

# KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-684-9709 \* WICHITA, KS

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.  
 LEASE #1-20 BARRETT TRUST  
 FIELD \_\_\_\_\_  
 LOCATION 330' FNL 1/4 2310' FWL  
 SEC 20 TWP 8s RGE 34w  
 COUNTY THOMAS STATE KANSAS  
 CONTRACTOR L. D. DRILLING, INC.  
 SPUD 8-1-18 COMP 8-14-18  
 RTD 4804 LTD 4805  
 MUD UR 3470 TYPE MUD CHEMICAL

ELEVATIONS  
 KB 3262  
 DF \_\_\_\_\_  
 CL 3257  
 Measurements An. All  
 From 3262 KB  
 CASING  
 SURFACE 8 5/8" @ 3 1/6'  
 PRODUCTION \_\_\_\_\_  
 ELECTRICAL SURVEYS  
 Dual Ind, DENS-N, Micro Sonic

SAMPLES SAVED FROM 3500 TO 4804  
 DRILLING TIME KEPT FROM 3500 TO 4804  
 SAMPLES EXAMINED FROM 3500 TO 4804  
 GEOLOGICAL SUPERVISION FROM 3700 TO 4804  
 GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2792-470	2792-470
B/ANH.	2823-439	2823-439
STOTLER	3679-417	3677-415
HEEBNER	4085-823	4084-822
LANSING	4130-868	4125-863
B/KC	4393-1131	4387-1125
PAWNEE	4516-1254	4513-1251
FORT SCOT	4576-1314	4573-1311
CHEROKEE	4607-1345	4605-1343
MISSISSIPPI	4720-1458	4714-1452






REMARKS

API: 15-193-21024

8-1-18 SPUD 8-13 @ 4730'  
 8-2 @ 339' 8-14 @ 4804'  
 8-3 @ 1630'  
 8-4 @ 2627'  
 8-5 @ 3195'  
 8-6 @ 3672'  
 8-7 @ 4010'  
 8-8 @ 4204'  
 8-9 @ 4311'  
 8-10 @ 4380'  
 8-11 @ 4480'  
 8-12 @ 4585'

### LEGEND

-  Dolomite
-  Gist
-  Out-Letts
-  Liasolans
-  Carb. of
-  Shale
-  Sandstone
-  Salt
-  Anhydrite

