

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-684-9709 * WICHITA, KS

GEOLOGIST'S REPORT

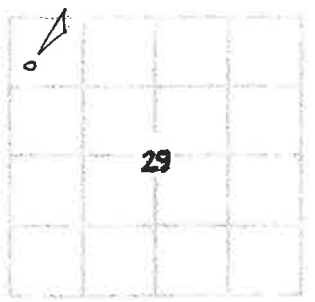
DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.
 LEASE * 1-29 MEADOW
 FIELD WILDCAT
 LOCATION 990' FNL ± 330' FWL (SW/NW/NE)
 SEC 29 T15P 8s RGE 34W
 COUNTY THOMAS STATE KANSAS
 CONTRACTOR L. D. DRILLING, INC.
 SPUD 11-9-19 COMP 11-21-19
 RTD 4840 LTD 4839
 MUD WT 3500 TYPE MUD CHEMICAL

ELEVATIONS
 KB 3259
 DF _____
 GL 3254
 Measurements Are All
 From 3259 KB
 CASING
 SURFACE 8 5/8" @ 338'
 PRODUCTION _____
 ELECTRICAL SURVEY
DUAL IND, DENS-N. MICRO

SAMPLES SAVED FROM 3660 TO 4840
 DRILLING TIME KEPT FROM 3600 TO 4840
 SAMPLES EXAMINED FROM 3660 TO 4840
 GEOLOGICAL SUPERVISION FROM 3800 TO 4840
 GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2790-469	2792-467
B/ANH.	2822-437	2823-436
STOTLER	3682-423	3678-419
HEEBNER	4088-829	4084-825
LANSING	4132-873	4128-869
B/KC	4405-1146	4400-1141
PAWNEE	4532-1273	4526-1267
FORT SCOTT	4589-1330	4583-1324
CHEROKEE	4621-1362	4614-1355
MISSISSIPPI	4738-1479	4735-1476

