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NEW MEXICO OIL CONSERVATION COMMISSION

30-045-25951
Form C-101
Revised 1-1-65

5A. Indicate Type of Lease	
STATE <input type="checkbox"/>	FEE <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> 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"/>		8. Farm or Lease Name McWhorter-Duncan	
2. Name of Operator Southland Royalty Company		9. Well No. 1	
3. Address of Operator P. O. Drawer 570, Farmington, New Mexico 87499		10. Field and Pool, or Wildcat Basin Dakota	
4. Location of Well UNIT LETTER <u>K</u> LOCATED <u>1565</u> FEET FROM THE <u>South</u> LINE AND <u>1820</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>10</u> TWP. <u>29N</u> RGE. <u>14W</u> NMPM		11. <u>W/520</u>	
12. County San Juan			
19. Proposed Depth 5860'		19A. Formation Dakota	
20. Rotary or C.T. Rotary			
21. Elevations (Show whether DF, RT, etc.) 5376' GL		21A. Kind & Status Plug. Bond ---	
21B. Drilling Contractor ---		22. Approx. Date Work will start May 1, 1984	

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12-1/4"	New 8-5/8"	24#, K-55	200'	165 sacks	Circ to surface
7-7/8"	New 4-1/2"	10.5#, K-55	5860'	Stge 1: 463 cuft	Cover Gallup
				Stge 2: 629 cuft	Cover Cliff House
				Stge 3: 237 cuft	Cover Fruitland

Surface formation is Kirtland Shale.

Top of Fruitland sand is at 688'.

Top of Pictured Cliffs sand is at 883'.

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

It is anticipated that an IEL will be run from total depth to surface casing and an

FDC/CNL logs 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 May 31, 1984.

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

Gas is not dedicated.

APPROVED BY 10-22-84
U.S.G.S. RECEIVED
STATE ENGINEER RECEIVED
VOLUME 10-22-84

RECEIVED
APR 20 1984
OIL CON. DIV.
DIST. 3

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. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed R. E. Fiddle Title Dist. Production Manager Date April 17, 1984

(This space for State Use)

APPROVED BY Frank J. Chung TITLE SUPERVISOR DISTRICT # 3 DATE APR 20 1984

CONDITIONS OF APPROVAL, IF ANY:

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

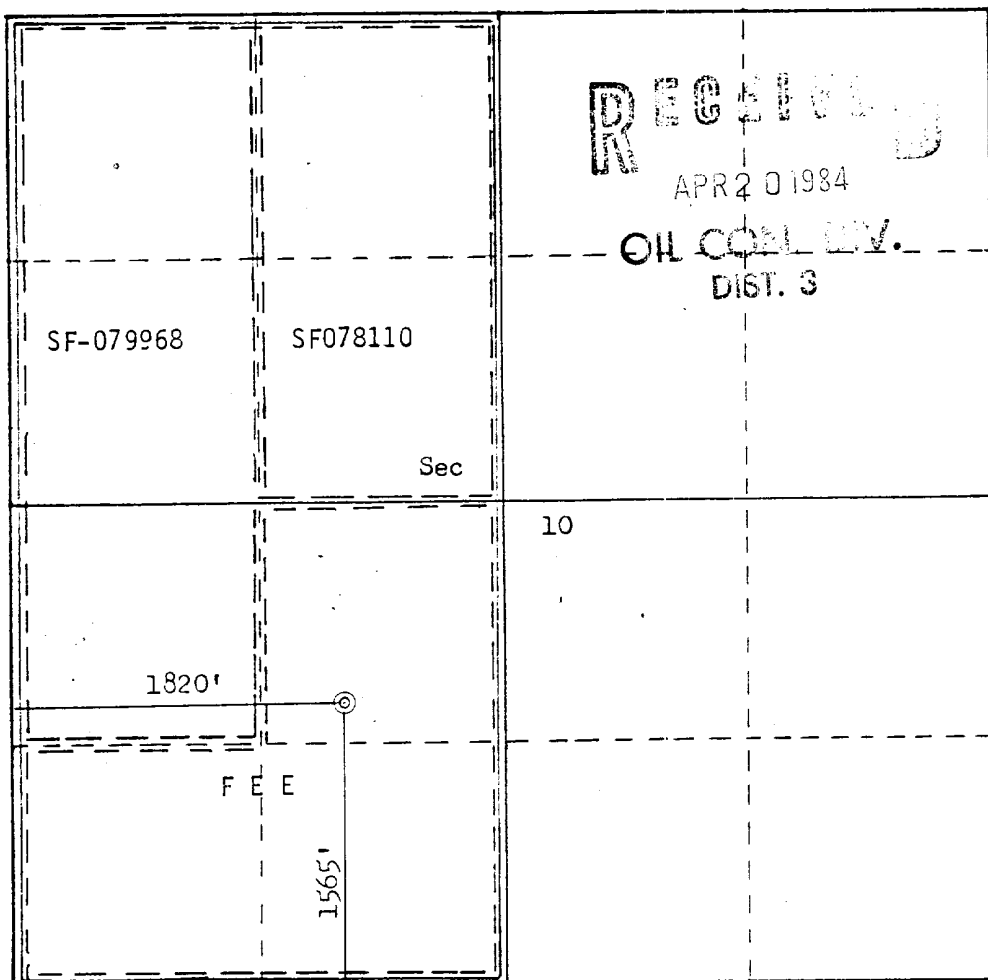
Operator Southland Royalty Company			Lease McWhorter-Duncan		Well No. 1
Unit Letter K	Section 10	Township 29N	Range 14W	County San Juan	
Actual Footage Location of Well: 1565 feet from the South line and 1820 feet from the West line					
Ground Level Elev: 5376' GL	Producing Formation Dakota	Pool Basin	Dedicated Acreage: 320 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 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.



