



11 Lewis Drive

Paola, KS 66071

Oil & Gas Well Drilling
Water Wells
Geo-Loop Installation

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WELL LOG

Kansas Resource Exploration & Development, LLC

Guetterman #KR-18

API # 15-091-23,941

January 8 - January 10, 2013

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>
12	soil & clay	12
8	shale	20
23	lime	43
9	shale	52
8	lime	60
4	shale	64
1	lime	65
7	shale	72
15	lime	87
20	shale	107
20	lime	127
6	shale	133
50	lime	183
21	shale	204
10	lime	214
16	shale	230
6	lime	236
10	shale	246
11	lime	257
4	shale	261
3	lime	264
30	shale	294
25	lime	319
7	shale	326
23	lime	349
3	shale	352
4	lime	356
4	shale	360
6	lime	366 base of the Kansas City
172	shale	538
6	lime	544 oil show
6	shale	550
1	coal	551
7	shale	558
6	lime	564
15	shale	579
4	lime	583
5	shale	588
10	lime	598
26	shale	624

1	lime	625
50	shale	675
2	lime	677
19	shale	696
6	broken sand	702 brown & grey, light bleeding, gassy
3	oil sand	705 brown, light bleeding (gassy)
2	broken sand	707 brown & black, light bleeding, gassy
3	silty shale	710
14	shale	724
1	coal	725
4	shale	729
2	lime	731
24	shale	755
1	coal	756
39	shale	795
1	coal	796
8	shale	804
3	silty shale	807 white
12	shale	819
3	oil sand	822 brown, good bleeding
2	broken sand	824 brown & green, good bleeding
14	shale	838
1	coal	839
51	shale	890 TD

Drilled a 9 7/8" hole to 22'

Drilled a 5 5/8" hole to 890'

Set 22' of 7" surface casing cemented with 6 sacks of cement

Set 880' of 2 7/8" 8 round upset tubing with 3 centralizers, 1 float shoe and 1 clamp.