

Schumberger

FORMATION DENSITY/COMPENSATED NEUTRON

CSI

Field Log

COMPANY: NORTHERN PUMP COMPANY

WELL: GOVERNMENT #3-1

RECEIVED

FEB 24 1986

FIELD: WEST RANGELY  
COUNTY: RIO BLANCO  
STATE: COLORADO  
NATION: U.S.A.  
LOCATION: 341' FSL & 600' FEL

SEC: 3 TWP: 1N

RGE: 102K

0010-0123-015-001111

PERMANENT DATUM: GL  
ELEV. OF PERM. DATUM: 5273.0 F  
LOG MEASURED FROM: KB  
13.0 F ABOVE PERM. DATUM  
DRLG. MEASURED FROM: KB  
GL: 5273.0 F

DATE: 5 JAN 86  
RUN NO:

DEPTH-DRILLER: 6455.0 F  
DEPTH-LOGGER: 6455.0 F  
3TM. LOG INTERVAL: 6452.0 F  
TDP LOG INTERVAL: 3000.0 F  
CASING-DRILLER: 633.0 F  
CASING-LOGGER: 642.0 F  
CASING: 9 5/8"  
HEIGHT: 8 3/4"  
BIT SIZE: 7 7/8"  
DEPTH: 3470.0 F 6455.0 F



OTHER SERVICES-  
DIL  
CNL  
CYBERLOOK  
DIRECTIONAL

PROGRAM  
TAPE NO:  
28.2  
SERVICE  
ORDER NO:  
449399

TYPE FLUID IN HOLE: WEIGHTED BENEX  
DENSITY: 9.20 LB/G  
VISCOSITY: 40.0 S  
PH: 10.5  
FLUID LOSS: 8.0 C3  
SOURCE OF SAMPLE: MUDTANK  
RM: 1.320 DHMM AT 60.0 DEGF  
RMF: 1.190 DHMM AT 60.0 DEGF  
RMC: 1.980 DHMM AT 60.0 DEGF  
SOURCE RMF/RMC: MEAS/CALC  
RM AT BHT: .594 DHMM AT 142. DEGF  
RMF AT BHT: .535 DHMM AT 142. DEGF  
RMC AT BHT: .890 DHMM AT 142. DEGF  
TIME CIRC. STOPPED: 17:00 1-5  
TIME LOGGER ON BTM.: 1:00 1-6  
MAX. REC. TEMP: 142.0 DEGF  
LOGGING UNIT NO: 8220  
LOGGING UNIT LOC: VERNAL  
RECORDED BY: KENT FOX  
WITNESSED BY:



ILD SONDE ERROR CORRECTION : 7.0 MMHO  
 ILM SONDE ERROR CORRECTION : 8.5 MMHO

CP 28.2

FILE 4

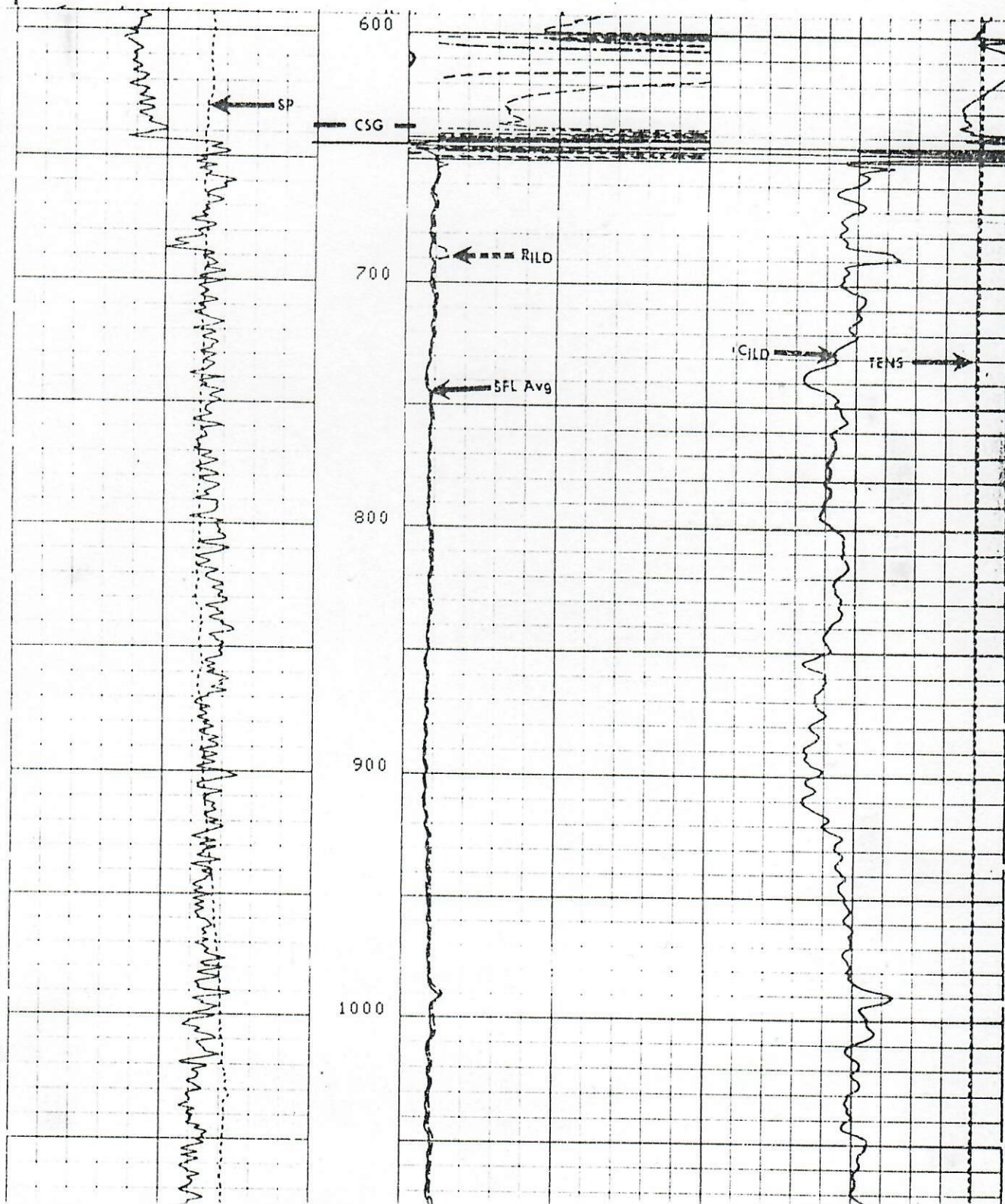
05-JAN-86 23:59

|           |        |            |        |          |     |
|-----------|--------|------------|--------|----------|-----|
| GR (GAPI) |        | ILD (OHMM) |        |          |     |
| 0.0       | 150.00 | 0.0        | 100.00 |          |     |
| SP (MV)   |        | SFLA(OHMM) |        | TENS(LB) |     |
| -100.0    | 0.0    | 0.0        | 100.00 | 10000.   | 0.0 |
|           |        | CILD(MMHO) |        |          |     |
|           |        | 400.00     |        | 0.0      |     |

