GO1417 Permit #21701 OPEN HOLE

CORNISH

WIRELINE SERVICES, INC.
P.O. DRAWER H
PHONE 431-9308
CHANUTE, KANSAS

CEMENT BOND — VARIABLE DENSITY

RECEIVED 11-26-84

MO. OIL & GAS COUNCIL
NOV 30 1984

FILING NO.

COMPANY CARMEL ENERGY, INC.
WELL LINNEMAN NO. N-20A
FIELD
COUNTY VERNON STATE MISSOURI

LOCATION 2336' FWL 1565' FSL

Sec. 34 Twp. 36N Rge. 33W

OTHER SERVICES:

Permanent Datum: GROUND LEVEL Elev. 764.2'
Log Measured from G.L. Ft. Above Perm. Datum
Drilling Measured From G.L.

Elev.: K.B. D.F. G.L. 764.2'

Date	11-26-84		Type Fluid in Hole	WATER/WILL NOT HOLD FLUID	
Run No.	1 NW		Dens.	Visc.	
Depth—Driller			Max. Rec. Temp.		
Depth—Logger	147.8'		Est. Cement Top		
Btm. Log Interval	138.8'		Equip.	Location	106 G.J. KS
Top Log Interval	8'		Recorded By	SANBORN, G.	
Open Hole Size			Witnessed By	SPERRY, J.	

CASING REC.	Size	Wt/Ft	Grade	Type Joint	Top	Bottom
Surface String						
Prot. String						
Prod. String	4½"				0	T.D.
Liner						

PRIMARY CEMENTING DATA

	Surface	Protection	Production	Liner
STRING				
Vol. of cement				
Type of cement				
Additive				
Additive by %				
Retarder				
Retarder by %				
Wt. of slurry				
Water loss				
Drill. mud type				
Drilling mud wt.				

FOLD HERE

FOLD HERE

COMPRESSIVE STRENGTH (p.s.i. | Curing Temp.)

Time Elapsed	Surface		Protective		Production		Liner	
24 hrs.		°F		°F		°F		°F
48 hrs.		°F		°F		°F		°F
72 hrs.		°F		°F		°F		

PRIMARY CEMENTING PROCEDURE

	Hour — date	Hours from start of operation
Started pumping cement		
Plug on bottom		
Release pressure		
Start Cement Bond Log		
Finish Cement Bond Log		

Equipment Data

Type standoff	
Logging speed	
Bias: Max.	
Cartridge No.	
Spacing	

Preceding fluid _____ Volume _____ bbls.
Returns: Full _____ Partial _____ None _____

Pipe reciprocated during Pumping: Yes _____ No _____
Pipe reciprocated after plug down: Yes _____ min., No _____

CASING BOND	DEPTH	TRANSIT TIME	VARIABLE DENSITY
BOND INCREASES ← 100% 0%		640 140 MICROSECONDS	200 1000 MICROSECONDS
		CASING COLLARS	

LINNEMAN NO. N-20A

CARMEL ENERGY, INC.

VERNON COUNTY, MISSOURI

NOVEMBER 26, 1984

BOND LOG

34/36N/33W