Foi (n' 3160-3 (Juily 1992)

17 - 1/2

7-7/8

11

H - 40

J-55

J-55

Bom

N.M. Oil Consumminate.2

UNITED STATES 1301 W. G. Cother instructions on

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

/	A 26 2 2 2	M an A	
	Anesia	PARA.	シンフリハ
BURFAU OF LAND	MANAGEMENA TESIA,	A AAAA	00210

5. LEASE DESIGNATION AND SERIAL NO.

00 1	BUREAU OF LAN	NM-45236						
APPL	ICATION FOR PER	6. IF INDIAN, ALLOTTEE OF	R TRIBE NAME					
1a. TYPE OF WORK	DRILL X	DEEPEN [R-	111-POTASH		7. UNIT AGREEMENT NAMI	Ē	
3. ADDRESS AND TELEPH			789	P/	TIPLE	8. FARM OR LEASE NAME, Sterling Sil 9. APIWELL NO.	ver 33 Fed	
	10340, Midland, 7					10. FIELD AND POOL, OR V		
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) At surface 1980' FSL & 2310' FEL, Section 33 At proposed prod. zone Same At proposed Prod. zone						Sand Dunes D 11. SEC., T., R., M., OR BLE AND SURVEY OR AREA Section 33,	ζ.	
	ND DIRECTION FROM NEAREST TO			MANIE SO	TEOIA	12. COUNTY OR PARISH Eddy County	13. STATE	
15. DISTANCE FROM PRO LOCATION TO NEARES PROPERTY OR LEASE Also to nearest drig. uni	ST			DF ACRES IN LEASE		OF ACRES ASSIGNED THIS WELL 40		
18. DISTANCE FROM PRO	POSED LOCATION* RILLING, COMPLETED,	19. PRO	POSED DEPTH 8450		O. ROTARY OR CABLE TOOLS Rotary			
21. ELEVATIONS (Show w	hether DF, RT, GR, etc.)	3402' GR				22. APPROX. DATE WORK When approve		
23.		PROPOSED CAS	SING AND	CEMENTING PROGRAM	1 6	Shad Controlled	Pater Steels	
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FO	тоот	SETTING DEPTH		QUANTITY OF CEMEN		
25	Conductor	NA		40	Cmt to	surface w/ Re	edi-mix	

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

13 - 3/8

8-5/8

5-1/2

48

32

15.5 & 17

2. Drill 17-1/2" hole to 750'. Run & set 600' of 13-3/8" 48# H-40 ST&C csg. Cmt w/ 750 sks Cl "C" cmt + additives. Circulate cmt to surface.

750

4250

8450

- 3. Drill 11" hole to 4250'. Run & set 4250' of 8-5/8" 32# J-55 ST&C csg. Cmt w/ 1300 sks C1 "C" cmt + additives. Circulate cmt to surface.
- 4. Drill 7-7/8" hole to 8450'. Run & set 8450' 5-1/2" csg as follows: 1000' 5-1/2" 17# J-55 LT&C, 5000' 5-1/2" 15.5# J-55 LT&C, 2450' 5-1/2" 17# J-55 LT&C csg. Cmt in 2 stages. Stage tool @ 6200'±. Cmt w/ 1250 sks Cl "C" cmt + additives. Est TOC @ 3100'.

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

750 ske- circ to surface

1250 sk - Est TOC 3100'

1300 sk - circ to surface

	obtained prior to pit	construction. ATTACH	ED
		pen, give data on present productive zone and proposed and measured and true vertical depths. Give blowout pro	
24. SIGNED	thy Weight	ппце Sr.Eng Tech	DATE 11/21/05
(This space for Federa	l or State office use)		
PERMIT NO.		APPROVAL DATE	· ·
Application approval does		egal or equitable title to those rights in the subject lease which would	ld entitle the applicant to conduct operations thereon.
lal	Linda S. C. Rundell		

APPROVED BY TITLE STATE DIRECTOR DATE JUN 0 7 2006

*See Instructions On Reverse Side ADDROVAL FOR 1 VE

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.

