CONSULTING SERVICES
Iola, Kansas 66071
Box 328
913 755-2128

FILING NO.

API # 15-031-21,891

COMPANY Edward E. Birk

WELL Born No. 6

FIELD Last Chance

COUNTY Coffey STATE Kansas

LOCATION: SE/4 990 FSL - 360 FEL

SEC 1 TWP 19s RGE 14e

OTHER SERVICES: CCL Perforate

PERMANENT DATUM G.L. ELEV. 1127.0

LOG MEASURED FROM G.L. FT. ABOVE PERM. DATUM

DRILLING MEASURED FROM G.L.

ELEV. K.B. NA
D.F. NA
G.L. 1127.0

DATE	9-20-2000	9-20-2000	
RUN NO.	1 NW	1 NW	
TYPE LOG	Gamma Ray	Neutron	
DEPTH—DRILLER	1583.0	1583 0	
DEPTH—LOGGER	1533.0	1533.0	
BOTTOM LOGGED INTERVAL	1524.0	1532.0	
TOP LOGGED INTERVAL	400.0	408.0	
TYPE FLUID IN HOLE	Water	Water	
SALINITY, PPM CL.	NA	NA	
DENSITY	NA	NA	
LEVEL	Full	Full	
MAX. REC. TEMP., DEG F.	NA	NA	
OPERATING RIG TIME	NA	NA	
RECORDED BY	S. Windisch	S. Windisch	
WITNESSED BY	Ed Birk	Ed Birk	

BORE-HOLE RECORD

RUN NO.	BIT	FROM	TO

CASING RECORD

SIZE	WGT.	FROM	TO
4 1/2		0.0	T.D.

FOLD HERE

THIS HEADING AND LOG CONFORMS TO API RP 33

EQUIPMENT DATA

GAMMA RAY		NEUTRON	
RUN NO.	1 NW	RUN NO.	1 NW
TOOL MODEL NO.	102	LOG TYPE	NEU/NEU
DIAMETER	1 11/16"	TOOL MODEL NO.	102
DETECTOR MODEL NO.	E-1057	DIAMETER	1 11/16"
TYPE	SCINT.	DETECTOR MODEL NO.	E-1031
LENGTH	1" x 4"	TYPE	HE-3
DISTANCE TO N. SOURCE	8.0	LENGTH	1" x 6"
		SOURCE MODEL NO.	71-1
GENERAL		SERIAL NO.	71-1-355B
HOIST TRUCK NO.	NA	SPACING	13"
INSTRUMENT TRUCK NO.	102	TYPE	Am241Be
TOOL SERIAL NO.	MS-0001	STRENGTH	3 CI.

LOGGING DATA

GENERAL

RUN NO.	DEPTHS FROM	DEPTHS TO	SPEED FT/MIN.	T.C. SEC.	SENS. SETTINGS	GAMMA RAY ZERO DIV. L OR R	GAMMA RAY API G.R. UNITS PER LOG DIV.	NEUTRON T.C. SEC.	NEUTRON SENS. SETTINGS	NEUTRON ZERO DIV. L OR R	NEUTRON API N. U. PER LOG
1	400.0	1532.0	20	4.0	1.85/100	OL	10	4.0	1.35/100	OL	20

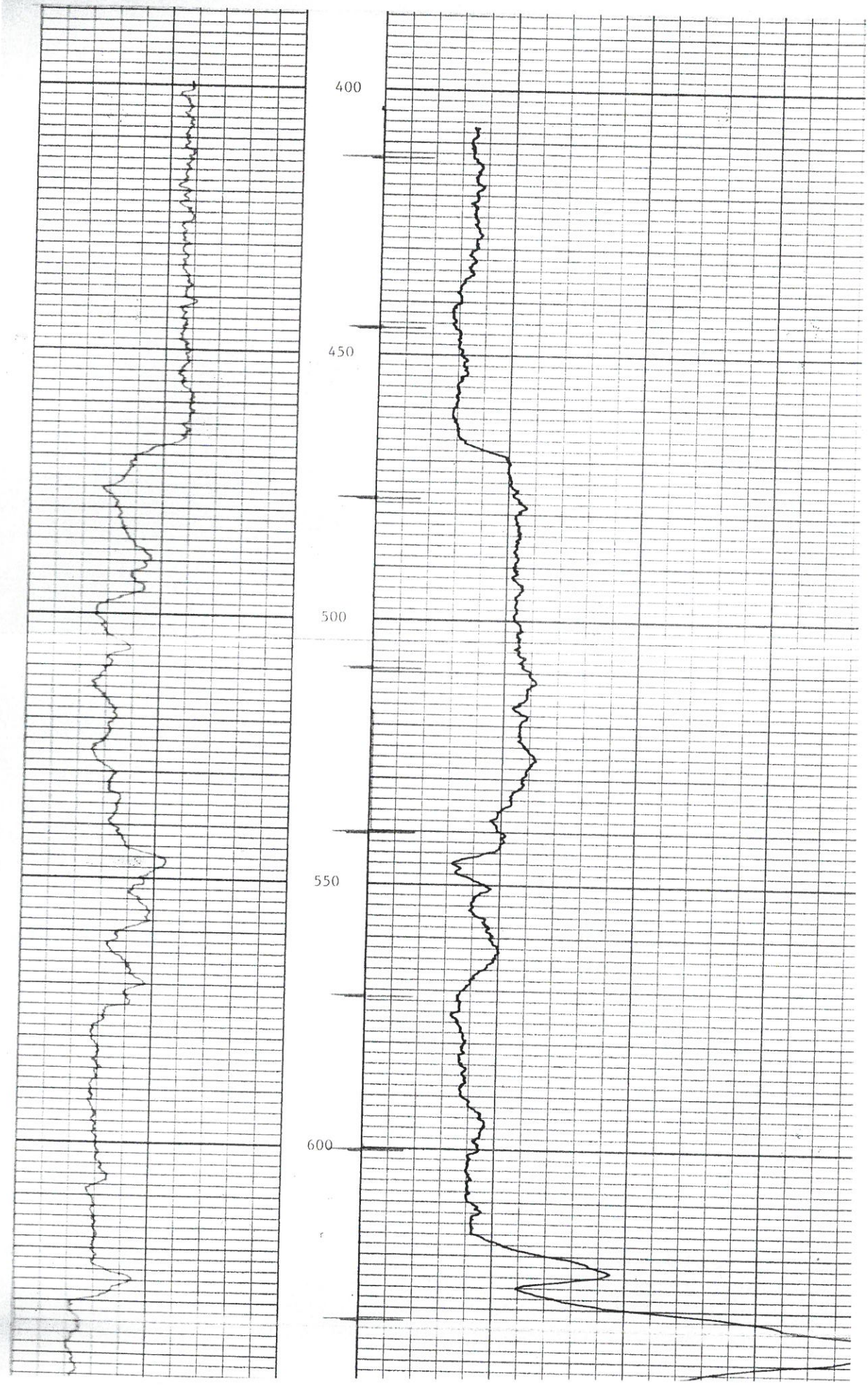
REFERENCE LITERATURE: 4 1/2" Cemented

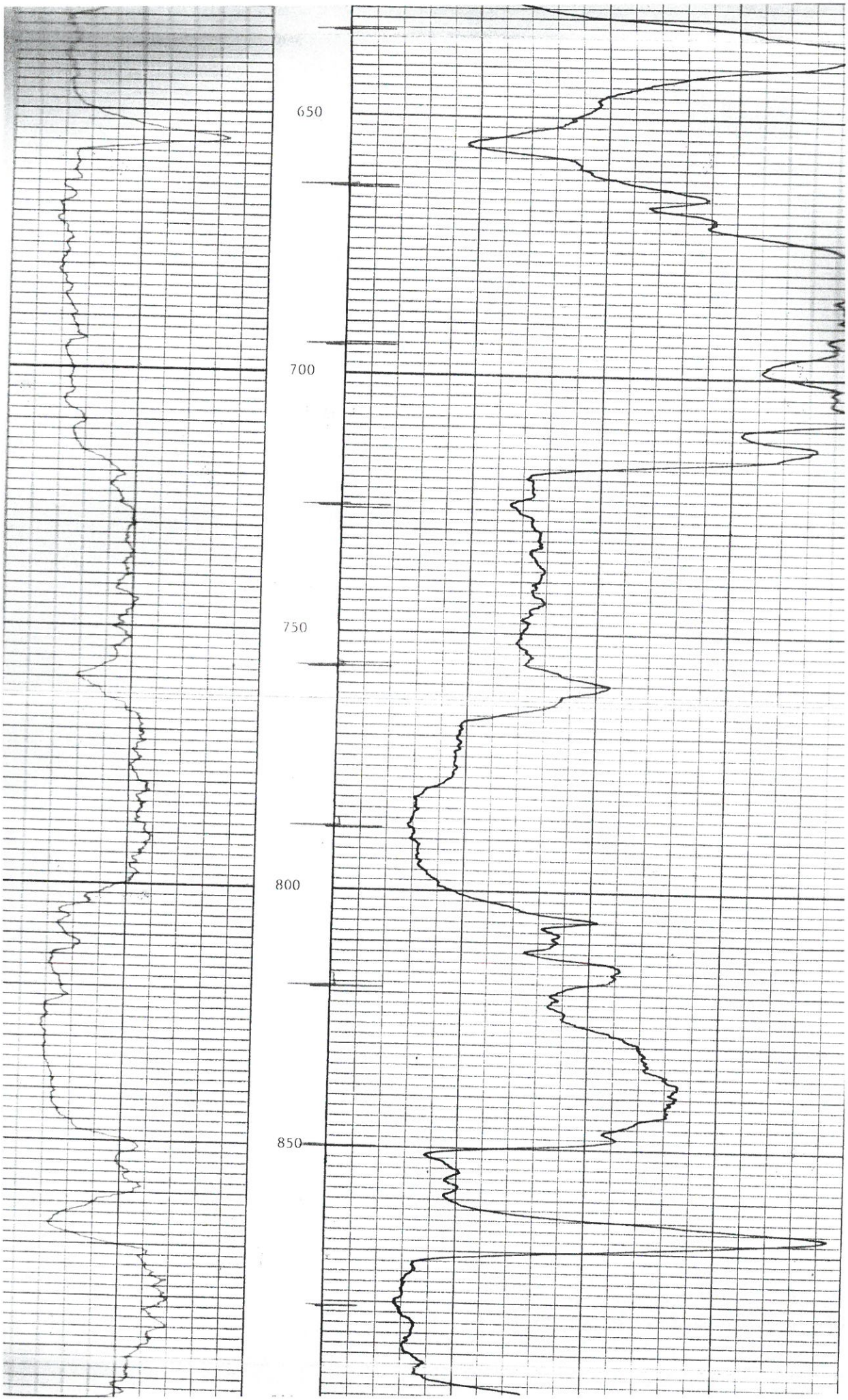
REMARKS D.C. Kan Drill Drilling Co.

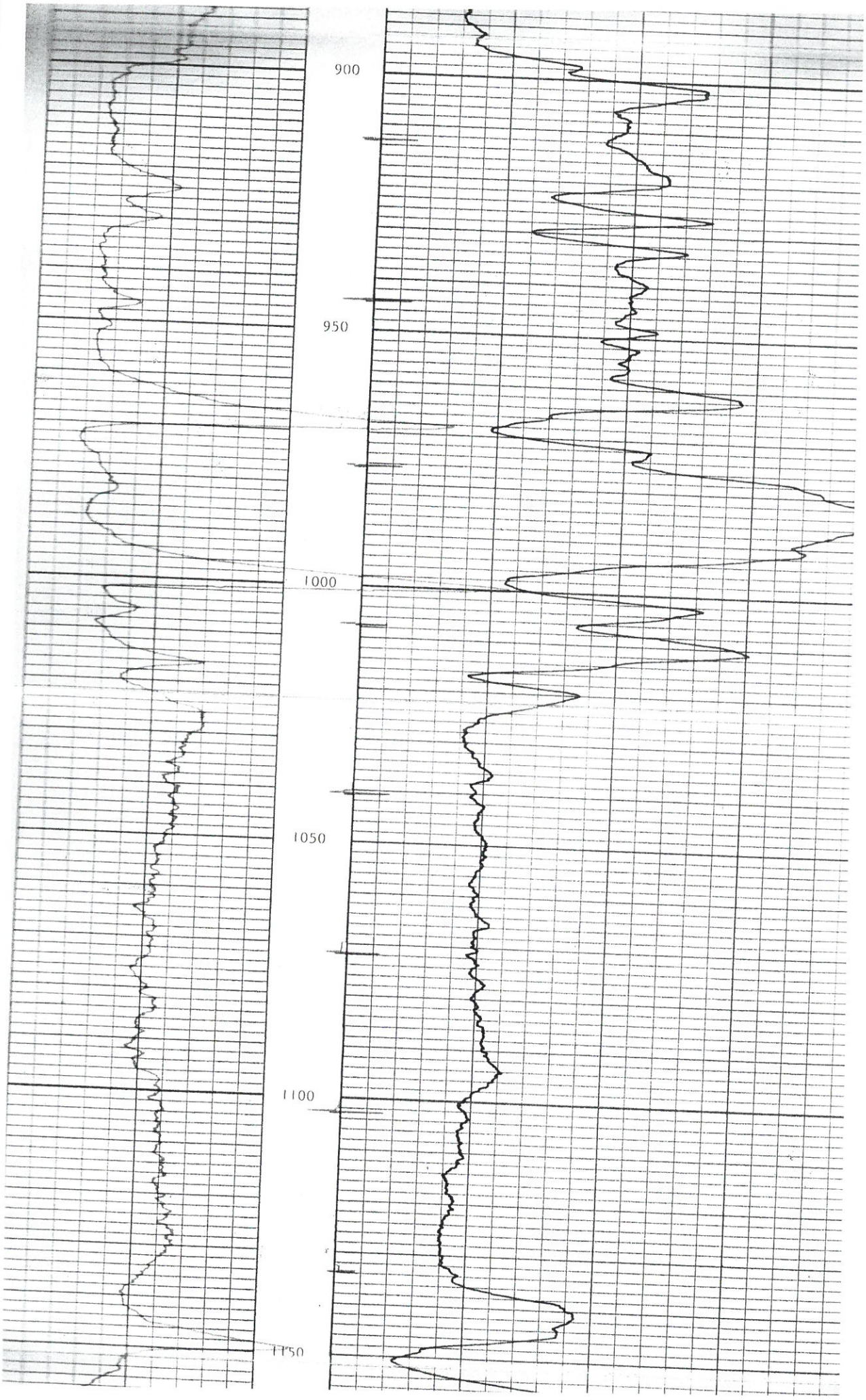
GAMMA RAY DEPTH NEUTRON

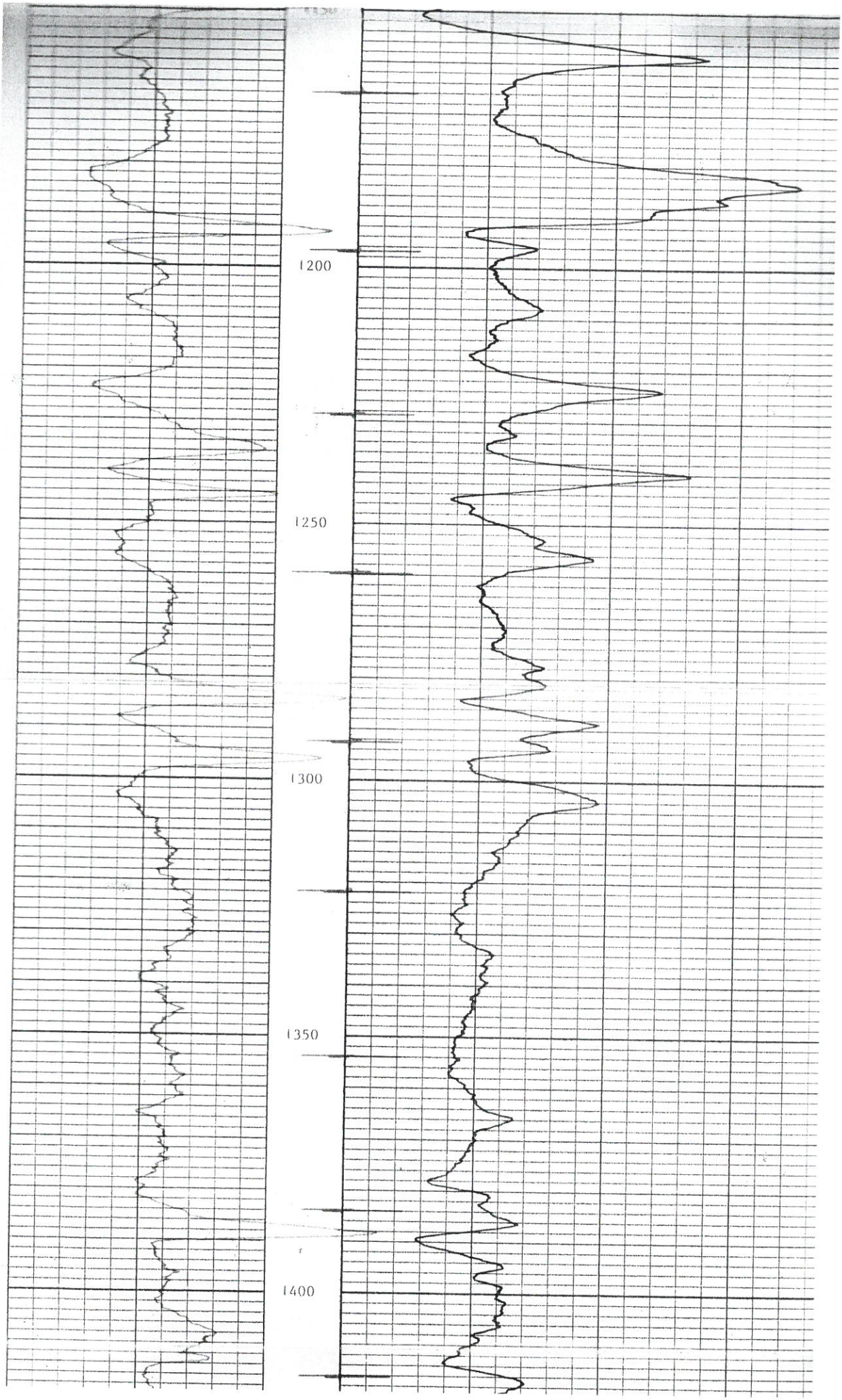
CASING COLLARS

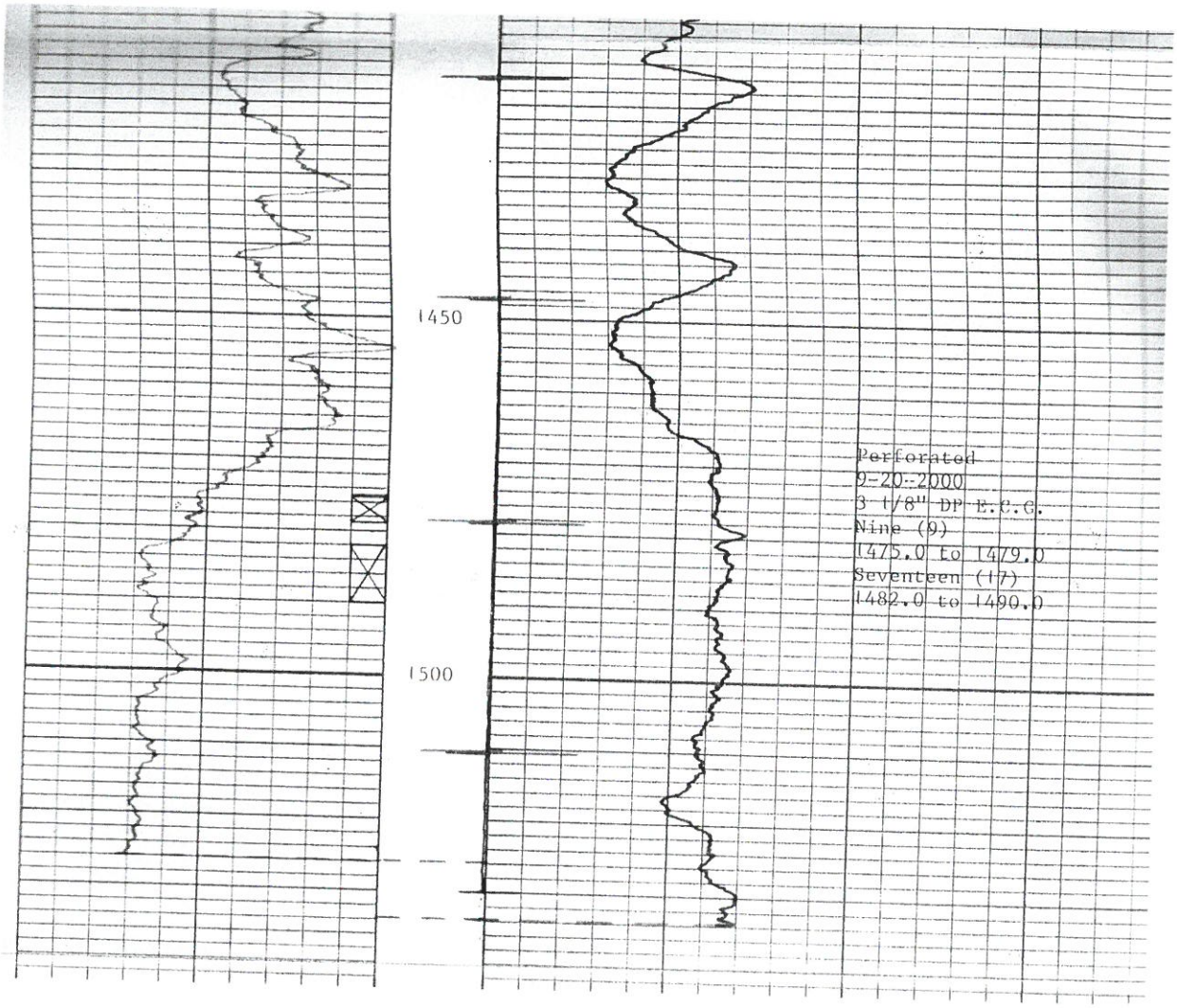
COLLARS




650
700
750
800
850


900
950
1000
1050
1100
1150


1200
1250
1300
1350
1400



COMPANY	Edward E. Birk
WELL	Born No. 6
LEASE	Last Chance
COUNTY	Coffey, Kansas
DATE	9-20-2000

GAMMA RAY	T.D.	1533.0
GAMMA RAY	R.D.	1524.0
NEUTRON	T.D.	1533.0
NEUTRON	R.D.	1532.0
CASING SET @		4 1/2" - T.D.

