

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

**APPLICATION OF POWDERHORN OPERATING, LLC
FOR COMPULSORY POOLING,
EDDY COUNTY, NEW MEXICO.**

CASE NO. 25610

NOTICE OF REBUTTAL EXHIBITS

Marathon Oil Permian, LLC (“Marathon”) gives notice that it is filing the attached rebuttal exhibits for acceptance into the record.

Respectfully submitted,

HOLLAND & HART, LLP



Adam G. Rankin
Paula M. Vance
A. Raylee Starnes
Post Office Box 2208
Santa Fe, New Mexico 87504
(505) 988-4421
(505) 983-6043 Facsimile
agrarkin@hollandhart.com
pmvance@hollandhart.com
arstarnes@hollandhart.com

ATTORNEYS FOR MARATHON OIL PERMIAN, LLC

CERTIFICATE OF SERVICE

I hereby certify that on March 9, 2026, I served a copy of the foregoing document to the following counsel of record via Electronic Mail to:

Kaitlyn A. Luck
P.O. Box 483
Taos, NM 87570
(361) 648-1973
kaitlyn.luck@outlook.com

Attorney for Avant Operating II, LLC

Dana S. Hardy
Jaclyn M. McLean
Yarithza Peña
HARDY MCLEAN LLC
125 Lincoln Ave., Suite 223
Santa Fe, NM 87505
(505) 230-4410
dhardy@hardymclean.com
jmclean@hardymclean.com
ypena@hardymclean.com

Attorneys for Permian Resources Operating, LLC

Benjamin B. Holliday
HOLLIDAY ENERGY LAW GROUP, PC
107 Katherine Court
San Antonio, Texas 78209
(210) 469-3197
ben@theenergylawgroup.com
ben-svc@theenergylawgroup.com

Attorney for Powderhorn Operating, LLC

James P. Parrot
Miguel A. Suazo
Jacob L. Everhart
Ryan McKee
Beatty & Wozniak, P.C.
500 Don Gaspar Ave.
Santa Fe, NM 87505
(505) 946-2090
jparrot@bwenergylaw.com
msuazo@bwenergylaw.com
jeverhart@bwenergylaw.com
rmckee@bwenergylaw.com

Attorneys for Magnum Hunter Production, Cimarex Energy of Colorado, And Coterra Energy Operating Co.

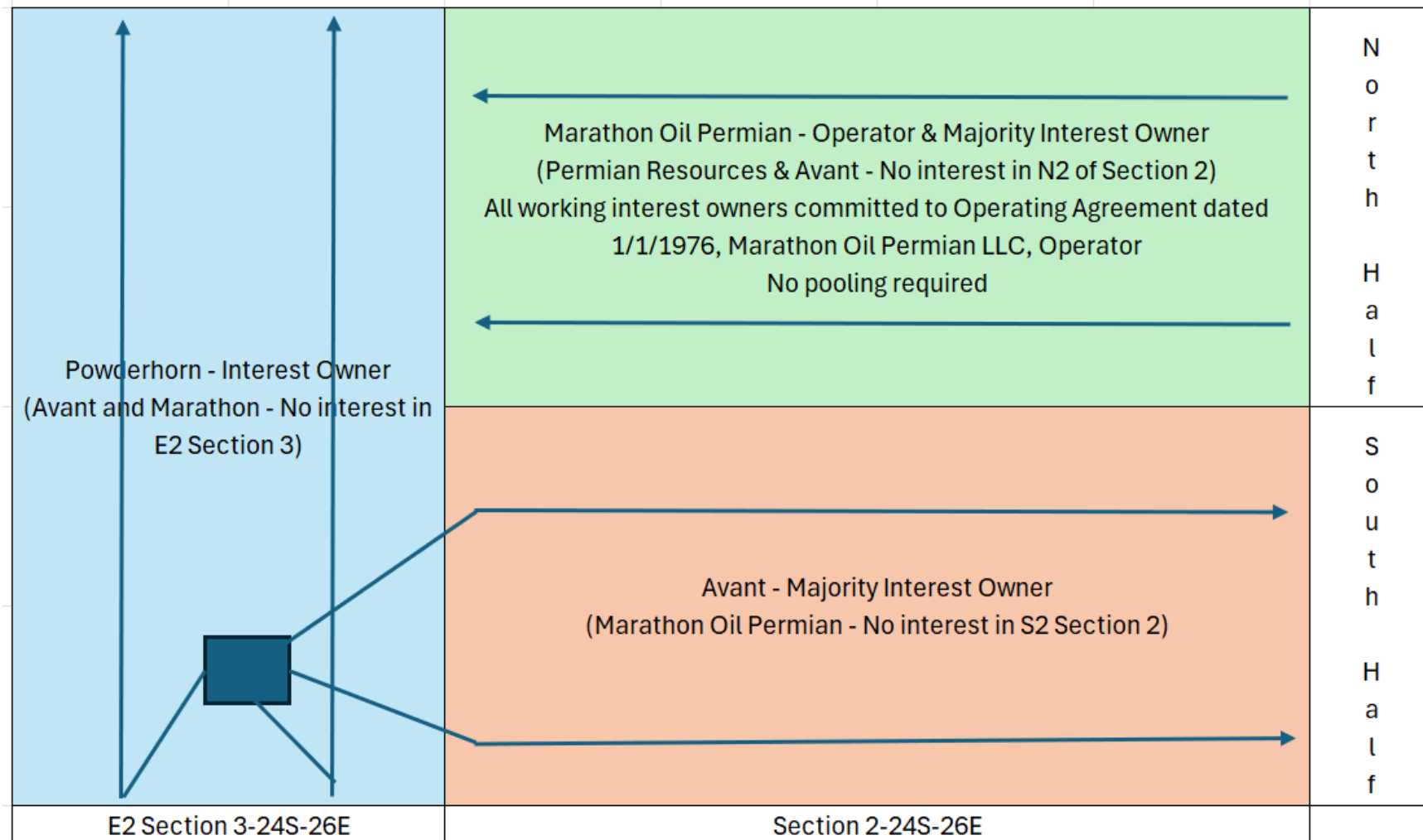
James Bruce
Post Office Box 1056
Santa Fe, New Mexico 87504
505-982-2043
jamesbruc@aol.com

