CC 23-19-85

Schlumberger

HIGH RESOLUTION DIPMETER

CSU Field Log

COMPANY: ARCO EXPLORATION COMPANY

WELL: "COLUMBIA COUNTY" #23-19

FIELD: MIST
COUNTY: COLUMBIA
STATE: OREGON
NATION: U.S.A.
LOCATION: 2558'N AND 2096'E FROM SW CORNER OF
SEC: 19 TWP: 6N RGE: 5W

PERMANENT DATUM: GL
ELEV. OF PERM. DATUM: 702.5 '
LOG MEASURED FROM: KB
11.0 ' ABOVE PERM. DATUM
DRLG. MEASURED FROM: KB

ELEVATIONS-
KB: 713.5 '
DF: 712.5 '
GL: 702.5 '

DATE: 7 JUL 85
RUN NO: 1

OTHER SERVICES-
DIL-BHC
FDC/CNL/GR
CST

PROGRAM TAPE NO: 24.2
SERVICE ORDER NO: 431981

DEPTH-DRILLER: 3434.0 '
DEPTH-LOGGER: 3430.0 '
BTM. LOG INTERVAL: 3430.0 '
TOP LOG INTERVAL: 420.0 '

CASING-DRILLER: 420 '
CASING-LOGGER: 420 '
CASING: 9 5/8"

BIT SIZE: 8 3/4"
DEPTH: 3434 '

RECEIVED - PTLD
JUL 11 1985
DEPT. OF GEOLOGY
& MINERAL INDUS.

TYPE FLUID IN HOLE:	LIGNITE/DESCO
DENSITY:	10.3 LB/G
VISCOSITY:	45.0 S
PH:	8.8
FLUID LOSS:	4.2 C3
SOURCE OF SAMPLE:	FLOWLINE
RM:	1.770 OHMM AT 75.0 DEGF
RMF:	2.450 OHMM AT 65.0 DEGF
RMC:	2.330 OHMM AT 65.0 DEGF
SOURCE RMF/RMC:	MEASURED/MEASURED
RM AT BHT:	1.170 OHMM AT 117. DEGF
RMF AT BHT:	1.422 OHMM AT 117. DEGF
RMC AT BHT:	1.352 OHMM AT 117. DEGF

TIME CIRC. STOPPED: 7/10 1130
TIME LOGGER ON BTM.: 2200

MAX. REC. TEMP: 117.0 DEGF

LOGGING UNIT NO: 8057
LOGGING UNIT LOC: SACRAMENTO
RECORDED BY: ANDERSEN
WITNESSED BY: BUIKEMA

REMARKS:

950 PPM CHLORIDES
72 DEGREE MECHANICAL UNIT.

EQUIPMENT NUMBERS-

HDS-D 1954 HDM-MB 725 HDE-F 787 DAM-A 823

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.

