COUNTY	COLUMBIA
FIELD	MIST
LOCATION	2367'N AND 1009'W
WELL	"CONDOR" L.F. #43-32-65
COMPANY	NAHAMA & WEAGANT ENERGY CO.

Schlumberger

FORMATION MICROSCANNER

COMPANY	NAHAMA & WEAGANT ENERGY CO.		
WELL	"CONDOR" L.F. #43-32-65		
FIELD	MIST		
COUNTY	COLUMBIA	**STATE**	OREGON

LOCATION	2367'N AND 1009'W FROM SE CORNER			Other Services: DIL-GR LDT-CNL GR
API SERIAL NO. 36-009-00302	SECT. 32	TWP. 6N	RANGE 5W	

Permanent Datum	GL	Elev.	791.0 F		Elev.: K.B.801.0 F
Log Measured From	KB	10.0 F	above Perm. Datum		D.F.
Drilling Measured From	KB				G.L.791.0 F

Date	30-AUG-1993			
Run No.	ONE			
Depth Driller	1909.0 F			
Depth Logger (Schl.)	1908.0 F			
Btm. Log Interval	1905.0 F			
Top Log Interval	900.0 F			
Casing-Driller	10 3/4" @ 502.0 F		@	@
Casing-Logger	502.0 F			
Bit Size	9 7/8" @ 1909.0 F		@	@
Type Fluid in Hole	ACRYLAFLOW			
Dens. / Visc.	9.20 LB/G	42.0 S		
pH / Fld. Loss	9.0	6.0 C3		
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	2.970 OHMM @ 80.0 DEGF		@	
Rmf @ Meas. Temp.	3.890 OHMM @ 68.0 DEGF		@	
Rmc @ Meas. Temp.	2.550 OHMM @ 68.0 DEGF		@	
Source: Rmf / Rmc	MEASURED	MEASURED		
Rm @ BHT	2.903 OHMM @ 82.0 DEGF		@	
TIME Circulation Ended	23:00 29-AUG-1993			
TIME Logger on Bottom	01:17 30-AUG-1993			
Max. Rec. Temp.	82.0 DEGF			
Equip. / Location	8504	SACRAMENTO		
Recorded By	SCOTT PILCH			
Witnessed By	JOE NAHAMA / ROB LUCAS			

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

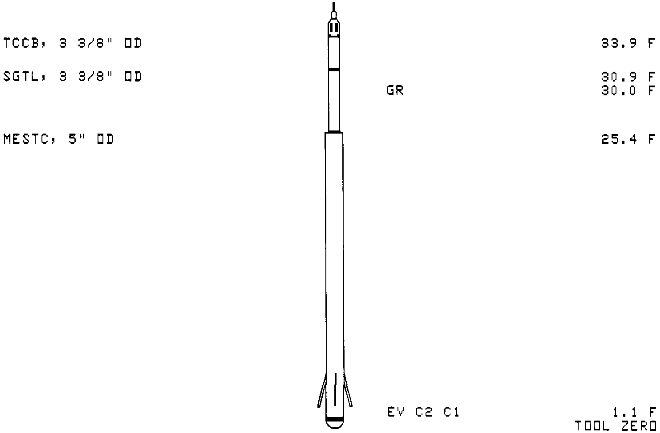
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.	624460	
Drilling Fluid Level	5.0 F	
Salinity	600.0 PPM	
Rmf @ BHT	3.278 OHMM @ 82.0 DEGF	@
Rmc @ BHT	2.149 OHMM @ 82.0 DEGF	@
Logging Speed	3600.0 F/HR	
EQUIPMENT DATA		
Tool Number 1	MEDS-B 737	
Tool Number 2	MEAC-A 717	
Tool Number 3	SGC-SA 580	
Tool Number 4	TCC-B 1315	
Tool Number 5	TCM-AB 1516	
Tool Number 6		
Tool Number 7		
Tool Number 8		
Tool Number 9		
Tool Number 10		
Tool Number 11		
Tool Number 12		

REMARKS:

CALIPER CALIBRATED WITH 8 AND 10 INCH RINGS.

LOGGING TOOL STRING SKETCH



TOTAL TOOL STRING LENGTH IS 37.4 F.
TOTAL TOOL STRING WEIGHT IS 594. LB IN AIR.

