Ferm 3160-3 (July 1992)

#### New Masico Of C SUBMIT IN TRIPLICATE (Other instructions on

UNITED STATES 1625 N. FFEBER

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

1FP&PTMFNT	OF	THE	INTERNI			P WE TAR EAST
DEPARTMENT	O.	1111	III I Practi	Total ha	MAIRA	dans or
BUDGUL 65 .					1 ATAU	DIF LEAD

BUREAU O	MM-062300	ION AND BERIAL NO.					
APPLICATION FOR	6. IF INDIAN, ALLOT	TER OR TRIBE NAME .					
DRILL X	DEEPEN [			7. UNIT AGREEMEN	T NAME		
b. Type of well  OIL X GAS WELL OTHER		SINGLE Z	MULTIPLE ZONE	COTTON DRAI			
POGO PRODUCING COMPANY (	RICHARD WRIGHT	432-685-81	7891>	9. AR WELL NO.	W UNIT # 93_		
3. ADDRESS AND TELEPHONE NO.				30-025	-37658		
P.O. BOX 10340 MIDLAND, TE	KAS 79702-7340	(432-685-8	3100)	10. FIELD AND POOL			
4. LOCATION OF WELL (Report location clearly a At surface	nd in accordance with an	y State requirem	ents.*)	PADUCA-DELA	WARE		
1310' FNL & 2000' FEL SECTIO	11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA						
At proposed prod. zone SAME		Unit E	3	SEC. 15 T	25S-R32E		
4. DISTANCE IN MILES AND DIRECTION FROM N				12. COUNTY OR PARI	ISH   13. STATE		
Approximately 28 miles Wes				Lea	New Mexic		
ID. DISTANCE FROM PROPUSED®  LOCATION TO NEAREST  PROPERTY OR LEASE LINE, FT.  (Also to nearest drig. unit line, if any)	1310'	NO. OF ACRES IN		OF ACRES ASSIGNED HIS WELL	40		
13. DISTANCE FROM PROPOSED LOCATION® TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	350'	PROPOSED DEPTH		TARY			
21. ELEVATIONS (Show whether DF, RT, GR, etc.)				22. APPROX. DATE	WORK WILL START		
	3443' GR.			WHEN APPR	OVED		
PROPOSED CASING AND CEMENTING PROGRAM							
SIZE OF HOLE GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING	DEPTH	QUANTITY OF CE	TKIN		

1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix. 815

15.5#

\_<del>600</del>'

50001

- 2. Drill 12% hole to 6001. Run and set 600' of 8.5/8" H-40 24# ST&C casing. Cement with 150 Sx. of 65/35/6 Class "C" POZ/GEL, tail in with 150 Sx. of Class "C" cement + 2% CaCl, + 1/4 Flocele/Sx. Circulate cement to surface.
- 3. Drill 7 7/8" hole to 5000'. Run and set 5000' of  $5\frac{1}{2}$ " 15.5# J-55 ST&C casing. Cement with 475 Sx. of Class "C" light weight cement + 5% Salt, mixed at 12.9 PPG, tail in with 250 Sx. of Class "C" cement + 8# Gilsonite/Sx., mixed at 14.1 PPG. Cement volumes are calculated to circulate cement to surface.

POGO PRODUCING COMPANY ACCEPTS THE OPERATION OF THIS LEASE.

General requirements and

Cement

300 Sx.

roposed new productive zone. If proposal is to drill or

sing for Janeice	TITLE Agent	11/04/05
(This space for Federal or State office use)	· ·	
PERMIT NO.	APPROVAL DATE	

/s/ Joe G. Lara

CONDITIONS OF APPROVAL, IF ANY:

20" conductor

H-40 8 5/8"

J-55

12 7 "

7 7/8"

ACTING

#### State of New Mexico

DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 68240

DISTRICT II

DISTRICT IV

Energy, Minerals and Natural Resources Department

Form C-102 Revised JUNE 10, 2003 OIL CONSERVATION DIVISION Submit to Appropriate District Office State Lease - 4 Copies
Fee Lease - 3 Copies

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

DISTRICT III

1301 W. GRAND AVENUE, ARTESIA, NM 88210

1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

1220 S. ST. FRANCIS DR., SANTA FE, NM 870	WELL LOCATION AND	WELL LOCATION AND ACKEAGE DEDICATION FLAT		
API Number	Pool Code	Pool Name		
30-025-376	58 49460	PADUCA-DELAWARE		
Property Code		pperty Name	Well Number	
301629	COTTON	DRAW UNIT	93	
OGRID No.		Operator Name		
17891	POGO PROD	POGO PRODUCING COMPANY		

