

RECEIVED: 12/2/20	REVIEWER: DM	TYPE: DHC	APP NO: pDM2033838526
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & 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

Applicant: FAE II Operating, LLC **OGRID Number:** 329326
Well Name: Arnott Ramsay NCT-B #6 **API:** 30-025-26278
Pool: Jalmat (Oil) **Pool Code:** 33820

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]
 A. Location – Spacing Unit – Simultaneous Dedication
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD
- B. Check one only for [I] or [II]
 [I] Commingling – Storage – Measurement
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
 [II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

- 2) **NOTIFICATION REQUIRED TO:** Check those which apply.
 A. ☐ Offset operators or lease holders
 B. ☐ Royalty, overriding royalty owners, revenue owners
 C. ☐ Application requires published notice
 D. ☒ Notification and/or concurrent approval by SLO
 E. ☐ Notification and/or concurrent approval by BLM
 F. ☐ Surface owner
 G. ☐ For all of the above, proof of notification or publication is attached, and/or,
 H. ☐ No notice required

FOR OCD ONLY

- ☐ Notice Complete
☐ Application Content Complete

- 3) **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.

David Schellstede

Print or Type Name

Signature

Date

11/23/2020

Phone Number

832-220-3202David@FAEnergyus.com

e-mail Address

District I
1625 N. French Drive, Hobbs, NM 88240

District II
811 S. First St., Artesia, NM 88210

District III
1000 Rio Brazos Road, Aztec, NM 87410

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-107A
Revised August 1, 2011

APPLICATION TYPE
☒ Single Well
☐ Establish Pre-Approved Pools
EXISTING WELLBORE
☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

FAE II Operating, LLC

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

Operator
Arnott Ramsay NCT-B

Address
J-32-25S-37E

Lea

Lease
329326

Well No.
326919

Unit Letter-Section-Township-Range
30-02S-26278

County
X

OGRID No. Property Code API No. Lease Type: Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Jalmat		Langlie Mattix
Pool Code	33820		37240
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2,654' – 3,178'		3,248' – 3,545'
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 API / 1,395 BTU		35 API / 1,395 BTU
Producing, Shut-In or New Zone	Producing		Producing
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 47 % 83 %	Oil Gas % %	Oil Gas 53 % 17 %

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 M Bates

TITLE Engineering Tech

DATE 11/23/20

TYPE OR PRINT NAME Marshall Bates

TELEPHONE NO. (832) 241-8080

E-MAIL ADDRESS Marshall@FAEnergyus.com

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December 2, 2020

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

Re: Arnott Ramsay NCT-B Lease
Arnott Ramsay NCT-B #6: API 30-025-26278
Jalmat Pool: 33820
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) 219-0809 or by email at rebecca@faenergyus.com. Thank you for your attention to this matter.

Sincerely,

FAE II Operating, LLC



Rebecca Wing

Land

faeIIoperating

November 20, 2020

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 Langlie Mattix Pool for the Arnott Ramsay NCT-B #6 well located in Sec. 32, T-25S, 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 Langlie Mattix Pool for its Arnott Ramsay NCT-B #6 well located in Unit Letter J, Section 32, T-25S, R-37E, 1,990 feet FSL and 1,980 feet FEL, as shown in the attached C-102's for each zone.

The Arnott Ramsay NCT-B #6 is currently open to the Yates-Seven Rivers-Queen zone, which translates to both the JALMAT; TAN-YATES-7 RVRs pool [Pool ID: 79240]. The production curve for this zone is shown in Exhibit A. To develop a production forecast, a decline curve was utilized based on the well's historical production within the zone.

The other zone that has production history in the Arnott Ramsay NCT-B #6 is the Seven Rivers-Queen, which translates to the LANGLEIE MATTIX; 7 RVRs-Q-GRAYBURG [Pool ID: 37240]. To develop a production forecast, four (4) surrounding wells with historical production from the Seven Rivers-Queen were used as an offset by taking the 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. Furthermore, Geology studied an Arnott Ramsay NCT-B #6 log, Attachment A, and also correlated it with other logs in the surrounding area to help determine the location of the new perforations in the Seven Rivers-Queen zone for the Arnott Ramsay NCT-B #6.

