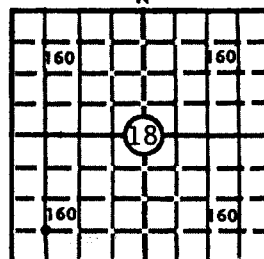


KANSAS DRILLERS LOG

S. 18 T. 26 R. 34 W

API No. 15 — 055 — 20,249
County NumberState Geological Survey Loc. C SW SW
WICHITA, BRANCHOperator
Helmerich & Payne, Inc.

County Finney

Address
P. O. Box 558 Garden City, Kansas 67846Well No. #7
Lease Name USA "D"Footage Location
660 feet from ~~XX~~ (S) line 660 feet from ~~XX~~ (W) linePrincipal Contractor
Rains & Williamson Oil Co., Inc. Geologist Joseph BlairSpud Date 3-5-77
Total Depth 5200 P.B.T.D. 2831Date Completed 5-13-77
Purchaser Gas Colorado Interstate Gas Co.640 Acres
N

Locate well correctly

Elev.: Gr. 2979

DF. 2985 KB 2987

CASING RECORD

Report of all strings set — surface, intermediate, production, etc.

Purpose of string	Size hole drilled	Size casing set (in O.D.)	Weight lbs/ft.	Setting depth	Type cement	Sacks	Type and percent additives
Surface	12½"	8-5/8"	28#	792	65/35 Pozmix Class H	400 150	6% gel, 2% CaCl ₂ 3% CaCl ₂
Production	7-7/8"	5½"	14#	5196	65/35 Pozmix Fill Collar @	600 5162'	6% Gel ²
					50/50 Pozmix Stage Collar @	250 2956'	2% gel, 18% Salt, 12½# Kolite/sk

LINER RECORD

PERFORATION RECORD

Top, ft.	Bottom, ft.	Sacks cement	Shots per ft.	Size & type	Depth interval
None			2	½" Omega Jet	5097-5110
TUBING RECORD			2	½" Omega Jet	5044-5055
Size 2-3/8"	Setting depth 2821	Packer set at None	2	½" Omega Jet	4457-4463

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
1000 gal 15% acid, 20,000 gal gelled 3% acid, 15,500# 10-20 sand	5097-5110
500 gal 15% HCl acid	5044-5055
500 gal 15% HCl acid	4457-4463

INITIAL PRODUCTION

Date of first production 8-12-77	Producing method (flowing, pumping, gas lift, etc.) Flowing
RATE OF PRODUCTION PER 24 HOURS	Oil 0 bbls. Gas 2259 MCF Water 19.3 bbls. Gas-oil ratio CFPB
Disposition of gas (vented, used on lease or sold) Sold-Colorado Interstate Gas Co.	Producing interval(s) 2790-2795, 2799-2804, 2807-2815 Council Grove

INSTRUCTIONS: As provided in KCC Rule 82-2-125, within 90 days after completion of a well, one completed copy of this Drillers Log shall be transmitted to the State Geological Survey of Kansas, 4150 Monroe Street, Wichita, Kansas 67209. Copies of this form are available from the Conservation Division, State Corporation Commission, 3830 So. Meridian (P.O. Box 17027), Wichita, Kansas 66217. Phone AC 316-522-2206. If confidential custody is desired, please note Rule 82-2-125. Drillers Logs will be on open file in the Oil and Gas Division, State Geological Survey of Kansas, Lawrence, Kansas 66044

Operator Helmerich & Payne, Inc. DESIGNATE TYPE OF COMP.: OIL, GAS, DRY HOLE, SWDW, ETC.:

Well No. 7 Lease Name U.S.A. "D" Gas Well

S 18 T 26S R 34 W

WELL LOG Show all important zones of porosity and contents thereof; cored intervals, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries. SHOW GEOLOGICAL MARKERS, LOGS RUN, OR OTHER DESCRIPTIVE INFORMATION.

FORMATION DESCRIPTION, CONTENTS, ETC.	TOP	BOTTOM	NAME	DEPTH
Herrington-Dolomite, gas & water	2498	2522	Herrington	2498
Krider- Dolomite, gas & water	2522	2556	Krider	2552
Winfield- Dolomite, gas & water	2556	2592	Winfield	2556
U. Ft. Riley- Dolomite & gas & water	2613	2652	U. Ft. Riley	2613
L. Ft. Riley- Dolomite, gas & water	2668	2710	L. Ft. Riley	2668
Wreford- Limestone	2759	2780	Wreford	2759
Council Grove- Limestone, gas & water	2780	2958	Council Grove	2770
Marmaton- Limestone, oil & water	4438	4480	Heebner	3823
St. Gen. Limestone, oil & water	4975	5024	Toronto	3848
St. Louis- Limestone, oil & water	5038	5115	Lansing	3922
No cores taken			Marmaton	4438
DST #1, Marmaton 4447-4470			Cherokee	4576
30" IFP - weak blow 16 psi-16 psi			Atoka	4807
60" ISIP - 1260 psi			Morrow	4854
60" FFP - weak blow 49 psi-65 psi			Morrow Sand	4948
120" FSIP 1293 psi			St. Gen (Miss)	4973
Rec'd 45' mud & 75' slightly oil cut mud.			St. Louis (Miss)	5039
DST #2, St. Gen. 4967-5027			Logs	
30" IFP- weak blow 16 psi-16 psi			Dual Induction	
60" ISIP - 49 psi			Laterolog	794-5188
60" FFP- No blow 16 psi-16 psi			Formation	
120" FSIP 65 psi			Density	2400-5194
Rec'd 3' mud			Tracer Survey	4800-5150
DST #3, St. Louis "C" 5083-5112			Bond Log	1390-5147
30" IFP - weak blow 32 psi-81 psi				
60" ISIP 983 psi				
60" FFP weak blow inc. to fair, 98-163 psi				
120" FSIP 983 psi				
Rec'd 50' oil, 145' heavily oil cut muc,				
120' slightly oil cut muddy water.				

USE ADDITIONAL SHEETS, IF NECESSARY, TO COMPLETE WELL RECORD.

Date Received

W.E. Spencer
Signature

District Production Superintendent
Title

December 1, 1978
Date

18-26-34W

Operator	Type of completion
Helmerich & Payne, Inc.	Gas well
Well No.	Lease Name
7	U.S.A. "D"

S 18 T 26S R 34 W

Perforation Record

Shots per ft.	Size & Type	Depth Interval
2	½" Omega Jet	2835-2845
2	½" Omega Jet	2807-2815
2	½" Omega Jet	2799-2804
2	½" Omega Jet	2790-2795

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth Interval treated
Set Cast Iron Bridge Plug	2920
500 gal 15% HCl acid	2835-2845
Set wire line retainer @ 2831, squeezed w/100 sx Class H	2835-2845
500 gals 15% HCl acid	2807-2815
1000 gals 15% HCl acid	2790-2795 & 2799-2804
Spearhead w/2000 gals 15% HCl acid followed by 100,000 gals slick water & 100,000# 16-30 mesh river sand.	2790-2815