

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-075-23996  
5. LEASE DESIGNATION AND SERIAL NO.  
SF-078106

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  
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  
1,080' FNL & 1,720' FEL (NW NE)  
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
Seven miles east of Farmington

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
600'

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
600'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5585 GR

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2"	8- 5/8"	24#	120'-200'	Cmt to surface
6-3/4"	4 1/2"	9.5#	1600'	250 sx.

7. UNIT AGREEMENT NAME  
Gallegos Canyon Unit

8. FARM OR LEASE NAME  
Gallegos Canyon Unit

9. WELL NO.  
297

10. FIELD AND POOL, OR WILDCAT  
West Kutz Pictured Cliffs

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 15-T28N-R12W

12. COUNTY OR PARISH  
San Juan

13. STATE  
New Mexico

16. NO. OF ACRES IN LEASE  
Unitized

19. PROPOSED DEPTH  
1600'

20. ROTARY OR CABLE TOOLS  
Rotary

17. NO. OF ACRES ASSIGNED TO THIS WELL  
160

22. APPROX. DATE WORK WILL START\*  
Nov. Dec 1979

Energy Reserves Group, Inc. proposes to drill the above referenced well with rotary tools from surface to T.D. The anticipated zone of completion is the Pictured Cliffs Formation at 1400-1600 feet. No DST's are planned. Copies of all logs run will be furnished upon completion of the well.

*gas delimited*



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 William J. [Signature] TITLE Field Services Administrator November 7, 1979

(This space for Federal or State office use)

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

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

CONDITIONS OF APPROVAL, IF ANY:

*ok Frank*

NMOCC

\*See Instructions On Reverse Side

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-107  
Revised 10-1-78

All distances must be from the outer boundaries of the Section

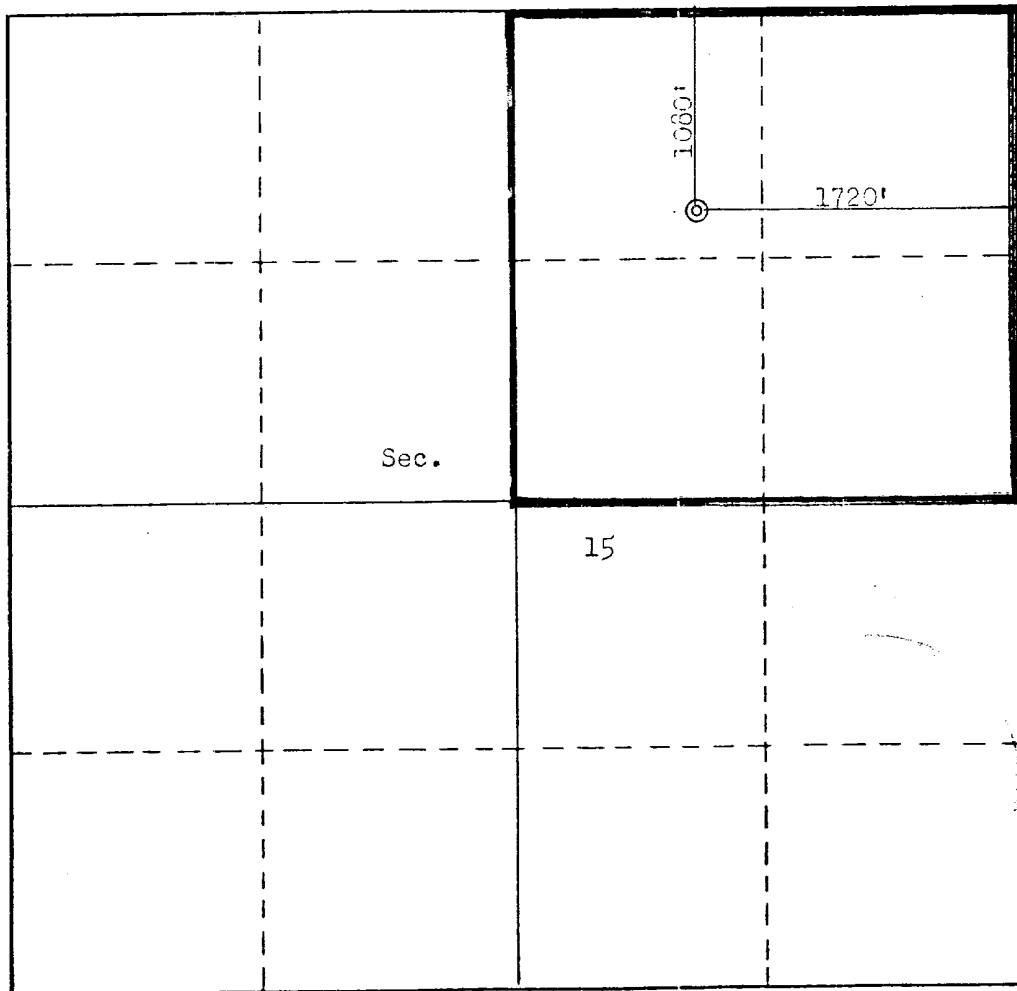
Operator ENERGY RESERVES GROUP		Lease GALLEGOS CANYON UNIT			Well No. 297
Unit Letter B	Section 15	Township 23N	Range 12W	County San Juan	
Actual Footage Location of Well: 1030 feet from the North line and 1720 feet from the East line					
Ground Level Elev. 5585	Producing Formation Pictured Cliffs		Pool West Kutz Pictured Cliffs	Dedicated Acreage: 160 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.



