

KANSAS DRILLERS LOG

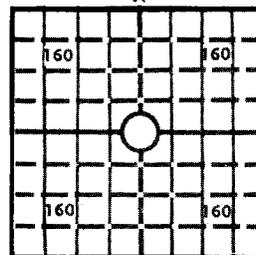
S. 6 T. 10 R. 24 ^{XX} W

API No. 15 — 065 — 21016
County Number

LocAp C E/2 NW/4

County GRAHAM

640 Acres
N



Locate well correctly

Elev.: Gr. 2499

DF KB 2504

Operator
EMPIRE DRILLING COMPANY

Address
SUITE 1750 125 N. MARKET WICHITA, KANSAS 67202

Well No. #5 Lease Name Riedel

Footage Location
1320' feet from (N) line 2200' feet from (W) line

Principal Contractor Geologist
Murfin Drilling Company Frank Brooks

Spud Date Total Depth P.B.T.D.
April 24, 1978 4058.50'

Date Completed Oil Purchaser
May 3, 1978 Mobil Oil Company

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	12 1/4"	8 5/8"	28#	215'	60/40 Poz	175	3% CC
Production	7 7/8"	5 1/2"	15.5#	4057.50	60/40 Poz HLC	175 100	2% gel 3/4% CFR-2

LINER RECORD

PERFORATION RECORD

Top, ft.	Bottom, ft.	Sacks cement	Shots per ft.	Size & type	Depth interval
			4	SSB	3983-88

TUBING RECORD

Size	Setting depth	Packer set at
2 7/8"	4015.	

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
500 gal MCA	3983-88
4500 gal Mod 202	3983-88

INITIAL PRODUCTION

Date of first production **May 25, 1978** Producing method (flowing, pumping, gas lift, etc.) **Pumping**

RATE OF PRODUCTION PER 24 HOURS	Oil	Gas	Water	Gas-oil ratio
	5 bbls.	MCF	30 bbls.	CFPB

Disposition of gas (vented, used on lease or sold) **Vented** Producing interval (s) **3983-88**

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 Empire Drilling Company		DESIGNATE TYPE OF COMP.: OIL, GAS, DRY HOLE, SWDW, ETC.: 011
Well No. 5	Lease Name Riedel	
S 6 T 10 S R 24 W		

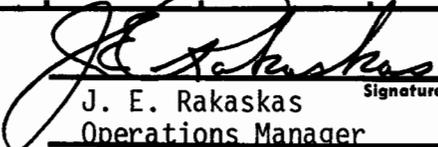
WELL LOG

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
			Electric Log Tops:	
Surface soil & sand		55	Anhydrite	2155
Sand		95	Howard	3560
Clay		120	Oread	3722
Shale		216	Heebner	3778
Sand & Shale		2147	Toronto	3802
Anhydrite		2189	Lansing	3818
Shale		3630	Muncie Creek	3938
Lime RTD		4055	Zone 6	3950
			Zone 6A	3974
DST #1 3847-57			Zone 7	3995
45" 45" 30" 30"			Zone 8	4016
Weak to fair blow throughout.			Zone 9	4030
Rec. 145' gas, 60' heavy mud cut gassy oil.			Base KC	4040
IFP 27#, FFP 36#, ISIP 109#, FSIP 118#			RTD (Corr.)	4057
			Log TD	4063
DST #2 3962-80				
60" 60" 30" 30"				
Very weak blow 1st open. No blow 2nd open.				
Rec. 10' slightly oil cut mud.				
IFP 9#, FFP 18#, ISIP 27#, FSIP 27#. Temp. 111 degrees				
<u>Core descriptions attached</u>				

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

Date Received	 J. E. Rakaskas Operations Manager June 12, 1978
	Signature Title Date

6-10-24W

Riedel #5 Ap. C E/2 NW/4 6-10S-24W, Graham County, KS

Core #1 3850-57

3850-51 gyd foss (Dst) L. thin seams foss. por scatt vugs gsfo & gas bubbl.
3851-52½ ditto L. tite p. por. & perm. btm. 1' more crsely foss. G sat
but little gsy oil
3852½-53 foss. (Dst.) por (BEST) & perm. gso&g
3853-54 dL g scatt foss vug por. thin sh seam @ base gso
3854-55 ditto & sh seam @ base frac. por. gso
3855-55 2" tite L
3855'2"-57 fx ln - d foss. L foss vug to frac. por. scatt gso.

