ATLAS
WIRELINE
SERVICES

COMPENSATED DENSILOG®
COMPENSATED NEUTRON
GAMMA RAY

FILE NO. **2961**

API NO.

5" = 100'

COMPANY ARCO OIL & GAS COMPANY

WELL STERLING NO. 12-24-66 (REDRILL)

FIELD MIST

COUNTY CLATSOP STATE OR.

LOCATION:
528.83' N. & 546.30' E.
FROM W/4 CORNER OF

SEC 24 TWP 6N RGE 6W

OTHER SERVICES
DIFL/AC/GR

PERMANENT DATUM GL ELEV. 494.83

LOGGING MEASURED FROM KB 10' FT. ABOVE P.D.

DRILLING MEASURED FROM KB

ELEVATIONS
KB 504.83'
DF -
GL 494.83'

FINAL PRINT

DATE	11-14-88	
RUN	1	
SERVICE ORDER	159117	
DEPTH-DRILLER	2845'	
DEPTH-LOGGER	2840'	
BOTTOM LOGGED INTERVAL	2838'	
TOP LOGGED INTERVAL	435'	
CASING - DRILLER	7"	@ 437'
CASING - LOGGER	435'	
BIT SIZE	6.25	
TYPE FLUID IN HOLE	EZ-MUD	
DENSITY / VISCOSITY	10.2	45
PH / FLUID LOSS	9.0	5.4
SOURCE OF SAMPLE	FLOWLINE	
RM AT MEAS. TEMP.	2.30	@ 60 DEG. F
RMF AT MEAS. TEMP.	2.05	@ 60 DEG. F
RMC AT MEAS. TEMP.	2.90	@ 60 DEG. F
SOURCE OF RMF / RMC	M	M
RM AT BHT	1.1	@ 101 DEG. F
TIME SINCE CIRCULATION	6 HRS	
MAX. REC. TEMP. DEG. F	101 DEG. F	
EQUIP. NO. / LOC.	6406	SACRAMENTO
RECORDED BY	M. HINDS	
WITNESSED BY	MR. FORTIER	

FOLD HERE

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT, BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASURMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

Western Atlas
International
A Litton/Dresser Company

ATLAS
WIRELINE
SERVICES

REMARKS RUN (1)

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIAL NO.	SERIES NO.	POSITION
1	1	CDL	60563	2227	DE-CENT
1	1	CAL	60563	2227	DE-CENT
1	1	CN	72435	2435	DE-CENT
1	1	GR	78585	1309	DE-CENT

CURVE DELAYS

CURVE	DELAY	UNITS
SSD	0.3	FT.IN
LSD	0	FT.IN
CAL	0.0	FT.IN
SSN	9.9	FT.IN
LSN	10.3	FT.IN
GR	16.6	FT.IN
TTEN	0.0	FT.IN
TEN	0.0	FT.IN
SPD	0.0	FT.IN

