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2. NAME OF OPERATOR	1	7891				LOST TANK	
POGO PRODUCT		(RICHARD W	RIGHT	432–685–8140		9. API WELL HO.	
P.O. BOX 103		AS 70702-73	40	(432–685–810	٥١	30-015	- 34918
	(Report location clearly an					10. FIELD AND WILDCAT-W	
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nt proposed prod.	SAME		R-	11-POTASH	MAR 1 5 20	SECTION 4	T22S-R3
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	151-5235						
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Seepen directionally, give pe	rtinent data on subsurface location	tio are measured and o		.p.i.s. Give alowate pre	evenuer programs		
	of le	uca	Ag	ent		0.5 DATE	5/20/05
SIGNED							
(This space for Fe	deral or State office use)						
	deral or State office use)						

STATE DIRECTOR

See Instructions On Reverse Side APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001, makes it a crime for any secson beowingly and willfully to make to any decourse to a great of the

- 1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
- 2. Drill 17½" hole to 950'. Run and set 950' of 13 3/8" 48# H-40 ST&C casing. Cement with 850 Sx. of Class "C" cement + 2% CaC-, + ½# Flocele/Sx. circulate cement to surface.
- 3. Drill 12½" hole to 4000'. Run and set 4000' of 9 5/8" 40# N-80 ST&C casing. Cement with 1200 Sx. of Class "C" cement + 2% CaCl, + ½# Flocele/Sx. circulate cement to surface.
- 4. Drill 8½" hole to 11,600'. Run and set 11,600' of 7" 29# P-110 LT&C casing. Cement in 3 stages. Set DV Tools At 6500'± & 3800'£. Cement 1st stage with 750 Sx. of Class "H" cement + additives, cement 2nd stage with 400 Sx. of Class "C" cement + 8# of Gilsonite/Sx., cement 3rd stage with 300 Sx. of Class "C" light weight cement + additives, circulate cement to surface.
- 5. Drill 6 1/8" hole to 12,800'. Run and set a 1400' 5" 18# P-110 LT&C liner from 12,800' back to 11,400'. Cement with 400 Sx. of Class "H" Premium Plus cement + additives, cement back to liner hanger.

### State of New Mexico

DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 86240

Rnergy, Minerals and Natural Resources Department

Form C-102

Revised JUNE 10, 2003 Submit to Appropriate District Office

State Lease - 4 Copies Pee Lease - 3 Copies

#### DISTRICT II 1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FR, NM 87505	WELL LOCATION AND	ACREAGE DEDICATION PLAT	☐ AMENDED REPORT
API Number	Pool Code	Pool Na	me
		WILDCAT-WOLFCAMP	
Property Code	_	erty Name	Well Number
	LOST TANK "4"	' FEDERAL (DEEP)	20
OGRID No.		ator Name	Elevation
17891	POGO PRODU	CING COMPANY	3466'

### Surface Location

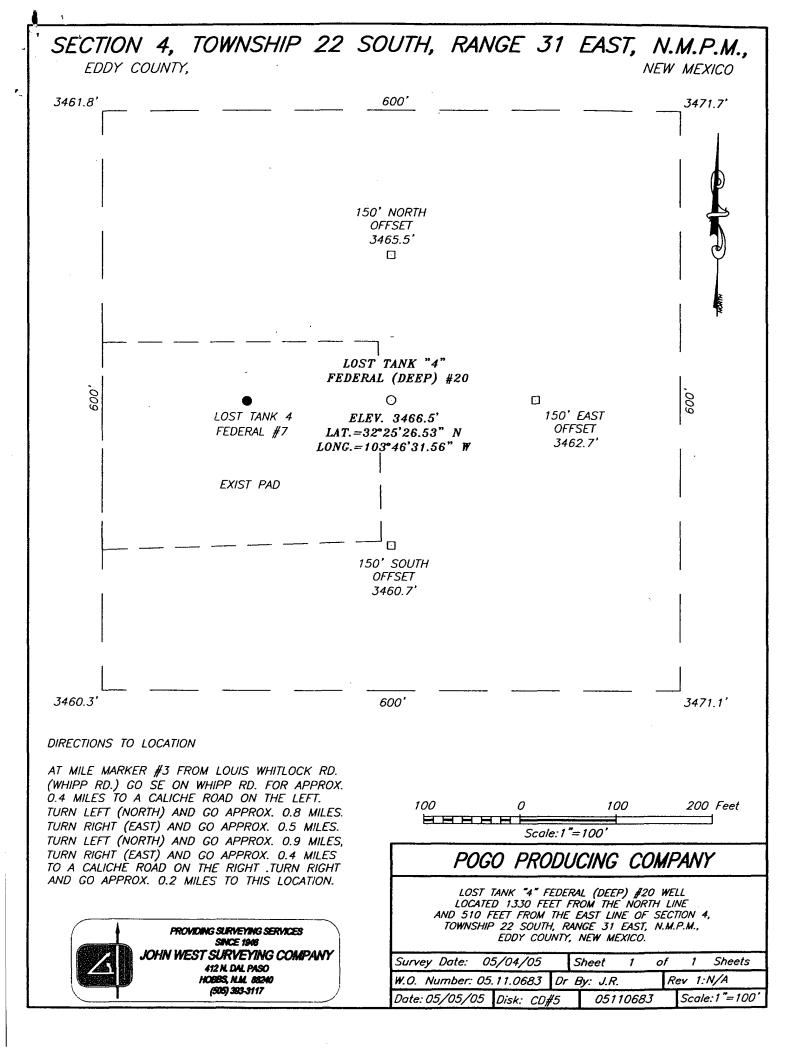
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Н	4	22-S	31-E	,	1_330	NORTH	510	EAST	EDDY

