

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

**APPLICATION OF READ & STEVENS, INC. FOR CREATION
OF A SPECIAL IN SECTIONS 4, 5, 8 AND 9
IN TOWNSHIP 20 SOUTH, RANGE 34 EAST, NMPM
LEA COUNTY, NEW MEXICO**

Case No. 24528

**APPLICATION OF CIMAREX EXERGY CO. FOR THE CREATION
OF A SPECIAL POOL, A WOLFBONE POOL, PURSUANT TO
ORDER NO. R-23089 AND TO REOPEN CASE NOS. 23448 – 23455,
23594 – 23601, AND 23508 – 23523, LEA COUNTY, NEW MEXICO**

Case No. 24541

NOTICE OF CIMAREX'S REBUTTAL EXHIBITS

Cimarex Energy Co., applicant in Case No. 24541, gives notice of the filing of the attached rebuttal exhibits for acceptance into the record.

Exhibits F-9R through F-11R, G-7R, and I-14R through I-18R are rebuttal exhibits.

Respectfully submitted,
ABADIE & SCHILL, PC
/s/ Darin C. Savage

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Attorneys for Cimarex Energy Co.

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was filed with the New Mexico Oil Conservation Division and was served on counsel of record via electronic mail on August 12, 2024:

Michael H. Feldewert – mfeldewert@hollandhart.com
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Attorneys for Read & Stevens, Inc.;
and Permian Resources Operating, LLC

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Attorney for Northern Oil and Gas, Inc.

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Attorneys for MRC Permian Company;
and Foran Oil Company

/s/ Darin C. Savage

Darin C. Savage

Majority Interest in Permian Resources' Joker 5-8 Wells Owned and Supported Net Acres

Joker 5-8 Fed Com Well Number	Formation/Interval	Spacing Units (5 & 8)	PR Owned and Supported Net Acres	% of Proration Unit (PR)	XEC Owned and Supported Net Acres	% of Proration Unit (XEC)	Operator with Majority Interest
111H	1st Bone Spring	W/2 W/2	164,826	51.506%	122,070	38.146%	Permian Resources
112H	1st Bone Spring	E/2 W/2	119,079	37.207%	148,771	46.485%	Cimarex
113H	1st Bone Spring	W/2 E/2	99,535	31.099%	183,804	57.428%	Cimarex
114H	1st Bone Spring	E/2 E/2	99,538	31.097%	183,827	57.430%	Cimarex
121H	Upper 2nd Bone Spring	W/2 W/2	164,826	51.506%	122,070	38.146%	Permian Resources
122H	Lower 2nd Bone Spring	W/2 W/2	164,826	51.506%	122,070	38.146%	Permian Resources
123H	Upper 2nd Bone Spring	E/2 W/2	119,079	37.207%	148,771	46.485%	Cimarex
124H	Lower 2nd Bone Spring	E/2 W/2	119,079	37.207%	148,771	46.485%	Cimarex
125H	Upper 2nd Bone Spring	W/2 E/2	99,535	31.099%	183,804	57.428%	Cimarex
126H	Lower 2nd Bone Spring	W/2 E/2	99,535	31.099%	183,804	57.428%	Cimarex
127H	Upper 2nd Bone Spring	E/2 E/2	99,538	31.097%	183,827	57.430%	Cimarex
128H	Lower 2nd Bone Spring	E/2 E/2	99,538	31.097%	183,827	57.430%	Cimarex
171H	Upper 3rd Bone Spring	W/2 W/2	164,826	51.506%	122,070	38.146%	Permian Resources
172H	Upper 3rd Bone Spring	E/2 W/2	119,079	37.207%	148,771	46.485%	Cimarex
173H	Upper 3rd Bone Spring	W/2 E/2	99,535	31.099%	183,804	57.428%	Cimarex
174H	Upper 3rd Bone Spring	E/2 E/2	99,538	31.097%	183,827	57.430%	Cimarex
131H	3rd Bone Spring	W/2 W/2	164,826	51.506%	122,070	38.146%	Permian Resources
132H	3rd Bone Spring	E/2 W/2	119,079	37.207%	148,771	46.485%	Cimarex
133H	3rd Bone Spring	W/2 E/2	99,535	31.099%	183,804	57.428%	Cimarex
134H	3rd Bone Spring	E/2 E/2	99,538	31.097%	183,827	57.430%	Cimarex
201H	Wolfcamp XY	W/2 W/2	189,817	59.316%	95,867	29.958%	Permian Resources
202H	Wolfcamp XY	E/2 W/2	140,870	44.016%	122,568	38.298%	Permian Resources
203H	Wolfcamp XY	W/2 E/2	140,877	44.016%	122,575	38.297%	Permian Resources
204H	Wolfcamp XY	E/2 E/2	140,887	44.015%	122,585	38.297%	Permian Resources
			XEC Total		15/24 Permian Resources Proration Units		
			PR Total		9/24 Permian Resources Proration Units		

