

10/07/13 DATE	SUSPENSE	PG ENGINEER	10/10/13 LOGGED IN	DHC TYPE	PPRG 1328351849 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 \_\_\_\_\_

Apache Corp  
Hawk Fed A-5 #9  
30-625-40459

### [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.

REESA HOLLAND FISHER Print or Type Name	<u>Reese Fisher</u> Signature	SR STAFF REG TECH Title	10/1/2013 Date
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HAWK FEDERAL A-5 #9

Reesa.Holland@apachecorp.com  
e-mail Address



September 11, 2013

**Mr. Phillip Goetze  
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 (30-025-40459)  
Unit X, Section 5, T21S, R37E  
Blinebry Oil & Gas (6660), Tubbs Oil & Gas (60240), Drinkard (19190) &  
Wantz; Abo (62700)  
Lea County, New Mexico**

**Dear Mr. Goetze;**

**Enclosed please find form C-107A and attachments to amend DHC-HOB-503, 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.**

**This well is currently producing from the BTB and we would like to add Abo production. Apache's performance prediction for the Abo used the offset Hawk A #37 well, which is producing from the Abo only, as a type well. To generate predictions for the Hawk A-5 #3 and #9, our engineer, Michael Hunter, took the production forecast for the Hawk A #37 and adjusted it by the hydrocarbon net pay in each well relative to the Hawk A #37. Hydrocarbon net pays in the Hawk A #37, Hawk A-5#3, and Hawk A-5 #9 are 1.17 ft, 0.50 ft, and 1.46 ft, respectively.**

**For the Hawk A-5 #9 from the Abo, we are predicting an initial 30 day IP of 59 BOPD, declining hyperbolically with a b factor of 0.8 to 22 BOPD after five months and afterwards declining exponentially to an EUR of 30.9 MB at an economic limit of 0.5 BOPD after 150 total months of production.**

**If you need additional information or have any questions, please give me a call at (432) 818-1062 or contact Michael Hunter at (432) 818-1109.**

**Sincerely,**

A handwritten signature in black ink that reads "Reesa Fisher". The script is cursive and fluid, with the first name "Reesa" and last name "Fisher" clearly distinguishable.

**Reesa Holland Fisher  
Sr. Staff Regulatory Technician**

**Enclosures**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an  
abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No.  
NMNM-125795

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator  
Apache Corporation

3a. Address  
303 Veterans Airpark Lane, Suite 3000  
Midland, TX 79705

3b. Phone No. (include area code)

432/818-1062

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.  
Hawk Federal A-5 #009 (31036)

9. API Well No.  
30-025-40459

10. Field and Pool or Exploratory Area  
BliO&G(Oil)/TubbO&G(Oil)/Drinkard/Wantz;Abo

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

990' FSL & 990' FEL UL X Sec 5 T21S R37E

11. County or Parish, State  
Lea County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other RE-OPEN ABO & DHC w/B-T-D
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Apache is requesting permission to drill out CBP over Abo perforations, acid/fracture stimulate the Abo and return well to production with Abo & BTB DHC, per the attached procedure. We would like to amend our allocations:

Apache requests permission to add Abo to the Blinbry-Tubb-Drinkard DHC-HOB-503, per the following:

Pool Names: Blinbry Oil & Gas	6660	Perforations: Blinbry	5849'-5955'
Tubb Oil & Gas	60240	Tubb	6249'-6459'
Drinkard	19190	Drinkard	6741'-6892'
Wantz, Abo	62700	Abo	6994'-7392'

The allocation method will be as follows based on offset production (See attached application for exception to Rule 303-C).

