

KIM B. SHOEMAKER

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GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY <u>RAYMOND OIL COMPANY, INC.</u>	ELEVATIONS
LEASE <u># 1 DEEDS</u>	KB <u>3400</u>
FIELD <u>WILDCAT</u>	DF _____
LOCATION <u>1219' FNL $\frac{1}{2}$ 1894' FWL</u>	GL <u>3395</u>
SEC <u>15</u> TWP <u>5s</u> RGE <u>37w</u>	Measurements Are All From <u>3400 KB</u>
COUNTY <u>CHEYENNE</u> STATE <u>KANSAS</u>	
CONTRACTOR <u>L. D. DRILLING, INC.</u>	CASING
SPUD <u>9-2-14</u> COMP <u>9-13-14</u>	SURFACE <u>85/8 @ 318'</u>
RTD <u>5025</u> LTD <u>5026</u>	PRODUCTION <u>4 1/2" @</u>
MUD UP <u>3630</u> TYPE MUD <u>CHEMICAL</u>	ELECTRICAL SURVEYS
	DUAL IND., DENS., N. MICRO

SAMPLES SAVED FROM _____ 3700 TO 5025

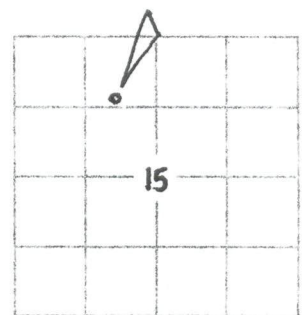
DRILLING TIME KEPT FROM _____ 3700 TO 5025

SAMPLES EXAMINED FROM _____ 3700 TO 5025

GEOLOGICAL SUPERVISION FROM _____ 4000 TO 5025

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	3101 + 299	3104 + 296
B/ANN.	3138 + 262	3140 + 260
STOTLER	3932 - 532	3932 - 532
HEEBNER	4210 - 810	4212 - 812
LANSING	4261 - 861	4262 - 862
B/KC	4521 - 1121	4521 - 1121
PAWNEE	4649 - 1249	4648 - 1248
FORT SCOTT	4704 - 1304	4700 - 1300
CHEROKEE	4729 - 1329	4728 - 1328
MISSISSIPPI	4934 - 1534	4934 - 1534



REMARKS

9-2-14 5900
 9-3 @ 362'
 9-4 @ 1700'
 9-5 @ 2795'
 9-6 @ 3525'
 9-7 @ 4100'
 9-8 @ 4290'
 9-9 @ 4395'
 9-10 @ 4500'
 9-11 @ 4670'
 9-12 @ 4945'
 9-13 @ 5025'

API: 15-023 - 21406

LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Carb sli
- Limestone
- Ool. Lime
- Chert
- Dolomite

DRILLING TIME IN MINUTES
 PER FOOT

Rate of Penetration Increases

5" 10" 15" 20" 25"