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 D. This forecast for the Arnott Ramsay NCT-B #6 proved that an IP of 10.2 BOPD and 40 MCFPD is the expected total, and of that, 5.2 BOPD and 6 MCFPD will come from the Seven Rivers-Queen zone. The Yates-Seven Rivers is projected to yield 5.0 BOPD and 34 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,

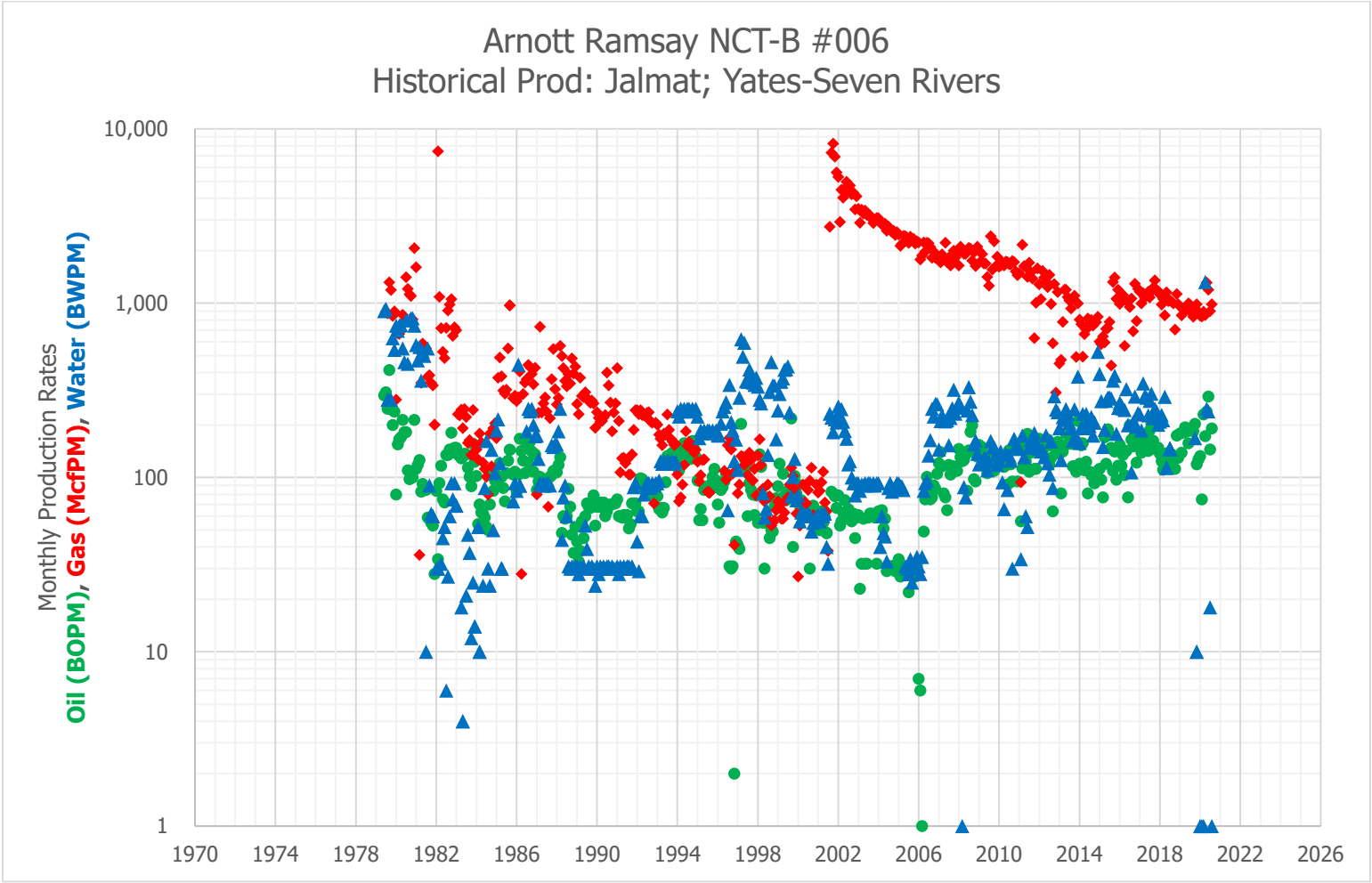


FAE II Operating, LLC

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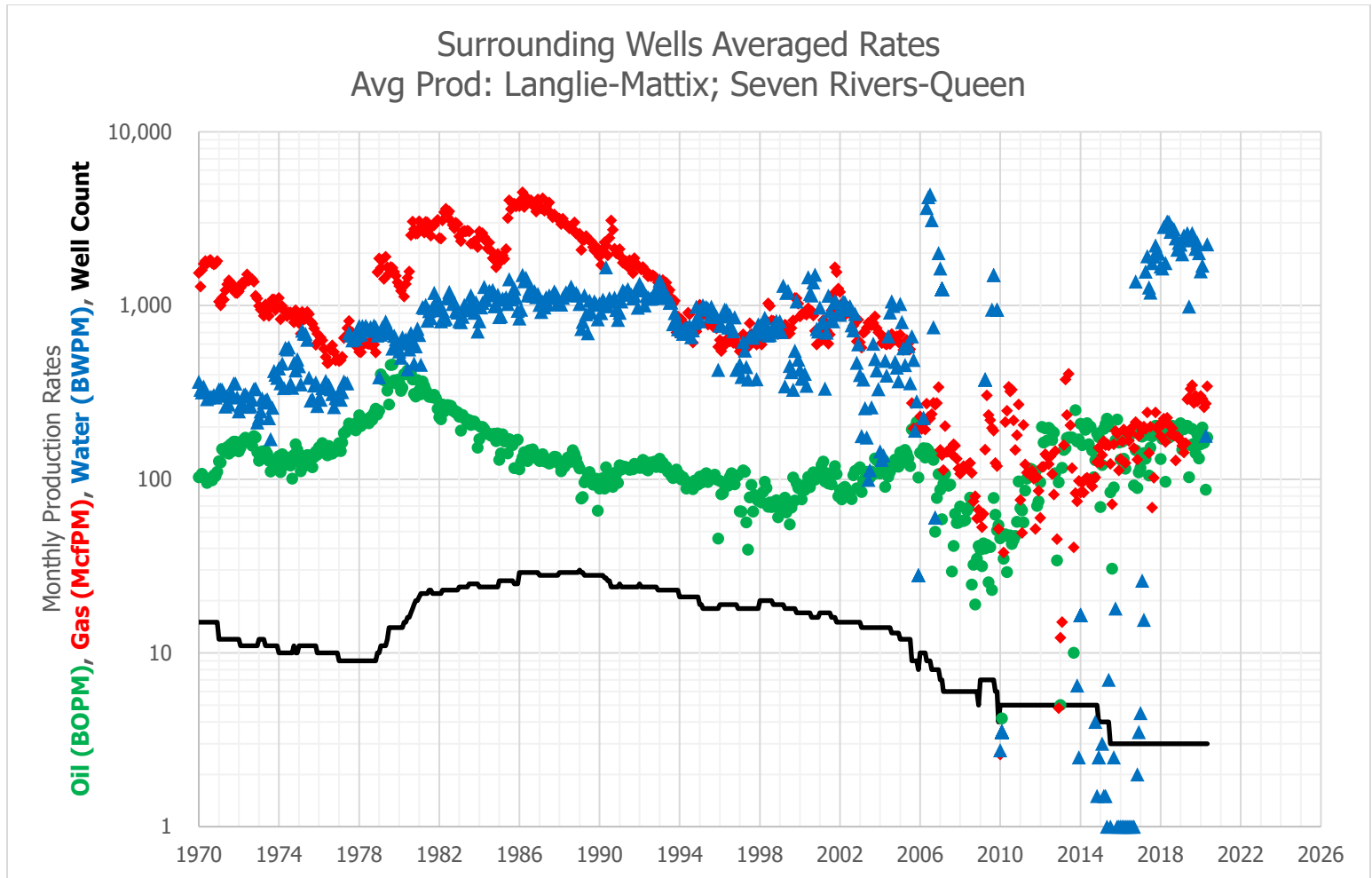
Exhibit A – Historical and Forecast Production in the Current Zone