MAIN LOG

SPEED CORRECTION NOT APPLIED

ACCUMULATED INTEGRATION VALUES SUMMARY:

Integrated Hole Volume: 545.569 F3 FROM 1908.00 F TO 894.000 F
Integrated Cement Volume: 276.261 F3 FROM 1908.00 F TO 894.000 F
(ASSUMING 7.00000 IN O.D. CASING)

EVENT MARK SUMMARY:

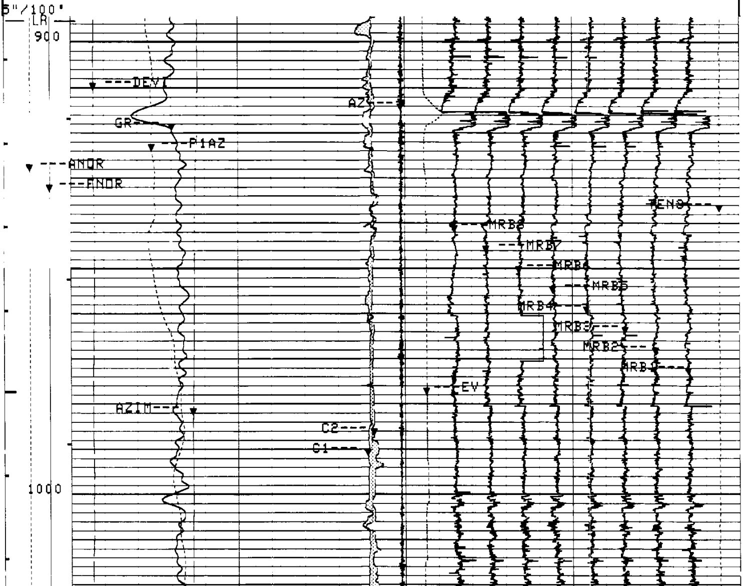
OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
Integrated Hole Volume	10.0000 F3	LEFT EDGE
Integrated Cement Volume	10.0000 F3	RIGHT EDGE

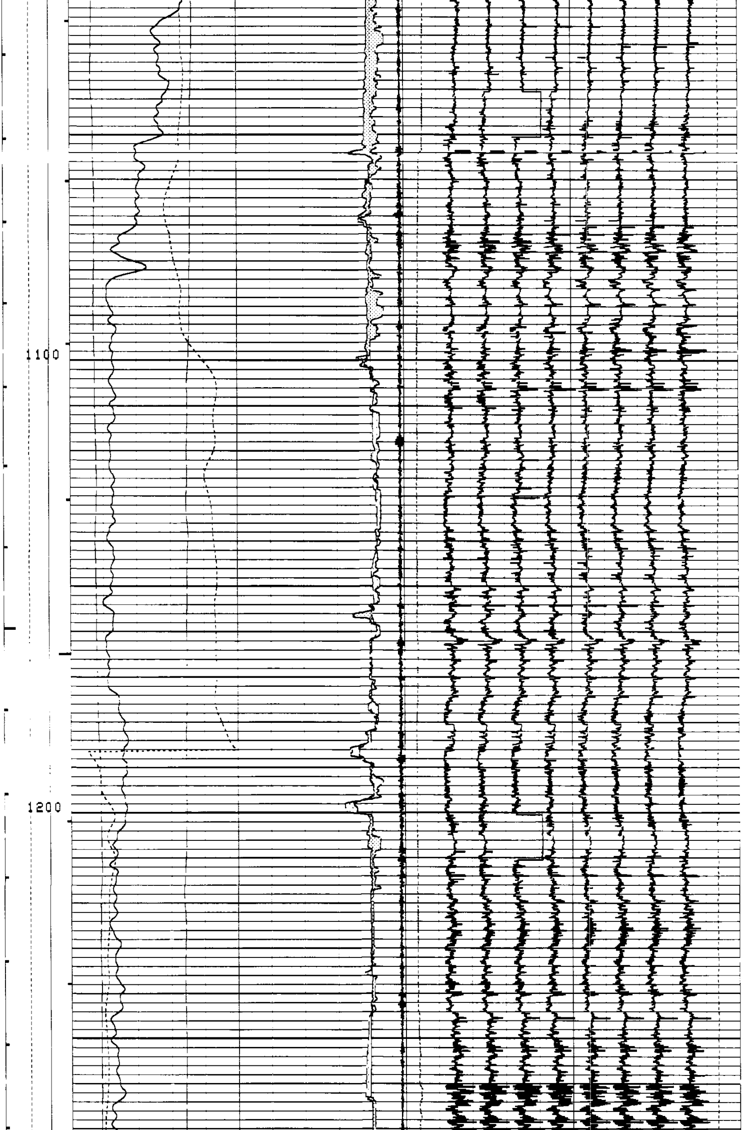
Curve	Left	Right
ANOR(M/S2)	9.0000	11.000
FNOR(OER)	.20000	.70000
DEVI(DEG)	0.0	10.000
GR(GAPI)	0.0	150.00
P1AZ(DEG)	-40.00	360.00
AZIM(DEG)	-40.00	360.00
AZ(M/S2)	0.0	10.000
C2(IN)	6.0000	11.000
C1(IN)	6.0000	11.000
EV(V)	0.0	5.0000
TENS(LBF)	10000.	0.0
MRB8	-1000.	19000
MRB7	-3000	17000
MRB6	-5000.	15000
MRB5	-7000.	13000
MRB4	-9000.	11000
MRB3	-11000	9000.0
MRB2	-13000	7000.0
MRB1	-15000	5000.0

