

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

1170' FNL & 1770' FWL

At proposed prod. zone

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

8 miles Southeast of Aztec near Navajo Dam Road

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

5355'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

20. ROTARY OR CABLE TOOLS

Rotary

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

6151' GR

22. APPROX. DATE WORK WILL START*

June 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"	9-5/8"	36#	220'	110 SXS
8-3/4"	7"	20#	3031'	230 SXS
6-1/4"	4-1/2"	10.50#	2881'-5355'	265 SXS
	2-3/8"	4.7#	5300'	
	1-1/4"	2.3#	2850	

Surface formation is San Jose.

Top of the Ojo Alamo is at 1572'.

Top of the Pictured Cliffs is at 2731'.

Fresh water will be used to drill from surface to intermediate casing point.

An air system will be used to drill from intermediate depth to total depth.

It is anticipated that a GR-Density and a GR-Induction log be run at total depth.

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

It is expected this well be drilled by August 1, 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 District Production Manager May 25, 1978

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

ok Frank

*See Instructions On Reverse Side

30-045-23076

5. LEASE DESIGNATION AND SERIAL NO.

SF-077282

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Grenier "A"

9. WELL NO.

#1A

10. FIELD AND POOL, OR WILDCAT

Blanco Mesa Verde

Blanco Pictured Cliffs

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

Sec. 26, T30N, R10W

12. COUNTY OR PARISH

New Mexico

San Juan

15862 AC.
320 W/316.24 MU.

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.

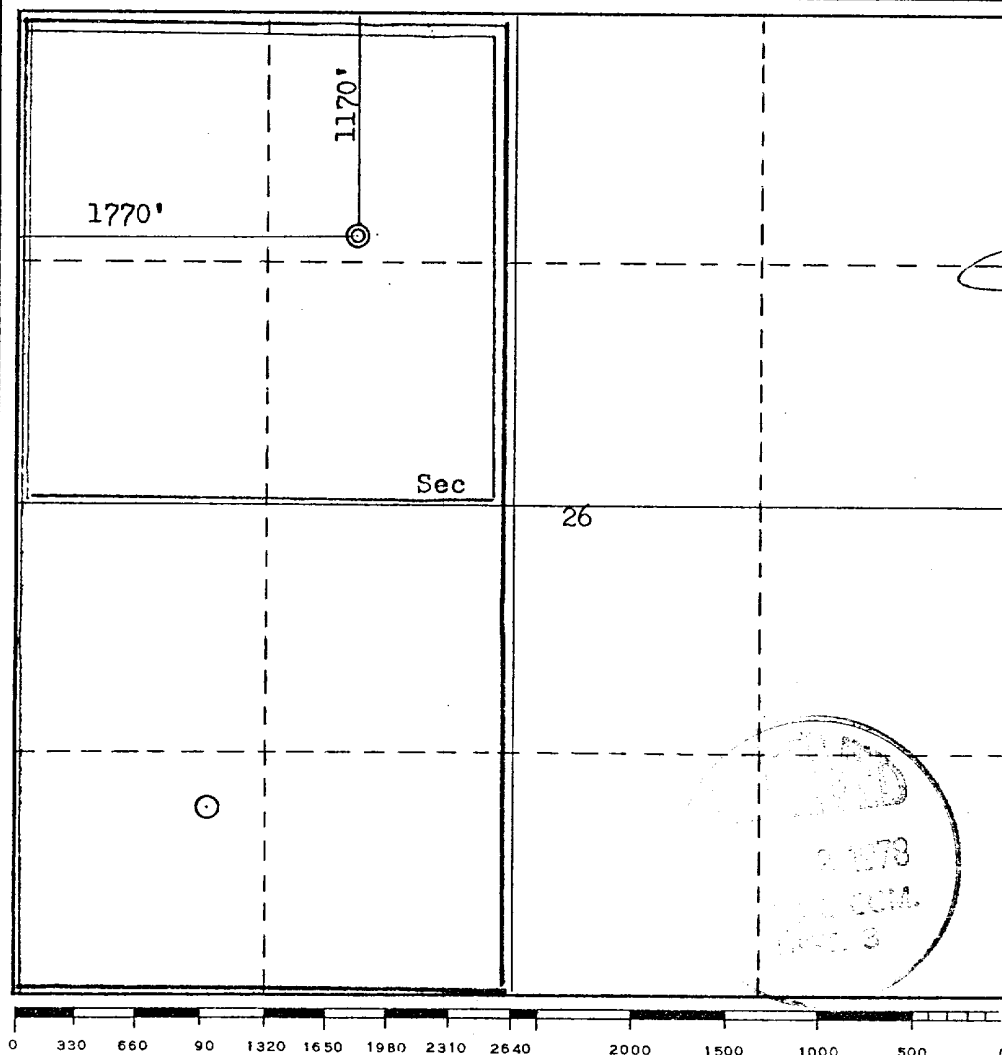
Operator Aztec Oil & Gas Company			Lease Grenier A		Well No. 1A
Unit Letter C	Section 26	Township 30N	Range 10W	County San Juan	
Actual Footage Location of Well: 1170 feet from the North line and 1770 feet from the West line					
Ground Level Elev. 6151	Producing Formation Mesa Verde/Pictured Cliffs		Pool Blanco/Blanco	Dedicated Acreage: 320 w/146.24 MV 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: [Signature]
Position: **District Production Manager**
Company: **Southland Royalty Company**
Date: **May 25, 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: **November 11, 1977**
Registered Professional Engineer and/or Land Surveyor: [Signature]
Certificate No.: **3960**



