

Expires: December 31, 1991

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
NEW MEXICO 88240
4-01-97 JP
4-1-97 RMM

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL

☒

DEEPEN

☐

b. TYPE OF WELL

OIL
WELL☐GAS
WELL☐

OTHER

SINGLE
ZONE☐MULTIPLE
ZONE☐

2. NAME OF OPERATOR

ARCH PETROLEUM INC.

3. ADDRESS AND TELEPHONE NO.

10 DESTA DRIVE, STE. 420E, MIDLAND, TX 79705

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

At surface UNIT E, 1350' FNL, 1300' FWL

At proposed prod. zone

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

10 1/4 MILES SOUTH OF EUNICE, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

1300'

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

18. DISTANCE FROM PROPOSED LOCATION*

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

764'

16. NO. OF ACRES IN LEASE

1520

17. NO. OF ACRES ASSIGNED

TO THIS WELL

20

19. PROPOSED DEPTH

6000'

20. ROTARY OR CABLE TOOLS

ROTARY

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

3315'

22. APPROX. DATE WORK WILL START*

05/15/97

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	K-55, 8-5/8"	24#	1075'	600 sx.Cl. 'C' circ.
7-7/8"	J-55, 5-1/2"	15.5#	6000'	1650 sx.Cl. 'C' circ.

Mud Program:

0-1075' FW/Spud Mud 8.8 - 9.0#/gal., 32 visc., 10 pH

1075 - 5000' BW 10 #/gal., 28 visc., 10 pH

500-6000' BW/Starch 10 #/ga., 30 visc., 10 pH

See attached BOP drawing for 3000 psi system.

OPER. OGRID NO. 96260, 6767565

PROPERTY NO. 14898

POOL CODE 58300

EFF. DATE 5/9/97

API NO. 30-025-33959

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new production 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

Production Analyst

DATE

3/21/97

(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 (ORIG. SGD.) ARMANDO A. LOPEZ

TITLE

ADM, MINERALS

DATE

4-8-97

*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.

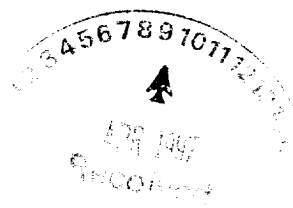
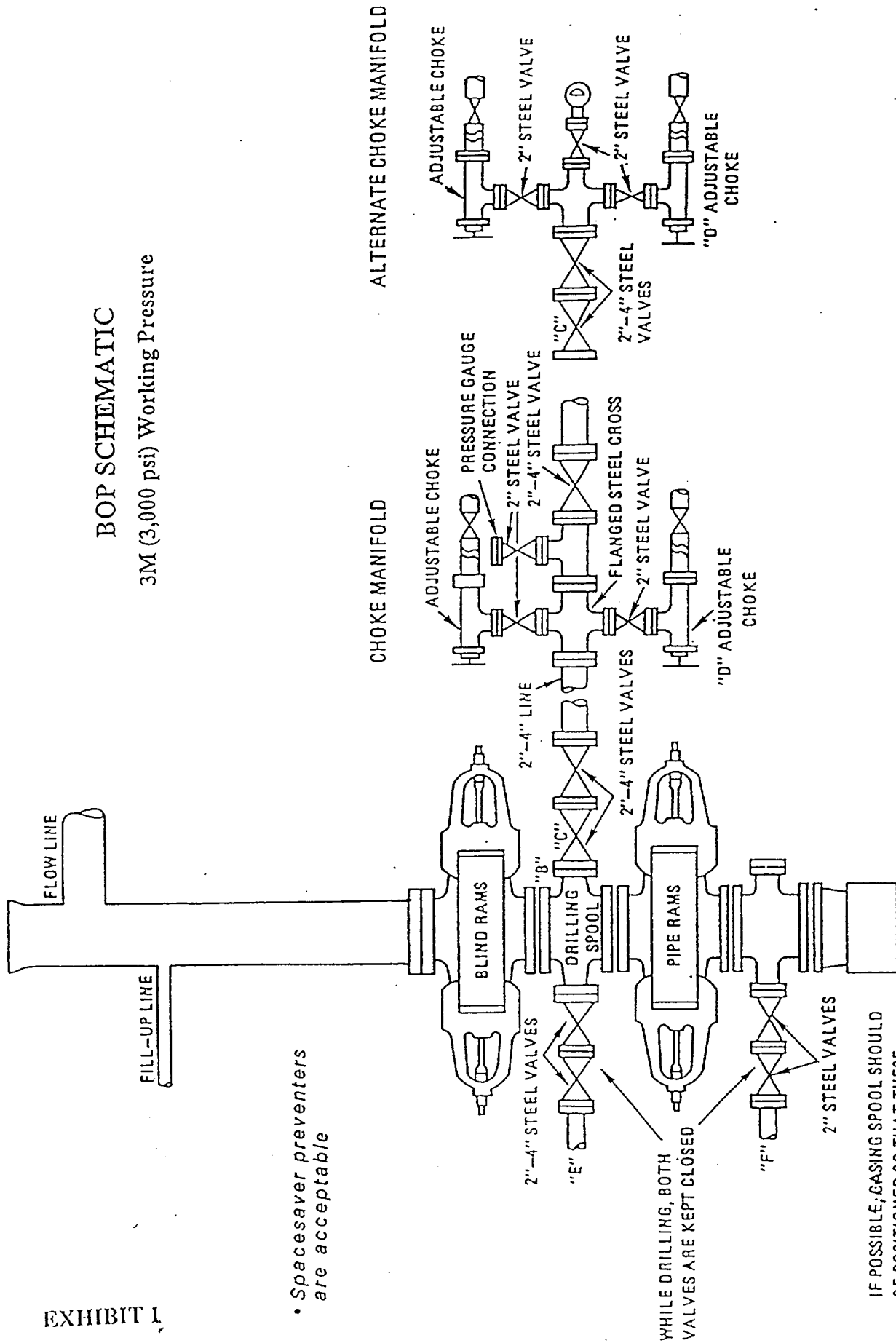


