

(July 1992)

**UNITED STATES M. Oil Cons. Div. Dist. 2**  
**DEPARTMENT OF THE INTERIOR**  
**BUREAU OF LAND MANAGEMENT**  
**1301 W. Grand Avenue**  
**Alto NM 88210**

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

**APPLICATION FOR PERMIT TO DRILL OR DEEPEN**

1a. TYPE OF WORK **DRILL** ☒ **DEEPEN** ☐

b. TYPE OF WELL  
 OIL WELL ☒ GAS WELL ☐ OTHER ☐ **SECRETARY'S POTASH**  
 SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR **17891**  
**POGO PRODUCING COMPANY (RICHARD WRIGHT 432-685-8140)**

3. ADDRESS AND TELEPHONE NO.  
**P.O. BOX 10340 MIDLAND, TEXAS 79702-7340 (432-685-8100)**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface **Poker Lake, Delaware, North West**  
 430' FSL & 990' FWL SECTION 18 T24S-R31E EDDY CO. NM  
 At proposed prod. zone **SAME** **Lot 4 or M** **NOV 23 2004**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
**Approximately 30 miles East of Carlsbad New Mexico** **OCD-ARTERIA**

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) **430'**

16. NO. OF ACRES IN LEASE **640**

17. NO. OF ACRES ASSIGNED TO THIS WELL **40**

18. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. **1650'**

19. PROPOSED DEPTH **8400'**

20. ROTARY OR CABLE TOOLS **ROTARY**

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

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

**PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor	NA	40"	Cement to surface W/Redi-mix.
17 1/2"	H-40 13 3/8"	48 <b>WITNESS</b>	915'	800 Sx. circulate to surface
11"	J-55 8 5/8"	32 & 24	4200'	1200 Sx. " " "
7 7/8"	J-55 5 1/2"	17 & 15.5	8400'	1300 Sx. 2 stage TOC Est 3500 FS

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface W/Redi-mix.
2. Drill 17 1/2" hole to 915'. Run and set 915' of 13 3/8" 48# H-40 ST&C casing. Cement with 800 Sx. of Class "C" cement + 2% CaCl<sub>2</sub> + 1/4# Folcele/Sx. circulate cement to surface.
3. Drill 11" hole to 4200'. Run and set 4200' of 8 5/8" casing as follows: 2000' of 8 5/8" 32# J-55 ST&C, 1200' of 8 5/8" 24# J-55 ST&C, 1000' of 8 5/8" 32# J-55 ST&C. Cement with 1200 Sx. of Class "C" cement + additives, circulate cement to surface.
4. Drill 7 7/8" hole to 8400'. Run and set 8400' of 5 1/2" casing as follows: 2400' of 5 1/2" 17# J-55 LT&C, 5000' of 5 1/2" 15.5# J-55 LT&C, 1000' of 5 1/2" 17# J-55 LT&C casing. Cement in two stages with DV Tool at 6200'. Cement 1st stage with 550 Sx. of Class "H" cement + additives, cement 2nd stage with 750 Sx. of Class "C" cement + additives, estimate top of cement 3500' from surface.

**APPROVAL SUBJECT TO  
 GENERAL REQUIREMENTS  
 AND SPECIAL STIPULATIONS  
 ATTACHED**

**CARLSBAD CONTROLLED WATER BASIN**

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

24. SIGNED *Lee T. Lanning* TITLE Agent DATE 09/01/04  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
 CONDITIONS OF APPROVAL IF ANY:

FOR  
**STATE DIRECTOR** **18 NOV 2004**  
 APPROVED BY *William S. Condit* TITLE \_\_\_\_\_ DATE \_\_\_\_\_

**\*See Instructions On Reverse Side APPROVAL FOR 1 YEAR**

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, or to any matter within its jurisdiction.

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

Form C-1  
March 12, 2004

For drilling and production facilities, submit appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

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

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

Operator: Pogo Producing Company Telephone: 432-685-8100 e-mail address: wrightc@pogoproducing.com  
Address: P. O. Box 10340, Midland, TX 79702-7340  
Facility or well name: Patton 18 Fed #7 API #: U/L or Qtr/Qtr M Sec 18 T 24 R 31  
County: Eddy Latitude 32:12:40.6N Longitude 103:49:20.9W NAD: 1927 ☒ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit	Below-grade tank	
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness 12 mil Clay <input type="checkbox"/> Volume 16000 bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not.	<div>RECEIVED SEP 08 2004 OCD-ARTESIA</div>
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet (20 points) 50 feet or more, but less than 100 feet (10 points) 100 feet or more X (0 points) 0	
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) No X (0 points) 0	
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) 1000 feet or more X (0 points) 0	
Ranking Score (Total Points) 0		

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility \_\_\_\_\_ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface \_\_\_\_\_ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

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: 09/07/04

Printed Name/Title Cathy Wright, Sr Eng Tech Signature *Cathy Wright*

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval: SEP 10 2004

Date: Printed Name/Title Signature *[Signature]*

4/1/2004

Water Resources

Data Category:

Site Information ☒

Geographic Area:

