

DOWNHOLE COMMINGLE CALCULATIONS:	Ď	HC-HOB	-50
OPERATOR: Apache Corp			-
PROPERTY NAME: Hawk A-5			
WNULSTR: 9-P-5-215-37E	··-	,	
SECTION I: Blinebry Oil & Gast POOL NO. 2 Tubb Oil & Gas	ALLOWAE	LE AMOUNT 428MCF	
POOL NO. 2 Tubb Oil & Gas	142	284 _{MCF}	
POOL NO. 3 Drinkard	142	952 MCF	
POOL NO. 4 POOL T	OTALS <u>391</u>	1564 MCF	
SECTION II: POOL NO. 1 Blinebry	Dil 23%		<u>Gas</u> 189
			a 6 d
POOL NO. 2 Tubb	13%		44
•	649/0x39	1 = 250824	4 ¢ 3
POOL NO. 2 Tubb			<i>Ч</i> (
POOL NO. 3 Prinkard	6496x39 < 25 0 > GAS		4 6

ţ

Fòrm 3160-5 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR

11.		
HOBBS	A 6	6
YMORRS		
O. Aries Same	~~	-

LOIGH VITEOUT	-
OMB No. 1004-01	37
Expires: July 31, 20	10

BUR	EAU OF LAND MAN	IAGEME	VT		5, Lease Scrial No. NMNM-125795		
 Do not use this f 	IOTICES AND REPO form for proposals i Use Form 3160-3 (A	to drill o	r to re-enter ar	า Is.	64f Indian, Allotte		
SUBMI	T IN TRIPLICATE - Other	r instruction	s on page 2.	ECEIVE!	7. If Unit of CA/Ag	greement, Name and/or No.	
1. Type of Well					8. Well Name and	No.	
Oil Well Gas V	VellOther		·		Hawk A-5 #009	(31036)	
2. Name of Operator Apache Corporation			٠.	1	9. API Well No. 30-025-40459		
3a. Address 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705	/	3b. Phone 432/818-1	No. (include area co 062	ode)	1	or Exploratory Arca /Tubb O&G(60240)/Drinkaro	1(19190)
4. Location of Well (Footage, Sec., T.,	R., M., or Survey Description	i)			 Country or Pari Lea County, NM 	sh, State	
990' FSL & 990' FEL UL X Sec 5 T21S R37E							
12. CHEC	CK THE APPROPRIATE BO	OX(ES) TO I	NDICATE NATUR	E OF NOTIC	E, REPORT OR O	THER DATA	
TYPE OF SUBMISSION			TY	PE OF ACT	ION		
✓ Notice of Intent	Acidize Alter Casing		Deepen racture Treat		iction (Start/Resume) imation	Water Shut-Off Well Integrity	•
	Casing Repair	=	lew Construction		mplete	Other _DHC	
Subsequent Report	Change Plans	P	lug and Abandon		orarily Abandon		
Final Abandonment Notice	Convert to Injection	P	lug Back	☐ Wate	r Disposal		
Attach the Bond under which the vision of the involve testing has been completed. Final determined that the site is ready for the properties of the properti	ved operations. If the operati Abandonment Notices must or final inspection.)	ion results in be filed only ory-Tubb-Dr	a multiple completion after all requirement	on or recomp its, including	letion in a new inter	val, a Form 3160-4 must be file	ed once
Tubb Óil & Gas 6 Drinkard 1	0240 9190	Tubb Drinkard	6249'–6459' 6741'–6892'				
The allocation method will be as followed	lows based on offset prod	uction (See	attached application	on for Stor	HECRIPOR	₹KE	
OIL	GAS WATER 18% 30% 46% 24% 36% 46%	•		APP	ROVAL BY		
Downson comminging will not reac	200 the value of these poo	13. 01111013	inp is the same for	each of the	se pouis.		
14 I hereby certify that the foregoing is t	A No. (Dr.)	DI	HC-H	OB-	- 503	3	
Reesa Holland	rue and correct. Name (Printe	ea/1ypea)	Title Sr. Staff	Enar Tech	4		•
Signature RODAC L	blland		Date 08/07/20		A	PPROVED	
		FOR FE	DERAL OR ST	ATE OFF			=
Approved by			<u> </u>			det 1 3 2012	_
••					1 1	OCT 1 3 2012	l

