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

APPLICATIONS OF CIMAREX ENERGY CO. FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO

Case Nos. 22313-22316

APPLICATIONS OF DEVON ENERGY PRODUCTION COMPANY, L.P. FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO

Case Nos. 22179-22180 & 22382

NOTICE OF CIMAREX'S POST-HEARING EXHIBIT SUBMITTAL

Cimarex Energy Co., pursuant to the Division Examiner's instructions at the close of the hearing on these matters, provides notice that it is filing post-hearing exhibits as follows:

- Replacement Land Slides B-6 and B-9: Revised to update the ownership information in the SW/4, to remove the pre-trade information, and to reflect Cimarex's acreage after the trade with ConocoPhillips. These two slides replace existing Land Slides B-6 and B-9.
- Replacement Geology Affidavit: Revised to correct certain errors in pre-filed testimony. The Replacement Geology Affidavit replaces the existing Geology Affidavit, which is Exhibit C.
- Replacement Reservoir Engineer Affidavit: Revised to correct certain errors in pre-filed testimony. The Replacement Engineer Affidavit replaces the existing Engineer Affidavit, which is Exhibit D.
- Replacement Engineer Slides D-12, D-13, D-14, and D-15-A: Revised to reflect addition of Devon Boundary Raider 712H well and updated well information. Replacement

Engineer Slides D-12, D-13, D-14, and D-15-A replace existing Engineering Slides D-12, D-13, D-14, and D-15-A.

Respectfully submitted,

MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A.

By: Deana M. Bennett

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CERTIFICATE OF SERVICE

I hereby certify that on April 7, 2022, I served a copy of the foregoing document to the following counsel of record via Electronic Mail to:

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Deana M. Bennett

Cimarex Has Majority WI in Its Proposed Units-Revised*

Cimarex Coriander Development WI% - POST-TRADE

- Cimarex WI: 71%
- Devon WI: 25%
- Conoco WI: 4%

WI Percentages W/2 Section 12 Only

- Devon WI: 50%
- Cimarex WI: 42%
- Concho WI: 8%

* Revised Slide B-6: revised to add W/2 of Section 12 only WI percentages and to reflect Cimarex controlled acreage in diagram.

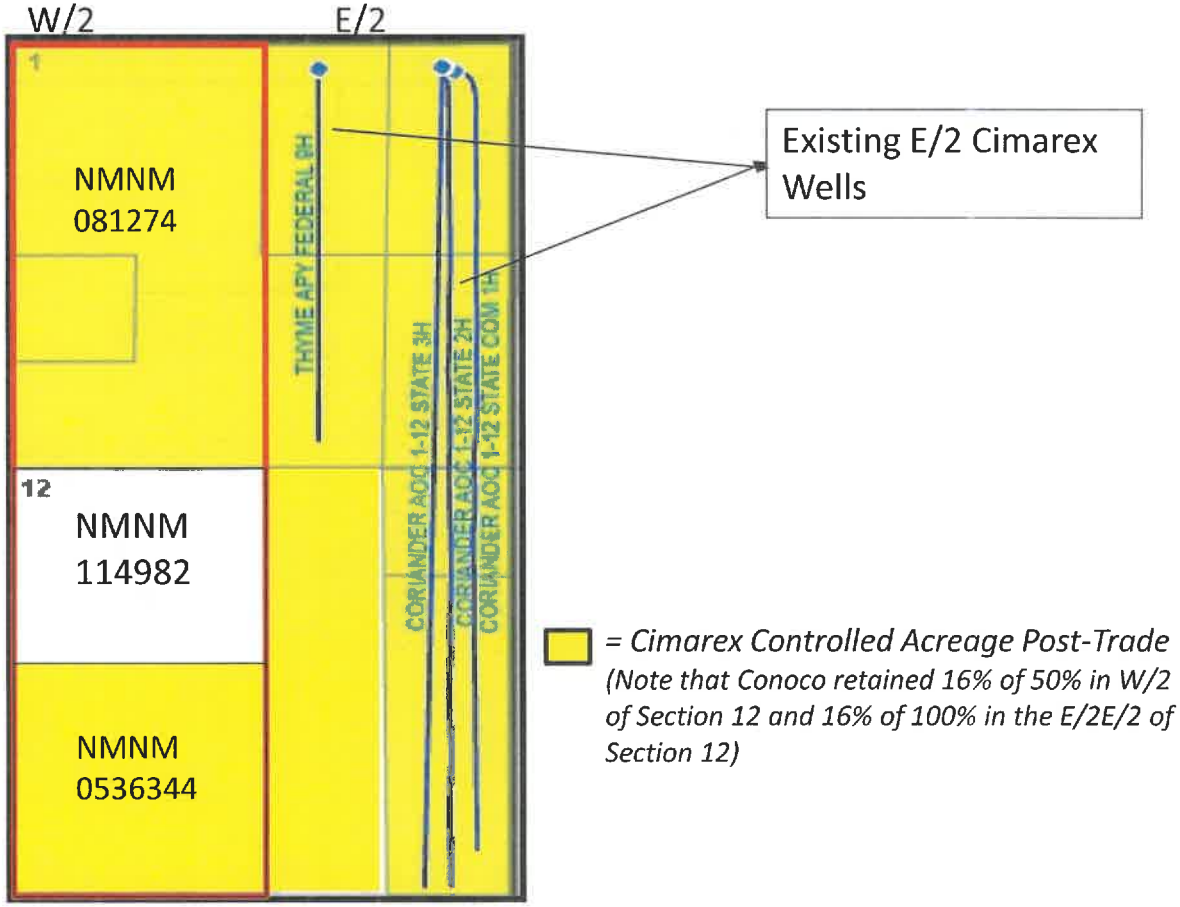
Revised Tract Map/Ownership For Cimarex Coriander Units-Post Conoco Trade*

NMNM 081274:
- Lots 1 & 2, S2NW &, & SW4 of Section 1, T23S-R32E
- 160 Acres
- Cimarex: 100%

NMNM 114982
- NW/4 of Section 12 T23S-R32E
- 160 Acres
- Devon 100%

NMNM 053644
- SW/4 of Section 12T23S-R32E
- 160 Acres
- *Cimarex 42%*
- *Concho 8%*

*Revised B-9: Revised to update ownership in SW/4 of Section 12 and to reflect Cimarex controlled acreage post-trade. Revisions in italics.



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REVISED AFFIDAVIT OF JENNIFER A. BLAKE[1]

Jennifer A. Blake, being duly sworn, deposes and states:

1. I am over the age of 18, I am a geologist for Cimarex Energy Co. ("Cimarex"), and have personal knowledge of the matters stated herein.

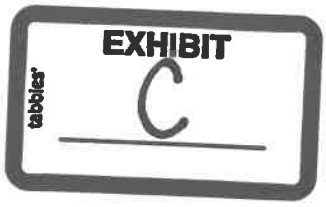
2. I have not previously testified before the Oil Conservation Division ("Division").

3. I attended the Colorado School of Mines where I received a MS in Geology. I attended Texas A&M University for my undergraduate work, where I received a BS in Geology.

4. I have worked as a geologist since 2018, beginning as a summer intern, and since June 2020 as a geologist for Cimarex. My resume summarizing my educational and work experience is attached to this affidavit as Exhibit E-2.

5. My work for Cimarex includes the Permian Basin in New Mexico.

[1] Revisions reflect changes made by Ms. Blake at the hearing held on March 24, 2022. Changes to the testimony are bolded and underlined.



6. I am familiar with the applications filed by Cimarex in Cases 22313-22316 and with the applications filed by Devon Energy Production Company, L.P. ("Devon") in Cases 22179-22180, and 22382.