EXHIBIT F-9R

*7/2024 Title Opinions
*Status is of best knowledge

**Majority Interest in Permian Resources' Bane 4-9 Wells
Owned and Supported Net Acres**

Bane 4-9 Fed Com Well Number	Formation/Interval	Spacing Units (4 & 9)	PR Owned and Supported Net Acres	% of Proration Unit (PR)	XEC Owned and Supported Net Acres	% of Proration Unit (XEC)	Operator with Majority Interest
111H	1st Bone Spring	W/2 W/2	100,852	31.495%	184,045	57.476%	Cimarex
112H	1st Bone Spring	E/2 W/2	100,875	31.480%	184,223	57.491%	Cimarex
113H	1st Bone Spring	W/2 E/2	103,908	32.404%	185,603	57.881%	Cimarex
114H	1st Bone Spring	E/2 E/2	103,931	32.388%	185,780	57.895%	Cimarex
121H	Upper 2nd Bone Spring	W/2 W/2	100,852	31.495%	184,045	57.476%	Cimarex
122H	Lower 2nd Bone Spring	W/2 W/2	100,852	31.495%	184,045	57.476%	Cimarex
123H	Upper 2nd Bone Spring	E/2 W/2	100,875	31.480%	184,223	57.491%	Cimarex
124H	Lower 2nd Bone Spring	E/2 W/2	100,875	31.480%	184,223	57.491%	Cimarex
125H	Upper 2nd Bone Spring	W/2 E/2	103,908	32.404%	185,603	57.881%	Cimarex
126H	Lower 2nd Bone Spring	W/2 E/2	103,908	32.404%	185,603	57.881%	Cimarex
127H	Upper 2nd Bone Spring	E/2 E/2	103,931	32.388%	185,780	57.895%	Cimarex
128H	Lower 2nd Bone Spring	E/2 E/2	103,931	32.388%	185,780	57.895%	Cimarex
171H	Upper 3rd Bone Spring	W/2 W/2	100,852	31.495%	184,045	57.476%	Cimarex
172H	Upper 3rd Bone Spring	E/2 W/2	100,875	31.480%	184,223	57.491%	Cimarex
173H	Upper 3rd Bone Spring	W/2 E/2	103,908	32.404%	185,603	57.881%	Cimarex
174H	Upper 3rd Bone Spring	E/2 E/2	103,931	32.388%	185,780	57.895%	Cimarex
131H	3rd Bone Spring	W/2 W/2	100,852	31.495%	184,045	57.476%	Cimarex
132H	3rd Bone Spring	E/2 W/2	100,875	31.480%	184,223	57.491%	Cimarex
133H	3rd Bone Spring	W/2 E/2	103,908	32.404%	185,603	57.881%	Cimarex
134H	3rd Bone Spring	E/2 E/2	103,931	32.388%	185,780	57.895%	Cimarex
201H	Wolfcamp XY	W/2 W/2	124,034	38.735%	157,842	49.293%	Cimarex
202H	Wolfcamp XY	E/2 W/2	124,057	38.715%	158,020	49.313%	Cimarex
203H	Wolfcamp XY	W/2 E/2	111,635	34.814%	176,868	55.158%	Cimarex
204H	Wolfcamp XY	E/2 E/2	119,386	37.205%	168,312	52.452%	Cimarex
XEC Total			24/24 Permian Resources Proration Units				
PR Total			0/24 Permian Resources Proration Units				

*7/2024 Title Opinions
*Status is of best knowledge

Permian Resources' Exhibit B-4 Recapitulation

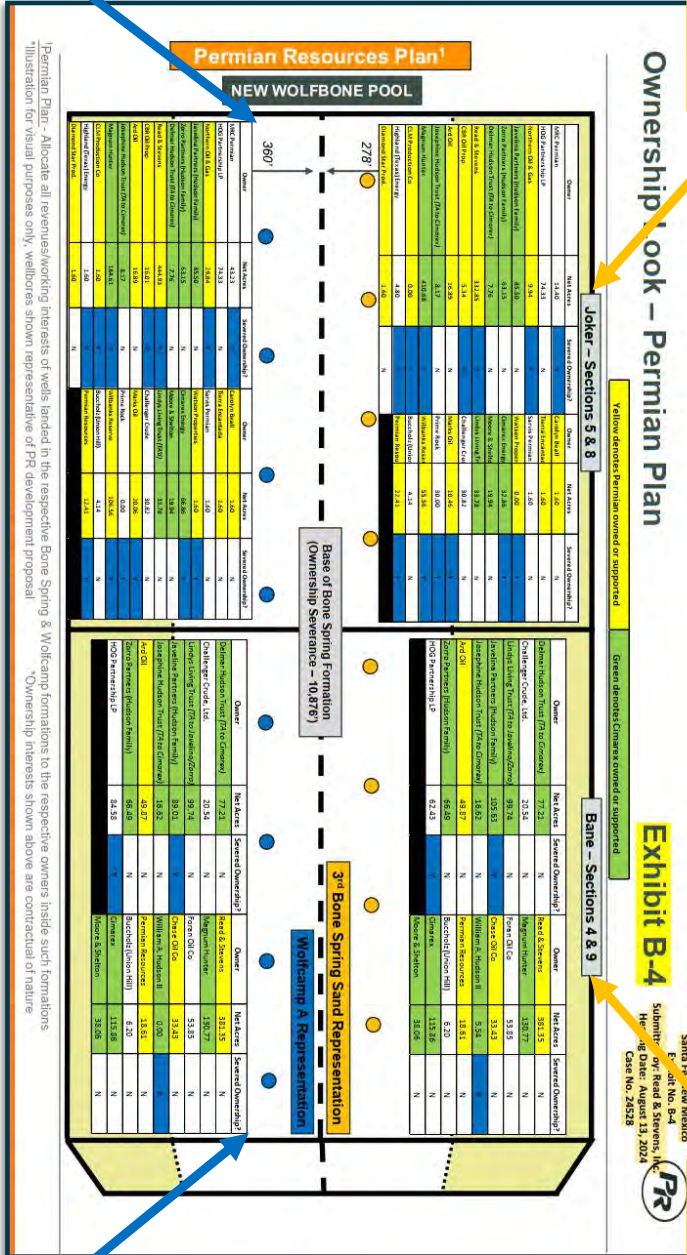


Joker 5-8 (BSPG) Net Acre Summary
Permian Owned/Supported: 458.25
Cimarex Owned/Supported: 661.84

Bane 4-9 (BSPG) Net Acre Summary
Permian Owned/Supported: 483.26
Cimarex Owned/Supported: 655.92

Joker 5-8 (WFMP) Net Acre Summary
Permian Owned/Supported: 654.70
Cimarex Owned/Supported: 469.77

Bane 4-9 (WFMP) Net Acre Summary
Permian Owned/Supported: 483.26
Cimarex Owned/Supported: 653.76



Bella Sikes

From: Staci Sanders <stacis@mec.com>
Sent: Wednesday, May 29, 2024 10:59 AM
To: Bella Sikes
Cc: Morgan Buckles
Subject: [EXTERNAL] RE: Cimarex's Proposed Mighty Pheasant/Loosey Goosey Development

Follow Up Flag: Follow up
Flag Status: Completed

WARNING: This email originated from outside of Coterra Energy. Do not click links or open attachments unless you recognize the sender, are expecting the content and know it is safe.

