

July 1992

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT N.M. Oil Cons. Division 1625 N. French Blvd. Hobbs, NM 88240

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

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

6. LEASE DESIGNATION AND SERIAL NO. NM-29233
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME, WELL NO. FEDERAL "12" # 11
9. AP WELL NO. 30-015-32792
10. FIELD AND POOL OR WILDCAT LIVINGSTON RIDGE DELAWARE
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SECTION 12 T22S-R31E
12. COUNTY OR PARISH Eddy CO.
13. STATE NEW MEXICO

1A. TYPE OF WORK DRILL [X] DEEPEN [ ]
1B. TYPE OF WELL OIL WELL [X] GAS WELL [ ] OTHER 17891 SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR POGO PRODUCING COMPANY (RICHARD WRIGHT 915-685-8140)

3. ADDRESS AND TELEPHONE NO. P.O. BOX 10340 MIDLAND, TEXAS 79702-7340 (915-695-8100)

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 330' FSL & 990' FEL SECTION 12 T22S-R31E EDDY CO. NM At proposed prod. zone SAME

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE ut. m POTASH Approximately 20 miles East of Carlsbad New Mexico

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. 330'
16. NO. OF ACRES IN LEASE 480
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. 2150'
19. PROPOSED DEPTH 8600'
20. ROTARY OR CABLE TOOL ROTARY 293031-123

21. ELEVATIONS (Show whether DF, BT, GR, etc.) 3613' GR. Carlsbad Controlled Water Basin APPROX. DATE WORK SHALL START WHEN APPROVED

Table with 5 columns: SIZE OF HOLE, GRADE SIZE OF CASING, WEIGHT PER FOOT, SETTING DEPTH, and CEMENT TO SURFACE. Rows include 25" Conductor, 17 1/2" H-40 13 3/8", 11" J-55 8 5/8", and 7 7/8" J-55 5 1/2".

- 1. Drill 25" hole to 40'. Set 40' of 20" conductor and cement to surface with Redi-mix.
2. Drill 17 1/2" hole to 800'. Run and set 800' of 13 3/8" 48# H-40 ST&C casing. Cement with 600 Sx. of 65/35/6 Class "C" POZ/Gel, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + 1/2# Flocele/Sx. Circulate cement to surface.
3. Drill 11" hole to 4300'. Run and set 4400' of 8 5/8" 32# J-55 ST&C casing. Cement with 1300 Sx. of 65/35/6 Class "C" POZ-Gel + 5% Salt, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + 1/2# Flocele/Sx., circulate cement to surface.
4. Drill 7 7/8" hole to 8600'. Run and set 8600' of 5 1/2" casing as follows: 2600' of 5 1/2" 17# J-55 LT&C, 5000' of 5 1/2" 15.5# J-55 LT&C, 1000' of 5 1/2" 17# J-55 LT&C. Cement in three stages with DV Tools at 5800' & 3700'±. Cement 1st stage with 650 Sx. of Class "H" cement 2nd stage with 600 Sx. of Class "C" cement + 8# of Gilsonite/Sx, cement 3rd stage with 400 Sx. of 65/35/6 Class "C" POZ-Gel, tail in with 100 Sx. of Class "C" cement + 1% CaCl, circulate cement to surface.

