

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY(Other instruct  
reverse side)

30-015-22656

5. LEASE DESIGNATION AND SERIAL NO.	
NM-0557371	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
7. UNIT AGREEMENT NAME	
Empire Abo Pressure Maintenance Project	
8. FARM OR LEASE NAME	
Empire Abo Unit "J"	
9. WELL NO.	
203	
10. FIELD AND POOL, OR WILDCAT	
*Empire Abo	
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA	
1-18S-27E	
12. COUNTY OR PARISH	13. STATE
Eddy	N.M.

## 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 2400' FNL &amp; 700' FEL (Unit letter H)

At proposed prod. zone

as above

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

approx 9 miles east of Artesia, New Mexico

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drig. unit line, if any)shown on  
C-10218. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

## 16. NO. OF ACRES IN LEASE

446.30

## 19. PROPOSED DEPTH

6225'

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40 acres

## 20. ROTARY OR CABLE TOOLS

Rotary

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

3650.9' GR

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

8/18/78

## 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	15.5# K-55	6225'	1200 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.

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 6/20/78

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

NEW 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 # J</b>		Well No. <b>203</b>
Unit Letter <b>H</b>	Section <b>1</b>	Township <b>18 South</b>	Range <b>27 East</b>	County <b>Eddy</b>
Actual Footage Location of Well: <b>2400</b> feet from the <b>North</b> line and <b>700</b> feet from the <b>East</b> line				
Ground Level Elev. <b>3650.9</b>	Producing Formation <b>Abo Reef</b>	Pool <b>Empire Abo</b>	Dedicated Acreage: <b>40</b> Acres	

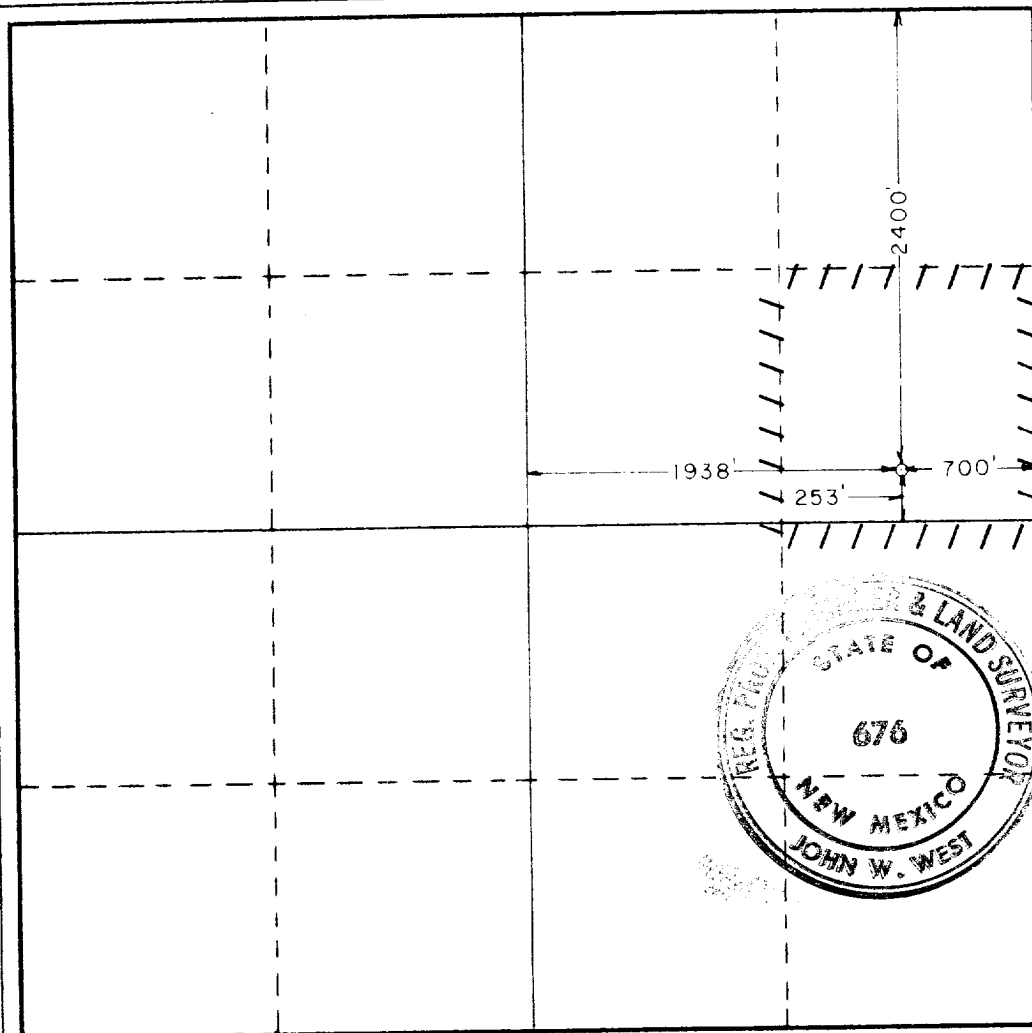
1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is 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 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.

