

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-684-9709 * WICHITA, KS

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.

LEASE * 1-14 MARIAH

FIELD WILDCAT

LOCATION 2095' FSL + 1305' FWL

SEC 14 TWP 16s RGE 30w

COUNTY LANE STATE KANSAS

CONTRACTOR L. D. DRILLING, INC.

SPUD 10-17-19 COMP 10-26-19

RTD 4600 LTD 4600

MUD UP 3431 TYPE MUD CHEMICAL

ELEVATIONS

KB 2781

DF

GL 2776 *

Measurements Are All
From 2781 KB

CASING

SURFACE 8 5/8" @ 285'

PRODUCTION

ELECTRICAL SURVEYS

DUAL IND., DENS-N., MICROS

SAMPLES SAVED FROM 3600 TO 4600

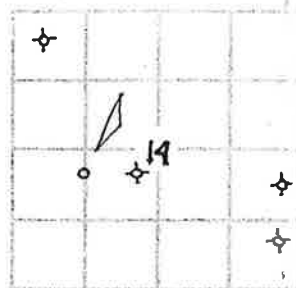
DRILLING TIME KEPT FROM 3400 TO 4600

SAMPLES EXAMINED FROM 3600 TO 4600

GEOLOGICAL SUPERVISION FROM 3800 TO 4600

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2168-613	2170-611
B/ANH.	2200-581	2200-581
STOTLER	3462-681	3463-682
HEEBNER	3842-1061	3844-1063
LANSING	3876-1095	3878-1097
STARK	4144-1363	4144-1363
MARMATON	4258-1477	4250-1469
FORT SCOTT	4401-1620	4391-1610
CHEROKEE	4425-1644	4414-1633
MISSISSIPPI	4514-1733	4514-1733



REMARKS

10-17-19 SPUD
10-18 @ 288'
10-19 @ 1482'
10-20 @ 2435'
10-21 @ 3180'
10-22 @ 3550'
10-23 @ 3980'
10-24 @ 4280'
10-25 @ 4475'
10-26 @ 4600'

API: 15-101-22637

*: Location raised 18"

Shot Elev. 2775 GL

LEGEND

	Dolomite
	Chert
	Oil Lime
	Limestone
	Carb. sh
	Shale
	Sandstone
	Salt
	Anhydrite

DRILLING TIME IN MINUTES
PER FOOT

Ratio of Penetration Increases

DEPTH
2100

LITHOLOGY

SAMPLE DESCRIPTIONS

REMARKS

ANHYDRITE 2170-611

B/ANN. 2200-581

2200

3400

STOTLER 3463-682

3500

3600

Vis: 45 WT: 8.8
Vol: 7.2 CIL: 2000

Samples are Layed

15 g. Sil Foss

15 wt % Foss. Calcitic

Sh Lig.

25 wt % Lig. Sil Foss. KSi. Chly.

Sh. Red Ark
 LS. Lt. Sil. Foss w/ Red shale
 LS. Th. V. Sil. Foss Sil. A. Sh. chly.
 Sh. Rd
 LS. Gp. Sil. Foss
 LS. Gp. Sil. Foss

VIS: 51 WTI: 94
 VIL: 9.6 CWT: 2500

PAWNEE 4436-1555
 Sh. Red Ark
 LS. Gp. Sil. Foss

LS. Gp. Sil. Foss

V 106

LS. Lt. Sil. Foss

Sh. Red Ark

LS. Gp. Sil. Foss

Sh. Red Ark

LS. Gp. Sil. Foss

FORT SCOTT 4391-1610
 Sh. Red Ark

LS. Lt. Sil. Foss

LS. Gp. Sil. Foss

CHEROKEE 4414-1633
 Sh. Red Ark

LS. Lt. Sil. Foss

Sh. Red Ark

LS. Gp. Sil. Foss

LS. Lt. Sil. Foss

JOHNSON 4457-1676
 Sh. Red Ark

LS. Gp. Sil. Foss

LS. Lt. Sil. Foss

LS. Gp. Sil. Foss

Sh. Red Ark

LS. Lt. Sil. Foss

Sh. Red Ark

LS. Gp. Sil. Foss

MISSISSIPPI 4514-1733
 Sh. Red Ark

LS. Lt. Sil. Foss

LS. Gp. Sil. Foss

Sh. Red Ark

LS. Lt. Sil. Foss

Sh. Red Ark

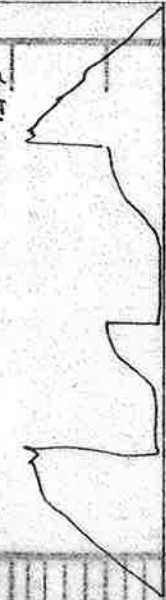
LS. Gp. Sil. Foss

LS. Lt. Sil. Foss

Sh. Red Ark

LS. Gp. Sil. Foss

DST (1) 4433-4475
 1st 2nd: Blow built to 1/2" h
 2nd 3rd: Surface Blow
 30-45-60
 Rec. 10' Mud w/ Oil Spikes
 Temp. 120°F
 SIP: 986-922



V 106

VIS: 51 WTI: 94
 VIL: 10.4 CWT: 2700

RTD 4600-1819