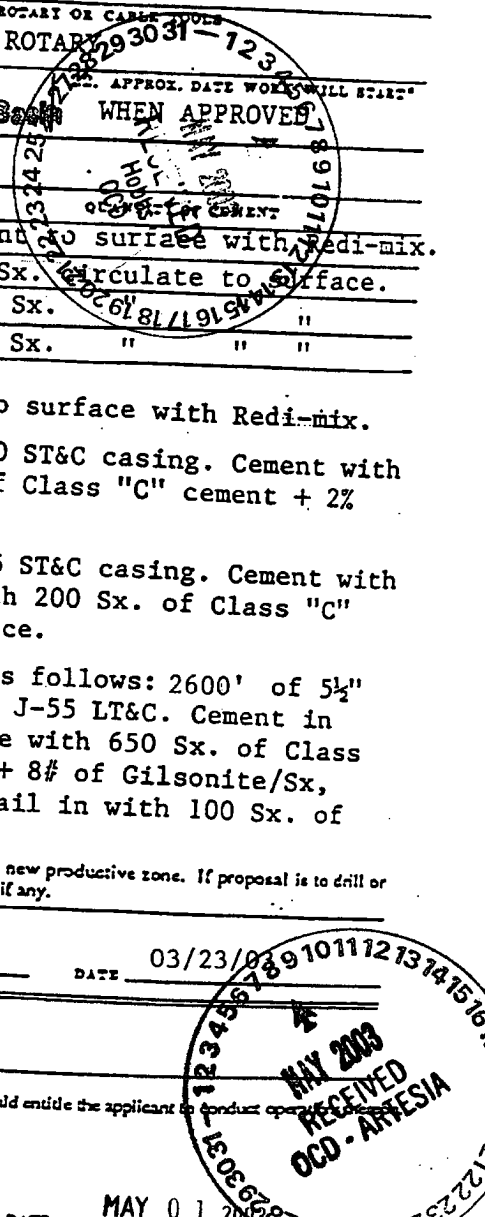
ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or extend directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNED [Signature] TITLE Agent DATE 03/23/01

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

PROVED BY [Signature] STATE DIRECTOR DATE MAY 01 2003

18 U.S.C. Section 1001, makes it a crime for any person knowingly to... \*See Instructions On Reverse Side APPROVAL FOR 1 YEAR



DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II  
811 South First, Artesia, NM 88210

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

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

**OIL CONSERVATION DIVISION**

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number <b>30-0</b>		Pool Code 39360	Pool Name LIVINGSTON RIDGE DELAWARE
Property Code 9321	Property Name FEDERAL "12"		Well Number 11
OGRD No. 17891	Operator Name POGO PRODUCING COMPANY		Elevation 3613'

**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	12	22 S	31 E		330	SOUTH	990	EAST	EDDY

**Bottom Hole Location if Different From Surface**

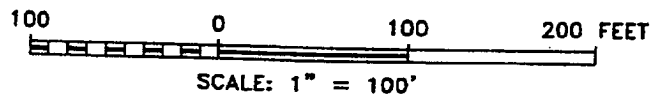
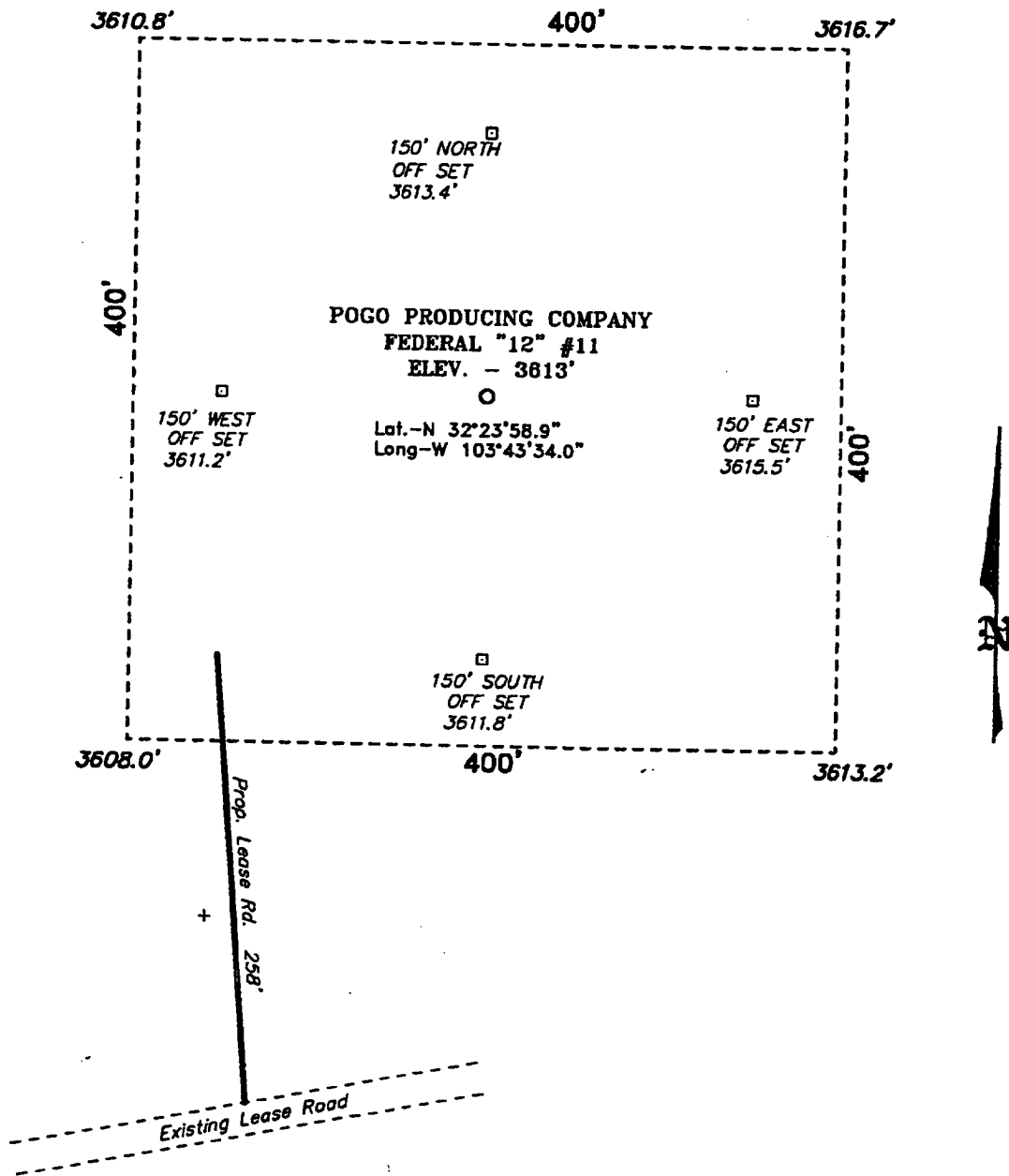
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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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

