

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION**

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

RECEIVED

JUN 17 2003

**APPLICATION OF THE FRUITLAND COALBED
METHANE STUDY COMMITTEE TO AMEND
RULES 4 AND 7 OF THE SPECIAL RULES AND
REGULATIONS FOR THE BASIN-FRUITLAND
COAL GAS POOL IN SECTIONS 17 AND 18,
TOWNSHIP 30 NORTH, RANGE 14 WEST, N.M.P.M.,
AND THE S/2 OF SECTION 13, S/2 OF SECTION 14,
AND SECTIONS 23, 24, 25, 26 AND 35, TOWNSHIP
30 NORTH, RANGE 15 WEST, N.M.P.M., SAN JUAN
COUNTY, NEW MEXICO.**

Oil Conservation Division

Case No. 13100

**CLOSING ARGUMENT AND FINDINGS AND CONCLUSIONS
(Proposed by San Juan Coal Company)**

BY THE COMMISSION:

THIS MATTER came before the New Mexico Oil Conservation Commission (the "Commission") on June 4, 2003 at Santa Fe, New Mexico. The Commission, having considered the evidence, testimony, and the record,

FINDS AND CONCLUDES:

PROCEDURE

1. By Order No. R-8768-C, entered in Case No. 12888, the Oil Conservation Division partially granted an application by the Coalbed Methane Study Committee, to allow infill drilling in the "low productivity area" of the Basin-Fruitland Coal Gas Pool (the "Pool"). San Juan Coal Company ("San Juan") and Dugan Production Corp. ("Dugan") were parties to the proceedings before the Division. San Juan appealed Order

No. R-8768-C to the Commission *de novo* pursuant NMSA 1978 §70-2-13, limited to the acreage described in this application. By Order No. R-8768-E, the Commission (a) bifurcated Case No. 13100 from Case No. 12888 (*de novo*), (b) took administrative notice of the proceedings in Case No. 12734 (*de novo*) before both the Commission and the Secretary of the Energy, Minerals and Natural Resources Department (the “Secretary”), (c) took administrative notice of the proceedings before the Commission in Case No. 12888 (*de novo*), and (d) denied the Motion in Limine filed by BP America Production Company and Burlington Resources Oil & Gas Company LP.

2. San Juan asserts in this proceeding that Order No. R-8768-C, with respect to the acreage described in this Case No. 13100, causes waste and contravenes the public interest.

3. The Commission has jurisdiction over the subject matter and over the two parties to this proceeding, San Juan and Dugan. No other person entered an appearance herein, and there are no other parties.

4. The parties had adequate notice of the hearing and the issues to be considered, and hearing was held on June 4, 2003 in accordance with NMSA 1978 §70-2-13.

THE LEASES AND THE INFILL ORDER

5. Order No. R-8768-C allows infill drilling within the Pool, including within the following area (the “Infill Area”):

Township 30 North, Range 14 West, N.M.P.M.
Sections 17 & 18: All

Township 30 North, Range 15 West, N.M.P.M.
Section 13: S/2
Section 14: S/2

Sections 23-26: All
Section 35: All

Dugan owns interests in oil and gas leases in a portion of the Infill Area.

6. San Juan owns two federal coal leases as described on San Juan Coal Co. Exs. 2 through 5.¹ In particular, San Juan holds a federal coal lease (the “Deep Lease,” San Juan Coal Co. Ex. 2) covering the following lands:

Township 30 North, Range 15 West, N.M.P.M.
Section 13: S/2
Section 14: S/2
Sections 23-26: All
Section 35: Lots 1-4, N/2, and N/2 S/2 (All)

7. San Juan also holds a federal coal lease (the “Deep Lease Extension,” San Juan Coal Co. Ex. 3) covering the following lands:

Township 30 North, Range 14 West, N.M.P.M.
Sections 17-20: All
Section 29: All
Section 30: All
Section 31: Lots 1-4, N/2, and N /2S/2 (All)

San Juan also owns two State of New Mexico coal leases. Those leases do not cover lands directly affected by this case. San Juan operates an active coal mine, the San Juan Underground Mine, on its four leases.

8. San Juan has also expressed interest in the “Twin Peaks” area, generally to the east of the San Juan Underground Mine, but San Juan currently holds no coal leases in that Twin Peaks area. (See OCC Tr. 270-73.)

9. The Basin-Fruitland Coal Gas Pool is an unprorated gas pool and is governed by Rule 104.D(3) (NMAC 19.15.3.104.D(3)) of the Rules and Regulations of

¹ Exhibit references to San Juan exhibits or Richardson Operating Company (“Richardson”) exhibits are for those submitted at the hearing before the Secretary on February 10, 2003. Transcript references are to the Commission hearing in Case No. 12734 (*de novo*) (“OCC Tr.”), or to the Secretary’s hearing (“Feb. 10 Tr.”). References to Dugan exhibits or witnesses are to the June 4, 2003 hearing in Case No. 13100.

the Oil Conservation Division. Rule 104.D(3) permits one well to be located within each 320 acre spacing unit. The Pool is also governed by the “Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool” established in Order No. R-8768, as amended by Orders Nos. R-8768-A, R-8768-B, and Order No. R-8768-C. The Pool Rules, as amended, require 320 acre spacing but allow one well per quarter section. Wells must be no closer than 660 feet to a quarter section line nor closer than 10 feet to any interior quarter-quarter section line or subdivision inner boundary. Before Order No. R-8768-C was entered, only one Fruitland Coal well was allowed per 320 acre spacing unit in the Pool.

10. There are approximately 60 existing or planned wells in the Deep Lease and Deep Lease Extension. Approximately half of these are “deep” wells, completed in formations below the base of the Pictured Cliffs formation. These wells are not fractured in the coal, and thus are not harmful to the coal formation and pose a lesser threat to mining. In addition, these deeper wells are either plugged and abandoned, or are marginally productive. Thus, San Juan will likely be able to mill out the casing and mine through these wells when the longwall miner approaches them.

11. The kinds of wells of concern in this case are Fruitland Coal wells and Pictured Cliffs wells. Order No. R-8768-C allows two Fruitland Coal wells per half section (four per section), and current Division rules allow four Pictured Cliffs wells per section. Dugan has proposed additional Fruitland Coal and Pictured Cliffs wells in the Deep Lease and Deep Lease Extension. (See Dugan Ex. 1 and Richardson Ex. A-1.)

12. The Pictured Cliffs and Fruitland Coal formations can be developed independently of each other, resulting in eight Pictured Cliffs and Fruitland Coal wells

per section. (See Public Comment Ex. 1 (Letter of Dugan to the Secretary.)) At this time, there are only thirteen Fruitland Coal wells and several Pictured Cliffs wells in the eight sections covered by this case. (See Testimony of J. Alexander and K. Fagrelus.) Thus, there is a potential for a substantial number of additional Fruitland Coal and Pictured Cliffs wells in the Infill Area, which will have a severe effect on San Juan's Underground Mine.

THE SAN JUAN UNDERGROUND MINE

13. San Juan has operated surface coal mines in the Farmington, New Mexico area for decades, and in October 2002, it began underground longwall mining at the San Juan Underground Mine. The San Juan Underground Mine will replace the existing surface mines as the sole source supply for the San Juan Generating Station ("SJGS"). San Juan will use primarily a longwall mining system to mine coal. The longwall mining system is an enormous piece of equipment (1000 feet long), which mines a "panel" of coal 1000 feet wide, 13 feet thick, and up to almost 2 miles long. (OCC Tr., Testimony of L. Woome; Feb. 10 Tr. 88-89, San Juan Coal Company Exs. 12 and 15.)

14. The San Juan Underground Mine involves an initial capital investment of approximately \$150 million, with additional investments planned over time. San Juan plans to employ over 300 people in the Underground Mine and associated operations when in full production, with an annual payroll of about \$33 million. (See San Juan Coal Co. Ex. 8.)

15. San Juan plans to extract over 100 million tons of coal from the Underground Mine through the year 2017 under the current coal sales agreement with SJGS. Those coal sales will yield about \$250 million in royalty from the federal leases

(based on the current underground royalty rate of 8%). One-half of this royalty is payable to the State of New Mexico under applicable federal statutes. See 30 U.S.C. §191. In addition, coal production from the two state coal leases is expected to generate an additional \$25 million in royalty revenue to the New Mexico Commissioner of Public Lands or the State Land Office. Preserving these benefits is in the public interest. (See San Juan Coal Co. Ex. 9 and testimony of Lynn Woome, OCC Tr. 270-273; Feb. 10 Tr. 73-76 (Statement of Mr. William Real, Senior Vice President, Public Service Company of New Mexico).) There is also the possibility of coal mining beyond 2017, especially in the “Twin Peaks” area immediately east of the existing coal leases, which could result in additional coal royalty.

16. Generally, the San Juan Underground Mine is designed so that mining occurs in a sequence that begins in the west of the San Juan coal lease area, and generally proceeds east. The economic viability of the Underground Mine depends on the systematic, uninterrupted development of the coal reserve pursuant to a mine plan approved by the Mining and Minerals Division of this Department in 1999. (See OCC Tr. 273-84; San Juan Coal Co. Exs. 7 and 10; Feb. 10 Tr. 84-88, 96-100.)

PROTECTION OF THE PUBLIC INTEREST

17. Under NMSA 1978 §70-2-26, the Energy, Minerals and Natural Resources Department must protect “the public interest.” The Oil and Gas Act does not define the term “public interest.” However, both §70-2-26 and applicable case law provide ample guidance to determine whether the Order No. R-8768-C contravenes the public interest. Based on the record in this proceeding, three factors are particularly material.