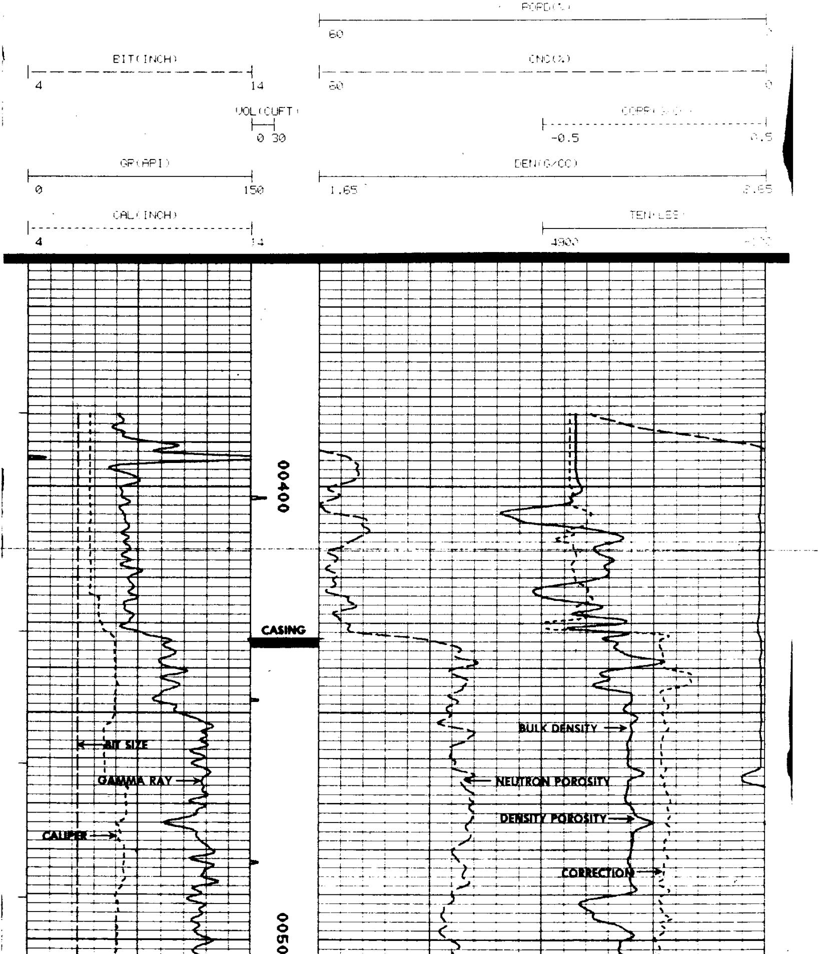
PARAMETERS

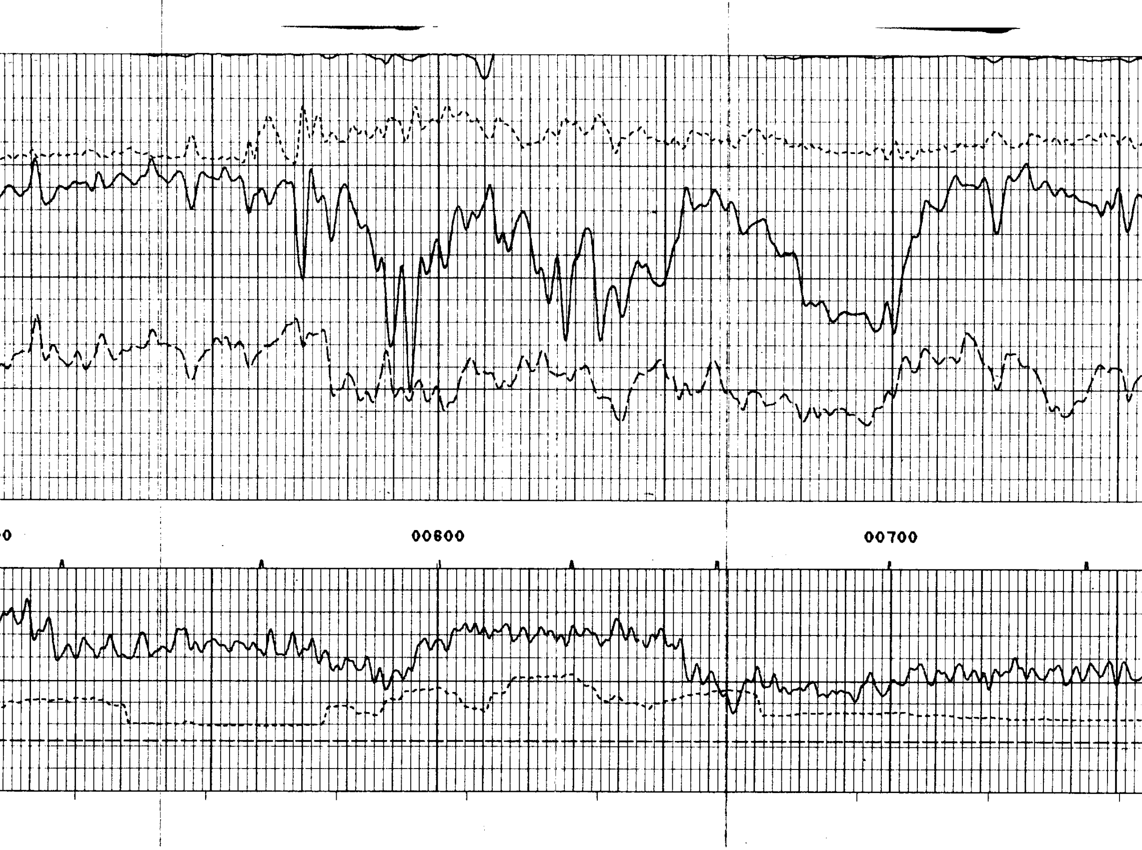
NAME	DEPTH INTERVAL	VALUE	UNITS
A	2355 TO 406	0.000	
CAL CORR	2355 TO 406	6.250	INCH
CHI SMTH	2855 TO 406	ACTIVE	
M	2355 TO 406	0.000	
MATRIX	2355 TO 406	SANDSTONE	
O.D.	2855 TO 406	3.500	INCH
RHO F	2355 TO 406	0.980	G/CC
RHO M	2855 TO 406	2.650	G/CC
SALINITY	2355 TO 406	0.000	PPM

