

Randall Kilian Corporation

Geologist



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GEOLOGIST'S WELL REPORT

COMPANY HERTEL OIL CO. LLC (33625)

WELL Hertel Estate #1

FIELD Wildcat

LOCATION (legal) NE NE NW

(footages) 330' FNL. & 2310' FWL

Section 36 TWP 13S RGE 17W

(Map) 1/4 mi N & 1/4 mi W of I-70
Victoria Exit

COUNTY Ellis STATE Kansas

ELEVATION: 1981' K.B., 1973' G.L.

Depths measured from Kelly Bushing

A. P. I. NUMBER 15-051-26798

GEOLOGY BY Randall Kilian

PERTINENT WELL DATA

CONTRACTOR DISCOVERY DRILLING (31548)

RIG #4 HYDRAULICS D-375 6x14x60
(Mike Gaschler TP)

DRILL PIPE 4½" X-H COLLARS 6¼" 17 (517')

CASING: SURFACE 8 5/8" @ 220' w/ 175 sx Common
PRODUCTION _____

DRILLING FLUID. COMPANY Kansas Drilling Tech.
(Ken Rupp)

TYPE: Chemical

REMARKS: Full service

DRILL STEM TESTS: COMPANY _____

NUMBER OF TESTS _____

ELECTIC LOGS: COMPANY Gemini Wireline LLC

DETAIL (5") 2900' - RTD

TYPE RAG

DRILLING TIME FROM 2900' TO RTD

SAMPLE TIME FROM 2900' TO RTD

SUPERVISION FROM 2900' TO RTD

VERTICAL DEVIATION 3/4° @ 220', ½° @ 3575'

PLUGGING REPORT 50 sx @ 1160', 100 sx @ 600', 50 @ 270'
10 @ 40', 30 Rat, 15 Mouse, 255 sx 60/40 Poz

RESERVE PIT 500 bbls., Chl. 77,000 Ca 1100

DRILL STEM TESTS

NO	INTERVAL	IFP/TIME	ISIP/TIME	FFP/TIME	FSIP/TIME	IHP/FHP	RECOVERY
1							
2							
3							
4							
5							
6							
7							
8							

MUD RECORD

CHK	DEPTH	WT	VIS	FIL	CHL	YP
1	2896'					
2	2934'	8.4	46	8.8	4k	12
3	3050'	8.5	46			
4	3150'	8.6	50			
5	3300'	8.7	51			
6	3387'	9.1	51	8.0	9k	18
7	3480'	9.1	58			
8						
9						
10						
11						

Displaced

LCM 3½#

LCM 2#

BIT RECORD

NO	SIZE	MAKE	TYPE	DEPTH/OUT	FEET	HOURS
1	12½"	CJZ	ADC437	220'	220'	3
2	7 7/8"	FTC	GX20G	3575'	3355'	63 ½
3						
4						
5						
6						
7						
8						

SUMMARY

The Hertel Estate #1 well was drilled with Discovery Drilling tools rig #4 beginning August 8, 2015 and drilling was completed August 13, 2015.

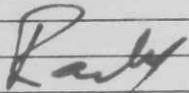
The drill site was located after re-processing and re-interpreting 3-D seismic records.

The well ran high structurally to nearby dry holes down through the BKc. Very poor development and oil shows were encountered. Conglomerate was encountered where the Arbuckle should have been.

The 3-D seismic has a very difficult job determining between conglomerate and Arbuckle dolomite in this section.

Based upon all data, the well was plugged as a dry hole.

Respectfully,



Randall Kilian

recovery
and

and

les
and oil
entered

aining
this section
a dry hole.

REMARKS

LITHOLOGY (LAGGED)

φ & SHOWS
POOR
FAIR
GOOD
DST

DRILLING TIME (min/ft)
1/2 1 2 3 4 5 6 7 8 9 10

40

ANH.