18. First, §70-2-26 specifically provides that in considering the public interest “due regard for the conservation of the state’s oil, gas, and mineral resources” must be considered. NMSA 1978 §70-2-26 (emphasis added). In conducting the present review, consideration (or due regard) must be given not just of mineral resources owned by the State, but of all mineral resources in New Mexico. Coal is a mineral resource, and the coal resource at San Juan Underground Mine is valuable, with its royalty stream and other economic and employment benefits far exceeding the value and royalty of the gas resource found within the San Juan Underground Mine area.

19. Second, in addition to giving due regard to the conservation of all mineral resources, the public interest clearly includes the economic interests of the public. The public has strong economic interests in the generation of benefits in the form of royalty, taxes, and employment from the production of minerals. Order No. R-8768-C contravenes this economic interest because it favors production of the far less valuable resource (coal bed methane (“CBM”)) at the expense of a far more valuable, proven reserve (coal). As a result, the public would be deprived of significant economic benefits as described in San Juan Coal Co. Ex. 13. (See also OCC Tr. 270-73.)

20. Third, in addition to giving due regard to all mineral resources and economic interests, the public interest includes protection of health and safety. Order No. R-8768-C is contrary to health and safety considerations because drilling and recompletion and fracturing of the additional infill wells and the associated fracturing of the coal and adjoining strata create conditions in the mine that threaten the safety of the miners, the mine, and possibly even other CBM wells in the event of fire caused by spontaneous combustion.

21. The Commission, in Case No. 12734 (*de novo*) determined that consideration of the public interest is beyond the scope of its jurisdiction under the New Mexico Oil and Gas Act. Order No. R-11775-B, ¶64. The Commission also expressly refused to give “due regard” to conservation of coal, and determined that it lacks jurisdiction to consider the waste of coal. Order No. R-11775-B, ¶¶62 and 64. San Juan submits that the Commission should consider the public interest, conservation of all mineral resources, and waste of coal. The Commission should also discharge its responsibility to consider the factors that NMSA 1978 §70-2-17(B) requires it to consider.

CONFLICT BETWEEN COAL AND CBM DEVELOPMENT

22. San Juan has valid concerns about the compatibility of the development of CBM by Dugan in advance of San Juan’s development of the coal itself. As Lynn Woomer explained, San Juan initially thought that a good solution to the conflict between coal and gas development was for gas development to occur ahead of mining. However, upon further study, San Juan concluded that CBM wells and associated fracturing of the coal with those wells in advance of mining raised serious safety concerns, if pursued. (OCC Tr. 317-18, 361-73; San Juan Coal Co. Exs. 16-18.)

23. Many of these safety concerns stem from instability in the geologic formations at and immediately above the roof, and at and immediately below the floor, in the San Juan Underground Mine. San Juan did not fully appreciate the full ramifications of this instability until it gained experience in working underground in this local area. The formations are brittle, consist of water-soluble shales and mudstones, and even in their natural state are relatively unstable. They can become more unstable through

hydraulic fracturing. Dr. Steven L. Bessinger, Ph.D., testified that water injected by hydraulic fracturing can effectively turn those mudstones into an unstable mud in a short period of time, and he provided an effective demonstration of that at the February 10 hearing. (Feb. 10 Tr. 103-07, 115.) Dr. Bessinger also testified that the hydraulic fractures themselves could destabilize mine roof and floor in the coal formation and the formations above and below it. (Feb. 10 Tr. 106-08.) These unstable roof and floor conditions, exacerbated by hydraulic fracturing, pose significant risks of roof and floor failure that could lead to serious consequences for underground workers and equipment, and these conditions also increase the potential for catastrophic spontaneous combustion events. (Feb. 10 Tr. 101-20.)

24. Dr. Bessinger established that the risk that hydraulic fracturing activities would create unstable roof and floor conditions is particularly pronounced because, owing to the relatively shallow depth of the coal at San Juan Underground Mine, hydraulic fractures at the San Juan mine would likely propagate in a horizontal, not vertical, direction. Id. These horizontal fractures create a broader and more deleterious effect on the roof conditions for underground mining than would vertical fractures of the type described in the paper of William Diamond. (Richardson Ex. C-28.) Dr. Bessinger's testimony demonstrates that the paper by Mr. Diamond deals primarily with vertical fractures, a common result of the hydraulic fracturing of deeper coal formations. (Feb. 10 Tr. 116-18.) Given the importance of local or specific geologic conditions, the Diamond paper does not provide substantial basis for questioning San Juan's concerns about instability in roof and floor conditions at San Juan Mine created by hydraulic fractures. (Feb. 10 Tr. 116-19.)

25. Affirming Order No. R-8768-C without prohibiting the use of hydrofracture completion techniques would allow Dugan to fracture the coal, giving rise to roof instability as described by Dr. Bessinger.

26. The increased risk of roof failures increases the health and safety risks to San Juan's employees and also increases the risk of a catastrophic event that could bury or strand San Juan's longwall mining system. This could result in the need to abandon all or part of the longwall mining system, costing in the range of \$40 million to \$60 million, and could jeopardize the continuous coal supply to the San Juan Generating Station. (Feb. 10 Tr. 112-15.)

27. Fractures in the coal seam and mine roof can give rise to safety and operational concerns are permanent, and would remain present even if the well bore itself is plugged and abandoned. (Feb. 10 Tr. 120-22; San Juan Coal Ex. 64.)

28. In addition to hydraulic fracturing, another problem for coal development caused by gas operations is the existence of steel well casings in the coal seam. The federal Mine Safety and Health Administration ("MSHA") regulations require that before mining operations can approach to within 150 or 300 feet of an active well bore (300 or 600 ft. in diameter, depending upon interpretation of MSHA regulations), the well bore must be plugged and abandoned according to MSHA requirements. (Feb. 10 Tr. 120-22; see also OCC Tr. 283-96; San Juan Coal Co. Exs. 13, 66.)

29. Upon approaching an active well bore that has **not** been completed and fractured in the coal seam, San Juan is faced with two general alternatives – to bypass the active well bore according to MSHA requirements or to enter into a buyout arrangement with the well's operator. The buyout agreement could take several forms. If San Juan is

able to reach a buyout agreement, it can plug and abandon the well and mine through the area, avoiding the need to bypass that coal. If San Juan is unable to reach a buyout agreement, it must bypass and leave unmined substantial blocks of coal. (See Id.; see Feb. 10 Tr. 122-24.)

30. Upon approaching a **well that has been fractured in the coal**, San Juan's buyout or bypass alternatives are more complicated than its alternatives upon encountering a well that has not been fractured in the coal. (See Feb. 10 Tr. 121-23; San Juan Coal Co. Ex. 64.) When encountering an area that has been fractured, unstable roof conditions created by the fractures may limit San Juan's ability to mine through the area because of concerns about roof falls, even if it could negotiate a buyout. (See Id.)

31. To date, Dugan's and San Juan's negotiations for buyout or accommodation have not succeeded. Allowing additional infill wells will increase the number of wells that San Juan must bypass if it fails to reach a buyout agreement. Order No. R-8768-C, allowing an increase in the number of wells, contravenes the public interest because: (1) it does not give due regard for the conservation of the coal resource (by requiring great quantities of coal to be bypassed); (2) it is against the public interest in regard to health and safety considerations by creating unsafe conditions for underground workers; and (3) it is against the public's economic interest because it results in the loss of coal royalty which is far in excess of the value of the gas royalty associated with the well to be bypassed.

32. If the coal surrounding a single well bore must be bypassed by the longwall mining system, San Juan estimates the amount of coal left unmined is approximately 1,000 feet long and either 300 feet or 600 feet wide, depending upon

interpretation of MSHA rules. At 600 feet wide, the coal block contains approximately 330,000 tons of coal, and at a royalty rate of 8%, the royalty value alone is \$800,000. At 300 feet wide, the value is half of that. (See San Juan Coal Co. Ex. 13.) However, regardless of the dimension of any individual block of bypassed coal, if there are too many well bores in a longwall panel, it could cause portions of a coal panel or an entire coal panel (10,000 feet x 1000 feet x 13 feet) to be bypassed, with an attendant potential royalty loss for an entire panel of over \$13 million. (Id.) This loss of royalty and coal is not in the public interest, and it is exacerbated by the economic loss caused by the down time of the longwall mining system while moving around a well or wells. (See Feb. 10 Tr. 121-25.) Dr. Bessinger testified that in addition to waste of coal, gas development and infill wells could otherwise impede mining operations, causing increased costs and delays in mining that could lead to interruption of coal supply. (Feb. 10 Tr. 120-25.) These events could lead to higher costs and a less secure supply of electricity for PNM's customers – a result that is not in the public interest. (Feb. 10 Tr. 73-76.)

33. The contravention of the public interest is exacerbated by the economic loss caused by the down time of the longwall mining system while moving around a well or wells. (Feb. 10 Tr. 125.)

34. The Commission's discussion in ¶24 of Order No. R-117755-B (in Case No. 12734 (*de novo*)) of the relationship between infill drilling and MSHA regulations is misplaced. First, the conservation of the state's mineral resources is not addressed by MSHA regulations; those regulations address safety, not conservation, and require that the coal around active oil and gas wells be bypassed. (See 30 C.F.R. § 75.1700; Feb. 10 Tr. 120-21.) This bypass may serve MSHA's safety requirements, but it does not

conserve coal. Indeed, it wastes coal. This Department in this proceeding does not need to engage in regulation of mine safety. MSHA's charge to do so does not overlap or conflict with our responsibility to determine whether infill wells should be allowed.

35. Contrary to Order No. R-11775-B, ¶64, the conflict here is “between oil and gas producers and coal miners.” It is not a conflict between “San Juan’s obligation to its workers under the Act and MSHA regulations and its plan of operations.” (*Id.*) The MSHA regulations may address certain safety matters, but those regulations only apply when a well is drilled. If additional infill wells are not allowed, San Juan does not have to bypass valuable coal reserves in pursuing the development of the coal.

