

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

DEC 07 '87

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		ARTESIAN OFFICE <input type="checkbox"/>	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>	
2. NAME OF OPERATOR PRIMARY FUELS, INC.			
3. ADDRESS OF OPERATOR P. O. BOX 569, HOUSTON, TEXAS 77001			
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1687' FSL AND 2041' FWL OF SECTION 19 At proposed prod. zone			
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 7 AIR MILES WEST-SOUTHWEST OF CARLSBAD, NEW MEXICO			
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1687'		16. NO. OF ACRES IN LEASE 957.28	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 64'		19. PROPOSED DEPTH 4600'	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3377.6 GL		17. NO. OF ACRES ASSIGNED TO THIS WELL 40	
		20. ROTARY OR CABLE TOOLS ROTARY	
		22. APPROX. DATE WORK WILL START* UPON APPROVAL	

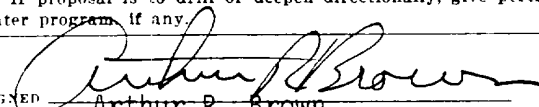
23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48#	600'	650 SACKS
12-1/4"	8-5/8"	24#	2200'	950 SACKS
7-7/8"	5-1/2"	15.5#	4600'	450 SACKS

AFTER SETTING PRODUCTION CASING, PAY ZONE WILL BE PERFORATED AND STIMULATED AS NECESSARY.

SEE ATTACHED FOR: SUPPLEMENTAL DRILLING DATA  
BOP SKETCH  
SURFACE USE AND OPERATIONS PLAN

THE EXISTING WELL IN THIS 40-ACRE TRACT IS OWNED AND OPERATED BY PRIMARY FUELS, INC.

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 Arthur R. Brown TITLE Agent DATE 11-30-87  
(This space for Federal or State office use)

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

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE 12-4-87  
CONDITIONS OF APPROVAL, IF ANY:

\*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.

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-128  
Supersedes C-128  
Effective 10-65

All distances must be from the outer boundaries of the Section

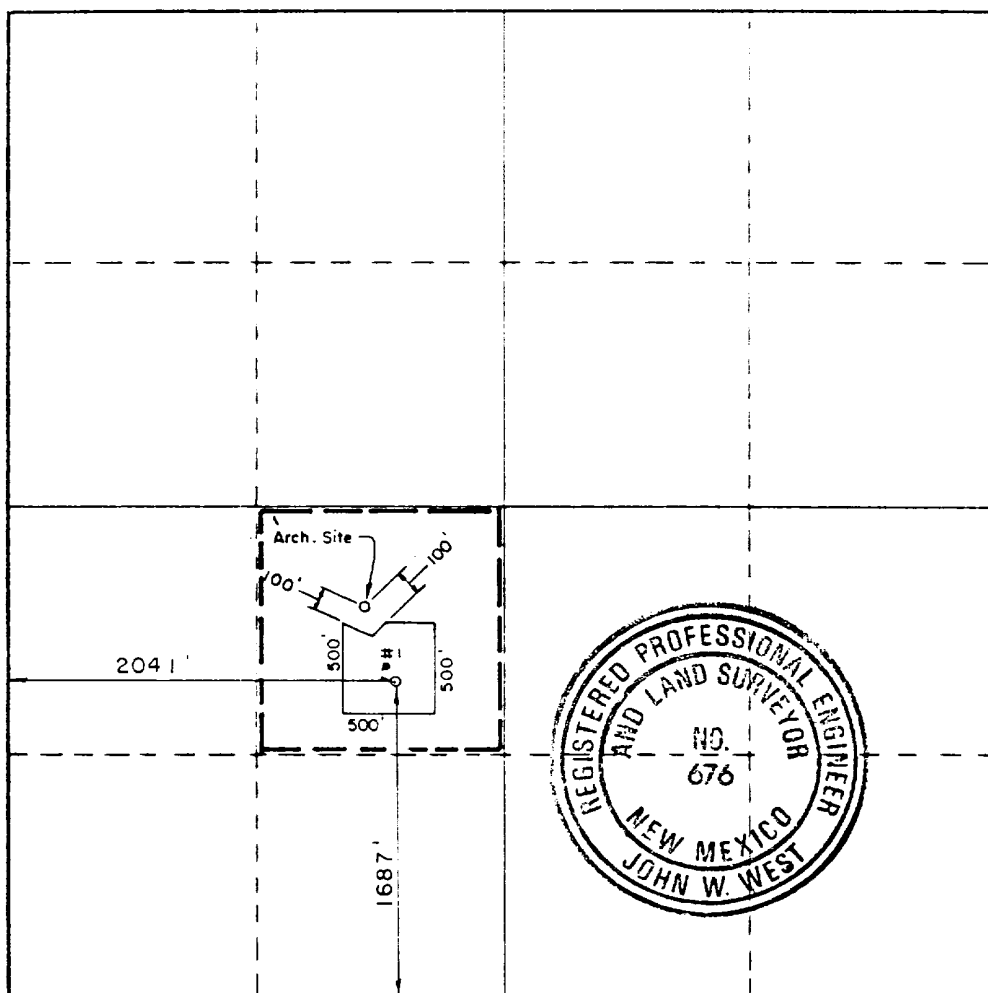
Operator Primary Fuels Inc.		Lessee PFI Amoco Federal		Well No. 2
Tract Letter K	Section 19	Township 22 South	Range 26 East	County Eddy
Actual Footage Location of Well:				
1687 feet from the South line and		2041 feet from the West line		
Ground Level Elev. 3377.6	Producing Formation DELAWARE	Pool WILDCAT DELAWARE	Dedicated Acreage: 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