FILE

9

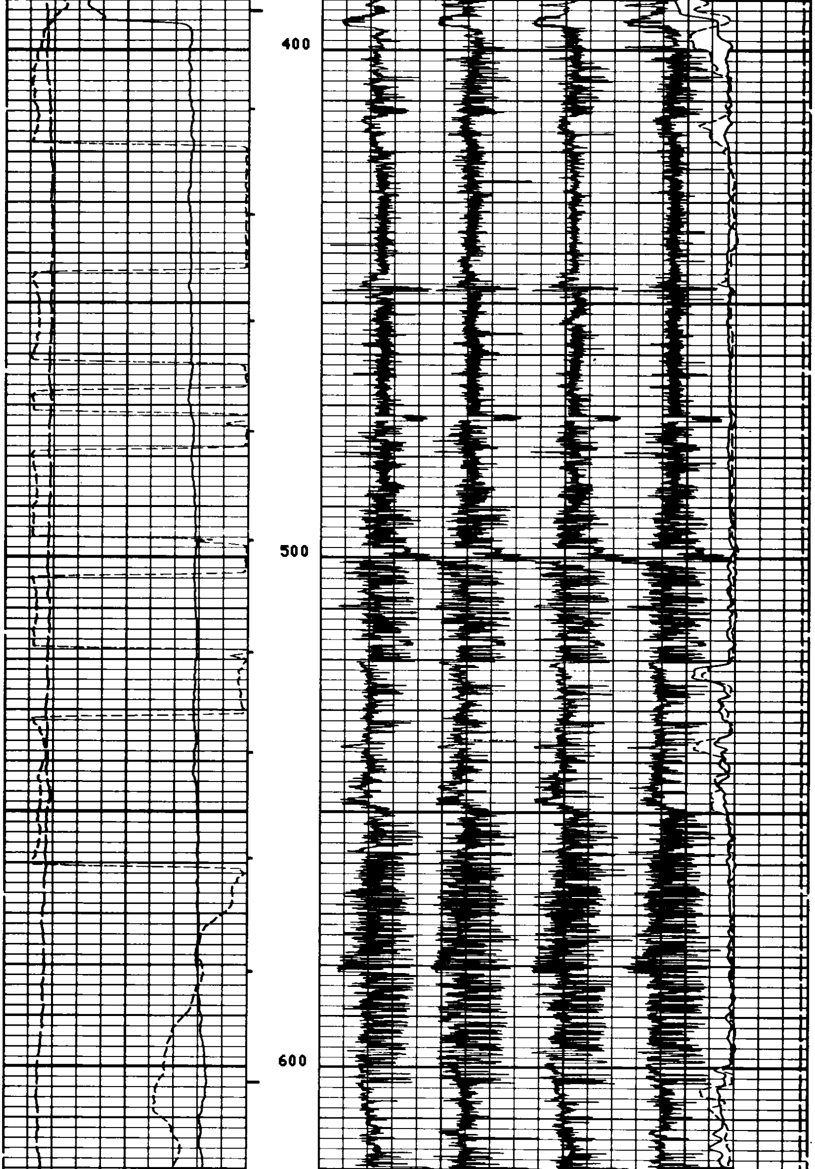
CHANGED PARAMETERS

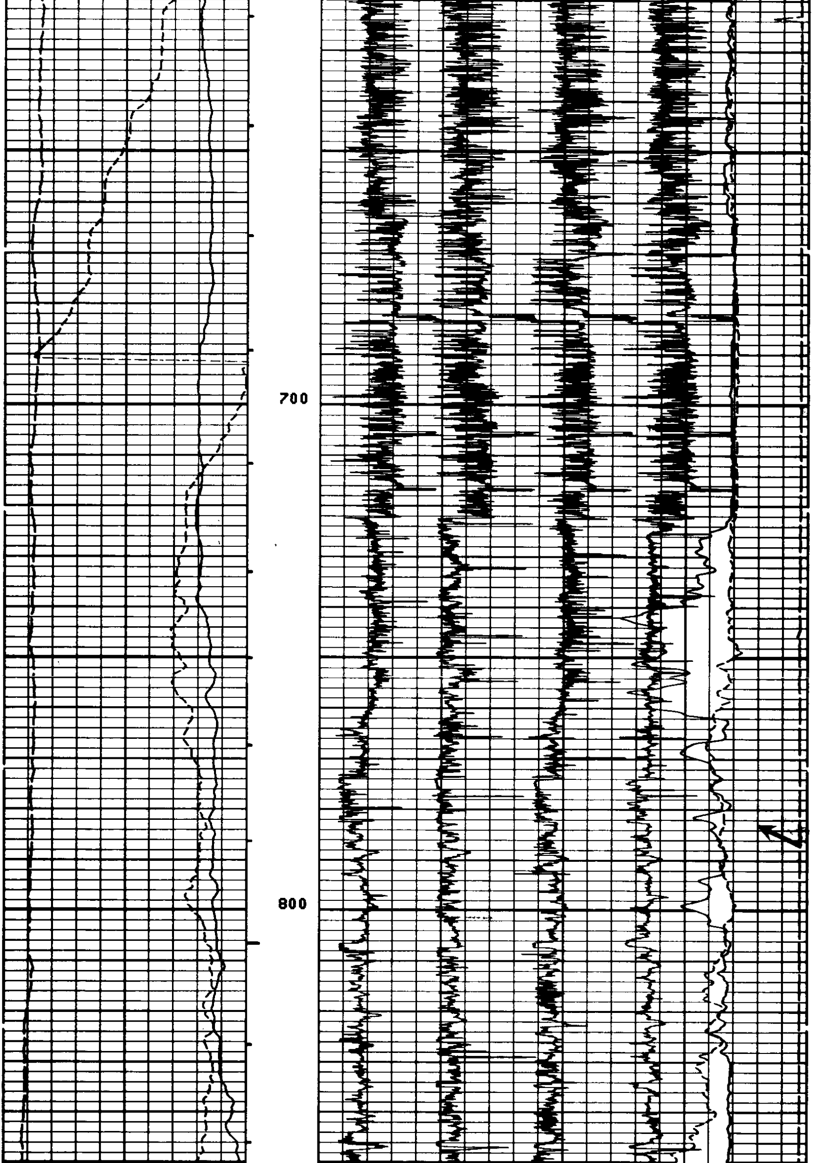
NAME	VALUE	UNIT	DEPTH (F)	NAME	VALUE	UNIT	DEPTH (F)

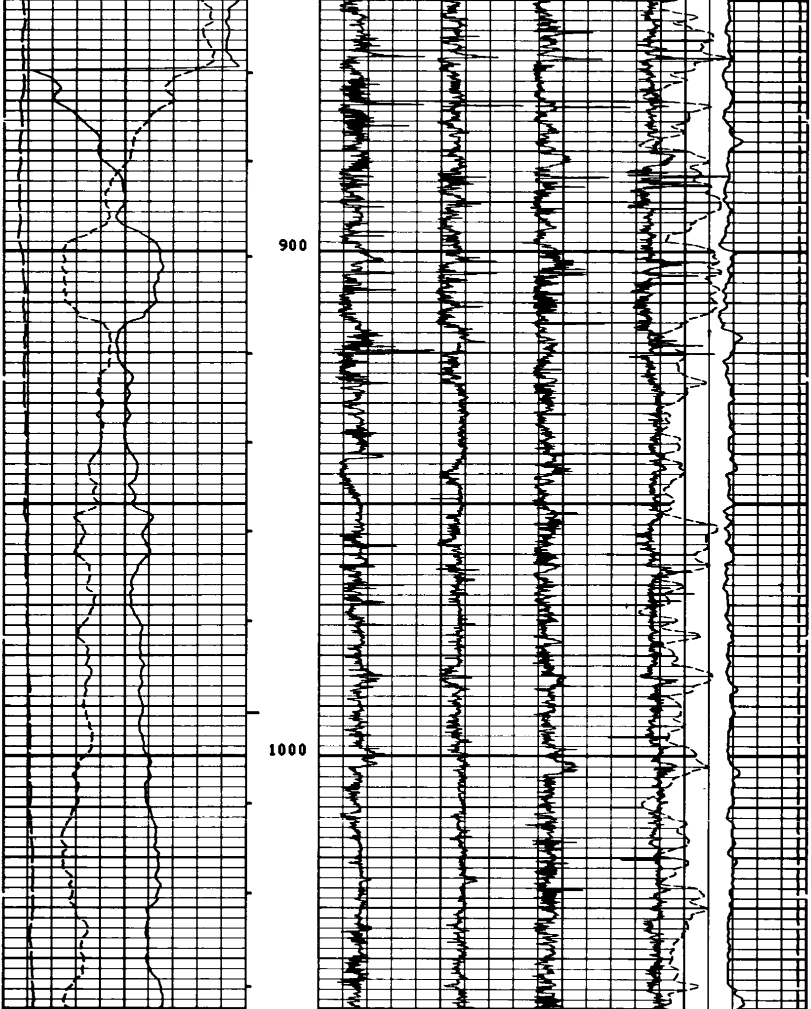
DEVI(DEG)	-1.000	9.0000
RB (DEG)	-40.00	360.00
AZIM(DEG)	-40.00	360.00
TENS(LB)	20000.	0.0
C2 (IN)	26.000	6.0000
C1 (IN)	26.000	6.0000