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: May 25, 1978

Name: CC Parson

Title: District Engineer



Southland Royalty Company

May 25, 1978

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

Attention: Blowout Preventer Plan

Dear Sir:

All drilling and completion rigs will be equipped with 6" 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

May 25, 1978

United States Geological Survey
P. O. Box 959
Farmington, New Mexico 87410

Attention: Mr. P. T. McGrath

Dear Sir:

Enclosed please find a map showing existing roads and planned access roads to Southland Royalty Company's Grenier A #1A 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.

There will be no camps or air strips.

Also, enclosed is location layout showing approximate location of rig, pits and pipe racks.

Water supply will be Aztec Ditch.

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

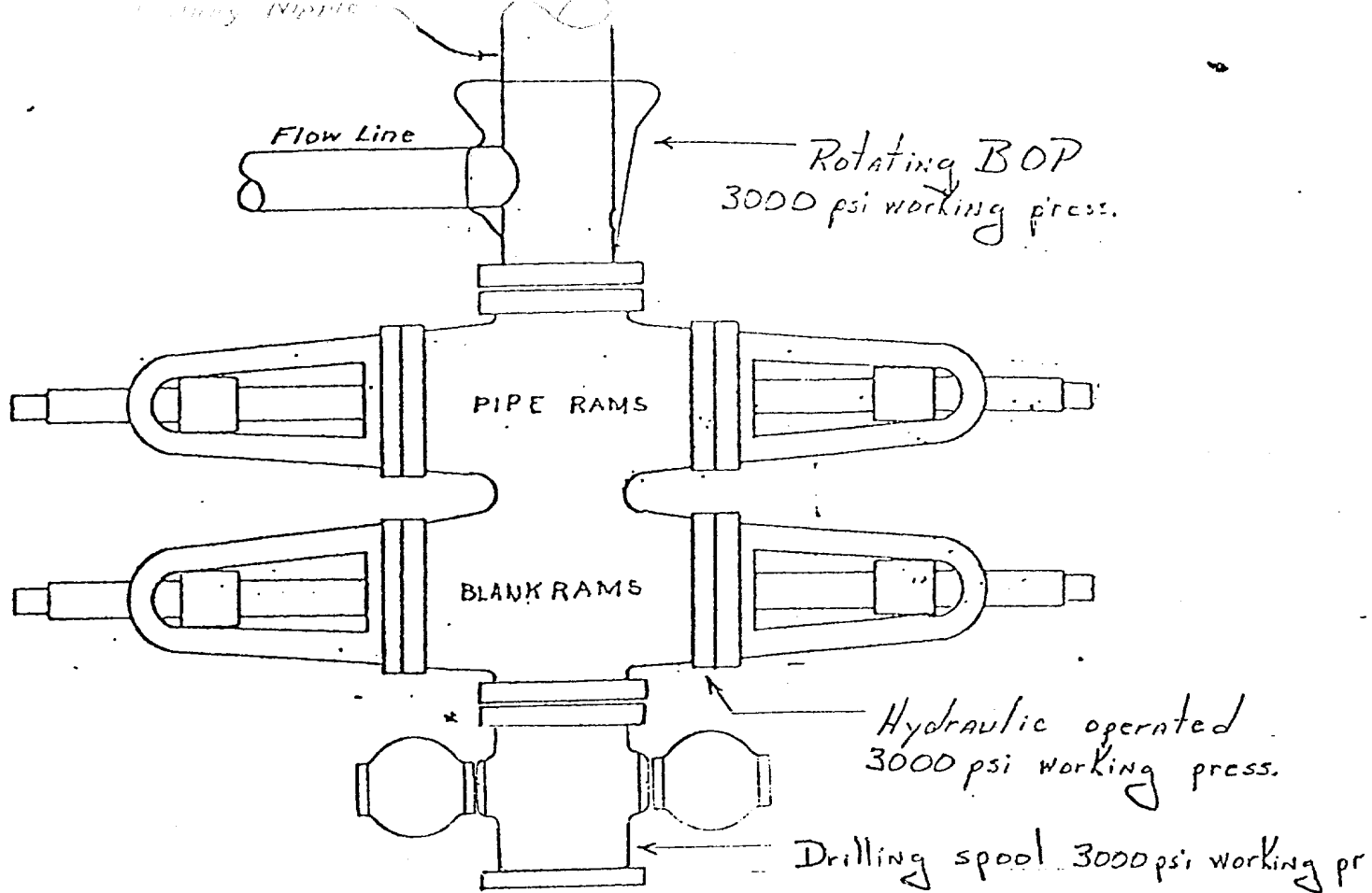
Mr. Max Larson will be Southland Royalty Company's field representative supervising these operations.