DEPTH
 3100

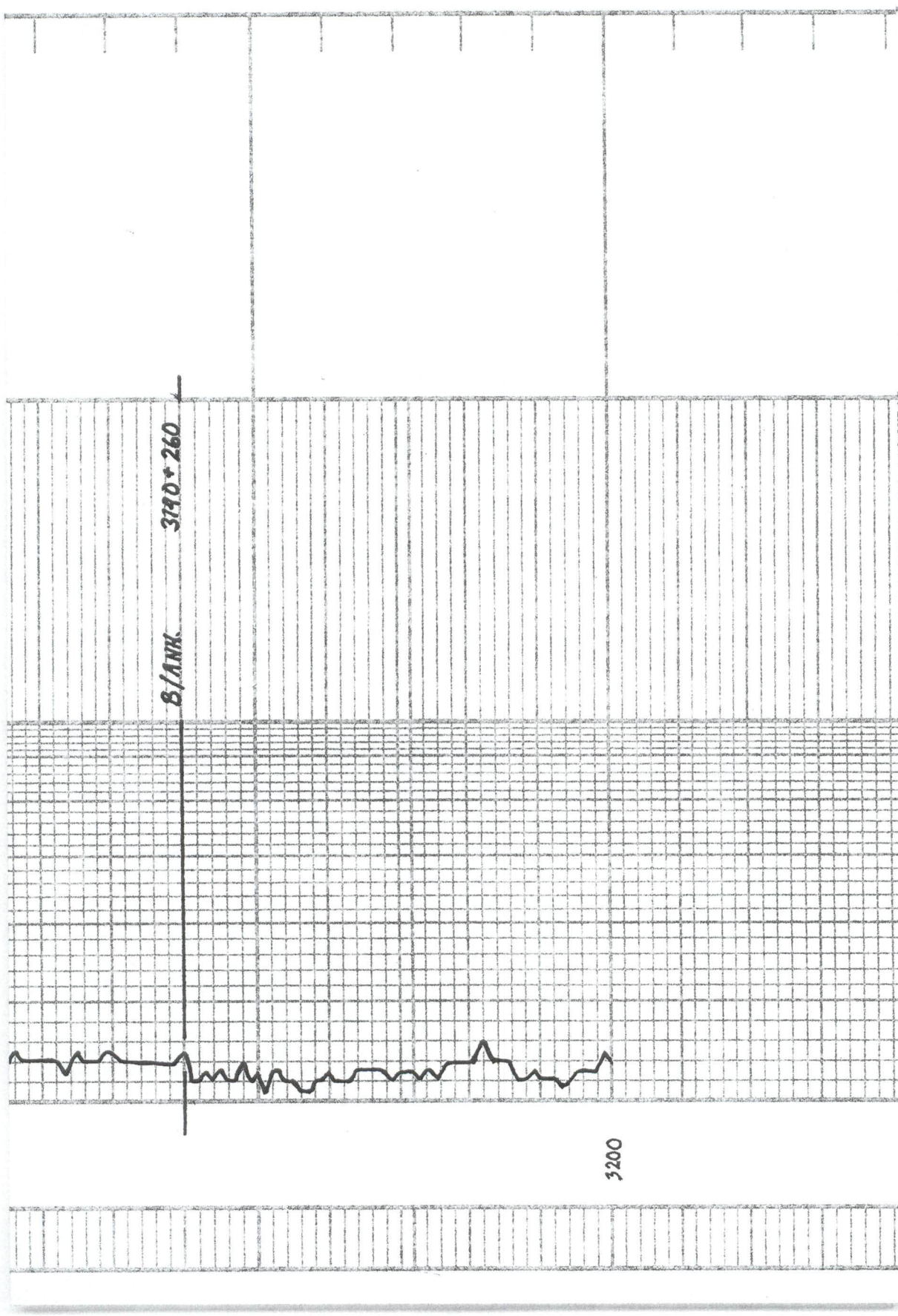
SAMPLE DESCRIPTIONS

ANHYDRITE 3101 + 296

LITHOLOGY

REMARKS

SHOF01-11



Samples are tagged

Sh. rd silty

ls. G. silty.

ls. To vsli foss.

ls. Gray.

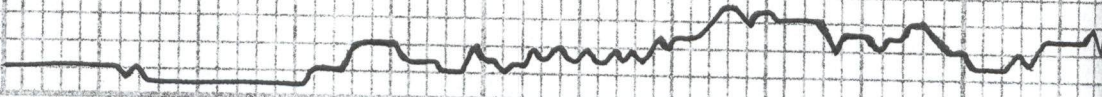
ls. G. silty

Sh. Purple

ls. Tan. Sh. foss. silty.

