Before the Oil Conservation Division Examiner Hearing October 3, 2019

Case Nos. 20820 and 20821 Ender Wiggins 14 TB FC 11H and Ender Wiggins 14 WD FC 13H



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

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

) ss.

STATE OF TEXAS

COUNTY OF MIDLAND

accepted by the Division as a matter of record.

CASE NO. 20820, 20821

AFFIDAVIT

	01	AT ARAP AND A TAP
Ryan	Gyllenba	and, being duly sworn, deposes and states:
	1.	I am over the age of 18, I am a land supervisor for Marathon Oil Permian LLC and
have	personal	knowledge of the matters stated herein. I have previously testified before the Oil

Conservation Division ("Division") and my credentials as an expert petroleum landman were

- 2. My area of responsibility at Marathon includes the area of Lea County in New Mexico.
 - 3. I am familiar with the applications filed by Marathon in these cases.
 - 4. I am familiar with the status of the lands that are subject to these applications.
- 5. I submit the following information pursuant to NMAC 19.15.4.12.A(1) in support of the above referenced compulsory pooling applications.
- 6. No opposition is expected because the interest owners being pooled have been contacted regarding the proposed wells, but have failed or refused to voluntarily commit their interests in the wells.

- 7. In the two applications Marathon filed, Marathon seeks to force pool the working interests owner into the horizontal spacing units described in each application, and in the wells to be drilled in the unit.
- 8. Attached as **Exhibit 1** is the application for Case No. 20820. In Case No. 20820, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the E/2 NW/4 of Section 14 and the E/2 W/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico This spacing unit will be dedicated to the **Ender Wiggins 14 TB FC 11H** well, to be horizontally drilled.
 - 9. The producing area for the well will be orthodox.
- 10. Attached as **Exhibit 2** is the application for Case No. 20821. In Case No. 20821, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the NE/4 of Section 14 and the E/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico, New Mexico. This spacing unit will be dedicated to the **Ender** Wiggins 14 WD FC 13H well, to be horizontally drilled.
 - 11. The producing area for the well will be unorthodox.
- 12. Marathon has submitted a separate application for administrative approval of the non-standard location.
- 13. There are no depth severances underlying the E/2 NW/4 of Section 14 and the E/2 W/2 of Section 11 in the spacing unit dedicated to the **Ender Wiggins 14 TB FC 11H**.
- 14. There are no depth severances underlying the NE/4 of Section 14 and the E/2 of Section 11 as to the depths being pooled in the spacing unit dedicated to the Ender Wiggins 14 TB FC 11H.
 - 15. Attached as **Exhibit 3** are the proposed C-102s for the wells.

- 16. The C-102s identify the proposed surface hole locations, first take point, and bottom hole locations. The C-102s also identify the pool and pool code.
- 17. For Case Number 20820, which is the application for the Bone Spring unit, the pool is the Red Hills/Bone Spring East, pool code 97369.
- 18. For Case Number 20821, which is the application for the Wolfcamp unit, the pool is Fairview Mills, Wolfcamp (Gas), pool code 76560.
- 19. Lease tract maps outlining the units being pooled are attached hereto as **Exhibit 4.**The parties being pooled and the percent of their interests is also included as part of Exhibit 4.
- 20. Marathon seeks to pool overriding royalty interest owners, and they were provided notice of this hearing.
- 21. Marathon 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.
- 22. In my opinion, Marathon has made a good faith effort to obtain voluntary joinder of the working interest owners in the proposed wells.
- 23. **Exhibit 5** is a copy of a representative proposal letters sent to the working interest owners, which were sent on July 2, 2019 and August 2, 2019.
- 24. The proposal letter identifies the proposed first and last take points and approximate TVD.
- 25. **Exhibit 6** 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.

- 26. Marathon requests overhead and administrative rates of \$7500.00/month for drilling a well and \$750.00/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.
- 27. Marathon requests the maximum cost plus 200% risk charge be assessed against non-consenting working interest owners.
 - 28. Marathon requests that it be designated operator of the wells.
- 29. Based on Marathon's current drilling schedule, Marathon intends to spud these wells in April. For this reason, Marathon requests expedited orders for these two cases.
- 30. 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.
- 31. **Exhibit 7** 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 September 18, 2019.
- 32. The attachments to this affidavit were prepared by me, or compiled from company business records, or were prepared at my direction.
- 33. I attest that the information provided herein is correct and complete to the best of my knowledge and belief.
- 34. The granting of this application is in the interests of conservation and the prevention of waste.

[Signature page follows]

Ryan Gylfenband

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

Notary Public

My commission expires: 1/23/2023

JESSICA GORMAN
Notary Public, State of Texas
Commission Expires 01-23-2023
Notary ID 13008780-4

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

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

CASE NO. 20920

APPLICATION

Marathon Oil Permian LLC ("Marathon"), OGRID Number 372098, through its undersigned attorneys, hereby makes an application to the Oil Conservation Division pursuant to the provisions of NMSA (1978), Section 70-2-17, for an order pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the E/2 NE/4 of Section 14 and E/2 W/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico. 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 E/2 NW/4 of Section 14 and the E/2 W/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico to form a 240-acre, more or less, spacing unit.
- 3. Marathon plans to drill the Ender Wiggins 14 TB FC 11H well to a depth sufficient to test the Bone Spring formation. This well will be horizontally drilled.
 - 4. The well is within the Red Hills, Bone Spring East Pool, Pool Code 97369.
 - 5. This well will comply with the Division's setback requirements.



- 6. Marathon sought, but has been unable to obtain, a voluntary agreement from all interest owners in the Bone Spring formation underlying the proposed spacing unit to participate in the drilling of the well or to otherwise commit their interests to the well.
- 7. The creation of a horizontal spacing unit and the pooling of all interests in the Bone Spring formation underlying the proposed unit will prevent the drilling of unnecessary wells, prevent waste and protect correlative rights.
- 8. Marathon further requests that it be allowed one (1) year between when the well is drilled and when it is completed under the order.

WHEREFORE, Marathon requests this application be set for hearing before an Examiner of the Oil Conservation Division on October 3, 2019, and after notice and hearing as required by law, the Division enter its order:

- A. Pooling all mineral interests in a Bone Spring formation underlying the E/2 NW/4 of Section 14 and the E/2 W/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico to form a horizontal spacing unit;
- B. Designating Marathon as operator of this unit and the well to be drilled thereon;
- C. Authorizing Marathon to recover its costs of drilling, equipping and completing the well;
- D. Approving actual operating charges and costs charged for supervision, together with a provision adjusting the rates pursuant to the COPAS accounting procedure;
- E. 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;

F. Allowing a time period of one (1) year between when the well is drilled and when it is completed under the order.

Respectfully submitted,

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

Deana M. Bennett

Lance D. Hough

Post Office Box 2168

500 Fourth Street NW, Suite 1000

Albuquerque, New Mexico 87103-2168

Telephone: 505.848.1800

dmb@modrall.com ldh@modrall.com

Attorneys for Applicant

case No. ______: Application of Marathon Oil Permian LLC for compulsory pooling, Lea County, New Mexico. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the E/2 NW/4 of Section 14 and the E/2 W/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico This spacing unit will be dedicated to the Ender Wiggins 14 TB FC 11H well, to be horizontally drilled. The producing area for the well will be orthodox. Also to be considered will be the cost of drilling and completing the 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 14 miles west of Jal, New Mexico.

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

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

CASE NO.	20821

APPLICATION

Marathon Oil Permian LLC ("Marathon"), OGRID Number 372098, through its undersigned attorneys, hereby makes an application to the Oil Conservation Division pursuant to the provisions of NMSA (1978), Section 70-2-17, for an order pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the NE/4 of Section 14 and E/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico. 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 NE/4 of Section 14 and the E/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico to form a 480-acre, more or less, spacing unit.
- 3. Marathon plans to drill the Ender Wiggins 14 WD FC 13H well to a depth sufficient to test the Wolfcamp formation. This well will be horizontally drilled.
- 4. The well is within the Fairview Mills, Wolfcamp Gas Pool (Pool Code 76560), which is subject to 660' setback requirements.



- 5. This well does not comply with the Division's setback requirements. Marathon will apply for administrative approval of the non-standard well location separately.
- 6. Marathon sought, but has been unable to obtain, a voluntary agreement from all interest owners in the Wolfcamp formation underlying the proposed spacing unit to participate in the drilling of the well or to otherwise commit their interests to the well.
- 7. The creation of a horizontal spacing unit and the pooling of all interests in the Wolfcamp formation underlying the proposed unit will prevent the drilling of unnecessary wells, prevent waste and protect correlative rights.
- 8. Marathon further requests that it be allowed one (1) year between when the well is drilled and when it is completed under the order.

WHEREFORE, Marathon requests this application be set for hearing before an Examiner of the Oil Conservation Division on October 3, 2019, and after notice and hearing as required by law, the Division enter its order:

- A. Pooling all mineral interests in a Wolfcamp formation underlying the NE/4 of Section 14 and the E/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico, New Mexico to form a horizontal spacing unit;
- B. Designating Marathon as operator of this unit and the well to be drilled thereon;
- C. Authorizing Marathon to recover its costs of drilling, equipping and completing the well;
- D. Approving actual operating charges and costs charged for supervision, together with a provision adjusting the rates pursuant to the COPAS accounting procedure;

- E. 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;
- F. Allowing a time period of one (1) year between when the well is drilled and when it is completed under the order.

Respectfully submitted,

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

By: Netha

Deana M. Bennett Lance D. Hough Post Office Box 2168

500 Fourth Street NW, Suite 1000

Albuquerque, New Mexico 87103-2168

Telephone: 505.848.1800

dmb@modrall.com ldh@modrall.com

Attorneys for Applicant

CASE NO. ______: Application of Marathon Oil Permian LLC for compulsory pooling, Lea County, New Mexico. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the NE/4 of Section 14 and the E/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico, New Mexico. This spacing unit will be dedicated to the Ender Wiggins 14 WD FC 13H well, to be horizontally drilled. The producing area for the well will be unorthodox. Also to be considered will be the cost of drilling and completing the 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 14 miles west of Jal, New Mexico.

District I
1025 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fav. (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fav. (575) 748-9720
District III
1000 Rio Brazos Road, Artec, NM 87410
Phone (505) 334-6178 Fav. (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fav. (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

'	API Numbe	r	1	² Pool Code 97369		RED H	Pool Na ILLS; BONE	ESPRING EAS	ST
4 Property	Code			END	SProperty 1 DER WIGGII	NS 14 TB FC	-	6	Well Number
² ogrid 37209				MARA	⁸ Operator I THON OIL	Name PERMIAN LL	.C		Selevation 3332'
					" Surface I	Location			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	14	25S	34E		2451	NORTH	1765	WEST	LEA

"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	11	25S	34E		100	NORTH	1805	WEST	LEA
12 Dedicated Acres	12 Dedicated Acres 13 Joint or Infill 14 Consolidation Code 15 Order No.								
240.0									

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.

