

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

CM (Coal Bed Methane)

Cathodic  Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

Deepening  Re-perf.  Conv. to EOR  Conv. to SWD  
 Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to [kcc-well-logs@kcc.ks.gov](mailto:kcc-well-logs@kcc.ks.gov). Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	American Warrior, Inc.
Well Name	AUSMUS UNIT 1-7
Doc ID	1367097

Tops

Name	Top	Datum
Anhydrite	2583	9
Base	2604	618
Heebner	3995	-773
Lansing	4050	-828
Stark	4308	-1086
BKC	4390	-1168
Marmaton	4435	-1213
Pawnee	4524	-1302
Fort Scott	4586	-1364
Cherokee	4614	-1392
Johnson	4662	-1440
Morrow	4740	-1518
Miss	4814	-1592
RDT	4900	-1678
LTD	4900	-1678





CHARGE TO: American Warrior, Inc  
 ADDRESS \_\_\_\_\_  
 CITY, STATE, ZIP CODE \_\_\_\_\_

TICKET 30490

PAGE 1 OF 1

1. SERVICE LOCATIONS <u>Hays, KS</u>	WELL/PROJECT NO. <u>#1-7</u>	LEASE <u>Autonomous Unit</u>	COUNTY/PARISH <u>Logan</u>	STATE <u>KS</u>	CITY	DATE <u>9/07/17</u>	OWNER
2. <u>Ness City, KS</u>	TICKET TYPE <input checked="" type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR <u>Discovery Drilling</u>	RIG NAME/NO. <u>#1</u>	SHIPPED VIA	DELIVERED TO <u>Location</u>	ORDER NO.	
3.	WELL TYPE <u>Alert O.I.</u>	WELL CATEGORY <u>New</u>	JOB PURPOSE <u>Plug to Abandon</u>	WELL PERMIT NO.	WELL LOCATION		
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE		AMOUNT	
		LOC	ACCT	DF									
575		1			MILEAGE #113	100	mi			5.00		500.00	
576P		1			Pump Charge - PTA	1	EA			800.00		800.00	
290		1			D-AIR	4	gal			42.00		168.00	
328-4		2			60/40 Pozmix (4% Gel)	255	SKS			10.25		2413.75	
279		2			Bentonite Gel	8	SKS	800	lbs	25.00		200.00	
581		2			Service Charge Cement	255	SKS	20584	lbs	1.50		382.50	
583		2			Drayage	100	ms	1069	TM	0.75		801.75	
										PAGE TOTAL		5466.00	
										TOTAL		5704.54	

**LEGAL TERMS:** Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X [Signature]  
 DATE SIGNED \_\_\_\_\_ TIME SIGNED \_\_\_\_\_  
 A.M.  
 P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL	5466.00
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?					
WE UNDERSTOOD AND MET YOUR NEEDS?				LOGAN	TAX @ 8.0% 238.54
OUR SERVICE WAS PERFORMED WITHOUT DELAY?					
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				TOTAL	5704.54
ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> YES <input type="checkbox"/> NO					
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND					

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR [Signature] APPROVAL \_\_\_\_\_

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 09/07/17 PAGE NO. 1

CUSTOMER A.W.I. WELL NO. 1-7 LEASE Ansonius Unit JOB TYPE P.T.A. TICKET NO. 30490

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0830							On location, setup truck Waiting on Bulk truck 4 1/2" Drill Pipe Plugs @ 2000', 1415', 260', 40', RH, MH
	0930	3	8			300		Start pumping H <sub>2</sub> O ahead. 2000'
		3	13			300		Mix 50 SKS 60/40 poz mix 4% gel
		3	3			200		Pump H <sub>2</sub> O Behind plug.
	0945							Have Rig pump for 3 min. Rig pulling pipe
	1020	3 1/2	8			200		Start H <sub>2</sub> O Ahead 1415'
		3 1/2	26			0		Mix 100 SKS 60/40 4% gel
		3 1/2	3			Vac		Pump H <sub>2</sub> O Behind
	1050							Rig pulling pipe
	1130	3	1					Start H <sub>2</sub> O Ahead 260'
		3	13					Mix 50 SKS 60/40 4% gel
		3	1					Pump H <sub>2</sub> O behind.
	1140							Rig pulling pipe
	1225	2	2 1/2					Mix 10 SKS on top of Plug. 40'
		2	8					Plug RH w/ 30 SKS
	1245	2	4					Plug MH w/ 15 SKS
								Wash up truck Back up. Job Complete
								Thanks Jon, Austin, Shane



CHARGE TO: American Warrior Inc  
 ADDRESS:  
 CITY, STATE, ZIP CODE:

TICKET 30485

PAGE 1 OF 1

SERVICE LOCATIONS: 1. Hays, KS WELL/PROJECT NO. 1-7 127390 LEASE Austrous Unit COUNTY/PARISH Logan STATE KS CITY DATE 8/29/17 OWNER  
 2. Ness City, KS TICKET TYPE  SERVICE CONTRACTOR Discovery Drilling RIG NAME/NO. #1 SHIPPED VIA DELIVERED TO ORDER NO.  
 3. WELL TYPE Oil WELL CATEGORY Development JOB PURPOSE Crst Surface Casing WELL PERMIT NO. WELL LOCATION  
 4. REFERRAL LOCATION INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT		
		LOC	ACCT	DF									
575		1			MILEAGE #113	100		mi		5.00	500	00	
5765		1			Pump Charge - Shallow Surface	1		EA		800.00	800	00	
290		1			D-AIR	3		gal		42.00	126	00	
325		2			Standard Cement	150		SKS		12.25	1837	50	
279		2			Bentonite Gel 2%	3	300	SKS lbs		25.00	75	00	
278		2			Calcium Chloride 3%	7	350	SKS lbs		40.00	280	00	
581		2			Service Charge Cement	150	14100	SKS		1.50	225	00	
583		2			Drillage	737.6	750	TAP		0.75	553	20	
											PAGE TOTAL	4396	70
											TOTAL	4582	18

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MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X Coy Mayfield  
 DATE SIGNED TIME SIGNED  A.M.  P.M.

REMIT PAYMENT TO:  
 SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				
WE UNDERSTOOD AND MET YOUR NEEDS?				
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO		
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND				

Logan  
 TAX 8.0%  
 185.48



JOB LOG

SWIFT Services, Inc.

DATE 8/29/17 PAGE NO. 1

CUSTOMER **AWI** WELL NO. **1-7** LEASE **Ausmus Unit** JOB TYPE **Cont Surface Csmg** TICKET NO. **30485**

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1230							On location, set up trucks 150 SKs std Cmt, 2% gel, 3% CC 8 5/8 x 23ft - 212'
	1245							Start Circ-Chain Down
	1315							Hook up
	1320	1 1/2	5					Start H <sub>2</sub> O Ahead
						100		Fin H <sub>2</sub> O
	1330	1 1/2				100		Start Cmt 150 SKs 2% gel, 3% CC
	1345	1 1/2	30					Fin Cmt
		1 1/2						Start Displacement
	1400	<del>1 1/2</del> 1 1/4	12 1/4					Fin Displacement
								Close in
								Release back.
								Wash up truck
	1415							Job Complete

Thanks,  
Jon, Austin, Kirby



# **Geological Report**

American Warrior, Inc.

**Ausmus Unit #1-7**

160' FSL & 792' FEL

Sec 7, T14s, R35w

Logan County, Kansas



**American Warrior, Inc.**

## General Data

Well Data: American Warrior, Inc.  
Ausmus Unit #1-7  
160' FSL & 792' FEL  
Sec. 7, T14s, R35w  
Logan County, Kansas  
API # 15-109-21522-00-00

Drilling Contractor: Discovery Drilling Rig #1

Geologist: Luke Thompson

Spud Date: August 29, 2017

Completion Date: September 7, 2017

Elevation 3219' G.L.  
3227' K.B.

Directions: From the West side of Russell Springs, KS at the intersection of Hwy 25 & Broadway Ave. – Now go 0.8 miles South on Hwy 25 Rd then 2 miles West on Hwy 25 - Now go about 4 miles South on 240 Rd to Kiowa Rd – Now go 1.2 miles West – North into

Casing: 212' 8 5/8" #23 Surface Casing

Samples: 3700' to RTD 10' Wet & Dry

Drilling Time: 3600 to RTD

Electric Logs: Pioneer Energy Services "J. Henrickson"  
Full Sweep

Drillstem Tests: Three-Trilobite Testing "Bradley Walter"

Problems: none encountered

## **Formation Tops**

**Ausmus Unit #1-7**

**Sec. 7, T14s, R35w**

**160' FSL & 792' FEL**

<b>Anhydrite</b>	<b>2583' +639</b>
<b>Base</b>	<b>2604' +618</b>
<b>Heebner</b>	<b>3995' -773</b>
<b>Lansing</b>	<b>4050' -828</b>
<b>Stark</b>	<b>4308' -1086</b>
<b>BKC</b>	<b>4390' -1168</b>
<b>Marmaton</b>	<b>4435' -1213</b>
<b>Pawnee</b>	<b>4524' -1302</b>
<b>Fort Scott</b>	<b>4586' -1364</b>
<b>Cherokee</b>	<b>4614' -1392</b>
<b>Johnson</b>	<b>4662' -1440</b>
<b>Morrow</b>	<b>4740' -1518</b>
<b>Miss</b>	<b>4814' -1592</b>
<b>RTD</b>	<b>4900' -1678</b>
<b>LTD</b>	<b>4900' -1678</b>

## Sample Zone Descriptions

**Marmaton (4458' -1236): Covered in DST #1**

Limestone, cream/white, oolitic packstone/fossil hash, chalky, poor oolitic porosity, poor odor, fair stain, good saturation, fair show of free oil, good show of free oil when broke, no fluorescence. Gas 35 units hotwire.

**Lansing D (4092' -870): Covered in DST #2**

Limestone, cream, oolitic packstone, poor to fair oolitic porosity, no odor, fair stain, poor saturation, poor show of free oil, gilsonite, no fluorescence, poor to fair flush cut. No Gas Kick.

**Johnson (4662' -1440): Covered in DST #3**

Limestone, cream/tan, fine crystalline, slightly chalky, occasional poor pinpoint vuggy porosity, very slight fleeting odor, (3 pieces) very poor stain and saturation, very poor show of free oil, no fluorescence, poor slow stream cut. Gas 75 units hotwire.