36. The maximum coal and gas resource recovery can be achieved utilizing gas recovery methods that do not have negative impacts on mining as described by Dr. Bessinger. Utilizing conventional gas wells with hydraulic fracturing in and around the coal seam significantly increases the probability that coal will be lost.

RECOVERY OF GAS BEFORE, DURING AND AFTER MINING

37. San Juan is developing a pilot project to drill horizontal bore holes into the face of its target coal seam (the “8 Seam”) running parallel with the coal seam to drain methane in advance of coal mining. San Juan has the right to vent gas in its mining operations. The project is described in the letter to Richardson Operating Company, which is San Juan Coal Co. Ex. 69. A similar letter was sent to Dugan. The letters do not state that commercial quantities of gas exist or will be recovered. However, they do provide that if gas is collected and if it is safe, economic, and practicable, San Juan would like to make that gas available for gathering and sale by the oil and gas operator.

38. The horizontal bore holes that San Juan plans to drill as described in San Juan Ex. 69 could be thousands of feet long running through the coal and would expose thousands of feet of coal surface area as compared to the intersection of approximately 13+ feet in the 8 Seam in a conventional CBM drilling and completion technique. Dr. Bessinger testified that the boreholes would not be fractured in the coal and so would not pose the problems for mining that conventional CBM wells pose. The degassing would meet MSHA safety regulations and avoid spontaneous combustion. (Feb. 10 Tr. 134-136.)

39. After the longwall miner mines through an area of the mine, a rubble of coal and other rocks is left behind in what is known as “gob.” Dr. Bessinger explained that it may be possible to produce commercial gas from gob vent boreholes and that mining of coal leaves behind gas in the gob. (Feb. 10 Tr. 139-141.)

40. Using the horizontal bore holes and producing methane using this technique as San Juan proposes in its letters to Richardson and Dugan (See San Juan Ex. 69) may permit production of CBM in advance of mining if economic, and it would not require that coal be bypassed under applicable MSHA regulations. This method may allow the production of both resources and is in the public interest because: (1) it gives due regard for all mineral resources; (2) it enhances economic recovery; and (3) enhances safety by allowing gas to be produced without fractures and other problems associated with CBM wells. Conversely, allowing gas production from conventional fractured coal bed methane wells to proceed at the expense of the coal reserve allows the production of only one resource, and the less valuable one at that, and therefore contravenes the public interest. Even if development of both resources were not feasible, development of the

more valuable coal resource in favor of the less valuable gas would be in the public interest.

NMSA 1978 SECTION 70-2-17(B): ECONOMIC WASTE

41. In Order No. R-8768-C, the Division failed to discharge its obligation to ascertain whether drilling infill wells would be economic and efficient, considering “economic loss caused by the drilling of unnecessary wells ... prevention of waste [and] the avoidance of the augmentation of risks arising from the drilling of an excessive number of wells.” See NMSA 1978 §70-2-17(B). Uneconomic and inefficient infill wells damage the more valuable coal resource, which the Division failed to consider.

42. Order No. R-8768-C did not determine whether wells are economically justified.

43. The desorption data presented by San Juan to the Secretary corroborates substantial evidence presented to the Commission in Case No. 12734 (*de novo*) that the CBM reserves in the San Juan Underground Mine area are not economic, and that at the very least are vastly less valuable than the coal in the 8 Seam which San Juan seeks to develop. (See, OCC Tr. 454-55, 460-64, 540-65; Feb. 10 Tr. 179-90; testimony of Dan Paul Smith; San Juan Coal Co. Exs. 44, 50-60, 74.)

44. Even if some CBM wells may be economic, the evidence also demonstrates that the CBM development drilling and completion activity will have a dramatic and detrimental effect on San Juan’s ability to mine and deliver coal safely, efficiently, and continuously to the San Juan Generating Station. There are other methods to recover CBM that are not destructive to the coal seam.

45. The practice of operators in this area is to perforate and fracture the Pictured Cliffs formation immediately below the Fruitland Coal. (Richardson Ex. B-2.) The testimony shows that the Pictured Cliffs formation itself is marginal. (Testimony of Dan Paul Smith, Feb. 10 Tr. 177-78.) In addition, although ostensibly Pictured Cliffs wells, wells perforated at the top of the Pictured Cliffs formation are actually producing from the Fruitland Coal formation. (Testimony of Paul Bertoglio, OCC Tr. 531-67.) Therefore, where there is an existing Pictured Cliffs well Dugan already has the relief it seeks.

46. The Fruitland Coal wells in this area have lives of 5-20 years, and over that time a better than average coal gas well will produce approximately \$125,000 in royalty. (Testimony of Dan Paul Smith, Feb. 10 Tr., 188-189.) This is vastly less than the royalty of \$800,000 producible from one 600 x 1,000 foot block of bypassed coal or more, if multiple blocks of coal, parts of coal panels, or entire coal panels are bypassed. (San Juan Coal Co. Ex. 13.) The royalties payable on a bypassed block of coal are payable in 6-9 months.

BLM PROCEEDINGS AND THE PRIORITY OF LEASE RIGHTS

47. It is not the function of the Commission to (i) determine the priority of the various coal and gas leases implicated here, (ii) interpret leases, or (iii) address other such matters that are more properly before the BLM. It would be improper to decide issues concerning which of the competing resource development interests or leases may have priority over the other.

48. The BLM is the land management agency with jurisdiction over coal leasing and oil and gas leasing of the lands subject to San Juan's federal coal leases and

Dugan's federal oil and gas leases. On the other hand, the Energy, Minerals and Natural Resources Department, through the Oil Conservation Division (and upon review to the Commission and the Secretary) is the agency with jurisdiction over questions of well spacing generally, and specifically, whether the infill well application should be granted. This Department's jurisdiction in this regard extends to federal, state, and fee lands.

WASTE OF COAL

49. The Commission's Order must consider the waste of coal that would result from the actions of oil and gas producers taken pursuant to Order No. R-8768-C.

50. Under the Oil and Gas Act, "waste" is defined to include not only waste of oil and gas but also waste of other minerals. The Commission previously determined that "waste" protected by the Oil and Gas Act is defined in terms of "crude petroleum oil or natural gas," not coal. (Order, ¶ 62.) This conclusion disregards the actual language of the Oil and Gas Act. Waste is defined at NMSA 1978 §70-2-3: "As used in this act, the term 'waste,' in addition to its ordinary meaning shall include:" (Emphasis added.) As San Juan has pointed out, the ordinary meaning of waste in Webster's Dictionary specifically includes a "disused part of a coal mine." Webster's Third New International Dictionary (1981 Ed.). An erroneous interpretation of the term "waste" contravenes the public interest. If the legislature had intended to limit the definition of waste to oil and gas it would have more clearly done so, as it did, for example, in the Oil and Gas Act's definition of "correlative rights" in the NMSA 1978 §70-2-33.H

PREVENTION OF INJURY TO NEIGHBORING PROPERTIES

51. Under NMSA 1978 §70-2-12.B(7), the Division is authorized to "require wells to be drilled, operated and produced in such manner as to prevent injury to

neighboring leases or properties.” Fracturing of wells will cause serious injury to the coal resource resulting in roof instability and increasing the risk of spontaneous combustion. The coal bed and the gas within it are neighboring estates, as has been recognized in Amoco Production Company v. Southern Ute Indian Tribe, 526 US 865, 879, 119 S.Ct. 1719, 1727 (1999). Order No. R-8768-C contravenes the public interest because it encourages damage of the coal.

PREVENTION OF FIRES

52. Under NMSA 1978 §70-2-12.B(5), the division is authorized to make orders to “prevent fires.” San Juan raises serious safety concerns regarding the effect of additional well bores in its coal seam and associated fracturing on the safety of the Underground Mine. A fire at the mine could lead to the loss of life and the loss of all or part of the San Juan Underground Mine and its associated coal reserves.

53. Order No. R-8768-C contravenes the public interest insofar as it did not find that granting the application as to the Infill Area would threaten “injury to neighboring leases or properties” under NMSA 1978, § 70-2-12(B)(7); in fact, it encourages damage to the coal.

IT IS THEREFORE ORDERED THAT:

1. Granting infill drilling in the Infill Area would cause waste and contravene the public interest.

2. Order No. R-8768-C is hereby reversed insofar as it covers the Infill Area defined herein.

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

Respectfully submitted,



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June 16, 2003

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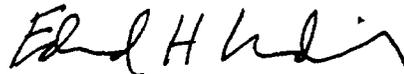
OIL CONSERVATION
DIVISION

Re: *Fruitland Infill Case*
NMOCD Case No. 13100; De Novo; Order Nos. R-8768-C, D, and E

Dear Ms. Davidson:

In accordance with Pre-Hearing Order No. R-8768-D dated May 9, 2003, please find enclosed one original and three copies of the *Closing Statement of Dugan Production Corporation* and the *Findings of Fact and Conclusions of Law Proposed by Dugan Production Corporation* regarding the above-referenced case.

Sincerely,



Edmund H. Kendrick

EHK:dho

Enclosures

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

APPLICATION OF THE FRUITLAND COALBED METHANE STUDY COMMITTEE TO AMEND RULES 4 AND 7 OF THE SPECIAL RULES AND REGULATIONS FOR THE BASIN-FRUITLAND COAL (GAS) POOL IN SECTIONS 17 AND 18, TOWNSHIP 30 NORTH, RANGE 14 WEST, AND THE S/2 OF SECTION 13, THE S/2 OF SECTION 14, AND SECTIONS 23, 24, 25, 26 AND 35, TOWNSHIP 30 NORTH, RANGE 15 WEST, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO.

