



## DRILL STEM TEST REPORT

Prepared For: **American Warrior, Inc**

3118 Cumming Rd  
P.O. Box 399  
Garden City, KS 67846

ATTN: Jason Alm

### **Hinnergardt #3-12**

#### **12-20s-21w Ness,KS**

Start Date: 2015.01.21 @ 16:12:00

End Date: 2015.01.22 @ 01:11:00

Job Ticket #: 60999                      DST #: 1

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

Printed: 2015.01.22 @ 13:34:34



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

American Warrior, Inc  
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P.O. Box 399  
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ATTN: Jason Alm

**12-20s-21w Ness,KS**

**Hinnergardt #3-12**

Job Ticket: 60999

**DST#: 1**

Test Start: 2015.01.21 @ 16:12:00

## GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:54:30

Time Test Ended: 01:11:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Phillip Gage

Unit No: 73

**Interval: 4376.00 ft (KB) To 4387.00 ft (KB) (TVD)**

Reference Elevations: 2248.00 ft (KB)

Total Depth: 4387.00 ft (KB) (TVD)

2240.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8940 Outside**

Press@RunDepth: 52.92 psig @ 4377.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.21

End Date:

2015.01.22

Last Calib.:

2015.01.22

Start Time: 16:12:05

End Time:

01:11:00

Time On Btm:

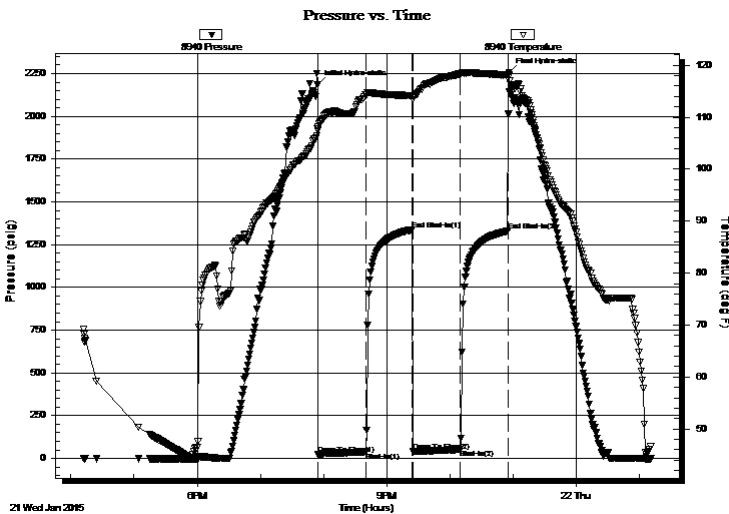
2015.01.21 @ 19:54:15

Time Off Btm:

2015.01.21 @ 22:56:15

**TEST COMMENT:** 45-IF-Built to 6 1/2"  
45-ISI-No Return  
45-FF-Built to 5 3/4"  
45-FSI-Weak Surface Return, died in 15 mins

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2186.33	107.70	Initial Hydro-static
1	21.95	107.43	Open To Flow (1)
46	38.77	114.27	Shut-In(1)
90	1337.20	114.19	End Shut-In(1)
91	41.43	113.46	Open To Flow (2)
136	52.92	118.30	Shut-In(2)
181	1329.49	118.17	End Shut-In(2)
182	2256.83	117.91	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	VSWOCM, 5%w, 15%o, 80%m	0.60
40.00	O, 100%o	0.56
0.00	GIP-20'	0.00

## Gas Rates

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





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**TOOL DIAGRAM**

American Warrior, Inc

**12-20s-21w Ness, KS**

3118 Cumming Rd  
P.O. Box 399  
Garden City, KS 67846  
ATTN: Jason Alm

**Hinnergardt #3-12**

Job Ticket: 60999

**DST#: 1**

Test Start: 2015.01.21 @ 16:12:00

## Tool Information

Drill Pipe:	Length: 4341.00 ft	Diameter: 3.80 inches	Volume: 60.89 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 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: 82000.00 lb
			<u>Total Volume: 61.04 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4376.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	39.00 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			4349.00	
Shut In Tool	5.00			4354.00	
Hydraulic tool	5.00			4359.00	
Jars	5.00			4364.00	
Safety Joint	3.00			4367.00	
Packer	5.00			4372.00	28.00 Bottom Of Top Packer
Packer	4.00			4376.00	
Stubb	1.00			4377.00	
Recorder	0.00	8648	Inside	4377.00	
Recorder	0.00	8940	Outside	4377.00	
Perforations	7.00			4384.00	
Bullnose	3.00			4387.00	11.00 Bottom Packers & Anchor

**Total Tool Length: 39.00**



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**FLUID SUMMARY**

American Warrior, Inc

**12-20s-21w Ness,KS**

3118 Cumming Rd  
P.O. Box 399  
Garden City, KS 67846  
ATTN: Jason Alm

**Hinnergardt #3-12**

Job Ticket: 60999

**DST#: 1**

Test Start: 2015.01.21 @ 16:12:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 49.00 sec/qt  
Water Loss: 7.99 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 3400.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: 31 deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	VSWOCM, 5%w, 15%o, 80%m	0.601
40.00	O, 100%o	0.561
0.00	GIP-20'	0.000

