



## DRILL STEM TEST REPORT

Prepared For: **American Warrior Inc**

PO Box 399  
Garden City KS 67846

ATTN: Scott Corsair

### **Felder #2-13**

### **13-20s-21w Ness,KS**

Start Date: 2013.07.26 @ 00:15:06

End Date: 2013.07.26 @ 08:52:01

Job Ticket #: 54258                      DST #: 1

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

Printed: 2013.07.26 @ 14:11:13



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

American Warrior Inc  
 PO Box 399  
 Garden City KS 67846  
 ATTN: Scott Corsair

**13-20s-21w Ness, KS**  
**Felder #2-13**  
 Job Ticket: 54258 **DST#: 1**  
 Test Start: 2013.07.26 @ 00:15:06

## GENERAL INFORMATION:

Formation: **Miss**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:46:46  
 Time Test Ended: 08:52:01  
 Interval: **4387.00 ft (KB) To 4395.00 ft (KB) (TVD)**  
 Total Depth: 4395.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ray Schwager  
 Unit No: 70  
 Reference Elevations: 2235.00 ft (KB)  
 2229.00 ft (CF)  
 KB to GR/CF: 6.00 ft

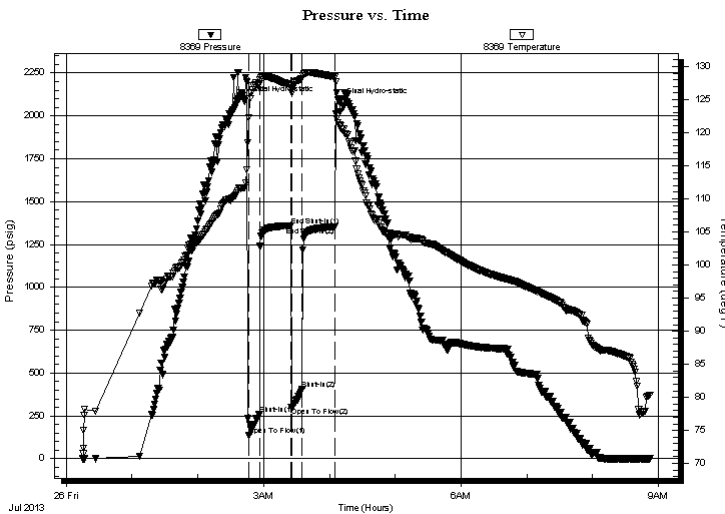
## Serial #: 8369

Inside

Press @ Run Depth: 407.80 psig @ 4388.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.07.26 End Date: 2013.07.26 Last Calib.: 2013.07.26  
 Start Time: 00:15:06 End Time: 08:52:01 Time On Btm: 2013.07.26 @ 02:42:31  
 Time Off Btm: 2013.07.26 @ 04:09:16

TEST COMMENT: 10-IFP-w k to strg in 2 min  
 30-ISIP-1/4" bl bk  
 10-FFP-w k to strg in 2 min  
 30-FSIP-1/4" bl bk

## PRESSURE SUMMARY



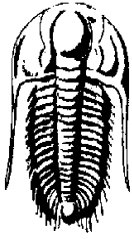
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2088.58	111.62	Initial Hydro-static
5	135.29	122.25	Open To Flow (1)
14	259.62	127.47	Shut-In(1)
43	1359.41	127.11	End Shut-In(1)
43	298.98	126.61	Open To Flow (2)
53	407.80	128.19	Shut-In(2)
83	1353.69	128.38	End Shut-In(2)
87	2075.51	121.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
186.00	O&GCMW 5%G5%O10%M80%W	1.52
62.00	HO&GCW 10%G40%O50%W	0.87
690.00	CO	9.68
0.00	300'GIP	0.00

## Gas Rates

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



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

## DRILL STEM TEST REPORT

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**13-20s-21w Ness, KS**  
**Felder #2-13**  
Job Ticket: 54258 **DST#: 1**  
Test Start: 2013.07.26 @ 00:15:06