3700

3800



Sh. Gy.

ls. T. gy. Foss. ool.

ls. sh. Sili. Foss. Sili. Chalk. P. V. l. B.
All sh. Sili. N.S.P. No. Fibre No. D. C.
(4000)

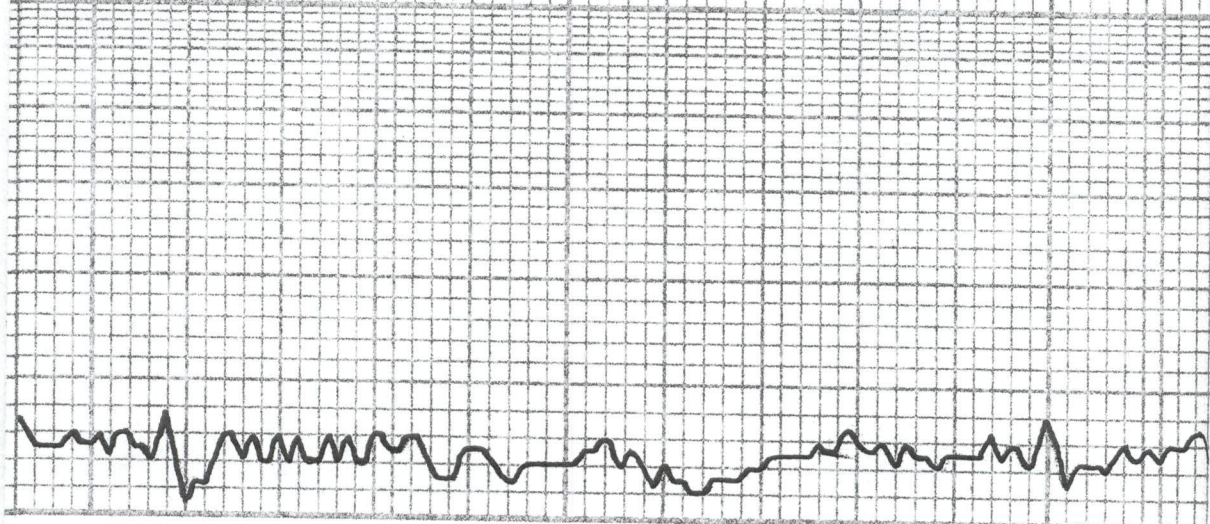
Sh. Blue-Gy.

ls. sh. Foss. Sili. Foss. Sili. A

ls. Gy. Sili. A

Sh. Gy.

ls. T. gy. V.S.I. A V.S.I. Chalk.



4000



ls. To. Si. Foss. Calcite.

Sh. Blk.

Sh. Gt. G. Blue.

sd. Gt. G. Foss. Sub. Blk.

ls. To. Foss. Sub. Si. Dol.

ls. Gt. G. V. S. A.

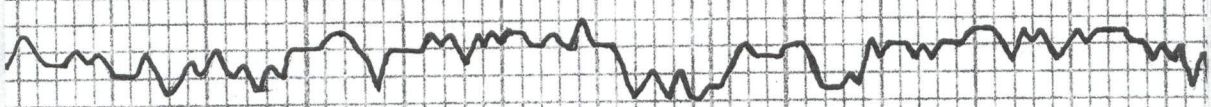
Sh. Gt. G.