	OIL	GAS	WATER
Blinbry	8%	7%	26%
Tubb	4%	17%	21%
Drinkard	21%	13%	40%
Abo	67%	63%	13%

Downhole commingling will not reduce the value of these pools. Ownership is the same for each of these pools.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Reesa Holland Fisher

Title Sr. Staff Reg Tech

Signature

*Reesa Fisher*

Date 09/30/2013

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime 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)



## **Hawk A-5 #9 Proposed Procedure**

**Drill out CBP over Abo Perforations, Acid/Fracture Stimulate the Abo,  
Return well to Production with Abo & BTD DHC**

September 9, 2013

API: 30-025-40459

990' FSL & 990' FEL, Unit P

Section 5, Township 21S, Range 37E

Lea County, New Mexico

TD: 7500'

PBTD: 7440'

Bridge Plug: 6960'

GL elev: 3492'

KB elev: 3505'

Production Casing: 5-1/2", 17 lb/ft L-80 set @ 7499' w/ 1600 sx cmt (TOC @ 960')

### **Procedure:**

1. MIRU. POOH w/ rods and pump. Install BOP. POOH w/ 2-7/8" tubing
2. RIH w/ 4-3/4" bit on 2-7/8" tubing, drill out CBP @ 6960'. Cont. RIH to PBTD @ +/- 7444'.  
Circulate well clean
3. RIH w/ casing scraper on 2-7/8" tubing to +/-7420'. POOH
4. RIH w/RBP and treating packer on 3-1/2" N-80 work string. Set RBP @ +/-7420', set packer @ +/- 7225'
5. NU frac equipment
6. Acid frac the Lower Abo with 1,100 gal 15% HCl/7,500 gal x-linked brine/ 4,800 gal retarded 15% HCl/1,100 gal 15% HCl in one stage @ 30+ BPM (max pressure 7,000 psi) as per frac recommendation. Shut-down to obtain fracture closure. After fracture closure, perform 1,100 gal 15% HCl acid stage at matrix rates (max pressure 1,500 psi) to ensure connectivity of hydraulic fracture to the wellbore
7. Set RBP @ +/-7225', set packer @ +/- 6950'
8. Acid frac the Middle/Upper Abo with 30,000 gal x-linked brine and 450 lb rock salt/19,200 gal retarded 15% HCl/4,500 gal 15% HCl in four equal stages @ 30+ BPM (max pressure 7,000 psi) as per frac recommendation. Shut-down to obtain fracture closure. After fracture closure, perform 4,200 gal 15% HCl acid stage at matrix rates (max pressure 1,500 psi) to ensure connectivity of hydraulic fracture to the wellbore
9. ND frac equipment. Shut well in overnight to allow acid to spend
10. Open well up and flow back fracture

11. After well has been flowed back, release packer and RBP, POOH w/ 3-1/2" tubing
12. RIH w/ 2-7/8" production tubing, set SN @ +/- 7400'. RIH w/ 1-1/2" pump and rods
13. Return well to production. Place well in test

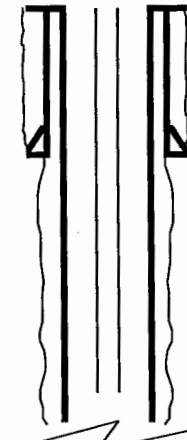
# Apache Corporation

Hawk A-5 #9



## WELL DIAGRAM (CURRENT CONFIGURATION)

SURF. CSG.  
CMT. CIRC.



5.5"  
EST. CEMENT TOP  
960' (CBL)

Blinebry Perfs  
5849'-5955'  
12', 36 shots

Tubb Perfs  
6249'-6459'  
27', 54 shots

Drinkard Perfs  
6741'-6892'  
28', 56 shots

Abo Perfs  
(suspended)  
6994'-7000'  
7', 28 shots  
7045'-7392'  
24', 48 shots

CBP @ 6960'