CASE NO. 13100
DE NOVO
ORDER NOS. R-8768-C, D, & E

**CLOSING STATEMENT OF
DUGAN PRODUCTION CORPORATION**

San Juan Coal Company ("SJCC") is attempting to carve out an eight-section "island" in the Basin-Fruitland Coal (Gas) Pool where an optional infill well within each 320-acre spacing unit would not be allowed. Such infill drilling is currently allowed throughout the entire Low Productivity Area ("LPA") of the Pool. The only party opposing such infill drilling is SJCC. There appears to be no opposition to such infill drilling in the High Productivity Area ("HPA").

In Case No. 12734 brought by Richardson Operating Company ("Richardson"), the Oil Conservation Commission (the "Commission") has already considered extensive testimony by SJCC opposing infill drilling in a 15-section area. That area adjoins the eight sections ("Eight-Section Area") at issue in this case. By Order No. R-8768-E in Case No. 12888, the Commission has taken administrative notice of the entire record in Case No. 12734. By Order No. R-11775-B in Case

No. 12734, the Commission has granted Richardson's application for 160-acre drilling. For the same reasons why the Commission granted that application, the Commission should grant the present application for the Eight-Section Area. SJCC has not presented any testimony showing any greater justification for denying 160-acre drilling in the Eight-Section Area than it presented for the 15-section area in Case No. 12734.

Throughout its testimony and exhibits in this hearing, Dugan has demonstrated that 160-acre drilling in the Eight-Section Area is effective and efficient as well as economically viable. Dugan has actively drilled and operated Fruitland Coal wells for many years and plans to pursue such development aggressively in the future. Infill wells will enable water to be removed more quickly and will increase total recovery of the natural gas resource. Denial of Dugan's ability to develop infill wells in the Eight-Section Area would also subject Dugan to a loss of correlative rights. The Eight-Section Area is an "island" surrounded by a "sea" of 160-acre infill spacing. 320-acre spacing would deprive Dugan of its rights to effectively produce the natural gas resource.

In contrast, SJCC is unconvincing in its contention that recovery of gas from Fruitland Coal wells in the Eight-Section Area is somehow uneconomic. As demonstrated in Dugan's testimony and exhibits, Dugan is a profit-making enterprise that is dedicated to aggressive development of these wells. The Company has done so in the past and plans to continue to do so in the future.

The crux of SJCC's opposition to 160-acre infill development in the Eight-Section Area appears to have nothing to do with the issue of defining well spacing appropriate for effective, efficient and economic development of the gas resource. SJCC's witness admitted as much by agreeing that 160-acre drilling spacing is appropriate. See Transcript, pgs. 57 and 64. Rather, SJCC has argued that 160-acre spacing is inappropriate based on a number of other factors, including alleged tax and royalty benefits from coal production, alleged economic benefits from coal production compared to alleged value of gas production, alleged mine safety concerns caused by gas production, and alleged waste of coal resources caused by gas production. SJCC made these extensive arguments in Case No. 12734. Both SJCC's arguments and the Commission's rejection of those arguments are stated in Order No. R-11775-B in Case No. 12734 and are consequently part of the record in this Case No. 13100. SJCC's arguments should be rejected in this Case No. 13100 as they were in Case No. 12734.

Unlike the situation of potash mining, where the Commission is subject to certain statutory requirements, the Commission is not authorized by statute to explore the coal mining issues raised by SJCC. Even if the Oil and Gas Act allowed the Commission to conduct the inquiry urged by SJCC, the Commission would be precluded by the doctrine of collateral estoppel. SJCC has already made these arguments before the Bureau of Land Management ("BLM") at two levels, before the Farmington Field Office and before the State Director, and has lost both times. See the Decision of the BLM State Director, Dugan Exhibit 4. It is generally

accepted that the issues of fact litigated in a prior agency adjudication may be precluded in subsequent adjudications. See *Restatement (Second) of Judgments*, §83 cmt. a (1980); *Sunshine Anthracite Coal Co. v. Adkins*, 310 U.S. 381, 402-404 (1940); *Safir v. Gibson*, 432 F.2d. 137, 142-143 (2d Cir.1970); *Holmberg v. Alaska Division of Risk Management*, 796 P.2d 823, 825-826, (AK 1990). Further, the federal view and majority view among states is that a pending appeal does not prevent application of collateral estoppel. See *Ruyle v. Continental Oil*, 44 F.3d 837, 846 (10th Cir.1994); *Restatement (Second) of Judgments*, §13 cmt.f (1980).

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

APPLICATION OF THE FRUITLAND COALBED METHANE
STUDY COMMITTEE TO AMEND RULES 4 AND 7
OF THE SPECIAL RULES AND REGULATIONS FOR THE
BASIN-FRUITLAND COAL (GAS) POOL IN SECTIONS
17 AND 18, TOWNSHIP 30 NORTH, RANGE 14 WEST,
AND THE S/2 OF SECTION 13, THE S/2 OF SECTION 14,
AND SECTIONS 23, 24, 25, 26 AND 35, TOWNSHIP 30
NORTH, RANGE 15 WEST, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO.

CASE NO. 13100
DE NOVO
ORDER NOS. R-8768-C, D, & E

FINDINGS OF FACT AND CONCLUSIONS OF LAW
PROPOSED BY DUGAN PRODUCTION CORPORATION

FINDINGS OF FACT

Procedural History.

1. This matter came before the Oil Conservation Commission (hereinafter referred to as "the Commission") for an evidentiary hearing on June 4, 2003, in Santa Fe, New Mexico.

2. The decision giving rise to this de novo proceeding is Order No. R-8768-C in Case No. 12888, issued by the Oil Conservation Division (hereinafter referred to as "the Division") on October 15, 2002.

3. Order No. R-8768-C responded to the application of the Fruitland Coalbed Methane Study Committee ("Committee") to amend Rules 4 and 7 of the Special Rules and Regulations for the Basin-Fruitland Coal (Gas) Pool.

4. Order No. R-8768-C defined the Low Productivity Area ("LPA") and the High Productivity Area ("HPA") of the pool and made certain decisions authorizing infill drilling in each of those areas of the pool.

5. Ordering Paragraph 4 of Order No. R-8768-C amended Rule 7 of the Special Rules and Regulations for the Basin-Fruitland Coal (Gas) Pool by adding a subsection allowing an optional infill well on each 320-acre gas spacing unit within the LPA.

6. Applications for hearing de novo were filed by BP America, Inc. on November 13, 2002 and by Burlington Resources Oil & Gas Company on November 22, 2002. These applications reflect objections to the Division's decision with respect only to the HPA and not to the LPA.

7. An application for hearing de novo was filed by San Juan Coal Company ("SJCC") on November 14, 2002 only insofar as the following lands within the LPA are involved:

Township 30 North, Range 14 West, N.M.P.M.

Section 17: All

Section 18: All

Township 30 North, Range 15 West, N.M.P.M.

Section 13: South ½

Section 14: South ½

Section 23: All

Section 24: All

Section 25: All

Section 26: All

Section 35: All

This area within SJCC's coal leases is referred to herein as the "Eight-Section Area". These sections are distinct from the 15 sections within or adjacent to SJCC's coal leases covered by the application of Richardson Operating Company ("Richardson") in Case No. 12734.

8. By Order No. R-8768-E dated May 30, 2003, the Commission bifurcated Case No. 12888 into two separate "cases". Whereas the applications for hearing de novo by BP America, Inc. and Burlington Resources Oil & Gas Company continue to be heard by the Commission as Case No. 12888, the application for hearing de novo by SJCC is being heard by the Commission as Case No. 13100. Whereas Case No. 12888 continues to consider the Committee's application for 160-acre infill drilling for both the entire HPA and the LPA with the exception of the Eight-Section Area and the 15-section Richardson area, this Case No. 13100 is considering only the Committee's application for 160-acre infill drilling in the Eight-Section Area.

9. By Order No. R-8768-E, dated May 30, 2003, the Commission also took administrative notice of the entire record in Case No. 12888. Thus the entire record in Case No. 12888 is part of the record in this Case No. 13100.

10. By Order R-8768-E, dated May 30, 2003, the Commission also took administrative notice of the entire record in Case No. 12734, which involves the application of Richardson for 160-acre infill drilling on a 15-section area adjacent to the Eight-Section Area and within or adjacent to SJCC's coal leases. Thus the entire record in Case No. 12734 (including, without limitation, the transcripts, exhibits, filings, findings and order of the Commission, as well as the record before the Secretary of the Energy, Minerals and Natural Resources Department) is part of the record in this Case No. 13100.

11. By Order No. R-8768-C in Case No. 12888, the Division revised Rule 7 of the Special Rules and Regulations for the Basin-Fruitland Coal (Gas) Pool to allow

one 160-acre infill well per 320-acre spacing unit in the LPA, including the Eight-Section Area. Certain testimony and exhibits related to Order No. R-8768-C became part of the record of the Commission in Case No. 12888. Consequently that testimony and those exhibits are part of the record in this Case No. 13100. The Commission finds that such testimony and exhibits provide sufficient support to conclude that 160-acre infill drilling in the Eight-Section Area should be granted.

12. By Order No. R-11775-B in Case No. 12734, the Commission granted Richardson's application for 160-acre infill drilling on 15 sections of land within or adjacent to SJCC's coal leases and adjacent to the Eight-Section Area in this Case No. 13100. Because there is no geologic basis to distinguish the 15-section Richardson area from the Eight-Section Area in this Case No. 13100, and because SJCC's arguments in opposition to 160-acre infill drilling are equally unavailing in this Case No. 13100 as in Case No. 12734, the Commission finds that the application for 160-acre infill drilling in the Eight-Section Area should be granted.

Dugan Testimony.

13. Testimony and exhibits presented by Dugan Production Corporation ("Dugan") provide further support for the conclusion that the application for 160-acre infill drilling in the Eight-Section Area should be granted.

14. Dugan is currently operating 132 Fruitland Coal wells, all within the LPA, six of which are 160-acre infill wells. (Dugan's Exhibit 1; Transcript, p. 14.)

