CC23-31-65

Schlumberger

DUAL INDUCTION-SFL-SONIC

COUNTY	COLUMBIA
FIELD	MIST
LOCATION	1970'N & 989'W
WELL	SASQUATCH 23-31-65
COMPANY	NAHAMA AND WEAGANT ENERGY

COMPANY NAHAMA AND WEAGANT ENERGY CO.

WELL Col. Co.
SASQUATCH 23-31-65

FIELD MIST

COUNTY COLUMBIA **STATE** OREGON

LOCATION	1970'N & 989'W FROM S. 1/4 CORNER			Other Services: DIL SLT SHDT
API SERIAL NO.	SECT. 31	TWP. 6N	RANGE 5W	

Permanent Datum	GL	Elev.	925.0 F	Elev.: K.B.935.0 F
Log Measured From	KB	10.0 F	above Perm. Datum	D.F.934.0 F
Drilling Measured From	KB			G.L.925.0 F

Date		06-JUN-1992				
Run No.		ONE				
Depth Driller		2272.0 F				
Depth Logger (Schl.)		2272.0 F				
Btm. Log Interval		2266.0 F				
Top Log Interval		494.0 F				
Casing-Driller		8 5/8	@ 494.0 F	@		@
Casing-Logger		494.0 F				
Bit Size		7 7/8	@ 2272.0 F	@		@
Type Fluid in Hole		DRISPAC/POLYMER				
Dens.	Visc.	9.50 LB/G	41.0 S			
pH	Fld. Loss	9.0	4.8 C3			
Source of Sample		FLOWLINE				
Rm @ Meas. Temp.		3.140 OHMM	@ 73.0 DEGF	@		
Rmf @ Meas. Temp.		4.420 OHMM	@ 66.0 DEGF	@		
Rmc @ Meas. Temp.		2.740 OHMM	@ 66.0 DEGF	@		
Source: Rmf	Rmc	MEASURED	MEASURED			
Rm @ BHT		2.730 OHMM	@ 85.0 DEGF	@		
TIME Circulation Ended		07:45 6-JUNE-92				
TIME Logger on Bottom		10:42 6-JUN-92				
Max. Rec. Temp.		85.0 DEGF				
Equip.	Location	8504	SACRAMENTO			
Recorded By		S.PILCH/M.DEMSKIE				
Witnessed By		J.VAUGHAN/B.PINOTTI				

The well name, location and borehole reference data were furnished by the customer.

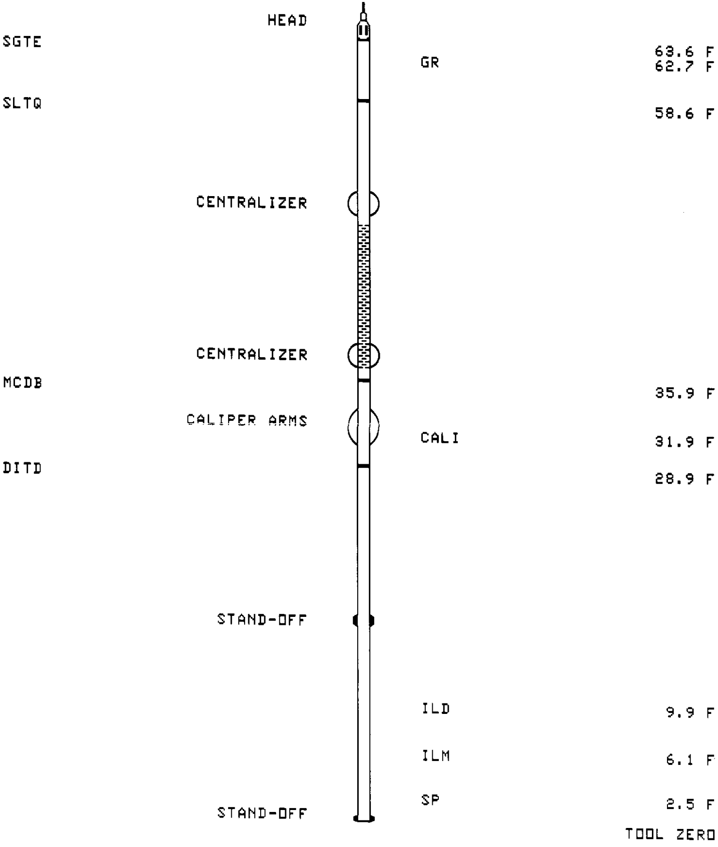
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

Run No.	ONE		
Service Order No.	595171		
Drilling Fluid Level	10.0 F		
Salinity	550.0 PPM		
Rmf @ BHT	3.507 OHMM @ 85.0 DEGF	@	
Rmo @ BHT	2.174 OHMM @ 85.0 DEGF	@	
Logging Speed	3600.0 F/HR		
EQUIPMENT DATA			
Tool Number 1	DIS-EC 298		
Tool Number 2	DIC-DA 1078		
Tool Number 3	MCD-B 1190		
Tool Number 4	SLS-WA 178		
Tool Number 5	SLC-MA 189		
Tool Number 6	SGT-E 567		
Tool Number 7	IEM-BD 304		
Tool Number 8	SLM-DA 443		
Tool Number 9	NLM-BC 456		
Tool Number 10			
Tool Number 11			
Tool Number 12			

REMARKS:

TWO 1.5" STANDOFFS RUN ON DUAL INDUCTION TOOL
TWO CEMZ CENTRALIZERS RUN ON SONIC SONDE

LOGGING TOOL STRING SKETCH



TOTAL TOOL STRING LENGTH IS 66.6 F.
TOTAL TOOL STRING WEIGHT IS 957. LB IN AIR.

