

Before the Oil Conservation Division Examiner Hearing May 16, 2019

Case No. 20169:

Ned Pepper 18 WA Federal Com 2H, Ned Pepper 18 WXY Federal Com 6H, Ned Pepper 18 WA Federal Com 9H



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

**APPLICATION OF MARATHON
OIL PERMIAN LLC FOR APPROVAL
OF A SPACING UNIT, COMPULSORY POOLING,
AND ALLOCATION FORMULA
LEA COUNTY, NEW MEXICO.**

CASE NO. 20169

AMENDED APPLICATION

Marathon Oil Permian LLC ("Marathon"), OGRID Number 372098, through its undersigned attorneys, hereby submits this amended application to the Oil Conservation Division pursuant to the provisions of NMSA (1978), Section 70-2-17, for an order: (1) approving the creation of a 320-acre, more or less, spacing unit covering the W/2 of Section 18, Township 24 South, Range 34 East, NMPM, Lea County, New Mexico underlying the Wolfcamp formation; and (2) pooling all uncommitted mineral interests in the proposed spacing unit. In support of this application, Marathon states as follows:

1. Marathon is an interest owner in the subject lands and has a right to drill a well thereon.
2. Marathon seeks to dedicate the W/2 of Section 18, Township 24 South, Range 34 East, NMPM, Lea County, New Mexico underlying the Wolfcamp formation to form a 320-acre, more or less, spacing unit.
3. Marathon plans to drill the **Ned Pepper Federal 24 34 18 WA 2H**, **Ned Pepper Federal 24 34 18 WXY 6H**, and **Ned Pepper Federal 24 34 18 WA 9H** wells to a depth sufficient to test the Wolfcamp formation. These wells will be horizontally drilled and will comply with the

Division's setback requirements. The location of the Ned Pepper Federal 24 34 18 WXY 6H well is less than 330' from the adjoining 40-acre tracts and the Division's rules allow for the inclusion of proximity tracts within the proposed spacing unit for the wells.

4. Ownership is uniform across the Wolfcamp formation except for a 5.02083320 net acre interest ("5 Acre Interest") which changes working interest ownership at 100' below the top of the Wolfcamp formation.

5. One working interest owner owns that 5 Acre Interest as to the top 100' of the Wolfcamp, ("Top Interest Owner"), and another working interest owner owns that 5 Acre Interest as to depths below 100' from the top of the Wolfcamp ("Bottom Interest Owner").

6. Marathon proposes the following allocation formula to address the difference in working interest ownership. Only as to the 5 Acre Interest Marathon proposes to allocate 20% of production from the unit attributable to the 5 Acre Interest to the Top Interest Owner and the remaining 80% of production from the unit attributable to the 5 Acre Interest to the Bottom Interest Owner. This same allocation formula would apply to allocation of costs.

7. Marathon sought, but has been unable to obtain a voluntary agreement from all interest owners in the proposed depths within the Wolfcamp formation underlying the proposed spacing unit to participate in the drilling of the wells or to otherwise commit their interests to the wells.

8. The creation of a spacing unit, pooling of the proposed depths in the Wolfcamp formation underlying the proposed unit, and approving Marathon's proposed allocation formula will prevent the drilling of unnecessary wells, prevent waste and protect correlative rights.

9. Marathon further requests that it be allowed one (1) year between the time the first well is drilled and completion of the well.

WHEREFORE, this application will be set for hearing on May 16, 2019 before an Examiner of the Oil Conservation Division, Marathon requests that after notice and hearing as required by law, the Division enter its order:

A. Approving the creation of a 320-acre, more or less, spacing unit covering the W/2 of Section 18, Township 24South, Range 34 East, NMPM, Lea County, New Mexico covering the Wolfcamp formation;

B. Pooling all mineral interests in the Wolfcamp formation underlying this spacing unit;

C. Designating Marathon as operator of this unit and the well to be drilled thereon;

D. Approving Marathon's allocation formula;

E. Authorizing Marathon to recover its costs of drilling, equipping and completing this well;


F. Approving actual operating charges and costs charged for supervision, together with a provision adjusting the rates pursuant to the COPAS accounting procedure;

G. Setting a 200% charge for the risk involved in drilling and completing the well in the event a working interest owner elects not to participate in the well.

H. Allowing a period of one (1) year between when the first well is drilled and when completion operations are commenced for the first well under the order.

Respectfully submitted,

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

By: 
Deana M. Bennett

Post Office Box 2168
500 Fourth Street NW, Suite 1000
Albuquerque, New Mexico 87103-2168
Telephone: 505.848.1800
Attorney for Applicant

CASE NO. 20169: Amended Application of Marathon Oil Permian LLC for a spacing unit and compulsory pooling, Lea County, New Mexico. Applicant seeks an order from the Division: (1) approving the creation of a 320-acre, more or less, spacing unit covering the W/2 of Section 18, Township 24 South, Range 34 East, NMPM, Lea County, New Mexico underlying the Wolfcamp formation; and (2) pooling all uncommitted mineral interests in the proposed spacing unit. This proposed spacing unit will be dedicated to the **Ned Pepper Federal 24 34 18 WA 2H**, **Ned Pepper Federal 24 34 18 WXY 6H**, and **Ned Pepper Federal 24 34 18 WA 9H** wells, to be horizontally drilled. The producing area for the wells will be orthodox. Also to be considered will be the approval of Marathon's allocation formula, the cost of drilling and completing said wells, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the wells, and a 200% charge for risk involved in drilling said wells, and allowing a one year period between when the first well is drilled and when completion operations are commenced for the first well drilled. Said area is located approximately 20 miles northwest of Jal, New Mexico.

Exhibit 1

6. This proposed spacing unit will be dedicated to the **Ned Pepper 18 WA Federal 2H, Ned Pepper 18 WXY Federal 6H, and Ned Pepper 18 WA Federal 9H** wells, to be horizontally drilled.

7. I have conducted a diligent search of the public records in the county where the wells are located, and conducted phone directory and computer searches to locate contact information for parties entitled to notification, and mailed all parties well proposals, including an Authorization for Expenditure. In my opinion, Marathon has made a good faith effort to obtain voluntary joinder of the working interest owners in the proposed wells.

8. A lease tract map outlining the unit being pooled is attached hereto as **Exhibit A**. The parties being pooled and the percent of their interests is also included as part of Exhibit A.

9. Ownership is uniform across the Wolfcamp formation except for a 5.02083320 net acre interest ("5 Acre Interest") which changes working interest ownership at 100' below the top of the Wolfcamp formation.

10. The ownership change was created by a depth release clause in an oil and gas lease when the lease expired as to depths 100' below the deepest producing formation. The language creating the ownership change is provided in **Exhibit B**.

11. One working interest owner owns that 5 Acre Interest as to the top 100' of the Wolfcamp, and another working interest owner owns that 5 Acre Interest as to depths below 100' from the top of the Wolfcamp.

12. Marathon has reached an agreement with the affected working interest owners as to allocation with respect to the 5 Acre Interest.

13. Marathon is not requesting that the Division approve an allocation formula and Marathon withdraws that request from its application.

14. Attached as **Exhibit C** are proposed C-102s for the wells. The wells will develop the Antelope Ridge (Wolfcamp) pool, pool code 2220, which is a(n) oil pool.

15. Marathon was required to change the well names by the Bureau of Land Management which is why the C-102s have a different well name than the application. Marathon requests that the order use the well names as identified on the C-102s.

16. The producing interval for the wells will be orthodox and will comply with the Division's set back requirements.

17. The location of the Ned Pepper Federal 24 34 18 WXY 6H well is less than 330' from the adjoining 40-acre tracts and the Division's rules allow for the inclusion of proximity tracts within the proposed spacing unit for the wells.

18. **Exhibit D** is an example of the proposal letters sent to working interest owners.

19. **Exhibit E** contains the Authorization for Expenditure for the proposed wells. The estimated cost of the wells set forth therein is fair and reasonable, and is comparable to the costs of other wells of similar depths and length drilled in this area of New Mexico.

20. Marathon requests overhead and administrative rates of \$7,000/month for drilling a well and \$700/month for a producing 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. Marathon requests that these rates be adjusted periodically as provided in the COPAS Accounting Procedure.

21. Marathon requests the maximum cost plus 200% risk charge be assessed against non-consenting working interest owners.

22. Marathon requests that it be designated operator of the wells.

23. Marathon requests that it be allowed a period of one (1) year between when the wells are drilled and when the first well is completed under the order.

24. The parties Marathon is seeking to pool were notified of this hearing.

25. Marathon requests that overriding royalty interest owners be pooled.

26. **Exhibit F** is an affidavit of notice prepared by counsel for Marathon that shows the parties who were notified of this hearing, the status of whether they received notice, and an affidavit of publication from the Hobbs News Sun newspaper, showing that notice of this hearing was published on May 1, 2019.

27. The attachments to this affidavit were prepared by me, or compiled from company business records, or were prepared at my direction.

28. I attest that the information provided herein is correct and complete to the best of my knowledge and belief.

29. The granting of these applications is in the interests of conservation and the prevention of waste.

[Signature page follows]

Ryan Gyllenband
Ryan Gyllenband

SUBSCRIBED AND SWORN to before me this 14th day of May, 2019 by Ryan Gyllenband on behalf of Marathon Oil Permian LLC.

Jessica Gorman
Notary Public

My commission expires: 1/23/2023

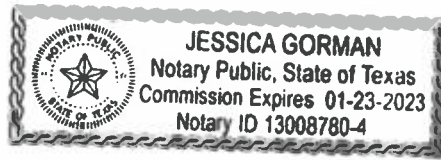


Exhibit A

Exhibit "A" Lease Tract Map

Ned Pepper 18 WA Federal Com 2H, Ned Pepper 18 WXY Federal Com 6H, Ned Pepper 18 WA Federal Com 9H
W/2 of Section 18, 24S-34E – 320 acres

- Tract 1: Fed Acreage
- Tract 2: Fee Acreage
- Tract 3: Fee Acreage
- Tract 4: Fee Acreage

