

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

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GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.

LEASE # 2-7 CASEY

FIELD WILDCAT

LOCATION 1463' FSL & 2135' FEL

SEC. 7 T15S R2E 37W

COUNTY CHEYENNE STATE KANSAS

CONTRACTOR L. D. DRILLING, INC.

SPUD 10-14-15 COMP. 10-24-15

RTD 4832 LTD

MUD UP 3594 TYPE MUD CHEMICAL

ELEVATIONS

KB 3272

DF

GL 3267

Measurements Are All From 3272 KB.

CASING SERVICE 8 5/8" @ 354'

PRE-DRILLING

ELECTRICAL SURVEYS

None

SAMPLES SAVED FROM 3900 TO 4832

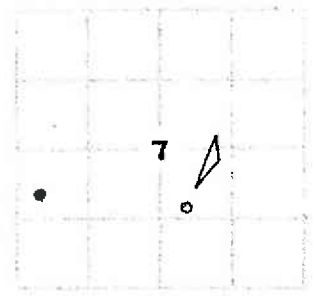
DRILLING TIME KEPT FROM 3700 TO 4832

SAMPLES EXAMINED FROM 3900 TO 4832

GEOLOGICAL SUPERVISION FROM 4100 TO 4832

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE		3211 + 61
B/ANH.		3243 + 29
TOPEKA		4028 - 756
HEEBNER		4201 - 929
LANSING		4244 - 972
B/KC		4528 - 1256
PAWNEE		4652 - 1380
FORT SCOTT		4690 - 1418
CHEROKEE		4708 - 1436
RTD		4832 - 1560

