

MUST BE TYPED

ORIGINAL

SIDE ONE

File

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

Operator: License # 32119
Name: Northern Natural Gas
Address P.O. Box 178
Cunningham, KS 67035
Purchaser: Storage Well
Operator Contact Person: Dan Dobbins
Phone (316) 257-5146
Contractor: Name: Pratt Well Service
License: 5893
Wellsite Geologist: None

Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD SLOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)
 Gas Storage

If Workover:
Operator: Northern Natural Gas
Well Name: Prentice 19-34

Comp. Date 3-9-78 Old Total Depth 4072'
XXX RAN LINER
 Deepening Re-perf. Conv. to Inj/SWD
 Plug Back PBDT
XXX Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Inj?) Docket No. _____

7-19-97 7-24-97 7-30-97
Date of START Date Reached TD Completion Date of
OF WORKOVER WORKOVER

API NO. 15- 095-20689-0001
County Kingman
SE - SW - SW - SE Sec. 19 Twp. 27S Rge. 10 ^E
210 Feet from S/N (circle one) Line of Section
2106 Feet from E/W (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:
NE, SE NW or SW (circle one)

Lease Name Prentice Well # 19-34
Field Name Cunningham

STORAGE
~~Reservoir~~ Formation Viola/Simpson

Elevation: Ground 1702 KB 1710

Total Depth 4132 PBDT 4120

Amount of Surface Pipe Set and Cemented at 1421 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set 1003 Feet

If Alternate II completion, cement circulated from _____

feet depth to _____ w/ _____ sx cmt.

Drilling Fluid Management Plan REWORK OK 11-25-97
(Data must be collected from the Reserve Pit)

Chloride content 14,000 ppm Fluid volume 220 bbls

Dewatering method used N/A

Location of fluid disposal if hauled offsite:

Operator Name Geary Mud Disposal

Lease Name Gray License No. 284168

Quarter Sec. 15 Twp. 14N ~~Rng.~~ 7W ~~7W~~

County Garfield, OK Docket No. 284168

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market
on 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well.
Rule 82-3-130, 82-3-106 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 geologist well report 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.

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 Dan Dobbins
Title Sr. Reservoir Analyst Date 11-19-97
Subscribed and sworn to before me this 19th day of November
19 97.
Notary Public Karen Elliott
Date Commission Expires January 23, 1999

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution
 KCC SWD/Rep NGPA
 KGS Plug Other
(Specify) IS

RECEIVED
KANSAS CORPORATION COMMISSION

NOV 21 1997

Form ACO-1 (7-91)

NOTARY PUBLIC - State of Kansas
KAREN ELLIOTT
My Comm. Exp. 1-23-99

CONSERVATION DIVISION
WICHITA, KS

SIDE TWO

Operator Name Northern Natural Gas Lease Name Prentice Well # 19-34
 Sec. 19 Twp. 27S Rge. 10 East West
 County Kingman

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 Yes No
 (Attach Additional Sheets.)
 Samples Sent to Geological Survey Yes No
 Cores Taken Yes No
 Electric Log Run Yes No
 (Submit Copy.)
 List All E.Logs Run: Cement Bond
 Compensated Density-Dual Spaced Neutron
 Dual Induction Laterlog

<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Name	Top	Datum
Viola	3970	-2260
Simpson	4072	-2362

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> 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
Conductor	20"	13 3/8"	54.5	115'	Common	200	1/4# Flocele
Surface	12 1/4"	8 5/8"	23	1430'	Reg Poz	700	18% NaCL
Production	7 7/8"	5 1/2"	15.5	4072'	Reg Poz	775	4# Gel 5# Gil

ADDITIONAL CEMENTING/SQUEEZE RECORD				
Purpose: Set Liner	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone	4024-4130	Standard	25	5# Gil, 18% NaCL, Flocele, Calseal

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated		Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth	
	4	4073-76, 4080-93	(Simpson)	1000 Gal. 15% HCL
4	3971-4012	(Viola)		

TUBING RECORD				Liner Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Size	Set At	Packer At					
2 3/8"	4053	4023					
Date of First, Resumed Production, SWD or Inj. Storage Well - Inj/Wd1		Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input checked="" type="checkbox"/> Other (Explain)					
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity		

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.)
 METHOD OF COMPLETION: Open Hole Perf. Dually Comp. Commingled Other (Specify) _____
 Production Interval: 3971-4012 Viola
4073-76 Simpson
4080-93