#### Surface Location

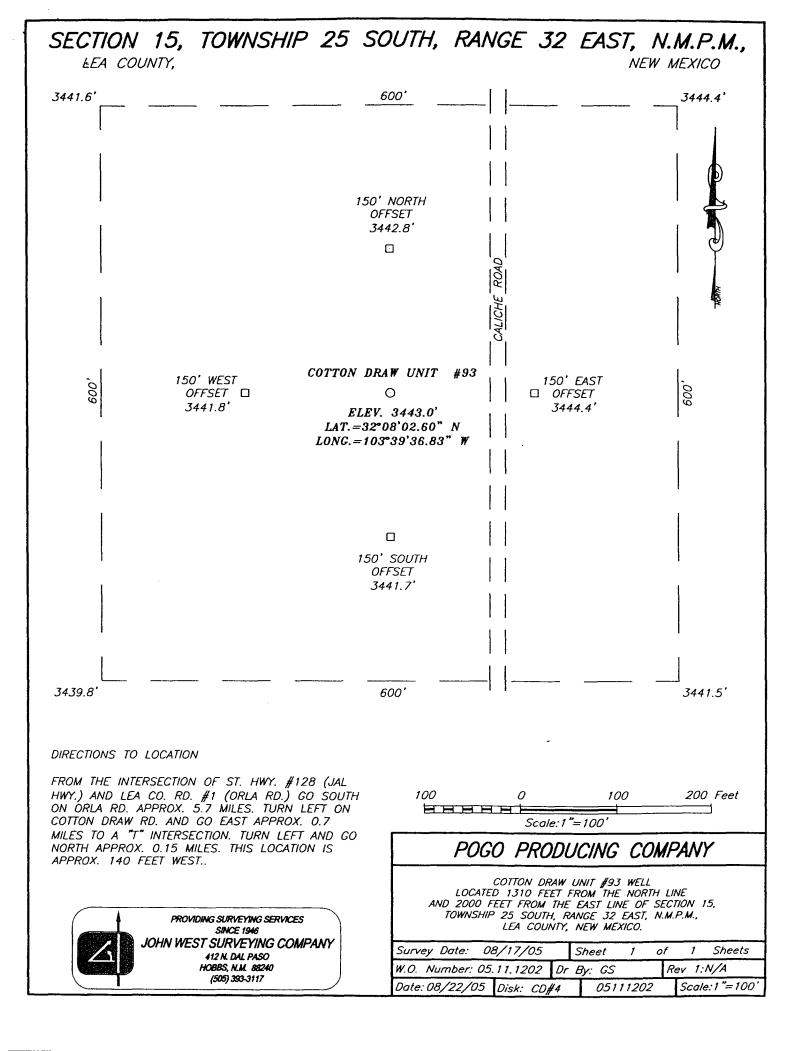
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	15	25-S	32-E		1310	NORTH	2000	EAST	LEA

#### Bottom Hole Location If Different From Surface

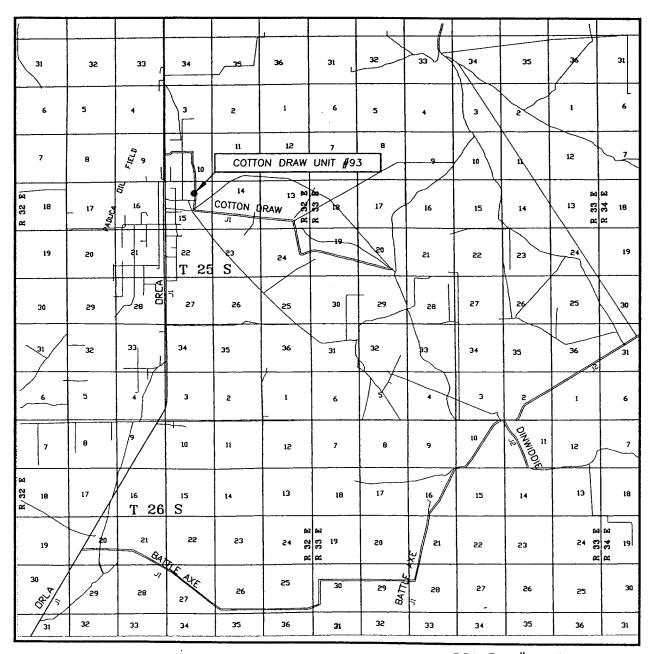
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint of	r Infill Con	nsolidation (	Code Ore	ler No.				<u></u>

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

OR A NON-STA	INDARD UNIT HAS BEEN APPROVED BY TI	HE DIVISION
GEODETIC COORDINATES NAD 27 NME  Y=413142.1 N X=708355.8 E  LAT.=32'08'02.60" N LONG.=103'39'36.83" W	3441.6' 3444.4'  [	OPERATOR CERTIFICATION  I hereby certify the the information contained herein is true and complete to the best of my knowledge and betief.  Signature  Joe T. Janica  Printed Name  Agent  Title  11/04/05  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.  AUGUST 17, 2005  Date Surveyedmining GS  Signature & Geeffy Completed

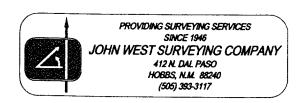


# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. <u>15</u>	TWP. <u>25-S</u> RGE. <u>32-E</u>
SURVEY	N.M.P.M.
COUNTY	LEA
DESCRIPTIO	N 1310' FNL & 2000' FEL
ELEVATION_	3443'
OPERATOR_	POGO PRODUCING COMPANY
LEASE	COTTON DRAW UNIT





#### APPLICATION TO DRILL

POGO PRODUCING COMPANY COTTON DRAW UNIT # 93 UNIT "B" SECTION 15 T25S-R32E 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 consideration.

