Schlumberger

FORMATION MICROSCANNER

COUNTY	COLUMBIA
FIELD	MIST
LOCATION	2208.6E AND 384.4N
WELL	SALMON BERRY H.N.R. #24-22-64
COMPANY	NAHAMA AND WEAGANT ENERGY CO.

COMPANY NAHAMA AND WEAGANT ENERGY CO.

WELL SALMON BERRY H.N.R. #24-22-64

FIELD MIST

COUNTY COLUMBIA **STATE** OREGON

LOCATION
2208.6'E AND 384.4'N
FROM SW CORNER OF:

Other Services:
DIL/BHC/GR
MESTC

API SERIAL NO.	SECT.	TWP.	RANGE
36-009-00312	22	6N	4W

Permanent Datum	GL	**Elev.**	1107.0 F	**Elev.: K.B.1117.0 F**
Log Measured From	KB	10.0 F	**above Perm. Datum**	**D.F.1116.0 F**
Drilling Measured From	KB			**G.L.1107.0 F**

Date	21-OCT-1993					
Run No.	ONE					
Depth Driller	2553.0 F					
Depth Logger (Schl.)	2547.0 F					
Btm. Log Interval	2545.0 F					
Top Log Interval	1300.0 F					
Casing-Driller	8 5/8	@ 502.0 F		@		@
Casing-Logger	502.0 F					
Bit Size	7 7/8	@ 2553.0 F		@		@
Type Fluid in Hole	GEL					
Dens. | **Visc.**	8.90 LB/G	38.0 S				
pH | **Fld. Loss**	7.0	8.0 C3				
Source of Sample	FLOWLINE					
Rm @ Meas. Temp.	4.610 OHMM	@ 64.0 DEGF		@		
Rmf @ Meas. Temp.	2.750 OHMM	@ 60.0 DEGF		@		
Rmc @ Meas. Temp.	3.210 OHMM	@ 60.0 DEGF		@		
Source: Rmf | **Rmc**	MEASURED	MEASURED				
Rm @ BHT	3.597 OHMM	@ 84.0 DEGF		@		
TIME **Circulation Ended**	15:30 21-OCT-93					
TIME **Logger on Bottom**	23:00 21-OCT-93					
Max. Rec. Temp.	84.0 DEGF					
Equip. | **Location**	8504	SACRAMENTO				
Recorded By	M.DEMSKIE					
Witnessed By	B.PINOTTI/R.LUCAS					

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

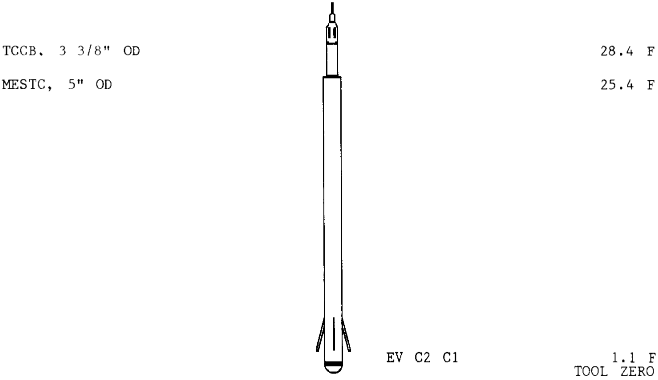
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, 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.	624382	
Drilling Fluid Level	5.0 F	
Salinity	400.0 PPM	
Rmf @ BHT	2.025 OHMM @ 84.0 DEGF	@
Rmc @ BHT	2.363 OHMM @ 84.0 DEGF	@
Logging Speed	1800.0 F/HR	
EQUIPMENT DATA		
Tool Number 1	MEDS-C 411	
Tool Number 2	MEAC-A 446	
Tool Number 3	TCC-B 2886	
Tool Number 4	TCM-AB 1516	
Tool Number 5		
Tool Number 6		
Tool Number 7		
Tool Number 8		
Tool Number 9		
Tool Number 10		
Tool Number 11		
Tool Number 12		

REMARKS:

CORRELATED TO SWS DIL/SONIC LOG
THANK YOU FOR CHOOSING SCHLUMBERGER
MFIN=.55, MDEC=19, MINC=66

LOGGING TOOL STRING SKETCH



TOTAL TOOL STRING LENGTH IS 32.7 F.
TOTAL TOOL STRING WEIGHT IS 459. LB IN AIR.