Y15: 49

WT: 90

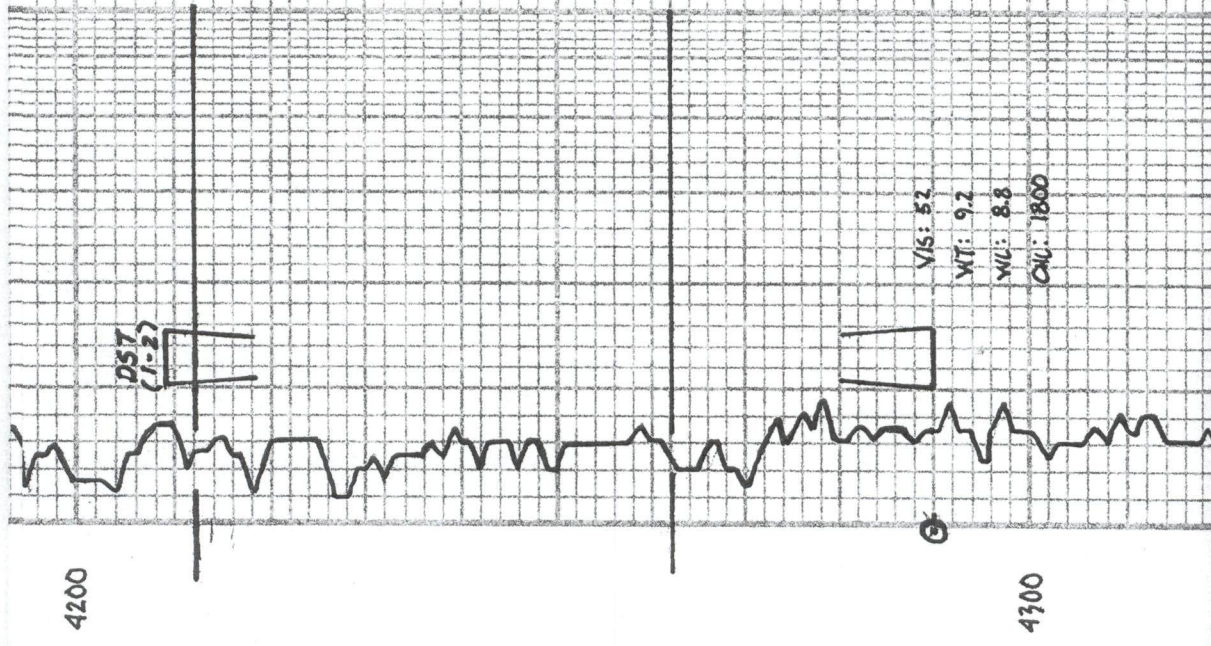
SW: 72

OW: 1000



4100





ls. to wt. foss. ool. Sil. A
HEERNER 4212-812
 DE G. BLK
 ls. to h. Sil. Foss.
 Sh. G. G.
 Sd. + Sh. Gy. Blue-G. Silly
 ls. wt. H. Sil. Foss.
LANSING 4262-862
 Sh. Rd.
 ls. wt. Sil. Foss. REV. p
 DE. BLK. SH. VSS. ED. NO. FLOW. NUMBER.
 ls. wt. G. G. V. Sil. Chilly.
 Sh. Rd. L. G.
 ls. to h. Sil. Foss. Sil. A
 Sh. Blue-G. G.
 ls. G. G. V. Sil. Foss. Sil. Chilly.

