

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. NM-4453
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Southland Royalty Company			7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR P. O. Drawer 570, Farmington, New Mexico			8. FARM OR LEASE NAME Carson
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 870' FSL & 1450' FWL At proposed prod. zone			9. WELL NO. #2
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 17 miles North of Gobernador			10. FIELD AND POOL, OR WILDCAT Blanco Mesa Verde
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 1, T30N, R5W
16. NO. OF ACRES IN LEASE			12. COUNTY OR PARISH San Juan
17. NO. OF ACRES ASSIGNED TO THIS WELL 319.29			13. STATE New Mexico
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.			20. ROTARY OR CABLE TOOLS Rotary
19. PROPOSED DEPTH 6168'			22. APPROX. DATE WORK WILL START* July 1, 1978
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6586' GR			

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#	200'	130 cu. ft.
8-3/4"	7"	20#	3783'	254 cu. ft.
6-1/4"	4-1/2"	10.50#	3633'-6168'	442 cu. ft.
	2-3/8"	4.7#	6100'	

Surface formation is San Jose.

Top of the Ojo Alamo is at 2663'.

Top of the Pictured Cliffs is at 3383'.

Fresh water mud 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 an IES and a Gamma Ray Density log will be run at intermediate depth.

It is anticipated that a Gamma Ray Induction and a Gamma Ray Density log will be run at total depth.

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

It is expected that this well be drilled by August 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 [Signature] District Production Manager DATE June 16, 1978

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE JUN 19 1978

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

U. S. GEOLOGICAL SURVEY
FARMINGTON, N.M.

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.

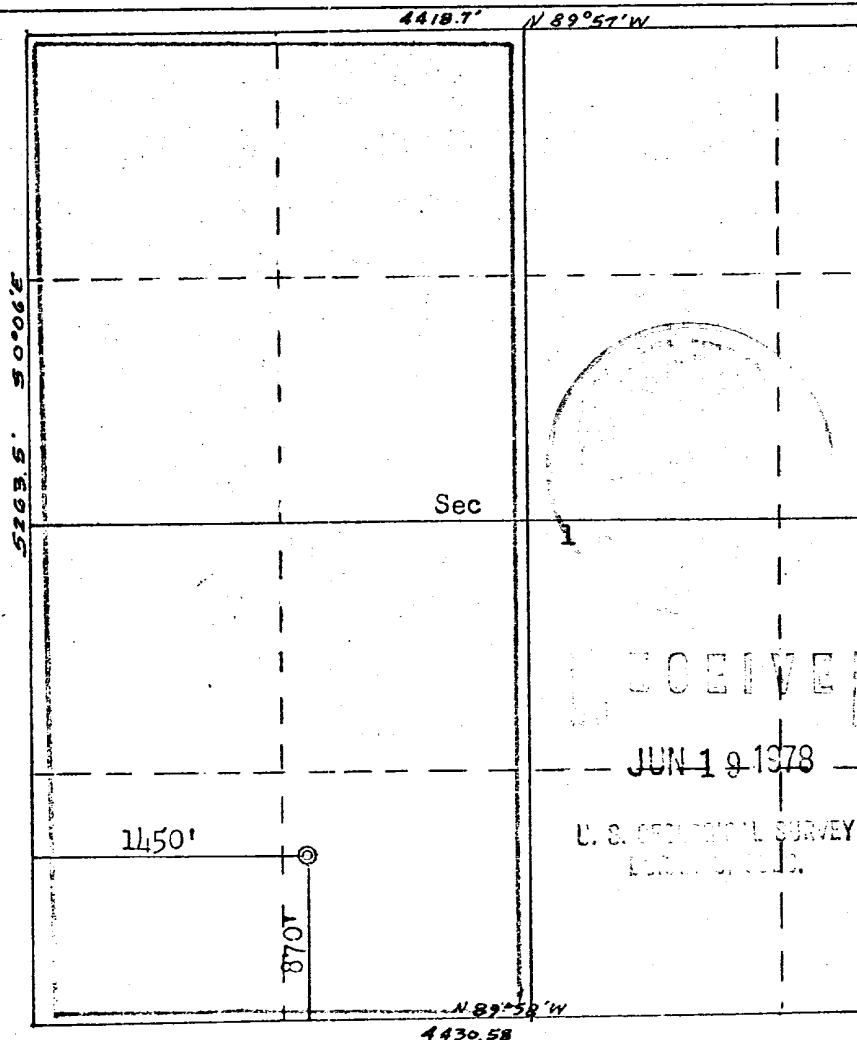
Operator SOUTHLAND ROYALTY COMPANY			Lease CARSON		Well No. 2
Unit Letter N	Section 1	Township 30N	Range 5W	County Rio Arriba	
Actual Footage Location of Well: 870 feet from the South line and 1450 feet from the West line					
Ground Level Elev. 6586	Producing Formation Mesa Verde		Pool Blanco	Dedicated Acreage: 319.29 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: June 16, 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: June 8, 1978
Registered Professional Engineer and Land Surveyor: *[Signature]*
Fred B. Kerr Jr.
Certificate No.: 3950

