



## DRILL STEM TEST REPORT

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

PO Box 399  
Garden City 67846

ATTN: Kevin Timson

### **Haverfield #1-25**

### **25-13s-36w Logan,KS**

Start Date: 2015.05.18 @ 02:00:00

End Date: 2015.05.18 @ 08:26:45

Job Ticket #: 58661                      DST #: 1

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

Printed: 2015.05.20 @ 11:49:36



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

American Warrior, Inc.

**25-13s-36w Logan,KS**

PO Box 399  
Garden City 67846

**Haverfield #1-25**

Job Ticket: 58661

**DST#: 1**

ATTN: Kevin Timson

Test Start: 2015.05.18 @ 02:00:00

## GENERAL INFORMATION:

Formation: **Pleasanton**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 04:23:00

Time Test Ended: 08:26:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Justin Harris

Unit No: 71

**Interval: 4236.00 ft (KB) To 4299.00 ft (KB) (TVD)**

Reference Elevations: 3052.00 ft (KB)

Total Depth: 4299.00 ft (KB) (TVD)

3040.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8674**

**Inside**

Press@RunDepth: 22.96 psig @ 4237.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.18

End Date:

2015.05.18

Last Calib.:

2015.05.18

Start Time: 02:00:05

End Time:

08:26:44

Time On Btm:

2015.05.18 @ 04:22:30

Time Off Btm:

2015.05.18 @ 06:21:30

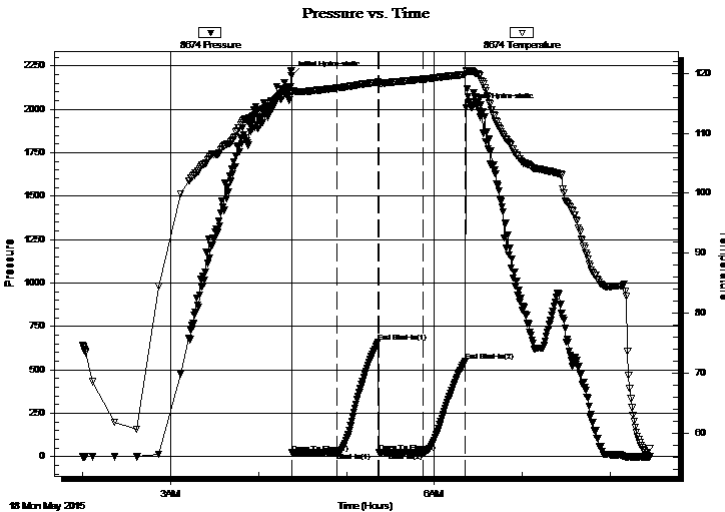
TEST COMMENT: 30: Weak surface blow died in 9 mins.

30: No Return.

30: No Blow .

30: No Return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2195.89	117.79	Initial Hydro-static
1	21.83	116.89	Open To Flow (1)
31	23.92	117.52	Shut-In(1)
59	660.13	118.49	End Shut-In(1)
60	23.37	118.27	Open To Flow (2)
90	22.96	119.00	Shut-In(2)
119	552.22	119.79	End Shut-In(2)
119	2011.21	120.46	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud oil spots	0.14

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

American Warrior, Inc.

**25-13s-36w Logan,KS**

PO Box 399  
Garden City 67846

**Haverfield #1-25**

Job Ticket: 58661

**DST#: 1**

ATTN: Kevin Timson

Test Start: 2015.05.18 @ 02:00:00

## Tool Information

Drill Pipe:	Length: 4232.00 ft	Diameter: 3.80 inches	Volume: 59.36 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 59.36 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4236.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	63.00 ft			
Tool Length:	91.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4209.00	
Shut In Tool	5.00			4214.00	
Hydraulic tool	5.00			4219.00	
Jars	5.00			4224.00	
Safety Joint	3.00			4227.00	
Packer	5.00			4232.00	28.00 Bottom Of Top Packer
Packer	4.00			4236.00	
Stubb	1.00			4237.00	
Recorder	0.00	8355	Outside	4237.00	
Recorder	0.00	8674	Inside	4237.00	
Perforations	23.00			4260.00	
Change Over Sub	1.00			4261.00	
Drill Pipe	32.00			4293.00	
Change Over Sub	1.00			4294.00	
Bullnose	5.00			4299.00	63.00 Bottom Packers & Anchor

**Total Tool Length: 91.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

American Warrior, Inc.