LOG-TECH

DIGITAL LOG Ph. (785) 625-3858

Dual Induction Log

API # 15-003-21,361-0000

Company	Edward E. Birk
Well	Born No. 6
Field	Last Chance
County	Coffey State Kansas
Location	990' FSL & 360' FEL
Other Services	CNL/CDL
Sec 1	Twp 19s Rge 14e

Permanent Datum Ground Level
Log Measured From Ground Level
Drilling Measured From Ground Level
Elevation 1127 Ft. Above Perm. Datum

Elevation: K.B. ; D.F. ; G.L. 1127

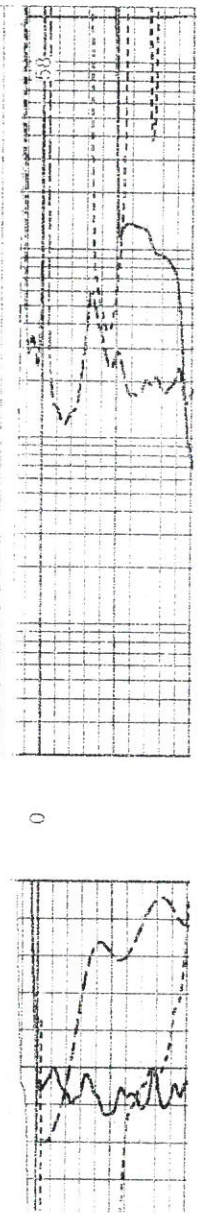
Date	9/14/2000	
Run Number	One	
Depth Driller	1582	
Depth Logger	1563	
Bottom Logged Interval	1562	
Top Log Interval	0	
Casing Driller	8 625 @ 44	
Casing Logger	41	
Bit Size	6.75	
Type Fluid in Hole	Chemical	
Salinity, ppm Cl	N/A	
Density / Viscosity	9.2 38	
pH / Fluid Loss	N/A N/A	
Source of Sample	Flowline	
Rm @ Meas. Temp	3.1 @ 78	
Rmf @ Meas. Temp	2.3 @ 78	
Rmc @ Meas. Temp	4.65 @ 73	
Source of Rmf / Rmc	Charts	
Rm @ BHT	2.6 @ 91	
Operating Rig Time	2 Hours	
Max Rec. Temp. F	91	
Equipment Number	1	
Location	Hays	

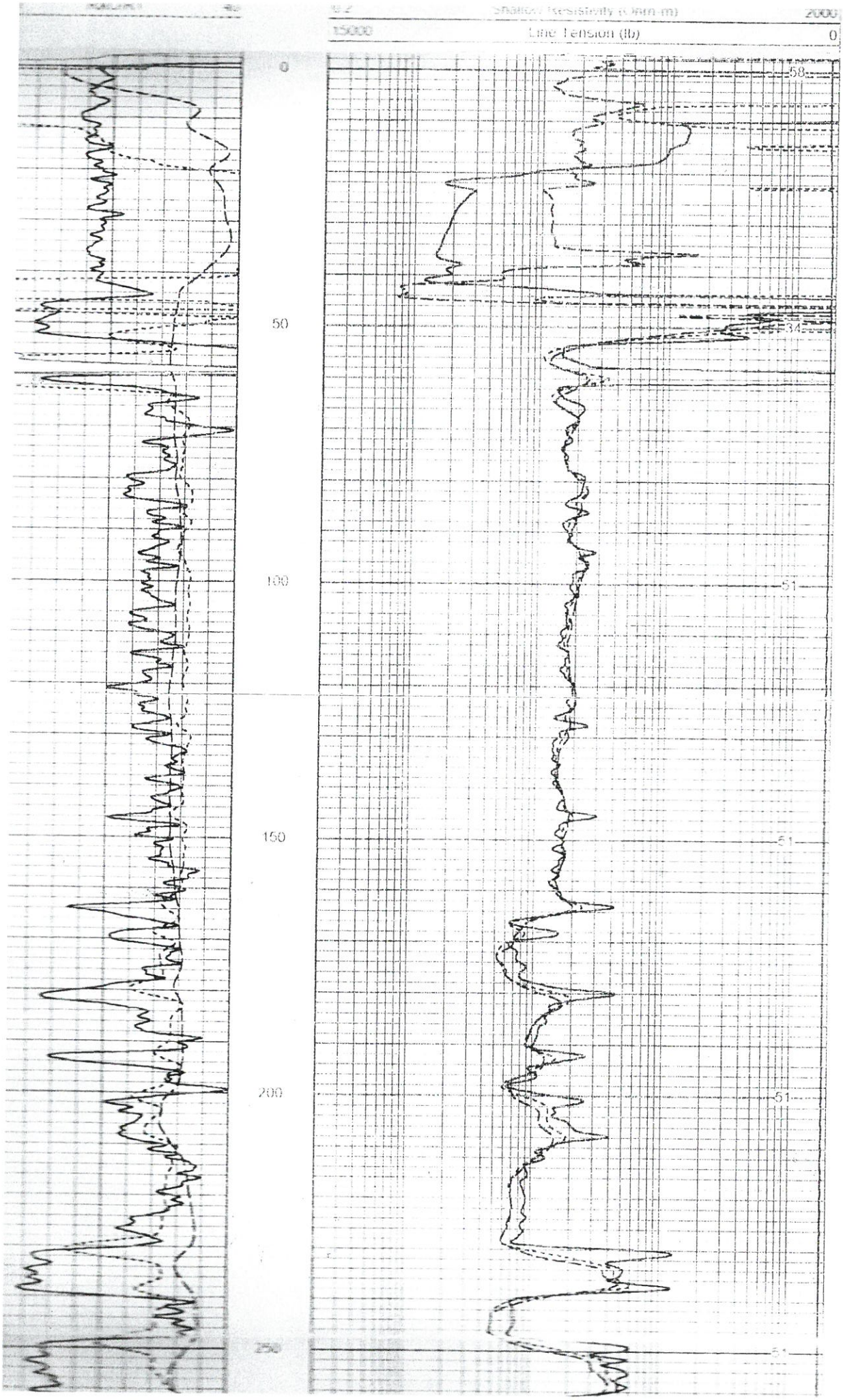
Comments

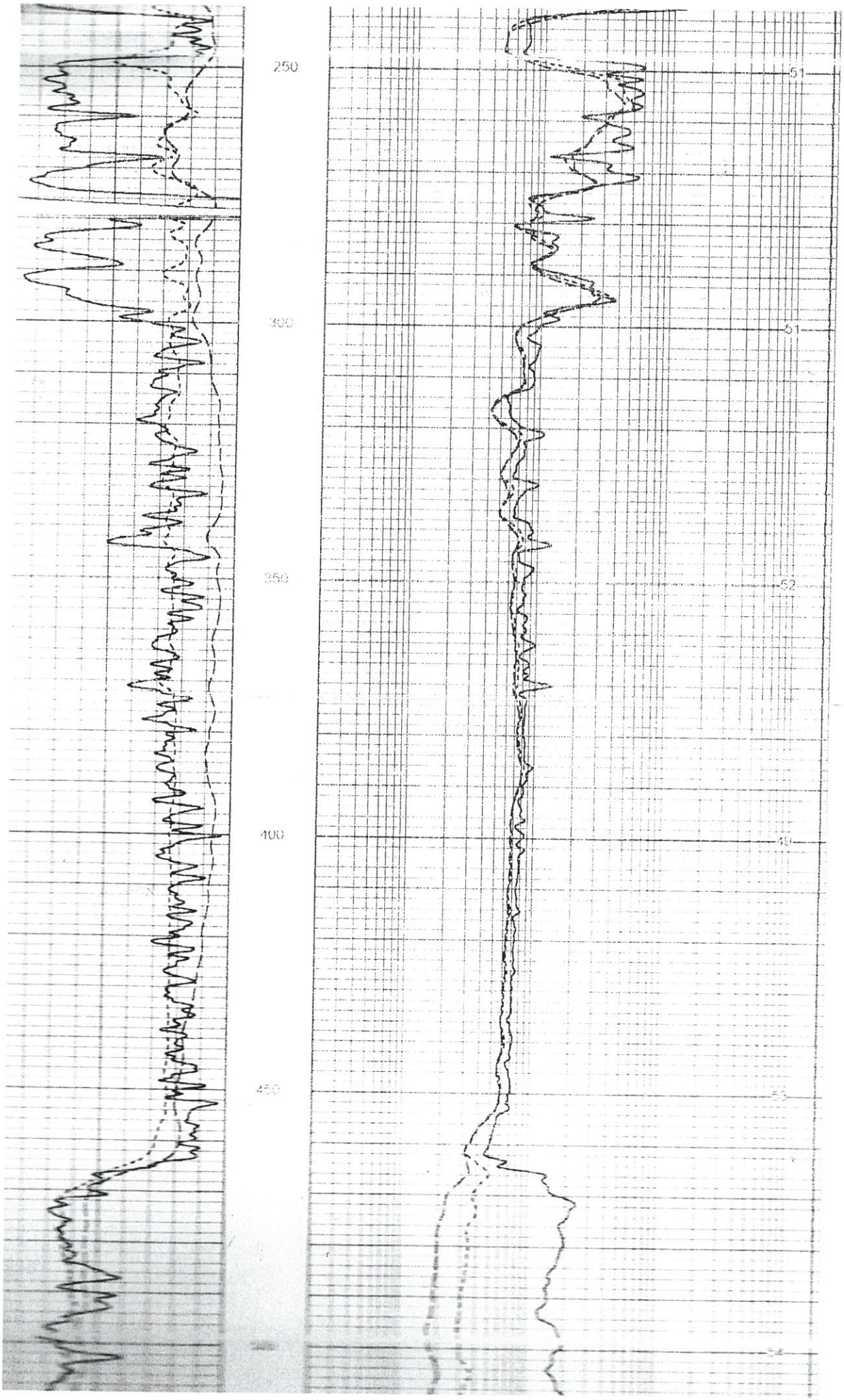
Thank you for using Log-Tech, Inc
(785) 625-3858

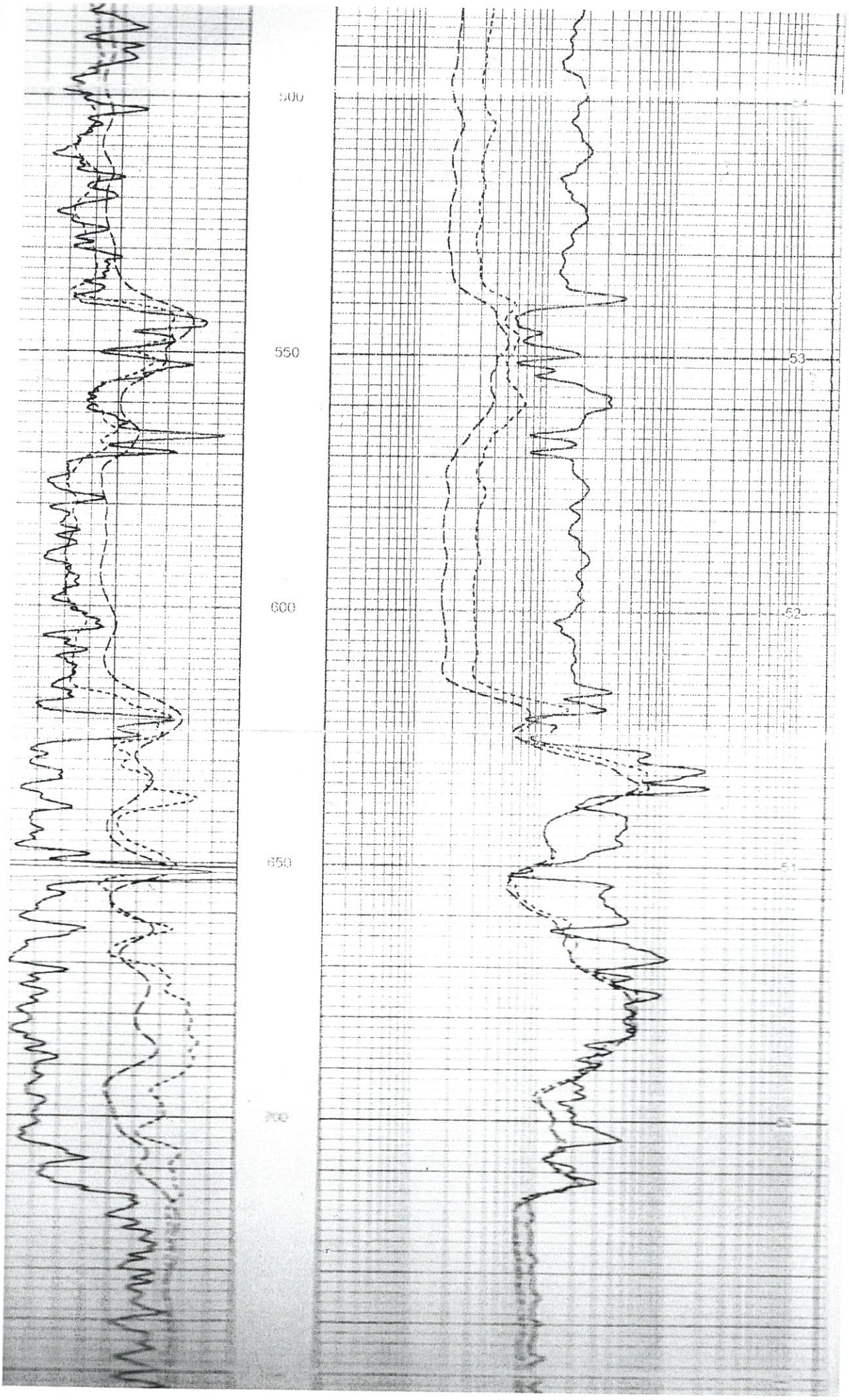
database File bnk.db
dataset Pathname ol/pass2
presentation Format dil.prs
dataset Creation Thu Sep 14 05:00:58 2000 by Log VER_5.3
sorted by Depth in Feet scaled 1:240

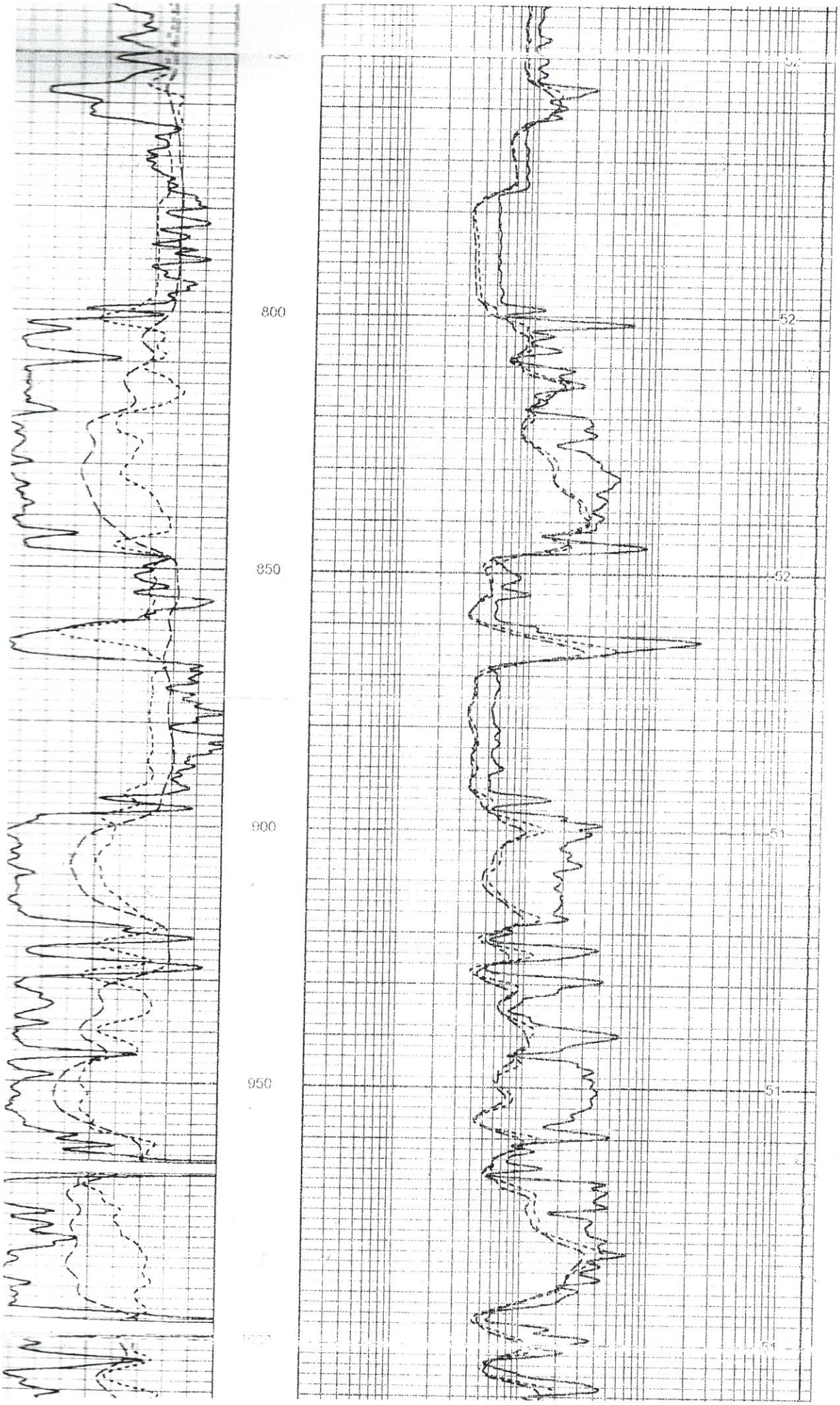
Gamma Ray (GAPI)	150	0.2	Deep Resistivity (Ohm-m) 2000
SP (MV) (mV)	60	0.2	Medium Resistivity (Ohm-m) 2000
RXO/RT	40	0.2	Shallow Resistivity (Ohm-m) 2000
		16000	Line Tension (lb) 0

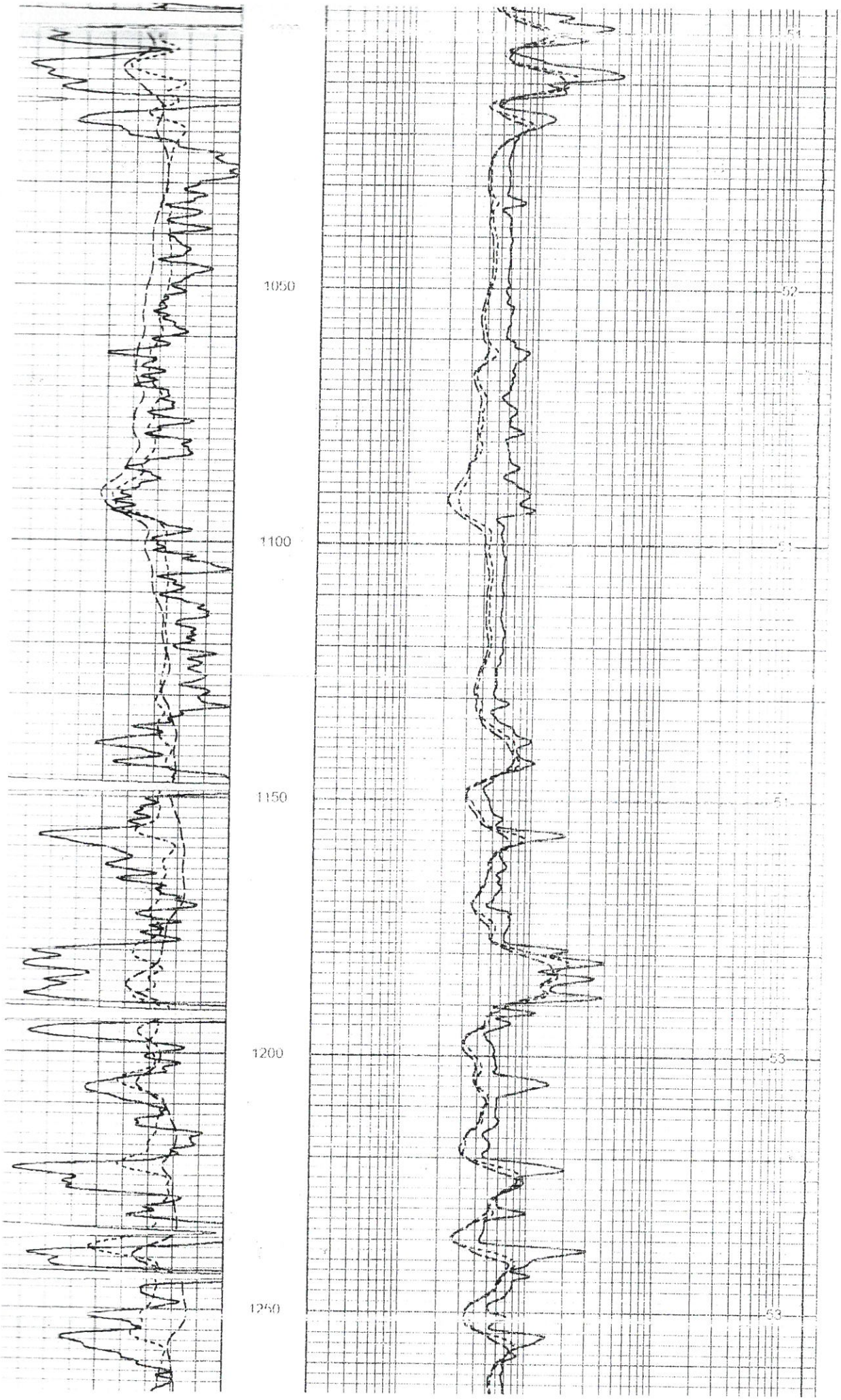


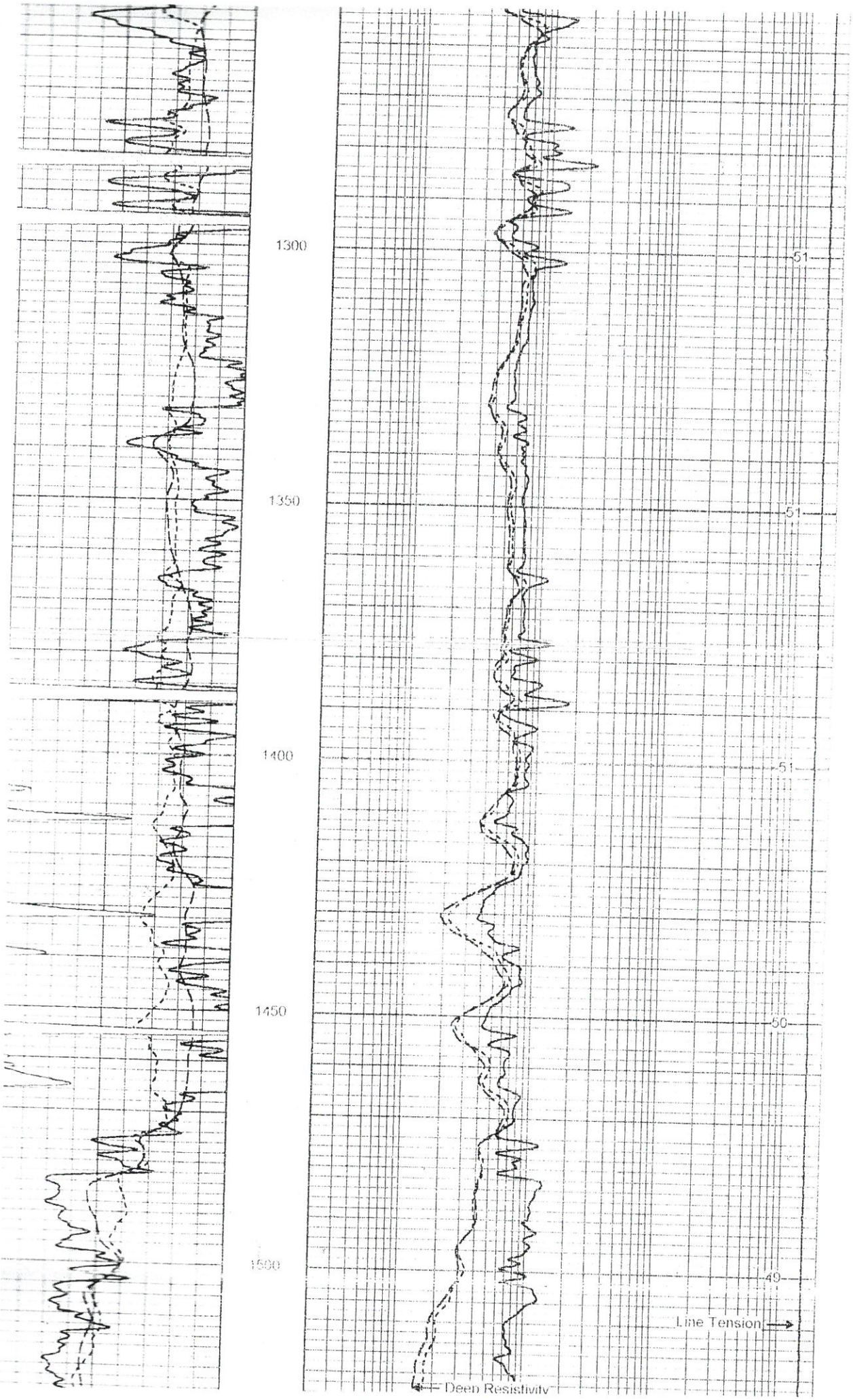

Shallow Resistivity (ohm-m)
2000
15000
Line Tension (lb)
0
0
50
100
150
200
250
58
34
51
51
51
51

