

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1155386

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:		
Address 2:		Feet from North / South Line of Section
City: Sta	ate: Zip:+	Feet from East / West Line of Section
		Footages Calculated from Nearest Outside Section Corner:
, , , , , , , , , , , , , , , , , , ,		County:
		Lease Name: Well #:
		Field Name:
-		
		Producing Formation:
Designate Type of Completion:		Elevation: Ground: Kelly Bushing:
New Well Re-I	Entry Workover	Total Depth: Plug Back Total Depth:
Oil WSW	SWD SIOW	Amount of Surface Pipe Set and Cemented at: Fee
Gas D&A	ENHR SIGW	Multiple Stage Cementing Collar Used? Yes No
OG	GSW Temp. Abd.	If yes, show depth set: Fee
CM (Coal Bed Methane)		If Alternate II completion, cement circulated from:
Cathodic Other (Core,	Expl., etc.):	feet depth to:w/sx cmi
If Workover/Re-entry: Old Well Info	o 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	Chloride content: ppm Fluid volume: bbls
		Dewatering method used:
Plug Back:	Plug Back Total Depth	Location of fluid disposal if hauled offsite:
Commingled	Permit #:	
Dual Completion	Permit #:	Operator Name:
	Permit #:	Lease Name: License #:
	Permit #:	Quarter Sec TwpS. R East Wes
GSW	Permit #:	County: Permit #:
Spud Date or Date Read Recompletion Date	ched 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 Approved by: Date:

	Side Two	1155386
Operator Name:	Lease Name:	Well #:
Sec TwpS. R East West	County:	

**INSTRUCTIONS:** Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken (Attach Additional Sh	eets)	Yes No		-	n (Top), Depth and		Sample
Samples Sent to Geolog	gical Survey	Yes No	Nar	ne		Тор	Datum
Cores Taken Electric Log Run Electric Log Submitted B (If no, Submit Copy)	Electronically	<ul> <li>Yes</li> <li>No</li> <li>Yes</li> <li>No</li> <li>Yes</li> <li>No</li> </ul>					
List All E. Logs Run:							
		CASIN		lew Used			
		Report all strings se	et-conductor, surface, in	termediate, producti	on, 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: —— Perforate	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
Protect Casing Plug Back TD				
Plug Off Zone				

Shots Per Foot		PERFORATION Specify For		RD - Bridge P Each Interval I		e			ement Squeeze Record I of Material Used)	Depth
TUBING RECORD:	Siz	:e:	Set At:		Packer	r At:	Liner R	un:	No	
Date of First, Resumed P	Producti	on, SWD or ENHF	₹.	Producing N	1ethod:	ping	Gas Lift	Other (Explain)		
Estimated Production Per 24 Hours		Oil Bb	ls.	Gas	Mcf	Wate	ər	Bbls.	Gas-Oil Ratio	Gravity
DISPOSITIO	N OF G	BAS:			METHOD	OF COMPLE	TION:		PRODUCTION INT	ERVAL:
Vented Sold		Jsed on Lease		Open Hole	Perf.	Dually (Submit A	Comp. AC <i>O-5)</i>	Commingled (Submit ACO-4)		
(If vented, Subr	nit ACO	-18.)		Other (Specify)						

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	American Warrior, Inc.
Well Name	Dianne 2-20
Doc ID	1155386

# Tops

Name	Тор	Datum
Anhydrite	1494	790
Heebner	3756	-1472
Lansing	3799	-1515
Base Kansas City	4130	-1846
Pawnee	4216	-1932
Ft. Scott	4294	-2010
Cherokee	4311	-2027
Mississippian	4378	-2094
TD	4403	-2119

Illank Jou!		s listed on this toket	and service	adhearan Ool Sofe	CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowled	ACCEPTANCE OF MAT		SWIFT OPERATOR
	Ī	RESPOND	IOT WISH TO	CUSTOMER DID NOT WISH TO RESPOND	k. –		المواركة الموجد المراجع	
-		NO	RVICE					~
	TAX	,		AND PERFORMED JOB CALCULATIONS SATISFACTORIL 17	NESS CITY KS 67560		la	X Dalu 3 milla
			z -3	PERFORMED WITHOUT DELAY	INC.	10	MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS	MUST BE SIGNED BY CUST
				MET YOUR NEEDS?		JEMNILY, and	LIMITED WARRANTY provisions.	LIMITED WARRANTY provisions
9000 00	PAGE TOTAL	DECIDED AGREE	0	OUR EQUIPMENT PERFORME	REMIT PAYMENT TO:	which include,	the terms and conditions on the reverse side hereof which include,	the terms and condition
1000	101	UN			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	and annoatta	LEGAL TERMS: Clistomer hereby actionuladoes and across to	LEGAL TERMS: C
	3 6		- +			7		6 582
or 2 C 2 E	2 ~~		×	150	Struck (bashe (carb)	2		185
2015 00	12 15	· · · · · ·	۲×۲	150	Acres (e	<b>**</b> *		525
5. Jon	of 52		ب معر ب	<u> </u>	Bentin e bel			112
160100	Vo o			2	Coloren Chicage			217
								<b>)</b>
2012			44	2	O A C			240
100000	1000 00		169		Para Charge Shallow Such			5765
120100	2 9			2	MILEAGE fr 112			0525
INDOW	PRICE	QTY. UM	UM I	QTY.	DESCRIPTION	ACCOUNTING LOC ACCT DF	SECONDARY REFERENCE/ PART NUMBER	PRICE
ſ						N		
	Sec 20 Tur 19	WEL	IT NO.	WELL PERMIT NO			0	
	ORDER NO.	ORD	د: ۱۵			L.		3
	E OWNER				); <u>4</u> ~ 1 (		TICKET TOPE	1. IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
`₽ <b>₽</b>	PAGE					CITT, STATE, ZIP CODE		Services,
	N <sup>7</sup> 24402					ADDRESS		
en e	TICKET				A	CHARGE IU:		رم ال
47- 19 <sup>4-1</sup> 16								

