COUNTY	COLUMBIA
FIELD	MIST
LOCATION	575' E & 556' W FROM
WELL	"BEAVER CREEK" #31-34-75
COMPANY	NAHAMA AND WEAGANT ENERGY CO

Schlumberger

FOUR - ARM
HIGH RESOLUTION
CONTINUOUS DIPMETER

COMPANY	NAHAMA AND WEAGANT ENERGY CO.		
WELL	ADAMS ~~"BEAVER CREEK"~~ #31-34-75		
FIELD	MIST		
COUNTY	COLUMBIA	**STATE**	OREGON

LOCATION	575' E & 556' W FROM N 1/4 CORNER OF SEC 34			**Other Services:** DITD SLTQ SGTE TVD SHDI CYBERDIP
API SERIAL NO. 36-009-00282	**SECT.** 34	**TWP.** 7N	**RANGE** 5W	

Permanent Datum	GL	Elev.	1627.0 F		**Elev.: K.B.1637.0 F**
Log Measured From	KB	10.0 F	above Perm. Datum		**D.F.1636.0 F**
Drilling Measured From	KB				**G.L.1627.0 F**

Date	28-JUN-1992			
Run No.	ONE			
Depth Driller	3414.0 F			
Depth Logger (Schl.)	3412.0 F			
Btm. Log Interval	3411.0 F			
Top Log Interval	2400.0 F			
Casing-Driller	9 5/8 IN @ 494.0 F	@	@	
Casing-Logger	501.0 F			
Bit Size	8 1/2 IN @ 3414.0 F	@	@	
Type Fluid in Hole	GEL/POLYMER			
Dens. / **Visc.**	9.80 LB/G	41.0 S		
pH / **Fld. Loss**	8.0	5.0 C3		
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	3.810 OHMM @ 74.0 DEGF		@	
Rmf @ Meas. Temp.	5.650 OHMM @ 50.0 DEGF		@	
Rmc @ Meas. Temp.	3.000 OHMM @ 50.0 DEGF		@	
Source: Rmf / **Rmc**	MEASURED	MEASURED		
Rm @ BHT	3.117 OHMM @ 92.0 DEGF		@	
TIME **Circulation Ended**	05:30 ON 28-JUNE-92			
TIME **Logger on Bottom**	10:38 ON 28-JUNE-92			
Max. Rec. Temp.	92.0 DEGF			
Equip. / **Location**	8504	SACRAMENTO		
Recorded By	DAN MILLER			
Witnessed By	J.VAUGHAN/B.PINOTTI			

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

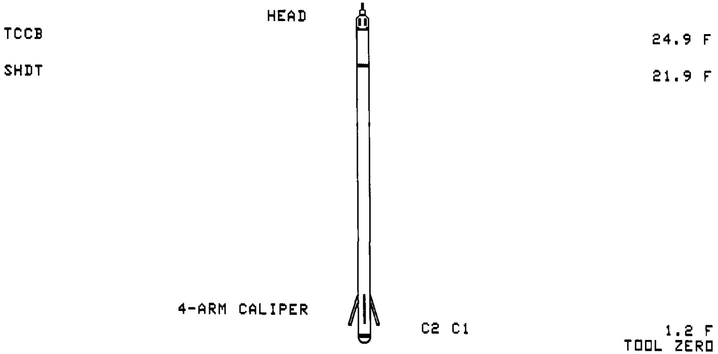
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.	595052	
Drilling Fluid Level		
Salinity	300.0 PPM	
Rmf @ BHT	3.253 OHMM @ 92.0 DEGF	@
Rmo @ BHT	1.727 OHMM @ 92.0 DEGF	@
Logging Speed	2600.0 F/HR	
EQUIPMENT DATA		
Tool Number 1	SHDS-B 919	
Tool Number 2	SHDI-BB 879	
Tool Number 3	SHDC-B 411	
Tool Number 4	TCC-B 1414	
Tool Number 5	TCM-AB 1515	
Tool Number 6		
Tool Number 7		
Tool Number 8		
Tool Number 9		
Tool Number 10		
Tool Number 11		
Tool Number 12		

REMARKS:

MDEC = 20 DEG, MFIN = .54 OER, MINC = 67 DEG
MAX DEVIATION = 12.75 DEG

LOGGING TOOL STRING SKETCH



TOTAL TOOL STRING LENGTH IS 27.4 F.
TOTAL TOOL STRING WEIGHT IS 457. LB IN AIR.

