Form 3160-3

| (november .983) (formerly 9-331C) | UNI DEPARTMEN | TED STATE | S INTE | Hoses, Weigh | EXICO | Sagan Augus | | |
|--|---|---|----------------------|--|---------------------------------------|-------------------------------|-----------------|--|
| | | LAND MANA | | | | 5. LEASE DESIGNATION | AND SERIAL NO. | |
| 4 DDI 16 4 TIG | | | | | | NM-32411 | | |
| APPLICATIO | N FOR PERMIT | TO DRILL, | DEEP | PEN, OR PLUG I | BACK | 6. IF INDIAN, ALLOTTE | E OR TRIBE NAME | |
| IA. TYPE OF WORK | RILL 3 | DEEPEN | | PLUG BA | | 7. UNIT AGREEMENT N | ANE 933 I | |
| | WELL OTHER | | | SINGLE X MULTIN | 'LE 🖂 | 8. FARM OR LEASE NA | • | |
| 2. NAME OF OPERATOR | OTHER | | z | ONE X ZONE | | East Livingston | 91.3010 | |
| Pogo Prod | ducing Company | \bigcirc | 17 | 891 | | 9. WELL NO. | Kiuge onit | |
| 3. ADDRESS OF OPERATOR | R Carlotti | | | 0 () | | 4 | | |
| P.O. Box | 10340, Midland, Texa | as 79702 | | | | 10. FIELD AND POOL, O | R WUDCAT | |
| 4. LOCATION OF WELL () | Report location clearly and | in accordance wi | th any | State requirements | | East Livingston Ridge Delawar | | |
| 330. | FNL & 1980' FEL of : | section 18, 1 | -225, | K-32E | | 11. SEC., T., R., M., OR E | LE. | |
| At proposed prod. zo | ^{ne} Same | | | | | AND SURVEY OR AR | BA . | |
| | _ | | | | ĺ | Section 18, T-22 | S, R-32E | |
| | AND DIRECTION FROM NEAR | | T OFFIC | 2. | | 12. COUNTY OR PARISH | | |
| 30 miles | east of Carlsbad, Ne | w Mexico | | | | Lea County | N.M. | |
| LOCATION TO NEARES PROPERTY OR LEASE: (Also to nearest dr) | T LINE, FT. g. unit line, if any; | 330' | 16. No | 703.55 | | ACRES ASSIGNED IS WELL | 40 | |
| 5. DISTANCE FROM PROP TO NEAREST WELL, D | POSED LOCATION® ORILLING, COMPLETED. | | 19. гн | OPOSED DEPTH | 20. ROTAR | T OR CABLE TOOLS | | |
| OR APPLIED FOR, ON TH | IIS LEASE, FT. | 1320' | | 8700 | | Rotary | | |
| 1. ELEVATIONS (Show wh | | | | | · · · · · · · · · · · · · · · · · · · | 22. APPROX. DATE WOR | E WILL START* | |
| 36.88.7' | Ground Level | | | | | Upon Approval of | Application | |
| | : | PROPOSED CASI | NG AND | CEMENTING PROGRAM | ſ | | | |
| SIZE OF ROLE | BIZE OF CABING | WEIGHT PER PO | 00T | SETTING DEPTH | | QUANTITI OF CEMENT | | |
| 17½ | 13 3/8" | 54.4# | | 850' | | Sufficient to Circulate | | |
| 121/4 | 8 5/8" | 32# | | 4500' | | Sufficient to Ci | rculate | |
| 7 7/8" | 5 1/2" | 15.5# 8 | & 17# | 8700' | | 1200 sx | | |
| | After setting and stimulated See attached f | l as necessary for: Suppler BOP Ske | y. mental etch | pay zone will be possible parta and Operations Pla | perforate | A RECEIVED | | |

JUL 13 1993

G DIST 6 N.M.

JS63M. New Mexico

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive sone 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

| Janes M.C. Ritchie, Jr. | TITLE _ | Agent | DATE _ | July 11, 1993 |
|---|---------|---------------|--------|---------------|
| (This space for Federal or State office use) | | APPROVAL DATE | | |
| APPROVED BY SCOTT TOWNS CONDITIONS OF APPROVAL, IF ANY: | T171.E | AREA MANAGER | DATE | 7-28-93 |

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

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised 1-1-89

DISTRICT | P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION

P.O. Box 2088 Santa Fe, New Mexico 87504-2088

DISTRICT II P.O. Drawer DD, Artesia, NM 88210

WELL LOCATION AND ACREAGE DEDICATION PLAT

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

All Distances must be from the outer boundaries of the section

| Operator | POGO PRODU | JCING CO. | Lease EAST LIVING | STON RIDGE U | INIT | Well No. |
|-------------------|---------------------|-------------------------------|---------------------------------|---------------------|--------------------|--|
| Unit Letter | Section | Township | Range | | County | |
| = | 18 | 22 SOUTH | 32 EA | ST NMPM | | LEA |
| Actual Footage Lo | | | 1 | | | |
| 330 | et from the | ORTH line and | 1980 | feet from | the EAS | line |
| Ground Level Elev | 11 11 111 | | Pool | 7661 11000 | | Dedicated Acreage: |
| 3688.7* | | Delaware | East Livingston R | lidae Delaware | | 40 Acres |
| 1. Outline the a | | o the subject well by colored | | | | |
| 2. If more than | one lease is dedi | cated to the well, outline ea | ch and identify the owners | ship thereof (both | as to working | g interest and royalty). |
| unitization, i | force-pooling, etc. | | | rest of all owners | been consol | idated by communitization, |
| Yes | ∐ No | If answer is "yes" type | of consolidation | | | · · · · · · · · · · · · · · · · · · · |
| | | and tract descriptions which | have actually been consc | olidated. (Use reve | rse side of | |
| this form necess | | to the well unit all intere | sts have been consolida | ted (by commun | itization, u | utization, forced-pooling. |
| | _ | ard unit, eliminating such | | | | |
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| | | | | | T | moledge and belief. |
| | i | 3690.7' | 3697.5' | | Min | · M.C. Mulist. |
| | | | | | Signature (James 1 | M.C. Ritchie, Jr. |
| | i i | | i 1 | | Printed Nan | ne |
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| | - | | | | Position Pogo Pi | roducing Company |
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| | i | | i | | July 1 | 1, 1993 |
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SUPPLEMENTAL DRILLING DATA