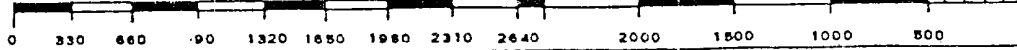
CERTIFICATION

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

Name: *W. D. Kerr*  
 Position: Field Services Administ.  
 Company: Energy Reserves Group, Inc.  
 Date: 10-30-79

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: October 31, 1979  
 Registered Professional Engineer and/or Land Surveyor  
*Fred B. Kerr Jr.*  
 STATE OF NEW MEXICO  
 SUPERVISOR  
 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.

<i>Ojo Alamo</i>	<i>150'</i>
<i>Kirtland</i>	<i>240'</i>
<i>Fruitland</i>	<i>1050'</i>
<i>Pictured Cliffs</i>	<i>1400'</i>
<i>T.D.</i>	<i>1600'</i>

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

*The Pictured Cliffs Formation @ 1400-1600' is expected to be gas productive.*

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

<i>8-5/8"</i>	<i>24#</i>	<i>@ 120'-200'</i>	<i>cement to surface</i>
<i>4½"</i>	<i>9.5#</i>	<i>@ 1600'</i>	<i>cement to surface</i>

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 an 8" hydraulically operated double ram BOP series 900, 3000#. The BOP will be pressure tested to 500 psi after installation and prior to drilling out 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 25sx 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 3½" drill pipe, and a full opening floor valve to*

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

*No coring is planned, no DST's are planned. Logs will probably be IES only. Nitrogen-water (foam) fracturing consisting of approximately 20,000 gal. of 70% quality foam with 25,000# 10-20 sand.*

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. H<sub>2</sub>S 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 3-4 days to drill and log this well.*

MULTI-POINT SURFACE USE PLAN

1. EXISTING ROADS

Go east from Farmington 6½ miles, turn south for approx 4 miles.

2. PLANNED ACCESS ROADS

No new access road will be required.

3. LOCATION OF EXISTING WELLS

See attachments.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

A. (1) None anticipated

(2) A separator may be required if well produces fluid.

(3) N.A.

(4) If the well is a producer, El Paso Natural Gas Co. will install gathering line under a right-of-way permit.

(5) N.A.

(6) N.A.

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 w/sheep wire to protect livestock and wildlife.

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. 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 Well 257 injected facilities.

6. SOURCE 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 completion operations.

(5) All trash will be buried in a small trash pit along side of the reserve pit. (6) See item 4C

8. ANCILLARY FACILITIES

None required.

9. WELL SITE LAYOUT

(1) See attachment

(2) See attachment

(3) See attachment

(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. 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 appx. 1½ miles north of the proposed well.

There was no evidence of any historical archaeological or cultural sites in the area to be disturbed.

CERTIFICATION ATTACHED.

