HARDROCK
Consulting, Inc.

Geologic Report

Drilling Time and Sample Log

Operator **American Warrior, Inc.**			**Elevation** KB **2218'** DF GL **2210'**
Lease **Fritz-Brenner Unit**		No. **1**	
API # **15-135-25718-0000**			**Casing Record** Surface **8 5/8" @ 224'** Production **5 1/2" @ 4869'**
Field **Schoolhouse North NW**			
Location **100' FNL & 2175' FWL**			**Electrical Surveys** CNL/CDL, DIL
Sec. **29**	Twp. **17s**	Rge. **21w**	
County **Ness**	State **Kansas**		

Formation	Log Tops	Sample Tops	Struct Comp
Anhydrite	1510' +708	1513' +705	
Base	1548' +670	1551' +667	
Heebner	3684' -1465	3691' -1473	+16
Lansing	3728' -1510	3733' -1515	+19
BKc	4002' -1784	4009' -1791	
Pawnee	4103' -1885	4110' -1892	+18
Fort Scott	4288' -1970	4193' -1975	+18
Cherokee	4203' -1985	4210' -1992	+14
Mississippian	4286' -2068	4296' -2078	+5
Osage	4296' -2078	4303' -2085	
Gilmore City	4382' -2164	4374' -2156	
Viola	4462' -2244	4459' -2241	FL
Simpson	4611' -2393	4613' -2395	
Arbuckle	4616' -2398	4621' -2403	+6
Total Depth	4866' -2648	4870' -2652	

Reference Well For Structural Comparison **ARES Energy LTD Brenner #20-10**
1892' FSL & 2124' FEL Sec. 20 T17s R21w Ness Co. Kansas

Drilling Contractor		**Discovery Drilling Co. Inc.**		**Rig #3**
Commenced	**8-2-2014**	Completed		**8-10-2014**
Samples Saved From		**3900'**	To	**RTD**
Drilling Time Kept From		**3600'**	To	**RTD**
Samples Examined From		**3900'**	To	**RTD**
Geological Supervision From		**3900'**	To	**RTD**

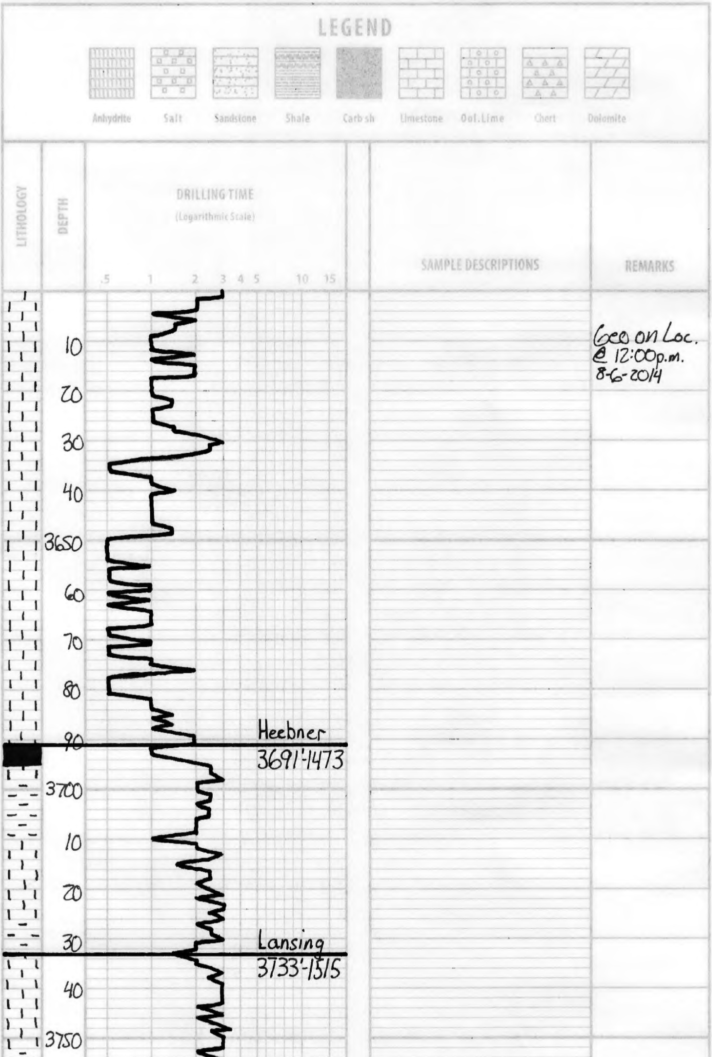
Displacement	**3500'**	Mud Type	**Chemical**

