



## DRILL STEM TEST REPORT

Prepared For: **American Warrior, Inc.**

PO Box 399  
Garden City, KS 67846

ATTN: Jason T. Alm

### **Bradford #1-30**

#### **30-23S-23W Hodgeman,KS**

Start Date: 2017.02.23 @ 23:56:03

End Date: 2017.02.24 @ 07:13:04

Job Ticket #: 58110                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

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American Warrior, Inc.

30-23S-23W Hodgeman,KS

Bradford #1-30

DST # 1

Cherokee Sand

2017.02.23



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# DRILL STEM TEST REPORT

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 PO Box 399  
 Garden City, KS 67846  
 ATTN: Jason T. Alm

**30-23S-23W Hodgeman,KS**

**Bradford #1-30**

Job Ticket: 58110 **DST#: 1**  
 Test Start: 2017.02.23 @ 23:56:03

## GENERAL INFORMATION:

Formation: **Cherokee Sand**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 03:21:19  
 Time Test Ended: 07:13:04  
 Interval: **4646.00 ft (KB) To 4730.00 ft (KB) (TVD)**  
 Total Depth: 4730.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Brannan Lonsdale  
 Unit No: 73  
 Reference Elevations: 2444.00 ft (KB)  
 2436.00 ft (CF)  
 KB to GR/CF: 8.00 ft

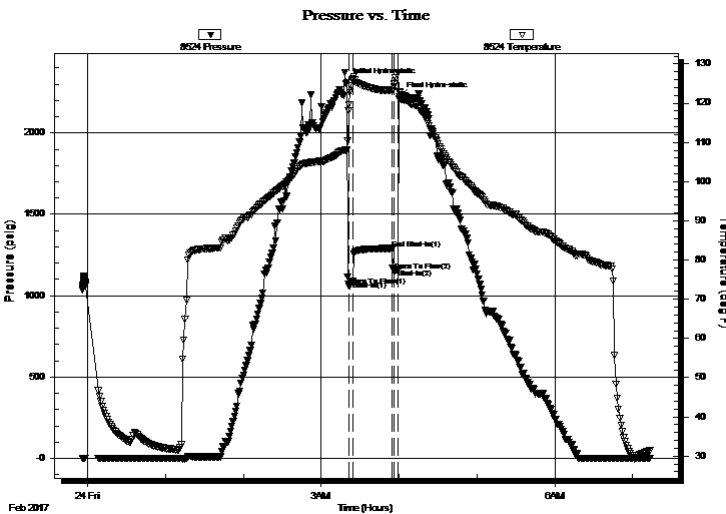
## Serial #: 8524

**Outside**

Press@RunDepth: 1087.22 psig @ 4663.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.02.23 End Date: 2017.02.24 Last Calib.: 2017.02.24  
 Start Time: 23:56:04 End Time: 07:13:04 Time On Btm: 2017.02.24 @ 03:19:34  
 Time Off Btm: 2017.02.24 @ 04:00:19

TEST COMMENT: 05- IF- BOB 5 secs  
 30- IS- No blow  
 05- FF- BOB 10 secs Pulled tool

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2307.74	107.98	Initial Hydro-static
2	1060.14	119.67	Open To Flow (1)
5	1087.22	126.19	Shut-In(1)
36	1290.09	123.19	End Shut-In(1)
37	1153.37	124.95	Open To Flow (2)
40	1162.50	127.84	Shut-In(2)
41	2222.96	122.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1396.00	MW, 10%M 90%W	19.50
476.00	SWM, 5%W 95%M	6.75

## Gas Rates

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





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**TOOL DIAGRAM**

American Warrior, Inc.

