

Form 3160-3  
(December 1990)

N. M. M.  
P. O. BOX  
HOBBS, NM  
DEPARTMENT  
BUREAU OF

OPER. ORIGIN NO. 17825  
PROPERTY NO. 9280  
POOL CODE 58900  
SEE DATE 3/20/97  
APP. NO. 3D-025-33881

ELICATE  
less on  
e)

2-13-97 ADM  
Form approved  
Budget Bureau No. 1004-0136  
Expires: December 31, 1991

# APPLICATION FOR F

## 1A. TYPE OF WORK

DRILL ☒

DEEPEN ☐

## 1B. TYPE OF WELL

OIL  
WELL ☒

GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☐

MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

PLAINS PETROLEUM OPERATING COMPANY

## 3. ADDRESS AND TELEPHONE NO.

415 W. Wall, Suite 1000, Midland, TX 79701 915/683-4434

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

At surface

Unit Letter I, 2280' FSL & 560' FEL

At proposed prod. zone

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

11 miles NE of Jal, NM

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

560'

## 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.

1295'

## 19. PROPOSED DEPTH

9700'

## 20. ROTARY OR CABLE TOOLS

Rotary

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

3265' GR

## 22. APPROX. DATE WORK WILL START\*

ASAP

## 23.

### PROPOSED CASING AND CEMENTING PROGRAM

### CAPITAN CONTROLLED WATER BASIN

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48# H40	350'	375 sx, circ surface
12-1/4"	8-5/8"	24# & 32# K55	3000'	550 sx, circ surface
7-7/8"	5-1/2"	15.5# & 17# K55 & N80	9700'	925 sx, circ surface

This well is proposed to be drilled to a total depth of 9700' and completed as a Simpson McKee producer

Mud Program 0' - 350' Spud mud, FW, gel  
350' - 3000' Brine & native mud, mud weight 10 - 10.2 ppg, viscosity 25 - 28  
3000' - 9700' Fresh water gel 8.6 - 9.2 ppg, viscosity 28 - 35

We plan to use a 5000 psi Shaffer double, hydraulic-operated BOP during the drilling of this well. Upon receipt of the drilling permit, we will commence drilling operations.

APPROVAL SUBJECT TO  
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 prevention program, if any.

24.

SIGNED James R. Sutherland TITLE District Manager DATE 2-12-97

(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 enable the applicant to conduct operations thereon.  
CONDITIONS OF APPROVAL, IF ANY:

(ORIG. SGD.) TONY L. FERGUSON

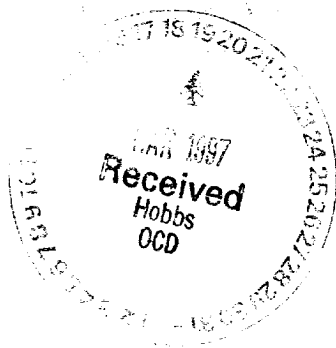
ADM, MINERALS

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE 3-17-97

\*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.

11-27-97



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

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  
Santo Fe, NM 87507-2088

State of New Mexico  
Energy, Minerals, and Natural Resources Department

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

Form C-102  
Revised 02-10-94

Instructions on back

Submit to the Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

RECEIVED

FEB 13 1997

BLM  
ROSWELL, NM

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025- 33889		2 Pool Code 58900		3 Pool Name TEAGUE SIMPSON					
4 Property Code 009280		5 Property Name E. C. HILL 'B' FEDERAL						6 Well Number 24	
7 OGRID No. 017805		8 Operator Name PLAINS PETROLEUM OPERATING COMPANY						9 Elevation 3285'	
10 SURFACE LOCATION									
UL or lot no. I	Section 34	Township 23 SOUTH	Range 37 EAST, N.M.P.M.	Lot Ida	Feet from the 2280'	North/South line SOUTH	Feet from the 560'	East/West line EAST	County LEA
"BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE									
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres 40		13 Joint or Infill		14 Consolidation Code		15 Order No.			
NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION									
						OPERATOR CERTIFICATION			
						I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.			
						Signature <i>James R. Sutherland</i>			
						Printed Name James R. Sutherland			
						Title District Manager			
						Date 2-12-97			
						SURVEYOR CERTIFICATION			
						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.			
						Date of Survey FEBRUARY 5 1997			
						Signature and Seal of Professional Surveyor <i>Roger M. Robbins</i> Professional Surveyor 12128			
Certification of Professional Surveyor ROGER M. ROBBINS P.S. #12128						JOB #49915 / 45 SW / VHB			



