

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

SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

Southland Royalty Company

## 3. ADDRESS OF OPERATOR

P. O. Drawer 570, Farmington, New Mexico

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

At surface 800' FSL &amp; 1830' FWL

At proposed prod. zone

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

7 miles East of Bloomfield, New Mexico

## 15. DISTANCE FROM PROPOSED\*

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

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

## 16. NO. OF ACRES IN LEASE

19. PROPOSED DEPTH  
2226'17. NO. OF ACRES ASSIGNED  
TO THIS WELL20. ROTARY OR CABLE TOOLS  
Rotary

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

5673' GR

## 22. APPROX. DATE WORK WILL START\*

August 15, 1978

## 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'          | 100 cu. ft.        |
| 6-3/4"       | 2-7/8"         | 6.5#            | 2226'         | 370 cu. ft.        |

Surface formation is Nacimiento.

Top of Ojo Alamo sand is at 1016'.

Fresh water will be used to drill from surface to total depth.

It is expected that an IES and GR-Density be run at total depth.

No abnormal pressures or poisonous gases are anticipated in this well.

It is expected that this well be drilled before October 15, 1978. This

depends on time required for approvals, rig availability and the weather.

Gas is dedicated.

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

TITLE

DATE

District Production Manager

July 20, 1978

(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

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.

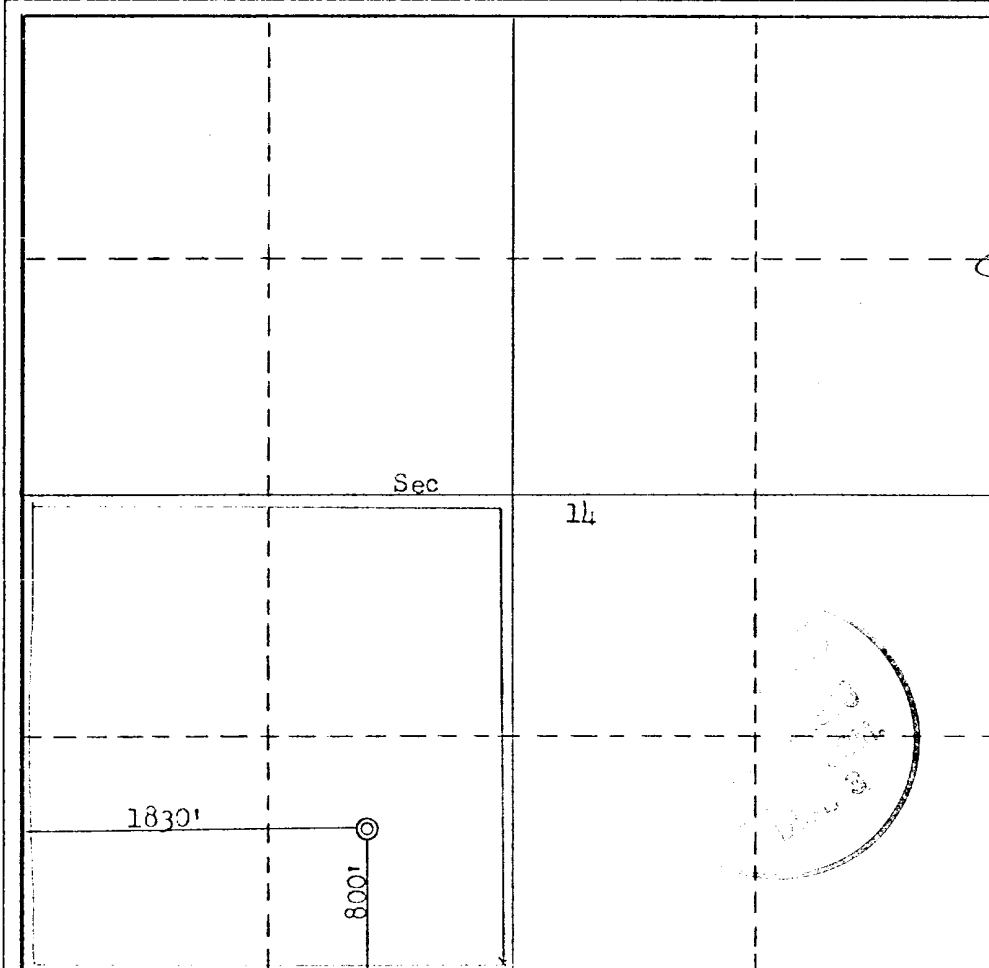
|   |   |                        |                      |  |                       |
|---|---|------------------------|----------------------|--|-----------------------|
| Operator<br><b>SOUTHLAND ROYALTY COMPANY</b>  |   |                        | Lease<br><b>HARE</b> |  | Well No.<br><b>22</b> |
| Unit Letter<br><b>N</b>   | Section<br><b>14</b>                          | Township<br><b>29N</b> | Range<br><b>10W</b>  | County<br><b>San Juan</b>                                |                       |
| Actual Footage Location of Well:<br><b>800</b> feet from the <b>South</b> line and <b>1830</b> feet from the <b>West</b> line |   |                        |                      |  |                       |
| Ground Level Elev.<br><b>5673</b>   | Producing Formation<br><b>Pictured Cliffs</b> | Pool<br><b>Aztec</b>   |                      | Dedicated Acreage:<br><del>160</del> <b>159.82</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 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.