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 interests, has been approved by the Commission.



CERTIFICATION

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

*Arthur R. Brown*  
Name

Arthur R. Brown

Position

Agent

Company

PRIMARY FUELS, INC.

Date

11-30-87

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.

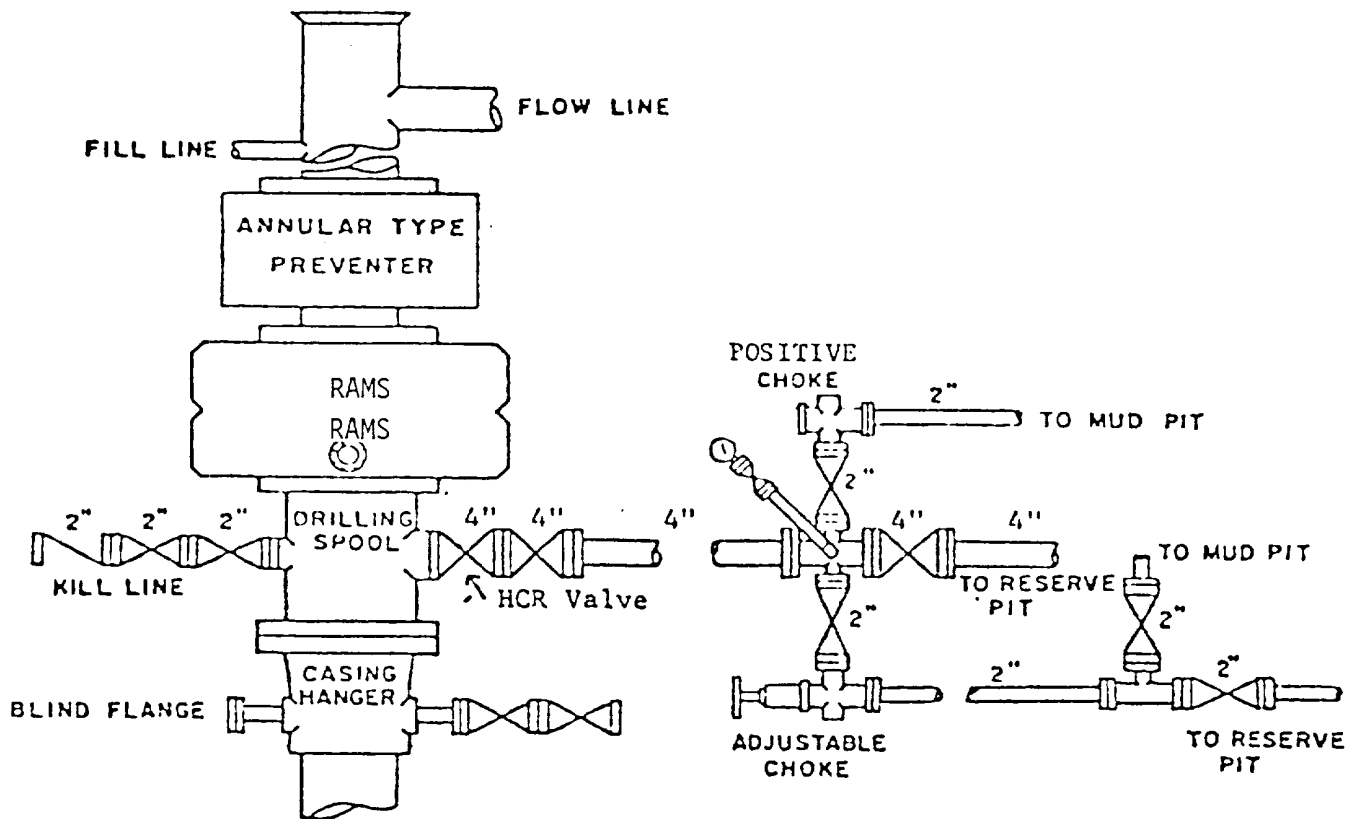
Date Surveyed

November 25, 1987

Registered Professional Engineer and/or Land Surveyor

*John W. West*

Certificate No. JOHN W. WEST, 676  
RONALD J. EIDSON, 3239



### BOP STACK

3000 PSI WORKING PRESSURE

BOP ARRANGEMENT

## SUPPLEMENTAL DRILLING DATA

PRIMARY FUELS, INC.

WELL NO.2 PFI AMOCO 19 FEDERAL

1. SURFACE FORMATION: Alluvium over Tansil. (Permian)

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

Capitan Reef	615'
Delaware	2240'

3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONES:

Delaware	Oil.
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4. PROPOSED CASING AND CEMENTING PROGRAM:

CASING SIZE	SETTING DEPTH		WEIGHT	GRADE	JOINT
	FROM	TO			
13-3/8"	0	600'	48#	H-40	STC
8-5/8"	0	2200'	24#	K-55	STC
5-1/2"	0	4600'	15.5#	K-55	STC

13-3/8" casing will be cemented with 100 sacks Premium Plus Thixset w/ 10#/sack of Gilsonite and 1/4#/sack of Flocele plus 300 sacks of Lite Premium Plus w/ 1/4#/sack of Flocele and 2% CaCl plus 250 sacks of Premium Plus w/ 2% CaCl. Cement to circulate.

