

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-045-23973

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. SF-080781		
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" 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, NM 87401			8. FARM OR LEASE NAME Cain		
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) At surface 1110' FNL & 830' FWL At proposed prod. zone			9. WELL NO. #9E		
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* Approximately 4 1/2 miles SE of Bloomfield, NM			10. FIELD AND POOL, OR WILDCAT Basin Dakota Undeveloped Fruitland ext		
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 830'			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 16, T28N, R10W		
16. NO. OF ACRES IN LEASE 2258.46			12. COUNTY OR PARISH San Juan		
17. NO. OF ACRES ASSIGNED TO THIS WELL w/ 320 160			13. STATE New Mexico		
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 660			20. ROTARY OR CABLE TOOLS Rotary		
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5749' GR			22. APPROX. DATE WORK WILL START* February 1, 1980		

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#	200'	140 sacks
7 7/8"	5 1/2"	15.5#	6535'	170 sacks (Stage One)
				245 sacks (Stage Two)
				185 sacks (Stage Three)

Surface formation is Nacimiento.

Top of Fruitland sand is at 1636'.

Top of Pictured Cliffs sand is at 1871'.

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

It is anticipated that and IES and GR-Density log will be run from Total Depth to surface casing.

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.

RECEIVED

NOV 14 1979

U. S. GEOLOGICAL SURVEY

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present production 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.  TITLE District Production Manager DATE 11-6-79
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:ADDITIONAL WELL NEEDED PURSUANT TO NEW MEXICO ACT 3-1670-V.
U.S.G.S. RATIFICATION DATED JUNE 8, 1979.

NMOCC

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-102
Revised 10-1-78

All distances must be from the outer boundaries of the Section

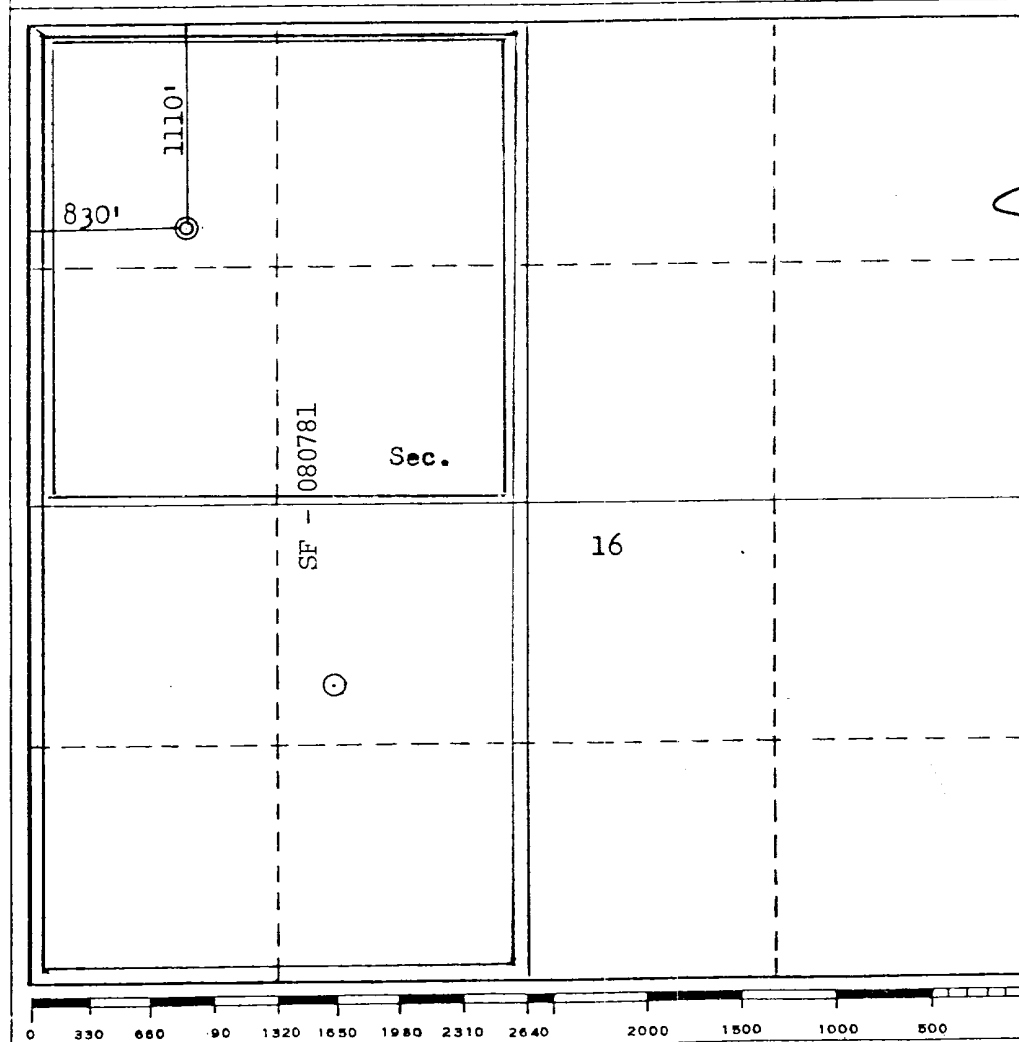
Operator SOUTHLAND ROYALTY COMPANY			Lease CAIN		Well No. 9-E
Unit Letter D	Section 16	Township 28N	Range 10W	County San Juan	
Actual Footage Location of Well: 1110 feet from the North line and 830 feet from the West line					
Ground Level Elev. 5749	Producing Formation Dakota - Fruit.		Pool Basin Dakota - A-2cc ext		Dedicated Acreage: 320 - 160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.



