



11 Lewis Drive

Paola, KS 66071

**Oil & Gas Well Drilling
Water Wells
Geo-Loop Installation**

Phone: 913-557-9083

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WELL LOG

Tailwater, Inc.

North Kempnich # 13 IWU

API #15-003-26,237

September 18 - September 19, 2014

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>
14	soil & clay	14
4	clay & gravel	18
48	shale	66
27	lime	93
69	shale	162
10	lime	172
5	shale	177
37	lime	214
6	shale	220
21	lime	241
3	shale	244
22	lime	266 base of the Kansas City
174	shale	440
4	lime	444
6	shale	450
7	lime	457 oil show
19	shale	476
3	oil sand	479 green light bleeding
2	shale	481
1	coal	482
3	shale	485
15	oil sand	500 green, ok bleeding
6	shale	506
2	coal	508
5	shale	513
6	lime	519
14	shale	533
3	lime	536
22	shale	558
15	lime	573
17	shale	590
3	lime	593
21	shale	614
1	limy sand	615 green, no oil
1	broken sand	616 brown & green good bleeding
2	oil sand	618 brown, good bleeding
3	broken sand	621 brown & green good bleeding
21	shale	642 TD

Drilled a 9 7/8" hole to 22.5'

Drilled a 5 5/8" hole to 642'

Set 22.5' of 7" surface casing with 5 sacks of cement.

Set 638' of 2 7/8" 8 round upset tubing with 3 centralizers, 1 float shoe and 1 clamp.