Welex

5"=100'

# INDUCTION • ELECTRIC LOG

COMPANY REICHHOLD ENERGY CORP.
WELL COLUMBIA CO. NO.3 R/D NO. 1
FIELD NEHALEM BASIN
County COLUMBIA State ORE.

COMPANY REICHHHOLD ENERGY CORPORATION
WELL COLUMBIA COUNTY NO. 3 R.D. NO.1
FIELD NEHALEM BASIN
COUNTY COLUMBIA STATE OREGON

Location 1561' SOUTH AND 630' WEST OF THE NORTHEAST CORNER OF SECTION(W.B.M.)

Other Services: C/AVL DIG

Sec. 10 Twp 6N Rge 5W

Permanent Datum G.L. Elev. 858.2
Log Measured From K.B. OR 11.2 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev.: K.B. 869.2
D.F.
G.L. 858.2

| | | | | |
|---|---|---|---|---|
| Date | 6-4-79 | | | |
| Run No. | ONE R/D | | | |
| Depth—Driller | 2993 | | | |
| Depth—Welex | 2993 | | | |
| Btm. Log Inter. | 2988 | | | |
| Top Log Inter. | 396 | | | |
| Casing—Driller | 7 @ 391 | @ | @ | @ |
| Casing—Welex | 396 | | | |
| Bit Size | 6 1/4 | | | |
| Type Fluid in Hole | LIGNO SULF | | | |
| Dens. I Visc. | 77 I 45 | I | I | I |
| pH I Fluid Loss | 10.0 I 6.4 ml | I ml | I ml | I ml |
| Source of Sample | PIT | | | |
| $R_m$ @ Meas. Temp. | 2.40 @ 86 °F | @ °F | @ °F | @ °F |
| $R_{mf}$ @ Meas. Temp. | 1.90 @ 68 °F | @ °F | @ °F | @ °F |
| $R_{mc}$ @ Meas. Temp. | 2.92 @ 72 °F | @ °F | @ °F | @ °F |
| Source $R_{mf}$ $R_{mc}$ | MEASURED | I | I | I |
| $R_m$ @ BHT | 1.74 @ 118 °F | @ °F | @ °F | @ °F |
| Time Since Circ. | 3 1/2 HRS. | | | |
| Max. Rec. Temp. | 118 °F @ BHT | °F @ | °F @ | °F @ |
| Equip. I Location | 9430 I WDLND | I | I | I |
| Recorded By | J. KENNEDY | | | |
| Witnessed By | W. BRUER, W. | McBURNIE, J. | CLARE | |

Fold Here

Service Ticket No. 048880 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 | 1.74 @118 °F | @ °F |
| $R_{mf}$ BHT | 1.11 @118 °F | @ °F |
| $R_{mc}$ BHT | 2.00 @118 °F | @ °F |

SCALE CHANGES

| Type Log | Depth | Scale Up Hole | Scale Down Hole |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