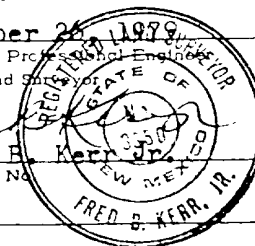
CERTIFICATION

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

Name
L. O. Van Ryan
Position
District Production Manager
Company
Southland Royalty Company
Date
November 6, 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
October 24, 1979
Registered Professional Engineer
and/or Land Surveyor
Fred B. Kerr, Jr.
Certificate No.
3950



DRILLING SCHEDULE - CAIN #9E

LOCATION: 1110' FNL & 830' FWL, Section 16, T28N, R10W, San Juan County, New Mexico

FIELD: Basin Dakota/Fruitland ELEVATION: 5749' GR TD: 6535'

GEOLOGY:

Formation Tops:

Ojo Alamo	961'	Gallup	5381'
Fruitland	1636'	Graneros	6216'
Pictured Cliffs	1871'	Dakota	6336'
Cliff House	3441'		
Point Lookout	4161'		

Logging Program: IES and GR-Density from TD to surface casing.

Coring Program: None

Natural Gauges: None

DRILLING:

Contractor:

Tool Pusher:

SRC Representative:

SRC Answering Service: 325-1841
Dispatch Number: 325-7391

Mud Program: Fresh water to 4100'. Mud up at 4100'. Maintain mud weight of 8.9 - 9.2, vis of 35 - 40 sec, water loss of 10-12 cc. Anticipate losing circulation in Point Lookout and Dakota formations. Have LCM available on location.

MATERIALS:

Casing Program:	Hole Size	Depth	Casing Size	Wt. & Grade
	12-1/4"	200'	8-5/8"	24# K-55
	7-7/8"	6535'	5-1/2"	15.5# K-55

FLOAT EQUIPMENT:

8-5/8" Surface Casing: Pathfinder guide shoe.

5-1/2" Production Casing: Pathfinder guide shoe and Howco self-fill insert valve. Run 5 centralizers every other joint above shoe. Run Dowell stage tool at 4560' and 2020'. Run cement basket 1 joint below and 5 centralizers above each tool.

