

PROPOSED PROCEDURE

FOR APPROVAL

FOR THE DRILLING OF WELLS FROM DRILLING ISLANDS

IN THE POTASH ENCLAVE, EDDY COUNTY, NEW MEXICO

BEFORE THE

OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

Case No. 8288 Exhibit No. 1

Submitted by Barr

8/24/84

RULE 1. The New Mexico Oil Conservation Division hereby recognizes and approves certain defined oil and gas well "Drilling Islands" in the Potash Enclave, from which oil and gas wells may be drilled subject to these rules, the General Rules and Regulations of the Division, the casing and cementing provisions of Division Order R-111-A, and such other state and federal regulatory rules as may be applicable, provided however, that the provisions of Article VII of Division Order R-111-A shall not apply to wells drilled from said islands.

The drilling islands recognized and approved for utilization pursuant to these rules are located and described as follows:

- A. CIRCULAR DRILLING ISLANDS FOR WELLS NOT PROJECTED BELOW THE BASE OF THE STRAWN FORMATION (Circular Drilling Islands shall have a radius of not more than 240 feet and shall be centered as follows):

TOWNSHIP 20 SOUTH, RANGE 31 EAST, NMPM

Section 7:	330' FSL,	400' FEL
Section 8:	900' FSL,	660' FWL
Section 18:	660' FNL,	660' FEL
Section 26:	2970' FNL,	330' FEL
Section 27:	2280' FNL,	1980' FWL
Section 27:	1980' FSL,	1680' FWL
Section 27:	990' FNL,	1980' FEL

- B. CIRCULAR DRILLING ISLANDS FOR WELLS PROJECTED BELOW THE BASE OF THE STRAWN FORMATION (Circular Drilling Islands shall have a radius of not more than 240 feet and shall be centered as follows):

TOWNSHIP 20 SOUTH, RANGE 31 EAST, NMPM

Section 19:	1500' FNL,	1500' FWL
Section 21:	2000' FNL,	2000' FEL
Section 30:	2000' FSL,	3000' FWL
Section 35:	660' FSL,	660' FEL

TOWNSHIP 21 SOUTH, RANGE 29 EAST, NMPM

Section 11:	660' FNL,	660' FWL
Section 24:	1320' FNL,	660' FEL

TOWNSHIP 21 SOUTH, RANGE 30 EAST, NMPM

Section 5: 250' FNL, 1600' FWL  
Section 9: 1800' FNL, 660' FEL  
Section 16: 1000' FSL, 2000' FWL

C. NON-CIRCULAR DRILLING ISLANDS FOR WELLS PROJECTED  
BELOW THE BASE OF THE STRAWN FORMATION

The western 4620 feet of Section 3, Township 21  
South, Range 29 East, NMPM, and

The eastern 3780 feet of Section 2, Township 21  
South, Range 30 East, NMPM.

RULE 2. PENETRATION OF THE SALT SECTION

Any well drilled from any of the above-described drilling islands shall be drilled in a substantially vertical direction until the well has penetrated the Salado ("salt") interval after which it may be deviated to the effect that the well bore will have completely penetrated the salt interval before the well bore exceeds the boundary of the drilling island, provided however, that any "shallow zone" well as defined by Division Order R-111-A, may be deviated prior to completely penetrating the Salado interval but shall not be permitted to exceed the boundary of the drilling island before completely penetrating the salt interval. For purposes of identification, the base of the Salado (salt) interval shall be that point as found at a depth of 2460 feet on the log of the Perry R. Bass Big Eddy Unit Well No. 101 located in Section 27, Township 20 South, Range 31 East, NMPM, Eddy County, New Mexico.

RULE 3. DEVIATION AND/OR DIRECTIONAL SURVEYS

A sufficient number of deviation and/or directional surveys shall be conducted on each well to prove the hole location throughout the salt section, and copies of such surveys shall be submitted to the appropriate district office of the Division and other affected governmental regulatory agencies.

RULE 4. CASING AND CEMENTING OF WELLS

A SURFACE CASING STRING shall be run and cemented in accordance with the provisions of sub-section IV (2) of Division Order R-111-A, except that the words "'Red Bed' section of the" are hereby deleted from sub-section IV (2)(a) for the purposes of these rules only.

The SALT PROTECTION STRING shall be run and cemented in accordance with the provisions of sub-section IV (3) of Division Order R-111-A.

An INTERMEDIATE CASING STRING shall be run and cemented in accordance with the provisions of sub-section IV (4) of Division Order R-111-A, except that sub-section IV (4)(a) shall, for the purposes of these rules only, be amended to read in its entirety as follows:

"(a) In the drilling of oil and gas wells to the deep zone, the operator shall run an intermediate string of pipe."

The PRODUCTION CASING STRING shall be run and cemented in accordance with the provisions of sub-section V (5) of Division Order R-111-A, provided however, that wells drilled below the base of the Strawn formation shall be equipped with a stage cementing tool at a point below the depth of the intermediate casing shoe, and the intermediate/production casing annulus shall be cemented up to a depth at or near the setting depth of the salt protection string.

