

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

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

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

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

and

APPLICATION OF COG OPERATING, LLC  
FOR 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.

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

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**CONOCOPHILLIPS COMPANY'S PROPOSED  
FINDINGS OF FACT AND CONCLUSIONS OF LAW**

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ConocoPhillips Company, pursuant to the Commission's direction, submits its proposed Findings of Fact and Conclusions of Law.

**ORDER OF THE COMMISSION**

This cause came on for hearing at 9:00am on July 28, 2011 before the Oil Conservation Commission of New Mexico, called the "Commission."

Now, on this \_\_\_ day of \_\_\_\_\_, 2011, the Commission, a quorum being present, having considered the testimony adduced and the exhibits received in the hearing, and having being fully advised in the premises:

### **FINDINGS OF FACT**

1. The Motion for Continuance filed by Cimarex Energy Company of Colorado, and its protestation of the absence of notice of this proceeding to it, was denied at the Hearing in this matter.

2. On further consideration, the Commission concludes that all vertical offset owners were entitled to Notice of these Applications. Applicant did not provide such Notice. Applicants' Notice was defective.

### **The Applications**

3. These Applications seek vertical extension of both the Burch Keely Unit (Case No. 14558) and the Grayburg Jackson (Seven Rivers-Queen-Grayburg –San Andres) Pool (Case No. 14577) to a depth of 5000 feet.

4. Prior to these Applications, the vertical interval of both the referenced unit and the pool was from the top of the Seven Rivers formation to 500 feet below the top of the Paddock formation (see Order No. R-10067, dated February 22, 1984).

### **The Parties**

5. Applicants COG Operating LLC, *nee* Marbob Energy Corporation ("Applicant"), own one-hundred percent (100%) of the working interest in the currently-defined Burch Keely Unit and the Grayburg-Jackson Pool. July 28, 2011 Hearing Transcript ("Trs.") at 44 (L 19-22)

6. Protestant ConocoPhillips Company owns a fifty percent (50%) undivided interest in the Grayburg Deep Unit, such Unit encompassing an ownership interest beginning at a vertical depth of 5000 feet, immediately below the proposed expansion sought by Applicant. Trs. at 123-124 (L 18-8).

7. ConocoPhillips is the designated Operator of the Grayburg Deep Unit. *Id.* at 179-180 (L 22-8)

### The Properties

8. The Grayburg Deep Unit, in which ConocoPhillips owns an interest and is the Operator, immediately underlies the Grayburg-Jackson Pool and the Burch Keely Unit beginning at a vertical depth of 5000 feet. The Grayburg Deep Unit was contracted by the BLM and currently consists of 2534.22 acres (Trs. at 176-77 [L23-25])) in the southeastern part of the overlying Burch Keely Unit. See COP Exhibit 1; Trs. at 182-183 (L 20-7).

9. Despite the current difference between the Burch Keely Unit and the Grayburg Deep Unit, the entire acreage of mineral ownership of the Grayburg Deep Unit Area is nearly co-extensive with the above-lying Burch Keely Unit. Such mineral ownership is affected by the Applications. Trs. 178-79 (L 10-6).

10. The leases governing the Burch Kelly Unit, and the underlying Grayburg Deep Unit, and mineral ownership outside that Unit, are the same federal leases. Hence the royalty owners above and below the 5000 foot level are the same; the overriding royalty owners vary slightly. Trs. at 124-25 (L 12 – 4).

## The Facts

11. The principal complaint presented by ConocoPhillips is that the grant of the subject Applications will result in the impairment of its correlative rights and in resultant economic and resource waste. ConocoPhillips has presented substantial credible evidence confirming its position, including establishing that:

A. The parties agree, and there is no dispute in these proceedings, that the 5000 vertical demarcation – between the Burch Keely Unit and the underlying Grayburg Deep Unit and other mineral acreage – is an *artificial* demarcation; there exists no geologic distinction above and below the 5000 foot level. Trs. at 70 (L 23-25), 72 (L 7-17), 101 (L 10-23), 143 (L 19-4). The rock above and below the 5000 level is the same. Trs. at 70 (L 23–25), 72 (L 11-17), 101 (L 10-23).