Wellhead Equipment: 8-5/8" X 10", 2000# casinghead with 5-1/2" casing hanger. 10" X 6", 2000# tubing head and tree.

DRILLING SCHEDULE - CAIN #9E

Page two

Cementing Program:

8 5/8" Surface Casing - 140 sacks (165 cu. ft.) of Class "B" w/1/4# gel flake per sack & 3% CaCl_2 . WOC 12 hours. Test to 600# prior to drilling out. (Volume is 100% excess.)

5 1/2" Production String - STAGE ONE - 170 sacks (250 cu. ft.) of 50/50 Poz w/6% gel, 1/4# gel flake/sx, followed by 50 sacks of Neat w/2% CaCl_2 . (Volume is 25% excess to cover top of Gallup.)

STAGE TWO - 195 sacks (291 cu. ft.) of 50/50 Poz w/6% gel, followed by 50 sacks of Neat w/2% CaCl_2 . (Volume is 50% excess to cover top of Cliff House.)

STAGE THREE - 185 sacks (275 cu. ft.) of 50/50 Poz w/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 Ryan
District Production Manager

BJM/ke



Southland Royalty Company

November 6, 1979

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

Attention: James Sims

Dear Sir:

Enclosed please find a map showing existing roads and planned access roads to Southland Royalty Company's Cain #9E 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 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,

L. O. Van Ryan
District Production Manager

LOVR/dg



Southland Royalty Company

November 6, 1979

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

Attention: James Sims

Re: Blowout Preventer Plan

Dear Sir:

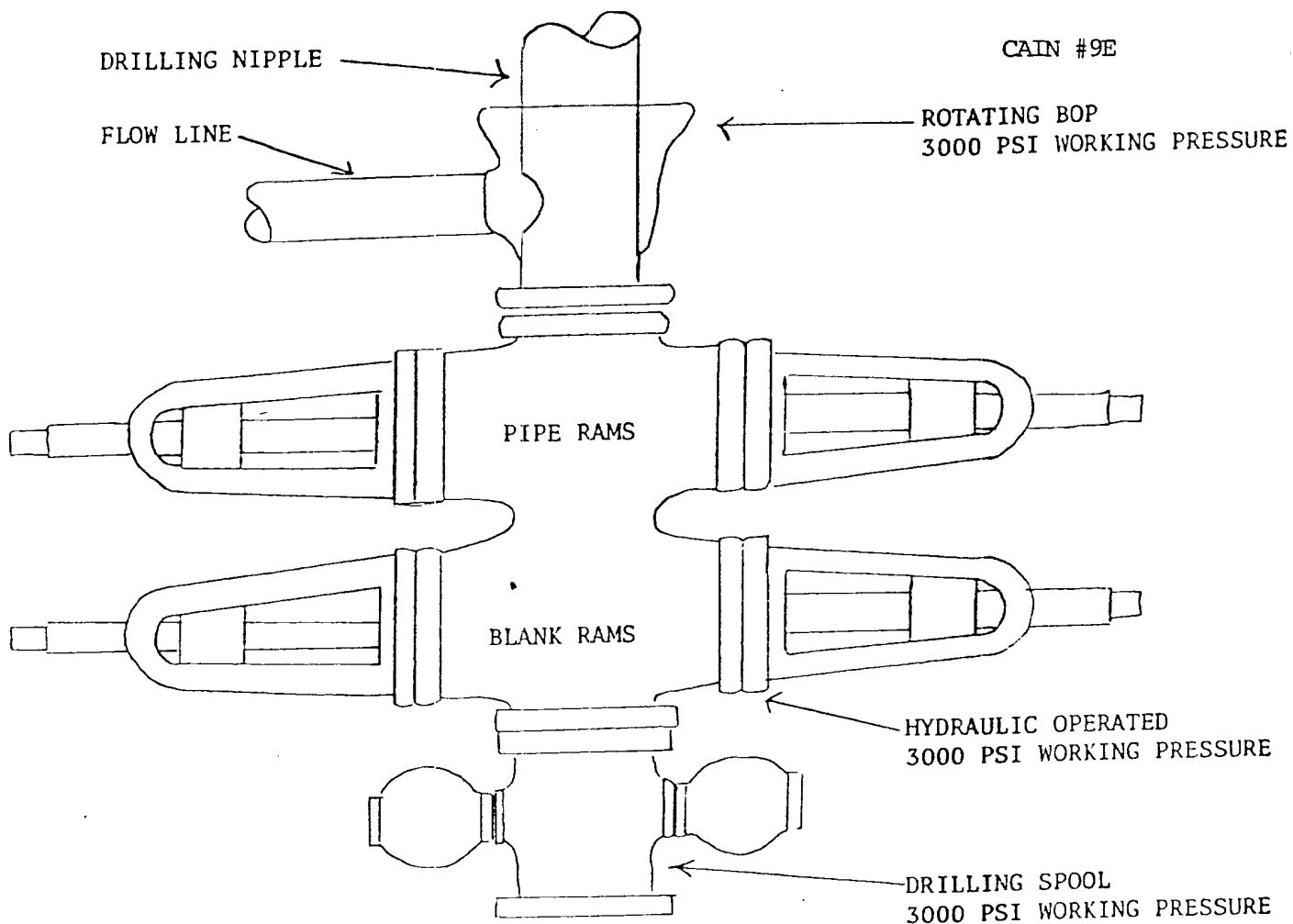
All drilling and completion rigs will be equipped with 6" or larger double hydraulic blowout preventers and a hydraulic closing unit with steel lines.

