

**GEOLOGIST'S REPORT**  
**DRILLING TIME AND SAMPLE LOG**

COMPANY **SHAKESPEAR OIL CO.** ELEVATIONS  
 LEASE **Shawnee 1-23** KG 3160'  
 FIELD **Wildcat** DF \_\_\_\_\_  
 LOCATION **530 FMS, 1900' FEEL** GL 3150'  
 SEC **32** TWP **16S** RGE **34W**  
 COUNTY **Scott** STATE **Kansas** Measurements Are All From **KB**

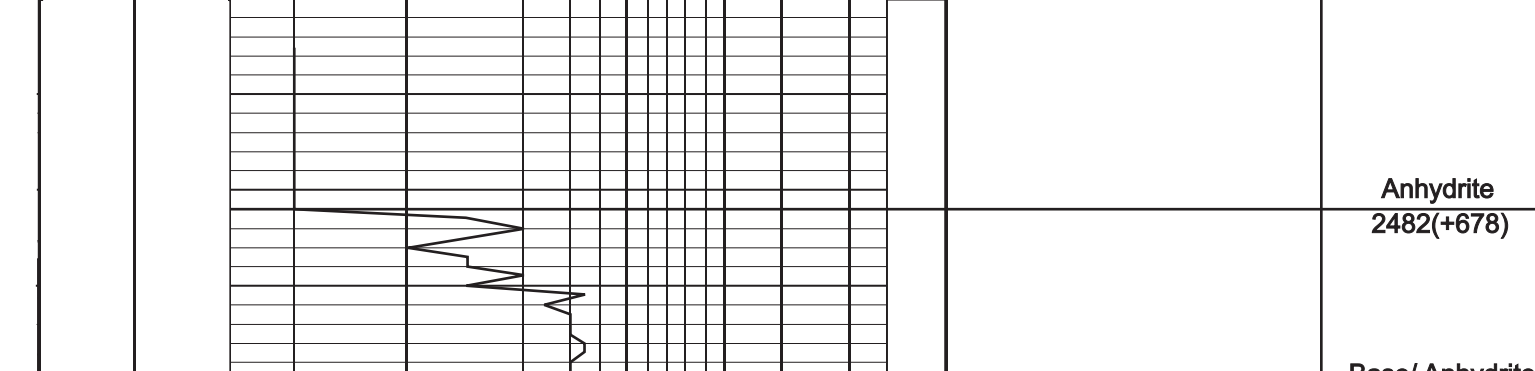
CONTRACTOR **HD Rig #2** From **KB**  
 SPUD **4-8-14** COMP **4-20-14**  
 RTD **4:871** LTD **4:859'** CASING CONDUCTION **N/A**  
 MUD UP **3600'** TYPE MUD **Chemical** SURFACE **8-5/8" @ 260'**  
 SAMPLES SAVED FROM **3800'** to **RTD** PRODUCTION **Name**  
 DRILLING TIME KEPT FROM **3800'** to **RTD**  
 SAMPLES EXAMINED FROM **3800'** to **RTD**  
**ELECTRICAL SURVEYS**  
**CND/D/SP/P/E**  
**Micro Sonic**  
 GEOLOGIST ON WELL **Tim Priest** By: **Weatherford**

FORMATION TOPS      ELECTRIC LOG      SAMPLE  
 Anyvrite      2460 (+700)      2482 (+678)  
 Heebner Shale      4010 (-830)      4023 (-863)  
 Lansing      4054 (-894)      4069 (-909)  
 SARC      4339 (-1179)      4351 (-1191)  
 BRC      4433 (-1273)      4445 (-1285)  
 Fort Scott      4612 (-1452)      4623 (-1463)  
 Cherokee Shale      4639 (-1479)      4652 (-1492)  
 Mississippian      est 4854 (-1694)      4864 (-1704)

