

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Marshall Bates

Engineering Tech

6/25/2021

Print or Type Name

Signature

Title

Date

Marshall@FAEnergyus.com

e-mail Address

FAE II Operating, LLC

11757 Katy Fwy. Ste. 1000, Houston, TX 77079

Operator	Address		
Cagle C	5	N-03-26S-37E	
Lease	Well No.	Unit Letter-Section-Township-Range	County
329326	326351	30-025-34450	X
OGRID No.	Property Code	API No.	Lease Type: <input checked="" type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Jalmat		Langlie Mattix
Pool Code	79240		37240
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2,830 – 3,110'		3,311 – 3,463
Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)	35.0API / 1.488 BTU		35.0 API / 1.488 BTU
Producing, Shut-In or New Zone	Producing		New Zone
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	See Attached Date: Rates:	Date: Rates:	See Attached Date: Rates:
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas 0 % 71 %	Oil Gas % %	Oil Gas 100 % 29 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones?
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail?

Yes ☒ No ☐
Yes ☐ No ☐

Are all produced fluids from all commingled zones compatible with each other?

Yes ☒ No ☐

Will commingling decrease the value of production?

Yes ☐ No ☒

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application?

Yes ☒ No ☐

NMOCD Reference Case No. applicable to this well:

Attachments:

C-102 for each zone to be commingled showing its spacing unit and acreage dedication.

Production curve for each zone for at least one year. (If not available, attach explanation.)

For zones with no production history, estimated production rates and supporting data.

Data to support allocation method or formula.

Notification list of working, royalty and overriding royalty interests for uncommon interest cases.

Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools

List of all operators within the proposed Pre-Approved Pools

Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.

Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE MBates TITLE Engineering Tech DATE 6/24/2021

TYPE OR PRINT NAME Marshall Bates TELEPHONE NO. (832) 706 - 0041

E-MAIL ADDRESS Marshall@FAEnergyus.com

faeIIoperating

June 22, 2021

Mr. Dean McClure
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Cagle C #005: API 30-025-34450
Jalmat Pool: 79240
Langlie Mattix Pool: 37240

Dear Mr. McClure:

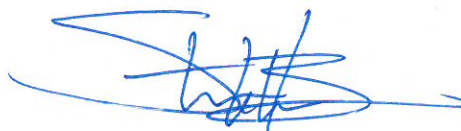
FAE II Operating LLC, as operator, will be filing applications with the New Mexico Oil Conservation Division for approval of the aforementioned commingling project. After a review of internal records, this letter serves as notice that the operator and interest owners are identical for the pools listed above.

If you have any questions, please feel free to contact the undersigned phone at (832) 220-9188 or by email at steven@faenergyus.com.

Thank you for your attention to this matter.

Sincerely,

FAE II Operating, LLC



Steven Lehrbass
Land

faeIIoperating

June 23, 2021

VIA ONLINE FILING

Mr. Dean McClure
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Application of FAE II Operating, LLC for Administrative Approval to Downhole Commingle and Sell Oil and Gas Production from the Jalmat and Langlie Mattix Pools for the Cagle C #5 well located in Sec. 3, T-26S, R-37E, Lea County, New Mexico

Dear Mr. McClure:

FAE II Operating LLC, OGRID: 329326, requests administrative approval for downhole commingling of oil and gas production from the Jalmat and Langlie Mattix Pools for its Cagle C #5 well located in Unit Letter N, Section 3, T-26S, R-37E, 990 feet FSL and 1,980 feet FWL, as shown in the attached C-102's for each zone.

Cagle C #5 is currently open to the Yates-Seven Rivers interval, which translates to the JALMAT; TAN-YATES-7 RVRs (GAS) [Pool ID: 79240]. The production curve for this interval is shown in Exhibit A. To develop a forecast for this zone, a decline curve was utilized based on the aforementioned historical production.

The zone that does not have production history in the Cagle C #5 is the Seven Rivers-Queen, which translates to the LANGLEIE MATTIX; 7 RVRs-Q-GRAYBURG [Pool ID: 37240]. To develop a forecast for this zone, four (4) surrounding wells with production history from the Seven Rivers-Queen were used as an offset to prove up hole potential by taking the historical average of the oil, gas, and water production. The resulting historical average production curve for this interval is shown in Exhibit B. From there, a decline curve was utilized based on the aforementioned historical production.

Overall, the forecast for the proposed downhole commingled production was formed by combining the forecasts for both zones, as shown in the Synthetic Decline Curve column of Exhibit C. This forecast proved that an IP of 5.3 BOPD and 23.6 MCFPD is the expected total, and of that, 5.3 BOPD and 6.9 MCFPD will come from the Seven Rivers-Queen zone. The Yates-Seven Rivers is projected to yield 0.0 BOPD and 16.7 MCFPD with the additional intervals that will be opened up. This information along with the percentage allocation across the zones is shown in Exhibit D.

After a review of internal records, the interest owners are identical for the aforementioned wells. As such, notification to the relevant parties of our intent to commingle production will not be necessary.

This proposed commingling of production is in the interest of conservation and will not result in reduced royalty or improper measurement of production. If there are further questions concerning this application, please feel free to contact the undersigned by email at marshall@faenergyus.com or by telephone at (832) 241-8080.