B. Applicant, with its well drilling and completion techniques, perforates and stimulates its Blinbry wells in this area, through fracing. See Concho Exhibit 18.

C. Applicant, and/or its predecessor, has already drilled a well – the #411 Well -- in the Burch Keely Unit to a completion depth of 5100 feet, into the Grayburg Deep Unit. It perforated and fraced that well at a depth of 4975, only 25 feet above the 5000 foot demarcation where ConocoPhillips' ownership begins. Trs. at 146-51 (L 24-2). Applicant suggests that a plug was set in the #411 Well, but no sundry notice was submitted to support that suggestion. Trs. at 231-32 (L 21-16).

D. Should these Applications be granted, Applicant admits that it intends to drill its wells “to just shy of 5000 feet,” immediately above ConocoPhillips'

ownership interest beginning at 5000 feet. Trs. at 80-81 (L 21-1). It will apply fracing simulation to each such well.

E. ConocoPhillips presented a model simulation, utilizing Applicants fracing stimulation in other comparable areas in southeast New Mexico, which demonstrated that if Applicant applies its usual fracing simulation in the Burch Keely Unit, above the Grayburg Deep Unit, Applicant will intrude on reserves in the Grayburg Deep Unit and impair ConocoPhillips' correlative rights. Trs. at 194-96 (L 13- 2), 198-202 (L 20-3); COP Exhibit Nos. 12-17.

F. Even if the Applications are granted, there exists a very real prospect that waste of resources, i.e. the stranding of resources, will occur. This conclusion is illustrated by COP Exhibit 9, which presents a cross-section within the Burch Keely Unit on a northwest to southeast axis, which Applicant had chosen not to present. The Exhibit illustrates that the Blinebry formation thickens "dramatically" from the northwest to the southeast and, further, that in the southeast portion of the Burch Kelly Unit a "significant" portion of the Blinebry lies *below* the 5000 foot ownership demarcation. Trs. at 153-58 (L 24-17). This evidence demonstrates that even if these Applications are granted, there is a very real prospect that resources will be stranded, resulting in waste. *Id.* It will be uneconomic for ConocoPhillips to develop the Blinebry formation in the northwest portion of the acreage below 5000 feet, because the Blinebry there is thin; similarly, it will be uneconomic for Applicant to develop the Paddock formation above 5000 feet in the southeast portion of the acreage, because the Paddock there is thin. Trs. at *Id.* The result is stranded reserves, which is waste.

12. Both parties agree that the subject acreage is a "common source of supply" both above and below the 5000 foot artificial demarcation line. Trs. at 70-71 (L 23-2).

13. Both sides agree that the most economic and efficient way to develop all reserves from the Blinebry formation underlying the subject acreage is through joint development. Applicant's witness Broughton admitted on cross-examination:

Q: Wouldn't the most economic and efficient way to produce all reserves in the Blinebry formation be to either force-pool the Blinebry or alternatively, jointly develop it between Conoco and Concho?

A: *I would agree that that's probably the case*, and we have not made any kind of a deal or arrangement to allow that though.

Trs. at 87 (L 14-21). Further:

Q: But you would concede for the Commission that as a petroleum engineer and a master geologist that the best way to develop this Blinebry productive formation is to either jointly develop it or force-pool Concho . . . .

A: Yes. We would develop it the entire interval – if we owned it.

Trs. at 88 (L 8-15).

14. ConocoPhillips has proposed joint development discussions with Applicant. See COP Exhibit 5; Trs. at 125-26 (L 19-1). But Applicant has not responded. *Id.* at 126 (L 2-5).

