

BERGMAN DRILLING, INC.

DRILLERS LOG

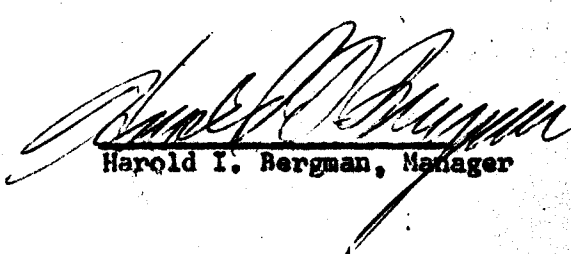
Re: Portl # 1  
NW SW NE Sec. 22-155-11W  
Russell County, Kansas

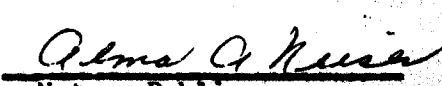
OPERATOR: Bergman Oil Company Elevation 1834 DF  
CONTRACTOR: Bergman Drilling, Inc.  
COMMENCED: November 16, 1976  
COMPLETED: November 24, 1976  
TOTAL DEPTH: 3348' Set 313' 8 5/8" W/ 175 sacks

|      |      |                 |
|------|------|-----------------|
| 0    | 110  | Post Rock       |
| 110  | 325  | Surface         |
| 325  | 650  | Red Bed - Shale |
| 650  | 699  | Shale           |
| 699  | 725  | Anhydrite       |
| 725  | 1434 | Shale           |
| 1434 | 1620 | Shale & Lime    |
| 1620 | 1765 | Lime            |
| 1765 | 2185 | Shale & Lime    |
| 2185 | 2785 | Shale & Lime    |
| 2785 | 2918 | Lime & Shale    |
| 2918 | 3084 | Lime            |
| 3084 | 3226 | Lime            |
| 3226 | 3348 | Lime            |
| 3348 |      | Total Depth     |

D & A

We certify that the above and foregoing to be true and correct copy of the drillers log on the # 1 Portl, located in Russell County, Kansas, as revealed by the records of Bergman Drilling, Inc.

  
Harold I. Bergman, Manager

  
Alma G. Kiser