



## DRILL STEM TEST REPORT

Prepared For: **American Warrior, Inc**

PO Box 299  
Garden City KS 67846

ATTN: Jason Alm

### **CAH Unit #1**

#### **23-20s-22w Ness,KS**

Start Date: 2017.11.28 @ 16:42:15

End Date: 2017.11.29 @ 00:34:30

Job Ticket #: 64401                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.11.29 @ 10:06:38

American Warrior, Inc  
23-20s-22w Ness,KS  
CAH Unit #1  
DST # 1  
Miss  
2017.11.28



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

American Warrior, Inc  
PO Box 299  
Garden City KS 67846  
ATTN: Jason Alm

**23-20s-22w Ness, KS**

**CAH Unit #1**

Job Ticket: 64401

**DST#: 1**

Test Start: 2017.11.28 @ 16:42:15

## GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:03:00

Time Test Ended: 00:34:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 81

**Interval: 4312.00 ft (KB) To 4369.00 ft (KB) (TVD)**

Reference Elevations: 2222.00 ft (KB)

Total Depth: 4369.00 ft (KB) (TVD)

2214.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8672 Inside**

Press@RunDepth: 129.44 psig @ 4364.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.11.28

End Date:

2017.11.29

Last Calib.:

2017.11.29

Start Time: 16:42:15

End Time:

00:34:30

Time On Btm:

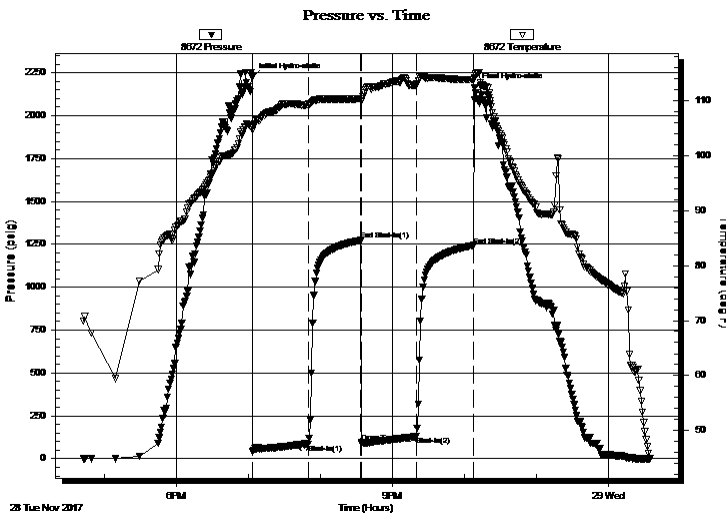
2017.11.28 @ 19:02:45

Time Off Btm:

2017.11.28 @ 22:08:30

TEST COMMENT: IF:BOB in 31 min.  
IS:No return blow  
FF:BOB in 26 min.  
FS:Weak surface blow died in 10 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2223.85	105.44	Initial Hydro-static
1	43.83	104.63	Open To Flow (1)
47	86.74	109.28	Shut-In(1)
91	1273.05	110.30	End Shut-In(1)
91	93.21	109.92	Open To Flow (2)
137	129.44	112.86	Shut-In(2)
185	1243.77	113.80	End Shut-In(2)
186	2162.18	114.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
92.00	gco 20%g 80%o	1.00
62.00	gcom 2%g 5%o 93%m	0.87
62.00	gcm 2%g 98%m	0.87
0.00	GIP= 248 ft	0.00

## Gas Rates

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





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**TOOL DIAGRAM**

American Warrior, Inc  
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**23-20s-22w Ness, KS**  
**CAH Unit #1**  
Job Ticket: 64401      **DST#: 1**  
Test Start: 2017.11.28 @ 16:42:15

**Tool Information**

Drill Pipe:	Length: 4282.00 ft	Diameter: 3.80 inches	Volume: 60.07 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: 20000.00 lb
Drill Collar:	Length: 32.00 ft	Diameter: 2.25 inches	Volume: 0.16 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 60.23 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4312.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	85.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			4285.00	
Shut In Tool	5.00			4290.00	
Hydraulic tool	5.00			4295.00	
Jars	5.00			4300.00	
Safety Joint	3.00			4303.00	
Packer	5.00			4308.00	28.00      Bottom Of Top Packer
Packer	4.00			4312.00	
Stubb	1.00			4313.00	
Perforations	2.00			4315.00	
Change Over Sub	1.00			4316.00	
Drill Pipe	32.00			4348.00	
Change Over Sub	1.00			4349.00	
Perforations	15.00			4364.00	
Recorder	0.00	8672	Inside	4364.00	
Recorder	0.00	8374	Outside	4364.00	
Bullnose	5.00			4369.00	57.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>85.00</b>				