#### Bottom Hole Location If Different From Surface

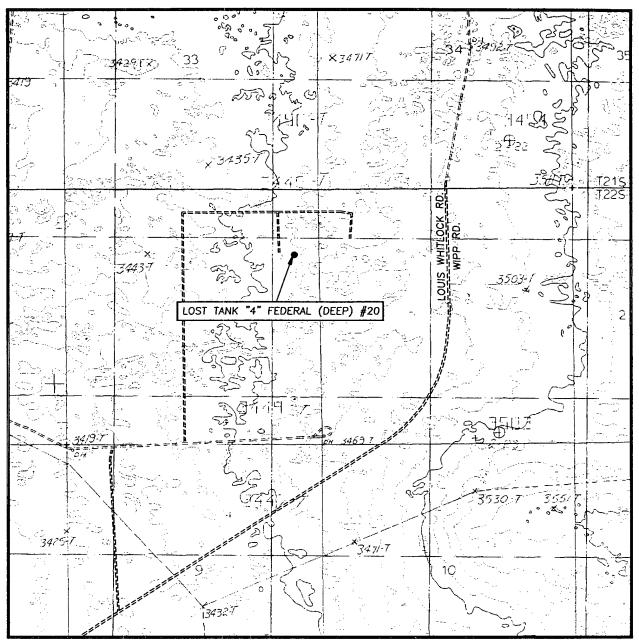
UL or lot No.	Section Towns	ship Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation	Code Or	der No.			<u> </u>	

### 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

	UK A NUN-SIANDA	d cyll uys p	EEN APPROVED BY TH	TE DIVISION
LOT 4	LOT 3	LOT 2	LOT 1 39.63 AC	OPERATOR CERTIFICATION
				I hereby certify the the information contained herein is true and complete to the
' 	!		330,	best of my knowledge and belief.
1			3461.8' 3471.7'	lost James
39.97 AC	39.85 AC	39.75_AC		Signature
			600'	Joe T. Janica Printed Name
	 		3460.3' 3471.4	Agent
			Ę	Title
1	,		Ė	05/18/05 Date
1				GUDURNOD GROWING INVOV
	<del></del>			SURVEYOR CERTIFICATION
,	GEODETIC CÖOF NAD 27 N			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
1	Y=518427. X=672146.			correct to the best of my belief.
	LAT.=32°25'28	5 5 7" N	1	MAY 4, 2005
	LONG. = 103°46'			Date Surveyed.\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
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ļ				MET CONTRACTOR
1	1			Ban & En 5/6/05
1			i !	05.11,ø683 \$
	!			Certificate No. GARY BESON 12841
1			1	Marine Commission



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

LIVINGSTON RODGE, N.M.