ALL CASING STRINGS shall have tests or surveys run after cementing to determine the height of cement in the annulus, and the results of such tests reported to the appropriate governmental authorities.

DRILL PIPE PROTECTION RUBBERS shall be installed on at least every other joint of drill pipe.

#### RULE 5. TEST OR OBSERVATION WELLS

A test or observation well shall be drilled between any well and open-mine workings if such well is:

- (a) drilled below the base of the Strawn formation,
- (b) completed as a gas well, and
- (c) located within one-half mile of open-mine workings at the time of its completion

The test or observation well shall be drilled into the top of the salt and cased and cemented to the surface. The test or observation well shall then be drilled into the salt and cored through the potash ore horizons, and left open as an observation well.

The location of any test or observation well shall be at a point between any open-mine workings within one-half mile and the drilling island and shall be within 100 feet of the well closest to such open-mine workings.

The potash operator of any such open-mine workings shall drill or cause to be drilled any such test or observation well, and he shall do so on a competitive basis. The operator of the completed gas well shall pay the actual cost of the well. Said gas well operator shall not be responsible for monitoring the observation well, nor shall the gas well

operator be responsible for paying the cost of drilling more than one such test or observation well per drilling island per open-mine workings.

**RULE 6. ABNORMALITIES**

The operator of any well drilled from a drilling island approved herein shall promptly notify the appropriate district office of the Division and any other affected governmental authorities of any detectable abnormality or hazard encountered in down-hole conditions which may reasonably be deemed a potential danger to other operations in the area, including but not limited to lost circulation, stuck drill pipe, and suspension of normal drilling due to high pressures.

**RULE 7. NON-DEVIATED WELLS, STANDARD LOCATIONS**

Any well which is located at a standard location for the producing horizon to which it is projected and will be drilled as a "straight" hole shall be permitted in the usual manner by filing an Application for Drilling Permit and Acreage Dedication Plat with the appropriate governmental authorities in accordance with the agency's rules, provided however, that the plat and the schematic diagram described in Rule 11 below shall also accompany the application to drill.

**RULE 8. DEVIATED WELLS, STANDARD BOTTOM-HOLE LOCATIONS**

Any well which is to be drilled as a deviated well to a standard location for the formation to which it is projected shall be approved for directional drilling in accordance with the following procedure:

(a) The operator shall file an application for directional drilling in triplicate with the Division Director, describing the manner in which the well is to be drilled and attaching the following documents:

(i) A plat showing the drilling island from which the well will be drilled, the surface location of the well, and the proposed bottomhole location; the plat shall include the footage description of both of such locations, and shall also indicate any latitude which the operator is requesting for his target area, as opposed to a pin-point bottomhole location.

(ii) The plat and schematic diagram described in Rule 11 below.

**RULE 9. DEVIATED AND NON-DEVIATED WELLS, UNORTHODOX LOCATIONS**

The operator of any well to be drilled from a drilling island to a bottomhole location which is unorthodox for the formation to which it is projected shall file an application therefor in the manner described in Rule 7 or

Rule 8 above, whichever is applicable, and in addition thereto, shall include the following:

- (a) A plat outlining the spacing and proration unit to be dedicated to the well and the proposed bottomhole location (with the target latitude shown).
- (b) The plat and schematic diagram described in Rule 11 below.
- (c) A plat showing the ownership of all oil and gas leases within two miles of the proposed surface and bottomhole locations of the well and depicting thereon all oil and gas wells completed on said leases and the formation(s) in which they are completed.
- (d) Evidence that all operators of spacing and proration units offsetting the unit to be dedicated to the well have been mailed a copy of the application by registered or certified mail.

RULE 10. APPROVAL OF UNORTHODOX LOCATIONS

The Division Director may approve any unorthodox bottomhole location upon receipt of waivers of objection from all parties who are subject to notification, or if no such party has entered an objection to the unorthodox location within 20 days after the Director has received the application.

RULE 11. OPEN-MINE WORKINGS PLAT AND WELL SCHEMATIC DIAGRAM

The operator shall file a plat showing the location of any open-mine workings within one mile of the surface or bottomhole locations of the well.

He shall also file a schematic diagram of the proposed well, showing thereon all casing strings, their size and setting depth, and the cementing program to be used, as well as DV tools and such other items or information as may be pertinent to establish that an adequate casing and cementing program will be utilized to provide protection to the potash.

RULE 12. APPROVAL OF DIRECTIONAL DRILLING

The Division Director may approve an application for authority to directionally drill a well from a drilling island described in Rule 1, subsections A, B, or C of these rules if, in his judgement, it will permit the drilling, completion, production, and abandonment of the proposed well without unduly interfering with the orderly development of commercial deposits of potash or without unduly reducing the total quantity of commercial deposits of potash which may reasonably be recovered in commercial quantities.

RULE 13. PLUGGING AND ABANDONMENT OF WELLS

All wells drilled pursuant to these rules shall, upon abandonment, be plugged in accordance with the provisions of Division Order R-111-A.

RULE 14. HEARINGS

The Division Director may, at his discretion, set any application for approval of an unorthodox bottomhole location or directional drilling filed pursuant to these rules for public hearing.