MAIN RAW LOG

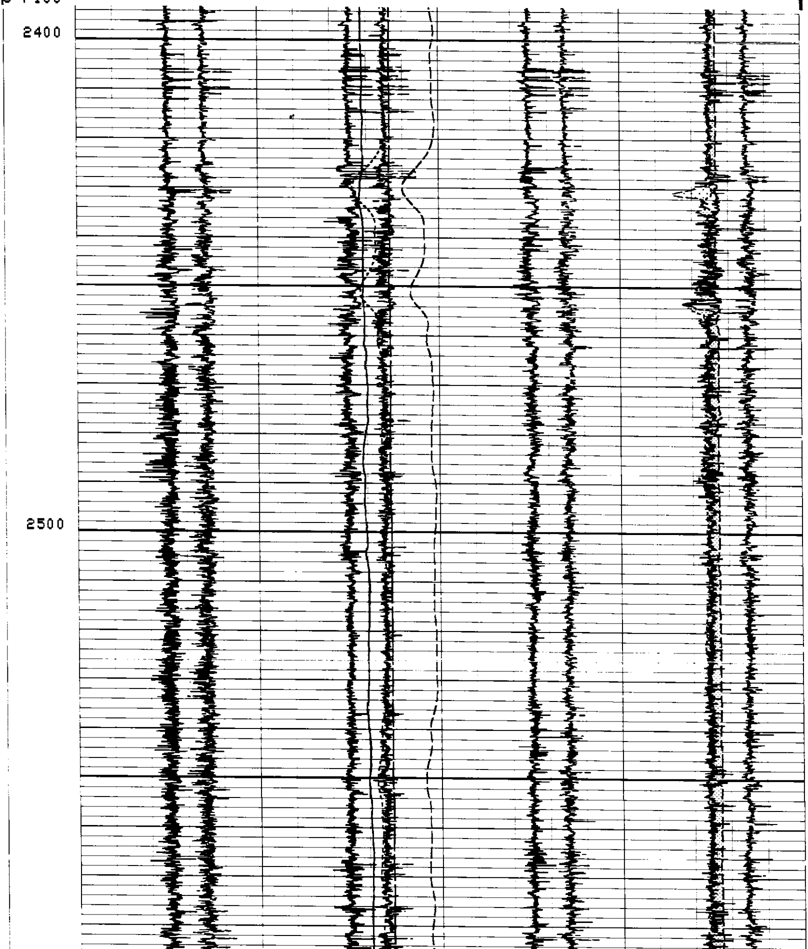
SPEED CORRECTION NOT APPLIED

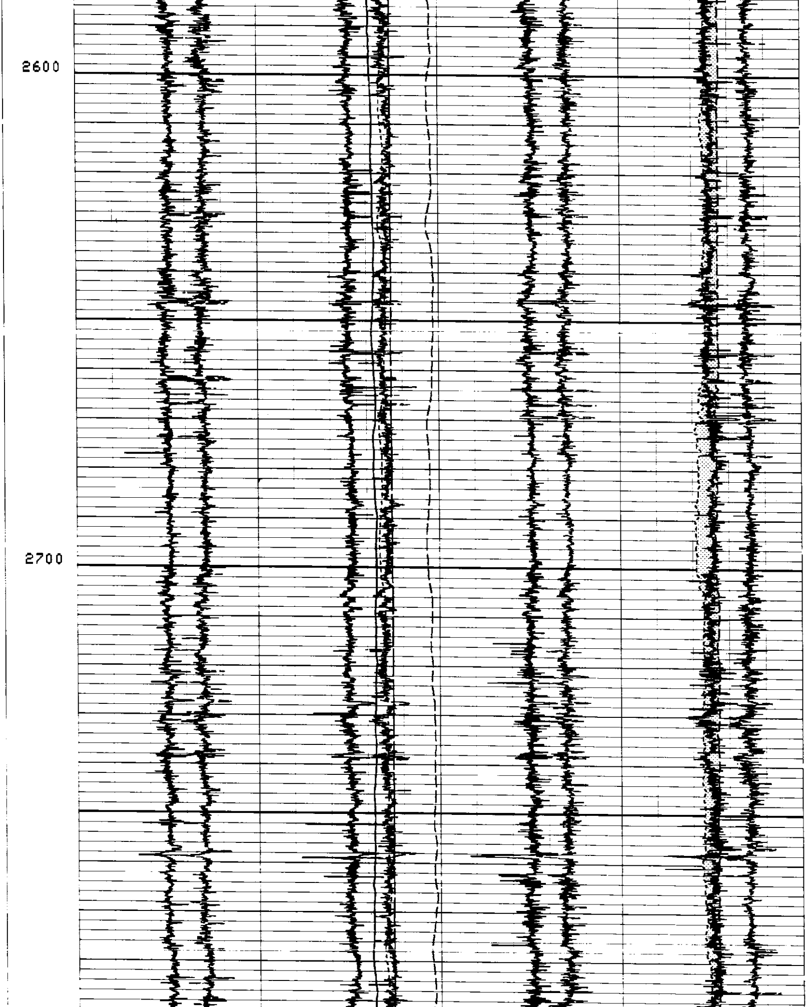
NO KNUCKLE JOINT IS USED (SOFF = -1)