Scale: 1"=1000'

CERTIFICATION

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

R. E. Fielder

Name
R. E. Fielder
Position
District Production Manager
Company
Southland Royalty Company
Date
April 17, 1984

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
April 12, 1984
Registered Professional Engineer and Land Surveyor
Fred B. Kerr Jr.
Certificate No. 3950

SOUTHLAND ROYALTY COMPANY - DRILLING SCHEDULE

McWHORTER-DUNCAN #1

1565' FSL & 1820' FWL
Section 10, T29N, R14W
San Juan County, New Mexico

Field: Basin Dakota Elevation: 5388' KB
5376' GL

Geology:

Formation Tops:	Fruitland	688'	Gallup	4653'
	Pictured Cliffs	883'	Greenhorn	5458'
	Chacra	1518'	Graneros	5513'
	Cliff House	2478'	Dakota	5613'
	Point Lookout	3413'	Total Depth	5860'

Logging Program: IEL and FDC/CNL from total depth to surface casing.

Drilling:

Contractor:		Tool Pusher:	
SRC Rep:	Ross Lankford	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 Set</u>	<u>Casing Size</u>	<u>Weight & Grade</u>
	12-1/4"	200'	8-5/8"	24# K-55
	7-7/8"	5860'	4-1/2"	10.5# K-55

Float Equipment:

8-5/8" Surface Casing: Bakerline cement-nosed guide shoe.

4-1/2" Production Casing: Bakerline cement-nosed guide shoe, self-fill flapper float collar one joint above shoe, and centralizers at every other joint above float and DV tools (5 centralizers). Run stage collars at 3650' and 1200' with cement basket below each and at 5400', 4900', 4400', 3150', 2650' and 900'.

Wellhead Equipment: 8-5/8" X 10", 2000 psi bradenhead, 10" X 6", 2000 psi tubing head, 6" X 2-3/8", 2000 psi tubing hanger.

Cement Program:

8-5/8" Surface Casing: 140 sacks (165 cu.ft.) of Class "B" cement with 1/4# cellophane flake per sack and 3% CaCl₂. WOC 12 hours. Test shoe to 600 psi prior to drilling out. (100% excess to circulate.)

4-1/2" Production Casing: STAGE 1
225 sacks (333 cu.ft.) of Class "B" 50/50 Poz cement with 1/4# cellophane flake per sack, tail in with 110 sacks (130 cu.ft.) of Class "B" cement with 2% CaCl₂.
(Volume is 50% excess to cover Gallup.)

STAGE 2
385 sacks (570 cu.ft.) of Class "B" 50/50 Poz cement with 1/4# cellophane flake per sack, tail in with 50 sacks (59 cu.ft.) of Class "B" cement with 2% CaCl₂.
(Volume is 50% excess to cover Cliff House.)

STAGE 3
120 sacks (178 cu.ft.) of Class "B" 50/50 Poz cement with 1/4# cellophane flake per sack, tail in with 50 sacks (59 cu.ft.) of Class "B" cement with 2% CaCl₂.
(Volume is 50% excess to cover Fruitland.)

WOC and circulate 4 hours between stages.
Adjust cement volumes if necessary after running caliper log.