Infill Well SECTION 3 SECTION 5	A	CORNER COORD NAD 83, SPCS N8 A - X: 616249.26' / Y: B - X: 817573.89' / Y: C - X: 817639.91' / Y: D - X: 816317.87' / Y: B SECTION 2	MEAST NAD 27, SPCS NM EAST 420262 05' A - X: 775063 31' / Y: 420203.76' A - X: 776387.92' / Y: 420211.03' 412351.77' C - X: 776453.56' / Y: 412293.69'	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 bostom hole location or has a right to drill this well at this kecation prossant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling arker heretofore entered by the division
SECTION 10 SECTION 11	2451' N00*29'56"W~5178.70	BHL	LAST TAKE POINT/BOTTOM HOLE LOCATION 100' FNL 1805' FWL, SECTION 11 NAD 83, SPCS NM EAST X:816730.47' / Y:420164.69' LAT:32.15198249N / LON:103.44347934W NAD 27, SPCS NM EAST X:775544.51' / Y:420106.42' LAT:32.15185728N / LON:103.44300998W FIRST TAKE POINT 2539' FNL 1805' FWL, SECTION 14 NAD 83, SPCS NM EAST X:816799.87' / Y:412447.20' LAT:32.13076855N / LON:103.44346116W NAD 27, SPCS NM EAST X:775613.55' / Y:412389.13' LAT:32.13064322N / LON:103.44299309W	Signature Date Printed Name E-mail Address **SURVEYOR CERTIFICATION Thereby certify that the well location shown on this plat was plotted from field notes of actual surveys
1765' SI 1805' SI 1805' A83 A83 SHEET 1 OF 3 JOB No. R3816_008 REV 5 JCS 8/20/201	IL DON	KOP/ FIRST TAKE	KICK OFF POINT 2539' FNL 1805' FWL, SECTION 14 NAD 83, SPCS NM EAST X:816799.87' / Y:412447.20' LAT:32.13078855N / LON:103.44346116W NAD 27, SPCS NM EAST X:775613.55' / Y:412389.13' LAT:32.13064322N / LON:103.44299309W SURFACE HOLE LOCATION 2451' FNL 1765' FWL, SECTION 14 NAD 83, SPCS NM EAST X:816759.43' / Y:412535.32' LAT:32.13101166N / LON:103.44358946W NAD 27, SPCS NM EAST X:775573.10' / Y:412477.25' LAT:32.13088634N / LON:103.44312137W	made by me or under my supervision, and that the same is true and correct to the best of my belief. SEPTEMBER 10, 2019 Date of Survey Signature and Seal of Professional Surveyor Certificate Number LLOYD P. SHO EXHIBIT

Distances/areas relative to NAD 83 Combined Scale Factor: 0.999996086 Convergence: 00°28'24.77529"

H

District I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax. (575) 393-6720
District II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fax. (575) 748-9720
District III
1000 Ro Brazos Road. Aztec, NM 87410
Phone (505) 334-6178 Fax. (505) 334-6170
District IIX
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

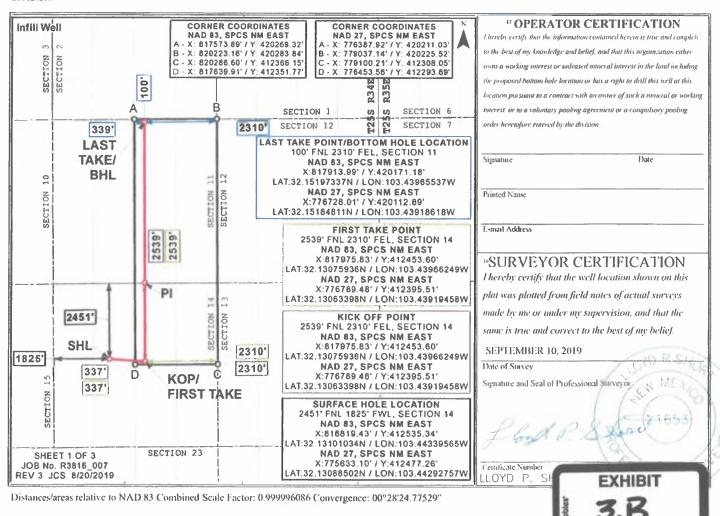
■ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	² Pool Code	² Pool Nam	
	76560	FAIRVIEW MILLS; WO	OLFCAMP (GAS)
⁴ Property Code	⁵ Pro	perty Name	⁶ Well Number
	ENDER WIC	GINS 14 WD FC	13H
⁷ OGRID No.	^к Оре	rator Name	⁵ Elevation
372098	MARATHON (DIL PERMIAN LLC	3332'

					Surface 1	ocation			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	14	25S	34E		2451	NORTH	1825	WEST	LEA
	" Bottom Hole Location If Different From Surface								
UL or let no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	11	25S	34E		100	NORTH	2310	EAST	LEA
12 Dedicated Acres	Dedicated Acres 3 Joint or Infill 4 Consolidation Code 3 Order No.								
480.0									

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.

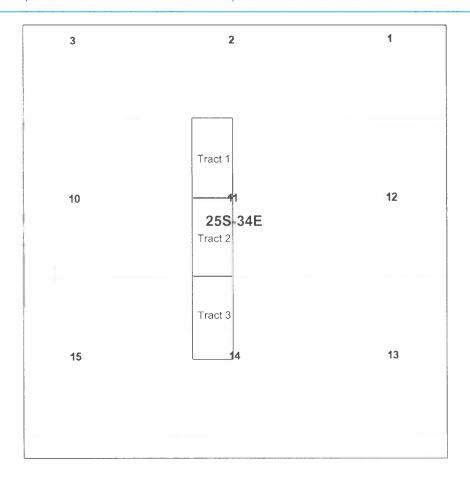


Ender Wiggins 14 TB FC 11H E/2 W/2 of Section 11, 25S-34E, and E/2 NW/4 of Section 14, 25S-34E – 240 acres

Tract 1: Federal Acreage

Tract 2: Federal Acreage

Tract 3: Fee Acreage







Summary of Interests Ender Wiggins 14 WD FC 11H E/2 of Section 11, 25S-34E, and NE/4 of Section 14, 25S-34E – 480 acres

Committed Working Interest:		91.812721%	
Marathon Oil Permian LLC	64.320988%		
Chevron U.S.A. Inc.	16.812721%		
Chevron Midcontinent, L.P.	8.333333%		
COG Operating LLC	2.345679%		
Uncommitted Working Interest:		8.187279%	
OXY Y-1	8 187279%		



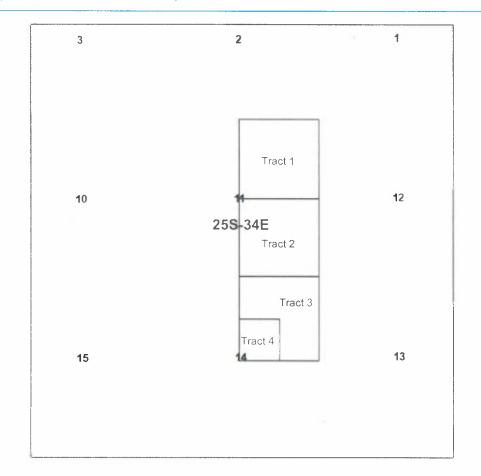


Lease Tract Map Ender Wiggins 14 WD FC 13H E/2 of Section 11, 25S-34E, and NE/4 of Section 14, 25S-34E – 480 acres

Tract 1: Federal AcreageTract 2: Federal Acreage

Tract 3: Fee Acreage

Tract 4: Fee Acreage







Summary of Interests

Ender Wiggins 14 WD FC 13H

E/2 of Section 11, 25S-34E, and NE/4 of Section 14, 25S-34E - 480 acres

Committed Working Interest: Marathon Oil Permian LLC	58.223379%	58.223379%
Uncommitted Working Interest: Chevron U.S.A. Inc. Chevron Midcontinent, L.P. OXY Y-1 EOG Resources Inc. COG Operating LLC Energen Resources Corporation Ozark Royalty Co., LLC Crown Oil Partners V, LP Crump Energy Partners II, LLC Nadel and Gussman Delaware, LLC	16.812721% 8.333333% 8.187279% 3.356482% 1.759259% 1.240355% 0.586420% 0.525270% 0.525270% 0.450232%	41.776621%





Ryan Gyllenband Land Professional



Marathon Oil Permian LLC 5555 San Feline Street

5555 San Felipe Street Houston, TX 77056

Telephone: 713.296.2453 Mobile: 281.684.7389

Fax: 713.513.4006

mrgyllenband@marathonoil.com

July 2, 2019

VIA CERTIFIED RETURN RECEIPT MAIL.

Oxy Y-1 5 Greenway Plaza, Suite 100 Houston, TX 77046

Re: Ender Wiggins 11H Well Proposal

Sections 11 & 14, T25S-R34E Lea County, New Mexico

Dear Oxy Y-1:

Marathon Oil Permian LLC ("MRO") proposes the drilling of the following well located in the E/2 W/2 of Section 11, and the E/2 NW/4 of Section 14, 25S-34E, Lea County, New Mexico all to be drilled from the same surface pad location.

• Ender Wiggins 14 TB FC 11H with a proposed first take point located 2,540' FNL and 1,805' FWL of Section 14, 25S-34E, and a proposed last take point located 100' FNL and 1,805' FWL of Section 11, 24S-35E. The well will have a targeted interval located in the Bone Spring Formation (~12,376' TVD) with a productive lateral length of approximately 7,720'. The total estimated drilling and completion cost is \$7,998,785 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.

MRO proposes drilling the well under the terms of the 1989 AAPL JOA and a form of this JOA will be sent to you following this proposal. The JOA will have these general provisions:

- 100%/300%/300% non-consent penalty
- \$7,500/\$750 drilling and producing rates
- Contract area of E/2 W/2 Section 11 & E/2 NW/4 Section 14, 25S-34E, covering Bone Spring formation.

