

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND POINT BACK PRESSURE TEST F GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 4-4-68	
Company PENNZOIL COMPANY				Connection NONE		
Pool UNDESIGNATED				Formation MORROW GAS		Unit 360 ACRES
Completion Date 4-4-68		Total Depth 13585'		Plug Back TD 13426'		Elevation 3820' KB
Farm or Lease Name HUDSON FED. 29						Well No. 1
Csg. Size 5 1/2"	Wt. 17	d 4.892	Set At 13583'	Perforations: From 13235' To 13334'		
Tbg. Size 2 1/2"	Wt. 4.7	d 1.995	Set At 13096'	Perforations: From OPEN To ENDED		Unit B 29 18s 33E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple GO MULTIPLE				Packer Set At 13096'		County LEA
Producing Thru TUBING		Reservoir Temp. °F 178° @ 13040'		Mean Annual Temp. °F 60°F		Baro. Press. - P _g 13.2
State NEW MEXICO						
L 13285'	H -	G _g 0.664	% CO ₂ 0.41	% N ₂ 0.53	% H ₂ S 0.00	Prover -
Meter Run 4,026		Taps FLANGE				

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g. DWT	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							4078	440	PKR	-	48.0
1.	4.026	20/641.5	400.0	90.0	850	1218	660	-	-	-	3.5
2.	4.026	18/641.5	400.0	81.0	850	1368	680	-	-	-	1.25
3.	4.026	16/641.5	400.0	70.0	880	1578	650	-	-	-	1.50
4.	4.026	14/641.5	400.0	60.0	860	1810	640	-	-	-	1.25
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, R _{pv}	Rate of Flow Q, Mcfd
1	10.84	192.84	413.2	0.9768	1.227	1.036	2595.6
2	10.84	182.94	413.2	0.9768	1.227	1.036	2462.3
3	10.84	170.08	413.2	0.9741	1.227	1.035	2280.7
4	10.84	157.45	413.2	0.9759	1.227	1.036	2117.3
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	0.61	545	1.46	0.932	18942	52.0	0.664	XXXXXX	673	374
2.	0.61	545	1.46	0.932						
3.	0.61	548	1.47	0.933						
4.	0.61	546	1.46	0.932						
5.										

NO.	P _r ²	P _w *	P _w ²	P _r ² - P _w ²
1	-	2197.2	4827.7	32250.7
2	-	2481.2	6156.4	30922.0
3	-	2888.2	8341.7	28736.7
4	-	3144.2	9886.0	27192.4
5				

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.150$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2975$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.146$

Absolute Open Flow	2975	Mcfd @ 15.025	Angle of Slope @ 45° 42'	Slope, n 0.976
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Remarks: * BHP @ (-9465') 13285' USED FOR PRESSURE CALCULATIONS

Approved By Commission:	Conducted By: COLEMAN PETROLEUM ENG.CO.	Calculated By: JOE A. COLEMAN	Checked By: JOE A. COLEMAN
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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other in-
structions on
reverse side)Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other _____

b. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other _____

2. NAME OF OPERATOR

Pennzoil Company

3. ADDRESS OF OPERATOR

P. O. Drawer 1828 Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 1980 FEL & 660 FNL of Sec. 29, T-18S, R-33E

At top prod. interval reported below

At total depth

14. PERMIT NO. _____ DATE ISSUED _____

5. LEASE DESIGNATION AND SERIAL NO.

LC 069276

6. IF INDIAN, ALLOTTEE OR TRIBE NAME _____

7. UNIT AGREEMENT NAME _____

8. FARM OR LEASE NAME

Hudson Federal "29" *1*

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Undesignated

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Sec. 29, T-18S, R-33E

12. COUNTY OR PARISH

Lea

13. STATE

N. M.

15. DATE SPURRED 12-11-67 16. DATE T.D. REACHED 2-26-68 17. DATE COMPL. (Ready to prod.) 3-31-68 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 3799 GL 19. ELEV. CASINGHEAD 3800