8-5/8" casing will be cemented with 100 sacks of Premium Plus Thixset w/ 10#/sack of Gilsonite and 1/4#/sack of Flocele plus 600 sacks of Lite Premium Plus with 1/4#/sack of Flocele and 2% CaCl plus 250 sacks of Premium Plus with 2% CaCl. Cement to circulate.

5-1/2" casing will be cemented with 450 sacks 65/35 pozmix containing Premium Plus cement with .04% Halad-4, .02% CFR-3, and 5# salt/sack. Cement is calculated to tie-back to 8-5/8" casing.

5. PRESSURE CONTROL EQUIPMENT:

Blowout prevention equipment will consist of a 3000 psi working pressure, ram type, dual preventer and a 3000 psi working pressure annular type

preventer.

A BOP sketch is attached.

6. CIRCULATING MEDIUM:

Surface to 2200 feet: Fresh water conditioned as necessary for control of viscosity and seepage

2200 feet to Total Depth: Water base drilling fluid conditioned as necessary for control of viscosity, pH, and water-loss. Weighted as necessary for well control.

7. AUXILIARY EQUIPMENT:

Mud logging services will be used while drilling the interval 2200 feet to Total Depth.

8. TESTING, LOGGING, AND CORING PROGRAMS:

Drill stem tests will be made when samples, drilling time, and other data indicate a test is warranted.

Electric logs planned are GR/Sonic-Microlog-Cal and DIL-CAL.

No coring is planned.

