

DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO.  
**NM-26690<sup>RE</sup>**

6. IF INDIAN ALLOTTEE OR TRIBE NAME  
N/A

7. UNIT AGREEMENT NAME  
N/A

8. FARM OR LEASE NAME WELL NO.  
**PATTERSON FEDERAL 33 #2**

9. API WELL NO.

10. FIELD AND POOL, OR WILDCAT  
**WILDCAT  
LUCK SAN ANDRES**

11. SEC., T., R., M., OR BLK AND SURVEY OR AREA  
**SEC. 33, T18S, R32E**

12. COUNTY OR PARRISH  
LEA

13. STATE  
NM

22. APPROX. DATE WORK WILL START\*  
03/30/96

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
DRILL  DEEPEN

1. TYPE OF WELL  
OIL WELL  GAS WELL  OTHER   
SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
**CHEVRON U.S.A. INC. ATTN: J. K. Ripley**

3. ADDRESS AND TELEPHONE NO.  
**P. O. BOX 1150, MIDLAND, TX 79702 915-687-7826**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements \*)  
At surface **660' FSL & 1980' FWL**  
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
**15 miles South of Majamar, NM**

15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.  
(Also to nearest drng. unit line, if any) **660'**

16. NO. OF ACRES IN LEASE  
**280**

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.  
**1320'**

19. PROPOSED DEPTH  
**6000'**

20. ROTARY OR CABLE TOOLS  
**ROTARY**

21. ELEVATIONS (Show whether DF, RT, GR, ect.)  
**3684' GR; 3686'**

PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	23	800'	SURFACE
7-7/8"	5-1/2"	15.5	6000'	CIRCULATED

CHEVRON USA PROPOSES TO DRILL TO APPROXIMATELY 6000'. IF WELL IS DEEMED TO BE NON-COMMERCIAL, THE WELLBORE WILL BE PLUGGED AND ABANDONED AS PER FEDERAL REGULATIONS. PROGRAMS TO ADHERE TO ONSHORE OIL AND GAS REGULATIONS ARE OUTLINED IN THE ATTACH

OPEN GRID NO. 4323  
PROPERTY NO. 18894  
POOL CODE \_\_\_\_\_  
EFF. DATE 5/3/96  
API NO. 30-025-33409

Approved Subject to  
General Requirements and  
Special Stipulations  
Attached

IN ABOVE SPACE DESCRIBE PROF. zone and proposed new production zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface geology and structure and the vertical depth. Give cement preventer program, if any.

24. SIGNED J.K. Ripley TITLE TECHNICAL ASSISTANT DATE 03/18/96  
(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 Timothy P. O'Brien TITLE Acting DATE \_\_\_\_\_  
\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

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

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

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name <i>Wildcat</i> LUSK SAN ANDRES
Property Code	Property Name PATERSON FEDERAL 33	Well Number 2
OGRID No. 4323	Operator Name CHEVRON U.S.A. INC.	Elevation 3686

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	33	18 S	32 E		660	SOUTH	1980	WEST	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.						

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>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p><i>J. K. Ripley</i> Signature J. K. Ripley Printed Name T.A. Title 3/18/96 Date</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <p><i>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.</i></p> <p>JANUARY 16, 1996 Date Surveyed</p> <p>Signatures &amp; Seal of Professional Surveyor <i>Ronald J. Eibson</i> W.O. Num. 96-11-0072</p> <p>Certificate No. JOHN W. WEST 676 RONALD J. EIBSON 3239 GARY EIBSON 12641</p>

## DRILLING PROGRAM

Attached to Form 3160-3  
Chevron U.S.A. Inc.  
Patterson Federal 33 #2  
660' FSL & 1980' FWL  
Section 33, T18S, R32E  
Lea County, New Mexico

1. Geological Name of Surface Formation:

Aeolian

2. Estimated Tops Of Important Geological Markers:

Rustler	1220'
Top of Salt	1348
Base of Salt	3086'
Yates	3201'
Seven Rivers	3329'
Queen	3883'
Penrose	4129'
Grayburg	4373'
San Andres	4923'
Delaware	5285'
TD	6000'

3. Protection of Zones:

The fresh water sands will be protected by setting 8 5/8" casing at 800' and circulating cement to surface. The oil and gas zones will be protected with 5 1/2" casing to total depth and circulating cement to surface.