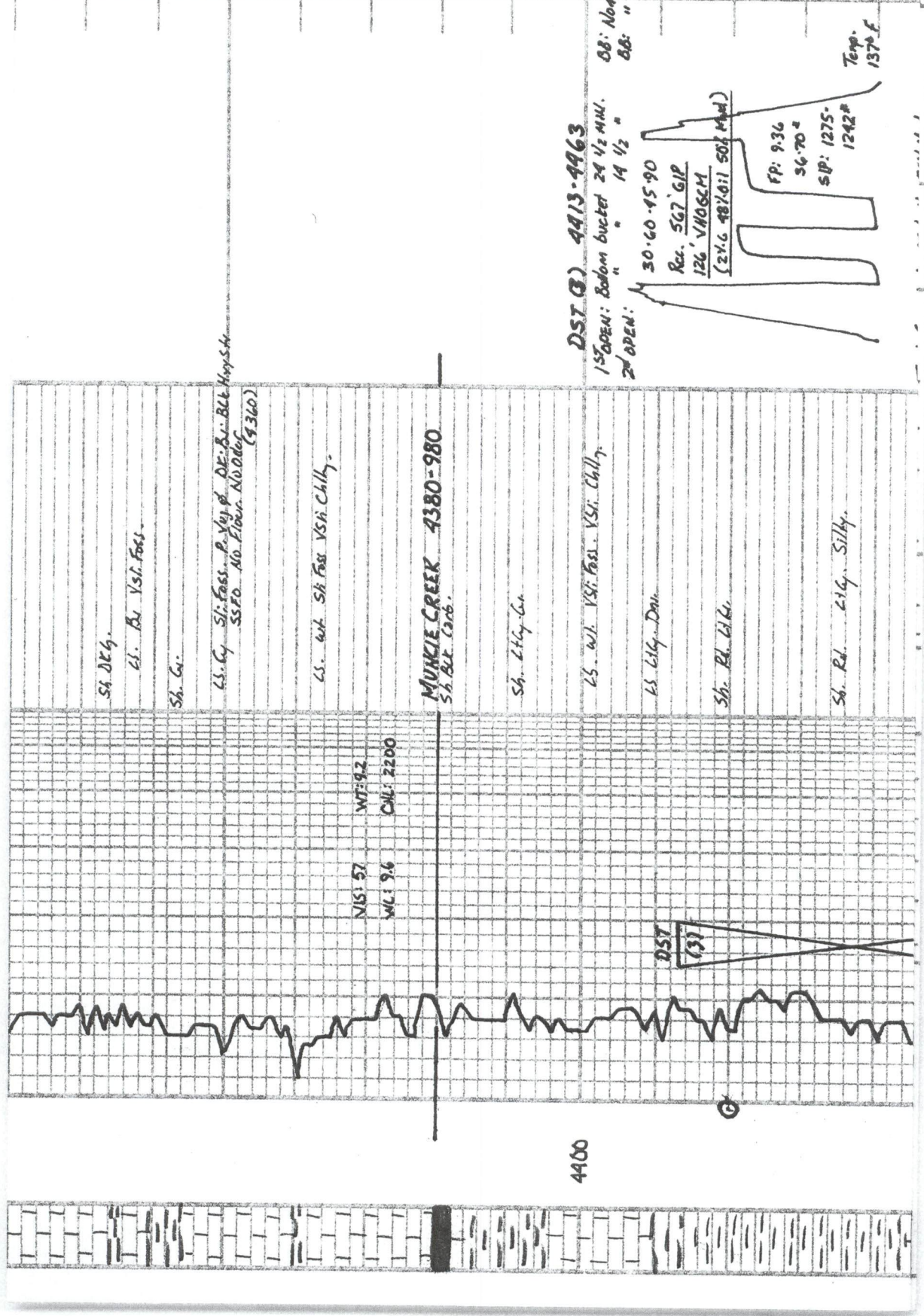
DST (1-2) 4209-4290
 MIS-RUN
 Could not get to bottom
 hit bridges @ 2800'
 3920'

4200

4300

DST
(1-2)

VIS: 52
 WT: 9.2
 WU: 8.8
 CW: 1800



Ss. DE G.

ls. Bl. Yst. Foss.

Sh. G.

ls. G. Sl. Foss. P. Yst. DE. Bl. Blt. Hops. S. S. No. Floor. No. 0066 (9360)

ls. wt. Sh. Foss. Yst. Chilly.

MUNKIE CREEK 4380-980
Sh. Blt. Carb.

Sh. L. G. G.

ls. wt. Yst. Foss. Yst. Chilly.

ls. L. G. G. D. W.

Sh. Bl. L. G.

Sh. Bl. L. G. Silty.

NIS: 57
WL: 96
WT: 92
OIL: 2200

4400

DST (B)

DST (B) 4413-4463

1st OPEN: Bottom bucket 24 1/2 MIN.
" " " 14 1/2 "

30-60-45-90

Res. 567 GIP
126 VHO6CM
(24.6 487.0:1 507 Mhd)

FP: 9.36
36-70"
SIP: 1275-
1242#

Temp.
137°F

OB: None
BB: "

Tool Sample: 4521-1121

LS. Tan. L. med. L. med. S. 1:1

LS. Tan. L. med. L. med. S. 1:1
Fossils - col. F. Very ♂
R. DE. Bl. Sat. SW. FSED. No Flour
F. D. (2163)

LS. Ltg.

Sh. DE. S.

Sh. Rd.

LS. Ltg. V. Sat. Foss. A Orange

Sh. Rd.

Sh. Rd.

LS. Ltg. VSIIA

DIKE 4521-1121

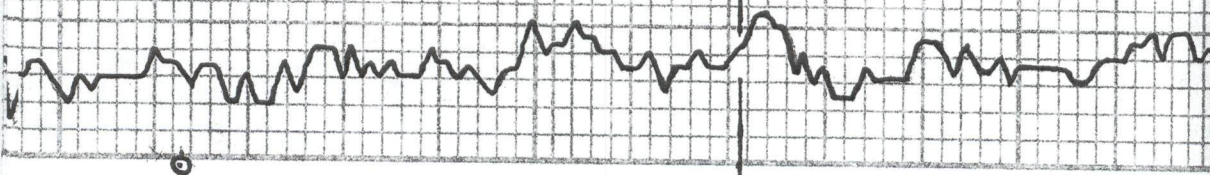
Sh. Lt. Blue. Rd. Purple

LS. wt. Ltg. V. Sat. Foss VSII. Chilly.