Bella,

I'm sorry for the delay in getting back to you. Chase Oil Corporation will participate and support whoever is appointed operator and chooses to remain neutral in the ongoing fight with Read & Stevens/Permian Resources. Chase Oil Corporation can sign AFE's again if needed, but will do the same with R&S/Permian.

Please do not hesitate to contact me if you have any questions.

Thanks!

Staci Sanders
 Land Manager
 Chase Oil Corporation
 575-748-1288 Phone
 575-748-7374 Fax
stacis@mec.com

From: Morgan Buckles <MorganBuckles@mec.com>
Sent: Wednesday, May 8, 2024 8:13 AM
To: Staci Sanders <stacis@mec.com>
Subject: FW: Cimarex's Proposed Mighty Pheasant/Loosey Goosey Development

From: Bella Sikes <Bella.Sikes@coterra.com>
Sent: Wednesday, May 8, 2024 6:51 AM
To: Morgan Buckles <MorganBuckles@mec.com>
Subject: RE: Cimarex's Proposed Mighty Pheasant/Loosey Goosey Development



EXTERNAL EMAIL - Verify the sender and use caution before opening attachments or clicking links

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
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**APPLICATION OF CIMAREX EXERGY CO. FOR THE CREATION
OF A SPECIAL POOL, A WOLFBONE POOL, PURSUANT TO
ORDER NO. R-23089 AND TO REOPEN CASE NOS. 23448 – 23455,
23594 – 23601, AND 23508 – 23523, LEA COUNTY, NEW MEXICO**

Case No. 24541

REBUTTAL EXHIBIT G-7R WITH EXPLANATION BY STACI MUELLER

I, Staci Mueller, state and affirm the following:

I am over the age of 18, and I have personal knowledge of the matters stated herein. I am employed as a petroleum geologist for Cimarex Energy Co. (“Cimarex”), and I am familiar with the subject application and the geology involved. I have testified previously before the Oil Conservation Division as an expert petroleum geologist.

Permian Resources Operating, LLC (“Permian Resources”) sent working interest owners a letter that describes its development plan. A copy of this letter has been provided by Cimarex as Exhibit F-2.1. That letter included a visual depiction of its development plan attached as Exhibit B. Rebuttal Exhibit G-7R attached hereto shows Permian Resources’ Exhibit B in relation to the actual positioning of the targets. Their Exhibit B is a misrepresentation of the Bone Spring and Wolfcamp targets, as the scale is incorrect on this cartoon. Members of Cimarex’s team that read Permian Resources’ letter to the working interest owners and saw this cartoon questioned whether they were changing their target to the Wolfcamp A Shale because of the misrepresentation. So, to clarify, I have taken Permian Resources’ type logs from their Exhibit E-4, in Permian Resources’ Hearing Packet from the original hearing and aligned the top and base of the new Wolfbone Pool with the gunbarrel view. According to the gunbarrel view, the wells would be landed approximately 45’ higher in the 3rd Bone Spring Sand and about 60 feet lower in

**EXHIBIT
G-7R**

5 of 12

the Wolfcamp A Shale. These targets are incorrect. In reality, Permian Resources is targeting the basal 3rd Bone Spring Sand, where I have drawn a dashed green line, and the Wolfcamp Y Sand, where I have drawn a dashed blue line. So, instead of staggering their Bone Spring and Wolfcamp targets approximately 200 feet like the cartoon shows, the stagger is actually about 95 feet. Neither Permian Resources nor Cimarex is targeting the Wolfcamp A Shale because the reservoir is located in the high porosity sands, predominantly in the 3rd Sand. I understand that this explanation will be used as written testimony before the Division in Case No. 24541 and affirm that my testimony herein is true and correct, to the best of my knowledge and belief and made under penalty of perjury under the laws of the State of New Mexico.