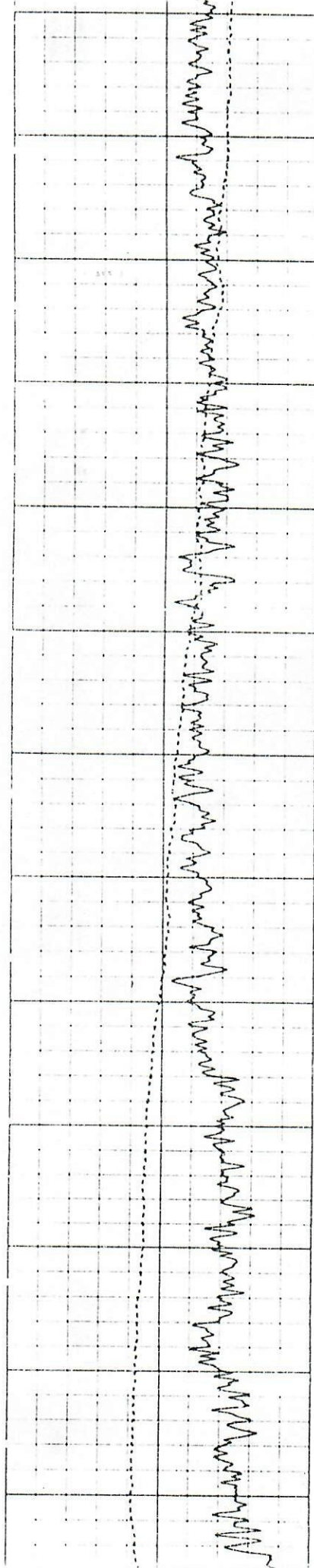
CP 28.2

FILE 2

05-JAN-86 23:54







1100

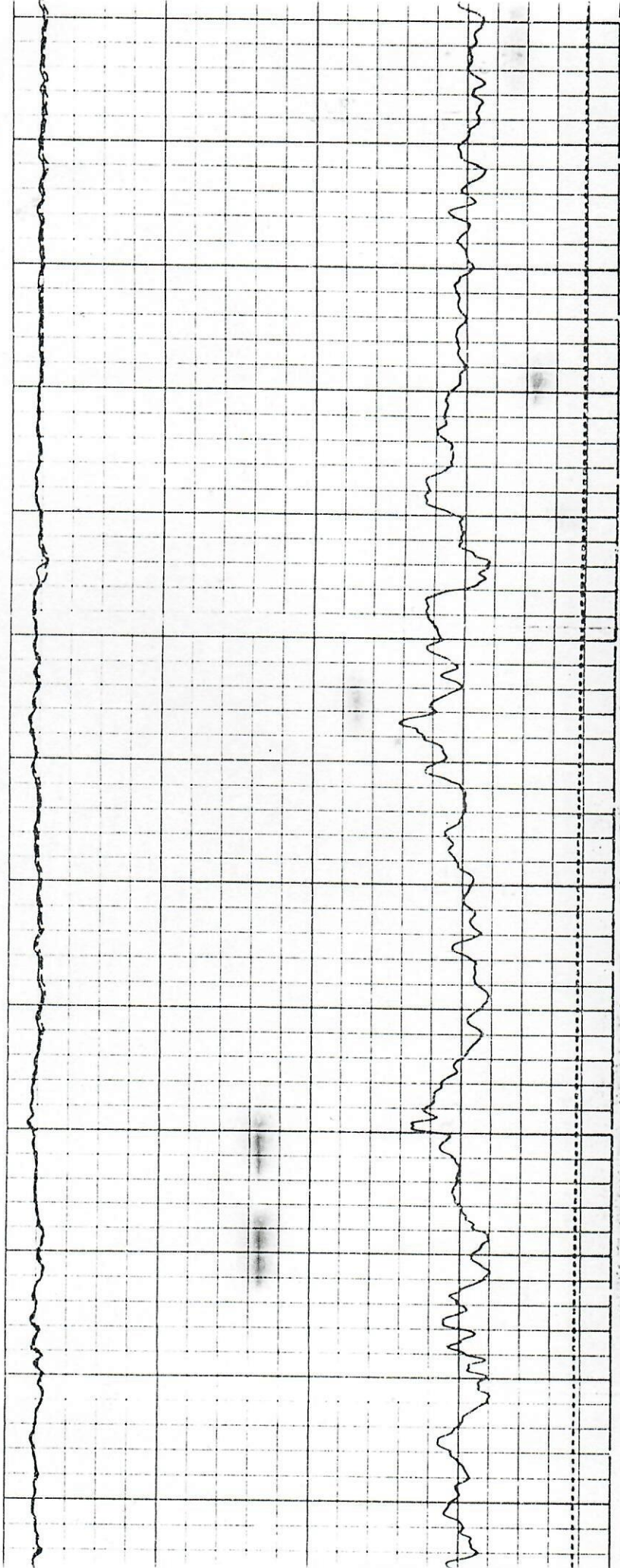
1200

1300