7. I conducted a geological study of the areas embracing Cimarex's Coriander Fed Com Development Area and Devon's Sneaky Snake Development Area. As Ms. Henriques testified, one of the primary issues in these contested cases is operatorship of Section 12, which is the "Overlap Acreage." While I focus on the Overlap Acreage/Section 12, my testimony applies equally to Devon's development plan in general. Cimarex's development plan for the Overlap Acreage is superior to Devon's because:

- In this area, three-mile laterals are risky due to the geology of the Avalon because of the volumes of limestone and chert present, which makes drilling and completing wells more difficult, making Devon's plans to develop Section 12 riskier than Cimarex's. Simply put, based on the geology in this area, Devon's 3-mile development plan for the Avalon presents risk that Cimarex's does not and, as a result, Cimarex's plan to develop the Overlap Acreage is superior to Devon's.
- Cimarex's development plan prevents waste of reserves in the Overlap Acreage while Devon's development plan will result in waste because Cimarex is targeting the First Bone Spring Sand and Devon is not. The First Bone Spring Sand has thick net reservoir—Devon's plan leaves behind all reserves in the First Bone Spring in the Overlap Acreage, as well as along the other two miles at issue in Devon's plan.
- Cimarex's development plan prevents waste of reserves in the Overlap Acreage while Devon's development plan will result in waste for a second reason—Cimarex is directly targeting the Third Bone Spring Sand and Devon is not. Devon's uppermost Wolfcamp targets likely will not access the entire Third Bone Spring Sands reserves because there is a significant volume of carbonate between Devon's Wolfcamp X Sand landing and the 3rd Bone Spring Sand reservoir, making the likelihood of their Wolfcamp X Sand wells accessing the Third Bone Spring Sand reservoir low. Cimarex's 3rd Bone Spring Sand target is superior to Devon's Wolfcamp X Sand

landing because (a) the upper and lower wells have a larger vertical spacing (approximately 300 ft. versus 190 ft.) and (b) Cimarex's planned Third Bone Spring Sand wells have a significantly higher probability of draining the reserves from the Third Bone Spring Sand compared to Devon's planned Wolfcamp X Sand wells.

8. Exhibits C-1 and C-2 are relevant to all of the cases. Exhibit C-1 is a locator map, which identifies the general location of the Coriander Fed Com Project Area within the Permian Basin. Exhibit GEO-2 is an excerpt from Snee & Zoback, 2018, identifying the horizontal stress orientation in this area. The preferred well orientation in this area is N-S/S-N, due to the fact that regional max horizontal stress orientation in this area is approximately N80E.

9. The exhibits behind Tab C-3 are the geology study I prepared for Case No. 22315, which involves Avalon wells, which are the 19H, 29H, and 30H wells.

10. Exhibit C-3 contains the following exhibits:

- C-3-A: Wellbore schematic: The proposed unit is identified by a black box and the three Avalon wells proposed in Case No. 22315 are identified by blue lines.
- C-3-B: Avalon Structure map: The structure map shows that the structure dips to the southeast.
- **C-3-D**: Stratigraphic cross section and cross-section well locator map: The inset map on this exhibit identifies three wells in the vicinity of the proposed Avalon wells, shown by a line of cross-section running from D to D'. The well logs on the cross-section give a representative sample of the Avalon formation in the area. A stratigraphic cross section flattened on the base of the Avalon formation (top of the First Bone Spring Sand) shows that the Avalon is geologically complex and complicated by carbonate mass transports and chert, which are not laterally continuous, even over short distances. On a three-well cross section with the wells ranging from 2.6 miles to 3.4 miles apart shows how variable the formation is. This geologic complexity will make drilling and completing a 3-mile lateral into the

Avalon in this area more difficult since limestone and chert are dense and "tight" (i.e. very low porosity).

- **C-3-C**: Net Reservoir Map: A net reservoir map was created by netting the gamma ray values greater than 55 APIs of the Avalon in order to capture the siltstones and sandstones and eliminate the low-API (<50 API) carbonates that are considered non-reservoir. The map indicates thick net reservoir within the subject area. The net reservoir thickness within Cimarex's proposed HSU is approximately 425-450 ft.
- C-3-E: Mudlog: Two mudlogs from Cimarex's immediately adjacent Coriander AOC 1-12 State 2H and 3H Avalon wells (identified on the inset map) show that the lithology of the formation is highly variable. While there are high volumes of shale encountered along the wellbore, there are also high volumes of limestone and chert, which make drilling and completing wells more difficult due to the dense and low-porosity nature of the lithology. In my opinion, the geologic complexity in this area means that operational risk increases with increasing lateral length.

11. Exhibit C-4 is the geology study I prepared for the First Bone Spring wells, which are the 18H and 31H wells.

12. Exhibit C-4 contains the following exhibits:

- C-4-A: Wellbore schematic: The proposed unit is identified by a black box and the two proposed First Bone Spring wells are identified by blue lines.
- C-4-B: First Bone Springs structure map: The structure map shows that the structure dips to the southeast.
- **C-4-D**: Stratigraphic cross section and cross-section well locator map: The inset map on this exhibit identifies four wells in the vicinity of the proposed First Bone Spring wells, shown by a line of cross-section running from C to C'. The well logs on the cross-section give a representative sample of the First Bone Spring Sand formation in the area. A stratigraphic cross section flattened on top of the 1st Bone Spring Sand shows that the formation is geologically consistent in the area in terms of lithology and porosity. The formation is predominantly composed of low-

resistivity, high-porosity siltstones and sandstones. The formation exhibits consistent thickness across the Area of Interest ("AOI").

- **C-4-C**: Net Reservoir Map: A net reservoir map was created by netting the gamma ray values greater than 50 APIs of the 1st Bone Spring Sand in order to capture the siltstones and sandstones and eliminate the low-API (<50 API) carbonates that are considered non-reservoir. The map indicates that there is a similar net reservoir thickness across the acreage (~200-265 ft.). There are two successful offset wells – one to the west and the other to the northeast of Cimarex's acreage. Both of these wells landed in the First Bone Spring Sand and show similar net reservoir thickness indicating that the First Bone Spring Sand is a viable target in the AOI. By Devon not targeting the First Bone Spring Sand, they are leaving reserves behind.

13. Based on my review of the geology studies I prepared for the First Bone Spring wells, there are no structural faults, pinch-outs, or other geological or impediments that would impair or impede the drilling of First Bone Spring horizontal wells in the Coriander Fed Com Development Area.

14. Exhibit C-5 is the geology study I prepared for the Second Bone Spring wells, which are the 16H, 27H, and 28H wells.

15. Exhibit C-5 contains the following exhibits:

- C-5-A: Wellbore schematic: The proposed unit is identified by a black box and the three proposed Second Bone Spring wells are identified by green and blue lines.
- C-5-B: Second Bone Spring structure map: box. The structure map shows that the structure dips to the southeast.
- C-5-C: Stratigraphic cross section and cross-section well locator map: The inset map on this exhibit identifies three wells in the vicinity of the proposed Second Bone Spring wells, shown by a line of cross-section running from B to B'. The well logs on the cross-section give a representative sample of the Second Bone Spring Sand formation in the area. A stratigraphic cross sections flattened on the base of the Second Bone Spring Sand (top of the Third Bone Spring Carbonate) indicates that the Second Bone Spring Sand has similar thickness, lithology, and

reservoir quality in the subject area. Based on the gamma ray and neutron-porosity curves, the Second Bone Spring Sand is composed of high-porosity sands and siltstones indicating high reservoir quality.

- C-5-D: Net Reservoir Map: A net reservoir map was created by netting the gamma ray values greater than 55 APIs of the Second Bone Spring Sand in order to capture the siltstones and sandstones and eliminate the low-API (<55 API) carbonates that are considered non-reservoir. The map indicates that the Second Bone Spring Sand contains ~360-400 ft. of net reservoir within Cimarex's proposed HSU. These thicknesses are similar to offset Second Bone Spring Sand successful developments, indicating that the formation is a viable target in the AOI.

16. Exhibit C-6 is the geology study I prepared for the Third Bone Spring wells, which are the 12H and 25 H wells, and the Upper Wolfcamp A wells, which are the 13H and 26H wells. Exhibit C-6-A is the wellbore schematic: The proposed unit is identified by a black box and the two proposed Third Bone Spring wells are identified by green lines and the two proposed Wolfcamp A wells are identified by blue lines.

17. My testimony in this section focuses first on the geologic reasons why Cimarex intends to co-develop the Third Bone Spring and Upper Wolfcamp A and includes exhibits highlighting the differences between Cimarex's plan and Devon's plan. These exhibits, in Cimarex's opinion, demonstrate why Cimarex's development plan is superior to Devon's because Cimarex's plan more effectively and efficiently targets reserves, leading to greater production, protection of correlative rights, and the prevention of waste. After the discussion of the comparison of Cimarex's and Devon's plans, my testimony provides the geology studies for each of the Third Bone Spring and Wolfcamp formations.