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 July 31, 2019 and is subject to due diligence and title verification satisfactory to Marathon.
Should you have any questions regarding this or other matters, please don't hesitate to contact me at the above listed numbers.
Sincerely,
Ryan Gyllenband
Ender Wiggins 11H
elects to participate in the drilling, completing, and equipping of the Ender Wiggins 14 TB FC 11H well. elects NOT to participate in the drilling, completing, and equipping of the Ender Wiggin 14 TB FC 11H well.
<u>Oxy Y-1</u>
Ву:
Print Name:
Title:
Date:

Ryan Gyllenband Land Professional



Marathon Oil Permian LLC
5555 San Felipe Street
Houston, TX 77056
Telephone: 713.296.2453 Mobile: 281.684.7389
Fax: 713.513.4006
mrgyllenband@marathonoil.com

August 2 2019

VIA CERTIFIED RETURN RECEIPT MAIL

Chevron U.S.A. Inc. 6301 Deauville Blvd. Midland, TX 79706

Re:

Ender Wiggins 13H Well Proposal Sections 11 & 14, T25S-R34E Lea County, New Mexico

Dear Chevron U.S.A. Inc.:

Marathon Oil Permian LLC ("MRO") proposes the drilling of the following well located in the E/2 of Section 11, and the NE/4 of Section 14, 25S-34E, Lea County, New Mexico.

Well Name	FTP	LTP	TVD	MD	AFE Cost
Ender Wiggins 14 WC FC 13H	1,980' FEL/2,540' FNL	1,980' FEL/100' FNL	13,092'	21,138'	\$10,845,355

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

MRO proposes drilling the well under the terms of the 1989 AAPL JOA and a form of this JOA will be sent to you following this proposal. The JOA will have these general provisions:

- 100%/300%/300% non-consent penalty
- \$7,500/\$750 drilling and producing rates

- fager

• Contract area of E/2 Section 11 & NE/4 Section 14, 25S-34E, covering all depths

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 September 1, 2019 and is subject to due diligence and title verification satisfactory to Marathon.



above listed numbers. Sincerely, Bunglad Ryan Gyllenband Ender Wiggins 14 WC FC 13H elects to participate in the drilling, completing, and equipping of the Ender Wiggins 14 WC FC 13H well. elects NOT to participate in the drilling, completing, and equipping of the Ender Wiggins 14 WC FC 13H well. Chevron U.S.A. Inc. By: Print Name: Date:

Should you have any questions regarding this or other matters, please don't hesitate to contact me at the

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

DATE 7/2/2019

ORILLING & LOCATION PREPARED BY MAITHEW RUGAARD

COMPLETION PREPARED BY JOSH SHANNON

FAGLITIES PREPARED BY HOLLY MURPHY

ARTIFICIAL LIFT PREPARED BY HOLLY MURPHY

Asset Team Field	PERMIAN FORMATION: 3RD BONE SPRINGS WILDCAT	EXPLORATION
	ENDER WIGGINS 14 TB FC 11H DEVELOPMENT	RECOMPLETION
	LEA COUNTY X EXPLOITATION	WORKOVER
	RED HILLS	•
Est Total Depth	20 447 Est Drilling Days 27 Est Completion Days	8.25
LOCATION COST - IN	TANGIBLE	
LOCATION COST - IN	IAMBIOLE	
GL CODE	DESCRIPTION	ESTIMATED COST
7001270	Location and Access	40,200
7001250	Land Broker Fees and Services	27,000
	TOTAL LOCATION COST - INTANGIBLE	67,200
DRILLING COST - TAP	IGIBLE	
		28,000
7012050	Conductor Pipe	40,000
7012050	Surface Casing	
7012050	Intermediate Casing 1	147,000
7012050	Intermediate Casing 2	293,000
7012050	Production Casing	111,000
7012050	Orig Uner Hanger, Tleback Eq & Csg Accessories	55,000 50,000
7012550	Orilling Wellhead Equipment	
7012040	Casing & Tubing Access	24,000
7012270	Miscellaneous MRO Materials	5,000
	TOTAL DRILLING - TANGIBLE	753,000
DRILLING COST - INT	ANGIBLE	
7019200	Drilling Rig Mob/Demob	26,000
7019220	Drilling Rig - day work/footage	729,000
7019040	Directional Dritting Services	245,000
7019020	Cement and Cementing Service Surface	25,000
7019020	Cement and Cementing Service intermediate 1	40,000
7019020	Cement and Cementing Service Intermediate 2	40,000
7019020	Cement and Cementing Service Production	60,000
7019140	Mud Fluids & Services	71,000
7012310	Sollds Control equipment	49,000
7012020	Bits	70,000
7019010	Casing Crew and Services	30,000
7016350	Fuel (Rig)	83,000
7019140	Fuel (Mud)	30,000
7001460	Water (non potable)	25,000
7012350	Water (potable)	5,000
7019000	Well Logging Services	
7019150	Mud Logging+geosteering	23,000
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)	60,000
7001160	Contract Services - Disposal/Non-Hazardous Waste	80,000
7001440	Vacuum Trucks	10,000
7000030	Contract Labor - general	30,000
7000030	Contract Labor - Operations	3,000
7001200	Contract Services - Facilities	10,000
7019300	Well Services - Well Control Services	23,500
7019350	Well Services - Well/Wellhead Services	10,000
7018150	Rental Tools and Equipment (surface rentals)	108,000
7018150	Rig Equipment and Misc.	13,500
7001110	Telecommunications Services	5,000
7001120	Consulting Services	126,900
7001400	Safety and Environmental	43,200
7018120	Rental Buildings (trailers)	21,600
7019310	Coring (sidewalls & analysis)	
7011010	7% Contingency & Taxes	203,959
	FOTAL DRILLING - INTANGIBLE	\$2,364,659
	TOTAL DRILLING COST	\$3,117,659
	TOTAL ORIGINAL COST	42,111,033
COMPLETION - TANK	HBLE	
7012580	Tubing	C.p.
7012040	Tubing Accessories (nipple, wireline entry)	- 12
7012550	Wellhead Equip	15,000
7012560	Packers - Completion Equipment	
	TOTAL COMPLETION . YANGING	\$15,000



MARATHON OIL PERMIAN LLC 7/2/2019 **AUTHORITY FOR EXPENDITURE** DETAIL OF ESTIMATED WELL COSTS PERMIAN Asset Team FORMATION: 3RD BONE SPRINGS ENDER WIGGINS 14 TB FC 11H Lease/Facility COMPLETION - INTANGIBLE GL CODE DESCRIPTION **ESTIMATED COST** 7001270 Location and Access (dress location after rig move, set anchors) 10,000 7019220 **Drilling Rig During Completion** Mud Fluids & Services 7019140 7019030 Coiled Tubing Services (3 runs) 225,000 7019240 Snubbing Services 7019270 Pulling/Swab Units 7016350 Fuel (from drig) 7019010 **Casing Crew and Services** Cement and Cementing Services
Well Testing Services (flow hand & equip) 425,000 7019080 7019320 Fracturing Services 1,935,300 Perforating 175,000 15,000 7019360 Wireline Services Water Hauling & Disposal (frac fluids)
Freight - Truck (haul pipe; drig & compl) 7001460 460,000 15,000 7016180 7018150 **BOP Rental & Testing** Rental Tools and Equipment (incl drig; lightplant, hydra-walk)
CT Downhole Rental Equipment (le. Bit, BHA) 7018150 7018150 25,000 7000030 Contract Labor - general Telecommunications Services 70,000 7001110 7001400 Safety and Environmental Consulting Services
Zipper Manifold 7001120 60,000 120,000 7018150 7019300 Frack Stack Rentals 45,000 Freight (Transportation Services) 7016190 75,000 Equipment Rental (w/o operator, frac tanks, lightplants) 7018150 Rental Buildings (trailers)

Contract Labor - Pumping (pump-down pumps) 7018120 15,000 7000030 7011010 8% Contingency & Taxes 234,400 TOTAL COMPLETION - INTANGIBLE \$3,934,700 TOTAL COMPLETION COST \$3,949,700 SURFACE EQUIPMENT - TANGIBLE 7012350 15,664 Misc. Piping, Fittings & Valves 7006640 Company Labor & Burden 7000030 Contract Labor - General
Telecommunication equip (Telemetry) 53,774 7001110 7012410 Line Pipe & Accessories 7012270 Miscellaneous Materials (containment system) 28,413 7008060 5CADA 7016180 7001190 Freight - truck Contract Engineering 5,153 7012290 Metering and Instrumentation 3,882 7012290 I&E Materials 101,444 7012200 Gas Treating 7012010 Compressor 7012350 Vapor Recovery Unit 7012610 285,995 7012440 Separator & other pressure vessels 7012500 Tanks 235,346 Heater Treater 7012100 15,528 7012640 Flare & Accessories 9,026 7000010 Mechanical Labor 7012480 7012180 Rod Pumping unit & Pad **Pumping Unit Engine** 7012350 Electrical Power (electrical cooperative construction costs) TOTAL SURFACE EQUIPMENT - TANGIBLE \$754,226 \$ TOTAL SURFACE EQUIPMENT COST 754,226 ARTIFICIAL LIFT 7006640 Company Labor 7012180 7012480 Gas Lift Equipment 6,000 Rod Pumping, Sucker Rods & Rod Pump 5,000 6,000 7012140 Elect Sub Pumps (ESP) Well Services-Well/Wellhead Services 17,500 6,250 Materials & Supplies-Tangible 7012270 7012550 Surface Wellhead Equipment 3,000 Pig Launchers/Receivers & Rel Equip 45,000 7012390 7011010 8% Contingency & Taxes 15,000 TOTAL ARTIFICIAL LIFT 110,000 TOTAL ARTIFICIAL LIFT COST \$ 110,000 SUMMARY OF ESTIMATED DRILLING WELL COSTS **TOTAL COST** TOTAL LOCATION COST 67,200 **TOTAL DRILLING COST** 3,117,659 TOTAL COMPLETIONS COST 3,949,700 **TOTAL SURFACE EQUIPMENT COST** 754.226 TOTAL ARTIFICIAL LIFT COST 110,000 GRAND TOTAL COST \$7,998,785 Participant's Approval Name of Company

Date:

Signature: __ Title: _ MARATHON OIL PERMIAN LLC AUTHORITY FOR EXPENDITURE DETAIL OF ESTIMATED WELL COSTS DATE 7/30/2019
DRILLING & LOCATION PREPARED BY MAYTHEW RUGANAD
COMPLETION PREPARED BY JOSH SHANNON
FACILITIES PREPARED BY RICK LINDSAY