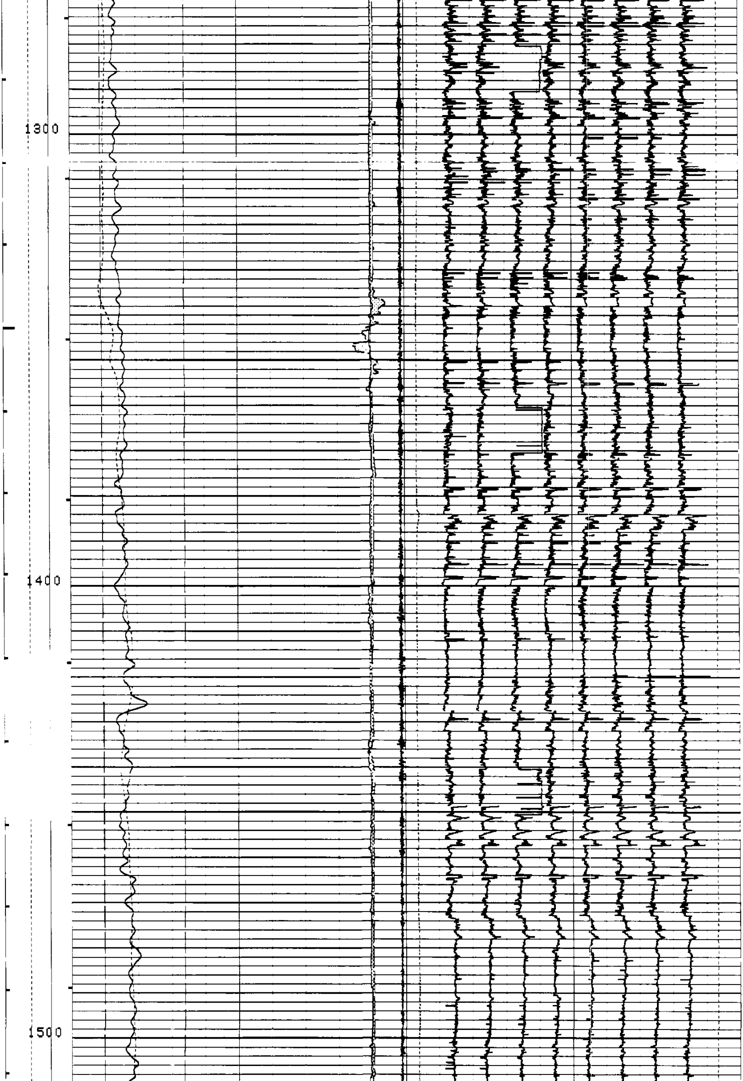
C2A -- C1A

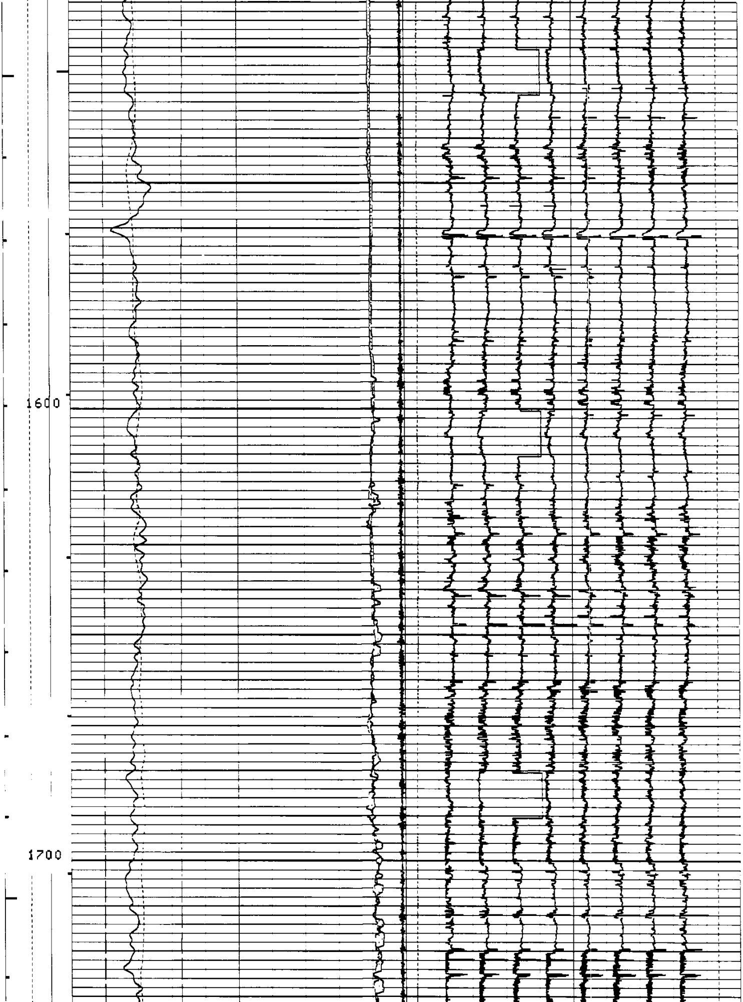
C1A -- C2A

