Submit 1 Copy Office <u>District 1</u> – (575	To Appropriate Dis			e of New Me erals and Natu	Form C-103 Revised July 18, 2013					
	Dr., Hobbs, NM 88	3240					WELL API 30-025-3585			
District III - (50				ERVATION South St. Fra	5. Indicate Type of Lease STATE FEE			7		
District IV – (50	s Rd., Aztec, NM 8 05) 476-3460 ncis Dr., Santa Fe, N			ta Fe, NM 8	6. State Oil & Gas Lease No.			<u></u>		
(DO NOT USE DIFFERENT R	THIS FORM FOR ESERVOIR. USE			<b>FS ON WELLS</b> DEEPEN OR PL (FORM C-101) F		BBS OC	7. Lease Na Mae F Curry	nme or Un (3	it Agreemen 09145)	it Name
PROPOSALS.) 1. Type of V		Gas V	Vell 🗌 Othe	er	A 110	952	8. Well Nu	mber 005		
2. Name of Apache Corp					AUG	1 2 3 4	9. OGRID 873	Number		
3. Address c							40. Pool na	me or Wil	dcat	
	Airpark Lane, S	Suite 1000 N	lidland, TX 79	705	R	ECEIVI	Hardy; Bli (2	9710)/Haro	dy; Tu-Drkd	(29760)
4. Well Loca Unit	ation t LetterB	. 660	feet from	the North	line a	nd 1780	fe	et from the	e East	line
Sect	tion 7		Townshi	ip 21S R	ange 37E		NMPM	Co	ounty Lea	
		5 <b>11.</b> ]	Elevation (She	ow whether DR 3509' GL	, <i>RKB, RT,</i> C	GR, etc.)			a internet	
·		<u></u>		0000 02					<u></u>	
	12. Ch	neck Appro	priate Box	to Indicate N	lature of N	otice, F	Report or C	ther Dat	a	
TEMPORAR PULL OR AL	NOTICE C REMEDIAL WOR ILY ABANDON .TER CASING	RK 🗌 PLU 🗌 CHA 🗌 MUL	TION TO: G AND ABAN NGE PLANS TIPLE COMP		REMEDIA COMMEN CASING/C	L WORK CE DRIL	LING OPNS		RT OF: FERING CAS ND A	SING 🗌
	E COMMINGLE									
OTHER:					OTHER:	- 11		. 1	1 1'	
of sta	ribe proposed or arting any propo osed completion	sed work). S	EE RULE 19.							
	ike to DHC the f		~	R- ord	ler	1122	ব			
· Pool Names: Hardy; Blinebi Hardy; Tubb-I	ry 21	9710 9760	Perforations: Blinebry Tubb/Drinka	5762'-61	48' (propose 31' (existing)					
The allocation n	nethod will be as	s follows base	ed on offset pr	oduction. (See	attached app	plication	for exception	to Rule 30	03-C.)	
Blinebry Tubb/Drinkard	OIL 93% 7%	GAS W 99% 1%	/ATER 99% 1%							
Downhole comr	ningling will not	reduce the va	alue of these p	ools. Ownerst	nip is the sam	ne for ea	ch of these p	ools.		
Spud Date:	6/25/2002			Rig Release Da	ate: 7/11/2	2002				
l			n	DI	A- 11	nR.	579			
I hereby certif	y that the inform	nation above	is true and co	mplete to the b	est of my kno	owledge	and belief.			
	$\bigcap$	1.1								
SIGNATURE	Keesa	Hsher	-	TITLE Sr. Sta	ff Reg Analy	st		DATE_	8/21/2014	
Type or print r For State Use	name_Reesa Fis Only	sher		E-mail address	s: Reesa.Fist	ner@apac	hecorp.com	_ PHONE	E: (432) 818	8-1062
APPROVED I		NI:	<u> </u>	TITLE				_DATE_	07/04	14

# Mae F. Curry #5 (API: 30-025-35855)

## **Downhole Commingle Application Discussion**

#### Summary

The Mae F. Curry #5 (API: 30-025-35855) is located at 660' FNL & 1780' FEL of Section 7, Township 21S & Range 37E, Lea County, NM. The well was drilled in June 2002, and completed and placed on production from the Hardy Tubb-Drinkard in September 2002. It is now planned to complete the Mae F. Curry #5 in the Hardy Blinebry pool, and we request approval to downhole commingle the Hardy Tubb-Drinkard and Hardy Blinebry pools in this well.