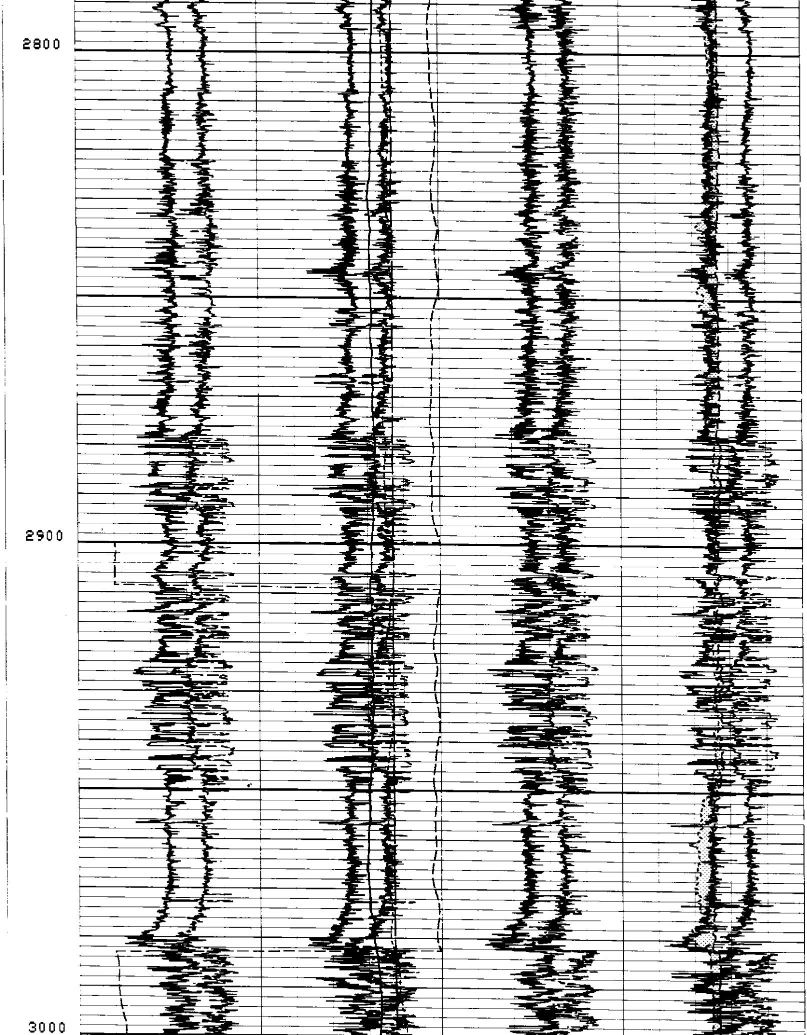
Curve	Left	Right
RB1A	-1000.	4000.0
RB2A	-1000.	4000.0
RDB1	0.0	5000.0
RDB2	0.0	5000.0
P1AZ(DEG)	-40.00	360.00
RB3A	-1000.	4000.0
RB4A	-1000.	4000.0
RB (DEG)	-40.00	360.00
RDB3	0.0	5000.0
RDB4	0.0	5000.0
HAZI(DEG)	-40.00	360.00
C2 (IN)	24.000	4.0000
DEVI(DEG)	0.0	10.000
C1 (IN)	24.000	4.0000