**25-13s-36w Logan,KS**

PO Box 399  
Garden City 67846

**Haverfield #1-25**

Job Ticket: 58661

**DST#: 1**

ATTN: Kevin Timson

Test Start: 2015.05.18 @ 02:00:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud oil spots	0.140

Total Length: 10.00 ft      Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8674

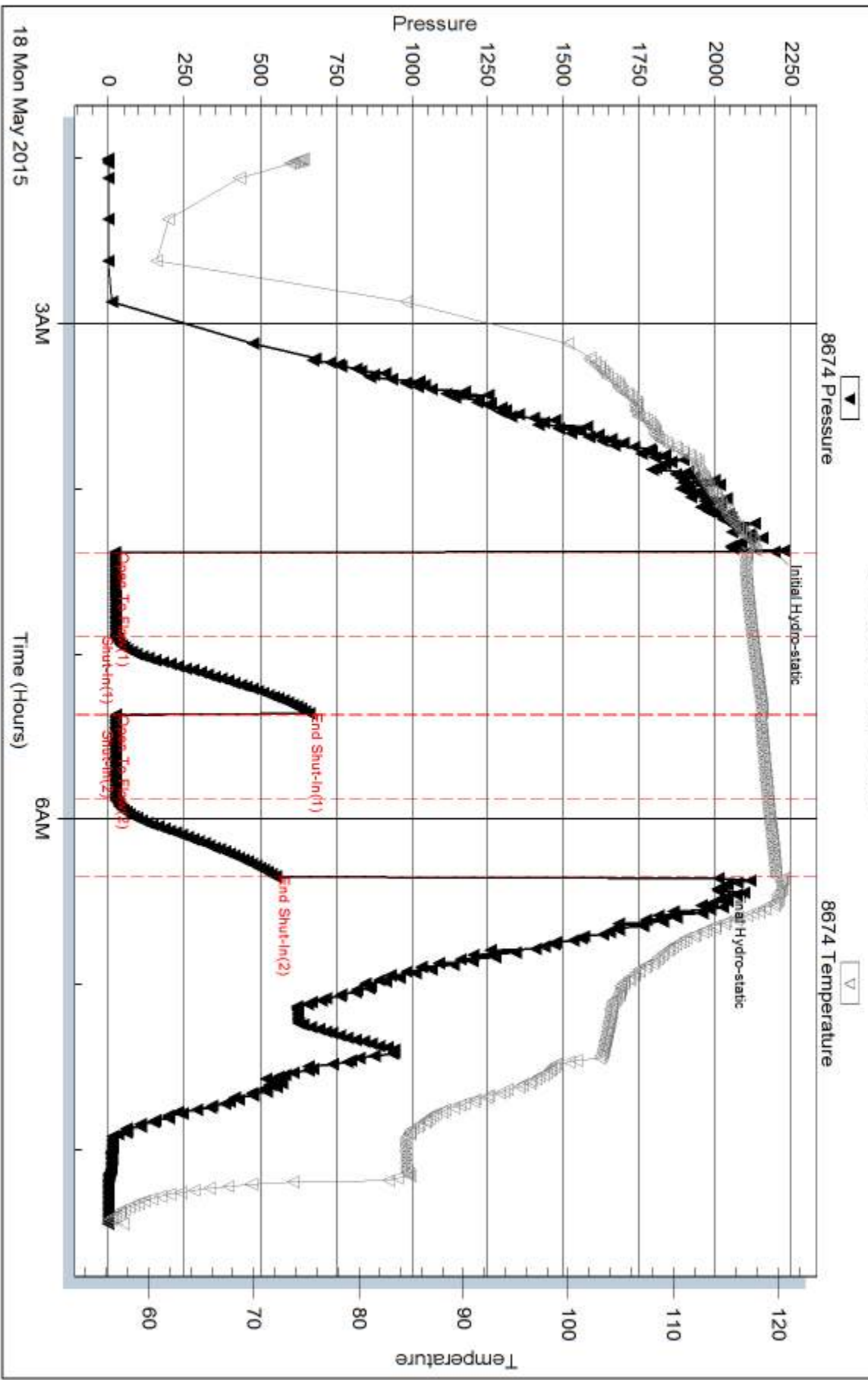
Inside

American Warrior, Inc.