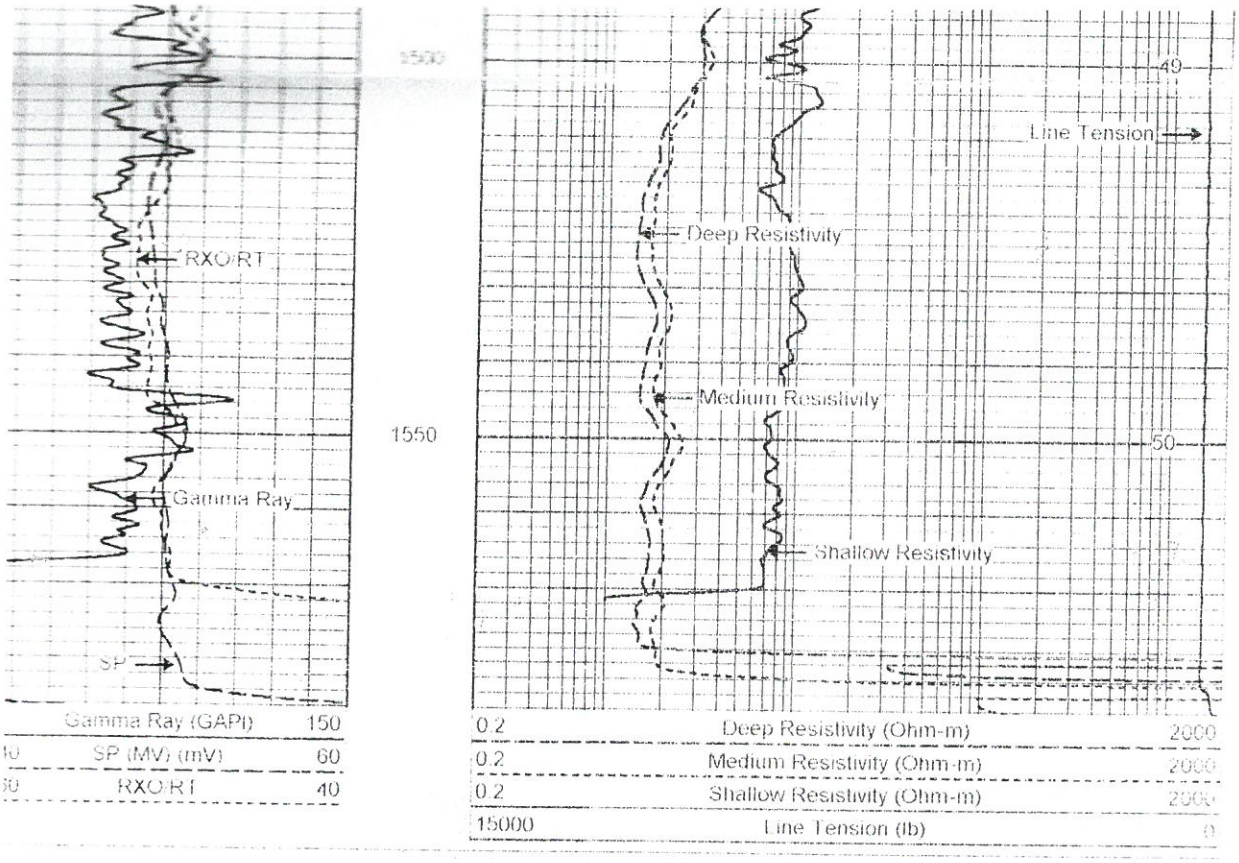

250
300
350
400
450
51
51
52
49
53
54


500
550
600
650
54
53
52
51


800
850
900
950
52
52
52
51
51


1050
1100
1150
1200
1250
52
51
53

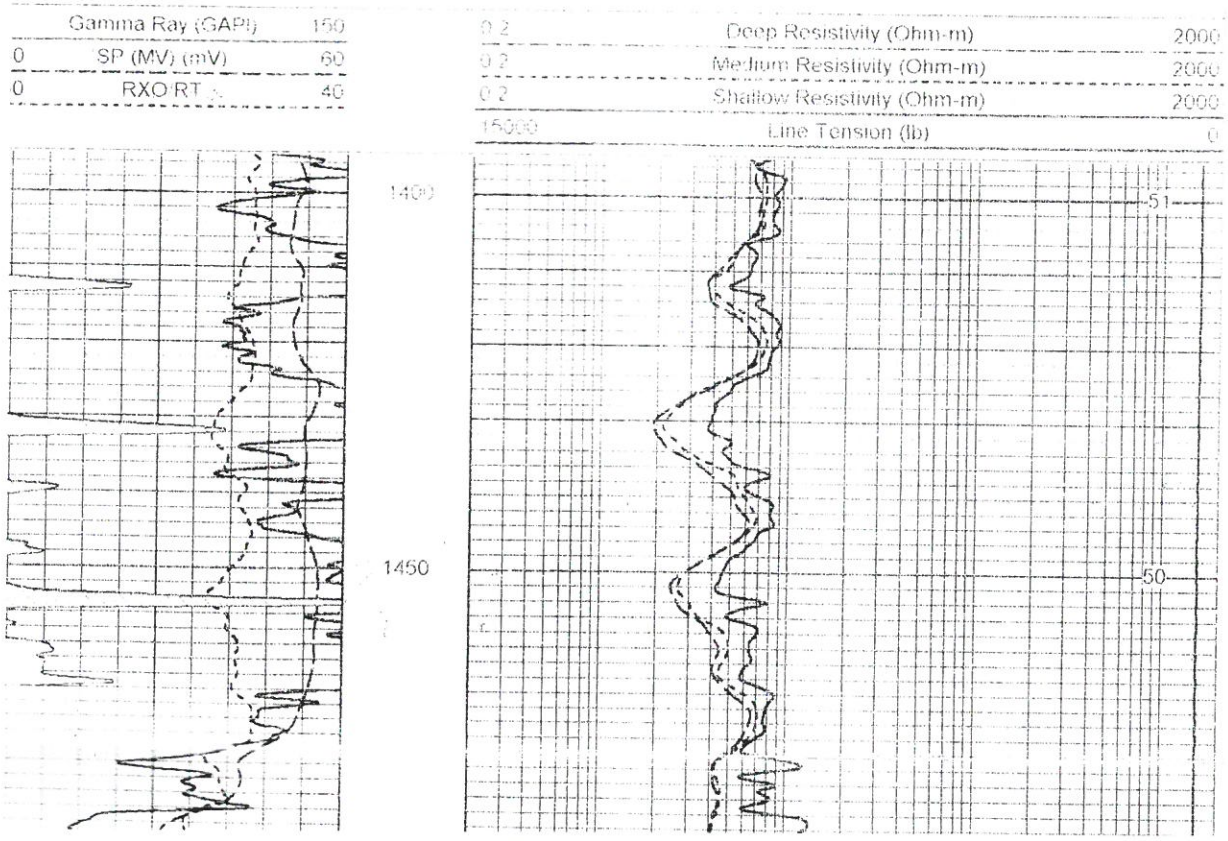

1300
1350
1400
1450
1500
51
51
51
50
49
Line Tension
Deep Resistivity

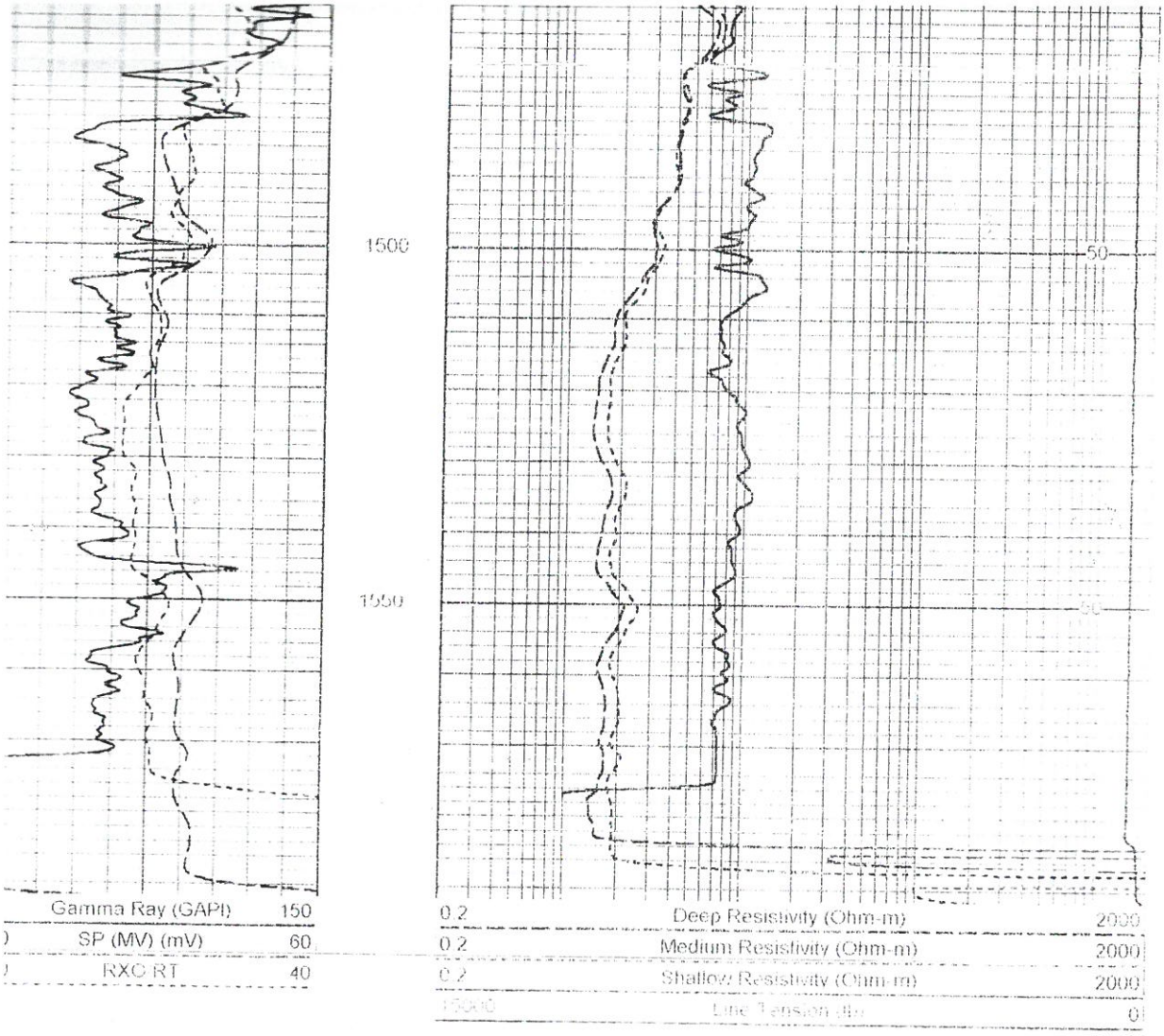


OG-TECH

Repeat Section

Database File: birk.db
Dataset Pathname: dil/pass1
Presentation Format: dil.prs
Dataset Creation: Thu Sep 14 04:54:51 2000 by Log VER_5.3
Charted by: Depth in Feet scaled 1:240




1500
1550
50
Gamma Ray (GAPI) 150
SP (MV) (mV) 60
RXO RT 40
0.2 Deep Resistivity (Ohm-m) 2000
0.2 Medium Resistivity (Ohm-m) 2000
0.2 Shallow Resistivity (Ohm-m) 2000

LOG-TECH

DIGITAL LOG Ph. (785) 625-3858

Dual Compensated Porosity Log

File No

API # 15-031-21,891-0000

Company	Edward E. Birk
Well	Born No. 6
Field	Last Chance
County	Coffey
State	Kansas

Location: 990' FSL & 360' FEL

Sec. 1 Twp. 19s Rge. 14e

Other Services: DL

Permanent Datum	Ground Level	Elevation 1127	Elevation
Log Measured From	Ground Level	Ft. Above Perm. Datum	GL 1127
Drilling Measured From	Ground Level		KB

Date	9/14/2000		
Run Number	One		
Type Log	CNL / CDL		
Depth Driller	1582		
Depth Logger	1583		
Bottom Logged Interval	1581		
Top Logged Interval	450		
Type Fluid in Hole	Chemical		
Salinity, PPM Cl	N/A		
Density	9.1		
Level	Full		
Max. Rec. Temp. F	91		
Operating Rig Time	2 Hours		
Equipment -- Location	4 Hays		
Recorded By	B. Drylie		
Witnessed By	Ed Birk	G. Petersen	Brian Birk

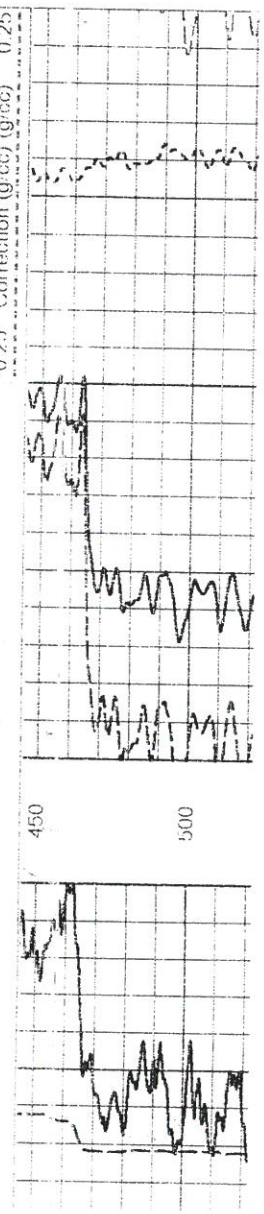
Borehole Record				Casing Record			
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	0	44	8.625	24#	0	44
Two	6.75	44	TD				

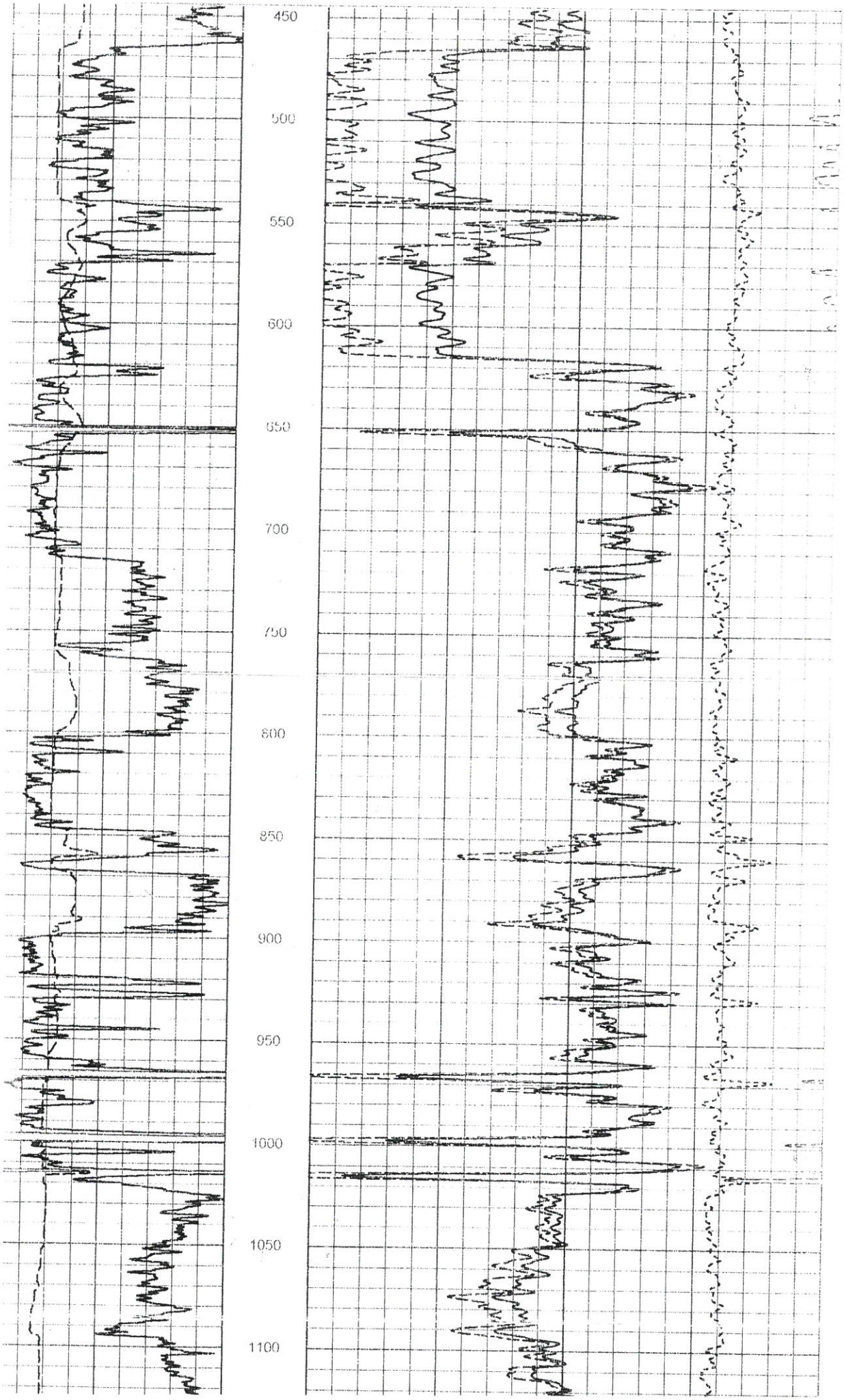
All interpretations are opinions based on inferences from electrical or other measurements and we do not guarantee the accuracy or correctness of any interpretation and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

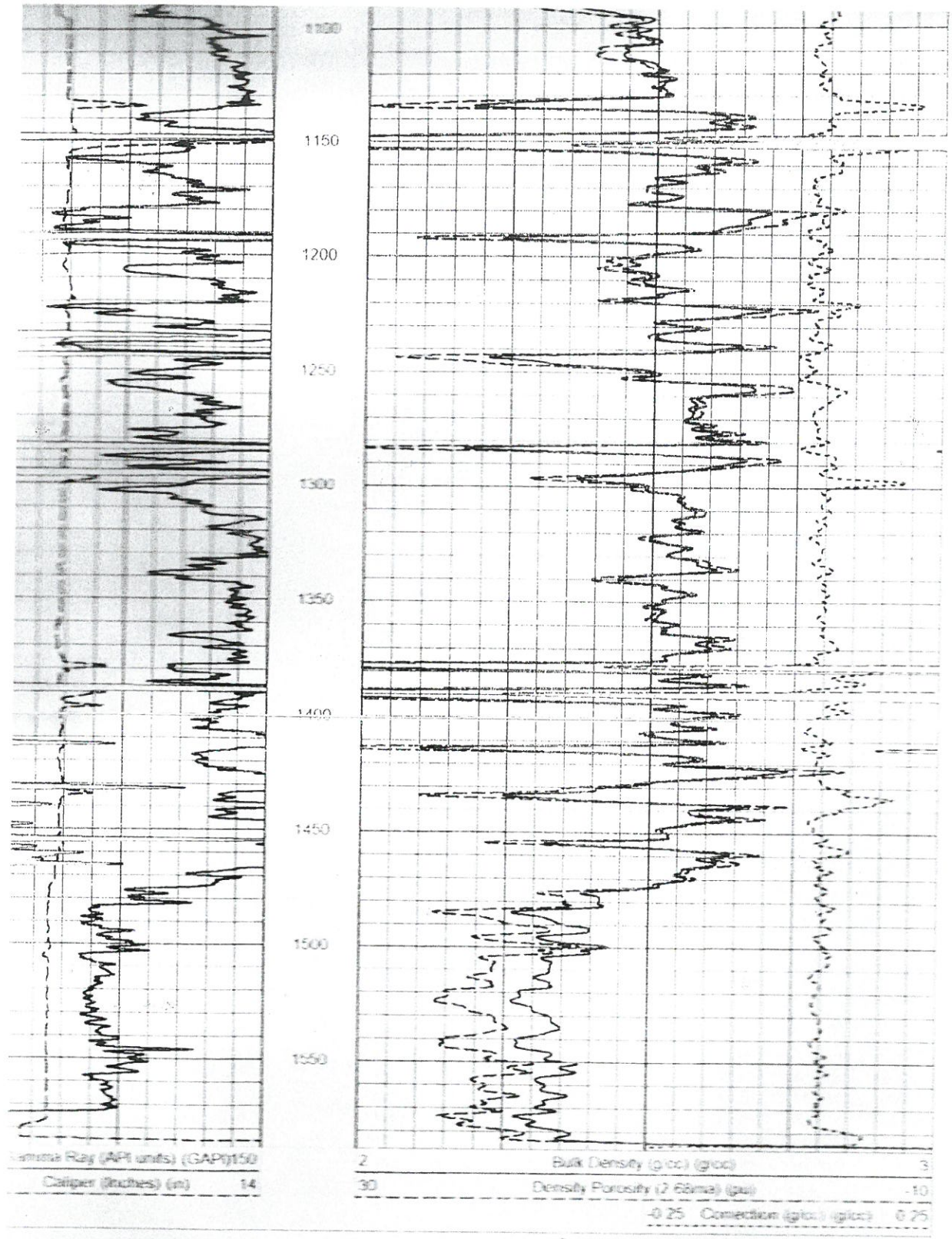
Comments

Thank you for using Log-Tech, Inc
(785) 625-3858

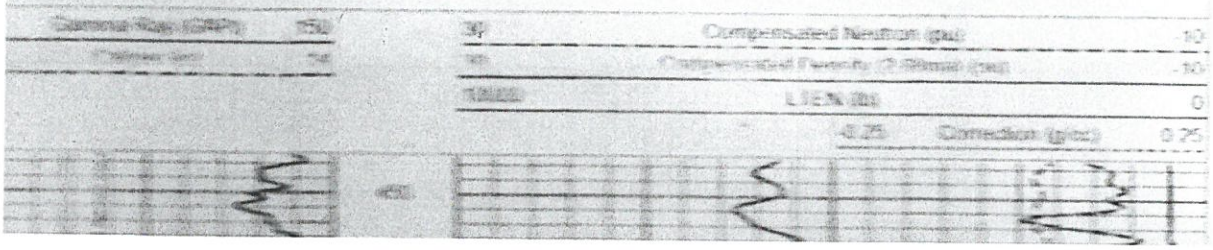
Database File birk db
Dataset Pathname dscp/pass1.1
Presentation Format ekcdl prs
Dataset Creation: Thu Sep 14 06:43:01 2000 by Calc VER_5.3
Charted by: Depth in Feet scaled 1:600




450
500
550
600
650
700
750
800
850
900
950
1000
1050
1100

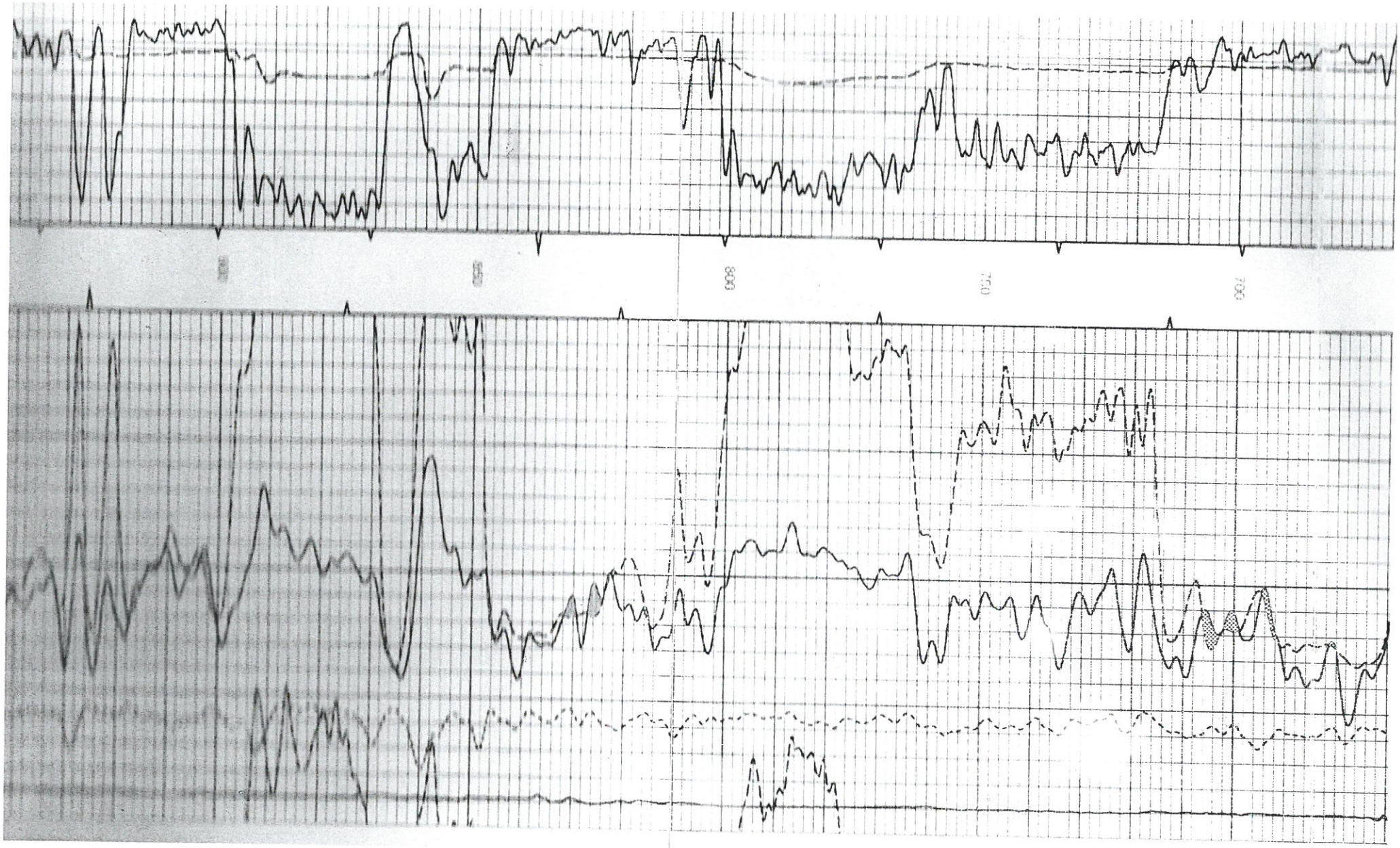


Software Filter: Swift.db
Model Filtration: ductgeiss1.1
Presentation Format: electlog.prs
Model Download: Thu Sep 14 05:43:01 2000 by Calc VER_5.3
Generated by: Depth in Feet scaled 1:240