#### Discussion

The Hardy-Tubb Drinkard has been producing in the Mae F. Curry F #5 since September 2002 and is currently producing at a rate of approximately 4.9 BOPD, 8.9 MCFD, and 4.8 BWPD. Estimated remaining recoverable reserves from the Hardy-Tubb Drinkard are estimated to be 2.4 MBO, 3.6 MMCF, along with 2.6 MBW (see attachments). Remaining oil reserves were determined using decline curve analysis, with remaining gas reserves forecast using a gas-oil ratio of 1.5 MMCF/MB (average over the last 12-months) and remaining water production forecast at a water-oil ratio of 1.1 MBW/MBO (average over the last 12-months).

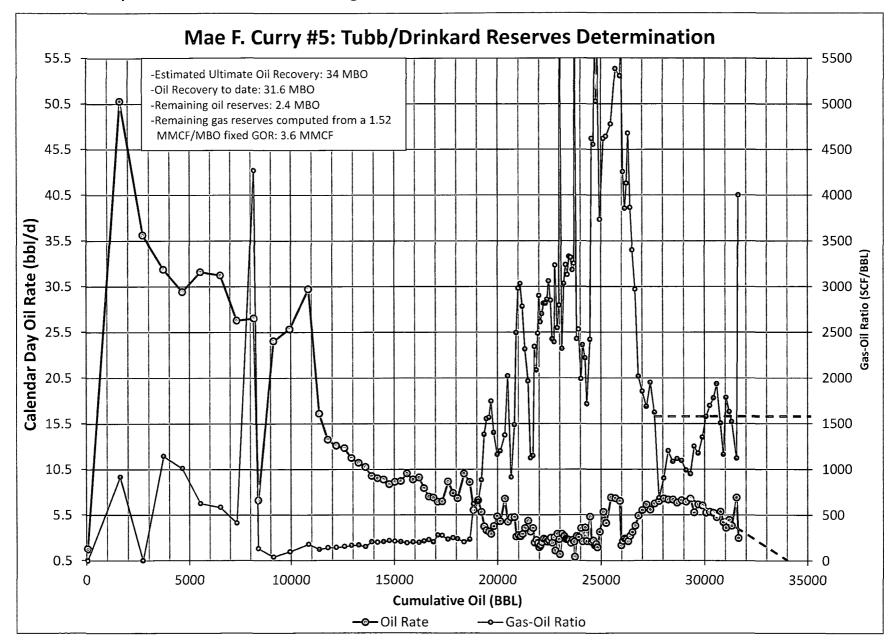
The Hardy Blinebry has not been completed in the Mae F. Curry #5, however it has been completed and produced commercially from several offset wells, with the average ultimate reserve recovery from the Hardy Blinebry for six of these offset wells estimated to be 32 MBO, 276.1 MMCF, along with 178.6 MBW. These offsets were chosen for evaluation due to their proximity and to the Mae F. Curry #5 and availability of quality production data for the Hardy Blinebry. Based on well logs, the performance of the Hardy Blinebry in the Mae F. Curry #5 is expected to be comparable to these offsets.

Using the estimated remaining reserve recovery for the Hardy Tubb-Drinkard in the Mae F. Curry #5, and the expected reserve recovery for completing the Hardy Blinebry in the Mae F. Curry #5, a fixed allocation percentage allocation is recommended for the Mae F. Curry #5 as follows:

Mae F. Curry #5: Proposed Allocation Percentages										
Pool	Fluid	<b>Expected Recovery</b>	Percent Allocation							
Hardy Blinebry	Oil	32.0 MBO	93.1%							
	Gas	276.1 MMCF	98.7%							
	Water	178.6 MBW	98.6%							
Hardy Tubb-Drinkard	Oil	2.4 MBO	6.9%							
	Gas	3.6 MMCF	1.3%							
· ·	Water	2.6 MBW	1.4%							

## Attachments

- A1. Mae F. Curry #5 Production Plot and Remaining Reserve Determination
- A2. Hardy Blinebry Reserve Determination for Offset Wells
- A3. Mae F. Curry #5 Area Map



