20054

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MIDWEST SURVEYS

FILING NO.	
COMPANY	PENSE BROTHERS DRILLING COMPANY, INC.
WELL	NO. ~~1~~ 2-A
FIELD	HARMON & SONS LEASE
COUNTY	BATES STATE MISSOURI
LOCATION	
SEC 12 TWP 41N RGE 32W	
PERMANENT DATUM G.L. ELEV. NA	
LOG MEASURED FROM G.L. FT ABOVE PERM. DATUM	
DRILLING MEASURED FROM G.L.	

OTHER SERVICES: CCL, PERFORATE

ELEV. K.B. NA, D.F. NA, G.L. NA

DATE	2-22-91	2-22-91
RUN NO	1 NW	1 NW
TYPE LOG	GAMMA RAY	NEUTRON
DEPTH—DRILLER	NA	NA
DEPTH—LOGGER	285.0	285.0
BOTTOM LOGGED INTERVAL	276.0	284.0
TOP LOGGED INTERVAL	20.0	28.0
TYPE FLUID IN HOLE	WATER	WATER
SALINITY, PPM CL	NA	NA
DENSITY	NA	NA
LEVEL	FULL	FULL
MAX. REC. TEMP. DEG F	NA	NA
OPERATING RIG TIME	NA	NA
RECORDED BY	S. WINDISCH	S. WINDISCH
WITNESSED BY	B. BLANCETT	B. BLANCETT

BORE-HOLE RECORD

RUN NO.	BIT	FROM	TO

CASING RECORD

SIZE	WGT	FROM	TO
4 1/2		0.0	T.D.

FOLD HERE

THIS HEADING AND LOG CONFORMS TO API RP 33

EQUIPMENT DATA

GAMMA RAY		NEUTRON	
RUN NO.	1 NW	RUN NO.	1 NW
TOOL MODEL NO	102	LOG TYPE	NEU/NEU
DIAMETER	1 11/16"	TOOL MODEL NO	102
DETECTOR MODEL NO	E-1057	DIAMETER	1 11/16"
TYPE	SCINT.	DETECTOR MODEL NO	E-1031
LENGTH	1" X 4"	TYPE	HE-3
DISTANCE TO N. SOURCE	8.0	LENGTH	1" X 6"
		SOURCE MODEL NO	71-1
GENERAL		SERIAL NO	71-1-355B
HOIST TRUCK NO	NA	SPACING	13"
INSTRUMENT TRUCK NO	102	TYPE	Am241Be
TOOL SERIAL NO	MS-0001	STRENGTH	3 CI

LOGGING DATA

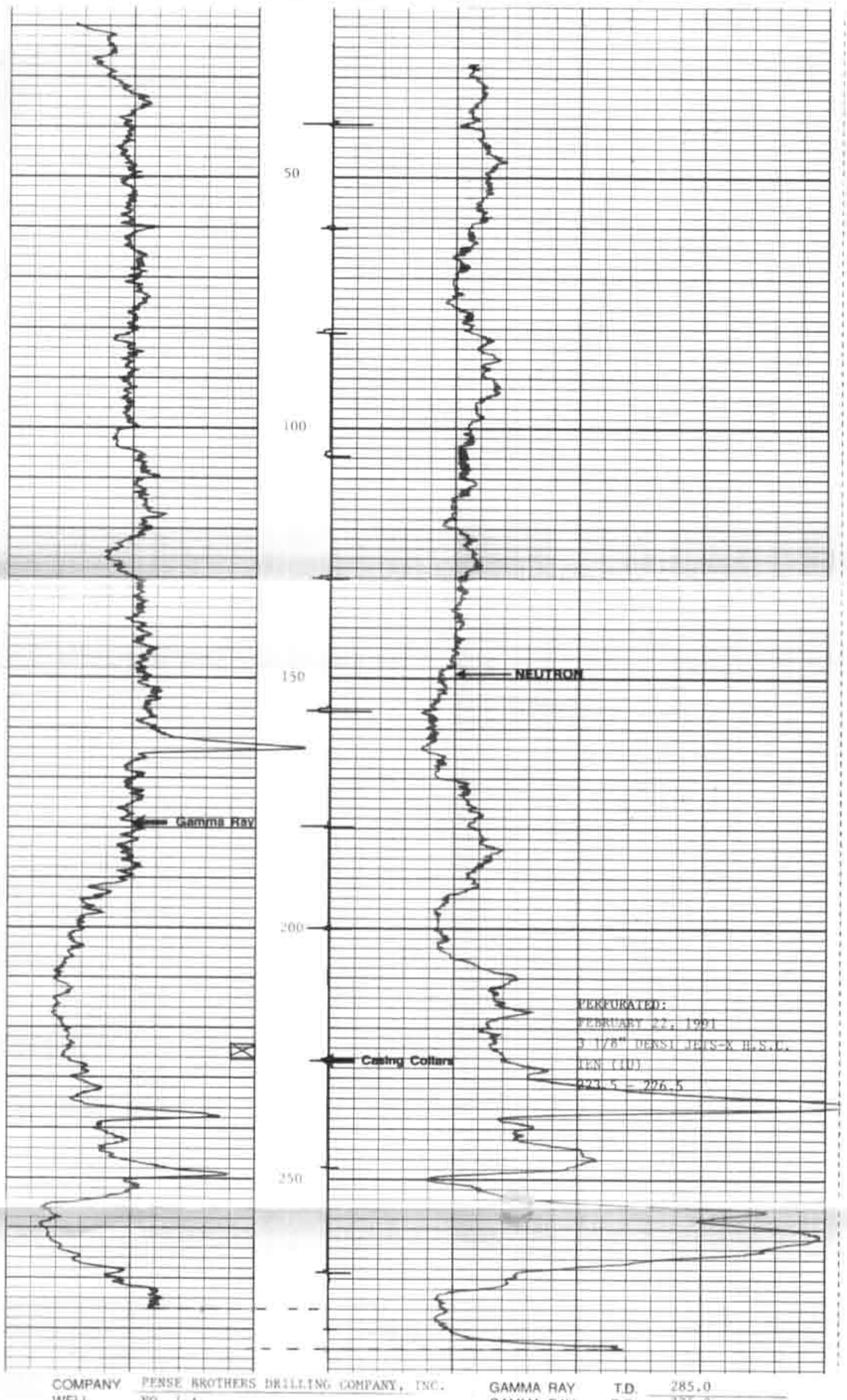
GENERAL				GAMMA RAY				NEUTRON			
RUN NO	DEPTHS FROM	DEPTHS TO	SPEED FT/MIN	T.C. SEC	SENS. SETTINGS	ZERO DIV. L OR R	API G.R. UNITS PER LOG DIV.	T.C. SEC	SENS. SETTINGS	ZERO DIV. L OR R	API N. UNITS PER LOG DIV.
1	20.0	284.0	20	4.0	1.85/100	OL	10	4.0	1.35/100	OL	20

REFERENCE LITERATURE: 4 1/2" CEMENTED

REMARKS: D.C. PENSE BROTHERS DRILLING COMPANY, INC.

GAMMA RAY DEPTH NEUTRON

CASING COLLARS



COMPANY	PENSE BROTHERS DRILLING COMPANY, INC.	GAMMA RAY	T.D.	285.0
WELL	NO. 1-A	GAMMA RAY	R.D.	276.0
LEASE	HARMON & SON	NEUTRON	T.D.	285.0
COUNTY	BATES, MISSOURI	NEUTRON	R.D.	284.0
DATE	FEBRUARY 22, 1991	CASING SET @		T.D. - 4 1/2"