CC 32-32-65

Schlumberger

BHC-SONIC

CSU

COMPANY: ARCO EXPLORATION AND TECHNOLOGY COMPANY

WELL: COLUMBIA COUNTY #32-32

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

RECEIVED-PTLD
DEC 9 - 1985
DEPT. OF GE[illegible]

OTHER SERVICES-
DIL
FDC-CNL-GR
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: 2663.0 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 DIL
LOG NOT STARTED AT BOTTOM DUE TO STICKY HOLE CONDITIONS
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 09:35
DATA ACQUIRED 07-NOV-85 07:47

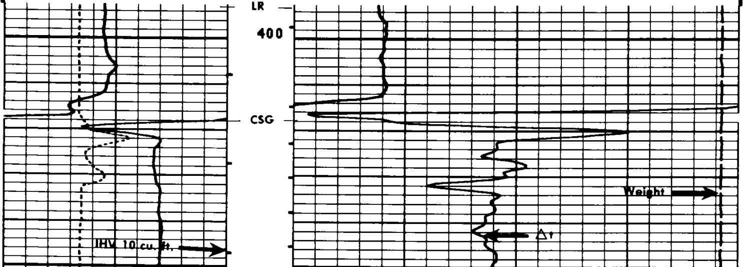
EVENT MARK SUMMARY:

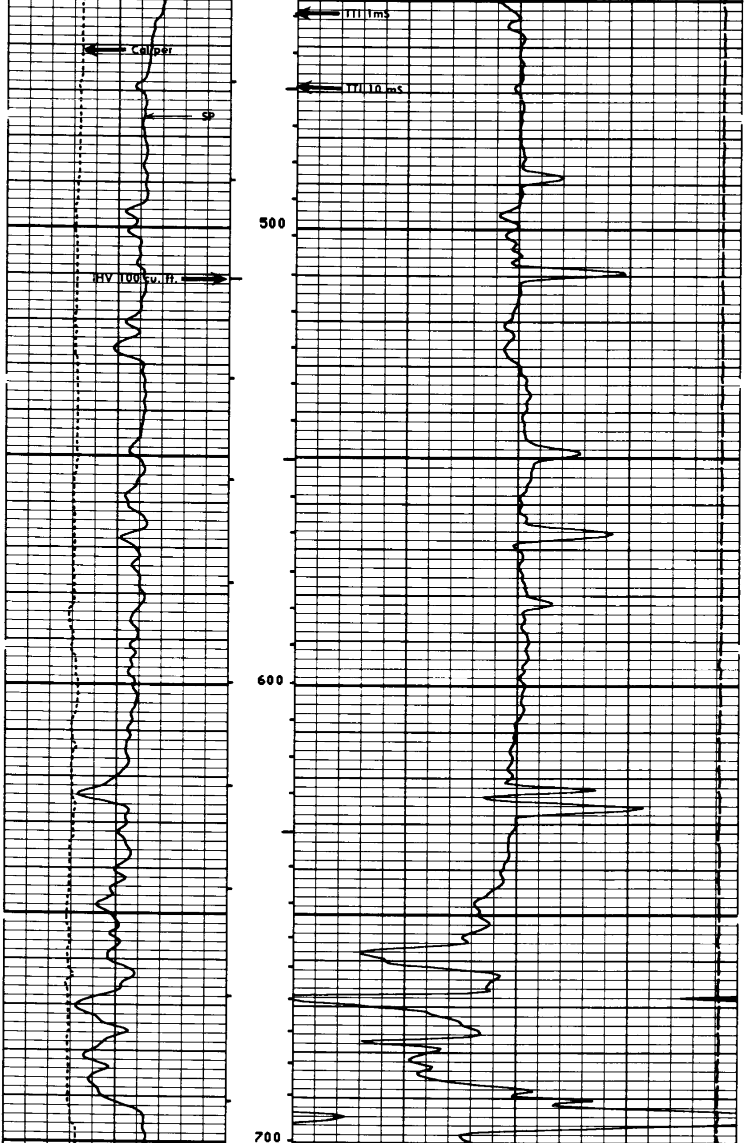
OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
IHV	10.0000 F3	LEFT EDGE
ITT	.00100000 S	RIGHT EDGE