MAIN LOG

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

RWA(OHMM)
0.0 3.0000
CALI(IN)
6.0000 16.000
SP(MV)
-120.0 -20.00

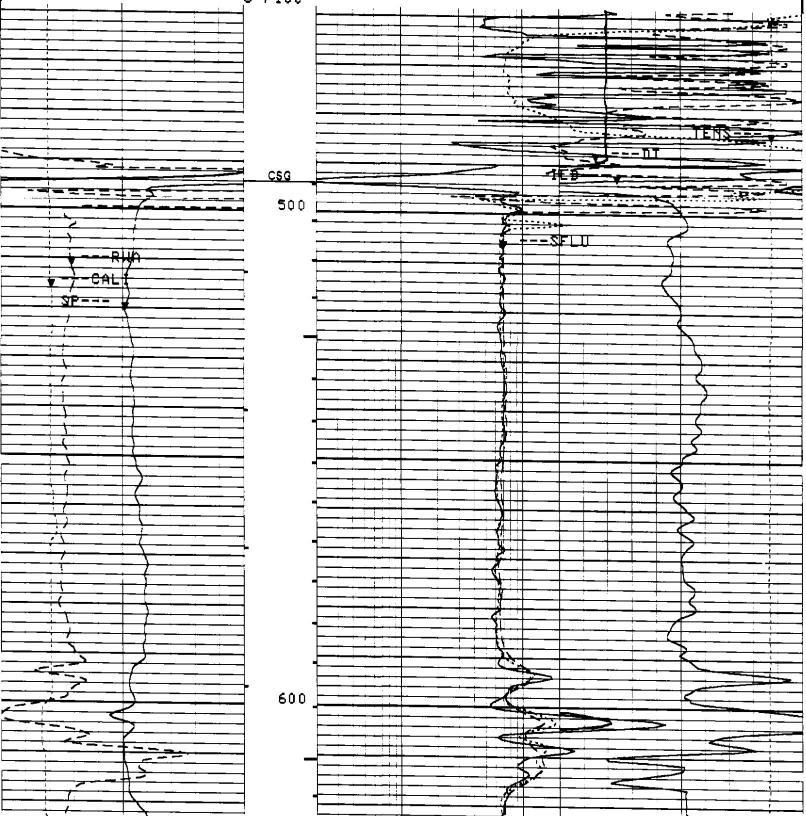
ILD(OHMM)
.20000 2000.0
ILM(OHMM)
.20000 2000.0
SFLU(OHMM)
.20000 2000.0

