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

APPLICATION OF MARATHON OIL PERMIAN LLC FOR A NON-STANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO. 16300

AMENDED APPLICATION OF MARATHON OIL PERMIAN LLC FOR APPROVAL OF A NON-STANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO. 16076

AMENDED APPLICATION OF MARATHON OIL PERMIAN LLC FOR A NON-STANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO. 16077

AMENDED APPLICATION OF BTA OIL PRODUCERS, LLC FOR A NON-STANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO. 16024

APPLICATION OF BTA OIL PRODUCERS, LLC FOR A NON-STANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO. 16161

APPLICATION OF BTA OIL PRODUCERS, LLC FOR A NON-STANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NO. 16162

CLOSING STATEMENT BY MARATHON OIL PERMIAN LLC ("MARATHON")

This matter involves competing applications filed by Marathon Oil Permian LLC ("Marathon") and BTA Oil Producers, LLC ("BTA"). Pursuant to NMSA 1978, § 70-2-1, et seq.,

the Division must, in general, deny an application that will result in waste. In determining whether waste exists, the Division will typically examine competing proposals submitted in the parties' pooling applications and determine which development plan will result in optimal recovery. When this comparison is made, it is clear that Marathon's applications must be granted and that BTA's applications must be denied.

Case Nos. 16024 and 16076 contain competing development plans which both involve the Wolfcamp formation within the W/2 of Section 29 and the NW/4 of Section 32. As presented at the April 24, 2018 and July 13, 2018 hearings, BTA proposed in Case No. 16024 to drill **two** Wolfcamp XY wells that are 1.5 miles long. In Case No. 16076, Marathon has proposed to drill **seven** Wolfcamp wells (two XY wells, one A well, two C2 wells, and two D wells), which are each either one 1 mile or 1.5 miles long. While BTA initially argued at hearing that these cases involve a dispute between the development of 1 mile verses 1.5 mile long laterals, **the real issues** in this matter revolve around density and well spacing within the proposed spacing units. Marathon seeks to ultimately drill 10 wells within the unit. BTA has opposed this development plan and instead prefers to drill only 4 total Wolfcamp wells within its proposed spacing unit.

Similarly, Case Nos. 16161, 16162, 16077 and 16300 contain competing proposals involving the Bone Spring formation. BTA proposes in Cases 16161 and 16162 to drill **two** Third Bone Spring wells. In contrast, Marathon proposes in Cases 16077 and 16300 to drill a total of **three** Bone Spring wells (one Third Bone Spring Sand well, and two Second Bone Spring wells). Even more important, BTA's witnesses testified at both the April 24 and July 12 hearings that the Bone Spring wells will not be completed until sometime after the upper Wolfcamp wells are completed. This completion plan presents significant risk of placing a well in a depleted reservoir

and will likely result in asymmetrical fractures in the Third Bone Spring Sand, resulting in waste and unrecovered reserves. *See* Aff'd of Mikhail Alekseenko, dated July 17, 2018.

Marathon's objection to BTA's development plan is simple – drilling too few wells within the spacing units will result in waste and lower recovery. More importantly, BTA's completion plan will result in Third Bone Spring wells being drilled into depleted areas of the reservoir. As a consequence, Marathon requests that it be appointed as operator of this acreage in order to pursue a density and completion plan that will adequately protect its interests against the creation of waste.

BACKGROUND

The Oil and Gas Act, NMSA 1978, § 70-2-1, et seq., expressly prohibits the creation of waste. Section 70-2-2 states "[t]he production or handling of crude petroleum oil or natural gas of any type or in any form . . . in such manner or under such conditions or in such amounts as to constitute or result in waste is each hereby prohibited." The statute further explains that waste may occur underground by "the locating, spacing, drilling, equipping, operating or producing, of any well or wells in a manner to reduce or tend to reduce the total quantity of crude petroleum oil or natural gas ultimately recovered from any pool[.]" NMSA 1978, § 70-2-3. Pursuant to this statutory language, the Oil Conservation Commission (the "Commission") has issued regulations indicating that correlative rights may only be considered by the Division when doing so will not result in waste. See 19.15.2.7.C.13 NMAC. In fact, the term "correlative rights" has been defined as:

the opportunity afforded, as far as it is practicable to do so, to the owner of each property in a pool to produce <u>without waste</u> the owner's just and equitable share of the oil or gas in the pool, being an amount, so far as can be practically determined, and so far as can be practicably obtained <u>without waste</u>, substantially in the proportion that the quantity of recoverable oil or gas under the property bears to the total recoverable oil or gas in the pool, and for the purpose to use the owner's just and equitable share of the reservoir energy.

Id. (emphasis added). Thus, the concept of correlative rights cannot be utilized to support a development plan that will result in the creation of waste.

DIVISION AND COMMISSION AUTHORITIES

In several Commission and Division Orders, the agency has concluded that the comparison of geologic evidence and prospect difference between the two applications is "the most important consideration in awarding operations to competing interest owners." Order R-14526, p. 6 (quoting Order R-10731-B) (emphasis in the original); see also Order R-14443 (focusing primarily on geologic and recovery issues when evaluating competing development plans). When reviewing such competing development plans, the Division considers and weighs the following factors:

- (a) A comparison of geologic evidence, and the potential of each proposal to efficient recovery oil and gas underlying the property;
- (b) A comparison of risks associated with the parties' respective proposals;
- (c) A review of negotiations between the competing parties, to ensure that the parties attempted to negotiate in good faith;
- (d) A comparison of the ability of each party to prudently operate the property, and thereby, prevent waste;
- (e) A comparison of differences in well cost estimates;
- (f) A comparison of differences in administrative and supervisions expenses; and
- (g) An evaluation of the mineral interest ownership held by each party at the time the application was filed.¹

See Order R-14526; Order R-14518; Order R-107331-B; Order R-14443; and Order R-13372-D.

¹ In cases in which there is no difference in the development plans and geologic evidence presented, the Division will look at issues such as "working interest control" and who first proposed wells within the area. See Order R-11869; Order R-12511-A; Order R-13481; Order R-11870. However, this is not the case here. In this matter, the parties presented conflicting evidence concerning faulting within the underlying formations, and the risk associated with horizontal drilling operations within such formations. The parties also presented divergent completion, well spacing, and density plans for the proposed spacing units.

ARGUMENT

When applying the above factors, it is clear that Marathon's applications in Case Nos. 16076, 16077 and 16300 should be granted and that BTA's applications should be denied. As discussed below, Marathon has superior technical data related to the unit from its other operations in the area. This data has enabled Marathon to compile a superior development plan that substantially differs from the plan proposed by BTA. In addition, Marathon has proposed lower administrative expenses for drilling and producing wells, which will result in lower costs to the parties. As a result, Marathon should be appointed as the operator of this acreage for the following reasons.

1. MARATHON HAS ACQUIRED SIGNIFICANT DATA FROM ITS OPERATIONS IN THE SURROUNDING AREA.

First, Marathon has drilled wells in the area that have been completed and are currently producing. See July 13 Transcript, p. 280-281. Because of these operations, Marathon has acquired superior geologic information concerning the underlying formations. This information includes proprietary seismic studies and actual production data from the area. See July 13 Transcript, pp. 286-287; 296. Marathon obtained this information while drilling numerous other 1 mile laterals within the surrounding areas. See, e.g., Marathon Exhibit R, Activity Map. Marathon's study of the Wolfcamp and Bone Spring formations have shown that there are numerous small displacement faults within the Wolfcamp and Third Bone Spring formations which make it difficult to stay within the targeted zones while drilling horizontal wells. See July 13 Transcript, pp. 286-287. In contrast, BTA's study of the underlying formation is lacking because BTA failed to identify any faulting in its studies. See July 13 Transcript, p. 93. This lack of information is concerning because there is a greater risk that BTA will not stay within its targeted zones when drilling its proposed wells. See July 13 Transcript, p. 287.