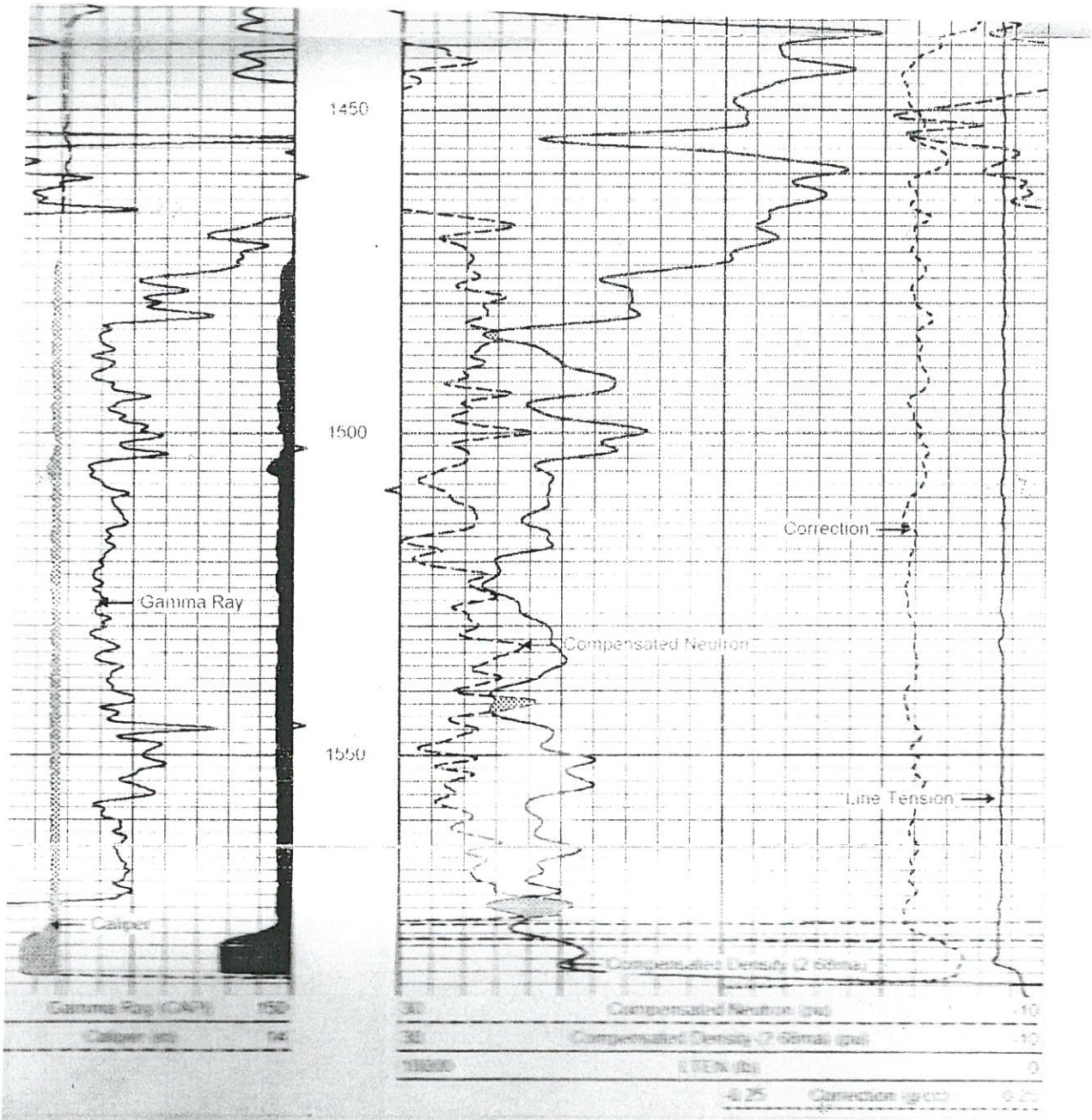
Dataset Creation: Thu Sep 14 06 43 01 2000 by Calc VER_5 3
Charted by: Depth in Feet scaled 1 240

Gamma Ray (GAPI)	150	30	Compensated Neutron (pu)	-10
Caliper (in)	14	30	Compensated Density (2 68mg) (pu)	-10
		10000	LTEN (lb)	0
		-0 25	Correction (g/cc)	0 25


700
750
800
850
900

950
1000
Compensated Density (2.71ma)

1200
1250
1300
1350
1400


1450
1500
1550
Gamma Ray
Caliper
Correction
Compensated Neutron
Line Tension
Compensated Density (2 Sigma)
Gamma Ray (GAPI)
Caliper (in)
Compensated Neutron (pu)
Compensated Density (2 Sigma) (pu)
Correction (g/cc)

CORNISH

OIL WELL SERVICES

Box 260 Chanute, Kansas

HE 1-9308

RADIOACTIVITY LOG

NO.

COMPANY PETROLEUM ENERGY, INC.

WELL BORN NO. 1

FIELD WILDCAT

COUNTY COFFEY STATE KANSAS

LOCATION: SE¼ SE¼ NW¼

SEC. 29 TWP. 22S RGE. 15E

OTHER SERVICES:

ENT DATUM: G. L. ELEV. 1115'

ASURED FROM K.B. -5' AGL FT. ABOVE PERM. DATUM

MEASURED FROM K.B. -5' AGL

ELEV.: K.B. 1120'
D.F.
G.L. 1115'

	12-19-74	12-19-74	RELEASED
	1 NW	1 NW	NO SMALL SCALE
G	GAMMA RAY	NEUTRON	
DRILLER	2090'	2090'	
LOGGER	2089'	2089'	
A LOGGED INTERVAL	2080'	2088'	
GGED INTERVAL	2'	10'	
UID IN HOLE	DRLG. MUD	DRLG. MUD	
NITY, PPM CL.			
SITY			
L	53'	53'	
EC TEMP, DEG F.			
TING RIG TIME			
DED BY	CORNISH	CORNISH	
SSED BY	WRIGHT	WRIGHT	

BORE-HOLE RECORD			CASING RECORD			
BIT	FROM	TO	SIZE	WGT.	FROM	TO

THIS HEADING AND LOG CONFORMS TO API RP 33

EQUIPMENT DATA

	GAMMA RAY	NEUTRON
RUN NO.	1 NW	1 NW
LOG TYPE	95S	NEU/NEU
TOOL MODEL NO	1-11/16"	95S
DIAMETER	95SC	1-11/16"
DETECTOR MODEL NO	SCINT.	95HE
TYPE	1"x 4"	He3
LENGTH	8.5'	1"x 6"
SOURCE MODEL NO.		AC
SERIAL NO.		MRC415
SPACING		13"
TYPE		Am/Be
STRENGTH		6.7x10^6

GENERAL

ST TRUCK NO.	3247
TRUMENT TRUCK NO.	3247
DL SERIAL NO.	03

LOGGING DATA

GAMMA RAY

GENERAL DEPTHS FROM	TO	SPEED FT/MIN	T.C. SEC	SENS. SETTINGS	ZERO DIV. L OR R	API G.R. UNITS PER LOG DIV.
2088'	2'	25	2.5	100-095	1L	20

NEUTRON

T.C. SEC.	SENS. SETTINGS	ZERO DIV. L OR R	API N. UNITS PER LOG DIV.
2.0	500-127	3L	

ERENCE LITERATURE:

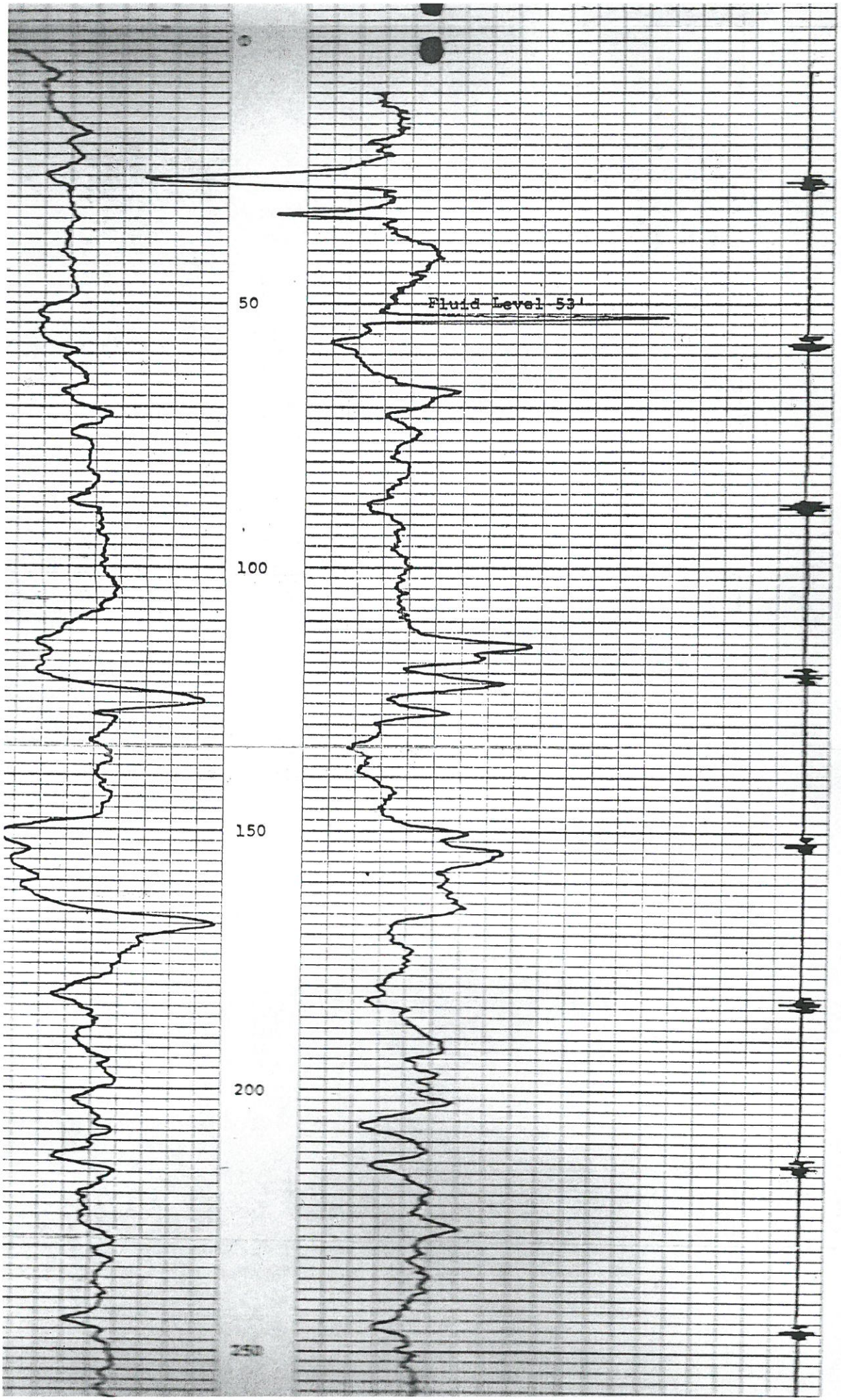
MARKS Drilling Contractor - Triangle Drlg. Co.
Geologist - Wright