### GENERAL INFORMATION:

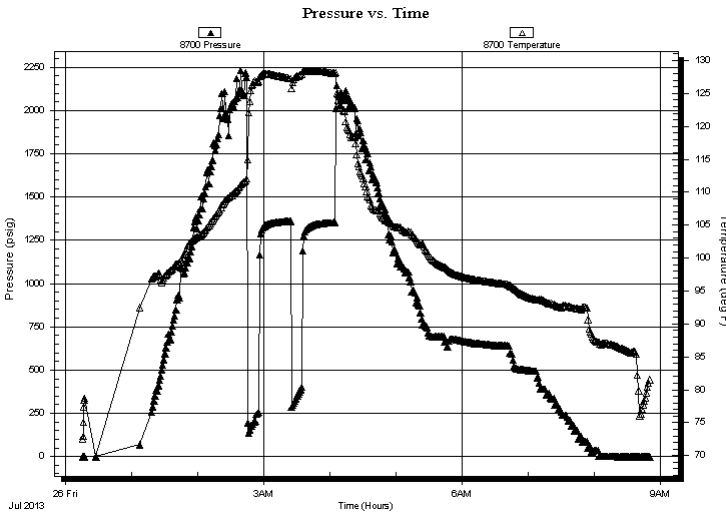
Formation: **Miss**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 02:46:46  
Time Test Ended: 08:52:01  
Interval: **4387.00 ft (KB) To 4395.00 ft (KB) (TVD)**  
Total Depth: 4395.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Ray Schwager  
Unit No: 70  
Reference Elevations: 2235.00 ft (KB)  
2229.00 ft (CF)  
KB to GR/CF: 6.00 ft

### Serial #: 8700 Outside

Press @ Run Depth: psig @ 4388.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2013.07.26 End Date: 2013.07.26 Last Calib.: 2013.07.26  
Start Time: 00:15:56 End Time: 08:51:06 Time On Btm:  
Time Off Btm:

TEST COMMENT: 10-IFP-w k to strg in 2 min  
30-ISIP-1/4" bl bk  
10-FFP-w k to strg in 2 min  
30-FSIP-1/4" bl bk

### PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

### Recovery

Length (ft)	Description	Volume (bbl)
186.00	O&GCMW 5%G5%O10%M80%W	1.52
62.00	HO&GCW 10%G40%O50%W	0.87
690.00	CO	9.68
0.00	300'GIP	0.00

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

American Warrior Inc  
PO Box 399  
Garden City KS 67846  
ATTN: Scott Corsair

**13-20s-21w Ness, KS**  
**Felder #2-13**  
Job Ticket: 54258 **DST#: 1**  
Test Start: 2013.07.26 @ 00:15:06

**Tool Information**

Drill Pipe:	Length: 4252.00 ft	Diameter: 3.80 inches	Volume: 59.64 bbl	Tool Weight: 2200.00 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 75000.00 lb
		Total Volume: 60.23 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4387.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	8.00 ft			
Tool Length:	36.00 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			4360.00	
Shut In Tool	5.00			4365.00	
Hydraulic tool	5.00			4370.00	
Jars	5.00			4375.00	
Safety Joint	2.00			4377.00	
Packer	5.00			4382.00	28.00 Bottom Of Top Packer
Packer	5.00			4387.00	
Stubb	1.00			4388.00	
Recorder	0.00	8369	Inside	4388.00	
Recorder	0.00	8700	Outside	4388.00	
Perforations	4.00			4392.00	
Bullnose	3.00			4395.00	8.00 Bottom Packers & Anchor

**Total Tool Length: 36.00**



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**FLUID SUMMARY**

American Warrior Inc  
PO Box 399  
Garden City KS 67846  
ATTN: Scott Corsair

**13-20s-21w Ness,KS**  
**Felder #2-13**  
Job Ticket: 54258      **DST#: 1**  
Test Start: 2013.07.26 @ 00:15:06

## 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: 26000 ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl	
Water Loss: 11.16 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 5000.00 ppm		
Filter Cake: 1.00 inches		

