

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

315-884-9709 * WICHITA, KS

GEOLOGIST'S REPORT

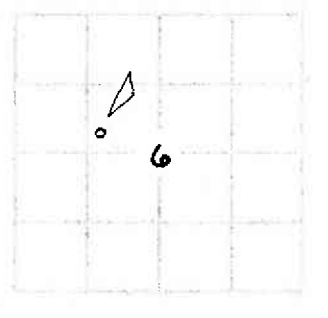
DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.
 LEASE # 1-6 BRACK
 FIELD WILDCAT
 LOCATION 2970' FSL ± 1550' FWL
(2236 FNL)
 SEC 6 TWP 6S RGE 38W
 COUNTY SHERMAN STATE KANSAS
 CONTRACTOR L. D. DRILLING, INC.
 SPUD 2-3-17 COMP 2-11-17
 RID 5175 LTD 5174
 ROD UP 3567 TYPE MUD CHEMICAL

ELEVATIONS
 KR 3558
 DF _____
 EL 3553
 Measurements Are All
 From 3558 KB
 CASING
 SURFACE 8 5/8" @ 493'
 PRODUCTION _____
 ELECTRICAL SURVEYS
 DUAL IND., DENS-N, MICRO

SAMPLES SAVED FROM 4000 TO 5175
 DRILLING TIME KEPT FROM 3900 TO 5175
 SAMPLES EXAMINED FROM 4000 TO 5175
 GEOLOGICAL SUPERVISION FROM 4200 TO 5175
 GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	3224+ 334	3228+ 330
B/ANH.	3264+ 294	3265+ 293
HEEBNER	4330- 772	4334- 776
LANSING	4388- 830	4389- 831
B/KC	4674- 1116	4668- 1110
PAWNEE	4790- 1232	4790- 1232
FORT SCOTT	4856- 1298	4854- 1296
CHEROKEE	4886- 1328	4884- 1326
MISSISSIPPI	5127- 1569	5128- 1570



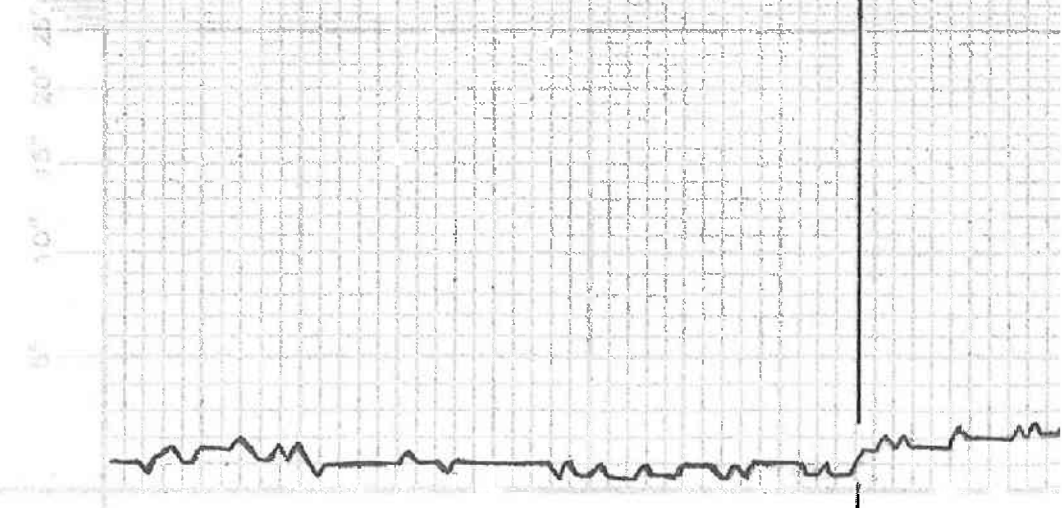
API: 15-181-20605

REMARKS
 2-3-17 SPUD
 2-4 @ 446'
 2-5 @ 1480'
 2-6 @ 2770'
 2-7 @ 3567'
 2-8 @ 3756'
 2-9 @ 4212'
 2-10 @ 4598'
 2-11 @ 4678'
 2-12 @ 4760'
 2-13 @ 4858'
 2-14 @ 5175'

LEGEND

- Dolomite
- Chert
- Oil Shale
- Limestone
- Sandstone
- Shale
- Case in
- Unlabeled
- Anhydrite
- Salt
- Sandstone
- Shale
- Dolomite

DRILLING TIME IN MINUTES
 PER FOOT
 Scale of Penetration (minutes/ft)



LITHOLOGY

ANHYDRITE 3228+330

B/ANK. 3265+293

Mud V. @ 3580 Vis: G2

WT: 8.6

WL: 7.2

CHL: 2000

Mud V. @ 3785 Vis: S1

WT: B.7

WL: 7.2

CHL: 2200

Samples are logged

Dol. at V. Fin. Sec.