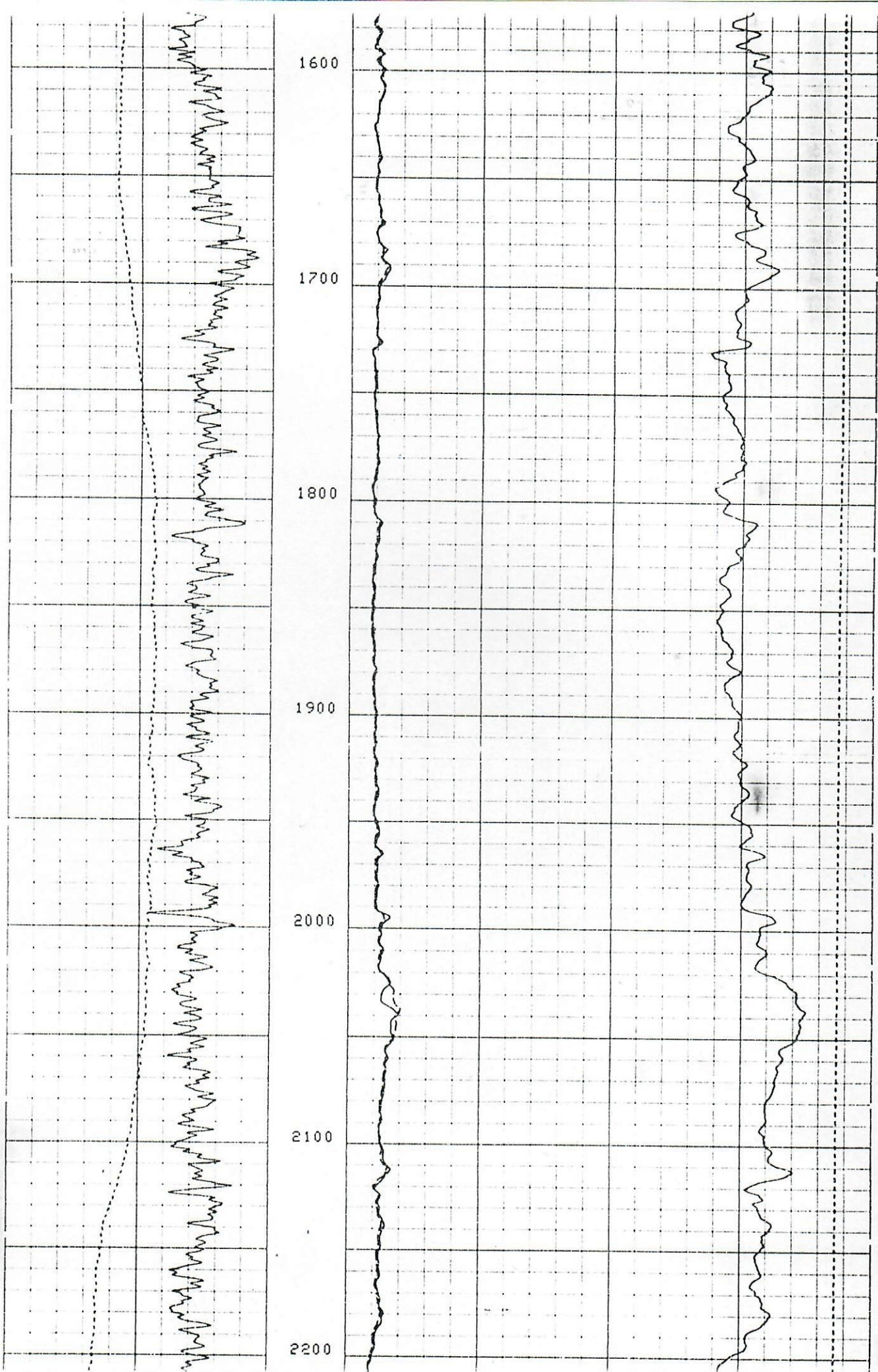
1400

1500

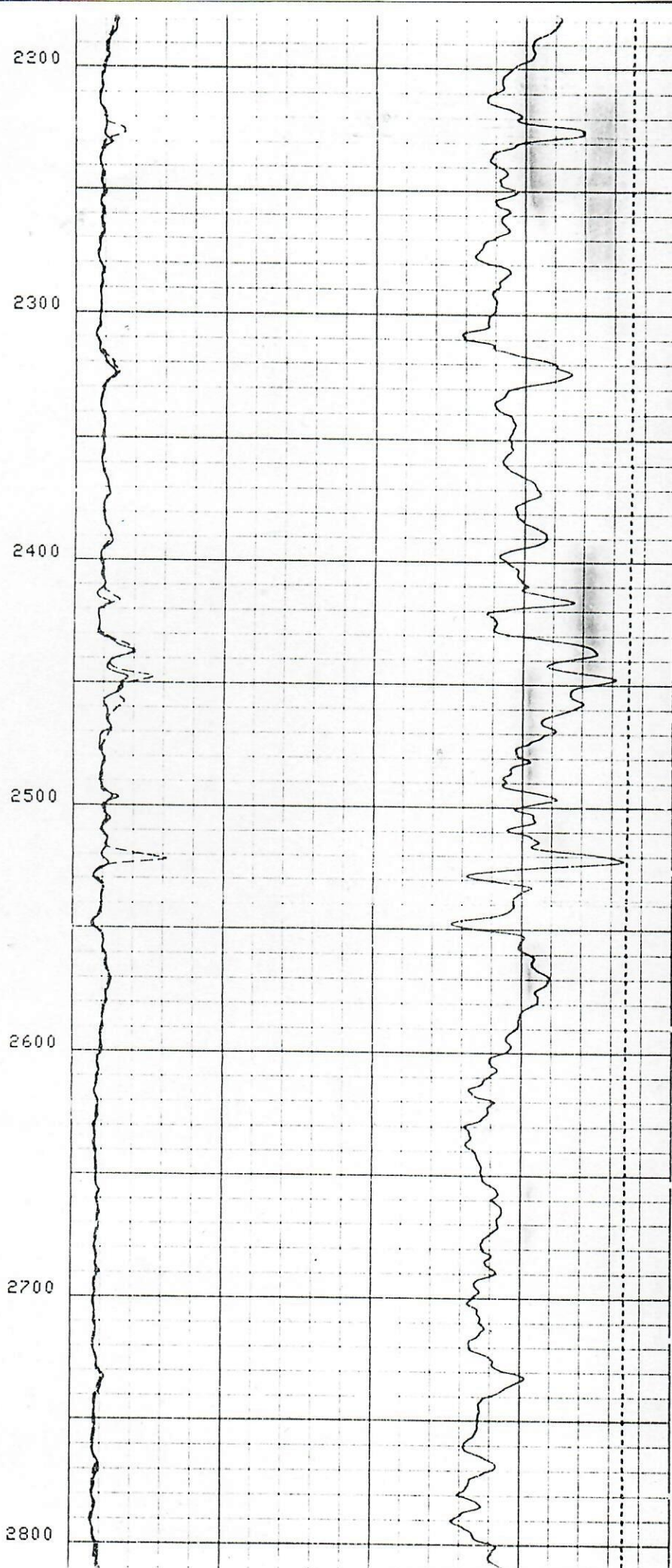
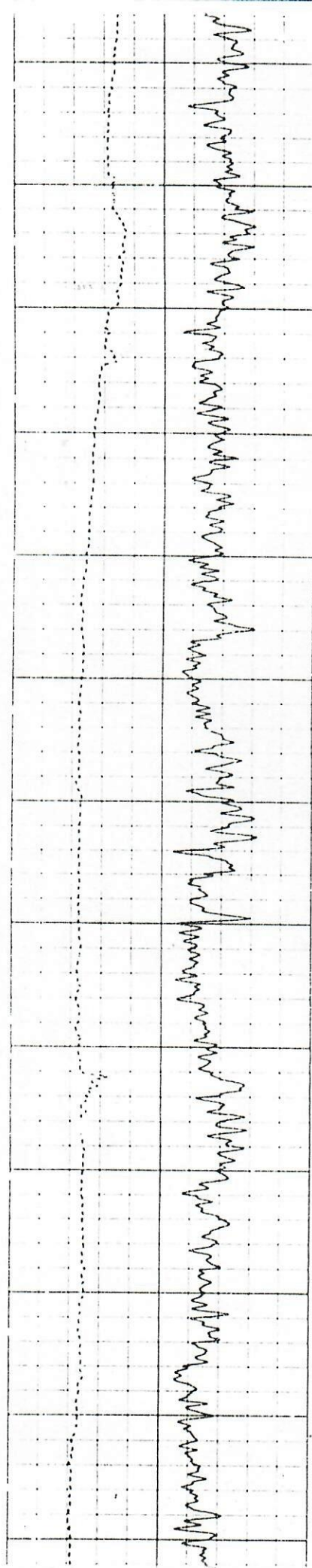
1600