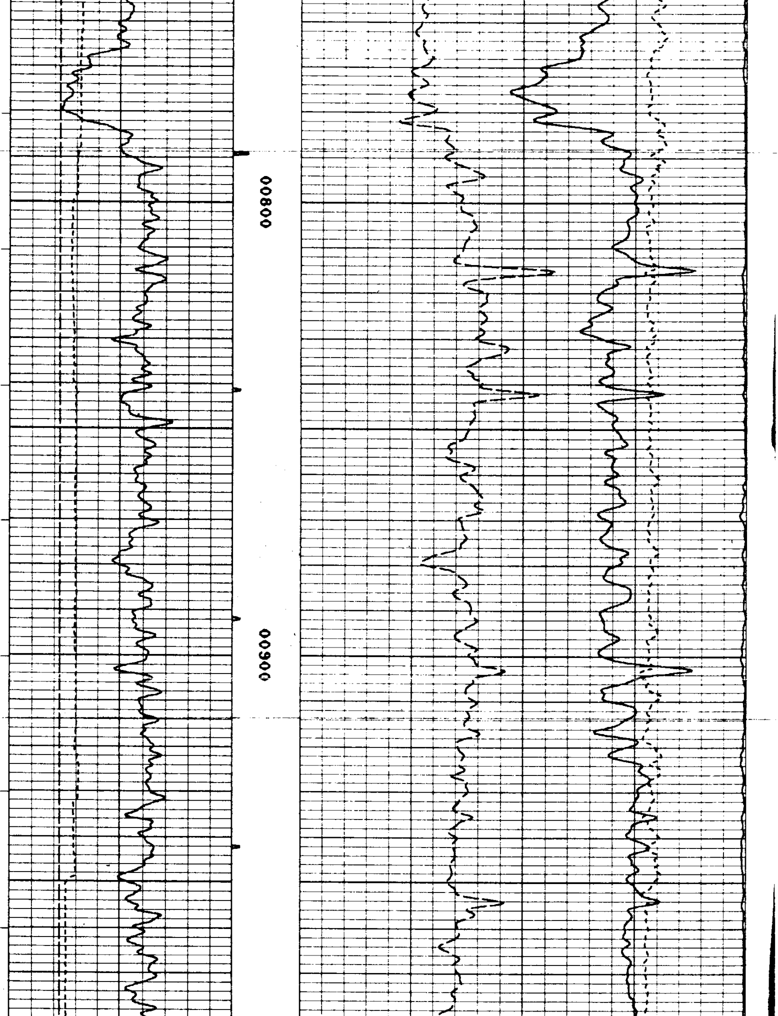
DISPLAY SCALE CHANGES

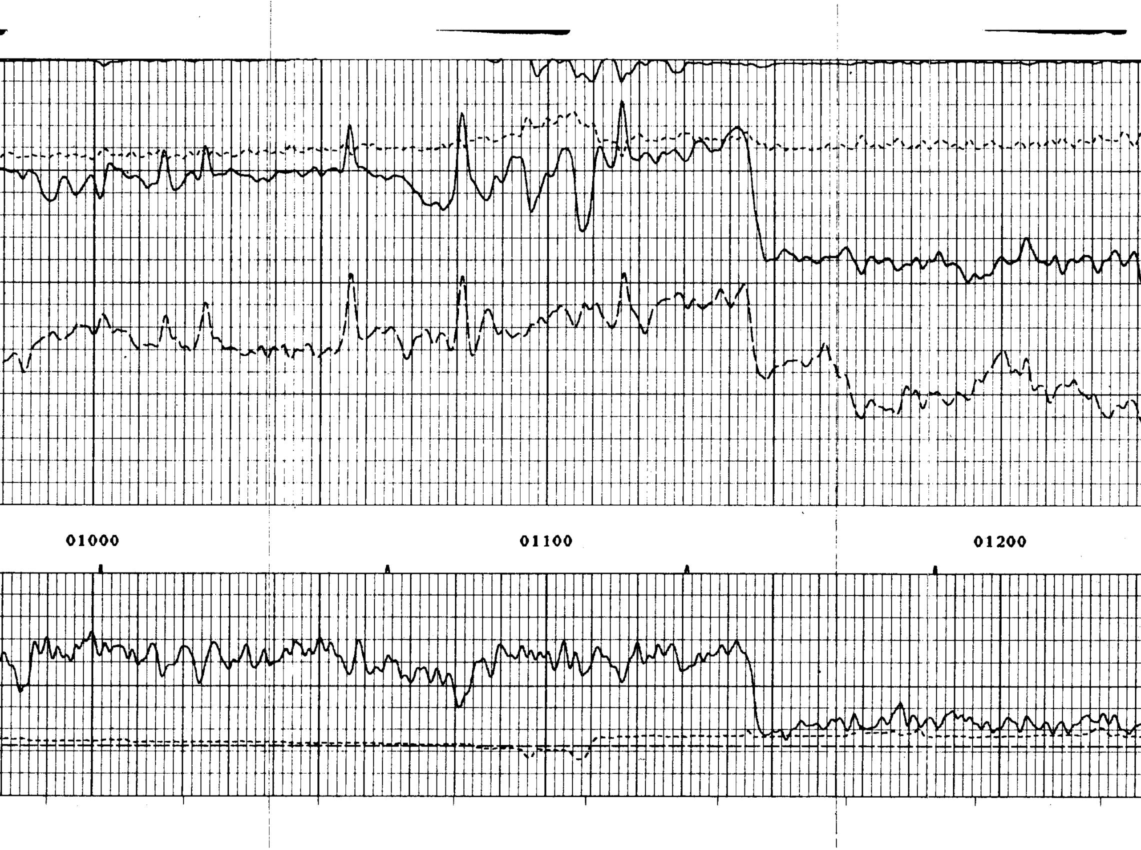
*** NONE ***

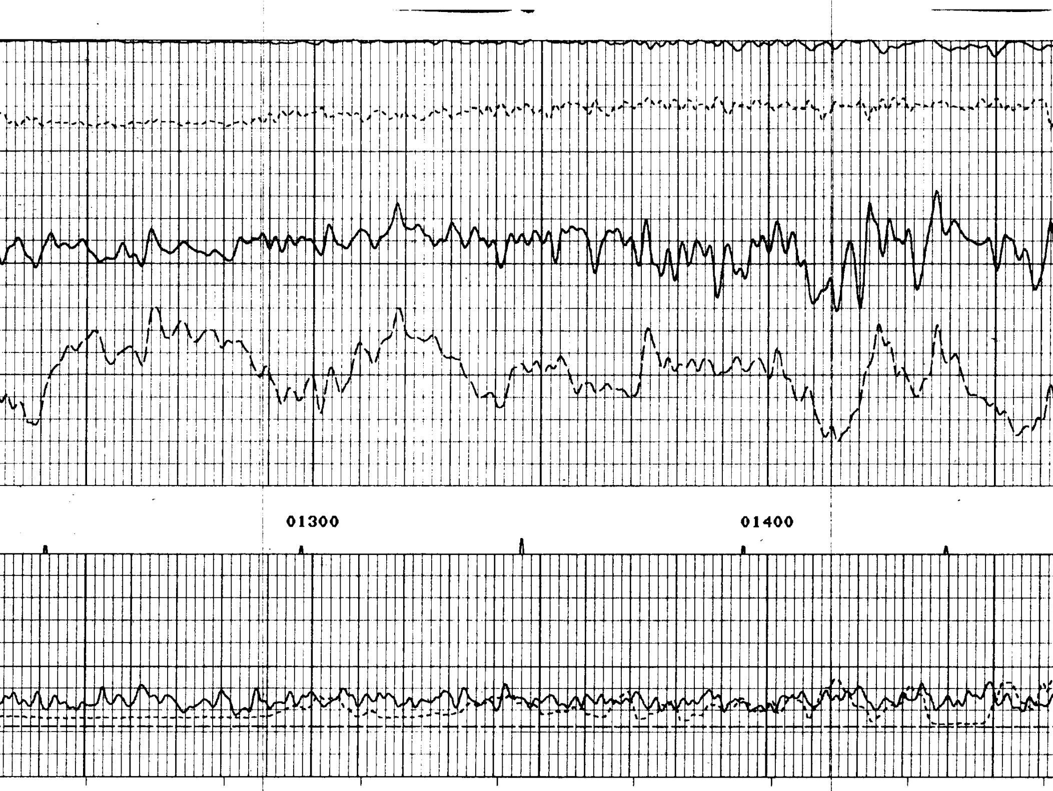
COMPANY: ARCO OIL & GAS COMPANY RUN: 1
WELL NAME: STERLING NO. 12-24-66 (REDRILL) TRIP: 1
SERVICE: KC287B FILE: 3 DATE: 11/11/88 TIME: 22:50:41
REVISION: FSYSAL REV GS08 VER+2 MODE: RECORD

