Welex

5" = 100'

INDUCTION VELOCITY LOG

COMPANY REICHHOLD ENERGY CORPORATION
WELL INVESTMENT MANAGEMENT 21-20
FIELD MIST
County COLUMBIA State ORE.

COMPANY REICHHOLD ENERGY CORPORATION
WELL INVESTMENT MANAGEMENT 21-20
FIELD MIST
COUNTY COLUMBIA STATE OREGON

RECEIVED-PTLD
DEC 2[illegible] 1983
OF GEOLOGY

Location 4364.4 & 1994.6 E OF CORNER
Other Services: DIP
Sec. 20 Twp. 6 N Rge. 4 W

Permanent Datum GL Elev. 636.6
Log Measured From KB 11.4 Ft. Above Perm. Datum
Drilling Measured From KB
Elev.: K.B. 648.0
D.F.
G.L. 636.6

Date	9-21-83			
Run No.	ONE			
Depth—Driller	2505			
Depth—Welex	2499			
Btm. Log Inter.	2493			
Top Log Inter.	477			
Casing—Driller	8 5/8@ 477	@	@	@
Casing—Welex	477			
Bit Size	7 7/8			
Type Fluid in Hole	GEL LIGNO			
Dens. I Visc.	9.6 I 52	I	I	I
pH I Fluid Loss	9.5 I 6.0 ml	I ml	I ml	I ml
Source of Sample	CIRCULATED			
R_m @ Meas. Temp.	2.0 @ 65 °F	@ °F	@ °F	@ °F
R_{mf} @ Meas. Temp.	1.60@ 64 °F	@ °F	@ °F	@ °F
R_{mc} @ Meas. Temp.	2.0 @ 66 °F	@ °F	@ °F	@ °F
Source R_{mf} R_{mc}	MEAS I MEAS	I	I	I
R_m @ BHT	1.30@ 100°F	@ °F	@ °F	@ °F
Time Since Circ.	1 HOUR			
Max. Rec. Temp.	100°F @ BHT	°F @	°F @	°F @
Equip. I Location	2876 I WDLND	I	I	I
Recorded By	PARMELEE			
Witnessed By	ALGER			

Fold Here

Service Ticket No 15446 5 Remarks.

Change in Mud Type or Additional Samples

Date | Sample No.	I	I
Depth—Driller		
Type Fluid in Hole		
Dens. | Visc.	I	I
ph | Fluid Loss	I ml	I
Source of Sample		
R_m @ Meas. Temp.	@ °F	@ °F
R_{mf} @ Meas. Temp.	@ °F	@ °F
R_{mc} @ Meas. Temp.	@ °F	@ °F
Source: R_{mf} | R_{mc}	I	I
R_m @ BHT	1.30 @ 100°F	@ °F
R_{mf} BHT	1.02 @ 100°F	@ °F
R_{mc} BHT	1.32 @ 100°F	@ °F

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

EQUIPMENT DATA

Run No.	Tool Type and No.	Pad Type	Tool Position	Other
ONE	DIL 98853			
	AVL 29270			

DRAFTED BY — JOHN YAECK

Welex does not guarantee the accuracy of any interpretation of log data, conversion of log data to physical rock parameters, or recommendations which may be given by Welex personnel or which may appear on the log or in any other form. Any user of such data, interpretations, conversions, or recommendations agrees that Welex is not responsible, except where due to gross negligence or wilful misconduct, for any loss, damages, or expenses resulting from the use thereof.

5" = 100'

