FORM 925321 REV (9-80)

Western Atlas International
Atlas Wireline Services

BHC Acoustilog®
Gamma Ray

FILE NO

API NO

5" = 100'

Company ARCO OIL & GAS COMPANY
Well CTW 12 15 64
Field MIST
County COLUMBIA State OREGON

LOCATION: 1999' S. & 350' E. FROM THE N.W. CORNER OF:
SEC 15 TWP 6N RGE 5W

Other Services
DIFL/GR
CDLC/CN/GR
SWC

Permanent Datum GL Elev 1363'
Log Measured from KB 10 Ft. Above Permanent Datum
Drilling Measured from KB

Elev. KB 1373'
DF
GL 1363'

Date	8-22-88		8 24 88					
Run No.	ONE		TWO					
Service Order	159040		159042					
Depth—Driller	1445'		1950'					
Depth—Logger	1440'		1946'					
Bottom Logged Interval	1410'		1926'					
Top Logged Interval	666'		1326'					
Casing—Driller	9 5/8" @ 668'		7" @ 1332		@		@	
Casing—Logger	666'		1326'					
Bit Size	8 1/2"		8 1/2" X 6 1/4" @ 1438'					
Type Fluid in Hole	GEL/WATER		GEL/WATER					
Density and Viscosity	10.2	45.5	10.0	41				
pH and Fluid Loss	9.5	8.0 cc	9.5	7.8 cc		cc		cc
Source of Sample	FLOWLINE		MUD PIT					
Rm @ Meas. Temp.	1.25 @ 60 °F		1.50 @ 80 °F		@ °F		@ °F	
Rmf @ Meas. Temp.	1.05 @ 60 °F		1.30 @ 80 °F		@ °F		@ °F	
Rmc @ Meas. Temp.	1.60 @ 60 °F		2.10 @ 80 °F		@ °F		@ °F	
Source of Rmf and Rmc	M	M	M	M				
Rm @ BHT	0.70 @ 106°F		1.11 @ 108 °F		@ °F		@ °F	
Time Since Circ.	3 HRS.		3 HRS.					
Max. Rec. Temp. Deg. F.	106 °F		108 °F		°F		°F	
Equip. No. and Location	6406	SAC.	6406	SAC.				
Recorded By	M. HINDS		M. HINDS					
Witnessed By	MR. DAHLEEN							

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	DIFL	33304	1503	1.5 SO
1	1	AC	79726	1609	CENT.
1	1	GR	60484	1309	CENT
1	1	CAL	79090	4209	VAR.

REMARKS RUN (2)

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIAL NO.	SERIES NO.	POSITION
2	2	DIFL	33304	1503	FREE
2	2	GR	60484	1309	CENT
2	2	CAL	79090	4209	VAR.
2	2	AC	79726	1609	CENT.

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              PARAMETERS

  NAME     DEPTH INTERVAL     VALUE      UNITS
 -------  ---------------  ----------  -------
 [illegible]   1444 TO  [illegible]      0.000
 [illegible]   1444 TO  [illegible]      0.000
 O.D.     1444 TO  [illegible]      7.000  INCH
 DELT [illegible]  1444 TO  [illegible]  ***********  MICS FT
 DELT [illegible]  1444 TO  [illegible]      0.000  MICS FT
 DELT [illegible]  1444 TO  [illegible]      0.000  MICS FT



       [illegible]