CONTOUR INTERVAL: LIVINGSTON RIDGE, N.M. - 10'

SEC. 4 TWP. <u>22-S</u> RGE. <u>31-E</u>
SURVEYN.M.P.M.
COUNTYEDDY
DESCRIPTION 1330' FNL & 510' FEL
ELEVATION3466'
POGO PRODUCING OPERATORCOMPANY
LEASE LOST TANK "4" FEDERAL (DEEP)
U.S.G.S. TOPOGRAPHIC MAP





# POGO PRODUCING COMPANY LOST TANK "4" FEDERAL DEEP # 20 UNIT "H" SECTION 4 T22S-R31E EDDY CO. NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

- 1. Location: 1330' FNL & 510'FEL SECTION 4 T22S-R31E EDDY CO. NM
- 2. Elevation above sea level: 3466' GR.
- 3. Geologic name of surface formation: Quaternary
- 4. Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.
- 5. Proposed drilling depth: 12,800'
- 6. Estimated tops of geological markers:

	Base of Salt	3900'	Brushy Canyon	6450'
	Delaware Lime	4200	Bone Spring	8100'
	Bell Canyon	4270'	Wolfcamp	11,650'
7	Cherry Canyon Possible mineral bearing	5150' formation:	Strawn	12,700'
	Brushy Canyon	Oil	Wolfcamp	Oil

Bone Spring Oil Strawn Oil

# 8. Casing program:

Hole size	Interval	OD casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-950'	13 3/8"	48 <i>‡</i>	8-R	ST&C	H-40
12½"	0-4000'	9 5/8"	40#	8-R	ST&C	N-80
81211	0-11,600'	7''	29#	8-R	LT&C	P-110
6 1/8"	11400-12800'	5"	13#		,	

POGO PRODUCING COMPANY
LOST TANK "4" FEDERAL DEEP # 20
UNIT "H" SECTION 4
T22S-R31E EDDY CO. NM

### 9. CASING CEMENTING AND SETTING DEPTHS:

Set 40' of 20" conductor pipe and cement to surface 20" Conductor with Redi-mix. Set 950' of 13 3/8" 48# H-40 ST&C casing. Cement with 13 3/8" Surface 850 Sx. of Class "C" cement + 2% CaCl, + ½# Flocele/ Sx. Circulate cement to surface. Set 4000' of 9 5/8" 40# N-80 ST&C casing. Cement with 9 5/8" 1st Intermediate 1200 Sx. of Class "C" cement + additives, circulate cement to surface. Set 11,600' of 7" 29# P-110 LT&C casing. Cement in 3 7" 2nd Intermediate stages with DV Tools at 6500' & 3800". Cement 1st stage with 750 Sx. of Class "H" Premium Plus cement + addi--tives, cement 2nd stage with 400 Sx. of Class "C" cement + 8# of Gilsonite/Sx, cement 3rd stage with 300 Sx. of Class "C" Light Weight cement + additives, circu--late cement to surface. Set a 5" 18# P-110 LT&C liner from 12,800' back to 5" Production Liner. 11,400' and cement with 400 Sx. of Class "H" Premium Plus cement + additives, cement back to liner hanger.

### 10. PRESSURE CONTROL EQUIPMENT:

Nipple up a 2000# PSI B.O.P. on the 13 3/8" casing and keep on hole to till 4000', after running 9 5/8" casing, nipple up a 5000 PSI B.O.P. on the 9 5/8" casing. Keep this B.O.P. on the hole till the 7" casing is cemented in place. Nipple up 10,000PSI B.O.P. equipment on the 7" casing and keep on the hole to TD and the 5" liner is run and cemented. All B.O.P.'s will be operated at least once in each 24Hour period, and blind rams will be operated when the drill pipe is out of the hole on trips. Exhibits "E", "E-1", "E-2" show skematic drawing of B.O.P.s that may be used, each will have an annular bag type preventor, a set of pipe rams, and a set of blind rams, pipe rams will depend on the size of drill pipe that is being used to drill the well. Exhibit "F" shows a 5000 PSI Choke manifold and a hydraucally operated closing unit. Exhibit "F-1" shows a 10,000 PSI choke manifold to be used on the bottom portion of the hole.

### 11. MUD CIRCULAING SYSTEM:

SEE PAGE 2-A

# POGO PRODUCING COMPANY LOST TANK "4" FEDERAL DEEP # 20 UNIT "H" SECTION 4 T22S-R31E EDDY CO. NM

<u>D</u> EPTH	MUD WT.	VISC.	- FLUID LOSS	TYPE MUD SYSTEM_
40-950'	8.4-8.8	29-34	NC	Fresh water spud mud use paper to control seepage
950-4000 <b>'</b>	10.0-10.3	29-36	NC	Brine water use paper to control seepage and high viscosity sweeps to clean hole.
4000-11,600'	9.8-10.0	29-38	NC	Cut Brine using high viscosity sweeps to clean hole.
11,600-12,800'	9.8-10.0	29-40	10 cc or less	Same as above but start Dris-Pac, and Starch to control water loss. use salt gel for high viscosity sweeps to clean hole.