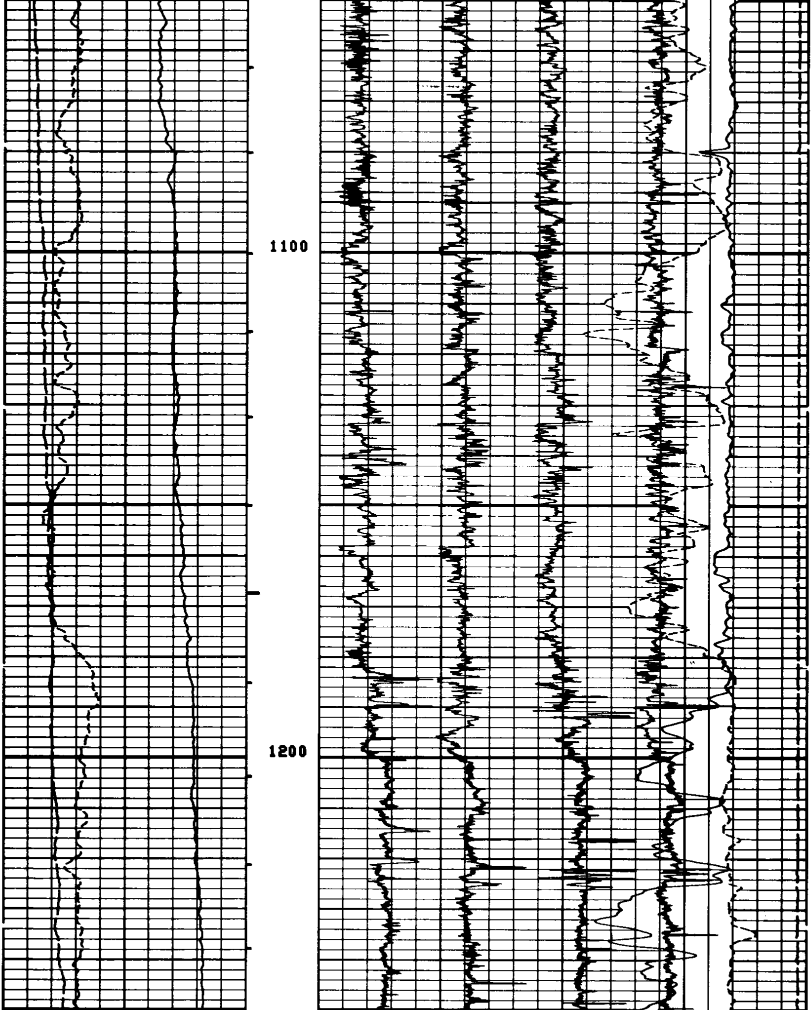
FILE

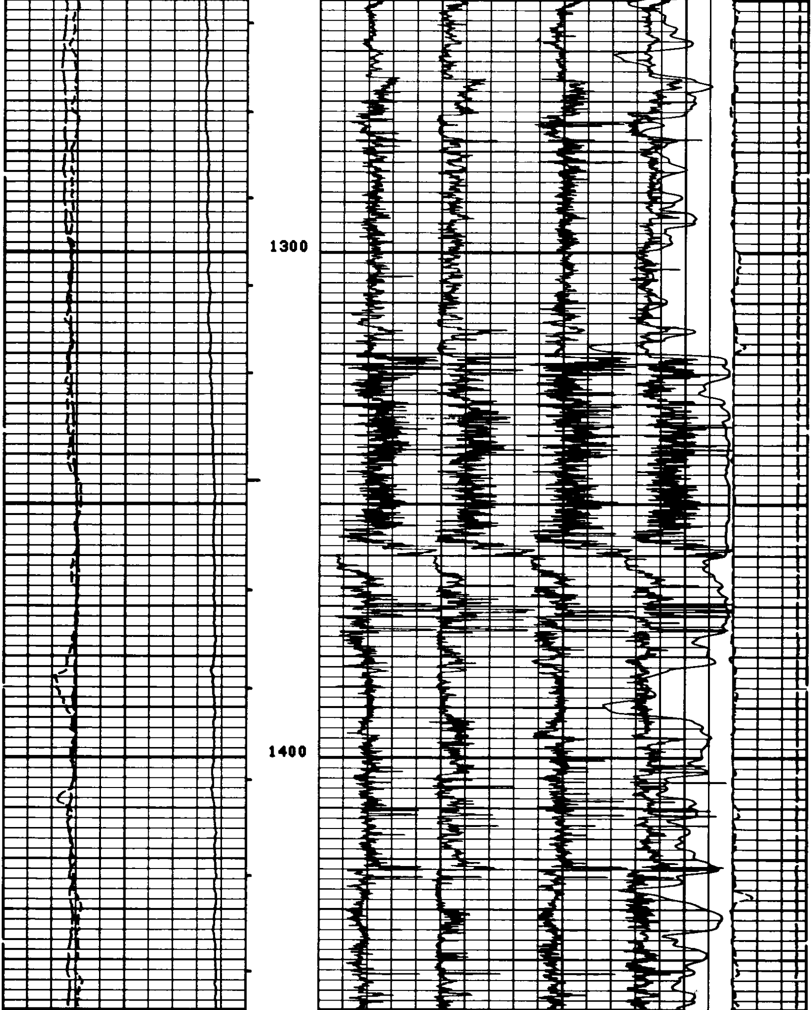
7

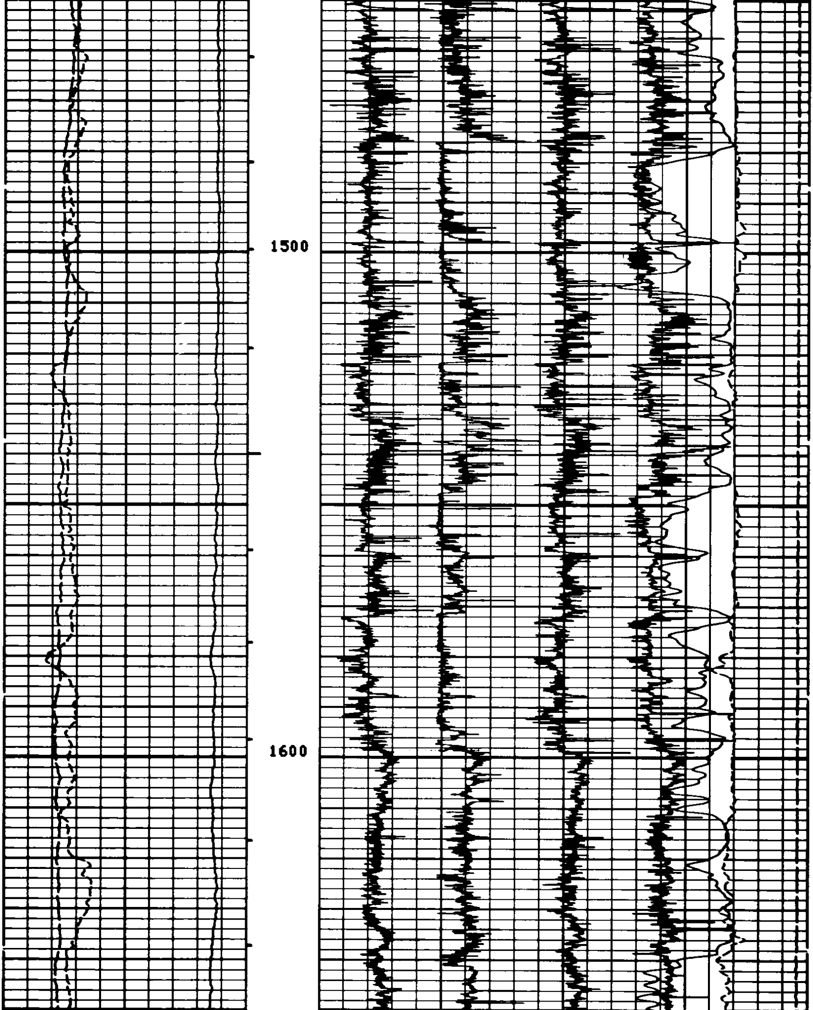


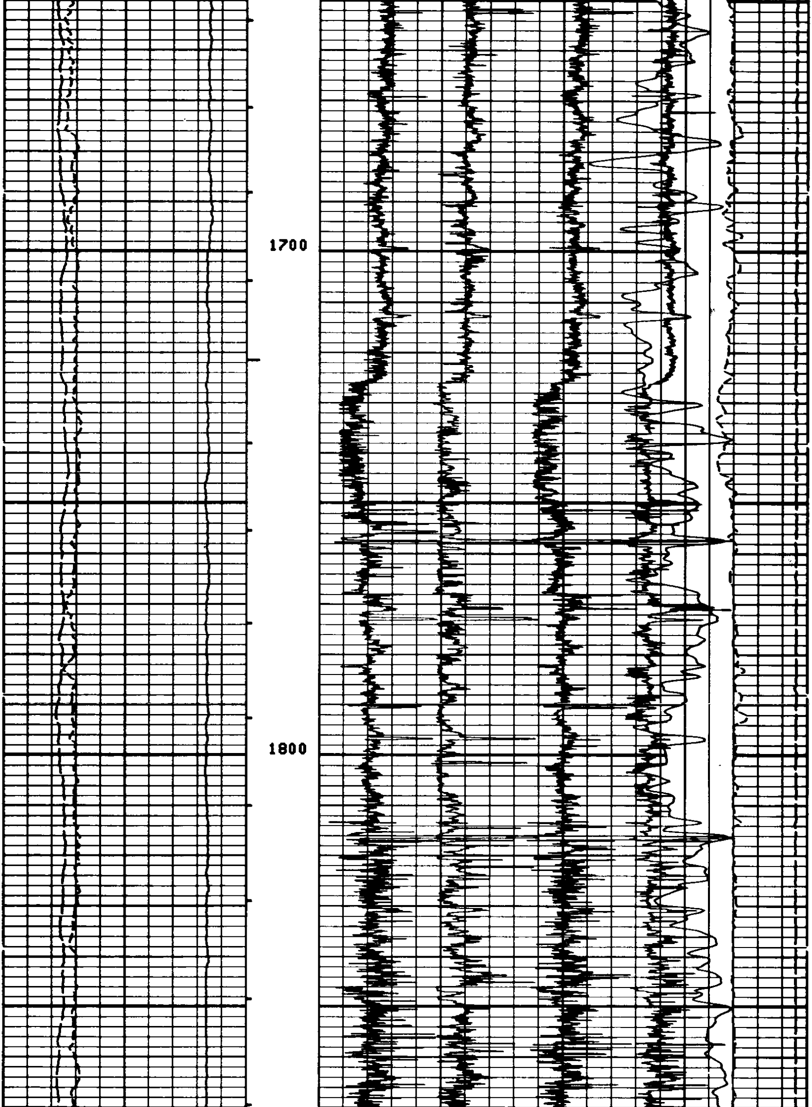


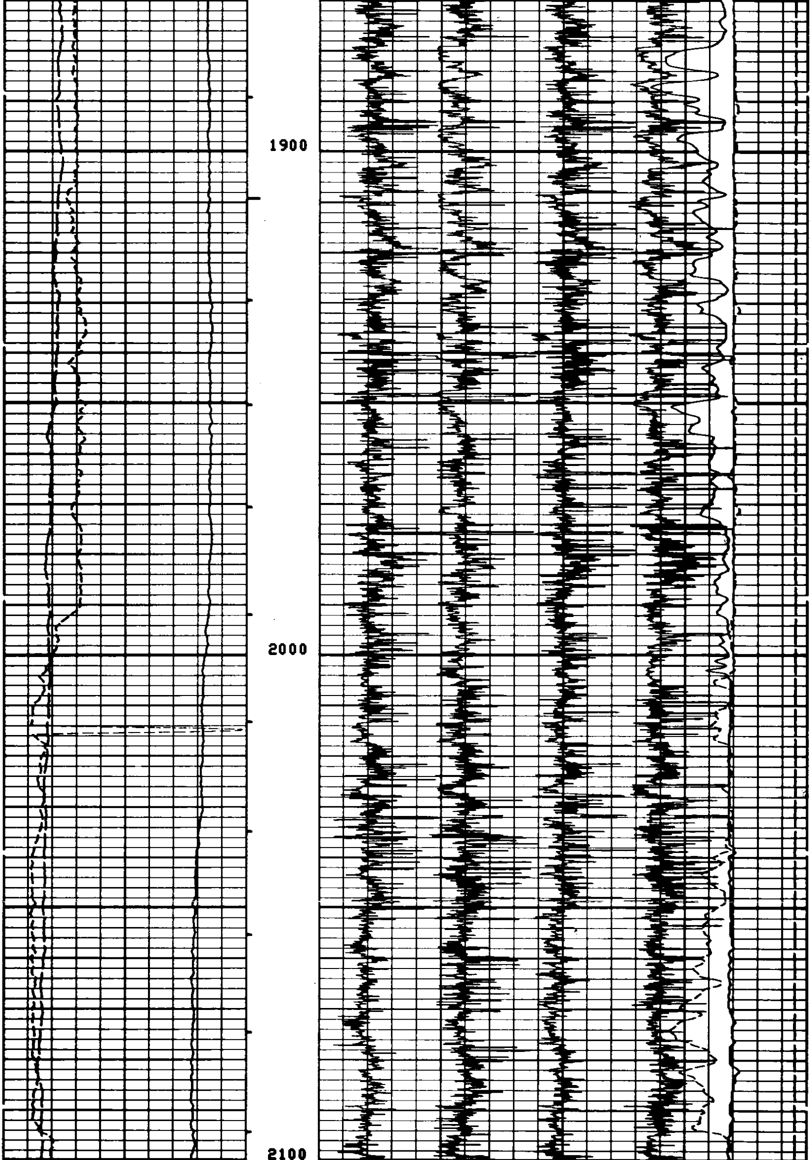


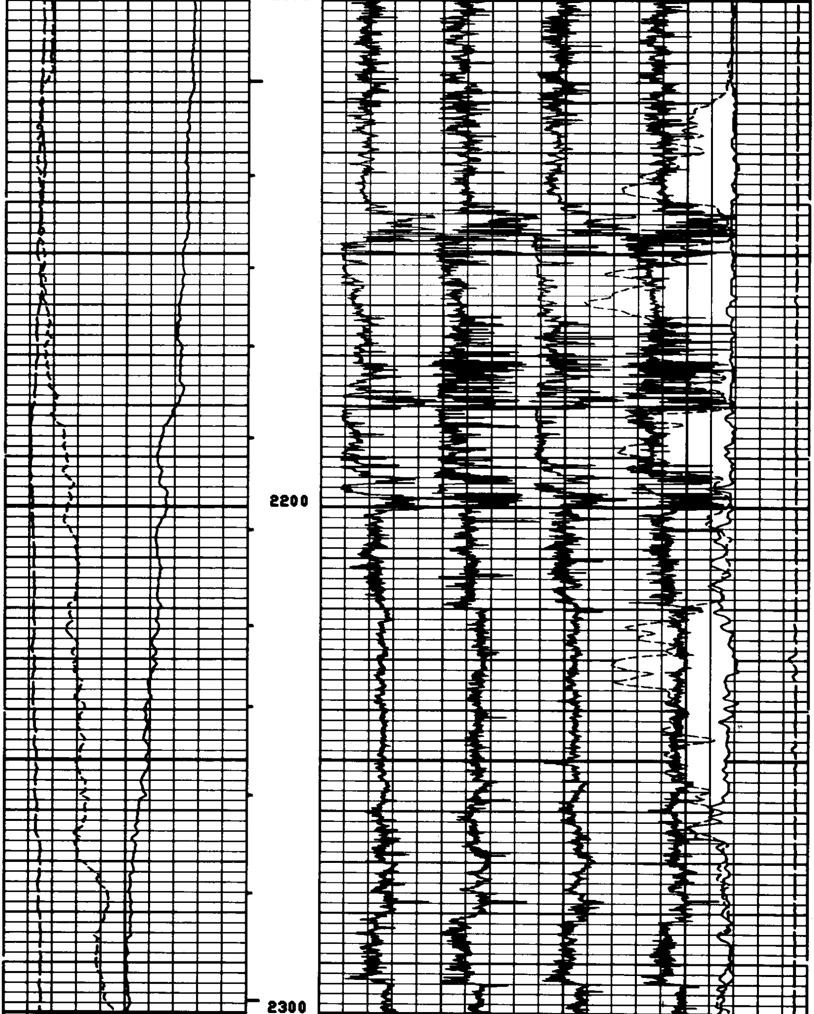


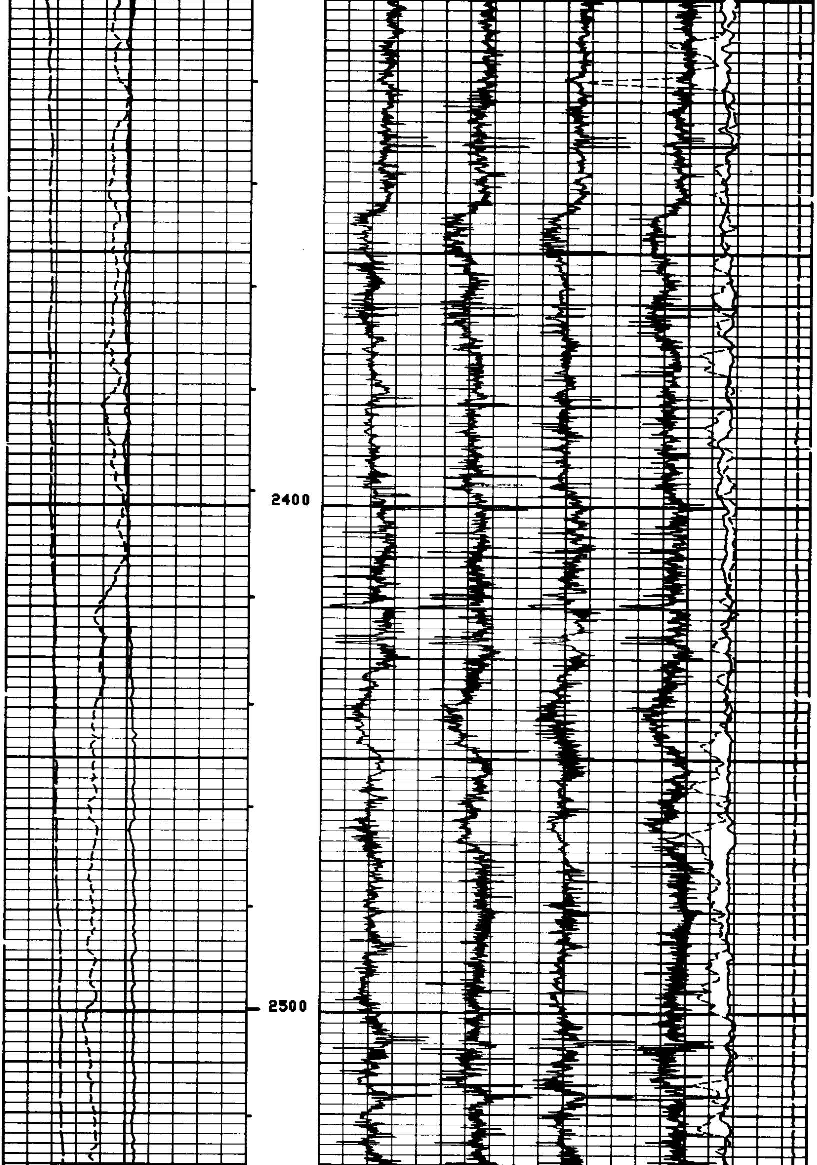


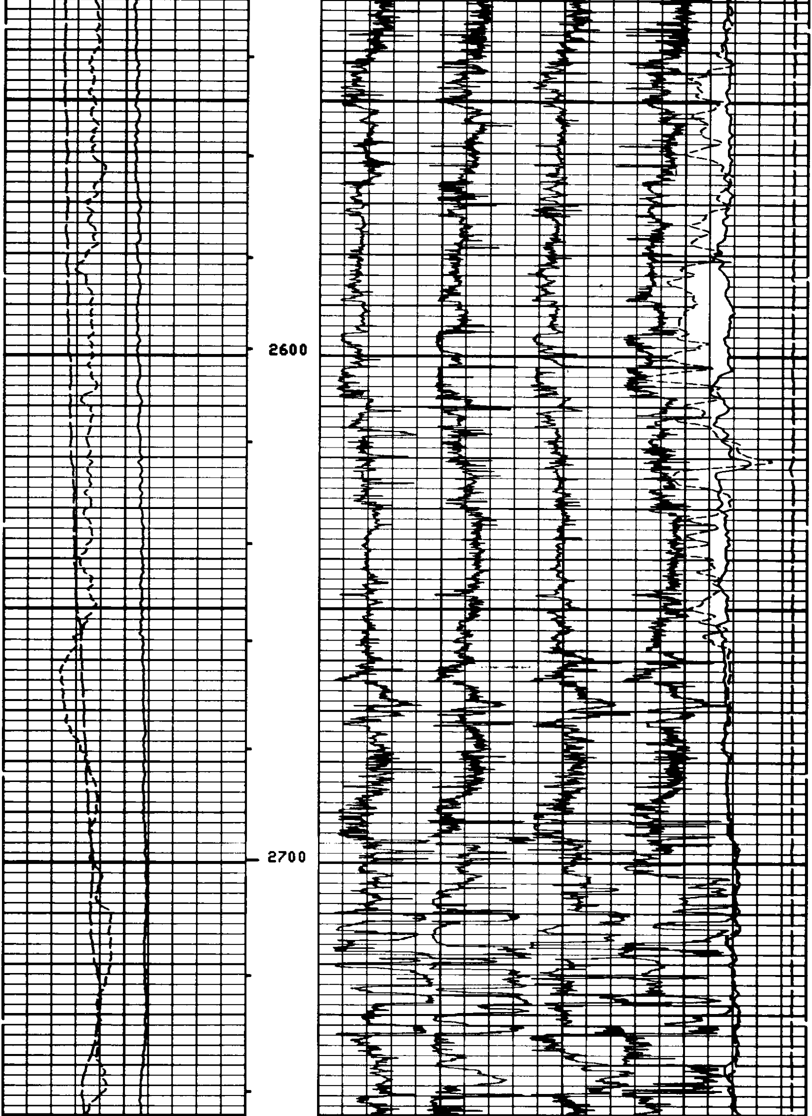


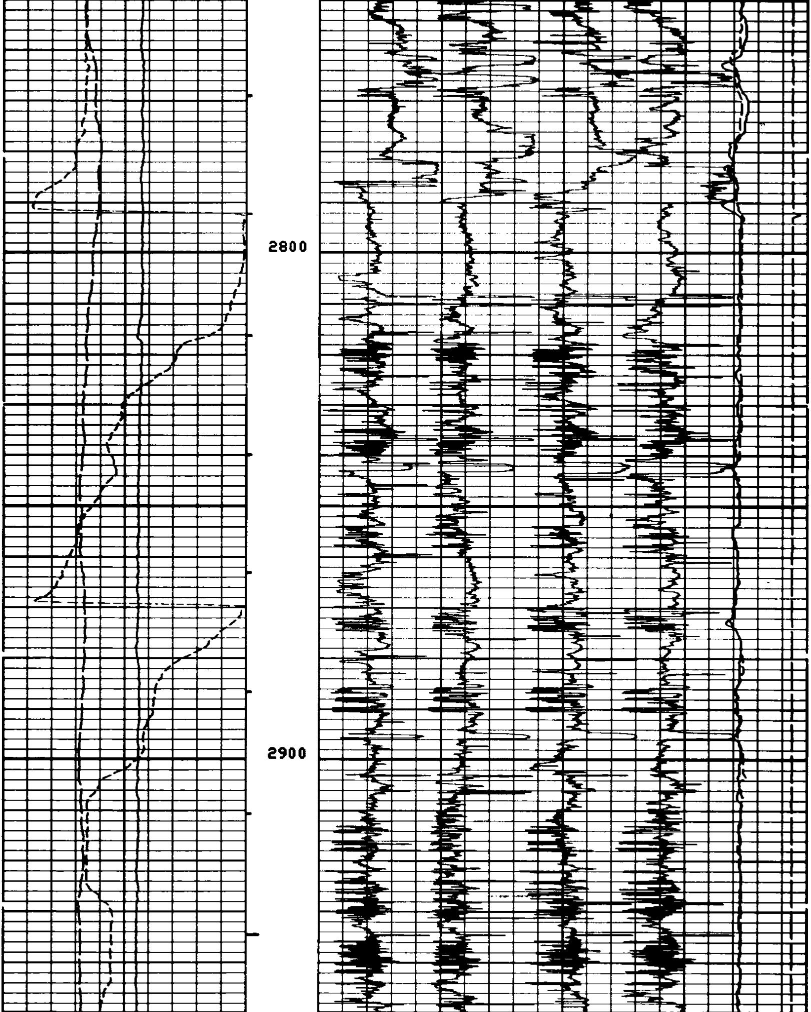