## Drill Stem Tests

Trilobite Testing  
“Bradley Walters”

### DST #1

#### Marmaton

Interval (4404' – 4470') Anchor Length 66'

IHP - 2195 #

IFP - 45" – built to 9"

ISI - 45" – No return

FFP - 45" – built to 2"

FSIP - 45" – No return

FHP - 2161 #

BHT - 120° F

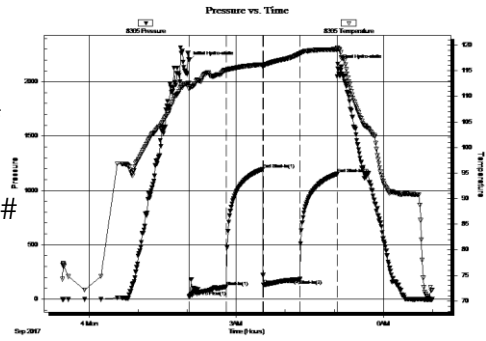
**Recovery:** 340' WCM w/Oil spots

24-114#

1196#

131-182#

1151#



### DST #2

#### Lansing D (straddle test)

Interval (4070' – 4102') Anchor Length 32', Tail Pipe 368'

IHP - 2120 #

IFP - 30" – BOB in 14 min

ISI - 45" – No Return

FFP - 45" – BOB in 20 min

FSIP - 60" – No Return

FHP - 2083 #

BHT - 118° F

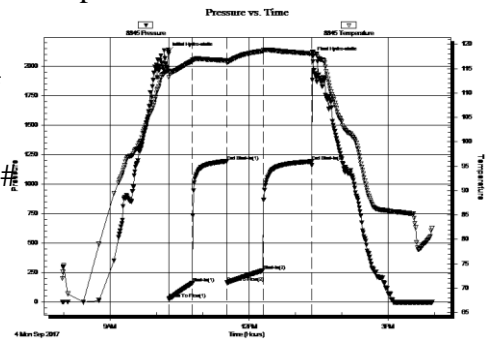
**Recovery:** 470' MCW w/Oil spots

25-160#

1193#

164-267#

1190#



### DST #3

#### Johnson

Interval (4633' – 4704') Anchor Length 71'

IHP - 2340 #

IFP - 30" – WSB

ISI - 30" – No Return

FFP - 30" – WSB died in 10 min

FSIP - 30" – No Return

FHP - 2292 #

BHT - 117° F

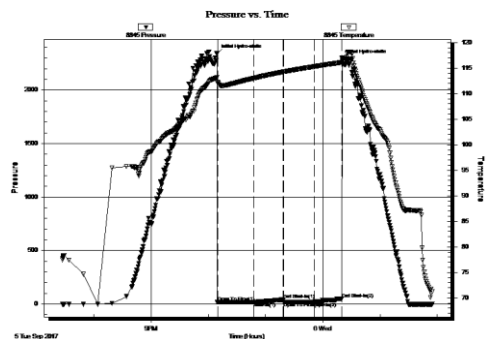
**Recovery:** 5' M w/Oil spots

18-19#

41#

18-18#

50#



## Structural Comparison

	American Warrior, Inc. Ausmus Unit #1-7 Sec. 7, T14s, R35w 160' FSL & 792' FEL			American Warrior, Inc. Fairchild #1-17 Sec. 17, T14s, R35w 1506' FNL 1036' FEL			Black Tea Oil, LLC. Wood "A" #1 Sec. 16, T14s, R35w 1770' FNL & 2400' FWL	
<b>Formation</b>								
<b>Heebner</b>	<b>3995</b>	<b>-773</b>	<b>+4</b>	4004' -777	<b>+3</b>	4026' -776		
<b>Lansing</b>	<b>4050</b>	<b>-828</b>	<b>+3</b>	4058' -831	<b>+1</b>	4079' -829		
<b>Stark</b>	<b>4308</b>	<b>-1086</b>	<b>+1</b>	4314' -1087	<b>-4</b>	4332' -1082		
<b>BKC</b>	<b>4390</b>	<b>-1168</b>	<b>-5</b>	4390' -1163	<b>-6</b>	4412' -1162		
<b>Marmaton</b>	<b>4435</b>	<b>-1213</b>	<b>-8</b>	4432' -1205	<b>-7</b>	4456' -1206		
<b>Pawnee</b>	<b>4524</b>	<b>-1302</b>	<b>-8</b>	4521' -1294	<b>-6</b>	4546' -1296		
<b>Fort Scott</b>	<b>4586</b>	<b>-1364</b>	<b>-9</b>	4582' -1355	<b>-8</b>	4606' -1356		
<b>Cherokee</b>	<b>4614</b>	<b>-1392</b>	<b>-9</b>	4610' -1383	<b>-6</b>	4636' -1386		
<b>Johnson</b>	<b>4662</b>	<b>-1440</b>	<b>-10</b>	4657' -1430	<b>-8</b>	4682' -1432		
<b>Morrow</b>	<b>4740</b>	<b>-1518</b>	<b>-17</b>	4728' -1501	<b>-12</b>	4756' -1506		
<b>Miss</b>	<b>4814</b>	<b>-1592</b>	<b>-27</b>	4792' -1565	<b>-16</b>	4826' -1576		

## Summary

The location for the Ausmus Unit #1-7 well was found via 3-D seismic survey. The new well ran structurally as expected. Three drill stem tests were conducted, none of which recovered commercial quantities of oil. After all the gathered data had been examined, the decision was made to plug and abandon the Ausmus Unit #1-7 well.

Respectfully Submitted,

Lukas Thompson  
American Warrior, Inc.





# American Warrior, Inc.

Luke Thompson - Geologist  
 3118 Cummings Rd  
 Garden City, KS 67846  
 (785) 493-1254 cell  
 (620) 275-5067 office

WELL: **Ausmus Unit #1-7**      API #: **15-109-21522-00-00**      LOCATION: **Logan County, KS**  
 160' FSL & 792' FEL      Elevation: **KB: 3222'**  
 7-14s-35w      **GL: 3214'**  
**Measurements from KB**

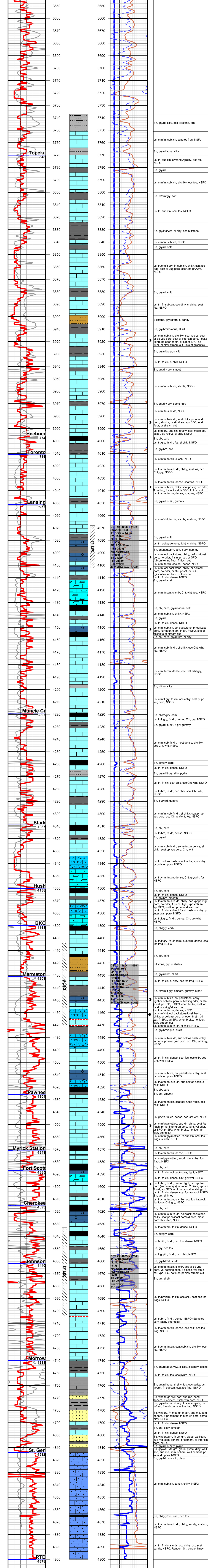
Lithology Key			
	Limestone		Black Shale
	Silty Limestone		Shale
	Shaly Limestone		Silty Shale
	Sandy Limestone		Siltstone
	Fossil Limestone		Sandstone
	Cherty Limestone		Conglomerate
	Oolitic Limestone		Dolomite
	Shale Interbed		Cherty Dolomite
	Limestone Interbed		CFS

**Curve Data:**  
**Left Column:** ROP (min/foot)  
**Right Column:** Gas (units)  
**Density Porosity**  
**Neutron Porosity**

**Geologist:** Luke Thompson (American Warrior, Inc.)  
**Drilling Contractor:** Discovery Rig #1  
**Samples from:** 3700' - RTD  
**Drilling time from:** 3600' - TD  
**Geological Supervision from:** 3700' - TD  
**Correlating Log:** Fairchild #1-17 (17-14s-41w)  
**Surface Casing:** 212' 8 5/8" 23#  
**Production Casing:**  
 RTD: 4900'  
 LTD: 4900'

Formation	Top	Log	Datum	Top	Datum	Sample	Correlating Well	Structural Comparison
Topeka	3768		-546	3770	-548			+7
Heebner	3995		-773	3996	-774			+4
Toronto	4009		-787	4011	-789			+7
Lansing	4050		-828	4051	-829			+3
Stark	4308		-1086	4309	-1087			+1
Hush	4358		-1136	4360	-1138			-5
BKC	4390		-1168	4390	-1168			-8
Marmaton	4435		-1213	4431	-1209			-8
Pawnee	4524		-1302	4526	-1304			-8
Fort Scott	4586		-1364	4587	-1365			-9
Cherokee	4614		-1392	4615	-1393			-9
Johnson	4662		-1440	4662	-1440			-10
Morrow	4740		-1518	4740	-1518			-17
St. Gen	4814		-1592	4814	-1592			-27

**Status:** P/A



RTD: 4900'





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

American Warrior, Inc

**7 14s 35w**

PO Box 399  
Garden City, Ks 67846

**Ausmus Unit #1-7**

Job Ticket: 64217

**DST#: 1**

ATTN: Luke Thompson

Test Start: 2017.09.03 @ 23:27:00

## GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:02:30

Time Test Ended: 07:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: **4404.00 ft (KB) To 4470.00 ft (KB) (TVD)**

Reference Elevations: 3222.00 ft (KB)

Total Depth: 4470.00 ft (KB) (TVD)

3214.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 8365** Inside

Press@RunDepth: 182.29 psig @ 4405.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.09.03

End Date:

2017.09.04

Last Calib.: 2017.09.04

Start Time: 23:27:05

End Time:

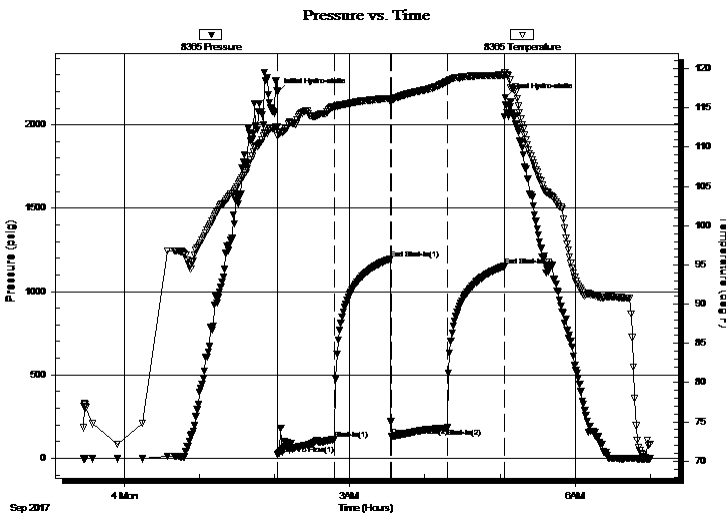
06:59:59

Time On Btm: 2017.09.04 @ 02:02:00

Time Off Btm: 2017.09.04 @ 05:04:15

TEST COMMENT: IF: 9" blow.  
IS: No return.  
FF: 6" blow.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2195.40	112.60	Initial Hydro-static
1	24.28	111.44	Open To Flow (1)
46	113.66	115.06	Shut-In(1)
91	1196.30	116.21	End Shut-In(1)
92	131.39	115.98	Open To Flow (2)
136	182.29	118.35	Shut-In(2)
182	1150.85	119.17	End Shut-In(2)
183	2161.48	119.53	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
340.00	w cm 30w 70m (oil spots)	2.90

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

American Warrior, Inc

**7 14s 35w**

PO Box 399  
Garden City, Ks 67846

**Ausmus Unit #1-7**

Job Ticket: 64217

**DST#: 1**

ATTN: Luke Thompson

Test Start: 2017.09.03 @ 23:27:00

## 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:

29000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 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
340.00	w cm 30w 70m (oil spots)	2.899