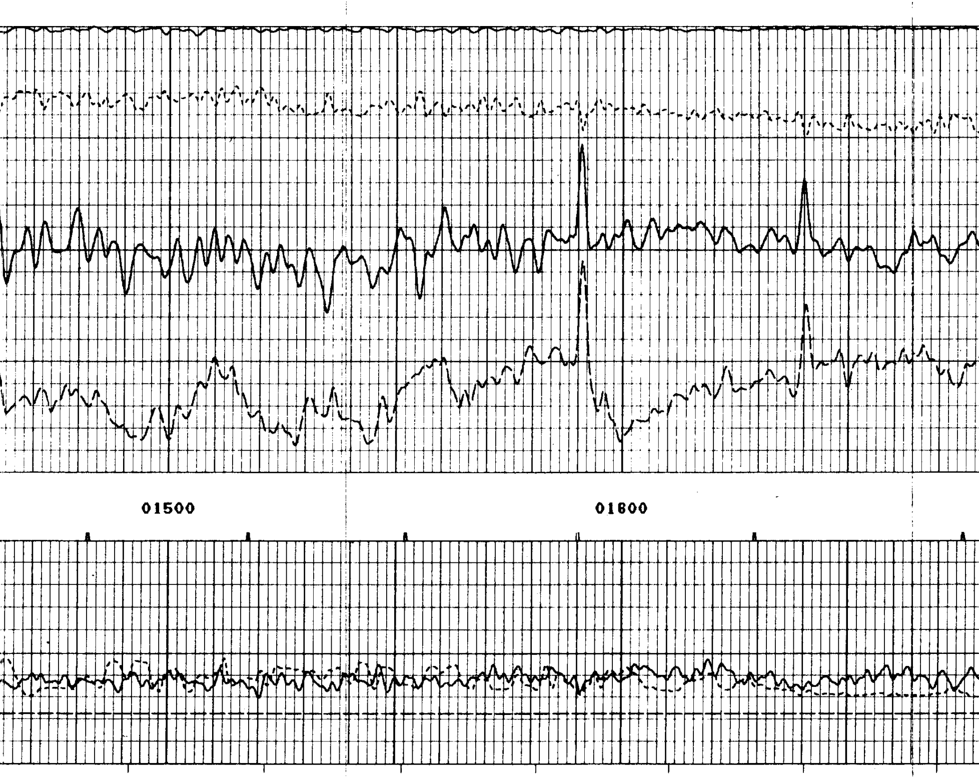


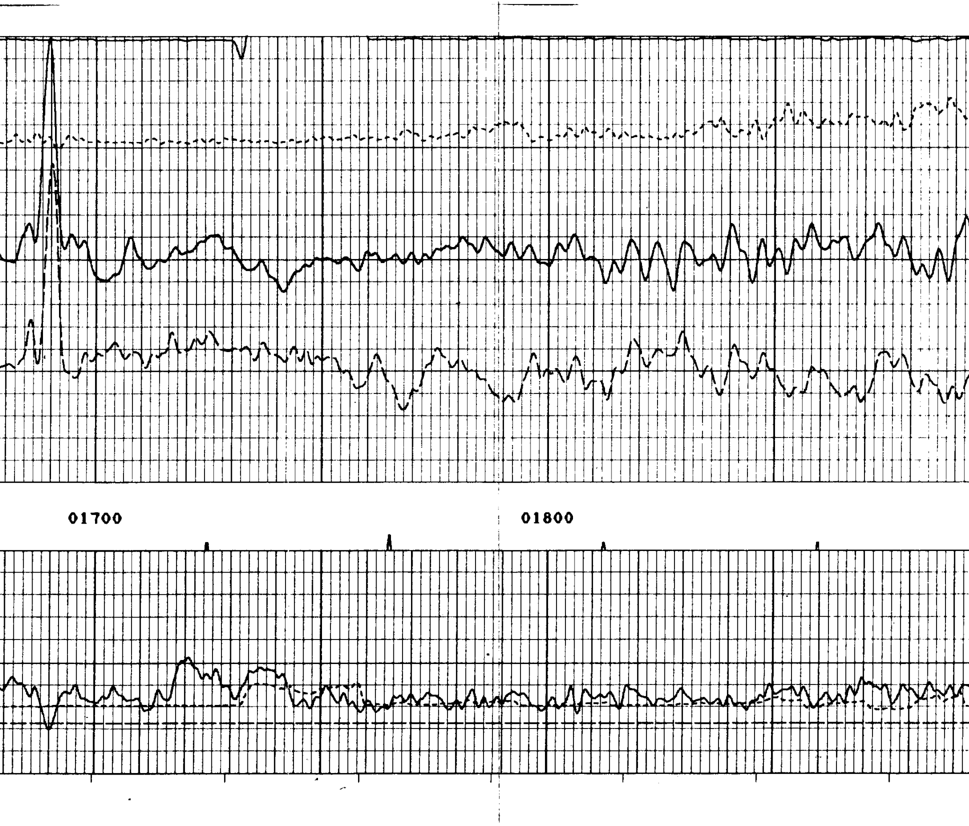


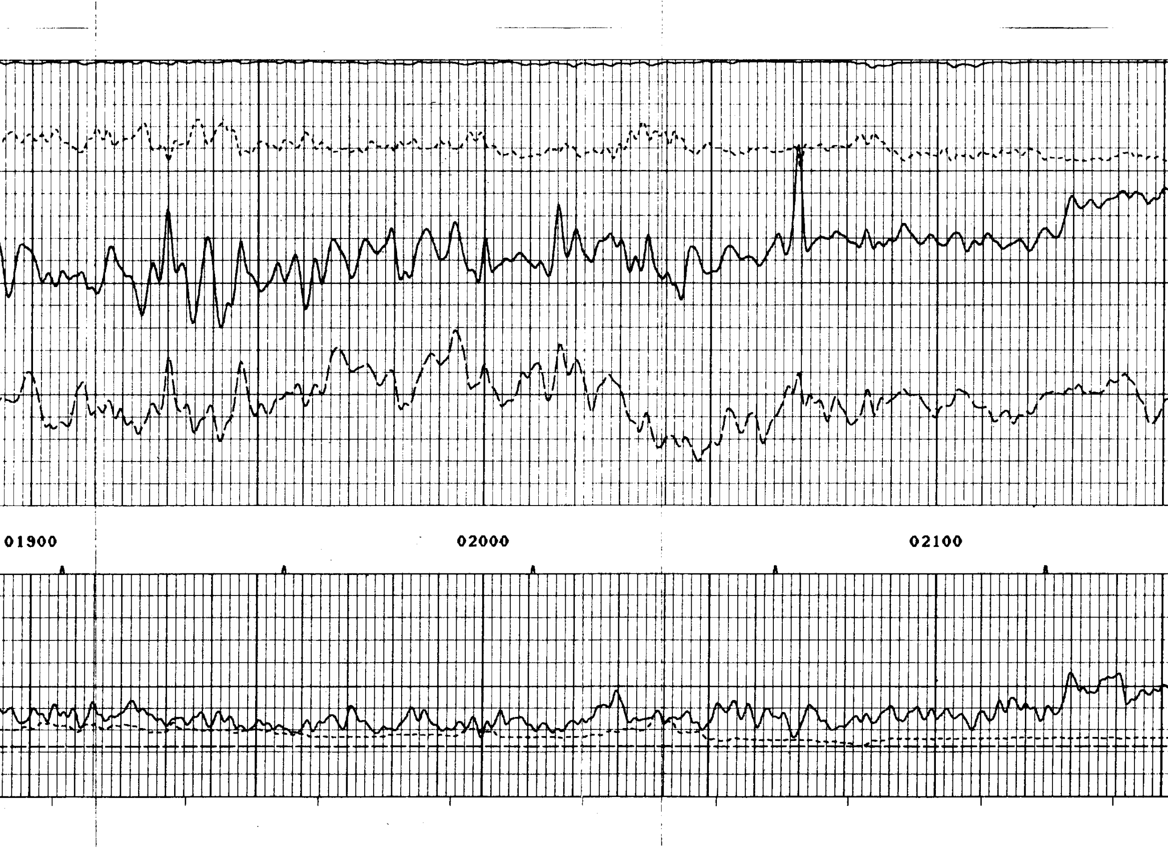


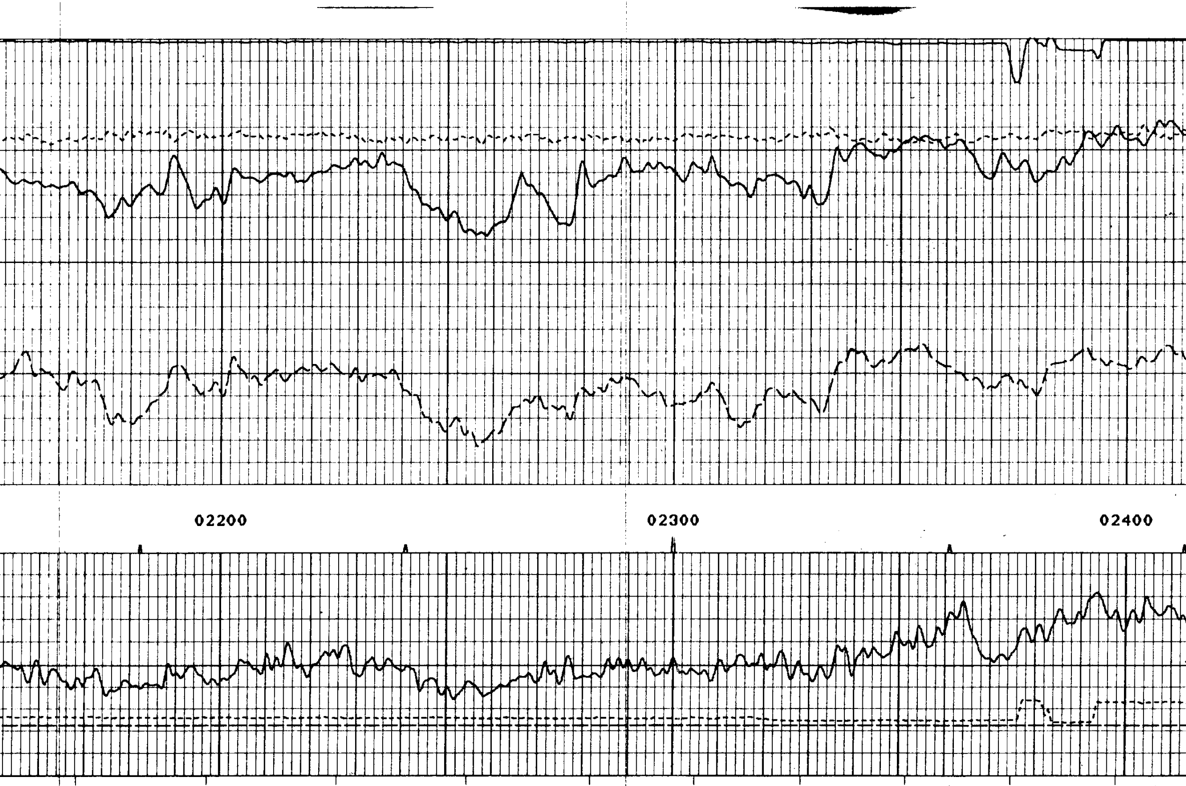


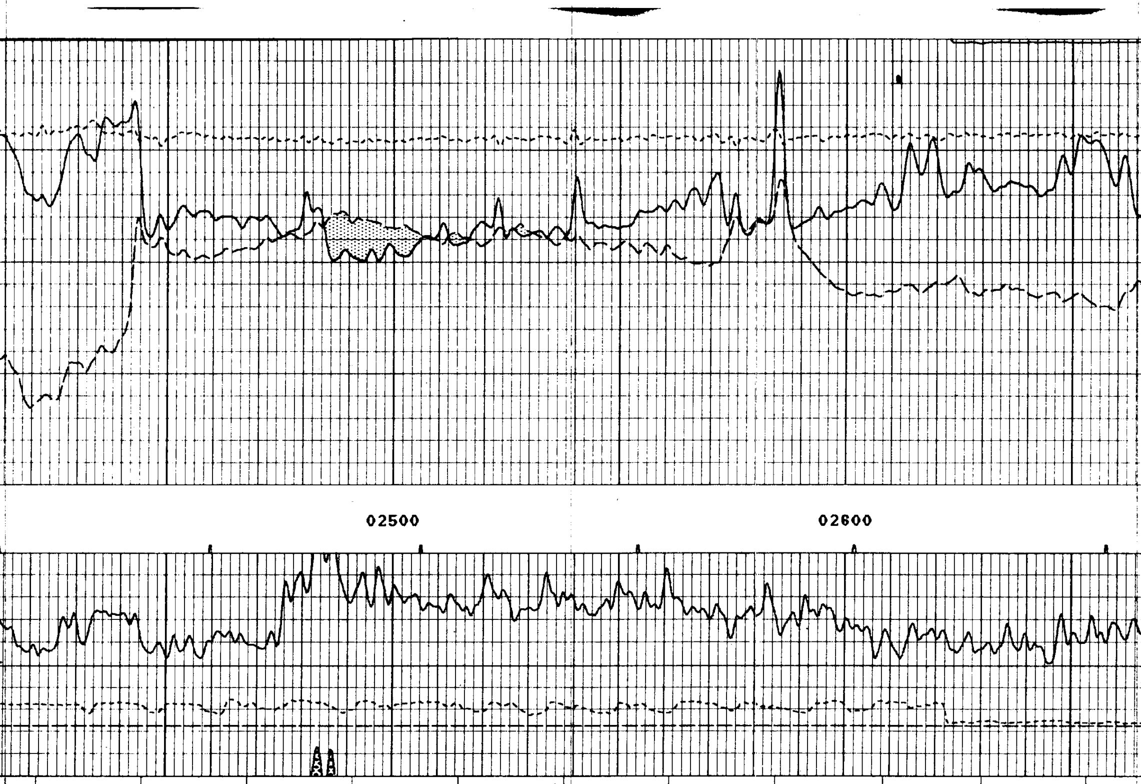


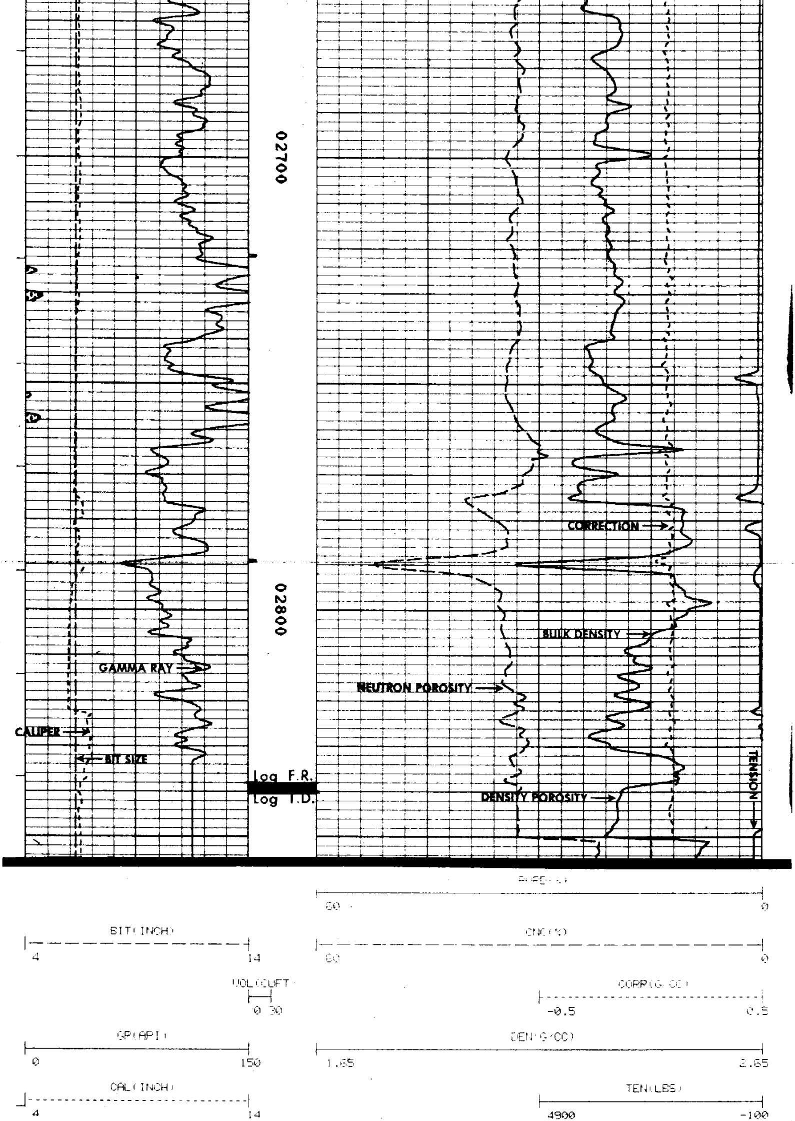












CURVE DELAYS

```
             ****************************************
             *                                      *
             *  CALIBRATION/VERIFICATION SUMMARIES  *
             *  DATE 11/12/88        TIME 00:49:51  *
             *  RUN  1               TRIP 1         *
             *                                      *
             ****************************************
             .


      LOG NAME CDL    ASSET NO. 60563A   UNIT NO. 6400
  CALIBRATION ENTERED ON  11/11/88 AT 12:41:51     2227 DUAL SCINT.
                           SOURCE NUMBER 784

CURVE   COUNTS/SEC.    SCALING FACTORS    RATIO    ENG. VALUE  UNITS
       BLOCK  VALUE    ADD,    MULT.      MG/AL
----    --------      ------------------ --------  ----------  ----

     DATE 11/09/88        CALIBRATION          TIME 09:40:10

LSD     MG      325.6
SSD             202.9
DEN                                                    1.707  G/CC
CORR                                                  -0.006  G/CC
DENP                                                   1.638  G/CC
CORR                                                  -0.040  G/CC
LSD     AL       33.1    0.000    1.0000   9.3471
SSD              94.8    0.000    1.0000   2.1402
