

# *V-F Petroleum Inc.*

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October 4, 2001

New Mexico Oil Conservation Division  
Engineering Bureau  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Re:      Application for Non Standard  
         Location  
         Hale Federal Com. Well No. 3  
         BHL 950'FNL & 760'FWL  
         Section 22 – T20S – R30E  
         Dos Hermanos Field  
         Eddy County, New Mexico

Ladies and Gentlemen:

V-F Petroleum Inc. (V-F) is the Operator of the Hale Federal Com. Well No. 2 located in the Dos Hermanos (Morrow) Field and requests Administrative Approval to drill the Hale Federal Com. Well No 3, a second well to the Morrow Formation in Section 22 at a Non Standard Location. The Hale Federal Com. Well No. 2 is the only currently producing well in the Dos Hermanos Morrow Gas Pool. Order No. R-3022, adopted January 1, 1966, defined the Rules and Regulations for the Dos Hermanos Morrow Gas Pool. As such, the rules set the well spacing at 640 acres and that each well should be located no nearer than 1,650' feet from the outer boundary of the section line. Order No. R-3022 granted the applicant, Pan American Petroleum Corporation, their requested 640 acre spacing around their Emperor Federal Well No. 1 well largely on an economic argument that \$0.18 per mcf gas price did not allow any additional economic wells to be drilled, and that one well could efficiently drain 640 acres. Testimony was entered into record that the Emperor Federal Well No. 1 would calculate a drainage area of at least 640 acres if the perforated net pay of 43' was reduced to 14' of effective pay based upon drill stem test flow rate information. V-F suggests that over a longer period of time than a DST, most perforated intervals will contribute production, resulting in a drainage area significantly less than 640 acres. V-F requests an exception to Rule 2 (One well per 640 acres) and Rule 4 (Section line spacing provision) for the following reasons:

Geological Considerations: Attachment No. 1 is a Structure Map of the Top of the Morrow Marker overlain by an isopach map of the middle Morrow pay interval. This map demonstrates that the optimum location to drain additional reserves from the Morrow Formation is at a location of 950'FNL & 760'FWL. Moving the bottom hole location westward would result in the Morrow Formation being low to the Hale Federal Com. Well

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No. 2, and moving the bottom hole location eastward would result in a thinning Morrow section of pay. Attachment No. 2 is an East-West cross-section demonstrating the continuity of the Morrow pay intervals. Since this optimum location is less than 1,650' from the Western and Northern Boundary of Section 22 - T20S - R30E, an exception to Rule 4 is needed.

Drainage Considerations: Attachment No. 3 lists the results of drainage area estimates using volumetric calculations for the Morrow producers in the Dos Hermanos Field. Of particular interest to this application, the Emperor Federal Well No. 1 calculates a drainage area of 417 acres using an effective net pay of 39' based upon perforated intervals and log analysis. Since the historical drainage is substantially less than 640 acres per well, an exception to Rule 2 is needed to properly drain the existing reserves under Section 22 - T20S - R30E.

Additional Considerations: Attachment No. 4 lists the surrounding Operators, Leaseholders, or surface owners who have been contacted concerning this application. Attachment No. 5 is a plat of the general area surrounding the subject well. The Hale Federal Com. Well No. 3 is somewhat unusual in that it will be directionally drilled from a surface location at 1,450' FSL & 660' FWL due to numerous restrictions including a Potash Mine approximately ½ mile to the North and surface topography considerations. Attachment No. 6 is a copy of the directional well plan.

Yours very truly,

A handwritten signature in cursive script, appearing to read "Larry Brazile".

Larry N. Brazile  
Vice President-Acquisitions