18. Exhibit C-6-B is a wine rack identifying Cimarex's and Devon's proposed laterals. The Third Bone Spring Sand is identified by green shading. As you can see, Cimarex is proposing

two Third Bone Spring Sand wells, whereas Devon is not proposing any. In terms of Wolfcamp development, Cimarex is proposing two Upper Wolfcamp A wells (purple shading) whereas Devon is proposing two Wolfcamp XY wells (light blue shading) and two Upper Wolfcamp A wells (purple shading). Cimarex's plan involves co-developing the Third Bone Spring Sand and Upper Wolfcamp A with landings roughly 300 ft. apart (based on structure maps). In contrast, Devon's plan disregards the Third Bone Spring Sand as a potential landing zone and Devon is staggering their wells between the Wolfcamp X Sand and Upper Wolfcamp A with landings roughly only 190 ft. apart (based on TVDs given in well proposals).

19. Exhibit C-6-C overlays Cimarex's and Devon's plans on the cross-section, as well as Oxy's executed Avogato Third Bone Spring Sand development for comparison. I will discuss this cross section in more detail later in my testimony but I present this comparison now as it highlights the differences between the proposals. Oxy's Avogato Third Bone Spring Sand development is an important analog because they drilled six wells into the middle-lower Third Bone Spring Sand which have proven to be strong performers. Since Oxy did not develop the Third Bone Spring Sand with the Upper Wolfcamp, and the fact that HFTSII pressure gauge data has shown that hydraulic fractures preferentially grow upward, we can conclude that the oil produced from the wells landed in Third Bone Spring Sand is, in fact, being extracted from the Third Bone Spring Sand formation (i.e. the wells are not pulling hydrocarbons from the Upper Wolfcamp). This data point proves that there are significant reserves within the Third Bone Spring Sand, and by Devon not directly targeting this formation, they will likely leave barrels behind.

20. Devon's uppermost landing in the Wolfcamp X Sand is roughly 200 ft. below where Oxy landed their Avogato wells and roughly 430 ft. below the top of the Third Bone Spring reservoir (based on the Diamondtail 23 Fed 1H type log). There are also significant volumes of

carbonate between Devon's Wolfcamp X Sand landing and the Third Bone Spring Sand reservoir, making the likelihood of their Wolfcamp X Sand wells accessing the entire Third Bone Spring Sand reservoir low. Not only does Devon's plan strand reserves in the Third Bone Spring Sand, but their Wolfcamp Sands and Wolfcamp A landings are redundant as the two landings will be accessing the same reserves. These reserves could be more efficiently captured by only drilling the Wolfcamp A target (i.e. Cimarex's plan), which makes drilling the additional Wolfcamp Sands wells unnecessary. This is shown in Exhibit C-6-D.

21. Exhibit C-6-E is a map of South Lea County that identifies existing Third Bone Spring Sand and existing Wolfcamp X Sand wells in roughly a nine township area in southern Lea County. This map establishes that the Wolfcamp X Sand is not a common target in either southern Lea County as a whole or within the AOI. Many of the Wolfcamp X Sand wells drilled in Lea County are operated by Devon. The fact that other operators only infrequently target the Wolfcamp X in this area suggests to me that those operators, like Cimarex, do not value the Wolfcamp X as an optimal target. There are only two Wolfcamp X Sand wells within the AOI and these are also operated by Devon (their Danger Noodle wells). On the other hand, the Third Bone Spring Sand is a more prevalent and proven target, especially within the AOI.

22. Exhibit C-6-F shows Third Bone Spring Sand/Upper Wolfcamp nearby developments. Within the AOI, nearly all of the Third Bone Spring Sand/Upper Wolfcamp developments target the 3rd Bone Spring Sand alone or stagger the Third Bone Spring Sand with the Upper Wolfcamp (i.e. they do not target the Wolfcamp alone). The six closest developments (shown on the slide) land their wells within the Third Bone Spring Sand, and the modern developments with sufficient production data show strong results.

23. Exhibit C-6-G is a net reservoir map created from a mudlog from Cimarex's Red Tank 4 Fed 1H well. The map was created by netting the gamma ray values greater than 50 APIs of the Third Bone Spring Sand in order to capture the siltstones and sandstones and eliminate the low-API (<50 API) carbonates that are considered non-reservoir. The mudlog and map show significant oil shows throughout the 3rd Bone Spring Sand, a strong indication that there are hydrocarbons residing within the 3rd Bone Spring Sand. Cimarex's plan incorporates this data and optimizes landing zone strategy by targeting the interval with great oil shows and thick sand within the Third Bone Spring Sand, whereas Devon's plan excludes this strong oil show. This mudlog also indicates no oil shows in the Wolfcamp X or Y sands, which is what Devon is targeting.

24. Exhibit C-6 contains the following additional exhibits:

- C-6-H: Third Bone Spring structure map: The structure map shows that the structure dips to the southeast.
- C-6-I: Third Bone Spring Gross Isopach map: In the area of interest, there is a localized thick **Third Sand with some of the thickest areas being located over Cimarex's proposed HSU.** The formation is about 440-460' thick in Cimarex's proposed HSU in Sections 1 and 12 which thins to the south of Section 12 into Devon's proposed HSU.
- C-6-J: Upper Wolfcamp structure map: The Structure Map shows that the structure dips to the southeast.
- C-6-K: Upper Wolfcamp Gross Isopach map: A gross isopach of the Upper Wolfcamp A indicates that the interval is approximately 280-295 ft. thick within Cimarex's proposed HSU with the interval thinning to the south where Devon has proposed their HSU.
- C-6-L: Third Bone Spring/Upper Wolfcamp Stratigraphic cross section and cross-section well locator map: The inset map on this exhibit identifies three wells in the vicinity of the proposed wells, shown by a line of cross-section running from A to A'. The well logs on the cross-section give a representative sample of the Third Bone Spring and Upper Wolfcamp formations in the area. A stratigraphic cross

section flattened on the top of the Third Bone Spring Sand shows that there is a lot of geologic complexity within the formation. In this area, there are high volumes of carbonate mass transport deposits within the Third Bone Spring Sand, especially in the basal portion of the formation. These carbonates can act as frac baffles and barriers to wells landed in the Upper Wolfcamp. In order to efficiently and effectively capture the hydrocarbons in the Third Bone Spring Sand, it is best to land wells within the Third Bone Spring Sand itself, which is what Cimarex plans to do.

25. Based upon my study as illustrated in these exhibits, knowledge of the geology in this area, and education and training, it is my expert opinion that:

a. Cimarex's 2-mile horizontal spacing units are justified from a geologic standpoint.

b. There are no structural impediments or faulting that will interfere with 2-mile horizontal development.

c. Each quarter-quarter section in Cimarex's proposed 2-mile units will contribute more or less equally to production.

26. The producing interval for each of these Proposed Wells will be orthodox and will comply with the Division's set back requirements.

27. In my opinion, Cimarex's Coriander Fed Com Development plan prevents waste and protects correlative rights.

28. To summarize, the difference between Cimarex's proposal and Devon's proposal is Cimarex proposes 2-mile horizontal spacing units that will allow both Cimarex and Devon to efficiently develop the subject acreage while Devon's proposal limits Cimarex to 1-mile wells in Section 1, significantly delaying or possibly entirely preventing development of Section 1. Devon plans to drill two Wolfcamp X Sand wells and two Wolfcamp Upper A wells at tighter vertical

spacing while Cimarex plans to drill two Third Bone Spring Sand wells and two Upper Wolfcamp A wells at more optimal vertical spacing. Additionally, Cimarex plans to drill two First Bone Spring Sand wells while Devon does not plan to drill any wells into this formation. In my opinion, Devon's proposal, including its plan to develop the Overlap Acreage, is inferior to Cimarex's development plans because Devon's plan will leave behind reserves in the First Bone Spring Sand and could leave behind reserves in the Third Bone Spring Sand. The fact that Devon's 3-mile laterals would drill through setback acreage is not actually a benefit because under Devon's 3-mile/1-mile plan, the same amount of acreage would be subject to setbacks, and, in fact, Devon's plan could lead to the stranding of Cimarex's acreage in Section 1. In addition, as discussed above, any potential reserves Devon may access by virtue of drilling through setbacks is offset by the fact that Devon is leaving behind reserves in the First Bone Spring and potentially leaving behind reserves in the Third Bone Spring. Also, as will be discussed by Mr. Behm, 3-mile Wolfcamp laterals in this area of Lea County underperform as compared to shorter laterals, which would also offset any (unlikely) additional reserves Devon might access by drilling through the setbacks.

