BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF EL PASO NATURAL GAS COMPANY FOR PERMISSION TO DUALLY COMPLETE ITS ALLISON UNIT WELL #10 WELL LOCATED 1750' FROM THE NORTH LINE AND 990' FROM THE WEST LINE OF SECTION 20, TOWNSHIP 32 NORTH, RANGE 6 WEST, SAN JUAN COUNTY, NEW MEXICO, AND FOR UNORTHODOX LOCATION OF SAID WELL IN THE MESAVERDE FORMATION AS AN EXCEPTION TO SECTION 1(c) of ORDER R-110

CASE NO. 1016

A P P L I C A T I O N

COMES NOW El Paso Natural Gas Company and alleges and states:

(1) That its Allison Unit Well #10 is located 1750' from the north line and 990' from the west line of Section 20, Township 32 North, Range 6 West, San Juan County, New Mexico, as shown on Exhibit "A", attached to and made a part of this application.

(2) That said well was drilled to a total depth 8255' and was plugged back to a depth of 8042'. 13-3/8" OD surface casing was set at 160' with 175 sacks of cement. 9-5/8" OD intermediate casing was set at 3553' with 250 sacks of cement. 5½" OD production casing was set at 7940' with 500 sacks of cement. A temperature survey showed the top of the cement at 5620'. The 5½" casing was thereafter perforated at 5615' and 150 sacks of cement were pumped behind the casing to a top of 5150'.

(3) Tops of the Mesaverde and Dakota formations were encountered at the depths of 5730' and 7930', respectively, in said well. The Dakota tested 367 Mcf of gas through a 3/4" choke in three hours. Sand-water and sand-oil fracing from 7940' to 8042' was unsuccessful. The casing was perforated from 5730' to 5788' and from 5500' to 5690'. After sand-water fracing, the Mesaverde interval tested 6,551 Mcf through a 3/4" choke in three hours.

(4) That applicant proposes to complete said well in the Mesaverde formation and in the Dakota formation, using a Baker Model "D" packer to separate production therefrom. One packer will be set below the Mesaverde perforations and a tubing stringer will be run through it to the Dakota producing interval. A second

packer will be set above the Mesaverde perforations and a cross-over sub will be used to produce the Mesaverde formation through the tubing and the Dakota formation through the annulus, all as shown on Exhibit "B", attached to and made a part of this application.

(5) That the Dakota formation in said well is not productive of gas in commercial quantities and that completion of said well in both the Mesaverde and Dakota formations in the manner described herein and as an exception to Section 1(c) of Order R-110 will prevent waste without prejudice to correlative rights or injury to other producing zones or fresh water stratas.

WHEREFORE, applicant prays that this matter be set down for hearing, that notice thereof be given as required by law and that, upon hearing, the Commission enter its order permitting applicant to dually complete its Allison Unit Well #10 in the manner described herein; and that the unorthodox location of said well in the Mesaverde formation be permitted as an exception to Section 1(c) of Order R-110.

Respectfully submitted,

EL PASO NATURAL GAS COMPANY

By John A. Woodward
Attorney

DC-243

El Paso Natural Gas Company

El Paso, Texas

March 19, 1956

DIRECT REPLY TO:
P. O. BOX 997
FARMINGTON, NEW MEXICO

Mr. W. B. Macey, Secretary and Director
Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

This is to request administrative approval for a well that will be dually completed in the Mesa Verde and the Dakota formations.

The El Paso Natural Gas Company Allison Unit #10 is located 1750 feet from the North line and 990 feet from the West line of Section 20, Township 32N, Range 6W, N.M.P.M., San Juan County, New Mexico. Completion will be done in the following manner.

1. 13 3/8" OD surface casing has been set at 169' with 175 sacks of cement.

2. 9 5/8", OD intermediate casing was set at 3553' with 250 sacks of cement.

3. 5 1/2" OD production casing was set at 7940' with 500 sacks of cement. At this time the well depth was 8255' and had been plugged back to 8042'. Temperature survey shoed the top of cement at 5620' (above the Point Lookout formation). The 5 1/2" casing was perforated at 5615' and 150 sacks of cement was pumped to a top of 5150', behind the 5 1/2". This cement adequately covers the Mesa Verde and protects all the formations necessary.

4. The Dakota formation was sand-water fractured from 7940' to 8042' and then a sand-oil frac procedure was tried. Neither stimulate increased production.

5. The lower Mesa Verde was perforated from 5730' - 5788' at intervals and this set of perforations stimulated with sand-water fracture procedure.

6. The upper Mesa Verde was perforated at intervals from 5500' to 5690' and these perforations were likewise stimulated with sand-water fracing process.

7. All bridging plugs will be drilled and the formations thoroughly cleaned out.

8. Baker Model "D" production packers will be used to separate the producing formation. One packer will be set below the Mesa Verde perforations and a tubing stinger will be run through it for Dakota Production. A second packer will be set above the Mesa Verde perforations and a cross-over sub will be employed to produce the Mesa Verde through the tubing and the Dakota through the annulus of tubing - casing above the upper packer.

Administrative approval is asked for this well so that production from the Mesa Verde can be used to help defray the costs of drilling the Dakota formation which apparently will not produce paying quantities of natural gas. Dual completion procedure is necessary due to the wide differences of shut-in pressures from the Dakota vs the Mesa Verde, a difference of nearly 2000 psi. As shown above all precautions are being observed to protect all the producing formations.

This well is located in the Allison Unit operated by El Paso Natural Gas Company. However, please note that the use of the Northwest location for a Mesa Verde is unorthodox. Mr. R. L. Hamblin of El Paso's lease department will file the application for unorthodox location and spacing. It is intended to dedicate the Northwest one quarter of Section 20 to the Dakota formation and the west one-half of Section 20 to the Mesa Verde formation.

The use of a cross-over sub in conjunction with production packers will not allow bottom-hole pressure surveys to be taken as have been specified on previously approved dually completed wells.

Inclosed are two copies of a schematic sketch showing the methods to be used for dual completion. Location plats and a map of the offset acreage will be filed by the lease department when requesting unorthodox spacing approval.

Completion logs will be filed with the local Oil Conservation Commission in Aztec, New Mexico when the well is completed and production tests can be run.

If you need any further information please call on me.

Yours very truly,

El Paso Natural Gas Company

E. J. Coel
Senior Petroleum Engineer

EJC:ajh
Enc.
cc: P. T. McGrath
Emery Arnold
R. L. Hamblin