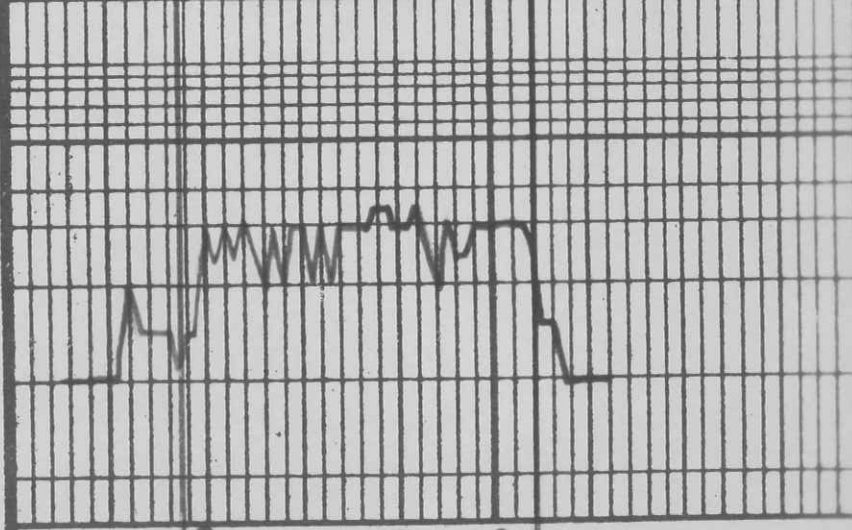
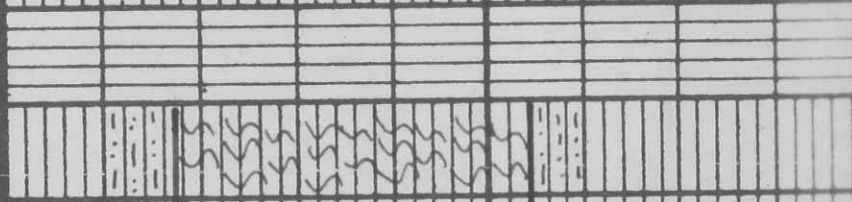
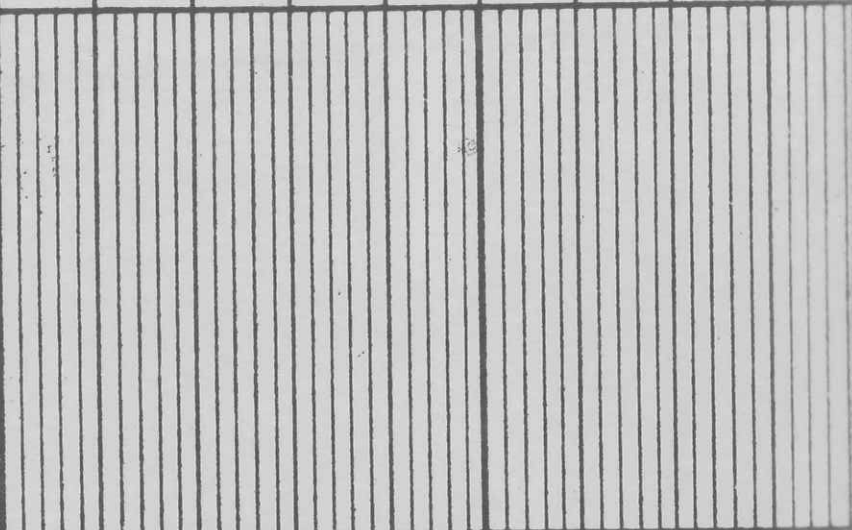
1150

60

70

80

Base



Discarded 207

Mud
Vis. - 46 Y.P. - 12
WT. - 8.4 Chl. - 9.4
WL. - 8.8 LCM - 3 1/2

geo on location
7:00am 8-11-15

sh. silt - gry - brn.

ls - tan - gry - fn. - fn. fossil.

sh - gry

ls - tan; brn - gry - fn. - fn.
fossil.

sh. silt - gry - brn.

ls - tan - gry - fn. - fn. fossil
sl. chalky.