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equivable title to those rights in the subject base which would entitle the applicant to conduct operations therefore. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a critic for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

WESLEY W. INGRAM PETROLEUM ENGINEER DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 DISTRICT II

State of New Mexico HOBBS OCD Energy, Minerals and Natural Resources Department

Form C-102 Revised July 16, 2010

1301 W. Grand Avenue, Artesia, NM 88210 DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION 27 2012

Submit one copy to appropriate
DO42 District Office

DISTRICT IV

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

RECEIVED

AMENDED REPORT

1220 S. St. Francis Dr., Santa Fe, NM 87505 WELL LOCATION AND ACREAGE DEDICATION PLAT

Pool Code API Number Pool Name 0-025-4 inebry Property Name Well Number Property Code 036 HAWK FEDERAL A-5 9 Operator Name OGRID No. Elevation 873 3492 APACHE CORPORATION

Surface Location

1	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
ı	*P	5	21 S	37 E		990	SOUTH	990	EAST	LEA

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	Joint o	r Infill Co	nsolidation (Code Or	der No.	OB-50	3		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

	OR A NON-STANDA	ARD UNIT HAS BEEN APP	ROVED BY TH	HE DIVISION
LOT 12				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 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 ar working interest, or to a voluntary posting agreement or a compulsory pooling order heretofore entered by the fivision. Signature Date Printed Name
LOT 13	SURFACE LOCATION	LOT 16	· 	Soring Cloves & apachecorp.com Email Address SURVEYOR CERTIFICATION
·	Lot - N 32°30°12.33" Long - W 103°10'47.26" NMSPCE- N 548801.091 E 896963.316 (NAD-83) SURFACE LOCATION	 		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 supervison and that the same is true and correct to the best of my belief.
LOT 17	Lat - N 32'30'11.80" Long - W 103'10'45.58" NMSPCE - N 548740.589 E 855779.322 (NAD-27) 32.503278 103.179328	3489.9'3	487.3'	Date Surveyed MEX. Signature & Sact of Professional Surveyor
		3497.0' 3	990'—— 494.1'	
LOT 18				Certificate No. Gdry L. Jones 7977 BASIN SURVEYS 24875

DISTRICT III

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised July 16, 2010

Submit one copy to appropriate

Office

OIL CONSERVATION DIVISIONOBES OCD

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

FEB 2 7 2012

1000 Rto Brazos Rd., Aztec, NM 67410 DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NK 67605

WELL LOCATION AND ACREAGE DEDICATION PLAT

□ AMENDED REPORT

WELL LOCATION AND ACKEAGE DEDICATION THAT												
30-025	Number	159	59 60240 Tubb DAG (0)									
Property (Code		Property Name Well Number									
31036)	l	HAWK FEDERAL A-5									
OGRID No					Operator Nam	e		Blevat				
973				APA	CHE CORPO	RATION		3492	2'			
<u> </u>		<u> </u>			Surface Loca	ation						
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
X	5	21 S	37 E		990	SOUTH	990	EAST	LEA			
			Bottom	Hole Loc	ation If Diffe	rent From Sur	face					
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
Dedicated Acres	Joint o	r Infill Co	nsolidation (Code Ord	ler No.							
40 DAC-HOB-503												
NO ALLO	WABLE W		SIGNED TO STAN			NTIL ALL INTER APPROVED BY		EN CONSOLIDA	TED			
F====				<u> </u>			77					

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 heretofore entered by the division. OPERATOR CERTIFICATION **LOT 12** LOT 9 Souna or Signature Sorin Printed Name soring. Flores ead Email Address LOT 13 **LOT 16** SURVEYOR CERTIFICATION SURFACE LOCATION Lat ~ N 32*30*12.33" Long ~ W 103*10*47.26" NMSPCE ~ N 548801.091 E 896963.316 (NAD-83) 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 supervison, and that the same is true and correct to the best of my belief. SURFACE LOCATION Lat - N 32'30'11.80" Long - W 103'10'45.58" NMSPCE - N 548740.589 E 855779.322 (NAD-27) Date Sur **LOT 17** 3487.3 Signat 32.503278 103.179328 3497.0 3494.1 Certificate No. 7977 **LOT 18** 24875 BASIN SURVEYS