**30-23S-23W Hodgeman,KS**

PO Box 399  
Garden City, KS 67846

**Bradford #1-30**

Job Ticket: 58110

**DST#: 1**

ATTN: Jason T. Alm

Test Start: 2017.02.23 @ 23:56:03

## Tool Information

Drill Pipe:	Length: 4597.00 ft	Diameter: 3.82 inches	Volume: 65.16 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4646.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.00 ft			
Tool Length:	111.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4620.00	
Shut In Tool	5.00			4625.00	
Hydraulic tool	5.00			4630.00	
Jars	5.00			4635.00	
Safety Joint	2.00			4637.00	
Packer	5.00			4642.00	27.00 Bottom Of Top Packer
Packer	4.00			4646.00	
Stubb	1.00			4647.00	
Perforations	15.00			4662.00	
Change Over Sub	1.00			4663.00	
Recorder	0.00	6838	Inside	4663.00	
Recorder	0.00	8524	Outside	4663.00	
Drill Pipe	63.00			4726.00	
Change Over Sub	1.00			4727.00	
Bullnose	3.00			4730.00	84.00 Bottom Packers & Anchor

**Total Tool Length: 111.00**



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**FLUID SUMMARY**

American Warrior, Inc.

**30-23S-23W Hodgeman,KS**

PO Box 399  
Garden City, KS 67846

**Bradford #1-30**

Job Ticket: 58110

**DST#: 1**

ATTN: Jason T. Alm

Test Start: 2017.02.23 @ 23:56:03

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: 58000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume: bbl

Water Loss: 8.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 3200.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1396.00	MW, 10%M 90%W	19.502
476.00	SWM, 5%W 95%M	6.747

Total Length: 1872.00 ft      Total Volume: 26.249 bbl

Num Fluid Samples: 0

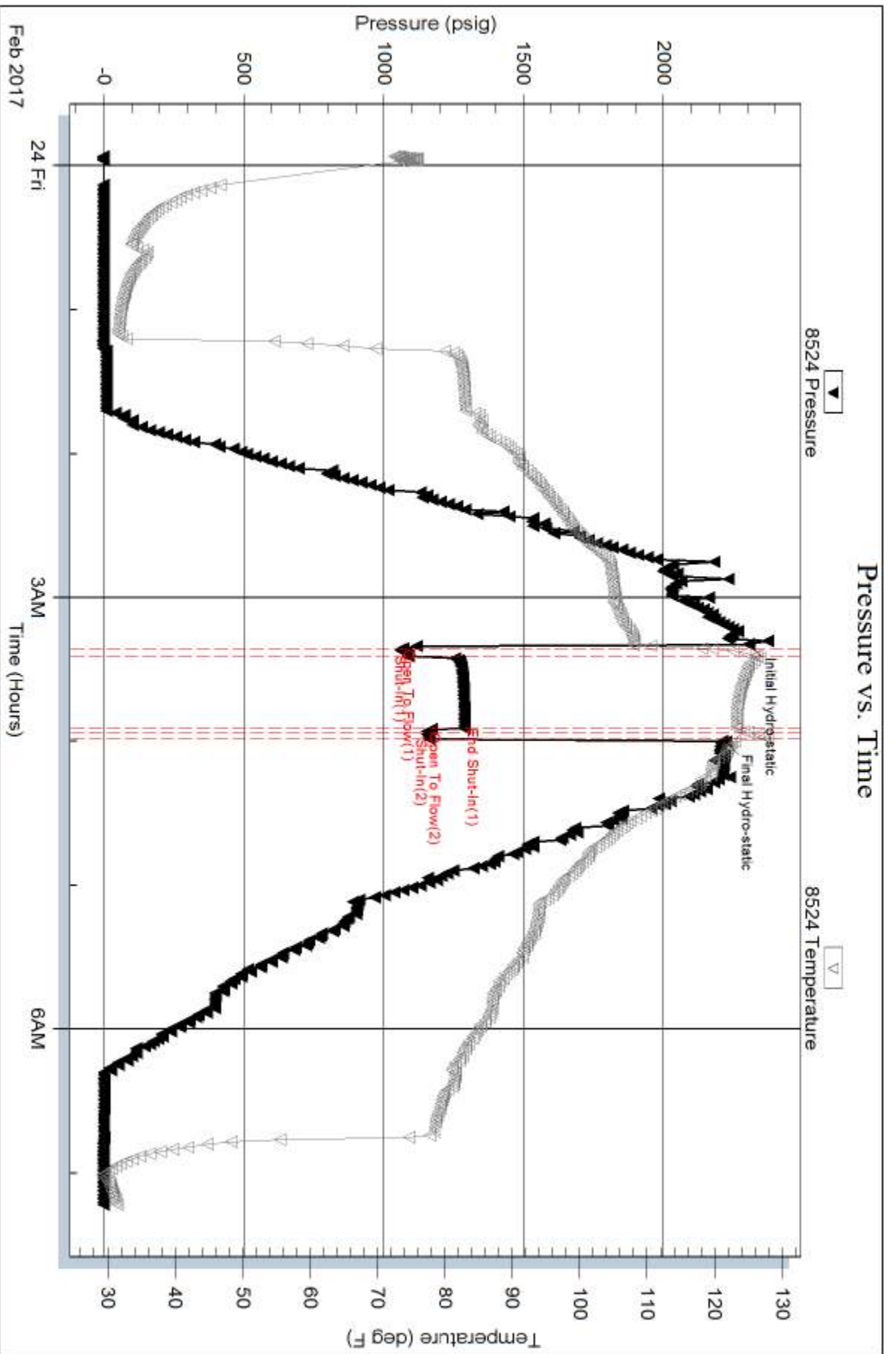
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .27@31deg



