GL04468_5

Schlumberger

FOUR — ARM HIGH RESOLUTION CONTINUOUS DIPMETER

COUNTY CHURCHILL
FIELD DIXIE VALLEY
LOCATION 21-24N-36E
WELL DIXIE FEDERAL 66-21
COMPANY THERMAL POWER CO.

COMPANY THERMAL POWER COMPANY
WELL DIXIE FEDERAL 66-21
FIELD DIXIE VALLEY
COUNTY CHURCHILL STATE NEVADA

LOCATION N/A

API SERIAL NO.	SEC.	TWP	RANGE
	21	24N	36E

Other Services:
FDC/CNL/GR
DI-SFL
BHC
IES

Permanent Datum: GL ; Elev.: 3430
Log Measured From KB 23 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 3453
D.F. 3452
G.L. 3430

Date	9-17-79			
Run No.	ONE			
Depth—Driller	9780			
Depth—Logger (Schl.)	--			
Btm. Log Interval	7000			
Top Log Interval	4580			
Casing—Driller	9⅝" @ 4580	@	@	@
Casing—Logger	4580			
Bit Size	8½"			
Type Fluid in Hole	GEL/CAUSTIC/BAR			
Dens. | Visc.	10.2 | 46	|	|	|
pH | Fluid Loss	10 | 24 ml	ml	ml	ml
Source of Sample	CIRCULATED			
Rm @ Meas. Temp.	0.94 @ 75 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	0.81 @ 72 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	1.44 @ 73 °F	@ °F	@ °F	@ °F
Source: Rmf | Rmc	M | M	|	|	|
Rm @ BHT	0.22 @340 °F	@ °F	@ °F	@ °F
TIME Circulation Stopped	2200 9-16			
TIME Logger on Bottom	1745			
Max. Rec. Temp.	340 °F	°F	°F	°F
Equip. | Location	7763 | 4408	|	|	|
Recorded By	BRASFIELD			
Witnessed By Mr.	MC MURDIE			

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

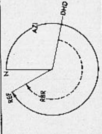
REMARKS: Service Order No. Magnetic Declination

Run No.	1	2	3	4
Tool Type	HDT-D			
HDP	D-970			
DDR | TTR	-- | 1940	|	|	|
DPI	2733			
HDM	F-1726			
HDE	CB-1879			
HDS	D-1752			
Adapter Head	846			
UG | CG | SAH	-- | -- | --			
5" Film | 10" Film | 60" Record	X | -- | X			
Analog | Digital	X | X			
TIME Circulation Stopped	2200 9-16			
TIME Schl. on Bottom	1745 9-18			

ROLL NO.	INTERVAL

TOOL AZIMUTH AND HOLE DIRECTION CALCULATION

(DHD) HIGH SIDE OF TOOL = Direction from center of tool to upper side of tool.
(N) NORTH — Direction from center of tool to Magnetic North.
(REF) REFERENCE ELECTRODE = Direction from center of tool to #1 electrode.

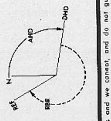


LOW ANGLE UNIT ☒

EXAMPLE
HDM - Low Angle Unit (0-36°)
AZI (solid curve) = 330°
RBR (dotted curve) = 230°
AHD = AZI — RBR = 330° — 230° = 100°

DEFINITIONS

(AZI) AZIMUTH OF REFERENCE ELECTRODE = Clockwise angle from N to REF.
(RBR) RELATIVE BEARING = Clockwise angle from DHD to REF.
(AHD) AZIMUTH OF HOLE DEV. (TOOL AXIS) = Clockwise angle from N to DHD.

