

RECEIVED SEP 26 2014

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

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

September 19, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>	
13.00	soil/clay	13.00	
21.00	lime	34.00	
20.00	shale	54.00	
3.00	lime	57.00	
43.00	shale	100.00	
14.00	lime	114.00	
7.00	shale	121.00	
29.00	lime	150.00	
11.00	shale	161.00	
22.00	lime	183.00	
6.00	shale	189.00	
13.00	lime	202.00	
140.00	shale	342.00	
7.00	grey sand	349.00	
1.00	lime	350.00	
14.00	shale	364.00	
14.00	lime	378.00	
39.00	shale	417.00	
3.00	coal	420.00	
7.00	lime	427.00	
16.00	shale	443.00	
3.00	lime	446.00	
17.00	shale	463.00	
13.00	lime	476.00	
12.00	shale	488.00	
2.00	lime	490.00	
2.00	coal	492.00	
2.00	lime	494.00	
1.00	lime w/oil bleed	495.00	
2.00	lime	497.00	
7.00	shale	504.00	
1.00	broken sand	505.00	good bleed

1.50	oil sand	506.50	heavy bleed
2.50	broken(90%)sand	509.00	heavy bleed
1.50	oil sand	510.50	heavy bleed
1.50	broken(98%)sand	512.00	heavy bleed
3.00	broken(90%)shale	515.00	light-med.bleed
8.00	grey sand	523.00	
24.00	shale	547.00	
1.00	lime	548.00	
32.00	shale	580.00	TD

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

Drilled a 5 7/8" hole to 580'

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

Set 543.85' of 2 7/8" round upset tubing. Baffle @ 575.45'

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