

NMOCC COPY

SUBMIT IN ☐ PLICATE\*  
(Other instructions on  
reverse side)Form approved.  
Budget Bureau No. 42-R1425.UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

30-015-22569

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

## b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐

OTHER

SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

Atlantic Richfield Company ✓

## 3. ADDRESS OF OPERATOR

P. O. Box 1710, Hobbs, New Mexico 88240

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

At surface

560' FNL &amp; 2588' FEL (Unit letter B)

At proposed prod. zone

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

O. C. C.  
ARTESIA, OFFICE

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

## 16. NO. OF ACRES IN LEASE

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.

## 19. PROPOSED DEPTH

6300'

## 20. ROTARY OR CABLE TOOLS

Rotary

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

3589.8' GR

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

8/1/78

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT *	SETTING DEPTH	QUANTITY OF CEMENT
11"	8-5/8" OD	24# K-55	1000'	400 sx
7-7/8"	5-1/2" OD	14# K-55	6000'	
		15.5# K-55	6300'	1205 sx

Propose to drill an infill development well within the Empire Abo Unit area to more economically recover additional oil reserves and conserve reservoir pressure in accordance with Unit OCC Rules and Regulations NSL-915.

Blowout Preventer Program attached.

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ARTESIA, NEW MEXICO

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

TITLE Dist. Drlg. Supt.

DATE 4/18/78

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

JUN 1 - 1978

APPROVED BY

TITLE ACTING DISTRICT ENGINEER

DATE JUN 1 - 1978

CONDITIONS OF APPROVAL, IF ANY:

THIS APPROVAL IS RESCINDED IF OPERATIONS  
ARE NOT COMMENCED WITHIN 3 MONTHS.

EXPIRES SEP 1 - 1978

\*See Instructions On Reverse Side

**MEXICO OIL CONSERVATION COMMISSION**  
**WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
 Supersedes C-128  
 Effective 1-1-65

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

Operator <b>Atlantic Richfield Co.</b>			Lease <b>Empire Abo Unit - M</b>		Well No. <b>152</b>
Unit Letter <b>B</b>	Section <b>11</b>	Township <b>18 South</b>	Range <b>27 East</b>	County <b>Eddy</b>	
Actual Footage Location of Well: <b>560</b> feet from the <b>North</b> line and <b>2588</b> feet from the <b>East</b> line					
Ground Level Elev. <b>3589.8</b>	Producing Formation <b>Abo Reef</b>	Pool <b>Empire Abo</b>		Dedicated Acreage: <b>40</b> 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 (beyond 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?