Sh. Rd. Ltg. Silty

LS. Ltg. Purple Silty

NS: 58
WT: 93
WG: 112
CWL: 3000

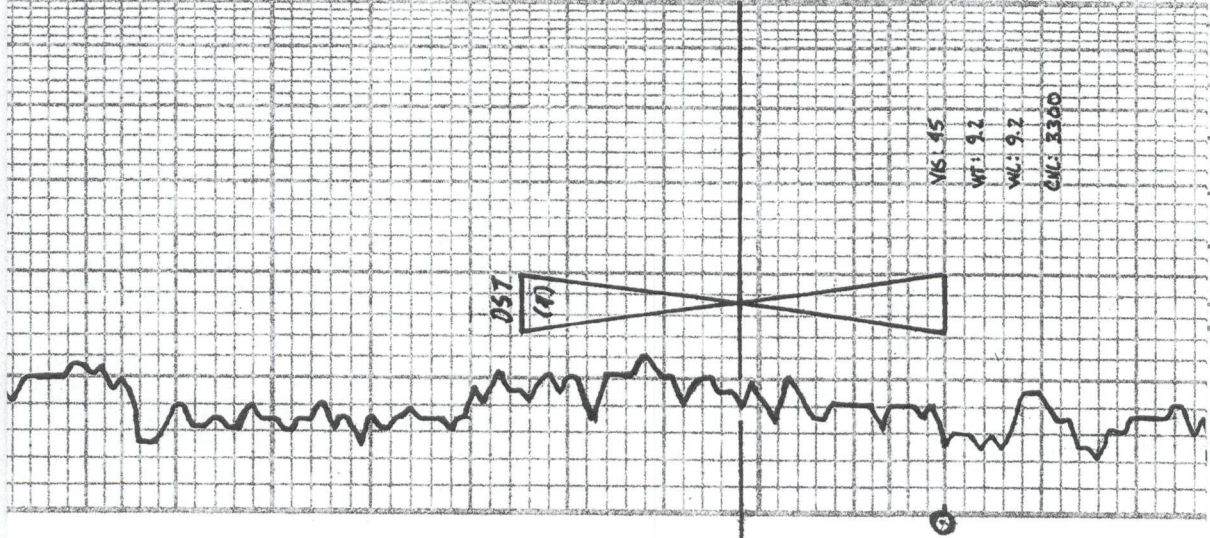


4500



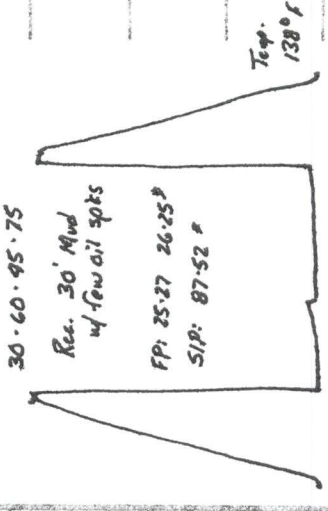


4600



Sh. Rd. Blue-Gc.
 Sh. Rd.
 Sh. Gc. Blue
 Ls. Tan-Lt. Br. Dan.
 Ls. Bk. Gy. Silty
 Sh. BLK
 Sh.
PAWNEE 9648-1298
 Ls. Tan. Sil. A. P. V. Sil. G. Sp. H. BLK Sh.
 A Gy. No. Oref. (3460-76)
 Tan. Gy. Sh. A. V. Sil. Foss.
 Sh. BLK
 Ls. Bk. Sil. Foss. Sh. Calc. Sil.
 Sh.
 A. W. L. L. G.
 Ls. Tan. L. V. Sil. A.
 Sh. BLK

DST (1) 9625-9670
 15' OPEN: Blow count to 2 1/2"
 20' OPEN: No Blow



Total Sample: 2' 1.0:1 98% Mud.