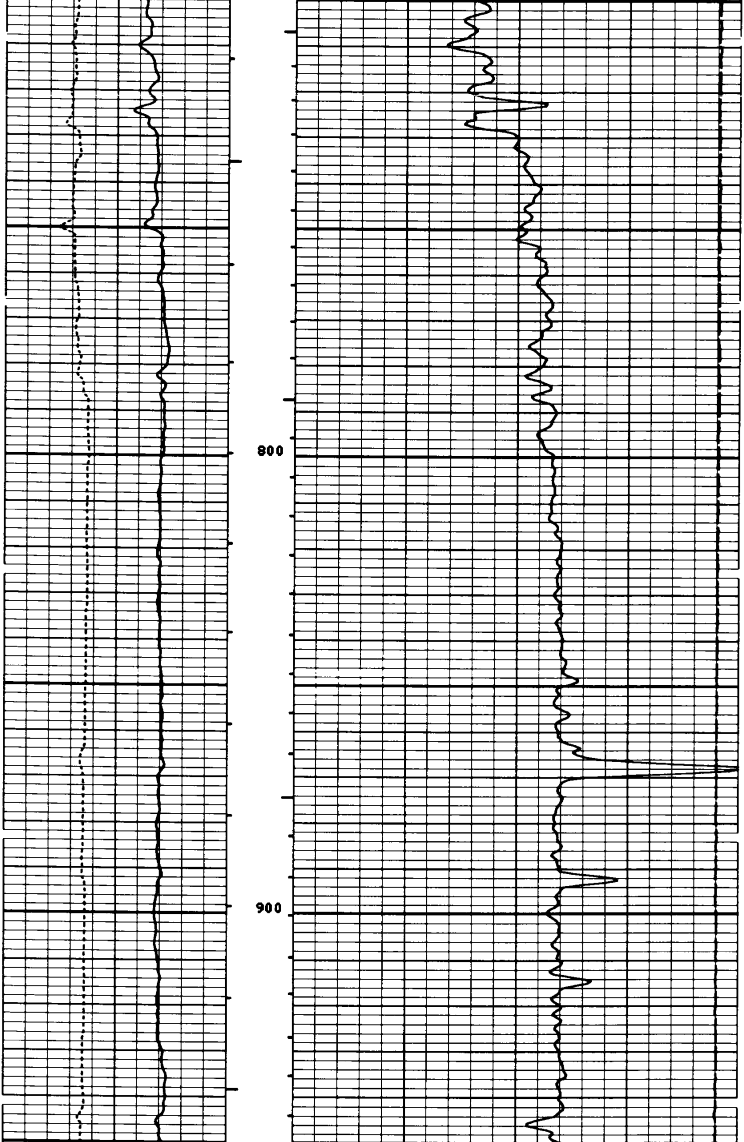
CALI(IN)
6.0000 16.000
SP (MV)
-120.0 -20.00

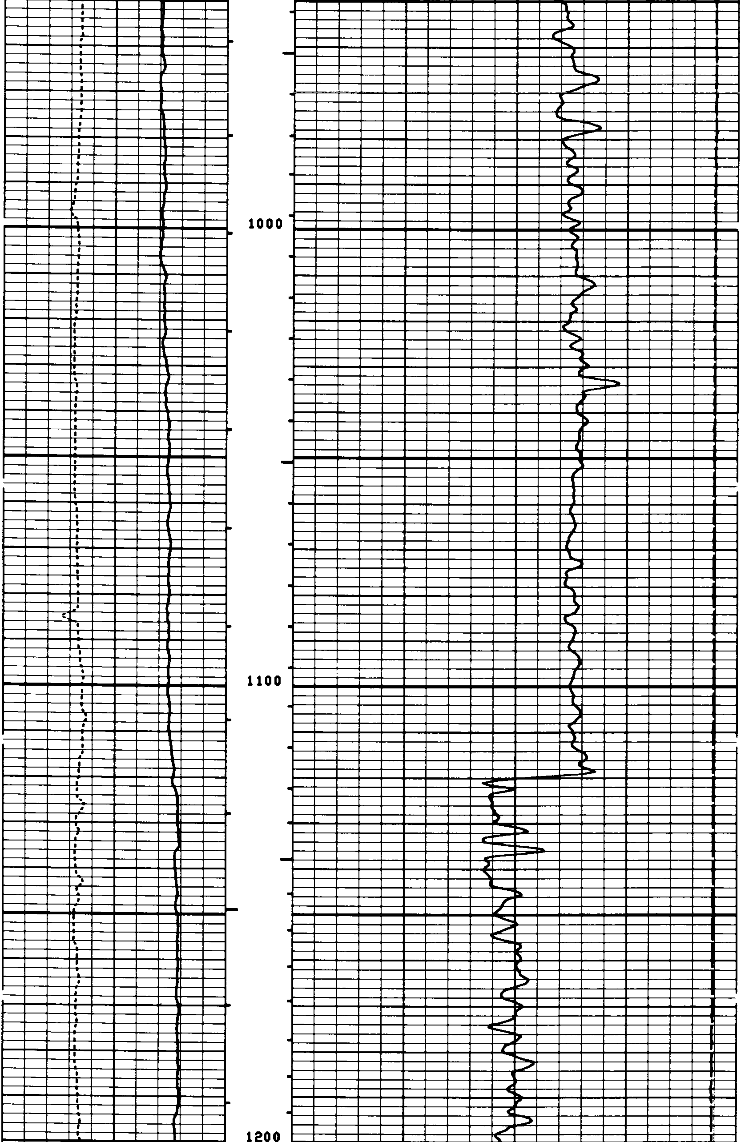
TENS(LB)
10000. 0.0
DT (US/F)
175.00 75.000