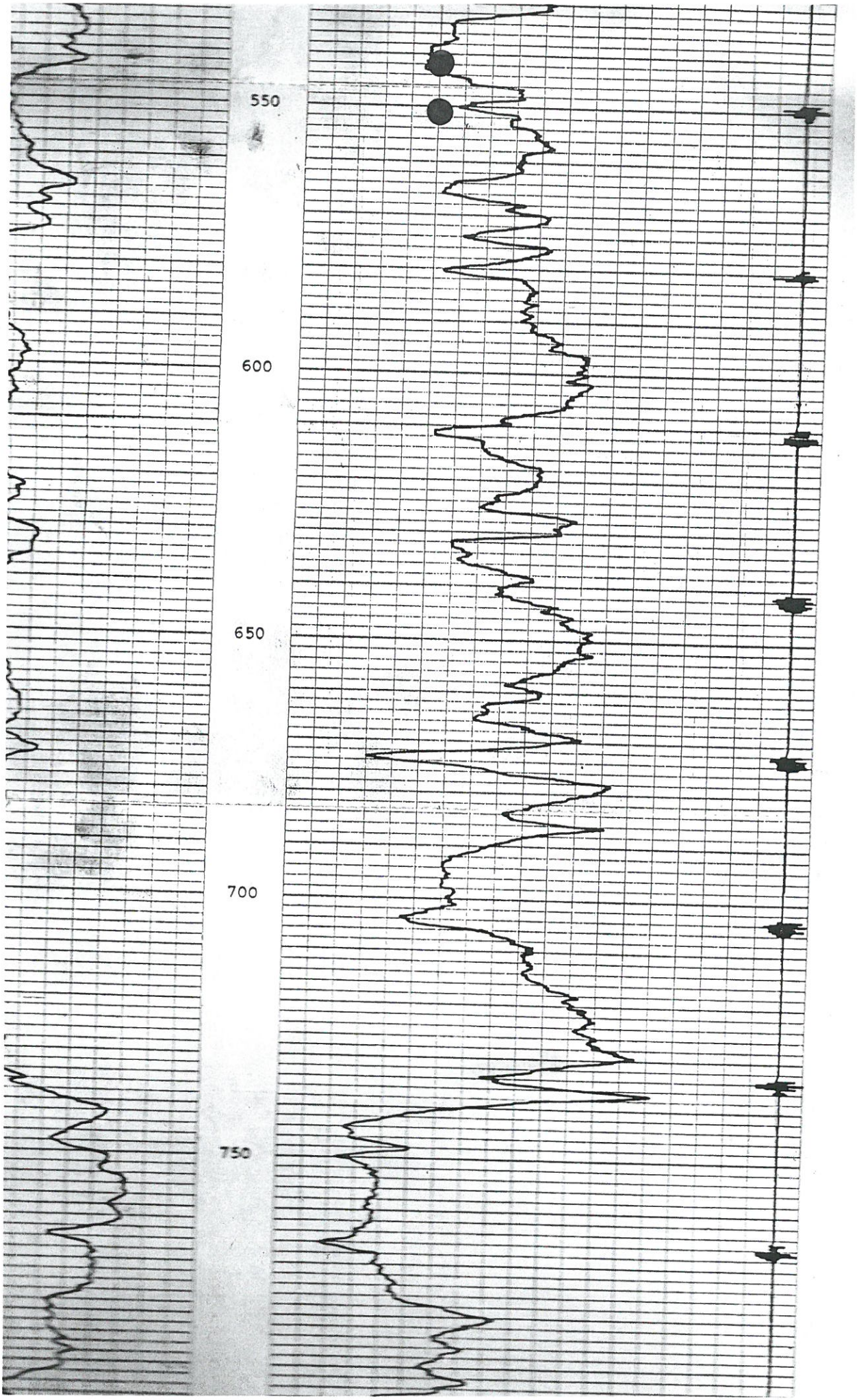
GAMMA RAY API UNITS

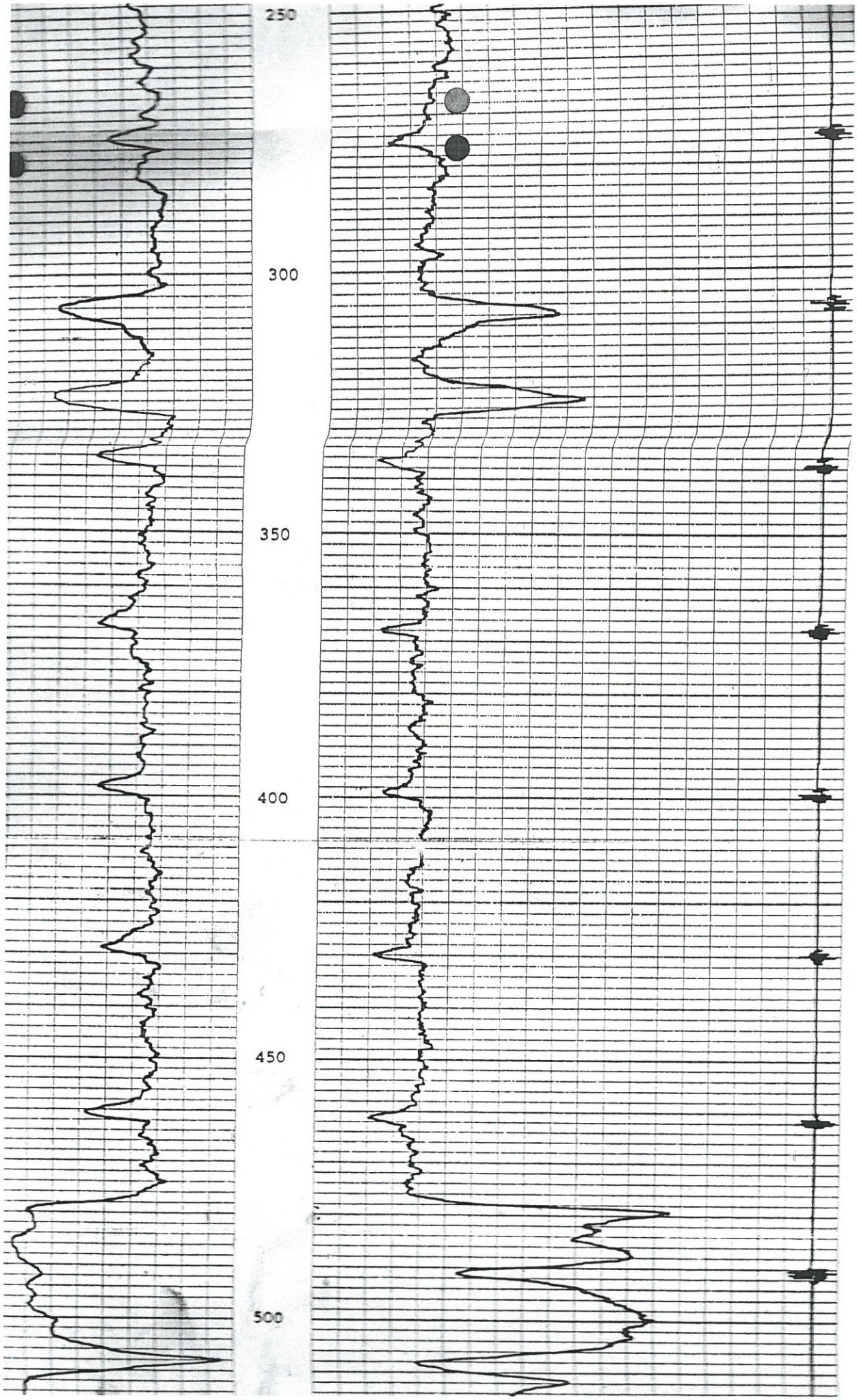
DEPTH AND CASING COLLARS

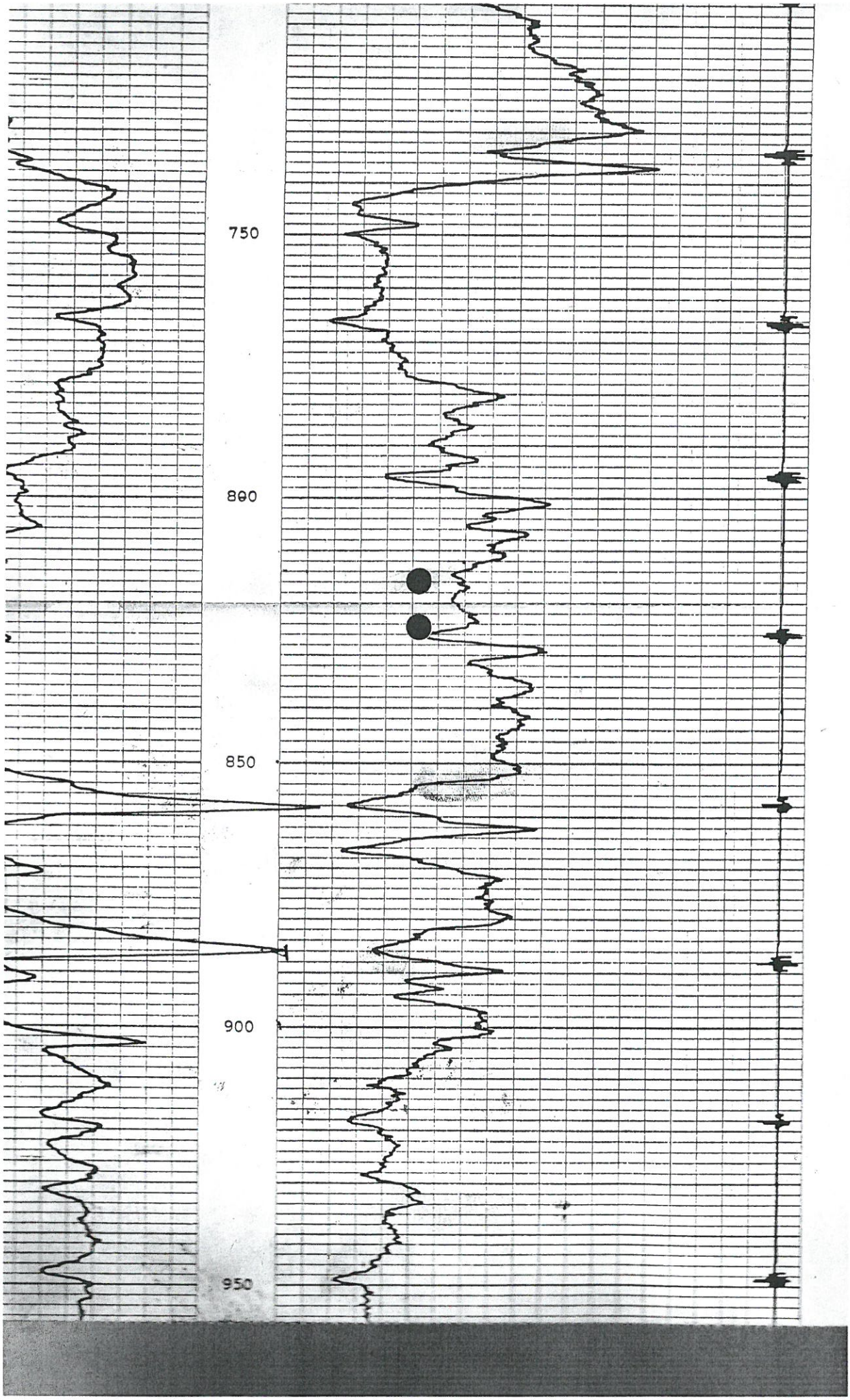
NEUTRON API UNITS

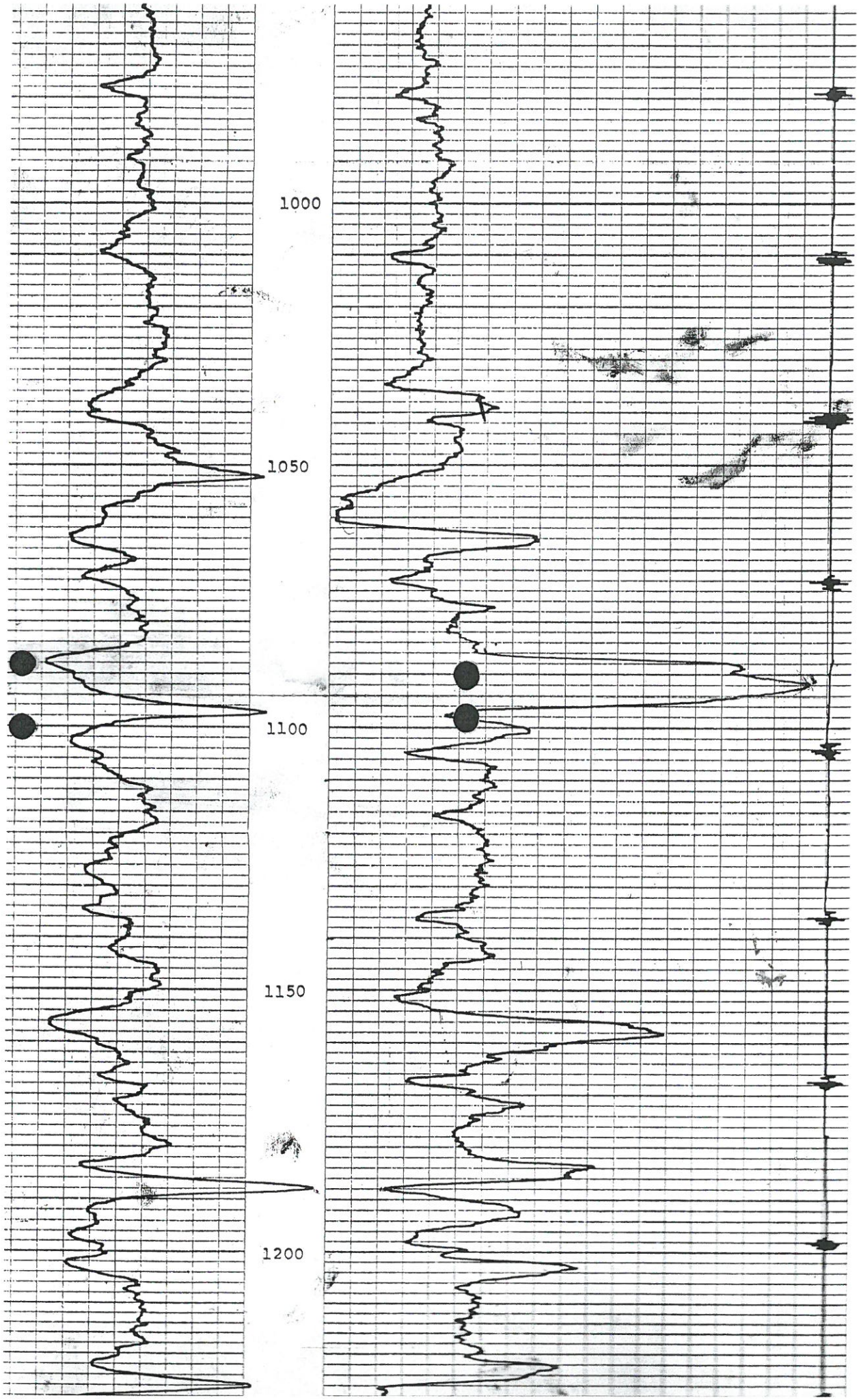
0

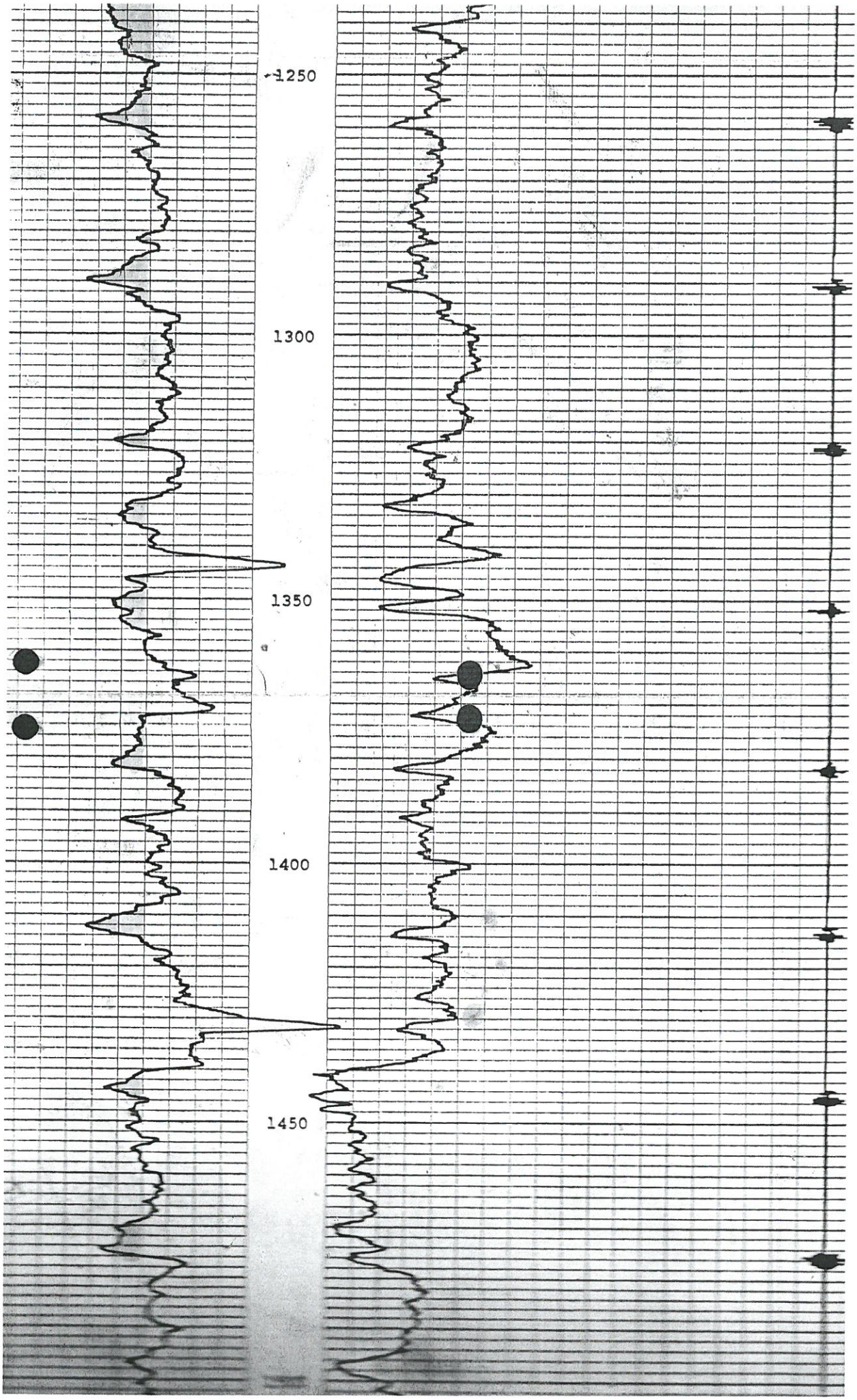

0
50
Fluid Level 53'
100
150
200
250

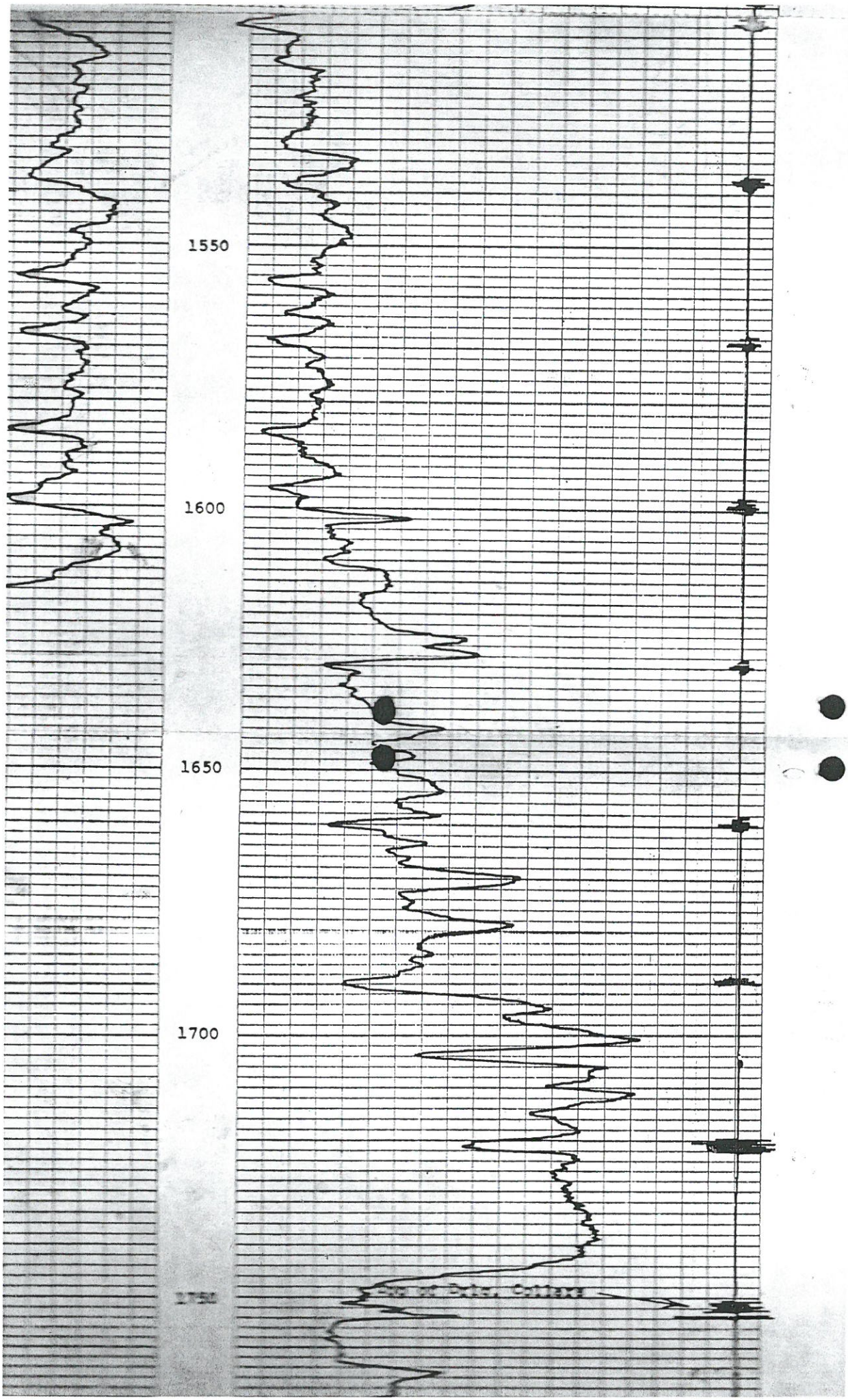

550
600
650
700
750

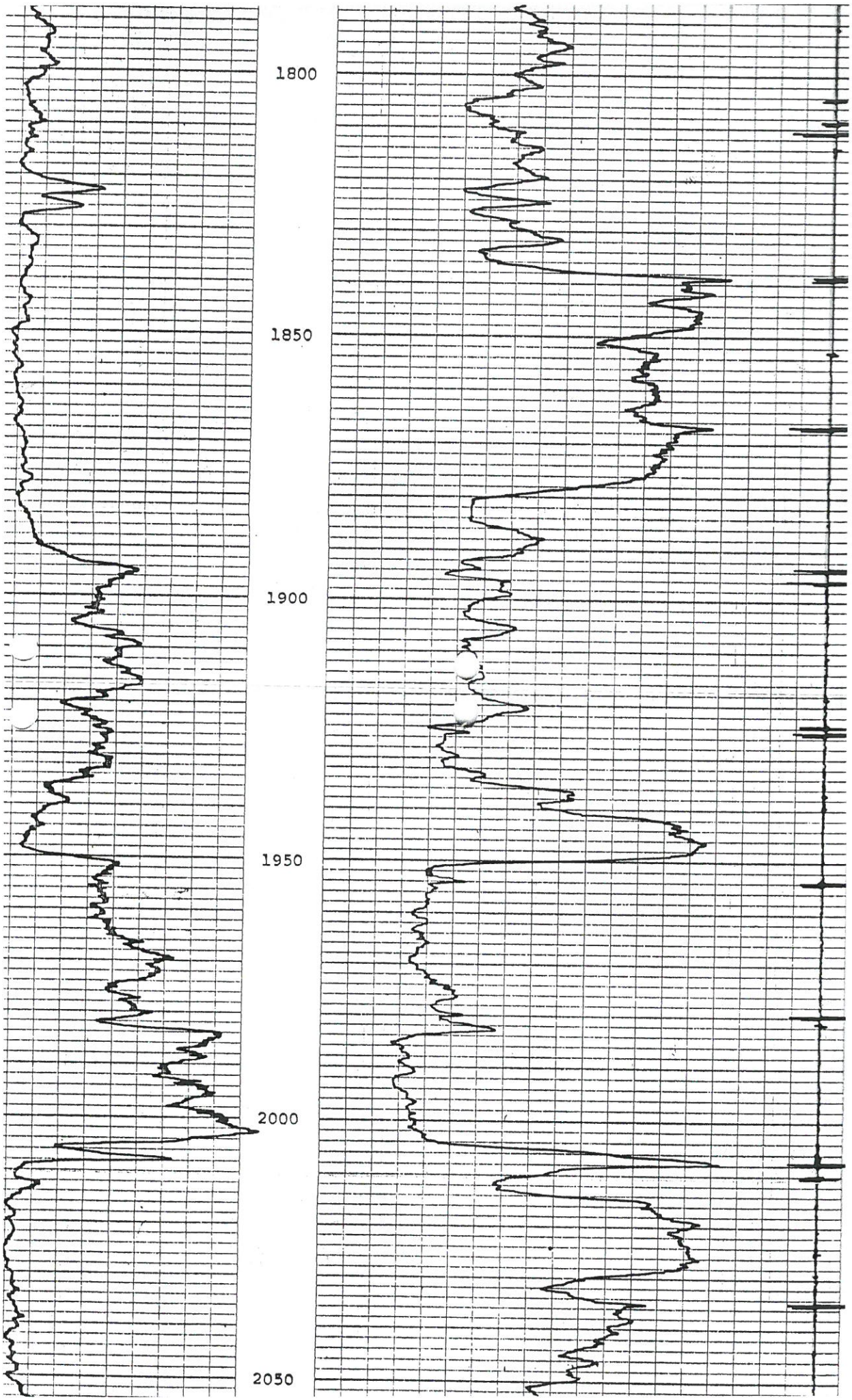

250
300
350
400
450
500

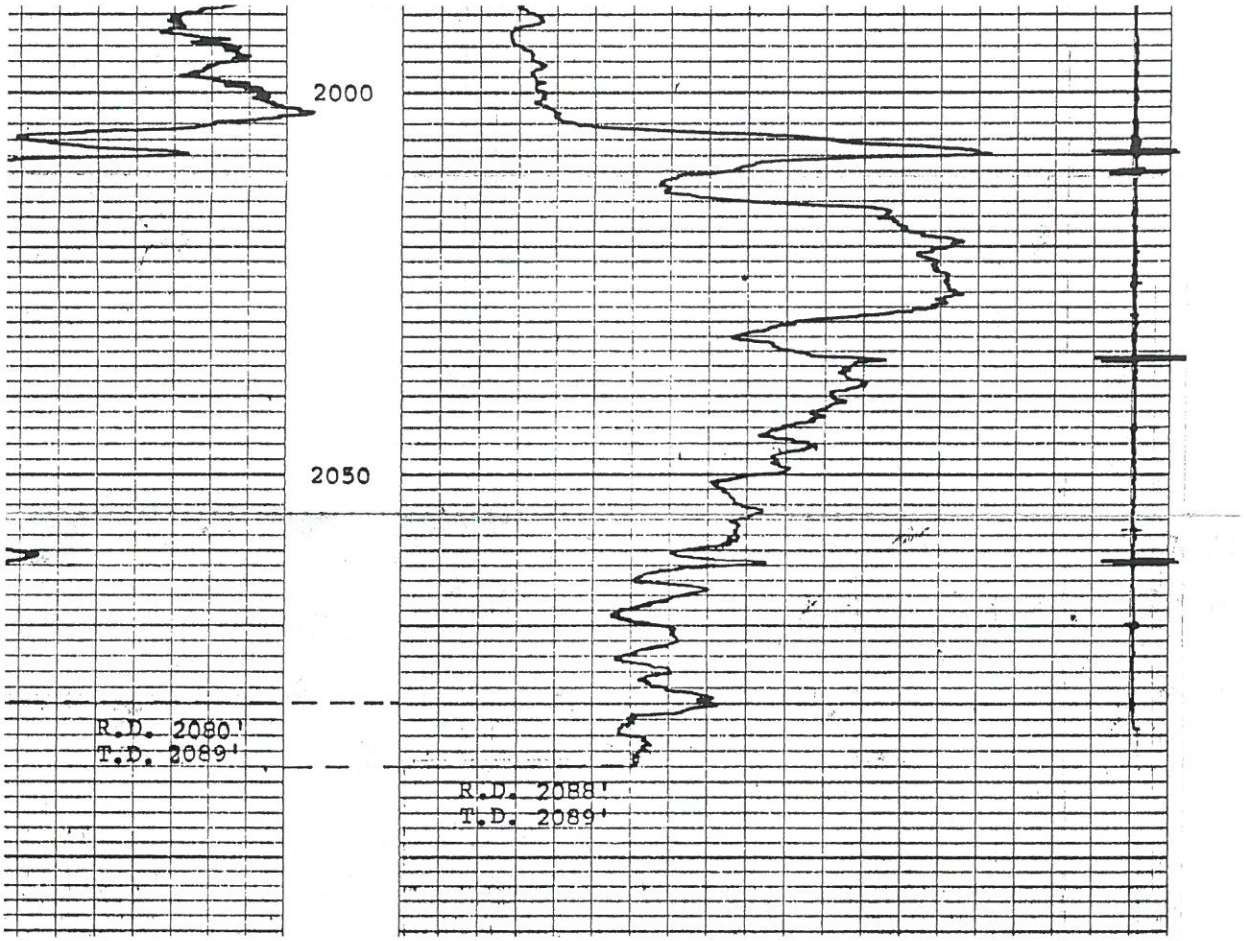

750
800
850
900
950


1000
1050
1100
1150
1200


1250
1300
1350
1400
1450


1550
1600
1650
1700
1751


1800
1850
1900
1950
2000
2050



D. 1
EUM ENERGY, INC.
COUNTY, KANSAS
ER 19, 1974

George E. Petersen c.p.g.
consulting geologist

3223 McClure Rd
Topeka, Kansas 66614
(913) 272-4383

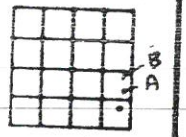
GEOLOGIST'S LOG

2-00

COMPANY: Birk Oil Co.
WELL NAME: Born #6
LOCATION: NE, SE, SE
SEC. 1 T 19 S; R 14 E
COUNTY: Coffey, STATE: Kansas
ELEVATION: 1127 GL
API #: 031-21891-0000
FIELD: Last Chance
CONTRACTOR: Kan Drill Inc
GEOLOGIST: George E Petersen
SPUD DATE: 9-10-00 COMP. DATE: 9-14-00
SAMPLES SAVED FROM: 100 TO: TD
SAMPLES EXAMINED FROM: 100 TO: TD
RTD: 1582 LTD: 1583
CORES: NA

OPEN HOLE LOGS: ~~NDC~~ DIL

SURFACE CASING SET: 44' 8 5/8" PROD. CASING SET:
GEOLOGICAL SUPERVISION FROM: Surf TO: TD
COMMENTS:



FORMATION TOPS & STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	DATUM	#2 REF. WELLS A	#1 REF. WELLS B	C	D
Top Lansing	614	614	+513		+512		
Top KC	800	802	+326		+331		
Base KC	1012	1023	+113	+114	+115		
Top Cherokee	1296	1295	-167	-169	-171		
Cattleman Sd	1388	1390	-263	-266	-265		
Bartlesville	1474	1475	-348	-360	-350		

REFERENCE WELL FOR STRUCTURE:
A #2 Born SE NE SE 1 19S 14E
B #1 Born NE NE SE 1 19S 14E
C
D

DRILL STEM TESTS

NO.	INT.	IFP	ISIP	FFP	FSIP		RECOVERY

LEGEND

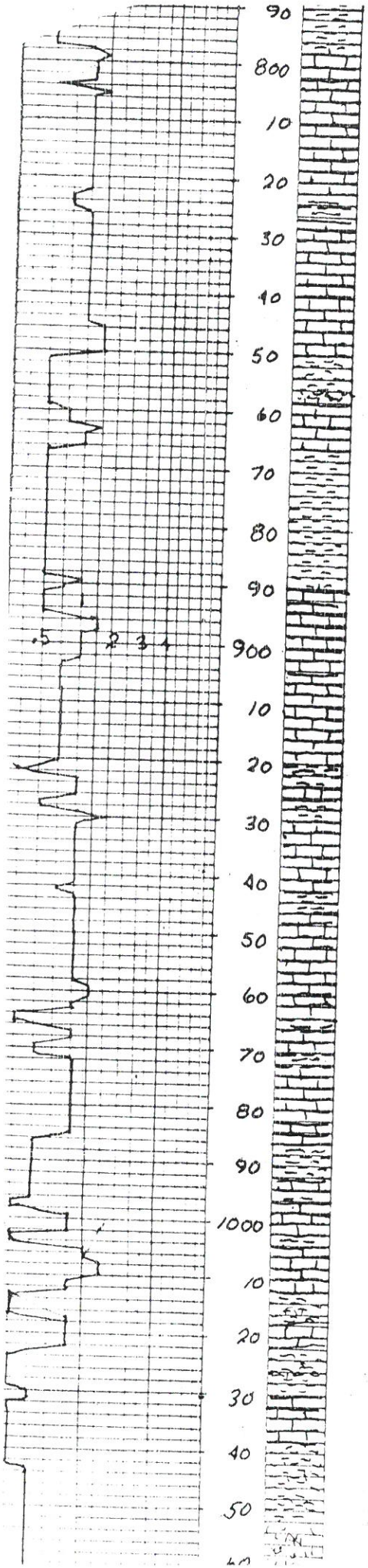
Sandstone Shale Limestone Chert Dolomite

LEGEND

Sandstone | Shale | Limestone | Chert | Dolomite | Coal

SCALE 1" = 100'

Drilling Time minutes per foot	Depth	Lithology	oil shows	SAMPLE DESCRIPTION	REMARKS
1 2 3 4 5 6					
	600		NS	Ss wht-clr qtz m-cgrnd subrnd	
	10			Ss aa	
	20			Ls wht-lt tn-lt brn vc xlme	
	30			Ls aa fossil	
	40			Ls wht-lt tn	
	50			Ls aa & blk shale	
	60			Ls lt tn vc xline	
	70			Ls aa	
	80			Ls lt tn-m brn vc xline	
	90			Ls aa	
.5 1 2 3 4 5 6	700		NS	Ls aa	
	10			Ls aa	
	20			Ls aa	
	30		NS	Ss gry v shly dense Lam ⌀	
	40			Ss aa	
	50			Ss aa	
	60			Ls m-dk brn v dense	
	70			Ss f-cgrnd sub ⌀ Lam ⌀	
	80			Sh gry v sndy	
	90			Sh gry v sndy	
	800			Sh gry v sndy	



Sh gry v sndy

Ls m-dk brn vf xline

Ls wht-lt tn

Ls aa sh dk gry blk

Ls wht-lt tn vf xline

Ls wht-lt tn fossil

sh dk gry-v sndy
ss m-c grn

Ls wht lt tn

sh gry grn maroon silty sndy

Sh aa

Ls wht-lt tn vf xline
calcite xtals

Ls aa

Ls aa

Ls aa & sh aa

Ls lt-m brn vc xline

Ls aa & blk sh

Ls aa

Ls aa

Ls aa

Ls aa
sh blk

Ls lt-m tn

Ls wht v lt tn dense

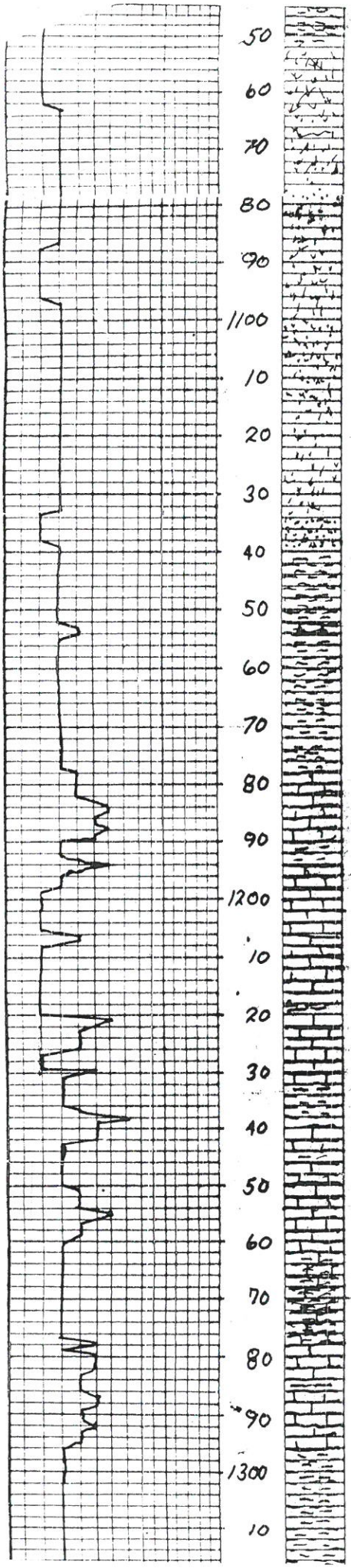
sh dk gry v sndy

Sh aa

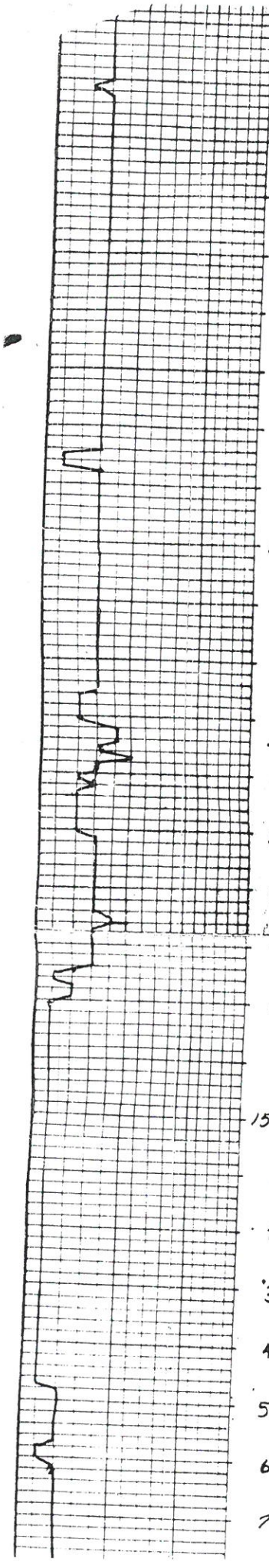
Sh aa Tn tn ls dense

Sh dk gry sndy

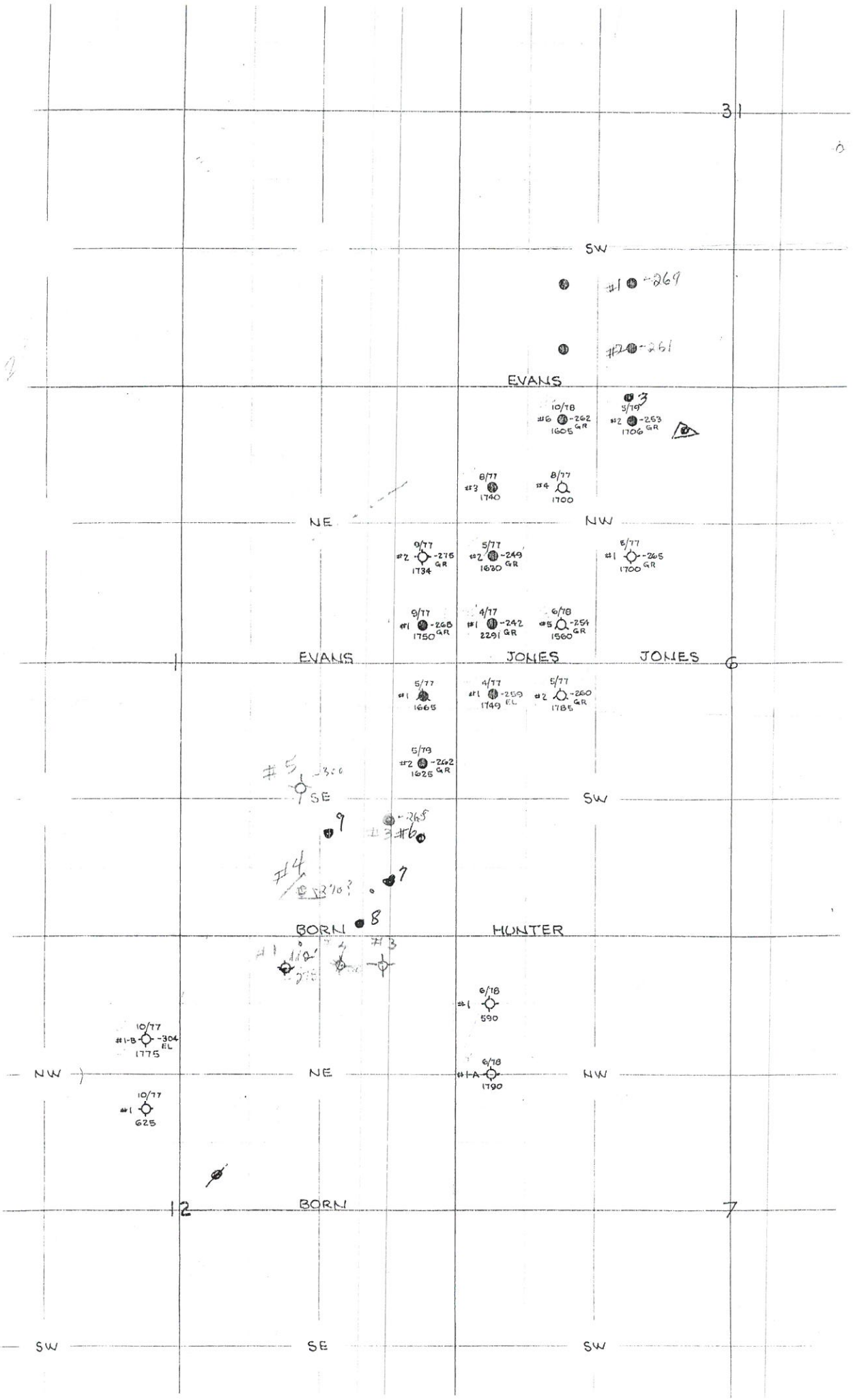
ss f-m grnd sub ∡-sub rd



	Sh dk gry sndy
	Ss f-mgrnd sub ∢-sub rd wht-clr qtz
NS	aa
	aa
	aa
	aa
	aa
	aa
	aa
NS	Ss f-cgrnd clr-wht qtz
	sh gry slty sndy - grn
	Ls lt-wht - lt tn very dense
	sh aa gry grn slty sndy
	sh aa
	Ls wht - lt brn
	Ls lt-m brn vc xline
	Ls lt-m tn - m brn vc xline
	Ls wht - lt tn vc xline dense
	Ls aa
	Ls lt-m brn vc xline fossil
	sh dk gry - Black
	Ls lt-m brn dense
	Ls aa
	Ls aa
	Ls aa
	Ls aa sh blk
	Ls aa
	sh gry grn dk gry
	sh aa



