ENERGY RESOURCES, INC.

Peale, Kansas 66071
P. O. Box 467
913-294-5060

Lawrence, Kansas 66044
1203 Iowa
913-841-5886

FILING NO.

COMPANY: CARMEL ENERGY INC. [redacted]

WELL: MI NO. 4

FIELD: MITCHELL LEASE

COUNTY: VERNON CO., MISSOURI

LOCATION: 165.0 FSL
765.0 FWL

SEC. 21 TWP. 35N RGE. 33W

OTHER SERVICES:

PERMANENT DATUM: G.L. ELEV. 803.6
LOG MEASURED FROM: G.L. FT. ABOVE PERM. DATUM
DRILLING MEASURED FROM: G.L.

ELEV.: K.B. D.F. G.L. 803.6

DATE	8-1-80	8-1-80	
RUN NO.	1 NW	1 NW	
TYPE LOG	GAMMA RAY	NEUTRON	
DEPTH—DRILLER	196.0	196.0	
DEPTH—LOGGER	195.0	195.0	
BOTTOM LOGGED INTERVAL	189.5	194.0	
TOP LOGGED INTERVAL	0.0	4.5	
TYPE FLUID IN HOLE	WATER	WATER	
SALINITY, PPM CL			
DENSITY			
LEVEL	4.5	4.5	
MAX. REC. TEMP., DEG F.			
OPERATING RIG TIME			
RECORDED BY	E. PRATT	E. PRATT	
WITNESSED BY	V. YOUNG	V. YOUNG	

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

OCT 06 1980
MO. OIL & GAS COUNCIL

TRUE MEASURED AIR LOG CORRECTION SEE AIR IN 21

EQUIPMENT DATA

GAMMA RAY: RUN NO. 1 NW; LOG NO. 705; DETECTOR MODEL NO. 1-1176; DETECTOR NO. 705-GR; TYPE GEIGER; LENGTH 1 3/8" x 18"; DISTANCE TO H. SOURCE 4.5

NEUTRON: RUN NO. 1 NW; LOG NO. 705; DETECTOR MODEL NO. 1-1176; DETECTOR NO. 705-GR; TYPE HE; LENGTH 1" x 6"; SOURCE MODEL NO. 71-1-335 G; SERIAL NO. 13"; SPACING AMPE-241; TYPE 3 CI; STRENGTH

GENERAL: HOIST TRUCK NO. 0020; INSTRUMENT TRUCK NO. 0020; TOOL SERIAL NO. 0002

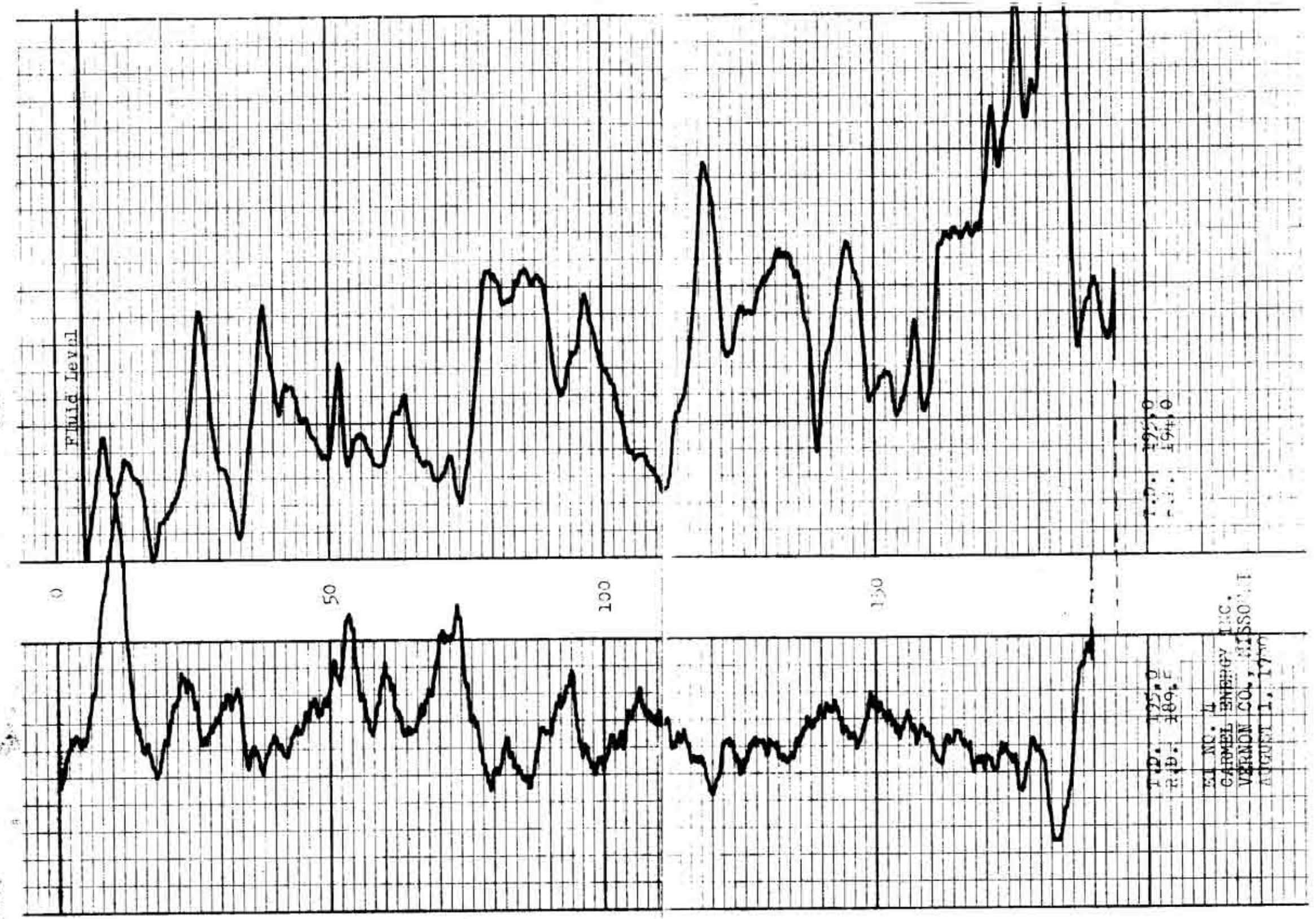
LOGGING DATA

GENERAL RUN NO.	DEPTHS FROM	TO	SPEED FT/MIN	T.C. SEC.	SENS. SETTINGS	ZERO DIV.	API GR. UNITS PER LOG DIV.	GAMMA RAY T.C. SEC.	SENS. SETTINGS	ZERO DIV.	API GR. UNITS PER LOG DIV.	NEUTRON T.C. SEC.	SENS. SETTINGS	ZERO DIV.	API N. UNITS PER LOG DIV.
1	0	189.5	30	1	300	0	10								
1	0	194.0	30	1	300	0	10								

REFERENCE LITERATURE: OPEN HOLE - NOT CEMENTED

REMARKS: DRILLING CONTRACTOR: LAYEN-WESTERN COMPANY

MGS-0 1631

GAMMA RAY DEPTH NEUTRON

CASING COLLARS