

# Kansas Corporation Commission Oil & Gas Conservation Division

# 1115216

Form ACO-1 June 2009 Form Must Be Typed Form must be Signed All blanks must be Filled

# WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License #	API No. 15
Name:	Spot Description:
Address 1:	SecTwpS. R
Address 2:	Feet from North / South Line of Section
City: State: Zip:+	Feet from East / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	□NE □NW □SE □SW
CONTRACTOR: License #	County:
Name:	Lease Name: Well #:
Wellsite Geologist:	Field Name:
Purchaser:	Producing Formation:
Designate Type of Completion:	Elevation: Ground: Kelly Bushing:
☐ New Well ☐ Re-Entry ☐ Workover	Total Depth: Plug Back Total Depth:
Oil WSW SWD SIOW Gas D&A ENHR SIGW OG GSW Temp. Abd.  CM (Coal Bed Methane) Cathodic Other (Core, Expl., etc.):	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: sx cmt
If Workover/Re-entry: Old Well Info as follows:	
Operator: Well Name:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Original Comp. Date: Original Total Depth:   Deepening Re-perf. Conv. to ENHR Conv. to SWD  Conv. to GSW	Chloride content: ppm Fluid volume: bbls  Dewatering method used:
Plug Back: Plug Back Total Depth	Location of fluid disposal if hauled offsite:
Commingled Permit #:	Operator Name:
Dual Completion Permit #:	Lease Name: License #:
SWD Permit #:	Quarter Sec TwpS. R
☐ ENHR         Permit #:           ☐ GSW         Permit #:	County: Permit #:
Spud Date or Date Reached TD Completion Date or Recompletion Date	

### **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							
Letter of Confidentiality Received							
Date:							
Confidential Release Date:							
☐ Wireline Log Received							
Geologist Report Received							
UIC Distribution							
ALT I II III Approved by: Date:							

Side Two

1115216

Operator Name:			Lease Name: _			_ Well #:	
Sec Twp	S. R	East West	County:				
time tool open and cle recovery, and flow rate	osed, flowing and shu	nd base of formations pe at-in pressures, whether est, along with final chart well site report.	shut-in pressure rea	ched static level,	hydrostatic press	sures, bottom h	nole temperature, fluid
Drill Stem Tests Take		☐ Yes ☐ No		og Formatio	n (Top), Depth ar	nd Datum	Sample
Samples Sent to Geo	ological Survev	☐ Yes ☐ No	Nam	ne		Тор	Datum
Cores Taken Electric Log Run Electric Log Submitte (If no, Submit Cop	ed Electronically	Yes No Yes No Yes No					
List All E. Logs Run:							
			B RECORD No	ew Used ermediate, product	ion, 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
		ADDITIONA	L CEMENTING / SQI	JEEZE RECORD	1		
Purpose:  —— Perforate  —— Protect Casing	Depth Top Bottom	Type of Cement	# Sacks Used		Type and F	Percent Additives	
—— Plug Back TD —— Plug Off Zone							
Shots Per Foot	PERFORATI Specify	ON RECORD - Bridge Plu Footage of Each Interval Pe	gs Set/Type rforated		cture, Shot, Cemen mount and Kind of Ma		d Depth
TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run:	Yes No	1	
Date of First, Resumed	d Production, SWD or EN	IHR. Producing Me		Gas Lift 0	Other (Explain)		
Estimated Production Per 24 Hours	Oil	Bbls. Gas	Mcf Wat	ter B	bls.	Gas-Oil Ratio	Gravity
	ION OF GAS:		METHOD OF COMPLI			PRODUCTIO	ON INTERVAL:
Vented Sole	d Used on Lease	Open Hole	Perf. Dually (Submit		mmingled mit ACO-4)		

Form	ACO1 - Well Completion
Operator	American Warrior, Inc.
Well Name	Olson 2-5
Doc ID	1115216

# Tops

Name	Тор	Datum
Anhydrite	1379	781
Heebner	3624	-1464
Lansing	3668	-1508
Base Kansas City	3990	-1830
Pawnee	4069	-1909
Ft. Scott	4143	-1983
Cherokee	4160	-2000
Mississippian	4242	-2082
RTD	4260	-2100