DEN                                                    2.683  G/CC
CORR                                                  -0.005  G/CC
DENP                                                   2.674  G/CC
CORP                                                  -0.037  G/CC
LSD     RIBL     66.7
SSD             146.1
DEN                                                    2.594  G/CC
CORR                                                   0.138  G/CC
LSD     RIBH    143.9
SSD              97.4
DEN                                                    1.723  G/CC
CORR                                                  -0.333  G/CC

     DATE 11/09/88    PRIMARY VERIFICATION     TIME 10:14:06

LSD     JIG     135.7    0.000    1.0000
SSD             181.5    0.000    1.0000
DEN                                                    2.265  G/CC
CORR                                                   0.178  G/CC

     DATE 11/11/88   BEFORE LOG VERIFICATION   TIME 12:57:39

LSD     JIG     136.4    0.000    1.0000
SSD             182.5    0.000    1.0000
DEN                                                    2.268  G/CC
CORR                                                   0.182  G/CC

     DATE 11/12/88    AFTER LOG VERIFICATION   TIME 00:24:53

LSD     JIG     135.8    0.000    1.0000
SSD             181.3    0.000    1.0000
DEN                                                    2.264  G/CC
CORR                                                   0.176  G/CC


      LOG NAME CAL    ASSET NO. 60563    UNIT NO. 6406