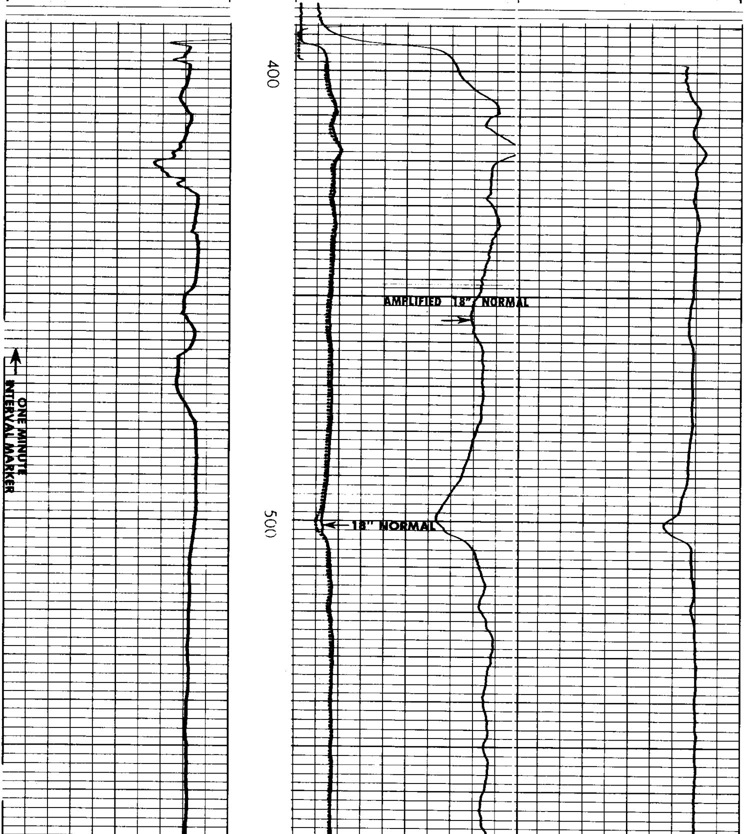
EQUIPMENT DATA

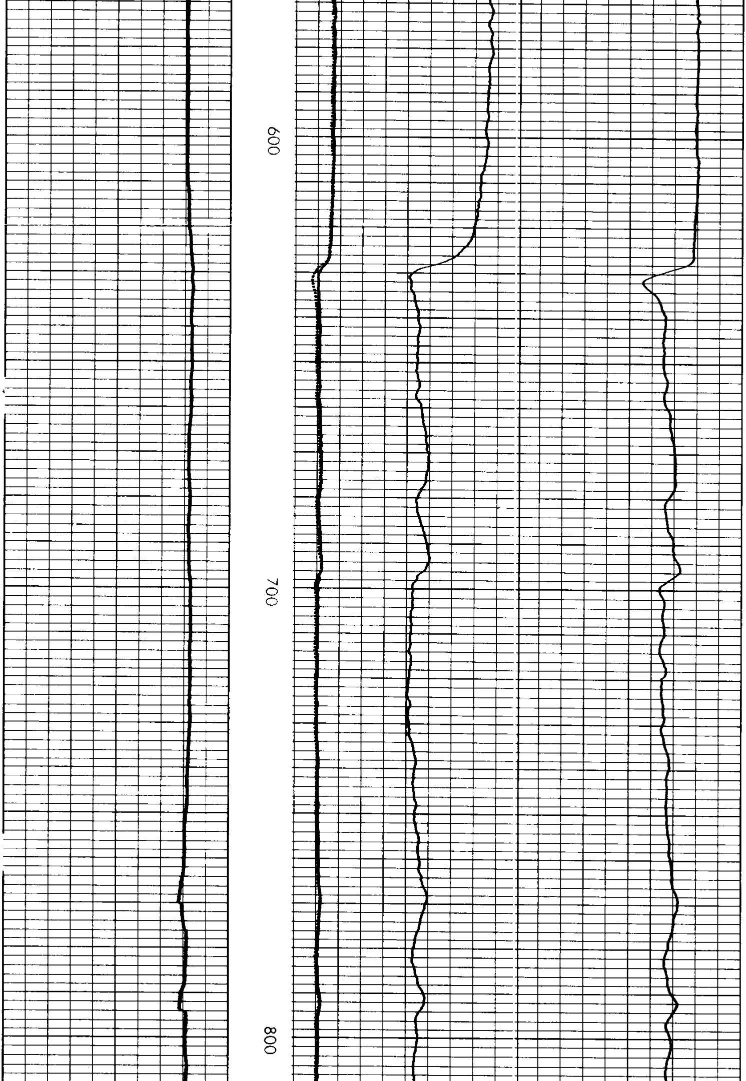
| Run No. | Tool Type and No. | Pad Type | Tool Position | Other |
|---|---|---|---|---|
| 1 R/D | 11242 IEL | FREE | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