R. E. Fielder
District Production Manager

CTH/eg

4/17/84



Southland Royalty Company

April 17, 1984

Mr. Frank Chavez
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: Blowout Preventer Plan

Dear Mr. Chavez:

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

Sincerely,

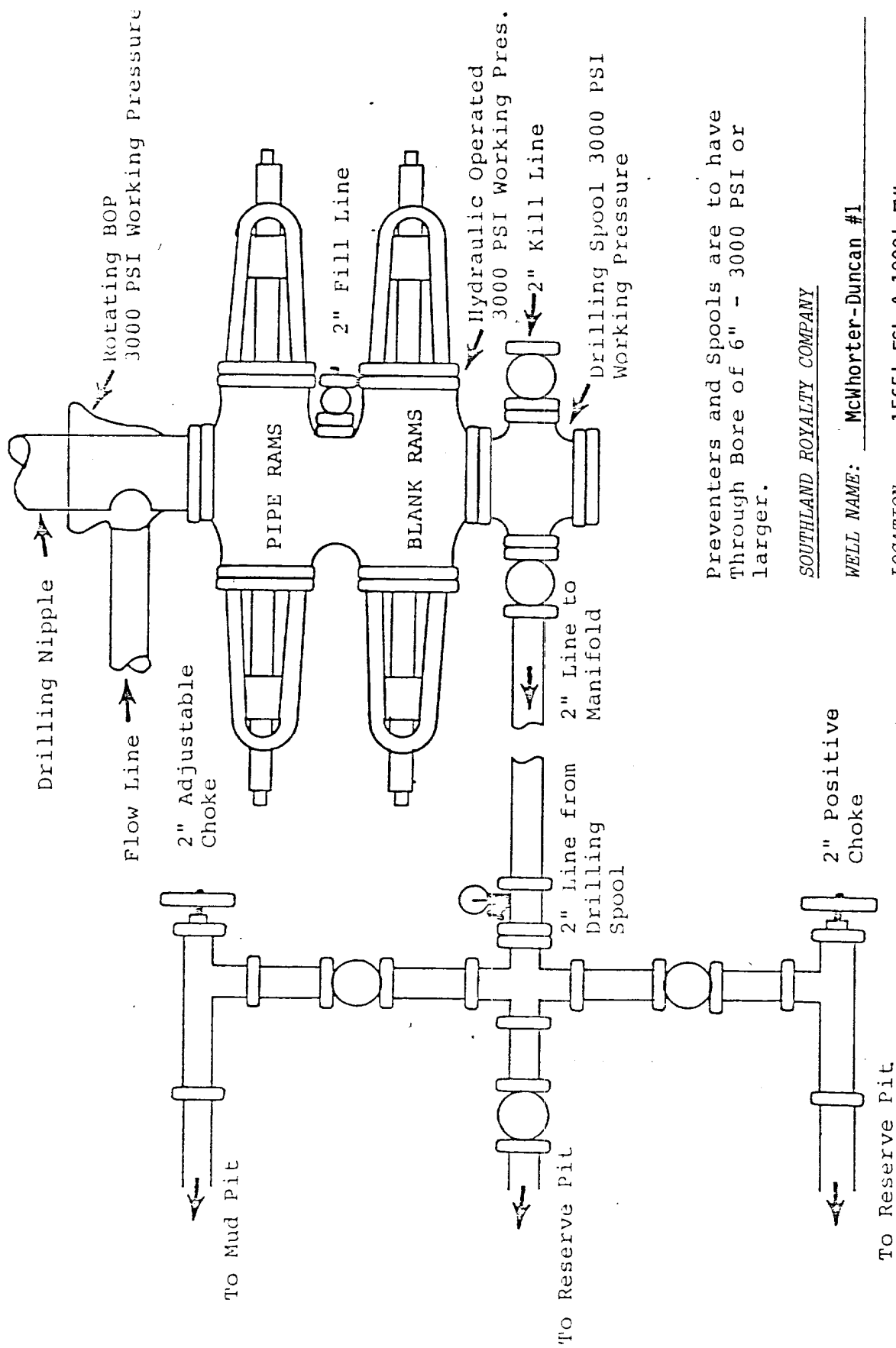
SOUTHLAND ROYALTY COMPANY

A handwritten signature in cursive script, reading "R. E. Fielder".

R. E. Fielder
District Production Manager

REF/eg

Attachment



Preventers and Spools are to have
Through Bore of 6" - 3000 PSI or
larger.