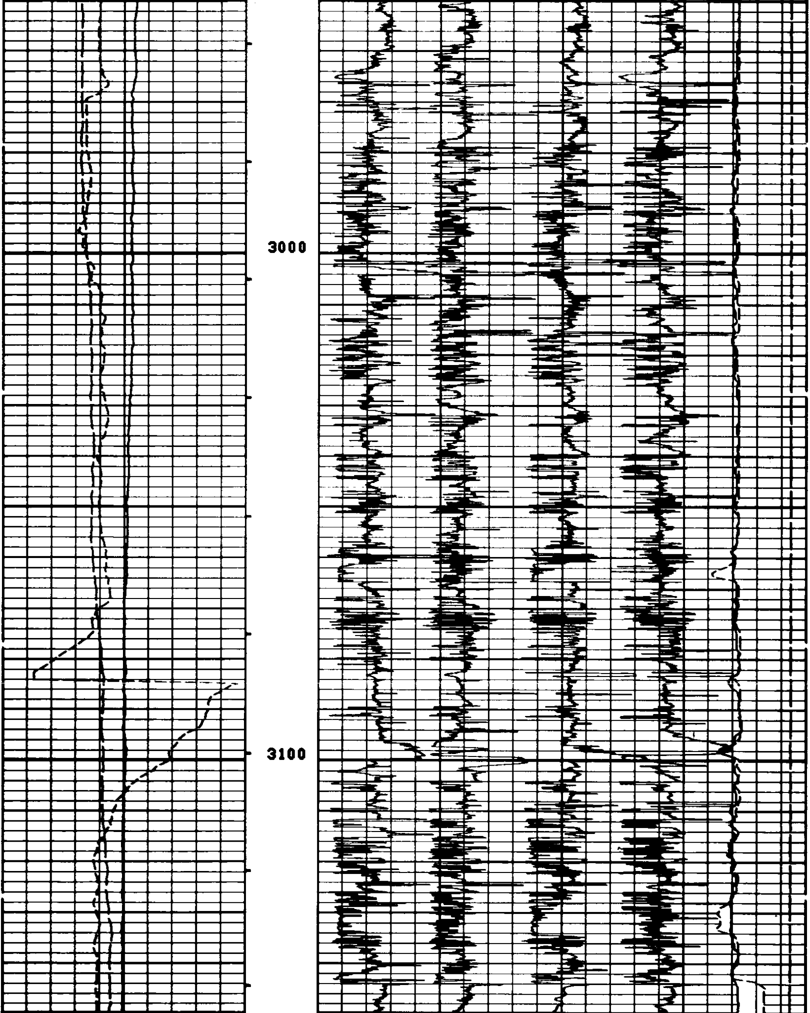


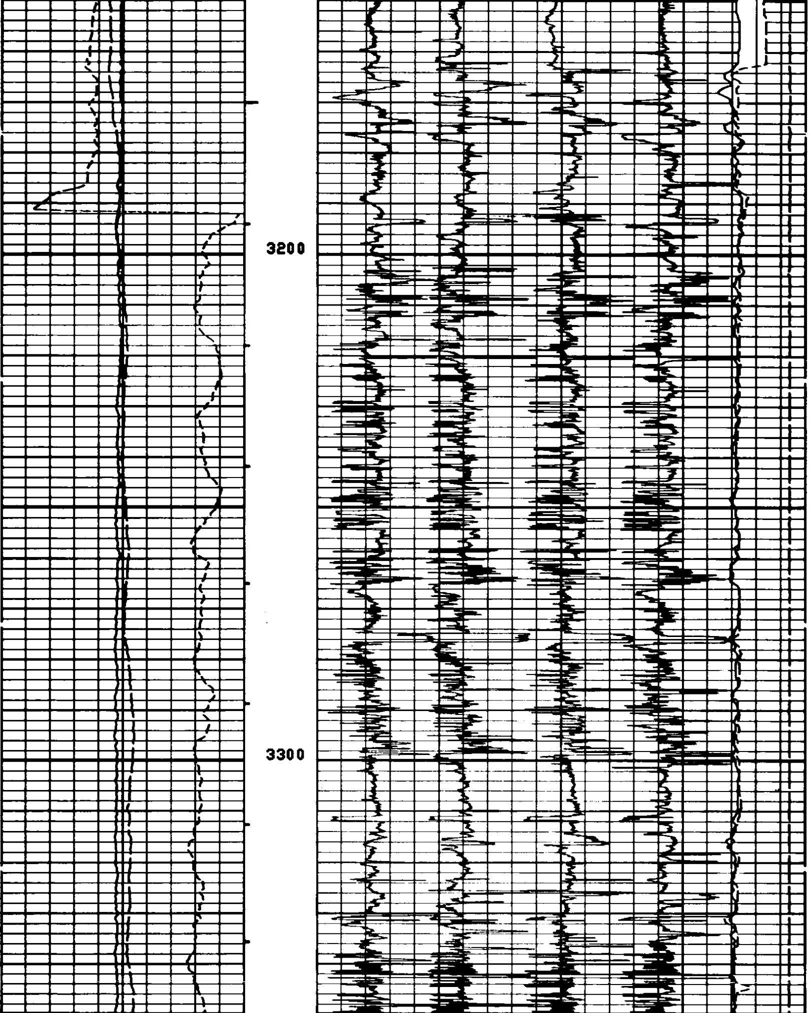


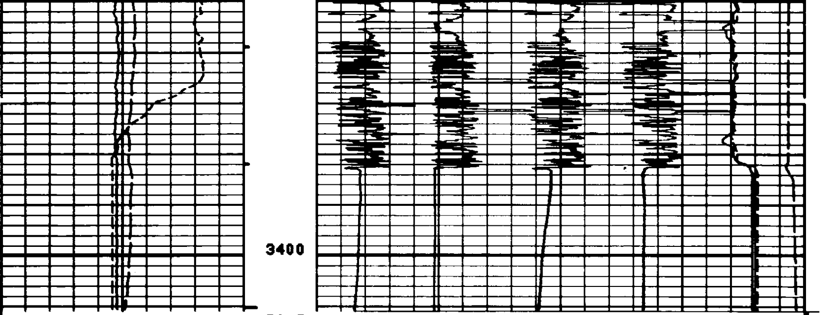












FILE

7

Note: 36' shallow

Curve	Left	Right
DEVI(DEG)	-1.000	9.0000
RB (DEG)	-40.00	360.00
AZIM(DEG)	-40.00	360.00
TENS(LB)	20000.	0.0
C2 (IN)	26.000	6.0000
C1 (IN)	26.000	6.0000

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

RB	.0	FEET	AZIM	.0	FEET
FEP1	.0	FEET	DEVI	.0	FEET
