

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

Southern Union Production Company

3. ADDRESS OF OPERATOR

P. O. Box 808, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)

At surface 790 ft. from the North line & 790 ft. from the East line.

At proposed prod. zone Same as above.

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

8 miles Northwest of Ojito, New Mexico

15. DISTANCE FROM PROPOSED* 790 feet from lease
LOCATION TO NEAREST line.
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. Approx. 4500 ft.16. NO. OF ACRES IN LEASE
256019. PROPOSED DEPTH
811517. NO. OF ACRES ASSIGNED
TO THIS WELL 160 - Pictured Cliffs
320 - Dakota20. ROTARY OR CABLE TOOLS
Rotary

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

7068 Ungraded Ground

22. APPROX. DATE WORK WILL START*

June 1, 1974

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"	24.0#	350 ft.	250 sacks
7-7/8"	5-1/2"	15.5#	8115	2500 cubic ft.

1. We propose to drill a dually completed Pictured Cliffs and Dakota gas well to an approximately T.D. of 8115 feet.
2. Both zones will be fraced in order to stimulate production.
3. 1-1/2" tubing will be run to both zones.
4. A production packer will be set above the top of the Dakota formation.

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. ORIGINAL SIGNED BY

B. R. VANDERSLICE

Area Superintendent

DATE May 10, 1974

SIGNED

B. R. Vanderslice

TITLE

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

**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 SOUTHERN UNION PRODUCTION CO.		Lease JICARILLA APACHE		Well No. F #3
Unit Letter A	Section 27	Township 26 NORTH	Range 4 WEST	County RIO ARriba

Actual Footage Location of Well:

790 feet from the **NORTH** line and **790** feet from the **EAST** line

Ground Level Elev. 7068	Producing Formation Pictured Cliffs-Dakota	Pool Tapacito Pictured Cliffs ex/ Basin Dakota	Estimated Acres 1/4 - 160 - P.C. E/2 - 320 - Dakota
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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?

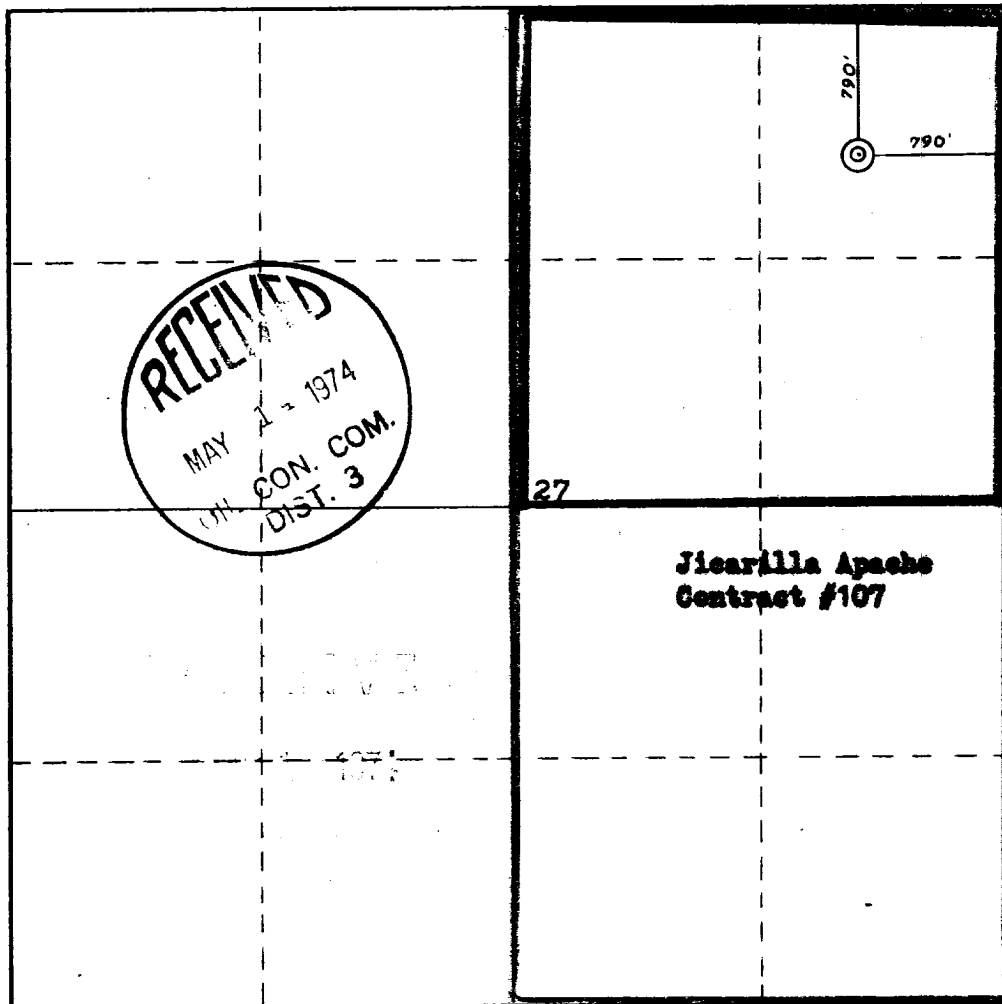
☐ Yes ☐ No If answer is "yes," type of consolidation _____