EXHIBIT "A"	Lat.: N32°23'58.9" Long.: W103°43'34.0"		<b>OPERATOR CERTIFICATION</b> I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Joe T. Janica</i> Signature Joe T. Janica Printed Name Agent Title 03/23/03 Date
			<b>SURVEYOR CERTIFICATION</b> 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 4, 2003 Date Surveyed Signature & Seal of Jones Professional Surveyor  Certificate No. Gary L. Jones 7977 W.O. No. 3073 PROFESSIONAL LAND SURVEYOR BASIN SURVEYS

SECTION 12, TOWNSHIP 22 SOUTH, RANGE 31 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.



**POGO PRODUCING CO.**

REF: FEDERAL "12" #11 / Well Pad Topo

THE FEDERAL "12" No. 11 LOCATED 330' FROM  
 THE SOUTH LINE AND 990' FROM THE EAST LINE OF  
 SECTION 12, TOWNSHIP 22 SOUTH, RANGE 31 EAST,  
 N.M.P.M., EDDY COUNTY, NEW MEXICO.

**BASIN SURVEYS** P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 3073 Drawn By: K. GOAD

Date: 03-07-2003 Disk: KJG CD#4 - 3073A.DWG

Survey Date: 03-04-2003 Sheet 1 of 1 Sheets

APPLICATION TO DRILL

POGO PRODUCING COMPANY  
 FEDERAL "12" # 11  
 UNIT "P" SECTION 12  
 T22S-R31E LEA CO. NM

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

1. Location of well: 330' FSL & 990' FEL SECTION 12 T22S-R31E EDDY CO. NM
2. Ground Elevation above Sea Level: 3613' GR.
3. Geological age of surface formation: Quaternary
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: 8600'
6. Estimated tops of geological markers:

Rustler Anhydrite	750'	Cherry Canyon	5400'
Basal Anhydrite	4238'	Brushy Canyon	6630'
Delaware Lime	4512'	Bone Spring	8380'
Bell Canyon	4570'		
7. Possible mineral bearing formations:

Brushy Canyon	Oil
Bone Spring	Oil
8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-800'	13 3/8"	48#	8-R	ST&C	H-40
11"	0-4300'	8 5/8"	32#	8-R	ST&C	J-55
7 7/8"	0-8600'	5½"	17 & 15.5	8-R	LT&C	J-55

APPLICATION TO DRILL

POGO PRODUCING COMPANY  
 FEDERAL "12" # 11  
 UNIT "P" SECTION 12  
 T22S-R31E LEA CO. NM

9. CASING CEMENTING & SETTING DEPTHS:

20" Conductor Set 40' of 20" conductor and cement to surface with Redi-mix.  
 13 3/8" Surface Set 800' of 13 3/8" 48# H-40 ST&C casing. Cement with 600 Sx. of 65/35/6 Class "C" POZ-Gel, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + 1/2# Flocele/Sx. Circulate cement.  
 8 5/8" Intermediate Set 4300' of 8 5/8" 32# J-55 ST&C casing, Cement with 1300 Sx. of 65/35/6 Class "C" POZ-Gel, + 5% NaCl, tail in with 200 Sx. of Class "C" cement + 2% CaCl, + 1/2# Flocele/Sx. Circulate cement to surface.  
 5 1/2" Production Set 8600' of 5 1/2" casing as follows: 2600' of 5 1/2" 17# J-55 LT&C, 5000' of 5 1/2" 15.5# LT&C, 1000' of 5 1/2" 17# J-55 LT&C. Cement in 3 stages, place DV Tools at 5800' & 3700'±. Cement 1st stage with 650 Sx. of Class "H" cement + additives, cement 2nd stage with 600 Sx. of Class "C" cement + 8# of Gilsonite/Sx., cement 3rd stage with 400 Sx. of 65/35/6 Class "C" POZ-Gel, tail in with 100 Sx. of Class "C" cement + 1% CaCl, circulate cement to surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P., consisting of an annular bag type preventor, middle blind rams and bottom pipe rams. The B.O.P. will be nipped up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when drill pipe 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 adjustable chokes. No abnormal pressures or temperatures are expected.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-800'	8.4-8.7	29-32	NC	Fresh water Spud Mud add paper to control seepage.
800-4300'	10.0-10.2	29-38	NC	Brine water add paper to control seepage and use high viscosity sweeps to clean hole.
4300-8600'	8.4-8.7	29-40	NC*	Fresh water mud system use high viscosity sweeps to clean hole.

\* If water loss control is required in order to take DST's, run logs, or run casing add Dris-Pac to system to control water loss.

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

APPLICATION TO DRILL

POGO PRODUCING COMPANY  
FEDERAL "12" # 11  
UNIT "P" SECTION 12  
T22S-R31E LEA CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Run Dual Induction, SNP, LDT, Gamma Ray, Caliper logs from TD back to 8 5/8" casing shoe.
- B. Run Gamma Ray, Neutron logs from 8 5/8" casing shoe back to surface.
- C. Mud logger may be placed on hole at 4300'±.
- D. No cores or DST's are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H<sup>2</sup>S in this area. If H<sup>2</sup>S 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 4300 PSI, and Estimated BHT 165°.

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 28 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 Delaware(BS) formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialized as an oil well.

