

N.M. O  
B.C  
HOBBS

OPER. OGRID NO. 21355  
PROPERTY NO. 16818  
POOL CODE 43329  
EFF. DATE 6/11/96  
API NO. 30-025-33479

ICATE\*  
DE OR

FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995

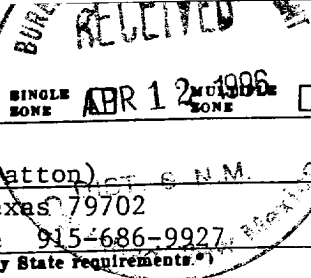
UNIT  
DEPARTMENT  
BUREAU OF I

**APPLICATION FOR PERMIT**

1a. TYPE OF WORK

DRILL

DEEPEN



5. LEASE DESIGNATION AND SERIAL NO.

NM-94189

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

Eilliams "34" federal # 14

9. API WELL NO.

10. FIELD AND POOL, OR WILDCAT

Maljamar-Grayburg-San Andres

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec. 34 T17S-R33E

12. COUNTY OR PARISH

Lea Co.

13. STATE

New Mexico

2. NAME OF OPERATOR

SOUTHWEST ROYALTIES INC. (Nelson Patton) N.M.

3. ADDRESS AND TELEPHONE NO.

P. O. Box 11390 Midland, Texas 79702  
407 North Big Spring Phone 915-686-9927

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

At surface  
1650' FNL & 1980' FEL SEC. 34 T17S-R33E LEA CO. NEW MEXICO  
At proposed prod. zone Same

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

8 Miles Southeast of Maljamar New Mexico

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)

16. NO. OF ACRES IN LEASE

520

17. NO. OF ACRES ASSIGNED TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

5500

20. ROTARY OR CABLE TOOLS

Rotary

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

4151 GR **Lea County Controlled Water Basin**

22. APPROX. DATE WORK WILL START\*

As soon as approved

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	NA	NA	40'	Cement to surface/Redi-Mix
12 1/4"	J-55 8 5/8"	24#	1500'	900 Sx. Circulate Cement to Surf.
7 7/8"	J-55 5 1/2"	15.5 #	5500'	450 Sx. Top Cement 2500' = 1400'

1. Drill 26" hole to 40'. Set 40' of 20" Conductor Pipe and cement to surface with Redi-Mix.
2. Drill 12 1/4" hole to 1500'. Run and set 1500' of 8 5/8" J-55 24# ST&C casing. Cement with 500 Sx of Halco light tail in with 400 Sx. Class "C" + 2% CaCl circulate cement to surface.
3. Drill 7 7/8" hole to 5500'. Run and set 5500' of 5 1/2" J-55 15.5# ST&C casing. Cement with 450 Sx. Premium Plus + .4% Fluid Loss + 2% Gel, + 10 PPS Micro Bond. Bring Cement top to the base of salt and above the Yates @ 2650'. Verify top of cement with a cement bond log or Temp. Survey.

General Requirements and Special Stipulations Attached

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 Joel Janceo TITLE Agent DATE 04/10/96

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY /s/ TIMOTHY J. BURKE TITLE Acting Area Manager DATE 6-5-96

\*See Instructions On Reverse Side

DISTRICT I  
P.O. Box 1960, Hobbs, NM 88241-1960

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-33479</b>	Pool Code <i>43329</i> 43329	Pool Name MALJAMAR - GRAYBURG SAN ANDRES
Property Code 16868	Property Name EILLIAMS " <del>34</del> " FEDERAL	Well Number 14
OGRID No. 021355	Operator Name SOUTHWEST ROYALTIES INC.	Elevation 4151

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	34	17 S	33 E		1650	NORTH	1980	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Joe T. Jarica</i> Signature Joe T. Jarica Printed Name Agent Title 04/10/96 Date</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p>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 belief.</p> <p>APRIL 8, 1996</p> <p>Date Surveyed Signature: <i>Ronald J. Edson</i> Professional Surveyor Professional Surveyor No. 4399-96 W.C. Num. 95-1120427</p>
	<p>Certificate No. JOHN W. OREST 676 RONALD J. EDSON 3239 PROFESSIONAL SURVEYOR EDSON 12641</p>

