

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK <b>DRILL</b> <input type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> <b>PLUG BACK</b> <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. NM 04266-04226
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> / OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR El Paso Natural Gas Company		7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR Box 289, Farmington, New Mexico 87401		8. FARM OR LEASE NAME McManus
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1290'S, 1340'E At proposed prod. zone		9. WELL NO. 4
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*		10. FIELD AND POOL, OR WILDCAT Blanco Pictured Cliffs
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)		11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA Sec. 19, T-26-N, R-8-W N.M.P.M.
16. NO. OF ACRES IN LEASE		12. COUNTY OR PARISH San Juan
17. NO. OF ACRES ASSIGNED TO THIS WELL		13. STATE New Mexico
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.		20. ROTARY OR CABLE TOOLS
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6365' DF		22. APPROX. DATE WORK WILL START*

## 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	23.0#	99'	75 sx, circ. surface
7 7/8"	5 1/2"	14.0#	2060'	100 sx, calc. cmt. top @ 1380'
open hole section			2060-2149'	-----

This well is presently completed in the Pictured Cliffs formation at a total depth of 2149'. It is now intended to plug the PC because of non-commercial production and complete the Fruitland formation in the following Manner:

Pull tubing. Set cement retainer at 2040' and squeeze off PC with cement. Top of PC @ 2060'. Pressure test 5 1/2" casing to 3500 psi.

Case #1: If press test holds; selectively perforate and sand water frac the Fruitland formation from 1930-42', 1968-78' and 1995-2008'. Cleanout and run a new string of 1 1/4" tubing.

Case #2: If press test fails; run a full string of 2 7/8" casing @ approximately 2040' and cement with sufficient volume to circulate cement to surface. WOC 18 hours. Selectively perforate and sand water frac the Fruitland formation as in Case #1.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] TITLE Drilling Clerk DATE July 31, 1979

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_

APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

DATE \_\_\_\_\_

AUG 23 1979

[Signature]  
DISTRICT ENGINEER

\*See Instructions On Reverse Side