Arnett Ramsay NCT-B #006
Historical Prod: Jalmat; Yates-Seven Rivers



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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					Arnett Ramsay NCT-B #006				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	112	602	392	1	312.0	1,223	1,372
2/1/2015	121	138	3	4	2/1/2015	97	582	274	2	310.5	1,219	1,367
3/1/2015	195	166	2	4	3/1/2015	77	646	150	3	309.0	1,216	1,363
4/1/2015	208	157	2	4	4/1/2015	170	596	188	4	307.6	1,213	1,358
5/1/2015	223	160	1	4	5/1/2015	120	715	276	5	306.1	1,210	1,354
6/1/2015	202	156	7	4	6/1/2015	189	720	287	6	304.6	1,207	1,350
7/1/2015	84	122	1	3	7/1/2015	176	781	288	7	303.2	1,204	1,345
8/1/2015	31	72	1	3	8/1/2015	148	439	284	8	301.7	1,201	1,341
9/1/2015	90	159	3	3	9/1/2015	109	1,323	360	9	300.3	1,198	1,336
10/1/2015	168	189	18	3	10/1/2015	141	1,406	384	10	298.8	1,195	1,332
11/1/2015	221	182	1	3	11/1/2015	97	1,060	178	11	297.4	1,192	1,328
12/1/2015	163	112	1	3	12/1/2015	117	1,193	251	12	296.0	1,189	1,323
1/1/2016	130	130	1	3	1/1/2016	154	989	268	13	294.6	1,186	1,319
2/1/2016	165	165	1	3	2/1/2016	117	1,116	259	14	293.2	1,183	1,314
3/1/2016	131	193	1	3	3/1/2016	135	1,115	249	15	291.8	1,180	1,310
4/1/2016	115	124	1	3	4/1/2016	103	570	244	16	290.4	1,178	1,306
5/1/2016	184	183	1	3	5/1/2016	142	1,034	321	17	289.0	1,175	1,302
6/1/2016	174	166	1	3	6/1/2016	77	1,026	200	18	287.6	1,172	1,297
7/1/2016	187	185	1	3	7/1/2016	199	951	-	19	286.2	1,169	1,293
8/1/2016	189	199	1	3	8/1/2016	165	1,065	107	20	284.9	1,166	1,289
9/1/2016	92	151	1	3	9/1/2016	151	691	208	21	283.5	1,163	1,285
10/1/2016	147	213	1,375	3	10/1/2016	176	1,294	292	22	282.1	1,160	1,280
11/1/2016	89	129	2	3	11/1/2016	122	789	196	23	280.8	1,157	1,276
12/1/2016	110	177	4	3	12/1/2016	159	1,207	234	24	279.4	1,154	1,272
1/1/2017	116	200	5	3	1/1/2017	166	1,163	230	25	278.1	1,151	1,268
2/1/2017	176	191	26	3	2/1/2017	139	996	186	26	276.8	1,148	1,264
3/1/2017	142	201	16	3	3/1/2017	170	1,142	347	27	275.5	1,146	1,259
4/1/2017	131	194	1,566	3	4/1/2017	158	1,074	294	28	274.1	1,143	1,255
5/1/2017	180	242	1,919	3	5/1/2017	150	1,116	287	29	272.8	1,140	1,251
6/1/2017	105	141	1,271	3	6/1/2017	142	1,163	227	30	271.5	1,137	1,247
7/1/2017	152	201	1,185	3	7/1/2017	186	1,078	275	31	270.2	1,134	1,243
