Form 3160-3
(July 1992)

F-13 DOP

New Mexico Oil Conservation Division, District I
1625 N. French Drive
Hobbs, NM 88240

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

400

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: LC-030187

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ---

7. UNIT AGREEMENT NAME: ---

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [XX] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

8. FARM OR LEASE NAME, WELL NO.: C.E. LAMUNYON # 84

2. NAME OF OPERATOR: ARCH PETROLEUM, INC. (RICHARD WRIGHT 915-685-8140)

9. API WELL NO.: 30-025-36277

3. ADDRESS AND TELEPHONE NO.: P.O. BOX 10340 MIDLAND, TEXAS 79702-7340 (915-685-8100)

10. FIELD AND POOL, OR WILDCAT: TEAGUE PADDOCK BLINEBRY

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 545' FNL & 1169' FEL SEC. 28 T23S-R37E LEA CO. NM
At proposed prod. zone: SAME A

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC. 28 T23S-R37E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 15 miles Southeast of Eunicel New Mexico

12. COUNTY OR PARISH: LEA CO. 13. STATE: NEW MEXICO

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
545'	1520	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
530'	5500'	ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3287' GR.

22. APPROX. DATE WORK WILL START*: WHEN APPROVED

23. PROPOSED CASING AND CEMENTING PROGRAM

Capitan Controlled Water Basin

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor	NA	40'	Cement to surface with Redi-mix
12¼"	J-55 8 5/8"	32	1100'	775 Sx. circulate to surface
7 7/8"	J-55 5½"	15.5	5500'	1150 Sx. 2 stage cement to surface

1. Drill 25" hole to 40'. Set 40' of 20" conductor and cement to surface with Redi-mix.

2. Drill 12¼" hole to 1100'. Run and set 1100' of 8 5/8" 32# J-55 ST&C casing. CEment with 775 Sx. of Class "C" cement + ¼# Flocels/Sx, + 2% CaCl, circulate cement to surface.

3. Drill 7 7/8" hole to 5500'. Run and set 5500' of 5½" 15.5# J-55 ST&C casing. Cement in Two stages with DV tool at 1500'±. CEment 1st stage with 800 Sx. of Class "C" cement + additives, cement 2nd stage with 350 Sx. of Class "C" cement + additives, circulate cement to surface.

OPER. OGRID NO. 9628
PROPERTY NO. 14898
POOL CODE 58300
EFF. DATE 5/12/03

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

RECEIVED
APR 2003
Hobbs OCD

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 Janet Comeca TITLE Agent DATE 03/07/03

(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:

/S/ JOE G. LARA

APPROVED BY _____ TITLE FIELD MANAGER DATE APR 4 2003

APPROVAL FOR 1 YEAR

*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

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

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

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-36277	58300	TEAGUE PADDOCK BLINEBRY

Property Code	Property Name	Well Number
14898	C.E. LAMUNYON	84

OGRID No.	Operator Name	Elevation
962	ARCH PETROLEUM, INC.	3287'

Surface Location

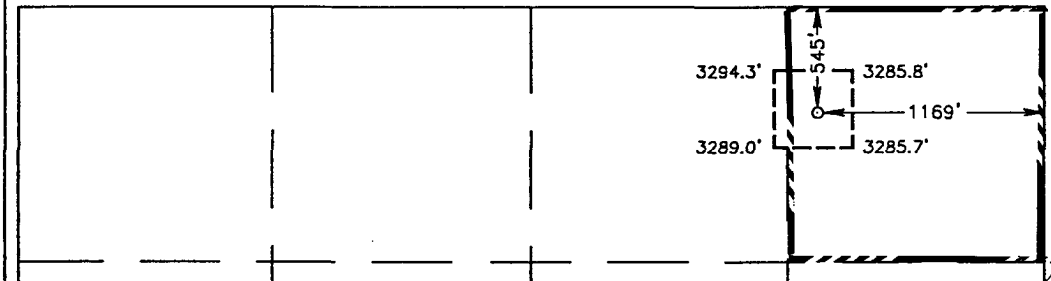
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	28	23-S	37-E		545'	NORTH	1169'	EAST	LEA

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	Joint or Infill	Consolidation Code	Order No.
40			NSL-4879 (SD)

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



GEODETIC COORDINATES
NAD 27 NME
Y = 467943.5
X = 861799.0
LAT. 32°16'51.84"N
LONG. 103°09'45.61"W

OPERATOR CERTIFICATION

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

Signature
Joe T. Janica

Printed Name
Agent

Title
03/07/03

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 supervison, and that the same is true and correct to the best of my belief.