Total Length: 340.00 ft      Total Volume: 2.899 bbl

Num Fluid Samples: 0

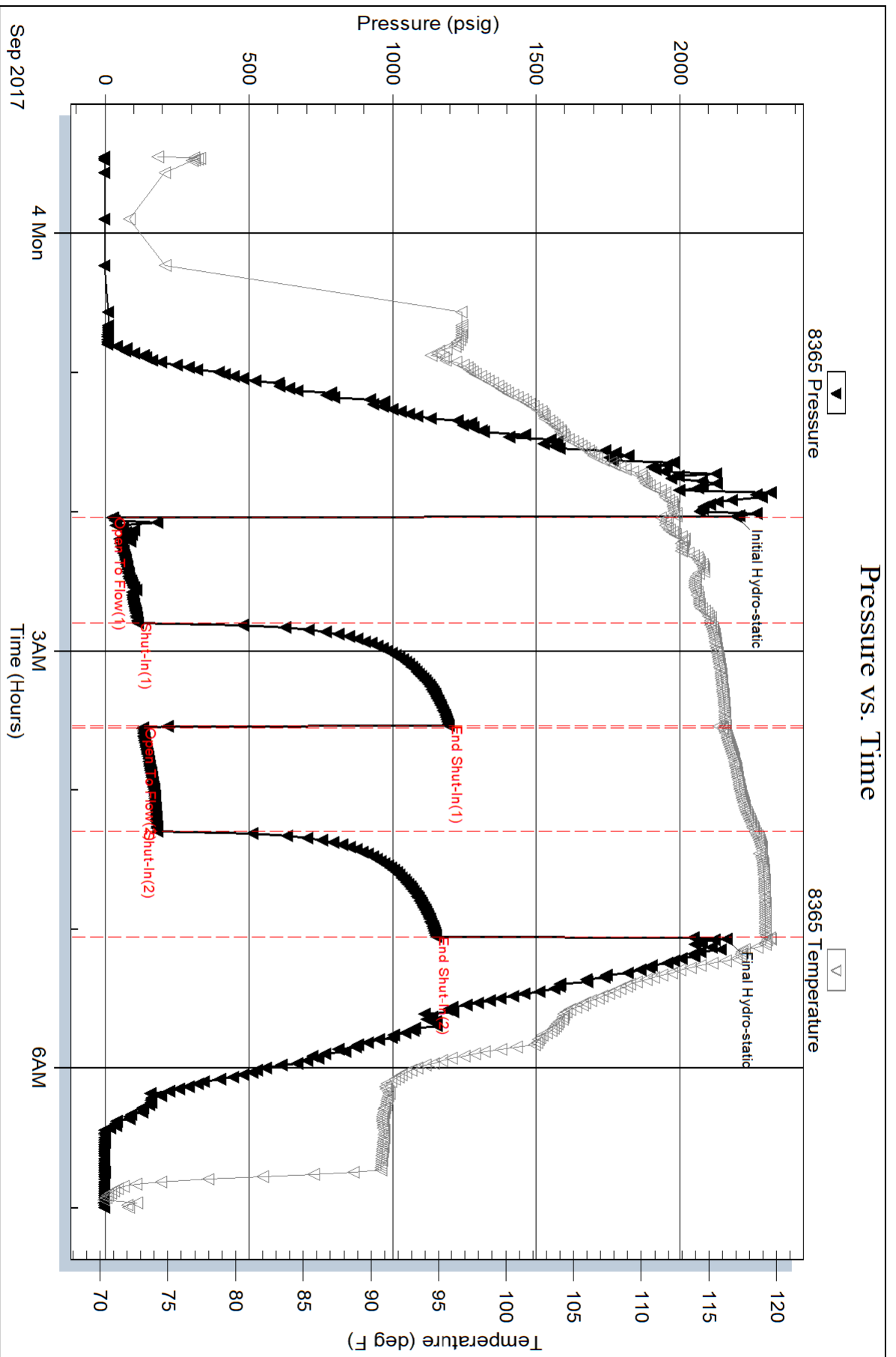
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .259 @ 63F = 29000ppm





## DRILL STEM TEST REPORT

Prepared For: **American Warrior. Inc**

PO Box 399  
Garden City, KS 67846

ATTN: Luke Thompson

### **Ausmus Unit #1-7**

### **7-14s-35w Logan,KS**

Start Date: 2017.09.03 @ 23:27:00

End Date: 2017.09.04 @ 07:00:00

Job Ticket #: 64217                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.09.07 @ 15:02:33



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

American Warrior, Inc  
 PO Box 399  
 Garden City, KS 67846  
 ATTN: Luke Thompson

**7-14s-35w Logan, KS**

**Ausmus Unit #1-7**

Job Ticket: 64217      **DST#: 1**  
 Test Start: 2017.09.03 @ 23:27:00

## GENERAL INFORMATION:

Formation: **Marmaton**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:02:30  
 Time Test Ended: 07:00:00  
 Interval: **4404.00 ft (KB) To 4470.00 ft (KB) (TVD)**  
 Total Depth: 4470.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Bradley Walter  
 Unit No: 78  
 Reference Elevations: 3222.00 ft (KB)  
 3214.00 ft (CF)  
 KB to GR/CF: 8.00 ft

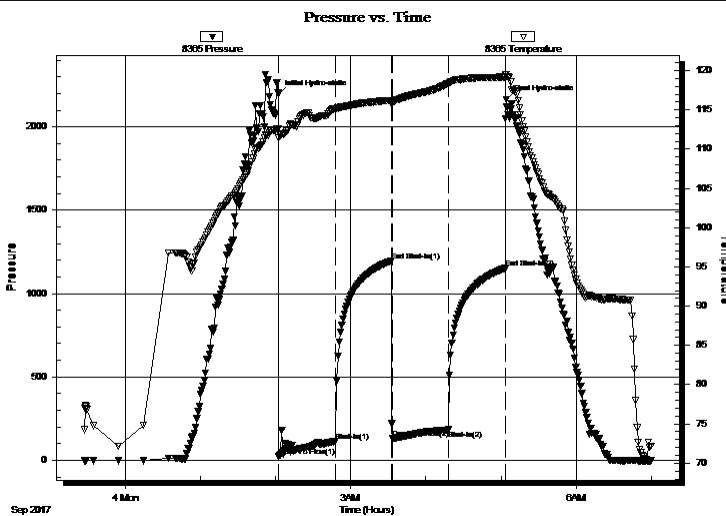
## Serial #: 8365

Inside

Press@RunDepth: 182.29 psig @ 4405.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2017.09.03      End Date: 2017.09.04      Last Calib.: 2017.09.04  
 Start Time: 23:27:05      End Time: 06:59:59      Time On Btm: 2017.09.04 @ 02:02:00  
 Time Off Btm: 2017.09.04 @ 05:04:15

TEST COMMENT: IF: 9" blow.  
 IS: No return.  
 FF: 6" blow.  
 FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2195.40	112.60	Initial Hydro-static
1	24.28	111.44	Open To Flow (1)
46	113.66	115.06	Shut-In(1)
91	1196.30	116.21	End Shut-In(1)
92	131.39	115.98	Open To Flow (2)
136	182.29	118.35	Shut-In(2)
182	1150.85	119.17	End Shut-In(2)
183	2161.48	119.53	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
340.00	w cm 30w 70m (oil spots)	2.70

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

American Warrior, Inc

**7-14s-35w Logan, KS**

PO Box 399  
Garden City, KS 67846

**Ausmus Unit #1-7**

Job Ticket: 64217

**DST#: 1**

ATTN: Luke Thompson

Test Start: 2017.09.03 @ 23:27:00

## Tool Information

Drill Pipe:	Length: 4076.00 ft	Diameter: 3.80 inches	Volume: 57.18 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 310.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 59.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4404.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	93.00 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			4378.00	
Shut In Tool	5.00			4383.00	
Hydraulic tool	5.00			4388.00	
Jars	5.00			4393.00	
Safety Joint	2.00			4395.00	
Packer	5.00			4400.00	27.00 Bottom Of Top Packer
Packer	4.00			4404.00	
Stubb	1.00			4405.00	
Recorder	0.00	8365	Inside	4405.00	
Recorder	0.00	8845	Outside	4405.00	
Perforations	29.00			4434.00	
Change Over Sub	1.00			4435.00	
Drill Pipe	31.00			4466.00	
Change Over Sub	1.00			4467.00	
Bullnose	3.00			4470.00	66.00 Bottom Packers & Anchor

**Total Tool Length: 93.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

American Warrior, Inc

**7-14s-35w Logan, KS**

PO Box 399  
Garden City, KS 67846

**Ausmus Unit #1-7**

Job Ticket: 64217

**DST#: 1**

ATTN: Luke Thompson

Test Start: 2017.09.03 @ 23:27:00

### 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:

29000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 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
340.00	w cm 30w 70m (oil spots)	2.698

Total Length: 340.00 ft      Total Volume: 2.899 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

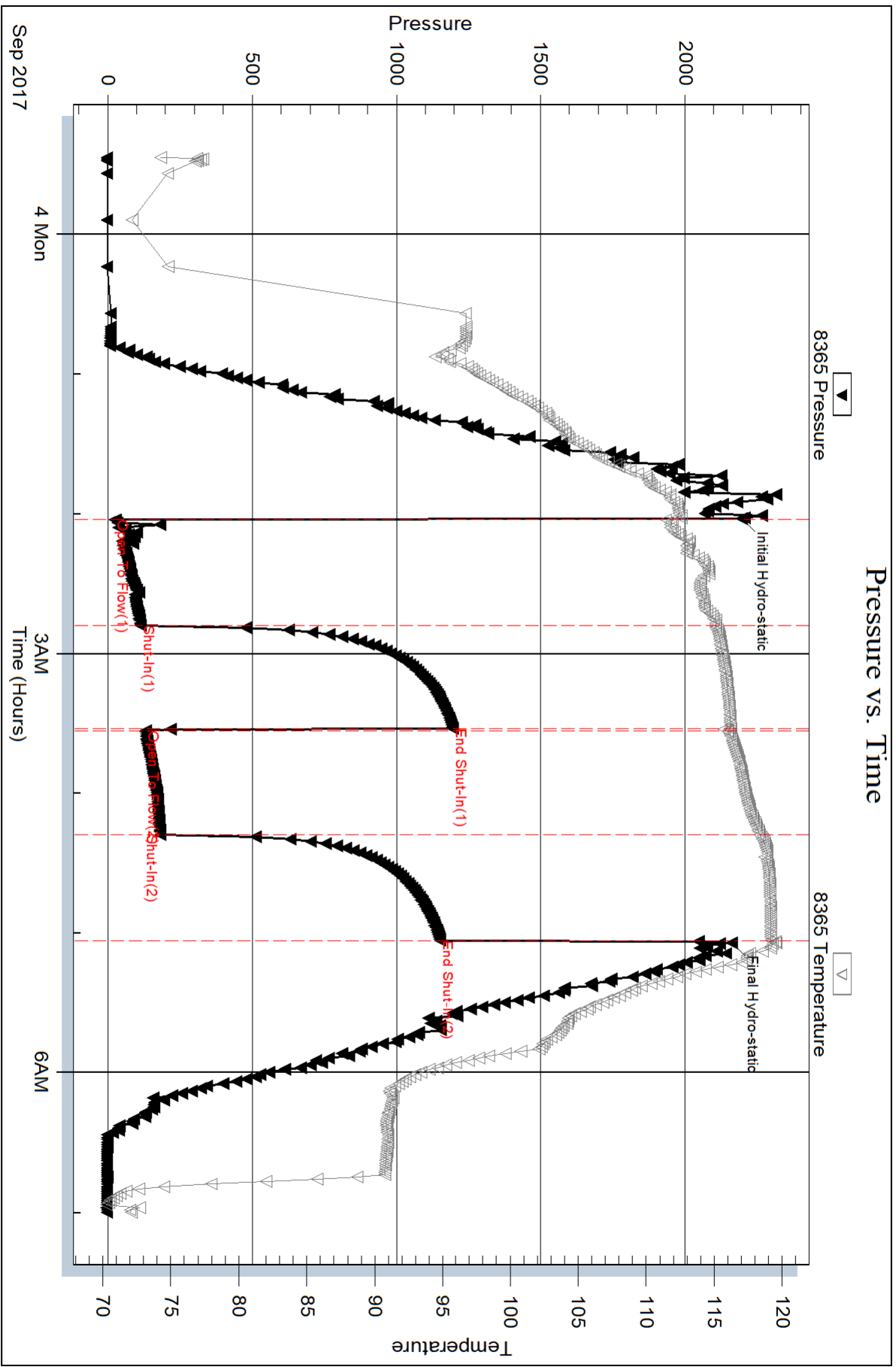
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .259 @ 63F = 29000ppm







## DRILL STEM TEST REPORT

Prepared For: **American Warrior. Inc**

PO Box 399  
Garden City, KS 67846

ATTN: Luke Thompson

### **Ausmus Unit #1-7**

### **7-14s-35w Logan,KS**

Start Date: 2017.09.04 @ 07:58:00

End Date: 2017.09.04 @ 15:57:30

Job Ticket #: 64218                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.09.07 @ 14:37:19



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

American Warrior, Inc  
 PO Box 399  
 Garden City, KS 67846  
 ATTN: Luke Thompson