OBLC	G			$\underline{\mathbb{C}}$		SWIFT	Servi	ices, Inc. C	DATE 1, 27 PAGE
STOMER	Awr		WELL NO. 7	.20		LEASE O, G.	ME	JOB TYPE	TICKET NO. 241102
HART NO.	TIME	RATE (BPM)	VOLUME (BBL (GAL)	PUN	IPS C	PRESSURE		DESCRIPTION OF OPERATION	AND MATERIALS
	1415				Ť			Un toknot son -	
			-						
							<i></i>	10 210 122	14 3 4
		1. T							
	19110	· · ·	1	•	-			Start U.C.	<u> </u>
		· · · · · · · · · · · · · · · · · · ·			ľ –				
1	14115		36				·	Stort (emtite	
	19:5				1			St. 12 Dug lacant	
								· · · · · · · · · · · · · · · · · · ·	
	2000		15			· · · · ·	·	Shi- Down	
		· · · · ·							
1.14									
								Creature 25 star	U 2,4
									· · · · · · · · · · · · · · · · · · ·
		· · · · · ·							· · · · · · · · · · · · · · · · · · ·
									· · · · · · · · · · · · · · · · · · ·
2.5		· · · · · · · · · · · · · · · · · · ·							
	2045							Job Conded	
		······································						Job Condet Hart Two Jush, Shan Dug	
			-					Tish Rea Due	
									·
			TAM	Ĥ	M,	WARREDA	. 51	ock - GAS peak	
					na na The Bailt an				n an
			1						
									and a second
					4	10 #297 IN	2 - CA4		
	e e e		د در بر می اور این (۱۹۹۲ - مراجع می اور ایر می ا	n en		94		n an	en la construcción de la
			* maanimaa aa dahaa		ст. 1 1949 г. с. н. н.	A Barrada ang sa saké dala		n na sana ana ang kang na sana ang kang na sana ang kang na sana ang kang na sana na sana sana sana sana sana	a sana sa
n an	oungurigethette built in in statifik for Statification of the statification of the statificat	<u>anna an A</u> rrainneachan an Arrainneachan an Arrainneachan an Arrainneachan an Arrainneachan an Arrainneachan an A An Arrainneachan an Arrainneachan a Arrainneachan an Arrainneachan an Arrainneachan an Arrainneachan an Arrainneachan an Arrainneachan an Arrainneach			inin min	n na stand anna - Fin Stand Stand Stand Stand		n	
د در در در است. در بهدی		an a		پیرون در میں					٠
		a service of the			er og forsk			an na manana manakasa katan kata Katan	n an

and the second of the second second

SWIFT OPERATOR		START OF WORK OR DELIVERY OF GOODS	LIMITED WARRANTY provisions.	LEGAL TERMS: Custo the terms and conditions	2	6115	407	406	HOH	403	402	578	575	PRICE	REFERENCE LOCATION			· Austra	SERVICE LOCATIONS		
CUSH MER AC		OF GOODS	LIMITED WARRANTY provisions.	LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to BAYNEAT BELEASE INCLUSION										SECONDARY REFERENCE/ PART NUMBER	INVOICE INSTRUCTIONS	0.1		FS TICKET TYPE	<u>Q</u> ]		
CE FISANOL OF	No. No.	25	DEMINIT, and	s and agrees to f which include,										LOC ACCT DF				CONTRACTOR	CITY, STATE, ZIP CODE	ADORESS	
Andreas (1994).	785-798-2300	P.O. BOX 486 NESS CITY, KS 67560	SWIFT SERVICES. INC.	REMIT PAYMENT TO:			shew	Latch dran Dus & beddle.	6,1	ament Breket	8	6 Cha	HILEAGE TRY NO AND	DESCRIPTION	Ċ	- Ima S		Sienne A			HMORICA WARNA
		WE OF BATTED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? ANE YOU SATISFIED WITH OUR SERVICE?	ME UNDERSTOOD AND OUR SERVICE WAS FEREIONED WITHOUT DELAY?	SURVEY			FILL SZ	54	53	52	S.N.		202	YO	0	Ring	VET /22				
				AGREE DECIDED AGREE		2 / 04	14 /100	11 12		ه	2.2			3			tion	Ŕ			-
	TO A TO	ĨĂ		E PAGE TOTAL		2000	375 00	00 X C	2650 00	28200	ad NL		200			HALLWAININ 20-19			PAGE 1	Nº 84276	ICALI
Thank You!			11,277 75	6 140 00		20000	3750	275100	2650%		357 8	150000	111	AMOUNT		12-01		9	، بر		

523715								
		TON MILES						
200 35000		CURIC FEET	ENVICE CALARDE	S				581
		104	Dreyese ( 1)					282
						-		
		3-						
	-							
				÷				
		2 Con	D-Air C					290
		2 22	KCL Previd		s.			aal
1		Saplan	midflush				•	181
		50 16	Flocele					276
775 968 75		12516	m1+0-324					292
0120 /Q/		9/20 1/6	Salt					283
35100 28000	8 sk	800 16	C4/save					284
N/0 2450 00		175 54	STANDAPS Cement ( conserve)					See
ME INY 13 ME QOFZ	5 05 - 50	WELL Dianne	CUSTON MULLICON U.b.C.C.O.C.		3 67560 98-2300	Ness City, KS 67560 Off: 785-798-2300		5
TRACET 24275	ПСК		TICKET CONTINUATION	•	( 466	PO Box 466		SW

ļI

1.1

SWIFT Services, Inc. LEASE Dianne JOB TYPE Common / Ung String TICKET NO. 24275 JOB LOG DATS 114/ 13 PAGEN customer movieum Warrior WELL NO. 2-20 CHART NO. RATE (BPM) PRESSURE (PSI) TUBING CASING PUMPS VOLUME TIME DESCRIPTION OF OPERATION AND MATERIALS (BBL) (GAL) TC 1753& ZA-Z w/ g # Flocele 15.5\*, 52 Casing 4416' 104 jts TD 4403' Cont. 1,2,34,67 BAShd 5,68 Fort Collar 68 1488' on loc TRK 110 start 55" + 5.5 # casing in well 1000 1030 Drop ball - CIRCULATE - ROTATZ 1220 13 Pump 500 gol mud Flush Pump 20661 KCL flush 1245 Z00 12 44 20 700 Plug RH-MH 305ke - 205k 11 Mix 2A-2 coment 125 @ 15.3pg 431 1250 32 200 Drop latch drun plug wash out pump & line 1305 <u>63</u> 634 Displace plug 200 90 800 631 L And plug 1330 104 1550 Retaine presence to truck - dried up wash truck 1335 PACK up job complete 1405 Maks. Flint, Blaine & DAVE