8/1/2017	177	69	1,758	3	8/1/2017	203	1,169	303	32	268.9	1,131	1,239
9/1/2017	198	102	1,911	3	9/1/2017	163	1,228	219	33	267.6	1,129	1,235
10/1/2017	203	242	2,216	3	10/1/2017	147	1,355	248	34	266.4	1,126	1,231
11/1/2017	203	196	2,040	3	11/1/2017	145	1,196	240	35	265.1	1,123	1,227
12/1/2017	184	205	1,986	3	12/1/2017	148	1,173	201	36	263.8	1,120	1,223
1/1/2018	131	177	1,675	3	1/1/2018	137	1,123	209	37	262.6	1,117	1,219
2/1/2018	171	206	1,633	3	2/1/2018	124	981	228	38	261.3	1,115	1,215
3/1/2018	196	223	2,831	3	3/1/2018	111	1,061	213	39	260.1	1,112	1,211
4/1/2018	97	163	1,752	3	4/1/2018	118	853	290	40	258.8	1,109	1,207
5/1/2018	203	226	3,039	3	5/1/2018	138	1,157	114	41	257.6	1,106	1,203
6/1/2018	173	206	3,026	3	6/1/2018	134	1,030	-	42	256.4	1,103	1,199
7/1/2018	187	181	2,651	3	7/1/2018	112	1,039	146	43	255.1	1,101	1,195
8/1/2018	203	196	2,795	3	8/1/2018	136	1,020	-	44	253.9	1,098	1,191
9/1/2018	192	178	2,745	3	9/1/2018	127	998	-	45	252.7	1,095	1,187
10/1/2018	183	128	2,438	3	10/1/2018	112	707	-	46	251.5	1,092	1,183
11/1/2018	202	177	2,092	3	11/1/2018	174	1,131	-	47	250.3	1,090	1,179
12/1/2018	187	171	2,294	3	12/1/2018	130	987	-	48	249.1	1,087	1,175
1/1/2019	210	168	2,240	3	1/1/2019	179	962	-	49	247.9	1,084	1,171
2/1/2019	148	156	1,971	3	2/1/2019	139	853	-	50	246.7	1,082	1,168
3/1/2019	194	142	2,528	3	3/1/2019	181	919	-	51	245.5	1,079	1,164
4/1/2019	198	161	2,436	3	4/1/2019	194	930	-	52	244.4	1,076	1,160
5/1/2019	203	288	2,609	3	5/1/2019	184	930	-	53	243.2	1,073	1,156
6/1/2019	103	295	986	3	6/1/2019	157	998	-	54	242.0	1,071	1,152
7/1/2019	157	330	2,371	3	7/1/2019	186	982	-	55	240.9	1,068	1,149
8/1/2019	195	348	2,602	3	8/1/2019	193	878	-	56	239.7	1,065	1,145
9/1/2019	160	274	2,403	3	9/1/2019	184	835	-	57	238.6	1,063	1,141
10/1/2019	141	302	2,120	3	10/1/2019	203	900	168	58	237.4	1,060	1,137
11/1/2019	181	281	2,293	3	11/1/2019	119	985	10	59	236.3	1,058	1,134
12/1/2019	132	294	2,000	3	12/1/2019	127	895		60	235.2	1,055	1,130
1/1/2020	159	301	1,572	3	1/1/2020	133	849	1				
2/1/2020	198	290	1,693	3	2/1/2020	75	838	1				
3/1/2020	162	259	1	3	3/1/2020	230	895	1				
4/1/2020	87	272	178	3	4/1/2020	173	854	1,324				
5/1/2020	174	342	2,248	3	5/1/2020	239	1,313	248				
					6/1/2020	291	1,197	240				