15. Dugan drilled its first Fruitland Coal well in 1972, has emphasized operation of Fruitland Coal wells for at least the last five to ten years, and has gained extensive experience with techniques of drilling and operating Fruitland Coal wells. (Transcript, pgs. 12-14.)

16. Dugan has substantially increased its production of natural gas from Fruitland Coal wells since the early 1990's. (Dugan's Exhibit 2; Transcript, pgs. 16, 17.)

17. Dugan believes there is a great deal of potential in Fruitland Coal wells, intends to pursue future development of these wells, and will commit a large part of its resources to such development. (Transcript, pgs. 17, 18.)

18. Dugan has developed infrastructure, including gas gathering, water gathering, gas compression and water disposal, to support existing and future Fruitland Coal well development. This infrastructure will make the addition of infill wells on 160-acre spacing less expensive than the original wells on 320-acre spacing. (Transcript, pgs. 18, 19.)

19. Dugan is operating 13 Fruitland Coal wells, three of which are infill wells on 160-acre spacing, in the Eight-Section Area. (Exhibit 3; Transcript, p. 24.)

20. There are approximately a total of 36 well bores in the Eight-Section Area, representing 13 Fruitland Coal wells and 23 wells in deeper formations. (Transcript, pgs. 31-34.)

21. There is no petroleum-engineering reason to distinguish for infill purposes between Fruitland Coal wells in the Eight-Section Area and other Fruitland Coal wells in the LPA. (Transcript, p. 24.)

22. Dugan's correlative rights concerning the development of Fruitland Coal gas in the Eight-Section Area would be adversely affected by a denial of the right to drill 160-acre infill wells in this area surrounded by sections in the LPA where 160-acre wells are allowed. (Transcript, pgs. 24, 25.)

23. Dugan, as a member of the Committee, has supported 160-acre spacing for Fruitland Coal wells since 1988 or earlier. (Transcript, p. 37.)

24. Dugan believes 160-acre spacing for Fruitland Coal wells is appropriate for a number of reasons, including (i) the inability to dewater some coal wells on 320-acre spacing; (ii) the considerable variation of production characteristics that enable gas to be produced on 160-acre spacing that cannot be recovered on 320-acre spacing; and (iii) the justifications for 160-acre spacing for wells producing more than two million cubic feet per day in the HPA that are even more compelling for lower producing wells in the LPA. (Transcript, pgs. 39, 40.) The Commission concurs that these reasons support 160-acre spacing in the Eight-Section Area and that such infill drilling would result in the recovery of incremental reserves and not merely accelerate the rate of gas production.

25. SJCC objected to five Fruitland Coal wells proposed by Dugan and approved by Bureau of Land Management ("BLM") Farmington Field Office ("FFO") within the Eight-Section Area. Two of these Fruitland Coal wells were infill wells, each representing a second well on a 320-acre spacing unit. The BLM State Director, by decision dated March 10, 2003, upheld the approval of these five Fruitland Coal wells by the BLM FFO. (Dugan's Exhibit 4; Transcript pgs. 40-44.)

26. Among the arguments advanced by SJCC and rejected by the BLM State Director regarding the five Fruitland Coal wells (two of which are infill wells) were (i) an alleged superiority of royalty, tax and economic benefits derived from coal mining over similar benefits from coalbed natural gas development; and (ii) other alleged public interest concerns, such as those related to public health and safety. (Dugan's Exhibit 4.) Therefore SJCC has received the benefit of consideration of its concerns by another forum, specifically the BLM. That forum has already considered any concerns that SJCC may have concerning the economic benefits of coal versus coalbed natural gas development as well as public health and the safety issues.

27. As stated by the Commission in Order No. R-11775-B, Case No. R-12734 (Findings 61-65), the Commission lacks jurisdiction to consider these claims of SJCC.

28. Because of low overhead, Dugan can produce Fruitland Coal wells at low-MCF-per-day rates and still be economic. Production rates that would be considered uneconomic by other operators are profitable for Dugan. (Transcript, pgs. 51-53.)

SJCC Testimony.

1. SJCC's testimony appears to agree with the application of the Committee seeking 160-acre spacing for Fruitland Coal wells in the Eight-Section Area. As stated by SJCC witness Dan Paul Smith, an employee of Netherland, Sewell and Associates, an oil and gas consulting firm: "I'll state up front that our work did support 160-acre drilling spacing for wells---". (Transcript, p. 57.) *See also* Transcript, p. 64.

2. SJCC's testimony attempting to demonstrate that recovery of gas from Fruitland Coal wells in the Eight-Section Area is somehow uneconomic (SJCC Exhibits 1, 45-47, 50, 53, 55 and 56; Transcript pgs. 54-68) is beside the point. Dugan has demonstrated that it has aggressively developed Fruitland Coal wells in the Eight-Section Area and plans to continue doing so in the future for the economic benefit of the Company. *See above findings related to Dugan Testimony.* Therefore the development of 160-acre Fruitland Coal infill wells within the Eight-Section Area is economically viable.

CONCLUSIONS OF LAW

1. The application of the Committee requesting 160-acre infill drilling of Fruitland Coal wells in the Eight-Section Area should be granted because such

drilling will prevent waste and protect correlative rights as required by the Oil and Gas Act, Section 70-2-11 NMSA 1978.

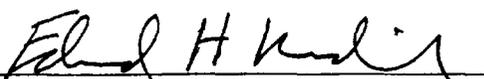
2. Testimony by Richardson in Case No. 12734, testimony by Burlington Resources Oil & Gas Company and other oil and gas companies in Case No. 12888, and testimony by Dugan in this Case No. 13100 all support the conclusion that 160-acre infill drilling of Fruitland Coal wells in the Eight-Section Area is required by the Oil and Gas Act.

3. Testimony by SJCC in Case No. 12734 and in this Case No. 13100 does not demonstrate that denial of the application of the Committee requesting 160-acre infill drilling of Fruitland Coal wells in the Eight-Section Area is necessary to prevent waste and protect correlative rights.

4. Much of the testimony of SJCC addresses the economics of coal mining versus coalbed methane development as well as mine safety. These topics are not within the jurisdiction of the Commission. SJCC has previously litigated these issues before the BLM and has lost in that forum, and SJCC should not be allowed to relitigate the same issues. The testimony of SJCC related to recoverable reserves of coalbed methane does not demonstrate that 160-acre infill drilling of Fruitland Coal wells in the Eight-Section Area would not result in the increased effective and efficient recovery of the natural gas resource.

Respectfully submitted,

MONTGOMERY & ANDREWS, P.A.

By 

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CERTIFICATE OF MAILING

I hereby certify that copies of the foregoing *Closing Statement of Dugan Production Corporation* and *Findings of Fact and Conclusions of Law Proposed by Dugan Production Corporation* were served on the following by depositing copies in the United States mail, postage prepaid, addressed as follows, this 16th day of June, 2003.

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June 16, 2003

VIA HAND DELIVERY

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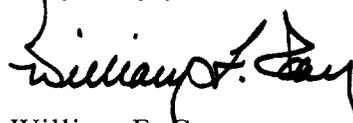
Re: Case No. 12,888 (De Novo): Application of the Fruitland Coalbed Methane Study Committee to Amend Rules 4 and 7 of Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool and for the Termination of the Cedar Hill-Fruitland and Basal Coal Pool and the Concomitant Expansion of the Basin-Fruitland Coal (Gas) Pool, Rio Arriba, San Juan, McKinley, and Sandoval Counties, New Mexico.

Dear Ms Wrotenbery:

Enclosed for filing please find the Closing Statement and Proposed Order of BP America Production Company, Burlington Resources Oil & Gas Company LP, Chevron Texaco Inc. and Williams Production Company.

By copy of this letter, this Closing Statement and Proposed Order of the Commission are being sent to Commissioners Bailey and Lee.

Very truly yours,



William F. Carr
Holland & Hart LLP

Enclosure

cc: Jami Bailey
Robert Lee

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION**

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

**APPLICATION OF THE FRUITLAND COALBED
METHANE STUDY COMMITTEE TO AMEND
RULES 4 AND 7 OF SPECIAL RULES AND
REGULATIONS FOR THE BASIN-FRUITLAND
COAL GAS POOL AND FOR THE TERMINATION
OF THE CEDAR HILL-FRUITLAND BASAL COAL
POOL AND THE CONCOMMITANT EXPANSION
OF THE BASIN-FRUITLAND COAL (GAS) POOL,
RIO ARRIBA, SAN JUAN, MCKINLEY, AND
SANDOVAL COUNTIES, NEW MEXICO.**

RECEIVED

JUL 1 - 2003

Oil Conservation Division

**Case No. 12888
De Novo**

**CLOSING STATEMENT OF
BP AMERICA PRODUCTION COMPANY,
BURLINGTON RESOURCES OIL & GAS COMPANY, LP
CHEVRONTEXACO INC.
AND WILLIAMS PRODUCTION COMPANY, LLC**

By Order No. R-8768-C, entered in Case 12888 on October 15, 2002, the Oil Conservation Division granted the recommendation of the Fruitland Coalbed Methane Study Committee to divide the Basin-Fruitland Coal Gas Pool into a High Productivity Area and a Low Productivity Area and authorized infill drilling in the Low Productivity Area. The Division denied the recommendation for approval of infill development in High Productivity Area and directed the Study Committee to obtain additional information in support of its recommendation. In response to the directive of the Division, the Study Committee obtained and studied additional information on this reservoir and on June 3 and 4, 2003, BP America Production Company, Burlington Resources Oil & Gas Company LP, ChevronTexaco Inc., Devon Energy Corporation and ConocoPhillips Company presented the results of their studies to the Oil Conservation Commission. Although different approaches were used by the companies that presented evidence to the Commission, the conclusion reached by each company was the same.