Thank You!					COSTOMER ACCEPT ANDER OF MATERIALS AND SERVICES		a I M	SWIFT OPERATOR
× c1 1164	IOIAL	RESPOND	CUSTOMER DID NOT WISH TO RESPOND		00-798-2300	24 P.M.		
<u>ا</u> نگ ۲		N N	ARE YOU SATISFIED WITH OUR SERVICE?	ARE YOU SATISFIEL			TIME SIGNED	DATE SIGNED
159 52	1 xx 7		08	AND PERFORMED JOB CALCULATIONS SATISFACTORILY?	P.O. BOX 466		IVERY OF GOODS	SIAKI OF WORK OK DELT
	7.25		OUT DELAY?	PERFORMED WITHOUT DELAY?	SWIFT SERVICES, INC.	OR TO	MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO	MUST BE SIGNED BY CUS
			- AND	WE UNDERSTOOD / MET YOUR NEEDS?		NDEMNITY, and	but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions	but are not limited to, PAYMENT,
1221	PAGE IUTAL		erformed )WN7	OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	REMIT PAYMENT TO:	of which include,	the terms and conditions on the reverse side hereof which include,	the terms and cond
· · ·		DECIDED AGREE		SURVEY		es and agrees to	LEGAL TERMS: Customer hereby acknowledges and agrees to	LEGAL TERMS: (
ap  052	252 00		· ∧ (∧			2		582
350 00	2 00		175 545	-	Service Charge Concat	2		0 581
Lou lev	an 1 2 m		50 1/65		cele .	2		776
2040/00			120 385		Swift Mult Density	2		330
						•		
350 00	300 20		1/4	Man	Port Coller tod Rental w/			105
-		• • • • • •	•					
A2 124	42 Jou		11661					290
1500100	1500 00		1 04		Pourp Cherrye Part Colles			5760
120 00	00 9		20 m		MILEAGE # 112			575
AMOUNT	UNIT	QTY. UM	QTY. UM		DESCRIPTION	LOC ACCT DF	SECONDARY REFERENCE/ PART NUMBER	PRICE
							INVOICE INSTRUCTIONS	REFERRAL LOCATION
- 15 Vac Sinn	346.46 35.1E	3a					1:0	
	WELLLOCATION	K.	L ac at			WELL CATEGORY	WELL TYPE	
	-(U-1)	ORDER NO.	DELIVERED TO			CONTRACTOR		· ·
<b>9</b>	OWNER	DATE	CITY		COUNTYPARISH		WELL/PROJECT NO	SERVICE LOCATIONS
	PAGE				æ	CITY, STATE, ZIP CODE	Services, Inc.	Serv
	LTEER IN					AUURESS	À.	
						$\frac{\text{CHARGE IO:}}{4} \text{ W}$		
			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1					

OB LO			WELL NO.	-		IEACE	<u></u>	CES, INC.
IS I UMIER	AWI		WELL NO.	2-20	•	Dia	nne	JOB TYPE Port (stig, TICKET NO. 24411
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (BBL)	PUM T	P8 C	PRESSUR TUBING	E (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	142							on location
						- <b>4</b>		PC Q 1488
							·	
	1440						1000	Picssure test Hold
	1445	3			0	·	120	open Port Cotter Injection Bale
		· · · · ·						
	1450							Start Cement
		· .						
			52	~				Circulate cement
			6-					
			5	~			· · ·	Bring weight up to 15# 25 sts
· .		· · · · ·						
	1500		-5	~				Stun Displacement
							4	Close Port Collar Piessure test
	1515	· *			- ×		1000	CLUSE FOR CONCEPTST
·							$\left  \right $	AUN 4 JUINTS
							<u> </u>	
	1570		25					Pereise out Clern
		· · · · · · ·						
· .								
		······						
								mixed 120 sks
								20 shs to pit
				ļ				Jub Complek
				<b> </b>	<b> </b>		<u> </u>	thank You
		<u>.</u>		L	<b> </b>			Such Brian, Rob
			·	<b> </b>	<b> </b>		ļ	
· · · · ·				<b> </b>			<u> </u>	
		· · · · · · · · · · · · · · · · · · ·		<b> </b>	ļ		<u> </u>	
	1. 1	an a	1	<u> </u>	1			

HARDRO Consulting, Inc.				ologic	-	
Operator Amer	ican W	arrior.	Inc.		El KB	evation 2284'
Lease <b>Dianne</b>		,	No.	2-20	DF	
			110.	2-20	GL	2276' ng Record
API # 15-135-2	5407-0	000			Surface	lig Record
Field <b>Hinnerga</b>	rdt				8 5/3 Productio	8" @ 219'
		4 60.01	DDY			2" @ 4402'
Location 2310'	FNL 8	k 1600'	FEL		Electri	ical Surveys
Sec. 20	Twp.	19s	Rge.	<b>21</b> w	CNL	/CDL, DIL
County Ne	SS	State	Ka	nsas		
Formation	l l	Log	Tops	Samp	e Tops	Struct Comp
4 T T T		1 40 4		1.400		
Anhydrite Base			' +790 ' +756	_	+792 +755	+3 +3
Dase		1320	T730	1329	+755	+3
Heebner		3756	-1472	3755'	-1471	+5
Lansing		3799	-1515	3801'	-1517	+6
BKc		4130	-1846	4129'	-1845	+7
Pawnee		4216	-1932	4217'	-1933	+8
Fort Scott			-2010	_	-2009	+3
Cherokee			-2027	_	-2025	+5
Mississippian		4378	-2094	4380'	-2096	+14
Total Depth		4403	-2119	4403'	<b>-2</b> 119	
Reference Well For S E2 SW NE Sec. 20 T19				Prilling & B&E	B Drilling 1	Hinnergardt #1

Drilling Contractor	Disc	overy Drillir	ng Co. Inc.	Rig #3
Commenced 4-27	-2013	Comp	leted	5-3-2013
Samples Saved From		4000'	То	RTD
Drilling Time Kept From		3700'	То	RTD
Samples Examined From		4000'	То	RTD
Geological Supervision Fro	om	4000'	То	RTD

Displacement

3600' Mud Type Chemical

## Summary and Recommendations

The location for the Dianne #2-20 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 Dianne #2-20 well.

