G00316 OGC # 20036

ENERGY RESOURCES, INC.

Paola, Kansas 66071
P. O. Box 467
913-294-5050
Lawrence, Kansas 66044
1203 Iowa
913-841-8888

# RELEASED

FILING NO.

COMPANY Carmel Energy, Inc.
WELL VA 4-1
FIELD Vacca Lease
COUNTY Barton County, Missouri

LOCATION 1200' FSL 180' FWL
SEC 4 TWP 33N RGE 33W

OTHER SERVICES:

PERMANENT DATUM GL ELEV. 843.0
LOG MEASURED FROM GL FT. ABOVE PERM. DATUM
DRILLING MEASURED FROM GL

ELEV.: K.B. NA
D.F. NA
G.L. 843.0 (app)

| | | |
|---|---|---|
| DATE | 12-29-80 | 12-29-80 |
| RUN NO. | 1 NW | 1 NW |
| TYPE LOG | Gamma Ray | Neutron |
| DEPTH—DRILLER | | |
| DEPTH—LOGGER | 102.0 | 102.0 |
| BOTTOM LOGGED INTERVAL | 96.5 | 101.0 |
| TOP LOGGED INTERVAL | 0.0 | 4.5 |
| TYPE FLUID IN HOLE | water | water |
| SALINITY, PPM CL. | | |
| DENSITY | | |
| LEVEL | | |
| MAX. REC. TEMP., DEG F. | 10.5 | 19.5 |
| OPERATING RIG TIME | | |
| RECORDED BY | Morgan | Morgan |
| WITNESSED BY | | |

CONFIDENTIAL
to 1-7-82 IRS

| RUN NO. | BORE-HOLE RECORD BIT | FROM | TO | CASING RECORD SIZE | WGT | FROM | TO |
|---|---|---|---|---|---|---|---|
| | | | | O/H | | 0 | TD |

RECEIVED
JAN 07 1981
MO. OIL & GAS COUNCIL

FOLD HERE

THIS HEADING AND LOG CONFORMS TO API RP 1E

EQUIPMENT DATA

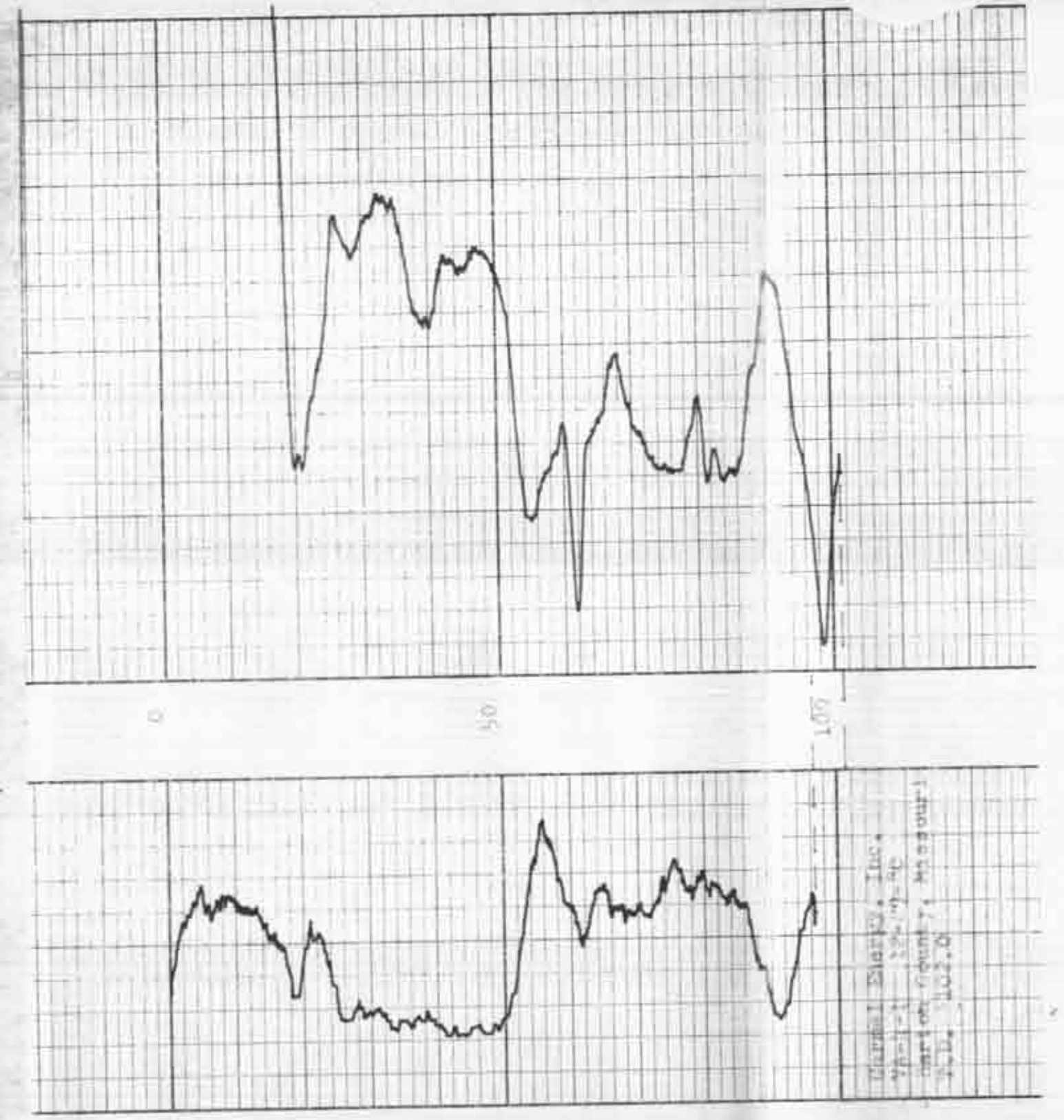
| GAMMA RAY | | NEUTRON | |
|---|---|---|---|
| RUN NO. | 1 NW | RUN NO. | 1 NW |
| TOOL MODEL NO. | 705 | LOG TYPE | NEU/NEU |
| DIAMETER | 1 11/16" | TOOL MODEL NO. | 705 |
| DETECTOR MODEL NO. | 705-GE | DIAMETER | 1 11/16" |
| TYPE | GEIGER | DETECTOR MODEL NO. | 705 HE-3 |
| LENGTH | 1 3/8" x 18" | TYPE | HE |
| DISTANCE TO N. SOURCE | 4.5 | LENGTH | 1" x 6" |
| | | SOURCE MODEL NO. | 71-1 |
| GENERAL | | SERIAL NO. | 71-1-335 G |
| HOIST TRUCK NO. | 0020 | SPACING | 13" |
| INSTRUMENT TRUCK NO. | 0020 | TYPE | AMBE-241 |
| TOOL SERIAL NO. | 0002 | STRENGTH | 3 CI |

LOGGING DATA

| GENERAL RUN NO. | DEPTHS FROM | TO | SPEED FT/MIN | T.C. SEC. | SENS. SETTINGS | ZERO DIV. L OR R | API G.R. UNITS PER LOG DIV. | NEUTRON T.C. SEC. | SENS. SETTINGS | ZERO DIV. L OR R | API N. UNITS PER LOG DIV. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1NW | 0 | TD | 20 | 4.0 | 100/075 | 0 | 10 | 4.0 | 500/100 | 5L | 20 |

REFERENCE LITERATURE:

REMARKS: DRILLING CONTRACTOR: TEST DRILLING COMPANY

GAMMA RAY DEPTH NEUTRON

CASING COLLARS