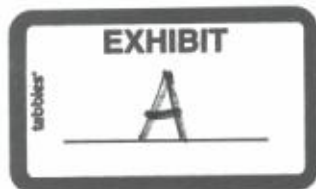
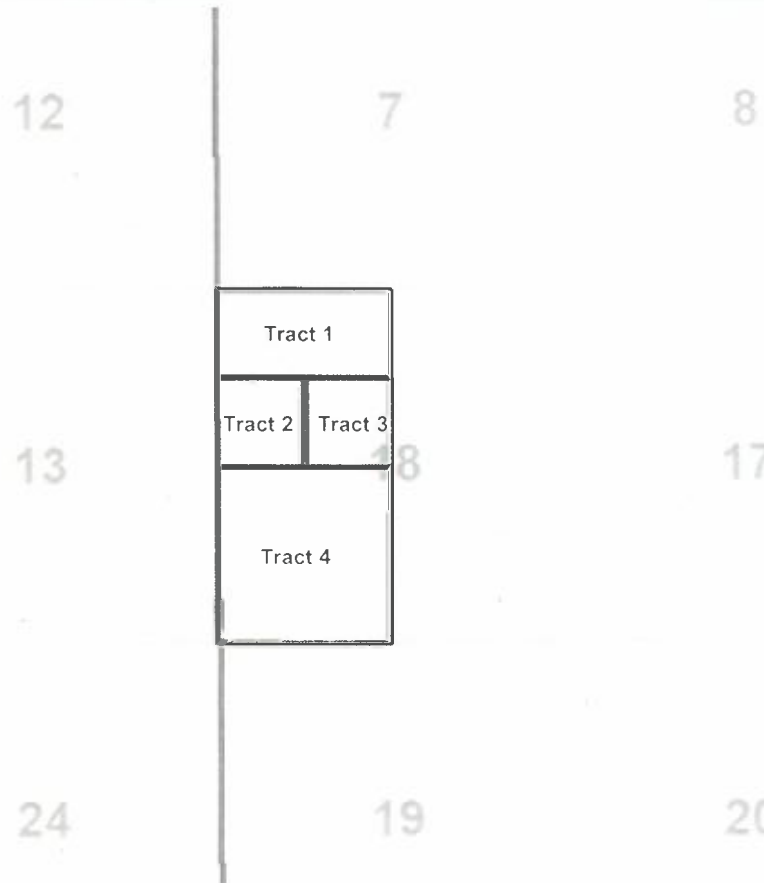


Exhibit "A" Summary of Interests

**Ned Pepper 18 WA Federal Com 2H, Ned Pepper 18 WXY Federal Com 6H, Ned Pepper 18 WA Federal Com 9H
W/2 of Section 18, 24S-34E – 320 acres**

Committed Working Interest:

Marathon Oil Permian LLC
Joel Talley

61.083326%
0.441889%

61.525215%

Uncommitted Working Interest:

COG Operating, LLC
Energen Resources Corporation
MRC Permian Company

34.056802%
2.044823%
0.974927%

37.076551%

Unleased Mineral Interest:

Estate of Cloma Mize Perkins
Foundation Minerals, LLC
Mavros Minerals, LLC
Estate of R.S. Cinco Rogers
Oak Valley Mineral and Land, LP

0.441889%
0.347309%
0.295213%
0.261725%
0.052097%

1.398234%

Exhibit B

Exhibit "B" Depth Severance – Wolfcamp

Ned Pepper 18 WA Federal Com 2H, Ned Pepper 18 WXY Federal Com 6H, Ned Pepper 18 WA Federal Com 9H

5. At the end of the Primary Term, the Lease shall terminate and Lessee shall release all of the land covered hereby **SAVE AND EXCEPT THE DEVELOPED ACREAGE**. For purposes hereof, only the following shall be deemed "Developed Acreage":

(i) The minimum acreage (as nearly in the form of a square or rectangle as practicable) in a proration unit properly assigned to a completed vertical well or horizontal well capable of producing oil or gas in commercial quantities to qualify such well for maximum proration allowable under law and governmental rules and regulations establishing applicable field rules. For purposes hereof, statewide rules shall not be regarded as field rules.

(ii) In the absence of field rules fixing the allowable production in relation to assigned acreage, each such proration unit shall contain the acreage assigned to each well capable of producing oil or gas in commercial quantities as follows: 40 acres for each vertical oil well and 320 acres or less for each vertical gas well, and such larger number of acres permitted by regulatory authority to be dedicated to each horizontal completion for oil or gas.

(iii) All depths from the surface down to one hundred (100) feet below the deepest formation producing in paying quantities at the end of the Primary Term as to each such respectively assigned proration unit.



Exhibit C

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: (575) 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

| | | |
|----------------------------------|--|---|
| ¹ API Number | ² Pool Code 2220 | ³ Pool Name ANTELOPE RIDGE (WOLFCAMP) |
| ⁴ Property Code | ⁵ Property Name NED PEPPER 18 WA FEDERAL COM | ⁶ Well Number 2H |
| ⁷ OGRID No. 372098 | ⁸ Operator Name MARATHON OIL PERMIAN, LLC | ⁹ Elevation 3,567' |

¹⁰ Surface Location

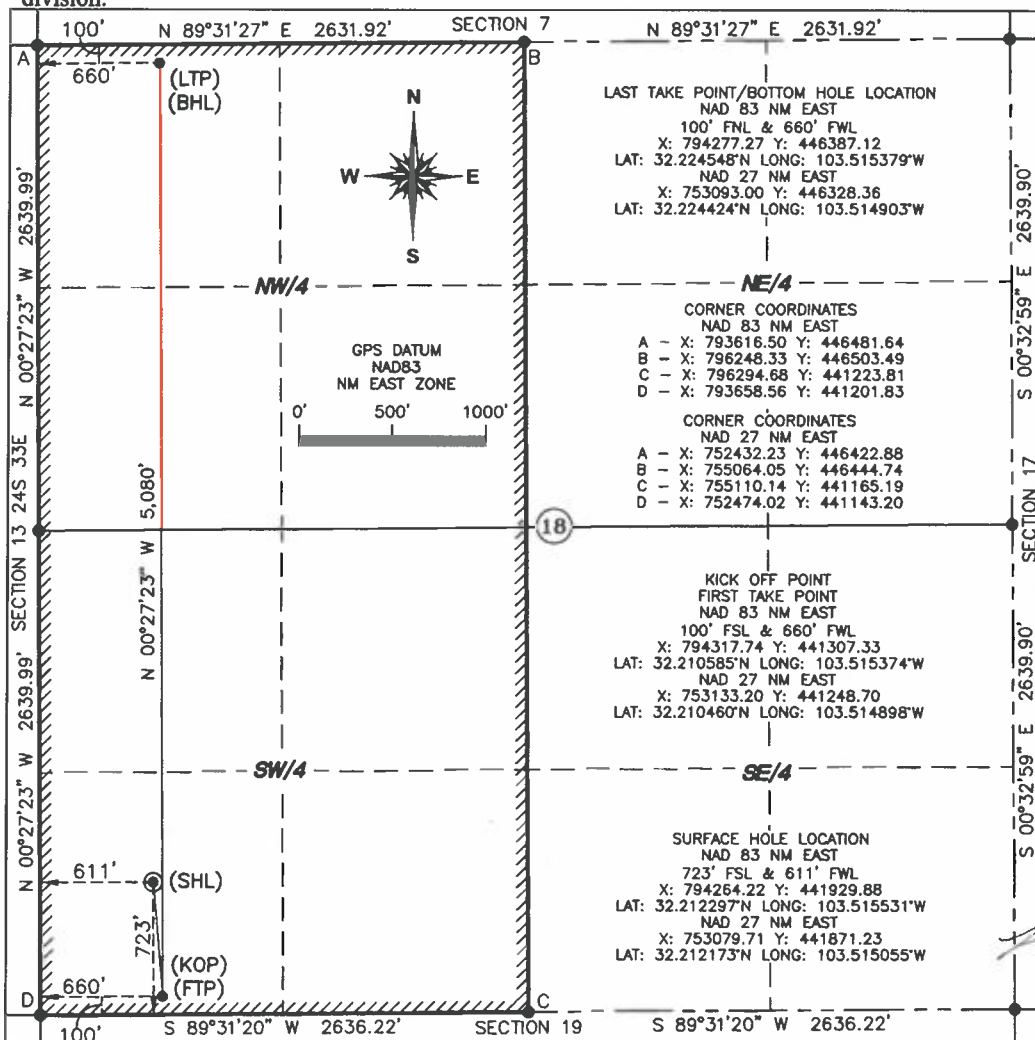
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| M | 18 | 24-S | 34-E | | 723' | SOUTH | 611' | WEST | LEA |

¹¹ 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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| D | 18 | 24-S | 34-E | | 100' | NORTH | 660' | WEST | LEA |

| | | | |
|--------------------------------------|-------------------------------|----------------------------------|-------------------------|
| ¹² Dedicated Acres 320 | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ 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.



¹⁷ 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.

Signature _____ Date _____

Printed Name _____

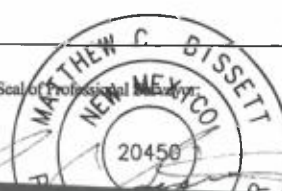
E-mail Address _____

¹⁸ 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.

4/9/19
Date of Survey

Signature and Scale of Professional Seal _____



20450
Certificate



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

Certificate Number

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
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Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | |
|----------------------------------|--|---|
| ¹ API Number | ² Pool Code 2220 | ³ Pool Name ANTELOPE RIDGE (WOLFCAMP) |
| ⁴ Property Code | ⁵ Property Name NED PEPPER 18 WA FEDERAL COM | ⁶ Well Number 9H |
| ⁷ OGRID No. 372098 | ⁸ Operator Name MARATHON OIL PERMIAN, LLC | ⁹ Elevation 3,563' |

¹⁰ Surface Location

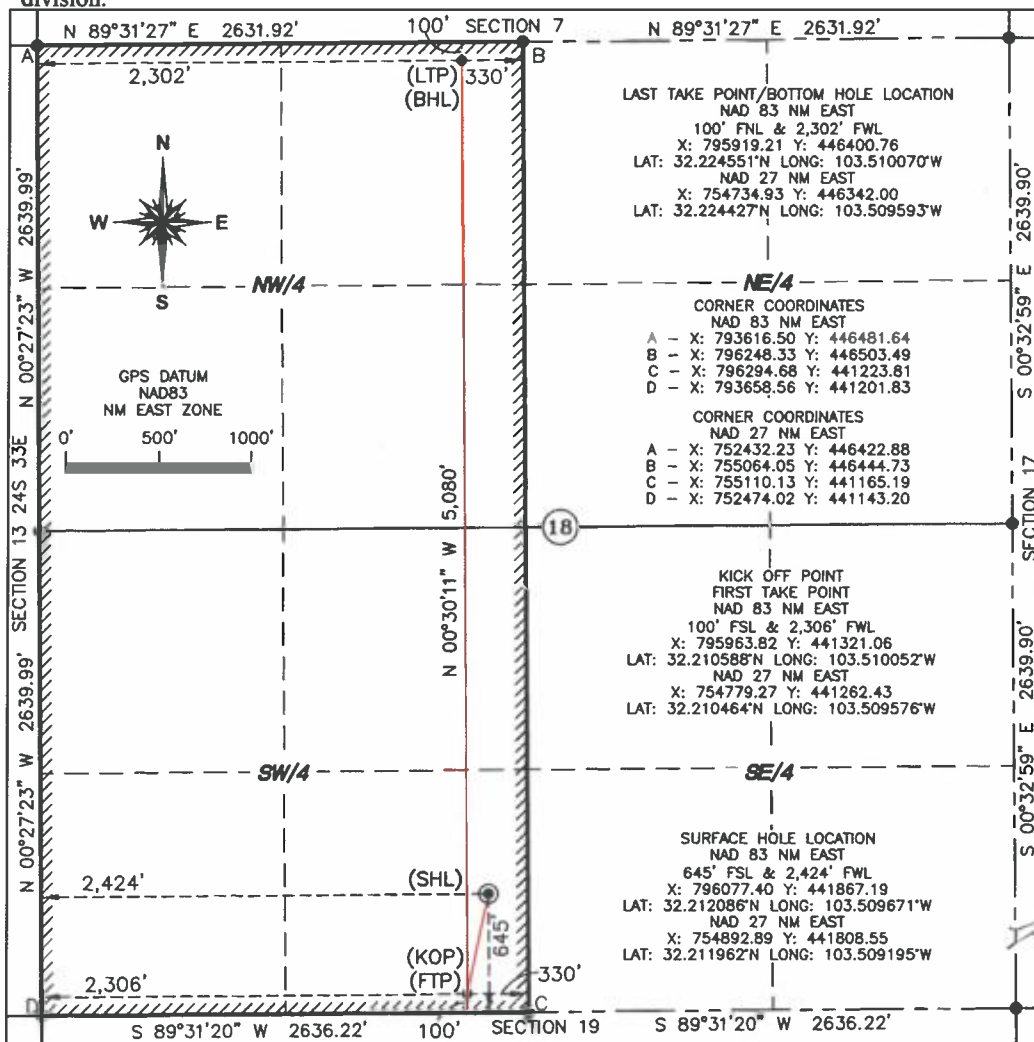
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| N | 18 | 24-S | 34-E | | 645' | SOUTH | 2,424' | WEST | LEA |

¹¹ 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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| C | 18 | 24-S | 34-E | | 100' | NORTH | 2,302' | WEST | LEA |

| | | | |
|--------------------------------------|-------------------------------|----------------------------------|-------------------------|
| ¹² Dedicated Acres 320 | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ 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.



