

1-24-41W

KANSAS DRILLERS LOG

API No. 15 — Hamilton County — 075-20031 Number

S. 1 T. 24 R. 41^N_W
 Loc. C SE NW
 County Hamilton

Operator
Kansas Nebraska Natural Gas Company

Address
300 North St. Joseph Ave., Hastings Nebraska 68901

Well No. #1 Lease Name Boltz

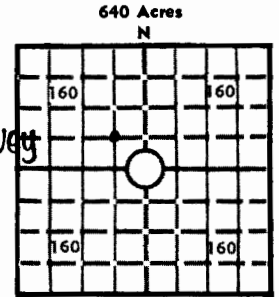
State Geological Survey
WICHITA, BRANCH

Footage Location
1980 feet from (N) (S) line 1980 feet from (E) (W) line

Principal Contractor Abercrombie Drilling Co. Geologist D. W. Marden

Spud Date Dec. 31, 1970 Total Depth 2434' P.B.T.D.

Date Completed Jan. 5, 1971 Oil Purchaser



Locate well correctly
 Elev.: Gr. 3301'
 DF 3305' KB 3308'

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 Pipe	9-7/8"	7"	17#	461'	Common	250	3% Salt
Prod. Csg.	6-1/4"	4-1/2"	9-1/2#	2435'	Pozmix	100	Salt saturated w/12# Coalite per sack.

LINER RECORD

PERFORATION RECORD

Top, ft.	Bottom, ft.	Sacks cement	Shots per ft.	Size & type	Depth interval
			4	3 1/2" Glass Strip	2401-2402'

Size	Setting depth	Packer set at
1-1/2"	2415'	-

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Amount and kind of material used	Depth interval treated
4,000# SD +8,000 Gal 3% Gel Acid + 50# Walnut hulls + 342,000 cu. ft. nitrogen.	2401'-2402'

INITIAL PRODUCTION

Date of first production <u>May 18, 1972</u>	Producing method (flowing, pumping, gas lift, etc.) <u>Flowing</u>
RATE OF PRODUCTION PER 24 HOURS	Oil <u>0</u> bbls. Gas <u>72</u> MCF Water <u>5.7</u> bbls. Gas-oil ratio <u>-</u> CFPB
Disposition of gas (vented, used on lease or sold) <u>Sold</u>	Producing interval (s) <u>2401'-2402'</u>

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 Kansas-Nebraska Natural Gas Company, Inc. DESIGNATE TYPE OF COMP.: OIL, GAS, DRY HOLE, SWDW, ETC.:

Well No. #1 Lease Name Boltz Gas

S 1 T 24 R 41 W

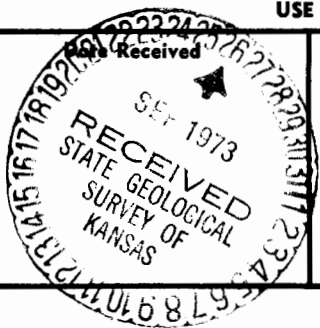
WELL LOG

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
Copy of Drillers Log and Geologist's Interpretation attached.				

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



Charles A. Brown
 Signature
Petroleum Engineer
 Title
9/12/73
 Date

CONTRACTOR'S WELL LOG

1-24-41W

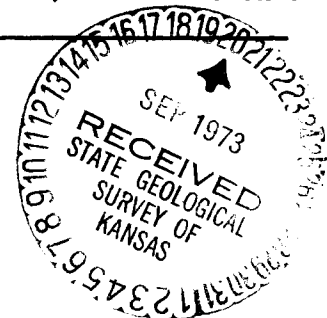
API # 15-075-20,031

OPERATOR:	Kansas-Nebraska Natural Gas, Inc.
CONTRACTOR:	Abercrombie Drilling, Inc.
WELL NAME:	BOLTZ #1
LOCATION:	C SE NW, Sec. 1-24S-41W Hamilton County, Kansas
SPUD DATE:	January 1, 1971
COMPLETION DATE:	January 5, 1971