## APPLICATION TO DRILL

SOUTHWEST ROYALTIES INC.  
 EILLIAMS "34" FEDERAL # 14  
 1650' FNL & 1980' FEL SEC. 34  
 T17S-R33E LEA CO. NM

In response to questions asked under Section II B of Bulletin NTL-6, the following information is provided for your consideration:

1. Location: 1650' FNL & 1980' FEL SEC. 34 T17S-R33E Lea Co.  
 New Mexico

2. Elevation Above Sea Level: 4151 GR.

3. Geologic Name of Surface Formation: Quaternary Aeolian Deposits

4. Drilling Tools and Associated Equipment: Conventional rotary drilling rig using mud for the circulation medium.

5. Proposed Drilling Depth: 5500'

6. Estimated Geological Marker Tops:

Rustler Anhydrite	1450'	Top Queen	3776'
Top of Salt	1605'	Top of Grayburg	4209'
Base of Salt	2634'	Top of San Andres	4510'
Top of Yates	2926'		

7. Possible Mineral Bearing Formation:

Grayburg- San Andres                      Oil

8. Casing Program:

Hole Size	Intreval	OD Csg	Weight	Thread	Collar	Grade	Cond.
26"	0-40	20	NA	NA	NA	NA	New
12 1/4"	0-1500'	8 5/8"	24#	8-R	ST&C	J-55	New
7 7/8"	0-5500'	5 1/2"	15.5#	8-R	ST&C	J-55	New

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**9. Cementing and Setting Depth:**

20"	Conductor	Set 40' of 20" conductor cement to surface with Redi-Mix.
8 5/8"	Surface	Set 1500' of 8 5/8" 24# 8-R J-55 ST&C casing. Cement with 500 Sx. Halco light, tail in with 400 Sx. Class "C" + 2% CaCl circulate cement to surface.
5 1/2"	Production	Set 5500' of 5 1/2" 15.5# 8-R J-55 ST&C casing. Cement with 450 Sx. Premium Plus + .4% Fluid loss + 10#/Sx Micro Bond. Bring cement back the base of Salt. Verify with Log.

**10. Pressure Control Equipment:** Exhibit "E". A Blow-out Preventer (no less than 900 series 3000 psi working pressure) consisting of double ram type preventer with annular type preventor, all units will be hydraulically operated. Exhibit "E-1" Choke Manifold and Closing Unit. Blind rams on top, pipe rams on bottom to correspond with size of drill pipe in use. BOP will be nipped up on 8 5/8" casing and remain on well until casing is run and cemented. BOP will be tested as well as choke manifold. BOP will be worked at least once each day while drilling and blind ram will be worked on trips when no drill pipe is in hole. Flow sensor PVT, full opening stabbing valve and upper kelley cock will be utilized.

**11. Proposed Mud Circulating System:**

<u>Depth</u>	<u>Mud Wt.</u>	<u>Mud Visc.</u>	<u>Fluid Loss</u>	<u>Type Mud</u>
40-1500'	8.6-9	30-35	NC	Fresh water spud mud
1500-5500;	10-10.2	29-34	NC	Brine water add Lime for pH control and paper to control seepage.

Sufficient mud materials to maintain mud properties, meet lost circulation and weight increase requirments will be kept at wellsite at all times. In order to run casing and log well viscosity may have to be raised and water loss may have to be lowered.

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SOUTHWEST ROYALTIES INC.  
EILLIAMS " 34" FEDERAL # 14  
1650' FNL & 1980' FEL SEC: 34  
T17S-R33E LEA CO. NM

**12. Testing, Logging and Coring Program:**

- A. No planned DST'S
- B. Open Hole Logs: DLL/LDT-CNL from TD to 1500' with Gamma-Ray and Caliper from TD to Surface.
- C. No cores are planned & no Mud Logger will be used.