Attorney for Kaiser-Francis Oil Company.



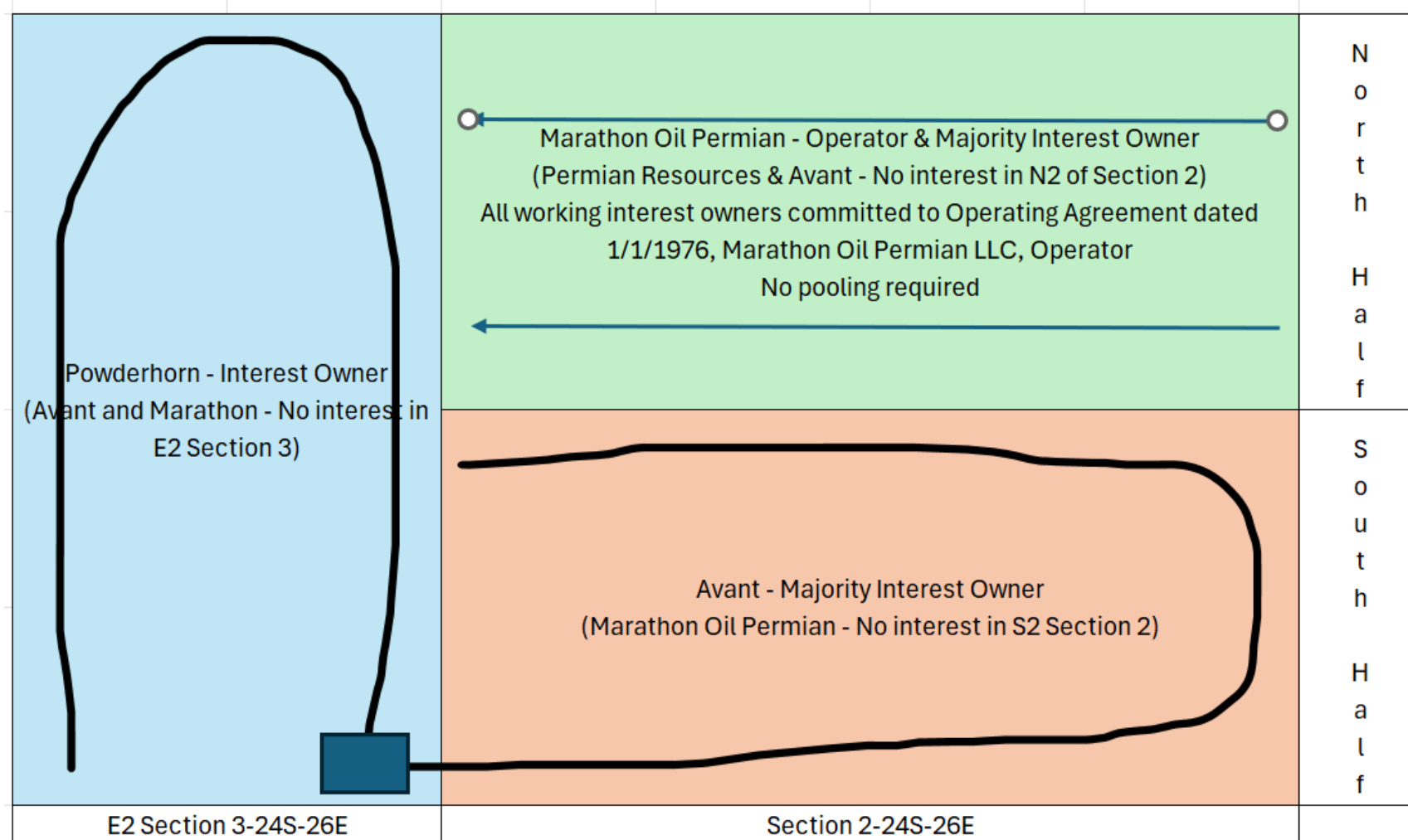
Paula M. Vance

Campana State Com – 1-mile DSU, one facility, one drilling pad
Super Hornet State Com – Two 1-mile DSUs w/commingled facility and one drilling pad