DISTRICT I 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

DISTRICT IV P.O. BOX 2088, SANTA FE, N.M. 87604-2088 OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name	
	53815	SAND DUNES-DELAWARE WEST	
Property Code 023597	Property Name STERLING SILVER 33 FED.		Well Number
OGRID No. 17891	Operator Name POGO PRODUCING COMPANY		Elevation 3402

Surface Location

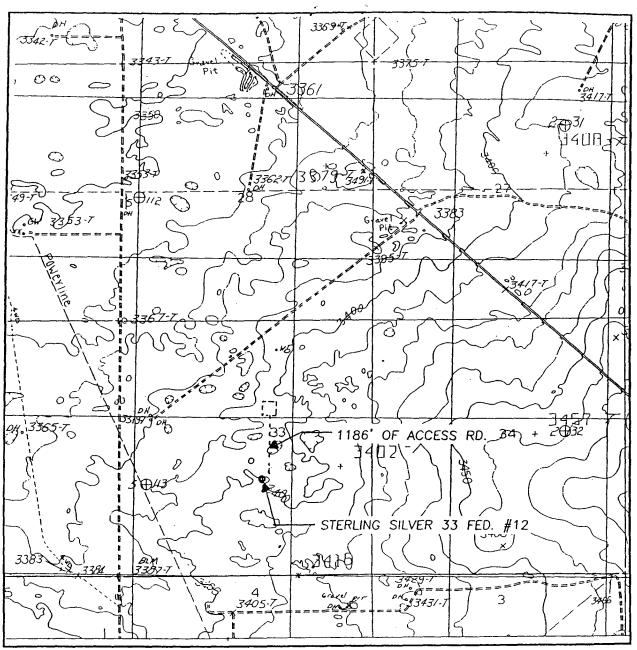
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	33	23 S	31 E		1980	SOUTH	2310	EAST	EDDY

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
1	Dedicated Acres	Joint o	r Infill Co	nsolidation	Code Or	der No.				
1	40	1						_		

	BE ASSIGNED TO THIS COMPLE' R A NON-STANDARD UNIT HAS		ERESTS HAVE BEEN CONSOLIDATED THE DIVISION
			OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.
			Signature Jue T. Janica Printed Name Agent
			O4/27/00 Date SURVEYOR CERTIFICATION
	3397.4' 3398.2' Q = 1	2310'	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. APRIL 9, 2000
	.080.		Date Surveyed
		1	Certificate No. RONALD FIDSON 3239 GARY ERDSON 12841 OFFICE MACCIN MEDIONALD 12185

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

LOS MEDANOS, N.M.

CONTOUR INTERVAL: LOS MEDANOS - 10'

SEC. <u>3</u> 3	3 TWP. <u>23-S</u> RGE. <u>31-E</u>
SURVEY_	N.M.P.M.
COUNTY	EDDY
DESCRIP	TION 1980' FSL & 2310' FEL
ELEVATIC	DN 3402
OPERATO	DR <u>POGO PRODUCING COMPAN</u> Y
LEASE	STERLING SILVER 33 FED.
U.S.G.S.	TOPOGRAPHIC MAP

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

APPLICATION TO DRILL

POGO PRODUCING COMPANY STERLING SILVER "33" FEDERAL #12 UNIT J - SECTION 33

T23S-R31E

EDDY 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 consideration.

- 1. Location: 1980' FSL & 2310' FEL, Section 33, T23S, R31E, Eddy County, NM.
- 2. Elevation above Sea Level: 3402' GR
- 3. Geologic name of surface formation: Quaternery Aeolian Deposits.
- 4. <u>Drilling tools and associated equipment:</u> Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
- 5. Proposed drilling depth: 8450'
- 6. Estimated tops of geological markers:

Rustler Anhydrite	810'	Bell Canyon	4465'
Salado	865'	Cherry Canyon	5485'
Delaware Lime	4395'	Bone Spring	8250'

7. Possible mineral bearing formation:

Delaware

Oil

Bone Spring

Oil

8. Casing Program:

Hole Size	<u>Interval</u>	OD of csg	Weight	<u>Thread</u>	<u>Collar</u>	<u>Grade</u>
25"	0-40	20"	NA	NA	NA	Conductor
17-1/2"	0-750	13-3/8"	48	8-R	ST&C	H-40
11"	0-4250	8-5/8"	32#	8-R	ST&C	J-55
7-7/8"	0-8450	5-1/2"	15.5 & 17	8-R	LT&C	J-55

APPLICATION TO DRILL

POGO PRODUCING COMPANY STERLING SILVER "33" FEDERAL #12 UNIT J SECTION 33 T23S-R31E EDDY CO. NM

9. Cementing & Setting Depth:

20"	Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix.
13-3/8"	Surface	Set 750' of 13-3/8" H-40 48# ST&C casing, cement with 750 sks Class "C" cement + additives, circulate cement to surface.
8-5/8"	Intermediate	Set 4250' of 8-5/8" 32# J-55 ST&C casing, cement with 1300 sks Class "C" cement + additives, circulate cement to surface.
5-1/2"	Production	Set 8450' of 5-1/2" 15.5# & 17# J-55 LT&C casing as follows: 1000' of 5-1/2" 17# J-55 LT&C, 5000' of 5-1/2" 15.5# J-55, 2450' of 5-1/2" 17# J-55 LT&C. Cement in two stages, stage tool @ ± 6200 '. Cement with 1250 sks Class "C" + additives. Estimated top of cement on second stage to be 3100' from surface.

