| Form 3160-3<br>(July 1989)<br>(formerly 9-331  |  | UNITED  | STATES HOEB   |  |  | 5)<br>BLM Room<br>3824791161ed<br>ND060-31          | 60-2  |  |  |
|--|--|---|---|--|--|---|---|--|--|
| DEPARTMENT OF THE INTERIOR<br>BUREAU OF LAND MANAGEMENT  |  |   |   |  |  |   | 5. LEASE DESIGNATION AND SERIAL NO.<br>LC 0572100   |  |  |
| APPLIC   | ATION FOR  | PERMIT TO D   | RILL, DEEPEN,   | OR PLUG  | BACK   | 6. IF INDIAN,                                       | ALLOTTER OR TRIBE NAME  |  |  |
| DRILL DEEPEN DEEPEN PLUG BACK  |  |   |   |  |  |   | 7. UNIT AGESEMENT NAME<br>MCA Cont Pity 2<br>8. PARM OR LEASE NAME  |  |  |
| Conoco, I  |  |   | <u> </u>  | 19157 888-   | 6548   | D. WELL NO.   |   |  |  |
| 10 Desta   | Dr. Ste 100  | W, Midland, T)  |   |  |  | 387   |   |  |  |
| 4. LOCATION OF 1<br>At Huriace   |  |   | rdance with any State req   | uirements.* >  | 10. FIELD AND FOOL, OF WILDCAT<br>Maljamar (SA Grayburg)   |   |   |  |  |
| At proposed p  | rod. sone SA/  | 5' FNL & 760'<br>Grayburg   | 1.1.5   |  |  |   | 11. SBC., T., B., M., OR BLE.<br>AND SUBVET OR AREA<br>Sec. 28, T-175, R-32E                                  |  |  |
| 14. DISTANCE IN  | MILER AND DIRECT   | TION FROM NEAREST TO  | WN OR POST OFFICE*  |  |  | 12. COUNTY ON<br>Lea                                | PARIER 13. STATE  |  |  |
| (AIGO TO DER)  | MEAREST<br>LEASE LINE, FT.<br>Pest drig, unit line   | . If any)   | 18. NO. OF AU   | 16. NO. OF ACERE IN LEASE 17. NO. OF TO THE  |  | OF ACRES ASSIGNED HIS WELL _20 41                   |   |  |  |
| TU NEAREST   | WELL PRILLING. CO.   | M BI PPPA   | 19. FROPORED<br>4400  |  | 20. ROTA   | Rotary  | 10  |  |  |
|  | how whether DF. J  | IT. GR. etc.)   | <b>_</b>  |  |  | 22. APPROL DATE WORE WILL START*                    |   |  |  |
| 3972.2   | GR   |   |   |  |  |   |   |  |  |
| HOLE SIZE  | CASING SIZE  | VE IGHT/FOOT  | SED CASING AND CEMEN  |  | NQ   | WATER B   |   |  |  |
| 17-1/2"  | 13 3/8"  | 54.5#   | GRADE<br>K-55   | THREAD 1<br>ST&C   | TYPE   | 950   | 435 SX/CIPC   |  |  |
| <u>   11"                                </u>  | <u>8-5/8</u> "<br>5-1/2"   | 32#<br>17#  | K-55<br>K-55  | ST&C<br>LT&C   |  | 36501   | 650 sx/circ   |  |  |
| across to<br>outlined<br>1. Well<br>2. Attac<br>3. Propo<br>4. Surfa<br>5. EXHII<br>6. EXHII<br>7. EXHII<br>8. BOP<br>9. H2S J<br>Since the<br>road, pin<br>75' east | project.<br>he producing<br>in the fol<br>Location au-<br>chment to Fil-<br>psed Well P<br>ace Use Play<br>BIT A: New<br>BIT S B.1 & 1<br>BIT C: Rig<br>specification<br>orilling Optime<br>is well will<br>beline, or p<br>100' north | Inis well will<br>g interval. M<br>lowing attachm<br>nd Acreage Ded<br>DRM 3160-3<br>lan OUtline<br>Mexico road m<br>B.2: Lease ro<br>layout plat<br>ons<br>erations Plan<br>l be drilled o<br>powerline righ<br>h, and 100' so | ication Plat (C<br>ap<br>ad & well locat<br>n the existing  <br>t-of-ways. How<br>uth. These exte | A No. 153<br>be drille<br>-102)<br>ion maps<br>pad of MCA<br>ever, the<br>ensions wi | which for accord | NAL SUR<br>NAL SUR<br>NAL REQU<br>AL STIFUL<br>CHED | sed casing<br>he drilling play<br>Market S AND<br>ATIONS<br>I require no new<br>be extended<br>cally cleared. |  |  |
| ne. If proposal<br>wenter program,<br>SIGNED   |  | Men directionaliy, give   | s to deepen or plug back,<br>pertinent data on subsurf  | Elve data on pre<br>ace locations and<br>Servation                                   | d messured   | and true vertical                                   | 5/11/93   |  |  |
| (This mace for   | Federal or State   | office une)   |   |  |  | DATE  |   |  |  |
| AFFROVED BY  | (ORIG. SCD.)   | RICHARD L. M.   | APPROVAL<br>ANIIS AREA<br>TITLE   | date<br>MANAGER  | {  |   | <u>kan san k</u>  |  |  |
| 2 18 U.S.C. Se   | ··· NUTAL, IF ANY :  | *See  | e Instructions On Reve  | ana Sida   |  | 6   | the second  |  |  |

