

**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. 14558  
ORDER NO. R-7900-C**

**APPLICATION OF MARBOB ENERGY  
CORPORATION FOR A VERTICAL  
EXPANSION OF THE BURCH KEELY UNIT,  
EDDY COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on October 28, 2010, at Santa Fe, New Mexico, before Examiner David K. Brooks.

NOW, on this 31<sup>st</sup> day of January, 2011, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

**FINDS THAT:**

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

(2) Marbob Energy Corporation on behalf of its successor in title, COG Operating, LLC, ("Applicant" or "COG"), seeks expansion of the vertical limits of the Burch Keely Unit, a statutory unit established by the Division in Order No. R-7900-A, issued in Case No. 10810 on October 28, 1993.

(3) The horizontal boundaries of the Burch Keely Unit, which Applicant does not propose to change, comprise the following federal lands in Eddy County, New Mexico:

**TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM**

Section 12:	SE/4 SE/4
Section 13:	All
Sections 23 through 26:	All

**TOWNSHIP 17 SOUTH, RANGE 30 EAST, NMPM**

Sections 18 and 19: All  
Section 30: All

(4) The vertical limits or "Unitized Formation" of the Burch Keely Unit is defined in Order No. R-7900-A as "that interval from the top of the Seven Rivers formation to the base of the San Andres formation (which corresponds with the vertical limits of the Grayburg-Jackson Pool) or to a vertical depth of 5,000 feet below the surface, whichever is lesser."

(5) Operator, with the concurrence of the United States Bureau of Land Management (BLM), on March 11, 1994, expanded the vertical limits of the Burch Keely Unit "to include the top 500 feet of the Paddock formation." The Division apparently never expressly approved this expansion. However, in Order No. R-10067, issued in Case No. 10903 on February 22, 1994, the Division expanded the vertical boundaries of the Grayburg-Jackson Pool to include the top 500 feet of the Paddock formation "within the designated Burch Keely Unit Area."

(6) Applicant now seeks to extend the vertical limits of the Burch Keely Unit to a depth of 5,000 feet below the surface throughout the Unit Area.

(7) At the hearing, Applicant appeared through counsel and presented land, geologic and engineering testimony and exhibits, as follows:

(a) COG is now the sole working interest owner in the Burch Keely Unit, and in the depth interval proposed to be added in this application. The United States of America is the sole royalty interest owner. The BLM has approved the proposed expansion.

(b) There are numerous overriding royalty interests that apply to different tracts within the Unit Area. However, there are no differences in overriding royalty ownership between the Unit Area as presently defined and the proposed expansion.

(c) In this area, the Paddock formation immediately underlies the San Andres formation, the base of which was the original base of the Unitized Formation. The Paddock is mostly contained in the 500 feet immediately below the top of the Paddock.

(d) The depth interval between the base of the Paddock and 5,000 feet below surface is part of the Blinbry formation, and is prospective for oil development with the assistance of modern fracture stimulation technology.

(e) The 5,000-foot depth is an ownership boundary and not a geologic boundary, being the top of the unitized interval in the Grayburg Deep Unit.

(f) The Blinebry section between the present depth boundary (500 feet below the top of the Paddock) and 5,000 feet below the surface varies in thickness from 260 feet on the west side of the Unit Area to 550 feet or more on the east side.

(g) It would not be economic to develop this interval by drilling stand alone wells. Development by unit wells is expected to result in production of an additional 5,000 barrels of oil that would not otherwise be economic to produce.

(h) All owners of interest in the Burch Keely Unit and the proposed expansion interval, and all offsetting operators, were duly notified of this application and of the hearing.

8. ConocoPhillips Company (ConocoPhillips), operator of the Grayburg Deep Unit, appeared through counsel in opposition to the application, arguing that expansion of the Burch Keely Unit to the 5,000 foot depth could adversely impact its correlative rights. However, ConocoPhillips presented no evidence.

The Division concludes that:

9. Expansion of the Unitized Formation of the Burch Keely Unit to include depths down to 5,000 feet below the surface throughout the Unit Area will facilitate the production of additional oil that might not otherwise be produced, thereby preventing waste.

10. It cannot be concluded that granting this application will adversely affect correlative rights because:

a. drainage across the 5,000-foot vertical boundary could occur in either direction, and nothing in this record demonstrates that net, uncompensated drainage would occur;

b. Denial of unit expansion would not necessarily prevent completion of wells in the depth interval immediately above the 5,000-foot boundary; and

c. Establishment of a buffer zone above the 5,000-foot boundary, even if denial of the unit expansion were to have that effect, would not protect correlative rights, since no buffer exists below the 5,000-foot boundary.

11. To the extent that COG, as sole working interest owner in the Burch Keely Unit, has the right, with BLM approval, to bind overriding royalty interests by its dedication of the leasehold interests in the proposed expansion interval to the Unit, no exercise of the Division's powers under the Statutory Unitization Act [NMSA 1978 Section 70-7-1 through 70-7-21] is required to approve this unit expansion. Accordingly, the Division need not make the findings nor apply the procedures, mandated by that Act.

