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May 4, 2005

Hand delivered

Mark E. Fesmire, P.E. Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Case No. 13351 de novo

Dear Mr. Fesmire:

Enclosed are an original and four copies of Edge Petroleum Explorations Company's application for rehearing in the above matter.

Vøry truly yours,

ames Bruce

Attorney for Applicant

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

# APPLICATION OF EDGE PETROLEUM EXPLORATION COMPANY TO RESTRICT THE EFFECT OF SPECIAL RULES AND REGULATIONS FOR THE DOS HERMANOS-MORROW GAS POOL, EDDY COUNTY, NEW MEXICO.

Case No. 13,351 Order No. R-3022-D

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#### **APPLICATION FOR REHEARING**

Pursuant to NMSA 1978 §70-2-25 and Division Rule 1222, Edge Petroleum Exploration Company ("Edge") applies for a rehearing of Order No. R-3022-D (the "Order"). In support thereof, Edge states:

#### A. <u>SUMMARY OF APPLICATION AND ORDER</u>.

1. The Dos Hermanos-Morrow Gas Pool (the "Pool") covers Sections 21, 22, 27, and 28, Township 20 South, Range 30 East, N.M.P.M. The Pool rules provide for 640 acre spacing, and wells to be no closer than 1650 feet to a section line.

2. In its application, Edge requested that the Pool rules be limited to the above four sections, and that all lands outside the Pool be developed on statewide rules (providing for 320 acre spacing and wells to be no closer than 660 feet to a quarter section line).

3. In the Order the Commission (a) limited the Pool rules to the above four sections, and (b) granted 320 acre spacing outside the Pool, but (c) required that wells outside the Pool be located no closer than 1650 feet to the Pool. Edge submits that this last provision is erroneous, for the reasons stated below.

#### B. THE ORDER IS CONTRARY TO COMMISSION PRECEDENT.

4. Prior to August 31, 1999, under Division Rule 104 gas wells completed below the top of the Wolfcamp formation were spaced on 320 acres, with one well per half section, and wells to be located no closer than 1650 feet<sup>1</sup> to the end line nor closer than 660 feet to the side line of a half section.

5. By Order No. R-11231, the Commission amended Rule 104 to allow (a) two wells per half section, and (b) wells to be no closer than 660 feet to a quarter section line. <u>See</u> the Commission's summary of Order No. R-11231, attached hereto as Exhibit A. In Order No. R-11231, the Commission did, statewide, what Edge is seeking to do in a small area.

6. The Commission, in adopting Order No. R-11231, did <u>not</u> require that new wells drilled thereunder be set back 1650 feet from existing wells which had been drilled (for several decades) under the prior rules.

7. The Order contains the following key finding:

There is no evidence that Morrow wells in the vicinity of the Dos Hermanos pool will efficiently drain 640 acres. Instead, evidence indicates that most such wells will drain an area of 160 acres or less.

**Finding Paragraph 29(a), Order No. R-3022-D.** This is the same reasoning that the Commission used, in Order No. R-11231, to revise Rule 104 to allow two wells per section and relax the well location requirements. See Case No. 12119 Transcript.<sup>2</sup> In fact, V-F Petroleum, Inc.'s ("V-F") engineering witness agreed that the Morrow pools in the area of this application are typical Morrow pools:

Q. From an engineering standpoint, is this Morrow reservoir in this pool and the adjoining Golden Lane Pool any different from any other Morrow reservoir in Eddy County?

<sup>&</sup>lt;sup>1</sup> For several decades after 1964 wells were required to be **1980** from the end line of a half section.

<sup>&</sup>lt;sup>2</sup> Edge requests that the Commission take notice of its own proceedings in Case No. 12119.

A. Well, that's a pretty broad statement but probably not, since the Morrow covers southeast New Mexico.

#### **Commission Hearing Transcript at 141.**

8. The requirement in the Dos Hermanos Order fixing special setback requirements for well units adjoining the Pool flies in the face of Order No. R-11231, which contained no such special requirement. There have been no cases filed with the Division since August 31, 1999 to "protect" previously drilled wells from any adverse effects caused by new wells drilled thereafter, showing a complete lack of any adverse effect as a result of the new Rule 104 location provisions. Since the Dos Hermanos reservoir is a typical Morrow reservoir, there is no reason to provide for a special setback requirement in this case.

#### C. THERE IS NO NEED TO PROTECT THE DOS HERMANOS POOL.

9. In Finding Paragraphs 29(i)-(m) of the Order, the Commission essentially holds that well locations should be restricted in lands adjoining the Pool to protect one well, V-F's Budge well in Section 21. However, even if you look at the entire Pool, this is unnecessary, for the following reasons;

(a) As noted in Part B above, this is contrary to Commission precedent.

(b) V-F's engineering witness admitted that Edge's proposed well would have no effect on V-F's Budge well in Section 21. See Commission Hearing Transcript at 139-140, attached as Exhibit B.

(c) Attached as Exhibit C is Edge's land plat. The remaining portions of the Pool are unaffected, or can be protected, as noted below:

(i) If an offsetting well is drilled 660 feet from the Pool, an operator can obtain an unorthodox location for a well inside the Pool to offset the "outside"

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well. In fact, V-F has obtained an unorthodox location for a well in the  $N\frac{1}{2}$  of Section 22, and Section 22 would thus be unaffected by Edge's proposal. Order No. R-11692. An operator has an affirmative duty to protect its own correlative rights, and no one could reasonably object to an unorthodox location inside the Pool to protect such rights.