Total Length: 103.00 ft      Total Volume: 1.162 bbl

Num Fluid Samples: 0

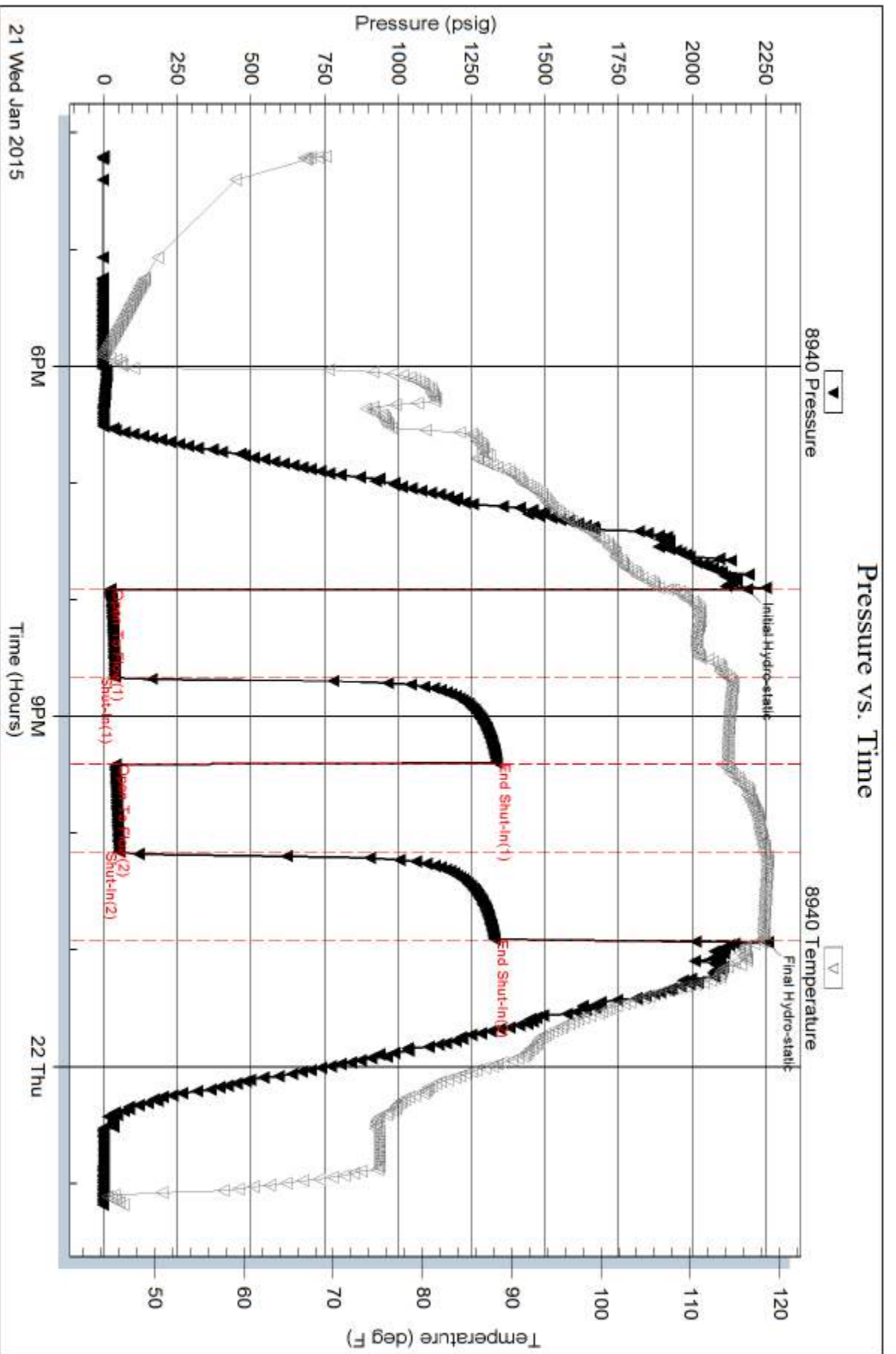
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