**7-14s-35w Logan, KS**  
**Ausmus Unit #1-7**  
 Job Ticket: 64218 **DST#: 2**  
 Test Start: 2017.09.04 @ 07:58:00

## GENERAL INFORMATION:

Formation: **LKC**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:16:00  
 Time Test Ended: 15:57:30  
 Interval: **4070.00 ft (KB) To 4102.00 ft (KB) (TVD)**  
 Total Depth: 4470.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Bradley Walter  
 Unit No: 78  
 Reference Elevations: 3222.00 ft (KB)  
 3214.00 ft (CF)  
 KB to GR/CF: 8.00 ft

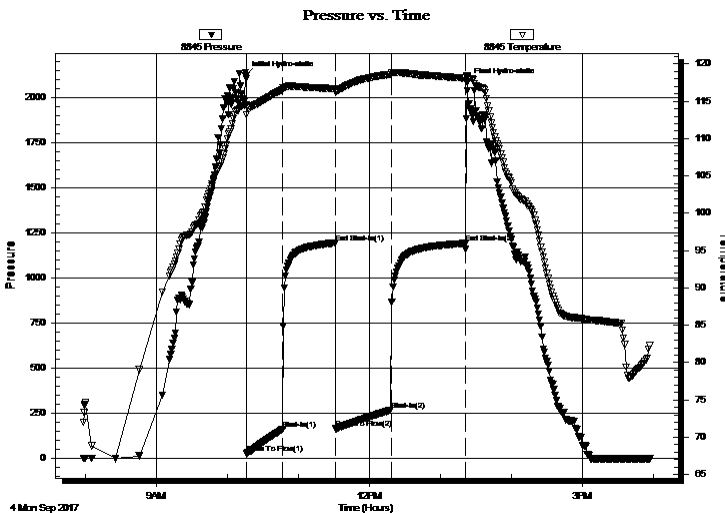
## Serial #: 8845

Inside

Press@RunDepth: 267.12 psig @ 4071.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.09.04 End Date: 2017.09.04 Last Calib.: 2017.09.04  
 Start Time: 07:58:05 End Time: 15:57:29 Time On Btm: 2017.09.04 @ 10:15:15  
 Time Off Btm: 2017.09.04 @ 13:22:15

TEST COMMENT: IF: BOB @ 14 min.  
 IS: No return.  
 FF: BOB @ 20 min.  
 FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2119.93	114.55	Initial Hydro-static
1	24.80	113.21	Open To Flow (1)
32	160.07	116.57	Shut-In(1)
76	1193.28	116.70	End Shut-In(1)
76	163.74	116.25	Open To Flow (2)
123	267.12	118.63	Shut-In(2)
186	1190.38	118.10	End Shut-In(2)
187	2082.74	118.38	Final Hydro-static

## Recovery

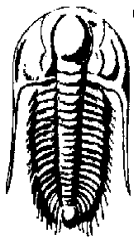
Length (ft)	Description	Volume (bbl)
470.00	mcw 15m 85w (oil spots)	4.52

\* Recovery from multiple tests

## Gas Rates

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





# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

American Warrior, Inc  
 PO Box 399  
 Garden City, KS 67846  
 ATTN: Luke Thompson

**7-14s-35w Logan, KS**  
**Ausmus Unit #1-7**  
 Job Ticket: 64218 **DST#: 2**  
 Test Start: 2017.09.04 @ 07:58:00

### GENERAL INFORMATION:

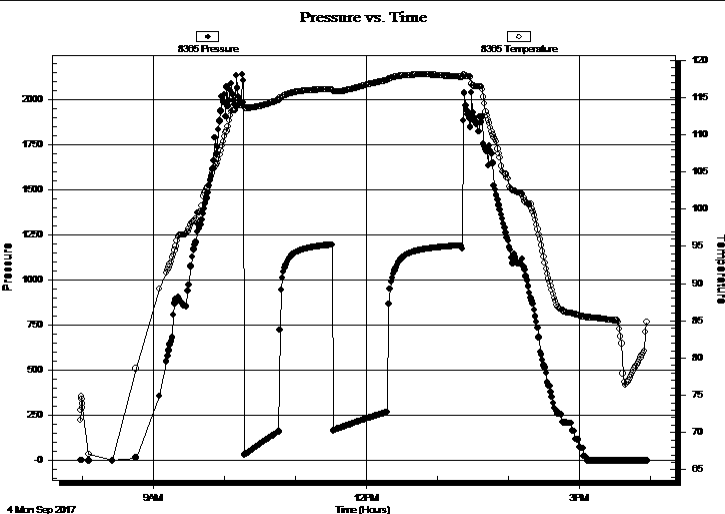
Formation: **LKC**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:16:00  
 Time Test Ended: 15:57:30  
**Interval: 4070.00 ft (KB) To 4102.00 ft (KB) (TVD)**  
 Total Depth: 4470.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Bradley Walter  
 Unit No: 78  
 Reference Elevations: 3222.00 ft (KB)  
 3214.00 ft (CF)  
 KB to GR/CF: 8.00 ft

### Serial #: 8365

Outside

Press@RunDepth: psig @ 4071.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.09.04 End Date: 2017.09.04 Last Calib.: 2017.09.04  
 Start Time: 07:58:05 End Time: 15:57:29 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF: BOB @ 14 min.  
 IS: No return.  
 FF: BOB @ 20 min.  
 FS: No return.



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
470.00	mcw 15m 85w (oil spots)	4.52

### 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

**7-14s-35w Logan,KS**

PO Box 399  
Garden City, KS 67846

**Ausmus Unit #1-7**

Job Ticket: 64218

**DST#: 2**

ATTN: Luke Thompson

Test Start: 2017.09.04 @ 07:58:00

## Tool Information

Drill Pipe:	Length: 3764.00 ft	Diameter: 3.80 inches	Volume: 52.80 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 310.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 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: 55.08 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4070.00 ft			Final 67000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	400.00 ft			
Tool Length:	420.00 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			4051.00	
Shut In Tool	5.00			4056.00	
Hydraulic tool	5.00			4061.00	
Packer	5.00			4066.00	20.00 Bottom Of Top Packer
Packer	4.00			4070.00	
Stubb	1.00			4071.00	
Recorder	0.00	8845	Inside	4071.00	
Recorder	0.00	8365	Outside	4071.00	
Perforations	27.00			4098.00	
Blank Off Sub	1.00			4099.00	400.00 Tool Interval
Packer	3.00			4102.00	
Blank Spacing	1.00			4103.00	
Perforations	12.00			4115.00	
Change Over Sub	1.00			4116.00	
Recorder	0.00	8522	Below	4116.00	
Drill Pipe	350.00			4466.00	
Change Over Sub	1.00			4467.00	
Bullnose	3.00			4470.00	1000419.00 Bottom Packers & Anchor

**Total Tool Length: 420.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

American Warrior, Inc

**7-14s-35w Logan,KS**

PO Box 399  
Garden City, KS 67846

**Ausmus Unit #1-7**

Job Ticket: 64218

**DST#: 2**

ATTN: Luke Thompson

Test Start: 2017.09.04 @ 07:58:00

**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:

37000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
470.00	mcw 15m 85w (oil spots)	4.522

Total Length: 470.00 ft      Total Volume: 4.522 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

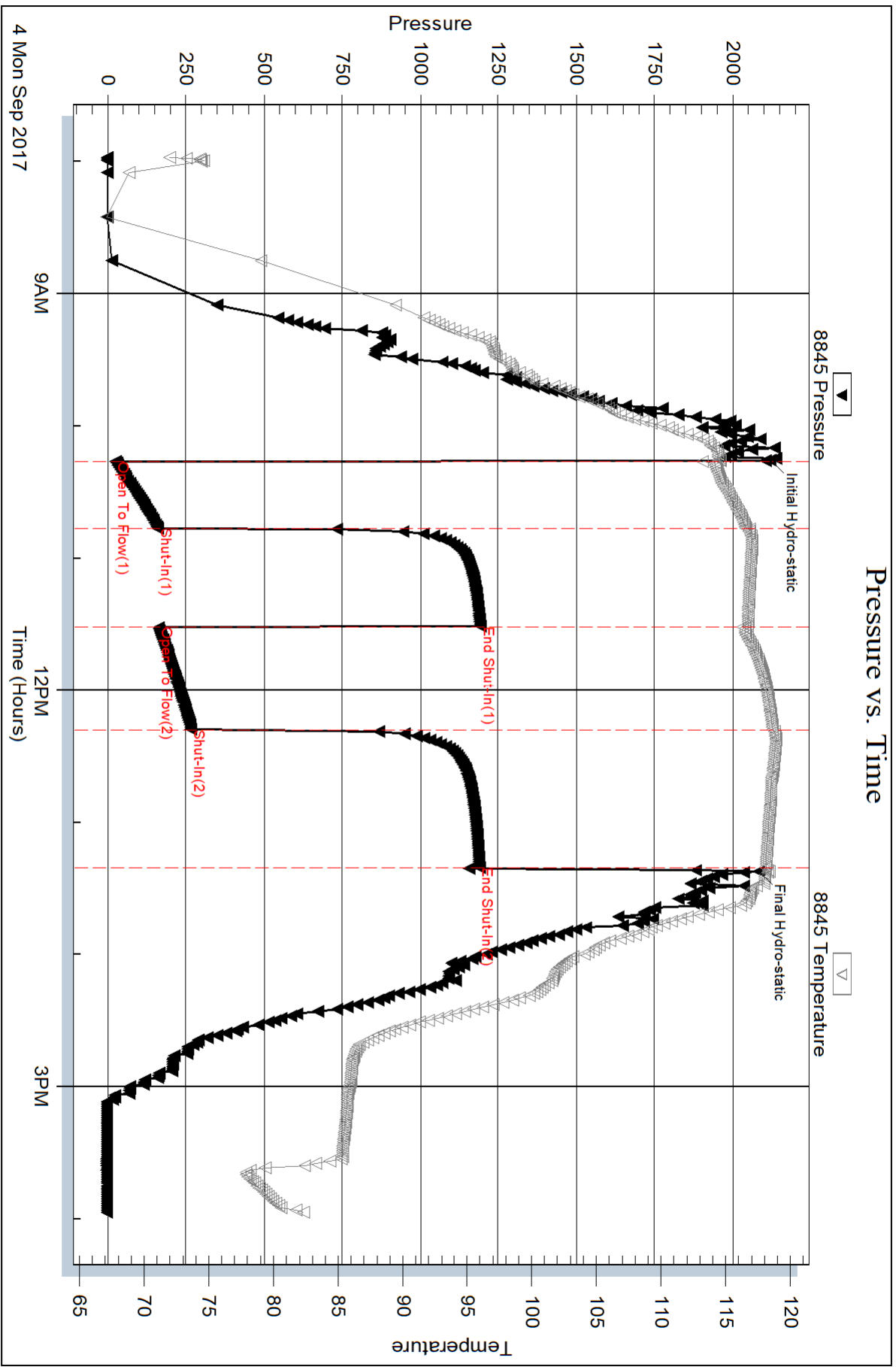
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .205 @ 74F = 37000ppm