Orig. PBTD: 7,440.0  
TD: 7,500.0

WELL NAME:		Hawk A-5 #9		API:		30-025-40459	
LOCATION:		990'S/990'E Unit P, Sec 5, T-21S, R-37E		COUNTY:		Lea Co, NM	
SPUD-TD DATE:		06/08/2012-06/21/2012		COMP. DATE:		8/16/2012	
PREPARED BY:		Cindy Rios		DATE:		8/20/2013	
TD (ft):		7,500.0		KB Elev. (ft):		3505.00	
PBTD (ft):		6,960.0		Ground Elev. (ft):		3492.00	
KB to Ground (ft):						13.0	
CASING/TUBING		SIZE (IN)	WEIGHT (LB/FT)	GRADE		DEPTHS (FT)	
Surface Casing		8-5/8"	24.0	J-55		0.00 1,350.0	
		(Cemented w/710sx					
		circ to surface)					
Prod. Casing		5-1/2"	17.0	L-80		0.00 7,499.0	
		(Cemented w/1600sx					
		TOC @ 960' CBL)					
Open Hole							
Tubing		2-7/8"	6.5	J-55		0.00 6,933.0	
PRODUCTION TBG STRING							
ITEM	DESCRIPTION					LENGTH (FT)	Depth (FT)
1	224 JTS 2-7/8" 6.5# J-55						
2	TAC						5727.0
3	SN						6933.0
4							
5							
6							
7							
8							
9							
10							
PRODUCTION ROD STRING							
ITEM	DESCRIPTION					LENGTH (FT)	Btm (FT)
1	90 JTS 1-1/4" F6 RODS					3375.0	3375.0
2	60 JTS 1" KD RODS					1500.0	4875.0
3	66 JTS 7/8" KD RODS					1650.0	6525.0
4	12 JTS 1-1/2" KD RODS					300.0	6825.0
5	BHP 2"X1-1/2"X24' RHBC					24.0	6849.0
6							
7							
8							
9							
10							
SURFACE EQUIPMENT							
PUMPING UNIT SIZE:				640 PU		MOTOR HP:	
PUMPING UNIT MAKE:						MOTOR MAKE:	
PERFORATIONS							
Form.	Intervals					FT	SPF
Blinebry	Active: 5849', 62', 65', 67', 85', 5915', 31', 37', 39', 45', 51', 55'					12	3
Tubb	Active: 6249', 51', 53', 75', 77', 81', 6331', 33', 35', 37', 47', 49', 57', 62', 65', 89', 6403', 09', 11', 13', 19', 25', 27', 32', 39', 43', 59'					27	2
Drinkard	Active: 6741', 43', 49', 53', 55', 57', 68', 87', 93', 6806', 11', 16', 18', 23', 33', 35', 43', 45', 47', 55', 57', 59', 61', 71', 73', 81', 87', 92'					28	2
Abo	Suspended: 6994'-7000'					7	4
	Suspended: 7045', 47', 51', 53', 55', 7117', 21', 36', 40', 43', 45', 67', 69', 74', 7202', 04', 11', 37', 39', 7314', 30', 69', 90', 92'					24	2

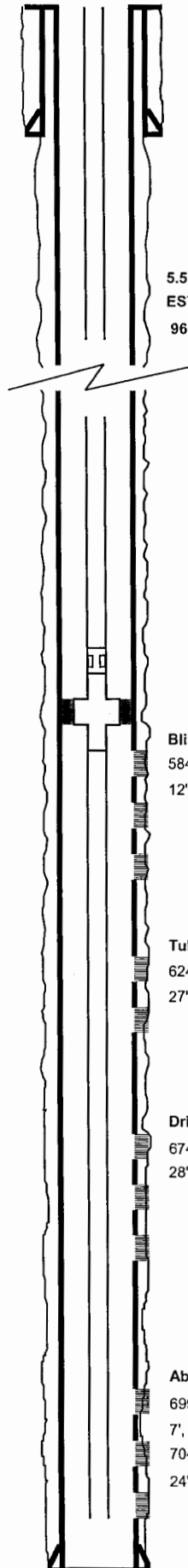
# Apache Corporation

Hawk A-5 #9

## WELL DIAGRAM (PROPOSED CONFIGURATION)



SURF. CSG.  
CMT. CIRC.