Haverfield #1-25

DST Test Number: 1

### Pressure vs. Time



Tribble Testing, Inc

Ref. No: 58661

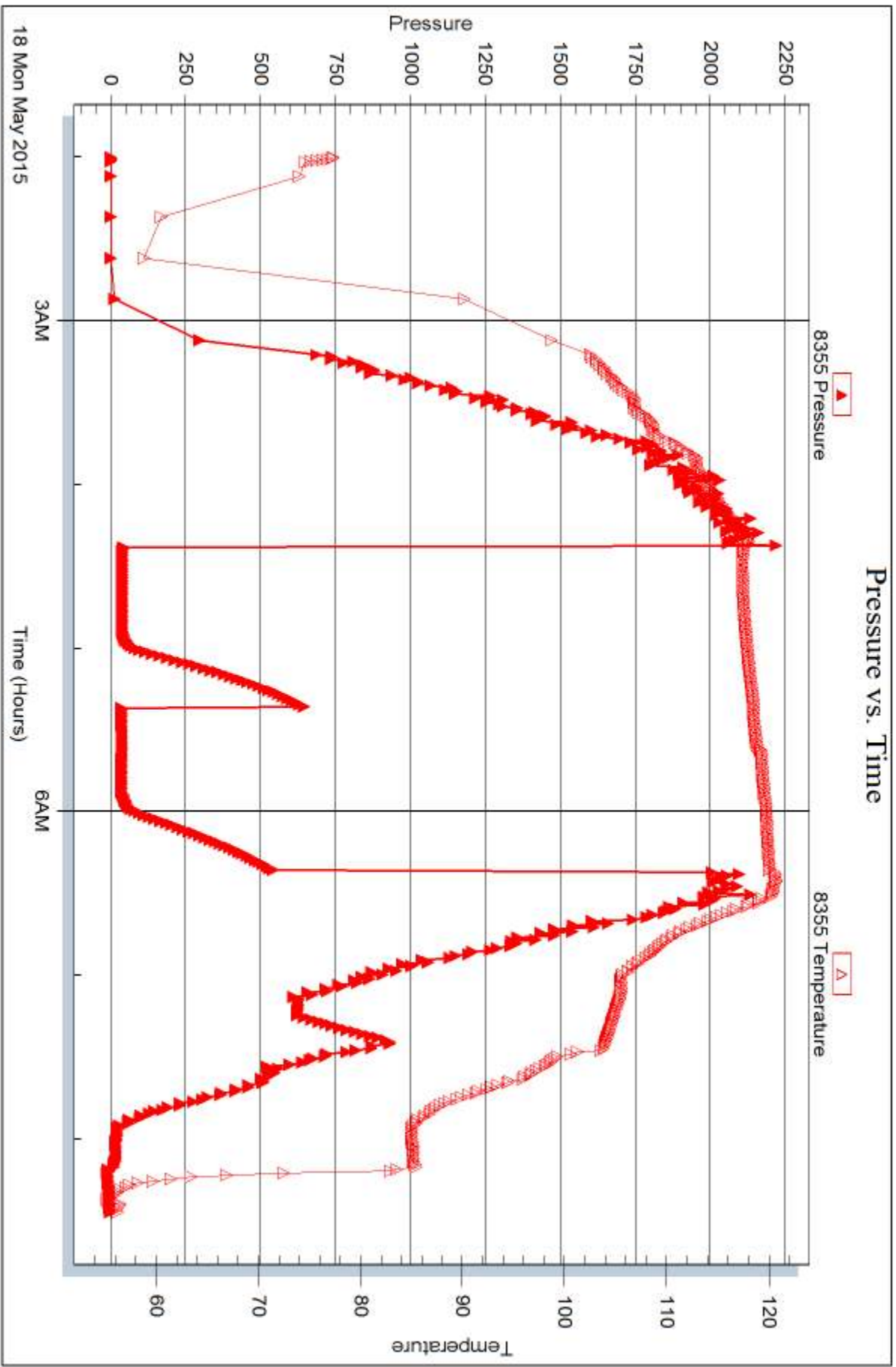
Printed: 2015.05.20 @ 11:49:37

Serial #: 8355

Outside American Warrior, Inc.