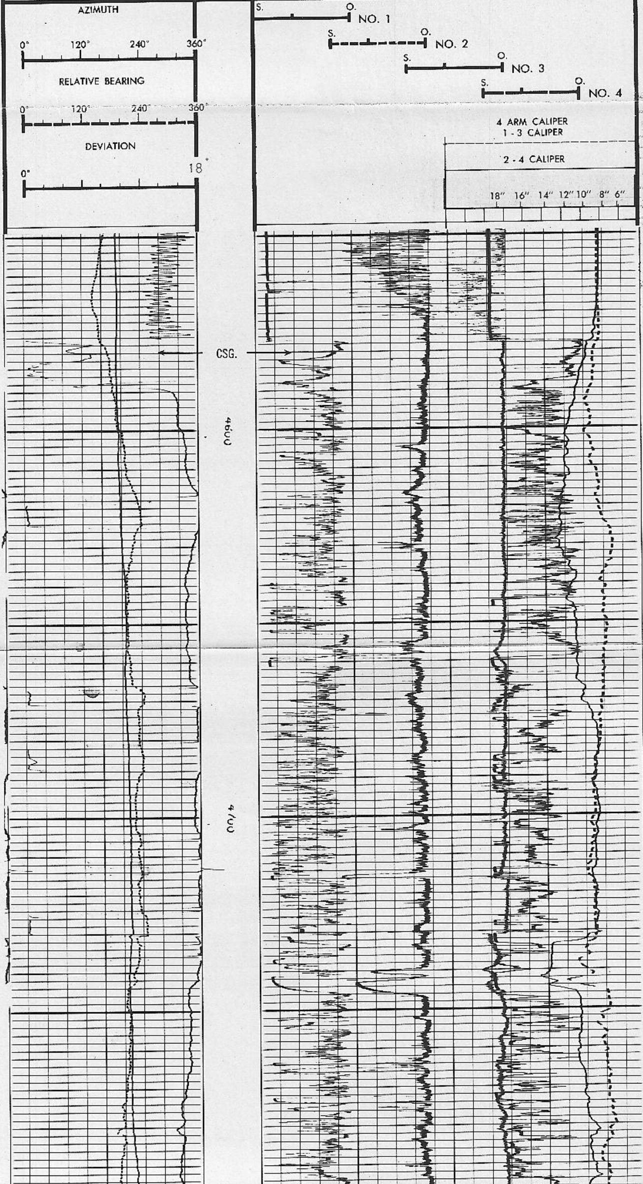


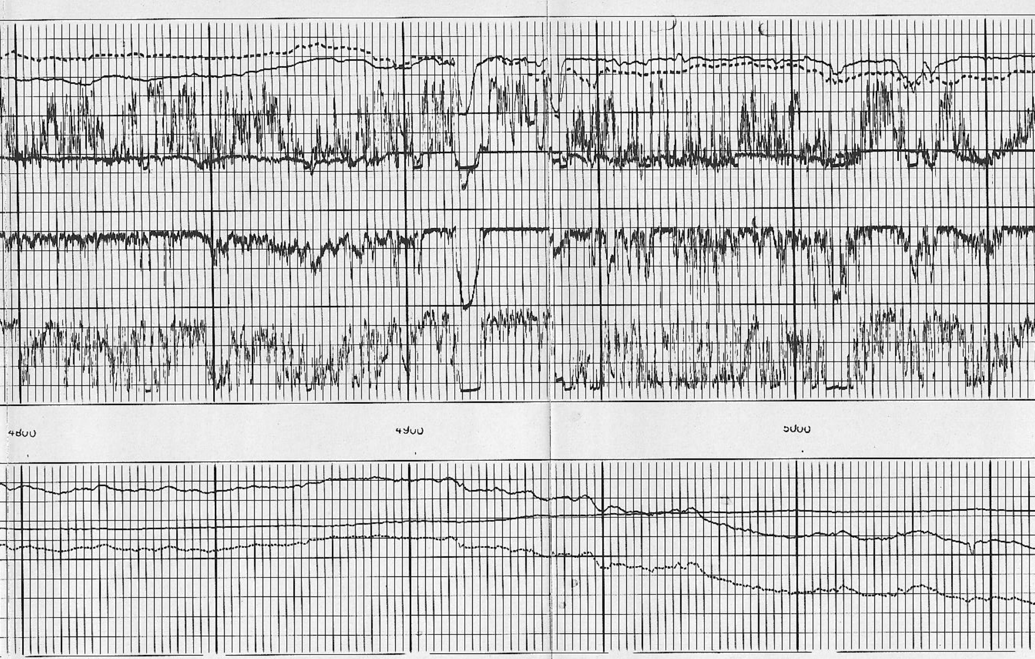
HIGH ANGLE UNIT ☐

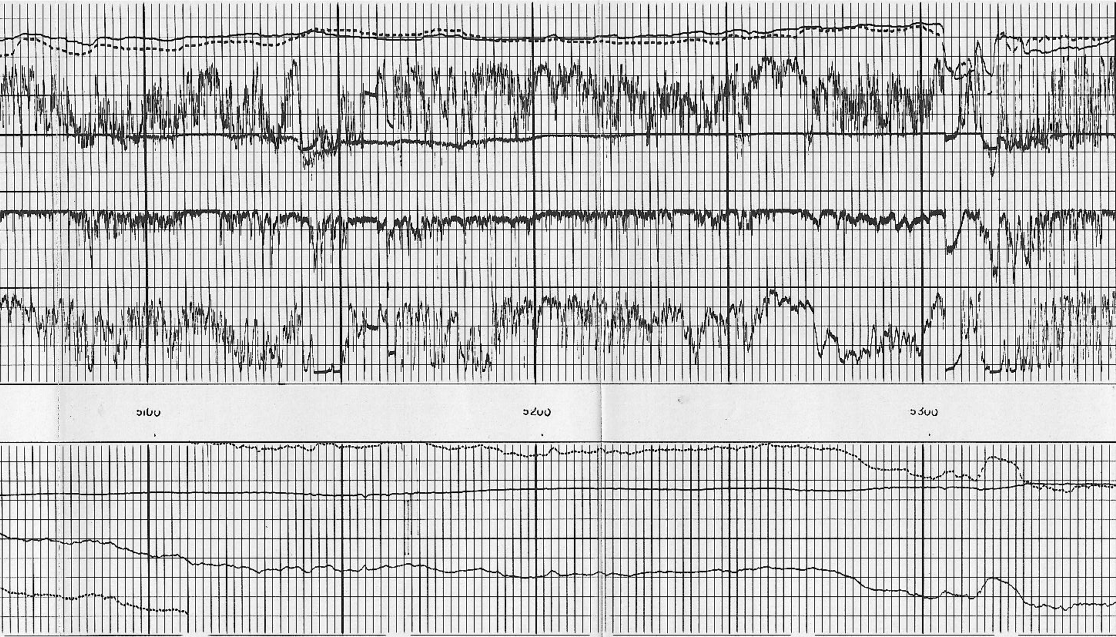
EXAMPLE
HDM - High Angle Unit (0-72°)
AHD (solid curve) = 100°