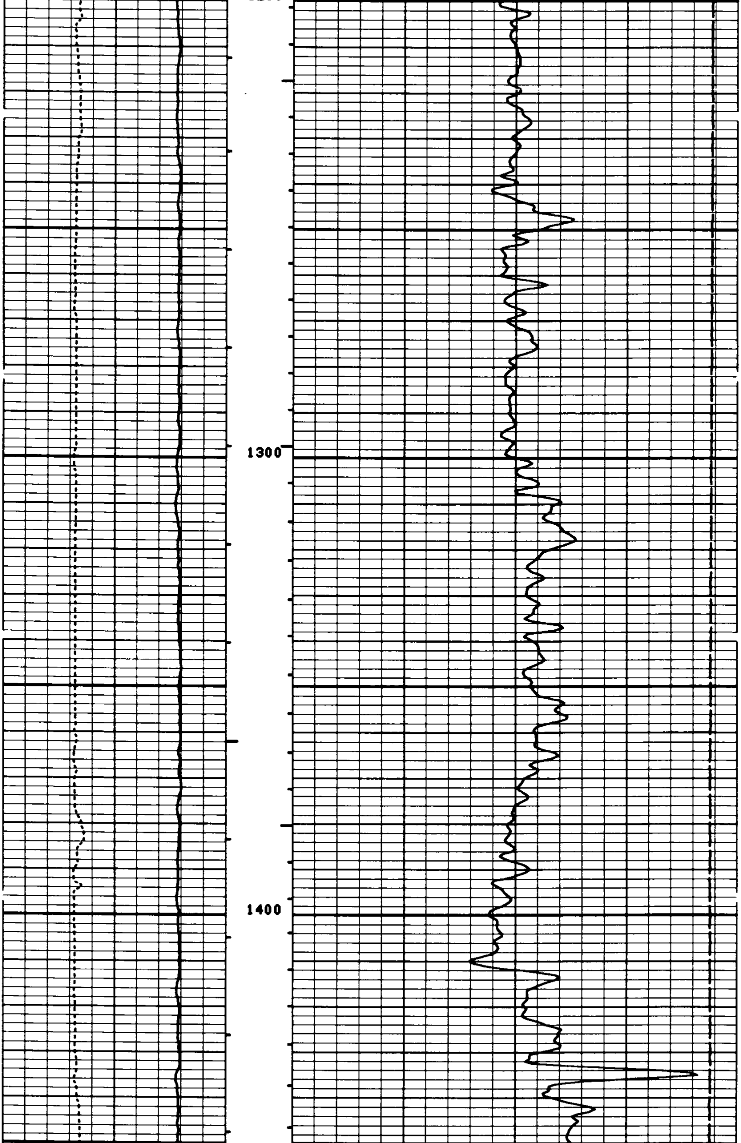
CP 28.2A FILE 101 07-NOV-85 09:23
DATA ACQUIRED 07-NOV-85 07:47