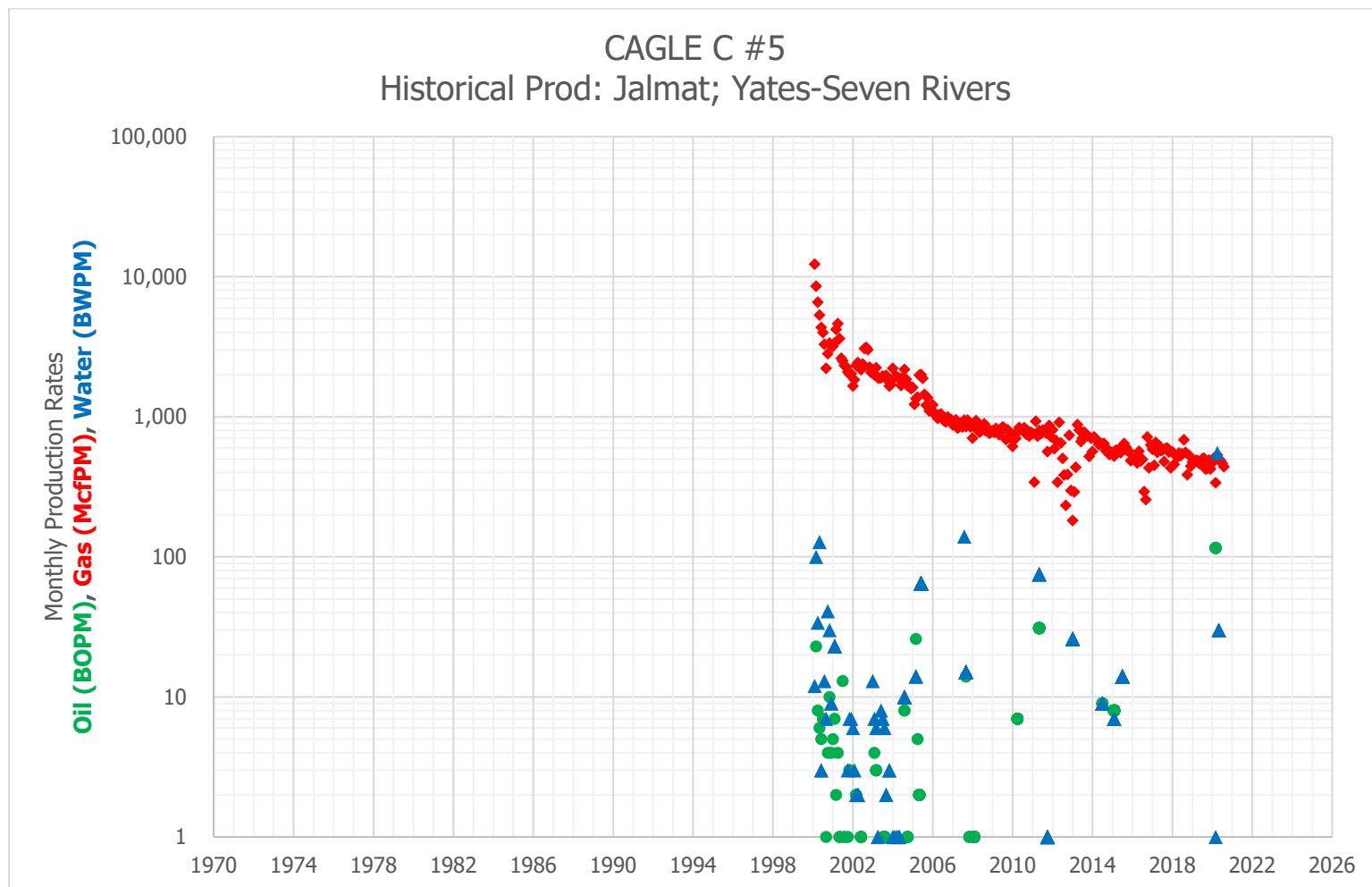
Very truly yours,



FAE II Operating, LLC

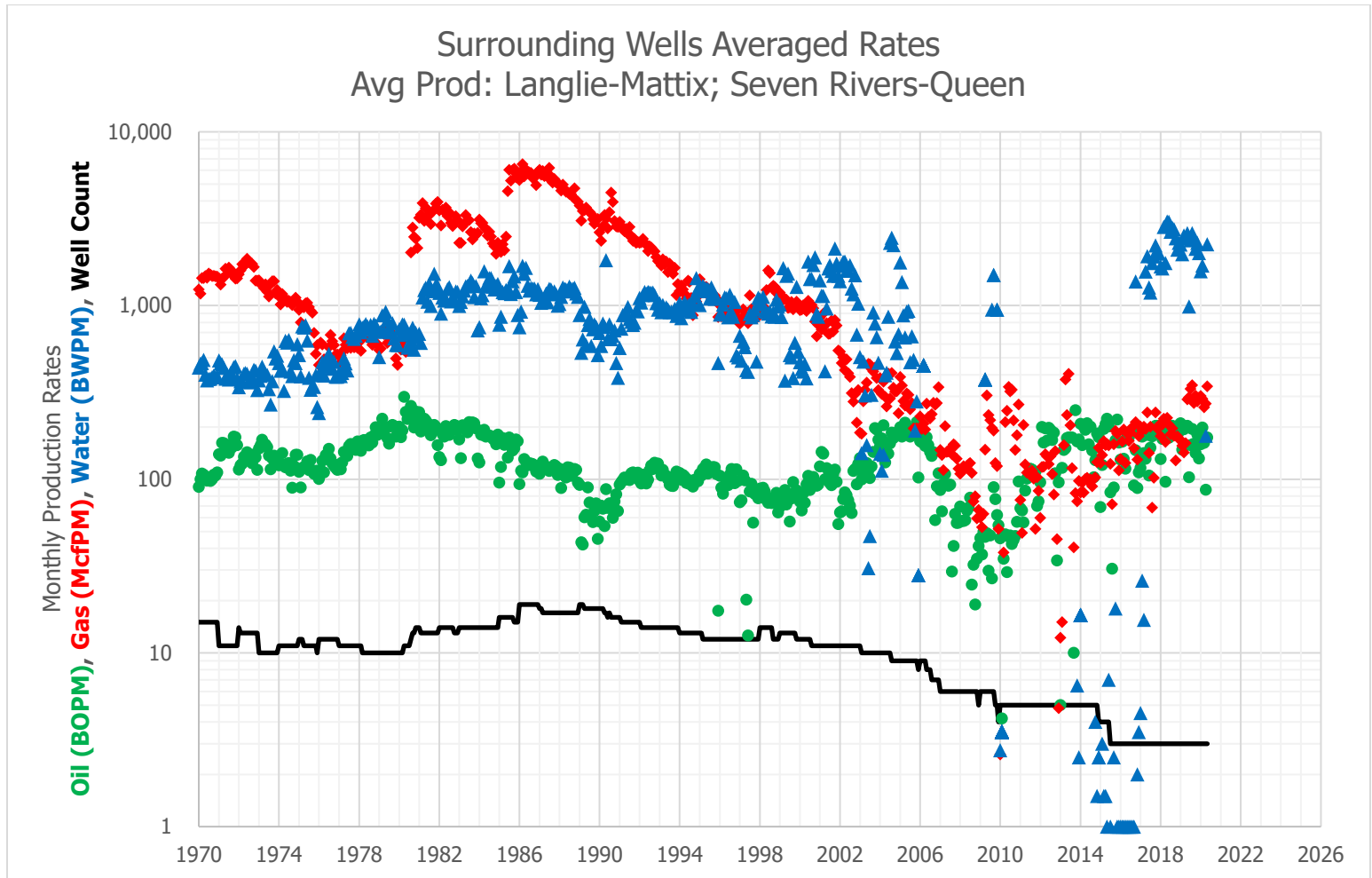
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Exhibit A – Historical and Forecast Production in the Current Zone



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Exhibit B – Historical Average Production in the Proposed Zone



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Exhibit C – Historical Production and Decline Curve