¹⁷ 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.

Signature _____ Date _____

Printed Name _____

E-mail Address _____

¹⁸ 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.

4/9/19
Date of Survey

Signature and Seal of Professional Surveyor

20450
Certificate Number

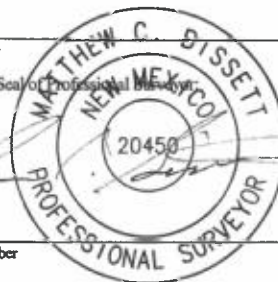


Exhibit D

Steven Martinez
Land Agent for Marathon Oil Permian LLC



T-O Land & Minerals, Inc., Agent
25465 Scenic Loop Rd.
San Antonio, Texas 78255
Telephone: 210.826-3000
Email: smartinez@t-oland.com

April 13, 2018

VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED
7018 0040 0000 3767 7882

Energen Resources Corporation
605 Richard Arrington Jr. Blvd. North
Birmingham, AL 35203

Re: Ned Pepper 1H, 2H, 4H, 6H, 7H, 9H, 12H, 15H & 18H Well Proposals
Section 18, T24S-R34E
Lea County, New Mexico

Dear Energen Resources Corporation:

Marathon Oil Permian LLC ("Marathon") proposes the drilling of the following wells located in Section 18, 24S-34E, Lea County, New Mexico, all to be drilled from two surface pad location.

- Ned Pepper Federal 24-34-18 TB 1H with a proposed surface hole location in the SW/4 of Section 18, 24S-34E, and a proposed bottom hole location in the NW/4 NW/4 of Section 18, 24S-34E. The well will have a targeted interval located in the 3rd Bone Springs Formation (~16,842' TVD) with a treated lateral length of approximately 4,610'. The total estimated drilling and completion cost is \$6,934,817 as shown in the attached AFE.
- Ned Pepper Federal 24-34-18 WA 2H with a proposed surface hole location in the SW/4 of Section 18, 24S-34E, and a proposed bottom hole location in the NW/4 NW/4 of Section 18, 24S-34E. The well will have a targeted interval located in the Wolfcamp A Formation (~17,123' TVD) with a treated lateral length of approximately 4,610'. The total estimated drilling and completion cost is \$7,077,917 as shown in the attached AFE.
- Ned Pepper Federal 24-34-18 TB 4H with a proposed surface hole location in the SW/4 of Section 18, 24S-34E, and a proposed bottom hole location in the NE/4 NW/4 of Section 18, 24S-34E. The well will have a targeted interval located in the 3rd Bone Springs Formation (~16,842' TVD) with a treated lateral length of approximately 4,618'. The total estimated drilling and completion cost is \$6,934,817 as shown in the attached AFE.
- Ned Pepper Federal 24-34-18 WXY 6H with a proposed surface hole location in the SW/4 of Section 18, 24S-34E, and a proposed bottom hole location in the NW/4 of Section 18, 24S-34E. The well will have a targeted interval located in the Wolfcamp XY Formation (~17,638' TVD) with a treated lateral length of approximately 4,614'. The total estimated drilling and completion cost is \$7,196,667 as shown in the attached AFE.
- Ned Pepper Federal 24-34-18 TB 7H with a proposed surface hole location in the SE/4 of Section 18, 24S-34E, and a proposed bottom hole location in the NE/4 of Section 18, 24S-34E. The well will have a targeted interval located in the 3rd Bone Springs Formation (~17,438' TVD) with a treated lateral length of approximately 4,626'. The total estimated drilling and completion cost is \$7,196,667 as shown in the attached AFE.
- Ned Pepper Federal 24-34-18 WA 9H with a proposed surface hole location in the SW/4 of Section 18, 24S-34E, and a proposed bottom hole location in the NE/4 NW/4 of Section 18, 24S-34E. The well will have a targeted interval located in the Wolfcamp A Formation (~17,123' TVD) with a treated lateral length of approximately 4,618'. The total estimated drilling and completion cost is \$7,077,917 as shown in the attached AFE.



- Ned Pepper Federal 24-34-18 WXY 12H with a proposed surface hole location in the SE/4 of Section 18, 24S-34E, and a proposed bottom hole location in the NW/4 NE/4 of Section 18, 24S-34E. The well will have a targeted interval located in the Wolfcamp XY Formation (~16,985 TVD) with a treated lateral length of approximately 4,622'. The total estimated drilling and completion cost is \$7,169,948 as shown in the attached AFE.
- Ned Pepper Federal 24-34-18 WA 15H with a proposed surface hole location in the SE/4 of Section 18, 24S-34E, and a proposed bottom hole location in the NE/4 of Section 18, 24S-34E. The well will have a targeted interval located in the Wolfcamp A Formation (~17,123' TVD) with a treated lateral length of approximately 4,626'. The total estimated drilling and completion cost is \$7,175,348 as shown in the attached AFE.
- Ned Pepper Federal 24-34-18 WXY 18H with a proposed surface hole location in the SE/4 of Section 18, 24S-34E, and a proposed bottom hole location in the NE/4 NE/4 of Section 18, 24S-34E. The well will have a targeted interval located in the Wolfcamp XY Formation (~16,985 TVD) with a treated lateral length of approximately 4,629'. The total estimated drilling and completion cost is \$7,169,948 as shown in the attached AFE.

These proposed locations and target depths are subject to change depending on any surface or subsurface concerns encountered. The AFEs represent an estimate of the costs that will be incurred to drill and complete the wells, but those electing to participate in the wells are responsible for their proportionate share of the actual costs incurred.

Marathon proposes drilling the wells under the terms of the 1989 AAPL JOA and if you are interested in participating a form of this JOA will be sent to you following this proposal. The JOA will have the following general provisions:

- 100%/300%/300% non-consent penalty
- \$7,000/\$700 drilling and producing rates
- Contract area of Section 18, 24S-34E, covering all depths

Our title records indicate that you own 0.783208% WI in the proposed unit.

If your election is to participate in the drilling and completion of the wells, please sign and return a copy of this letter along with the enclosed AFE within thirty (30) days of receipt of this proposal.

If you do not wish to participate, Marathon proposes to acquire your interest via term assignment at the following terms:

-
-
-

This term assignment offer terminates on May 15, 2018 and is subject to due diligence and title verification satisfactory to Marathon.

Should you have any questions regarding this or other matters, please do not hesitate to contact me via the phone number or email address listed above.

Sincerely,

Steven Martinez
Land Agent for Marathon Oil Permian, LLC

_____ Energen Resources Corporation elects to participate in the drilling, completing, and equipping of the Ned Pepper Federal 24-34-18 TB 1H.

_____ Energen Resources Corporation elects NOT to participate in the drilling, completing, and equipping of the Ned Pepper Federal 24-34-18 TB 1H.

_____ Energen Resources Corporation elects to participate in the drilling, completing, and equipping of the Ned Pepper Federal 24-34-18 WA 2H.

_____ Energen Resources Corporation elects NOT to participate in the drilling, completing, and equipping of the Ned Pepper Federal 24-34-18 WA 2H.

_____ Energen Resources Corporation elects to participate in the drilling, completing, and equipping of the Ned Pepper Federal 24-34-18 TB 4H.

_____ Energen Resources Corporation elects NOT to participate in the drilling, completing, and equipping of the Ned Pepper Federal 24-34-18 TB 4H.

_____ Energen Resources Corporation elects to participate in the drilling, completing, and equipping of Ned Pepper Federal 24-34-18 WXY 6H.

_____ Energen Resources Corporation elects NOT to participate in the drilling, completing, and equipping of the Ned Pepper Federal 24-34-18 WXY 6H.

_____ Energen Resources Corporation elects to participate in the drilling, completing, and equipping of Ned Pepper Federal 24-34-18 TB 7H.

_____ Energen Resources Corporation elects NOT to participate in the drilling, completing, and equipping of the Ned Pepper Federal 24-34-18 TB 7H.

_____ Energen Resources Corporation elects to participate in the drilling, completing, and equipping of Ned Pepper Federal 24-34-18 WA 9H.

_____ Energen Resources Corporation elects NOT to participate in the drilling, completing, and equipping of the Ned Pepper Federal 24-34-18 WA 9H.

_____ Energen Resources Corporation elects to participate in the drilling, completing, and equipping of Ned Pepper Federal 24-34-18 WXY 12H.

_____ Energen Resources Corporation elects NOT to participate in the drilling, completing, and equipping of the Ned Pepper Federal 24-34-18 WXY 12H.

_____ Energen Resources Corporation elects to participate in the drilling, completing, and equipping of Ned Pepper Federal 24-34-18 WA 15H.

_____ Energen Resources Corporation elects NOT to participate in the drilling, completing, and equipping of the Ned Pepper Federal 24-34-18 WA 15H.

_____ Energen Resources Corporation elects to participate in the drilling, completing, and equipping of Ned Pepper Federal 24-34-18 WXY 18H.

_____ Energen Resources Corporation elects NOT to participate in the drilling, completing, and equipping of the Ned Pepper Federal 24-34-18 WXY 18H.

