



Operator:
Kansas Resources Exploration & Development, LLC
Overland Park, KS

Cartwright #KRI-20

Miami Co., KS
23-18S-21E
API: 121-30807

Spud Date: 11/12/2014
Surface Casing: 7.0"
Surface Length: 22.05'
Surface Cement: 4 sx
Longstring: 2 7/8 EUE - New L/S

Surface Bit: 9.875"
Drill Bit: 5.875"
Longstring: 568.40'
Baffle: 538.60'
Longstring Date: 11/13/2014

Driller's Log

Top	Bottom	Formation	Comments
0	7	Soil & clay	
7	30	Lime	
30	48	Shale	
48	54	Lime	
54	94	Shale	
94	107	Lime	
107	118	Shale	
118	146	Lime	
146	154	Shale	
154	172	Lime	
172	186	Shale	
186	194	Lime	
194	335	Shale	
335	340	Lime	
340	357	Shale	
357	373	Lime	
373	380	Shale	
380	390	Sand	Grey
390	416	Shale	
416	423	Lime	
423	435	Shale	
435	437	Lime	
437	452	Shale	

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452	460	Lime	
460	476	Shale	
476	489	Lime	Good odor throughout, slight bleed
489	490	Shale	from 482 - 487
490	491	Shale	
491	493.5	Sandy Shale	
493.5	506	Sand	See below
506	513	Sandy Shale	
513	582	Shale	
582		TD	

Coring

Run	Footage	Rec.
1	494-514	20'

Sand Detail

495-502	Laminated, good oil saturation
502-506	Laminated sand, no oil