	ARTIFICIAL LIFT PREPARED	BY RICKLINDSAY
Asset Team	PERMIAN	
Field	FORMATION: WOLFCAMP C WILDCAT	EXPLORATION DECOMANDE
Lease/Facility Location	ENDER WIGGINS 14 WC FC 13H DEVELOPMENT EDDY COUNTY X EXPLOITATION	MORKOVER WORKOVER
Prospect	MALAGA	
Est Total Depth	21 138 Est Drilling Days 29 Est Completion D	Days 8.25
LOCATION COST - IP	YTANGIBLE	
GL CODE	DESCRIPTION	ESTIMATED COST
7001270	Location and Access	67,000
7001250	Land Broker Fees and Services	45,000
7001230	COLLO DE ONGLE TOUR SELECTIONS	
	TOTAL LOCATION COST - INTANGIBLE	112,000
DRILLING COST - TA	NGIBLE	
7012050	Conductor Pipe	28,000
7012050	Surface Casing	38,000
7012050	Intermediate Casing 1	
7012050	Intermediate Casing 2	284,000
7012050	Production Casing	400,000
7012050	Drig Liner Hanger, Tieback Eq & Csg Accessories	10,000
7012550	Drilling Wellhead Equipment	70,000
7012040	Casing & Tubing Access	11,000
7012270	Miscellaneous MRO Materials	5,000
	TOTAL DRILLING - YANGIBLE	846,000
	TOTAL UNICONG - TANGIOLE	840,000
DOULING COCT. IN	PANCIDIF.	
DRILLING COST - IN	ANGIBLE	
7019200	Drilling Rig Mob/Demob	43,333
7019220	Drilling Rig - day work/footage	786,600
7019040	Directional Orilling Services	312,600
7019020	Cement and Cementing Service Surface	25,000
7019020	Cement and Cementing Service Intermediate 1	-
7019020	Cement and Cementing Service Intermediate 2	40,000
7019020	Cement and Cementing Service Production	70,000
7019140	Mud Fluids & Services	127,800
7012310	Solids Control equipment	62,000
7012020	Bits	120,000
7019010	Casing Crew and Services	50,000
7016350	Fuel (Rig)	117,000
7019140	Fuel (Mud)	60,000
7001460	Water (non potable)	25,000
7012350	Water (potable)	5,000
7019000	Well Logging Services	
7019150	Mud Logging-geosteering	25,000 15,000
7019250 7019110	Stabilizers, Hole Openers, Underreamers (DH rentals)	15,000
7019110	Casing inspection/cleaning Drill pipe/collar inspection services	10,000
7016180	Freight - truck	25,000
7001460	Water hauling and disposal (includes soil farming)	180,000
7001160	Contract Services - Disposal/Non-Hazardous Waste	80,000
7001440	Vacuum Trucks	80,000
7000030	Contract Labor - general	30,000
7000030	Contract Labor - Operations	3,000
7001200	Contract Services - Facilities	10,000
7019300	Well Services - Well Control Services	24,567
7019350	Well Services - Well/Wellhead Services	10,000
7018150	Rental Yooks and Equipment (surface rentals)	116,533
7018150	Rig Equipment and Misc.	14,567
7001110	Telecommunications Services	5,000
7001120	Consulting Services	136,927 46,613
7018120	Safety and Environmental Rental Buildings (trailers)	23,307
7019310	Coring (sidewalls & analysis)	*3,307
7011010	7% Contingency & Taxes	247,859
	TOTAL DRILLING - INTANGIBLE	\$2,942,706
	TOTAL DRILLING COST	\$3,788,706
	TOTAL PARENTS COST	23,700,700
COMPLETION TO	CIRLS	
COMPLETION - TAN	AIDEC	
7012580	T _{ii} bin g	9:
7012040	Tubing Accessories (nipple, wireline entry)	1
7012550	Wellhead Equip	15,000
7012560	Packers - Completion Equipment	
	TOTAL COMPLETION - TANGISLE	\$15,000



MARATHON OIL PERMIAN LLC 7/30/2019 AUTHORITY FOR EXPENDITURE DETAIL OF ESTIMATED WELL COSTS PERMIAN Asset Team FORMATION: WOLFCAMP C ENDER WIGGINS 14 WC FC 13H Lease/Facility COMPLETION - INTANGIBLE GL CODE DESCRIPTION ESTIMATED COST 7001270 Location and Access (dress location after rig move, set anchors) 10,000 Drilling Rig During Completion Mud Fluids & Services 7019220 7019140 7019030 Coiled Tubing Services (3 runs) 290,000 7019240 Snubbing Services 7019270 Pulling/Swab Units 7019010 **Casing Crew and Services** Cement and Cementing Services
Well Testing Services (flow hand & equip) 7019080 445,000 7019320 **Fracturing Services** 3,278,600 7019330 235,000 7019360 Wireline Services 15,000 Water Hauling & Disposal (frac fluids) Freight - Truck (haul pipe; drig & compl) 762,000 7016180 15,000 7018150 **BOP Rental & Testing** 7018150 Rental Tools and Equipment (incl drig; lightplant, hydra-walk) CT Downhole Rental Equipment (ie. Bit, BHA) 7018150 Contract Labor - general 40,000 7001110 Telecommunications Services 80,000 7001400 Safety and Environmental Consulting Services
Zipper Manifold 7001120 80,000 7018150 170,000 7019300 Frack Stack Rentals 65,000 7016190 Freight (Transportation Services) Equipment Rental (w/o operator, frac tanks, lightplants) 60,000 7018150 25,000 45,000 7018120 Rental Buildings (trailers) Contract Labor - Pumping (pump-down pumps) 7000030 7011010 8% Contingency & Taxes 363,900 TOTAL COMPLETION - INTANGIBLE \$5,979,500 TOTAL COMPLETION COST \$5,994,500 SURFACE EQUIPMENT - TANGIBLE 7012350 Misc. Piping, Fittings & Valves 17,120 7006640 Company Labor & Burden 7000030 Contract Labor - General Telecommunication equip (Telemetry) 62,878 7001110 7012410 Line Pipe & Accessories Miscellaneous Materials (containment system) 35,847 7008060 SCADA Freight - truck
Contract Engineering 7016180 7,264 7001190 7012290 Metering and Instrumentation 5,823 7012290 I&E Materials 105,326 7012200 **Gas Treating** 7012010 Compressor 7012350 Vapor Recovery Unit 7012440 Separator & other pressure vessels 336,771 7012500 7012100 235,346 Heater Treater 7012640 Flare & Accessories 23,293 10,482 7000010 Mechanical Labor 7012480 Rod Pumping unit & Pad 7012180 Pumping Unit Engine 7012350 Electrical Power (electrical cooperative construction costs) TOTAL SURFACE EQUIPMENT - TANGIBLE \$840,149 TOTAL SURFACE EQUIPMENT COST 840,149 ARTIFICIAL LIFT 7006640 Company Labor 45,000 7012180 Gas Lift Equipment 15,000 6,250 7012480 Rod Pumping, Sucker Rods & Rod Pump 7012140 Elect Sub Pumps (ESP) 17,500 7019350 Well Services Well/Wellhead Services Materials & Supplies-Tangible 7012270 6,000 7012550 Surface Wellhead Equipment 5,000 7012390 Pig taunchers/Receivers & Rel Equip 6,250 7011010 8% Contingency & Taxes 3.000 TOTAL ARTIFICIAL LIFT 110,000 TOTAL ARTIFICIAL LIFT COST 110,000 SUMMARY OF ESTIMATED DRILLING WELL COSTS TOTAL COST TOTAL LOCATION COST 112,000 TOTAL DRILLING COST 3,788,706 TOTAL COMPLETIONS COST 5,994,500 TOTAL SURFACE EQUIPMENT COST 840,149 TOTAL ARTIFICIAL LIFT COST 110,000 **GRAND TOTAL COST** \$10,845,355

Participant's Approval

Date:

Name of Company: Signature: Title:

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

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

CASE NO. 20820, 20821

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 Applications were sent under a notice letter attached hereto and that proof of receipt is attached hereto.

Deana M. Bennett

SUBSCRIBED AND SWORN to before me this 1st day of October, 2019 by Deana M. Bennett.

Notary Public

My commission expires: 02-27-21





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 09/12/2019



Firm Mailing Book ID: 174519

Line	USPS Article Number	Name, Street, City, State, Zip		Postage	Service Fee	RR Fee	Rest.Del.Fee	Reference Contents
1	9314 8699 0430 0063 2492 59	OXY Y-1 5 Greenway Plaza, Suite 110 Houston TX 77046		\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 TB Notice
2	9314 8699 0430 0063 2492 66	Tha Allar Company P.O. Box 1567 Graham TX 76450		\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 TB Notice
3	9314 8699 0430 0063 2492 73	EOG A Resources, Inc. 5509 Champions Drive Midland TX 79706		\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 TB Notice
4	9314 8699 0430 0063 2492 80	EOG M Resources, Inc. 5509 Champions Drive Midland TX 79706		\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 TB Notice
5	9314 8699 0430 0063 2492 97	Cornerstone Family Trust P.O. Box 17656 Golden CO 80402		\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 TB Notice
6	9314 8699 0430 0063 2493 03	Crownrock Minerals, L.P. P.O. Box 51933 Midland TX 79710		\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 TB Notice
7	9314 8699 0430 0063 2493 10	Allar Development LLC P.O. Box 1567 Graham TX 76450		\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 TB Notice
8	9314 8699 0430 0063 2493 27	Regeneration Energy Corp. P.O. Box 210 Artesia NM 88211		\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 TB Notice
			Totals:	\$9.20	\$28.00	\$12.80	\$0.00	
					Grand	Total:	\$50.00	

Dated:



List Number of Pieces Listed by Sender Total Number of Pieces Received at Post Office Postmaster:

Name of receiving employee



Transaction Report Details - CertifiedPro.net Firm Mail Book ID= 174519 Generated: 9/30/2019 7:21:50 AM

USPS Article Number	Date Created	Name 1	Address	City	State	Zip	Mailing Status	Service Options	Batch ID	Mail Delivery Date
931486990430006324	2019-09-12 11:28 AM	Regeneration Energy Corp.	P.O. Box 210	Artesia	NM	88211	Delivered	Return Receipt - Electron , Certified Mail	172045	09-16-2019
9314869904300063249310	2019-09-12 11:28 AM	Allar Development LLC	P.O. Box 1567	Graham	TX	76450	Delivered	Return Receipt - Electronic, Certified Mail	172045	09-16-2019
9314869904300063249303	2019-09-12 11:28 AM	Crownrock Minerals, L.P.	P.O. Box 51933	Midland	TX	79710	Delivered	Return Receipt - Electronic, Certified Mail	172045	09-17-2019
9314869904300063249297	2019-09-12 11:28 AM	Cornerstone Family Trust	P.O. Box 17656	Golden	CO	80402	Delivered	Return Receipt - Electronic, Certified Mail	172045	09-21-2019
9314869904300063249280	2019-09-12 11:28 AM	EOG M Resources, Inc.	5509 Champions Drive	Midland	TX	79706	Delivered	Return Receipt - Electronic, Certified Mail	172045	09-17-2019
9314869904300063249273	2019-09-12 11:28 AM	EOG A Resources, Inc.	5509 Champions Drive	Midland	TX	79706	Delivered	Return Receipt - Electronic, Certified Mail	172045	09-17-2019
9314869904300063249266	2019-09-12 11:28 AM	Tha Allar Company	P.O. Box 1567	Graham	TX	76450	Delivered	Return Receipt - Electronic, Certified Mail	172045	09-16-2019
9314869904300063249259	2019-09-12 11:28 AM	OXY Y-1	5 Greenway Plaza, Suite 1	Houston	TX	77046	Delivered	Return Receipt - Electronic, Certified Mail	172045	09-24-2019



September 12, 2019

Deana M. Bennett 505-848-1834 Deana.Bennett@modrall.com

VIA CERTIFIED MAIL

Re: APPLICATION OF MARATHON OIL PERMIAN LLC FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.