DISTRICT I 1625 N. Franch Dr., Hobbs, NM 88240 DISTRICT II

State of New Mexico

Form C-102 Revised July 16, 2010

1301 W. Grand Avenue, Artesia, NM 86210 DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 67410 OIL CONSERVATION DIVISION

1220 South St. Francis D. Santa Fe, New Mexico 87505

RECEIVED

HOBBS OCD

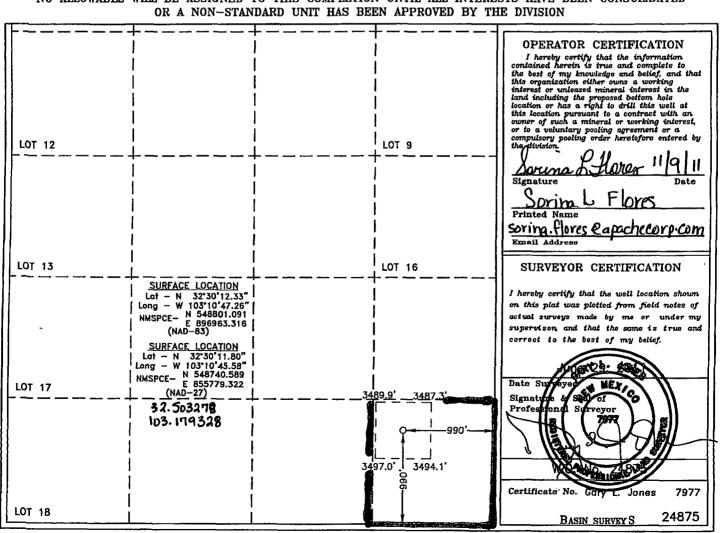
DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 67505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API	Number			Pool Code Pool Name								
30-025	-40	459	19									
Property	Code	1	Property Name Well Number									
31036	,	1	HAWK FEDERAL A-5 9									
OGRID No	0.				Operator Nam	76		Eleva				
873				APA	CHE CORPO	RATION		349	2'			
			· -	F	Surface Loc	ation						
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
X	5	21 S	37 E	:	990	SOUTH	990	EAST	LEA			
		•	Bottom	Hole Loc	ation If Diffe	erent From Sur	face					
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
ı İ												
Dedicated Acres	Joint o	r Infill Con	nsolidation	Code Orc	ier No.	,						
40	40 DHC-HOB-503											
NO ALLO	WABLE W	TILL BE AS	SIGNED '	ro This	COMPLETION U	JNTIL ALL INTER	ESTS HAVE BE	EEN CONSOLIDA	TED			





August 6, 2012

Mr. Paul Kautz New Mexico Oil Conservation Division 1625 N French Drive Hobbs, New Mexico 88240

RE: Application for Exception to Rule 303-C – Downhole Commingling Hawk A-5 #9 (30-025-40458)
Unit X, Section 5, T21S, R37E
Blinebry Oil & Gas (6660), Tubb Oil & Gas (60240) and Drinkard (19190)
Lea County, New Mexico

Dear Mr. Kautz,

Enclosed please find form C-103 and attachments for downhole commingling the captioned well. The ownerships (WI, NRI and ORRI) of these pools are identical in this wellbore. The fluids from each of these pools are compatible as seen in other similar commingles in the area. Combining these fluids will not result in any damage to these pools. Commingling will improve the efficiency of present and future recovery operations. Cross flow will not be a problem due to having a production lift system capable of keeping the well pumped off thereby maximizing production. This commingling will not reduce the value of the total remaining production.

The allocation method used for this well was determined by analyzing the cumulative oil, gas and water production in a nine section area of review surrounding this well. Supporting documentation is shown on the attached spreadsheet. Production for active and inactive wells was grouped by pool in the area of review. The totals for each phase were then divided by the number of wells associated with this pool yielding an average. This average was used to determine the percentage allocation.

The main reason for using this method is based on economics and minimizing reservoir damage. Past completion practices had all three zones perforated and fracture stimulated during one full week. Each zone was isolated by a retrievable bridge plug to allow for production testing of each zone for allocation purposes. This testing period lasted as long as one month before a stabilized rate was observed thus allowing the next zone to be brought on and tested. During this time period the completion fluids used were still confined to the other reservoirs causing gel damage. It is a common practice to get these fluids out of the wellbore as soon as possible to help maximize productivity. On a cost basis it is more expensive to have a completion rig move in and out multiple times to bring on each new zone. Several other factors such as weather, other new completions and regulatory well work may interfere with these new wells.