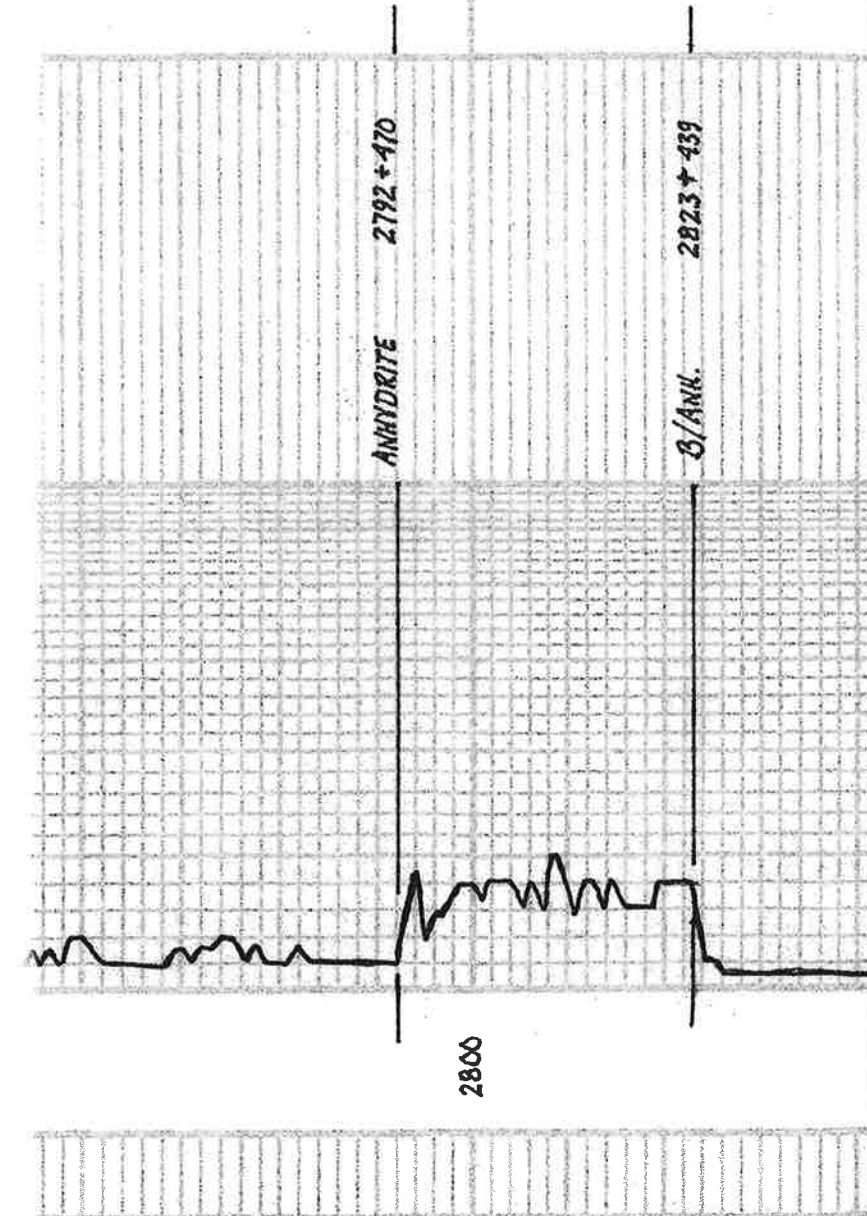
REMARKS

SAMPLE DESCRIPTIONS

DRILLING TIME IN MINUTES  
 PER FOOT  
 Rate of Penetration Increases

DEPTH  
 2750

LITHOLOGY



2850

3500

3600

3700

Samples are logged

Sh. Rd. sdy. Silty

Dol. G. V. Fresh S. Silty

Sd. Clay. V. Fresh Sub Bl.

Sh. Rd

Ls. To G. V. Sil. Foss.

Sh. G. Lu

Ls. w/ Foss. dol.

Ls. To wt. dol. Foss. V. Sil. ch. lky.

Ls. wt. Foss. Sil. sdy.

Sh. Rtg. Silty

Sh. Lt. Blue. Silty

STOTLER 3677-915

Ls. wt. Lig. Sil. Foss. w/ Blk. Tally (3700)

Nb: 50  
Wt: 8.8  
Nb: 6.4  
Cl: 2200

Ls. To Bl. wt. Sil. Foss. P. Bl. p  
D. S. Sil. F. Sil. No. Foss.

No. Foss.  
(3720)