MARCH 03, 2003

Date Surveyed A.W.B

Signature & Seal of Professional Surveyor

GARY L. EIDSON
NEW MEXICO
12641

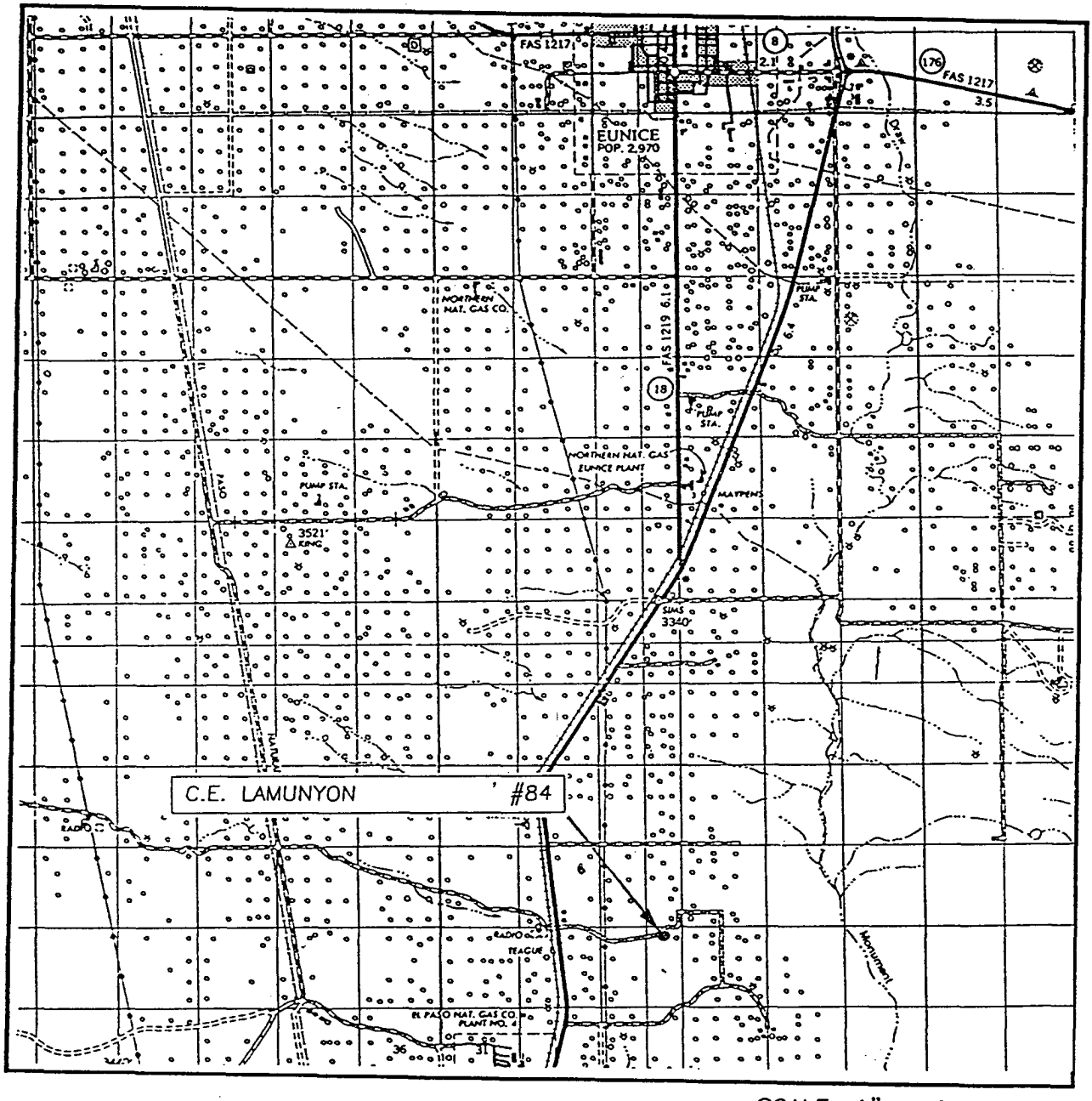
3/5/03

03.11.0263

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641

EXHIBIT "A"

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 28 TWP. 23-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 545' FNL & 1169' FEL

