



DRILL STEM TEST REPORT

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

PO Box 399
Garden City KS 67846

ATTN: Jason Alm

Kathryn #2-1

1-20s-21w Ness, KS

Start Date: 2015.02.11 @ 20:40:00

End Date: 2015.02.12 @ 03:25:00

Job Ticket #: 53847 DST #: 1

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

Printed: 2015.02.12 @ 11:20:15



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

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

1-20s-21w Ness, KS
Kathryn #2-1
Job Ticket: 53847 **DST#: 1**
Test Start: 2015.02.11 @ 20:40:00

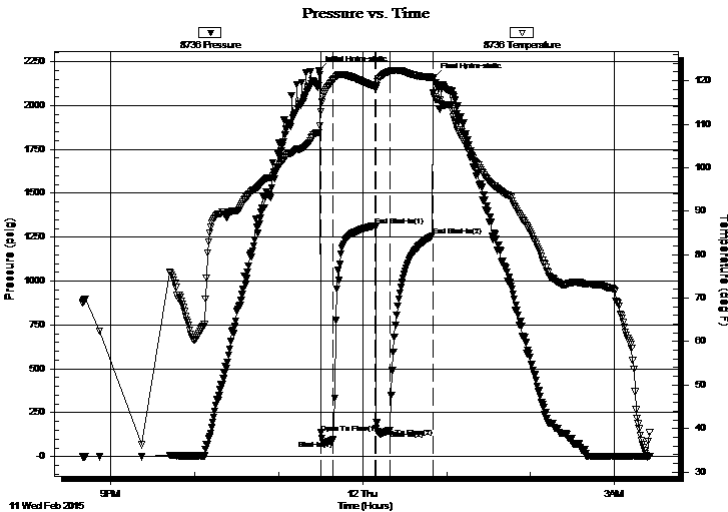
GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:30:15
Time Test Ended: 03:25:00
Interval: **4374.00 ft (KB) To 4388.00 ft (KB) (TVD)**
Total Depth: 4388.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Brett Dickinson
Unit No: 81
Reference Elevations: 2253.00 ft (KB)
2245.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8736 Outside
Press@RunDepth: 151.06 psig @ 4385.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.02.11 End Date: 2015.02.12 Last Calib.: 2015.02.12
Start Time: 20:40:05 End Time: 03:24:59 Time On Btm: 2015.02.11 @ 23:29:00
Time Off Btm: 2015.02.12 @ 00:51:15

TEST COMMENT: IF-BOB in 2 min
IS-2 1/2" blow
FF-BOB in 3 1/2 min
FS-4" blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2200.03	108.08	Initial Hydro-static
2	135.55	112.84	Open To Flow (1)
10	95.78	120.11	Shut-In(1)
40	1315.87	118.67	End Shut-In(1)
41	159.34	118.13	Open To Flow (2)
51	151.06	122.10	Shut-In(2)
81	1257.17	120.75	End Shut-In(2)
83	2159.62	116.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	GSMCO 15%G 80%O 5%M	0.99
255.00	GO 10%G 90%O	3.58
0.00	215' GIP	0.00

Gas Rates

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



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TOOL DIAGRAM

American Warrior, Inc.

1-20s-21w Ness, KS

PO Box 399
Garden City KS 67846

Kathryn #2-1

Job Ticket: 53847

DST#: 1

ATTN: Jason Alm

Test Start: 2015.02.11 @ 20:40:00

Tool Information

Drill Pipe:	Length: 4342.00 ft	Diameter: 3.80 inches	Volume: 60.91 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 67000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4374.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	14.00 ft			
Tool Length:	42.00 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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Shut In Tool	5.00			4351.00	
Hydraulic tool	5.00			4356.00	
Jars	5.00			4361.00	
Safety Joint	3.00			4364.00	
Packer	5.00			4369.00	28.00 Bottom Of Top Packer
Packer	5.00			4374.00	
Stubb	1.00			4375.00	
Perforations	10.00			4385.00	
Recorder	0.00	8934	Inside	4385.00	
Recorder	0.00	8736	Outside	4385.00	
Bullnose	3.00			4388.00	14.00 Bottom Packers & Anchor

Total Tool Length: 42.00



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FLUID SUMMARY

American Warrior, Inc.