MAIN LOG

AZIM PRESENTATION DISALLOWED WHEN DEVI IS LESS THAN .500000 DEG

SPEED CORRECTION NOT APPLIED

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ACCUMULATED INTEGRATION VALUES SUMMARY:

Integrated Hole Volume:   537.294 F3    FROM 2547.00 F    TO 1262.00 F
Integrated Cement Volume: 395.370 F3    FROM 2547.00 F    TO 1262.00 F
  (ASSUMING 4.50000 IN   O.D. CASING)
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EVENT MARK SUMMARY:

OUTPUT                          INTERVAL        DEPTH TRACK
                                BETWEEN PIPS    EDGE

Integrated Hole Volume          10.0000 F3      LEFT EDGE
Integrated Cement Volume        10.0000 F3      RIGHT EDGE
```

FNOR(OER)
.20000 .70000
ANOR(M/S2)
9.0000 11.000

EV(V) 0.0 5.0000
TENS(LBF) 10000. 0.0
MRE8 -1000 19000
MRE7 -3000. 17000
MRE6 -5000. 15000.
MRE5 -7000. 13000.
MRE4 -9000. 11000.
MRE3 -11000 9000.0
MRE2 -13000 7000.0
MRE1 -15000 5000.0

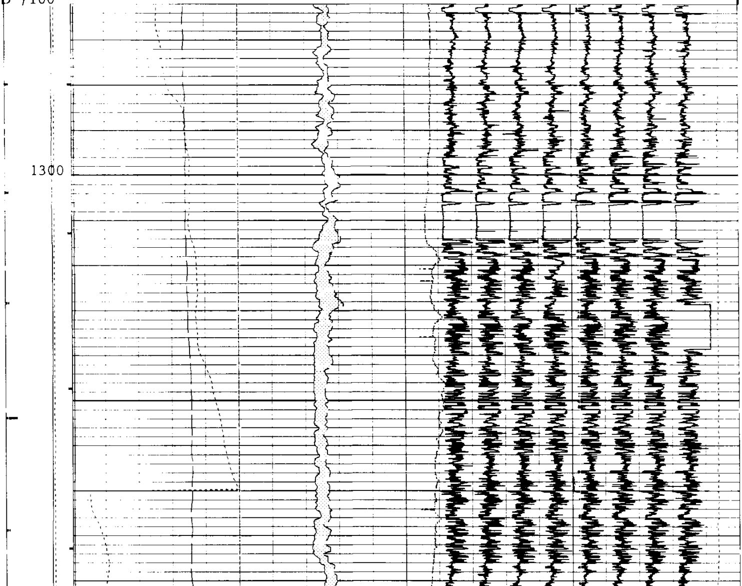
AZIM(DEG) -40.00 360.00
DEVI(DEG) 0.0 50.000
P1AZ(DEG) -40.00 360.00

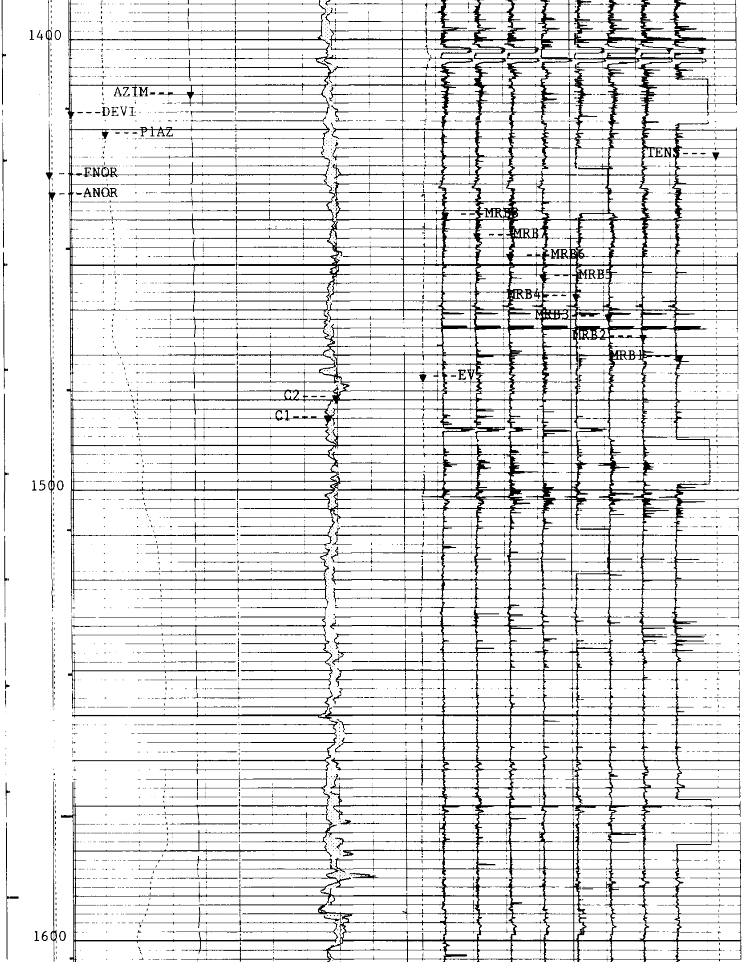
AZ(M/S2) 0.0 10.000
C2(IN) 6.0000 11.000
C1(IN) 6.0000 11.000

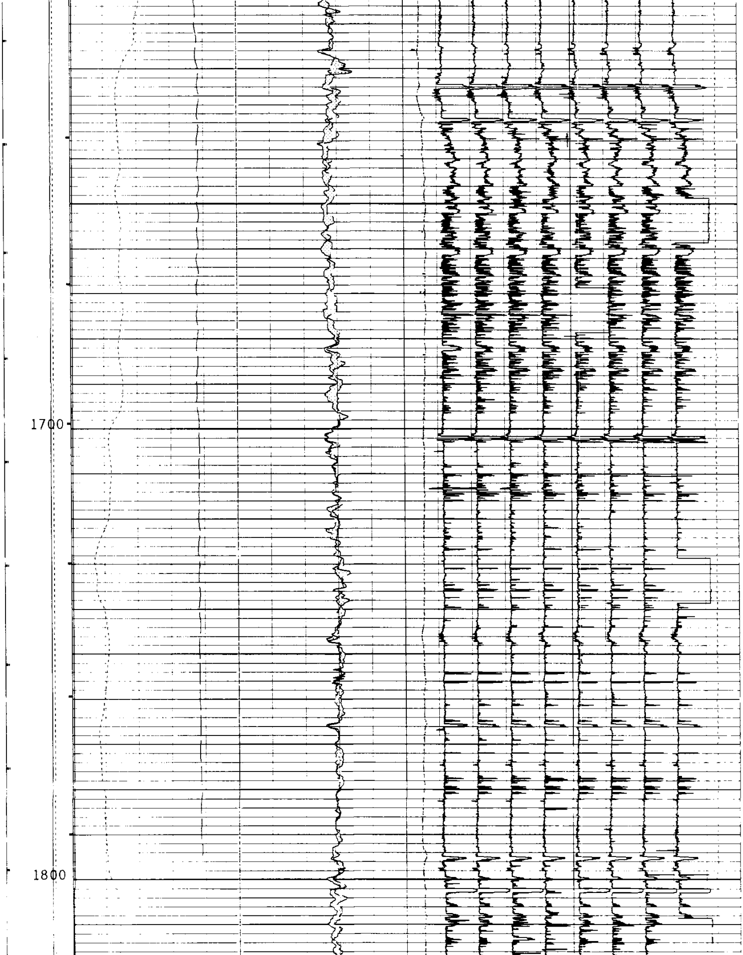
C2A -- C1A
C1A -- C2A

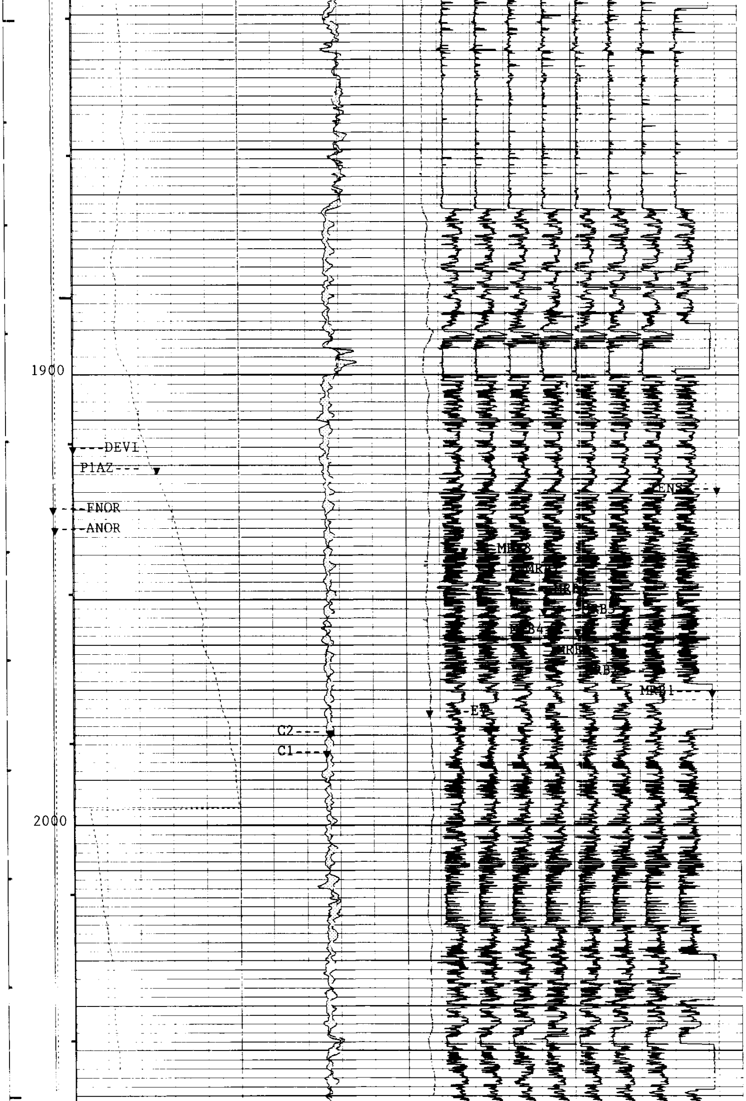
CP 38.2 FILE 4 21-OCT-1993 23:40 (UP)

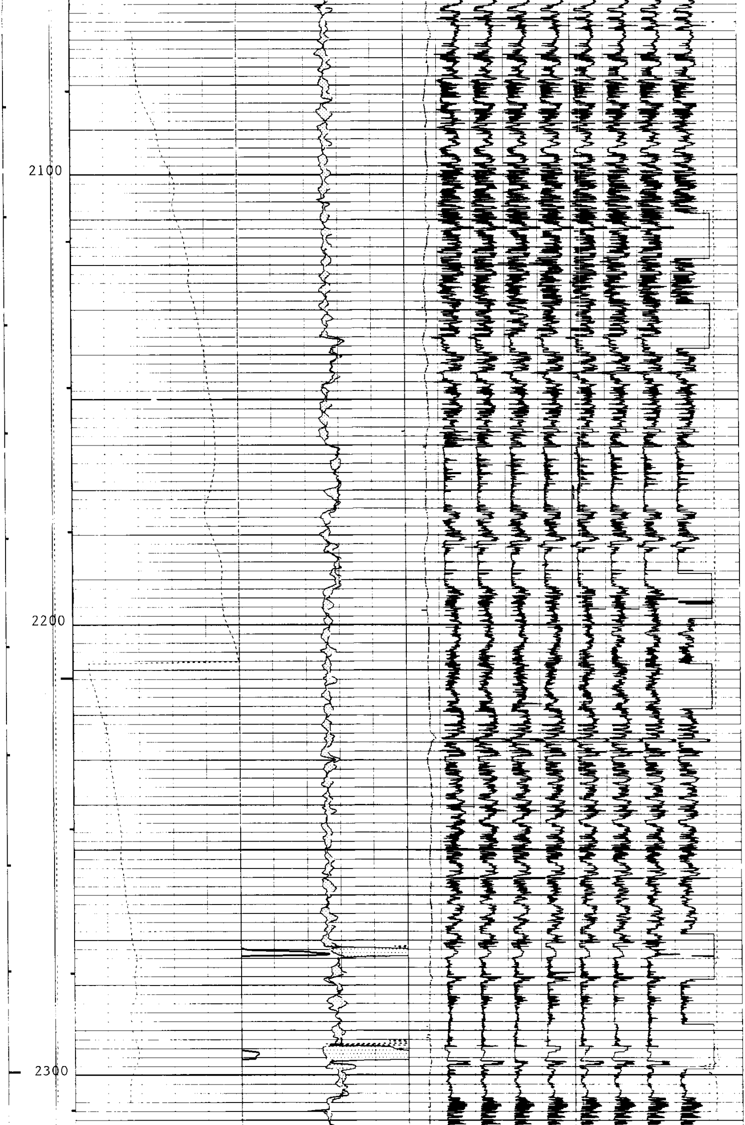
