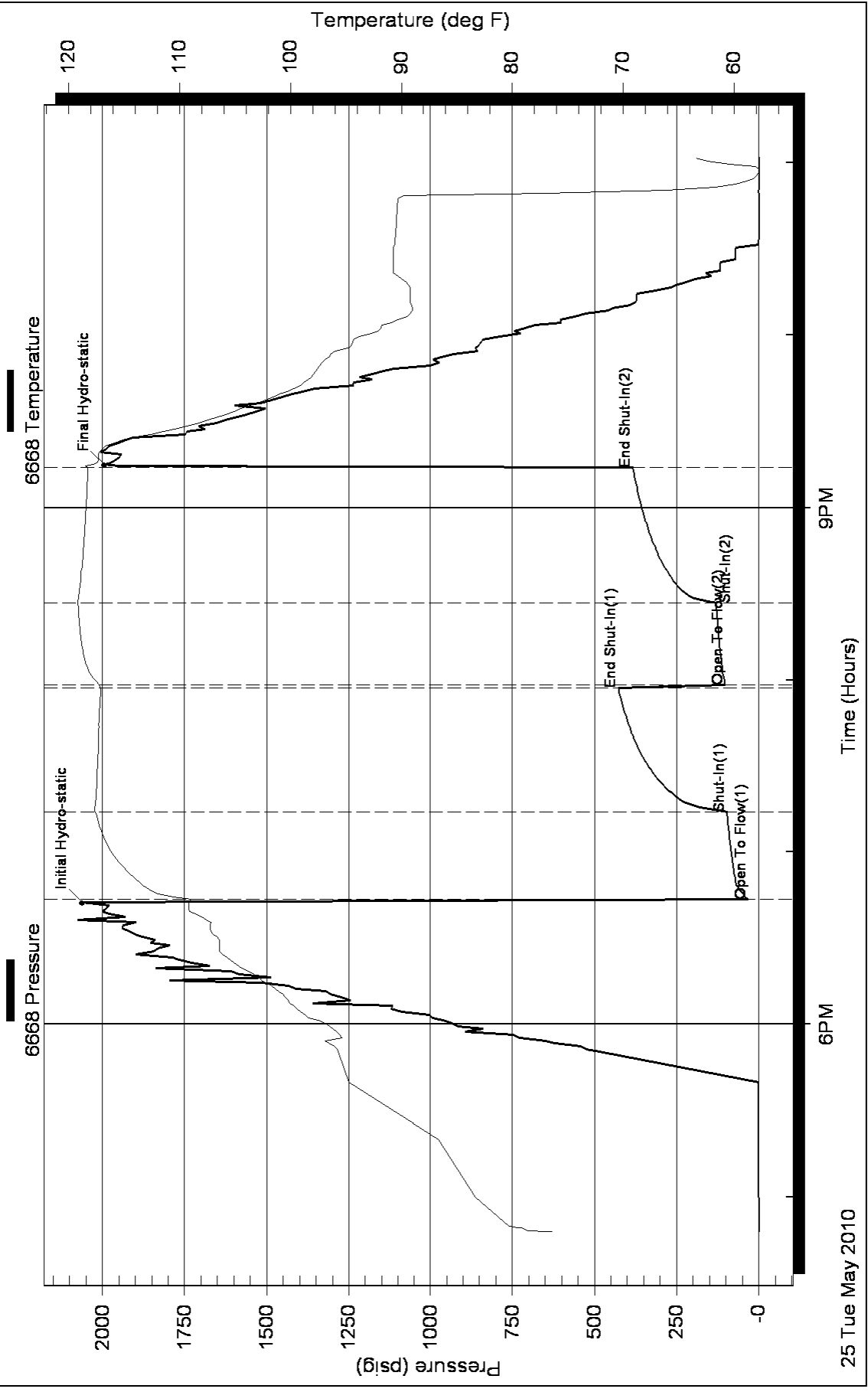
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	MW 90%W,10%M	0.590
110.00	SOCMW 5%O,75%W,20%M	1.559
20.00	CO	0.284

Total Length: 250.00 ft      Total Volume: 2.433 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

# Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

American Warrior  
PO Box 399  
Garden City, KS 67846  
ATTN: Jason Alm

**Glenn #1-31**  
**31-18s-21w/Ness**  
Job Ticket: 38665 **DST#: 2**  
Test Start: 2010.05.26 @ 08:55:37

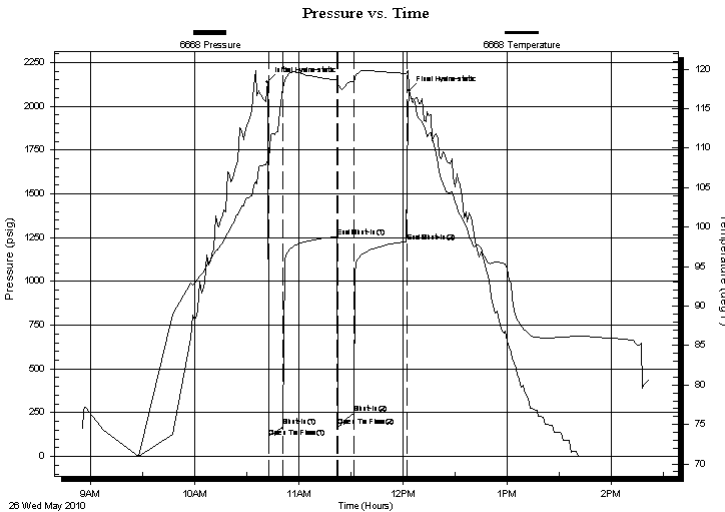
## GENERAL INFORMATION:

Formation: **Miss**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 10:42:37  
Time Test Ended: 14:22:37  
Interval: **4225.00 ft (KB) To 4232.00 ft (KB) (TVD)**  
Total Depth: 4232.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Reference Elevations: 2129.00 ft (KB)  
2124.00 ft (CF)  
KB to GR/CF: 5.00 ft  
Test Type: Conventional Bottom Hole  
Tester: Tyson Flax  
Unit No: 44

**Serial #: 6668 Inside**  
Press @ RunDepth: 246.76 psig @ 4226.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2010.05.26 End Date: 2010.05.26 Last Calib.: 2010.05.26  
Start Time: 08:55:38 End Time: 14:22:37 Time On Btm: 2010.05.26 @ 10:42:07  
Time Off Btm: 2010.05.26 @ 12:03:37

**TEST COMMENT:** IFP-BOB in 3 min  
ISI-blow back built to 8"  
FFP-BOB in 2.75 min  
FSI-blow back built to 5"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2139.82	108.57	Initial Hydro-static
1	110.86	108.52	Open To Flow (1)
9	170.58	117.69	Shut-In(1)
40	1254.94	118.62	End Shut-In(1)
41	170.21	118.23	Open To Flow (2)
50	246.76	118.46	Shut-In(2)
80	1228.11	119.46	End Shut-In(2)
82	2090.26	117.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
570.00	GCO 10%G,90%O	6.97
0.00	420' GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

American Warrior  
PO Box 399  
Garden City, KS 67846  
ATTN: Jason Alm

**Glenn #1-31**  
**31-18s-21w/Ness**  
Job Ticket: 38665      **DST#: 2**  
Test Start: 2010.05.26 @ 08:55:37

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 40 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 59.00 sec/qt	Cushion Volume: bbl	
Water Loss: 11.19 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 6500.00 ppm		
Filter Cake: inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
570.00	GCO 10%G,90%O	6.969
0.00	420' GIP	0.000

Total Length: 570.00 ft      Total Volume: 6.969 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