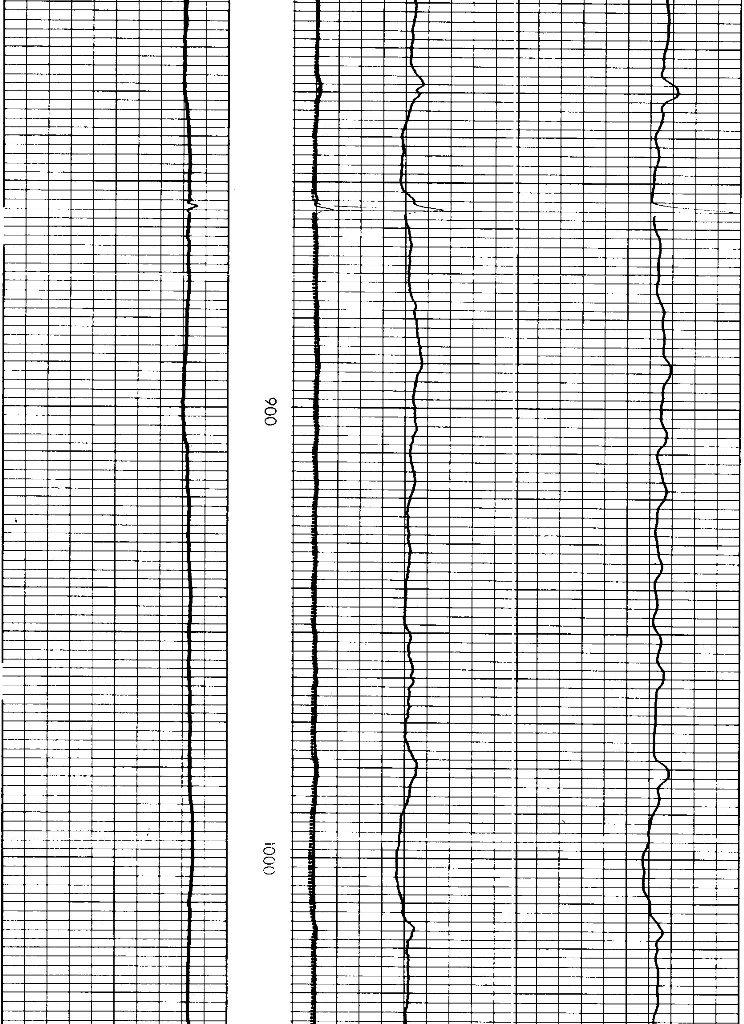
Welex does not guarantee the accuracy of any interpretation of log data, conversion of log data to physical rock parameters, or recommendations which may be given by Welex personnel or which may appear on the log or in any other form. Any user of such data, interpretations, conversions, or recommendations 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.

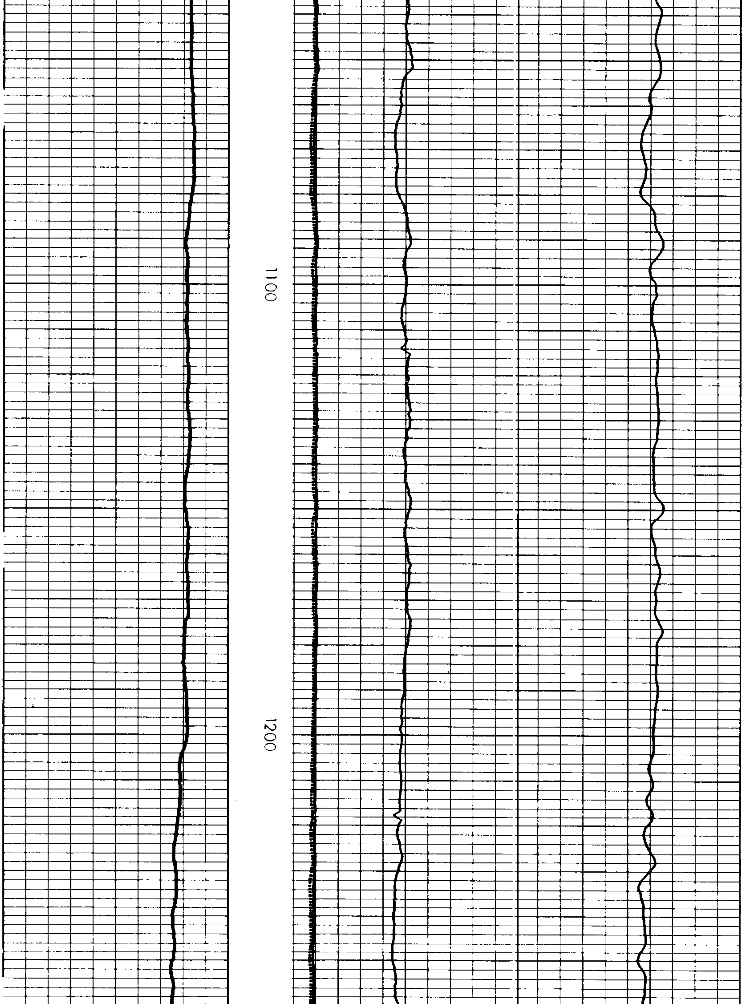
5" = 100'