Energen Resources Corporation

By: _____

Print Name: _____

Title: _____

Date: _____

Exhibit E

MARATHON OIL PERMIAN LLC
 AUTHORITY FOR EXPENDITURE
 DETAIL OF ESTIMATED WELL COSTS

DATE 1/8/2018

DRILLING & LOCATION PREPARED BY JACOB BEATY
 COMPLETION PREPARED BY JOSH SHANNON
 FACILITIES PREPARED BY MATT HENSCHEN
 ARTIFICIAL LIFT PREPARED BY TOMMY MAZAL

| | | | | |
|----------------|---------------------------------|-----------------------|----------------|--------------|
| Asset Team | PERMIAN | FORMATION: WOLFCAMP A | WILDCAT | EXPLORATION |
| Field | 0 | | DEVELOPMENT | RECOMPLETION |
| Lease/Facility | NED PEPPER 18 WA FEDERAL COM 2H | | X EXPLOITATION | WORKOVER |
| Location | LEA COUNTY | | | |
| Prospect | RED HILLS | | | |

| | | | | | |
|-----------------|---------------|-------------------|-------------|---------------------|------------|
| Est Total Depth | <u>17,123</u> | Est Drilling Days | <u>21.9</u> | Est Completion Days | <u>5.5</u> |
|-----------------|---------------|-------------------|-------------|---------------------|------------|

LOCATION COST - INTANGIBLE

| GL CODE | DESCRIPTION | ESTIMATED COST |
|----------------------------------|-------------------------------|----------------|
| 7001270 | Location and Access | 28,000 |
| 7001250 | Land Broker Fees and Services | 36,000 |
| TOTAL LOCATION COST - INTANGIBLE | | 64,000 |

DRILLING COST - TANGIBLE

| | | |
|---------------------------|---|---------|
| 7012050 | Conductor Pipe | 28,000 |
| 7012050 | Surface Casing | 34,000 |
| 7012050 | Intermediate Casing 1 | 144,000 |
| 7012050 | Intermediate Casing 2 | 280,000 |
| 7012050 | Production Casing | 60,000 |
| 7012050 | Drig Liner Hanger, Tieback Eq & Csg Accessories | 55,000 |
| 7012550 | Drilling Wellhead Equipment | 70,000 |
| 7012040 | Casing & Tubing Access | 24,000 |
| 7012270 | Miscellaneous MRO Materials | - |
| TOTAL DRILLING - TANGIBLE | | 695,000 |

DRILLING COST - INTANGIBLE

| | | |
|-----------------------------|--|-------------|
| 7019200 | Drilling Rig Mob/Demob | 26,000 |
| 7019220 | Drilling Rig - day work/footage | 438,000 |
| 7019040 | Directional Drilling Services | 181,250 |
| 7019020 | Cement and Cementing Service | 20,000 |
| 7019020 | Cement and Cementing Service | 25,000 |
| 7019020 | Cement and Cementing Service | 45,000 |
| 7019020 | Cement and Cementing Service | 45,000 |
| 7019140 | Mud Fluids & Services | 65,500 |
| 7012910 | Solids Control equipment | 39,000 |
| 7012020 | Bits | 70,000 |
| 7019010 | Casing Crew and Services | 30,000 |
| 7016350 | Fuel (Rig) | 67,000 |
| 7019140 | Fuel (Mud) | 18,000 |
| 7001460 | Water (non potable) | 25,000 |
| 7019000 | Well Logging Services | - |
| 7019150 | Mud Logging/geosteering | 18,000 |
| 7019250 | Stabilizers, Hole Openers, Underreamers (DH rentals) | 15,000 |
| 7019110 | Casing Inspection/cleaning | 15,000 |
| 7019110 | Drill pipe/collar inspection services | 10,000 |
| 7016180 | Freight - truck | 25,000 |
| 7001460 | Water hauling and disposal (includes soil farming) | 135,000 |
| 7001440 | Vacuum Trucks | 20,000 |
| 7000030 | Contract Labor - general | 30,000 |
| 7018150 | Rental Tools and Equipment (surface rentals) | 87,600 |
| 7018150 | Rig Equipment and Misc. | 6,570 |
| 7001110 | Telecommunications Services | 10,000 |
| 7001120 | Consulting Services | 102,930 |
| 7001400 | Safety and Environmental | 10,000 |
| 7018120 | Rental Buildings (trailers) | - |
| 7019310 | Coring (sidewalls & analysis) | - |
| 7011010 | 8% Contingency & Taxes | 181,988 |
| TOTAL DRILLING - INTANGIBLE | | \$1,761,838 |

| | |
|---------------------|-------------|
| TOTAL DRILLING COST | \$2,456,838 |
|---------------------|-------------|

COMPLETION - TANGIBLE

| | | |
|-----------------------------|---|-----------|
| 7012580 | Tubing | 75,000 |
| 7012040 | Tubing Accessories (nipple, wireline entry) | 15,000 |
| 7012550 | Wellhead Equip | 20,000 |
| 7012560 | Packers - Completion Equipment | 38,850 |
| TOTAL COMPLETION - TANGIBLE | | \$148,850 |



MARATHON OIL PERMIAN LLC
AUTHORITY FOR EXPENDITURE
DETAIL OF ESTIMATED WELL COSTS

DATE 1/8/2018

Asset Team PERMIAN
Field 0 FORMATION: WOLF CAMP A
Lease/Facility NED PEPPER 18 WA FEDERAL COM 2H

COMPLETION - INTANGIBLE

| GL CODE | DESCRIPTION | ESTIMATED COST |
|-------------------------------|--|----------------|
| 7001270 | Location and Access (dress location after rig move, set anchors) | 20,000 |
| 7019220 | Drilling Rig During Completion | 20,000 |
| 7019140 | Mud Fluids & Services | - |
| 7019030 | Coiled Tubing Services (3 runs) | 140,000 |
| 7019240 | Snubbing Services | 25,000 |
| 7019270 | Pulling/Swab Units | 10,000 |
| 7016350 | Fuel (from drlg) | - |
| 7019010 | Casing Crew and Services | - |
| 7019020 | Cement and Cementing Services | - |
| 7019080 | Well Testing Services (flow hand & equip) | 71,000 |
| 7019320 | Fracturing Services | 1,860,000 |
| 7019330 | Perforating | 124,000 |
| 7019360 | Wireline Services | - |
| 7001460 | Water Hauling & Disposal (frac fluids) | 550,000 |
| 7016180 | Freight - Truck (haul pipe; drlg & compl) | 40,000 |
| 7018150 | BOP Rental & Testing | - |
| 7018150 | Rental Tools and Equipment (incl drlg; lightplant, hydra-walk) | - |
| 7018150 | CT Downhole Rental Equipment (ie. Blt, BHA) | 45,000 |
| 7000030 | Contract Labor - general | 75,000 |
| 7001110 | Telecommunications Services | 25,000 |
| 7001400 | Safety and Environmental | - |
| 7001120 | Consulting Services | 30,000 |
| 7018150 | Zipper Manifold | 57,600 |
| 7019300 | Frack Stack Rentals | 39,000 |
| 7016190 | Freight (Transportation Services) | - |
| 7018150 | Equipment Rental (w/o operator, frac tanks, lightplants) | 100,000 |
| 7018120 | Rental Buildings (trailers) | 55,000 |
| 7000030 | Contract Labor - Pumping (pump-down pumps) | 42,000 |
| 7011010 | 8% Contingency & Taxes | 264,928 |
| TOTAL COMPLETION - INTANGIBLE | | \$3,599,528 |

TOTAL COMPLETION COST

\$3,742,378

SURFACE EQUIPMENT - TANGIBLE

| | | |
|------------------------------------|--|-----------|
| 7012350 | Misc. Piping, Fittings & Valves | 69,412 |
| 7006640 | Company Labor & Burden | - |
| 7000030 | Contract Labor - General | 58,315 |
| 7001110 | Telecommunication equip (Telemetry) | - |
| 7012410 | Line Pipe & Accessories | 23,758 |
| 7012270 | Miscellaneous Materials (containment system) | 37,163 |
| 7008060 | SCADA | - |
| 7016180 | Freight - truck | - |
| 7001190 | Contract Engineering | 29,116 |
| 7012290 | Metering and Instrumentation | 234,427 |
| 7012290 | I&E Materials | - |
| 7012200 | Gas Treating | - |
| 7012200 | Dehydration | - |
| 7012010 | Compressor | - |
| 7012350 | Power | - |
| 7012610 | Vapor Recovery Unit | - |
| 7012440 | Separator & other pressure vessels | 71,228 |
| 7012500 | Tanks | 138,995 |
| 7012100 | Heater Treater | 10,398 |
| 7012640 | Flare & Accessories | 20,963 |
| 7000010 | Electrical Labor | 23,293 |
| 7000010 | Mechanical Labor | - |
| 7012480 | Rod Pumping unit & Pad | - |
| 7012180 | Pumping Unit Engine | - |
| 7012350 | Electrical Power (electrical cooperative construction costs) | 18,634 |
| TOTAL SURFACE EQUIPMENT - TANGIBLE | | \$735,701 |

TOTAL SURFACE EQUIPMENT COST

\$ 735,701

ARTIFICIAL LIFT

| | | |
|-----------------------|--------------------------------------|--------|
| 7006640 | Company Labor | 3,000 |
| 7012180 | Gas Lift Equipment | 23,000 |
| 7012480 | Rod Pumping, Sucker Rods & Rod Pump | - |
| 7012140 | Elect Sub Pumps (ESP) | - |
| 7019350 | Well Services-Well/Wellhead Services | 22,500 |
| 7012270 | Materials & Supplies-Tangible | 25,000 |
| 7012550 | Surface Wellhead Equipment | 3,000 |
| 7012390 | Pig Launchers/Receivers & Rel Equip | - |
| 7011010 | 8% Contingency & Taxes | 2,500 |
| TOTAL ARTIFICIAL LIFT | | 79,000 |

TOTAL ARTIFICIAL LIFT COST

\$ 79,000

SUMMARY OF ESTIMATED DRILLING WELL COSTS

TOTAL COST

| | |
|------------------------|--------------|
| TOTAL LOCATION COST | \$ 64,000 |
| TOTAL DRILLING COST | \$ 2,456,838 |
| TOTAL COMPLETIONS COST | \$ 3,742,378 |

TOTAL SURFACE EQUIPMENT COST
TOTAL ARTIFICIAL LIFT COST
GRAND TOTAL COST

| | |
|----|--------------------|
| \$ | 735,701 |
| \$ | 79,000 |
| | <u>\$7,077,917</u> |

MARATHON OIL PERMIAN LLC
AUTHORITY FOR EXPENDITURE
DETAIL OF ESTIMATED WELL COSTS

DATE 1/8/2018

DRILLING & LOCATION PREPARED BY KYLE SCHRINER
COMPLETION PREPARED BY JOSH SHANNON
FACILITIES PREPARED BY MATT HENSCHEN
ARTIFICIAL LIFT PREPARED BY TOMMY MAZAL

| | | | |
|-----------------|----------------------------------|------------------------|----------------|
| Asset Team | PERMIAN | | |
| Field | 0 | FORMATION: WOLFCAMP XY | |
| Lease/Facility | NED PEPPER 18 WXY FEDERAL COM 6H | | WILDCAT |
| Location | LEA COUNTY | | DEVELOPMENT |
| Prospect | RED HILLS | | X EXPLOITATION |
| | | | EXPLORATION |
| | | | RECOMPLETION |
| | | | WORKOVER |
| Est Total Depth | 17,638 | Est Drilling Days | 23.4 |
| | | Est Completion Days | 5.5 |

LOCATION COST - INTANGIBLE

| GL CODE | DESCRIPTION | ESTIMATED COST |
|----------------------------------|-------------------------------|----------------|
| 7001270 | Location and Access | 32,000 |
| 7001250 | Land Broker Fees and Services | 36,000 |
| TOTAL LOCATION COST - INTANGIBLE | | 68,000 |