20. TOTAL DEPTH, MD & TVD 13,585 21. PLUG, BACK T.D., MD & TVD 13,426 22. IF MULTIPLE COMPL., HOW MANY* Two 23. INTERVALS DRILLED BY 0-13,585 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 10,903 - 10,991 Wolfcamp 25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN

Induction-Electric, Gamma Ray - Sonic, Microlog

27. WAS WELL CORRED

No

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	48#	382	17 1/2	300 sacks	None
8 5/8"	32#	4287	11	700 sacks	None
5 1/2"	17# & 20#	13583	7 7/8	1070 sacks	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					1 1/2	10,383	None

30. TUBING RECORD

31. PERFORATION RECORD (Interval, size and number) Jet perf

one .47" hole @ each of the following:
10903,907,913,916,925,931,934,952,955,
967,971,986,991. Total of 13 holes; Pf
1 .47" hole @ 10527,530,537,539,541,544

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
10903-10991	Acidize w/4000 gals MCA acid
10527-10544	Acidize w/13000 gals MCA aci
10527-10544	Squeeze w/100 sx Incor & 50 sx Trinity Inferno

33.* PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)					WELL STATUS (Producing or shut-in)	
3-3-68		Flowing					Shut In	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO.	
3-31-68	24	20/64	→	372	580	0	1560	
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)		
475	1850	→						

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

Vented

TEST WITNESSED BY

Rodney C. Boyd

35. LIST OF ATTACHMENTS

Well Deviation - 9-331 Forms Electric Logs

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

SIGNED _____

TITLE

Petroleum Engineer

DATE

4-3-68

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:				38. GEOLOGIC MARKERS	
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					
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH
					TRUE VERT. DEPTH
Queen	4153	4612	Red Sandstone w/shows oil & sulf water	Rustler	1376
Wolfcamp	10,898	10,948	Limestone - oil saturated	Yates	2925
Morrow	13,213	13,340	Sandstone - Gas Condensate	Seven Rivers	3445
				Queen	4153
				Penrose	4415
				San Andres	4778
				Delaware	5575
				Bone Spring	7107
				3rd B.S. Ss	10,118
				Wolfcamp Ls	10,524
				Strawn	12,060
				Atoka	12,373
				Morrow Ls	12,742
				Morrow Ss	13,212

13,235 - 13,334' Morrow

26. TYPE ELECTRIC AND OTHER LOGS RUN

LOCATION, NAME (MD AND TVD)*

25. WAS DIRECTIONAL
SHEATH MADE

No

27. WAS WELL CORRED

No

Induction-Electric, Gamma Ray - Sonic, Microlog

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)
13 3/8"	48#	302
8 5/8"	32#	4287
5 1/2"	17# & 20#	13583

HOLE SIZE

17 1/2

11

7 7/8

CEMENTING RECORD

300 sacks

700 sacks

1070 sacks

AMOUNT PULLED

None

None

None

LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30.

TUBING RECORD

SIZE

2 7/8

2 3/8

DEPTH SET (MD)

1991

11,105

PACKER SET (MD)

13,096

31. PERFORATION RECORD (Interval, size and number) 4 holes @
ea: 13,235,237,246,255,264,272,276,
280,287,13,302,307,314,325,334; 60
0.27" holes-2 holes/ft @:13296-314';
36 - 0.27 holes

32.

ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)

13,235-334'

AMOUNT AND KIND OF MATERIAL USED

214 Bbls Modified Brine

33.*

INSTRUCTIONS

complete and correct well completion report and log on all the wells. Any necessary special instructions shall be given in the report. Any necessary special instructions shall be given in the report. Any necessary special instructions shall be given in the report.

AND CONTENTS THEREOF: CORED INTERVALS; AND ALL DRILL-STEM TESTS, AND SHUT-IN PRESSURES, AND RECOVERIES. DESCRIPTION, CONTENTS, ETC.