CC 32-32-65

Schlumberger

DUAL INDUCTION - SFL

CSU

COMPANY: ARCO EXPLORATION AND TECHNOLOGY COMPANY

WELL: COLUMBIA COUNTY #32-32

RECEIVED-PTLD
DEC 9 - 1985
DEPT. OF GEOLOGY & MINERAL INDUS.

FIELD: WILDCAT
COUNTY: COLUMBIA
STATE: OREGON
NATION: USA
LOCATION: 1237'W & 1840'S OF THE
NE CORNER OF
SEC: 32 TWP: 6N RGE: 5W

OTHER SERVICES-
FDC-CNL-GR
BHC-WF
VSP-WSR
HDT
SWS

PERMANENT DATUM: GL
ELEV. OF PERM. DATUM: 828.0 F
LOG MEASURED FROM: KB
14.5 F ABOVE PERM. DATUM
DRLG. MEASURED FROM: KB

ELEVATIONS-
KB: 842.5 F
DF:
GL: 828.0 F

PROGRAM
TAPE NO:
28.2A
SERVICE
ORDER NO:
418267

DATE: 7 NOV 85
RUN NO: ONE

DEPTH-DRILLER: 2711.0 F
DEPTH-LOGGER: 2710.0 F
BTM. LOG INTERVAL: 2698.0 F
TOP LOG INTERVAL: 418.0 F

CASING-DRILLER: 419.0 F
CASING-LOGGER: 418.0 F
CASING: 9.625
WEIGHT:
BIT SIZE: 8.5
DEPTH: 2711.0 F

TYPE FLUID IN HOLE: LIGNOSULFONATE
DENSITY: 9.90 LB/G
VISCOSITY: 41.0 S
PH: 8.5
FLUID LOSS: 5.0 C3
SOURCE OF SAMPLE: FLOWLINE
RM: 3.590 OHMM AT 56.0 DEGF
RMF: 2.930 OHMM AT 64.0 DEGF
RMC: 3.970 OHMM AT 64.0 DEGF
SOURCE RMF/RMC: MEASURED/MEASURED
RM AT BHT: 1.767 OHMM AT 121. DEGF
RMF AT BHT: 1.625 OHMM AT 121. DEGF
RMC AT BHT: 2.202 OHMM AT 121. DEGF

TIME CIRC. STOPPED: 0000 11-7
TIME LOGGER ON BTM.: 0645 11-7

MAX. REC. TEMP: 121.0 DEGF

LOGGING UNIT NO: 8128
LOGGING UNIT LOC: SACRAMENTO
RECORDED BY: REINIG
WITNESSED BY: JACKSON

REMARKS:

RUN IN COMBINATION WITH SONIC
LOG NOT STARTED AT BOTTOM DUE TO STICKY HOLE CONDITIONS
RECORD OF LOGGERS TD ON FILE 2
REPEAT SECTION MADE OVER ZONE OF INTEREST
SP AND DT CURVES OFF DEPTH FOR WAVEFORM PASS

EQUIPMENT NUMBERS-

DIS-EA 217	DIC-DA 211	MCD-DA 280	SLS-RC 525
SLC-FA 1589	SLM-DA 383	IEM-BC 1070	

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.

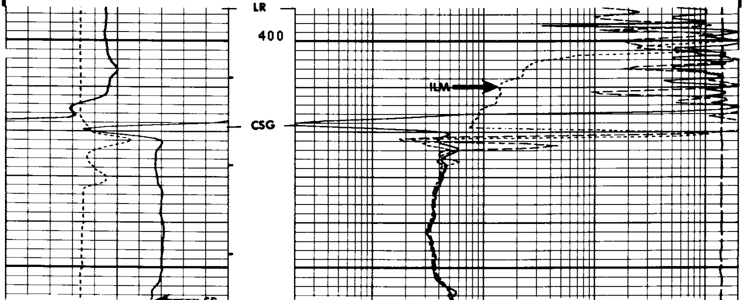
CP 28.2A FILE 102 07-NOV-85 09:30
DATA ACQUIRED 07-NOV-85 07:47