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

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



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



Southland Royalty Company

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

Attention: James Sims

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.

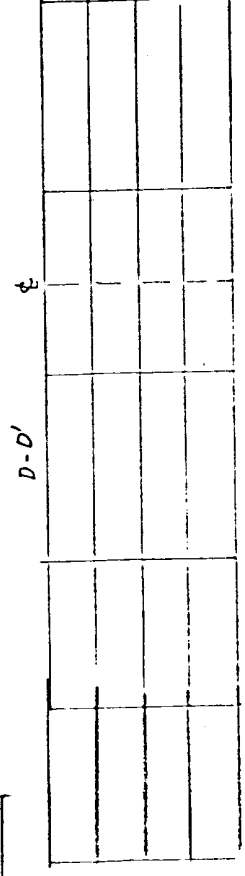
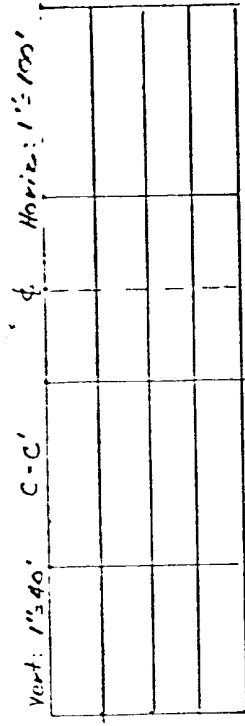
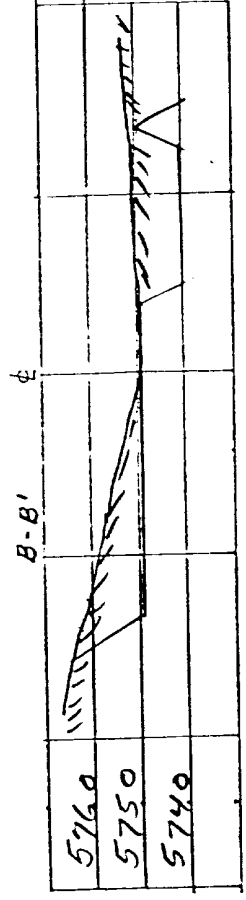
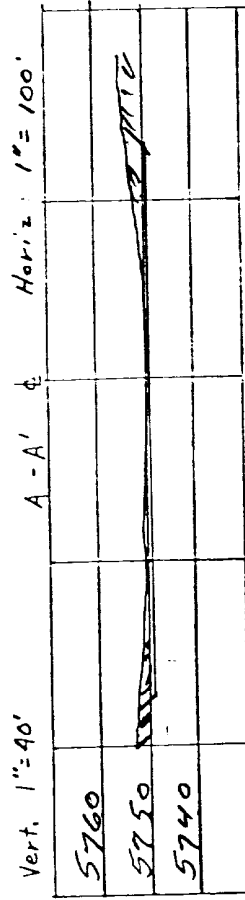
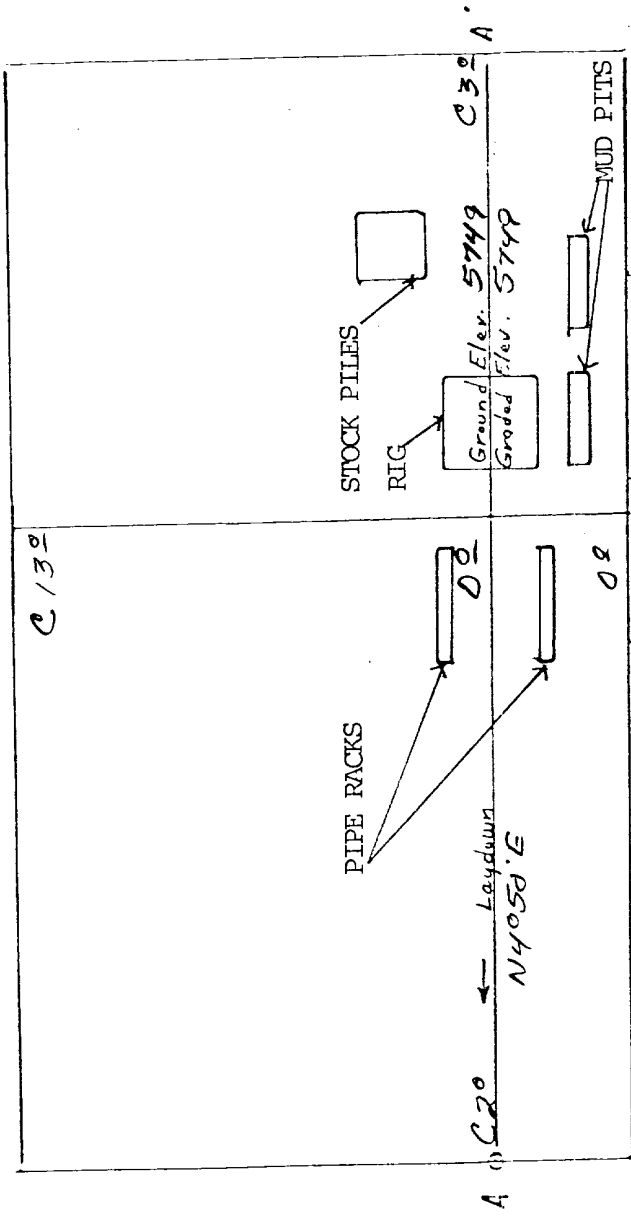
Date: November 6, 1979

Name: 