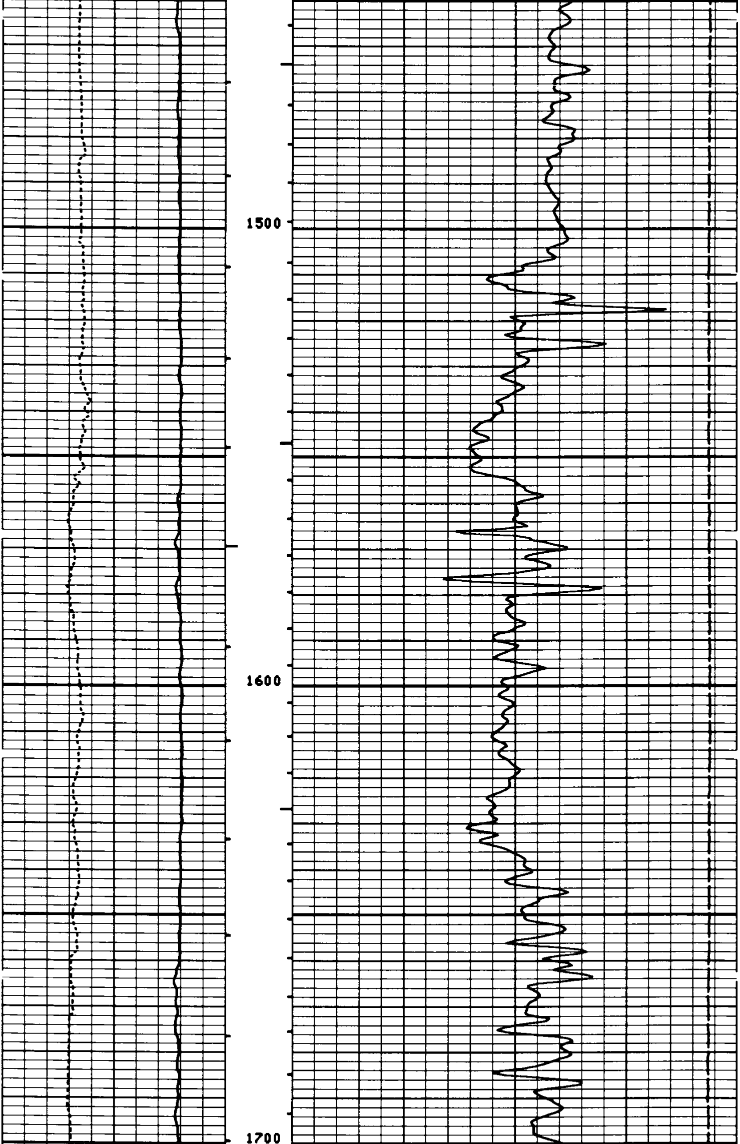


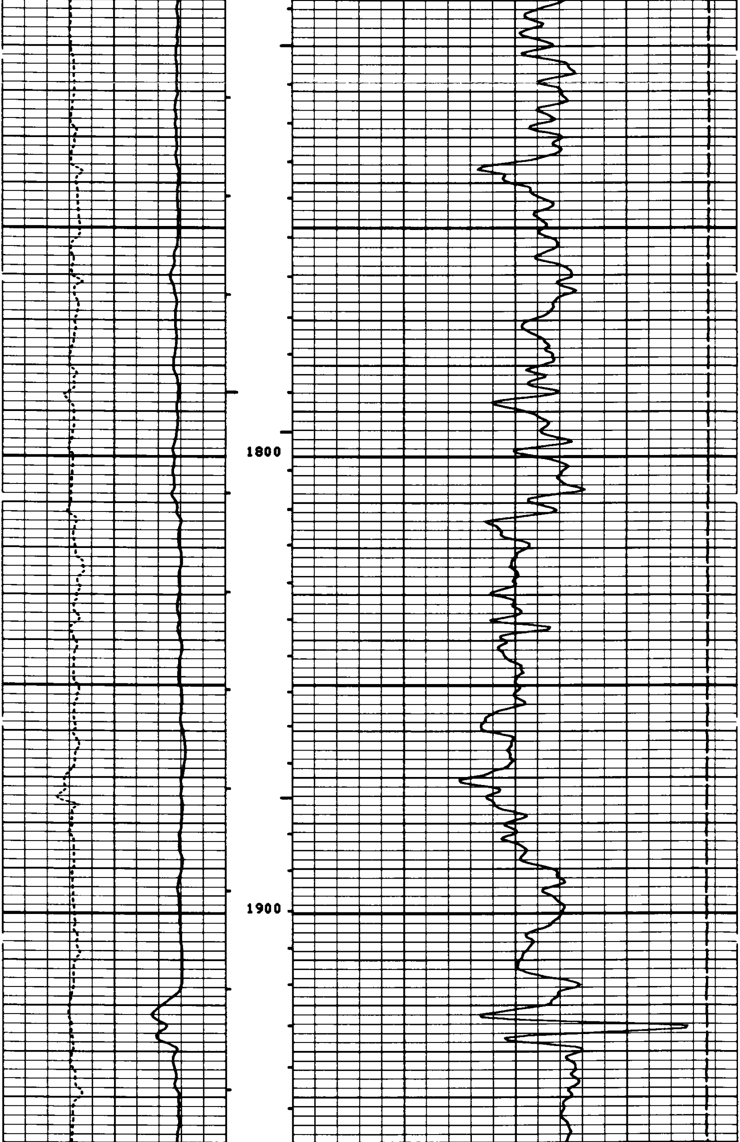


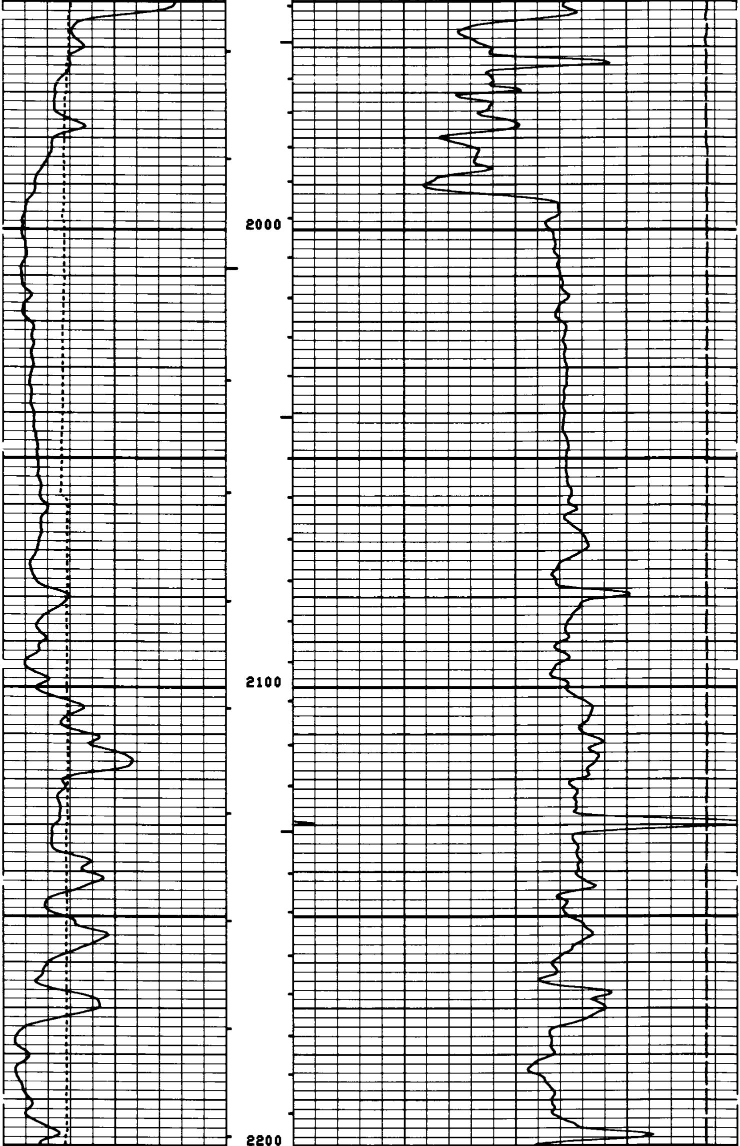


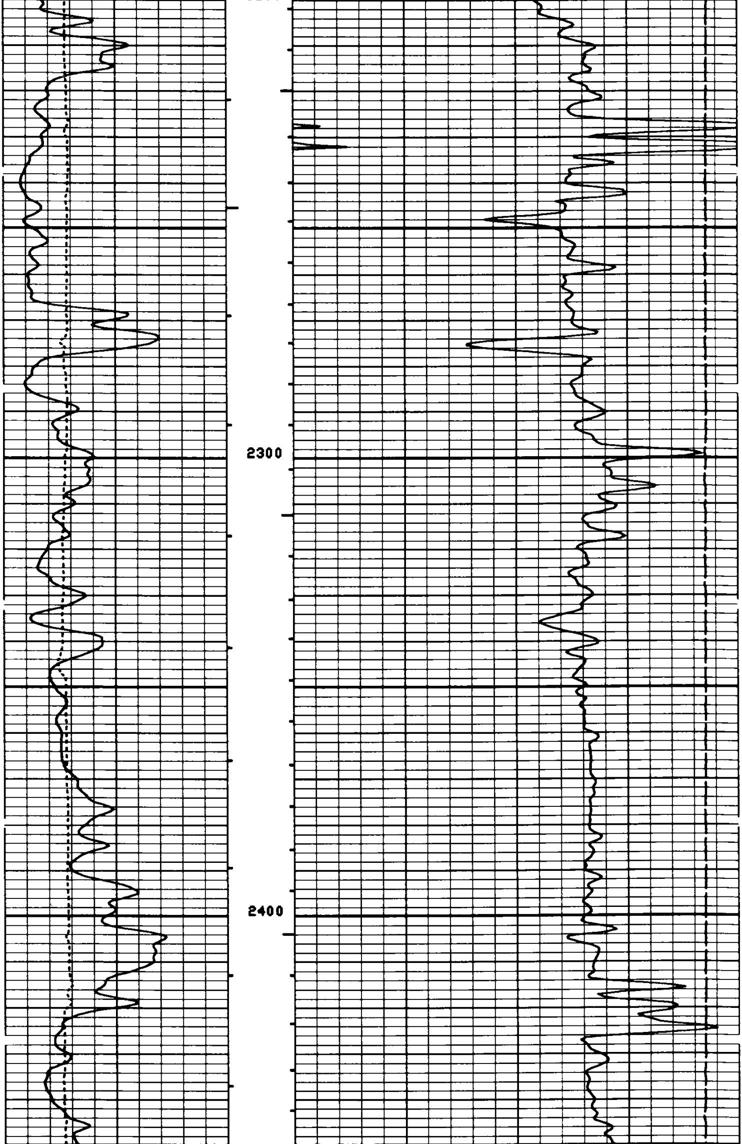


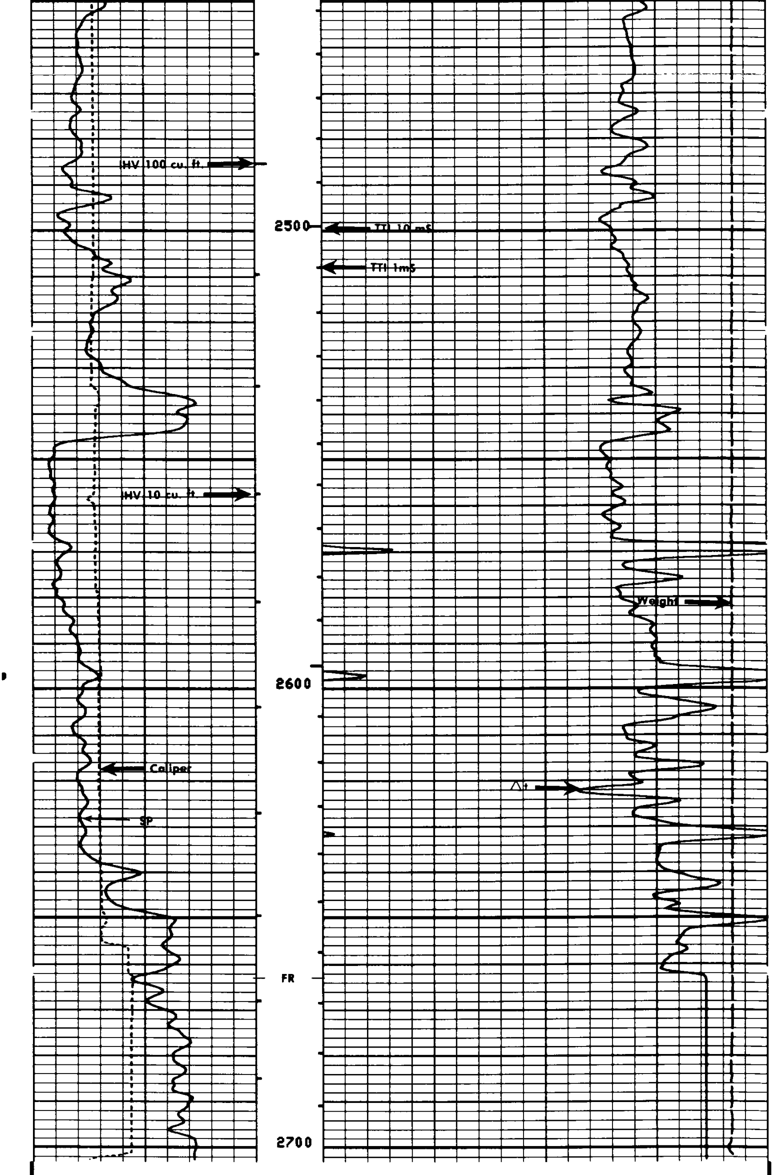












```
     CP 28.2A              FILE  101        07-NOV-85 09:18
                           DATA ACQUIRED    07-NOV-85 07:01
```

```
          CALI(IN  )                                                              TENS(LB   )
 6.0000                 16.000                                         10000.                    0.0
          SP   (MV   )                                                  DT   (US/F)
 -120.0                -20.00              175.00                                             75.000
```

```
                          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
```

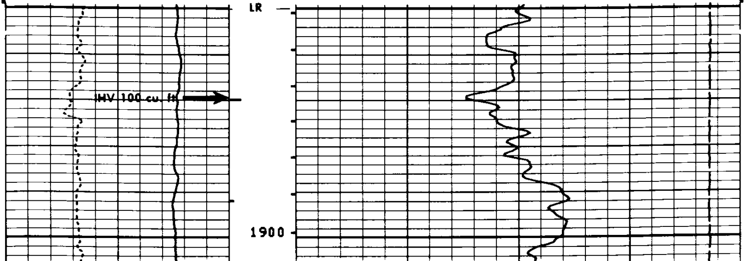
```
                                    PARAMETERS

          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
```