## **APPLICATION TO DRILL**

### **PLAINS PETROLEUM OPERATING COMPANY**

E. C. Hill "B" Federal #24  
2280' FSL & 560' FEL  
Sec. 34 (I), T23S, R37E  
Lea County, New Mexico  
Lease No.: NMLC064118  
Lea County, New Mexico

In addition with Form 3160-2, Application to Drill the above well, Plains Petroleum Operating Company submits the following in accordance with BLM requirements.

#### **1. ESTIMATED GEOLOGICAL MARKERS**

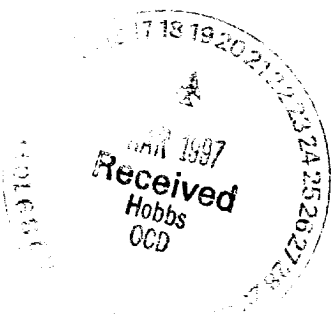
GL: 3265'

KB: 3277'

#### **FORMATION**

#### **TOP SS**

Penrose	3406'	-129'
Glorieta	4916'	-1639'
Paddock	5031'	-1754'
Blinebry	5261'	-1984'
Tubb	5911'	-2634'
Drinkard	6315'	-3038'
Abo	6397'	-3120'
Devonian	7221'	-3944'
Silurian	7726'	-4449'
Fusselman	8126'	-4849'
Montoya	8501'	-5244'
Simpson	8801'	-5524'
McKee	9161'	-5884'
Ellenburger	9586'	-6309'
TD	9700'	-6423'



**APPLICATION TO DRILL**  
**Plains Petroleum Operating Company**  
**E. C. Hill "B" Federal #24**  
**Lea County, New Mexico**  
**Lease No. NMLC064118**  
**February 12, 1997**  
**Page 2**

**2. CASING DETAIL**

	CASING SIZE OD	INTERVAL	LENGTH OF INTERVAL	WEIGHT #/FT	INTERVAL WEIGHT	CASING GRADE	JOINT
Surface	13-3/8"	0' - 350'	350'	48#	16,800	H-40	STC
Intermediate	8-5/8"	0' - 100'	100'	32#	3,200	K-55	STC
	8-5/8"	100' - 2200'	2200'	24#	50,400	K-55	STC
	8-5/8"	2200' - 3000'	800'	32#	25,600	K-55	STC
Production	5-1/2"	0' - 1000'	1000'	17#	17,000	K-55	LTC
	5-1/2"	1000' - 7500'	6500'	15.5#	100,750	K-55	LTC
	5-1/2"	7500' - 9400'	1900'	17#	32,300	K-55	LTC
	5-1/2"	9400' - 9700'	300'	17#	5,100	N-80	LTC
Tubing	2-7/8"	0 - 9700'	9700'	6.5#	63,050	J-55	EUE

**3. CEMENTING & FLOAT EQUIPMENT DETAIL**

WELL DATA	SURFACE	INTERMEDIATE (TD 3000')	PRODUCTION (TD 9700')
Depth	350'	3000'	9700'
Casing Size	13-3/8"	8-5/8"	5-1/2"
Hole Size	17-1/2"	12-1/4"	7-7/8"
Desired Fill	Surface	Surface	Surface
Hole Volume	245 Ft <sup>3</sup>	940 Ft <sup>3</sup>	1150 Ft <sup>3</sup> , 475 Ft <sup>3</sup>
Recommended Volume	490 Ft <sup>3</sup>	1410 Ft <sup>3</sup>	1325 Ft <sup>3</sup> , 475 Ft <sup>3</sup>
DV Tool Depth	N/A	N/A	6000'