Sh. Rd Silty.

LS. Dol. Th. of V. Fin. Sec.

Sh. Rd

LS. T. 114, Sh. Foss.

LS. G. Sh. Foss.

Sh. G. L. G.

LS. T. V. Sh. Foss. S. 1. 1

LS. Yellow. Sh. Foss. V. S. 1. 1

Sh. Rd.

LS. w. Sh. Foss. w/ Tr. Bk. G. S. 1. 1

Sh. Rd. L. G.

LS. G. Sh. Foss. w/ Bk. G. S. 1. 1

3300

3900

4000

4100

65. wt. Silty. Foss. Col. Calc. sh.
Sh. 450.
65. Tr. Hg. Dm.
Sh. Rd silty

65. 65 wt. Pink w/ Rd. Sh. Sticks

65. wt. Silty. Foss. Col. Calc. sh. Rd. Stk.

65. wt. Silty. Foss. Silty cherty

65. wt. Silty. Foss. Cherty

65. Tr. wt. Silty. Foss. Silty cherty

Sh. Rd. Silty
65. wt. Silty. Foss. Col. Calc. sh.

Sh. Rd. Silty. Foss. Col. Calc. sh.

65. wt. Silty. Foss.

Sh. Rd.

65. wt. Silty. Foss. Col. Calc. sh. Rd.

Sh. Rd.

65. wt. Foss. Col. Calc. sh.

65. wt. Silty. Foss.

HEERONER 4334-776
65. wt. Silty. Foss. Col. Calc. sh.

Sh. Rd. Silty. Foss. Col. Calc. sh.

65. wt. Silty. Foss. Col. Calc. sh. Rd.

Sh. Rd. Silty. Foss. Col. Calc. sh.

65. wt. Foss. Silty. Cherty w/ Tr. Hg. Dm. Stk.

Sh. Rd. Silty

LANSING 4389-831

65. wt. Silty. Foss. Silty cherty

Sh. Rd. Silty. Foss. Col. Calc. sh.

Sh. Rd.

65. wt. Foss. Silty. Foss. Silty cherty

Sh. Rd. Silty. Foss. Col. Calc. sh.

65. wt. Silty. Foss. Col. Calc. sh.

65. wt. Silty. Foss. Col. Calc. sh.

65. wt. Silty. Foss. Col. Calc. sh.

VIS: G2
WT: 9.2
WL: 9.6
CAL: 2500

4200

4300

4400

TORONTO

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LS. wt. 1/4. Bl. ... LS. DK. G. Sil. ...
LS. DK. G. Sil. ...
LS. G. Sil. Foss. Sil. A. ...
LS. ... Sil. Foss. Sil. A.

FORT SCOT 4851-1296
Bl. Sil. Foss.

LS. ... Sil. Foss.

LS. ... Sil. Foss. Sil. A.

LS. ... Sil. Foss.
CHEROKEE 4884-1326
Sh. Blue Carb.

LS. ... Sil. Foss.

LS. ... Sil. Foss. V. Sil. Chalk.

Sh. DK. G. ...
LS. ... Sil. Foss.

A. G. Orange

Sh. Sil. A. G.

A. Orange

LS. ... Sil. Foss. Sil. Chalk.

LS. ... Sil. Foss. Sil. Chalk.

Sh. A. Blue G.

LS. ... Sil. Foss.

Sh. DK. G. ...

LS. G. Foss. Sil. A.

Sh. Yellow Blue G.

LS. ... Sil. Foss. Sil. Chalk.

LS. ... Sil. Foss. Sil. Chalk.

Sh. A. G.

LS. ... Sil. Foss. Sil. A.

Sh. Yellow Blue G.

LS. ... Sil. Foss. Sil. Chalk.

LS. ... Sil. Foss. Sil. Chalk.

Sh. ... Sil. Foss. Sil. Chalk.

Yellow Sil. Sh. ... Sil. Chalk.

Sh. DK. G.

Sh. G. ... Sil. Chalk.

Sh. DK. G.

Sh. G. Yellow Sil. Chalk.

Sh. A. Blue G.

A. Orange Tan.

MISSISSIPPI 5128-1570

Del. ... Sil. Foss. Sil. Chalk.

Del. ... Sil. Foss. Sil. Chalk.