REFE	.0	FEET	FEP2	.0	FEET
EMEX	.0	FEET	RC	.0	FEET
C2	.0	FEET	C1	.0	FEET
RC2	.0	FEET	RC1	.0	FEET
TEMP	.0	FEET	PP	.0	FEET
FC0	.0	FEET	TENS	.0	FEET
FC2	.0	FEET	FC1	.0	FEET
FC4	.0	FEET	FC3	.0	FEET
SHDT	.0	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
PVUM	1.00000		BS	8.75000	IN
STYP	HDSD		MCT	72	DEG
DO	0.0	F	BHS	OPEN	

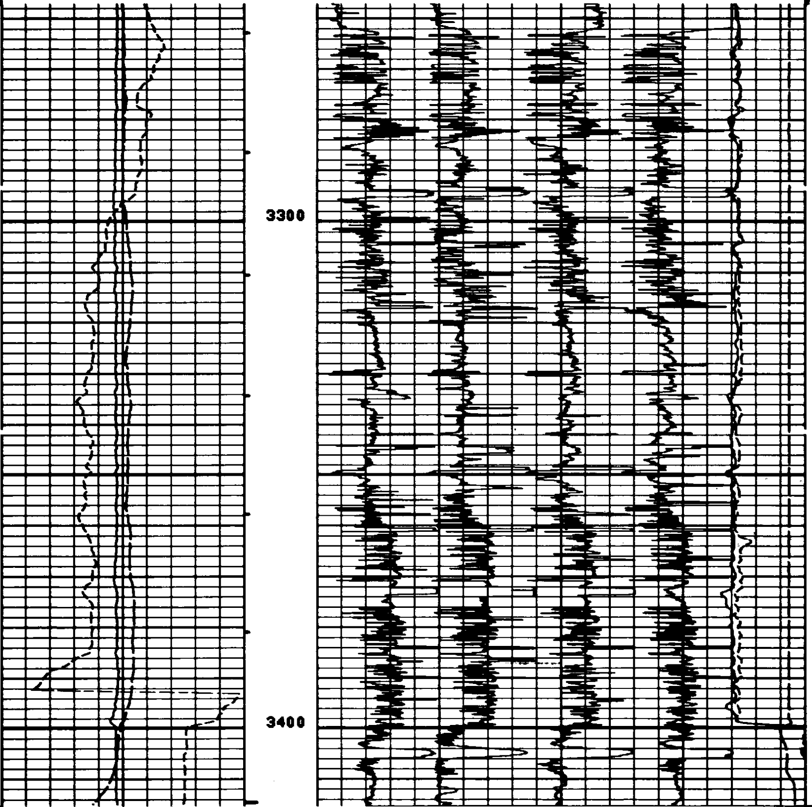
CHANGED PARAMETERS