POGO PRODUCING COMPANY

E. LIVINGSTON RIDGE UNIT HO. 4

1. SURFACE FORMATION:

Quaternary.

2. ESTIMATED TOPS OF GEOLOGIC MARKERS;

| Rustler Anhydrite | 800' |
|-------------------|----------------|
| Delaware Lime | 4600' |
| Cherry Canyon | 5 600 ' |
| Brushy Canyon | 7300 |

3. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONE:

Delaware

Oil

4. PROPOSED CASING AND CEMENTING PROGRAM:

| | SETTING DEPTH | | | | | |
|----------------|---------------|-------|--------|-------|-------|--|
| CASING SIZE | FROM | TO | WEIGHT | GRADE | JOINT | |
| 13 3/8" | 0 | 850' | 54.5# | J-55 | STC | |
| 8 5/8" | 0 | 1000' | 32# | J-55 | STC | |
| 41 | 1000 | 2200' | 24# | J-55 | STC | |
| ** | 2200 | 4500' | 32# | J-55 | STC | |
| 5 1/2" | 0 | 1000' | 17# | J-55 | LTC | |
| н | 1000' | 6000' | 15.5# | J-55 | LTC | |
| 13 | 6000' | 8700' | 17# | N-80 | LTC | |

MINIMUM DESIGN FACTORS: C

Collapse 1.125 Burst 1.1 Tension 1.7

5. PRESSURE CONTROL EQUIPMENT:

Blowout prevention equipment, while drilling the 11" hole, will be either a 3000 psi working pressure double ram type preventer or a 3000 psi working pressure annuar type preventer.

^{13 3/8&}quot; casing is to be set at approximately 850' in 17-1/2" hole. Casing to be cemented with 500 sacks of Light cement tailed in with 200 sacks of Class "C". Cement to circulate.

^{8 5/8&}quot; casing is to be set at approximately 4500' in 11" hole. Casing is to be cemented with 1200 sacks of Light cement tailed in with 200 sacks of Class "C". Cement to circulate.

^{5 1/2&}quot; casing is to be set at 8700' in 7 7/8" hole. Casing is to be cemented with 600 sacks of Class "H" cement tailed in with 700 sx Class "C". Cement to tie back to 8 5/8" casing.

6. CIRCULATING MEDIUM:

Surface to 850 feet: Fresh water spud mud. Viscosity 30 to 36 as required for

hole cleaning.

850 feet to 4500 feet: Brine conditioned as necessary for control of viscosity. Weight 9.8 to

10.0. PH 9 to 10. Viscosity 32 to 36.

4500 feet to T.D.: Water based drilling fluid conditioned as necessary for control

of weight, viscosity, ph and water-loss. Weight 9 to 10. Visocity

38 - 45. ph 9-10. Filtrate while drilling pay zone 6-15.

7. AUXILIARY EQUIPMENT:

A mudlogging trailer will be used while drilling below Intermediate casing.

8. TESTING, LOGGING, AND CORING PROGRAMS:

Drill Stem tests will be made when well data indicate a test is warranted.

It is planned that electric logs will include GR-CNL- Density logs ans GR-DLL logs.

No coring is planned.

9. ABNORMAL PRESSURES, TEMPERTURES, OR HYDROGEN SULFIFE GAS:

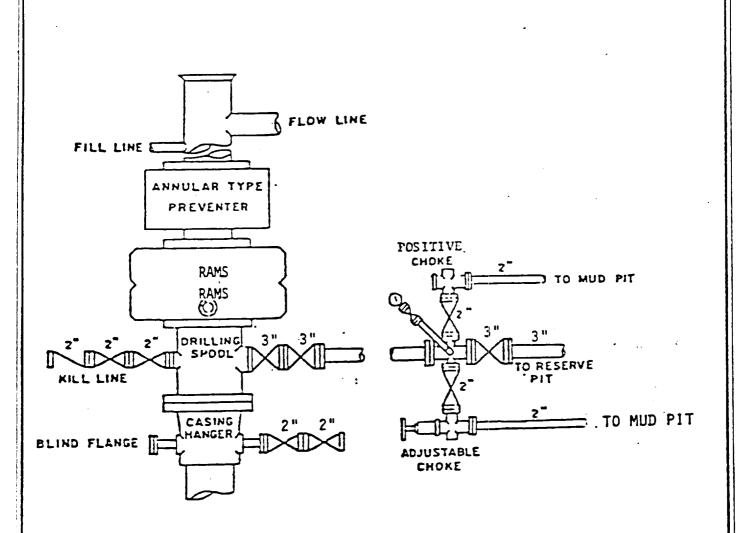
None anticipated.

Expected bottom hole pressure is approximately 3700 psi.

Expected bottom hole temperture is approximately 130 degrees Fahr

10. ANTICIPATED STARTING DATE:

It is planned that operations will commence upon approval of this application, with drilling and completion operations lasting about 30 days.



BOP STACK

3000 PSI WORKING PRESSURE