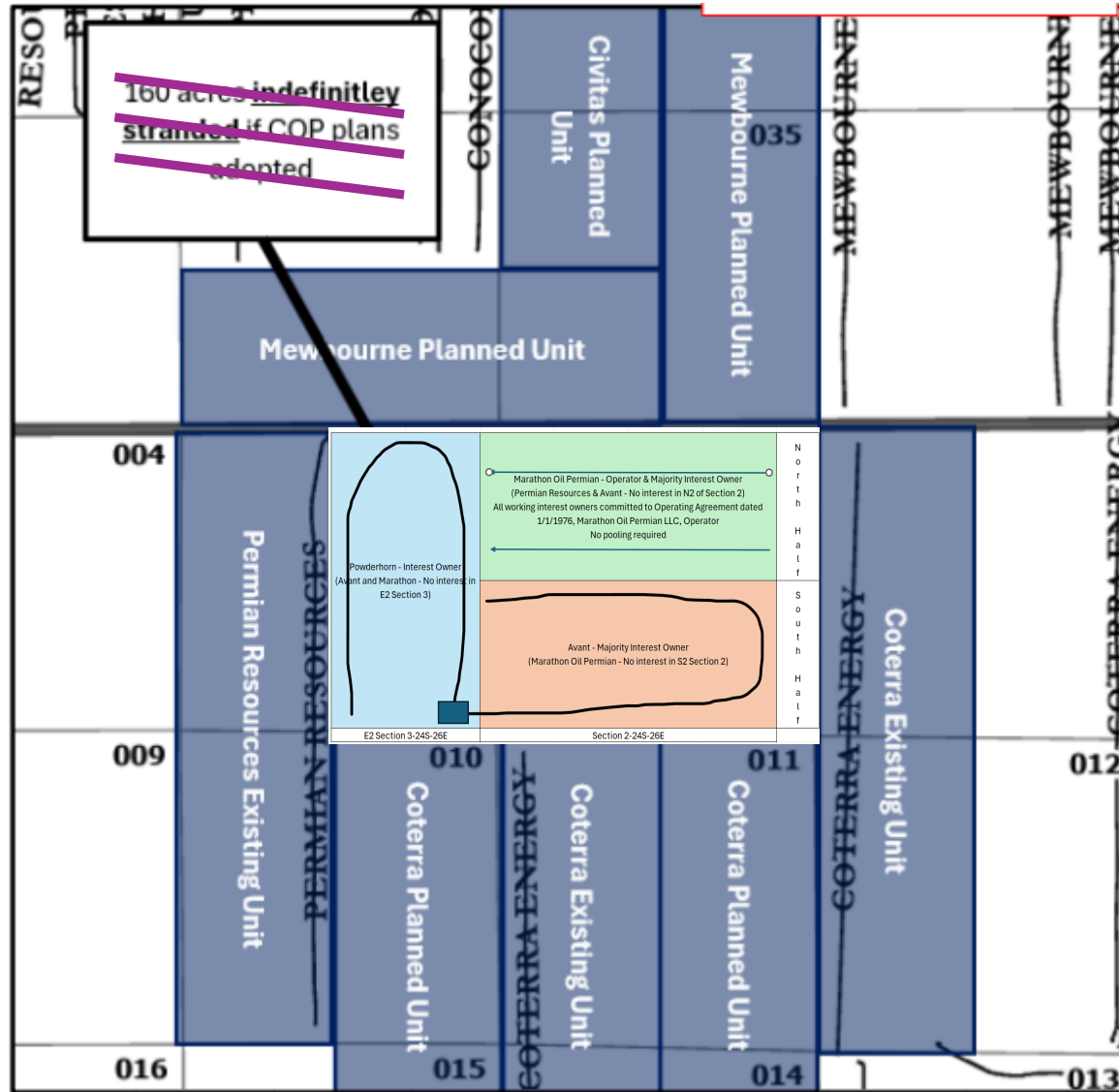
MRO REBUTTAL EXHIBIT 1

Campana State Com – 1-mile DSU, one facility, one drilling pad
Super Hornet State Com – Two 2-mile U-turn DSUs w/commingled facility