Core #2 3946-62

3946-50 gy gn sh;
3950-52 gy gn marl.
3952-59 gy tite L w/ sh lam
3959-60 shly L
3960-62 gy tite L w/ sh lam.

Core #3 3970-80

3970-74½ r & gy sh.
3974½-75 gy marl
3975-76½ p-f foss. vug por. f so
3976½-77 1" sh @ top & LAA
3977-79 f-g foss - vug por GSO
3979-80 strks frac. por w/ GSO & sh lam.

Core #4 3994-4008

3994-94½ gn shl
3994½-95 dL
3995-95½ sparse vug por. tr 0 3995½-99 tite L & r vugs w/ so
3999-99½ 3" w/ f foss - vug por. f S0; rest A.A.
3999½-4003 tite L, v scatt. vug por w/ S0
4003-04 4" p foss por lt S0 & 6" tite L w/ sh lam & stylolite
4004-07 tite L
4007-08 sh

Core #5 4015-27

4015-16 dk gy sh
4016-17 shly L
4017-19 dk gy sh
4019-20 shly L
4020-22 gy tite L & sh stks btm. 1'
4022-26 gy tite L, shly btm 2'
4026-27 limy sh. NS

15-065-2016

State Geological Survey **WELL LOG**
WICHITA BRANCH

COMPANY Empire Drilling Company

SEC. 6 **T.** 10S **R.** 24W
LOC. E/2 E/2 NW/4

FARM REIDEL **NO.** 5

RIG. NO. 16

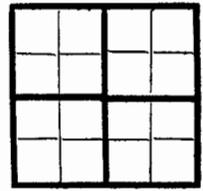
TOTAL DEPTH 4055'

COUNTY Graham
KANSAS

COMM. April 24, 1978

COMP. May 3, 1978

CONTRACTOR Murfin Drilling Company



CASING

20	10
15	8 -5/8" @ 215' w/175 sx.
12	6
13	5 1/2" @ 4054' w/275 sx.

ELEVATION

PRODUCTION

FIGURES INDICATE BOTTOM OF FORMATIONS

55'	Surface soil & Sand
95'	Sand
120'	Clay
216'	Shale
2147'	Sand & Shale
2189'	Anhydrite
3630'	Shale
4055'	Lime RTD

WELL LOG

COMPANY Empire Drilling Company

SEC. 6 T. 10S R. 24W
 LOC. E/2 E/2 NW/4

FARM REIDEL NO. 5

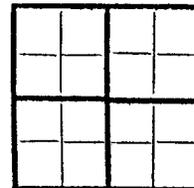
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6-10-24W

FORM C-2

STATE OF KANSAS
STATE CORPORATION COMMISSION - CONSERVATION DIVISION
245 North Water
Wichita, Kansas 67202

DATA AND AFFIDAVIT

(On Cementing in Surface or Drive Pipe and required by Rule 82-2-123 of the Commission for compliance with Section 55-136, 55-137 and 55-138, 1947 Supplement to G. S. Kansas 1935)

LEASE OWNER Empire Drilling Company

OFFICE ADDRESS Suite 1750, 125 N. Market, Wichita, KS 67202

LEASE NAME REIDEL WELL NO. 5 COUNTY Graham

EXACT SPOT LOCATION E/2 E/2 NW/4 SEC. 6 TWP. 10S RGE. 24 (W) (R)

CONTRACTOR Murfin Drilling Company

OFFICE ADDRESS 617 Union Center, Wichita, KS 67202

Drilled with (~~Cable~~) or (Rotary) tools: Date pipe set April 24, 1978

SURFACE HOLE DATASURFACE PIPE DATA

Size of Hole 12 $\frac{1}{4}$ " Csg. (~~xxx~~) or (used) Size 8-5/8" wt. 28#

Depth 215' Where set 215'

METHOD OF CEMENTING

Cement: Amount and kind 175 sx. common quickset

Method: (By Service Co., Dump, Tog., etc.) Service Co.

Est. Height Cement behind pipe To surface

GROUND WATER INFORMATION

Depth to bottom of lowest fresh water producing stratum _____

Name of lowest fresh water producing stratum _____

Surface elevation of well _____

ADDITIONAL INFORMATION

(Additional information may be submitted on separate sheet)