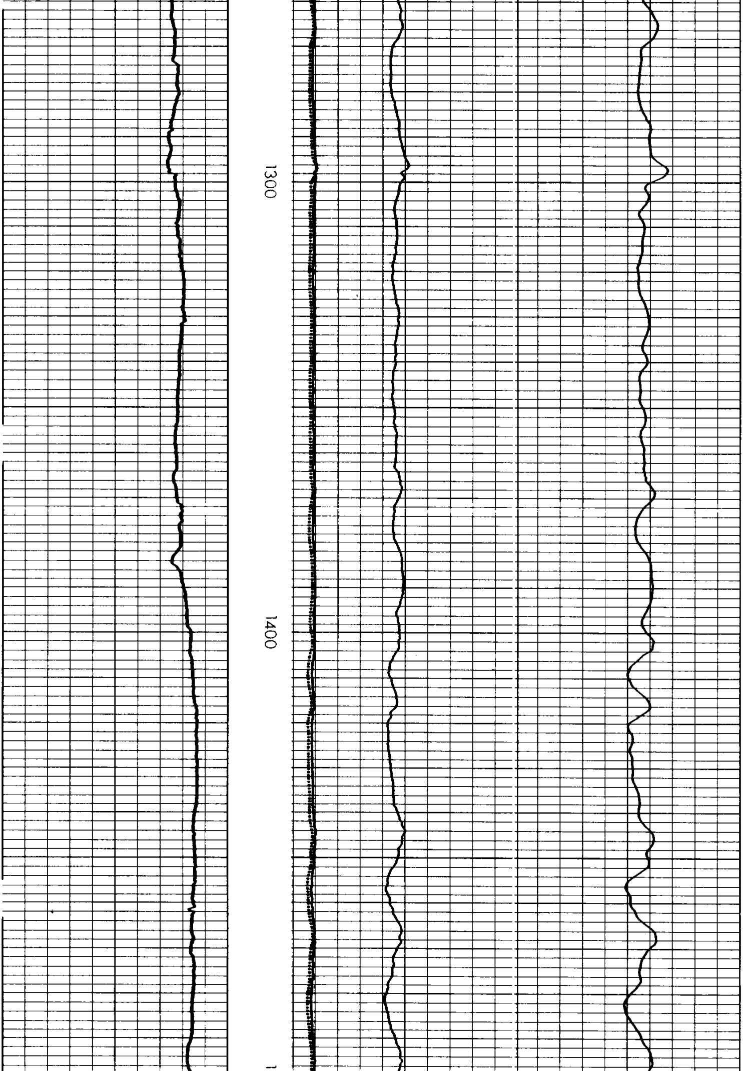
| POTENTIAL MILLIVOLTS | RESISTIVITY OHMS M²/M | CONDUCTIVITY M MHOS/M |
|---|---|---|
| — → 10 ← + | 0 18" Normal 30 | 1000 Induction 0 |
| Rmf ______ at ______ °F. | 0 O.S. 300 | 2000 O.S. 1000 |
| | 0 18'' AMPL. NORMAL 6 | |
| | 0 Induction 30 | |
| | 0 O.S. 300 | |