          *** [illegible] ***



 COMPANY :    ARCO OIL & GAS CO.                         RUN :  1
 WELL NAME :  [illegible]                                TRIP : [illegible]
 SERVICE :    [illegible]     FILE :  3     DATE : [illegible]     TIME : [illegible]
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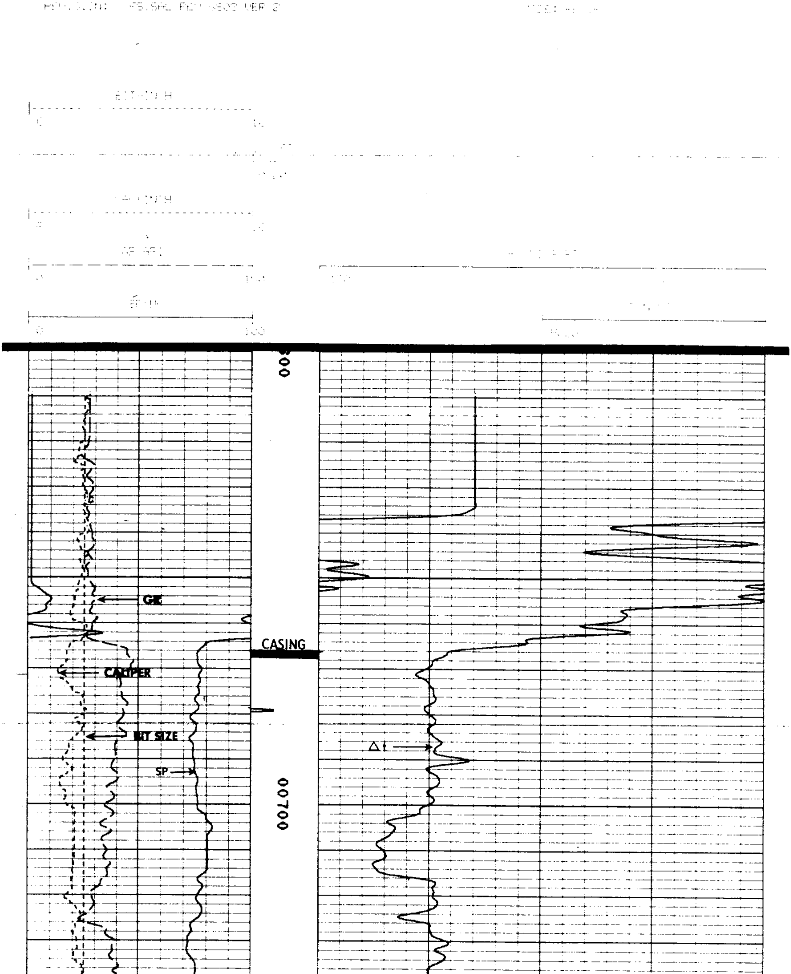