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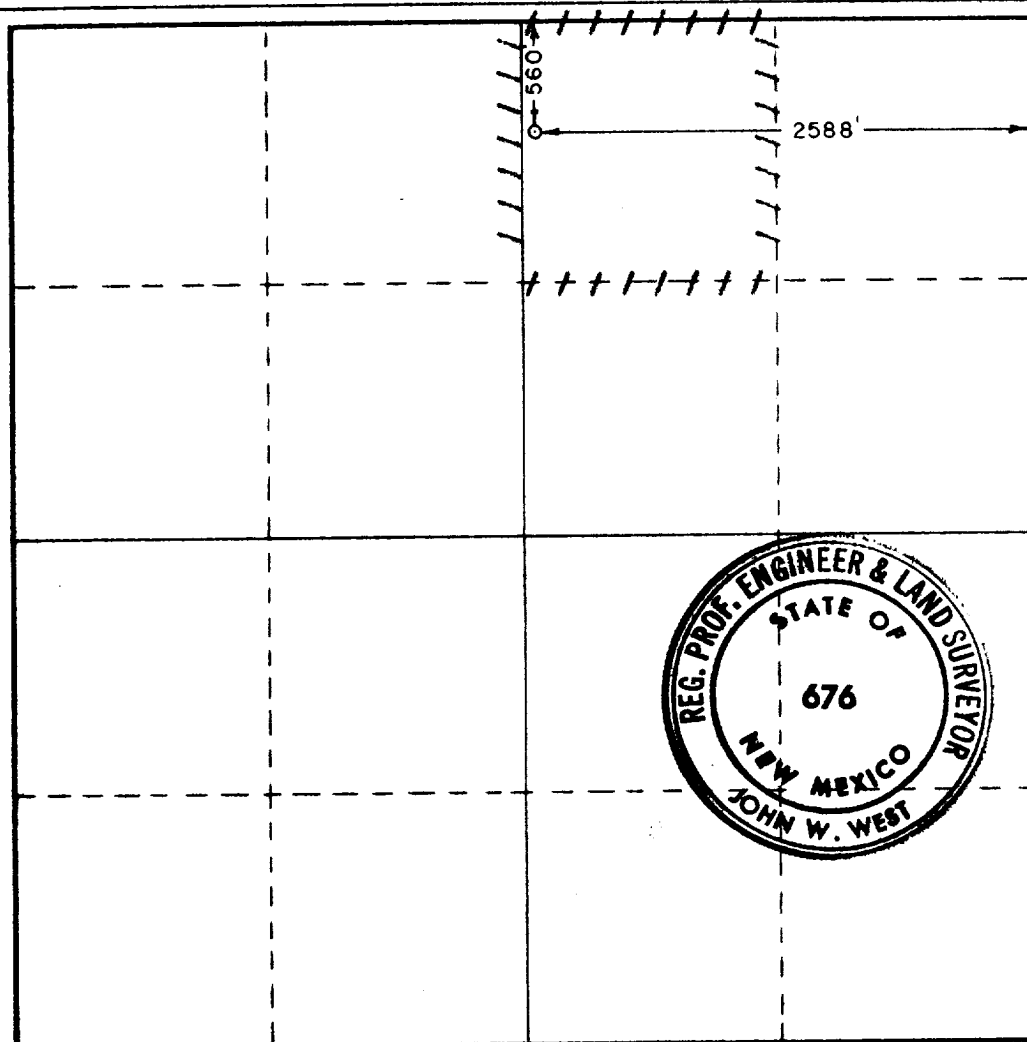
**APR 21 1978**

**U.S. GEOLOGICAL SURVEY  
 ARTESIA, NEW MEXICO**

☒ Yes    ☐ No    If answer is "yes," type of consolidation Unitization

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.

Name \_\_\_\_\_

Position \_\_\_\_\_

**Dist. Dir. Supt.**

Company \_\_\_\_\_

**Atlantic Richfield Company**

Date \_\_\_\_\_

**4/18/78**

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.

**December 14, 1977**

Date Surveyed \_\_\_\_\_

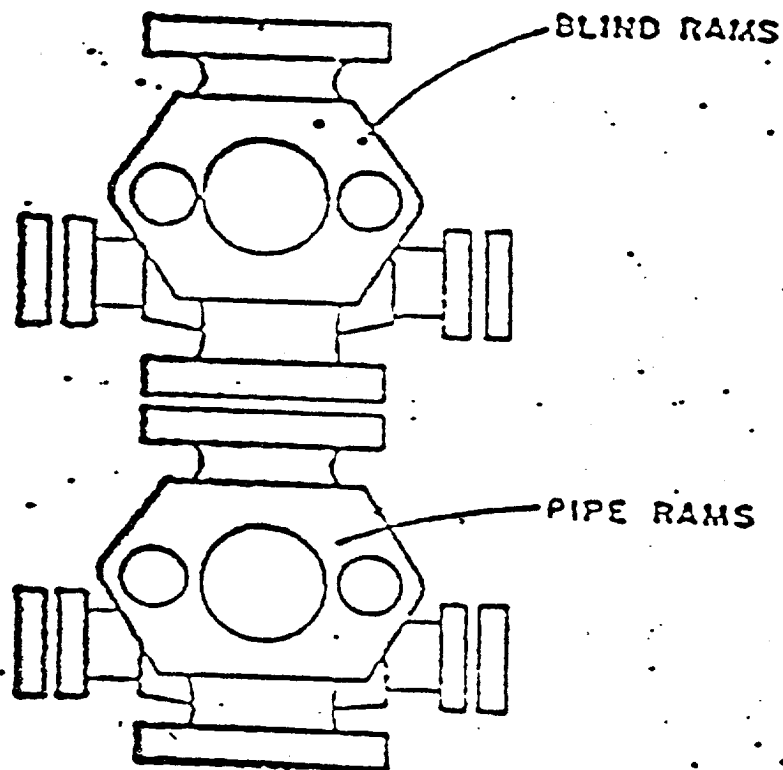
Registered Professional Engineer and/or Land Surveyor

