Form 3160-3
(November 1983)
(formerly 9-331C)

N.M. Oil Cons. Division
P.O. Box 1980
Hobbs, New Mexico 88240

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: LC 064118

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL [XX] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [XX] GAS WELL [ ] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: E. C. Hill 'B' Federal

2. NAME OF OPERATOR: Plains Petroleum Operating Company

9. WELL NO.: #11

3. ADDRESS OF OPERATOR: 415 W. Wall, Suite 1000, Midland, TX 79701

10. FIELD AND POOL, OR WILDCAT: Teague ~~Blinebry~~ (Devonian)

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: Unit M, 1125' FSL & 520' FWL
At proposed prod. zone

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 35 (M) T23S, R37E (SJS)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10.3 Miles NE of Jal, New Mexico

12. COUNTY OR PARISH: Lea — 13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 520'

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.: 200

19. PROPOSED DEPTH: ±7750'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3251' GR

22. APPROX. DATE WORK WILL START*: As Soon As Possible

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8" H-40	48# H40 ST&C	350'	375 sx Circulate
12-1/4"	8-5/8" J-55	24#, 32# ST&C	±3000'	550 sx Circulate
7-7/8"	5-1/2" J-55	15.5#,17#LT&C	±7750'	705 sx Circulate (or tie back)

We propose to drill this well through the Devonian and complete as a Devonian producer.

Mud Program:
0' - 350' Spud mud, FW, gel
350' - 3000' Brine & native mud, mud wt. 10-10.2 ppg, vis 26-28, SW gel for logs
3000' - 7750' Fresh water gel 8.6 - 9.2 ppg - vs 28-35

BOP: A 3000 psi (SJS) Shaffer double hydraulic operated will be used and tested at installation, drill out, and each time they are removed or rearranged. BOP used as a mud system.

OPER. OGRID NO. 17891
PROPERTY NO. 9382
POOL CODE 58330
EFF. DATE 7-13-94
API NO. 30-025-32558

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.

SIGNED Donie Glyde TITLE Area Engineer DATE 3/3/94

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY (ORIG. SGD.) RICHARD L. MANUS TITLE AREA MANAGER DATE APR 14 1994

CONDITIONS OF APPROVAL, IF ANY:
APPROVAL OF THIS APPLICATION 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

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

*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.

APPLICATION TO DRILL

PLAINS PETROLEUM OPERATING COMPANY
E. C. HILL FEDERAL 'B' #11
1125' FSL & 520' FWL, Sec 35M, T23S, R37E
Lea County, New Mexico
Lease No. 064118
March 3, 1994

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: 3251'

FORMATION	TOP	SS
Salt	1185'	+2096'
Yates	2493'	+ 758'
Queen	3230'	+ 21'
Glorietta	4898'	-1647'
Paddock	5010'	-1759'
Blinebry	5246'	-1995'
Tubb	5856'	-2605'
1st Tubb Sand	5912'	-2661'
Drinkard	6356'	-3105'
Devonian	7500'	-4249'

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' - 120'	120'	32#	3,840	J-55	STC
	8-5/8"	120' - 2400'	2280'	24#	54,720	J-55	STC
	8-5/8"	2400' - 3000'	600'	32#	19,200	J-55	STC
Production	5-1/2"	0'- 500'	500'	17#	8,500	J-55	LTC
	5-1/2"	500' - 7000'	6500'	15.5#	100,750	J-55	LTC
	5-1/2"	7000' - 7750'	750'	17#	12,750	J-55	LTC
Tubing	2-7/8"	0' - 7500'	7500'	6.5#	48,750	J-55	EUE

PLAINS PETROLEUM OPER. CO.

Operator: PPOC	Well Name: HILL B 11
Project ID: AFE94P002	Location: 1125'FSL 520'FWL

Design Parameters:

Mud Weight (9.00 ppg)	: 0.468	psi/ft
Shut in casing pressure	: 2740	psi
Internal gradient (burst)	: 0.114	psi/ft
Annular gradient (burst)	: 0.468	psi/ft

Tensile load is determined using buoyed weight
Service rating is "Sweet"

Design Factors:

Collapse	: 1.125	
Burst	: 1.10	
8 Round	: 1.75	(J)
Buttress	: 1.60	(J)
Other	: 1.50	(J)
Body Yield	: 1.50	(B)

	Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost
1	500	5.500	17.00	J-55	LT&C	500	4.767	
2	6,500	5.500	15.50	J-55	LT&C	7,000	4.825	
3	750	5.500	17.00	J-55	LT&C	7,750	4.767	

