

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
September 1999
Form Must Be Typed

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 5539
Name: Southwest Gas Storage Company
Address: P. O. Box 4967
City/State/Zip: Houston, Texas 77210-4967
Purchaser: N/A
Operator Contact Person: Larry Jenkins
Phone: (713) 989-7484
Contractor: Name: Lloyd Jones
License: 32751
Wellsite Geologist: _____

Designate Type of Completion:

____ New Well ☒ Re-Entry ____ Workover
____ Oil ____ SWD ____ SIOW ____ Temp. Abd.
☒ Gas ____ ENHR ____ SIGW
____ Dry ____ Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-entry: Old Well Info as follows:

Operator: Southwest Gas Storage Company
Well Name: Nichols 3-2

Original Comp. Date: 12-4-81 Original Total Depth: 5863

~~XXX~~ Deepening ____ Re-perf. ____ Conv. to Enhr./SWD
____ Plug Back ____ Plug Back Total Depth

____ Commingled Docket No. _____
____ Dual Completion Docket No. _____
☒ Other (SWD or Enhr.?) Docket No. 195,524-C

DRILLED HORIZONTAL LATERAL
12-2-2000 1-4-2001 1-12-2001
Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No. 15 - 119-20539-01-01

County: Meade

SW. se. ne. Sec. 2 Twp. 33 S. R. 28 ☐ East ☒ West
2200 feet from S ☒ (N) (circle one) Line of Section
850 feet from ☒ (E) / W (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:

(circle one) ☒ (NE) SE NW SW

Lease Name: Nichols Well #: 3-2

Field Name: Borchers North

STORAGE
Producing Formation: Morrow

Elevation: Ground: 2518 Kelly Bushing: 2529

Total Depth: 5913MD Plug Back Total Depth: 5680 TVD

Amount of Surface Pipe Set and Cemented at _____ Feet

Multiple 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.

Drilling Fluid Management Plan REENTRY JH 9/5/01
(Data must be collected from the Reserve Pit)

Chloride content 29000 ppm Fluid volume 375 bbls

Dewatering method used Hauled offsite

Location of fluid disposal if hauled offsite:

Operator Name: Gene R. Dill

Lease Name: Regier SWD License No.: 6652

Quarter _____ Sec. 17 Twp. 33 S. R. 27 ☐ East ☒ West

County: Meade Docket No.: c-21,232

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 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 of 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: Larry Jenkins
Title: Principal Petr. Engr Date: 2/2/2001
Subscribed and sworn to before me this 2nd day of February, 2001.
Notary Public: Gloria A. Rivas
Date Commission Expires: 8-16-2001

KCC Office Use ONLY

____ Letter of Confidentiality Attached
If Denied, Yes ☐ Date: _____
____ Wireline Log Received
____ Geologist Report Received
____ UIC Distribution

IOG

Operator Name: Southwest Gas Storage Company Lease Name: Nichols Well #: 3-2
 Sec. 2 Twp. 33 S. R. 28 ☐ East ☒ West County: Meade

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems 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 test, along with final chart(s). Attach extra sheet if more space is needed. Attach copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

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:

☐ Log Formation (Top), Depth and Datum ☐ Sample
 Name Top Datum
 Morrow 5704 MD GL

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
Liner	4.75	3.5	9.3	5485-5747	premium	50	cal-seal

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
☐ Perforate				
☐ Protect Casing				
☐ Plug Back TD	5565-5633	premium	50	16.4 #/gal, .1% FWCA, .8% Halad-322
☒ Plug Off Zone	Plug first	lateral due to junk	in hole. Drill	second lateral thru same window.

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
	Cast iron bridge plug 5564 TVD	1000 gal 7 1/2% FE Acid With Nitrogen	5746 to
	Kick off point 5560 TVD		5913 MD

TUBING RECORD		Size	Set At	Packer At	Liner Run		
2 7/8"			5485	5485***	3.5 inch	☒ Yes ☐ No	
Date of First, Resumed Production, SWD or Enhr.			Producing Method				
Gas Storage			☒ Flowing ☐ Pumping ☐ Gas Lift ☐ Other (Explain)				
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Water	Bbls.	Gas-Oil Ratio
	N/A		N/A		N/A		

Disposition of Gas

METHOD OF COMPLETION

Production Interval

☐ Vented ☐ Sold ☐ Used on Lease
 (If vented, Sumit ACO-18.)

☒ Open Hole ☐ Perf. ☐ Dually Comp. ☐ Commingled
☒ Other (Specify) horizontal lateral

5747-5913

****tbg attached w/seal assembly
 into liner.