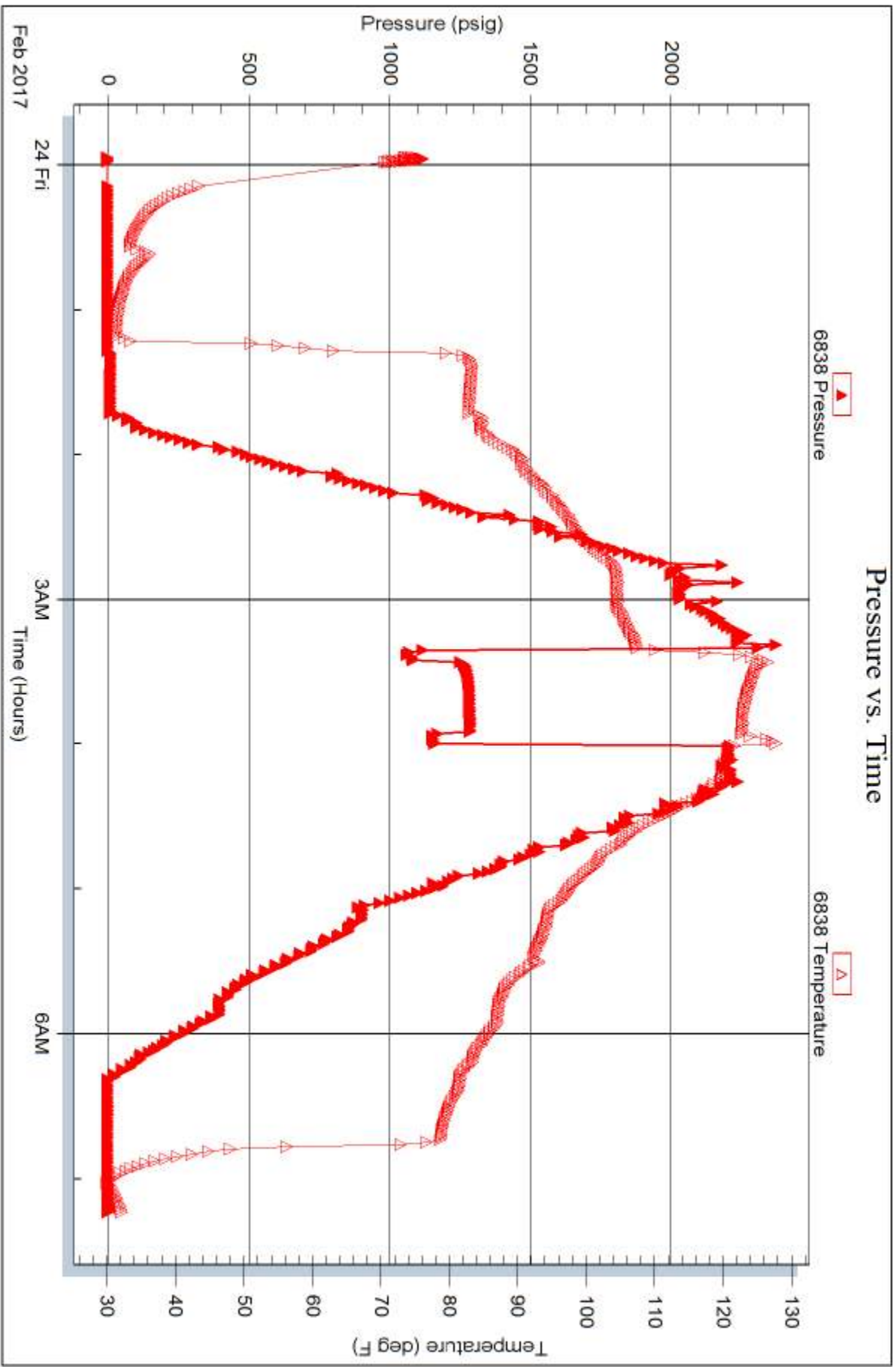
Serial #: 6838

Inside

American Warrior, Inc.

Bradford #1-30

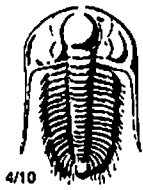
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 58110

Printed: 2017.02.27 @ 09:12:15



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58110

Well Name & No. Bradford #1-30 Test No. 1 Date 2/24/17  
 Company American Warrior Inc. Elevation 2444 KB 2436 GL  
 Address PO Box 399 3115 Cummings Rd. Garden City, KS 67846  
 Co. Rep / Geo. Tyson T Alm Rig Discovery #13  
 Location: Sec. 30 Twp. 23 S Rge. 23 W Co. Hodgeman State KS

Interval Tested 4646-4730 Zone Tested Cherokee Sand  
 Anchor Length 84' Drill Pipe Run 4597 Mud Wt. 9.35  
 Top Packer Depth 4641 Drill Collars Run 31 Vis 47  
 Bottom Packer Depth 4646 Wt. Pipe Run --- WL 8.4  
 Total Depth 4730 Chlorides 3200 ppm System LCM 1.5  
 Blow Description IF-DOB 5secs  
ISI- No blow  
FF- BOB 10secs Pulled tool

Rec	Feet of	%gas	%oil	%water	%mud
<u>1396</u>	<u>Feet of MW</u>			<u>90</u>	<u>10</u>
<u>476</u>	<u>Feet of SWM</u>			<u>5</u>	<u>95</u>

Rec Total 1872 BHT 128° Gravity --- API RW 27 @ 31 °F Chlorides 5800 ppm  
 (A) Initial Hydrostatic 2308  Test 1150 T-On Location 2/23 2323  
 (B) First Initial Flow 1060  Jars 250 T-Started 2356  
 (C) First Final Flow 1087  Safety Joint 75 T-Open 0320  
 (D) Initial Shut-In 1290  Circ Sub \_\_\_\_\_ T-Pulled 0400  
 (E) Second Initial Flow 1153  Hourly Standby \_\_\_\_\_ T-Out 0713  
 (F) Second Final Flow 1163  Mileage 180 RT 135 Comments \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2223  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1610  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1610

Approved By \_\_\_\_\_ Our Representative Brannan Lonsdale

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