

**BEFORE THE OIL CONSERVATION DIVISION  
EXAMINER HEARING AUGUST 9-10, 2023**

**APPLICATION OF CIMAREX ENERGY CO.  
FOR A HORIZONTAL SPACING UNIT AND  
COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

**HEARING PACKET I**

**Case No. 23448:**

**Mighty Pheasant 5-8 Fed Com 204H Well  
Mighty Pheasant 5-8 Fed Com 304H Well**

**Case No. 23449:**

**Mighty Pheasant 5-8 Fed Com 301H Well**

**Case No. 23450:**

**Mighty Pheasant 5-8 Fed Com 302H Well**

**Case No. 23451:**

**Mighty Pheasant 5-8 Fed Com 303H Well**

**CIMAREX ENERGY CO.**

TAB 1            **Reference for Case No2. 23448-23451**  
                      **Applications Case Nos. 23448-23451**  
  **Mighty Pheasant 5-8 Fed Com 204H Well**  
  **Mighty Pheasant 5-8 Fed Com 304H Well**  
  **Mighty Pheasant 5-8 Fed Com 301H Well**  
  **Mighty Pheasant 5-8 Fed Com 302H Well**  
  **Mighty Pheasant 5-8 Fed Com 303H Well**

**NMOCD Checklists Case Nos. 23448-23451**  
**Prehearing Statement Case Nos. 23448-23451**

TAB 2            Exhibit A:     Self-Affirmed Statement of John Coffman Landman  
                      Exhibit A-1:   C-102 Forms  
                      Exhibit A-2.1: Ownership and Sectional Map  
                      Exhibit A-2.2: Ownership and Sectional Map  
                      Exhibit A-2.3: Ownership and Sectional Map  
                      Exhibit A-2.4: Ownership and Sectional Map  
                      Exhibit A-3:   Well Proposal Letters and AFEs  
                      Exhibit A-4:   Chronology of Contacts with Uncommitted Owners  
                      Exhibit A-5:   Support Letters from Interest Owners  
                      Exhibit A-6:   Read and Stevens Original Well Proposal  
                      Exhibit A-7:   Cimarex Development Layout  
                      Exhibit A-8:   Summary Judgement  
                      Exhibit A-9:   Ownership Support for Cimarex  
                      Exhibit A-10: Cost Differences Between Plans

TAB 3            Exhibit B:     Self-Affirmed Statement of Staci Mueller, Geologist  
                      Exhibit B-1:   Locator Map & Stress Direction  
                      Exhibit B-2:   Permit Status  
                      Exhibit B-3:   Gun Barrel View  
                      Exhibit B-4:   Development Plan Comparison  
                      Exhibit B-5:   Subsea Structure Map  
                      Exhibit B-6:   3<sup>rd</sup> Bone Spring Isopach Map  
                      Exhibit B-7:   Structural Cross Section  
                      Exhibit B-8:   3<sup>rd</sup> Bone Spring Producers vs. all Wolfcamp Producers  
                      Exhibit B-9:   All 3<sup>rd</sup> Bone Spring and Wolfcamp Producers  
                      Exhibit B-10: Comparing 3<sup>rd</sup> Sand to Wolfcamp Reservoir (SoPhiH)  
                      Exhibit B-11: 2<sup>nd</sup> Bone Spring Structure Map  
                      Exhibit B-12: 2<sup>nd</sup> Bone Spring Sand Isopach  
                      Exhibit B-13: 2<sup>nd</sup> Bone Spring Sand Cross Section  
                      Exhibit B-14: 2<sup>nd</sup> Bone Spring Sand vs. 3<sup>rd</sup> Bone Spring Carbonate Producers  
                      Exhibit B-15: PhilH L 2<sup>nd</sup> Sand vs. 3<sup>rd</sup> Carbonate  
                      Exhibit B-16: 1<sup>st</sup> Bone Spring Sand Structure  
                      Exhibit B-17: 1<sup>st</sup> Bone Spring Sand Isopach

Exhibit B-18: 1<sup>st</sup> Bone Spring Structural Cross Section  
 Exhibit B-19: Wolfcamp Structure Map (Subsea TVD)  
 Exhibit B-20: Wolfcamp XY Isopach  
 Exhibit B-21: Wolfcamp XY West to East Cross Section  
 Exhibit B-22: 3D Seismic Outline  
 Exhibit B-23: Cross Section Across 3<sup>rd</sup> Bone Spring Sand  
 Exhibit B-24: Net-to-Gross Density Porosity (DPHI) <4% Within the 3<sup>rd</sup> Bone Spring Sand and Upper Wolfcamp Sands

TAB 4 Exhibit C: Self-Affirmed Statement of Calvin Boyle, Facility Engineer  
 Exhibit C-1: Mighty Pheasant - Loosey Goosey Development Plan  
 Exhibit C-2: Mighty Pheasant - Loosey Goosey Operations and Environmental Overview

TAB 5 Exhibit D: Self-Affirmed Statement of Eddie Behm, Petroleum Engineer  
 Exhibit D-1: Cimarex's High Profile Role in Lea County  
 Exhibit D-2: Cimarex's Overall Production in Lea County  
 Exhibit D-3: Map of 3<sup>rd</sup> Bone Spring Sand Producers  
 Exhibit D-4: 3<sup>rd</sup> Sand Well Count by Landing and Operators  
 Exhibit D-5: Black and Tan 3<sup>rd</sup> Sand Composite Forecast 6 wells (Before WC completion)  
 Exhibit D-6: Black and Tan 3<sup>rd</sup> Sand Composite Forecast 6 Wells Post Wolfcamp Frac  
 Exhibit D-7: Black and Tan Wolfcamp Composite Forecast 6 wells  
 Exhibit D-8: Black and Tan Wolfcamp Composite Forecast 5 wells  
 Exhibit D-9: Lessons learned from Black & Tan Development  
 Exhibit D-10: Diagram of Staggered Landing Wolfcamp 3<sup>rd</sup> SS Vs. 3<sup>rd</sup> SS Flat  
 Exhibit D-11: Black and Tan Analog comparison to MP/LG  
 Exhibit D-12: Landing Zone Matters; Five Years Ago, Cimarex's Perry Test Confirmed 3<sup>rd</sup> SS Landing as Best Target  
 Exhibit D-13: Vrena Frac Test  
 Exhibit D-13: Dataset Identifying all Wells in Area of Interest  
 Exhibit D-14: Production Projections: 1280 Scale  
 Exhibit D-15: Average Cumulations of Oil  
 Exhibit D-16: Projected Oil Rate: 1280 Scale  
 Exhibit D-17: Batman WH vs. EH  
 Exhibit D-18: Capital Plan Comparison  
 Exhibit D-19: Cimarex Majority Working Interest  
 Exhibit D-20: Comparison of Development Plans  
 Exhibit D-21: PV10 Comparison: Mighty Pheasant vs. Joker  
 Exhibit D-22: PV10 Comparison: Loosey Goosey vs. Bane  
 Exhibit D-23: Ownership Rations and Depth Severances  
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TAB 6      Exhibit E:      Self-Affirmed Statement of Notice, Darin C. Savage  
                 Exhibit E-1:      Notice Letters  
                 Exhibit E-2:      Mailing List  
                 Exhibit E-3:      Affidavits of Publication

## TAB 1

Reference for Case Nos. 23448-23451

Applications Case Nos. 23448-23451:

Mighty Pheasant 5-8 Fed Com 204H Well

Mighty Pheasant 5-8 Fed Com 304H Well

Mighty Pheasant 5-8 Fed Com 301H Well

Mighty Pheasant 5-8 Fed Com 302H Well

Mighty Pheasant 5-8 Fed Com 303H Well

NMOCD Checklists Case Nos. 23448-23451

Prehearing Statement Case Nos. 23448-23451

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

**APPLICATION OF CIMAREX ENERGY CO.  
FOR A HORIZONTAL SPACING UNIT AND  
COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

Case No. 23448

**APPLICATION**

Cimarex Energy Co. (“Cimarex”), OGRID No. 215099, through its undersigned attorneys, hereby files this Application with the Oil Conservation Division (“Division”) pursuant to the provisions of NMSA 1978, Section 70-2-17, seeking an order (1) establishing a standard 320.09-acre, more or less, spacing and proration unit comprised of Lot 1 (NE/4 NE/4 equivalent), the SE/4 NE/4, and the E/2 SE/4 of Section 5 and the E/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, and (2) pooling all uncommitted mineral interests from a stratigraphic equivalent of 9,373 feet (that being the top of 1<sup>st</sup> Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], a depth as defined on the log for the Hudson Federal #1 Well (API No. 30-025-32819), to a stratigraphic equivalent of 10,845 feet, as defined by same Well, that being the base of the Bone Spring formation, designated as an oil pool, underlying said unit. Section 5 is an irregular section with correction Lots.

In support of its Application, Cimarex states the following:

1. Cimarex is a working interest owner in the proposed horizontal spacing and proration unit (“HSU”) and has a right to drill a well thereon.
2. Cimarex proposes and dedicates to the HSU the **Mighty Pheasant 5-8 Fed Com 204H Well** and the **Mighty Pheasant 5-8 Fed Com 304H Well**, as the initial wells, to be drilled to a sufficient depth to test the Bone Spring formation.

3. Cimarex proposes the **Mighty Pheasant 5-8 Fed Com 204H Well**, an oil well, to be horizontally drilled from a surface location in SW/4 SE/4 (Unit O) of Section 32, Township 19 South, Range 34 East, NMPM, to a bottom hole location in the SE/4 SE/4 (Unit P) of Section 8, Township 20 South, Range 34 East, NMPM.

4. Cimarex proposes the **Mighty Pheasant 5-8 Fed Com 304H Well**, an oil well, to be horizontally drilled from a surface location in SW/4 SE/4 (Unit O) of Section 32, Township 19 South, Range 34 East, NMPM, to a bottom hole location in the SE/4 SE/4 (Unit P) of Section 8, Township 20 South, Range 34 East, NMPM.

5. The proposed wells are orthodox in their locations, and the take points and completed intervals comply with setback requirements under the statewide rules.

6. Cimarex's review of the land records did not reveal any overlapping units.

7. Cimarex has sought in good faith but has been unable to obtain voluntary agreement from all interest owners to participate in the drilling of the wells or the commitment of their interests to the wells for their development within the proposed HSU.

8. The pooling of all interests in the Bone Spring formation within the proposed HSU will avoid the drilling of unnecessary wells, prevent waste, and protect correlative rights.

9. In order to provide for its just and fair share of the oil and gas underlying the subject lands, Cimarex requests that all uncommitted interests in this HSU be pooled and that Cimarex be designated the operator of the proposed horizontal wells and HSU.

WHEREFORE, Cimarex requests that this Application be set for hearing on April 6, 2023, before an Examiner of the Oil Conservation Division, and after notice and hearing as required by law, the Division enter an order:

- A. Establishing a standard 320.09-acre, more or less, spacing and proration unit comprised of Lot 1 (NE/4 NE/4 equivalent), the SE/4 NE/4, and the E/2 SE/4 of Section 5 and the E/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico;
- B. Pooling all uncommitted mineral interests in the Bone Spring formation underlying the proposed HSU;
- C. Approving the **Mighty Pheasant 5-8 Fed Com 204H Well** and the **Mighty Pheasant 5-8 Fed Com 304H Well** as the wells for the HSU.
- D. Designating Cimarex as operator of this HSU and the horizontal wells to be drilled thereon;
- E. Authorizing Cimarex to recover its costs of drilling, equipping, and completing the wells;
- F. Approving actual operating charges and costs of supervision, to the maximum extent allowable, while drilling and after completion, together with a provision adjusting the rates pursuant to the COPAS accounting procedures; and
- G. Setting a 200% charge for the risk assumed by Cimarex in drilling and completing the wells in the event a working interest owner elects not to participate in the wells.

Respectfully submitted,

ABADIE & SCHILL, PC

*/s/ Darin C. Savage*

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**Attorneys for Cimarex Energy Co.**

***Application of Cimarex Energy Co. for a Horizontal Spacing and Proration Unit and Compulsory Pooling, Lea County, New Mexico.*** Applicant in the above-styled cause seeks an order from the Division: (1) establishing a standard 320.09-acre, more or less, horizontal spacing and proration unit comprised of Lot 1 (NE/4 NE/4 equivalent), the SE/4 NE/4, and the E/2 SE/4 of Section 5 and the E/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, and (2) pooling all uncommitted mineral interests from a depth of 9,373 feet (top of first Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], to a depth of 10,845 feet, that being the base of said Bone Spring, designated as an oil pool, underlying the unit. Section 5 is an irregular section containing correction lots. The proposed wells to be dedicated to the horizontal spacing unit are the **Mighty Pheasant 5-8 Fed Com 204H Well** and the **Mighty Pheasant 5-8 Fed Com 304H Well**, both oil wells, to be horizontally drilled from surface locations in the SW/4 SE/4 (Unit O) of Section 32, Township 19 South, Range 34 East, NMPM, to bottom hole locations in the SE/4 SE/4 (Unit P) of Section 8, Township 20 South, Range 34 East, NMPM. The wells will be orthodox, and the take points and completed interval will comply with the setback requirements under the statewide Rules; also to be considered will be the cost of drilling and completing the wells and the allocation of the costs thereof; actual operating costs and charges for supervision; the designation of the Applicant as Operator of the wells and unit; and a 200% charge for the risk involved in drilling and completing the wells. The wells and lands are located approximately 40 miles northeast of Carlsbad, New Mexico.

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

**APPLICATION OF CIMAREX ENERGY CO.  
FOR A HORIZONTAL SPACING UNIT AND  
COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

Case No. 23449

**APPLICATION**

Cimarex Energy Co. (“Cimarex”), OGRID No. 215099, through its undersigned attorneys, hereby files this Application with the Oil Conservation Division (“Division”) pursuant to the provisions of NMSA 1978, Section 70-2-17, seeking an order (1) establishing a standard 320.01-acre, more or less, spacing and proration unit comprised of Lot 4 (NW/4 NW/4 equivalent), the SW/4 NW/4, and the W/2 SW/4 of Section 5 and the W/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, and (2) pooling all uncommitted mineral interests from a stratigraphic equivalent of 9,373 feet (that being the top of 1<sup>st</sup> Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], a depth as defined on the log for the Hudson Federal #1 Well (API No. 30-025-32819), to a stratigraphic equivalent of 10,845 feet, as defined by same Well, that being the base of the Bone Spring formation, designated as an oil pool, underlying said unit. Section 5 is an irregular section with correction Lots.

In support of its Application, Cimarex states the following:

1. Cimarex is a working interest owner in the proposed horizontal spacing and proration unit (“HSU”) and has a right to drill a well thereon.
2. Cimarex proposes and dedicates to the HSU the **Mighty Pheasant 5-8 Fed Com 301H Well**, as the initial well, to be drilled to a sufficient depth to test the Bone Spring formation.

3. Cimarex proposes the **Mighty Pheasant 5-8 Fed Com 301H Well**, an oil well, to be horizontally drilled from a surface location in Lot 4 (NW/4 NW/4 equivalent) of Section 5 to a bottom hole location in the SW/4 SW/4 (Unit M) of Section 8.

4. The proposed well is orthodox in its location, and the take points and completed interval comply with setback requirements under the statewide rules.

5. Cimarex's review of the land records did not reveal any overlapping units.

6. Cimarex has sought in good faith but has been unable to obtain voluntary agreement from all interest owners to participate in the drilling of the well or the commitment of their interests to the well for their development within the proposed HSU.

7. The pooling of all interests in the Bone Spring formation within the proposed HSU will avoid the drilling of unnecessary wells, prevent waste, and protect correlative rights.

8. In order to provide for its just and fair share of the oil and gas underlying the subject lands, Cimarex requests that all uncommitted interests in this HSU be pooled and that Cimarex be designated the operator of the proposed horizontal well and HSU.

WHEREFORE, Cimarex requests that this Application be set for hearing on April 6, 2023, before an Examiner of the Oil Conservation Division, and after notice and hearing as required by law, the Division enter an order:

A. Establishing of a standard 320.01-acre, more or less, spacing and proration unit comprised of Lot 4 (NW/4 NW/4 equivalent), the SW/4 NW/4, and the W/2 SW/4 of Section 5 and the W/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico;

B. Pooling all uncommitted mineral interests in the Bone Spring formation underlying the proposed HSU.

- C. Approving the **Mighty Pheasant 5-8 Fed Com 301H Well** as the well for the HSU.
- D. Designating Cimarex as operator of this HSU and the horizontal well to be drilled thereon;
- E. Authorizing Cimarex to recover its costs of drilling, equipping, and completing the well;
- F. Approving actual operating charges and costs of supervision, to the maximum extent allowable, while drilling and after completion, together with a provision adjusting the rates pursuant to the COPAS accounting procedures; and
- G. Setting a 200% charge for the risk assumed by Cimarex in drilling and completing the well in the event a working interest owner elects not to participate in the well.

Respectfully submitted,

ABADIE & SCHILL, PC

*/s/ Darin C. Savage*

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**Attorneys for Cimarex Energy Co.**

***Application of Cimarex Energy Co. for a Horizontal Spacing and Proration Unit and Compulsory Pooling, Lea County, New Mexico.*** Applicant in the above-styled cause seeks an order from the Division: (1) establishing a standard 320.01-acre, more or less, horizontal spacing and proration unit comprised of Lot 4 (NW/4 NW/4 equivalent), the SW/4 NW/4, and the W/2 SW/4 of Section 5 and the W/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, and (2) pooling all uncommitted mineral interests from a depth of 9,373 feet (top of first Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], to a depth of 10,845 feet, that being the base of said Bone Spring, designated as an oil pool, underlying the unit. Section 5 is an irregular section containing correction lots. The proposed well to be dedicated to the horizontal spacing unit is the **Mighty Pheasant 5-8 Fed Com 301H Well**, an oil well, to be horizontally drilled from a surface location in Lot 4 (NW/4 NW/4 equivalent) of Section 5 to a bottom hole location in the SW/4 SW/4 (Unit M) of Section 8. The well will be orthodox, and the take points and completed interval will comply with the setback requirements under the statewide Rules; also to be considered will be the cost of drilling and completing the well and the allocation of the costs thereof; actual operating costs and charges for supervision; the designation of the Applicant as Operator of the well and unit; and a 200% charge for the risk involved in drilling and completing the well. The well and lands are located approximately 40 miles northeast of Carlsbad, New Mexico.

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

**APPLICATION OF CIMAREX ENERGY CO.  
FOR A HORIZONTAL SPACING UNIT AND  
COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

Case No. 23450

**APPLICATION**

Cimarex Energy Co. (“Cimarex”), OGRID No. 215099, through its undersigned attorneys, hereby files this Application with the Oil Conservation Division (“Division”) pursuant to the provisions of NMSA 1978, Section 70-2-17, seeking an order (1) establishing a standard 320.04-acre, more or less, spacing and proration unit comprised of Lot 3 (NE/4 NW/4 equivalent), the SE/4 NW/4, and the E/2 SW/4 of Section 5 and the E/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, and (2) pooling all uncommitted mineral interests from a stratigraphic equivalent of 9,373 feet (that being the top of 1<sup>st</sup> Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], a depth as defined on the log for the Hudson Federal #1 Well (API No. 30-025-32819), to a stratigraphic equivalent of 10,845 feet, as defined by same Well, that being the base of the Bone Spring formation, designated as an oil pool, underlying said unit. Section 5 is an irregular section with correction Lots.

In support of its Application, Cimarex states the following:

1. Cimarex is a working interest owner in the proposed horizontal spacing and proration unit (“HSU”) and has a right to drill a well thereon.
2. Cimarex proposes and dedicates to the HSU the **Mighty Pheasant 5-8 Fed Com 302H Well**, as the initial well, to be drilled to a sufficient depth to test the Bone Spring formation.

3. Cimarex proposes the **Mighty Pheasant 5-8 Fed Com 302H Well**, an oil well, to be horizontally drilled from a surface location in Lot 4 (NW/4 NW/4 equivalent) of Section 5 to a bottom hole location in the SE/4 SW/4 (Unit N) of Section 8.

4. The proposed well is orthodox in its location, and the take points and completed interval comply with setback requirements under the statewide rules.

5. Cimarex's review of the land records did not reveal any overlapping units.

6. Cimarex has sought in good faith but has been unable to obtain voluntary agreement from all interest owners to participate in the drilling of the well or the commitment of their interests to the well for their development within the proposed HSU.

7. The pooling of all interests in the Bone Spring formation within the proposed HSU will avoid the drilling of unnecessary wells, prevent waste, and protect correlative rights.

8. In order to provide for its just and fair share of the oil and gas underlying the subject lands, Cimarex requests that all uncommitted interests in this HSU be pooled and that Cimarex be designated the operator of the proposed horizontal well and HSU.

WHEREFORE, Cimarex requests that this Application be set for hearing on April 6, 2023, before an Examiner of the Oil Conservation Division, and after notice and hearing as required by law, the Division enter an order:

A. Establishing a standard 320.04-acre, more or less, spacing and proration unit comprised of Lot 3 (NE/4 NW/4 equivalent), the SE/4 NW/4, and the E/2 SW/4 of Section 5 and the E/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico;

B. Pooling all uncommitted mineral interests in the Bone Spring formation underlying the proposed HSU;



- C. Approving the **Mighty Pheasant 5-8 Fed Com 302H Well** as the well for the HSU.
- D. Designating Cimarex as operator of this HSU and the horizontal well to be drilled thereon;
- E. Authorizing Cimarex to recover its costs of drilling, equipping, and completing the well;
- F. Approving actual operating charges and costs of supervision, to the maximum extent allowable, while drilling and after completion, together with a provision adjusting the rates pursuant to the COPAS accounting procedures; and
- G. Setting a 200% charge for the risk assumed by Cimarex in drilling and completing the well in the event a working interest owner elects not to participate in the well.

Respectfully submitted,

ABADIE & SCHILL, PC

*/s/ Darin C. Savage*

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**Attorneys for Cimarex Energy Co.**

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**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
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**APPLICATION OF CIMAREX ENERGY CO.  
FOR A HORIZONTAL SPACING UNIT AND  
COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

Case No. 23451

**APPLICATION**

Cimarex Energy Co. (“Cimarex”), OGRID No. 215099, through its undersigned attorneys, hereby files this Application with the Oil Conservation Division (“Division”) pursuant to the provisions of NMSA 1978, Section 70-2-17, seeking an order (1) establishing a standard 320.06-acre, more or less, spacing and proration unit comprised of Lot 2 (NW/4 NE/4 equivalent), the SW/4 NE/4, and the W/2 SE/4 of Section 5 and the W/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, and (2) pooling all uncommitted mineral interests from a stratigraphic equivalent of 9,373 feet (that being the top of 1<sup>st</sup> Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], a depth as defined on the log for the Hudson Federal #1 Well (API No. 30-025-32819), to a stratigraphic equivalent of 10,845 feet, as defined by same Well, that being the base of the Bone Spring formation, designated as an oil pool, underlying said unit. Section 5 is an irregular section with correction Lots.

In support of its Application, Cimarex states the following:

1. Cimarex is a working interest owner in the proposed horizontal spacing and proration unit (“HSU”) and has a right to drill a well thereon.
2. Cimarex proposes and dedicates to the HSU the **Mighty Pheasant 5-8 Fed Com 303H Well**, as the initial well, to be drilled to a sufficient depth to test the Bone Spring formation.

3. Cimarex proposes the **Mighty Pheasant 5-8 Fed Com 303H Well**, an oil well, to be horizontally drilled from a surface location in SW/4 SE/4 (Unit O) of Section 32, Township 19 South, Range 34 East, NMPM, to a bottom hole location in the SW/4 SE/4 (Unit O) of Section 8, Township 20 South, Range 34 East, NMPM.

4. The proposed well is orthodox in its location, and the take points and completed interval comply with setback requirements under the statewide rules.

5. Cimarex's review of the land records did not reveal any overlapping units.

6. Cimarex has sought in good faith but has been unable to obtain voluntary agreement from all interest owners to participate in the drilling of the well or the commitment of their interests to the well for their development within the proposed HSU.

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8. In order to provide for its just and fair share of the oil and gas underlying the subject lands, Cimarex requests that all uncommitted interests in this HSU be pooled and that Cimarex be designated the operator of the proposed horizontal well and HSU.

WHEREFORE, Cimarex requests that this Application be set for hearing on April 6, 2023, before an Examiner of the Oil Conservation Division, and after notice and hearing as required by law, the Division enter an order:

A. Establishing a standard 320.06-acre, more or less, spacing and proration unit comprised of Lot 2 (NW/4 NE/4 equivalent), the SW/4 NE/4, and the W/2 SE/4 of Section 5 and the W/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico;

- B. Pooling all uncommitted mineral interests in the Bone Spring formation underlying the proposed HSU;
- C. Approving the **Mighty Pheasant 5-8 Fed Com 303H Well** as the well for the HSU.
- D. Designating Cimarex as operator of this HSU and the horizontal well to be drilled thereon;
- E. Authorizing Cimarex to recover its costs of drilling, equipping, and completing the well;
- F. Approving actual operating charges and costs of supervision, to the maximum extent allowable, while drilling and after completion, together with a provision adjusting the rates pursuant to the COPAS accounting procedures; and
- G. Setting a 200% charge for the risk assumed by Cimarex in drilling and completing the well in the event a working interest owner elects not to participate in the well.

Respectfully submitted,

ABADIE & SCHILL, PC

*/s/ Darin C. Savage*

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Darin C. Savage

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**Attorneys for Cimarex Energy Co.**

*Application of Cimarex Energy Co. for a Horizontal Spacing and Proration Unit and Compulsory Pooling, Lea County, New Mexico.* Applicant in the above-styled cause seeks an order from the Division: (1) establishing a standard 320.06-acre, more or less, horizontal spacing and proration unit comprised of Lot 2 (NW/4 NE/4 equivalent), the SW/4 NE/4, and the W/2 SE/4 of Section 5 and the W/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, and (2) pooling all uncommitted mineral interests from a depth of 9,373 feet (top of first Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], to a depth of 10,845 feet, that being the base of said Bone Spring, designated as an oil pool, underlying the unit. Section 5 is an irregular section containing correction lots. The proposed well to be dedicated to the horizontal spacing unit is the **Mighty Pheasant 5-8 Fed Com 303H Well**, an oil well, to be horizontally drilled from a surface location in the SW/4 SE/4 (Unit O) of Section 32, Township 19 South, Range 34 East, NMPM, to a bottom hole location in the SW/4 SE/4 (Unit O) of Section 8, Township 20 South, Range 34 East, NMPM. The well will be orthodox, and the take points and completed interval will comply with the setback requirements under the statewide Rules; also to be considered will be the cost of drilling and completing the well and the allocation of the costs thereof; actual operating costs and charges for supervision; the designation of the Applicant as Operator of the well and unit; and a 200% charge for the risk involved in drilling and completing the well. The well and lands are located approximately 40 miles northeast of Carlsbad, New Mexico.

**COMPULSORY POOLING APPLICATION CHECKLIST****ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS**

<b>Case: 23448</b>	<b>APPLICANT'S RESPONSE</b>
<b>Date: August 9, 2023 (Scheduled hearing)</b>	
Applicant	<b>Cimarex Energy Co.</b>
Designated Operator & OGRID (affiliation if applicable)	<b>215099</b>
Applicant's Counsel:	Darin C. Savage, Abadie & Schill, P.C.
Case Title:	APPLICATION OF CIMAREX ENERGY CO., FOR A HORIZONTAL SPACING UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO
Entries of Appearance/Intervenors:	Read & Stevens, Inc., / Permian Resources Operating, LLC Sandstone Properties, LLC Northern Oil and Gas, Inc.
Well Family	Mighty Pheasant
<b>Formation/Pool</b>	
Formation Name(s) or Vertical Extent:	Bone Spring
Primary Product (Oil or Gas):	Oil
Pooling this vertical extent:	Bone Spring
Pool Name and Pool Code:	Teas; Bone Spring, East (96637)
Well Location Setback Rules:	Statewide Rules
<b>Spacing Unit</b>	
Type (Horizontal/Vertical)	Horizontal
Size (Acres)	320.09-acre, more or less
Building Blocks:	Quarter-Quarter Sections (40 Acre Blocks)
Orientation:	North to South
Description: TRS/County	Lot 1 (NE/4 NE/4 equivalent), the SE/4 NE/4, and the E/2 SE/4 of Section 5 and the E/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico
Standard Horizontal Well Spacing Unit (Y/N), If No, describe and is approval of non-standard unit requested in this application?	Yes, Standard Spacing Unit
<b>Other Situations</b>	
Depth Severance: Y/N. If yes, description	No, N/A
Proximity Tracts: If yes, description	No
Proximity Defining Well: if yes, description	No
Applicant's Ownership in Each Tract	See Exhibit A-2.1, breakdown of ownership
<b>Well(s)</b>	
Name & API (if assigned), surface and bottom hole location, footages, completion target, orientation, completion status (standard or non-standard)	Add wells as needed
Well #1	Mighty Pheasant 5-8 Fed Com 204H Well (API No. 30-015-Pending), SHL: Unit O, 281' FSL, 1443' FEL, Section 32, T19S-R34E; BHL: Unit P, 100' FSL, 708' FEL, Section 8, T20S-R34E, NMPM; Lea County, New Mexico, standup, standard location

Horizontal Well First and Last Take Points	Mighty Pheasant 5-8 Fed Com 204H Well: FTP: 100' FNL, 708' FEL, Section 5; LTP 100' FSL, 708' FEL, Section 8
Completion Target (Formation, TVD and MD)	Mighty Pheasant 5-8 Fed Com 204H Well: TVD approx. 10,308', TMD 20,465'; Bone Spring formation, See Exhibit A, A-1,B-5
Well #2	Mighty Pheasant 5-8 Fed Com 304H Well (API No. 30-015-Pending), SHL: Unit O, 281' FSL, 1423' FEL, Section 32, T19S-R34E; BHL: Unit P, 100' FSL, 708' FEL, Section 8, T20S-R34E, NMPM; Lea County, New Mexico, standup, standard location
Horizontal Well First and Last Take Points	Mighty Pheasant 5-8 Fed Com 304H Well: FTP 100' FNL, 708' FEL, Section 5; LTP 100' FSL, 708' FWL, Section 8
Completion Target (Formation, TVD and MD)	Mighty Pheasant 5-8 Fed Com 304H Well: TVD approx. 10,840', TMD 21,040'; Bone Spring formation, See Exhibit A, A-1 & B-2
<b>AFE Capex and Operating Costs</b>	
Drilling Supervision/Month \$	\$8000, Exhibit A
Production Supervision/Month \$	\$800, Exhibit A
Justification for Supervision Costs	Exhibit A
Requested Risk Charge	200%, Exhibit A
<b>Notice of Hearing</b>	
Proposed Notice of Hearing	Exhibit D, D-1
Proof of Mailed Notice of Hearing (20 days before hearing)	Exhibit D-2
Proof of Published Notice of Hearing (10 days before hearing)	Exhibit D-3
<b>Ownership Determination</b>	
Land Ownership Schematic of the Spacing Unit	Exhibit A-2.1
Tract List (including lease numbers and owners)	Exhibit A-2.1
If approval of Non-Standard Spacing Unit is requested, Tract List (including lease numbers and owners) of Tracts subject to notice requirements.	N/A
Pooled Parties (including ownership type)	All uncommitted WI owners; including as shown on Exhibit A-2.1
Unlocatable Parties to be Pooled	Exhibit A
Ownership Depth Severance (including percentage above & below)	N/A
<b>Joinder</b>	
Sample Copy of Proposal Letter	Exhibit A-3
List of Interest Owners (ie Exhibit A of JOA)	Exhibit A-2.1
Chronology of Contact with Non-Joined Working Interests	Exhibit A-4
Overhead Rates In Proposal Letter	Exhibit A-3
Cost Estimate to Drill and Complete	Exhibit A-3
Cost Estimate to Equip Well	Exhibit A-3



Cost Estimate for Production Facilities	Exhibit A-3
<b>Geology</b>	
Summary (including special considerations)	Exhibit B
Spacing Unit Schematic	Exhibit B-5, B-6, B-8, B-11, B-12
Gunbarrel/Lateral Trajectory Schematic	Exhibit B-3, B-4,
Well Orientation (with rationale)	Exhibit A-1, B-5, B-6, B-8, B-11, B-12
Target Formation	Exhibit B-3, B-4, B-6, B-7, B-13
HSU Cross Section	Exhibit B-3, B-4, B-6, B-7, B-13
Depth Severance Discussion	N/A
<b>Forms, Figures and Tables</b>	
C-102	Exhibit A-1
Tracts	Exhibit A-2.1
Summary of Interests, Unit Recapitulation (Tracts)	Exhibit A-2.1
General Location Map (including basin)	Exhibit A-2.1
Well Bore Location Map	Exhibit A-1, B-2, B-3
Structure Contour Map - Subsea Depth	Exhibit B-5, B-6, B-11, B-16
Cross Section Location Map (including wells)	Exhibit B-3, B-4, B-6, B-7, B-13
Cross Section (including Landing Zone)	Exhibit B-3, B-4, B-6, B-7, B-13
<b>Additional Information</b>	
Special Provisions/Stipulations	
<b>CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate.</b>	
<b>Printed Name</b> (Attorney or Party Representative):	Darin C. Savage
<b>Signed Name</b> (Attorney or Party Representative):	<i>/s/ Darin Savage</i>
<b>Date:</b>	Date 8-2-2023

**COMPULSORY POOLING APPLICATION CHECKLIST****ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS**

Case: 23449	APPLICANT'S RESPONSE
Date: August 9, 2023 (Scheduled hearing)	
Applicant	Cimarex Energy Co.
Designated Operator & OGRID (affiliation if applicable)	215099
Applicant's Counsel:	Darin C. Savage, Abadie & Schill, P.C.
Case Title:	APPLICATION OF CIMAREX ENERGY CO., FOR A HORIZONTAL SPACING UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO
Entries of Appearance/Intervenors:	Read & Stevens, Inc., / Permian Resources Operating, LLC Sandstone Properties, LLC Northern Oil and Gas, Inc.
Well Family	Mighty Pheasant
<b>Formation/Pool</b>	
Formation Name(s) or Vertical Extent:	Bone Spring
Primary Product (Oil or Gas):	Oil
Pooling this vertical extent:	Bone Spring
Pool Name and Pool Code:	Teas; Bone Spring, East (96637)
Well Location Setback Rules:	Statewide Rules
<b>Spacing Unit</b>	
Type (Horizontal/Vertical)	Horizontal
Size (Acres)	320.01-acre, more or less
Building Blocks:	Quarter-Quarter Sections (40 Acre Blocks)
Orientation:	North to South
Description: TRS/County	Lot 4 (NW/4 NW/4 equivalent), the SW/4 NW/4, and the W/2 SW/4 of Section 5 and the W/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico
Standard Horizontal Well Spacing Unit (Y/N), If No, describe and is approval of non-standard unit requested in this application?	Yes, Standard Spacing Unit
<b>Other Situations</b>	
Depth Severance: Y/N. If yes, description	No, N/A
Proximity Tracts: If yes, description	No
Proximity Defining Well: if yes, description	No
Applicant's Ownership in Each Tract	See Exhibit A-2.2, breakdown of ownership
<b>Well(s)</b>	
Name & API (if assigned), surface and bottom hole location, footages, completion target, orientation, completion status (standard or non-standard)	Add wells as needed

Well #1	Mighty Pheasant 5-8 Fed Com 301H Well (API No. 30-015-Pending), SHL: Lot 4, 483' FNL, 1272' FWL, Section 5, T20S-R34E; BHL: Unit M, 100' FSL, 330' FWL, Section 8, T20S-R34E, NMPM; Lea County, New Mexico, standup, standard location
Horizontal Well First and Last Take Points	Mighty Pheasant 5-8 Fed Com 301H Well: FTP: 100' FNL, 330' FWL, Section 5; LTP: 100' FSL, 330' FWL, Section 8
Completion Target (Formation, TVD and MD)	Mighty Pheasant 5-8 Fed Com 301H Well: TVD approx. 10,870', TMD 21,057'; Bone Spring formation, See Exhibit A, A-1 & B-2
<b>AFE Capex and Operating Costs</b>	
Drilling Supervision/Month \$	\$8000, Exhibit A
Production Supervision/Month \$	\$800, Exhibit A
Justification for Supervision Costs	Exhibit A
Requested Risk Charge	200%, Exhibit A
<b>Notice of Hearing</b>	
Proposed Notice of Hearing	Exhibit D, D-1
Proof of Mailed Notice of Hearing (20 days before hearing)	Exhibit D-2
Proof of Published Notice of Hearing (10 days before hearing)	Exhibit D-3
<b>Ownership Determination</b>	
Land Ownership Schematic of the Spacing Unit	Exhibit A-2.2
Tract List (including lease numbers and owners)	Exhibit A-2.2
If approval of Non-Standard Spacing Unit is requested, Tract List (including lease numbers and owners) of Tracts subject to notice requirements.	N/A
Pooled Parties (including ownership type)	All uncommitted WI owners; including as shown on Exhibit A-2.2
Unlocatable Parties to be Pooled	Exhibit A
Ownership Depth Severance (including percentage above & below)	N/A
<b>Joinder</b>	
Sample Copy of Proposal Letter	Exhibit A-3
List of Interest Owners (ie Exhibit A of JOA)	Exhibit A-2.2
Chronology of Contact with Non-Joined Working Interests	Exhibit A-4
Overhead Rates In Proposal Letter	Exhibit A-3
Cost Estimate to Drill and Complete	Exhibit A-3
Cost Estimate to Equip Well	Exhibit A-3
Cost Estimate for Production Facilities	Exhibit A-3
<b>Geology</b>	
Summary (including special considerations)	Exhibit B

Spacing Unit Schematic	Exhibit B-5, B-6, B-8
Gunbarrel/Lateral Trajectory Schematic	Exhibit B-3, B-4,
Well Orientation (with rationale)	Exhibit A-1, B-5, B-6, B-8
Target Formation	Exhibit B-3, B-4, B-6, B-7
HSU Cross Section	Exhibit B-3, B-4, B-6, B-7
Depth Severance Discussion	N/A
<b>Forms, Figures and Tables</b>	
C-102	Exhibit A-1
Tracts	Exhibit A-2.2
Summary of Interests, Unit Recapitulation (Tracts)	Exhibit A-2.2
General Location Map (including basin)	Exhibit A-2.2
Well Bore Location Map	Exhibit A-1, B-2, B-3
Structure Contour Map - Subsea Depth	Exhibit B-5, B-6, B-11
Cross Section Location Map (including wells)	Exhibit B-3, B-4, B-6, B-7
Cross Section (including Landing Zone)	Exhibit B-3, B-4, B-6, B-7
<b>Additional Information</b>	
Special Provisions/Stipulations	
<b>CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate.</b>	
<b>Printed Name</b> (Attorney or Party Representative):	Darin C. Savage
<b>Signed Name</b> (Attorney or Party Representative):	<i>/s/ Darin Savage</i>
<b>Date:</b>	Date 8-2-2023

**COMPULSORY POOLING APPLICATION CHECKLIST****ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS**

<b>Case: 23450</b>	<b>APPLICANT'S RESPONSE</b>
<b>Date: August 9, 2023 (Scheduled hearing)</b>	
Applicant	<b>Cimarex Energy Co.</b>
Designated Operator & OGRID (affiliation if applicable)	<b>215099</b>
Applicant's Counsel:	Darin C. Savage, Abadie & Schill, P.C.
Case Title:	APPLICATION OF CIMAREX ENERGY CO., FOR A HORIZONTAL SPACING UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO
Entries of Appearance/Intervenors:	Read & Stevens, Inc., / Permian Resources Operating, LLC Sandstone Properties, LLC Northern Oil and Gas, Inc.
Well Family	Mighty Pheasant
<b>Formation/Pool</b>	
Formation Name(s) or Vertical Extent:	Bone Spring
Primary Product (Oil or Gas):	Oil
Pooling this vertical extent:	Bone Spring
Pool Name and Pool Code:	Teas; Bone Spring, East (96637)
Well Location Setback Rules:	Statewide Rules
<b>Spacing Unit</b>	
Type (Horizontal/Vertical)	Horizontal
Size (Acres)	320.04-acre, more or less
Building Blocks:	Quarter-Quarter Sections (40 Acre Blocks)
Orientation:	North to South
Description: TRS/County	Lot 3 (NE/4 NW/4 equivalent), the SE/4 NW/4, and the E/2 SW/4 of Section 5 and the E/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County,
Standard Horizontal Well Spacing Unit (Y/N), If No, describe <u>and is approval of non-standard unit requested in this application?</u>	Yes, Standard Spacing Unit
<b>Other Situations</b>	
Depth Severance: Y/N. If yes, description	No, N/A
Proximity Tracts: If yes, description	No
Proximity Defining Well: if yes, description	No
Applicant's Ownership in Each Tract	See Exhibit A-2.3, breakdown of ownership
<b>Well(s)</b>	
Name & API (if assigned), surface and bottom hole location, footages, completion target, orientation, completion status (standard or non-standard)	Add wells as needed
Well #1	Mighty Pheasant 5-8 Fed Com 302H Well (API No. 30-015-Pending), SHL: Lot 4, 484' FNL, 1312' FWL, Section 5, T20S-R34E; BHL: Unit N, 100' FSL, 1744' FWL, Section 8, T20S-R34E, NMPM; Lea County, New Mexico, standup, standard location

Horizontal Well First and Last Take Points	Mighty Pheasant 5-8 Fed Com 302H Well: FTP: 100' FNL, 1744' FWL, Section 5; LTP: Unit N, 100' FSL, 1744' FWL, Section 8
Completion Target (Formation, TVD and MD)	Mighty Pheasant 5-8 Fed Com 302H Well: TVD approx. 10,860', TMD 20,992'; Bone Spring formation, See Exhibit A, A-1
<b>AFE Capex and Operating Costs</b>	
Drilling Supervision/Month \$	\$8000, Exhibit A
Production Supervision/Month \$	\$800, Exhibit A
Justification for Supervision Costs	Exhibit A
Requested Risk Charge	200%, Exhibit A
<b>Notice of Hearing</b>	
Proposed Notice of Hearing	Exhibit D, D-1
Proof of Mailed Notice of Hearing (20 days before hearing)	Exhibit D-2
Proof of Published Notice of Hearing (10 days before hearing)	Exhibit D-3
<b>Ownership Determination</b>	
Land Ownership Schematic of the Spacing Unit	Exhibit A-2.3
Tract List (including lease numbers and owners)	Exhibit A-2.3
If approval of Non-Standard Spacing Unit is requested, Tract List (including lease numbers and owners) of Tracts subject to notice requirements.	N/A
Pooled Parties (including ownership type)	All uncommitted WI owners; including as shown on Exhibit A-2
Unlocatable Parties to be Pooled	Exhibit A
Ownership Depth Severance (including percentage above & below)	N/A
<b>Joinder</b>	
Sample Copy of Proposal Letter	Exhibit A-3
List of Interest Owners (ie Exhibit A of JOA)	Exhibit A-2.3
Chronology of Contact with Non-Joined Working Interests	Exhibit A-4
Overhead Rates In Proposal Letter	Exhibit A-3
Cost Estimate to Drill and Complete	Exhibit A-3
Cost Estimate to Equip Well	Exhibit A-3
Cost Estimate for Production Facilities	Exhibit A-3
<b>Geology</b>	
Summary (including special considerations)	Exhibit B
Spacing Unit Schematic	Exhibit B-5, B-6, B-8
Gunbarrel/Lateral Trajectory Schematic	Exhibit B-3, B-4,
Well Orientation (with rationale)	Exhibit A-1, B-5, B-6, B-8
Target Formation	Exhibit B-3, B-4, B-6, B-7
HSU Cross Section	Exhibit B-3, B-4, B-6, B-7
Depth Severance Discussion	N/A

<b>Forms, Figures and Tables</b>	
C-102	Exhibit A-1
Tracts	Exhibit A-2.3
Summary of Interests, Unit Recapitulation (Tracts)	Exhibit A-2.3
General Location Map (including basin)	Exhibit A-2.3
Well Bore Location Map	Exhibit A-1, B-2, B-3
Structure Contour Map - Subsea Depth	Exhibit B-5, B-6
Cross Section Location Map (including wells)	Exhibit B-3, B-4, B-6, B-7
Cross Section (including Landing Zone)	Exhibit B-3, B-4, B-6, B-7
<b>Additional Information</b>	
Special Provisions/Stipulations	
<b>CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate.</b>	
<b>Printed Name</b> (Attorney or Party Representative):	Darin C. Savage
<b>Signed Name</b> (Attorney or Party Representative):	<i>/s/ Darin Savage</i>
<b>Date:</b>	Date 8-2-2023

**COMPULSORY POOLING APPLICATION CHECKLIST****ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS**

<b>Case: 23451</b>	<b>APPLICANT'S RESPONSE</b>
<b>Date: August 9, 2023 (Scheduled hearing)</b>	
Applicant	<b>Cimarex Energy Co.</b>
Designated Operator & OGRID (affiliation if applicable)	<b>215099</b>
Applicant's Counsel:	Darin C. Savage, Abadie & Schill, P.C.
Case Title:	APPLICATION OF CIMAREX ENERGY CO., FOR A HORIZONTAL SPACING UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO
Entries of Appearance/Intervenors:	Read & Stevens, Inc., / Permian Resources Operating, LLC Sandstone Properties, LLC Northern Oil and Gas, Inc.
Well Family	Mighty Pheasant
<b>Formation/Pool</b>	
Formation Name(s) or Vertical Extent:	Bone Spring
Primary Product (Oil or Gas):	Oil
Pooling this vertical extent:	Bone Spring
Pool Name and Pool Code:	Teas; Bone Spring, East (96637)
Well Location Setback Rules:	Statewide Rules
<b>Spacing Unit</b>	
Type (Horizontal/Vertical)	Horizontal
Size (Acres)	320.06-acre, more or less
Building Blocks:	Quarter-Quarter Sections (40 Acre Blocks)
Orientation:	North to South
Description: TRS/County	Lot 2 (NW/4 NE/4 equivalent), the SW/4 NE/4, and the W/2 SE/4 of Section 5 and the W/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County,
Standard Horizontal Well Spacing Unit (Y/N), If No, describe and is approval of non-standard unit requested in this application?	Yes, Standard Spacing Unit
<b>Other Situations</b>	
Depth Severance: Y/N. If yes, description	No, N/A
Proximity Tracts: If yes, description	No
Proximity Defining Well: if yes, description	No
Applicant's Ownership in Each Tract	See Exhibit A-2.4, ownership breakdown
<b>Well(s)</b>	
Name & API (if assigned), surface and bottom hole location, footages, completion target, orientation, completion status (standard or non-standard)	Add wells as needed
Well #1	Mighty Pheasant 5-8 Fed Com 303H Well (API No. 30-015-Pending), SHL: Unit O, 281' FSL, 1463' FEL, Section 32, T19S-R34E; BHL: Unit O, 100' FSL, 2122' FEL, Section 8, T20S-R34E, NMPM; Lea County, New Mexico, standup, standard



Horizontal Well First and Last Take Points	Mighty Pheasant 5-8 Fed Com 303H Well: FTP: 100' FNL, 2122' FEL, Section 5; LTP: 100' FSL, 2122' FEL, Section 8
Completion Target (Formation, TVD and MD)	Mighty Pheasant 5-8 Fed Com 303H Well: TVD approx. 10,860', TMD 21,019'; Bone Spring formation, See Exhibit A, A-1
<b>AFE Capex and Operating Costs</b>	
Drilling Supervision/Month \$	\$8000, Exhibit A
Production Supervision/Month \$	\$800, Exhibit A
Justification for Supervision Costs	Exhibit A
Requested Risk Charge	200%, Exhibit A
<b>Notice of Hearing</b>	
Proposed Notice of Hearing	Exhibit D, D-1
Proof of Mailed Notice of Hearing (20 days before hearing)	Exhibit D-2
Proof of Published Notice of Hearing (10 days before hearing)	Exhibit D-3
<b>Ownership Determination</b>	
Land Ownership Schematic of the Spacing Unit	Exhibit A-2.4
Tract List (including lease numbers and owners)	Exhibit A-2.4
If approval of Non-Standard Spacing Unit is requested, Tract List (including lease numbers and owners) of Tracts subject to notice requirements.	N/A
Pooled Parties (including ownership type)	All uncommitted WI owners; including as shown on Exhibit A-2
Unlocatable Parties to be Pooled	Exhibit A
Ownership Depth Severance (including percentage above & below)	N/A
<b>Joinder</b>	
Sample Copy of Proposal Letter	Exhibit A-3
List of Interest Owners (ie Exhibit A of JOA)	Exhibit A-2.4
Chronology of Contact with Non-Joined Working Interests	Exhibit A-4
Overhead Rates In Proposal Letter	Exhibit A-3
Cost Estimate to Drill and Complete	Exhibit A-3
Cost Estimate to Equip Well	Exhibit A-3
Cost Estimate for Production Facilities	Exhibit A-3
<b>Geology</b>	
Summary (including special considerations)	Exhibit B
Spacing Unit Schematic	Exhibit B-5, B-6, B-8
Gunbarrel/Lateral Trajectory Schematic	Exhibit B-3, B-4,
Well Orientation (with rationale)	Exhibit A-1, B-5, B-6, B-8
Target Formation	Exhibit B-3, B-4, B-6, B-7
HSU Cross Section	Exhibit B-3, B-4, B-6, B-7
Depth Severance Discussion	N/A
<b>Forms, Figures and Tables</b>	
C-102	Exhibit A-1

Tracts	Exhibit A-2.4
Summary of Interests, Unit Recapitulation (Tracts)	Exhibit A-2.4
General Location Map (including basin)	Exhibit A-2.4
Well Bore Location Map	Exhibit A-1, B-2, B-3
Structure Contour Map - Subsea Depth	Exhibit B-5, B-6
Cross Section Location Map (including wells)	Exhibit B-3, B-4, B-6, B-7
Cross Section (including Landing Zone)	Exhibit B-3, B-4, B-6, B-7
<b>Additional Information</b>	
Special Provisions/Stipulations	
<b>CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate.</b>	
<b>Printed Name</b> (Attorney or Party Representative):	Darin C. Savage
<b>Signed Name</b> (Attorney or Party Representative):	<i>/s/ Darin Savage</i>
<b>Date:</b>	Date 8-2-2023

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

**APPLICATIONS OF CIMAREX ENERGY CO.  
FOR A HORIZONTAL SPACING UNIT AND  
COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

**Case Nos. 23448, 23449, 23450 & 23451**

**AMENDED PREHEARING STATEMENT**

Cimarex Energy Co., (“Cimarex”), OGRID No. 215099, through its undersigned attorneys, submits the following Amended Prehearing Statement pursuant to the rules of the Oil Conservation Division (“Division”) for the above referenced Cases which are consolidated with the Case Nos. 23452-23455, 23594 – 23601 and 23508 – 23523 for a contested hearing pursuant to that certain “Further Amended Pre-Hearing Order” issued on June 8, 2023. This Prehearing Statement describes Cimarex’s Case Nos. 23448 - 23451, which proposes Cimarex’s Mighty Pheasant wells and to pool the Bone Spring formation underlying Sections 5 and 8, in Township 20 South, Range 34 East, NMPM, Lea County (“Subject Lands”), and which compete directly with Case Nos. 23516 – 23519 filed by Read & Stevens, Inc., in association with Permian Resources Operating, LLC (collectively referred to herein as “Permian Resources”) which also propose to pool the Bone Spring formation underlying the Subject Lands.

**APPEARANCES**

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### APPLICANT'S STATEMENT OF THE CASES

Cimarex provides this Prehearing Statement to provide a summary of Case Nos. 23448, 23449, 23450 and 23451. These four cases seek to develop the Bone Spring formation in the Subject Lands (i.e., Sections 5 and 8), and these cases are grouped and organized in a logical manner to present to the Division an intelligible overview of the cases that can be readily followed.

In Case No. 23448, Cimarex seeks an order pooling all uncommitted mineral interests in the Bone Spring formation, more specifically, from a stratigraphic equivalent of 9,373 feet (that being the top of 1<sup>st</sup> Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], a depth as defined on the log for the Hudson Federal #1 Well (API No. 30-025-32819), to a stratigraphic equivalent of 10,845 feet, as defined by same Well, that being the base of the Bone Spring formation, designated as an oil pool, underlying a standard 320.09-acre, more or less, spacing and proration unit comprised of Lot 1 (NE/4 NE/4 equivalent), the SE/4 NE/4, and the E/2 SE/4 of Section 5 and the E/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico. Cimarex proposes and dedicates to the unit the **Mighty Pheasant 5-8 Fed Com 204H Well** and the **Mighty Pheasant 5-8 Fed Com 304H Well**, as the initial wells, to be drilled to a sufficient depth to test the Bone Spring formation. The proposed wells are orthodox in their locations, and the take points and completed intervals comply with setback requirements under statewide rules.

In Case No. 23449, Cimarex seeks an order pooling all uncommitted mineral interests in the Bone Spring formation, more specifically, from a stratigraphic equivalent of 9,373 feet (that being the top of 1<sup>st</sup> Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], a depth as defined on the log for the Hudson Federal #1 Well (API No. 30-025-32819), to a stratigraphic equivalent of 10,845 feet, as defined by same Well, that being the base of the Bone

Spring formation, designated as an oil pool, underlying a standard 320.01-acre, more or less, spacing and proration unit comprised of Lot 4 (NW/4 NW/4 equivalent), the SW/4 NW/4, and the W/2 SW/4 of Section 5 and the W/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico. Cimarex proposes and dedicates to the unit the **Mighty Pheasant 5-8 Fed Com 301H Well**, as the initial well, to be drilled to a sufficient depth to test the Bone Spring formation. The proposed well is orthodox in its location, and the take points and completed interval comply with setback requirements under statewide rules.

In Case No. 23450, Cimarex seeks an order pooling all uncommitted mineral interests in the Bone Spring formation, more specifically, from a stratigraphic equivalent of 9,373 feet (that being the top of 1<sup>st</sup> Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], a depth as defined on the log for the Hudson Federal #1 Well (API No. 30-025-32819), to a stratigraphic equivalent of 10,845 feet, as defined by same Well, that being the base of the Bone Spring formation, designated as an oil pool, underlying a standard 320.04-acre, more or less, spacing and proration unit comprised of Lot 3 (NE/4 NW/4 equivalent), the SE/4 NW/4, and the E/2 SW/4 of Section 5 and the E/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico. Cimarex proposes and dedicates to the unit the **Mighty Pheasant 5-8 Fed Com 302H Well**, as the initial well, to be drilled to a sufficient depth to test the Bone Spring formation. The proposed well is orthodox in its location, and the take points and completed interval comply with setback requirements under statewide rules.

In Case No. 23451, Cimarex seeks an order pooling all uncommitted mineral interests in the Bone Spring formation, more specifically, from a stratigraphic equivalent of 9,373 feet (that being the top of 1<sup>st</sup> Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], a depth as defined on the log for the Hudson Federal #1 Well (API No. 30-025-32819), to a

stratigraphic equivalent of 10,845 feet, as defined by same Well, that being the base of the Bone Spring formation, designated as an oil pool, underlying a standard 320.06-acre, more or less, spacing and proration unit comprised of Lot 2 (NW/4 NE/4 equivalent), the SW/4 NE/4, and the W/2 SE/4 of Section 5 and the W/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico. Cimarex proposes and dedicates to the unit the **Mighty Pheasant 5-8 Fed Com 303H Well**, as the initial well, to be drilled to a sufficient depth to test the Bone Spring formation. The proposed well is orthodox in its location, and the take points and completed interval comply with setback requirements under statewide rules.

Cimarex's four cases described herein and its plans for development compete directly with Case Nos. 23516, 23517, 23518, and 23519 filed by Permian Resources for the Subject Lands. In Case No. 23516, Permian Resources seeks to pool all uncommitted interests in the Bone Spring formation underlying a standard 320-acre, more or less, spacing and proration unit comprised of Lot 4 (NW/4 NW/4 equivalent), the SW/4 NW/4, and the W/2 SW/4 of Section 5 and the W/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, dedicating the Joker 5-8 Federal Com 111H, 121H, 122H, 171H, and 131H wells to said unit.

In Case No. 23517, Permian Resources seeks to pool all uncommitted interests in the Bone Spring formation underlying a standard 320-acre, more or less, spacing and proration unit comprised of Lot 3 (NE/4 NW/4 equivalent), the SE/4 NW/4, and the E/2 SW/4 of Section 5 and the E/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, dedicating the Joker 5-8 Federal Com 112H, 123H, 124H, 172H, and 132H wells to said unit.

In Case No. 23518, Permian Resources seeks to pool all uncommitted interests in the Bone Spring formation underlying a standard 320-acre, more or less, spacing and proration unit

comprised of Lot 2 (NW/4 NE/4 equivalent), the SW/4 NE/4, and the W/2 SE/4 of Section 5 and the W/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, dedicating the Joker 5-8 Federal Com 113H, 125H, 126H, 173H, and 133H wells to said unit.

In Case No. 23519, Permian Resources seeks to pool all uncommitted interests in the Bone Spring formation underlying a standard 320-acre, more or less, spacing and proration unit comprised of Lot 1 (NE/4 NE/4 equivalent), the SE/4 NE/4, and the E/2 SE/4 of Section 5 and the E/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, dedicating the Joker 5-8 Federal Com 114H, 127H, 128H, 174H, and 134H wells to said unit.

**APPLICANT’S PROPOSED EVIDENCE AND WITNESS QUALIFICATIONS**

WITNESS	ESTIMATED TIME	EXHIBITS
<p>Landman: John Coffman  Qualifications: I graduated in 2018 from Texas Tech University with a Bachelor’s degree in Business Administration with an emphasis on Energy Commerce. I have worked at Cimarex and Coterra Energy Inc. (“Coterra”) for approximately 4 years, and I have been working in New Mexico for 4 years. (I was originally employed by Cimarex. Since October 1, 2021, when Cimarex merged with Cabot Oil &amp; Gas Corporation to form Coterra, I have been an employee of Coterra.) My credentials as an expert witness in petroleum land matters have been accepted by the Division and made a matter of record.</p>	Approx. 45 min	Approx. 11
<p>Geologist: Staci Meuller  Qualifications: I have a Bachelor of Science Degree in Geophysical Engineering from Colorado School of Mines, and a Master of Science Degree in Geophysics from Colorado School of Mines. I have worked on New Mexico Oil and Gas matters since July 2018. My credentials as an expert witness in geology have been accepted by the Division and made a matter of record.</p>	Approx. 45 min	Approx. 21
<p>Reservoir Engineer: Eddie Behm  Qualifications: I attended the University of Tulsa and graduated with a Bachelor of Science in Petroleum Engineering in 2011. I have worked for Occidental, California Resources prior to working for Cimarex and have been employed as a Production and Reservoir Engineer for Cimarex and Coterra (as of October 1, 2021) for the last 6 years, working in the Delaware Basin with a primary focus on Lea County, New Mexico. I have previously testified before the Division as an expert in Reservoir Engineering, and my credentials have been accepted of record.</p>	Approx. 45 minutes	Approx. 23



Facilities Engineer: Calvin Boyle      Approx. 15 min      Approx. 2  
Qualifications: I attended the University of Oklahoma and graduated with a Bachelor of Science in Petroleum Engineering in 2016 followed by Oklahoma State University where I graduated with a Master of Business Administration in 2018. I worked for Halliburton prior to working for Cimarex and have been employed as a Field, Production, and Facilities engineer for Cimarex and Coterra (as of October 1, 2021) for the last 4 years, working in the Delaware Basin with a primary focus on Lea County, New Mexico. I am familiar with the subject applications filed in the above-referenced Cases and the facilities proposed by Cimarex involved. I have not testified previously before the Division and am providing a one-page resume.

**LIST OF MATERIAL FACTS NOT IN DISPUTE**

Parties are in general agreement that the Bone Spring formation underlying the Subject Lands would be productive if developed and should be developed; however, there are factual differences regarding the best way to achieve optimum development and productivity of the Bone Spring.

**LIST OF DISPUTED FACTS AND ISSUES**

The central issue in Cimarex’s Case Nos. 23448-23451 and Permian Resources’ competing Case Nos. 23516 – 23519 is which party should be the designated operator for the Bone Spring formation in the Subject Lands. In addition, there are specific disagreements between the parties regarding (1) the number of wells that should be used to develop the Bone Spring, (2) the depths and spacing of the wells, (3) the costs of developing the Bone Spring underlying the Subject Lands; and (4) a dispute about whether the Upper Wolfcamp should be drilled and to what extent it should be developed (Cimarex asserts that the drilling of the Upper Wolfcamp would result in waste and harm to correlative rights and should not be done; while Permian Resources proposes to drill the Upper Wolfcamp).

**PROCEDURAL MATTERS**

This contested hearing includes Cimarex’s Case Nos. 23448-23451 and Permian Resources’ competing applications in Case Nos. 23516 – 23519, as described herein, but the hearing also includes numerous additional cases for the Bone Spring in Sections 4 and 9, Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, and consideration of whether to drill the Wolfcamp formation in Case Nos. 23594 - 23. In all, the Division will need to review and consider 32 cases addressing both the Bone Spring and Wolfcamp in Sections 5 and 8 and Sections 4 and 9, all in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico. The Prehearing Statements submitted in these matters, three Prehearing Statements in all, are organized in an effort to provide a manageable approach to reviewing the cases by addressing (1) the 8 competing cases in the Bone Spring for Sections 5 and 8; (2) the 8 competing cases in the Bone Spring for Sections 4 and 9; and finally (3) the status of the competing cases filed for the Wolfcamp formation in both Sections 4 and 9 and Sections 5 and 8.

Respectfully submitted,

ABADIE & SCHILL, PC

/s/ Darin C. Savage

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**CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of the foregoing was filed with the New Mexico Oil Conservation Division and was served on counsel of record via electronic mail on August 2, 2023:

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*/s/ Darin C. Savage*

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Darin C. Savage

## TAB 2

Case Nos. 23448-23451

- Exhibit A: Self-Affirmed Statement of John Coffman Landman
- Exhibit A-1: C-102 Forms
- Exhibit A-2.1: Ownership and Sectional Map
- Exhibit A-2.2: Ownership and Sectional Map
- Exhibit A-2.3: Ownership and Sectional Map
- Exhibit A-2.4: Ownership and Sectional Map
- Exhibit A-3: Well Proposal Letters and AFEs
- Exhibit A-4: Chronology of Contacts with Uncommitted Owners
- Exhibit A-5: Support Letters from Interest Owners
- Exhibit A-6: Read and Stevens Original Well Proposal
- Exhibit A-7: Cimarex Development Layout
- Exhibit A-8: Summary Judgement
- Exhibit A-9: Ownership Support for Cimarex
- Exhibit A-10: Cost Differences Between Plans

**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. 23448, 23449, 23450 & 23451

**SELF-AFFIRMED STATEMENT OF JOHN COFFMAN**

I, being duly sworn on oath, state the following:

1. I am over the age of eighteen years and have the capacity to execute this Self-Affirmed Statement, which is based on my personal knowledge.

2. I am employed as a Landman with Coterra Energy, Inc., and its subsidiary Cimarex Energy Co. (“Cimarex”), the applicant in this case, and I am familiar with the subject application and the lands involved.

3. I graduated in 2018 from Texas Tech University with a bachelor’s degree in Business Administration with an emphasis on Energy Commerce. I have worked at Cimarex for approximately 4 years, and I have been working in New Mexico for 5 years. My credentials as an expert witness in petroleum land matters have been accepted by the New Mexico Oil Conservation Division (“Division”) and made a matter of record.

4. This Statement is submitted in connection with the filing by Cimarex of the above-referenced compulsory pooling applications pursuant to 19.15.4.12.A(1).

5. This Statement is the first of four Landman Statements in four hearing packets (Hearing Packets I through IV) that cover Cimarex’s 16 cases among the 32 cases heard in this contested hearing. Cimarex has presented the cases to the best of its ability in digestible parts so



the Division can review each hearing packet and comprehend how it fits into the larger context. Cimarex has created this larger context by providing in each hearing packet the geology testimony and exhibits and the engineering testimony and exhibits that provide review and reference for all the cases so that as the examiners work through each Hearing Packet, they see how the more focused set of cases fits into larger and more technical descriptions of Cimarex's overall development plan.

6. For example, this Landman Statement provides the introduction to Hearing Packet I, and its exhibits herein address the above-referenced 4 cases that involve the Bone Spring formation, in which resides the primary reservoir and common source of supply, for Sections 5 and 8, Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, as it applies Cimarex's Mighty Pheasant wells. But, it will also discuss the Mighty Pheasant wells in the broader context of Cimarex's development plan as a whole.

7. The Landman Statement in Hearing Packet II addresses the four cases (Case Nos. 23452-23455) that involve the Bone Spring formation, in which resides the primary reservoir and common source of supply, for Sections 4 and 9, Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, as it applies to Cimarex's Loosey Goosey wells.

8. The Landman Statement in Hearing Packet III addresses and explains Cimarex's Option 1, which proposes an alternative to Option 2, offering an approach that would pool and drill only the Bone Spring formation, with focus on the Third Bone Spring, in order to optimally produce the reservoir and common source of supply.

9. The Landman Statement in Hearing Packet IV addresses and explains Cimarex's Option 2, which proposes an alternative to Option 1, and offers an approach by which Cimarex would pool the Wolfcamp formation as a means to protect the reservoir and common source of

supply from unnecessary drilling and capture as production within the pooled unit any oil and gas that would come from the Wolfcamp formation.

10. Each Hearing Packet, I through IV, contains the full set of geology and engineering testimony and exhibits, for all 16 cases, that provide a larger focus on the background, technical detail, and context that support and elucidate each Landman Statement.

11. Thus, as we begin with the Mighty Pheasant wells, the above-referenced cases (Case Nos. 23448 – 23451) all seek to develop the Bone Spring formation underlying Sections 5 and 8, Township 20 South, Range 34 East, NMPM, Lea County, New Mexico (“Subject Lands”).

12. Under Case No. 23448, Cimarex seeks an order pooling all uncommitted mineral interest in the Bone Spring formation, more specifically, the Teas; Bone Spring, East [Pool Code 96637], designated as an oil pool, underlying a standard 320.09-acre, more or less, spacing and proration unit comprised of Lot 1 (NE/4 NE/4 equivalent), the SE/4 NE/4 and the E/2 SE/4 of Section 5 and the E/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico. Cimarex intends to dedicate to the unit two initial wells: the **Mighty Pheasant 5-8 Fed Com 204H Well**, and the **Mighty Pheasant 5-8 Fed Com 304H Well**.

13. Cimarex proposes the **Mighty Pheasant 5-8 Fed Com 204H Well** (API pending) to be horizontally drilled from a surface location 281’ FSL and 1443’ FEL of Section 32, Township 19 South, Range 34 East to a bottom hole location 100’ FSL and 708’ FEL of Section 8, Township 20 South, Range 34 East; approximate TVD of 10,308’; approximate TMD of 20,465’; FTP in Section 5: 100’ FNL, 708’ FEL; LTP in Section 8: 100’ FSL, 708’ FEL.

14. Cimarex proposes the **Mighty Pheasant 5-8 Fed Com 304H Well** (API pending) to be horizontally drilled from a surface location 281’ FSL and 1423’ FEL of Section 32 to a bottom hole location 100’ FSL and 708’ FEL of Section 8; approximate TVD of 10,840’;

approximate TMD of 21,040'; FTP in Section 5: 100' FNL, 708' FEL; LTP in Section 8: 100' FSL, 708' FWL.

15. Under Case No. 23449, Cimarex seeks an order pooling all uncommitted mineral interest in the Bone Spring formation, more specifically, the Teas; Bone Spring, East [Pool Code 96637], designated as an oil pool, underlying a standard 320.01-acre, more or less, spacing and proration unit comprised of Lot 4 (NW/4 NW/4 equivalent), the SW/4 NW/4 and the W/2 SW/4 of Section 5 and the W/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico. Cimarex intends to dedicate to the unit the **Mighty Pheasant 5-8 Fed Com 301H Well**.

16. Cimarex proposes the **Mighty Pheasant 5-8 Fed Com 301H Well** (API pending) to be horizontally drilled from a surface location 483' FNL and 1272' FWL of Section 5, Township 20 South, Range 34 East, to a bottom hole location 100' FSL and 330' FWL of Section 8 Township 20 South, Range 34 East; approximate TVD of 10,870'; approximate TMD of 21,057'; FTP in Section 5: 100' FNL, 330' FWL; LTP in Section 8: 100' FSL, 330' FWL.

17. Under Case No. 23450, Cimarex seeks an order pooling all uncommitted mineral interest in the Bone Bone Spring formation, more specifically, the Teas; Bone Spring, East [Pool Code 96637], designated as an oil pool, underlying a standard 320.04-acre, more or less, spacing and proration unit comprised of Lot 3 (NE/4 NW/4 equivalent), the SE/4 NW/4 and the E/2 SW/4 of Section 5 and the E/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico. Cimarex intends to dedicate to the unit the **Mighty Pheasant 5-8 Fed Com 302H Well**.

18. Cimarex proposes the **Mighty Pheasant 5-8 Fed Com 302H Well** (API pending) to be horizontally drilled from a surface location 484' FNL and 1312' FWL of Section 5 Township



20 South, Range 34 East, to a bottom hole location in the 100' FSL and 1744' FWL of Section 8, Township 20 South, Range 34 East; with an approximate TVD of 10,860'; approximate TMD of 20,992'; FTP in Section 5: 100' FNL, 1,744' FWL; LTP in Section 8: 100' FSL, 1,744' FWL.

19. Under Case No. 23451, Cimarex seeks an order pooling all uncommitted mineral interest in the Bone Spring formation, more specifically, the Teas; Bone Spring, East [Pool Code 96637], designated as an oil pool, underlying a standard 320.06-acre, more or less, spacing and proration unit comprised of Lot 2 (NW/4 NE/4 equivalent), the SW/4 NE/4 and the W/2 SE/4 of Section 5 and the W/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico. Cimarex intends to dedicate to the unit the **Mighty Pheasant 5-8 Fed Com 303H Well**.

20. Cimarex proposes the **Mighty Pheasant 5-8 Fed Com 303H Well** (API pending) to be horizontally drilled from a surface location 281' FSL and 1463' FEL of Section 5, to a bottom hole location 100' FSL and 2122' FEL of Section 8; approximate TVD of 10,860'; approximate TMD of 21,019'; FTP in Section 5: 100' FNL, 2,122' FEL; LTP in Section 8: 100' FSL, 2,122' FEL.

21. The proposed C-102 for each Mighty Pheasant well is attached as **Exhibit A-1**.

22. A general location plat and a plat outlining the units being pooled is attached hereto as **Exhibit A-2.1** through **Exhibit A-2.4**, which show the location of the proposed wells within the units. The location of each well is orthodox, and it meets the Division's offset requirements.

23. The parties being pooled, the nature of their interests, and their last known addresses are listed in **Exhibit A-2.1** through **Exhibit A-2.4** attached hereto. These Exhibits include information regarding working interest owners.

24. Cimarex has been informed that in a recent pleading filed by Permian Resources, Permian Resources accused Cimarex of sitting on its acreage and not moving forward with development. I read this in Permian Resources' Response to Cimarex's Motion to Continue, the exact language accused Cimarex of "sitting on this acreage for years," and only now moving forward. This is a complete mischaracterization of the efforts Cimarex and its parent company Coterra Energy, Inc., ("Coterra" or collectively "Cimarex") have made toward developing the Subject Lands and the surrounding area ("Area of Interest").

25. Cimarex has had a difficult history with Read & Stevens, Inc. ("Read & Stevens") and during this history, it is Read & Stevens who has taken actions to impede and obstruct the development of the Subject Lands and Area of Interest over the years.

26. Contrary to the claim that Cimarex has been sitting on acreage, Slides 1 and 2 in **Exhibit A-7** shows the extent of land and acreage that Cimarex has been actively developing and expanding. Coterra has acquired approximately 60 percent working interest ("WI") in Sections 4, 5, 6, 7, 8, 9, 17, 18, 19, 20, 29, 30, 31, 32 and 33, in the Subject Lands and Area of Interest as shown in Slides 1 and 2. It is the intent of Coterra to develop and transform the majority of this acreage into a federal unit, and that is what we have been working toward over the years, to develop these lands into a federal unit that will complement our two other federal units that we operate in the nearby area; those are Laguna Deep and Pipeline Deep.

27. Cimarex has been coordinating its efforts, and directly communicating with, the operator of the Mescalero Ridge Unit which covers all depths. As such, we are working toward dissolving and consolidating certain federal units no longer in use and have been working closely with the BLM to revitalize production in the consolidated interests. This will position the majority of our North Lea Acreage for full development and production in the First, Second, and Third

Bone Spring (it is the Bone Spring that contains the common sources of the supply in the Area of Interest) with very little surface impact and the ability to commingle on a larger scale than we would normally be able to do without the wider effort. See, for example, Slide 4, **Exhibit A-7**. This is what Cimarex has been working toward over the past decade, developing, and expanding its acreage and plans, positioning itself well within the acreage, not sitting on them. Furthermore, the Division should appreciate that this kind of work – working with the BLM and the other major owners involved – takes time.

28. Cimarex has been able to work quite well and cooperatively with most of the major WI owners, successfully reaching out to larger companies such as Matador, XTO, and Chevron; however, Read & Stevens has proven to be a most uncooperative party in the Area of Interest, and it is not even a party involved in the larger effort of creating and consolidating the federal units. Read & Stevens has presence only in certain contract areas in which most operators are able resolve their difference and reach an agreement. After much negotiating and even offering to travel across Texas and New Mexico to meet, Cimarex could never obtain a successful meeting or reach an agreement with Read & Stevens.

29. In fact, Read & Stevens made every effort to frustrate and undermine the coordinated efforts of the WI owners in the Subject Lands. A large part of the Subject Lands (S/2 of Sections 4 and 5 and all of Sections 8 and 9, Township 20 South, Range 34 East) is governed by an existing Operating Agreement dated August 1, 1979, in which Estoril Producing Corporation was the original operator (“1979 OA”). During negotiations over the Subject Lands, Read & Stevens challenged Cimarex’s right to seek operatorship under the 1979 OA (Magnum Hunter Hunter Production, Inc. (“Magnum Hunter”), a subsidiary of Cimarex and successor member to the 1979 OA, was the actual party seeking operatorship). Read & Stevens sued Magnum Hunter

in the Fifth Judicial District of New Mexico, in Case No. D-504-CV-2014-00358, claiming that Magnum Hunter had no right to consider being an operator of the 1979 OA. The Judge ruled in favor of Magnum Hunter and Cimarex, stating that Magnum Hunter does have a right to seek operatorship under the 1979 OA. *See* Order on Motion for Partial Summary Judgment in Case No. D-504-CV-2014-00358, Fifth Judicial District, attached hereto as **Exhibit A-8**.

30. Based on the court's ruling, Magnum Hunter sent out operatorship ballots to WI owners, in accordance with the terms of the 1979 OA and received a majority of votes in its favor, which secured Magnum Hunter's position as operator under the 1979 OA. However, Read & Steven appeared to reject the opinion of the court and refused to acknowledge Hunger Magnum's balloting of the WI owners under the 1979 OA as legitimate, and instead of respecting the votes of the WI owners, Read & Stevens continued spudding, without well proposals under the 1979 OA, and setting casing for each of their wells in parts of the Subject Lands directly subject to the 1970 OA, specifically in Section 9, Read & Stevens wells being the North Lea 9 Federal 2H (API No. 30-025-4375) (a Third Bone Spring well), and the North Lea 4 Fed Com 2H (API No. 30-025-43504). Cimarex's position is that Read & Stevens spud these wells in trespass under the 1979 OA, and these are the kinds of bad faith antics that Cimarex had to deal with over the years that has consumed an inordinate amount of time and resources, which does not constitute just sitting on the acreage, as erroneously claimed by Permian Resources. Cimarex attempted to reach out to Read & Stevens to find a resolution in the dispute over the 1979 OA, but no resolution or agreement ever materialized.

31. When Cimarex heard news that Permian Resources became associated with Read & Stevens, Cimarex was encouraged that a resolution could be reached based on interactions with

Permian Resources, but after talks involving numerous proposed trades and deals, no resolution or agreement could be reached.

32. Cimarex operates around 15,000 acres and operates ~50 wellbores in the immediate vicinity of Township 19 South, Ranges 33 and 34 East, in Lea County. I believe that Cimarex is a top-tier operator especially regarding the knowledge it takes to drill in this area. See, for example, Slide 3, **Exhibit A-7**. We have been able to come to agreements with multiple owners in the area to effectively and efficiently develop a large portion of the Area of Interest, except for the four Sections in the Subject Lands, where Read & Stevens has blocked and stalled our efforts. Cimarex wants to see the Subject Lands developed in the most prudent way possible, which is what our development plan herein represents, and we want to develop this acreage for the number of WI owners who have been waiting far longer than Cimarex to see the minerals, many of which are family minerals, finally developed, providing the owners with their just and equitable share, unburdened by the massive costs imposed on the interest by Permian Resources.

33. **Exhibit A-10** shows just how much Permian Resources' development plan burdens the owners with additional costs compared to Cimarex's development plan. As depicted in **Exhibit A-10**, overall Permian Resources' plan costs \$539, 893, 326.89 compared to Cimarex's costs of \$283,253,951.43. This reflects a 52% difference in costs where Permian Resource's plan costs the owners as a group a full \$256,639,375.46 more, or about a quarter billion dollars more. Yet, Permian Resources continues to claim that Cimarex's plan violates the correlative rights of the individual owners. One of the owners whose correlative rights Permian Resources' claims will be undermined is HOG Partnership LP ("HOG"), but a close examination of **Exhibit A-10** shows that HOG individually will have to pay \$30,874,175.16 under Permian Resources' plan but only half that, \$15,655,402.13, under Cimarex's plan. Another example: MRC Permian would have to pay

\$4,107,154.83 under Permian Resources' plan but pay only \$1,514,460.94 under Cimarex's plan. In fact, every WI owners listed in the table in **Exhibit A-10** has to pay substantially more under Permian Resources' plan compared to Cimarex's plan. Cimarex's engineering exhibits addressing production show in more detail these costs and revenue differences between Cimarex's plan and Permian Resources' plan.

34. Given the magnitude of the massive costs imposed by Permian Resources' plan, it is inherently impossible for Permian Resources to protect the owners' correlative rights or provide their "just and equitable" share of production. This is because, as our geology and engineering exhibits show, although overall Permian Resources proposes 18 more wells than what Cimarex proposes, their additional wells do not add anything to overall production or EUR, and therefore Permian Resources' massive costs resulting from a total of 48 wells across Sections 4 and 9, and 5 and 8, are imposed on the same amount of production that Cimarex achieves with its 30 wells in the same Sections.

35. That is why Permian Resources cannot begin to protect the owners' correlative rights, because the massive additional costs do not result in more revenue from more production, they only result in the drilling of 18 unnecessary wells, which the Division is charged with avoiding.

36. Copies of Permian Resources' well proposals with AFEs have been attached as **Exhibit A-6**.

37. And this is why the majority of WI owners support Cimarex over Permian Resources. This Landman Statement, as part of Hearing Packet I, focuses on Cimarex's Mighty Pheasant wells in the Bone Spring units underlying Section 5 and 8 of the Subject Lands. **Exhibit A-9** provides a table showing which owners and their acreage support Cimarex, referred to in the

chart as CTRA, and which support Permian Resources, referred to in table as PR. Going across the units listed in the table for the Mighty Pheasant wells, you can see that the majority of owners in each unit clearly support Cimarex (50.94% v. 33.14% in the E/2 W/2 unit; 61.88% v. 27.03% in the W/2 E/2 unit; and 61.89% v. 27.03% in the E/2 E/2 unit). The only unit in which Permian Resources' percentage of support edges out Cimarex's support is in the W/2 W/2, where Cimarex has 44.10% and Permian Resources has 46.94%, a small difference of 2.84%.

38. In the Mighty Pheasant Bone Spring units underlying Sections 5 and 8, there are no depth severances in the Bone Spring formation in this acreage. Cimarex's review of the lands shows no overlapping units.

39. I provided the law firm of Abadie & Schill P.C. a list of names and addresses for the uncommitted working interest owners shown on **Exhibits A-2.1 through A-2.4**. In compiling these addresses, I conducted a diligent search of the public records in Lea County, New Mexico, where the wells are located, and of phone directories and did computer searches to locate the contact information for parties entitled to notification. All working interest owners were locatable and noticed. Cimarex published notice in the Hobbs News-Sun, a newspaper of general circulation in Lea County, New Mexico, to account for any unlocatable parties and cover any contingencies regarding notice.

40. Cimarex provided notice to all WI owners in the Bone Spring unit of Section 5 and 8, which it considers to be the necessary parties who have a right to notice. Cimarex considers the Overriding Royalty Interest ("ORRI") owners no be non-participatory royalty owners subject to the pooling clauses present in the assignment instruments and the leases, and therefore it is the applicant's option to provide notice to them and pool them as part of the pooling proceeding, or to address the ORRI owners separately outside the pooling process.

41. Cimarex has made a good faith effort to negotiate with the interest owners, but has been unable to obtain, voluntary agreement from all interest owners to participate in the drilling of the well or in the commitment of their interests to the well for its development within the proposed horizontal spacing unit. **Exhibits A-4** provides a chronology and history of contacts with the owners. Prior to the acquisition by Permian Resources of Read & Stevens, Cimarex had made good faith efforts to communicate and get a plan of development in place for these Sections. No meetings with Read & Stevens had ever come to fruition. I have personally worked for over 2 years and Cimarex has worked for over 4 years to get to a resolution so that this acreage can be developed. The majority of the working interest owners in these Sections are excited for development and have been long awaiting a return on their investment. Cimarex has constantly been trying to obtain term assignments, vetting out trades with other working interest owners, and has made offers to purchase in this area. We believe in this area and have shown our earnestness in development for years. Cimarex was the first operator to do the groundwork and file applications for the Subject Lands, filing well before Read & Stevens.

42. The interest owners being pooled have been contacted regarding the proposed wells but have failed or refused to voluntarily commit their interest in the wells. However, Cimarex has been in ongoing discussions with some of the interest owners to voluntarily enter into a Joint Operating Agreement. If a mutually agreeable Joint Operating Agreement is reached between Cimarex and another interest owner or owners, Cimarex requests that the voluntary agreement become operative and supersede the Division's order for said parties, except to the extent the Division deems it necessary to maintain spacing criteria for the purpose of conservation, the prevention of waste, and protection of correlative rights.



43. For any unleased open acreage being pooled, Cimarex requests that the acreage be pooled pursuant to statutory one-eighth (1/8) royalty.

44. **Exhibit A-3** is a sample proposal letter and the AFEs for each proposed well. The estimated cost of the wells set forth in the AFEs is fair, reasonable, and comparable to the costs of other wells of similar depths and lengths drilled in this area of New Mexico.

45. Without Wolfcamp wells as proposed by Permian Resources, Cimarex's full development of the acreage is far, far less expensive to develop the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Bone Spring formations. Permian not only proposes to over-drill the Subject Lands, but it will incur unnecessary costs that will substantially burden smaller working interest owners. Working interest owners should get the best wells at the most economic prices, and we feel that our development provides the most efficient and cost-saving plan. See **Exhibit A-5** which provides letters of support from working interest owners in the units who support Cimarex's development plan, based on excellent prior experiences working with Cimarex as an operator.

46. Cimarex requests overhead and administrative rates of \$8000/month for drilling each well and \$800/month for producing each well. These rates are fair and comparable to the rates charged by other operators for wells of this type in this area of southeastern New Mexico. Cimarex requests that these rates be adjusted periodically as provided in the COPAS Accounting Procedure.

47. Cimarex requests the maximum cost, plus 200% risk charge be assessed against non-consenting working interest owners.

48. Cimarex requests that it be designated operator of the units and wells.

49. The Exhibits to this Self-Affirmed Statement were prepared by me or compiled from Cimarex's company business records under my direct supervision.

50. The granting of this Application is in the best interests of conservation, the prevention of waste, and the protection of correlative rights, and will especially avoid the drilling of unnecessary wells. Due to Cimarex's operational footprint and expertise in the area, we are able to utilize our drilling efficiencies, relationships with working interest owners, and third party takeaway to cost-effectively develop this acreage. We understand the geology of this area and do not need to over-drill the Subject Lands in order to fully develop the acreage.


51. The foregoing is correct and complete to the best of my knowledge and belief.

*[Signature page follows]*

*Signature page of Self-Affirmed Statement of John Coffman:*

I understand that this Self-Affirmed Statement will be used as written testimony before the Division in Case Nos. 23448, 23449, 23450 and 23451, and affirm that my testimony herein is true and correct, to the best of my knowledge and belief and made under penalty of perjury under the laws of the State of New Mexico.