The evidence establishes that the Fruitland coal in the Basin-Fruitland Coal Gas Pool is a multi-layered reservoir that is vertically and laterally discontinuous over very short distances. These discontinuities make it impossible to completely and efficiently drain either the Low Productivity Area or High Productivity Area of this reservoir with only one well producing from each 320-acre spacing unit. These conclusions were supported by detailed geological studies of reservoir characteristics both inside and outside the High Productivity Area. The engineering evidence

supported the geological interpretation and showed differential pressure depletion of individual coal layers in the High Productivity Area as well as the Low Productivity Area. The testimony of each company presenting evidence was that without infill drilling in all portions of this reservoir waste of coalbed methane gas will occur.

The United States Geological Survey's National Oil and Gas Assessment concludes there is almost 4 TCF of undiscovered coalbed methane gas in the Fairway of the Fruitland coalbed in New Mexico and Colorado and the evidence presented to the Commission established that without infill drilling 500 BCF of coalbed methane gas will be wasted in New Mexico. The evidence is reviewed in detail in the proposed order that is attached hereto and incorporated into this Closing Statement.

The Study Committee recommended the retention of the line which divides the reservoir into a High Productivity Area and a Low Productivity Area. The evidence shows that the line (based solely on production rates) cannot separate the areas where one well may drain 320-acres from areas where one well cannot. Instead, retention of the line is recommended only to differentiate between procedural requirements applicable to operators proposing to drill in this pool. Outside the line, in the Low Productivity Area, infill development is authorized. Inside the line, in the High Productivity Area, infill drilling is also authorized but, prior to drilling, the operator of the proposed coalbed methane well must provide notice, similar to that required by Rule 1207.A(2), to affected offset parties and these parties will have the opportunity to object to the proposed well. If there is an objection, the application will be set for hearing to determine if the infill well is needed to effectively drain the subject spacing unit. This proposal is designed to prevent the drilling of unnecessary wells and to protect the correlative rights of interest owners in this pool.

Infill drilling in the High Productivity Area of the Basin-Fruitland Coal Gas Pool will result in the production of approximately 500 BCF of coalbed methane gas that otherwise will not be produced. This production will be incremental reserves, not the result of rate acceleration. Accordingly, approval of the recommendations of the Fruitland Coalbed Methane Study Committee for infill drilling throughout the Basin-Fruitland Coal Gas Pool, and the adoption of the special notice requirements within the High Productivity Area, will prevent waste, protect correlative rights and should be approved.

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION**

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

**CASE NO. 12888
ORDER NO. R- 8768-F
DE NOVO**

**APPLICATION OF THE FRUITLAND COALBED
METHANE STUDY COMMITTEE FOR POOL
ABOLISHMENT AND EXPANSION AND TO
AMEND RULE 4 AND 7 OF THE SPECIAL
RULES AND REGULATIONS FOR THE
BASIN-FRUITLAND COAL GAS POOL FOR
PURPOSES OF AMENDING WELL DENSITY
REQUIREMENTS FOR COALBED METHANE
WELLS, SAN JUAN, RIO ARRIBA, MCKINLEY
AND SANDOVAL COUNTIES, NEW MEXICO.**

**PROPOSED ORDER OF THE OIL CONSERVATION COMMISSION
OF BP AMERICA PRODUCTION COMPANY,
BURLINGTON RESOURCES OIL & GAS COMPANY LP,
CHEVRONTEXACO
DEVON ENERGY CORPORATION, L.P., AND
WILLIAMS PRODUCTION COMPANY, LLC**

BY THE COMMISSION:

THIS MATTER came before the Oil Conservation Commission (hereinafter referred to as "the Commission") for hearing on June 3 and 4, 2003 at Santa Fe, New Mexico on the application of the Fruitland Coalbed Methane Study Committee for the abolishment of the Cedar Hill Fruitland Basal Coal Gas Pool, the expansion of the Basin-Fruitland Coal Gas Pool and amendment of Rules 4 and 7 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool, and the Commission, having considered the testimony, the record and being fully advised in the premises,

FINDS THAT:

(1) Notice has been given of the application and the hearing on this matter, and the Commission has jurisdiction of the parties and the subject matter of this application.

SUBJECT OF HEARING

(2) The applicant, the Fruitland Coalbed Methane Study Committee ("Study Committee"), seeks an order amending Rules 4 and 7 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool to authorize under certain restrictions infill drilling of up to two wells within a standard 320-acre gas proration and spacing unit by increasing the well density from the current maximum of one (1) well provided in Order R-8768, as amended, to a maximum of two (2) wells (160-acre infill) per 320-acre gas proration and spacing unit for wells located in the pool. Applicant requests the adoption of these rule changes for wells located in a "Low Productivity Area" of the pool and for special administrative procedures for infill wells in a "High Productivity Area" of the pool. Applicant also seeks the termination of the Cedar Hill Fruitland Basal Coal Gas Pool and the concomitant expansion of the Basin-Fruitland Coal Gas Pool.

NOTICE OF HEARING

(3) In compliance with Division Rule 1207 and Rule 4 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool, Burlington Resources Oil & Gas Company, LP, on behalf of the Study Committee, sent approximately 67 copies of its application to the Oil Conservation Division, including its proposed rules and notice of hearing, to operators in the Basin-Fruitland Coal Gas Pool. Notice of this case was also published in the a newspaper of general circulation in the counties were the Basin-Fruitland Coal Gas Pool is located and included on the Commission's hearing docket which was mailed to approximately 300 operators in New Mexico.

PARTIES

(4) BP America Production Company ("BP America"), Burlington Resources Oil & Gas Company LP ("Burlington"), ChevronTexaco ("ChevronTexaco"), Devon Energy Corporation, LP ("Devon"), and ConocoPhillips Company ("Phillips") appeared and presented evidence at the hearing in support of the recommendation of the Study Committee for field-wide infill development.

(5) San Juan Coal Company ("San Juan") and Dugan Production Corporation ("Dugan") also appeared in the case through legal counsel. San Juan and Dugan sought to present evidence on the propriety of concurrent coal mining and coalbed methane development in an eight

section area on the western edge of the pool. By Commission Order No. R-8768-E, dated May 30, 2003, the issues raised in San Juan's application for hearing de novo related to concurrent mining of coal and coalbed methane development were bifurcated from this case and heard by the Commission as a separate case.

(6) The Oil and Gas Accountability Project, the Bureau of Land Management, Williams Production Company, LLC and ChevronTexaco appeared at the hearing and did not offer evidence but presented to statements to the Commission.

JURISDICTION

(7) The Commission has jurisdiction of this issue for the Oil & Gas Act specifically provides in Section 70-2-17.B, NMSA (1979) that the Commission "...may establish a proration unit for each pool, such being the area that can be efficiently and economically drained and developed by one well, and in so doing ... shall consider the economic loss caused by the drilling of unnecessary wells, the protection of correlative rights, including those of royalty owners, the prevention of waste, the avoidance of the augmentation of risk arising from the drilling of an excessive number of wells and the prevention of reduced recovery which might result from the drilling of too few wells".

BACKGROUND

(8) On October 17, 1988, the Division entered Order R-8768 in Case 9420 which created the Basin-Fruitland Coal Gas Pool and adopted 320-acre gas spacing units for this pool, based upon the assumption that one well would drain and develop 320-acres and adopted Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool that provided in part:

"RULE 4. Each well completed or recompleted in the Basin-Fruitland Coal Gas Pool shall be located on a standard unit containing 320 acres, more or less, comprising any two contiguous quarter sections of a single governmental section being a legal subdivision of the United States Public Lands Survey...."

"RULE 7. Wells drilled or recompleted on every standard or non-standard unit in the Basin-Fruitland Coal Gas Pool shall be located in the NE/4 or SW/4 of a single governmental section and shall be located no closer than 660 feet to any outer boundary of the proration

unit nor closer than 10 feet to any interior quarter-quarter section line or subdivision inner boundary.”

(9) On July 16, 1991, the Division entered Order R-8768-A which found that:

"(9) The results of the reservoir simulation study generally establish that one well in the subject pool can effectively drain and develop 320 acres."

"(10) The results of the study further indicate however that there may be certain areas within the basin where reservoir parameters such as porosity, permeability, coal thickness, pressure, gas content, sorption isotherm and initial gas/water saturation may exist in certain combinations such that infill drilling may be required to increase gas recovery."

THE STUDY COMMITTEE

(10) The Fruitland Coalbed Methane Study Committee was formed on August 4, 1999 to study well density in the Basin-Fruitland Coal Gas Pool. The Study Committee met on numerous occasions from August 4, 1999 through February 6, 2003. (Hawkins, Tab 1, Exhibit 1)

(11) On August 22, 2001, the Division entered Order R-11639 in Case 12651 which granted Burlington's application to initiate a pilot project for the drilling of additional Basin-Fruitland Coal Gas Pool wells to acquire data for reservoir engineering and geological studies for the purposes of determining the proper well density in the pool.

(12) The data obtained from Burlington's pilot project along with data from other portions of the Fruitland Coal formation obtained by BP America, ChevronTexaco, Devon, and Phillips was studied by the Committee.

RECOMMENDATIONS OF THE STUDY COMMITTEE

(13) Based on its study of the geological and reservoir engineering data on the Fruitland Coal formation, the Study Committee recommended that to increase ultimate recovery of gas from the pool Rules 4 and 7 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool should be amended to authorize the infill drilling of an optional second well on each 320-acre gas proration and spacing unit in the pool with the second well to be located in the quarter section of the spacing unit not containing the first Basin-Fruitland Coal Gas well. The Study Committee also

recommended that the pool be divided into a “High Productivity Area” and a “Low Productivity Area” based upon well producing rates of more or less than 2 million cubic feet of gas per day and that, prior to drilling an infill well in the “High Productivity Area.” notice of the infill well be provided to affected offset operators and, if an objection to the application is received within 20 days, the application be set for a hearing before a Division Examiner.