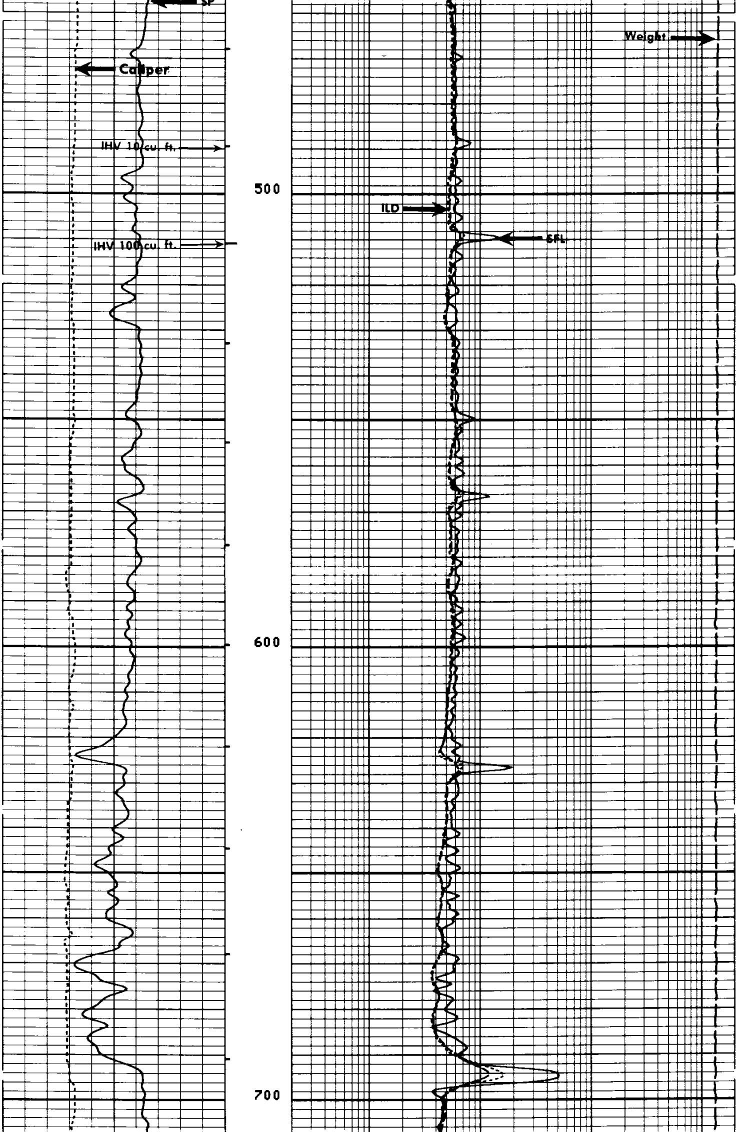
EVENT MARK SUMMARY:

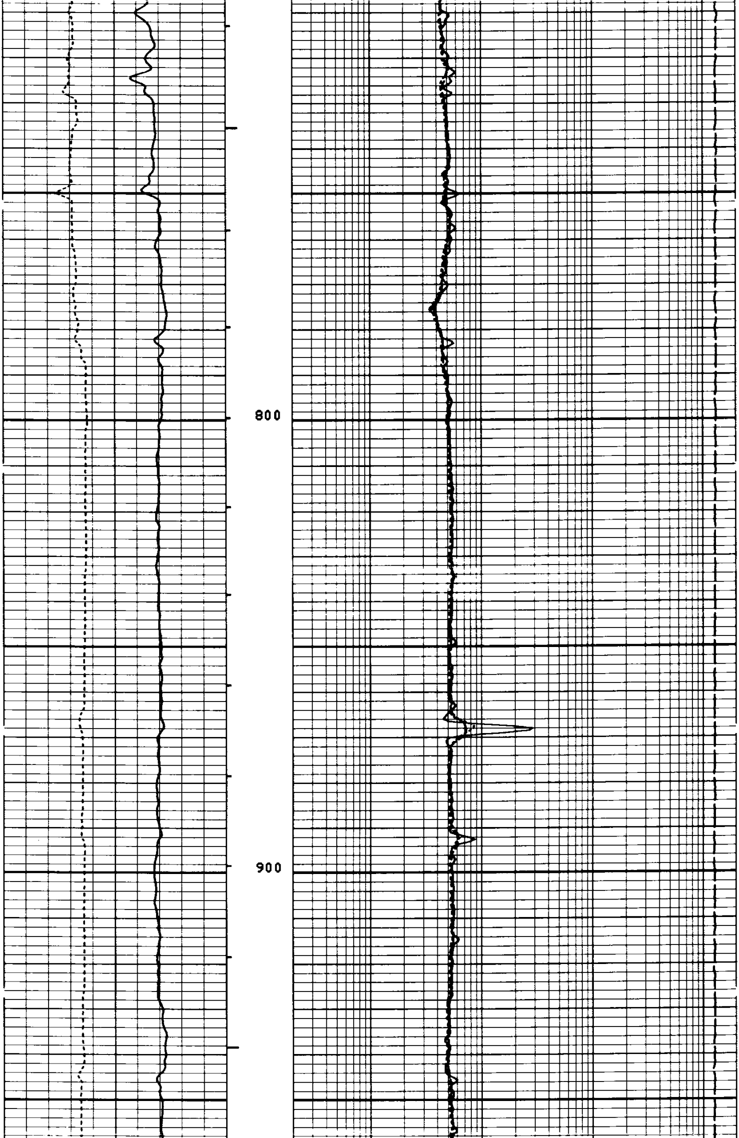
OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
IHV	10.0000 F3	LEFT EDGE