DRILLING COST - TANGIBLE

| | | |
|---------------------------|---|---------|
| 7012050 | Conductor Pipe | 28,000 |
| 7012050 | Surface Casing | 36,000 |
| 7012050 | Intermediate Casing 1 | 148,000 |
| 7012050 | Intermediate Casing 2 | 273,000 |
| 7012050 | Production Casing | 61,000 |
| 7012050 | Drig Liner Hanger, Tieback Eq & Csg Accessories | 55,000 |
| 7012550 | Drilling Wellhead Equipment | 70,000 |
| 7012040 | Casing & Tubing Access | 24,000 |
| 7012270 | Miscellaneous MRO Materials | - |
| TOTAL DRILLING - TANGIBLE | | 695,000 |

DRILLING COST - INTANGIBLE

| | | |
|-----------------------------|--|-------------|
| 7019200 | Drilling Rig Mob/Demob | 30,000 |
| 7019220 | Drilling Rig - day work/footage | 468,000 |
| 7019040 | Directional Drilling Services | 195,500 |
| 7019020 | Cement and Cementing Service Surface | 30,000 |
| 7019020 | Cement and Cementing Service Intermediate 1 | 40,000 |
| 7019020 | Cement and Cementing Service Intermediate 2 | 50,000 |
| 7019020 | Cement and Cementing Service Production | 50,000 |
| 7019140 | Mud Fluids & Services | 67,000 |
| 7012310 | Solids Control equipment | 41,000 |
| 7012020 | Bits | 70,000 |
| 7019010 | Casing Crew and Services | 30,000 |
| 7016350 | Fuel (Rig) | 72,000 |
| 7019140 | Fuel (Mud) | 18,000 |
| 7001460 | Water (non potable) | 25,000 |
| 7019000 | Well Logging Services | - |
| 7019150 | Mud Logging/geosteering | 19,000 |
| 7019250 | Stabilizers, Hole Openers, Underreamers (OH rentals) | 15,000 |
| 7019110 | Casing Inspection/cleaning | 15,000 |
| 7019110 | Drill pipe/collar inspection services | 10,000 |
| 7016180 | Freight - truck | 25,000 |
| 7001460 | Water hauling and disposal (includes soil farming) | 135,000 |
| 7001440 | Vacuum Trucks | 20,000 |
| 7000030 | Contract Labor - general | 30,000 |
| 7018150 | Rental Tools and Equipment (surface rentals) | 93,600 |
| 7018150 | Rig Equipment and Misc. | 7,020 |
| 7001110 | Telecommunications Services | 10,000 |
| 7001120 | Consulting Services | 109,980 |
| 7001400 | Safety and Environmental | 10,000 |
| 7018120 | Rental Buildings (trailers) | - |
| 7019310 | Coring (sidewalls & analysis) | - |
| 7011010 | 8% Contingency & Taxes | 190,488 |
| TOTAL DRILLING - INTANGIBLE | | \$1,876,588 |

TOTAL DRILLING COST \$2,571,588

COMPLETION - TANGIBLE

| | | |
|-----------------------------|---|-----------|
| 7012580 | Tubing | 75,000 |
| 7012040 | Tubing Accessories (nipple, wireline entry) | 15,000 |
| 7012550 | Wellhead Equip | 20,000 |
| 7012560 | Packers - Completion Equipment | 38,850 |
| TOTAL COMPLETION - TANGIBLE | | \$148,850 |

MARATHON OIL PERMIAN LLC
 AUTHORITY FOR EXPENDITURE
 DETAIL OF ESTIMATED WELL COSTS

DATE 1/8/2018

Asset Team PERMIAN
 Field 0 FORMATION: WOLFCAMP XY
 Lease/Facility NED PEPPER 18 WXY FEDERAL COM 6H

COMPLETION - INTANGIBLE

| GL CODE | DESCRIPTION | ESTIMATED COST |
|-------------------------------|--|----------------|
| 7001270 | Location and Access (dress location after rig move, set anchors) | 20,000 |
| 7019220 | Drilling Rig During Completion | 20,000 |
| 7019140 | Mud Fluids & Services | - |
| 7019030 | Coiled Tubing Services (3 runs) | 140,000 |
| 7019240 | Snubbing Services | 25,000 |
| 7019270 | Pulling/Swab Units | 10,000 |
| 7016350 | Fuel (from drlg) | - |
| 7019010 | Casing Crew and Services | - |
| 7019020 | Cement and Cementing Services | - |
| 7019080 | Well Testing Services (flow hand & equip) | 71,000 |
| 7019320 | Fracturing Services | 1,860,000 |
| 7019330 | Perforating | 124,000 |
| 7019360 | Wireline Services | - |
| 7001460 | Water Hauling & Disposal (frac fluids) | 550,000 |
| 7016180 | Freight - Truck (haul pipe; drlg & compl) | 40,000 |
| 7018150 | BOP Rental & Testing | - |
| 7018150 | Rental Tools and Equipment (incl drlg; lightplant, hydra-walk) | - |
| 7018150 | CT Downhole Rental Equipment (ie. Bit, BHA) | 45,000 |
| 7000030 | Contract Labor - general | 75,000 |
| 7001110 | Telecommunications Services | 25,000 |
| 7001400 | Safety and Environmental | - |
| 7001120 | Consulting Services | 30,000 |
| 7018150 | Zipper Manifold | 57,600 |
| 7019300 | Frack Stack Rentals | 39,000 |
| 7016190 | Freight (Transportation Services) | - |
| 7018150 | Equipment Rental (w/o operator, frac tanks, lightplants) | 100,000 |
| 7018120 | Rental Buildings (trailers) | 55,000 |
| 7000030 | Contract Labor - Pumping (pump-down pumps) | 42,000 |
| 7011010 | 8% Contingency & Taxes | 264,928 |
| TOTAL COMPLETION - INTANGIBLE | | \$3,593,528 |
| TOTAL COMPLETION COST | | \$3,742,378 |

SURFACE EQUIPMENT - TANGIBLE

| | | |
|------------------------------------|--|------------|
| 7012350 | Misc. Piping, Fittings & Valves | 69,412 |
| 7006640 | Company Labor & Burden | - |
| 7000030 | Contract Labor - General | 58,315 |
| 7001110 | Telecommunication equip (Telemetry) | - |
| 7012410 | Line Pipe & Accessories | 23,758 |
| 7012270 | Miscellaneous Materials (containment system) | 37,163 |
| 7008060 | SCADA | - |
| 7016180 | Freight - truck | - |
| 7001190 | Contract Engineering | 29,116 |
| 7012290 | Metering and Instrumentation | 234,427 |
| 7012290 | I&E Materials | - |
| 7012200 | Gas Treating | - |
| 7012200 | Dehydration | - |
| 7012010 | Compressor | - |
| 7012350 | Power | - |
| 7012610 | Vapor Recovery Unit | - |
| 7012440 | Separator & other pressure vessels | 71,228 |
| 7012500 | Tanks | 138,995 |
| 7012100 | Heater Treater | 10,398 |
| 7012640 | Flare & Accessories | 20,963 |
| 7000010 | Electrical Labor | 23,293 |
| 7000010 | Mechanical Labor | - |
| 7012480 | Rod Pumping unit & Pad | - |
| 7012180 | Pumping Unit Engine | - |
| 7012350 | Electrical Power (electrical cooperative construction costs) | 18,634 |
| TOTAL SURFACE EQUIPMENT - TANGIBLE | | \$735,701 |
| TOTAL SURFACE EQUIPMENT COST | | \$ 735,701 |

ARTIFICIAL LIFT

| | | |
|----------------------------|--------------------------------------|-----------|
| 7006640 | Company Labor | 3,000 |
| 7012180 | Gas Lift Equipment | 23,000 |
| 7012480 | Rod Pumping, Sucker Rods & Rod Pump | - |
| 7012140 | Elect Sub Pumps (ESP) | - |
| 7019350 | Well Services-Well/Wellhead Services | 22,500 |
| 7012270 | Materials & Supplies-Tangible | 25,000 |
| 7012550 | Surface Wellhead Equipment | 3,000 |
| 7012390 | Pig Launchers/Receivers & Rel Equip | - |
| 7011010 | 8% Contingency & Taxes | 2,500 |
| TOTAL ARTIFICIAL LIFT | | 79,000 |
| TOTAL ARTIFICIAL LIFT COST | | \$ 79,000 |

SUMMARY OF ESTIMATED DRILLING WELL COSTS

| | |
|------------------------------|--------------|
| TOTAL LOCATION COST | \$ 68,000 |
| TOTAL DRILLING COST | \$ 2,571,588 |
| TOTAL COMPLETIONS COST | \$ 3,742,378 |
| TOTAL SURFACE EQUIPMENT COST | \$ 735,701 |
| TOTAL ARTIFICIAL LIFT COST | \$ 79,000 |
| GRAND TOTAL COST | \$7,196,667 |

MARATHON OIL PERMIAN LLC
AUTHORITY FOR EXPENDITURE
DETAIL OF ESTIMATED WELL COSTS

DATE 1/8/2018

DRILLING & LOCATION PREPARED BY JACOB BEATY
COMPLETION PREPARED BY JOSH SHANNON
FACILITIES PREPARED BY MATT HENSCHEN
ARTIFICIAL LIFT PREPARED BY TOMMY MAZAL

Asset Team PERMIAN
Field 0 FORMATION: WOLFCAMP A
Lease/Facility NED PEPPER 18 WA FEDERAL COM SH
Location LEA COUNTY
Prospect RED HILLS

WILOCAT
DEVELOPMENT
X EXPLOITATION
EXPLORATION
RECOMPLETION
WORKOVER

Est Total Depth 17,123 Est Drilling Days 21.9 Est Completion Days 5.5

LOCATION COST - INTANGIBLE

| GL CODE | DESCRIPTION | ESTIMATED COST |
|----------------------------------|-------------------------------|----------------|
| 7001270 | Location and Access | 28,000 |
| 7001250 | Land Broker Fees and Services | 36,000 |
| TOTAL LOCATION COST - INTANGIBLE | | 64,000 |

DRILLING COST - TANGIBLE

| | | |
|---------------------------|--|---------|
| 7012050 | Conductor Pipe | 28,000 |
| 7012050 | Surface Casing | 34,000 |
| 7012050 | Intermediate Casing 1 | 144,000 |
| 7012050 | Intermediate Casing 2 | 280,000 |
| 7012050 | Production Casing | 60,000 |
| 7012050 | Drig Uner Hanger, Tieback Eq & Csg Accessories | 55,000 |
| 7012550 | Drilling Wellhead Equipment | 70,000 |
| 7012040 | Casing & Tubing Access | 24,000 |
| 7012270 | Miscellaneous MRO Materials | - |
| TOTAL DRILLING - TANGIBLE | | 695,000 |