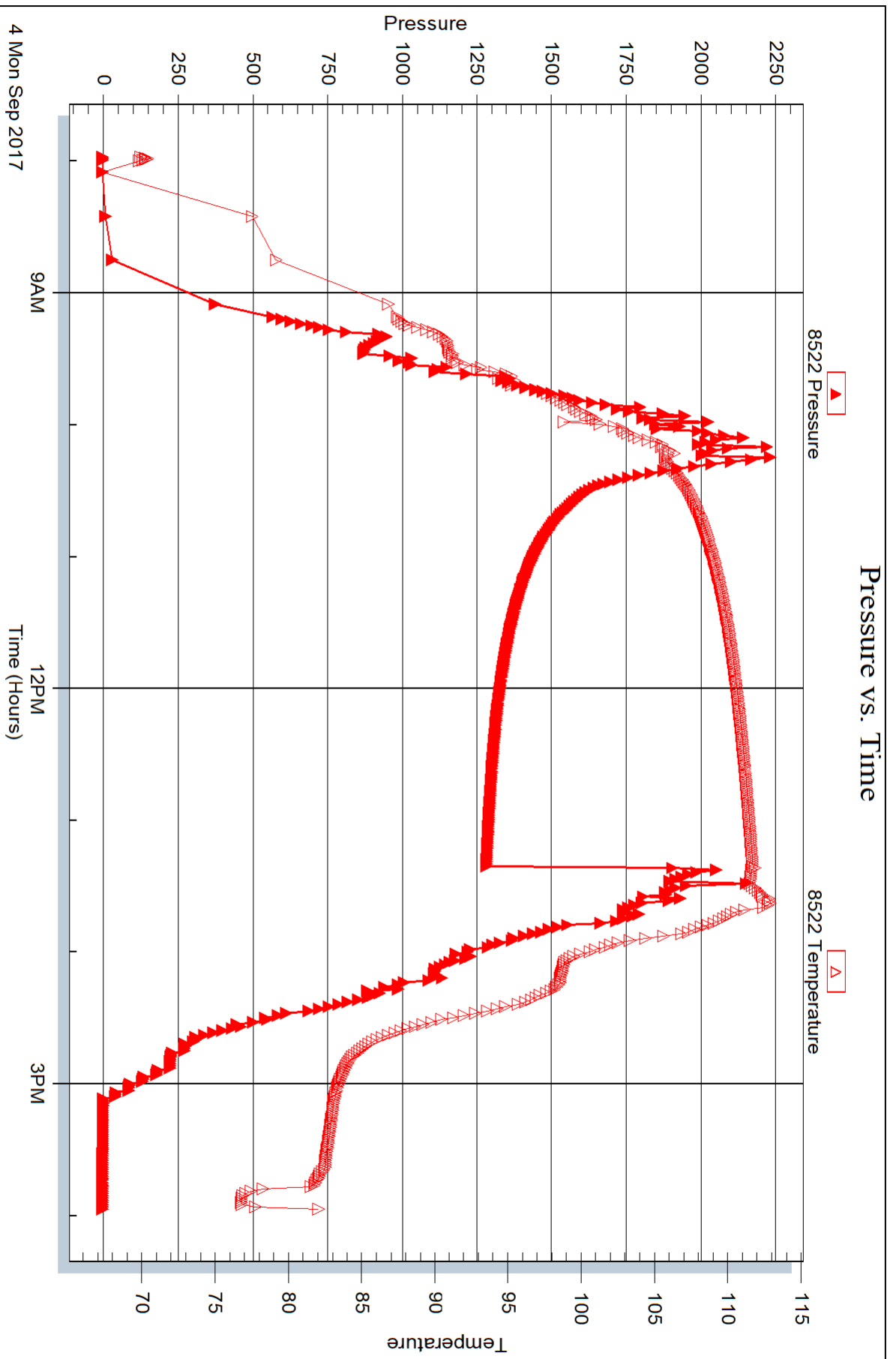


Serial #: 8522

Below (Stratton) Warrior, Inc

Ausmus Unit #1-7

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 64218

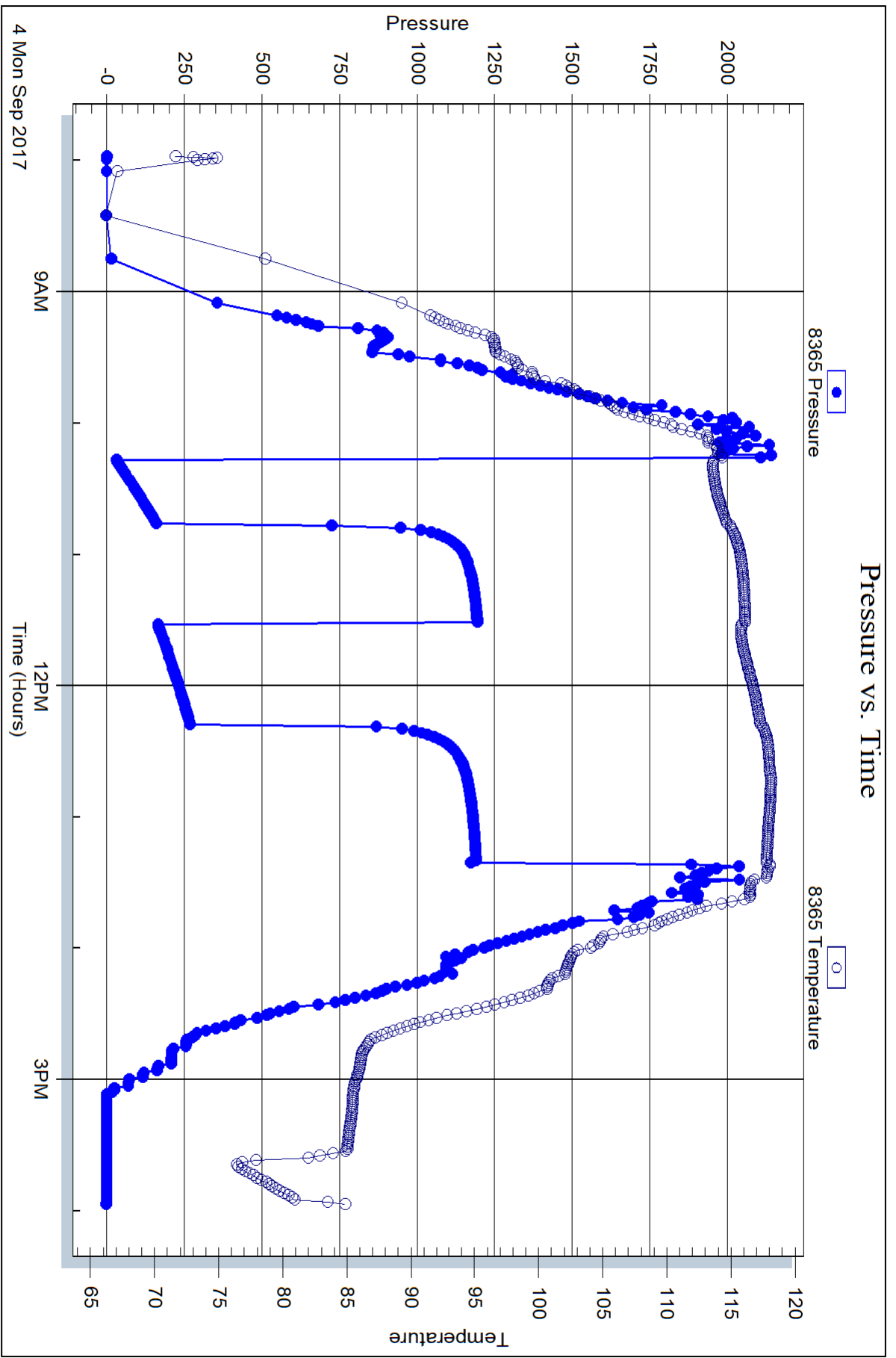
Printed: 2017.09.07 @ 14:41:56

Serial #: 8365

Outside American Warrior, Inc

Ausmus Unit #1-7

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 64218

Printed: 2017.09.07 @ 14:41:56



## DRILL STEM TEST REPORT

Prepared For: **American Warrior. Inc**

PO Box 399  
Garden City, KS 67846

ATTN: Luke Thompson

### **Ausmus Unit #1-7**

### **7-14s-35w Logan,KS**

Start Date: 2017.09.05 @ 19:27:00

End Date: 2017.09.06 @ 01:54:30

Job Ticket #: 64219                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.09.07 @ 14:30:01



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

American Warrior, Inc  
PO Box 399  
Garden City, KS 67846  
ATTN: Luke Thompson

**7-14s-35w Logan,KS**

**Ausmus Unit #1-7**

Job Ticket: 64219      **DST#: 3**  
Test Start: 2017.09.05 @ 19:27:00

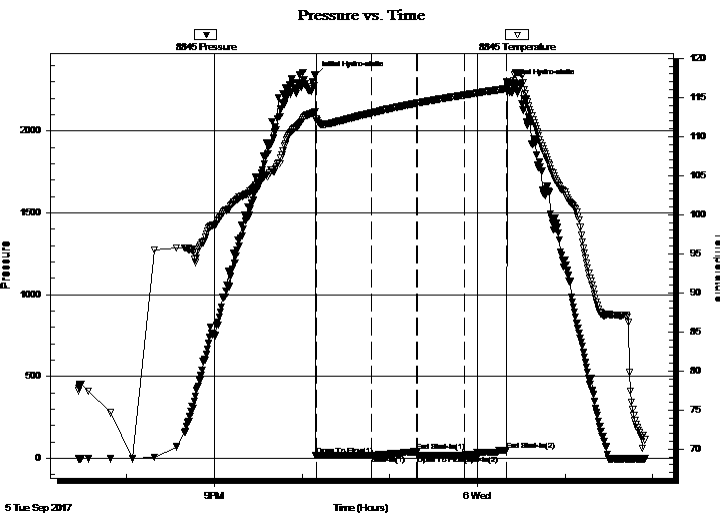
### GENERAL INFORMATION:

Formation: **Johnson**  
Deviated: No Whipstock:      ft (KB)  
Time Tool Opened: 22:09:45  
Time Test Ended: 01:54:30  
Interval: **4633.00 ft (KB) To 4704.00 ft (KB) (TVD)**  
Total Depth: 4704.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Reference Elevations: 3222.00 ft (KB)  
3214.00 ft (CF)  
KB to GR/CF: 8.00 ft  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 78

### Serial #: 8845      Outside

Press@RunDepth: 18.54 psig @ 4634.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2017.09.05      End Date: 2017.09.06      Last Calib.: 2017.09.06  
Start Time: 19:27:05      End Time: 01:54:29      Time On Btm: 2017.09.05 @ 22:09:00  
Time Off Btm: 2017.09.06 @ 00:20:15

TEST COMMENT: IF: Surface blow .  
IS: No return.  
FF: Surface blow , Died @ 10 minutes.  
FS: No return.



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2340.22	113.15	Initial Hydro-static
1	18.09	112.23	Open To Flow (1)
39	19.27	113.02	Shut-In(1)
70	40.53	114.26	End Shut-In(1)
70	18.55	114.27	Open To Flow (2)
103	18.54	115.31	Shut-In(2)
131	49.99	116.12	End Shut-In(2)
132	2292.46	116.98	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100m (oil spots)	0.04

\* Recovery from multiple tests

### Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

American Warrior, Inc

**7-14s-35w Logan, KS**

PO Box 399  
Garden City, KS 67846

**Ausmus Unit #1-7**

Job Ticket: 64219

**DST#: 3**

ATTN: Luke Thompson

Test Start: 2017.09.05 @ 19:27:00

## Tool Information

Drill Pipe:	Length: 4329.00 ft	Diameter: 3.80 inches	Volume: 60.72 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 310.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 63.00 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4633.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	71.00 ft			
Tool Length:	98.00 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			4607.00	
Shut In Tool	5.00			4612.00	
Hydraulic tool	5.00			4617.00	
Jars	5.00			4622.00	
Safety Joint	2.00			4624.00	
Packer	5.00			4629.00	27.00 Bottom Of Top Packer
Packer	4.00			4633.00	
Stubb	1.00			4634.00	
Recorder	0.00	8365	Inside	4634.00	
Recorder	0.00	8845	Outside	4634.00	
Perforations	34.00			4668.00	
Change Over Sub	1.00			4669.00	
Drill Pipe	31.00			4700.00	
Change Over Sub	1.00			4701.00	
Bullnose	3.00			4704.00	71.00 Bottom Packers & Anchor

**Total Tool Length: 98.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

American Warrior, Inc

**7-14s-35w Logan, KS**

PO Box 399  
Garden City, KS 67846

**Ausmus Unit #1-7**

Job Ticket: 64219

**DST#: 3**

ATTN: Luke Thompson

Test Start: 2017.09.05 @ 19:27:00

## 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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.19 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
5.00	mud 100m (oil spots)	0.037