RBR (dotted curve) = 230°
AZI = AHD + RBR = 100° + 230° = 330°

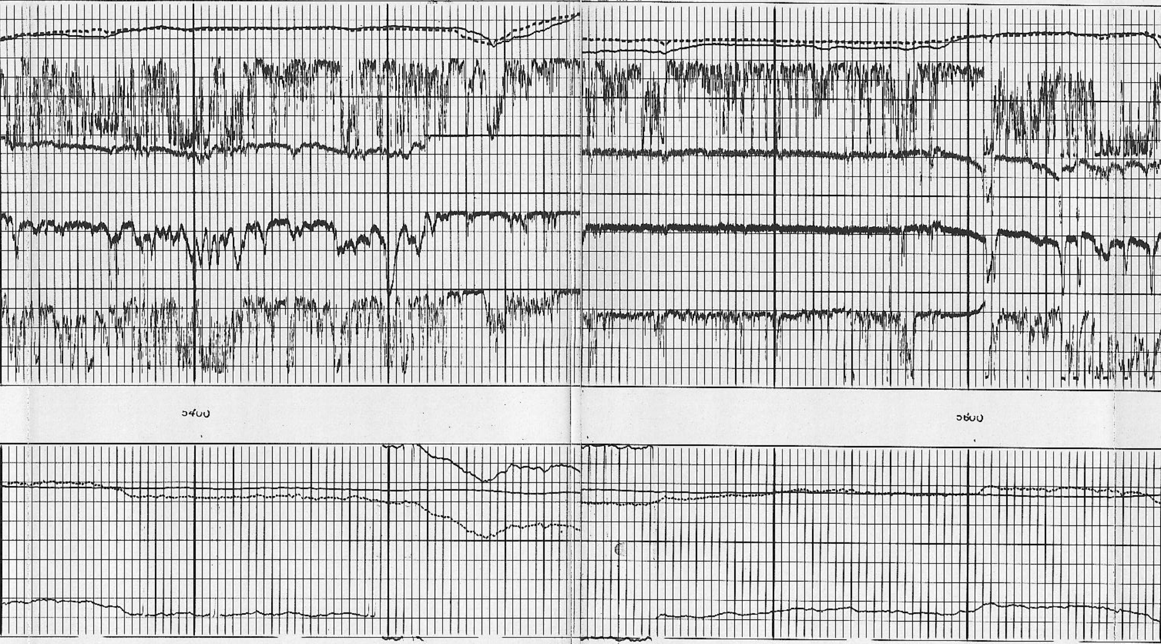
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation 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.