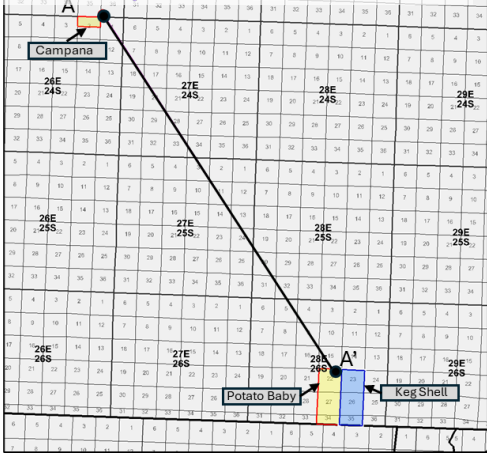


MRO REBUTTAL EXHIBIT 3

No Acre Left Behind



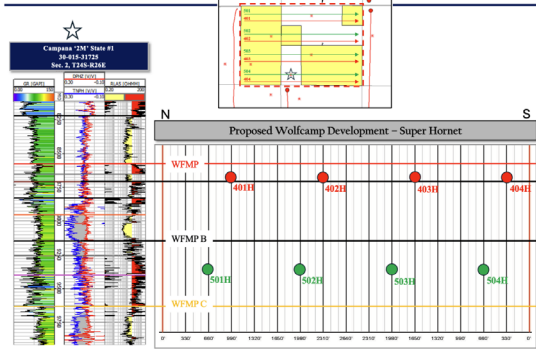
MRO REBUTTAL EXHIBIT 4



Powderhorn Proposed Development Plan

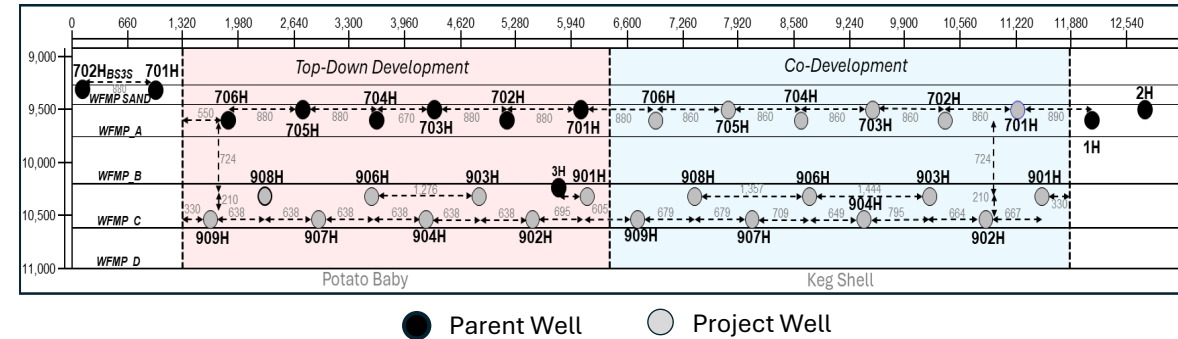
Super Hornet State Com (Case Nos. 25610) - GEO Exhibit B-4

WFMP Gun Barrel



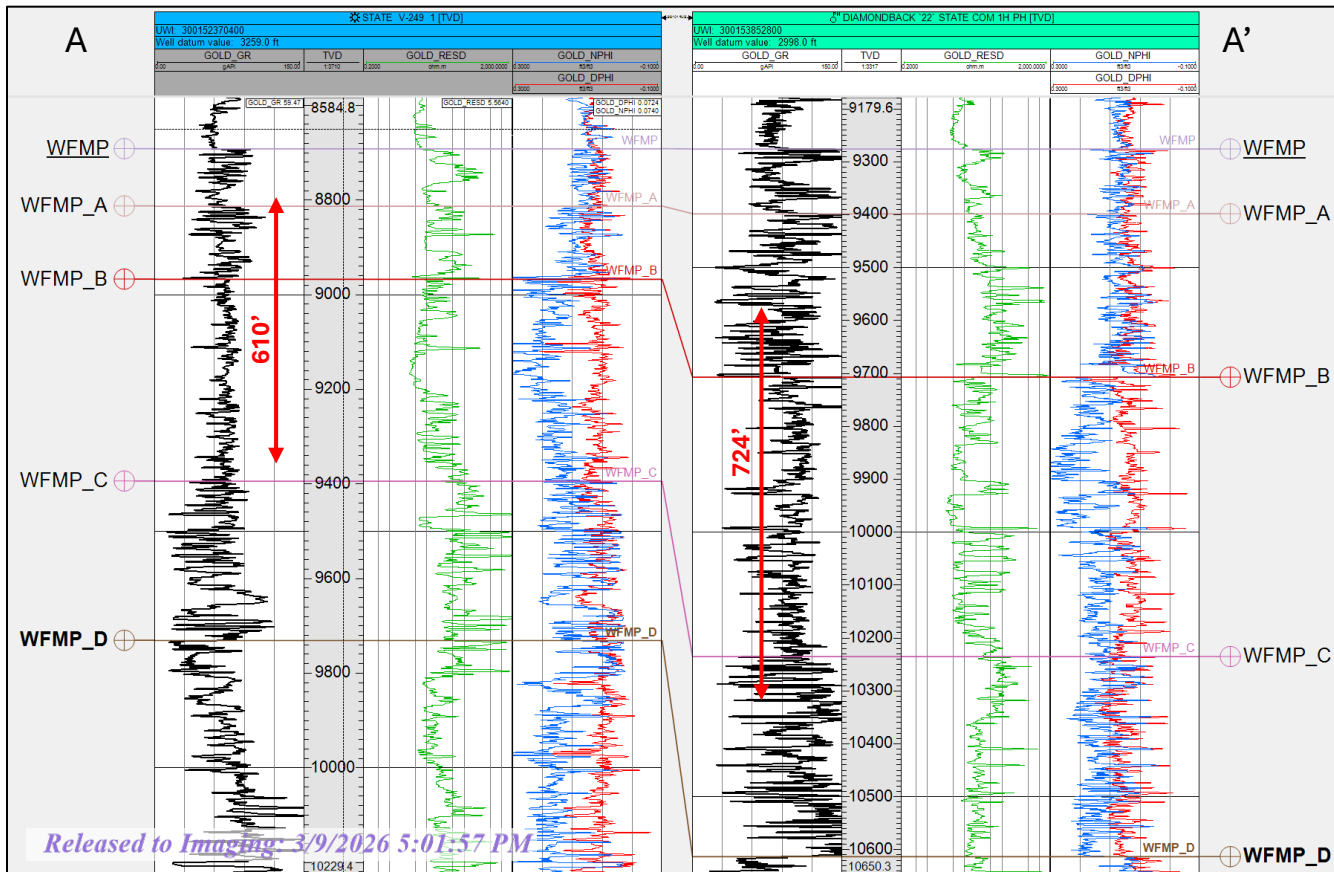
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Potato Baby Keg Shell Gun Barrel – Top-Down vs Co-Development