POTENTIAL MILLIVOLTS

− → 10 ← +

6 **CALIPER** 16
Average Diameter Inches

0 Rwa 3

RESISTIVITY OHMS M²/M

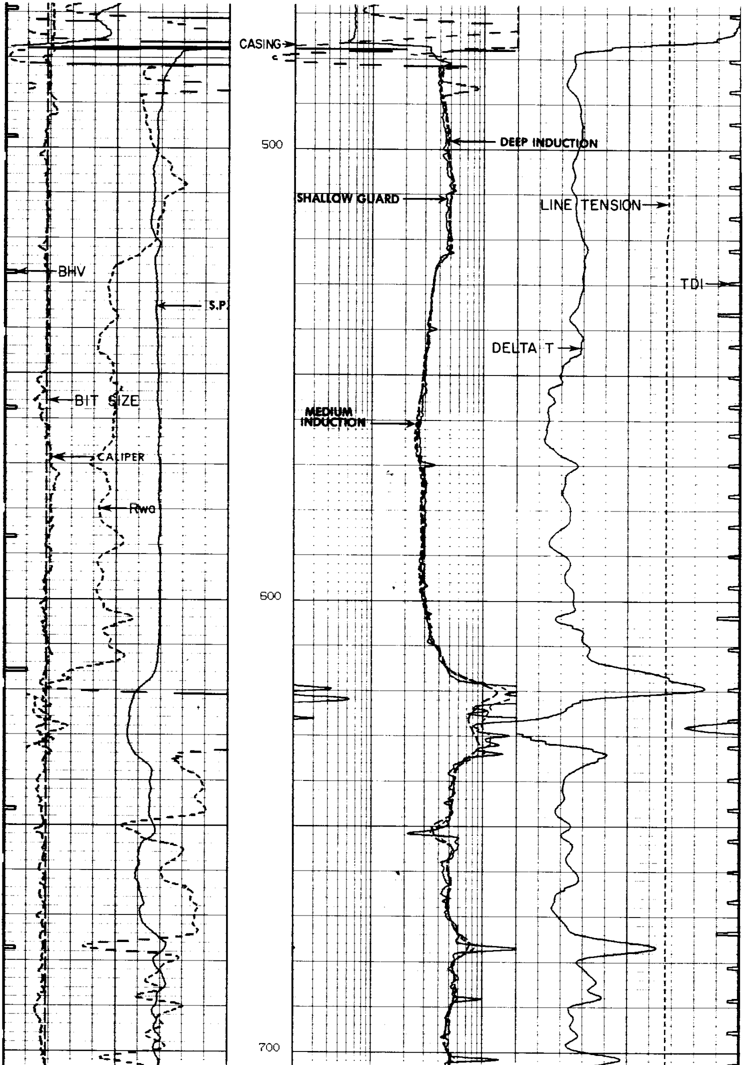
Induction
.2 .5 1 2 5 10 20
20 200 2000

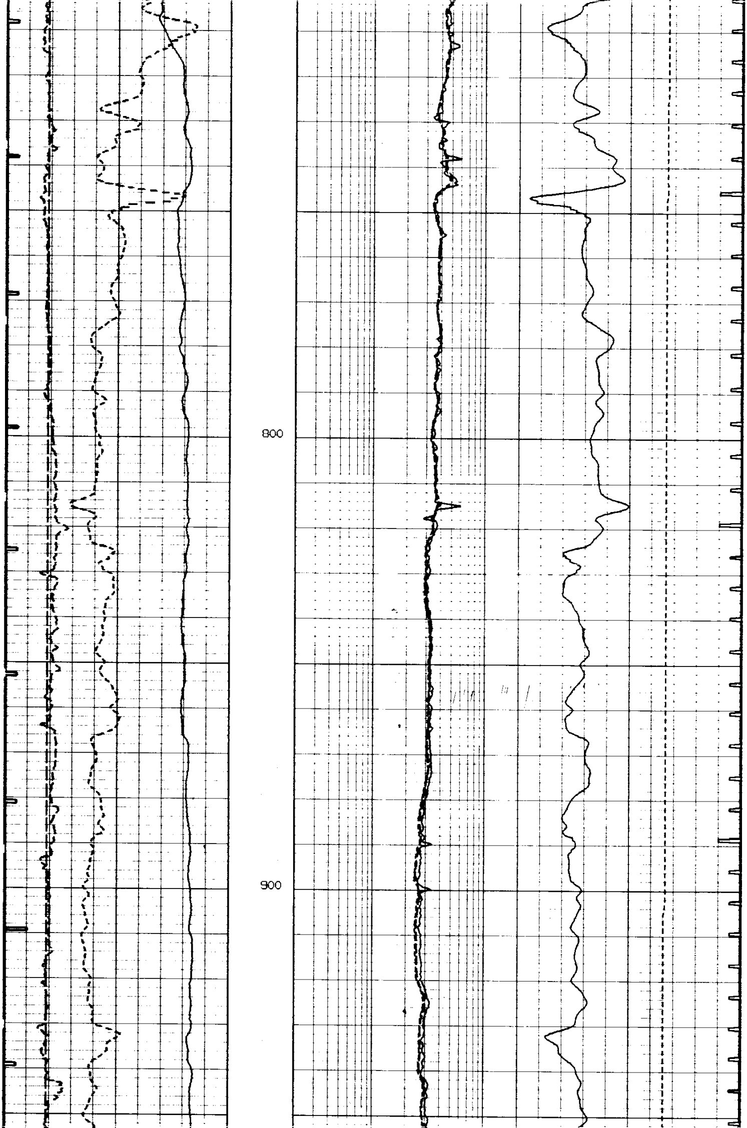
Guard
2 5 1 2 5 10 20
20 200 2000

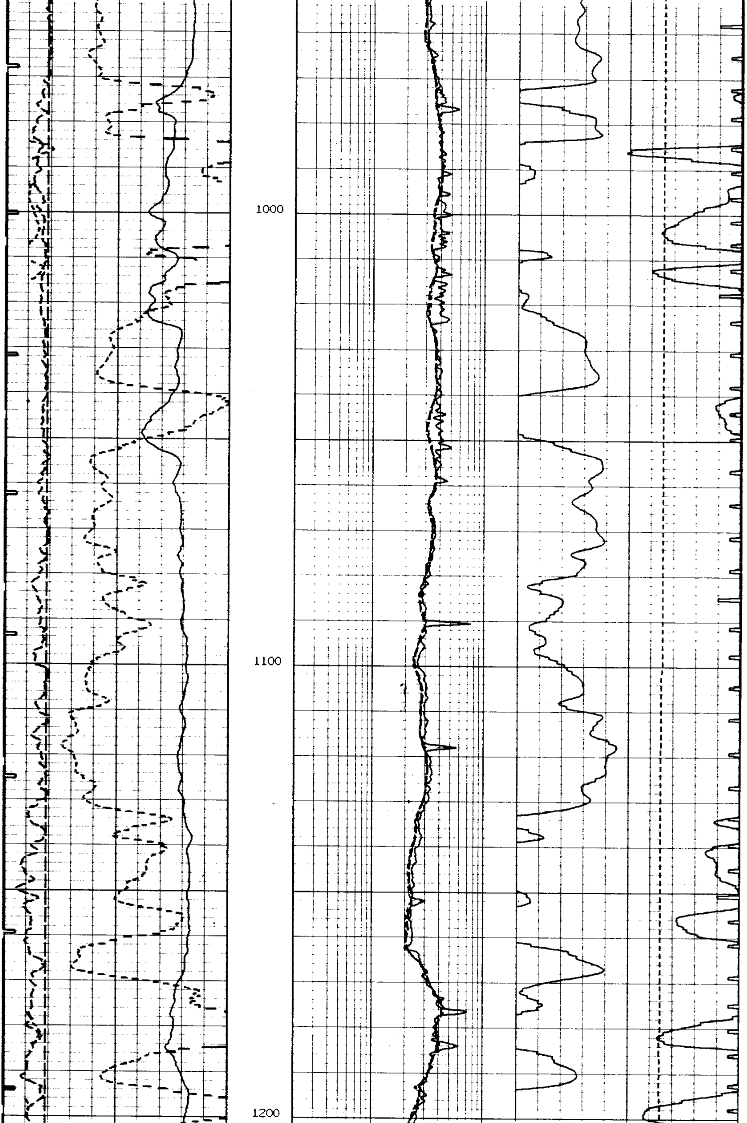
VELOCITY

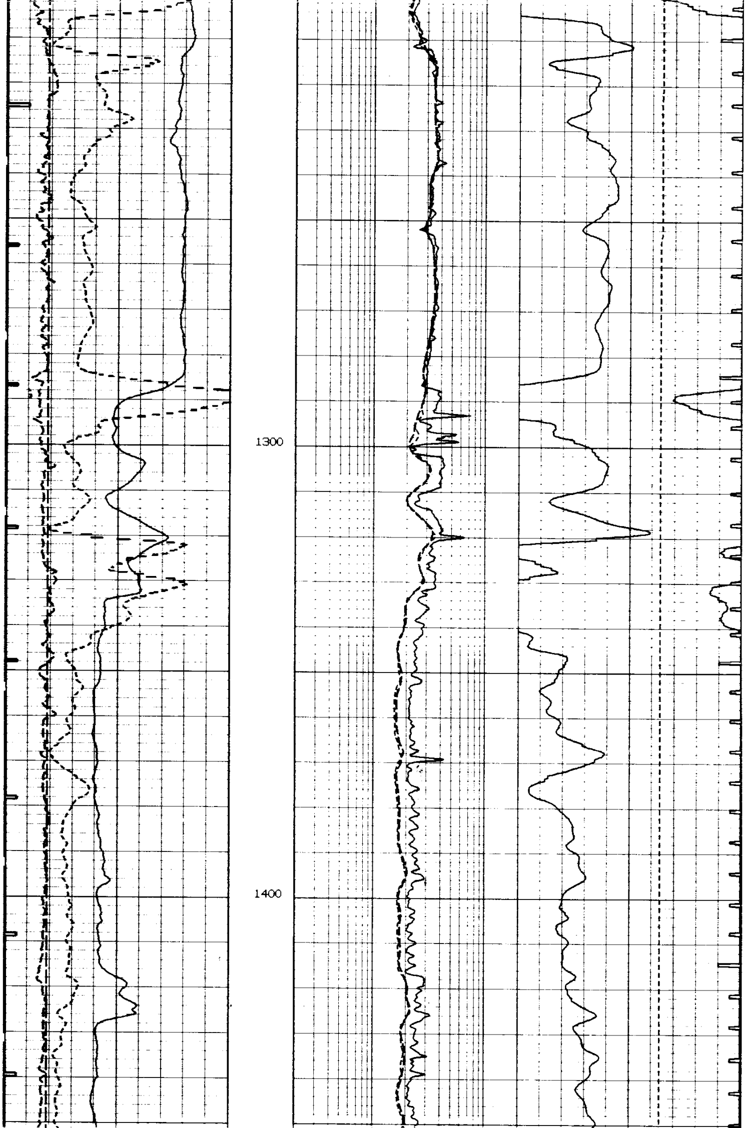
170 Microseconds/Ft. 70
270 O.S. 170

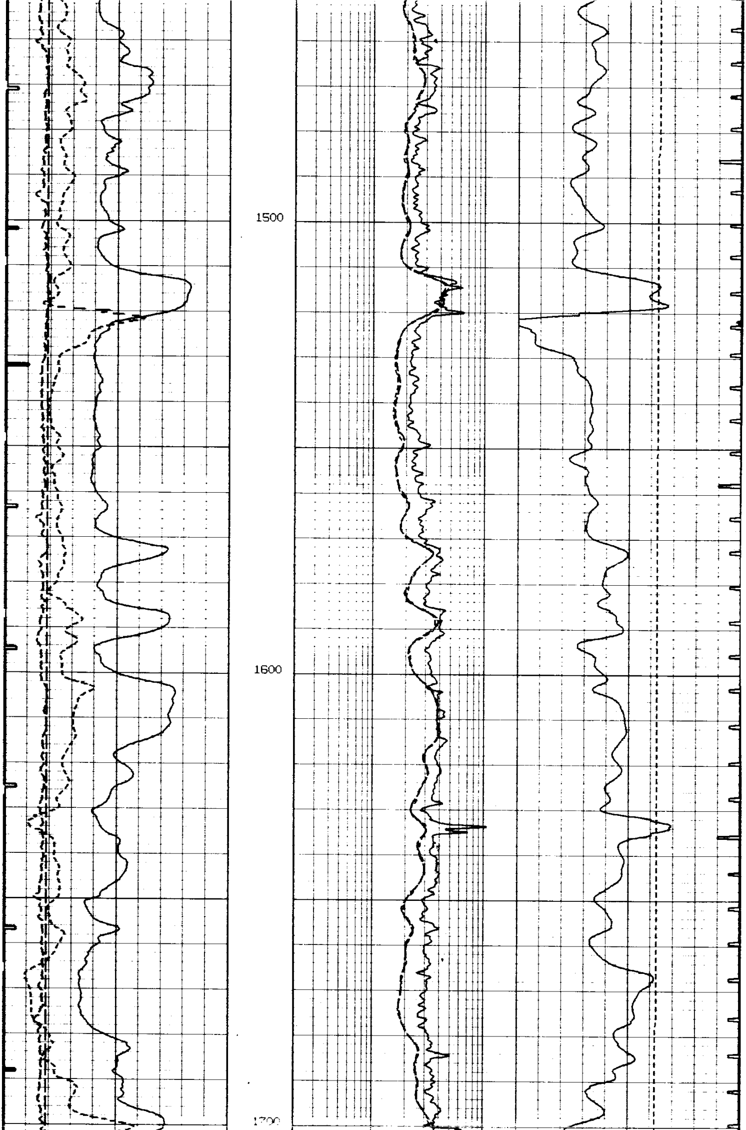
T₁ 4' R₁ 2' R₂

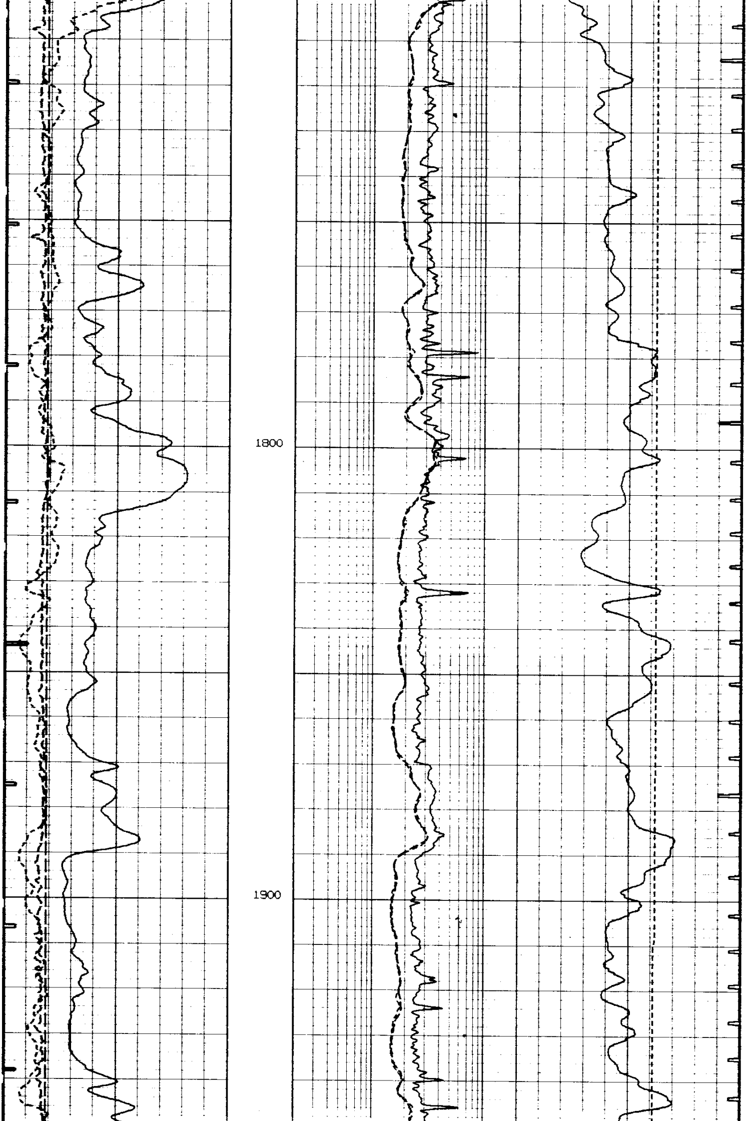


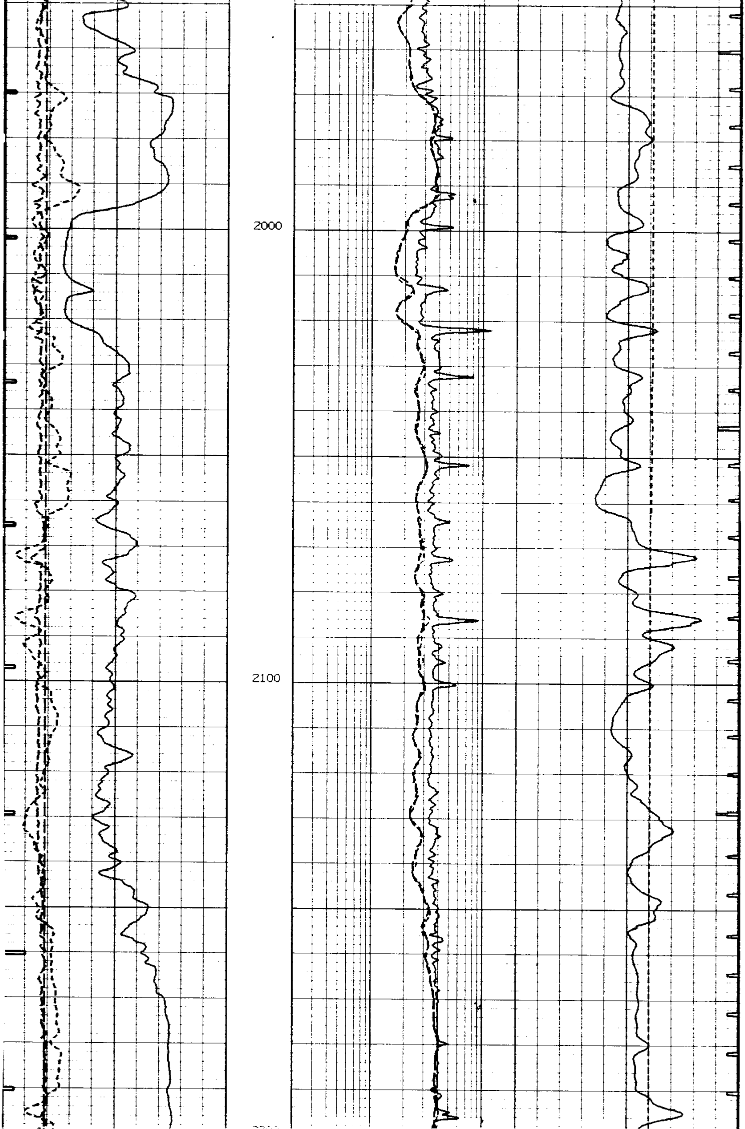


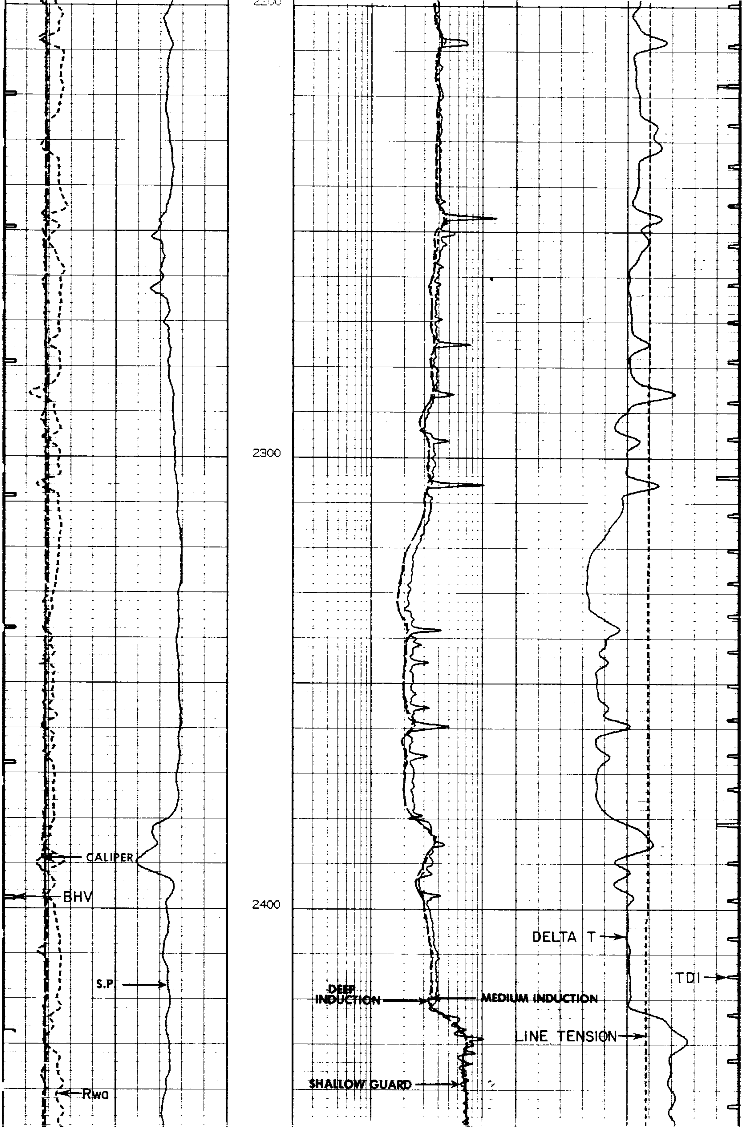