# ALLIED OL& GAS SERVICES, LLC 089191

Federal Tax I.D.# 20-5975804 REMIT TO P.O. BOX 93999 SERVICE POINT: **SOUTHLAKE, TEXAS 76092** Great Bud hs ON LOCATION
9:00 PM RANGE JOB START JOB FINISH DATE 1-7-13 11.50 PM 11:30 m STATE LEASE 6/500 WELL # 2.5 LOCATION & MILES SOUTHPEST of NISS OLD OR NEW (Circle one) Bazine, 45 CONTRACTOR HEHOMACK OWNER America Ukrnia TYPE OF JOB HOLE SIZE 1214 **CEMENT** AMOUNT ORDERED 150 521 CASING SIZE \$ 5/5 DEPTH 210.71 **TUBING SIZE DEPTH** Class A 3% 66 21601 **DRILL PIPE DEPTH** TOOL **DEPTH** 500 PRES. MAX **MINIMUM** COMMON SHOE JOINT 26 MEAS. LINE **POZMIX** CEMENT LEFT IN CSG. 1.272 bbk GEL @ PERFS. CHLORIDE @ DISPLACEMENT 12.83 66/5 ASC **@ EQUIPMENT** @ @ **PUMP TRUCK** CEMENTER Tarted Leters # 36060 HELPER Trut Hall **BULK TRUCK** DRIVER De Casper # 344 @ **BULK TRUCK** @ DRIVER HANDLING @ MILEAGE \_ **REMARKS:** TOTAL \_ 5 46k of Water shoot 36 bbls of cent 0 SERVICE 12.83 Hile of Likely. **DEPTH OF JOB** PUMP TRUCK CHARGE EXTRA FOOTAGE @ 14 6615 of Ciffullad MILEAGE @ to surface @ MANIFOLD \_ @ **@** STREET 3/18 Cumpus Ad TOTAL \_ CITY Garden Coly STATE PLUG & FLOAT EQUIPMENT @ To: Allied Oil & Gas Services, LLC. @ You are hereby requested to rent cementing equipment @ and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was TOTAL . done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL SALES TAX (If Any) -TERMS AND CONDITIONS" listed on the reverse side. TOTAL CHARGES \_ المرتب العراق / PRINTED NAME \_\_\_ . IF PAID IN 30 DAYS

SIGNATURE /



# CEMENTING LOG

STAGE NO.

Date 1-7-1	3 . Distric	a Correct	Bed To	ckgr.No. 0551	41	Spacer Type: Tresh Water
	MAN GOO.	Henry		Petrome		Amt. Sks Yjeld ft <sup>3</sup> /sk Density <b>S. 33</b> pp
Losso_O/So	<u> </u>		w	ell No	<u> </u>	
County MC	<u> </u>		St	ate KS.		
Location	7 ins		Fic	d Marghe		LEAD: Pump Time hrs. Type (165) A
CASING DATA:	Genductor		PTA 🖺 S	queeze 🔲 Mi	sc 🗆	Armt. <u>/50</u> Sks Yield <u>/36/</u> ft <sup>3</sup> /sk Density <u>/5, 2</u> pp(
- 1	Gurface		liate 🔲 Pro		=	TAIL: Pump Time hrs. Type
Str. 87/2	Type		ght 🔗	Collar		Excess
						Amt Sks Yield ft³/sk DensityPPC
		,				WATER: Lead gals/sk Tail gals/sk Total Bible
-				·		
Casing Depths: To	Sulfon	٧	Bottom 2	10.71		Pump Trucks Used <u>\$66</u>
				•		Bulk Equip. 344
		•				
					•	
Drill Pipe: Size		Weight		Collars		
Open Hole: Size _		-		B. to	ft. F	Float Equip: Manufacturer
CAPACITY FACTO						Shoe: Type Depth
Casing:	Bbls/Lin. ft1	0636	lin ft/R	ы. 15.7		Float: Type Depth
	Bbls/Lin. ft			H. G-857		Centralizers: Quantity Plugs Top Btm
Orill Pipe:	Bbls/Lin. ft		bin. ft./B			Stage Collars
Annulus:	Bbls/Lin. ft		16 ft /B	ы. 13.60	27	Special Equip.
Allitores.	Bbls/Lin. ft		Lin. ft./B			Disp. Fluid Type' Amt Bbls. Weight PPC
Danforations: Er	om			ft. Amt		Mud Type Weight PPC
Perforations: Fr	on	1t. u.	A X			Nuo Type
		- 2				Di / Male was
COMPANY REPRE	SENTATIVE	The same of the sa		(A)	· · · · · · · · · · · · · · · · · · ·	CEMENTER TEATHER HEISUST
TIME	PRESSU	72	FLU	ID PUMPED (	DATA RATE	REMARKS
AM/PM	DRILL PIPE CASING	ANNULUS	FLÜID	Pumped Per Time Period	Bbls Min.	
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CHARGE TO:		•	
	A	Warrior	
ADDRESS			
CITY STATE ZIP CODE	CODE		

