

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, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface1865' FNL & 1520' FEL
At proposed prod. zone

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

Approximately 7 miles south of Bloomfield, NM

15. DISTANCE FROM PROPOSED LOCATION*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any) 1520'18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL DRILLING COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT. 850'

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

6155' GR

23. U.S.G.S. BATHYMETRIC 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"	32.3#	200'	110 Sacks
8 3/4"	7"	23#	6767'	210 Sacks (Stage One)
				240 Sacks (Stage Two)
				125 Sacks (Stage Three)

Surface formation is Nacimiento

Top of Ojo Alamo sand is at 1367'.

Top of Mesa Verde sand is at 3547'.

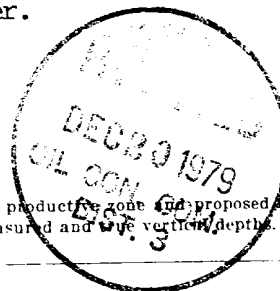
Fresh water mud will be used to drill from surface to Total Depth.

It is anticipated that an IES and GR-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 will be drilled before July 31, 1980. This depends on time required for approval, 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 CC Parsons TITLE District Engineer DATE 12-4-79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

ok 3rd

11000'

OIL CONSERVATION DIVISION

P. O. BOX 2088

Form C-102
Revised 10-1-78STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

All distances must be from the outer boundaries of the Section

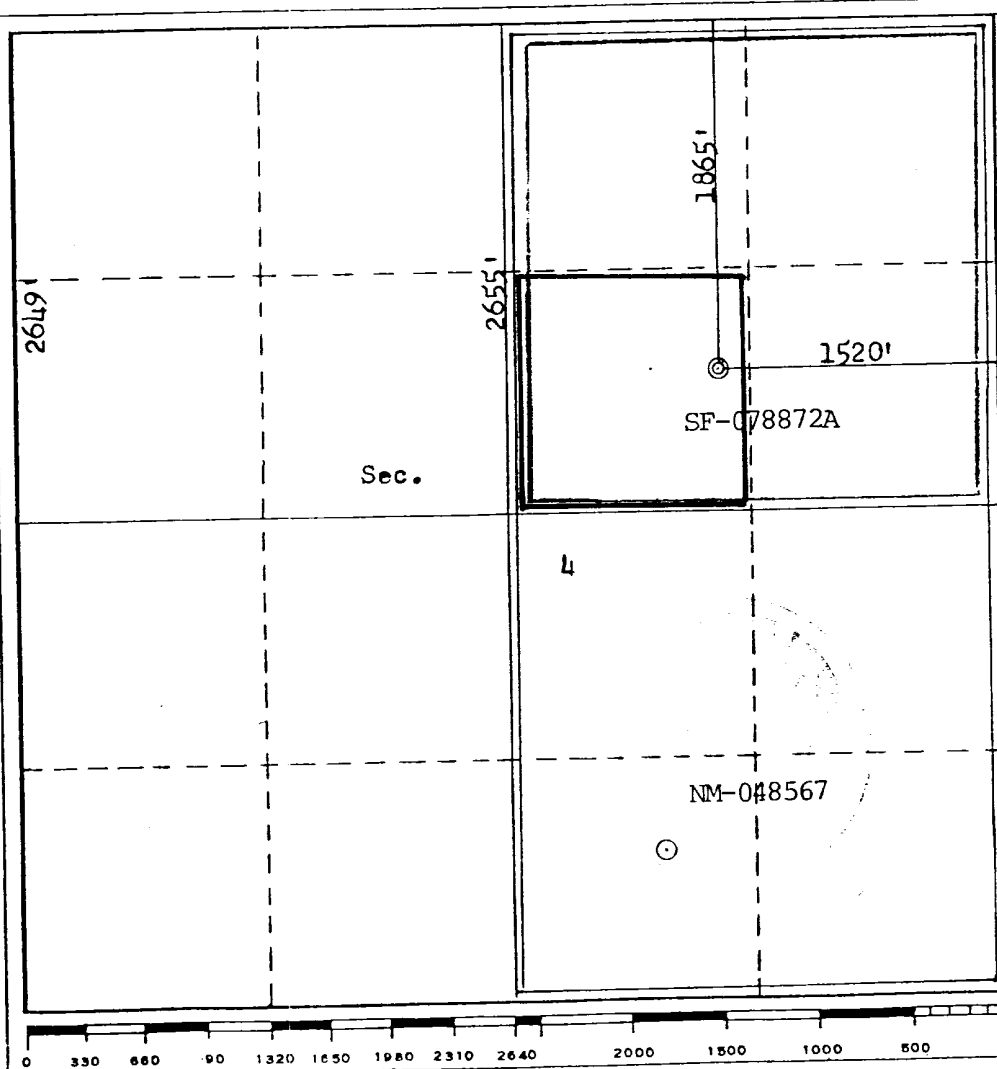
Operator SOUTHLAND ROYALTY COMPANY			Lease FRONTIER "E"		Well No. 1-E
Unit Letter G	Section 4	Township 27N	Range 11W	County San Juan	
Actual Footage Location of Well: 1865 feet from the North line and 1520 feet from the East line					
Ground Level Elev. 6155	Producing Formation Dakota / Gallup		Pool Basin/ Kutz	Dedicated Acreage: 321.06 320/160 90 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 Communitized

