



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1172382
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

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 SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- 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 ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

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
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1172382

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. 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 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				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	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> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	American Warrior, Inc.
Well Name	City of Ingalls 1-5
Doc ID	1172382

Tops

Name	Top	Datum
Anhy	1909	+915
B/Anhy	1972'	+852
Heebner	4113'	-1289
Lansing	4201'	-1377
B/KC	4616'	-1792
Pawnee	4716'	-1892
Ft.Scott	4740'	-1916
Morrow	4878'	-2054
St.Louis	4903'	-2079

Geological Report

American Warrior, Inc.

City of Ingalls #1-5

1500' FSL & 1150' FWL

Sec. 5, T25s, R29w

Gray County, Kansas



American Warrior, Inc.

General Data

Well Data: American Warrior, Inc.
City of Ingalls #1-5
1500' FSL & 1150' FWL
Sec. 5, T25s, R29w
Gray County, Kansas
API # 15-069-20442-00-00

Drilling Contractor: Duke Drilling Co. Rig #5

Geologist: Kevin Timson

Spud Date: September 19, 2013

Completion Date: September 28, 2013

Elevation 2813' G.L.
2824' K.B.

Directions: From Kalvesta, KS. Go 14.5 miles West on Hwy 96 to Haflich Rd. Go 11 miles South to H Rd. ½ mile East on H Rd. and North into location.

Casing: 438' 8 5/8" #24 Surface Casing

Samples: 4100' to RTD 10' Wet & Dry

Drilling Time: 4050' to RTD

Electric Logs: Pioneer Energy Services "D. Schmidt"
Full Sweep

Drillstem Tests: One, Trilobite Testing, Inc. "Jeff Brown"

Problems: None

Formation Tops

Formation

	American Warrior, Inc. City of Ingalls #1-5 Sec. 5, T25s, R29w 1500' FSL & 1150' FWL
Anhydrite	1909' +915
Base	1972' +852
Heebner	4113' -1289
Toronto	4127' -1303
Lansing	4201' -1377
Stark	4488' -1664
BKC	4616' -1792
Marmaton	4632' -1808
Pawnee	4716' -1892
Fort Scott	4740' -1916
Cherokee	4754' -1930
Morrow	4878' -2054
St. Louis	4903' -2079
RTD	5020' -2196
LTD	5020' -2196

Sample Zone Descriptions

Morrow Sand

(4878', -2054): Covered in DST #1

Sandstone. Grey. Sub-angular. Well Sorted. Very fine crystalline. Dense. Glauconitic. Slight stain. Very slight saturation. No odor. No show of free oil. 70 Units Hotwire.

Drill Stem Tests
 Trilobite Testing Inc.
 "Jeff Brown"

DST #1

Morrow Sand

Interval (4850' – 4896') Anchor Length 46'

IHP	- 2405 #	
IFP	- 30" – WSB built to 3 ½"	21-79 #
ISI	- 30" – No Return	1171 #
FFP	- 30" – WSB built to 1 ½"	84-132 #
FSIP	- 30" – No Return	1144 #
FHP	- 2372 #	
BHT	- 120 ° F	

Recovery: 188' MW
 30' Mud with oil spots

Structural Comparison

Formation	American Warrior, Inc. City of Ingalls #1-5 Sec. 5, T29s, R25w 1500' FSL & 1150' FWL	Hadson Petroleum Hufford #1-8 Sec. 8, T25s, R29w 320' FEL, NE ¼	Thoroughbred Associates City of Ingalls #1 Sec 5, T25s, R29w 2055' FNL & 50' FWL
Heebner	4113' -1289	-6 4100' -1283	+16 4126' -1305
Toronto	4127' -1303	-7 4113' -1296	NA NA
Lansing	4201' -1377	-3 4191' -1374	NA 4171' -1350
Stark	4488' -1664	NA NA	+19 4504' -1683
BKC	4616' -1792	NA NA	NA NA
Marmaton	4632' -1808	NA NA	NA NA
Pawnee	4716' -1892	NA NA	NA NA
Fort Scott	4740' -1916	NA NA	NA NA
Cherokee	4754' -1930	FL 4747' -1930	NA NA
Morrow	4878' -2054	-9 4862' -2045	+47 4922' -2101
St. Louis	4903' -2079	+42 4938' -2121	+102 5002' -2181

Summary

The location for the City of Ingalls #1-5 well was found via 3-D seismic survey. The new well ran structurally as expected. One drill stem test was conducted which did not recover commercial quantities of oil. After all the gathered data had been examined, the decision was made to plug and abandon the City of Ingalls #1-5 well.

