

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

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 ☒ *and injection*

SINGLE ZONE ☐

MULTIPLE ZONE ☒

2. NAME OF OPERATOR

Energy Reserves Group, Inc.

3. ADDRESS OF OPERATOR

P.O. Box 3280, Casper, Wyoming 82602

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

At surface

At proposed prod. zone 1520' FWL & 1070' FSL

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

4 miles SE of Farmington, New Mexico

15. DISTANCE FROM PROPOSED\*

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

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

NA

16. NO. OF ACRES IN LEASE

Unitized <sup>?</sup> 320

19. PROPOSED DEPTH

4070'

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

NA 160 + 160

20. ROTARY OR CABLE TOOLS

Rotary

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

5394' GR (ungraded)

22. APPROX. DATE WORK WILL START\*

November, 1980

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
13-3/4"	9-5/8"	36#	250'	cement to surface
8-3/4"	8 23#	8 23#	4,070'	cement above Mesa Verde in 1st stage. Cement from base of P.C. above Fruitland in 2nd stage.

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO THE ATTACHED  
"GENERAL"

This action is subject to administrative  
appeal pursuant to 30 CFR 290.

Energy Reserves Group, Inc. proposes to drill this well as a dual completion.  
The Mesa Verde Formation @ 2820' and below is to be used for water disposal,  
the Fruitland @ 1050' is to be used for production. No cores or DST's are planned.



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.

SIGNED William J. Hines TITLE Field Services Administrator DATE 10-21-80

(This space for Federal or State office use)

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

APPROVED BY AS AMENDED TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

DEC 15 1980  
to James F. Sims  
DISTRICT ENGINEER

\*See Instructions On Reverse Side

W1000

## OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088  
SANTA FE, NEW MEXICO 87501Form C-107  
Revised 10-1-71

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

Operator <b>ENERGY RESERVES GROUP</b>			Lease <b>GALLEGOS CANYON UNIT</b>		Well No. <b>328</b>
Unit Letter <b>N</b>	Section <b>33</b>	Township <b>29N</b>	Range <b>12W</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>1070</b> feet from the <b>South</b> line and <b>1520</b> feet from the <b>West</b> line					
Ground Level Elev. <b>5394</b>	Producing Formation <b>Fruitland (Gas) Mesa Verde</b>			Pool <b>(Disposal)</b>	Dedicated Acreage: <b>160</b> 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 \_\_\_\_\_

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.

Sec. 33

1520'

1070'

Scale: 1"=1000'

## CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name William J. Hays  
 Position Field Services Administrator  
 Company Energy Reserves Group, Inc.  
 Date 10-21-80

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.

Date Surveyed September 9, 1980  
 Registered Professional Engineer and Land Surveyor  
Fred B. Kery Jr.  
 Certificate No. 3950

Supplemental to Form 9-331C

1. The geologic name of the surface formation.

Nacimiento

2. The estimated tops of important geologic markers.

Ojo Alamo	50'
Kirtland	155'
Fruitland	1050' - 1070'
Pictured Cliffs	1310'
Lewis	1490'
Mesa Verde	2820'
TD	4070'

3. The estimated depths at which anticipated water, oil, gas, or other mineral-bearing formations are expected to be encountered.

The Fruitland @ 1050' is expected to be gas productive. The Pictured Cliffs @ 1310' is expected to be gas productive. The Mesa Verde @ 2820' is expected to be water productive.

4. The proposed casing program, including the size, grade, and weight-per-foot of each string and whether new or used.

0-250 - 9-5/8", 36#, ST&C, New Casing, K-55

0-4070' - 7", 23#, ST&C, New Casing, K-55

cement from TD to above Mesa Verde in  
1st stage. Cement from base of Pictured  
Cliffs to above Fruitland in 2nd stage.

5. The lessee's or operator's minimum specifications for pressure control equipment which is to be used, a schematic diagram thereof showing sizes, pressure ratings (or API series), and the testing procedures and testing frequency.

Pressure control equipment to consist of a 10" hydraulically operated double ram BOP series 900, 3000#. The BOP will be pressure tested to 800 psi, after installation and prior to drilling our from under surface casing.

6. The type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling and the quantities and types of mud and weighting material to be maintained.

Well is to be drilled with gel mud plus required additives for hole conditions and formations to be drilled. Normally about 50-100 sx of gel will be on location at one time.