DRILLING SCHEDULE - Carson #2

Location: 870' FSL & 1450' FWL Section 1, T30N, R5W, San Juan County, New Mexico

Field: Blanco Mesa Verde

Elevation:

Geology:

Formation Tops:	Ojo Alamo	2663	Cliff House	5343
	Fruitland	3258	Pt. Lookout	5818
	Pictured Cliffs	3383	Total depth	6168
	Intermediate	3783		

Logging Program: IES and GR-Density at Intermediate TD, GR-Induction and GR-Density at total depth.

Coring Program: None

Natural Gauges: Gauge at last connection above Cliff House, Pt. Lookout and total depth. Gauge all increased in gas flow.

Drilling:

Contractor:

JUN 19 1978

Tool Pusher:

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 total depth.

Materials:

Casing Program:	Hole Size	Depth	Casing Size	Wt. & Grade
	12-1/4"	200'	9-5/8"	36#, K-55
	8-3/4"	3783'	7"	20#, K-55
	6-1/4"	3633'-6168'	4-1/2"	10.50#, 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. Five pathfinder rigid centralizers. Run float valve 2 jts above shoe. Run centralizers every other jt above shoe.

4-1/2" Liner: Pathfinder Type "AP" Guide shoe. Product #2017-1-050.
Pathfinder Type "A" Flapper Float Collar. Product #2008-2-000

Tubing: 6100' of 2-3/8", 4.7#, J-55, EUE tubing.

Wellhead Equipment: 9-5/8" X 10" 2000 casing head and 10" 2000 X 6" 2000 tubing head

DRILLING SCHEDULE - CARSON #2

Cementing

9-5/8" surface casing: 110 sxs (130 cu. ft.) Class B w/1/4# gel flake, 3% CaCl₂.
WOC 12 hrs. Test 600# prior to drilling out.

7" intermediate casing: 110 sxs 50/50 Class B Poz with 6% gel mixed with 7.87 gals
water per sx followed by 70 sxs Class B with 2% CaCl₂.
WOC 12 hrs. Temperature Survey after 8 hrs.

4-1/2" liner: Precede cement with 20 bbls gel water. Cement with
270 sxs (442 cu. ft.) 50/50 Class B Poz with 6% gel,
1/4# gel flake per sx, 0.6% Halad 9 or equivalent.

L. O. Van Ryan

Date _____



Southland Royalty Company

June 16, 1978

United States Geological Survey
P. O. Box 1809
Durango, Colorado

Attention: Mr. Jerry Long

Dear Sir:

Enclosed please find map showing existing roads and planned access roads to Southland Royalty Company's Carson #2 well. The location 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 water holes along the La Jara Wash. All water will be trucked and stored in tanks on location.

The location will be restored according to the Forest Services 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