Nº 83743

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		SPOND	WISH TO RE	CUSTOMER DID NOT WISH TO RESPOND	cus:					
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	T <b>x</b> x			B EQUIPMENT	WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			ENT PRIOR TO	DWER OR CLUSTOMER'S AGERY OF GOODS	MURT BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR CRUIVERY OF GOODS
5130 40	*2			SOUT DELAYS	MET YOUR NEED	SWIFT SERVICES INC		ASE, INDEN	), PAYMENT, RELE. TY provisions.	but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.
	PAGE TOTAL			PERFORMED	OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	REMIT PAYMENT TO:	ch include,	te hereof which	ons on the reverse sid	the terms and conditions on the reverse side hereof which include,
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	) = /3	DATE		CITY	STATE	COUNT	2 LEASE	JECT NO.	WELL/PROJECT NO	SERVICE LOCATIONS
_ ,	PAGE 1						CITY, STATE, 2P CODE		ces, Inc.	Services,

BLC				<u> </u>		Servi	ices, Inc. Date /2 /km /3 Page
WER.	rican l	Varrior	WELL NO.	2-5	<u> </u>	5or	JOB TYPE long string TICKET NO. 23743
IART VO.	TIME	RATE (BPM)	VOLUME (BBL) (BAL)	PUMPS T C	PRESSURE (	(PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
							1758k w/4 5 5A-2 coment
							52" 15.5 " Casing 102 pixts
							TD=4260' Total pipe 4262' st 4059'
							Contalizes 1,2,3,4,69 BASH 5-70 Portalize 70 1357' shoe, 442,48
							Portalke 70 1357' shoe 742.48
	1730						on loc TRX 114
	14.4 ==						
	1815						Start 52" 15.5" casing in well
	2:46			ļ			
	2015						Drop ball - circulate - Rotale
	2045	674	12	-		200	
<del></del>	2013	L		1		300	Pump 20 bbl KCh flush
		63/4	20	-		300	Hump 20 661 KCh flush
<del></del> -	· · · · · · · · · · · · · · · · · · ·		-				Plug RH 305ks
							Mag KII
	2057	4/2	35	-		200	Mix 67A-2 coment 145 de 15:3
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_		6/4	100	7		800	Max Lift PSC
	2127	6/4	100.5	7		1600	LAND Plug
							Relpase presime totand-dried un
							,
							wash truck
·-··							RACK UP
							<b>'</b>
	2200						Job complete
							Thank You
······································		<u> </u>					Dave Blaine TJ Rob
		[					



# TICKET CONTINUATION

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						-										- 1										Ness City, KS 6/560 Off: 785-798-2300	PO Box 466
		SERVICE	3											a <sup>*</sup>			Liquiel	mul Flish	0-A.	Florele	Heled.	113	Colso	Sten		CUSTOMER	
	TOTAL WEIGHT	SERVICE CHARGE	D 77.75.25		•												1 KCL	Phyh		4.	- 3))		4274 13	Standard Comen		American	
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SWIFT OPERATOR		DATE SIGNED TAN 13	START OF WORK OR DEL	LIMITED WARRANTY provisions	the terms and cond	488	031	330		290	276	705	5760	575	PROFESSION	A. REFERRAL LOCATION		SENGELOS CORTH KS	Sen	15
and ford		N/3 TIME SIGNED 34/5	START OF WORK OR DELIVERY OF GOODS $\begin{array}{cccccccccccccccccccccccccccccccccccc$	WTY provisions.	the terms and conditions on the reverse side hereof which include, but are not limited to PAYMENT RELEASE INDEMNITY and								1.00 (		SECONDARY REFERENCE/ PART NUMBER	WELL THE DIL	SERVICE HOD		Services, Inc.	
APPROVAL	CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES	でを記		PRIOR TO	ereof which include,			- 80							ACCOUNTING LOC ACCT DF				CITY, STATE, ZIP CODE	CHARGE TO: ADDRESS
	ERIALS AND SERVICES - II	785-798-2300	P.O. BOX 466 NESS CITY KS 67560	SWIFT SERVICES, INC	REMIT PAYMENT TO:	zachez ( windiria	TEMENT SERVICE CHARGE	AMIET MUCTO PENSITY		プーアア	LOSEIE	PORT COILAR # OBENING	Pump MARGE	MILEAGE # 1/5		L. *		OLSON 2 100		AMERICAN IX JARRIOR
			1			XA HASE	DICE CHARGE	DEMSITH					14 A		DESCRIPTION	NT PORTO	RIG NAME/NO.	COUNTY WINDS		ARRIDR
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SWIFT Services, Inc. DATE/STANIS PAGE NO. **JOB LOG** ONSTOMER ICAN WARRING WELL NO. CEMENT PORT COLLAR **DESCRIPTION OF OPERATION AND MATERIALS** 1130 ON LOCATION PORT COLLAR E 1375 1000 TEST-HELD 1219 OPEN PORT COLLAR 1222 1237 MIX 1305x 5mD DISPLACE CEMENT CIRCULATE 20SX TO PIT CLOSE PORT COLLAR - TEST - HELD 1255 1000 RUN 4 JTS. 1300 1305 RELEASE CEMENT OUT OF TUBING 1315 WASH TRUCK 1345 JOB COMPLETE THANKSAIIS JASON JEFF FLINT

# **Geological Report**

American Warrior, Inc.
Olson #2-5
2084' FSL & 2002' FEL
Sec. 5 T19s R21w
Ness County, Kansas



American Warrior, Inc.