Haverfield #1-25

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 58661

Printed: 2015.05.20 @ 11:49:37



## DRILL STEM TEST REPORT

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

PO Box 399  
Garden City 67846

ATTN: Kevin Timson

### **Haverfield #1-25**

### **25-13s-36w Logan,KS**

Start Date: 2015.05.19 @ 10:12:00

End Date: 2015.05.19 @ 17:11:15

Job Ticket #: 58662                      DST #: 2

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

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**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

American Warrior, Inc.

**25-13s-36w Logan,KS**

PO Box 399  
Garden City 67846

**Haverfield #1-25**

Job Ticket: 58662

**DST#: 2**

ATTN: Kevin Timson

Test Start: 2015.05.19 @ 10:12:00

## GENERAL INFORMATION:

Formation: **Morrow**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 12:44:00

Time Test Ended: 17:11:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Justin Harris

Unit No: 71

**Interval: 4540.00 ft (KB) To 4602.00 ft (KB) (TVD)**

Reference Elevations: 3052.00 ft (KB)

Total Depth: 4602.00 ft (KB) (TVD)

3040.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8674**

**Inside**

Press@RunDepth: 1125.63 psig @ 4541.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.19

End Date:

2015.05.19

Last Calib.:

2015.05.19

Start Time: 10:12:05

End Time:

17:11:14

Time On Btm:

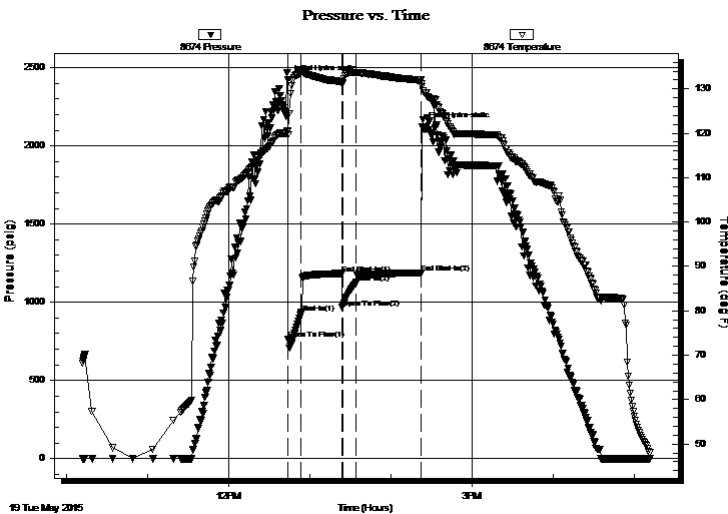
2015.05.19 @ 12:43:30

Time Off Btm:

2015.05.19 @ 14:22:45

TEST COMMENT: 10: B.O.B. in 1 min.  
30: No Return.  
10: B.O.B. in 1 min.  
45: No Return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2423.77	120.45	Initial Hydro-static
1	765.10	119.60	Open To Flow (1)
10	930.34	133.54	Shut-In(1)
40	1183.33	131.49	End Shut-In(1)
41	965.95	131.21	Open To Flow (2)
51	1125.63	133.67	Shut-In(2)
99	1186.49	131.95	End Shut-In(2)
100	2121.56	131.16	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
470.00	w cm 30w 70m	6.59
2162.00	mcw 10m 90w	30.33

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

American Warrior, Inc.

**25-13s-36w Logan,KS**

PO Box 399  
Garden City 67846

**Haverfield #1-25**

Job Ticket: 58662

**DST#: 2**

ATTN: Kevin Timson

Test Start: 2015.05.19 @ 10:12:00

## Tool Information

Drill Pipe:	Length: 4517.00 ft	Diameter: 3.80 inches	Volume: 63.36 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 63.36 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4540.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.00 ft			
Tool Length:	90.00 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			4513.00	
Shut In Tool	5.00			4518.00	
Hydraulic tool	5.00			4523.00	
Jars	5.00			4528.00	
Safety Joint	3.00			4531.00	
Packer	5.00			4536.00	28.00 Bottom Of Top Packer
Packer	4.00			4540.00	
Stubb	1.00			4541.00	
Recorder	0.00	8355	Outside	4541.00	
Recorder	0.00	8674	Inside	4541.00	
Perforations	22.00			4563.00	
Change Over Sub	1.00			4564.00	
Drill Pipe	32.00			4596.00	
Change Over Sub	1.00			4597.00	
Bullnose	5.00			4602.00	62.00 Bottom Packers & Anchor

**Total Tool Length: 90.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

American Warrior, Inc.