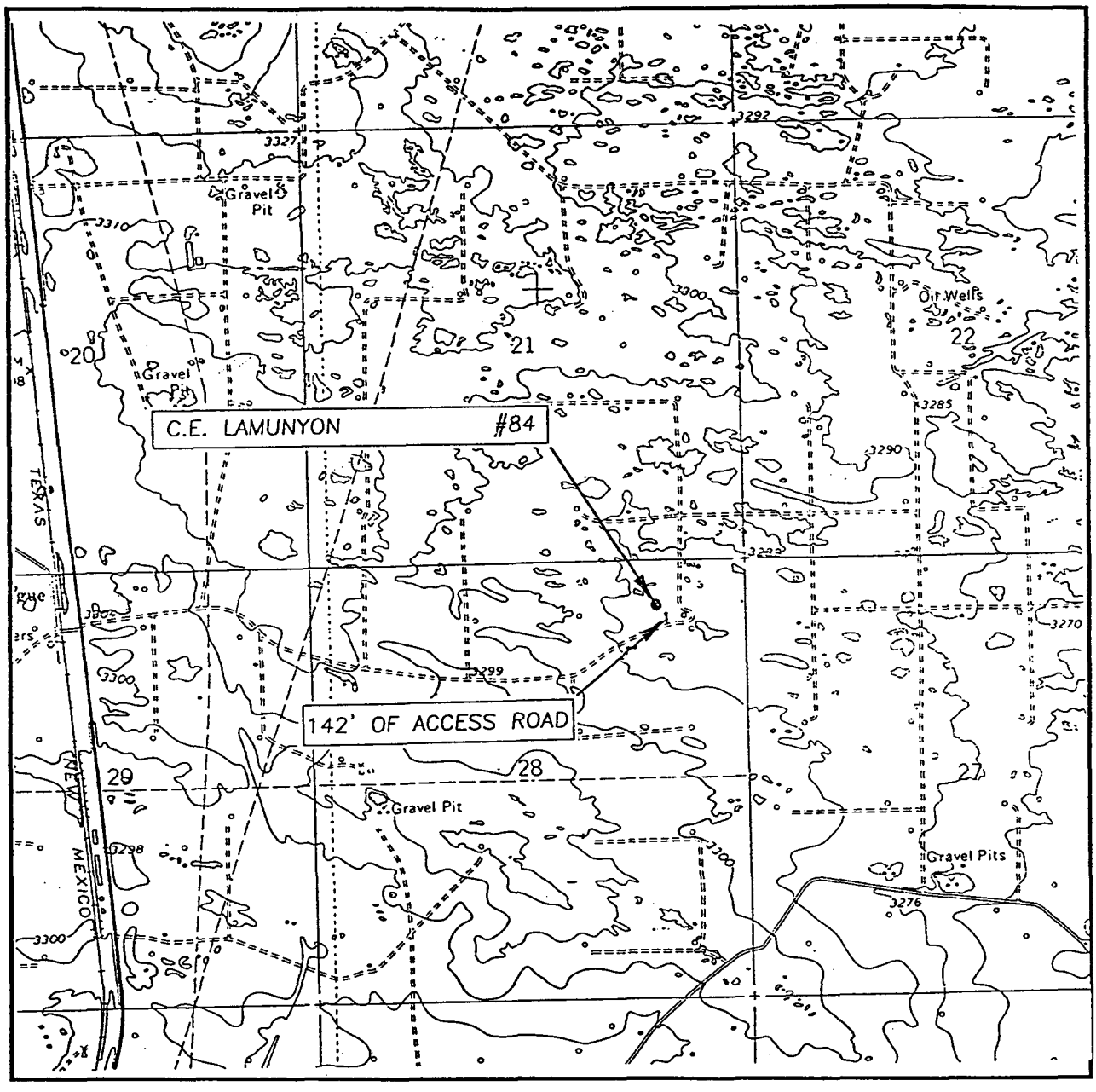
ELEVATION 3287'

OPERATOR ARCH PETROLEUM, INC.

LEASE C.E. LAMUNYON'

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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
RATTLESNAKE CAYON, N.M.

SEC. 28 TWP. 23-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 545' FNL & 1169' FEL

ELEVATION 3287'

OPERATOR ARCH PETROLEUM, INC.

LEASE C.E. LAMUNYON'

U.S.G.S. TOPOGRAPHIC MAP
RATTLESNAKE CAYON, N.M.