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 \_\_\_\_\_

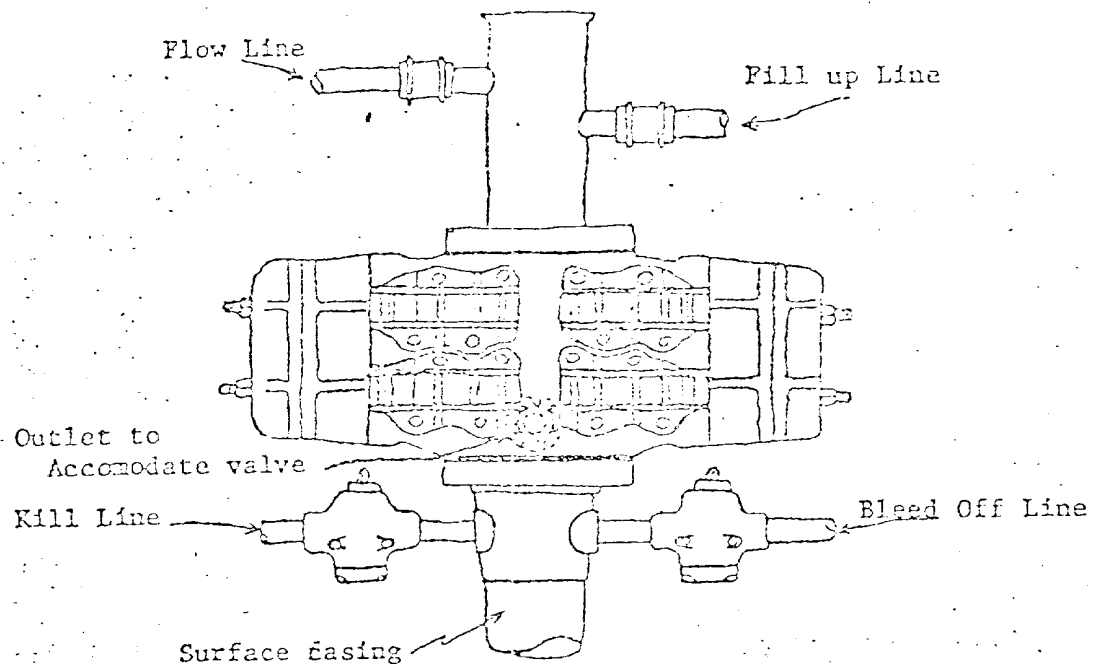
Jack Fritz

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

11-15-79

Date

William J. Fiant  
William J. Fiant  
Full Service Administrator  
Title



Blowout preventer is Shaffer double hydraulic equipped with drill pipe rams in the top and blind rams in the bottom.

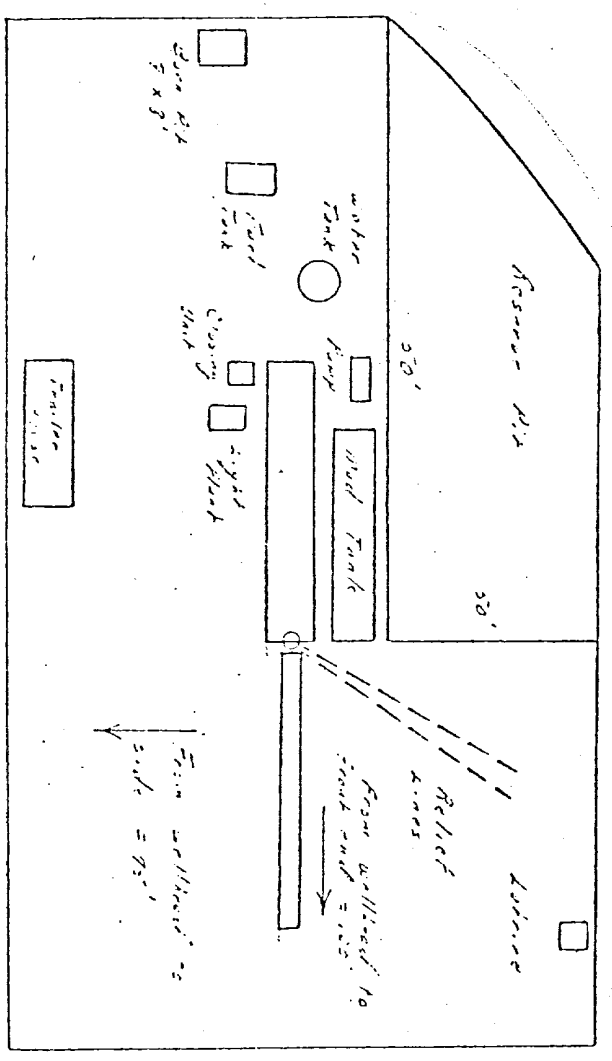
Blowout preventer closing unit is Kocney 30 gallon accumulator unit.

When choke manifold is used, it will be installed downstream from bleed off valve.

Kill line or bleed off line may be installed at flanged opening in blowout preventer.