**CERTIFICATION**

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

Name [Signature]  
Position  
District Production Manager

Company  
Southland Royalty Company  
Date

July 20, 1978

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  
May 7, 1978  
Registered Professional Engineer  
and/or Land Surveyor

[Signature]  
**Fred B. Kerr Jr.**

Certificate No.

**3950**

DRILLING SCHEDULE - HARE #22

Location: 800' FSL & 1830' FWL, Section 14, T29N, R10W, San Juan County, New Mexico

Field: Aztec Pictured Cliffs

Elevation: 5673' GR

Geology:

|                 |                 |       |
|-----------------|-----------------|-------|
| Formation Tops: | Ojo Alamo       | 1016' |
|                 | Fruitland       | 1742' |
|                 | Pictured Cliffs | 2046' |
|                 | Total Depth     | 2226' |

Logging Program: IES and GR-Density at total depth

Coring Program: None

Natural Gauges: None

Drilling:

|                     |                             |                        |           |
|---------------------|-----------------------------|------------------------|-----------|
| Contractor:         | Aztec Well Service, Rig #50 | Tool Pusher:           | Bob Young |
| SRC Representative: | Max Larson                  | SRC Answering Service: | 325-1841  |
|                     |                             | Dispatch Number:       | 325-7391  |

Mud Program: Fresh water mud from surface to total depth.

Materials:

Casing Program:

| <u>Hole size</u> | <u>Depth</u> | <u>Casing Size</u> | <u>Wt. &amp; Grade</u> |
|------------------|--------------|--------------------|------------------------|
| 12-1/4"          | 120          | 8-5/8"             | 24# K-55               |
| 6-3/4"           | 2226'        | 2-7/8"             | 6.5# J-55              |

Float Equipment:

8-5/8" surface casing: Pathfinder Econoline guide shoe

2-7/8" production casing: Sawtooth collar guide shoe. Howco 2-7/8" latch down baffle (Pr. ref. 60). Two 3-1/16" rubber balls. Howco 2-7/8" Omega plug (Pr. ref. 59). Use 3-1/4" ID plug container head. One B & W stabilizer each on bottom 6. jts.

Well head Equipment: 8-5/8" X 2-7/8" threaded head

Cementing:

8-5/8" surface casing: 85 sxs Class B with 1/4# gel flake per sx and 3% CaCl<sub>2</sub>. (100 cu. ft.). WOC 12 hrs. Test to 600# prior to drilling out.

2-7/8" production casing: 210 sxs 50/50 Class B Poz with 6% gel mixed with 7.2 gals water per sx, followed by 50 sxs Class B with 2% CaCl<sub>2</sub>. (370 cu. ft.) Bump plug with 50 gals 7-1/2% MSA. Run temperature survey 12 hrs after plug is down.

Date

Dist. Production Manager



**Southland Royalty Company**

July 20, 1978

United States Geological Survey  
P. O. Box 959  
Farmington, New Mexico

Attention: Mr. P. T. McGrath

Dear Sir:

Enclosed please find map showing existing roads and planned access roads to Southland Royalty Company's Hare #22 well. The locations of tank batteries and flow lines will be on location with well. A burn pit will be provided for disposal of trash. Cuttings, drilling fluid and produced fluids will be put into the reserve pit and properly disposed of depending on amount and type of fluids.

Contractor will furnish restroom facilities on location.

There will be no air strips or camps.

Also, enclosed is a location layout showing approximate location of rig, pits and pipe racks and cut required to build this location.