  
\_\_\_\_\_  
John Coffman

  
\_\_\_\_\_  
Date Signed

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1220 South St. Francis Dr.  
Santa Fe, NM 87505

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Revised August 1, 2011  
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AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025		<sup>2</sup> Pool Code 96637		<sup>3</sup> Pool Name Teas: Bone Spring, East	
<sup>4</sup> Property Code		<sup>5</sup> Property Name MIGHTY PHEASANT 5-8 FED COM			<sup>6</sup> Well Number 204H
<sup>7</sup> OGRID No. 215099		<sup>8</sup> Operator Name CIMAREX ENERGY CO.			<sup>9</sup> Elevation 3645.3'

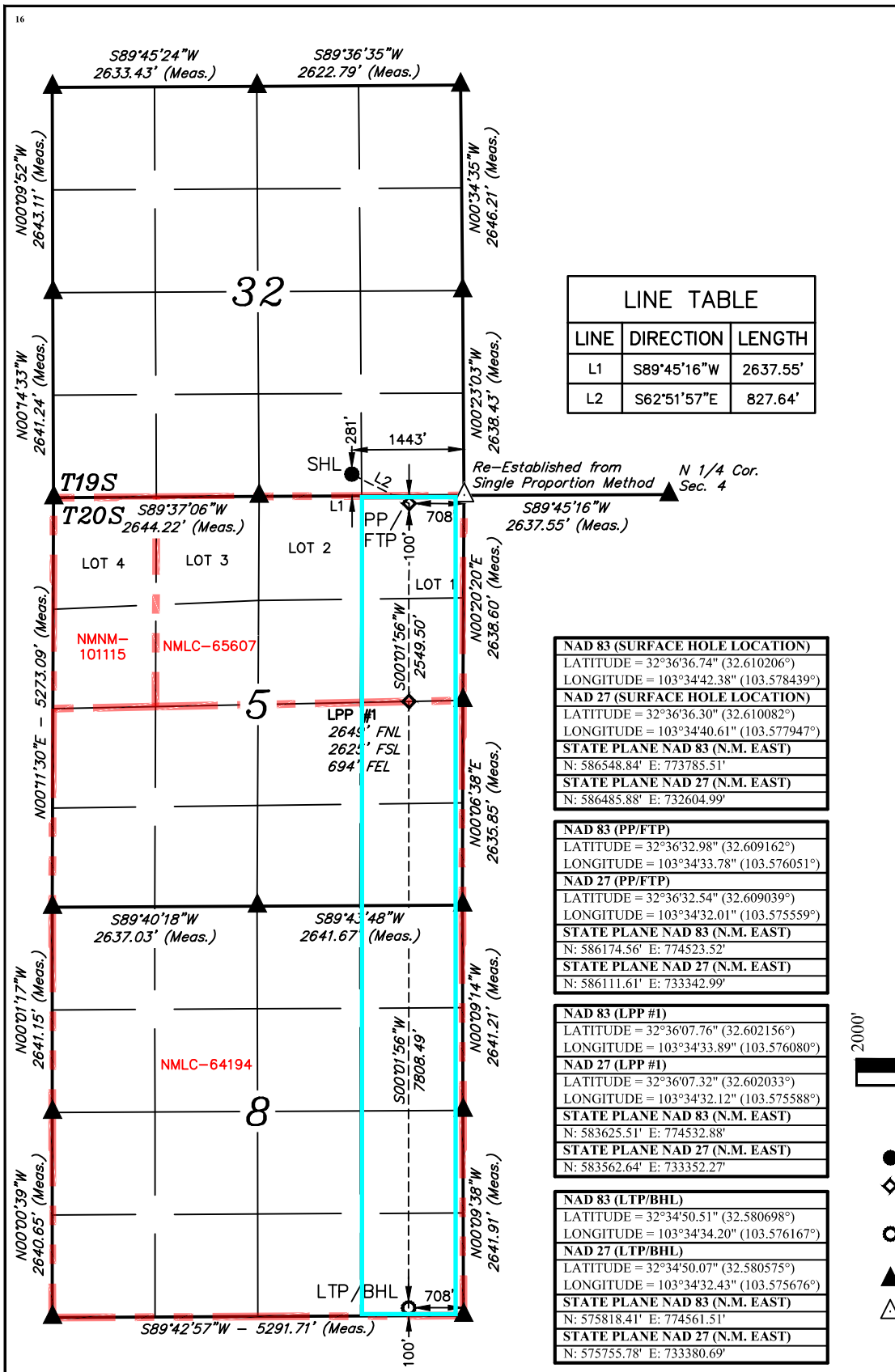
<sup>10</sup> Surface Location

UL or lot no. O	Section 32	Township 19S	Range 34E	Lot Idn	Feet from the 281	North/South line SOUTH	Feet from the 1443	East/West line EAST	County LEA
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no. P	Section 8	Township 20S	Range 34E	Lot Idn	Feet from the 100	North/South line SOUTH	Feet from the 708	East/West line EAST	County LEA
<sup>12</sup> Dedicated Acres 320.09		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°45'16"W	2637.55'
L2	S62°51'57"E	827.64'

<b>NAD 83 (SURFACE HOLE LOCATION)</b> LATITUDE = 32°36'36.74" (32.610206°) LONGITUDE = 103°34'42.38" (103.578439°)
<b>NAD 27 (SURFACE HOLE LOCATION)</b> LATITUDE = 32°36'36.30" (32.610082°) LONGITUDE = 103°34'40.61" (103.577947°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b> N: 586548.84' E: 773785.51'
<b>STATE PLANE NAD 27 (N.M. EAST)</b> N: 586485.88' E: 732604.99'

<b>NAD 83 (PP/FTP)</b> LATITUDE = 32°36'32.98" (32.609162°) LONGITUDE = 103°34'33.78" (103.576051°)
<b>NAD 27 (PP/FTP)</b> LATITUDE = 32°36'32.54" (32.609039°) LONGITUDE = 103°34'32.01" (103.575559°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b> N: 586174.56' E: 774523.52'
<b>STATE PLANE NAD 27 (N.M. EAST)</b> N: 586111.61' E: 733342.99'

<b>NAD 83 (LPP #1)</b> LATITUDE = 32°36'07.76" (32.602156°) LONGITUDE = 103°34'33.89" (103.576080°)
<b>NAD 27 (LPP #1)</b> LATITUDE = 32°36'07.32" (32.602033°) LONGITUDE = 103°34'32.12" (103.575588°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b> N: 583625.51' E: 774562.88'
<b>STATE PLANE NAD 27 (N.M. EAST)</b> N: 583562.64' E: 733352.27'

<b>NAD 83 (LTP/BHL)</b> LATITUDE = 32°34'50.51" (32.580698°) LONGITUDE = 103°34'34.20" (103.576167°)
<b>NAD 27 (LTP/BHL)</b> LATITUDE = 32°34'50.07" (32.580575°) LONGITUDE = 103°34'32.43" (103.575676°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b> N: 575818.41' E: 774561.51'
<b>STATE PLANE NAD 27 (N.M. EAST)</b> N: 575755.78' E: 733380.69'

**<sup>17</sup> OPERATOR CERTIFICATION**  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Brittany Gordon* 7/26/2023  
Signature Date

Brittany Gordon  
Printed Name

brittany.gordon@coterra.com  
E-mail Address

**<sup>18</sup> SURVEYOR CERTIFICATION**  
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

November 2, 2021  
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number:

**NOTE:**

- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

2000'  
1000'  
0  
2000'

SCALE  
DRAWN BY: D.J.S. 11-12-21

- = SURFACE HOLE LOCATION
- ◆ = PENETRATION POINT/FIRST TAKE POINT/LPP
- = LAST TAKE POINT/BOTTOM HOLE LOCATION
- ▲ = SECTION CORNER LOCATED
- △ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)

EXHIBIT  
A-1

District I  
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State of New Mexico  
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OIL CONSERVATION DIVISION  
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<sup>4</sup> Property Code		<sup>5</sup> Property Name MIGHTY PHEASANT 5-8 FED COM			<sup>6</sup> Well Number 304H
<sup>7</sup> OGRID No. 215099		<sup>8</sup> Operator Name CIMAREX ENERGY CO.			<sup>9</sup> Elevation 3645.7'

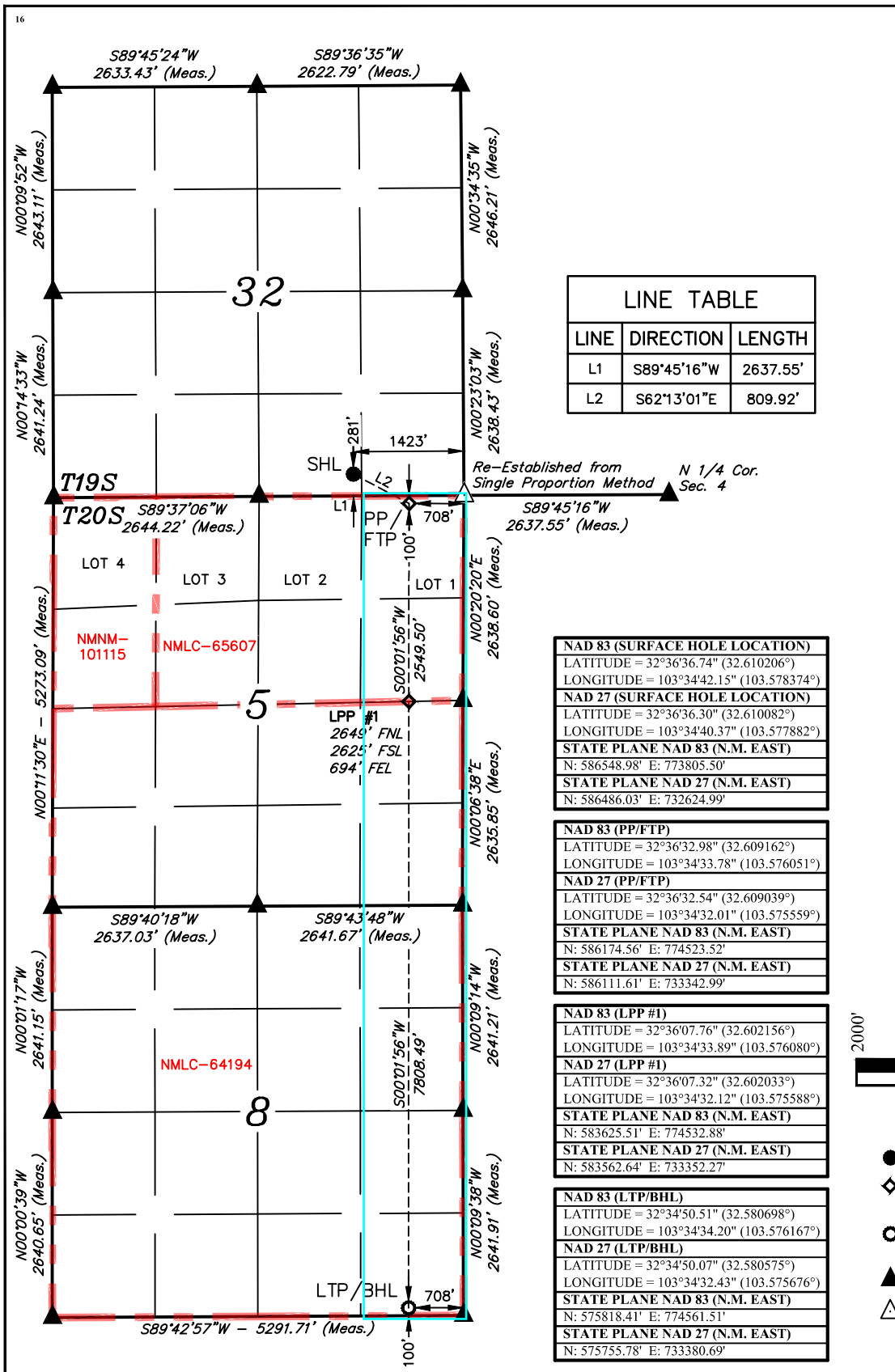
<sup>10</sup> Surface Location

UL or lot no. O	Section 32	Township 19S	Range 34E	Lot Idn	Feet from the 281	North/South line SOUTH	Feet from the 1423	East/West line EAST	County LEA
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no. P	Section 8	Township 20S	Range 34E	Lot Idn	Feet from the 100	North/South line SOUTH	Feet from the 708	East/West line EAST	County LEA
<sup>12</sup> Dedicated Acres 320.09		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



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*Brittany Gordon* 7/26/2023  
Signature Date

Brittany Gordon  
Printed Name

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November 2, 2021  
Date of Survey

Signature and Seal of Professional Surveyor:

**PAUL BUCHELE**  
NEW MEXICO  
23782  
PROFESSIONAL SURVEYOR  
11-12-21

Certificate Number:

**NOTE:**

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- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

2000'  
1000'  
0  
2000'

**SCALE**  
DRAWN BY: D.J.S. 11-12-21

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<sup>7</sup> OGRID No. 215099		<sup>8</sup> Operator Name CIMAREX ENERGY CO.			<sup>9</sup> Elevation 3629.8'

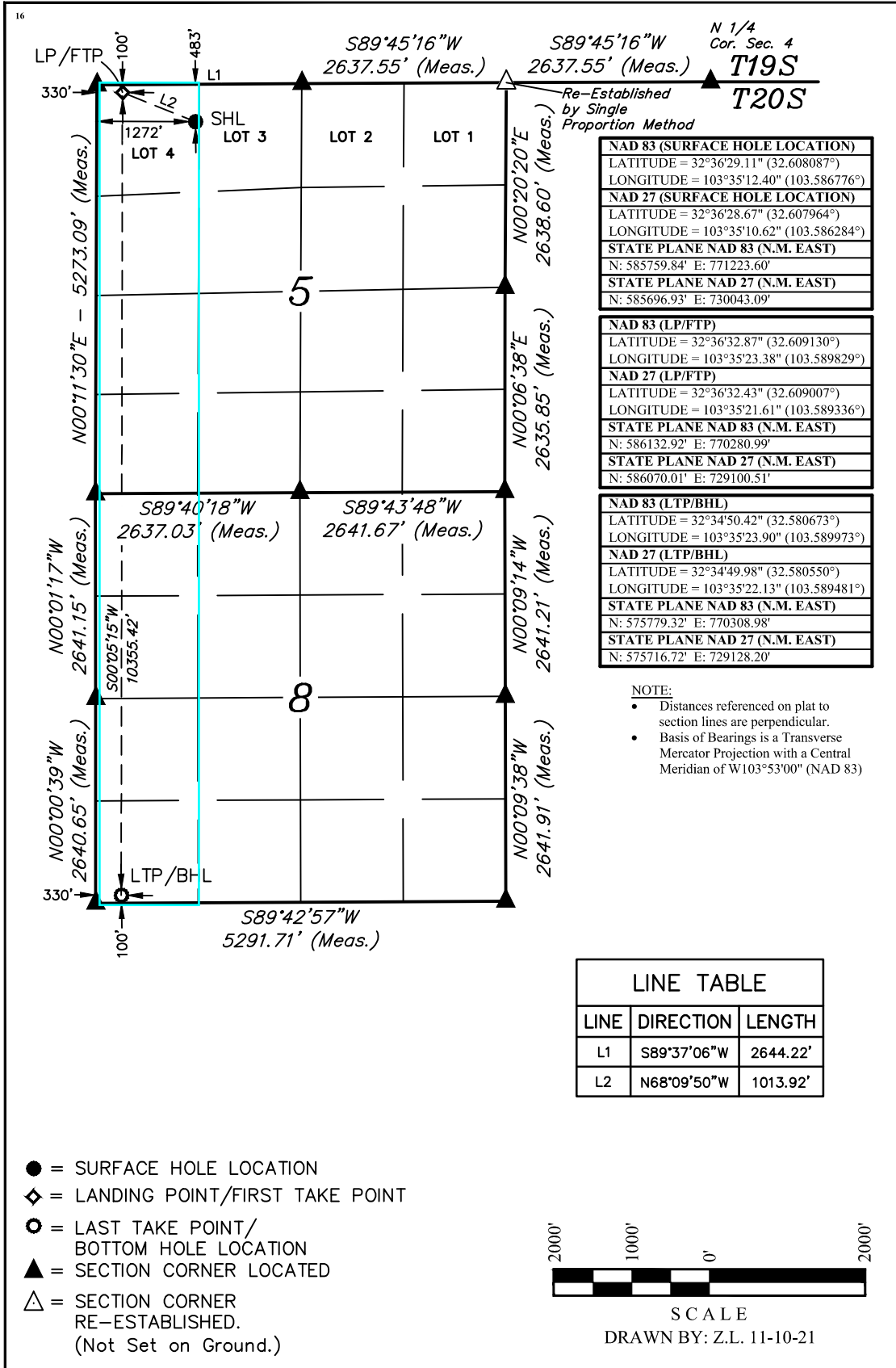
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	5	20S	34E		483	NORTH	1272	WEST	LEA

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	8	20S	34E		100	SOUTH	330	WEST	LEA
<sup>12</sup> Dedicated Acres 320.01		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

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*Brittany Gordon* 7/28/2023  
Signature Date

Brittany Gordon  
Printed Name

brittany.gordon@coterra.com  
E-mail Address

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November 01, 2021  
Date of Survey

Signature and Seal of Professional Surveyor:

**PAUL BUCHELE**  
NEW MEXICO  
23782  
11-18-21  
PROFESSIONAL SURVEYOR

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<sup>7</sup> OGRID No. 215099		<sup>8</sup> Operator Name CIMAREX ENERGY CO.			<sup>9</sup> Elevation 3629.9'

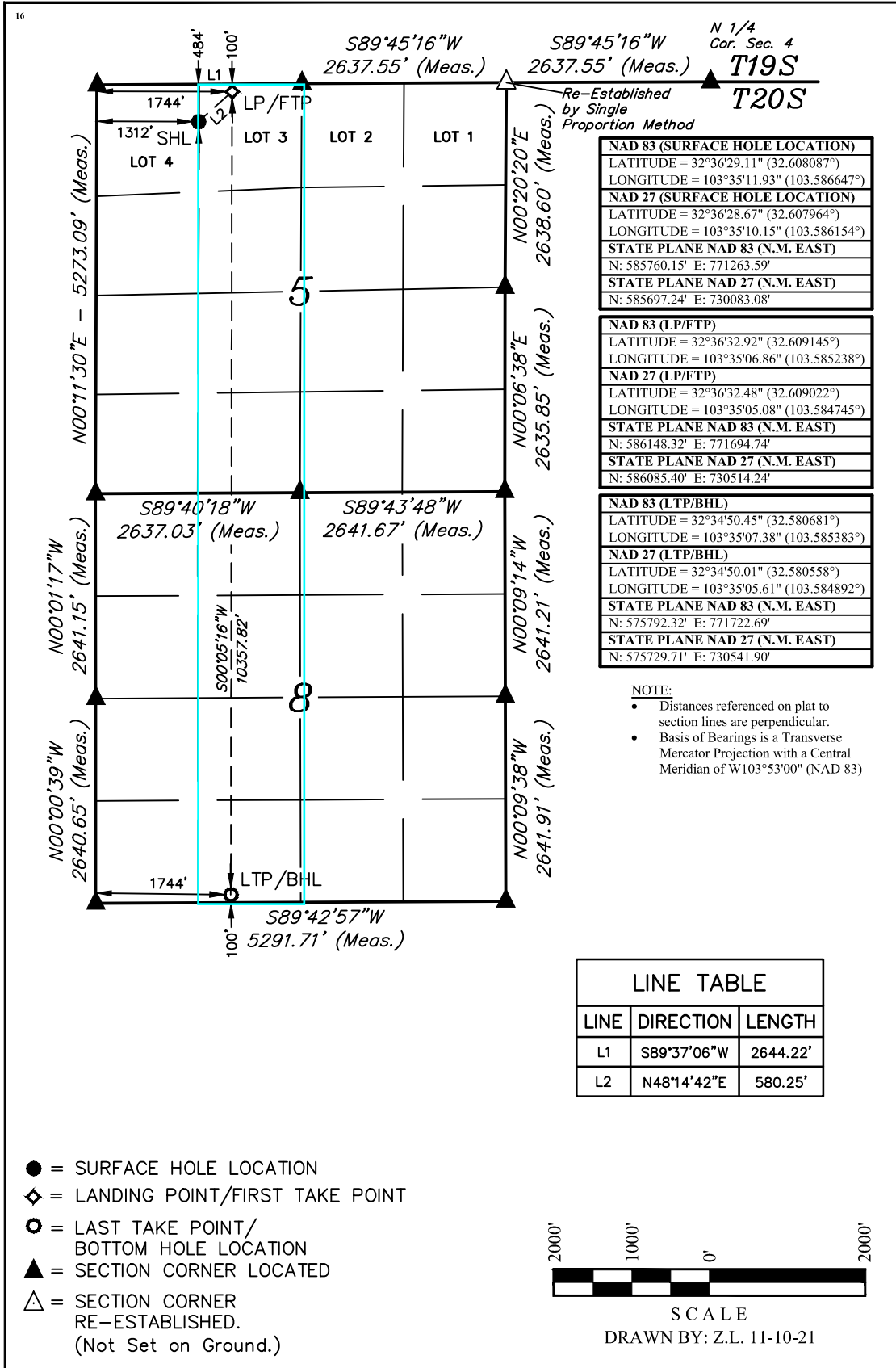
<sup>10</sup> Surface Location

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4	5	20S	34E		484	NORTH	1312	WEST	LEA

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	8	20S	34E		100	SOUTH	1744	WEST	LEA
<sup>12</sup> Dedicated Acres 320.04		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



**<sup>17</sup> OPERATOR CERTIFICATION**  
 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Brittany Gordon* 7/28/2023  
 Signature Date

Brittany Gordon  
 Printed Name

brittany.gordon@coterra.com  
 E-mail Address

**<sup>18</sup> SURVEYOR CERTIFICATION**  
 I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

November 01, 2021  
 Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number:

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (505) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

AMENDED REPORT

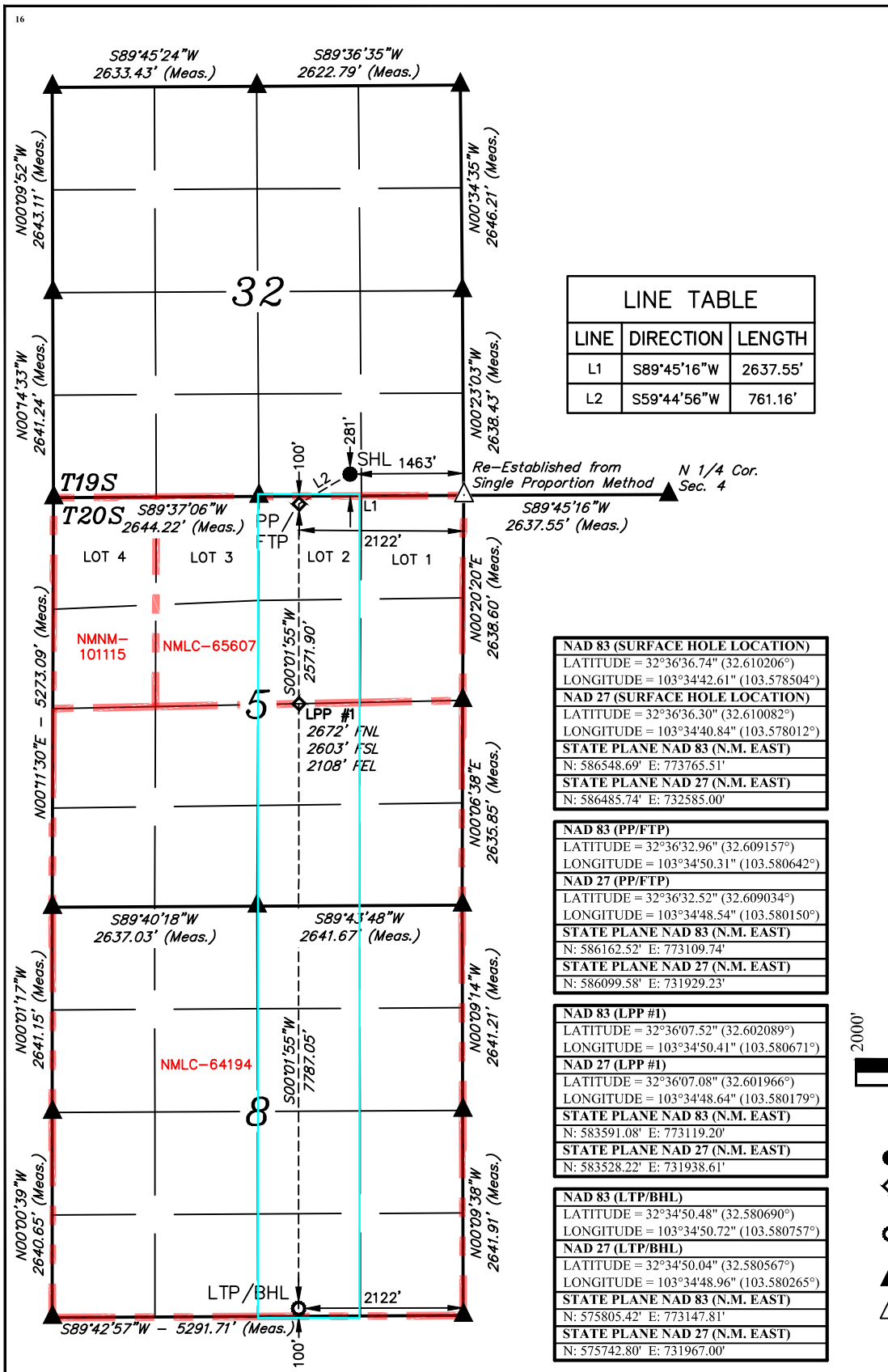
WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025		<sup>2</sup> Pool Code 96637		<sup>3</sup> Pool Name Teas; Bone Spring, East	
<sup>4</sup> Property Code		<sup>5</sup> Property Name MIGHTY PHEASANT 5-8 FED COM			<sup>6</sup> Well Number 303H
<sup>7</sup> OGRID No. 215099		<sup>8</sup> Operator Name CIMAREX ENERGY CO.			<sup>9</sup> Elevation 3644.9'

<sup>10</sup> Surface Location									
UL or lot no. O	Section 32	Township 19S	Range 34E	Lot Idn	Feet from the 281	North/South line SOUTH	Feet from the 1463	East/West line EAST	County LEA

<sup>11</sup> Bottom Hole Location If Different From Surface									
UL or lot no. O	Section 8	Township 20S	Range 34E	Lot Idn	Feet from the 100	North/South line SOUTH	Feet from the 2122	East/West line EAST	County LEA
<sup>12</sup> Dedicated Acres 320.06		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°45'16"W	2637.55'
L2	S59°44'56"W	761.16'

<b>NAD 83 (SURFACE HOLE LOCATION)</b> LATITUDE = 32°36'36.74" (32.610206°) LONGITUDE = 103°34'42.61" (103.578504°)
<b>NAD 27 (SURFACE HOLE LOCATION)</b> LATITUDE = 32°36'36.30" (32.610082°) LONGITUDE = 103°34'40.84" (103.578012°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b> N: 586548.69' E: 773765.51'
<b>STATE PLANE NAD 27 (N.M. EAST)</b> N: 586485.74' E: 732585.00'

<b>NAD 83 (PP/FTP)</b> LATITUDE = 32°36'32.96" (32.609157°) LONGITUDE = 103°34'50.31" (103.580642°)
<b>NAD 27 (PP/FTP)</b> LATITUDE = 32°36'32.52" (32.609034°) LONGITUDE = 103°34'48.54" (103.580150°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b> N: 586162.52' E: 773109.74'
<b>STATE PLANE NAD 27 (N.M. EAST)</b> N: 586099.58' E: 731929.23'

<b>NAD 83 (LPP #1)</b> LATITUDE = 32°36'07.52" (32.602089°) LONGITUDE = 103°34'50.41" (103.580671°)
<b>NAD 27 (LPP #1)</b> LATITUDE = 32°36'07.08" (32.601966°) LONGITUDE = 103°34'48.64" (103.580179°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b> N: 583591.08' E: 773119.20'
<b>STATE PLANE NAD 27 (N.M. EAST)</b> N: 583528.22' E: 731938.61'

<b>NAD 83 (LTP/BHL)</b> LATITUDE = 32°34'50.48" (32.580690°) LONGITUDE = 103°34'50.72" (103.580757°)
<b>NAD 27 (LTP/BHL)</b> LATITUDE = 32°34'50.04" (32.580567°) LONGITUDE = 103°34'48.96" (103.580265°)
<b>STATE PLANE NAD 83 (N.M. EAST)</b> N: 575805.42' E: 773147.81'
<b>STATE PLANE NAD 27 (N.M. EAST)</b> N: 575742.80' E: 731967.00'

**<sup>17</sup> OPERATOR CERTIFICATION**  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Brittany Gordon* 7/26/2023  
Signature Date

Brittany Gordon  
Printed Name

brittany.gordon@coterra.com  
E-mail Address

**<sup>18</sup> SURVEYOR CERTIFICATION**  
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

November 2, 2021  
Date of Survey  
Signature and Seal of Professional Surveyor:



Certificate Number:

- NOTE:**
- Distances referenced on plat to section lines are perpendicular.
  - Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)



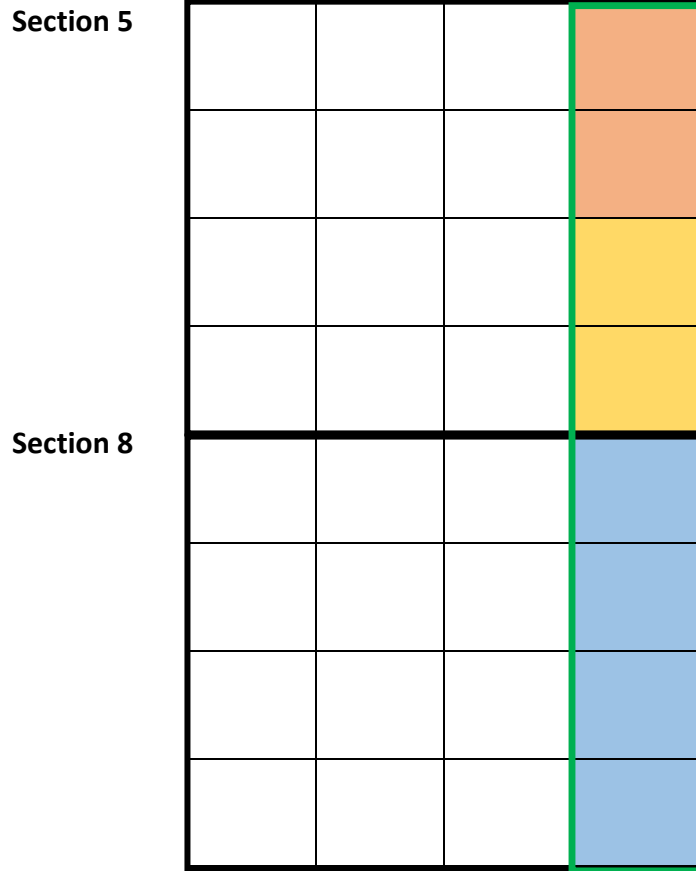
SCALE  
DRAWN BY: D.J.S. 11-12-21

- = SURFACE HOLE LOCATION
- ◆ = PENETRATION POINT/FIRST TAKE POINT/LPP
- = LAST TAKE POINT/BOTTOM HOLE LOCATION
- ▲ = SECTION CORNER LOCATED
- △ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)



Exhibit "A-2"

E/2E/2 of Section 5 and the E/2E/2 of Section 8, Township 20 South, Range 34 East of Lea County, NM (PERMIAN/DELAWARE BASIN) – Bone Spring formation



**Tract 1:**  
USA NMLC-0064194  
(80 acres)



**Tract 2:**  
USA NMLC-0064194  
(160 acres)



**Tract 3:**  
USA NMLC-0065607  
(80.09 acres)



EXHIBIT  
A-2.1

**Mighty Pheasant 5-8 Fed Com 204H**

**SHL: Sec. 32-19S-34E; 281' FSL and 1443' FEL**

**BHL: Sec. 8-20S-34E; 100' FSL and 708' FEL**

**Mighty Pheasant 5-8 Fed Com 304H**

**SHL: Sec. 32-19S-34E; 281' FSL and 1423' FEL**

**BHL: Sec. 8-20S-34E; 100' FSL and 708' FEL**

**Exhibit "A-2"**

**OWNERSHIP BREAKDOWN – Bone Spring formation**

**E/2E/2 of Section 5 and the E/2E/2 of Section 8, Township 20 South, Range 34 East of Lea County, NM**

**Mighty Pheasant 5-8 Fed Com 204H and 304H**

**TRACT 1 OWNERSHIP (E/2SE/4 of Section 5-T20S-R34E, being 80 acres)**

**Lease: USA NMLC-0064194**

<b>Owner</b>	<b>Net Acres</b>	<b>Unit WI</b>	<b>Status</b>
Moore and Shelton Co., LTD P.O. Box 3070 Galveston, TX 77552	1.6615	0.02076924	Committed
HOG Partnership, LP 5950 Cedar Springs Rd., Ste. 242 Dallas, TX 75235	2.6853	0.03356644	Uncommitted
Challenger Crude, Ltd. 3525 Andrews Highway Midland, TX 79703	2.3346	0.02918245	Committed

Permian Resources LLC/Read and Stevens 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	24.2031	0.30253931	Uncommitted
Javelina Partners 616 Texas St. Fort Worth, TX 76102	4.7437	0.05929631	Committed
Zorro Partners, Ltd. 616 Texas St. Fort Worth, TX 76102	2.5808	0.03225959	Committed
Magnum Hunter Production Inc. 6001 Deauville Blvd., Ste 300N Midland, TX 79706	22.4755	0.28094403	Committed
Frost Bank, Trustee of the Josephine T. Hudson Testamentary Trust FBO J. Terrell Ard P.O. Box 1600 San Antonio, TX 78296	0.4692	0.00586541	Committed
Ard Oil, LTD 222 West Fort Worth St. Ph5 Fort Worth, TX 76102	1.4077	0.01759615	Uncommitted
Chase Oil Corporation 11344 Lovington Hwy. Artesia, NM 88210	1.4407	0.01800822	Committed

Cimarex Energy Co. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	8.5075	0.10634446	Committed
Avalon Energy Corporation 310 W. Wall Street, Ste. 305 Midland, TX 79701	0.4545	0.00568184	Committed
Wilbanks Reserve Corporation 450 E. 17 <sup>th</sup> Ave. Ste. 220 Denver, CO 80203	3.8893	0.04861611	Uncommitted
Marks Oil, Inc. 1775 Sherman St., Ste. 2990 Denver, CO 80203	0.4754	0.00594271	Uncommitted
William A. Hudson, II 616 Texas St. Fort Worth, TX 76102	0.2517	0.00314684	Committed
Union Hill Oil and Gas Co. Inc. 7712 Glanshannon Cir. Dallas, TX 75225	2.4193	0.03024090	Committed
TRACT 1 TOTAL	80	0.249929707	

**TRACT 2 OWNERSHIP (E/2E/2 of Section 8-T20S-R34E, being 160 acres)****Lease: USA NMLC-0064194**

<b>Owner</b>	<b>Net Acres</b>	<b>Unit WI</b>	<b>Status</b>
Moore and Shelton Co., LTD P.O. Box 3070 Galveston, TX 77552	3.3231	0.02076924	Committed
HOG Partnership, LP 5950 Cedar Springs Rd., Ste. 242 Dallas, TX 75235	5.3706	0.03356644	Uncommitted
Challenger Crude, Ltd. 3525 Andrews Hwy. Midland, TX 79703	4.6692	0.02918247	Committed
Permian Resources LLC/Read and Stevens 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240	48.4063	0.30253931	Uncommitted
Javelina Partners 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	9.4874	0.05929631	Committed
Zorro Partners, Ltd. 616 Texas St. Fort Worth, TX 76102	5.1615	0.03225959	Committed
Magnum Hunter Production Inc. 6001 Deauville Blvd., Ste. 300N	44.9510	0.28094406	Committed

Midland, TX 79706

Frost Bank, Trustee of the Josephine T. 0.9385 0.00586541 Committed

Hudson Testamentary Trust FBO J. Terrell Ard

P.O. Box 1600

San Antonio, TX 78296

Ard Oil, LTD 2.8154 0.01759615 Uncommitted

222 West Forth St., Ph5

Fort Worth, TX 76102

Chase Oil Corporation 2.8813 0.01800820 Committed

11344 Lovington Hwy.

Artesia, NM 88210

Cimarex Energy Co. 17.0151 0.10634446 Committed

6001 Deauville Blvd., Ste. 300N

Midland, TX 79706

Avalon Energy Corporation 0.9091 0.00568182 Committed

310 W. Wall St., Ste. 305

Midland, TX 79701

Wilbanks Reserve Corporation 7.7786 0.04861609 Uncommitted

450 E. 17<sup>th</sup> Ave., Ste. 220

Denver, CO 80203

Marks Oil, Inc. 0.9508 0.00594271 Committed

1775 Sherman St., Ste. 2990

Denver, CO 80203

William A. Hudson, II	0.5035	0.00314684	Committed
616 Texas St.			
Fort Worth, TX 76102			

Union Hill Oil and Gas Co. Inc.	4.8385	0.03024090	Committed
7712 Glanshannon Cir.			
Dallas, TX 75225			

TRACT 2 TOTAL	160.00	0.49985941	
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**TRACT 3 OWNERSHIP (Lot 1 and SE/4NE/4 of Section 5-T20S-R34E, being 80.09 acres)**

**Lease: USA NMLC-0065607**

Owner	Net Acres	Unit WI	Status
Cimarex Energy Co. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	4.7508	0.05931848	Committed
Permian Resources LLC/Read and Stevens 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	4.5050	0.05625003	Uncommitted
Javelina Partners 616 Texas St. Fort Worth, TX 76102	10.3472	0.12919490	Committed
Zorro Partners, Ltd. 616 Texas St.	10.3472	0.12919490	Committed

Fort Worth, TX 76102

Frost Bank, Trustee of the Josephine T.	1.2723	0.01588544	Committed
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Hudson Testamentary Trust FBO J. Terrell Ard

P.O. Box 1600

San Antonio, TX 78296

Magnum Hunter Production Inc.	35.0394	0.43750000	Committed
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6001 Deauville Blvd., Ste. 300N

Midland, TX 79706

Ard Oil, LTD	3.8168	0.04765624	Uncommitted
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222 West Forth St., Ph5

Fort Worth, TX 76102

HOG Partnership LP	10.0113	0.12500000	Uncommitted
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5950 Cedar Springs Rd., Ste. 242

Dallas, TX 75235

TRACT 3 TOTAL	80.09	0.25021088	
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### **Complete List of Parties/Persons to be Pooled:**

#### **Working Interest Owners**

HOG Partnership, LP

Permian Resources LLC

Ard Oil, LTD

Wilbanks Reserve Corporation

Marks Oil, Inc.



**Record Title Owners**

Read and Stevens Inc.

Delmar Hudson Lewis Living Trust

Lindy's Living Trust

Javelina Partners

Zorro Partners Ltd

**UNIT RECAPITULATION:**

**E/2E/2 of Section 5 and E/2E/2 of Section 8; all in T20S-R34E; 320.06 acres**

Moore & Shelton Co., Ltd – 1.557255%

HOG Partnership, LP – 5.644411%

Challenger Crude, Ltd. – 2.188069%

Permian Resources LLC / Read and Stevens – 24.091505%

Magnum Hunter Production – 32.011605%

Zorro Partners, Ltd. – 5.651386%

Frost Bank, Trustee of the Josephine T. Hudson Testamentary Trust FBO J. Terrell Ard – 0.837253%

Ard Oil, LTD – 2.511751%

Chase Oil Corporation – 1.350236%

Cimarex Energy Co. – 9.457805%

Avalon Energy Corporation – 0.426017%

Wilbanks Reserve Corporation – 3.645182%

Marks Oil, Inc. – 0.445578%

Javelina Partners – 7.678570%

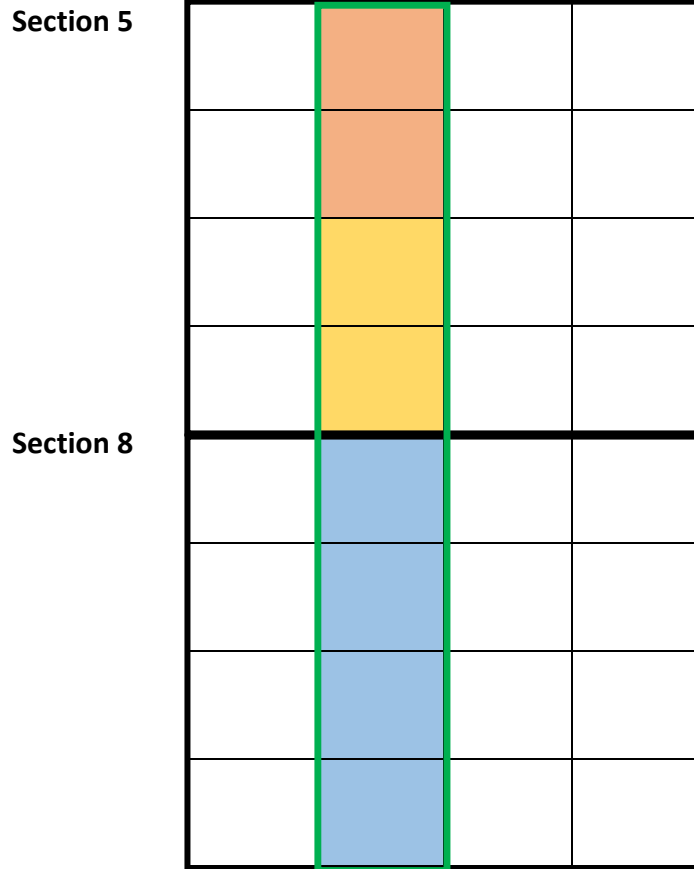
William A. Hudson, II – 0.235947%

Union Hill Oil & Gas Co. Inc. – 2.267430%

**UNIT TOTAL: 100% WI**

Exhibit "A-2"

E/2W/2 of Section 5 and the E/2W/2 of Section 8, Township 20 South, Range 34 East of Lea County, NM (PERMIAN/DELAWARE BASIN) – Bone Spring formation



**Tract 1:**  
USA NMLC-0064194  
(80 acres)



**Tract 2:**  
USA NMLC-0064194  
(160 acres)



**Tract 3:**  
USA NMLC-0065607  
(80.04 acres)



EXHIBIT  
**A-2.2**

**Mighty Pheasant 5-8 Fed Com 302H**

**SHL: Sec. 5-20S-34E; 484' FNL and 1312' FWL**

**BHL: Sec. 8-20S-34E; 100' FSL and 1744' FWL**

**Exhibit "A-2"**

**OWNERSHIP BREAKDOWN – Bone Spring formation**

**E/2W/2 of Section 5 and the E/2W/2 of Section 8, Township 20 South, Range 34 East of Lea County, NM**

**Mighty Pheasant 5-8 Fed Com 302H**

**TRACT 1 OWNERSHIP (E/2SW/4 of Section 5-T20S-R34E, being 80 acres)**

**Lease: USA NMLC-0064194**

<b>Owner</b>	<b>Net Acres</b>	<b>Unit WI</b>	<b>Status</b>
Moore and Shelton Co., LTD P.O. Box 3070 Galveston, TX 77552	1.6615	0.02076924	Committed
HOG Partnership, LP 5950 Cedar Springs Rd., Ste. 242 Dallas, TX 75235	2.6853	0.03356644	Uncommitted
Challenger Crude, Ltd. 3525 Andrews Hwy. Midland, TX 79703	2.3346	0.02918245	Committed
Permian Resources LLC/Read and Stevens 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	24.2031	0.30253930	Uncommitted

Javelina Partners 616 Texas St. Fort Worth, TX 76102	4.7437	0.05929629	Committed
Zorro Partners, Ltd. 616 Texas St. Fort Worth, TX 76102	2.5808	0.03225963	Committed
Magnum Hunter Production Inc. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	22.4755	0.28094408	Committed
Frost Bank, Trustee of the Josephine T. Hudson Testamentary Trust FBO J. Terrell Ard P.O. Box 1600 San Antonio, TX 78296	0.4692	0.00586541	Committed
Ard Oil, LTD 222 West Forth St., Ph5 Fort Worth, TX 76102	1.4077	0.01759616	Uncommitted
Chase Oil Corporation 11344 Lovington Hwy. Artesia, NM 88210	1.4407	0.01800821	Committed
Cimarex Energy Co. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	8.5075	0.10634445	Committed

Avalon Energy Corporation 310 W. Wall St., Ste. 305 Midland, TX 79701	0.4545	0.00568183	Committed
Wilbanks Reserve Corporation 450 E. 17 <sup>th</sup> Ave., Ste. 220 Denver, CO 80203	3.8893	0.04861608	Uncommitted
Marks Oil, Inc. 1775 Sherman St., Ste. 2990 Denver, CO 80203	0.4754	0.00594270	Uncommitted
William A. Hudson, II 616 Texas St. Fort Worth, TX 76102	0.2517	0.00314683	Committed
Union Hill Oil and Gas Co. Inc. 7712 Glanshannon Cir. Dallas, TX 75225	2.4193	0.03024090	Committed
TRACT 1 TOTAL	80	0.24996875	

**TRACT 2 OWNERSHIP (E/2W/2 of Section 8-T20S-R34E, being 160 acres)**

**Lease: USA NMLC-0064194**

<b>Owner</b>	<b>Net Acres</b>	<b>Unit WI</b>	<b>Status</b>
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Moore and Shelton Co., LTD P.O. Box 3070 Galveston, TX 77552	3.3231	0.02076924	Committed
HOG Partnership, LP 5950 Cedar Springs Rd., Ste. 242 Dallas, TX 75235	5.3706	0.03356644	Uncommitted
Challenger Crude, Ltd. 3525 Andrews Hwy. Midland, TX 79703	4.6692	0.02918247	Committed
Permian Resources LLC/Read and Stevens 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	48.4063	0.30253929	Uncommitted
Javelina Partners 616 Texas St. Fort Worth, TX 76102	9.4874	0.05929631	Committed
Zorro Partners, Ltd. 616 Texas St. Fort Worth, TX 76102	5.1615	0.03225959	Committed
Magnum Hunter Production Inc. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	44.9510	0.28094405	Committed
Frost Bank, Trustee of the Josephine T.	0.9385	0.00586541	Committed

Hudson Testamentary Trust FBO J. Terrell Ard

P.O. Box 1600

San Antonio, TX 78296

Ard Oil, LTD	2.8154	0.01759614	Uncommitted
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222 West Forth St., Ph5

Fort Worth, TX 76102

Chase Oil Corporation	2.8813	0.01800821	Committed
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11344 Lovington Hwy.

Artesia, NM 88210

Cimarex Energy Co.	17.0151	0.10634447	Committed
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6001 Deauville Blvd., Ste. 300N

Midland, TX 79706

Avalon Energy Corporation	0.9091	0.00568181	Committed
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310 W. Wall St., Ste. 305

Midland, TX 79701

Wilbanks Reserve Corporation	7.7786	0.0486161	Uncommitted
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450 E. 17<sup>th</sup> Ave., Ste. 220

Denver, CO 80203

Marks Oil, Inc.	0.9508	0.00594270	Uncommitted
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1775 Sherman St., Ste. 2990

Denver, CO 80203

William A. Hudson, II	0.5035	0.00314685	Committed
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616 Texas St.  
Fort Worth, TX 76102

Union Hill Oil and Gas Co. Inc.	4.8385	0.03024092	Committed
7712 Glanshannon Cir.			
Dallas, TX 75225			

TRACT 2 TOTAL	160.00	0.49993751	
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**TRACT 3 OWNERSHIP (Lot 3 and SE/4NW/4 of Section 5-T20S-R34E, being 80.04 acres)**

**Lease: USA NMLC-0065607**

<b>Owner</b>	<b>Net Acres</b>	<b>Unit WI</b>	<b>Status</b>
Cimarex Energy Co. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	4.7479	0.05931848	Committed
Permian Resources LLC/Read and Stevens 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	9.8374	0.12290556	Uncommitted
Javelina Partners 616 Texas St. Fort Worth, TX 76102	10.3408	0.12919492	Committed
Zorro Partners, Ltd. 616 Texas St. Fort Worth, TX 76102	10.3408	0.12919492	Committed
Frost Bank, Trustee of the Josephine T.	1.2715	0.01588544	Committed



Hudson Testamentary Trust FBO J. Terrell Ard

P.O. Box 1600

San Antonio, TX 78296

Ard Oil, LTD	3.8144	0.04765625	Uncommitted
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222 West Forth St., Ph5

Fort Worth, TX 76102

MRC Permian Company	14.4048	0.17997000	Committed
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5400 LBJ Freeway, Suite 1500

Dallas, TX 75240

Northern Oil and Gas, Inc. (CM Resources)	9.9425	0.12421882	Uncommitted
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4350 Baker Road, Suite 400

Minnetonka, MN 55343

CBR Oil Properties, LLC	1.2628	0.03157067	Uncommitted
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400 N. Pennsylvania, Suite 1080

Roswell, NM 88201

General Partnership, 2023 Permian Basin JV	1.0670	0.01333116	Uncommitted
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P.O. Box 10

Folsom, LA 70437

HOG Partnership LP	10.0050	0.12500001	Uncommitted
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5950 Cedar Springs Rd., Ste. 242

Dallas, TX 75235

TRACT 3 TOTAL	80.04	0.25009374	
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**Complete List of Parties/Persons to be Pooled:**

**Working Interest Owners**

HOG Partnership, LP

Permian Resources LLC

Ard Oil, LTD

Wilbanks Reserve Corporation

Marks Oil, Inc.

Northern Oil and Gas, Inc.

CBR Oil Properties, LLC

General Partnership, 2023 Permian

**Record Title Owners**

Read and Stevens Inc.

Delmar Hudson Lewis Living Trust

Lindy's Living Trust

Javelina Partners

Zorro Partners Ltd

**UNIT RECAPITULATION:**

**E/2W/2 of Section 5 and E/2W/2 of Section 8; all in T20S-R34E; 320.04 acres**

Moore & Shelton Co., Ltd – 1.557644%

HOG Partnership, LP – 5.643340%

Challenger Crude, Ltd. – 2.188411%

Permian Resources LLC / Read and Stevens – 25.761402%

Magnum Hunter Production – 21.068171%

Zorro Partners, Ltd. – 5.650252%

Frost Bank, Trustee of the Josephine T. Hudson Testamentary Trust FBO J. Terrell Ard – 0.837136%

Ard Oil, LTD – 2.511399%

Chase Oil Corporation – 1.350447%

Cimarex Energy Co. – 9.458356%

Avalon Energy Corporation – 0.426083%

Wilbanks Reserve Corporation – 3.645751%

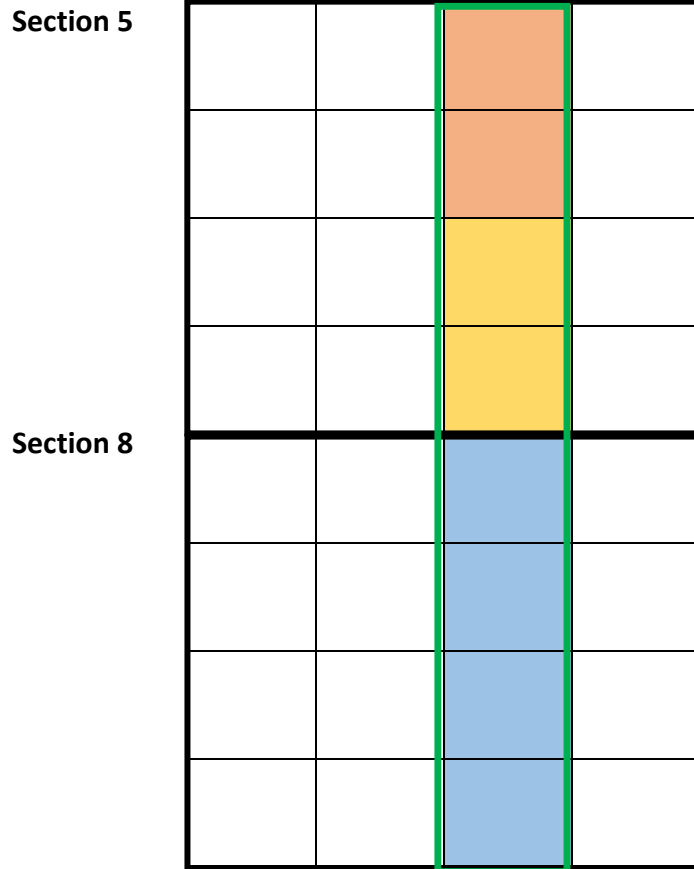
Marks Oil, Inc. – 0.445647%

Javelina Partners – 7.677751%  
William A. Hudson, II – 0.235984%  
Union Hill Oil & Gas Co. Inc. – 2.267785%  
MRC Permian Company – 4.500937%  
Northern Oil and Gas Inc.– 3.106635%  
CBR Oil Properties, LLC – 1.333611%  
General Partnership, 2023 Permian Basin JV – 0.333404%

**UNIT TOTAL: 100% WI**

Exhibit "A-2"

W/2E/2 of Section 5 and the W/2E/2 of Section 8, Township 20 South, Range 34 East of Lea County, NM (PERMIAN/DELAWARE BASIN) – Bone Spring formation



**Tract 1:**  
USA NMLC-0064194  
(80 acres)



**Tract 2:**  
USA NMLC-0064194  
(160 acres)



**Tract 3:**  
USA NMLC-0065607  
(80.06 acres)



EXHIBIT  
A-2.3

**Mighty Pheasant 5-8 Fed Com 303H****SHL: Sec. 32-19S-34E; 281' FSL and 1463' FEL****BHL: Sec. 8-20S-34E; 100' FSL and 2122' FWL****Exhibit "A-2"****OWNERSHIP BREAKDOWN – Bone Spring formation****W/2E/2 of Section 5 and the W/2E/2 of Section 8, Township 20 South, Range 34 East of Lea County, NM****Mighty Pheasant 5-8 Fed Com 303H****TRACT 1 OWNERSHIP (W/2SE/4 of Section 5-T20S-R34E, being 80 acres)****Lease: USA NMLC-0064194**

<b>Owner</b>	<b>Net Acres</b>	<b>Unit WI</b>	<b>Status</b>
Moore and Shelton Co., LTD P.O. Box 3070 Galveston, TX 77552	1.6615	0.02076925	Committed
HOG Partnership, LP 5950 Cedar Springs Rd., Ste. 242 Dallas, TX 75235	2.6853	0.03356645	Uncommitted
Challenger Crude, Ltd. 3525 Andrews Hwy. Midland, TX 79703	2.3346	0.02918247	Committed
Permian Resources LLC/Read and Stevens 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	24.2031	0.30253928	Uncommitted

Javelina Partners 616 Texas St. Fort Worth, TX 76102	4.7437	0.05929632	Committed
Zorro Partners, Ltd. 616 Texas St. Fort Worth, TX 76102	2.5808	0.03225961	Committed
Magnum Hunter Production Inc. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	22.4755	0.28094403	Committed
Frost Bank, Trustee of the Josephine T. Hudson Testamentary Trust FBO J. Terrell Ard P.O. Box 1600 San Antonio, TX 78296	0.4692	0.00586542	Committed
Ard Oil, LTD 222 West Forth St., Ph5 Fort Worth, TX 76102	1.4077	0.01759614	Uncommitted
Chase Oil Corporation 11344 Lovington Hwy. Artesia, NM 88210	1.4407	0.01800822	Committed
Cimarex Energy Co. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	8.5075	0.10634446	Committed

Avalon Energy Corporation 310 W. Wall St., Ste. 305 Midland, TX 79701	0.4545	0.00568183	Committed
Wilbanks Reserve Corporation 450 E. 17 <sup>th</sup> Ave., Ste. 220 Denver, CO 80203	3.8893	0.04861608	Uncommitted
Marks Oil, Inc. 1775 Sherman St., Ste. 2990 Denver, CO 80203	0.4754	0.00594271	Uncommitted
William A. Hudson, II 616 Texas St. Fort Worth, TX 76102	0.2517	0.00314683	Committed
Union Hill Oil and Gas Co. Inc. 7712 Glanshannon Cir. Dallas, TX 75225	2.4193	0.03024091	Committed
TRACT 1 TOTAL	80	0.24995313	

**TRACT 2 OWNERSHIP (W/2E/2 of Section 8-T20S-R34E, being 160 acres)**

**Lease: USA NMLC-0064194**

<b>Owner</b>	<b>Net Acres</b>	<b>Unit WI</b>	<b>Status</b>
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Moore and Shelton Co., LTD P.O. Box 3070 Galveston, TX 77552	3.3231	0.02076923	Committed
HOG Partnership, LP 5950 Cedar Springs Rd., Ste. 242 Dallas, TX 75235	5.3706	0.03356643	Uncommitted
Challenger Crude, Ltd. 3525 Andrews Hwy. Midland, TX 79703	4.6692	0.02918245	Committed
Permian Resources LLC/Read and Stevens 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	48.4063	0.30253930	Uncommitted
Javelina Partners 616 Texas St. Fort Worth, TX 76102	9.4874	0.05929632	Committed
Zorro Partners, Ltd. 616 Texas St. Fort Worth, TX 76102	5.1615	0.03225959	Committed
Magnum Hunter Production Inc. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	44.9510	0.28094405	Committed
Frost Bank, Trustee of the Josephine T.	0.9385	0.00586541	Committed



Hudson Testamentary Trust FBO J. Terrell Ard

P.O. Box 1600

San Antonio, TX 78296

Ard Oil, LTD 2.8154 0.01759616 Uncommitted

222 West Forth St., Ph5

Fort Worth, TX 76102

Chase Oil Corporation 2.8813 0.01800822 Committed

11344 Lovington Hwy.

Artesia, NM 88210

Cimarex Energy Co. 17.0151 0.10634448 Committed

6001 Deauville Blvd., Ste. 300N

Midland, TX 79706

Avalon Energy Corporation 0.9091 0.00568183 Committed

310 W. Wall St., Ste. 305

Midland, TX 79701

Wilbanks Reserve Corporation 7.7786 0.0486161 Uncommitted

450 E. 17<sup>th</sup> Ave., Ste. 220

Denver, CO 80203

Marks Oil, Inc. 0.9508 0.00594271 Committed

1775 Sherman St., Ste. 2990

Denver, CO 80203

William A. Hudson, II 0.5035 0.00314685 Committed

616 Texas St.  
Fort Worth, TX 76102

Union Hill Oil and Gas Co. Inc.	4.8385	0.03024091	Committed
7712 Glanshannon Cir.			
Dallas, TX 75225			

TRACT 2 TOTAL	160.00	0.49990627	
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**TRACT 3 OWNERSHIP (Lot 2 and SW/4NE/4 of Section 5-T20S-R34E, being 80.06 acres)**

**Lease: USA NMLC-0065607**

<b>Owner</b>	<b>Net Acres</b>	<b>Unit WI</b>	<b>Status</b>
Cimarex Energy Co. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	4.7479	0.05931848	Committed
Permian Resources LLC/Read and Stevens 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	4.5034	0.05625001	Uncommitted
Javelina Partners 616 Texas St. Fort Worth, TX 76102	10.3433	0.12919490	Committed
Zorro Partners, Ltd. 616 Texas St. Fort Worth, TX 76102	10.3433	0.12919490	Committed
Frost Bank, Trustee of the Josephine T.	1.2718	0.01588547	Committed

Hudson Testamentary Trust FBO J. Terrell Ard  
P.O. Box 1600  
San Antonio, TX 78296

Magnum Hunter Production Inc.	35.0262	0.43749999	Committed
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6001 Deauville Blvd., Ste. 300N  
Midland, TX 79706

Ard Oil, LTD	3.8154	0.04765624	Uncommitted
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222 West Forth St., Ph5  
Fort Worth, TX 76102

HOG Partnership LP	10.0075	0.12500002	Uncommitted
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5950 Cedar Springs Rd., Ste. 242  
Dallas, TX 75235

TRACT 3 TOTAL	80.06	0.25014060	
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**Complete List of Parties/Persons to be Pooled:**

**Working Interest Owners**

HOG Partnership, LP  
Permian Resources LLC  
Ard Oil, LTD  
Wilbanks Reserve Corporation  
Marks Oil, Inc.

**Record Title Owners**

Read and Stevens Inc.

Delmar Hudson Lewis Living Trust

Lindy's Living Trust

Javelina Partners

Zorro Partners Ltd

**UNIT RECAPITULATION:**

**W/2E/2 of Section 5 and W/2E/2 of Section 8; all in T20S-R34E; 320.06 acres**

Moore & Shelton Co., Ltd – 1.557401%

HOG Partnership, LP – 5.643769%

Challenger Crude, Ltd. – 2.188274%

Permian Resources LLC / Read and Stevens – 24.093234%

Magnum Hunter Production – 32.010504%

Zorro Partners, Ltd. – 5.650705%

Frost Bank, Trustee of the Josephine T. Hudson Testamentary Trust FBO J. Terrell Ard – 0.837183%

Ard Oil, LTD – 2.511540%

Chase Oil Corporation – 1.350363%

Cimarex Energy Co. – 9.458136%

Avalon Energy Corporation – 0.426057%

Wilbanks Reserve Corporation – 3.645523%

Marks Oil, Inc. – 0.445620%

Javelina Partners – 7.678079%

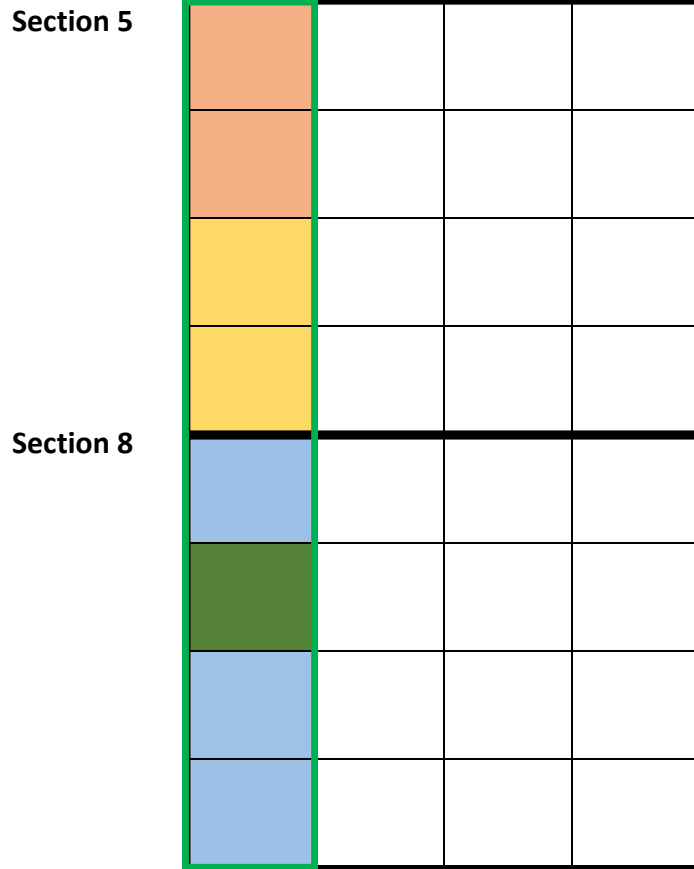
William A. Hudson, II – 0.235969%

Union Hill Oil & Gas Co. Inc. – 2.267643%

**UNIT TOTAL: 100% WI**

Exhibit "A-2"

W/2W/2 of Section 5 and the W/2W/2 of Section 8, Township 20 South, Range 34 East of Lea County, NM (PERMIAN/DELAWARE BASIN) – Bone Spring formation



Tract 1:  
USA NMLC-0064194  
(80 acres)



Tract 2:  
USA NMLC-0064194  
(120 acres)



Tract 3:  
USA NMLC-0064194  
(40 acres)



Tract 4:  
USA NMLC-101115  
(80.01 acres)



EXHIBIT  
A-2.4

**Mighty Pheasant 5-8 Fed Com 301H**

**SHL: Sec. 5-20S-34E; 483' FNL and 1272' FWL**

**BHL: Sec. 8-20S-34E; 100' FSL and 330' FWL**

**Exhibit "A-2"**

**OWNERSHIP BREAKDOWN – Bone Spring formation**

**W/2W/2 of Section 5 and the W/2W/2 of Section 8, Township 20 South, Range 34 East of Lea County, NM**

**Mighty Pheasant 5-8 Fed Com 301H**

**TRACT 1 OWNERSHIP (W/2SW/4 of Section 5-T20S-R34E, being 80 acres)**

**Lease: USA NMLC-0064194**

<b>Owner</b>	<b>Net Acres</b>	<b>Unit WI</b>	<b>Status</b>
Moore and Shelton Co., LTD P.O. Box 3070 Galveston, TX 77552	1.6615	0.02076924	Committed
HOG Partnership, LP 5950 Cedar Springs Rd., Ste. 242 Dallas, TX 75235	2.6853	0.03356644	Uncommitted
Challenger Crude, Ltd. 3525 Andrews Hwy. Midland, TX 79703	7.0038	0.02188616	Committed
Permian Resources LLC/Read and Stevens 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	22.0938	0.27617294	Uncommitted

Javelina Partners 616 Texas St. Fort Worth, TX 76102	4.7437	0.05929631	Committed
Zorro Partners, Ltd. 616 Texas St. Fort Worth, TX 76102	2.5808	0.03225960	Committed
Magnum Hunter Production Inc. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	22.4755	0.28094405	Committed
Frost Bank, Trustee of the Josephine T. Hudson Testamentary Trust FBO J. Terrell Ard P.O. Box 1600 San Antonio, TX 78296	0.4692	0.00586541	Committed
Ard Oil, LTD 222 West Forth St., Ph5 Fort Worth, TX 76102	1.4077	0.01759615	Uncommitted
Chase Oil Corporation 11344 Lovington Hwy. Artesia, NM 88210	1.4407	0.01800821	Committed
Cimarex Energy Co. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	8.5075	0.10634446	Committed

Avalon Energy Corporation 310 W. Wall St., Ste. 305 Midland, TX 79701	0.4545	0.00568182	Committed
Wilbanks Reserve Corporation 450 E. 17 <sup>th</sup> Ave., Ste. 220 Denver, CO 80203	3.8892	0.04861609	Uncommitted
Marks Oil, Inc. 1775 Sherman St., Ste. 2990 Denver, CO 80203	0.4754	0.00594271	Uncommitted
William A. Hudson, II 616 Texas St. Fort Worth, TX 76102	0.2517	0.00314685	Committed
Union Hill Oil and Gas Co. Inc. 7712 Glanshannon Cir. Dallas, TX 75225	2.4193	0.03024091	Committed
TRACT 1 TOTAL	80	0.24999219	

**TRACT 2 OWNERSHIP (NW/4NW/4 and W/2SW/4 of Section 8-T20S-R34E, being 120 acres)**

**Lease: USA NMLC-0064194**



<b>Owner</b>	<b>Net Acres</b>	<b>Unit WI</b>	<b>Status</b>
Moore and Shelton Co., LTD P.O. Box 3070 Galveston, TX 77552	2.4923	0.02076924	Committed
HOG Partnership, LP 5950 Cedar Springs Rd., Ste. 242 Dallas, TX 75235	4.0279	0.03356644	Uncommitted
Challenger Crude, Ltd. 3525 Andrews Hwy. Midland, TX 79703	3.5018	0.02918246	Committed
Permian Resources LLC/Read and Stevens 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	36.3047	0.30253927	Uncommitted
Javelina Partners 616 Texas St. Fort Worth, TX 76102	7.1156	0.05929631	Committed
Zorro Partners, Ltd. 616 Texas St. Fort Worth, TX 76102	3.8712	0.03225962	Committed
Magnum Hunter Production Inc. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	33.7133	0.28094406	Committed

Frost Bank, Trustee of the Josephine T. Hudson Testamentary Trust FBO J. Terrell Ard P.O. Box 1600 San Antonio, TX 78296	0.7039	0.00586541	Committed
Ard Oil, LTD 222 West Forth St., Ph5 Fort Worth, TX 76102	2.1115	0.01759615	Uncommitted
Chase Oil Corporation 11344 Lovington Hwy. Artesia, NM 88210	2.1609	0.01800822	Committed
Cimarex Energy Co. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	12.7613	0.10634444	Committed
Avalon Energy Corporation 310 W. Wall St., Ste. 305 Midland, TX 79701	0.6818	0.00568183	Committed
Wilbanks Reserve Corporation 450 E. 17 <sup>th</sup> Ave., Ste. 220 Denver, CO 80203	5.8339	0.04861608	Uncommitted
Marks Oil, Inc. 1775 Sherman St., Ste. 2990 Denver, CO 80203	0.7131	0.00594272	Uncommitted

William A. Hudson, II 616 Texas St. Fort Worth, TX 76102	.3776	0.00314685	Committed
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Union Hill Oil and Gas Co. Inc. 7712 Glanshannon Cir. Dallas, TX 75225	3.6289	0.03024092	Committed
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TRACT 2 TOTAL	120.00	0.37498828	
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**TRACT 3 OWNERSHIP (SW/4NW/4 of Section 8-T20S-R34E, being 40 acres)****Lease: USA NMLC-0064194**

<b>Owner</b>	<b>Net Acres</b>	<b>Unit WI</b>	<b>Status</b>
Moore and Shelton Co., LTD P.O. Box 3070 Galveston, TX 77552	0.8308	0.02076921	Committed
HOG Partnership, LP 5950 Cedar Springs Rd., Ste. 242 Dallas, TX 75235	1.3427	0.03356641	Uncommitted
Challenger Crude, Ltd. 3525 Andrews Hwy. Midland, TX 79703	1.1673	0.02918243	Committed
Permian Resources LLC/Read and Stevens 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	12.1016	0.30253921	Uncommitted

Javelina Partners 616 Texas St. Fort Worth, TX 76102	2.3719	0.05929633	Committed
Zorro Partners, Ltd. 616 Texas St. Fort Worth, TX 76102	1.2904	0.03225957	Committed
Magnum Hunter Production Inc. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	11.2378	0.28094406	Committed
Frost Bank, Trustee of the Josephine T. Hudson Testamentary Trust FBO J. Terrell Ard P.O. Box 1600 San Antonio, TX 78296	0.2346	0.00586538	Committed
Ard Oil, LTD 222 West Forth St., Ph5 Fort Worth, TX 76102	0.7038	0.01759615	Uncommitted
Chase Oil Corporation 11344 Lovington Hwy. Artesia, NM 88210	0.7203	0.01800824	Committed
Cimarex Energy Co. 6001 Deauville Blvd., Ste. 300N Midland, TX 79706	2.8461	0.10634444	Committed

Avalon Energy Corporation 310 W. Wall St., Ste. 305 Midland, TX 79701	0.2273	0.00568186	Committed
Wilbanks Reserve Corporation 450 E. 17 <sup>th</sup> Ave., Ste. 220 Denver, CO 80203	1.9446	0.04861616	Uncommitted
Marks Oil, Inc. 1775 Sherman St., Ste. 2990 Denver, CO 80203	0.2377	0.00594275	Uncommitted
William A. Hudson, II 616 Texas St. Fort Worth, TX 76102	.1259	0.00314682	Committed
Union Hill Oil and Gas Co. Inc. 7712 Glanshannon Cir. Dallas, TX 75225	1.2096	0.03024095	Committed
TRACT 3 TOTAL	40.00	0.12499609	

**TRACT 4 OWNERSHIP (Lot 4 and SW/4NW/4 of Section 5-T20S-R34E, being 80.01 acres)**

**Lease: USA NMLC-101115**

<b>Owner</b>	<b>Net Acres</b>	<b>Unit WI</b>	<b>Status</b>
Permian Resources LLC/Read and Stevens 300 N. Marienfeld St., Ste. 1000 Midland, TX 79701	68.8086	0.8599999	Uncommitted
Highland (Texas) Energy Company	3.8557	0.04819048	Committed

11886 Greenville Ave., Ste. 106  
Dallas, TX 75243

Richardson Oil Company, LLC	0.9449	0.01180953	Committed
11886 Greenville Ave., Ste. 106			
Dallas, TX 75243			

Carolyn R. Beall	1.6002	0.02000001	Uncommitted
P.O. Box 3098			
Midland, TX 79702			

Diamond Star Production Co., LLC	1.6002	0.02000001	Uncommitted
P.O. Box 638			
Ardmore, OK 73402			

Tierra Encantada, LLC	1.6002	0.02000001	Uncommitted
P.O. Box 3098			
Midland, TX 79702			

David Luna	1.6002	0.02000001	Uncommitted
P.O. Box 1518			
Roswell, NM 88202			

TRACT 4 TOTAL	80.01	0.25002344	
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**Complete List of Parties/Persons to be Pooled:**

**Working Interest Owners**

HOG Partnership, LP  
Permian Resources, LLC  
Ard Oil, LTD  
Wilbanks Reserve Corporation  
Marks Oil, Inc.  
Carolyn R. Beall  
Diamond Star Production Co., LLC  
Tierra Encantada, LLC  
David Luna

**Record Title Owners**

Read and Stevens Inc.  
Delmar Hudson Lewis Living Trust  
Lindy's Living Trust  
Javelina Partners  
Zorro Partners Ltd

**UNIT RECAPITULATION:**

**W/2W/2 of Section 5 and W/2W/2 of Section 8; all in T20S-R34E; 320.01 acres**

Moore & Shelton Co., Ltd – 1.557644%  
HOG Partnership, LP – 2.517404%  
Challenger Crude, Ltd. – 2.188616%  
Permian Resources LLC / Read and Stevens – 44.191751%  
Magnum Hunter Production – 21.070146%  
Zorro Partners, Ltd. – 2.419395%  
Frost Bank, Trustee of the Josephine T. Hudson Testamentary Trust FBO J. Terrell Ard –  
0.439892%  
Ard Oil, LTD – 1.319670%  
Chase Oil Corporation – 1.350574%

Cimarex Energy Co. – 7.975584%  
Avalon Energy Corporation – 0.426124%  
Wilbanks Reserve Corporation – 3.646093%  
Marks Oil, Inc. – 0.445690%  
Javelina Partners – 4.447084%  
William A. Hudson, II – 0.236006%  
Union Hill Oil & Gas Co. Inc. – 2.267998%  
Highland (Texas) Energy Company – 1.204875%  
Richardson Oil Company, LLC – 0.295266%  
Carolyn R. Beall – 0.500047%  
Diamond Star Production Co., LLC – 0.500047%  
Tierra Encantada, LLC – 0.500047%  
David Luna – 0.500047%

**UNIT TOTAL: 100% WI**



Cimarex Energy Co.  
Permian Business Unit  
600 N. Marienfeld Street  
Suite 600  
Midland, Texas 79701  
MAIN 432.571.7800



August 25, 2022

Ard Oil, Ltd.  
222 West Forth St., Ph5  
Fort Worth, TX 76102

**Re: Proposal to Drill  
Mighty Pheasant 5-8 Fed Com 101H-104H, 201H-204H & 301H-304H  
Sections 5 & 8, Township 20 South, Range 34 East  
Lea County, NM**

Dear Working Interest Owner,

Cimarex Energy Co. hereby proposes to drill the Mighty Pheasant 5-8 Fed Com 101H-104H, 201H-204H & 301H-304H Wells at a legal location in Section 5, Township 20 South, Range 34 East, NMPM, Lea Co., NM.

**Mighty Pheasant 5-8 Fed Com 101H** - The intended surface hole location for the well is 330' FNL and 1090' FWL of Section 5, Township 20 South, Range 34 East, and the intended bottom hole location is 100' FSL and 330' FWL of Section 8, Township 20 South, Range 34 East. The well is proposed to be drilled vertically to a depth of approximately 9,530' to the Bone Spring formation and laterally within the formation to the referenced bottom hole location.

**Mighty Pheasant 5-8 Fed Com 102H** - The intended surface hole location for the well is 330' FNL and 1130' FWL of Section 5, Township 20 South, Range 34 East, and the intended bottom hole location is 100' FSL and 1744' FWL of Section 8, Township 20 South, Range 34 East. The well is proposed to be drilled vertically to a depth of approximately 9,530' to the Bone Spring formation and laterally within the formation to the referenced bottom hole location.

**Mighty Pheasant 5-8 Fed Com 103H** - The intended surface hole location for the well is 340' FSL and 1640' FEL of Section 32, Township 19 South, Range 34 East, and the intended bottom hole location is 100' FSL and 2122' FEL of Section 8, Township 20 South, Range 34 East. The well is proposed to be drilled vertically to a depth of approximately 9,530' to the Bone Spring formation and laterally within the formation to the referenced bottom hole location.

**Mighty Pheasant 5-8 Fed Com 104H** - The intended surface hole location for the well is 340' FSL and 1600' FEL of Section 32, Township 19 South, Range 34 East, and the intended bottom hole location is 100' FSL and 708' FEL of Section 8, Township 20 South, Range 34 East. The well is proposed to be drilled vertically to a depth of approximately 9,530' to the Bone Spring formation and laterally within the formation to the referenced bottom hole location.

EXHIBIT  
A-3

**Mighty Pheasant 5-8 Fed Com 201H** - The intended surface hole location for the well is 330' FNL and 1110' FWL of Section 5, Township 20 South, Range 34 East, and the intended bottom hole location is 100' FSL and 330' FWL of Section 8, Township 20 South, Range 34 East. The well is proposed to be drilled vertically to a depth of approximately 10,310' to the Bone Spring formation and laterally within the formation to the referenced bottom hole location.

**Mighty Pheasant 5-8 Fed Com 202H** - The intended surface hole location for the well is 330' FNL and 1150' FWL of Section 5, Township 20 South, Range 34 East, and the intended bottom hole location is 100' FSL and 1744' FWL of Section 8, Township 20 South, Range 34 East. The well is proposed to be drilled vertically to a depth of approximately 10,310' to the Bone Spring formation and laterally within the formation to the referenced bottom hole location.

**Mighty Pheasant 5-8 Fed Com 203H** - The intended surface hole location for the well is 340' FSL and 1620' FEL of Section 32, Township 19 South, Range 34 East, and the intended bottom hole location is 100' FSL and 2122' FEL of Section 8, Township 20 South, Range 34 East. The well is proposed to be drilled vertically to a depth of approximately 10,308' to the Bone Spring formation and laterally within the formation to the referenced bottom hole location.

**Mighty Pheasant 5-8 Fed Com 204H** - The intended surface hole location for the well is 280' FSL and 1520' FEL of Section 32, Township 19 South, Range 34 East, and the intended bottom hole location is 100' FSL and 708' FEL of Section 8, Township 20 South, Range 34 East. The well is proposed to be drilled vertically to a depth of approximately 10,308' to the Bone Spring formation and laterally within the formation to the referenced bottom hole location.

**Mighty Pheasant 5-8 Fed Com 301H** - The intended surface hole location for the well is 390' FNL and 1190' FWL of Section 5, Township 20 South, Range 34 East, and the intended bottom hole location is 100' FSL and 330' FWL of Section 8, Township 20 South, Range 34 East. The well is proposed to be drilled vertically to a depth of approximately 10,870' to the Bone Spring formation and laterally within the formation to the referenced bottom hole location.

**Mighty Pheasant 5-8 Fed Com 302H** - The intended surface hole location for the well is 390' FNL and 1230' FWL of Section 5, Township 20 South, Range 34 East, and the intended bottom hole location is 100' FSL and 1744' FWL of Section 8, Township 20 South, Range 34 East. The well is proposed to be drilled vertically to a depth of approximately 10,860' to the Bone Spring formation and laterally within the formation to the referenced bottom hole location.

**Mighty Pheasant 5-8 Fed Com 303H** - The intended surface hole location for the well is 280' FSL and 1540' FEL of Section 32, Township 19 South, Range 34 East, and the intended bottom hole location is 100' FSL and 2122' FEL of Section 8, Township 20 South, Range 34 East. The well is proposed to be drilled vertically to a depth of approximately 10,850' to the Bone Spring formation and laterally within the formation to the referenced bottom hole location.

**Mighty Pheasant 5-8 Fed Com 304H** - The intended surface hole location for the well is 280' FSL and 1500' FEL of Section 32, Township 19 South, Range 34 East, and the intended bottom hole location is 100' FSL and 708' FEL of Section 8, Township 20 South, Range 34 East. The well is proposed to be drilled vertically to a depth of approximately 10,840' to the Bone Spring formation and laterally within the formation to the referenced bottom hole location.

It should be understood that compliance with topography or cultural or environmental concerns, among others, might require modification of Cimarex's intended procedure. Cimarex will advise you of any such modifications.

Enclosed is (i) our detailed AFE reflecting estimated costs associated with this proposal, and; (ii) our proposed form of Operating Agreement to govern operations of the Mighty Pheasant 5-8 Fed Com Wells. If you intend to participate, please approve and return one (1) original of the enclosed AFE, one (1) original of the signature page to the Operating Agreement, along with the contact information to receive your well data, to the undersigned within thirty (30) days of receipt of this proposal. If you elect to purchase your own well control insurance, you must provide a certificate of such insurance to Cimarex prior to commencement of drilling operations; otherwise, you will be covered by insurance procured by Cimarex and will be responsible for your share of the cost.

Cimarex will file for force pooling for the Mighty Pheasant 5-8 Fed Com 101H-104H, 201H-204H & 301H-304H wells 30 days after the receipt of these proposals.

Please call the undersigned with any questions or comments.

Respectfully,



John Coffman  
432.571.7883  
John.Coffman@Coterra.com



Authorization For Expenditure – Mighty Pheasant 5-8 Fed Com 204H

AFE # XXXXXXX

Company Entity

Date Prepared  
8/17/2022

Exploration Region Permian Basin	Well Name Mighty Pheasant 5-8 Fed Com 204H	Prospect New Mexico Bone Spring	Property Number XXXXXX-XXX.01	AFE XXXXXXX
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County, State Lea, NM	Location Section 5-8 T20S-R34E Lea, NM	Estimated Spud	Estimated Completion
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<input checked="" type="checkbox"/> New Supplement Revision	Formation 2nd Sand	Well Type DEV	Ttl Measured Depth 19808	Ttl Vertical Depth 10308
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Purpose Description  
Drill and complete well

Drilling The intended surface hold location for the well is 280 FSL and 1520 FEL of Section 32, T19S-R34E, and the intended bottom hole location is 100 FSL and 708 FEL of Section 8, T20S-R34E. The well is proposed to be drilled vertically to the 2nd Sand formation and laterally in a southerly direction within the formation to the referenced bottom hole location. Total vertical depth of the well is proposed to be approximately 10308 feet.

Intangible	Dry Hole	After Casing Point	Completed Well Cost
Drilling Costs	\$2,475,500		\$2,475,500
Completion Costs		\$4,646,761	\$4,646,761
<b>Total Intangible Cost</b>	<b>\$2,475,500</b>	<b>\$4,646,761</b>	<b>\$7,122,261</b>

Tangible	Dry Hole	After Casing Point	Completed Well Cost
Well Equipment	\$393,000	\$1,125,000	\$1,518,000
Lease Equipment		\$790,428	\$790,428
<b>Total Tangible Cost</b>	<b>\$393,000</b>	<b>\$1,915,428</b>	<b>\$2,308,428</b>

<b>Total Well Cost</b>	<b>\$2,868,500</b>	<b>\$6,562,189</b>	<b>\$9,430,689</b>
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Comments On Well Costs

- All tubulars, well or lease equipment is priced by COPAS and CEPS guidelines using the Historic Price Multiplier.

Well Control Insurance

Unless otherwise indicated below, you, as a non-operating working interest owner, agree to be covered by Operator 's well control insurance procured by Operator so long as Operator conducts operations hereunder and to pay your prorated share of the premiums therefore. If you elect to purchase your own well control insurance, you must provide a certificate of such insurance acceptable to Operator, as to form and limits, at the time this AFE is returned, if available, but in no event later than commencement of drilling operations. You agree that failure to provide the certificate of insurance, as provided herein, will result in your being covered by insurance procured by Operator.

I elect to purchase my own well control insurance policy.

Marketing Election

Cimarex sells its gas under arm's-length contracts with third party purchasers. Such contracts may include fees. In addition, penalties may be incurred for insufficient volumes delivered over time. Should you choose to market your share of gas with Cimarex, you will be subject to all of the terms of such contracts. Upon written request to Cimarex's Marketing Department, we will share with you the terms and conditions pursuant to which gas will be sold. Failure to make an election below shall be deemed an election to market your gas with Cimarex under the terms and conditions set forth above.

I elect to take my gas in kind.

I elect to market my gas with Cimarex pursuant to the terms and conditions of its contract.

Comments on AFE

The above costs are estimates only and anticipate trouble free operations without any foreseeable change in plans. The actual costs may exceed the estimated costs without affecting the authorization for expenditure herein granted. By approval of this AFE, the working interest owner agrees to pay its proportionate share of actual legal, curative, regulatory and well costs under term of the joint operating agreement, regulatory order or other applicable agreement covering this well.

Nonoperator Approval

Company	Approved By (Print Name)	Approved By (Signature)	Date

NOTICE TO NONOPERATOR: Costs shown on this form are estimates only. By executing this AFE, the consenting party agrees to pay its proportionate share of actual costs incurred. Overhead will be charged in accordance with the Joint Operating Agreement.

7/6/2022



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 204H

AFE # XXXXXXX

Description	BCP - Drilling		ACP - Drilling		Comp/Stim		Production Equip		Post Completion		Total	Cost
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount		
Roads & Location	DIDC.100	20,000			STIM.100	3,000	CON.100	48,637	PCOM.100	3,000		74,637
Damages	DIDC.105	16,500					CON.105	15,807				32,307
Mud/Fluids Disposal	DIDC.255	200,000			STIM.255	51,000			PCOM.255	0		251,000
Day Rate	DIDC.115	468,000	DICC.120	96,000								564,000
Misc Preparation	DIDC.120	30,000										30,000
Bits	DIDC.125	97,000	DICC.125	0	STIM.125	0			PCOM.125	0		97,000
Fuel	DIDC.135	119,000	DICC.130	0					PCOM.130	0		119,000
Water for Drilling Rig (Not Frac Water)	DIDC.140	5,000	DICC.135	0	STIM.135	20,000			PCOM.135	0		25,000
Mud & Additives	DIDC.145	300,000										300,000
SWD PIPED TO 3RD PARTY SWD WELL									PCOM.257	109,193		109,193
Surface Rentals	DIDC.150	97,000	DICC.140	0	STIM.140	137,000	CON.140	1,378	PCOM.140	60,000		295,378
Downhole Rentals	DIDC.155	131,000			STIM.145	35,000			PCOM.145	0		166,000
Flowback Labor					STIM.141	0			PCOM.141	30,000		30,000
Automation Labor							CON.150	36,558	PCOM.150	5,000		41,558
Mud Logging	DIDC.170	5,000										5,000
IPC & EXTERNAL PAINTING							CON.165	18,888				18,888
Cementing & Float Equipment	DIDC.185	70,000	DICC.155	140,000								210,000
Tubular Inspections	DIDC.190	38,000	DICC.160	8,000	STIM.160	4,000			PCOM.160	0		50,000
Casing Crews	DIDC.195	15,000	DICC.165	13,000	STIM.165	0						28,000
Mechanical Labor	DIDC.200	20,000	DICC.170	3,000	STIM.170	0	CON.170	139,588	PCOM.170	5,000		167,588
Trucking/Transportation	DIDC.205	30,000	DICC.175	8,000	STIM.175	4,000	CON.175	17,833	PCOM.175	0		59,833
Supervision	DIDC.210	81,000	DICC.180	13,000	STIM.180	47,000	CON.180	21,238	PCOM.180	0		162,238
Trailer House/Camp/Catering	DIDC.280	36,000	DICC.255	5,000	STIM.280	31,000						72,000
Other Misc Expenses	DIDC.220	5,000	DICC.190	0	STIM.190	85,000	CON.190	24,318	PCOM.190	0		114,318
Overhead	DIDC.225	5,000	DICC.195	5,000								10,000
MOB/DEMOB	DIDC.240	115,000										115,000
Directional Drilling Services	DIDC.245	307,000										307,000
Solids Control	DIDC.260	46,000										46,000
Well Control Equip (Snubbing Services)	DIDC.265	84,000	DICC.240	0	STIM.240	64,000			PCOM.240	0		148,000
Completion Rig					STIM.115	21,000			PCOM.115	0		21,000
Coil Tubing Services					STIM.260	0			PCOM.260	0		0
Completion Logging/Perforating/Wireline					STIM.200	257,000			PCOM.200	0		257,000
Composite Plugs					STIM.390	39,000			PCOM.390	0		39,000
Stimulation					STIM.210	2,245,000			PCOM.210	0		2,245,000
Stimulation Water/Water Transfer/Water					STIM.395	191,000						191,000
Cimarex Owned Frac/Rental Equipment					STIM.305	60,000			PCOM.305	0		60,000
Legal/Regulatory/Curative	DIDC.300	10,000					CON.300	0				10,000
Well Control Insurance	DIDC.285	7,000										7,000
Major Construction Overhead							CON.305	26,507				26,507
FL/GL - ON PAD LABOR							CON.495	37,613				37,613
FL/GL - Labor							CON.500	94,842				94,842
FL/GL - Supervision							CON.505	14,429				14,429
Survey							CON.515	2,351				2,351
SWD/Other - Labor							CON.600	0				0
SWD/Other - Supervision							CON.605	0				0
Aid In Construct/3rd Party Connect							CON.701	40,531				40,531
Contingency	DIDC.435	118,000	DICC.220	15,000	STIM.220	165,000	CON.220	105,542	PCOM.220	0		403,542
Contingency							CON.221	23,508				23,508
<b>Total Intangible Cost</b>		<b>2,475,500</b>		<b>306,000</b>		<b>3,459,000</b>		<b>669,568</b>		<b>212,193</b>		<b>7,122,261</b>
Conductor Pipe	DWEB.130	0										0
Water String	DWEB.135	104,000										104,000
Surface Casing	DWEB.140	251,000										251,000
Intermediate Casing 1	DWEB.145	0										0
Production Casing or Liner			DWEA.100	792,000								792,000
Tubing					STIMT.105	139,000			PCOMT.105	0		139,000
Wellhead, Tree, Chokes	DWEB.115	38,000	DWEA.120	18,000	STIMT.120	38,000			PCOMT.120	10,000		104,000
Liner Hanger, Isolation Packer	DWEB.100	0	DWEA.125	0								0
Packer, Nipples					STIMT.400	28,000			PCOMT.400	0		28,000
SHORT ORDERS							CONT.380	10,538				10,538
PUMPS							CONT.385	30,804				30,804
WALKOVERS							CONT.390	4,053				4,053
Downhole Lift Equipment					STIMT.410	80,000			PCOMT.410	0		80,000
Surface Equipment									PCOMT.420	15,000		15,000
Well Automation Materials									PCOMT.455	5,000		5,000
N/C Lease Equipment							CONT.400	184,334				184,334
Tanks, Tanks Steps, Stairs							CONT.405	51,879				51,879
Battery Equipment							CONT.410	214,003				214,003
Secondary Containments							CONT.415	19,292				19,292
Overhead Power Distribution							CONT.420	64,038				64,038
Facility Electrical							CONT.425	32,100				32,100
Telecommunication Equipment							CONT.426	486				486
Meters and Metering Equipment							CONT.445	45,232				45,232
Facility Line Pipe							CONT.450	31,208				31,208
Lease Automation Materials							CONT.455	32,424				32,424
FL/GL - Materials							CONT.550	21,400				21,400
FL/GL - Line Pipe							CONT.555	48,637				48,637
SWD/Other - Materials							CONT.650	0				0
SWD/Other - Line Pipe							CONT.655	0				0
<b>Total Tangible Cost</b>		<b>393,000</b>		<b>810,000</b>		<b>285,000</b>		<b>790,428</b>		<b>30,000</b>		<b>2,308,428</b>
<b>Total Estimated Cost</b>		<b>2,868,500</b>		<b>1,116,000</b>		<b>3,744,000</b>		<b>1,459,996</b>		<b>242,193</b>		<b>9,430,689</b>



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 204H

AFE # XXXXXXX

Description	BCP - Drilling			ACP - Drilling			Comp/Stim		
	Codes		Amount	Codes		Amount	Codes		Amount
Roads & Location	DIDC.100		20,000				STIM.100	CON.100	3,000
Damages	DIDC.105		16,500						
Mud/Fluids Disposal	DIDC.255		200,000				STIM.255		51,000
Day Rate	DIDC.115	DICC.120	468,000	DICC.120		96,000			
Misc Preparation	DIDC.120		30,000						
Bits	DIDC.125	DICC.125	97,000	DICC.125	STIM.125	0	STIM.125		0
Fuel	DIDC.135	DICC.130	119,000	DICC.130		0			
Water for Drilling Rig (Not Frac)	DIDC.140	DICC.135	5,000	DICC.135	STIM.135	0	STIM.135		20,000
Mud & Additives	DIDC.145		300,000						
SWD PIPED TO 3RD PARTY SWD									
Surface Rentals	DIDC.150	DICC.140	97,000	DICC.140	STIM.140	0	STIM.140	CON.140	137,000
Downhole Rentals	DIDC.155		131,000				STIM.145		35,000
Flowback Labor							STIM.141		0
Automation Labor									
Mud Logging	DIDC.170		5,000						
IPC & EXTERNAL PAINTING									
Cementing & Float Equipment	DIDC.185	DICC.155	70,000	DICC.155		140,000			
Tubular Inspections	DIDC.190	DICC.160	38,000	DICC.160	STIM.160	8,000	STIM.160		4,000
Casing Crews	DIDC.195	DICC.165	15,000	DICC.165	STIM.165	13,000	STIM.165		0
Mechanical Labor	DIDC.200	DICC.170	20,000	DICC.170	STIM.170	3,000	STIM.170	CON.170	0
Trucking/Transportation	DIDC.205	DICC.175	30,000	DICC.175	STIM.175	8,000	STIM.175	CON.175	4,000
Supervision	DIDC.210	DICC.180	81,000	DICC.180	STIM.180	13,000	STIM.180	CON.180	47,000
Trailer House/Camp/Catering	DIDC.280	DICC.255	35,000	DICC.255	STIM.280	5,000	STIM.280		31,000
Other Misc Expenses	DIDC.220	DICC.190	5,000	DICC.190	STIM.190	0	STIM.190	CON.190	85,000
Overhead	DIDC.225	DICC.195	5,000	DICC.195		5,000			
MOB/DEMOB	DIDC.240		115,000						
Directional Drilling Services	DIDC.245		307,000						
Solids Control	DIDC.260		46,000						
Well Control Equip (Snubbing)	DIDC.265	DICC.240	84,000	DICC.240	STIM.240	0	STIM.240		64,000
Completion Rig							STIM.115		21,000
Coil Tubing Services							STIM.260		0
Completion							STIM.200		257,000
Composite Plugs							STIM.390		39,000
Stimulation							STIM.210		2,245,000
Stimulation Water/Water							STIM.395		191,000
Cimarex Owned Frac/Rental							STIM.305		60,000
Legal/Regulatory/Curative	DIDC.300		10,000						
Well Control Insurance	DIDC.285		7,000						
Major Construction Overhead									
FL/GL - ON PAD LABOR									
FL/GL - Labor									
FL/GL - Supervision									
Survey									
SWD/Other - Labor									
SWD/Other - Supervision									
Aid In Construct/3rd Party Connect									
Contingency	DIDC.435	DICC.220	118,000	DICC.220	STIM.220	15,000	STIM.220	CON.220	165,000
Contingency									
<b>Total Intangible Cos</b>			<b>2,475,500</b>			<b>306,000</b>			<b>3,459,000</b>
Conductor Pipe	DWEB.130		0						
Water String	DWEB.135		104,000						
Surface Casing	DWEB.140		251,000						
Intermediate Casing 1	DWEB.145		0						
Production Casing or Liner				DWEA.100		792,000			
Tubing							STIMT.105		139,000
Wellhead, Tree, Chokes	DWEB.115	DWEA.120	38,000	DWEA.120	STIMT.120	18,000	STIMT.120		38,000
Liner Hanger, Isolation Packer	DWEB.100	DWEA.125	0	DWEA.125		0			
Packer, Nipples							STIMT.400		28,000
SHORT ORDERS									
PUMPS									
WALKOVERS									
Downhole Lift Equipment							STIMT.410		80,000
Surface Equipment									
Well Automation Materials									
N/C Lease Equipment									
Tanks, Tanks Steps, Stairs									
Battery Equipment									
Secondary Containments									
Overhead Power Distribution									
Facility Electrical									
Telecommunication Equipment									
Meters and Metering Equipment									
Facility Line Pipe									
Lease Automation Materials									
FL/GL - Materials									
FL/GL - Materials									
SWD/Other - Materials									
SWD/Other - Line Pipe									
<b>Total Tangible Cost</b>			<b>393,000</b>			<b>810,000</b>			<b>285,000</b>
<b>Total Estimated Cost</b>			<b>2,868,500</b>			<b>1,116,000</b>			<b>3,744,000</b>



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 204H

AFE # XXXXXXX

Description	Production Equip			Post Completion			Total
	Codes	Amount	Codes	Amount	Cost		
Roads & Location	CON.100	48,637	PCOM.100	Repair any roads post D&C	3,000	74,637	
Damages	CON.105	15,807				32,307	
Mud/Fluids Disposal			PCOM.255		0	251,000	
Day Rate						564,000	
Misc Preparation						30,000	
Bits			PCOM.125		0	97,000	
Fuel			PCOM.130		0	119,000	
Water for Drilling Rig (Not Frac Water)			PCOM.135		0	25,000	
Mud & Additives						300,000	
SWD PIPED TO 3RD PARTY SWD WELL			PCOM.257	Water for 60 days (270K barrels)	109,193	109,193	
Surface Rentals	CON.140	1,378	PCOM.140	Iron. XEC Own 5K. No 10K. \$1,100 per day	60,000	295,378	
Downhole Rentals			PCOM.145		0	166,000	
Flowback Labor			PCOM.141	3 Flowback Hands (60 days). 25%	30,000	30,000	
Automation Labor	CON.150	36,558	PCOM.150		5,000	41,558	
Mud Logging						5,000	
IPC & EXTERNAL PAINTING	CON.165	18,888				18,888	
Cementing & Float Equipment						210,000	
Tubular Inspections			PCOM.160		0	50,000	
Casing Crews						28,000	
Mechanical Labor	CON.170	139,588	PCOM.170	RU Flowback Iron & Automation	5,000	167,588	
Trucking/Transportation	CON.175	17,833	PCOM.175		0	59,833	
Supervision	CON.180	21,238	PCOM.180		0	162,238	
Trailer House/Camp/Catering						72,000	
Other Misc Expenses	CON.190	24,318	PCOM.190		0	114,318	
Overhead						10,000	
MOB/DEMOS						115,000	
Directional Drilling Services						307,000	
Solids Control						46,000	
Well Control Equip (Snubbing Services)			PCOM.240		0	148,000	
Completion Rig			PCOM.115		0	21,000	
Coil Tubing Services			PCOM.260		0	0	
Completion Logging/Perforating/Wireline			PCOM.200		0	257,000	
Composite Plugs			PCOM.390		0	39,000	
Stimulation			PCOM.210		0	2,245,000	
Stimulation Water/Water Transfer/Water						191,000	
Cimarex Owned Frac/Rental Equipment			PCOM.305		0	60,000	
Legal/Regulatory/Curative	CON.300	0				10,000	
Well Control Insurance						7,000	
Major Construction Overhead	CON.305	26,507				26,507	
FL/GL - ON PAD LABOR	CON.495	37,613				37,613	
FL/GL - Labor	CON.500	94,842				94,842	
FL/GL - Supervision	CON.505	14,429				14,429	
Survey	CON.515	2,351				2,351	
SWD/Other - Labor	CON.600	0				0	
SWD/Other - Supervision	CON.605	0				0	
Aid In Construct/3rd Party Connect	CON.701	40,531				40,531	
Contingency	CON.220	105,542				403,542	
Contingency	CON.221	23,508				23,508	
<b>Total Intangible Cost</b>		<b>669,568</b>			<b>212,193</b>	<b>7,122,261</b>	
Conductor Pipe						0	
Water String						104,000	
Surface Casing						251,000	
Intermediate Casing 1						0	
Production Casing or Liner						792,000	
Tubing			PCOMT.105		0	139,000	
Wellhead, Tree, Chokes			PCOMT.120	Replace worn chokes and valves during FB	10,000	104,000	
Liner Hanger, Isolation Packer						0	
Packer, Nipples			PCOMT.400		0	28,000	
SHORT ORDERS	CONT.380	10,538				10,538	
PUMPS	CONT.385	30,804				30,804	
WALKOVERS	CONT.390	4,053				4,053	
Downhole Lift Equipment			PCOMT.410		0	80,000	
Surface Equipment			PCOMT.420	Replacing Chokes, Stuffing Boxes, and all	15,000	15,000	
Well Automation Materials			PCOMT.455	PTs, and replacing meters	5,000	5,000	
N/C Lease Equipment	CONT.400	184,334				184,334	
Tanks, Tanks Steps, Stairs	CONT.405	51,879				51,879	
Battery Equipment	CONT.410	214,003				214,003	
Secondary Containments	CONT.415	19,292				19,292	
Overhead Power Distribution	CONT.420	64,038				64,038	
Facility Electrical	CONT.425	32,100				32,100	
Telecommunication Equipment	CONT.426	486				486	
Meters and Metering Equipment	CONT.445	45,232				45,232	
Facility Line Pipe	CONT.450	31,208				31,208	
Lease Automation Materials	CONT.455	32,424				32,424	
FL/GL - Materials	CONT.550	21,400				21,400	
FL/GL - Line Pipe	CONT.555	48,637				48,637	
SWD/Other - Materials	CONT.650	0				0	
SWD/Other - Line Pipe	CONT.655	0				0	
<b>Total Tangible Cost</b>		<b>790,428</b>			<b>30,000</b>	<b>2,308,428</b>	
<b>Total Estimated Cost</b>		<b>1,459,996</b>			<b>242,193</b>	<b>9,430,689</b>	



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 301H

AFE # XXXXXXXX

Company/Entity

Date Prepared  
8/17/2022

Exploration Region	Well Name	Prospect	Property Number	AFE
Permian Basin	Mighty Pheasant 5-8 Fed Com 301H	New Mexico Bone Spring	XXXXXX-XXX.01	XXXXXXXX

County, State	Location	Estimated Spud	Estimated Completion
Lea, NM	Section 5-8 T20S-R34E Lea, NM		

<input checked="" type="checkbox"/> New Supplement Revision	Formation	Well Type	Ttl Measured Depth	Ttl Vertical Depth
	3rd Sand	DEV	20370	10870

Purpose: Drill and complete well  
Description:

**Drilling:** The intended surface hold location for the well is 390 FNL and 1190 FWL of Section 5, T20S-R34E, and the intended bottom hole location is 100 FSL and 330 FWL of Section 8, T20S-R34E. The well is proposed to be drilled vertically to the 3rd Sand formation and laterally in a southerly direction within the formation to the referenced bottom hole location. Total vertical depth of the well is proposed to be approximately 10870 feet.