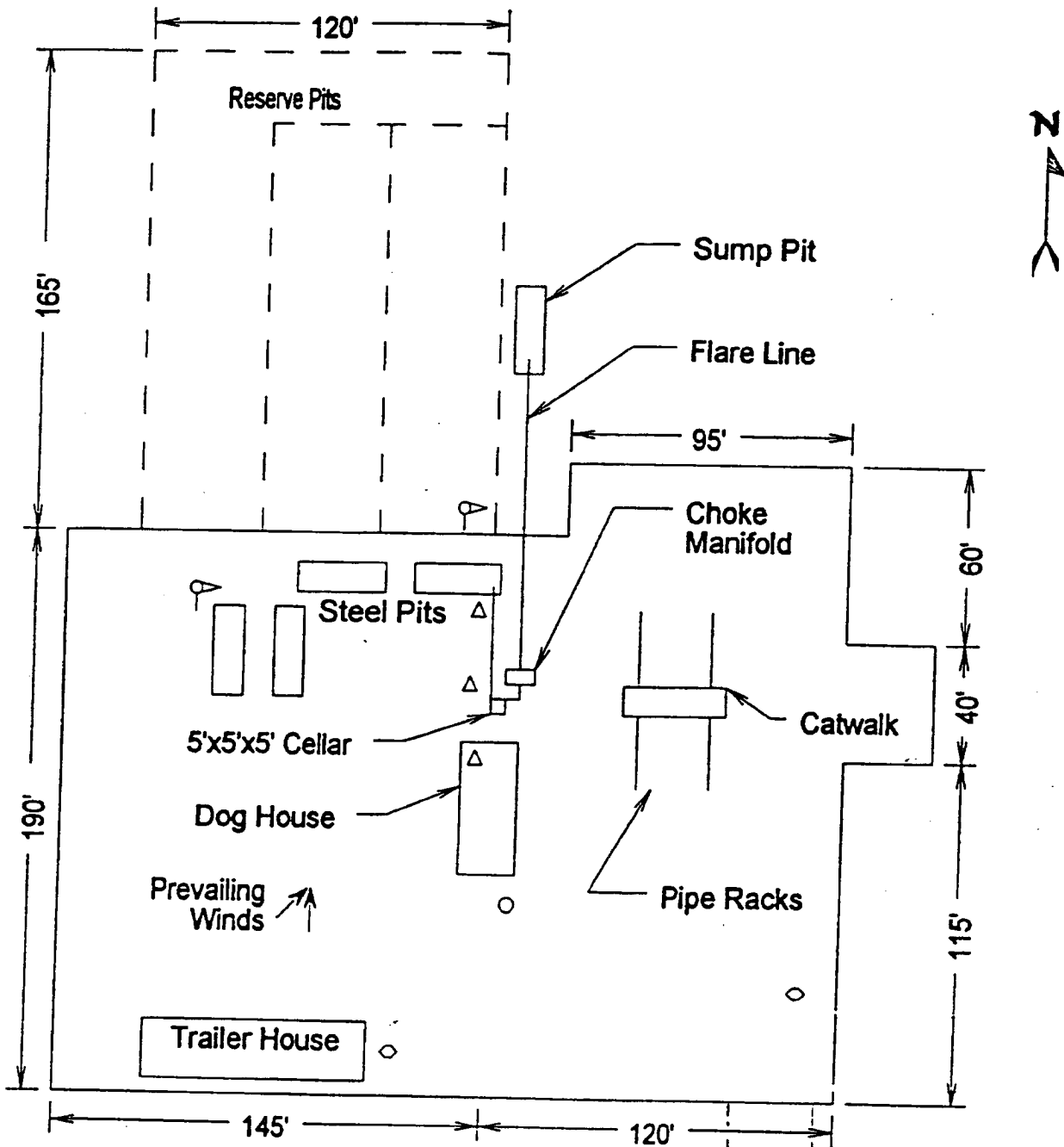
## HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H<sub>2</sub>S safety instructor to the following:
  - A. Characteristics of H<sub>2</sub>S
  - B. Physical effects and hazards
  - C. Proper use of safety equipment and life support systems.
  - D. Principle and operation of H<sub>2</sub>S 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<sub>2</sub>S Detection and Alarm Systems
  - A. H<sub>2</sub>S detectors and audio alarm system to be located at bell nipple, end of blowie line (mud pit) and on derrick floor or doghouse.
3. Windsack and/or wind streamers
  - A. Windsack at mudpit area should be high enough to be visible.
  - B. Windsack at briefing area should be high enough to be visible.
  - C. There should be a windsack 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<sub>2</sub>S 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 separator will be brought into service along with  $H_2S$  scavengers if necessary.