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

APPLICATION TO DRILL

ARCH PETROLEUM, INC.
C.E. LAMUNYON # 84
UNIT "A" SECTION 28
T23S-R37E LEA CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is providedfor your consideration.

1. Location of well: 545' FNL & 1169' FEL SEC. 28 T23S-R37E LEA CO. NM

2. Ground Elevation above Sea Level: 3287' GR.

3. Geological age of surface formation: Quaternary Deposits:

4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium to remove solids from hole.

5. Proposed drilling depth: 5500'

6. Estimated tops of geological markers:

Rustler Anhydrite	1033'	Penrose	3376'
Top Salt	1130'	Grayburg	3554'
Yates	2535'	San Andres	3806'
7 Rivers	2782'	Blinebry	5295'

7. Possible mineral bearing formations:

Yates	Oil	San Andres	Oil
Penrose	Oil	Blinebry	Oil
Grayburg	Oil		

8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
12¼"	0-1100'	8 5/8"	32#	8-R	ST&C	J-55
7 7/8"	0-5500'	5½"	15.5#	8-R	ST&C	J-55

APPLICATION TO DRILL

ARCH PETROLEUM, INC.
C.E. LAMUNYON # 84
UNIT "A" SECTION 28
T23S-R37E LEA CO. NM

9. CASING SETTING DEPTH & CEMENTING:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
8 5/8"	Surface	Set 1100' of 8 5/8" 32# J-55 ST&C casing. Cement with 775 Sx. of Class "C" cement + ¼# Flocele/Sx, + 2% CaCl, circulate cement to surface.
5½"	Production	Set 5500' of 5½" 15.5# J-55 ST&C casing. Cement in two stages with DV tool at 1500'±. Cement 1st stage with 800 Sx. of Class "C" cement + additives, cement 2nd stage with 350 Sx. of Class "C" cement + ¼# Flocele/ Sx, + 2% CaCl. circulate cement to surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 2000 PSI working pressure B.O.P. consisting of a rotating head, middle blind rams and bottom pipe rams. This B.O.P. will be nippled up on the 8 5/8" casing and tested to A.P.I. specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when the drillpipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2" 3000 PSI choke manifold with dual adjustiable chokes. No abnormal pressures or abnormal temperatures are expected in this well, as it is in a mature field.

11. PROPOSE MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE SYSTEM
40-1100'	8.4-8.7	29-34	NC	Fresh water Spud Mud use paper to control seepage.
1100-5500'	10.0-10.2	29-40	NC*	Brine water using paper to control seepage, and high viscosity sweeps to clean hole.

* If water loss control is desired or needed to run logs and casing add a Polymer to the system to control water loss.

Sufficient mud materials will be kept on location at all time in order to combat lost circulation, or unexpected kicks.In order to run DST's, open hole logs, and casing the viscosity and/or water loss may have to be adjusted to meet these needs.

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Run Dual Laterolog, SNP, LDT, Gamma Ray,Caliper from TD to 8 5/8" casing shoe at 1100'±.

B. Run Gamma Ray, Neutron from 1100'± back to surface.

C. No cores or DST's are planned at this time.

D. Mud logger may be placed on hole if desired by the Geologist.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H^2S in this area. If H^2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 2000 PSI, and Estimated BHT 135°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 18 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Blinebry formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as an oil well.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:

   A. Characteristics of H_2S
   B. Physical effects and hazzards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid.
   F. Proper use of 30 minute pressure demand air pack.

2. H_2S Detection and Alarm Systems

   A. H_2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

3. Windsock and/or wind streamers

   A. Windsock at mudpit area should be high enough to be visible.
   B. Windsock at briefing area should be high enough to be visible.
   C. There should be a windsock at entrance to location.

4. Condition Flags and Signs

   A. Warning sign on access road to location.
   B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H_2S present in dangerous concentration. Only emergency personnel admitted to location.

5. Well control equipment

   A. See exhibit "E"

6. Communication

   A. While working under masks chalkboards will be used for communication.
   B. Hand signals will be used where chalk board is inappropriate.
   C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.

7. Drillstem Testing

   A. Exhausts will be watered.
   B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
   C. If location is near any dwelling a closed D.S.T. will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.