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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	5.0	34	5
Langlie Mattix	Seven Rivers-Queen	5.2	6	40
	Total	10.2	40	45
Jalmat	Yates-Seven Rivers	47%	83%	11%
Langlie Mattix	Seven Rivers-Queen	53%	17%	89%
	Total (%)	100%	100%	100%

Attachment A - Well Log

Subsea
Depth(ft)
- 475 -

- 425 -

- 375 -

- 325 -

- 275 -

- 225 -

- 175 -

- 125 -

- 75 -

- 25 -

- 25 -

- 75 -

- 125 -

- 175 -

- 225 -

- 275 -

- 325 -

- 375 -

- 425 -

- 475 -

- 525 -

- 575 -

Subsea
Depth(ft)
- 475 -

- 425 -

- 375 -

- 325 -

- 275 -

- 225 -

- 175 -

- 125 -

- 75 -

- 25 -

- 25 -

- 75 -

- 125 -

- 175 -

- 225 -

- 275 -

- 325 -

- 375 -

- 425 -

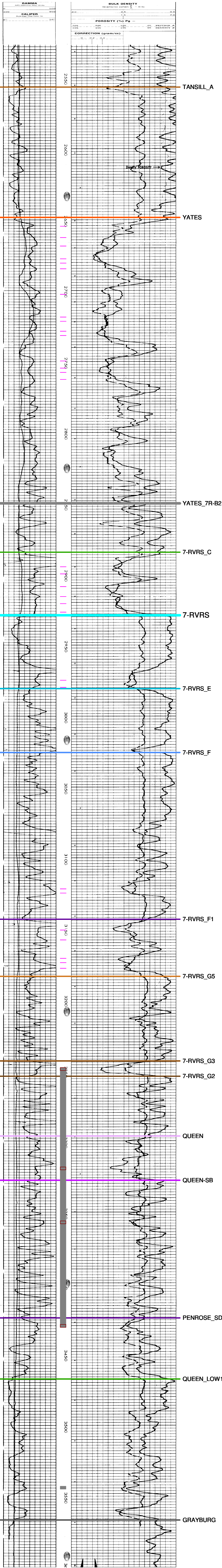
- 475 -

- 525 -

- 575 -

30025262780000
FAE II Operating LLC

ARNOTT RAMSAY NCT-B 6
SPUD DATE: 4/6/1979
T25S R37E S32



District I
PO Box 1980, Hobbs, NM 88241-1980

District II
811 South First, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102

Revised October 18, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-26278	Pool Code 33820	Pool Name Jalmat (T-Y-7R) Oil
Property Code 326919	Property Name Arnott Ramsay NCT-B	Well Number 6
OGRID No. 329326	Operator Name FAE II Operating, LLC	Elevation 2984' GR

Surface Location

UL or lot no. J	Section 32	Township 25S	Range 37E	Lot Idn	Feet from the 1990'	North/South line South	Feet from the 1980'	East/West Line East	County Lea
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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
Dedicated Acres 40	Joint or Infill N	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>18</p> <p>Arnott Ramsay NCT-B #6 1990' FSL & 1980' FEL (J) Sec. 32, T-25-S. R-37-E</p>				<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>M Bates</i></p> <p>Signature Marshall Bates</p> <p>Printed Name Engineering Tech</p> <p>Title</p> <p>Date 11/23/20</p>	
	<p>SURVEYOR CERTIFICATION</p> <p>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</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p>Certificate Number</p>				

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
811 South First, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102

Revised October 18, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-025-26278	2. Pool Code 37240	3. Pool Name Langlie Mattix
4. Property Code 326919	5. Property Name Arnott Ramsay NCT-B	6. Well Number 6
7. OGRID No. 329326	8. Operator Name FAE II Operating, LLC	9. Elevation 2984' GR

10. Surface Location

UL or lot no. J	Section 32	Township 25S	Range 37E	Lot Idn	Feet from the 1990'	North/South line South	Feet from the 1980'	East/West Line East	County Lea
--------------------	---------------	-----------------	--------------	---------	------------------------	---------------------------	------------------------	------------------------	---------------

11. Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West Line	County
12. Dedicated Acres 40	13. Joint or Infill N	14. Consolidation Code		15. Order No.					

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>16</p> <p>Arnott Ramsay NCT-B #6 1990' FSL & 1980' FEL (J) Sec. 32, T-25-S, R-37-E</p>				<p>17. OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>M Bates</i></p> <p>Signature Marshall Bates</p> <p>Printed Name Engineering Tech</p> <p>Title</p> <p>Date 11/23/20</p>	
	<p>18</p> <p>19. SURVEYOR CERTIFICATION</p> <p>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</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p>Certificate Number</p>				