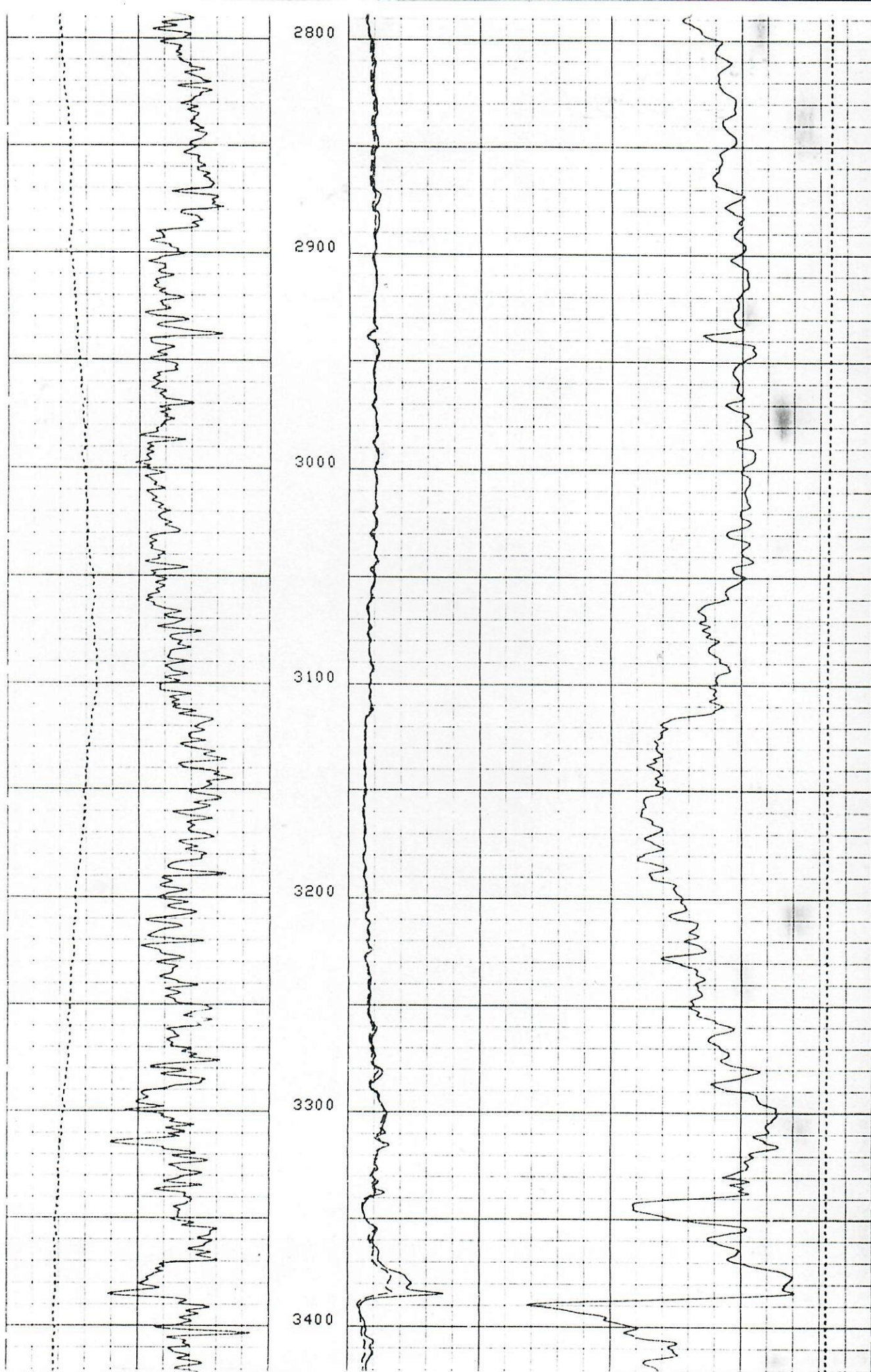




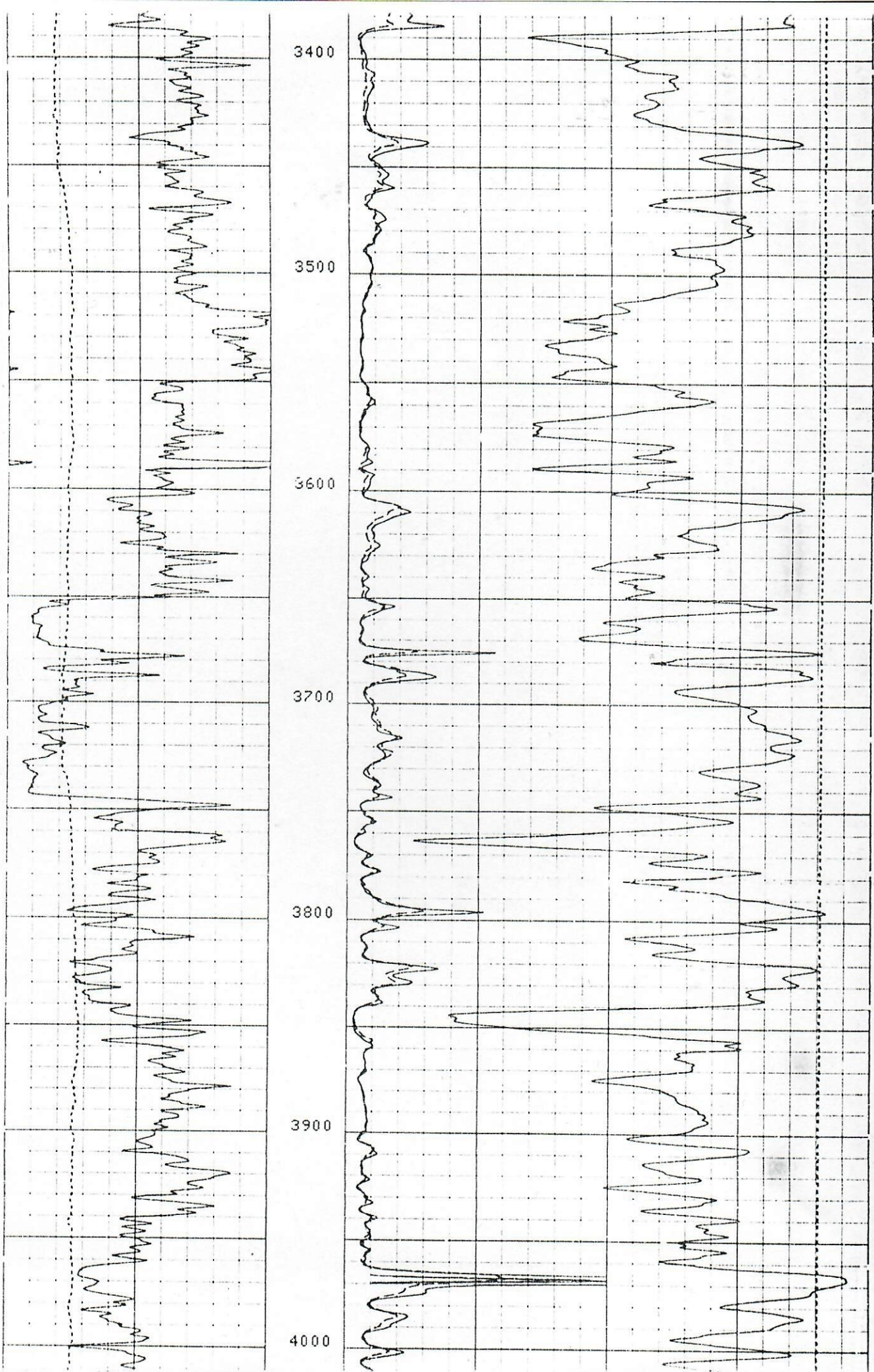