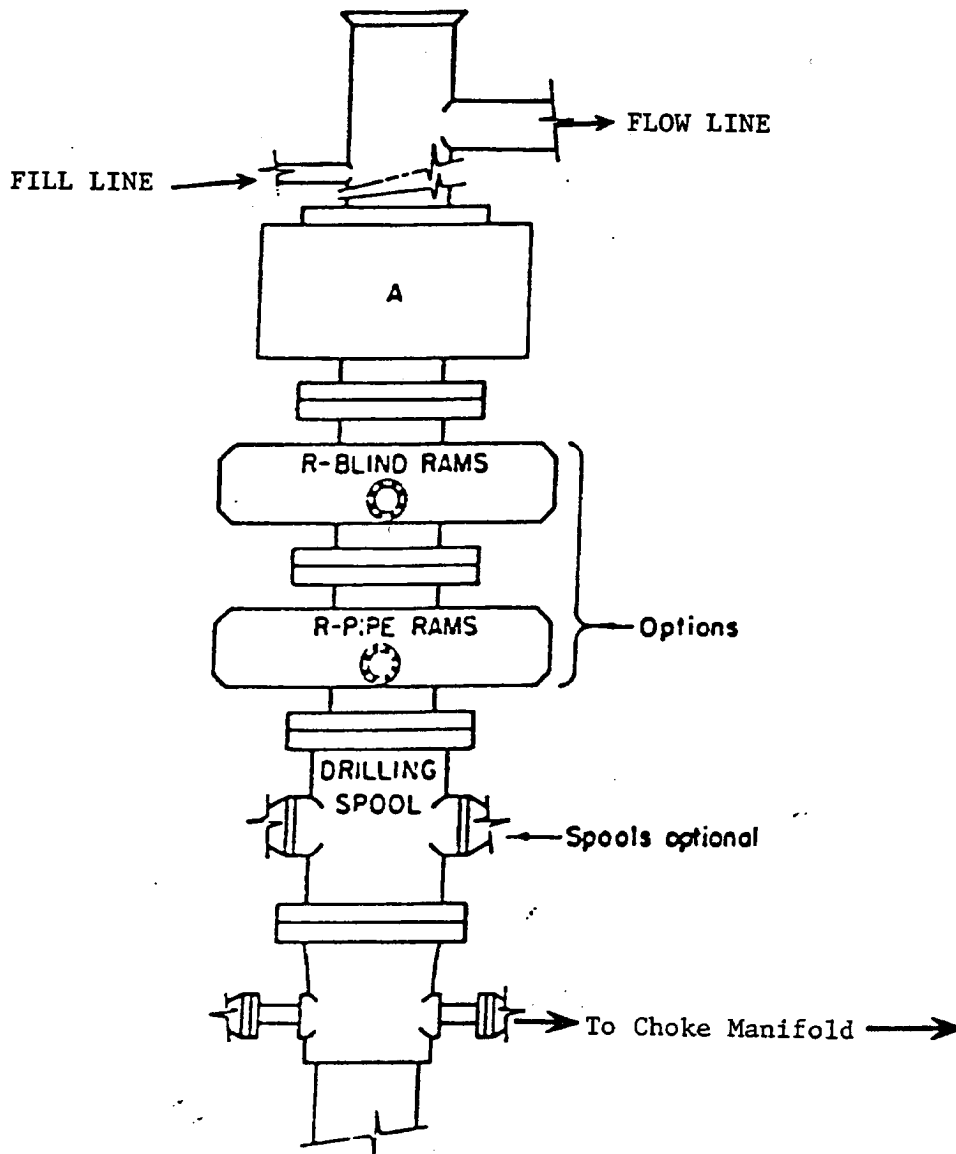


- ⊙ Wind Direction Indicators (wind sock or streamers)
- △ H2S Monitors (alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- Sign and Condition Flags

← Access Road

EXHIBIT "D"  
RIG LAY OUT PLAT

POGO PRODUCING COMPANY  
FEDERAL "12" # 11  
UNIT "P" SECTION 12  
T22S-R31E LEA CO. NM



**ARRANGEMENT SRRA**

900 Series  
3000 PSI WP

EXHIBIT "E"  
 SKETCH OF B.O.P. TO BE USED ON  
 POGO PRODUCING COMPANY  
 FEDERAL "12" # 11  
 UNIT "P" SECTION 12  
 T22S-R31E LEA CO. NM