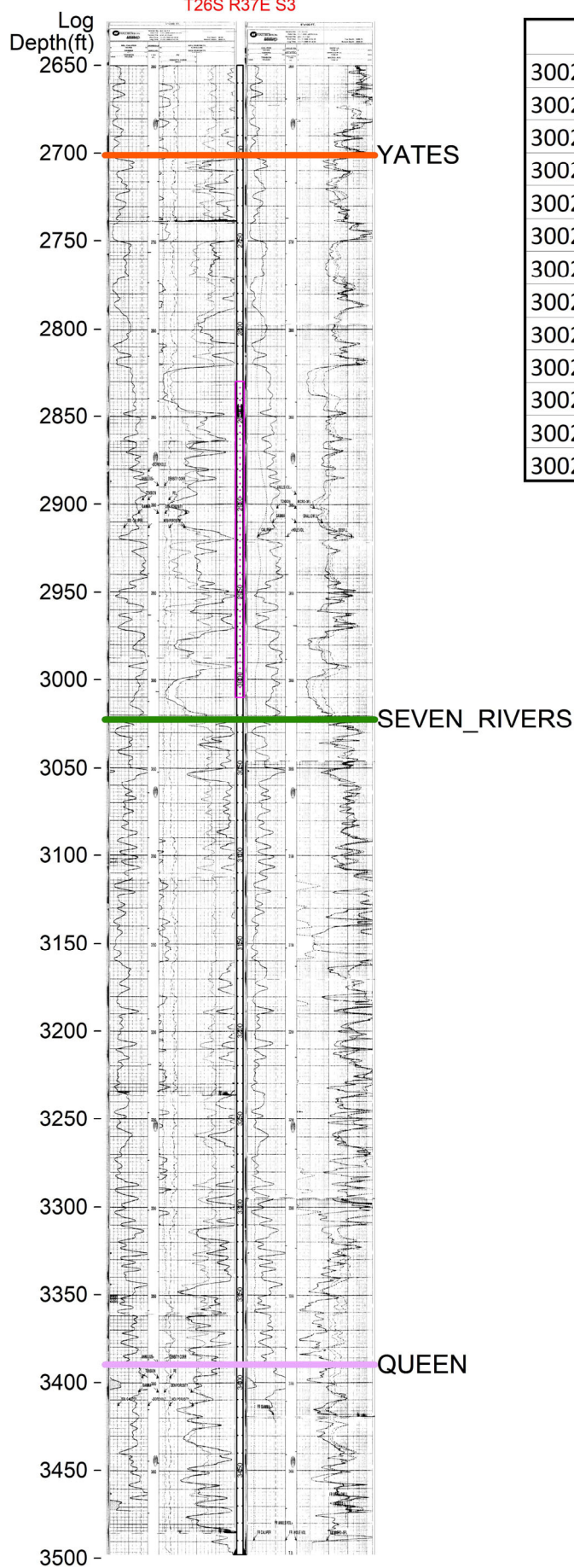
Surrounding Wells Averaged Rates					CAGLE C #5				Synthetic Decline Curve			
Avg Prod: Langlie-Mattix; Seven Rivers-Queen					Historical Prod: Jalmat; Yates-Seven Rivers							
Date	Avg Oil (BOPM)	Avg Gas (McfPM)	Avg Water (BWPM)	Well Count	Date	Avg Oil (BOPM)	Avg Gas (McfPM)	Avg Water (BWPM)	Month	Avg Oil (BOPM)	Avg Gas (McfPM)	Avg Water (BWPM)
1/1/2015	69	124	-	4	1/1/2015	-	556	-	1	161.9	717	1,352
2/1/2015	121	138	3	4	2/1/2015	8	525	7	2	161.2	715	1,347
3/1/2015	195	166	2	4	3/1/2015		578	-	3	160.4	714	1,343
4/1/2015	208	157	2	4	4/1/2015		567	-	4	159.6	712	1,338
5/1/2015	223	160	1	4	5/1/2015		586	-	5	158.9	710	1,334
6/1/2015	202	156	7	4	6/1/2015		555	-	6	158.1	708	1,330
7/1/2015	84	122	1	3	7/1/2015		584	14	7	157.3	707	1,325
8/1/2015	31	72	1	3	8/1/2015		645		8	156.6	705	1,321
9/1/2015	90	159	3	3	9/1/2015		609		9	155.8	703	1,316
10/1/2015	168	189	18	3	10/1/2015		572		10	155.1	701	1,312
11/1/2015	221	182	1	3	11/1/2015		568		11	154.4	700	1,308
12/1/2015	163	112	1	3	12/1/2015		485		12	153.6	698	1,304
1/1/2016	130	130	1	3	1/1/2016		500		13	152.9	696	1,299
2/1/2016	165	165	1	3	2/1/2016		504		14	152.1	694	1,295
3/1/2016	131	193	1	3	3/1/2016		515		15	151.4	693	1,291
4/1/2016	115	124	1	3	4/1/2016		469		16	150.7	691	1,286
5/1/2016	184	183	1	3	5/1/2016		568		17	150.0	689	1,282
6/1/2016	174	166	1	3	6/1/2016		483		18	149.3	687	1,278
7/1/2016	187	185	1	3	7/1/2016		498		19	148.5	686	1,274
8/1/2016	189	199	1	3	8/1/2016		293		20	147.8	684	1,270
9/1/2016	92	151	1	3	9/1/2016		256		21	147.1	682	1,265
10/1/2016	147	213	1,375	3	10/1/2016		718		22	146.4	681	1,261
11/1/2016	89	129	2	3	11/1/2016		432		23	145.7	679	1,257
12/1/2016	110	177	4	3	12/1/2016		629		24	145.0	677	1,253
1/1/2017	116	200	5	3	1/1/2017		586		25	144.3	675	1,249
2/1/2017	176	191	26	3	2/1/2017		450		26	143.6	674	1,245
3/1/2017	142	201	16	3	3/1/2017		658		27	143.0	672	1,241
4/1/2017	131	194	1,566	3	4/1/2017		556		28	142.3	670	1,237
5/1/2017	180	242	1,919	3	5/1/2017		624		29	141.6	669	1,233
6/1/2017	105	141	1,271	3	6/1/2017		575		30	140.9	667	1,229