Ls. To Foss. Sil. D

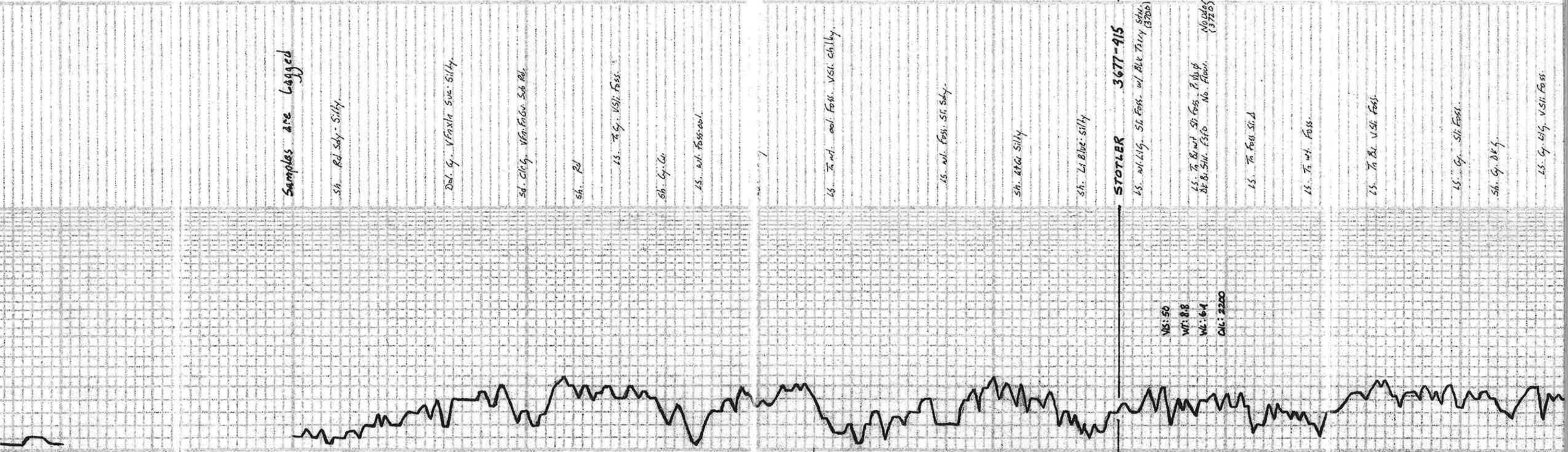
Ls. To wt. Foss.

Ls. To Bl. V. Sil. Foss.

Ls. G. Sil. Foss.

Sb. G. Def.

Ls. G. Lig. V. Sil. Foss.



LS. Gy. silty. V.Si. Foss.

LS. Gy. Dr.

Sh. LG.

LS. 14. 1/4 to 1/2 in. Micro-Foss. Silty. P. Fin. Ppt. Bl. Sp. Silty. Foss. No Floor. (3800)

Sh. 11 Blue Gy.

LS. Tr. silty. V.Si. Foss.

LS. 11. 1/4 V.Si. Foss. Silty

Sh. LG.

HOWARD 3890-578

LS. 7. Foss. Silty. F. V. Sp. DE. Bl. Red Sp. Silty. Foss. No Floor. No Order (3800)

LS. 11. 1/4. V.Si. Silty.

Sh. G.

LS. Gy. Silty. Foss.

Sh. LG. Silty.

Sh. 11. 1/4 G.

TOPEKA 3893-631

LS. 7. 1/4. Red. V.Si. Call.

LS. 11. 1/4. V.Si. Foss. Call.

LS. 7. Silty. Foss. Silty

LS. 11. 1/4. Red. Silty. Call.

LS. 11. 1/4. Silty. Foss. Silty.

Sh. 11. 1/4

LS. 11. 1/4. Silty. Foss. Silty. Call.

LS. 11. 1/4. V.Si. Foss. Silty. Call.

Sh. BLK.

Sh. LG.

LS. 11. 1/4. Red. Foss.

Sh. 11. 1/4. Silty. Silty.

LS. 7. Silty. Foss. Silty

LS. 11. 1/4. Red. Silty. Silty

Sh. 11. 1/4

LS. 11. 1/4. Silty. Foss. Silty

HEEBNER 4084-822

Sh. BLK. G. b.

3800

3900

4000

4100

V. 10. 1/4

VIS: 49  
WT: 91  
WE: 96  
CL: 2400

V. 10. 1/4

Sh. Lt Blue G.

Ls. wt. to sil. foss. sil. A. P. V. 100  
Bl. Spid. Sil. Foss. Dull. Flour  
No. 0601  
(4020-30)

Sh. H Blue Rd  
**LANSING 4125-863**

Ls. wt. sil. foss. sil. A

Ls. wt. sil. foss. vsil. sil. A

Sh. Lt Blue

Ls. wt. sil. foss. vsil. ch. lly. F. 1/2  
Bl. Spid. Sil. Foss. vsil. sil. A  
(4100-80)

Sh. Lt Blue

Ls. wt. sil. foss. vsil. sil. A. P. V. 100  
Bl. Spid. Sil. Foss. vsil. sil. A  
(4190)

Ls. wt. sil. foss. sil. ch. lly.