0	30	Clay
30	98	Rock and hard sand streaks
98	105	Sand & Shells
105	463	Shale
463	665	Shale & Shells
665	700	Sand
700	860	Shale
860	1300	Shale w/sand streaks
1300	1580	Sand
1580	1800	Shale
1800	1886	Shale (red)
1886	1900	Anhydrite
1900	2085	Shale
2085	2434	Shale & Lime
	2434	Rotary Total Depth

Drilled 463' of 9-7/8" hole. Set 7" surface csg. @453' w/250 sx. cement. Cement circulated. Plug was down at 4:15 a.m. 1-1-71. Ran 4 1/2" csg. @2433' w/100 sx. cement. Cement circulated. Plug was down at 4:30 a.m. 1-5-71.

STATE OF KANSAS)
) SS
 COUNTY OF SEDGWICK)



Jerry A. Langrehr, President of Abercrombie Drilling, Inc., does hereby state that the above and foregoing is a true and correct copy of the log of the BOLTZ #1, C SE NW, Sec. 1-24S-41W, Hamilton County, Kansas.

ABERCROMBIE DRILLING, INC.

By: Jerry A. Langrehr
 Jerry A. Langrehr
 President

Subscribed and sworn to before me, a Notary Public, in and for the aforesaid county and state as of this 8th day of January, 1971.



Sue J. McCoy
 Sue J. McCoy, Notary Public

1-24-41w

LITHOLOGY, POROSITY DESCRIPTIONS and PERTINENT DATA:

Schlumberger Tops:

Permian System:

Cimarron Series:

Glorietta Sandstone: 961 (+2347)

Base Cimarron Anhydrite: 1904 (+1404)

Chase Group:

Herington Formation: 2307 (+1001)

Note: There were no zones of porosity in the Herington Zone comprised of red shales with interbedded anhydrites.

Krider Formation: 2342 (+966)

2342-2352' Dolomite, gray-brown, very finely crystalline, dense, some buff, no visible porosity. Sonic log porosity 7-24% (interval 2346-2350' has only 7% porosity).

Winfield Formation: 2390 (+918)

2390-2397' Dolomite, buff, brown, very finely crystalline, slightly mottled gray. (Samples mostly shale--poor samples.) Porosity 9-14%.

2398-2409' Dolomite, buff, some brown, slightly mottled gray, very finely crystalline, dense, no visible porosity. (Very poor samples.) Porosity 17-28%.

2409-2418' Limestone, as from 2398-2409'. Porosity 17-19%.

RTD 2434' (KB) Driller
LTD 2436' (KB) Schlumberger

CONCLUSIONS and RECOMMENDATIONS:

The Glorietta Sandstone salt water interval is found from 961' to 1020' in depth. This zone should be perforated in the Disposal Well for salt water disposal.

The Winfield Gas Producing Formation has porosity zones as shown on the electric log as follows: 2390-2397', 2398-2409' and 2309-2418'. It is recommended that only the top two zones be perforated for gas production.



D. W. Marden
D. W. Marden

Land *P*

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION

WELL COMPLETION OR RECOMPLETION FORM
ACO-1 WELL HISTORY

DESCRIPTION OF WELL AND LEASE

Operator: License # 4253
Name Plains Petroleum Company
Address P.O. Box 15278
Lakewood, CO 80215
Purchaser K.N. Energy, Inc.

Operator Contact Person Lee B. Van Ramshorst
Phone (303) 969-9325

Contractor: License # 05422
Name Abercrombie Drilling

Wellsite Geologist D.W. Marden
Phone ?

- Designate Type of Completion
- New Well Re-Entry Workover
- Oil SWD Temp Abd
- Gas Inj Delayed Comp.
- Dry Other (Core, Water Supply etc.)

If OWWO: old well info as follows:
Operator
Well Name
Comp. Date Old Total Depth.....