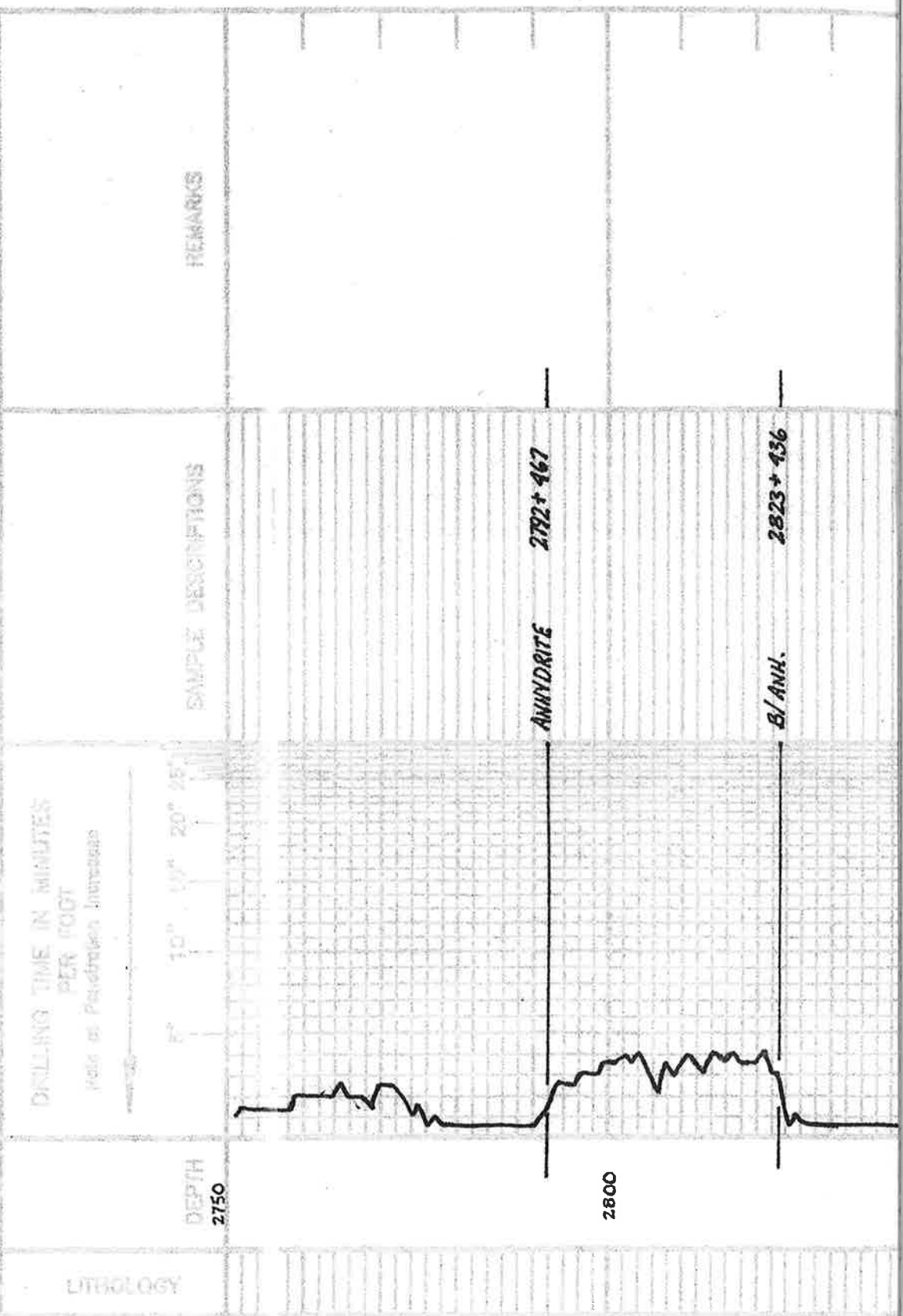


API: 15-193-21060

REMARKS
 11-9-19 SPUD
 11-10 @ 341'
 11-11 @ 1350'
 11-12 @ 2018'
 11-13 @ 2730'
 11-14 @ 3248'
 11-15 @ 3702'
 11-16 @ 4128'
 11-17 @ 4310'
 11-18 @ 4390'
 11-19 @ 4625'
 11-20 @ 4675'
 11-21 @ 4840'

LEGEND

- Dolomite
- Grit
- Cellulose
- Unstratified
- Ore or
- Shale
- Sandstone
- All
- Anhydrite

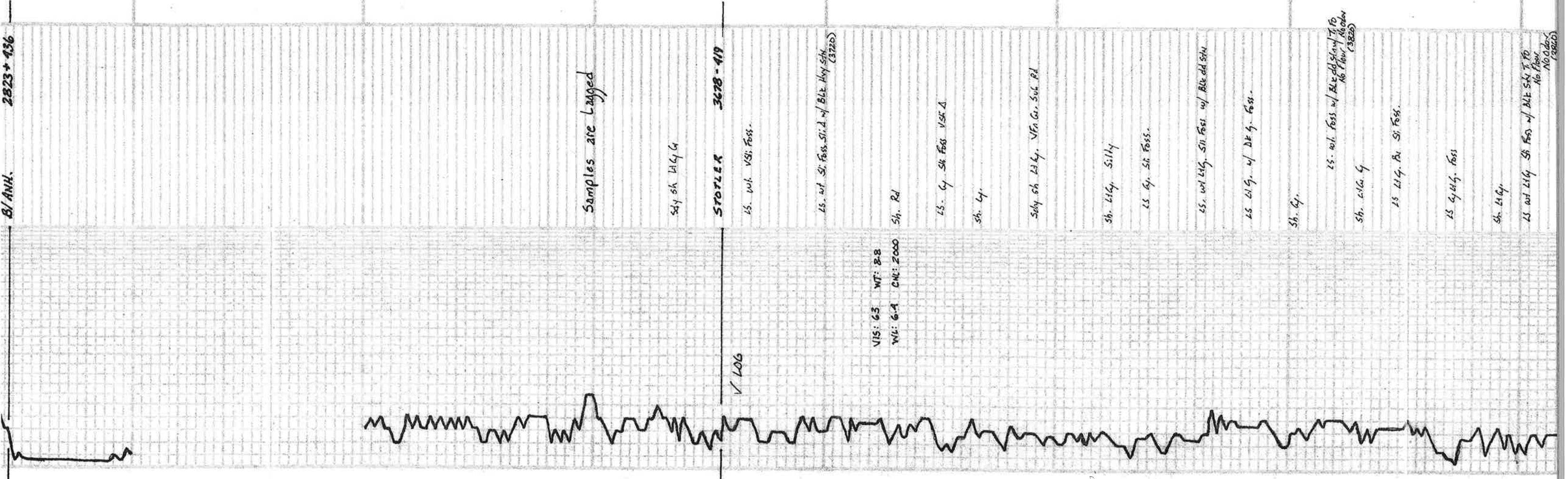


2850

3600

3700

3800



Samples are lagged

sh. lg. silty

STOPLER 3678-419

ls. w/ sh. fossils

ls. w/ sh. fossils, silty w/ BLE sh. T. FD (3722)