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 water loss may have to be adjusted to meet these needs.

# POGO PRODUCING COMPANY LOST TANK "4" FEDERAL DEEP # 20 UNIT "H" SECTION 4 T22S-R31E EDDY CO. NM

# 12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Laterolog, MSFL, LDT, SNP, Gamma Ray and Caliper from 4000' to 13 3/8" casing shoe. Gamma Ray Neutron from 13 3/8" casing shoe to surface. Dual laterolog, MSFL, LDT, SNP, Gamma Ray and Caliper fron 11,600' back to 9 5/8" casing shoe. Same set of logs from TD back to 7" casing shoe.
- B. Rig up mudlogger on hole at 4000'± and keep on hole to TD.
- C. Cores and DST's may be taken as deemed necessary.

# 13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of  $\mathrm{H}^2\mathrm{S}$  in this area. If  $\mathrm{H}^2\mathrm{S}$  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 6000± PSI, and Estimated BHT 200°.

### 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 48 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 <a href="Strawn">Strawn</a> formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as an oil well.

- 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 hazzards
  - 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 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<sub>2</sub>S present in dangerous concentration. Only emergency personnel admitted to location.
- 5. Well control equipment
  - A. See exhibit "E" & "E-1"
- 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 the location is near to a dwelling a closed DST will be performed.

- 8. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.
- 9. If  $\rm H_2S$  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  $\rm H_2S$  scavengers if necessary.

- 1. EXISTING ROADS: Area maps, Exhibit "B" is a reproduction of a County General Hi-way Map. Exhibit "C" is a reproduction of a USGS Topographic map, showing existing 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 location of the proposed well site as staked.
  - B. From Hobbs New Mexico take U.S. Hi-way 62-180 West toward Carlsbad New Mexico, go 40± miles to WIPP road, turn South go 10.75± miles turn Right go .75 miles, turn Right go .4 miles, turn Left go .9 miles, turn Right go .4 miles, turn Right go .4 miles, turn Right go .2 miles to location. This location is 150' Fast of well # 7.
  - C. Exhibit "C" shows the proposed route of flowlines.

- 2. PLANNED ACCESS ROADS: No new roads will be required.
  - A. The access road will be crowned and ditched to a 12' wide traveled surface with a 40' Right-of-Way.
  - B. Gradient on all roads will be less than 5% if possible.
  - C. Turn-outs will be constructed where necessary.
  - D. If needed the roads will be surfaced to the BLM requirements with material obtained from from a local source.
  - E. Center line for the new access road will be flagged.
  - F. The road will be constructed to utilize low water crossings where drainage currently exist, and Culverts will be installed where necessary.
- 3. EXHIBIT "A-1" SHOWS WELLS AND DRY HOLES WITHIN A 1 MILE RAIDUS.
  - A. Water wells None known
  - B. Disposal wells None known
  - C. 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
LOST TANK "4" FEDERAL DEEP # 20
UNIT "H" SECTION 4
T22S-R31E EDDY CO. NM

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Possible routes of pipelines, flowlines and powerlines are shown on Exhibit "C".

# 5. LOCATION AND TYPE OF WATER SUPPLY:

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

### 6. SOURCE OF CONSTRUCTION MATERIAL:

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

### 7. METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. All trash, junk and other waste material will be contained in trash cages or trash 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 the supplier, including broken sacks.
- D. Waste water from living quaters will be drained into holes with a minium of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-John will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for furthed drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approve disposal site. Later pips will be broken out to speed drying. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in storage tanks and sold.

### 8. ANCILLARY FACILITIES:

A. No camps or air strips will be constructed on location.

POGO PRODUCING COMPANY
LOST TANK "4" FEDERAL DEEP # 20
UNIT "H" SECTION 4
T22S-R31E EDDY CO. NM

# 9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the proposed well site layout.
- B. This Exhibit shows the location of reserve pit, sump pits, and living facilities.
- C. Mud pits in the active circulating system will be steel pits and the reserve pits will be unlined unless subsurface conditions encontered during pit construction indicate that a plastic liner is required to contain lateral migration.
- D. If needed the reserve pits will be lined with polyethelene. The pit liner will be no less than 6 mils thick and the liner will be extended at least 3 feet over the top of the dikes and secured in place to keep edge of liner in place.
- E. The reserve pit will be fenced on three sides and fenced with four strands of barbed wire during drilling and completionphases. The 4th side will be fenced after drilling operations are complete and the drilling rig has moved out. If the well is a producer the mud pits will remain fenced in until the mud has dried up enough to break out the pits and reclaimed according to BLM requirements.