7/1/2017	152	201	1,185	3	7/1/2017		579		31	140.2	665	1,224
8/1/2017	177	69	1,758	3	8/1/2017		480		32	139.6	664	1,220
9/1/2017	198	102	1,911	3	9/1/2017		596		33	138.9	662	1,216
10/1/2017	203	242	2,216	3	10/1/2017		598		34	138.2	660	1,212
11/1/2017	203	196	2,040	3	11/1/2017		560		35	137.6	659	1,208
12/1/2017	184	205	1,986	3	12/1/2017		432		36	136.9	657	1,205
1/1/2018	131	177	1,675	3	1/1/2018		562		37	136.3	656	1,201
2/1/2018	171	206	1,633	3	2/1/2018		458		38	135.6	654	1,197
3/1/2018	196	223	2,831	3	3/1/2018		532		39	135.0	652	1,193
4/1/2018	97	163	1,752	3	4/1/2018		514		40	134.3	651	1,189
5/1/2018	203	226	3,039	3	5/1/2018		552		41	133.7	649	1,185
6/1/2018	173	206	3,026	3	6/1/2018		528		42	133.0	647	1,181
7/1/2018	187	181	2,651	3	7/1/2018		545		43	132.4	646	1,177
8/1/2018	203	196	2,795	3	8/1/2018		685		44	131.8	644	1,173
9/1/2018	192	178	2,745	3	9/1/2018		558		45	131.1	643	1,169
10/1/2018	183	128	2,438	3	10/1/2018		386		46	130.5	641	1,166
11/1/2018	202	177	2,092	3	11/1/2018		532		47	129.9	639	1,162
12/1/2018	187	171	2,294	3	12/1/2018		444		48	129.3	638	1,158
1/1/2019	210	168	2,240	3	1/1/2019		474		49	128.7	636	1,154
2/1/2019	148	156	1,971	3	2/1/2019		474		50	128.0	635	1,150
3/1/2019	194	142	2,528	3	3/1/2019		489		51	127.4	633	1,146
4/1/2019	198	161	2,436	3	4/1/2019		488		52	126.8	631	1,143
5/1/2019	203	288	2,609	3	5/1/2019		466		53	126.2	630	1,139
6/1/2019	103	295	986	3	6/1/2019		462		54	125.6	628	1,135
7/1/2019	157	330	2,371	3	7/1/2019		500		55	125.0	627	1,131
8/1/2019	195	348	2,602	3	8/1/2019		507		56	124.4	625	1,128
9/1/2019	160	274	2,403	3	9/1/2019		424		57	123.8	624	1,124
10/1/2019	141	302	2,120	3	10/1/2019		427		58	123.2	622	1,120
11/1/2019	181	281	2,293	3	11/1/2019		490		59	122.6	620	1,117
12/1/2019	132	294	2,000	3	12/1/2019		424		60	122.1	619	1,113
1/1/2020	159	301	1,572	3	1/1/2020	-	467	-				
2/1/2020	198	290	1,693	3	2/1/2020	-	506	-				
3/1/2020	162	259	1	3	3/1/2020	116	338	1				
4/1/2020	87	272	178	3	4/1/2020		534	551				
5/1/2020	174	342	2,248	3	5/1/2020		502	30				
					6/1/2020		488					