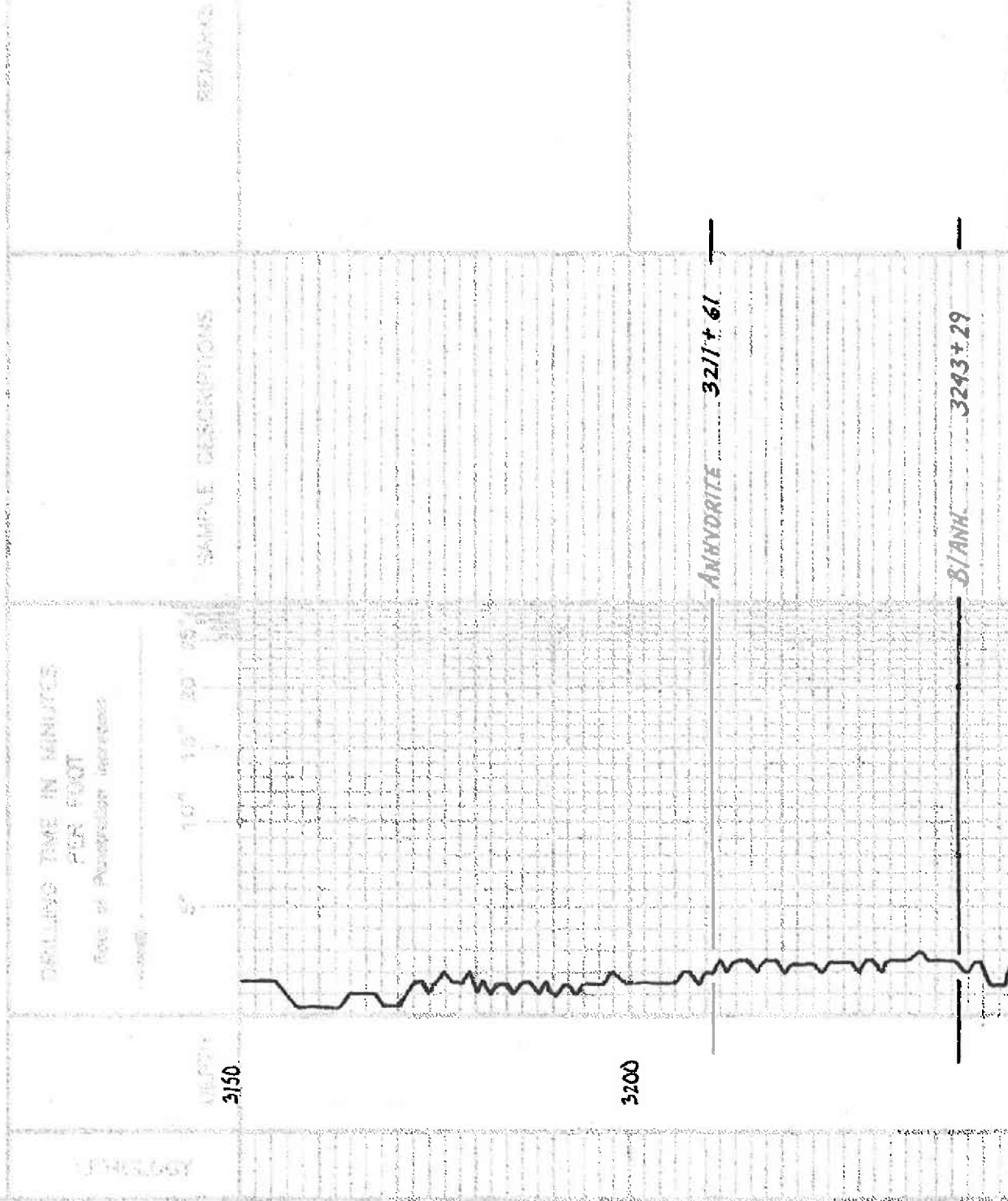


APR 15-023 - 21496

10-14-15 SPUD
10-15 @ 357'
10-16 @ 1800'
10-17 @ 2895'
10-18 @ 3555'
10-19 @ 4020'
10-20 @ 4325'
10-21 @ 4343'
10-22 @ 4444'
10-23 @ 4720'
10-24 @ 4832'

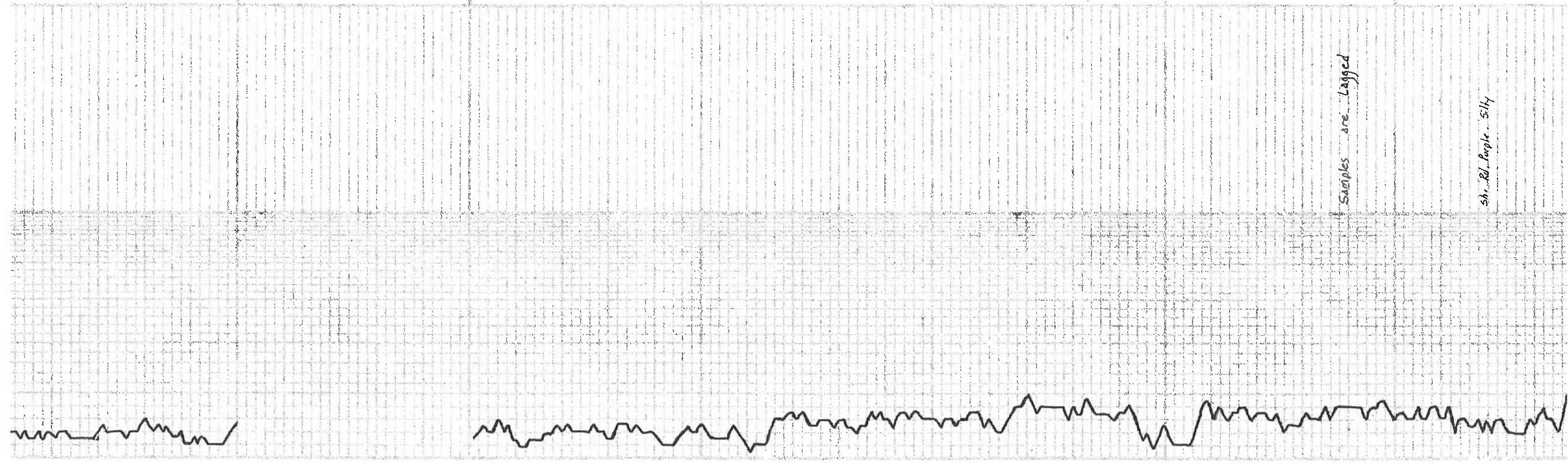
LEGEND

- Dolomite
- Gypsum
- Oil Shale
- Limestone
- Sandstone
- Silt
- Shale
- Clay sh.
- Anhydrite



ANHYDRITE 3211 + 61

B/ANH 3243 + 29



3500

3700

3800

3900

Samples are lagged

sh. Bl. Purple. Silty

86. clay. G.M.L.G. Sub. B.E.
L.S. Bl. Sil. Foss. R. V. G. M.L.R. SW. F.S.P.
R. Odor
Sh. Rd.

