

**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:**

**APPLICATIONS OF MEWBOURNE OIL
COMPANY FOR COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO.**

Case Nos. 23365 & 23366

**APPLICATIONS OF EARTHSTONE OPERATING,
LLC FOR A SPACING AND PRORATION UNIT
AND COMPULSORY POOLING, LEA COUNTY,
NEW MEXICO.**

Case Nos. 23475 & 23477

MEW2BOURNE OIL COMPANY'S PROPOSED FINDINGS AND CONCLUSIONS

Mewbourne Oil Company ("Mewbourne") submits the following proposed findings and conclusions, as requested by the Division:

A. BASIC INFORMATION.

1. Mewbourne is the operator of the North Wilson Deep Unit ("NWDU"), which covers 12,142.39 acres of State lands. **See Order No. R-21721** (the Division's order approving the NWDU). The Unit includes the E/2 of Section 7, Township 21 South, Range 35 East, NMPM.

2. Mewbourne filed applications seeking to pool the Bone Spring formation underlying (a) the W/2E/2 of Section 7 and the W/2E/2 of Section 18 (Case No. 23365), and (b) the E/2E/2 of Section 7 and the E/2E/2 of Section 18 (Case No. 23366), in Township 21 South, Range 35 East, NMPM. The initial target zone for its proposed NWDU 8H and 9H wells is the Lower Second Bone Spring.

3. Earthstone Operating, LLC (“Earthstone”) has also filed applications seeking to pool the Bone Spring formation underlying (a) the W/2E/2 of Section 7 and the W/2E/2 of Section 18 (Case No. 23477), and (b) the E/2E/2 of Section 7 and the E/2E/2 of Section 18 (Case No. 23475), in Township 21 South, Range 35 East, NMPM. The initial target zones for its four proposed Outland wells are (a) the First Bone Spring (2 wells), (b) the Upper Second Bone Spring (1 well), and (c) the Lower Second Bone Spring (1 well).

4. The Commission and the Division have considered the topic of awarding operatorship in the event of conflicting applications. The first order was Commission Order No. R-10731-B. It stated that the following factors should be evaluated:

- (a) Geologic evidence and associated risk of the proposals.
- (b) Good faith negotiations.
- (c) Risk factor.
- (d) Prudent operations.
- (e) AFE costs.
- (f) Working interest ownership or control.

Division Order R-21834 discussed another factor:

- (g) The ability of an applicant to timely locate well sites and to operate on the surface.

These factors will be further discussed in Part C below.

5. The parties presented the following witnesses in support of their applications:

Mewbourne: Adriana Salgado (land), Jordan Carrell (geology), and Nick Stowers (engineering).

Earthstone: Amanda Redfearn (land), Jason Asmus (geology), and Nicholas Goree (engineering).

B. PROPOSED FINDINGS.

Land

1. Mewbourne began the unitization process for the NWDU in 2020, and the unit was approved by the Division in June 2021. A. Salgado, Transcript (Tr.) at 99. It was proposed for the purpose of developing the Bone Spring formation in this area; no Bone Spring wells had been drilled in this area for many years before the NWDU was approved. J. Carrell, Tr. at 142.

2. The unitization process was lengthy, and Mewbourne agreed with 2-3 operators to exclude several tracts from the original unit boundary, at their request, in order to obtain quick approval of the NWDU. One of those tracts is the E/2 of Section 18, which was excluded at the request of Chisholm Energy (now Earthstone). Chisholm Energy had an approximate 50% working interest in that tract, and it did not want to spread that interest through the NWDU. A. Salgado, Tr. at 101. Earthstone also owns an interest in the NWDU, which is subject to the unit agreement and the unit operating agreement. A. Salgado, Tr. at 119. Under Paragraph 7. Rights and Obligations of the Unit Operator of the unit agreement, “the exclusive right, privilege and duty of exercising any and all rights of the parties hereto which are necessary or convenient for prospecting for, producing, storing, allocating, and distributing the unitized substances are hereby delegated to and shall be exercised by the unit operator” which is Mewbourne. This complies with NMAC 19.15.15.12.E.

3. After unitization was approved, Mewbourne immediately began the process to drill wells in the NWDU, because it is obligated to drill 14 wells during the first 5 years of the unit agreement becoming effective. In addition, the unit area will automatically contract after 10

years, so it must continuously drill wells after the first 5 years to keep a maximum amount of acreage in the NWDU. A. Salgado, Tr. at 100.

4. Mewbourne has drilled successfully drilled and completed 4 NWDU wells to date. All of them had to be force pooled because of uncommitted working interest owners in each well unit. A. Salgado, Tr. at 100.