Sh. Lt Blue  
Ls. wt. sil. foss. vsil. sil. A. P. V. 100  
Bl. Spid. Sil. Foss. vsil. sil. A  
(4200-30)

Ls. wt. sil. foss. sil. ch. lly.

Sh. Lt Blue

Ls. wt. sil. foss. sil. A

Ls. sil. vsil. ch. lly.

**MUNCIE CREEK 4247-985**

Sh. Lt Blue

Ls. sil. vsil. foss.

Sh. Lt Blue G.

Ls. wt. sil. foss. vsil. sil. A. P. V. 100  
Bl. Spid. Sil. Foss. Dull. Flour  
(4225-30)

Sh. Lt Blue

Ls. sil. vsil. foss.

Sh. Lt Blue, Blue

Ls. wt. sil. foss. vsil. ch. lly. P. V. 100  
Bl. Spid. Sil. Foss. vsil. sil. A  
(4311-30)

Sh. Lt Blue

Ls. wt. sil. foss. sil. A. P. V. 100  
Bl. Spid. Sil. Foss. vsil. sil. A  
(4327-30)

**STARK 4328-1066**

Sh. Lt Blue

Sh. Lt Blue G.

Ls. wt. sil. foss. vsil. sil. A. P. V. 100  
Bl. Spid. Sil. Foss. vsil. sil. A  
(4357-30)

Sh. Lt Blue G.

Ls. sil. vsil. foss. No order

**B/KC 4387-1125**

Sh. Lt Blue G.

Ls. wt. sil. foss. vsil. sil. A. P. V. 100  
Bl. Spid. Sil. Foss. vsil. sil. A  
(4357-30)

**MARMATON 4408-1146**

Ls. wt. sil. foss. sil. A

Sh. Lt Purple Lt G.

4100

4100

4300

4400

TORONTO

V LOG

DST (10)  
VIS: 55  
WT: 9.5  
WL: 10.4  
CAL: 1000

DST (12)  
V LOG

DST (13)

VIS: 56  
WT: 9.2  
WL: 8.8  
CAL: 3500

DST (14)

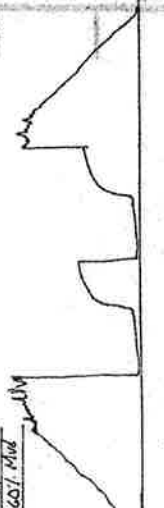
VIS: 51  
WT: 9.4  
WL: 8.0  
CAL: 3000

V LOG

**DST (1) 4191-4204**  
1st OPEN: Blow built to 1"  
2nd OPEN: Ince to surface Blow  
30-30-30-30

Rec: 15' MW (66/100 37/100)  
PH: 8  
R/S: 330/100  
R/S: 13-17 18-19 H  
SIP: 1051-950 #

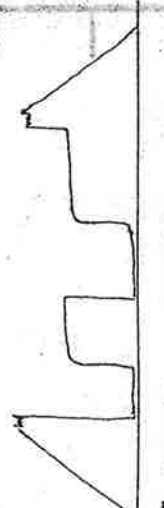
Temp: 125°F



**DST (2) 4243-4275**  
1st OPEN: Blow built to 6 1/4"  
2nd OPEN: " " " 7"  
30-45-45-60

Rec: 2' Clean Oil  
100' VSOC/MW (2/101 85/101 13/101)  
PH: 7  
R/S: 11 6 65°F  
R/S: 27-000  
SIP: 17-51 53-101 #  
SIP: 1309-1309 #