2900

10

20

30

40

50

Top. 60

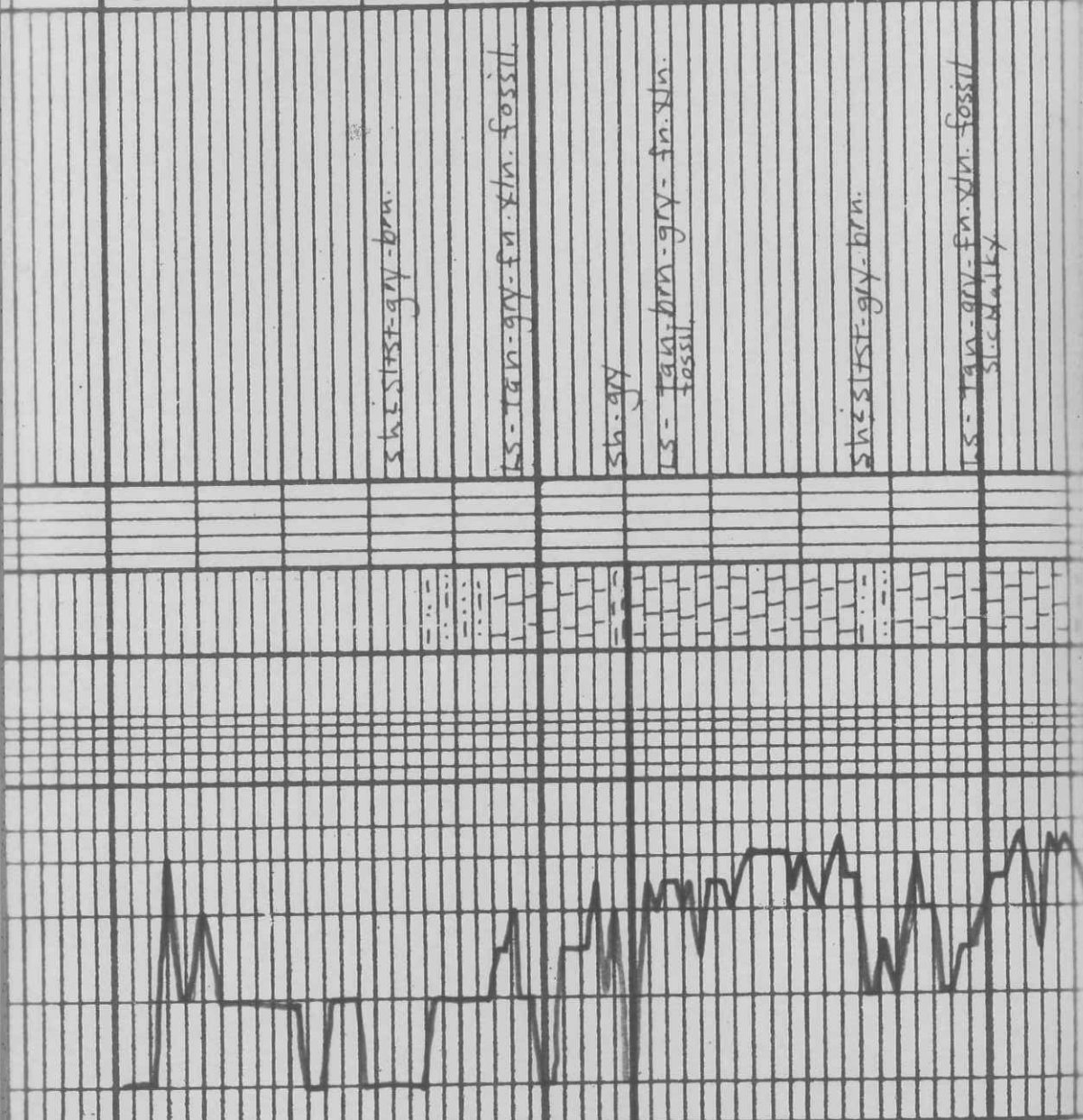
70

80

90

2900

10



Mud.
Vis. - 46
WT. - 8.5

sh-gr

ls - tan-brn-gry-fn xln.
fossil

ls-gr

ls-gr

sh-btk

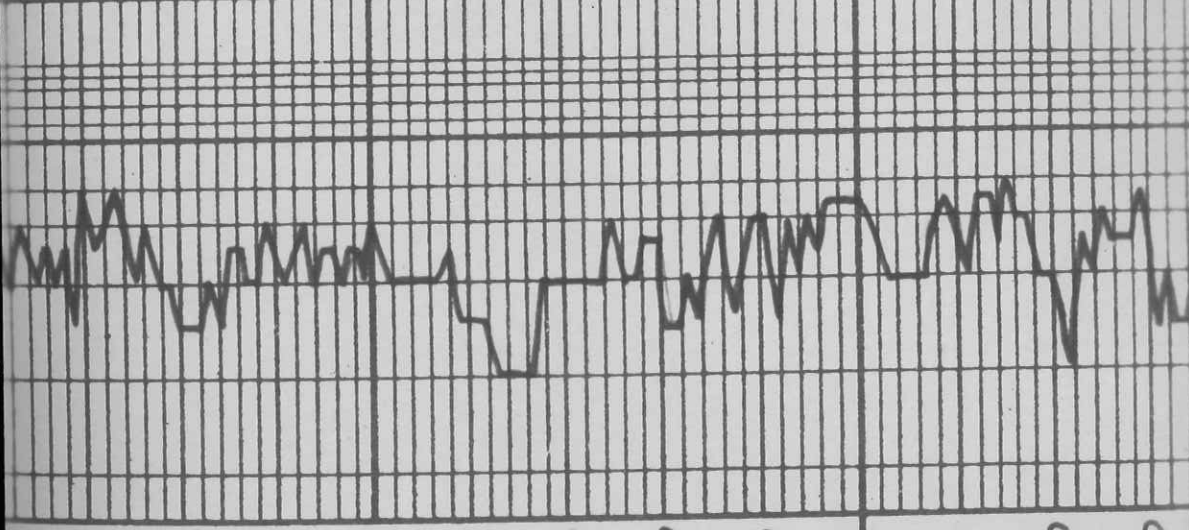
sh-st-st-gry-brn-grn.

ls - tan-brn-gry-fn xln.
fossil

ls-gr

sh-st-st-gry-brn-grn.

sh-btk, fossil



20

30

40

50