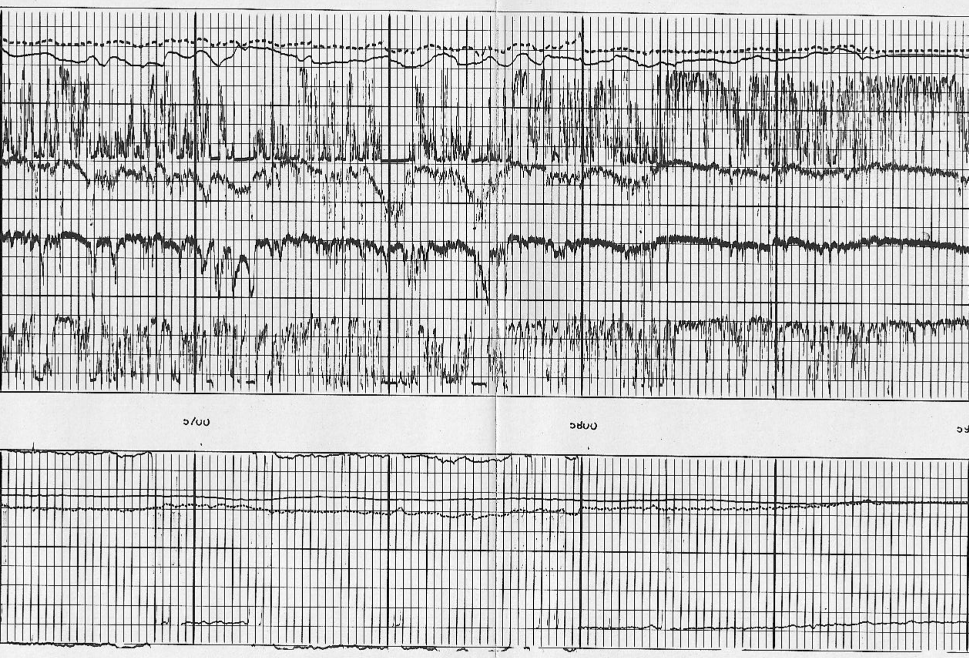
ORIENTATION	DEPTHS	CORRELATION CURVES ←CONDUCTIVITY











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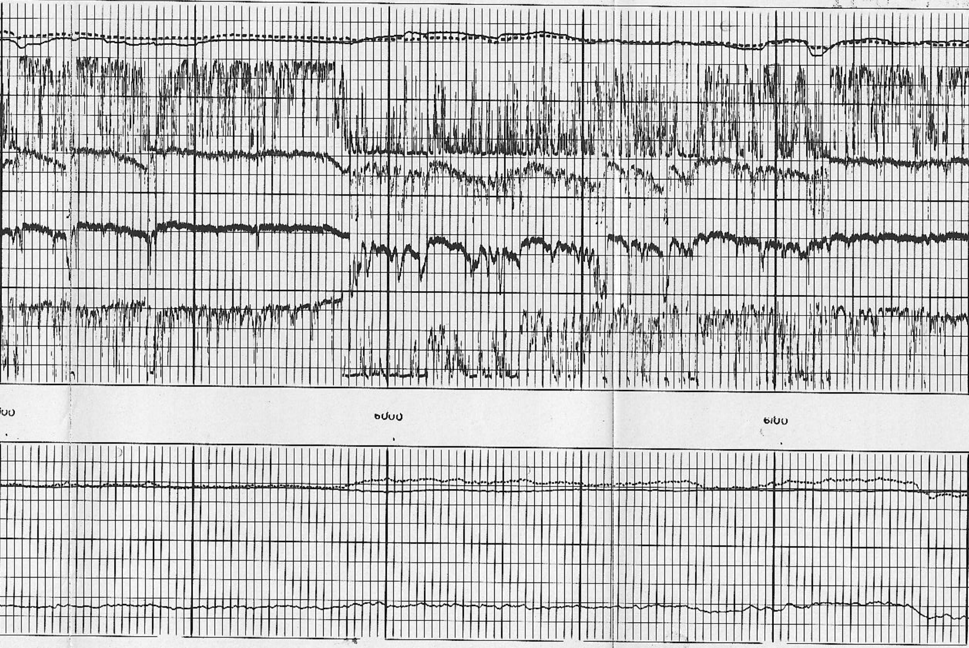