Water supply will be the San Juan River. All water will be transported by truck and stored on location.

The location will be restored according to Bureau of Land Management standards. This work will begin when all related construction is finished.

Mr. Max Larson will be Southland Royalty Company's field representative supervising these operations.

Yours truly,

L. O. Van Ryan  
District Production Manager

LOVR/dg



**Southland Royalty Company**

July 20, 1978

United States Geological Survey  
P. O. Box 959  
Farmington, New Mexico

Attention: Mr. P. T. McGrath

Re: Blowout Preventer Plan

Dear Sir:

All drilling and completion rigs will be equipped with 8" or larger double gate hydraulic blowout preventers and a hydraulic operated closing unit with steel lines.

The preventer is 3000# working pressure and 6000# test.

All crews will be thoroughly trained in the operation of this preventer. The preventer will be tested frequently enough to insure proper operation.

Yours truly,

L. O. Van Ryan  
District Production Manager

LOVR/dg



**Southland Royalty Company**

United States Geological Survey  
P. O. Box 959  
Farmington, New Mexico 87401

Attention: Mr. P. T. McGrath

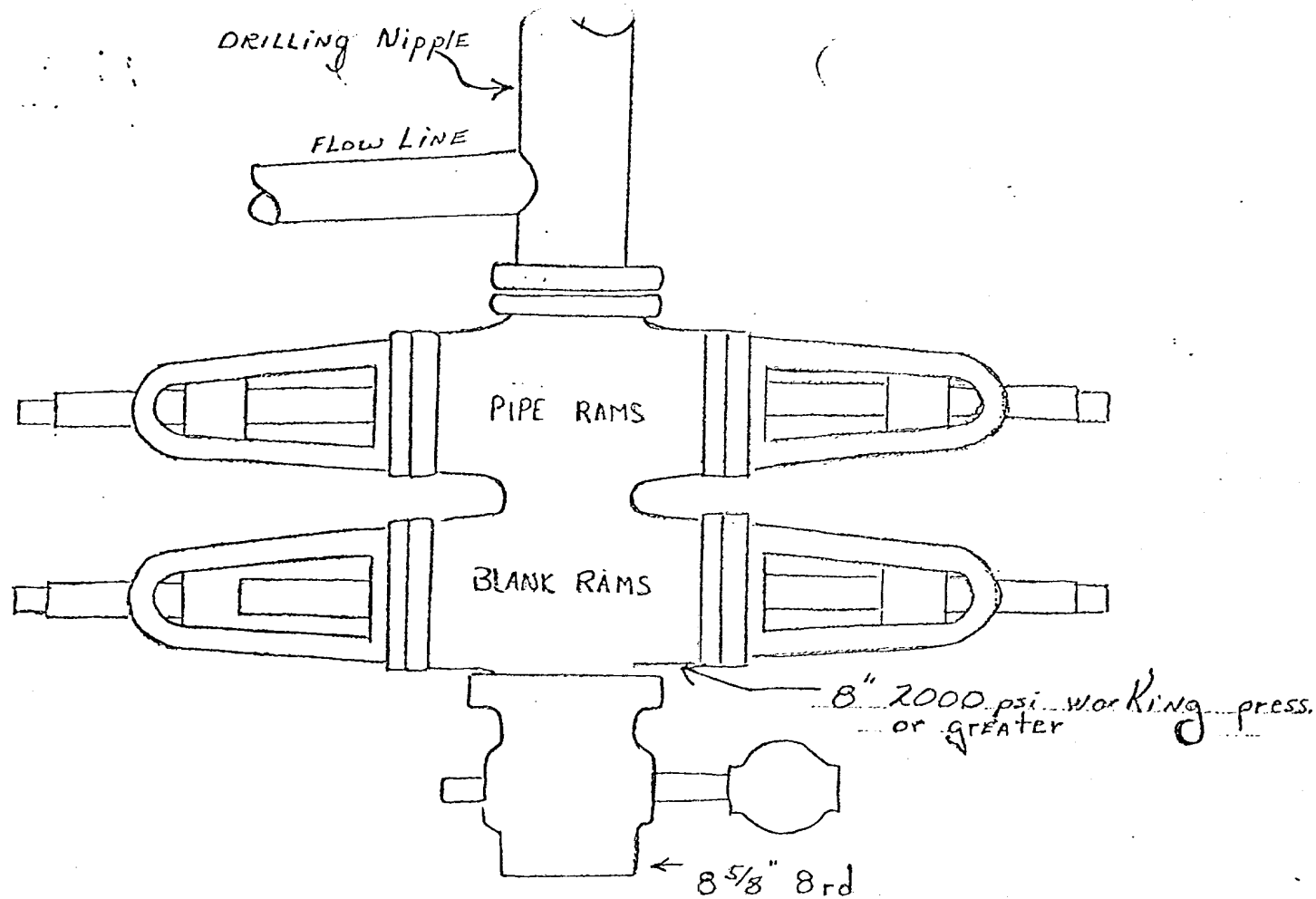
Dear Sir:

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 be performed by Southland Royalty Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Date: July 20, 1978

Name: *CC Pearson*

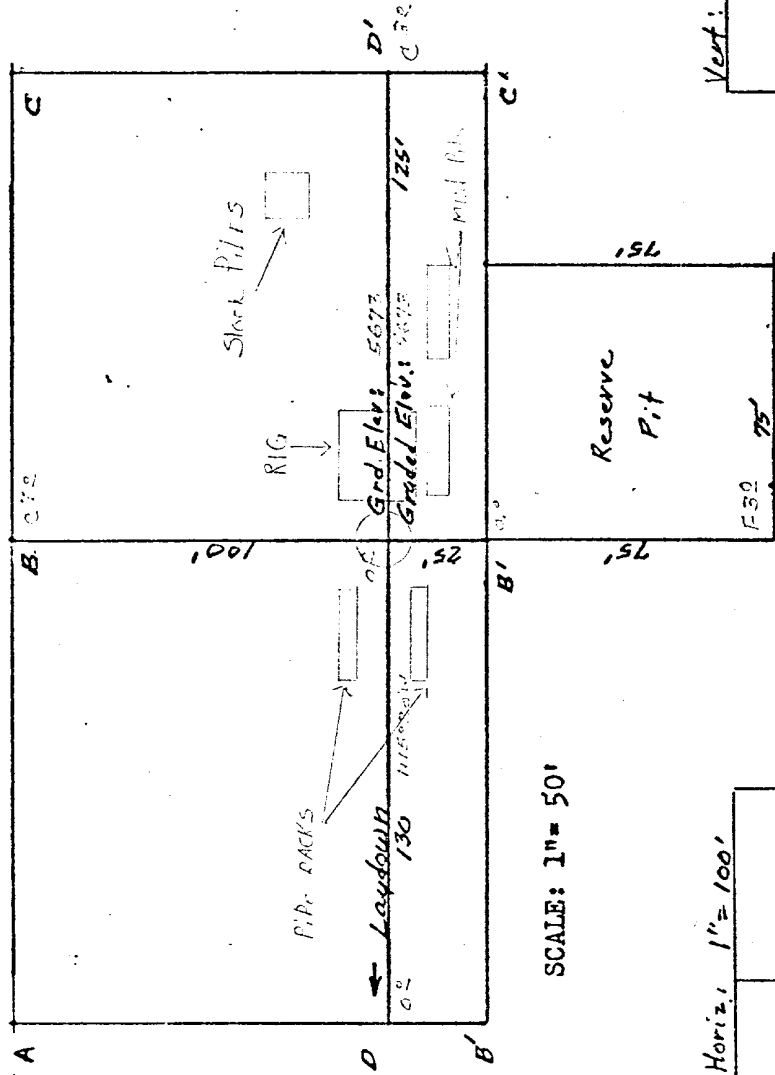
Title: District Engineer



Preventers and spools are to have  
 through bore of 8" - 2000# or larger.

Location Profile for

SOUTHLAND ROYALTY CO. #22 Hare  
800' FSL 1830' FWL Sec 14-T29N-R10W  
San Juan County, New Mexico



SCALE: 1" = 50'