Total Length: 5.00 ft      Total Volume: 0.037 bbl

Num Fluid Samples: 0

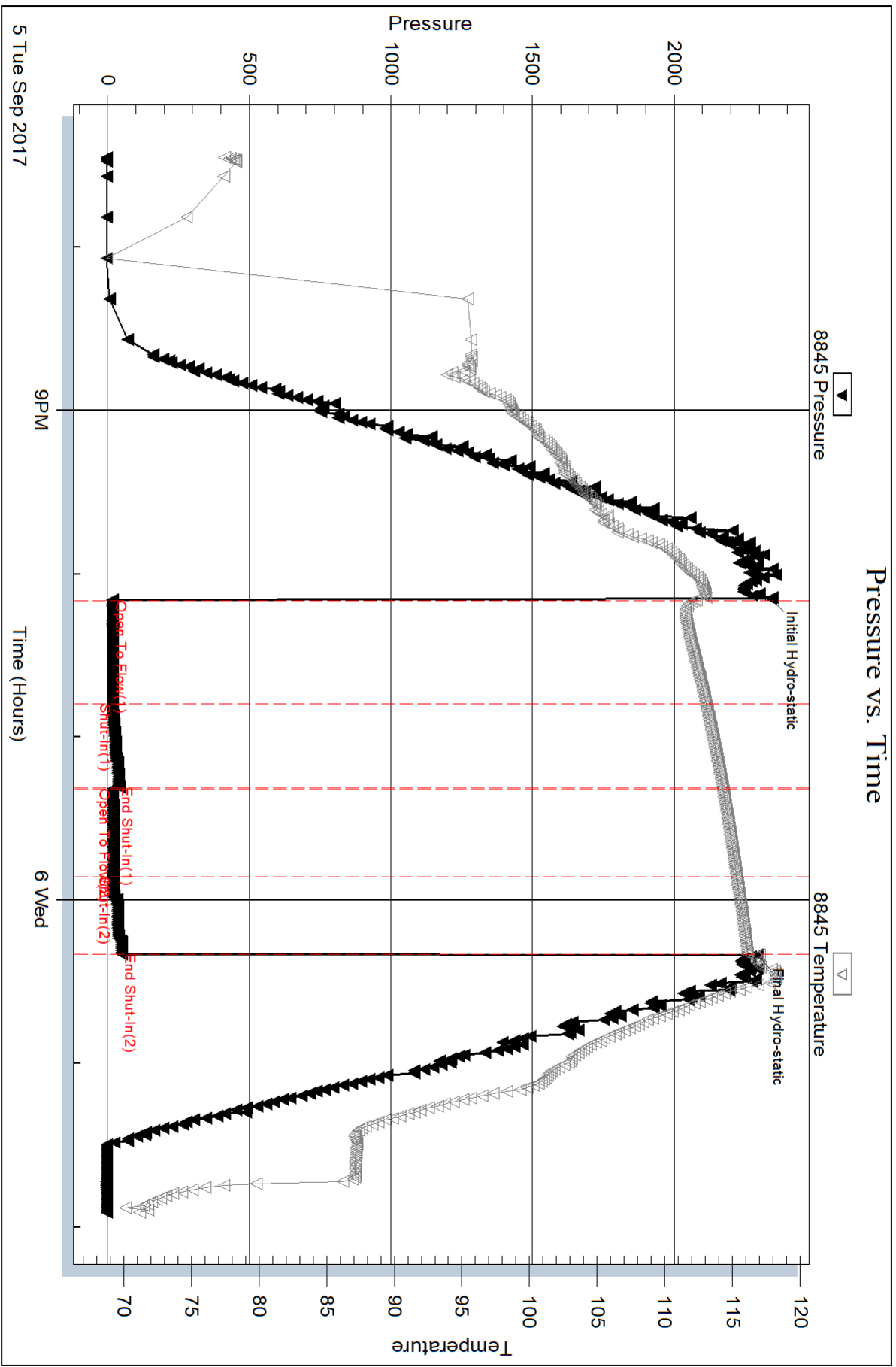
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



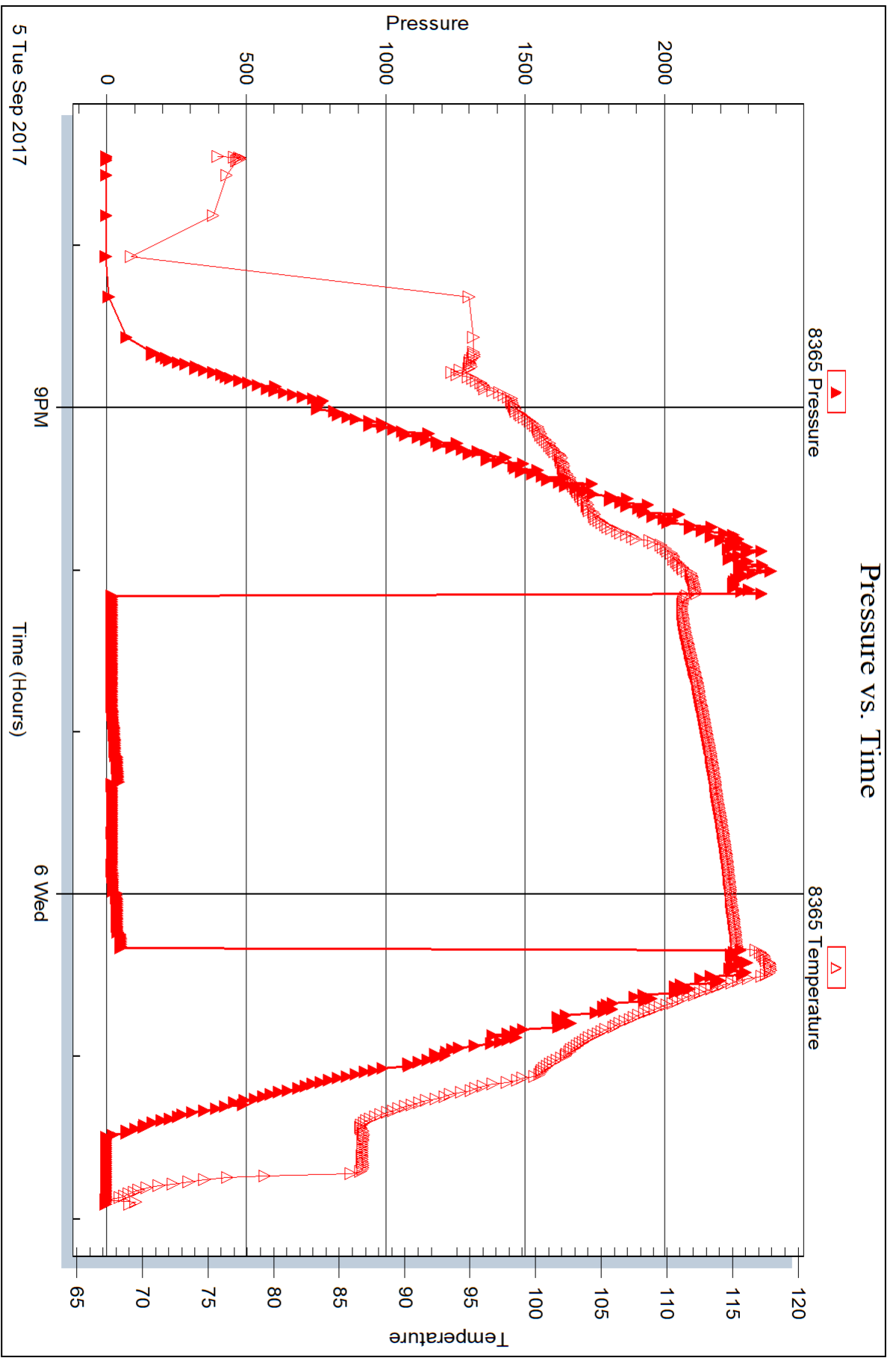
Serial #: 8365

Inside

American Warrior, Inc

Ausmus Unit #1-7

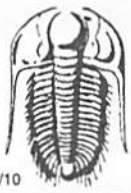
DST Test Number: 3



Triobite Testing, Inc

Ref. No: 64219

Printed: 2017.09.07 @ 14:30:03



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **64217**

Well Name & No. Ausmus Unit #1-7 Test No. 1 Date 9/4/2017  
 Company American Warrior, Inc Elevation 3222 KB 3214 GL  
 Address PO Box 399 Garden City, Ks 67846  
 Co. Rep / Geo. Luke Thompson Rig Discovery #1  
 Location: Sec. 7 Twp. 14s Rge. 35w Co. Logan State Ks

Interval Tested 4404 - 4470 Zone Tested Marmaton  
 Anchor Length 66' Drill Pipe Run 4106 Mud Wt. 9.0  
 Top Packer Depth 4399 Drill Collars Run 0 Vis 58  
 Bottom Packer Depth 4404 Wt. Pipe Run 280 WL 8.0  
 Total Depth 4470 Chlorides 5000 ppm System LCM 2<sup>nd</sup>  
 Blow Description IF 9" blow  
ISI No return  
FF 6" blow  
FSI No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>340</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	Feet of	%gas	%oil	%water	%mud

Rec Total 340 BHT 119 Gravity — API RW .259 @ 63 °F Chlorides 29000 ppm  
 (A) Initial Hydrostatic 2195  Test 1150 T-On Location 2130 9/3  
 (B) First Initial Flow 24  Jars 250 T-Started 2327  
 (C) First Final Flow 114  Safety Joint 75 T-Open 0203  
 (D) Initial Shut-In 1196  Circ Sub N/C T-Pulled 0503  
 (E) Second Initial Flow 131  Hourly Standby \_\_\_\_\_ T-Out 0700  
 (F) Second Final Flow 182  Mileage 120 RT 90  
 (G) Final Shut-In 1151  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2161  Straddle \_\_\_\_\_  
 Initial Open 45  Shale Packer \_\_\_\_\_  
 Initial Shut-In 45  Extra Packer \_\_\_\_\_  
 Final Flow 45  Extra Recorder \_\_\_\_\_  
 Final Shut-In 45  Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1565 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative

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. **64218**

Well Name & No. Ausmus Unit #1-7 Test No. 2 Date 9/4/2017  
 Company American Warrior, Inc Elevation 3222 KB 3214 GL  
 Address PO BOX 399 Garden City, KS 67846  
 Co. Rep / Geo. Luke Thompson Rig Discovery #1  
 Location: Sec. 7 Twp. 14S Rge. 35W Co. Logan State KS

Interval Tested 4070 - 4102 Zone Tested LKC  
 Anchor Length 32 / Tail 368' Drill Pipe Run 4067 Mud Wt. 9.3  
 Top Packer Depth 4065 Drill Collars Run 0 Vis 55  
 Bottom Packer Depth 4070 / 4102 Straddle Wt. Pipe Run 310 WL 10.6  
 Total Depth 4470 Chlorides 5500 ppm System LCM 2 #  
 Blow Description IF: BOB @ 14 min  
ISI: No return  
FP: BOB @ 20 min.  
FST: No return.