29. In my opinion, the geologic evidence favors Cimarex's overall development plan, and Cimarex will be able to efficiently recover the oil and gas reserves underlying the Overlap Acreage, along with Cimarex's 100% owned acreage in Section 1. Cimarex's development plan presents less risk, and prevents waste. Conversely, the geologic evidence demonstrates that Devon's overall development plan, including its plan to develop the Overlap Acreage, is inefficient, riskier, and will result in waste.

30. The attachments to my affidavit were prepared by me or compiled under my direction or supervision.

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AFFIDAVIT OF EDDIE BEHM[1]

Eddie Behm, being duly sworn, deposes and states:

1. I am over the age of 18, I am a Reservoir Engineer for Cimarex Energy Co. ("Cimarex"), and have personal knowledge of the matters stated herein.

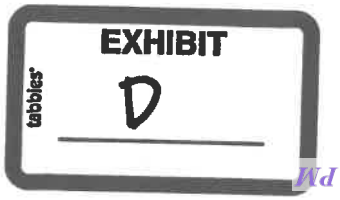
2. I have not previously testified before the Oil Conservation Division ("Division").

3. I received a Bachelor of Science from the University of Tulsa in 2011.

4. Since receiving my BS, I worked as a production operations engineer and reservoir engineer for Oxy for almost 4 years, a senior reservoir engineer for California Resources Corporation for 2 and half years, and since June of 2017 have worked for Cimarex (now part of Coterra Energy) as a production and reservoir engineer. My resume summarizing my educational and work experience is attached to this affidavit as Exhibit E-3.

5. My work for Cimarex includes the Permian Basin in New Mexico.

[1] Revisions reflect changes made by Mr. Behm at the hearing held on March 25, 2022. Changes to the testimony are bolded and underlined.



6. I am familiar with the applications filed by Cimarex in Case Nos. 22313-22316 and with the applications filed by Devon Energy Production Company, L.P. ("Devon") in Case Numbers 22179-22180, and 22382.

7. The primary takeaways from my testimony are as follows:

- Cimarex is better prepared to operate the wells and operate on the surface because it is developing acreage immediately adjacent to the proposed units in the E/2 of Sections 1 and 12; it has existing surface facilities; and it has third-party contracts already in place.

- Cimarex's 2-mile/2-mile development plan (each operator developing 2-mile wells across the acreage) increases production by at least 10% percent over Devon's 3-mile/1-mile plan.

- Cimarex is targeting the First Bone Spring, which Cimarex predicts could result in 1,522,000 barrels produced from Cimarex's proposed 2-mile wells, while Devon's plan entirely excludes the First Bone Spring. If Devon's plan is approved, the First Bone Spring would not be targeted **for a full three miles** leaving at least 2,403,000 barrels behind. Second, Cimarex is directly targeting the Third Bone Spring sand with two Third Bone Spring wells, while Devon appears to be only indirectly targeting the Third Bone Spring via two Wolfcamp XY wells. Based on my calculations, there are potentially 4,848,000 barrels (on a 2-mile basis) present in the Third Bone Spring sand and Upper Wolfcamp flow unit. By not directly targeting the Third Bone Spring sand, Devon risks losing connection with as much as 75% of the 4,848,000 barrels over the life of the wells.

- Devon's development plan is riskier than Cimarex's because 3-mile Wolfcamp wells in this area are particularly challenging because of the combination of high reservoir pressure and depth, which has the potential to leave barrels stranded, resulting in waste.

- Devon's plan would leave Cimarex with the possibility of developing only 1-mile wells in Section 1. 1-mile wells, while developable, are not as high of a priority for Cimarex, and under Cimarex's current schedule, would not be developed until 2029 at the earliest. The regulatory environment and economics in 2029 are obviously uncertain. In Cimarex's view, given the delays and uncertainty with developing 1-mile laterals, Devon's 3-mile/1-mile plan is tantamount to stranding Cimarex's acreage in Section 1. I refer to this scenario as "de facto" stranding.

8. In my opinion, Cimarex is better positioned to timely locate well sites, operate the property, and prevent waste.

9. Cimarex has experience with drilling wells and operating facilities on these very sections.

10. Cimarex is developing the E/2 of Section 1 and 12, and the W/2 development at issue here is part and parcel of Cimarex's overall development plan. Cimarex's E/2 Avalon wells are performing well.

11. Exhibit D-1 shows Cimarex's existing and proposed surface facilities. Cimarex has already built Pad 4 and already has an existing battery tank. Thus, Cimarex's development of the W/2 acreage will use some existing facilities, which, in turn, will minimize surface disturbance.

12. Cimarex has staked three additional pads, but anticipates only using two of them—Pads 1 and 3. BLM has approved the proposed pad sites and BLM has completed its on-site.

13. Cimarex has a contract with Lucid for gas takeaway. Cimarex has a contract in place with NGL to handle produced water. Cimarex also has a contract with Energy Transfer for oil. Cimarex has existing infrastructure in place for take-away of oil, gas, and water, which will reduce operational costs. We partner with Lucid on gas takeaway and are able to sell low pressure reducing emissions and OpEx in the form of compressor rental or purchase. Furthermore if development can be done at 2-miles we plan to use this as our last HP buyback location with Lucid eliminating compression costs all together. Existing 10" SWD line will allow for water disposal without capital and due to third-party partnership with NGL Cimarex will drill no SWDs to handle this volume.

14. In terms of methane, Cimarex intends to implement new CVS system with lockdown thief hatches which eliminates traditional thief hatches prone to leakage allowing more gas to be sold to Lucid and less gas to be flared.

15. Cimarex plans to utilize produced water in completing and stimulating the wells. Cimarex fracs wells with 100% produced water in this area and I would anticipate the same would occur here.

16. Cimarex's goal would be to start drilling as soon as it has all of the necessary permits. Cimarex continues to be actively engaged with BLM regarding this acreage and we would work diligently with BLM to get the permits we need.

17. Cimarex is a prudent operator and its track record demonstrates that it is able to timely locate well sites and operate the surface. Cimarex has drilled 100 lateral wells since 2017 in Lea and Eddy Counties, 60 of which are 2-mile wells.

18. Cimarex has spud 24 wells in Lea County New Mexico in 2021, has 6 active rigs available, and is continuing to drill and complete wells in New Mexico with 1 to 3 of its contracted Permian rig fleet.

19. Cimarex has significant experience drilling 2-mile laterals in the Delaware basin. Over the last 5 years, Cimarex has successfully drilled 326 2-mile laterals. These wells have proven to be efficient and economical.

20. Another purpose of my testimony is to demonstrate, from a reservoir engineering perspective, why Cimarex's proposed development plan is more efficient and effective than Devon's plan, has less risk than Devon's plan, and will result in the protection of correlative rights and the prevention of waste.

21. In my opinion, developing the acreage at issue in these cases with two sets of 2-mile laterals will minimize stranded barrels and result in the maximum recovery from all targets on a 1280-acre basis.

22. Exhibit D-2 is a bar chart comparing the total captured reserves under each proposal. This exhibit demonstrates that Cimarex's proposed 2-mile/2-mile development plan allows the most reserves to be captured. The green bar represents captured reserves under Cimarex's proposed 2-mile/2-mile development plan, which amounts to approximately 21,084 million barrels of oil ("MBO"). Devon's proposed 3-mile/1-mile development plan is represented by the yellow bar, which amounts to approximately 19,182 MBO, which assumes Cimarex is able to develop Section 1. The orange bar represents the "de facto" stranding outcome, i.e., Cimarex only able to develop Section 1, if at all, in or after 2029. Under this scenario, the captured reserves would only be approximately 13,555 MBO—stranding nearly 7,500 MBO.

23. Cimarex's proposal protects correlative rights and prevents waste because Cimarex is targeting both the First Bone Spring Sand and the Third Bone Spring Sand. Devon is not targeting the First Bone Spring Sand at all and is only indirectly targeting the Third Bone Spring Sand. In Cimarex's opinion, the First and Third Bone Spring Sands are proven targets in this area and are necessary landings to capture the most barrels with highest chance of success. If Devon moves forward with its 3-mile lateral plans, Section 12 (the "Overlapping Acreage") will be impacted, as will the remaining two miles, because the First Bone Spring Sand will be excluded for three full miles, and the Third Bone Spring would be inefficiently targeted for the same three full miles.