1-20s-21w Ness, KS

PO Box 399
Garden City KS 67846

Kathryn #2-1

Job Ticket: 53847

DST#: 1

ATTN: Jason Alm

Test Start: 2015.02.11 @ 20:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	GSMCO 15%G 80%O 5%M	0.989
255.00	GO 10%G 90%O	3.577
0.00	215' GIP	0.000

Total Length: 345.00 ft Total Volume: 4.566 bbl

Num Fluid Samples: 0

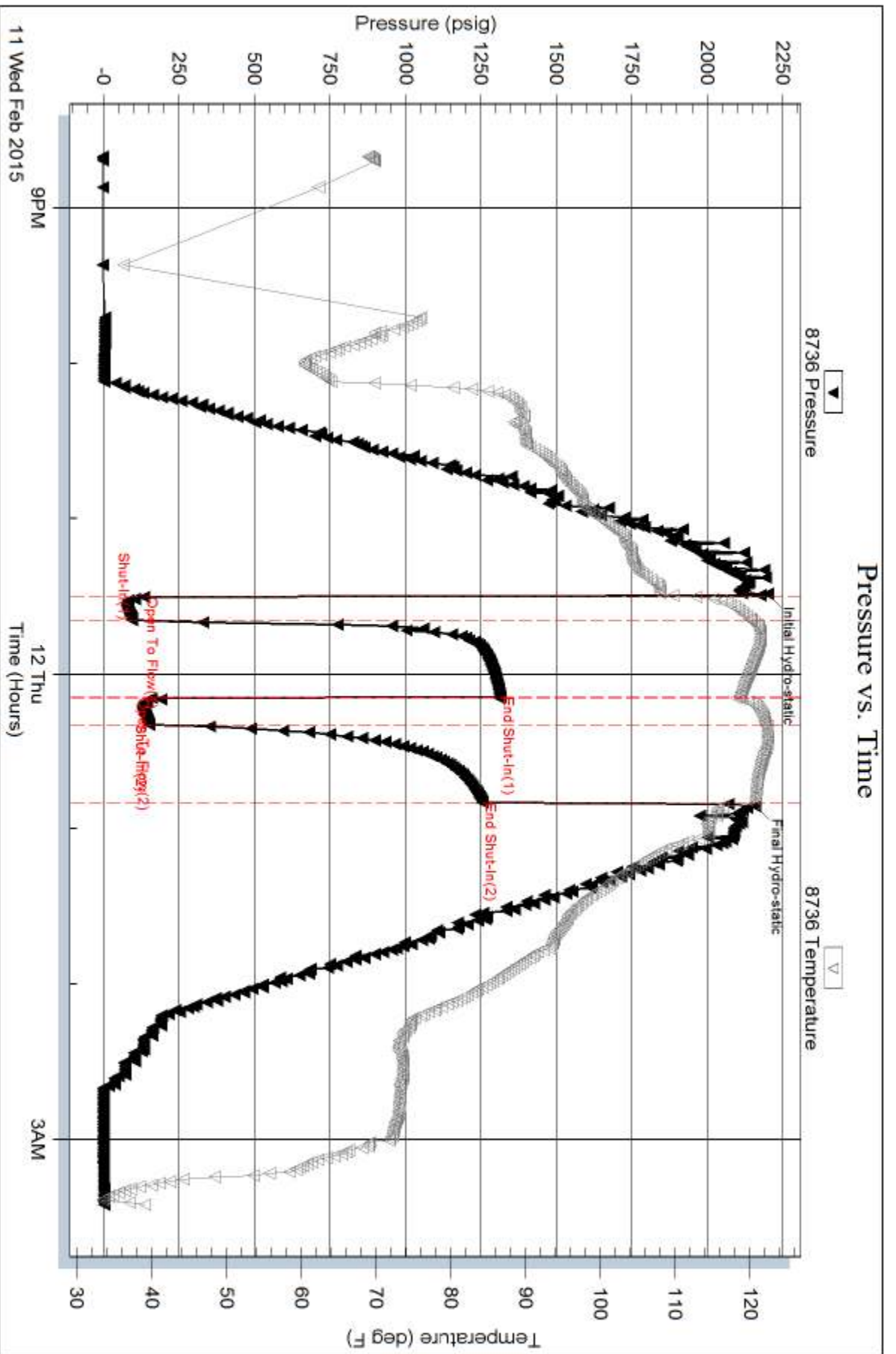
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