  CALIBRATION ENTERED ON  11/11/88 AT 12:51:34

CURVE   MILLIVOLTS     SCALING FACTORS    ENGINEERING VALUES   UNITS
         LOW    HIGH   ADD.     MULT.        LOW        HIGH
----   -------------- ------------------ -------------------- ----

     DATE 11/08/88        CALIBRATION          TIME 12:34:41

CAL     1937.0  3701.1  -0.588    0.0249      6.000      12.000 INCH

     DATE 11/08/88    PRIMARY VERIFICATION     TIME 12:36:10
```

```
CAL     1934.8  3671.8   -0.588     0.0249       5.993      11.900 INCH
-------------------------------------------------------------------------------
      DATE 11/11/88   BEFORE LOG VERIFICATION    TIME 21:58:49

CAL     2026.4     E       -0.588     0.0249       6.304       E      INCH

      DATE 11/12/88    AFTER LOG VERIFICATION    TIME 00:21:27

CAL     2254.2     E       -0.988     0.0249       6.679       E      INCH



        LOG NAME CN      ASSET NO. 72435    UNIT NO. LAB
   CALIBRATION ENTERED ON  11/11/88 AT 12:47:49             2435
                            SOURCE NUMBER 517520

CURVE   COUNTS/SEC.     SCALING FACTORS     RATIO    ENG. VALUE  UNITS
                          ADD.     MULT.  LSN/(SSN*4)
----     --------     ------------------ --------  ----------  ----

      DATE 09/19/88          CALIBRATION              TIME 13:33:09

LSN          81.5          0.000    1.0000
SSN         164.9          0.000    1.0000
CN                                            0.1236       24.558  %