24. I have summarized the comparison by target in Exhibit D-3.

25. First, Cimarex is targeting the First Bone Spring, which Cimarex predicts could result in 1,522,000 barrels produced from Cimarex's proposed 2-mile wells, while Devon's plan excludes the First Bone Spring. If Devon's plan is approved, the First Bone Spring would not be targeted **for a full three miles** leaving up to 2,400,000 barrels behind. With respect to the Overlapping Acreage, Devon's plan would exclude 761,000 barrels alone.

26. Cimarex's proposed plan is also superior to Devon's because Cimarex has a proven, more effective network of take points to best drain the flow unit in our Third Bone Spring/Wolfcamp development plan. The experience of Cimarex and other operators have demonstrated the Third Bone Spring sand and Upper Wolfcamp XYA sand act as a flow unit. Based on Cimarex's valuation, *see* Exhibit D-4, this flow unit amounts to approximately 50% of the entire lease value, meaning that optimal execution of capturing reserves within this flow unit is critical to realizing the lease value. In addition, OXY's Avogato Third Bone Spring Sand wells' production history (wells adjacent to the acreage at issue in these cases) demonstrates that as much as 75% of the barrels produced from Third Bone Spring Sand only development. In Cimarex's opinion, Devon's decision to not land any wells in the proven Third Bone Spring Sand zone significantly increases the risk of leaving barrels behind, including barrels in the Overlapping Acreage. Conversely, Cimarex's plan directly targets those barrels.

27. Devon's plan for 3-mile Wolfcamp laterals in this area has the potential to strand hydrocarbons, because 3-mile Wolfcamp laterals in this part of Lea County are unproven compared to 1- to 2-mile Wolfcamp wells, which I will discuss in more detail below.

28. Not only does Cimarex's proposed plan allow for more ultimate recovery of reserves but it also accelerates production at a time when there is a national need for increased domestic oil production because both Cimarex and Devon can now develop 2-mile laterals.

Conversely, if Cimarex is left with only 1-mile laterals, Cimarex would spud those wells, if at all, in 2029 due to the fact that 1-mile laterals are not currently in Cimarex's development plan. Thus, Devon's plan has the negative impact of either delaying production from Cimarex's 1-mile laterals or stranding 7.5MM barrels of reserves.

29. Exhibits D-5 to D-8 are exhibits I prepared pertaining to the Avalon, First, and Second Bone Spring formations, which I summarize briefly:

a. Cimarex is proposing three 2-mile wells into section 12 and will be developing between 7 and 8 wells per section for the Avalon due to the existing 1 mile Resolver Avalon producer. Exhibit D-5 supports Cimarex's proposed Avalon spacing based on production from the adjacent Matador Robby Robinson unit, which has the same spacing as Cimarex proposes and offsets our existing Coriander wells at the same distance our additional proposed well will offset the Resolver. Cimarex's Avalon type curve tracks the Rodney Robinson 101H production, which is economic and confirms there is no reason to not drill at this spacing adjacent to Concho's existing Resolver well. Additionally, as Ms. Blake testified, Devon's 3-mile Avalon wells in this area are risky, given the presence of chert and limestone discussed in Ms. Blake's testimony.

b. Exhibits D-6 and D-7 demonstrate that the First Bone Spring Sand is a productive target in this area. Significantly, however, Devon is not targeting the First Bone Spring Sand, resulting in at least 1,522,000 barrels stranded. The adjacent OXY Avogato First Bone Spring Sand well proves incremental barrels are captured by developing the First Sand in this area because both the Second sand and Avalon are developed above and below, which establishes that the First Bone Spring Sand has separate reserves. Cimarex's plan is better because it targets the First Bone Spring compared to Devon's which does not. This also means that Cimarex's recovery in Section 12 would be 761,000 barrels more than Devon's.

c. D-8 supports Cimarex's proposed Second Bone Spring spacing based on production from adjacent or near-by production. Both Cimarex and Devon are proposing six wells per section.

30. My next exhibits relate to the Third Bone Spring Sand and Upper Wolfcamp A, which Cimarex treats as a flow unit. These exhibits demonstrate:

a. The Third Bone Spring is a productive target in this area, yet Devon is not directly targeting it.

b. That 2-mile or less Wolfcamp laterals are preferred in this area and perform better than 2.5 or 3 mile Wolfcamp laterals in this area.

c. Cimarex's development plan protects correlative rights and prevents waste.

31. Turning first to the Third Bone Spring, D-9 and D-10 establish that nearby offsets target the Third Bone Spring Sand with very good results. Exhibit D-10 demonstrates Wolfcamp equivalent results have been achieved in the Third Bone Spring Sand at Oxy's Avogato development with 6 wells per section. This strong performance paired with our Red Tank 3 Federal 14H delineation well to the west support that a significant percentage of barrels are present in the Third Bone Spring Sand in this area. These proven development results support staggering wells in the Third Bone Spring Sand and Wolfcamp A, instead of targeting the Wolfcamp XY Sands and Wolfcamp A, which is what Devon has proposed because as much as 75% of the total oil target could be in the Third Bone Spring Sand. Devon's upper most landing in the Wolfcamp XY is below carbonate frac baffles, which means there is significant risk of closure over time resulting in Devon stranding barrels that Cimarex's proposed Third Bone Spring sand landing is in perfect position to capture in this local Third Bone Spring sand sweet spot. For this reason. Cimarex's Third Bone Spring and Wolfcamp A well spacing is preferable to Devon's Wolfcamp XY and A well spacing.

32. Exhibit D-11 illustrates the differences between Cimarex's and Devon's development plans. Cimarex's plan allows for tested 2-mile developments of the 1280 acres in 640 acre units. It allows all parties to develop their just and equitable share of the reserves without waste and through lower risk, timely development, including Wolfcamp development. Devon's 3-mile/1-mile plan is inferior because 3-mile Wolfcamp wells in this area have lower performance and could strand reserves and 1-mile laterals are not currently in Cimarex's near term development plans due to worse economic returns than 2-mile locations. Economic ranking will delay spudding

of Wolfcamp - mile wells until 2029. Given 2021 started with a fracture moratorium on permits on federal land the ability to frac 1-mile wells in 2029 may very well not exist.

33. Exhibit D-12 identifies the number of laterals by length targeting the Wolfcamp that have been drilled to date in Lea County and shows a strong preference for Wolfcamp laterals less than 2.5 miles. Only Devon has drilled 2.5 to 3-mile laterals in this area. EOG, Conoco, Devon, and Cimarex have all drilled 1-mile to 2-mile Wolfcamp laterals in this area.

a. My opinion is that executing a successful frac in a lateral longer than two miles is difficult in the Lea County Wolfcamp due to 12,000 foot depth, high treating pressures 11,000 to 12,000 PSI at surface, and high reservoir pressure ~ 9000 psi. Combination of depth pressure and friction from additional length will make the most challenging formation to treat even more difficult.

b. The fact that no operators, other than Devon, have proposed or drilled 2.5 or 3 mile Wolfcamp laterals in this area supports my opinion that the potential benefit of 3-mile Wolfcamp laterals is outweighed by the risks arising from the depth pressure and friction in this area. The performance of Devon's 3-mile Wolfcamp laterals in this area so far confirms the risk.

c. It is especially telling that EOG has not attempted 3-mile laterals in this area of Lea County, because EOG has the ideal acreage to develop 3-mile laterals, but instead choses to do 1.5 and 2 mile laterals in this area.

34. Exhibit D-13 identifies 1-mile to 2-mile laterals normalized within the Area of Review, drilled by Cimarex, Devon as well as Conoco and EOG. The purpose of this exhibit and the next series of exhibits is to demonstrate Cimarex's success in this area, as opposed to Devon's relative lack of success in the most valuable formation relative to Cimarex and 2 other operators with significant well counts and to show that while our Cimarex well count may be lower our results are fantastic.