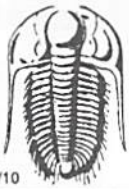
Rec	Feet of	%gas	%oil	%water	%mud
<u>470</u>	<u>mcw</u>			<u>85</u>	<u>15</u>

Rec Total 470 BHT 118 Gravity — API RW ,205 @ 74° F Chlorides 3700d ppm  
 (A) Initial Hydrostatic 2120  Test 1150 T-On Location 0700  
 (B) First Initial Flow 25  Jars 250 T-Started 0758  
 (C) First Final Flow 160  Safety Joint 75 T-Open 1017  
 (D) Initial Shut-In 1193  Circ Sub N/C T-Pulled 1317  
 (E) Second Initial Flow 164  Hourly Standby \_\_\_\_\_ T-Out 1557  
 (F) Second Final Flow 267  Mileage 120 RT 90 Comments \_\_\_\_\_  
 (G) Final Shut-In 1190  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2083  Straddle 600  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer 250  Ruined Packer \_\_\_\_\_  
 Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 45  Day Standby \_\_\_\_\_ Total 2415.00  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 2415

Approved By \_\_\_\_\_ Our Representative

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **64219**

Well Name & No. Ausmus Unit # 1-7 Test No. 3 Date 9/06/2017  
 Company American Warrior, Inc Elevation 3222 KB 3214 GL  
 Address PO Box 394 Garden City, ks 67046  
 Co. Rep / Geo. Luke Thompson Rig Discovery  
 Location: Sec. 7 Twp. 14s Rge. 35w Co. Logan State Ks

Interval Tested 4633-4704 Zone Tested Johnson  
 Anchor Length 71 Drill Pipe Run 4329 Mud Wt. 9.2  
 Top Packer Depth 4628 Drill Collars Run 0 Vis 60  
 Bottom Packer Depth 4633 Wt. Pipe Run 310 WL 11.2  
 Total Depth 4704 Chlorides 5,000 ppm System LCM 2#  
 Blow Description IF Surface blow  
ISF No return.  
FF Surface blow, dred @ 10 min.  
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>			<u>100</u>	
	<u>oil spots</u>				

Rec Total 5 BHT 116 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2340  Test 1150 T-On Location 1800  
 (B) First Initial Flow 18  Jars 250 T-Started 1927  
 (C) First Final Flow 19  Safety Joint 75 T-Open 2219  
 (D) Initial Shut-In 41  Circ Sub N/C T-Pulled 0019  
 (E) Second Initial Flow 19  Hourly Standby — T-Out 0155  
 (F) Second Final Flow 19  Mileage 120 x 2 x 2 90+90 Comments P/O Tool  
 (G) Final Shut-In 50  Sampler — 0430 9/7/2017  
 (H) Final Hydrostatic 2292  Straddle —  
 Shale Packer —  
 Extra Packer —  
 Extra Recorder —  
 Day Standby —  
 Accessibility —  
 Sub Total 1655

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

MP/DST Disc't —

Approved By \_\_\_\_\_ Our Representative

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**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

American Warrior, Inc

**7 14s 35w**

PO Box 399  
Garden City, Ks 67846

**Ausmus Unit #1-7**

ATTN: Luke Thompson

Job Ticket: 64218

**DST#: 2**

Test Start: 2017.09.04 @ 07:58:00

## GENERAL INFORMATION:

Formation: **LKC**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:16:00  
 Time Test Ended: 15:57:30  
 Interval: **4070.00 ft (KB) To 4102.00 ft (KB) (TVD)**  
 Total Depth: 4470.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Bradley Walter  
 Unit No: 78  
 Reference Elevations: 3222.00 ft (KB)  
 3214.00 ft (CF)  
 KB to GR/CF: 8.00 ft

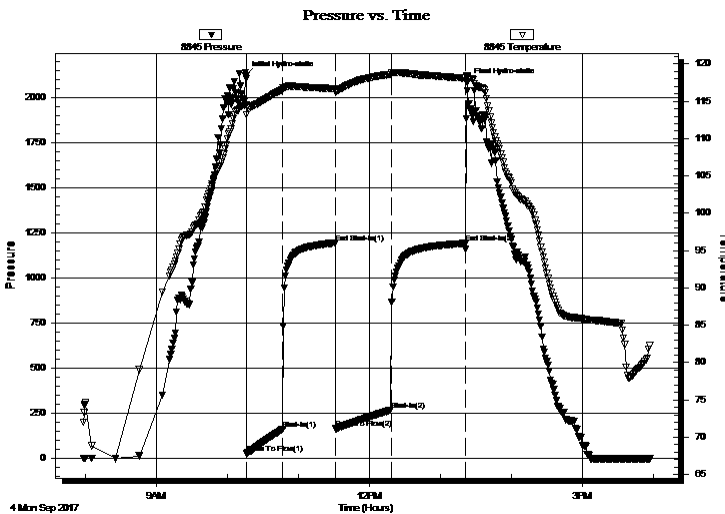
## Serial #: 8845

Inside

Press@RunDepth: 267.12 psig @ 4071.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.09.04 End Date: 2017.09.04 Last Calib.: 2017.09.04  
 Start Time: 07:58:05 End Time: 15:57:29 Time On Btm: 2017.09.04 @ 10:15:15  
 Time Off Btm: 2017.09.04 @ 13:22:15

TEST COMMENT: IF: BOB @ 14 min.  
 IS: No return.  
 FF: BOB @ 20 min.  
 FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2119.93	114.55	Initial Hydro-static
1	24.80	113.21	Open To Flow (1)
32	160.07	116.57	Shut-In(1)
76	1193.28	116.70	End Shut-In(1)
76	163.74	116.25	Open To Flow (2)
123	267.12	118.63	Shut-In(2)
186	1190.38	118.10	End Shut-In(2)
187	2082.74	118.38	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
470.00	mcw 15m 85w (oil spots)	4.52

\* Recovery from multiple tests

## Gas Rates

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









**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

American Warrior, Inc

**7 14s 35w**

PO Box 399  
Garden City, Ks 67846

**Ausmus Unit #1-7**

Job Ticket: 64218

**DST#: 2**

ATTN: Luke Thompson

Test Start: 2017.09.04 @ 07:58:00

### 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:

37000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

#### Recovery Table

Length ft	Description	Volume bbl
470.00	mcw 15m 85w (oil spots)	4.522

Total Length: 470.00 ft      Total Volume: 4.522 bbl

Num Fluid Samples: 0

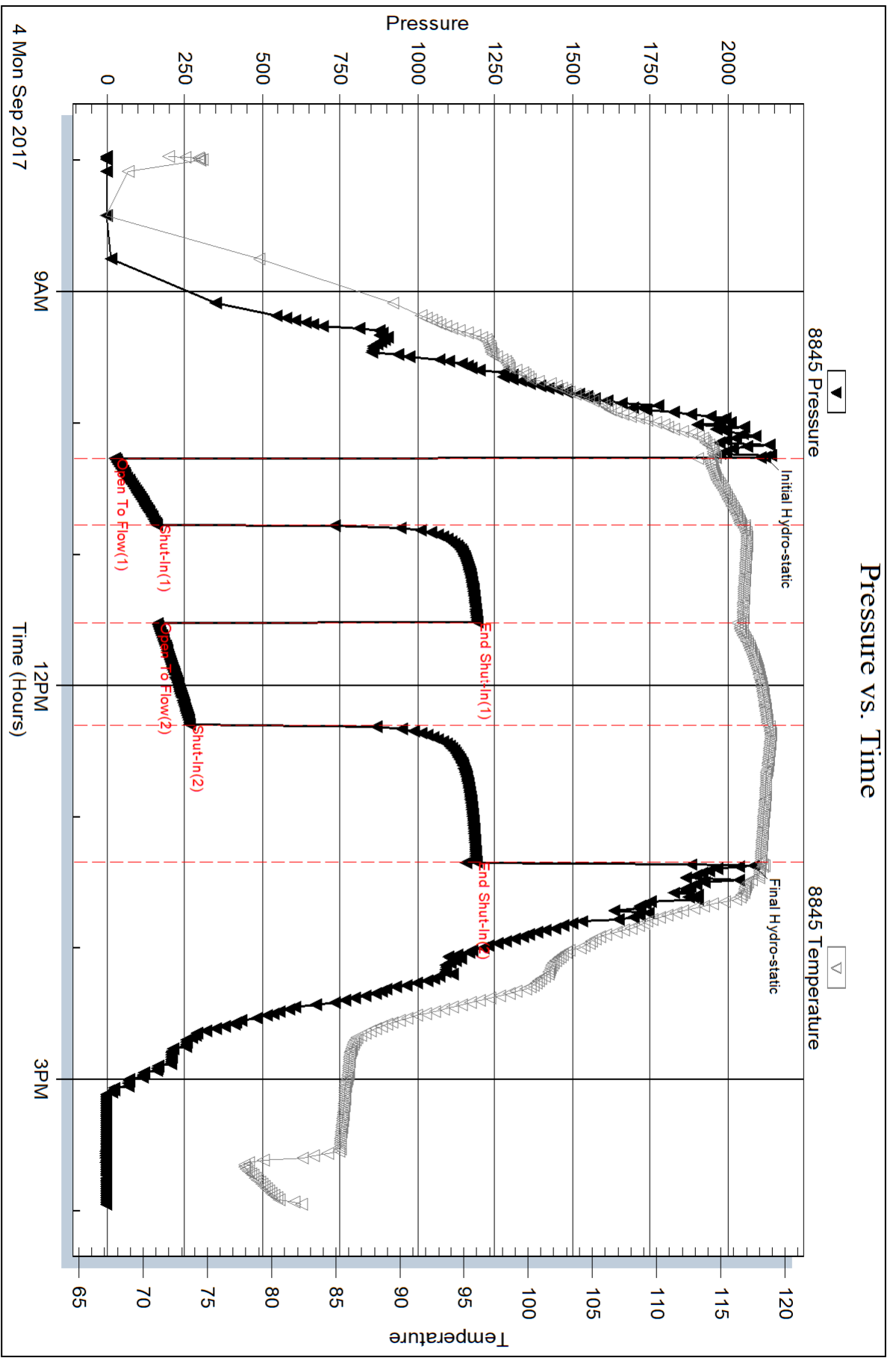
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .205 @ 74F = 37000ppm

