

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
PLUG BACK

1b. TYPE OF WELL  
GAS

2. OPERATOR  
~~EL PASO NATURAL GAS CO.~~  
*Mesa Verde Oil & Gas Co.*

3. ADDRESS & PHONE NO. OF OPERATOR  
P.O. BOX 4289  
FARMINGTON, NM 87499  
(505) 326-9700

4. LOCATION OF WELL  
1840' FSL; 890' FEL

5. LEASE NUMBER  
SF-078000-A

6. IF INDIAN, ALL. OR TRIBE NAME

7. UNIT AGREEMENT NAME  
HUERFANO UNIT

8. FARM OR LEASE NAME

9. WELL NO.  
238

10. FIELD, POOL, OR WILDCAT  
BASIN FRUITLAND COAL

11. SEC. T. R. M OR BLK.  
I SEC. 18, T27N, R09W

12. COUNTY  
SAN JUAN

13. STATE  
NM

14. DISTANCE IN MILES FROM NEAREST TOWN

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE.

16. ACRES IN LEASE

17. ACRES ASSIGNED TO WELL  
320.00

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. COMPL., OR APPLIED FOR ON THIS LEASE.

19. PROPOSED DEPTH

20. ROTARY OR CABLE TOOLS

21. ELEVATIONS (DF, FT, GR, ETC.)  
6469' GR

22. APPROX. DATE WORK WILL START

23. PROPOSED CASING AND CEMENTING PROGRAM

\*SEE OPERATIONS PLAN

24. AUTHORIZED BY: *[Signature]* (SHL)  
REGULATORY AFFAIRS

*8-2-90*  
DATE

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

NOTE: THIS FORMAT IS ISSUED IN LIEU OF US BLM FORM 3160-3.  
(NO ADDITIONAL DIRT WORK WILL BE REQUIRED)

APPROVED  
AS AMENDED

AUG 13 1990  
Ken Townsone  
AREA MANAGER

NMOCD

*Hold on 104 FORM 5-2*

N MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-128  
Supersedes O-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section

LESSOR <b>EL PASO NATURAL GAS COMPANY</b>		LEASE <b>HUERFANO UNIT</b>		UNIT <b>(SF-078000-A)</b>		APPL NO. <b>238</b>	
Section <b>I</b>	Range <b>18</b>	Meridian <b>26-N</b>	County <b>9-W</b>	County <b>SAN JUAN</b>			
Distance from top of section <b>1840</b>		Distance from top of section <b>390</b>		Distance from top of section <b>EAST</b>		Distance from top of section	
Distance from top of section <b>5469</b>		Distance from top of section <b>Fruitland Coal</b>		Distance from top of section <b>Basin</b>		Distance from top of section <b>320.00</b>	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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 Unitization

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. **NOTE: THIS PLAT REISSUED TO SHOW PROPER POOL DESIGNATION. 1-30-73**

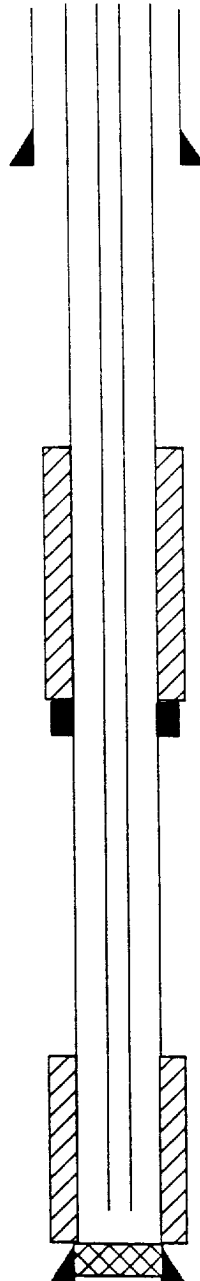
	<p><b>CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>[Signature]</i></p> <p><b>Regulatory Affairs</b></p> <p><b>El Paso Natural Gas Co.</b></p> <p>Date <u>8-2-90</u></p>
	<p>I hereby certify that the 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.</p>
	<p>Date surveyed <b>JANUARY 19, 1973</b></p>
	<p>Registered Professional Engineer and Land Surveyor</p> <p><i>[Signature]</i></p> <p>Exhibit No. <b>1760</b></p>

# HUERFANO UNIT #238

## WELLBORE DIAGRAMS

BEFORE R/C

AFTER R/C



8.625" 24# CSG SET @ 232'