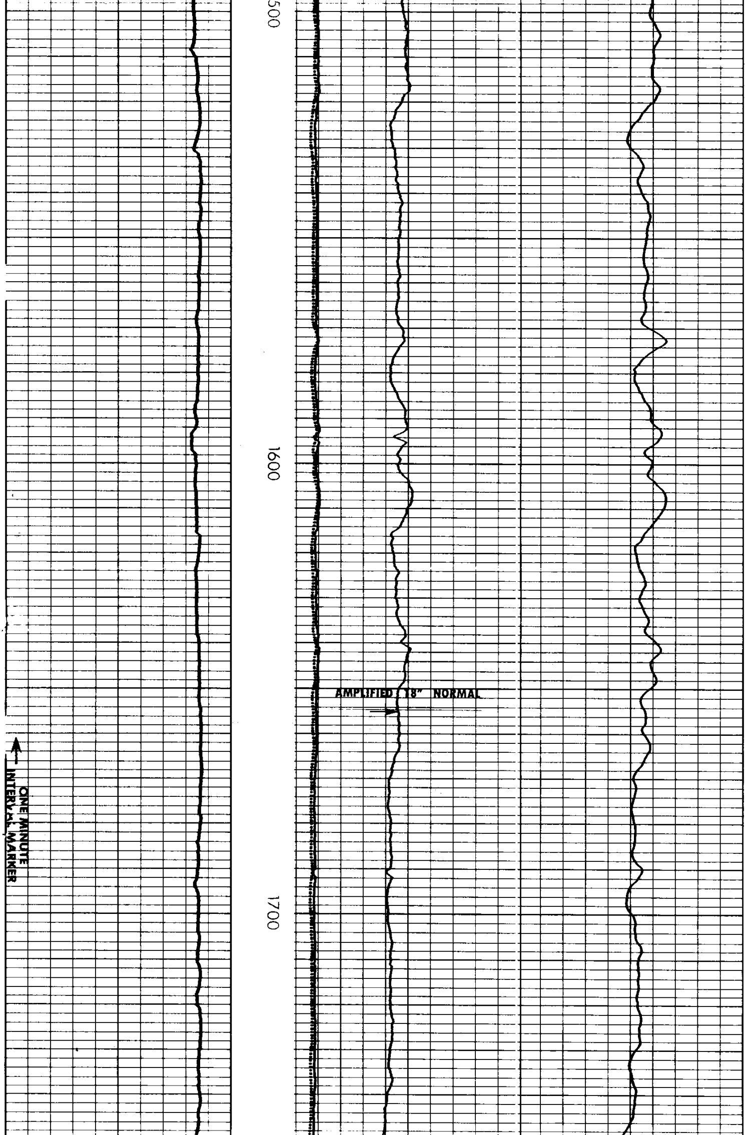


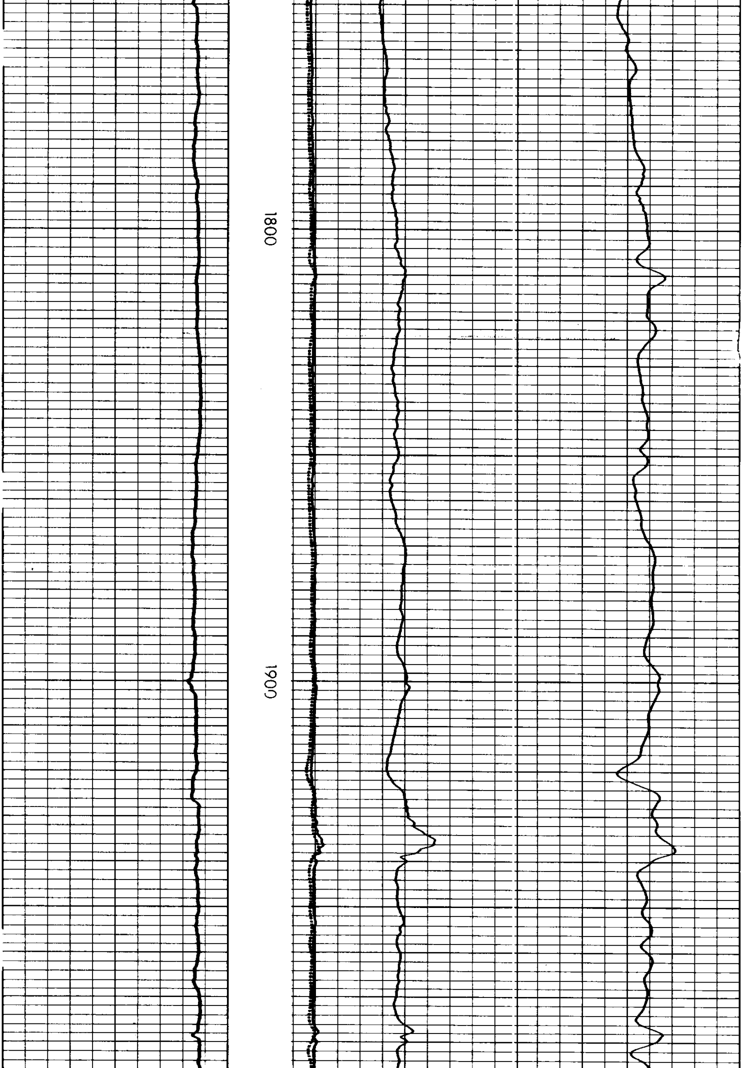


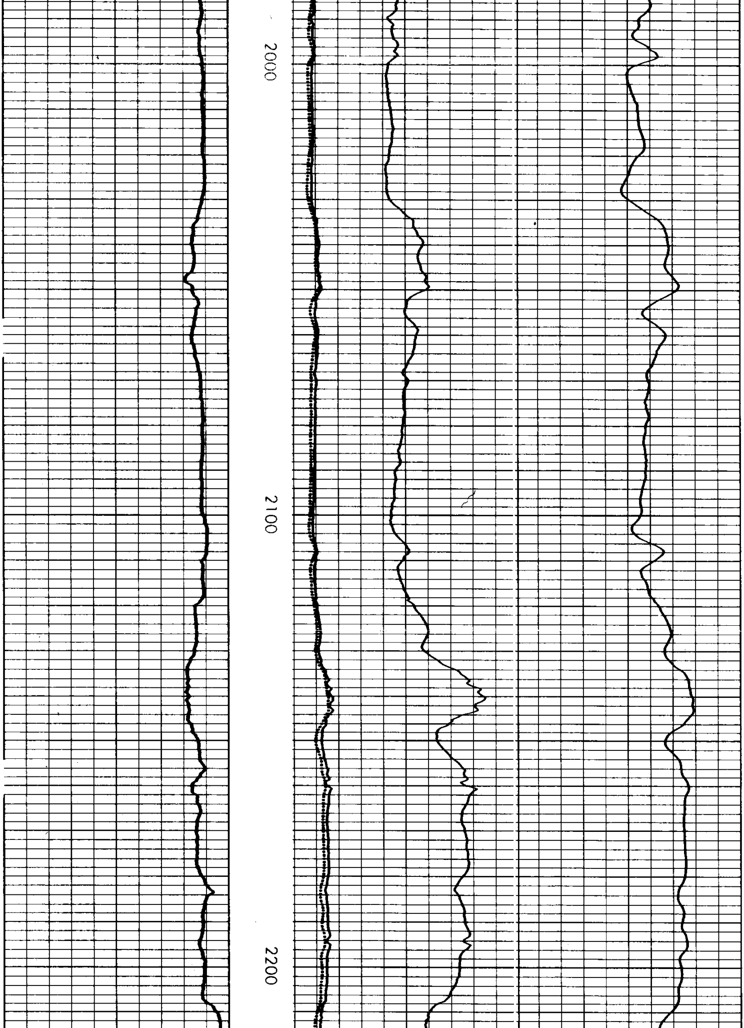


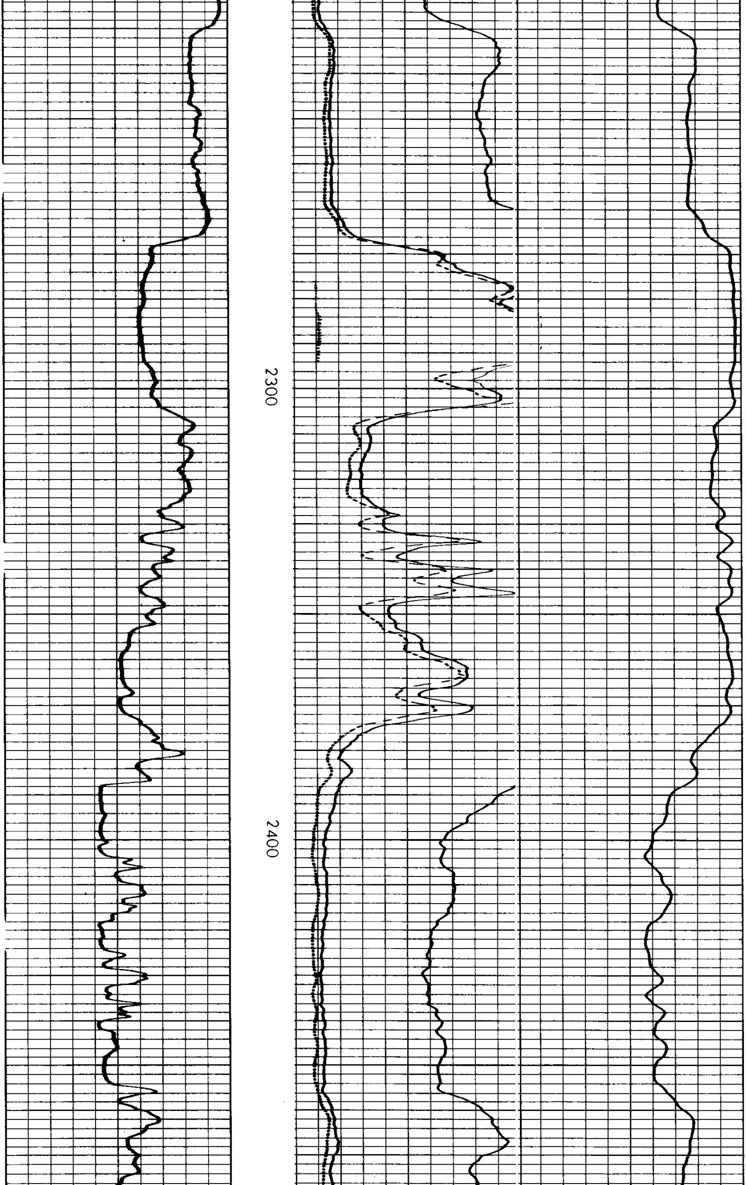


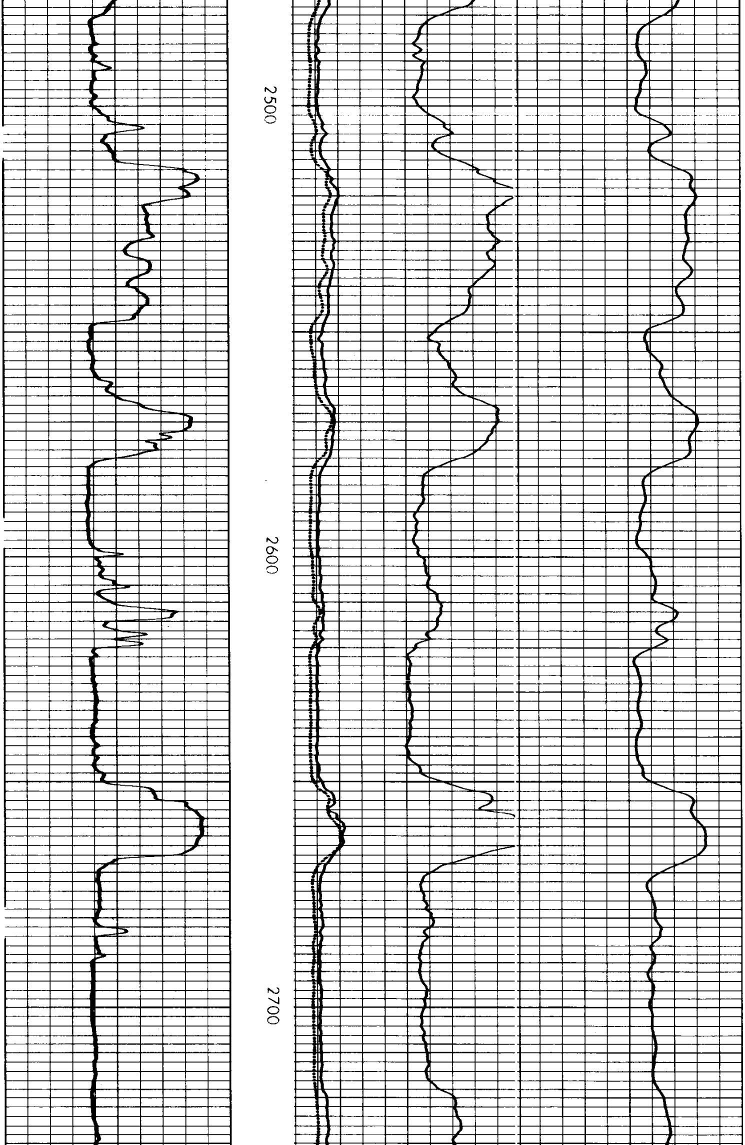


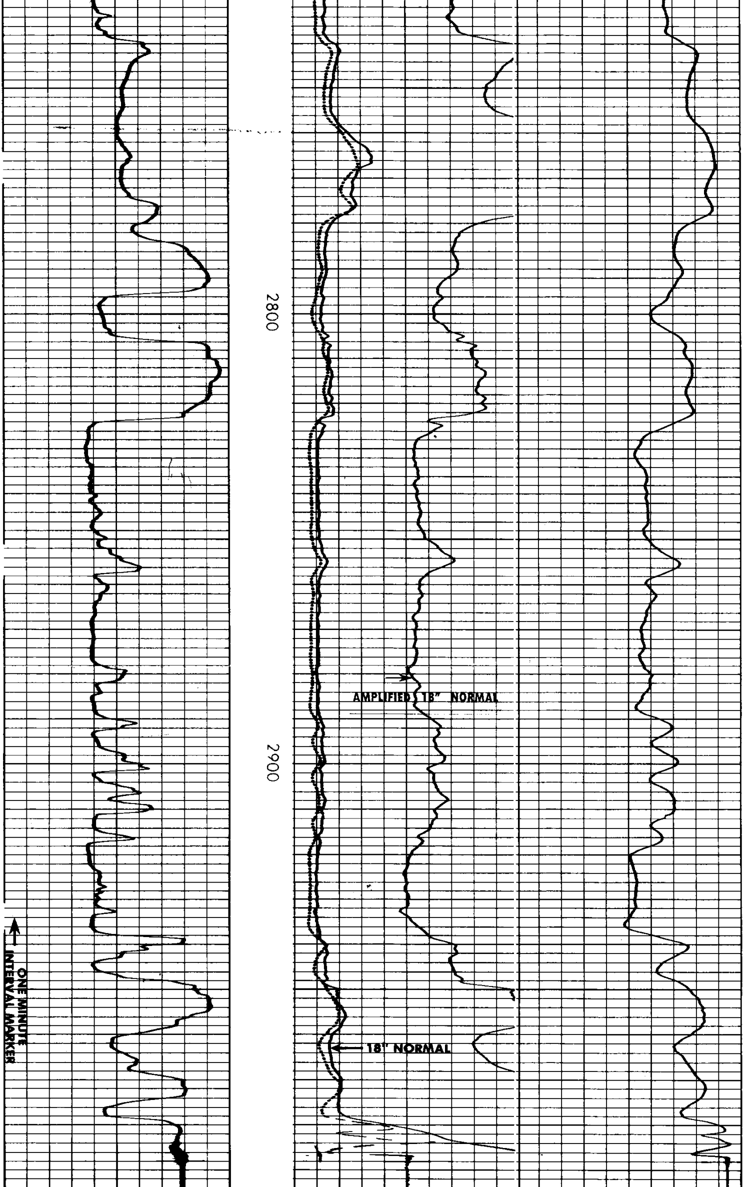












| | |
|---|---|
| 0 Induction 30 | |
| 0 O.S. 300 | |
| | |
| 0 18" Normal 30 | |