	Dry Hole	After Casing Point	Completed Well Cost
<b>Intangible</b>			
Drilling Costs	\$2,475,500		\$2,475,500
Completion Costs		\$4,595,289	\$4,595,289
<b>Total Intangible Cost</b>	<b>\$2,475,500</b>	<b>\$4,595,289</b>	<b>\$7,070,789</b>
<b>Tangible</b>			
Well Equipment	\$393,000	\$1,125,000	\$1,518,000
Lease Equipment		\$840,065	\$840,065
<b>Total Tangible Cost</b>	<b>\$393,000</b>	<b>\$1,965,065</b>	<b>\$2,358,065</b>
<b>Total Well Cost</b>	<b>\$2,868,500</b>	<b>\$6,560,354</b>	<b>\$9,428,854</b>

Comments On Well Costs

- All tubulars, well or lease equipment is priced by COPAS and CEPS guidelines using the Historic Price Multiplier.

Well Control Insurance

Unless otherwise indicated below, you, as a non-operating working interest owner, agree to be covered by Operator's well control insurance procured by Operator so long as Operator conducts operations hereunder and to pay your prorated share of the premiums therefore. If you elect to purchase your own well control insurance, you must provide a certificate of such insurance acceptable to Operator, as to form and limits, at the time this AFE is returned, if available, but in no event later than commencement of drilling operations. You agree that failure to provide the certificate of insurance, as provided herein, will result in your being covered by insurance procured by Operator.

I elect to purchase my own well control insurance policy.

Marketing Election

Cimarex sells its gas under arm's-length contracts with third party purchasers. Such contracts may include fees. In addition, penalties may be incurred for insufficient volumes delivered over time. Should you choose to market your share of gas with Cimarex, you will be subject to all of the terms of such contracts. Upon written request to Cimarex's Marketing Department, we will share with you the terms and conditions pursuant to which gas will be sold. Failure to make an election below shall be deemed an election to market your gas with Cimarex under the terms and conditions set forth above.

I elect to take my gas in kind.

I elect to market my gas with Cimarex pursuant to the terms and conditions of its contract.

Comments on AFE

The above costs are estimates only and anticipate trouble free operations without any foreseeable change in plans. The actual costs may exceed the estimated costs without affecting the authorization for expenditure herein granted. By approval of this AFE, the working interest owner agrees to pay its proportionate share of actual legal, curative, regulatory and well costs under term of the joint operating agreement, regulatory order or other applicable agreement covering this well.

Nonoperator Approval

Company	Approved By (Print Name)	Approved By (Signature)	Date

NOTICE TO NONOPERATOR: Costs shown on this form are estimates only. By executing this AFE, the consenting party agrees to pay its proportionate share of actual costs incurred. Overhead will be charged in accordance with the Joint Operating Agreement.

7/6/2022





Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 301H

AFE # XXXXXXX

Description	BCP - Drilling		ACP - Drilling		Comp/Stim		Production Equip		Post Completion		Total
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Cost
Roads & Location	DIDC.100	20,000			STIM.100	3,000	CON.100	44,205	PCOM.100	3,000	70,205
Damages	DIDC.105	16,500					CON.105	3,215			19,715
Mud/Fluids Disposal	DIDC.255	200,000			STIM.255	51,000			PCOM.255	0	251,000
Day Rate	DIDC.115	468,000	DICC.120	96,000							564,000
Misc Preparation	DIDC.120	30,000									30,000
Bits	DIDC.125	97,000	DICC.125	0	STIM.125	0			PCOM.125	0	97,000
Fuel	DIDC.135	119,000	DICC.130	0					PCOM.130	0	119,000
Water for Drilling Rig (Not Frac Water)	DIDC.140	5,000	DICC.135	0	STIM.135	20,000			PCOM.135	0	25,000
Mud & Additives	DIDC.145	300,000									300,000
SWD PIPED TO 3RD PARTY SWD WELL									PCOM.257	87,354	87,354
Surface Rentals	DIDC.150	97,000	DICC.140	0	STIM.140	137,000	CON.140	6,912	PCOM.140	60,000	300,912
Downhole Rentals	DIDC.155	131,000			STIM.145	35,000			PCOM.145	0	166,000
Flowback Labor					STIM.141	0			PCOM.141	30,000	30,000
Automation Labor							CON.150	45,010	PCOM.150	5,000	50,010
Mud Logging	DIDC.170	5,000									5,000
IPC & EXTERNAL PAINTING							CON.165	5,144			5,144
Cementing & Float Equipment	DIDC.185	70,000	DICC.155	140,000							210,000
Tubular Inspections	DIDC.190	38,000	DICC.160	8,000	STIM.160	4,000			PCOM.160	0	50,000
Casing Crews	DIDC.195	15,000	DICC.165	13,000	STIM.165	0					28,000
Mechanical Labor	DIDC.200	20,000	DICC.170	3,000	STIM.170	0	CON.170	185,663	PCOM.170	5,000	213,663
Trucking/Transportation	DIDC.205	30,000	DICC.175	8,000	STIM.175	4,000	CON.175	16,075	PCOM.175	0	58,075
Supervision	DIDC.210	81,000	DICC.180	13,000	STIM.180	47,000	CON.180	11,574	PCOM.180	0	152,574
Trailer House/Camp/Catering	DIDC.280	36,000	DICC.255	5,000	STIM.280	31,000					72,000
Other Misc Expenses	DIDC.220	5,000	DICC.190	0	STIM.190	85,000	CON.190	19,290	PCOM.190	0	109,290
Overhead	DIDC.225	5,000	DICC.195	5,000							10,000
MOB/DEMOB	DIDC.240	115,000									115,000
Directional Drilling Services	DIDC.245	307,000									307,000
Solids Control	DIDC.260	46,000									46,000
Well Control Equip (Snubbing Services)	DIDC.265	84,000	DICC.240	0	STIM.240	64,000			PCOM.240	0	148,000
Completion Rig					STIM.115	21,000			PCOM.115	0	21,000
Coil Tubing Services					STIM.260	0			PCOM.260	0	0
Completion Logging/Perforating/Wireline					STIM.200	257,000			PCOM.200	0	257,000
Composite Plugs					STIM.390	39,000			PCOM.390	0	39,000
Stimulation					STIM.210	2,245,000			PCOM.210	0	2,245,000
Stimulation Water/Water Transfer/Water					STIM.395	191,000					191,000
Cimarex Owned Frac/Rental Equipment					STIM.305	60,000			PCOM.305	0	60,000
Legal/Regulatory/Curative	DIDC.300	10,000					CON.300	0			10,000
Well Control Insurance	DIDC.285	7,000									7,000
Major Construction Overhead							CON.305	0			0
FL/GL - ON PAD LABOR							CON.495	33,114			33,114
FL/GL - Labor							CON.500	113,970			113,970
FL/GL - Supervision							CON.505	12,056			12,056
Survey							CON.515	6,590			6,590
SWD/Other - Labor							CON.600	0			0
SWD/Other - Supervision							CON.605	0			0
Aid In Construct/3rd Party Connect							CON.701	0			0
Contingency	DIDC.435	118,000	DICC.220	15,000	STIM.220	165,000	CON.220	106,737	PCOM.220	0	404,737
Contingency							CON.221	30,381			30,381
<b>Total Intangible Cost</b>		<b>2,475,500</b>		<b>306,000</b>		<b>3,459,000</b>		<b>639,935</b>		<b>190,354</b>	<b>7,070,789</b>
Conductor Pipe	DWEB.130	0									0
Water String	DWEB.135	104,000									104,000
Surface Casing	DWEB.140	251,000									251,000
Intermediate Casing 1	DWEB.145	0									0
Production Casing or Liner			DWEA.100	792,000							792,000
Tubing					STIMT.105	139,000			PCOMT.105	0	139,000
Wellhead, Tree, Chokes	DWEB.115	38,000	DWEA.120	18,000	STIMT.120	38,000			PCOMT.120	10,000	104,000
Liner Hanger, Isolation Packer	DWEB.100	0	DWEA.125	0							0
Packer, Nipples					STIMT.400	28,000			PCOMT.400	0	28,000
SHORT ORDERS							CONT.380	11,253			11,253
PUMPS							CONT.385	26,362			26,362
WALKOVERS							CONT.390	6,430			6,430
Downhole Lift Equipment					STIMT.410	80,000			PCOMT.410	0	80,000
Surface Equipment									PCOMT.420	15,000	15,000
Well Automation Materials									PCOMT.455	5,000	5,000
N/C Lease Equipment							CONT.400	279,861			279,861
Tanks, Tanks Steps, Stairs							CONT.405	0			0
Battery Equipment							CONT.410	229,386			229,386
Secondary Containments							CONT.415	12,859			12,859
Overhead Power Distribution							CONT.420	10,288			10,288
Facility Electrical							CONT.425	48,224			48,224
Telecommunication Equipment							CONT.426	0			0
Meters and Metering Equipment							CONT.445	42,758			42,758
Facility Line Pipe							CONT.450	28,935			28,935
Lease Automation Materials							CONT.455	36,972			36,972
FL/GL - Materials							CONT.550	26,684			26,684
FL/GL - Line Pipe							CONT.555	80,052			80,052
SWD/Other - Materials							CONT.650	0			0
SWD/Other - Line Pipe							CONT.655	0			0
<b>Total Tangible Cost</b>		<b>393,000</b>		<b>810,000</b>		<b>285,000</b>		<b>840,065</b>		<b>30,000</b>	<b>2,358,065</b>
<b>Total Estimated Cost</b>		<b>2,868,500</b>		<b>1,116,000</b>		<b>3,744,000</b>		<b>1,480,000</b>		<b>220,354</b>	<b>9,428,854</b>



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 301H

AFE # XXXXXXX

Description	BCP - Drilling			ACP - Drilling			Comp/Stim		
	Codes		Amount	Codes		Amount	Codes		Amount
Roads & Location	DIDC.100		20,000				STIM.100	CON.100	3,000
Damages	DIDC.105		16,500						
Mud/Fluids Disposal	DIDC.255		200,000				STIM.255		51,000
Day Rate	DIDC.115	DICC.120	468,000	DICC.120		96,000			
Misc Preparation	DIDC.120		30,000						
Bits	DIDC.125	DICC.125	97,000	DICC.125	STIM.125	0	STIM.125		0
Fuel	DIDC.135	DICC.130	119,000	DICC.130		0			
Water for Drilling Rig (Not Frac)	DIDC.140	DICC.135	5,000	DICC.135	STIM.135	0	STIM.135		20,000
Mud & Additives	DIDC.145		300,000						
SWD PIPED TO 3RD PARTY SWD									
Surface Rentals	DIDC.150	DICC.140	97,000	DICC.140	STIM.140	0	STIM.140	CON.140	137,000
Downhole Rentals	DIDC.155		131,000				STIM.145		35,000
Flowback Labor							STIM.141		0
Automation Labor									
Mud Logging	DIDC.170		5,000						
IPC & EXTERNAL PAINTING									
Cementing & Float Equipment	DIDC.185	DICC.155	70,000	DICC.155		140,000			
Tubular Inspections	DIDC.190	DICC.160	38,000	DICC.160	STIM.160	8,000	STIM.160		4,000
Casing Crews	DIDC.195	DICC.165	15,000	DICC.165	STIM.165	13,000	STIM.165		0
Mechanical Labor	DIDC.200	DICC.170	20,000	DICC.170	STIM.170	3,000	STIM.170	CON.170	0
Trucking/Transportation	DIDC.205	DICC.175	30,000	DICC.175	STIM.175	8,000	STIM.175	CON.175	4,000
Supervision	DIDC.210	DICC.180	81,000	DICC.180	STIM.180	13,000	STIM.180	CON.180	47,000
Trailer House/Camp/Catering	DIDC.280	DICC.255	35,000	DICC.255	STIM.280	5,000	STIM.280		31,000
Other Misc Expenses	DIDC.220	DICC.190	5,000	DICC.190	STIM.190	0	STIM.190	CON.190	85,000
Overhead	DIDC.225	DICC.195	5,000	DICC.195		5,000			
MOB/DEMOB	DIDC.240		115,000						
Directional Drilling Services	DIDC.245		307,000						
Solids Control	DIDC.260		46,000						
Well Control Equip (Snubbing)	DIDC.265	DICC.240	84,000	DICC.240	STIM.240	0	STIM.240		64,000
Completion Rig							STIM.115		21,000
Coil Tubing Services							STIM.260		0
Completion							STIM.200		257,000
Composite Plugs							STIM.390		39,000
Stimulation							STIM.210		2,245,000
Stimulation Water/Water							STIM.395		191,000
Cimarex Owned Frac/Rental							STIM.305		60,000
Legal/Regulatory/Curative	DIDC.300		10,000						
Well Control Insurance	DIDC.285		7,000						
Major Construction Overhead									
FL/GL - ON PAD LABOR									
FL/GL - Labor									
FL/GL - Supervision									
Survey									
SWD/Other - Labor									
SWD/Other - Supervision									
Aid In Construct/3rd Party Connect									
Contingency	DIDC.435	DICC.220	118,000	DICC.220	STIM.220	15,000	STIM.220	CON.220	165,000
Contingency									
<b>Total Intangible Cos</b>			<b>2,475,500</b>			<b>306,000</b>			<b>3,459,000</b>
Conductor Pipe	DWEB.130		0						
Water String	DWEB.135		104,000						
Surface Casing	DWEB.140		251,000						
Intermediate Casing 1	DWEB.145		0						
Production Casing or Liner				DWEA.100		792,000			
Tubing							STIMT.105		139,000
Wellhead, Tree, Chokes	DWEB.115	DWEA.120	38,000	DWEA.120	STIMT.120	18,000	STIMT.120		38,000
Liner Hanger, Isolation Packer	DWEB.100	DWEA.125	0	DWEA.125		0			
Packer, Nipples							STIMT.400		28,000
SHORT ORDERS									
PUMPS									
WALKOVERS									
Downhole Lift Equipment							STIMT.410		80,000
Surface Equipment									
Well Automation Materials									
N/C Lease Equipment									
Tanks, Tanks Steps, Stairs									
Battery Equipment									
Secondary Containments									
Overhead Power Distribution									
Facility Electrical									
Telecommunication Equipment									
Meters and Metering Equipment									
Facility Line Pipe									
Lease Automation Materials									
FL/GL - Materials									
FL/GL - Materials									
SWD/Other - Materials									
SWD/Other - Line Pipe									
<b>Total Tangible Cost</b>			<b>393,000</b>			<b>810,000</b>			<b>285,000</b>
<b>Total Estimated Cost</b>			<b>2,868,500</b>			<b>1,116,000</b>			<b>3,744,000</b>



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 301H

AFE # XXXXXXX

Description	Production Equip			Post Completion			Total
	Codes	Amount	Codes	Amount	Cost		
Roads & Location	CON.100	44,205	PCOM.100	Repair any roads post D&C	3,000	70,205	
Damages	CON.105	3215				19,715	
Mud/Fluids Disposal			PCOM.255		0	251,000	
Day Rate						564,000	
Misc Preparation						30,000	
Bits			PCOM.125		0	97,000	
Fuel			PCOM.130		0	119,000	
Water for Drilling Rig (Not Frac Water)			PCOM.135		0	25,000	
Mud & Additives						300,000	
SWD PIPED TO 3RD PARTY SWD WELL			PCOM.257	Water for 60 days (270K barrels)	87,354	87,354	
Surface Rentals	CON.140	6,912	PCOM.140	Iron. XEC Own 5K. No 10K. \$1,100 per day	60,000	300,912	
Downhole Rentals			PCOM.145		0	166,000	
Flowback Labor			PCOM.141	3 Flowback Hands (60 days). 25%	30,000	30,000	
Automation Labor	CON.150	45,010	PCOM.150		5,000	50,010	
Mud Logging						5,000	
IPC & EXTERNAL PAINTING	CON.165	5,144				5,144	
Cementing & Float Equipment						210,000	
Tubular Inspections			PCOM.160		0	50,000	
Casing Crews						28,000	
Mechanical Labor	CON.170	185,663	PCOM.170	RU Flowback Iron & Automation	5,000	213,663	
Trucking/Transportation	CON.175	16,075	PCOM.175		0	58,075	
Supervision	CON.180	11,574	PCOM.180		0	152,574	
Trailer House/Camp/Catering						72,000	
Other Misc Expenses	CON.190	19,290	PCOM.190		0	109,290	
Overhead						10,000	
MOB/DEMOB						115,000	
Directional Drilling Services						307,000	
Solids Control						46,000	
Well Control Equip (Snubbing Services)			PCOM.240		0	148,000	
Completion Rig			PCOM.115		0	21,000	
Coil Tubing Services			PCOM.260		0	0	
Completion Logging/Perforating/Wireline			PCOM.200		0	257,000	
Composite Plugs			PCOM.390		0	39,000	
Stimulation			PCOM.210		0	2,245,000	
Stimulation Water/Water Transfer/Water						191,000	
Cimarex Owned Frac/Rental Equipment			PCOM.305		0	60,000	
Legal/Regulatory/Curative	CON.300	0				10,000	
Well Control Insurance						7,000	
Major Construction Overhead	CON.305	0				0	
FL/GL - ON PAD LABOR	CON.495	33,114				33,114	
FL/GL - Labor	CON.500	113,970				113,970	
FL/GL - Supervision	CON.505	12,056				12,056	
Survey	CON.515	6,590				6,590	
SWD/Other - Labor	CON.600	0				0	
SWD/Other - Supervision	CON.605	0				0	
Aid In Construct/3rd Party Connect	CON.701	0				0	
Contingency	CON.220	106,737				404,737	
Contingency	CON.221	30,381				30,381	
<b>Total Intangible Cost</b>		<b>639,935</b>			<b>190,354</b>	<b>7,070,789</b>	
Conductor Pipe						0	
Water String						104,000	
Surface Casing						251,000	
Intermediate Casing 1						0	
Production Casing or Liner						792,000	
Tubing			PCOMT.105		0	139,000	
Wellhead, Tree, Chokes			PCOMT.120	Replace worn chokes and valves during FB	10,000	104,000	
Liner Hanger, Isolation Packer						0	
Packer, Nipples			PCOMT.400		0	28,000	
SHORT ORDERS	CONT.380	11,253				11,253	
PUMPS	CONT.385	26,362				26,362	
WALKOVERS	CONT.390	6,430				6,430	
Downhole Lift Equipment			PCOMT.410		0	80,000	
Surface Equipment			PCOMT.420	Replacing Chokes, Stuffing Boxes, and all	15,000	15,000	
Well Automation Materials			PCOMT.455	PTs, and replacing meters	5,000	5,000	
N/C Lease Equipment	CONT.400	279,861				279,861	
Tanks, Tanks Steps, Stairs	CONT.405	0				0	
Battery Equipment	CONT.410	229,386				229,386	
Secondary Containments	CONT.415	12,859				12,859	
Overhead Power Distribution	CONT.420	10,288				10,288	
Facility Electrical	CONT.425	48,224				48,224	
Telecommunication Equipment	CONT.426	0				0	
Meters and Metering Equipment	CONT.445	42,758				42,758	
Facility Line Pipe	CONT.450	28,935				28,935	
Lease Automation Materials	CONT.455	36,972				36,972	
FL/GL - Materials	CONT.550	26,684				26,684	
FL/GL - Line Pipe	CONT.555	80,052				80,052	
SWD/Other - Materials	CONT.650	0				0	
SWD/Other - Line Pipe	CONT.655	0				0	
<b>Total Tangible Cost</b>		<b>840,065</b>			<b>30,000</b>	<b>2,358,065</b>	
<b>Total Estimated Cost</b>		<b>1,480,000</b>			<b>220,354</b>	<b>9,428,854</b>	



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 302H

AFE # XXXXXXXX

Company Entity

Date Prepared  
8/17/2022

Exploration Region Permian Basin	Well Name Mighty Pheasant 5-8 Fed Com 302H	Prospect New Mexico Bone Spring	Property Number XXXXXX-XXX.01	AFE XXXXXXXX
County, State Lea, NM	Location Section 5-8 T20S-R34E Lea, NM	Estimated Spud	Estimated Completion	
<input checked="" type="checkbox"/> New <input type="checkbox"/> Supplement <input type="checkbox"/> Revision	Formation 3rd Sand	Well Type DEV	Ttl Measured Depth 20360	Ttl Vertical Depth 10860

Purpose: Drill and complete well  
Description:

**Drilling** The intended surface hold location for the well is 390 FNL and 1230 FWL of Section 5, T20S-R34E, and the intended bottom hole location is 100 FSL and 1744 FWL of Section 8, T20S-R34E. The well is proposed to be drilled vertically to the 3rd Sand formation and laterally in a southerly direction within the formation to the referenced bottom hole location. Total vertical depth of the well is proposed to be approximately 10860 feet.

	Dry Hole	After Casing Point	Completed Well Cost
<b>Intangible</b>			
Drilling Costs	\$2,475,500		\$2,475,500
Completion Costs		\$4,595,289	\$4,595,289
<b>Total Intangible Cost</b>	<b>\$2,475,500</b>	<b>\$4,595,289</b>	<b>\$7,070,789</b>
<b>Tangible</b>			
Well Equipment	\$393,000	\$1,125,000	\$1,518,000
Lease Equipment		\$840,065	\$840,065
<b>Total Tangible Cost</b>	<b>\$393,000</b>	<b>\$1,965,065</b>	<b>\$2,358,065</b>
<b>Total Well Cost</b>	<b>\$2,868,500</b>	<b>\$6,560,354</b>	<b>\$9,428,854</b>

Comments On Well Costs

- All tubulars, well or lease equipment is priced by COPAS and CEPS guidelines using the Historic Price Multiplier.

Well Control Insurance

Unless otherwise indicated below, you, as a non-operating working interest owner, agree to be covered by Operator's well control insurance procured by Operator so long as Operator conducts operations hereunder and to pay your prorated share of the premiums therefore. If you elect to purchase your own well control insurance, you must provide a certificate of such insurance acceptable to Operator, as to form and limits, at the time this AFE is returned, if available, but in no event later than commencement of drilling operations. You agree that failure to provide the certificate of insurance, as provided herein, will result in your being covered by insurance procured by Operator.

I elect to purchase my own well control insurance policy.

Marketing Election

Cimarex sells its gas under arm's-length contracts with third party purchasers. Such contracts may include fees. In addition, penalties may be incurred for insufficient volumes delivered over time. Should you choose to market your share of gas with Cimarex, you will be subject to all of the terms of such contracts. Upon written request to Cimarex's Marketing Department, we will share with you the terms and conditions pursuant to which gas will be sold. Failure to make an election below shall be deemed an election to market your gas with Cimarex under the terms and conditions set forth above.

I elect to take my gas in kind.

I elect to market my gas with Cimarex pursuant to the terms and conditions of its contract.

Comments on AFE

The above costs are estimates only and anticipate trouble free operations without any foreseeable change in plans. The actual costs may exceed the estimated costs without affecting the authorization for expenditure herein granted. By approval of this AFE, the working interest owner agrees to pay its proportionate share of actual legal, curative, regulatory and well costs under term of the joint operating agreement, regulatory order or other applicable agreement covering this well.

Nonoperator Approval

Company	Approved By (Print Name)	Approved By (Signature)	Date

NOTICE TO NONOPERATOR: Costs shown on this form are estimates only. By executing this AFE, the consenting party agrees to pay its proportionate share of actual costs incurred. Overhead will be charged in accordance with the Joint Operating Agreement.

7/6/2022



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 302H

AFE # XXXXXXX

Description	BCP - Drilling		ACP - Drilling		Comp/Stim		Production Equip		Post Completion		Total
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	
Roads & Location	DIDC.100	20,000			STIM.100	3,000	CON.100	44,205	PCOM.100	3,000	70,205
Damages	DIDC.105	16,500					CON.105	3,215			19,715
Mud/Fluids Disposal	DIDC.255	200,000			STIM.255	51,000			PCOM.255	0	251,000
Day Rate	DIDC.115	468,000	DICC.120	96,000							564,000
Misc Preparation	DIDC.120	30,000									30,000
Bits	DIDC.125	97,000	DICC.125	0	STIM.125	0			PCOM.125	0	97,000
Fuel	DIDC.135	119,000	DICC.130	0					PCOM.130	0	119,000
Water for Drilling Rig (Not Frac Water)	DIDC.140	5,000	DICC.135	0	STIM.135	20,000			PCOM.135	0	25,000
Mud & Additives	DIDC.145	300,000									300,000
SWD PIPED TO 3RD PARTY SWD WELL									PCOM.257	87,354	87,354
Surface Rentals	DIDC.150	97,000	DICC.140	0	STIM.140	137,000	CON.140	6,912	PCOM.140	60,000	300,912
Downhole Rentals	DIDC.155	131,000			STIM.145	35,000			PCOM.145	0	166,000
Flowback Labor					STIM.141	0			PCOM.141	30,000	30,000
Automation Labor							CON.150	45,010	PCOM.150	5,000	50,010
Mud Logging	DIDC.170	5,000									5,000
IPC & EXTERNAL PAINTING							CON.165	5,144			5,144
Cementing & Float Equipment	DIDC.185	70,000	DICC.155	140,000							210,000
Tubular Inspections	DIDC.190	38,000	DICC.160	8,000	STIM.160	4,000			PCOM.160	0	50,000
Casing Crews	DIDC.195	15,000	DICC.165	13,000	STIM.165	0					28,000
Mechanical Labor	DIDC.200	20,000	DICC.170	3,000	STIM.170	0	CON.170	185,663	PCOM.170	5,000	213,663
Trucking/Transportation	DIDC.205	30,000	DICC.175	8,000	STIM.175	4,000	CON.175	16,075	PCOM.175	0	58,075
Supervision	DIDC.210	81,000	DICC.180	13,000	STIM.180	47,000	CON.180	11,574	PCOM.180	0	152,574
Trailer House/Camp/Catering	DIDC.280	36,000	DICC.255	5,000	STIM.280	31,000					72,000
Other Misc Expenses	DIDC.220	5,000	DICC.190	0	STIM.190	85,000	CON.190	19,290	PCOM.190	0	109,290
Overhead	DIDC.225	5,000	DICC.195	5,000							10,000
MOB/DEMOB	DIDC.240	115,000									115,000
Directional Drilling Services	DIDC.245	307,000									307,000
Solids Control	DIDC.260	46,000									46,000
Well Control Equip (Snubbing Services)	DIDC.265	84,000	DICC.240	0	STIM.240	64,000			PCOM.240	0	148,000
Completion Rig					STIM.115	21,000			PCOM.115	0	21,000
Coil Tubing Services					STIM.260	0			PCOM.260	0	0
Completion Logging/Perforating/Wireline					STIM.200	257,000			PCOM.200	0	257,000
Composite Plugs					STIM.390	39,000			PCOM.390	0	39,000
Stimulation					STIM.210	2,245,000			PCOM.210	0	2,245,000
Stimulation Water/Water Transfer/Water					STIM.395	191,000					191,000
Cimarex Owned Frac/Rental Equipment					STIM.305	60,000			PCOM.305	0	60,000
Legal/Regulatory/Curative	DIDC.300	10,000					CON.300	0			10,000
Well Control Insurance	DIDC.285	7,000									7,000
Major Construction Overhead							CON.305	0			0
FL/GL - ON PAD LABOR							CON.495	33,114			33,114
FL/GL - Labor							CON.500	113,970			113,970
FL/GL - Supervision							CON.505	12,056			12,056
Survey							CON.515	6,590			6,590
SWD/Other - Labor							CON.600	0			0
SWD/Other - Supervision							CON.605	0			0
Aid In Construct/3rd Party Connect							CON.701	0			0
Contingency	DIDC.435	118,000	DICC.220	15,000	STIM.220	165,000	CON.220	106,737	PCOM.220	0	404,737
Contingency							CON.221	30,381			30,381
<b>Total Intangible Cost</b>		<b>2,475,500</b>		<b>306,000</b>		<b>3,459,000</b>		<b>639,935</b>		<b>190,354</b>	<b>7,070,789</b>
Conductor Pipe	DWEB.130	0									0
Water String	DWEB.135	104,000									104,000
Surface Casing	DWEB.140	251,000									251,000
Intermediate Casing 1	DWEB.145	0									0
Production Casing or Liner			DWEA.100	792,000							792,000
Tubing					STIMT.105	139,000			PCOMT.105	0	139,000
Wellhead, Tree, Chokes	DWEB.115	38,000	DWEA.120	18,000	STIMT.120	38,000			PCOMT.120	10,000	104,000
Liner Hanger, Isolation Packer	DWEB.100	0	DWEA.125	0							0
Packer, Nipples					STIMT.400	28,000			PCOMT.400	0	28,000
SHORT ORDERS							CONT.380	11,253			11,253
PUMPS							CONT.385	26,362			26,362
WALKOVERS							CONT.390	6,430			6,430
Downhole Lift Equipment					STIMT.410	80,000			PCOMT.410	0	80,000
Surface Equipment									PCOMT.420	15,000	15,000
Well Automation Materials									PCOMT.455	5,000	5,000
N/C Lease Equipment							CONT.400	279,861			279,861
Tanks, Tanks Steps, Stairs							CONT.405	0			0
Battery Equipment							CONT.410	229,386			229,386
Secondary Containments							CONT.415	12,859			12,859
Overhead Power Distribution							CONT.420	10,288			10,288
Facility Electrical							CONT.425	48,224			48,224
Telecommunication Equipment							CONT.426	0			0
Meters and Metering Equipment							CONT.445	42,758			42,758
Facility Line Pipe							CONT.450	28,935			28,935
Lease Automation Materials							CONT.455	36,972			36,972
FL/GL - Materials							CONT.550	26,684			26,684
FL/GL - Line Pipe							CONT.555	80,052			80,052
SWD/Other - Materials							CONT.650	0			0
SWD/Other - Line Pipe							CONT.655	0			0
<b>Total Tangible Cost</b>		<b>393,000</b>		<b>810,000</b>		<b>285,000</b>		<b>840,065</b>		<b>30,000</b>	<b>2,358,065</b>
<b>Total Estimated Cost</b>		<b>2,868,500</b>		<b>1,116,000</b>		<b>3,744,000</b>		<b>1,480,000</b>		<b>220,354</b>	<b>9,428,854</b>



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 302H

AFE # XXXXXXX

Description	BCP - Drilling			ACP - Drilling			Comp/Stim		
	Codes		Amount	Codes		Amount	Codes		Amount
Roads & Location	DIDC.100		20,000				STIM.100	CON.100	3,000
Damages	DIDC.105		16,500						
Mud/Fluids Disposal	DIDC.255		200,000				STIM.255		51,000
Day Rate	DIDC.115	DICC.120	468,000	DICC.120		96,000			
Misc Preparation	DIDC.120		30,000						
Bits	DIDC.125	DICC.125	97,000	DICC.125	STIM.125	0	STIM.125		0
Fuel	DIDC.135	DICC.130	119,000	DICC.130		0			
Water for Drilling Rig (Not Frac)	DIDC.140	DICC.135	5,000	DICC.135	STIM.135	0	STIM.135		20,000
Mud & Additives	DIDC.145		300,000						
SWD PIPED TO 3RD PARTY SWD									
Surface Rentals	DIDC.150	DICC.140	97,000	DICC.140	STIM.140	0	STIM.140	CON.140	137,000
Downhole Rentals	DIDC.155		131,000				STIM.145		35,000
Flowback Labor							STIM.141		0
Automation Labor									
Mud Logging	DIDC.170		5,000						
IPC & EXTERNAL PAINTING									
Cementing & Float Equipment	DIDC.185	DICC.155	70,000	DICC.155		140,000			
Tubular Inspections	DIDC.190	DICC.160	38,000	DICC.160	STIM.160	8,000	STIM.160		4,000
Casing Crews	DIDC.195	DICC.165	15,000	DICC.165	STIM.165	13,000	STIM.165		0
Mechanical Labor	DIDC.200	DICC.170	20,000	DICC.170	STIM.170	3,000	STIM.170	CON.170	0
Trucking/Transportation	DIDC.205	DICC.175	30,000	DICC.175	STIM.175	8,000	STIM.175	CON.175	4,000
Supervision	DIDC.210	DICC.180	81,000	DICC.180	STIM.180	13,000	STIM.180	CON.180	47,000
Trailer House/Camp/Catering	DIDC.280	DICC.255	36,000	DICC.255	STIM.280	5,000	STIM.280		31,000
Other Misc Expenses	DIDC.220	DICC.190	5,000	DICC.190	STIM.190	0	STIM.190	CON.190	85,000
Overhead	DIDC.225	DICC.195	5,000	DICC.195		5,000			
MOB/DEMOB	DIDC.240		115,000						
Directional Drilling Services	DIDC.245		307,000						
Solids Control	DIDC.260		46,000						
Well Control Equip (Snubbing)	DIDC.265	DICC.240	84,000	DICC.240	STIM.240	0	STIM.240		64,000
Completion Rig							STIM.115		21,000
Coil Tubing Services							STIM.260		0
Completion							STIM.200		257,000
Composite Plugs							STIM.390		39,000
Stimulation							STIM.210		2,245,000
Stimulation Water/Water							STIM.395		191,000
Cimarex Owned Frac/Rental							STIM.305		60,000
Legal/Regulatory/Curative	DIDC.300		10,000						
Well Control Insurance	DIDC.285		7,000						
Major Construction Overhead									
FL/GL - ON PAD LABOR									
FL/GL - Labor									
FL/GL - Supervision									
Survey									
SWD/Other - Labor									
SWD/Other - Supervision									
Aid In Construct/3rd Party Connect									
Contingency	DIDC.435	DICC.220	118,000	DICC.220	STIM.220	15,000	STIM.220	CON.220	165,000
Contingency									
<b>Total Intangible Cos</b>			<b>2,475,500</b>			<b>306,000</b>			<b>3,459,000</b>
Conductor Pipe	DWEB.130		0						
Water String	DWEB.135		104,000						
Surface Casing	DWEB.140		251,000						
Intermediate Casing 1	DWEB.145		0						
Production Casing or Liner				DWEA.100		792,000			
Tubing							STIMT.105		139,000
Wellhead, Tree, Chokes	DWEB.115	DWEA.120	38,000	DWEA.120	STIMT.120	18,000	STIMT.120		38,000
Liner Hanger, Isolation Packer	DWEB.100	DWEA.125	0	DWEA.125		0			
Packer, Nipples							STIMT.400		28,000
SHORT ORDERS									
PUMPS									
WALKOVERS									
Downhole Lift Equipment							STIMT.410		80,000
Surface Equipment									
Well Automation Materials									
N/C Lease Equipment									
Tanks, Tanks Steps, Stairs									
Battery Equipment									
Secondary Containments									
Overhead Power Distribution									
Facility Electrical									
Telecommunication Equipment									
Meters and Metering Equipment									
Facility Line Pipe									
Lease Automation Materials									
FL/GL - Materials									
FL/GL - Materials									
SWD/Other - Materials									
SWD/Other - Line Pipe									
<b>Total Tangible Cost</b>			<b>393,000</b>			<b>810,000</b>			<b>285,000</b>
<b>Total Estimated Cost</b>			<b>2,868,500</b>			<b>1,116,000</b>			<b>3,744,000</b>



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 302H

AFE # XXXXXXX

Description	Production Equip			Post Completion			Total
	Codes	Amount	Codes	Amount	Cost		
Roads & Location	CON.100	44,205	PCOM.100	Repair any roads post D&C	3,000	70,205	
Damages	CON.105	3,215				19,715	
Mud/Fluids Disposal			PCOM.255		0	251,000	
Day Rate						564,000	
Misc Preparation						30,000	
Bits			PCOM.125		0	97,000	
Fuel			PCOM.130		0	119,000	
Water for Drilling Rig (Not Frac Water)			PCOM.135		0	25,000	
Mud & Additives						300,000	
SWD PIPED TO 3RD PARTY SWD WELL			PCOM.257	Water for 60 days (270K barrels)	87,354	87,354	
Surface Rentals	CON.140	6,912	PCOM.140	Iron. XEC Own 5K No 10K. \$1,100 per day	60,000	300,912	
Downhole Rentals			PCOM.145		0	166,000	
Flowback Labor			PCOM.141	3 Flowback Hands (60 days). 25%	30,000	30,000	
Automation Labor	CON.150	45,010	PCOM.150		5,000	50,010	
Mud Logging						5,000	
IPC & EXTERNAL PAINTING	CON.165	5,144				5,144	
Cementing & Float Equipment						210,000	
Tubular Inspections			PCOM.160		0	50,000	
Casing Crews						28,000	
Mechanical Labor	CON.170	185,663	PCOM.170	RU Flowback Iron & Automation	5,000	213,663	
Trucking/Transportation	CON.175	16,075	PCOM.175		0	58,075	
Supervision	CON.180	11,574	PCOM.180		0	152,574	
Trailer House/Camp/Catering						72,000	
Other Misc Expenses	CON.190	19,290	PCOM.190		0	109,290	
Overhead						10,000	
MOB/DEMOB						115,000	
Directional Drilling Services						307,000	
Solids Control						46,000	
Well Control Equip (Snubbing Services)			PCOM.240		0	148,000	
Completion Rig			PCOM.115		0	21,000	
Coil Tubing Services			PCOM.260		0	0	
Completion Logging/Perforating/Wireline			PCOM.200		0	257,000	
Composite Plugs			PCOM.390		0	39,000	
Stimulation			PCOM.210		0	2,245,000	
Stimulation Water/Water Transfer/Water						191,000	
Cimarex Owned Frac/Rental Equipment			PCOM.305		0	60,000	
Legal/Regulatory/Curative	CON.300	0				10,000	
Well Control Insurance						7,000	
Major Construction Overhead	CON.305	0				0	
FL/GL - ON PAD LABOR	CON.495	33,114				33,114	
FL/GL - Labor	CON.500	113,970				113,970	
FL/GL - Supervision	CON.505	12,056				12,056	
Survey	CON.515	6,590				6,590	
SWD/Other - Labor	CON.600	0				0	
SWD/Other - Supervision	CON.605	0				0	
Aid In Construct/3rd Party Connect	CON.701	0				0	
Contingency	CON.220	106,737				404,737	
Contingency	CON.221	30,381				30,381	
<b>Total Intangible Cost</b>		<b>639,935</b>			<b>190,354</b>	<b>7,070,789</b>	
Conductor Pipe						0	
Water String						104,000	
Surface Casing						251,000	
Intermediate Casing 1						0	
Production Casing or Liner						792,000	
Tubing			PCOMT.105		0	139,000	
Wellhead, Tree, Chokes			PCOMT.120	Replace worn chokes and valves during FB	10,000	104,000	
Liner Hanger, Isolation Packer						0	
Packer, Nipples			PCOMT.400		0	28,000	
SHORT ORDERS	CONT.380	11,253				11,253	
PUMPS	CONT.385	26,362				26,362	
WALKOVERS	CONT.390	6,430				6,430	
Downhole Lift Equipment			PCOMT.410		0	80,000	
Surface Equipment			PCOMT.420	Replacing Chokes, Stuffing Boxes, and all	15,000	15,000	
Well Automation Materials			PCOMT.455	PTs and replacing meters	5,000	5,000	
N/C Lease Equipment	CONT.400	279,861				279,861	
Tanks, Tanks Steps, Stairs	CONT.405	0				0	
Battery Equipment	CONT.410	229,386				229,386	
Secondary Containments	CONT.415	12,859				12,859	
Overhead Power Distribution	CONT.420	10,288				10,288	
Facility Electrical	CONT.425	48,224				48,224	
Telecommunication Equipment	CONT.426	0				0	
Meters and Metering Equipment	CONT.445	42,758				42,758	
Facility Line Pipe	CONT.450	28,935				28,935	
Lease Automation Materials	CONT.455	36,972				36,972	
FL/GL - Materials	CONT.550	26,684				26,684	
FL/GL - Line Pipe	CONT.555	80,052				80,052	
SWD/Other - Materials	CONT.650	0				0	
SWD/Other - Line Pipe	CONT.655	0				0	
<b>Total Tangible Cost</b>		<b>840,065</b>			<b>30,000</b>	<b>2,358,065</b>	
<b>Total Estimated Cost</b>		<b>1,480,000</b>			<b>220,354</b>	<b>9,428,854</b>	



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 303H

AFE # XXXXXXX

Company Entity

Date Prepared  
8/17/2022

Exploration Region Permian Basin	Well Name Mighty Pheasant 5-8 Fed Com 303H	Prospect New Mexico Bone Spring	Property Number XXXXXX-XXX.01	AFE XXXXXXXX
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County, State Lea, NM	Location Section 5-8 T20S-R34E Lea, NM	Estimated Spud	Estimated Completion
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<input checked="" type="checkbox"/> New Supplement Revision	Formation 3rd Sand	Well Type DEV	Ttl Measured Depth 20350	Ttl Vertical Depth 10850
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Purpose Description  
Drill and complete well

Drilling The intended surface hold location for the well is 280 FSL and 1540 FEL of Section 32, T19S-R34E, and the intended bottom hole location is 100 FSL and 2122 FEL of Section 8, T20S-R34E. The well is proposed to be drilled vertically to the 3rd Sand formation and laterally in a southerly direction within the formation to the referenced bottom hole location. Total vertical depth of the well is proposed to be approximately 10850 feet.

Intangible	Dry Hole	After Casing Point	Completed Well Cost
Drilling Costs	\$2,475,500		\$2,475,500
Completion Costs		\$4,624,922	\$4,624,922
<b>Total Intangible Cost</b>	<b>\$2,475,500</b>	<b>\$4,624,922</b>	<b>\$7,100,422</b>
Tangible	Dry Hole	After Casing Point	Completed Well Cost
Well Equipment	\$393,000	\$1,125,000	\$1,518,000
Lease Equipment		\$790,428	\$790,428
<b>Total Tangible Cost</b>	<b>\$393,000</b>	<b>\$1,915,428</b>	<b>\$2,308,428</b>
<b>Total Well Cost</b>	<b>\$2,868,500</b>	<b>\$6,540,350</b>	<b>\$9,408,850</b>

Comments On Well Costs

- All tubulars, well or lease equipment is priced by COPAS and CEPS guidelines using the Historic Price Multiplier.

Well Control Insurance

Unless otherwise indicated below, you, as a non-operating working interest owner, agree to be covered by Operator 's well control insurance procured by Operator so long as Operator conducts operations hereunder and to pay your prorated share of the premiums therefore. If you elect to purchase your own well control insurance, you must provide a certificate of such insurance acceptable to Operator, as to form and limits, at the time this AFE is returned, if available, but in no event later than commencement of drilling operations. You agree that failure to provide the certificate of insurance, as provided herein, will result in your being covered by insurance procured by Operator.

I elect to purchase my own well control insurance policy.

Marketing Election

Cimarex sells its gas under arm's-length contracts with third party purchasers. Such contracts may include fees. In addition, penalties may be incurred for insufficient volumes delivered over time. Should you choose to market your share of gas with Cimarex, you will be subject to all of the terms of such contracts. Upon written request to Cimarex's Marketing Department, we will share with you the terms and conditions pursuant to which gas will be sold. Failure to make an election below shall be deemed an election to market your gas with Cimarex under the terms and conditions set forth above.

I elect to take my gas in kind.

I elect to market my gas with Cimarex pursuant to the terms and conditions of its contract.

Comments on AFE

The above costs are estimates only and anticipate trouble free operations without any foreseeable change in plans. The actual costs may exceed the estimated costs without affecting the authorization for expenditure herein granted. By approval of this AFE, the working interest owner agrees to pay its proportionate share of actual legal, curative, regulatory and well costs under term of the joint operating agreement, regulatory order or other applicable agreement covering this well.

Nonoperator Approval

Company	Approved By (Print Name)	Approved By (Signature)	Date

NOTICE TO NONOPERATOR: Costs shown on this form are estimates only. By executing this AFE, the consenting party agrees to pay its proportionate share of actual costs incurred. Overhead will be charged in accordance with the Joint Operating Agreement.

7/6/2022





Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 303H

AFE # XXXXXXX

Description	BCP - Drilling		ACP - Drilling		Comp/Stim		Production Equip		Post Completion		Total
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Cost
Roads & Location	DIDC.100	20,000			STIM.100	3,000	CON.100	48,637	PCOM.100	3,000	74,637
Damages	DIDC.105	16,500					CON.105	15,807			32,307
Mud/Fluids Disposal	DIDC.255	200,000			STIM.255	51,000			PCOM.255	0	251,000
Day Rate	DIDC.115	468,000	DICC.120	96,000							564,000
Misc Preparation	DIDC.120	30,000									30,000
Bits	DIDC.125	97,000	DICC.125	0	STIM.125	0			PCOM.125	0	97,000
Fuel	DIDC.135	119,000	DICC.130	0					PCOM.130	0	119,000
Water for Drilling Rig (Not Frac Water)	DIDC.140	5,000	DICC.135	0	STIM.135	20,000			PCOM.135	0	25,000
Mud & Additives	DIDC.145	300,000									300,000
SWD PIPED TO 3RD PARTY SWD WELL									PCOM.257	87,354	87,354
Surface Rentals	DIDC.150	97,000	DICC.140	0	STIM.140	137,000	CON.140	1,378	PCOM.140	60,000	295,378
Downhole Rentals	DIDC.155	131,000			STIM.145	35,000			PCOM.145	0	166,000
Flowback Labor					STIM.141	0			PCOM.141	30,000	30,000
Automation Labor							CON.150	36,558	PCOM.150	5,000	41,558
Mud Logging	DIDC.170	5,000									5,000
IPC & EXTERNAL PAINTING							CON.165	18,888			18,888
Cementing & Float Equipment	DIDC.185	70,000	DICC.155	140,000							210,000
Tubular Inspections	DIDC.190	38,000	DICC.160	8,000	STIM.160	4,000			PCOM.160	0	50,000
Casing Crews	DIDC.195	15,000	DICC.165	13,000	STIM.165	0					28,000
Mechanical Labor	DIDC.200	20,000	DICC.170	3,000	STIM.170	0	CON.170	139,588	PCOM.170	5,000	167,588
Trucking/Transportation	DIDC.205	30,000	DICC.175	8,000	STIM.175	4,000	CON.175	17,833	PCOM.175	0	59,833
Supervision	DIDC.210	81,000	DICC.180	13,000	STIM.180	47,000	CON.180	21,238	PCOM.180	0	162,238
Trailer House/Camp/Catering	DIDC.280	36,000	DICC.255	5,000	STIM.280	31,000					72,000
Other Misc Expenses	DIDC.220	5,000	DICC.190	0	STIM.190	85,000	CON.190	24,318	PCOM.190	0	114,318
Overhead	DIDC.225	5,000	DICC.195	5,000							10,000
MOB/DEMOB	DIDC.240	115,000									115,000
Directional Drilling Services	DIDC.245	307,000									307,000
Solids Control	DIDC.260	46,000									46,000
Well Control Equip (Snubbing Services)	DIDC.265	84,000	DICC.240	0	STIM.240	64,000			PCOM.240	0	148,000
Completion Rig					STIM.115	21,000			PCOM.115	0	21,000
Coil Tubing Services					STIM.260	0			PCOM.260	0	0
Completion Logging/Perforating/Wireline					STIM.200	257,000			PCOM.200	0	257,000
Composite Plugs					STIM.390	39,000			PCOM.390	0	39,000
Stimulation					STIM.210	2,245,000			PCOM.210	0	2,245,000
Stimulation Water/Water Transfer/Water					STIM.395	191,000					191,000
Cimarex Owned Frac/Rental Equipment					STIM.305	60,000			PCOM.305	0	60,000
Legal/Regulatory/Curative	DIDC.300	10,000					CON.300	0			10,000
Well Control Insurance	DIDC.285	7,000									7,000
Major Construction Overhead							CON.305	26,507			26,507
FL/GL - ON PAD LABOR							CON.495	37,613			37,613
FL/GL - Labor							CON.500	94,842			94,842
FL/GL - Supervision							CON.505	14,429			14,429
Survey							CON.515	2,351			2,351
SWD/Other - Labor							CON.600	0			0
SWD/Other - Supervision							CON.605	0			0
Aid In Construct/3rd Party Connect							CON.701	40,531			40,531
Contingency	DIDC.435	118,000	DICC.220	15,000	STIM.220	165,000	CON.220	105,542	PCOM.220	0	403,542
Contingency							CON.221	23,508			23,508
<b>Total Intangible Cost</b>		<b>2,475,500</b>		<b>306,000</b>		<b>3,459,000</b>		<b>669,568</b>		<b>190,354</b>	<b>7,100,422</b>
Conductor Pipe	DWEB.130	0									0
Water String	DWEB.135	104,000									104,000
Surface Casing	DWEB.140	251,000									251,000
Intermediate Casing 1	DWEB.145	0									0
Production Casing or Liner			DWEA.100	792,000							792,000
Tubing					STIMT.105	139,000			PCOMT.105	0	139,000
Wellhead, Tree, Chokes	DWEB.115	38,000	DWEA.120	18,000	STIMT.120	38,000			PCOMT.120	10,000	104,000
Liner Hanger, Isolation Packer	DWEB.100	0	DWEA.125	0							0
Packer, Nipples					STIMT.400	28,000			PCOMT.400	0	28,000
SHORT ORDERS							CON.380	10,538			10,538
PUMPS							CON.385	30,804			30,804
WALKOVERS							CON.390	4,053			4,053
Downhole Lift Equipment					STIMT.410	80,000			PCOMT.410	0	80,000
Surface Equipment									PCOMT.420	15,000	15,000
Well Automation Materials									PCOMT.455	5,000	5,000
N/C Lease Equipment							CON.400	184,334			184,334
Tanks, Tanks Steps, Stairs							CON.405	51,879			51,879
Battery Equipment							CON.410	214,003			214,003
Secondary Containments							CON.415	19,292			19,292
Overhead Power Distribution							CON.420	64,038			64,038
Facility Electrical							CON.425	32,100			32,100
Telecommunication Equipment							CON.426	486			486
Meters and Metering Equipment							CON.445	45,232			45,232
Facility Line Pipe							CON.450	31,208			31,208
Lease Automation Materials							CON.455	32,424			32,424
FL/GL - Materials							CON.550	21,400			21,400
FL/GL - Line Pipe							CON.555	48,637			48,637
SWD/Other - Materials							CON.650	0			0
SWD/Other - Line Pipe							CON.655	0			0
<b>Total Tangible Cost</b>		<b>393,000</b>		<b>810,000</b>		<b>285,000</b>		<b>790,428</b>		<b>30,000</b>	<b>2,308,428</b>
<b>Total Estimated Cost</b>		<b>2,868,500</b>		<b>1,116,000</b>		<b>3,744,000</b>		<b>1,459,996</b>		<b>220,354</b>	<b>9,408,850</b>



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 303H

AFE # XXXXXXX

Description	BCP - Drilling			ACP - Drilling			Comp/Stim		
	Codes		Amount	Codes		Amount	Codes		Amount
Roads & Location	DIDC.100		20,000				STIM.100	CON.100	3,000
Damages	DIDC.105		16,500						
Mud/Fluids Disposal	DIDC.255		200,000				STIM.255		51,000
Day Rate	DIDC.115	D/ICC.120	468,000	D/ICC.120		96,000			
Misc Preparation	DIDC.120		30,000						
Bits	DIDC.125	D/ICC.125	97,000	D/ICC.125	STIM.125	0	STIM.125		0
Fuel	DIDC.135	D/ICC.130	119,000	D/ICC.130		0			
Water for Drilling Rig (Not Frac Mud & Additives)	DIDC.140	D/ICC.135	5,000	D/ICC.135	STIM.135	0	STIM.135		20,000
SWD PIPED TO 3RD PARTY SWD	DIDC.145		300,000						
Surface Rentals	DIDC.150	D/ICC.140	97,000	D/ICC.140	STIM.140	0	STIM.140	CON.140	137,000
Downhole Rentals	DIDC.155		131,000				STIM.145		35,000
Flowback Labor							STIM.141		0
Automation Labor									
Mud Logging	DIDC.170		5,000						
IPC & EXTERNAL PAINTING									
Cementing & Float Equipment	DIDC.185	D/ICC.155	70,000	D/ICC.155		140,000			
Tubular Inspections	DIDC.190	D/ICC.160	38,000	D/ICC.160	STIM.160	8,000	STIM.160		4,000
Casing Crews	DIDC.195	D/ICC.165	15,000	D/ICC.165	STIM.165	13,000	STIM.165		0
Mechanical Labor	DIDC.200	D/ICC.170	20,000	D/ICC.170	STIM.170	3,000	STIM.170	CON.170	0
Trucking/Transportation	DIDC.205	D/ICC.175	30,000	D/ICC.175	STIM.175	8,000	STIM.175	CON.175	4,000
Supervision	DIDC.210	D/ICC.180	81,000	D/ICC.180	STIM.180	13,000	STIM.180	CON.180	47,000
Trailer House/Camp/Catering	DIDC.280	D/ICC.255	36,000	D/ICC.255	STIM.280	5,000	STIM.280		31,000
Other Misc Expenses	DIDC.220	D/ICC.190	5,000	D/ICC.190	STIM.190	0	STIM.190	CON.190	85,000
Overhead	DIDC.225	D/ICC.195	5,000	D/ICC.195		5,000			
MOB/DEMOb	DIDC.240		115,000						
Directional Drilling Services	DIDC.245		307,000						
Solids Control	DIDC.260		46,000						
Well Control Equip (Snubbing)	DIDC.265	D/ICC.240	84,000	D/ICC.240	STIM.240	0	STIM.240		64,000
Completion Rig							STIM.115		21,000
Coil Tubing Services							STIM.260		0
Completion							STIM.200		257,000
Composite Plugs							STIM.390		39,000
Stimulation							STIM.210		2,245,000
Stimulation Water/Water							STIM.395		191,000
Cimarex Owned Frac/Rental							STIM.305		60,000
Legal/Regulatory/Curative	DIDC.300		10,000						
Well Control Insurance	DIDC.285		7,000						
Major Construction Overhead									
FL/GL - ON PAD LABOR									
FL/GL - Labor									
FL/GL - Supervision									
Survey									
SWD/Other - Labor									
SWD/Other - Supervision									
Aid In Construct/3rd Party Connect									
Contingency	DIDC.435	D/ICC.220	118,000	D/ICC.220	STIM.220	15,000	STIM.220	CON.220	165,000
Contingency									
<b>Total Intangible Cos</b>			<b>2,475,500</b>			<b>306,000</b>			<b>3,459,000</b>
Conductor Pipe	DWEB.130		0						
Water String	DWEB.135		104,000						
Surface Casing	DWEB.140		251,000						
Intermediate Casing 1	DWEB.145		0						
Production Casing or Liner				DWEA.100		792,000			
Tubing							STIMT.105		139,000
Wellhead, Tree, Chokes	DWEB.115	DWEA.120	38,000	DWEA.120	STIMT.120	18,000	STIMT.120		38,000
Liner Hanger, Isolation Packer	DWEB.100	DWEA.125	0	DWEA.125		0			
Packer, Nipples							STIMT.400		28,000
SHORT ORDERS									
PUMPS									
WALKOVERS									
Downhole Lift Equipment							STIMT.410		80,000
Surface Equipment									
Well Automation Materials									
N/C Lease Equipment									
Tanks, Tanks Steps, Stairs									
Battery Equipment									
Secondary Containments									
Overhead Power Distribution									
Facility Electrical									
Telecommunication Equipment									
Meters and Metering Equipment									
Facility Line Pipe									
Lease Automation Materials									
FL/GL - Materials									
FL/GL - Materials									
SWD/Other - Materials									
SWD/Other - Line Pipe									
<b>Total Tangible Cost</b>			<b>393,000</b>			<b>810,000</b>			<b>285,000</b>
<b>Total Estimated Cost</b>			<b>2,868,500</b>			<b>1,116,000</b>			<b>3,744,000</b>



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 303H

AFE # XXXXXXX

Description	Production Equip			Post Completion			Total
	Codes	Amount	Codes	Amount	Cost		
Roads & Location	CON.100	48,637	PCOM.100	3,000	74,637		
Damages	CON.105	15,807			32,307		
Mud/Fluids Disposal			PCOM.255	0	251,000		
Day Rate					564,000		
Misc Preparation					30,000		
Bits			PCOM.125	0	97,000		
Fuel			PCOM.130	0	119,000		
Water for Drilling Rig (Not Frac Water)			PCOM.135	0	25,000		
Mud & Additives					300,000		
SWD PIPED TO 3RD PARTY SWD WELL			PCOM.257	87,354	87,354		
Surface Rentals	CON.140	1,378	PCOM.140	60,000	295,378		
Downhole Rentals			PCOM.145	0	166,000		
Flowback Labor			PCOM.141	30,000	30,000		
Automation Labor	CON.150	36,558	PCOM.150	5,000	41,558		
Mud Logging					5,000		
IPC & EXTERNAL PAINTING	CON.165	18,888			18,888		
Cementing & Float Equipment					210,000		
Tubular Inspections			PCOM.160	0	50,000		
Casing Crews					28,000		
Mechanical Labor	CON.170	139,588	PCOM.170	5,000	167,588		
Trucking/Transportation	CON.175	17,833	PCOM.175	0	59,833		
Supervision	CON.180	21,238	PCOM.180	0	162,238		
Trailer House/Camp/Catering					72,000		
Other Misc Expenses	CON.190	24,318	PCOM.190	0	114,318		
Overhead					10,000		
MOB/DEMOB					115,000		
Directional Drilling Services					307,000		
Solids Control					46,000		
Well Control Equip (Snubbing Services)			PCOM.240	0	148,000		
Completion Rig			PCOM.115	0	21,000		
Coil Tubing Services			PCOM.260	0	0		
Completion Logging/Perforating/Wireline			PCOM.200	0	257,000		
Composite Plugs			PCOM.390	0	39,000		
Stimulation			PCOM.210	0	2,245,000		
Stimulation Water/Water Transfer/Water					191,000		
Cimarex Owned Frac/Rental Equipment			PCOM.305	0	60,000		
Legal/Regulatory/Curative	CON.300	0			10,000		
Well Control Insurance					7,000		
Major Construction Overhead	CON.305	26,507			26,507		
FL/GL - ON PAD LABOR	CON.495	37,613			37,613		
FL/GL - Labor	CON.500	94,842			94,842		
FL/GL - Supervision	CON.505	14,429			14,429		
Survey	CON.515	2,351			2,351		
SWD/Other - Labor	CON.600	0			0		
SWD/Other - Supervision	CON.605	0			0		
Aid In Construct/3rd Party Connect	CON.701	40,531			40,531		
Contingency	CON.220	105,542			403,542		
Contingency	CON.221	23,508			23,508		
<b>Total Intangible Cost</b>		<b>669,568</b>		<b>190,354</b>	<b>7,100,422</b>		
Conductor Pipe					0		
Water String					104,000		
Surface Casing					251,000		
Intermediate Casing 1					0		
Production Casing or Liner					792,000		
Tubing			PCOMT.105	0	139,000		
Wellhead, Tree, Chokes			PCOMT.120	10,000	104,000		
Liner Hanger, Isolation Packer					0		
Packer, Nipples			PCOMT.400	0	28,000		
SHORT ORDERS	CONT.380	10,538			10,538		
PUMPS	CONT.385	30,804			30,804		
WALKOVERS	CONT.390	4,053			4,053		
Downhole Lift Equipment			PCOMT.410	0	80,000		
Surface Equipment			PCOMT.420	15,000	15,000		
Well Automation Materials			PCOMT.455	5,000	5,000		
N/C Lease Equipment	CONT.400	184,334			184,334		
Tanks, Tanks Steps, Stairs	CONT.405	51,879			51,879		
Battery Equipment	CONT.410	214,003			214,003		
Secondary Containments	CONT.415	19,292			19,292		
Overhead Power Distribution	CONT.420	64,038			64,038		
Facility Electrical	CONT.425	32,100			32,100		
Telecommunication Equipment	CONT.426	486			486		
Meters and Metering Equipment	CONT.445	45,232			45,232		
Facility Line Pipe	CONT.450	31,208			31,208		
Lease Automation Materials	CONT.455	32,424			32,424		
FL/GL - Materials	CONT.550	21,400			21,400		
FL/GL - Line Pipe	CONT.555	48,637			48,637		
SWD/Other - Materials	CONT.650	0			0		
SWD/Other - Line Pipe	CONT.655	0			0		
<b>Total Tangible Cost</b>		<b>790,428</b>		<b>30,000</b>	<b>2,308,428</b>		
<b>Total Estimated Cost</b>		<b>1,459,996</b>		<b>220,354</b>	<b>9,408,850</b>		



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 304H

AFE # XXXXXXXX

Company Entity

Date Prepared  
8/17/2022

Exploration Region Permian Basin	Well Name Mighty Pheasant 5-8 Fed Com 304H	Prospect New Mexico Bone Spring	Property Number XXXXXX-XXX.01	AFE XXXXXXXX
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County, State Lea, NM	Location Section 5-8 T20S-R34E Lea, NM	Estimated Spud	Estimated Completion
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<input checked="" type="checkbox"/> New Supplement Revision	Formation 3rd Sand	Well Type DEV	Ttl Measured Depth 20340	Ttl Vertical Depth 10840
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Purpose: Drill and complete well  
Description:

Drilling The intended surface hold location for the well is 280 FSL and 1500 FEL of Section 32, T19S-R34E, and the intended bottom hole location is 100 FSL and 708 FEL of Section 8, T20S-R34E. The well is proposed to be drilled vertically to the 3rd Sand formation and laterally in a southerly direction within the formation to the referenced bottom hole location. Total vertical depth of the well is proposed to be approximately 10840 feet.

Intangible	Dry Hole	After Casing Point	Completed Well Cost
Drilling Costs	\$2,475,500		\$2,475,500
Completion Costs		\$4,624,922	\$4,624,922
<b>Total Intangible Cost</b>	<b>\$2,475,500</b>	<b>\$4,624,922</b>	<b>\$7,100,422</b>
Tangible	Dry Hole	After Casing Point	Completed Well Cost
Well Equipment	\$393,000	\$1,125,000	\$1,518,000
Lease Equipment		\$790,428	\$790,428
<b>Total Tangible Cost</b>	<b>\$393,000</b>	<b>\$1,915,428</b>	<b>\$2,308,428</b>
<b>Total Well Cost</b>	<b>\$2,868,500</b>	<b>\$6,540,350</b>	<b>\$9,408,850</b>

Comments On Well Costs

- All tubulars, well or lease equipment is priced by COPAS and CEPS guidelines using the Historic Price Multiplier.

Well Control Insurance

Unless otherwise indicated below, you, as a non-operating working interest owner, agree to be covered by Operator 's well control insurance procured by Operator so long as Operator conducts operations hereunder and to pay your prorated share of the premiums therefore. If you elect to purchase your own well control insurance, you must provide a certificate of such insurance acceptable to Operator, as to form and limits, at the time this AFE is returned, if available, but in no event later than commencement of drilling operations. You agree that failure to provide the certificate of insurance, as provided herein, will result in your being covered by insurance procured by Operator.

I elect to purchase my own well control insurance policy.

Marketing Election

Cimarex sells its gas under arm's-length contracts with third party purchasers. Such contracts may include fees. In addition, penalties may be incurred for insufficient volumes delivered over time. Should you choose to market your share of gas with Cimarex, you will be subject to all of the terms of such contracts. Upon written request to Cimarex's Marketing Department, we will share with you the terms and conditions pursuant to which gas will be sold. Failure to make an election below shall be deemed an election to market your gas with Cimarex under the terms and conditions set forth above.

I elect to take my gas in kind.

I elect to market my gas with Cimarex pursuant to the terms and conditions of its contract.

Comments on AFE

The above costs are estimates only and anticipate trouble free operations without any foreseeable change in plans. The actual costs may exceed the estimated costs without affecting the authorization for expenditure herein granted. By approval of this AFE, the working interest owner agrees to pay its proportionate share of actual legal, curative, regulatory and well costs under term of the joint operating agreement, regulatory order or other applicable agreement covering this well.

Nonoperator Approval

Company	Approved By (Print Name)	Approved By (Signature)	Date

NOTICE TO NONOPERATOR: Costs shown on this form are estimates only. By executing this AFE, the consenting party agrees to pay its proportionate share of actual costs incurred. Overhead will be charged in accordance with the Joint Operating Agreement.

7/16/2022



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 304H

AFE # XXXXXXX

Description	BCP - Drilling		ACP - Drilling		Comp/Stim		Production Equip		Post Completion		Total
	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Codes	Amount	Cost
Roads & Location	DIDC.100	20,000			STIM.100	3,000	CON.100	48,637	PCOM.100	3,000	74,637
Damages	DIDC.105	16,500					CON.105	15,807			32,307
Mud/Fluids Disposal	DIDC.255	200,000			STIM.255	51,000			PCOM.255	0	251,000
Day Rate	DIDC.115	468,000	DICC.120	96,000							564,000
Misc Preparation	DIDC.120	30,000									30,000
Bits	DIDC.125	97,000	DICC.125	0	STIM.125	0			PCOM.125	0	97,000
Fuel	DIDC.135	119,000	DICC.130	0					PCOM.130	0	119,000
Water for Drilling Rig (Not Frac Water)	DIDC.140	5,000	DICC.135	0	STIM.135	20,000			PCOM.135	0	25,000
Mud & Additives	DIDC.145	300,000									300,000
SWD PIPED TO 3RD PARTY SWD WELL									PCOM.257	87,354	87,354
Surface Rentals	DIDC.150	97,000	DICC.140	0	STIM.140	137,000	CON.140	1,378	PCOM.140	60,000	295,378
Downhole Rentals	DIDC.155	131,000			STIM.145	35,000			PCOM.145	0	166,000
Flowback Labor					STIM.141	0			PCOM.141	30,000	30,000
Automation Labor							CON.150	36,558	PCOM.150	5,000	41,558
Mud Logging	DIDC.170	5,000									5,000
IPC & EXTERNAL PAINTING							CON.165	18,888			18,888
Cementing & Float Equipment	DIDC.185	70,000	DICC.155	140,000							210,000
Tubular Inspections	DIDC.190	38,000	DICC.160	8,000	STIM.160	4,000			PCOM.160	0	50,000
Casing Crews	DIDC.195	15,000	DICC.165	13,000	STIM.165	0					28,000
Mechanical Labor	DIDC.200	20,000	DICC.170	3,000	STIM.170	0	CON.170	139,588	PCOM.170	5,000	167,588
Trucking/Transportation	DIDC.205	30,000	DICC.175	8,000	STIM.175	4,000	CON.175	17,833	PCOM.175	0	59,833
Supervision	DIDC.210	81,000	DICC.180	13,000	STIM.180	47,000	CON.180	21,238	PCOM.180	0	162,238
Trailer House/Camp/Catering	DIDC.280	36,000	DICC.255	5,000	STIM.280	31,000					72,000
Other Misc Expenses	DIDC.220	5,000	DICC.190	0	STIM.190	85,000	CON.190	24,318	PCOM.190	0	114,318
Overhead	DIDC.225	5,000	DICC.195	5,000							10,000
MOB/DEMOB	DIDC.240	115,000									115,000
Directional Drilling Services	DIDC.245	307,000									307,000
Solids Control	DIDC.260	46,000									46,000
Well Control Equip (Snubbing Services)	DIDC.265	84,000	DICC.240	0	STIM.240	64,000			PCOM.240	0	148,000
Completion Rig					STIM.115	21,000			PCOM.115	0	21,000
Coil Tubing Services					STIM.260	0			PCOM.260	0	0
Completion Logging/Perforating/Wireline					STIM.200	257,000			PCOM.200	0	257,000
Composite Plugs					STIM.390	39,000			PCOM.390	0	39,000
Stimulation					STIM.210	2,245,000			PCOM.210	0	2,245,000
Stimulation Water/Water Transfer/Water					STIM.395	191,000					191,000
Cimarex Owned Frac/Rental Equipment					STIM.305	60,000			PCOM.305	0	60,000
Legal/Regulatory/Curative	DIDC.300	10,000					CON.300	0			10,000
Well Control Insurance	DIDC.285	7,000									7,000
Major Construction Overhead							CON.305	26,507			26,507
FL/GL - ON PAD LABOR							CON.495	37,613			37,613
FL/GL - Labor							CON.500	94,842			94,842
FL/GL - Supervision							CON.505	14,429			14,429
Survey							CON.515	2,351			2,351
SWD/Other - Labor							CON.600	0			0
SWD/Other - Supervision							CON.605	0			0
Aid In Construct/3rd Party Connect							CON.701	40,531			40,531
Contingency	DIDC.435	118,000	DICC.220	15,000	STIM.220	165,000	CON.220	105,542	PCOM.220	0	403,542
Contingency							CON.221	23,508			23,508
<b>Total Intangible Cost</b>		<b>2,475,500</b>		<b>306,000</b>		<b>3,459,000</b>		<b>669,568</b>		<b>190,354</b>	<b>7,100,422</b>
Conductor Pipe	DWEB.130	0									0
Water String	DWEB.135	104,000									104,000
Surface Casing	DWEB.140	251,000									251,000
Intermediate Casing 1	DWEB.145	0									0
Production Casing or Liner			DWEA.100	792,000							792,000
Tubing					STIMT.105	139,000			PCOMT.105	0	139,000
Wellhead, Tree, Chokes	DWEB.115	38,000	DWEA.120	18,000	STIMT.120	38,000			PCOMT.120	10,000	104,000
Liner Hanger, Isolation Packer	DWEB.100	0	DWEA.125	0							0
Packer, Nipples					STIMT.400	28,000			PCOMT.400	0	28,000
SHORT ORDERS							CONT.380	10,538			10,538
PUMPS							CONT.385	30,804			30,804
WALKOVERS							CONT.390	4,053			4,053
Downhole Lift Equipment					STIMT.410	80,000			PCOMT.410	0	80,000
Surface Equipment									PCOMT.420	15,000	15,000
Well Automation Materials									PCOMT.455	5,000	5,000
N/C Lease Equipment							CONT.400	184,334			184,334
Tanks, Tanks Steps, Stairs							CONT.405	51,879			51,879
Battery Equipment							CONT.410	214,003			214,003
Secondary Containments							CONT.415	19,292			19,292
Overhead Power Distribution							CONT.420	64,038			64,038
Facility Electrical							CONT.425	32,100			32,100
Telecommunication Equipment							CONT.426	486			486
Meters and Metering Equipment							CONT.445	45,232			45,232
Facility Line Pipe							CONT.450	31,208			31,208
Lease Automation Materials							CONT.455	32,424			32,424
FL/GL - Materials							CONT.550	21,400			21,400
FL/GL - Line Pipe							CONT.555	48,637			48,637
SWD/Other - Materials							CONT.650	0			0
SWD/Other - Line Pipe							CONT.655	0			0
<b>Total Tangible Cost</b>		<b>393,000</b>		<b>810,000</b>		<b>285,000</b>		<b>790,428</b>		<b>30,000</b>	<b>2,308,428</b>
<b>Total Estimated Cost</b>		<b>2,868,500</b>		<b>1,116,000</b>		<b>3,744,000</b>		<b>1,459,996</b>		<b>220,354</b>	<b>9,408,850</b>



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 304H

AFE # XXXXXXX

Description	BCP - Drilling			ACP - Drilling			Comp/Stim		
	Codes		Amount	Codes		Amount	Codes		Amount
Roads & Location	DIDC.100		20,000				STIM.100	CON.100	3,000
Damages	DIDC.105		16,500						
Mud/Fluids Disposal	DIDC.255		200,000				STIM.255		51,000
Day Rate	DIDC.115	DICC.120	468,000	DICC.120		96,000			
Misc Preparation	DIDC.120		30,000						
Bits	DIDC.125	DICC.125	97,000	DICC.125	STIM.125	0	STIM.125		0
Fuel	DIDC.135	DICC.130	119,000	DICC.130		0			
Water for Drilling Rig (Not Frac)	DIDC.140	DICC.135	5,000	DICC.135	STIM.135	0	STIM.135		20,000
Mud & Additives	DIDC.145		300,000						
SWD PIPED TO 3RD PARTY SWD									
Surface Rentals	DIDC.150	DICC.140	97,000	DICC.140	STIM.140	0	STIM.140	CON.140	137,000
Downhole Rentals	DIDC.155		131,000				STIM.145		35,000
Flowback Labor							STIM.141		0
Automation Labor									
Mud Logging	DIDC.170		5,000						
IPC & EXTERNAL PAINTING									
Cementing & Float Equipment	DIDC.185	DICC.155	70,000	DICC.155		140,000			
Tubular Inspections	DIDC.190	DICC.160	38,000	DICC.160	STIM.160	8,000	STIM.160		4,000
Casing Crews	DIDC.195	DICC.165	15,000	DICC.165	STIM.165	13,000	STIM.165		0
Mechanical Labor	DIDC.200	DICC.170	20,000	DICC.170	STIM.170	3,000	STIM.170	CON.170	0
Trucking/Transportation	DIDC.205	DICC.175	30,000	DICC.175	STIM.175	8,000	STIM.175	CON.175	4,000
Supervision	DIDC.210	DICC.180	81,000	DICC.180	STIM.180	13,000	STIM.180	CON.180	47,000
Trailer House/Camp/Catering	DIDC.280	DICC.255	36,000	DICC.255	STIM.280	5,000	STIM.280		31,000
Other Misc Expenses	DIDC.220	DICC.190	5,000	DICC.190	STIM.190	0	STIM.190	CON.190	85,000
Overhead	DIDC.225	DICC.195	5,000	DICC.195		5,000			
MOB/DEMOB	DIDC.240		115,000						
Directional Drilling Services	DIDC.245		307,000						
Solids Control	DIDC.260		46,000						
Well Control Equip (Snubbing)	DIDC.265	DICC.240	84,000	DICC.240	STIM.240	0	STIM.240		64,000
Completion Rig							STIM.115		21,000
Coil Tubing Services							STIM.260		0
Completion							STIM.200		257,000
Composite Plugs							STIM.390		39,000
Stimulation							STIM.210		2,245,000
Stimulation Water/Water							STIM.395		191,000
Cimarex Owned Frac/Rental							STIM.305		60,000
Legal/Regulatory/Curative	DIDC.300		10,000						
Well Control Insurance	DIDC.285		7,000						
Major Construction Overhead									
FL/GL - ON PAD LABOR									
FL/GL - Labor									
FL/GL - Supervision									
Survey									
SWD/Other - Labor									
SWD/Other - Supervision									
Aid In Construct/3rd Party Connect									
Contingency	DIDC.435	DICC.220	118,000	DICC.220	STIM.220	15,000	STIM.220	CON.220	165,000
Contingency									
<b>Total Intangible Cos</b>			<b>2,475,500</b>			<b>306,000</b>			<b>3,459,000</b>
Conductor Pipe	DWEB.130		0						
Water String	DWEB.135		104,000						
Surface Casing	DWEB.140		251,000						
Intermediate Casing 1	DWEB.145		0						
Production Casing or Liner				DWEA.100		792,000			
Tubing							STIMT.105		139,000
Wellhead, Tree, Chokes	DWEB.115	DWEA.120	38,000	DWEA.120	STIMT.120	18,000	STIMT.120		38,000
Liner Hanger, Isolation Packer	DWEB.100	DWEA.125	0	DWEA.125		0			
Packer, Nipples							STIMT.400		28,000
SHORT ORDERS									
PUMPS									
WALKOVERS									
Downhole Lift Equipment							STIMT.410		80,000
Surface Equipment									
Well Automation Materials									
N/C Lease Equipment									
Tanks, Tanks Steps, Stairs									
Battery Equipment									
Secondary Containments									
Overhead Power Distribution									
Facility Electrical									
Telecommunication Equipment									
Meters and Metering Equipment									
Facility Line Pipe									
Lease Automation Materials									
FL/GL - Materials									
FL/GL - Materials									
SWD/Other - Materials									
SWD/Other - Line Pipe									
<b>Total Tangible Cost</b>			<b>393,000</b>			<b>810,000</b>			<b>285,000</b>
<b>Total Estimated Cost</b>			<b>2,868,500</b>			<b>1,116,000</b>			<b>3,744,000</b>



Authorization For Expenditure - Mighty Pheasant 5-8 Fed Com 304H

AFE # XXXXXXX

Description	Production Equip		Post Completion		Total	
	Codes	Amount	Codes	Amount	Cost	
Roads & Location	CON.100	48,637	PCOM.100	Repair any roads post D&C	3,000	74,637
Damages	CON.105	15,807				32,307
Mud/Fluids Disposal			PCOM.255		0	251,000
Day Rate						564,000
Misc Preparation						30,000
Bits			PCOM.125		0	97,000
Fuel			PCOM.130		0	119,000
Water for Drilling Rig (Not Frac Water)			PCOM.135		0	25,000
Mud & Additives						300,000
SWD PIPED TO 3RD PARTY SWD WELL			PCOM.257	Water for 60 days (270K barrels)	87,354	87,354
Surface Rentals	CON.140	1,378	PCOM.140	Iron. XEC Own 5K. No 10K. \$1,100 per day	60,000	295,378
Downhole Rentals			PCOM.145		0	166,000
Flowback Labor			PCOM.141	3 Flowback Hands (60 days). 25%	30,000	30,000
Automation Labor	CON.150	36,558	PCOM.150		5,000	41,558
Mud Logging						5,000
IPC & EXTERNAL PAINTING	CON.165	18,888				18,888
Cementing & Float Equipment						210,000
Tubular Inspections			PCOM.160		0	50,000
Casing Crews						28,000
Mechanical Labor	CON.170	139,588	PCOM.170	RU Flowback Iron & Automation	5,000	167,588
Trucking/Transportation	CON.175	17,833	PCOM.175		0	59,833
Supervision	CON.180	21,238	PCOM.180		0	162,238
Trailer House/Camp/Catering						72,000
Other Misc Expenses	CON.190	24,318	PCOM.190		0	114,318
Overhead						10,000
MOB/DEMOB						115,000
Directional Drilling Services						307,000
Solids Control						46,000
Well Control Equip (Snubbing Services)			PCOM.240		0	148,000
Completion Rig			PCOM.115		0	21,000
Coil Tubing Services			PCOM.260		0	0
Completion Logging/Perforating/Wireline			PCOM.200		0	257,000
Composite Plugs			PCOM.390		0	39,000
Stimulation			PCOM.210		0	2,245,000
Stimulation Water/Water Transfer/Water						191,000
Cimarex Owned Frac/Rental Equipment			PCOM.305		0	60,000
Legal/Regulatory/Curative	CON.300	0				10,000
Well Control Insurance						7,000
Major Construction Overhead	CON.305	26,507				26,507
FL/GL - ON PAD LABOR	CON.495	37,613				37,613
FL/GL - Labor	CON.500	94,842				94,842
FL/GL - Supervision	CON.505	14,429				14,429
Survey	CON.515	2,351				2,351
SWD/Other - Labor	CON.600	0				0
SWD/Other - Supervision	CON.605	0				0
Aid In Construct/3rd Party Connect	CON.701	40,531				40,531
Contingency	CON.220	105,542				403,542
Contingency	CON.221	23,508				23,508
<b>Total Intangible Cost</b>		<b>669,568</b>			<b>190,354</b>	<b>7,100,422</b>
Conductor Pipe						0
Water String						104,000
Surface Casing						251,000
Intermediate Casing 1						0
Production Casing or Liner						792,000
Tubing			PCOMT.105		0	139,000
Wellhead, Tree, Chokes			PCOMT.120	Replace worn chokes and valves during FB	10,000	104,000
Liner Hanger, Isolation Packer						0
Packer, Nipples			PCOMT.400		0	28,000
SHORT ORDERS	CONT.380	10,538				10,538
PUMPS	CONT.385	30,804				30,804
WALKOVERS	CONT.390	4,053				4,053
Downhole Lift Equipment			PCOMT.410		0	80,000
Surface Equipment			PCOMT.420	Replacing Chokes, Stuffing Boxes, and all	15,000	15,000
Well Automation Materials			PCOMT.455	PTs, and replacing meters	5,000	5,000
N/C Lease Equipment	CONT.400	184,334				184,334
Tanks, Tanks Steps, Stairs	CONT.405	51,879				51,879
Battery Equipment	CONT.410	214,003				214,003
Secondary Containments	CONT.415	19,292				19,292
Overhead Power Distribution	CONT.420	64,038				64,038
Facility Electrical	CONT.425	32,100				32,100
Telecommunication Equipment	CONT.426	486				486
Meters and Metering Equipment	CONT.445	45,232				45,232
Facility Line Pipe	CONT.450	31,208				31,208
Lease Automation Materials	CONT.455	32,424				32,424
FL/GL - Materials	CONT.550	21,400				21,400
FL/GL - Line Pipe	CONT.555	48,637				48,637
SWD/Other - Materials	CONT.650	0				0
SWD/Other - Line Pipe	CONT.655	0				0
<b>Total Tangible Cost</b>		<b>790,428</b>			<b>30,000</b>	<b>2,308,428</b>
<b>Total Estimated Cost</b>		<b>1,459,996</b>			<b>220,354</b>	<b>9,408,850</b>

A.A.P.L. FORM 610 - 1989

**MODEL FORM OPERATING AGREEMENT**

OPERATING AGREEMENT

DATED

August 15 , 2022 ,  
year

OPERATOR Cimarex Energy Co.

CONTRACT AREA All Section 5 and Section 8, Township 20 South, Range 34 East

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

COUNTY OR PARISH OF Lea , STATE OF New Mexico

**MIGHTY PHEASANT 5-8 FED COM WELLS**

COPYRIGHT 1989 – ALL RIGHTS RESERVED  
AMERICAN ASSOCIATION OF PETROLEUM  
LANDMEN, 4100 FOSSIL CREEK BLVD.  
FORT WORTH, TEXAS, 76137, APPROVED FORM.

A.A.P.L. NO. 610 – 1989



- human resources
- management
- supervision not directly charged under Section II.2 (*Labor*)
- legal services not directly chargeable under Section II.9 (*Legal Expense*)
- taxation, other than those costs identified as directly chargeable under Section II.10 (*Taxes and Permits*)
- preparation and monitoring of permits and certifications; preparing regulatory reports; appearances before or meetings with governmental agencies or other authorities having jurisdiction over the Joint Property, other than On-site inspections; reviewing, interpreting, or submitting comments on or lobbying with respect to Laws or proposed Laws.

Overhead charges shall include the salaries or wages plus applicable payroll burdens, benefits, and Personal Expenses of personnel performing overhead functions, as well as office and other related expenses of overhead functions.

## 1. OVERHEAD—DRILLING AND PRODUCING OPERATIONS

As compensation for costs incurred but not chargeable under Section II (*Direct Charges*) and not covered by other provisions of this Section III, the Operator shall charge on either:

- (Alternative 1) Fixed Rate Basis, Section III.1.B.
- (Alternative 2) Percentage Basis, Section III.1.C.

### A. TECHNICAL SERVICES

- (i) Except as otherwise provided in Section II.13 (*Ecological Environmental, and Safety*) and Section III.2 (*Overhead – Major Construction and Catastrophe*), or by approval of the Parties pursuant to Section I.6.A (*General Matters*), the salaries, wages, related payroll burdens and benefits, and Personal Expenses for **On-site** Technical Services, including third party Technical Services:

- (Alternative 1 – Direct) shall be charged direct to the Joint Account.
- (Alternative 2 – Overhead) shall be covered by the overhead rates.

- (ii) Except as otherwise provided in Section II.13 (*Ecological, Environmental, and Safety*) and Section III.2 (*Overhead – Major Construction and Catastrophe*), or by approval of the Parties pursuant to Section I.6.A (*General Matters*), the salaries, wages, related payroll burdens and benefits, and Personal Expenses for **Off-site** Technical Services, including third party Technical Services:

- (Alternative 1 – All Overhead) shall be covered by the overhead rates.
- (Alternative 2 – All Direct) shall be charged direct to the Joint Account.
- (Alternative 3 – Drilling Direct) shall be charged direct to the Joint Account, only to the extent such Technical Services are directly attributable to drilling, re-drilling, deepening, or sidetracking operations, through completion, temporary abandonment, or abandonment if a dry hole. Off-site Technical Services for all other operations, including workover, recompletion, abandonment of producing wells, and the construction or expansion of fixed assets not covered by Section III.2 (*Overhead - Major Construction and Catastrophe*) shall be covered by the overhead rates.

Notwithstanding anything to the contrary in this Section III, Technical Services provided by Operator's Affiliates are subject to limitations set forth in Section II.7 (*Affiliates*). Charges for Technical personnel performing non-technical work shall not be governed by this Section III.1.A, but instead governed by other provisions of this Accounting Procedure relating to the type of work being performed.

### B. OVERHEAD—FIXED RATE BASIS

- (1) The Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate per month \$ 8,000.00 (prorated for less than a full month)

Producing Well Rate per month \$ 800.00

- (2) Application of Overhead—Drilling Well Rate shall be as follows:

- (a) Charges for onshore drilling wells shall begin on the spud date and terminate on the date the drilling and/or completion equipment used on the well is released, whichever occurs later. Charges for offshore and inland waters drilling wells shall begin on the date the drilling or completion equipment arrives on location and terminate on the date the drilling or completion equipment moves off location, or is released, whichever occurs first. No charge shall be made during suspension of drilling and/or completion operations for fifteen (15) or more consecutive calendar days.

## **Chronology of Contacts with Non-Joined Working Interest Owners**

Sent all Working Interest Owners Well Proposals with a copy of the proposed Operating Agreement. Followed up with emails and phone calls.

### **Read and Stevens-**

10/2021 – Reached out to Harrison Read, Vice President of Land and Business Development for Read and Stevens to have an in-person meeting over the development of the area.

1/24/22 – Reached out to Harrison with no response.

2/18/22-3/31/22 – Received response from Harrison with a few dates, none of which were viable and attempted to reschedule. Meeting never took place.

8/25/22- Elections were sent to Read and Stevens for both developments.

**Permian Resources-** We were notified Permian Resources had acquired Read and Stevens Inc. and were open to talks.

March 1-7, 2023 – Met with Travis Macha and Skyler Fast from Permian Resources to exchange information on potential trade tracts.

March 15, 2023 – Sent email about separate contested hearing to “trade out of each others way”. PR was still evaluating the trade.

April 27, 2023- Sent a follow up Email to Travis Macha, Skyler Fast, Mark Hajdik on trade tracts.

April 28, 2023- Emails exchanged to have a follow up in-person meeting of the minds.

May 18, 2023- Meeting with Bob Heller, Travis Macha and Patrick Godwin from Permian Resources and Dylan Park from Coterra to discuss other potential trade tracts.

May 25, 2023- Call with Travis Macha to discuss next steps on potential trade.

June 1 2023- Emails/discussions with Travis Macha on a potential 3 company trade.

June 6, 2023- Follow up to 3 company trade.

June 20, 2023- Followed up on 3 company trade, decision made to move forward with hearing

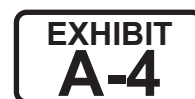
### **HOG Partnership**

9/7/22 – Email Discussion about proposals received

9/8/22 – Email discussion about proposals received

### **Challenger Crude (Henry Resources)**

9/27/22 – Discussed election timing and general development plan after receipt of proposals with Kymberly Holman



3/23/23 – Discussed ownership figures for both developments

4/3/23 – Confirmed that we received executed Operating Agreements from Challenger and elections back

6/16/23- Discussed supplemental Wolfcamp notice that was sent

7/10/23 – Phone call with Kymberly to update her on hearing moving forward.

**Randall Hudson, Edward Hudson, Javelina Partners, Zorro Partners, William Hudson II (Hudson Group)**

2/9/22 – Email discussion to communicate plans to develop both developments in which the Hudson group owns

6/2/22– Updated the Hudson Group of our AFE's and full development of the leasehold

8/25/22 – Let the groups know that proposals were heading their way

10/26/22 – Confirmed each entities interest via email to confirm with what ownership they were showing

2/7/23 – Discussed with Randall and Edward about potential trades that may come of the Permian Resources acquisition and next steps for pooling

3/7/23 – Provided Randall and Edward with timing of development in order for them to secure a term assignment from Lindy's Living Trust

3/22/23 – Sent OA's for their files and confirmed they were executed

6/26/23 – Met with Randall and Edward with Lea Team to discuss fine details of plans and landing zones etc.

**Frost Bank, Trustee of the Josephine T. Hudson Testamentary Trust FBO J. Terrell Ard**

2/10/23- Spoke to Brad Ince about a potential Term Assignment and terms for the trust

2/14/23- Sent an email to Brad Ince at Frost bank to confirm best time to negotiate and hash out terms of the contract

4/17/23 – Sent an email with the Term assignment form for redline and review

5/18/23 – Email exchange to discuss best time for a call

5/20/23 – Call with Brad to confirm details of the Term assignment

6/9/23 – Sent changes to form along with Net acre figures to calculate bonus payment

6/27/23 – Forwarded Staci's information for geologic questions concerning the development

7/10-12/23- Provided Debbie Dorsett with AFE's and other information to get the Term assignment routed.

**Ard Oil LTD.**

10/19/22- Received email from Reid Marley to discuss Loosey Goosey and Mighty Pheasant proposals and discussed with development plan and path Coterra would be making forward

2/27/23- Phone call with Reid to discuss term assignment offer and provided Operating agreements via email

7/10/23 – Discussed development timing with Reid

7/11/23 – Reid emailed that he would like to not be considered committed

**Chase Oil Corporation**

9/12/22 – Received email from Morgan Buckles confirming receipt of the proposals.

9/12/22 – Phone call with Morgan Buckles to discuss proposals and plan of development

6/7/23 – Received email from Morgan Buckles stating that they would like to sign AFE's and move forward with the operator the OCD decides post hearing.