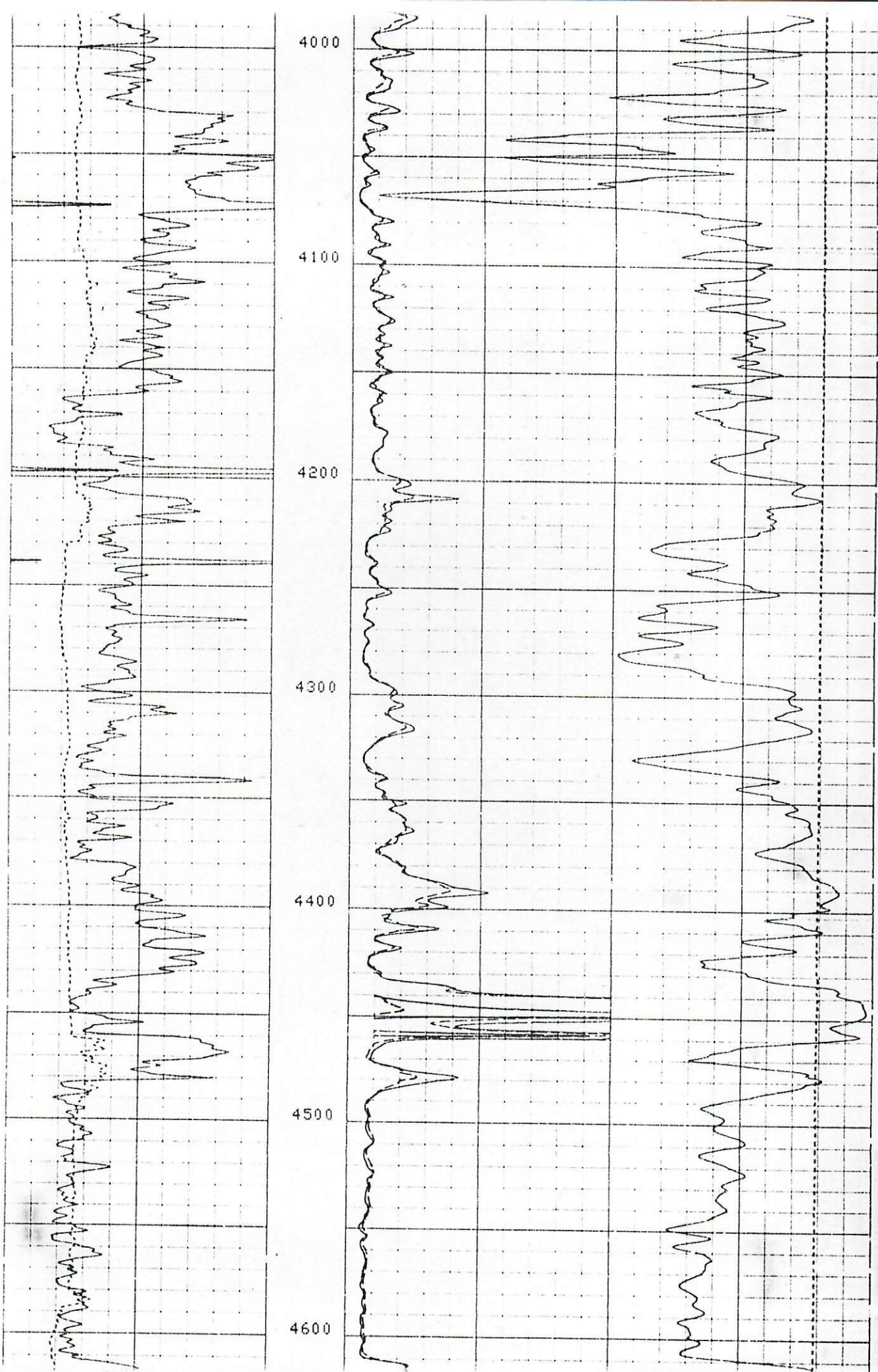




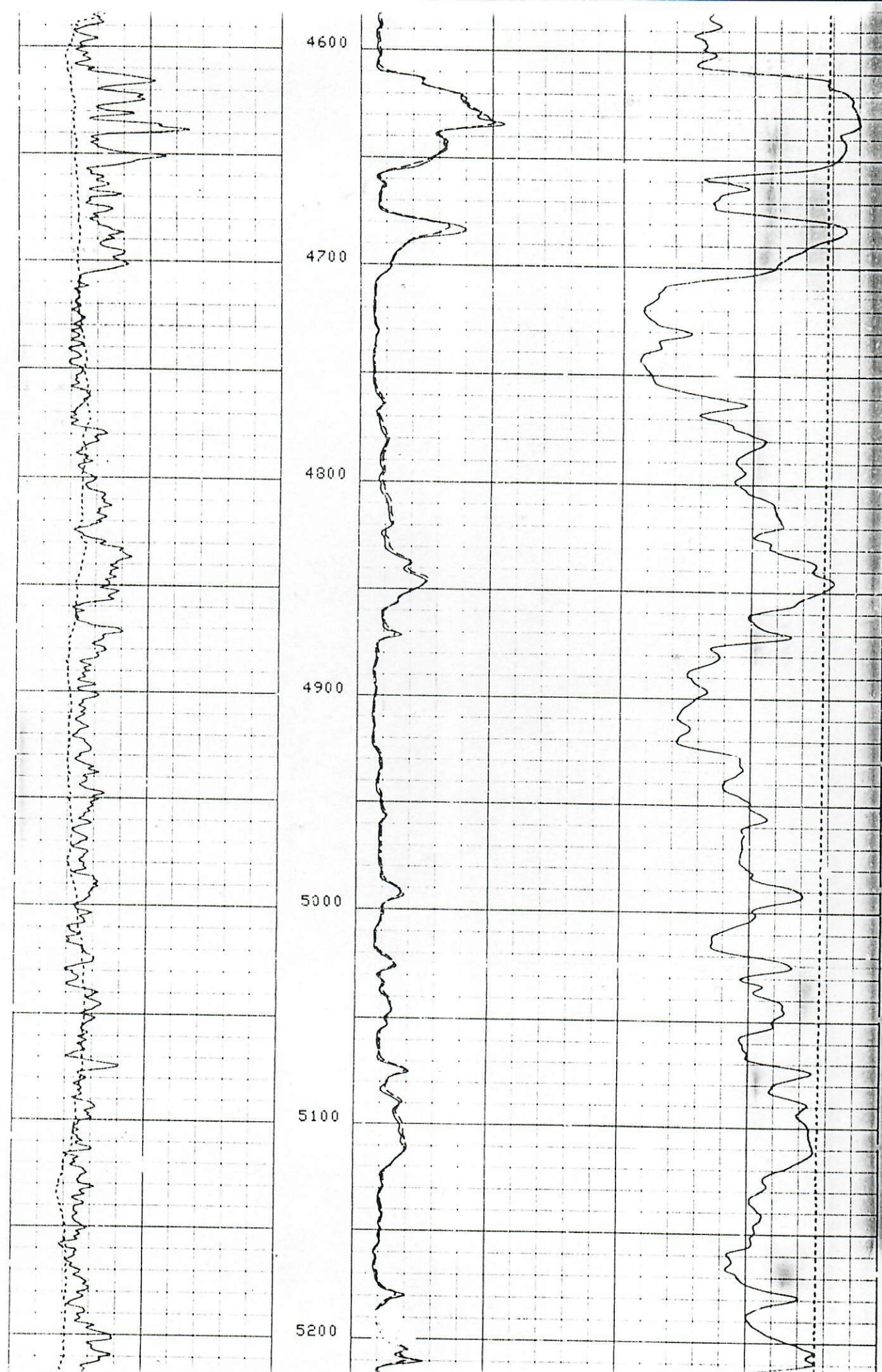




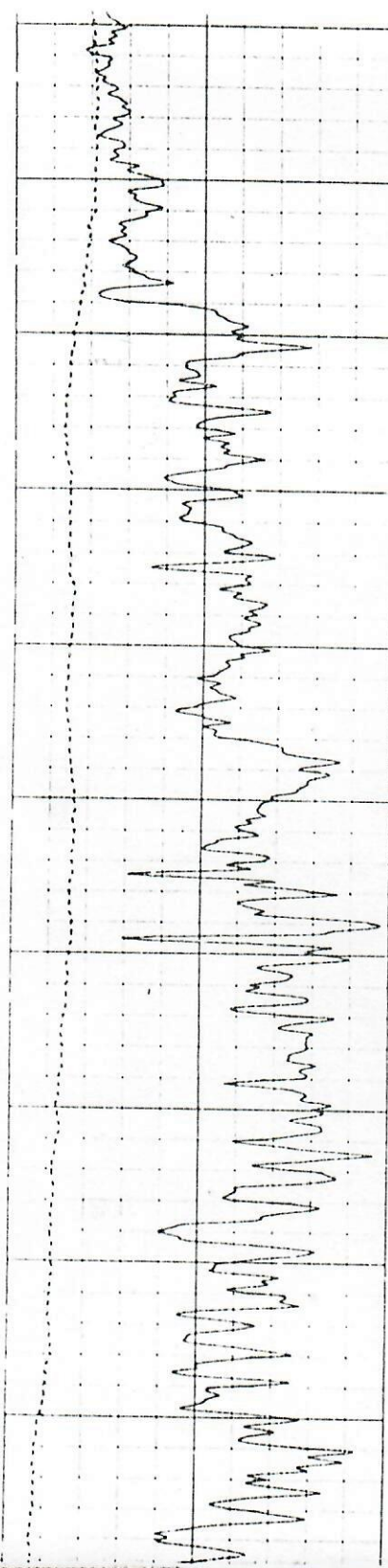