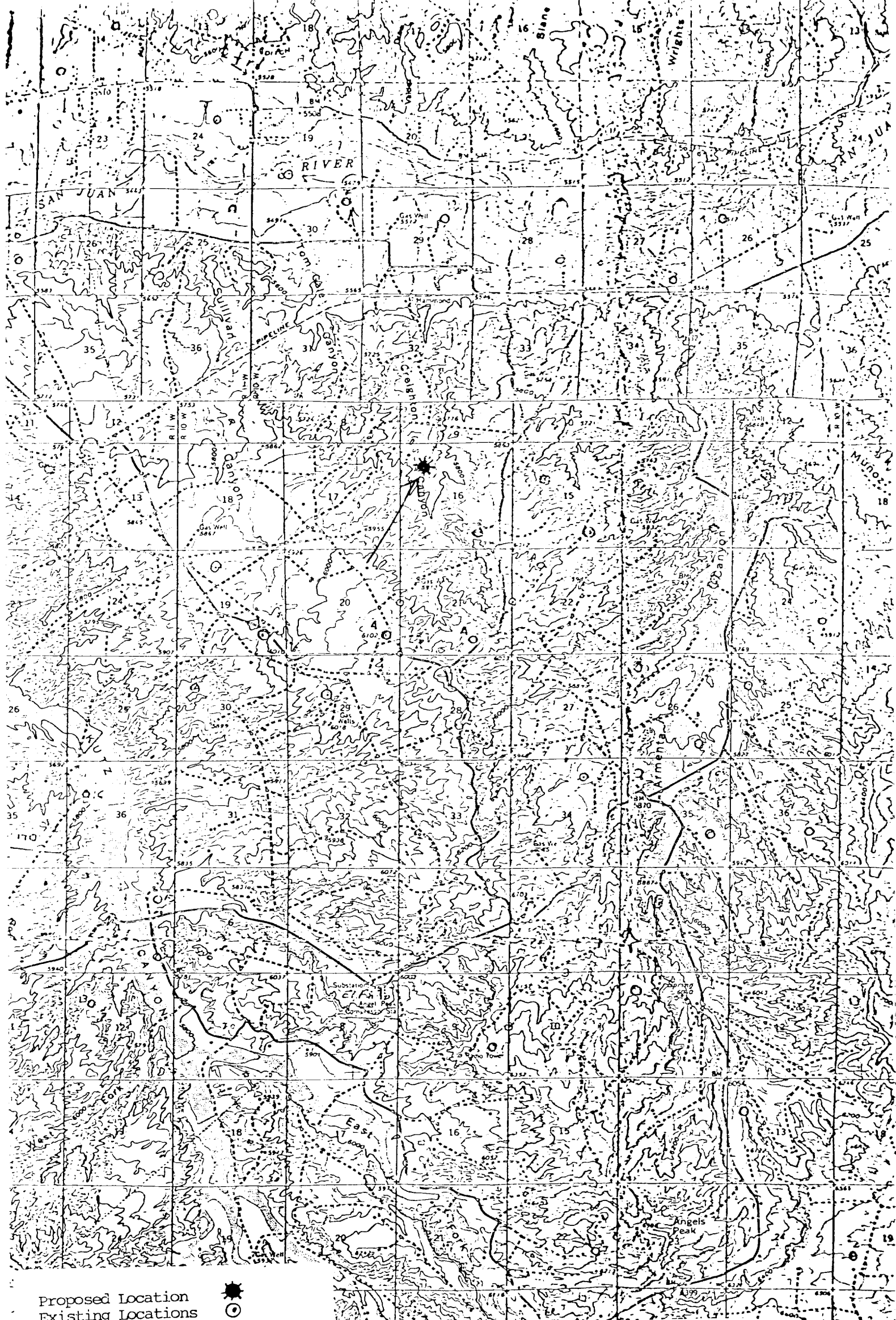
Title: District Production Manager

Location Profile for

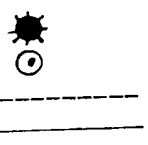
SOUTHLAND ROYALTY CO. #9-E Cain
1110' FNL 830' FWL Sec 16-T28N-R10W SAN JUAN COUNTY, NEW MEXICO



KERR LAND SURVEYING
Date: _____



Proposed Location
Existing Locations
Proposed Road
Existing Roads



Vicinity Map for
SOUTHLAND ROYALTY CO. #9E CAIN
1110' FNL 830' FWL Sec 16-T28N-R10W
SAN JUAN COUNTY, NEW MEXICO