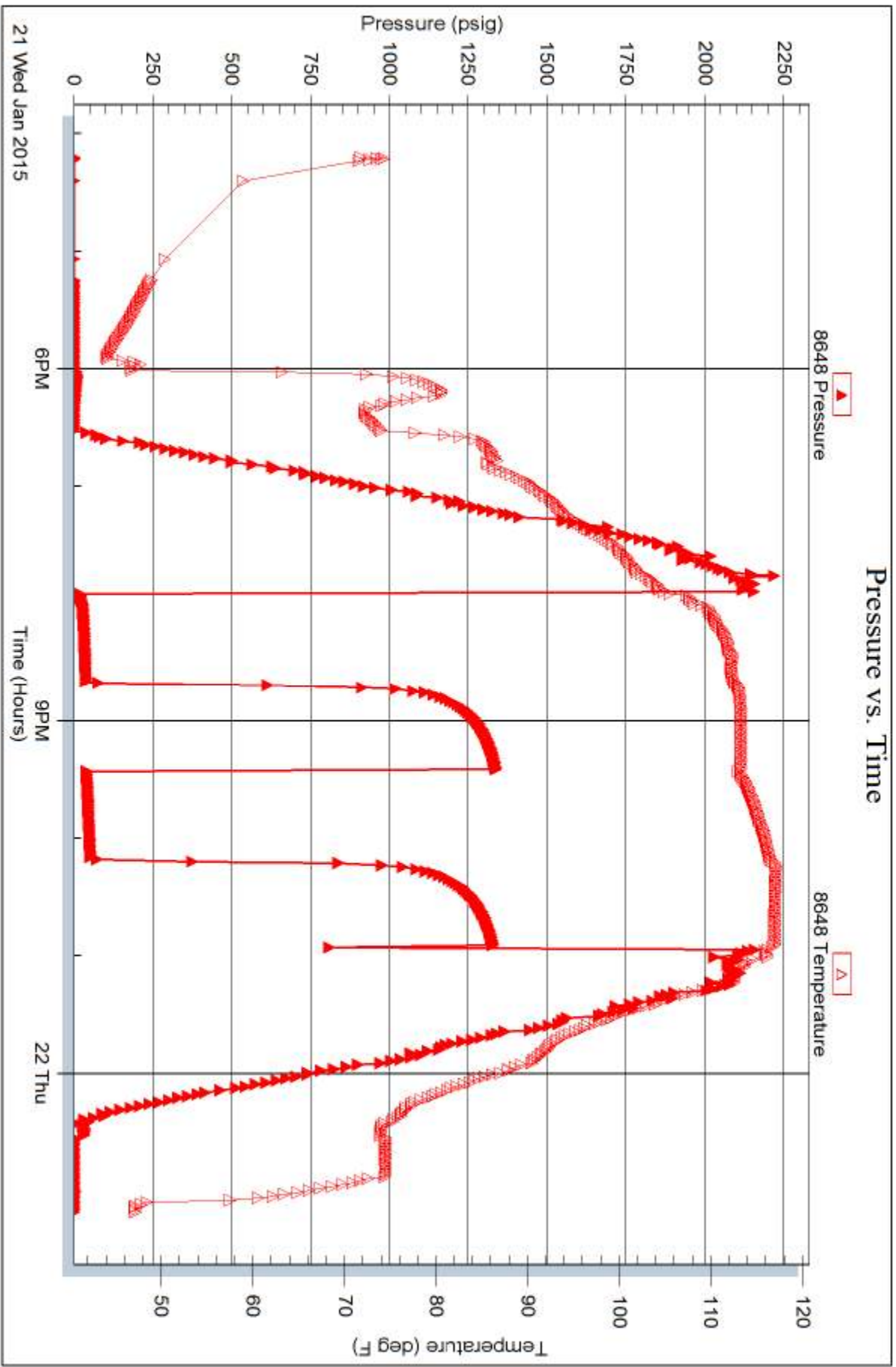
Serial #: 8648

Inside

American Warrior, Inc

Hinnergardt #3-12

DST Test Number: 1







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 60999

Well Name & No. Hinnergardt #3-12 Test No. 1 Date 1-21-15  
 Company American Warrior, Inc. Elevation 2248 KB 2240 GL  
 Address 3118 Cammings RD P.O. Box 399 Garden City, KS 67846  
 Co. Rep / Geo. Jason Alm Rig Discovery Rig #3  
 Location: Sec. 12 Twp. 20s Rge. 21w Co. Ness State KS

Interval Tested 4376-4387 Zone Tested Ness  
 Anchor Length 11' Drill Pipe Run 4341 Mud Wt. 9.1  
 Top Packer Depth 4371 Drill Collars Run 31 Vis 49  
 Bottom Packer Depth 4376 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4387 Chlorides 3,400 ppm System LCM 1#  
 Blow Description IF Buite to 6h"  
 tse No Return  
 FF Buite to 5 3/4"  
 FSI Weak Surface Return, died in 15 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>63'</u>	<u>VSWOCM</u>		<u>15</u>	<u>5</u>	<u>80</u>
<u>40'</u>	<u>0</u>		<u>100</u>		
<u>0</u>	<u>GIP-201</u>	<u>100</u>			

Rec Total 103' BHT 118 Gravity 31 API RW @ °F Chlorides — ppm

(A) Initial Hydrostatic <u>2,186</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>15:50</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>16:12</u>
(C) First Final Flow <u>38</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>19:56</u>
(D) Initial Shut-In <u>1,337</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>22:56</u>
(E) Second Initial Flow <u>41</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>05:12</u>
(F) Second Final Flow <u>52</u>	<input checked="" type="checkbox"/> Mileage <u>112 RT 112</u>	Comments
(G) Final Shut-In <u>1,329</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2,256</u>	<input type="checkbox"/> Straddle	
	<input type="checkbox"/> Shale Packer	
Initial Open <u>45</u>	<input type="checkbox"/> Extra Packer	
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	
Final Flow <u>45</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Accessibility	Total <u>1587</u>
	Sub Total <u>1587</u>	MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative Mike Jones Thank You

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