



**ENERGY
DEVELOPMENT
INC.**

11 Lewis Drive

Paola, KS 66071

Water Wells

Geo-Loop Installation

Phone: 913-557-9083

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WELL LOG

Tailwater, Inc.

West Wittman #22-T

API#15-003-26,055

December 10 - December 12, 2013

Not done

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>
20	soil & clay	20
85	shale	105
32	lime	137
20	shale	157
12	lime	169
31	shale	200
11	lime	211
5	shale	216
36	lime	252
7	shale	259
23	lime	282
4	shale	286
19	lime	305 base of the Kansas City
166	shale	471
3	lime	474
4	shale	478
8	lime	486 oil show
15	shale	501
7	sand	508 grey, no oil
1	coal	509
8	shale	517
15	oil sand	532 green, ok bleeding
2	shale	534
1	coal	535
5	shale	540
6	lime	546
6	shale	552
2	lime	554
9	shale	563
2	lime	565
22	shale	587
8	lime	595
49	shale	644
5	sand	649 green, no oil show
30	shale	679
1	lime & shells	680
5	oil sand	685 brown good bleeding
5	broken sand	690 brown & black good bleeding

4	shale	694
6	sand	700 black, no oil show
23	shale	723
22	broken sand	745 brown & grey, no oil show

Drilled a 9 7/8" hole to 22.9'.

Drilled a 5 5/8" hole to 745'.

Set 22.9' of 7" surface casing cemented with 6 sacks of cement

Set 735.7' of 2 7/8" 8 round upset tubing including 3 centralizers, 1 float shoe, 1 clamp.