### 10. PLANS FOR RESTORATION OF SURFACE:

Rehabilitation of the location and reserve pits will be allowed to dry properly, fluids may be moved and disposed of in accordance with article 7-E 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 furture erosion. In case of the well completed as a producer the drilling pad will be necessary to construct production facilities. After the area has been shaped and contoured top soil from the spoil pile will be placed over the disturbed area to the extent possible so that revegetation procedures can be accomplished to comply with the BLM specifications.

If the well is a dry hole the pad and road area will be contoured to match the existing terrain. Top soil will be spread to the extent possible and revegetation will be carried out according to the BLM specifications.

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
LOST TANK "4" FEDERAL DEEP # 20
UNIT "H" SECTION 4
T22S-R31E EDDY CO. NM

### 11. OTHER INFORMATION:

- A. Topography consists of sand dunes with a slight dip to the West. Deep sandy soil supports shinnery oak, native grasses, and an occasional mesquite tree.
- B. Surface is owned by the U.S. Government and is administered by the Bureau of Land Management. The surface is used for grazing livestock and the production of oil and gas.
- C. An archaeological survey will be conducted on the location and access roads. This report will be filed with The Bureau of Land Management in the Carlsbad field office.

D.

# 12. OPERATORS REPRESENTIVES:

# Before construction:

TIERRA EXPLORATION, INC P.O. BOX 2188
HOBBS, NEW MEXICO 88241
OFFICE Ph. 505-391-8503
JOE T. JANICA

### During and after construction:

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

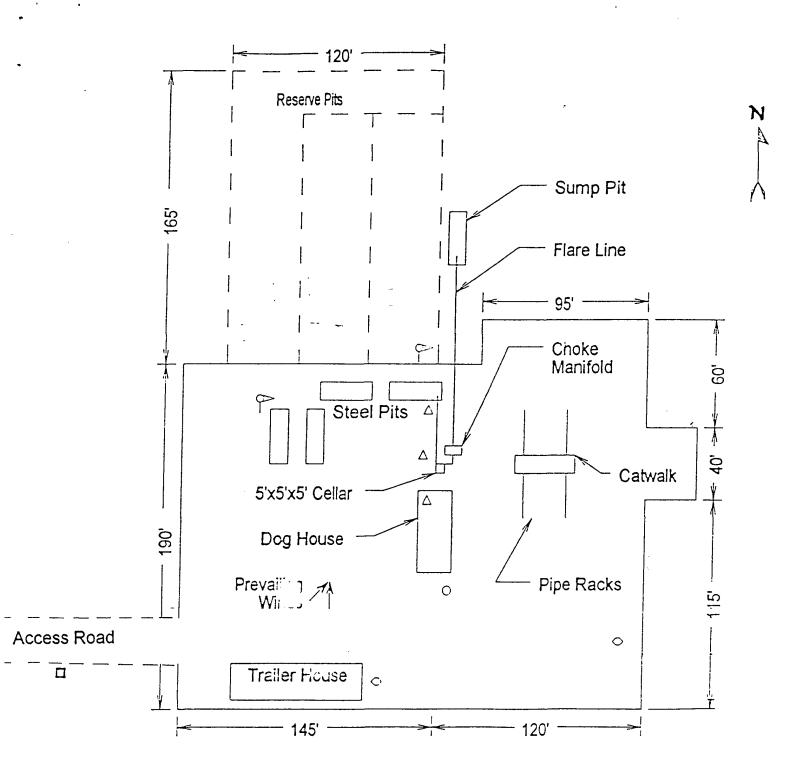
13. CERTIFICATION: I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access roads, and that I am fimiliar with the conditions which currently exist, that the statements made in this plan are to the best of my knowledge true and correct, and that the work associated with the operations proposed herein will be performed by POGO PRODUCING COMPANT it's contractors/subcontractors is in compformity 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 filling of a false report.