JUN 19 1978

LOVR/dg

U.S. GEOLOGICAL SURVEY
DURANGO, COLORADO



Southland Royalty Company

United States Geological Survey
P. O. Box 1809
Durango, Colorado

Attention: Mr. Jerry Long

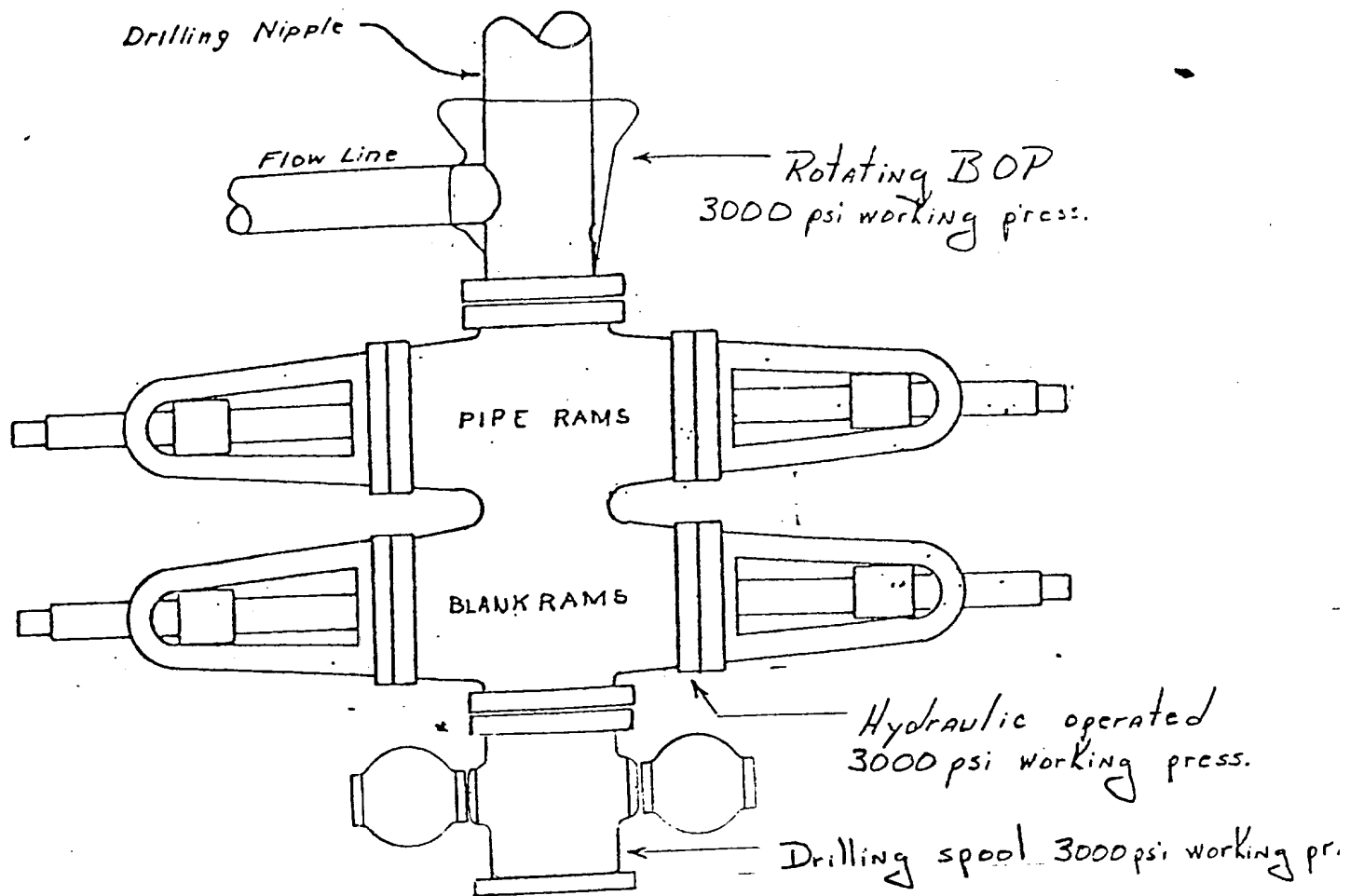
Dear Sir:

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: June 16, 1978

Name: CC Passon

Title: District Engineer



Preventers and spools are to have
through bore of 8" - 3000# PSI or larger.

RECEIVED

JUN 19 1978

L. C. HENDON CONVEY
LAWYER



Southland Royalty Company

June 16, 1978

United States Geological Survey
P. O. Box 1809
Durango, Colorado

Attention: Mr. Jerry Long

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.

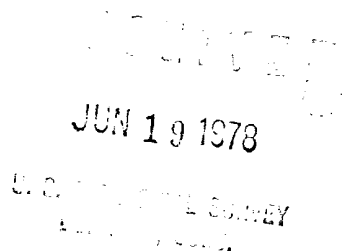
The preventer is 3000# working pressure and 6000# test.