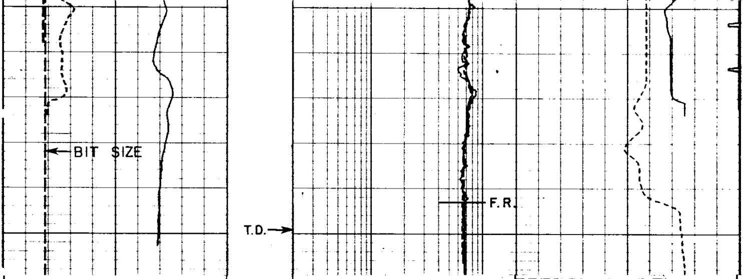












0 Rwa 3

CALIPER

6 16

Average Diameter Inches

10

POTENTIAL MILLIVOLTS

Guard

.2 .5 1 2 5 10 20

20 200 2000

Induction

.2 .5 1 2 5 10 20

20 200 2000

RESISTIVITY OHMS M^2/M

T_1 4' R_1 2' R_2

170 Microseconds/Ft. 70

270 O.S. 170

VELOCITY

COMPANY REICHHOLD ENERGY CORPORATION

WELL INVESTMENT MANAGEMENT 21-20

FIELD MIST

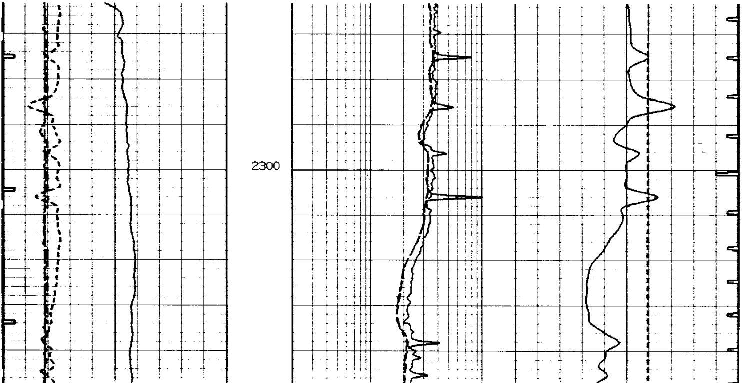
COUNTY COLUMBIA STATE OREGON

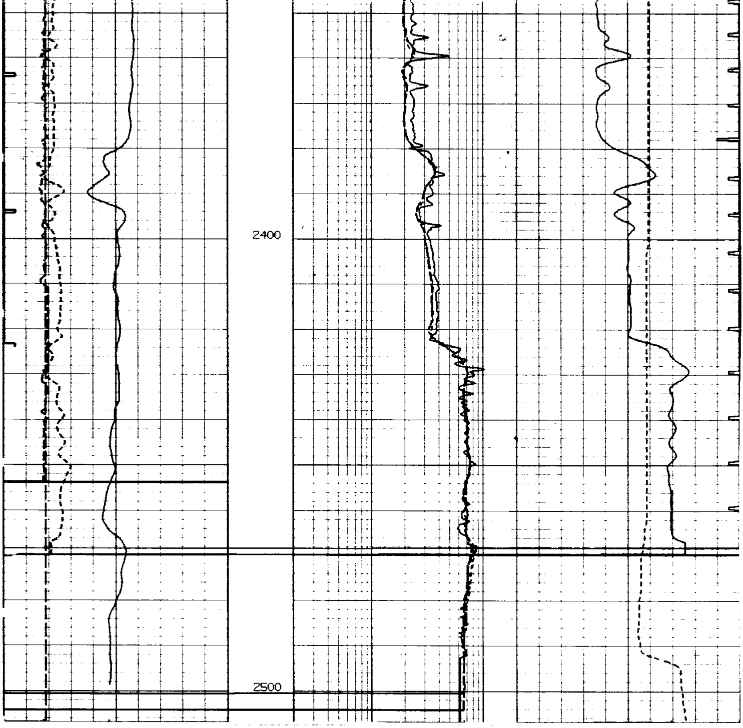
T.D. LOGGED 2493

T.D. DRILLER 2505

T.D. WELEX 2499

REPEAT SECTION





CALIBRATION BEFORE SURVEY