- 1. Location of well: 1310' FNL & 2000' FEL SECTION 15 T25S-R32E LEA CO. NM
- 2. Ground Elevation above Sea Level: 3443' G
- 3. Geological age of surface formation: Quaternary Deposits:
- 4. <u>Drilling tools and associated equipment:</u> Conventional rotary drilling rig using drilling mud as a circulating medium to remove solids from hole.
- 5. Proposed drilling depth: 5000'

6.	Estimated tops of g	geological markers:		
	Rustler Anhydrite	753'	Ramsey	46801
	Salt	1072'	Ford	4780 <b>¹</b>
	Lamar Lime	46381	Olds	4787 <b>'</b>
	Delaware	4662'	TD	. 5000'
7.	Possible mineral be	earing formations:		
	Delaware	Oil	Olds	Oil
	Ramsey	Oil		
	Ford	Oil		

#### 8. Casing Program:

Hole Size	Interval	OD of Casing	'Weight'	Thread	Colla	r Grade
26"	0-40	20"	NA	NA	NA	Conductor
12111	0-600'	8 5/8"	24#	8-R	ST&C	H-40
7 7/8"	0-5000'	5111	15.5#	8-R	ST&C	J-55

#### APPLICATION TO DRILL

POGO PRODUCING COMPANY COTTON DRAW UNIT # 93 UNIT "B" SECTION 15 T25S-R32E LEA CO. NM

#### 9. CEMENTING & CASING SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
8 5/8"	Surface	Set 600' of 85/8" 24# J-55 ST&C casing. Cement with 150 Sx. of 65/35/6 Class "C" POX/GEL, tail in with 150 Sx. of Class "C" cement + 2% CaCl, + ½# Flocele/Sx. Circulate cement to sutface.
5½"	Production .	Set 5000' of 5½" 15.5# J-55 ST&C casing. Cement with 475 Sx. of Class "C" Light weight cement with 5% salt, mixed at 12.9 PPG, tail in with 250 Sx. of Class "C" cement + 8# Gilsonite/Sx. Mix at 14.1 PPG circulate cement to surface. Cement volumes may have to be adjusted if caliper logs show more is required to circulate.

#### 10. PRESSURE CONTROL EQUIPMENT:

Exhibit "E" shows a 2000 PSI working pressure B.O.P., consisting of a stripper head instead of an annular preventor, blind rams, and pipe rams. This B.O.P. stack is being used because of Substructure height limitations of the drilling rig being used to drill this well. Pressures encountered during drilling are not expected to exceed 2000 PSI at total depth. Pogo requests permission to 3rd party test of B.O.P. B.O.P. will be installed after setting the 8 5/8" surface casing, The B.O.P. will be tested according to API specifications. Exhibit "E-1" shows a manually operated choke manifold, as no remote B.O.P. equipment will be necessary.

#### 11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD
40-600 <b>'</b>	8.4-8.7	29–34	NC .	Fresh water spud mud use paper to control seepage.
600-5000'	10.0-10.2	29–38	NC*	Brine water add paper to control seepage and high viscosity sweeps to clean hole.

<sup>\*</sup> Water loss control may be necessary in order to run logs and casing. Use starch to control water loss or a Polymer system.

#### APPLICATION TO DRILL

POGO PRODUCING COMPANY COTTON DRAW UNIT # 93 UNIT "B" SECTION 15 T25S-R32E LEA CO. NM

#### 12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Laterolog, LDT, SNP, MICRO SFL, Gamma Ray, Caliper run from TD Back to 8 5/8" casing shoe.
- B. Run Gamma Ray, Neutron from 8 5/8" casing shoe back to surface.
- C. No DST's are planned at this time.
- D. Cores may be taken at the advice of Geologist.

#### 13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of  $\rm H^2S$  in this area. If  $\rm H^2S$  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 130°.

#### 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  $\frac{20}{20}$  days. If production casing is run then an additional  $\frac{30}{20}$  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 <u>Delaware</u> 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<sub>2</sub>S safety instructor to the following:
  - A. Characteristics of HoS
  - 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.  $H_2S$  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  $H_2S$  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 COTTON DRAW UNIT # 93 UNIT "B" SECTION 15 T25S-R32E LEA CO. NM

- 1. EXISTING ROADS & PROPOSED 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 proposed well site as staked.
  - B. From Eunice New Mexico take State Road 207 South 2.6 miles to Delaware Basin road, turn Right (West) follow Delaware Basin Road to the junction with State Hi-way 128, turn Right (West) go 9.5 miles to CR-1, turn Left (South) go 5.8 miles, turn Left (East) go .63 miles, turn Left (North) go 900' and the location is on the West side of road.
  - C. Exhibit "C" shows proposed flowlines, and powerlines that will be constructed.
- 2. PLANNED ACCESS ROADS: No new road is required.
  - A. The access roads will be crowned and ditched to a 12' wide travel surface with a 40' Right-of-Way.
  - B, Gradient of all roads will be less than 5.00%.
  - C. If turn-outs are necessary they will be constructed.
  - D. If needed roads will be surfaced with a mimimum of 4" of caliche. This material will be obtained from a local source.
  - E. Center-line for new roads will be flagged. Earth-work will be will be done as field conditions require.
  - F. Culverts will be placed in the access road if they are necessary. The roads will be constructed to utilize low water crossings for drainage as required by topography.
- 3. LOCATIONS OF EXISTING WELLS IN A ONE MILE RADIUS. EXHIBIT "A-1"
  - A. Water wells One approximately 2 miles North.
  - 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 COTTON DRAW UNIT # 93 UNIT "B" SECTION 15 T25S-R32E LEA 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. Exhibit "C" shows proposed routes of roads, flowlines and powerlines.

#### 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 COTTON DRAW UNIT # 93 UNIT "B" SECTION 15 T25S-R32E LEA 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
COTTON DRAW UNIT # 93
UNIT "B" SECTION 15
T25S-R32E LEA CO. NM

#### 11. OTHER INFORMATION:

- A. Topography is relatively flat with a slight dip to the Southwest withshallow drainage patterns. Vegetation consists of creosote bush, little leaf sumac, broom-snakeweed, and native grasses.
- B. Surface is owned by the U.S. Department of Interior and is administered by the Bureau of Land Management. The surface is leased to ranchers for grazing of live stock and the minerals are owned by the U.S. Government and used by oil companies for the production of oil and gas.
- C. An archaeological survey will be conducted and the results will be filed with The Bureau of Land Management Carlsbad Field office in Carlsbad NM.
- D. There are no domestic dwellings located within one mile of the location.