EXHIBIT 1

BOP SCHEMATIC 3M (3,000 psi) Working Pressure



• Spacesaver preventers are acceptable

DISTRICT 1
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

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

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025- 33959	Pool Code 58300	Pool Name TEAGUE PADDOCK-BLINEBRY
Property Code 014898	Property Name C.E. LAMUNYON	Well Number 62
OGRID No. 000962	Operator Name ARCH PETROLEUM INC.	Elevation 3315

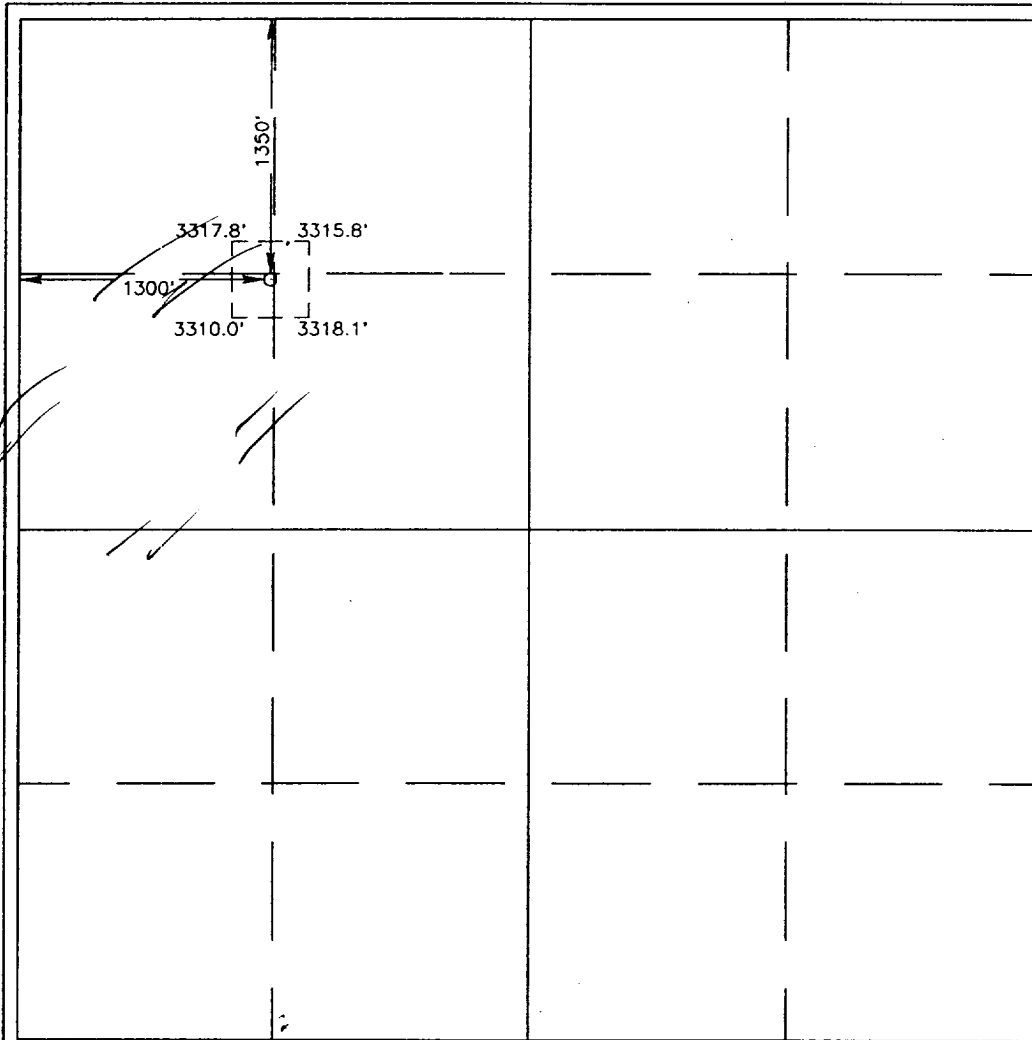
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	21	23 S	37 E		1350	NORTH	1300	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 20 40	Joint or Infill INFILL	Consolidation Code			Order No. NSL-3793				