OJO ALAMO 1144'

KIRTLAND 1310'

TOC 1740'

FRUITLAND 1875'

PC 2074'

DV TOOL @ 2287'

CLIFF HOUSE <sup>3697'</sup>~~3427'~~

TOC 4222'

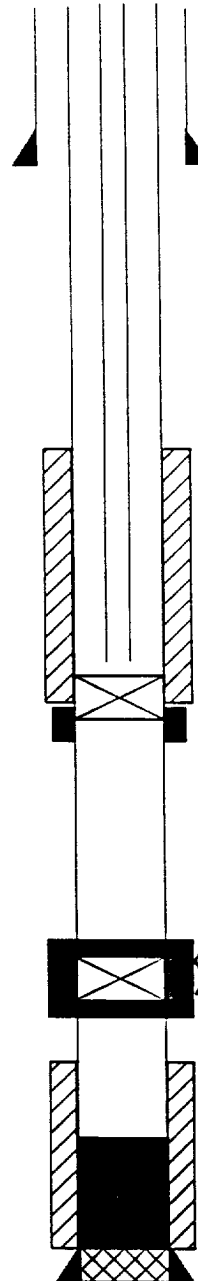
POINT LOOKOUT 4425'

GALLUP 5553'

2.375" 4.7# TBG SET @ 5936'

PBTD @ 5978'

4.5" 10.5# CSG SET @ 5995'

