

# KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-884-9709 \* WICHITA, KS

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

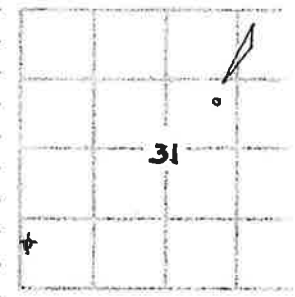
COMPANY <u>L. D. DRILLING, INC.</u>	ELEVATIONS
LEASE <u>W-1-31 MURPHY</u>	KB <u>3058</u>
FIELD <u>WILDCAT</u>	DF
LOCATION <u>1831' ENL &amp; 1826' FEL</u>	GL <u>3053</u>
SEC <u>31</u> TWP <u>8s</u> RGE <u>31w</u>	Measurements Are From <u>3058 KB</u>
COUNTY <u>THOMAS</u> STATE <u>KANSAS</u>	CASING SURFACE <u>8 1/8" @ 335'</u>
CONTRACTOR <u>L.D. DRILLING, INC.</u>	PRODUCTION
SPUD <u>5-15-18</u> COMP <u>5-27-18</u>	ELECTRICAL SURVEY
RTD <u>4732</u> LTD <u>4732</u>	DUAL IND., DENS-N., MICR.
MUD UP <u>3438</u> TYPE MUD <u>CHEMICAL</u>	

SAMPLES SAVED FROM <u>3700</u> TO <u>4732</u>
DRILLING TIME KEPT FROM <u>3600</u> TO <u>4732</u>
SAMPLES EXAMINED FROM <u>3700</u> TO <u>4732</u>
GEOLOGICAL SUPERVISION FROM <u>3800</u> TO <u>4732</u>
GEOLOGIST ON WELL <u>KIM B. SHOEMAKER</u>

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2682 + 376	2680 + 378
B/ANH.	2714 + 344	2709 + 349
STOTLER	3713 - 655	3719 - 656
HEEBNER	4048 - 990	4049 - 991
LANSING	4084 - 1026	4086 - 1028
B/KC	4350 - 1292	4351 - 1293
MARMATON	4372 - 1314	4370 - 1312
FORT SCOT	4532 - 1474	4532 - 1474
CHEROKEE	4562 - 1504	4562 - 1504
MISSISSIPPI	4642 - 1584	4640 - 1582



API: 15-193-21016

REMARKS  
 5-15-18 SPUD  
 5-16 @ 338'  
 5-17 @ 1760'  
 5-18 @ 2700'  
 5-19 @ 3220'  
 5-20 @ 3695'  
 5-21 @ 4080'  
 5-22 @ 4142'  
 5-23 @ 4295'  
 5-24 @ 4355'  
 5-25 @ 4465'  
 5-26 @ 4732'

### LEGEND

- Dolomite
- Gyps
- Coll. Lime
- Limestone
- Gyps sh.
- Shale
- Sandstone
- Silt
- Anhydrite



SHOED-11

2750

3600

3700

3800

VI: 42 WT: 88  
WC: 6.8 CW: 1500

Samples are Logged

Sh. Lig. Silty

STORLER 3714-656

15. G. Sh. Foss.

15. T. Silty. Silty. A  
Sh. Lig.

15. Lig. Foss. Silty. A. E. V. P. A. B. C. D. E. F. G. H. I. J. K. L. M. N. O. P. Q. R. S. T. U. V. W. X. Y. Z. No. 100

15. W. Lig. Foss.

15. T. Silty. Silty. Foss.

15. T. Lig. cool. Silty. A

Sh. Lig. Silty.

15. T. wt. Silty. Foss. Silty. A. V. Silty. ch. lig.

15. T. Foss. Silty. A

Sh. Lig. Silty.

15. T. wt. Silty. Foss. Silty. ch. lig. wt. 100. B. C. D. E. F. G. H. I. J. K. L. M. N. O. P. Q. R. S. T. U. V. W. X. Y. Z. No. 100

15. T. F.

Sh. Lig.

15. wt. Silty. Foss. P. V. Silty. Blue Silty. No. 100

15. Lig. Silty. Foss.

Sh. Lig.

15. wt. Silty. Foss. Silty. A. Silty. Ch. Lig.

Sh. Bl.

3900

4000

4100

4200

Sh. Bl.

LS. Tn. Sil. Foss. sil. ch. lly.

Sd. Sh. sil. Foss. sil. ch. lly.

Sh. Blue-G.

LS. wt. Foss. F. V. sp. Dark Blue. No odor.

LS. Tn. wt. Foss. Calcitic.

LS. wt. ch. lly.

LS. Tn. wt. Foss. sil.

LS. Tn. V. sp. Foss. V. sp. A

Sh. Blk.

LS. Tn. sil. Foss. Calcitic. P. V. sp. No odor.

Sh. Lig. G.

LS. wt. Foss. sil. F. sp. Dark Blue. No odor.

Sh. Lig. G.