Respectfully Submitted,

Jason T Alm Hard Rock Consulting, Inc.

SWARMAG	6000 Loc. 12:000.m. 5.1-2013																			DST#1 Miseissippien Markingo	30"30"30"30"30" IF 30"30"30" IF 30"70# ISI 12464 FF 57-121#	FGT 1225 FT BHT 1225 F Accoury: 255 GCD 135 6CO 260 CO	30,460cm
SAMPLE DESCRIPTIONS	SAMPLE URSUM							Sh-Bin-Gry Lf. Ton-Lt. Gry, Fa-Schon DNS	Sh- Bin LSE Offich-H. Gry, Fry & Borren LS- ala, DNS	Sh- Gry Ls- Ton-Lt. Gry, Subuln, ONS	Ls. ala Sh. Drh. Gny	LS 1, 099 2, 20, 64, 64, 15 - 5 - 64, 1, 15 - 75 - 64, 5 - 64, 5 - 64, 015	Ls. ala Sh-Bin-Gry-Gin	LSENES- H. Ery - Mattell, Subala, Sh- Red. Bin-Ern	LS- Ion- Lt. Gry. Suckin, und	Ls- Ton. Lt. Gry, Subah, UNS Ls-ale	Sh- Gny- Gin Ls- Lz. Gry, Subuln, DNS Ls- ala	LS- Gry, Subx/n, DNS	Ls- ala Sh-bry	Sn- ISIK, Late. LE- Ton, F Subla W/ Set. U Happing Post in try NSTO Bosed Fred. Fluor.	Sh-Bm-Gy-Gra Ls- Tan, Subsha, DNS	Ls-ala, Motthell Sh. Bin-Gry-Can, &-Luth-Yd.	Sh-ala, Few Random are be. Dolo-AV- WH - Tan Fr Su. Hard
DRILLING TIME (Logarithmic State)	2 3 4 5 10 15 3 5 10 10 15 3 5 10 10 10 10 10 10 10 10 10 10 10 10 10	M.M.M.M.	Lansing 1121-1088	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	$\sqrt{1}$	ym,	m	$\sqrt{2}$	M	$\gamma$	m	m	MKL HIZ92, 18445	$\sim$	~~~~h	ſ	42171-1933	mm		Hart 560th 4 4293:2009 6 4309:2025	M	$\sqrt{1}$	Mississippien H380-20%
HIdad		50 60 71 05 05 05 05	M 8 2 2 8	40 07 03 02 02 02 02 02 02 02 02 02 02 02	06 06 07 02 02	30 40 3550 60	70 80 90	10	92 02	0	02 02 02	11		4/SO 60		42	6 % %	17	20 20	90 01 01	30 SC	40 4330 60	9 8 9 100 11
AD010H111			קבייהברבדיהי					1								הביביבה			!!!		11111		4999

# **Geological Report**

American Warrior, Inc. Dianne #2-20 2310' FNL & 1600' FEL Sec. 20 T19s R21w Ness County, Kansas



# **American Warrior, Inc.**

# **General Data**

Well Data:	American Warrior, Inc. Dianne #2-20 2310' FNL & 1600' FEL Sec. 20 T19s R21w Ness County, Kansas API # 15-135-25582-0000
Drilling Contractor:	Discovery Drilling Co. Inc. Rig #3
Geologist:	Jason T Alm
Spud Date:	April 27, 2013
Completion Date:	May 3, 2013
Elevation:	2276' Ground Level 2284' Kelly Bushing
Directions:	Bazine KS, from the intersection of Hwy 96 and Austin St. South 3 mi. to 100 Rd. East 1 mi. to EE Rd. 1 mi. South to 90 Rd. East <sup>3</sup> / <sub>4</sub> mi. South into location.
Casing:	<ul><li>219' 8 5/8" surface casing</li><li>4402' 5 1/2" production casing</li></ul>
Samples:	10' wet and dry, 4000' to RTD
Drilling Time:	3700' to RTD
Electric Logs:	Pioneer Energy Services "Chris DeSaire" CNL/CDL, DIL
Drillstem Tests:	One, Trilobite Testing, Inc. "Shane McBride"
Problems:	None
Remarks:	None

	American Warrior, Inc.
	<b>Dianne #2-20</b>
	Sec. 20 T19s R21w
Formation	2310' FNL & 1600' FEL
Anhydrite	1494', +790
Base	1528', +756
Heebner	3756', -1472
Lansing	3799', -1515
BKc	4130', -1846
Pawnee	4216', -1932
Fort Scott	4294', -2010
Cherokee	4311', -2027
Mississippian	4378', -2094
RTD	4403', -2119
LTD	4403', -2119

## **Formation Tops**

## **Sample Zone Descriptions**

Fort Scott(4294', -2010):Not TestedLs – Fine to sub-crystalline with scattered pinpoint and poor inter-<br/>crystalline porosity, very light spotted oil stain in porosity, no<br/>show of free oil, good yellow fluorescents, 16 units hotwire.

#### Mississippian Osage (4378', -2094): Covered in DST #1

Dolo  $-\Delta$  – Fine sucrosic crystalline with scattered poor to fair inter-crystalline and vuggy porosity, very heavy slightly triptolic chert, weathered in part with fair to good vuggy porosity, light to fair oil stain with spotted saturation, show of free oil, good odor, good yellow fluorescents, 40 units hotwire.