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**FLUID SUMMARY**

American Warrior, Inc

**23-20s-22w Ness, KS**

PO Box 299  
Garden City KS 67846

**CAH Unit #1**

Job Ticket: 64401

**DST#: 1**

ATTN: Jason Alm

Test Start: 2017.11.28 @ 16:42:15

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6100.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
92.00	gco 20%g 80%o	0.999
62.00	gcom 2%g 5%o 93%m	0.870
62.00	gcm 2%g 98%m	0.870
0.00	GIP= 248 ft	0.000

Total Length: 216.00 ft      Total Volume: 2.739 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

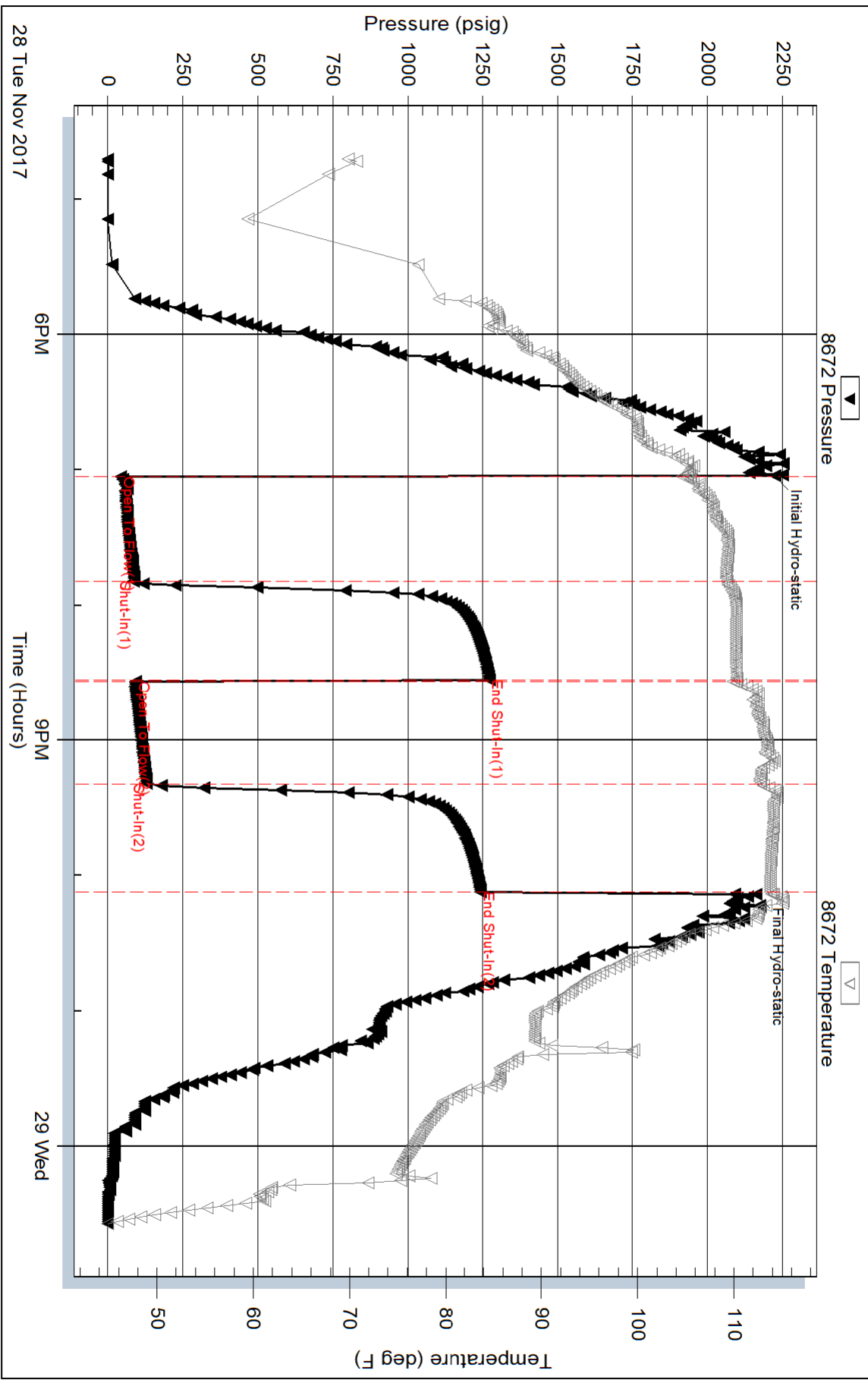
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API 37 @ 50 corrected to 36 @ 60

### Pressure vs. Time



Serial #: 8374

Outside American Warrior, Inc

CAH Unit #1

DST Test Number: 1