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



OPERATOR CERTIFICATION

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

Bonnie Brooks
Signature

BOBBIE BROOKS

Printed Name _____

PRODUCTION ANALYST

Title

4-4-97

Date _____

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.

MARCH 10, 1997

Date Surveyed _____

DMCC

Signature & Seal of
Professional Surveyor

A circular postmark from New Mexico, featuring a central emblem and the words "NEW MEXICO" around the top edge.

2238

97-11-

Certificate No. JOHN
RONAL

676
3239
12641

DISTRICT I
P.O. Box 1986, Hobbs, NM 88241-1986

State of New Mexico
Energy, Minerals and Natural Resources Dept. at

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

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Artec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-	Pool Code 58300	Pool Name TEAGUE PADDOCK-BLINEBRY
Property Code 014898	Property Name C.E. LAMUNYON	Well Number 62
OGRID No. 000962	Operator Name ARCH PETROLEUM INC.	Elevation 3315

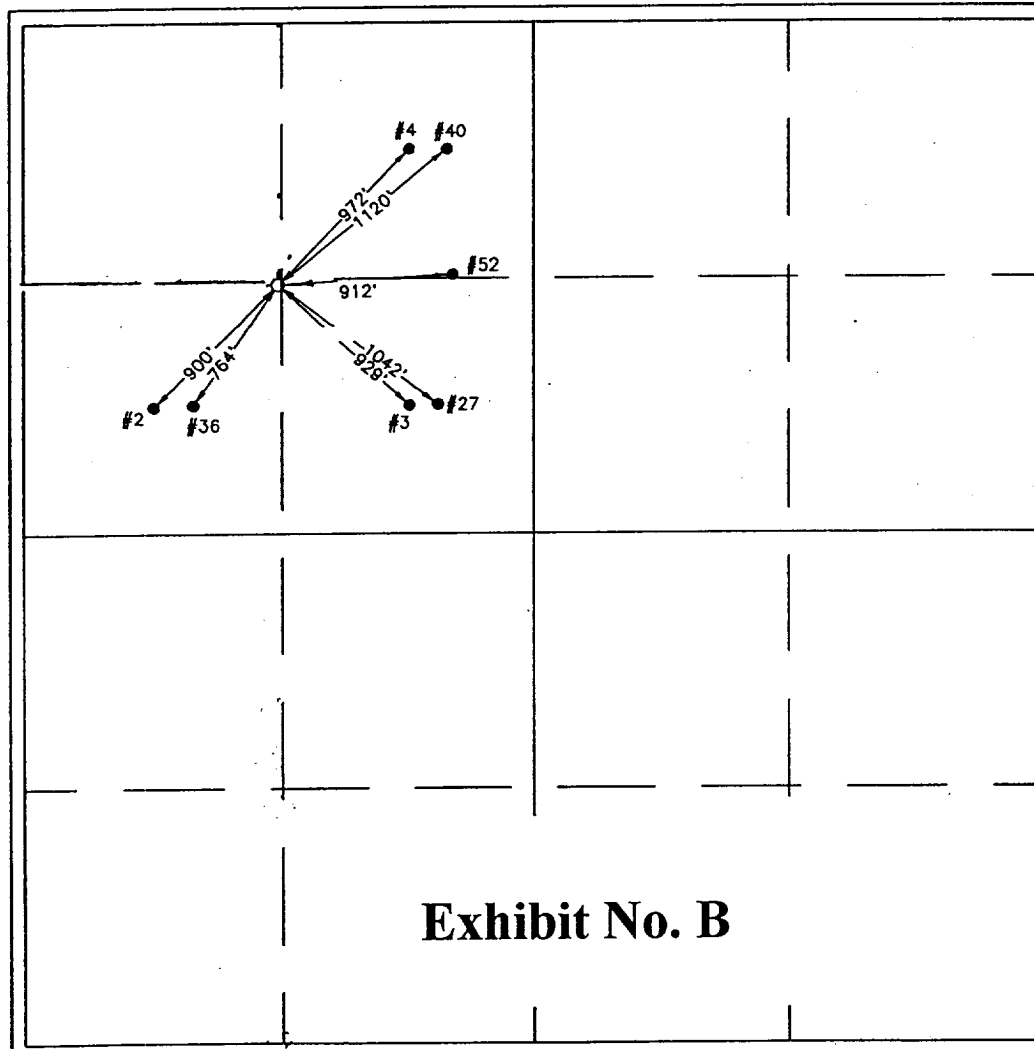
Surface Location

UL or lot No. E	Section 21	Township 23 S	Range 37 E	Lot Idn	Feet from the 1350	North/South line NORTH	Feet from the 1300	East/West line WEST	County LEA
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Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 20	Joint or Infill Infill	Consolidation Code	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**



OPERATOR CERTIFICATION

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

Bobbie Brooks
Signature

BOBBIE BROOKS
Printed Name

PRODUCTION ANALYST
Title

3-21-97
Date

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.

MARCH 10, 1997

Date Surveyed
Signature & Seal of
Professional Surveyor

RONALD J. EIDSON
3-23-97
3-12-97
3-11-047

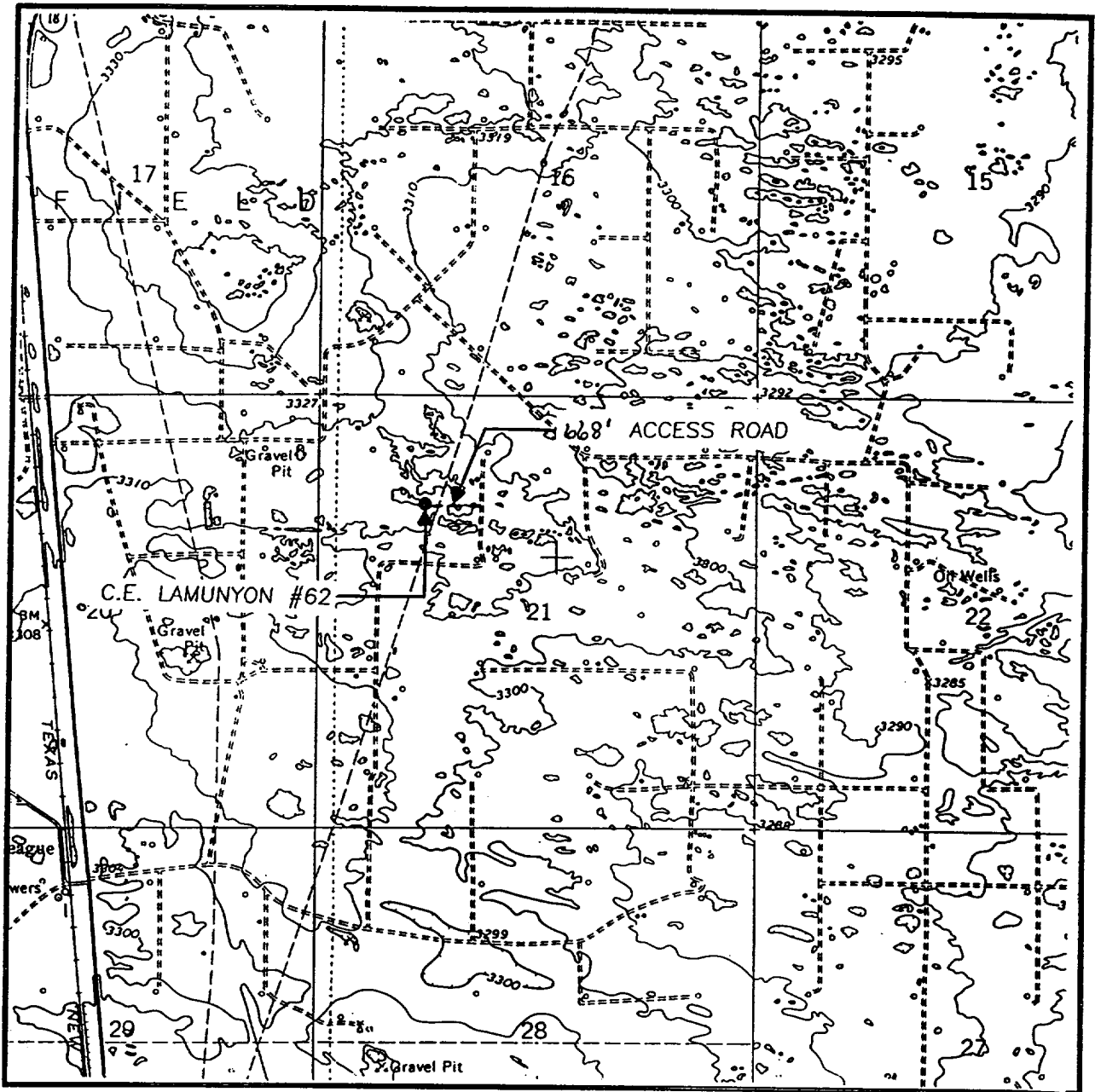
Certificate No. **JOHN W. WEST** 676
RONALD J. EIDSON 3239
GARY EIDSON 12641