The area of review used encompasses what has been accepted as a good statistical representation for allocation purposes. By using this allocation method all zones will be brought online in a more effective and efficient manner. This will in turn generate a higher productive rate and quicker revenue streams not only for the operator but for the State of New Mexico too.

If you need additional information or have any questions, please give me a call at (432) 818-1062.

Sincerely,

Reesa Holland

Sr. Staff Engineering Technician

			ı		- 61/6			6	C \		. 101-7-27	(00)3
r			· · · · · · · · · · · · · · · · · · ·		um Oil (B			im Gas (MC			n Water (
	Well Number		Location	Blinebry	Tubb	>Drinkard ′		→ Tubb • •	* Drinkard ·	Blinebry	Tubb.	'. Drinkard
	Well Number			nebry Oil	ubb Oil	kard Oil		b Gas	ard Gas			kard Water
SOUTHLAND ROYALTY A		3002506395	21S 37E 4N W2 SE SW	18867	45196	148761	259667	408458	834920			
SOUTHLAND ROYALTY A	4	3002506396	21S 37E 4	69211	35274	177285	305283	3699969	781800	5424	4092	
HAWK A	2	3002506432	21S 37E 8H	30911	3214	127522	432280	45969	794010	16415	8640	9395
HAWK B 1	7	3002506439	21S 37E 9P C SF SE	24510	74001	11665	619996	4690633	369526	12740	260	32891
HAWK FEDERAL B 1	9	3002506441	21S 37E 9M C SW SW	33130	2502	218929	1142763	111299	1934151	5931	2213	11862
SOUTHLAND ROYALTY A	1	3002506442	21S 37E 9G	100106	7306	187324	1083782	710846	2575495	10860	2459	9738
SOUTHLAND ROYALTY A	2	3002506443	21S 37E 9B	79985	38822	304145	612743	3448426	959696	37714	23075	47162
SOUTHLAND ROYALTY A	7	3002506445	21S 37E 9A NE NE	119219	931	81770	1042548	12444	913742	13566	656	8811
HAWK FEDERAL B 1	5	3002509908	21S 37E 9K C NE SW	2741	38181	233532	21325	744964	2453819	1228	6143	11185
HAWK B 1	3	3002509909	21S 37E 9C	52835	24243	187807	561357	2418897	1191581	14614	2728	3883
SOUTHLAND ROYALTY A	8	3002520069	21S 37E 4O	43272	40308	87469	621215	1230082	1325964	8838	9682	16683
HAWK FEDERAL B 1	34	3002536344	21S 37E 9N NW SE SW	5138	17190	5055	8130	368481	81814	1424	9473	1046
GULF HILL	2	3002536811	21S 37E 4 NE SW NE	12641	409	778	54136	4901	5359	3764	15161	5992
SOUTHLAND ROYALTY A	16	3002537200	21S 37E 9H SE SE NE	596	4693	7018	45666	67046	125026	1752	1960	4987
LEA COUNTY FEDERAL	2	3002537236	21S 37E 5 SE NE SE	2993	1883	4441	5930	1132	8547	5578	5479	5855
HAWK FEDERAL A 5	3	3002537380	21S 37E 50 SE SW SE	16674	9681	7482	176533	69342	1926	40775	37215	78606
HAWK FEDERAL A 5	5	3002538129	21S 37E 5I SE	5973	5371	2530	37404	5316	22516	6580	22090	2659
HILL	2	3002539062	21S 37E 4 NW SE	8089	4044	1093B	63629	17358	66574	23692	16994	57613
HAWK FEDERAL A 5	4	3002539390	21S 37E 5P	6338	2180	11284	38481	38483	32987	6452	1786	5489
			TOTALS	633,229	355,429	1,815,735	7,132,868	18,094,046	14,479,453	224,116	178,205	345,451
			AVERAGES	33,328	18,707	95,565	375,414	952,318	762,076	11,796	9,379	18,182

Proposed Allocations	Oil	Gas	Water
Biinebry	23%	18%	30%
Tubb	13%	46%	24%
Drinkard	64%	36%	46%
TOTAL	100%	100%	100%

HOMEOTHA COMPONIA

ME CER

各群(2)用的对数。 在4)的数数数