

SIDE TWO

31-14-23E

Operator Name Robert S. Harwell Lease Name Knabe Well # 5

Sec 31 Twp 14 Rge 22 East West County Johnson

WELL LOG

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken [] Yes [x] No
Samples Sent to Geological Survey [] Yes [x] No
Cores Taken [x] Yes [] No

Formation Description [] Log [] Sample

Base of Kansas City 416
Cattleman Sand 804-812
Bartlesville Sand 863-880
TD 950

Name Top Bottom

Table with 5 columns: Oil, Gas, Water, Gas-Oil Ratio, Gravity. Row 1: Estimated Production Per 24 Hours, 5 Bbls, 0 MCF, Bbls, CFPB, 22.

METHOD OF COMPLETION

Production Interval

Disposition of gas: [] Vented [] Sold [] Open Hole [x] Perforated [] Other (Specify) ...

RECEIVED

STATE CORPORATION COMMISSION 86-868

873-883

CASING RECORD [] New [x] Used

Report all strings set-conductor, surface, intermediate, production, etc.

Table with 8 columns: Purpose of String, Size Hole Drilled, Size Casing Set (In O.D.), Weight Lbs/Ft., Setting Depth, Type of Cement, #Sacks Used, Type and Percent Additives. Rows for Surface and Production.

PERFORATION RECORD

Table with 3 columns: Shots Per Foot, Specify Footage of Each Interval Perforated, Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used), Depth.

TUBING RECORD Size 1" Set At Packer at Liner Run [] Yes [x] No

Date of First Production Producing Method [] Flowing [x] Pumping [] Gas Lift [] Other (explain)

HAWKEYE DRILLING

R.R. 2 Box 73A
Wellsville, Kansas 66092
913-883-2013

31422E

Lease

KNABE

1 2 3 4 5 6 7 8 9 10
HT HT HT HT HT HT HT HT HT HT

Well #

#5 9-16-89

Drill Log

Elevation

15-091-22, 105

Thickness	Formation	Total Depth	Remarks	Thickness	Formation	Total Depth	Remarks
1042'	CLAY	16		5	Shale	669	
1043'	lime	22		3	lime	672	
	Shale	33		46	Shale	718	
	lime	37		2	lime	720	
	Shale	50		21	Shale	741	
	lime	53		3	lime	744	
	Shale	58		20	Shale	764	
	lime	73		2	lime	766	
	BERKAK	81		38	Shale	804	
	lime	90		1	lime	805	
	Shale	99		8	SAND	813	
	lime	110		45	Shale	858	
	Shale	131		1	lime	859	
	lime	143		4	Shale	863	
	Shale	151		1	lime	864	
	lime	160			SAND		
	Shale	175			CORE		
	lime	192		36		824	
	Shale	204		29		853	
	lime	231		33		886	
	Shale	246		1.28		887	
	lime	251		1.04		888	
	Shale	253		1.15		889	
	lime	255		.44		890	
	Shale	274		.29		891	
	lime	282		.22		892	
	Shale	286		.26		893	
	lime	292		.25		894	
	Shale	325		.20		895	
	lime	327		.20		896	
	Shale	337		1.24		907	
	lime	361		.28		910	
	Shale	361		.20		919	
	lime	377		.19		930	
	Shale	392		1.50		981	
	lime	417		69	Shale	950TD	
	Shale	425					
	lime	446					
163	Shale	474					
	lime	477					
	Shale	488					
	lime	611					
	Shale	622					
	lime	624					
	Shale	632					
	lime	654					
	Shale	661					
	lime	664					

KANSAS GEOLOGICAL SURVEY
WICHITA BRANCH
JAN 03 1989

STATE OF KANSAS
DECEMBER 25 1989