

RECEIVED MAY 14 2014

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

WELL LOG
Kansas Resource Exploration & Development, LLC
Cartwright KR-17

May 2, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>	
15	soil/clay	15	
21	lime	36	
17	shale	53	
5	lime	58	
6	red bed shale	64	
36	shale	100	
16	lime	116	
7	shale	123	
29	lime	152	
9	shale	161	
31	lime	192	
5	shale	197	
4	lime	201	
161	shale	362	
12	lime	374	
5	sandy shale	379	
1	lime	380	
8	grey sand	388	light gas smell
6	shale	394	
4	coal	398	
2	shale	400	
4	lime	404	
36	shale	440	
5	lime	445	
13	shale	458	
5	lime	463	
20	shale	483	
2	lime	485	
3	coal	488	
3	lime	491	
4	shale	495	
2	broken sand	497	little to no bleed

1	grey sand	498	
4	oil sand	502	no bleed
1	oil sand	503	light bleed
2	broken sand	505	light bleed
15	shale	520	TD

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

Drilled a 5 7/8" hole to 520'

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

No pipe ran

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