CASE NO. 20820

TO: AFFECTED PARTIES

This letter is to advise you that Marathon Oil Permian LLC ("Marathon") has filed the above-listed application.

In Case No. 20820, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the E/2 NW/4 of Section 14 and the E/2 W/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico This spacing unit will be dedicated to the Ender Wiggins 14 TB FC 11H well, to be horizontally drilled. The producing area for the well will be orthodox. Also to be considered will be the cost of drilling and completing the 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.

This case has been set for hearing before a Division Examiner on October 3, 2019 starting at 8:15 a.m. The hearing will be held in Porter Hall in the Oil Conservation Division's Santa Fe Office located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. As a party who may be affected by this application, we are notifying you of your right to appear at the hearing and participate in the case, including the right to present evidence either in support of or in opposition to the application. Failure to appear at the hearing may preclude you from any involvement in the case at a later date.

You are further notified that if you desire to appear in the case, then you are requested to file a Pre-Hearing Statement with the Division at least four business days in advance of a scheduled hearing before the Division or the Commission, but in no event later than 5:00 p.m. mountain time, on the

Modrall Sperling Roehl Harris & Sisk P.A.

500 Fourth Street NW Suite 1000 Albuquerque, New Mexico 87102

PO Box 2168 Albuquerque, New Mexico 87103-2168

Tel: 505.848.1800 www.modrall.com

Page 2

Thursday preceding the scheduled hearing date, with a copy delivered to the undersigned.

Sincerely,

Deana M. Bennett

Attorney for Applicant

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 09/12/2019



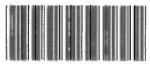


Firm Mailing Book ID: 174518

							D.C.
Line	USPS Article Number	Name, Street, City, State, Zip	 Postage	Service Fee	RR Fee	Rest.Del.Fee	Reference Contents
1	9314 8699 0430 0063 2471 70	Chevron U.S.A. Inc. 6301 Deauville Blvd. Midland TX 79706	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
2	9314 8699 0430 0063 2471 87	Chevron Midcontinent, L.P. 6301 Deauville Blvd. Midland TX 79706	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
3	9314 8699 0430 0063 2471 94	OXY Y-1 5 Greenway Plaza, Suite 110 Houston TX 77046	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
4	9314 8699 0430 0063 2472 00	EOG Resources Inc. 5509 Champions Drive Midland TX 79706	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
5	9314 8699 0430 0063 2472 17	COG Operating LLC 600 West Illinois Midland TX 79701	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
6	9314 8699 0430 0063 2472 24	Crown Oil Partners V, LP P.O. Box 50820 Midland TX 79710	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
7	9314 8699 0430 0063 2472 31	Crump Energy Partners II, LLC P.O. Box 50820 Midland TX 79710	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
8	9314 8699 0430 0063 2472 48	Nadel and Gussman Delaware, LLC 15 East Fifth St., Suite 3300 Tulsa OK 74103	\$1.15	\$3.50	\$1.60	\$0 .00	81363-0151 WD Notice
9	9314 8699 0430 0063 2472 55	Energen Resources Corportation 500 West Texas Ave., Suite 1200 Midland TX 79701	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
10	9314 8699 0430 0063 2472 62	Ozark Royalty Co., LLC 111 S. Highland St. Suite 352 Memphis TN 38111	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
11	9314 8699 0430 0063 2472 79	P.A.W.N. Enterprises P.O. Box 729 Ada OK 74820	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
12	9314 8699 0430 0063 2472 86	Daniel Fleet Freeman, Trustee P.O. Box 729 Ada OK 74820	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
13	9314 8699 0430 0063 2472 93	Robert F. Fleet, Trustee P.O. Box 729 Ada OK 74820	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
tabbler	9314 8699 0430 0063 2473 09	Arlene Rae Fleet, Trustee P.O. Box 729 Ada OK 74820	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
一、一般	9314 8699 0430 0063 2473 16	Rae Ann Fleet Gossett P.O. Box 729 Ada OK 74820	\$1.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice

PS Form 3877

2019 2019 2019



Firm Mailing Book ID: 174518

Type of Mailing: CERTIFIED MAIL 09/12/2019

Line	USPS Article Number	Name, Street, City, State, Zip	Post	age	Service Fee	RR Fee	Rest.Del.Fee	Reference Contents
16	9314 8699 0430 0063 2473 23	B.H.C.H Mineral, Ltd. 5111 Broadway San Antonio TX 78209	\$1	.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
17	9314 8699 0430 0063 2473 30	Bates Family Investment Company, LLC P.O. Box 3627 Tulsa OK 74101	\$1	.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
18	9314 8699 0430 0063 2473 47	John V. McCarthy, II 57200 E Highway 125, Unit 3631 Afton OK 74331	\$1	.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
19	9314 8699 0430 0063 2473 54	Susan Duff 50 Sequoyah Shawnee OK 74801	\$1	.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
20	9314 8699 0430 0063 2473 61	The Nommensen Investment Company 12411 Broken Bough Houston TX 77024	\$1	.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
21	9314 8699 0430 0063 2473 78	James Ray Bates P.O. Box 6216 Shawnee Mission KS 66206	\$1	.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
22	9314 8699 0430 0063 2473 92	Texas State Bank, Trustee of the Lucille Chism Bates Testamentary Trust P.O. Box 3782 San Angelo TX 76902	\$1	.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
23	9314 8699 0430 0063 2474 08	Tha Allar Company P.O. Box 1567 San Antonio TX 76450	\$1	. 15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
24	9314 8699 0430 0063 2474 15	EOG A Resources, Inc. 5509 Champions Drive Tulsa TX 79706	\$1	.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
25	9314 8699 0430 0063 2474 22	EOG M Resources, Inc. 5509 Champions Drive Afton TX 79706		.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
26	9314 8699 0430 0063 2474 39	Cornerstone Family Trust P.O. Box 17656 Shawnee CO 80402	\$1	.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
27	9314 8699 0430 0063 2474 46	Crownrock Minerals, L.P. P.O. Box 51933 Houston TX 79710	\$1	.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
28	9314 8699 0430 0063 2474 53	Allar Development LLC P.O. Box 1567 Shawnee Mission TX 76450	\$1	.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
29	9314 8699 0430 0063 2474 60	Regeneration Energy Corp. P.O. Box 210 San Angelo NM 88211	\$1	.15	\$3.50	\$1.60	\$0.00	81363-0151 WD Notice
		n	Fotals: \$33	.35	\$101.50	\$46.40	\$0.00	
					Grand	Total:	\$181.25	

			Transaction Report Details - CertifiedPro net Firm Mail Book ID= 1745.18 Generated: 9/30/2019 7:38 41 AM	s · CertifiedPro net D= 174518 9 7 38 41 AM							
I ICDS Article Mumber	Decks Cress										
031/48600040000637450	MA	Dagage Spend	2 Alliani		And the second		ľ	Station	Service Options	J.	Demonth Date
23148623043000241460	2010-00-12 11:11 AM 01303-0131 WU	negeneration Energy Corp		P.O. Box 210	San Angelo	<			Keturn Receipt - Electronic, Certified Mail	172033	9/16/2019
9314869904300063247453	2019-09-12 11:11 AM 81363-0151 WD	Aliar Development LLC		P.O. Box 1567	Shawnee Mission		_	_	Return Receipt - Electronic, Certifled Mail	172033	09-17-2019
9314869904300063247446	2019-09-12 11:11 AM 81363-0151 WD	Crownrock Minerals, L.P.		P.O. Box 51933	Houston	77 XT	79710 Delive	Selivered R	Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247439	2019-09-12 11:11 AM 81363-0151 WD	Cornerstone Family Trust		P.O. Box 17656	Shawnee	00	80402 Delive	Pelivered R	Return Receipt - Electronic, Certified Mail	172033	09-21-2019
9314869904300063247422	2019-09-12 11:11 AM 81363-0151 WD	EOG M Resources, Inc.		5509 Champions Drive	Afton	TX 79	9706 Delive	R Belivered	Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247415	2019-09-12 11:11 AM 81363-0151 WD	EOG A Resources, Inc.		5509 Champions Drive	Tulsa	7X 79	79706 Delive	Selivered R	Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247408	2019-09-12 11:11 AM 81363-0151 WD	Tha Allar Company		P.O. Box 1567	San Antonio	37 XT	76450 Mailed		Return Receipt - Electronic, Certified Mail	172033	
9314869904300063247392	2019-09-12 11:11 AM 81363-0151 WD	Texas State Bank, Trustee of the Lucille Chism	Bates Testamentary Trust	P.O. Box 3782	San Angelo	JY XT	76902 Delive	Selivered R	Return Receipt - Electronic, Certified Mail	172033	09-18-2019
9314869904300063247378	2019-09-12 11:11 AM 81363-0151 WD	James Ray Bates		P.O. Box 6216	Shawnee Mission	KS 64	66206 Delive	Delivered R	Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247361	2019-09-12 11:11 AM 81363-0151 WD	The Nommensen Investment Company		12411 Broken Bough	Houston	7X XT	77024 Delive	Delivered R	Return Receipt - Electronic, Certified Mail	172033	09-16-2019
9314869904300063247354	2019-09-12 11:11 AM 81363-0151 WD	Susan Duff		50 Sequoyah	Shawnee	OK 74	74801 Delive	Delivered R	Return Receipt - Electronic, Certified Mail	172033	09-18-2019
9314869904300063247347	2019-09-12 11:11 AM 81363-0151 WD	John V. McCarthy, II		\$7200 £ Highway 125, Unit 3631	Afton	OK 74	74331 Tobe	o be Returned R	Return Receipt - Electronic, Certified Mail	172033	
9314869904300063247330	2019-09-12 11:11 AM 81363-0151 WD	Bates Family Investment Company, LLC		P.O. Box 3627	Tulsa	OK 74	74101 Delive	Delivered R	Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247323	2019-09-12 11:11 AM 81363-0151 WD	B.H.C.H Mineral, Ltd.		5111 Broadway	San Antonio	TX 78	78209 Delive	Delivered R	Return Receipt - Electronic, Certified Mail	172033	09-16-2019
9314869904300063247316	2019-09-12 11:11 AM 81363-0151 WD	Rae Ann Fleet Gossett		P.O. Box 729	Ada	OK 74	74820 Delive	Selivered R	Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247309	2019-09-12 11:11 AM 81363-0151 WD	Arlene Rae Fleet, Trustee		P.O. Box 729	Ada	OK 74	74820 Delive	Selivered R	Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247293	2019-09-12 11:11 AM 81363-0151 WD	Robert F Fleet, Trustee		P.O. Box 729	Ada	OK 74	74820 Delive	>elivered R	Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247286	2019-09-12 11:11 AM 81363-0151 WD	Daniel Fleet Freeman, Trustee		P.O. Box 729	Ada	OK 74	74820 Delive	Nelivered R	Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247279	2019-09-12 11:11 AM 81363-0151 WD	P.A.W.N. Enterprises		P.O. Box 729	Ada	OK 74	74820 Delive	Selivered R	Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247262	2019-09-12 11:11 AM 81363-0151 WD	Ozark Royalty Co., LLC		111 S. Highland St. Suite 352	Memphis	_	38111 Delivered		Return Receipt - Electronic, Certified Mail	172033	09-28-2019
9314869904300063247255	2019-09-12 11:11 AM 81363-0151 WD	Energen Resources Corportation		500 West Texas Ave., Suite 1200	Midland	TX 79	79701 Delivered		Return Receipt - Electronic, Certified Mail	172033	09-16-2019
9314869904300063247248	2019-09-12 11:11 AM 81363-0151 WD	Nadel and Gussman Delaware, LLC		15 East Fifth St., Suite 3300	Tulsa	OK 74	74103 Delive	Selivered R	Return Receipt - Electronic, Certified Mail	172033	09-16-2019
9314869904300063247231	2019-09-12 11:11 AM 81363-0151 WD	Crump Energy Partners II, LLC		P.O. Box 50820	Midland	77 TX	79710 Delive	R Relivered	Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247224	2019-09-12 11:11 AM 81363-0151 WD	Crown Oil Partners V, LP		P.O. Box 50820	Midland	TX 79	79710 Delive	Selivered R	Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247217	2019-09-12 11:11 AM 81363-0151 WD	COG Operating LLC		600 West Illinois	Midland	7X 79	79701 Delive	Delivered R	Return Receipt - Electronic, Certified Mail	172033	09-16-2019
9314869904300063247200	2019-09-12 11:11 AM 81363-0151 WD	EOG Resources Inc.		5509 Champions Drive	Midland	7X 79	79706 Delivered		Return Receipt - Electronic, Certified Mail	172033	09-17-2019
9314869904300063247194	2019-09-12 11:11 AM 81363-0151 WD	OXY Y-1		5 Greenway Plaza, Surte 110	Houston	,	7046 Delivered		Return Receipt - Electronic, Certifled Mail	172033	09-17-2019
9314869904300063247187	2019-09-12 11:11 AM 81363-0151 WD	Chevron Midcontinent, L.P.		6301 Deauville Blvd.	Midland	7X 79	79706 Delive	Nelivered R	Return Receipt - Electronic, Certified Mail	172033	09-16-2019
9314869904300063247170	2019-09-12 11:11 AM 81363-0151 WD	Chevron U.S.A. Inc.		6301 Deauville Blvd.	Midland	TX 79	9706 Delive	Selivered R	Return Receipt - Electronic, Certified Mail	172033	09-16-2019