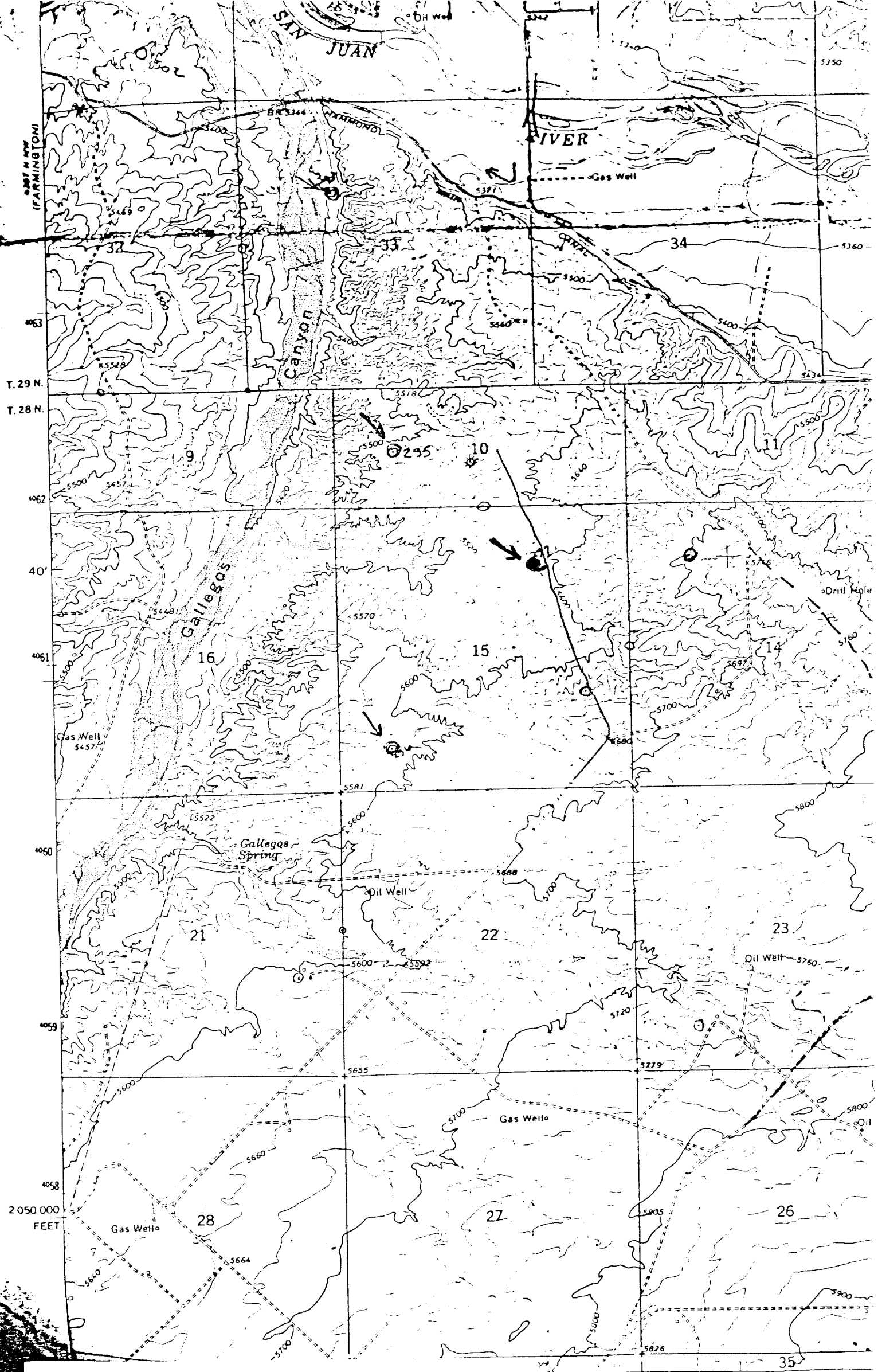


Gallegos Canyon Site #2077  
Typical location Plat for Richard's Units Well



Scale 1" = 25'





Vicinity Map for  
 ENERGY RESERVES GROUP #297 GALLEGOS CANYON UNIT  
 1080'FNL 1720'FEL Sec 15-T28N-R12W  
 SAN JUAN COUNTY, NEW MEXICO



Well Name Gallegos Canyon Unit # 297  
Location NE 15 - 28 - 12  
Formation P.C.

We, the undersigned, have inspected this location and road.

U. S. Forest Service \_\_\_\_\_ Date \_\_\_\_\_  
Dobson Ford \_\_\_\_\_ 10/16/79  
Archaeologist \_\_\_\_\_ Date \_\_\_\_\_

Bureau of Indian Affairs Representative \_\_\_\_\_ Date \_\_\_\_\_  
Bob Maul \_\_\_\_\_ 10/16/79  
Bureau of Land Management Representative \_\_\_\_\_ Date \_\_\_\_\_

A Stump \_\_\_\_\_ 10/16/79  
U. S. Geological Survey Representative \_\_\_\_\_ Date \_\_\_\_\_

Seed Mixture: II

Equipment Color: Brown

Road and Row: (Same) or (Separate) ?

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_