SOUTHLAND ROYALTY COMPANY

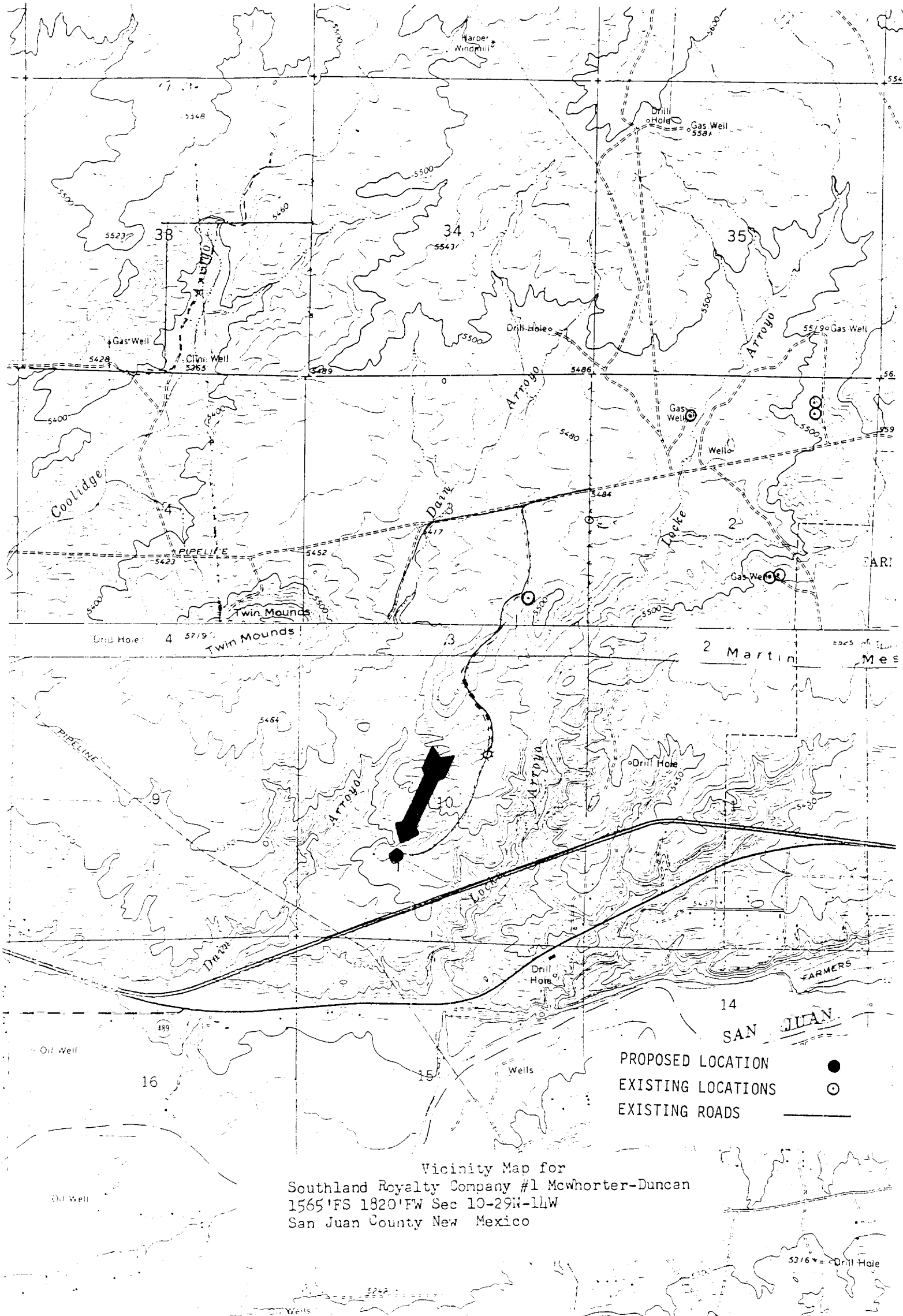
WELL NAME: McWhorter-Duncan #1

LOCATION: 1565' FSL & 1820' FWL

Section 10, T29N, R14W

COUNTY: San Juan County

STATE: New Mexico



Vicinity Map for
Southland Royalty Company #1 McWhorter-Duncan
1565'FS 1820'FW Sec 10-29N-14W
San Juan County New Mexico

Profile for
 SOUTHLAND ROYALTY CO. #1 McWHORTER-DUNCAN
 1565' FSL 1820' F&L Sec. 10-T29N-R14W
 SAN JUAN COUNTY, NEW MEXICO