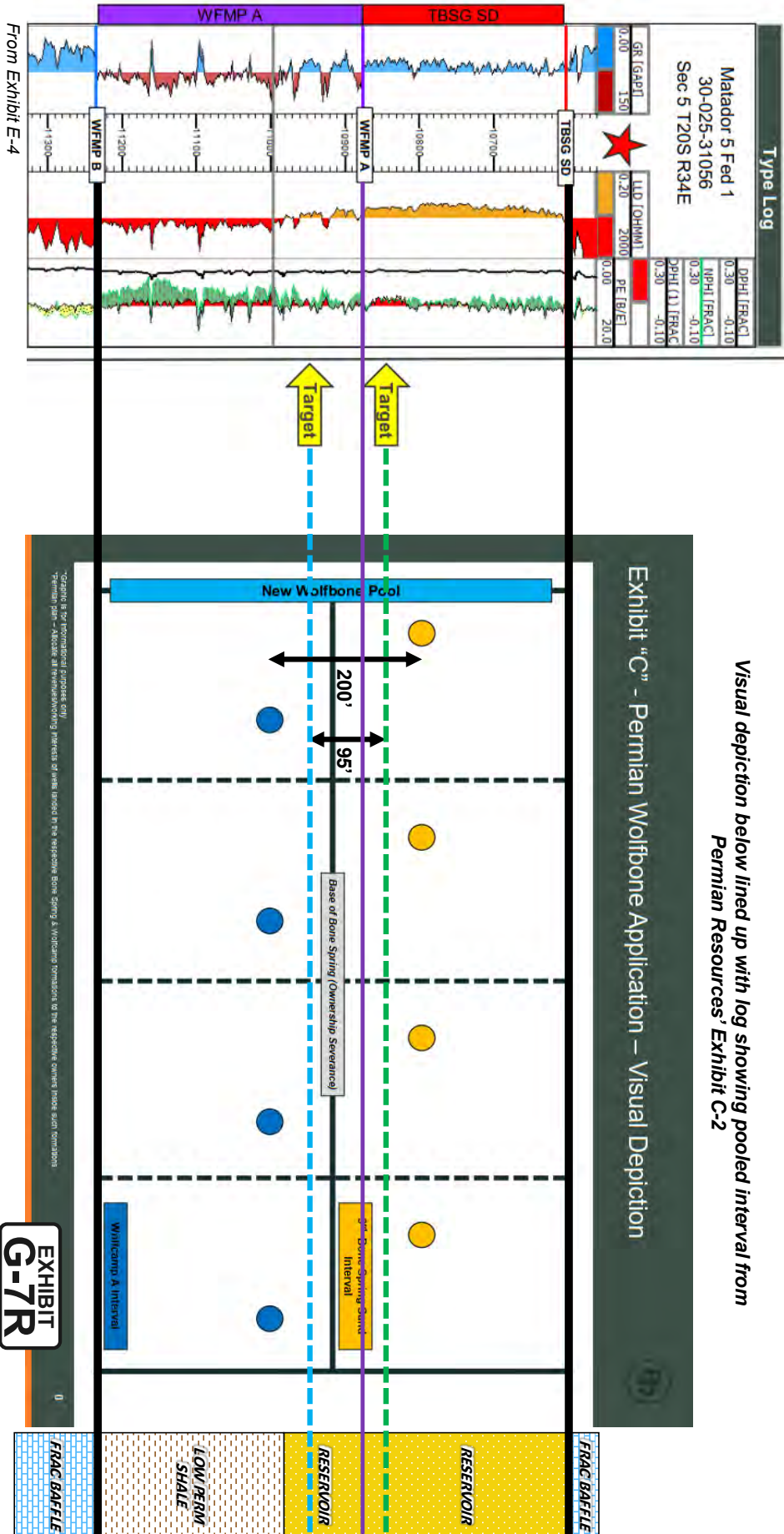

STACI MUELLER

8/9/2024
Date Signed

Scale of Visual Depiction is Misleading



Visual depiction below lined up with log showing pooled interval from Permian Resources' Exhibit C-2



Permian Resources has misrepresented where their 3rd Sand and Upper Wolfcamp targets are located. They are targeting both higher in the Wolfcamp and Lower in the Bone Spring than this cartoon shows. They will not be targeting the Wolfcamp A Shale as the cartoon shows but will be drilling closer to the base of the Bone Spring, with a vertical separation of just 95 feet between their Bone Spring and Upper Wolfcamp targets.

EXHIBIT G-7R



Batman Development is not equal to what PR is proposing at Joker/Bane

- Batman W/2 is drilled at 6 WPS and Batman E/2 is drilled at 4 WPS → Joker/Bane proposal is drilled at 8 WPS
- Batman has no offset development or depletion risk → Joker/Bane has offset developments with 5-9 years of production