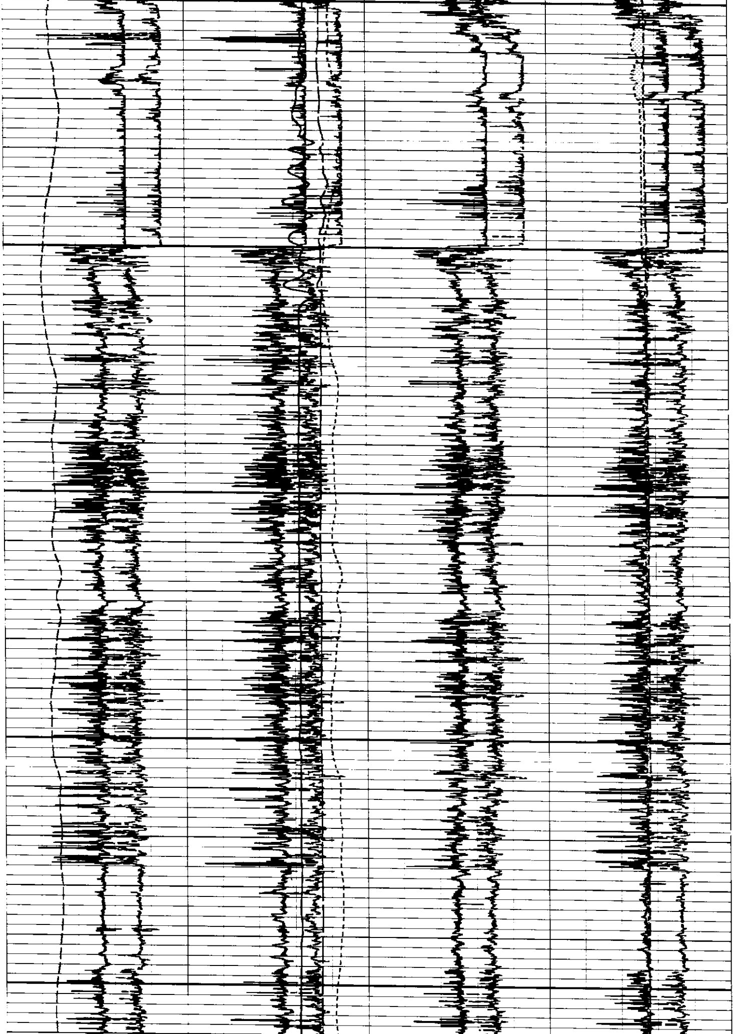
CP 32.6 FILE 10 28-JUN-1992 11:03 (UP)

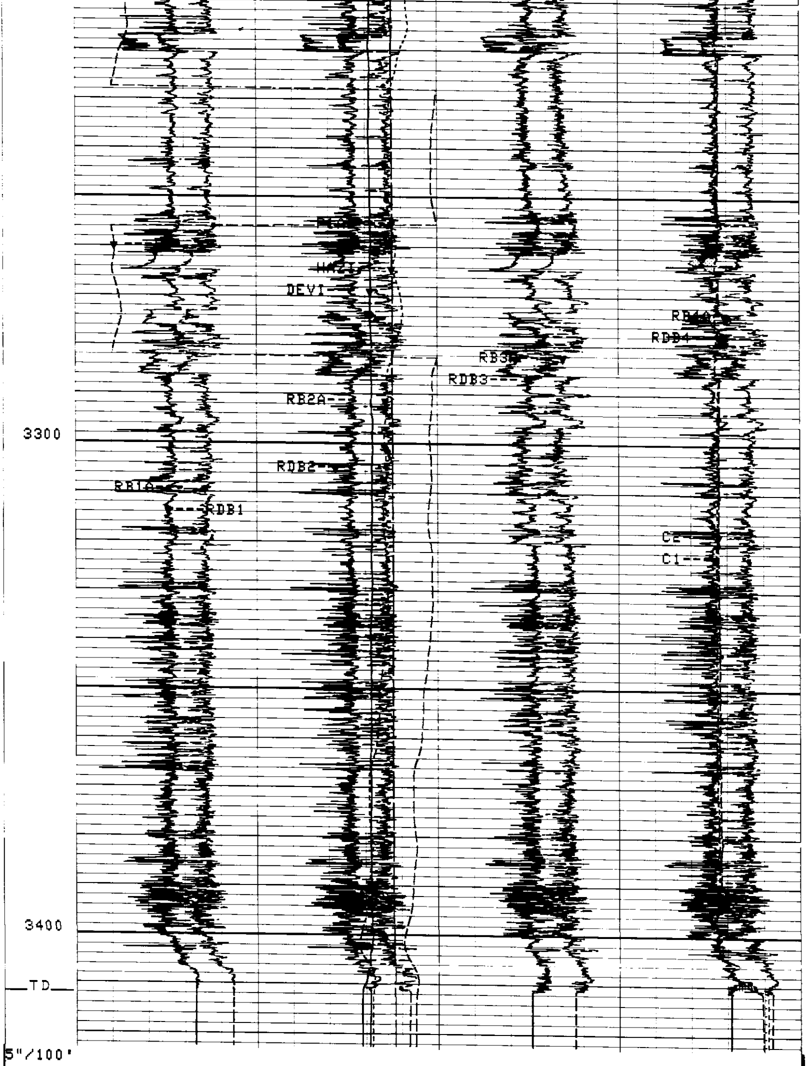
5"/100'