5.5"  
EST. CEMENT TOP  
960' (CBL)

Blinebry Perfs  
5849'-5955'  
12', 36 shots

Tubb Perfs  
6249'-6459'  
27', 54 shots

Drinkard Perfs  
6741'-6892'  
28', 56 shots

Abo Perfs  
6994'-7000'  
7', 28 shots  
7045'-7392'  
24', 48 shots

PBTD: 7,440.0  
TD: 7,500.0

WELL NAME:		Hawk A-5 #9		API:		30-025-40459	
LOCATION:		990'S/990'E Unit P, Sec 5, T-21S, R-37E		COUNTY:		Lea Co, NM	
SPUD-TD DATE:		06/08/2012-06/21/2012		COMP. DATE:		8/16/2012	
PREPARED BY:		Michael Hunter		DATE:		9/9/2013	
TD (ft): 7,500.0		KB Elev. (ft): 3505.00		KB to Ground (ft):		13.0	
PBTD (ft): 7,440.0		Ground Elev. (ft): 3492.00					
CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)			
Surface Casing	8-5/8"	24.0	J-55	0.00	1,350.0		
	(Cemented w/710sx circ to surface)						
Prod. Casing	5-1/2"	17.0	L-80	0.00	7,499.0		
	(Cemented w/1600sx TOC @ 960' CBL)						
Open Hole							
Tubing	2-7/8"	6.5	J-55	0.00	6,933.0		
PRODUCTION TBG STRING							
ITEM	DESCRIPTION			LENGTH (FT)	Depth (FT)		
1	239 JTS 2-7/8" 6.5# J-55						
2	TAC				+/-5700		
3	SN				7400.0		
4							
5							
6							
7							
8							
9							
10							
PRODUCTION ROD STRING							
ITEM	DESCRIPTION			LENGTH (FT)	Btm (FT)		
1	104 JTS 1-1/4" F6 RODS			3900.0	3900.0		
2	60 JTS 1" KD RODS			1500.0	5400.0		
3	66 JTS 7/8" KD RODS			1650.0	7050.0		
4	12 JTS 1-1/2" K BARS			300.0	7350.0		
5	BHP 2"X1-1/2"X24' RHBC			24.0	7374.0		
6							
7							
8							
9							
10							
SURFACE EQUIPMENT							
PUMPING UNIT SIZE:		640 PU		MOTOR HP:			
PUMPING UNIT MAKE:				MOTOR MAKE:			
PERFORATIONS							
Form.	Intervals			FT	SPF		
Blinebry	Active: 5849', 62', 65', 67', 85', 5915', 31', 37', 39', 45', 51', 55'			12	3		
Tubb	Active: 6249', 51', 53', 75', 77', 81', 6331', 33', 35', 37', 47', 49', 57', 62', 65', 89', 6403', 09', 11', 13', 19', 25', 27', 32', 39', 43', 59'			27	2		
Drinkard	Active: 6741', 43', 49', 53', 55', 57', 68', 87', 93', 6806', 11', 16', 18', 23', 33', 35', 43', 45', 47', 55', 57', 59', 61', 71', 73', 81', 87', 92'			28	2		
Abo	Active: 6994'-7000'			7	4		
	Active: 7045', 47', 51', 53', 55', 7117', 21', 36', 40', 43', 45', 67', 69', 74', 7202', 04', 11', 37', 39', 7314', 30', 69', 90', 92'			24	2		



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

District II  
1301 W. Grand Avenue, 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

Form C-107A  
Revised June 10, 2003

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

APPLICATION TYPE

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

APPLICATION FOR DOWNHOLE COMMINGLING

Apache Corporation 303 Veterans Airpark Lane Suite 3000 Midland TX 79705  
Operator Address  
Hawk Federal A-5 009 X 5 21S 37E Lea  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. 873 Property Code 31036 API No. 30-025-40459 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Blinebry Oil & Gas (Oil)	Tubb Oil & Gas (Oil)	Drinkard
Pool Code	6660	60240	19190
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	5849'-5955'	6249'-6459'	6741'-6892'
Method of Production (Flowing or Artificial Lift)	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)	37.0	37.0	37.0
Producing, Shut-In or New Zone	Producing	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.)	Date: See Attached Rates: See Attached	Date: See Attached Rates: See Attached	Date: See Attached Rates: See Attached
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 8 % 7 %	Oil Gas 4 % 17 %	Oil Gas 21 % 13 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ No ☐  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? 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 Reesa Fisher TITLE Sr. Staff Regulatory Tech DATE 9/30/2013