5"/100'

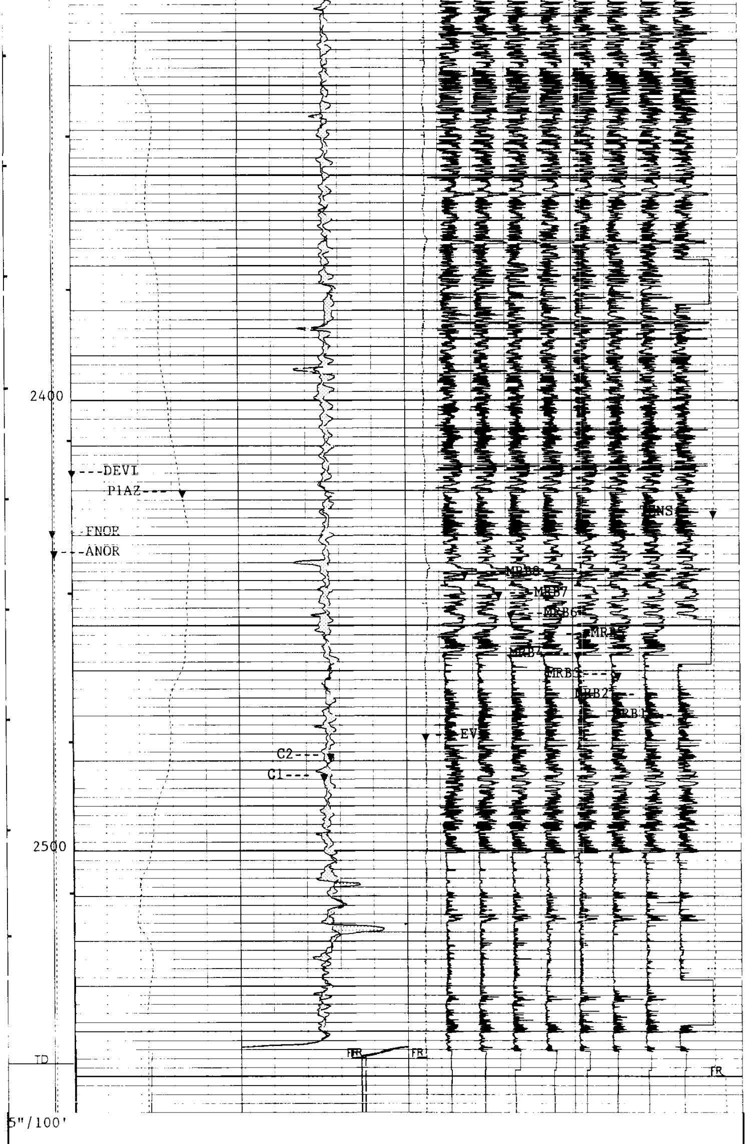


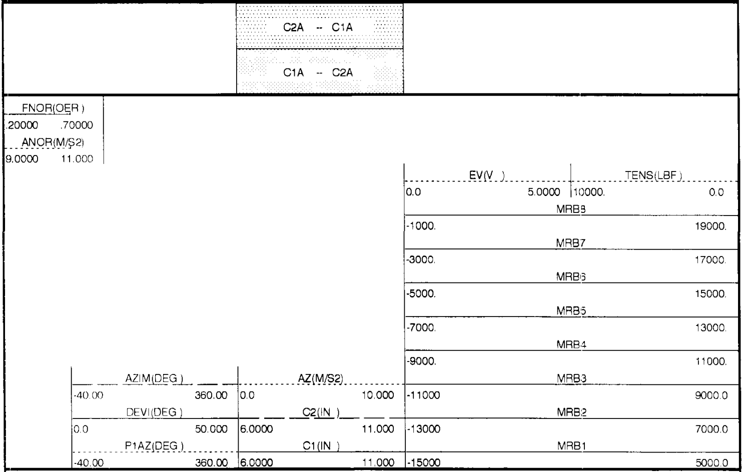












SENSOR MEASURE POINT TO TOOL ZERO

C1	1.1	FEET	TENS	-2.9	FEET
MDRB	1.1	FEET	C2	1.1	FEET
MRPC	1.1	FEET	MRPD	1.1	FEET
MRPA	1.1	FEET	MRPB	1.1	FEET
AY	1.1	FEET	AX	1.1	FEET
FX	1.1	FEET	AZ	1.1	FEET
FZ	1.1	FEET	FY	1.1	FEET
FCAY	1.1	FEET	FCAX	1.1	FEET
FTIM	1.1	FEET	FCAZ	1.1	FEET

PARAMETERS

PARAMETER	VALUE	UNIT
PADT - Presentation Allow Disallow Threshold	.500000	DEG
FCSR - Fast Channel Sample Rate	0.1"	
AFMO - Accelerometer Filtering Mode	HAMM	
ICMO - Inclinometry Computation Mode	AUTO	
MDEC - Magnetic Field Declination	19.0000	DEG
GLM - GPIT Logging Mode	DIPM	
ICSD - Inclinometry Computation Stop Depth	502.000	F
RBS - Resistivity Button Selection	AUTO	
PTYP - Platform Type	MEC	
MLM - MEST Logging Mode	1800	
SOFF - Stand Off	-1.00000	IN
CSR - Curves Sampling Rate	.6"	
ODFO - Output Data Format	RAW	
XMOD - EMEX Voltage Regulation Mode	AUTO	
XGAI - Gain Setting	2	
XOFF - Offset Setting	0	
FCD - Future Casing Diameter	4.50000	IN
SPCR - Speed Correction Constant	DISA	
BS - Bit Size	7.87500	IN
BHS - BoreHole Status (Open or Cased)	OPEN	

REPEAT SECTION

AZIM PRESENTATION DISALLOWED WHEN DEVI IS LESS THAN .500000 DEG

SPEED CORRECTION NOT APPLIED

ACCUMULATED INTEGRATION VALUES SUMMARY:

```
Integrated Hole Volume:   89.4240 F3    FROM 2547.00 F    TO 2318.00 F
Integrated Cement Volume: 64.1317 F3    FROM 2547.00 F    TO 2318.00 F
  (ASSUMING 4.50000 IN   O.D. CASING)
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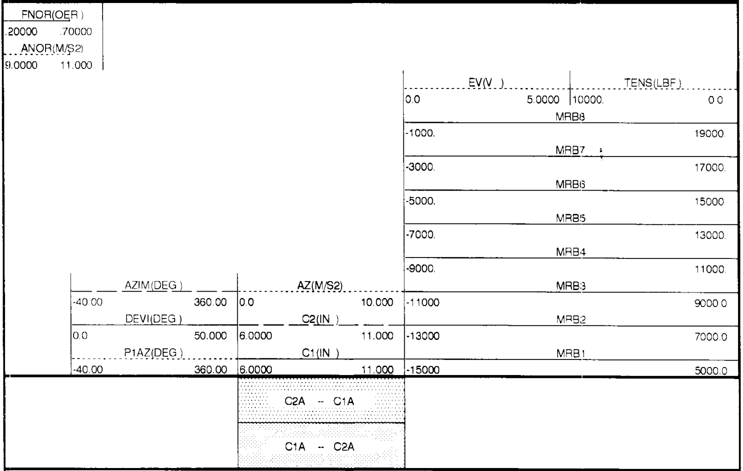
EVENT MARK SUMMARY:

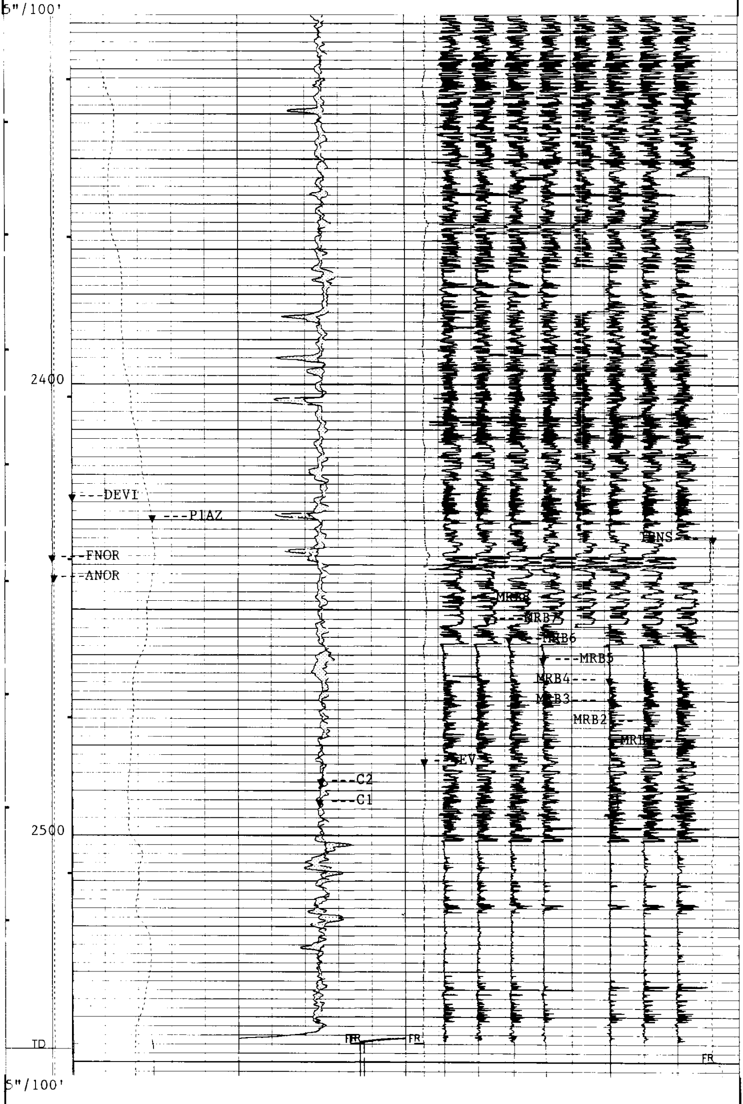
OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
Integrated Hole Volume	10.0000 F3	LEFT EDGE
Integrated Cement Volume	10.0000 F3	RIGHT EDGE