CP 32.6 FILE 10 28-JUN-1992 10:38 (UP)

```
RB1A                     RB2A
-1000.          4000.0   -1000.          4000.0
RDB1                     RDB2
0.0             5000.0   0.0             5000.0
         P1AZ(DEG )                                RB3A                      RB4A
-40.00                                    360.00   -1000.           4000.0   -1000.          4000.0
         RB  (DEG )                                RDB3                      RDB4
-40.00                                    360.00   0.0              5000.0   0.0             5000.0
         HAZI(DEG )                                          C2  (IN  )
-40.00                                    360.00   24.000                                    4.0000
         DEVI(DEG )                                          C1  (IN  )
0.0                                       10.000   24.000                                    4.0000
```

SENSOR MEASURE POINT TO TOOL ZERO

```
SHDW  1.3  FEET                     TENS -2.8  FEET
RSHD  1.3  FEET                     ZB    1.3  FEET
```

PARAMETERS

```
NAME  VALUE       UNIT              NAME  VALUE       UNIT

PADT .500000      DEG               MFIN .540000      DER
MDEC 20.0000      DEG               MINC 67.0000      DEG
SHDS B                              SHDI BB
VREF -5.00000     V                 FCDD 1.
SOFF -1.00000     IN                IDFO RAW
ODFO RAW                            ICMO AUTO
AFMO HAMM                           XMOD AUTO
XGAI 1                              XOFF 0
FCD  4.50000      IN                SPCR DISA
BS   7.87500      IN                BHS  OPEN
```