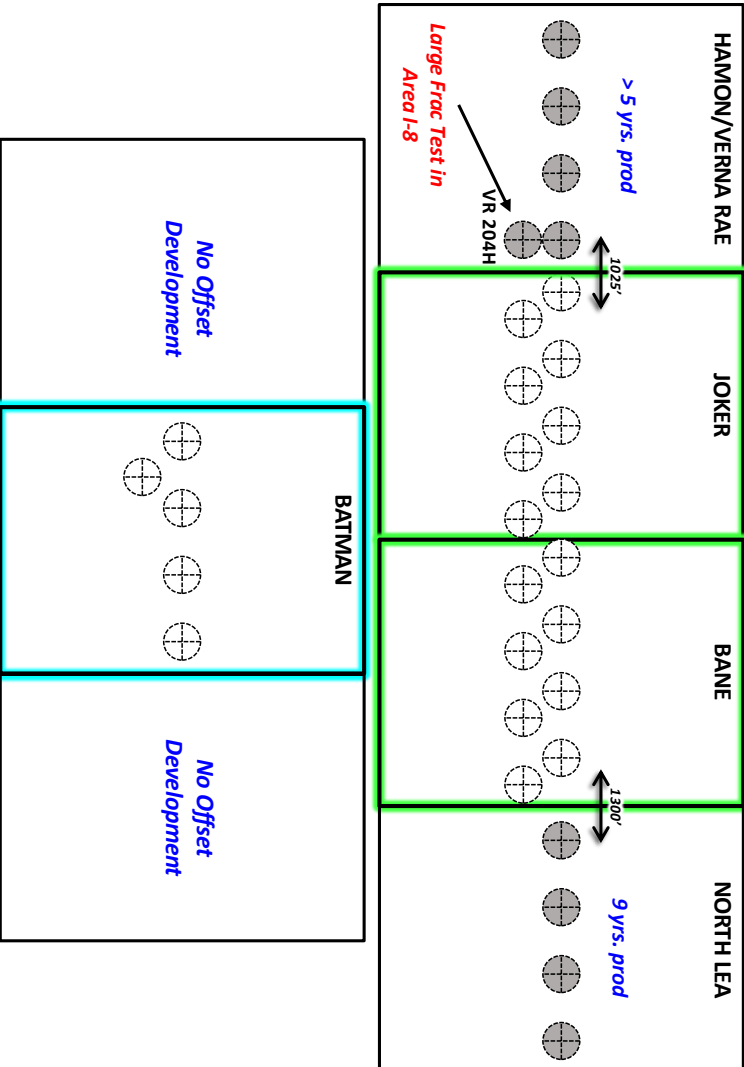
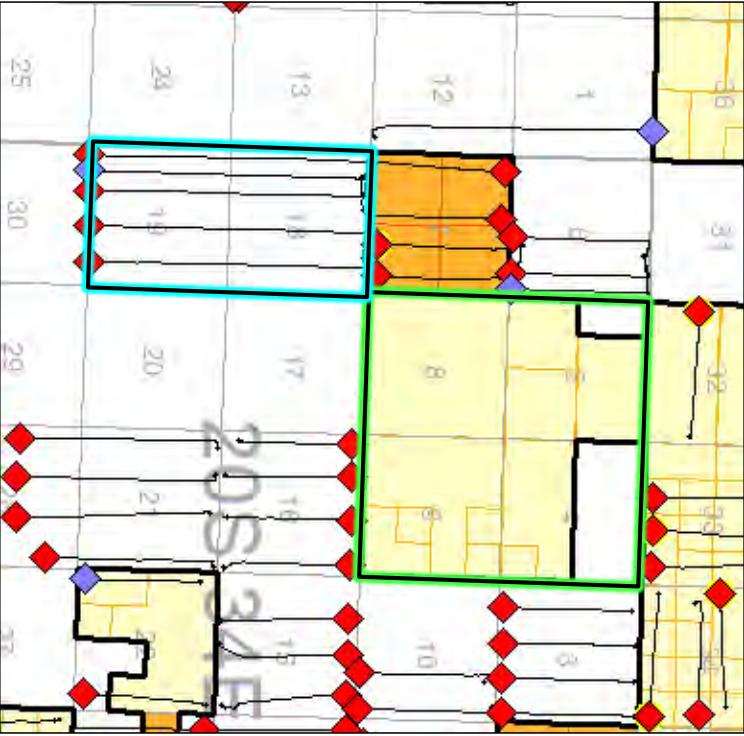
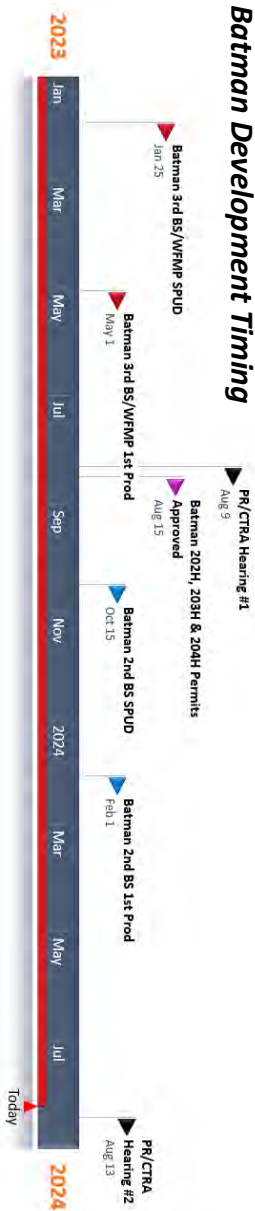


EXHIBIT
I-14R



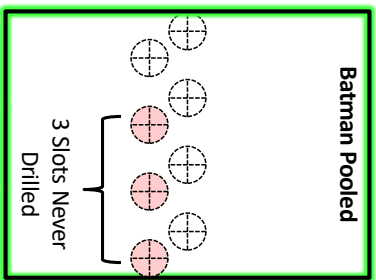
PR returns to Batman and doesn't drill the WFMP XY landing

Batman Development Timing



Well Name	Formation/Interval	Provision Unit	API Number	Case Number	Order Number	Order Date	Spud Date	Completion Date
Batman Fed Com 111H	1st Bone Spring	W/2 W/2 of Sections 18 & 19	30-025-51835	22792	R-22281	9/26/2022		
Batman Fed Com 112H	1st Bone Spring	E/2 W/2 of Sections 18 & 19	30-025-51836	22793	R-22282	9/26/2022		
Batman Fed Com 113H	1st Bone Spring	W/2 E/2 of Sections 18 & 19	30-025-51837	22794	R-22283	9/26/2022		
Batman Fed Com 114H	1st Bone Spring	E/2 E/2 of Sections 18 & 19	30-025-51838	22795	R-22284	9/26/2022		
Batman Fed Com 121H	2nd Bone Spring	W/2 W/2 of Sections 18 & 19	30-025-51886	22792	R-22281	9/26/2022	10/15/2023	2/1/2024
Batman Fed Com 122H	2nd Bone Spring	E/2 W/2 of Sections 18 & 19	30-025-51839	22792	R-22281	9/26/2022	10/14/2023	2/1/2024
Batman Fed Com 123H	2nd Bone Spring	W/2 W/2 of Sections 18 & 19	30-025-51940	22793	R-22282	9/26/2022	10/14/2023	2/1/2024
Batman Fed Com 124H	2nd Bone Spring	E/2 W/2 of Sections 18 & 19	30-025-51841	22794	R-22282	9/26/2022	10/13/2023	2/1/2024
Batman Fed Com 125H	2nd Bone Spring	W/2 E/2 of Sections 18 & 19	30-025-51842	22794	R-22283	9/26/2022	10/25/2023	2/1/2024
Batman Fed Com 126H	2nd Bone Spring	E/2 E/2 of Sections 18 & 19	30-025-51943	22794	R-22283	9/26/2022	10/24/2023	2/1/2024
Batman Fed Com 127H	2nd Bone Spring	W/2 W/2 of Sections 18 & 19	30-025-51844	22795	R-22284	9/26/2022		
Batman Fed Com 128H	2nd Bone Spring	E/2 E/2 of Sections 18 & 19	None (?)	22795	R-22284	9/26/2022		
Batman Fed Com 171H	Harkey	W/2 W/2 of Sections 18 & 19	30-025-51945	22792	R-22281	9/26/2022		
Batman Fed Com 172H	Harkey	E/2 W/2 of Sections 18 & 19	30-025-51846	22793	R-22282	9/26/2022		
Batman Fed Com 173H	Harkey	W/2 E/2 of Sections 18 & 19	30-025-51847	22794	R-22283	9/26/2022		
Batman Fed Com 174H	Harkey	E/2 E/2 of Sections 18 & 19	30-025-51948	22795	R-22284	9/26/2022		
Batman Fed Com 131H	3rd Bone Spring	W/2 W/2 of Sections 18 & 19	30-025-50961	22792	R-22281	9/26/2022	1/26/2023	5/1/2023
Batman Fed Com 132H	3rd Bone Spring	E/2 W/2 of Sections 18 & 19	30-025-50962	22793	R-22282	9/26/2022	1/24/2023	5/27/2023
Batman Fed Com 133H	3rd Bone Spring	W/2 E/2 of Sections 18 & 19	30-025-50963	22794	R-22283	9/26/2022	1/27/2023	5/1/2023
Batman Fed Com 134H	3rd Bone Spring	E/2 E/2 of Sections 18 & 19	30-025-50964	22795	R-22284	9/26/2022	1/26/2023	3/5/2023
Batman Fed Com 201H	Wolfcamp XY	W/2 W/2 of Sections 18 & 19	30-025-50968	22788	R-22277	9/26/2022	1/25/2023	5/1/2023
Batman Fed Com 202H	Wolfcamp XY	E/2 W/2 of Sections 18 & 19	30-025-51849	22789	R-22278	9/26/2022		
Batman Fed Com 203H	Wolfcamp XY	W/2 E/2 of Sections 18 & 19	30-025-51850	22790	R-22279	9/26/2022		
Batman Fed Com 204H	Wolfcamp XY	E/2 E/2 of Sections 18 & 19	30-025-51851	22791	R-22280	9/26/2022		