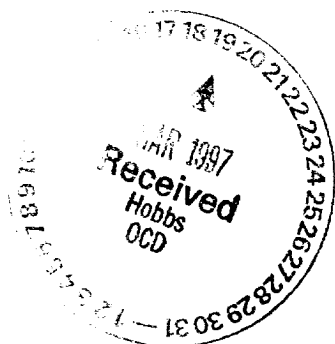




**APPLICATION TO DRILL**  
 Plains Petroleum Operating Company  
 E. C. Hill "B" Federal #24  
 Lea County, New Mexico  
 Lease No. NMLC064118  
 February 12, 1997  
 Page 3

**SLURRY**

	Surface	Intermediate	Production 1st Stage	Production 2nd Stage
Recommendation	375 sx Premium Plus +2% CaCl <sub>2</sub> + 1/4#/sk Flocele	Lead: 450 sx Premium Plus cement + .25% Dispersant + 2.5% Extender + .5% Gel + .2% Salt + 1/4 PPS Flocele. Tail: 100 sx Premium Plus cement	Lead: 100 sx Premium cement 35:65 Poz + 6% Gel + 9 PPS Salt + .2% Defoamer + .8% FLA. Tail: 575 sx Premium cement 50:50 Poz + 2% Gel + 4 PPS Salt + .2% Defoamer + .6% F LA	Lead: 150 sx Premium cement + .25% Dispersant + 2.5% Extender + .5% Gel + .2% Salt + 1/4 PPS Flocele. Tail: 100 sx Premium cement
Yield	1.32 Ft <sup>3</sup> /sk	2.85 Ft <sup>3</sup> /sk, 1.32 Ft <sup>3</sup> /sk,	2.14 Ft <sup>3</sup> /sx, 1.32 Ft <sup>3</sup> /sx	2.85 Ft <sup>3</sup> /sx, 1.32 Ft <sup>3</sup> /sx
Weight	14.8 PPG	11.6 PPG 14.8 PPG	12.7 PPG 14.2 PPG	11.6 PPG 14.8 PPG
Mix Water	6.32 gal/sk	17.2 gal/sk 6.32 gal/sk	11.6 gal/sk 6.32 gal/sk	17.2 gal/sk 6.32 gal/sk



## **APPLICATION TO DRILL**

Plains Petroleum Operating Company

E. C. Hill "B" Federal #24

Lea County, New Mexico

Lease No. NMLC064118

February 12, 1997

Page 4

### **4. MUD DETAIL**

<u>DEPTH</u>	<u>PROPERTIES</u>	<u>TREATMENT</u>
0 - 350'	Weight: 8.7 - 9.4 Viscosity: 33 - 35 Solids: <4.	Spud Mud: Fresh water gel with sufficient to viscosity to clean hole.
350' - 3000'	Weight: 10.0 - 10.2 Viscosity: 26 - 28 Solids: < 1.0	Drill out from surface csg with brine water
3000' - 9850'	Weight: 8.6 - 9.2 Viscosity: 28 - 35 Solids < 1.0 WL 7 - 10	Drill out from intermediate casing with fresh water mud

### **5. PRESSURE CONTROL EQUIPMENT (BOPE) DETAIL**

13-5/8" API Shaffer 5000# series 900 dual hydraulic preventers adapted for the drilling contractors 4-1/2" drill pipe. The BOPS will be tested after they are installed on the surface casing, prior to drilling out, and each time they are removed or rearranged on the wellhead. See Exhibit A.

### **6. TESTING AND LOGGING PROGRAMS**

#### **TESTING**

Drill stem tests may be performed to quantify and identify prospective producing horizons as drilling progresses. Production testing will be commenced after the well is drilled and casing has been set and cemented.