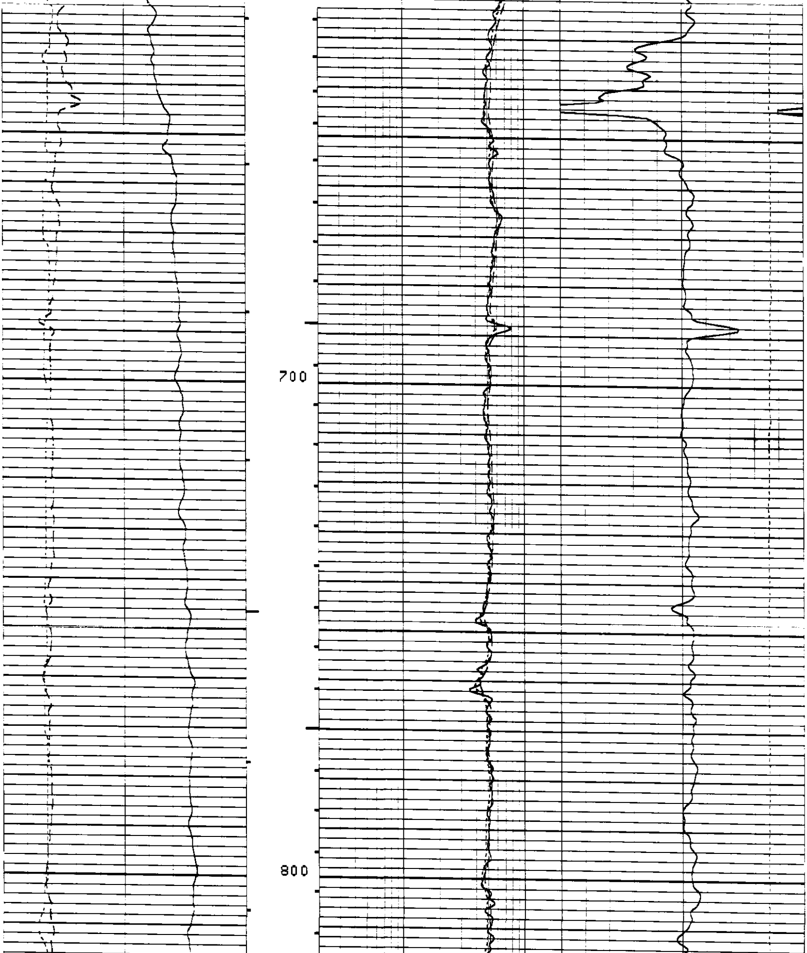
CP 32.6

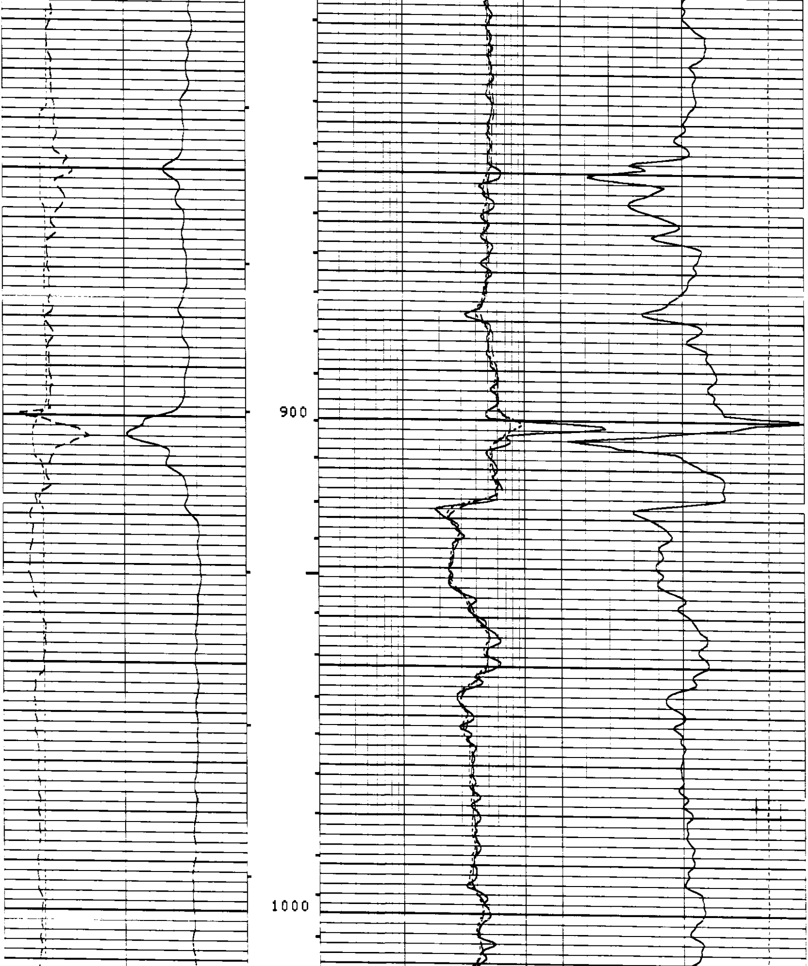
FILE 17 06-JUN-1992 11:35

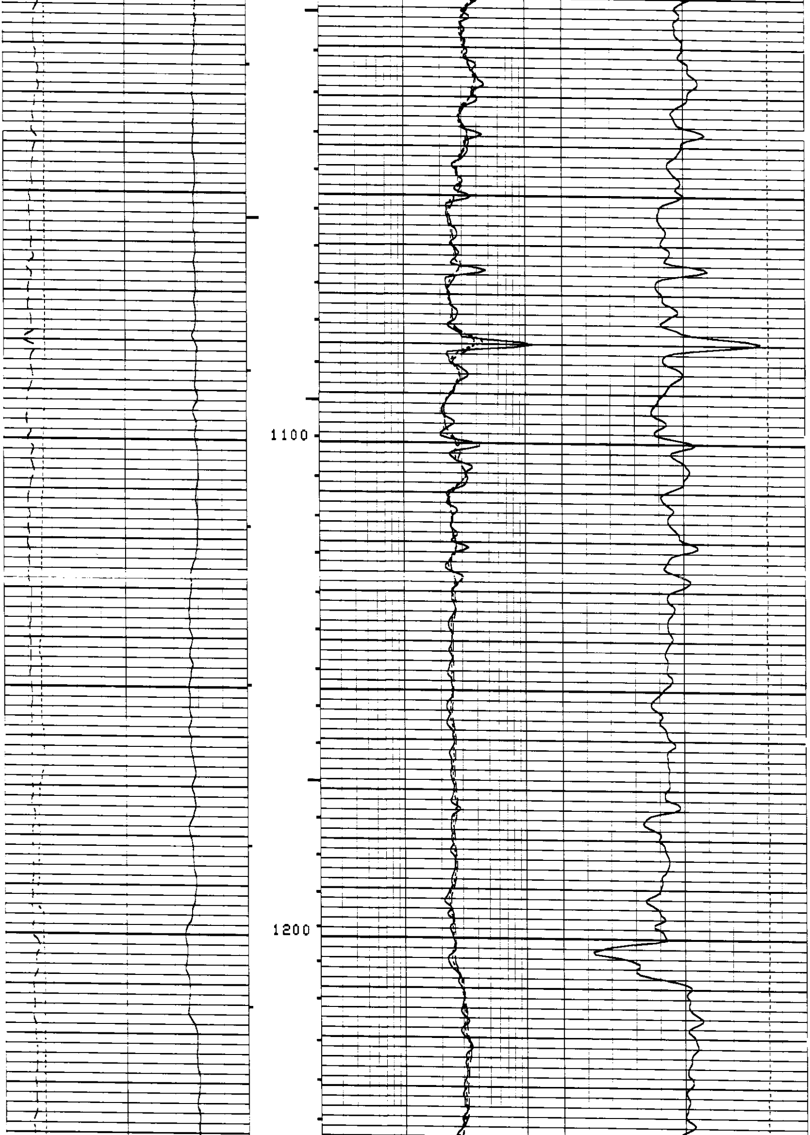
INPUT FILE(S) 13
CREATION DATE 06-JUN-1992 10:40