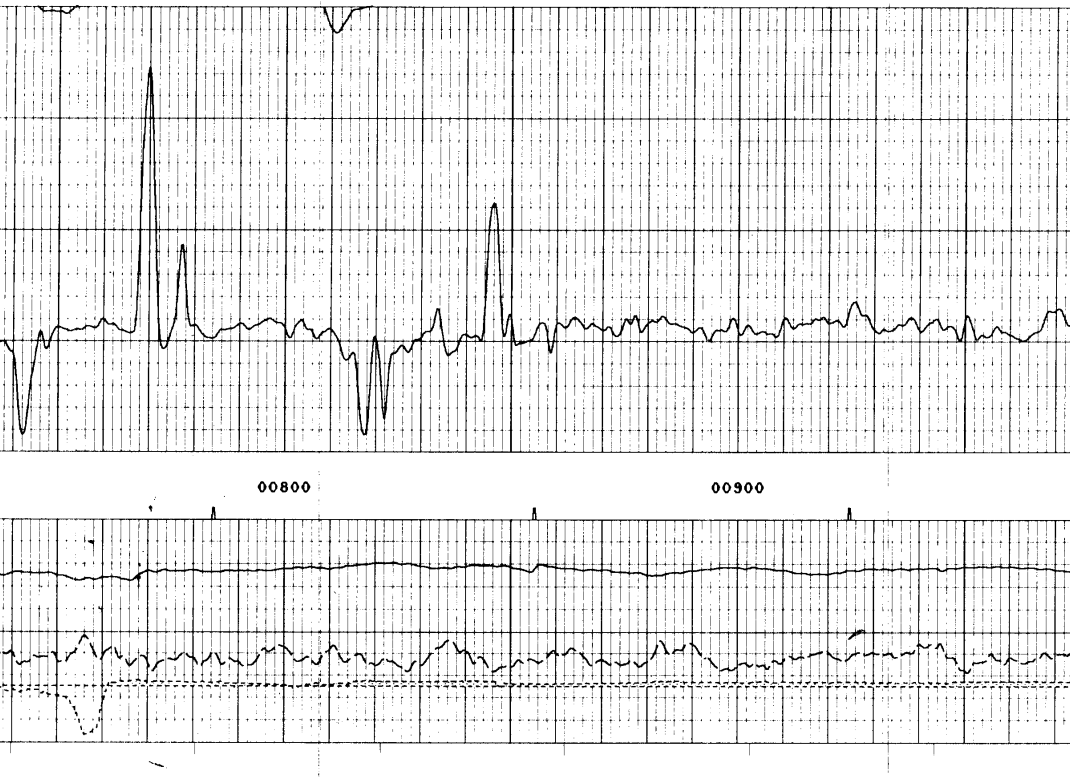

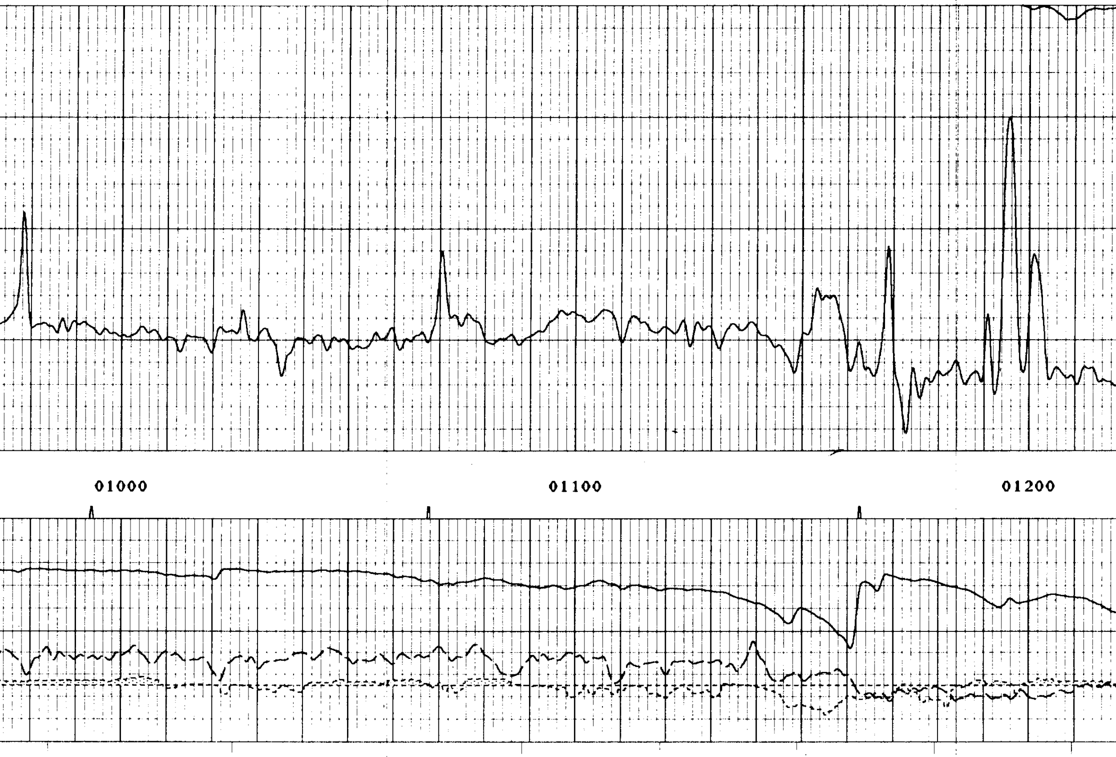

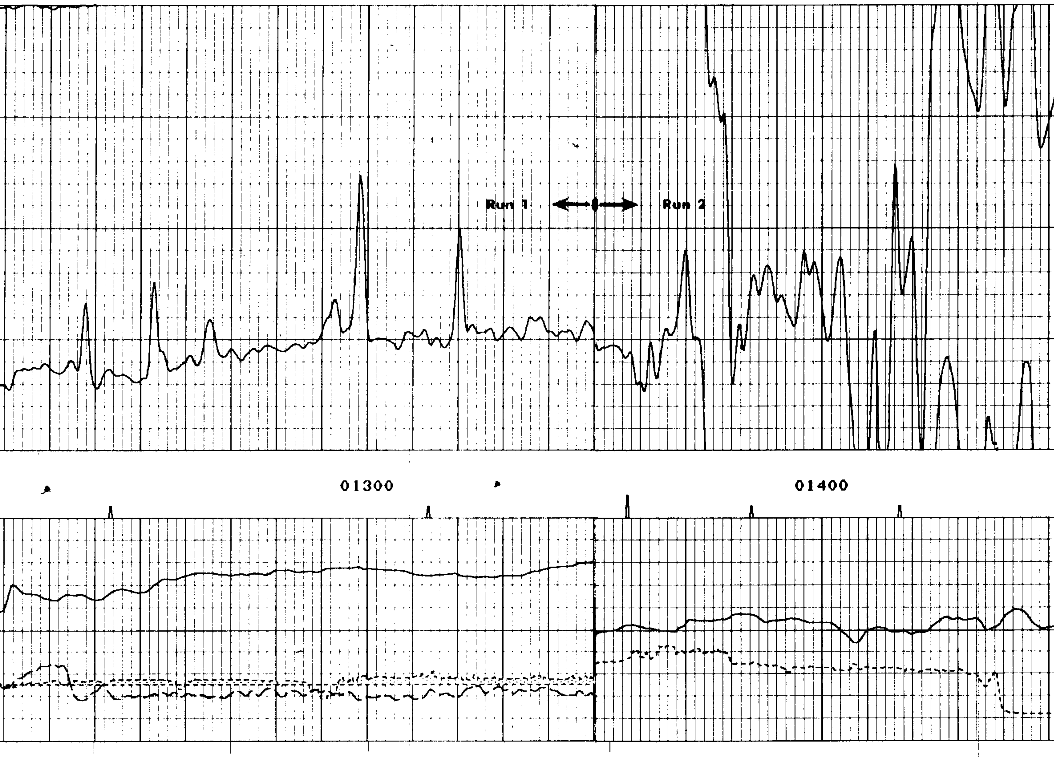

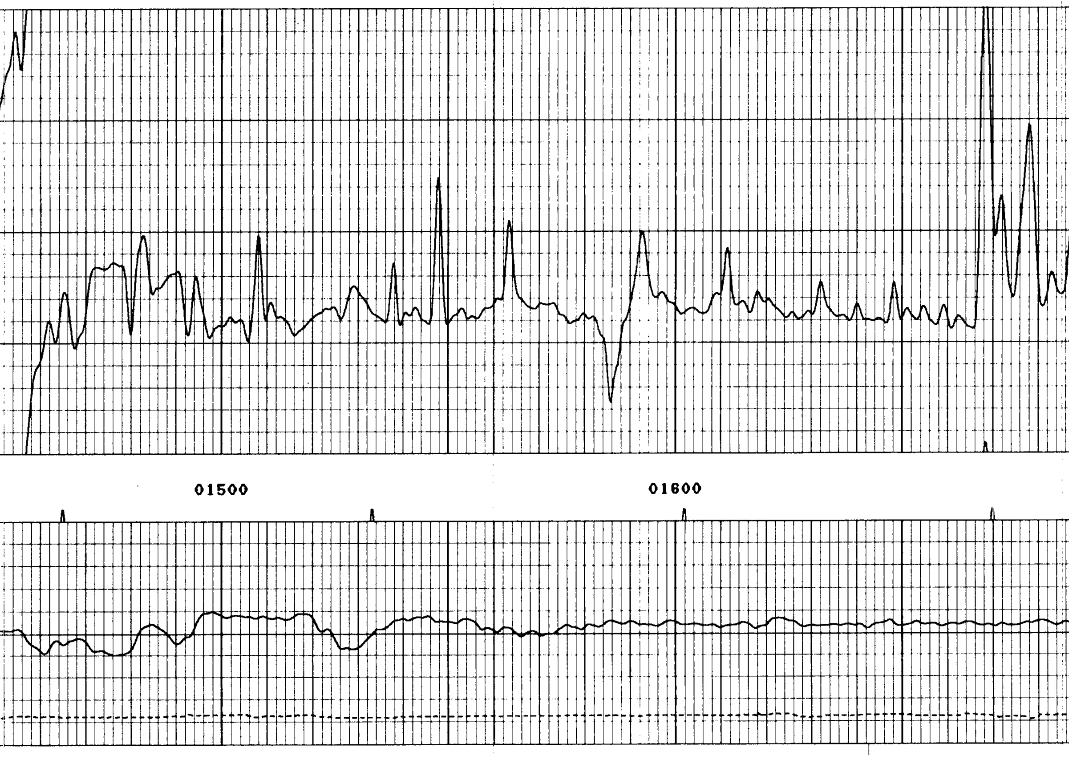

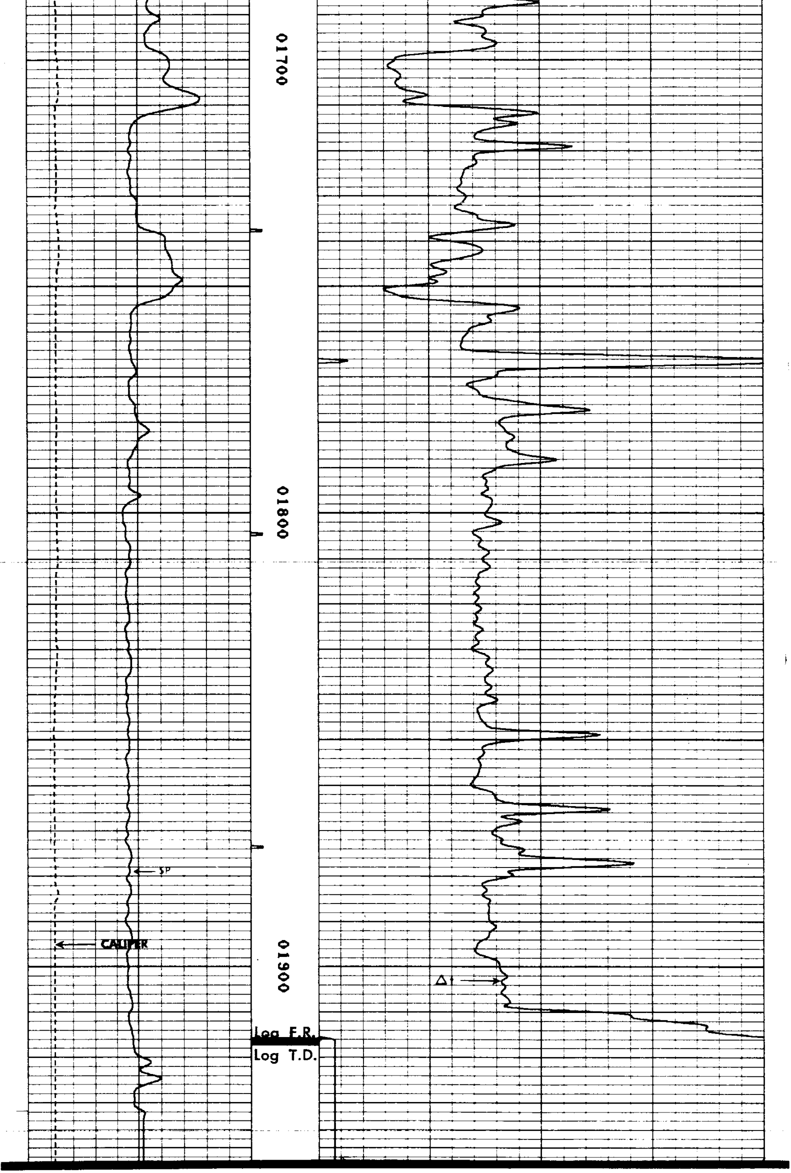

```
                         VOL(CUFT)
                         |---|
                          0 20

        CAL(INCH)                                   AT(MICS/FT)
|-------------------------------|    |------------------------------------------|
 5                             15     170

        SP(MV)                                           TEN(LBS)
|-------------------------------|                      |--------------------|
 0                            100                       5000                 0
```