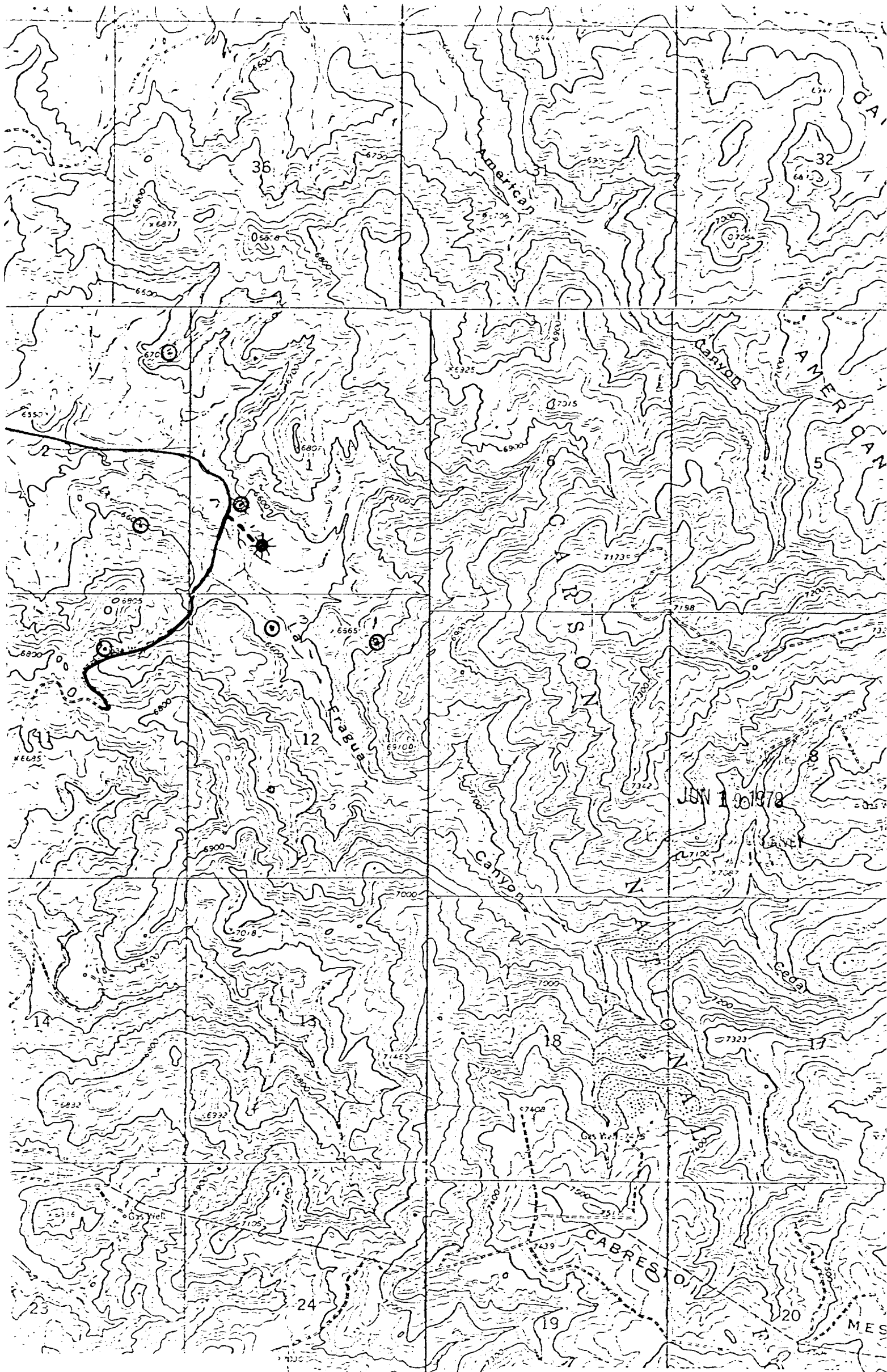
All crews will be thoroughly trained in the operation of this preventer. The preventer will be tested frequently enough to insure proper operation.