10. <u>Pressure control equipment:</u> Exhibit "E". A Series 900 3000 PSI working pressure BOP consisting of a double ram type preventor with a bag type annular preventor. The BOP unit will be hydraulically operated. Exhibit E-1. Choke manifold and closing unit. The BOP will be nippled up on 13-3/8" casing and will be operated when out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. No abnormal pressure or temperature is expected while drilling.

11. Proposed mud circulating system:

Depth	Mud Wt.	Visc	Fluid Loss	Type Mud System
40-750	8.6-8.8	29-36	NC	Fresh water spud mud add paper to control seepage
750-4250	10.2-10.5	29-36	NC	Brine water use lime to control pH & paper to control seepage
4250-8000	8.6-8.8	30-40	NC	Fresh water use paper to control seepage and high viscosity sweeps to clean hole.
8000-8450	8.6-8.8	34-40	10 cc or less	Same as above use starch or Dris-Pac to control wtr 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 DSTs, open hole logs, and casing the viscosity and/or water loss amy have to be adjusted to meet these needs.

APPLICATION TO DRILL

POGO PRODUCING COMPANY
STERLING SILVER "33" FEDERAL # 12
UNIT "J" SECTION 33
T23S-R31E EDDY CO. NM

12. TESTING, LOGGING, & COREING PROGRAM:

- A. Open Hole logs:Dual-Induction, SNP-Density, Gamma Ray, Caliper from TD to 4250'
- B. Gamma Ray, Neutron from 4250' to surface.
- C. Mud logger on hole from 4250' to TD.
- D. No cores or DST's are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, $\rm H_2S$ detectors will be in place to detect any presence of unsafe levels of $\rm H_2S$. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operations of all equipment that will be used. Estimated BHP 3650 PSI & estimated BHT 148°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Roads and location construction will begin after the BLM approves the APD. Anticipated spud date will be as soon as pad & road construction has been completed. Drilling time for the well is estimated to take 22-28 days. If production casing is run an additional 25 days will be required to complete well and construct surface facilities.

15. OTHER FACETS OF OPERATION:

After running production casing, cased hole Gamma-Neutron & Collar logs will be run over all possible pay intervals. If commercial production from the Bone Spring pay is indicated it will be perforated and stimulated. Then if necessary the pay will be swab tested and completed as an Oil well

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

- 1. All Company and Contract personnel admitted on location must be trained by a qualified ${\rm H}_2{\rm S}$ safety instructor to the following:
 - A. Characteristics of H2S
 - B. Physical effects and hazzards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H2S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
- 2. H₂S Detection and Alarm Systems
 - A. H₂S 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, H₂S 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 $\rm H_2S$ 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.

POGO PRODUCING COMPANY
STERLING SILVER "33" FEDERAL # 12
UNIT "J" SECTION 33
T23S-R31E EDDY CO. NM

- EXISTING ROADS: Area maps, Exhibit "B" is a reproduction of a County General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
 - A. Exhibit "A" shows the proposed well site as staked.
 - B. From Hobbs New Mexico take 62-180 West toward Carlsbad go 38 miles to CR-29 turn South go 21.5 miles to State Road 128 Turn Right go .9 miles turn Left (South) go .1 mile turn Right (West) go 1.5 miles, turn Left (South) go 1180' to location.
 - C. Lay pipelines and construct powerlines along existing R-O-W's or along roads to a tamk battery that collects produced fluids and seperates gas from oil and put in sales line.
- 2. PLANNED ACCESS ROADS: Construct approximately 1180' of new road.
 - A. The access road will be crowned and dirched to a 12'00" wide travel surface with a 40' right-of-way.
 - B. Gradient on all roads will be less than 5.00%.
 - C. No turnouts will be necessary.
 - D. If needed, road will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.
 - E. Centerline for the new access road has been flagged. Earthwork will be as required by field conditions.
 - F. Culverts in the access road will not be used. The road will be constructed to utilize low water crossings for drainage as required by the Topography.

3. LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A-1"

Α.	Water wells	-	None known
в.	Disposal wells	-	None known
с.	Drilling wells	~	None Known
D.	Producing wells	-	As shown on Exhibit "A-1"
E.	Abandoned wells	-	As shown on Exhibit "A-1"

POGO PRODUCING COMPANY
STERLING SILVER "33" FEDERAL # 12
UNIT "J" SECTION 33
T23S-R31E EDDY CO. NM

4. If, upon completion this well is a producer Pogo Producing Company will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied with a Sundry Notice.