**25-13s-36w Logan,KS**

PO Box 399  
Garden City 67846

**Haverfield #1-25**

Job Ticket: 58662

**DST#: 2**

ATTN: Kevin Timson

Test Start: 2015.05.19 @ 10:12:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

17000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.39 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
470.00	w cm 30w 70m	6.593
2162.00	mcw 10m 90w	30.327

Total Length: 2632.00 ft      Total Volume: 36.920 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API RW 46F @ .20 = 17000 Chlorides

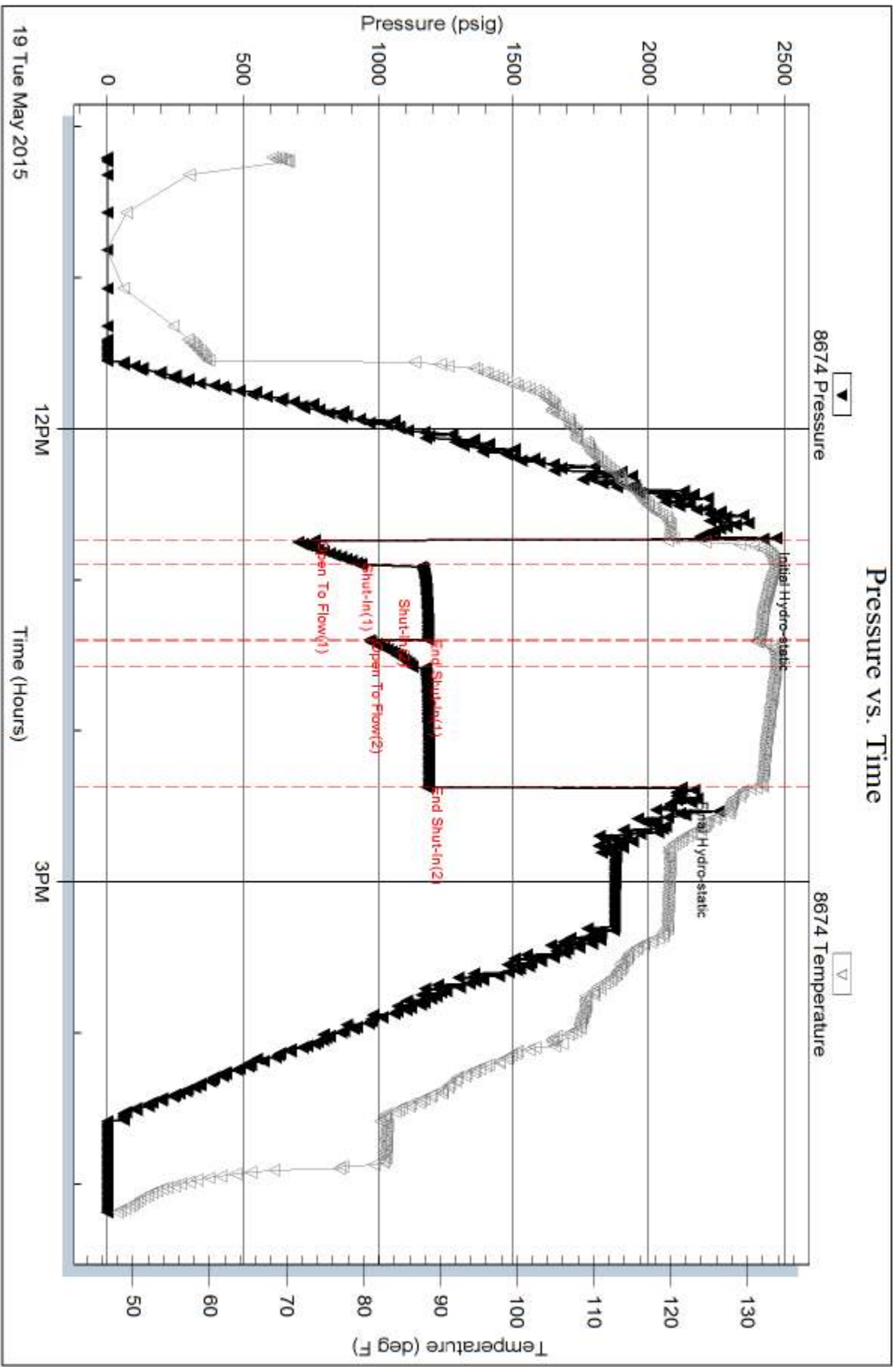
Serial #: 8674

Inside

American Warrior, Inc.