*John W. West*

Certificate No. \_\_\_\_\_

**676**





**ATLANTIC RICHFIELD COMPANY**  
**Blow Out Preventer Program**

**Lease Name** Empire Abo Unit "M"

**Well No.** 152

**Location** 560' FNL & 2588' FEL  
Sec 11-18S-27E Eddy County

BOP to be tested before installed on well and will be maintained in good working condition during drilling. All wellhead fittings to be of sufficient pressure to operate in a safe manner.

To supplement USGS Form 9-331-C " Application for Permit to Drill, Deepen or Plugback", the following additional information is submitted:

Operator: Atlantic Richfield Company  
Lease & Well No: "M" 152 Empire Abo Unit  
Location: Unit letter B, 560' FNL & 2588' FEL  
Sec 11-18S-27E, Eddy County, New Mexico

1. See Form 9-331-C.
2. See Form 9-331-C.
3. The geologic name of the surface formation is:  
Tertiary with some Triassic exposed.
4. See Form 9-331C.
5. See Form 9-331C.
6. The estimated tops of important geologic markers are:  
Queen 345', San Andres 925' , Abo 6060'
7. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are:

Santa Rosa Water Formation	+ 300'	Brackish
Empire Yates Seven Rivers	+ 345'	Oil & Gas
Artesia Grayburg Queen SA	+ 925'	Oil & Gas
Abo Reef	- 6060'	Oil & Gas
8. The proposed casing program including the size, grade and weight-per-foot of each string has been indicated on Form 9-331C. All strings of casing will be new.
9. See Form 9-331C for amount of cmt. The type of cmt & additives for the production string will be 1st stage 100 BFW w/2% KCL, 1 gal/1000 Mor-flo II, 10 bbls SAM-5 spacer, 25 BFW, 480 sx Howco Cl C, 2% CaCl. 2nd stage thru DV tool will be 50 BFW, 25 sx Thin cmt, 600 sx Howco Lite cont'g 8# salt/sk, 100 sx Cl C cont'g 8# salt/sk. Cement for surface string will be 250 sx Cl C cont'g 4% gel, 6# salt, 2% CaCl, 1/4# flocele/sk followed by 150 sx Cl C cont'g 6# salt/sk, 2% CaCl.
10. The pressure control diagram is attached to Form 9-331C. The following additional information of the pressure control equipment is as follows:

Size: 10" x 900 API Series - Dbl ram w/hydraulic closing unit  
Pressure Ratings or API Series - 3000# WP, 6000# T  
Testing Procedures - Pressure up to 1500# before drilling out of casing  
Testing Frequency - Upon installation, daily and on all trips.

11. The type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling and the quantities and types of mud and weighting materials to be maintained will be as follows:

0	-	1000'	Spud Mud
1000	-	6000'	Brackish Water
6000	-	6300'	Starch-SWG, 8.8#/gal, 35-50 Vis as needed, 9.5 ph will be maintained below surface pipe

12. The auxiliary equipment to be used will consist of: Kelly cocks and a sub on floor with full opening valve to be used when needed. No mud logging to be performed.

13. The testing, logging and coring programs will be:

GR-DLL w/RXO, GR-Neutron, GR-CNL-FDC, Sonic-VDL and tape logs for Coriband Analysis. There will be coring and Drill Stem testing of the Abo Reef section.

14. No abnormal pressures or temperatures are expected to be encountered.

15. The starting date will be approximately 8/1/78 and will be completed approximately 8/30/78.