

OPEN. UGRI NO. 17443  
PROPERTY NO. 5073

DATE: Form approved.  
Budget Bureau No. 1004-0136  
Expires: December 31, 1991

UNITED  
DEPARTMENT OF  
BUREAU OF LAND

POOL CODE 59945  
EFF. DATE 9/14/95  
API NO. 30-025-33101

APPLICATION FOR PERM

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL  
WELL ☒

GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☐

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Harvard Petroleum Corporation

3. ADDRESS AND TELEPHONE NO.

P. O. Box 936

Roswell, NM 88202

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

At surface

660' FNL & 2310' FEL

At proposed prod. zone

Same

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

34 miles SE of Carlsbad, NM

10. DISTANCE FROM PROPOSED\*

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

330'

16. NO. OF ACRES IN LEASE

1440

17. NO. OF ACRES ASSIGNED

TO THIS WELL

40

18. DISTANCE FROM PROPOSED\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

10,100'

19. PROPOSED DEPTH

9900'

20. ROTARY OR CABLE TOOLS

Rotary

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

3645' GL

22. APPROX. DATE WORK WILL START\*

October 1, 1995

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14 3/4"	11 3/4" WC-40	42.0#	550'	Circ 400 sx "C"
11"	8 5/8" WC-50	24 & 32#	4500' [TIE]	1200 35/65 Poz + 150 "H"
7 7/8"	5 1/2" K-55	15.5-17#	9900' [BACK]	1400 sx 35/65-50/50 POZ

Mud Program:

0' - 550': Fresh water w/Gel spud mud:  
550' - 4500': Cut Brine w/gel & lime:  
4500' - 9900': Fresh water w/gel & starch:

Mud Wt.

8.4-9.0 ppg  
9.0-10. ppg  
8.4-8.8 ppg

Vis.

32-38  
28-30  
29-31

W/L Control

No W/L control  
No W/L control  
W/L cont. 10-15cc

BOP Program:

A 10" 3000 psi wp Shaffer Type "E" double ram BOP will be installed on the 8 5/8" casing. Casing and BOP will be tested before drilling out with 7 7/8". BOP will be tested daily.

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

Agent for:

TITLE Harvard Pet Corp.

DATE July 28, 1995

(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

TITLE

DATE

\*See Instructions On Reverse Side

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SEP 11 1995  
JUL HOBBS  
OFFICE

District I  
PO Box 1900, Hobbs, NM 88241-1900  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Bravo Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-33101		1 Pool Code 59945		1 Pool Name Triste Draw West	
1 Property Code 5073		1 Property Name James Federal "19"			1 Well Number 4
1 OGRID No. 10155		1 Operator Name Harvard Petroleum Corporation			1 Elevation 3645

10 Surface Location

UL or lot no. B	Section 19	Township 23 S	Range 32 E	Lot Ida	Feet from the 660	North/South line North	Feet from the 2310	East/West line East	County Lea
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11 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		13 Joint or Infill		14 Consolidation Code		15 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

16		3633.9		3646.8		2310'	
		3641.4		3649.5			
		NM-0559539		Amoco Prod. Co.			

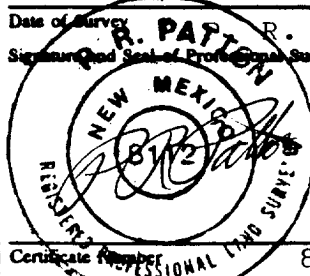
17 OPERATOR CERTIFICATION

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

*George R. Smith*  
Signature  
George R. Smith, agent for:  
Printed Name  
Harvard Petroleum Corporation  
Title  
July 28, 1995  
Date

18 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.

July 12, 1995  
Date of Survey  
R. PATTON  
Signature and Seal of Professional Surveyor:  
  
Certificate Number 8112

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JUD HUBBS  
OFFICE

## APPLICATION FOR DRILLING

HARVARD PETROLEUM CORPORATION  
James Federal "19". Well No. 4  
660' FNL & 2310' FEL. Sec. 19-T23S-R32E  
Lea County, New Mexico  
Lease No.: NM-0559539  
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well. Harvard Petroleum Corporation submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
2. The estimated tops of geologic markers are as follows:

Rustler	1120'	Lower Brushy Canyon	8130'
Top/Salado	1470'	Bone Spring	8470'
Delaware	4640'	Bone Spring Sand	8560'
Cherry Canyon	5560'	T.D.	9900'
Brushy Canyon	7125'		
3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:

Water: Surface water between 100' - 350'.

Oil: Possible in the Delaware 4763'-8400' and Bone Spring below 8500'.

Gas: None.
4. Proposed Casing Program: See Form 3160-3 and page 2 this report.
5. Proposed Control Equipment: See Form 3160-3 and Exhibit "E".
6. Mud Program: See Form 3160-3.
7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, pit level monitor, flow sensors and stabbing valve.
8. Testing, Logging, and Coring Program:

Drill Stem Tests: None unless conditions warrant.

Logging: T.D. to surface casing: CNL-LDT, DLL and Gamma Ray

Coring: None.
9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated BHP = 4150 psi (Exc. Hole), Temp. = 155°. No H<sub>2</sub>S problem in previous area wells.
10. Anticipated starting date: October 1, 1995.  
Anticipated completion of drilling operations: Approximately 45 days.