Yours truly,

SOUTHLAND ROYALTY COMPANY

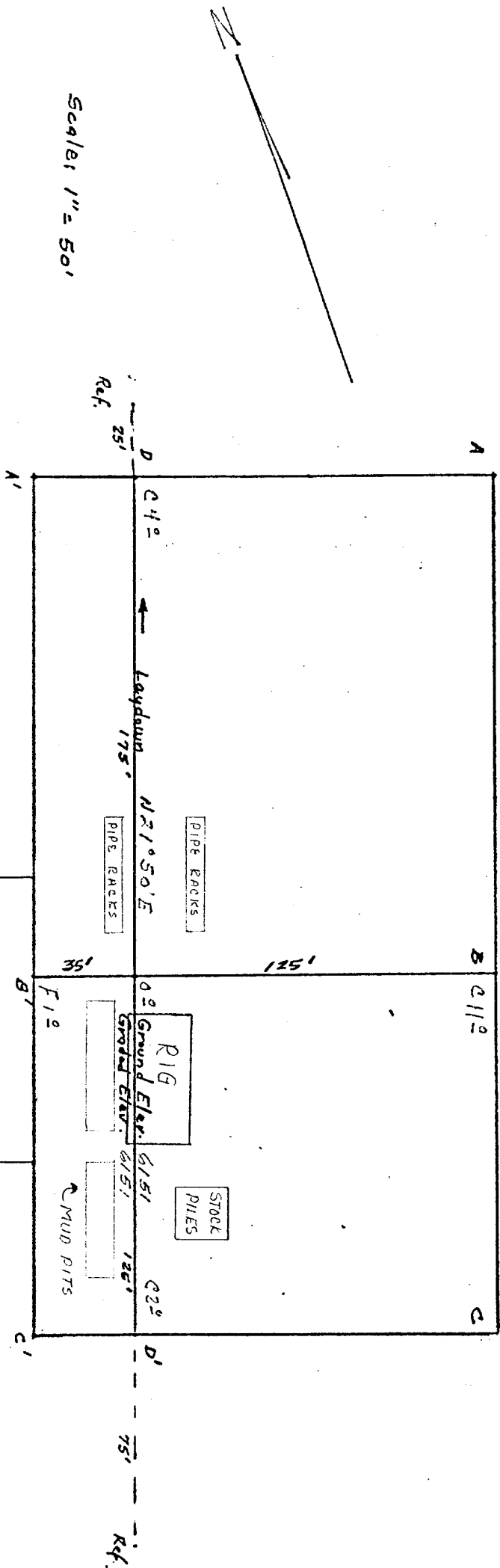
L. O. Van Ryan
District Production Manager

LOVR/dg



Preventers and spools are to have
through bore of 6" - 3000# PSI or larger.

