

SINCLAIR OIL & GAS COMPANY  
KRAUSE-FEDERAL #4  
800' FNL, 1590' FEL, Section 33-28N-11W  
San Juan County, New Mexico  
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ELEVATION: 5961' grd  
SPUD: 12/13/64  
COMPLETED: Waiting on completion tools  
IP: Waiting on completion tools  
CSG: 8-5/8" @ 353' W/240 sx  
4-1/2" @ 6523' W/1236 sx (2 stages)

LOG TOPS:

Pictured Cliffs	1838 (+4123)
Lewis Shale	2037 (+3924)
Mesaverde	3385 (+2576)
Mancos	4550 (+1411)
Gallup	5429 (+ 532)
Basal Gallup Sand	5810 (+ 151)
Tocito Sand	5836 (+ 125)
Sanastee	5879 (+ 82)
Greenhorn	6218 (- 257)
Graneros	6278 (- 317)
Graneros Sand	6314 (- 353)
Dakota	6395 (- 434)
Total Depth	6525

LITHOLOGY

Kirtland-Fruitland	Surface - 1838	Interbedded variegated shales and sandstones, some coal.
Pictured Cliffs	1838 - 2037	Sandstone, gray to grayish-white, salt and pepper, fine to medium grain, well sorted, angular to subround, becomes silty and shaly toward base.
Lewis Shale	2037 - 2767 2767 - 2814 2814-3385	Shale, dark gray, soft. Sandstone, gray, fine grain, some thin dark gray shale beds. Shale, dark gray, soft, sandy and silty in part.
Mesaverde formation	3385 - 4550	Interbedded sandstone and shales with coal beds. Sandstones, light to medium gray, very fine grained, well cemented, laminated with light to dark gray carbonaceous shales. Shale, light to dark gray carbonaceous.