

State Geological Survey
WICHITA, BRANCH
KANSAS DRILLERS LOG

IMPORTANT
Kans. Geo. Survey request
samples on this well.

API No. 15 — 145 — 20,364
County Number

S. 30 T. 21 R. 17 E/W
Loc. C V 2 SE
County Pawnee

Operator
Northern Natural Gas Company

Address
Post Office Box 35288, Tulsa, Oklahoma 74135

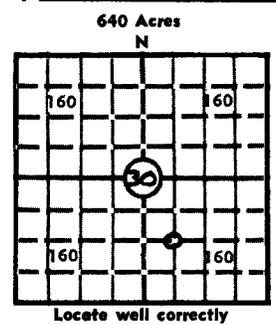
Well No. 1A-30 Lease Name
#2-30 Boyd

Footage Location
1320 feet from (X) (S) line 1980 feet from (E) (W) line

Principal Contractor Emphasis Oil Operations Geologist Charles W. Hickok

Spud Date February 4, 1975 Total Depth 2110 P.B.T.D. 2105

Date Completed March 14, 1975 Oil Purchaser Gas Well



Elev.: Gr. 2043
DF KB 2048

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"	24	837	50-50 Poz. Common	200 150	3% CaCl 3% CaCl
Production	7-7/8"	4-1/2"	10.78	2109	50-50 Poz.	150	18% Salt W/CFR

LINER RECORD

PERFORATION RECORD

Top, ft.	Bottom, ft.	Sacks cement	Shots per ft.	Size & type	Depth interval
None	-	-	2	Jet DP	2061-2069
TUBING RECORD			2	Jet DP	2082-2086
			2	Jet DP	2088-2097
Size 2-3/8"	Setting depth 2102	Packer set at None	2	Jet DP	2010-2014
			2	Jet DP	2020-2024
			2	Jet DP	2031-2039
			2	Jet DP	2043-2046

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
Acidized w/750 Gal. Gas Well Acid (HCL with alcohol)	2061-2097
Acidized w/750 Gal. Gas Well Acid	2010-2046
Acidized w/3000 gal. Gas Well Acid	2061-2097
Acidized w/3000 gal. Gas Well Acid	2010-2046

INITIAL PRODUCTION

Date of first production Shut-in, wait on pipeline Producing method (flowing, pumping, gas lift, etc.) Flow on test

RATE OF PRODUCTION PER 24 HOURS	Oil -	Gas 54 MCF	Water 80.3	Gas-oil ratio -	CFPB
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Disposition of gas (vented, used on lease or sold) Shut-in, wait on pipeline Producing interval (s) Perforated intervals above.

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 Northern Natural Gas Company DESIGNATE TYPE OF COMP.: OIL, GAS, DRY HOLE, SWDW, ETC.:

Well No. 1A-30 Lease Name Boyd Gas

S 30 T 21S R 17 E X W

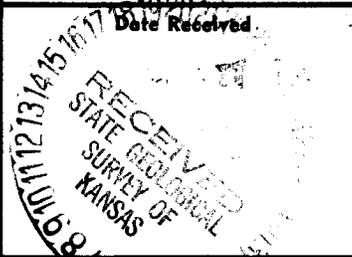
WELL LOG

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
Anhydrite	886	912		
Dolomite	2004	2036	Herington-Krider	
Dolomite	2056	2099	Winfield	
DST #1 Tool open 60 min. w/strong blow shut in 60 min. Re-opened 120 min. shut in 120 min. Recovered 330' thin drilling mud. Pressures: IHH - 1158 psi IFP - 18 " FFP - 83 " ICIP - 469 " IFP - 83 " FFP - 175 " FCIP - 496 " FHH - 1029 "	1979	2105		

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



Charles W. Hickok
Signature

Production Superintendent

December 1, 1975 Title

Date

311720