10		Sh aa	
20		Sh aa Tr ss	
30		Sh aa silty sandy	
40		Sh aa	
50		Sh aa	
60		Sh aa	
70		Sh aa	
80		Sh aa	
90		Sh blk	
1400		Sh gry, grn, dk gry Tr cgrnd ss	
10		Sh dk gry - blk	
20		Sh aa	
30	NS	Ss v sbhly	
40		Sh dk gry blk	
50		Sh dk gry	
60		Sh dk gry	
70		Sh dk gry	
80		Sh aa	
90	SFO	Ss m-cgrnd sln subad-rd Qtz friable good Φ	SH odor good fluor good cut oil on
1500	SFO	Ss aa good fluor. good cut	
10	SFO	Ss aa	
20	SFO	Ss aa less fluor less odor	
30	SFO	Ss aa	
40	VSSFO	Ss aa	
50		Ss aa v faint odor v slight fluor	
60		Ss aa v v slight cut.	
70		Ss aa	
		Ss...	


31
SW
#1 -269
#2 -261
EVANS
10/78
#6 -262
1605 GR
5/79
#2 -253
1706 GR
8/77
#3
1740
8/77
#4
1700
NE
NW
9/77
#2 -276
1734 GR
5/77
#2 -249
1830 GR
5/77
#1 -265
1700 GR
9/77
#1 -268
1750 GR
4/77
#1 -242
2291 GR
6/78
#5 -254
1560 GR
1
EVANS
JONES
JONES
6
5/77
#1
1665
4/77
#1 -259
1749 EL
5/77
#2 -260
1785 GR
5/79
#2 -262
1625 GR
#5
SE
SW
#3
#6
#4
BORN
HUNTER
#1
#3
6/78
#1
590
10/77
#1-B -304
EL
1775
NW
NE
6/78
#1-A
1790
NW
10/77
#1
625
12
BORN
7
SW
SE
SW

LOG-TECH

DIGITAL LOG Ph. (785) 625-3858

Dual Induction Log

File No.

API # 15-031-21,891-0000

Company	Edward E. Birk
Well	Born No. 6
Field	Last Chance
County	Coffey State Kansas
Location	990' FSL & 360' FEL
Sec. 1	Twp. 19s Rge. 14e
Other Services	CNL/CDL

Permanent Datum Ground Level
Log Measured From Ground Level
Drilling Measured From Ground Level

Elevation 1127
Ft. Above Perm. Datum

Elevation
KB
DF
GL 1127

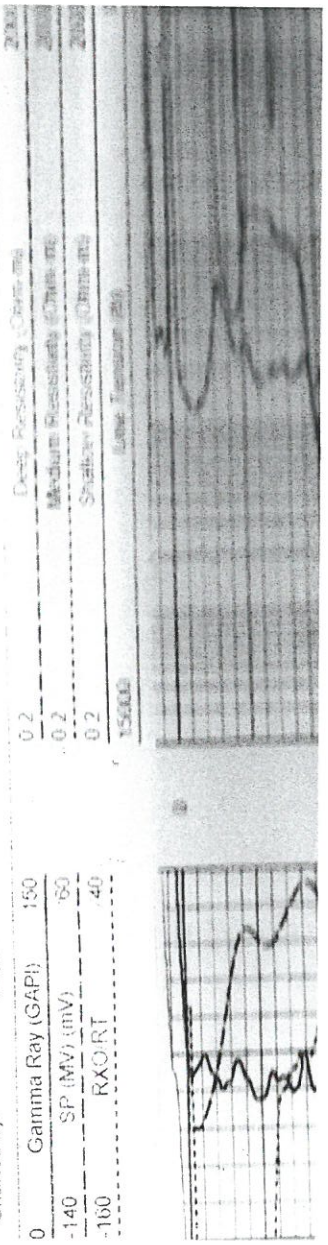
Date	9/14/2000		
Run Number	One		
Depth Driller	1582		
Depth Logger	1583		
Bottom Logged Interval	1582		
Top Log Interval	0		
Casing Driller	8 625 @ 44		
Casing Logger	44		
Bit Size	6.75		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	N/A		
Density / Viscosity	9.2	38	
pH / Fluid Loss	N/A	N/A	
Source of Sample	Flowline		
Rm @ Meas. Temp	3.1 @ 78		
Rmf @ Meas. Temp	2.3 @ 78		
Rmc @ Meas. Temp	4.65 @ 78		
Source of Rmf / Rmc	Charts		
Rm @ BHT	2.6 @ 91		
Operating Rig Time	2 Hours		
Max Rec. Temp. F	91		
Equipment Number	4		
Location	Hays		

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

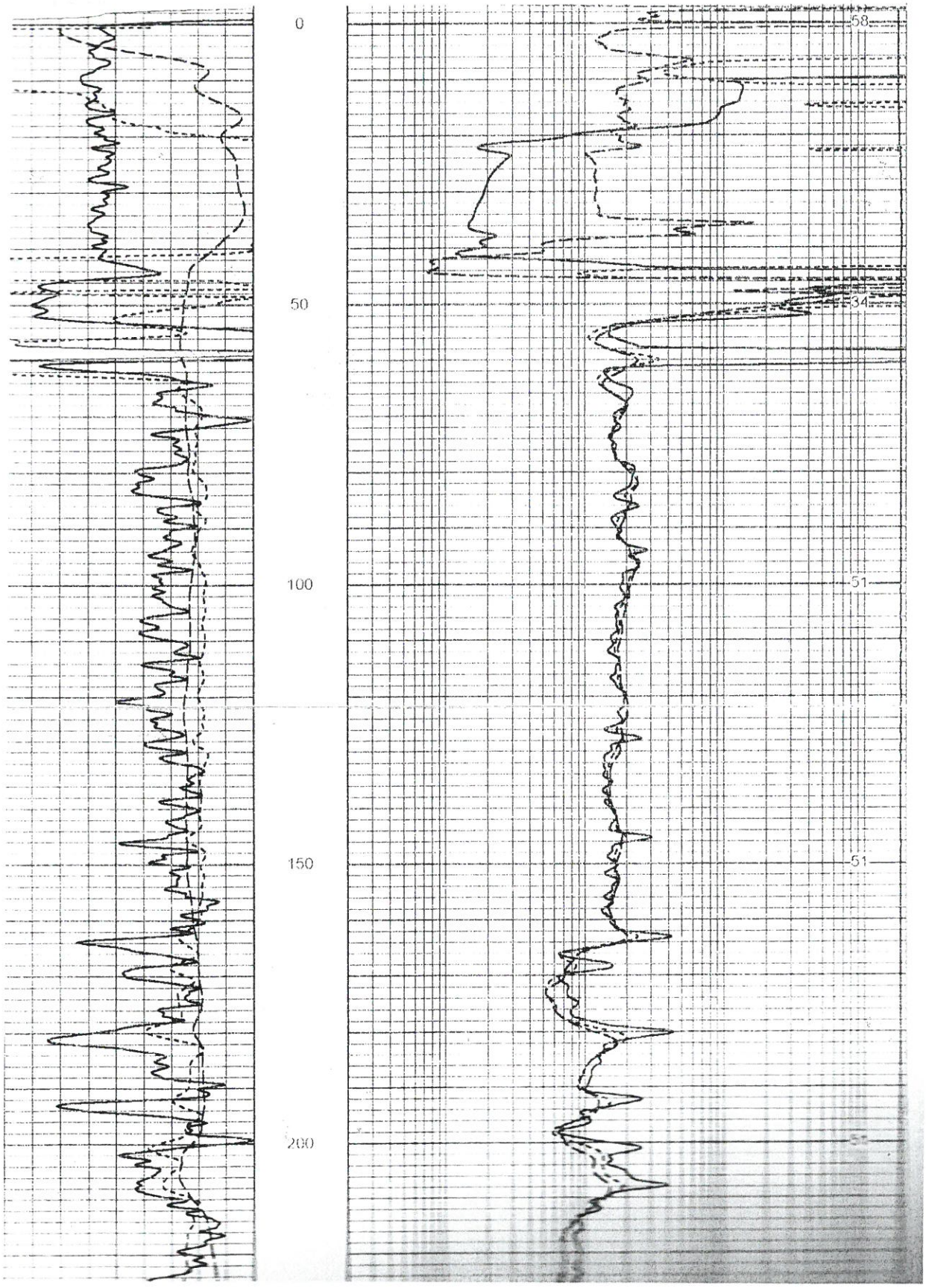
Thank you for using Log-Tech, Inc
(785) 625-3858

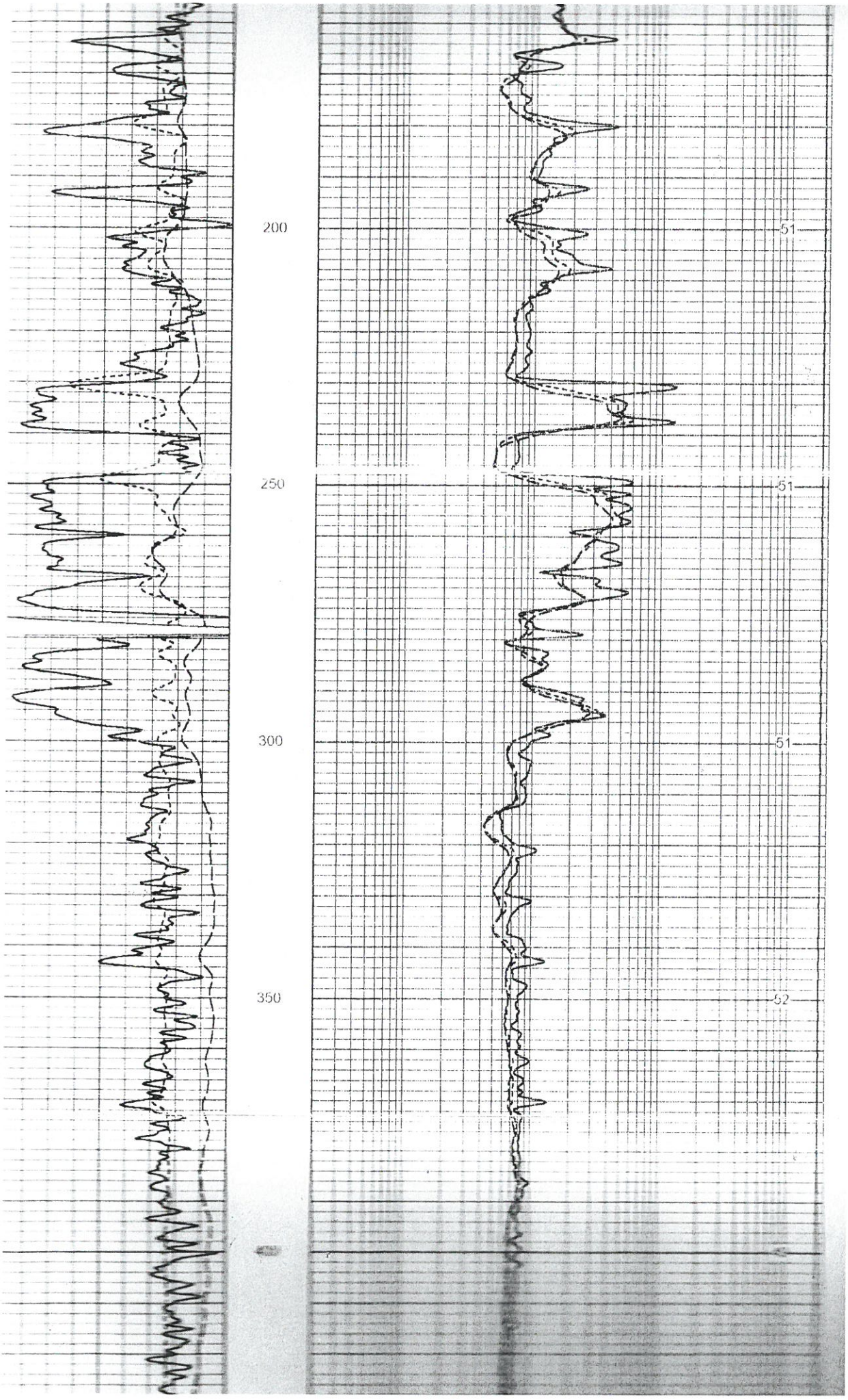
Database File birk.db
Dataset Pathname: dil/pass2
Presentation Format: dil.prs
Dataset Creation: Thu Sep 14 05:30:58 2000 by Log VER_5.3
Charted by: Depth in Feet scaled 1:240

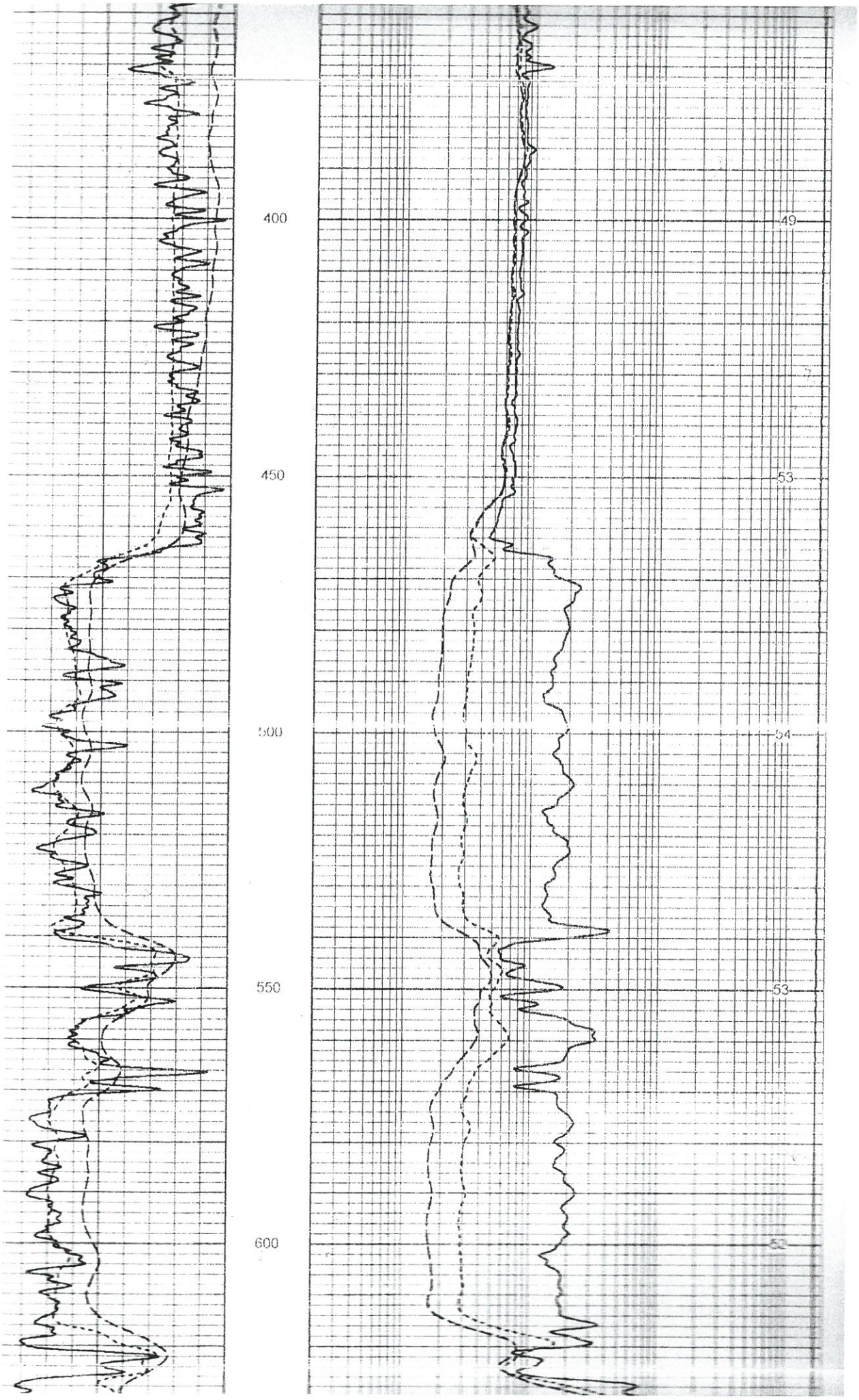


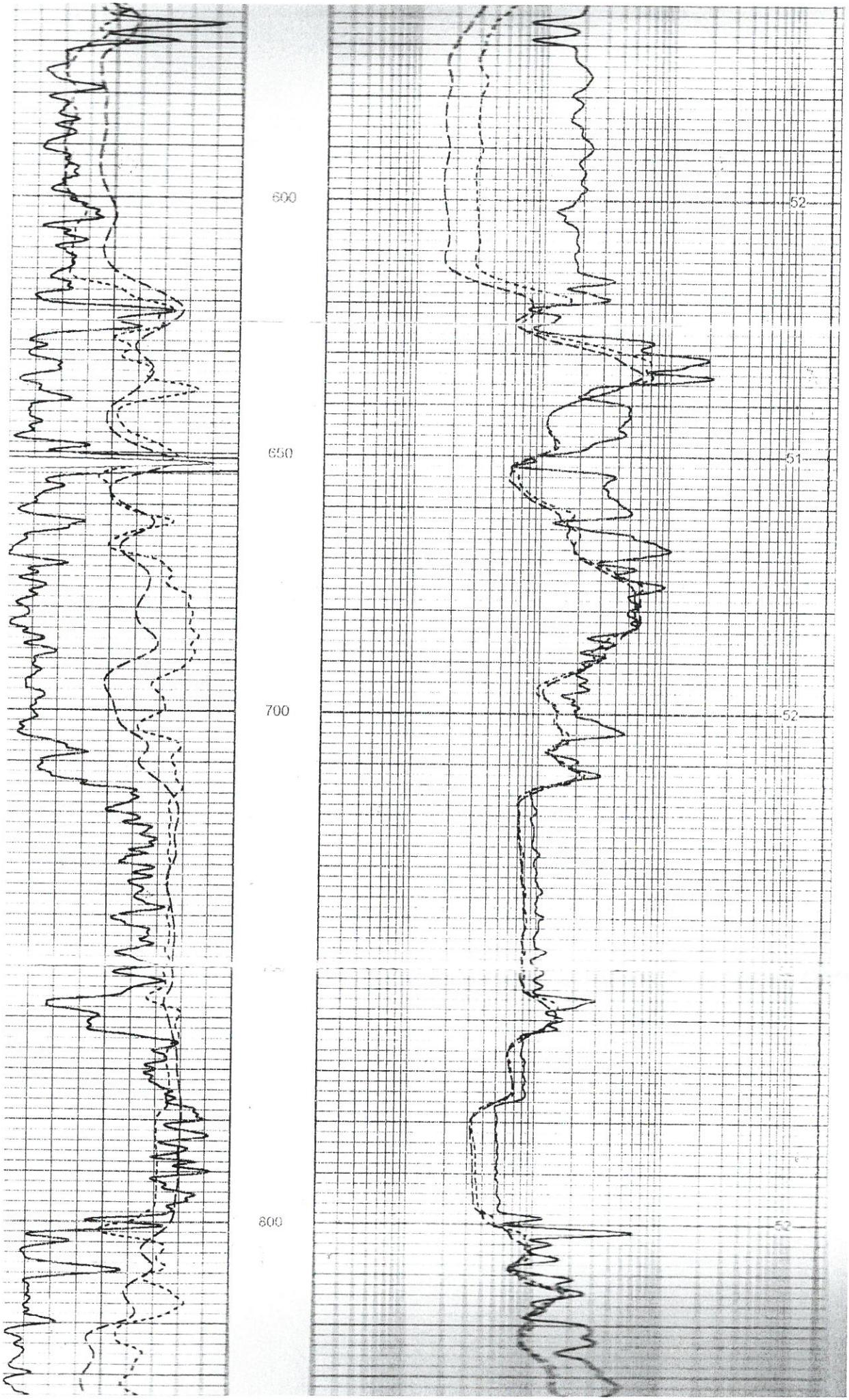
tabase File	[illegible]
taset Pathname	dil/pass2
sentation Format	dil.prs
taset Creation	Thu Sep 14 05:00:58 2000 by Log VER_5.3
arted by	Depth in Feet scaled 1:240