In addition to seismic data, Marathon has drilled a pilot hole in the area, collected 400 feet of core, and ran five runs of open-hole wireline logging and sidewall-core collection. *See* July 13 Transcript, p. 294. This information, along with significant pressure data obtained for the area, have been utilized to compile frack models for Marathon's development plans; and this data shows the lack of a sufficient mechanical barrier in the area between the Third Bone Spring Sands and portions of the Upper Wolfcamp formation. *See* July 13 Transcript, pp. 295-296. This is significant because BTA has proposed to locate its Third Bone Spring wells only 330' away from the Upper Wolfcamp wells proposed by BTA. *See* July 13 Transcript, p. 297. Marathon testified that this is tighter spacing than what has been used by other operators in the area. Without codevelopment of these zones, waste will be created and correlative rights within the Bone Spring formation will be unduly impacted.

2. MARATHON'S DATA AND INFORMATION HAS HELPED CREATE A SUPERIOR DEVELOPMENT PLAN FOR THE ACREAGE.

Second, Marathon's development plan is based on actual technical data from the area and will result in superior recovery of underlying reserves. This makes Marathon's development plan less risky and will optimizes recovery from the spacing units.

Marathon's development plan includes: (1) co-development of the Third Bone Spring Sand and Upper Wolfcamp formations; (2) development of the Wolfcamp A formation; and (3) superior spacing in the Lower Wolfcamp formation. In contrast, BTA proposes to complete these two Wolfcamp XY wells several months prior to drilling and completing two Third Bone Spring Sand wells. Marathon testified that based on its experience, this delay in development will result in waste due to fractures growing into depleted portions of the reservoir. *See* July 13 Transcript. pp. 297-298.

As explained by Marathon's witnesses and through the data submitted in connection with Mr. Alekseenko's July 17 Affidavit, Marathon's experience has shown that the Wolfcamp XY and Third Bone Spring Sand horizons need to be simultaneously completed in this area to optimize recovery and prevent waste.² When simultaneous completion does not occur in these formation zones, fractures in the later drilled Third Bone Spring Sand wells tend to grow into depleted portions of the reservoir, resulting in waste and sub-optimal recovery. *See* Alekseenko Aff'd, Dated July 17, 2018.

Additionally, Marathon is the only applicant proposing to produce reserves in the Wolfcamp A formation. *See* Marathon Exhibits S and CC. Likewise, Marathon proposes more aggressive spacing and development in the Lower Wolfcamp formation with multiple C2 and D wells. *See* Marathon Exhibit CC. All of these wells will be subject to timelines established the Division's Order – showing that Marathon is ready, willing and able to pursue the drilling of such wells. *See* Marathon's Amended Applications. In comparison, BTA's application in Case No. 16024 does not actually propose any Wolfcamp D wells. *See* BTA Application, Case 16024. As a result, nothing within an order issued by the Division for Case No. 16024 will specifically address development within the Wolfcamp D formation – since BTA has not officially proposed any such wells in its pooling application. This is significant because: (1) these deep wells are costly and difficult to drill; (2) BTA initially expressed an unwillingness to Marathon to invest in the development of the Wolfcamp D formation; and, (3) both parties have rights which are subject to

² The Division has previously concluded in other cases that completing wells simultaneously prevents waste because it reduces pressure drawdown on portions of the reservoir which were completed previously. Order R-14513, p. 3.

³ While BTA has recently proposed two Wolfcamp D wells to Marathon, it has not amended its pooling application in Case No. 16024 to include these wells. In contrast, Marathon has amended its applications to drill and complete all ten wells that it has proposed.

a depth severance which will cause the interests to expire in the event a well within the Wolfcamp D formation is not adequately completed.