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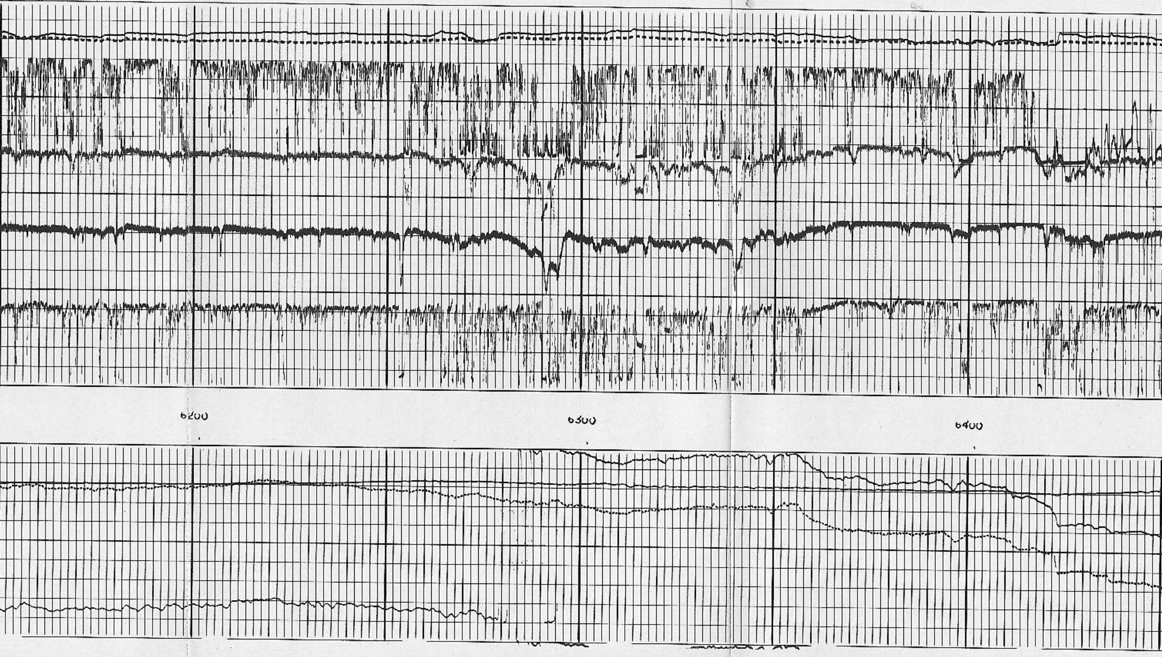