**Wilbanks Reserve Corporation/Marks Oil**

9/1/22 – Phone call with Hannah Frederick confirming receipt of the proposals and request to confirm interest in the contract area

9/6/22- Received email from Hannah Frederick following up on working interest figures and sent ownership at the time

9/27/22 – Email correspondence to set up a phone call to discuss moving forward with title run

11/3/22 – Discussion of timing for force pooling filing and next steps

1/30/23 – Discussed Permian Resources development and proposals in the area

2/22/23 – Reached out to determine if Wilbanks Reserve had signed OA's. Hannah mentioned she would bring this up to upper management and get a decision since there was traction on development

7/10/23 – Confirmed DOTO figures with Hannah

7/11/23 – Wilbanks Reserve would like to wait until the Commission has made a decision on operator

**Union Hill Oil and Gas**

3/1/23- Spoke with Robert Buchholz about proposals he received

3/1/23 – Sent Robert the corresponding Operating agreements for both developments and provided ownership

**Highland Texas Energy Company and Richardson Oil Company**

10/11/22- Received elections back from Gary Richardson for the development

3/9/23 – Followed up with Gary to confirm they would like to participate under the OA

3/21/23 – Discussed force pooling matters via email

Moore & Shelton Co. LLP  
P.O. Box 3070  
Galveston, Texas 77552

July 10, 2023

New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**Re: Application of Cimarex Energy Co. for Horizontal Spacing Unit and Compulsory Pooling in Case Nos. 23448 23449 23450 23451 23452 23453 23454 23455 23594 23595 23596 23597 23598 23599 23600 23601**

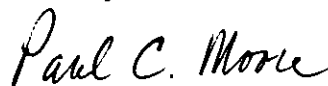
To Whom it May Concern:

Moore & Shelton Co. LLP of Galveston, Texas is a working interest owner in Eddy and Lea Counties and has interests in all of sections 4, 5, 8 & 9 of T20S-R34E, Lea County. Moore & Shelton owns interests in over 40 wells in Eddy and Lea Counties.

We have been extremely pleased with Cimarex representing our interests and believe Cimarex has the most and best experience to efficiently develop these properties.

Moore & Shelton Co. LLP therefore supports Cimarex' application and requests that the Division rule in their favor.

Sincerely,



Paul Moore  
Moore & Shelton Co. LLP  
General Partner

EXHIBIT  
A-5

**JAVELINA PARTNERS & ZORRO PARTNERS LTD**

616 TEXAS STREET  
FORT WORTH, TX 76102  
(817) 336-7109

July 7, 2023

New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**Re: Applications of Cimarex Energy Co. for Horizontal Spacing Unit and  
Compulsory Pooling  
Case Nos.**

**23448 23449 23450 23451 23452 23453 23454 23455 23594 23595 23596 23597  
23598 23599 23600 23601**

Ladies and Gentlemen,

Javelina Partners and Zorro Partners LTD are working interest owners in the referenced Applications and Case Nos, which collectively cover all of sections 4, 5, 8 & 9 of T20S – R34E, Lea County ('the Acreage').

There are competing Applications for the Bone Spring and Wolfcamp formations in the referenced Applications and Case Nos.

Javelina Partners and Zorro Partners LTD own interests in approximately 105,000 gross leasehold acres in Eddy & Lea Counties. Over the last 3.5 years, Javelina Partners and Zorro Partners LTD have participated in the drilling of over 130 horizontal Bone Spring and Wolfcamp wells, with seven different operators, in Eddy & Lea Counties.

Cimarex Energy Co. is the Operator of a JOA which covers 75% of the Acreage, and includes the Bone Spring and Wolfcamp formations.

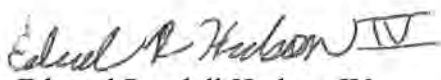
**JAVELINA PARTNERS & ZORRO PARTNERS LTD**

616 TEXAS STREET  
FORT WORTH, TX 76102  
(817) 336-7109

It is our opinion that Cimarex Energy Co. has accurately analyzed the nature of the geology between the 3<sup>rd</sup> Bone Spring and Upper Wolfcamp and offers a superior plan that develops the total reservoir tank, which includes both the 3<sup>rd</sup> Bone Spring Sand and the Upper Wolfcamp Sands without having to drill additional costly and unnecessary wells, thus, representing the best use of both drilling capital and surface acres in comparison with competing applications.

Javelina Partners and Zorro Partners LTD therefore support Cimarex Energy Co.'s Applications covering the referenced Horizontal Spacing Units and Case Nos in both the Bone Spring and Wolfcamp formations, and respectfully request that the Division rule accordingly.

Sincerely,



Edward Randall Hudson IV  
Javelina Partners  
Land Manager



William A. Hudson II  
Zorro Partners LTD  
Managing Partner

**Re: Applications of Cimarex Energy Co. for Horizontal Spacing Unit and Compulsory Pooling**

**Case Nos.**

**23448 23449 23450 23451 23452 23453 23454 23455 23594 23595 23596 23597  
23598 23599 23600 23601**





300 N. MARIENFELD STREET, SUITE 1000  
MIDLAND, TX 79701

OFFICE 432.695.4222  
FAX 432.695.4063

RECEIVED

March 17, 2023

Via Certified Mail

MAR 20 2023

92148902956265901602225706

Magnum Hunter Production, Inc.  
600 N. Marienfeld St, Suite 600  
Midland, TX 79701

COTERRA ENERGY

RE: **Joker 5-8 Federal Com – Well Proposals**  
Sections 5 & 8, T20S-R34E  
Lea County, New Mexico

To Whom It May Concern:

Permian Resources Operating, LLC, as operator for Read & Stevens, Inc. ("Permian"), hereby proposes the drilling and completion of the following twenty-four (24) wells, the Joker 5-8 Federal Com wells at approximate locations within Township 20 South, Range 34 East:

FIRST BONE SPRING FORMATION:

1. **Joker 5-8 Federal Com 111H - (West Pad)**  
 SHL: 380' FNL & 2,179' FWL (or at a legal location in Lot 3) of Section 5  
 FTP: 100' FNL & 330' FWL of Section 5  
 LTP: 100' FSL & 330' FWL of Section 8  
 BHL: 10' FSL & 330' FWL of Section 8  
 Standard Spacing Unit: Lot 4, SWNW, W2SW of Section 5, W2W2 of Section 8, T20S-R34E  
 TVD: 9,576'  
 TMD: 19,861'
2. **Joker 5-8 Federal Com 112H – (West Pad)**  
 SHL: 380' FNL & 2,212' FWL (or at a legal location in Lot 3) of Section 5  
 FTP: 100' FNL & 1,650' FWL of Section 5  
 LTP: 100' FSL & 1,650' FWL of Section 8  
 BHL: 10' FSL & 1,650' FWL of Section 8  
 Standard Spacing Unit: Lot 3, SENW, E2SW of Section 5, E2W2 of Section 8, T20S-R34E  
 TVD: 9,596'  
 TMD: 19,881'
3. **Joker 5-8 Federal Com 113H – (East Pad)**  
 SHL: 380' FNL & 2,005' FEL (or at a legal location in Lot 2) of Section 5  
 FTP: 100' FNL & 2,310' FEL of Section 5  
 LTP: 100' FSL & 2,310' FEL of Section 8  
 BHL: 10' FSL & 2,310' FEL of Section 8  
 Standard Spacing Unit: Lot 2, SWNE, W2SE of Section 5, W2E2 of Section 8, T20S-R34E  
 TVD: 9,616'  
 TMD: 19,901'



- 4. Joker 5-8 Federal Com 114H – (East Pad)**  
SHL: 380' FNL & 1,840' FEL (or at a legal location in Lot 2) of Section 5  
FTP: 100' FNL & 990' FEL of Section 5  
LTP: 100' FSL & 990' FEL of Section 8  
BHL: 10' FSL & 990' FEL of Section 8  
Standard Spacing Unit: Lot 1, SENE, E2SE of Section 5, E2E2 of Section 8, T20S-R34E  
TVD: 9,616'  
TMD: 19,901'

**SECOND BONE SPRING FORMATION:**

- 5. Joker 5-8 Federal Com 121H - (West Pad)**  
SHL: 380' FNL & 2,245' FWL (or at a legal location in Lot 3) of Section 5  
FTP: 100' FNL & 330' FWL of Section 5  
LTP: 100' FSL & 330' FWL of Section 8  
BHL: 10' FSL & 330' FWL of Section 8  
Standard Spacing Unit: Lot 4, SWNW, W2SW of Section 5, W2W2 of Section 8, T20S-R34E  
TVD: 10,316'  
TMD: 20,601'
- 6. Joker 5-8 Federal Com 122H - (West Pad)**  
SHL: 380' FNL & 2,278' FWL (or at a legal location in Lot 3) of Section 5  
FTP: 100' FNL & 990' FWL of Section 5  
LTP: 100' FSL & 990' FWL of Section 8  
BHL: 10' FSL & 990' FWL of Section 8  
Standard Spacing Unit: Lot 4, SWNW, W2SW of Section 5, W2W2 of Section 8, T20S-R34E  
TVD: 9,981'  
TMD: 20,266'
- 7. Joker 5-8 Federal Com 123H - (West Pad)**  
SHL: 380' FNL & 2,311' FWL (or at a legal location in Lot 3) of Section 5  
FTP: 100' FNL & 1,650' FWL of Section 5  
LTP: 100' FSL & 1,650' FWL of Section 8  
BHL: 10' FSL & 1,650' FWL of Section 8  
Standard Spacing Unit: Lot 3, SENW, E2SW of Section 5, E2W2 of Section 8, T20S-R34E  
TVD: 10,296'  
TMD: 20,581'
- 8. Joker 5-8 Federal Com 124H - (West Pad)**  
SHL: 380' FNL & 2,344' FWL (or at a legal location in Lot 3) of Section 5  
FTP: 100' FNL & 2,310' FWL of Section 5  
LTP: 100' FSL & 2,310' FWL of Section 8  
BHL: 10' FSL & 2,310' FWL of Section 8  
Standard Spacing Unit: Lot 3, SENW, E2SW of Section 5, E2W2 of Section 8, T20S-R34E  
TVD: 9,971'  
TMD: 20,256'

- 9. Joker 5-8 Federal Com 125H - (East Pad)**  
SHL: 380' FNL & 1,972' FEL (or at a legal location in Lot 2) of Section 5  
FTP: 100' FNL & 2,310' FEL of Section 5  
LTP: 100' FSL & 2,310' FEL of Section 8  
BHL: 10' FSL & 2,310' FEL of Section 8  
Standard Spacing Unit: Lot 2, SWNE, W2SE of Section 5, W2E2 of Section 8, T20S-R34E  
TVD: 10,286'  
TMD: 20,571'
- 10. Joker 5-8 Federal Com 126H - (East Pad)**  
SHL: 380' FNL & 1,939' FEL (or at a legal location in Lot 2) of Section 5  
FTP: 100' FNL & 1,650' FEL of Section 5  
LTP: 100' FSL & 1,650' FEL of Section 8  
BHL: 10' FSL & 1,650' FEL of Section 8  
Standard Spacing Unit: Lot 2, SWNE, W2SE of Section 5, W2E2 of Section 8, T20S-R34E  
TVD: 9,961'  
TMD: 20,256'
- 11. Joker 5-8 Federal Com 127H - (East Pad)**  
SHL: 380' FNL & 1,906' FEL (or at a legal location in Lot 2) of Section 5  
FTP: 100' FNL & 990' FEL of Section 5  
LTP: 100' FSL & 990' FEL of Section 8  
BHL: 10' FSL & 990' FEL of Section 8  
Standard Spacing Unit: Lot 1, SENE, E2SE of Section 5, E2E2 of Section 8, T20S-R34E  
TVD: 10,286'  
TMD: 20,571'
- 12. Joker 5-8 Federal Com 128H - (East Pad)**  
SHL: 380' FNL & 1,873' FEL (or at a legal location in Lot 2) of Section 5  
FTP: 100' FNL & 330' FEL of Section 5  
LTP: 100' FSL & 330' FEL of Section 8  
BHL: 10' FSL & 330' FEL of Section 8  
Standard Spacing Unit: Lot 1, SENE, E2SE of Section 5, E2E2 of Section 8, T20S-R34E  
TVD: 9,961'  
TMD: 20,256'

**THIRD BONE SPRING CARB (HARKEY) FORMATION:**

- 13. Joker 5-8 Federal Com 171H - (West Pad)**  
SHL: 250' FNL & 2,179' FWL (or at a legal location in Lot 3) of Section 5  
FTP: 100' FNL & 990' FWL of Section 5  
LTP: 100' FSL & 990' FWL of Section 8  
BHL: 10' FSL & 990' FWL of Section 8  
Standard Spacing Unit: Lot 4, SWNW, W2SW of Section 5, W2W2 of Section 8, T20S-R34E  
TVD: 10,451'  
TMD: 20,736'
- 14. Joker 5-8 Federal Com 172H - (West Pad)**  
SHL: 250' FNL & 2,344' FWL (or at a legal location in Lot 3) of Section 5  
FTP: 100' FNL & 2,310' FWL of Section 5  
LTP: 100' FSL & 2,310' FWL of Section 8  
BHL: 10' FSL & 2,310' FWL of Section 8  
Standard Spacing Unit: Lot 3, SENW, E2SW of Section 5, E2W2 of Section 8, T20S-R34E  
TVD: 10,446'  
TMD: 20,731'

**15. Joker 5-8 Federal Com 173H - (East Pad)**

SHL: 250' FNL & 2,005' FEL (or at a legal location in Lot 2) of Section 5  
FTP: 100' FNL & 1,650' FEL of Section 5  
LTP: 100' FSL & 1,650' FEL of Section 8  
BHL: 10' FSL & 1,650' FEL of Section 8  
Standard Spacing Unit: Lot 2, SWNE, W2SE of Section 5, W2E2 of Section 8, T20S-R34E  
TVD: 10,436'  
TMD: 20,721'

**16. Joker 5-8 Federal Com 174H - (East Pad)**

SHL: 250' FNL & 1,840' FEL (or at a legal location in Lot 2) of Section 5  
FTP: 100' FNL & 330' FEL of Section 5  
LTP: 100' FSL & 330' FEL of Section 8  
BHL: 10' FSL & 330' FEL of Section 8  
Standard Spacing Unit: Lot 1, SENE, E2SE of Section 5, E2E2 of Section 8, T20S-R34E  
TVD: 10,416'  
TMD: 20,701'

**THIRD BONE SPRING FORMATION:**

**17. Joker 5-8 Federal Com 131H - (West Pad)**

SHL: 250' FNL & 2,212' FWL (or at a legal location in Lot 3) of Section 5  
FTP: 100' FNL & 330' FWL of Section 5  
LTP: 100' FSL & 330' FWL of Section 8  
BHL: 10' FSL & 330' FWL of Section 8  
Standard Spacing Unit: Lot 4, SWNW, W2SW of Section 5, W2W2 of Section 8, T20S-R34E  
TVD: 10,831'  
TMD: 21,116'

**18. Joker 5-8 Federal Com 132H - (West Pad)**

SHL: 250' FNL & 2,278' FWL (or at a legal location in Lot 3) of Section 5  
FTP: 100' FNL & 1,650' FWL of Section 5  
LTP: 100' FSL & 1,650' FWL of Section 8  
BHL: 10' FSL & 1,650' FWL of Section 8  
Standard Spacing Unit: Lot 3, SENW, E2SW of Section 5, E2W2 of Section 8, T20S-R34E  
TVD: 10,831'  
TMD: 21,116'

**19. Joker 5-8 Federal Com 133H - (East Pad)**

SHL: 250' FNL & 1,972' FEL (or at a legal location in Lot 2) of Section 5  
FTP: 100' FNL & 2,310' FEL of Section 5  
LTP: 100' FSL & 2,310' FEL of Section 8  
BHL: 10' FSL & 2,310' FEL of Section 8  
Standard Spacing Unit: Lot 2, SWNE, W2SE of Section 5, W2E2 of Section 8, T20S-R34E  
TVD: 10,821'  
TMD: 21,106'

**20. Joker 5-8 Federal Com 134H – (East Pad)**

SHL: 250' FNL & 1,906' FEL (or at a legal location in Lot 2) of Section 5  
FTP: 100' FNL & 990' FEL of Section 5  
LTP: 100' FSL & 990' FEL of Section 8  
BHL: 10' FSL & 990' FEL of Section 8  
Standard Spacing Unit: Lot 1, SENE, E2SE of Section 5, E2E2 of Section 8, T20S-R34E  
TVD: 10,821'  
TMD: 21,106'

**WOLFCAMP XY FORMATION:****21. Joker 5-8 Federal Com 201H - (West Pad)**

SHL: 250' FNL & 2,245' FWL (or at a legal location in Lot 3) of Section 5  
FTP: 100' FNL & 990' FWL of Section 5  
LTP: 100' FSL & 990' FWL of Section 8  
BHL: 10' FSL & 990' FWL of Section 8  
Standard Spacing Unit: Lot 4, SWNW, W2SW of Section 5, W2W2 of Section 8, T20S-R34E  
TVD: 10,926'  
TMD: 21,211'

**22. Joker 5-8 Federal Com 202H - (West Pad)**

SHL: 250' FNL & 2,311' FWL (or at a legal location in Lot 3) of Section 5  
FTP: 100' FNL & 2,310' FWL of Section 5  
LTP: 100' FSL & 2,310' FWL of Section 8  
BHL: 10' FSL & 2,310' FWL of Section 8  
Standard Spacing Unit: Lot 3, SENW, E2SW of Section 5, E2W2 of Section 8, T20S-R34E  
TVD: 10,926'  
TMD: 21,211'

**23. Joker 5-8 Federal Com 203H - (East Pad)**

SHL: 250' FNL & 1,939' FEL (or at a legal location in Lot 2) of Section 5  
FTP: 100' FNL & 1,650' FEL of Section 5  
LTP: 100' FSL & 1,650' FEL of Section 8  
BHL: 10' FSL & 1,650' FEL of Section 8  
Standard Spacing Unit: Lot 2, SWNE, W2SE of Section 5, W2E2 of Section 8, T20S-R34E  
TVD: 10,906'  
TMD: 21,191'

**24. Joker 5-8 Federal Com 204H - (East Pad)**

SHL: 250' FNL & 1,873' FEL (or at a legal location in Lot 2) of Section 5  
FTP: 100' FNL & 330' FEL of Section 5  
LTP: 100' FSL & 330' FEL of Section 8  
BHL: 10' FSL & 330' FEL of Section 8  
Standard Spacing Unit: Lot 1, SENE, E2SE of Section 5, E2E2 of Section 8, T20S-R34E  
TVD: 10,896'  
TMD: 21,181'

The locations, TVDs, and targets are approximate and subject to change dependent on surface or subsurface issues encountered. These locations do fall within an approved potash drill island, so any surface changes remain subject to BLM approval. Permian is proposing to drill these wells under the modified terms of the 1989 AAPL Operating Agreement and a form of said Operating Agreement is enclosed. The Operating Agreement has the following general provisions:

- 100%/300%/300% non-consent provisions
- \$8,000/\$800 drilling and producing rates
- Permian Resources Operating, LLC named as Operator

Note that communitization agreements for each spacing unit shall be sent in a separate mailing.

Please indicate your election to participate in the drilling and completion of the proposed wells in the space provided below. Please sign and return one copy of this letter, a signed copy of the proposed AFE, and your geologic well requirements.

Please further note that the Sections 5 & 8 require a Potash Development Area to be approved by the Bureau of Land Management prior to any permits to be submitted. Permian has submitted for this development area and conducted federal onsites. This development area has been protested by Cimarex. Any development of these two sections will be subject to that protest being dismissed.

In the interest of time, should we not reach an agreement within thirty (30) days of the date of your receipt of this letter, Permian will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well. If you do not wish to participate, Permian would be interested in acquiring your interest in the subject lands which is subject to further mutually agreeable negotiation.

Thank you for your time and consideration, if you have any questions at all, please don't hesitate to contact me at 432.400.1037 or by email at [travis.macha@permianres.com](mailto:travis.macha@permianres.com). Due to the number of inquiries received, email may be the quickest way to receive a response.

**Operator Note:** Permian has recently drilled a pilot hole in the N/2 of Section 18 of T20S-R34E to the southwest of the Joker unit and is presently drilling a 3<sup>rd</sup> Bone Spring/Wolfcamp XY spacing test in Sections 18 & 19 (Batman Unit). Permian further plans a second 1<sup>st</sup> Bone Spring/2<sup>nd</sup> Bone Spring spacing test in Sections 17 & 20 of T20S-R34E directly south of the Joker unit later this year (Robin Unit). The learnings from the pilot hole and both spacing tests will be implemented by Permian in all zones here in order to ensure thoughtful and efficient development.

Respectfully,



Travis Macha  
Senior Landman

*Enclosures*

**Joker 5-8 Federal Com Elections:**

<b>Well Elections</b>		
<b>(Please indicate your responses in the spaces below)</b>		
<b>Well(s)</b>	<b>Elect to Participate</b>	<b>Elect to NOT Participate</b>
Joker 5-8 Federal Com 111H		
Joker 5-8 Federal Com 112H		
Joker 5-8 Federal Com 113H		
Joker 5-8 Federal Com 114H		
Joker 5-8 Federal Com 121H		
Joker 5-8 Federal Com 122H		
Joker 5-8 Federal Com 123H		
Joker 5-8 Federal Com 124H		
Joker 5-8 Federal Com 125H		
Joker 5-8 Federal Com 126H		
Joker 5-8 Federal Com 127H		
Joker 5-8 Federal Com 128H		
Joker 5-8 Federal Com 171H		
Joker 5-8 Federal Com 172H		
Joker 5-8 Federal Com 173H		
Joker 5-8 Federal Com 174H		
Joker 5-8 Federal Com 131H		
Joker 5-8 Federal Com 132H		
Joker 5-8 Federal Com 133H		
Joker 5-8 Federal Com 134H		
Joker 5-8 Federal Com 201H		
Joker 5-8 Federal Com 202H		
Joker 5-8 Federal Com 203H		
Joker 5-8 Federal Com 204H		

Company Name (If Applicable):

\_\_\_\_\_

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Permian Resources Operating, LLC

300 N. Marienfeld St., Ste. 1000 Midland, TX 79701  
Phone (432) 695-4222 • Fax (432) 695-4063

#### ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE

DATE: 2.17.2023	AFE NO.: 1
WELL NAME: Joker 5-8 Federal Com 111H	FIELD: Teas; Bone Spring
LOCATION: Section 5, T20S-R34E	MD/TVD: 19,861' / 9,576'
COUNTY/STATE: Lea County, New Mexico	LATERAL LENGTH: 10,000'
Permian WI:	DRILLING DAYS: 19.6
GEOLOGIC TARGET: FBSG	COMPLETION DAYS: 18.6
REMARKS: Drill a horizontal FBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost	

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 52,768	-	37,500	\$ 90,268
2 Location, Surveys & Damages	257,363	16,141	2,500	276,003
4 Freight / Transportation	42,549	39,110	25,000	106,660
5 Rental - Surface Equipment	111,070	192,448	105,000	408,518
6 Rental - Downhole Equipment	183,520	53,429	-	236,949
7 Rental - Living Quarters	42,956	48,671	-	91,627
10 Directional Drilling, Surveys	383,743	-	-	383,743
11 Drilling	673,443	-	-	673,443
12 Drill Bits	89,495	-	-	89,495
13 Fuel & Power	168,789	647,751	-	816,540
14 Cementing & Float Equip	217,354	-	-	217,354
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	351,218	-	351,218
17 High Pressure Pump Truck	-	110,130	-	110,130
18 Completion Unit, Swab, CIU	-	130,865	-	130,865
20 Mud Circulation System	93,991	-	-	93,991
21 Mud Logging	15,660	-	-	15,660
22 Logging / Formation Evaluation	6,495	7,450	-	13,944
23 Mud & Chemicals	323,254	391,463	10,000	724,717
24 Water	38,825	591,078	225,000	854,903
25 Stimulation	-	727,236	-	727,236
26 Stimulation Flowback & Disp	-	108,640	150,000	258,640
28 Mud / Wastewater Disposal	172,514	54,630	-	227,144
30 Rig Supervision / Engineering	108,273	119,194	21,667	249,134
32 Drlg & Completion Overhead	9,312	-	-	9,312
35 Labor	137,006	62,080	101,667	300,753
54 Proppant	-	1,121,387	-	1,121,387
95 Insurance	13,096	-	-	13,096
97 Contingency	-	21,817	3,833	25,650
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,141,476</b>	<b>4,794,736</b>	<b>697,167</b>	<b>8,633,379</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 109,201	-	-	\$ 109,201
61 Intermediate Casing	307,574	-	-	307,574
62 Drilling Liner	-	-	-	-
63 Production Casing	613,783	-	-	613,783
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	57,908	-	40,000	97,908
67 Packers, Liner Hangers	13,161	-	20,000	33,161
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	853	853
<b>TOTAL TANGIBLES &gt;</b>	<b>1,101,627</b>	<b>0</b>	<b>989,187</b>	<b>2,090,814</b>
<b>TOTAL COSTS &gt;</b>	<b>4,243,103</b>	<b>4,794,736</b>	<b>1,686,354</b>	<b>10,724,193</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer: PS	
Completions Engineer: ML	
Production Engineer: DC	

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO _____ WH	Co-CEO _____ JW	VP - Operations _____ CRM
VP - Land & Legal _____ BG	VP - Geosciences _____ SO	

**NON OPERATING PARTNER APPROVAL:**

Company Name: _____	Working Interest (%): _____	Tax ID: _____
Signed by: _____	Date: _____	
Title: _____	Approval: <input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)	

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, curative, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of opud.



### Permian Resources Operating, LLC

300 N. Marlenfeld St., Ste. 1000 Midland, TX 79701  
 Phone (432) 695-4222 • Fax (432) 695-4063

#### ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 112H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	19,881' / 9,596'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	FBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal FBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 52,768	-	37,500	\$ 90,268
2 Location, Surveys & Damages	257,363	16,141	2,500	276,003
4 Freight / Transportation	42,549	39,110	25,000	106,660
5 Rental - Surface Equipment	111,070	192,448	105,000	408,518
6 Rental - Downhole Equipment	183,520	53,429	-	236,949
7 Rental - Living Quarters	42,956	48,671	-	91,627
10 Directional Drilling, Surveys	383,743	-	-	383,743
11 Drilling	673,443	-	-	673,443
12 Drill Bits	89,495	-	-	89,495
13 Fuel & Power	168,789	647,751	-	816,540
14 Cementing & Float Equip	217,354	-	-	217,354
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	351,218	-	351,218
17 High Pressure Pump Truck	-	110,130	-	110,130
18 Completion Unit, Swab, CIU	-	130,865	-	130,865
20 Mud Circulation System	93,991	-	-	93,991
21 Mud Logging	15,660	-	-	15,660
22 Logging / Formation Evaluation	6,495	7,450	-	13,944
23 Mud & Chemicals	323,254	391,463	10,000	724,717
24 Water	38,825	591,078	225,000	854,903
25 Stimulation	-	727,236	-	727,236
26 Stimulation Flowback & Disp	-	108,640	150,000	258,640
28 Mud / Wastewater Disposal	172,514	54,630	-	227,144
30 Rig Supervision / Engineering	108,273	119,194	21,667	249,134
32 Drig & Completion Overhead	9,312	-	-	9,312
35 Labor	137,006	62,080	101,667	300,753
54 Proppant	-	1,121,387	-	1,121,387
95 Insurance	13,096	-	-	13,096
97 Contingency	-	21,817	3,833	25,650
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,141,476</b>	<b>4,794,736</b>	<b>697,167</b>	<b>8,633,379</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 109,201	-	-	\$ 109,201
61 Intermediate Casing	307,574	-	-	307,574
62 Drilling Liner	-	-	-	-
63 Production Casing	613,783	-	-	613,783
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	57,908	-	40,000	97,908
67 Packers, Liner Hangers	13,161	-	20,000	33,161
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	853	853
<b>TOTAL TANGIBLES &gt;</b>	<b>1,101,627</b>	<b>0</b>	<b>989,187</b>	<b>2,090,814</b>
<b>TOTAL COSTS &gt;</b>	<b>4,243,103</b>	<b>4,794,736</b>	<b>1,686,354</b>	<b>10,724,193</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS	Completions Engineer:	ML	Production Engineer:	DC
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**Permian Resources Operating, LLC APPROVAL:**

Co-CEO _____ WH	Co-CEO _____ JW	VP - Operations _____ CRM
VP - Land & Legal _____ BC	VP - Geosciences _____ SO	

**NON OPERATING PARTNER APPROVAL:**

Company Name: _____	Working Interest (%): _____	Tax ID: _____
Signed by: _____	Date: _____	
Title: _____	Approval: <input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)	

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, curative, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of opad.

**Permian Resources Operating, LLC**

300 N. Marienfeld St., Ste. 1000 Midland, TX 79701

Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 113H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	19,901' / 9,616'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	FBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal FBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 52,768	-	37,500	\$ 90,268
2 Location, Surveys & Damages	257,363	16,141	2,500	276,003
4 Freight / Transportation	42,549	39,110	25,000	106,660
5 Rental - Surface Equipment	111,070	192,448	105,000	408,518
6 Rental - Downhole Equipment	183,520	53,429	-	236,949
7 Rental - Living Quarters	42,956	48,671	-	91,627
10 Directional Drilling, Surveys	383,743	-	-	383,743
11 Drilling	673,443	-	-	673,443
12 Drill Bits	89,495	-	-	89,495
13 Fuel & Power	168,789	647,751	-	816,540
14 Cementing & Float Equip	217,354	-	-	217,354
15 Completion Unit, Swab, CTU	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	351,218	-	351,218
17 High Pressure Pump Truck	-	110,130	-	110,130
18 Completion Unit, Swab, CTU	-	130,865	-	130,865
20 Mud Circulation System	93,991	-	-	93,991
21 Mud Logging	15,660	-	-	15,660
22 Logging / Formation Evaluation	6,495	7,450	-	13,944
23 Mud & Chemicals	323,254	391,463	10,000	724,717
24 Water	38,825	591,078	225,000	854,903
25 Stimulation	-	727,236	-	727,236
26 Stimulation Flowback & Disp	-	108,640	150,000	258,640
28 Mud / Wastewater Disposal	172,514	54,630	-	227,144
30 Rig Supervision / Engineering	108,273	119,194	21,667	249,134
32 Drig & Completion Overhead	9,312	-	-	9,312
35 Labor	137,006	62,080	101,667	300,753
54 Proppant	-	1,121,387	-	1,121,387
95 Insurance	13,096	-	-	13,096
97 Contingency	-	21,817	3,833	25,650
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,141,476</b>	<b>4,794,736</b>	<b>697,167</b>	<b>8,633,379</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 109,201	-	-	\$ 109,201
61 Intermediate Casing	307,574	-	-	307,574
62 Drilling Liner	-	-	-	-
63 Production Casing	613,783	-	-	613,783
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	57,908	-	40,000	97,908
67 Packers, Liner Hangers	13,161	-	20,000	33,161
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	853	853
<b>TOTAL TANGIBLES &gt;</b>	<b>1,101,627</b>	<b>0</b>	<b>989,187</b>	<b>2,090,814</b>
<b>TOTAL COSTS &gt;</b>	<b>4,243,103</b>	<b>4,794,736</b>	<b>1,686,354</b>	<b>10,724,193</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO	_____	Co-CEO	_____	VP - Operations	_____
	WH		JW		CRM
VP - Land & Legal	_____	VP - Geosciences	_____		
	BC		SO		

**NON OPERATING PARTNER APPROVAL:**

Company Name:	_____	Working Interest (%):	_____	Tax ID:	_____
Signed by:	_____	Date:	_____		
Title:	_____	Approval:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	(mark one)

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, curative, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of sign-off.

**Permian Resources Operating, LLC**

300 N. Marienfeld St., Ste. 1000 Midland, TX 79701  
 Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 114H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	19,901' / 9,616'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	FBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal FBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
<b>INTANGIBLE COSTS</b>				
1 Land/ Legal/ Regulatory	\$ 52,768	-	37,500	\$ 90,268
2 Location, Surveys & Damages	257,363	16,141	2,500	276,003
4 Freight/ Transportation	42,549	39,110	25,000	106,660
5 Rental - Surface Equipment	111,070	192,448	105,000	408,518
6 Rental - Downhole Equipment	183,520	53,429	-	236,949
7 Rental - Living Quarters	42,956	48,671	-	91,627
10 Directional Drilling, Surveys	383,743	-	-	383,743
11 Drilling	673,443	-	-	673,443
12 Drill Bits	89,495	-	-	89,495
13 Fuel & Power	168,789	647,751	-	816,540
14 Cementing & Float Equip	217,354	-	-	217,354
15 Completion Unit, Swab, C/U	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	351,218	-	351,218
17 High Pressure Pump Truck	-	110,130	-	110,130
18 Completion Unit, Swab, C/U	-	130,865	-	130,865
20 Mud Circulation System	93,991	-	-	93,991
21 Mud Logging	15,660	-	-	15,660
22 Logging/ Formation Evaluation	6,495	7,450	-	13,944
23 Mud & Chemicals	323,254	391,463	10,000	724,717
24 Water	38,825	591,078	225,000	854,903
25 Stimulation	-	727,236	-	727,236
26 Stimulation Flowback & Disp	-	108,640	150,000	258,640
28 Mud/ Wastewater Disposal	172,514	54,630	-	227,144
30 Rig Supervision/ Engineering	108,273	119,194	21,667	249,134
32 Drig & Completion Overhead	9,312	-	-	9,312
35 Labor	137,006	62,080	101,667	300,753
54 Proppant	-	1,121,387	-	1,121,387
95 Insurance	13,096	-	-	13,096
97 Contingency	-	21,817	3,833	25,650
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,141,476</b>	<b>4,794,736</b>	<b>697,167</b>	<b>8,633,379</b>
<b>TANGIBLE COSTS</b>				
60 Surface Casing	\$ 109,201	-	-	\$ 109,201
61 Intermediate Casing	307,574	-	-	307,574
62 Drilling Liner	-	-	-	-
63 Production Casing	613,783	-	-	613,783
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	57,908	-	40,000	97,908
67 Packers, Liner Hangers	13,161	-	20,000	33,161
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning/ Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering/ Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank/ Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical/ Grounding	-	-	50,000	50,000
85 Communications/ SCADA	-	-	36,667	36,667
86 Instrumentation/ Safety	-	-	853	853
<b>TOTAL TANGIBLES &gt;</b>	<b>1,101,627</b>	<b>0</b>	<b>989,187</b>	<b>2,090,814</b>
<b>TOTAL COSTS &gt;</b>	<b>4,243,103</b>	<b>4,794,736</b>	<b>1,686,354</b>	<b>10,724,193</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO _____	Co-CEO _____	VP - Operations _____
WH	JW	CRM
VP - Land & Legal _____	VP - Geosciences _____	
BC	SO	

**NON OPERATING PARTNER APPROVAL:**

Company Name: _____	Working Interest (%): _____	Tax ID: _____
Signed by: _____	Date: _____	
Title: _____	Approval: <input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)	

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, curative, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of spend.

**Permian Resources Operating, LLC**

300 N. Marienfeld St., Ste. 1000 Midland, TX 79701  
 Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 121H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	20,601' / 10,316'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	SBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal SBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 34,351	-	37,500	\$ 91,851
2 Location, Surveys & Damages	265,083	16,625	2,500	284,208
4 Freight / Transportation	43,826	40,284	25,000	109,110
5 Rental - Surface Equipment	114,402	198,221	105,000	417,624
6 Rental - Downhole Equipment	189,026	55,031	-	244,057
7 Rental - Living Quarters	44,244	50,131	-	94,375
10 Directional Drilling, Surveys	395,255	-	-	395,255
11 Drilling	693,647	-	-	693,647
12 Drill Bits	92,179	-	-	92,179
13 Fuel & Power	173,853	667,183	-	841,036
14 Cementing & Float Equip	223,875	-	-	223,875
15 Completion Unit, Swab, C'U	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	361,754	-	361,754
17 High Pressure Pump Truck	-	113,434	-	113,434
18 Completion Unit, Swab, C'U	-	134,791	-	134,791
20 Mud Circulation System	96,811	-	-	96,811
21 Mud Logging	16,130	-	-	16,130
22 Logging / Formation Evaluation	6,690	7,673	-	14,363
23 Mud & Chemicals	332,951	403,207	10,000	746,158
24 Water	39,990	608,810	250,000	898,800
25 Stimulation	-	749,053	-	749,053
26 Stimulation Flowback & Disp	-	111,899	150,000	261,899
28 Mud / Wastewater Disposal	177,689	56,269	-	233,959
30 Rig Supervision / Engineering	111,522	122,769	21,667	255,958
32 Drig & Completion Overhead	9,591	-	-	9,591
35 Labor	141,116	63,942	101,667	306,725
54 Proppant	-	1,155,029	-	1,155,029
95 Insurance	13,489	-	-	13,489
97 Contingency	-	22,472	3,833	26,305
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,235,720</b>	<b>4,938,578</b>	<b>722,167</b>	<b>8,896,465</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 112,477	-	-	\$ 112,477
61 Intermediate Casing	316,801	-	-	316,801
62 Drilling Liner	-	-	-	-
63 Production Casing	632,196	-	-	632,196
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	59,645	-	40,000	99,645
67 Packers, Liner Hangers	13,556	-	20,000	33,556
68 Tanks	-	-	-	-
69 Production Vessels	-	-	45,833	45,833
70 Flow Lines	-	-	126,667	126,667
71 Rod string	-	-	66,667	66,667
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,134,676</b>	<b>0</b>	<b>989,167</b>	<b>2,123,843</b>
<b>TOTAL COSTS &gt;</b>	<b>4,370,396</b>	<b>4,938,578</b>	<b>1,711,334</b>	<b>11,020,308</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO _____	Co-CEO _____	VP - Operations _____
VP - Land & Legal _____	VP - Geosciences _____	CRM _____
WH	JW	
BG	SO	

**NON OPERATING PARTNER APPROVAL:**

Company Name: _____	Working Interest (%): _____	Tax ID: _____
Signed by: _____	Date: _____	
Title: _____	Approval: <input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)	

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, curative, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of spud.

**Permian Resources Operating, LLC**

300 N. Marlenfeld St., Ste. 1000 Midland, TX 79701

Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 122H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	20,266' / 9,981'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	SBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal SBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 94,351	-	37,500	\$ 91,851
2 Location, Surveys & Damages	265,083	16,625	2,500	284,208
4 Freight / Transportation	43,826	40,284	25,000	109,110
5 Rental - Surface Equipment	114,402	198,221	105,000	417,624
6 Rental - Downhole Equipment	189,026	55,031	-	244,057
7 Rental - Living Quarters	44,244	50,131	-	94,375
10 Directional Drilling, Surveys	395,255	-	-	395,255
11 Drilling	693,647	-	-	693,647
12 Drill Bits	92,179	-	-	92,179
13 Fuel & Power	173,853	667,183	-	841,036
14 Cementing & Float Equip	223,875	-	-	223,875
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	361,754	-	361,754
17 High Pressure Pump Truck	-	113,434	-	113,434
18 Completion Unit, Swab, CIU	-	134,791	-	134,791
20 Mud Circulation System	96,811	-	-	96,811
21 Mud Logging	16,130	-	-	16,130
22 Logging / Formation Evaluation	6,690	7,673	-	14,363
23 Mud & Chemicals	332,951	403,207	10,000	746,158
24 Water	39,990	608,810	250,000	898,800
25 Stimulation	-	749,053	-	749,053
26 Stimulation Flowback & Disp	-	111,899	150,000	261,899
28 Mud / Wastewater Disposal	177,689	56,269	-	233,959
30 Rig Supervision / Engineering	111,522	122,769	21,667	255,958
32 Drig & Completion Overhead	9,591	-	-	9,591
35 Labor	141,116	63,942	101,667	306,725
54 Proppant	-	1,155,029	-	1,155,029
95 Insurance	13,489	-	-	13,489
97 Contingency	-	22,472	3,833	26,305
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,235,720</b>	<b>4,938,578</b>	<b>722,167</b>	<b>8,896,465</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 112,477	-	-	\$ 112,477
61 Intermediate Casing	316,801	-	-	316,801
62 Drilling Liner	-	-	-	-
63 Production Casing	632,196	-	-	632,196
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	59,645	-	40,000	99,645
67 Packers, Liner Hangers	13,556	-	20,000	33,556
68 Tanks	-	-	-	-
69 Production Vessels	-	-	45,833	45,833
70 Flow Lines	-	-	126,667	126,667
71 Rod string	-	-	66,667	66,667
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,134,676</b>	<b>0</b>	<b>989,167</b>	<b>2,123,843</b>
<b>TOTAL COSTS &gt;</b>	<b>4,370,396</b>	<b>4,938,578</b>	<b>1,711,334</b>	<b>11,020,308</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO _____	Co-CEO _____	VP - Operations _____
WH	JW	CRM
VP - Land & Legal _____	VP - Geosciences _____	
BG	SO	

**NON OPERATING PARTNER APPROVAL:**

Company Name: _____	Working Interest (%): _____	Tax ID: _____
Signed by: _____	Date: _____	
Title: _____	Approval: <input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)	

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, creative, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of spud.

**Permian Resources Operating, LLC**

300 N. Marienfeld St., Ste. 1000 Midland, TX 79701  
 Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 123H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	20,581' / 10,296'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	SBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal SBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land/ Legal/ Regulatory	\$ 54,351	-	37,500	\$ 91,851
2 Location, Surveys & Damages	265,083	16,625	2,500	284,208
4 Freight/ Transportation	43,826	40,284	25,000	109,110
5 Rental - Surface Equipment	114,402	198,221	105,000	417,624
6 Rental - Downhole Equipment	189,026	55,031	-	244,057
7 Rental - Living Quarters	44,244	50,131	-	94,375
10 Directional Drilling, Surveys	395,255	-	-	395,255
11 Drilling	693,647	-	-	693,647
12 Drill Bits	92,179	-	-	92,179
13 Fuel & Power	173,853	667,183	-	841,036
14 Cementing & Float Equip	223,875	-	-	223,875
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	361,754	-	361,754
17 High Pressure Pump Truck	-	113,434	-	113,434
18 Completion Unit, Swab, CIU	-	134,791	-	134,791
20 Mud Circulation System	96,811	-	-	96,811
21 Mud Logging	16,130	-	-	16,130
22 Logging/ Formation Evaluation	6,690	7,673	-	14,363
23 Mud & Chemicals	332,951	403,207	10,000	746,158
24 Water	39,990	608,810	250,000	898,800
25 Stimulation	-	749,053	-	749,053
26 Stimulation Flowback & Disp	-	111,899	150,000	261,899
28 Mud/ Wastewater Disposal	177,689	56,269	-	233,959
30 Rig Supervision/ Engineering	111,522	122,769	21,667	255,958
32 Drig & Completion Overhead	9,591	-	-	9,591
35 Labor	141,116	63,942	101,667	306,725
54 Proppant	-	1,155,029	-	1,155,029
95 Insurance	13,489	-	-	13,489
97 Contingency	-	22,472	3,833	26,305
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,235,720</b>	<b>4,938,578</b>	<b>722,167</b>	<b>8,896,465</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 112,477	-	-	\$ 112,477
61 Intermediate Casing	316,801	-	-	316,801
62 Drilling Liner	-	-	-	-
63 Production Casing	632,196	-	-	632,196
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	59,645	-	40,000	99,645
67 Packers, Liner Hangers	13,556	-	20,000	33,556
68 Tanks	-	-	-	-
69 Production Vessels	-	-	45,833	45,833
70 Flow Lines	-	-	126,667	126,667
71 Rod string	-	-	66,667	66,667
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning/ Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering/ Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank/ Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical/ Grounding	-	-	50,000	50,000
85 Communications/ SCADA	-	-	36,667	36,667
86 Instrumentation/ Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,134,676</b>	<b>0</b>	<b>989,167</b>	<b>2,123,843</b>
<b>TOTAL COSTS &gt;</b>	<b>4,370,396</b>	<b>4,938,578</b>	<b>1,711,334</b>	<b>11,020,308</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer: PS  
 Completions Engineer: ML  
 Production Engineer: DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO WH Co-CEO JW VP - Operations CRM  
 VP - Land & Legal BG VP - Geosciences SO

**NON OPERATING PARTNER APPROVAL:**

Company Name: \_\_\_\_\_ Working Interest (%): \_\_\_\_\_ Tax ID: \_\_\_\_\_  
 Signed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Title: \_\_\_\_\_ Approval:  Yes  No (mark one)

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**Permian Resources Operating, LLC**

300 N. Marienfeld St., Ste. 1000 Midland, TX 79701

Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 124H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	20,256' / 9,971'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	SBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal SBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 54,351	-	37,500	\$ 91,851
2 Location, Surveys & Damages	265,083	16,625	2,500	284,208
4 Freight / Transportation	43,826	40,284	25,000	109,110
5 Rental - Surface Equipment	114,402	198,221	105,000	417,624
6 Rental - Downhole Equipment	189,026	55,031	-	244,057
7 Rental - Living Quarters	44,244	50,131	-	94,375
10 Directional Drilling, Surveys	395,255	-	-	395,255
11 Drilling	693,647	-	-	693,647
12 Drill Bits	92,179	-	-	92,179
13 Fuel & Power	173,853	667,183	-	841,036
14 Cementing & Float Equip	223,875	-	-	223,875
15 Completion Unit, Swab, C'U	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	361,754	-	361,754
17 High Pressure Pump Truck	-	113,434	-	113,434
18 Completion Unit, Swab, C'U	-	134,791	-	134,791
20 Mud Circulation System	96,811	-	-	96,811
21 Mud Logging	16,130	-	-	16,130
22 Logging / Formation Evaluation	6,690	7,675	-	14,363
23 Mud & Chemicals	332,951	403,207	10,000	746,158
24 Water	39,990	608,810	250,000	898,800
25 Stimulation	-	749,053	-	749,053
26 Stimulation Flowback & Disp	-	111,899	150,000	261,899
28 Mud / Wastewater Disposal	177,689	56,269	-	233,959
30 Rig Supervision / Engineering	111,522	122,769	21,667	255,958
32 Drig & Completion Overhead	9,591	-	-	9,591
35 Labor	141,116	63,942	101,667	306,725
54 Proppant	-	1,155,029	-	1,155,029
95 Insurance	13,489	-	-	13,489
97 Contingency	-	22,472	3,833	26,305
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,235,720</b>	<b>4,938,578</b>	<b>722,167</b>	<b>8,896,465</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 112,477	-	-	\$ 112,477
61 Intermediate Casing	316,801	-	-	316,801
62 Drilling Liner	-	-	-	-
63 Production Casing	632,196	-	-	632,196
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	59,645	-	40,000	99,645
67 Packers, Liner Hangers	13,556	-	20,000	33,556
68 Tanks	-	-	-	-
69 Production Vessels	-	-	45,833	45,833
70 Flow Lines	-	-	126,667	126,667
71 Rod string	-	-	66,667	66,667
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,134,676</b>	<b>0</b>	<b>989,167</b>	<b>2,123,843</b>
<b>TOTAL COSTS &gt;</b>	<b>4,370,396</b>	<b>4,938,578</b>	<b>1,711,334</b>	<b>11,020,308</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO _____	Co-CEO _____	VP - Operations _____
WH	JW	CRM
VP - Land & Legal _____	VP - Geosciences _____	
BG	SO	

**NON OPERATING PARTNER APPROVAL:**

Company Name: _____	Working Interest (%): _____	Tax ID: _____
Signed by: _____	Date: _____	
Title: _____	Approval: <input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)	

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**Permian Resources Operating, LLC**

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 Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 125H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	20,571' / 10,286'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	SBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal SBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 34,351	-	37,500	\$ 91,851
2 Location, Surveys & Damages	265,083	16,625	2,500	284,208
4 Freight / Transportation	43,826	40,284	25,000	109,110
5 Rental - Surface Equipment	114,402	198,221	105,000	417,624
6 Rental - Downhole Equipment	189,026	55,031	-	244,057
7 Rental - Living Quarters	44,244	50,131	-	94,375
10 Directional Drilling, Surveys	395,255	-	-	395,255
11 Drilling	693,647	-	-	693,647
12 Drill Bits	92,179	-	-	92,179
13 Fuel & Power	173,853	667,183	-	841,036
14 Cementing & Float Equip	223,875	-	-	223,875
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	361,754	-	361,754
17 High Pressure Pump Truck	-	113,434	-	113,434
18 Completion Unit, Swab, CIU	-	134,791	-	134,791
20 Mud Circulation System	96,811	-	-	96,811
21 Mud Logging	16,130	-	-	16,130
22 Logging / Formation Evaluation	6,690	7,673	-	14,363
23 Mud & Chemicals	332,951	403,207	10,000	746,158
24 Water	39,990	608,810	250,000	898,800
25 Stimulation	-	749,053	-	749,053
26 Stimulation Flowback & Disp	-	111,899	150,000	261,899
28 Mud / Wastewater Disposal	177,689	56,269	-	233,959
30 Rig Supervision / Engineering	111,522	122,769	21,667	255,958
32 Drig & Completion Overhead	9,591	-	-	9,591
35 Labor	141,116	63,942	101,667	306,725
54 Proppant	-	1,155,029	-	1,155,029
95 Insurance	13,489	-	-	13,489
97 Contingency	-	22,472	3,833	26,305
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,235,720</b>	<b>4,938,578</b>	<b>722,167</b>	<b>8,896,465</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 112,477	-	-	\$ 112,477
61 Intermediate Casing	316,801	-	-	316,801
62 Drilling Liner	-	-	-	-
63 Production Casing	632,196	-	-	632,196
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	99,645	-	40,000	99,645
67 Packers, Liner Hangers	13,556	-	20,000	33,556
68 Tanks	-	-	-	-
69 Production Vessels	-	-	45,833	45,833
70 Flow Lines	-	-	126,667	126,667
71 Rod string	-	-	66,667	66,667
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,134,676</b>	<b>0</b>	<b>989,167</b>	<b>2,123,843</b>
<b>TOTAL COSTS &gt;</b>	<b>4,370,396</b>	<b>4,938,578</b>	<b>1,711,334</b>	<b>11,020,308</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer: PS  
 Completions Engineer: ML  
 Production Engineer: DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO WH Co-CEO JW VP - Operations CRM  
 VP - Land & Legal BC VP - Geosciences SO

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**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

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WELL NAME:	Joker 5-8 Federal Com 126H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	20,256' / 9,961'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	SBSG	COMPLETION DAYS:	18.6
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63 Production Casing	632,196	-	-	632,196
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	59,645	-	40,000	99,645
67 Packers, Liner Hangers	13,556	-	20,000	33,556
68 Tanks	-	-	-	-
69 Production Vessels	-	-	45,833	45,833
70 Flow Lines	-	-	126,667	126,667
71 Rod string	-	-	66,667	66,667
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning/ Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering/ Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank/ Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical/ Grounding	-	-	50,000	50,000
85 Communications/ SCADA	-	-	36,667	36,667
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**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO	_____	Co-CEO	_____	VP - Operations	_____
	WH		JW		CRM
VP - Land & Legal	_____	VP - Geosciences	_____		
	BC		SO		

**NON OPERATING PARTNER APPROVAL:**

Company Name:	_____	Working Interest (%):	_____	Tax ID:	_____
Signed by:	_____	Date:	_____		
Title:	_____	Approval:	<input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)		

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, executive, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of spud.

**Permian Resources Operating, LLC**

300 N. Marienfeld St., Ste. 1000 Midland, TX 79701

Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 127H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	20,286' / 10,571'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	SBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal SBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 54,351	-	37,500	\$ 91,851
2 Location, Surveys & Damages	265,083	16,625	2,500	284,208
4 Freight / Transportation	43,826	40,284	25,000	109,110
5 Rental - Surface Equipment	114,402	198,221	105,000	417,624
6 Rental - Downhole Equipment	189,026	55,031	-	244,057
7 Rental - Living Quarters	44,244	50,131	-	94,375
10 Directional Drilling, Surveys	395,255	-	-	395,255
11 Drilling	693,647	-	-	693,647
12 Drill Bits	92,179	-	-	92,179
13 Fuel & Power	173,853	667,183	-	841,036
14 Cementing & Float Equip	223,875	-	-	223,875
15 Completion Unit, Swab, C'U	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	361,754	-	361,754
17 High Pressure Pump Truck	-	113,434	-	113,434
18 Completion Unit, Swab, C'U	-	134,791	-	134,791
20 Mud Circulation System	96,811	-	-	96,811
21 Mud Logging	16,130	-	-	16,130
22 Logging / Formation Evaluation	6,690	7,673	-	14,363
23 Mud & Chemicals	332,951	403,207	10,000	746,158
24 Water	39,990	608,810	250,000	898,800
25 Stimulation	-	749,053	-	749,053
26 Stimulation Flowback & Disp	-	111,899	150,000	261,899
28 Mud / Wastewater Disposal	177,689	56,269	-	233,959
30 Rig Supervision / Engineering	111,522	122,769	21,667	255,958
32 Drig & Completion Overhead	9,591	-	-	9,591
35 Labor	141,116	63,942	101,667	306,725
54 Proppant	-	1,155,029	-	1,155,029
95 Insurance	13,489	-	-	13,489
97 Contingency	-	22,472	3,833	26,305
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,235,720</b>	<b>4,938,578</b>	<b>722,167</b>	<b>8,896,465</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 112,477	-	-	\$ 112,477
61 Intermediate Casing	316,801	-	-	316,801
62 Drilling Liner	-	-	-	-
63 Production Casing	632,196	-	-	632,196
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	59,645	-	40,000	99,645
67 Packers, Liner Hangers	13,556	-	20,000	33,556
68 Tanks	-	-	-	-
69 Production Vessels	-	-	45,833	45,833
70 Flow Lines	-	-	126,667	126,667
71 Rod string	-	-	66,667	66,667
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,134,676</b>	<b>0</b>	<b>989,167</b>	<b>2,123,843</b>
<b>TOTAL COSTS &gt;</b>	<b>4,370,396</b>	<b>4,938,578</b>	<b>1,711,334</b>	<b>11,020,308</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO _____	Co-CEO _____	VP - Operations _____
VP - Land & Legal _____	VP - Geosciences _____	CRM _____
WH	JW	
BC	SO	

**NON OPERATING PARTNER APPROVAL:**

Company Name: _____	Working Interest (%): _____	Tax ID: _____
Signed by: _____	Date: _____	
Title: _____	Approval: <input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)	

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, curative, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of spud.

**Permian Resources Operating, LLC**

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 Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 128H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	20,256' / 9,961'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	SBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal SBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 54,351	-	37,500	\$ 91,851
2 Location, Surveys & Damages	265,083	16,625	2,500	284,208
4 Freight / Transportation	43,826	40,284	25,000	109,110
5 Rental - Surface Equipment	114,402	198,221	105,000	417,624
6 Rental - Downhole Equipment	189,026	55,031	-	244,057
7 Rental - Living Quarters	44,244	50,131	-	94,375
10 Directional Drilling, Surveys	395,255	-	-	395,255
11 Drilling	693,647	-	-	693,647
12 Drill Bits	92,179	-	-	92,179
13 Fuel & Power	173,853	667,183	-	841,036
14 Cementing & Float Equip	223,875	-	-	223,875
15 Completion Unit, Swab, C'U	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	361,754	-	361,754
17 High Pressure Pump Truck	-	113,434	-	113,434
18 Completion Unit, Swab, C'U	-	134,791	-	134,791
20 Mud Circulation System	96,811	-	-	96,811
21 Mud Logging	16,130	-	-	16,130
22 Logging / Formation Evaluation	6,690	7,673	-	14,363
23 Mud & Chemicals	332,951	403,207	10,000	746,158
24 Water	39,990	608,810	250,000	898,800
25 Stimulation	-	749,053	-	749,053
26 Stimulation Flowback & Disp	-	111,899	150,000	261,899
28 Mud / Wastewater Disposal	177,689	56,269	-	233,959
30 Rig Supervision / Engineering	111,522	122,769	21,667	255,958
32 Drig & Completion Overhead	9,591	-	-	9,591
35 Labor	141,116	63,942	101,667	306,725
54 Proppant	-	1,155,029	-	1,155,029
95 Insurance	13,489	-	-	13,489
97 Contingency	-	22,472	3,833	26,305
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,235,720</b>	<b>4,938,578</b>	<b>722,167</b>	<b>8,896,465</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 112,477	-	-	\$ 112,477
61 Intermediate Casing	316,801	-	-	316,801
62 Drilling Liner	-	-	-	-
63 Production Casing	632,196	-	-	632,196
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	59,645	-	40,000	99,645
67 Packers, Liner Hangers	13,556	-	20,000	33,556
68 Tanks	-	-	-	-
69 Production Vessels	-	-	45,833	45,833
70 Flow Lines	-	-	126,667	126,667
71 Rod string	-	-	66,667	66,667
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,134,676</b>	<b>0</b>	<b>989,167</b>	<b>2,123,843</b>
<b>TOTAL COSTS &gt;</b>	<b>4,370,396</b>	<b>4,938,578</b>	<b>1,711,334</b>	<b>11,020,308</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO _____	Co-CEO _____	VP - Operations _____
WH	JW	CRM
VP - Land & Legal _____	VP - Geosciences _____	
BG	SO	

**NON OPERATING PARTNER APPROVAL:**

Company Name: _____	Working Interest (%): _____	Tax ID: _____
Signed by: _____	Date: _____	
Title: _____	Approval: <input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)	

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**Permian Resources Operating, LLC**

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**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 131H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	21,116' / 10,831'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	TBSC	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal TBSC well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 57,069	-	37,500	\$ 94,569
2 Location, Surveys & Damages	278,338	17,456	2,500	298,294
4 Freight / Transportation	46,017	42,298	25,000	113,315
5 Rental - Surface Equipment	120,122	208,133	105,000	433,255
6 Rental - Downhole Equipment	198,477	57,783	-	256,260
7 Rental - Living Quarters	46,457	52,637	-	99,094
10 Directional Drilling, Surveys	415,018	-	-	415,018
11 Drilling	728,329	-	-	728,329
12 Drill Bits	96,788	-	-	96,788
13 Fuel & Power	182,546	700,542	-	883,088
14 Cementing & Float Equip	235,069	-	-	235,069
15 Completion Unit, Swab, CTU	-	-	15,000	15,000
16 Perforating, Wireline, Stickline	-	379,842	-	379,842
17 High Pressure Pump Truck	-	119,106	-	119,106
18 Completion Unit, Swab, CTU	-	141,530	-	141,530
20 Mud Circulation System	101,651	-	-	101,651
21 Mud Logging	16,936	-	-	16,936
22 Logging / Formation Evaluation	7,024	8,057	-	15,081
23 Mud & Chemicals	349,599	423,367	10,000	782,966
24 Water	41,989	639,251	300,000	981,240
25 Stimulation	-	786,506	-	786,506
26 Stimulation Flowback & Disp	-	117,494	150,000	267,494
28 Mud / Wastewater Disposal	186,574	59,083	-	245,657
30 Rig Supervision / Engineering	117,098	128,908	21,667	267,673
32 Drig & Completion Overhead	10,071	-	-	10,071
35 Labor	148,172	67,140	101,667	316,978
54 Proppant	-	1,212,780	-	1,212,780
95 Insurance	14,164	-	-	14,164
97 Contingency	-	23,595	3,833	27,428
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,397,506</b>	<b>5,185,507</b>	<b>772,167</b>	<b>9,355,180</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 118,101	-	-	\$ 118,101
61 Intermediate Casing	332,642	-	-	332,642
62 Drilling Liner	-	-	-	-
63 Production Casing	663,806	-	-	663,806
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	62,628	-	40,000	102,628
67 Packers, Liner Hangers	14,234	-	20,000	34,234
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,191,410</b>	<b>0</b>	<b>989,167</b>	<b>2,180,577</b>
<b>TOTAL COSTS &gt;</b>	<b>4,588,916</b>	<b>5,185,507</b>	<b>1,761,334</b>	<b>11,535,757</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO _____	Co-CEO _____	VP - Operations _____
WH	JW	CRM
VP - Land & Legal _____	VP - Geosciences _____	
BG	SO	

**NON OPERATING PARTNER APPROVAL:**

Company Name: _____	Working Interest (%): _____	Tax ID: _____
Signed by: _____	Date: _____	
Title: _____	Approval: <input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)	

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**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 132H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	21,116' / 10,831'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	TBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal TBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land/ Legal/ Regulatory	\$ 57,069	-	37,500	\$ 94,569
2 Location, Surveys & Damages	278,338	17,456	2,500	298,294
4 Freight / Transportation	46,017	42,298	25,000	113,315
5 Rental - Surface Equipment	120,122	208,133	105,000	433,255
6 Rental - Downhole Equipment	198,477	57,783	-	256,260
7 Rental - Living Quarters	46,457	52,637	-	99,094
10 Directional Drilling, Surveys	415,018	-	-	415,018
11 Drilling	728,329	-	-	728,329
12 Drill Bits	96,788	-	-	96,788
13 Fuel & Power	182,546	700,542	-	883,088
14 Cementing & Float Equip	235,069	-	-	235,069
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	379,842	-	379,842
17 High Pressure Pump Truck	-	119,106	-	119,106
18 Completion Unit, Swab, CIU	-	141,530	-	141,530
20 Mud Circulation System	101,651	-	-	101,651
21 Mud Logging	16,936	-	-	16,936
22 Logging / Formation Evaluation	7,024	8,057	-	15,081
23 Mud & Chemicals	349,599	423,367	10,000	782,966
24 Water	41,989	639,251	300,000	981,240
25 Stimulation	-	786,506	-	786,506
26 Stimulation Flowback & Disp	-	117,494	150,000	267,494
28 Mud / Wastewater Disposal	186,574	59,083	-	245,657
30 Rig Supervision / Engineering	117,098	128,908	21,667	267,673
32 Drig & Completion Overhead	10,071	-	-	10,071
35 Labor	148,172	67,140	101,667	316,978
54 Proppant	-	1,212,780	-	1,212,780
95 Insurance	14,164	-	-	14,164
97 Contingency	-	23,595	3,833	27,428
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,397,506</b>	<b>5,185,507</b>	<b>772,167</b>	<b>9,355,180</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 118,101	-	-	\$ 118,101
61 Intermediate Casing	332,642	-	-	332,642
62 Drilling Liner	-	-	-	-
63 Production Casing	663,806	-	-	663,806
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	62,628	-	40,000	102,628
67 Packers, Liner Hangers	14,234	-	20,000	34,234
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,191,410</b>	<b>0</b>	<b>989,167</b>	<b>2,180,577</b>
<b>TOTAL COSTS &gt;</b>	<b>4,588,916</b>	<b>5,185,507</b>	<b>1,761,334</b>	<b>11,535,757</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer: PS  
 Completions Engineer: ML  
 Production Engineer: DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO WH Co-CEO JW VP - Operations CRM  
 VP - Land & Legal BG VP - Geosciences SO

**NON OPERATING PARTNER APPROVAL:**

Company Name: \_\_\_\_\_ Working Interest (%): \_\_\_\_\_ Tax ID: \_\_\_\_\_  
 Signed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Title: \_\_\_\_\_ Approval:  Yes  No (mark one)

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**Permian Resources Operating, LLC**

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 Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 133H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	21,106' / 10,821'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	TBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal TBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 57,069	-	37,500	\$ 94,569
2 Location, Surveys & Damages	278,338	17,456	2,500	298,294
4 Freight / Transportation	46,017	42,298	25,000	113,315
5 Rental - Surface Equipment	120,122	208,133	105,000	433,255
6 Rental - Downhole Equipment	198,477	57,783	-	256,260
7 Rental - Living Quarters	46,457	52,637	-	99,094
10 Directional Drilling, Surveys	415,018	-	-	415,018
11 Drilling	728,329	-	-	728,329
12 Drill Bits	96,788	-	-	96,788
13 Fuel & Power	182,546	700,542	-	883,088
14 Cementing & Float Equip	235,069	-	-	235,069
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Stickline	-	379,842	-	379,842
17 High Pressure Pump Truck	-	119,106	-	119,106
18 Completion Unit, Swab, CIU	-	141,530	-	141,530
20 Mud Circulation System	101,651	-	-	101,651
21 Mud Logging	16,936	-	-	16,936
22 Logging / Formation Evaluation	7,024	8,057	-	15,081
23 Mud & Chemicals	349,599	423,367	10,000	782,966
24 Water	41,989	639,251	300,000	981,240
25 Stimulation	-	786,506	-	786,506
26 Stimulation Flowback & Disp	-	117,494	150,000	267,494
28 Mud / Wastewater Disposal	186,574	59,083	-	245,657
30 Rig Supervision / Engineering	117,098	128,908	21,667	267,673
32 Drig & Completion Overhead	10,071	-	-	10,071
35 Labor	148,172	67,140	101,667	316,978
54 Proppant	-	1,212,780	-	1,212,780
95 Insurance	14,164	-	-	14,164
97 Contingency	-	23,595	3,833	27,428
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,397,506</b>	<b>5,185,507</b>	<b>772,167</b>	<b>9,355,180</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 118,101	-	-	\$ 118,101
61 Intermediate Casing	332,642	-	-	332,642
62 Drilling Liner	-	-	-	-
63 Production Casing	663,806	-	-	663,806
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	62,628	-	40,000	102,628
67 Packers, Liner Hangers	14,234	-	20,000	34,234
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,191,410</b>	<b>0</b>	<b>989,167</b>	<b>2,180,577</b>
<b>TOTAL COSTS &gt;</b>	<b>4,588,916</b>	<b>5,185,507</b>	<b>1,761,334</b>	<b>11,535,757</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer: PS  
 Completions Engineer: ML  
 Production Engineer: DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO WH Co-CEO JW VP - Operations CRM  
 VP - Land & Legal BC VP - Geosciences SO

**NON OPERATING PARTNER APPROVAL:**

Company Name: \_\_\_\_\_ Working Interest (%): \_\_\_\_\_ Tax ID: \_\_\_\_\_  
 Signed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Title: \_\_\_\_\_ Approval:  Yes  No (mark one)

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, curative, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of spud.

**Permian Resources Operating, LLC**

300 N. Marlenfeld St., Ste. 1000 Midland, TX 79701  
 Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 134H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	21,106' / 10,821'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	TBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal TBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 57,069	-	37,500	\$ 94,569
2 Location, Surveys & Damages	278,338	17,456	2,500	298,294
4 Freight / Transportation	46,017	42,298	25,000	113,315
5 Rental - Surface Equipment	120,122	208,133	105,000	433,255
6 Rental - Downhole Equipment	198,477	57,783	-	256,260
7 Rental - Living Quarters	46,457	52,637	-	99,094
10 Directional Drilling, Surveys	415,018	-	-	415,018
11 Drilling	728,329	-	-	728,329
12 Drill Bits	96,788	-	-	96,788
13 Fuel & Power	182,546	700,542	-	883,088
14 Cementing & Float Equip	235,069	-	-	235,069
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	379,842	-	379,842
17 High Pressure Pump Truck	-	119,106	-	119,106
18 Completion Unit, Swab, CIU	-	141,530	-	141,530
20 Mud Circulation System	101,651	-	-	101,651
21 Mud Logging	16,936	-	-	16,936
22 Logging / Formation Evaluation	7,024	8,057	-	15,081
23 Mud & Chemicals	349,599	423,367	10,000	782,966
24 Water	41,989	639,251	300,000	981,240
25 Stimulation	-	786,506	-	786,506
26 Stimulation Flowback & Disp	-	117,494	150,000	267,494
28 Mud / Wastewater Disposal	186,574	59,083	-	245,657
30 Rig Supervision / Engineering	117,098	128,908	21,667	267,673
32 Drig & Completion Overhead	10,071	-	-	10,071
35 Labor	148,172	67,140	101,667	316,978
54 Proppant	-	1,212,780	-	1,212,780
95 Insurance	14,164	-	-	14,164
97 Contingency	-	23,595	3,833	27,428
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,397,506</b>	<b>5,185,507</b>	<b>772,167</b>	<b>9,355,180</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 118,101	-	-	\$ 118,101
61 Intermediate Casing	332,642	-	-	332,642
62 Drilling Liner	-	-	-	-
63 Production Casing	663,806	-	-	663,806
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	62,628	-	40,000	102,628
67 Packers, Liner Hangers	14,234	-	20,000	34,234
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,191,410</b>	<b>0</b>	<b>989,167</b>	<b>2,180,577</b>
<b>TOTAL COSTS &gt;</b>	<b>4,588,916</b>	<b>5,185,507</b>	<b>1,761,334</b>	<b>11,535,757</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO	_____	Co-CEO	_____	VP - Operations	_____
	WH		JW		CRM
VP - Land & Legal	_____	VP - Geosciences	_____		
	BG		SO		

**NON OPERATING PARTNER APPROVAL:**

Company Name:	_____	Working Interest (%):	_____	Tax ID:	_____
Signed by:	_____	Date:	_____		
Title:	_____	Approval:	<input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)		

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, curative, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of spud.

**Permian Resources Operating, LLC**

300 N. Marienfeld St., Ste. 1000 Midland, TX 79701  
 Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 171H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	20,736' / 10,451'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	TBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal TBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 55,739	-	37,500	\$ 93,239
2 Location, Surveys & Damages	271,852	17,050	2,500	291,402
4 Freight / Transportation	44,945	41,312	25,000	111,257
5 Rental - Surface Equipment	117,323	203,283	105,000	425,606
6 Rental - Downhole Equipment	193,853	56,437	-	250,289
7 Rental - Living Quarters	45,374	51,411	-	96,785
10 Directional Drilling, Surveys	405,348	-	-	405,348
11 Drilling	711,359	-	-	711,359
12 Drill Bits	94,533	-	-	94,533
13 Fuel & Power	178,292	684,220	-	862,512
14 Cementing & Float Equip	229,592	-	-	229,592
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	370,992	-	370,992
17 High Pressure Pump Truck	-	116,330	-	116,330
18 Completion Unit, Swab, CIU	-	138,232	-	138,232
20 Mud Circulation System	99,283	-	-	99,283
21 Mud Logging	16,542	-	-	16,542
22 Logging / Formation Evaluation	6,860	7,869	-	14,729
23 Mud & Chemicals	341,453	413,503	10,000	764,956
24 Water	41,011	624,356	300,000	965,367
25 Stimulation	-	768,180	-	768,180
26 Stimulation Flowback & D/Sp	-	114,757	150,000	264,757
28 Mud / Wastewater Disposal	182,227	57,706	-	239,933
30 Rig Supervision / Engineering	114,369	125,904	21,667	261,941
32 Drig & Completion Overhead	9,836	-	-	9,836
35 Labor	144,719	65,575	101,667	311,961
54 Proppant	-	1,184,522	-	1,184,522
95 Insurance	13,834	-	-	13,834
97 Contingency	-	23,045	3,833	26,878
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,318,344</b>	<b>5,064,685</b>	<b>772,167</b>	<b>9,155,196</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 115,349	-	-	\$ 115,349
61 Intermediate Casing	324,891	-	-	324,891
62 Drilling Liner	-	-	-	-
63 Production Casing	648,340	-	-	648,340
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	61,169	-	40,000	101,169
67 Packers, Liner Hangers	13,902	-	20,000	33,902
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,163,650</b>	<b>0</b>	<b>989,167</b>	<b>2,152,817</b>
<b>TOTAL COSTS &gt;</b>	<b>4,481,994</b>	<b>5,064,685</b>	<b>1,761,334</b>	<b>11,308,013</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer: PS  
 Completions Engineer: ML  
 Production Engineer: DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO \_\_\_\_\_ Co-CEO \_\_\_\_\_ VP - Operations \_\_\_\_\_  
 WH \_\_\_\_\_ JW \_\_\_\_\_ CRM \_\_\_\_\_  
 VP - Land & Legal \_\_\_\_\_ VP - Geosciences \_\_\_\_\_  
 BG \_\_\_\_\_ SO \_\_\_\_\_

**NON OPERATING PARTNER APPROVAL:**

Company Name: \_\_\_\_\_ Working Interest (%): \_\_\_\_\_ Tax ID: \_\_\_\_\_  
 Signed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Title: \_\_\_\_\_ Approval:  Yes  No (mark one)

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**Permian Resources Operating, LLC**

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 Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 172H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	20,731' / 10,446'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	TBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal TBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land/ Legal/ Regulatory	\$ 55,739	-	37,500	\$ 93,239
2 Location, Surveys & Damages	271,852	17,050	2,500	291,402
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7 Rental - Living Quarters	45,374	51,411	-	96,785
10 Directional Drilling, Surveys	405,348	-	-	405,348
11 Drilling	711,359	-	-	711,359
12 Drill Bits	94,533	-	-	94,533
13 Fuel & Power	178,292	684,220	-	862,512
14 Cementing & Float Equip	229,592	-	-	229,592
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Stickline	-	370,992	-	370,992
17 High Pressure Pump Truck	-	116,330	-	116,330
18 Completion Unit, Swab, CIU	-	138,232	-	138,232
20 Mud Circulation System	99,283	-	-	99,283
21 Mud Logging	16,542	-	-	16,542
22 Logging/ Formation Evaluation	6,860	7,869	-	14,729
23 Mud & Chemicals	341,453	413,503	10,000	764,956
24 Water	41,011	624,356	300,000	965,367
25 Stimulation	-	768,180	-	768,180
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28 Mud/ Wastewater Disposal	182,227	57,706	-	239,933
30 Rig Supervision/ Engineering	114,369	125,904	21,667	261,941
32 Drig & Completion Overhead	9,836	-	-	9,836
35 Labor	144,719	65,575	101,667	311,961
54 Proppant	-	1,184,522	-	1,184,522
95 Insurance	13,834	-	-	13,834
97 Contingency	-	23,045	3,833	26,878
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,318,344</b>	<b>5,064,685</b>	<b>772,167</b>	<b>9,155,196</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 115,349	-	-	\$ 115,349
61 Intermediate Casing	324,891	-	-	324,891
62 Drilling Liner	-	-	-	-
63 Production Casing	648,340	-	-	648,340
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	61,169	-	40,000	101,169
67 Packers, Liner Hangers	13,902	-	20,000	33,902
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning/ Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering/ Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank/ Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical/ Grounding	-	-	50,000	50,000
85 Communications/ SCADA	-	-	36,667	36,667
86 Instrumentation/ Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,163,650</b>	<b>0</b>	<b>989,167</b>	<b>2,152,817</b>
<b>TOTAL COSTS &gt;</b>	<b>4,481,994</b>	<b>5,064,685</b>	<b>1,761,334</b>	<b>11,308,013</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO _____	Co-CEO _____	VP - Operations _____
VP - Land & Legal _____	VP - Geosciences _____	CRM _____
WH	JW	
BC	SO	

**NON OPERATING PARTNER APPROVAL:**

Company Name: _____	Working Interest (%): _____	Tax ID: _____
Signed by: _____	Date: _____	
Title: _____	Approval: <input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)	

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### Permian Resources Operating, LLC

300 N. Marienfeld St., Ste. 1000 Midland, TX 79701  
 Phone (432) 695-4222 • Fax (432) 695-4063

#### ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 173H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	20,721' / 10,436'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	TBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal TBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land/ Legal/ Regulatory	\$ 55,739	-	37,500	\$ 93,239
2 Location, Surveys & Damages	271,852	17,050	2,500	291,402
4 Freight/ Transportation	44,945	41,312	25,000	111,257
5 Rental - Surface Equipment	117,323	203,283	105,000	425,606
6 Rental - Downhole Equipment	193,853	56,437	-	250,289
7 Rental - Living Quarters	45,374	51,411	-	96,785
10 Directional Drilling, Surveys	405,348	-	-	405,348
11 Drilling	711,359	-	-	711,359
12 Drill Bits	94,533	-	-	94,533
13 Fuel & Power	178,292	684,220	-	862,512
14 Cementing & Float Equip	229,592	-	-	229,592
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	370,992	-	370,992
17 High Pressure Pump Truck	-	116,330	-	116,330
18 Completion Unit, Swab, CIU	-	138,232	-	138,232
20 Mud Circulation System	99,283	-	-	99,283
21 Mud Logging	16,542	-	-	16,542
22 Logging/ Formation Evaluation	6,860	7,869	-	14,729
23 Mud & Chemicals	341,453	413,503	10,000	764,956
24 Water	41,011	624,356	300,000	965,367
25 Stimulation	-	768,180	-	768,180
26 Stimulation Flowback & Disp	-	114,757	150,000	264,757
28 Mud/ Wastewater Disposal	182,227	57,706	-	239,933
30 Rig Supervision/ Engineering	114,369	125,904	21,667	261,941
32 Drig & Completion Overhead	9,836	-	-	9,836
35 Labor	144,719	65,575	101,667	311,961
54 Proppant	-	1,184,522	-	1,184,522
95 Insurance	13,834	-	-	13,834
97 Contingency	-	23,045	3,833	26,878
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,318,344</b>	<b>5,064,685</b>	<b>772,167</b>	<b>9,155,196</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 115,349	-	-	\$ 115,349
61 Intermediate Casing	324,891	-	-	324,891
62 Drilling Liner	-	-	-	-
63 Production Casing	648,340	-	-	648,340
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	61,169	-	40,000	101,169
67 Packers, Liner Hangers	13,902	-	20,000	33,902
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning/ Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering/ Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank/ Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical/ Grounding	-	-	50,000	50,000
85 Communications/ SCADA	-	-	36,667	36,667
86 Instrumentation/ Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,163,650</b>	<b>0</b>	<b>989,167</b>	<b>2,152,817</b>
<b>TOTAL COSTS &gt;</b>	<b>4,481,994</b>	<b>5,064,685</b>	<b>1,761,334</b>	<b>11,308,013</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO _____	Co-CEO _____	VP - Operations _____
VP - Land & Legal _____	VP - Geosciences _____	CRM _____
WH	JW	
BC	SO	

**NON OPERATING PARTNER APPROVAL:**

Company Name: _____	Working Interest (%): _____	Tax ID: _____
Signed by: _____	Date: _____	
Title: _____	Approval: <input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)	

The costs on this AFE are estimates only and may not be construed as obligations on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, curative, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of spud.

### Permian Resources Operating, LLC

300 N. Marienfeld St., Ste. 1000 Midland, TX 79701  
 Phone (432) 695-4222 • Fax (432) 695-4063

#### ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 174H	FIELD:	Teas; Bone Spring
LOCATION:	Section 5, T20S-R34E	MD/TVD:	20,701' / 10,416'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	TBSG	COMPLETION DAYS:	18.6
REMARKS:	Drill a horizontal TBSG well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land/ Legal/ Regulatory	\$ 55,739	-	37,500	\$ 93,239
2 Location, Surveys & Damages	271,852	17,050	2,500	291,402
4 Freight/ Transportation	44,945	41,312	25,000	111,257
5 Rental - Surface Equipment	117,323	203,283	105,000	425,606
6 Rental - Downhole Equipment	193,853	56,437	-	250,289
7 Rental - Living Quarters	45,374	51,411	-	96,785
10 Directional Drilling, Surveys	405,348	-	-	405,348
11 Drilling	711,359	-	-	711,359
12 Drill Bits	94,533	-	-	94,533
13 Fuel & Power	178,292	684,220	-	862,512
14 Cementing & Float Equip	229,592	-	-	229,592
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Silckline	-	370,992	-	370,992
17 High Pressure Pump Truck	-	116,330	-	116,330
18 Completion Unit, Swab, CIU	-	138,232	-	138,232
20 Mud Circulation System	99,283	-	-	99,283
21 Mud Logging	16,542	-	-	16,542
22 Logging / Formation Evaluation	6,860	7,869	-	14,729
23 Mud & Chemicals	341,453	413,503	10,000	764,956
24 Water	41,011	624,356	300,000	965,367
25 Stimulation	-	768,180	-	768,180
26 Stimulation Flowback & Disp	-	114,737	150,000	264,737
28 Mud / Wastewater Disposal	182,227	57,706	-	239,933
30 Rig Supervision / Engineering	114,369	125,904	21,667	261,941
32 Drig & Completion Overhead	9,836	-	-	9,836
35 Labor	144,719	65,575	101,667	311,961
54 Proppant	-	1,184,522	-	1,184,522
95 Insurance	13,834	-	-	13,834
97 Contingency	-	23,045	3,833	26,878
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,318,344</b>	<b>5,064,685</b>	<b>772,167</b>	<b>9,155,196</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 115,349	-	-	\$ 115,349
61 Intermediate Casing	324,891	-	-	324,891
62 Drilling Liner	-	-	-	-
63 Production Casing	648,340	-	-	648,340
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	61,169	-	40,000	101,169
67 Packers, Liner Hangers	13,902	-	20,000	33,902
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,163,650</b>	<b>0</b>	<b>989,167</b>	<b>2,152,817</b>
<b>TOTAL COSTS &gt;</b>	<b>4,481,994</b>	<b>5,064,685</b>	<b>1,761,334</b>	<b>11,308,013</b>

PREPARED BY Permian Resources Operating, LLC:

Drilling Engineer: PS  
 Completions Engineer: ML  
 Production Engineer: DC

Permian Resources Operating, LLC APPROVAL:

Co-CEO WH Co-CEO JW VP - Operations CRM  
 VP - Land & Legal BC VP - Geosciences SO

NON OPERATING PARTNER APPROVAL:

Company Name: \_\_\_\_\_ Working Interest (%): \_\_\_\_\_ Tax ID: \_\_\_\_\_  
 Signed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Title: \_\_\_\_\_ Approval:  Yes  No (mark one)

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, creative, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of spud.



**Permian Resources Operating, LLC**

300 N. Mariefeld St., Ste. 1000 Midland, TX 79701  
 Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 202H	FIELD:	Tonto; Wolfcamp
LOCATION:	Section 5, T20S-R34E	MD/TVD:	21,211' / 10,926'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	WCXY	COMPLETION DAYS:	19
REMARKS:	Drill a horizontal WCXY well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 59,066	-	37,500	\$ 96,566
2 Location, Surveys & Damages	288,079	18,067	2,500	308,647
4 Freight / Transportation	47,628	43,778	25,000	116,406
5 Rental - Surface Equipment	124,327	215,417	105,000	444,744
6 Rental - Downhole Equipment	205,424	59,805	-	265,229
7 Rental - Living Quarters	48,083	54,480	-	102,562
10 Directional Drilling, Surveys	429,543	-	-	429,543
11 Drilling	753,820	-	-	753,820
12 Drill Bits	100,176	-	-	100,176
13 Fuel & Power	188,935	725,061	-	913,996
14 Cementing & Float Equip	243,296	-	-	243,296
15 Completion Unit, Swab, C/U	-	-	15,000	15,000
16 Perforating, Wireline, Stickline	-	393,136	-	393,136
17 High Pressure Pump Truck	-	123,274	-	123,274
18 Completion Unit, Swab, C/U	-	146,484	-	146,484
20 Mud Circulation System	105,209	-	-	105,209
21 Mud Logging	17,529	-	-	17,529
22 Logging / Formation Evaluation	7,270	8,339	-	15,609
23 Mud & Chemicals	361,835	438,185	10,000	810,020
24 Water	43,459	661,625	300,000	1,005,083
25 Stimulation	-	814,033	-	814,033
26 Stimulation Flowback & Disp	-	121,606	150,000	271,606
28 Mud / Wastewater Disposal	193,104	61,151	-	254,254
30 Rig Supervision / Engineering	121,196	133,420	21,667	276,283
32 Drig & Completion Overhead	10,423	-	-	10,423
35 Labor	153,358	69,489	101,667	324,514
54 Proppant	-	1,255,227	-	1,255,227
95 Insurance	14,660	-	-	14,660
97 Contingency	-	24,421	3,833	28,254
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,516,419</b>	<b>5,367,000</b>	<b>772,167</b>	<b>9,655,585</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 122,234	-	-	\$ 122,234
61 Intermediate Casing	344,284	-	-	344,284
62 Drilling Liner	-	-	-	-
63 Production Casing	687,039	-	-	687,039
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	64,820	-	40,000	104,820
67 Packers, Liner Hangers	14,732	-	20,000	34,732
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,233,109</b>	<b>0</b>	<b>989,167</b>	<b>2,222,276</b>
<b>TOTAL COSTS &gt;</b>	<b>4,749,528</b>	<b>5,367,000</b>	<b>1,761,334</b>	<b>11,877,862</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer:	PS
Completions Engineer:	ML
Production Engineer:	DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO _____	Co-CEO _____	VP - Operations _____
WH	JW	CRM
VP - Land & Legal _____	VP - Geosciences _____	
BC	SO	

**NON OPERATING PARTNER APPROVAL:**

Company Name: _____	Working Interest (%): _____	Tax ID: _____
Signed by: _____	Date: _____	
Title: _____	Approval: <input type="checkbox"/> Yes <input type="checkbox"/> No (mark one)	

The costs on this AFE are estimates only and may not be construed as a ceiling on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, creative, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of spud.

**Permian Resources Operating, LLC**

300 N. Marlenfeld St., Ste. 1000 Midland, TX 79701  
 Phone (432) 695-4222 • Fax (432) 695-4063

**ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE**

DATE:	2.17.2023	AFE NO.:	1
WELL NAME:	Joker 5-8 Federal Com 203H	FIELD:	Tonto; Wolfcamp
LOCATION:	Section 5, T20S-R34E	MD/TVD:	21,191' / 10,906'
COUNTY/STATE:	Lea County, New Mexico	LATERAL LENGTH:	10,000'
Permian WI:		DRILLING DAYS:	19.6
GEOLOGIC TARGET:	WCXY	COMPLETION DAYS:	19
REMARKS:	Drill a horizontal WCXY well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost		

INTANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
1 Land / Legal / Regulatory	\$ 59,066	-	37,500	\$ 96,566
2 Location, Surveys & Damages	288,079	18,067	2,500	308,647
4 Freight / Transportation	47,628	43,778	25,000	116,406
5 Rental - Surface Equipment	124,327	215,417	105,000	444,744
6 Rental - Downhole Equipment	205,424	59,805	-	265,229
7 Rental - Living Quarters	48,083	54,480	-	102,562
10 Directional Drilling, Surveys	429,543	-	-	429,543
11 Drilling	753,820	-	-	753,820
12 Drill Bits	100,176	-	-	100,176
13 Fuel & Power	188,935	725,061	-	913,996
14 Cementing & Float Equip	243,296	-	-	243,296
15 Completion Unit, Swab, CIU	-	-	15,000	15,000
16 Perforating, Wireline, Slickline	-	393,136	-	393,136
17 High Pressure Pump Truck	-	123,274	-	123,274
18 Completion Unit, Swab, CIU	-	146,484	-	146,484
20 Mud Circulation System	105,209	-	-	105,209
21 Mud Logging	17,529	-	-	17,529
22 Logging / Formation Evaluation	7,270	8,339	-	15,609
23 Mud & Chemicals	361,835	438,185	10,000	810,020
24 Water	43,459	661,625	300,000	1,005,083
25 Stimulation	-	814,033	-	814,033
26 Stimulation Flowback & Disp	-	121,606	150,000	271,606
28 Mud / Wastewater Disposal	193,104	61,151	-	254,254
30 Rig Supervision / Engineering	121,196	133,420	21,667	276,283
32 Drig & Completion Overhead	10,423	-	-	10,423
35 Labor	153,358	69,489	101,667	324,514
54 Proppant	-	1,255,227	-	1,255,227
95 Insurance	14,660	-	-	14,660
97 Contingency	-	24,421	3,833	28,254
99 Plugging & Abandonment	-	-	-	-
<b>TOTAL INTANGIBLES &gt;</b>	<b>3,516,419</b>	<b>5,367,000</b>	<b>772,167</b>	<b>9,655,585</b>

TANGIBLE COSTS	DRILLING COSTS	COMPLETION COSTS	PRODUCTION COSTS	TOTAL COSTS
60 Surface Casing	\$ 122,234	-	-	\$ 122,234
61 Intermediate Casing	344,284	-	-	344,284
62 Drilling Liner	-	-	-	-
63 Production Casing	687,039	-	-	687,039
64 Production Liner	-	-	-	-
65 Tubing	-	-	140,000	140,000
66 Wellhead	64,820	-	40,000	104,820
67 Packers, Liner Hangers	14,732	-	20,000	34,732
68 Tanks	-	-	45,833	45,833
69 Production Vessels	-	-	126,667	126,667
70 Flow Lines	-	-	66,667	66,667
71 Rod string	-	-	-	-
72 Artificial Lift Equipment	-	-	90,000	90,000
73 Compressor	-	-	5,833	5,833
74 Installation Costs	-	-	-	-
75 Surface Pumps	-	-	61,667	61,667
76 Downhole Pumps	-	-	-	-
77 Measurement & Meter Installation	-	-	116,667	116,667
78 Gas Conditioning / Dehydration	-	-	-	-
79 Interconnecting Facility Piping	-	-	20,000	20,000
80 Gathering / Bulk Lines	-	-	-	-
81 Valves, Dumps, Controllers	-	-	108,333	108,333
82 Tank / Facility Containment	-	-	43,333	43,333
83 Flare Stack	-	-	16,667	16,667
84 Electrical / Grounding	-	-	50,000	50,000
85 Communications / SCADA	-	-	36,667	36,667
86 Instrumentation / Safety	-	-	833	833
<b>TOTAL TANGIBLES &gt;</b>	<b>1,233,109</b>	<b>0</b>	<b>989,167</b>	<b>2,222,276</b>
<b>TOTAL COSTS &gt;</b>	<b>4,749,528</b>	<b>5,367,000</b>	<b>1,761,334</b>	<b>11,877,862</b>

**PREPARED BY Permian Resources Operating, LLC:**

Drilling Engineer: PS  
 Completions Engineer: ML  
 Production Engineer: DC

**Permian Resources Operating, LLC APPROVAL:**

Co-CEO WH Co-CEO JW VP - Operations CRM  
 VP - Land & Legal BC VP - Geosciences SO

**NON OPERATING PARTNER APPROVAL:**

Company Name: \_\_\_\_\_ Working Interest (%): \_\_\_\_\_ Tax ID: \_\_\_\_\_  
 Signed by: \_\_\_\_\_ Date: \_\_\_\_\_  
 Title: \_\_\_\_\_ Approval:  Yes  No (mark one)

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. Tubing installation approved under the AFE may be delayed up to a year after the well has been completed. In executing this AFE, the Participant agrees to pay its proportionate share of actual costs incurred, including, legal, executive, regulatory, brokerage and well costs under the terms of the applicable joint operating agreement, regulatory order or other agreement covering this well. Participants shall be covered by and billed proportionately for Operator's well control and general liability insurance unless participant provides Operator a certificate evidencing its own insurance in an amount acceptable to the Operator by the date of spud.

Permian Resources Operating, LLC

300 N. Marienfeld St., Ste. 1000 Midland, TX 79701
Phone (432) 695-4222 • Fax (432) 695-4063

ESTIMATE OF COSTS AND AUTHORIZATION FOR EXPENDITURE

Table with well details: DATE: 2.17.2023, WELL NAME: Joker 5-8 Federal Com 204H, LOCATION: Section 5, T20S-R34E, COUNTY/STATE: Lea County, New Mexico, AFE NO.: 1, FIELD: Tonto; Wolfcamp, MD/IVD: 21,181' / 10,896', LATERAL LENGTH: 10,000', DRILLING DAYS: 19.6, COMPLETION DAYS: 19. REMARKS: Drill a horizontal WCXY well and complete with 44 stages. AFE includes drilling, completions, flowback and Initial AL install cost

Table with 5 columns: INTANGIBLE COSTS, DRILLING COSTS, COMPLETION COSTS, PRODUCTION COSTS, TOTAL COSTS. Lists items 1-99 such as Land/Legal/Regulatory, Location, Surveys & Damages, Freight/Transportation, etc.

Table with 5 columns: TANGIBLE COSTS, DRILLING COSTS, COMPLETION COSTS, PRODUCTION COSTS, TOTAL COSTS. Lists items 60-86 such as Surface Casing, Intermediate Casing, Drilling Liner, Production Casing, etc.

PREPARED BY Permian Resources Operating, LLC:

Table with roles: Drilling Engineer: PS, Completions Engineer: ML, Production Engineer: DC

Permian Resources Operating, LLC APPROVAL:

Approval table with signatures for Co-CEO (WH, JW), VP - Operations (CRM), VP - Land & Legal (BC), VP - Geosciences (SO)

NON OPERATING PARTNER APPROVAL:

Form for non-operating partner approval with fields for Company Name, Working Interest (%), Tax ID, Signed by, Date, Title, and Approval (Yes/No).

The costs on this AFE are estimates only and may not be construed as ceilings on any specific item or the total cost of the project. ...