TRAIL SIGNALS: BEYOND RESUME.

FORT SCOT 4700-7300

Ls. T. & B. Sh. w/ Si.A

A G. BLU YSI: F&L

Ls. T. & G. Si.A

CHEROKEE 4728-1328
Sh. BLU B&G

Ls. w/ YSI: Foss. YSI: Chlg.

Ls. T. YSI: A YSI: Calcitic.

Sh. G&G, G.

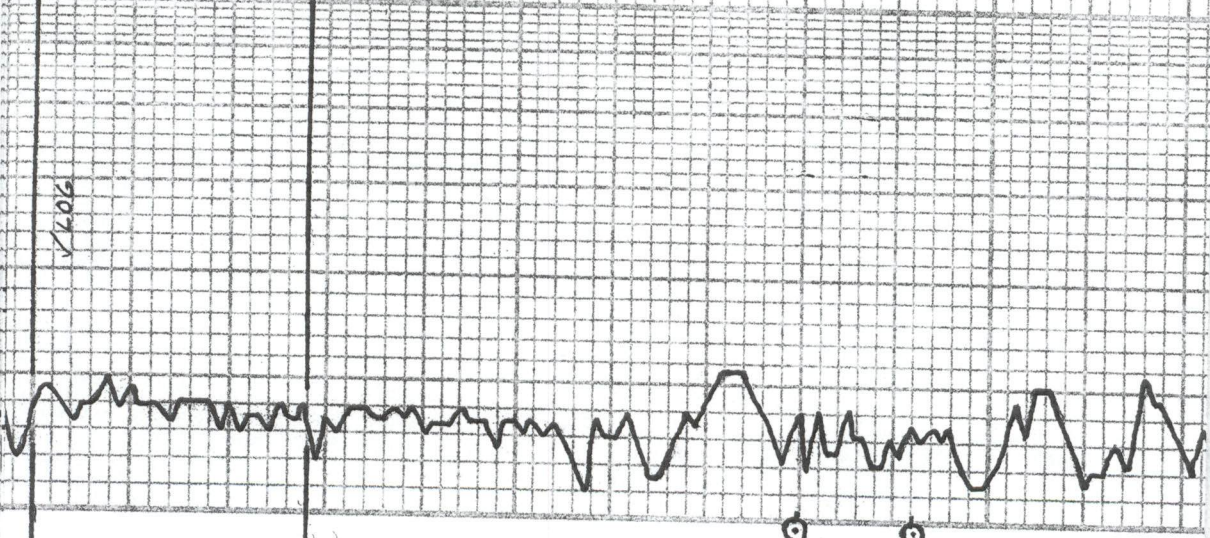
Sh. G&G

Ls. G&G. YSI: Chlg.

Sol. Cl. Md. Co. G. Bl. Sub Bl. Well Sortbl
w/ Orange A Frags.

Sh. Bl. G.

Sol. Bl. Md. Co. G. Sub Bl.



4700

4800



Sh. Bl. Yellow

Sd. Cl. Orange Hd Co. G. Sub Bl.

Sh. Bl. Yellow

Sd. Cl. Bl. Md Co. G. Bl. Sub Bl.

Sh. Bl. Yellow Sdy.