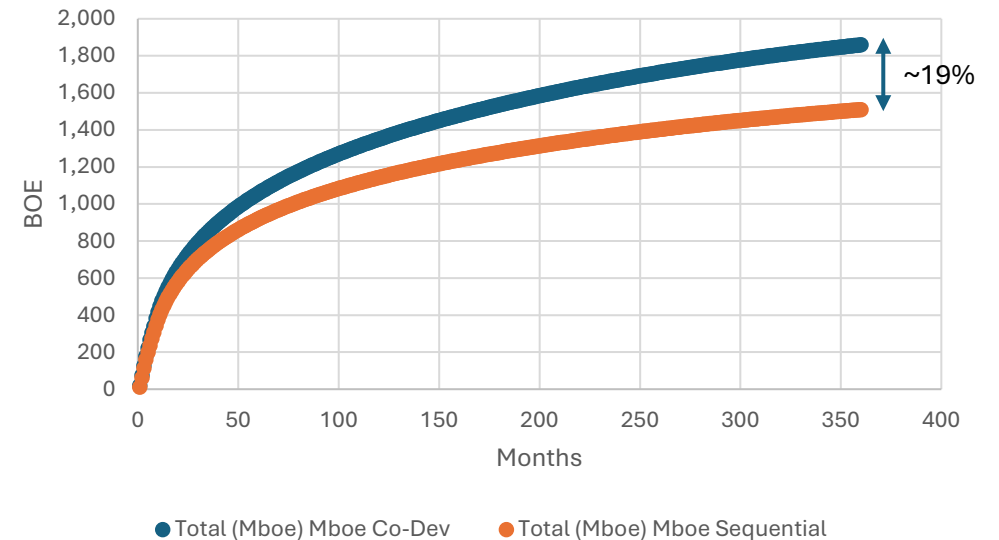
● Parent Well ○ Project Well

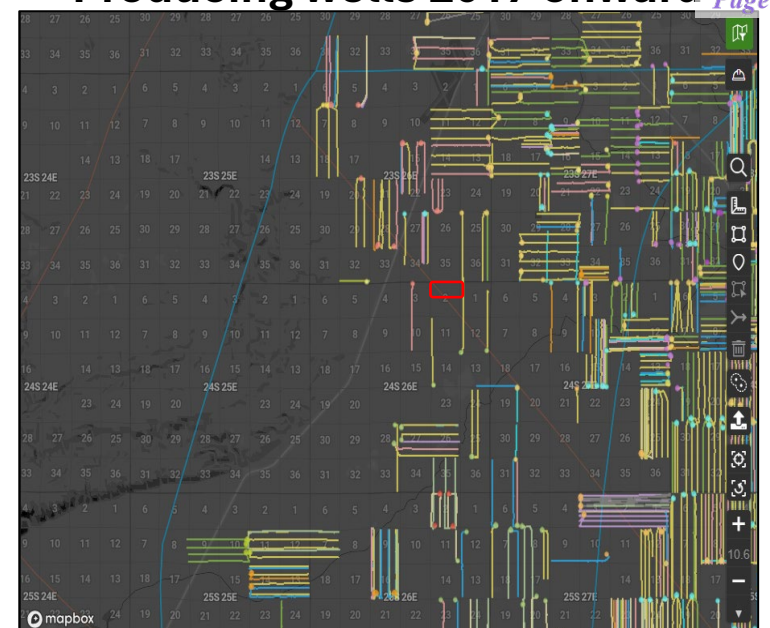
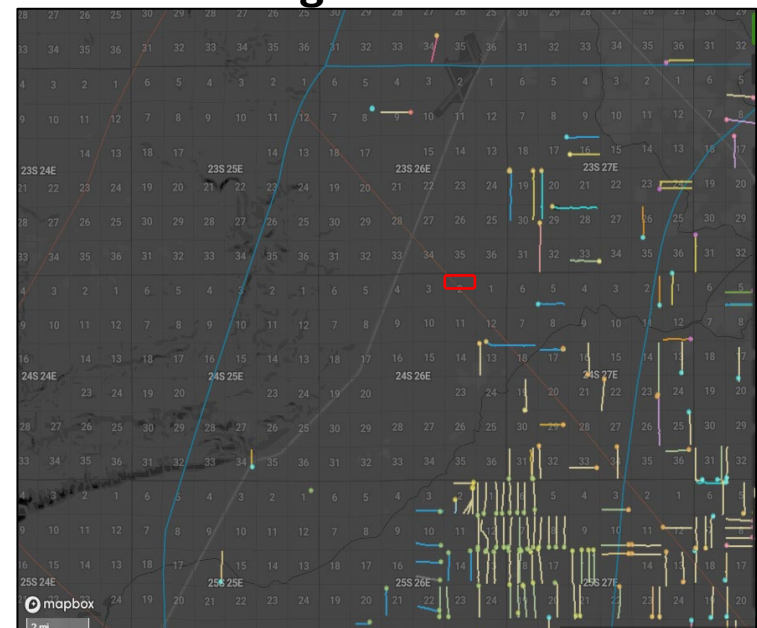
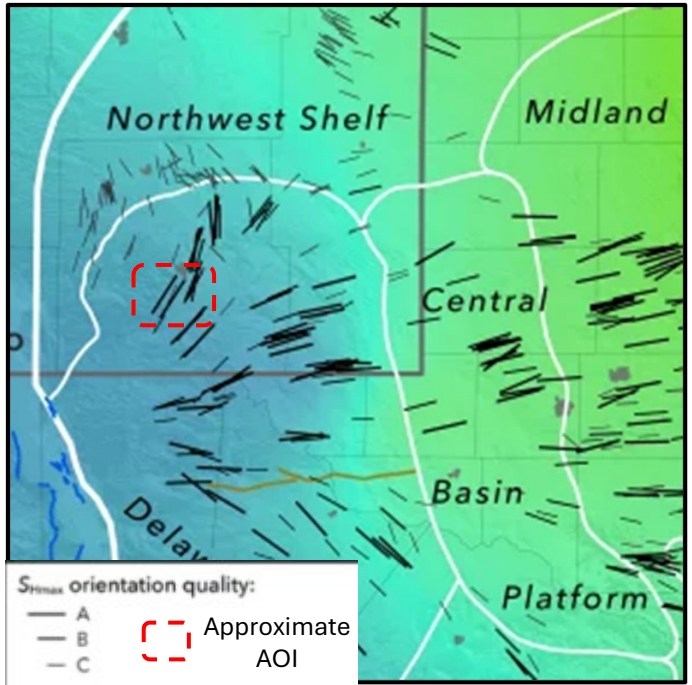
Super Hornet vs Potato Baby/Keg Shell vertical separation difference between landings



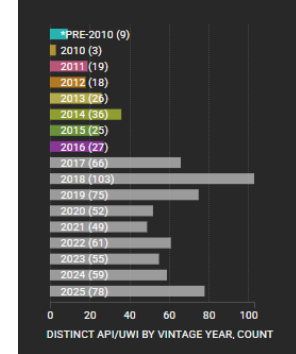
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Sequentially-developed WCC underperforms
Co-developed WCC: Example in Delaware Basin
NM – Average performance of 2-mi well

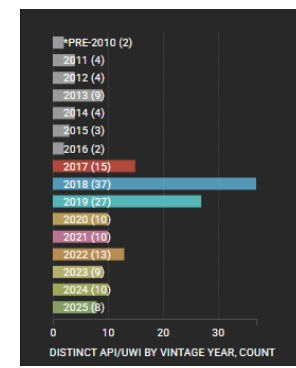




Reference: *Lithologically-Controlled Variations of the Least Principal Stress with Depth and Resultant Frac Fingerprints During Multi-Stage Hydraulic Fracturing* – Mark Zoback et al.