Respectfully Submitted,

Kevin Timson
American Warrior, Inc.



DRILL STEM TEST REPORT

Prepared For: **American Warrior Inc**

PO Box 399
Garden City, KS 67846

ATTN: Kevin Timson

City of Ingalls #1-5

5-25s-29w Gray,KS

Start Date: 2013.09.26 @ 18:30:43

End Date: 2013.09.27 @ 01:56:43

Job Ticket #: 041771 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.10.03 @ 10:15:59



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

American Warrior Inc
 PO Box 399
 Garden City, KS 67846
 ATTN: Kevin Timson

5-25s-29w Gray,KS
City of Ingalls #1-5
 Job Ticket: 041771 **DST#: 1**
 Test Start: 2013.09.26 @ 18:30:43

GENERAL INFORMATION:

Formation: **Morrow**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:53:43
 Time Test Ended: 01:56:43
 Interval: **4850.00 ft (KB) To 4896.00 ft (KB) (TVD)**
 Total Depth: 4896.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jeff Brown
 Unit No: 67
 Reference Elevations: 2824.00 ft (KB)
 2812.00 ft (CF)
 KB to GR/CF: 12.00 ft

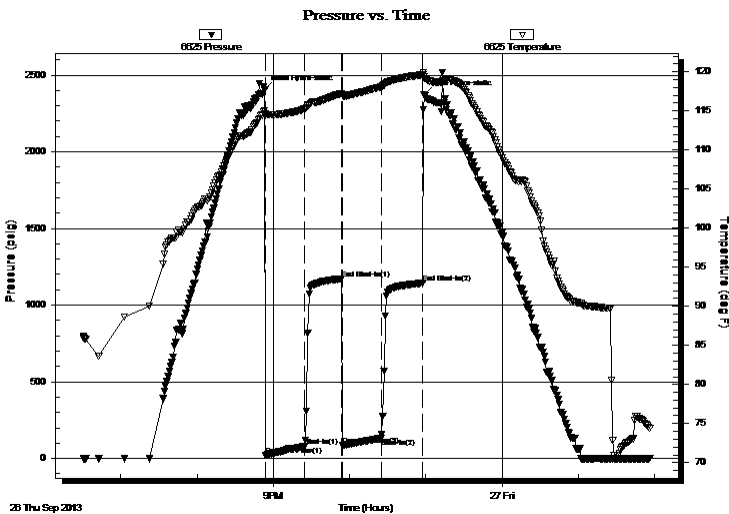
Serial #: 6625

Outside

Press @ Run Depth: 131.53 psig @ 4887.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.09.26 End Date: 2013.09.27 Last Calib.: 2013.09.27
 Start Time: 18:30:44 End Time: 01:56:43 Time On Btm: 2013.09.26 @ 20:53:13
 Time Off Btm: 2013.09.26 @ 22:58:43

TEST COMMENT: IFP=Weak blow built to 3-1/2"
 ISI=Dead no blow back
 FFP=Weak blow built to 1-1/2"
 FSI=Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2404.80	115.03	Initial Hydro-static
1	20.34	114.60	Open To Flow (1)
32	78.74	115.27	Shut-In(1)
61	1170.72	117.22	End Shut-In(1)
61	83.46	117.00	Open To Flow (2)
92	131.53	118.07	Shut-In(2)
125	1143.18	119.61	End Shut-In(2)
126	2371.09	119.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
188.00	MW 25%M 75%W	0.92
30.00	Mud with oil spots	0.15