35. Exhibit D-14 demonstrates that Devon's **18** extended Wolfcamp laterals in this area of Lea County underperform proven 1 to 2 mile laterals.

a. Exhibit uses Cum/ft type curves for Cimarex and EOG 1 to 2 mile wells that are used to compare against Devon performance and highlight individual well performance.

b. Early time average performance of Devon's long laterals is significantly worse than EOG underperforming by ~33% over the first 300 days.

c. Immediate underperformance seen on the first year of tests when production should be at its zenith and could indicate many problems that will leave barrels stranded like ineffective stimulation due to inadequate net treating pressure, or loss of contribution from toe of the lateral, etc.

36. Exhibit D-15 compares Devon laterals > 2 miles with Cimarex 1- to-2 mile laterals.

The takeaways from this slide are:

a. Cimarex normalized Wolfcamp well average for 1 and 2 mile wells is shown by the green dashed typecurve with EOG's normalized Wolfcamp well average shown by the blue dashed line. Both of these averages are significantly above the majority of the Devon extended laterals. This establishes how far below the median basin performance these wells are and that linear uplift is not occurring.

b. Devon's loosely spaced Thistle 121H and 108H are drilled at 4 wells per section but still significantly underperform expectations by 12 to 16 BO/ft relative to EOG and Cimarex.

c. Devon's **four** most recent Wolfcamp wells, the Thistle 180H, 181H, and **182H** are better than prior wells and do follow the blue EOG cum/ft curve for the first **6** months indicating improvement. While performance has improved, only **4** of the **18** wells are meeting early time expectations. The last publically available month shows a drop in rate for two of the three wells.

d. Cimarex's Dos Equis 6 well per section development plan is called out to highlight recent Cimarex performance in the area and further demonstrates how far below expectations the Devon extended laterals are.

37. Exhibit D-16 shows reserves captured and stranded. For Wolfcamp 3-mile wells I assumed that the early time performance of Devon's Thistle program continues to trend. I calculate a 16.5% reduction to cum/ft over time. In my opinion this is the absolute maximum I would promise on these wells because it assumes that:

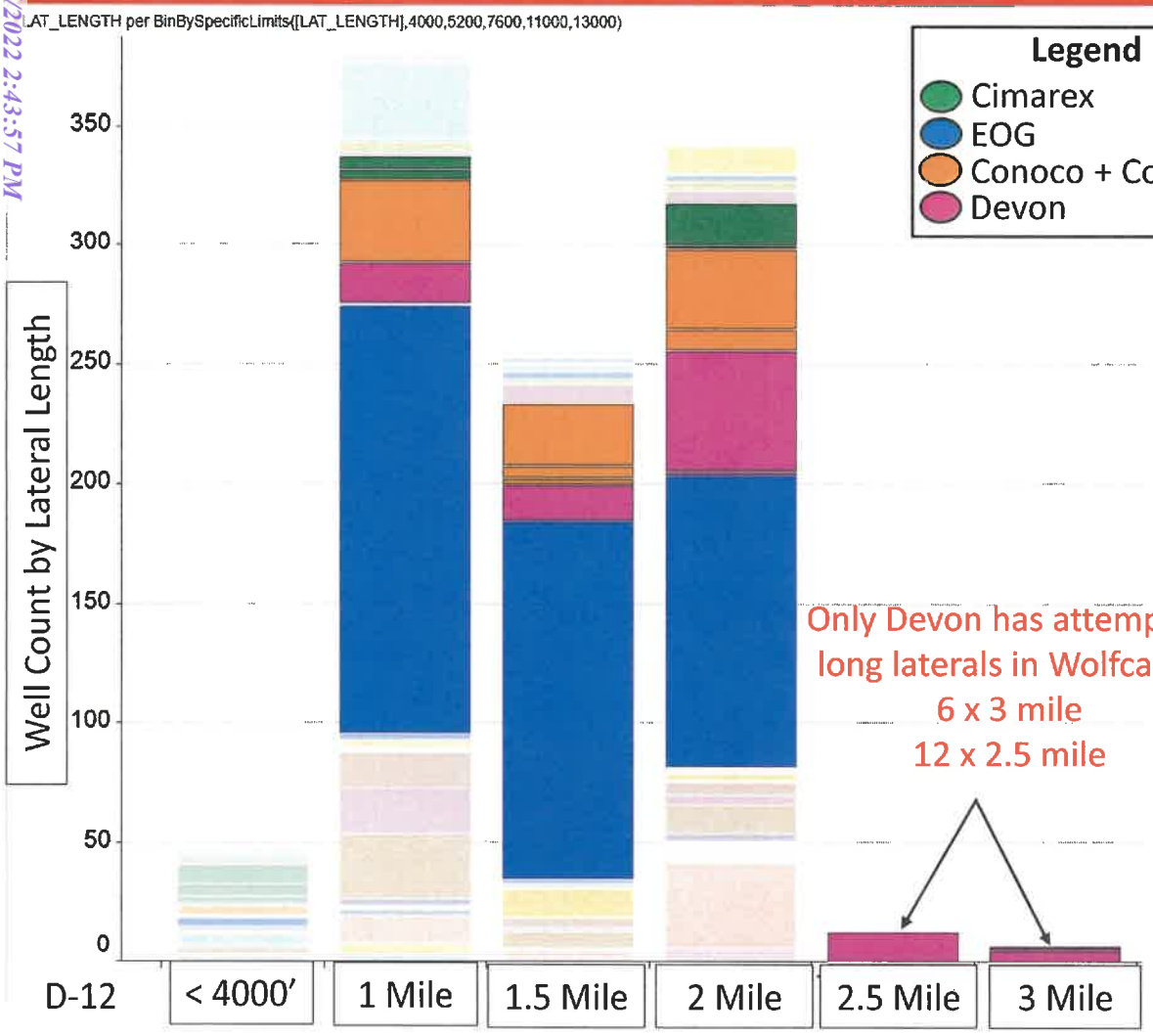
i. no additional issues show up over the life of the wells (we have only seen production for the easy portion of unconventional life when pressures are high, metal is new, lateral is clear of sand, and frac has not healed);

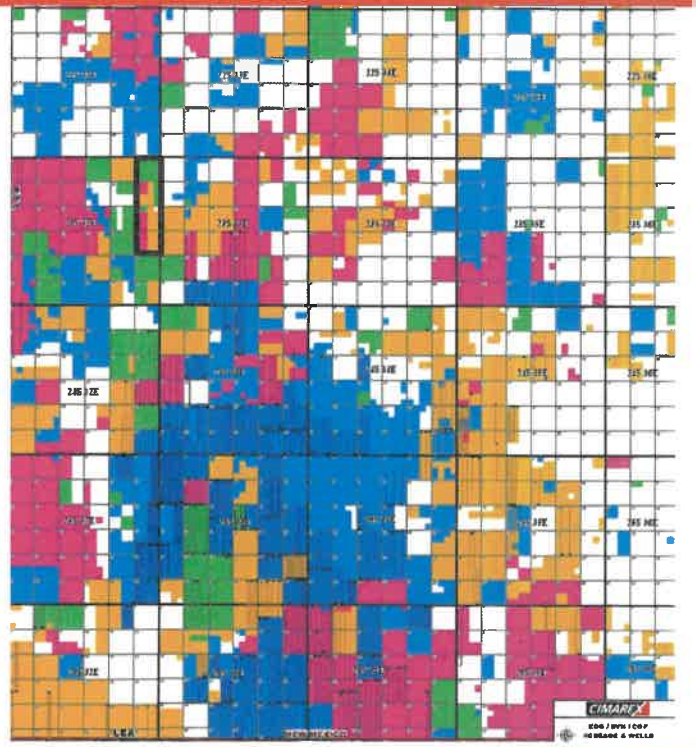
ii. no treating issues materialize when going from testing density < 5 to development density of 8.

38. To conclude, setting aside ownership of these four sections, the most effective way to develop these four sections is two sets of 2-mile wells, rather than as 3-mile and 1-mile wells. In my opinion, Cimarex is able to prudently operate the property, given its existing surface infrastructure, which will cut down operational costs. Cimarex's plan is overall less risky than Devon's, including as to the Overlapping Acreage, and Cimarex's plan will prevent waste, especially as to the Overlapping Acreage, because Cimarex is directly targeting more formations than Devon and 2-mile Wolfcamp laterals are proven to perform better in this area given the depth and pressure of the Wolfcamp in this part of Lea County.