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.

☐ Acreage Dedicated to Dakota

☐ Acreage dedicated to Pictured Cliffs



CERTIFICATION

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

ORIGINAL SIGNED BY
B. R. VANDERSLICE

Name

B. R. Vanderalice

Position

Area Superintendent

Company

Southern Union Production

Date

May 10, 1974

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

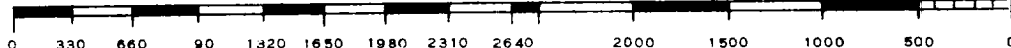
26 March 1974

Registered Professional Engineer and/or Land Surveyor

James P. Leese
James P. Leese

Certificate No.

1463



SOUTHERN UNION PRODUCTION COMPANY

POST OFFICE BOX 808
FARMINGTON, NEW MEXICO 87401

May 10, 1974

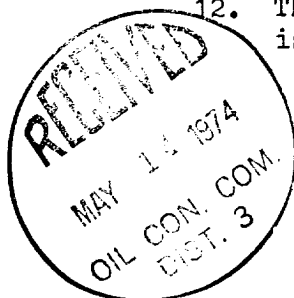
United States Geological Survey
P. O. Box 1809
Durango, Colorado 81301

Dear Sir:

Southern Union Production Company proposes to drill its Jicarilla "F" No. 3 dual Pictured Cliffs - Dakota well located 790 feet from the North line and 790 feet from the East line of Section 27, Township 26 North, Range 4 West, N.M.P.M., Rio Arriba County, New Mexico.

Attached are maps showing the following data:

1. Existing roads.
2. Planned access roads.
3. Location of existing wells.
4. Lateral roads to well locations.
5. A map showing the location of the rig, mud tanks, reserve pit, burn pit, pipe racks, etc.
6. Drilling and completion water will be obtained from our water well located in the SW/4, Section 23, Township 26 North, Range 4 West and from a sump on the Tapacito wash located in the SE/4 of Section 16, Township 26 North, Range 4 West.
7. Waste will be disposed of by being placed in the reserve pit and buried. Some will be burned in burn pit which will be covered after the well has been completed.
8. There will be no camp at or near the proposed well site.
9. There will be no airstrip.
10. The location of tank batteries and flow lines are not presently known. After the well has been drilled and the location has been cleaned this equipment will then be installed on the existing location. It is requested that a subsequent map be submitted after determining the exact location.
11. After the well is completed the location will be cleaned and bladed. The reserve pit will be fenced until it has dried and then it will be filled and restored to its natural state. The access road will be left as is for well maintenance.
12. The location is relatively flat. Pinon, cedar and sage brush is the predominant vegetation.