CHANGED PARAMETERS

NAME	VALUE	UNIT	DEPTH (F)	NAME	VALUE	UNIT	DEPTH (F)
RBS	AUTO		2463.0				



CP 38.2 FILE 3 21-OCT-1993 22:55 (UP)



CP 38.2 FILE 3 21-OCT-1993 22:47 (UP)

C2A - C1A

C1A -- C2A

FNOR(OER :	
.20000	70000
ANOR(M/S2)	
9.0000	11.000

EV(V)		TENS(LBF)	
0.0	5.0000	10000.	0.0

MRB	Left	Right
MRB8	-1000.	19000.
MRB7	-3000.	17000.
MRB6	-5000.	15000.
MRB5	-7000.	13000.
MRB4	-9000.	11000.
MRB3	-11000	9000.0
MRB2	-13000	7000.0
MRB1	-15000	5000.0

AZIM(DEG)		AZ(M/S2)	
-40.00	360.00	0.0	10.000
DEVI(DEG)		C2(IN)	
0.0	50.000	6.0000	11.000
P1AZ(DEG)		C1(IN)	
-40.00	360.00	6.0000	11.000

SENSOR MEASURE POINT TO TOOL ZERO

C1	1.1	FEET	TENS	-2.9	FEET
MDRB	1.1	FEET	C2	1.1	FEET
MRPC	1.1	FEET	MRPD	1.1	FEET
MRPA	1.1	FEET	MRPB	1.1	FEET
AY	1.1	FEET	AX	1.1	FEET
FX	1.1	FEET	AZ	1.1	FEET
FZ	1.1	FEET	FY	1.1	FEET
FCAY	1.1	FEET	FCAX	1.1	FEET
FTIM	1.1	FEET	FCAZ	1.1	FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
PADT	.500000	DEG	FCSR	0.1"	
AFMO	HAMM		ICMO	AUTO	
MDEC	19.0000	DEG	GLM	DIPM	
ICSD	502.000	F	RBS	A1	
PTYP	MEC		MLM	1800	
SOFF	-1.00000	IN	CSR	.6"	
ODFO	RAW		XMOD	AUTO	
XGAI	2		XOFF	0	
FCD	4.50000	IN	SPCR	DISA	
BS	7.87500	IN	BHS	OPEN	

CALIBRATION SUMMARY

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                BEFORE SURVEY CALIBRATION SUMMARY

  PERFORMED:     21-OCT-1993 22:38
  PROGRAM FILE: TDIP   (VERSION    38.2    92/10/12  92/10/12)

MEST            CALIPER CALIBRATION SUMMARY

             MEASURED                      CALIBRATED
           SMALL    LARGE             SMALL       LARGE        UNITS
    C1     8.58    12.35              8.00        12.00         IN
    C2     8.37    12.22              8.00        12.00         IN

SMALL: 21-OCT-1993 22:35 LARGE: 21-OCT-1993 22:37 COMP: 21-OCT-1993 22:37

GPIC            CALIBRATION SUMMARY

 MAGNETOMETER MANUFACTURER CODE:                3
 MAGNETOMETER SERIAL NUMBER:                   87
 MAGNETOMETER REFERENCE TEMPERATURE :          20.0  DEGC

GPIC            CALIBRATION SUMMARY

 ACCELEROMETER MANUFACTURER CODE:               3
 ACCELEROMETER SERIAL NUMBER:                 336
 ACCELEROMETER REFERENCE TEMPERATURE :         20.0  DEGC

   CP 38.2          FILE    2       21-OCT-1993 22:37
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COMPANY	NAHAMA AND WEAGANT ENERGY CO.			**SCHL.**	**FR**	**2545.0 F**
				SCHL.	**TD**	**2547.0 F**
WELL	SALMON BERRY H.N.R. #24-22-64			**DRLR.**	**TD**	**2553.0 F**
FIELD	MIST			**Elev:**	**KB**	**1117.0 F**
					DF	**1116.0 F**
COUNTY	COLUMBIA	**STATE**	OREGON		**GL**	**1107.0 F**

Schlumberger

FORMATION MICROSCANNER