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                    PARAMETERS

  NAME      DEPTH INTERVAL    VALUE       UNITS
 --------   --------------  ----------   -------
 A            1747 TO  1276       0.000

 M            1747 TO  1276       0.000

 [illegible]  1747 TO  1276       3.500  INCH

 DEL-T F      1747 TO  1276  ***********  MICS/FT

 DEL-T M      1747 TO  1276      -2.000  MICS/FT

 DEL-T S      1747 TO  1276       0.000  MICS/FT
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                DISPLAY SCALE CHANGES

                    *** NONE ***
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COMPANY:    ARCO OIL & GAS CO.                                  RUN:  2

WELL NAME:  12-15-64                                            TRIP: 0

SERVICE:    FC214N          FILE:   6        DATE:  1 24 85      TIME:  [illegible]

REVISION:   PSVSAL REV G508 VER+2                               MODE: FLA F[illegible]
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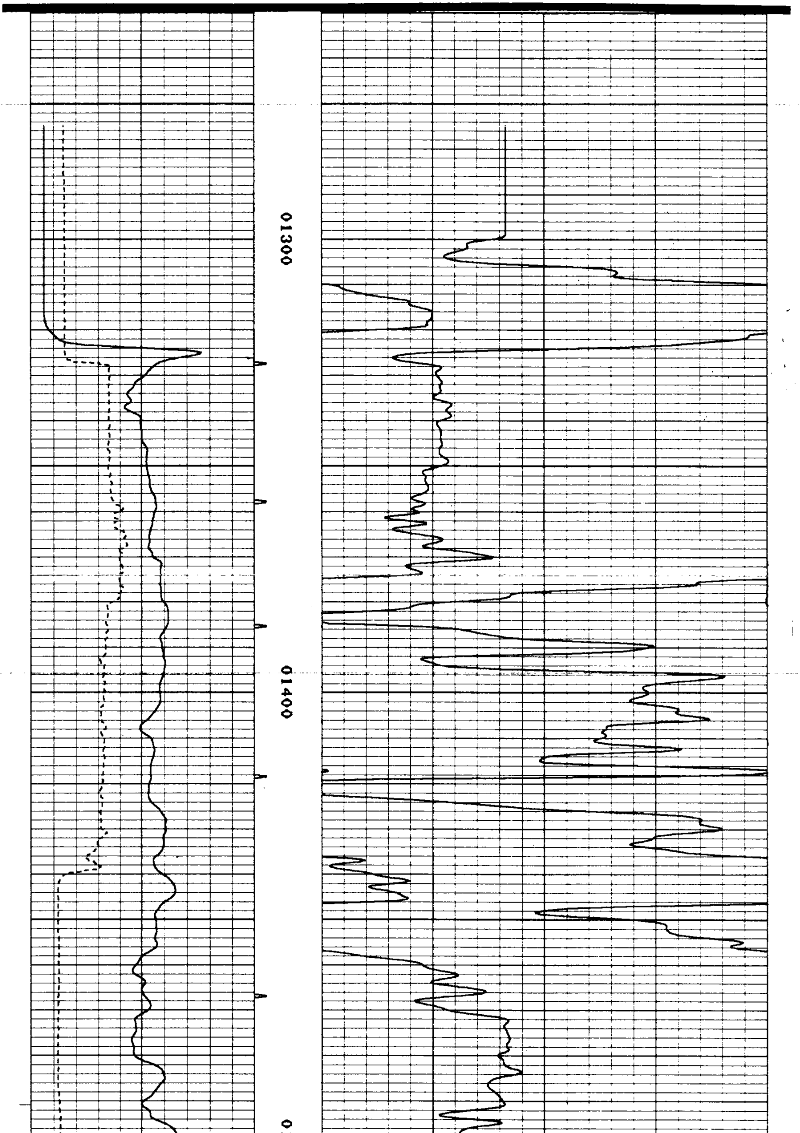
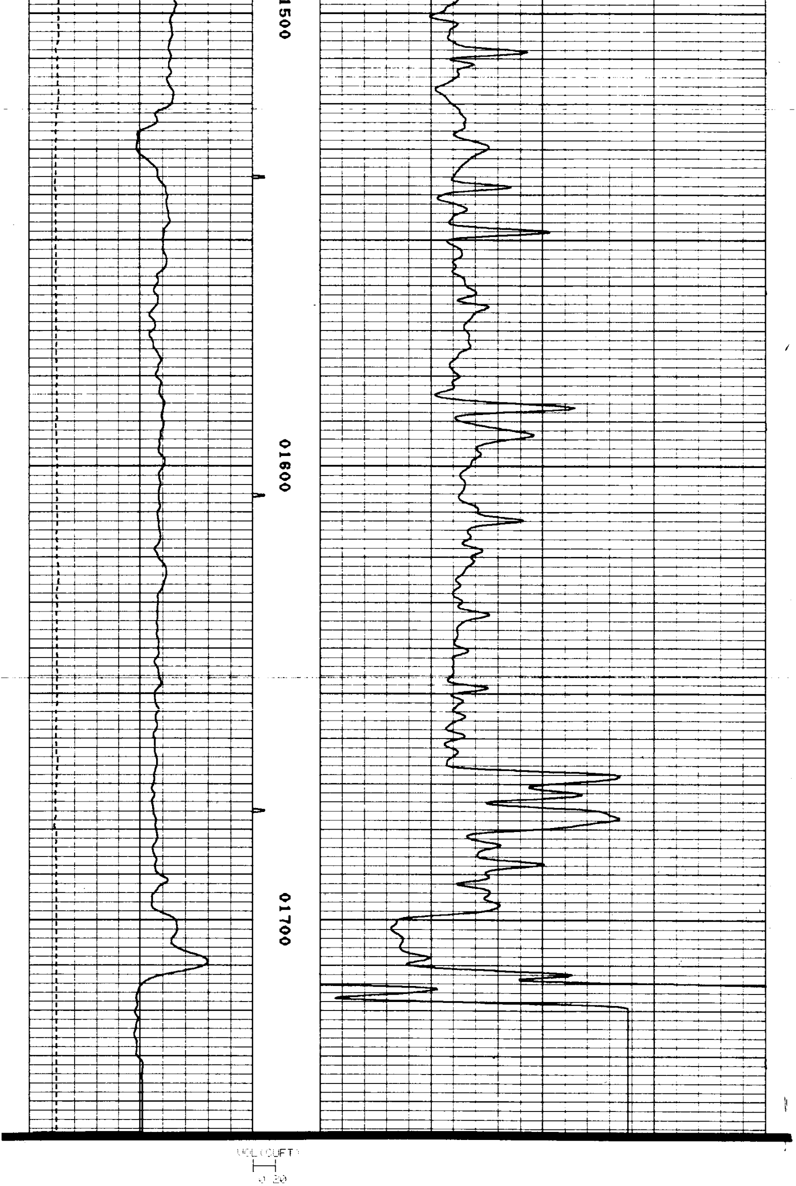
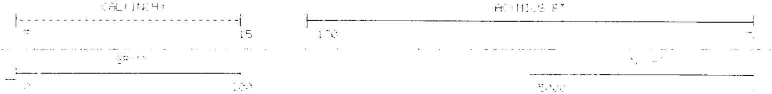
REPEAT SECTION

