

STERLING DRILLING CO.

BOX 129

STERLING, KANSAS 67579

WELL LOG - - - - - MALM #4-14

Located: NE NW NE, Section 14-24S-17W, Edwards County,
Kansas

OWNER: F. G. Holl

ROTARY DRILLING CONTRACTOR: Sterling Drilling Company

COMMENCED: July 26, 1984

COMPLETED: August 1, 1984

TOTAL DEPTH: 4485'

<u>LOG</u>	<u>CASING RECORD</u>
0 - 90 Surface Soil and Sand	Ran 6 joints new 8 5/8", 23# casing. 252.95' pipe set at 265' K.B.
90 - 268 Clay and Shale	Cemented with 210 sacks 60/40 Pozmix plus 3% cc. Plug down at 1:00 PM, 7-26-84, by Howco.
268 - 578 Shale and Sand	
578 - 1110 Shale, Sand and Red Bed	
1110 - 1127 Anhydrite	
1127 - 1650 Shales	
1650 - 4260 Lime and Shale	
4260 - 4365 Chert, Lime	
4365 - 4485 Lime and Shale	Ran 109 joints 4 1/2", 10.5# casing. 11 joints were used. 4461.55' pipe set at 4471' K.B. 10 ft. off bottom. Cemented with 100 sacks Howco Lite, followed with 125 sacks 50/50 Pozmix, plus our regular additives. Plugged rathole with 15 sacks and water well with 5 sacks. Plug down at 5:15 AM, 8-1-84, by Howco.

Deviation Surveys: 1° at 2194'
1 1/4° at 4365'