60

70

80

90

3100

10

20

30

Mud
U.S. - 50
WT. - 8.6

LS - off wh - tan - fr. xln.
fossil sil. ch. lky.

LS 91a.

LS - sl. dolo. tan - fr. xln - med
sl. ch. lky. sil. ch. lky. str. in
5% p

LS - off wh - tan - fr. xln.
fossil

sh. blk. carb. fissile

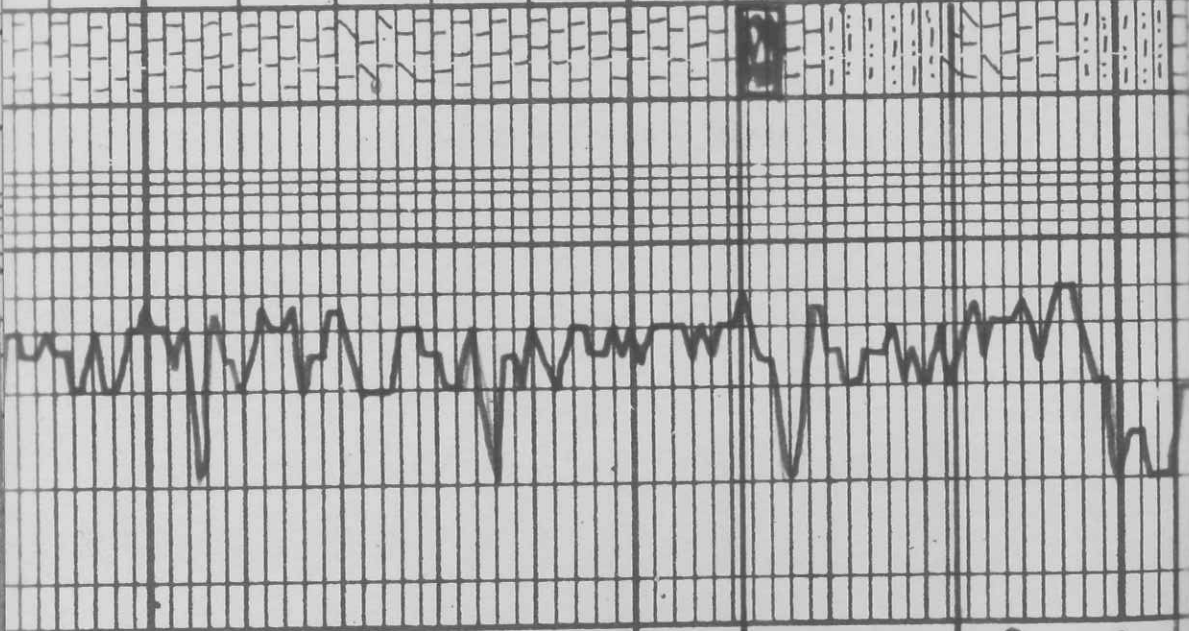
LS - tan - fr. xln.

sh & sil. st - gry - brn - grn.