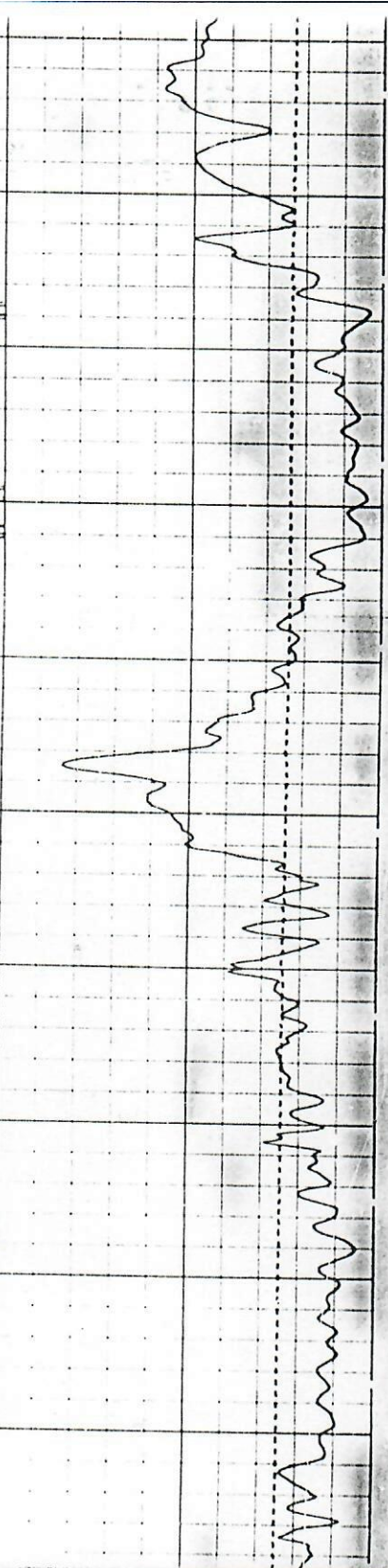
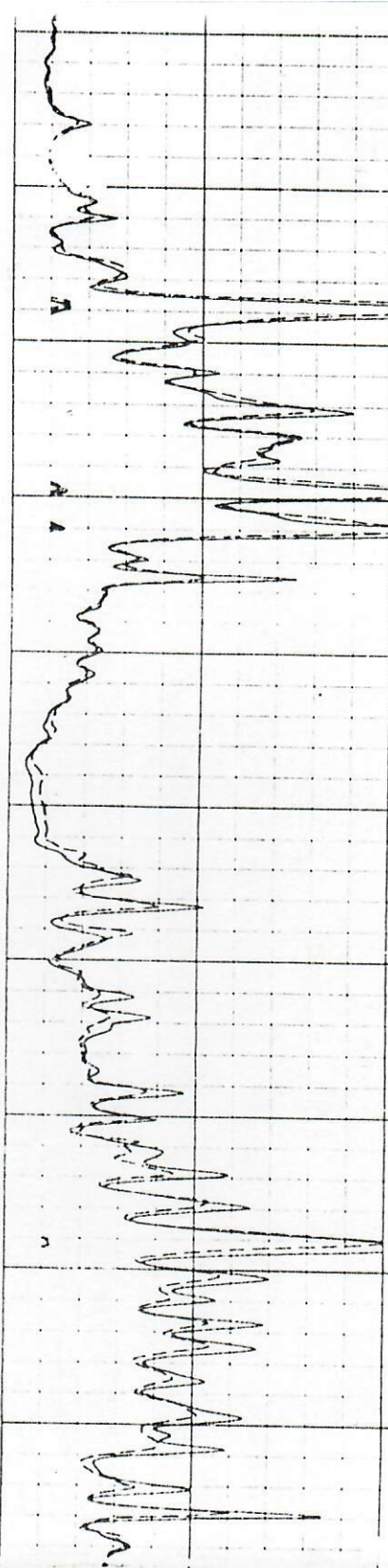
5200