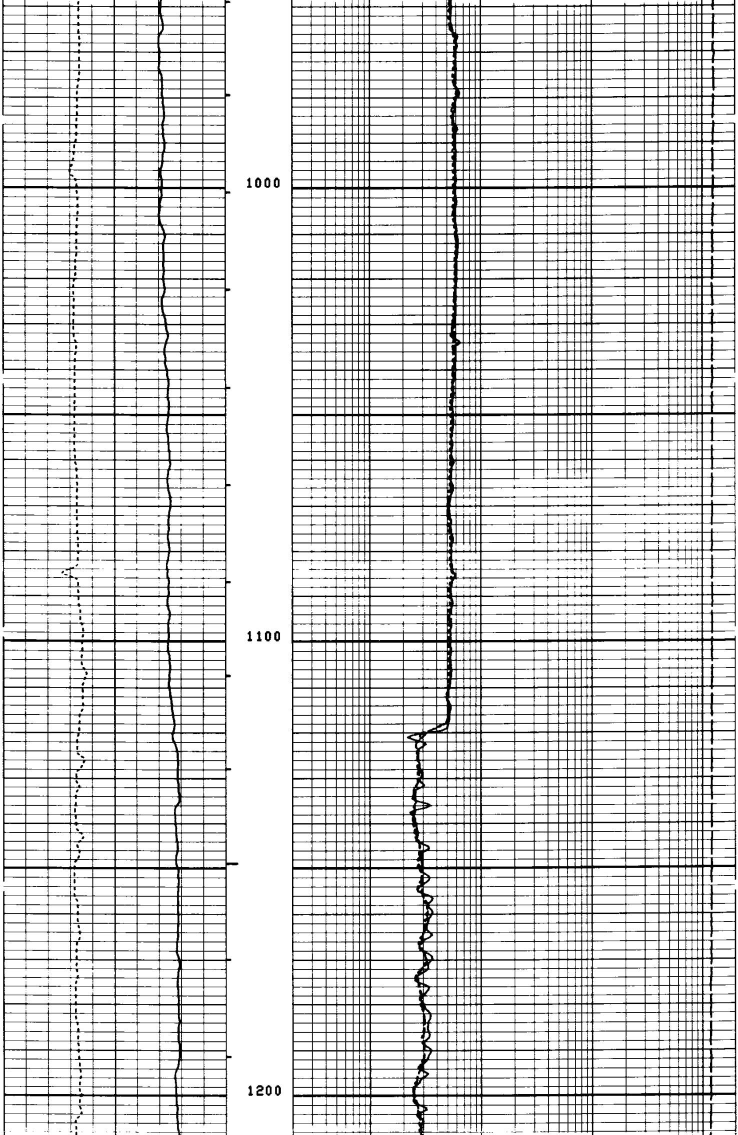
TENS(LB) 10000. 0.0
ILD (OHMM) .20000 2000.0
CALI(IN) 6.0000 16.000
ILM (OHMM) .20000 2000.0
SP (MV) -120.0 -20.00
SFLU(OHMM) .20000 2000.0

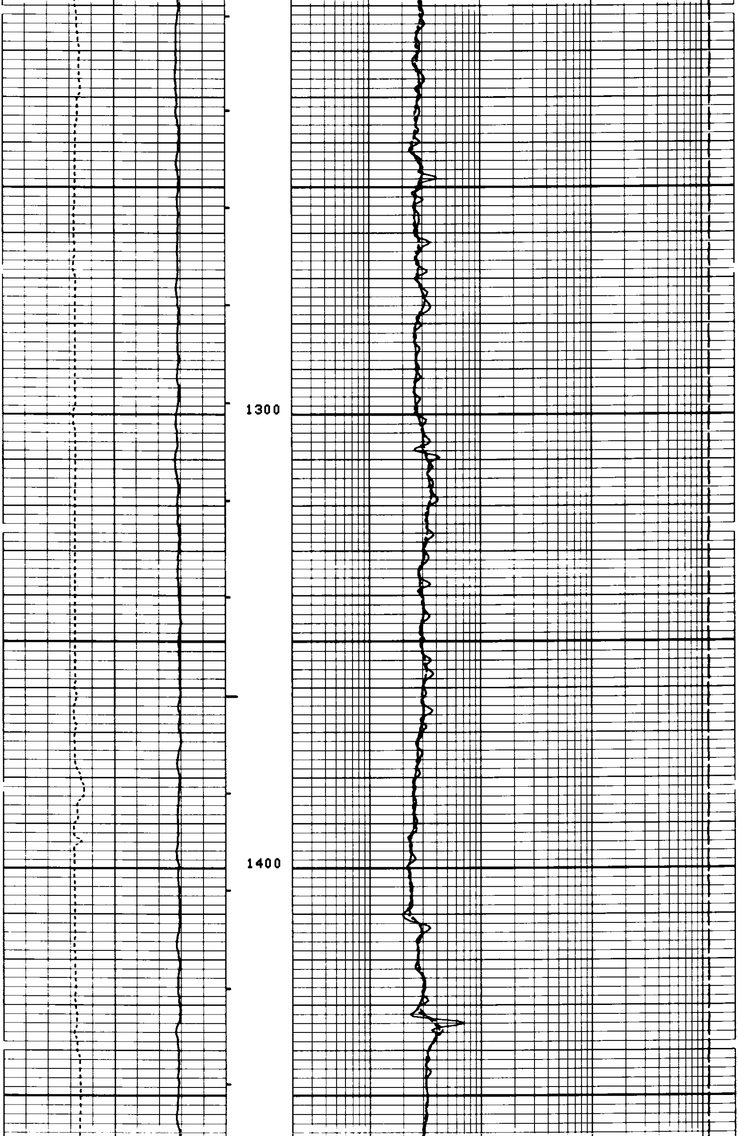
CP 28.2A FILE 101 07-NOV-85 08:49
DATA ACQUIRED 07-NOV-85 07:47