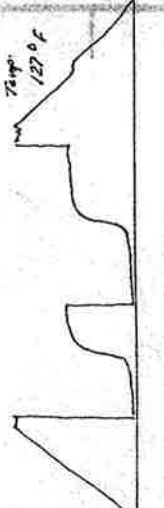
Temp: 134°F



**DST (3) 4277-4327**  
1st OPEN: Blow built to 7"  
2nd OPEN: Bottom bucket 45 min.  
30-45-45-60

Rec: 190' G.I.P.  
1' Clean Oil  
62' HOC/M (157-011 557/101)  
PH: 63  
SIP: 15-25 24-39 #  
SIP: 1217-1171 #

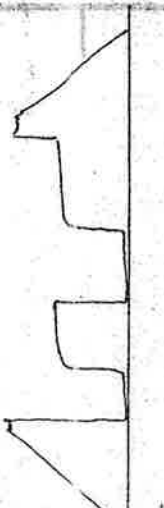
Temp: 127°F



**DST (4) 4325-4380**  
1st OPEN: Blow built to 4 1/2"  
2nd OPEN: " " " 4"  
30-45-45-60

Rec: 122 000  
PH: 19 079°F  
R/S: 33-000  
SIP: 16-32 41-69 #  
SIP: 1315-1298 #

Temp: 122°F

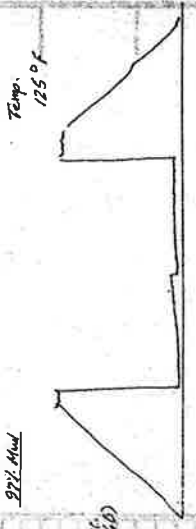


**DST (5) 4383-4480**  
1st OPEN: Blow built to 1 1/2"  
2nd OPEN: No Blow  
30-30-30-30

Rec: 8' VSOC/M C/Oil 987/101  
PH: 16-17 18-18 H  
SIP: 145-83 #

Temp: 125°F

Temp Sample:  
3/101  
377-101



15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)  
 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)  
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 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)

VIS: 48  
 WT: 96  
 WL: 10.4  
 CW: 4400

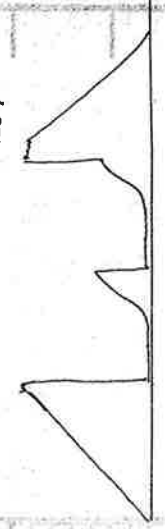
4500

DST (6) 4189-4570  
 1st OPEN: Blow built to 1 1/2"  
 2nd OPEN: No Blow  
 30-30-30-30  
 Rec. 20' USOCM (120/192/24)

PAWNEE 4513-1251  
 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)  
 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)

Total Sample: 27.01  
 98% Mud

Temp. 126°F



15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)  
 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)

FORT SCOT 4573-1311  
 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)

VIS: 59  
 WT: 93  
 WL: 10.4  
 CW: 4800

4600

DST (7) 4600-4670  
 1st OPEN: Blow built to 1 1/2"  
 2nd OPEN: No Blow  
 30-30-30-30  
 Rec. 7' USOCM (170/192/M)

CHEROKEE 4605-1393  
 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)  
 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)

Total Sample: 27.01  
 98% Mud

FP: 16:18 18:19  
 SIP: 87-49



JOHNSON 4618-1386  
 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)  
 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)

VIS: 63  
 WT: 90  
 WL: 8.0  
 CW: 3500

4700

MISSISSIPPI 4714-1452  
 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)  
 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)

VIS: 63  
 WT: 90  
 WL: 8.0  
 CW: 3500

15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)  
 15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)

15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)

15. wt. VSI Foss Sil. A. P. V. 1/2. No. 180. (4500)

Dol. Gy. Fr. Sls. Sw.

Δ R. w/ Sl. Fac.

Dol. R. Gy. V. Fr. Sw. w/ Det. Fr. L.

Δ R. w/ Fr. Sw.

Dol. Gy. Fr. Sls. Sw. Sl: Δ.

4800



RTD 4804-1592