.

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

387

#### OIL CONSERVATION DIVISION P.O. Box 2088

DISTRICT\_I P.O. Box 1980, Hobbs, NM 88240

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

### WELL LOCATION AND ACREAGE DEDICATION PLAT

Santa Fe, New Mexico 87504-2088

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

Operator

Unit Letter

.

Ε

## All Distances must be from the outer boundaries of the section

| Lease      |          |       |          |    |      |      |        |  | No. |
|------------|----------|-------|----------|----|------|------|--------|--|-----|
| CONOCO INC |          |       | MCA UNIT |    |      |      |        |  |     |
| Section    | Township |       | Range    |    |      |      | County |  |     |
| 28         | 17       | SOUTH |          | 32 | EAST | NMPM |        |  | LEA |

| Actual Footage Location   | of Well:        | , <b>4</b>             | <u> </u>          |                        | ****                |   |   |  |
|---|-----------------|------------------------|-------------------|------------------------|---------------------|---|---|--|
| 1955 feet from  |                 | RTH line and           |                   | 760                    | feet from           | m the WES                               | T line  |  |
| Ground Level Elev.  | Producing For   | rmation                | Pool              | /                      |                     | · · · · · · · · · · · · · · · · · · ·   | Dedicated Acr   | eage:  |
| 3972.2'   | (San A          | ndres / Gray           | /burg   Mal       | jamar/SA /             | Grayburg            | <b>`</b>                                | 40  | Acres  |
| <ol> <li>0utline the acreage</li> <li>If more than one</li> </ol>                             | lease is dedica | ated to the well, ou   | utline each and i | dentify the owne       | ership thereof (bot | th as to workin                         |   | royalty).                                    |
| 3. If more than one<br>unitization, force-<br>Yes   | -pooling, etc.? | If answer is "ye       | es" type of cons  | olidation              |                     |   | lidated by comr   | nunitization,                                |
| If answer is "no" list<br>this form necessary.<br>No allowable will be<br>otherwise) or until | e assigned to   | the well unit al       | ll interests have | e been consolid        | lated (by commu     | unitization, u                          | nitization, for   | ced-pooling,                                 |
|   | 1 101 00110     | <u>u</u> unit, crimite | I JULA INCLUS     | , Itas Decia upp.      |                     |   | TOR CERTIF  | ICATION                                      |
|   |                 |                        |                   |                        |                     | I her<br>contained her<br>best of my kr | eby certify the t<br>rein is true and a<br>cowledge and belie | he <del>information</del><br>complete to the |
| 55' -   |                 |                        |                   | 1                      |                     | Signature                               | MAG   | ma   |
| 19  |                 |                        |                   | 1                      |                     | Drinted Not                             | ne<br>N. Hoover   |  |
|   |                 | +                      |                   | <del>+</del> ·         |                     | Position                                |   |  |
| 3669.9' 39  | 173.3°          |                        |                   | 3<br>                  |                     | Company                                 | iservation  | Coord.                                       |
| 760'0   | ) <b>E</b>      |                        |                   |                        |                     | Date                                    | Inc.  |  |
| 3969.6' 39  | / <b>1</b>      |                        |                   | ł                      |                     | May 11.                                 | 1993  |  |
| SEE INSET   |                 |                        |                   |                        |                     | SURVEY                                  | OR CERTIFI  | CATION                                       |
|   |                 |                        |                   |                        |                     | -                                       | fy that the well<br>was plotted from                          |  |
|   | #153            | - 98.                  |                   | 1                      |                     |   | a made by me<br>and that the som                              |  |
|   |                 | PROPOSED               |                   |                        |                     | -                                       | the best of my  |  |
|   |                 |                        |                   | :<br> <br>             |                     | Date Surve                              | yed<br>PRIL 20, 19  | 93   |
|   | -+              | VO SCALE               |                   | • — <del> </del> — — · |                     | Signature &<br>Professions              | k Seal of   |  |
|   |                 |                        |                   |                        |                     | 3 04                                    | Jezz L  | The  |
|   | 1               |                        |                   | <br>l                  |                     | Certificate                             | Not JOHN W<br>BONALO TO<br>POFESSION MAN                      | WEST, 676                                    |
| 0 330 660 990   | 1320 1650       | 1980 2310 2640         | 2000              | 1500 1000              | 500 0               | <u> </u>                                |   | ONES, 7977                                   |