4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>Csg OD</u>	<u>Weight, Grade, Type</u>
12 1/4"	0-800'	8 5/8"	23#, WC-50, ST&C
7 7/8"	0-6000'	5 1/2"	15.5#, K-55, LT&C

Cement Program:

8 5/8" Surface Casing: (12 1/4" open hole)	Cemented to surface using Class "C" + 4% Gel + additives, followed by Class "C" neat.
5 1/2" Production Casing (7 7/8" open hole)	Cemented to surface using Class "C" + 16% Gel + Additives, followed by Class "C" neat.

The above cement slurries will be designed using caliper logs to circulate cement to surface.

5. Minimum Specifications for Pressure Control:

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a (2M system) double ram type (2000 psi WP) preventor. The unit will be hydraulically operated and equipped with blind and pipe type rams. BOP's will be installed on the 8 5/8" surface casing and will be utilized continuously until total depth is reach and production casing is in place and cemented. All BOP's and associated equipment will be tested before drilling out 8 5/8" casing shoe.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These function tests will be documented on the daily drillers log. A 2" kill line and 2" choke line will be incorporated in the drilling spool below the ram-type BOP. Other BOP equipment will include a kelly cock, floor safety valve, choke lines and choke manifold having 2000 psi WP rating.

6. Types and Characteristics of Proposed Mud System:

The well will be drilled to a total depth using fresh water, brine and polymer mud systems.

<u>DEPTH</u>	<u>TYPE</u>	<u>WEIGHT</u>	<u>VISCOSITY</u>	<u>WATER LOSS</u>
0'-800'	Fresh Water	8.8	34-36	No control
800'-6000'	Brine Water	10.0	28	No Control

7. A. A kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- C. No H2S will be encountered in this well.

8. Logging, Testing and Coring Program:

- A. Drill stem test will be based on geological sample shows (none planned).
- B. The open hole logging program will be:  
  
Comp. Neutron / Lithodensity Log, Dual Lateral / MSFL, Digital Sonic,  
Sidewall Cores.
- C. No coring is planned.

9. Abnormal Pressures, Temperature and Potential Hazards:

No abnormal pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is 100 degrees and maximum bottom hole pressure is 2300 psig. No hydrogen sulfide gas has been reported or is known to exist at these depths in this area. No major loss circulation intervals have been encountered in adjacent wells.

10. Anticipated Starting Date and Duration of Operations:

Road and location preparation will not be undertaken until approval has been received from the BLM. The anticipated spud date is approximately June 1, 1996. The drilling operations should require approximately 12 days. If the well is deemed productive, completion operations will require, at minimum, an additional 30 days of testing to ascertain whether permanent production facilities will be constructed.

E. CLASS III BLOWOUT PREVENTER STACK:

The Class III preventer stack is designed for drilling or workover operations. It is composed of a single hydraulically operated annular preventer on top, then a blind ram preventer, a drilling spool, and a single pipe ram preventer on bottom. The choke and kill lines are installed onto the drilling spool and must have a minimum internal diameter of 2". All side outlets on the preventers or drilling spool must be flanged, studded, or clamped. An emergency kill line may be installed on the wellhead. A double ram preventer should only be used when space limitations make it necessary to remove the drilling spool. In these instances, the choke manifold should be connected to a flanged outlet between the preventer rams only. In this hookup, the pipe rams are considered master rams only, and cannot be used to routinely circulate out a kick. The Class III blowout preventer stack is shown to the right in Figure 11J.4.

