



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

Joeckel #KR-35

API # 15-121-30,248

May 2 - May 5, 2014

| <u>Thickness of Strata</u> | <u>Formation</u> | <u>Total</u> |
|----------------------------|------------------|--|
| 20 | soil & clay | 20 |
| 70 | shale | 90 |
| 20 | lime | 110 |
| 22 | shale | 132 |
| 4 | lime | 136 |
| 31 | shale | 167 |
| 14 | lime | 181 |
| 12 | shale | 193 |
| 26 | lime | 219 oil show |
| 9 | shale | 228 |
| 20 | lime | 248 |
| 2 | shale | 250 |
| 17 | lime | 267 base of the Kansas City |
| 144 | shale | 411 |
| 3 | broken sand | 414 60% brown sand 40% shale, ok bleeding |
| 3 | silty shale | 417 |
| 2 | broken sand | 419 80% hard limey brown sand, 20% shale good bleeding |
| 4 | broken sand | 423 60% sand, 40% shale, ok bleeding |
| 2 | limey sand | 425 brown hard, good bleeding |
| 1 | lime | 426 |
| 5 | limey sand | 431 brown few thin soft spots, good bleeding |
| 3 | oil sand | 434 brown soft good bleeding |
| 4 | broken sand | 438 80% brown sand 20% shale, good bleeding |
| 14 | shale | 452 |
| 3 | lime | 455 |
| 2 | shale | 457 |
| 2 | lime | 459 no oil |
| 4 | lime | 463 15% lime with porosity, 85% lime, ok bleeding |
| 3 | lime | 466 40% lime with porosity, 60% lime, good bleeding |
| 6 | lime | 472 |
| 25 | shale | 497 |
| 8 | lime | 505 |
| 16 | shale | 521 |
| 3 | lime | 524 |
| 13 | shale | 537 |
| 2 | lime | 539 |
| 19 | shale | 558 |
| 9 | lime | 567 |
| 7 | shale | 574 |
| 3 | lime | 577 |

| | | |
|----|-------------|---|
| 13 | shale | 590 |
| 1 | coal | 591 |
| 9 | shale | 600 |
| 4 | silty shale | 604 |
| 14 | shale | 618 |
| 6 | silty shale | 624 |
| 6 | broken sand | 630 light brown & grey, light bleeding |
| 11 | broken sand | 641 light brown & shale, minimal odor, occasionally |
| 7 | sand | 648 light brown, no oil |
| 1 | coal | 649 |
| 13 | shale | 662 |
| 1 | coal | 663 |
| 1 | shale | 664 |
| 4 | broken sand | 668 40% brown sand 60% shale, ok bleeding |
| 15 | silty shale | 683 |
| 1 | oil sand | 684 brown sand, good bleeding |
| 6 | silty shale | 690 |
| 1 | broken sand | 691 30% brown sand 70% shale, light bleeding |
| 3 | silty shale | 694 |
| 2 | broken sand | 696 40% brown sand 60% shale |
| | | 696 TD |

Drilled a 9 7/8" hole to 22.6'

Drilled a 5 5/8" hole to 696'

Set 22.6' of 7" surface casing cemented with 4 sacks of cement

Set 512.95' of 2 7/8" 8 round upset tubing with 3 centralizers, 1 float shoe, 1 clamp and 1 baffle.
Baffle set 33.25' from bottom of tally.

Core Times

| | <u>Minutes</u> | <u>Seconds</u> |
|-----|----------------|----------------|
| 696 | | 56 |
| 697 | 1 | 6 |
| 698 | | 55 |
| 699 | | 41 |
| 700 | | 38 |
| 701 | | 46 |
| 702 | | 41 |
| 703 | | 48 |
| 704 | | 55 |
| 705 | | 42 |
| 706 | | 57 |
| 707 | | 57 |
| 708 | | 58 |
| 709 | | 51 |
| 710 | | 42 |
| 711 | | 48 |
| 712 | | 45 |
| 713 | | 48 |
| 714 | 1 | 22 |
| 715 | | 51 |