7. The auxiliary equipment to be used, such as (1) kelly cocks, (2) floats at the bit, (3) monitoring equipment on the mud system, (4) a sub on the floor with a full opening valve to be stabbed into drill pipe when the kelly is not in the string.

Kelly cock stop for 3-1/2" drill pipe and a full opening floor valve to stab into the drill pipe.

8. The testing, logging, fracing, and coring programs to be followed with provision made for required flexibility.

No coring or DST's are planned. Logs will include DIL & FDC-CNL-GR from base of surface casing to TD. The Fruitland will be Nitrogen/water foan fraced with approximately 20,000 gal of 70% quality foan & 25,000# 10-20 sand. The Mesa Verde will be acidized with approximately 50 gal 15% HCL acid per foot of perfs.

9. Any anticipated abnormal pressures or temperatures expected to be encountered or potential hazards such as hydrogen sulfide gas, along with plans for mitigating such hazards.

No abnormal pressures or temperatures are anticipated. H2S is not a potential problem in the area.

10. The anticipated starting date and duration of the operations.

It is planned to commence operations as soon as regulatory approval has been received and a rig can be obtained. It is anticipated it will take about 14 days to drill and log this well.

## MULTI POINT SURFACE USE PLAN

### 1. Existing Roads

Go east from Farmington 4 miles, turn south for approximately 1-1/2 miles, turn west for approximately two miles. See attached map.

### 2. Planned Access Roads

Approximately 800' of new access road will be required. This road will be flat bladed to a width of 18'.

### 3. Location of Existing Wells

See attachments. There are numerous wells in the area. Energy Reserves Group operates the Pictured Cliffs wells within the Gallegos Canyon Unit and Amoco operates the Dakota.

### 4. Location of Existing and/or Proposed Facilities

- A. (1) None  
(2), (3), (4), (5) There are numerous facilities in this area. They are operated by Energy Reserves Group, El Paso Natural Gas Co., and Amoco.  
(6) There is an existing system to handle produced water to this well.
- B. If the well is productive, all facilities will be within the disturbed area. A small pit (20' x 20') may be required if any water is produced. The pit will be fenced with sheep wire to protect livestock and wildlife. Injection facilities will include 2-400 bbl tanks and an injection pump and motor skid mounted within and enclosed building. Flow lines will be installed by El Paso.
- C. If the well is productive, the reserve pit will be fenced and allowed to dry up. As soon as it is dry, it will be filled and the area restored to its original contour. All trash and debris will be removed. If the well is dry, the pit will be fenced and allowed to dry up. The location and access road will be recontoured and reseeded as per BLM specifications.

### 5. Location and Type of Water Supply

Water will be hauled by truck, probably from the San Juan River.

### 6. Sources of Construction Materials

None anticipated.

### 7. Methods for Handling Waste Disposal

- (1&2) All cuttings and drilling fluids will be contained in the reserve pit.
- (3) Produced fluids, if any, will be contained in portable tanks, unless it is good water which will be directed into the pit and allowed to evaporate or soak into the ground.
- (4) A portable toilet will be used during drilling and completing operations.
- (5) All trash will be buried in a small trash pit along side of the reserves pit.
- (6) See item 4C.

### 8. Ancillary Facilities

None required

### 9. Well-Site Layout

- (1) see attachment
- (2) see attachment
- (3) see attachemtn
- (4) It is not planned to line any pits.

### 10. Plans for Restoration of Surface

Upon completion of the well, the reserve pit will be fenced and allowed to dry. Any accumulation of oil will be skimmed off the pit and trucked to a disposal site.

The disturbed area will be recontoured to its original contour and reseeded as per BLM's recommendations. It is planned to commence rehabilitation as soon as the pit has dried and weather permits.

11. Other Information

- (1) The area is generally rolling hills near the well site. The soil is composed mostly of sand with only sparse vegetation of sage brush, cactus and assorted native grasses. Wildlife consists of rodents and birds.
- (2) The surface is public land and is not presently used for any activity ie grazing, recreation etc.
- (3) The San Juan River is approximately 1-1/2 miles south of the proposed well.

# CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by \_\_\_\_\_

Diag Inc.  
and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

10-21-80  
Date

William J. Yates  
Name and Title

Field Services Administrator