NAME	VALUE	UNIT	DEPTH (F)	NAME	VALUE	UNIT	DEPTH (F)

DEVI(DEG)		TENS(LB)	
-1.000	9.0000	20000.	0.0
RB (DEG)		C2 (IN)	
-40.00	360.00	26.000	6.0000
AZIM(DEG)		C1 (IN)	
-40.00	360.00	26.000	6.0000

FILE

6



FILE

6

NOTE: 18 ft shallow

DEVI(DEG)
-1.000 9.0000
RB (DEG)
-40.00 360.00
AZIM(DEG)
-40.00 360.00

TENS(LB)
20000. 0.0
C2 (IN)
26.000 6.0000
C1 (IN)
26.000 6.0000

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

RB	.0	FEET	AZIM	.0	FEET
FEP1	.0	FEET	DEVI	.0	FEET
REFE	.0	FEET	FEP2	.0	FEET
EMEX	.0	FEET	RC	.0	FEET
C2	.0	FEET	C1	.0	FEET
RC2	.0	FEET	RC1	.0	FEET
TEMP	.0	FEET	PP	.0	FEET
FC0	.0	FEET	TENS	.0	FEET
FC2	.0	FEET	FC1	.0	FEET
FC4	.0	FEET	FC3	.0	FEET
SHDT	.0	FEET			

PARAMETERS

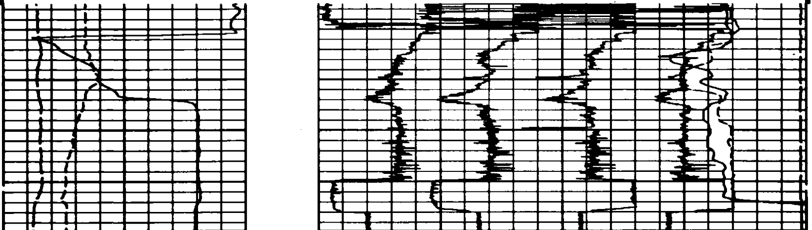
NAME	VALUE	UNIT	NAME	VALUE	UNIT
PVUM	1.00000		BS	8.75000	IN
STYP	HDSD		MCT	72	DEG
DO	0.0	F	BHS	OPEN	