# **General Data**

Well Data:	American Warrior, Inc. Olson #2-5 2084' FSL & 2002' FEL Sec. 5 T19s R21w Ness County, Kansas API # 15-135-25475-0000
Drilling Contractor:	Petromark Drilling, LLc Rig #1
Geologist:	Jason T Alm
Spud Date:	January 7, 2013
Completion Date:	January 14, 2013
Elevation:	2154' Ground Level 2160' Kelly Bushing
Directions:	Bazine KS, South on DD rd to 100 rd, East to EE rd, South to 115 rd. East ½ mi. South and East into location.
Casing:	221' 8 5/8" surface casing 4259' 5 1/2" production casing
Samples:	10' wet and dry, 3800' to RTD
Drilling Time:	3600' to RTD
Electric Logs:	None
Drillstem Tests:	One, Trilobite Testing, Inc. "Brandon Turley"
Problems:	None
Remarks:	None

# **Formation Tops**

	American Warrior, Inc.
	Olson #2-5
	Sec. 5 T19s R21w
Formation	2084' FSL & 2002' FEL
Anhydrite	1379', +781
Base	1412', +748
Heebner	3624', -1464
Lansing	3668', -1508
BKc	3990', -1830
Pawnee	4069', -1909
Fort Scott	4143', -1983
Cherokee	4160', -2000
Mississippian	4242', -2082
Osage	4252', -2092
RTD	4260', -2100

# **Sample Zone Descriptions**

# Fort Scott (4143', -1983): Not Tested

Ls – Fine to sub-crystalline with scattered pinpoint inter-crystalline porosity, light spotted oil stain in porosity, no show of free oil, no odor, fair yellow fluorescents, mostly dense.

# Mississippian Osage (4252', -2092): Covered in DST #1

Dolo –  $\Delta$  – Fine sucrosic crystalline with fair to good intercrystalline and vuggy porosity, heavy triptolic chert, weathered with good vuggy porosity, light to good oil stain in porosity, good show of free oil, fair to good odor, spotted yellow fluorescents.

# **Drill Stem Tests**

Trilobite Testing, Inc. "Brandon Turley"

# DST #1 <u>Mississippian Osage</u>

Interval (4254' – 4260') Anchor Length 6' IHP - 2199 # - 45" - Built to 5 in. IFP 19-75 # – 45" – Dead 1132# ISI - 45" - Built to 4 in. FFP 19-109# - 45" - Dead 1122# FSI **- 2102 #** FHP BHT  $-118^{\circ}F$ 

Recovery: 40' GCO

180' MCW

# **Structural Comparison**

	American Warrior, Inc.	American Warrior, Inc.	Dreiling Oil Co.		
	Olson #2-5	Olson #1-5		Foos #1	
	Sec. 5 T19s R21w	Sec. 5 T19s R21w		Sec. 5 T19s R21w	
Formation	2084' FSL & 2002' FEL	2302' FSL & 2310' FEL		990' FSL & 1650' FEL	
Anhydrite	1379', +781	1399', +781	FL	1379', +780	(-1)
Base	1412', +748	1432', +748	FL	1411', +748	FL
Heebner	3624', -1464	3644', -1464	FL	3623', -1464	FL
Lansing	3668', -1508	3689', -1509	(+1)	3671', -1512	(+4)
BKc	3990', -1830	4014', -1834	(+4)	NA	NA
Pawnee	4069', -1909	4090', -1910	(+1)	NA	NA
Fort Scott	4143', -1983	4164', -1984	(+1)	4156', -1997	(+14)
Cherokee	4160', -2000	4181', -2001	(+1)	4169', -2010	(+10)
Mississippian	4242', -2082	4263', -2083	(+1)	4244', -2085	(+3)
Osage	4252', -2092	4263', -2083	<b>(-9</b> )	NA	NA

# **Summary**

The location for the Olson #2-5 was found via 3-D seismic survey. The new well
ran structurally as expected via the survey. One drill stem test was conducted which
recovered commercial amounts of oil from the Mississippian Osage Formation. After all
gathered data had been examined the decision was made to run 5 1/2 inch production
casing to further evaluate the Olson #2-5 well.