LS - sl. dolo. tan - gry - fr. xln.
sl. ch. lky. sil. ch. lky.

sh & sil. st - gry - brn - grn.

40
50
60
70
80
90
3200
Hb. Sh. 10
20
30
40
50
Lans.



100% sl. dead ool. st. in
sl. ϕ .

sh. st. st. gry. brn.

LS - offwh - lgry - fn. xln.
sl. ool. sl. fossil w/ poor
oom & in part ϕ sl. ool. st.
sl. ool. sl. chalky

Sh-gry

LS - tan - gry - fn. xln. fossil, med
poor white part ϕ sl. ool.
st. in ϕ sl. x

Mud
Vis. - 51
WT. - 8.7

sh. dark gry - brn - grn.

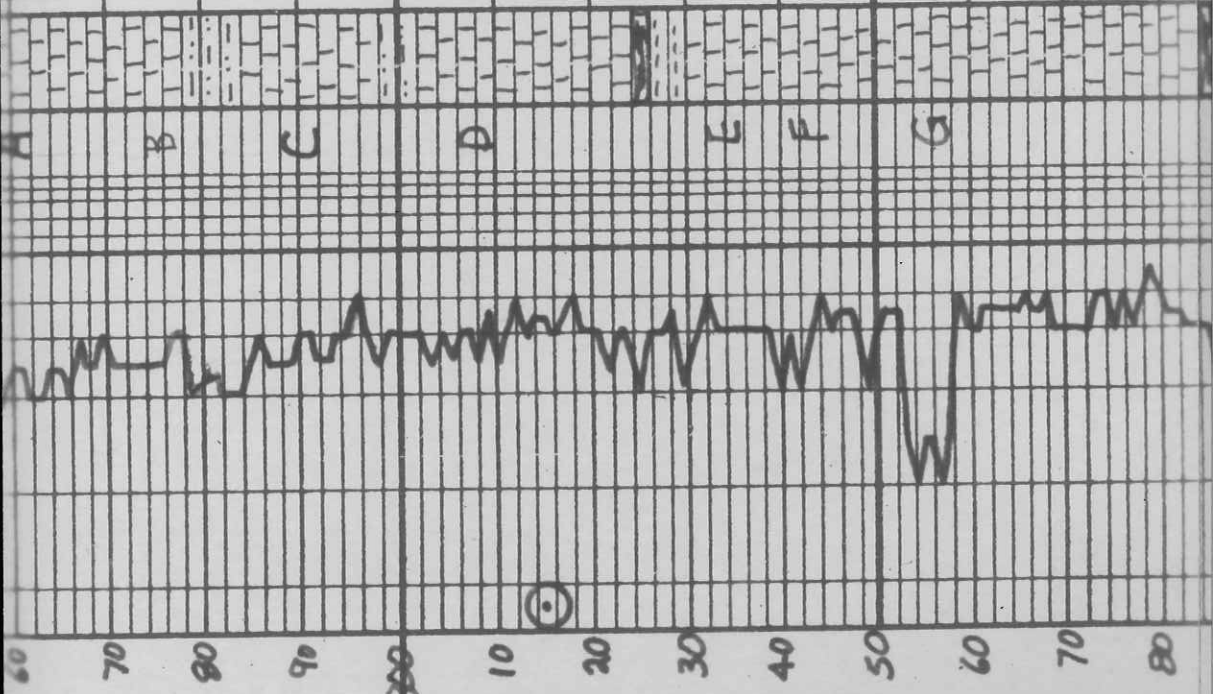
LS - offwh - lgry - fn. xln.
fossil, sl. chalky

LS. & lg.