# **Drill Stem Tests**

Trilobite Testing, Inc. "Shane McBride"

<b>DST #1</b>	Mississippian Osage	
	Interval (4385' – 4400') Anchor Length 15'	
	IHP – 2222 #	
	IFP – 30" – B.O.B. 16 min.	31-70 #
	ISI $-30$ " – Dead	1246 #
	FFP – 30" – B.O.B. 18 min.	87-121 #
	FSI $-30$ " – Built to $\frac{1}{4}$ in.	1242 #
	FHP – 2189 #	
	BHT $-122^{\circ}F$	
	Recovery: 255' GIP	
	1257 000	

5	135' GCO	
	60' GMCO	50% Oil
	30' GOCM	20% Oil

# **Structural Comparison**

	American Warrior, Inc.	Chief Drilling & B&B Drilling		National Development Corp.	
	Dianne #2-20	Hinnergardt #1		Hinnergardt #1	
	Sec. 20 T19s R21w	Sec. 20 T19s R21w		Sec. 20 T19s R21w	
Formation	2310' FNL & 1600' FEL	E2 SW NE		1980' FNL & 660' FEL	
Anhydrite	1494', +790	1493', +787	(+3)	1471', +769	(+21)
Base	1528', +756	1527', +753	(+3)	NA	NA
Heebner	3756', -1472	3757', -1477	(+5)	3742', -1502	(+30)
Lansing	3799', -1515	3801', -1521	(+6)	3786', -1546	(+31)
BKc	4130', -1846	4133', -1853	(+7)	NA	NA
Pawnee	4216', -1932	4220', -1940	(+8)	4205', -1965	(+33)
Fort Scott	4294', -2010	4293', -2013	(+3)	4278', -2038	(+28)
Cherokee	4311', -2027	4312', -2032	(+5)	4297', -2057	(+30)
Mississippian	4378', -2094	4388', -2108	(+14)	4367', -2127	(+33)

## Summary

The location for the Dianne #2-20 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 Dianne #2-20 well.

## **Recommended Perforations**

Primary Mississippian Osage:	(4382' – 4400')	DST #1
Before Abandonment Fort Scott:	(4298' – 4302')	Not Tested

Respectfully Submitted,

Jason T Alm Hard Rock Consulting, Inc.



# DRILL STEM TEST REPORT

Prepared For:

#### American Warrior Inc

PO Box 399 Garden City, KS

ATTN: Jason Alm

#### Dianne #2-20

#### 20-19s-21w Ness,KS

 Start Date:
 2013.05.02 @ 17:45:45

 End Date:
 2013.05.03 @ 00:33:39

 Job Ticket #:
 49198
 DST #: 1

Trilobite Testing, Inc PO Box 362 Hays, KS 67601 ph: 785-625-4778 fax: 785-625-5620

RILOBITE	DRILL STEM TES	T REP	ORT				
	American Warrior Inc		20-19	9s-21w N	Ness, KS		
ESTING , INC	PO Box 399 Garden City, KS			ne #2-2		DST#:	1
	ATTN: Jason Alm					2 17:45:45	•
GENERAL INFORMATION: Formation: Miss Deviated: No Whipstock:	ft (KB)		Test T	Гуре: Сс	onventiona	al Bottom Ho	ole (Initial)
Time Tool Opened: 19:55:10 Time Test Ended: 00:33:39			Tester Unit N	-	nane McBr 5	ide	
Interval:4385.00 ft (KB) ToTotal Depth:4400.00 ft (KB) (Hole Diameter:7.88 inches He			Refere	ence Eleva KB to	ations: GR/CF:	2284.00 2276.00 8.00	
Serial #: 8368         Outside           Press@RunDepth:         121.18 psig           Start Date:         2013.05.02           Start Time:         17:45:45	End Date:	2013.05.03 00:33:39	Capacity: Last Calib.: Time On Bt Time Off Bt	:m: 20	13.05.02	8000.00 2013.05.03 @ 19:54:55 @ 21:56:55	
TEST COMMENT: B.O.B. in 16 mi No return B.O.B. in 18 mi 1/4" return blow	۱.						
Pressure vs			PRE	ESSURE	SUMM	ARY	
	333 Temperature 333 Temperature 1 and Molecular 1 an	Time (Min.) 0 1 31 61 63 90 121 122	(psig) ( 2222.31 31.87 69.80 1246.35 87.72 121.18 1241.93	108.840115.805119.516119.170120.985122.696	Annotation nitial Hydr Open To F Shut-In(1) End Shut-I Open To F Shut-In(2) End Shut-I Final Hydro	o-static Tow (1) n(1) Tow (2) n(2)	
2 Thu May 2013 6PM 9PM 2 Thu May 2013 Time (Hour					Detee		
Length (ft) Description	Volume (bbl)		I	Gas Choke (incl	Rates	ure (psig) G	as Rate (Mcf/d)
30.00 g o c m 20g 20o 60m	0.15						
60.00 g m c o 20g 30m 50o	0.84						
135.00 c g o 25g 75o	1.89						
0.00 255' gas in pipe	0.00						