VIS: 63 WT: 2.8
WL: 6.4 CMC: 2000

sh. rd

ls. lg. sh. fossils, VSKA

sh. lg.

sh. lg. sh. fossils, VFA Gr. Sub Rd

sh. lg. silty

ls. lg. sh. fossils

ls. w/ lg. sh. fossils w/ BLE sh. T. FD

ls. lg. w/ DE g. foss.

sh. lg.

ls. w/ fossils w/ BLE sh. T. FD
No flow, No color (3822)

sh. lg. silty

ls. lg. sh. fossils

ls. lg. sh. fossils

sh. lg.

ls. w/ lg. sh. fossils w/ BLE sh. T. FD
No flow, No color (3822)

Sh. Llg.
 Ls. w/ Llg. Sh. Foss w/ Blk Sh. F. Rd
 No Foss
 No. 0.005
 (3800)

Ls. Llg. vsi. chly.

Δ wt

Sh. Blue & Silty

Ls. w/ sh. Foss. Foss chly.

Sh. Llg. Blue Sdy

Ls. Th w/ Foss.

Ls. w/ sh. Foss Sil. chly.

Ls. w/ Foss vsi. Δ

Sil. Sdy sh. Llg. Foss & Sil. Rd

Ls. w/ Llg. Sil. Foss chly.

Ls. Th Foss. Colentic

Ls. w/ Llg. Foss. Colentic

Sh. Blk.

Sh. Llg.

Ls. w/ Llg. Foss.

Sh. Llg.

Ls. G. Rd.

Ls. Th w/ Sil. Foss. Colentic.

Ls. Th w/ Foss. Sil. Rd. R. Rd. R. Rd.

Ls. Bl. Sil. Foss.

HEBNER 4081-825

Sh. Blk Camb. (4100)

Sh. Blue Silty sdy. Sh. Rd

Ls. w/ sh. Foss Sil. Δ

Ls. w/ Sil. Foss w/ Blk dd stu

Sh. Rd

LANSING 4128-869

Ls. Th w/ ool Sil. Δ

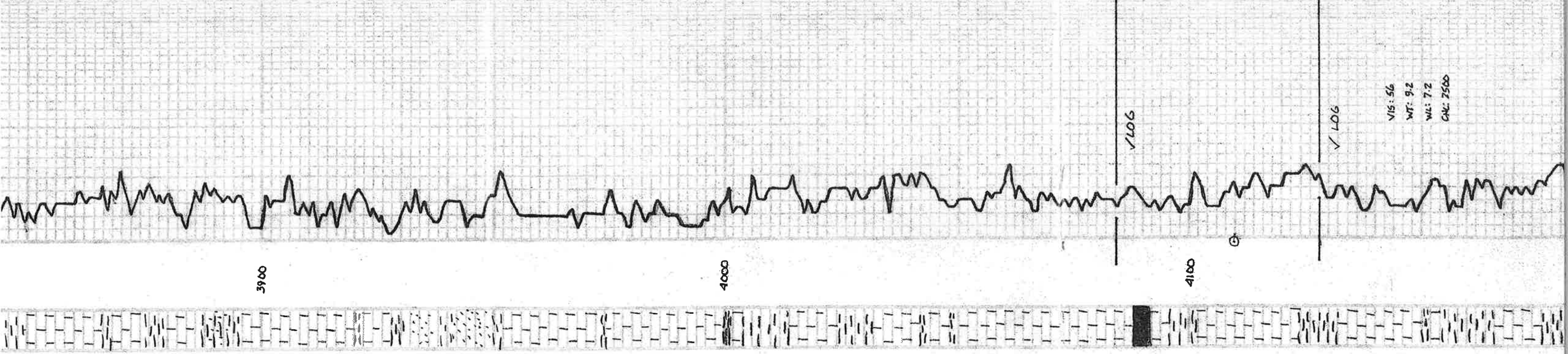
Ls. w/ ool. Foss Sil. Δ

Sh. Dfs.