Summary and Recommendations

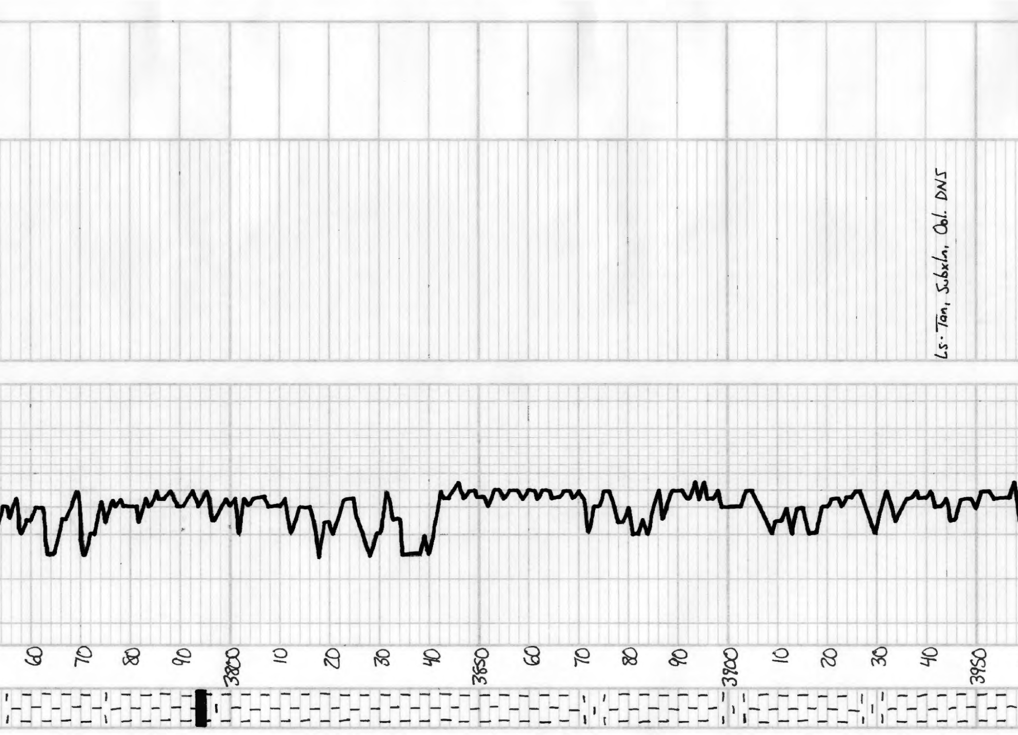
The location for the Fritz-Brenner Unit #1 was found via 3-D seismic survey. The new well ran structurally lower than expected via the survey Two Drill Stem Tests were conducted both of which were negative. After all gathered data had been examined the decision was made to drill the w into the Arbuckle Formation and convert it into a Salt Water Disposal.

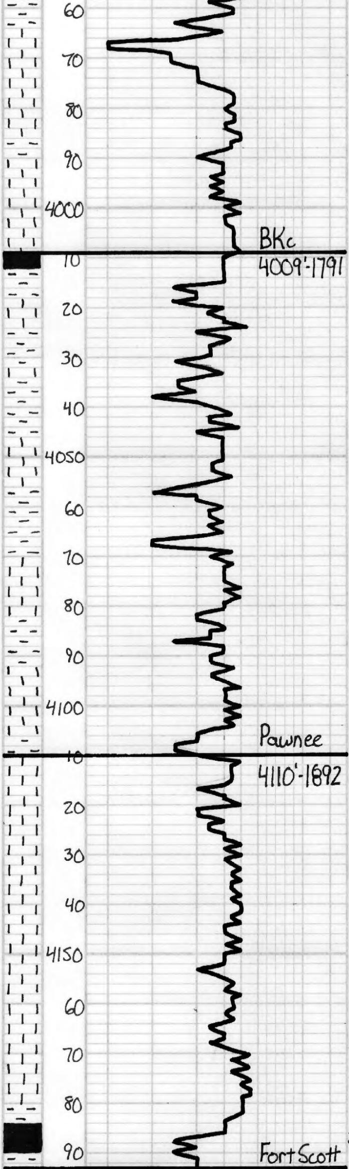
Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.



Geo on Loc.
@ 12:00p.m.
8-6-2014





Sh- Brn- Grn

Ls- Offwh-Tan, Fnxln, Ool. w/ Fair Good oom & Barren

Ls- ala, DNS

Sh- Brn- Gry

Ls- Tan, Subxln, DNS, Sl. Ool.