September 12, 2019

Deana M. Bennett 505-848-1834 Deana.Bennett@modrall.com

VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED

Re: APPLICATION OF MARATHON OIL PERMIAN LLC FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.

CASE NO. 20821

TO: AFFECTED PARTIES

This letter is to advise you that Marathon Oil Permian LLC ("Marathon") has filed the above-listed application.

In Case No. 20821, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the NE/4 of Section 14 and the E/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico, New Mexico. This spacing unit will be dedicated to the Ender Wiggins 14 WD FC 13H well, to be horizontally drilled. The producing area for the well will be unorthodox. Also to be considered will be the cost of drilling and completing the 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.

This case has been set for hearing before a Division Examiner on October 3, 2019 starting at 8:15 a.m. The hearing will be held in Porter Hall in the Oil Conservation Division's Santa Fe Office located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. As a party who may be affected by this application, we are notifying you of your right to appear at the hearing and participate in the case, including the right to present evidence either in support of or in opposition to the application. Failure to appear at the hearing may preclude you from any involvement in the case at a later date.

You are further notified that if you desire to appear in the case, then you are requested to file a Pre-Hearing Statement with the Division at least four business days in advance of a scheduled hearing before the Division or the Commission, but in no event later than 5:00 p.m. mountain time, on the

Modrall Sperling Roehl Harris & Sisk P.A.

500 Fourth Street NW Suite 1000 Albuquerque, New Mexico 87102

PO Box 2168 Albuquerque, New Mexico 87103-2168

Tel: 505.848.1800 www.modrall.com

Page 2

Thursday preceding the scheduled hearing date, with a copy delivered to the undersigned.

Sincerely,

Mena M. Bennett Deana M. Bennett

Attorney for Applicant

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 September 18, 2019 and ending with the issue dated September 18, 2019.

Sworn and subscribed to before me this 18th day of September 2019.

Business Manager

My commission expires



OFFICIAL SEAL **GUSSIE BLACK Notary Public** State of New Mexico My Commission Expires

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 NOTICE SEPTEMBER 18, 2019

CASE NO. 20820: Notice to all affected parties, as well as the heirs and devisees of OXY Y-1, Tha Allar Company, EOG A Resources Inc., EOG M Resources Inc., Cornerstone Family Trust, Crownrock Minerals LP, Allar Development LLC, Regeneration Energy Corp. of Marathon Oil Permian LLC's application for compulsory pooling, Lea County, New Mexico. The New State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 am on October 3, 2019, to consider this application Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the E/2 NW/4 of Section 14 and the E/2 W/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico This spacing unit will be dedicated to the Ender Wiggins 14 TB FC 11H well, to be horizontally drilled. The producing area for the well will be orthodox. Also to be considered will be the cost of drilling and completing the 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 14 miles west of Jal, New Mexico.

CASE NO. 20821: Notice to all affected parties, as well as the heirs and devisees of Chevron USA Inc., Chevron Midcontinent LP, OXY Y-1, EOG Resources inc., COG Operating LLC, Crown Oil Partners V LP, Crump Energy Partners II LLC, Nadel and Gussman Delaware LLC, Energen Resources Corporation, Ozark Royalty Co LLC, P.A.W.N. Enterprises, Daniel Fiset Freeman Trustee, Robert F. Fiset Trustee, Arlene Rae Fiset Trustee, Rea Ann Fiset Gossett, B.H.C.H. Mineral Ltd., Bates Family Investment Company LLC, John V. McCarthy II, Susan Duff, The Nommensen Investment Company, James Ray Bates, Texas State Bank Trustee of the Lucille Chism Bates Testamentary Trust, Tha Aliar Company, EOG A Resources Inc., EOG M Resources Inc., Cornerstone Family Trust, Crownrock Minerals LP, Aliar Development LLC, Regeneration Energy Corp. of Marathon Oil Permian LLC's application for compulsory pooling, Lea County, New Mexico. The New State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 am on October 3, 2019, to consider this application. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the 2019, to consider this application. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the NE/4 of Section 14 and the E/2 of Section 11, Township 25 South, Range 34 East, NMPM, Lea County, New Mexico, New Mexico. This spacing unit will be dedicated to the Ender Wigglins 14 WD FC 13H well, to be horizontally drilled. The producing area for the well will be unorthodox. Also to be considered will be the cost of drilling and completing the 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 14 miles west of Jal, New Mexico.

01104570

00233596

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

ORRI WD 13H/11H
Tha Allar Company
EOG A Resources, Inc.
EOG M Resources, Inc.
Cornerstone Family Trust
Crownrock Minerals, L.P.
Allar Development LLC
Regeneration Energy Corp.

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

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

CASE NO. 20820, 20821

Δ	FF	ID	Δ	V	ΊŢ	Г
α	т. т.	11/	Δ	. w	- B - J	ı.

STATE OF TEXAS)
) ss
COUNTY OF MIDLAND)

Thomas Lockwood, being duly sworn, deposes and states:

- 1. I am over the age of 18, I am a geologist for Marathon Oil Permian LLC, and have personal knowledge of the matters stated herein. I have been qualified by the Oil Conservation Division ("Division") as an expert petroleum geologist.
- 2. The exhibits behind **Tab 8** are locator maps showing the approximate location of the proposed wells in relation to the Capitan Reef.
- 3. The exhibits behind **Tab 9** are the geology study I prepared for the Ender Wiggins 14 TB FC 11H well, which is the Third Bone Spring well.
- 4. **Exhibit 9-A** is a wellbore schematic showing the proposed Third Bone Spring lateral within the unit.
- 5. Exhibit 9-B is structure map of the base of the Top of the Wolfcamp. The proposed project area is identified by a black-dashed box, and the proposed well is identified by a red line. The contour interval used in this exhibit is 25 feet. This exhibit shows that the formation dips to the east.
- 6. Exhibit 9-C identifies four vertical wells in the vicinity of the proposed Third Bone Spring Sand well, shown by a line of cross-section running from A to A'.

- 7. Exhibit 9-D is a stratigraphic cross section hung on the top of the Wolfcamp. The well logs on the cross-section give a representative sample of the Third Bone Spring sand in the area. The target zone is identified by the words "Producing Zone" and the shaded area across the cross section, along with a red arrow.
- 8. In my opinion, the Third Bone Spring Sand thickens towards the toe of the unit, and then thins to the north of the unit.
 - 9. Exhibit 9-E is a Gross Interval Isochore of the Third Bone Spring Sand to Wolfcamp. The isochore maps shows how the Third Bone Spring sand thickens slightly at the toe of the unit.
- 10. The exhibits behind **Tab 10** are the geology study I prepared for the Ender Wiggins 14 WD FC 13H well, which is the Wolfcamp D well.
- 11. Exhibit 10-A is a wellbore schematic showing the proposed Wolfcamp D lateral within the unit.
- 12. **Exhibit 10-B** is structure map of the base of the Wolfcamp/Strawn top. The proposed project area is identified by a black-dashed box, and the proposed well is identified by a red line. The contour interval used for this exhibit is 25 feet. This exhibit shows that the structure dips towards the southeast.
- 13. **Exhibit 10-C** identifies four vertical wells in the vicinity of the proposed Wolfcamp wells, shown by a line of cross-section running from A to A'.
- 14. Exhibit 10-D is a stratigraphic cross section hung on the top of the Wolfcamp D2. The well logs on the cross-section give a representative sample of the lower Wolfcamp formation in the area. The target zone is identified by the words "Producing Zone" and the shaded area across the cross section, along with a red arrow.
- 15. In my opinion, the lower Wolfcamp remains approximately the same thickness cross the proposed unit.
- 16. Exhibit 10-E is a Gross Interval Isochore of the Wolfcamp D, which shows that the Wolfcamp D only varies by ~25' in thickness across the unit.