| 0 O.S. 300 | 1000 Induction 0 |
| 0 18'' AMPL. NORMAL 6 | 2000 O.S. 1000 |

Rmf 1.11 at 118 °F.

− → 10 ← +

**POTENTIAL MILLIVOLTS**

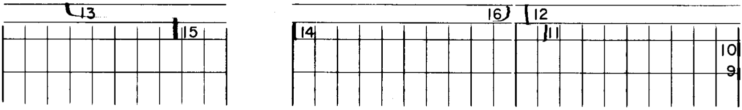
**RESISTIVITY OHMS M²/M**

**CONDUCTIVITY M MHOS/M**

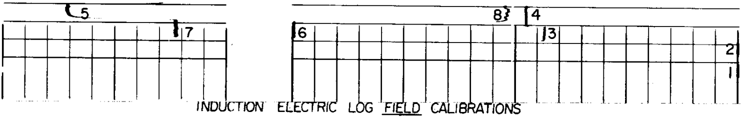
REICHHOLD ENERGY CORPORATION
COLUMBIA COUNTY NO. 3 R/D NO. 1
NEHALEM BASIN
COLUMBIA COUNTY, OREGON

T.D. LOGGED 2988
T.D. DRILLER 2993
T.D. WELEX 2993
ELEV. G.L. 858.2 K.B. 869.2

AFTER LOG



BEFORE LOG



INDUCTION ELECTRIC LOG FIELD CALIBRATIONS

1. RECORDER ZERO — COND
2. LOW REF. – ZERO CALIB.
3. HIGH REF. – INTERNAL CALIB. – BASE OUT
4. HIGH REF + BASE - INTERNAL CAL. BASE IN
5. S P. BASE
6. RECORDER ZERO - NORMAL AND/OR LATERAL
7. S. P. + 50 M.V.
8. NORMAL AND/OR LATERAL REFERENCE
9. RECORDER ZERO — COND.
10. LOW REF. – ZERO CALIB.
11. HIGH REF. – INTERNAL CALIB. – BASE OUT
12. HIGH REF. + BASE - INTERNAL CAL. BASE IN
13. S.P. BASE
14. RECORDER ZERO – NORMAL AND/OR LATERAL
15. S.P. + 50 M.V.
16. NORMAL AND/OR LATERAL REFERENCE

1 THRU 8 — BEFORE LOG
9 THRU 16 — AFTER LOG
ALL SENSITIVITIES AT LOG SCALES,
EXCEPT AS NOTED