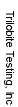
DRILL STEM FORT         Mark Statt 2013.05.02 (# 17.45.45         GENERAL INFORMATION:         Fortaits: Statt Statt 2013.05.03         DRILL STEM FORT         Test Top of transmitter         Test Statt 2013.05.02         Fortaits: Statt Statt 2013.05.03         Statt Statt 2013.05.02         Statt Statt 2013.05.03         Statt Test Colspan="2" <th c<="" th=""><th></th><th>DRILL STEM</th><th>TEST REP</th><th>ORT</th><th></th></th>	<th></th> <th>DRILL STEM</th> <th>TEST REP</th> <th>ORT</th> <th></th>		DRILL STEM	TEST REP	ORT	
Garden Oity, KS     Job Times /r 1998     DST#:1       ATTN: Jason Alm     Test Start: 2013.06.02 @ 17:46:45       GENERAL INFORMATION:     Formation:     Miss       Deviate:     No     Whipstock:     ft (KB)       The Tool Openet:     19:55:10     Test Type:     Conventional Bottom Hole (Initial)       The Tool Openet:     53:500 ft (KB)     Test Type:     Conventional Bottom Hole (Initial)       The Tool Openet:     53:500 ft (KB)     Test Type:     Conventional Bottom Hole (Initial)       The Tool Openet:     53:500 ft (KB)     Test Type:     Conventional Bottom Hole (Initial)       The Tool Openet:     53:500 ft (KB)     Test Type:     Conventional Bottom Hole (Initial)       Torial Depth:     x 4400.00 ft (KB) (TVD)     Test Exact     227:80.01 ft (CB)       Torial Depth:     psig @ 4386.00 ft (KB)     Capacity::     8000.00 psig       Start Time:     17:45:16     End Time:     2013.05.03     Last Calib::     2013.05.03       Start Time:     17:45:16     End Time:     2013.05.03     Last Calib:     2013.05.03       Start Time:     17:45:16     End Time:     2013.05.03     Last Calib:     2013.05.03       Test Torial Depth:     so B. In Brinin.     No return Bow     Time Oft Birr        Torial Depth:     so B. In Brinin.<		American Warrior Inc		20-19s-21w N	ess,KS	
ATTN Jason Alm Test Start: 2013.05.02 @ 17.45.45 GENERAL INFORMATION: Formation: Miss Deviated: No. Whipstock: ft (KB) Time Tool Opene: 19.55:10 Time Tool Opene: 19.55:10 Time Tool Opene: 19.55:10 Time Tool Opene: 19.55:10 Time Tool Opene: 2284.00 ft (KB) (TVD) Hole Dameter: 7.88 inches Hole Condition: Fair Serial #: 6667 Inside Press@ RunDepth: psig @ 4386.00 ft (KB) Start Time: 2013.05.02 End Time: 2013.05.03 Start Time: 17.45:16 End Time: 2013.05.03 Start Time: 17.45:16 End Time: 2013.05.03 Time On Bim: TEST COMMENT: B.O.B. In 16 min. No return B.O.B. In 16 min. Start Time Off Bim C.C.B. C.C.B. C.C.B. C.C.B. C.C.B. C.C.B. C.C.B. C.C.B. C.C.B. C.C.B. Description B.O.B. Description B.O.B. Description B.O.B. Description B.O.B. B.D.	I ESTING	1 O DOX 333				
Formation:       Miss         Deviated:       No       Whipstock:       ft (KB)         Deviated:       No       Whipstock:       ft (KB)         Time Tool Opencie':       953.00       1855.10       Test::::::::::::::::::::::::::::::::::::		ATTN: Jason Alm				
Deviated: No Whipstock: ft (KB) Time Tool Opened: 19:55:10 Time Tool Opened: 19:55:10 Tool Opened: 19:55:10 Time OR OPENE Time Of Burk Time Of Burk Opened Opened Opened Time Of Burk Time Of Burk Time Of Burk Time Of Burk Time Of Burk Opened Opened Opened Opened Time Of Burk Time Of Burk Time Of Burk Opened Opened Opened Opened Opened Opened Opened Opened Opened Time Of Burk Time Of Burk Opened Opened	GENERAL INFORMATION:					
Total Deptr:       4400.00 ft (KB) (TVD)       2276.00 ft (CF)         KB to GRCF:       7.88 inchesHole Condition:       Fair       KB to GRCF:       8.00 tt         Serial #: 6667       Inside       psig @ 4386.00 ft (KB)       Capacity::       8000.00 psig         Start Time:       213.05.02       End Date:       2013.05.03       Last Calb.:       2013.05.03         Start Time:       17:45:16       End Time:       2013.05.03       Last Calb.:       2013.05.03         TEST COMMENT:       B.O.B. in 16 min.       No return       B.O.B. in 18 min.       1/4" return blow         Network 1. Time         Pressure v1. Time         Ofference         Ofference         Ofference         Noteture         BOR SUMMARY         Time Off Bim         Time Ofference	Deviated: No Whip: Time Tool Opened: 19:55:10	tock: ft (KB)		Tester: Sha		
Press@RunDepth: psig @ 4386.00 ft (KB) Capacity: 8000.00 psig Start Date: 2013.05.02 End Date: 2013.05.03 Last Callob: 2013.05.03 Start Time: 17:45:16 End Time: 00:00:01 Time On Bim Time Of Bim TIME Off Bim TIME Off Bim 1/4* return blow	Total Depth: 4400.00 ft (	KB) (TVD)			2276.00 ft (CF)	
No return B.D.B. in 18 min. 1/4" return blow	Press@RunDepth: Start Date: 2013	05.02 End Date:		Last Calib.: Time On Btm:		
Image: Contraction         Operation         Operation         Operation         Annotation           Image: Contraction	No returr B.O.B. in 1/4" retur	18 min. n blow				
200       0						
Length (ft)         Description         Volume (bbl)           30.00         g o c m 20g 20o 60m         0.15           60.00         g m c o 20g 30m 50o         0.84           135.00         c g o 25g 75o         1.89		SPM THR (Hous)	Temperature (deg F) 60 80 80 77 80			
Length (ft)         Description         Volume (bbl)           30.00         g o c m 20g 20o 60m         0.15           60.00         g m c o 20g 30m 50o         0.84           135.00         c g o 25g 75o         1.89	Rec	overy		Gas F	Rates	
60.00     g m c o 20g 30m 50o     0.84       135.00     c g o 25g 75o     1.89		-				
135.00 c g o 25g 75o 1.89				•		
0.00 255 gas in pipe 0.00			<u> </u>			
	0.00 255' gas in pipe	0.00				