Haverfield #1-25

DST Test Number: 2

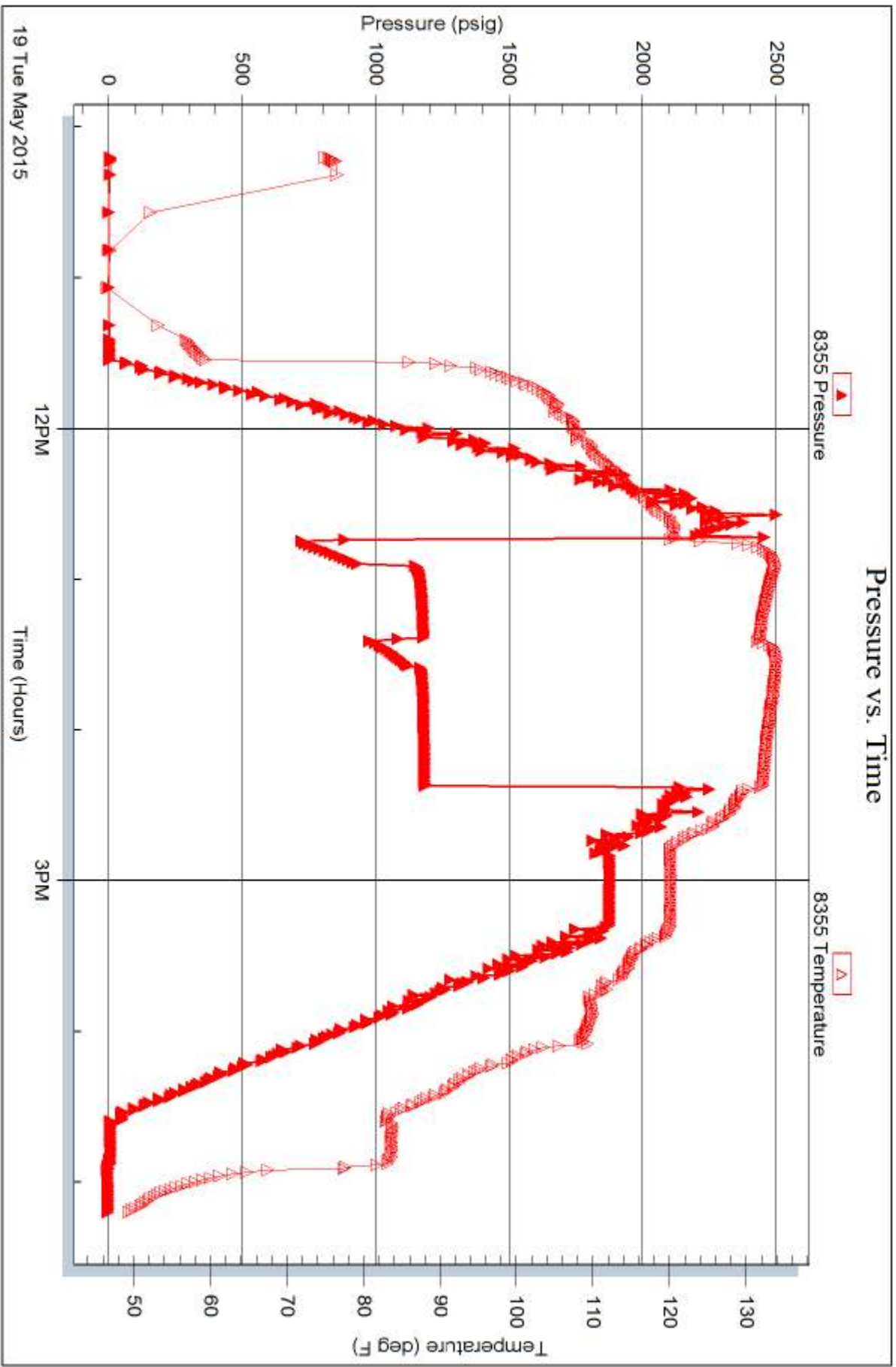


Serial #: 8355

Outside American Warrior, Inc.