- PR returns to Batman section and did not drill the remaining WFMP XY well slots



8 WPS

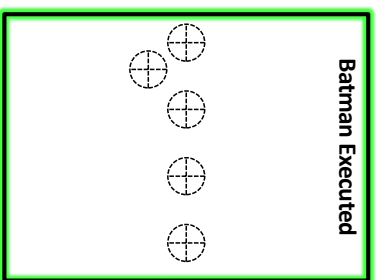
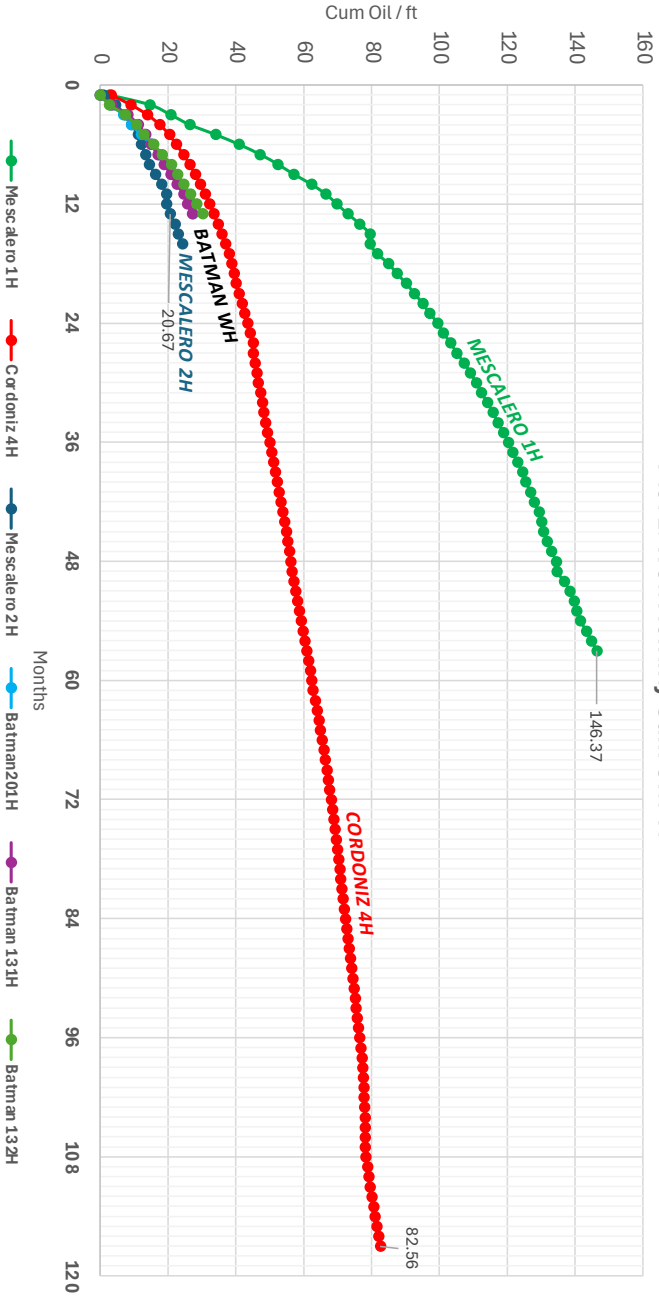


EXHIBIT
I-15R



Mescalero 21-28 2H Depletion From Offset wells at 1/2 Proposed Spacing

Plot 1: Well Monthly Cum Oil / ft



• Key Point: Mescalero 2H is a single well that saw Infill depletion at 4 WPS

• Cimarex offset two 1-mile producers with the Mescalero 12-28 2H:

- **Cordoniz 28 Federal Com 4H has produced 82.56 Bo/ft 2014, frac 622 #/ft**
- **Mescalero 21 Federal Com 1H has produced 146 Bo/ft 2019, frac 2177 #/ft**
- **Mescalero Ridge 21-28 Federal Com 2H saw depletion from offset production at 4 WPS, frac 2163 #/ft**
- **Batman West Half, Avg frac 2362#/ft from Enverus**