REMARKS

Respectfully Submitted,

**API #15-171-21045-00-00**      **Tim Priest**  
 Petroleum Geologist



DEPTH	DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Increases	SAMPLE DESCRIPTION	REMARKS
2500		Anhydrite	2482(+678)
2501		Base/ Anhydrite	2501(+659)
3800		Ls crm-tan-gry, fn xtl, chky, p-f int xtl-pp por, NS	
50		Ls crm-tan, fn xtl, sli fos, chky, arg in prt	
		Ls crm-tan, fn xtl, fos, chky, f-gd int xtl & int frag por, NS	
3900		Sh gry	
		Ls crm-tan, fn xtl, sli fos, chky, arg in prt	
		Sh blk, carb	
		SS It gry, vfn grn, fiable, w/gry Sh	
		Ls crm-tan-gry, fn xtl, fos, chky, p-f int xtl-pp por, NS	
50		Ls crm-tan-gry, fn xtl, fos, chky, p-f int xtl-pp por, NS	
		Sh blk, carb	
		Ls crm-tan, fn xtl, fos, chky, f-gd int xtl-pp por, NS	
		Ls crm-lt gry, vfn xtl, sli chky, arg in prt	
4000		Ls crm-lt gry, fn xtl, fos, chky, p-f int xtl por, w/grn-gry Sh	
		Ls crm-lt gry, vfn xtl, sli chty, arg in prt	
		Ls crm-lt gry, fn xtl, dnse	
		Sh blk, carb	Heebner 4023 (-863)
50		Sh gry-dk gry, calc	
		Sh blk, carb	
		Ls crm-lt gry, fn xtl, fos, chky, f int xtl-pp por, NS	
		Ls crm, fn xtl, fos, v chky, p-f int xtl-pp por, NS	
		Sh grn-gry	Lansing 4069 (-909)
		Ls crm-tan, fn xtl, fos, chky, f int xtl-pp por, NS	
4100		Ls crm, fn xtl, sli ool, sli chky, p int xtl & int ool por, NS	
		Ls crm-lt gry, vfn xtl, chky, sli chty, dnse	
		Sh grn-gry	
		Ls crm-lt gry, fn xtl, fos, chky, f int xtl-pp por, NS	
50		Ls crm-tan, fn xtl, fos, chky, p int xtl-pp por, NS	
		Ls crm-lt gry, vfn xtl, sli fos, chky, dnse	
		Sh red-grn-gry	
		Ls lt gry, vfn xtl, dnse	
		Ls crm, fn xtl, fos, chky, f int xtl-pp por w/few vugs, NS	
		Ls/Dol crm, fn-med xtl, p-f int xtl por, NS	
		Ls crm-lt gry, vfn xtl, chty, dnse	
		Sh gry-dk gry	
4200		Ls crm-lt gry, fn xtl, fos, sli chky, f int xtl-pp por w/scat vugs, NS	
		Ls crm-lt gry, fn xtl, fos-ool, chky, p-f int xtl & ooc por, NS	
		Ls crm-lt gry, vfn xtl, sli chty, dnse	
50		Ls crm-lt gry, fn xtl, fos, chky, p int xtl-pp por, NS	
		Ls crm-lt gry, vfn xtl, chty, dnse	
		Sh blk, carb	Muncie Creek 4258 (-1098)
		Ls crm-lt gry, vfn xtl, chty, dnse	
		Sh dk gry	
		Ls/Dol crm-lt gry, fn-med xtl, f int xtl por, NS	
		Ls crm-lt gry, mic xtl, dnse	
		Ls crm-lt gry, fn xtl, fos, chky, sli chty, dnse	
4300		Sh blk, carb	
		Sh grn-gry	
		Ls crm-lt gry, fn xtl, fos, chky, sli chty, dnse	
		Ls crm-lt gry, fn-med xtl, fos-ool, sli chky, p-f int frag por w/ few ooc, NS	
		Sh grn-gry-dk gry	
50		Ls crm-lt gry, fn xtl, sli fos, arg in prt, dnse	
		Sh blk, carb	Stark Shale 4351 (-1191)
		Sh grn-gry, calc	
		Ls crm-lt gry-gry, fn xtl, fos, f int xtl-pp por w/few vugs, NS	