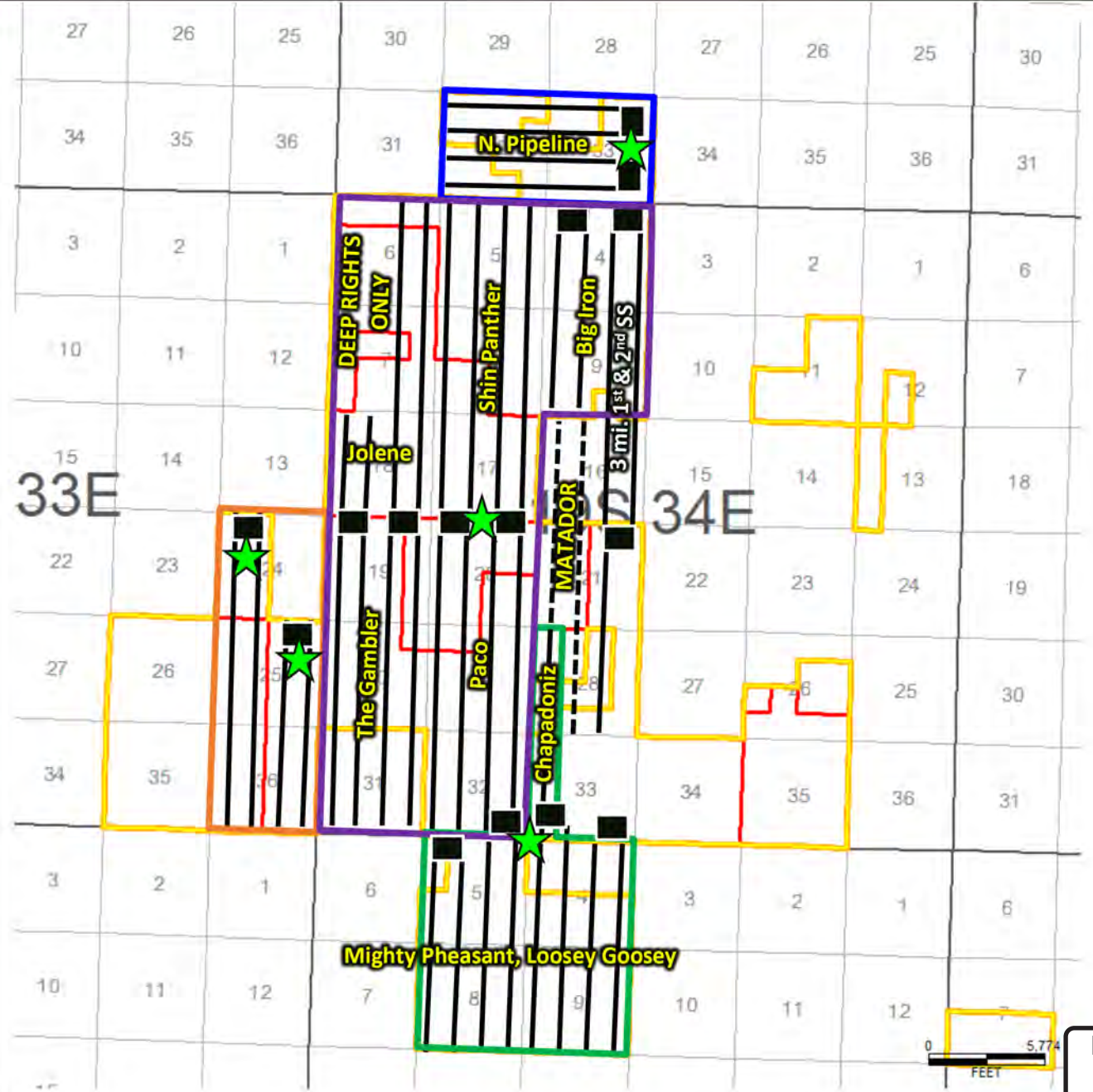
# Development Layout

## Legend

- **Approx. Pad Locations**
- ★ **Facilities**
- **Federal Units**

### Surface

- All fed acreage/interest. Can commingle to 1 facility across sections 5-8, 4-9, & W2W2 33-28. Ensure all surface is north of 62-180 to avoid extra road bores
- Create a BSS unit. Current expectation is ~2 years. Will allow all BSS wells to go to a central facility. WCMP wells will require commingling permit or separate PA
- 36 is state interest, portion of 25 fee interest. Will not be able to commingle wells in this area. Proposed two on pad (pad extension) CTBs
- All state, one centrally located CTB or on pad CTB (depends on total well count/pad)





# Development Layout

## Legend

■ Approx. Pad Locations

★ Facilities

□ Federal Units

### Producing Wells

◆ 1<sup>st</sup> BSPG Sand

◆ 2<sup>nd</sup> BSPG Sand

◆ 3<sup>rd</sup> BSPG Sand

### Surface

□ All fed acreage/interest. Can commingle to 1 facility across sections 5-8, 4-9, & W2W2 33-28. Ensure all surface is north of 62-180 to avoid extra road bores

□ Create a BSS unit. Current expectation is ~2 years. Will allow all BSS wells to go to a central facility. WCMP wells will require commingling permit or separate PA

□ 36 is state interest, portion of 25 fee interest. Will not be able to commingle wells in this area. Proposed two on pad (pad extension) CTBs

□ All state, one centrally located CTB or on pad CTB (depends on total well count/pad)



# Lea County Well Count by Company, Formation, and Spud

Operator	BONE SPRING	WOLFCAMP	Grand Total
<b>Cimarex Total</b>	<b>57</b>	<b>47</b>	<b>104</b>
2018	19	7	26
2019	9	6	15
2020	2	7	9
2021	10	17	27
2022	12		12
2023	5	10	15

Cimarex has Spud 104 wells since 2018

- We are an established operator in Lea county.
  - 79 x 2 miles
  - 25 x 1 miles due to available length
- The Cimarex well blend is evenly distributed between Wolfcamp and Bone Spring and we have devoted considerable time and effort the study of appropriate Wolfcamp development.
- Our staggers over the last 4 years range from ~200 ft to ~500ft dependent on geology as we have worked to minimize vertical interference in our developments within the county and maximize capital efficiency.
- We have provided performance metrics for Lea County for the top 15 operators to allay any concerns over Cimarex’s ability do deliver great wells on slides 8 and 9 comparing everyone's average 1<sup>st</sup> 12 months for BOE and Oil / 1000 ft.

## Summary:

### Single battery where possible

- Limits emissions and disturbance
- Lowest Infrastructure cost
- Improved marketing deals oil, water ,gas

## Timing:

- Contested operatorship and dissolving federal unit have slowed development of this large position
- Mighty Pheasant and Loosey Goosey complexity increased by Reed and Stevens spudding 1-mile wells in 2020
- Rig schedule is 6 to 11 wells per year dependent on pricing with activity pausing during LPC season.
- We have bid out the aggregate development for Oil, Water, and Gas takeaway to 12 companies and benefit from economies of scale with limited connection points and substantial inventory.

**STATE OF NEW MEXICO  
COUNTY OF CHAVES  
FIFTH JUDICIAL DISTRICT**

**READ & STEVENS, INC.,**

**Plaintiff,**

**v.**

**Case No. D-504-CV-2014-00358**

**CIMAREX ENERGY CO., and MAGNUM  
HUNTER PRODUCTION INC.,**

**Defendants.**

**ORDER ON MOTION FOR PARTIAL SUMMARY JUDGMENT**

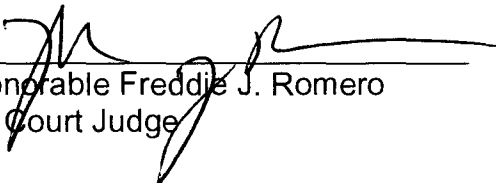
THIS MATTER came before the Court on the Motion for Partial Summary Judgment filed on September 22, 2015 by Plaintiff Read & Stevens, Inc. The Court has reviewed the pleadings and exhibits thereto filed by the parties and heard argument of counsel for the parties at hearing on November 19, 2015.

Plaintiff's Motion sought two rulings. First, plaintiff requested a ruling that Defendants are not the operator of the Contract Area under the applicable Operating Agreement of August 1, 1979. The Court FINDS that there are no genuine issues of material fact regarding this issue. Plaintiff is entitled to judgment as a matter of law that Cimarex and Magnum Hunter are not currently and have not in the past been operators of the contract area as defined by the 1979 Operating Agreement.

Plaintiff also sought a ruling that Magnum Hunter has no viable right to serve as an operator under the 1979 Operating Agreement. The Court FINDS that Magnum Hunter may have a theoretical right in the future to become an operator pursuant to the

provisions of paragraph V.B of the 1979 Operating Agreement. Consequently, Plaintiff is not entitled to judgment as a matter of law on this issue.

IT IS THEREFORE ORDERED that Plaintiff's Motion for Partial Summary judgment holding that Magnum Hunter and Cimarex are not currently and have not in the past been operators as defined by the 1979 Operating Agreement is GRANTED. Plaintiff's Motion for Partial Summary Judgment holding that Magnum Hunter has no viable right to serve as operator under the 1979 Operating Agreement is DENIED.

  
The Honorable Freddie J. Romero  
District Court Judge

Submitted by:

GALLEGOS LAW FIRM, P.C.

/s/ J.E. Gallegos  
J.E. GALLEGOS  
MICHAEL J. CONDON  
460 St. Michael's Drive, Bldg. 300  
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(505) 983-6686

CARSON RYAN, LLC  
Joel M. Carson III  
Elizabeth A. Ryan  
P.O. Box 1612  
Roswell, New Mexico 88201  
(575) 291-7606

*Attorneys for Read & Stevens, Inc.*

Approved as to form by:

MONTGOMERY & ANDREWS, P.A.

Email Approval 12/14/15

SCOTT HALL

SHARON SHAHEEN

Post Office Box 2307

Santa Fe, New Mexico 87504

*Attorneys for Defendants*

Owner	Using Coterra Ownership				
	In Favor of CTRA	In Favor of R&S			
	W2W2 of Sections 5 and 8	E2W2 of Sections 5 and 8	W2E2 of Sections 5 and 8	E2E2 of Sections 5 and 8	
<b>Mighty Pheasant - Bone Spring Proration Unit</b>					
Moore & Shelton Co., Ltd	1.5576%	1.5575%	1.5574%	1.5573%	CTRA Support
HOG Partnership, LP	2.5174%	5.6433%	5.6438%	5.6444%	Neutral
Challenger Crude, Ltd.	2.1886%	2.1884%	2.1883%	2.1881%	CTRA Support
Permian Resources LLC	44.1918%	25.7614%	24.0932%	24.0915%	PR Owned
Delmar Hudson Lewis Living Trust	2.6393%	4.1226%	4.1227%	4.1229%	CTRA Owned
Magnum Hunter Production	21.0701%	21.0682%	32.0105%	32.0116%	CTRA Owned
Zorro Partners, Ltd.	2.4194%	5.6503%	5.6507%	5.6514%	CTRA Support
Josephine T. Hudson Trust	0.4399%	0.8371%	0.8372%	0.8373%	CTRA Support
Ard Oil, LTD	1.3197%	2.5114%	2.5115%	2.5118%	PR Support
Chase Oil Corporation	1.3506%	1.3504%	1.3504%	1.3502%	Neutral
Cimarex Energy Co.	5.3362%	5.3357%	5.3354%	5.3349%	CTRA Owned
Avalon Energy Corporation	0.4261%	0.4261%	0.4261%	0.4260%	PR Owned
Wilbanks Reserve Corporation	2.3677%	2.3675%	2.3674%	2.3671%	Neutral
Prime Rock Resources	1.2784%	1.2782%	1.2782%	1.2781%	Neutral
Marks Oil, Inc.	0.4457%	0.4456%	0.4456%	0.4456%	Neutral
Javelina Partners	4.4471%	7.6778%	7.6781%	7.6786%	CTRA Support
William A. Hudson, II	0.2360%	0.2360%	0.2360%	0.2359%	CTRA Support
Union Hill Oil & Gas Co. Inc.	2.2680%	2.2678%	2.2676%	2.2674%	CTRA Support
Highland (Texas) Energy Company	1.2049%	0.0000%	0.0000%	0.0000%	CTRA Support
Richardson Oil Company, LLC	0.2953%	0.0000%	0.0000%	0.0000%	CTRA Support
Carolyn R. Beall	0.5000%	0.0000%	0.0000%	0.0000%	PR Support
Diamond Star Production Co., LLC	0.5000%	0.0000%	0.0000%	0.0000%	PR Support
Tierra Encantada, LLC	0.5000%	0.0000%	0.0000%	0.0000%	Neutral
David Luna	0.5000%	0.0000%	0.0000%	0.0000%	Neutral
MRC Permian Company	0.0000%	4.5009%	0.0000%	0.0000%	Neutral
CM Resources II, LLC	0.0000%	3.1066%	0.0000%	0.0000%	PR Owned
CBR Oil Properties, LLC	0.0000%	1.3336%	0.0000%	0.0000%	PR Support
General Partnership, 2023 Permian Basin JV	0.0000%	0.3334%	0.0000%	0.0000%	Neutral
% for CTRA	44.10%	50.94%	61.88%	61.89%	
% for PR	46.94%	33.14%	27.03%	27.03%	

Owner	Loosey Goosey - Bone Spring Proration Unit				
	W2W2 of Sections 4 and 9	E2W2 of Sections 4 and 9	W2E2 of Sections 4 and 9	E2E2 of Sections 4 and 9	
	Moore & Shelton Co., Ltd	2.9657%	2.9676%	2.9694%	
HOG Partnership, LP	5.6470%	5.6519%	5.9706%	5.9753%	Neutral
Challenger Crude, Ltd.	2.1872%	2.1857%	1.4561%	1.4551%	CTRA Support
Permian Resources LLC	22.6756%	22.6593%	24.7422%	24.7244%	PR Owned
Delmar Hudson Lewis Living Trust	7.7649%	7.7741%	7.7828%	7.7919%	CTRA Owned
Magnum Hunter Production	21.0570%	21.0419%	18.8161%	18.8026%	CTRA Owned
Zorro Partners, Ltd.	7.1179%	7.1262%	7.1342%	7.1425%	CTRA Support
Josephine T. Hudson Trust	1.2942%	1.2957%	1.2971%	1.2986%	CTRA Support
Ard Oil, LTD	3.8825%	3.8870%	3.8914%	3.8959%	PR Support
Chase Oil Corporation	1.3497%	1.3488%	0.8986%	0.8979%	Neutral
Cimarex Energy Co.	5.3329%	5.3291%	8.2281%	8.2222%	CTRA Owned
Avalon Energy Corporation	0.4259%	0.4256%	0.2835%	0.2833%	PR Owned
Wilbanks Reserve Corporation	2.3662%	2.3645%	1.5753%	1.5742%	Neutral
Prime Rock Resources	1.2776%	1.2767%	0.8505%	0.8499%	Neutral
Marks Oil, Inc.	0.4454%	0.4451%	0.2965%	0.2963%	Neutral
Javelina Partners	11.7079%	11.7203%	11.4967%	11.5092%	CTRA Support
William A. Hudson, II	0.2359%	0.2357%	0.1570%	0.1569%	CTRA Support
Union Hill Oil & Gas Co. Inc.	2.2666%	2.2650%	2.1539%	2.1523%	CTRA Support
Highland (Texas) Energy Company	0.0000%	0.0000%	0.0000%	0.0000%	CTRA Support
Richardson Oil Company, LLC	0.0000%	0.0000%	0.0000%	0.0000%	CTRA Support
Carolyn R. Beall	0.0000%	0.0000%	0.0000%	0.0000%	PR Support
Diamond Star Production Co., LLC	0.0000%	0.0000%	0.0000%	0.0000%	PR Support
Tierra Encantada, LLC	0.0000%	0.0000%	0.0000%	0.0000%	Neutral
David Luna	0.0000%	0.0000%	0.0000%	0.0000%	Neutral
MRC Permian Company	0.0000%	0.0000%	0.0000%	0.0000%	Neutral
CM Resources II, LLC	0.0000%	0.0000%	0.0000%	0.0000%	PR Owned
CBR Oil Properties, LLC	0.0000%	0.0000%	0.0000%	0.0000%	PR Support
General Partnership, 2023 Permian Basin JV	0.0000%	0.0000%	0.0000%	0.0000%	Neutral
% for CTRA	61.93%	61.94%	61.49%	61.50%	
% for PR	26.98%	26.97%	28.92%	28.90%	

**EXHIBIT A-9**

Total Permian Development Cost	Net Cost Per WIO	Total Coterra Development Cost	Net Cost Per WIO	Difference between Developments
Delmar Hudson Trust	\$ 18,089,832.78	Delmar Hudson Trust	\$ 9,876,838.20	\$ 8,212,994.57
Lindys Living Trust	\$ 29,308,032.49	Lindys Living Trust	\$ 15,737,845.12	\$ 13,570,187.37
Javelina Partners	\$ 41,670,448.93	Javelina Partners	\$ 22,324,341.03	\$ 19,346,107.90
Zorro Partners	\$ 28,105,608.88	Zorro Partners	\$ 14,763,299.18	\$ 13,342,309.71
Josephine Hudson Trust	\$ 5,421,906.00	Josephine Hudson Trust	\$ 2,890,835.22	\$ 2,531,070.78
Ard Oil	\$ 14,654,016.11	Ard Oil	\$ 7,868,922.49	\$ 6,785,093.62
Moore and Shelton	\$ 12,917,179.04	Moore and Shelton	\$ 6,876,219.27	\$ 6,040,959.77
HOG Partnership LP	\$ 30,874,175.16	HOG Partnership LP	\$ 15,655,402.13	\$ 15,218,773.03
Read and Stevens	\$ 130,419,826.77	Read and Stevens	\$ 67,260,556.01	\$ 63,159,270.76
First Century Oil	\$ 29,866,998.32	First Century Oil	\$ 15,056,029.91	\$ 14,810,968.42
Foran Oil Co.	\$ 10,316,095.71	Foran Oil Co.	\$ 5,681,103.05	\$ 4,634,992.65
Chase Oil Co.	\$ 7,038,561.43	Chase Oil Co.	\$ 3,876,155.67	\$ 3,162,405.76
Union Hill	\$ 3,374,058.47	Union Hill	\$ 1,682,281.67	\$ 1,691,776.80
Magnum Hunter	\$ 99,757,303.82	Magnum Hunter	\$ 55,226,946.45	\$ 44,530,357.37
Cimarex	\$ 32,268,923.15	Cimarex	\$ 16,714,493.11	\$ 15,554,430.04
William A Hudson II	\$ 1,040,859.62	William A Hudson II	\$ 695,639.44	\$ 345,220.19
Challenger Crude	\$ 10,822,899.53	Challenger Crude	\$ 5,621,612.32	\$ 5,201,287.21
MRC Permian	\$ 4,107,154.83	MRC Permian	\$ 1,514,460.94	\$ 2,592,693.89
Northern Oil and Gas	\$ 2,835,005.00	Northern Oil and Gas	\$ 1,045,418.83	\$ 1,789,586.17
CBR Oil Prop	\$ 1,521,121.47	CBR Oil Prop	\$ 560,899.00	\$ 960,222.47
CLM Production Co.	\$ 59,381.89	CLM Production Co.	\$ -	\$ 59,381.89
Highland (Texas) Energy	\$ 893,406.32	Highland (Texas) Energy	\$ 504,660.85	\$ 388,745.48
Diamond Star Prod.	\$ 337,390.03	Diamond Star Prod.	\$ 168,220.28	\$ 169,169.75
Carolyn Beall	\$ 337,390.03	Carolyn Beall	\$ 168,220.28	\$ 169,169.75
Tierra Encantada	\$ 337,390.03	Tierra Encantada	\$ 168,220.28	\$ 169,169.75
David Luna	\$ 337,390.03	David Luna	\$ 168,220.28	\$ 169,169.75
Warren Associates	\$ 59,381.89	Warren Associates	\$ -	\$ 59,381.89
Marks Oil	\$ 2,561,792.75	Marks Oil	\$ 1,099,625.19	\$ 1,462,167.56
Prime Rock	\$ 5,212,791.56	Prime Rock	\$ 3,154,214.30	\$ 2,058,577.27
Wilbanks Reserve	\$ 13,609,171.58	Wilbanks Reserve	\$ 5,841,723.33	\$ 7,767,448.26
Avalon Energy Corp.	\$ 1,737,833.25	Avalon Energy Corp.	\$ 1,051,547.61	\$ 686,285.64
	\$ 539,893,326.89		\$ 283,253,951.43	\$ 256,639,375.46
				Total Cost Delta Between Developments



## TAB 3

Case Nos. 23448-23451

- Exhibit B: Self-Affirmed Statement of Staci Mueller, Geologist
- Exhibit B-1: Locator Map & Stress Direction
- Exhibit B-2: Permit Status
- Exhibit B-3: Gun Barrel View
- Exhibit B-4: Development Plan Comparison
- Exhibit B-5: Subsea Structure Map
- Exhibit B-6: 3<sup>rd</sup> Bone Spring Isopach Map
- Exhibit B-7: Structural Cross Section
- Exhibit B-8: 3<sup>rd</sup> Bone Spring Producers vs. all Wolfcamp Producers
- Exhibit B-9: All 3<sup>rd</sup> Bone Spring and Wolfcamp Producers
- Exhibit B-10: Comparing 3<sup>rd</sup> Sand to Wolfcamp Reservoir (SoPhiH)
- Exhibit B-11: 2<sup>nd</sup> Bone Spring Structure Map
- Exhibit B-12: 2<sup>nd</sup> Bone Spring Sand Isopach
- Exhibit B-13: 2<sup>nd</sup> Bone Spring Sand Cross Section
- Exhibit B-14: 2<sup>nd</sup> Bone Spring Sand vs. 3<sup>rd</sup> Bone Spring Carbonate Producers
- Exhibit B-15: PhilH L 2<sup>nd</sup> Sand vs. 3<sup>rd</sup> Carbonate
- Exhibit B-16: 1<sup>st</sup> Bone Spring Sand Structure
- Exhibit B-17: 1<sup>st</sup> Bone Spring Sand Isopach
- Exhibit B-18: 1<sup>st</sup> Bone Spring Structural Cross Section
- Exhibit B-19: Wolfcamp Structure Map (Subsea TVD)
- Exhibit B-20: Wolfcamp XY Isopach
- Exhibit B-21: Wolfcamp XY West to East Cross Section
- Exhibit B-22: 3D Seismic Outline
- Exhibit B-23: Cross Section Across 3<sup>rd</sup> Bone Spring Sand
- Exhibit B-24: Net-to-Gross Density Porosity (DPHI) <4% Within the 3<sup>rd</sup> Bone Spring Sand and Upper Wolfcamp Sands

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

**APPLICATIONS OF CIMAREX ENERGY CO.  
FOR A HORIZONTAL SPACING UNIT AND  
COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

**Case Nos. 23448 – 23451  
(Mighty Pheasant; Bone Spring)**

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

**Case Nos. 23594 – 23597  
(Mighty Pheasant; Wolfcamp)**

**APPLICATIONS OF CIMAREX ENERGY CO.  
FOR A HORIZONTAL SPACING UNIT AND  
COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

**Case Nos. 23452 – 23455  
(Loosey Goosey; Bone Spring)**

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

**Case Nos. 23598 – 23601  
(Loosey Goosey; Wolfcamp)**

**SELF-AFFIRMED STATEMENT OF STACI MUELLER**

I, being duly sworn on oath, state the following:

1. I am over the age of 18, and I have personal knowledge of the matters stated herein.
2. I am employed as a petroleum geologist for Coterra Energy, Inc. (“Coterra”) The Applicant, Cimarex Energy Co. (“Cimarex”), is a subsidiary of Coterra. I am familiar with the subject application and the geology involved.



3. This testimony is submitted in connection with the filing by Cimarex in the above-referenced compulsory pooling application pursuant to 19.15.4.12.A(1) NMAC.

4. I have testified previously by affidavit before the Oil Conservation Division (“Division”) as an expert petroleum geologist; my credentials have been made a matter of record, and I have been qualified as an expert by the Division.

a. I have a Bachelor of Science Degree in Geophysical Engineering from Colorado School of Mines, and a Master of Science Degree in Geophysics from Colorado School of Mines.

b. I have worked on New Mexico Oil and Gas matters since July 2018.

5. Cimarex is an established operator in the Quail Ridge area, with 35 horizontal wells drilled within the basal 3<sup>rd</sup> Bone Spring Sand starting in 2010 through 2022. In most of the 3<sup>rd</sup> Sand developments, Triple Combo logs were taken to further the reservoir characterization of both the Bone Spring and Wolfcamp formations. From these extensive mapping efforts along with offset production analyses, Cimarex has verified that the 3<sup>rd</sup> Sand is the most economic target at the Mighty Pheasant and Loosey Goosey proposed development.

6. **Exhibit B-1** shows a map made by Jens-Erik Lund Snee and Mark D. Zoback from Stanford University, which depicts the maximum horizontal stress direction throughout the Delaware and Midland Basins. The map on the right is a zoomed in portion of the regional map (red outline), where the blue lines represent the digitized version of the same stress directions. Based on the regional trend observed by Lund Snee and Zoback, the estimated stress direction at Mighty Pheasant and Loosey Goosey is approximately N70E, which means the favorable well orientation is north-south instead of east-west. Both Cimarex and Permian Resources plan to drill in the north-south orientation.

7. **Exhibit B-2** is a table summarizing the permit status for the Mighty Pheasant and Loosey Goosey developments. Highlighted in yellow are the wells that Cimarex has submitted to the BLM, and each well has “AFMSS-Accepted” noted to show that these wells are high enough on Cimarex’s priority list for the BLM to be currently working on them. Ten permits were submitted between February and March 2022 for a 3<sup>rd</sup> Bone Spring Sand development (tier 1 target in area) plus a 1<sup>st</sup> Sand or 2<sup>nd</sup> Sand well to de-risk the sections in more highly channelized reservoirs.

8. **Exhibit B-3** is a gun barrel view of Cimarex’s development plan across both Mighty Pheasant (Sections 5 & 8) and Loosey Goosey (Sections 4 & 9). Cimarex plans to develop the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> Bone Spring Sands at 4 wells per section spacing. The 1<sup>st</sup> Sand target is the high porosity, clean sand in the upper half of the interval. The 2<sup>nd</sup> Sand target is the basal siltstone/sandstone interval, and the 3<sup>rd</sup> Sand target is the basal clean sand lobe, which is also the established target across several townships.

9. **Exhibit B-4** is a gun barrel view of Cimarex’s plan (left side) versus Permian Resources (right side). Permian Resources plans to include 3 additional landing zones in their full section development: the Upper 2<sup>nd</sup> Bone Spring Sand, the 3<sup>rd</sup> Carbonate, and the Wolfcamp XY Sands. This is a risky development scenario, because the 3<sup>rd</sup> Sand & Wolfcamp XY vertical spacing is about 95 ft, which is not considered a true stagger and subsequently treated as a flat development. Therefore, Permian Resource plans to develop the 3<sup>rd</sup> Sand & Wolfcamp XY combined reservoir tank at 8 wells per section, which is over-spaced for this area, where almost every operator has developed the 3<sup>rd</sup> Sand with 4 wells per section. Permian Resources’ 3<sup>rd</sup> Carbonate target is approximately 135 ft vertical distance from their proposed Lower 2<sup>nd</sup> Sand target, which is also very tight vertical spacing when there is no frac baffle in between (no tight carbonates). The Lower 2<sup>nd</sup> Sand is the established target across several townships, while there has only been one well

landed in the 3<sup>rd</sup> Carbonate (with no 2<sup>nd</sup> Sand above). The Upper 2<sup>nd</sup> Sand is a target that Cimarex has investigated and determined to be too risky to drill before collecting data.

10. **Exhibit B-5** is a structure map (Subsea TVD) of the top of the Wolfcamp, which is about 50 ft below the 3<sup>rd</sup> Bone Spring Sand Target, as noted by the type log located at the blue star. The contour interval is 100 ft, well control points are displayed, and structure is dipping to the south. From the first take point to the last take point of the Mighty Pheasant and Loosey Goosey wells (located within black and red box), there is approximately 100 ft of relief.

11. **Exhibit B-6** is an isopach map of the 3<sup>rd</sup> Bone Spring Sand, as noted by the type log located at the blue star. The contour interval is 20 ft, well control points are displayed, and the 3<sup>rd</sup> Sand is consistently between 260-280 ft at the Mighty Pheasant and Loosey Goosey development (located within black and red box).

12. **Exhibit B-7** is a structural cross section from west to east on the northern end of the Mighty Pheasant and Loosey Goosey sections. Gamma Ray is displayed in the first log track, on a scale from 0 to 150 API, shaded to the right with blue representing low Gamma Ray, brown representing high Gamma Ray, and yellow in between. The second track is deep resistivity (RDEEP), on a scale from 2 to 2000 Ohms, with RDEEP less than 20 Ohms shaded solid red to represent the Bone Spring Sand reservoirs. The third track is the photoelectric log (PEF) which is shaded blue and purple for higher values and yellow for lower values. The fourth track is neutron and density porosity (NPHI and DPHI). NPHI is shown in red, while DPHI is blue, and when DPHI crosses to the left of NPHI, the space in between the two curves is shaded yellow. Otherwise, it is shaded grey. The basal 3<sup>rd</sup> Sand target is often characterized by the yellow crossover shading in the NPHI and DPHI track, Gamma Ray around 50-70 API, and RDEEP below 20 Ohms. Cimarex's target is the standard basal 3<sup>rd</sup> Bone Spring Sand target across the area (a few townships), which is shown

as a green stick in all three logs. Frac baffles are shown in red and white striped boxes within the depth track, and there are only a couple frac baffles present within the 3<sup>rd</sup> Bone Spring Carbonate. These baffles are characterized by low Gamma Ray <50 API, indicating carbonate, along with high resistivity, and low neutron and density porosities (0-4%). There are no indications of any major geomechanical changes/frac baffles in between Cimarex's 3<sup>rd</sup> Sand target and Permian Resources' Wolfcamp Sands target, indicating that these two intervals are most likely one shared reservoir tank.

13. **Exhibit B-8** is showing a map with all the producing 3<sup>rd</sup> Bone Spring Sand wells across almost three townships (left), versus all of the Wolfcamp producers across the area (right). This Exhibit highlights the fact that the 3<sup>rd</sup> Sand is the established target in the area surrounding the Mighty Pheasant and Loosey Goosey sections (black and red box), while there have only been two Wolfcamp developments plus some parent well tests. Cimarex is also an established operator in this area, with 36 wells drilled including a Wolfcamp test.

14. **Exhibit B-9** shows all of the 3<sup>rd</sup> Bone Spring Sand producing wells with blue diamonds, and all of the Wolfcamp Sands producing wells with orange diamonds. Mighty Pheasant and Loosey Goosey are located within the black and red box which lies among almost all 3<sup>rd</sup> Sand wells. There are a couple of Wolfcamp development tests two miles to the south, but the majority of Wolfcamp and 3<sup>rd</sup> Sand co-development occurs 3 townships to the south, where the total 3<sup>rd</sup> Sand and Wolfcamp Sands reservoir tank is much thicker and deeper into the basin.

15. **Exhibit B-10** shows the PhiH (porosity\*height) of the 3<sup>rd</sup> Bone Spring Sand (left) versus the Wolfcamp X and Y Sands (right) as shown by the type log located at the blue star. PhiH is one of the most common reservoir maps to identify ideal target areas within the Bone Spring Sands because it represents total pore space, and more pore space means more room for hydrocarbon

storage. Both maps have the same color scale, with a contour interval of 2 pore-ft. The Mighty Pheasant and Loosey Goosey sections are shown in the black and red box, and the well control points are displayed, along with the values of the closest control points to the subject development. Higher PhiH values are indicated in yellow and red, while lower values are shown in blue. The average PhiH within the 3<sup>rd</sup> Sand, based on the closest control points, is 26.75 pore-ft. While the average PhiH within the Wolfcamp X and Y Sands is 10 pore-ft, which means that the 3<sup>rd</sup> Sand is at least 72.8% of the total reservoir, while the Wolfcamp Sands are 27.2% of the total reservoir. However, because there are no frac baffles separating the 3<sup>rd</sup> Sand and Wolfcamp Sands, and because the two Permian Resource targets would have about 95 ft of vertical separation, their Wolfcamp wells would drain a significant portion of the 3<sup>rd</sup> Sand reservoir that the four 3<sup>rd</sup> Sand wells would already be targeting.

16. **Exhibit B-11** is a structure map (Subsea TVD) of the top of the 3<sup>rd</sup> Bone Spring Carbonate, which is about 40 ft below the 2<sup>nd</sup> Bone Spring Sand Target, as noted by the type log located at the blue star. The contour interval is 100 ft, well control points are displayed, and structure is dipping to the south. From the first take point to the last take point of the Mighty Pheasant and Loosey Goosey wells (located within black and red box), there is approximately 200 ft of relief on the eastern edge of the proposed development, and about 100 ft of relief on the western edge.

17. **Exhibit B-12** is an isopach map of the 2<sup>nd</sup> Bone Spring Sand, as noted by the type log located at the blue star. The contour interval is 20 ft, well control points are displayed, and the 2<sup>nd</sup> Sand is consistently between 420-440 ft at the Mighty Pheasant and Loosey Goosey development (located within black and red box).

18. **Exhibit B-13** is a structural cross section from west to east on the northern end of the Mighty Pheasant and Loosey Goosey sections. Gamma Ray is displayed in the first log track, on

a scale from 0 to 150 API, shaded to the right with blue representing low Gamma Ray, brown representing high Gamma Ray, and yellow in between. The second track is deep resistivity (RDEEP), on a scale from 2 to 2000 Ohms, with RDEEP less than 20 Ohms shaded solid red to represent the Bone Spring Sand reservoirs. The third track is the photoelectric log (PEF) which is shaded blue and purple for higher values and yellow for lower values. The fourth track is neutron and density porosity (NPHI and DPHI). NPHI is shown in red, while DPHI is blue, and when DPHI crosses to the left of NPHI, the space in between the two curves is shaded yellow. Otherwise, it is shaded grey. The Lower 2<sup>nd</sup> Sand target is often characterized by the yellow crossover shading in the NPHI and DPHI track, Gamma Ray around 50-70 API, and RDEEP below 200 Ohms (not as low as basal 3<sup>rd</sup> Sand target). Cimarex's target is the standard Lower 2<sup>nd</sup> Bone Spring Sand target across the area (a few townships), which is shown as a green stick in all three logs. Frac baffles are shown in red and white striped boxes within the depth track, and there are only a couple frac baffles present within the 2<sup>nd</sup> Bone Spring Carbonate and in the middle of the 2<sup>nd</sup> Sand. These baffles are characterized by low Gamma Ray <50 API, indicating carbonate, along with high resistivity, and low neutron and density porosities (0-4%). These frac baffles within the 2<sup>nd</sup> Sand, plus the vertical distance of approximately 400 ft, indicate that there may be another target within the Upper 2<sup>nd</sup> Sand (similar log characteristics as the Lower Sand target). However, this would be a several mile step-out test, so Cimarex is planning advanced logging/data collection through this interval to de-risk it while drilling the 3<sup>rd</sup> Sand wells.

19. **Exhibit B-14** is showing a map with all the producing Lower 2<sup>nd</sup> Bone Spring Sand wells across almost nine townships (left), versus all of the 3<sup>rd</sup> Bone Spring Carbonate producers across the area (right). This Exhibit highlights the fact that the Lower 2<sup>nd</sup> Sand is the established target in



the area surrounding the Mighty Pheasant and Loosey Goosey sections (black and red box), while there has only been one well landed in the 3<sup>rd</sup> Carbonate, with no 2<sup>nd</sup> Sand development above.

20. **Exhibit B-15** shows the PhiH (porosity\*height) of the 2<sup>nd</sup> Bone Spring Sand (left) versus the 3<sup>rd</sup> Bone Spring Carbonate (right) as shown by the type log located at the blue star. PhiH is one of the most common reservoir maps to identify ideal target areas within the Bone Spring Sands because it represents total pore space, and more pore space means more room for hydrocarbon storage. Both maps have the same color scale, with a contour interval of 2 pore-ft. The Mighty Pheasant and Loosey Goosey sections are shown in the black and red box, and the well control points are displayed. Higher PhiH values are indicated in yellow and red, while lower values are shown in blue. The average PhiH within the 2<sup>nd</sup> Sand, based on the closest control points, is 30 pore-ft. While the average PhiH within the 3<sup>rd</sup> Carbonate is 20 pore-ft, which means that the 2<sup>nd</sup> Sand is at least 60% of the total reservoir, while the 3<sup>rd</sup> Carbonate is 40% of the total reservoir. However, because there are no frac baffles separating the 2<sup>nd</sup> Sand and 3<sup>rd</sup> Carbonate, and because the two Permian Resource targets would have about 135 ft of vertical separation, their 3<sup>rd</sup> Carbonate wells would drain a significant portion of the 2<sup>nd</sup> Sand reservoir that the four 2<sup>nd</sup> Sand wells would already be targeting.

21. **Exhibit B-16** is a structure map (Subsea TVD) of the top of the 1<sup>st</sup> Bone Spring Sand, which is about 40 ft above the 1<sup>st</sup> Bone Spring Sand Target, as noted by the type log located at the blue star. The contour interval is 100 ft, well control points are displayed, and structure is dipping to the south. From the first take point to the last take point of the Mighty Pheasant and Loosey Goosey wells (located within black and red box), there is approximately 85 ft of relief.

22. **Exhibit B-17** is an isopach map of the 1<sup>st</sup> Bone Spring Sand, as noted by the type log located at the blue star. The contour interval is 20 ft, well control points are displayed, and the 1<sup>st</sup>

Sand is consistently between 280-300 ft at the Mighty Pheasant and Loosey Goosey development (located within black and red box).

23. **Exhibit B-18** is a structural cross section from west to east on the northern end of the Mighty Pheasant and Loosey Goosey sections. Gamma Ray is displayed in the first log track, on a scale from 0 to 150 API, shaded to the right with blue representing low Gamma Ray, brown representing high Gamma Ray, and yellow in between. The second track is deep resistivity (RDEEP), on a scale from 2 to 2000 Ohms, with RDEEP less than 20 Ohms shaded solid red to represent the Bone Spring Sand reservoirs. The third track is the photoelectric log (PEF) which is shaded blue and purple for higher values and yellow for lower values. The fourth track is neutron and density porosity (NPHI and DPHI). NPHI is shown in red, while DPHI is blue, and when DPHI crosses to the left of NPHI, the space in between the two curves is shaded yellow. Otherwise, it is shaded grey. The 1<sup>st</sup> Sand target is often characterized by the yellow crossover shading in the NPHI and DPHI track, Gamma Ray around 50-70 API, and RDEEP below 20 Ohms. Cimarex's target is the standard 1<sup>st</sup> Bone Spring Sand target across the area (a few townships), which is shown as a green stick in all three logs.

#### **WOLFCAMP STATEMENT**

24. **Exhibit B-19** is a structure map (Subsea TVD) of the top of the Wolfcamp, which is about 50 ft below the 3<sup>rd</sup> Bone Spring Sand Target, as noted by the type log located at the blue star. The contour interval is 100 ft, well control points are displayed, and structure is dipping to the south. From the first take point to the last take point of the Mighty Pheasant and Loosey Goosey wells (located within black and red box), there is approximately 100 ft of relief.

25. **Exhibit B-20** is an isopach map of the Wolfcamp X and Y Sands, as noted by the type log located at the blue star. The contour interval is 20 ft, well control points are displayed, and the

Wolfcamp X and Y Sands are consistently about 100 ft at the Mighty Pheasant and Loosey Goosey development (located within black and red box).

26. **Exhibit B-21** is a structural cross section from west to east on the northern end of the Mighty Pheasant and Loosey Goosey sections. Gamma Ray is displayed in the first log track, on a scale from 0 to 150 API, shaded to the right with blue representing low Gamma Ray, brown representing high Gamma Ray, and yellow in between. The second track is deep resistivity (RDEEP), on a scale from 2 to 2000 Ohms, with RDEEP less than 20 Ohms shaded solid red to represent the Bone Spring Sand reservoirs. The third track is the photoelectric log (PEF) which is shaded blue and purple for higher values and yellow for lower values. The fourth track is neutron and density porosity (NPHI and DPHI). NPHI is shown in red, while DPHI is blue, and when DPHI crosses to the left of NPHI, the space in between the two curves is shaded yellow. Otherwise, it is shaded grey. The basal 3<sup>rd</sup> Sand target is often characterized by the yellow crossover shading in the NPHI and DPHI track, Gamma Ray around 50-70 API, and RDEEP below 20 Ohms. Cimarex's target is the standard basal 3<sup>rd</sup> Bone Spring Sand target across the area (a few townships), which is located above the Wolfcamp X & Y Sands (highlighted yellow on the left side). Frac baffles are shown in red and white striped boxes within the depth track, and there are only a couple frac baffles present within the 3<sup>rd</sup> Bone Spring Carbonate. These baffles are characterized by low Gamma Ray <50 API, indicating carbonate, along with high resistivity, and low neutron and density porosities (0-4%). There are no indications of any major geomechanical changes/frac baffles in between Cimarex's 3<sup>rd</sup> Sand target and Permian Resources' Wolfcamp Sands target, indicating that these two intervals are most likely one shared reservoir tank; therefore, Permian Resources' Wolfcamp XY Sands target will primarily produce from the 3<sup>rd</sup> Bone Spring Sand.

### **NO FRAC BAFFLE BETWEEN WOLFCAMP AND 3<sup>RD</sup> SAND**

27. **Exhibit B-22** shows the outlined area in red of Cimarex's 3D seismic coverage, which includes the Mighty Pheasant and Loosey Goosey sections as well as the adjacent Cimarex acreage. The Capitan Reef area is shaded blue, and the Potash outline is light blue. 3D seismic will aid in geosteering the Bone Spring development.

28. **Exhibit B-23** is a cross section across 3<sup>rd</sup> Bone Spring Sand developments, as shown on the map, in two townships (approximate target shown along the green line). The highlighted portion of the logs, which represents the sands bordering the 3<sup>rd</sup> Bone Spring Sand and Upper Wolfcamp, shows that there are no frac baffles (carbonates) present that would separate the Bone Spring and Wolfcamp across the whole area.

29. **Exhibit B-24** is a map showing net-to-gross density porosity (DPHI) <4% within the 3<sup>rd</sup> Bone Spring Sand and Upper Wolfcamp Sands, where 0% means there is no frac baffle separating the two formations. Almost all 3<sup>rd</sup> Sand developments on the map lie within an area that contains minimal-to-no carbonate/frac baffle between the Bone Spring and Wolfcamp.

30. The fact that there are minimal-to-no carbonate/frac baffles between the Bone Spring and Wolfcamp, as evidenced by Exhibits B-23 and B-24, further supports Cimarex's contention that these two intervals are most likely one shared reservoir tank. Thus, Cimarex's proposed 3rd Sand single landing is the optimal proposal based on the geology of the target area. These exhibits also provide further proof that Permian Resources' Wolfcamp XY Sands target will primarily produce from the 3rd Bone Spring Sand.

31. The Exhibits to this Affidavit were prepared by me or compiled from Cimarex's company business records under my supervision.

32. The granting of this Application is in the interests of conservation, the prevention of waste, and the protection of correlative rights.

33. The foregoing is correct and complete to the best of my knowledge and belief.

*[Signature page follows]*

*Signature page of Self-Affirmed Statement of Staci Mueller:*

I understand that this Self-Affirmed Statement will be used as written testimony before the Division in Case Nos. 23448-23455 and 23594 – 23601 and affirm that my testimony herein is true and correct, to the best of my knowledge and belief and made under penalty of perjury under the laws of the State of New Mexico.

  
\_\_\_\_\_  
STACI MUELLER

8 / 2 / 2023  
Date Signed

# *Geology Exhibits*



# Locator Map & Stress Direction

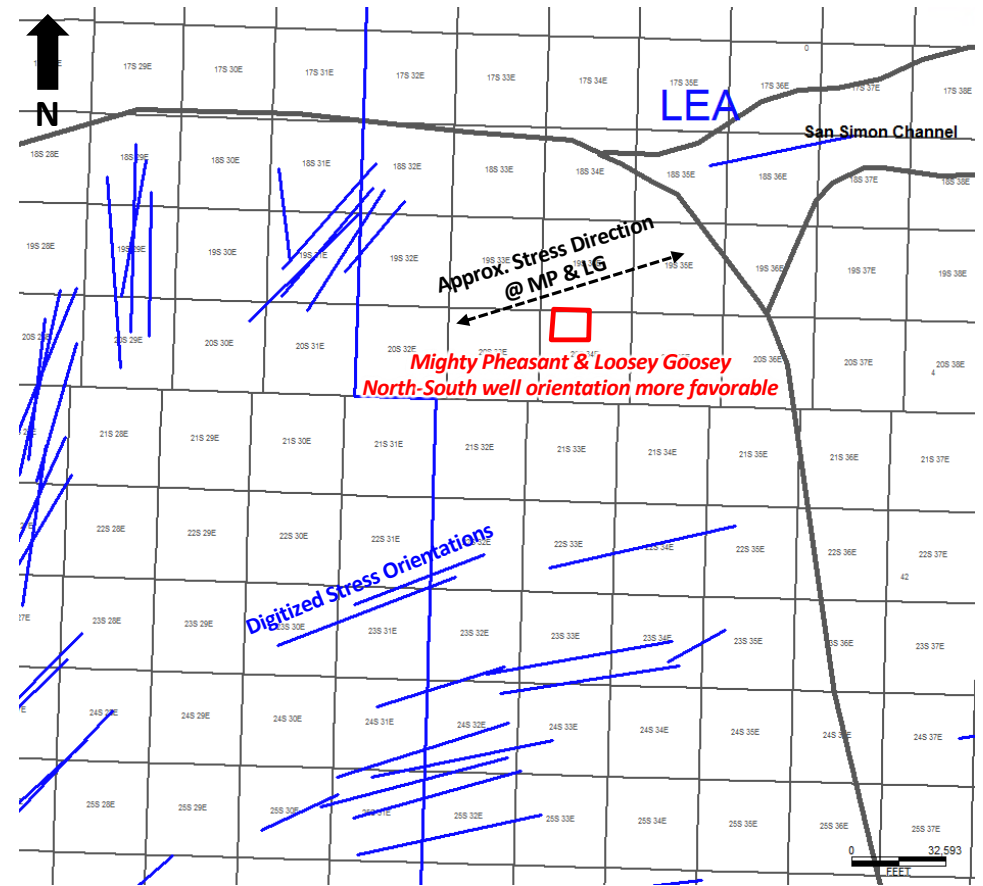
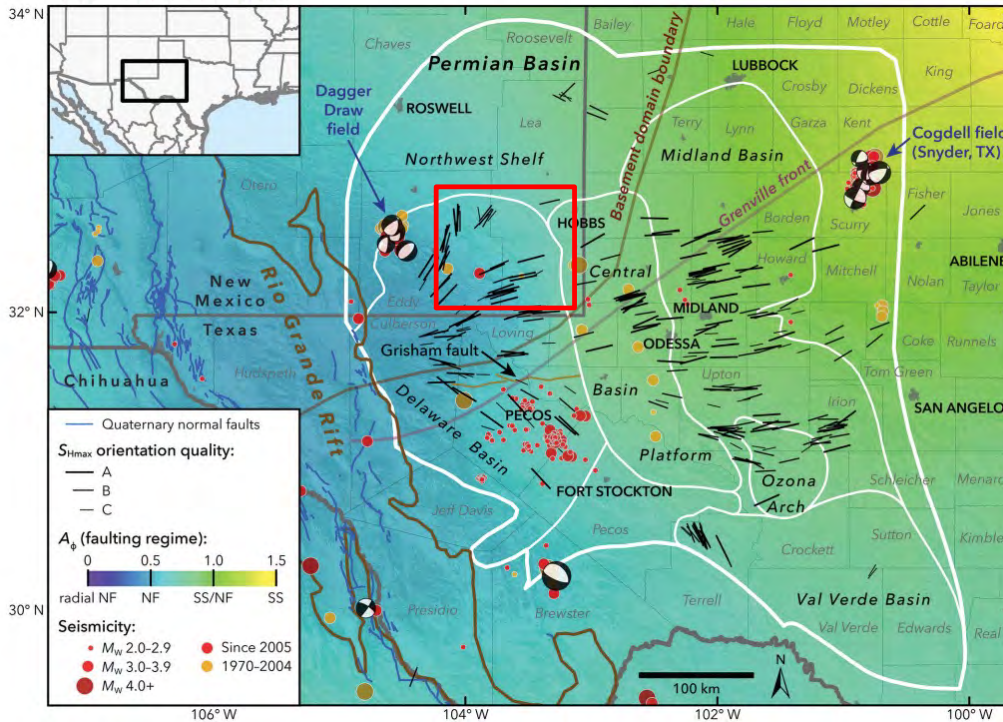
Coterra plans to develop Sections 4-9 and 5-8 with 2-mile laterals

1. 8 Lower 3<sup>rd</sup> Bone Spring Sand
2. 8 2<sup>nd</sup> Bone Spring Sand
3. 8 1<sup>st</sup> Bone Spring Sand

The wells will be drilled north to south from 2 pads/ Section

## State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity

Jens-Erik Lund Sneek and Mark D. Zoback



**EXHIBIT B-1**



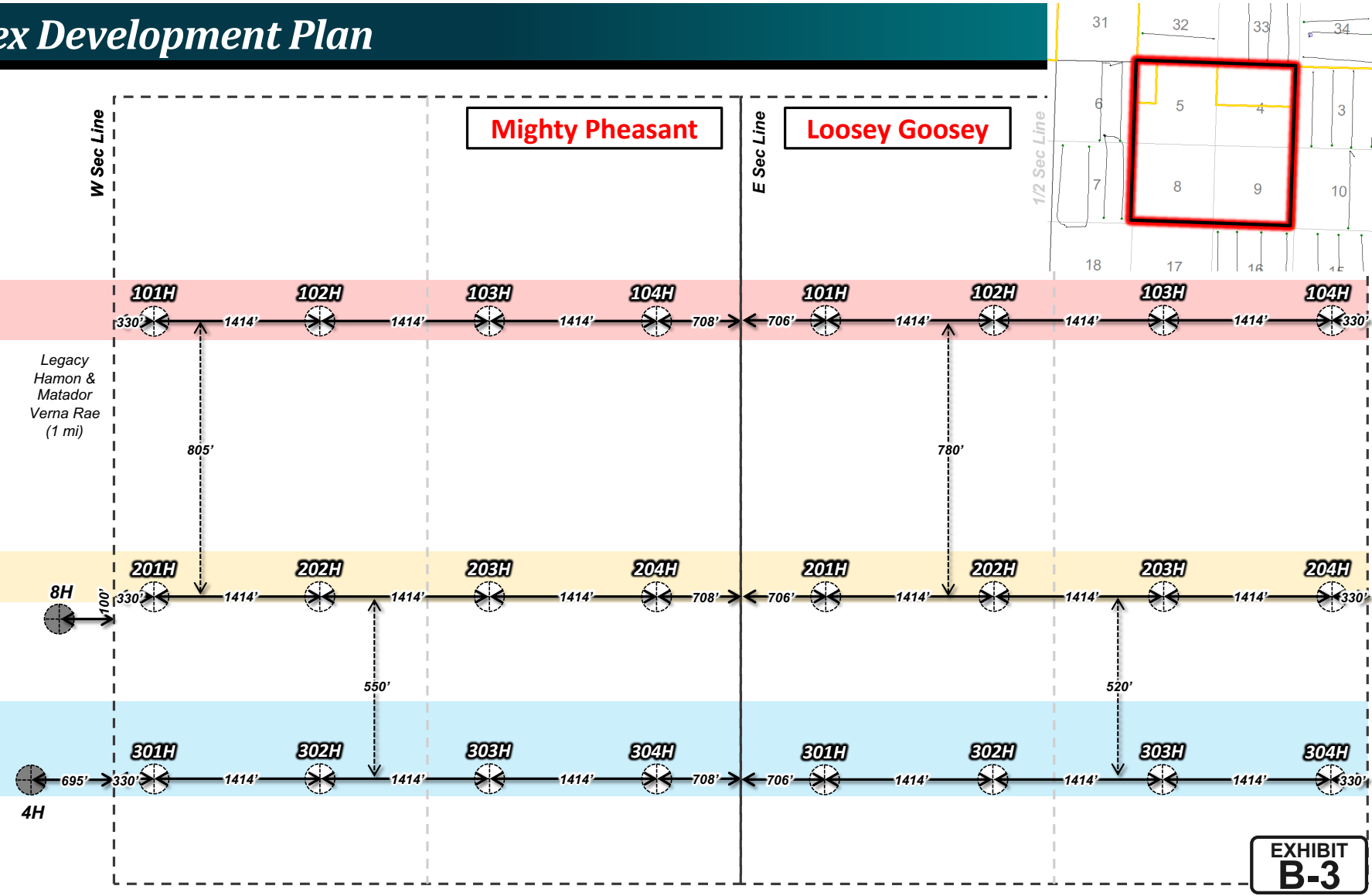
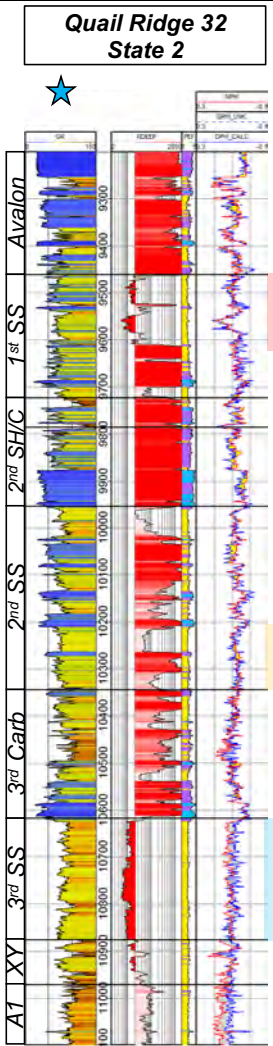
# Permit Status

State	County	Well Name & Number	Permit Status	Permit Submission Due Date	Permit Submitted Date	10-Day Letter Date	10-Day Letter Due
NM	Lea	Mighty Pheasant 5-8 Fed Com 101H	To be permitted				
NM	Lea	Mighty Pheasant 5-8 Fed Com 102H	To be permitted				
NM	Lea	Mighty Pheasant 5-8 Fed Com 103H	To be permitted				
NM	Lea	Mighty Pheasant 5-8 Fed Com 104H	To be permitted				
NM	Lea	Mighty Pheasant 5-8 Fed Com 201H	To be permitted				
NM	Lea	Mighty Pheasant 5-8 Fed Com 202H	To be permitted				
NM	Lea	Mighty Pheasant 5-8 Fed Com 203H	To be permitted				
NM	Lea	Mighty Pheasant 5-8 Fed Com 204H	AFMSS-Accepted	2/14/2022	2/14/2022	6/2/2023	7/17/2023
NM	Lea	Mighty Pheasant 5-8 Fed Com 301H	AFMSS-Accepted	3/1/2022	3/1/2022		
NM	Lea	Mighty Pheasant 5-8 Fed Com 302H	AFMSS-Accepted	3/2/2022	3/2/2022		
NM	Lea	Mighty Pheasant 5-8 Fed Com 303H	AFMSS-Accepted	2/14/2022	2/14/2022	6/2/2023	7/17/2023
NM	Lea	Mighty Pheasant 5-8 Fed Com 304H	AFMSS-Accepted	3/1/2022	3/1/2022	6/2/2023	7/17/2023
NM	Lea	Loosey Goosey 4-9 Fed Com 101H	To be permitted				
NM	Lea	Loosey Goosey 4-9 Fed Com 102H	To be permitted				
NM	Lea	Loosey Goosey 4-9 Fed Com 103H	To be permitted				
NM	Lea	Loosey Goosey 4-9 Fed Com 104H	To be permitted				
NM	Lea	Loosey Goosey 4-9 Fed Com 201H	To be permitted				
NM	Lea	Loosey Goosey 4-9 Fed Com 202H	To be permitted				
NM	Lea	Loosey Goosey 4-9 Fed Com 203H	To be permitted				
NM	Lea	Loosey Goosey 4-9 Fed Com 204H	AFMSS-Accepted	3/15/2022	3/15/2022		
NM	Lea	Loosey Goosey 4-9 Fed Com 301H	AFMSS-Accepted	3/9/2022	3/9/2022		
NM	Lea	Loosey Goosey 4-9 Fed Com 302H	AFMSS-Accepted	3/9/2022	3/9/2022		
NM	Lea	Loosey Goosey 4-9 Fed Com 303H	AFMSS-Accepted	3/15/2022	3/15/2022		
NM	Lea	Loosey Goosey 4-9 Fed Com 304H	AFMSS-Accepted	3/15/2022	3/15/2022		

Submitted permits for 3<sup>rd</sup> Sand development & 1<sup>st</sup> Sand/2<sup>nd</sup> Sand test  
BLM is currently working on these

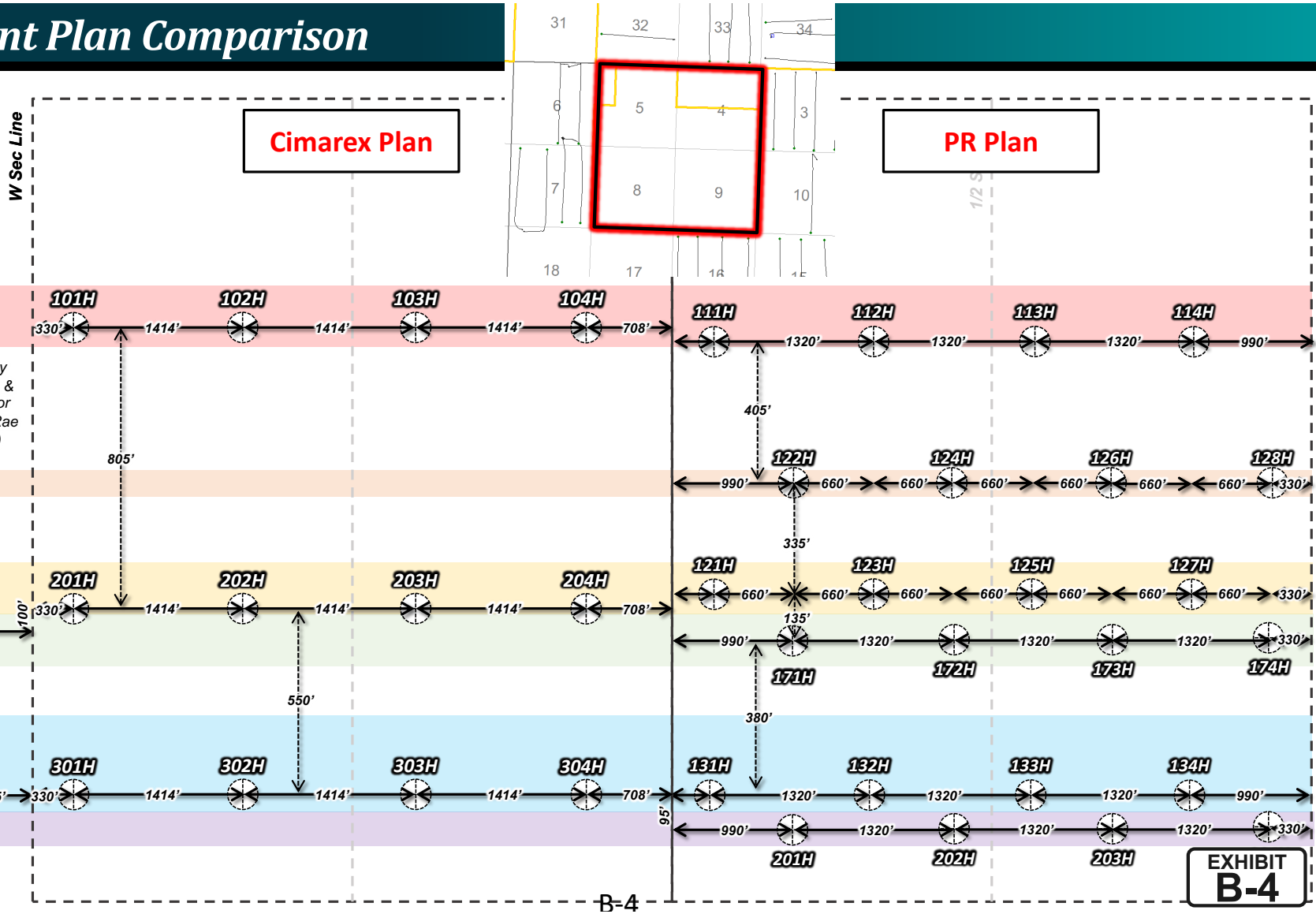
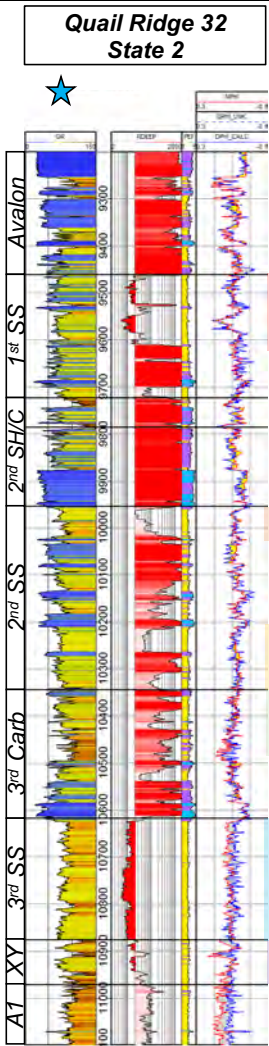
EXHIBIT  
B-2

# Cimarex Development Plan



**EXHIBIT B-3**

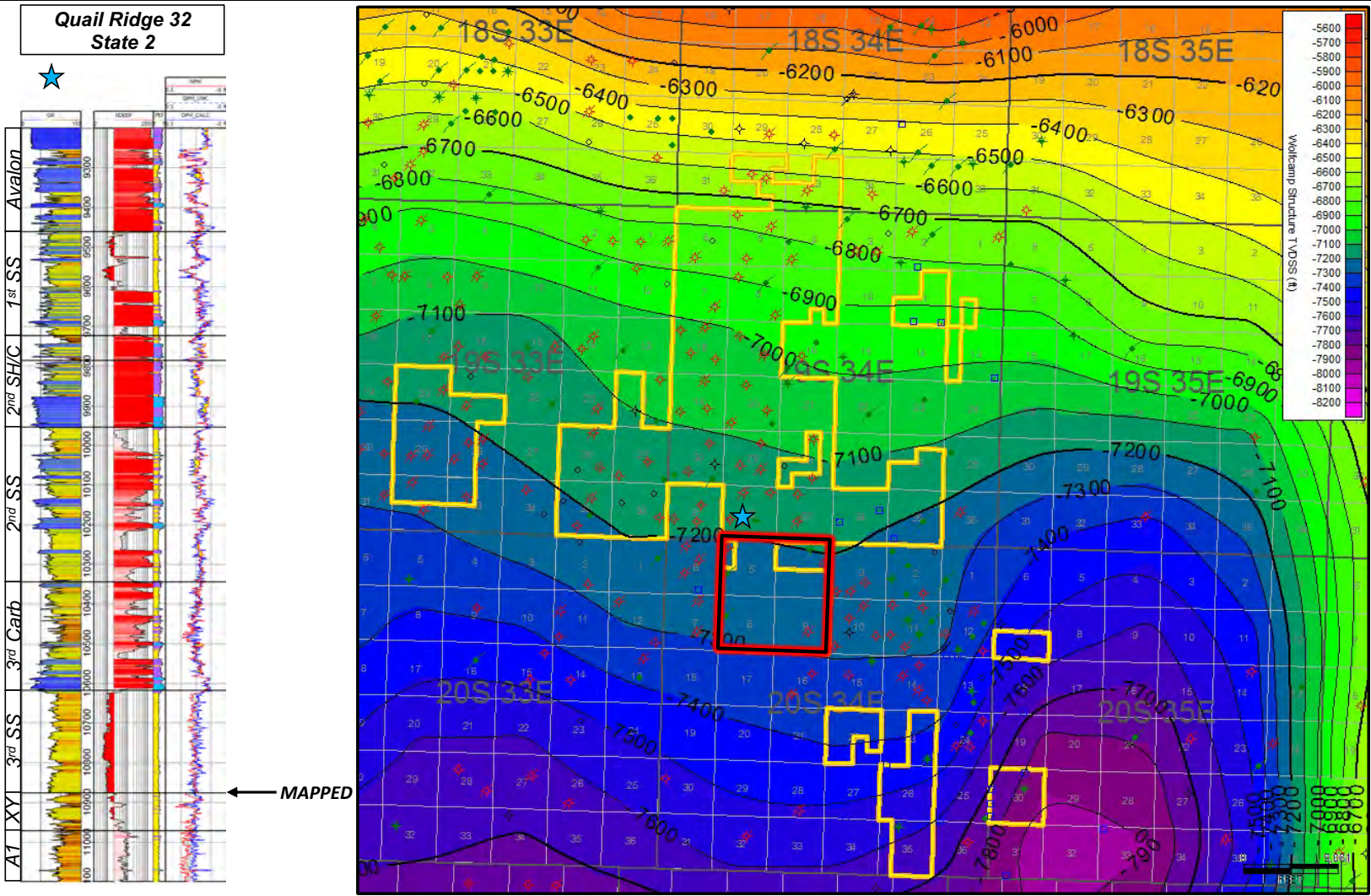
# Development Plan Comparison



**EXHIBIT B-4**

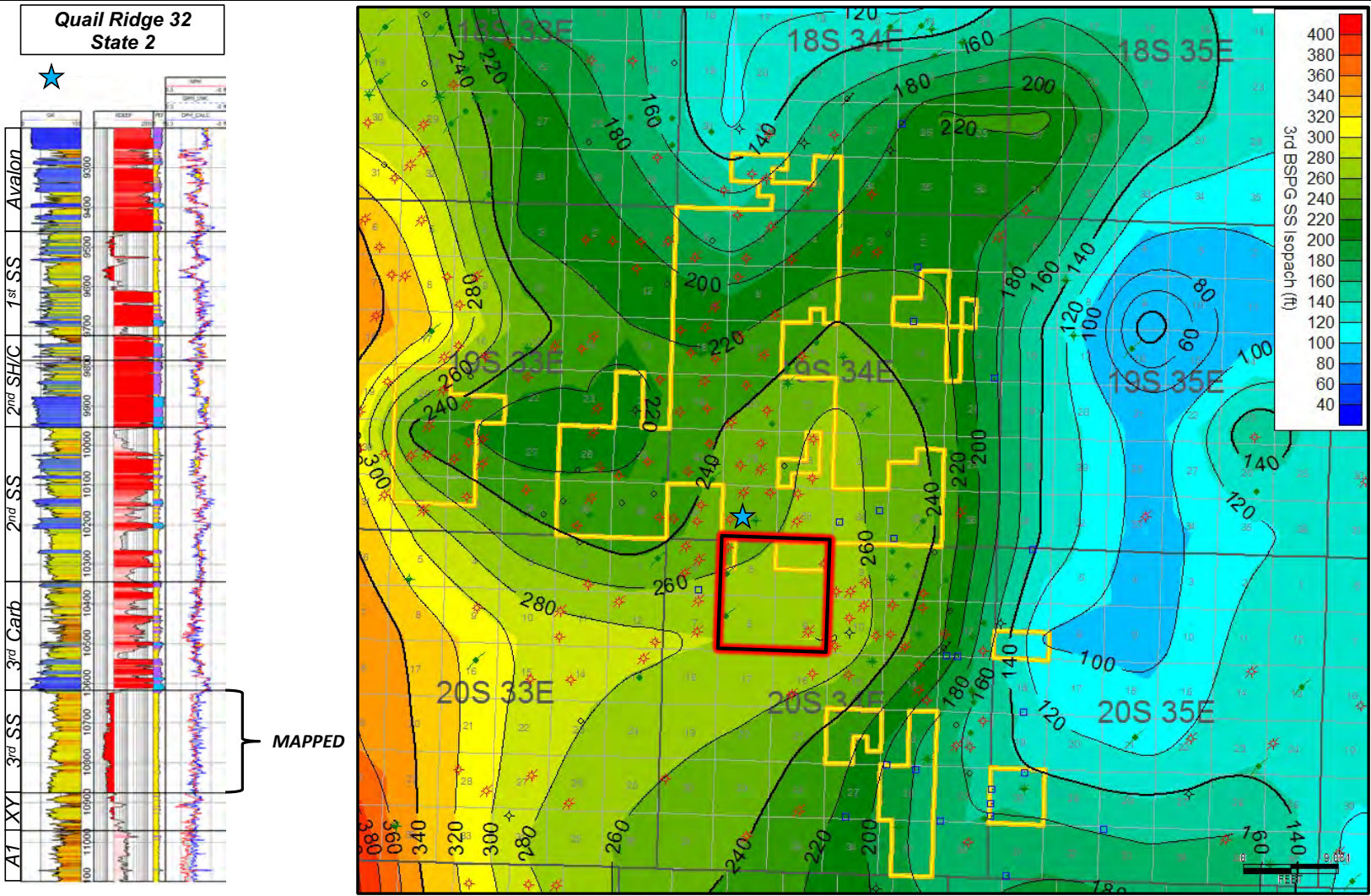
# ***3<sup>rd</sup> Bone Spring Sand***

# 3<sup>rd</sup> Bone Spring Sand Structure

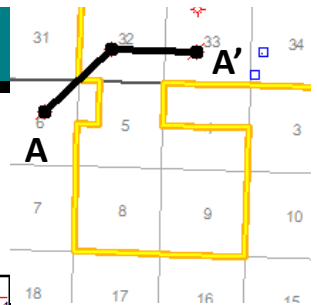
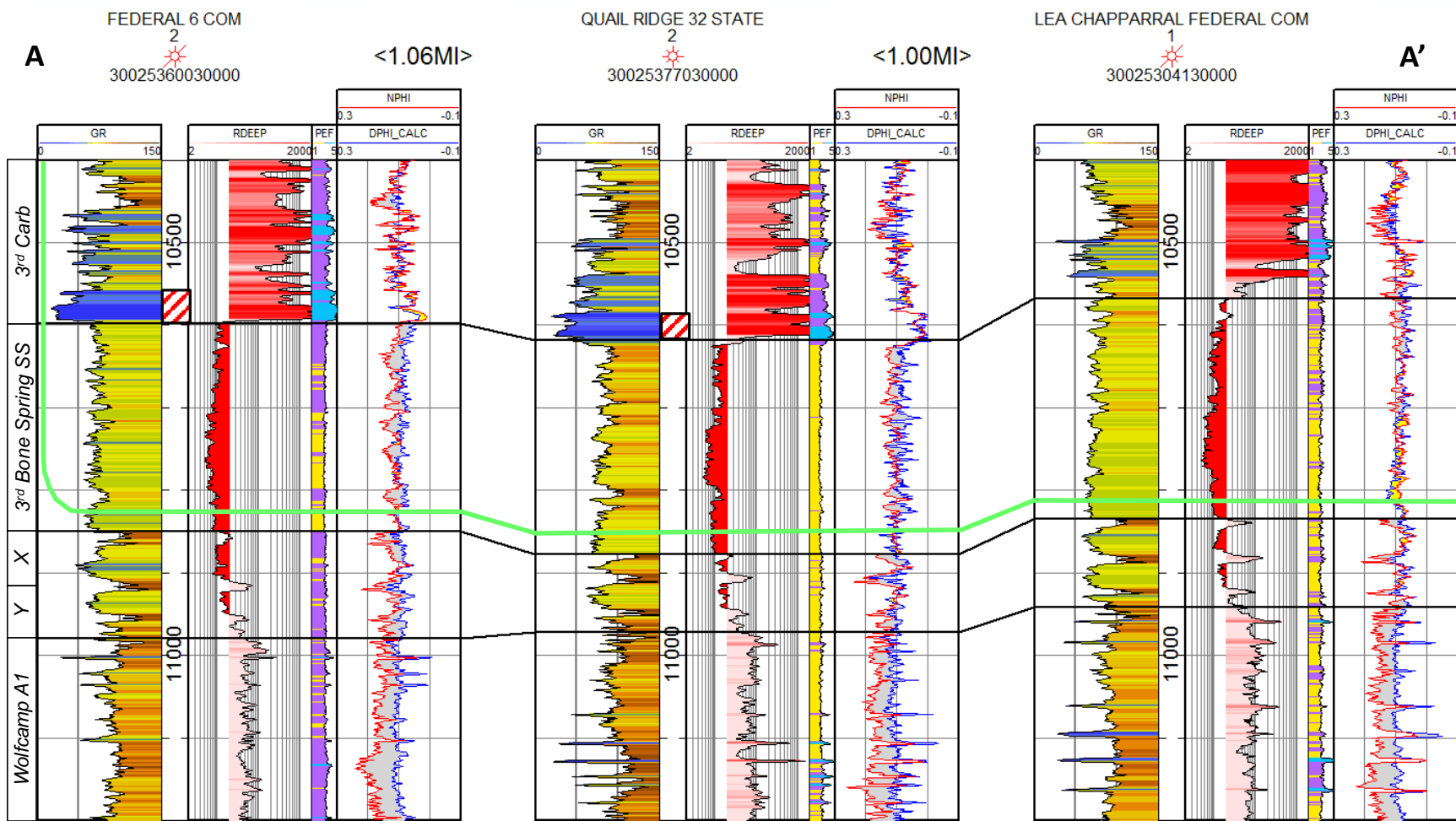


**EXHIBIT  
B-5**

# 3<sup>rd</sup> Bone Spring Sand Isopach



# 3<sup>rd</sup> Bone Spring Sand Cross Section

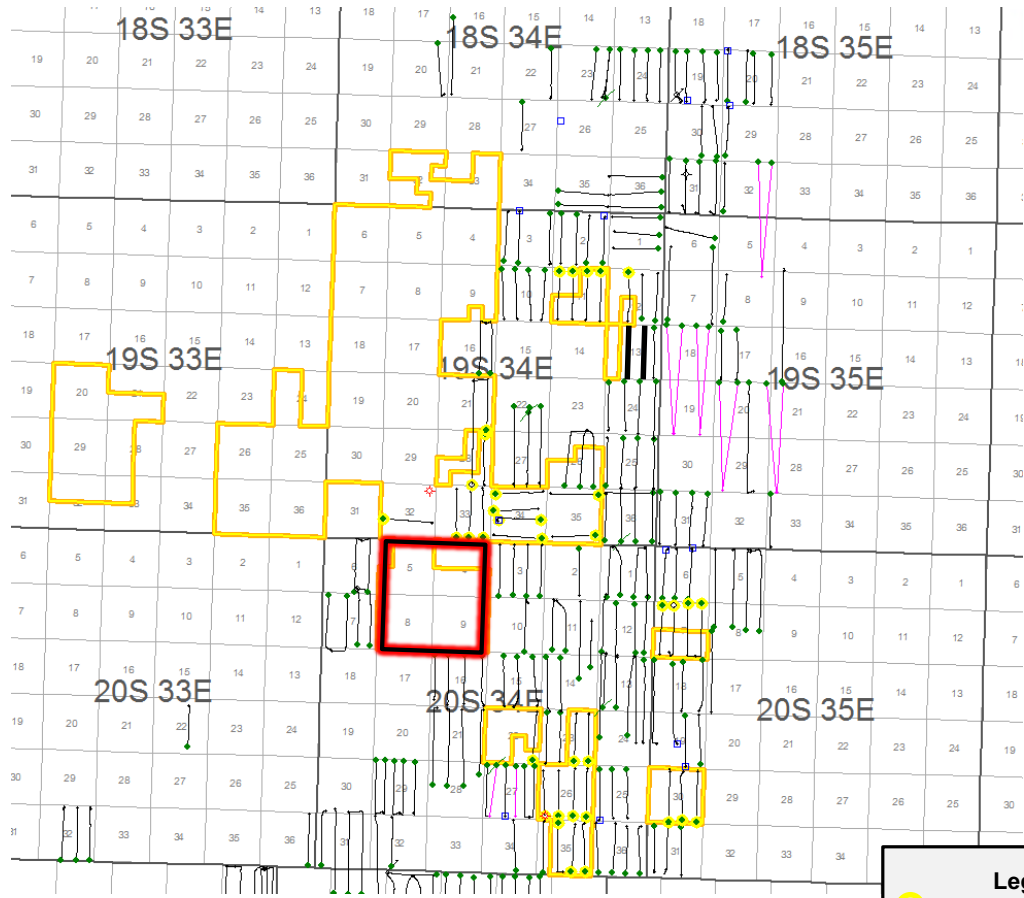


*PR's additional Wolfcamp target lies ~95' below the 3<sup>rd</sup> Sand target. No significant frac baffle separates the two reservoirs.*

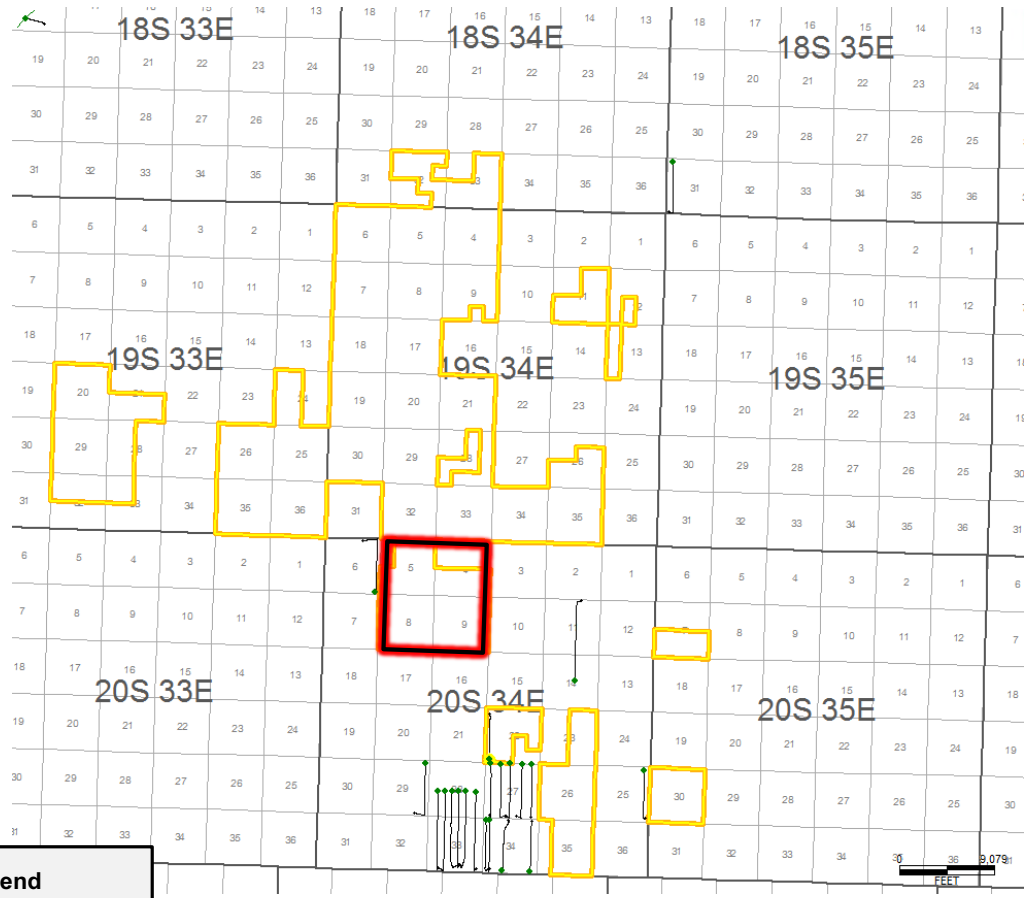
**EXHIBIT B-7**

# 3<sup>rd</sup> Bone Spring Sand is Established Target

## 3<sup>rd</sup> Bone Spring Sand Producers



## Wolfcamp Producers

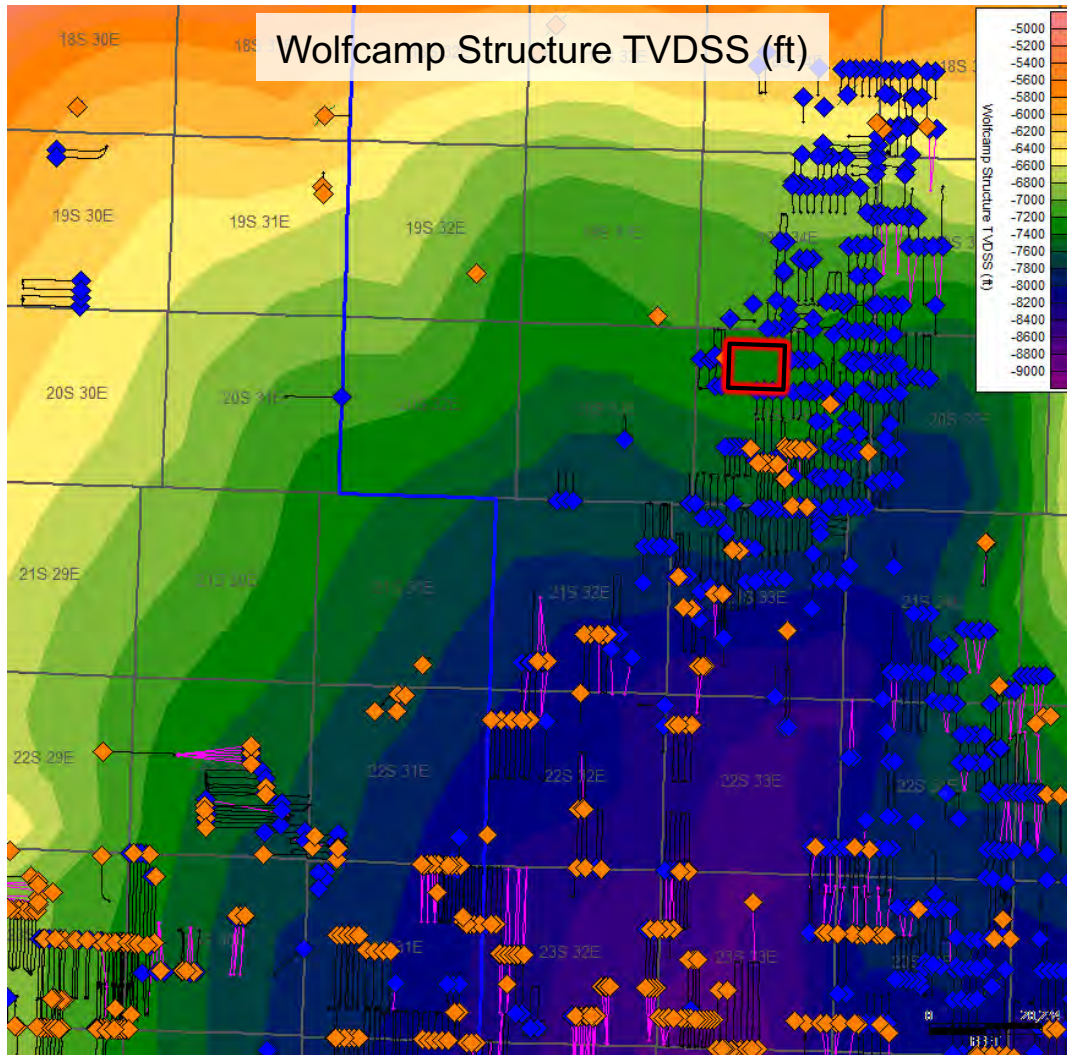


**Legend**  
● Cimarex Operated Wells

**EXHIBIT B-8**



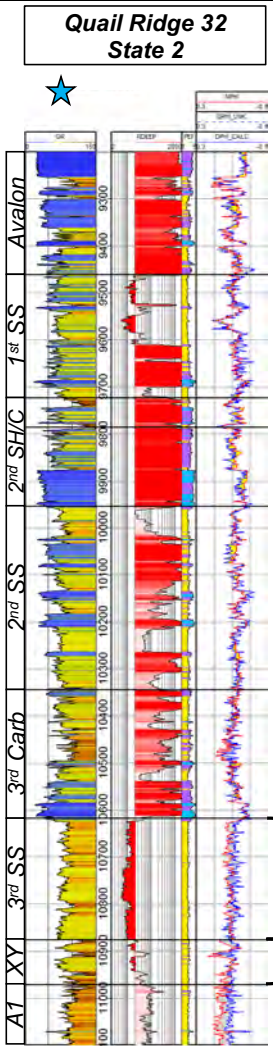
# Co-Wolfcamp SS/3<sup>rd</sup> SS Development Begins Further South



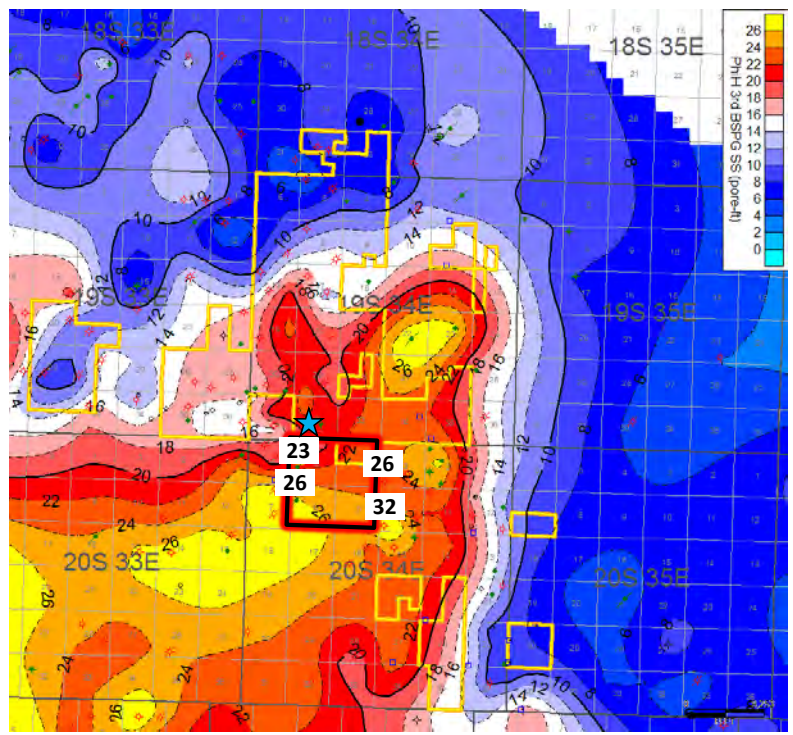
- ◆ 3<sup>rd</sup> Bone Spring Sand
- ◆ Wolfcamp Sands

EXHIBIT  
B-9

# Comparing 3<sup>rd</sup> Sand to Wolfcamp Reservoir (SoPhiH)

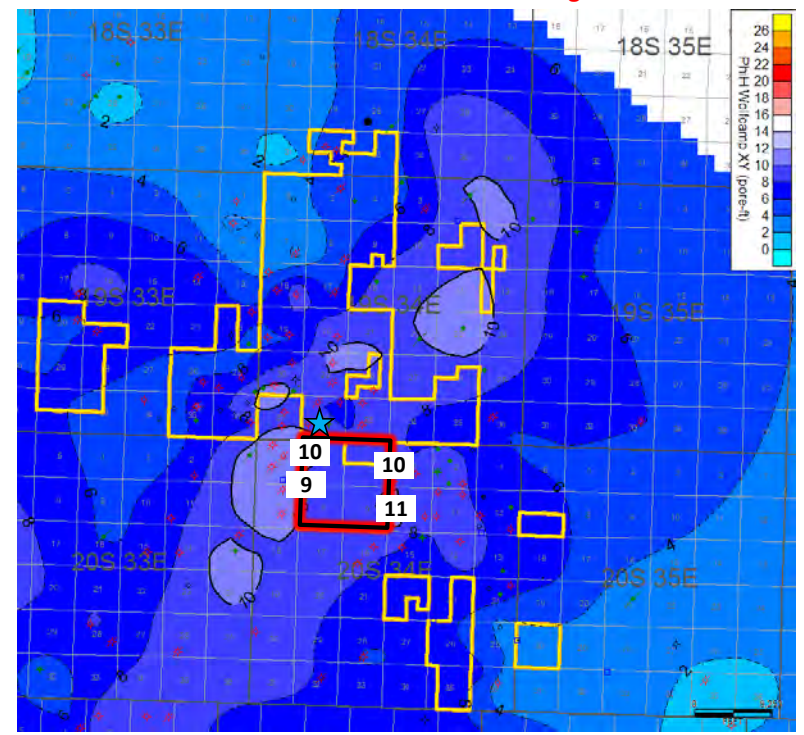


**PhiH 3<sup>rd</sup> Bone Spring Sand**  
CTRA Target



**Avg PhiH in 3<sup>rd</sup> SS = 26.75**  
**72.8% of total reservoir**

**PhiH Wolfcamp X & Y Sands**  
Permian Resources Additional Target



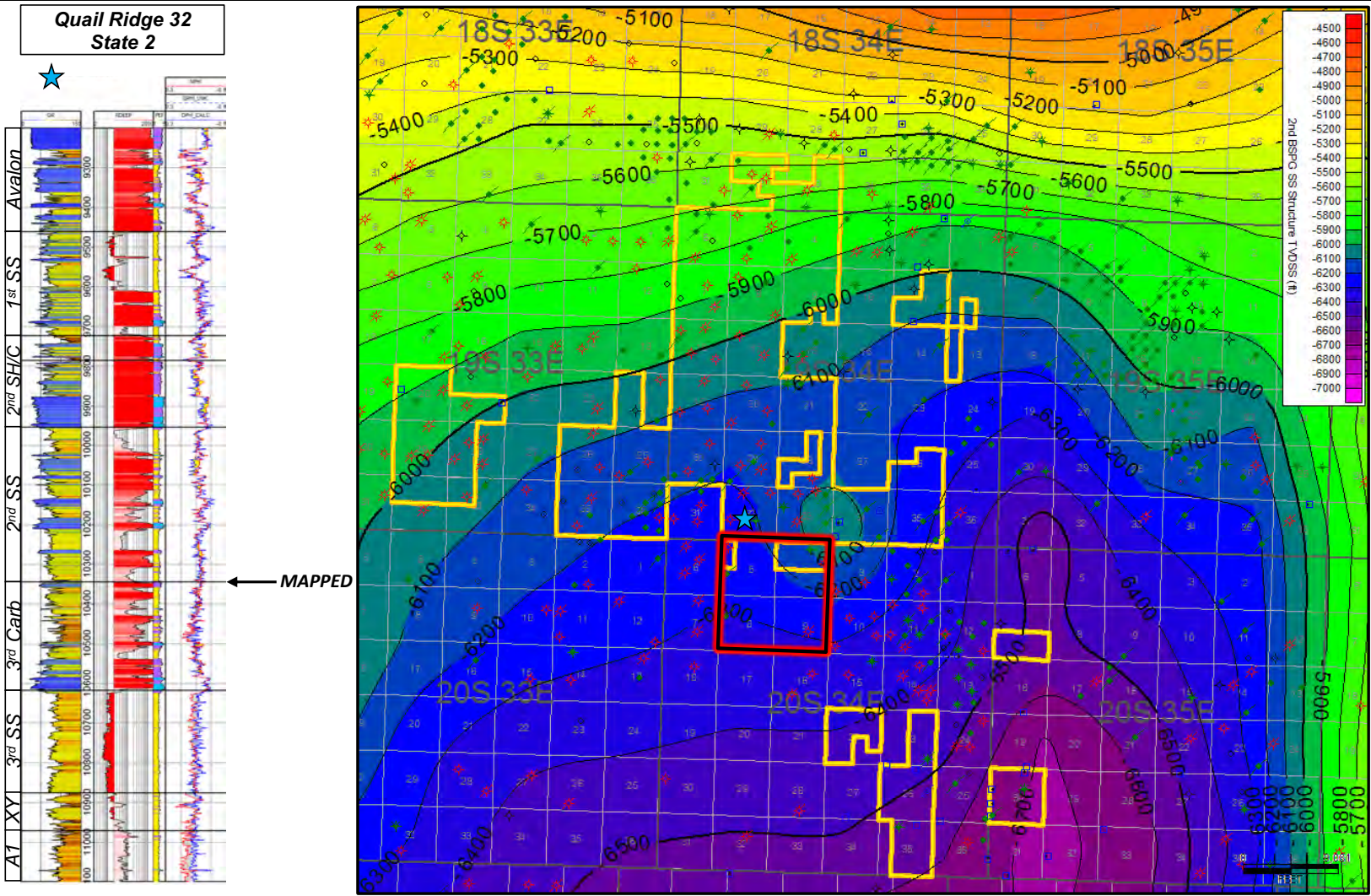
**Avg PhiH in WFMP XY = 10**  
**27.2% of total reservoir**

**EXHIBIT  
B-10**

# ***2<sup>nd</sup> Bone Spring Sand***

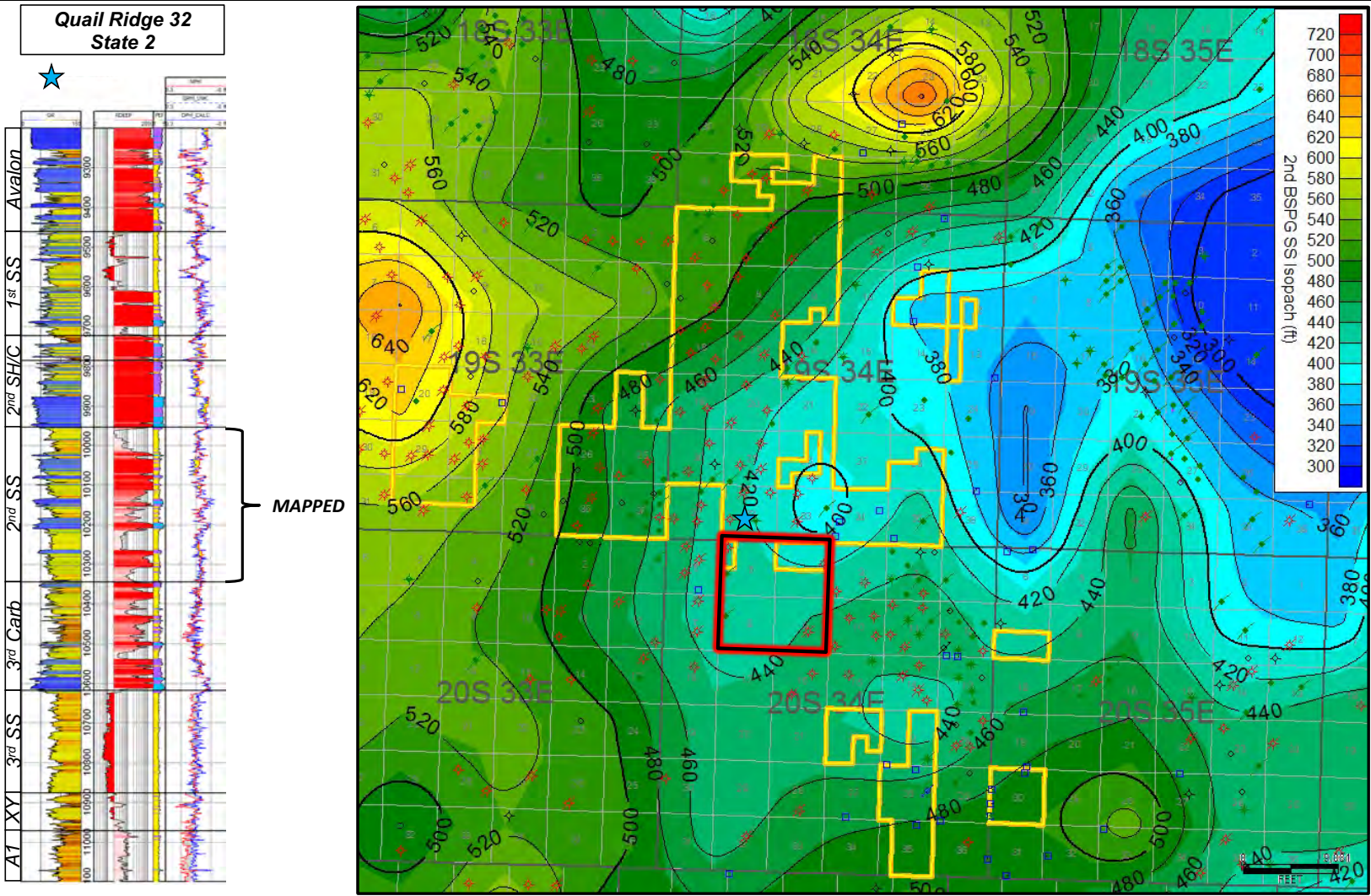


# 2<sup>nd</sup> Bone Spring Sand Structure



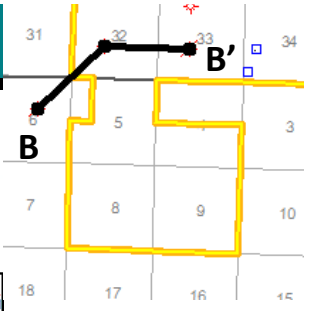
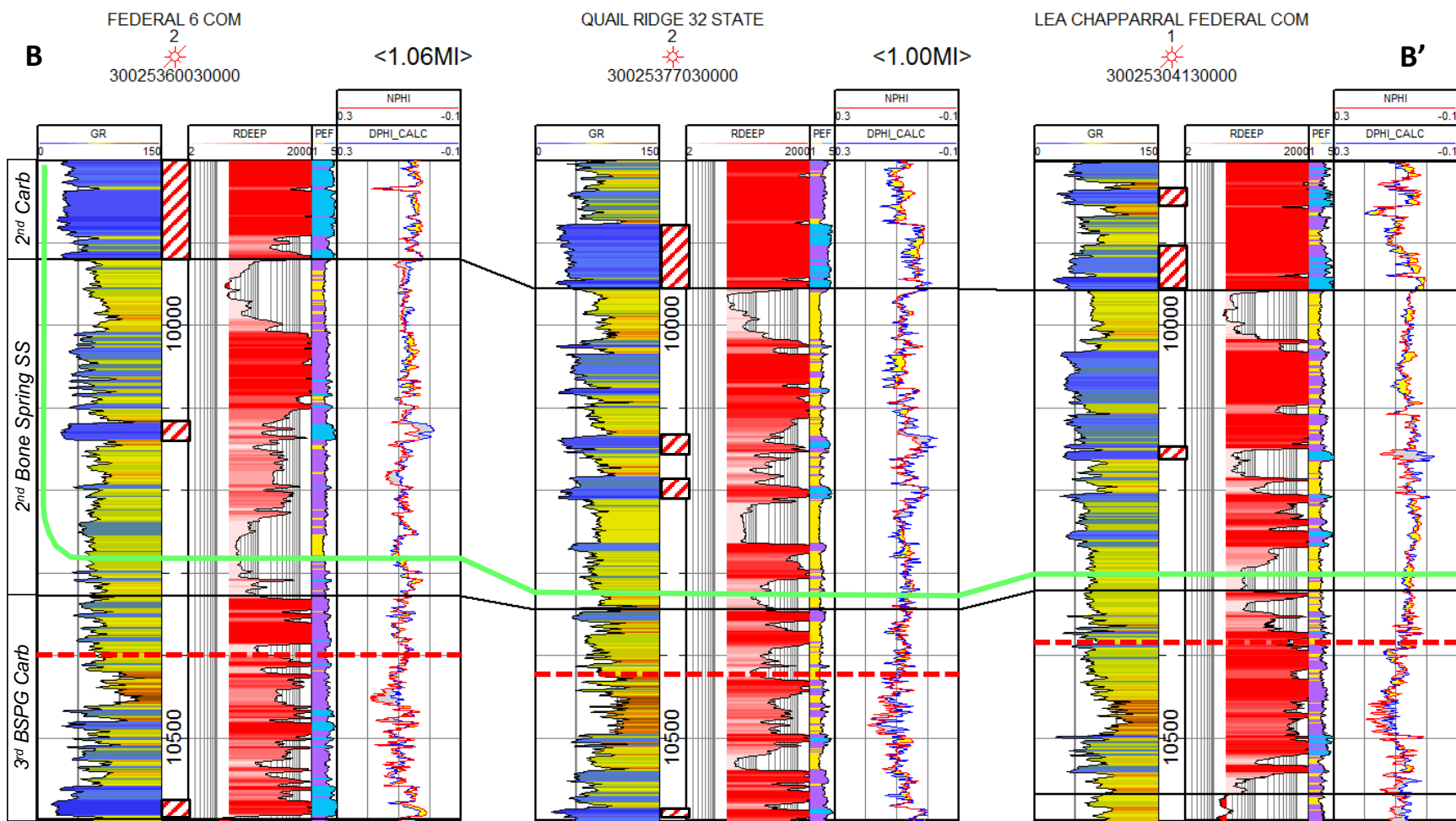
**EXHIBIT  
B-11**

# 2<sup>nd</sup> Bone Spring Sand Isopach



**EXHIBIT B-12**

# 2<sup>nd</sup> Bone Spring Sand Cross Section



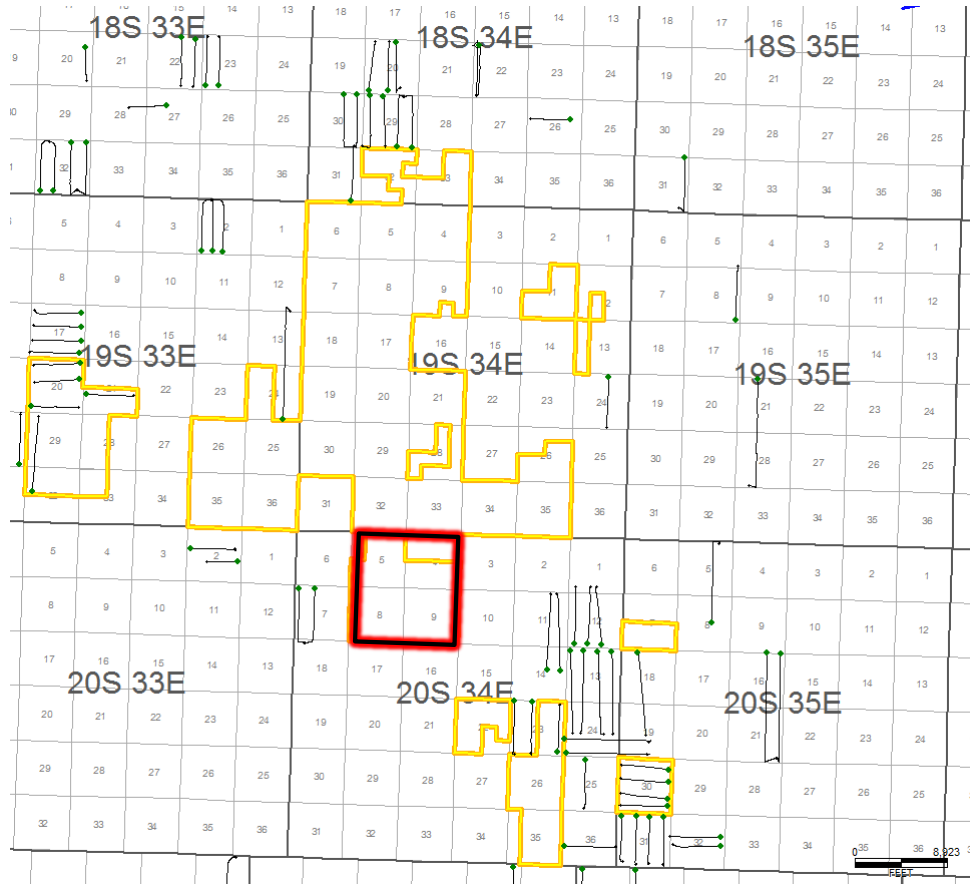
Frac Baffle

PR's additional 3<sup>rd</sup> Carb target lies ~135' below L. 2<sup>nd</sup> Sand target. No significant frac baffle separates the two reservoirs.