A1. Mae F. Curry #5 Production Plot and Remaining Reserve Determination

Lease	Well	ΑΡΙ	-	linebry on Dates	-	Blinebry Cu roduction to		Hardy B	linebry Estin	inebry Estimated EUR*		Blinebry IP30
	No.		Start	End	Oil (BBL)	Gas (MCF)	Water (BBL)	Oil (BBL)	Gas (MCF)	Water (BBL)	(BOPD)	(MCFD)
State F-1	1	30-025-35176	May-03	Mar-14	22,292	176,549	203,788	33,000	310,000	400,815	21.2	105.6
State F-1	10	30-025-27034	Sep-86	Nov-96	34,999	213,861	35,987	40,500	444,500	39,288	32.2	151.5
State F-1	11	30-025-35466	Jan-04	Mar-14	23,807	113,016	168,201	38,000	160,000	199,426	18.4	44.2
State F-1	15	30-025-35771	Jan-04	Mar-14	23,526	176,395	57,162	32,000	330,000	98,685	11.6	59.6
Deck Estate 7	1	30-025-33677	Apr-05	Mar-14	40,654	134,624	35,459	105,000	320,000	86,936	23.6	64.6
WBDU	25	30-025-26265	Jul-80	Feb-07	21,939	186,114	24,738	25,000	280,000	30,554	19.9	79.7
H.T. Mattern NCT-C	12	30-025-25547	Mar-78	Sep-87	20,679	131,604	194,812	23,500	132,000	302,856	18.8	156.7
	Mean**	24,540	166,257	114,115	32,000	276,083	178,604	20.4	99.6			
				P50**	22,909	176,472	112,682	32,500	295,000	149,055	19.4	92.7

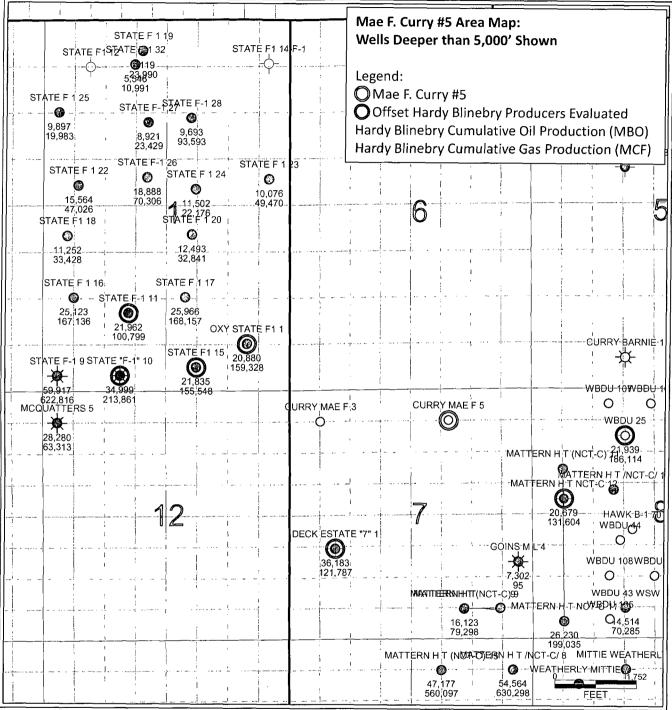
### A2. Hardy Blinebry Reserve Determination for Offset Wells

\*Oil and gas EUR forecast using decline curve analysis. Water forecast using last 12 months average WOR

\*\*Deck Estate 7 #1 excluded from mean and P50 calculations

Lease	Well No.	API	Notes
State F-1	1	30-025-35176	Blinebry placed on production DHC with Tubb/Drinkard May 2003
State F-1	10	30-025-27034	Well produced from the Blinebry only from September 1986 to November 1996
State F-1	11	30-025-35466	Blinebry completed and zone tested to determine allocation. Placed on production DHC with Tubb/Drinkard January 2004
State F-1	15	30-025-35771	Blinebry completed and zone tested to determine allocation. Placed on production DHC with Tubb/Drinkard January 2004
Deck Estate 7	1	30-025-33677	Blinebry completed and zone tested to determine allocation. Placed on production DHC with Drinkard April 2005
WBDU	25	30-025-26265	Blinebry completed and zone tested to determine allocation. Placed on production DHC with Drinkard February 1981
H.T. Mattern NCT-C	12	30-025-25547	Blinebry completed and zone tested to determine allocation. Placed on production DHC with Drinkard January 1979

#### A1. Mae F. Curry #5 Area Map



PETRA 7/31/2014 3:36:45 PM

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

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

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Form C-102 HOBBS OCD Revised October 12, 2005 Submit to Appropriate District Office AUG 2 5 2014 State Lease - 4 Copies Fee Lease - 3 Copies

