

MIKE ENGELBRECHT
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Geologists Report Log

Operator: Kitchie Explorations, Inc.
Lease: #1 Higdon 20A
Field: Michigan North
Location: J18E 04 & 770 Feet - E1/2 NE 1/4
Sec: 20
Twp: 16
Rge: 31W
County: Scott State KS
Drilling Time: 4723
Production: 416 @ 4701'

Elevation: 2937
UTM Zone: 18S
UTM Easting: 4932
UTM Northing: 4623
Chasing Record: From: 10:20:57 To: 10:21:00
Wells: 3544, 1607, 3924, 987, 3964, 1027, 4134, 4229, 4272, 4376, 4348, 4368, 4450, 4496, 4520, 4562, 4627, 4688

Formation	Top	Bottom	Thick (ft)	Stratig	Remarks
Ash Grove	2337	4600	2263	-	
Stotler	3544	1607	1937	+	
Heebner	3924	987	2937	+	
Lansing	3964	1027	2937	+	
Muncie	4134	1197	2937	+	
Stark Sh	4229	1292	3037	-	
Hush	4272	1335	2937	-	
Brc	4376	-	4376	-	
Marmaton	4348	1411	2937	-	
Altamont	4368	1431	2937	-	
Paynee	4450	1513	2937	-	
Fr Scott	4496	1559	2937	-	
Cherokee Sh	4520	1583	2937	-	
John Z	4562	1625	2937	-	
Miss	4627	1688	2937	-	

Drilling Time: 4723
RTD: 4725

Geological Information:
Well Log Services
Duff Group Forestry
Duff Construction

Reference Well: For Structural Comparison
Sect #1 Hill Creek 2nd
Sect 20-16-31W Oil Well

Drill Steel Tests

ID#	Length	WT	Flt	Chi
10-14	11.25'	52.0	7.2	1,800
10-15	10.50'	52.0	7.2	1,800
10-16	10.00'	52.0	7.2	1,800
10-17	9.50'	52.0	7.2	1,800
10-18	9.00'	52.0	7.2	1,800
10-19	8.50'	52.0	7.2	1,800
10-20	8.00'	52.0	7.2	1,800
10-21	7.50'	52.0	7.2	1,800
10-22	7.00'	52.0	7.2	1,800
10-23	6.50'	52.0	7.2	1,800
10-24	6.00'	52.0	7.2	1,800
10-25	5.50'	52.0	7.2	1,800
10-26	5.00'	52.0	7.2	1,800
10-27	4.50'	52.0	7.2	1,800
10-28	4.00'	52.0	7.2	1,800
10-29	3.50'	52.0	7.2	1,800
10-30	3.00'	52.0	7.2	1,800

IT was recommended to run 4 1/2" diameter casing to produce the limestone zone as a result of structural erosion. DST #1 Recovery, (See Log # 334)
N.W. Engelbrecht

LEGEND

Lithology: Anhydrite, Soft, Sandstone, Shale, Carb sh, Limestone, Dol. Limestone, Chert, Dolomite

Scale: 1" = 500'

Well Log: Plot of resistivity, gamma ray log, and other logs.