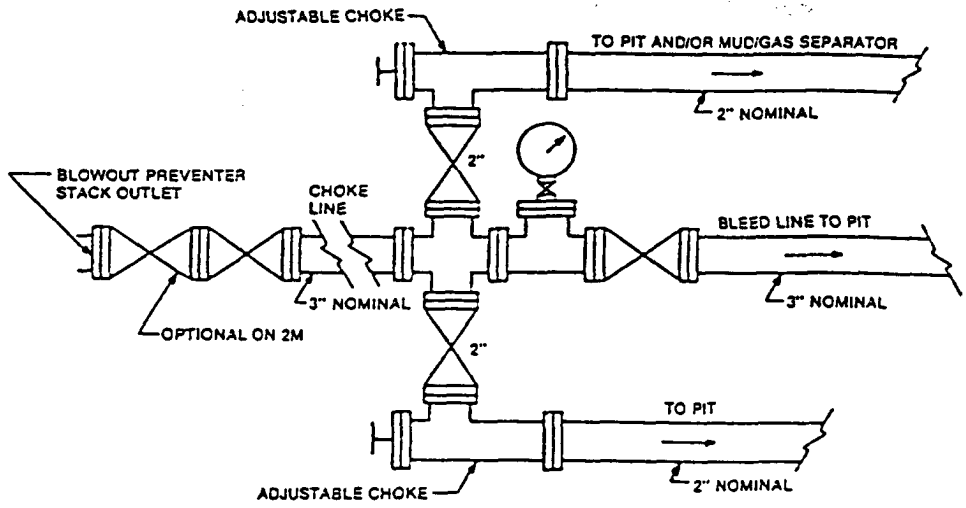


FIGURE K4-1. Typical choke manifold assembly for 2M and 3M rated working pressure service — surface installation.

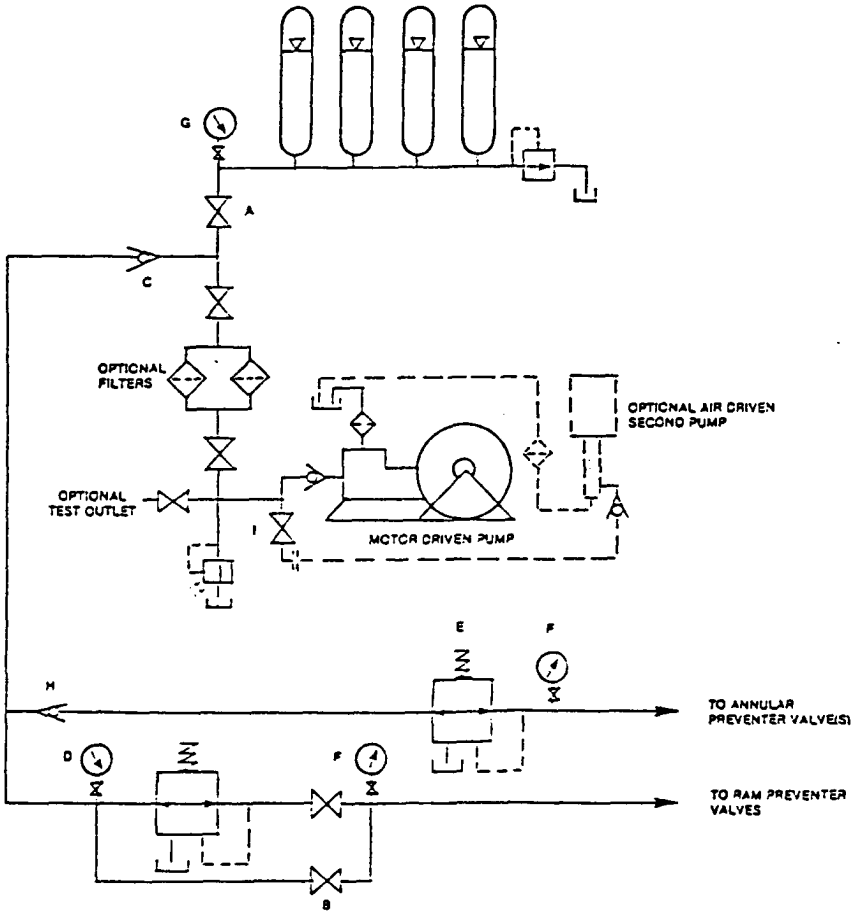


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

ARCH PETROLEUM, INC.
C.E. LAMUNYON # 84
UNIT "A" SECTION 28
T23S-R37E LEA CO. NM