Sh- Drk Gry

Ls- Tan-Gry, Subxln, DNS

Ls- a/a

Sh- Brn- Grn

Ls- Tan-Lt. Gry, Subxln, DNS

Sh- Brn- Grn

Ls- Tan-Lt. Gry, Subxln, DNS

Sh- Brn- Grn

Ls- Tan-Lt. Gry, Subxln, DNS

Sh- Gry- Grn

Ls- Lt. Gry, Subxln, DNS

Ls- a/a

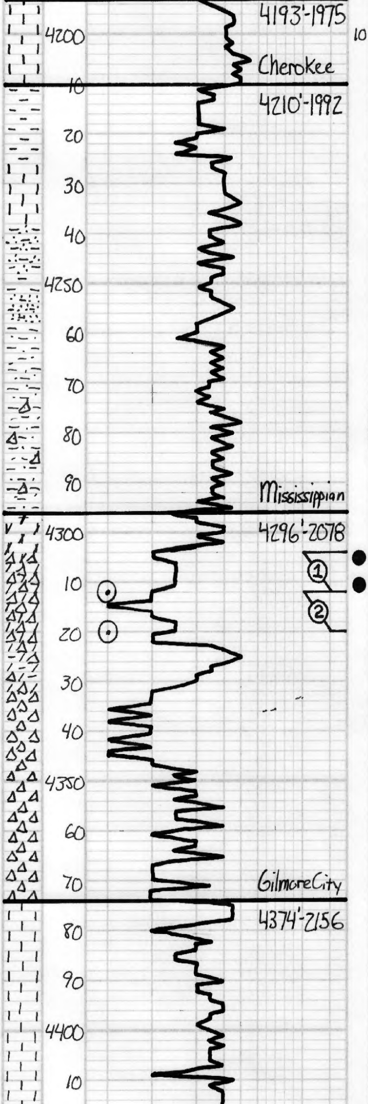
Ls- Gry, Subxln, DNS

Ls- a/a

Ls- a/a

Sh- Gry- Drk Gry

Sh- Blk, Carb.



10 Ls - Tan, Subxln w/ Scct. V. Poor interxln ϕ, Lt. Spot. oil Stn in ϕ, NSFO, Fair Spot. Yel. Fluor.

Sh - Brn - Grn

Ls - Tan - Offwh, Subxln, DNS

Sh - Grn, SS - Qtz, Med. Gr., DNS, "Dirty", Pyritic, Barren

SS - Qtz, Med. - Coarse Gr. DNS, Barren, "Dirty"

Sh - Brn - Grn, Few Scct. Qtz Gr.

Sh - a/a, Δ - Yel. - Wht - Clr

Sh - a/a - Δ

Dolo - Offwh, Subxln, DNS, Sl. Δ - Wht

● Dolo - ΔV - Wht - Offwh, Fnxln w/ Poor interxln - Vussy ϕ, Heavy Δ - Sl. Trip., Mostly Fresh w/ Good Vussy ϕ, Lt. - Fair Spot. oil St in ϕ
● Sl. SFO, V. Lt. Odor.

Dolo - ΔV - a/a, Mostly Barren

Dolo - Wht - Tan, V. "Shaly"

ΔV - Wht - Tan, Fresh, Scct. Good Vussy ϕ. Barren

ΔV - a/a, Sl. Chalky

ΔV - Wht - Tan, Fresh a/a, Chalky

ΔV - a/a

Ls - Tan - Fn - Subxln, DNS

Ls - Tan - Subxln, DNS

Ls - a/a, Sl. Δ - Wht

DST#1

Mississippian
4304'-4312'
30"-30"-10"

IH	2127#
IF	20-30#, Built to 1/2
ISI	1138#, Dead
FF	37-35#, Dead
FH	2168#
BHT	119°F

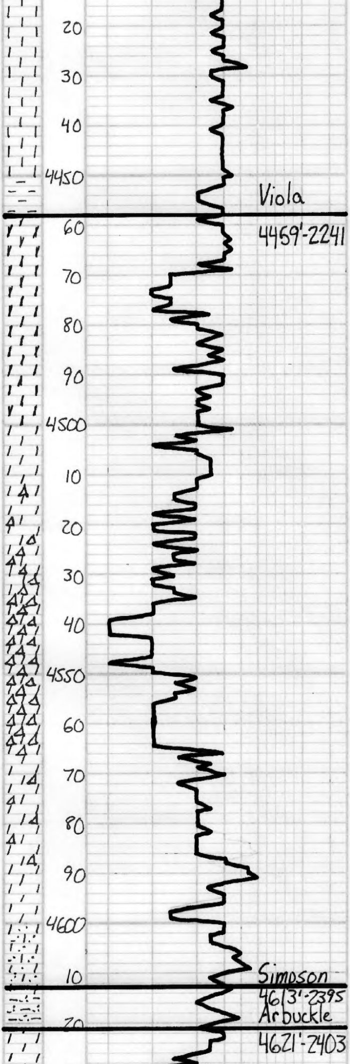
Recovery:
5' CO
30' SOCM 5% Oil

DST#2

Mississippian
30"-30"-20"
4312'-4320'