New Mexico ☒

GO

## Site Map for New Mexico

USGS 320856103502801 25S.30E.12.113211

Available data for this site

Station site map ☒

GO

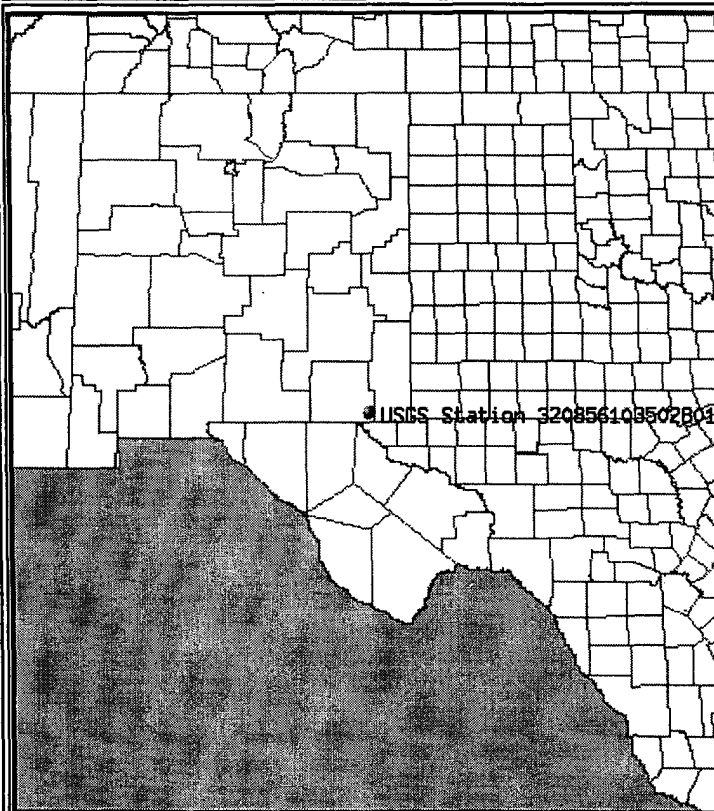
Eddy County, New Mexico

Hydrologic Unit Code

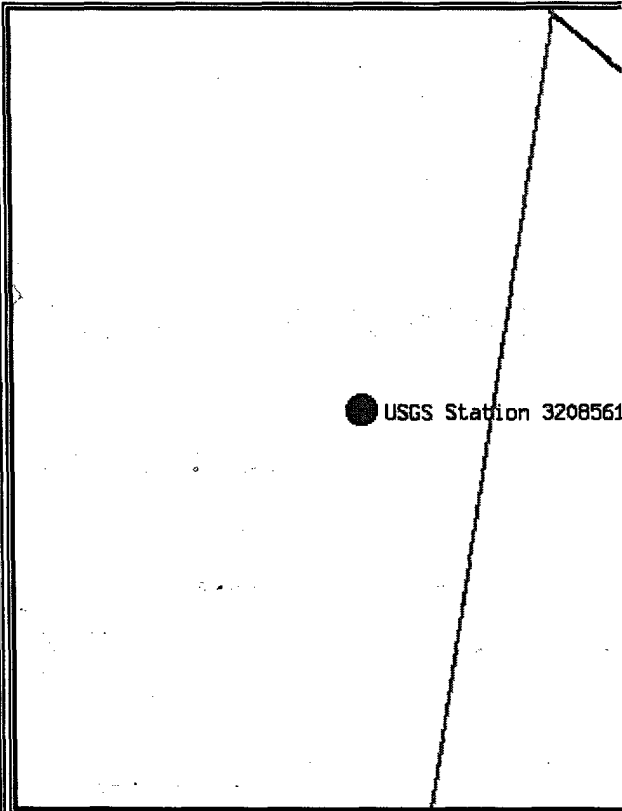
Latitude 32°08'56", Longitude 103°50'28" NAD27

Gage datum 3,359.10 feet above sea level NGVD29

Location of the site in New Mexico.



Site map.



ZOOM IN 2X, 4X, 6X, 8X, or ZOOM OUT 2X, 4X, 6X, 8X.

Maps are generated by US Census Bureau TIGER Mapping Service.

Questions about data [New Mexico NWISWeb Data Inquiries](#)Feedback on this website [New Mexico NWISWeb Maintainer](#)

NWIS Site Inventory for New Mexico: Site Map

<http://waterdata.usgs.gov/nm/nwis/nwismap?>[Top](#)[Explanation of terms](#)

Water Resources

Data Category:

Ground Water

Geographic Area:

New Mexico

go

# Ground-water levels for New Mexico

## Search Results -- 1 sites found

Search Criteria

site\_no list = • 320856103502801

[Save file of selected sites to local disk for future upload](#)

USGS 320856103502801 25S.30E.12.113211

Available data for this site

Ground-water: Levels

GO

Eddy County, New Mexico

Hydrologic Unit Code

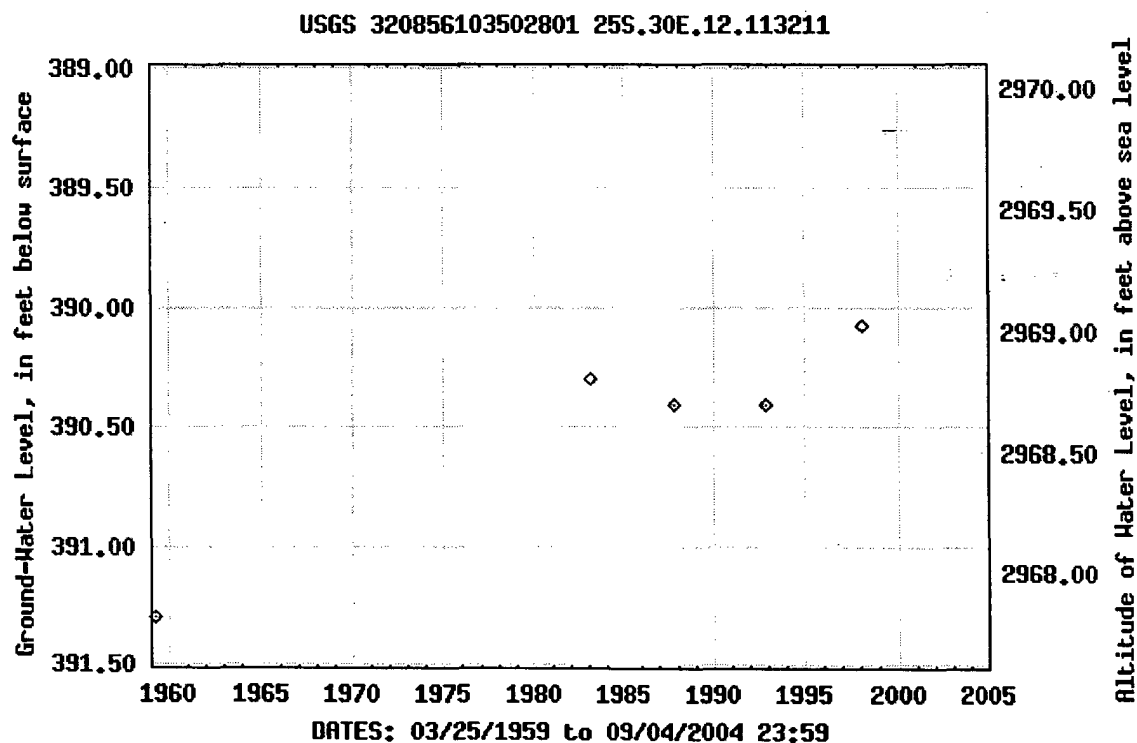
Latitude 32°08'56", Longitude 103°50'28" NAD27