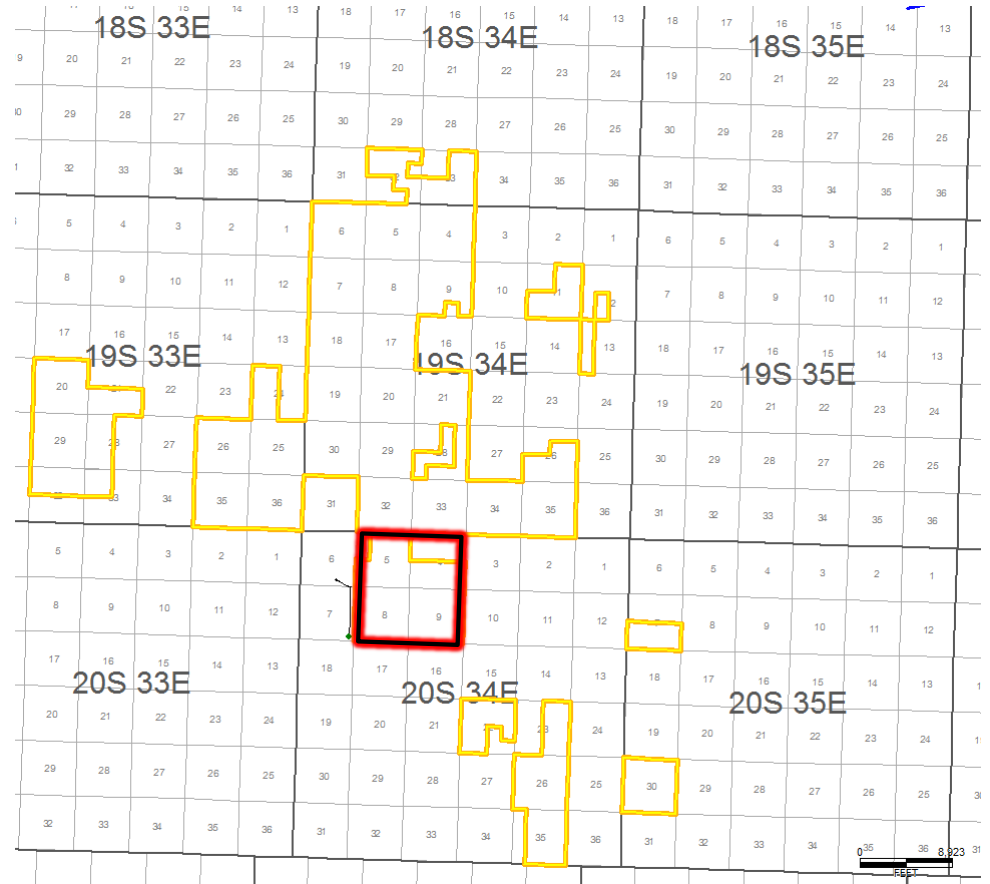
**EXHIBIT B-13**

# 2<sup>nd</sup> Bone Spring Sand is Established Target

### Lower 2<sup>nd</sup> Bone Spring Sand Producers



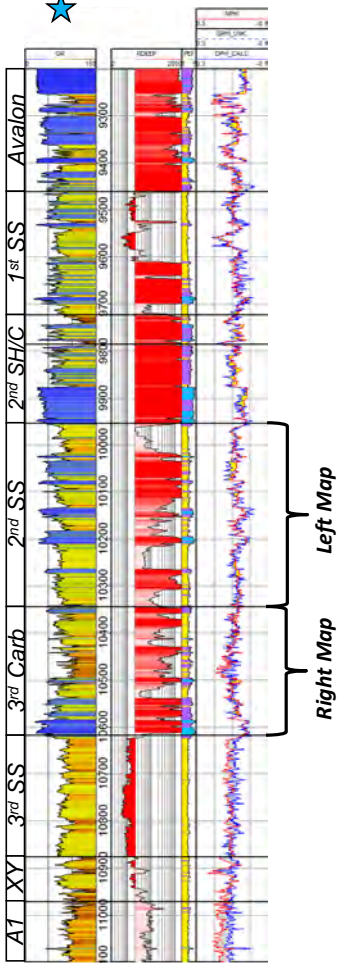
### 3<sup>rd</sup> Bone Spring Carb Producers



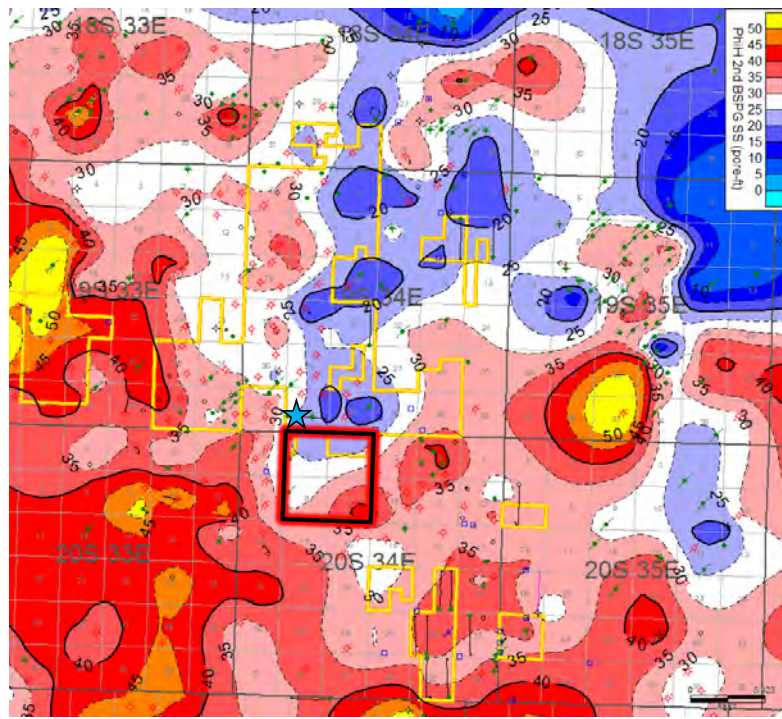
**EXHIBIT  
B-14**

# PhiH L 2<sup>nd</sup> Sand vs. 3<sup>rd</sup> Carb

Quail Ridge 32  
State 2

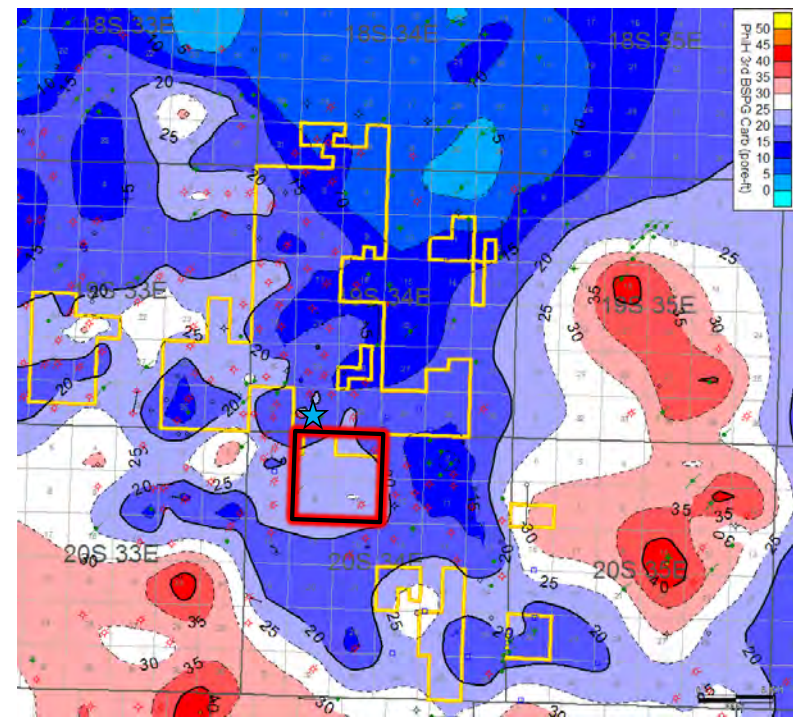


**PhiH 2<sup>nd</sup> Bone Spring Sand**  
CTRA Target



Avg PhiH in 3<sup>rd</sup> SS = 30  
60% of total reservoir

**PhiH 3<sup>rd</sup> Bone Spring Carb**  
Permian Resources Additional Target



Avg PhiH in WFMP XY = 20  
40% of total reservoir

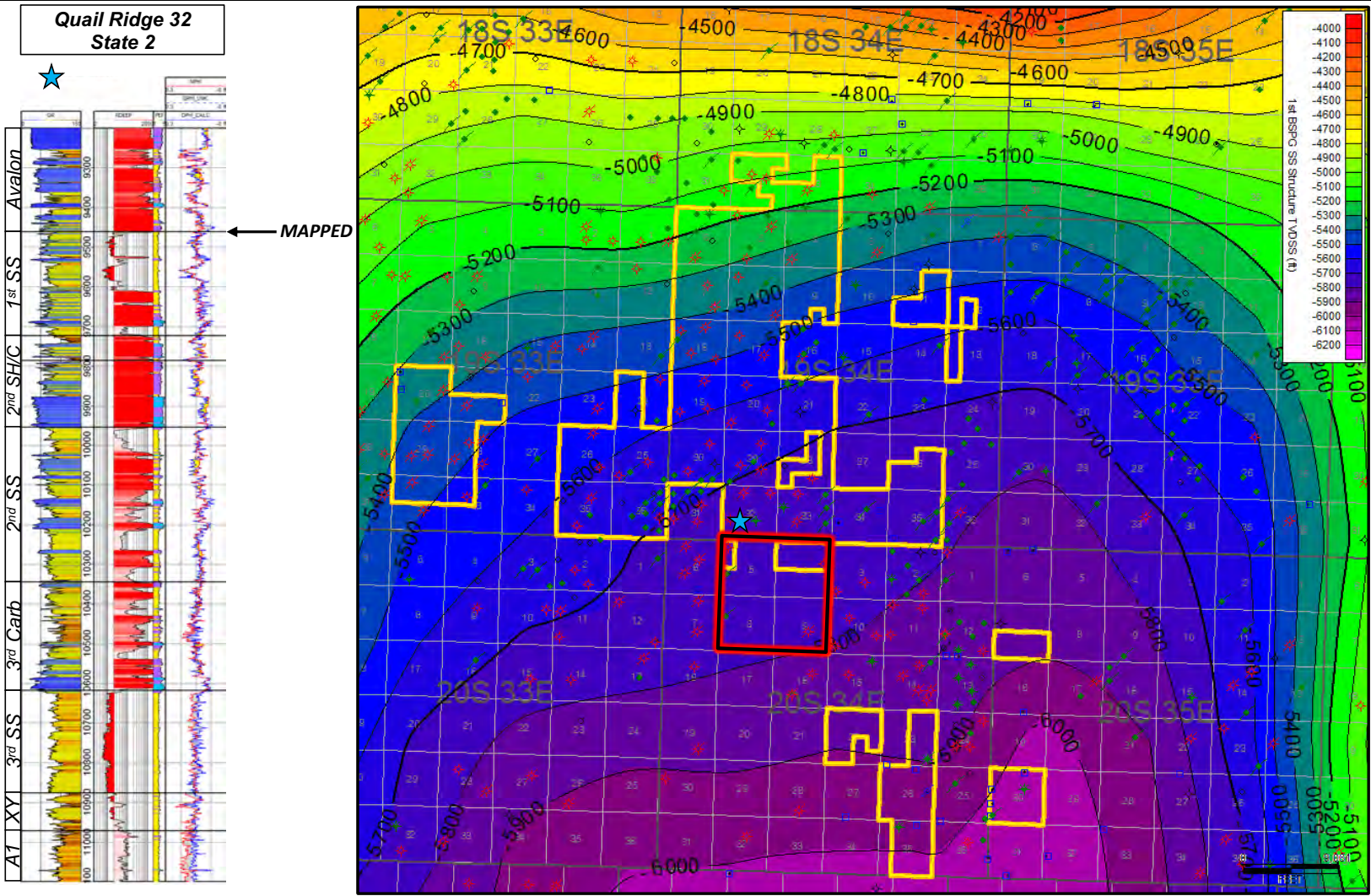
**EXHIBIT  
B-15**



# ***1<sup>st</sup> Bone Spring Sand***



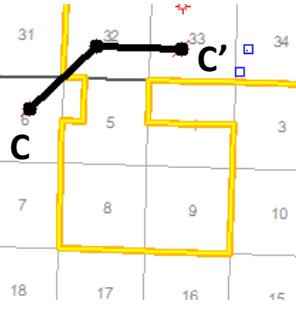
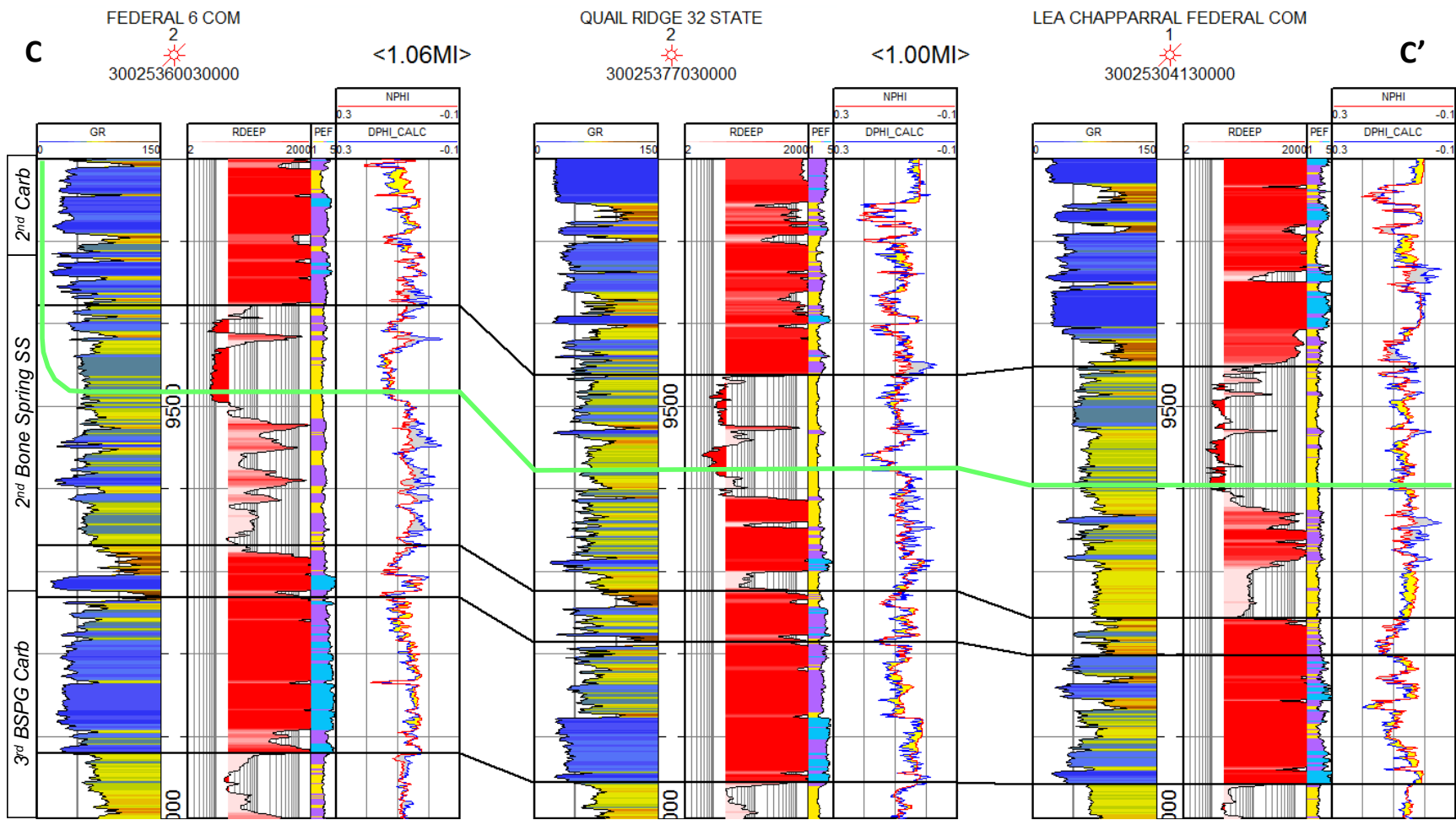
# 1<sup>st</sup> Bone Spring Sand Structure



**EXHIBIT B-16**



# 1<sup>st</sup> Bone Spring Sand Cross Section

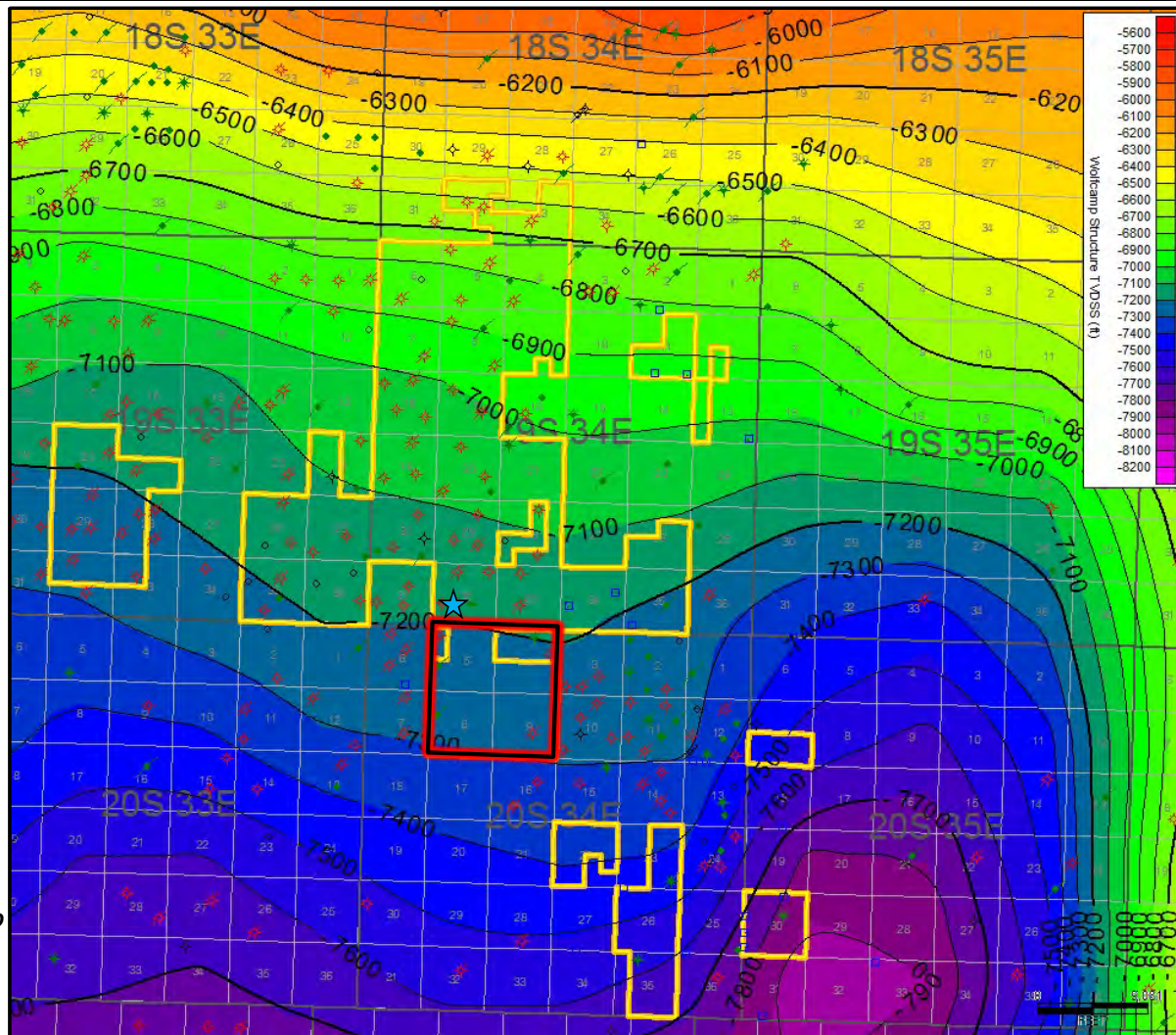
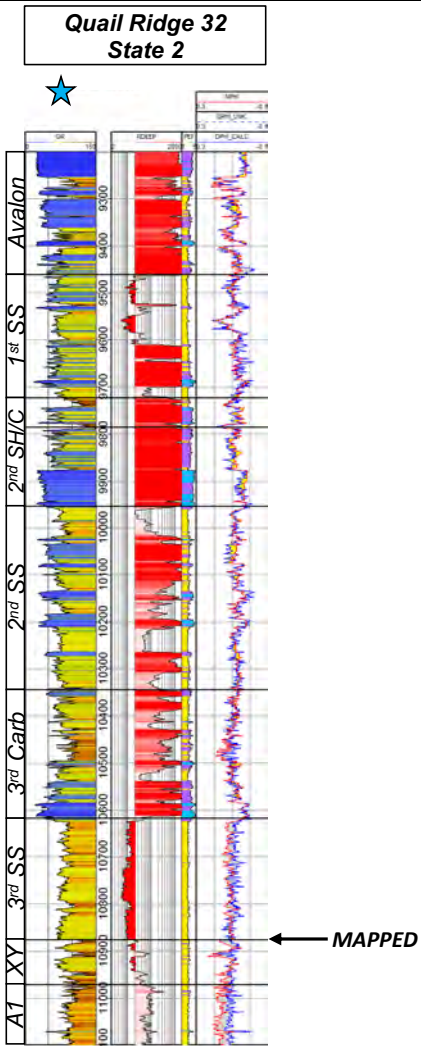


**EXHIBIT  
B-18**

# *Wolfcamp XY*

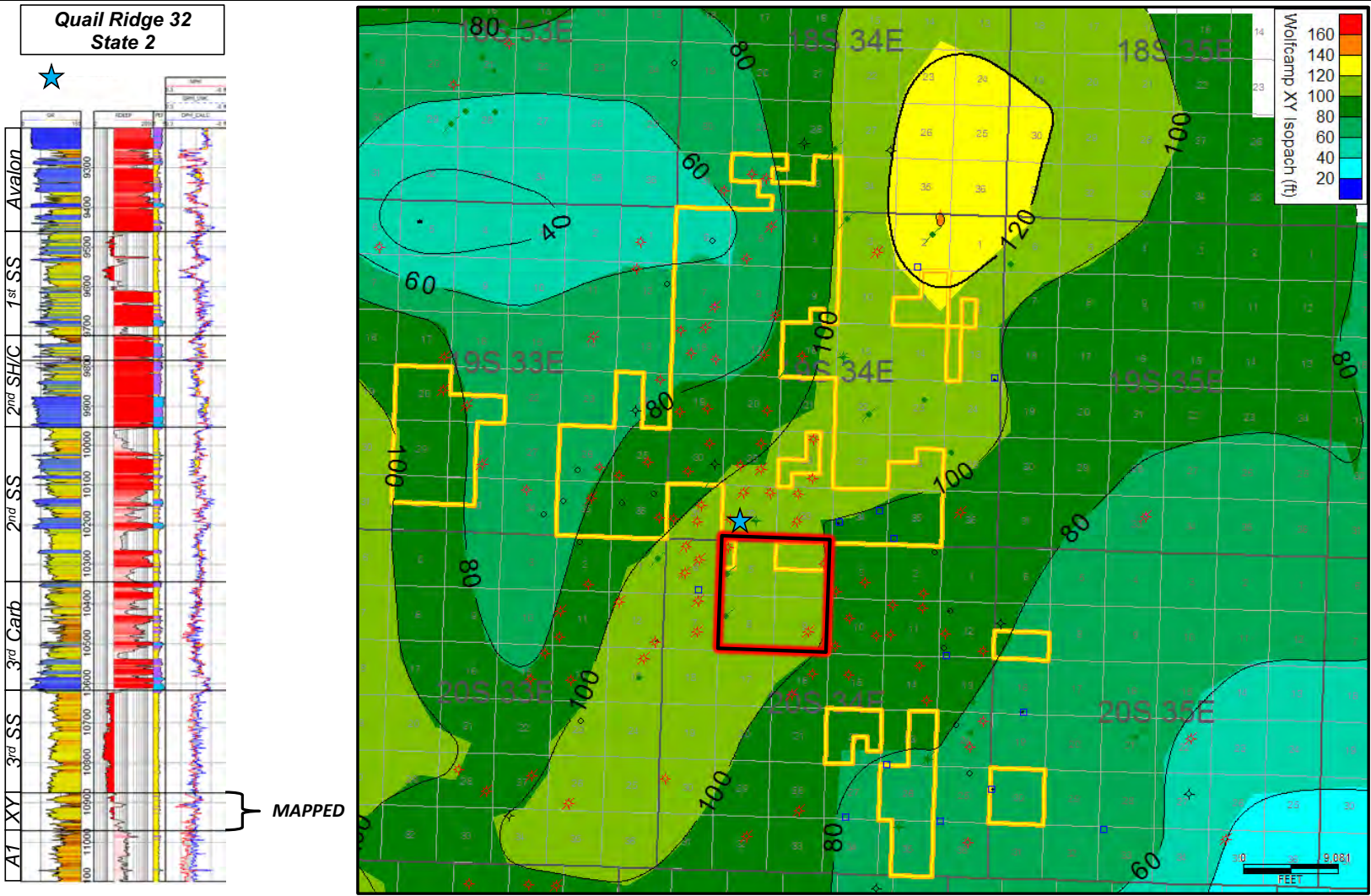


# Wolfcamp XY Structure

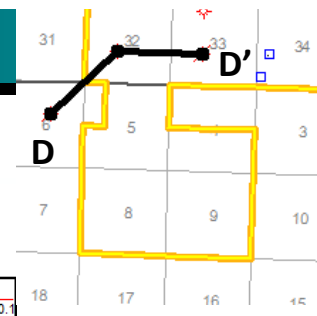
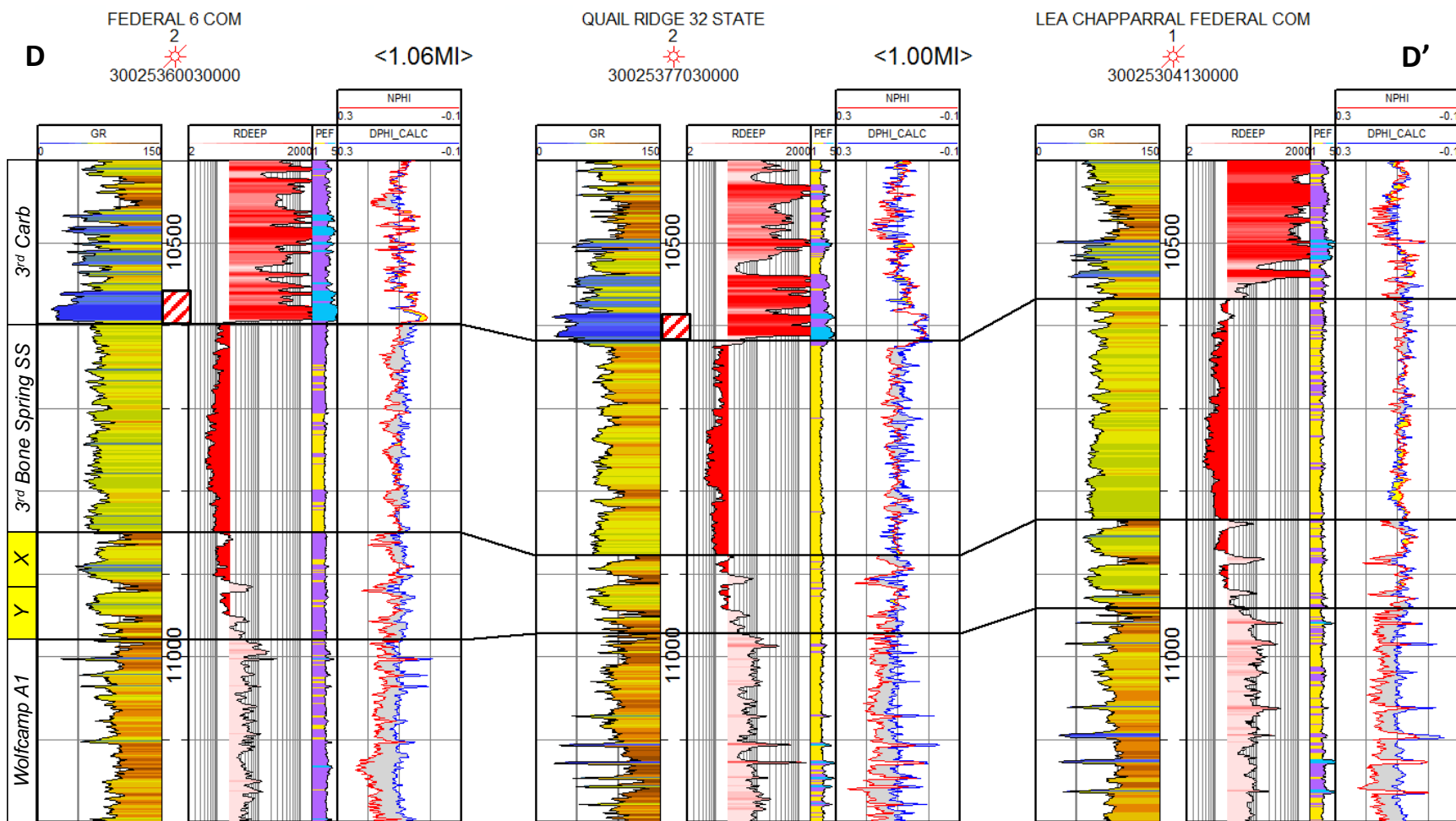


**EXHIBIT  
B-19**

# Wolfcamp XY Isopach



# Wolfcamp XY Cross Section



**Frac Baffle**

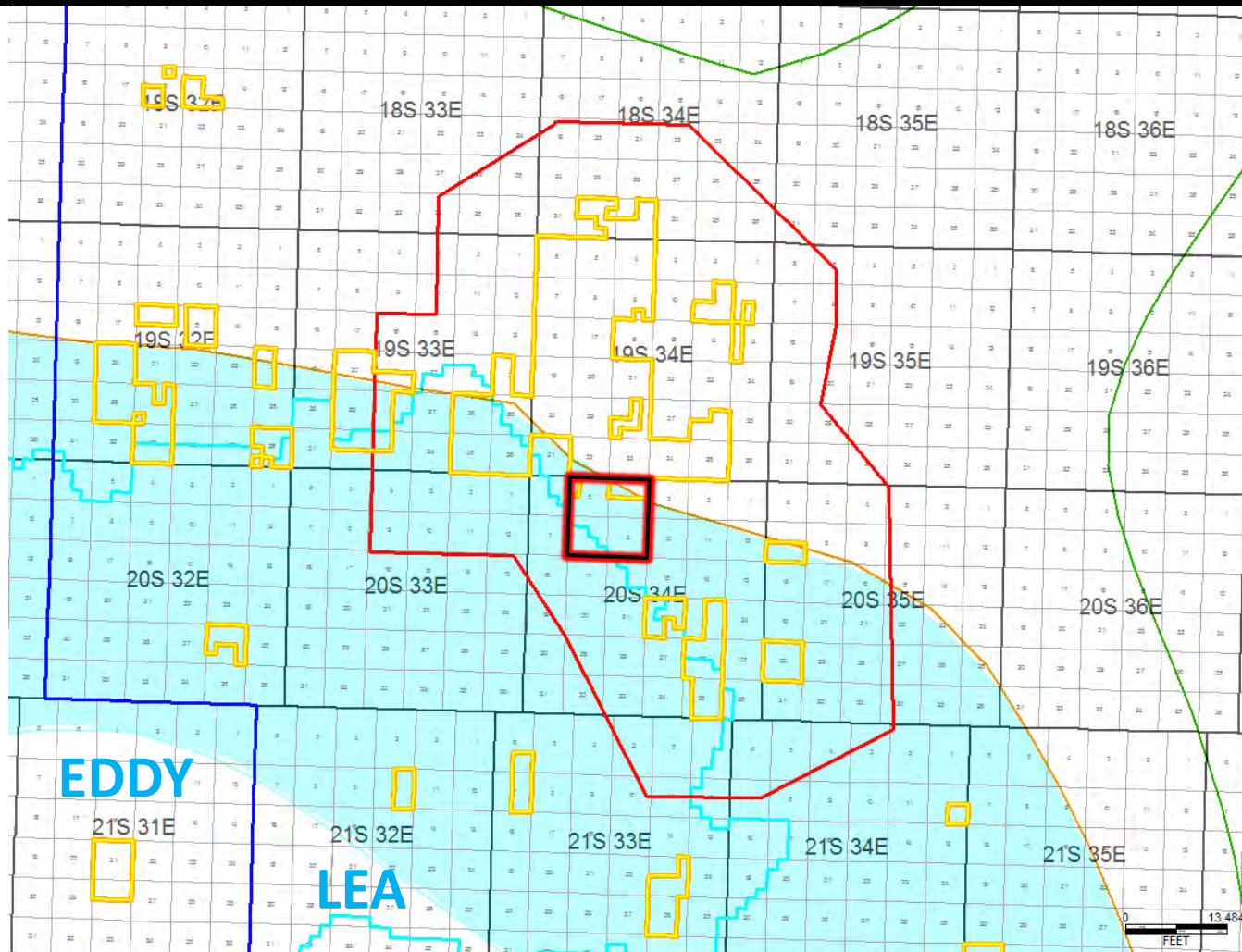
PR's additional Wolfcamp target lies ~95' below the 3rd Sand target. No significant frac baffle separates the two reservoirs.

**EXHIBIT B-21**



# ***No Frac Baffle Between Wolfcamp and 3<sup>rd</sup> Sand***

# 3D Seismic Outline

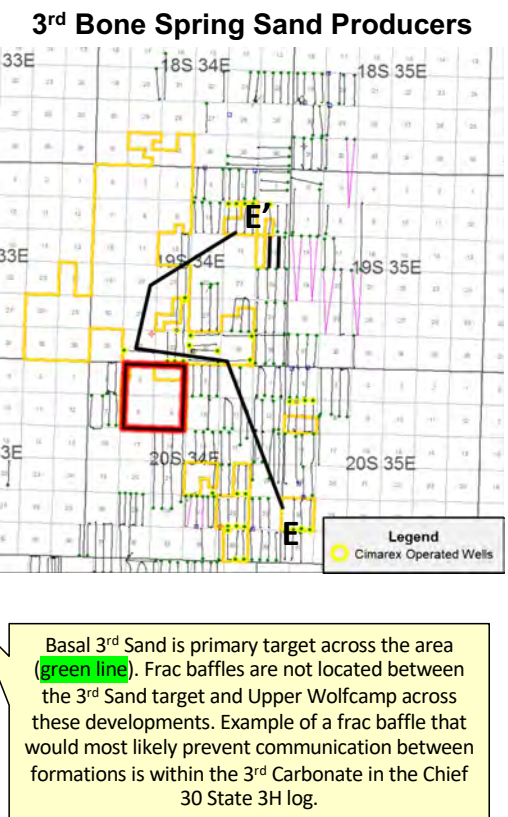
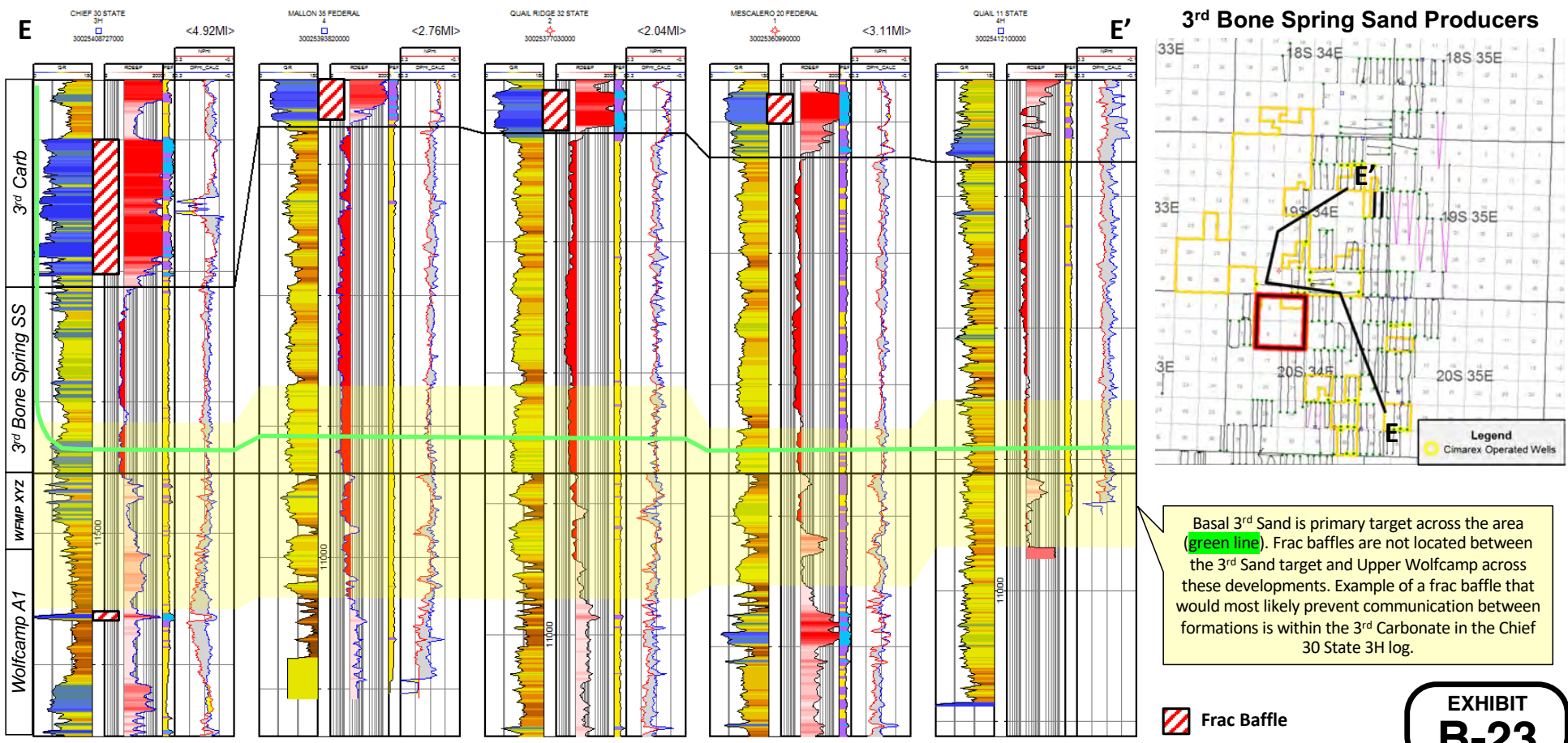


- Capitan Reef
- Cimarex 3D Seismic
- Potash Outline
- Cimarex Acreage
- Mighty Pheasant & Loosey Goosey

EXHIBIT  
**B-22**

3D seismic survey processed in  
2022

# No Frac Baffle Present Between Wolfcamp & 3<sup>rd</sup> Sand at Offset 3<sup>rd</sup> Sand Developments

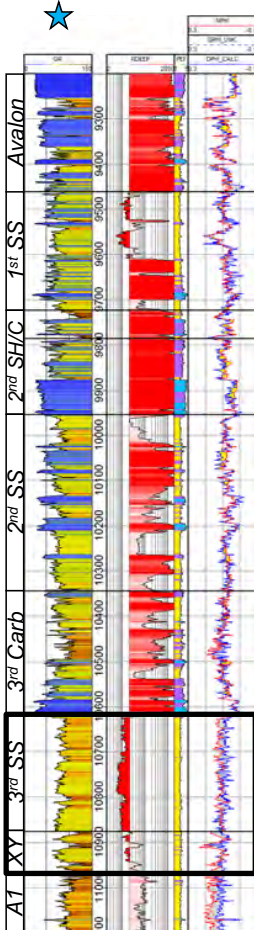


Basal 3<sup>rd</sup> Sand is primary target across the area (green line). Frac baffles are not located between the 3<sup>rd</sup> Sand target and Upper Wolfcamp across these developments. Example of a frac baffle that would most likely prevent communication between formations is within the 3<sup>rd</sup> Carbonate in the Chief 30 State 3H log.

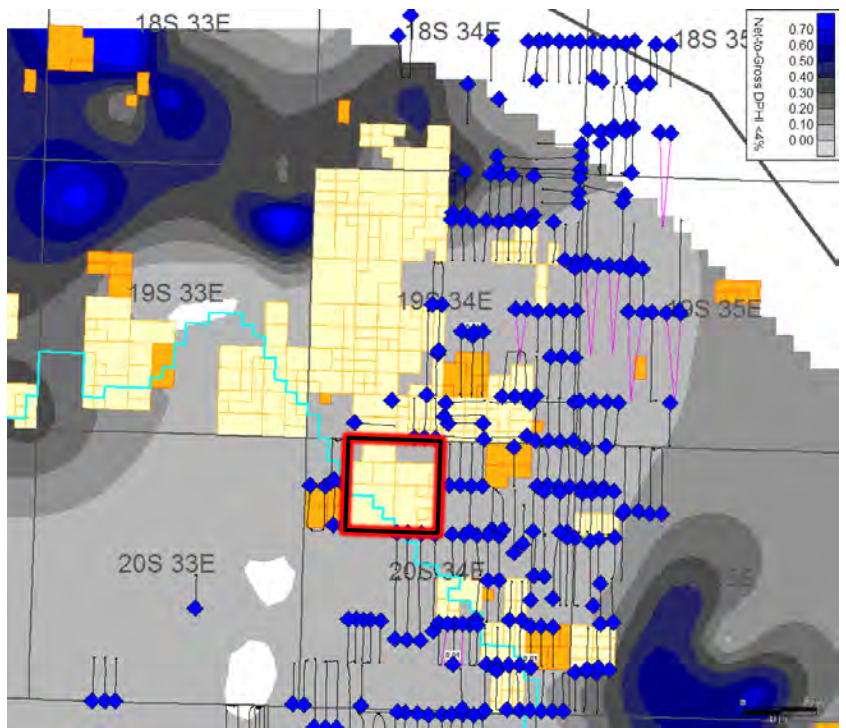
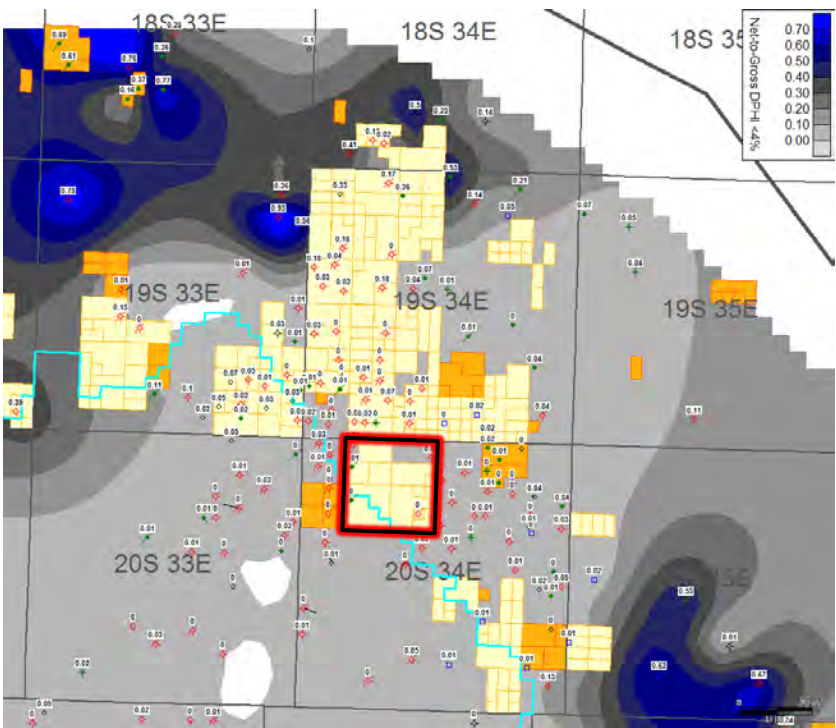
**EXHIBIT B-23**

# No Frac Baffles Between BSPG & WFMP at Existing Production

Quail Ridge 32  
State 2



Net-to-Gross DPHI <4%  
(0% means there is no frac baffle)



MAPPED

Scale is from 0% to 70%, so value = 0 means that there is no occurrence of density porosity dropping below 4% within 3<sup>rd</sup> Sand & Wolfcamp XY (no frac baffle)

◆ 3<sup>rd</sup> Bone Spring Sand

EXHIBIT  
B-24

## **TAB 4**

Case Nos. 23448-23451

Exhibit C: Self-Affirmed Statement of Calvin Boyle, Facility Engineer  
Exhibit C-1: Mighty Pheasant - Loosey Goosey Development Plan  
Exhibit C-2: Mighty Pheasant - Loosey Goosey Operations and Environmental  
Overview

Page 222 of 318

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

**APPLICATIONS OF CIMAREX ENERGY CO.  
FOR A HORIZONTAL SPACING UNIT AND  
COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

**Case Nos. 23448 – 23451  
(Mighty Pheasant; Bone Spring; Secs. 5 & 8)**

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

**Case Nos. 23594 – 23597  
(Mighty Pheasant; Wolfcamp; Secs. 5 & 8)**

**APPLICATIONS OF CIMAREX ENERGY CO.  
FOR A HORIZONTAL SPACING UNIT AND  
COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

**Case Nos. 23452 – 23455  
(Loosey Goosey; Bone Spring; Secs. 4 & 9)**

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

**Case Nos. 23598 – 23601  
(Loosey Goosey; Wolfcamp; Secs. 4 & 9)**

**SELF-AFFIRMED STATEMENT OF CALVIN BOYLE**

1. I am over the age of 18 and have the capacity to provide this Statement.
2. I graduated from the University of Oklahoma in 2016 with a Bachelor of Science degree in Petroleum Engineering. I received a Master of Business Administration from Oklahoma State University in 2018.

3. I was employed by Haliburton Energy Services from June 2017 until March 2019, as a Technical Professional, responsible for designing and managing cementing programs for all of XTO Energy Inc.'s drilling rigs in the Mid-Continent.

4. I joined Cimarex Energy Co. ("Cimarex") in March 2019. Since October 1, 2021, when Cimarex merged with Cabot Oil & Gas Corporation to form Coterra Energy Inc. ("Coterra"), I have been an employee of Coterra.

5. I have been a Facility Engineer for Cimarex and then Coterra since April 2021. As the Facility Engineer, I am responsible for planning, designing, and managing production facilities operated by Cimarex. Coterra has charged me with ensuring that production facilities are designed and managed so as to minimize environmental impacts.

6. I manage construction budgets for production facilities and allocate capital to optimize production facilities. I have appended a copy of my resume as Attachment A to my Statement.

7. This Statement provides a description and overview of the facilities that Cimarex will implement in its development plan for the Mighty Pheasant Wells in Sections 5 and 8, Township 20 South, Range 34 East; and the Loosey Goosey Wells in Sections 4 and 9, Township 20 South, Range 34 East, covering 2,880 acres, more or less. (The 2,880 acres are referred to herein as the "Subject Lands" and the Development Plan for the Subject Lands is referred to herein as the "MP-LG Development Plan.").

8. I assisted in the formulation of Cimarex's plans to develop the hydrocarbons in the applications filed in the above-referenced Cases and am familiar with facilities that Cimarex is proposing in its applications as well as the AFEs associated with all of the wells that Cimarex is

proposing in these cases and the AFEs associated with the additional wells that Cimarex is planning to drill on the Subject Lands.

**Exhibit C-1:  
Mighty Pheasant - Loosey Goosey Development Plan.**

9. As shown on Exhibit C-1, Cimarex will develop the Subject Lands with only 33.9 acres of disturbance to the surface, consisting of 2.33 acres of roads, 25.25 acres for pads, and 6.31 acres for a single battery. Thus, the results in a minimal 1.17% disturbance of the Subject Lands that substantially minimizes the environmental impact of the plan of development.

10. After the four drill pads and bulk gathering lines are installed, Cimarex will rotate back to these existing drill pads for all activities and operations within the MP-LG Development Plan, thus requiring no further surface disturbance to the lands. By minimizing dirt work in this way, Cimarex will reduce potential air pollution and preserve both native vegetation and natural habitat.

11. Cimarex will use a single Battery for all of the 27 to 34 wells that Cimarex intends to drill as part of the MP-LG Development Plan. A single battery eliminates two additional batteries that would otherwise be required, thereby eliminating additional surface disturbances and high-risk emissions devices.

12. Cimarex will develop the Subject Lands utilizing best-in-class gas capture technology and operations. Cimarex has already initiated this approach by securing proposals for oil, water, and gas takeaway using such technology and by submitting load requests to power surface equipment to develop the acreage. Cimarex has implemented an operations policy that encompasses zero (0) routine flaring and the use of tankless facilities that offer superior capture rates of low-pressure gas (>=90% low pressure capture) for new developments. Cimarex will utilize these policies in the development plan.



**Exhibit C-2:**

**Mighty Pheasant - Loosey Goosey Operations and Environmental Overview**

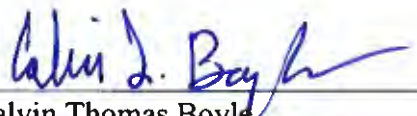
13. Cimarex will construct a single tankless facility for the MP-LG Development Plan. Cimarex will spend an additional \$610,000 to lower the emission's risk of the facility. Cimarex's tankless facility utilizes surge vessels rather than tanks. In doing so, Cimarex removes all high-risk emissions devices from the facility. Cimarex will not utilize a high-pressure flare unless H<sub>2</sub>S is present which allows Cimarex to minimize flaring. Cimarex will also install redundant vapor recovery units to increase low pressure gas capture and minimize flaring.

14. Cimarex will spend an additional \$255,000 to lower the spill risk of the facility. Cimarex will install lined containment around all equipment and pumps. Berm switches will be installed inside the containment to minimize a spill if one should occur. Cimarex will install stainless steel piping in high spill risk areas which significantly reduces the likelihood of a spill occurring. Cimarex will install pump seal leak detection to minimize the likelihood of a spill off of the water transfer pumps.

15. The Exhibits to this Self-Affirmed Statement were prepared by me or compiled from Cimarex's company business records under my supervision and/or approval.

16. The foregoing is correct and complete to the best of my knowledge and belief.

I understand that this Self-Affirmed Statement will be used as written testimony before the Division in Case Nos. 23448-23455 and 23594-23601 and affirm that my testimony herein is true and correct, to the best of my knowledge and belief and made under penalty of perjury under the laws of the State of New Mexico.


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Calvin Thomas Boyle  
8-2-23  


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Date Signed

# Calvin Thomas Boyle

6001 Deauville Blvd. Suite 300N Midland, TX 79706 | (918)-891-1095 | calvin.boyle@coterra.com

## Education

### Master of Business Administration

Concentration: Energy Business  
Oklahoma State University – Stillwater, OK  
Graduated August 2018; GPA: 4.00

### Bachelor of Science in Petroleum Engineering

University of Oklahoma – Norman, OK  
Graduated May 2016; GPA: 3.71

## Work Experience

### Coterra Energy (Formerly Cimarex Energy) – Facility Engineer

Midland, TX (April 2021-present)

- Plan, supervise, and design capital projects to minimize environmental impact
- Efficiently allocate capital to optimize production facilities
- Manage \$74MM capital construction budget
- Implement Vapor Recovery Unit life plan to effectively decrease emissions
- Coordinate with field personnel and executive management for successful project execution
- Software proficiencies: Promax, ARIES, Carte, XSPOC, Spotfire, Google Earth, and various

### Coterra Energy (Formerly Cimarex Energy) – Production Engineer

Midland, TX (March 2020-April 2021)

- Monitor production of more than 200 oil and gas wells in Lea and Eddy County New Mexico (Gas Lift, ESP, flowing, and pumping wells)
- Proposed, oversaw, and executed the divestiture of a 30 well asset
- Design and implement workovers (Rod Lift, ESP, Plunger, Acid Stimulation)
- Implemented the XSPOC system which decreased downtime by 12%

### Coterra Energy (Formerly Cimarex Energy) – Field Engineer

Jal, NM (March 2019 to March 2020)

- Managed production of 31 oil wells (Gas lift, pumping, plunger, and flowing)
- Optimized the wells to increase production and decrease LOE
- Monitored flare pilot and VRUs to prevent methane emissions from flares and tanks
- Maintained production facilities

### Halliburton Energy Services – Technical Professional, Cement

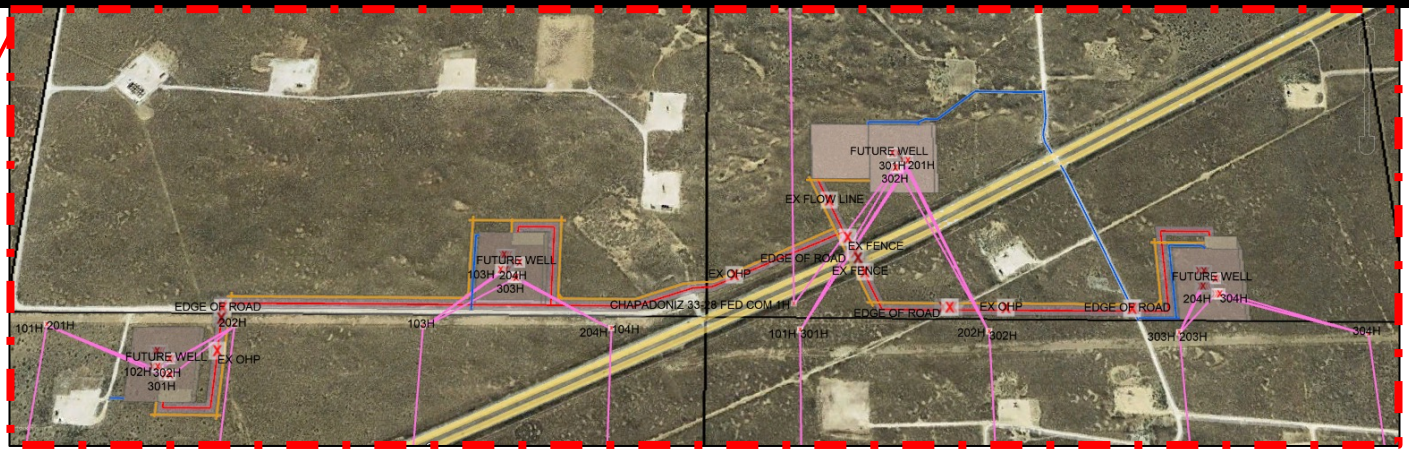
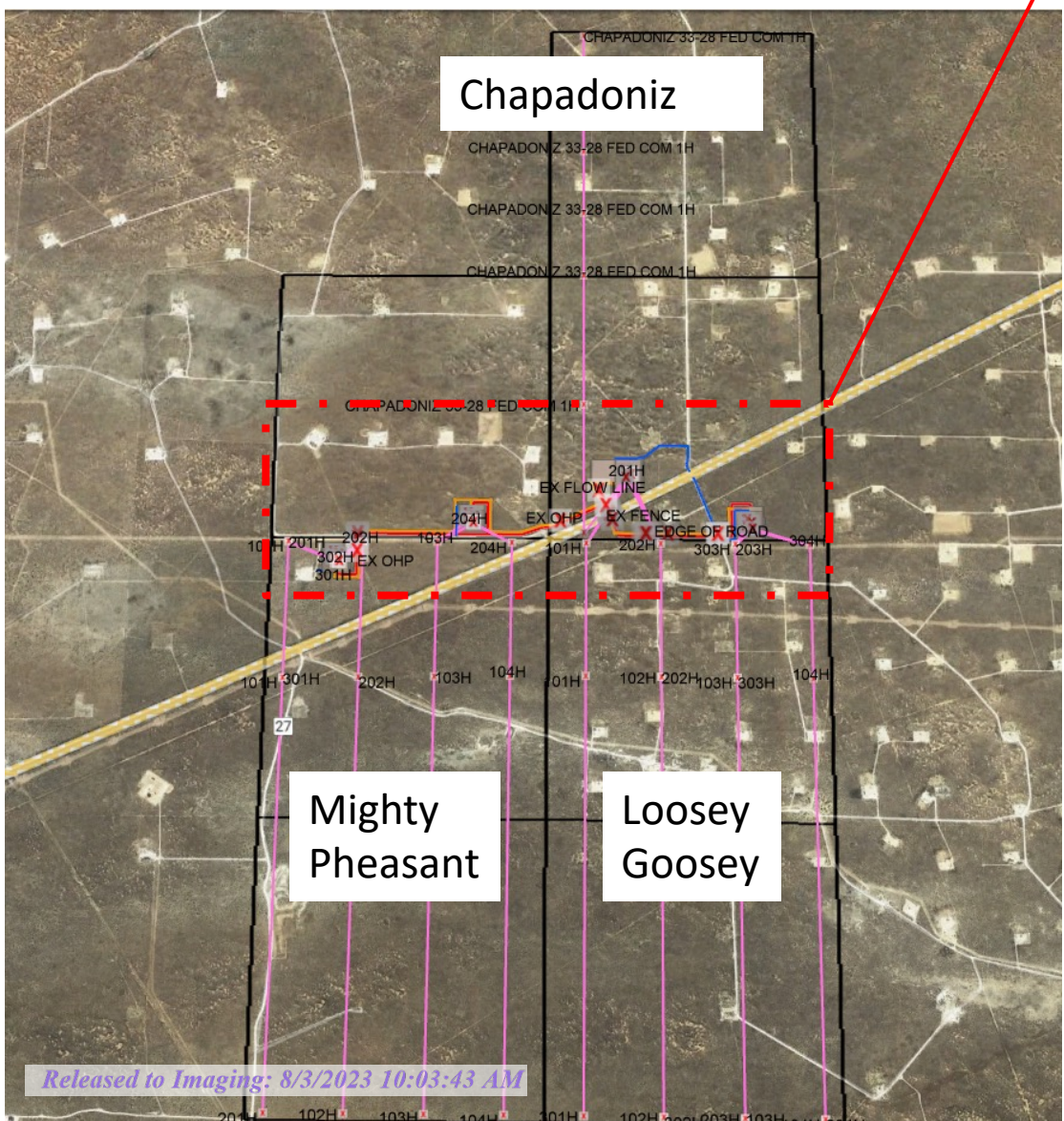
El Reno, OK (June 2017 to March 2019)

- Manage and design the cementing program for all of XTO's drilling rigs in the Mid-Continent; designing the cement programs in order to meet or exceed all of the XTO's specifications on each well drilled
- Design cement slurries for thickening time, compressive strength, rheological properties, and fluid loss; proactively tailoring cement slurries to achieve desired properties and alleviate risk for both my customers and Halliburton
- Run foam cement jobs on location; monitoring multiple variables and pumping nitrogen to ensure a successful job

**Attachment**  
**A**

# Mighty Pheasant Loosey Goosey Development Plan

1 mile



Single Battery develops – 27 to 34 planned wells

- Oil water gas power ROW connects 4 drilling pads with on pad separation to Battery
- Single battery eliminates 2 additional batteries worth of disturbance and high-risk emissions devices.
- Cimarex permits 0 routine flaring, and our design has  $\geq 90\%$  low pressure vapor capture
- Roads (2.33) acres, pads (25.25 acres) and battery (6.31 acres) create ~33.9 acres of disturbance allowing for full development of ~2880 acres, 1.17% disturbance.
- Pipelines are onetime construction; follow-up wells will use existing gathering off pad which is installed the first time a well is drilled off a drill pad. All future wells create no new disturbance off drill pads minimizing environmental impact

## Tankless Battery Design

- Central battery utilizing surge vessels
- Satellite separators utilized to eliminate future ground disturbance

## Emissions Reduction

- 0 high risk emissions devices
- Removal of high-pressure flare (Shut wells in during high line pressure events)
- Redundant vapor recovery units to increase low-pressure gas capture and reduce flaring

## Spill Mitigation

- Containment around all equipment and pumps
- Stainless steel piping in high-risk areas
- Transfer pump seal leak detection
- Berm switches in containments



## TAB 5

Case Nos. 23448-23451

- Exhibit D: Self-Affirmed Statement of Eddie Behm, Petroleum Engineer
- Exhibit D-1: Cimarex's High Profile Role in Lea County
- Exhibit D-2: Cimarex's Overall Production in Lea County
- Exhibit D-3: Map of 3<sup>rd</sup> Bone Spring Sand Producers
- Exhibit D-4: 3<sup>rd</sup> Sand Well Count by Landing and Operators
- Exhibit D-5: Black and Tan 3<sup>rd</sup> Sand Composite Forecast 6 wells  
(Before WC completion)
- Exhibit D-6: Black and Tan 3<sup>rd</sup> Sand Composite Forecast 6 Wells Post  
Wolfcamp Frac
- Exhibit D-7: Black and Tan Wolfcamp Composite Forecast 6 wells
- Exhibit D-8: Black and Tan Wolfcamp Composite Forecast 5 wells
- Exhibit D-9: Lessons learned from Black & Tan Development
- Exhibit D-10: Diagram of Staggered Landing Wolfcamp 3<sup>rd</sup> SS Vs. 3<sup>rd</sup> SS Flat
- Exhibit D-11: Black and Tan Analog comparison to MP/LG
- Exhibit D-12: Landing Zone Matters; Five Years Ago, Cimarex's Perry Test  
Confirmed 3<sup>rd</sup> SS Landing as Best Target
- Exhibit D-13: Vrena Frac Test
- Exhibit D-13: Dataset Identifying all Wells in Area of Interest
- Exhibit D-14: Production Projections: 1280 Scale
- Exhibit D-15: Average Cumulations of Oil
- Exhibit D-16: Projected Oil Rate: 1280 Scale
- Exhibit D-17: Batman WH vs. EH
- Exhibit D-18: Capital Plan Comparison
- Exhibit D-19: Cimarex Majority Working Interest
- Exhibit D-20: Comparison of Development Plans
- Exhibit D-21: PV10 Comparison: Mighty Pheasant vs. Joker
- Exhibit D-22: PV10 Comparison: Loosey Goosey vs. Bane
- Exhibit D-23: Ownership Rations and Depth Severances
- Exhibit D-24: API List of Wells by Formation

**STATE OF NEW MEXICO  
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**Case Nos. 23598 – 23601  
(Loosey Goosey; Wolfcamp; Secs. 4 & 9)**

**SELF-AFFIRMED STATEMENT OF EDDIE BEHM**

1. I am over the age of 18 and have the capacity to provide this Statement.
2. For the past six years, I have been employed as a Production Engineer and Reservoir Engineer in the Delaware Basin for Cimarex Energy Co. (“Cimarex”) and then Coterra Energy Inc (“Coterra”) as of October 1, 2021, when Cimarex merged with Cabot Oil & Gas

Corporation to form Coterra. My primary focus has been the development of the Bone Spring and Wolfcamp formations in Lea County, New Mexico.

3. I graduated from the University of Tulsa in 2011 with a Bachelor of Science degree in Petroleum Engineering. I was employed by Occidental Petroleum Corporation and California Resources Corporation from 2011 to 2017, prior to working for Cimarex.

4. I have previously testified before the Oil Conservation Division (“Division”) as an expert in Petroleum Engineering and my credentials have been accepted of record by the Division.

5. I provided petroleum engineering and petroleum reservoir expertise with respect to the formulation of Cimarex’s plans to develop the Loosey Goosey Wells in Sections 4 and 9 and the Mighty Pheasant Wells in Sections 5 and 8, Township 20 South, Range 34 East, Township 20 South, Range 34 East, covering 2,880 acres, more or less. (The 2,880 acres are referred to herein as the “Subject Lands” and Cimarex’s Development Plan for the Subject Lands is referred to herein as the “Goosey-Pheasant Plan.”)

6. I am also thoroughly familiar with the competing applications filed by Read & Stevens, Inc. in Case Nos. 23508-23523 for its Bane Wells proposed for Sections 4 and 9 and its Joker Wells proposed for Section 5 and 8 (collectively referred to as the “Bane-Joker Plan”). Read & Stevens designated Permian Resources Operating, LLC as the Operator for its proposed development. (Read & Stevens, Inc. and Permian Resources Operating, LLC are collectively referred to herein as “Permian Resources.”)

7. This Statement compares Cimarex’s Goosey-Pheasant Plan to Permian Resources’ Bane-Joker Plan to be used in the hearing before the Division on these competing applications.

8. Based on my educational background, my experience as a Petroleum Engineer in the area surrounding the competing plans that contain the same geological and reservoir

characteristics (referred to herein as the “Area of Interest” and as the “AOI”), production data from wells completed in the 3<sup>rd</sup> Bone Spring Sand and in the Upper Wolfcamp in the Area of Interest, Recovery factors within the subject lands, Stack Stagger results throughout Lea County in various geologic settings, data from the Hydraulic Fracturing Test Site 2 (“HFTS2”), and the costs of the competing plans, it is my opinion regarding the development to the Subject Lands as an expert in the field of Petroleum Engineering that:

- The 3<sup>rd</sup> Bone Spring Sand (“3<sup>rd</sup> Sand”) is the established single bench target;
- The optimal spacing for the 3<sup>rd</sup> Sand is four (4) laterals per Section;
- The spacing proposed by Permian Resources of eight (8) laterals per Section in the 3<sup>rd</sup> Sand is overly dense and wasteful since it will not result in an increase production to offset the additional \$166 Million in capital expenditures incurred;
- Co-development of the Upper Wolfcamp in association with the development of the 3<sup>rd</sup> Sand will not result in any significant increase in the Estimated Ultimate Recovery (“EUR”) of hydrocarbons and may negatively impact EUR;
- Due to the fact that the working interest owners under Permian Resources’ plan will be burdened with an additional \$270 Million in costs that will result in little, if any, disparities in EUR, all working interest owners will enjoy a substantial benefit if Cimarex’s Goosey-Pheasant Plan is implemented, even working interest owners who own a greater interest in the Wolfcamp Formation than the Bone Spring Formation; and
- Conversely, all working interest owners of the Subject Lands will suffer considerable reduction in their return on investment if Permian Resources’ Joker-Bane Plan is implemented, even working interest owners who own a greater interest in the Wolfcamp Formation than the Bone Spring Formation.

9. The information on which I am basing my opinions are the type of information that an expert in Petroleum Engineering normally relies upon in formulating opinions related to these subject matters.



**Exhibits D-1 and D-2  
Cimarex is a Play Leader in Lea County**

10. **Exhibits D-1 and D-2** show the top fifteen (15) operators in Lea County from 2018-2022, based on the Average First 12 Month Cum BOE per 1000 feet of laterals (Ex. D-1) and based on Average First 12 Month Cum Oil BBL per 1000 feet of laterals (Ex. D-2), as compiled by Enverus, Inc.

11. **Exhibit D-1** shows that from 2018-2022 Coterra/Cimarex averaged 50,749 BOE for the first twelve months for each 1,000 feet of laterals over 81 wells, while Permian Resources averaged just 30,059 BOE for that same period for 94 wells. Coterra/Cimarex is one of the top two operators in Lea County under this metric.

12. **Exhibit D-2** shows that from 2018-2022, Coterra/Cimarex averaged 34,633 barrels of oil for the first twelve months per 1,000 feet of laterals over 81 wells, while Permian Resources averages just 23,625 BOE for that same period for 94 wells. Coterra/Cimerax is one of the top two operators in Lea County under this metric.

13. While these results are dependent upon the quality of the producing formations, Cimarex's superior results are also the result of applying a similar process using barrier and flow unit identification to inform landings, full section development recovery from densely drilled projects to inform well count, and understanding how oil is distributed within the flow units to most efficiently target all the economic barrels in each development. The most important driver of our success in Lea County over this time period has been driven not only by improved lateral spacing but by recognizing whether a flat single landing or stagger is most appropriate for the flow unit or units being targeted. We target the Leonard, Avalon, 2<sup>nd</sup> Shale, Upper 2<sup>nd</sup> Sand, lower 2<sup>nd</sup> Sand, Harkey, 3<sup>rd</sup> Sand, Wolfcamp sands, Wolfcamp A, and Wolfcamp Lower A/B and over spacing

laterally or vertically risks performance of wells landed in formations above and below as well as within the same bench.

14. Recognizing when a single landing is needed and a stagger is warranted is a fundamental difference in the plans proposed. Cimarex moved from 14 well per section testing staggers as vertically tight as 40 feet in 2017 at Hallertau (Section 5, Township 26 South, Range 32 East), which targeted the X and Y as if they were separate flow units with a third landing in the A 150 feet below despite a lack of barriers. Lack of vertical separation in addition to over spacing was a common mistake 6 years ago which results quickly made obvious to operators who reduced well count and increased vertical separation. Cimarex moved from a 40 foot stagger to a single clastic landing and now targets the A at 200 to 250' of vertical separation at places like the Red Hills 32-5 and Red Hills Unit 33-4 Wells (Section 32, Township 24 South, Range 32 East and Section 33, Township 25 South, Range 32 East) where both benches exist at 9 wells per section or as a single clastic landing at the Dos Equis 12-13 Wells (Sections 12 and 13, Township 24 South, Range 32 East), 6 wells per section where carbonate has made the Middle A non-prospective. The 3<sup>rd</sup> Bone Spring Sand and Wolfcamp stagger combined with 8 wells per 1280 acres, the well count proposed by Permian, looks more like a 2018 test in both well count and vertical drainage assumptions than a 2023 development plan informed by studies like HFTS2 and all the production results from significant development within Lea County.

15. South Lea county is complex across the entire area with flow units changing drastically over several miles. Cimarex's aggregate experience in Lea County is important because it is actually harder to optimally develop properties in the Southern part of Lea County, where most of Cimarex's Lea county activity has been the last 5 years. This is due to the fact that there are more landing zones with unclear boundaries due to multiple non laterally continuous thin carbonates and

much more variation in rock quality within individual landing zones due to increased distance from sediment source. The Subject Lands are the closest thing to conventional formations in Lea County and Cimarex's experience in the County and all the lessons learned in tighter rock on spacing and vertical separation will be even more important in a region of higher porosity, higher vertical continuity, higher permeability, and more defined frac baffles and barriers, especially when paired with the ability to complete wells with higher net fracture pressure (bigger frac height/half-length at same surface pressure).

**Exhibit D-3**  
**3<sup>rd</sup> Bone Spring Sand is the Established Single Bench Target**  
**at 4 Wells Per Section Within the Area of Interest**

16. **Exhibit D-3** consists of a map of approximately 42,650 acres in the AOI that includes the Subject Lands. This Exhibit compares the development of the 3<sup>rd</sup> Bone Spring Sand (left AOI map) and the Wolfcamp (right AOI map). The laterals of the Cimarex operated wells are highlighted in yellow. The lands controlled by Cimarex are marked by yellow boundary lines.

17. In the AOI, there are little or no indications of any major geomechanical changes/frac baffles in between the 3<sup>rd</sup> Sand target and Wolfcamp Sands that are the target of Permian Resources' proposed Wolfcamp wells, indicating that these two intervals are most likely one shared reservoir tank.

18. Cimarex has substantial experience in developing hydrocarbons in the AOI based on the fact that it has executed 36 wells within the AOI, 15% of all wells. Moreover, we were an early lateral play delineator within the AOI whose results helped drive significant lateral investment in the area.

19. This Exhibit, and the data upon which it is based, coupled with Cimarex's experience within the AOI, supports my opinion that the reservoir of hydrocarbons in the AOI is adequately captured with a single landing within the flow unit for the following reasons.

20. The map on the left of **Exhibit D-3**, "3<sup>rd</sup> Bone Spring Sand Producers" shows significant single bench development of the 3<sup>rd</sup> Sand at four (4) wells per section spacing (WPS).

21. The map on the right of **Exhibit D-3**, "Wolfcamp Producers," shows that the Wolfcamp Formation is not primarily targeted in conjunction with 3<sup>rd</sup> Bone Spring Sand development. Furthermore, as demonstrated by the map on the right, "Wolfcamp Producers," where the Wolfcamp Formation is developed, it is predominantly drilled and developed without the 3<sup>rd</sup> Sand also being developed.

22. Thus, the history of development in the AOI supports my opinion that the reservoir is adequately captured with a single landing in the 3<sup>rd</sup> Sand within the flow unit.

**Exhibit D-4**  
**Well Count by Landing and Operators**  
**Proves that the 3<sup>rd</sup> Sand is the Consensus Landing**

23. **Exhibit D-4** contains a table that shows the total number of 3<sup>rd</sup> Sand wells and Wolfcamp wells drilled in the AOI by year and by operator.

24. Ninety-seven percent (97%) of wells drilled in the AOI, that is 236 out of 244 wells, are executed as single bench, non-staggered developments. Of the 22 Wolfcamp Wells drilled in the AOI, 14 were drilled as stand along wells, *i.e.*, wells without a 3<sup>rd</sup> Sand Well, 5 were drilled as a separate bench, and only 3 were drilled in stacks with 3<sup>rd</sup> Sand Wells.

25. This well-established history of development, involving more than \$2 Billion of CapEx<sup>1</sup> by fifteen (15) different operators, proves that it is not just Cimarex's idiosyncratic opinion that the best development plan for the Subject Lands requires a single landing target but rather that this is the consensus shared by all 15 companies active within the AOI, a consensus directly supported by the production data.

26. Furthermore, the fact that 222 wells out of 244 total wells within the AOI land in the 3<sup>rd</sup> Sand supports Cimarex's assessment of the 3<sup>rd</sup> Sand as the optimum landing.

**Exhibits D-5 and D-6**  
**Wine Rack of the Black and Tan Wells and Reference Map**  
**Black and Tan 3<sup>rd</sup> Sand Composite Forecast 6 wells (Before WC completion)**

27. There is only one development plan within the entire AOI similar to the plan Permian Resources is proposing for its Joker and Bane Wells, the Black and Tan Wells drilled in Section 27, Township 20 South, Range 35 East, located just 2 miles south of the Subject Lands. See Exhibit D-3. The development of the Black and Tan Wells was based on similar well drainage assumptions that utilize outdated completion height assumptions that Permian Resources appears to be relying upon.

28. Those assumptions include that there are separate benches which a single landing does not access, that in bench spacing drives performance, and that the vertical separation of a 100-feet would not have much impact on production.

29. The development of the Black and Tan Wells in Section 27 is best analog to Permian Resources' Joker and Bane Development Plan and is predictive of the likely outcome of Permian Resources' proposal to develop the 3<sup>rd</sup> Sand and the Wolfcamp as if they are separate and

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<sup>1</sup> Assuming that the average cost of the 244 wells was \$8.2MM, the CapEx for all of these wells exceeds \$2 Billion.

equal targets. A summary of the production results is set forth in **Exhibit D-10** below. These results demonstrate substantial underproduction and waste that occurred as a result of the development of the Black and Tan Wells, results that would likely be replicated under Permian Resources' Joker and Bane Development Plan, which is based on the same erroneous underlying assumptions that doomed the Wolfcamp development of Section 27 with the Black and Tan Wells. Cimarex's MG-LG Development Plan would avoid such an outcome.

30. **Exhibit D-5** shows the winerack view of the Black and Tan Wells with a reference map. **Exhibit D-6** shows the actual aggregate production from the six 3<sup>rd</sup> Sand Wells, through May 1, 2019, before the five Wolfcamp Wells were fraced.

31. Exhibit D-6 also shows the Forecast as of May 1, 2019, for the future aggregate well performance of the six 3<sup>rd</sup> Sand Wells, prior to the underlying Wolfcamp development. Significant reserves (that of 2.5MM barrels of oil) and rates (that being 3356 BOPD IP30) were accessed by these 1-mile wells supporting 3<sup>rd</sup> Sand as a proven landing for optimal production.

32. We calculate Recovery Factor as within 1% of slickwater 4 well per section developments despite the drilling of 2 additional wells and would execute this section at 4 wells per section and expect similar results.

#### **Exhibit D-7** **Black and Tan 3<sup>rd</sup> Sand Composite Forecast 6 Wells Post Wolfcamp Frac**

33. This Slide shows the Forecast as of May 1, 2023, for the future aggregate well performance of 3<sup>rd</sup> Bone Spring Sand wells after underlying Wolfcamp development. Unfavorable results included elevated water cut, rapid Gas-to-Oil Ratio Incline, and steep oil decline, all of which are signatures of interference between the five Wolfcamp wells drilled below these six 3<sup>rd</sup> Sand wells. After the Wolfcamp wells were drilled and produced, overall reserves appear to have

fallen to 1.63 MM barrels of oil with a steep decline profile. These facts prove the degradation a 2<sup>nd</sup> landing causes within the AOI on the 3<sup>rd</sup> Bone Spring Sand.

#### **Exhibit D-8 Black and Tan Wolfcamp Composite Forecast 5 wells**

34. This plot shows the aggregate performance and forecast for the five Wolfcamp wells completed below the six 3<sup>rd</sup> Sand wells shown on exhibits **D-5, D-6 and D-7**. Data clearly shows that vertical interference occurs in staggered developments, causing these 5 wells to add only 885MBO oil reserves and 500 BOPD IP in the aggregate. Elevated water cut and rapid GOR incline are evidence of interference with 3<sup>rd</sup> sand wells above.

#### **Exhibit D-9 Lessons Learned from the Black and Tan Development**

35. **Exhibit D-9** table 1.0 shows some simple forecast metrics highlighting the fact that only a negligible rate and a negligible amount of EUR were detectible from drilling the five extra, not to mention expensive, Wolfcamp wells. It is noteworthy and significant how little benefit the five wells added and how much they negatively impacted 3<sup>rd</sup> sand production. The aggregate rate change is so small it is essentially zero (0) which does not support or justify as effective capital stewardship the drilling of the 8 additional \$11MM dollar wells proposed by Permian Resources. Table 1.1 shows the pore space distribution, 3<sup>rd</sup> Sand has 268% more PHIH than the upper Wolfcamp and is clearly the predominant contributing reservoir. The hypothesis that landing in 3<sup>rd</sup> Sand with 268% more porosity and height combined with better flow properties is the best way to access all the bbls becomes unarguable with production data from Black And Tan where the addition of Wolfcamp landings added no reserves and only negatively impacted the 3<sup>rd</sup> Sand raising aggregate section OpEx. The lesson learned from this data is that drilling into the Upper Wolfcamp itself is financially wasteful and jeopardizes optimal 3<sup>rd</sup> Sand production. A setback

from 3<sup>rd</sup> sand is in the best interest of efficient low risk recovery of the area reserves in this single landing target.

**Exhibit D-10**  
**Diagram of Staggered Landing Wolfcamp 3<sup>rd</sup> SS Vs. 3<sup>rd</sup> SS Flat**

36. This exhibit shows what Cimarex believes happened in the Black and Tan analog example which reflects the nature of Permian Resources' proposal and therefore Permian's likely outcome. The Majority of Stimulated Rock Volume accessed by 3<sup>rd</sup> Sand well's landed flat must be very similar to the Stimulated rock volume accessed by staggered Wolfcamp and 3<sup>rd</sup> landings. If this were not true, the sum of Wolfcamp and 3<sup>rd</sup> sand production out of the Black and Tan development would be significantly higher once the 2<sup>nd</sup> bench was added instead of about the same. Where appropriate geologically, Cimarex executes as many as 9 landings within the same section in Lea County. Due to the location of barriers and target reservoir height executing two landings within the contested acreage in the 3<sup>rd</sup> Sand Wolfcamp target or the lower 2<sup>nd</sup> Sand 3<sup>rd</sup> Shale target serves only to double development CapEx. Cimarex has proprietary data from South Lea County developments in thicker more heterogeneous pay that support the accuracy of how we have assessed the vertical interference and is confident additional landings serve only to dilute sweet spot landing production. Not everyone has access to the same data but there is a wealth of public data available from the Hydraulic Fracture Test Site 2 DOE and industry partnership that would lead to the same conclusion.

**Exhibit D-11**  
**Black and Tan Analog comparison to MP/LG**

37. Loosey Goosey and Mighty Pheasant have a similar pore space distribution as the Black and Tan Development with slightly higher porosity. The extra porosity is more likely to correlate to better permeability and allow a single landing to capture proven 3<sup>rd</sup> sand reserves even



more efficiently. Sensitivities run vs. reserves (Table 1.3) and Highside expectations (Table 1.4) show the PV 10 degradation and how much uplift would be needed to break even on the additional wells proposed by Permian. Given Black and Tan's added negligible bbls and rate, close to 0%, in similar rock two miles away, the public data simply does not support the 30% to 40% EUR and rate improvement needed to even break even on the extra incremental CapEx proposed by Permian resources well count. The recovery factor needed to payout the additional wells proposed is unrealistic in my opinion based on the Analog results. Furthermore, due to optimum well count Cimarex's plan is self-funding with payout in < 1 year. This is important for follow up benches that Cimarex will be able to rapidly develop out of lease cashflow, whereas Permian resources would require debt to fund an annual drilling program and would be significantly more exposed to commodity pricing jeopardizing timely development of subsequent benches if they go from 5 wells per section to 8 wells per section.

**Exhibit D-12**  
**Landing Zone Matters; Five Years Ago, Cimarex's Perry Test Confirmed**  
**3<sup>rd</sup> SS Landing as Best Target**

38. Cimarex confirmed 3<sup>rd</sup> Sand as best landing zone 5 years ago in 2018 with the Perry 4H 1 mile South of the contested acreage block. Over the life of the well, we see the old conventional 3<sup>rd</sup> Sand landing outperform other landings. Fracs evolved over time to modern slick water completions. Today most companies pump between 2000#/ft and 3000#/ft and 38 bbl/ft up to 60 bbl/ft with 6 to 14 clusters per stage depending on the target. It is highly unusual for a legacy frac, that is, one more conventional (i.e., <2016 with low cluster count, long stages, and unfocused frac energy), to better access reservoir than a modern frac (>2016 vintage with high cluster count, short stages, very focused frac energy). The best explanation for 478#/ft 3<sup>rd</sup> Sand frac outperforming 5 to 6 times the frac energy pumped in the Wolfcamp test well is that the vast

majority of oil reserves and best rock fabric flow properties are located within the 3<sup>rd</sup> Sand, and not in the Upper Wolfcamp. Thus, drilling into the Upper Wolfcamp is a waste of resources.

39. The dataset that identifies all the wells in the Area of Interest that I used in my analysis and that played a role in my conclusions is attached hereto as **Exhibit D-24**.

**Exhibit D-13  
Verna Rae Frac Test**

40. The Verna Rae wells are a frac test and a poor analog for a full development. In my opinion, the 6827#/ft and 129 bbls/ft of frac energy is draining significantly more bbls than the 160-acre proration unit and appears to interfere with the 133H. Full developments are better to use for EUR and spacing because well half lengths are constrained which prevents both over estimating program development performance and section EUR's. I do not recommend offsetting the Verna Rae wells at double proven density as a good investment of CapEx because 3 times a modern slick waters frac energy was concentrated immediately adjacent to the subject lands.