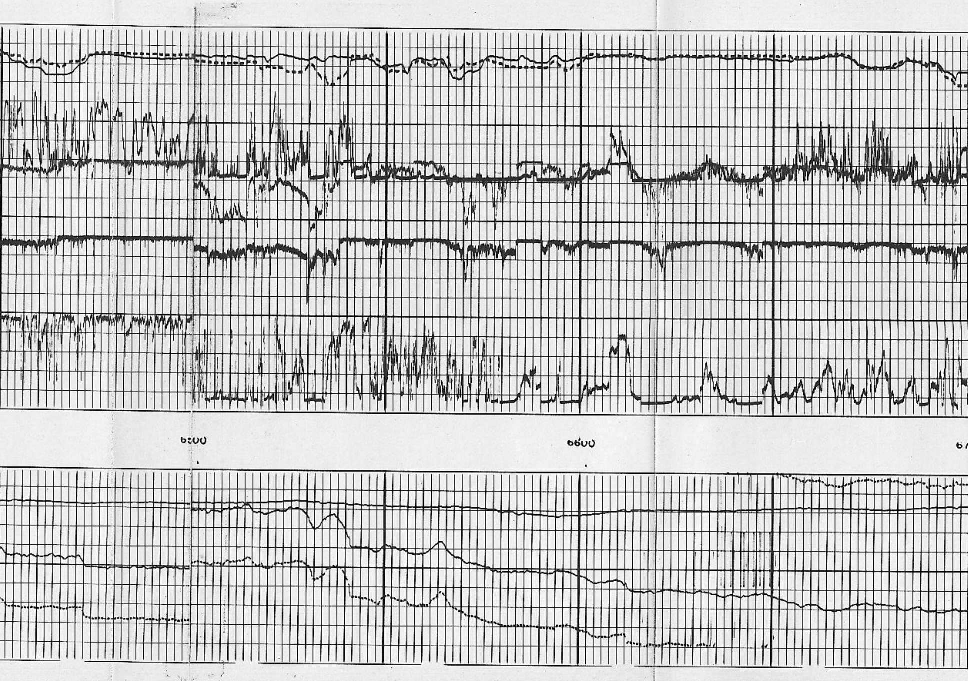

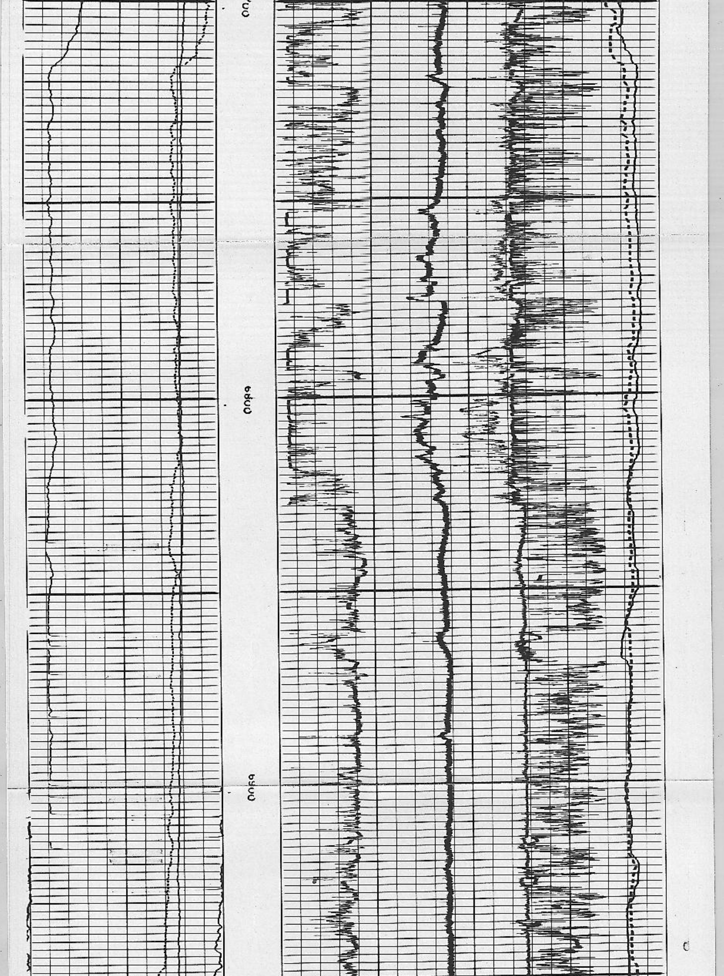

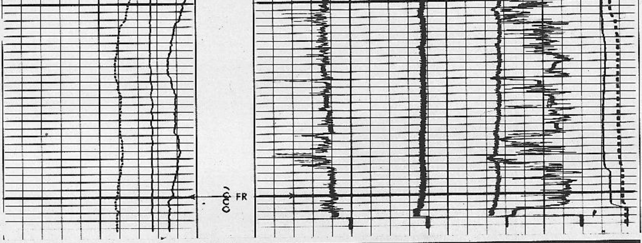

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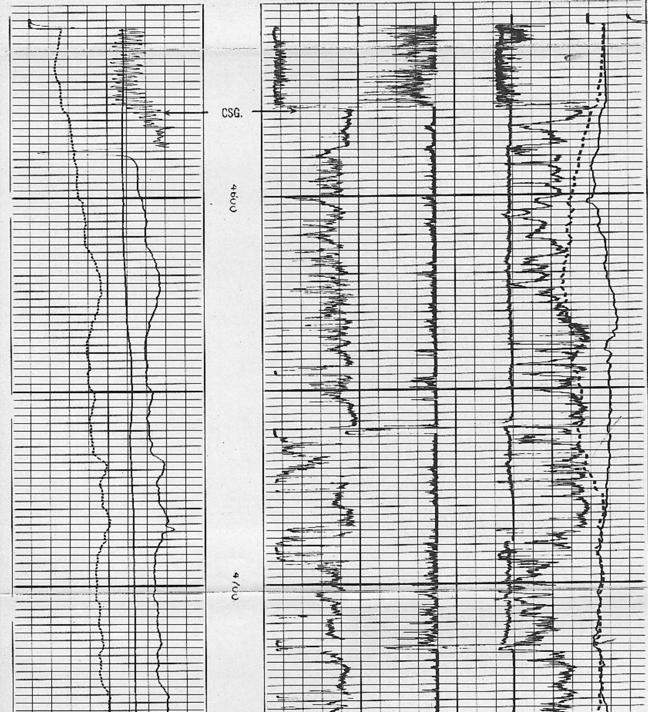
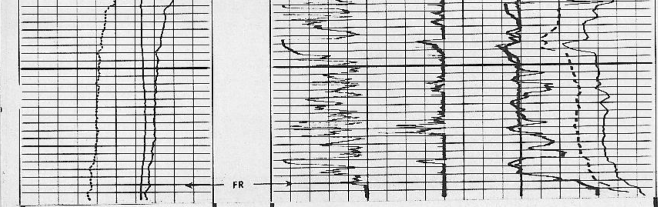
REPEAT SECTION





AZIMUTH

0° 120° 240° 360°

RELATIVE BEARING

0° 120° 240° 360°

DEVIATION

0° 18°

S. O. NO. 1

S. O. NO. 2

S. O. NO. 3

S. O. NO. 4

4 ARM CALIPER
1 - 3 CALIPER

26" 16" 6"

2 - 4 CALIPER

26" 16" 6"

18" 16" 14" 12" 10" 8" 6"

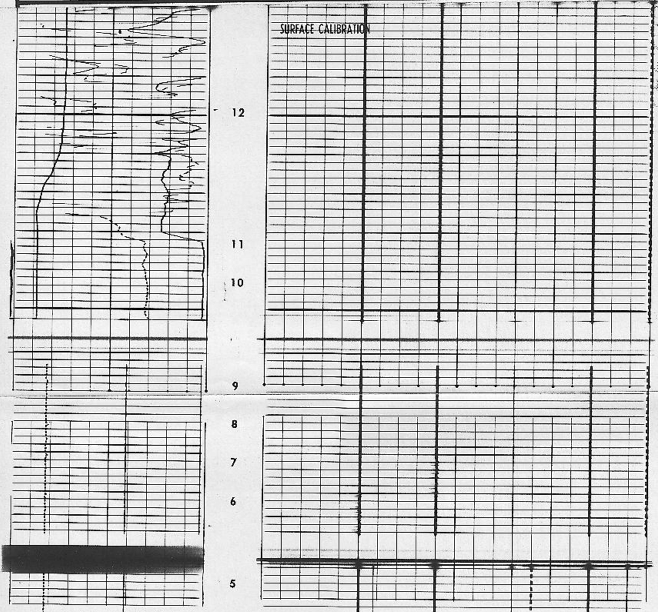
ORIENTATION

DEPTHS

CORRELATION CURVES