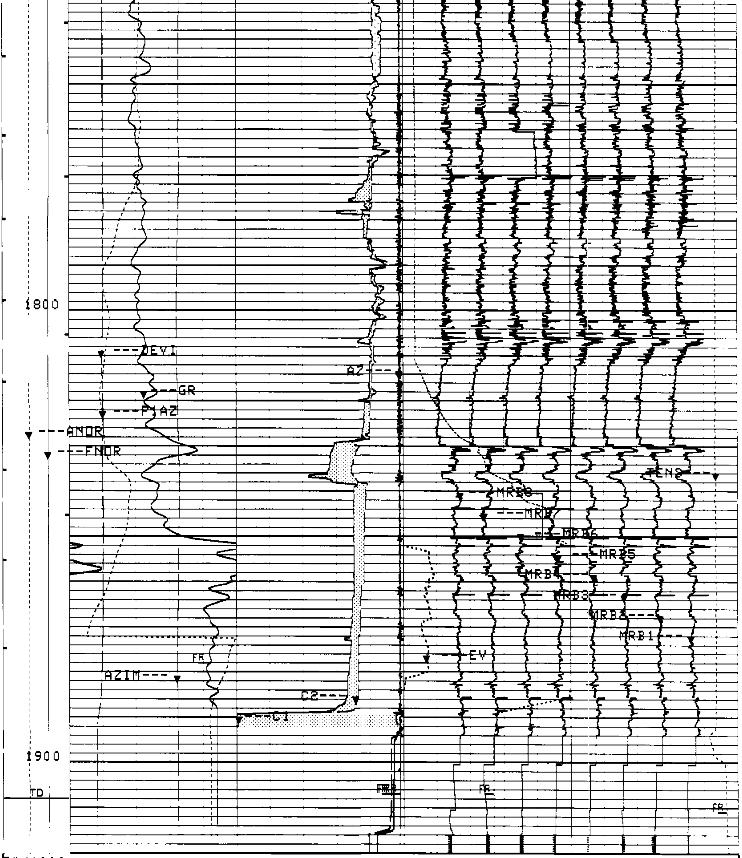
CP 38.2 FILE 42 30-AUG-1993 01:55 (UP)







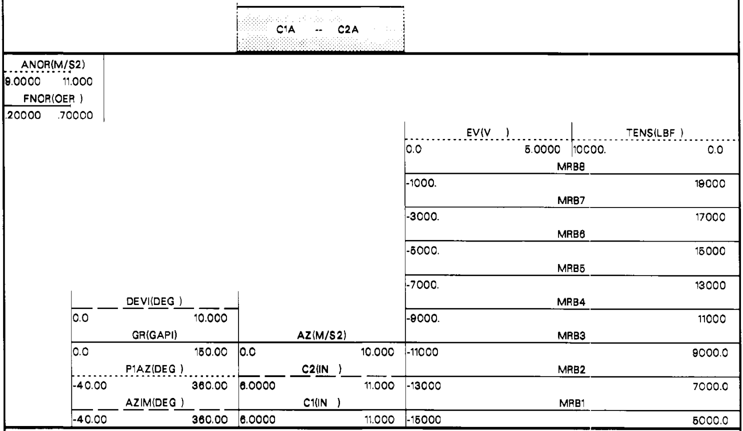




5"/100'