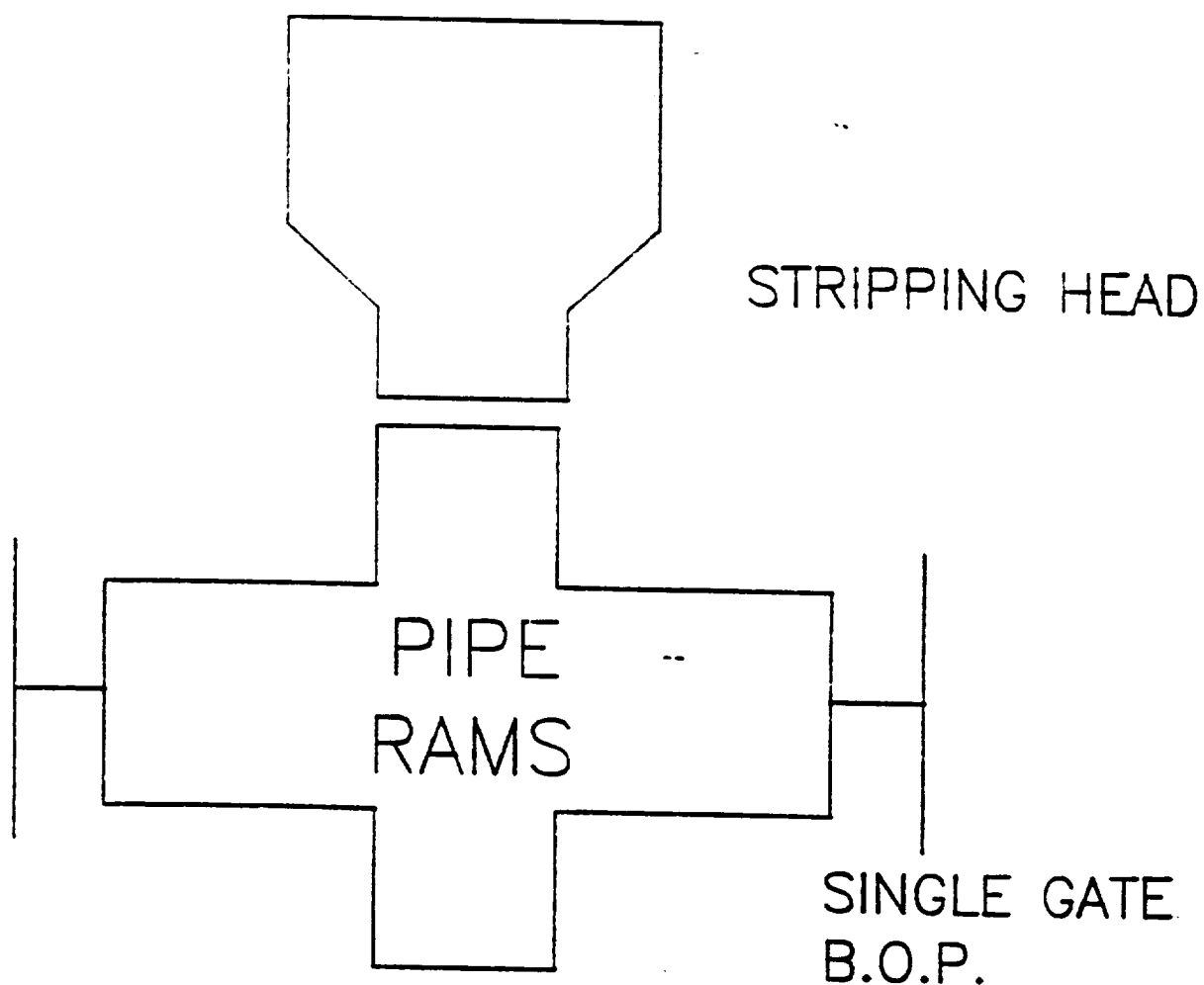


CIBP @ 2074'

CMT RETAINER @ 3377'  
4 SQUEEZE HOLES @ 3477'

CMT PLUG: PBTD-5503'

# WORKOVER / RECOMPLETION B. O. P. SCHEMATIC



MINIMUM: 2 7/8" 1500 PSI SINGLE GATE B.O.P.

MAXIMUM ANTICIPATED SHUT-IN WELLHEAD  
PRESSURE IS LESS THAN 1500 PSI

HUERFANO UNIT #238  
RECOMPLETION PROCEDURE  
GALLUP PLUG AND ABANDONMENT

**\*\*NO WORK IS TO BE PERFORMED OR EQUIPMENT TO BE LOCATED OFF APPROVED WELL PAD\*\***

1. MOL and RU. ND wellhead. NU BOP. Load hole with water.
2. TOOH with 190 joints of 2 3/8" 4.7# tubing set @ 59356
3. PU 4 1/2" casing scraper on 2 3/8" 4.7# J-55 EUE tubing and TIH to 5978'.  
TOOH.
4. TIH. Spot a cement plug from 5978'-5503' with 55 sx of Class B neat cement (65 cf, 50% excess to cover 50' above the top of the Gallup). Pull up to 5503' and circulate the casing with 87 bbls of 9.0 PPG mud with a minimum viscosity of 50 sec/qt. TOOH. Tag cement top with wireline after 4 hours.
5. Perforate 4 squeeze holes at <sup>3747'</sup>~~3477'~~. Establish a rate into the perforations with water. Set a 4 1/2" cement retainer at <sup>3675'</sup>~~3377'~~. TIH with 2 3/8" tubing and sting into test position in cement retainer. Pressure test tubing to 1000 psi. Establish rate into perforations with water. Squeeze cement with 50 sx of Class B neat cement (59 cf, 100% excess to cover 50' above the top of the Cliff House). Sting out of cement retainer and spot 6 sx Class B neat cement on top of cement retainer (7cf, 81' in 4 1/2" casing). TOOH.
6. Proceed with Fruitland recompletion.

Vendors

Wireline and Retainer: Basin  
Cement: Western

Approve: \_\_\_\_\_

R. F. Headrick

SHL

RECOMPLETION PROCEDURE  
HUERFANO UNIT #238

\*\*NO WORK IS TO BE PERFORMED OR EQUIPMENT TO BE LOCATED OFF APPROVED WELL PAD\*\*

1. Load hole with water.
2. NU low pressure packoff.
3. Run logs. Pick perforations from log. TIH with 4-1/2" CIBP and set near ~~2205~~ *Top of P.C. @ 2075'*  
to isolate the Pictured Cliffs. TOOH. *2074'*
4. Pressure test casing to 1000 psi for 15 minutes.
5. Perforate across the coal.
6. TIH with tubing and swab wellbore dry. Check well for gas flow. Evaluate well overnight. Check well for buildup pressure and gas flow.
7. TIH with 1-1/2" tubing and clean out to CIBP.
8. Land 1 1/2" 2.9# EUE tubing with an expendable check on bottom, and a common pump seating nipple one joint off bottom. Land tubing. Swab well in. Record final 30, 45, and 60 minute gauges on morning report. ND BOP. NU tree. RD and release rig.
9. Evaluate well's performance for possible fracture stimulation. A fracture stimulation procedure will be provided if necessary.