Gage datum 3,359.10 feet above sea level NGVD29

The depth of the well is 482 feet below land surface.

This well is completed in ALLUVIUM, BOLSON DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB)

### Output formats

[Table of data](#)[Tab-separated data](#)[Graph of data](#)[Reselect period](#)

Breaks in the plot represent a gap of at least one calendar year between two consecutive points.

# 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.

Input Data

Lat1		Lon1	
32:08:56	N	103:50:28	W
Lat2		Lon2	
32:12:40.6	N	103:49:20.9	W

Output

Course 1-2	Course 2-1	Distance
14.185315	194.19524	3.86114868

Distance Units:  Earth model:

## 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.

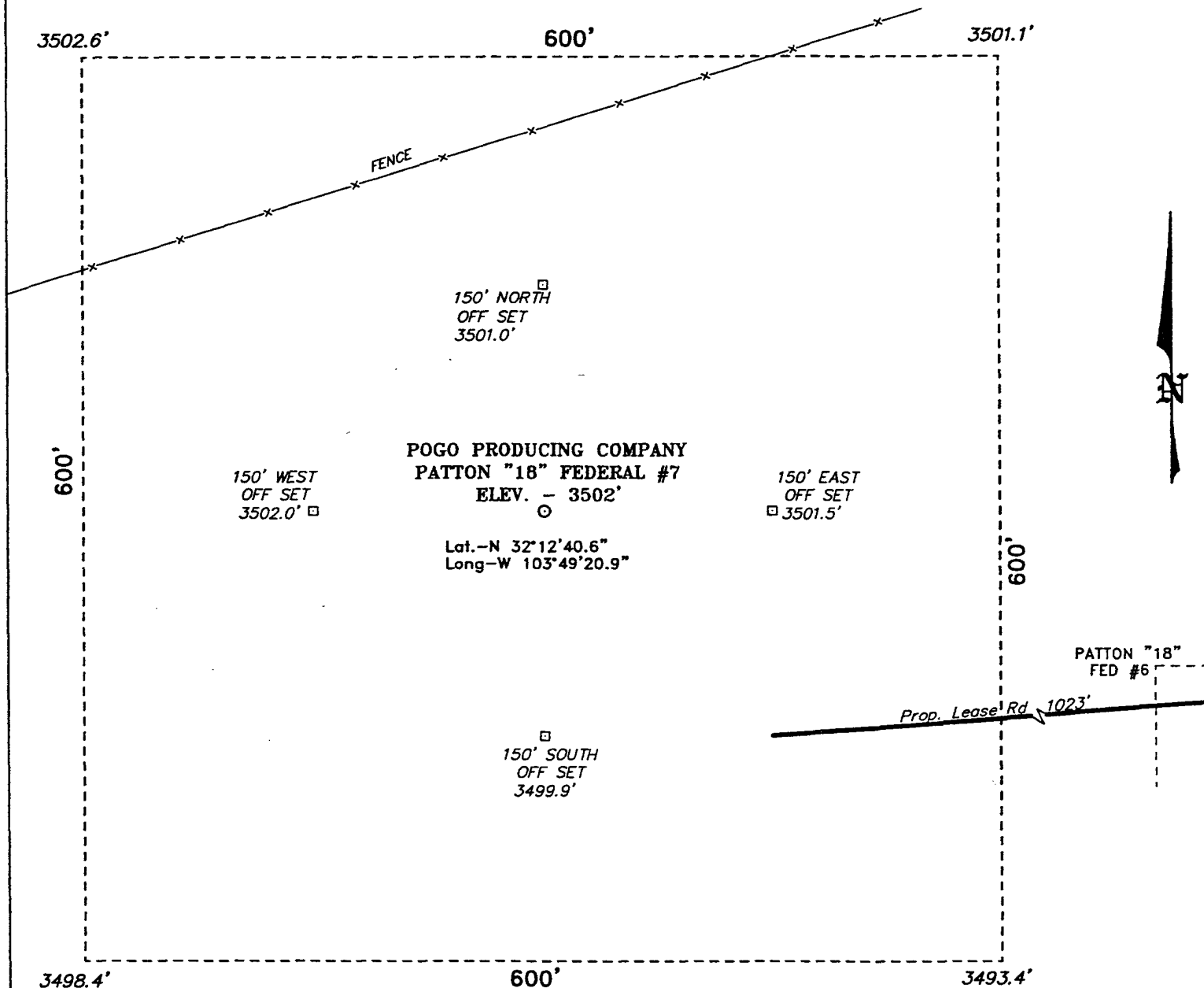
Note that the starting point cannot be a pole.