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Exhibit D – Decline Curve IP Rates and Zone Allocation Percentage

Zone (1)	Zone (2)	Oil IP (BOPD)	Gas IP (MCFD)	Water IP (BWPD)
Jalmat	Yates-Seven Rivers	0.0	16.7	0.0
Langlie Mattix	Seven Rivers-Queen	5.3	6.9	44.5
	Total	5.3	23.6	44.5
Jalmat	Yates-Seven Rivers	0%	71%	0%
Langlie Mattix	Seven Rivers-Queen	100%	29%	100%
	Total (%)	100%	100%	100%

30025344500000
FAE
CAGLE C 5
SPUD_DATE : 11/1/1999
T26S R37E S3



API	Source	Type	Top Perf	Btm Perf
30025344500000	CJH	PROPOSED	3311	3318
30025344500000	CJH	PROPOSED	3345	3350
30025344500000	CJH	PROPOSED	3362	3367
30025344500000	CJH	PROPOSED	3368	3370
30025344500000	CJH	PROPOSED	3380	3384
30025344500000	CJH	PROPOSED	3396	3401
30025344500000	CJH	PROPOSED	3402	3406
30025344500000	CJH	PROPOSED	3411	3419
30025344500000	CJH	PROPOSED	3420	3423
30025344500000	CJH	PROPOSED	3426	3435
30025344500000	CJH	PROPOSED	3447	3450
30025344500000	CJH	PROPOSED	3452	3457
30025344500000	CJH	PROPOSED	3460	3463

CAGLE C 5
ELEV_KB : 3,010
TD : 3,488

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

¹ API Number 30-025-34450	² Pool Code 37240	³ Pool Name LANGLIE MATTIX; 7 RVRS-Q-GRAYBURG
⁴ Property Code 326351	⁵ Property Name CAGLE C	
⁷ OGRID No. 329326	⁸ Operator Name FAE II OPERATING, LLC	⁶ Well Number #005
		⁹ Elevation 2999'

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
N	3	26S	37E		990	S	1980	W	LEA

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
N	3	26S	37E		990	S	1980	W	LEA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
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16		17 OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> <div><div></div><div>6/22/2021</div></div> <div>SignatureDate</div> <div>Marshall Bates</div> <div>Printed Name</div> <div>Marshall@FAEnergyus.com</div> <div>E-mail Address</div>	
SE/4 NW/4 Sec 3 (40 acres)		18 SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>	
1980'		Date of Survey	
990'		Signature and Seal of Professional Surveyor:	
		Certificate Number	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-34450		² Pool Code 79240	³ Pool Name JALMAT; TAN-YATES-7 RVRS (GAS)
⁴ Property Code 326351	⁵ Property Name CAGLE C		⁶ Well Number #005
⁷ OGRID No. 329326	⁸ Operator Name FAE II OPERATING, LLC		⁹ Elevation 2999'

¹⁰ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
N	3	26S	37E		990	S	1980	W	LEA

" Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
N	3	26S	37E		990	S	1980	W	LEA

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

<div>16</div>				<div>17 OPERATOR CERTIFICATION</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</div> <div><div><div>MBates</div><div>Signature</div></div><div><div>6/22/2021</div><div>Date</div></div></div> <div><div>Marshall Bates</div><div>Printed Name</div></div> <div><div>Marshall@FAEnergyus.com</div><div>E-mail Address</div></div>	
				<div>18 SURVEYOR CERTIFICATION</div> <div>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</div> <div><div>Date of Survey</div><div>Signature and Seal of Professional Surveyor:</div></div> <div><div>Certificate Number</div></div>	
		<div>SE/4 NW/4</div> <div>Sec 3 (40 acres)</div>			
<div>1980'</div>		<div>990'</div>			

Well Name: **Cagle C #005** Lease No: **LC-030176B** Lease Type: **Federal**
 Township: **26-S** Range: **37-E** Sec: **3N** Location: **990' FSL & 1980' FWL**
 County: **Lea** State: **NM** API: **30-025-33450** Formation: **Jalmat; TANSILL-YATES-7 RVRs**

PROPOSEDSurface Csg

Size: **8-5/8"**
 Wt.&Thrd: **24#**
 Grade: **J-55**
 Set @: **745'**
 Sxs cmt: **400 sxs**
 Circ: **97 sxs**
 TOC: **Surface**
 Hole Size: **12-1/4"**

KB: **3009.5**
 DF: **3008.5**
 GL: **2999**
 Spud Date: **11/1/1999**
 Compl. Date: **1/17/2000**

History - Highlights

PROPOSED: Perf and Acidize Lwr 7 RVRs & QUEEN w/ 5000 gals 15% NEFE HCL acid, 1500# rock salt, & flush w/ 1000 bbls 2% KCL water.