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                                  SUMMARY

TRACE                   SCALE        DIGT   NORM OR            (NORM*)(INTCP*)           PLOTS
SURVEY      GALVO  TRK    L       R   CHAN   MATRIX    INTCP    OFFSET  T.C.     DELAY   C1VC2

LIN COND      13    3   1000.,    0.    9        0.        0       0.    0.         0.    YNN
LIN DEEP      10    2      0.,   30.   10        0.        0       0.    0.         0.    MNN
LIN GUARD      9    2      0.,   30.   11        0.        0       0.    0.         0.    YNN
AMP GUARD     11    2      0.,    6.    7        0.        0       0.    0.         0.    YNN
LOG GUARD      6    2     0.2,   20.    3  15.8781         0       0.    0.         0.    NYY
LOG MEDIUM*    5    2     0.2,   20.    2  0.37262         0   0.063      0        5.7    NFF
LOG DEEP*      4    2     0.2,   20.    1  0.21159         0   0.036      0        2.1    NMM
TRAVEL TIME    7    3    150.,   50.    8        0.        0       0.    0.    36.269    NYY
V POROSITY    12    3     45.,  -15.   12       57.        0       0.    0.         0.    NNN
NEUTRON        0    3      0.,5400.    13        0.        0       0.    4.        62.    NNN
N POROSITY     0    3     45.,  -15.   15  LIME            0       0.    0.         0.    NNN
CALIPER        1    1      6.,   16.    4  0.00145     -3871       0.    0.       52.5    MMM
GAMMA          0    1      0.,  200.    0        0.        0       0.    2.     28.579    MMM
S.P.           2    1      0.,  100.    6        0.        0       0.    0.        7.5    YYY
T.D.I         16    3      0.,   10.   16        0.        0       0.    0.         0.    NYN
B.H.V.        14    1      0.,   10.    5        0.        0       0.    0.         0.    NYY
RWA*           3    1      0.,    3.   14        1.        0        2     0         0.    NFF
L. TENSION     8    3   4095.,    0.    0        1.        0       0.    0.         0.    NFF
XPLT POR       0    3     45.,  -15.    0        0.        0       0.    0.         0.    YYY
F CURVE        0    2       1.,10000    0      0.62        0     2.15    0.         0.    NNN
RXO-RT         0    1     1.6, -0.4     0        0.        0       0.    0.         0.    YYY
BIT SIZE      15    1      6.,   16.    0        0.        0      8.5    0.         0.    NSS