IH	2205#
IF	28-39#, Built to 1
ISI	1138#, Dead
FF	39-41#, Dead
FH	2064#
BHT	117°F

Recovery:
45' WM 20% Water



Ls- a/a

Ls- Tan-Subxln, DNS, Sl. Δ-Wht

Ls- a/a

Sh-Grn-Brn

Dolo- Tan-Offwh, Fnxln w/ Fair interxln ϕ

Dolo- a/a, Mostly DNS

Dolo- a/a

Dolo- Tan-Offwh, Δ-Wht-Clr Fnxln w/ Fair scat. interxln ϕ, Barren

Dolo- a/a

Dolo- Tan, Fnxln w/ Fair interxln ϕ, Barren, Heavy Fresh Sharp Δ

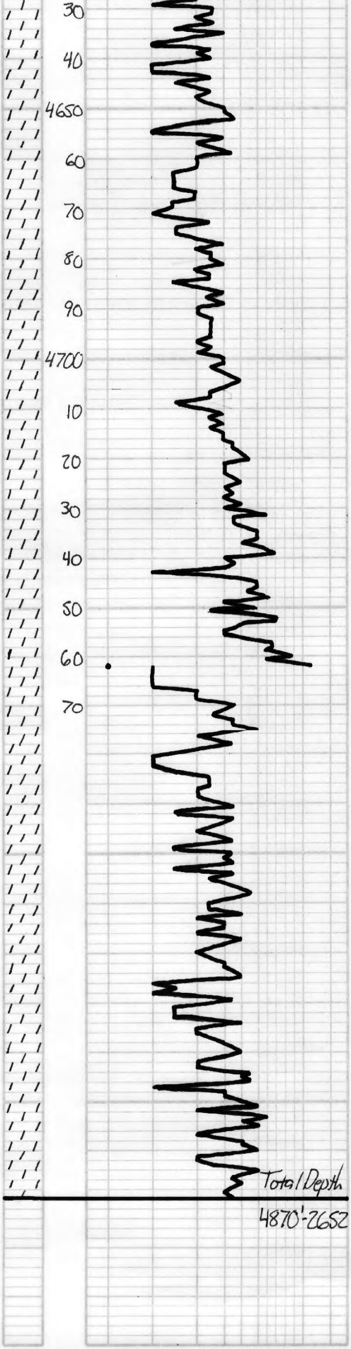
Dolo- a/a

Dolo- Tan, Fnxln w/ Poor interxln ϕ, Barren, Sl. Δ-Wht

Dolo- a/a

Dolo- Tan, Fnxln, Mostly DNS, Scat. DNS Ss Clusters, "Dirty"

Sh- Grn-Brn, Imbedded Qtz Gr.



Dolo: Offwh- Lt. Brn, Fn Suc. x/n w/ Poor- Fair interxln ϕ. Barren

started loosing fluid @ 4640'

Dolo- a/a, Fair interxln ϕ

Dolo- a/a, Mostly DNS

Dolo- Tan- Lt. Brn, Fn- Med x/n w/ Fair interxln ϕ. Barren, Sl. Δ- Wht- Clr

Dolo- a/a, Poor interxln ϕ

Dolo- a/a

Dolo Tan- Lt. Brn, Fn- Med x/n w/ Poor- Fair interxln ϕ Barren Sl. Δ- Wht- Clr

Dolo- a/a

Dolo- Offwh- Tan, Fn- Med Rhombic x/n w/ Poor interxln ϕ Barren, Δ- Wht, Od.

Dolo- a/a

Bit Trip @ 4762'

Trip Trash

Dolo- Offwh, Fn- Med Rhombic x/n w/ Good interxln ϕ

Dolo- a/a

Dolo- Offwh, Fn- Coarse Rhombic x/n w/ Fair- Good interxln ϕ

Dolo- a/a

Dolo- Offwh- Tan, Fn Rhombic x/n w/ Fair interxln ϕ

Dolo- a/a

Respectfully,

Jason T

8-16-2014