

# CLIFF OTTAWAY

P.O. BOX 494 \* HAYS, KS 67601 \* 785-628-6900

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY <u>PIONEER RESOURCES</u>	ELEVATIONS
LEASE <u>FOUNDATION No 3</u>	KB <u>1881'</u>
FIELD _____	DF <u>1879'</u>
LOCATION <u>NE SW SW SW</u>	GL <u>1873'</u>
SEC <u>35</u> TWSP <u>4</u> RGE <u>18w</u>	Measurements Are All
COUNTY <u>PHILLIPS</u> STATE <u>KANSAS</u>	From <u>K.B.</u>
CONTRACTOR <u>DISCOVERY DELG Rig 1</u>	CASING
SPUD <u>5-20-13</u> COMP <u>5-25-13</u>	SURFACE <u>8 8 @ 218' 1/2</u>
RTD <u>3322'</u> LTD _____	PRODUCTION <u>D&amp;A.</u>
MUD UP <u>2650'</u> TYPE MUD <u>CHEMICAL</u>	ELECTRICAL SURVEYS
	<u>NONE</u>

### FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION		
				A	B	C
ANHYDRITE	1311		+570	+574	+581	
TOPEKA	2821'		-940	-933	-939	
HEEBNER	3025'		-1144	-1135	-1139	
TORONTO	3049'		-1168	-1159	-1162	
LANSING-KC.	3066'		-1185	-1176	-1180	
BASE-KC.	3292'		-1411	-1402	-1405	
RTD.	3322'		-1441	-1446	-1434	
LTD.				-1445	-1432	

### REFERENCE WELLS FOR STRUCTURE

- A OZARK ENTERPRISES HANSTON #4 (1 1/2 NW 1/4)
- B OZARK ENTERPRISES

RKS  
 BASED ON STRUCTURE AND NEGATIVE TRAIL STEM RESULTS IT WAS RECOMMENDED AND CONFIRM TO PLUG AND ABANDON THIS WELL.  
 Respectfully Submitted  
 Cliff Ottaway

### RECOMMENDATIONS AND REMARKS

Drilling time in minutes	DEPTH	Sample Description	Remarks