TYPE OR PRINT NAME Reesa Holland Fisher TELEPHONE NO. ( 432 ) 818-1062

E-MAIL ADDRESS Reesa.Holland@apachecorp.com

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

District II  
1301 W. Grand Avenue, 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

Form C-107A  
Revised June 10, 2003

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

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

APPLICATION FOR DOWNHOLE COMMINGLING

Apache Corporation 303 Veterans Airpark Lane Suite 3000 Midland TX 79705  
Operator Address  
Hawk Federal A-5 009 X 5 21S 37E Lea  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. 873 Property Code 31036 API No. 30-025-40459 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name			Wantz; Abo
Pool Code			62700
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)			6994'-7392'
Method of Production (Flowing or 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)			38.0
Producing, Shut-In or New Zone			CBP @ 6960' ~
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.)	Date:  Rates:	Date:  Rates:	Date: See Attached  Rates: See Attached
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  % %	Oil Gas  % %	Oil Gas  67 % 63 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ No ☐  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? 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.

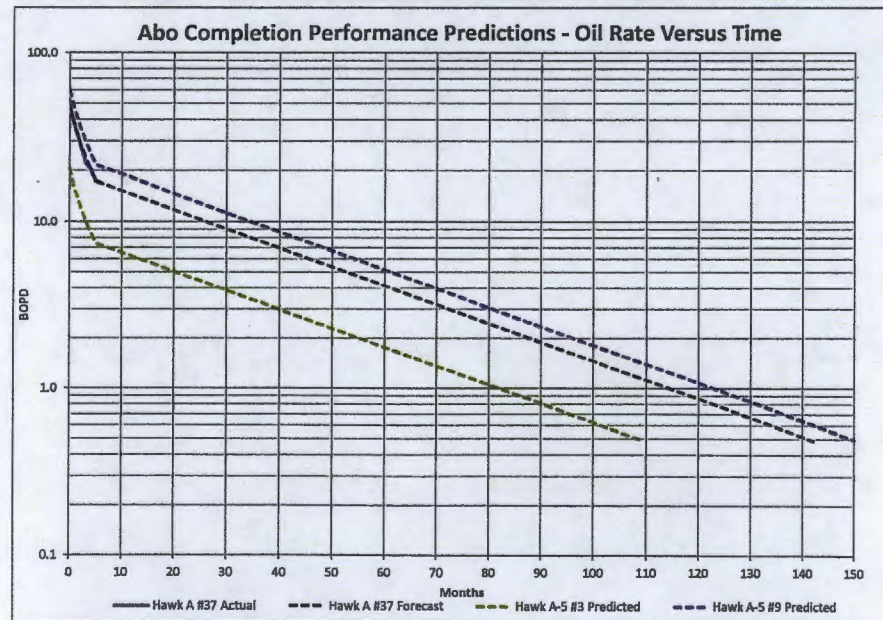
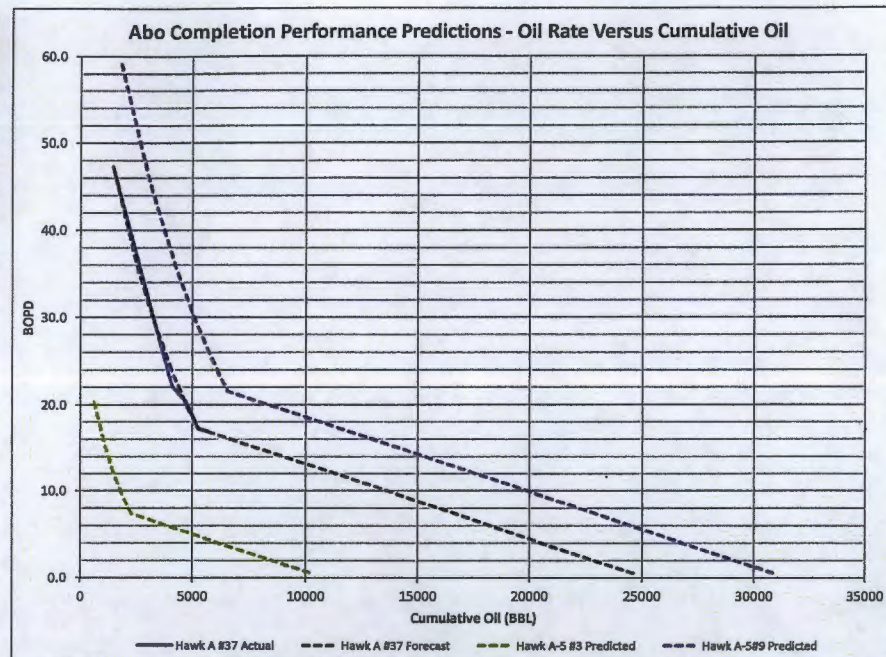
I hereby certify that the information above is true and complete to the best of my knowledge and belief.  
SIGNATURE Reesa Fisher TITLE Sr. Staff Regulatory Tech DATE 9/30/2013  
TYPE OR PRINT NAME Reesa Holland Fisher TELEPHONE NO. ( 432 ) 818-1062  
E-MAIL ADDRESS Reesa.Holland@apachecorp.com