LS. wt. V. sp. Foss. Sil. Calcitic.

Dol. wt. V. Fresh Sil.

Sh. Dk. G.

Sh. W. Blk.

LS. wt. sil. Foss. ch. lly.

LS. wt. V. sp. Foss. ch. lly.

LS. wt. Foss. Sil. A

LS. wt. V. sp. Foss. Sil. ch. lly. No odor.

**HEEBNER 4099-991**

Sh. Blk. Carb.

LS. wt. sil. Foss.

Sh. Lt. Br. Blk.

**TORONTO 4070-1012**

LS. wt. Foss. P. V. sp. Dark Blue. No odor.

Sh. Bl.

**LANSING 4086-1028**

LS. wt. sil. Foss. Sil. F. sp. No odor.

LS. wt. ch. lly.

LS. wt. wt. sil. Foss. Sil. ch. lly. No odor.

Sh. Dk. G.

Sh. Bl.

LS. Tn. sil. Foss. Sil. F. sp. No odor.

LS. Tn. sil. Foss. Sil. F. sp. No odor.

Sh. Lt. Blue.

LS. Tn. sil. Foss. Sil. F. sp. No odor.

LS. wt. Foss. Sil. A

LS. wt. sil. Foss. Sil. F. sp. No odor.

LS. wt. ch. lly.

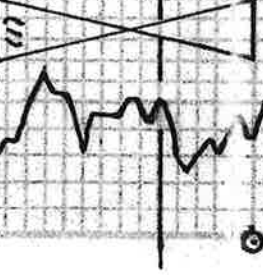
LS. wt. sil. Foss. Sil. F. sp. No odor.

LS. wt. ch. lly.

LS. wt. ch. lly.

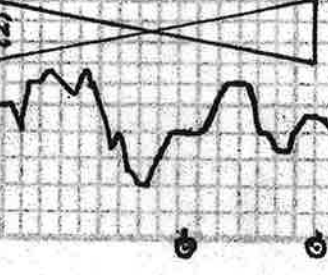
LS. sil. Foss. Sil. A

DST (1)



WT: 51  
WT: 9.5  
CAL: 2000

DST (2)



WT: 56  
WT: 9.3  
WT: 9.0  
CAL: 3400

**DST (1) 4053-4080**

1st OPEN: 1/4" Blow

2nd OPEN: Surf. face Blw

30-30-30-30

Rev. 2' Mud

FP: 10-11-10-12

SIP: 40-42

Temp. 123°F



**DST (2) 4108-4142**

1st OPEN: Bottom bucket 20 min.

2nd OPEN: " " 25 "

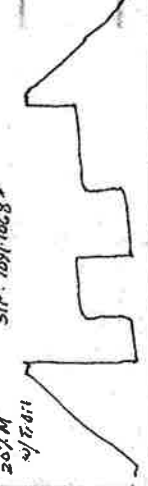
30-45-45-40

Rev. 30' Mud

FP: 10-10-10-12

SIP: 40-42

Temp. 135°F



**DST (3) 4208-4295**

1st OPEN: " " 30 "

2nd OPEN: " " 30 "



Sh. Blk. Carb.

### FORT SCOTT 4532-1474

LS. Sil. V. Sil. Foss. Sil. A. P. Long P.  
V. Bl. Carb. Sil. V. Sil. F. Floor. Flodac.  
A. H. Sil.

LS. T. N. Sil. A.

LS. T. H. N. Sil. Foss.

### CHEROKEE 4562-1504

LS. R. Sil. A.

LS. T. Sil. Foss. Sil. A. Calentic.

Sh. DE J.

LS. T. W. Sil. Foss. Sil. A.

Sh. L. Blue

LS. T. W. Sil. Foss.

LS. L. Blue. Sil. Foss. Sil. A. Calentic. P. Long  
DE. Bl. Carb. Sil. V. Sil. F. Floor. M. Wood.

LS. Sil. W. Sil. Foss. Sil. A. Calentic.

Sh. Blue

Sil. Carb. Foss. Sil. A. Calentic. P. Long  
DE. Bl. Carb. Sil. V. Sil. F. Floor. M. Wood.

A. Yellow. Gray

Sh. P. R. Sil. Foss.

### MISSISSIPPI 4640-1582

Dol. T. H. Sil. Foss. Sil. A.

Dol. T. H. Sil. Foss. Sil. A. Calentic.

Dol. T. H. Sil. Foss. Sil. A. Calentic.

Dol. Sil. Foss. Sil. A.

LS. T. H. Sil. Foss. Sil. A.

LS. T. H. Sil. Foss. Sil. A.

LS. T. H. Sil. Foss. Sil. A.

LS. T. H. Sil. Foss. Sil. A.

LS. T. H. Sil. Foss. Sil. A.

Dol. T. H. Sil. Foss. Sil. A.

LS. T. H. Sil. Foss. Sil. A.

RTD 4732-1674

4600

4700