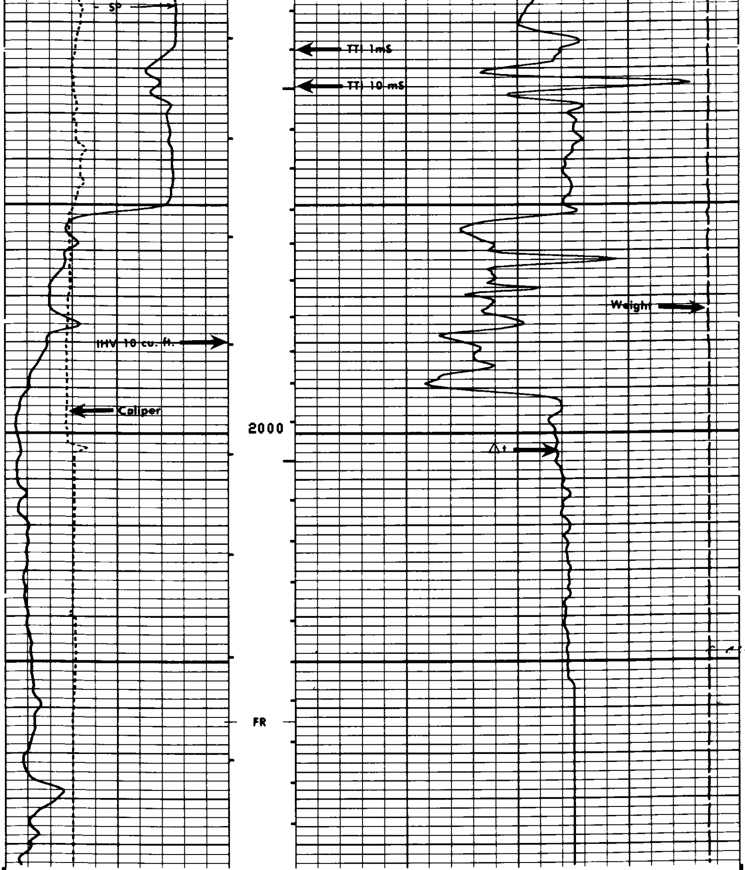
```
   EVENT MARK SUMMARY:

   OUTPUT   INTERVAL          DEPTH TRACK
            BETWEEN PIPS      EDGE

   IHV      10.0000 F3        LEFT EDGE
   ITT      .00100000 S       RIGHT EDGE
```

```
          CALI(IN  )                                                              TENS(LB   )
 6.0000                 16.000                                         10000.                    0.0
          SP   (MV   )                                                  DT   (US/F)
 -100.0                   0.0              175.00                                             75.000
```

REPEAT SECTION   **REPEAT SECTION**

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





CP 28.2A FILE 4 07-NOV-85 07:55 **REPEAT SECTION**

CALI(IN)			DT (US/F)		TENS(LB)	
6.0000	16.000				10000.	0.0
SP (MV)						
-100.0	0.0		175.00			75.000

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	

EVENT MARK SUMMARY:

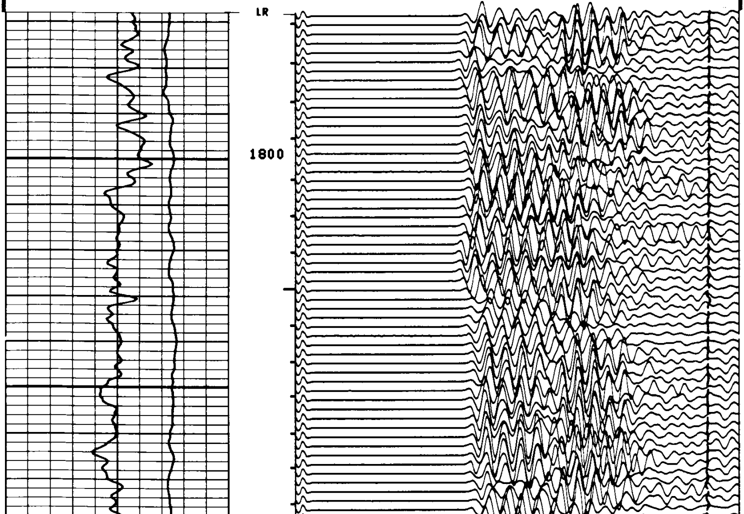
OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
ITT	.00100000 S	RIGHT EDGE