CP 38.2 FILE 42 30-AUG-1993 01:17 (UP)

C2A -- C'A



SENSOR MEASURE POINT TO TOOL ZERO

```
DTT   -2.9  FEET                          SGTL 30.0  FEET
GPIT   1.1  FEET                          MESTC  1.1  FEET
```

PARAMETERS

PARAMETER	VALUE	UNIT
PADT - Presentation Allow Disallow Threshold	.500000	DEG
NCJT - NGT Calibration Jig Type	GSRY	
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	-50000.0	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	7.00000	IN
SPCR - Speed Correction Constant	DISA	
BS - Bit Size	9.87500	IN
BHS - BoreHole Status (Open or Cased)	OPEN	

SPEED CORRECTION NOT APPLIED

ACCUMULATED INTEGRATION VALUES SUMMARY:

```
Integrated Hole Volume:   108.683 F3    FROM 1908.00 F    TO 1690.00 F
Integrated Cement Volume: 51.5374 F3    FROM 1908.00 F    TO 1690.00 F
  (ASSUMING 7.00000 IN   O.D. CASING)
```

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

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

EV(V)
0.0 5.0000

TENS(LBF)
10000. 0.0

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

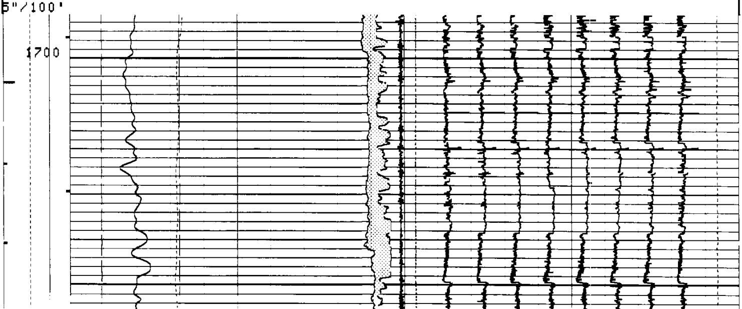
DEVI(DEG)
0.0 10.000
GR(GAPI)
0.0 150.00
P1AZ(DEG)
-40.00 360.00
AZIM(DEG)
-40.00 360.00

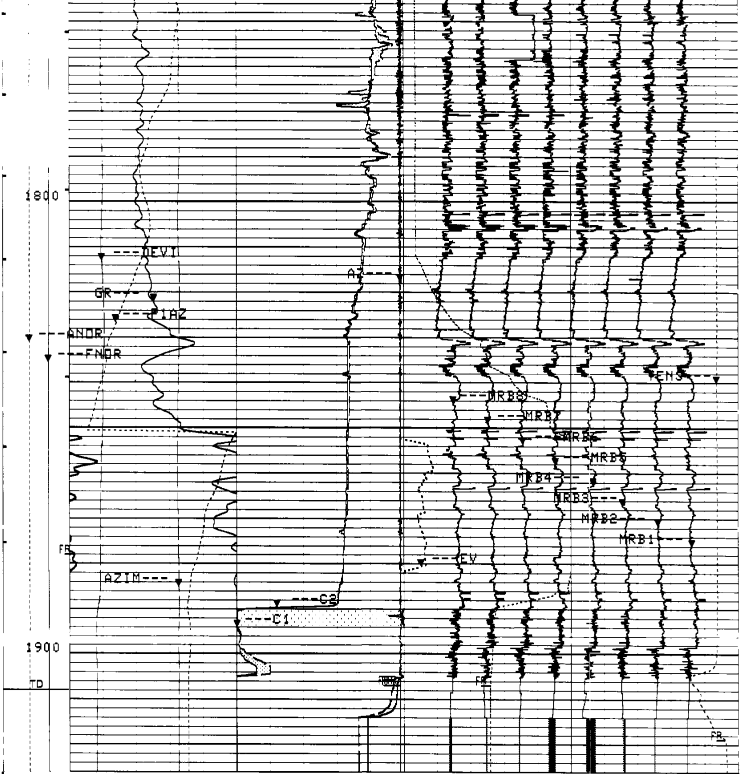
AZ(M/S2)
0.0 10.000
C2(IN)
6.0000 11.000
C1(IN)
6.0000 11.000