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction will be obtained from the excavation of drill site, if additional material is needed it will be purchased from a local source and transported over the access route as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pit.
- B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by supplier including broken sacks.
- D. Sewage from living quarters will drain into holes with a minium depth of 10'. These holes will be covered during drilling and will be back filled upon completion. A Ports-John will be provided for the rig craws. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for breaking out. In the event that drilling fluids do not evaporate in a reasonable time they will be hauled off by transports and be disposed of at a state approved disposal facility. Later pits will be broken out to speed drying. Water produced during testing will be put in reserve pits. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES:

A. No camps or airstrips to be constructed.

POGO PRODUCING COMPANY
STERLING SILVER "33" FEDERAL # 12
UNIT "J" SECTION 33
T23S-R31E EDDY CO. NM

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the proposed well site layout.
- B. This exhibit indicated proposed location of reserve and sump pits and living facilities.
- C. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with polyethelene. The pit liner will be 6 mils thick. Pit liner will entend a minimum of 2'00" over the reserve pits dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE:

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

POGO PRODUCING COMPANY
STERLING SILVER "33" FEDERAL # 12
UNIT "J" SECTION 33
T23S-R31E EDDY CO. NM

11. OTHER INFORMATION:

- A. Topography consists of sand dunes with a slight dip toward the West. Deep sandy soil supports native grasses, mesquite, and shinnery Oak.
- B. Surface is owned by the Bureau of Land Management U.S. Department of Interior. Surface is used for grazing of livestock and is leased to ranchers for this purpose.
- C. An archaeological survey will be conducted and copies of the survey will be filed in the Carlsbad Office of The Bureau of Land Management.
- D. There are no dwellings or habitation within three miles of this location.

12. OPERATORS REPRESENTIVE:

Before construction:

TIERRA EXPLORATION INC. P.O. BOX 2188 HOBBS, NEW MEXICO 88241 OFFICE PHONE 505-392-2112 JOE T. JANICA

During and after construction:

POGO PRODUCING COMPANY
P.O. BOX 10340
MIDLAND, TEXAS 79702-7340
OFFICE PHONE 915-685-8100
MR. RICHARD WRIGHT 915-685-8140

13. CERTIFICATION: - I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Pogo Producing company, its contractors/subcontractors is in the conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