- 17. I conclude from the maps that:
 - a. The horizontal spacing units are 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 each of the proposed units will contribute more or less equally to production.
- 18. **Exhibit 11** provides an overview of the stress orientation in the area based on the 2018 Snee-Zoback paper.
- 19. The preferred well orientation in this area is North/South. This is because the S_{Hmax} is at approximately 70-80 degrees in southern-Lea County.
- 20. Exhibits 8-11 were prepared by my or under my supervision or compiled from company business records.
- 21. In my opinion, the granting of Marathon's applications is in the interests of conservation and the prevention of waste.

Thomas Sochwood
Thomas Lockwood

SUBSCRIBED AND SWORN to before me this 15th day of Color, 2019 by Thomas Lockwood, on behalf of Marathon Oil Permian LLC.

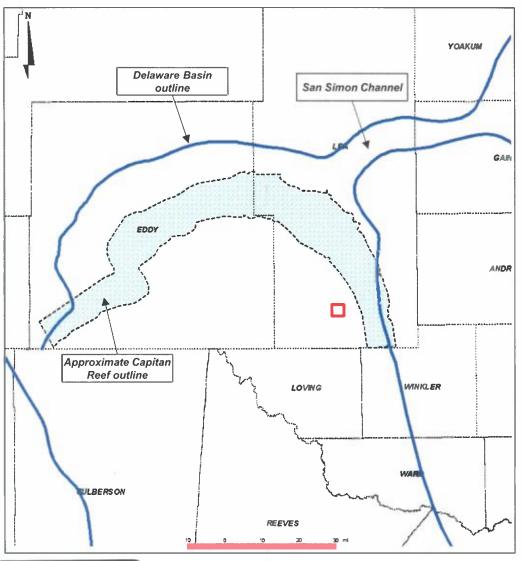
Notary Public

My commission expires: //83/8083

JESSICA GORMAN
Notary Public, State of Texas
Commission Expires 01-23-2023
Notary ID 13008780-4

Locator Map

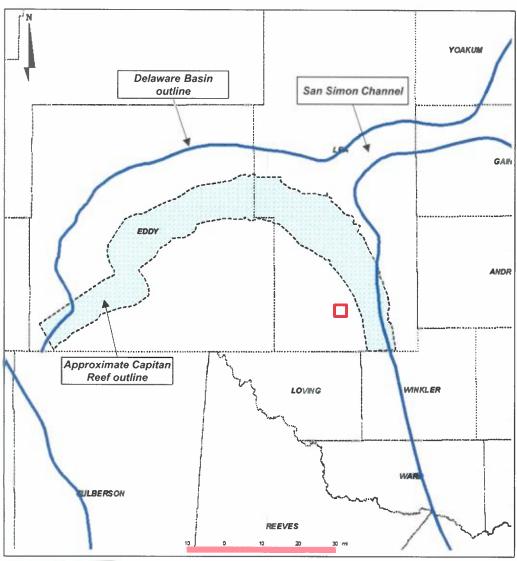
EXHIBIT



- Approximate location of proposed Ender Wiggins 14 TB FC 11H well shown with red box
- Located basinwards of the Capitan Reef
- Southern Lea county

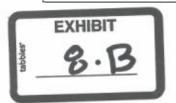


Locator Map

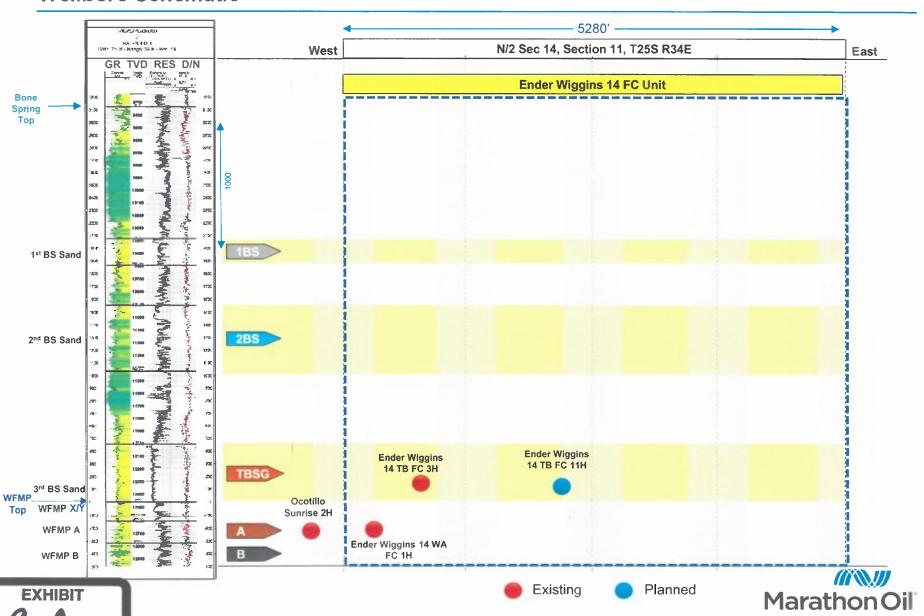


- Approximate location of proposed Ender Wiggins 14 WD FC 13H well shown with red box
- Located basinwards of the Capitan Reef
- Southern Lea county

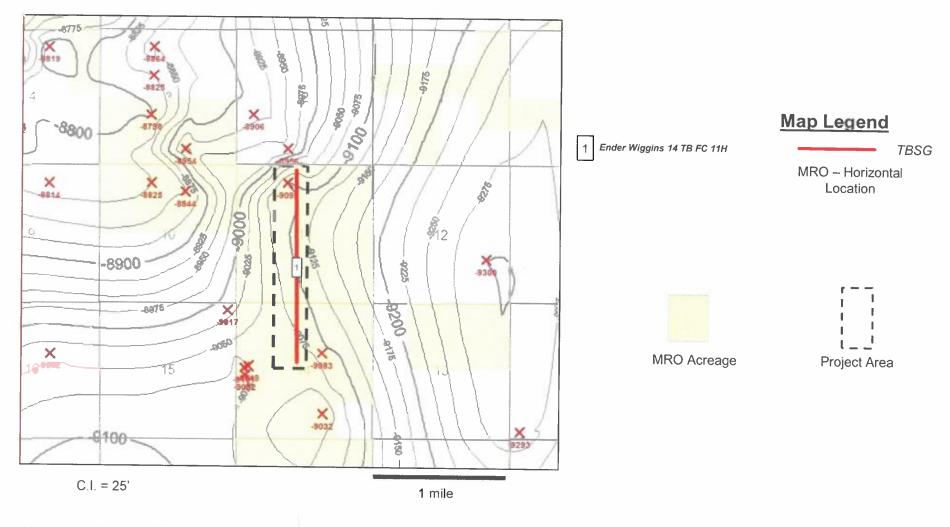




Wellbore Schematic



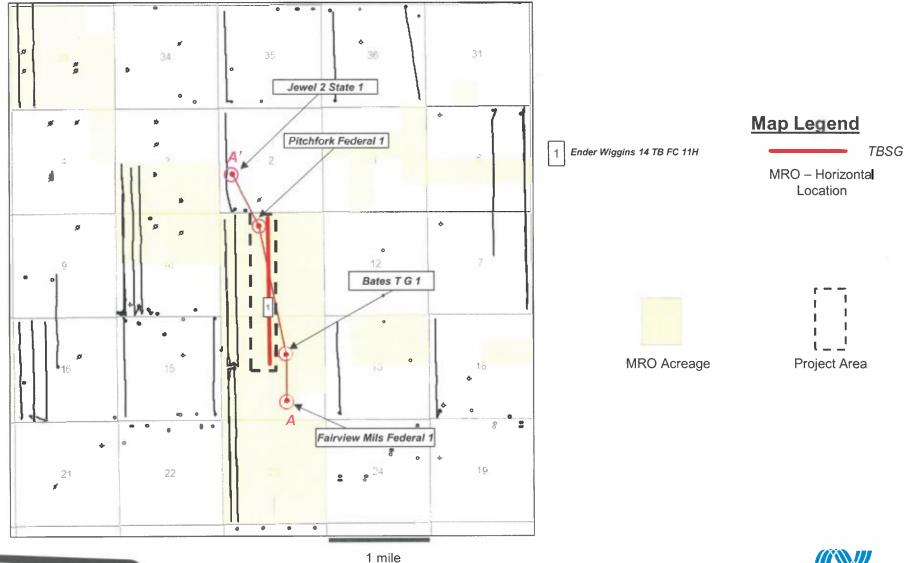
Structure Map - Top of Wolfcamp (TVDSS)







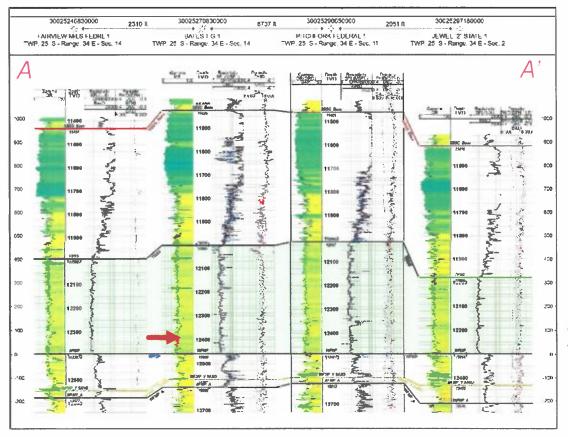
Reference Map for Cross Section

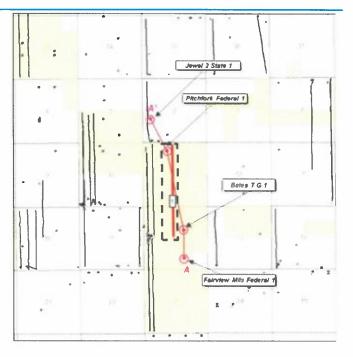






Stratigraphic Cross Section (Top Wolfcamp Datum)





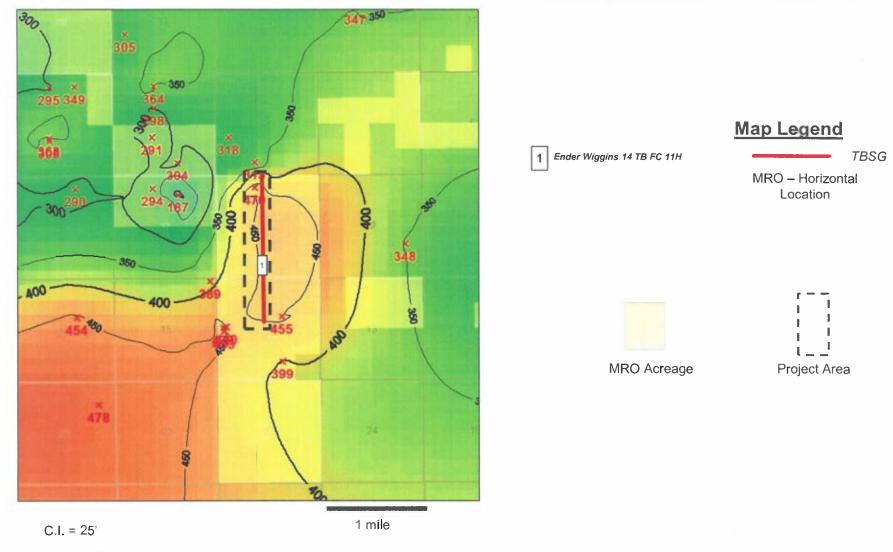
Producing Zone

Third Bone Spring Sand thickens towards the toe of the unit, and then thins to the north of the unit.