#### 12. OPERATORS REPRESENTIVE:

#### Before construction:

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

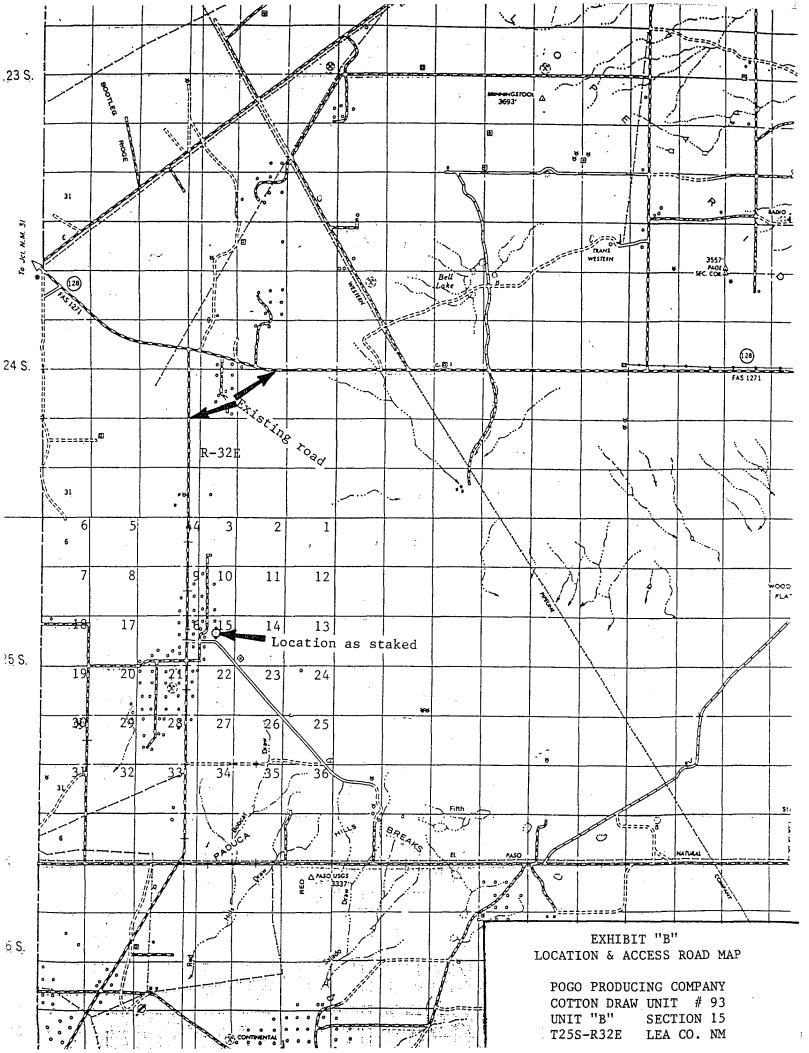
#### During and after construction:

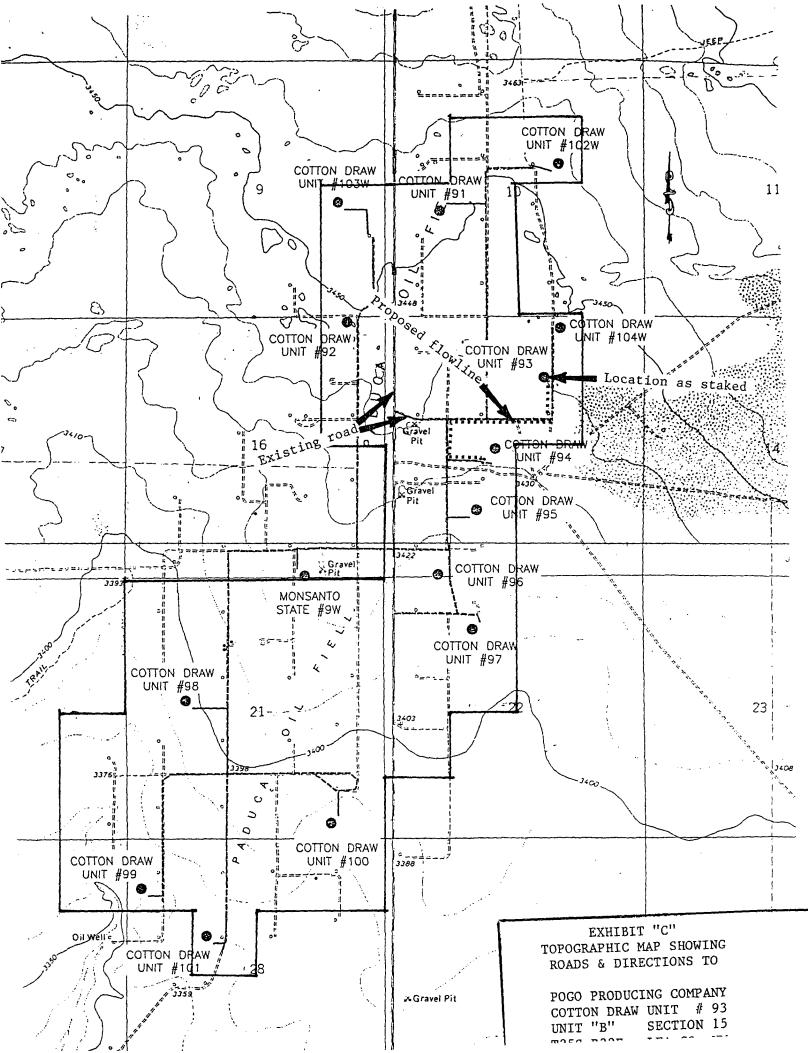
POGO PRODUCING COMPANY
P.O. BOX 10340
MIDLAND, TEXAS 79702-7340
RICHARD WRIGHT
OFFICE PHONE 432-685-8140