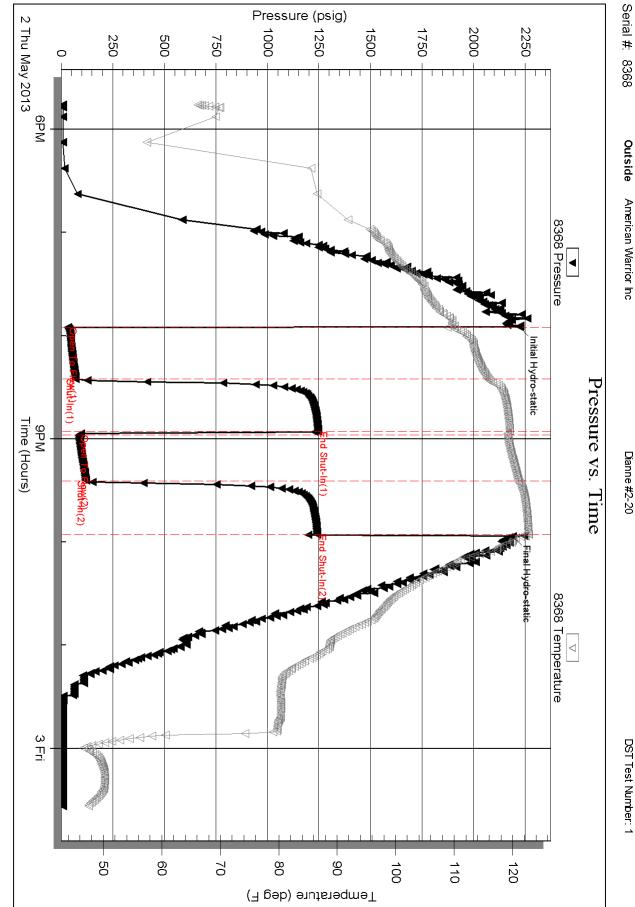
	ם מוח∧ ווי		DRI	LLSI	=MIESI	REPOR	RT	TOOL DIAGR
RILOBITE			America	an Warrior I	nc		20-19s-21w Ness,KS	3
	ESTIN	VG , INC.	PO Box	399			Dianne #2-20	
			Garden	City, KS			Job Ticket: 49198	DST#: 1
			ATTN:	Jason Alm			Test Start: 2013.05.02 @	2 17:45:45
Tool Information								
Drill Pipe: Lei	ength: 4	342.00 ft	Diameter:	3.80	inches Volume:	60.91 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe: Ler	ength:	0.00 ft	Diameter:	0.00	inches Volume:	0.00 bbl	Weight set on Packer	: 25000.00 lb
Drill Collar: Lei	ength:	30.00 ft	Diameter:	2.25	inches Volume:	0.15 bbl	Weight to Pull Loose:	85000.00 lb
		14 00 ft			Total Volume:	61.06 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB: Depth to Top Packer:	. 4	14.00 ft 385.00 ft					String Weight: Initial	64000.00 lb
Depth to Bottom Packer.		565.00 ft					Final	66000.00 lb
Interval betw een Pac		15.00 ft						
	SKers.							
Tool Length		$\Delta 2 (10) ff$						
Tool Length: Number of Packers:		42.00 ft 2	Diameter:	6.75	inches			
Tool Length: Number of Packers: Tool Comments:		42.00 ft 2	Diameter:	6.75	inches			
Number of Packers: Tool Comments:		2		6.75 Serial No		Depth (ft)	Accum. Lengths	
Number of Packers: Tool Comments: Tool Description		2				<b>Depth (ft)</b> 4 4359.00	Accum. Lengths	
Number of Packers: Tool Comments: Tool Description Change Over Sub		2	ngth (ft)			,	Accum. Lengths	
Number of Packers: Tool Comments: Tool Description Change Over Sub Shut In Tool		2	<b>ngth (ft)</b> 1.00			4359.00	Accum. Lengths	
Number of Packers: Tool Comments: Tool Description Change Over Sub Shut In Tool Hydraulic tool		2	<b>ngth (ft)</b> 1.00 5.00			4359.00 4364.00	Accum. Lengths	
Number of Packers:		2	<b>ngth (ft)</b> 1.00 5.00 5.00			4359.00 4364.00 4369.00	Accum. Lengths	
Number of Packers: Tool Comments: Tool Description Change Over Sub Shut In Tool Hydraulic tool Jars		2	<b>ngth (ft)</b> 1.00 5.00 5.00 5.00			4359.00 4364.00 4369.00 4374.00	Accum. Lengths	Bottom Of Top Packe
Number of Packers: Tool Comments: Tool Description Change Over Sub Shut In Tool Hydraulic tool Jars Safety Joint		2	<b>ngth (ft)</b> 1.00 5.00 5.00 5.00 2.00			4359.00 4364.00 4369.00 4374.00 4376.00	-	Bottom Of Top Packe
Number of Packers: Tool Comments: Tool Description Change Over Sub Shut In Tool Hydraulic tool Jars Safety Joint Packer Packer		2	<b>ngth (ft)</b> 1.00 5.00 5.00 5.00 2.00 5.00			4359.00 4364.00 4369.00 4374.00 4376.00 4381.00	-	Bottom Of Top Packe
Number of Packers: Tool Comments: Tool Description Change Over Sub Shut In Tool Hydraulic tool Jars Safety Joint Packer Packer Stubb		2	<b>ngth (ft)</b> 1.00 5.00 5.00 2.00 5.00 4.00			4359.00 4364.00 4369.00 4374.00 4376.00 4381.00 4385.00	-	Bottom Of Top Packe
Number of Packers: Tool Comments: Tool Description Change Over Sub Shut In Tool Hydraulic tool Jars Safety Joint Packer		2	<b>ngth (ft)</b> 1.00 5.00 5.00 2.00 5.00 5.00 4.00 1.00	Serial No	. Position	4359.00 4364.00 4369.00 4374.00 4376.00 4381.00 4385.00 4386.00	-	Bottom Of Top Packe
Number of Packers: Tool Comments: Tool Description Change Over Sub Shut In Tool Hydraulic tool Jars Safety Joint Packer Packer Stubb Recorder		2	ngth (ft) 1.00 5.00 5.00 2.00 5.00 4.00 1.00 0.00	Serial No 6667	. Position	4359.00 4364.00 4369.00 4374.00 4376.00 4381.00 4385.00 4386.00 4386.00	-	Bottom Of Top Packe