TANSILL (Top @ 2750')YATES (Top @ 2821')

2830-3010' (2 SPF, 19 holes) - Jan 2000
 Acidize w/ 2000 gals 15% HCL acid; Frac w/ 107,965 gals 70 Q CO2, 1330 MSCF N2, & 225,000# Brady sand

SEVEN RIVERS (Top @ 3090')

3311-3318', 3345-3350', 3362-3370', 3380-3384' (2 SPF) - PROPOSED
 Acidize w/ QUEEN

QUEEN (Top @ 3390')

3396-3406', 3411-3423', 3426-3435', 3447-3457', 3460-3463' (2 SPF) - PROPOSED
 Acidize w/ Lwr 7 RVRs

SN **3418'**
 EOT **3454'**

Production Csg

Size: **5-1/2"**
 Wt.&Thrd: **15.5#**
 Grade: **J-55**
 Set @: **3498'**
 Sxs Cmt: **550 sxs**
 Circ:
 TOC: **420' (temp)**
 Hole Size: **7-7/8"**

PBTD 3498'
TD 3498'

Tubulars - Capacities and Performance

2-3/8" 4.7# 8rd J-55 Tubing, SN, perf sub, MA w/ bull plug

Well Name: **Cagle C #005** Lease No: **LC-030176B** Lease Type: **Federal**
 Township: **26-S** Range: **37-E** Sec: **3N** Location: **990' FSL & 1980' FWL**
 County: **Lea** State: **NM** API: **30-025-33450** Formation: **Jalmat; TANSILL-YATES-7 RVRs**

CURRENTSurface Csg

Size: **8-5/8"**
 Wt.&Thrd: **24#**
 Grade: **J-55**
 Set @: **745'**
 Sxs cmt: **400 sxs**
 Circ: **97 sxs**
 TOC: **Surface**
 Hole Size: **12-1/4"**

KB: **3009.5**
 DF: **3008.5**
 GL: **2999**
 Spud Date: **11/1/1999**
 Compl. Date: **1/17/2000**

History - Highlights

All info from OCD well files ONLY

TANSILL (Top @ 2750')YATES (Top @ 2821')

2830-3010' (2 SPF, 19 holes) - Jan 2000
 Acidize w/ 2000 gals 15% HCL acid; Frac w/ 107,965 gals 70 Q CO2, 1330
 MSCF N2, & 225,000# Brady sand

SEVEN RIVERS (Top @ 3090')QUEEN (Top @ 3390')

EOT 2847'

Production Csg

Size: **5-1/2"**
 Wt.&Thrd: **15.5#**
 Grade: **J-55**
 Set @: **3498'**
 Sxs Cmt: **550 sxs**
 Circ:
 TOC: **420' (temp)**
 Hole Size: **7-7/8"**

PBTD 3300'
 TD 3498'

Tubulars - Capacities and Performance

2-3/8" Tubing

From: [Vanessa Neal](#)
To: [McClure, Dean, EMNRD](#)
Subject: RE: [EXTERNAL] DHC Applications Format & Missing Items?
Date: Wednesday, November 3, 2021 12:16:21 PM
Attachments: [image001.png](#)
[BLM DHC C E Lamunyon #090 Sundry Submittal 2021-11-03.pdf](#)

Awesome, thank you Dean!

Here are the tracking numbers we have for the submitted DHCs. I'm not sure which ones you were waiting on, so I included all the tracking numbers we had documented.

I've also attached a PDF of the DHC submitted to the BLM for C E Lamunyon #90; a DHC application was submitted earlier this week to the OCD. Is the PDF attached an acceptable substitute for the BLM tracking numbers for future submissions?

Project	API	SLO/BLM Submittal Tracking Info
State A A/C 2 #062	30-025-25542	7020 0640 0000 9346 5293
State C TR 11 #003	30-025-23103	7020 0640 0000 9346 5293
State C TR 11 #005	30-025-25517	7020 0640 0000 9346 5293
State I Com #002	30-025-06133	7020 0640 0000 9346 5293
C D Woolworth #008	30-025-32862	7020 0640 0000 9346 5293
Cagle C #005	30-025-34450	7021 0350 0001 5380 9936
Cagle C Federal Com #006	30-025-37342	7021 0350 0001 5380 9936
Myers B #006	30-025-31382	7021 0350 0001 5380 9936
Rhodes Federal Unit #047	30-025-20011	7021 0350 0001 5380 9936
Rhodes Federal Unit #096	30-025-24536	7021 0350 0001 5380 9936
Rhodes Federal Unit #098	30-025-37514	7021 0350 0001 5380 9936
Rhodes Federal Unit #102	30-025-24537	7021 0350 0001 5380 9936
Shell A State COM #006	30-025-32030	7020 0640 0000 9346 3985
State A A/C 1 #096	30-025-09250	7020 0640 0000 9346 5293
State A A/C 1 #129	30-025-34877	7020 0640 0000 9346 5293
State A A/C 2 #057	30-025-20297	7020 0640 0000 9346 5293
Stevens A-35 Com #002	30-025-09467	7021 0350 0001 5380 9936

Thank you,
 Vanessa Neal | Sr Reservoir Engineer

forty acres energy

O [832.219.0990 \(ext 165\)](tel:832.219.0990)

C [979.255.3476](tel:979.255.3476)

From: McClure, Dean, EMNRD <Dean.McClure@state.nm.us>
Sent: Tuesday, November 2, 2021 6:41 PM
To: Vanessa Neal <vanessa@faenergyus.com>

Subject: RE: [EXTERNAL] DHC Applications Format & Missing Items?