5. Mewbourne's AFEs are fair and reasonable, and are based on Mewbourne's experience in drilling its NWDU wells immediately to the east-southeast of the wells proposed in these cases. Mewbourne Ex. 2; Mewbourne Ex. 5-A.

Earthstone did an analysis of the parties AFEs and stated that Earthstone's AFEs were about 4% less than Mewbourne's. Earthstone Ex. C at p. 3. However, Mewbourne's AFEs were prepared in November 2022 (Mewbourne Exhibit 2-4), and Earthstone admitted that drilling costs have come down in the last year. N. Goree, Tr. at 260-261.

6. Mewbourne has been working with operators in and near the unit area for 3 years. It proposed its wells in these cases in November 2022, and has made a good faith effort to obtain voluntary joinder in its NWDU wells. Mewbourne Ex. 2 at p. 2 and Ex. 2-3

7. Mewbourne never agreed not to pool the E/2 of Section 18. There is no written or other agreement so stating. A. Salgado, Tr. at 116-117; A. Redfearn, Tr. at 195. All interest owners in the E/2 of Section 7 are consenting parties to the NWDU.

8. As of the date of hearing, Mewbourne had approval from approximately 72% of the working interest owners in the well units for its development proposal, whereas Earthstone has only 25% approval. A. Salgado, Tr. at 104, 106; Mewbourne Ex. 2-2. Mewbourne's support includes the interest of Devon Energy. Mewbourne Ex. 4.

9. Both Mewbourne and Earthstone have surface use agreements with the surface owner, Merchant Livestock. A. Salgado, Tr. at 106; Earthstone Ex. A at p. 8. Mewbourne already has production facilities in place to the east and north of its proposed wells, and has not had any surface use issues. It anticipates no surface use issues with its NWDU 8H and 9H wells. A. Salgado, Tr. at 106; J. Carrell, Tr. at 135-136.

10. Division and State Land Office rules both require an operator to have approval from the Land Office to drill a well across both unit and non-unit acreage. Mewbourne has that approval; Earthstone has no such approval. Mewbourne Ex. 3; A. Salgado, Tr. at 103.

Geology

11. The target zone in the proposed NWDU Well Nos. 8H and 9H is the Lower Second Bone Spring Sand. This is the same target zone as in Mewbourne's NWDU Well No. 3H, which is the nearest producing offset to all proposed wells. It is a prolific well, and Earthstone's Ex. B-6 estimates that it will have produced 350,000 BO by September 2024. The Lower Sand is the best target in this area, being consistent and thick. J. Carrell, Tr. at 137.

The NWDU Well Nos. 4H, 6H, and 7H, have also been successfully drilled and completed. J. Carrell, Tr. at 137.

12. Mewbourne has the most experience drilling in this area. It does not want to drill an Upper Second Bone Spring well in these units because the log evidence from the Packer well in the NE/4NE/4 of Section 18 shows that the Upper Second Bone zone is only about half as thick as the Lower Second Bone Spring zone. Mewbourne Ex. 12; J. Carrell, Tr. at 137. In addition, the Keplinger well drilled by Matador Production Company, in Section 13 to the west of the proposed well units, was completed in the Upper Second Bone Spring with a large frac,

and it is a very poor well. The Upper Second Bone Spring zone is variable in quality. J. Carrell, Tr. at 137-138, 141; N. Stowers, Tr. at 274-275.

13. Mewbourne was originally going to drill the 8H and 9H wells from Section 7 northward through the NWDU, but decided to form its well units to include the E/2 of Section 18 so that that acreage didn't have to be developed with 1 mile laterals (Bone Spring development has already occurred in Section 19, south of Section 18.) Mewbourne Ex. 5 at p.1. Earthstone stated that it didn't want to drill one mile laterals. A. Redfearn, Tr. at 191.

14. Mewbourne has plans to drill First Bone Spring wells in the future. J. Carrell, Tr. at 138-139. It didn't initially propose First Bone Spring wells in these units, because it has drilled a First Bone Spring well (the La Trucha well) in Section 6 to the north, and the gas in that well has a high H₂S level (about 6000 ppm). There is currently no takeaway system for the sour gas. Mewbourne is working with a third party to get the proper facilities in place, but they will not be ready until later next year. J. Carrell, Tr. at 161. At that time it can propose First Bone Spring wells under the pooling orders. J. Carrell, Tr. at 140-141. There will be no adverse effect on a First Bone Spring well being drilled after Lower Second Bone Spring Wells are drilled. J. Carrell, Tr. at 138-139, 153, 148-149, 193.

Engineering.