Exhibit No. C



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
RATTLESNAKE CANYON - 10'

SEC. 21 TWP. 23-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1350' FNL & 1300' FWL

ELEVATION 3315

OPERATOR ARCH PETROLEUM INC.

LEASE C.E. LAMUNYON

U.S.G.S. TOPOGRAPHIC MAP

RATTLESNAKE CANYON, N.M.

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

Exhibit No. D

DRILLING PROGRAM

C. E. LAMUNYON #62, 63, 64 & 65
Arch Petroleum Inc.
Sections 21, 27, and 28, T23S, R37E
Lea Co., New Mexico

1. Geologic Name of Surface Formation: Quaternary

2. Estimated Tops of Geologic Markers:

Rustler 1,030'	7 Rivers 2,780'	Paddock 4,950'
Top Salt 1,130'	Penrose 3,375'	T/Blinebry 5,290'
Base Salt 2,365'	Grayburg 3,555'	B/Blinebry 5,850'
Yates 2,535'	San Andres 3,800'	Tubb 5,950'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Fresh Water 300'-500'
Penrose 3,375'-3,550'
Paddock 4,950'-5,290'
Blinebry 5,290'-5,950'

4. Casing Program:

<u>Casing</u>	<u>Hole Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Setting Depth</u>
Surface	8 5/8"	24#	K-55	1,075'
Production	5 1/2"	15.5#	J-55	6,000'

Cement Program:

- (a) Surface casing will be 8-5/8" set at 1075' and cemented with 400 sacks of Class 'C' lead cement and 200 sacks of Class 'C' tail cement.
- (b) Production casing will be 5-1/2" set at approximately 6,000' and cemented in one stage with approximately 1150 sacks of Class 'C' lead cement and 500 sacks of tail cement. Exact volumes to circulate to surface to be determined by caliper log.

5. Pressure Control Equipment:

The minimum specifications for pressure control equipment can be seen on the attached Exhibit 1 for a blowout preventer hook-up for 3,000 psi working pressure.

6. Proposed Mud System:

0-1075' fresh water spud mud
1075'-5000' saturated salt water
5000'-6000' salt water polymer with the following properties: Viscosity 30 sec., water loss 10 cc or less, weight 10 ppg with 5% KCl. Heavier weight mud will be used if required by well condition. 10 ppg brine is only used to minimize salt washout and formation damage and not for well control. No significant well control problems are anticipated.

7. Logging, Testing, and Coring Program:

- (a) Formation testing may be done at any depth where samples, drilling rate, or log information indicates a possible show of oil or gas.
- (b) Open hole logs will be run at total depth
- (c) Plans are to possibly core one of these wells in the Blinbry.

8. Abnormal Conditions, Pressures, Temperatures, and Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated Bottom Hole Temperature (BHT) at TD is 115°F and estimated maximum Bottom Hole Pressure (BHP) is 3000 psig. Hydrogen sulfide is not considered to be a significant safety hazard since well control should not be a problem. In anticipation of encountering H₂S gas, Exhibit 2 is the Plan of Operation for H₂S Drilling. No major loss circulation zones have been reported in offsetting wells.

9. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. Anticipated spud date should be May 1, 1997. Once commenced, the drilling operation should be finished in approximately 15 days per well. The time required to complete and test the well will be about 30 days per well.

10. Other Facets of the Proposed Operation: None.