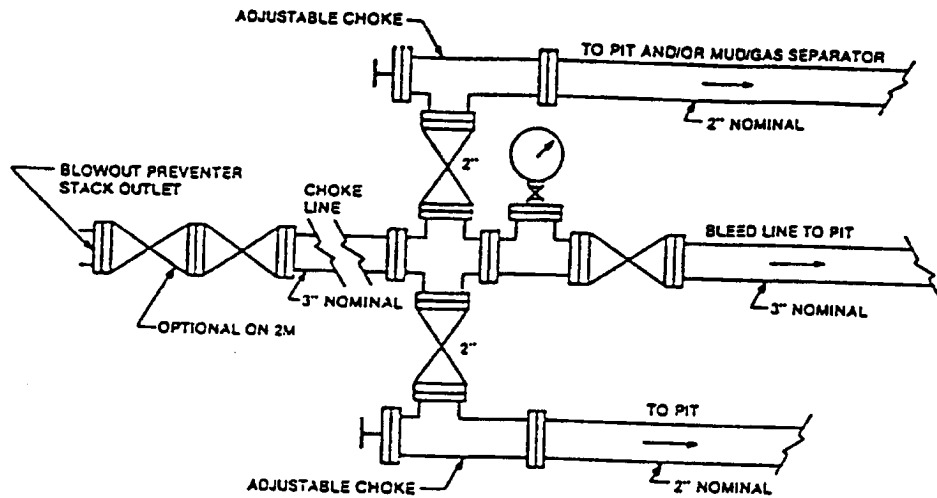


FIGURE K4-1. Typical choke manifold assembly for 2M and 3M rated working pressure service — surface installation.

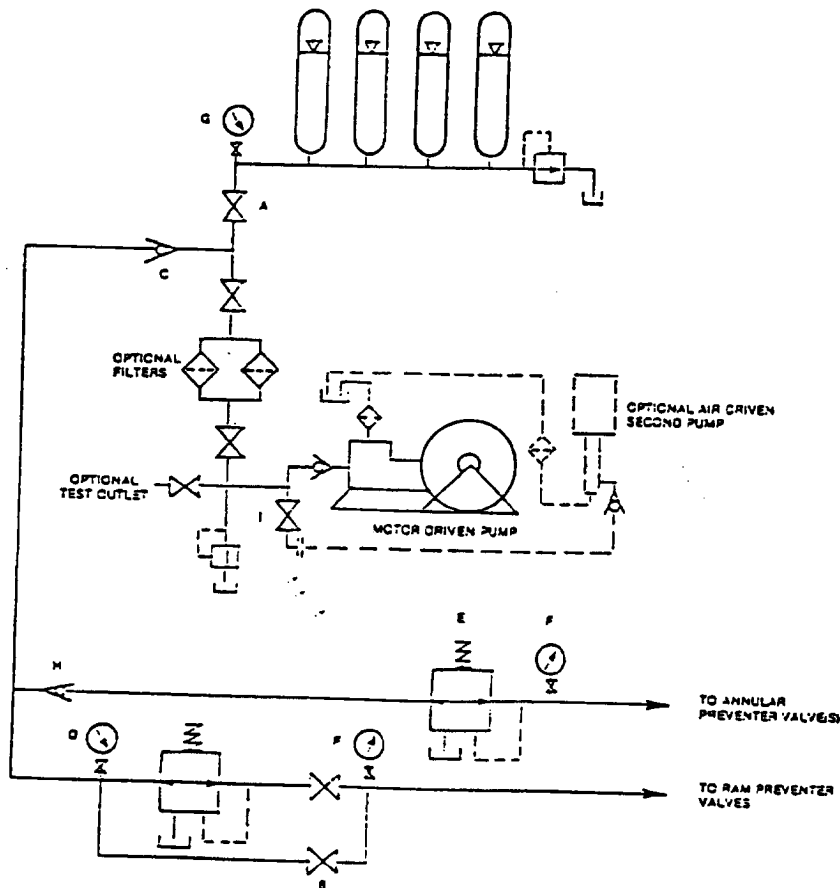


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

EXHIBIT "E-1"  
CHOKE MANIFOLD & CLOSING UNIT

POGO PRODUCING COMPANY  
FEDERAL "12" # 11  
UNIT "P" SECTION 12  
T22S-R31E LEA CO. NM