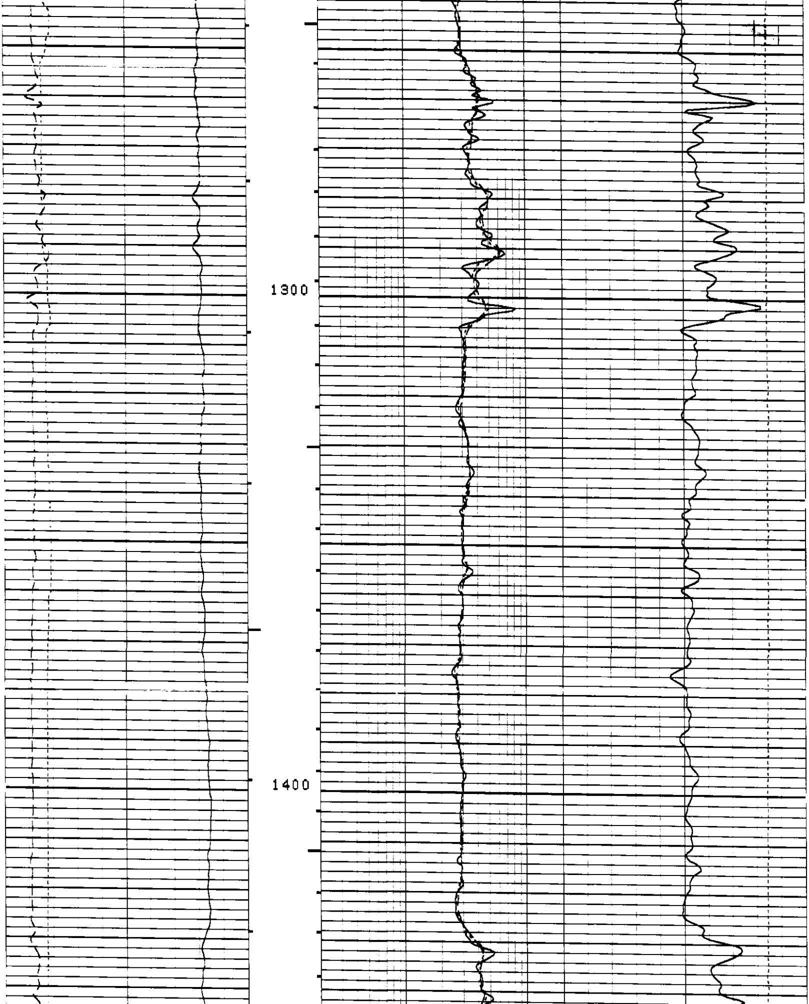
5"/100'