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, are true and correct, and that the work associated with the operations proposed herein will be performed by POGO PRODUCING COMPANY it's 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	: J	oe T. Janio	ca 🖊	of C	an	to
DATE	:_	11/04/05				_
TITLE	:	Agent				

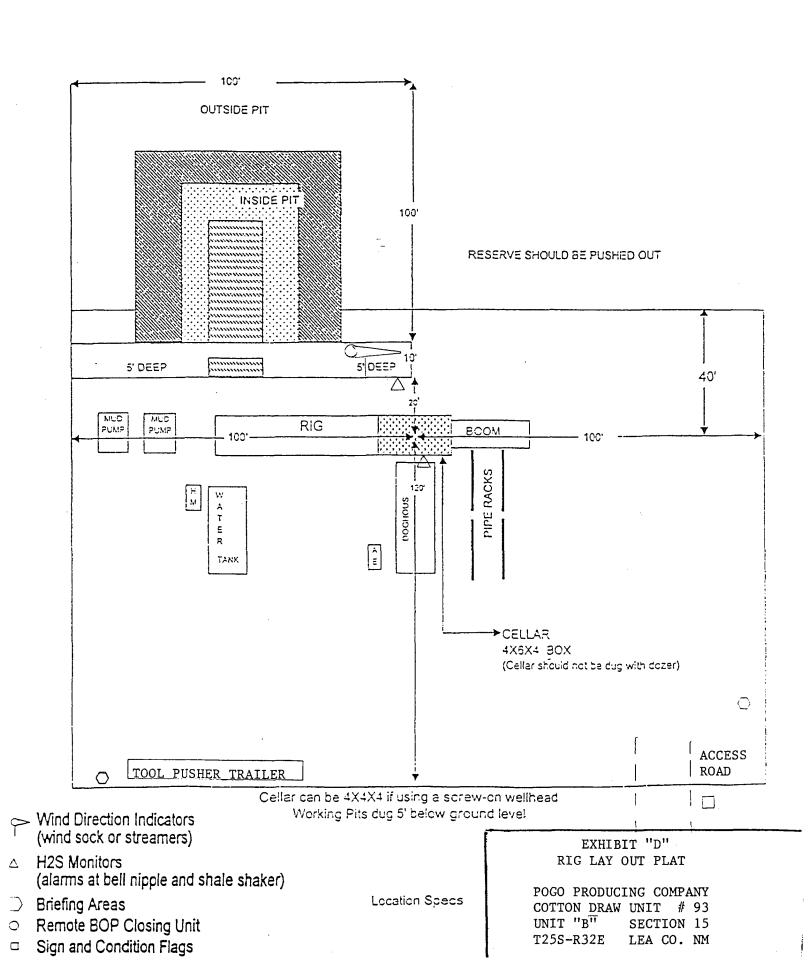
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# Capotar Dritting, Inc.

## LOCATION SPECIFICATIONS AND RIG LAYOUT FOR EARTH PITS



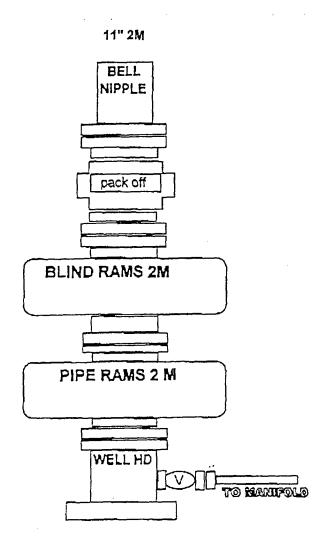


EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

POGO PRODUCING COMPANY COTTON DRAW UNIT # 93 UNIT "B" SECTION 15 T25S-R32E LEA CO. NM

# **CHOKE MANIFOLD**

3000 PSI WP

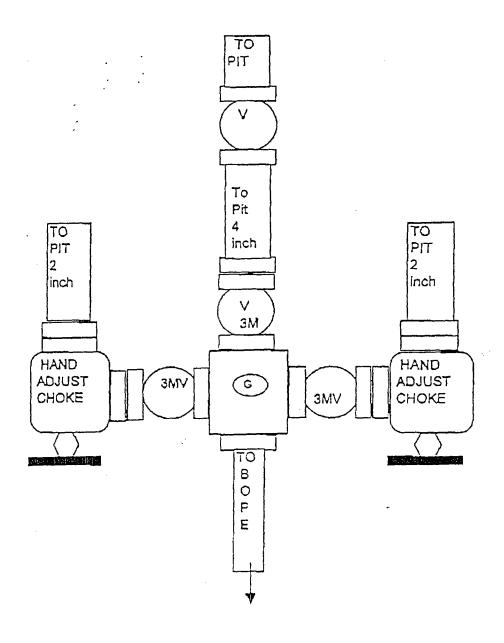


EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

POGO PRODUCING COMPANY COTTON DRAW UNIT # 93 UNIT "B" SECTION 15 T25S-R32E LEA CO. NM

## STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

**OPERATOR NAME:** 

POGO PRODUCING COMPANY

ADDRESS;

P.O. BOX 10340

CITY, STATE, & ZIP:

MIDLAND, TEXAS 79702-7340

The above operator accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below.