Input data

Lat1		Lon1	
0:00.00	N	0:00.00	W
Course 1-2		Distance 1-2	

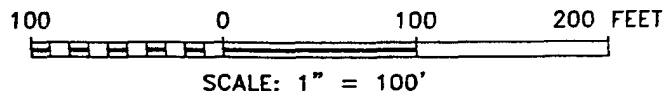
EXHIBIT "A"

SECTION 18, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF CO. RD. 787 AND STATE HWY 128, GO SOUTHERLY ON CO. RD. 128 FOR 5.4 MILES AND WEST FOR 0.4 MILE TO THE PATTON #1 TANK BATTERY AND THE PROPOSED LEASE ROAD TO THE PATTON #4; THENCE SOUTH ALONG PROPOSED LEASE ROAD TO THE #4; THENCE SOUTHWESTERLY TO THE #6 AND PROPOSED LEASE ROAD TO THE #7.



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

W.O. Number: 4499

Drawn By: K. GOAD

Date: 07-30-2004

Disk: KJG CD#4 - 4499A.DWG

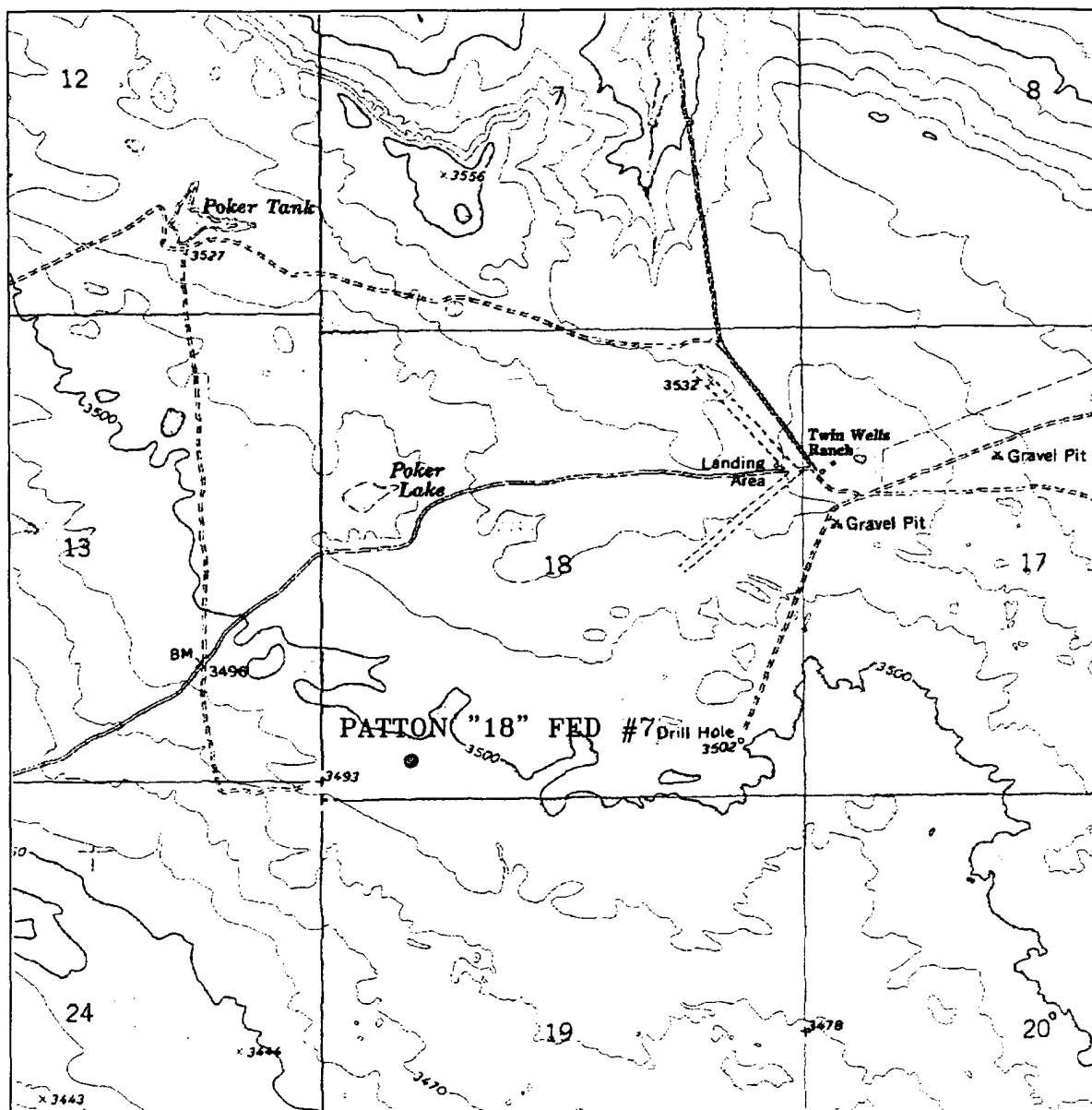
**POGO PRODUCING CO.**

REF: PATTON "18" FED. #7 / Well Pad Topo

THE PATTON "18" FED. No. 7 LOCATED 430' FROM THE SOUTH LINE AND 990' FROM THE WEST LINE OF SECTION 18, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 07-29-2004

Sheet 1 of 1 Sheets



# **PATTON "18" FEDERAL #7**

Located at 430' FSL and 990' FWL

Section 18, Township 24 South, Range 31 East,  
N.M.P.M., Eddy County, New Mexico.



focused on excellence  
in the oilfield

P.O. Box 1786  
1120 N. West County Rd.  
Hobbs, New Mexico 88241  
(505) 393-7316 - Office  
(505) 392-3074 - Fax  
basinsurveys.com

W.O. Number: 4499AA - KJG CD#5

Survey Date: 07-29-2004

Scale: 1" = 2000'

Date: 07-30-2004

**POGO  
PRODUCING  
COMPANY**



# APPLICATION TO DRILL

POGO PRODUCING COMPANY  
PATTON "18" FEDERAL # 7  
LOT # 4 SECTION 18  
T24S-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: 430' FSL & 990' FWL SECTION 18 T24S-R31E EDDY CO. NM
2. Elevation above Sea Level: 3502' GR.
3. Geologic name of surface formation: Quaternary Aeolian Deposits.
4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
5. Proposed drilling depth: 8400'
6. Estimated tops of geological markers:

Rustler Anhydrite	500'	Cherry Canyon	5184'
Salado	750'	Brushy Canyon	6421'
Delaware	4274'	Bone Spring	8104'
Bell Canyon	4299'	Total Depth	8400'
7. Possible mineral bearing formations:

Brushy Canyon	Oil
Bone Spring	Oil
8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-915'	13 3/8"	48	8-R	ST&C	H-40
11"	0-4200'	8 5/8"	32	8-R	ST&C	J-55
7 7/8"	0-8400'	4½"	11.6	8-R	LT&C	N-80

# APPLICATION TO DRILL

POGO PRODUCING COMPANY  
PATTON "18" FEDERAL # 7  
LOT # 4 SECTION 18  
T24S-R31E EDDY CO. NM

## 9. CEMENTING & CASING SETTING DEPTHS:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 915' of 13 3/8" 48# H-40 ST&C casing. Cement with 800 Sx. of Class "C" cement + 2% CaCl <sub>2</sub> + 1/2# Flocele/Sx. Circulate cement to surface.
8 5/8"	Intermediate	Set 4200' of 8 5/8" casing as follows: 2000' of 8 5/8" 32# J-55 ST&C, 1200' of 8 5/8" 24# J-55 ST&C, 1000' of 8 5/8" 32# J-55 ST&C. Cement with 1200 Sx. of Class "C" + additives, circulate cement to surface.
4 1/2"	Production	Set 8400' of 4 1/2" 11.6# N-80 LT&C casing. Cement in 2 stages, DV Tool at 6200'±. Cement 1st stage with 550 Sx. of Class "H" cement + additives, cement 2nd stage with 750 Sx. of Class "C" cement + additives, estimate top of cement 3500' from surface.

## 10. PRESSURE CONTROL EQUIPMENT:

Exhibit "E" shows a 2000 PSI working pressure B.O.P., consisting of a stripper heads 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 1700 PSI at total depth. Pogo requests permission to 3rd party test of the B.O.P., after setting intermediate casing at 4250'. 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
40-915'	8.4-8.7	29-32	NC	Fresh water spud mud add paper to control seepage.
915-4200'	10-10.1	29-38	NC	Brine water add paper to seepage and use high viscosity sweeps to clean hole.
4200-8400'	8.4-8.7	29-38	NC*	Fresh water mud use fresh water Gel for viscosity control, use high viscosity sweeps to clean hole.

\* Water loss may have to be controlled near the lower part of hole in order to run logs, DST's, cores, and to run casing. If WL is needed use a Polymer system.

Sufficient materials to maintain mud properties, lost circulation, increase weight requirements, will be kept at the well site at all times. In order to run logs, DST's cut cores, and run casing the water loss may have to be reduced to accomplish these needs.

APPLICATION TO DRILL

POGO PRODUCING COMPANY  
PATTON "18" FEDERAL # 7  
LOT # 4 SECTION 18  
T24S-R31E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Induction, LDT, SNP, Gamma Ray, CALiper from TD back to the 8 5/8" casing shoe.
- B. Cased hole logs: Run Gamma Ray, Neutron from 8 5/8" casing shoe back to surface.
- C. Rig up mud logger on well after the 8 5/8" casing is cemented in place.
- D. No cores or DST's are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H<sup>2</sup>S in this area. If H<sup>2</sup>S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 2000 PSI, and Estimated BHT 145°.

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 24 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 Bone Spring formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialized as an oil well.

## HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H<sub>2</sub>S safety instructor to the following:
  - A. Characteristics of H<sub>2</sub>S
  - B. Physical effects and hazards
  - C. Proper use of safety equipment and life support systems.
  - D. Principle and operation of H<sub>2</sub>S detectors, warning system and briefing areas.
  - E. Evacuation procedure, routes and first aid.
  - F. Proper use of 30 minute pressure demand air pack.
2. H<sub>2</sub>S Detection and Alarm Systems
  - A. H<sub>2</sub>S detectors and audio alarm system to be located at bell nipple, end of bloop line (mud pit) and on derrick floor or doghouse.
3. Windsack and/or wind streamers
  - A. Windsack at mudpit area should be high enough to be visible.
  - B. Windsack at briefing area should be high enough to be visible.
  - C. There should be a windsack at entrance to location.
4. Condition Flags and Signs
  - A. Warning sign on access road to location.
  - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H<sub>2</sub>S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well control equipment
  - A. See exhibit "E" & "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.

## HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H<sub>2</sub>S has on tubular goods and other mechanical equipment.
9. If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary.

## SURFACE USE PLAN

POGO PRODUCING COMPANY  
PATTON "18" FEDERAL # 7  
LOT # 4 SECTION 18  
T24S-R31E EDDY 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 Hobbs New Mexico take U.S. Hi-way 62-180 West toward Carlsbad New Mexico go approximately 40 miles to the WIPP road, turn Left on to the WIPP road go South 13 miles to CR-802, turn Right go go 4.2 miles to State Hi-way 128, turn Left go 2.4 miles to CR-787 ( Twin Wells Road) turn Right go 5.4 miles turn West go .4 miles to well # 1 turn south follow proposed lease road to well # 4 bear Southwest go to well # 6 location and turn West and follow road to well # 7.