Hello Vanessa,

Quite busy, but I suppose I can't complain; hopefully everything in your world is going great.

Based off my conversations with Marshall, I think he had mentioned that there may be some applications in the current batch that require notice to either the BLM or SLO which the evidence of which has not been provided, but I have not had a chance to sit down and go through them all quite yet. Regarding format and future submittals, I have an outdated guidance document regarding DHCs, but I will see if I can update it and help make it more specific to what would be more relevant to FAE. Please note that there are different requirements based upon whether the pools being commingled have been commonly commingled in the area or not. For FAE, this becomes relevant because some of your proposed pools to be commingled are common and some are not. An example of an application that is not is DHC-5150 for the E C Hill A 7.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

From: Vanessa Neal <vanessa@faenergyus.com>

Sent: Tuesday, November 2, 2021 5:25 PM

To: McClure, Dean, EMNRD <Dean.McClure@state.nm.us>

Subject: [EXTERNAL] DHC Applications Format & Missing Items?

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

Hi Dean,

I hope everything is going great in your world.

I am going to be helping Marshall Bates submit downhole commingle applications in the future and I was wondering if you had a preferred format for submissions? I would also like to make sure you get everything you need for approval upon initial submission, if possible; is there anything that we have repeatedly missed in the past that you have had to ask for?

I know that we are planning a lot of work in 2022 that will require DHC permits, so I am hoping to get those to you as soon as possible. For the DHC applications currently in your queue, are you waiting on any missing items from us? If you let me know what you need I will get it to you ASAP.

Looking forward to working with you!

Vanessa Neal | Sr Reservoir Engineer

forty acres **energy**

11757 Katy Freeway, Suite 725 | Houston, TX 77079

O [832.219.0990 \(ext 165\)](tel:832.219.0990)

C [979.255.3476](tel:979.255.3476)

E vanessa@faenergyus.com

From: [Engineer, OCD, EMNRD](#)
To: [Marshall Bates](#); [Vanessa Neal](#)
Cc: [McClure, Dean, EMNRD](#); [Kautz, Paul, EMNRD](#); [Hawkins, James, EMNRD](#); [Powell, Brandon, EMNRD](#); [lisa@rwbyram.com](#); [Glover, James](#); [Paradis, Kyle O](#); [Walls, Christopher](#)
Subject: Approved Administrative Order DHC-5137
Date: Wednesday, December 8, 2021 11:10:06 AM
Attachments: [DHC5137 Order.pdf](#)

NMOCD has issued Administrative Order DHC-5137 which authorizes FAE II Operating, LLC (329326) to downhole commingle production from 2 pools in their Cagle C 5 well (30-025-34450).

The administrative order is attached to this email and can also be found online at OCD Imaging.

Please review the content of the order to ensure you are familiar with the authorities granted and any conditions of approval. If you have any questions regarding this matter, please contact me.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

From: [Vanessa Neal](#)
To: [McClure, Dean, EMNRD](#); [Marshall Bates](#)
Subject: [EXTERNAL] RE: downhole commingling application DHC-5137
Date: Monday, November 29, 2021 7:41:59 AM
Attachments: [image001.png](#)
[WBD Cagle C 5 CURRENT-PROPOSED 2021-10-05.pdf](#)

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

Mr. McClure,

Attached are the current and proposed well bore diagrams for the Cagle C #5 (30-025-34450).

Thank you,

Vanessa Neal | Sr Reservoir Engineer

forty acres energy

O [832.219.0990 \(ext 165\)](tel:832.219.0990)

C [979.255.3476](tel:979.255.3476)

From: McClure, Dean, EMNRD <Dean.McClure@state.nm.us>
Sent: Wednesday, November 24, 2021 5:05 PM
To: Marshall Bates <marshall@faenergyus.com>; Vanessa Neal <vanessa@faenergyus.com>
Subject: downhole commingling application DHC-5137

Mr. Bates, Ms. Neal,

I am reviewing downhole commingling application DHC-5137 which involves the Cagle C #5 (30-025-34450) operated by FAE II Operating, LLC (329326).

Please provide current and proposed well bore diagrams for this well.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

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

**APPLICATION FOR DOWNHOLE COMMINGLING
SUBMITTED BY FAE II OPERATING, LLC**

ORDER NO. DHC-5137

ORDER

The Director of the New Mexico Oil Conservation Division (“OCD”), having considered the application and the recommendation of the Engineering Bureau, issues the following Order.