**Exhibits D-14  
1280-Scale Project Cum. Oil/ft vs. Days**

41. **Exhibit D-14** shows multiple developments executed at various Wells Per Section ("WPS"). The Y axis shows project cum/ft normalized to a full section development. For example, the ESTE WH Minis are 2 wells drilled at 4 WPS. Production from these wells is multiplied by 2 so production from these wells can be readily compared to full section projects. The Este EH Minis are 4 wells drilled at 8 WPS in the East Half and are multiplied by 8 to easily compare them to full section projects.

42. This simple plot provides a good check for Reserves vs. Acceleration. Acceleration occurs when a project is outperforming other projects during its early life, the first year for example, only to roll over with more production time to point towards the same ultimate

cumulative recovery. Understanding if production is additional reserves or merely acceleration of production is very important in places like New Mexico that offer decades of drilling opportunity with finite localized takeaway. Our Lea County team's definition of optimum development is a well count that accesses the economic bbls, rather than drill a 5<sup>th</sup> well to potentially accelerate bbls that appear to already be accessed by 4 wells we would deploy that capital in an additional landing within the project to add additional reserves with that capital or even de-risk a less tested landing for the area to replenish inventory. When Cimarex executes this approach across its Lea County acreage at portfolio level it allows Cimarex to drill additional projects with entire landing zones fully developed at an accelerated pace as opposed to executing less acres and benches at a denser well count that degrades stakeholders' returns and decreases aggregate royalty payments in the County.

43. The Reed and Stevens North Lea 3 (shown on Exhibit D-13) is an example where the long-term reserves captured by 4 WPS is very similar to denser projects. Cimarex is proposing this same spacing with all wells executed with a modern slickwater frac, produced on ESP with appropriate gas separation down hole, and then combined with adequate takeaway. It is my opinion that Cimarex's proposal will deliver a top performer as compared to all developments shown in Exhibit D-13, including the Batman E/2 and Batman W/2, with respect to the economics, *i.e.*, a greater return on investment and in terms of EUR.

44. The key takeaways from **Exhibit D-14** are that:

- Over time, 4 WPS developments catch up to denser spaced projects in production indicating that higher early-life production from denser developments is primarily attributable to acceleration;
- COG's Little Bear project is a dense Wolfcamp only landing, full development that underperforms, similar to the Black and Tan Wolfcamp, supporting Cimarex's proposed 3<sup>rd</sup> Sand landing; and

- Drilling Wolfcamp wells appears damaging to 3rd SS project at Black and Tan. The Wolfcamp wells appear to have added at most 30 bbl/ft reserves after 1,000 days which is, more or less, equivalent to slope of 3rd Sand prior to completion.

45. The early results for the 5 WPS Batman project looks good and the spacing is within 1 well of Cimarex's proposed 4 WPS, as opposed to Permian Resources' proposed 8 WPS for the 3<sup>rd</sup> Sand and Wolfcamp. However, it is too early to assess success or failure of the 5 WPS Batman project. Each of the Batman projects need to Cum approximately 125 bbl/ft out of the DSU to be able to make firm EURs. I would be more confident assessing the success or failure of this project after the Batman wells have had ESP's installed and several months of decline are evident. My expectation is that the ESP install will peak the differences between the two half sections and that over time differences between the two half section developments will decrease similar to what has been seen on other developments as spacing impacts materialize in production. I am not sure the East half 3<sup>rd</sup> sand wells drilled at 4 wells per section have fully cleaned up yet and if they have not, it will adversely affect production from the Batman wells.

**Exhibit D-15**  
**Average Per-Well Cum. Oil/ft vs Days, 2-Year Zoom**

46. **Exhibit D-15** shows the average well performance in Bo/ft vs. Time zoomed into a 2-year period. This is a simple capital efficiency plot with the most capially efficient early time wells plotting at the top and less capially efficient wells plotting at the bottom. It is noteworthy that the best wells are either 4 WPS developments or flowed by EOG which, in my opinion, is one of the best operators in Lea County at aggressive drawdown / acceleration of their developments.

47. The main take aways from **Exhibit D-15** are that:

- Denser spaced developments underperform looser spaced developments to the point that drilling past 4 WPS appears to be a waste of capital;

- The Della project drilled by EOG takes longer to show degradation, most likely due to aggressive drawdown common on EOG's developments; and
- In aggregate 3rd Sand is the best way to develop from production results.

**Exhibit D-16**  
**1280-Scale Project Oil Rate/ft vs cum Oil/ft**

48. **Exhibit D-16** shows Rate/ft vs. Cum/ft for multiple projects executed within the subject lands. This plot is useful for comparing developments that may be flowed differently. For example, if an operator is flowing a well constrained by takeaway they will plot low on the y axis but stay flat for a long time on the X axis. Alternatively, if a development is flowed without constraints it will peak very high on the y axis but quickly go on decline. On this Exhibit, the data past 125 cum oil/ft out of the development is most important with shallower declines equating to larger EURs and steeper declines equating to lower EURs. The 4 WPS Reed & Stevens project is an example where significant bbls were contacted and could have been produced more efficiently by some combination of frac, drawdown, and takeaway capacity.

49. The main take aways from **Exhibit D-16** are that:
- More time is needed on the Batman wells to gauge performance, post ESP install decline at 100 to 150 cum/ft will be a meaningful data point; and
  - In aggregate 3<sup>rd</sup> sand developments have a shallower slope than Wolfcamp developments and will enjoy ultimate higher EURs.

**Exhibit D-17**  
**Batman East Half vs. Batman West Half**

50. **Exhibit D-17** illustrates that there is a significant shift in GOR and Watercut on day 8 in the Batman development. Based on the limited days of production, as a Reservoir Engineer I am unable to determine whether these results evidence a long-term trend or whether these results are being driven by (1) allocation with oil carryover on the East Half 4 WPS development; or (2) water carry over on the West Half 6 WPS development; or (3) if this is an

early time issue that will be resolved by ESP install in the coming weeks, or (4) some combination thereof. These unanswerable questions further undercut any reliance a Reservoir Engineer can place on production from the Batman wells at this early juncture.

**Exhibit D-18**  
**Capital Expenditure Comparison between Cimarex's Goosey-Pheasant Plan vs.**  
**Permian Resources Bane-Joker Plan**

51. **Exhibit D-18** contains two tables comparing the capital expenditures for Cimarex's Loosey Goosey and Mighty Pheasant wells and the additional wells that it plans to develop in the future in Sections 4, 5, 8, and 9<sup>2</sup> versus the capital expenditures for Permian Resources' Bane and Joker Wells<sup>3</sup>. These tables establish that:

- a) Permian Resources proposes to spend \$92.7 Million more in capital expenditures than Cimarex to develop each of its Plans by drilling an additional four (4) wells in the 3<sup>rd</sup> Bone Spring Sand and four (4) wells in the Upper Wolfcamp under each of its Plans;
- b) In each of its Plans, Permian Resources proposes to spend \$11 Million on a fourth well in the Upper 2<sup>nd</sup> Sand well compared to Cimarex's plan for three Upper 2<sup>nd</sup> Sand wells; and
- c) Due to Permian Resources' higher per well AFEs, Permian Resources will spend \$31.6 Million more than Cimarex (using Cimarex's updated August 2023 cost estimates) in each of its Plans to drill 4 wells in the 1<sup>st</sup> Sand, 2<sup>nd</sup> Sand, and 3<sup>rd</sup> Sand and three wells in the upper 2<sup>nd</sup> Sand (\$166,181,956 versus \$134,593,047).

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<sup>2</sup> There are two columns for AFE CapEx amounts for Mighty Pheasant Wells 204H, 301H, 302H, 303H, and 304H, and for the additional wells that Cimarex plans for Sections 5 and 8. The first column sets forth estimated costs as of August 25, 2022, when Cimarex sent out its election letters to working interest owners for the Mighty Pheasant Wells. The second column sets forth the estimated costs for these wells updated to reflect June 2023 costs, which were provided to me by John Coffman.

<sup>3</sup> The AFE CapEx amounts for the Bane and Joker Wells are based on the AFEs that Permian Resources included in the package sent to working interest owners with the election letters dated March 17, 2023.

52. In sum, if the Division grants Permian Resources' development plan for its Bane and Joker Wells, Permian Resources will spend \$135,352,717 more than Cimarex to develop Sections 4 and 9 (Bane vs. Loosey Goosey) and will spend \$135,352,717 more than Cimarex to develop Sections 5 and 8 (Joker vs. Mighty Pheasant).

53. As set forth herein, the excessive capital expenditures will not result in increased production justifying the expense. Such a result constitutes financial waste that unnecessarily burdens, undermines, and harms the correlative rights of all working interest owners.

**Exhibit D-19**  
**NPV-10 Comparison Between Goosey-Pheasant and Bane-Joker**

54. **Exhibit D-19** contains two tables that set forth the present value of the estimated future oil and gas revenues, reduced by direct expenses and discounted at an annual rate of 10% (PV-10), net of all burdens (NPV-10). The first table shows the NPV-10 for Permian Resources' Joker and Bane Wells and the second table shows the NPV-10 for Cimarex's Might Pheasant and Loosey Goosey Wells.

55. The NPV-10 calculations are based on the June 2023 Strip West Texas Intermediate prices and assume that the NRI is 80% and that the technical EUR accessed is 9,336MMbo across the DSU's similar to Black and Tan 3<sup>rd</sup> sand development with ~560Mbo of negative impact from offset depletion. The after-tax rate of return (ATax ROR%) assumes a 22.6543% tax on profits.

56. The NPV-10 comparison shows that the NPV-10 for Permian Resources' Joker-Bane Plan shows a \$32 Million return on CapEx and an after-tax Rate of Return of 21%, while Cimarex's Goosey-Pheasant Plan shows a \$115 Million on CapEx and an after-tax Rate of Return of 149%.

**Exhibit D-20****Comparison of 3<sup>rd</sup> Sand Flat Cimarex Plan vs. Wolfcamp Stagger Permian Plan**

57. **Exhibit D-20** contains a table that compares the PV-10 under Permian Resources' plan to drill eight 3<sup>rd</sup> Sand wells and four Wolfcamp wells in each of its two development proposals (Bane-Joker) versus the PV-10 under Cimarex's plan to drill four 3<sup>rd</sup> Sand Wells in each of its two development proposals (Goosey-Pheasant). The PV-10 calculations are based on the same assumptions used in Exhibit D-18. The Table is controlled to determine the change in PV-10 based on the ratio of ownership of Bone Spring net acres versus Wolfcamp net acres. The ratio in the first row is 1:1 and the last row is 1:8.

58. The purpose of this Exhibit is to demonstrate that working interest owners will enjoy a significant benefit under Cimarex's planned developments even if their interest in the Wolfcamp formation is five times greater than in the Bone Spring. At a 1:6 ratio, Bone Spring to Wolfcamp, the working interest owner would still enjoy a \$1,246 PV-10 per 1 net acre of Bone Spring working interest advantage under Cimarex's proposal.

**Exhibit D-21****MRC Permian – PV-10 Comparison Mighty Pheasant versus Joker**

59. **Exhibit D-21** focuses on MRC Permian, which has the highest ratio of Bone Spring to Wolfcamp ownership, 1:3.0088, in Sections 5 and 8, Cimarex's Mighty Pheasant Plan, versus Permian Resources' Joker Plan.

60. The Table on **Exhibit D-21** shows that under Permian Resources' Joker Plan, MRC Permian's PV-10 is \$25,193/acre versus \$45,237/acre under Cimarex's Might Pheasant Plan. In other words, despite the fact that MRC Permian's interest in the Wolfcamp is a little more than 3 times its interest in the Bone Spring, MRC Permian would enjoy a PV-10 of \$20,044/acre more



under the Mighty Pheasant per each net acre that it owns in the Bone Spring as compared to Permian Resources' Joker Plan.

**Exhibit D-22**  
**HOG Partners – PV-10 Comparison Loosey Goosey vs. Bane**

61. **Exhibit D-22** focuses on HOG Partnership LP, which has the highest ratio of Bone Spring to Wolfcamp ownership, 1:1.37, in Sections 4 and 9, Cimarex's Loosey Goosey Plan, versus Permian Resources' Bane Plan.

62. The Table on **Exhibit D-22** shows that under Permian Resources' Bane Plan, HOG Partnership's PV-10 is \$14,894/acre versus \$45,237/acre under Cimarex's Loosey Goosey Plan. In other words, despite the fact HOG Partnership's interest in the Wolfcamp is 37% higher than its interest in the Bone Spring, HOG Partnership would enjoy a PV-10 of \$30,343/acre more under the Mighty Pheasant per each net acre that it owns in the Bone Spring as compared to Permian Resources' Bane Plan.

**Exhibit D-23**  
**Ownership Ratios and Depth Severances**

63. **Exhibit D-23** contains two tables. The table on the left, "Ownership Loosey Goosey/Bane," lists all of the working interest owners in Sections 4 and 9, showing their respective working interests in the Bone Spring and in the Wolfcamp, as well as their WC/BS ownership ratio.

64. The Loosey Goosey/Bane Table shows that the only working interest owner in Sections 4 and 9 that owns a greater interest in the Wolfcamp than it owns in the Bone Spring is HOG Partnership LP. As shown in **Exhibit D-23**, HOG Partnership LP would enjoy a much better outcome under the Loosey Goosey Plan despite the fact that it has a greater working interest in the Wolfcamp than it does in the Bone Spring.

65. The table on the right, "Ownership Mighty Pheasant/Joker," lists all of the working interest owners in Sections 5 and 8, showing their respective working interests in the Bone Spring and in the Wolfcamp, as well as their WC/BS ownership ratio.

66. The Mighty Pheasant/Joker Table shows that there are a number of working interest owners in Sections 5 and 8 that own a greater interest in the Wolfcamp than the Bone Spring, with MRC Permian having the largest ratio, 1:3009 (rounded up from 1:30088). As shown in Exhibit D-20, MRC Permian would enjoy a much better outcome under the Loosey Goosey Plan despite the fact that it owns more than 3 times an interest in the Wolfcamp than it does in the Bone Spring.

67. The purpose of **Exhibit D-23**, as well as **Exhibits D-18 through D-22**, is to demonstrate that Cimarex's Loosey Goosey and Mighty Pheasant Plans protect the correlative rights of all working interest owners since they will enjoy a much greater economic benefit under Cimarex's plans than under Permian Resources' plan and, conversely, Permian Resources' plans do not protect the correlative rights of the working interest owners in Sections 4, 5, 8, and 9 since their economic return on investment will be crushed under the weight of Permian Resources' excessive capital expenditures that do not increase the EURs.

68. The Exhibits to this Self-Affirmed Statement were prepared by me or compiled from Cimarex's company business records under my supervision and/or approval.

69. As explained by the foregoing, the granting of Cimarex's Applications are in the best interests of conservation, the prevention of waste, and the protection of correlative rights.

70. The foregoing is correct and complete to the best of my knowledge and belief.

*Self-Affirmed Signature on following page.*

**Self-Affirmed Statement of Eddie Behm:**

I understand that this Self-Affirmed Statement will be used as written testimony before the Division in Case Nos. 23448-23455 and 23594-23601 and affirm that my testimony herein is true and correct, to the best of my knowledge and belief and made under penalty of perjury under the laws of the State of New Mexico.

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Eddie Behm

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Date Signed

**From:** Eddie Behm Eddie.Behm@coterra.com  
**Subject:** Signing my statement by Email 8/2/2023  
**Date:** August 2, 2023 at 2:17 PM  
**To:** Bill Zimsky bill@abadieschill.com



I understand that this Self-Affirmed Statement will be used as written testimony before the Division in Case Nos. 23448-23455 and 23594-23601 and affirm that my testimony herein is true and correct, to the best of my knowledge and belief and made under penalty of perjury under the laws of the State of New Mexico.

I am signing my self-affirmed statement by this email on August 2<sup>nd</sup> 2023

Eddie Behm

This message may contain confidential and/or privileged information. If you are not the addressee or authorized to receive this for the addressee, you must not use, copy, disclose or take any action based on this message or any information herein. If you have received this message in error, please advise the sender immediately by reply e-mail and delete this message.

# Cimarex is a Play Leader in Lea County (Avg 12 Month Cum BOE / 1000ft)

## Avg. First 12 Month BOE by Operator, Lea County 2018-2022

Source: Enverus Top 15 Operators OCD Data

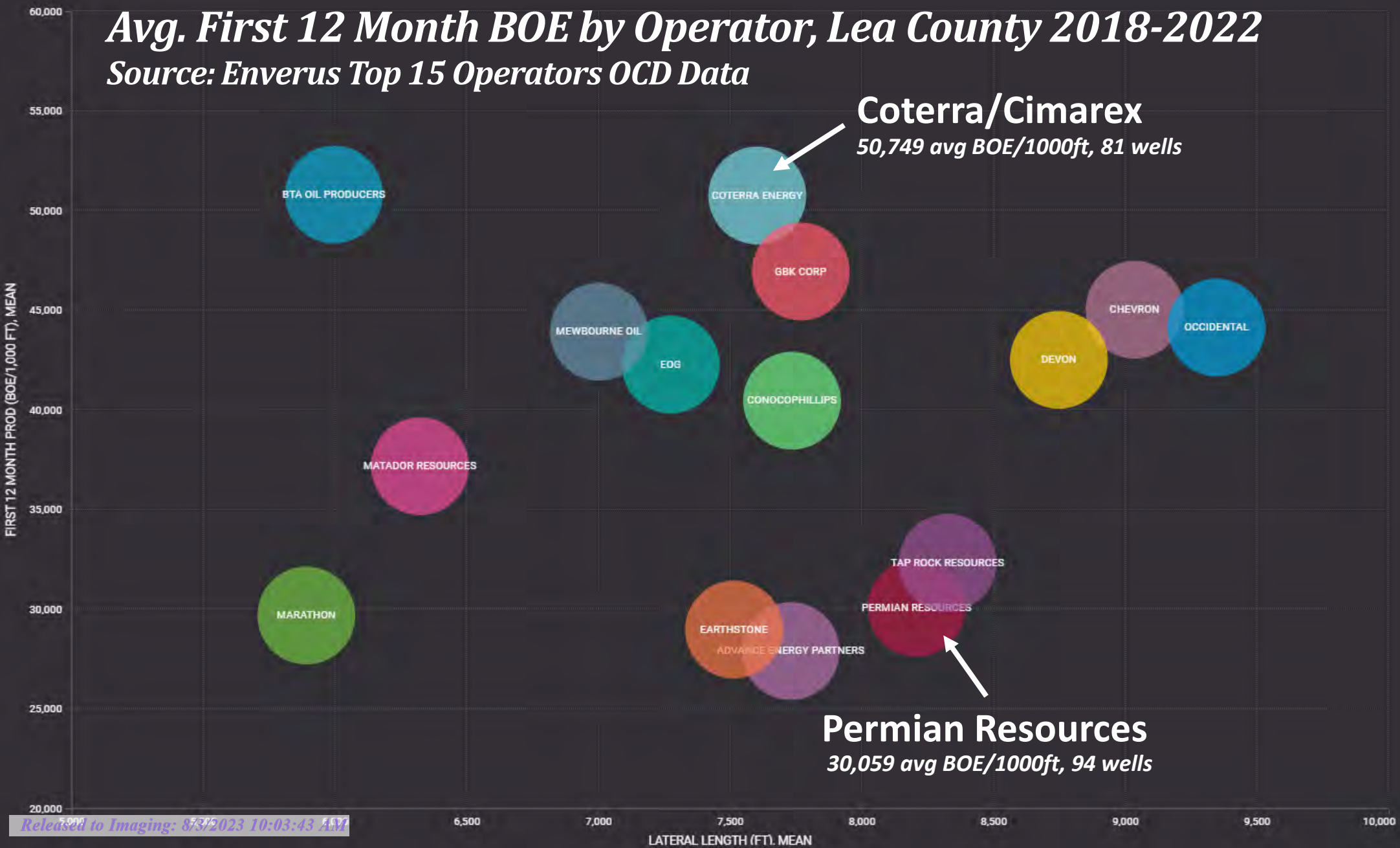


Exhibit D-1

# Cimarex is a Play Leader in Lea County (Avg 12 Month Cum Oil BBL/ 1000ft)

## Avg. First 12 Month Oil by Operator, Lea County 2018-2022

Source: Enverus Top 15 Operators OCD Data

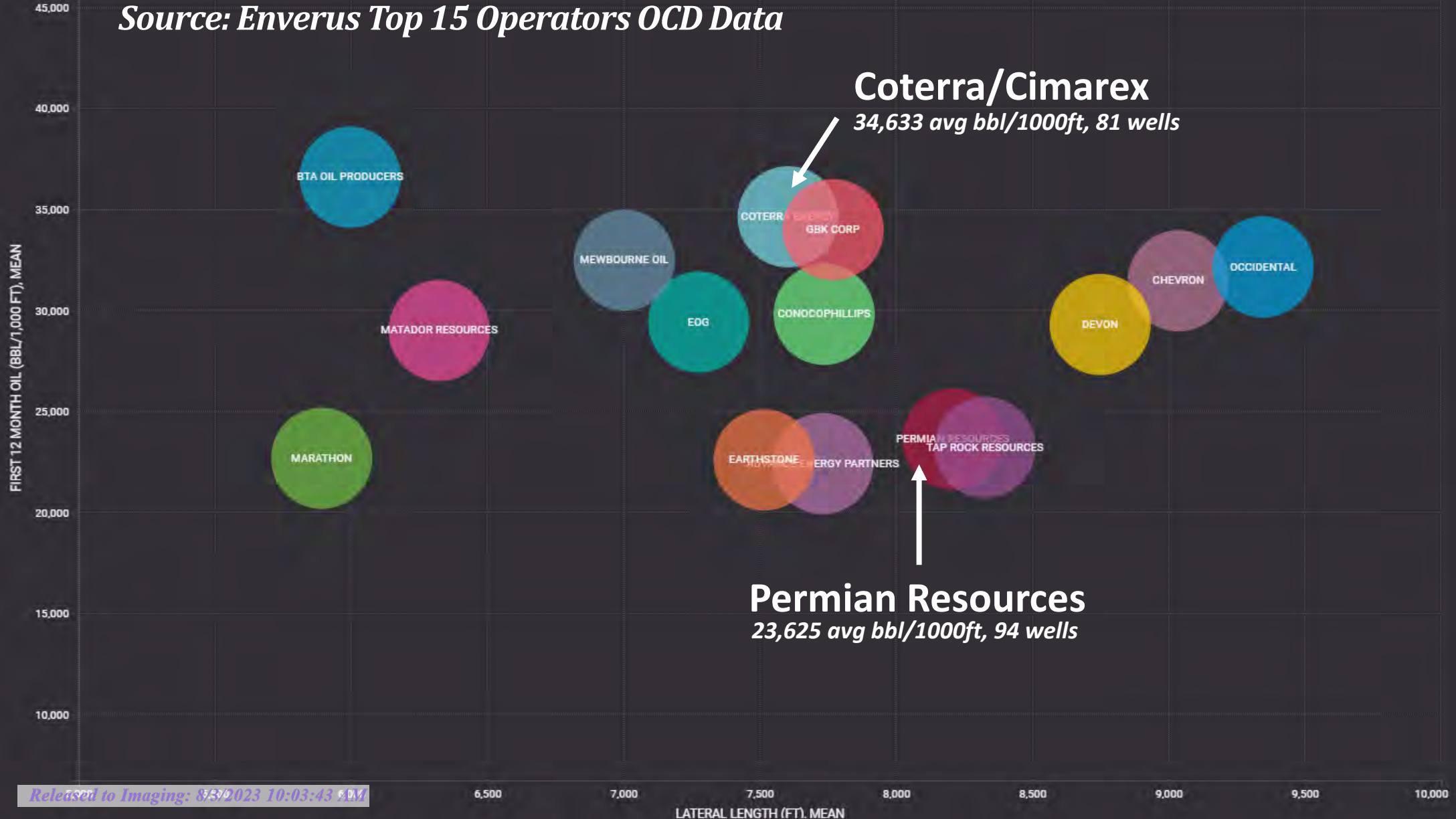


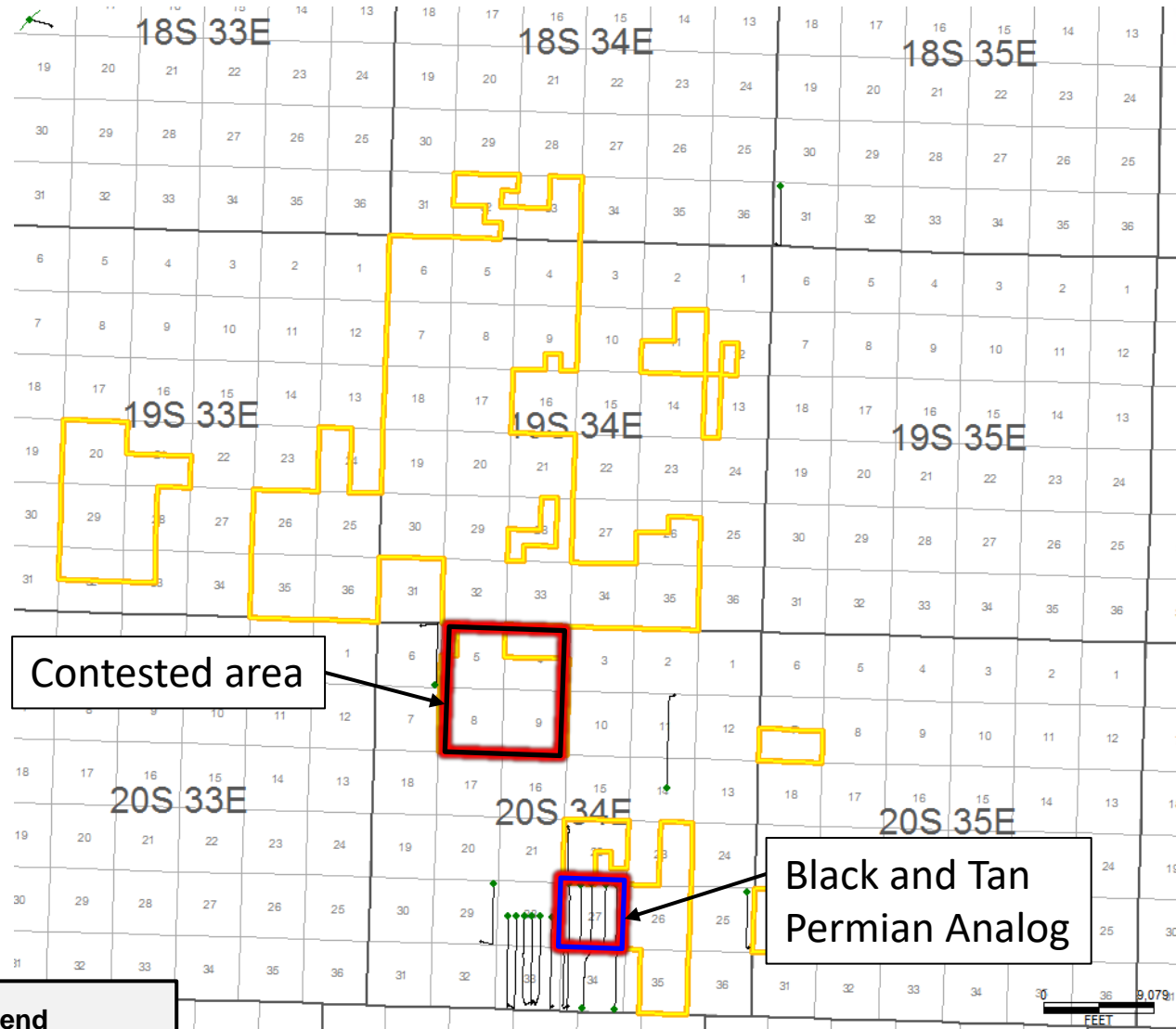
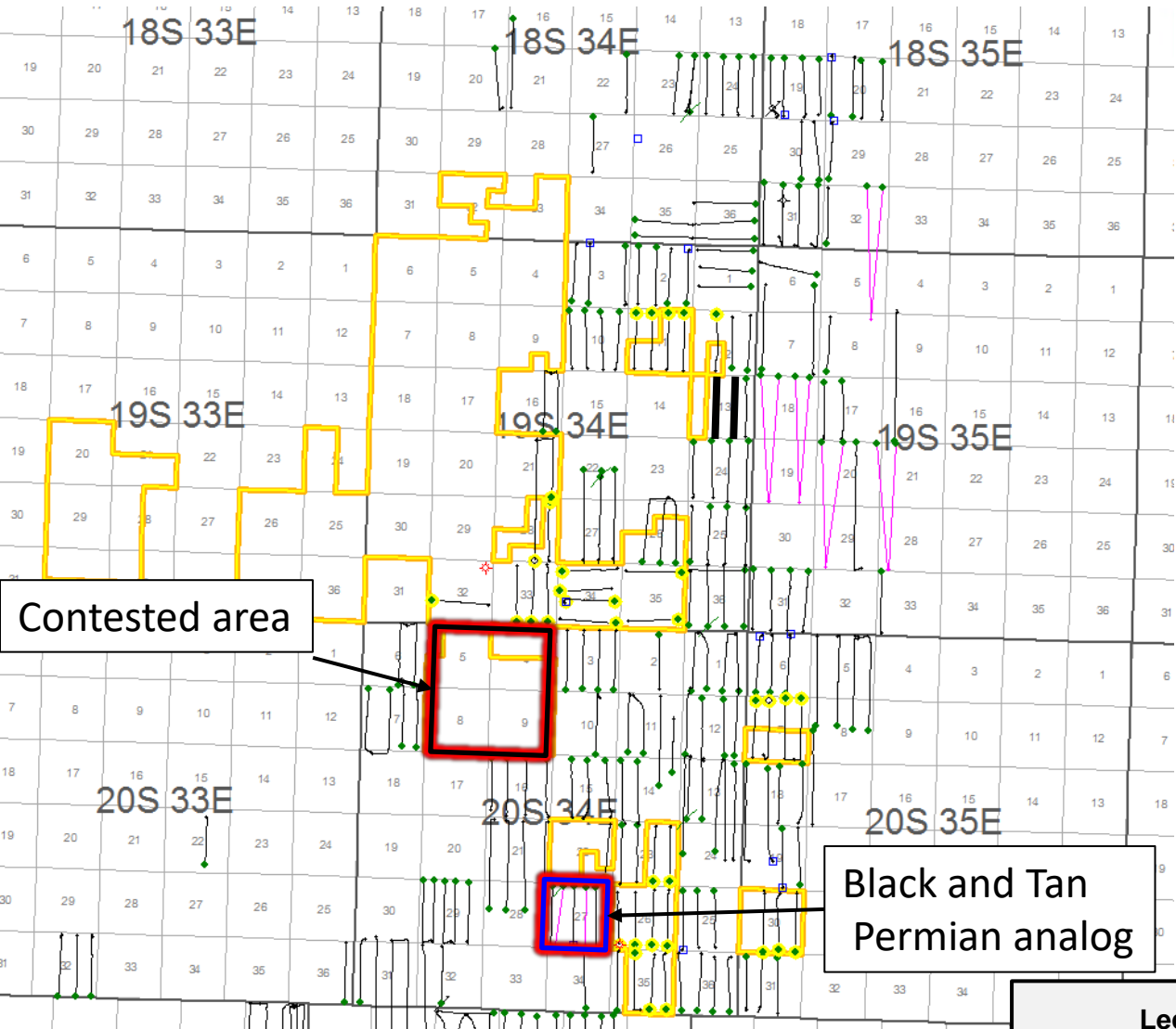
Exhibit D-2

# 3<sup>rd</sup> Bone Spring Sand is the Established Single Bench Target at 4 WPS within AOI

42,650 acres developed with more than 1 well, all but one development, 98.5% of sections similar to Cimarex proposal

## 3<sup>rd</sup> Bone Spring Sand Producers

## Wolfcamp Producers

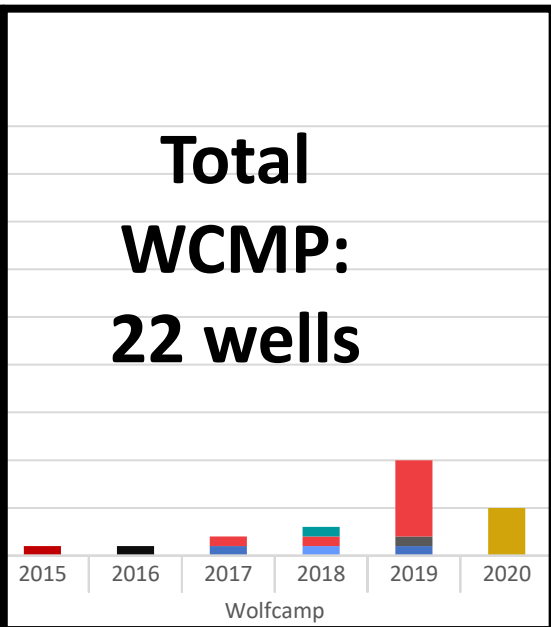
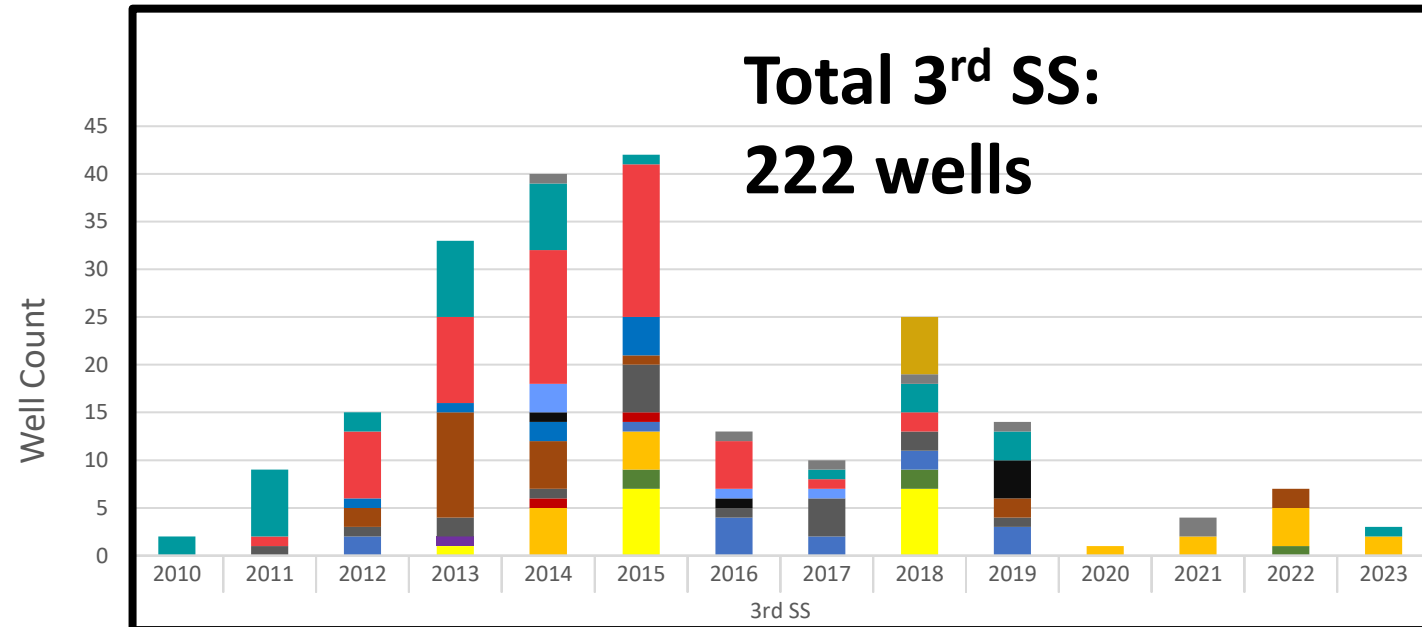


**Legend**  
 ● Cimarex Operated Wells

# Well Count by Landing and Operators Shows 3<sup>rd</sup> Sand is the Consensus Landing

Exhibit D-4

- 3<sup>rd</sup> Sand / single bench landing supported by 236 wells, 97%.
- 14 of 22 WCMP were drilled instead of 3<sup>rd</sup> SS
- 5 of 22 WCMP drilled as a separate bench
- 3 WCMP stack tests with 3<sup>rd</sup> Sand

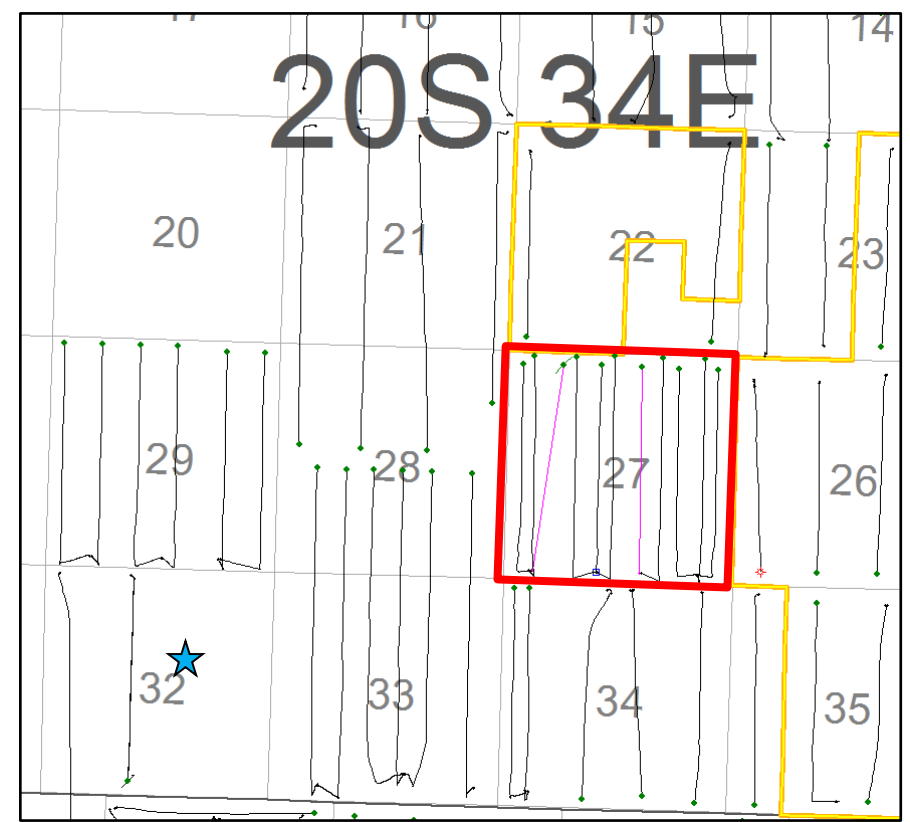
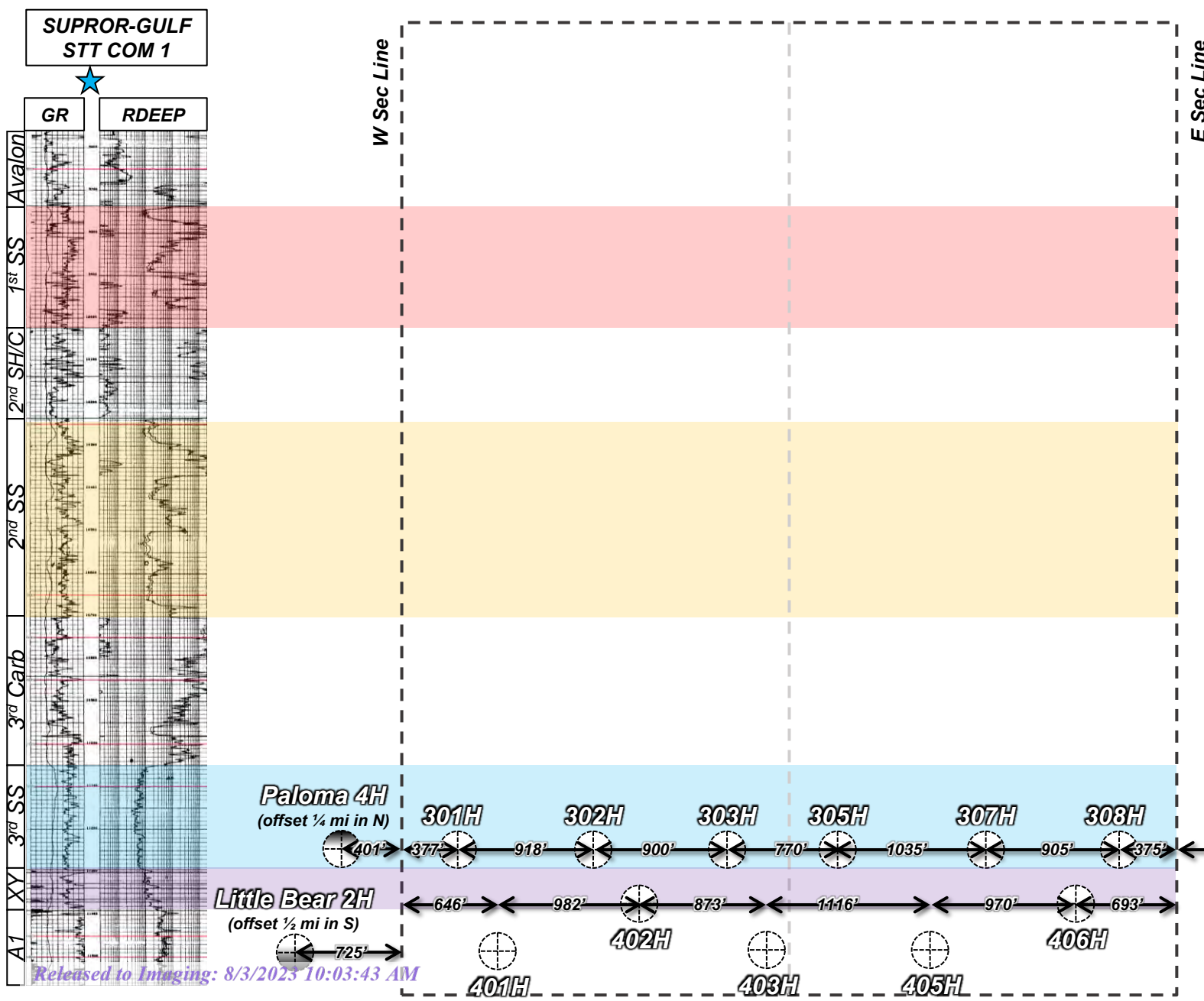


■ APACHE CORP
■ CAZA OPERATING LLC
■ CIMAREX ENERGY CO
■ COG OPERATING LLC
■ EARTHSTONE OPERATING LLC
■ EOG RESOURCES INC
■ FASKEN OIL & RANCH LTD
■ FRANKLIN MOUNTAIN ENERGY 3 LLC
■ LEGACY RESERVES OPERATING LP
■ MARATHON OIL PERMIAN LLC
■ MATADOR PRODUCTION CO
■ MEWBOURNE OIL CO
■ RAYBAW OPERATING LLC
■ READ & STEVENS INC
■ XTO ENERGY INC

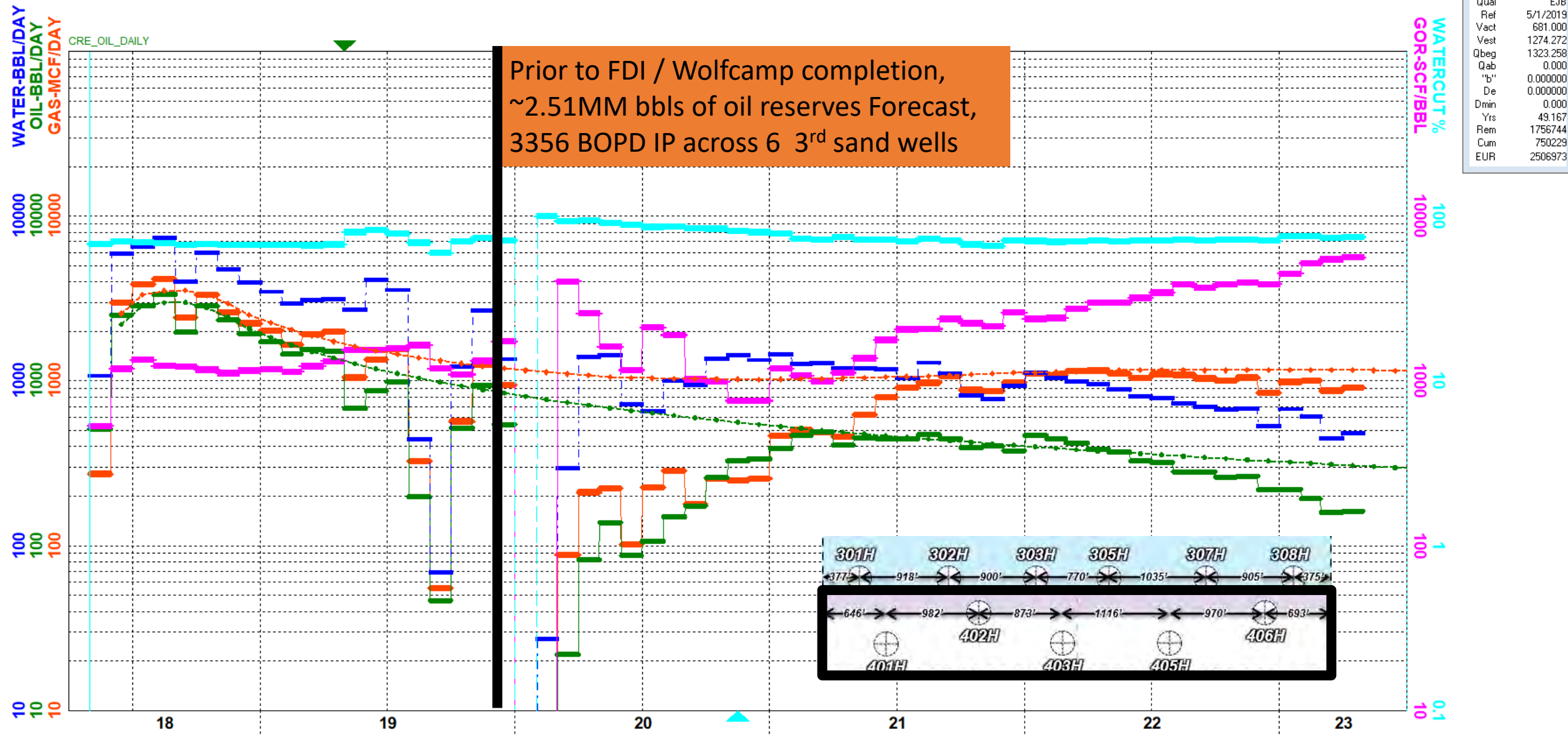
Operator	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
APACHE CORP									6					
CAZA OPERATING LLC					1		1	1	1	1		2		
CIMAREX ENERGY CO	2	7	2	8	7	1		1	3	3				1
COG OPERATING LLC		1	7	9	14	16	5	1	2					
EARTHSTONE OPERATING LLC					3		1	1						
EOG RESOURCES INC					1		1			4				
FASKEN OIL & RANCH LTD			1	1	2	4								
FRANKLIN MOUNTAIN ENERGY 3 LLC			2	11	5	1				2			2	
LEGACY RESERVES OPERATING LP		1	1	2	1	5	1	4	2	1				
MARATHON OIL PERMIAN LLC					1	1								
MATADOR PRODUCTION CO			2			1	4	2	2	3				
MEWBOURNE OIL CO					5	4					1	2	4	2
RAYBAW OPERATING LLC				1										
READ & STEVENS INC						2			2				1	
XTO ENERGY INC				1		7			7					

Operator	2015	2016	2017	2018	2019	2020
APACHE CORP						5
CAZA OPERATING LLC						
CIMAREX ENERGY CO				1		
COG OPERATING LLC			1	1	8	
EARTHSTONE OPERATING LLC				1		
EOG RESOURCES INC		1				
FASKEN OIL & RANCH LTD						
FRANKLIN MOUNTAIN ENERGY 3 LLC						
LEGACY RESERVES OPERATING LP					1	
MARATHON OIL PERMIAN LLC	1					
MATADOR PRODUCTION CO			1		1	
MEWBOURNE OIL CO						
RAYBAW OPERATING LLC						
READ & STEVENS INC						
XTO ENERGY INC						



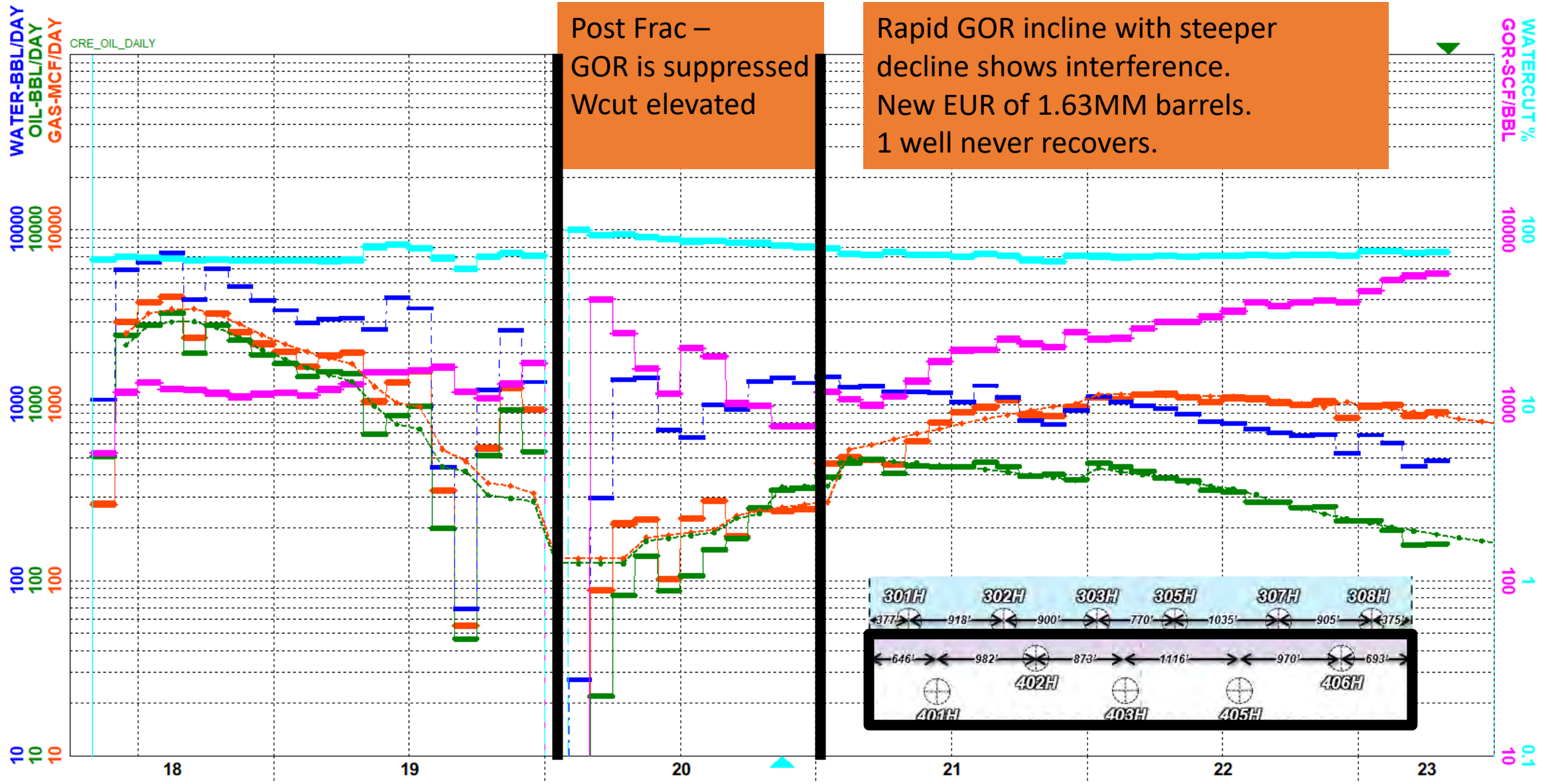


# Black and Tan 3<sup>rd</sup> Sand Composite Forecast 6 Wells ( Before WC completion)



Results	Fcst
Qual	EJB
Ref	5/1/2019
Vact	681.000
Vest	1274.272
Qbeg	1323.258
Qab	0.000
"b"	0.000000
De	0.000000
Dmin	0.000
Yrs	49.167
Rem	1756744
Cum	750229
EUR	2506973

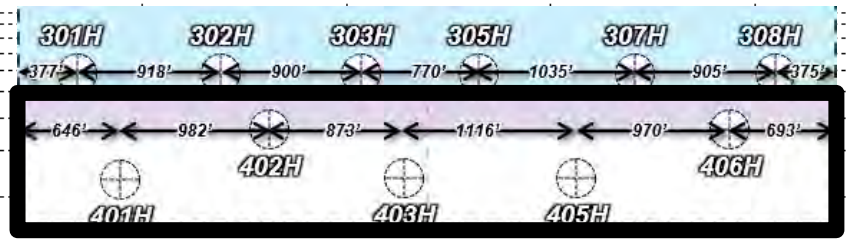
# Black and Tan 3<sup>rd</sup> Sand Composite Forecast 6 Wells Post Wolfcamp Frac



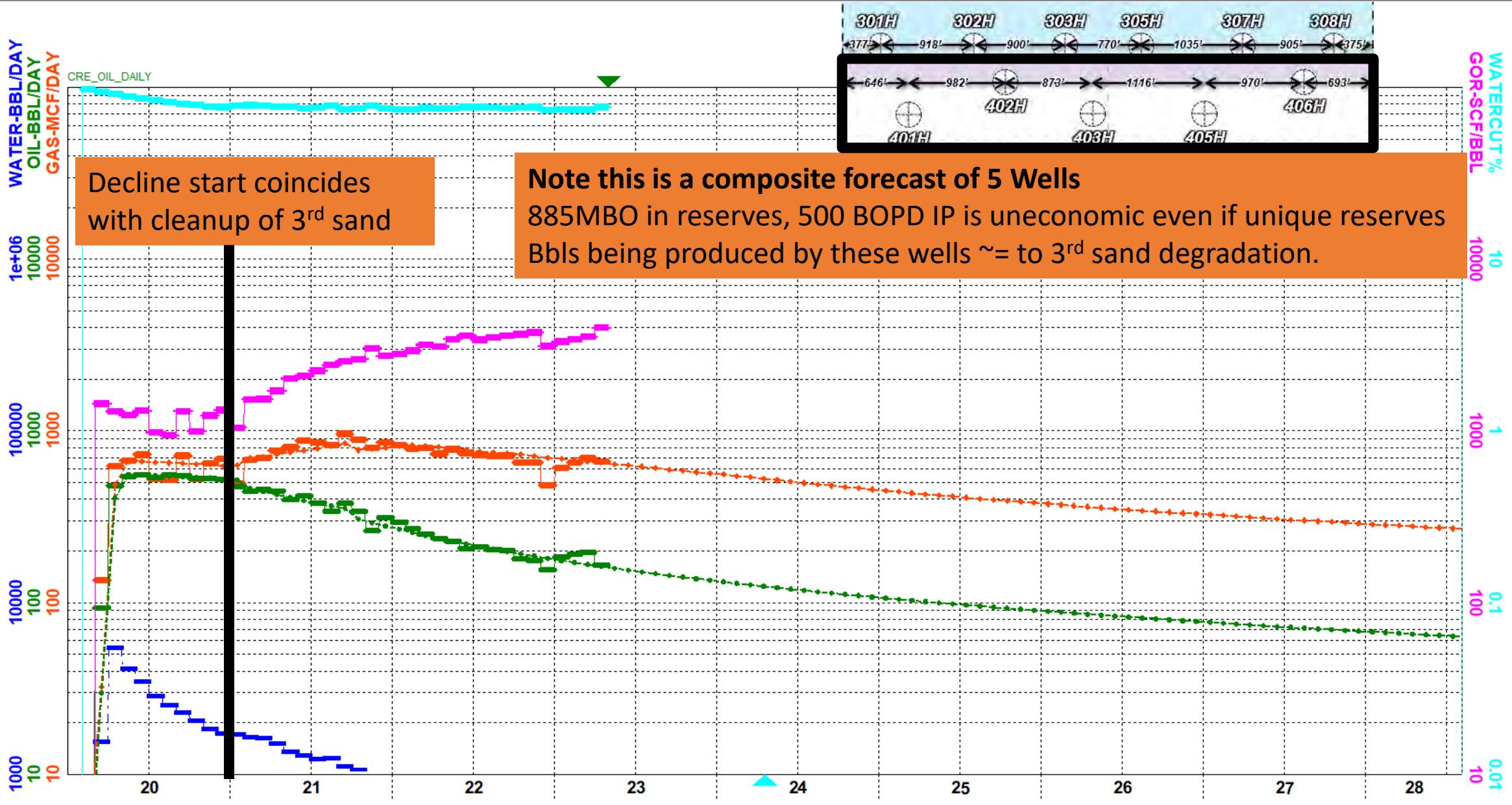
Post Frac –  
GOR is suppressed  
Wcut elevated

Rapid GOR incline with steeper  
decline shows interference.  
New EUR of 1.63MM barrels.  
1 well never recovers.

Results	Fcst
Qual	EJBFrac
Ref	5/1/2023
Vact	0.000
Vest	175.490
Qbeg	179.285
Qab	0.000
"b"	0.000000
De	0.000000
Dmin	0.000
Yrs	45.083
Rem	376112
Cum	1252382
EUR	1628494

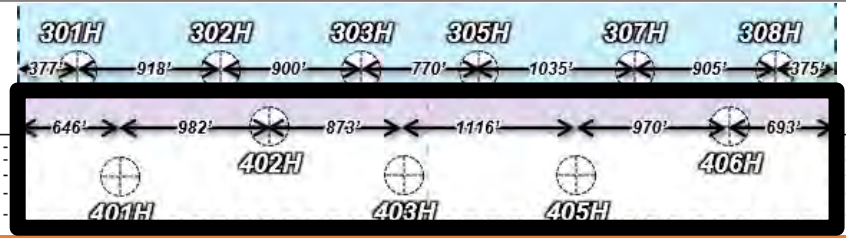


# Black and Tan Wolfcamp Composite Forecast 5 Wells



Decline start coincides with cleanup of 3<sup>rd</sup> sand

Note this is a composite forecast of 5 Wells  
885MBO in reserves, 500 BOPD IP is uneconomic even if unique reserves Bbls being produced by these wells ≈ to 3<sup>rd</sup> sand degradation.



Results	Fcst
Qual	EJB
Ref	5/1/2023
Vact	0.000
Vest	158.504
Qbeg	160.501
Qab	0.000
"b"	0.000000
De	0.000000
Dmin	0.000
Yrs	46.917
Rem	492658
Cum	392461
EUR	885120

PROJECT = Black & Tan 27					Completed 2nd
30025461240000	BLACK & TAN 27 FEDERAL COM #405H	BLACK & TAN 27 FEDERAL COM	WOLFCAMP A	APACHE CORP   LEA   4583   09/01/2019   02/26/2020   0EF33AE781	
30025460720000	BLACK & TAN 27 FEDERAL COM #401H	BLACK & TAN 27 FEDERAL COM	WOLFCAMP A	APACHE CORP   LEA   4666   10/19/2019   01/22/2020   AFD8F0925C	
30025460730000	BLACK & TAN 27 FEDERAL COM #402H	BLACK & TAN 27 FEDERAL COM	WOLFCAMP SANDS XY SAND	APACHE CORP   LEA   4561   08/17/2019   02/26/2020   B4C53386	
30025461230000	BLACK & TAN 27 FEDERAL COM #403H	BLACK & TAN 27 FEDERAL COM	WOLFCAMP SANDS XY SAND	APACHE CORP   LEA   4629   09/08/2019   02/26/2020   607292AC	
30025460750000	BLACK & TAN 27 FEDERAL COM #406H	BLACK & TAN 27 FEDERAL COM	WOLFCAMP SANDS XY SAND	APACHE CORP   LEA   4694   09/29/2019   02/26/2020   F44F2545C	
30025440180000	BLACK & TAN 27 FEDERAL COM #302H	BLACK & TAN 27 FEDERAL COM	3RD BONE SPRING SAND	APACHE CORP   LEA   4416   12/11/2017   06/01/2018   163AC020E2	
30025440170000	BLACK & TAN 27 FEDERAL COM #301H	BLACK & TAN 27 FEDERAL COM	3RD BONE SPRING SAND	APACHE CORP   LEA   4526   11/15/2017   06/01/2018   402B8A1B23	
30025439210100	BLACK & TAN 27 FEDERAL COM #303H	BLACK & TAN 27 FEDERAL COM	3RD BONE SPRING SAND	APACHE CORP   LEA   4360   10/24/2017   05/18/2018   748D250B4E	
30025439400000	BLACK & TAN 27 FEDERAL COM #305H	BLACK & TAN 27 FEDERAL COM	3RD BONE SPRING SAND	APACHE CORP   LEA   4524   03/17/2018   05/23/2018   A635466B07	
30025440440000	BLACK & TAN 27 FEDERAL COM #307H	BLACK & TAN 27 FEDERAL COM	3RD BONE SPRING SAND	APACHE CORP   LEA   4303   01/07/2018   05/16/2018   CF72E02929	
30025440450000	BLACK AND TAN 27 FEDERAL COM #308H	BLACK AND TAN 27 FEDERAL COM	3RD BONE SPRING SAND	APACHE CORP   LEA   4340   01/30/2018   05/05/2018   A7CD7	
					Completed 1st

## WC vs. 3<sup>rd</sup> sand comparison shows stagger is capital waste

- 3<sup>rd</sup> sand IP is > 6 X Wolfcamp
- Wolfcamp oil rate ~ = to 3<sup>rd</sup> sand rate decrease
- Wolfcamp reserves ~ = to 3<sup>rd</sup> sand EUR decrease
- 5 Wolfcamp wells added ~ 0 additional bbls

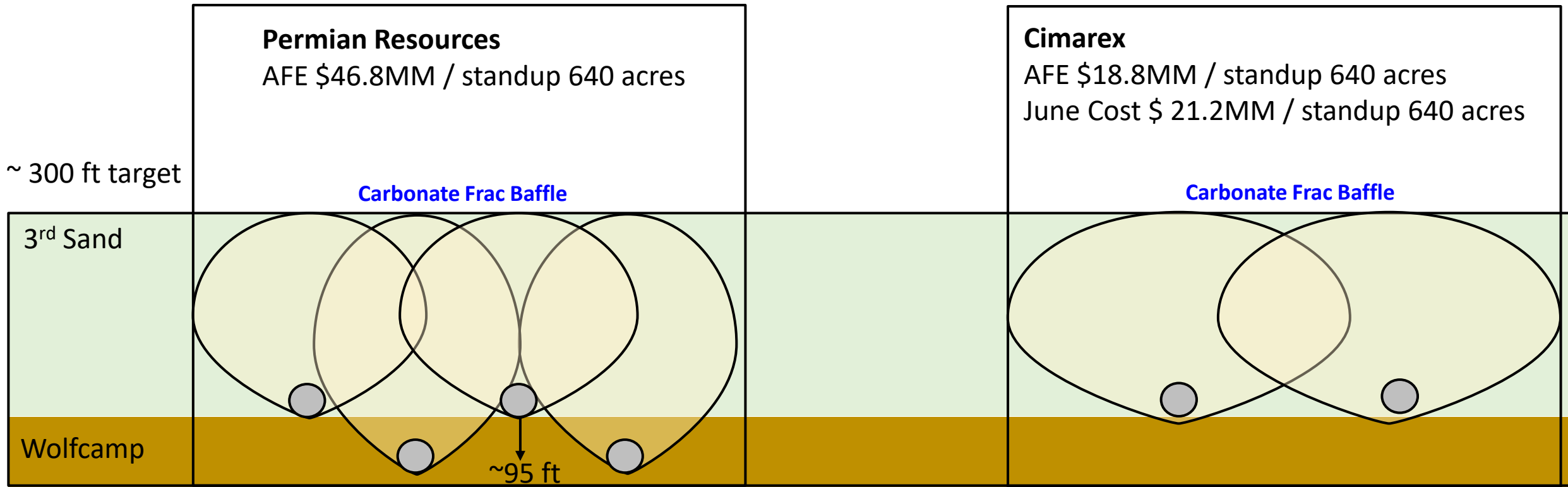
Table 1.0 Comparison of 3rd sand to Wolfcamp	3rd Sand			Wolfcamp	(Wolfcamp - 3rd Sand Delta) = value added from 5 wells
	3rd Bone Spring	3rd Bone Post frac	3rd Sand Delta		
IP30 BOPD	3,356	NA	NA	555	NA
Pre vs. Post frac oil rate BOPD	950	500	-450	+555	105
EUR MMBO	2.51	1.63	-0.88	+0.89	0.01

## 3<sup>rd</sup> sand is the landing for this single bench target

- 268% Phi H vs. Wolfcamp
- 3<sup>rd</sup> sand delta compounded by being cleaner with better flow property's than the Wolfcamp

Table 1.1 Analog Comparison	3rd Sand	Wolfcamp	3 <sup>rd</sup> SS % of total	3rd / Wolfcamp Comparison %
PHIH	26.75	10	72.8	268

# Diagram of Staggered Landing Wolfcamp + 3<sup>rd</sup> SS vs. 3<sup>rd</sup> SS Flat



- Cimarex has experience developing as many as 8 landings within a DSU successfully in Lea county with 9<sup>th</sup> drilling now, 35 to 38 wells / section. The difference is the combination of geology (barriers, reservoir height, and flow units) don't support the proposed staggers at Mighty Pheasant Loosey Goosey as demonstrated by area developments like Black and Tan.
- 3<sup>rd</sup> and Wolfcamp landed this close together are equivalent to 8 WPS flat in the 3<sup>rd</sup> Sand, double the AOI proven density.
- A wealth of data from the DOE and industry funded Hydraulic Fracture Test Site 2 supports an upper Wolfcamp buffer zone in this specific location to protect proven 3<sup>rd</sup> Sand correlative rights and prevent capital waste.

# Black and Tan Analog Comparison To MP/LG

Table 1.2 Analog Comparison	Black and Tan			Mighty Pheasant Loosey Goosey		
	3rd Sand	Wolfcamp	3rd SS % of total	3rd Sand	Wolfcamp	3rd SS % of total
PHIH	22	7	76	27	10	73

- Contested acreage is expected to outperform Black and Tan 2.5MMbo / 640-acre Technical EUR by ~20%
- Over performance driven by improved PHIH of 3rd sand. 27/22 = 122%.
- Sensitivities highlight impact of capital waste given 0% uplift on Black and Tan Wolfcamp 3rd SS analog
  - Table 1.3 - Wolfcamp must add ~40% reserves to break even vs Cimarex Development at P90 reserves case
  - Table 1.4 - Wolfcamp must add ~31% reserves to break even vs. Cimarex Development at SM business case
  - Neither Table 1.3 or 1.4 increase in performance is reasonable to expect given public data

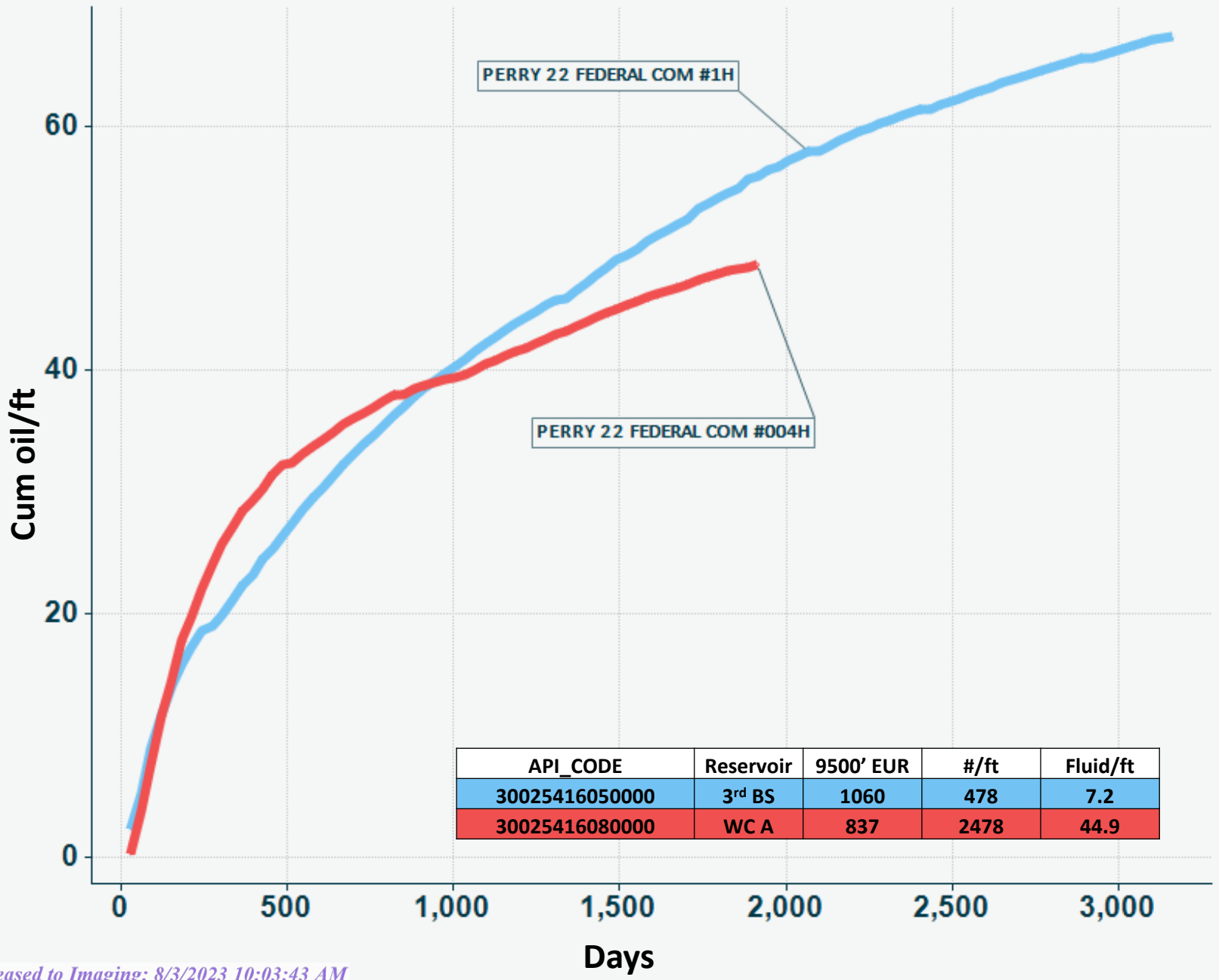
\$65 flat analysis at Cimarex WI & NRI						
			Permian		Cimarex	
Reserves	IP	Economic EUR MBO	PV10 \$MM	Payout months	PV10 \$MM	Payout months
100%	14,738	8,860	14.7	43	41.8	12
110% expected	16,212	9,820	21.4	33		
120% expected	17,685	10,780	28.2	26		
130% expected	19,159	11,740	34.9	23		
140% expected	20,633	12,700	41.5	21		

\$65 flat analysis at Cimarex WI & NRI						
			Permian		Cimarex	
12 MM EUR	IP	Economic EUR MBO	PV10 \$MM	Payout months	PV10	Payout months
100%	18,897	11,026	34.8	23	61.9	10
110% expected	20,787	12,987	43.6	20		
120% expected	22,676	14,233	52.3	18		
130% expected	24,566	15,480	61	16		
140% expected	26,456	16,727	69.7	15		

- In order to create equivalent PV10, Wolfcamp landings must add ~40% more reserves vs reserves estimate (table 1.3) and 31% more reserves vs. P50 expectation (table 1.4). This outcome is unrealistic vs. observed results.
- Cimarex lower terminal fixed OpEx + less well degradation results in 9.1MM EUR vs. Permian 8.9MM EUR at 100% reserves expectation.
- The Cimarex plan self-funds annual drilling after first batch of wells supporting rapid development
- Permian plan supports slower development speed

# Landing Zone Matters; 5 Years Ago, Cimarex's Perry Test Confirmed 3<sup>rd</sup> SS Landing as Best Target v2

Exhibit D-12

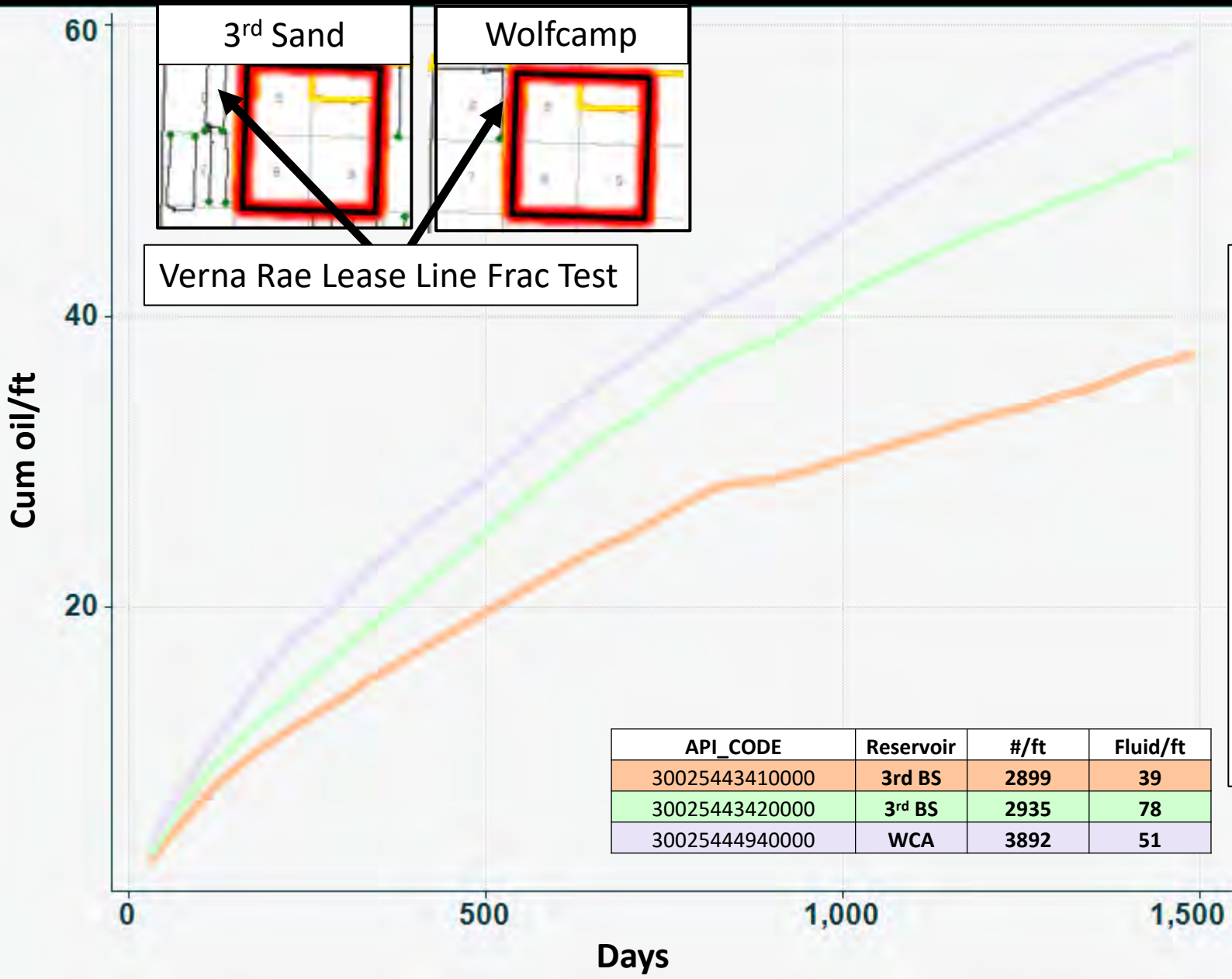


**Note: 5 to 6 x the frac energy is not as important as the right landing zone.**

- The Perry 1H 2014 vintage 3<sup>rd</sup> sand well outperforms modern 2018 Perry 4H Wolfcamp completion in the same section at better oil cut 1 mile south of contested development area.
- The best flow properties and majority of bbls are best accessed from the 3<sup>rd</sup> sand where they are located
- Updated Production to Monthly / Days in Month



# Verna Rae Frac Test Section 6 Adjacent to Subject Lands



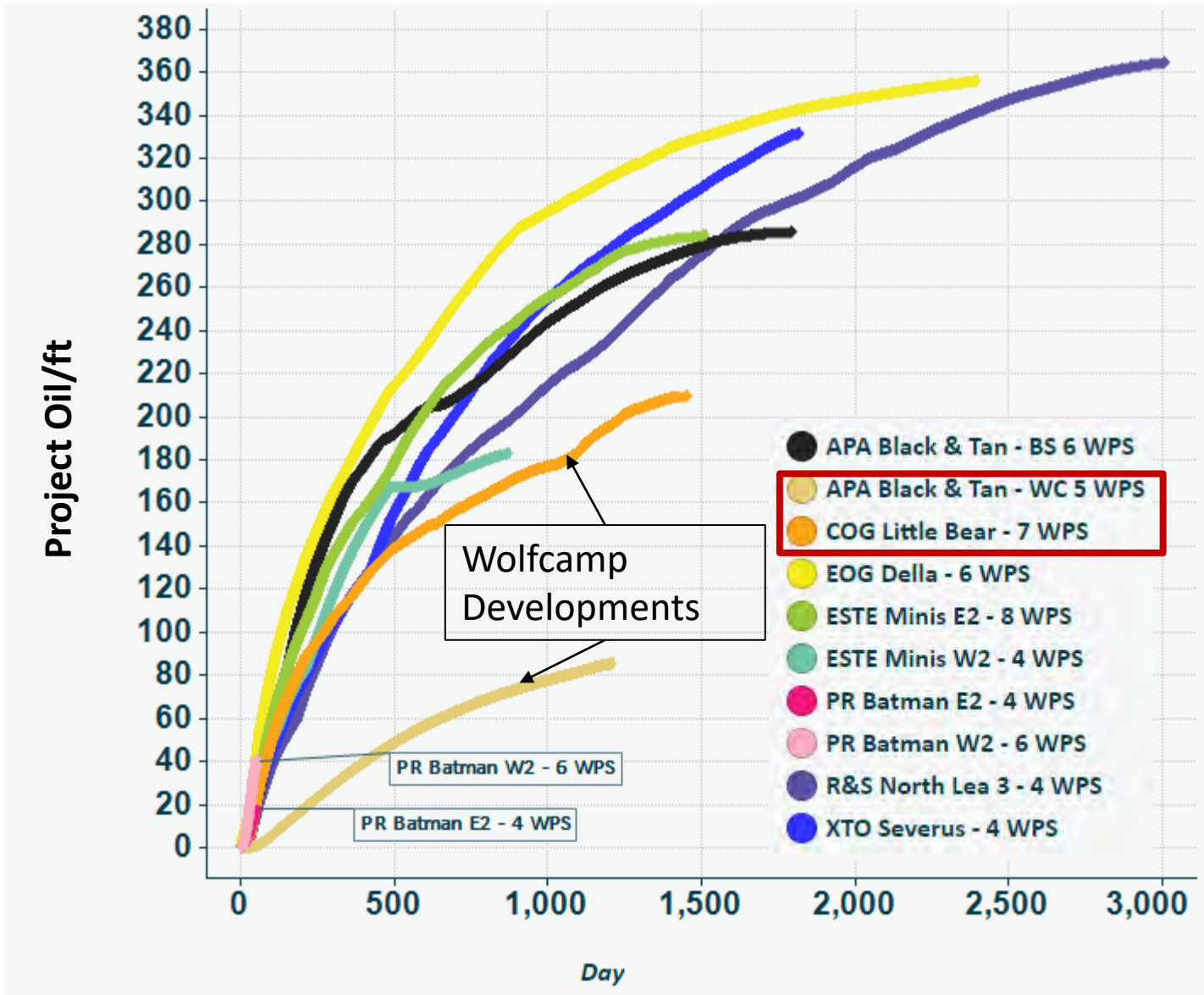
WELL\_NAME +

- VERNA RAE FED COM #133H
- VERNA RAE FEDERAL COM #134H
- VERNA RAE FEDERAL COM #204H

(None)

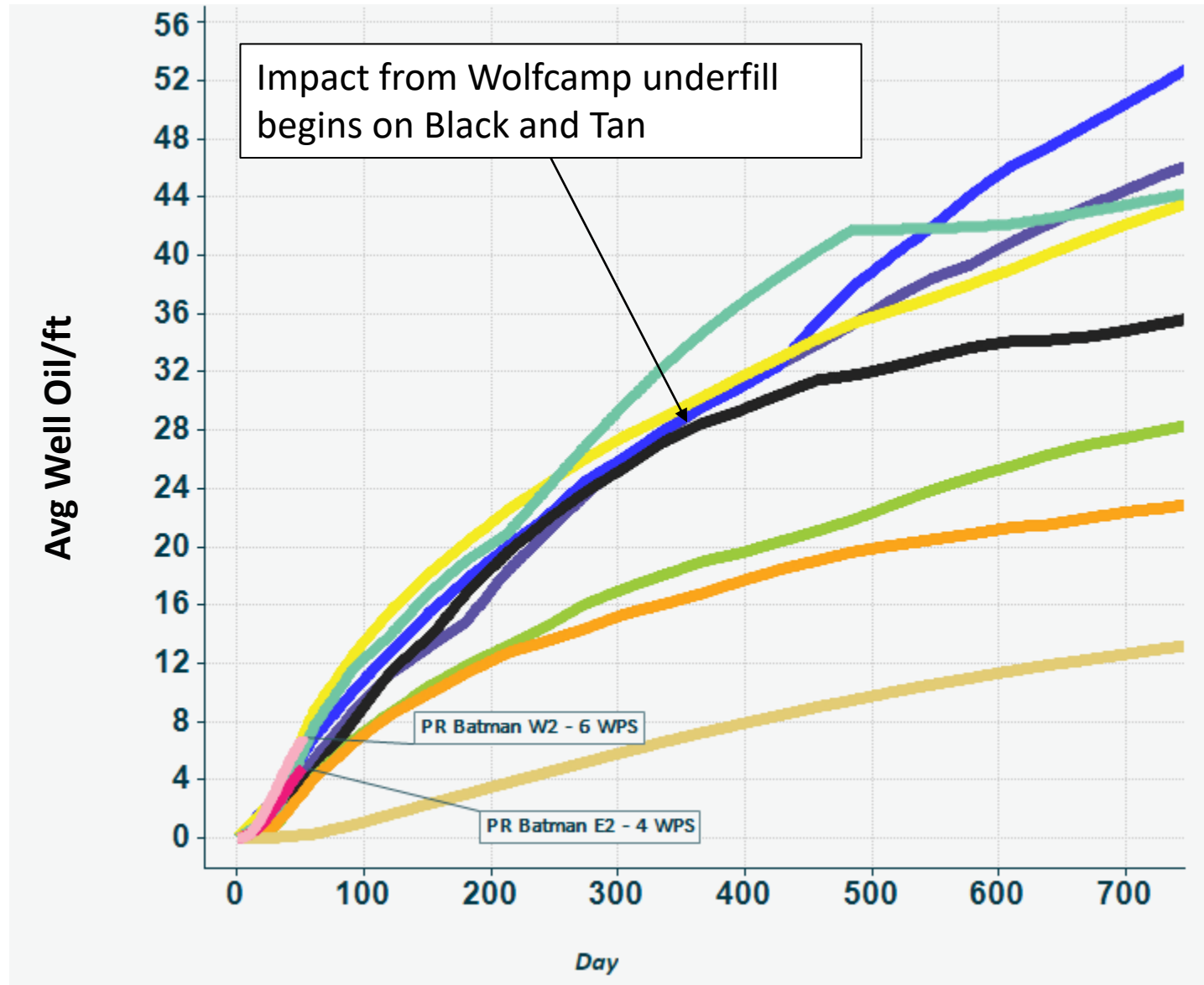
- Key points:**
- The Verna Rae 204H is capturing significant 3<sup>rd</sup> sand bbls due to significantly more energy pumped on this frac test than what is prudent in a full development scenario. Frac Uplift on unbounded Edge wells does not equate to uplift when bounded
  - Cimarex uses full developments when available to avoid unreasonable full section bounded development expectations.
  - Offsetting these massive frac tests which Lease line Mighty Pheasant / Joker at double proven well density will not outperform Cimarex plan.

# 1280 Scale Project Cum. Oil/ft vs Days



- Key points
- Over time 4 WPS developments catchup to denser projects indicating denser developments are primarily acceleration
- COG little Bear is a dense Wolfcamp only landing full development that underperforms similar to Black and Tan Wolfcamp supporting our proposed 3<sup>rd</sup> Sand landing
- Batman needs to Cum ~125bbls /ft out of the DSU to get an idea of EURS
- Drilling Wolfcamp looks damaging to 3<sup>rd</sup> SS project at Black and Tan. WFMP looks to have added at most 30 bbl/ft reserves after 1000 days which is ~equivalent to slope of 3<sup>rd</sup> sand prior to completion.

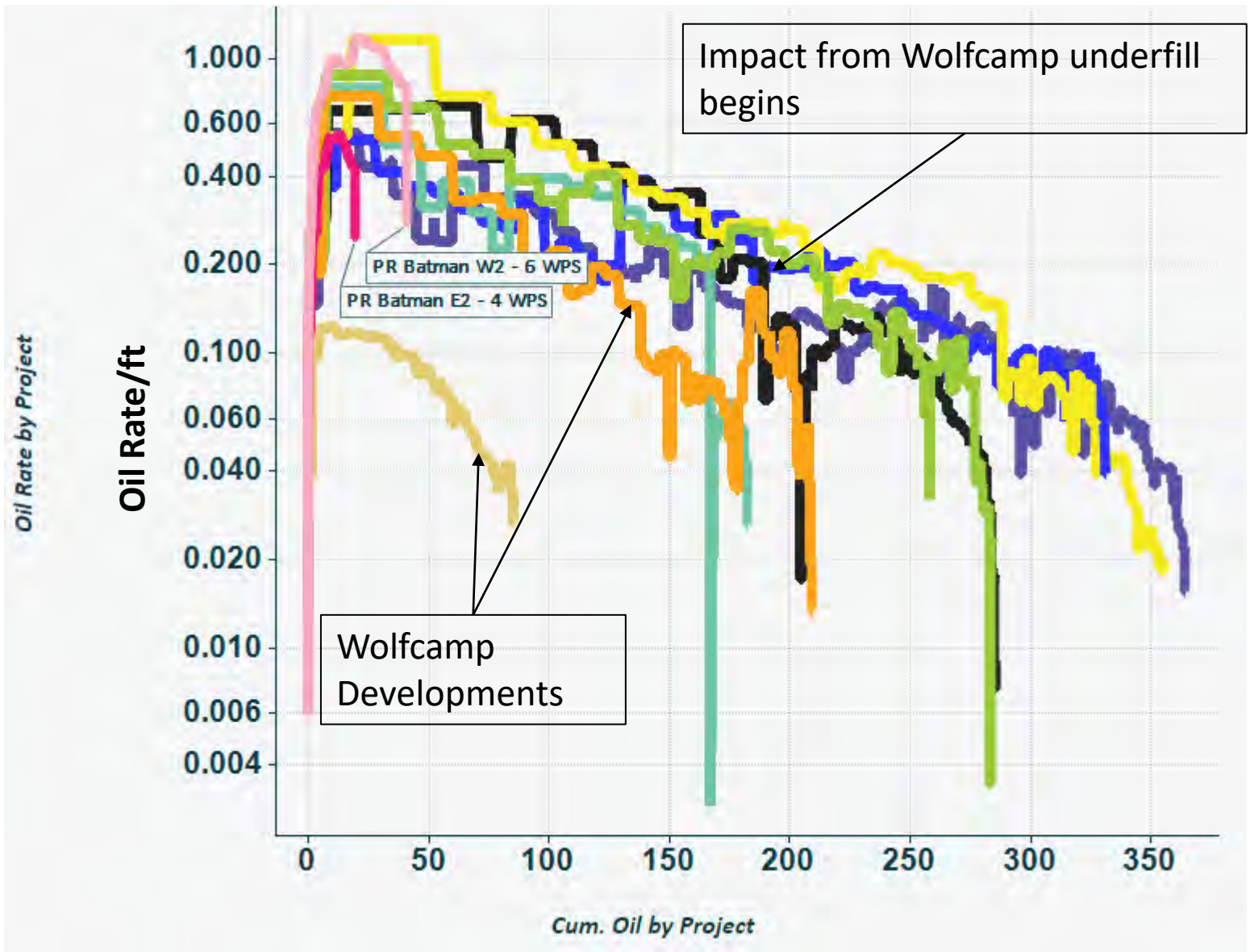
# Average Per-Well Cum. Oil/ft vs Days, 2-Year Zoom



- APA Black & Tan - BS 6 WPS
- APA Black & Tan - WC 5 WPS
- COG Little Bear - 7 WPS
- EOG Della - 6 WPS
- ESTE Minis E2 - 8 WPS
- ESTE Minis W2 - 4 WPS
- PR Batman E2 - 4 WPS
- PR Batman W2 - 6 WPS
- R&S North Lea 3 - 4 WPS
- XTO Severus - 4 WPS

- Key points
- Denser spaced developments underperform looser spaced developments to the point that drilling past 4 WPS appears to be a waste of capital
- The Della project drilled by EOG takes longer to show degradation most likely due to aggressive drawdown common on their developments.
- In aggregate 3rd Sand is the best way to develop from production results

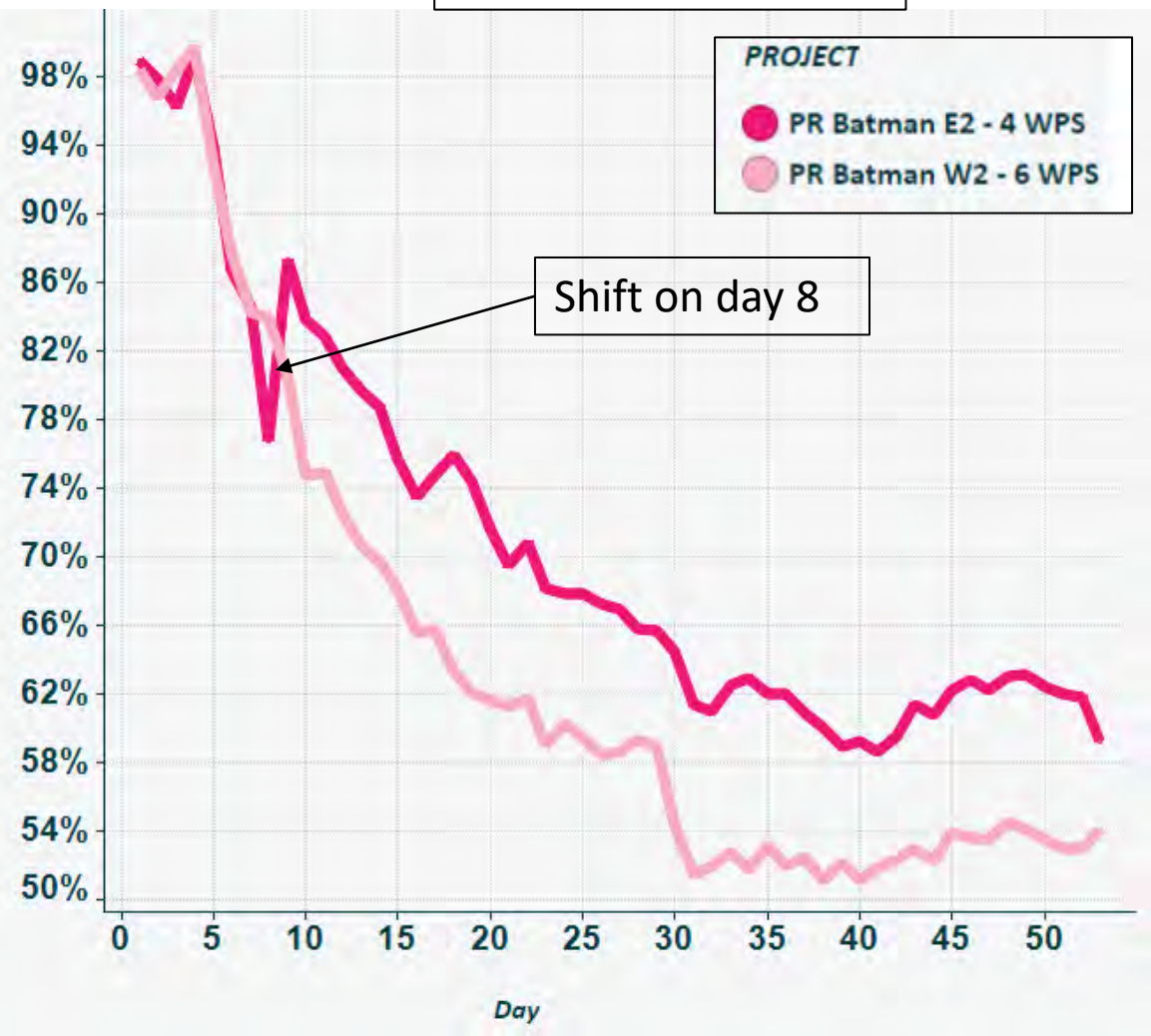
# 1280 Scale Project Oil Rate/ft vs Cum Oil/ft



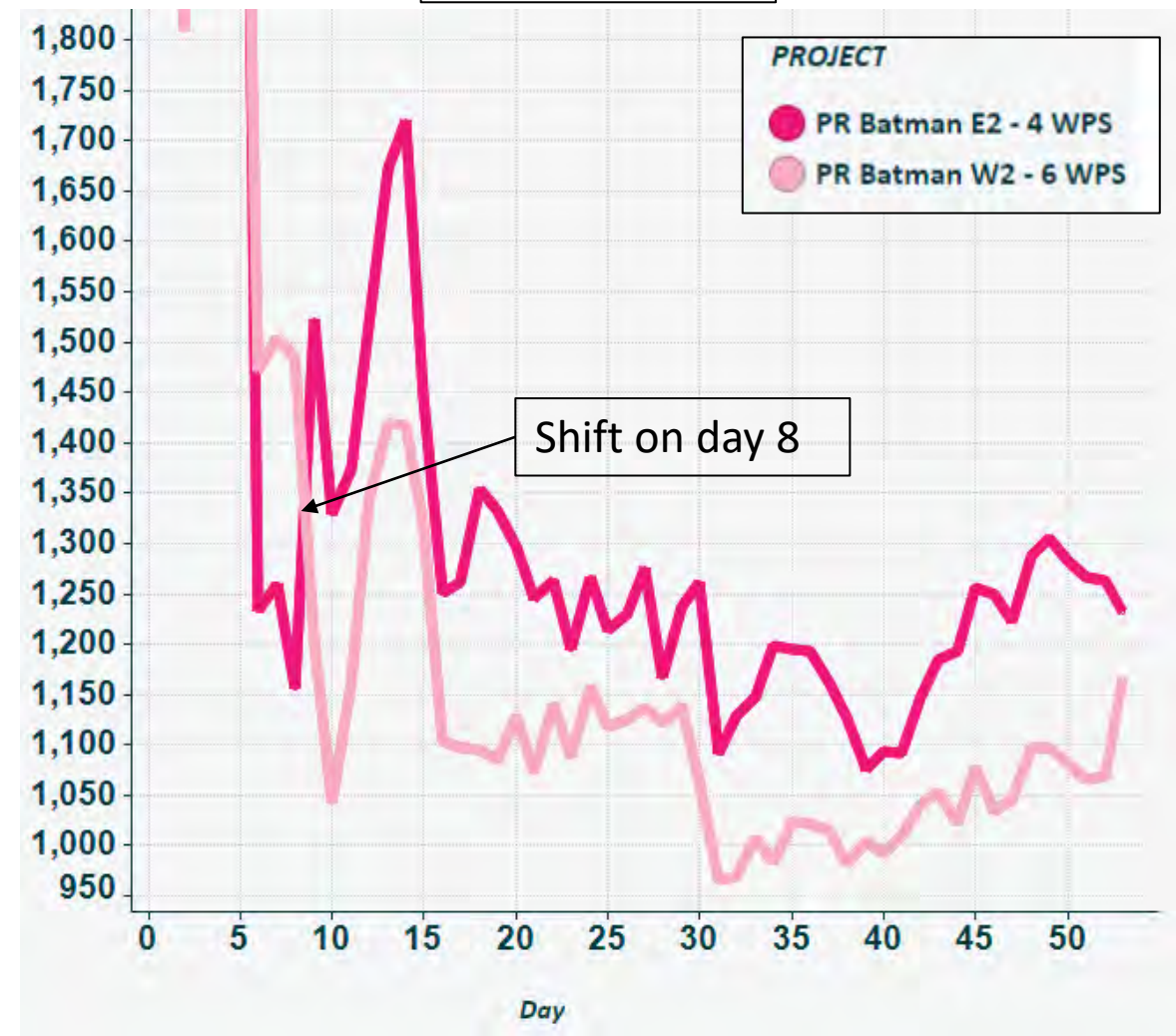
- APA Black & Tan - BS 6 WPS
- APA Black & Tan - WC 5 WPS
- COG Little Bear - 7 WPS
- EOG Della - 6 WPS
- ESTE Minis E2 - 8 WPS
- ESTE Minis W2 - 4 WPS
- PR Batman E2 - 4 WPS
- PR Batman W2 - 6 WPS
- R&S North Lea 3 - 4 WPS
- XTO Severus - 4 WPS

- Key Point
- More time is needed on the Batman wells to gauge performance, post ESP install decline at 100 to 150 cum/ft will be a meaningful data point
- In aggregate 3<sup>rd</sup> sand developments have a shallower slope than Wolfcamp developments and will enjoy ultimate higher EUR's

### Water Cut vs. Time



### GOR vs. Time



Shift in oil allocation on day 8, long-term trend or driven by a hung separator dump or carryover?