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.

CC Parsons

Name

Curtis C. Parsons

Position

District Engineer

Company

Southland Royalty Company

Date

December 4, 1979

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, 1979

Registered Professional Engineer
and/or Land Surveyor*Fred B. Kerr Jr.*
Fred B. Kerr Jr.

Certificate No. B. KERR, JR.

3950

SOUTHLAND ROYALTY COMPANY - DRILLING SCHEDULE

F R O N T I E R " E " # 1 E

1865' FNL & 1520' FEL

Section 4, T27N, R11W

San Juan County, New Mexico

Field: Basin Dakota/Kutz Gallup

Elevation: 6155' GR

Geology:

Formation Tops:	Ojo Alamo	1367'	Gallup	5567'
	Fruitland	1727'	Graneros	6447'
	Pictured Cliffs	1987'	Dakota	6567'
	Cliff House	3547'	Total Depth	6767'
	Point Lookout	4387'		

Logging Program: IES & GR-Density from Total Depth to surface casing.

Drilling:

Contractor:

Tool Pusher:

SRC Representative:

SRC Answering Service: 325-1841

Dispatch Number: 325-7391

Mud Program: Fresh water mud to 5550'. Mud up at 5550'. Maintain mud weight of 8.9 to 9.5, viscosity of 35 to 40 sec, water loss of 10 to 12 cc. Anticipate losing circulation in bottom of Gallup at approximately 5900'. Have LCM available on location.

Materials:

Casing Program:	<u>Hole Size</u>	<u>Depth</u>	<u>Casing Size</u>	<u>Wt. & Grade</u>
	12 1/4"	200'	9 5/8"	32.3# H-40
	8 3/4"	6767'	7"	23# K-55

Float Equipment:

9 5/8" Surface Casing: Pathfinder type "A" guide shoe.

7" Production Casing: Pathfinder type "A" guide shoe. Self-fill insert float valve run 2 joints above shoe. 5 Pathfinder rigid stabilizers run every other joint above shoe. Run Dowell stage tools at 4790' and 2190'. Run one cement basket below and 5 Pathfinder rigid stabilizers above each tool.

Wellhead Equipment: 9 5/8" x 10", 2000# casing head with 7" casing hangers
10", 2000# x 6", 2000# tubing head

Cementing:

9 5/8" Surface Casing: 110 sacks (125 cu. ft.) of Class "B" with 1/4# gel flake per sack and 3% CaCl_2 . WOC 12 hours. Test to 600# prior to drilling out. (Volume is 100% excess.)

7" Production Casing: STAGE ONE: 160 sacks (238 cu. ft.) of 50/50 Poz with 6% gel, 1/4# gel flake per sack, followed by 50 sacks of neat with 2% CaCl_2 . (Volume is 25% excess to cover top of Gallup.)