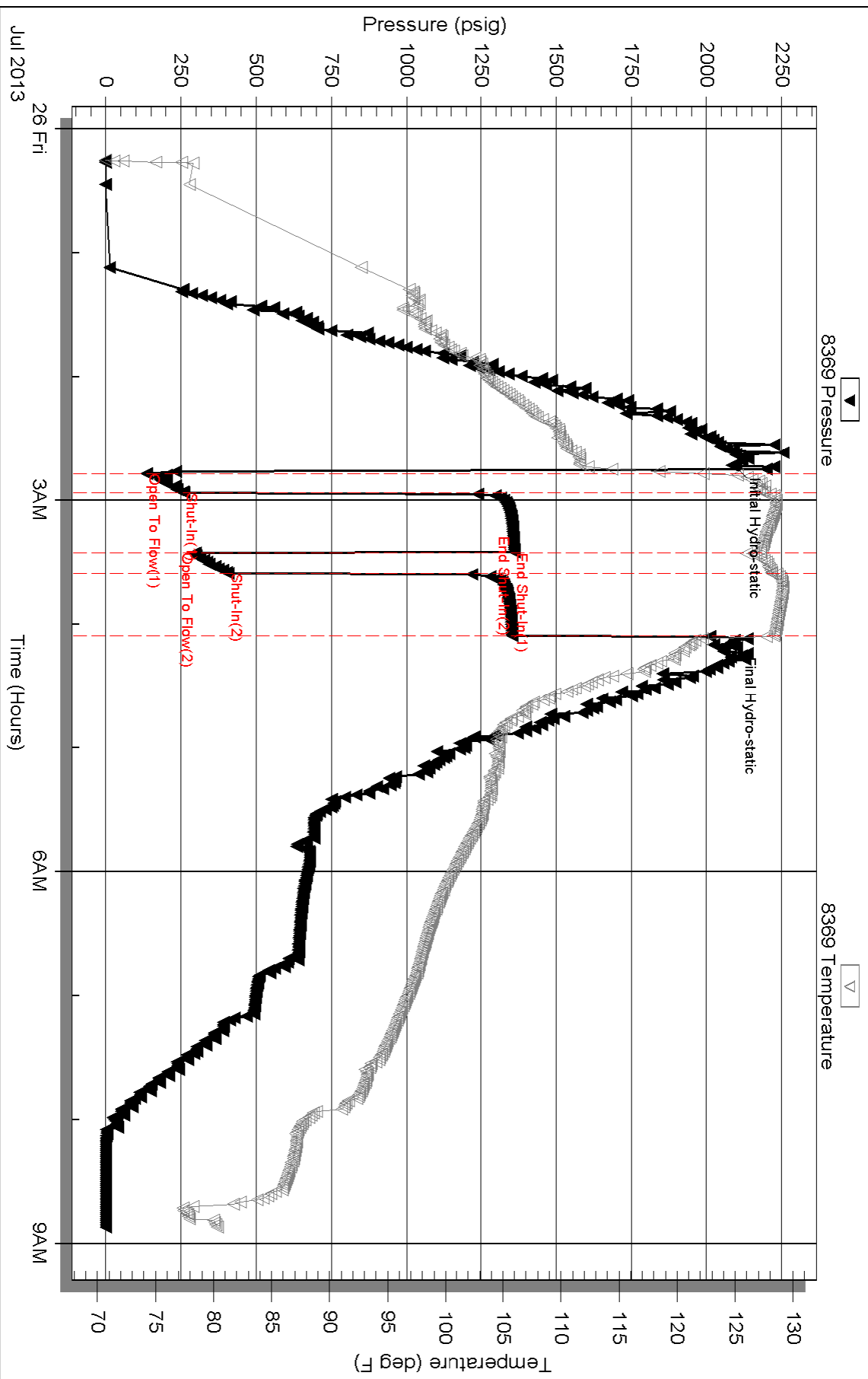
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	O&GCMW 5%G5%O10%M80%W	1.516
62.00	HO&GCW 10%G40%O50%W	0.870
690.00	CO	9.679
0.00	300'GIP	0.000

Total Length: 938.00 ft      Total Volume: 12.065 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: RW .3@55F