TOOL NO.          853
INSTRUMENT ZERO                          SONDE ERROR
DEEP       -0.  MMHO                     DEEP     -0.077 MMHO
MEDIUM 0.2522 MMHO                       MEDIUM 12.148 MMHO
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TOOL   READING                    LOW       HIGH
DEEP   POS. 1                    1877      11029
       POS. 2                      24        125
MEDIUM POS. 1                    1242       7339
       POS. 2                      15         75

SHORT GUARD
TOOL                      POS1      POS2       NPS       AIR
VE                        1073      5490         6         6
I ALPHA                   8339       441         5         5

LOW DEEP INTERNAL CALIBRATE VALUE 397.14 MMHO
DEEP BASE -0.077 MMHO
LOW MEDIUM INTERNAL CALIBRATE VALUE 462.79 MMHO
MEDIUM BASE 12.401 MMHO
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CALIBRATION AFTER SURVEY

```
                                                   SUMMARY

TRACE                           SCALE           DIGT      NORM OR             (NORM*)(INTCP*)           PLOTS
SURVEY           GALVO  TRK      L       R      CHAN      MATRIX    INTCP     OFFSET   T.C.     DELAY   C1VC2

LIN COND            13   3    1000.,     0.       9          0.        0         0.    0.          0.    NNY
LIN DEEP            10   2       0.,    30.      10          0.        0         0.    0.          0.    NNM
LIN GUARD            9   2       0.,    30.      11          0.        0         0.    0.          0.    NNY
AMP GUARD           11   2       0.,     6.       7          0.        0         0.    0.          0.    NNY
LOG GUARD            6   2     0.2,     20.       3       15.84        0         0.    0.          0.    YYN
LOG MEDIUM*          5   2     0.2,     20.       2   0.37353          0     0.063      0         5.7    FFN
LOG DEEP*            4   2     0.2,     20.       1   0.21024          0     0.035      0         2.1    MMN
TRAVEL TIME          7   3     150.,    50.       8          0.        0         0.    0.     36.249    YYN
V POROSITY          12   3      45.,   -15.      12         57.        0         0.    0.          0.    NNN
NEUTRON              0   3       0.,5400.        13          0.        0         0.    4.         62.    NNN
N POROSITY           0   3      45.,   -15.      15   LIME             0         0.    0.          0.    NNN
CALIPER              1   1       6.,    16.       4   0.00145      -3871         0.    0.        52.5    MMN
GAMMA                0   1       0.,   200.       0          0.        0         0.    2.     28.559    MMM
S.P.                 2   1       0.,   100.       6          0         0         0     0          7.5    YYY
T.D.I               16   3       0.,    10.      16          0.        0         0.    0.          0     YYN
B.H.V.              14   1       0.,    10.       5          0.        0         0     0.          0     YYN
RWA*                 3   1       0.,     3.      14          1.        0          2     0          0.    FFN
L. TENSION           8   3    4095.,     0.       0          1.        0         0.    0.          0.    FFN
XPLT POR             0   3      45.,   -15        0          0.        0         0.    0.          0.    NNN
F CURVE              0   2       1.,10000         0        0.62        0       2.15    0.          0.    NNN
RXO-RT               0   1     1.6.,  -0.4        0          0         0         0     0           0     NMN
BIT SIZE            15   1       6.,    16.       0          0.        0      7.875    0           0     SSN
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TOOL NO.        853
INSTRUMENT ZERO                                 SONDE ERROR
DEEP     -0. MMHO                               DEEP    -0.077 MMHO
MEDIUM -0.315 MMHO                              MEDIUM 12.716 MMHO

TOOL   READING                    LOW       HIGH
DEEP   POS. 1                    1889      11092
       POS. 2                      25        128
MEDIUM POS. 1                    1239       7328
       POS. 2                      14         75

SHORT GUARD
TOOL                      POS1      POS2       NPS       AIR
VE                        1076      5516         6         6
I ALPHA                   8372       442         5         5

LOW DEEP INTERNAL CALIBRATE VALUE 397.14 MMHO
DEEP BASE -0.077 MMHO
LOW MEDIUM INTERNAL CALIBRATE VALUE 462.79 MMHO
MEDIUM BASE 12.401 MMHO
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