	Collapse Load (psi)	Collapse Strength (psi)	Collapse S.F.	Burst Load (psi)	Min Int Yield Strength (psi)	Burst S.F.	Tension Load (kips)	Tension Strength (kips)	Tension S.F.
1	234	4149	9.999	2797	5320	1.90	105.21	247	2.35 J
2	3223	3990	1.219	3538	4810	1.36	97.88	217	2.22 J
3	3623	4910	1.355	3623	5320	1.47	11.00	247	22.46 J

Prepared by : *DJB, Midland, Texas*
Date : 03-03-1994
Remarks :

DEVONIAN PRODUCER
Minimum segment length for the 7,750 foot well is 500 feet.
SICP is based on the ideal gas law, a gas gravity of 1.10, and a mean gas temperature of 113°F (Surface 74°F , BHT 152°F & temp. gradient 1.000°/100 ft.)
For burst purposes, lost circulation occurs behind the pipe at 7,750 ft. above which point, the annular mud weight of 9.000 ppg goes to zero.
The equivalent pore gradient at the seat is 0.00 ppg.
An annular mud weight of 9.000 ppg was used for burst purposes. The differential mud gradient below any lost-circulation depth is -0.354 psi/ft and the bottom hole pressure load is 3,623 psi.

NOTE: The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.
Costs for this design are based on a 1987 pricing model. (Version 1.06)

3. CEMENTING & FLOAT EQUIPMENT DETAIL

WELL DATA	SURFACE	INTERMEDIATE (TD 3000')	PRODUCTION (TD 7750')
Depth	350'	3000'	7750'
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^3	940 Ft^3	875 Ft^3, 578 Ft^3
Recommended Volume	490 Ft^3	1410 Ft^3	1050 Ft^3, 578 Ft^3
DV Tool Depth	N/A	N/A	3000'

SLURRY

	Surface	Intermediate	Production 1st Stage	Production 2nd Stage
Recommendation	375 sx 'C' + 2% $Cacl_2$ + 1/4#/sk Celloseal	Lead: 450 sx 'C' + .25% Dispersent + 2.5% Extender + .5% Gel + .2% Salt + 1/4 PPS Cellophane Tail: 100 sx Cl 'C' Neat 2.85 Ft^3	Lead: 100 sx 36:65 Poz 'C' + 6% Gel + 9 PPS Salt + .2% Defoamer + .8% F.L. Additive Tail: 375 sx 50:50 Pox 'C' + 2% Gel + 4 PPS Salt + .2% Defoamer + .6% F. L.	Lead: 130 sx 'C' + .25% Dispersent + 2.5% Extender + .5% Gel + .2% Salt + 1/4 PPS Cellophane Tail: 100 sx Cl 'C' Neat 2.85 Ft^3
Yield	1.32 Ft^3/sk	2.85 Ft^3/sk, 1.32 Ft^3/sk,	2.14 Ft^3	2.85 Ft^3
Weight	14.8 PPF	11.6 PPG	12.7, 14.2 PPG	11.6 PPG
Mix Water	6.32 gal/sk	17.2 gal/sk	11.6 gal/sk 6.2 gal/sk	17.2 gal/sk

4. MUD DETAIL

DEPTH	PROPERTIES	TREATMENT
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 - 28water Solids: < 1.0	Drill out from surface csg with brine water
3000' - ~~9825~~ 7750' SOS	Weight: 8.6 - 9.2 Viscosity: 28 - 35 Solids < 1.0	Drill out from intermediate casign with fresh water mud

5. PRESSURE CONTROL EQUIPMENT (BOPE) DETAIL

13-5/8" API Shaffer SOS 3000# series 900 dual hydraulic preventers adapted for the drilling contractors 4-1/2" and 5-1/2" 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-DLL-MLL

7. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are anticipated. Hydrogen sulfide is not expected to be encountered with this well. BHP ~3500psi

8. ANTICIPATED START DATE:

SJS

May 1994 with completion on or about June 1994.

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

Form C-102
Revised 1-1-89

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

DISTRICT I
P. O. Box 1980
Hobbs, NM 88240

DISTRICT II
P. O. Drawer DD
Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd
Aztec, NM 87410