Sh. Rd

Ls. w/ Llg. Sil. Foss w/ Blk. Shy. Sh. Rd. (4180)

Sh. Rd



3900

4000

4100

V LOG

V LOG

V15: 5.6
 WT: 9.2
 WL: 7.2
 CWC: 7500

LS. wt Ltg. Sh. Foss w/ R. Bl. R. dd Sil. (4180)

Sh. Rd

LS wt Foss.ool. Sil chly

LS wt Vchly

LS Tr wt Sh Foss w/ R. Bl. R. dd Sil (4210-40)

Sh. L Blc

LS. wt Ltg. Sh Foss w/ Tr. Purple

LS. wt Vchly

LS Tr wt Sil. Calotte Sil. A

MUNCIE CREEK 4258-999

Sh. Rd. Conc. LS. Bl. Vch Foss. Vch. A

Sh. L Lc

A. wt Ltg. LS. Ltg. Sil. Foss. Sil. A

LS Tr Ltg. Dm

Sh. Blc LS. Bl. Vch. A

Sh. L Lc

LS. wt Ltg. Sil. Foss. Vch. chly. P. V. S. d
Bl. Sil. old Sil. F. S. F. D. Dull Floor 10000
(437.80)

STARK 4335-1076

Sh. L Lc. Blc
LS. wt Sil. Foss. P. V. S. d
Bl. Sil. old Sil. F. S. F. D. No Floor F. Odor (4388-80)

Sh. Rd. c

Sh. L Lc

LS. Tr wt Sil. Foss. Vch. chly. F. L. S. d
Bl. Sil. old Sil. F. S. F. D. Dull Floor
F. Odor (4357.80)

LS. Ltg. Sh. Foss. chly.

Sh. Blc

Sh. L Lc

LS. wt.ool. Foss. Sil. A. Sil. chly.

LS. Ltg. Sil. A. Calotte

B/KC 4400-1141

LS. Ltg. Dm

Sh. Rd. Blc. Purple

LS. wt Ltg. w/ Rd; Purple sh. Tr. d

MARMATON 4423-1164

LS. wt Sil. Foss. Calotte
A. Chly

Sh. Rd. Silly

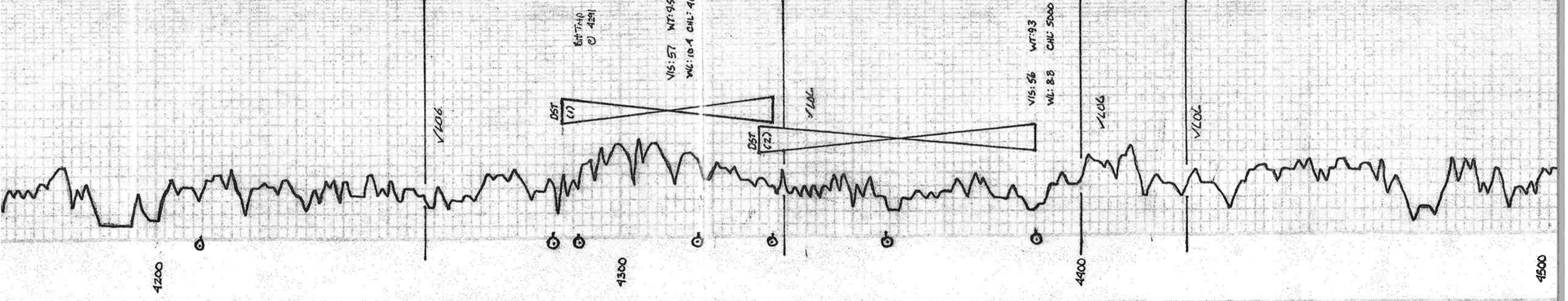
LS. Tr Ltg. Vch. Fc

Sh. Bl. Purple

LS. wt Tr Foss. Calotte
Sil. Concil. Clear.

Sh. L Lc

LS. wt Ltg. Sil.



DST (1)
6th Trip
@ 4291

WT: 95
VIS: 57
CHL: 4000

DST (2)

WT: 93
VIS: 56
CHL: 5000

V/L06

V/L06

DST (1) 4288-4333
1st Open: Blow built to 1/2"
2nd Open: Surface Blow
30-30-30-30

Tool Sample: Rec. 3' sacm (37' oil)
17' oil
99' mud

FP: 19:20 40-20W
SIP: 10-70 #

Temp: 117° F

DST (2) 4330-4390

1st Open: Built to 1 1/2"
2nd Open: " " 1 1/4"
30-30-30-30

Tool Sample: Rec. 15' Mud w/ Trace Oil
17' oil
99' mud

FP: 20-22 23-25 #
SIP: 1198-1066 #

Temp: 117° F