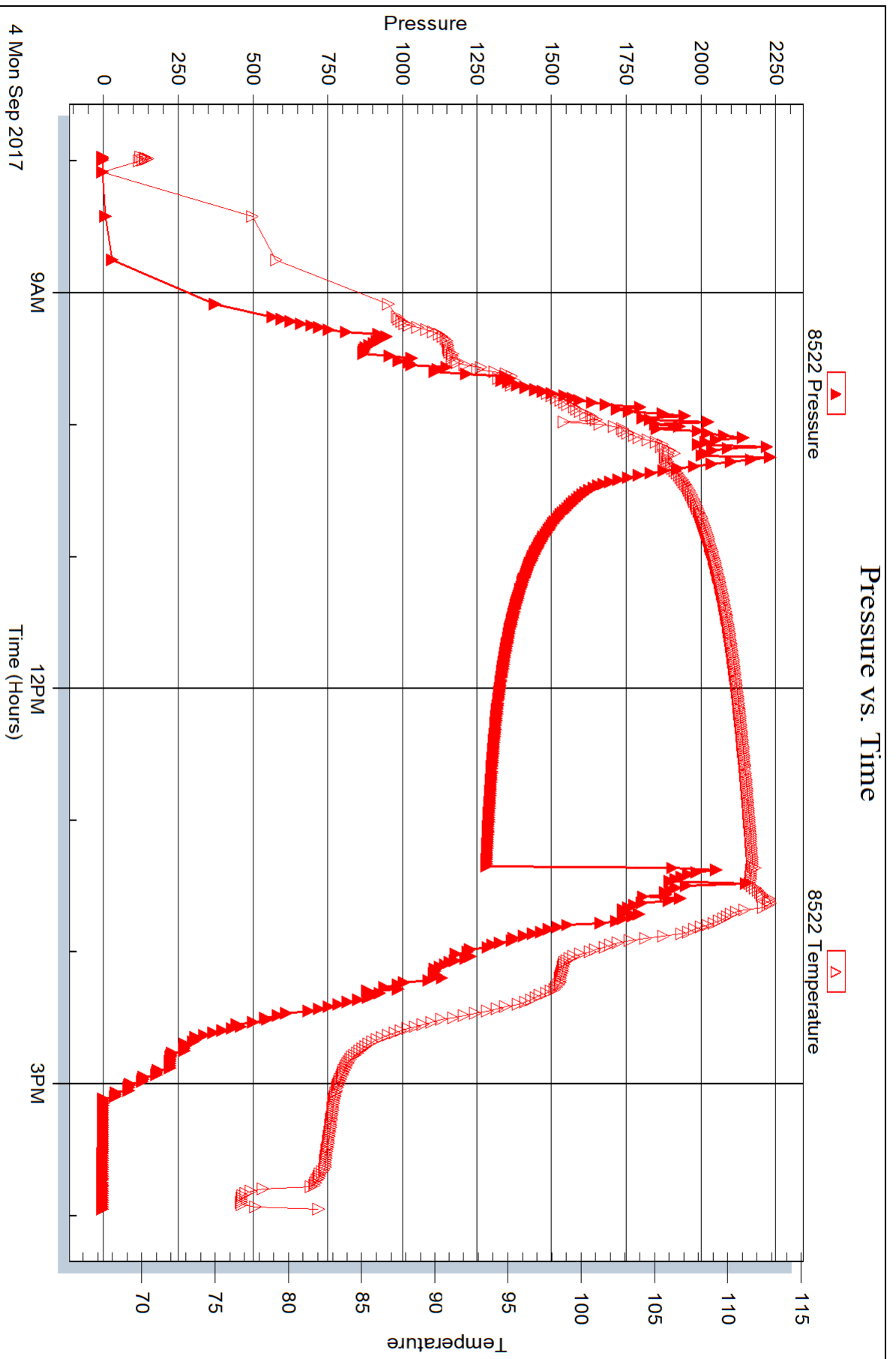


Serial #: 8522

Below (Strat) Warrior, Inc

Ausmus Unit #1-7

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 64218

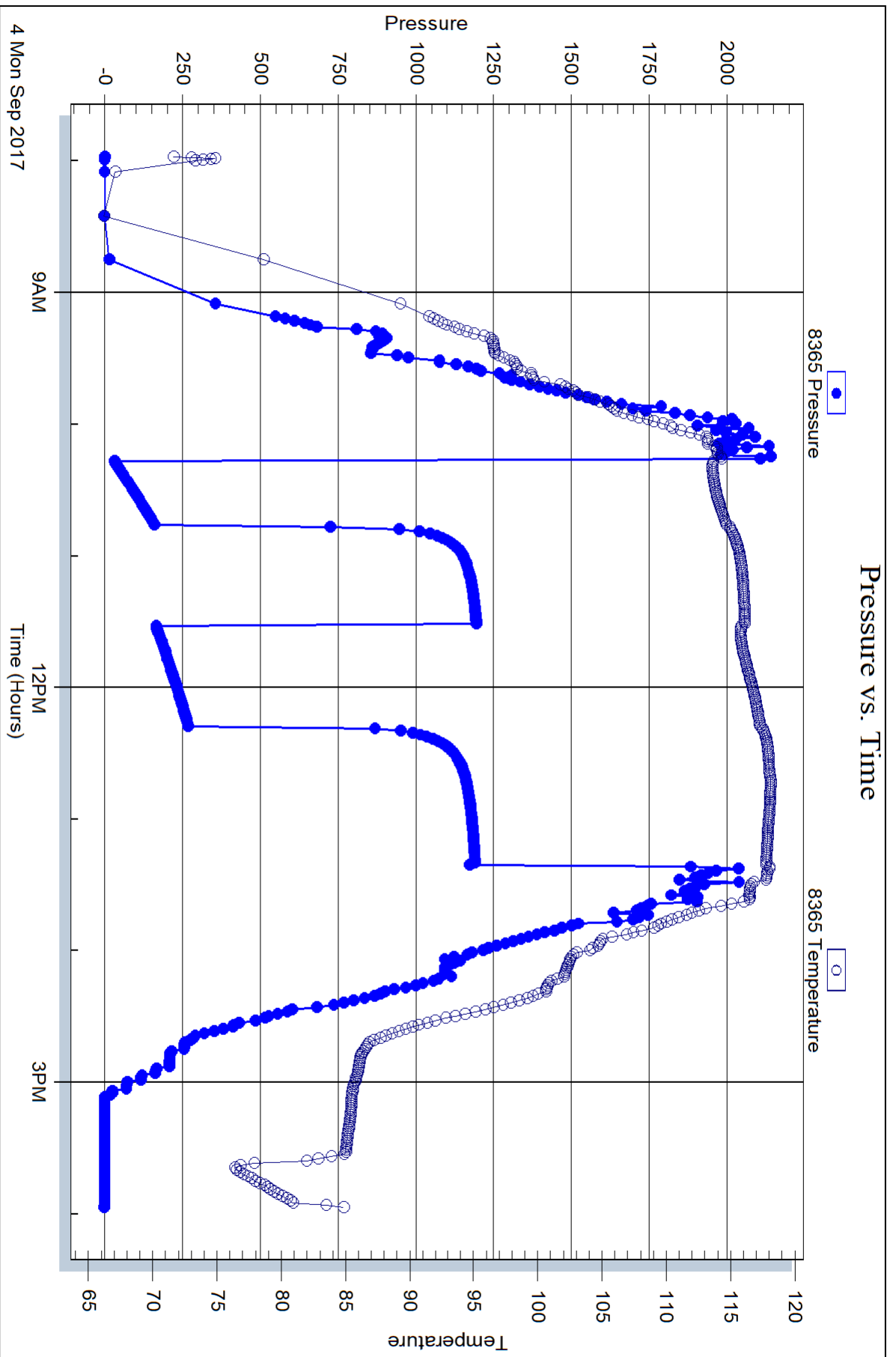
Printed: 2017.09.06 @ 07:34:01

Serial #: 8365

Outside American Warrior, Inc

Ausmus Unit #1-7

DST Test Number: 2





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

American Warrior, Inc

**7 14s 35w**

PO Box 399  
Garden City, Ks 67846

**Ausmus Unit #1-7**

Job Ticket: 64219

**DST#: 3**

ATTN: Luke Thompson

Test Start: 2017.09.05 @ 19:27:00

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:09:45

Time Test Ended: 01:54:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

**Interval: 4633.00 ft (KB) To 4704.00 ft (KB) (TVD)**

Reference Elevations: 3222.00 ft (KB)

Total Depth: 4704.00 ft (KB) (TVD)

3214.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 8845 Outside**

Press@RunDepth: 18.54 psig @ 4634.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.09.05

End Date:

2017.09.06

Last Calib.:

2017.09.06

Start Time: 19:27:05

End Time:

01:54:29

Time On Btm:

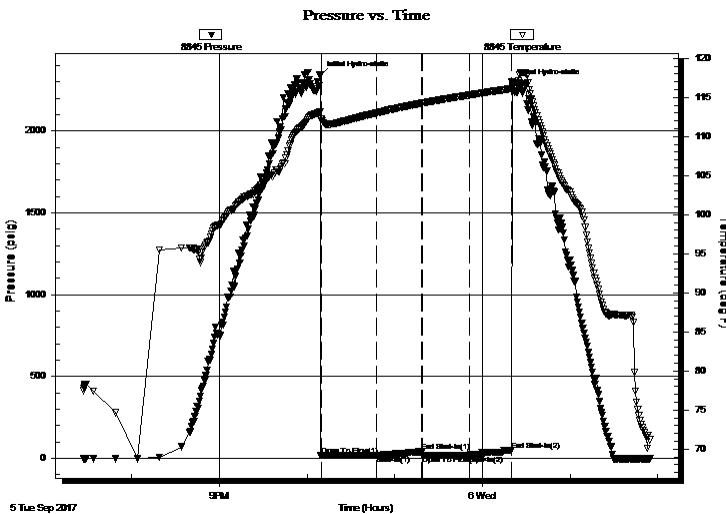
2017.09.05 @ 22:09:00

Time Off Btm:

2017.09.06 @ 00:20:15

**TEST COMMENT:** IF: Surface blow .  
IS: No return.  
FF: Surface blow , Died @ 10 minutes.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2340.22	113.15	Initial Hydro-static
1	18.09	112.23	Open To Flow (1)
39	19.27	113.02	Shut-In(1)
70	40.53	114.26	End Shut-In(1)
70	18.55	114.27	Open To Flow (2)
103	18.54	115.31	Shut-In(2)
131	49.99	116.12	End Shut-In(2)
132	2292.46	116.98	Final Hydro-static

## Recovery

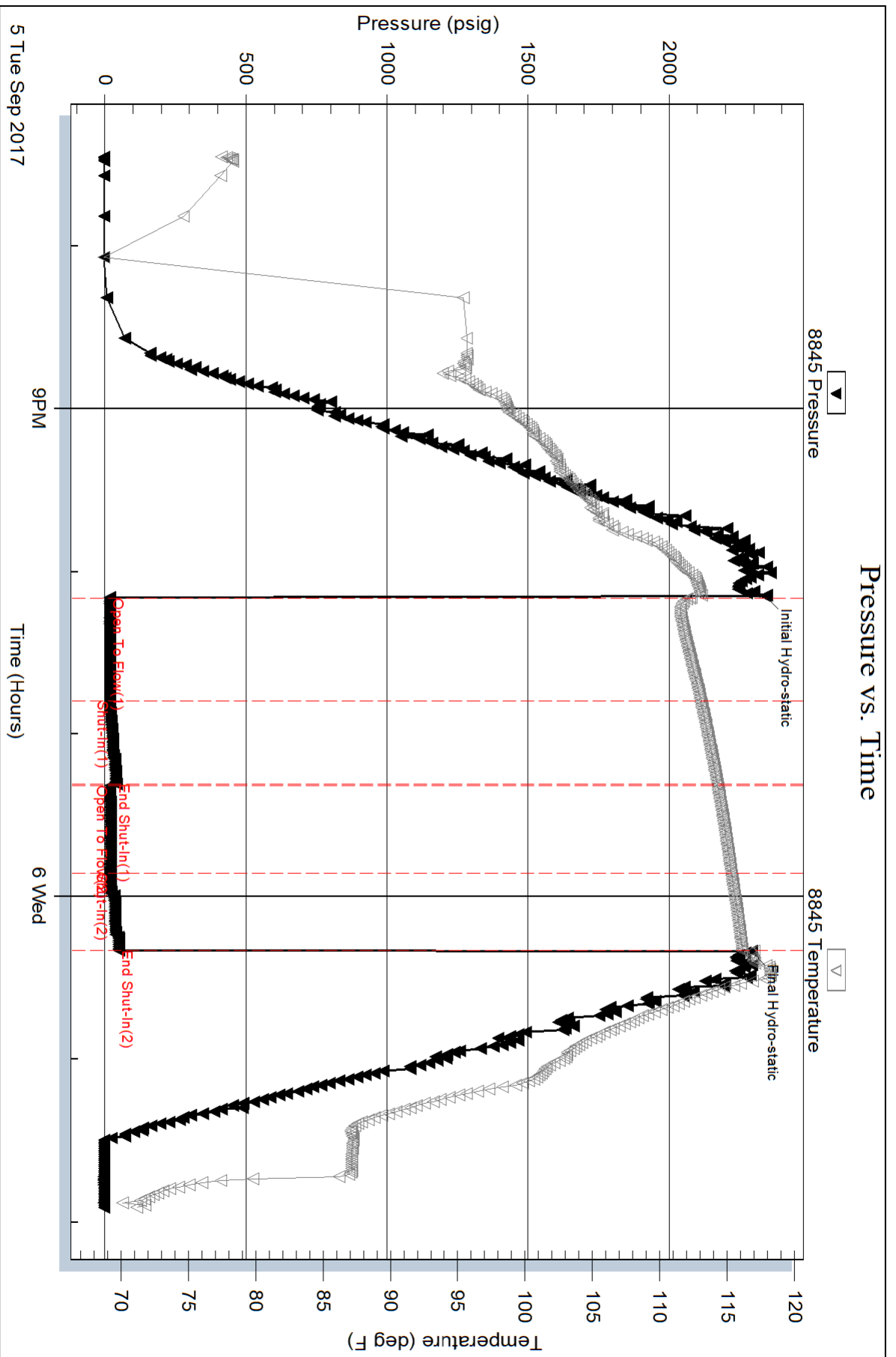
Length (ft)	Description	Volume (bbl)
5.00	mud 100m (oil spots)	0.04

\* Recovery from multiple tests

## Gas Rates

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







Serial #: 8365

Inside

American Warrior, Inc

Ausmus Unit #1-7

DST Test Number: 3