		Ls crm-gry, fn xtl, sli fos, arg	
4400		Ls crm-lt gry, fn xtl, fos, p-f int xtl-pp por, NS	
		Sh blk, carb	Huehpuckney Shale 4398 (-1238)
		Ls tan-gry, fn xtl, arg, w/int bed gry Sh	
		Ls crm-lt gry, fn xtl, fos, p-f int xtl-pp por, NS	
		Ls lt gry, mic xtl, dnse	
		Ls gry, vfn xtl, dnse	
		Sh blk, carb	
		Ls crm-lt gry, vfn xtl, dnse	
4500		Sh dk gry	B/K.C. 4445 (-1285)
		Ls crm-gry, fn xtl, ool, chky, p int ool por, NS	
		Sh dk gry-blk	
		Sh var col, silty, sandy	
		Sh gry, calc	
4500		Sh grn-gry	
		Ls crm-tan-brn, vfn xtl, fos-sub ool, p-f pp-vug por, sptd-sli sat dk stn on few pcs, SSFO, no odor, dull fluor	DST #1 (4493'-4538') IF: Built to 14 in., no return FF: No blow, no return Rec: 9 Mud Fps: 16-24#(27-34#) SIPs: 1155#(1658) HSPs: 2220#(2139#) BHT: 104 deg F
		Ls crm-lt gry, mic xtl, dnse	
50		Sh grn-gry, silty	
		Ls crm-tan, vfn xtl, chky, dnse	
		Ls crm-lt gry, mic xtl, dnse	
		Sh blk, carb	
		Ls tan-gry, vfn xtl, w/int bed Sh	Marmaton 4502 (-1342)
4600		Ls lt gry, vfn xtl, arg in prt	
		Ls crm-tan, vfn xtl, chty, dnse	
		Sh blk, carb	
		Sh grn-gry, calc	Pawnee 4577 (-1417)
		Ls crm-tan-brn, fn xtl, ool, sli chky, p-f int ool por, NS	
		Ls crm-tan, mic xtl, dnse	
		Sh blk, carb	
		Ls tan-brn, vfn xtl, ool, w/ool chty, dnse	
		Ls crm-tan, fn xtl, fos, p int xtl-pp por w/few vugs, sptd stn on few pcs, SSFO, sli odor, dull fluor	
		Ls crm-tan, mic xtl, dnse	
50		Ls crm-gry, vfn xtl, chty, dnse	
		Sh blk, carb	Fort Scott 4623 (-1463)
		Ls crm-tan-gry motld, fn xtl, fos, chky, f int frag por, NS	
		Ls crm-lt gry, vfn xtl, dnse	
		Ls tan-gry, vfn xtl, w/int bed blk carb Sh	
		Ls crm-tan, fn xtl, chky, p int xtl-pp por, sptd stn on few pcs, VSSFO, sli odor, f fluor	
4700		Ls crm-lt gry, vfn xtl, dnse	
		Sh grn-gry	
		Ls crm-tan-gry, mic xtl, dnse	
		Ls crm-tan, vfn xtl, sli fos, sli chky, p-f pp-vug por, sptd stn, SSFO, sli odor, no fluor	DST #2 (4618'-4645') IF: Built to 14 in., no return FF: Surface blow, no return Rec: 9 Mud Fps: 15-16#(15-16#) SIPs: 384#(40#) HSPs: 2250#(2238#) BHT: 105 deg F
		Sh blk, carb	
		Ls crm-tan-lt gry, mic xtl, chty	
50		Ls crm-tan, vfn xtl, sli chty	
		Ls crm-lt gry, w/clear quartz, fn xtl, p-f int xtl-pp por, sptd-sli sat stn, SSFO, sli odor, no fluor	
		Ls crm-tan, vfn xtl, dnse	
4800		Sh blk, carb	
		SS It gry, fn grn, sub md, well sort, friable, NS	
		SS lt gry, fn-med grn, sub md, poor sort, sli friable, NS, w/ var col Sh	
50		Sh var col, silty-sandy, calc in prt	
		SS crm-wh, fn-coarse grn, sub md, sli flia, sme loose grns, NS	
		Ls tan, mic xtl, dnse	Mississippian 4864 (-1704) Total Depth 4871' (-1711)