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: Kevin Timson

5-25s-29w Gray,KS
City of Ingalls #1-5
 Job Ticket: 041771 **DST#: 1**
 Test Start: 2013.09.26 @ 18:30:43

Tool Information

Drill Pipe:	Length: 4555.00 ft	Diameter: 3.80 inches	Volume: 63.89 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 277.00 ft	Diameter: 2.25 inches	Volume: 1.36 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 65.25 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	76000.00 lb
Depth to Top Packer:	4850.00 ft			Final	78000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	46.00 ft				
Tool Length:	74.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4823.00	
Shut In Tool	5.00			4828.00	
Hydraulic tool	5.00			4833.00	
Jars	5.00			4838.00	
Safety Joint	3.00			4841.00	
Packer	4.00			4845.00	28.00 Bottom Of Top Packer
Packer	5.00			4850.00	
Stubb	1.00			4851.00	
Perforations	3.00			4854.00	
Change Over Sub	1.00			4855.00	
Drill Pipe	31.00			4886.00	
Change Over Sub	1.00			4887.00	
Recorder	0.00	6625	Outside	4887.00	
Recorder	0.00	8679	Inside	4887.00	
Perforations	6.00			4893.00	
Bullnose	3.00			4896.00	46.00 Bottom Packers & Anchor
Total Tool Length:	74.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

American Warrior Inc
PO Box 399
Garden City, KS 67846
ATTN: Kevin Timson

5-25s-29w Gray,KS
City of Ingalls #1-5
Job Ticket: 041771 **DST#: 1**
Test Start: 2013.09.26 @ 18:30:43

Mud and Cushion Information

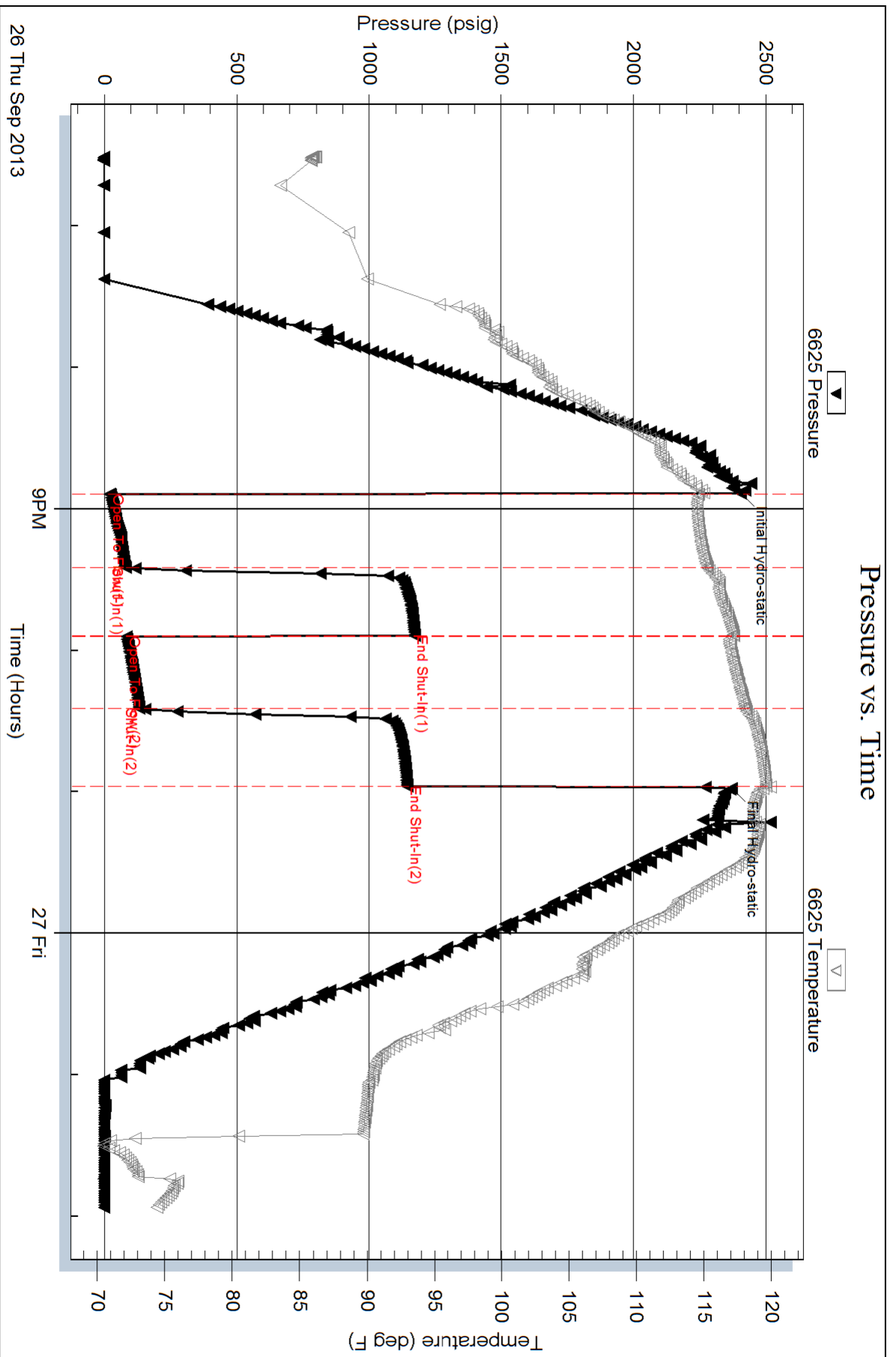
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
188.00	MW 25%M 75%W	0.925
30.00	Mud with oil spots	0.148