#### **LOGGING**

At TD, the following open hole well logs will be run: **GR-CNL-CDL-DIL-ML-Caliper**

**APPLICATION TO DRILL**

Plains Petroleum Operating Company

E. C. Hill "B" Federal #24

Lea County, New Mexico

Lease No. NMLC064118

February 12, 1997

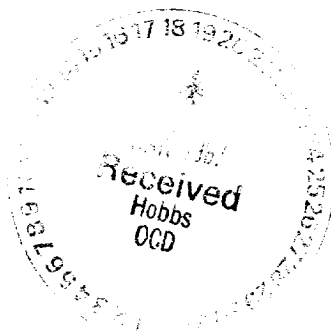
Page 5

**7. POTENTIAL HAZARDS:**

No abnormal pressures or temperatures are anticipated. Hydrogen sulfide Drilling Contingency Plan to be adhered to while drilling this well.

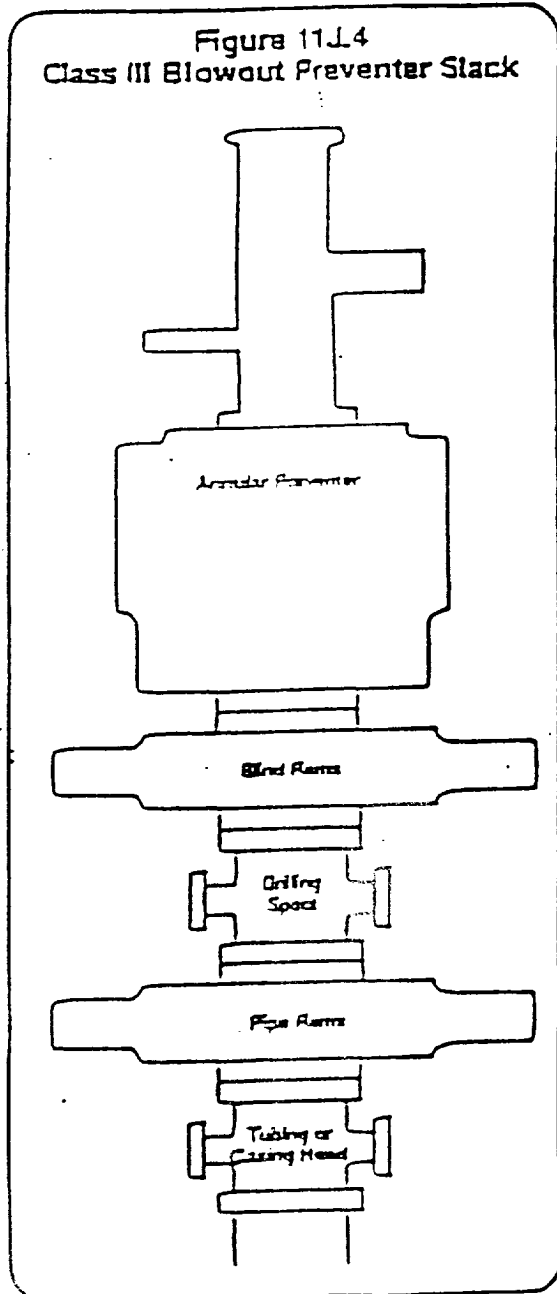
**8. ANTICIPATED START DATE:**

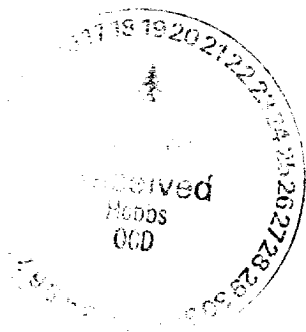
March 13, 1997 and the well to be completed on or about April 12, 1997.



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 deplete out a kick. The Class III blowout preventer stack is shown to the right in Figure 11J.4.

Figure 11J.4  
Class III Blowout Preventer Stack





LEP/1