RILOB		ILL STEM TEST REPO			JID SUMMAR	
	Anei	American Warrior Inc PO Box 399 Garden City, KS ATTN: Jason Alm		20-19s-21w Ness,KS		
I EST				Dianne #2-20           Job Ticket:         49198         DST#:1           Test Start:         2013.05.02 @ 17:45:45		
	ATTN					
Iud and Cushion Info	ormation					
alinity: 6800.00 p	sec/qt n³ ohm.m	Cushion Type: Cushion Length: Cushion Volume: Gas Cushion Type: Gas Cushion Pressure:	ft bbl psig	Oil API: Water Salinity:	38 deg API 0 ppm	
Recovery Information	ו	Pagayany Tabla				
	Longeth	Recovery Table	) ( a human	7		
	Length ft	Description	Volume bbl			
	30.00	g o c m 20g 20o 60m	0.14			
	60.00	g m c o 20g 30m 50o	0.84			
	135.00	c g o 25g 75o 255' gas in pipe	1.89			
<b>T</b>	P	25.00 ft Total Volume: 2.884				
101						
Nu	im Fluid Samples: 0 boratory Name:	Num Gas Bombs: 0 Laboratory Location:	Serial	#:		
Nu	m Fluid Samples: 0	Num Gas Bombs: 0		#:		
Nu	im Fluid Samples: 0 boratory Name:	Num Gas Bombs: 0		#:		
Nu	im Fluid Samples: 0 boratory Name:	Num Gas Bombs: 0		#:		
Nu	im Fluid Samples: 0 boratory Name:	Num Gas Bombs: 0		#:		
Nu	im Fluid Samples: 0 boratory Name:	Num Gas Bombs: 0		#:		
Nu	im Fluid Samples: 0 boratory Name:	Num Gas Bombs: 0		#:		
Nu	im Fluid Samples: 0 boratory Name:	Num Gas Bombs: 0		#:		

Printed: 2013.05.08 @ 16:56:52

Ref. No: 49198





Outside

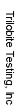
American Warrior Inc

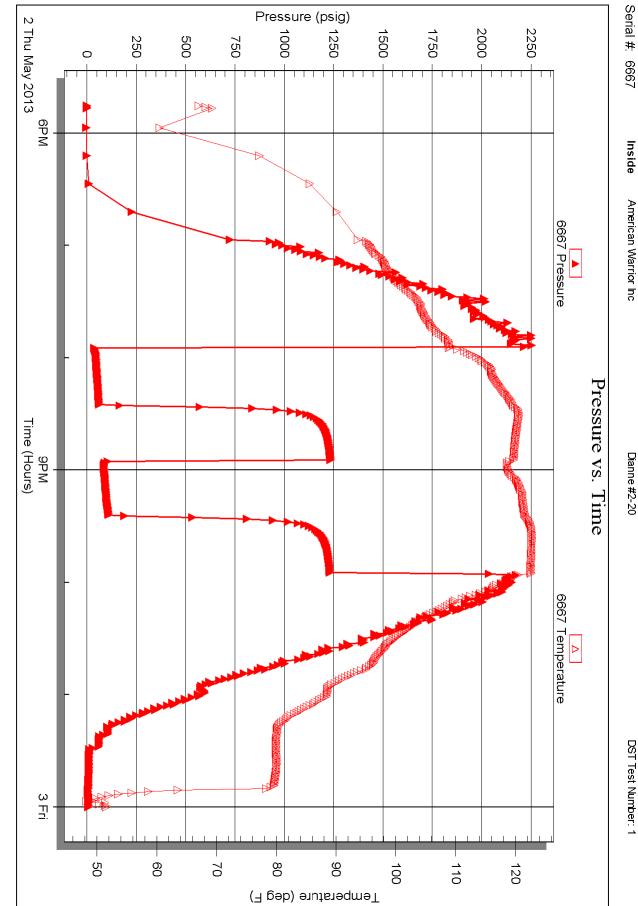
Dianne #2-20

DST Test Number: 1

Printed: 2013.05.08 @ 16:56:53

Ref. No: 49198





Dianne #2-20

DST Test Number: 1

RILOBITE **Test Ticket** ESTING INC. NO. 49198 P.O. Box 1733 • Hays, Kansas 67601 4/10 ± 3 Test No. Date Well Name & No Elevation GL Company no Address Co. Rep / Geo. Rig 95 alw Twp. Rae. Co. State Location: Sec. 1155 25 Zone Tested 🏏 Interval Tested 9 4341 Drill Pipe Run Mud Wt. Anchor Length 15 Drill Collars Run Vis Top Packer Depth Wt. Pipe Run WL Bottom Packer Depth Chlorides 6800 ppm System LCM **Total Depth** 16 min ۲ Blow Description eturn min blow R Feet of 25 %gas %oil %water %mud Rec 60 %gas %oil %water 30 %mud Feet of Q 20 Rec 30 60%mud Feet of Z 20 %gas O %oil %water Rec Feet of %gas %oil %water %mud Rec %oil Rec Feet of %gas %water %mud 225 2 38 BHT F Chlorides Gravity API RW -0 **Rec Total** ppm (A) Initial Hydrostatic 1250 T-On Location / Test M 3 **T-Started** (B) First Initial Flow 250 Jars T-Open (C) First Final Flow Safety Joint 75 T-Pulled (D) Initial Shut-In Circ Sub T-Out (E) Second Initial Flow Hourly Standby Comments Mileage /50 RT 116rt 179.80 (F) Second Final Flow (G) Final Shut-In □ Sampler (H) Final Hydrostatic Straddle Ruined Shale Packer Shale Packer Ruined Packer Initial Open 30 Extra Packer Extra Copies Initial Shut-In-30 Extra Recorder Sub Total 0 **Final Flow** 1754.80 Day Standby \_ Total Final Shut-In Accessibility MP/DST Disc't 1754.80 Sub Total 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 suffared or sustained, directly or mainteently, 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.