RECEIVED AMENDED REPORT

	<u>ll loca ii</u>	0111110			<u>ATION PLA</u>					
	² Pool C	Code	<sup>1</sup> Pool Name							
ļ	29710		Hardy; Blinebry							
		<sup>5</sup> Pre	operty Name				<sup>6</sup> Well Number			
Mae F Curry						005	005			
		* Op	erator Name			-	<sup>°</sup> Elevation			
Apache Corp	poration: 303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705						3509' GL			
<sup>10</sup> Surface Location										
Township	Range Lot l	idn Feet fr	om the No	rth/South line	Feet from the	East/West	line	County		
21S 37	7E	660			1780	East	Lea			
<sup>II</sup> Bottom Hole Location If Different From Surface										
Township					Feet from the	East/West	ast/West line 0			
Infill <sup>14</sup> Conse	olidation Code									
		ĩ	NHC-	HOR	- 678					
	Aae F Curry Apache Corp Fownship 21S 3 Fownship	29710   Mae F Curry   Apache Corporation: 303 Veres   Township Range   21S 37E   II Bottom H   Fownship   Range   Lot I   Fownship   Range   Lot I   Fownship   Range   Lot I	Apache Corporation: 303 Veterans Airpa Apache Corporation: 303 Veterans Airpa 10 Sur 10 Sur	29710 Hardy; Bline   *Property Name   *Operator Name   Apache Corporation: 303 Veterans Airpark Lane, Surface   10 Surface Locati   Township   Range Lot Idn   Feet from the   No   21S 37E   11 Bottom Hole Location If Diffe   Fownship Range   Lot Idn Feet from the   No No   11 Bottom Hole Location If Diffe   Fownship Range   Lot Idn Feet from the   No	29710 Hardy; Blinebry   'Property Name   'Operator Name   Apache Corporation: 303 Veterans Airpark Lane, Suite 1000 M   10 Surface Location   Apache Corporation: 303 Veterans Airpark Lane, Suite 1000 M   10 Surface Location   Fownship   Range   Lot Idn   Feet from the   North/South line   Township   Range   Lot Idn   Feet from the   North/South line   Township   Range Lot Idn   Feet from the   North/South line   Infiil	29710 Hardy; Blinebry   * Property Name   * Operator Name   Apache Corporation: 303 Veterans Airpark Lane, Suite 1000 Midland, TX 797   10 Surface Location   Feet from the   North/South line   Feet from the	29710 Hardy; Blinebry   *Property Name 005   *Operator Name   Apache Corporation: 303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705 3509   10 Surface Location   Fownship Range Lot Idn Feet from the North/South line Feet from the East/West   11 Bottom Hole Location If Different From Surface   Fownship Range Lot Idn Feet from the North/South line Feet from the East/West   Infill * Consolidation Code * Order No.	29710   Hardy; Blinebry     * Property Name   005     * Operator Name   * Elevation     * Operator No   * Elevation     * The Dit		

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.

		<u> </u>	
16		 1780`	<sup>17</sup> 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 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 herefore entered by the division.
		3	Reesa Fisher 08/21/2014 Signature Date Reesa Fisher Printed Name
	-		<sup>18</sup> SURVEYOR CERTIFICATION 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.
			Date of Survey Signature and Seal of Professional Surveyor:
			Certificate Number

						State	of Ne	w Mexico			
					Energy.	Minerals and	d Natural	Resources Department			
	STRICT I Bax 1980, Hobbe	, NM 88241-10	<b>36</b> 0						HOBBS OCD	Fo Revised Februs	orm C-102 ary 10, 1994
	STRICT II Drawer DD. Artes	ain, NM 88211	-0719	OIL	CON	SERV	ATI Box 2	ON DIVIS	1ADE 2 5 2012	to Appropriate Di State Lease	
	STRICT III O Rio Braxos R	id., Axtec, NI	<b>H 874</b> 10				DOX N	o 87504-2088	RECEIVED		
	STRICT IV BOX 2088, SANTA	A 78, N.M. 670	504-2088 V	VELL LO	CATION	AND	ACREA	GE DEDICATI	-	🗆 AMENDE	D REPORT
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U	L or lot No.	Section	Township	Range	Lot Idn	Feet fro	om the	North/South line	Feet from the	East/West line	County
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	36.65								SURVEYO	R CERTIFICAT	ION
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