L.S. sil. Sil. Foss. F. R. V. G. M.L.R. SW. F.S.P.
F.P. F1000
No. Foss.

L.S. Bl. Sil. Foss. Sil. Calcitic.

DSX(13) 1322-1388
1st core: Blow bulb to 1"
2nd core: " " 4 1/2"
30 x 95 x 45-60

L.S. To. Sil. Foss. R. V. G. M.L.R. SW. F.S.P. (old)
No. Foss.

L.S. To. Sil. Foss. Calcitic. R. V. G. M.L.R. SW. F.S.P.
No. Foss.

L.S. sil. Sil. Foss. Sil. Calcitic.

Sh. Rd. L.S.

L.S. sil. Sil. Foss. Sil. Calcitic. R. V. G. M.L.R. SW. F.S.P.
No. Foss.

Sh. Rd. L.S.

Sh. Rd. L.S.

Sh. Rd. L.S.

L.S. sil. Sil. Foss. w/ Rd. Sil. Foss.

L.S. sil. Sil. Foss. Sil. Calcitic.

Sh. Rd.

Sh. Rd. L.S. Calcitic. Foss. Sil. Calcitic.

L.S. sil. Sil. Foss. Sil. Calcitic.

Sh. Rd. L.S.

L.S. sil. Sil. Foss. Sil. Calcitic.

B/KC 1528-1756

Sh. Rd.

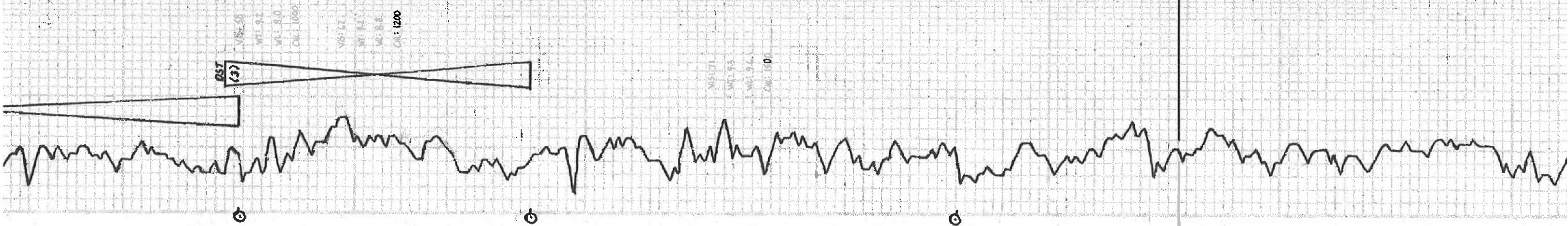
L.S. sil. Sil. Foss. Sil. Calcitic.

Sh. Rd. L.S.

L.S. sil. Sil. Foss.

Sh. Rd. L.S.

Sh. Rd. Porphyroclastic



DSX (3)