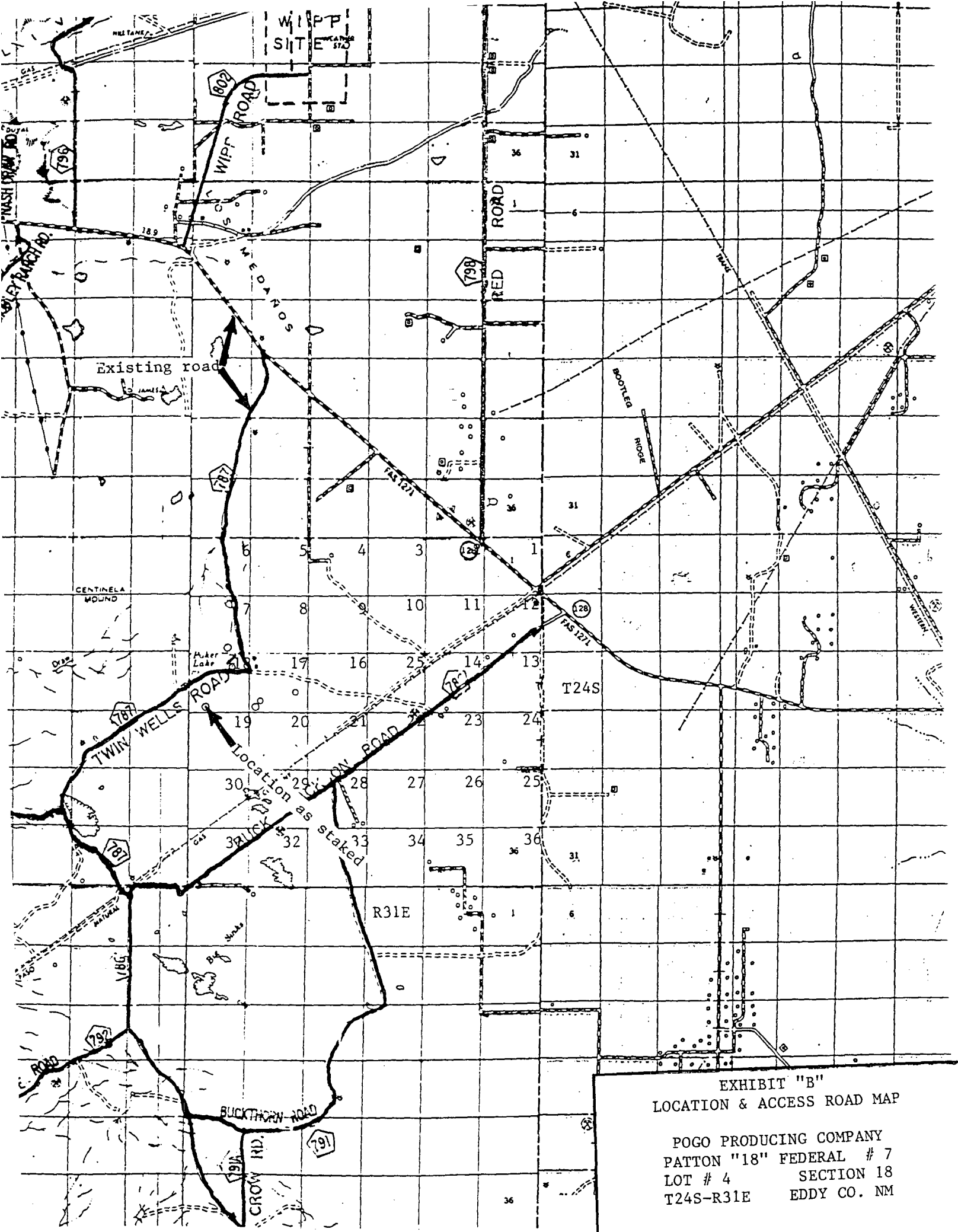
C. Exhibit "F" shows the routes of new roads, existing roads, proposed powerline, and proposed flowlines.

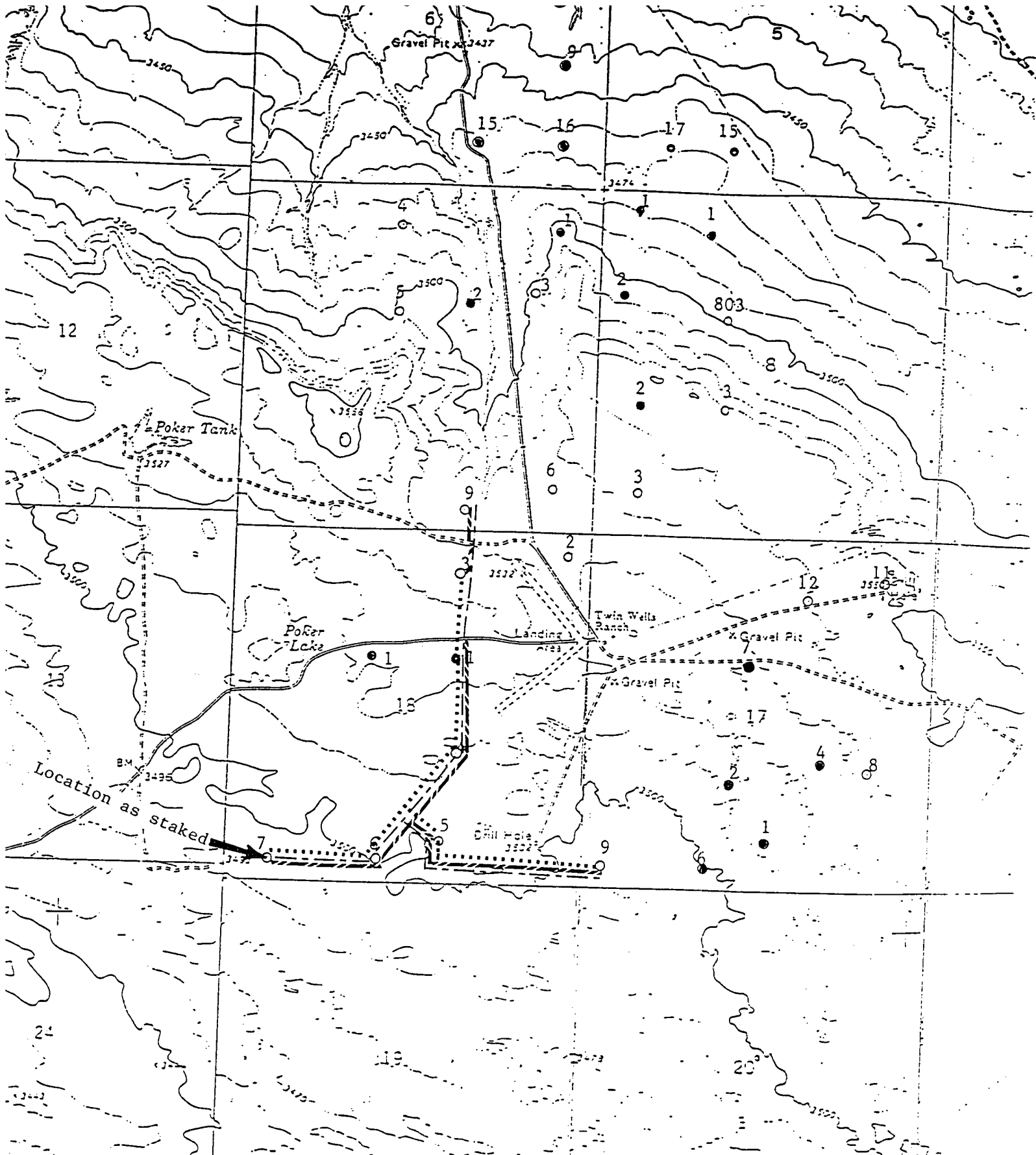
### 2. PLANNED ACCESS ROADS:

- 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 minimum 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
- 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"





- EXISTING ROAD      - - - - -
- PROPOSED ROAD      - - - - -
- PROPOSED FLOWLINE      . . . . .
- PROPOSED POWERLINE      - - - - -

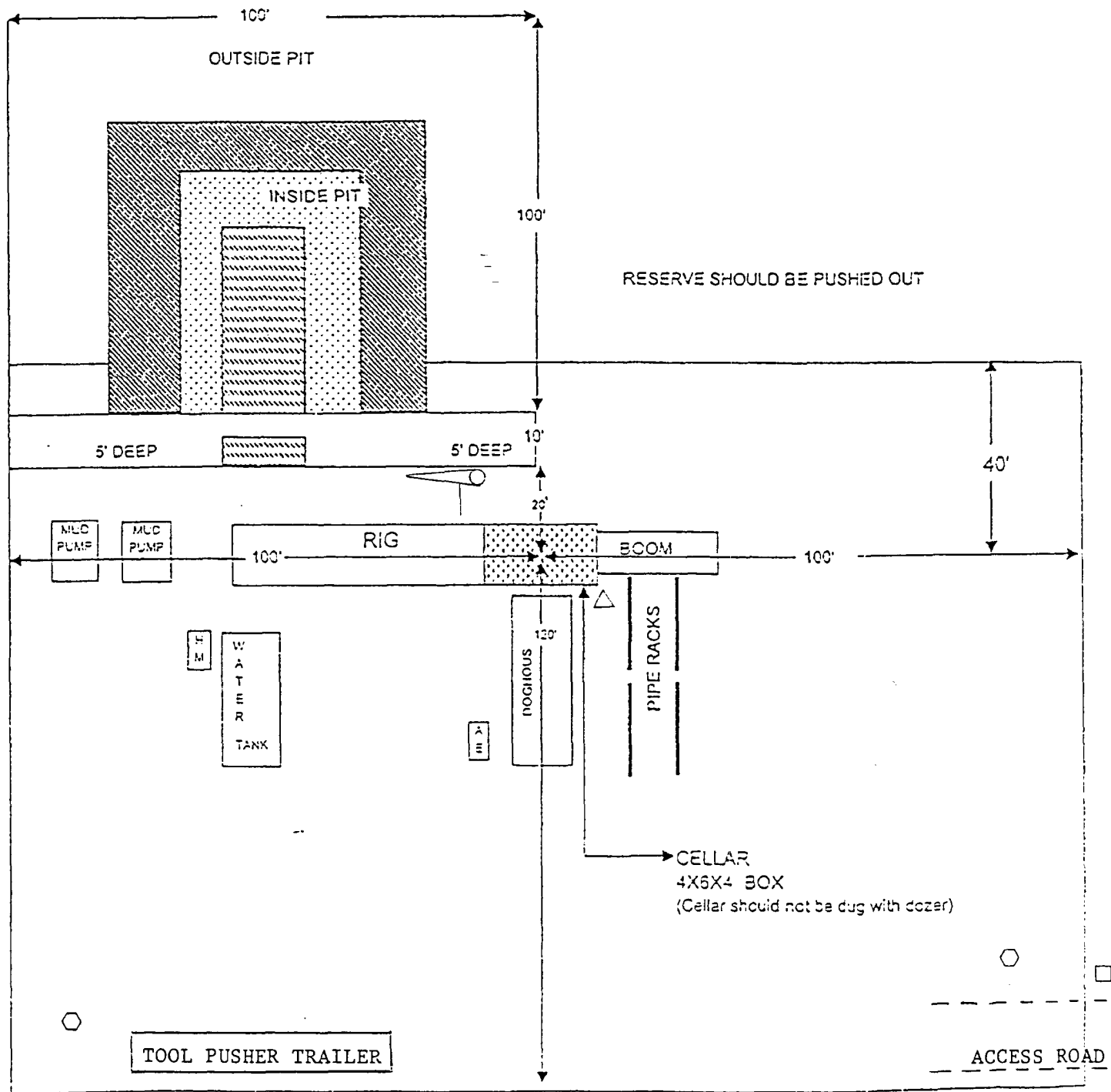
EXHIBIT "C"

TOPOGRAPHIC MAP SHOWING  
ROADS & DIRECTIONS TO

POGO PRODUCING COMPANY  
PATTON "18" FEDERAL # 7  
LOT # 4      SECTION 18  
T24S-R31E      EDDY CO. NM



# LOCATION SPECIFICATIONS AND RIG LAYOUT FOR EARTH PITS



Cellar can be 4X4X4 if using a screw-on wellhead  
Working Pits dug 5' below ground level