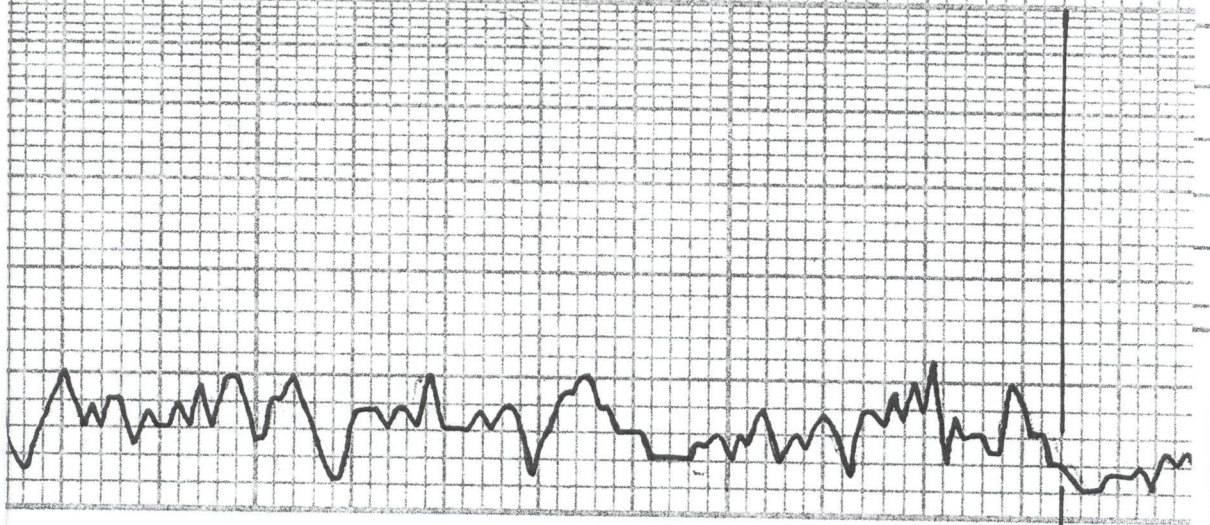
Sh. L. Bl. Yellow w/ T Sdy. Gh. T. A. Pys

Sh. Yellow Bl.

A Yellow Orange

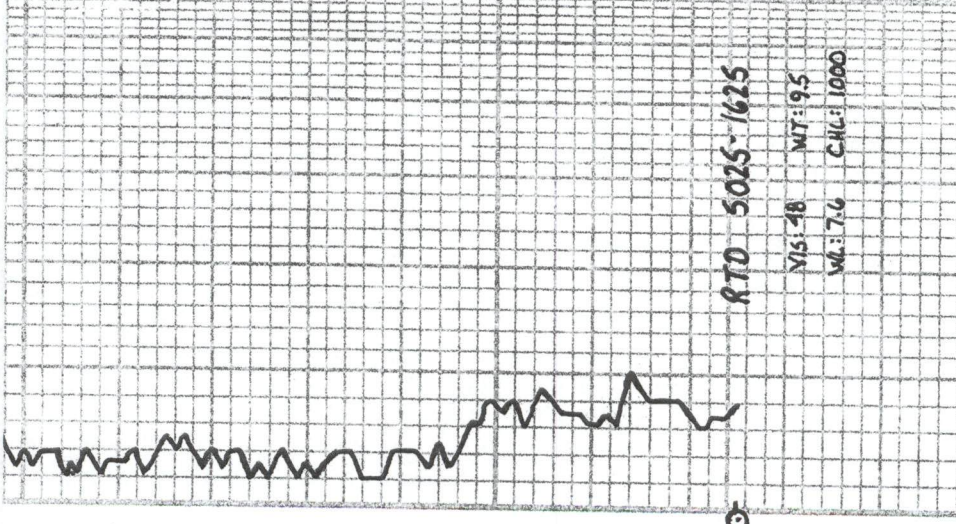
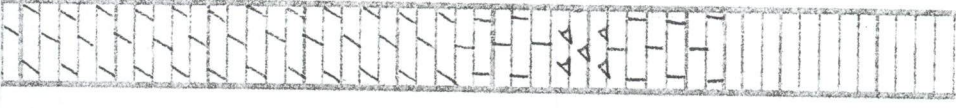
MISSISSIPPI 4939-7539

Ded. L. G. V. Enxla. Suc. Silty



4900





Dol. Ltg. G. Fossil w/ T. Glauv.

Dol. G. Fossil T. Glauv.

Dol. G. D.E.G. Fossil T. Glauv.

Ls. w/ V.Chilly

Ls. Br. V.Sr. Foss Sil.A

A w/ Ltg. Sh. Foss.

Ls. To Sil. Foss Sil.A