**13. Potential Hazards:**

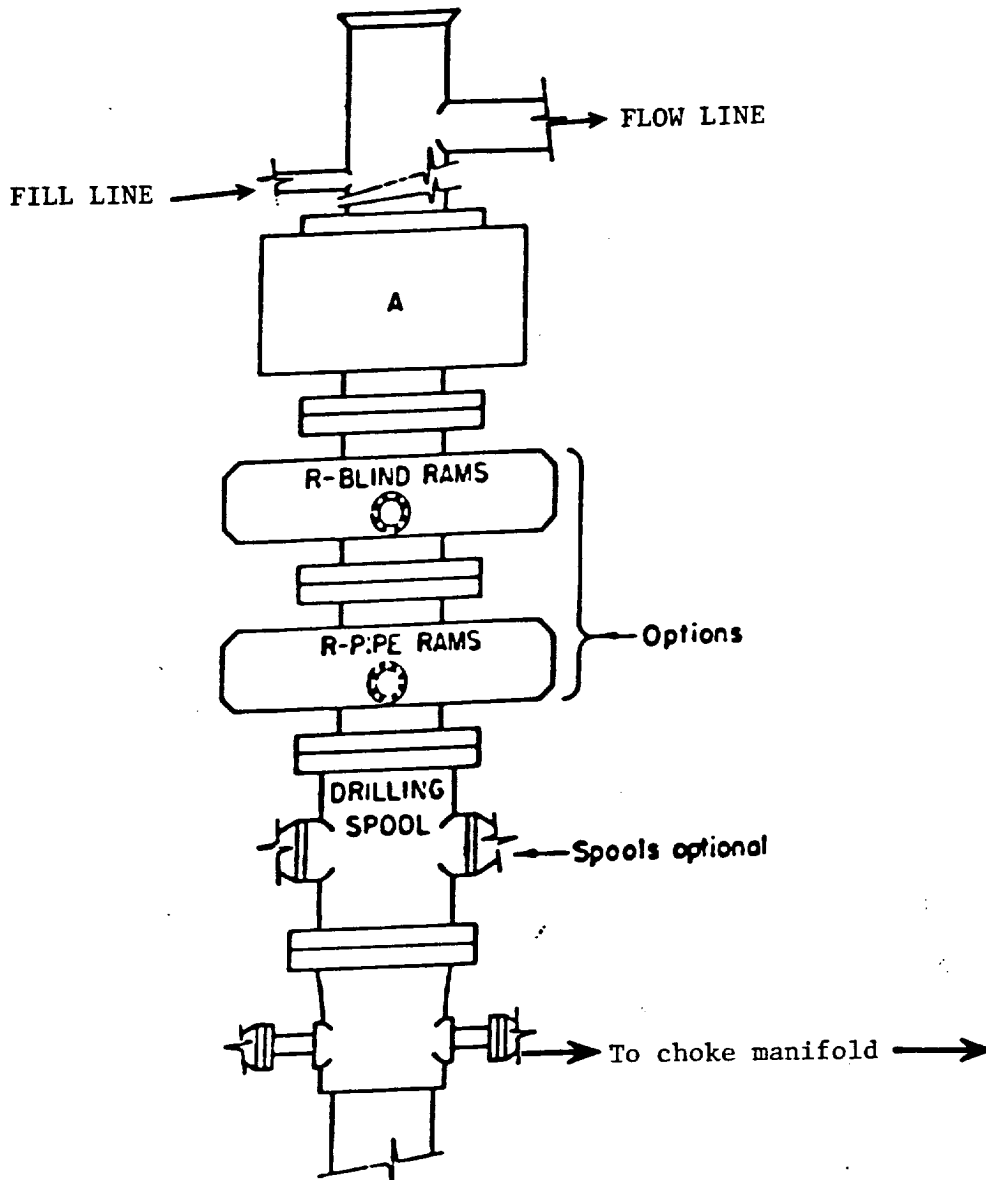
No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H<sub>2</sub>S detectors will be in place to detect any presence. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 2000 PSI, estimated BHT 120° .

**14. Anticipated Starting Date and Duration of Operation:**

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 8-10 days. If production casing is run an additional 30 days to complete and construct surface facility and place well on production.

**15. Other Facets of Operations:**

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Grayburg-San Andres pay will be perforated and stimulated. The well will be swab tested and potentialized as an oil well.



**ARRANGEMENT SRRA**

900 Series  
3000 PSI WP

EXHIBIT "E"  
B.O.P. SKETCH TO BE USED ON  
SOUTHWEST ROYALTIES INC.  
EILLIAMS "34" FEDERAL # 14  
1650' FNL & 1980' FEL SEC. 34  
T17S-R33E LEA CO. NM