WELL HISTORY

Drilling Method: Rotary used, type unknown
 Mud Rotary Air Rotary Cable

12-31-70 .. 1-3-71 .. 9/22/71 ..
Mud Date Date Reached TD Completion Date
.2434 .. ? ..
Total Depth PBTD

Amount of Surface Pipe Set and Cemented at 461 feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set.....feet
If alternate 2 completion, cement circulated
from.....feet depth to.....w/.....SX cmt

API No. 15-075-20031

County Hamilton

C .. SE .. NW Sec. 1 .. Twp. 24 Rge. 41 East West

3300 .. Ft North from Southeast Corner of Section
3300 .. Ft West from Southeast Corner of Section
(Note: Locate well in section plat below)

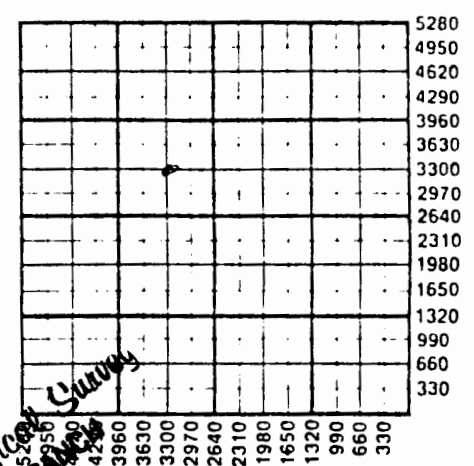
Lease Name 141 Boltz Well # 1

Field Name Bradshaw

Producing Formation Chase

Elevation: Ground 3301 KB 3308

Section Plat



APR 01 1985
Geological Survey
WICHITA BRANCH

WATER SUPPLY INFORMATION

Disposition of Produced Water: Disposal Repressuring
Bocket #

Questions on this portion of the ACO-1 call:
Water Resources Board (913) 296-3717

Source of Water: No Information Available
Division of Water Resources Permit #.....

Groundwater.....Ft North from Southeast Corner
(Well)Ft West from Southeast Corner of
Sec Twp Rge East West

Surface Water.....Ft North from Southeast Corner
(Stream, pond etc).....Ft West from Southeast Corner
Sec Twp Rge East West

Other (explain).....
(purchased from city, R.W.D. #)

INSTRUCTIONS: This form shall be completed in duplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 90 days after completion or recompletion of any well. Rule 82-3-130 and 82-3-107 apply.

Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form. See rule 82-3-107 for confidentiality in excess of 12 months. One copy of all wireline logs and drillers time log shall be attached with this form. Submit CP-4 form with all closed wells. Submit CP-111 form with all temporary completions.

Operator Name Plains Petroleum Company Lease Name 41 Boltz Well # 1

Sec. 1 Twp. 24 Range 41 East West County Hamilton

Oil	Gas	Water	Gas-Oil Ratio	Gravity
Estimated Production Per 24 Hours	72 MCF	5.7 Bbls	-	-
Bbls	MCF	Bbls	CFPB	

METHOD OF COMPLETION

Production Interval

Disposition of gas: Vented Sold

Open Hole Perforation Other (Specify)

2401 - 2402

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

Formation Description

Log Sample

Name	Top	Bottom
Glorietta Sandstone	961 (+2347)	
Base Cimarron Anhydrite	1904 (+1404)	
Herington Formation	2307 (+1001)	
Krider Formation	2342 (+966)	
Winfield Formation	2390 (+918)	

APR 01 1986

State Geological Survey
MICHITA BRANCH

No further information available.

CASING RECORD New Used

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

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
Surface	9.7/8	7"	17#	461	Common	250	3% salt
Prod	6.1/4	4.1/2	9.1/2#	2435	Poz	100	Salt saturated w/12 Coalite p/sack

PERFORATION RECORD

Shots Per Foot	Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	2401'-2402'	4000# sd + 8000 gal 3% gel + 50# hulls + 342,000 cf N ₂	

TUBING RECORD

Size	Set At	Packer at	Liner Run ? <input type="checkbox"/> Yes <input type="checkbox"/> No
1 1/2	2415	-	

Date of First Production 5-18-72 Producing Method Flowing Pumping Gas Lift Other (explain).....