LS - offwh - lgry - fn. xln. ool.
w/ poor ool. ϕ sl. ool.
st. in 5% ϕ sl. chalky

LS - offwh - lgry - fn. xln. ool. Δ

sh. blk. carb



Sh. blk. sand

sh. siltst-gr. brn-grn.

ls - 1901 - brn-gr. - fr. sh. - fossil. Δ

sh-gr. y.

ls - offwh - 17 gr. - fr. sh. - fossil. Δ
w/ pebbles in top part of sh. - siltst

sh-gr. y.

ls - offwh - 17 gr. - fr. sh. - fossil. Δ
s. ed. w/ pebbles in top part of sh. - siltst

sh-blk, carb.

sh. siltst-gr. brn-grn.

ls - offwh - 17 gr. - fr. sh. - fossil. Δ
siltst - chalky, siltst.

sh-blk, fissile

ls - offwh - 17 gr. - fr. sh. - fossil. Δ

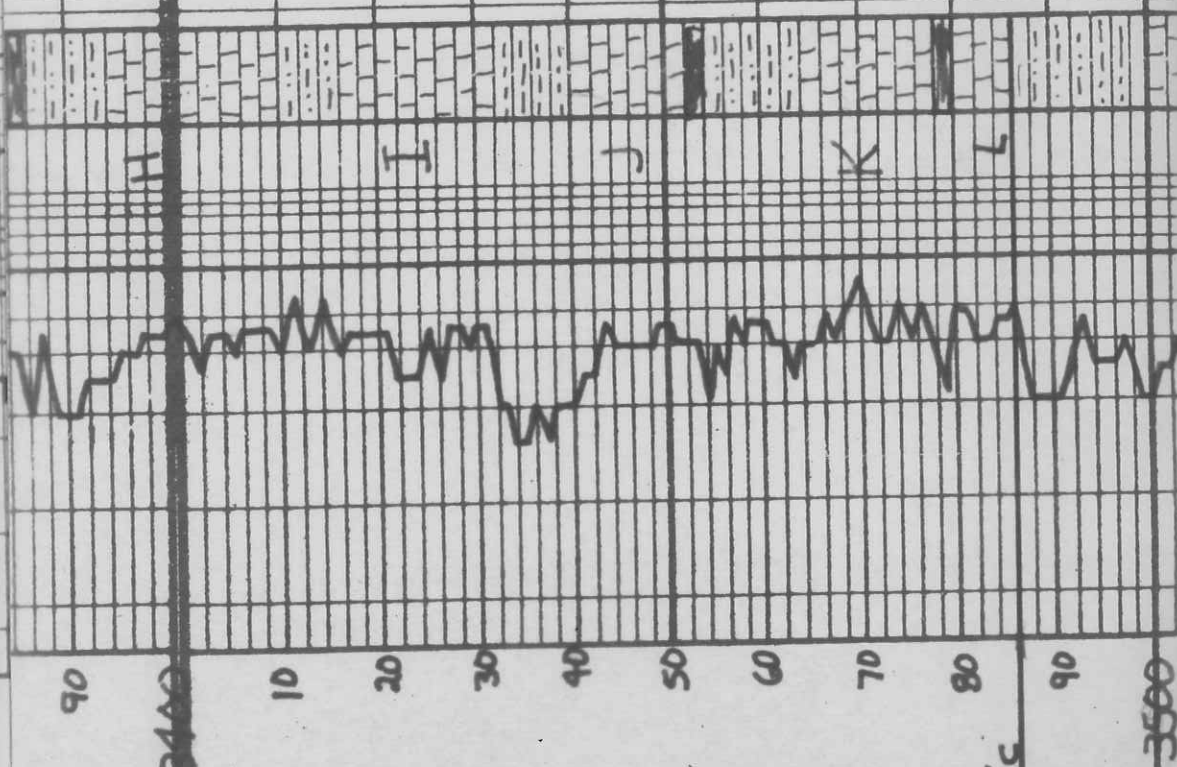
sh. siltst-gr. brn-grn.

ls - offwh - 17 gr. - fr. sh. - fossil. Δ

Mud
Vis. 50
wt. 8.9

Mud
Vis. 51 Y.P. = 1
wt. 9.1 Chl. =
wt. 8.0 LCM. =

Mud
Vis. 58
wt. 9.1



2400

10

20

30

40

50

60

70

80

90

3500

BKc