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Harvard Petroleum Corporation  
 James Federal "19", Well No. 4  
 Page 2

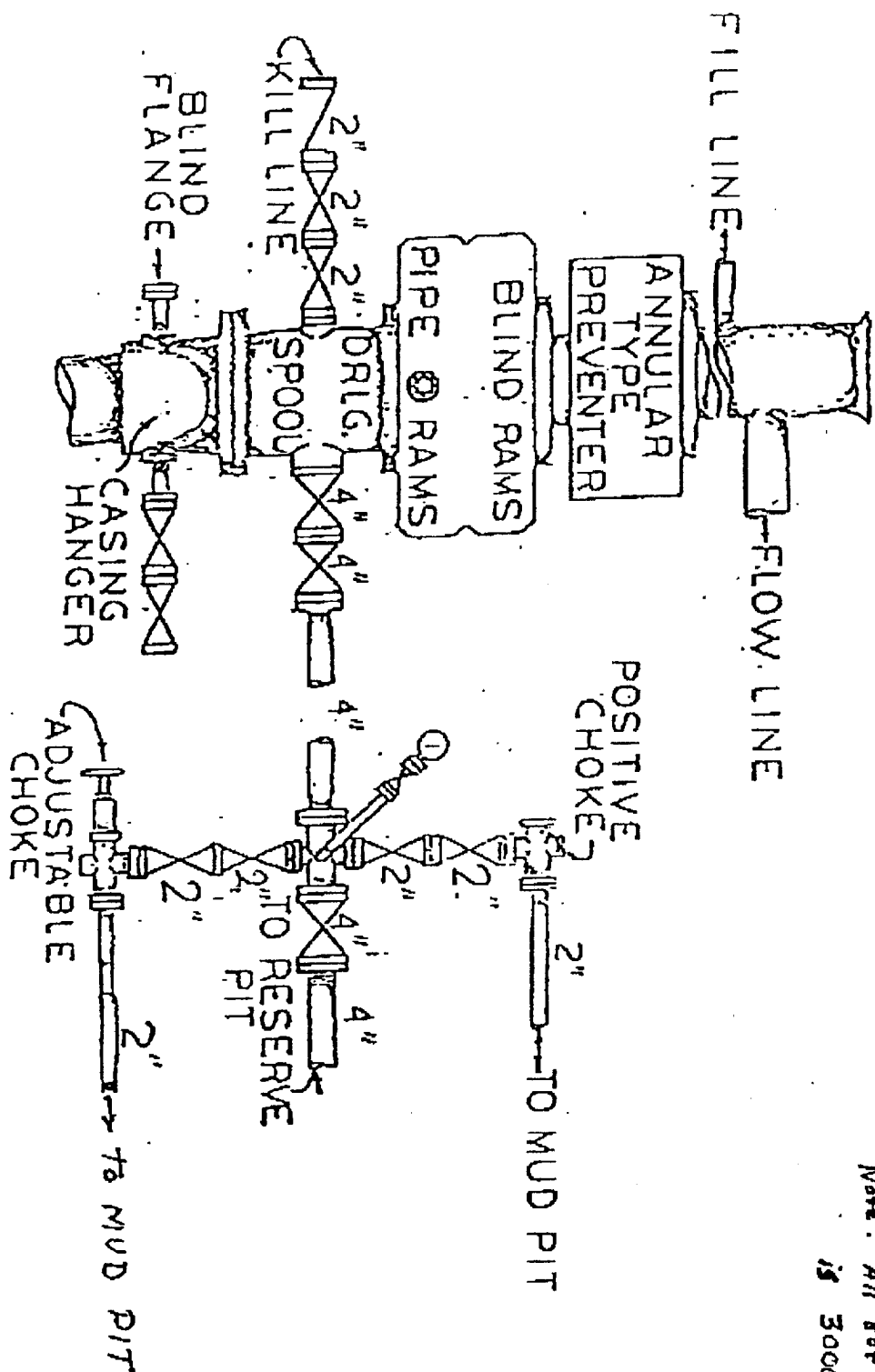
Ref. Par. 4: PROPOSED CASING AND CEMENTING PROGRAM:

Hole Size	Casing Size	Grade	Weight/ft	Depth Set	Quantity of Cement
14 3/4"	11 3/4"	WC-40	42.0#	550'	Circ. 400 sx "C"
11"	8 5/8"	WC-50	24.0#	2500'	
"	"	WC-50	32.0#	2000'	Circ. 1200 Sx 35/65 Poz + 150 sx "H"
7 7/8"	5 1/2"	K-55	15.5#	7500'	7000'-3500': 700 sx 35/65 Poz
"	"	"	17.0#	1700'	
"	"	L-80	17.0#	700'	T.D.-7000': 700 sx 50/50 Poz

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JULIUS ROBB  
OFFICE



# B.O.P. ARRANGEMENT



Note: All BOP Equipment  
is 3000<sup>psi</sup> working pressure

EXHIBIT "E"  
HARVARD PETROLEUM CORPORATION  
James Federal "19", Well No. 4  
BOP Specifications

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AUG 10 10 15 AM '85

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AA

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