

PI

13-15-12W

BERGMAN DRILLING, INC.

State Geological Survey
WICHITA, BRANCH

DRILLERS LOG

Re: Heinze A # 1 Well # 3
600' S C W/2 SW/4
Section 13-15S-12W
Russell County, Kansas

OPERATOR: R & H Oil & Gas Co., Inc.
CONTRACTOR: Bergman Drilling, Inc.
COMMENCED: January 6, 1981
COMPLETED: January 13, 1981
TOTAL DEPTH: 3350' Set 8 5/8" @ 194.88 w/150 sx

0	75	Post Rock & Lime	
75	200	Shale - Blue Lime w/ Pyrite Streaks	
160	200	Carbent	
200	983	Shale & Red Bed	
743	774	Anhydrite	
983	1189	Shale & Red Bed	
1189	1540	Shale - Lime - Shells	
1640	1850	Lime & Shale	
1850	1881	Shale & Lime	
1881	2130	Broken Lime - Shale - Fort Riley	
2130	2309	Lime & Shale	
2309	2525	Shale	
2525	2601	Lime & Shale	
2601	2730	Lime & Shale	
2730	2905	Lime	
2905	3010	Lime & Shale	
3010	3040	Lime - KC	
3040	3125	K.C. Lime	
3125	3204	Lime & Shale	
3204	3290	Lime & Shale	
3290	3350	Lime - Arb.	
3350		Total Depth	Set 4 1/2 @ 3348 1/2 w/200 sx.

STATE GEOLOGICAL SURVEY
JAN 10 1981
CONSERVATION DIVISION
Wichita, Kansas

We certify that the above and foregoing to be true and correct copy of the Drillers Log on the Heinze A # 1 Well # 3, located in Russell County, Kansas as revealed by the records of Bergman Drilling, Inc.