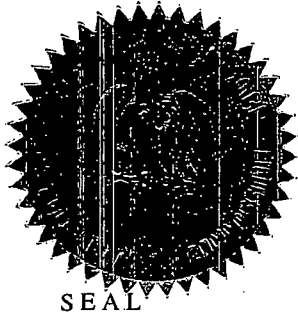
**IT IS THEREFORE ORDERED THAT:**

(1) The Application of Marbob Energy Corporation, on behalf of COG Operating, LLC, is granted, amending the Unitized Formation of the Burch Keely Unit to comprise that interval underlying the Unit Area from the top of the Seven Rivers formation to a true vertical depth of 5,000 feet below the surface.

(2) In all other respects, except as amended hereby, Orders R-7900, R7900-A and R7900-B shall remain in full force and effect.

(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

  
DANIEL SANCHEZ  
Acting Director

**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. 14577  
ORDER NO. R-10067-B**

**APPLICATION OF COG OPERATING, LLC  
FOR A VERTICAL EXTENSION OF THE  
GRAYBURG-JACKSON (SEVEN RIVERS-  
QUEEN-GRAYBURG-SAN ANDRES) POOL  
TO CORRESPOND WITH THE UNITIZED  
FORMATION OF THE BURCH KEELY UNIT,  
EDDY COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on January 6, 2011, at Santa Fe, New Mexico, before Examiner David K. Brooks.

NOW, on this 1<sup>st</sup> day of February, 2011, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

**FINDS THAT:**

- (1) Due notice has been given, and the Division has jurisdiction of the subject matter of this case.
- (2) COG Operating, LLC ("Applicant") seeks expansion of the vertical limits of the Grayburg-Jackson-Seven Rivers-Queen-Grayburg-San Andres Pool [Pool Code 28509] (the "Grayburg-Jackson Pool"), within the horizontal boundaries of the Burch Keely Unit.
- (3) Pursuant to Order No. R-10067, the vertical limits of this pool within the Burch Keely Unit extend from the top of the Seven Rivers Formation to 500 feet below the top of the Paddock Formation. Applicant requests that the lower limit of the pool be extended to a depth of 5,000 feet below the surface.

(4) The Burch Keely Unit is a statutory unit that was established by Order No. R-7900-A, issued in Case No. 10810 on October 28, 1993. The horizontal boundaries of the Burch Keely Unit, which Applicant does not propose to change, comprise the following federal lands in Eddy County, New Mexico:

**TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM**

Section 12: SE/4 SE/4  
Section 13: All  
Sections 23 through 26: All

**TOWNSHIP 17 SOUTH, RANGE 30 EAST, NMPM**

Sections 18 and 19: All  
Section 30: All

(5) This case is closely related to Case No. 14558, in which Marbob Energy Corporation, predecessor in title to Applicant, sought vertical expansion of the Burch Keely unit so as to establish the lower limit of the "Unitized Formation" at 5,000 feet below the surface.

(6) In Order No. R-7900-C, issued on January 31, 2011, the Division granted the Application of Marbob in Case No. 14558. The Division's findings set forth in Order No. R-7900-C are incorporated herein by reference.

(7) At the hearing in this case, Applicant appeared through counsel and presented land and geologic testimony.

(8) Applicant's geologic witness testified *inter alia* that the Blinebry formation which lies below the Paddock in the depth interval below the present base of the Grayburg-Jackson Pool and the proposed base, is a portion of the Yeso Formation, and "is all the same stratigraphic rock" as the formations now included in the Grayburg-Jackson Pool. He further testified that other pools in the vicinity include the formations both above and below the present base of the Grayburg-Jackson Pool.

(9) ConocoPhillips Company, the operator of the Grayburg Deep Pool which encompasses this area below the 5,000-foot boundary, appeared at the hearing through counsel, but did not present any testimony nor articulate any objection to the granting of this Application

**The Division concludes that:**

(10) Granting this Application will prevent waste and will not impair correlative rights.

**IT IS THEREFORE ORDERED THAT:**

(1) The vertical boundaries of the Grayburg-Jackson-Seven Rivers-Queen-Grayburg San Andres Pool (Pool Code 28509), only within the horizontal limits of the Burch Keely Unit as specifically described in Finding Paragraph (4) of this Order, are hereby expanded to coincide with the lower vertical limits of the "Unitized Formation" of the Burch Keely Unit, as amended by Order No. R-7900-C, issued in Case No. 14558 on January 31, 2011.

(2) Accordingly, the base of the Grayburg-Jackson Pool, within the horizontal limits of the Burch Keely Unit, is hereby established as a depth of 5,000 feet below the surface throughout the Burch Keely Unit.

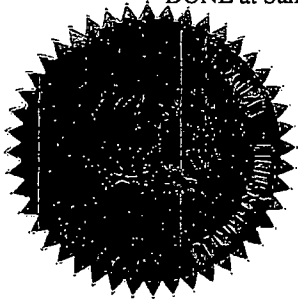
(3) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



DANIEL SANCHEZ  
Acting Director



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