15. Earthstone presented evidence about pressure drawdown from the NWDU Well No. 3H on the Lower Second Bone Spring in a portion of the E/2SE/4 of Section 18. Earthstone Exs. B-6 and B-7. However, it presented no underlying data, and that evidence is speculative (N. Stowers, Tr. at 273). Even if correct, it would affect only a small amount of acreage in the E/2SE/4 of Section 18. The best remedy for that potentiality is to drill the Lower Second Bone

Spring in the E/2E/2 of Section 18 to counter any possible drainage. N. Stowers, Tr. at 274, 276-279.

16. Earthstone presented testimony on proppant intensity and the effect of offset spacing on production. However, Mewbourne showed that there is no discernable correlation in the data between cumulative oil production per foot and proppant intensity when comparing 2000 pounds per foot to 2500 pounds per foot. Also, there are other factors such as timing of drilling offset wells, length of wellbore being offset, and geology that can affect well performance, besides offset well spacing and proppant intensity. Mewbourne Ex. 11 and Ex. 11-A; N. Stowers, Tr. at 276-280

This is further shown by the Keplinger well, which is a standalone (no parent-child well relationship) completed in the Upper Second Bone Spring with a proppant intensity of 2600-2700 pounds per foot. It is a poor well, producing 11 barrels per foot, about half the oil as produced by Mewbourne's Inland wells in the area (23-25 barrels per foot). J. Carrell, Tr. at 138; N. Stowers, Tr. at 276-280; Mewbourne Ex. 11 and Ex. 11-B.

C. ANALYSIS AND CONCLUSIONS.

1. The factors to consider are as follows:

(a) Per NMAC 19.15.16.15.B(6), Mewbourne is the only company with the consent of the Commissioner of Public Lands to legally drill and complete wells with a horizontal spacing unit that seeks to include lands within the NWDU.

(b) Geologic evidence and associated risk of the proposals. The parties differ on whether the E/2E/2 well unit should be dedicated to Lower or Upper Second Bone Spring wells. Earthstone asserts that the Upper Second Bone Spring zone should be drilled,

because the Lower Second Bone Spring well of Mewbourne may be partially pressure depleted.

The evidence is clear that the Upper Bone Spring zone in the E/2 of Section 18 is thin and variable. J. Carrell Tr. at 138. Also, the assertion of pressure depletion is limited by the fact that only a small part the E/2SE/4 of Section 18 may be pressure depleted, because the offsetting NWDU Well No. 3H could only affect that acreage. The evidence of pressure depletion pertains to cases where the full lengths of the parent and child wells are next to each other. Because of the acreage to which the NWDU Well No. 3H is dedicated, pressure depletion could only affect a small portion of the E/2SE/4 of Section 18.

On the other hand, the Lower Second Bone Spring zone is the better target, and the Upper Second Bone Spring will not be as productive as the Lower Second Bone Spring. Mewbourne's proposal has less risk than that of Earthstone.

As a result, this factor favors Mewbourne.

(c) Good faith negotiations. The parties have been in negotiations for almost a year. and those parties have had many contacts. This consideration favors no one.

Earthstone has complained that Mewbourne, in obtaining approval from the State Land Office for unit acreage to be pooled with NWDU acreage, shows bad faith. However, Mewbourne, as unit operator, has the right to seek regulatory approval for NWDU wells. Moreover, since Earthstone has interests voluntarily committed to the NWDU, it has agreed that Mewbourne must be operator of unit acreage. It has backtracked on that agreement, since it now seeks to operate unit acreage.

This factor is neutral.

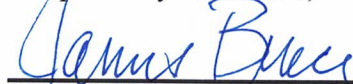
- (d) Risk factor. Both parties seek a 200% risk charge. Again, this is not a factor.
- (e) Prudent operations. Both parties are competent operators. Mewbourne has successfully drilled and completed 4 wells in the NWDU. This is also a non-issue.
- (f) AFEs. The AFEs are comparable. The Commission has stated that small differences in AFEs are not important. Order No. R-10731-B. Again, this factor is neutral.

Moreover, there is no evidence that Earthstone objected to the AFEs for the NWDU Well Nos. 3H, 4H, 6H, and 7H.

- (g) Working interest ownership or control. Mewbourne controls 72% of the working interest in the well units. The Division has always recognized that the party or parties paying the large majority of the well costs should be awarded operations. This factor heavily favors Mewbourne.
- (h) The ability of an applicant to timely locate well sites and to operate on the surface. Both parties can do this. Mewbourne has a SOPA agreement with the surface owner, as does Earthstone. But, because of its ability to locate and drill its 4 unit wells, this issue favors Mewbourne.

2. Because of the foregoing, the applications of Mewbourne should be approved, and those of Earthstone should be denied.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing pleading was served upon the following counsel of record this 24th day of October, 2023 by e-mail:

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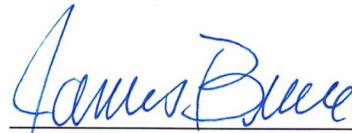
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