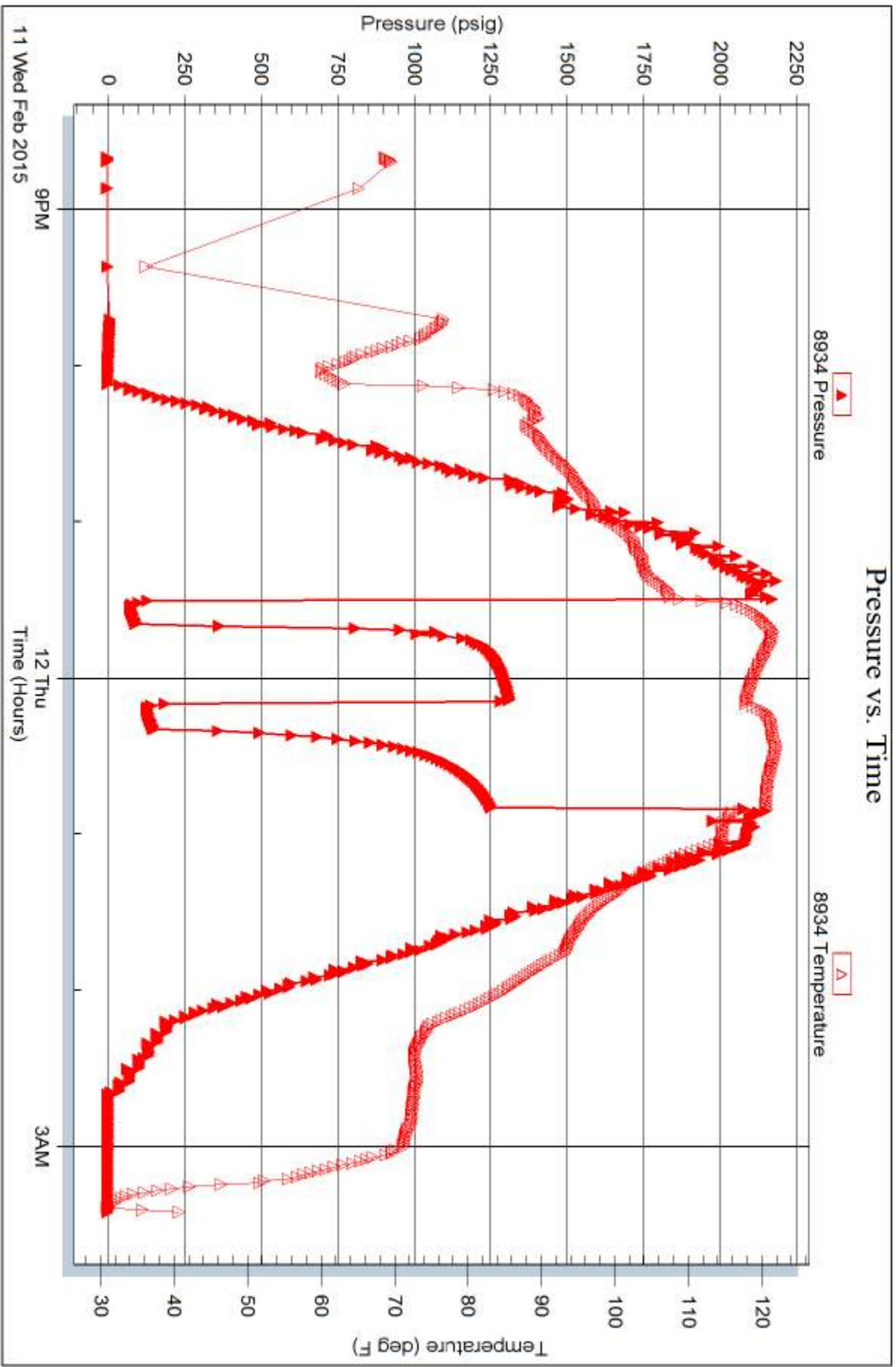
Serial #: 8934

Inside

American Warrior, Inc.

Kathryn #2-1

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 53847

Printed: 2015.02.12 @ 11:20:16



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53847

Well Name & No. Kathryn #2-1 Test No. 1 Date 2-11-815
 Company American Warrior, Inc. Elevation 2253 KB 2245 GL
 Address PO Box 399 Garden City ~~KS~~ KS 67846
 Co. Rep / Geo. Jason Alm Rig Discovery #3
 Location: Sec. 1 Twp. 20 Rge. 21w Co. Ness State KS

Interval Tested 4374-4388 Zone Tested Miss
 Anchor Length 14 Drill Pipe Run _____ Mud Wt. 9.0
 Top Packer Depth 4369 Drill Collars Run 30 Vis 65
 Bottom Packer Depth 4374 Wt. Pipe Run - WL 8.0
 Total Depth 4388 Chlorides 3,800 ppm System LCM _____

Blow Description IF - BOB in 2 min
ISI - 2 1/2 in blow
FF - BOB in 3 1/2 min
FSI - 4 in blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>GS MCO</u>	<u>15</u>	<u>80</u>	<u>5</u>	
<u>255</u>	<u>SGO</u>	<u>10</u>	<u>90</u>		
	<u>215 FT GIP</u>				

Rec Total 345 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2200
 (B) First Initial Flow 136
 (C) First Final Flow 96
 (D) Initial Shut-In 1,316
 (E) Second Initial Flow 159
 (F) Second Final Flow 151
 (G) Final Shut-In 1,257
 (H) Final Hydrostatic 2,160

Test 1150
 Jars 250
 Safety Joint 75
 Circ Sub _____
 Hourly Standby _____
 Mileage 112 RT 112
 Sampler _____
 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1587

T-On Location 19:50
 T-Started 20:40
 T-Open 23:30
 T-Pulled 00:50
 T-Out 3:25

Comments _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1587
 MP/DST Disc't _____

Initial Open 10
 Initial Shut-In 30
 Final Flow 10
 Final Shut-In 3.0

Approved By _____ Our Representative Burt Fisher

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