REPEAT SECTION

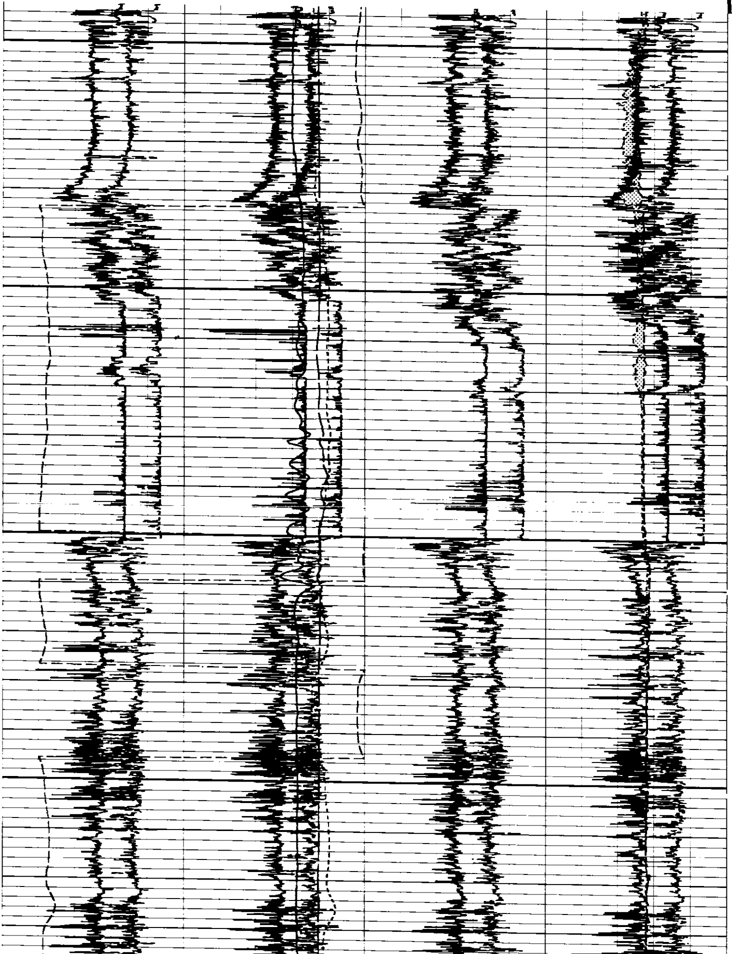
SPEED CORRECTION NOT APPLIED

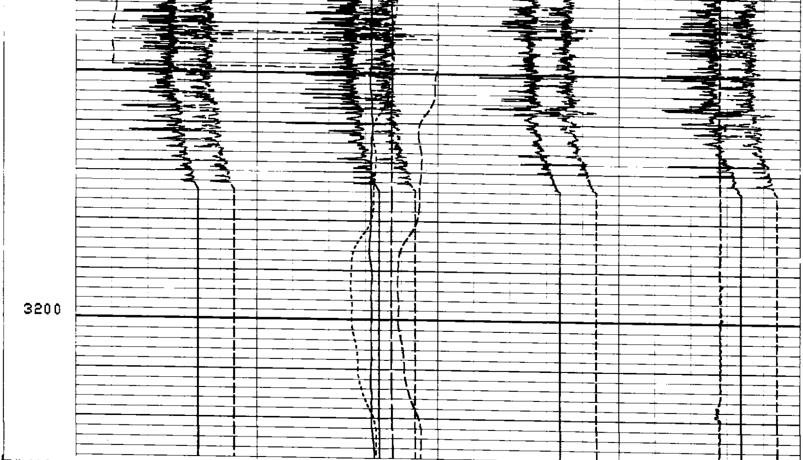
NO KNUCKLE JOINT IS USED (SOFF = -1)

```
RB1A                     RB2A
-1000.          4000.0   -1000.          4000.0
RDB1                     RDB2
0.0             5000.0   0.0             5000.0
         P1AZ(DEG )                                RB3A                      RB4A
-40.00                                    360.00   -1000.           4000.0   -1000.          4000.0
         RB  (DEG )                                RDB3                      RDB4
-40.00                                    360.00   0.0              5000.0   0.0             5000.0
         HAZI(DEG )                                          C2  (IN  )
-40.00                                    360.00   24.000                                    4.0000
         DEVI(DEG )                                          C1  (IN  )
0.0                                       10.000   24.000                                    4.0000
```

CP 32.6 FILE 9 28-JUN-1992 10:36 (UP)

5"/100'





5"/100'

CP 32.6 FILE 9 28-JUN-1992 10:29 (UP)

Curve	Left scale	Right scale
RB1A	-1000.	4000.0
RDB1	0.0	5000.0
RB2A	-1000.	4000.0
RDB2	0.0	5000.0
P1AZ(DEG)	-40.00	360.00
RB (DEG)	-40.00	360.00
HAZI(DEG)	-40.00	360.00
DEVI(DEG)	0.0	10.000
RB3A	-1000.	4000.0
RDB3	0.0	5000.0
RB4A	-1000.	4000.0
RDB4	0.0	5000.0
C2 (IN)	24.000	4.0000
C1 (IN)	24.000	4.0000

SENSOR MEASURE POINT TO TOOL ZERO

SHDW	1.3	FEET	TENS	-2.8	FEET
RSHD	1.3	FEET	ZB	1.3	FEET

PARAMETERS

PARAMETER	VALUE	UNIT

```
PADT - PRESENTATION ALLOW DISALLOW THRESHOLD        .500000      DEG
MFIN - MAGNETIC FIELD INTENSITY                     .540000      OER
MDEC - MAGNETIC FIELD DECLINATION                   20.0000      DEG
MINC - MAGNETIC FIELD INCLINATION                   67.0000      DEG
SHDS - STRATIGRAPHIC HIRES DIPMETER SONDE           B
SHDI - SHDT INCLINOMETER                            BB
VREF - VOLTAGE REFERENCE                            -5.00000     V
FCDD - FAST CHANNEL DEPTH DEFINITION                1.
SOFF - STAND OFF                                    -1.00000     IN
IDFO - INPUT DATA FORMAT                            RAW
ODFO - OUTPUT DATA FORMAT                           RAW
ICMO - INCLINOMETRY COMPUTATION MODE                AUTO
AFMO - ACCELEROMETER FILTERING MODE                 HAMM
XMOD - EMEX VOLTAGE REGULATION MODE                 MANU
XGAI - GAIN SETTING                                 1
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
```

NOISE CHECK

SPEED CORRECTION NOT APPLIED

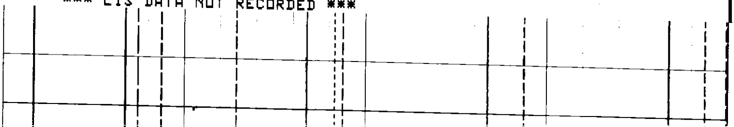
NO KNUCKLE JOINT IS USED (SOFF = -1)