Location Profile for
 SOUTHLAND ROYALTY CO. #1A GRENIER A
 1170 FNL 1770 FNL Sec 26-T30N-R10W--SAN JUAN COUNTY, NEW MEXICO

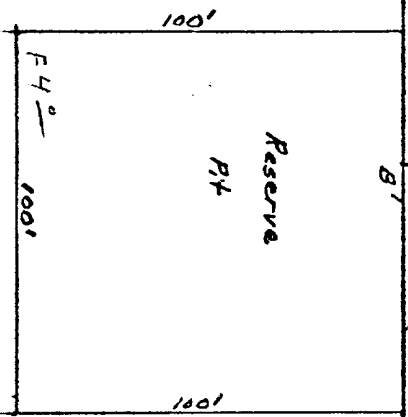


Vert. 1"=40' A-A' Horiz. 1"=100'

6150				
6150				
6140				

B-B'

6160				
6150				
6140				

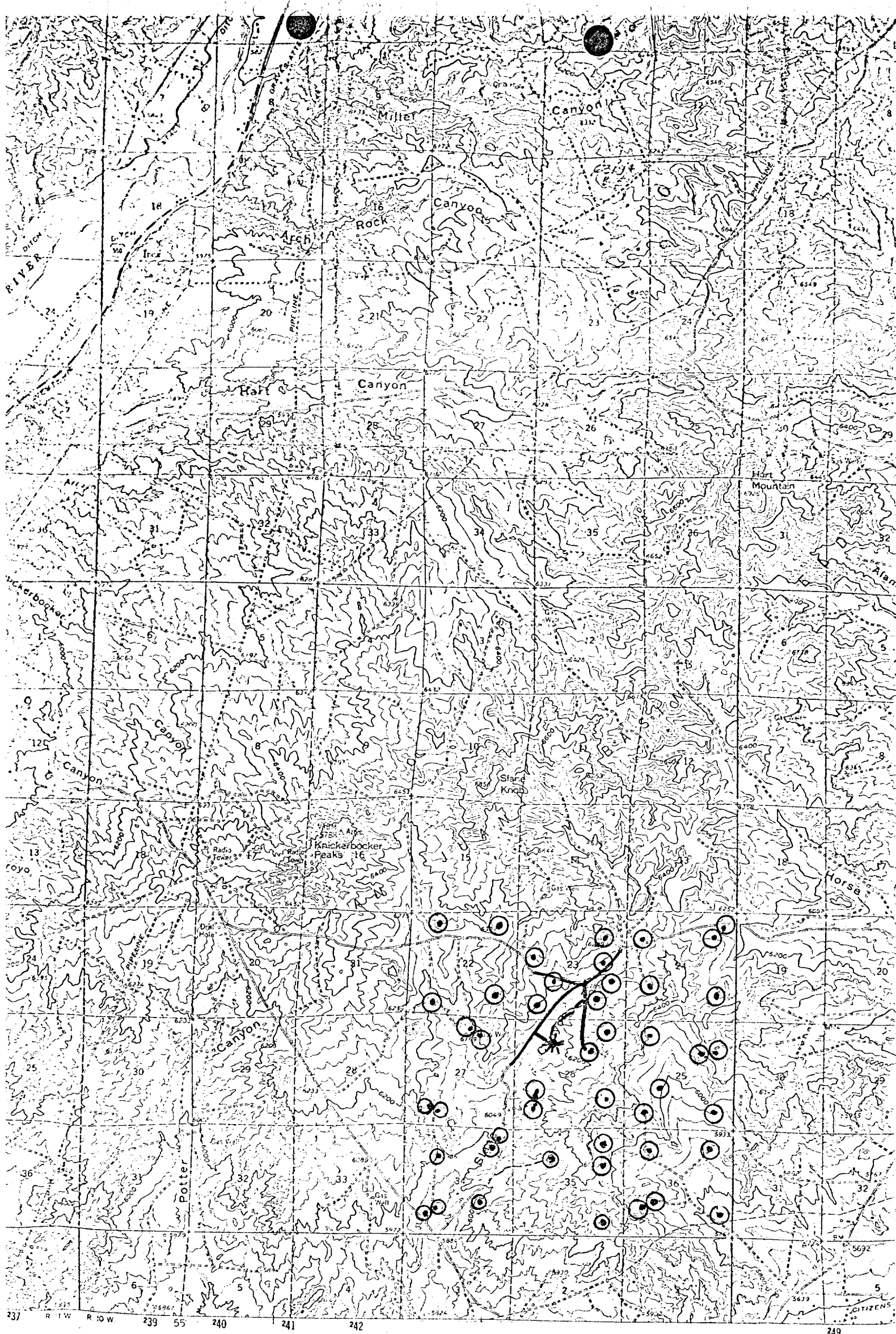


Vert. 1"=40' C-C' Horiz. 1"=100'