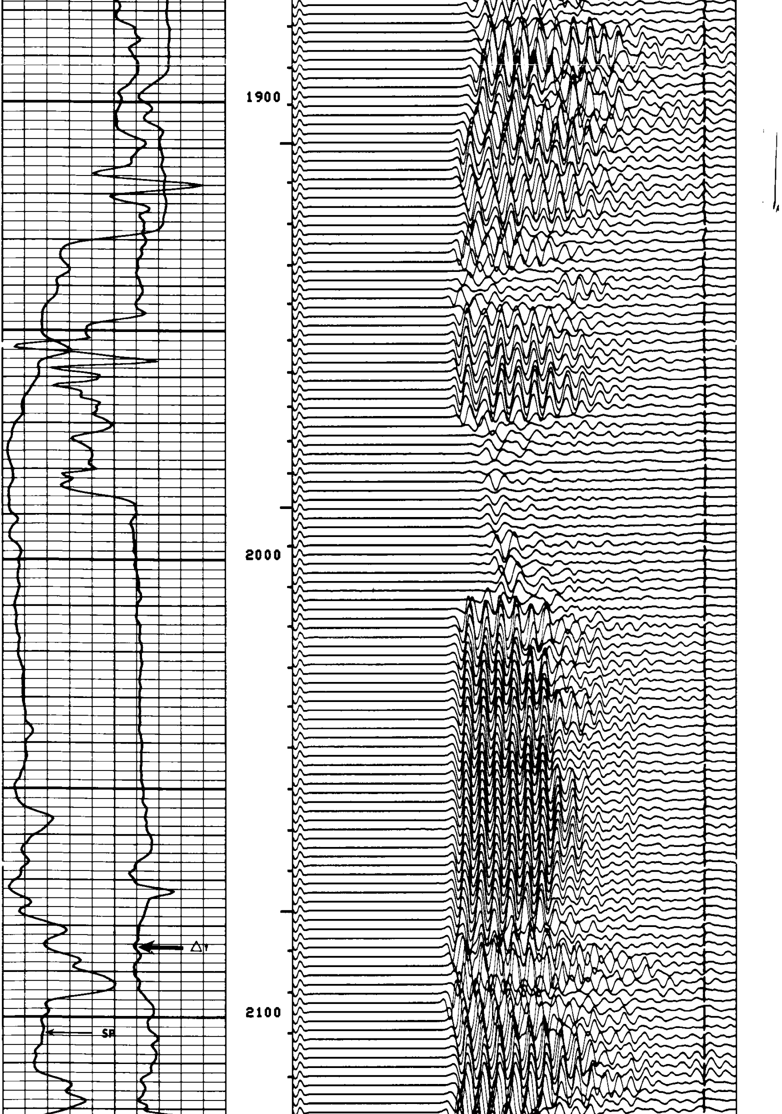
DT (US/F) 175.00 75.000 SP (MV) -100.0 0.0	0 μsec	TENS(LB) 10000. 0.0

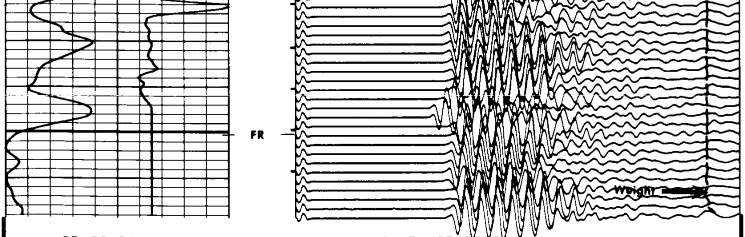
2000

WAVEFORMS

CP 28.2A FILE 7 07-NOV-85 08:35







CP 28.2A　　FILE 7　　07-NOV-85 08:30　　**WAVEFORMS**

DT (US/F) 175.00　75.000	0　[usec]	2000
SP (MV) -100.0　0.0		TENS(LB) 10000.　0.0

SENSOR MEASURE POINT TO TOOL ZERO

SRAT	5.8	FEET	AMPL	8.3	FEET
TT1	7.3	FEET	CBL	8.3	FEET
TT3	4.5	FEET	TT2	8.3	FEET
T0	8.3	FEET	TT4	3.5	FEET
SLTT	8.3	FEET	TT	8.3	FEET
CALI	3.0	FEET	SCBL	8.3	FEET
ILM	5.8	FEET	ILD	9.4	FEET
SP	-16.7	FEET	SFL	6.4	FEET
TENS	-16.7	FEET	SPAR	2.5	FEET
NOIS	-16.7	FEET			

PARAMETERS

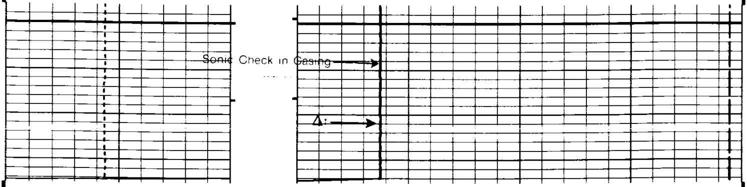
NAME	VALUE	UNIT	NAME	VALUE	UNIT
CDTS	100.000		SPFS	R-H	
DTF	189.000	US/F	DTM	56.0000	US/F
DSIN	5	US	DDEL	200	US
DSEC	5.40000	MMHO	DWCO	512	
MSEC	5.90000	MMHO	SBR	1.00000	OHMM
FEXP	2.15000		FPHI	SPHI	
CSIZ	9.62500	IN	FNUM	.620000	
BS	8.50000	IN	BHS	OPEN	

EVENT MARK SUMMARY:

OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
IHV	10.0000 F3	LEFT EDGE
ITT	.00100000 S	RIGHT EDGE

```
 CALI(IN  )                                                    TENS(LB  )
6.0000              16.000                              10000.               0.0
 SP   (MV  )                                 DT   (US/F)
-100.0               0.0        175.00                                    75.000
```

CP 28.2A   FILE   0   07-NOV-85 06:32



CP 28.2A   FILE   0   07-NOV-85 06:32

```
 CALI(IN  )                                                    TENS(LB  )
6.0000              16.000                              10000.               0.0
 SP   (MV  )                                 DT   (US/F)
-100.0               0.0        175.00                                    75.000
```

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
```

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