STAGE TWO: 190 sacks (280 cu. ft.) of 50/50 Poz with 6% gel followed by 50 sacks of neat with 2% CaCl_2 . (Volume is 50% excess to cover top of Cliff House.)

STAGE THREE: 125 sacks (186 cu. ft.) of 50/50 Poz with 6% gel. (Volume is 50% excess to cover top of Ojo Alamo.)

WOC and circulate between stages as required by well conditions.

L. O. Van Rayan
District Production Manager



Southland Royalty Company

December 4, 1979

United States Geological Survey
Mr. James Sims
P. O. Box 959
Farmington, NM 87401

Dear Sir:

Enclosed please find a map showing existing roads and planned access roads to Southland Royalty Company's Frontier "E" #1E 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 airstrips.

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

Water supply will be the San Juan River.

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

Mr. Ross Lankford will be Southland Royalty Company's field representative supervising these operations.

Yours truly,

Curtis C. Parsons
District Engineer

CCP/ke



Southland Royalty Company

United States Geological Survey
Mr. James Sims
P. O. Box 595
Farmington, NM 87401

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 will 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: December 4, 1979

L. O. Van Ryan
District Production Manager

LOVR/ke



Southland Royalty Company

December 4, 1979

United States Geological Survey
Mr. James Sims
P. O. Box 959
Farmington, NM 87401

RE: Blowout Preventer Plan

Dear Sir:

All drilling and completion rigs will be equipped with 6" or larger double hydraulic blowout preventers and a hydraulic closing unit with steel lines.

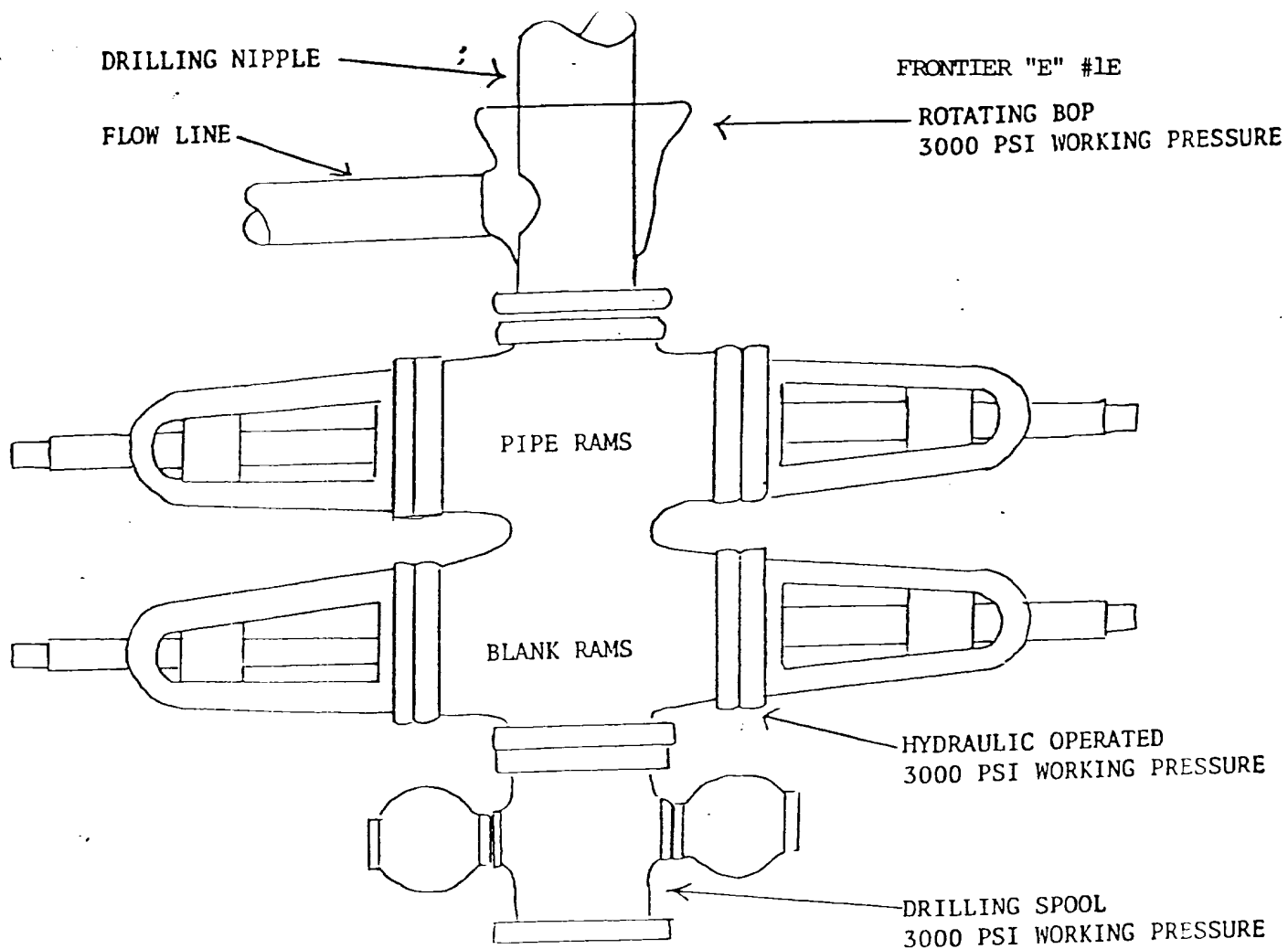
The preventer is 3000# working pressure and 6000# test pressure.