# **Recommended Perforations**

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Mississippian Osage (4252' – 4256') DST #1

Respectfully Submitted,

Jason T Alm Hard Rock Consulting, Inc.



# Geologic Report

Drilling Time and Samp

Operator Am	erican W	arrior	, Inc.		KB E	levation 2160'
Lease Olson		No.	2-5	DF GL	2154'	
API # <b>15-13</b>	5-25475-0	000			Casi Surface	ng Record
Field <b>Margh</b>	eim Nort	th				/8" @ 221' on
Location 208	Settle Committee Committee		FEL		5 1/2	ical Surveys
Sec. 5	Twp.	19s	Rge.	21w	Electi	None
County	Ness	State	Kai	nsas		
Forma	tion	Log	Tops	Sampl	e Tops	Struct Comp
Anhydrite				1379'	+781	FL
Base				1412'	+748	FL
Heebner					-1464	FL
Lansing		<u> </u>		_	-1508	+1
BKc				4000000	-1830	+4
Pawnee					-1909 -1983	+1 +1
Fort Scott Cherokee		1		_	-1983 -2000	+1
Mississippian		1			-2082	-1
Osage					-2092	-9
Total Depth				4260'	-2100	

Drilling Contractor	Pe	tromark Dril	lling, LLc.	Rig #1
Commenced	1-7-2013	Comp	leted	1-14-2013
Samples Saved From	ı	3800'	To	RTD
Drilling Time Kept F	From	3600'	To	RTD
Samples Examined From		3800'	To	RTD
Geological Supervisi	on From	3800'	To	RTD

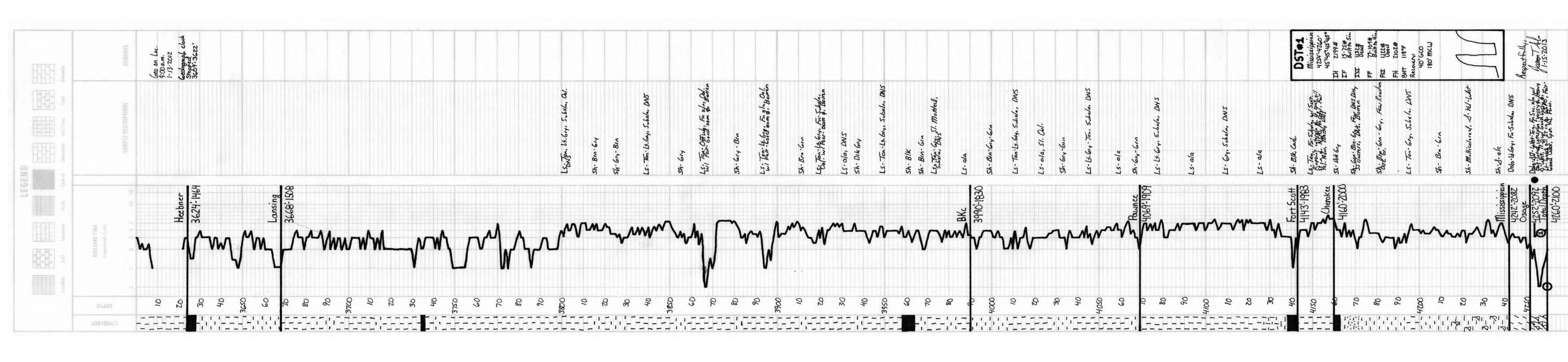
Displacement 3500' Mud Type Chem

# Summary and Recommendations

The location for the Olson #2-5 was found via 3-D seismic survey. The new well ran as expected via the survey. One drill stem test was conducted which recovered commercial amounts of oil from the Mississippian Osage Formation. After all gathered data had been examined the decision was made to run 5 1/2 inch production casing to further evaluate the Olson #2-5 well.

Respectfully Submitted,

Jason T Alm Hard Rock Consulting, Inc.





Prepared For: American Warrior

PO Box 399 Garden City, KS 67846

ATTN: Jason Alm

## **Olson #2-5**

# 5-19s-21w Ness,KS

Start Date: 2013.01.14 @ 02:00:36 End Date: 2013.01.14 @ 09:18:30 Job Ticket #: 50123 DST #: 1

Trilobite Testing, Inc PO Box 362 Hays, KS 67601

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



American Warrior

5-19s-21w Ness, KS

PO Box 399

Job Ticket: 50123

Olson #2-5

DST#: 1

ATTN: Jason Alm

Garden City, KS 67846

Test Start: 2013.01.14 @ 02:00:36

### **GENERAL INFORMATION:**

Formation: Miss

Time Tool Opened: 04:12:31

Time Test Ended: 09:18:30

Deviated: Test Type: Conventional Bottom Hole (Initial) No Whipstock: ft (KB)

