

**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. 13358
ORDERS NO. R-12246**

**APPLICATION OF RB OPERATING COMPANY FOR TWO UNORTHODOX OIL
WELL LOCATIONS AND SIMULTANEOUS DEDICATION, EDDY COUNTY, NEW
MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION;

This case came on for hearing at 8:15 a.m. on November 4th, 2004 at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 21st day of December 2004, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) The applicant, RB Operating Company ("RB Operating"), seeks well location exceptions and simultaneous dedication and for each of two proposed oil wells to be located on two separate standard 40-acre proration units within Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico, and within the East Loving-Brushy Canyon Pool (40350), as follows.

(a) Carrasco "14" Well No. 4 to be drilled at a unorthodox infill oil well location 2630 feet from the South line and 1330 feet from the East line (Unit J) of Section 14, and to simultaneously dedicate it along with the South Culebra Bluff Well No. 2 (API No. 30-015-22591) to a standard 40-acre proration unit consisting of Unit J of this Section.

(b) South Culebra Bluff "23" Well No. 15 to be drilled at a unorthodox infill oil well location 1430 feet from the North line and 1150 feet from the East line (Unit H) of Section 23, and to simultaneously dedicate it along with the South Culebra Bluff "23" Well No. 12 (API No. 30-015-26368) to a standard 40-acre proration unit consisting of Unit H of this Section.

(3) The East Loving-Delaware Pool was created and defined by Division Order No. R-8562 dated December 4, 1987. Statewide rules applied for development, with standard 40-acre spacing and proration units, each having a top unit depth bracket allowable of 142 barrels of oil per day and a limiting gas oil ratio of 2,000 cubic feet of gas per barrel of oil. The discovery well was the **Brantley** Com Well No. 1, located in Unit N of Section 23, Township 23 South, Range 28 East, **NMPM**, Eddy County, New Mexico, and had a top perforation depth of 6,210 feet.

(4) On May 10, 1991, in Order No. R-9501, the Division denied an application to raise the limiting gas oil ratio from 2,000 to 5,000 cubic feet per barrel. On October 30, 1991, in Order No. R-9501-A, the Commission also denied an application to raise the limiting gas oil ratio.

(5) On July 9, 1993, in Order No. R-9501-B issued in Case No. 10692, the Division restricted the vertical limits of this Delaware pool to the Brushy Canyon formation, renamed the pool the East Loving-Brushy Canyon Pool (40350), and approved one special pool rule which raised the limiting gas oil ratio to 8,000 cubic feet of gas per barrel of oil produced.

(6) The East Loving-Brushy Canyon Pool is otherwise governed by statewide rules, which include Rule 104 B.(1) requiring oil wells to be located no closer than 330 feet from the boundary of a standard 40-acre spacing unit.

(7) The proposed location for the **Carrasco** "14" Well No. 4 at 2,630 feet from the South line and 1,330 feet from the East line of Section 14 is within 10 feet of the northern and eastern boundary of the NW/4 SE/4 (Unit J) spacing unit. As such, this well encroaches on Units **G, H, and I** of Section 14.

(8) The proposed location for the South Culebra Bluff "23" Well No. 15 at 1,430 feet from the North line and 1,150 feet from the East line (Unit H) of Section 23 is within 110 feet of the northern boundary and 170 feet of the western boundary of the SE/4 NE/4 (Unit H) spacing unit. As such, this well encroaches on Units A, B, and G of Section 23.

(9) It appears that RB Operating has provided notice of the application in this case to all affected interest owners in accordance with Division rules.

(10) No affected party or offsetting operator and/or interest owner appeared at the hearing, or otherwise opposed this application.

(11) RB Operating presented testimony from land, geological, and engineering personnel as follows.

(a) The two proposed wells are to be located at the approximate center of four existing Brushy Canyon oil wells, each of which is located in a 40-acre spacing and proration unit. The effective spacing of the two new wells will be 20 acres per well.

(b) RB Operating has obtained fully executed voluntary agreements from all interest owners affected. Affected owners are all the owners in each of the 40-acre proration units surrounding the two proposed wells: 160 acres in Section 14 and 160 acres in Section 23. All acreage involved and affected by this application is privately owned and all tracts are exactly 40 acres in size.

(c) RB Operating has notified and obtained approval from the surface owners involved to site and drill these two proposed wells at these locations.