C2A -- C1A

C1A -- C2A

CP 38.2   FILE 41   30-AUG-1993 01:14   (UP)





5"/100'

CP 38.2 FILE 41 30-AUG-1993 01:04 (UP)

C2A -- C1A

C1A -- C2A

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

EV(V)		TENS(LBF)	
0.0	5.0000	10000.	0.0
MRB8			
-1000.			19000
MRB7			
-3000.			17000
MRB6			
-5000.			15000

Curve	Left	Right	Curve	Left	Right	Curve	Left	Right
						MRB5	-7000.	13000
DEVI(DEG)	0.0	10.000				MRB4	-9000.	11000
GR(GAPI)	0.0	150.00	AZ(M/S2)	0.0	10.000	MRB3	-11000	9000.0
P1AZ(DEG)	-40.00	360.00	C2(IN)	6.0000	11.000	MRB2	-13000	7000.0
AZIM(DEG)	-40.00	360.00	C1(IN)	6.0000	11.000	MRB1	-15000	5000.0

SENSOR MEASURE POINT TO TOOL ZERO

DTT -10.9 FEET
GPIT 1.1 FEET

SGTL 30.0 FEET
MESTC 1.1 FEET

PARAMETERS

PARAMETER	VALUE	UNIT
PADT - Presentation Allow Disallow Threshold	.500000	DEG
NCJT - NGT Calibration Jig Type	GSRY	
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	-50000.0	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	7.00000	IN
SPCR - Speed Correction Constant	DISA	
DSCA - Deviation Scale	10	DEG
SBUT - Set of Buttons Selected	ALL	
INT - Correlation Interval Length	4.00000	F
STEP - Step Length between Correlations	2.00000	F
SPAN - Span of Correlation Sample	4	
SANG - S Wave Arrival Angle	35.0000	
DPAD - Disallowed Pad	AUTO	
DMAX - Maximum Dip Plotted	90	DEG
ELRA - Electrical Radius	.500000	IN
SDFA - Side-By-Side Distance Factor	.900000	
HQUA - High Quality Dip	14	
LQUA - Low Quality Dip	6	
STDI - Structural Dip	0.0	DEG
STDA - Structural Azimuth Value	0.0	DEG
CSBL - CSB Number of Levels	2	
BS - Bit Size	9.87500	IN
BHS - BoreHole Status (Open or Cased)	OPEN	

CALIBRATION SUMMARY

```
                    BEFORE SURVEY CALIBRATION SUMMARY


   PERFORMED:     29-AUG-1993 20:01
   PROGRAM FILE: TDIP   (VERSION    38.2    92/10/12  92/10/12)


 SGTL              DETECTOR CALIBRATION SUMMARY

              MEASURED
            BKGD    JIG         CALIBRATED          UNITS
     GR      29     189            165              GAPI

 BACK: 29-AUG-1993 19:58   JIG: 29-AUG-1993 20:00  COMP: 29-AUG-1993 20:00


 MEST              CALIPER CALIBRATION SUMMARY

              MEASURED                        CALIBRATED
            SMALL   LARGE                  SMALL     LARGE        UNITS
     C1     8.50    10.64                  8.00      10.00         IN
     C2     8.25    10.27                  8.00      10.00         IN

 SMALL: 29-AUG-1993 19:56 LARGE: 29-AUG-1993 19:57 COMP: 29-AUG-1993 19:57


 GPIC              CALIBRATION SUMMARY

  MAGNETOMETER MANUFACTURER CODE:                 4
  MAGNETOMETER SERIAL NUMBER:                   115
  MAGNETOMETER REFERENCE TEMPERATURE :          100.0  DEGC


 GPIC              CALIBRATION SUMMARY

  ACCELEROMETER MANUFACTURER CODE:                 0
  ACCELEROMETER SERIAL NUMBER:                   171
  ACCELEROMETER REFERENCE TEMPERATURE :           26.0  DEGC

    CP 38.2           FILE   38      29-AUG-1993 20:01
```

COMPANY	. NAHAMA & WEAGANT ENERGY CO.		SCHL.	FR	1905.0 F
			SCHL.	TD	1908.0 F
WELL	"CONDOR" L.F. #43-32-65		DRLR.	TD	1909.0 F
FIELD	MIST		Elev:	KB	801.0 F
				DF	
COUNTY	COLUMBIA	**STATE** OREGON		GL	791.0 F

FORMATION MICROSCANNER

Schlumberger