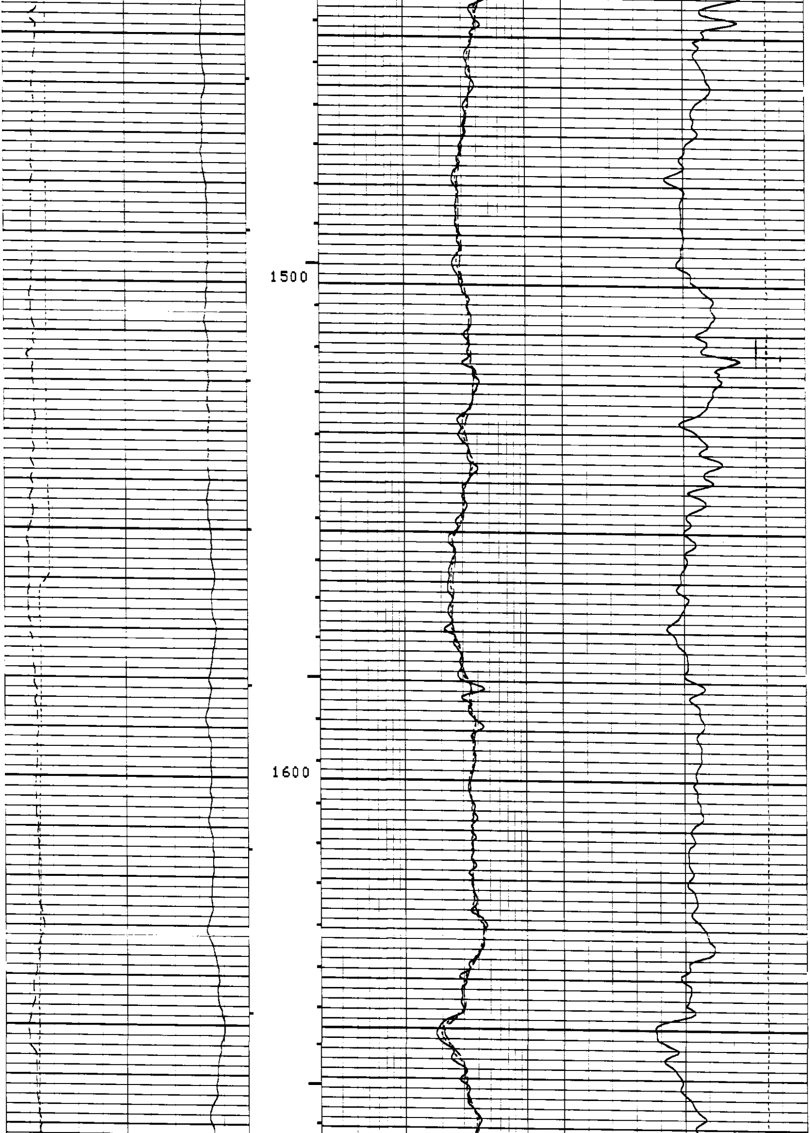


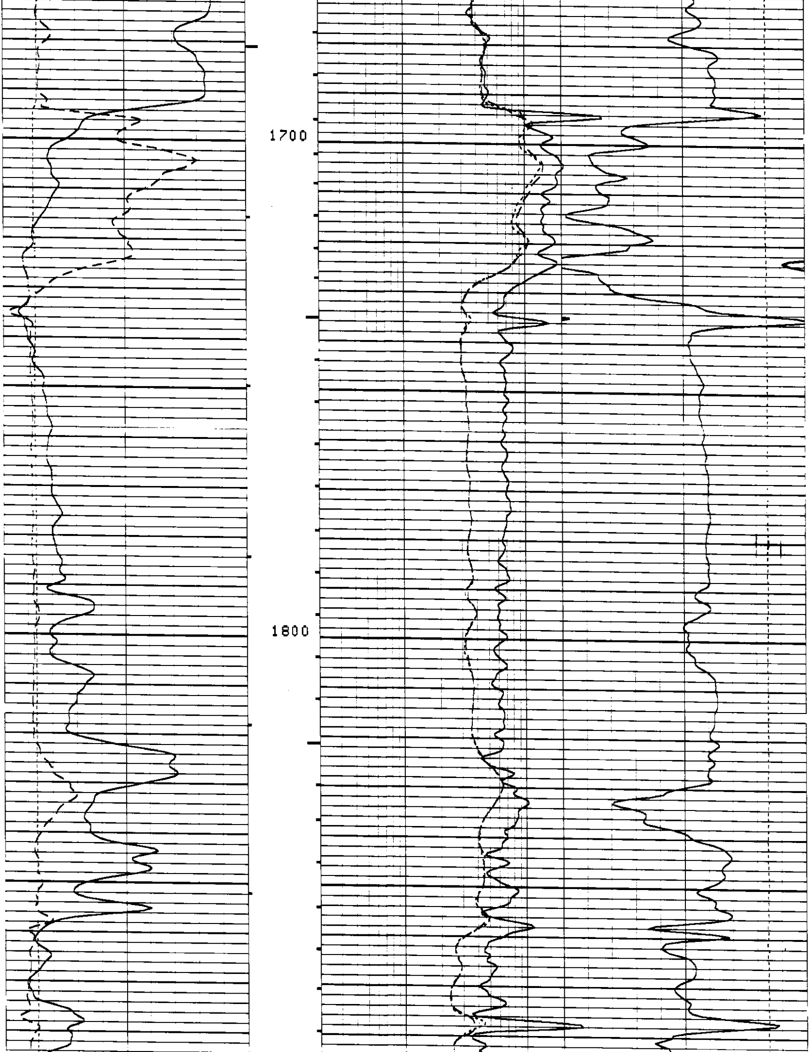


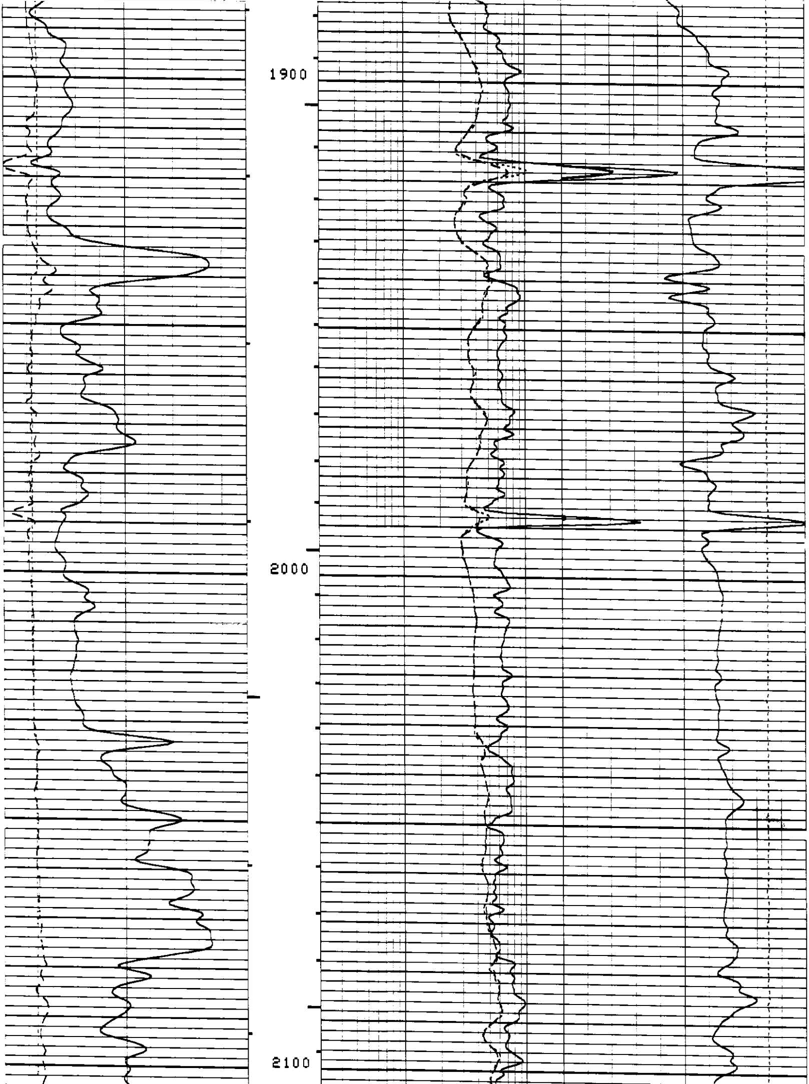


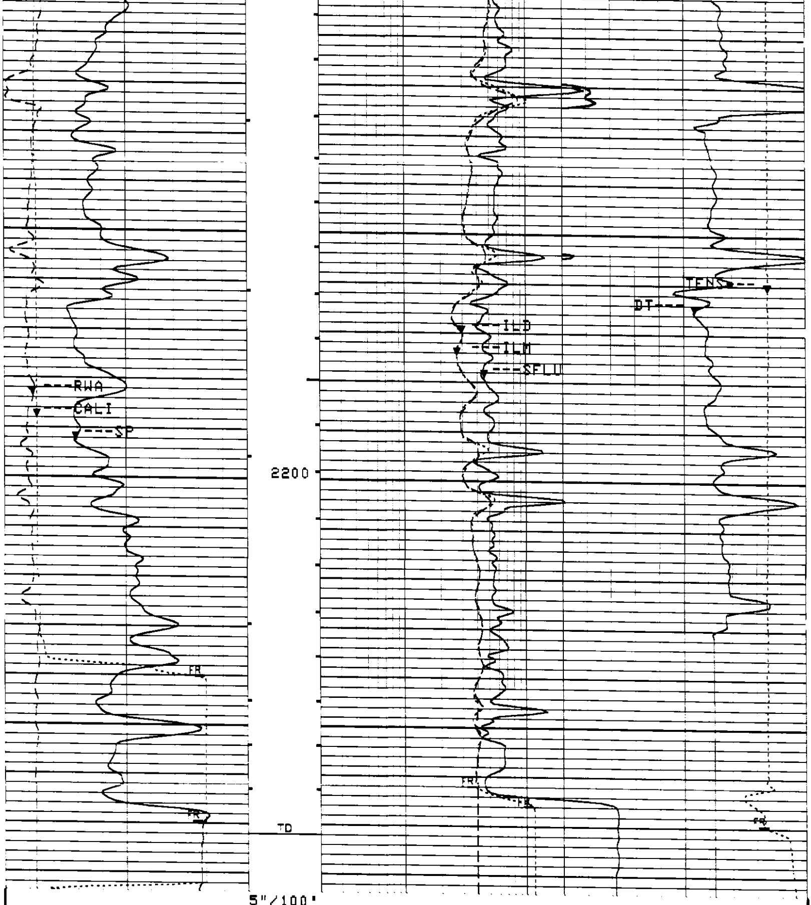












CP 32.6 FILE 17 06-JUN-1992 11:26

```
INPUT FILE(S)   CREATION DATE
     13         06-JUN-1992 10:40
```

Curve	Left	Right
TENS(LBF)	10000.	0.0
DT(US/F)	175.00	75.000
RWA(OHMM)	0.0	3.0000
CALI(IN)	6.0000	16.000
SP(MV)	-120.0	-20.00
ILD(OHMM)	.20000	2000.0
ILM(OHMM)	.20000	2000.0
SFLU(OHMM)	.20000	2000.0

REPEAT SECTION

```
ACCUMULATED INTEGRATION VALUES SUMMARY:

Integrated Hole Volume:   87.3229 F3    FROM 2272.00 F    TO 2045.00 F
Integrated Transit Time:  .0245945 S    FROM 2272.00 F    TO 2045.00 F
```

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EVENT MARK SUMMARY:

OUTPUT                       INTERVAL        DEPTH TRACK
                             BETWEEN PIPS    EDGE

Integrated Hole Volume       10.0000 F3      LEFT EDGE
Integrated Transit Time      .00100000 S     RIGHT EDGE
```

Curve	Left	Right
TENS(LBF)	10000.	0.0
DT(US/F)	175.00	75.000
RWA(OHMM)	0.0	3.0000
CALI(IN)	6.0000	16.000
SP(MV)	-130.0	-30.00
ILD(OHMM)	.20000	2000.0
ILM(OHMM)	.20000	2000.0
SFLU(OHMM)	.20000	2000.0

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CP 32.6        FILE   16      06-JUN-1992 11:24

               INPUT FILE(S)   CREATION DATE
                    11         06-JUN-1992 10:29

               5"/100'
```
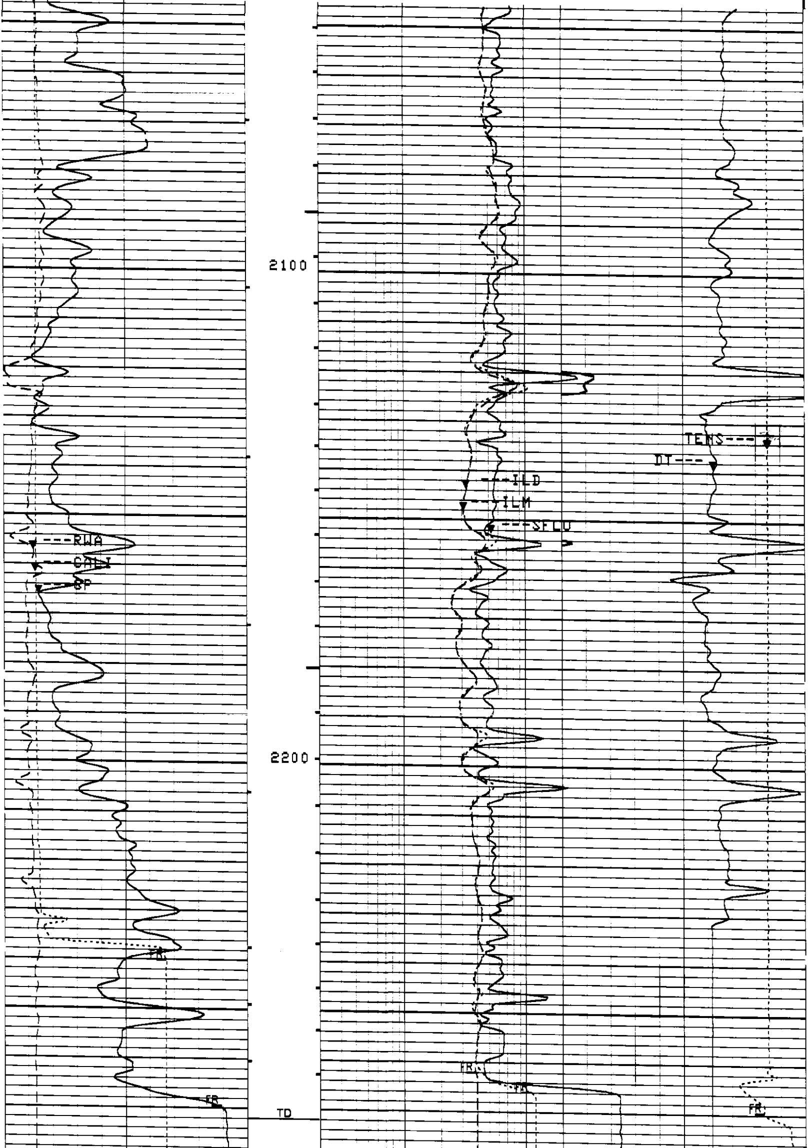
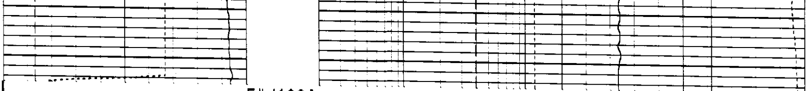



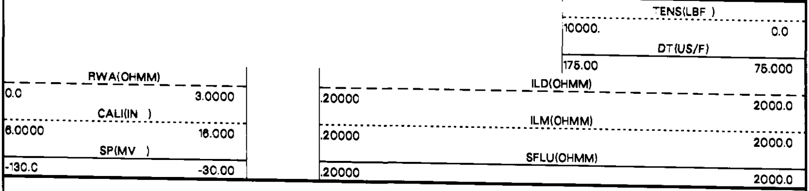


5"/100'

CP 32.6

FILE 16 06-JUN-1992 11:22

INPUT FILE(S) CREATION DATE
11 06-JUN-1992 10:29



SENSOR MEASURE POINT TO TOOL ZERO

SRAT	41.7	FEET	AMPL	44.1	FEET
CBFS	43.1	FEET	CBL	44.1	FEET
TT2	44.1	FEET	TT1	43.1	FEET
TT4	39.3	FEET	TT3	40.3	FEET
TT	44.1	FEET	T0	44.1	FEET
CBSL	44.1	FEET	TTSL	44.1	FEET
CALI	31.9	FEET	GR	62.7	FEET
ILM	6.1	FEET	ILD	9.9	FEET
SP	2.5	FEET	SFL	6.8	FEET
TENS	2.5	FEET	SPAR	2.5	FEET
NOIS	2.5	FEET			