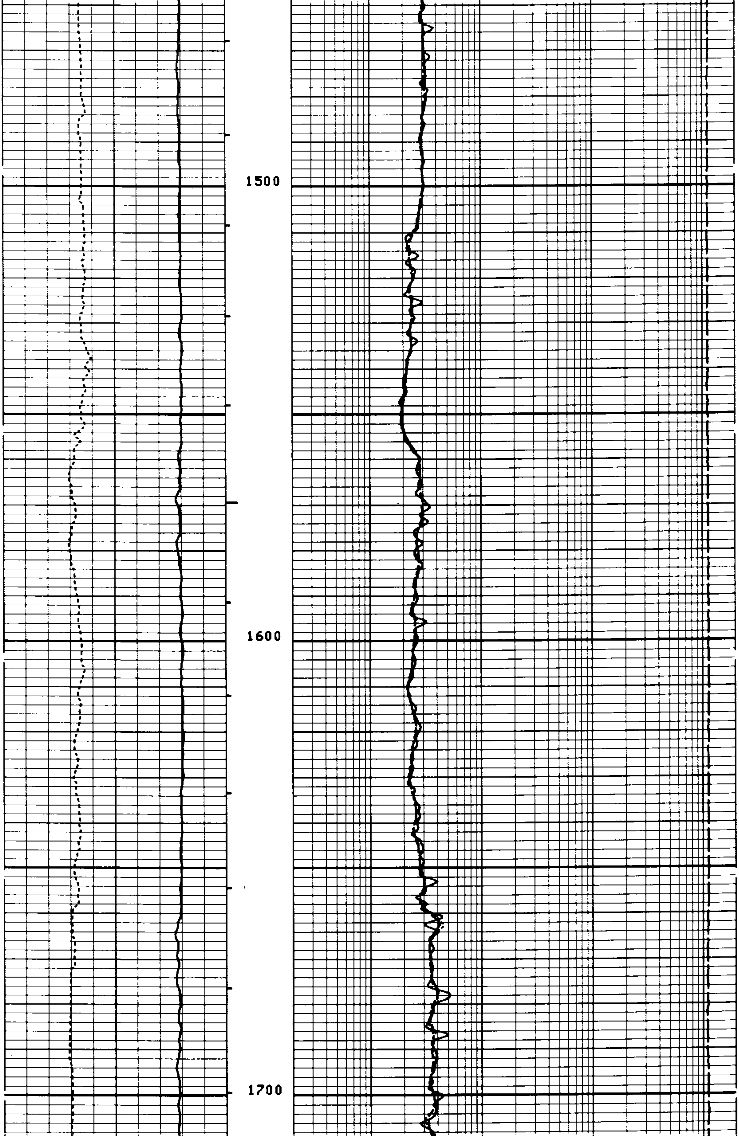


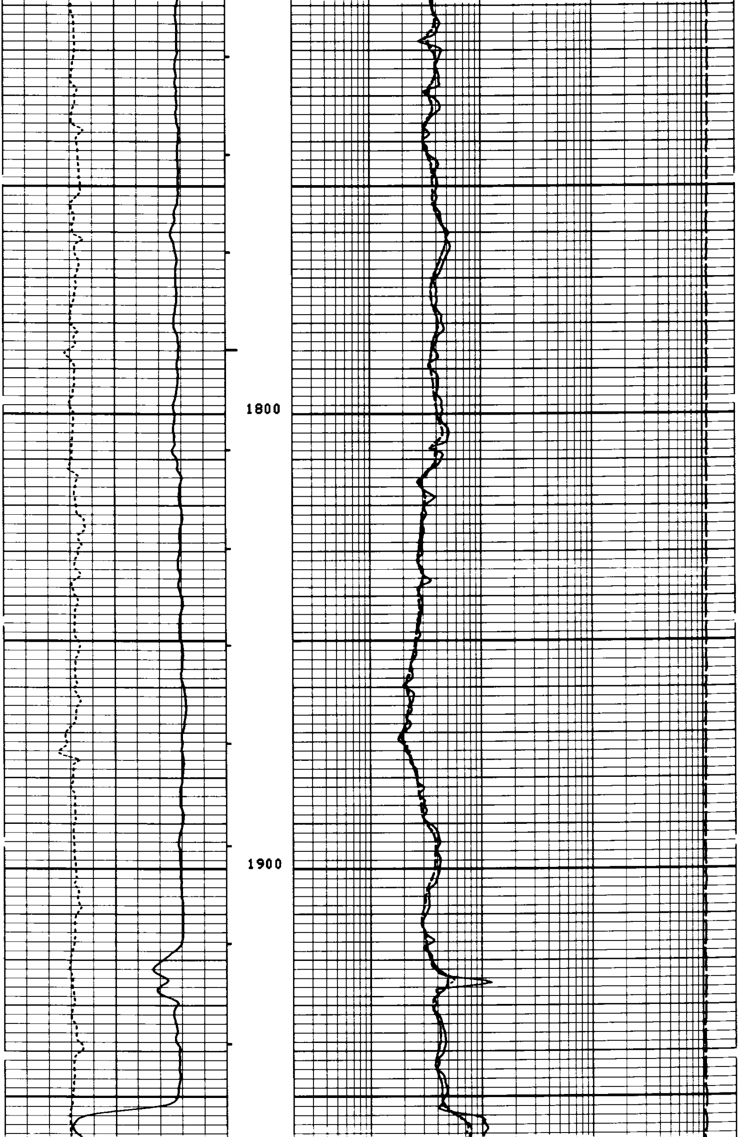


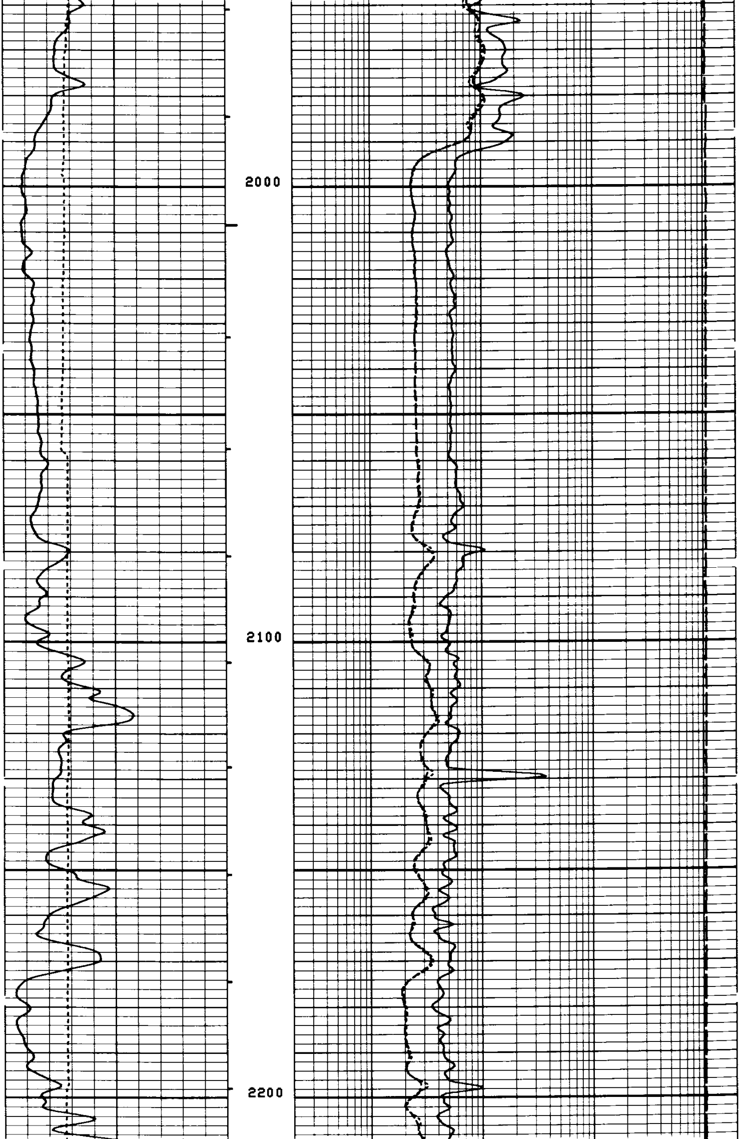


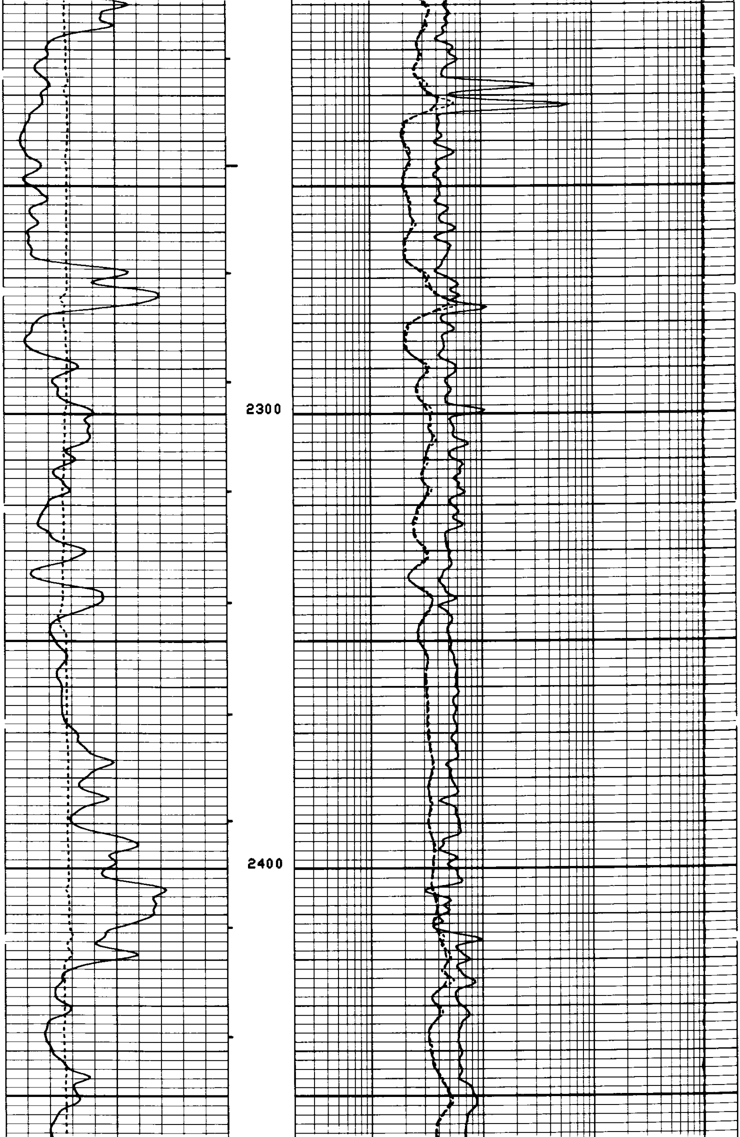


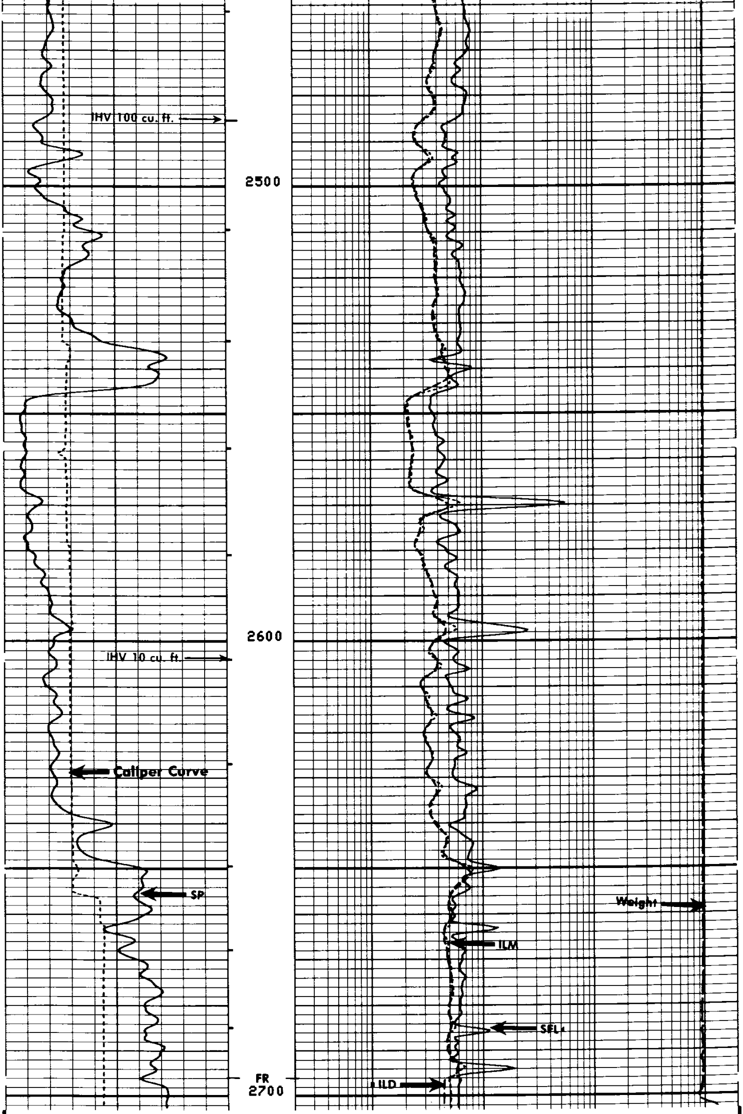












```
CP 28.2A           FILE  101       07-NOV-85 08:43
                   DATA ACQUIRED   07-NOV-85 07:01
```

```
                                                          TENS(LB  )
                                                     10000.              0.0
                                          ILD (OHMM)
                             .20000                                   2000.0
       CALI(IN  )                         ILM (OHMM)
6.0000            16.000     .20000                                   2000.0
       SP  (MV  )                         SFLU(OHMM)
-120.0            -20.00     .20000                                   2000.0
```

SENSOR MEASURE POINT TO TOOL ZERO

```
SRAT 41.4  FEET          AMPL 43.9  FEET
TT1  42.9  FEET          CBL  43.9  FEET
TT3  40.2  FEET          TT2  43.9  FEET
T0   43.9  FEET          TT4  39.2  FEET
SLTT 43.9  FEET          TT   43.9  FEET
CALI 31.8  FEET          SCBL 43.9  FEET
ILM   5.8  FEET          ILD   9.4  FEET
SP    2.5  FEET          SFL   6.4  FEET
TENS  2.5  FEET          SPAR  2.5  FEET
NOIS  2.5  FEET
```