NAME

DATE

TLE :/: Agent

05/20/



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

EXHIBIT "D"
RIG LAY OUT PLAT

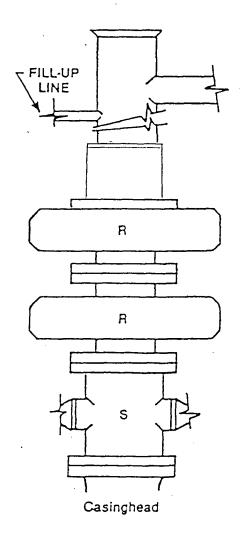


FIGURE K1-1. Recommended IADC Class 2 BOP stack, 2000 psi WP. Either SRd (left) or SA (right) arrangement is acceptable and drilling spool is optional.

EXHIBIT "E"

SKETCH OF B.O.P. TO BE USED ON 2000 PSI

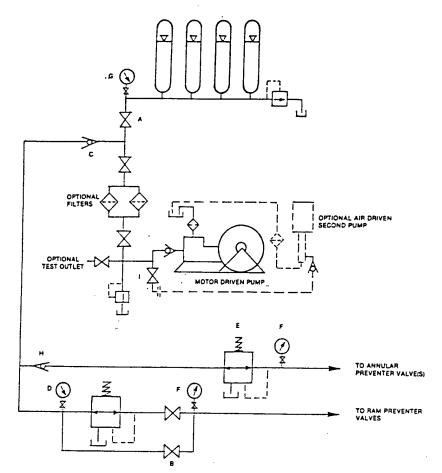


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

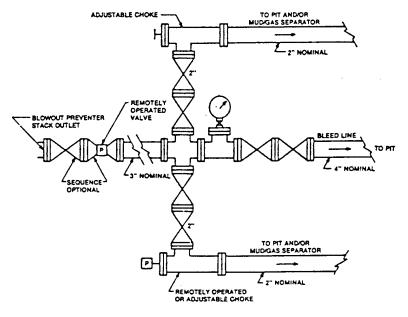
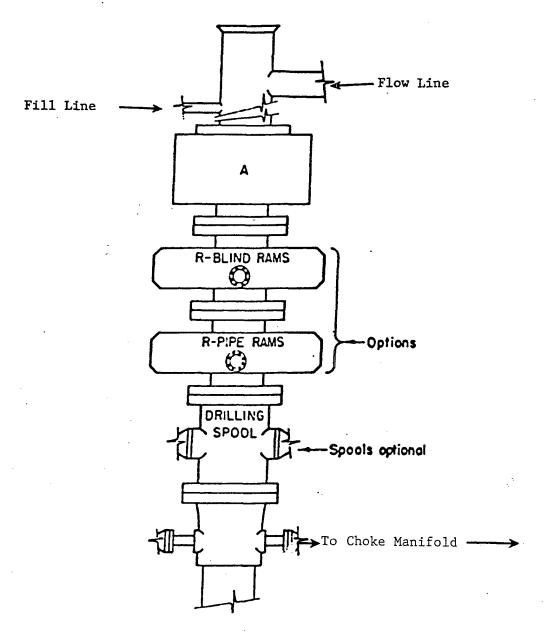


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT



# ARRANGEMENT SRRA

1500 Series 5000# Working Pressure

EXHIBIT "F"

SKETCH OF B.O.P. TO BE USED ON 5000 PSI

POGO PRODUCING COMPANY

LOST TANK "4" FEDERAL DEEP # 20
UNIT "E" SECTION 4

T22S-R31E EDDY CO. NM
FROM 4000' to 11,600'

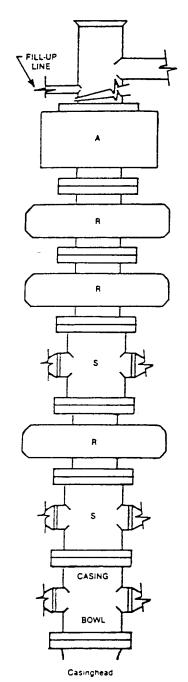


FIGURE K1-3. Recommended IADC Class 10 BOP stack arrangement SRSRRA, 10,000 psi WP. Lower drilling spool is optional with outlets on lower ram. Annular preventers 10,000 psi.