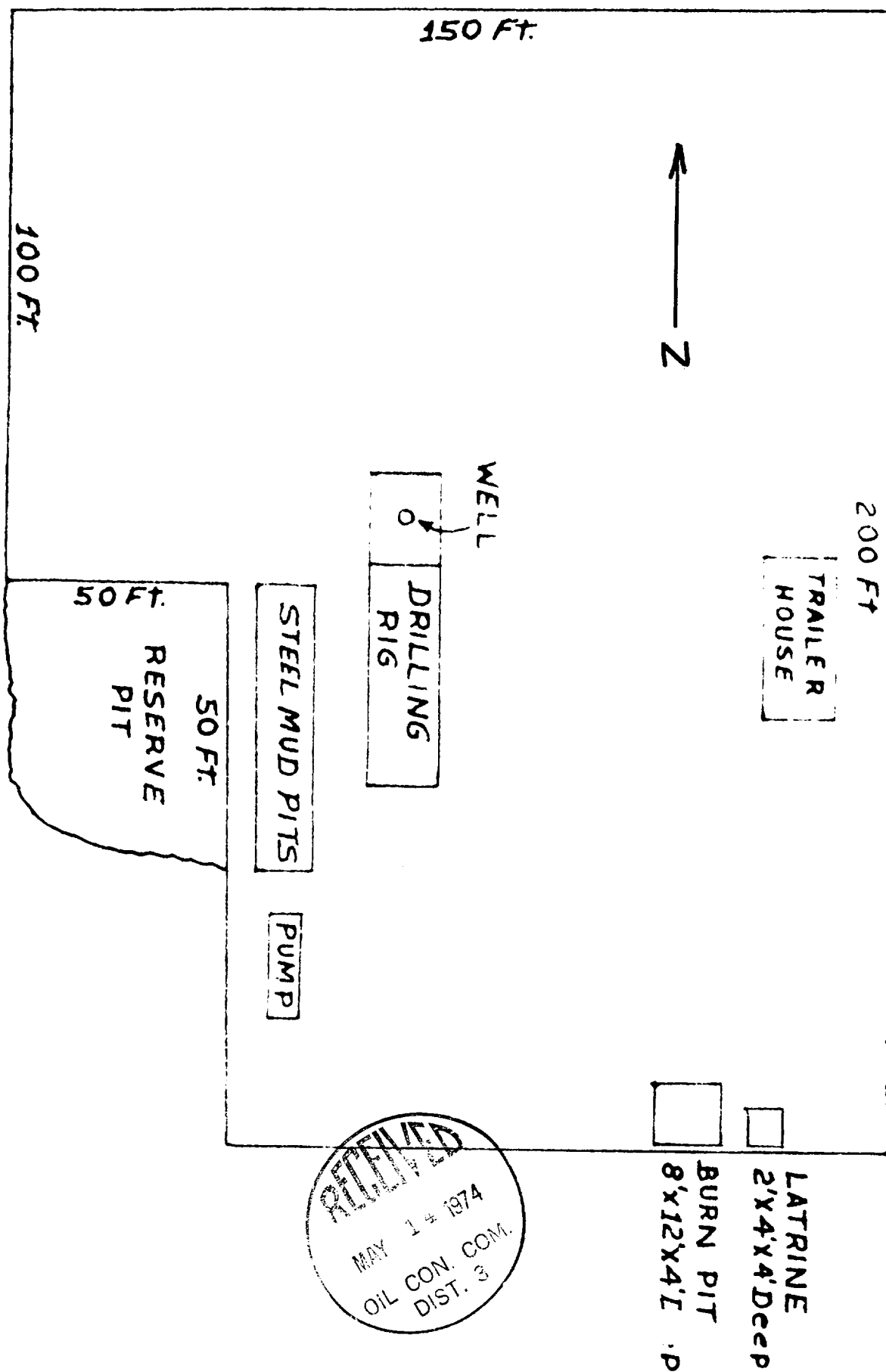
Yours very truly,

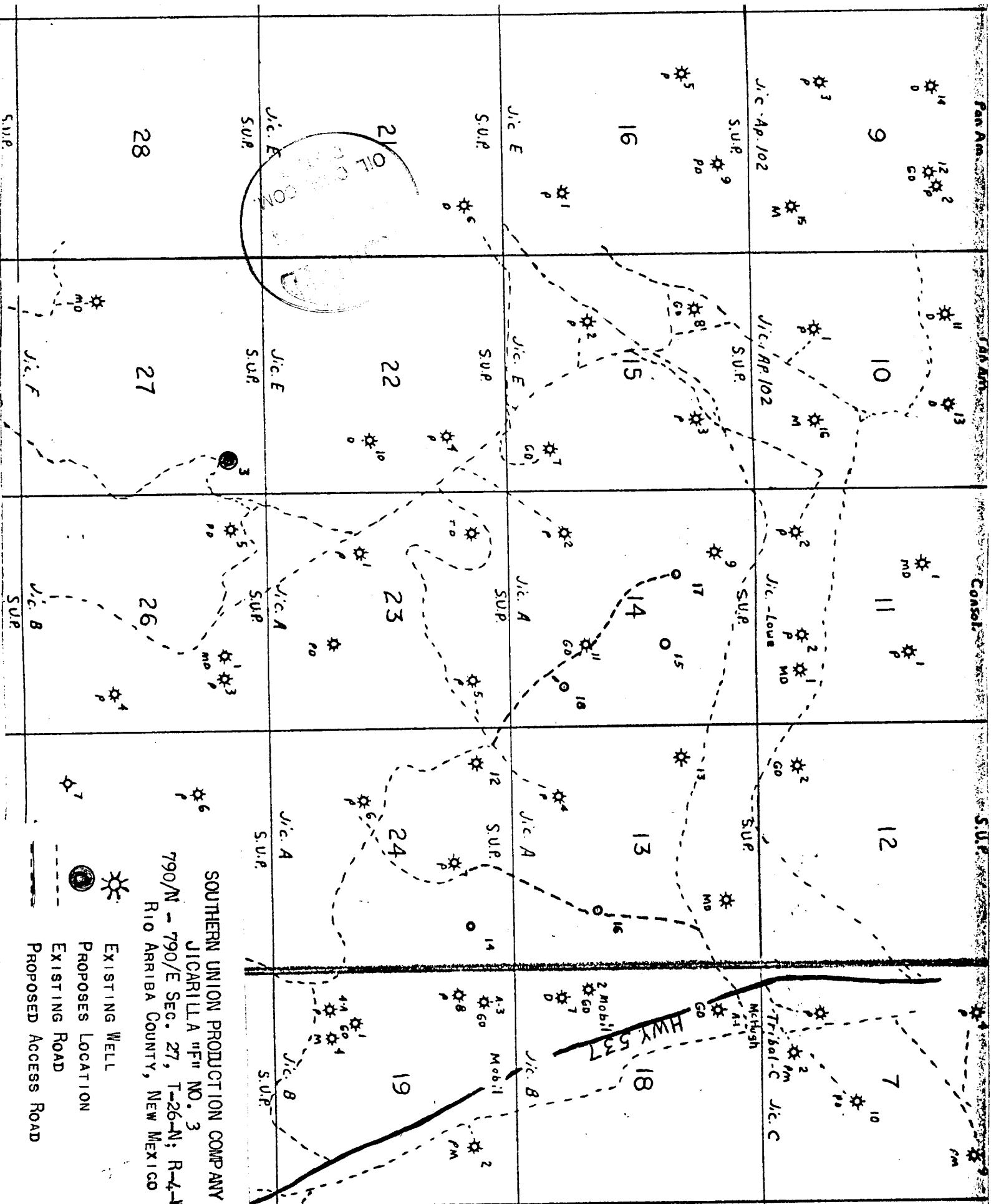
SOUTHERN UNION PRODUCTION COMPANY

B. R. Vanderslice
Area Superintendent





BV:ml

SOUTHERN UNION PRODUCTION COMPANY
JICARILLA "F" NO. 3
790/N - 790/E Sec. 27, T-26-N; R-4-W
RIO ARriba COUNTY, NEW MEXICO





SOUTHERN UNION PRODUCTION COMPANY
 JICARILLA "F" NO. 3
 790/N - 790/E Sec. 27, T-26-N; R-4-W
 RIO ARRIBA COUNTY, NEW MEXICO

-  EXISTING WELL
-  PROPOSES LOCATION
-  EXISTING ROAD
-  PROPOSED ACCESS ROAD

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special					Test Date 11/8/74	
Company Southern Union Production Co.				Connection Southern Union Gas Company		
Pool Blanco				Formation Mesaverde		Unit
Completion Date 10/25/74		Total Depth 5980		Plug Back TD 5937		Farm or Lease Name Jicarilla "B"
Csg. Size 5.500	Wt. 15.50	d 4.950	Set At 5975	Perforations: From 5926 To 5937		Well No.
Tbg. Size 1.900	Wt. 2.90	d 1.610	Set At 5536	Perforations: From No Perforations		Unit Sec. Twp. Rge. A 27 10N 4E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At		County Rio Arriba
Producing Thru Tubing		Reservoir Temp. °F @		Mean Annual Temp. °F		State New Mexico
L 5524	H	Gg 0.700	% CO ₂	% N ₂	% H ₂ S	Prover Meter Run Taps

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI	2"		3/4"				1000		1000		7 Days
1.							132	55°	327		3 Hours
2.											
3.											
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.3650		144	1.0043	0.9253	1.016	1683
2							
3							
4							
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2					Specific Gravity Separator Gas _____ X X X X X X X X
3					Specific Gravity Flowing Fluid _____ X X X X X
4					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5					Critical Temperature _____ R _____ R

P _c 1102	P _c ² 1,214,404	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1593$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1176$
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²		
1		409	167,281	1,047,123		
2						
3						
4						
5						

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1331$			
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Absolute Oper. Flow 1331 _____ Mcfd @ 15.025	Angle of Slope ϕ _____	Slope, n 0.75
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Remarks: _____			
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Approved By Commission:	Conducted By: Kenneth E. Roddy	Calculated By: Kenneth E. Roddy	Checked By:
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