Calculated splits as per the table below:

Hawk A-5 #9 Allocated Forecast Remaining Production - With Abo						
Zone	Oil		Gas		Water	
	(BBL)	(%)	(MCF)	(%)	(BBL)	(%)
<b>Blinebry</b>	3,559	7.7%	10,579	6.7%	9,880	25.9%
<b>Tubb</b>	2,014	4.3%	27,040	17.1%	7,906	20.7%
<b>Drinkard</b>	9,905	21.3%	21,154	13.4%	15,146	39.7%
<b>Abo</b>	30,916	66.6%	98,931	62.7%	5,256	13.8%
<b>Total</b>	46,394	100.0%	157,704	100.0%	38,188	100.0%

Petrophysics Summary					
Well	h (ft)	Phi	Phi-h (ft)	Sw	SoPhiH (ft)
Hawk A #37	26	7.7%	2.0	42.2%	1.17
Hawk A-5 #3	10	8.3%	0.8	39.4%	0.50
Hawk A-5 #9	28.5	8.9%	2.5	42.6%	1.46

Hawk A-37 Production Forecast		Hawk A-5 #3 Production Prediction		Hawk A-5 #9 Production Prediction	
Segment 1		Segment 1		Segment 1	
qi	47.3 BOPD	qi	20.3 BOPD	qi	59.1 BOPD
qf	17.3 BOPD	qf	7.4 BOPD	qf	21.6 BOPD
b	0.8	b	0.8	b	0.8
di	30.9%/Mo.	di	30.9%/Mo.	di	30.9%/Mo.
tf	5 Mo	tf	5 Mo	tf	5 Mo
Qf	5.3 MB	Qf	2.3 MB	Qf	6.6 MB
Segment 2		Segment 2		Segment 2	
qi	16.9 BOPD	qi	7.2 BOPD	qi	21.1 BOPD
qf	0.5 BOPD	qf	0.5 BOPD	qf	0.5 BOPD
b	0	b	0	b	0
d	2.6%/Mo.	d	2.6%/Mo.	d	2.6%/Mo.
tf	141 Mos.	tf	109 Mos.	tf	150 Mos.
Qf	24.3 MB	Qf	10.3 MB	Qf	30.9 MB



Hawk A #37 Allocated Monthly Production			
Month	Abo		
	Oil	Gas	Water
	(BBL)	(MCF)	(BBL)
Jan-13	1437	1868	761
Feb-13	1118	2864	359
Mar-13	862	2277	161
Apr-13	675	1973	98
May-13	621	1843	101
Jun-13	526	1685	93
Jul-13	524	1660	86

Hawk A #37 Allocated Cumulative Production		
Abo		
Oil	Gas	Water
(BBL)	(MCF)	(BBL)
5,763	14,169	1,659