Haverfield #1-25

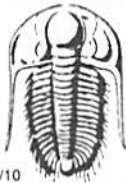
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 59662

Printed: 2015.05.20 @ 11:48:58



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58661

4/10

Well Name & No. Haverfield # 1-25 Test No. 1 Date 5/19  
 Company American Warrior, Inc. Elevation 3052 KB 3040 GL  
 Address 3118 Cummings RD P.O. Box 399 Garden city 67846  
 Co. Rep / Geo. Kevin Timson Rig Duke #10  
 Location: Sec. 25 Twp. 13S Rge. 36W Co. Logan State KS

Interval Tested 4236 4299 Zone Tested Pleasanton  
 Anchor Length 63 Drill Pipe Run 4232 Mud Wt. 9.2  
 Top Packer Depth 4232 Drill Collars Run Ø Vis 54  
 Bottom Packer Depth 4236 Wt. Pipe Run Ø WL 9.4  
 Total Depth 4299 Chlorides 3500 ppm System LCM 2

Blow Description 30 weak surface blow Diced in 9 mins.  
30 No Return  
30 No Blow  
30 No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mud oil spots</u>		<u>1</u>		<u>99</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 120 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 2196  Test 1150 T-On Location 1:20  
 (B) First Initial Flow 22  Jars 250 T-Started 2:00  
 (C) First Final Flow 24  Safety Joint 75 T-Open 4:20  
 (D) Initial Shut-In 460  Circ Sub N/C T-Pulled 6:20  
 (E) Second Initial Flow 23  Hourly Standby \_\_\_\_\_ T-Out 8:26  
 (F) Second Final Flow 23  Mileage 129 BT 102 Comments \_\_\_\_\_  
 (G) Final Shut-In 552  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2011  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_

Initial Open 30 Sub Total 0  
 Initial Shut-In 30 Total 1577  
 Final Flow 30 MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 30 Sub Total 1577

Approved By \_\_\_\_\_ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58662

4/10

Well Name & No. Haverfield # 1-25 Test No. 2 Date 5/19  
 Company American Warrior Inc Elevation 3052 KB 3040 GL  
 Address 3118 Cummings RD P.O. Box 399 Garden city 67846  
 Co. Rep / Geo. Kevin Timson Rig Duke #10  
 Location: Sec. 25 Twp. 13S Rge. 3W Co. Logan State KS

Interval Tested 4540 4602 Zone Tested Morrow  
 Anchor Length 62 Drill Pipe Run 4517 Mud Wt. 9.5  
 Top Packer Depth 4536 Drill Collars Run 0 Vis 56  
 Bottom Packer Depth 4540 Wt. Pipe Run 0 WL 10.4  
 Total Depth 4602 Chlorides 5000 ppm System LCM 4

Blow Description 10 B.O.B in 1 min  
30 No Return  
10 B.O.B in 1 min  
45 No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>2162</u>	<u>MCW</u>			<u>90</u>	<u>10</u>
<u>470</u>	<u>WCM</u>			<u>30</u>	<u>70</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 2632 BHT 132 Gravity 1150 API RW 44 @ 20 ° F Chlorides 17000 ppm  
 (A) Initial Hydrostatic 2424  Test 1150 T-On Location 10:10  
 (B) First Initial Flow 765  Jars 250 T-Started 10:12  
 (C) First Final Flow 930  Safety Joint 75 T-Open 12:41  
 (D) Initial Shut-In 1143  Circ Sub N/C T-Pulled 14:16  
 (E) Second Initial Flow 944  Hourly Standby \_\_\_\_\_ T-Out 17:18  
 (F) Second Final Flow 1124  Mileage 129 RT 102  
 (G) Final Shut-In 1184  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2122  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1577

Initial Open 10  
 Initial Shut-In 30  
 Final Flow 10  
 Final Shut-In 45

Comments \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1577  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]

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