DRILLING COST - INTANGIBLE

| | | |
|-----------------------------|--|-------------|
| 7019200 | Drilling Rig Mob/Demob | 26,000 |
| 7019220 | Drilling Rig - day work/footage | 438,000 |
| 7019040 | Directional Drilling Services | 181,250 |
| 7019020 | Cement and Cementing Service Surface | 20,000 |
| 7019020 | Cement and Cementing Service Intermediate 1 | 25,000 |
| 7019020 | Cement and Cementing Service Intermediate 2 | 45,000 |
| 7019020 | Cement and Cementing Service Production | 45,000 |
| 7019140 | Mud Fluids & Services | 65,500 |
| 7012310 | Solids Control equipment | 39,000 |
| 7012020 | Bits | 70,000 |
| 7019010 | Casing Crew and Services | 30,000 |
| 7016350 | Fuel (Rig) | 67,000 |
| 7019140 | Fuel (Mud) | 18,000 |
| 7001460 | Water (non potable) | 25,000 |
| 7019000 | Well Logging Services | - |
| 7019150 | Mud Logging-geosteering | 18,000 |
| 7019250 | Stabilizers, Hole Openers, Underreamers (DH rentals) | 15,000 |
| 7019110 | Casing Inspection/cleaning | 15,000 |
| 7019110 | Drill pipe/collar inspection services | 10,000 |
| 7016180 | Freight - truck | 25,000 |
| 7001460 | Water hauling and disposal (includes soil farming) | 135,000 |
| 7001440 | Vacuum Trucks | 20,000 |
| 7000030 | Contract Labor - general | 30,000 |
| 7018150 | Rental Tools and Equipment (surface rentals) | 87,600 |
| 7018150 | Rig Equipment and Misc. | 6,570 |
| 7001110 | Telecommunications Services | 10,000 |
| 7001120 | Consulting Services | 102,930 |
| 7001400 | Safety and Environmental | 10,000 |
| 7018120 | Rental Buildings (trailers) | - |
| 7019310 | Coring (sidewalls & analysis) | - |
| 7011010 | 8% Contingency & Taxes | 181,988 |
| TOTAL DRILLING - INTANGIBLE | | \$1,761,838 |

TOTAL DRILLING COST \$2,456,838

COMPLETION - TANGIBLE

| | | |
|-----------------------------|---|-----------|
| 7012580 | Tubing | 75,000 |
| 7012040 | Tubing Accessories (nipple, wireline entry) | 15,000 |
| 7012550 | Wellhead Equip | 20,000 |
| 7012560 | Packers - Completion Equipment | 38,850 |
| TOTAL COMPLETION - TANGIBLE | | \$148,850 |

MARATHON OIL PERMIAN LLC
AUTHORITY FOR EXPENDITURE
DETAIL OF ESTIMATED WELL COSTS

DATE 1/8/2018

Asset Team PERMIAN
Field 0 FORMATION: WOLFCAMP A
Lease/Facility NED PEPPER 18 WA FEDERAL COM 9H

COMPLETION - INTANGIBLE

| GL CODE | DESCRIPTION | ESTIMATED COST |
|-------------------------------|--|----------------|
| 7001270 | Location and Access (dress location after rig move, set anchors) | 20,000 |
| 7019220 | Drilling Rig During Completion | 20,000 |
| 7019140 | Mud Fluids & Services | - |
| 7019030 | Coiled Tubing Services (3 runs) | 140,000 |
| 7019240 | Snubbing Services | 25,000 |
| 7019270 | Pulling/Swab Units | 10,000 |
| 7016350 | Fuel (from drlg) | - |
| 7019010 | Casing Crew and Services | - |
| 7019020 | Cement and Cementing Services | - |
| 7019080 | Well Testing Services (flow hand & equip) | 71,000 |
| 7019320 | Fracturing Services | 1,860,000 |
| 7019330 | Perforating | 124,000 |
| 7019360 | Wireline Services | - |
| 7001460 | Water Hauling & Disposal (frac fluids) | 550,000 |
| 7016180 | Freight - Truck (haul pipe; drlg & compl) | 40,000 |
| 7018150 | BOP Rental & Testing | - |
| 7018150 | Rental Tools and Equipment (incl drlg; lghtplant,hydra-walk) | - |
| 7018150 | CT Downhole Rental Equipment (ie. Bit, BHA) | 45,000 |
| 7000030 | Contract Labor - general | 75,000 |
| 7001110 | Telecommunications Services | 25,000 |
| 7001400 | Safety and Environmental | - |
| 7001120 | Consulting Services | 30,000 |
| 7018150 | Zipper Manifold | 57,600 |
| 7019300 | Frack Stack Rentals | 39,000 |
| 7016190 | Freight (Transportation Services) | - |
| 7018150 | Equipment Rental (w/o operator, frac tanks, lightplants) | 100,000 |
| 7018120 | Rental Buildings (trailers) | 55,000 |
| 7000030 | Contract Labor - Pumping (pump-down pumps) | 42,000 |
| 7011010 | 8% Contingency & Taxes | 264,928 |
| TOTAL COMPLETION - INTANGIBLE | | \$3,593,528 |

TOTAL COMPLETION COST

\$3,742,378

SURFACE EQUIPMENT - TANGIBLE

| | | |
|------------------------------------|--|-----------|
| 7012350 | Misc. Piping, Fittings & Valves | 69,412 |
| 7006640 | Company Labor & Burden | - |
| 7000030 | Contract Labor - General | 58,315 |
| 7001110 | Telecommunication equip (Telemetry) | - |
| 7012410 | Line Pipe & Accessories | 23,758 |
| 7012270 | Miscellaneous Materials (containment system) | 37,163 |
| 7008060 | SCADA | - |
| 7016180 | Freight - truck | - |
| 7001190 | Contract Engineering | 29,116 |
| 7012290 | Metering and Instrumentation | 234,427 |
| 7012290 | I&E Materials | - |
| 7012200 | Gas Treating | - |
| 7012200 | Dehydration | - |
| 7012010 | Compressor | - |
| 7012350 | Power | - |
| 7012610 | Vapor Recovery Unit | - |
| 7012440 | Separator & other pressure vessels | 71,228 |
| 7012500 | Tanks | 138,995 |
| 7012100 | Heater Treater | 10,398 |
| 7012640 | Flare & Accessories | 20,963 |
| 7000010 | Electrical Labor | 23,293 |
| 7000010 | Mechanical Labor | - |
| 7012480 | Rod Pumping unit & Pad | - |
| 7012180 | Pumping Unit Engine | - |
| 7012350 | Electrical Power (electrical cooperative construction costs) | 18,634 |
| TOTAL SURFACE EQUIPMENT - TANGIBLE | | \$735,701 |

TOTAL SURFACE EQUIPMENT COST

\$ 735,701

ARTIFICIAL LIFT

| | | |
|-----------------------|--------------------------------------|--------|
| 7006640 | Company Labor | 3,000 |
| 7012180 | Gas Lift Equipment | 23,000 |
| 7012480 | Rod Pumping, Sucker Rods & Rod Pump | - |
| 7012140 | Elect Sub Pumps (ESP) | - |
| 7019350 | Well Services-Well/Wellhead Services | 22,500 |
| 7012270 | Materials & Supplies-Tangible | 25,000 |
| 7012550 | Surface Wellhead Equipment | 3,000 |
| 7012390 | Pig Launchers/Receivers & Rel Equip | - |
| 7011010 | 8% Contingency & Taxes | 2,500 |
| TOTAL ARTIFICIAL LIFT | | 79,000 |

TOTAL ARTIFICIAL LIFT COST

\$ 79,000

SUMMARY OF ESTIMATED DRILLING WELL COSTS

TOTAL COST

| | |
|------------------------------|--------------|
| TOTAL LOCATION COST | \$ 64,000 |
| TOTAL DRILLING COST | \$ 2,456,838 |
| TOTAL COMPLETIONS COST | \$ 3,742,378 |
| TOTAL SURFACE EQUIPMENT COST | \$ 735,701 |
| TOTAL ARTIFICIAL LIFT COST | \$ 79,000 |
| GRAND TOTAL COST | \$7,077,917 |

Exhibit F

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

**APPLICATION OF MARATHON OIL PERMIAN LLC FOR COMPUSLORY
POOLING, LEA COUNTY, NEW MEXICO.**

CASE NO. 20169

AFFIDAVIT

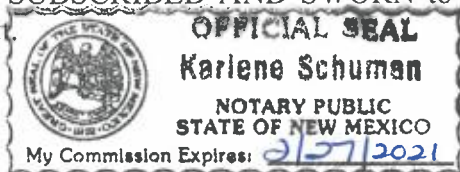
STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

Deana M. Bennett, attorney in fact and authorized representative of Marathon Oil Permian LLC, the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Application was provided under a notice letter and that proof of receipt is attached hereto.



Deana M. Bennett

SUBSCRIBED AND SWORN to before me this 14th day of May, 2019 by Deana M. Bennett.





Notary Public

My commission expires: _____



Karlene Schuman
Modrall Sperling Roehl Harris & Sisk P.A.
500 Fourth Street, Suite 1000
Albuquerque NM 87102

PS Form 3877

Type of Mailing: CERTIFIED MAIL
04/03/2019



Firm Mailing Book ID: 164236

| Line | USPS Article Number | Name, Street, City, State, Zip | Postage | Service Fee | RR Fee | Rest.Del.Fee | Reference Contents |
|---------|-----------------------------|---|--------------|-------------|---------|--------------|-----------------------|
| 1 | 9314 8699 0430 0057 6489 21 | COG Operating, LLC 600 W. Illinois Avenue Midland TX 79701 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 2 | 9314 8699 0430 0057 6489 38 | COG Production, LLC 600 W. Illinois Avenue Midland TX 79701 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 3 | 9314 8699 0430 0057 6489 45 | Energen Resources Corporation 605 Richard Arrington Jr. Blvd. North Birmingham AL 35203 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 4 | 9314 8699 0430 0057 6489 52 | Jetstream Oil & Gas Partners, LP 105 Nursery Ln, Suite 220 Fort Worth TX 76114 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 5 | 9314 8699 0430 0057 6489 69 | Joel Talley 600 N. Marienfeld, Suite 807 Midland TX 79701 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 6 | 9314 8699 0430 0057 6489 76 | Foundation Minerals, LLC P.O. Box 50820 Midland TX 79701 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 7 | 9314 8699 0430 0057 6489 83 | Mavros Minerals, LLC P.O. Box 50820 Midland TX 79701 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 8 | 9314 8699 0430 0057 6489 90 | Oak Valley Mineral and Land, LP P.O. Box 50820 Midland TX 79701 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 9 | 9314 8699 0430 0057 6490 03 | Sam L. Shackleford 1096 Mechem Dr., Suite G-16 Ruidoso NM 88345 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 10 | 9314 8699 0430 0057 6490 10 | Doug J. Schutz P.O. Box 973 Santa Fe NM 87504 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 11 | 9314 8699 0430 0057 6490 27 | EOG Resources, Inc. 5509 Champions Drive Midland TX 79706 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 12 | 9314 8699 0430 0057 6490 34 | Devon Energy Production Co. LP 333 W Sheridan Ave. Oklahoma City OK 73102 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 13 | 9314 8699 0430 0057 6490 41 | Energex LLC 4425 98th Street, Suite 200 Lubbock TX 79424 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| 14 | 9314 8699 0430 0057 6490 58 | Kaiser-Francis Oil Company 616 Cypress Creek Pkwy, Suite 525 Houston TX 77090 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-0167 Ned Notice |
| Totals: | | | \$18.20 | \$49.00 | \$22.40 | \$0.00 | |
| | | | Grand Total: | | | \$89.60 | |

List Number of Pieces
Listed by Sender

Total Number of Pieces
Received at Post Office

Postmaster:
Name of receiving employee

Dated:

Transaction Report Details - CertifiedPro.net
Firm Mail Book ID= 164236
Generated: 5/14/2019 7:53:44 AM

| U.S. Postal Number | Date Created | Name 1 | Address | City | State | Zip | Postage | Fees | Service Options | Mail Delivery Date |
|------------------------|---------------------|----------------------------------|---------------------------------------|---------------|-------|-------|---------|------|---|--------------------|
| 9314869904300057649058 | 2019-04-03 12:25 PM | Kaiser-Francis Oil Company | 616 Cypress Creek Pkwy, Suite 525 | Houston | TX | 77090 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | 04-08-2019 |
| 9314869904300057649041 | 2019-04-03 12:25 PM | Energex LLC | 4425 98th Street, Suite 200 | Lubbock | TX | 79424 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | |
| 9314869904300057649034 | 2019-04-03 12:25 PM | Devon Energy Production Co. LP | 333 W Sheridan Ave. | Oklahoma City | OK | 73102 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | 04-08-2019 |
| 9314869904300057649027 | 2019-04-03 12:25 PM | EOG Resources, Inc. | 5509 Champions Drive | Midland | TX | 79706 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | 04-08-2019 |
| 9314869904300057649010 | 2019-04-03 12:25 PM | Doug J. Schutz | P.O. Box 973 | Santa Fe | NM | 87504 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | 04-15-2019 |
| 9314869904300057649003 | 2019-04-03 12:25 PM | Sam L. Shackelford | 1096 Mechem Dr., Suite G-16 | Ruidoso | NM | 88345 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | |
| 9314869904300057648990 | 2019-04-03 12:25 PM | Oak Valley Mineral and Land, LP | P.O. Box 50820 | Midland | TX | 79701 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | 04-09-2019 |
| 9314869904300057648983 | 2019-04-03 12:25 PM | Mavros Minerals, LLC | P.O. Box 50820 | Midland | TX | 79701 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | 04-09-2019 |
| 9314869904300057648976 | 2019-04-03 12:25 PM | Foundation Minerals, LLC | P.O. Box 50820 | Midland | TX | 79701 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | 04-09-2019 |
| 9314869904300057648969 | 2019-04-03 12:25 PM | Joel Talley | 600 N. Marienfeld, Suite 807 | Midland | TX | 79701 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | 04-06-2019 |
| 9314869904300057648952 | 2019-04-03 12:25 PM | Jetstream Oil & Gas Partners, LP | 105 Nursery Ln, Suite 220 | Fort Worth | TX | 76114 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | 04-12-2019 |
| 9314869904300057648945 | 2019-04-03 12:25 PM | Energen Resources Corporation | 605 Richard Arrington Jr. Blvd. North | Birmingham | AL | 35203 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | 04-09-2019 |
| 9314869904300057648938 | 2019-04-03 12:25 PM | COG Production, LLC | 600 W. Illinois Avenue | Midland | TX | 79701 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | 04-08-2019 |
| 9314869904300057648921 | 2019-04-03 12:25 PM | COG Operating, LLC | 600 W. Illinois Avenue | Midland | TX | 79701 | 1.30 | 5.10 | Return Receipt - Electronic, Certified Mail | 04-08-2019 |

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

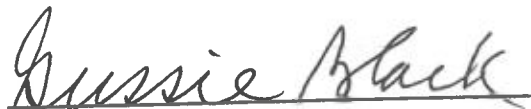
I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
May 01, 2019
and ending with the issue dated
May 01, 2019.



Publisher

Sworn and subscribed to before me this
1st day of May 2019.

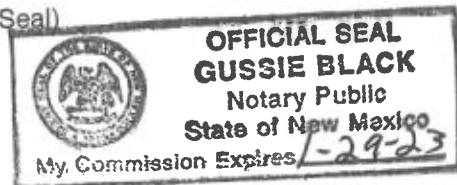


Business Manager

My commission expires

January 29, 2020

(Seal)



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

LEGAL

LEGAL

LEGAL NOTICE MAY 1, 2019

CASE NO. 20169: Notice to all affected parties, as well as the heirs and devisees of COG Operating, LLC; COG Production, LLC; Energen Resources Corporation; Jetstream Oil & Gas Partners, LP; Joel Talley; Foundation Minerals, LLC; Mavros Minerals, LLC; Oak Valley Mineral and Land, LP; Estate of Cioma Mize Perkins; Estate of R.S. Cinco Rogers; Sam L. Shackelford; Doug J. Schutz; EOG Resources, Inc.; Devon Energy Production Co. LP; Energex, LLC; Kaiser-Francis Oil Company; of Marathon Oil Permian LLC's Amended Application for 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 will conduct a public hearing at 8:15 a.m. on May 16, 2019 to consider this application. Applicant seeks an order from the Division: (1) approving the creation of a 320-acre, more or less, spacing unit covering the W/2 of Section 18, Township 24 South, Range 34 East, NMPM, Lea County, New Mexico underlying the Wolfcamp formation; and (2) pooling all uncommitted mineral interests in the proposed spacing unit. This proposed spacing unit will be dedicated to the Ned Pepper Federal 24 34 18 WA 2H, Ned Pepper Federal 24 34 18 WXY 6H, and Ned Pepper Federal 24 34 18 WA 9H wells, to be horizontally drilled. The producing area for the wells will be orthodox. Also to be considered will be the approval of Marathon's allocation formula, the cost of drilling and completing said wells, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the wells, and a 200% charge for risk involved in drilling said wells, and allowing a one year period between when the first well is drilled and when completion operations are commenced for the first well drilled. Said area is located approximately 20 miles northwest of Jal, New Mexico.

CASE NO. 20163: Notice to all affected parties, as well as the heirs and devisees of COG Operating, LLC; COG Production, LLC; Energen Resources Corporation; Jetstream Oil & Gas Partners, LP; Joel Talley; Foundation Minerals, LLC; Mavros Minerals, LLC; Oak Valley Mineral and Land, LP; Estate of Cioma Mize Perkins; Estate of R.S. Cinco Rogers; Sam L. Shackelford; Doug J. Schutz; EOG Resources, Inc.; Devon Energy Production Co. LP; Energex, LLC; Kaiser-Francis Oil Company; of Marathon Oil Permian LLC's Application for a non-standard 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 will conduct a public hearing at 8:15 a.m. on May 16, 2019 to consider this application. Applicant seeks an order from the Division: (1) approving the creation of a non-standard 160-acre, more or less, spacing unit covering the E/2 W/2 of Section 18, Township 24 South, Range 34 East, NMPM, Lea County, New Mexico from +/- 11,051' MD as shown in the logs for the Government "L" No. 1 well (API No. 30-025-25604) to the base of the Bone Spring formation; and (2) pooling all uncommitted mineral interests in the proposed spacing unit. This proposed spacing unit will be dedicated to the Ned Pepper Federal 24 34 18 TB 4H well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed. Said area is located approximately 20 miles northwest of Jal, New Mexico.

CASE NO. 20164: Notice to all affected parties, as well as the heirs and devisees of COG Operating, LLC; COG Production, LLC; Energen Resources Corporation; Jetstream Oil & Gas Partners, LP; Joel Talley; Foundation Minerals, LLC; Mavros Minerals, LLC; Oak Valley Mineral and Land, LP; Estate of Cioma Mize Perkins; Estate of R.S. Cinco Rogers; Sam L. Shackelford; Doug J. Schutz; EOG Resources, Inc.; Devon Energy Production Co. LP; Energex, LLC; Kaiser-Francis Oil Company; of Marathon Oil Permian LLC's Amended Application for a non-standard 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 will conduct a public hearing at 8:15 a.m. on May 16, 2019 to consider this application. Applicant seeks an order from the Division: (1) approving the creation of a non-standard 160-acre, more or less, spacing unit covering the W/2 W/2 of Section 18, Township 24 South, Range 34 East, NMPM, Lea County, New Mexico from +/- 11,051' MD as shown in the logs for the Government "L" No. 1 well (API No. 30-025-25604) to the base of the Bone Spring formation; and (2) pooling all uncommitted mineral interests in the proposed spacing unit. This proposed spacing unit will be dedicated to the Ned Pepper Federal 24 34 18 TB 1H well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed. Said area is located approximately 20 miles northwest of Jal, New Mexico. #34095

01104570

00227642

DOLORES SERNA
MODRALL, SPERLING, ROEHL, HARRIS &
P. O. BOX 2168
ALBUQUERQUE, NM 87103-2168

Exhibit 2

by the words "Producing Zone" and the shaded area across the cross section, along with a red arrow. That zone is continuous across the proposed unit.

7. **Exhibit I** is a Gross Interval Isochore of the Wolfcamp-Wolfcamp B. The formation is relatively uniform across the proposed well unit.

8. In my opinion, I conclude from the maps that:

- a. The horizontal spacing unit is justified from a geologic standpoint.
- b. There are no structural impediments or faulting that will interfere with horizontal development.
- c. Each quarter quarter section in the unit will contribute more or less equally to production.

9. The preferred well orientation in this area is north-south. This is because the orientation of the maximum horizontal stress is roughly east-west.

10. The granting of these applications is in the interests of conservation and the prevention of waste.

[Signature page follows]

Ethan Perry
Ethan Perry

SUBSCRIBED AND SWORN to before me this 14th day of May, 2019 by Ethan Perry,
on behalf of Marathon Oil Permian L.L.C.