←CONDUCTIVITY

CALIBRATION RECORD



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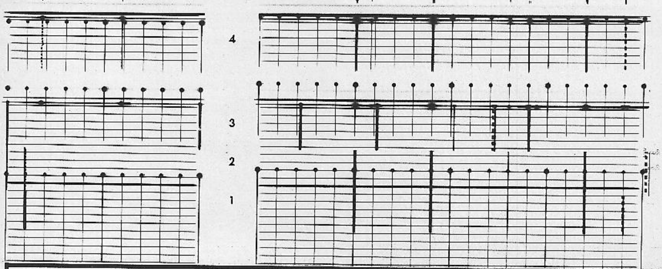

HIGH RESOLUTION DIPMETER CALIBRATION CODING

1. MECHANICAL ZERO
2. ELECTRICAL ZERO
3. FULL SCALE ADJUST
4. CALIPER ADJUST AT 6" AND 16" CALIPER 1-3 IS CODED
5. CALIPER ADJUST AT 6" AND 16" CALIPER 2-4 IS SOLID
6. PAD #1 RESPONSE CHECK
7. PAD #2 RESPONSE CHECK
8. PAD #3 RESPONSE CHECK
9. PAD #4 RESPONSE CHECK
10. SONDE HANGING VERTICALLY
11. TOOL AND PAD #1 POINTED NORTH
12. TOOL ROTATING

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