PARAMETERS

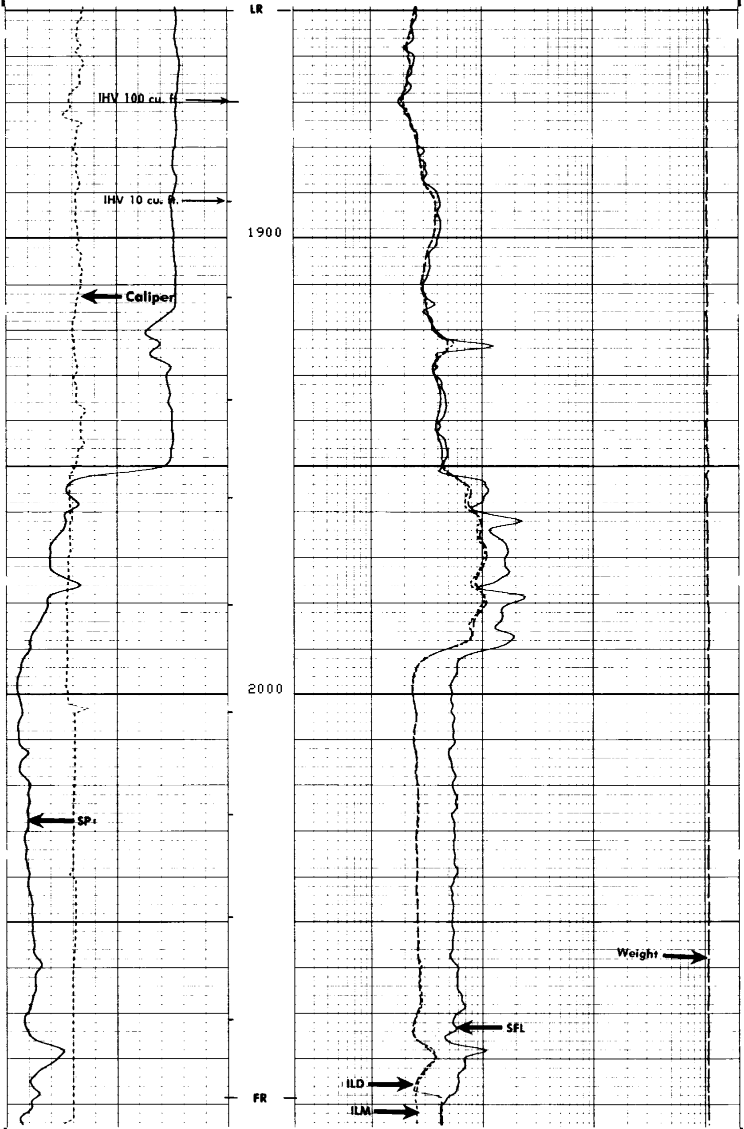
```
NAME  VALUE       UNIT          NAME  VALUE       UNIT

CDTS 100.000                    SPFS R-H
DTF  189.000      US/F          DTM  56.0000      US/F
DSIN 5            US            DDEL 200          US
DSEC 5.40000      MMHO          DWCO 512
MSEC 5.90000      MMHO          SBR  1.00000      OHMM
FEXP 2.15000                    FPHI SPHI
CSIZ 9.62500      IN            FNUM .620000
BS   8.50000      IN            BHS  OPEN
PP   NORM                       DO   0.0          F
```

```
EVENT MARK SUMMARY:

OUTPUT  INTERVAL        DEPTH TRACK
        BETWEEN PIPS    EDGE

IHV     10.0000 F3      LEFT EDGE
```

```
                                                          TENS(LB  )
                                                     10000.              0.0
                                          ILD (OHMM)
                             .20000                                   2000.0
       CALI(IN  )                         ILM (OHMM)
6.0000            16.000     .20000                                   2000.0
       SP  (MV  )                         SFLU(OHMM)
-100.0            0.0        .20000                                   2000.0
```

REPEAT SECTION   **REPEAT SECTION**

```
CP 28.2A          FILE     4         08-NOV-85 00:07
                  DATA ACQUIRED      07-NOV-85 08:00
```



CP 28.2A FILE 4 08-NOV-85 00:07 **REPEAT SECTION**
DATA ACQUIRED 07-NOV-85 07:55

```
                                                        TENS(LB   )
                                                   10000.             0.0
                                              ILD (OHMM)
                                 .20000                               2000.0
     CALI(IN  )                               ILM (OHMM)
6.0000          16.000           .20000                               2000.0
     SP   (MV   )                             SFLU(OHMM)
-100.0            0.0            .20000                               2000.0
```

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.9	FEET
TT1	42.9	FEET	CBL	43.9	FEET
TT3	40.2	FEET	TT2	43.9	FEET
TO	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
CALI	31.8	FEET	SCBL	43.9	FEET
ILM	5.8	FEET	ILD	9.4	FEET
SP	2.5	FEET	SFL	6.4	FEET
TENS	2.5	FEET	SPAR	2.5	FEET
NOIS	2.5	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
CDTS	100.000		SPFS	R-H	
DTF	189.000	US/F	DTM	56.0000	US/F
DSIN	5	US	DDEL	200	US
DSEC	5.40000	MMHO	DWCO	512	
MSEC	5.90000	MMHO	SBR	1.00000	OHMM
FEXP	2.15000		FPHI	SPHI	
CSIZ	9.62500	IN	FNUM	.620000	
BS	8.50000	IN	BHS	OPEN	
PP	NORM		DO	0.0	F