Map with Existing 3rd SS & WFMP Wells

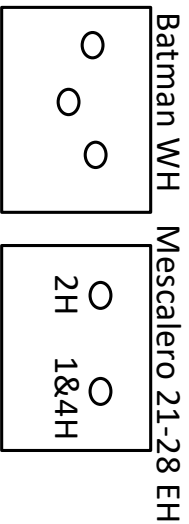
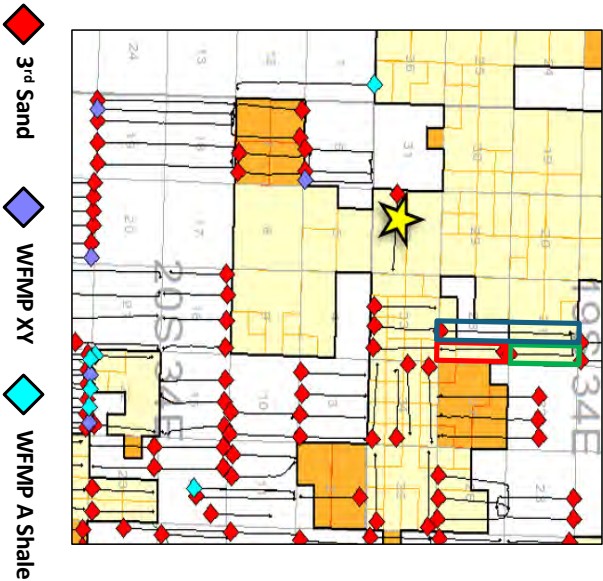
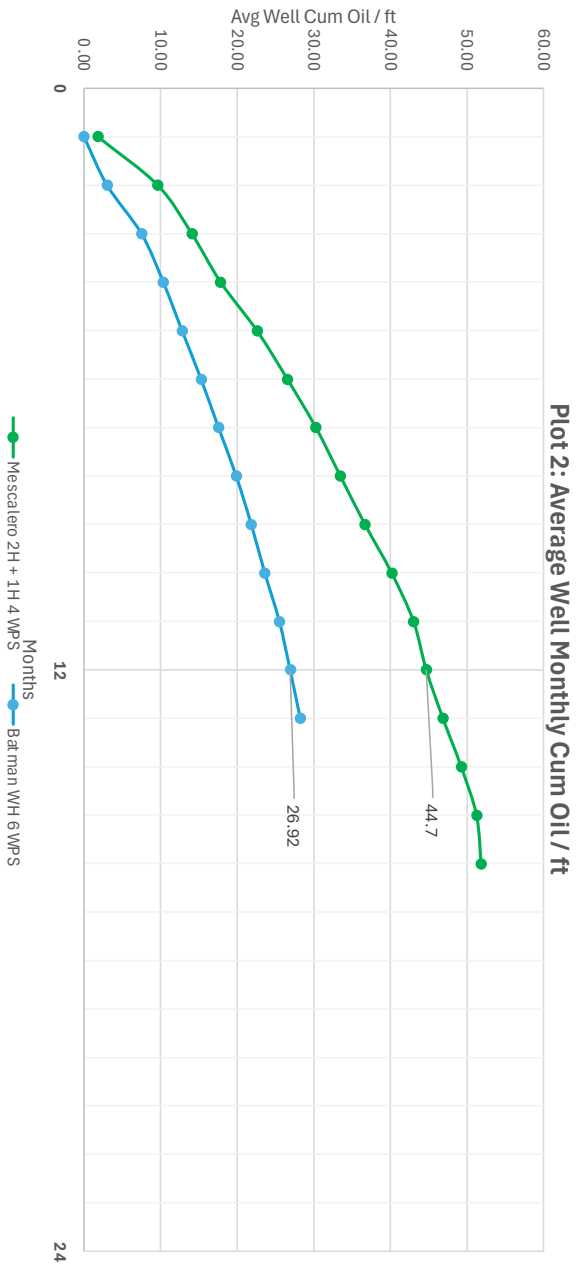


EXHIBIT
I-16R



Mescalero Aggregate Supports 4 WPS



• Mescalero 2H Infill depletion supports 4 WPS not double well count. Aggregate is comparable.

• Cimarex offset 1-mile producers with the Mescalero 2H:

- Cimarex EH (Mescalero 1 mile 1H and 2 mile 2H) Modern 3rd sand completions
 - 44.7 Bo/ft average well * 2 wells * 9800 ft/well = 876 MBO produced first 12 months
- Batman WH (131H, 132H, 201H)
 - 26.92 Bo/ft average well * 3 wells * 9800 ft/well = 791 MBO first 12 months