39. The exhibits to my affidavit were prepared by me or under my direction.

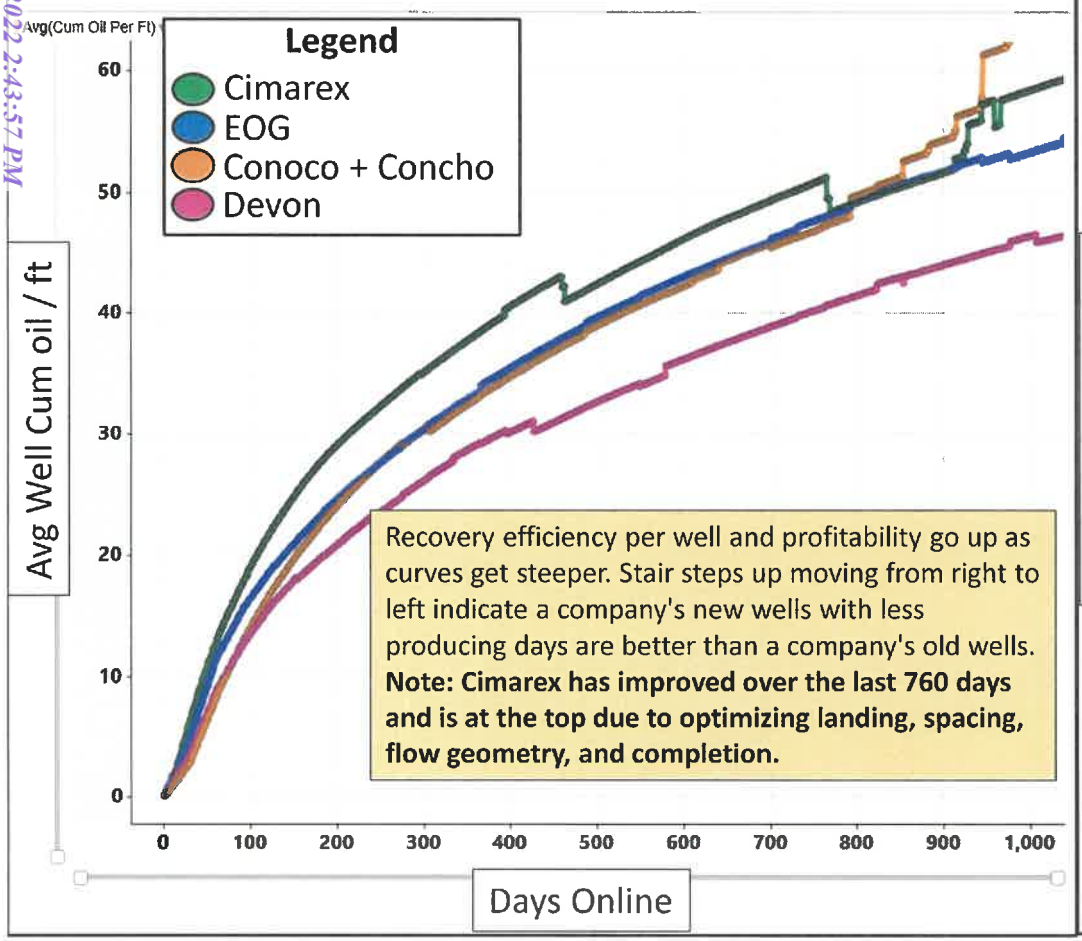
South Lea County Wolfcamp Well Count by Lateral Length - 720 sq. mile AOR