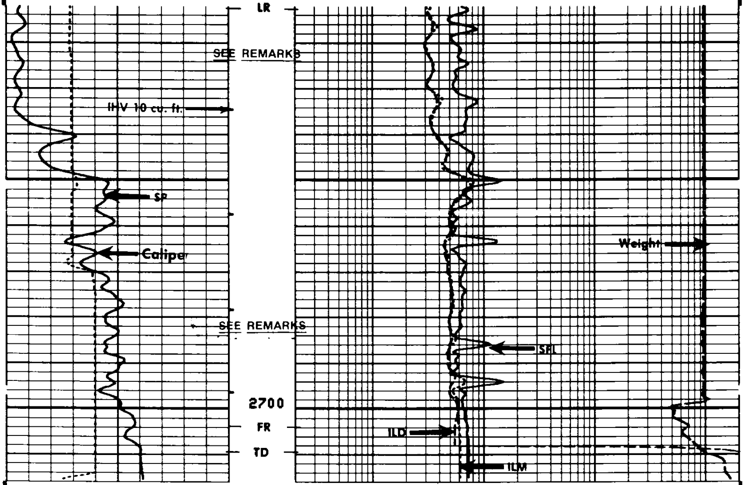
TAPE NOT MADE

EVENT MARK SUMMARY:

OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
IHV	10.0000 F3	LEFT EDGE

```
                                                        TENS(LB   )
                                                   10000.             0.0
                                              ILD (OHMM)
                                 .20000                               2000.0
     CALI(IN  )                               ILM (OHMM)
6.0000          16.000           .20000                               2000.0
     SP   (MV   )                             SFLU(OHMM)
-100.0            0.0            .20000                               2000.0
```

CP 28.2A   FILE   2   07-NOV-85 09:44
DATA ACQUIRED   07-NOV-85 07:01



CP 28.2A FILE 2 07-NOV-85 09:44
DATA ACQUIRED 07-NOV-85 06:58

TENS(LB)
10000. 0.0

ILD (OHMM)
.20000 2000.0

CALI(IN)
6.0000 16.000

ILM (OHMM)
.20000 2000.0

SP (MV)
-100.0 0.0

SFLU(OHMM)
.20000 2000.0

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.4	FEET	AMPL	43.9	FEET
TT1	42.9	FEET	CBL	43.9	FEET
TT3	40.2	FEET	TT2	43.9	FEET
T0	43.9	FEET	TT4	39.2	FEET
SLTT	43.9	FEET	TT	43.9	FEET
CALI	31.8	FEET	SCBL	43.9	FEET
ILM	5.8	FEET	ILD	9.4	FEET
SP	2.5	FEET	SFL	6.4	FEET
TENS	2.5	FEET	SPAR	2.5	FEET
NOIS	2.5	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
CDTS	100.000		SPFS	R-H	
DTF	189.000	US/F	DTM	56.0000	US/F
DSIN	5	US	DDEL	200	US
DSEC	5.40000	MMHO	DWCO	512	
MSEC	5.90000	MMHO	SBR	1.00000	OHMM
FEXP	2.15000		FPHI	SPHI	
CSIZ	9.62500	IN	FNUM	.620000	
BS	8.50000	IN	BHS	OPEN	
PP	NORM		DO	0.0	F

TAPE NOT MADE

```
                BEFORE SURVEY CALIBRATION SUMMARY


   PERFORMED:    07-NOV-85 06:38
   PROGRAM FILE: MISN   (VERSION    28.2A   85/10/26)


  DITD                ELECTRONICS CALIBRATION SUMMARY

                 MEASURED                        CALIBRATED
               ZERO    PLUS                    ZERO       PLUS          UNITS
     ILD       4.22    524.1                   0.0        502.7          MMHO
     ILM       3.20    483.8                   0.0        499.7          MMHO
     SFL       1.44    516.0                   0.0        500.0          MMHO

  ILD SONDE ERROR CORRECTION :          5.4 MMHO
  ILM SONDE ERROR CORRECTION :          5.9 MMHO


  MCDB                CALIPER CALIBRATION SUMMARY

                 MEASURED                        CALIBRATED
               SMALL   LARGE                   SMALL      LARGE         UNITS
    CALI       8.16    12.7                    8.00       12.0           IN

     CP 28.2A           FILE    1       07-NOV-85 06:38
```

```
                AFTER SURVEY TOOL CHECK SUMMARY


   PERFORMED:    07-NOV-85 08:04
   PROGRAM FILE: MISN   (VERSION    28.2A   85/10/26)


  DITD                      TOOL  CHECK

                     ZERO                         PLUS
              BEFORE          AFTER         BEFORE      AFTER     UNITS
    ILD        0.0              .0          502.7       499.6     MMHO
    ILM        0.0             0.0          499.7       496.8     MMHO
    SFL        0.0             -.3          500.0       495.6     MMHO

  ILD SONDE ERROR CORRECTION :          5.4 MMHO
  ILM SONDE ERROR CORRECTION :          5.9 MMHO

     CP 28.2A           FILE    6       07-NOV-85 08:03
```

```
                SHOP SUMMARY


   PERFORMED:    01-NOV-85 10:31
   PROGRAM FILE: SHOP   (VERSION    28.2A   85/07/10)


  DITD                ELECTRONICS CALIBRATION SUMMARY

                TEST LOOP CALIBRATION                   TOOL CHECK
             MEASURED             CALIBRATED            CALIBRATED
           ZERO      PLUS       ZERO       PLUS       ZERO        PLUS     UNITS
    ILD     -.3      514.1       0.0       500.0       0.0        502.5    MMHO
    ILM    -2.4      477.1       0.0       500.0       0.0        499.5    MMHO
  ILD  SONDE ERROR CORRECTION :             5.4 MMHO
  ILM  SONDE ERROR CORRECTION :             5.9 MMHO

                         (IS:211 , IC:217 )
```