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ALBUQUERQUE, NEW MEXICO



CERTIFICATION

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

Name John W. West  
Position State Engineer & Land Surveyor  
Dist. Dir. Supt. Atlantic Richfield Company  
Company June 21, 1978

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.

March 16, 1978

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. John W. West **676**  
Ronald J. Eidson **3239**

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500



# United States Department of the Interior

NMCCC COPY

GEOLOGICAL SURVEY  
P. O. Drawer U  
Artesia, New Mexico 88210

August 10, 1978

Atlantic Richfield Company  
P. O. Box 1710  
Hobbs, New Mexico 88240

Atlantic Richfield Company Empire Abo Unit Well No. 203 2400 FNL 700 FEL Sec. 1, T18S, R27E Eddy County Lease No. NM-0557371
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Above Data Required on Well Sign
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Gentlemen:

Your APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 6,225 feet to test the Abo formation is hereby approved subject to compliance with the OIL AND GAS OPERATING REGULATIONS (30 CFR 221) and the following conditions:

1. Drilling operations authorized are subject to compliance with the GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL LEASES, dated July 1, 1978.
2. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the SURFACE USE PLAN and his approval including the GENERAL REQUIREMENTS.
3. Submit a Daily Report of Operations from spud date until the Well Completion Report (form 9-330) is filed. The progress report should be not less than 8" x 5" in size and each page should identify the well.
4. All above-ground structures and equipment shall be painted in accordance with the attached Painting Requirements. The color used should simulate sandstone brown (Federal Standard Color #595A, color 20318 or 30318).

Sincerely yours,

(Orig. Sgd.) ALBERT R. STALL

Albert R. Stall  
Acting District Engineer

To supplement USGS Form 9-331C "Application for Permit to Drill, Deepen or Plugback", the following additional information is submitted to comply with USGS Order NTL-6.

Operator: Atlantic Richfield Company  
Lease & Well No: Empire Abo Unit "J" #203  
Location: Unit Letter H  
Section 1-18S-27E, Eddy County, N.M.  
Lease, New Mexico  
Development well   X   Exploratory well       

1. See Well Location and Acreage Dedication Plat Form C-102.
2. See Form 9-331C for elevation above sea level of unprepared location.
3. The geologic name of the surface formation is: Tertiary with some Triassic exposed.
4. The type of drilling tools and associated equipment to be utilized will be: Rotary.
5. The proposed drilling depth will be   6225'  .
6. The estimated tops of important geologic markers are:  
Queen 380', San Andres 950', Abo Reef 5600'

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	+ 380'	Oil & Gas
Artesia Grayburg Queen SA	+ 950'	Oil & Gas
Abo Reef	+ 5600'	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   X   Used       .
9. See Form 9-331C for amount of cmt. The type of cmt and additives for the surface string will be 250 sx C1 C cont'g 4% gel, 6# salt/sk, 2% CaCl, 1/4# flocele/sk followed by 150 sx C1 C cont'g 6# salt/sk, 2% CaCl. The type of cmt and additives for the production string will be as follows: 1st stage, 100 BFW w/2% KCL, 1 gal/1000 Mor-Flo II, 10 bbls SAM-5 spacer, 25 BFW, 475 sx Howco C1 C 2% CaCl. 2nd stage will be cmt'd thru DV tool, 50 BFW, 25 sx Thin cmt, 500 sx Howco Lite cmt cont'g 8# salt/sk, 100 sx C1 C cmt cont'g 8# salt/sk.