Run 2

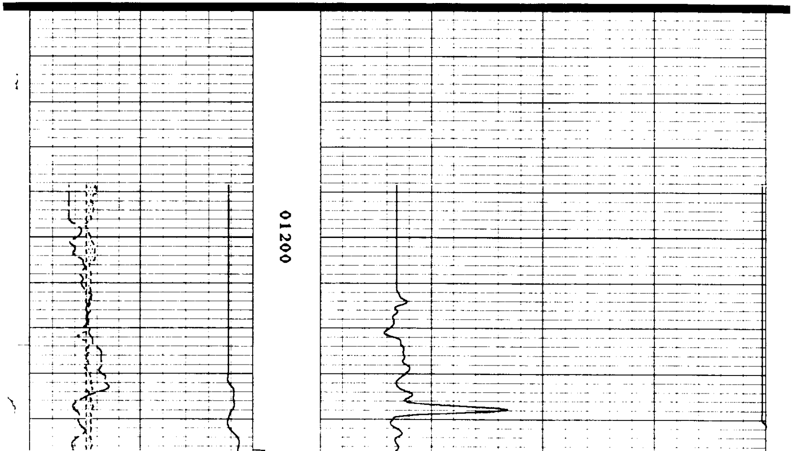
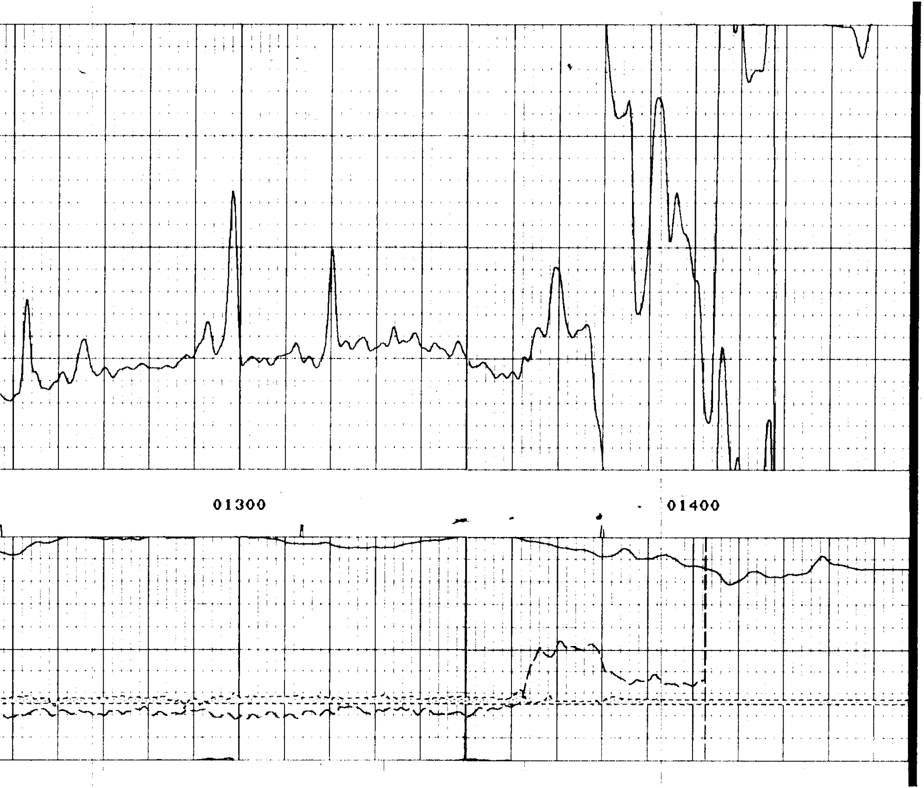
```
                         VOL CUFT
                         |---|
                          0 20

        CAL(INCH)                                   AT MICS/FT
|-------------------------------|    |------------------------------------------|

        SP
|-------------------------------|                      |--------------------|
 0                            100                       5000
```







REPEAT SECTION

Run 1