### Pressure vs. Time

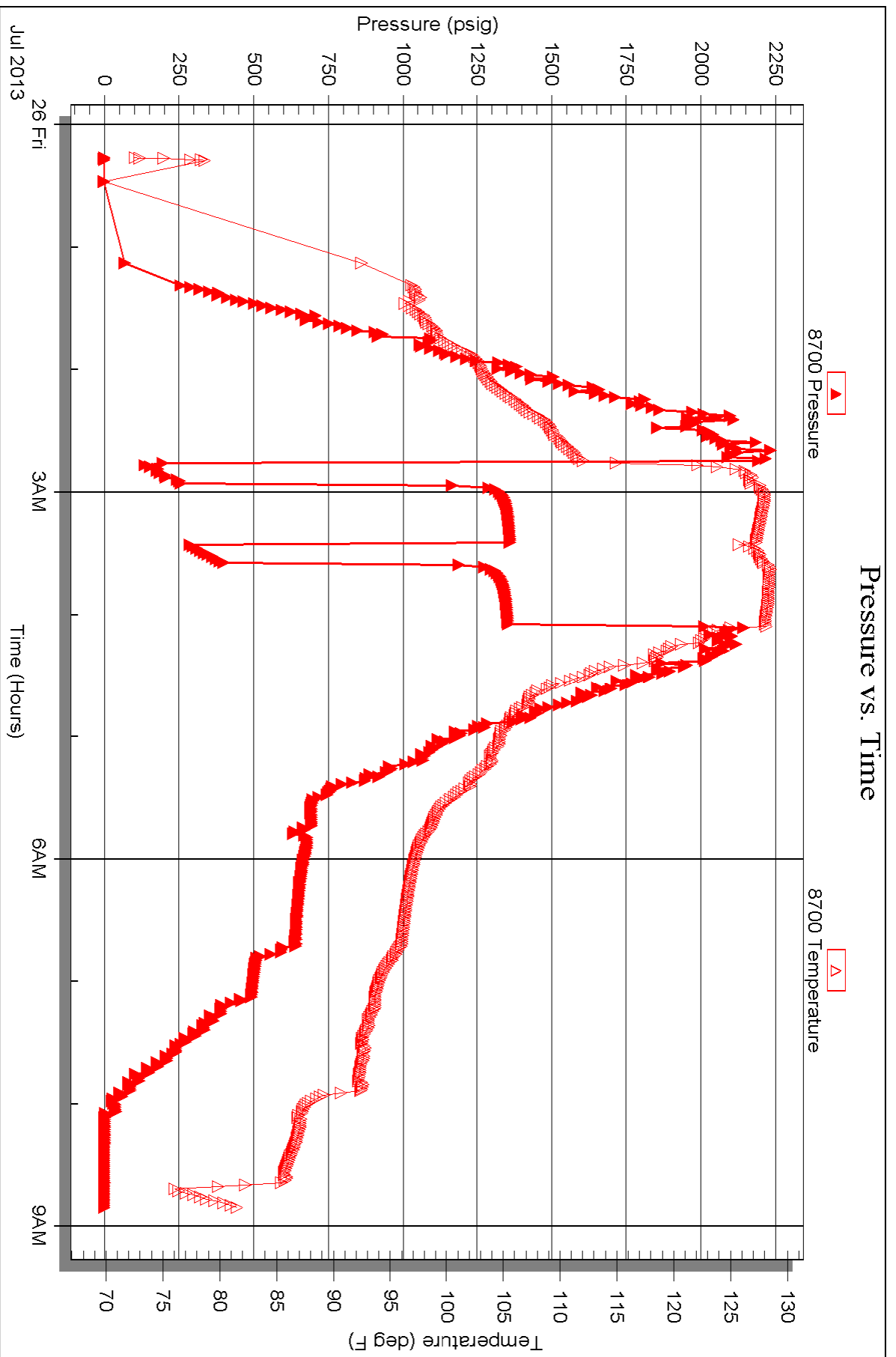


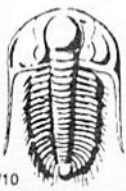
Serial #: 8700

Outside American Warrior Inc

Felder #2-13

DST Test Number: 1





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54258

Well Name & No. Felder #2-13 Test No. 1 Date 7-25-13  
 Company AMERICAN WARRIOR INC Elevation 2235 KB 2229 GL  
 Address 3118 Cummings Rd, PO Box 399 Garden City, KS 67846  
 Co. Rep / Geo. JASON ALM Rig PETROMARK Rig 1  
 Location: Sec. 13 Twp. 20<sup>s</sup> Rge. 21<sup>w</sup> Co. Ness State Ks

Interval Tested 4387-4395 Zone Tested MISS  
 Anchor Length 8 Drill Pipe Run 4252 Mud Wt. 9.2  
 Top Packer Depth 4382 Drill Collars Run 120 Vis 56  
 Bottom Packer Depth 4387 Wt. Pipe Run - WL 11.2  
 Total Depth 4395 Chlorides 5000 ppm System LCM -

Blow Description IFP - WEAK TO STRONG IN 2 MIN  
TSIP - 1/4" BLOW BACK  
FFP - WEAK TO STRONG IN 2 MIN  
FSIP - 1/4" BLOW BACK

Rec	Feet of	%gas	%oil	%water	%mud
<u>300</u>	<u>GIP</u>				
<u>690</u>	<u>CO</u>				
<u>62</u>	<u>H0+6CW</u>	<u>10</u>	<u>40</u>	<u>50</u>	
<u>186</u>	<u>O+6CMW</u>	<u>5</u>	<u>5</u>	<u>80</u>	<u>10</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 938 BHT 120 Gravity 36 API RW .3 @ 55 ° F Chlorides 26000 ppm

(A) Initial Hydrostatic 2088  Test 1250 T-On Location 2300  
 (B) First Initial Flow 135  Jars 250 T-Started 0015  
 (C) First Final Flow 259  Safety Joint 75 T-Open 0240  
 (D) Initial Shut-In 1359  Circ Sub T-Pulled 0400  
 (E) Second Initial Flow 298  Hourly Standby T-Out 0852  
 (F) Second Final Flow 407  Mileage 120 RT 186 Comments \_\_\_\_\_  
 (G) Final Shut-In 1353  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2075  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 10  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 10  Day Standby \_\_\_\_\_ Total 1761  
 Final Shut-In 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_

Sub Total 1761

Approved By \_\_\_\_\_ Our Representative Ray Schwager *Thank you*

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