#### ATTACHMENT TO FORM 3160-3 APPLICATION FOR PERMIT TO DRILL

#### Conoco Inc.

#### MCA Unit No. 387 Sec. 28, T-17S, R-32E Lea County, New Mexico

- 1. The estimated tops of important geologic markers are shown on the attached Proposed Well Plan Outline.
- 2. The estimated depths at which anticipated water, oil, gas or other mineral-bearing formations to be encountered are shown on the attached Proposed Well Plan Outline.
- 3. A drawing of Blowout Preventer Specifications is attached. Pipe rams and blinds will be checked to the working pressure of the stack or 70% of the minimum internal yield strength of the casing whichever is less. BOPE will be checked when casing string is set.
- 4. The proposed casing program is as follows:

| 0-950':  | 13-3/8", | 54.5# | K-55 |  |
|----------|----------|-------|------|--|
| 0-3650': | 8-5/8",  | 32#   | K-55 |  |
| 0-4400': | 5-1/2",  | 17#   | K-55 |  |

5. The proposed mud program is as follows:

0-950": 8.4-8.8# Fresh Water 1450'-5800': 8.4-10.0# Brine 5800'-9300': 16.0-16.5# Salt Gel/Starch

- 6. Run open-hole logs from 3600'-4400'. The log suite will include: GR-DLL-NEVT-DEN-CAL-CBIL. A temperature survey will be run to determine the top of cement on each casing string where cement is not circulated.
- 7. Special Drilling Problems: SEE column 2 on Proposed Well Plan Outline
- 8. The anticipated starting date is 7-11-93 with a duration of approximately 14 days.

# **PROPOSED WELL PLAN OUTLINE**

#### WELL NAME: MCA UNIT No. 387 1955' FNL, 760' FWL, SEC 28, T-17-S, R-32-E, LEA CO., NM LOCATION: TVD FORMATION TYPE OF CASING FORMATION MUD TOPS & HOLE IN DRILLING FORMATION FRAC PRESSURE 1000' MD TYPE PROBLEMS EVALUATION SIZE SIZE DEPTH GRAD GRADIENT WT TYPE | DAYS 0 8.4 - 8.8 # SLOUGHING IN RED BEDS FRESH WATER B/RED BEDS @ 850' 13-3/8" 54.5# K-55 17-1/2" ST&C @ 950' NORMAL SALADO @ 975' 1 NITROGEN POCKETS @ 1200' WATER FLOWS 2000' TO T.D. HYDROGEN SULFIDE & CARBON DIOXIDE YATES @ 2110' 2 3000' TO T.D. LOST CIRC 3500' TO 3600' FLUID CALIPER FOR CMT. 7-RIVERS@2485' 10.0 - 10.5# BRINE 3 QUEEN @ 3075 GRAYBURG @ 3461' 8-5/8" 32# K-55 11" ST&C @ 3650' 8.4 - 10.0# SAN ANDRES 7TH @ 3974 CARBON DIOXIDE INJECTION IN OFFSETS @ 3700' 4 ABNORMAL PRESSURE <u>T.D</u>. @ 4400' GR-DLL-NEVT-DEN-16.5 - 17.0# CAL-CBIL BRINE/GEL 5 5-1/2"17#K-55 7-7/8" LT&C @ 4400' 16.0 - 16.5# 6 7 8 DATE: MAY 6, 1993

\_\_\_\_\_

PREPARED BY: G. L. FAUL

# **BOP SPECIFICATIONS**



.