

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-045-20674

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒

OTHER

SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

El Paso Natural Gas Company

3. ADDRESS OF OPERATOR

Box 990, Farmington, New Mexico 87401

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

At surface

1100'S, 800'E

At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160.00

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

3295'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6530' CL

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"	24#	120'	85 Sks. to circulate
6 3/4"	2 7/8"	6.4#	3295'	245 Sks. to fill from T. D. to 1795'

Selectively perforate and sand water fracture the Pictured Cliffs formation

The SE/4 of Sec. 30 is dedicated to this well.



RECEIVED

JUL 21 1970

U. S. GEOLOGICAL SURVEY
WASHINGTON, D. C.

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 Original Signed F. H. WOOD

TITLE Petroleum Engineer

DATE 7-17-70

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal 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.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

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 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator EL PASO NATURAL GAS COMPANY			Lease HUBBARD		(NM-010989)		Well No. 3
Unit Letter P	Section 30	Township 32-N	Range 11-W	County SAN JUAN			
Actual Footage Location of Well: 1100 feet from the SOUTH line and 800 feet from the EAST line							
Ground Level Elev. 6530	Producing Formation PICTURED CLIFFS		Pool Blanco UNDESIGNATED PICTURED CLIFFS			Dedicated Acreage: 160.00 Acres	

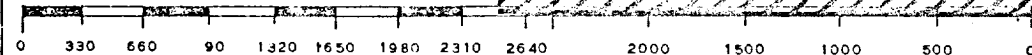
1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation **Communitization**

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

SECTION 30 FEE NM-010989 1100' 800'	CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Original Signed F. H. WOOD						
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Name Petroleum Engineer</td> </tr> <tr> <td>Position El Paso Natural Gas Company</td> </tr> <tr> <td>Company July 17, 1970</td> </tr> <tr> <td>Date</td> </tr> </table> I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Date Surveyed FEBRUARY 20, 1970</td> </tr> <tr> <td>Registered Professional Engineer and/or Land Surveyor <i>[Signature]</i></td> </tr> <tr> <td>Certificate No. 1760</td> </tr> </table>	Name Petroleum Engineer	Position El Paso Natural Gas Company	Company July 17, 1970	Date	Date Surveyed FEBRUARY 20, 1970	Registered Professional Engineer and/or Land Surveyor <i>[Signature]</i>
Name Petroleum Engineer							
Position El Paso Natural Gas Company							
Company July 17, 1970							
Date							
Date Surveyed FEBRUARY 20, 1970							
Registered Professional Engineer and/or Land Surveyor <i>[Signature]</i>							
Certificate No. 1760							



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM 010989

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Hubbard

9. WELL NO.

3

10. FIELD AND POOL, OR WILDCAT

Blanco Pictured Cliffs Ext.

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

Sec. 30, T-32-N, R-11-W

N.M.P.M.

12. COUNTY OR PARISH

San Juan

13. STATE

New Mexico

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

6530' GL

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

☐

PULL OR ALTER CASING

☐

FRACTURE TREAT

☐

MULTIPLE COMPLETE

☐

SHOOT OR ACIDIZE

☐

ABANDON*

☐

REPAIR WELL

☐

CHANGE PLANS

☐

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

☒

REPAIRING WELL

☐

FRACTURE TREATMENT

☒

ALTERING CASING

☐

SHOOTING OR ACIDIZING

☐

ABANDONMENT*

☐

(Other)

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

On 8-26-70 spudded well, drilled surface hole.

On 8-27-70 ran 4 joints 8 5/8", 24#, K, surface casing (118') set at 128' w/85 sacks of cement circulated to surface. W.O.C. 12 hours, held 600#/30 Min.

On 9-13-70 T.D. 3296'. Ran 106 joints 2 7/8", 6.4#, J-55 production casing (3285') set at 3296' w/245 sacks of cement. W.O.C. until completion.

On 9-23-70 P.B. T.D. 3280'. Perf. 3164-70', 3188-3200', 3216-22', 3234-40' w/24 SPZ. Frac w/36,000# 10/20 sand, 35,784 gal. water. Dropped 3 sets of 24 balls, flushed w/1008 gal. water.



18. I hereby certify that the foregoing is true and correct

SIGNED Original Signed F. H. WOOD

TITLE Petroleum Engineer

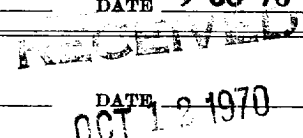
DATE 9-30-70

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE



*See Instructions on Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law 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.

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 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE 10-20-70

Operator EL PASO NATURAL GAS COMPANY		Lease Hubbard No. 3	
Location 1100 S, 800 E, S 30, T32N, R11W		County San Juan	State New Mexico
Formation Pictured Cliffs		Pool Undesignated	
Casing: Diameter 2.875	Set At: Feet 3296	Tubing: Diameter no tubing	Set At: Feet
Pay Zone: From 3164	To 3240	Total Depth: 3296	Shut In 10-8-70
Stimulation Method S W F		Flow Through Casing XX	Flow Through Tubing

Choke Size, Inches .750	Choke Constant: C 12.365		tubingless completion	
Shut-In Pressure, Casing, PSIG 993	+ 12 = PSIA 1005	Days Shut-In 12	Shut-In Pressure, Tubing PSIG no tubing	+ 12 = PSIA
Flowing Pressure: P PSIG 23	+ 12 = PSIA 35		Working Pressure: Pw Calc. 44	+ 12 = PSIA
Temperature: T = 57 °F	n = 1.0029		Fpv (From Tables) 1.004	Gravity .650 Fg = .9608

$$\text{CHOKE VOLUME} = Q = C \times P_r \times F_t \times F_g \times F_{pv}$$

$$Q = 12.365 \times 35 \times 1.0029 \times .9608 \times 1.004 = 419 \text{ MCF/D}$$

$$\text{OPEN FLOW} = Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

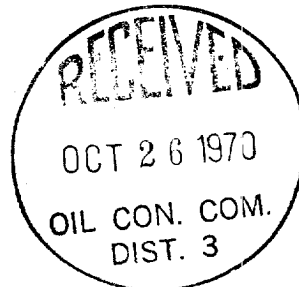
Note: Well blew very light fog of H₂O and dist. throughout test.

$$Aof = \left(\frac{1010025}{1008089} \right)^n = (1.0019)^{.85} (419) = (1.0016)(419)$$

$$Aof = 420 \text{ MCF/D}$$

TESTED BY C. R. Wagner

WITNESSED BY



H. L. Kendrick
H. L. Kendrick

EL PASO NATURAL GAS COMPANY

DEVIATION REPORT

Name Of Company El Paso Natural Gas Company			Address Box 990, Farmington, New Mexico 87401			
Lease Hubbard	Well No. 3	Unit Letter P	Section 30	Township 32N	Range 11W	
Pool Blanco Pictured Cliffs Ext.				County San Juan		

DEPTH

DEVIATION

1047'

1/4°

1892'

3/4°

2458'

3/4°

3022'

3/4°

3295'

1°



I, the undersigned, certify that I, acting in my capacity as Petroleum Engineer of El Paso Natural Gas Company, am authorized by said Company to make this report; and that this report was prepared by me or under my supervision and directions and that the facts stated therein are true to the best of my knowledge and belief.

F.H. Wood

Subscribed and sworn to before me this 3rd day of November, 1970.

Alma S. Quico

Notary Public in and for San Juan County, New Mexico

My commission expires October 5, 1972.