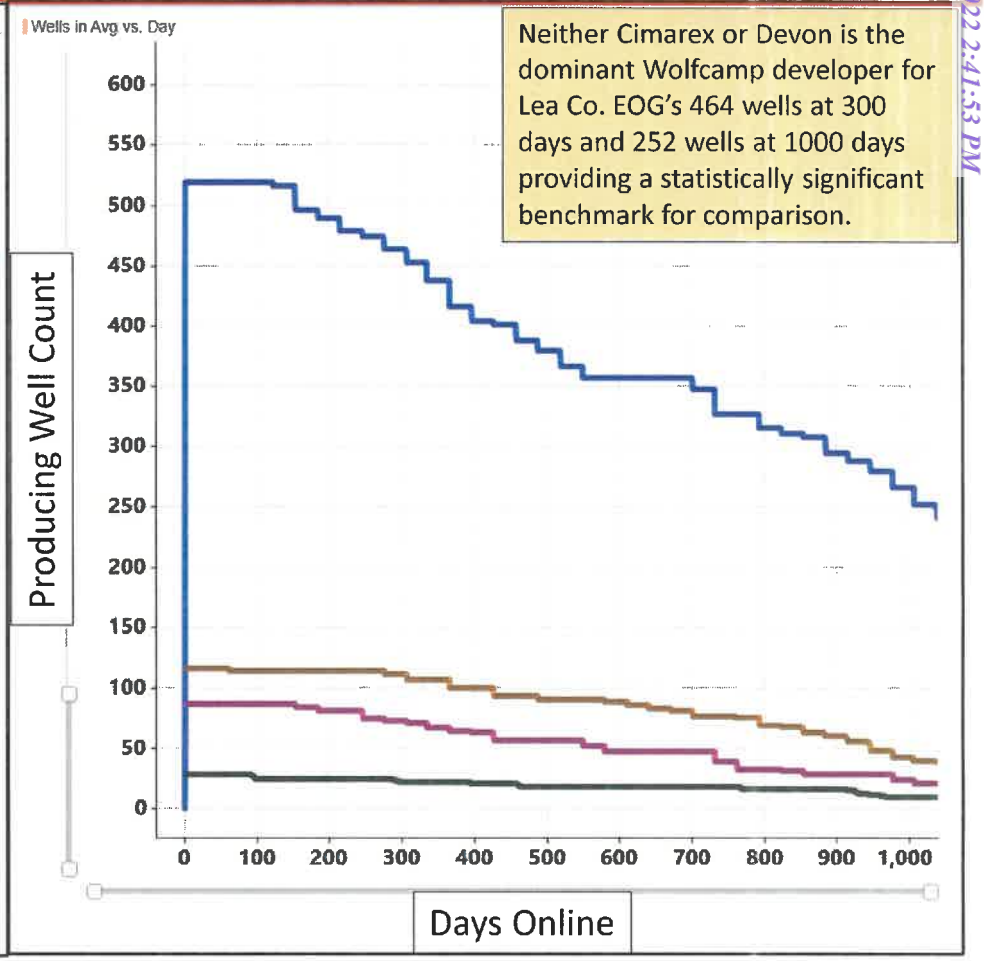




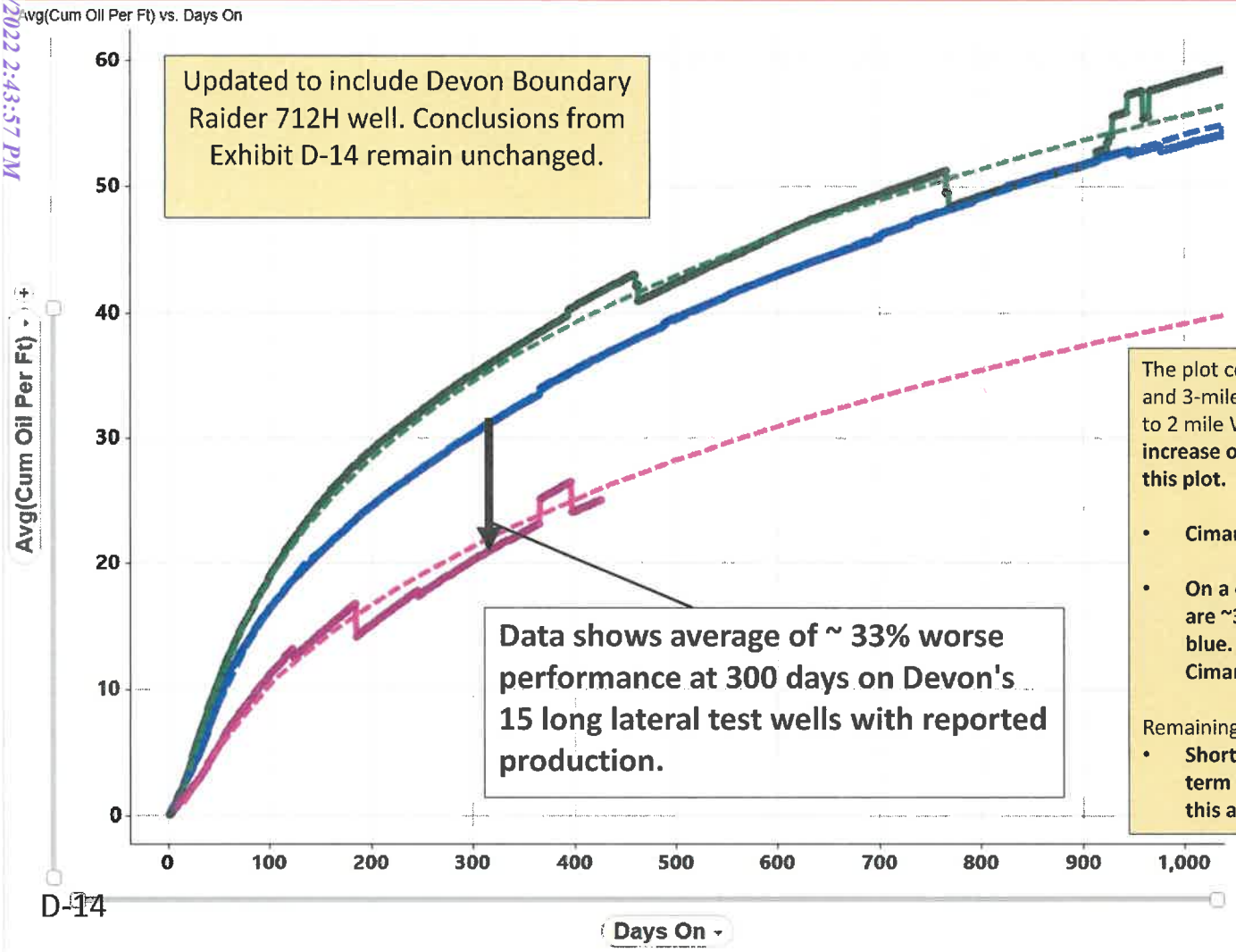
- EOG has the largest contiguous block with access to the most Lea County Wolfcamp-operated data and has executed 0 Wolfcamp laterals longer than 2 miles.
- This is because at >12,000 ft TVD, 12,000 psi surface treating pressure, >9000 psi reservoir pressure, and high formation heterogeneity **all operators see the same execution risks outweighing the benefits.**

Operator Comparison 1 to 2 mile wells only (Limited to upper Wolfcamp Lea County)





Devon Long lateral Wells > 2mile vs. EOG and Cimarex 1 to 2 mile (updated)



The plot compares Devon's average of 15 Lea County producing 2.5 and 3-mile Wolfcamp extended lateral wells >12,000 ft vs. proven 1 to 2 mile Wolfcamp development. **Note: Well EUR and profitability increase on graph with steeper lines moving up and to the left on this plot.**

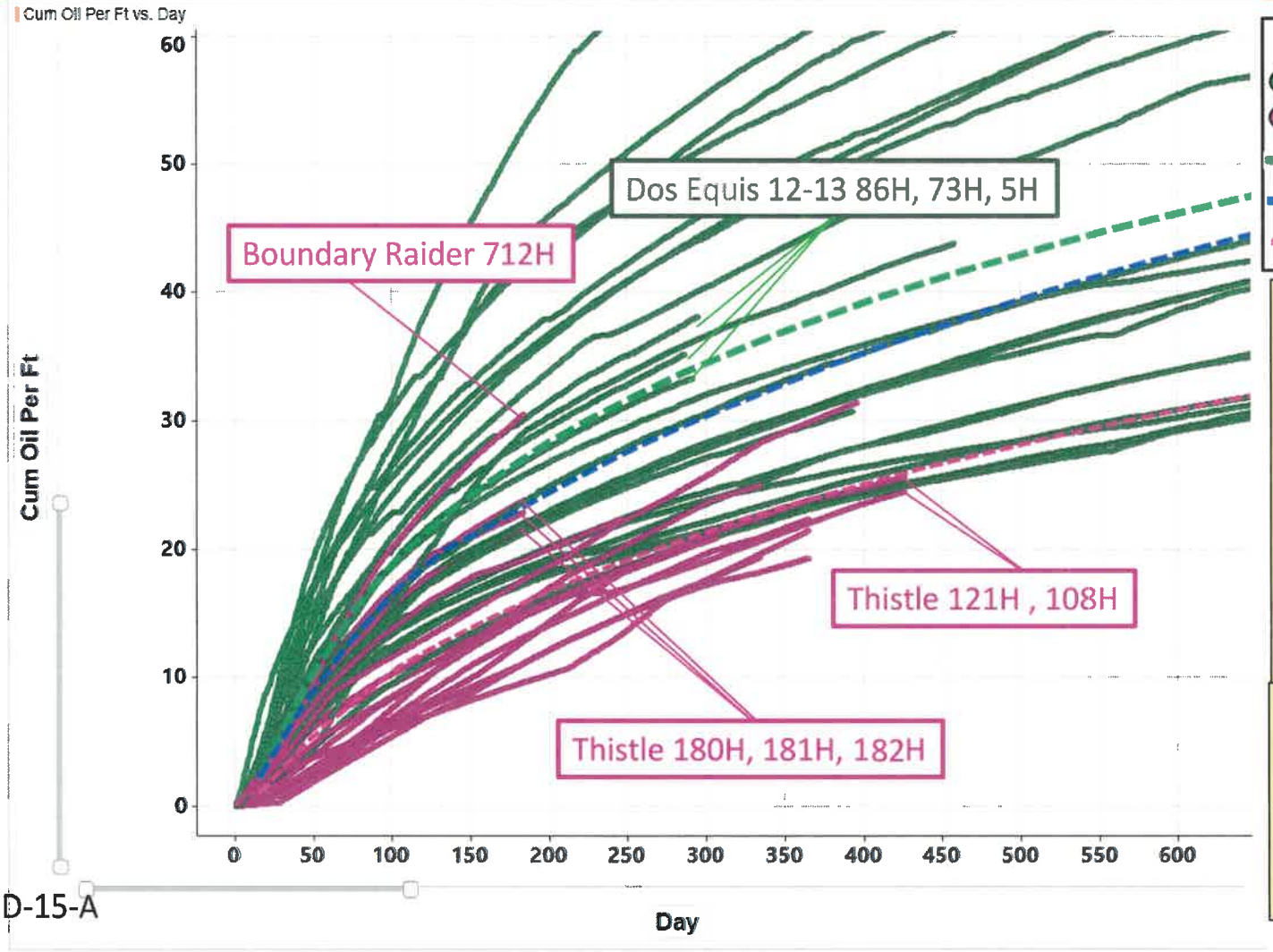
- **Cimarex on average is best/ft**
- **On a cum/ft basis Devon's Wolfcamp wells longer than 2 miles are ~33% worse on average/ft than EOG benchmark shown in blue. Devon's Wolfcamp wells take a year to equal what Cimarex Wolfcamp wells make per foot in the first 4 months.**

Remaining unknowns:

- **Short long lateral production history in Lea County means long term deliverability of 2.5-miles and 3-mile Wolfcamp wells in this area is unproven.**

D-14

Updated all Devon Wells Longer Than 2 Miles vs. Cimarex 1 and 2 milers



Legend

- Cimarex
- Devon
- Cimarex Avg Cum/ft unfiltered
- EOG Avg Cum/ft unfiltered
- Devon Avg Cum/ft unfiltered

- The Thistle 121H and 108H 3-mile wells left ~ 50% of bbls behind at 240 days and are **12-to-16 BO/ft below EOG and Cimarex performance at 400 days**
- The most recent 3 Thistle wells (180-182H) are ~5 BO/ft (~20%) below Cimarex average cum/ft at 150 days and are close to EOG's average cum/ft. Last month of data shows a slope shift down on 2 of the 3 wells.
- Recent Cimarex Dos Equis Wolfcamp 2-mile development at tighter spacing than Thistle 3-miles beats all Devon Thistle Wells

Updated to include Devon Boundary Raider 712H well.

Boundary Raider 712H well is the only one of eighteen Devon wells to exceed Cimarex's average and, based on minimal production history, long term deliverability is unproven.

D-15-A