Sticks colored by landing formation and filtered by vintage year. No preferred orientation of wells pre 2017 due to maximum stress
 Campana



Sticks colored by landing formation and filtered by vintage year. No preferred orientation of wells 2017 onwards due to maximum stress
 Campana

No preferred well orientation from new and old vintage wells based on maximum stress

MRO REBUTTAL EXHIBIT 6

Capital Efficiency, but also Operational Efficiency - Learning Curve

Super Hornet State Com (Case Nos. 25610) - RESERVOIR Exhibit C-6

Short Laterals-Capital and Operational Inefficiencies

- Lower DC&F for longer laterals and more wells
 - Less drilling required per lateral foot
 - Shared facilities between 8 wells vs 4 wells
- Powderhorn's AFE's are 79%-81% of Conoco's AFE's on a cost per foot basis

Powderhorn, due to longer laterals and a 960-acre unit, will have improved capital and operational efficiencies

Zone	Operator	Perf Lateral	Drilling	Completions	Facility	Pump Equip	Total	DC&F	DC&F/Ft
WCA	Powderhorn WCA	7,500	\$ 3,466,691	\$ 4,122,926	\$ 838,565		\$ 8,428,182	\$ 8,428,182	\$ 1,124
	Conoco WCA	5,000	\$ 3,028,840	\$ 2,745,500	\$ 1,134,750	\$ 648,550	\$ 7,557,640	\$ 6,909,090	\$ 1,382
*Excluding Pump Equip from COP's AFE for an appropriate Analog to Powderhorn									
WCB	Powderhorn WCB	7,500	\$ 3,713,729	\$ 4,227,601	\$ 838,565		\$ 8,779,895	\$ 8,779,895	\$ 1,171
	Conoco WCB	5,000	\$ 3,533,373	\$ 2,745,500	\$ 1,134,750	\$ 648,550	\$ 8,062,173	\$ 7,413,623	\$ 1,483
*Excluding Pump Equip from COP's AFE for an appropriate Analog to Powderhorn									

DC&F/Ft vs Lateral Length (WCA)

DC&F/Ft vs Lateral Length (WCB)

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“Given that on average a rig drills eight wells per year in the Bakken, a rig is expected to reduce the time it takes to drill a well by 11% over its first year of drilling.”

Working Paper 2015-04

<http://econbus.mines.edu/working-papers/wp201504.pdf>

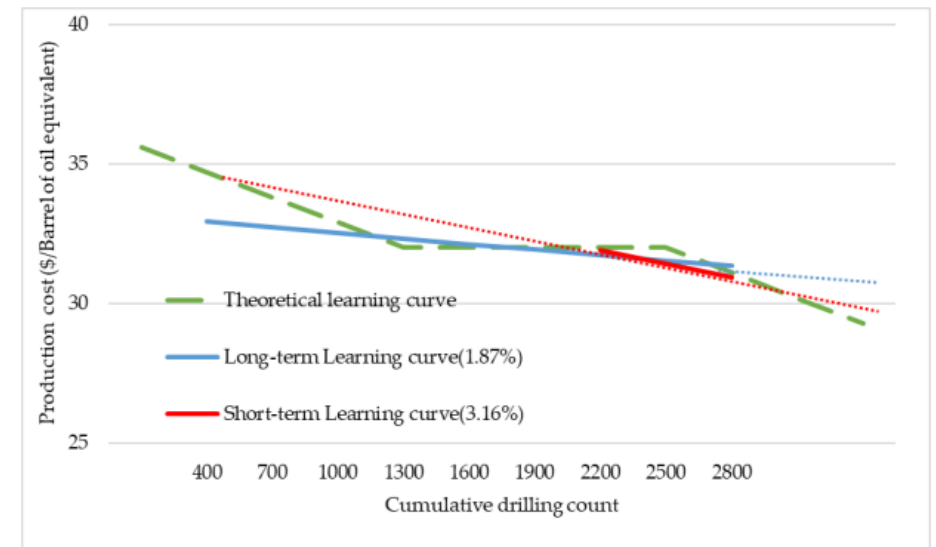


Figure 2. Step-wise learning curve.

Kim, J.-H., & Lee, Y.-G. (2017). Analyzing the Learning Path of US Shale Players by Using the Learning Curve Method. *Sustainability*, 9(12), 2232. <https://doi.org/10.3390/su9122232>

TRACTS	GROSS ACRES	POWDERHORN		AVANT		MARATHON		KAISER		PERMIAN		PBX, LLC	
SECTION 2: LOT 1, SWNW	80.2	3.125%	2.506	0%	0	71.875%	57.644	25%	20.05	0%	0	0%	0
SECTION 2: LOTS 2-4, SENW	160.12	0%	0	0%	0	50%	80.06	50%	80.06	0%	0	0%	0
SECTION 2: SENE	40	0%	0	0%	0	50%	20	50%	20	0%	0	0%	0
SECTION 2: SWNE	40	0%	0	0%	0	50%	20	50%	20	0%	0	0%	0
TOTAL SECTION 2: N2	320.32	ALL INTEREST COMMITTED & SUBJECT TO JOA DATED 1/1/1976 - MARATHON OIL PERMIAN LLC - OPERATOR											
SECTION 2: N2 UNIT INTEREST		0.78242100%		0.00000000%		55.47694500%		43.74063400%		0.00000000%		0.00000000%	
SECTION 3: LOTS 1-2, S2NE, SE	319.28	90%	287.35	0%	0	0%	0	0%	0	10%	31.93	0%	0
TOTAL SECTION 3: E2	319.28												
SECTION 3: E2 UNIT INTEREST		90.00000000%		0.00000000%		0.00000000%		0.00000000%		10.00000000%		0.00000000%	
SECTION 2: W2SW	80	0%	0	100%	80	0%	0	0%	0	0%	0	0%	0
SECTION 2: E2SW, NWSE, SESE	160	11.875%	19	63.125%	101	0%	0	25%	40	0%	0	0%	0
SECTION 2: NESE	40	15%	6	35%	14	0%	0	50%	20	0%	0	0%	0
SECTION 2: SWSE	40	15%	6	0%	0	0%	0	50%	20	0%	0	35%	14
TOTAL SECTION 2: S2	320												
SECTION 2: S2 UNIT INTEREST		9.68750000%		60.93750000%		0.00000000%		25.00000000%		0.00000000%		5.25000000%	