# Capital Plan Comparison

Cimarex - Loosey Goosey/Mighty Pheasant				
Res	Well	AFE CapEx	June Current Cost	AFE Bench Total
1st	101H	\$8,570,695	\$9,651,993	<b>\$36,922,774</b>
1st	102H	\$9,450,693	\$9,651,993	
1st	103H	\$9,450,693	\$9,651,993	
1st	104H	\$9,450,693	\$9,651,993	
upper 2 <sup>nd</sup> *	211H	\$8,570,695	\$9,651,993	<b>\$25,712,085</b>
upper 2 <sup>nd</sup> *	212H	\$8,570,695	\$9,651,993	
upper 2 <sup>nd</sup> *	213H	\$8,570,695	\$9,651,993	
2nd	201H	\$8,570,695	\$9,651,993	<b>\$34,282,780</b>
2nd	202H	\$8,570,695	\$9,651,993	
2nd	203H	\$8,570,695	\$9,651,993	
2nd	204H	\$8,570,695	\$9,651,993	
3rd	301H	\$9,428,854	\$10,621,993	<b>\$37,675,408</b>
3rd	302H	\$9,428,854	\$10,621,993	
3rd	303H	\$9,408,850	\$10,621,993	
3rd	304H	\$9,408,850	\$10,621,993	
<b>Total Gross CapEx</b>		<b>\$134,593,047</b>	<b>\$148,659,895</b>	<b>\$134,593,047</b>

Permian Resources – Bane/Joker				
Res	Well	AFE CapEx	June Current Cost	AFE Bench Total
1st	111H	\$10,724,193		<b>\$42,896,772</b>
1st	112H	\$10,724,193		
1st	113H	\$10,724,193		
1st	114H	\$10,724,193		
uppr 2nd	122H	\$11,020,308		<b>\$44,081,232</b>
uppr 2nd	124H	\$11,020,308		
uppr 2nd	126H	\$11,020,308		
uppr 2nd	128H	\$11,020,308		
2nd	121H	\$11,020,308		<b>\$44,081,232</b>
2nd	123H	\$11,020,308		
2nd	125H	\$11,020,308		
2nd	127H	\$11,020,308		
3rd bs	131H	\$11,535,757		<b>\$46,143,028</b>
3rd bs	132H	\$11,535,757		
3rd bs	133H	\$11,535,757		
3rd bs	134H	\$11,535,757		
3rd bs	171H	\$11,308,013		<b>\$92,743,500</b>
3rd bs	172H	\$11,308,013		
3rd bs	173H	\$11,308,013		
3rd bs	174H	\$11,308,013		
WC	201H	\$11,877,862		
WC	202H	\$11,877,862		
WC	203H	\$11,877,862		
WC	204H	\$11,877,862		
<b>Total Gross CapEx</b>		<b>\$269,945,764</b>	<b>?</b>	<b>\$269,945,764</b>

\*Note: we have planned for upper 2<sup>nd</sup>, acquiring data on 3<sup>rd</sup> sand wells to confirm adequate flow, saturation, and in place in this ~60-foot target and will execute if viable.

**For each Plan, Permian is spending \$135MM more / 1280 acres with proposal Capex, ~100% more CapEx, bad for WI owners:**

- \$ 92.7 MM, shown in red, Cimarex models as uneconomic non additive wells with reserves best captured by single landing.
- \$ 31.6 MM, where well counts are ~ = Permian costs are \$ 2.1 MM to \$2.4MM higher/well at time of proposal
- \$ 11 MM, one additional 2<sup>nd</sup> sand well vs. Cimarex Proven spacing.

# Cimarex Represents the Majority WI for Any Plan Drilled

We model Permian's plan as significantly over drilled. Extra wellbores raise OpEx, interventions, and spill risk while capturing negligible additional reserves.

	16 well Permian Plan   June Strip   80% 8/8ths NRI					
Development	WI	NRI	Gross Capex	WI Capex	NPV10	ATax ROR%
Mighty Pheasant / Joker	0.477066	0.381653	\$93,654,476	\$44,574,978	\$7,746,535	21%
Loosey Goosey / Bane	0.518295	0.414636	\$93,654,476	\$48,527,881	\$8,347,243	21%
Total Cimarex	0.497681	0.398144	\$187,308,952	\$93,102,854	\$16,093,779	21%
<b>Total Development</b>	<b>1</b>	<b>0.8</b>	<b>\$187,308,952</b>	<b>\$187,308,952</b>	<b>\$32,176,560</b>	<b>21%</b>

Cimarex's plan benefits significantly from not over drilling the target. This materializes as fast payout, lower OpEx, and lower spill risk.

	8 well 3 <sup>rd</sup> Sand Cimarex Plan   June Strip   80% 8/8ths NRI					
Development	WI	NRI	Gross Capex	WI Capex	NPV10	ATax ROR%
Mighty Pheasant / Joker	0.553327	0.4426616	\$42,487,972	\$23,509,755	\$32,039,956	149%
Loosey Goosey / Bane	0.527654	0.4221232	\$42,487,972	\$22,418,953	\$30,552,828	149%
Total Cimarex	0.540491	0.432393	\$84,975,944	\$45,928,710	\$62,592,788	149%
<b>Total Development</b>	<b>1</b>	<b>0.8</b>	<b>\$84,975,944</b>	<b>\$84,975,944</b>	<b>\$115,807,328</b>	<b>149%</b>

# Comparison of 3<sup>rd</sup> sand Flat Cimarex Plan vs. Wolfcamp Stagger Permian Plan

Exhibit D-20

Ownership mixes vs PV10 of Wolfcamp 3rd Development Plans					
BS acres	WC acres	WC/BS Ratio	PV10 Permian Plan	PV10 Cimarex Plan	Cimarex - Permian
1	1	1	\$12,569	\$45,237	\$32,668
1	1.37	1.37	\$14,894	\$45,237	\$30,343
1	2	2	\$18,853	\$45,237	\$26,384
1	3	3	\$25,138	\$45,237	\$20,099
1	3.0088	3.0088	\$25,193	\$45,237	\$20,044
1	4	4	\$31,422	\$45,237	\$13,815
1	5	5	\$37,707	\$45,237	\$7,530
1	6	6	<b>\$43,991</b>	<b>\$45,237</b>	<b>\$1,246</b>
1	7	7	\$50,276	\$45,237	-\$5,039

- Above Table sensitivity shows different ownership blends at June Strip pricing and 80% 8/8ths NRI.
- We model WI owners benefitting from our development as long as they do not have a Wolfcamp to 3<sup>rd</sup> Sand ownership imbalance of more than 6x.
- The biggest differential ownership in Loosey Goosey is held by HOG Partnership LP with a 1.37 ratio of Wolfcamp to Bone Spring. \$45,237/acre under Cimarex plan outperforms Permian Plan by ~\$30,000/acre.
- The biggest differential ownership in Mighty Pheasant is held by MRC Permian and is a 3.0088 ratio of Wolfcamp to Bone Spring. \$45,237/acre under Cimarex plan outperforms Permian Plan by ~\$20,000/acre.



# MRC Permian - PV10 Comparison - Mighty Pheasant vs. Joker

BS acres	WC acres	WC/BS Ratio	PV10 Permian Plan	PV10 Cimarex Plan	Cimarex - Permian
1	3.0088	3.0088	\$25,193	\$45,237	\$20,044

- The biggest differential ownership in Mighty Pheasant / Joker is held by MRC Permian with a 3.0088 ratio of Wolfcamp to Bone Spring
- Under Cimarex's single landing development MRC Permian's PV10 is \$ 45,237/acre
- Under Permian Resources' co-development plan, MRC Permian 's PV10 is \$25,193/acre
- MRC Permian enjoys an additional \$20,044/acre PV10 under Cimarex's plan

# MRC Permian - PV10 Comparison – Loosey Goosey vs. Bane

BS acres	WC acres	WC/BS Ratio	PV10 Permian Plan	PV10 Cimarex Plan	Cimarex - Permian
1	1.37	1.37	\$14,894	\$45,237	\$30,343

- The only and by default biggest differential ownership in Loosey Goosey / Bane is held by HOG Partnership LP with a 1.37 ratio of Wolfcamp to Bone Spring
- Under Cimarex’s single landing development HOG Partnership PV10 is \$ 45,237/acre
- Under Permian Resources’ co-development plan HOG Partnership PV10 is \$14,894/acre
- HOG Partnership enjoys an additional \$30,343/acre PV10 under Cimarex’s plan

# Ownership Ratios and Depth Severences

Ownership Loosey Goosey / Bane			
OWNER	BS WI	WC WI	WC / BS ownership Ratio
Delmar Hudson Trust	0.060950089	0.060950089	1.0000
Lindys Living Trust	0.079980077	0.079980077	1.0000
Javelina Partners	0.086387997	0.07235004	0.8375
Zorro Partners	0.053319802	0.053319802	1.0000
Josephine Hudson Trust	0.013330013	0.013330013	1.0000
Ard Oil	0.039990039	0.039990039	1.0000
Moore and Shelton	0.030981016	0.030981016	1.0000
HOG Partnership LP	0.050128926	0.068846535	1.3734
Read and Stevens	0.244691793	0.244691793	1.0000
First Century Oil	0.073245733	0.073245733	1.0000
Foran Oil Co.	0.038215438	0.038215438	1.0000
Chase Oil Co.	0.026073984	0.026073984	1.0000
Union Hill	0	0	
Magnum Hunter	0.09280948	0.09280948	1.0000
Cimarex	0.089193344	0.089193344	1.0000
William A Hudson II	0.004679402	0	0.0000
Challenger Crude	0.016022867	0.016022867	1.0000

Ownership Mighty Pheasant / Joker			
OWNER	BS WI	WC WI	WC / BS ownership Ratio
MRC Permian	0.011252148	0.033766407	3.0009
HOG Partnership LP	0.060948477	0.060948477	1.0000
Northern Oil and Gas	0.007767257	0.023305971	3.0005
Javelina Partners	0.07044874	0.07044874	1.0000
Zorro Partners	0.05079596	0.05079596	1.0000
Delmar Hudson Trust	0.006062753	0.006062753	1.0000
First Century Oil	0.030962423	0.067510413	2.1804
Read and Stevens	0.229467276	0.280456983	1.2222
CBR Oil Prop	0.00416737	0.012505521	3.0008
Ard Oil	0.014295	0.014295	1.0000
Josephine Hudson Trust	0.006755155	0.006755155	1.0000
Magnum Hunter	0.307816041	0.131229999	0.4263
CLM Production Co.	0	0.001249844	
Highland (Texas) Energy	0.003749531	0.001249844	0.3333
Diamond Star Prod.	0.001249844	0.001249844	1.0000
Carolyn Beall	0.001249844	0.001249844	1.0000
Tierra Encantada	0.001249844	0.001249844	1.0000
David Luna	0.001249844	0.001249844	1.0000
Warren Associates	0	0.001249844	
Cimarex Energy	0.025670122	0.0522325	2.0348
Moore and Shelton	0.01687	0.01687	1.0000
Lindys Living Trust	0.02859	0.02859	1.0000
Challenger Crude	2%	2%	1.0000
Avalon Energy Corp	0.007812793	0	0.0000
Marks Oil	0.00817	0.01567	1.9180
Prime Rock	0.023435195	0	0.0000
Wilbanks Reserve	0.043402861	0.083240693	1.9179
Union Hill	0.012499024	0.012499024	1.0000

## Loosey Goosey / Bane: Almost Uniform Interest.

- The Majority backs lower well count when unclouded by ownership.
- HOG has a 1.8% delta in ownership which we model as benefiting \$30,000/acre from optimum well count vs. double CapEx plan.

## Mighty Pheasant / Joker : Complicated by Depth Severance

- MRC Permian has worst ratio with 2.25% delta in ownership which we model as benefiting \$20,000/acre more from optimum well count vs. double CapEx Plan.

# 3rd SS Wolfcamp API List

UWI (API Num)	Well Label	Operator	Formation
30025024240100	LEA UNIT 4H	LEGACY RESERVES OPERATING LP	3rd SS
30025328180000	MALLON '34' FEDERAL 16	CIMAREX ENERGY CO	3rd SS
30025393820100	MALLON 35 FEDERAL 4H	CIMAREX ENERGY CO	3rd SS
30025395550000	TUSK FEDERAL 2H	COG OPERATING LLC	3rd SS
30025397630100	MALLON 34 FEDERAL 18H	CIMAREX ENERGY CO	3rd SS
30025398940100	MALLON 34 FEDERAL 19	CIMAREX ENERGY CO	3rd SS
30025400350000	AIRCOBRA 12 STATE 002H	COG OPERATING LLC	3rd SS
30025400400000	QUAIL RIDGE 32 STATE 3H	CIMAREX ENERGY CO	3rd SS
30025400860000	MALLON 35 FEDERAL 7H	CIMAREX ENERGY CO	3rd SS
30025401150000	LYNCH 23 FEDERAL 1H	CIMAREX ENERGY CO	3rd SS
30025401230000	LYNCH 23 FEDERAL 2H	CIMAREX ENERGY CO	3rd SS
30025401350000	MALLON 34 FEDERAL 20	CIMAREX ENERGY CO	3rd SS
30025402530100	CHAPARRAL 33 FEDERAL 3H	CIMAREX ENERGY CO	3rd SS
30025403270000	HANSON 26 FEDERAL 1H	CIMAREX ENERGY CO	3rd SS
30025403280000	CHAPARRAL 33 FEDERAL COM 4	CIMAREX ENERGY CO	3rd SS
30025403300000	EAGLE '2' STATE 006H	MATADOR PRODUCTION CO	3rd SS
30025403610000	QUAIL '16' STATE COM 003H	FASKEN OIL & RANCH LTD	3rd SS
30025403880100	KING COBRA 2 STATE 1H	COG OPERATING LLC	3rd SS
30025403970000	AIRSTRIP 6 STATE COM 2H	COG OPERATING LLC	3rd SS
30025404040000	WILD COBRA 1 STATE 2H	COG OPERATING LLC	3rd SS
30025404050100	PLAYA 2 STATE 001H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025404250000	WEST PEARL 36 STATE 002H	COG OPERATING LLC	3rd SS
30025404300000	TIGER '11' FEDERAL 1H	COG OPERATING LLC	3rd SS
30025405310000	QUAIL '16' STATE 004H	FASKEN OIL & RANCH LTD	3rd SS
30025405490000	PLAYA 2 STATE 002H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025406040100	IGLOO 19 STATE 2H	CAZA OPERATING LLC	3rd SS
30025406110000	IRONHOUSE 20 STATE 001H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025406340000	BUTTER CUP 35 STATE COM 001H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025406370000	HANSON 26 FEDERAL 3H	CIMAREX ENERGY CO	3rd SS
30025406400000	BUTTER CUP 36 STATE COM 001H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025406410000	BUTTER CUP 36 STATE COM 002H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025406420000	BUTTER CUP 35 STATE COM 002H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025406760100	IRONHOUSE 19 STATE COM 001H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025406970000	LAGUNA 23 FEDERAL COM 002H	EARTHSTONE OPERATING LLC	3rd SS
30025406980100	LEA UNIT 30H	LEGACY RESERVES OPERATING LP	3rd SS
30025406990100	LEA UNIT 31H	LEGACY RESERVES OPERATING LP	3rd SS
30025407250100	OUTLAW '22' FEDERAL COM 1H	COG OPERATING LLC	3rd SS
30025407270000	MONGOOSE FEE 001H	MATADOR PRODUCTION CO	3rd SS
30025407420000	LAGUNA 23 FEDERAL COM 1H	EARTHSTONE OPERATING LLC	3rd SS
30025407480000	IRONHOUSE 20 STATE COM 002H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025407500000	LYNCH 35-2H	CIMAREX ENERGY CO	3rd SS
30025407780100	PRICKLY PEAR 6 FEDERAL 4H	COG OPERATING LLC	3rd SS
30025408040000	HANSON 26 FEDERAL 4H	CIMAREX ENERGY CO	3rd SS
30025408140100	CONDOR STATE 001H	COG OPERATING LLC	3rd SS
30025408190000	HANSON 26 FEDERAL 2H	CIMAREX ENERGY CO	3rd SS
30025408250000	LYNCH 35 FEE 1H	CIMAREX ENERGY CO	3rd SS
30025408360000	MERIT 32 DM STATE COM 001H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025408410000	QUAIL 11 STATE COM 1H	CIMAREX ENERGY CO	3rd SS
30025408410000	QUAIL 11 STATE COM 1H	CIMAREX ENERGY CO	3rd SS
30025408750000	AIRCOBRA 12 STATE 1H	COG OPERATING LLC	3rd SS

30025408840000	MERIT 6 EH STATE COM 001H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025409420000	QUAIL '16' STATE 007H	FASKEN OIL & RANCH LTD	3rd SS
30025409700000	STRATOJET 31 STATE COM 2H	COG OPERATING LLC	3rd SS
30025409770100	TRES PRIMOS 3 STATE 1H	COG OPERATING LLC	3rd SS
30025409840000	MARATHON ROAD 14 NC FEDERAL 1H	MEWBOURNE OIL CO	3rd SS
30025410250000	CONDOR STATE 2H	COG OPERATING LLC	3rd SS
30025410500000	IRONHOUSE 19 STATE COM 003H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025410600000	KING COBRA 2 STATE 2H	COG OPERATING LLC	3rd SS
30025410940000	IRONHOUSE 19 STATE COM 002H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025411060100	GOOSE STATE 001H	COG OPERATING LLC	3rd SS
30025411100000	WILD COBRA 1 STATE 1H	COG OPERATING LLC	3rd SS
30025411310000	PERLA NEGRA FEDERAL COM 1H	XTO ENERGY INC	3rd SS
30025411410000	QUAIL 11 STATE COM 3H	CIMAREX ENERGY CO	3rd SS
30025411480100	CAPROCK 27 STATE FEDERAL COM 1H	RAYBAW OPERATING LLC	3rd SS
30025411520000	AIRSTRIP FEE COM 1H	COG OPERATING LLC	3rd SS
30025411630000	IRONHOUSE 24 STATE COM 001H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025412010000	GOOSE STATE COM 2H	COG OPERATING LLC	3rd SS
30025412100100	QUAIL 11 STATE COM 4H	CIMAREX ENERGY CO	3rd SS
30025412150000	MARATHON ROAD 14 MD FEDERAL 1H	MEWBOURNE OIL CO	3rd SS
30025412450200	IRONHOUSE '19' STATE COM 004H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025413050100	HAMON A FEDERAL COM 3H	LEGACY RESERVES OPERATING LP	3rd SS
30025413580100	TUSK FEDERAL 4H	COG OPERATING LLC	3rd SS
30025413660000	QUAIL '16' STATE 8H	FASKEN OIL & RANCH LTD	3rd SS
30025413670100	LEA SOUTH 25 FEDERAL COM 5H	EARTHSTONE OPERATING LLC	3rd SS
30025415190100	NIGHTHAWK STATE COM 1H	MARATHON OIL PERMIAN LLC	3rd SS
30025415320000	SCHARB 10 PA STATE 1H	MEWBOURNE OIL CO	3rd SS
30025415440000	ALBATROSS STATE COM 2H	COG OPERATING LLC	3rd SS
30025415620000	TANGO BTP STATE COM 004H	EOG RESOURCES INC	3rd SS
30025415720100	PRICKLY PEAR 6 FEDERAL 2H	COG OPERATING LLC	3rd SS
30025415730000	TUSK FEDERAL 3H	COG OPERATING LLC	3rd SS
30025415740000	TUSK FEDERAL 5H	COG OPERATING LLC	3rd SS
30025415750000	MARATHON ROAD 15 PA FEDERAL 1H	MEWBOURNE OIL CO	3rd SS
30025415950000	IRONHOUSE 24 STATE COM 002H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025416050000	PERRY 22 FEDERAL COM 1H	CIMAREX ENERGY CO	3rd SS
30025416120100	ORIOLE STATE 1H	COG OPERATING LLC	3rd SS
30025416170000	HAMON A FEDERAL COM 4H	LEGACY RESERVES OPERATING LP	3rd SS
30025416290000	PRICKLY PEAR 6 FEDERAL 3H	COG OPERATING LLC	3rd SS
30025416300100	HAMON FEDERAL COM A 2H	LEGACY RESERVES OPERATING LP	3rd SS
30025416440000	LYNCH 35 FED COM 3H	CIMAREX ENERGY CO	3rd SS
30025416950000	IRONHOUSE 24 STATE COM 003H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025416960000	IRONHOUSE 24 STATE COM 004H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025417140000	TOMCAT FEE 1H	COG OPERATING LLC	3rd SS
30025417520000	CUATRO HIJOS FEE 4H	COG OPERATING LLC	3rd SS
30025417750000	SCHARB 10 B30B STATE 1H	MEWBOURNE OIL CO	3rd SS
30025418080000	MALLON 27 FEDERAL COM 003H	MATADOR PRODUCTION CO	3rd SS
30025418090000	ALBATROSS STATE COM 1H	COG OPERATING LLC	3rd SS
30025418330000	TIGER 11 FEDERAL 2H	COG OPERATING LLC	3rd SS
30025418340000	CORDONIZ 28 FEDERAL COM 4H	CIMAREX ENERGY CO	3rd SS
30025418350000	KINGFISHER STATE COM 1H	COG OPERATING LLC	3rd SS
30025418360000	KINGFISHER STATE COM 2H	COG OPERATING LLC	3rd SS
30025418580000	TEAL 12 STATE 2H	CIMAREX ENERGY CO	3rd SS
30025418610000	PERLA VERDE 31 STATE 2H	XTO ENERGY INC	3rd SS

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30025418620000	PERLA VERDE 31 STATE 003H	XTO ENERGY INC	3rd SS
30025418630000	PERLA VERDE 31 STATE 4H	XTO ENERGY INC	3rd SS
30025418790000	CHAPARRAL 33 FEDERAL COM 5H	CIMAREX ENERGY CO	3rd SS
30025418980000	LEA SOUTH 25 FEDERAL COM 6H	EARTHSTONE OPERATING LLC	3rd SS
30025419450000	MARATHON ROAD 15 B30B FEDERAL 1H	MEWBOURNE OIL CO	3rd SS
30025419470000	PALOMA 21 FEDERAL COM 4H	FASKEN OIL & RANCH LTD	3rd SS
30025419860000	SCHARB 10 B3NC STATE 1H	MEWBOURNE OIL CO	3rd SS
30025419870100	SUPER COBRA STATE COM 1H	COG OPERATING LLC	3rd SS
30025419930000	PALOMA 21 FEDERAL COM 1H	FASKEN OIL & RANCH LTD	3rd SS
30025419940000	PALOMA 21 FEDERAL COM 2H	FASKEN OIL & RANCH LTD	3rd SS
30025419950000	PALOMA 21 FEDERAL COM 3H	FASKEN OIL & RANCH LTD	3rd SS
30025420340000	STRATOSPHERE 36 STATE COM 3H	COG OPERATING LLC	3rd SS
30025420350000	STRATOSPHERE 36 STATE COM 4H	COG OPERATING LLC	3rd SS
30025420360000	STRATOSPHERE 36 STATE COM 5H	COG OPERATING LLC	3rd SS
30025420370000	STRATOSPHERE 36 STATE COM 6H	COG OPERATING LLC	3rd SS
30025420630000	PERLA VERDE 31 STATE 001H	XTO ENERGY INC	3rd SS
30025420800000	NORTH LEA `3` FEDERAL COM 001H	READ & STEVENS INC	3rd SS
30025421290000	TRES PRIMOS 3 STATE 2H	COG OPERATING LLC	3rd SS
30025421410000	PEARL WEST 36 STATE COM 6H	COG OPERATING LLC	3rd SS
30025421450000	WEST PEARL 36 STATE COM 003H	COG OPERATING LLC	3rd SS
30025421460000	PEARL WEST 36 STATE COM 4H	COG OPERATING LLC	3rd SS
30025421470000	WEST PEARL 36 STATE COM 005H	COG OPERATING LLC	3rd SS
30025421730000	RAPTOR WEST 3 STATE 004H	MARATHON OIL PERMIAN LLC	3rd SS
30025422010000	MARATHON ROAD 15 NC FEDERAL 1H	MEWBOURNE OIL CO	3rd SS
30025422120000	MALLON 27 FEDERAL COM 001H	MATADOR PRODUCTION CO	3rd SS
30025422270000	NORTH LEA 3 FEDERAL COM 002H	READ & STEVENS INC	3rd SS
30025422280000	NORTH LEA `3` FEDERAL COM 003H	READ & STEVENS INC	3rd SS
30025422680000	LEA 7 FEDERAL COM 1H	CIMAREX ENERGY CO	3rd SS
30025422760000	CUATRO HIJOS FEE 3H	COG OPERATING LLC	3rd SS
30025422920000	BLACK PEARL 1 FEDERAL COM 1H	COG OPERATING LLC	3rd SS
30025422930000	BLACK PEARL 1 FEDERAL 002H	COG OPERATING LLC	3rd SS
30025422940000	BLACK PEARL 1 FEDERAL 3H	COG OPERATING LLC	3rd SS
30025422950000	BLACK PEARL 1 FEDERAL 4H	COG OPERATING LLC	3rd SS
30025423150000	MALLON 27 FEDERAL COM 2H	MATADOR PRODUCTION CO	3rd SS
30025423380100	BLUE JAY FEDERAL 001H	COG OPERATING LLC	3rd SS
30025423420000	LEA UNIT 32H	LEGACY RESERVES OPERATING LP	3rd SS
30025423430000	LEA UNIT 33H	LEGACY RESERVES OPERATING LP	3rd SS
30025423440000	LEA UNIT 34H	LEGACY RESERVES OPERATING LP	3rd SS
30025423520000	CIMARRON 16-19-34 RN STATE 134H	MATADOR PRODUCTION CO	3rd SS
30025423570100	IGLOO `19` STATE 3H	CAZA OPERATING LLC	3rd SS
30025423670000	BUTTER CUP 36 STATE COM 003H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025423770000	IGGLES STATE COM 001H	COG OPERATING LLC	3rd SS
30025424300000	STRATOJET 31 STATE COM 8H	COG OPERATING LLC	3rd SS
30025424720000	KINGFISHER STATE COM 5H	COG OPERATING LLC	3rd SS
30025424990000	PICKARD 20 18 34 RN STATE 124H	MATADOR PRODUCTION CO	3rd SS
30025425210000	SCHARB 10 B3MD STATE 1H	MEWBOURNE OIL CO	3rd SS
30025425460000	LEA 7 FEDERAL COM 2H (P&A 12/27/	CIMAREX ENERGY CO	3rd SS
30025425770000	PERLA NEGRA FEDERAL COM 4H	XTO ENERGY INC	3rd SS
30025426840000	NORTH LEA `3` FEDERAL COM 004H	READ & STEVENS INC	3rd SS
30025427090000	PERLA NEGRA FEDERAL COM 2H	XTO ENERGY INC	3rd SS
30025427130000	PERLA NEGRA FEDERAL COM 3H	XTO ENERGY INC	3rd SS
30025428850000	LEA UNIT 44H	LEGACY RESERVES OPERATING LP	3rd SS

30025429490000	LEA UNIT 54H	LEGACY RESERVES OPERATING LP	3rd SS
30025429500000	MAS FEDERAL 3H	COG OPERATING LLC	3rd SS
30025429580000	LEA UNIT 051H	LEGACY RESERVES OPERATING LP	3rd SS
30025429720000	DESERT ROSE 17-8 FEDERAL COM 001	CAZA OPERATING LLC	3rd SS
30025429790000	CIMARRON 16 19S 34E RN STATE COM	MATADOR PRODUCTION CO	3rd SS
30025429880100	EAGLECLAW FEDERAL 001H	CAZA OPERATING LLC	3rd SS
30025430290000	LEA SOUTH 25 FEDERAL COM 3BS 007	EARTHSTONE OPERATING LLC	3rd SS
30025430350000	LEA UNIT 059H	LEGACY RESERVES OPERATING LP	3rd SS
30025430540000	DELLA 29 FEDERAL COM 602H	EOG RESOURCES INC	3rd SS
30025430770000	LEA UNIT 038H	LEGACY RESERVES OPERATING LP	3rd SS
30025432470100	LEA UNIT 062H	LEGACY RESERVES OPERATING LP	3rd SS
30025432500000	HAMON A FED COM 009H	LEGACY RESERVES OPERATING LP	3rd SS
30025434150000	SEVERUS 31 FEDERAL COM 001H	XTO ENERGY INC	3rd SS
30025434160000	SEVERUS 31 FEDERAL COM 002H	XTO ENERGY INC	3rd SS
30025434170000	SEVERUS 31 FEDERAL COM 003H	XTO ENERGY INC	3rd SS
30025434180000	SEVERUS 31 FEDERAL COM 004H	XTO ENERGY INC	3rd SS
30025434680100	CHIEF 30 STATE 7H	CIMAREX ENERGY CO	3rd SS
30025435330000	BLUE JAY FEDERAL COM 002H	COG OPERATING LLC	3rd SS
30025436800000	NORTH LEA 10 FEDERAL 002H	READ & STEVENS INC	3rd SS
30025437410000	ESPEJO FEDERAL COM 001H	XTO ENERGY INC	3rd SS
30025437420000	ESPEJO FEDERAL COM 002H	XTO ENERGY INC	3rd SS
30025437770000	ESPEJO FEDERAL COM 003H	XTO ENERGY INC	3rd SS
30025437920000	STRATOJET 31 STATE COM 007H	COG OPERATING LLC	3rd SS
30025438160100	AIRSTRIIP 31 18 35 RN STATE COM #132H	MATADOR PRODUCTION CO	3rd SS
30025439210100	BLACK & TAN 27 FEDERAL COM 303H	APACHE CORP	3rd SS
30025439400000	BLACK & TAN 27 FEDERAL COM 305H	APACHE CORP	3rd SS
30025440170000	BLACK & TAN 27 FEDERAL COM 301H	APACHE CORP	3rd SS
30025440180000	BLACK & TAN 27 FEDERAL COM 302H	APACHE CORP	3rd SS
30025440440000	BLACK & TAN 27 FEDERAL COM 307H	APACHE CORP	3rd SS
30025440450000	BLACK AND TAN 27 FEDERAL COM 308	APACHE CORP	3rd SS
30025440920000	MAS FEDERAL COM 001H	COG OPERATING LLC	3rd SS
30025442130000	CHIEF 30 STATE 8H	CIMAREX ENERGY CO	3rd SS
30025443230000	AIRSTRIIP 31-18-35 RN STATE COM 1	MATADOR PRODUCTION CO	3rd SS
30025443410000	VERNA RAE FEDERAL COM 133H	MATADOR PRODUCTION CO	3rd SS
30025443420000	VERNA RAE FEDERAL COM 134H	MATADOR PRODUCTION CO	3rd SS
30025444740000	DELLA 29 FEDERAL COM 603H	EOG RESOURCES INC	3rd SS
30025444750000	DELLA 29 FEDERAL 604H	EOG RESOURCES INC	3rd SS
30025444760000	DELLA 29 FEDERAL 605H	EOG RESOURCES INC	3rd SS
30025444770000	DELLA 29 FEDERAL 606H	EOG RESOURCES INC	3rd SS
30025444950000	EAGLECLAW FEDERAL COM 002H	CAZA OPERATING LLC	3rd SS
30025445090000	AIRSTRIIP 31-18-35 RN STATE COM 1	MATADOR PRODUCTION CO	3rd SS
30025449080000	CHIEF 30 STATE 9H	CIMAREX ENERGY CO	3rd SS
30025450540000	MESCALERO RIDGE 21 FEDERAL 1H	CIMAREX ENERGY CO	3rd SS
30025451540000	LEA UNIT 066H	LEGACY RESERVES OPERATING LP	3rd SS
30025451990000	LEA 7 FEDERAL COM 29H	CIMAREX ENERGY CO	3rd SS
30025452000000	LEA 7 FEDERAL COM 30H	CIMAREX ENERGY CO	3rd SS
30025452100000	LEA UNIT 065H	LEGACY RESERVES OPERATING LP	3rd SS
30025454380000	AIRSTRIIP 31-18S-35E RN STATE COM	MATADOR PRODUCTION CO	3rd SS
30025458960000	ANCHOR 19 35 33 STATE 001H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025461400000	CABLE 19 35 9 STATE COM 001H	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025467680000	HEREFORD 29-20 W10B FED COM 001H	MEWBOURNE OIL CO	3rd SS
30025468030000	SANTA VACA 19-18 B3MD STATE COM	MEWBOURNE OIL CO	3rd SS

# 3rd SS Wolfcamp API List

30025474570000	TALON 5-8 FEDERAL 001H	CAZA OPERATING LLC	3rd SS
30025474830000	HEREFORD 29-20 W1MD STATE COM 00	MEWBOURNE OIL CO	3rd SS
30025474840000	HEREFORD 29-20 W1NC STATE COM 00	MEWBOURNE OIL CO	3rd SS
30025474860000	TALON 5-8 FEDERAL 005H	CAZA OPERATING LLC	3rd SS
30025491550000	SANTA VACA 19 18 B3NC STATE COM	MEWBOURNE OIL CO	3rd SS
30025499040000	CHAROLAIS 28 21 W1MD STATE COM 0	MEWBOURNE OIL CO	3rd SS
30025499350000	HEREFORD 29 20 W1PA STATE COM 00	MEWBOURNE OIL CO	3rd SS
30025501680000	FOXTAIL E2 05 32 W1 STATE COM 00	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025501690000	FOXTAIL E2 05 32 W1 STATE COM 00	FRANKLIN MOUNTAIN ENERGY 3 LLC	3rd SS
30025502420000	SANTA VACA 19-18 B3OB FEE 001H	MEWBOURNE OIL CO	3rd SS
30025503260000	SANTA VACA 19-18 B3PA FEE 001H	MEWBOURNE OIL CO	3rd SS
30025507240000	MESCALERO RIDGE 21-28 FED COM 2H	CIMAREX ENERGY CO	3rd SS
30025416080000	PERRY 22 FEDERAL COM 4H	CIMAREX ENERGY CO	Wolfcamp
30025419500000	NIGHTHAWK STATE COM 003H	MARATHON OIL PERMIAN LLC	Wolfcamp
30025430530000	DELLA 29 FEDERAL COM 701H	EOG RESOURCES INC	Wolfcamp
30025431100000	LEA SOUTH 25 FEDERAL COM WCA 012	EARTHSTONE OPERATING LLC	Wolfcamp
30025433950000	AIRSTRIP 31 18 35 RN STATE COM 2	MATADOR PRODUCTION CO	Wolfcamp
30025434820000	MAS FEDERAL 4H	COG OPERATING LLC	Wolfcamp
30025442140100	MAS FEDERAL COM 002H	COG OPERATING LLC	Wolfcamp
30025444940000	VERNA RAE FEDERAL COM 204H	MATADOR PRODUCTION CO	Wolfcamp
30025450980100	LITTLE BEAR FEDERAL COM 001H	COG OPERATING LLC	Wolfcamp
30025450990000	LITTLE BEAR FEDERAL COM 003H	COG OPERATING LLC	Wolfcamp
30025451000000	LITTLE BEAR FEDERAL COM 004H	COG OPERATING LLC	Wolfcamp
30025451020000	LITTLE BEAR FEDERAL COM 006H	COG OPERATING LLC	Wolfcamp
30025451030000	LITTLE BEAR FEDERAL COM 007H	COG OPERATING LLC	Wolfcamp
30025451040000	LITTLE BEAR FEDERAL COM 008H	COG OPERATING LLC	Wolfcamp
30025451050000	LITTLE BEAR FEDERAL COM 009H	COG OPERATING LLC	Wolfcamp
30025451490000	LITTLE BEAR FEDERAL COM 002H	COG OPERATING LLC	Wolfcamp
30025452110100	LEA UNIT 100H	LEGACY RESERVES OPERATING LP	Wolfcamp
30025460720000	BLACK & TAN 27 FEDERAL COM 401H	APACHE CORP	Wolfcamp
30025460730000	BLACK & TAN 27 FEDERAL COM 402H	APACHE CORP	Wolfcamp
30025460750000	BLACK & TAN 27 FEDERAL COM 406H	APACHE CORP	Wolfcamp
30025461230000	BLACK & TAN 27 FEDERAL COM 403H	APACHE CORP	Wolfcamp
30025461240000	BLACK & TAN 27 FEDERAL COM 405H	APACHE CORP	Wolfcamp

## **TAB 6**

Case Nos. 23448-23451

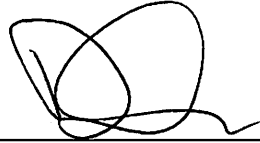
Exhibit E: Self-Affirmed Statement of Notice, Darin C. Savage  
Exhibit E-1: Notice Letter  
Exhibit E-2: Mailing List  
Exhibit E-3: Affidavits of Publication





*Signature page of Self-Affirmed Statement of Darin C. Savage:*

I understand that this Self-Affirmed Statement will be used as written testimony before the Division in Case Nos. 23448-23451 and affirm that my testimony herein is true and correct, to the best of my knowledge and belief and made under penalty of perjury under the laws of the State of New Mexico.



---

Darin Savage

7-13-2023

---

Date Signed



For the Pursuit of Energy

ABADIE | SCHILL PC

Colorado	New Mexico
Louisiana	Texas
Nebraska	Kansas
Montana	Wyoming
Oklahoma	California
	North Dakota

March 15, 2023

VIA CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

TO: ALL INTEREST OWNERS SUBJECT TO POOLING PROCEEDINGS

Re: Application of Cimarex Energy Co., for a horizontal spacing unit and compulsory pooling, Lea County, New Mexico  
Mighty Pheasant 5-8 Fed Com 204H Well (Case No. 23448)  
Mighty Pheasant 5-8 Fed Com 304H Well (Case No. 23448)

Case No. 23448:

Dear Interest Owners:

This letter is to advise you that Cimarex Energy Co. (“Cimarex”) has filed the enclosed application, Case No. 23448, with the New Mexico Oil Conservation Division (“Division”) for the compulsory pooling of units within the interval of the Bone Spring formation, as described in the application.

In Case No. 23448, Cimarex seeks to establish a standard 320.09-acre, more or less, horizontal spacing and proration unit comprised of Lot 1 (NE/4 NE/4 equivalent), the SE/4 NE/4, and the E/2 SE/4 of Section 5 and the E/2 E/2 of Section 8, in Township 20 South, Range 34 East, Lea County, NMPM, New Mexico, pooling all uncommitted mineral interests from a depth of 9,373 feet (top of first Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], to a depth of 10,845 feet, that being the base of said Bone Spring, designated as an oil pool, underlying the unit. The unit will be dedicated to the above-referenced wells.

A hearing has been requested before a Division Examiner on April 6, 2023, and the status of the hearing can be monitored through the Division’s website. Division hearings will commence at 8:15 a.m., traditionally in Porter Hall at the Oil Conservation Division’s Santa Fe Offices located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505.

[abadieschill.com](http://abadieschill.com)

214 McKenzie Street, Santa Fe, New Mexico, 87501

O : 970.385.4401 • F : 970.385.4901

**EXHIBIT  
E-1**

However, under current Division policies, the hearing will be conducted remotely online. For information about remote access and status of the case, you can visit the Division's website at: <https://www.emnrd.nm.gov/ocd/hearing-info/> or call (505) 476-3441.

You are being notified as an interest owner (subject to title examination) and are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Parties appearing in cases are required by Division Rule 19.15.4.13.B NMAC to file a Pre-hearing Statement at least four business days in advance of a scheduled hearing, but in no event later than 5 p.m. mountain time on the Thursday preceding the scheduled hearing date. This statement must be filed at the Division's Santa Fe office at the above specified address and should include: The names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to the hearing.

If you have any questions about this matter, please contact John Coffman at (432) 571-7883 or at [john.coffman@coterra.com](mailto:john.coffman@coterra.com).

Sincerely,



---

Darin C. Savage

Attorney for Cimarex Energy Production  
Company, L.P.



For the Pursuit of Energy

ABADIE | SCHILL PC

Colorado	New Mexico
Louisiana	Texas
Nebraska	Kansas
Montana	Wyoming
Oklahoma	California
	North Dakota

March 15, 2023

VIA CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

TO: ALL INTEREST OWNERS SUBJECT TO POOLING PROCEEDINGS

Re: Application of Cimarex Energy Co., for a horizontal spacing unit and compulsory pooling, Lea County, New Mexico  
Mighty Pheasant 5-8 Fed Com 301H Well (Case No. 23449)

Case No. 23449:

Dear Interest Owners:

This letter is to advise you that Cimarex Energy Co. (“Cimarex”) has filed the enclosed application, Case No. 23449, with the New Mexico Oil Conservation Division (“Division”) for the compulsory pooling of units within the interval of the Bone Spring formation, as described in the application.

In Case No. 23449, Cimarex seeks to establish a standard 320.01-acre, more or less, horizontal spacing and proration unit comprised of Lot 4 (NW/4 NW/4 equivalent), the SW/4 NW/4, and the W/2 SW/4 of Section 5 and the W/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, pooling all uncommitted mineral interests from a depth of 9,373 feet (top of first Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], to a depth of 10,845 feet, that being the base of said Bone Spring, designated as an oil pool, underlying the unit. The unit will be dedicated to the above-referenced well.

A hearing has been requested before a Division Examiner on April 6, 2023, and the status of the hearing can be monitored through the Division’s website. Division hearings will commence at 8:15 a.m., traditionally in Porter Hall at the Oil Conservation Division’s Santa Fe Offices located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505.

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However, under current Division policies, the hearing will be conducted remotely online. For information about remote access and status of the case, you can visit the Division's website at: <https://www.emnrd.nm.gov/ocd/hearing-info/> or call (505) 476-3441.

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If you have any questions about this matter, please contact John Coffman at (432) 571-7883 or at [john.coffman@coterra.com](mailto:john.coffman@coterra.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'Darin C. Savage', written over a horizontal line.

Darin C. Savage

Attorney for Cimarex Energy Co.



For the Pursuit of Energy

ABADIE | SCHILL PC

Colorado	New Mexico
Louisiana	Texas
Nebraska	Kansas
Montana	Wyoming
Oklahoma	California
	North Dakota

March 15, 2023

VIA CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

TO: ALL INTEREST OWNERS SUBJECT TO POOLING PROCEEDINGS

Re: Application of Cimarex Energy Co., for a horizontal spacing unit and compulsory pooling, Lea County, New Mexico  
Mighty Pheasant 5-8 Fed Com 302H Well (Case No. 23450)

Case No. 23450:

Dear Interest Owners:

This letter is to advise you that Cimarex Energy Co. (“Cimarex”) has filed the enclosed application, Case No. 23450, with the New Mexico Oil Conservation Division (“Division”) for the compulsory pooling of units within the interval of the Bone Spring formation, as described in the application.

In Case No. 23450, Cimarex seeks to create a standard 320.04-acre, more or less, horizontal spacing and proration unit comprised of Lot 3 (NE/4 NW/4 equivalent), the SE/4 NW/4, and the E/2 SW/4 of Section 5 and the E/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, pooling all uncommitted mineral interests from a depth of 9,373 feet (top of first Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], to a depth of 10,845 feet, that being the base of said Bone Spring, designated as an oil pool, underlying the unit. The unit will be dedicated to the above-referenced well.

A hearing has been requested before a Division Examiner on April 6, 2023, and the status of the hearing can be monitored through the Division’s website. Division hearings will commence at 8:15 a.m., traditionally in Porter Hall at the Oil Conservation Division’s Santa Fe Offices located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505.

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214 McKenzie Street, Santa Fe, New Mexico, 87501

O : 970.385.4401 • F : 970.385.4901

However, under current Division policies, the hearing will be conducted remotely online. For information about remote access and status of the case, you can visit the Division's website at: <https://www.emnrd.nm.gov/ocd/hearing-info/> or call (505) 476-3441.

You are being notified as an interest owner (subject to title examination) and are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

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If you have any questions about this matter, please contact John Coffman at (432) 571-7883 or at [john.coffman@coterra.com](mailto:john.coffman@coterra.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'Darin C. Savage', written over a horizontal line.

Darin C. Savage

Attorney for Cimarex Energy Co.



For the Pursuit of Energy

ABADIE | SCHILL PC

Colorado	New Mexico
Louisiana	Texas
Nebraska	Kansas
Montana	Wyoming
Oklahoma	California
	North Dakota

March 15, 2023

VIA CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

TO: ALL INTEREST OWNERS SUBJECT TO POOLING PROCEEDINGS

Re: Application of Cimarex Energy Co., for a horizontal spacing unit and compulsory pooling, Lea County, New Mexico  
Mighty Pheasant 5-8 Fed Com 303H Well (Case No. 23451)

Case No. 23451:

Dear Interest Owners:

This letter is to advise you that Cimarex Energy Co. (“Cimarex”) has filed the enclosed application, Case No. 23451, with the New Mexico Oil Conservation Division (“Division”) for the compulsory pooling of units within the interval of the Bone Spring formation, as described in the application.

In Case No. 23451, Cimarex seeks to establish a standard 320.06-acre, more or less, horizontal spacing and proration unit comprised of Lot 2 (NW/4 NE/4 equivalent), the SW/4 NE/4, and the W/2 SE/4 of Section 5 and the W/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, pooling all uncommitted mineral interests from a depth of 9,373 feet (top of first Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], to a depth of 10,845 feet, that being the base of said Bone Spring, designated as an oil pool, underlying the unit. The unit will be dedicated to the above-referenced well.

A hearing has been requested before a Division Examiner on April 6, 2023, and the status of the hearing can be monitored through the Division’s website. Division hearings will commence at 8:15 a.m., traditionally in Porter Hall at the Oil Conservation Division’s Santa Fe Offices located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505.

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214 McKenzie Street, Santa Fe, New Mexico, 87501

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However, under current Division policies, the hearing will be conducted remotely online. For information about remote access and status of the case, you can visit the Division's website at: <https://www.emnrd.nm.gov/ocd/hearing-info/> or call (505) 476-3441.

You are being notified as an interest owner (subject to title examination) and are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

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If you have any questions about this matter, please contact John Coffman at (432) 571-7883 or at [john.coffman@coterra.com](mailto:john.coffman@coterra.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'Darin C. Savage', written over a horizontal line.

Darin C. Savage

Attorney for Cimarex Energy Co.

Mail Activity Report - CertifiedPro.net  
 Mailed from 3/1/2023 to 3/31/2023  
 User Name: abadieschill  
 Generated: 7/12/2023 12:52:26 PM

USPS Article Number	Date Mailed	Name 1	Name 2	Address 1	Address 2	City	State	Zip	Mailing Status	Service Options
9314869904300105478180	03/15/2023	Bureau of Land Management		414 W Taylor St		Hobbs	NM	88240	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478197	03/15/2023	Moore & Shelton Co., Ltd		PO Box 3070		Galveston	TX	77552	Mailed	Return Receipt - Electronic, Certified Mail
9314869904300105478203	03/15/2023	HOG Partnership, LP		5950 Cedar Springs Rd.		Dallas	TX	75235	Mailed	Return Receipt - Electronic, Certified Mail
9314869904300105478210	03/15/2023	Challenger Crude, Ltd.		400 West Illinois Ave.	Suite 1210	Midland	TX	79701	Mailed	Return Receipt - Electronic, Certified Mail
9314869904300105478227	03/15/2023	Read & Stevens, Inc.		300 N. Marienfeld St.	Suite 1000	Midland	TX	79701	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478234	03/15/2023	First Century Oil, Inc.		300 N. Marienfeld St.	Suite 1000	Midland	TX	79701	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478241	03/15/2023	Francis Hill Hudson	Trustee of Lindy's Living Trust	4200 S. Hulen St.	Suite 302	Fort Worth	TX	76109	Mailed	Return Receipt - Electronic, Certified Mail
9314869904300105478258	03/15/2023	Bank of America, N.A., Successor Trustee	of Delmar Hudson Lewis Living Trust	301 Commerce St.	Suite 2400	Fort Worth	TX	76102	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478265	03/15/2023	Magnum Hunter Production		600 N. Marienfeld St.	Suite 600	Midland	TX	79701	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478272	03/15/2023	Zorro Partners, Ltd.		616 Texas St.		Fort Worth	TX	76102	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478289	03/15/2023	Frost Bank, Trustee of the Josephine T.	Hudson Testamentary Trust FBO J. Terrell Ard	640 Taylor Street	17th floor	Fort Worth	TX	76102	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478296	03/15/2023	Ard Oil, LTD		PO Box 101027		Fort Worth	TX	76185	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478302	03/15/2023	Chase Oil Corporation		PO Box 1767		Artesia	NM	88211	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478319	03/15/2023	Avalon Energy Corporation		310 West Wall St.	Suite 305	Midland	TX	79701	Mailed	Return Receipt - Electronic, Certified Mail
9314869904300105478326	03/15/2023	Wilbanks Reserve Corporation		450 E. 17th Ave	Suite 220	Denver	CO	80203	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478333	03/15/2023	Prime Rock Resources AgentCo, Inc., as nominee	for the benefit of Prime Rock Resources, LLC	203 W. Wall Street	Suite 1000	Midland	TX	79701	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478340	03/15/2023	Marks Oil, Inc.		1775 Sherman St.	Suite 2990	Denver	CO	80203	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478357	03/15/2023	Javelina Partners		616 Texas St.		Fort Worth	TX	76102	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478364	03/15/2023	William A. Hudson, II		616 Texas St.		Fort Worth	TX	76102	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478371	03/15/2023	Union Hill Oil & Gas Co. Inc.		7712 Glenshannon Circle		Dallas	TX	75225	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478388	03/15/2023	MRC Permian Company		5400 LBJ Freeway	Suite 1500	Dallas	TX	75240	Mailed	Return Receipt - Electronic, Certified Mail
9314869904300105478395	03/15/2023	CM Resources II, LLC		300 N. Marienfeld St.	Suite 1000	Midland	TX	79701	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478401	03/15/2023	CBR Oil Properties, LLC		400 N. Pennsylvania	Suite 1080	Roswell	NM	88201	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478418	03/15/2023	Laura K. Read, LLC		P.O. Box 1090		Roswell	NM	88202	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478425	03/15/2023	Highland (Texas) Energy Company		11886 Greenville Ave	Suite 106	Dallas	TX	75243	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478432	03/15/2023	Richardson Oil Company, LLC		11886 Greenville Ave	Suite 106	Dallas	TX	75243	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478449	03/15/2023	Carolyn R. Beall		PO Box 3098		Midland	TX	79702	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478456	03/15/2023	Diamond Star Production Co., LLC		331 G St, SW		Ardmore	OK	73401	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478463	03/15/2023	Tierra Encantada, LLC		P.O. Box 811		Roswell	NM	88202	Delivered	Return Receipt - Electronic, Certified Mail
9314869904300105478470	03/15/2023	David Luna		P.O. Box 1518		Roswell	NM	88202	Delivered	Return Receipt - Electronic, Certified Mail





March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4784 70.**

**Item Details**

<b>Status:</b>	Delivered, Individual Picked Up at Post Office
<b>Status Date / Time:</b>	March 20, 2023, 09:18 a.m.
<b>Location:</b>	ROSWELL, NM 88201
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	David Luna

**Shipment Details**

**Weight:** 2.0oz

**Recipient Signature**

Signature of Recipient:	
Address of Recipient:	

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,  
United States Postal Service®  
475 L'Enfant Plaza SW  
Washington, D.C. 20260-0004

Information in this section provided by Covius Document Services, LLC.

**Reference Number:** 4207.25



March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4784 63.**

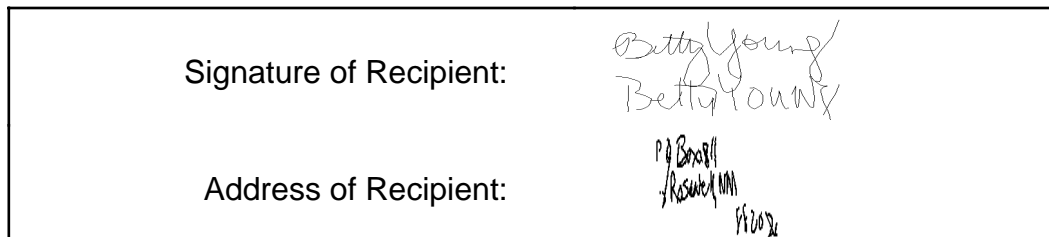
**Item Details**

<b>Status:</b>	Delivered, Individual Picked Up at Post Office
<b>Status Date / Time:</b>	March 20, 2023, 02:15 p.m.
<b>Location:</b>	ROSWELL, NM 88201
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Tierra Encantada LLC

**Shipment Details**

**Weight:** 2.0oz

**Recipient Signature**



Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

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Information in this section provided by Covius Document Services, LLC.

**Reference Number:** 4207.25



March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4784 56.**

**Item Details**

<b>Status:</b>	Delivered, Individual Picked Up at Post Office
<b>Status Date / Time:</b>	March 20, 2023, 09:58 a.m.
<b>Location:</b>	ARDMORE, OK 73401
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Diamond Star Production Co LLC


**Shipment Details**

<b>Weight:</b>	2.0oz
----------------	-------

**Destination Delivery Address**

<b>Street Address:</b>	331 G ST SW
<b>City, State ZIP Code:</b>	ARDMORE, OK 73401-4956

**Recipient Signature**

Signature of Recipient:	 James B Reath 331 G ST SW ARDMORE, OK 73401-4956
Address of Recipient:	331 G ST SW ARDMORE, OK 73401-4956

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

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Washington, D.C. 20260-0004

Information in this section provided by Covius Document Services, LLC.

**Reference Number:** 4207.25



March 22, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4784 49.**



**Item Details**

<b>Status:</b>	Delivered, Individual Picked Up at Post Office
<b>Status Date / Time:</b>	March 21, 2023, 03:19 p.m.
<b>Location:</b>	MIDLAND, TX 79701
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Carolyn R Beall

**Shipment Details**

**Weight:** 2.0oz

**Recipient Signature**

<p>Signature of Recipient: </p> <p>Address of Recipient: </p>
--

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

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United States Postal Service®  
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Washington, D.C. 20260-0004

Information in this section provided by Covius Document Services, LLC.

**Reference Number:** 4207.25



March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4784 32.**

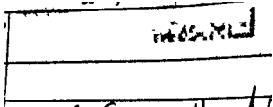

**Item Details**

**Status:** Delivered to Agent for Final Delivery  
**Status Date / Time:** March 20, 2023, 02:00 p.m.  
**Location:** DALLAS, TX 75243  
**Postal Product:** First-Class Mail®  
**Extra Services:** Certified Mail™  
 Return Receipt Electronic  
**Recipient Name:** Richardson Oil Company LLC

**Shipment Details**

**Weight:** 2.0oz

**Recipient Signature**

Signature of Recipient: (Authorized Agent)	
Address of Recipient:	

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

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Washington, D.C. 20260-0004

Information in this section provided by Covius Document Services, LLC.

**Reference Number:** 4207.25



March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4784 25**.

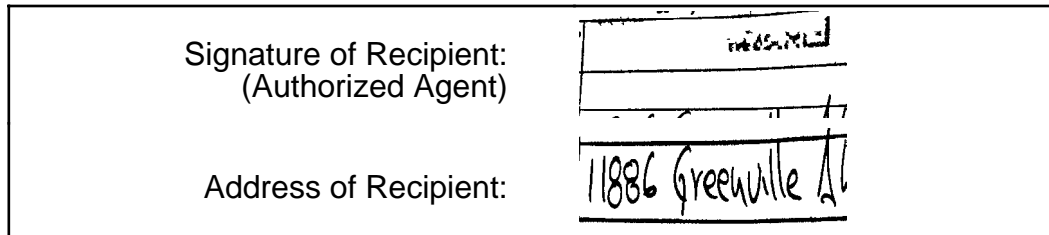
**Item Details**

<b>Status:</b>	Delivered to Agent for Final Delivery
<b>Status Date / Time:</b>	March 20, 2023, 02:00 p.m.
<b>Location:</b>	DALLAS, TX 75243
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Highland Texas Energy Company

**Shipment Details**

**Weight:** 2.0oz

**Recipient Signature**



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Information in this section provided by Covius Document Services, LLC.

**Reference Number:** 4207.25





March 23, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4784 18**.

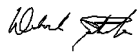
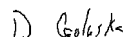
**Item Details**

<b>Status:</b>	Delivered, Individual Picked Up at Post Office
<b>Status Date / Time:</b>	March 22, 2023, 01:22 p.m.
<b>Location:</b>	ROSWELL, NM 88201
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Laura K Read LLC

**Shipment Details**

<b>Weight:</b>	2.0oz
----------------	-------

**Recipient Signature**

Signature of Recipient:	  <b>PO BOX 1090</b> <small>ROSWELL, NM 88202-1090</small>
Address of Recipient:	

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

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**Reference Number:** 4207.25



March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4784 01**.

**Item Details**

<b>Status:</b>	Delivered, Front Desk/Reception/Mail Room
<b>Status Date / Time:</b>	March 20, 2023, 11:16 a.m.
<b>Location:</b>	ROSWELL, NM 88201
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	CBR Oil Properties LLC

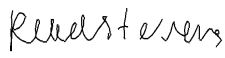
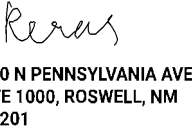
**Shipment Details**

<b>Weight:</b>	2.0oz
----------------	-------

**Destination Delivery Address**

<b>Street Address:</b>	400 N PENNSYLVANIA AVE STE 1080
<b>City, State ZIP Code:</b>	ROSWELL, NM 88201-4715

**Recipient Signature**

Signature of Recipient:	
Address of Recipient:	

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**Reference Number:** 4207.25



March 20, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4783 95**.

**Item Details**

<b>Status:</b>	Delivered, Left with Individual
<b>Status Date / Time:</b>	March 18, 2023, 11:17 a.m.
<b>Location:</b>	MIDLAND, TX 79701
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	CM Resources II LLC


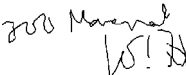
**Shipment Details**

**Weight:** 2.0oz

**Destination Delivery Address**

<b>Street Address:</b>	300 N MARIENFELD ST STE 1000
<b>City, State ZIP Code:</b>	MIDLAND, TX 79701-4688

**Recipient Signature**

Signature of Recipient:	
Address of Recipient:	

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**Reference Number:** 4207.25



March 20, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4783 71**.

**Item Details**

<b>Status:</b>	Delivered, Left with Individual
<b>Status Date / Time:</b>	March 18, 2023, 02:45 p.m.
<b>Location:</b>	DALLAS, TX 75225
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Union Hill Oil Gas Co Inc



**Shipment Details**

**Weight:** 8.0oz

**Destination Delivery Address**

<b>Street Address:</b>	7712 GLENSHANNON CIR
<b>City, State ZIP Code:</b>	DALLAS, TX 75225-2054

**Recipient Signature**

<p>Signature of Recipient: </p> <p>Address of Recipient: </p>
---

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**Reference Number:** 4207.25



March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4783 64.**

**Item Details**

<b>Status:</b>	Delivered, Left with Individual
<b>Status Date / Time:</b>	March 20, 2023, 03:22 p.m.
<b>Location:</b>	FORT WORTH, TX 76102
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	William A Hudson II


**Shipment Details**

**Weight:** 8.0oz

**Destination Delivery Address**

**City, State ZIP Code:** FORT WORTH, TX 76102-4662

**Recipient Signature**

<p>Signature of Recipient:</p> <p>Address of Recipient:</p>	 Corey 616 Texas St
---	--

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March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4783 57**.

**Item Details**

<b>Status:</b>	Delivered, Left with Individual
<b>Status Date / Time:</b>	March 20, 2023, 03:22 p.m.
<b>Location:</b>	FORT WORTH, TX 76102
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Javelina Partners


**Shipment Details**

**Weight:** 8.0oz

**Destination Delivery Address**

**City, State ZIP Code:** FORT WORTH, TX 76102-4662

**Recipient Signature**

Signature of Recipient:	
Address of Recipient:	Corey 616 Texas St

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**Reference Number:** 4207.25



March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4783 40.**

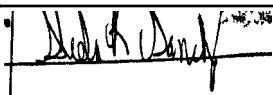
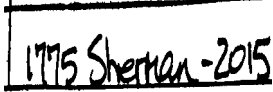
**Item Details**

**Status:** Delivered to Agent for Final Delivery  
**Status Date / Time:** March 20, 2023, 04:38 p.m.  
**Location:** DENVER, CO 80203  
**Postal Product:** First-Class Mail®  
**Extra Services:** Certified Mail™  
 Return Receipt Electronic  
**Recipient Name:** Marks Oil Inc

**Shipment Details**

**Weight:** 8.0oz

**Recipient Signature**

Signature of Recipient: (Authorized Agent)	
Address of Recipient:	

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**Reference Number:** 4207.25



March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4783 33.**

**Item Details**

<b>Status:</b>	Delivered, Left with Individual
<b>Status Date / Time:</b>	March 20, 2023, 04:37 p.m.
<b>Location:</b>	MIDLAND, TX 79701
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Prime Rock Resources AgentCo Inc as nominee f

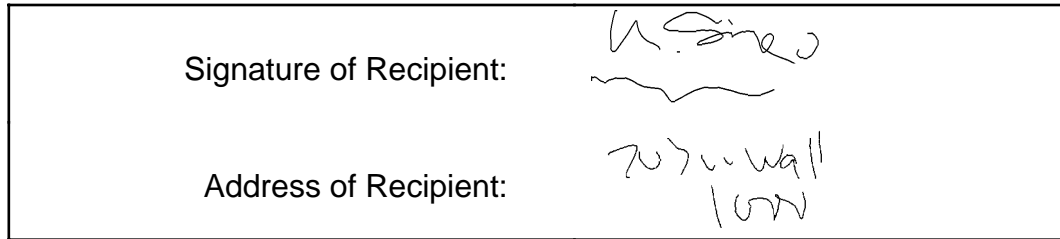
**Shipment Details**

<b>Weight:</b>	8.0oz
----------------	-------

**Destination Delivery Address**

<b>Street Address:</b>	203 W WALL ST STE 1000
<b>City, State ZIP Code:</b>	MIDLAND, TX 79701-4525

**Recipient Signature**



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March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4783 26**.

**Item Details**

<b>Status:</b>	Delivered, Front Desk/Reception/Mail Room
<b>Status Date / Time:</b>	March 20, 2023, 03:39 p.m.
<b>Location:</b>	DENVER, CO 80203
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Wilbanks Reserve Corporation

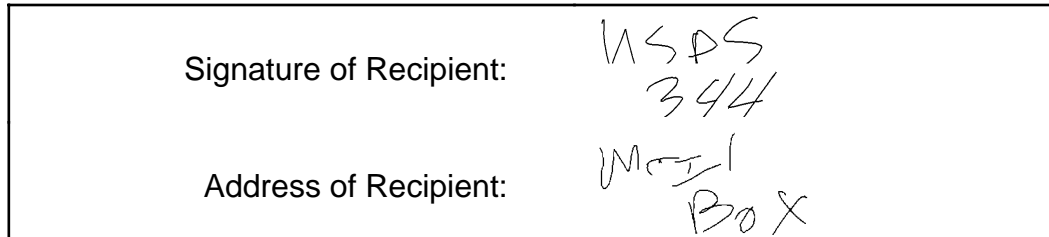
**Shipment Details**

<b>Weight:</b>	8.0oz
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**Destination Delivery Address**

<b>Street Address:</b>	450 E 17TH AVE UNIT 220
<b>City, State ZIP Code:</b>	DENVER, CO 80203-1254

**Recipient Signature**



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March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4783 02.**

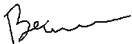

**Item Details**

<b>Status:</b>	Delivered, Individual Picked Up at Post Office
<b>Status Date / Time:</b>	March 20, 2023, 11:20 a.m.
<b>Location:</b>	ARTESIA, NM 88210
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Chase Oil Corporation

**Shipment Details**

**Weight:** 8.0oz

**Recipient Signature**

<p>Signature of Recipient: </p> <p>Address of Recipient: </p>
---

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March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4782 96.**

**Item Details**

<b>Status:</b>	Delivered
<b>Status Date / Time:</b>	March 20, 2023, 06:53 a.m.
<b>Location:</b>	FORT WORTH, TX 76185
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Ard Oil LTD

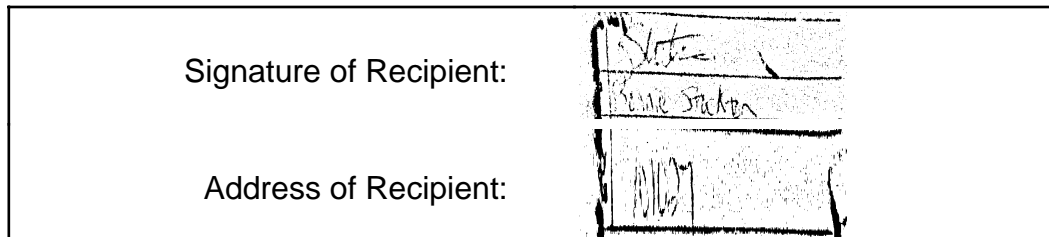
**Shipment Details**

**Weight:** 8.0oz

**Destination Delivery Address**

<b>Street Address:</b>	PO BOX 101027
<b>City, State ZIP Code:</b>	FORT WORTH, TX 76185-1027

**Recipient Signature**



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March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4782 89.**

**Item Details**

<b>Status:</b>	Delivered, Left with Individual
<b>Status Date / Time:</b>	March 20, 2023, 01:05 p.m.
<b>Location:</b>	FORT WORTH, TX 76102
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Frost Bank Trustee of the Josephine T Hudson T

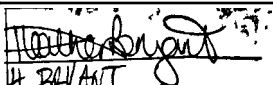
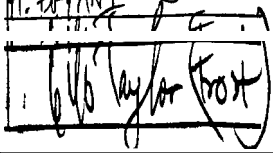
**Shipment Details**

**Weight:** 8.0oz

**Destination Delivery Address**

<b>Street Address:</b>	640 TAYLOR ST
<b>City, State ZIP Code:</b>	FORT WORTH, TX 76102-4809

**Recipient Signature**

Signature of Recipient:	
Address of Recipient:	

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March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4782 72.**

**Item Details**

<b>Status:</b>	Delivered, Left with Individual
<b>Status Date / Time:</b>	March 20, 2023, 03:22 p.m.
<b>Location:</b>	FORT WORTH, TX 76102
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Zorro Partners Ltd


**Shipment Details**

**Weight:** 8.0oz

**Destination Delivery Address**

**City, State ZIP Code:** FORT WORTH, TX 76102-4662

**Recipient Signature**

<p>Signature of Recipient:</p> <p>Address of Recipient:</p>	 Corey 616 Texas St
---	--

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March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4782 65.**

**Item Details**

<b>Status:</b>	Delivered, Individual Picked Up at Post Office
<b>Status Date / Time:</b>	March 20, 2023, 01:10 p.m.
<b>Location:</b>	MIDLAND, TX 79701
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Magnum Hunter Production

**Shipment Details**

<b>Weight:</b>	8.0oz
----------------	-------

**Destination Delivery Address**

<b>Street Address:</b>	600 N MARIENFELD ST STE 600
<b>City, State ZIP Code:</b>	MIDLAND, TX 79701-4405

**Recipient Signature**

Signature of Recipient:	
Address of Recipient:	

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Information in this section provided by Covius Document Services, LLC.

**Reference Number:** 4207.25



March 24, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4782 58.**

**Item Details**

<b>Status:</b>	Delivered, Left with Individual
<b>Status Date / Time:</b>	March 23, 2023, 11:16 a.m.
<b>Location:</b>	FORT WORTH, TX 76102
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Bank of America N A Successor Trustee of Delm

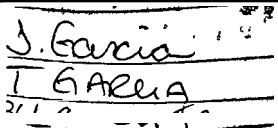
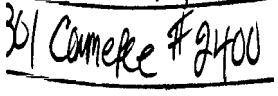
**Shipment Details**

<b>Weight:</b>	8.0oz
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**Destination Delivery Address**

<b>Street Address:</b>	301 COMMERCE ST STE 2400
<b>City, State ZIP Code:</b>	FORT WORTH, TX 76102-4124

**Recipient Signature**

Signature of Recipient:	
Address of Recipient:	

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**Reference Number:** 4207.25



March 20, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4782 34.**

**Item Details**

<b>Status:</b>	Delivered, Left with Individual
<b>Status Date / Time:</b>	March 18, 2023, 11:17 a.m.
<b>Location:</b>	MIDLAND, TX 79701
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	First Century Oil Inc


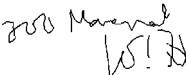
**Shipment Details**

**Weight:** 8.0oz

**Destination Delivery Address**

<b>Street Address:</b>	300 N MARIENFELD ST STE 1000
<b>City, State ZIP Code:</b>	MIDLAND, TX 79701-4688

**Recipient Signature**

Signature of Recipient:	
Address of Recipient:	

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Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,  
United States Postal Service®  
475 L'Enfant Plaza SW  
Washington, D.C. 20260-0004

Information in this section provided by Covius Document Services, LLC.

**Reference Number:** 4207.25





March 20, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4782 27**.

**Item Details**

<b>Status:</b>	Delivered, Left with Individual
<b>Status Date / Time:</b>	March 18, 2023, 11:17 a.m.
<b>Location:</b>	MIDLAND, TX 79701
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Read Stevens Inc



**Shipment Details**

<b>Weight:</b>	8.0oz
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**Destination Delivery Address**

<b>Street Address:</b>	300 N MARIENFELD ST STE 1000
<b>City, State ZIP Code:</b>	MIDLAND, TX 79701-4688

**Recipient Signature**

Signature of Recipient:	
Address of Recipient:	

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,  
United States Postal Service®  
475 L'Enfant Plaza SW  
Washington, D.C. 20260-0004

Information in this section provided by Covius Document Services, LLC.

**Reference Number:** 4207.25



March 21, 2023

Dear WALZ GROUP:

The following is in response to your request for proof of delivery on your item with the tracking number: **9314 8699 0430 0105 4781 80.**

**Item Details**

<b>Status:</b>	Delivered, Left with Individual
<b>Status Date / Time:</b>	March 20, 2023, 11:33 a.m.
<b>Location:</b>	HOBBS, NM 88240
<b>Postal Product:</b>	First-Class Mail®
<b>Extra Services:</b>	Certified Mail™ Return Receipt Electronic
<b>Recipient Name:</b>	Bureau of Land Management



**Shipment Details**

**Weight:** 8.0oz

**Destination Delivery Address**

<b>Street Address:</b>	414 W TAYLOR ST
<b>City, State ZIP Code:</b>	HOBBS, NM 88240-6054

**Recipient Signature**

<p>Signature of Recipient: </p> <p>Address of Recipient: </p>
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Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,  
United States Postal Service®  
475 L'Enfant Plaza SW  
Washington, D.C. 20260-0004

Information in this section provided by Covius Document Services, LLC.

**Reference Number:** 4207.25

# Affidavit of Publication

STATE OF NEW MEXICO  
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated  
March 17, 2023  
and ending with the issue dated  
March 17, 2023.



Publisher

Sworn and subscribed to before me this  
17th day of March 2023.



Business Manager

My commission expires  
January 29, 2027

(Seal) STATE OF NEW MEXICO  
NOTARY PUBLIC  
GUSSIE RUTH BLACK  
COMMISSION # 1087528  
COMMISSION EXPIRES 01/29/2027

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

### LEGAL NOTICE March 17, 2023

**CASE No. 23448:** Notice -- to all parties and persons having any right, title, interest or claim in this case, including owners of working interest, overriding royalty interest, and record title, among others, whether such parties or persons are listed herein or not, as well as notice to all known and unknown heirs, devisees, assigns and successors of such affected parties and persons, which based on reasonable diligence include MOORE & SHELTON CO., LTD; HOG PARTNERSHIP, LP; CHALLENGER CRUDE, LTD.; READ & STEVENS, INC.; FIRST CENTURY OIL, INC.; FRANCIS HILL HUDSON, TRUSTEE OF LINDY'S LIVING TRUST; BANK OF AMERICA, N.A., SUCCESSOR TRUSTEE OF THE DELMAR HUDSON LEWIS LIVING TRUST; MAGNUM HUNTER PRODUCTION; ZORRO PARTNERS, LTD.; FROST BANK, TRUSTEE OF THE JOSEPHINE T. HUDSON TESTAMENTARY TRUST FBO J. TERRELL ARD; ARD OIL, LTD; CHASE OIL CORPORATION; AVALON ENERGY CORPORATION; WILBANKS RESERVE CORPORATION; PRIME ROCK RESOURCES AGENTCO, INC., AS NOMINEE FOR THE BENEFIT OF PRIME ROCK RESOURCES, LLC; MARKS OIL, INC.; JAVELINA PARTNERS; WILLIAM A. HUDSON, II and UNION HILL OIL & GAS CO. INC., of Cimarex Energy Co.'s application for approval of a spacing unit and compulsory pooling, Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division Examiner will conduct a public hearing at 8:15 a.m. on April 6, 2023, traditionally held at 1220 S. St. Francis, Santa Fe, New Mexico, 87505. However, under current Division policies, the hearing will be conducted remotely online. For information about remote access and the status of the case, you can visit the Division's website at: <https://www.emnrd.nm.gov/ocd/hearing-info/> or call (505) 476-3441. Cimarex Energy Co. (operational office at 600 N. Marlenfeld St. Suite 600, 79701; HQ office at 1700 Lincoln Street, Suite 3700, Denver CO 80203) seeks an order from the Division: (1) establishing a standard 320.09-acre, more or less, horizontal spacing and proration unit comprised of Lot 1 (NE/4 NE/4 equivalent), the SE/4 NE/4, and the E/2 SE/4 of Section 5 and the E/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, and (2) pooling all uncommitted mineral interests from a depth of 9,373 feet (top of first Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], to a depth of 10,845 feet, that being the base of said Bone Spring, designated as an oil pool, underlying the unit. Section 5 is an irregular section containing correction lots. The proposed wells to be dedicated to the horizontal spacing unit are the **Mighty Pheasant 5-8 Fed Com 204H Well** and the **Mighty Pheasant 5-8 Fed Com 304H Well**, both oil wells, to be horizontally drilled from surface locations in the SW/4 SE/4 (Unit O) of Section 32, Township 19 South, Range 34 East, NMPM, to bottom hole locations in the SE/4 SE/4 (Unit P) of Section 8, Township 20 South, Range 34 East, NMPM. The wells will be orthodox, and the take points and completed interval will comply with the setback requirements under the statewide Rules; also to be considered will be the cost of drilling and completing the wells and the allocation of the costs thereof; actual operating costs and charges for supervision; the designation of the Applicant as Operator of the wells and unit; and a 200% charge for the risk involved in drilling and completing the wells. The wells and lands are located approximately 40 miles northeast of Carlsbad, New Mexico. #00276727

67115820

00276727

DAVID SESSIONS  
ABADIE SCHILL  
555 RIVERGATE LANE 84-180  
DURANGO, CO 81301

EXHIBIT  
E-3

# Affidavit of Publication

STATE OF NEW MEXICO  
COUNTY OF LEA

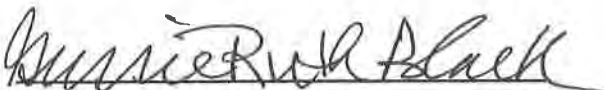
I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated  
March 17, 2023  
and ending with the issue dated  
March 17, 2023.



Publisher

Sworn and subscribed to before me this  
17th day of March 2023.



Business Manager

My commission expires  
January 29, 2027

(Seal)

STATE OF NEW MEXICO  
NOTARY PUBLIC  
GUSSIE RUTH BLACK  
COMMISSION # 1087528  
COMMISSION EXPIRES 01/29/2027

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

## LEGAL NOTICE March 17, 2023

**CASE No. 23449:** Notice -- to all parties and persons having any right, title, interest or claim in this case, including owners of working interest, overriding royalty interest, and record title, among others, whether such parties or persons are listed herein or not, as well as notice to all known and unknown heirs, devisees, assigns and successors of such affected parties and persons, which based on reasonable diligence include MOORE & SHELTON CO., LTD; HOG PARTNERSHIP, LP; CHALLENGER CRUDE, LTD.; READ & STEVENS, INC.; FIRST CENTURY OIL, INC.; FRANCIS HILL HUDSON, TRUSTEE OF LINDY'S LIVING TRUST; BANK OF AMERICA, N.A., SUCCESSOR TRUSTEE OF THE DELMAR HUDSON LEWIS LIVING TRUST; MAGNUM HUNTER PRODUCTION; ZORRO PARTNERS, LTD.; FROST BANK, TRUSTEE OF THE JOSEPHINE T. HUDSON TESTAMENTARY TRUST FBO J. TERRELL ARD; ARD OIL, LTD; CHASE OIL CORPORATION; AVALON ENERGY CORPORATION; WILBANKS RESERVE CORPORATION; PRIME ROCK RESOURCES AGENTCO, INC., AS NOMINEE FOR THE BENEFIT OF PRIME ROCK RESOURCES, LLC; MARKS OIL, INC.; JAVELINA PARTNERS; WILLIAM A. HUDSON, II; UNION HILL OIL & GAS CO. INC.; HIGHLAND (TEXAS) ENERGY COMPANY; RICHARDSON OIL COMPANY, LLC; CAROLYN R. BEALL; DIAMOND STAR PRODUCTION CO., LLC; TIERRA ENCANTADA, LLC AND DAVID LUNA, of Cimarex Energy Co.'s application for approval of a spacing unit and compulsory pooling, Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division Examiner will conduct a public hearing at 8:15 a.m. on April 6, 2023, traditionally held at 1220 S. St. Francis, Santa Fe, New Mexico, 87505. However, under current Division policies, the hearing will be conducted remotely online. For information about remote access and the status of the case, you can visit the Division's website at: <https://www.emnrd.nm.gov/ocd/hearing-info/> or call (505) 476-3441; Cimarex Energy Co. (operational office at 600 N. Marientfeld St. Suite 600, 79701; HQ office at 1700 Lincoln Street, Suite 3700, Denver CO 80203) seeks an order from the Division: (1) establishing a standard 320.01-acre, more or less, horizontal spacing and proration unit comprised of Lot 4 (NW/4 NW/4 equivalent), the SW/4 NW/4, and the W/2 SW/4 of Section 5 and the W/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, and (2) pooling all uncommitted mineral interests from a depth of 9,373 feet (top of first Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], to a depth of 10,845 feet, that being the base of said Bone Spring, designated as an oil pool, underlying the unit. Section 5 is an irregular section containing correction lots. The proposed well to be dedicated to the horizontal spacing unit is the **Mighty Pheasant 5-8 Fed Com 301H Well**, an oil well, to be horizontally drilled from a surface location in Lot 4 (NW/4 NW/4 equivalent) of Section 5 to a bottom hole location in the SW/4 SW/4 (Unit M) of Section 8. The well will be orthodox, and the take points and completed interval will comply with the setback requirements under the statewide Rules; also to be considered will be the cost of drilling and completing the well and the allocation of the costs thereof; actual operating costs and charges for supervision; the designation of the Applicant as Operator of the well and unit; and a 200% charge for the risk involved in drilling and completing the well. The well and lands are located approximately 40 miles northeast of Carlsbad, New Mexico.  
#00276729

67115820

00276729

DAVID SESSIONS  
ABADIE SCHILL  
555 RIVERGATE LANE 84-180  
DURANGO, CO 81301

# Affidavit of Publication

STATE OF NEW MEXICO  
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated  
March 17, 2023  
and ending with the issue dated  
March 17, 2023.



Publisher

Sworn and subscribed to before me this  
17th day of March 2023.



Business Manager

My commission expires  
January 29, 2027

(Seal) STATE OF NEW MEXICO  
NOTARY PUBLIC  
GUSSIE RUTH BLACK  
COMMISSION # 1087526  
COMMISSION EXPIRES 01/29/2027

**LEGAL NOTICE**  
March 17, 2023

**CASE No. 23450:** Notice -- to all parties and persons having any right, title, interest or claim in this case, including owners of working interest, overriding royalty interest, and record title, among others, whether such parties or persons are listed herein or not, as well as notice to all known and unknown heirs, devisees, assigns and successors of such affected parties and persons, which based on reasonable diligence include MOORE & SHELTON CO., LTD; HOG PARTNERSHIP, LP; CHALLENGER CRUDE, LTD.; READ & STEVENS, INC.; FIRST CENTURY OIL, INC.; FRANCIS HILL HUDSON, TRUSTEE OF LINDY'S LIVING TRUST; BANK OF AMERICA, N.A., SUCCESSOR TRUSTEE OF THE DELMAR HUDSON LEWIS LIVING TRUST; MAGNUM HUNTER PRODUCTION; ZORRO PARTNERS, LTD.; FROST BANK, TRUSTEE OF THE JOSEPHINE T. HUDSON TESTAMENTARY TRUST FBO J. TERRELL ARD; ARD OIL, LTD; CHASE OIL CORPORATION; AVALON ENERGY CORPORATION; WILBANKS RESERVE CORPORATION; PRIME ROCK RESOURCES AGENTCO, INC., AS NOMINEE FOR THE BENEFIT OF PRIME ROCK RESOURCES, LLC; MARKS OIL, INC.; JAVELINA PARTNERS; WILLIAM A. HUDSON, II; UNION HILL OIL & GAS CO. INC.; MRC PERMIAN COMPANY; CM RESOURCES II, LLC; CBR OIL PROPERTIES, LLC AND LAURA K. READ, LLC, of Cimarex Energy Co.'s application for approval of a spacing unit and compulsory pooling, Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division Examiner will conduct a public hearing at 8:15 a.m. on April 6, 2023, traditionally held at 1220 S. St. Francis, Santa Fe, New Mexico, 87505. However, under current Division policies, the hearing will be conducted remotely online. For information about remote access and the status of the case, you can visit the Division's website at: <https://www.emnrd.nm.gov/ocd/hearing-info/> or call (505) 476-3441. Cimarex Energy Co. (operational office at 600 N. Marienfeld St, Suite 600, 79701; HQ office at 1700 Lincoln Street, Suite 3700, Denver CO 80203) seeks an order from the Division: (1) creating a standard 320.04-acre, more or less, horizontal spacing and proration unit comprised of Lot 3 (NE/4 NW/4 equivalent), the SE/4 NW/4, and the E/2 SW/4 of Section 5 and the E/2 W/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, and (2) pooling all uncommitted mineral interests from a depth of 9,373 feet (top of first Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], to a depth of 10,845 feet, that being the base of said Bone Spring, designated as an oil pool, underlying the unit. Section 5 is an irregular section containing correction lots. The proposed well to be dedicated to the horizontal spacing unit is the **Mighty Pheasant 5-8 Fed Com 302H Well**, an oil well, to be horizontally drilled from a surface location in Lot 4 (NW/4 NW/4 equivalent) of Section 5 to a bottom hole location in the SE/4 SW/4 (Unit N) of Section 8. The well will be orthodox, and the take points and completed interval will comply with the setback requirements under the statewide Rules; also to be considered will be the cost of drilling and completing the well and the allocation of the costs thereof; actual operating costs and charges for supervision; the designation of the Applicant as Operator of the well and unit; and a 200% charge for the risk involved in drilling and completing the well. The well and lands are located approximately 40 miles northeast of Carlsbad, New Mexico.  
#00276730

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00276730

DAVID SESSIONS  
ABADIE SCHILL  
555 RIVERGATE LANE 84-180  
DURANGO, CO 81301

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# Affidavit of Publication

STATE OF NEW MEXICO  
COUNTY OF LEA

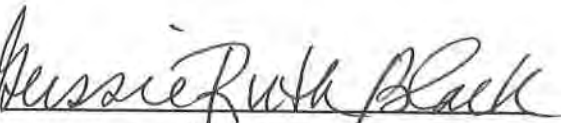
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and ending with the issue dated  
March 17, 2023.



Publisher

Sworn and subscribed to before me this  
17th day of March 2023.



Business Manager

My commission expires  
January 29, 2027

(Seal) STATE OF NEW MEXICO  
NOTARY PUBLIC  
GUSSIE RUTH BLACK  
COMMISSION # 1087528  
COMMISSION EXPIRES 01/29/2027

**LEGAL NOTICE**  
March 17, 2023

**CASE No. 23451:** Notice -- to all parties and persons having any right, title, interest or claim in this case, including owners of working interest, overriding royalty interest, and record title, among others, whether such parties or persons are listed herein or not, as well as notice to all known and unknown heirs, devisees, assigns and successors of such affected parties and persons, which based on reasonable diligence include MOOHE & SHELTON CO., LTD; HOG PARTNERSHIP, LP; CHALLENGER CRUDE, LTD.; READ & STEVENS, INC.; FIRST CENTURY OIL, INC.; FRANCIS HILL HUDSON, TRUSTEE OF LINDY'S LIVING TRUST; BANK OF AMERICA, N.A., SUCCESSOR TRUSTEE OF THE DELMAR HUDSON LEWIS LIVING TRUST; MAGNUM HUNTER PRODUCTION; ZORRO PARTNERS, LTD.; FROST BANK, TRUSTEE OF THE JOSEPHINE T. HUDSON TESTAMENTARY TRUST FBO J. TERRELL ARD; ARD OIL, LTD; CHASE OIL CORPORATION; AVALON ENERGY CORPORATION; WILBANKS RESERVE CORPORATION; PRIME ROCK RESOURCES AGENTCO, INC., AS NOMINEE FOR THE BENEFIT OF PRIME ROCK RESOURCES, LLC; MARKS OIL, INC.; JAVELINA PARTNERS; WILLIAM A. HUDSON, II and UNION HILL OIL & GAS CO. INC., of Cimarex Energy Co.'s application for approval of a spacing unit and compulsory pooling, Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division Examiner will conduct a public hearing at 8:15 a.m. on April 6, 2023, traditionally held at 1220 S. St. Francis, Santa Fe, New Mexico, 87505. However, under current Division policies, the hearing will be conducted remotely online. For information about remote access and the status of the case, you can visit the Division's website at: <https://www.emnrd.nm.gov/ocd/hearing-info/> or call (505) 476-3441. Cimarex Energy Co. (operational office at 600 N. Marientfeld St. Suite 600, 79701; HQ office at 1700 Lincoln Street, Suite 3700, Denver CO 80203) seeks an order from the Division: (1) establishing a standard 320.06-acre, more or less, horizontal spacing and proration unit comprised of Lot 2 (NW/4 NE/4 equivalent), the SW/4 NE/4, and the W/2 SE/4 of Section 5 and the W/2 E/2 of Section 8, in Township 20 South, Range 34 East, NMPM, Lea County, New Mexico, and (2) pooling all uncommitted mineral interests from a depth of 9,373 feet (top of first Bone Spring) in the Quail Ridge; Bone Spring formation [Pool Code 50460], to a depth of 10,845 feet, that being the base of said Bone Spring, designated as an oil pool, underlying the unit. Section 5 is an irregular section containing correction lots. The proposed well to be dedicated to the horizontal spacing unit is the **Mighty Pheasant 5-8 Fed Com 303H Well**, an oil well, to be horizontally drilled from a surface location in the SW/4 SE/4 (Unit O) of Section 32, Township 19 South, Range 34 East, NMPM, to a bottom hole location in the SW/4 SE/4 (Unit O) of Section 8, Township 20 South, Range 34 East, NMPM. The well will be orthodox, and the take points and completed interval will comply with the setback requirements under the statewide Rules; also to be considered will be the cost of drilling and completing the well and the allocation of the costs thereof; actual operating costs and charges for supervision; the designation of the Applicant as Operator of the well and unit; and a 200% charge for the risk involved in drilling and completing the well. The well and lands are located approximately 40 miles northeast of Carlsbad, New Mexico.  
#00276732

67115820

00276732

DAVID SESSIONS  
ABADIE SCHILL  
555 RIVERGATE LANE 84-180  
DURANGO, CO 81301

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