Yours truly,

L. O. Van Ryan
District Production Manager

LOVR/dg

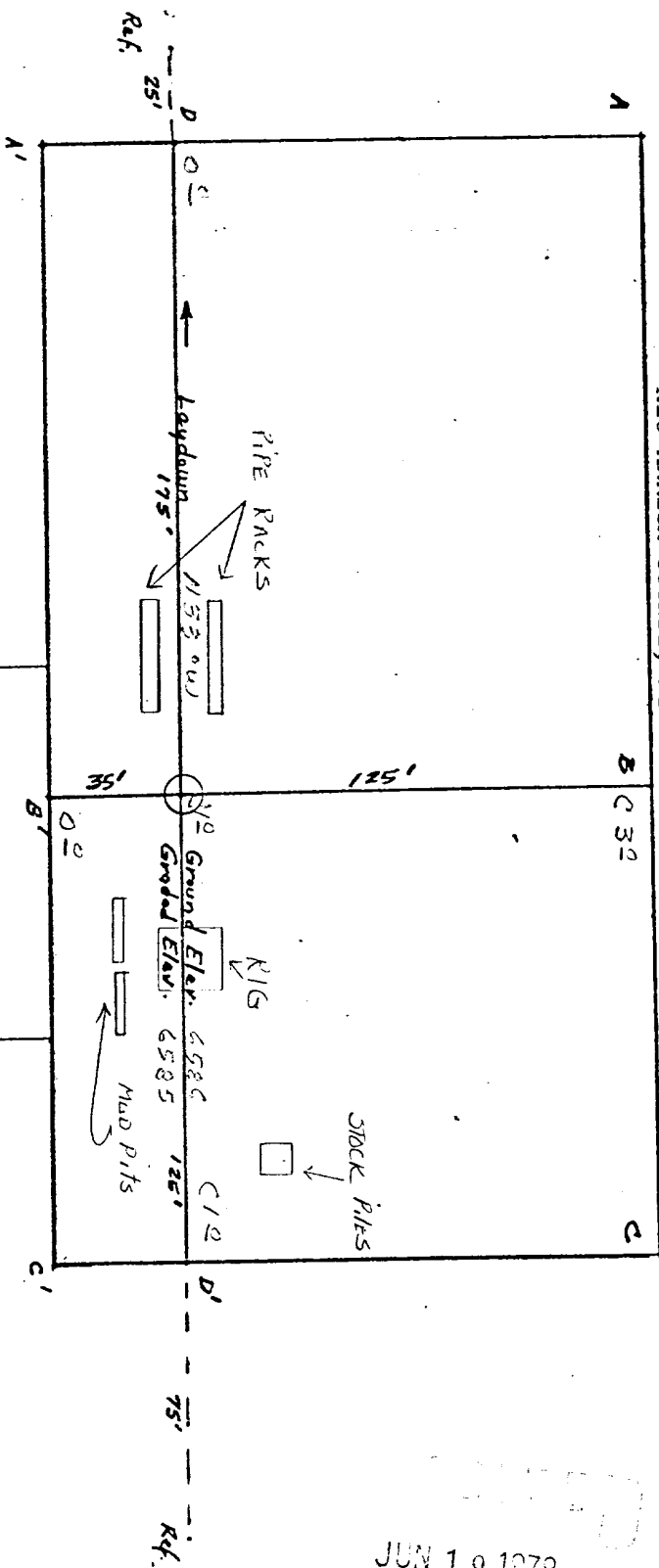




PROPOSED LOCATION ⬤
EXISTING LOCATIONS ○
PROPOSED ROADS - - -
EXISTING ROADS ———

Vicinity Map for
SOUTHLAND ROYALTY CO. #2 CARSON
870'FSL 1450'FWL Sec 1-T30N-R5W
RIO ARRIBA COUNTY, NEW MEXICO

LOCATION FROILLE 101
 SOUTHLAND ROYALTY COMPANY #2 CARSON
 870' FSL 1450' FWL Sec 1-T30N-R5W
 RIO ARriba COUNTY, NEW MEXICO



Scale: 1" = 50'

Vert. 1" = 40'

A-A'

Horiz: 1" = 100'

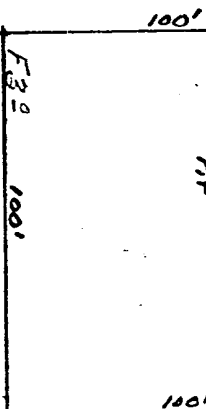
B-B'

±

6590					
6588					
6570					

Reserve

Rt



Vert: 1" = 40'

C-C'

Horiz: 1" = 100'

D-D'

±

6590					
6588					
6570					

KERR LAND SURVEYING
 Date: 6/9/78

JUN 19 1978

RECEIVED
 SURVEYING