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,

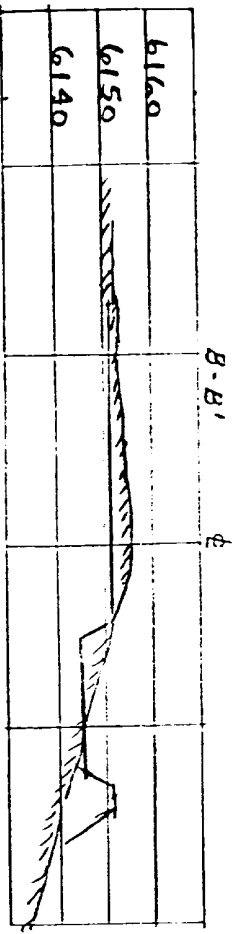
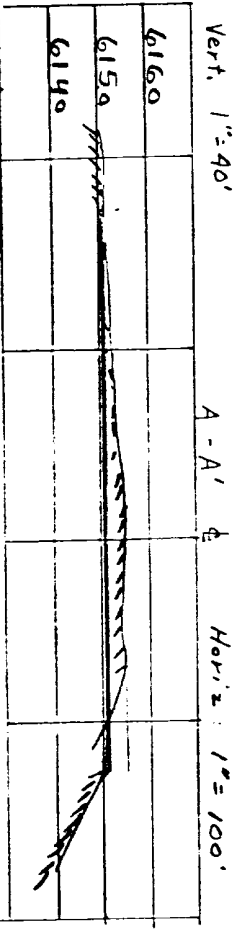
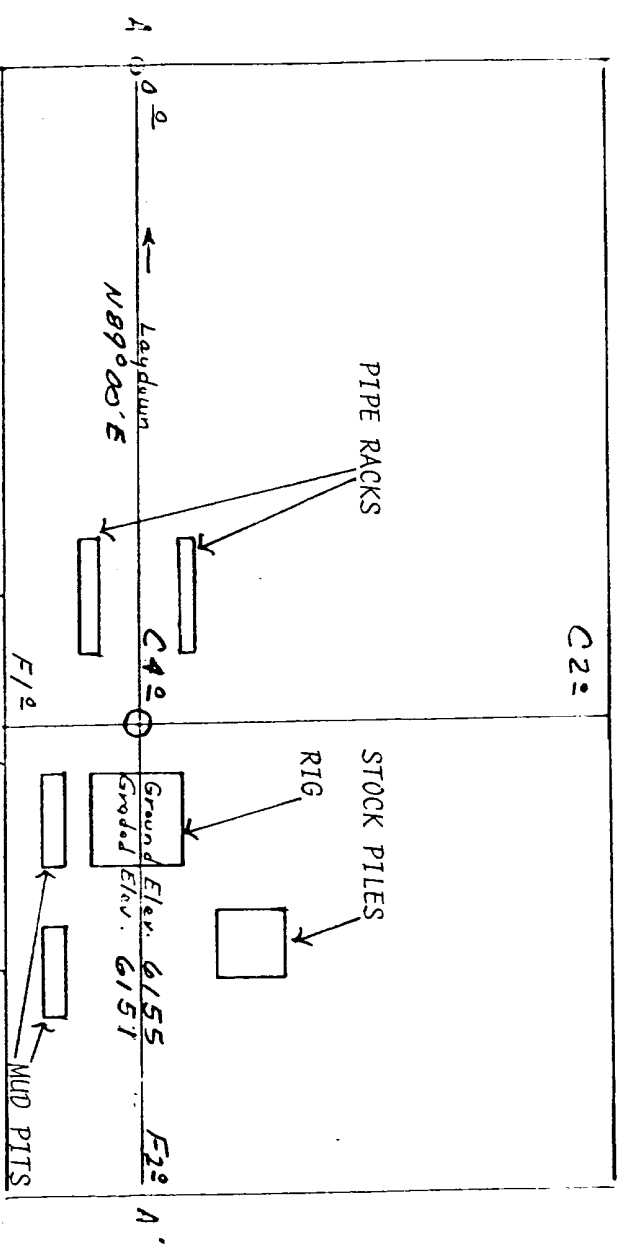
Curtis C. Parsons
District Engineer