Map with Existing 3rd SS & WFMP Wells

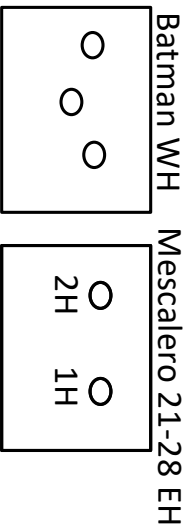
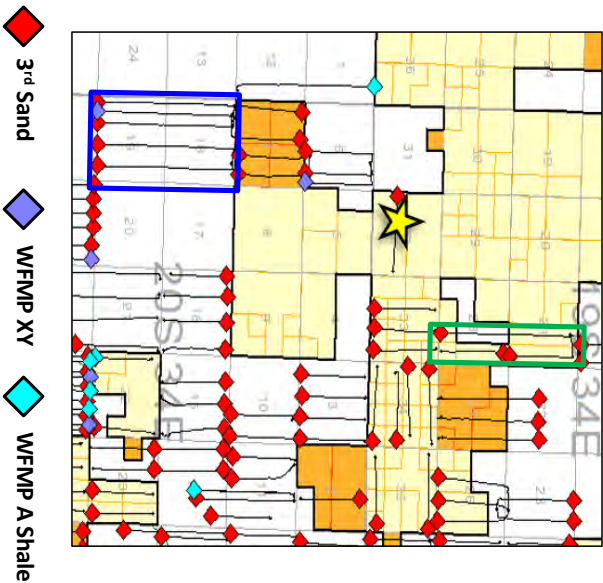
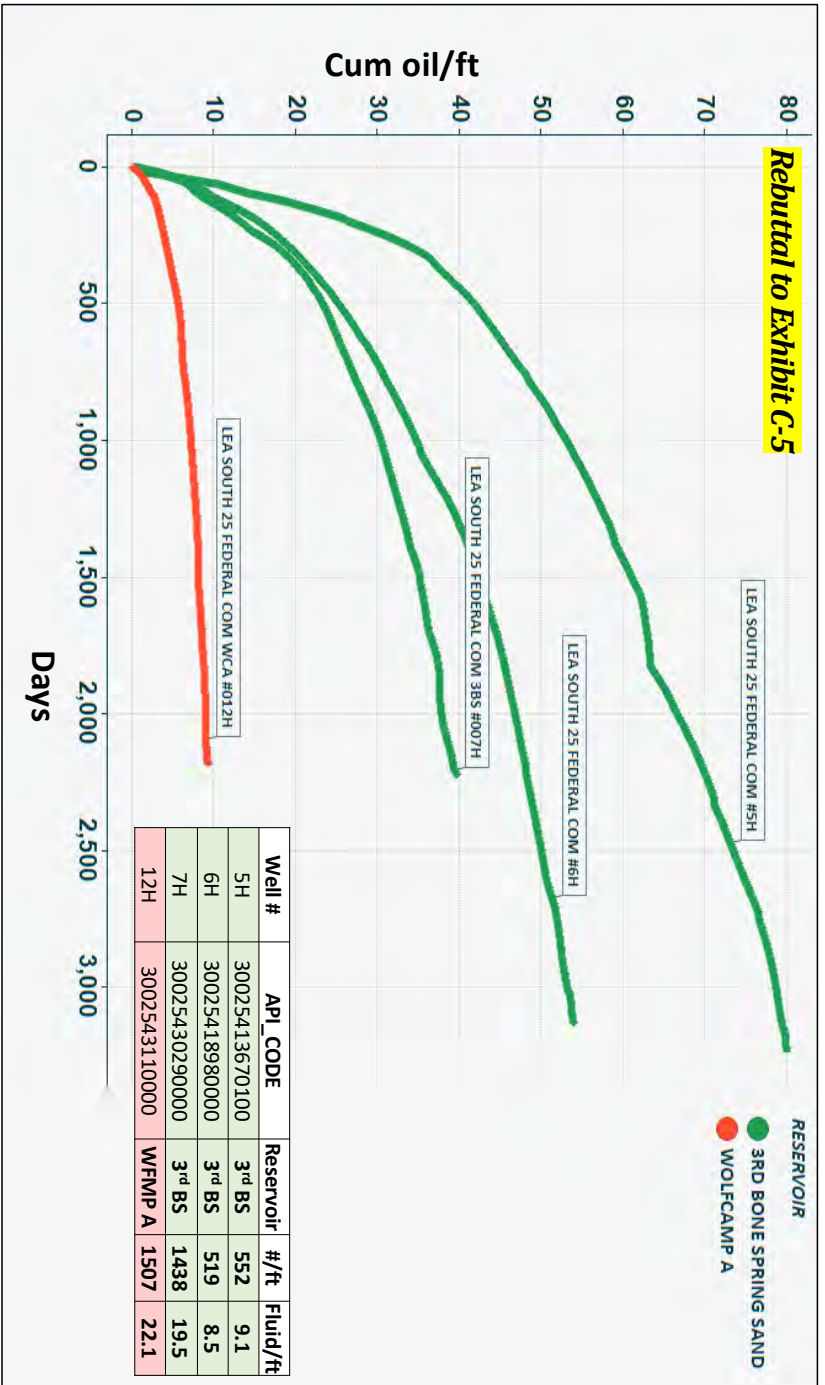


EXHIBIT
I-17R

PR's Lea South 25 result (why WFMP A is not considered in allocation formula)



- 12H and 7H provide a good comparison of Shale vs. Sand landing results and highlight the poor productivity that occurs when landings are moved too far from the sands that drive production.
- Including the Wolfcamp A negatively impacts Bone Spring correlative rights.

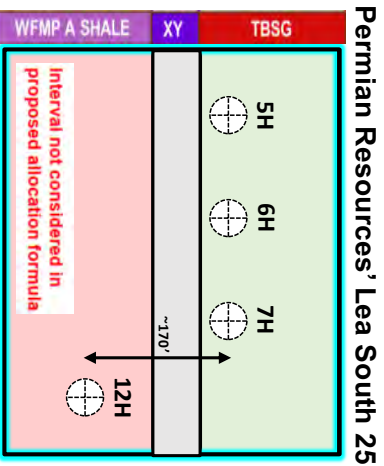
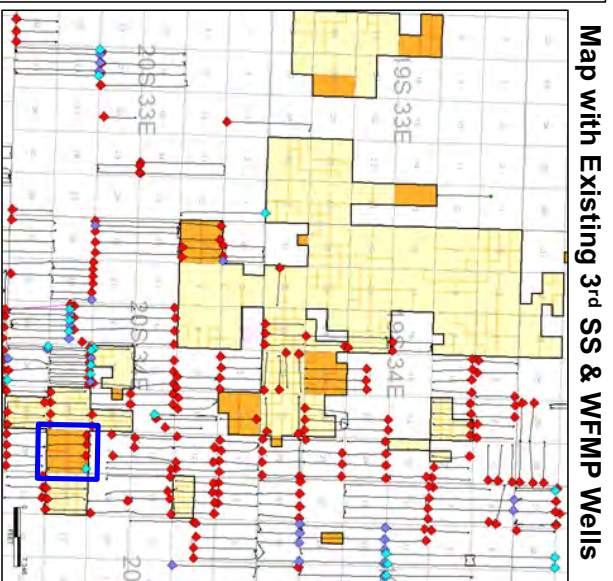


EXHIBIT I-18R