MRO REBUTTAL EXHIBIT 8

From: [Lowe, Leonard, EMNRD](#)
To: ben@theenergylawgroup.com
Cc: [Paula M. Vance](#); [Engineer, OCD, EMNRD](#); [Adam Rankin](#); [Raylee Starnes](#); [Kayleigh Y. Verboncoeur](#)
Subject: Marathon Oil Company LLC PROTEST of Powderhorn NSL SUPER HORNET STATE COM WELL Applications_10/29/25
Date: Wednesday, October 29, 2025 1:04:14 PM
Attachments: [image001.png](#)
Importance: High

External Email

Benjamin B. Holliday,

Re: **Protest of Powderhorn’s NSL applications**

- Super Hornet State Com Well No. 504H**
- Super Hornet State Com Well No. 503H**
- Super Hornet State Com Well No. 502H**
- Super Hornet State Com Well No. 501H**
- Super Hornet State Com Well No. 404H**
- Super Hornet State Com Well No. 403H**
- Super Hornet State Com Well No. 402H**
- Super Hornet State Com Well No. 401H**

The OCD was notified that the **Marathon Oil Company** has protested your NSL applications for an unorthodox location of the above subject wells. This party has been identified as an affected person for their specific location.

Therefore, you are being notified that if **Powderhorn Operating, LLC.** wishes for these applications to be considered, it must either go to hearing OR they may be reviewed administratively if the protest is withdrawn as a result of a negotiated resolution within the parties involved.

The NSL applications will be retained by the OCD but suspended from further administrative review.

Please contact the OCD’s Engineering Bureau once a decision regarding these applications is determined within the next 30 days. **If no update is given by the 30 day date, the application will be cancelled/rejected.**

10/29/25, Protest Notice Date
11/29/25, 30 day concludes

Protestant contact information:

Paula Vance

Her / Hers / She [\(What’s this?\)](#)

Associate

HOLLAND & HART LLP

110 North Guadalupe Street, Suite 1, Santa Fe, NM 87501
pmvance@hollandhart.com | T: (505) 954-7286 | M: (337) 280-9055

MRO REBUTTAL EXHIBIT 9

Please call or e-mail with any questions regarding this matter.

Thank you,

Leonard R. Lowe

Engineering Bureau
OCD/EMNRD
5400 Oakland Ave.
Albuquerque, N.M 87113
Cell/Office Phone: 505-584-8351
E-mail: Leonard.Lowe@emnrn.nm.gov

From: Paula M. Vance <PMVance@hollandhart.com>
Sent: Wednesday, October 29, 2025 10:20 AM
To: Engineer, OCD, EMNRD <OCD.Engineer@emnrn.nm.gov>; Lowe, Leonard, EMNRD <Leonard.Lowe@emnrn.nm.gov>
Cc: Adam Rankin <AGRankin@hollandhart.com>; Raylee Starnes <ARStarnes@hollandhart.com>; Kayleigh Y. Verboncoeur <KYVerboncoeur@hollandhart.com>
Subject: [EXTERNAL] Marathon Oil Company LLC Objection to Powderhorn NSL Applications

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

To Whom It May Concern,

Marathon Oil Company LLC (an entity that was acquired by ConocoPhillips Company) objects to the following NSL applications:

- Super Hornet State Com 401H - Action ID: 519190
- Super Hornet State Com 402H - Action ID: 519493
- Super Hornet State Com 403H - Action ID: 519497
- Super Hornet State Com 404H - Action ID: 519615
- Super Hornet State Com 501H - Action ID: 519646
- Super Hornet State Com 502H - Action ID: 519647
- Super Hornet State Com 503H - Action ID: 519648
- Super Hornet State Com 504H - Action ID: 519649

Please let me know if you have any questions or need anything else. Thank you.



**Holland
& Hart**

Paula Vance

Her / Hers / She [\(What's this?\)](#)

Associate

HOLLAND & HART LLP

110 North Guadalupe Street, Suite 1, Santa Fe, NM 87501

pmvance@hollandhart.com | T: (505) 954-7286 | M: (337) 280-9055