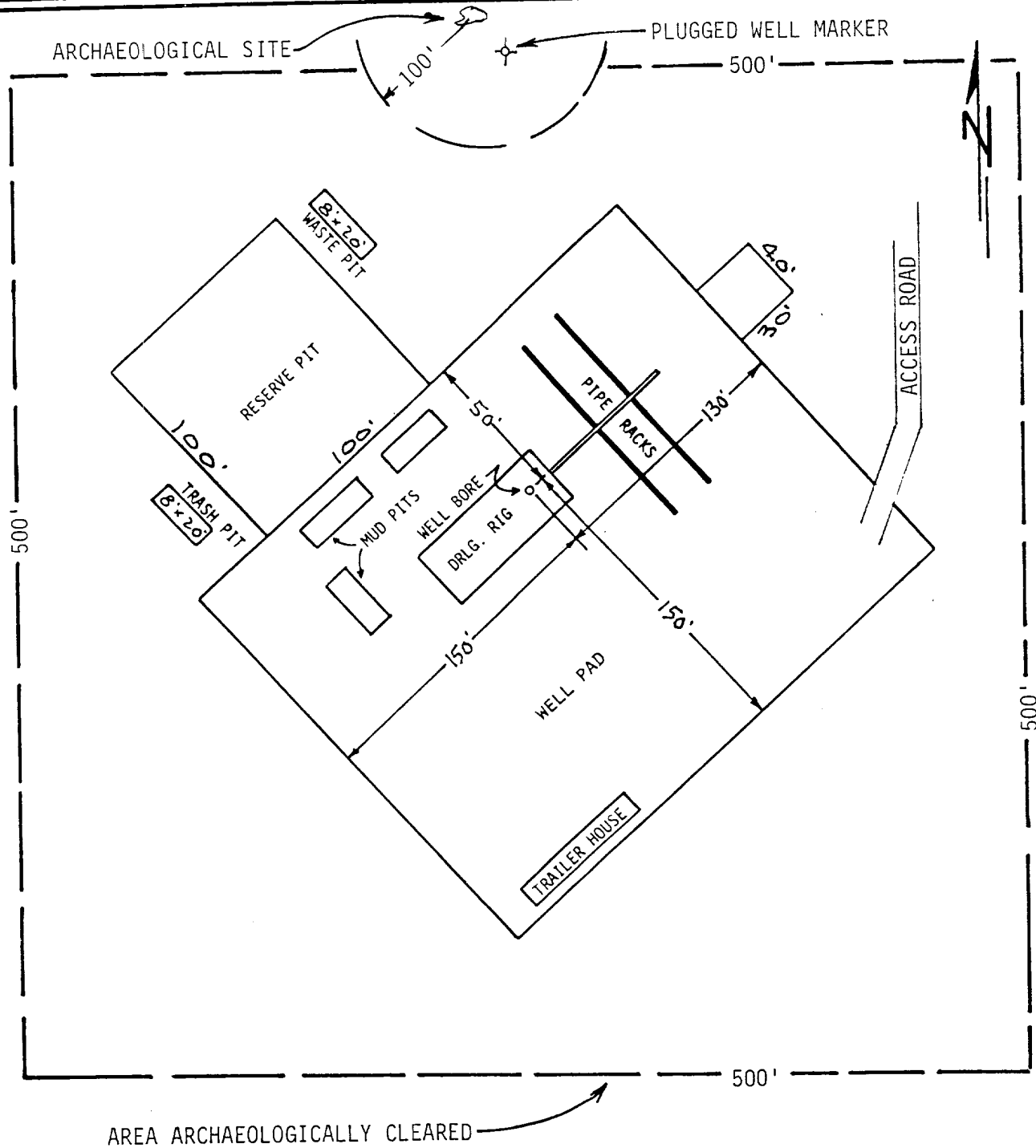
9. ABNORMAL PRESSURES, TEMPERATURES, OR HYDROGEN SULFIDE GAS:

No abnormal pressures or temperatures are anticipated.

10. ANTICIPATED STARTING DATE:

It is planned that operations will commence upon approval of this application, with drilling and completion operations lasting about 30 days.





### EXHIBIT "C"

PRIMARY FUELS, INC.  
WELL NO. 2 PFI AMOCO 19 FEDERAL  
DRILLING RIG LAYOUT  
SCALE: None