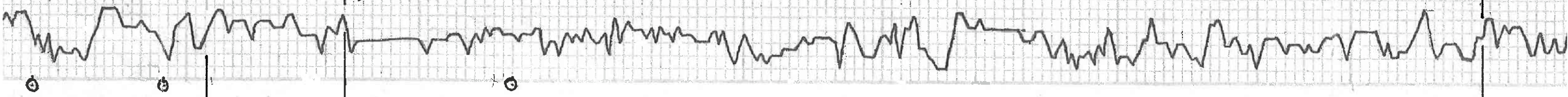
VIS: 57
WT: 91
WC: 8.0
CML: 4800

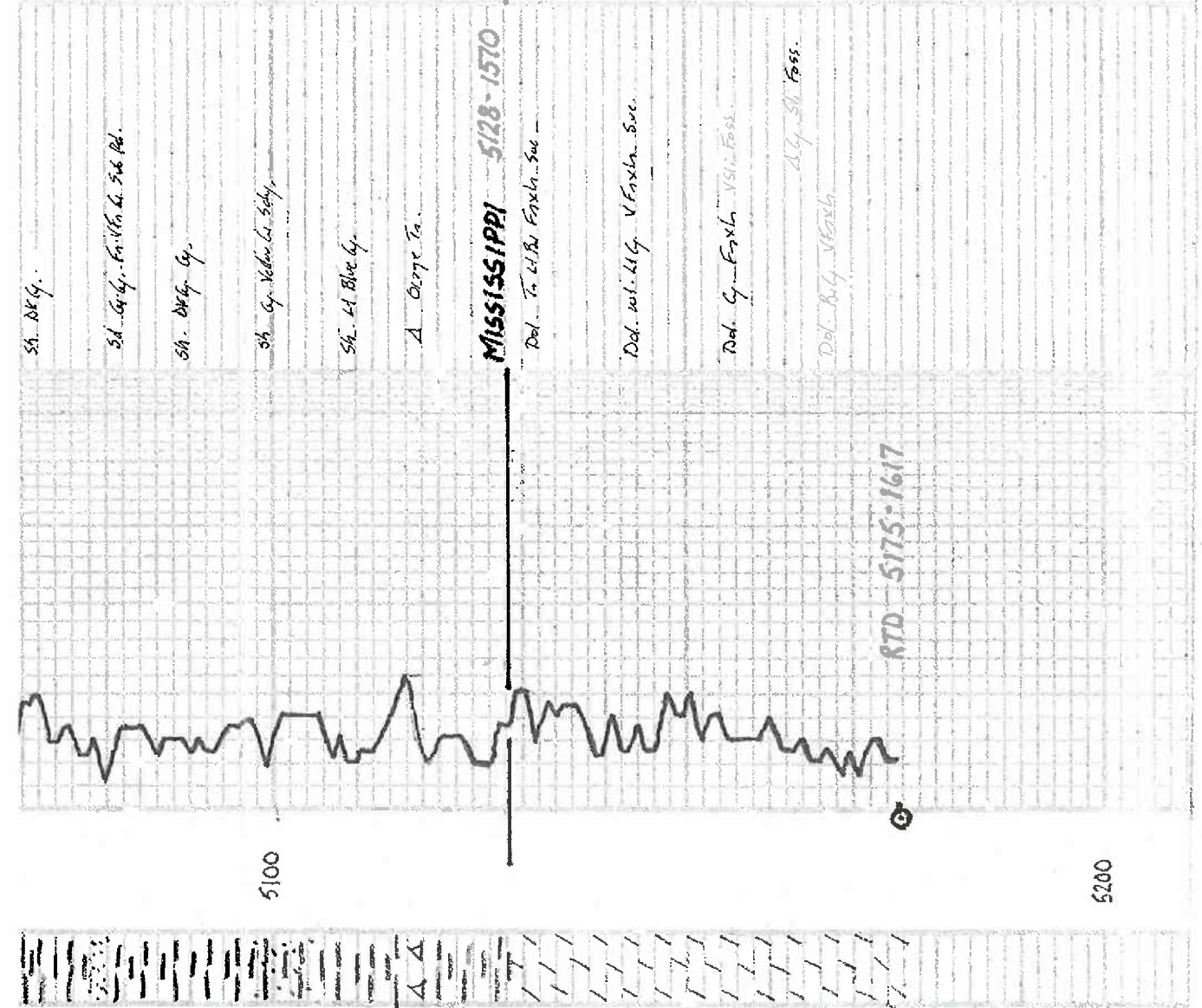
V. 406

4900

5000

5100





Sh. dk G.

Sh. G. G. F. V. N. G. 3.6 Rd.

Sh. dk G. G.

Sh. G. V. N. G. 3.6 Rd.

Sh. dk Blue G.

A. Orange T.

MISSISSIPPI 5128-1570

Dol. T. dk Blue F. V. N. G.

Dol. dk. dk. G. V. F. N. G. S. V.

Dol. G. F. N. G. V. S. F. N. G.

Dol. dk. G. V. F. N. G.

RTD 5175-1617

5100

5200