5300

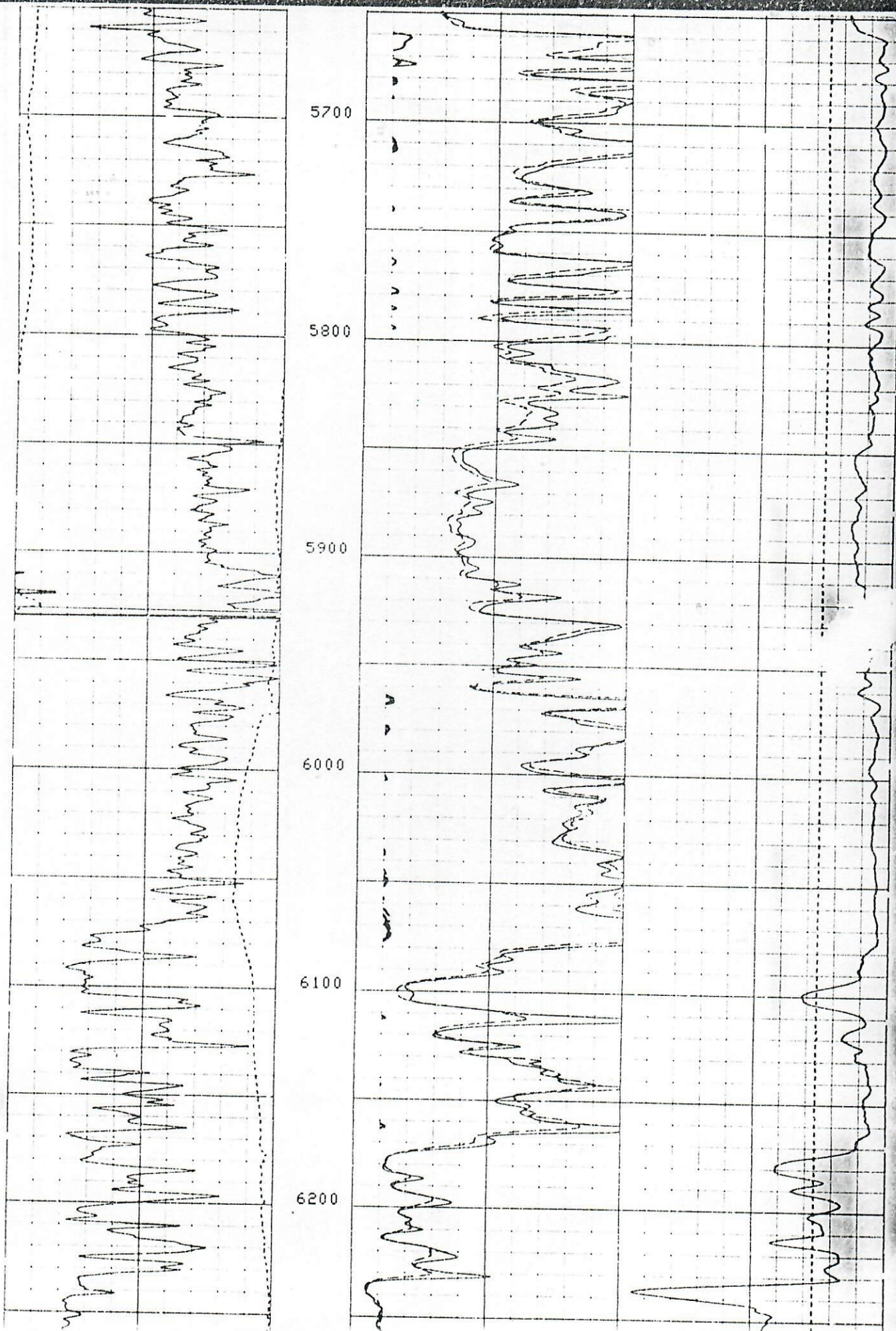
5400

5500

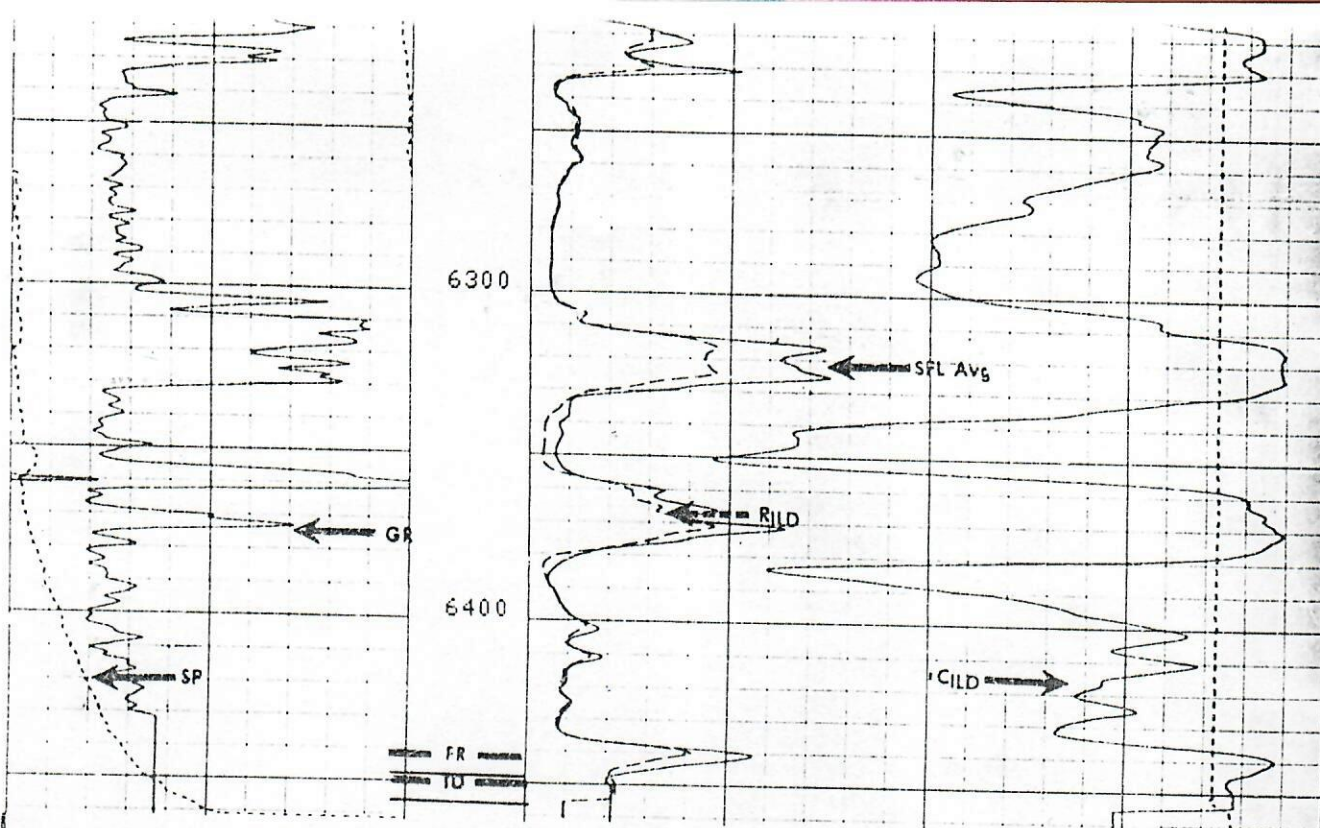
5600











CP 28.2

FILE

2

05-JAN-86 22:07

|           |        |            |        |            |     |
|-----------|--------|------------|--------|------------|-----|
| GR (GAPI) |        | ILD (DHMM) |        | TENS(LB )  |     |
| 0.0       | 150.00 | 0.0        | 100.00 | 10000.     | 0.0 |
| SP (MV10) |        | SFLA(DHMM) |        | CILD(MMHD) |     |
| -100.0    | 0.0    | 0.0        | 100.00 | 400.00     | 0.0 |

SENSOR MEASURE POINT TO TOOL ZERO

|      |     |      |     |      |      |
|------|-----|------|-----|------|------|
| ILD  | 9.4 | FEET | GR  | 32.9 | FEET |
| SFL  | 6.4 | FEET | ILM | 5.8  | FEET |
| SPAR | 2.5 | FEET | SP  | 2.5  | FEET |
| TENS | 2.5 | FEET |     |      |      |

PARAMETERS

| NAME | VALUE   | UNIT | NAME | VALUE   | UNIT |
|------|---------|------|------|---------|------|
| DSEC | 7.00000 | MMHD | WMUD | 9.50000 | LB/G |
| MSEC | 8.50000 | MMHD | SPR  | 1.00000 | DHMM |
| BS   | 7.87500 | IN   | BHS  | OPEN    |      |

|           |        |            |        |
|-----------|--------|------------|--------|
| QLRA      |        | TENS(LB )  |        |
| -80.00    | 20.000 | 10000.     | 0.0    |
| GR (GAPI) |        | ILD (DHMM) |        |
| 0.0       | 150.00 | .20000     | 2000.0 |
| SP (MV )  |        | ILM (DHMM) |        |
| -100.0    | 0.0    | .20000     | 2000.0 |
|           |        | SFLU(DHMM) |        |
|           |        | .20000     | 2000.0 |

CP 28.2

FILE

2

05-JAN-86 23:54



## REMARKS:

CREW: ADOLPH VIEYRA & JON SUNKEES  
 TOOL STRING: LDTC-CNTH-SGTL-CCC  
 800 PPM CHLORIDE  
 BOWSPRING RUN ON CNL  
 LOGGED AT 1800 FPH  
 TLI = 3000' AT CUSTOMER REQUEST