> Tester: **Brandon Turley**

Unit No:

2160.00 ft (KB)

4254.00 ft (KB) To 4260.00 ft (KB) (TVD)

Reference Elevations:

2154.00 ft (CF)

Total Depth: 4260.00 ft (KB) (TVD) 7.88 inches Hole Condition: Good Hole Diameter:

KB to GR/CF:

6.00 ft

Serial #: 8373 Press@RunDepth:

Inside

4255.00 ft (KB) 109.09 psig @

Capacity:

8000.00 psig

Start Date:

2013.01.14

End Date:

2013.01.14 Last Calib.: 09:18:30 Time On Btm:

2013.01.14 2013.01.14 @ 04:11:01

Start Time:

Interval:

02:00:36

End Time:

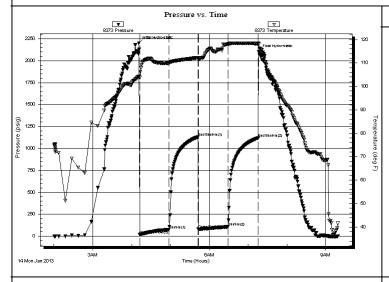
Time Off Btm: 2013.01.14 @ 07:16:30

TEST COMMENT: IF: 1/4" blow built to 5"

IS: No return.

FF: Surface blow built to 4"

FS: No return.



# PRESSURE SUMMARY

Time	Pressure	Temp	Annotation
(Min.)	(psig)	(deg F)	
0	2199.42	104.30	Initial Hydro-static
2	19.77	103.75	Open To Flow (1)
47	75.10	110.06	Shut-In(1)
92	1131.58	112.25	End Shut-In(1)
92	79.71	111.84	Open To Flow (2)
138	109.09	118.05	Shut-In(2)
185	1121.71	118.33	End Shut-In(2)
186	2102.17	118.02	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
180.00	mcw 90%w 10%m	1.45
40.00	go 10%g 90%o	0.56

### Gas Rates

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

Trilobite Testing, Inc Ref. No: 50123 Printed: 2013.01.18 @ 08:07:43



American Warrior 5-19s-21w Ness,KS

PO Box 399

Garden City, KS 67846

Job Ticket: 50123

**Brandon Turley** 

60

DST#: 1

2154.00 ft (CF)

Olson #2-5

Tester:

Unit No:

ATTN: Jason Alm Test Start: 2013.01.14 @ 02:00:36

## **GENERAL INFORMATION:**

Formation: Miss

Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)

Time Tool Opened: 04:12:31
Time Test Ended: 09:18:30

Interval: 4254.00 ft (KB) To 4260.00 ft (KB) (TVD) Reference Elevations: 2160.00 ft (KB)

Total Depth: 4260.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 6.00 ft

Serial #: 8356 Outside

 Press@RunDepth:
 psig
 @
 4255.00 ft (KB)
 Capacity:
 8000.00 psig

Start Date: 2013.01.14 End Date: 2013.01.14 Last Calib.: 2013.01.14

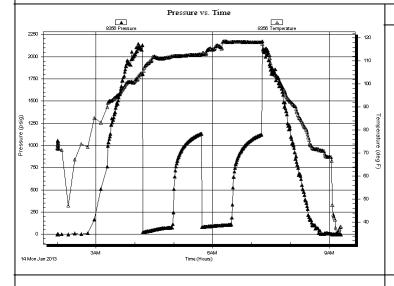
Start Time: 02:00:32 End Time: 09:17:56 Time On Btm: Time Off Btm:

TEST COMMENT: IF: 1/4" blow built to 5"

IS: No return.

FF: Surface blow built to 4"

FS: No return.



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

PRESSURE SUMMARY

### Recovery

Length (ft)	Description	Volume (bbl)
180.00	mcw 90%w 10%m	1.45
40.00	go 10%g 90%o	0.56

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

Trilobite Testing, Inc Ref. No: 50123 Printed: 2013.01.18 @ 08:07:44



**TOOL DIAGRAM** 

American Warrior

5-19s-21w Ness, KS

PO Box 399

Olson #2-5

Job Ticket: 50123

DST#: 1

ATTN: Jason Alm

Garden City, KS 67846

Test Start: 2013.01.14 @ 02:00:36

**Tool Information** 

Drill Collar:

Drill Pipe: Heavy Wt. Pipe: Length:

Length: 4124.00 ft Diameter: 0.00 ft Diameter: 118.00 ft Diameter: 3.80 inches Volume: 0.00 inches Volume: 2.25 inches Volume:

6.75 inches

Total Volume:

57.85 bbl 0.00 bbl 0.58 bbl 58.43 bbl Tool Weight: 1500.00 lb Weight set on Packer: 25000.00 lb Weight to Pull Loose: 68000.00 lb

Tool Chased 0.00 ft String Weight: Initial 60000.00 lb

Final 60000.00 lb

Drill Pipe Above KB: 16.00 ft Depth to Top Packer: 4254.00 ft

Length:

Depth to Bottom Packer: ft Interval between Packers: 6.00 ft Tool Length: 34.00 ft

Number of Packers: 2 Diameter:

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Stubb	1.00			4227.00		
Shut In Tool	5.00			4232.00		
Hydraulic tool	5.00			4237.00		
Jars	5.00			4242.00		
Safety Joint	3.00			4245.00		
Packer	5.00			4250.00	28.00	Bottom Of Top Packer
Packer	4.00			4254.00		
Stubb	1.00			4255.00		
Recorder	0.00	8373	Inside	4255.00		
Recorder	0.00	8356	Outside	4255.00		
Bullnose	5.00			4260.00	6.00	Bottom Packers & Anchor

Total Tool Length: 34.00

Ref. No: 50123 Printed: 2013.01.18 @ 08:07:45 Trilobite Testing, Inc



**FLUID SUMMARY** 

American Warrior 5-19s-21w Ness,KS

PO Box 399 Olson #2-5

Garden City, KS 67846 Job Ticket: 50123 DST#:1

ATTN: Jason Alm Test Start: 2013.01.14 @ 02:00:36

**Mud and Cushion Information** 

Mud Type: Gel Chem Cushion Type: Oil API: 42 deg API

Mud Weight: 9.00 lb/gal Cushion Length: ft Water Salinity: 32000 ppm

Viscosity: 56.00 sec/qt Cushion Volume: bbl

Water Loss: 7.19 in³ Gas Cushion Type:

Resistivity: 0.00 ohm.m Gas Cushion Pressure: psig

Salinity: 7400.00 ppm Filter Cake: 1.00 inches

## **Recovery Information**

### Recovery Table

Length ft	Description	Volume bbl
180.00	mcw 90%w 10%m	1.450
40.00	go 10%g 90%o	0.561

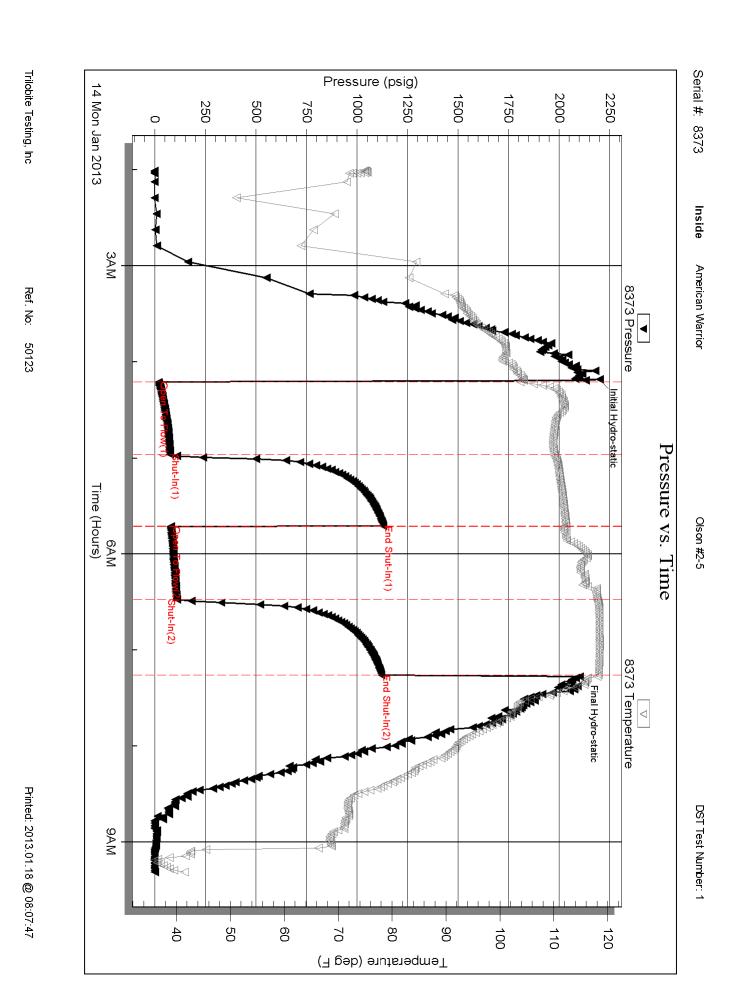
Total Length: 220.00 ft Total Volume: 2.011 bbl