(14) The “High Productivity Area” of this pool is described as follows and the “Low Productivity Area” includes all other acreage in the pool:

Township 29 North, Range 6 West, NMPM

Sections 2 through 8:	All
Sections 11 and 12:	All
Sections 17 and 18:	All

Township 29 North, Range 7 West, NMPM

Section 1:	All
Sections 12 and 13:	All

Township 30 North, Range 5 West, NMPM

Sections 19 through 21:	All
Sections 29 through 31:	All

Township 30 North, Range 6 West, NMPM

Sections 5 through 35:	All
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Township 30 North, Range 7 West, NMPM

Sections 1 through 18:	All
Sections 22 through 26:	All
Section 36:	All

Township 30 North, Range 8 West, NMPM

Sections 1 through 4:	All
Sections 10 through 13:	All

Township 30 North, Range 9 West, NMPM

Section 2:	All
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Township 31 North, Range 6 West, NMPM

Section 6: All
Section 31: All

Township 31 North, Range 7 West, NMPM

Section 1: All
Sections 12 through 14: All
Sections 19 through 36: All

Township 31 North, Range 8 West, NMPM

Sections 4 through 10: All
Sections 13 through 36: All

Township 31 North, Range 9 West, NMPM

Sections 1 through 7: All
Sections 11 through 14: All
Sections 22 through 27: All
Sections 34 through 36: All

Township 32 North, Range 6 West, NMPM

Section 19: All
Sections 29 through 31: All

Township 32 North, Range 7 West, NMPM

Sections 23 through 26: All
Section 36: All

Township 32 North, Range 8 West, NMPM

Section 19: All
Sections 30 through 32: All

Township 32 North, Range 9 West, NMPM

Sections 24 through 26: All
Sections 30 through 32: All
Sections 35 through 36: All

Township 32 North, Range 10 West, NMPM

Sections 7 through 12:	All
Sections 14 through 25:	All
Sections 28 through 30:	All

Township 32 North, Range 11 West, NMPM

Sections 11 through 13:	All
Section 24:	All

THE DIVISION ORDER

(15) The recommendations of the Study Committee were presented to the Division at a special Examiner Hearing held in Farmington, New Mexico on July 9 and 10, 2002. At that time the members of the Study Committee were in agreement that infill drilling is needed throughout the pool and proposed the creation of the "High Productivity Area" and the adoption of rules which provide that development in this area should be subject to special notice rules and possible hearings.

(16) On October 15, 2002, the Division entered Order No. R-8768-C granting the recommendation of the Study Committee to divide the Basin-Fruitland Coal Gas Pool into a "High Productivity Area" and a "Low Productivity Area," amending Rules 4 and 7 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool to authorize the infill drilling of an optional second well on each 320-acre gas proration and spacing unit in the Low Productivity Area in the pool with the second well to be located in the quarter section of the spacing unit not containing the first Basin-Fruitland Coal Gas well and terminating the Cedar Hill Fruitland Basal Coal Gas Pool and expanding the Basin-Fruitland Coal Gas Pool to include this acreage. The Division denied the Study Committee's recommendation for infill drilling in the High Productivity Area at that time and referred the matter back to the Study Committee to gather additional information and for further study because of "the relative lack of direct evidence of the potential effects of infill drilling" within that area.

(17) BP America, Burlington and the San Juan timely sought *de novo* review of Order No. R- 8768-C and the Study Committee reconvened for the purpose of gathering additional information and conducting further study of the effects of infill drilling on the High Productivity Area of the Basin-Fruitland Coal Gas Pool.

GEOLOGICAL FINDINGS:

(18) All geological evidence presented by the BP America, Jim Fassett, Burlington, Devon and Phillips is in agreement on the geological characteristics of the Fruitland Coal formation.

(19) The geological evidence establishes that:

- (a) Fruitland Coal beds were deposited in similar and related environments throughout the San Juan Basin (Testimony of Fassett, Thibodeaux, Riese and Reitz);
- (b) the Fruitland Coal formation is a multi-layered reservoir characterized by as many as nine coal packages that are correlatable throughout the San Juan Basin with a high degree of discontinuity which is the result of:
 - (1) variations in the vegetation through time as the coals were deposited that caused vertical discontinuity in the reservoir (Testimony of Fassett, Thibodeaux and Riese);
 - (2) faulting (listric faults or growth faults at the time of sedimentation) which created structural discontinuities at the time of sedimentation and also post depositional and related faults (Testimony of Riese);
- (c) there are hundreds, if not thousands, of individual Fruitland Coalbeds in the San Juan Basin, each of which probably represents a separate, lense-like, coalbed methane reservoir (Testimony of Fassett);
- (d) the Fruitland Coals are laterally and vertically discontinuous across the Basin Fruitland Coal Gas Pool (Testimony of Fassett, Thibodeaux, Riese, Reitz and Pippin);
- (e) the discontinuities in the reservoir are prevalent in all zones, can be dramatic in very short distances, and frequently change vertical and lateral communication partners (Testimony of Thibodeaux and Pippin);

- (f) the internal structure and permeability of the coal seams show wide variations due to fracture enhancement and changes in the ash content and maceral content of the plant material which cause pressure compartmentalization and pressure anomalies. (Testimony of Rietz);
- (g) the erratic and diverse depositional environments and compaction histories of each coal seam create both lateral and vertical heterogeneity in coal characteristics has a direct impact on their productive capabilities (Testimony of Rietz);
- (h) coal heterogeneity created by the diverse depositional settings in conjunction with the vertical and lateral discontinuities create multiple permeability and communication barriers that necessitate increased density drilling on order to efficiently recover the gas resource present in this reservoir (Testimony of Thibodeaux);

FINDING: The Fruitland Coal formation is a multi-layered internally faulted reservoir with a high degree of vertical and lateral reservoir discontinuity in each coal layer across the entire San Juan Basin.

- (i) stratigraphic variations in the Fruitland Coal result in small reservoir performance units which range in size from 80 acres to 320 acres and cause reservoir attributes to change from well to well in this pool (Testimony of Fassett, Riese and Thibodeaux);
- (j) variations in the Fruitland Coal formation constitute reservoir discontinuities sufficient to stop lateral flow of hydrocarbons (Testimony of Riese);

FINDING: Reservoir discontinuities in the Fruitland Coal formation stop the lateral flow of hydrocarbons and result in small reservoir performance units.

- (k) the reservoir discontinuities in the coal occur throughout the San Juan Basin and are the same in the "Low Productivity Area" and the "High Productivity Area" of the Basin-Fruitland Coal Gas Pool (Testimony of Fassett, Thibodeaux and Riese); and

- (l) the discontinuity of the Fruitland Coal requires additional wells to access reserves in the reservoir and infill drilling pool-wide is therefore needed. (Testimony of Fassett, Thibodeaux and Riese).

FINDING: Approval of infill drilling in the Basin-Fruitland Coal Gas Pool is needed to enable operators to produce the recoverable reserves from the small reservoir performance units in the pool.

(20) The engineering study of the Fruitland Coal formation rests on the geological characteristics of the reservoir and, since the geological characteristics of this formation are consistent across the Basin, the engineering characteristics of the pool should also be similar. (Testimony of Riese and Dinh).

FINDING: The engineering data on producing characteristics of the Fruitland Coal formation can be appropriately applied across the reservoir irrespective of where in the Basin-Fruitland Coal Gas Pool it is obtained.

PETROLEUM ENGINEERING FINDINGS:

(21) All engineering evidence presented by the BP America, Jim Fassett, Burlington, Devon and Phillips is in agreement that infill drilling in the Basin-Fruitland Coal Gas Pool is needed to produce the recoverable reserves in this pool.

- (22) The engineering evidence establishes that:
- (a) substantial volumes of gas can be produced from coal seams at low pressures where gas from conventional gas reservoirs is liberated in roughly equal increments as pressure is reduced (Testimony of Close, Kump);
 - (b) therecovery of substanital quantities of coal gas at low pressure requires that the reservoir be depleted to and produced at the lowest possible pressure (Testimony of Close, Kump);
 - (c) even small reductions in pressure that will result from infill drilling will liberate large quantities of incremental gas from this reservoir (Testimony of Balmer);

- (d) Composite pressure information understates the pressure conditions and the remaining gas in place in the reservoir and layer pressure information is needed to adequately describe the actual state of reservoir depletion (Testimony of Balmer, Boneau);
- (e) Layer pressure data from Burlington's pilot wells in the Low Productivity Area indicates inadequate drainage is occurring in most or all coal layers (Testimony of Balmer);
- (f) layer pressure data from individual coal seams in the High Productivity Area shows differential depletion is occurring which manifests the heterogeneity of the reservoir and shows that not all coal seams are being efficiently drained at current well density (Testimony of Kump, Balmer, Boneau);
- (g) Recovery efficiency varies substantially throughout the reservoir including the High Productivity Area (Testimony of Balmer);
- (h) Recovery on a well-by-well basis in the High Productivity Area is very erratic and is indicative of the heterogeneity of the reservoir (Testimony of Kump);

FINDING: Current well density in the "Low Productivity Area" and "High Productivity Area" results in inadequate drainage and gas recovery and infill development is needed to effectively drain the reservoir.

- (i) Infill drilling will lower the abandonment pressure in higher permeability seams and even small increases in abandonment pressure will result in a significant increase in recoverable reserves (Testimony of Kump, Balmer, Boneau);
- (j) Infill drilling will result in the recovery of stranded gas in zones not effectively intersected by wells or zones that have not been intersected by any existing wells (Testimony of Balmer);
- (k) Infill drilling will allow for significant increases in recovery factor in higher pressure (Lower Permeability) coal seams (Testimony of Boneau);

- (l) the production from infill wells, in the Colorado portion of this reservoir where infill drilling is allowed, has had no detrimental interference on the parent well's performance, that significantly higher pressure is encountered in the infill well than the parent well and that the infill gas production is mostly incremental reserves, not rate acceleration (Testimony of Dinh); and
- (m) there is approximately 500 BCF of incremental reserve potential in the "High Productivity Area" that can be accessed with infill drilling that cannot now be recovered (Testimony of Hawkins, Balmer, Dinh, Boneau).