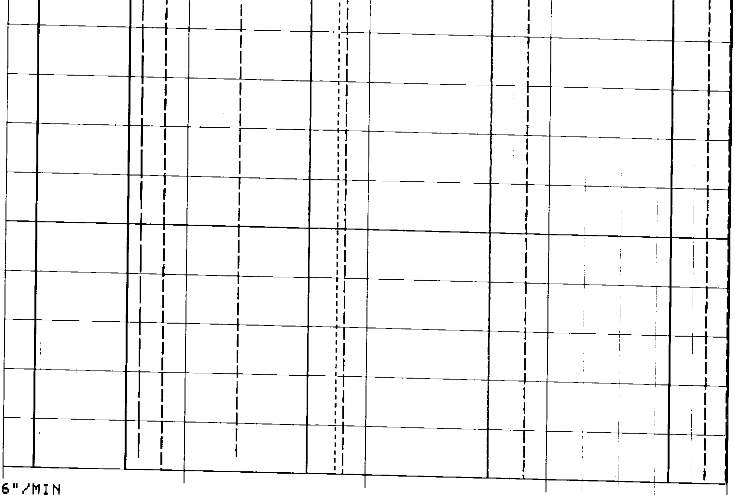
```
 RB1A                  RB2A
 -1000.       4000.0   -1000.       4000.0
 RDB1                  RDB2
 0.0          5000.0   0.0          5000.0
        P1AZ(DEG )                            RB3A                    RB4A
 -40.00                       360.00   -1000.         4000.0   -1000.        4000.0
        RB  (DEG )                            RDB3                    RDB4
 -40.00                       360.00   0.0            5000.0   0.0           5000.0
        HAZI(DEG )                                      C2  (IN  )
 -40.00                       360.00   24.000                                4.0000
        DEVI(DEG )                                      C1  (IN  )
 0.0                          10.000   24.000                                4.0000
```

CP 32.6   FILE   1   28-JUN-1992 10:23   (UP)

11.6666"/MIN

*** LIS DATA NOT RECORDED ***





11.6666"/MIN

*** LIS DATA NOT RECORDED ***

CP 32.6 FILE 1 28-JUN-1992 10:22 (UP)

```
RB1A                       RB2A
-1000.        4000.0       -1000.        4000.0
RDB1                       RDB2
0.0           5000.0       0.0           5000.0
          P1AZ(DEG )                                RB3A                       RB4A
-40.00                      360.00                  -1000.        4000.0       -1000.        4000.0
          RB   (DEG )                               RDB3                       RDB4
-40.00                      360.00                  0.0           5000.0       0.0           5000.0
          HAZI(DEG )                                           C2   (IN  )
-40.00                      360.00                  24.000                                   4.0000
          DEVI(DEG )                                           C1   (IN  )
0.0                         10.000                  24.000                                   4.0000
```

SENSOR MEASURE POINT TO TOOL ZERO

SHDW 1.3 FEET
RSHD 1.3 FEET

TENS -4.0 FEET
ZB 1.3 FEET

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
PADT	.500000	DEG	SPEE	2800	F/HR
MFIN	.540000	DER	MDEC	20.0000	DEG
MINC	67.0000	DEG	SHDS	B	
SHDI	BB		VREF	-5.00000	V
FCDD	1.		SOFF	-1.00000	IN
IDFO	RAW		ODFO	RAW	
ICMO	AUTO		AFMO	HAMM	
XMOD	MANU		XGAI	1	
XOFF	0		SPCR	DISA	
BS	7.87500	IN	BHS	OPEN	

SCRATCH TEST

SPEED CORRECTION NOT APPLIED

NO KNUCKLE JOINT IS USED (SOFF = -1)

RB1A -1000. 4000.0	RB2A -1000. 4000.0		TENS(LBF) 10000. 0.0
RDB1 0.0 5000.0	RDB2 0.0 5000.0	RB3A -1000. 4000.0	RB4A -1000. 4000.0
P1AZ(DEG) -40.00 360.00		RDB3 0.0 5000.0	RDB4 0.0 5000.0
RB(DEG) -40.00 360.00		C2(IN) 24.000 4.0000	
HAZI(DEG) -40.00 360.00		C1(IN) 24.000 4.0000	
DEVI(DEG) 0.0 20.000			