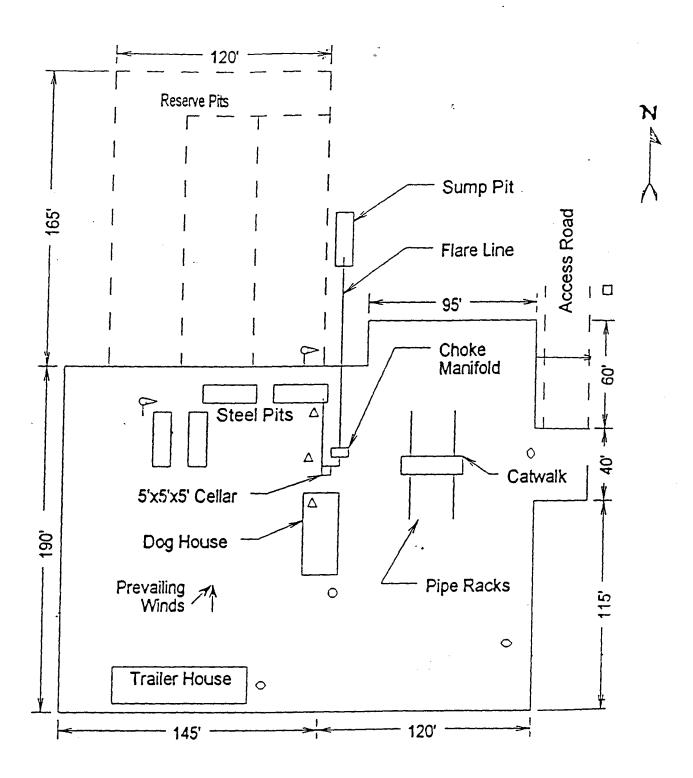
NAME

DATE

TITLE

04/27/00

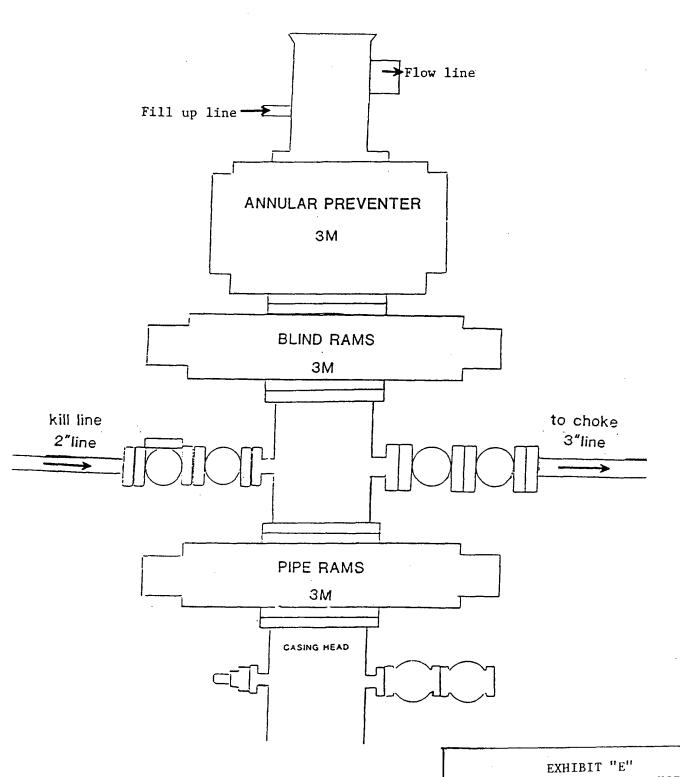
Agent



- 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

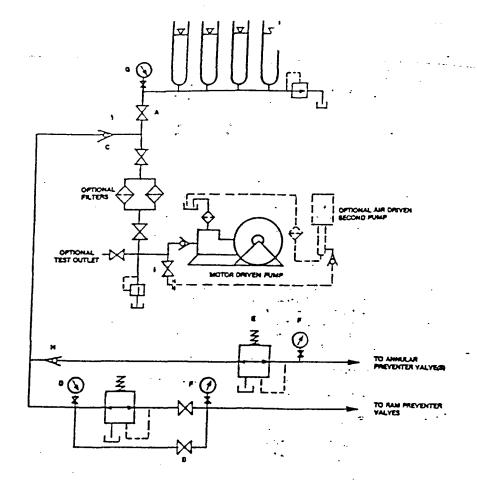
EXHIBIT "D"
RIG LAYOUT PLAT

POGO PRODUCING COMPANY
STERLING SILVER "33" FEDERAL
UNIT "J" SECTION

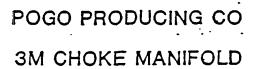


SKETCH OF B.O.P. TO BE USED O

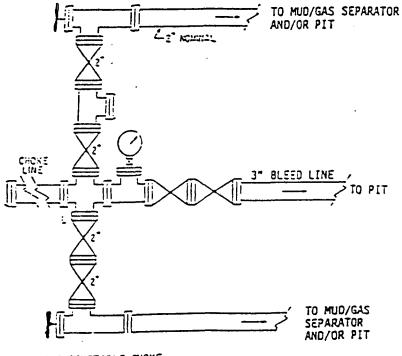
POGO PRODUCING COMPANY STERLING SILVER "33" FEDERAL #
UNIT "J" SECTION SECTION



HAND AJUSTABLE CHOKE







HAND AJUSTABLE CHOKE

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

POGO PRODUCING COMPANY
STERLING SILVER "33" FEDERAL # :
UNIT "J" SECTION

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:

Pogo Producing Company

Well Name & No.

Sterling Silver 33 Federal # 12 RESUBMITTAL

Location:

1980' FSL, 2310' FEL, Section 33, T. 23 S., R. 31 E., Eddy County, New Mexico

Lease:

NM-45236

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, 505-361-2822 for wells in Eddy County in sufficient time for a representative to witness:

- A. Well spud
- B. Cementing casing: <u>13-3/8</u> inch <u>8-5/8</u> inch <u>5-1/2</u> inch
- C. BOP tests
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.
- 4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.
- 5. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

- 1. The <u>13-3/8</u> inch surface casing shall be set at <u>approximately 750 feet</u> and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
- 2. The minimum required fill of cement behind the <u>8-5/8</u> inch intermediate casing is to be sufficient to circulate to the surface.
- 3. The minimum required fill of cement behind the <u>-5-1/2</u> inch production casing is to be sufficient to circulate to the surface.
- 4. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

III. PRESSURE CONTROL:

- 1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the <u>13-3/8</u> inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.
- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

12/23/03 -- rev 12/05/05 -- rev 2 acs