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

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

CASE NO. 13837 ORDER NO. R-12733

APPLICATION OF APACHE CORPORATION FOR SIMULTANEOUS DEDICATION, AN UNORTHODOX GAS WELL LOCATION, AND APPROVAL OF TWO OPERATORS ON A GAS WELL UNIT, LEA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on December 13, 2006, at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 9th day of March, 2007, the Division Director, having considered the testimony, the record, and the recommendation of the Examiner,

FINDS THAT:

- (1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.
- (2) Apache Corporation ("Apache" or "applicant") seeks approval to recomplete and produce its North Bell Lake Federal Well No 3 (API 30-025-33077) at a non-standard location within the North Bell Lake-Devonian Gas Pool, seeks to simultaneously dedicate an existing 628.62-acre, more or less, gas spacing unit consisting of all of Irregular Section 6, Township 23 South, Range 34 East, NMPM, Lea County, New Mexico, to the following two wells for production from the North Bell Lake-Devonian Gas Pool (71840), and seeks approval for two operators within this spacing unit.
 - (a) North Bell Lake Federal Well No 3 (API 30-025-33077) located in Unit H at a non-standard gas well location 1930 feet from the North line and 660 feet from the East line of Section 6 and operated by Apache Corporation.

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- (b) Bell Lake Unit Well No 6 (API 30-025-08483) located in Unit O at a non-standard gas well location 660 feet from the South line and 1980 feet from the East line of Section 6 and operated by Kaiser-Francis Oil Company.
- (3) Kaiser-Francis Oil Company ("Kaiser-Francis") appeared at the hearing in support of Apache's request to re-complete this well from the Ellenburger gas to the Devonian gas and Apache's request to remain as the operator of the well. No other party entered an appearance or opposed this application.
- (4) Division Order No. R-10468 in Case No. 11386 on September 27, 1995, approved the Bell Lake Federal Well No. 3 to be drilled in Unit H at an unorthodox Ellenburger gas well location within the North Bell Lake-Ellenburger Gas Pool and also approved all 628.62 acres of Irregular Section 6 as a non-standard gas spacing unit within this Ellenburger Pool. As justification, Amerada Hess Corporation utilized interpreted 3-D seismic data to show that this non-standard Ellenburger location, at only 660 feet from the East line, was needed to access the Ellenburger gas reservoir.
- (5) The Bell Lake Unit Well No 6 was drilled in Unit O by Continental Oil Company in 1960 as an Ellenburger gas test to 17,000 feet spaced on 160 acres (SE/4 of Section 6). The Ellenburger was not successful, but this became the discovery well for the North Bell Lake-Devonian Gas Pool with a completion into the Devonian on June 8, 1960. The Commission recognized and named this gas pool in Order No. R-2187 dated February 21, 1962. The pool was initially spaced on 160 acres and remained that way until 1980.
- (6) The North Bell Lake-Devonian Gas Pool is governed by Special Pool Rules, which were promulgated in Order No. R-6424 in Case No. 6962 on August 4, 1980, which rules establish gas spacing units at 640 acres, allow one gas well on each spacing unit, and require that well to be located no nearer than 1650 feet from the section line and no nearer than 330 feet from any quarter-quarter line.
- (7) The applicant presented land, geology, and engineering testimony as follows:
 - (a) Offsetting operators were provided notice of applicant's intention to re-complete this well and produce an additional well on this gas spacing unit. Concerning the non-standard location, notice was provided to Devon Energy Production Company, L.P. as the other lessee of the un-drilled but affected spacing unit to the East.
 - (b) Section 6 is in the center of the Bell Lake Unit, which is a 9 square mile federal exploratory unit approved by the Commission by Order No. R-355 in Case 563 on August 28, 1953, currently operated by Kaiser-Francis Oil Company. The Devonian production within Section 6 is in the Devonian participating area within this Unit, The proposed re-completion of the North Bell Lake Federal

Well No. 3 would generate additional income for revenue interest owners within Section 6 and also for owners within the Devonian participating area of this Unit.