(ii) The operator of Section 27 did not object to Edge's application, and thus it can be concluded that it felt unaffected. Moreover, there are Morrow dry holes or marginal wells in the  $S^{1/2}_{2}$  of Section 29, and in Sections 32 and 33, eliminating any supposed adverse effects on Section 27.

(iii) The operator of Section 28 did not object to Edge's application, again indicating lack of adverse effect. Moreover, Section 28 is unitized, and wells can be drilled at almost any location inside the unit to protect the unit acreage.

This leaves only Section 21 to "protect." However, V-F is operator of Sections 16 and 22 (with a Morrow well permitted in Section 16), thus minimizing any concerns. As to the effect of potential wells in Sections 17 and 20, a review of Division records shows that there are no permitted Morrow wells in those sections. V-F has had seven months of unrestricted production from its Budge well in Section 21, with no competition in sight. It is protected.

There is no need to hold 12 sections of land (7680 acres) adjoining the Pool hostage to protect <u>one</u> well which is capable of protecting itself.

#### D. <u>CONCLUSION</u>.

For the foregoing reasons, Edge request that a rehearing be granted in this matter.

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Respectfully submitted,

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James Bruce Post Office Box 1056 Santa Fe, New Mexico 87504 (505) 982-2043

Attorney for Edge Petroleum Exploration Company

#### **CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing pleading was served upon the following counsel of record this //4 day of May, 2005:

<u>Via hand delivery</u> David K. Brooks Oil Conservation Commission 1220 South St. Francis Drive Santa Fe, New Mexico 87505

<u>Via fax and U.S. Mail</u> William F. Carr Holland & Hart LLP P.O. Box 2208 Santa Fe, New Mexico 87504

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James Bruce



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## NOTICE

TO: FROM:	All Oil and Gas Operators, Mineral Interest Owners, and Interested Parties Lori Wrotenbery, Director
SUBJECT:	Implementation of Amended Division Rule 104
DATE:	October 25, 1999

Amendments to Division Rule 104 "Well Spacing and Location," adopted by the New Mexico Oil Conservation Commission in Order R-11231 (Case 12119) on August 12, 1999, became effective August 31, 1999. Attached to this notice are copies of Order No. R-11232, with the amended Rule 104 attached, and the recently amended Rule 1207 concerning notice requirements.

### Summary of Changes

The amendments made five main changes in Rule 104:

- (1) the rule has been shortened and reorganized;
- (2) well location setbacks for all gas development on 160-acre spacing throughout the State are now standardized at 660 feet from the outer boundary of the quarter section line;
- (3) well location setbacks for deep gas development on 320-acre spacing in Southeast New Mexico have been relaxed from 1650 feet from an end boundary to 660 feet;
- (4) one optional infill well is now allowed within 320-acre deep gas units in Southeast New Mexico; and
- (5) interior 330-foot setbacks from quarter-quarter section lines for both 160-acre and 320-acre gas units governed by Rule 104 have been reduced to 10 feet.

#### Effect of Changes

Since the primary objectives of the rule changes were to grant operators increased flexibility in locating wells and decrease the number of applications for unorthodox locations, all future location



1	A. Right, it would remove the no-flow boundary
2	toward the Edge well.
3	Q. In just taking your Exhibit 4, for example
4	Let's just look at if I'm reading this right, the dark
5	green is an 80-acre radial drainage, and the light green is
6	160 acres?
7	A. That's correct, or the yellow.
8	Q. Now, from the distances you just gave me,
9	assuming Edge does get permission to drill at its location
10	710 feet from the north line and 1260 feet from the west
11	line, assuming radial drainage, that would basically put
12	the 160-acre drainage all the way into Section 29; is that
13	correct?
14	A. It might. I haven't made that calculation.
15	Q. Well, you've said that 80-acre drainage is a
16	radius of 1053 feet, 160-acre drainage is probably and
17	320 acres is 2090 feet, so I'm guessing drainage is about
18	1500 feet? I don't have a calculator with me.
19	A. I'll tell you in just a moment. 160-acre
20	drainage area has a radius of 1489 feet.
21	Q. Okay, so 1489 feet. So if Edge is going to move
22	its well another approximately 600 feet to the west, then
23	all of a sudden that 160-acre drainage is completely within
24	Section 29 and partly within Section 20, and none of it is
25	on Section 21; is that correct?

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EXHIBIT

No. 5119

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1	A. That would be correct, if that is the drainage
2	area of the well.
3	Q. And then further, like you just testified, if V-F
4	is able to produce its well for six, eight, nine months
5	without any countervailing production by Edge, what you're
6	looking at is the actual no-flow boundary is on Section 29;
7	wouldn't that be correct?
8	A. Oh, I couldn't say that without making a bunch of
9	assumptions on the reservoir, rates
10	Q. Well, that's what you've done with your entire
11	testimony, you've said that this is in answer to a
12	question by Mr. Carr, you've said all of these things are
13	something that could be
14	A. Well, I said if you assumed a homogeneous,
15	isotropic reservoir with consistent rates between the two
16	wells, then that no-flow boundary would be halfway between
17	them.
18	Q. And you have other than the pressure data
19	submitted by Edge, you have no basis on which to say that
20	there's any communication between any of these wells,
21	because all these reservoir pressures, all these bottomhole
22	pressures, are uniform, even 40 years after the first
23	discovery well; isn't that true?
24	A. That apparently is true. What I would say is,
25	though, why speculate on what might be in the reservoir by
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