More importantly, Marathon has designed its spacing in the Wolfcamp D formation based on the thickness of the formation and lower permeability of the shales found within this formation, which require greater amounts of fracturing to result in economic returns. *See* July 13 Transcript, p. 339. In contrast, BTA merely appears to be trying to mimic a four-well spacing pattern used by other operators within other portions of the Wolfcamp formation.

3. BTA'S DEVELOPMENT PLANS WILL RESULT IN WASTE.

Third, BTA's development plans will result in waste. At hearing, BTA's witnesses confirmed that BTA is still unsure of how it will drill and complete the wells within the proposed spacing units. This testimony indicated that BTA's completion plans are primarily driven by when it can obtain its permits — not a scientific design created to optimally drain the units. BTA's lack of data and completion timing for its wells will unfortunately result in sub-optimal recovery and waste. This is because major operators are recently discovering the negative impacts of drilling initial wells and later coming back to add infill wells. *See* Marathon Exhibits DD, EE, FF, and the Affidavit of Mikhail Alekseenko. While such infill development does not always result in waste, recent production data for this particular area and these particular zones show that waste will result here. The waste caused by BTA's plans is created by:

- 1. Close spacing between BTA's Third Bone Spring Sand wells and Upper Wolfcamp wells, and the fact that the Upper Wolfcamp wells will likely be drilled and completed several months before the Bone Spring wells can be drilled;
- 2. Undeveloped zones in the Wolfcamp formation such as the Wolfcamp A zone; and
- 3. A lack of adequate well spacing in the Lower Wolfcamp formation.

As a result, BTA's applications must be denied.

4. MARATHON CAN PRUDENTLY OPERATE THE PROPERTY AND HAS PROPOSED LOWER ADMINISTRATIVE EXPENSES.

Fourth, it is undisputed that Marathon can prudently operate the property. Marathon is a major operator who has drilled and is in the process of drilling numerous wells in the area. Marathon has negotiated disposal agreements, pipeline agreements and purchase agreement for the unit, and testified at the July 13th hearing that it had an agreement in principle with the surface owner. *See* July 13 Transcript, pp. 260-261. Marathon has provided well cost estimates based on actual quotes that it received from vendors to drill the wells that it has proposed. In addition, Marathon has offered BTA lower administrative and supervision expenses than those proposed by BTA. Marathon will charge \$7500/month for drilling 1.5 mile wells and \$750/month for producing wells. *See* Marathon Exhibit W, p. 2. In contrast, BTA has proposed \$8000/month for drilling wells and \$800/month for producing wells. *See* April 24 Transcript, p. 32. As a result, if the Division appoints Marathon as operator, the parties will incur lower costs for administration fees.

5. THE PARTIES HAVE ENGAGED IN GOOD FAITH NEGOTIATIONS.

Fifth, the evidence shows that Marathon engaged in good faith negotiations and discussions with BTA. Marathon sent BTA sample AFEs, numerous trade offers, and even offered to purchase BTA's interests. July 13 Transcript, p. 255. The parties, however, have been unable to reach a deal concerning the development plans for the property.

6. MARATHON'S WASTE CONCERNS ARE SO GREAT THAT IT IS WILLING TO OPERATE WITH A MINORITY WORKING INTEREST PERCENTAGE.

Finally, the Division and the Commission have found that working interest control is only a factor when there are not geologic and waste considerations involved in the case. Clearly, that is not the situation here. While Marathon does not own the majority of operating rights within the W/2 of Section 29, it does own over 44.5% of the interests within that 320 acre unit. The fact that

Marathon is willing to undertake operations for 1.5 mile laterals with diluted ownership percentages is telling. The reason Marathon seeks to do this is because it is concerned about BTA's development plans for the acreage. Marathon is significantly concerned that if BTA is awarded operatorship and allowed to drill its wells, as proposed, that significant waste will be created.

CONCLUSION

Based on the foregoing, Marathon asks that the Division grant its applications in Case Nos. 16076, 16077, and 16300, and deny BTA's applications in Case Nos. 16024, 16161, and 16162.

Respectfully submitted,

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CERTIFICATE OF SERVICE

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