Hawk A-5 #9 Allocated Monthly Production												
Month	Blaineby			Drinkard			Tubb			Total		
	Oil	Gas	Water	Oil	Gas	Water	Oil	Gas	Water	Oil	Gas	Water
	(BBL)	(MCF)	(BBL)	(BBL)	(MCF)	(BBL)	(BBL)	(MCF)	(BBL)	(BBL)	(MCF)	(BBL)
Oct-12	313	287	1220	871	574	1870	177	734	976	1361	1595	4066
Nov-12	339	465	1490	943	931	2284	192	1190	1192	1474	2586	4966
Dec-12	97	174	221	271	348	339	55	445	177	423	967	737
Jan-13	115	203	189	321	405	289	65	518	151	501	1126	629
Feb-13	134	296	456	372	592	700	76	757	365	582	1645	1521
Mar-13	150	329	459	416	657	703	85	840	367	651	1826	1529
Apr-13	115	331	442	320	662	677	65	846	353	500	1839	1472
May-13	128	287	327	356	574	502	72	734	262	556	1595	1091
Jun-13	90	274	309	251	548	474	51	700	248	392	1522	1031
Jul-13	113	289	422	315	578	647	64	738	338	492	1605	1407

Hawk A-5 #9 Allocated Cumulative Production												
Blaineby			Drinkard			Tubb			Total			
Oil	Gas	Water	Oil	Gas	Water	Oil	Gas	Water	Oil	Gas	Water	
(BBL)	(MCF)	(BBL)	(BBL)	(MCF)	(BBL)	(BBL)	(MCF)	(BBL)	(BBL)	(MCF)	(BBL)	
1,594	2,935	5,535	4,436	5,869	8,485	902	7,502	4,429	6,932	16,306	18,449	