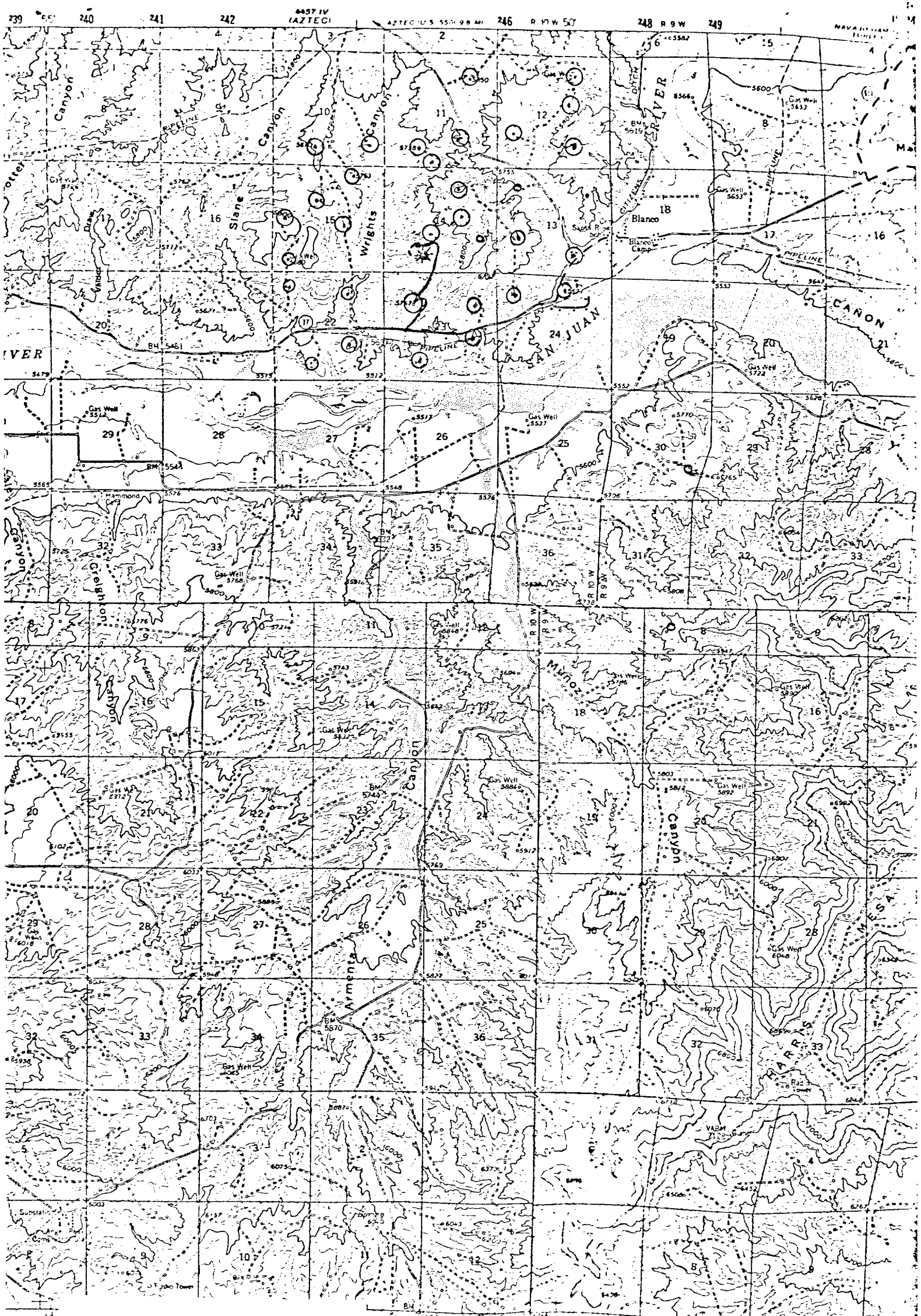
| A-A'           |  | B |  | Horiz: 1" = 100' |  |
|----------------|--|---|--|------------------|--|
| Vert: 1" = 40' |  |   |  |                  |  |
|                |  |   |  |                  |  |
|                |  |   |  |                  |  |
|                |  |   |  |                  |  |





| B-B'  |  | d |  |
|-------|--|---|--|
| 56.60 |  |   |  |
| 56.70 |  |   |  |
| 56.80 |  |   |  |
| 56.90 |  |   |  |

| C-C'           |  | d |  |
|----------------|--|---|--|
| Vert: 1" = 40' |  |   |  |
|                |  |   |  |
|                |  |   |  |
|                |  |   |  |

| D-D'  |  | d |  |
|-------|--|---|--|
| 56.60 |  |   |  |
| 56.70 |  |   |  |
| 56.80 |  |   |  |
| 56.90 |  |   |  |





PROPOSED LOCATION   
EXISTING LOCATIONS   
PROPOSED ROADS   
EXISTING ROADS 

Vicinity Map for  
SOUTHLAND ROYALTY CO. #22 Hare  
800' FSL 1630' FWL Sec 14-T29N-R10W  
San Juan County, New Mexico