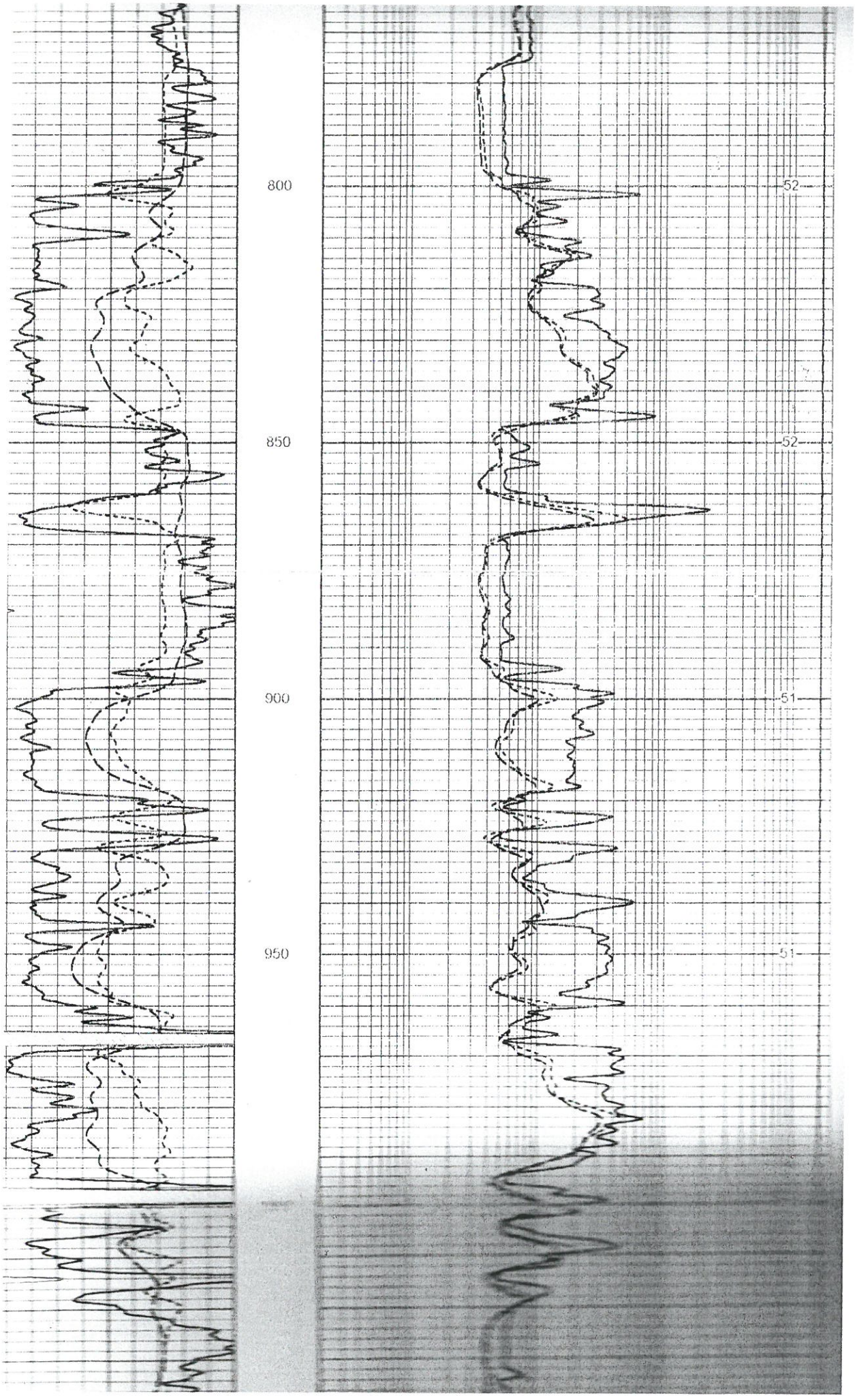
Gamma Ray (GAPI)	150	0.2	Deep Resistivity (Ohm-m)	2000
SP (MV) (mV)	60	0.2	Medium Resistivity (Ohm-m)	2000
RXO/RT	40	0.2	Shallow Resistivity (Ohm-m)	2000
		15000	Line Tension (lb)	0

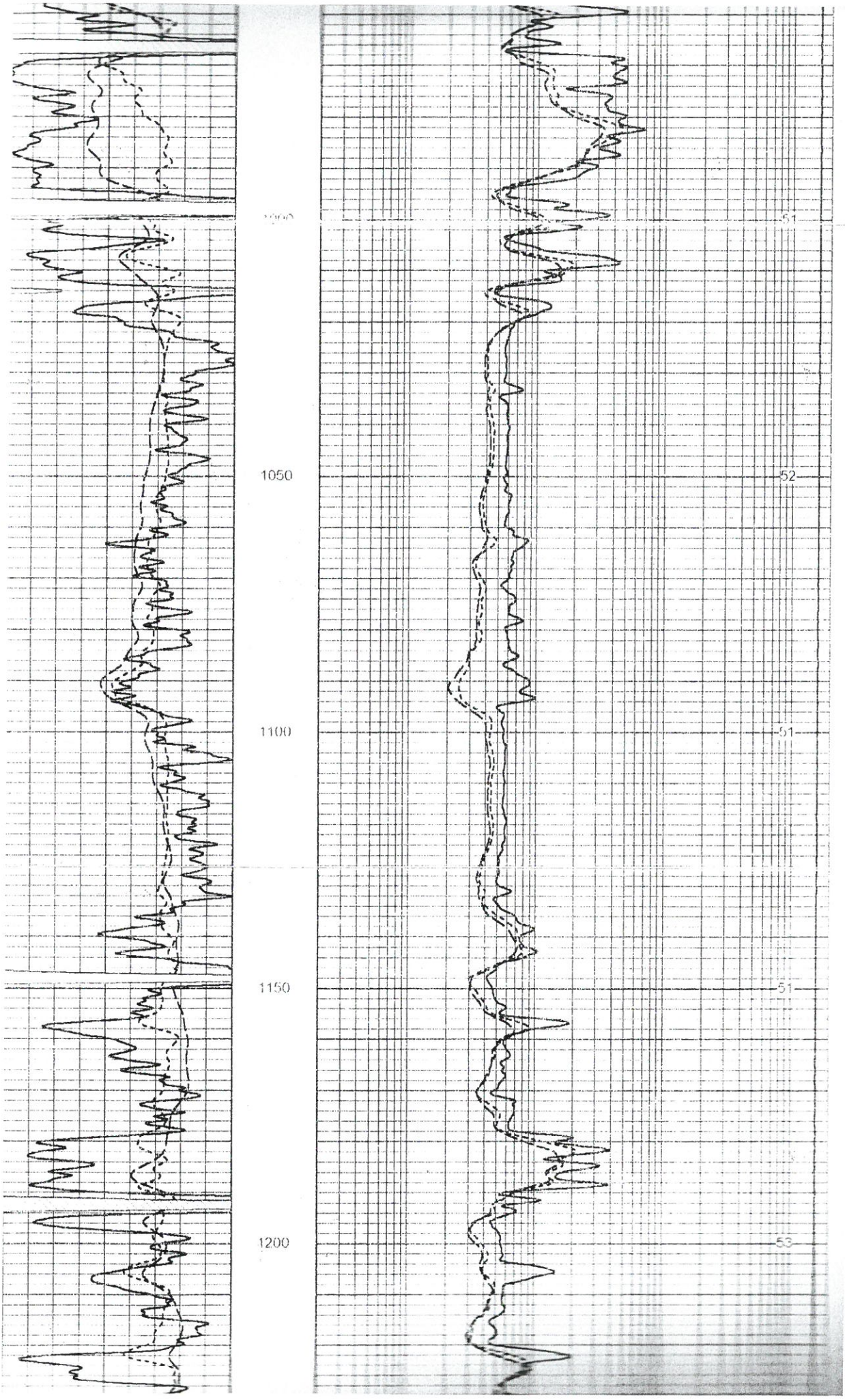


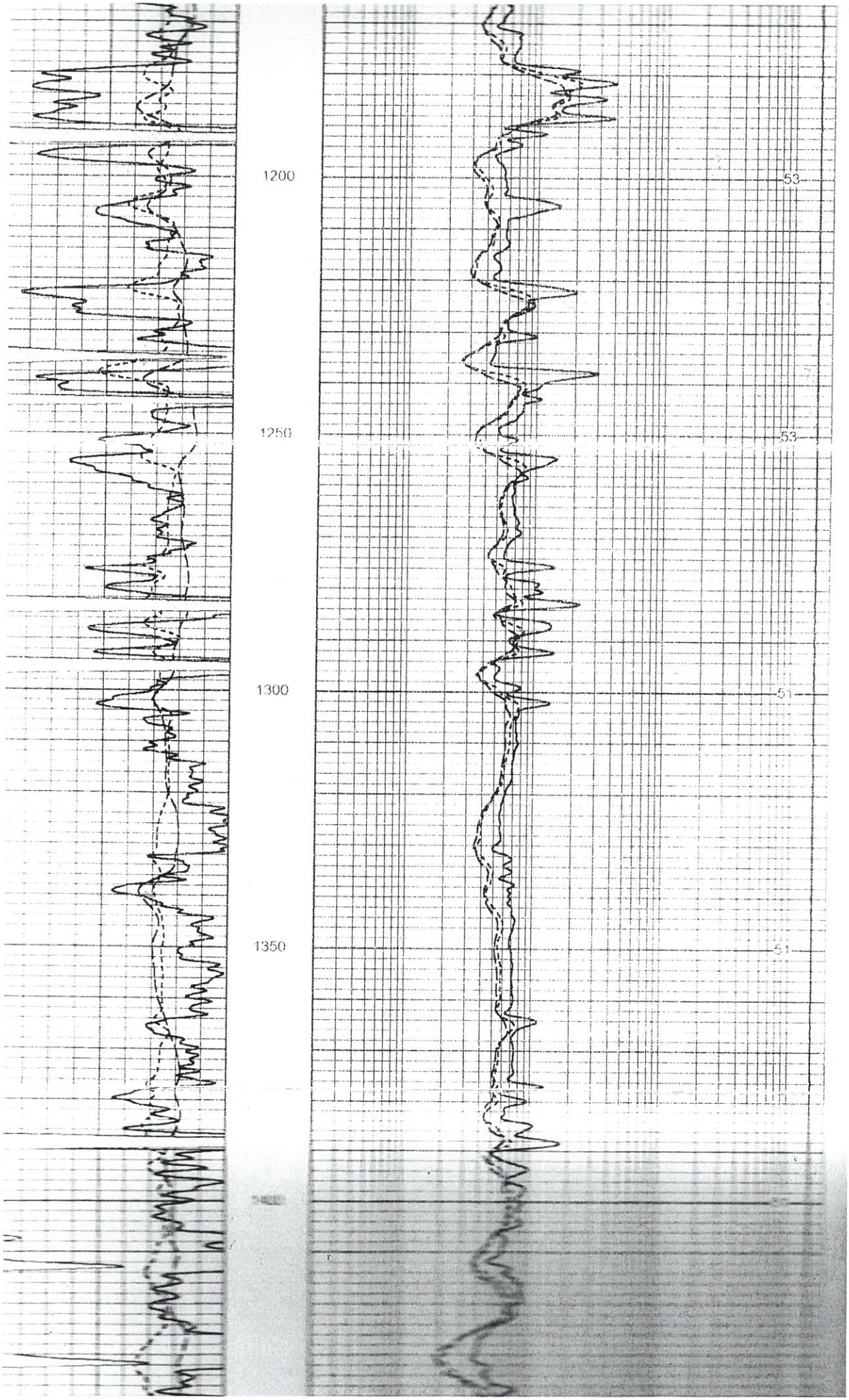

200
250
300
350
51
51
51
52

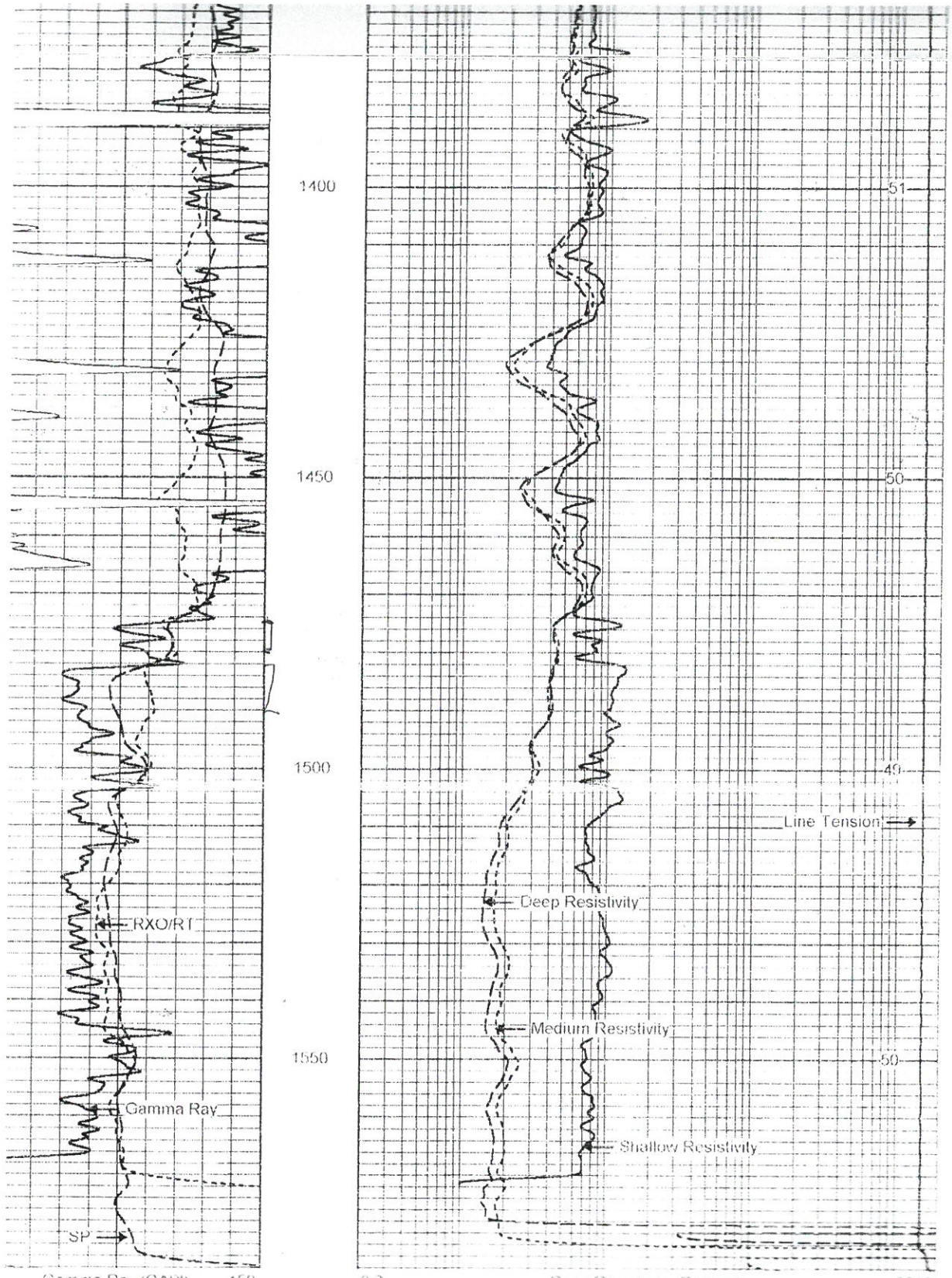

400
450
500
550
600
49
53
54
53


600
650
700
800
52
51
52
52


800
850
900
950
52
52
51
51


1050
1100
1150
1200
51
52
51
51
53


1200
1250
1300
1350
53
53
51
51



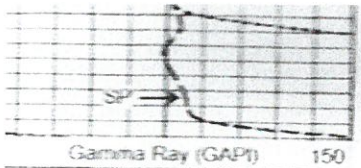
	Gamma Ray (GAPI)	150
)	SP (MV) (mV)	60
)	RXO/RT	40

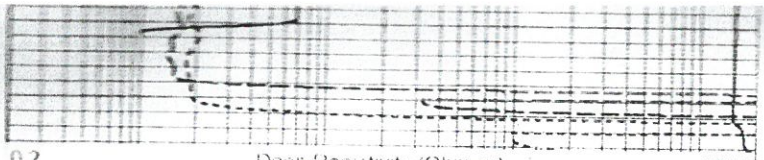
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
15000	Line Tension (lb)	0

OG-TECH

Repeat Section

tabase File bank.db





	Gamma Ray (GAPI)	150
40	SP (MV) (mV)	60
60	RXO/RT	40

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
15000	Line Tension (lb)	0

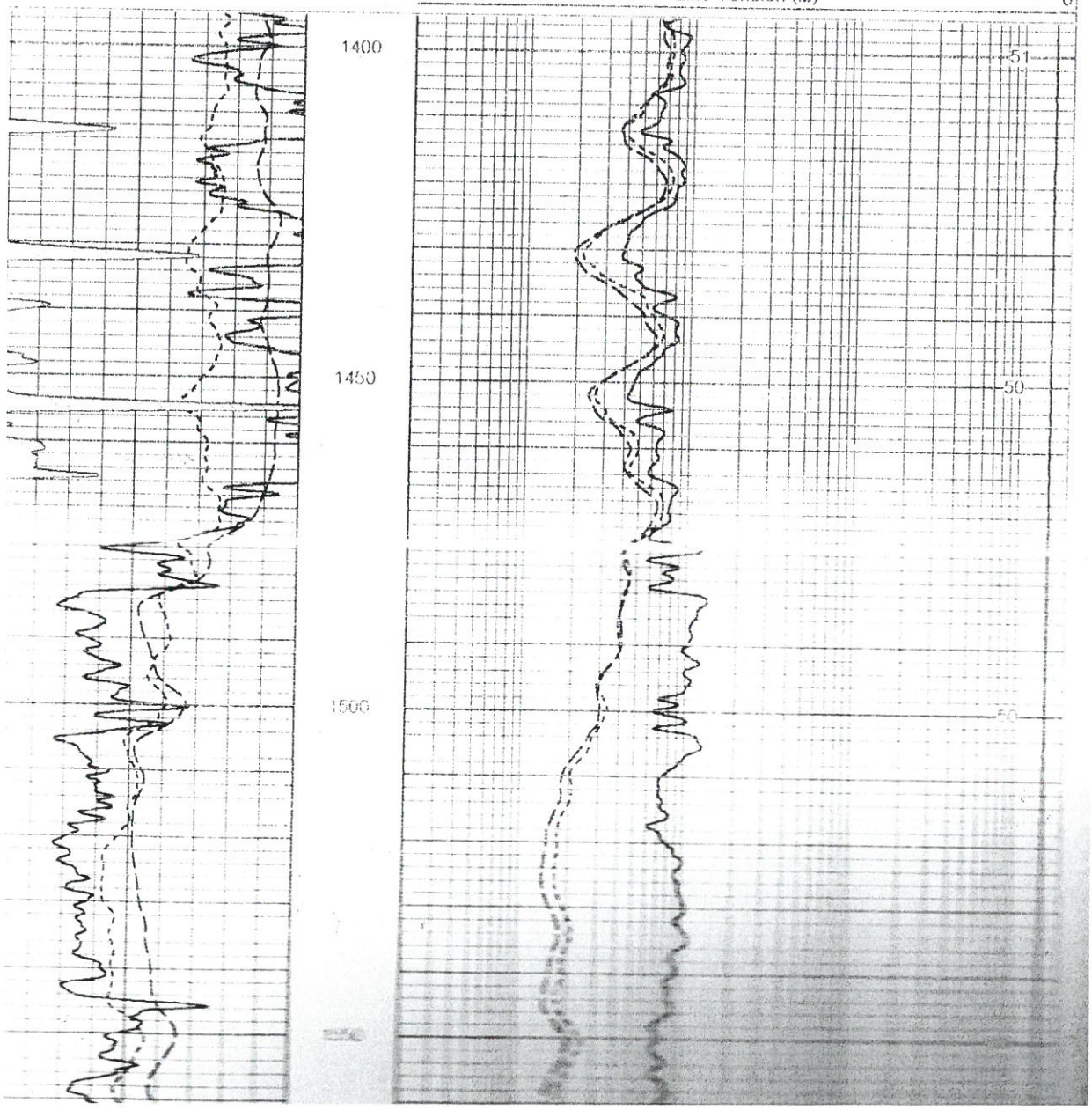
LOG-TECH

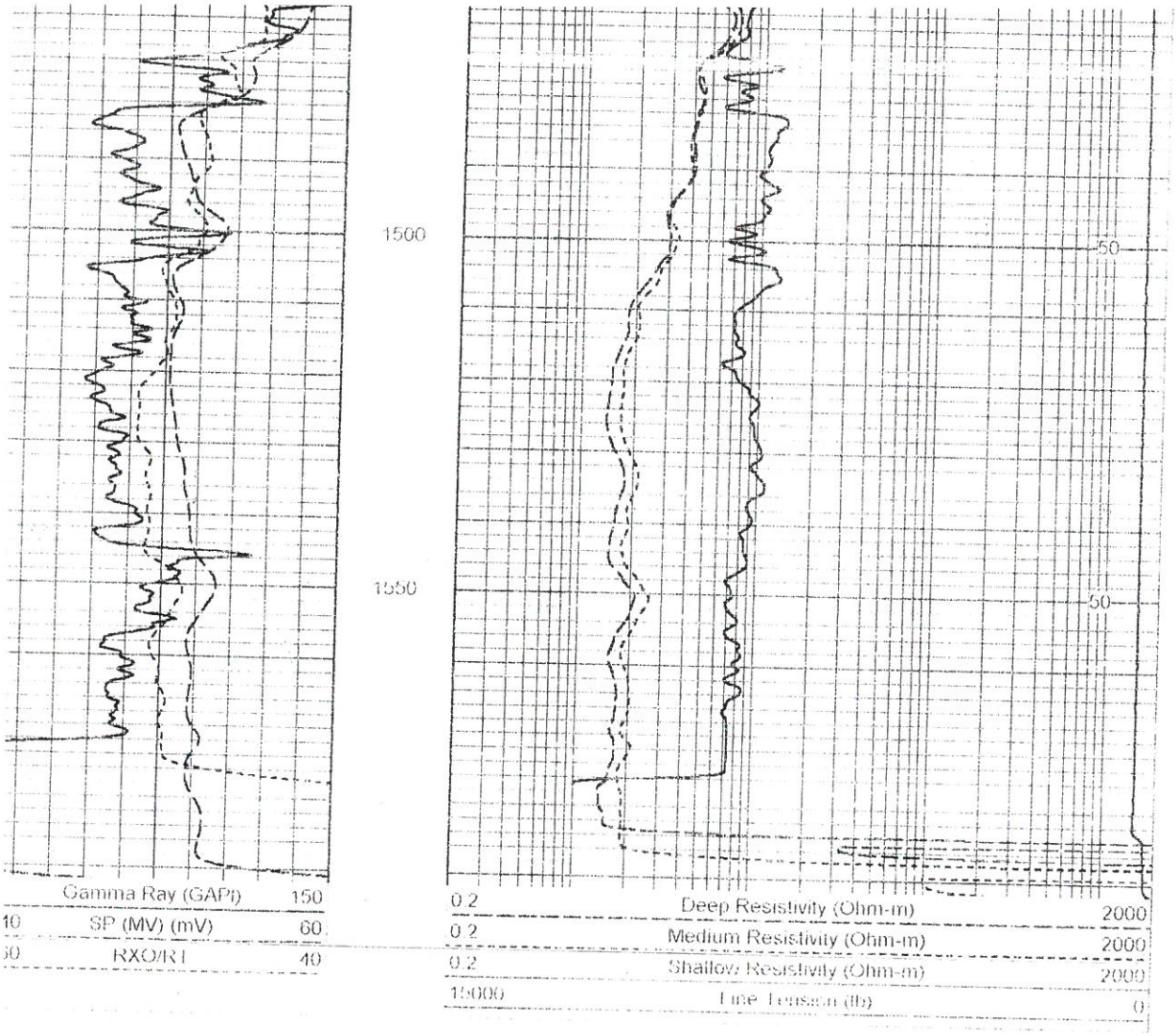
Repeat Section

Database File	birk.db
Dataset Pathname	dil/pass1
Presentation Format	dil.prs
Dataset Creation	Thu Sep 14 04:54:51 2000 by Log VER_5.3
Charted by	Depth in Feet scaled 1:240

	Gamma Ray (GAPI)	150
40	SP (MV) (mV)	60
60	RXO/RT	40

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
15000	Line Tension (lb)	0



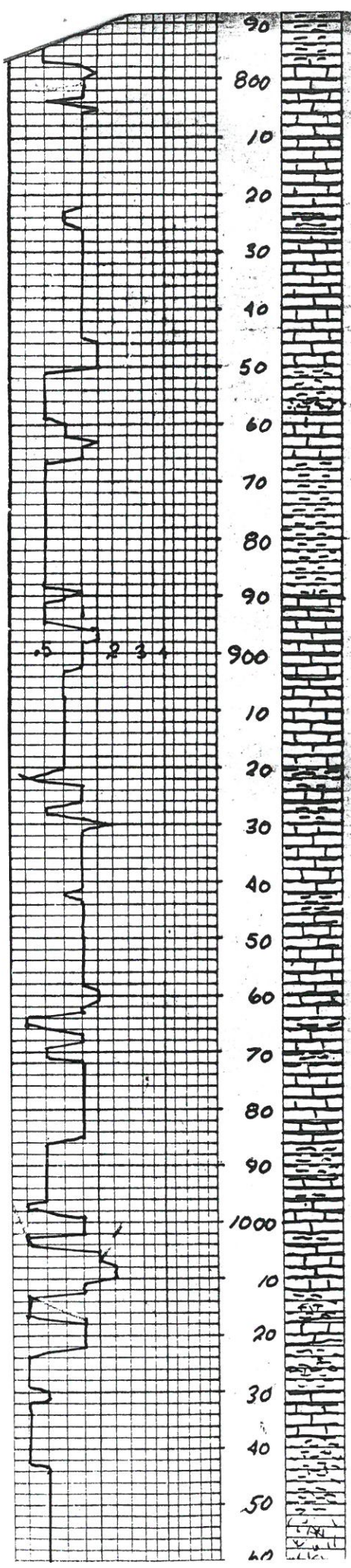

1500
1550
50
50
Gamma Ray (GAPI) 150
10 SP (MV) (mV) 60
50 RXO/RT 40
0.2 Deep Resistivity (Ohm-m) 2000
0.2 Medium Resistivity (Ohm-m) 2000
0.2 Shallow Resistivity (Ohm-m) 2000
15000 Line Tension (lb) 0