FINDING: Infill development of the Basin-Fruitland Coal Gas Pool will result in the recovery of substantial volumes of incremental gas that will not otherwise be produced thereby preventing waste and should be approved.

(23) The Committee's study, including the concurrent studies of BP America, Burlington, Devon, ChevronTexaco and Phillips, demonstrates that it is now appropriate to adopt and amend rules and regulations for this pool to authorize the drilling of additional wells on each spacing unit.

(24) The current well density is inadequate for the pool and by allowing operators the option on a pool wide basis to increase well density to 2 wells per spacing unit creates an opportunity to substantially increase ultimate recovery from this pool which will prevent waste and protect correlative rights.

(25) To assure unnecessary wells, are not drilled as a result of this order, the recommendation of the Committee for the creation of a "High Productivity Area" within the Basin-Fruitland Coal Gas Pool with special notice procedures for obtaining authority to drill complete or recomplete optional second wells therein should be **granted**.

(26) There is no longer a need to maintain a separate pool for the Cedar Hill-Fruitland Basal Coal Pool (74500). This pool was abolished by Division Order No. R-8768-C and the horizontal and vertical limits of this pool were included in the Basin-Fruitland Coal Gas Pool (71629). No evidence was presented to the Commission concerning this issue and the Cedar Hill-Fruitland Basal Coal Pool was therefore abolished by Division in Case No. R-8768-C.

(27) The amendments of the Rules and Regulations of the Basin-Fruitland Coal Gas Pool as hereinafter promulgated will (i) prevent the economic loss caused by the drilling of unnecessary wells, (ii) will avoid the risks associated with the drilling of an excessive number of wells, (iii) will increase the opportunity to produce new reserves and improve recovery of gas from this pool, (iv) will provide a workable, fair and efficient regulation of well locations and spacing units while preventing waste of valuable hydrocarbons and the protection of the correlative rights of the owners of that production and should be **approved**.

IT IS THEREFORE ORDERED THAT:

(1) Pursuant to the Committee's application, Rules 4 and 7 of the "*Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool*," as promulgated by Division order No. R-8768, as amended by Orders R-8768-A, and R-8768-B, are hereby amended in their entirety to read as follows:

***SPECIAL RULES AND REGULATIONS FOR THE
BASIN-FRUITLAND COAL GAS POOL***

RULE 4: Each standard gas well spacing unit will consist of 320-acres, more or less, comprising any two contiguous quarter sections of a single governmental section, being a legal subdivision of the United States Public Lands Survey.

RULE 7(A): WELL LOCATION:

(1) A well drilled or recompleted on a standard or non-standard spacing unit in the Basin-Fruitland Coal Gas Pool shall be located no closer than 660 feet to the outer boundary of the spacing unit and no closer than 10 feet to any interior quarter-quarter section line or sub-division inner boundary.

(2) A well drilled or recompleted within a federal exploratory unit is not subject to the 660-foot setback requirement to the outer boundary of the spacing unit, provided however:

(i) the well shall not be closer than 10 feet to any section, quarter section or interior quarter-quarter section line or subdivision inner boundary;

(ii) the well shall not be closer than 660 feet to the outer boundary of the federal

- exploratory unit;
- (iii) if the well is located within the federal exploratory unit area but adjacent to an existing or prospective spacing unit containing a non-committed tract or partially committed tract, it shall not be closer than 660 feet to the outer boundary of its spacing unit;
 - (iv) if the well is located within a non-committed or partially committed spacing unit, it shall not be closer than 660 feet to the outer boundary of its spacing unit;
 - (v) if the well is located within a participating area but adjacent to an existing or prospective spacing unit that is not within the same participating area, it shall not be closer than 660 feet to the outer boundary of the participating area; and
 - (vi) if the well located within an exploratory unit area but in an existing or prospective spacing unit that is a non-participating spacing unit, it shall not be closer than 660 feet to the outer boundary of its spacing unit.
- (3) The operator filing an Application for Permit to Drill (“APD”) for any well within a federal exploratory unit area that is closer to the outer boundary of its assigned spacing unit than 660 feet shall provide proof in the form of a participating area plat that such well meets the requirements of Rule 7 (a).

RULE 7 (b): ADMINISTRATIVE EXCEPTIONS

The Division Director, in accordance with Division Rule 104, may administratively grant an exception to the well location requirements of Rule 7(a) upon application to the Division which includes notification by certified mail-return receipt requested to affected parties. [See Division Rule 1207.A(2)].

RULE 7 (c): ESTABLISHMENT OF THE “HIGH PRODUCTIVITY AREA” AND THE “LOW PRODUCTIVITY AREA”

(1) **High Productivity Area**: There is established within the consolidated boundaries of the Basin-Fruitland Coal Gas Pool a “High Productivity Area” consisting of the following-described acreage in both San Juan and Rio Arriba Counties, New Mexico:

Township 29 North, Range 6 West, NMPM

Sections 2 through 8: All
Sections 11 and 12: All
Sections 17 and 18: All

Township 29 North, Range 7 West, NMPM

Section 1: All
Sections 12 and 13: All

Township 30 North, Range 5 West, NMPM

Sections 19 through 21: All
Sections 29 through 31: All

Township 30 North, Range 6 West, NMPM

Sections 5 through 35: All

Township 30 North, Range 7 West, NMPM

Sections 1 through 18: All
Sections 22 through 26: All
Section 36: All

Township 30 North, Range 8 West, NMPM

Sections 1 through 4: All
Sections 10 through 13: All

Township 30 North, Range 9 West, NMPM

Section 2: All

Township 31 North, Range 6 West, NMPM

Section 6: All
Section 31: All

Township 31 North, Range 7 West, NMPM

Section 1: All
Sections 12 through 14: All

Sections 19 through 36: All

Township 31 North, Range 8 West, NMPM

Sections 4 through 10: All

Sections 13 through 36: All

Township 31 North, Range 9 West, NMPM

Sections 1 through 7: All

Sections 11 through 14: All

Sections 22 through 27: All

Sections 34 through 36: All

Township 32 North, Range 6 West, NMPM

Section 19: All

Sections 29 through 31: All

Township 32 North, Range 7 West, NMPM

Sections 23 through 26: All

Section 36: All

Township 32 North, Range 8 West, NMPM

Section 19: All

Sections 30 through 32: All

Township 32 North, Range 9 West, NMPM

Sections 24 through 26: All

Sections 30 through 32: All

Sections 35 through 36: All

Township 32 North, Range 10 West, NMPM

Sections 7 through 12: All

Sections 14 through 25: All

Sections 28 through 30: All

Township 32 North, Range 11 West, NMPM

Sections 11 through 13: All

Section 24: All

- (2) **Low Productivity Area:** There is established within the consolidated boundaries of the Basin-Fruitland Coal Gas Pool A "Low Productivity Area" consisting of that acreage within the horizontal limits of the Basin-Fruitland Coal Gas Pool that is not included within the High Productivity Area described above.

RULE 7 (d): WELL DENSITY

- (1) **Well Density within the Basin Fruitland Coal (Gas) Pool:**
No more than two wells per standard 320-acre gas spacing unit may be located in the Basin-Fruitland Coal Gas Pool as follows:

- (i) the OPTIONAL INFILL WELL drilled on an existing spacing unit shall be located in the quarter section not containing the INITIAL Fruitland coal gas well;
- (ii) the plat (Form C-102) accompanying the "Application for Permit to Drill" ("APD") (Form C-101 or federal equivalent) for the optional infill well within an existing spacing unit shall have outlined the boundaries of the unit and shall show the location (well name, footage location, API number) of the initial Fruitland coal gas well plus the proposed infill well; and
- (iii) any deviation from the above-described well density requirements shall be authorized only after hearing.

RULE 7 (e): NOTICE REQUIREMENTS IN HIGH PRODUCTIVITY AREA:

Each Application for Permit to Drill an OPTIONAL INFILL WELL in the High Productivity Area of this pool shall be accompanied by a statement attesting that the applicant, on or before the date that the application was submitted to the Division, sent notification to all "Affected persons" [See Division Rule 1207. A (2) (a) (i)-(iii)] by submitting a copy of the application, including a copy of the plat (Form C-102), by certified mail, return receipt requested, advising them that if they have an objection to the well it must be filed in writing within 20 days from the date the Division receives the application. The appropriate Oil Conservation Division District Supervisor may approve the APD for the OPTIONAL INFILL WELL upon receipt of waivers from all the affected persons or if no affected person has filed an objection within the 20-day period. Upon receipt of a timely objection to the APD, the Division shall set the application for hearing before a Division Examiner.

IT IS FURTHER ORDERED HOWEVER THAT:

(2) The infill development provisions of Rule 7(a), as amended by this order, do not apply to Indian lands. Until further order, Indian Lands in the Basin-Fruitland Coal Gas Pool shall continue to be governed by the "*Special Rules and Regulations for the Basin-Fruitland Coal (Gas) Pool*" in effect immediately prior to the issuance of this Order.

(3) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JAMI BAILEY, MEMBER

ROBERT LEE, MEMBER

LORI WROTENBERY, CHAIR

S E A L

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Closing Statement and Proposed Order was served upon the following counsel of record via first class mail this 16th day of June, 2003.

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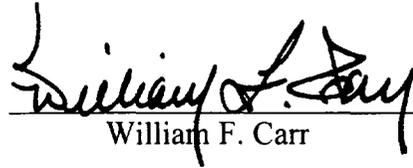
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