# STATE OF NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 13770 ORDER NO. R-12686

APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION FOR APPROVAL OF A PILOT PROJECT, INCLUDING AN EXCEPTION TO RULES 4 AND 7 OF SPECIAL RULES AND REGULATIONS FOR THE BASIN-FRUITLAND COAL GAS POOL FOR THE PURPOSE OF ESTABLISHING A PILOT PROGRAM TO DETERMINE COMMERCIAL FEASIBILITY FOR FRUITLAND COAL GAS WELLS IN TOWNSHIP 25 NORTH, RANGE 2 WEST, NMPM, RIO ARRIBA COUNTY, NEW MEXICO

### ORDER OF THE DIVISION

## BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on September 14, 2006, at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 4th day of January, 2007, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

### FINDS THAT:

- (1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.
- (2) Benson-Montin-Greer Drilling Corporation ("B-M-G" or "applicant") seeks to implement an 80-acre, 5-spot pilot project in order to determine the commercial feasibility of producing natural gas from the Fruitland Coals in the Gavilan area of the San Juan Basin.
- (3) In order to implement this pilot, B-M-G seeks well location and well density exceptions to Rule 7 of the "Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool," as established by Commission Order No. R-8768-F, by proposing:
  - (a) the Price Federal Well No. 5 to be drilled at a non-standard

location near the western boundary of the SW/4 NE/4 of Section 34, Township 25 North, Range 2 West, NMPM, Rio Arriba County, New Mexico; and

- (b) the Price Federal Well No. 5 to be dedicated as the third well in a standard 320-acre Fruitland Coal gas spacing unit consisting of the E/2 of Section 34. The other two wells in the E/2 spacing unit would be:
  - (i) the Price Federal Well No. 2 (API No. 30-039-29248) to be drilled at a standard Fruitland Coal Gas well location within the NE/4 of Section 34; and
  - (ii) the Price Federal Well No. 3 to be drilled at a standard Fruitland Coal Gas well location within the SE/4 of Section 34.
- (4) As the final two wells in this pilot project, B-M-G and partners intend to utilize the following wells, both dedicated to a W/2 of Section 34 standard spacing unit:
  - (i) the Price Federal Well No. 1 (API No. 30-039-29249) located at a standard Fruitland Coal Gas location within the NW/4 of Section 34; and
  - (ii) the Price Federal Well No. 4 to be drilled at a standard location within the SW/4 of Section 34.
- (5) Rule 7(c)(2) of the "Special Pool Rules for the Basin-Fruitland Coal Gas Pool" establishes the "Low Productivity Area" as being within the Pool but not in the "High Productivity Area". Section 34 of Township 25 North, Range 2 West, NMPM, Rio Arriba County, New Mexico is within the "Low Productivity Area" of the Basin-Fruitland Coal Gas Pool.
- (6) Rule 7(d)(1) of the "Special Pool Rules for the Basin-Fruitland Coal Gas Pool" limits the number of wells per spacing unit within the "Low Productivity Area" of the Pool to no more than two wells, with the "Optional Infill" well to be located within the quarter section not containing the "Initial" Fruitland Coal gas well. B-M-G's proposal to locate three wells within the E/2 of Section 34 spacing unit requires an exception to this well density rule.
- (7) Rule 7(a)(1) of the "Special Pool Rules for the Basin-Fruitland Coal Gas Pool" requires each well to be located no closer than 660 feet to the outer boundary of the spacing unit. B-M-G's proposal to locate the Price Federal Well No. 5 closer than 660 feet to the western boundary of the E/2 spacing unit in the SW/4 NE/4 of Section 34 requires an exception to this rule.
- (8) Rule 4 of the "Special Rules and Regulation for the Basin-Fruitland Coal Gas Pool" requires each standard gas spacing unit to consist of 320 acres, more or less,

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comprised of any two contiguous quarter sections of a single governmental section. B-M-G's proposal to form two standard standup gas spacing units within Section 34 is in accordance with this rule.

- (9) In accordance with Division Rule 104D(3) and 1210A(2) and the "Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool", B-M-G has notified all affected parties, including NM&O Operating Company, ConocoPhillips Corporation, Energen Resources, and San Juan Properties LLC. No operator or interest owner has opposed this application.
- (10) The Bureau of Land Management supplied a letter of support, asking that B-M-G be conditionally limited to two (2) years for the pilot and that it be required to report on the results.
  - (11) The applicant presented testimony and evidence that demonstrates:
    - (a) The north half of Section 34 is part of one lease from the USA and the south half is leased, privately owned minerals. Except for differences in ownership of B-M-G and NM&O, ownership in the W/2 of Section 34 is identical to the ownership in the E/2 of Section 34. B-M-G's working interest partners and NM&O have expressed support for this pilot project. B-M-G's ownership is greater in the W/2 of Section 34 than in the E/2 of Section 34, yet B-M-G is proposing the internal pilot well to be located within the E/2 of Section 34.
    - (b) B-M-G has drilled six or seven wells in this general area to evaluate the coals. All of these coal wells are considered to be uneconomic and unable to dewater the coals on their existing spacing.
    - (c) The proposed pilot project area is located a considerable distance southeast of the Fruitland coal "fairway," which is the most prolific producing portion of the Basin-Fruitland Coal Gas Pool within the San Juan Basin.
    - (d) The Price Federal Well No. 1 is producing from the Pictured Cliffs and from the Fruitland Coal and is currently permitted for downhole commingling with Division administrative permit DHC-2020az. B-M-G plans to set a plug above the Pictured Cliffs and produce only the Fruitland Coal during this pilot test.
    - (e) The coals in this area are 40 to 50 feet thick, but ashy, higher density, and have dry, ash free gas content numbers ranging from 110 to 160 scf per ton. The wells produce enough water to imply that permeability is adequate, but computer models indicate the wells must be spaced closer than 160 acres per well in order to de-water and desorb