Lease No:

NMLC-062300

Well name:

COTTON DRAW UNIT # 93

Legal Description of land:

NW/4 of NE/4

T.25S., R.32E., sec. 15

Bond coverage:

NATION WIDE .

B.L.M. Bond File No:

WYB-000238

Authorized Signature

James

litle: Agent

Date: 12/30/05

## SPECIAL DRILLING STIPULATIONS

THE FOLL	OWING DATA	IS REQUIRED	ON THE	WELL SIGN
	$\infty$ which derives	ID KLOOMKLO	OI TILL	" LLL 0101

Operator's Name Pogo Producing Co. Well Name & No. Cotton Draw Unit#93
Location 1310 FNL & 2000 FEL Sec. 15 , T. 25 S, R 32 E.
Lease No. <u>LC-062300</u> County <u>Lea</u> State <u>New Mexico</u>
The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CRF 3165.3 AND 3165.4.
This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.
I. SPECIAL ENVIRONMENT REQUIREMENTS
( ) Lesser Prairie Chicken (stips attached) ( ) Flood plain (stips attached) ( ) Other
II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING
(X) The BLM will monitor construction of this drill site. Notify the (X) Carlsbad Field Office at (505) 234-5972 ( ) Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.
(X) Roads and the drill pad for this well must be surfaced with6 inches of compacted caliche.
( ) All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximatelyinches in depth. Approximatelycubic yards of topsoil material will be stockpiled for reclamation.
( ) Other.
III. WELL COMPLETION REQUIREMENTS
( ) A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.
(X) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre.
( ) A. Seed Mixture 1 (Loamy Sites) Side Oats Grama (Bouteloua curtipendula) 5.0 Sand Dropseed (Sporobolus cryptandrus) 1.0 Sand Lovegrass (Eragostis trichodes) 1.0 Plains Bristlegrass (Setaria magrostachya) 2.0
( ) C. Seed Mixture 3 (Shallow Sites) Side oats Grama (Boute curtipendula) 1.0  ( ) D. Seed Mixture 4 (Gypsum Sites) Alkali Sacaton (Sporobollud airoides) 1.0 Four-Wing Saltbush (Atriplex canescens) 5.0
( ) OTHER SEE ATTACHED SEED MIXTURE
Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.
( ) Other.

#### RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6 mil plastic.

Mineral material extracted during construction of the reserve pit may be used for development of the pad and access road as needed. Removal of any additional material on location must be purchased from BLM.

<u>Reclamation</u>: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

#### OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

- (1) Lined as specified above and
- (2) A borrow/caliche/gravel pit can be constructed immediately adjacent to the reserve pit and it capable of containing all reserve pit contents. The mineral material removed in the process can be used for pad and access road construction. However, a material sales contract must be purchased from the BLM prior to removal of the material.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be recontoured, all trash removed, and reseeded as specified in this permit.

#### CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to processed by BLM.

#### TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

#### **CONDITIONS OF APPROVAL - DRILLING**

Operator's Name: Pogo Producing Company Well Name & No: Cotton Draw Unit No. 093

Location: Surface: 1310' FNL & 2000' FEL, Sec. 15, T. 25 S., R. 32 E.

Lease: NMLC 062300 Lea County, New Mexico

#### 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: 8 1/2 inch; 5 1/2 inch;
- C. BOP Tests
- 2. A Hydrogen Sulfide (H2S) Drilling Plan is not required for this wellbore.
- 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 8 % inch shall be set at 815 Feet with 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 5 ½ inch Production casing is to circulate to surface.

#### **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>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 2 M psi.

#### III. Pressure Control (continued):

- 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.

G Gourley 11/15/05

BLM Serial Number: LC-062300

Company Reference: Pogo Producing Co. Well No. & Name: Cotton Draw Unit #93

# STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS CARLSBAD FIELD OFFICE

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

#### GENERAL REQUIREMENTS

- A. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- B. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
- C. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et. seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et. seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

- D. If, during any phase of the construction, operation, maintenance, or termination of the road, any oil or other pollutant should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil of other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting there from, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.
- E. The holder shall minimize disturbance to existing fences and other improvements on public domain surface. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times.

The holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

F. The Holder shall ensure that the entire right-of-way, including the driving surface, ditching and drainage control structures, road verges and any construction sites or zones, will be kept free of the following plant species: Malta starthistle, African rue, Scotch thistle and salt cedar.

Holder agrees to comply with the following stipulations:

#### 1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

/\_\_/ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

#### CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

/_X_	/ Ditching will be required on both sides of attached map or as staked in the field.	of the roadway as shown on the
//	Flat-blading is authorized on segment(s)	delineated on the attached map.
3	DRAINAGE	

Drainage control shall be ensured over the entire road through the use of borrow ditches, outsloping, insloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

A. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

#### SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval		
0% - 4%	400' - 150'		
4% - 6%	250' - 125'		
6% - 8%	200' - 100'		
8% - 10%	150' - 75'		

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

 /_x_/	400 foot intervals.
//	foot intervals.
	locations staked in the field as per spacing intervals above.
/	locations delineated on the attached map.