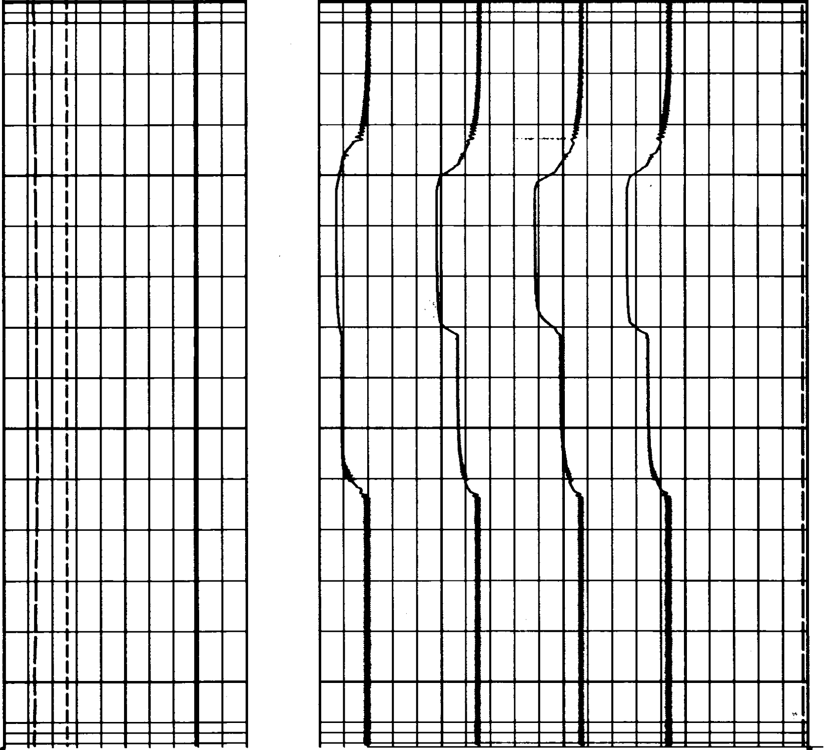
DEVI(DEG)
-1.000 9.0000
RB (DEG)
-40.00 360.00
AZIM(DEG)
-40.00 360.00

TENS(LB)
20000. 0.0
C2 (IN)
26.000 6.0000
C1 (IN)
26.000 6.0000

FILE

5





FILE

5

DEVI(DEG)	-1.000	9.0000
RB (DEG)	-40.00	360.00
AZIM(DEG)	-40.00	360.00
TENS(LB)	20000.	0.0
C2 (IN)	26.000	6.0000
C1 (IN)	26.000	6.0000

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

RB	.0	FEET	AZIM	.0	FEET
FEP1	.0	FEET	DEVI	.0	FEET
REFE	.0	FEET	FEP2	.0	FEET
EMEX	.0	FEET	RC	.0	FEET
C2	.0	FEET	C1	.0	FEET
RC2	.0	FEET	RC1	.0	FEET
TEMP	.0	FEET	PP	.0	FEET
FC0	.0	FEET	TENS	.0	FEET
FC2	.0	FEET	FC1	.0	FEET
FC4	.0	FEET	FC3	.0	FEET
SHDT	.0	FEET			

PARAMETERS

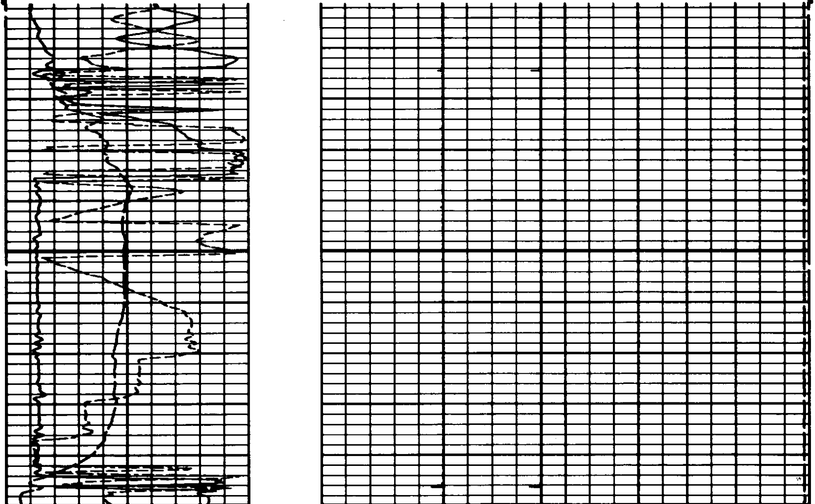
NAME	VALUE	UNIT	NAME	VALUE	UNIT
PVUM	1.00000		BS	8.75000	IN
STYP	HDSB		MCT	72	DEG
DO	0.0	F	BHS	OPEN	

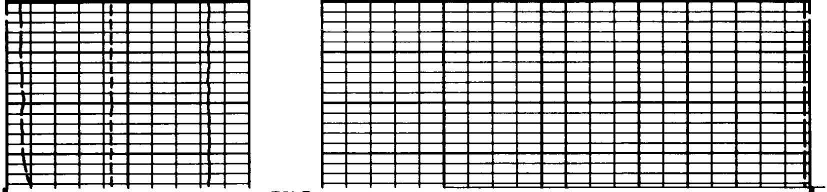
DEVI(DEG)
-1.000 9.0000
RB (DEG)
-40.00 360.00
AZIM(DEG)
-40.00 360.00

TENS(LB)
20000. 0.0
C2 (IN)
26.000 6.0000
C1 (IN)
26.000 6.0000

FILE

4





```
                              FILE

                                4

      DEVI(DEG )                                              TENS(LB  )
-1.000          9.0000                               20000.                 0.0
      RB  (DEG )                                 C2  (IN  )
-40.00          360.00        26.000                                     6.0000
      AZIM(DEG )                                 C1  (IN  )
-40.00          360.00        26.000                                     6.0000
```

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

```
RB      .0   FEET                         AZIM    .0   FEET
FEP1    .0   FEET                         DEVI    .0   FEET
REFE    .0   FEET                         FEP2    .0   FEET
EMEX    .0   FEET                         RC      .0   FEET
C2      .0   FEET                         C1      .0   FEET
RC2     .0   FEET                         RC1     .0   FEET
TEMP    .0   FEET                         PP      .0   FEET
FC0     .0   FEET                         TENS    .0   FEET
FC2     .0   FEET                         FC1     .0   FEET
FC4     .0   FEET                         FC3     .0   FEET
SHDT    .0   FEET
```

PARAMETERS

```
NAME  VALUE     UNIT                      NAME  VALUE      UNIT

PVUM 1.00000                              BS    8.75000    IN
STYP HDSD                                 MCT   72         DEG
DO   0.0        F                         BHS   OPEN
```

BEFORE SURVEY CALIBRATION SUMMARY

```
PERFORMED:       85/07/07
PROGRAM FILE: HDT    (VERSION    24.2    83/03/29)


HDTB              CALIPER CALIBRATION SUMMARY

              MEASURED                        CALIBRATED
            SMALL    LARGE                 SMALL      LARGE         UNITS
      C1     9.4     13.9                   8.0       12.0           IN
      C2     9.4     13.8                   8.0       12.0           IN
                              FILE

                                0
```