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

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

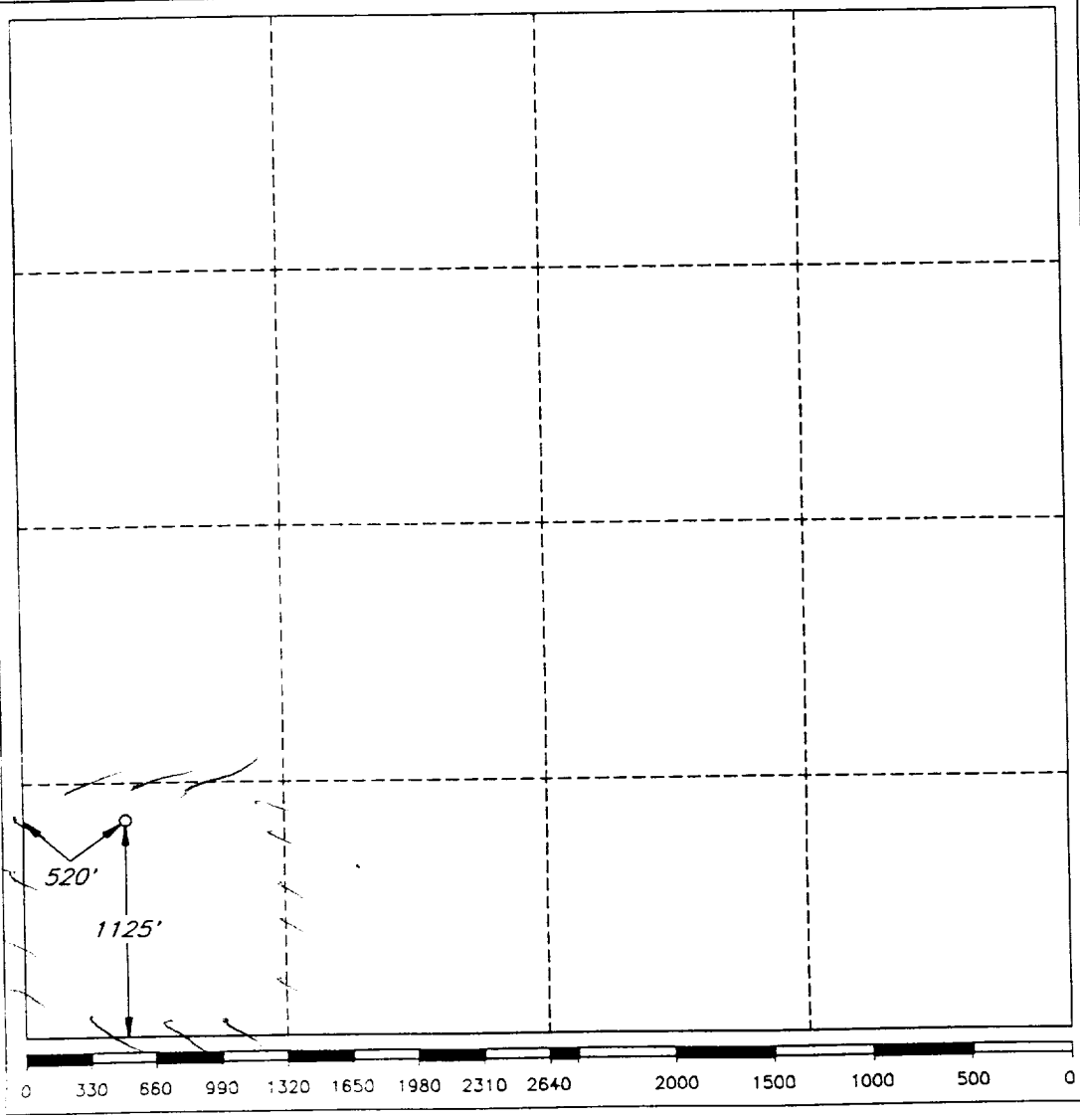
Operator	Lease	Well No.
PLAINS PETROLEUM OPER. CO.	E. C. HILL 'B' FEDERAL	11

Unit Letter	Section	Township	Range	County
M	35	23 SOUTH	37 EAST, N.M.P.M.	LEA

Actual Footage Location of Well:
1125 feet from the SOUTH line and 520 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	
3251'	Devonian	Teague	40 Acres

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 interest of all the owners been consolidated by communitization, unitization, forced-pooling, etc.?
   ☐ Yes ☐ No If answer is "yes", type of consolidation _____
   If the answer is "no", list the owners and tract descriptions which have actually been consolidated. (Use the reverse side of this form if neccessary.) _____
   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 interest, has been approved by the division.



OPERATOR CERTIFICATION

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

Signature: Dominic J. Bazile

Printed Name: Dominic J. Bazile

Position: Area Engineer

Company: Plains Petro Oper Co.

Date: March 3, 1994

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 knowledge and belief.

Date Surveyed: NOVEMBER 12, 1993

Signature and Seal of Professional Surveyor: V. LYNN BEZNER NO. 7920 REGISTERED LAND SURVEYOR STATE OF NEW MEXICO

Certificate No. V. L. BEZNER R.P.S. #7920

V.H.B. / 30130 / 45SW

125630