EXHIBIT "F-1"

SKETCH OF B.O.P. TO BE USED ON 10,000 PSI

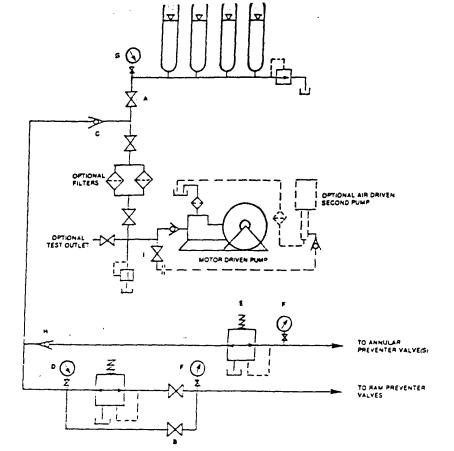
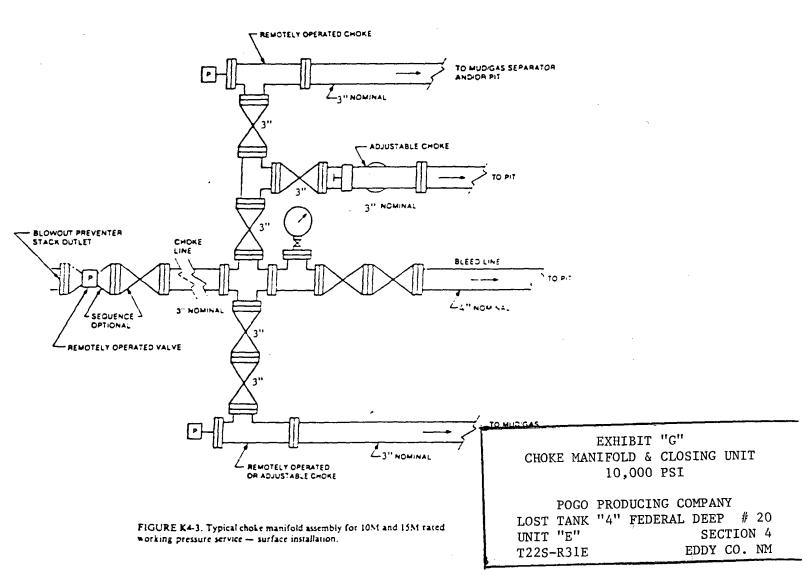


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.



### CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Pogo Producing Company Well Name & No: Lost tank "4" Fed Deep # 20

Location: Surface 1330' FNL & 510' FEL, Sec. 04, T. 22 S. R. 31 E.

Lease: NMNM 0417696 Lea County, New Mexico

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### **I. DRILLING OPERATIONS REQUIREMENTS:**

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell, NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

- A. Spudding
- B. Cementing casing: 13 ½ inch 9 ½ inch 5 inch Liner (i.e. the 5 inch liner does not necessarily require a witness to cementing)
- C. BOP Tests
- 2. A Hydrogen Sulfide (H2S) Drilling Plan shall be in operations three days or 500 feet prior to drilling into the Top of the Delaware formation estimated to be at 4430 feet.
- 3. 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.
- 4. 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.
- 5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

# II. CASING:

- 1. The 13 % inch shall be set at 630 Feet or as deep as 950 feet as long as it in stable anhydrite. The 13 % surface casing must be set above the Top of the Salt estimated to be at 970 feet. The surface casing must be circulated with cement 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 9 % inch Intermediate casing is to circulate to surface.
  - 3. The minimum required fill of cement behind the 7 inch long string casing is to circulate to surface.
- 4. The minimum required fill of cement behind the 5 inch liner is to bring cement to the top of the liner.

# **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 13 ½ 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. <u>Minimum working pressure</u> of the blowout preventer and related equipment (BOPE) shall be <u>2 M psi</u> in operations down to the 9 % setting depth of 4,000 feet. Prior to drilling below the <u>9 % inch shoe</u> a minimum BOPE of <u>3 M psi</u> is required to the next setting depth of 11, 600 feet, then a minimum <u>5M BOPE</u> shall be in operations prior to drilling below the 7 inch casing shoe depth to drill to the TD depth of 12,800 feet.

According to the APD, the operator plans to run a <u>5 M BOPE prior to drilling below the 9 % inch casing shoe and upgrade to a 10 M psi prior to drilling below the 7 inch shoe.</u> If the operator chooses to keep a 5 M BOPE in operations on the hole to the TD depth, it is approved in this Conditions of Approval.

- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the test.
- -The test 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 safe workman-like manner. Hard line connections shall be required.
- -Both low pressure and high pressure testing of BOPE is required.