WT: 92

WT: 80

Calc: 1000

WT: 67

WT: 74

WT: 88

Calc: 1200

WT: 71

WT: 95

WT: 96

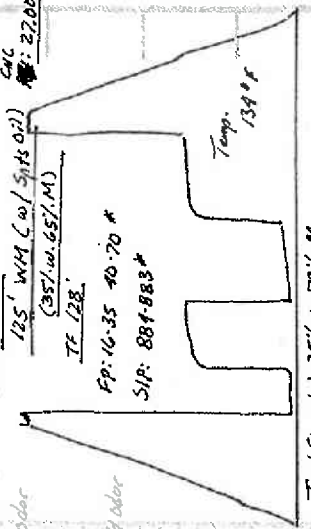
Calc: 100

4300

4400

4500

4600



45. To wt out. Sil. Chly. - Poly B. R. Sp. H. Sh
 VSSPB
 Dull Flow No odor
 (4630)

PANNEE 4632-1380

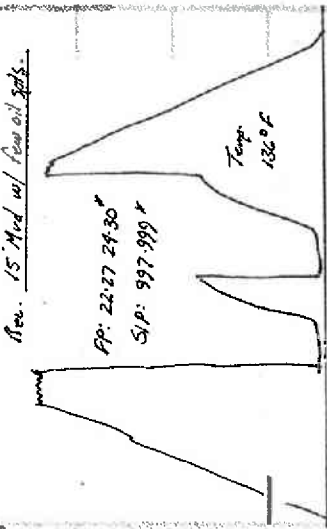
45. g. Sil. Foss. Fr. Poly p. D. Red. Sh. 55%
 Dull Flow
 (4670)

DST (A) 4628-4750

1500ft: 1/2 Hour dec. d. 20 min.
 2000ft: No Blow

30. 30. 30. 30. 30

Rev. 15' Mud w/ foam oil spk.



LABETE

FORT SCOTT 4690-1918

45. R. g. Sil. Foss. Caliche 15%
 Sh. Bl. Carb.

CHEROKEE 4708-1436

45. To Sil. Foss. Sil. A. VS. Caliche

45. To g. VS. Foss.

45. To Foss. Caliche

45. To g. Sil. Foss.

45. To g. VS. Foss. Caliche

Sh. Bl. wt.

Sh. R. L. G.

Sh. Bluey. Foss. Sil. A. Sil. Foss.

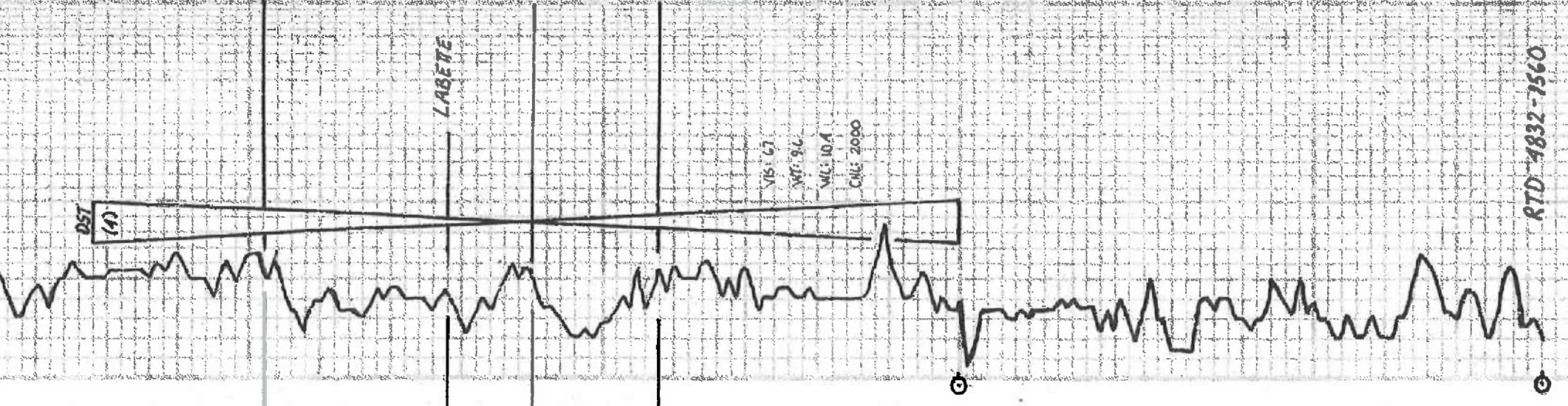
Sh. R. L. Purple L. G. Sh.

Sh. Clay. Foss. Sil. A. Sil. Foss. F. Clay.

Sh. R. L.

Sh. wt. Foss. Sil. A. Sil. Foss. R. L. Sh.

RTD 4832-7560



4700

4800

VIS. G.
 MT. 96
 VIC. 10 A
 CME 2000