STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
ARTESIA DISTRICT OFFICE

BRUCE KING
GOVERNOR

P.O. DRAWER DD
ARTESIA, NEW MEXICO 88211
(505) 748-1283

April 29, 1991

Dave,

George D. Riggs, Riggs (Welch Fed) #3, Exhibit C-4
Need cement at 406'.
5 1/2 is run with a packer in open hole.
If a hole developed in 7" casing at 300' we would not detect leak due to porosity of Yates formation.
Fresh water reported from 270'-370'.

George D. Riggs, Riggs (Welch Fed) #4, Exhibit C-5
P & A well has 25' cement plug at 435'.
I feel this is not an adequate plug to protect fresh water reported at 362'-370'.

W.S. Welch, Welch (Fed) #5, Exhibit C-9
P & A well has 36' cement plug at 444'. Needs 100'. Fresh water reported 600' away.

If 20' & 25' plugs are there you could possibly have enough protection of fresh water, due to the lower pressures expected in SWD.

JR:br

Johnny Robinson

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

OPERATORS NAME GEORGE D RIGGS WELL NO. & NAME Riggs Federal No. 7
LOCATION 4122' F N L & 330' F E L SEC. 5, T. 21S., R. 27E.
LEASE NO. NM-01119 - COUNTY Eddy

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 CFR 3165.3 and 3165.4.

I. SPECIAL ENVIRONMENT REQUIREMENTS

( ) Lesser Prairie Chicken (Stips attached)
( ) San Simon Swale (Stips attached)
( ) Floodplain (Stips attached)
( ) Other _____

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(✓) The BLM will monitor construction of this drill site. Notify the Carlsbad Resource Area Office, BLM at least 2 working days prior to commencing construction at (505) 887-6544.

( ) Roads and the drill pad for this well must be surfaced with _____ inches of compacted _____.

( ) 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 approximately _____ inches in depth. Approximately _____ cubic yards of topsoil material will be stockpiled for reclamation.

( ) Other

III. DRILLING OPERATIONS REQUIREMENTS [Carlsbad Controlled Water Basin]

The Bureau of Land Management office is to be notified at (505) 887-6544, in sufficient time for a representative to witness:

(✓) 1. Spudding (✓) 2. Cement casing 8⅝ inch 5½ inch ___ inch

( ) 3. BOP tests ( ) Other

IV. CASING

(✓) 8⅝" surface casing should be set ~400', in the Yates formation and cement circulated to the surface. If cement does not circulate to the surface, this BLM office will be notified and a temperature survey or cement bond log will be run to verify the top of the cement. Remedial cementing will be done prior to drilling out of that string.

( ) [redacted] _____ [redacted] _____.

(✓) Minimum required fill of cement behind the 5½" production casing is to tieback 100' into 8⅝" csg. @ ~400'.

V. PRESSURE CONTROL

(✓) Before drilling below the 8 5/8" casing, the blowout preventer assembly will consist of a minimum of:

(✓) One Annular Preventer, or (✓) Two RAM-Type Preventers ( ) Other _____

(✓) After setting the 8 5/8" casing string, and before drilling into the Yates Formation, the blowout preventers and related control equipment shall be pressure-tested as described in General Requirements. Any equipment failing to test satisfactorily will be repaired or replaced.

( ) The test will be conducted by an independent service company.
(✓) The results of the test will be reported to the appropriate BLM office.
( ) The Bureau of Land Management office is to be notified in sufficient time for a representative to witness the test.

( ) Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, will be installed and operating before drilling into the _____ Formation, and will be used until production casing is run and cemented. Monitoring equipment will consist of the following:

( ) 1. A recording pit level indicator to determine pit volume gains and losses.
( ) 2. A mud-volume measuring device for accurately determining mud volume necessary to fill the hole on trips.
( ) 3. A flow-sensor on the flow-line to warn of any abnormal mud returns from the well.

( ) A Hydrogen Sulfide Contingency Plan will be approved by this BLM office before drilling below the _____ Formation. A copy of the plan will be posed at the drilling site.

( ) Other

VI. 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.

( ) 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 a depth of 1/2 inch) with the following seed mixture, in pounds of Pure Live Side (PLS), per acre.

( ) A. Seed Mixture 1 (Loamy Site)
Lehmanns Lovegrass (Eragrostis lehmanniana) 1.0
Side Oats Grass (Bouteloua curtipendula) 5.0
Sand Dropseed (Sporobolus cryptandrus) 1.0

( ) B. Seed Mixture 2 (Sandy Sites)
San Dropseed (Sporobolus cryptandrus) 1.0
Sand Lovegrass (Eragrostis trichodes) 1.0
Plains Bristlegrass (Setaria magrostachya) 2.0

(✓) C. Seed Mixture 3 (Shallow Sites)
Sideoats Grama (Boute curtipendula) 1.0
Lehmann's Lovegrass (Eragrostis lenmanniana) 1.0
or Boar Lovegrass (E. chloromalas)

( ) D. Seed Mixture 4 ("Gyp" Sites)
Alkali Sacaton (Sporobolus airoides) 1.0
Four-Wing Saltbush (Atriplex canescens) 5.0

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 will be constructed almost entirely in cut material and lined with 6 mill plastic.

The excavated material may be used for construction of the pad and access road as needed.

Reclamation: 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 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 for road and pad surfacing is constructed immediately adjacent to the reserve pit and it is capable of containing all reserve pit contents.

Reclamation of the reserve pit will consist 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.