15. Applicant has other means, absent grant of these Applications, to effect production of its reserves. It can file applications to commingle production from the Burch Keely Unit and non-consolidated acreage above the 5000 demarcation. Trs. at 57 (L 6-23).

16. ConocoPhillips has no reasonable means, short of denial of these Applications, to protect its correlative rights. It can drill a "twin well," but that would be

unnecessarily wasteful. Trs. at 159 (L 7-22), 188-89 (L 22-7). Protestation of Applicant's individual Applications to Drill would be useless, because – as the Commission knows -- such Applications do not disclose Applicant's completions and fracing techniques.

17. Grant of these Applications will result in the drilling of unnecessary wells, the stranding of resources, and the impairment of ConocoPhillips' correlative rights.

ConocoPhillips Witness Angerman testified:

. . . . I believe the grant of these applications will effect waste in the form of stranded reserves in the Burch Keely unit, the Grayburg-Jackson pool, in the southeastern part of the Unit and in the Grayburg Deep unit in the northwestern part of the unit. It will result in the impairment of correlative rights in the form of unrestricted fracture growth across the arbitrary 5,000 foot boundary and it will result in the drilling of additional wells in order to target and produce the entire thickness of the Paddock and Blinebry.

Trs. at 159 (L 7-22); see also Trs. at 186, 188-89, 194 (L 2-10)

18. Despite introducing its Exhibit 20, indicating it expected to drill some 200 wells on the Burch Keely over the next 5 years, Concho witness Craig admitted on cross-examination that Concho could not say how many wells it intends to drill:

Q: You don't know how many wells you are going to drill in the next five years and you don't know whether they will be horizontal wells or vertical wells, right?

A: If you put it that way, that's right.

Trs. at 114 (L 17-21).

### **CONCLUSIONS OF LAW**

1. The Commission has jurisdiction of the parties and the subject matter of this dispute.

2. It is a fact conceded by both sides that the most economic and efficient way to produce all reserves in the Blinebry formation underlying the Burch Keely Unit is for ConocoPhillips and Concho to jointly develop it. A fair allocation of the resource through an agreed joint development plan would assure the protection of the correlative rights of all owners. Joint development would further assure that unnecessary and wasteful wells are not drilled. But the Commission has no jurisdiction to compel joint development.

3. If these Applications are granted, Applicant's stated intention to drill its wells to "just shy" of the 5000 foot artificial ownership -- and then apply its usual frac stimulation -- will result in the very likely result that Applicant will invade reserves owned by the Grayburg Deep unit owners, thus impairing their correlative rights.

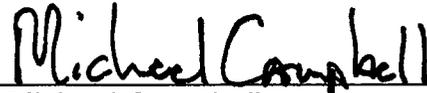
4. If these Applications are granted, the only choice presented ConocoPhillips is to drill "twin well" to a depth below the 5000 foot artificial demarcation line and would, in these circumstances, constitute economic waste.

5. Even if these Applications were granted, the evidence supports the conclusion that resources in the Blinebry formation will still be stranded, and thus wasted. Such waste will occur in the Blinebry formation above 5000 feet in the southeastern portion of the Unit, and below 5000 feet in the northwestern portion of the Unit.

WHEREFORE, given the particular and unusual facts of this case, the Applications are DENIED. The Commission strongly urges the parties to negotiate and effect joint development of the subject issues.

RESPECTULLY SUBMITTED,

Campbell Trial Law LLC

A handwritten signature in black ink that reads "Michael Campbell". The signature is written in a cursive style and is positioned above a horizontal line.

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**ATTORNEYS FOR CONOCOPHILLIPS  
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**CERTIFICATE OF SERVICE**

I certify that on August 26, 2011 I served a copy of this pleading to the following persons by e-mail:

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ATTORNEYS FOR APPLICANT

A handwritten signature in black ink, appearing to read "M Campbell", is written above a horizontal line.

Michael Campbell