methane in a short enough time period to pay off the investment. The computer models show that development on 80-acre well spacing in these coals may yield a peak gas rate of 100 Mcf of gas per day within 1 year of beginning production and de-watering within two or three years.

- (f) B-M-G proposes to produce all five wells simultaneously during the coal de-watering process. B-M-G estimates that it will take at least two years and maybe more to see if this pilot gives meaningful results. Delays in getting the project started may mean that two years is too short of a time period. B-M-G still needs to permit the four additional wells, obtain a rig, drill, complete, equip, and hook up the wells and obtain an economical way of disposing of the produced water.
- (12) The application in this case is similar to an approved 5-spot coal gas pilot by Coleman Oil & Gas, Inc. ("Coleman") under Division Case No. 12485, Order No. R-11462. In Coleman's case, it was approved for an effective 160-acre well spacing in its pilot. Coleman's internal well responded to the contained pilot and reached a peak gas rate of 200 Mcf gas per day [according to testimony presented in this case], while wells, which were not contained, did not increase appreciably in gas production. Coleman's pilot area originally had higher water production rates from the coals than the water production rates seen today in the Gavilan area, which is the subject of this application. This implies that the Gavilan area may need a closer well spacing in order to produce the coals and that a contained pilot is the way to test this and confirm what the computer models are saying.
- (13) The proposed increased well density will accelerate the coal de-watering process, will aid the methane desorption process, and may ultimately allow B-M-G and other owners to determine whether commercial coal gas production can be established in this area.
- (14) The evidence presented demonstrates that approval of this application will afford the applicant the opportunity to determine whether commercial gas production can be established in the Basin-Fruitland Coal Gas Pool in this area, which will allow the recovery of Fruitland coal gas reserves that may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.
- (15) The Price Federal Well No. 5 should be approved at a non-standard Fruitland Coal Gas well location near the western boundary of the SW/4 NE/4 of Section 34. This well should be simultaneously dedicated in the Basin-Fruitland Coal Gas Pool to a standard, E/2 of Section 34, spacing unit along with two other proposed wells, both to be located at standard well locations within the SE/4 and NE/4, respectively.

### IT IS THEREFORE ORDERED THAT:

(1) Benson-Montin-Greer Drilling Corporation ("B-M-G" or "applicant") in

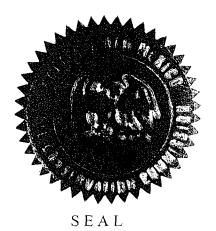
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this case is hereby permitted to implement an 80-acre, 5-spot pilot project in order to determine the commercial feasibility of producing natural gas from the Fruitland Coals in the Gavilan area of the San Juan Basin. B-M-G is permitted exceptions to the well location and well density requirements within Rule 7 of the "Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool," as established by Commission Order No. R-8768-F, as follows:

- (a) the Price Federal Well No. 5 shall be drilled at a non-standard location near the western boundary of the SW/4 NE/4 of Section 34, Township 25 North, Range 2 West, NMPM, Rio Arriba County, New Mexico; and
- (b) the Price Federal Well No. 5 shall be dedicated as the third well in a standard 320-acre Fruitland Coal gas spacing unit consisting of the E/2 of Section 34. The other two wells in the E/2 spacing unit shall be:
  - (i) the Price Federal Well No. 2 (API No. 30-039-29248) to be drilled at a standard Fruitland Coal Gas well location within the NE/4 of Section 34; and
  - (ii) the Price Federal Well No. 3 to be drilled at a standard Fruitland Coal Gas well location within the SE/4 of Section 34.
- (2) Two years after the date of this order, B-M-G shall present a comprehensive written report of pilot results to the Division in Santa Fe, to the US Bureau of Land Management in Farmington, and to all affected parties as defined in Division Rule 1210A(2). The report shall contain details on all pilot operations including well completions, well testing, pressure tests, production data, wellhead pressures, and line pressures. The report shall also contain an estimated production stream and generic economics of coal gas wells spaced on 80-acre spacing based on what the pilot is predicting.
- (3) After presenting the two-year report and if more time is needed to reach reliable conclusions, B-M-G shall file a hearing application with the Division for an extension to the pilot project with appropriate notice.
- (4) Two years after the date of this order, or subsequent date, if the pilot is extended by the Division after notice and hearing, B-M-G shall cease coal gas production from the Price Federal Well No. 5 and either use the well for purposes of pressure monitoring or plug and abandon the well.
- (5) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

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DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.

Director