

# State Geological Survey

WICHITA BRANCH

## KANSAS DRILLERS LOG

15-167-21110

S. 28 T. 14 R. 13  W  
 Loc. 1980' FNL 990' FWL  
 County Russell *E2 SW NW*  
 640 Acres *1000*

API No. 15 — 167 — 21,110  
 County Number

Operator  
Cities Service Co.

Address  
209 E. William, 700 Sutton Pl. Bldg. Wichita, KS 67202

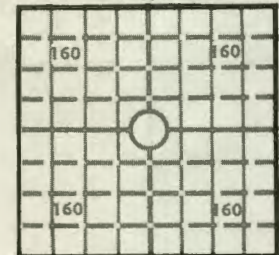
Well No. 9 Lease Name Graham "A"

Footage Location  
1980 feet from (N) line 3316 FSL; 4308 FEL-1000  
990 feet from (E) (W) line

Principal Contractor Duke Drilling Co. Geologist Well Site: Sam Houston

Spud Date 11-10-77 Total Depth 2810' P.B.T.D. \_\_\_\_\_

Date Completed 11-16-77 Oil Purchaser \_\_\_\_\_



Locate well correctly  
 Elev.: Gr. 1742  
 DF 1744 KB 1745

### 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 1/2"	8 5/8"	24#	321'	50/50 Pozmix	250	2% Gel 2% Ca. Ch.
Production	7 7/8"	4 1/2"	9 1/2#	2404'	50/50 Pozmix	150	.75 CFR-2
D. V. Tool				776.84'	Howco Light	250	

### LINER RECORD

### PERFORATION RECORD

Top, ft.	Bottom, ft.	Sacks cement	Shots per ft.	Size & type	Depth interval
			1		2335-38 2262-68
			1		2237-44

### TUBING RECORD

### ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
Fractured w/2000 Gal. Gelled Pad, 3000 Gal. 1# 20-40 Sand	2335-38
3000 Gal. 2# 20-40 Sand, 3000 Gal. 1# 10-20 Sand, 3000 Gal.	2262-68
2# 10-20- Sand, 2000 Gal. Water Flush	2237-44

### INITIAL PRODUCTION

Date of first production		Producing method (flowing, pumping, gas lift, etc.)			
RATE OF PRODUCTION PER 24 HOURS	Oil	Gas	Water	Gas-oil ratio	CFPB
	30 bbls.	0 MCF	115 bbls.		
Disposition of gas (vented, used on lease or sold)			Producing interval(s)		
			2335-38', 2262-68', 2237-44'		

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 Cities Service Co.		DESIGNATE TYPE OF COMP.: OIL, GAS, DRY HOLE, SWDW, ETC.:
Well No. 9	Lease Name Graham #9	Oil
S <u>28</u> T <u>14</u> R <u>13</u> <sup>NE</sup> <sub>W</sub>		

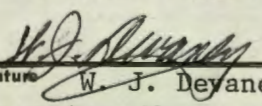
**WELL LOG**

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
(See Log Attached)				

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

Date Received	<p align="right">             Signature <u>W. J. Devaney</u>            Region Operations Manager            Title            December 21, 1977            Date         </p>
---------------	---

28-14-13W

DRILLERS' WELL LOG

DATE COMMENCED: November 10, 1977  
DATE COMPLETED: November 16, 1977

Cities Service Company  
"GRAHAM A-9"  
C E/2 SW NW  
Sec 28-T14-R13W  
Russell County, Kansas

ELEVATION: 1745 K.B.

0 - 150' Surface Soil, Clay, Sand  
150 - 192' Sand, Shale, Hard Sand  
192 - 378' Sand, Shale, Red Bed, Pyrite  
378 - 689' Red Bed, Shale  
689 - 721' Anhydrite  
721 - 1200' Shale, Shells  
1 - 1356' Shale  
1356 - 2506' Lime and Shale  
2506 - 2555' Lime  
2555 - 2569' Shale  
2569 - 2803' Lime  
2803 - 2807' Shale  
2807 - 2810' Lime  
2810' RTD

FORMATION DATA

Anhydrite 689  
Howard 2506  
Severy 2555  
Topeka 2569  
Heebner 2803  
RTD 2810

SURFACE PIPE:

Set new, 2 1/2", 8 5/8" surface pipe  
at 321' w/250 sacks 50/50 Pozmix,  
2% Gel, 2% ca. ch.

PRODUCTION PIPE:

Set new, 9 1/2", 4 1/2" casing  
at 2404' w/40 bbls salt water and  
150 sacks 50/50 Pozmix, w/10%  
salt & .75% CFR-2. DV Tool @ 776.84  
cemented w/20 bbls water and  
250 sacks Howco light.

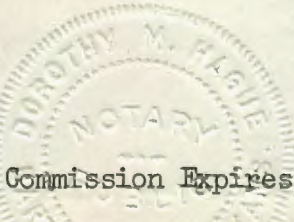
A F F I D A V I T

STATE OF KANSAS )  
COUNTY OF BARTON ) ss.

Leonard Williamson, of lawful age, does swear and state that the facts and  
statements herein contained are true and correct to the best of his knowledge.

Leonard Williamson

Subscribed and sworn to before me this 21st day of November 1977.



Dorothy M. Hague  
Notary Public

My Commission Expires: April 11, 1978