FINDINGS OF FACT

1. FAE II Operating, LLC (“Applicant”) submitted a complete application (“Application”) to downhole commingle the pools described in Exhibit A (“the Pools”) within the well bore of the well identified in Exhibit A (“the Well”).
2. Applicant proposed a method to allocate the oil and gas production from the Well to each of the Pools that is satisfactory to the OCD and protective of correlative rights.
3. Applicant has certified that all produced fluids from all the Pools are compatible with each other.
4. Applicant has certified that downhole commingling the Pools will not decrease the value of the oil and gas production.
5. To the extent that ownership is identical, Applicant submitted a certification by a licensed attorney or qualified petroleum landman that ownership in the Pools is identical as defined by 19.15.12.7(B) NMAC.
6. To the extent that ownership is diverse, Applicant identified all owners of interest in the Pools, provided evidence a copy of the Application was given to each person, and those persons either submitted a written waiver or did not file an objection to the Application.
7. Applicant provided notice of the Application to the Bureau of Land Management (“BLM”) or New Mexico State Land Office (“NMSLO”), as applicable.

CONCLUSIONS OF LAW

8. OCD has jurisdiction to issue this Order pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-6, 70-2-11, 70-2-12, 70-2-16, 70-2-17, and 19.15.12 NMAC.
9. The downhole commingling of the Pools is common, or Applicant has provided evidence that the fluids are compatible and will not damage the Pools in accordance with 19.15.12.11(A)(1) NMAC.
10. The bottom perforation of the lower zone is within one hundred fifty percent (150%) of the depth of the top perforation in the upper zone or Applicant has provided evidence that the

proposed commingling of the Pools shall not result in shut-in or flowing well bore pressure in excess of the commingled pool's fracture parting pressure in accordance with 19.15.12.11(A)(3) NMAC.

11. Applicant's proposed method of allocation, as modified herein, complies with 19.15.12.11(A)(8) NMAC.
12. To the extent that ownership is diverse, Applicant identified all owners of interest in the Pools and provided evidence the application was given to those persons in accordance with 19.15.12.11(C)(1)(b) NMAC.
13. By granting the Application with the conditions specified below, this Order prevents waste and protects correlative rights, public health, and the environment.

ORDER

1. Applicant is authorized to downhole commingle the Pools described in Exhibit A within the well bore of the well identified in Exhibit A.
2. Applicant shall allocate a fixed percentage of the oil and gas production from the Well to each of the Pools as described in Exhibit A.
3. If any of the pools being commingled is prorated, or the Well's production has been restricted by an OCD order in any manner, the allocated production from each producing pool in the commingled well bore shall not exceed the top oil or gas allowable rate for a well in that pool or rate restriction applicable to the well.
4. Prior to commingling production from the Pools within the Well's well bore, Applicant shall confirm the depth of the top of the Queen Formation with OCD's Engineering Bureau. If the depth confirmed by OCD's Engineering Bureau is different than the depth submitted within the Application as identified in Exhibit A, then no later than sixty (60) days after commingling production, Applicant shall submit Form C-103 to the OCD Engineering Bureau correcting the depth of the top of the Queen Formation.
5. If the Well is deepened, then Applicant shall conduct and, no later than forty-five (45) days after the Well is deepened, provide logs to OCD that are sufficient for OCD to determine which pool(s) each new completed interval of the Well will produce from.
6. If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred Applicant shall submit a new downhole commingling application to OCD to amend this Order to remove the pool that caused the decrease in value. If Applicant fails to submit a new application, this Order shall terminate on the following day, and if OCD denies the application, this Order shall terminate on the date of such action.
7. If a completed interval of the Well is altered from what is submitted within the Application as identified in Exhibit A, then no later than sixty (60) days after the alteration, Applicant

shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.

8. If OCD determines that Applicant has failed to comply with any provision of this Order, OCD may take any action authorized by the Oil and Gas Act or the New Mexico Administrative Code (NMAC).
9. OCD retains jurisdiction of this matter and reserves the right to modify or revoke this Order as it deems necessary.

**STATE OF NEW MEXICO
OIL CONSERVATION DIVISION**



**ADRIENNE SANDOVAL
DIRECTOR**

DATE: 12/07/2021

State of New Mexico
Energy, Minerals and Natural Resources Department

Exhibit A

Order: **DHC-5137**

Operator: **FAE II Operating, LLC (329326)**

Well Name: **Cagle C #5**

Well API: **30-025-34450**

Upper Zone	Pool Name: JALMAT; TAN-YATES-7 RVRS (GAS)		
	Pool ID: 79240	Current: X	New:
	Allocation: Fixed Percent	Oil: 0%	Gas: 71%
	Interval: Perforations	Top: 2,830	Bottom: 3,110
Intermediate Zone	Pool Name:		
	Pool ID:	Current:	New:
	Allocation:	Oil:	Gas:
	Interval:	Top:	Bottom:
Bottom of Interval within 150% of Upper Zone's Top of Interval:			
Lower Zone	Pool Name: LANGLIE MATTIX; 7 RVRS-Q-GRAYBURG		
	Pool ID: 37240	Current:	New: X
	Allocation: Fixed Percent	Oil: 100%	Gas: 29%
	Interval: Perforations	Top: 3,311	Bottom: 3,463
Bottom of Interval within 150% of Upper Zone's Top of Interval: YES			
Top of Queen Formation: 3,390			

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 33741

CONDITIONS

Operator: FAE II Operating LLC 11757 Katy Freeway, Suite 1000 Houston, TX 77079	OGRID: 329326
	Action Number: 33741
	Action Type: [C-107] Down Hole Commingle (C-107A)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	Please review the content of the order to ensure you are familiar with the authorities granted and any conditions of approval. If you have any questions regarding this matter, please contact me.	12/8/2021