

ORIGINAL

SIDE ONE

KCC

MAY 20

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License # 5114Name: National Development CompanyAddress 310 West Central - Suite 117City/State/Zip Wichita, KS 67202Purchaser: Clear CreekOperator Contact Person: Ralph R. HamiltonPhone (316) 267-1331Contractor: Name: Duke Drilling Company, Inc.License: 5929Wellsite Geologist: Beth A. Fuhr

Designate Type of Completion

☒ New Well ☐ Re-Entry ☐ Workover☒ Oil ☐ SWD ☐ Temp. Abd.☐ Gas ☐ Inj ☐ Delayed Comp.☐ Dry ☐ Other (Core, Water Supply, etc.)If ~~OWO~~: old well info as follows:

Operator: _____

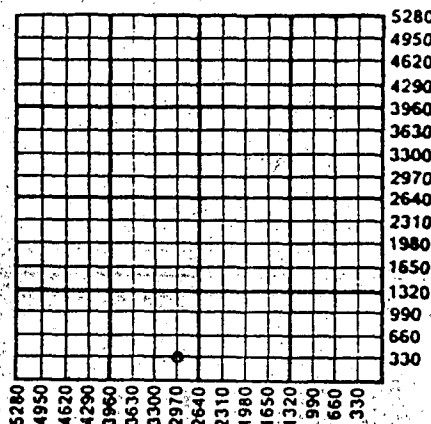
Well Name: _____

Comp. Date: _____ Old Total Depth: _____

Drilling Method:

☒ Mud Rotary ☐ Air Rotary ☐ Cable03-20-91 03-27-91 4/10/91

Spud Date Date Reached TD Completion Date

API NO. 15- 165-21.558-0000 **CONFIDENTIAL**County RushSE SE SW Sec. 36 Twp. 19 Rge. 16 XX East330 Ft. North from Southeast Corner of Section2970 Ft. West from Southeast Corner of Section
(NOTE: Locate well in section plat below.)Lease Name Miller Well # 1Field Name New FieldProducing Formation ArbuckleElevation: Ground 1981 KB 1986Total Depth 3840' PBDT _____Amount of Surface Pipe Set and Cemented at 1012' FeetMultiple Stage Cementing Collar Used? ☐ Yes ☒ No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated from _____

feet depth to _____ w/ _____ sx cmt.

INSTRUCTIONS: This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 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. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Beth A. FuhrTitle Geologist Date 5/20/91Subscribed and sworn to before me this 20th day of May19 1991Notary Public Patricia C. ByerleeDate Commission Expires 12/11/93

K.C.C. OFFICE USE ONLY

☒ Letter of Confidentiality Attached
☒ Wireline Log Received
☒ Drillers Time Log Received

Distribution 6-7-91

☒ KCC ☐ SUD/REPTON DIV/NGPA
☒ KGS ☐ Plug
Wichita, Kansas Other (Specify)

SIDE TWO

Operator Name National Development Company Lease Name Miller Well # 1Sec. 36 Twp. 19 Rge. 16
☐ East
☒ WestCounty Rush

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken
(Attach Additional Sheets.)☒ Yes ☐ No

Samples Sent to Geological Survey

☒ Yes ☐ No

Cores Taken

☐ Yes ☒ NoElectric Log Run
(Submit Copy.)☒ Yes ☐ No

Drill Stem Test info on
attached page.

Formation Description

☒ Log ☐ Sample

Name	Top	Bottom
Anydrite	998	+988
Heebner	1023	-1318
Lansing	3392	-1406
Base KC	3620	-1634
Arbuckle	3656	-1670

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	12 1/4"	8-5/8"	23#	1012	60/40 poz	375	2% gel 3% cc.
Production	7-7/8"	5 1/2"	15.5#	3838'	60/40 poz	170	2% gel 18% salt .75% Halid 322

PERFORATION RECORD

Shots Per Foot Specify Footage of Each Interval Perforated

Acid, Fracture, Shot, Cement Squeeze Record
(Amount and Kind of Material Used) Depth

3	3724 to 3730	Acidized with 300 gal. 15% DS-FE., swabbed	3724 to 3730
		Acidized with 1000 gal. 15% SGA	

TUBING RECORD

Size
2-3/8Set At
3776'

Packer At

Liner Run

☐ Yes ☒ NoDate of First Production
4/11/91Producing Method ☐ Flowing ☒ Pumping ☐ Gas Lift ☐ Other (Explain)Estimated Production
Per 24 HoursOil
20

Bbls.

Gas
6

Mcf

Water
2

Bbls.

Gas-Oil Ratio

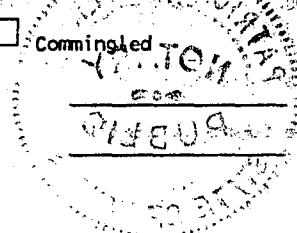
Gravity
42

Disposition of Gas:

METHOD OF COMPLETION

☐ Vented ☐ Sold ☒ Used on Lease
(If vented, submit ACO-18.)☐ Open Hole ☒ Perforation ☐ Dually Completed ☐ Coning/Led
☐ Other (Specify) _____

Production Interval



Miller #1

Sect. 36-19S-16W Rush Co., KS

15-165-21558-0000
ORIGINAL

KCC

MAY 20

CONFIDENTIAL

Drill Stem Test #1 3610 - 3681

open 30", closed 30", open 60", closed 45"
Gas to Surface 4" gauged 98,500 CFG - 1st open
GTS immediately, gauged 98,500 CFG and stabilized thru 2nd open

Recovered: 216' Muddy water
(80% mud, 20% water, chlorides 14,000)

IFP 244-167#	FFP 178-156#
ISIP 321#	FSIP 321#
HYD 1758-1747#	Temp 106

Drill Stem Test #2 3682 - 3718

30", 30", 60", 45"

1st open: Strong blow, off bottom 30 seconds
2nd open: GTS in 53 minutes, TSTM

Recovered: 30' HOCM (40% oil, 10% gas, 50% Mud)
130' OCM (25% oil, 15% gas, 60% mud)

IFP 45-56#	FFP 67-78#
ISIP 496#	FSIP 517#
HYD 1769-1766#	Temp 110

Drill stem Test #3 3715 - 3760

30", 30", 60", 45"

1st open: GTS/14 minutes, gauged 21,900 to 23,700 CFG (fluid surging)
2nd open: gauged 28,000 to 14,300 CFG (Surging)

Recovered: 665 ft clean gassy oil
221 OCMW (20% oil, 60% mud, 20% water)
127 water with oil specks (chlorides 24,000 ppm)

IFP 156-189#	FFP 233-343#
ISIP 875#	FSIP 821#
HYD 1813-1791#	Temp 109

RECEIVED
STATE CORPORATION COMMISSION

JUN 07 1991
6-7-91
CONSERVATION DIVISION
Wichita, Kansas