## EQUIPMENT NUMBERS-

DRS 2777                      NSC 881                      PDH 1838                      CNC 290  
 SGC 477                      CCC 962                      CIM 264

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 INTERPRETATIONS, 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 AS SET OUT IN OUR CURRENT PRICE SCHEDULE.

CP 28.2                      FILE        7                      06-JAN-86 00:44  
                                  DATA ACQUIRED    00-        -00 00:00

## AFTER SURVEY TOOL CHECK SUMMARY

PERFORMED: 06-JAN-86 00:42  
 PROGRAM FILE: LEP (VERSION 28.2 00/00/00)

## LDTC

## TOOL CHECK

DRS SONDE NUMBER : 2777  
 NUCLEAR SERVICE CARTRIDGE NUMBER : 881  
 POWERED DETECTOR HOUSING NUMBER : 1838  
 POWERED GAMMA-GAMMA DETECTOR NUMBER : 1896  
 LDT LOGGING SOURCE NUMBER : 6818  
 LDT CALIBRATION MODE : WATE  
 MUD DENSITY : 9.20000 LB/G

|      | BACKGROUND MEASURED |       |       |
|------|---------------------|-------|-------|
|      | BEFORE              | AFTER | UNITS |
| LL   | 19.20               | 19.18 | CPS   |
| LU   | 75.37               | 75.56 | CPS   |
| LS   | 56.90               | 57.00 | CPS   |
| LITH | 6.109               | 6.08  | CPS   |
| SS1  | 14.63               | 14.64 | CPS   |
| SS2  | 10.14               | 10.14 | CPS   |

## CNTH

## TOOL CHECK

JIG  
 NRAT                      BEFORE                      AFTER  
                                  2.143                      2.151  
 POROSITY CHANGE (LINE): .002

CP 28.2                      FILE        6                      06-JAN-86 00:42

## EVENT MARK SUMMARY:

OUTPUT    INTERVAL                      DEPTH TRACK  
                  BETWEEN PIPS                      EDGE