

RECEIVED APR 16 2014

Jackman Oilfield Services
1 West Mulberry St.
Colony, KS 66015
620-852-3350

WELL LOG
Kansas Resource Exploration & Development, LLC
McDonald KR-4

April 8, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>	
3	soil/clay	3	
21	lime	24	
6	shale	30	
8	lime	38	
42	shale	80	
5	lime	85	
23	shale	108	
35	lime	143	
7	shale	150	
40	lime	190	
173	shale	363	
9	lime	372	
18	shale	390	
5	lime	395	
35	shale	430	
4	lime	434	
14	shale	448	
10	lime	458	
13	shale	471	
49	lime	520	
32	shale	552	
2	lime	554	
13	shale	567	
1	lime	568	
11	shale	579	
2	lime	581	
3	oil sand	584	light bleed
16	shale	600	
4	coal	604	
6	shale	610	
3	lime	613	
2	coal	615	
22	shale	637	
1	sandy shale	638	

16	oil sand	654	no bleed
2	oil sand	656	light bleed
3	oil sand	659	no bleed
2	conglomerate	661	
6	oil sand	667	little to no bleed
3	black sand	670	
1	black sand w/oil streak	671	light bleed
4	shale	675	TD

Drilled a 9 7/8" hole to 19'7"

Drilled a 5 7/8" hole to 675'

Set 20' of 7" surface casing cemented with 5 sacks of portland cement

No pipe ran

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