CCP/ke

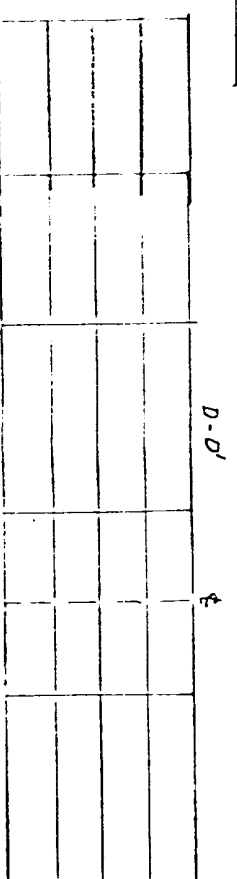
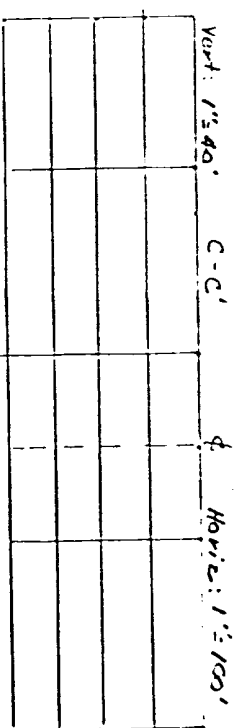


PREVENTERS AND SPOOLS ARE TO HAVE
THROUGH BORE OF 6" - 3000 PSI OR LARGER

Location Profile for
 SOUTHLAND ROYALTY COMPANY #1-E FRONTIER "E"
 1865' FNL 1520' FEL Sec 4-T27N-R11W SAN JUAN COUNTY, NEW MEXICO



Reserve
 Pit
 F102 X



KERR LAND SURVEYING
 Date: 11/11/79

NEW MEXICO-SAN JUAN CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

AZTEC-14 MI.
BLOOMFIELD 7 MI.