LEGEND

Sandstone | Shale | Limestone | Chert | Dolomite | Coal

SCALE 1" = 100'

Drilling Time minutes per foot	Depth	Lithology	oil shows	SAMPLE DESCRIPTION	REMARKS
1 2 3 4 5 6					
	600		NS	Ss wht-clr qtz m-cgrnd subrnd	
	10			Ss aa	
				Ls wht-lt tn-lt brn vc xline	
	20			Ls aa fossil	
	30			Ls wht-lt tn	
	40			Ls aa & blk shale	
	50			Ls lt tn vc xline	
	60			Ls aa	
	70			Ls lt tn-m brn vc xline	
	80			Ls aa	
	90			Ls aa	
5 1 2 3 4 5 6	700		NS		
				Ls aa	
	10			Ls aa	
	20		NS	Ss gry v shly dense low Φ	
	30			Ss aa	
	40			Ss aa	
	50			Ls m-dk brn v dense	
	60			Ss f-cgrnd sub ∡ low Φ	
	70			Sh gry v sndy	
	80			Sh gry v sndy	
	90			Sh gry v sndy	
	800			Ls m-dk brn vf xline	



Sh gry v sndy

Ls m-dk brn vf xline

Ls wht-lt tn

Ls aa sh dk gry blk

Ls wht-lt tn v f xline

Ls wht-lt tn fossil

sh dk gry-v sndy
ss m gr grn

Ls wht lt tn

sh gry grn maroon slty sndy

Sh aa

Ls wht-lt tn v f xline
calcite xtals

Ls aa

Ls aa

Ls aa & sh aa

Ls lt-m brn vc xline

Ls aa & blk sh

Ls aa

Ls aa

Ls aa

Ls aa
sh blk

Ls lt-m tn

Ls wht v lt tn dense

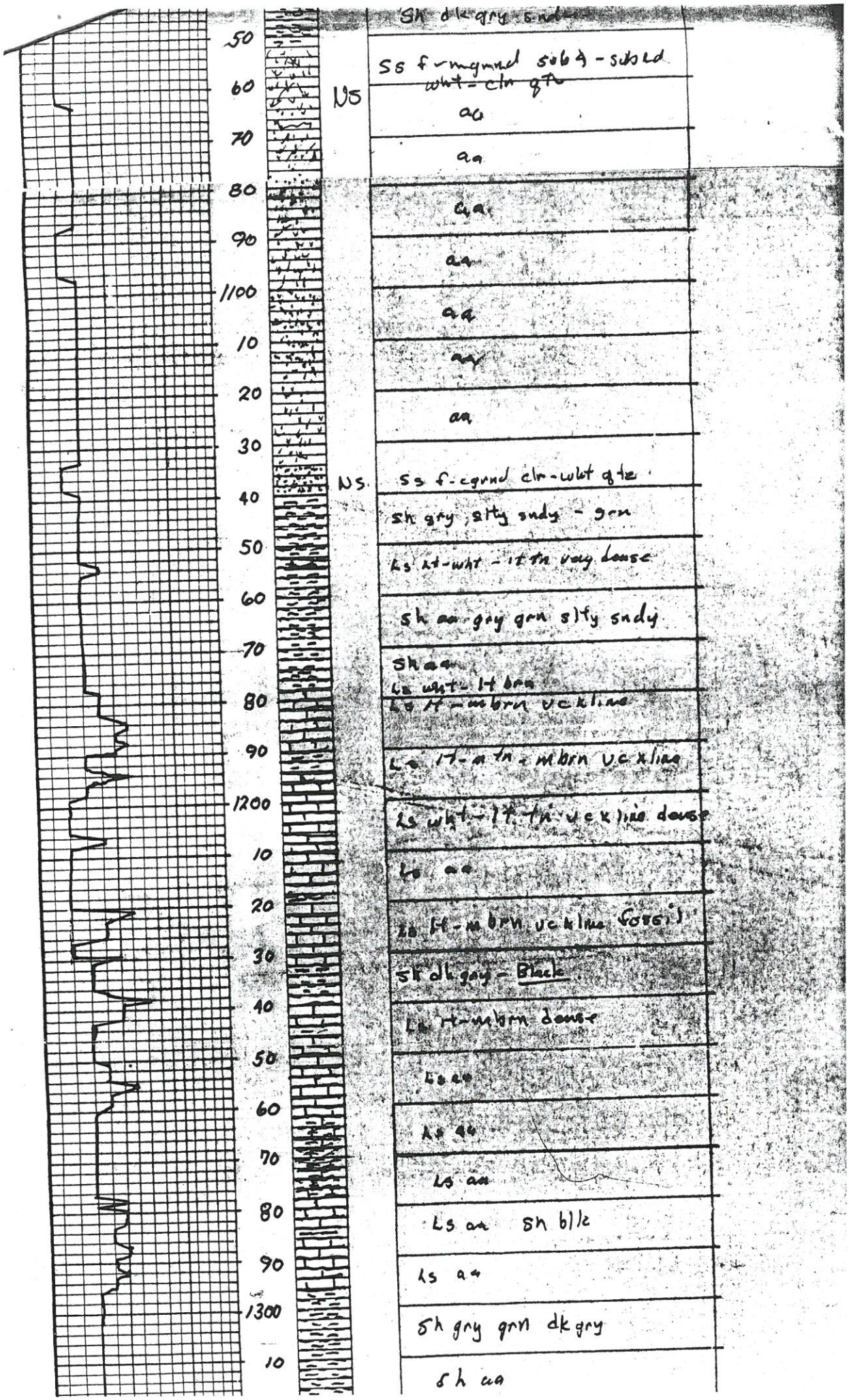
sh dk gry v sndy

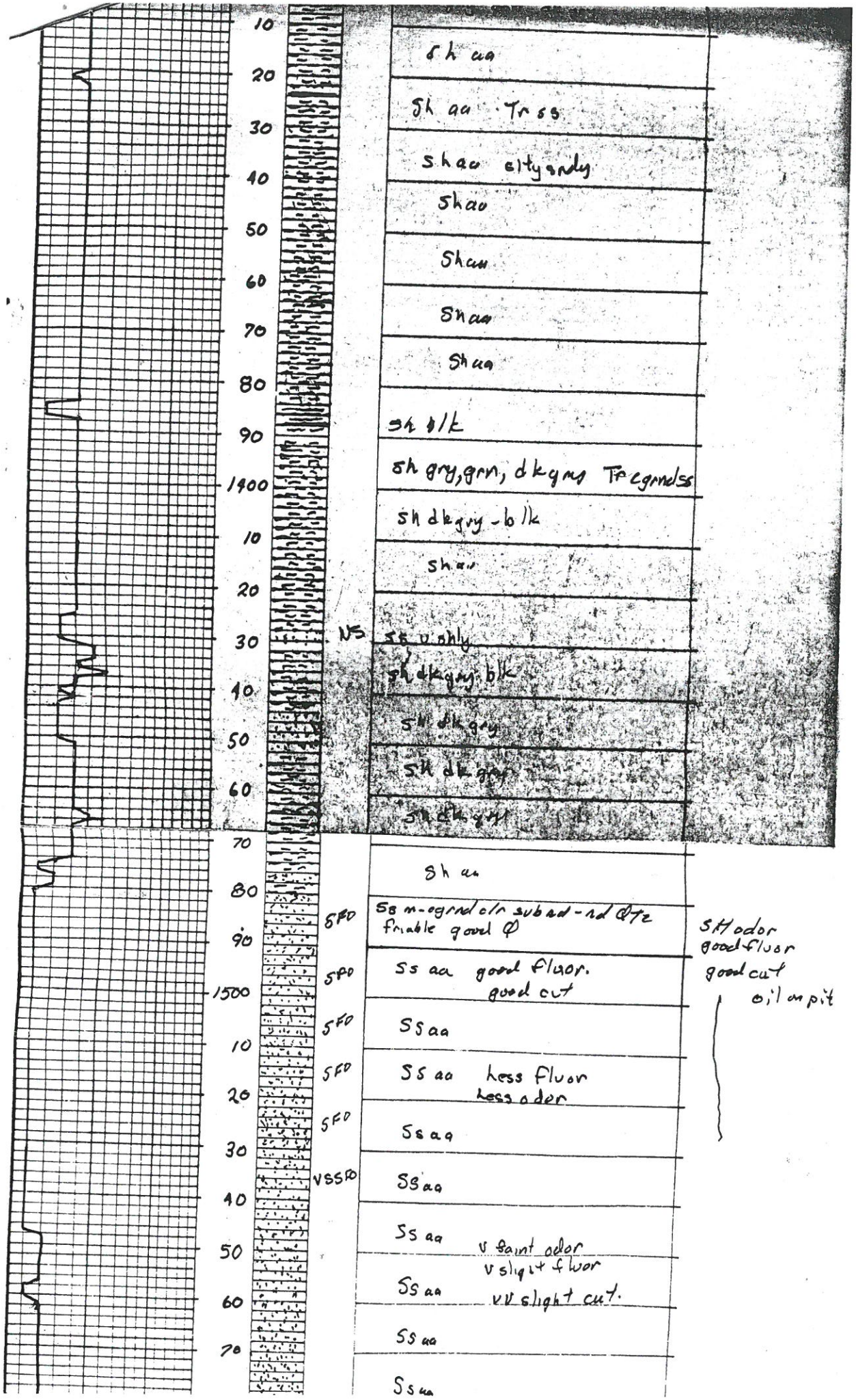
Sh aa

Sh aa Tr tn ls dense

Sh dk gry sndy

Ss f-m gr grn sub ang-sub rd


Sh dk gry sndy
50
Ss f-mgrnd sub4-subrd
wht-clr qtz
60
NS
aa
70
aa
80
aa
90
aa
1100
aa
10
aa
20
aa
30
NS
Ss f-cgrnd clr-wht qtz
40
sh gry, silty sndy - grn
50
Ls lt-wht - lt tn very dense
60
sh aa gry grn silty sndy
70
sh aa
Ls wht-lt brn
80
Ls lt-m brn vcxline
90
Ls lt-a tn-m brn vcxline
1200
Ls wht-lt tn vcxline dense
10
Ls aa
20
Ls lt-m brn vcxline fossil
30
sh dk gry - Black
40
Ls lt-m brn dense
50
Ls aa
60
Ls aa
70
Ls aa
80
Ls aa sh blk
90
Ls aa
1300
sh gry grn dk gry
10
sh aa


10
20
30
40
50
60
70
80
90
1400
10
20
30
40
50
60
70
80
90
1500
10
20
30
40
50
60
70
sh aa
sh aa Tr ss
sh aa silty sndy
sh aa
sh aa
sh aa
sh aa
sh blk
sh gry, grn, dk gry Tr cgrnd ss
sh dk gry - blk
sh aa
NS
ss v sdy
sh dk gry blk
sh dk gry
sh dk gry
sh dk gry
sh aa
SFO
ss m-cgrnd clr sub ad-rd Qtz friable good Φ
SFO
ss aa good fluor. good cut
SFO
ss aa
SFO
ss aa less fluor less odor
SFO
ss aa
VSSFO
ss aa
ss aa v faint odor v slight fluor
ss aa v v slight cut.
ss aa
ss aa
sh odor good fluor good cut
oil on pit

George E. Petersen c.p.g.
consulting geologist

3223 McClure Rd
Topeka, Kansas 66614
(913) 272-4383

GEOLOGIST'S LOG

2-00

COMPANY: Birk Oil Co.
WELL NAME: Born #6
LOCATION: NE, SE, SE
SEC. 1 T 19 S; R 14 E
COUNTY: Coffey STATE: KANSAS
ELEVATION: 1127 GL
API #: 031-21891-0000
FIELD: Last Chance
CONTRACTOR: Kan Drill Inc
GEOLOGIST: George E. Petersen
SPUD DATE: 9-10-00 COMP. DATE: 9-14-00
SAMPLES SAVED FROM: 100 TO: TD
SAMPLES EXAMINED FROM: 100 TO: TD
RTD: 1582 LTD: 1583
CORES: NA

OPEN HOLE LOGS: ~~RDG~~ DIL

SURFACE CASING SET: 44' 8 5/8" PROD. CASING SET:
GEOLOGICAL SUPERVISION FROM: Surf TO: TD
COMMENTS:

FORMATION TOPS & STRUCTURAL POSITION

FORMATION	SAMPLE [illegible]			REF. WELLS			
	TOP	[illegible]		A	B	C	D
Top Lansing	618	616	+513		+512		
Top KC	806	802	+326		+331		
Base KC	1012	1035	+113	+114	+115		
Top Cherokee	1226	1226	-162	-169	-171		
Cattleman Sd	1389	[illegible]	-263	-266	-265		
Bartlesville	1474	1475	-348	-360	-350		

REFERENCE WELL FOR STRUCTURE:
A #2 Born SE NE SE 1 19S 14E
B #1 Born NE NE SE 1 19S 14E
C
D

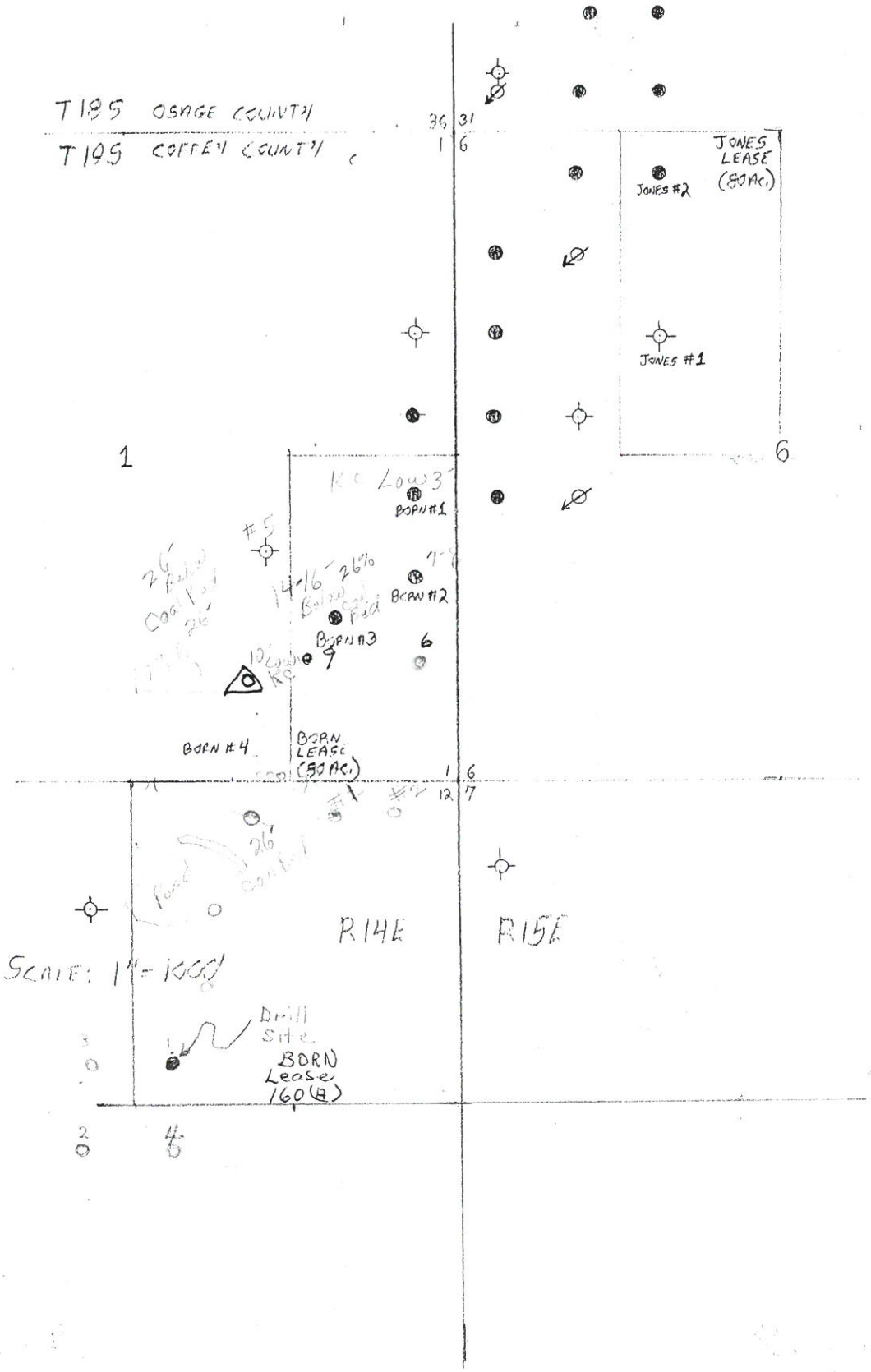
DRILL STEM TESTS

NO	INT.	IFP	ISIP	FFP	FSIP		RECOVERY

LEGEND

Sandstone Shale Limestone Chert Dolomite Coal

E/2 SE/4 Sec. 1 T19S R14E - BORN LEASE
E/2 NW/4 Sec. 6 T19S R15E - JONES LEASE



BORN

(KANSAS) (Rev. 1941)
Form 88—(Producers)

OIL AND GAS LEASE

Recorder's No. 100-1-11

KANSAS BLUE PRINT CO. INC.

AGREEMENT, Made and entered into this 22nd day of October, 19 93, by and between John E. Born and Irma L. Born, husband and wife

Party of the first part, hereinafter called lessor (whether one or more) and Edward F. Bird Party of the second part, hereinafter called lessee.

WITNESSETH, That the said lessor, for and in consideration of One Dollar and other valuable consideration DOLLARS, cash in hand paid, receipt of which is hereby acknowledged, and of the covenants and agreements hereinafter contained on the part of lessee to be paid, kept and performed, has granted, demised, leased and let and by these presents does grant, demise, lease and let unto said lessee, for the sole and only purpose of mining and operating for oil and gas, and laying pipe lines, and building tanks, power stations and structures thereon to produce, save and take care of said products, all that certain tract of land situated in the County of Coffey State of Kansas, described as follows, to wit:

The Southeast Quarter (SE/4) of the Southwest Quarter (SW/4) of Section Twelve (12), Township Ninteen (19), Range Fourteen (14) East, and the Northwest Quarter (NW/4) of Section Thirteen (13), Township Nineteen (19), Range Fourteen (14) East

of Section ..... Township ..... Range ..... and containing 200 acres more or less.

It is agreed that this lease shall remain in full force for a term of 3 (three) years from this date, and as long thereafter as oil or gas, or either of them, is produced from said land by the lessee.

In consideration of the premises the said lessee covenants and agrees:

1st. To deliver to the credit of lessor, free of cost, in the pipe line to which lessee may connect his wells, the equal one-eighth (1/8) part of all oil produced and saved from the leased premises.

2nd. To pay lessor for gas from each well where gas only is found the equal one-eighth (1/8) of the gross proceeds at the prevailing market rate, (but, as to gas sold by lessee, in no event more than one-eighth (1/8) of the proceeds received by lessee from such sales), for all gas used off the premises, said payments to be made per division order and lessor to have gas free of cost from any such well for all stoves and all inside lights in the principal dwelling house on said land during the same time by making his own connections with the well at his own risk and expense.

3rd. To pay lessor for gas produced from any oil well and used off the premises or in the manufacture of gasoline or any other product a royalty of one-eighth (1/8) of the market value, at the mouth of the well, (but, as to gas sold by lessee, in no event more than one-eighth (1/8) of the proceeds received by lessee from such sales), payable monthly at the prevailing market price.

If no well be commenced on said land on or before the ..... day of October, 1994, this lease shall terminate as to both parties, unless the lessee on or before that date shall pay or tender to the lessor, or to the lessor's credit in The State Bank Bank at Lebo, Kansas or its successors, which shall continue as the depository regardless of changes in the ownership of said land, the sum of Four Hundred ($400.00) DOLLARS, which shall operate as a rental and cover the privilege of deferring the commencement of a well for 12 months from said date. In like manner and upon like payments or tenders the commencement of a well may be further deferred for like periods of the same number of months successively. All such payments or tenders of rentals may be made by check or draft of lessee or any assignee thereof, mailed or delivered on or before the rental paying date, either direct to lessor or assigns or to said depository bank. And it is understood and agreed that the consideration first recited herein, the down payment, covers not only the privileges granted to the date when said first rental is payable as aforesaid, but also the lessee's option of extending that period as aforesaid, and any and all other rights conferred.

Should the first well drilled on the above described land be a dry hole, then, and in that event, if a second well is not commenced on said land within twelve months from the expiration of the last rental period for which rental has been paid, this lease shall terminate as to both parties, unless the lessee on or before the expiration of said twelve months shall resume the payment of rentals in the same amount and in the same manner as hereinbefore provided. And it is agreed that upon the resumption of the payment of rentals, as above provided, that the last preceding paragraph hereof, governing the payment of rentals and the effect thereof, shall continue in force just as though there had been no interruption in the rental payments.

If said lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the royalties and rentals herein provided shall be paid the lessor only in the proportion which his interest bears to the whole and undivided fee.

Lessee shall have the right to use, free of cost, gas, oil, and water produced on said land for its operation thereon, except water from wells of lessor.

When requested by lessor, lessee shall bury his pipe lines below plow depth.

No well shall be drilled nearer than 200 feet to the house or barn now on said premises, without the written consent of the lessor.

Lessee shall pay for damages caused by its operations to growing crops on said land.

Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

If the lessee shall commence to drill a well within the term of this lease or any extension thereof, the lessee shall have the right to drill such well to completion with reasonable diligence and dispatch, and if oil or gas, or either of them, be found in paying quantities, this lease shall continue and be in force with the like effect as if such well had been completed within the term of years herein first mentioned.

If the estate of either party hereto is assigned, and the privilege of assigning in whole or in part is expressly allowed, the covenants hereof shall extend to their heirs, executors, administrators, successors or assigns, but no change in the ownership of the land or assignment of rentals or royalties shall be binding on the lessee until after the lessee has been furnished with a written transfer or assignment or a true copy thereof; and it is hereby agreed in the event this lease shall be assigned as to a part or as to parts of the above described lands and the assignee or assignees of such part or parts shall fail or make default in the payment of the proportionate part of the rents due from him or them on an acreage basis, such default shall not operate to defeat or affect this lease in so far as it covers a part or parts of said lands upon which the said lessee or any assignee thereof shall make due payments of said rentals. If the leased premises are now or hereafter owned in severalty or in separate tracts, the premises, nevertheless, may be developed and operated as an entirety, and the royalties shall be paid to such separate owner in the proportion that the acreage owned by him bears to the entire leased area. There shall be no obligation on the part of the lessee to offset wells on separate tracts into which the land covered by this lease may hereafter be divided by sale, devise, or otherwise, or to furnish separate measuring or receiving tanks for the oil produced from such separate tracts.

Lessor hereby warrants and agrees to defend the title to the lands herein described, and agrees that the lessee shall have the right at any time to redeem for lessor by payment, any mortgages, taxes or other liens on the above described lands, in the event of default of payment by lessor, and be subrogated to the rights of the holder thereof.

Whereof witness our hands as of the day and year first above written.

Witness to the mark:

John E. Born (SEAL)
John E. Born

Irma L. Born (SEAL)
Irma L. Born

(SEAL)

(SEAL)

(SEAL)

(SEAL)

STATE OF Kansas
COUNTY OF Coffey

ACKNOWLEDGMENT FOR INDIVIDUAL (KsOkCoNe)

The foregoing instrument was acknowledged before me this 23rd day of December, 19 93,
by John E. Born and Irma L. Born and

My commission expires 5/19/95

CARMEN Y. SPIELMAN
State of Kansas
My Appt. Exp.

Carmen Y. Spielman
Notary Public

STATE OF
COUNTY OF

ACKNOWLEDGMENT FOR INDIVIDUAL (KsOkCoNe)

The foregoing instrument was acknowledged before me this _____ day of _____, 19____
by _____ and _____

My commission expires _____

Notary Public

STATE OF
COUNTY OF

ACKNOWLEDGMENT FOR INDIVIDUAL (KsOkCoNe)

The foregoing instrument was acknowledged before me this _____ day of _____, 19____
by _____ and _____

My commission expires _____

Notary Public

STATE OF
COUNTY OF

ACKNOWLEDGMENT FOR INDIVIDUAL (KsOkCoNe)

The foregoing instrument was acknowledged before me this _____ day of _____
by _____ and _____

My commission expires _____

Notary Public

No. _____

OIL AND GAS LEASE

FROM _____

TO _____

Date _____, 19____

Section _____ Twp. _____ Rge. _____

No. of Acres _____ Term _____

County _____

STATE OF Kansas RRI

County Coffey

This instrument was filed for record on the 14th day of February, 19 94 at 4:45 o'clock P. M., and duly recorded in Book 32 OGG Page 106-107 of the records of this office.

Linda M. Traylor, Register of Deeds

By Susan R. Birk Deputy

Fee: $8.00

Where recorded, return to

STATE OF
COUNTY OF

ACKNOWLEDGMENT FOR CORPORATION (KsOkCoNe)

The foregoing instrument was acknowledged before me this _____ day of _____, 19____
by _____
of _____, a _____
corporation, on behalf of the corporation.

My commission expires _____

Notary Public