Jessica Gorman
Notary Public

My commission expires: 1/23/2023

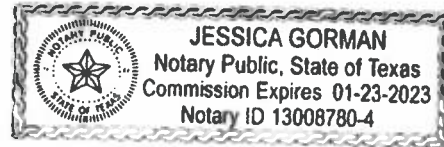
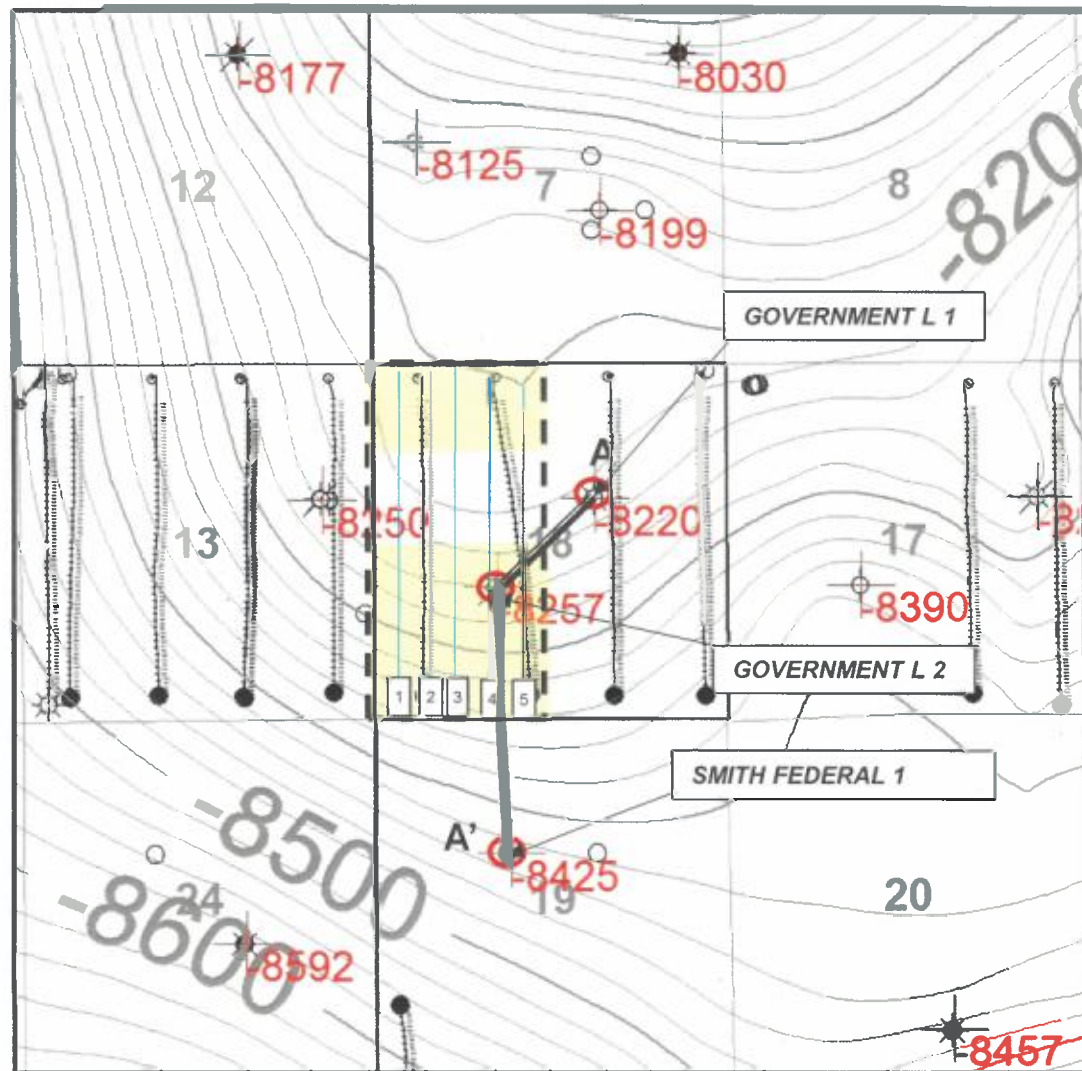


Exhibit G

Ned Pepper 18 Federal Com WA 2H, WXY 6H and WA 9H

Structure Map – Top of Wolfcamp (SSTVD)



Map Legend



MRO – Horizontal Location



No Offsetting WXY, WA producers



MRO Acreage



Project Area

C.I. = 20'

1 mile



- 1 Ned Pepper WA Federal Com 2H
- 2 Ned Pepper TB Federal Com 1H
- 3 Ned Pepper WXY Federal Com 6H
- 4 Ned Pepper TB Federal Com 4H
- 5 Ned Pepper WA Federal Com 9H



Exhibit H

Ned Pepper 18 Federal Com WA 2H, WXY 6H and WA 9H

Stratigraphic Cross Section (Top Wolfcamp Datum)

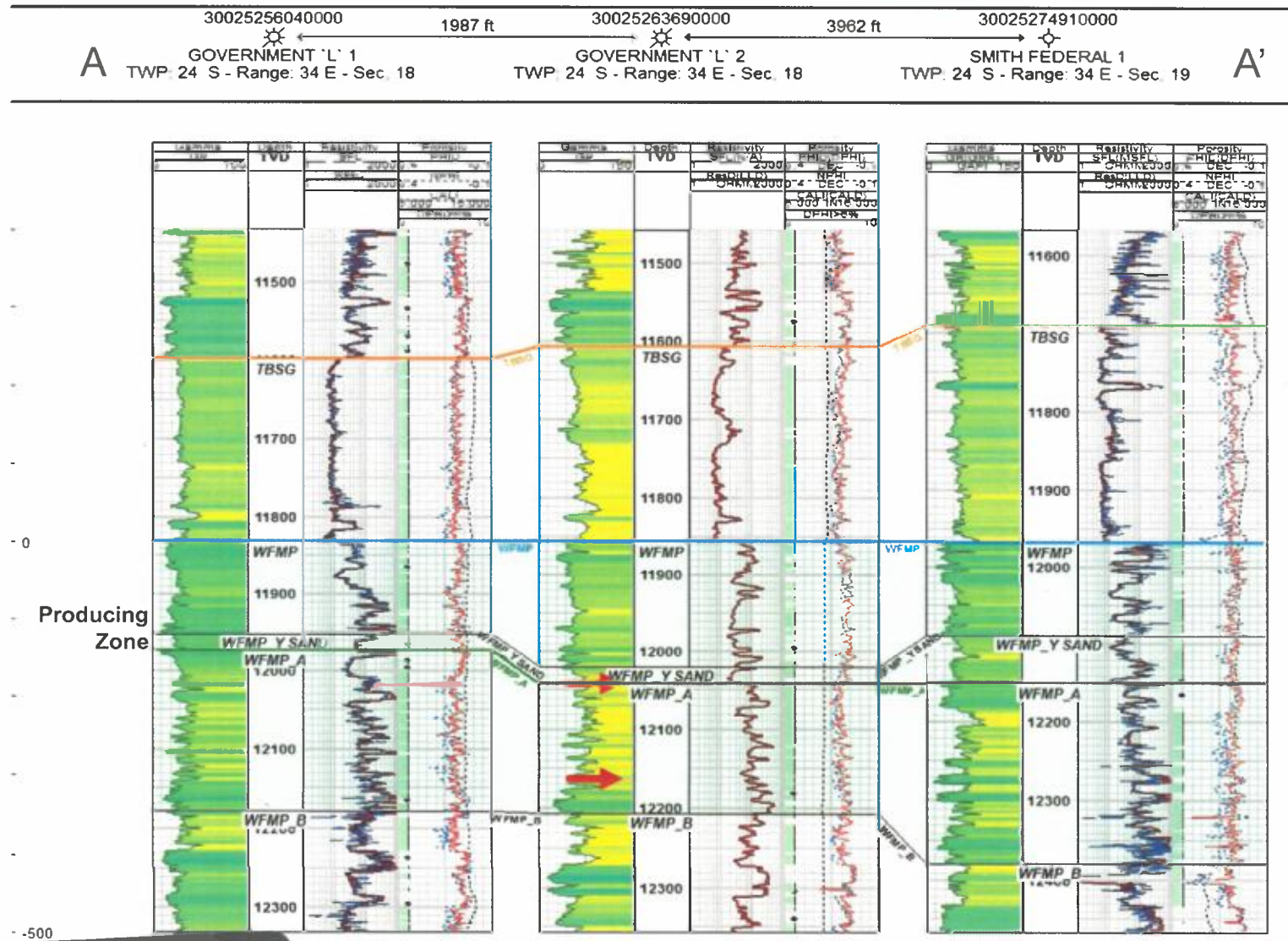
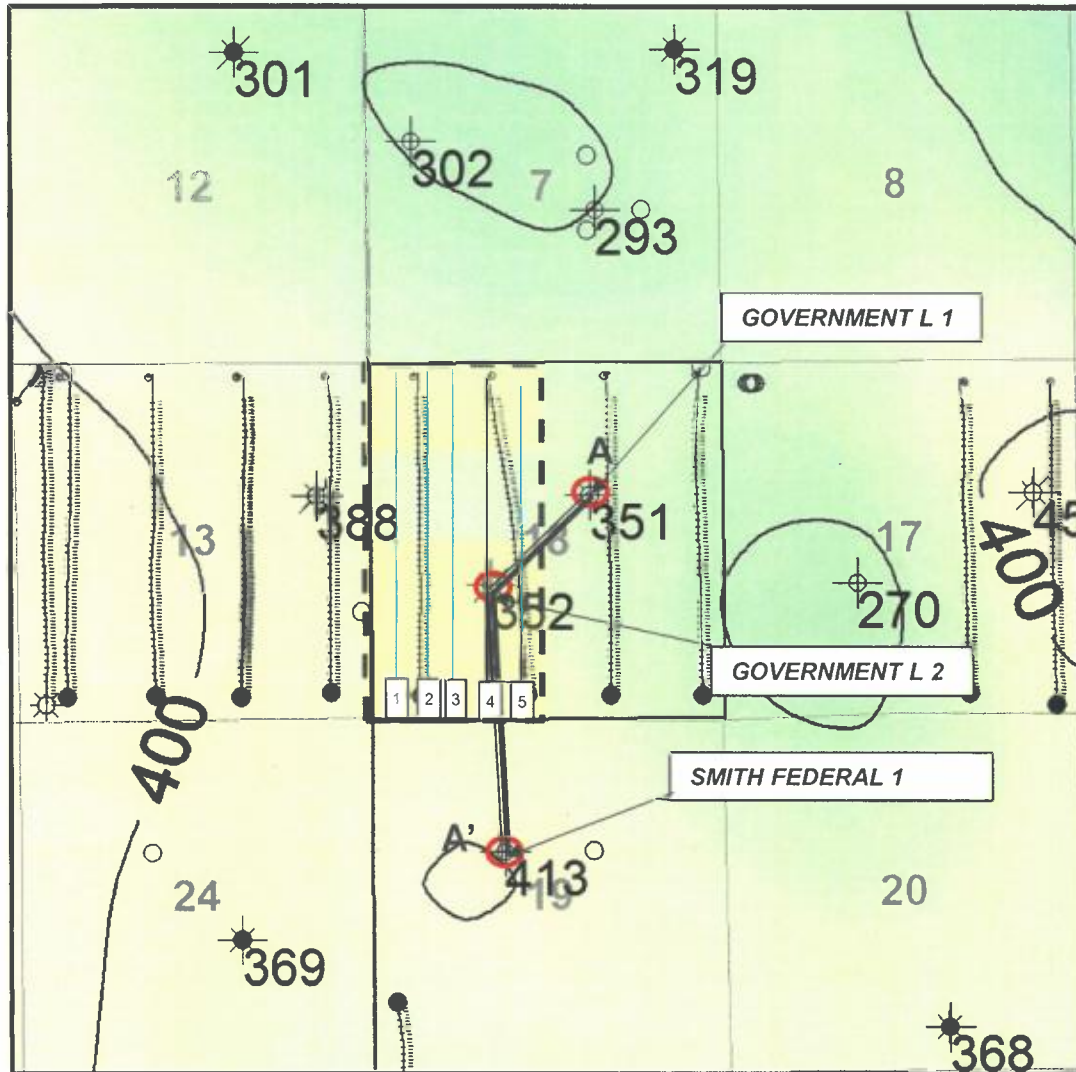


Exhibit I

Ned Pepper 18 Federal Com WA 2H, WXY 6H and WA 9H

Gross Interval Isochore – Wolfcamp to Wolfcamp B



Map Legend



MRO – Horizontal Location



No Offsetting WXY, WA producers



MRO Acreage



Project Area

- 1 Ned Pepper WA Federal Com 2H
- 2 Ned Pepper TB Federal Com 1H
- 3 Ned Pepper WXY Federal Com 6H
- 4 Ned Pepper TB Federal Com 4H
- 5 Ned Pepper WA Federal Com 9H

C.I. = 100'

1 mile