- B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).
- C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

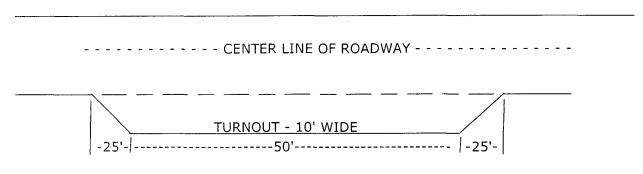
'spacing interval = 
$$\frac{400'}{\text{road slope in }\%}$$
 + 100'

Example: 4% slope: spacing interval = 400 + 100 = 200 feet

4

#### 4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

#### 5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

A sales contract for the removal of mineral materials (caliche, sand, gravel, fill dirt, etc.) from an authorized pit, site, or on location must be obtained from the BLM prior to using any such mineral material from public lands. Contact the BLM solid minerals staff for the various options to purchase mineral material.

#### 6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

#### 7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

#### 8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

#### 9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

#### 10. SPECIAL STIPULATIONS:

BLM Serial Number: LC-062300

Company Reference: Pogo Producing Co. Well No. & Name: Cotton Draw Unit #93

#### STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

- 1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- 2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
- 3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
- 4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:
- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:

- (1) Land clearing.
- (2) Earth-disturbing and earth-moving work.
- (3) Blasting.
- (4) Vandalism and sabotage.
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

- 5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting there from, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.
- 6. All construction and maintenance activity will be confined to the authorized right-of-way width of 10 feet.
- 7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.
- 8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.
- 9. The pipeline shall be buried with a minimum of <u>36</u> inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.
- 10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a

fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

- 11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
- 12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
- 13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.
- 14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.
- 15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his hehalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.
- 16. Special Stipulations:

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

# State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Form C-144

June 1, 2004

# Pit or Below-Grade Tank Registration or Closure

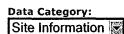
Is pit or below-grade tank covered by a "general plan"? Yes No x

Type of action: Registration of a pit or below-grade tank Closure of a pit or below-grade tank

Type of action. Registration of a pit of	of below-grade tank 🔀 Closure of a pit of below-grade tank 🗌				
	ne: 432-685-8100 e-mail address: wrightc@pogoproducing.com				
Address: P. O. Box 10340, Midland, TX 7970					
Facility or well name: Cotton Draw Unit #93 API#: 2	30-025-37658 U/L or Qtr/Qtr B Sec 15 T 25S R 32E				
County: Lea Latitude	32:08:2.6N Longitude 103:39:36.83W <sub>NAD</sub> : 1927 🔼 1983 🗌				
Surface Owner: Federal ☐ State ☐ Private ☒ Indian ☐					
<u>Pit</u>	Below-grade tank				
Type: Drilling X Production Disposal	Volume:bbl Type of fluid:				
Workover  Emergency	Construction material:				
Lined & Unlined	Double-walled, with leak detection? Yes  If not, explain why not.				
Liner type: Synthetic 🔀 Thickness 12 mil Clay 🗍					
Pit Volume 1600Qbl					
Depth to ground water (vertical distance from bottom of pit to seasonal	Less than 50 feet (20 points)				
	50 feet or more, but less than 100 feet (10 points)				
high water elevation of ground water.)	100 feet or more X ( 0 points) O				
	Yes (20 points)				
Wellhead protection area: (Less than 200 feet from a private domestic	No (O points)				
water source, or less than 1000 feet from all other water sources.)	X X Openios 0				
Distance to surface water: (horizontal distance to all wetlands, playas,	Less than 200 feet (20 points)				
irrigation canals, ditches, and perennial and ephemeral watercourses.)	200 feet or more, but less than 1000 feet (10 points)				
inigation canais, diches, and perennia and ephenicial watercourses.	1000 feet or more X ( 0 points) O				
	Ranking Score (Total Points)				
	1				
	s relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if  (3) Attach a general description of remedial action-taken including  Yes I fyes, show depth below ground surface  ft. and attach sample results				
(5) Attach soil sample results and a diagram of sample locations and excaval	tions.				
Additional Comments:	ora cont . 6.				
	a house of				
	13 Nobis				
	0CD 37/				
	Q				
	27.191817				
I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines , a general permit , or an (attached) alternative OCD-approved plan .  Date:09/28/05  Printed Name/TitleCathy Wright, Sr. Eng TechSignature					
Approval: PETROLEUM ENGINEER Printed Name/Title Signature Signature					

**Water Resources** 

西里门(2003)



Geographic Area:

New Mexico



# Site Map for New Mexico USGS 321005103402301 24S.32E.33.42241

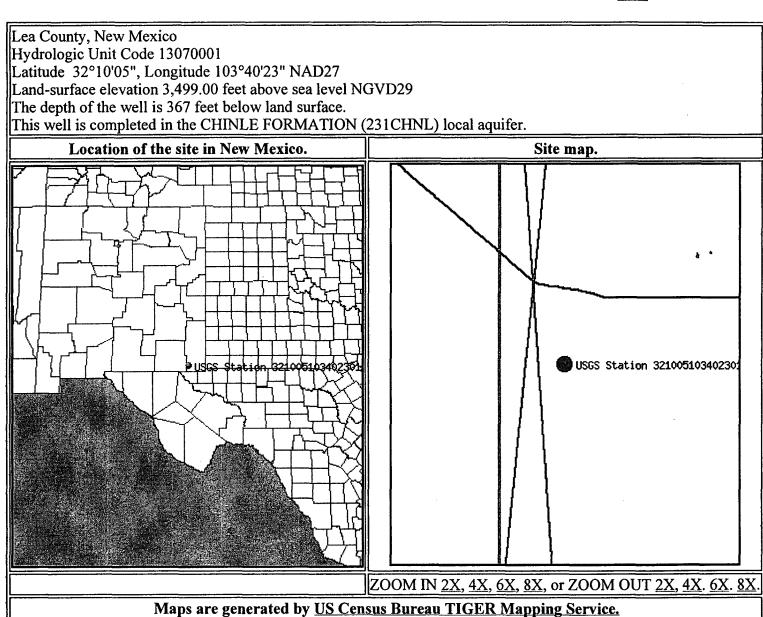
U34U23U1 243.32E.33.42241

Available data for this site

site map

Y





Questions about data New Mexico NWISWeb Data Inquiries
Feedback on this websiteNew Mexico NWISWeb Maintainer
NWIS Site Inventory for New Mexico: Site Map
http://waterdata.usgs.gov/nm/nwis/nwismap?