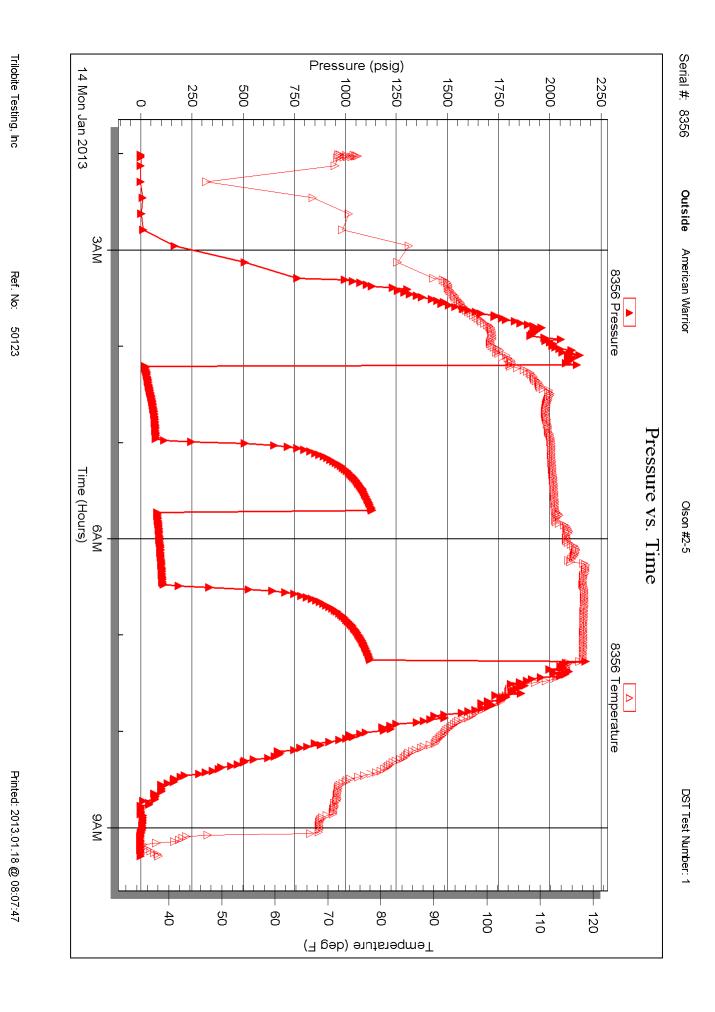
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: 40@40=42 .51@27=32000

Trilobite Testing, Inc Ref. No: 50123 Printed: 2013.01.18 @ 08:07:46







# RILOBITE ESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

# **Test Ticket**

NO. 50123

4/10 Milesily		
Well Name & No. 0/500 2-5	Test No	Date 1-14-13
19-24101151.1-532343907507534507	Elevation	2/60 KB 2/54 GL
Address 3/18 Commings Rd Gorde,	n city	1KS 67846
Co. Rep / Geo. J9501 A/M		Etromark
Location: Sec. 5 Twp. 195 Rge. 2/W	A /	9.53 State 155
Interval Tested 4254 4260 Zone Tested/	11:55	
Anchor Length	4124	Mud Wt 9, Z
Top Packer Depth	11-8	Vis
Bottom Packer Depth Wt. Pipe Run		WL
Total Depth 4260 Chlorides 79		om System LCM
Blow Description IF! 14 610W built to 5	,	
Is! No return.	-	,
F5: No return,	t to 4	,
Rec 40 Feet of 90	/6 %gas	96 %oil %water %mi
Rec 180 Feet of Mc W	%gas	%oil 90 %water 10 %m
Rec Feet of	%gas	%oil %water %m
Rec Feet of	%gas	%oil %water %m
Rec Feet of	%gas	%oil %water %m
	PIRW 15/	@ <u>Z7</u> °F Chlorides <u>34,000</u> pp
(A) Initial Hydrostatic 2/99 Test 1250		
(B) First Initial Flow Jars 250		
(C) First Final Flow 75 Safety Joint 75		T-Open 4:12
(D) Initial Shut-In 1/31 Circ Sub 1/2	1	T-Pulled 7:17
(E) Second Initial Flow		T-Out 9:20
(F) Second Final Flow 109 Mileage 150	, 110rt 170	0.50 Comments
(G) Final Shut-In Sampler		(1-24)
(H) Final Hydrostatic Z/0Z Straddle		
☐ Shale Packer		- Homes onais Facility
Initial Open 45		- Hamed Facker
Initial Shut-In 45		Little Copies
Final Flow Day Standby		
Final Shut-In Accessibility		
Sub Total1745.50		
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 t equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be	est is made, or for any lo	oss suffered or sustained, directly or indirectly, through the use of it