      DATE 10/25/88    PRIMARY VERIFICATION       TIME 14:30:51

LSN          76.7          0.000    1.0000
SSN         119.8          0.000    1.0000
CN                                            0.1601       15.523  %

      DATE 11/11/88   BEFORE LOG VERIFICATION    TIME 12:52:47

LSN          75.7          0.000    1.0000
SSN         118.9          0.000    1.0000
CN                                            0.1591       15.713  %

      DATE 11/12/88    AFTER LOG VERIFICATION    TIME 00:36:24

LSN          77.2          0.000    1.0000
SSN         115.7          0.000    1.0000
CN                                            0.1567       14.314  %

-------------------------------------------------------------------------------

        LOG NAME GR      ASSET NO. 78525    UNIT NO. HL 5406
   CALIBRATION ENTERED ON  11/11/88 AT 13:03:49

CURVE   MILLIVOLTS      SCALING FACTORS    ENGINEERING VALUES   UNITS
          LOW    HIGH    ADD.    MULT.         LOW       HIGH
----  --------------  ------------------  ------------------- ----

      DATE 10/25/88          CALIBRATION              TIME 14:42:22

GR       929.6  2593.5    0.000    0.2200       0.000    150.000 API

                        PRIMARY VERIFICATION              NOT DONE

      DATE 11/11/88   BEFORE LOG VERIFICATION    TIME 13:05:36

GR       591.1  2254.5    0.000    0.2200      53.289    203.246 API

      DATE 11/12/88    AFTER LOG VERIFICATION    TIME 00:46:34

GR       600.4  2248.7    0.000    0.2200      54.127    202.725 API
```