D-D'

6160				
6150				
6140				

KERR LAND SURVEYING
 Date: _____



PROPOSED LOCATION *
 EXISTING LOCATIONS ○
 PROPOSED ROAD - - -
 EXISTING ROADS ———

Vicinity Map for
 Aztec Oil & Gas Company #1A Grenier A
 1170'FWL 1770'FWL Sec 26-T30N-R10W
 San Juan County, New Mexico



QUADRANGLE LOCATION

DRILLING SCHEDULE - GRENIER "A" #1-A

Location: 1170' FNL & 1770' FWL, Section 26, T30N, R10W, San Juan County, New Mexico

Field: Blanco Mesa Verde/Blanco Pictured Cliffs Elevation: 6151' GL

Geology:

Formation Tops:	Ojo Alamo	1572'	Cliff House	4234'
	Fruitland	2379'	Point Lookout	5005'
	Pictured Cliffs	2731'	Total Depth	5355'*(Add 50' if mist
	Intermediate TD	3031'		drilling is
				required)

Logging Program: GR-Induction and GR-Density at TD.

Coring Program: None

Natural Gauges: Gauge at last connection above Cliff House, Point Lookout & TD.
Gauge any increases in gas flow. Record all gauges and depths on drilling record.

Drilling:

Contractor: Four Corners Rig #3

Tool Pusher: Don Bettale

SRC Representative: Max Larson

SRC Ans. Service: 325-1841

Dispatch Number: 325-7391

Mud Program: Fresh water mud from surface to intermediate TD.
Air from intermediate to TD.

Materials:

Casing Program:	Hole Size	Depth	Casing Size	Wt. & Grade
	12-1/4"	200'	9-5/8"	36# K-55
	8-3/4"	3031'	7"	20# K-55
	6-1/4"	2881'-5355'*	4-1/2"	10.5# K-55

Float Equipment:

9-5/8" Surface Casing: Pathfinder Type "A" Guide Shoe. Product #2003-1-012.

7" Intermediate Casing: Pathfinder Type "A" Guide Shoe. Product #2003-1-007.
Howco self fill insert valve. 5-Pathfinder rigid centralizers.
Run float valve 2 joints above shoe. Run centralizers every other joint above shoe.

4-1/2" Liner: B.O.T. liner hanger with PBR and Neoprene pads off - Pathfinder Type "AP" Guide Shoe. Product #2017-1-050. Pathfinder Type "A" Flapper Float Collar. Product #2008-2-000.

Tubing: 5300' - 2-3/8", 4.7#, EUE, 8rd. 2850' - 1-1/4", 2.3#, IJ, 10rd.

Wellhead Equipment: 9-5/8" X 10", 2000 casing head, 10", 2000 X 6", 2000 tubing head with donut for 1-1/2", IJ, NUE, 10rd X 2-3/8", EUE, 8rd, 2000# tree.

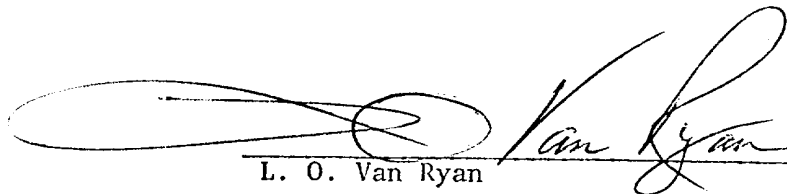
DRILLING SCHEDULE - GRENIER "A" #1-A

Cementing:

9-5/8" surface casing: 110 sacks Class "B" with 1/4# gel flake per sack and 3% CaCl_2 .
(130 cu.ft. - 100% excess to circulate to surface) WOC 12 hours.
Test to 600 psi prior to drilling out.

7" intermediate casing: 160 sacks 50/50 Class "B" Poz with 6% gel and 1/4# flocele per sack mixed with 7.87 gals water per sack, followed by 70 sacks Class "B" with 2% CaCl_2 and 1/4# flocele per sack. (332 cu.ft. - 50% excess to cover Ojo Alamo) Run temperature survey after 8 hours. WOC 12 hours and test to 1000 psi before drilling out.

4-1/2" liner: Precede cement with 20 bbls gelled water. Cement with 265 sacks 50/50 Class "B" Poz with 6% gel, 1/4# gel flake per sack and 0.6% Halad 9 or equivalent. (433 cu.ft. - 70% excess to circulate liner.) If hole gets wet use 325 sacks of the above.


L. O. Van Ryan

Date _____