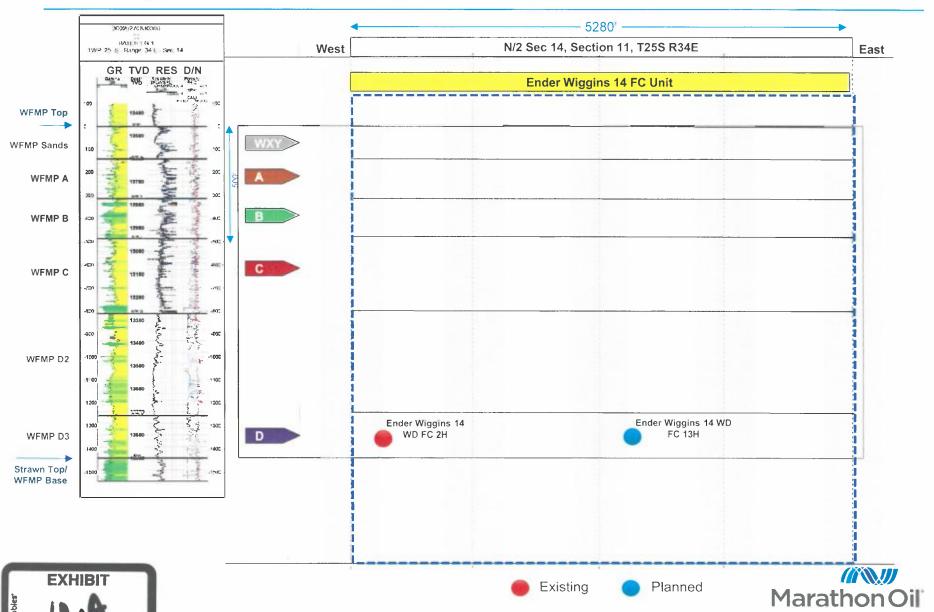
Gross Interval Isochore - Third Bone Spring Sand to Wolfcamp



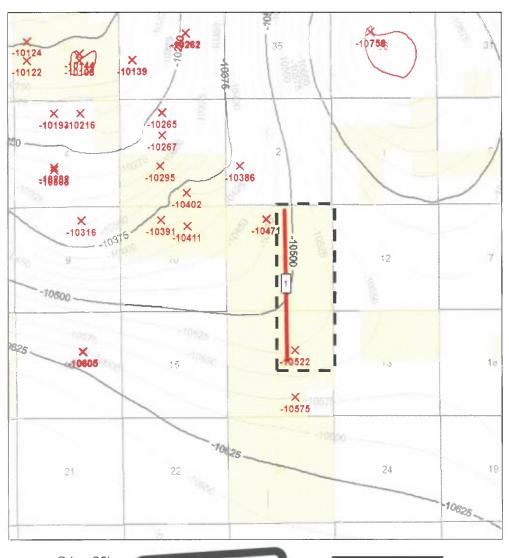




Wellbore Schematic



Structure Map - Base of Wolfcamp/Strawn Top (TVDSS)



Map Legend WFMP D Ender Wiggins 14 WD FC 13H MRO - Horizontal Location





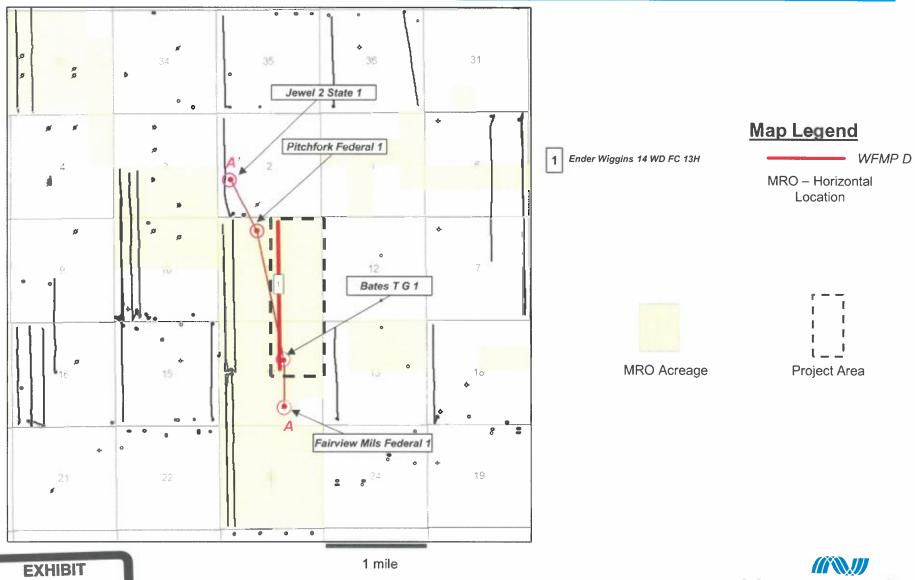




1 mile



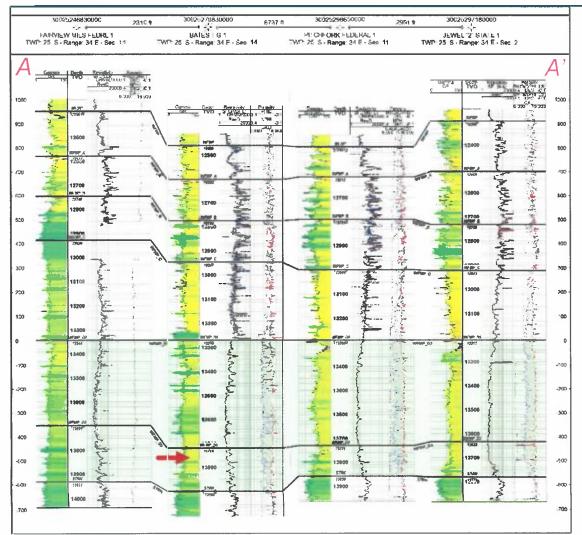
Reference Map for Cross Section







Stratigraphic Cross Section (Top Wolfcamp D2 Datum)





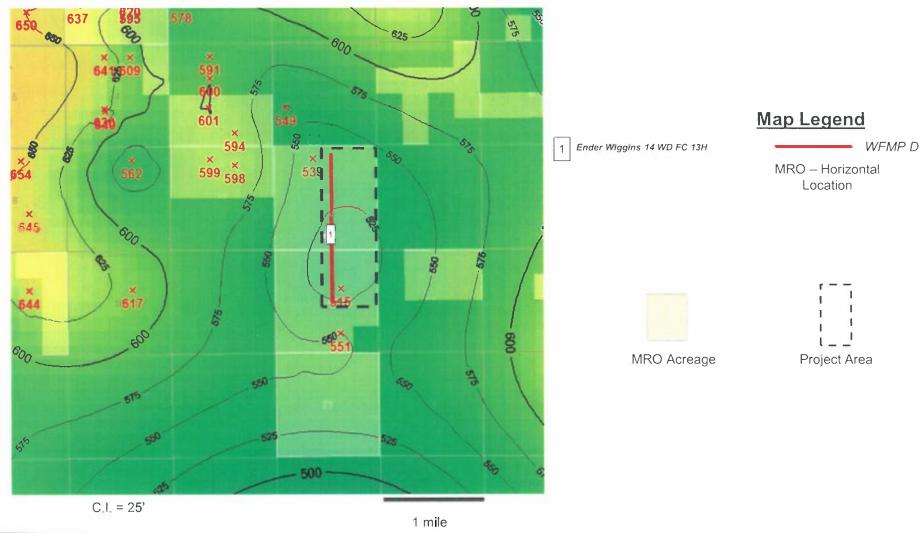
Producing Zone

Lower WFMP remains approximately the same thickness across the Ender Wiggins unit.





Gross Interval Isochore – Wolfcamp D







Ender Wiggins

Preferred Well Orientation - SHmax

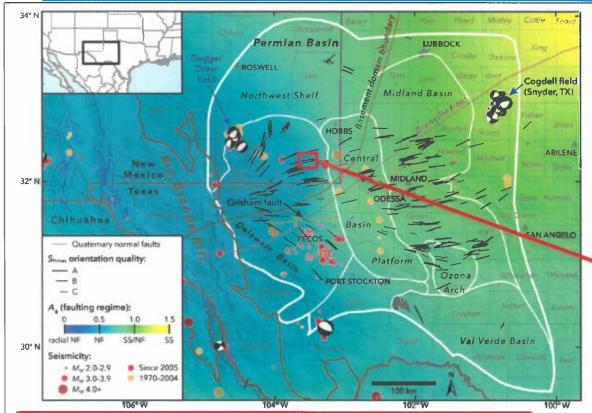


Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of the maximum horizontal stress $(S_{+-\mu})$, inth line rengin scaled by data quanty. The colored background is an interpolation of measured relative principal stress magnitudes (rathing regime) expressed using the A_{ϕ} parameter (see text for details) of Simpson (1997). Blue lines are fault traces known to have experienced normal-sense offset within the past 1.6 Ma. from the USGS Quaternary Faults and Folds Database (Grone and Wheeler, 2000). The boundary between the Shawnee and Mazatzal basement domains is from Lund et al. (2015), and the Precambrian Gernville Front is from Thomas (2006). The Permian Basin boundary is from the U.S. Energy Information Andministration, and the subbasin boundaries are from the Texas Bureau of Economic Geology Permian Basin Geological Synthesis Project. Earthquakes are from the USGS National Earthquake Information Center, the Texhet Seismic Monitoring Program, and Gan and Frohlich (2013). Focal mechanisms are from Saint Louis University (Hermann et al., 2011).

Source:

Snee, J.L. & M.D. Zoback, 2018, State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity: The Leading Edge, 810-819, https://doi.org/10.1190/tle37020810.1.

Preferred well orientation is N/S.

As outlined in Snee & Zoback (2018), SHmax is at approximately 70-80 degrees in southern Lea county. It is preferable to have N/S oriented wellbores at the Ender Wiggins unit (outlined with red box) since hydraulic fractures will prefer to propagate outwards at 70-80 degrees.