PARAMETERS

PARAMETER	VALUE	UNIT
SMB - Sonic Memory Board	DISA	
TOCA - T0 Correction Status	DISA	
RATE - Firing Rate	15	HZ
DG - Downhole Gain	/5	
DETE - Detection	E2	
AMPL - Sonic Amplitude	2	
CBL - Cement Bond Log Amplitude	UT	
WFM - Waveform Mode	1	
SS - Sweep Speed	FAST	
TOD - T0 Delay	DISA	
DTF - Delta-T Fluid	189.000	US/F
DTM - Delta-T Matrix	56.0000	US/F
CDTS - Correction for Delta-T Shale; Empirical	100.000	
SPFS - Sonic Porosity Formula Select	R-H	
PP - Playback Processing	NORM	
DO - Depth Offset for Logical Unit LI1	0.0	F
WMUD - Weight of Mud	9.50000	LB/G
MSEC - Medium Sonde Error Correction	6.00000	MM/M
SBR - Shoulder Bed Resistivity	1.00000	OHMM
DSEC - Deep Sonde Error Correction	6.30000	MM/M
FCD - Future Casing Diameter	0.0	IN
NCJT - NGT Calibration Jig Type	GSRY	
FPHI - Formation Factor Formula Porosity	SPHI	
DWCO - Digitizer Word Count	512	
DSIN - Digitizer Sample Interval	5	US
DDEL - Digitizing Delay	200	US
BS - Bit Size	7.87500	IN
BHS - BoreHole Status (Open or Cased)	OPEN	

CALIBRATION SUMMARY

```
                BEFORE SURVEY CALIBRATION SUMMARY


   PERFORMED:      06-JUN-1992 10:27
   PROGRAM FILE: ISN     (VERSION     32.6     91/08/23  91/08/23)


 DITD              ELECTRONICS CALIBRATION SUMMARY

              MEASURED                            CALIBRATED
            ZERO      PLUS                    ZERO        PLUS          UNITS
    ILD      .59     552.5                    0.0        502.7          MM/M
    ILM      .47     533.1                    0.0        501.7          MM/M
    SFL     1.07     530.2                    0.0        500.0          MM/M

 ILD SONDE ERROR CORRECTION :           6.3 MM/M
 ILM SONDE ERROR CORRECTION :           6.0 MM/M

 ZERO: 06-JUN-1992 10:25  PLUS: 06-JUN-1992 10:26  COMP: 06-JUN-1992 10:26

 SGTE              DETECTOR CALIBRATION SUMMARY

              MEASURED
            BKGD      JIG           CALIBRATED           UNITS
     GR      46       185              165               GAPI

 BACK: 06-JUN-1992 09:17   JIG: 06-JUN-1992 09:15  COMP: 06-JUN-1992 09:17

 MCDB              CALIPER CALIBRATION SUMMARY

              MEASURED                            CALIBRATED
            SMALL     LARGE                   SMALL       LARGE         UNITS
   CALI     6.37     11.50                    8.00       12.00           IN

 SMALL: 06-JUN-1992 09:18 LARGE: 06-JUN-1992 09:19 COMP: 06-JUN-1992 09:19

    CP 32.6              FILE   10        06-JUN-1992 10:26



                AFTER SURVEY TOOL CHECK SUMMARY


   PERFORMED:      06-JUN-1992 11:17
   PROGRAM FILE: ISN     (VERSION     32.6     91/08/23  91/08/23)

 DITD                        TOOL  CHECK

                     ZERO                            PLUS
              BEFORE          AFTER           BEFORE      AFTER      UNITS
    ILD         0.0             -.4           502.7       501.2      MM/M
    ILM         0.0              .1           501.7       499.7      MM/M
    SFL         0.0              .1           500.0       496.7      MM/M

 ILD SONDE ERROR CORRECTION :           6.3 MM/M
 ILM SONDE ERROR CORRECTION :           6.0 MM/M
```

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BEFORE SURVEY:                ZERO: 06-JUN-1992 10:25  PLUS: 06-JUN-1992 10:26
AFTER SURVEY CHECK:           ZERO: 06-JUN-1992 11:16  PLUS: 06-JUN-1992 11:16

   CP 32.6             FILE   15       06-JUN-1992 11:16



                 SHOP SUMMARY


   PERFORMED:    26-MAY-1992 10:09
   PROGRAM FILE: SHOP   (VERSION    32.6    91/08/23  91/08/23)


 DITD              ELECTRONICS CALIBRATION SUMMARY

                   TEST LOOP CALIBRATION             TOOL CHECK
                MEASURED         CALIBRATED          CALIBRATED
              ZERO    PLUS     ZERO      PLUS      ZERO       PLUS    UNITS
     ILD      -5.2    537.1     0.0      500.0      0.0       502.7   MM/M
     ILM      -6.0    521.1     0.0      500.0      0.0       501.7   MM/M
 ILD  SONDE ERROR CORRECTION :           6.3 MM/M
 ILM  SONDE ERROR CORRECTION :           6.0 MM/M

                          (IS:298 , IC:1078)

   CP 32.6             FILE   1        26-MAY-1992 10:09
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COMPANY	NAHAMA AND WEAGANT ENERGY CO.			**SCHL.**	**FR**	**2266.0 F**
WELL	SASQLATCH 23-31-65			**SCHL.**	**TD**	**2272.0 F**
				DRLR.	**TD**	**2272.0 F**
FIELD	MIST			**Elev:**	**KB**	**935.0 F**
COUNTY	COLUMBIA	**STATE**	OREGON		**DF**	**934.0 F**
					GL	**925.0 F**

Schlumberger

DUAL INDUCTION-SFL-SONIC