Total Length: 218.00 ft Total Volume: 1.073 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:



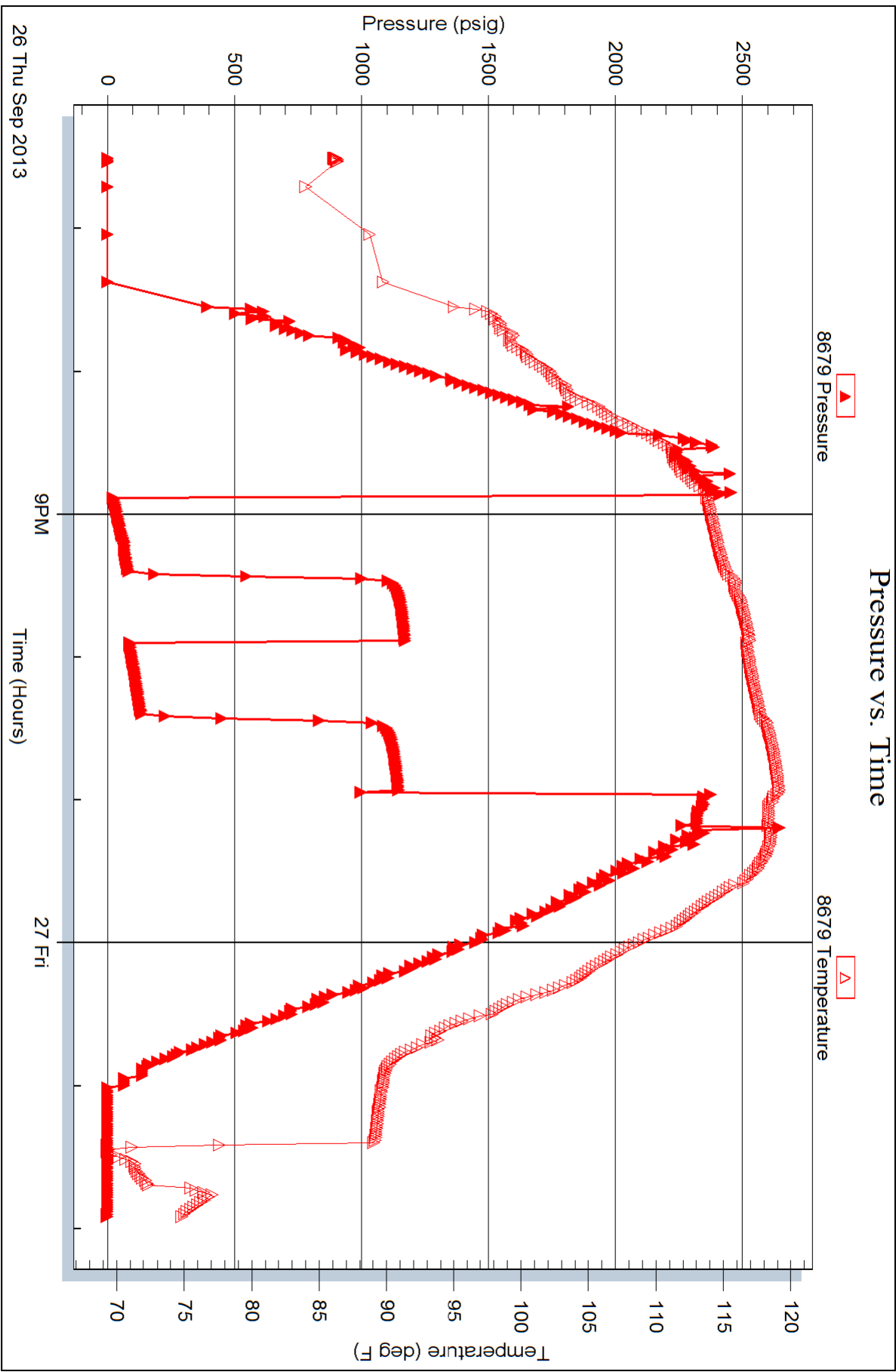
Serial #: 8679

Inside

American Warrior Inc

City of Ingalls #1-5

DST Test Number: 1





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 041771

Well Name & No. City of Ingalls 1-5 Test No. 1 Date 9-26-13
 Company American Warrior Inc Elevation 2824 KB 2812 GL
 Address PO Box 399 Garden City KS 67846
 Co. Rep / Geo. Kevin Timson Rig Duke #5
 Location: Sec. 5 Twp. 25 S Rge. 29 W Co. Gray State KS

Interval Tested 4850 - 4896 Zone Tested Monlow
 Anchor Length 46 Drill Pipe Run 4555 Mud Wt. 9.3
 Top Packer Depth 4845 Drill Collars Run 277 Vis 47
 Bottom Packer Depth 4850 Wt. Pipe Run 0 WL 9.2
 Total Depth 4896 Chlorides 3000 ppm System LCM 1

Blow Description 1st-Weak Blow Built TO 3 1/2 IN
1st-Dead NO Blow Back
2nd-Weak Blow Built TO 1 1/2 IN
2nd-Dead NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>188</u>	<u>MW</u>			<u>75%</u>	<u>25%</u>
<u>30</u>	<u>Mud WITH A dirt spots</u>				<u>100%</u>

Rec Total 218 BHT 120 Gravity _____ API RW. 205 @ 71.2° F Chlorides 35,000 ppm

(A) Initial Hydrostatic <u>2405</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>17:50</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>18:30</u>
(C) First Final Flow <u>79</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>20:54</u>
(D) Initial Shut-In <u>1171</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>22:54</u>
(E) Second Initial Flow <u>83</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1:56</u>
(F) Second Final Flow <u>132</u>	<input checked="" type="checkbox"/> Mileage <u>300 RT</u> <small>126rt 195.30</small>	Comments <u>Loaded Tools @ 13:30</u>
(G) Final Shut-In <u>1143</u>	<input type="checkbox"/> Sampler	<u>on 9-27-13</u>
(H) Final Hydrostatic <u>2371</u>	<input type="checkbox"/> Straddle	

Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1856.60</u>
	Sub Total <u>1856.60</u>	MP/DST Disc't _____

Approved By _____ Our Representative Jeff Brown

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.