- (c) The State Land Office and the U.S. Bureau of Land Management have been notified of this application and are aware of the proposed two operators on one spacing unit. Kaiser-Francis suggested Apache re-complete this well and remain as operator of this well.
- (d) Division Order No. R-12106 discussed in its findings the geologic structures and faults within the Devonian formation in Sections 4, 5, and 6. The Division in that order agreed with Devon that the Devonian within Section 6 is a separate reservoir from the Devonian in Section 4, The Division in that order created the Northeast Bell Lake-Devonian Gas Pool, established Special Pool Rules for that pool, and granted Devon's request for 320-acre Devonian gas well spacing units. In that case, Devon presented evidence to show that the Bell Lake Unit Well No 6 has recovered 31 Bcf of gas but has only drained an area of approximately 330 acres within the North Bell Lake-Devonian Gas Pool.
- (e) East of Section 6 is a hydraulic boundary of some sort, which prevents the Devonian formation from being productive in Section 5. Section 5 is within one mile of the North Bell Lake-Devonian Gas Pool and within one mile of the Northeast Bell Lake-Devonian Gas Pool. In addition, the Apache operated Ellenburger gas well in Unit N of Section 5, which became the discovery well for the North Bell Lake-Ellenburger Gas Pool, drillstem tested only water in the Devonian formation while the well was being drilled. Therefore, geologically, recompleting the North Bell Lake Federal Well No. 3 located in Unit H of Section 6 will not affect the correlative rights of owners in Section 5.
- (f) Of the 21 Devonian formation gas pools in Southeast New Mexico, only three are spaced on 640 acres and most are spaced at 320 or 160 acres. The Devonian gas produces from great depths and from low matrix porosity, fractured reservoirs that do have relatively high permeability but are sometimes bounded by faults or other structures.
- (g) The North Bell Lake Federal Well No. 3 has recovered over 3 Bcf of gas from the Ellenburger formation and is now at its economic limit despite attempts to stimulate the interval. The well will soon have to be plugged or temporarily abandoned. The Devonian formation appears to be worth a recompletion attempt in this well even though an ideal Devonian location would be Southwest of this wellbore.
- (h) Currently the Kaiser-Francis operated Bell Lake Unit Well No. 6, located in Unit O, produces approximately 750 Mcf gas per day and has recovered approximately 31 Bcf of gas. Apache or Kaiser-Francis cannot economically

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justify drilling a new well to 14,000 feet to test the Devonian in the northern portion of Section 6,

- (i) The North Bell Lake Federal Well No 3 was drillstem tested in the Devonian gas interval in 1995 while it was being drilled to the Ellenburger formation. The drillstem test revealed that the pressure was still adequate at this location to justify a re-completion attempt.
- (j) Apache estimates that re-completion of the North Bell Lake Federal Well No. 3, located in Unit H, into this 640-acre Devonian gas spacing unit will reduce the abandonment pressure of this portion of the spacing unit and recover another 2 Bcf of gas that would otherwise not be recovered.
- (8) The non-standard location of the proposed well is necessary and prudent, was not opposed by the affected parties to the east, and should be approved.
- (9) The applicant's evidence presented in this case demonstrates that the simultaneous dedication of these two wells in this existing 628.62-acre gas spacing unit is necessary in order to recover Devonian gas reserves that would otherwise not be recovered and should be allowed.
- (10) Apache operates the North Bell Lake Federal Well No. 3 as a deep gas completion in the Ellenburger formation and should remain as operator of this well after it is re-completed to the Devonian gas. Kaiser-Francis and Apache should both be allowed as operators within this Devonian gas spacing unit,
- (11) Approval of this application will prevent waste and protect correlative rights,

IT IS THEREFORE ORDERED THAT:

- (1) Apache Corporation's application to re-complete and produce its North Bell Lake Federal Well No 3 (API 30-025-33077) at a non-standard Devonian gas well location within the North Bell Lake-Devonian Gas Pool (71840) is hereby approved.
- (2) Apache Corporation's application to simultaneously dedicate an existing 628.62-acre, more or less, gas spacing unit consisting of all of Irregular Section 6, Township 23 South, Range 34 East, NMPM, Lea County, New Mexico, to the following two wells for production from the North Bell Lake-Devonian Gas Pool is hereby approved.
 - (a) North Bell Lake Federal Well No 3 (API 30-025-33077) located in Unit H at a non-standard gas well location 1930 feet from the North line and 660 feet from the East line of Section 6 and operated by Apache Corporation.

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- (b) Bell Lake Unit Well No 6 (API 30-025-08483) located in Unit O at a non-standard gas well location 660 feet from the South line and 1980 feet from the East line of Section 6 and operated by Kaiser-Francis Oil Company.
- (3) Apache Corporation's proposal to allow two operators within this Devonian gas spacing unit within the North Bell Lake-Devonian Gas Pool is hereby approved.
- (4) Jurisdiction is 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.



SEAL

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E. Director