450 000 FEET

108°00'

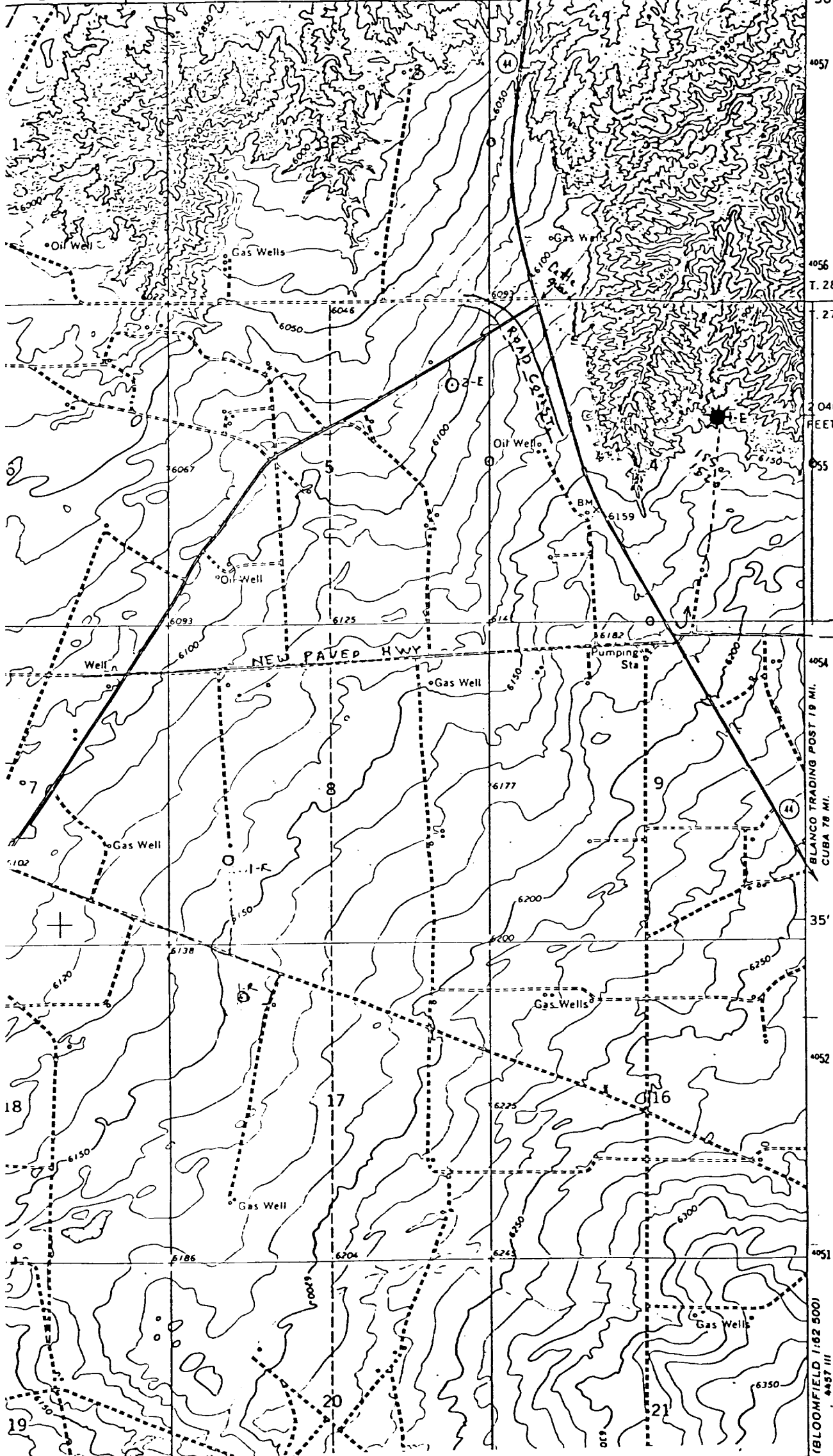
2°30"

765

766

767

36°37'30"



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

Vicinity Map for
SOUTHLAND ROYALTY CO. #1-E FRONTIER "E"
1865'FNL 1520'FEL Sec 4-T27N-R11W
SAN JUAN COUNTY, NEW MEXICO

(BLOOMFIELD 1462 500)
4437 III

(BLOU)

11/10/12
0.2/12