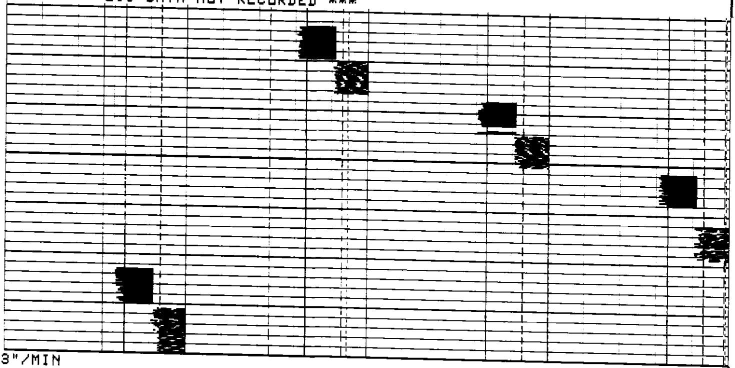
C2 -- C1

C1 -- C2

CP 32.6 FILE 1 28-JUN-1992 04:20 (UP)

2.33333"/MIN

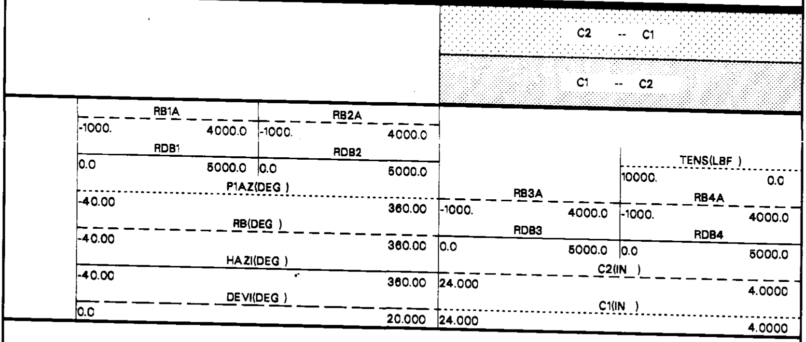
*** LIS DATA NOT RECORDED ***



2.33333"/MIN

```
        *** LIS DATA NOT RECORDED ***

   CP 32.6              FILE     1        28-JUN-1992 04:18     (UP)
```



```
            SENSOR MEASURE POINT TO TOOL ZERO

     SHDW   1.3   FEET                  TENS -4.0   FEET
     RSHD   1.3   FEET                  ZB     1.3  FEET
```

```
                           PARAMETERS

    NAME  VALUE        UNIT              NAME  VALUE         UNIT

    PADT .500000       DEG               SPEE 2800           F/HR
    MFIN .540000       DER               MDEC 20.0000        DEG
    MINC 67.0000       DEG               SHDS B
    SHDI BB                              VREF -5.00000       V
    FCDD 1.                              SOFF -1.00000       IN
    IDFO RAW                             ODFO RAW
    ICMO AUTO                            AFMO HAMM
    XMOD MANU                            XGAI 2
    XOFF 0                               SPCR DISA
    BS    8.50000      IN                BHS  OPEN
```

CALIBRATION SUMMARY

```
              BEFORE SURVEY CALIBRATION SUMMARY


   PERFORMED:    28-JUN-1992 04:16
   PROGRAM FILE: TDIP   (VERSION    32.6    91/08/23  91/08/23)


  SHDT             CALIPER CALIBRATION SUMMARY

              MEASURED                     CALIBRATED
            SMALL    LARGE               SMALL      LARGE        UNITS
     C1     6.59     10.60               8.00       12.00         IN
     C2     6.93     10.92               8.00       12.00         IN

  SMALL: 28-JUN-1992 04:14 LARGE: 28-JUN-1992 04:16 COMP: 28-JUN-1992 04:16

    CP 32.6             FILE     1        28-JUN-1992 04:16
```

COMPANY	NAHAMA AND WEAGANT ENERGY CO.		**SCHL.**	**FR**	**3411.0 F**
WELL	"BEAVER CREEK" #31-34-75		**SCHL.**	**TD**	**3412.0 F**
			DRLR.	**TD**	**3414.0 F**
FIELD	MIST		**Elev:**	**KB**	**1637.0 F**
				DF	**1636.0 F**
COUNTY	COLUMBIA	**STATE** OREGON		**GL**	**1627.0 F**

Schlumberger

FOUR ARM
HIGH RESOLUTION
CONTINUOUS DIPMETER