

STATE OF WYOMING
OIL AND GAS CONSERVATION COMMISSION
Office of State Oil and Gas Supervisor
E.S.C. Building
Casper, Wyoming 82601

3. State Lease No.

FEE

6. Unit Agreement

N/A

7. Farm or Lease Name

Nutcracker D

8. Well No.

9. Reservoir

Muddy/Dakota

10. Field Name

Nutcracker

11. Section, Township and Range

Sec. 17-T38N-R75W

12. County

Converse

13. State

WY

1. WELL COMPLETION OR RECOMPLETION REPORT AND LOG

(Submit in Duplicate, Triplicate on State Lands)

Designate type of completion OIL WELL ☒ GAS WELL ☐ OTHER ☐ DRY ☐
NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ OTHER ☐ SAME RESVR. ☐ DIFF. RESVR. ☐

2. OPERATOR

Phillips Petroleum Company

3. ADDRESS

152 N. Durbin (2nd Floor), Casper, WY 82601

4. LOCATIONS (Show quarter-quarter description and footage measurements.)

At surface 1995' FWL & 1941' FNL, SE NW

At top prod. interval, reported below

At total depth

API #49-009-22639

14. Permit No. -- Date Issued --4-30-87 Previous Permit No. -- Date Issued --

15. Date Spudded 5/31/87 16. Date T.D. Reached 7/15/88 17. Date Compl. (Ready to Prod.) 1/10/88 18. Elevations (DF, RKB, RT, GR, etc.)* 5492 GR, 5514.4 RKB 19. Elev. Casinghead Flg. --

20. Total Depth (MD & TVD) 14203' 21. Plug. Back T.D. (MD & TVD) 14181' 22. If Multiple Compl., How Many* -- 23. Intervals Drilled By Rotary Tools Cable Tools 0 - 14203' --

24. PRODUCING INTERVAL(S), THIS COMPLETION, TOP, BOTTOM, NAME (MD & TVD)*

Dakota 14075-14142', Muddy 13904-13948' OA

25. Date Directional Survey Submitted --

26. TYPE ELECTRIC AND OTHER LOGS RUN (Circle those filed) LSS/GR FM Micro Scanner CBL/VDL/CCL, FDC/CNL, GR & SP, DIL/GR, CNL Density, Sonic, Dipmeter

27. Was Well Cored Yes

28. CASING RECORD (Report all strings set in well)

Casing Size	Depth Set (MD)	Hole Size	Weight Lbs./Ft.	Purpose	Sacks Cement	Amount Pulled
16"	119'	24"		Conductor	220 sx CL G	
9-5/8"	2010'	12-1/4"	36#	Surface	880 sx 50/50 Poz. tailed w/290 sx CL G	
7"	13712	8-3/4"	26#	Intermediate	732 sx	

29. LINER RECORD

Size	Top (MD)	Bottom (MD)	Sacks Cement*	Screen (MD)	Size	Depth Set (MD)	Packer Set (MD)
5"	13403	14203	130 sx CL G		2-7/8"	13454'	PBR-13454'

31. PERFORATION RECORD

Depth Interval (MD)	Holes per ft.	Size and Type	Purpose	Amt. & Kind of Material Used	Depth Interval (MD)
14075-14142'	4 JSPF	3" Ultrajet	Production	See Attached	
13944-13948'	4 JSPF	2-1/8" tbg gun	Production	"	
13904-13906	6 JSPF	2-1/8" st. bar	Production	"	
12759-12776'	4 JSPF	4" HSC gun	Production	"	

33. PRODUCTION

Date First Production 1/10/88 Producing Method (Flowing, gas, lift, pumping—size & type of pump) -- Well Status (Prod. or shut-in) Shut-in w/10BLOTR

Date of Test	Hours Tested	Choke Size	Production For Test	Oil, Bbls.	Gas, Mcf.	Oil Gravity—API (Corr.)
1/28/88	--	14/64"	16.4	16.4		41.3
Flow, Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil, Bbls.	Gas, Mcf.	Water, Bbls.	Gas-Oil Ratio
--		16.4	16.4		.2	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

None

Test Witnessed By

35. LIST OF ATTACHMENTS

#32 - Acid, Shot, Frac, Cmt Squeeze, etc.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

SIGNED S. J. Reynolds

TITLE District Supervisor

DATE 9/28/88

WYOMING OIL & GAS
CONSERVATION COMMISSION

* See Instructions

ATTACHMENT TO WELL COMPLETION OR RECOMPLETION REPORT AND LOG

NUTCRACKER D #1

October 28, 1988

#32. Acid, Frac, Cement Squeeze Record

Perforated the Dakota Formation, 14075-14142'.

Breakdown Dakota w/244 bbls diesel. Max press 8520 psi, avg press 8150 psi. ISIP 6380 psi, 5 min 5840 psi, 10 min 5670 psi, 15 min 5560 psi. Fraced w/ 644 bbls gelled diesel w/1000# 100 mesh sand and 10200# of 20/40 ISP. Maximum press 10,5000 psi, avg press 9750 psi. Screened out. Swabbed all but 325 bbls load left to recover.

Set Otis Model WB permanent packer at 14030'.

Perforated Muddy Formation, 13944-13948'.

Minifrac w/360 bbls gelled diesel, flushed w/85 bbls of #2 diesel. Max press 10200 psi, avg press 9700 psi. ISIP 4320, 5 min 4310, 10 min 4380, 15 min 4260.

Perforated Muddy Formation, 13904-13906'.

Breakdown w/192 bbls diesel. Maximum press 11560 psi, avg press 9870 psi, min press 8510 psi. Swbd back all but 177 bbls load oil left to recover.

Set 5-1/2" CIPB at 12930'.

Perforated Frontier Formation, 12759-12776'.

Breakdown Frontier w/459 bbls HCL acid. Fraced w/1575 bbls wtr w/900,000 cu ft nitrogen and 82,000# sand. Max press 8800 psi, Avg press 1500 psi. ISIP 3135 psi, 5 min 3186, 10 min 3220, 15 min 3246. Rec all load wtr (swabbing). Shut in for pressure build up. Swabbed and flowed well (with 10# salt wtr on backside). Last 24 hr rate - 33 BO, 14 BW.

Milled and fished Bridge Plug at 14067'. Cut off tailpipe at 14055'. Set tbg w/seal assembly in PBR at 13454'.

Swabbed and flow tested well from Muddy/Dakota formation. Last 24 hr rate was 16.6 BF (99% oil). 10 BLO left to rec.