Top Explanation of terms

Retrieved on 2005-09-28 11:18:04 EDT

<u>Department of the Interior, U.S. Geological Survey</u>

<u>USGS Water Resources of New Mexico</u>



Water Resources

Data Category: Ground Water

Geographic Area: New Mexico

go

# Ground-water levels for

Search Results -- 1 sites found

Search Criteria

• 321005103402301 site no list =

Save file of selected sites to local disk for future upload

# USGS 321005103402301 24S.32E.33.42241

Available data for this site

Ground-water: Levels

GO

Lea County, New Mexico

Hydrologic Unit Code 13070001

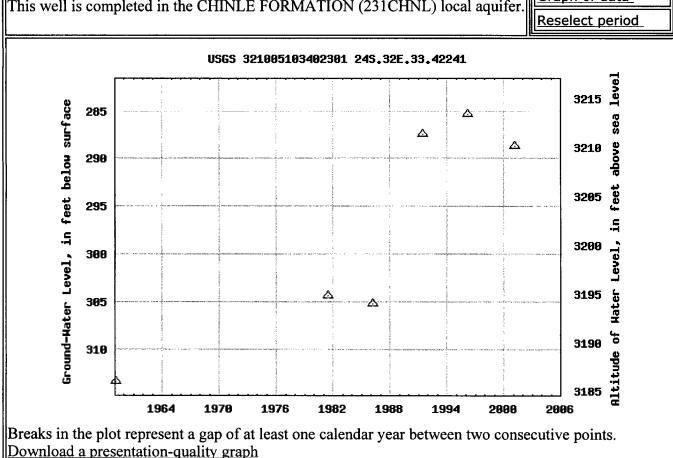
Latitude 32°10'05", Longitude 103°40'23" NAD27

Land-surface elevation 3,499.00 feet above sea level NGVD29

The depth of the well is 367 feet below land surface.

This well is completed in the CHINLE FORMATION (231CHNL) local aquifer.

**Output formats** Table of data Tab-separated data Graph of data



Questions about data

New Mexico NWISWeb Data Inquiries Feedback on this websiteNew Mexico NWISWeb Maintainer

Top Explanation of terms

# Great Circle Calculator.

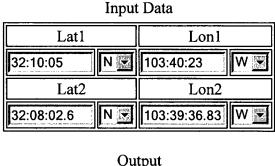
## By Ed Williams

You need Javascript enabled if you want this page to do anything useful! For Netscape, it's under Options/Network Preferences/Languages.

## Compute true course and distance between points.

Enter lat/lon of points, select distance units and earth model and click "compute". Lat/lons may be entered in DD.DD, DD:MM.MM or DD:MM:SS.SS formats.

Note that if either point is very close to a pole, the course may be inaccurate, because of its extreme sensitivity to position and inevitable rounding error.



Course 1-2	Course 2-1	Distance			
162.285152	342.291977	2.141505684			

Distance	Units:	nm 💌	Earth model:	Spheric	al (1'=1nm)	X

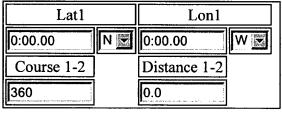


## Compute lat/lon given radial and distance from a known point

Enter lat/lon of initial point, true course and distance. Select distance units and earth model and click "compute". Lat/lons may be entered in DD.DD, DD:MM.MM or DD:MM:SS.SS formats.

Note that the starting point cannot be a pole.

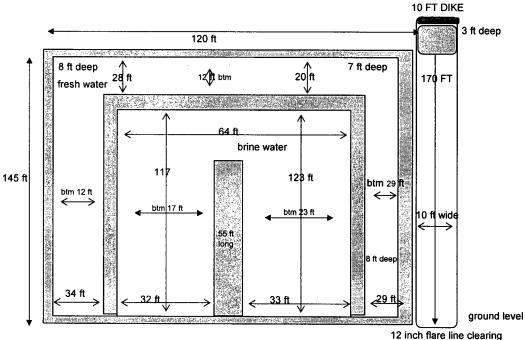
Input data





## POGO Producing Company Cotton Draw Unit #93 Approximate Pit Dimensions

B/15/25S/32E, Lea County, New Mexico



#### PIT NOTES:

Pit will be lined with 12 mil Black plastic w/ UV protection.

Pit walls are 6 ft to 8 ft wide.

Pit is 8 ft deep below ground level plus 2 ft walls

Pit walls are 2 ft above ground level.

Caliches mined from pit used to make Well Pad.

Fresh Water volume to ground level = ± 7950 bbls

Brine Water volume to ground level = ± 7730 bbls

12 inch Flare line laid on gradual descending graded ROW away from rig to avoid fluid trapping Fresh water well = (Nad 27) 32° 10' 05" N & 103° 40' 23" W "Published data"

This well produces from a depth greater than 100 ft.

Pit equals approx 16000 bbls