(d) For the proposed well in Section 14, ownership interests in the 160 acres, which includes Units G, H, I, J, are identical.

(e) For the proposed well in Section 23, ownership interests in the 160 acres, which includes Units A, B, G, H, are slightly diverse in that the royalty ownership in the west 80 acres varies from the royalty ownership in the east 80 acres. All affected interest owners in Section 23 have signed a **communitization** agreement and production from the new well in Section 23 will be metered separately.

(f) This action will not affect or require amendments to existing operating agreements, Division orders, or transfer orders.

(g) RB Operating is the operator and 50 percent working interest owner of all 40-acre spacing and proration units involved or affected by this application.

(h) Regulatory allowable will be set, and production **reported**, based on the 40-acre proration unit that each of these are physically located in. However, in each of the new wells, all revenue will be shared equally by each of the four surrounding 40-acre tracts.

(i) Geologically, the concept is that the existing 40-acre wells are not effectively draining these 40-acre spacing and proration units and data will be collected from these two pilot wells for potentially future 20-acre drilling.

(j) The reservoir rock consists of multiple **stratigraphic** sands. Structure is not a very big factor affecting production. The sand lenses in the older wells have already been effectively stimulated using hydraulic fracturing techniques. Some of the sands have poor reservoir characteristics that may limit the extent of drainage. The sands have some insitu clays, which decrease permeability; but the higher gamma readings are not attributable to uranium.

(k) The intervals prospective in the new wells are limited to the Brushy Canyon and the Bell and Cherry Canyons are considered "**wet**" in this area.

(l) Sidewall cores will be taken, reservoir pressure tests will be conducted, and fluid samples collected for PVT analysis. PVT analysis will be done to further understand the part that the gas component plays in this reservoir.

(m) Based on an analogous primary recovery factor of 11 percent, the expected volumetric recovery is greater than the expected recovery of the existing 40-acre spaced wells as calculated by decline analysis. The difference is enough to economically drill additional wells.

(n) The production rates of the proposed new wells, when added to the production rates from existing wells in the 40-acre proration units, are not expected to exceed the top allowable.

(12) The drilling of RB **Operating's Carrasco** "14" Well No. 4 and South Culebra Bluff "23" Well No. 15, both at unorthodox locations centered between existing wells spaced on 40-acres, will result in the recovery of hydrocarbons that will otherwise not be recovered, thereby preventing waste and protecting correlative rights.

(13) Due to diverse ownership, oil and gas production from the proposed South Culebra Bluff "23" Well No. 15, should be metered separately prior to combining with production from other wells for sales.

(14) The application of RB Operating for exceptions to the statewide oil well location requirements contained in Division Rule 104 B.(1) for both wells, should be granted.

(15) The application of RB Operating for simultaneous dedication of these two new wells along with existing wells to the respective proration units should be granted.

IT IS THEREFORE ORDERED THAT;

(1) As detailed below in (a) and (b), the application of RB Operating Company for two unorthodox oil well locations and simultaneous dedication within the East Loving-Brushy Canyon Pool (40350), and within Township 23 South, Range 28 East, **NMPM**, Eddy County, New Mexico, is hereby approved.

(a) The **Carrasco** "14" Well No. 4 to be drilled at a unorthodox infill oil well location 2,630 feet from the South line and 1,330 feet from the East line (Unit J) of Section 14, and to simultaneously dedicate it along with the South Culebra Bluff Well No. 2 (API No. 30-015-22591) to a standard 40-acre proration unit consisting of Unit J of this Section.


(b) The South Culebra Bluff "23" Well No. 15 to be drilled at a unorthodox infill oil well location 1,430 feet from the North line and 1,150 feet from the East line (Unit H) of Section 23, and to simultaneously dedicate it along with the South Culebra Bluff "23" Well No. 12 (API No. 30-015-26368) to a standard 40-acre proration unit consisting of Unit H of this Section.

(2) In accordance with 19.15.5.303 NMAC, RB Operating Company shall maintain separate facilities for separation and sale of oil and gas production from the South Culebra Bluff "23" Well No. 15, until such time as it applies for and obtains a surface commingle permit from the Division.

(3) Jurisdiction of this case 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.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


MARK E. FESMIRE, P.E.,
Director


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