10. The pressure control diagram is attached to Form 9-331C. The following additional information of the pressure control equipment is as follows:

8-5/8 Csg: Size: 10"-900 API Series

Pressure Ratings: 3000# WP, 6000# T

Testing Procedure: Pressure up to 1500# before and on all trips.

Testing Frequency: Pressure test will be conducted when installed and operational checks made daily and on all trips.

5-1/2" Csg: Size: 10"-900 API Series

Pressure Ratings: 3000# WP, 6000# T

Testing Procedures: Pressure up to 1500# before and on all trips.

Testing Frequency: Pressure test will be conducted when installed and operation checks made 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 material to be maintained will be as follows:

0 - 1000' Spud Mud  
1000 - 5500' Fresh Water  
5500 - 6225' Salt gel mud 8.8#/gal, 30,000-40,000 sal, 10 WL

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

Drill Stem Test

Logs


Coring

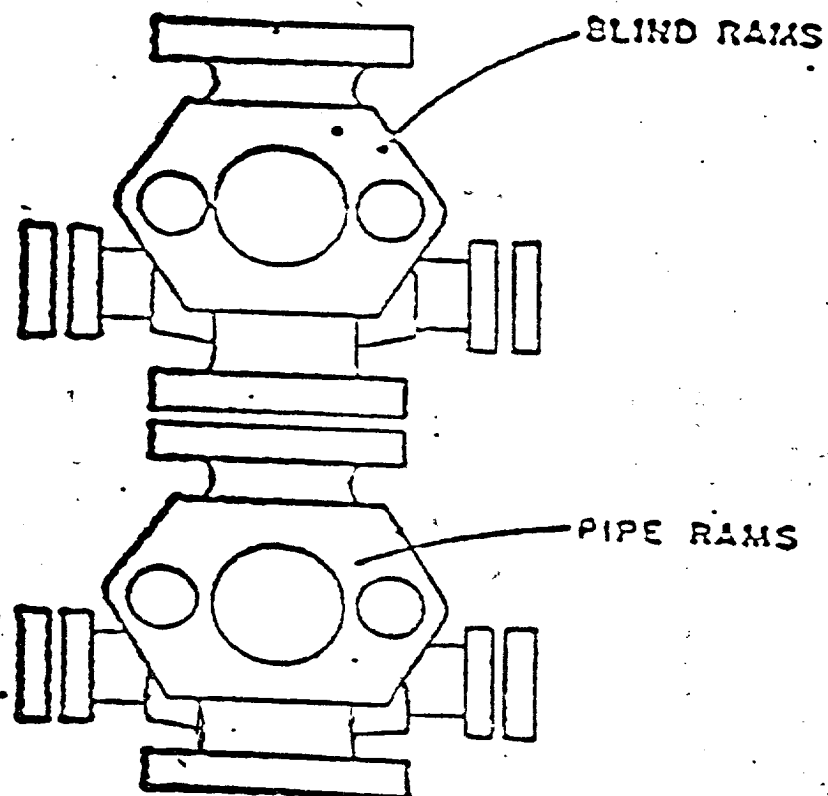
None

GR-DLL w/RXO  
GR-N, GR-FDC, CNL  
Sonic-VDL  
TDT-Tape logs

None

13. There are no abnormal pressures or temperatures expected to be encountered.
14. The anticipated starting date will be 8/18/78 and completed approx 9/12/78.
15. The auxiliary equipment to be used will consist of: Kelly cocks & a sub on floor w/full opening valve to be used when needed. Mud logging will not be performed.

  
\_\_\_\_\_  
District Drilling Supt.



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

**Lease Name** Empire Abo Unit "J"

**Well No.** 203

**Location** 2400' FNL & 700' FEL  
Sec 1-18S-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.