- 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

Location Specs

## EXHIBIT "D" RIG LAY OUT PLAT

POGO PRODUCING COMPANY  
PATTON "18" FEDERAL # 7  
LOT # 4 SECTION 18  
T24S-R31E EDDY CO. NM

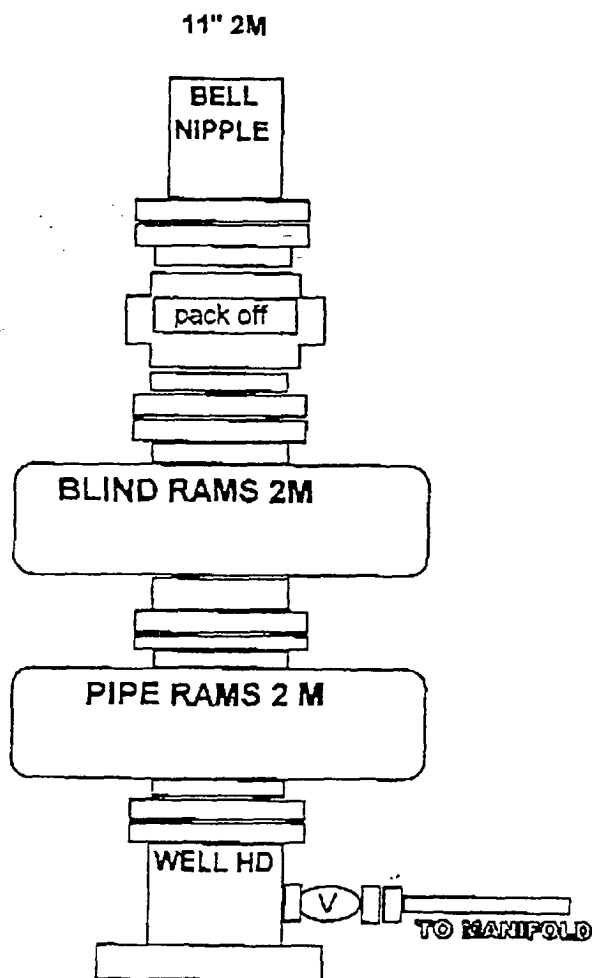


EXHIBIT "E"  
SKETCH OF B.O.P. TO BE USED ON

POGO PRODUCING COMPANY  
PATTON "18" FEDERAL # 7  
LOT # 4 SECTION 18  
T24S-R31E EDDY CO. NM

# CHOKE MANIFOLD

3000 PSI WP

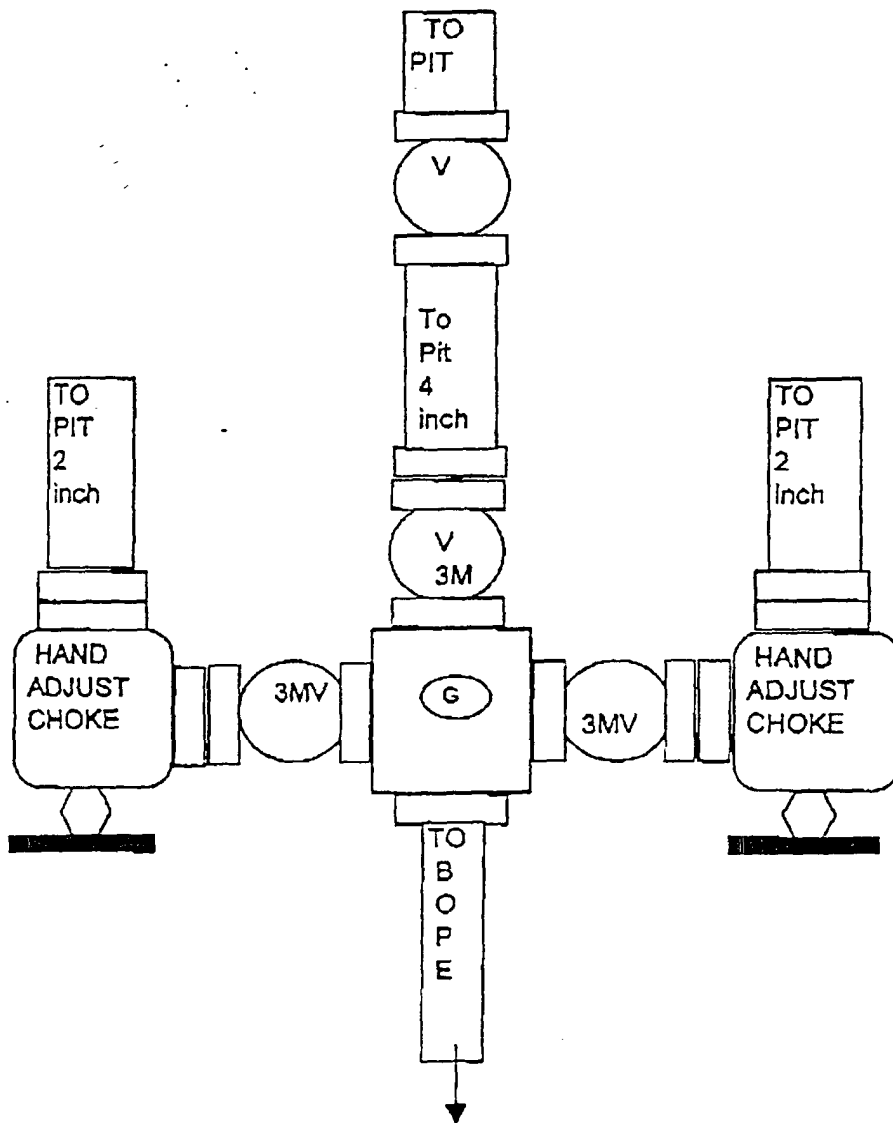


EXHIBIT "E-1"  
SKETCH OF CHOKE MANIFOLD

POGO PRODUCING COMPANY  
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