CEMENTING LOG

STAGE NO. _____

Date 9-28-13 District Great Bend, KS Ticket No. 61927
 Company Armedcon Energy Rig Duke #5
 Lease Gray of Ingalls Well No. 15
 County Gray State KS
 Location Hwy 156 & Halfback Rd Field _____
1/2 S 1E N10

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 5 7/8 Type _____ Weight _____ Collar _____

Casing Depths: Top _____ Bottom _____

Drill Pipe: Size 4 1/2 Weight 16.6 Collars 4-hole
 Open Hole: Size 12 1/4 T.D. _____ ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. 0.0637 Lin. ft./Bbl. 1570
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. 0.0142 Lin. ft./Bbl. 7032
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

CEMENT DATA:
 Spacer Type: Freshwater
 Amt. _____ Sks Yield _____ ft³/sk Density 62.34 PPG

LEAD: Pump Time _____ hrs. Type _____
 Excess _____

Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG

TAIL: Pump Time _____ hrs. Type 60 sec class H
40 to 202 45 gal 4 in flo Excess _____

Amt. _____ Sks Yield 1.45 ft³/sk Density 14.5 PPG

WATER: Lead _____ gals/sk Tail _____ gals/sk Total _____ Bbls.

Pump Trucks Used 398 - White S
 Bulk Equip. 60 9-112 - Dowl

Float Equip: Manufacturer _____
 Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type Freshwater Amt. _____ Bbls. Weight 62.34 PPG
 Mud Type Native Weight 9.2 PPG

COMPANY REPRESENTATIVE _____

CEMENTER Dubytne

TIME AM/PM	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
						ON Location - Rig up Had safety meeting
						Run 4 1/2 Drill pipe Cement hole with Rig mud Hook up cement pump
						1. 1920 - 50 SKS
						2. 1250 - 80 SKS
						3. 470 - 50 SKS
						4. 60 - 20 SKS
						5. 124 - 30 SKS
						6. 114 - 20 SKS
						Plug Down - 3:00 PM
						Rig Down

MILLER PRINTERS, INC. - Great Bend, KS

Date 9-19-13 District Green-Pack, KS Ticket No. 61819
 Company American Energy Rig Duke 05
 Lease Way of Ingalls Well No. 15
 County Gray State KS
 Location 150 + Wolfrock Rd Field _____
W 5 E N 10

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 5 5/8 Type PLV Weight 24.5 Collar SR2

Casing Depths: Top 613 Bottom 438 + 58

Drill Pipe: Size 4 1/2 Weight 16.6 Collars x-handle
 Open Hole: Size 12 1/4 T.D. _____ ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. 0.637 Lin. ft./Bbl. 15.70
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. 0.642 Lin. ft./Bbl. 70.32
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

CEMENT DATA:
 Spacer Type Freshwater
 Amt. 5665 Sks Yield _____ ft³/sk Density 8.24 PPG

LEAD: Pump Time _____ hrs. Type _____
 Excess _____

Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG

TAIL: Pump Time _____ hrs. Type Class A 3 free 2 stage
2 stage Excess _____

Amt. 250 Sks Yield 1.34 ft³/sk Density 8.92 PPG

WATER: Lead _____ gals/sk Tail _____ gals/sk Total _____ Bbls.

Pump Trucks Used 396 - Mike-S
 Bulk Equip. 609 - 112 - Don C

Float Equip: Manufacturer _____

Shoe: Type _____ Depth _____

Float: Type _____ Depth _____

Centralizers: Quantity _____ Plugs Top _____ Btm. _____

Stage Collars _____

Special Equip. _____

Disp. Fluid Type Freshwater Amt. _____ Bbls. Weight 8.24 PPG

Mud Type Native Weight 9.12 PPG

COMPANY REPRESENTATIVE _____

CEMENTER Don C

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
						ON Location - Rig up
						Had safety meeting
						Run 58' casing
						Break circulation with Rig head
						Hookup cement pump
				5665		pump 5665 Freshwater Ahead
			64.66	59.66		mix 250 sks Class A 3 free 2 stage
			91.64	26.98		Displace 26.98 bbls Freshwater
						& shut in
						Cement PID circulation
						plug Power 5:30 pm
						Rig Power