Hawk A-5 #3 Allocated Monthly Production												
Month	Blinbery			Drinkard			Tubb			Total		
	Oil (BBL)	Gas (MCF)	Water (BBL)	Oil (BBL)	Gas (MCF)	Water (BBL)	Oil (BBL)	Gas (MCF)	Water (BBL)	Oil (BBL)	Gas (MCF)	Water (BBL)
Oct-05	264	742	59	232	0	447	304	209	151	800	951	657
Nov-05	437	1588	138	384	0	1041	503	448	352	1324	2036	1531
Dec-05	315	1439	136	277	0	1027	363	406	347	955	1845	1510
Jan-06	323	1649	110	284	0	835	372	465	282	979	2114	1227
Feb-06	255	1552	528	224	0	3988	294	438	1349	773	1990	5865
Mar-06	294	1673	481	258	0	3634	338	472	1229	890	2145	5344
Apr-06	249	1601	413	219	0	3120	287	451	1055	755	2052	4588
May-06	260	2303	398	228	0	3008	299	649	1017	787	2952	4423
Jun-06	238	2221	395	209	0	2984	274	626	1009	721	2847	4388
Jul-06	253	2148	422	222	0	3190	291	606	1079	766	2754	4691
Aug-06	219	1941	226	193	0	1706	252	548	577	664	2489	2509
Sep-06	201	4158	84	177	0	632	232	534	214	610	4692	930
Oct-06	205	9875	117	180	0	883	236	1906	299	621	11781	1799
Nov-06	177	4998	167	156	0	1260	204	604	426	537	5602	1853
Dec-06	167	4254	301	147	0	2277	192	565	770	506	4819	3348
Jan-07	177	4613	330	156	0	2492	204	672	843	537	5285	3665
Feb-07	141	4111	272	124	0	2058	162	516	696	427	4627	3026
Mar-07	136	5681	284	119	0	2144	156	306	725	411	5987	3153
Apr-07	122	3180	232	107	0	1754	141	683	593	370	3863	2579
May-07	115	8122	290	101	0	2192	132	487	741	348	8609	3223
Jun-07	118	7765	181	103	0	1365	135	251	462	356	8016	2008
Jul-07	142	6306	41	125	0	311	163	104	105	430	6410	457
Aug-07	112	9901	143	98	0	1083	128	201	366	338	10102	1592
Sep-07	55	8985	143	48	0	1082	63	127	366	166	9113	1591
Oct-07	23	5232	73	20	0	550	27	74	186	70	5306	809
Nov-07	65	9655	196	58	0	1479	75	213	500	198	9868	2175
Dec-07	61	10344	169	54	0	1281	70	377	433	185	10721	1883
Jan-08	49	9425	145	43	0	1097	57	356	371	149	9781	1613
Feb-08	288	7328	161	253	0	1217	331	316	412	872	7644	1790
Mar-08	223	4634	123	196	0	931	257	219	315	676	4853	1369
Apr-08	324	6892	186	285	0	1404	374	413	475	983	7305	2065
May-08	296	7591	185	260	0	1397	340	387	472	896	7978	2054
Jun-08	212	7332	166	187	0	1256	244	401	425	643	7733	1847
Jul-08	75	9182	199	66	0	1504	86	306	509	227	9488	2212
Aug-08	85	7462	174	75	0	1312	98	684	444	258	8146	1930
Sep-08	41	1581	94	36	0	713	47	446	241	124	2027	1048
Oct-08	48	2389	161	42	0	1214	55	674	411	145	3063	1786
Nov-08	40	1848	287	35	0	2167	46	521	733	121	2369	3187
Dec-08	40	1793	328	35	0	2482	46	506	839	121	2299	3649
Jan-09	42	1684	272	37	0	2054	49	475	695	128	2159	3021
Feb-09	66	1158	244	58	0	1846	76	327	624	200	1485	2714
Mar-09	143	1266	216	126	0	1631	165	357	552	434	1623	2399
Apr-09	108	1065	175	93	0	1324	122	300	448	321	1365	1947
May-09	60	1237	262	53	0	1976	69	349	668	182	1586	2906
Jun-09	47	1407	231	41	0	1747	54	397	591	142	1804	2569
Jul-09	45	1504	227	40	0	1717	52	424	581	137	1928	2525
Aug-09	90	1346	165	79	0	1246	103	380	421	272	1726	1832
Sep-09	111	954	127	98	0	959	128	269	324	337	1223	1410
Oct-09	134	891	141	118	0	1069	154	251	361	406	1142	1571
Nov-09	145	945	177	127	0	1338	167	266	453	439	1211	1968
Dec-09	130	1125	143	110	0	1081	144	317	366	384	1442	1590
Jan-10	93	830	113	82	0	856	108	234	290	283	1064	1259
Feb-10	93	706	113	82	0	856	107	199	290	282	905	1259
Mar-10	92	599	167	78	0	1264	103	169	428	273	768	1859
Apr-10	45	747	139	40	0	1052	52	211	356	137	958	1547
May-10	89	993	138	78	0	1044	102	280	353	269	1273	1535
Jun-10	91	1001	121	80	0	911	105	282	308	276	1283	1340
Jul-10	95	978	108	83	0	815	109	276	276	287	1254	1199
Aug-10	86	1027	37	76	0	279	99	290	94	261	1317	410
Sep-10	77	984	70	68	0	531	89	277	180	234	1261	781
Oct-10	97	927	81	85	0	613	112	261	207	294	1188	901
Nov-10	104	759	96	91	0	728	120	214	246	315	973	1070
Dec-10	82	638	83	72	0	626	95	180	212	249	818	921
Jan-11	92	778	91	81	0	691	106	219	234	279	997	1016
Feb-11	63	609	58	56	0	437	73	172	148	192	781	643
Mar-11	94	930	120	83	0	910	109	262	308	286	1192	1338
Apr-11	91	910	95	80	0	720	105	257	244	276	1167	1059
May-11	77	1035	85	67	0	641	88	292	217	232	1327	943
Jun-11	71	1022	108	63	0	814	82	288	275	216	1310	1197
Jul-11	72	1023	129	64	0	976	83	289	330	219	1312	1435
Aug-11	80	1007	142	70	0	1075	92	284	364	242	1291	1581
Sep-11	67	944	130	59	0	981	77	266	332	203	1210	1443
Oct-11	57	1000	112	50	0	848	65	282	287	172	1282	1247
Nov-11	65	917	89	57	0	671	74	259	227	196	1176	987
Dec-11	43	756	110	38	0	831	49	213	281	130	969	1222
Jan-12	52	810	124	46	0	935	60	229	316	158	1039	1375
Feb-12	48	773	69	43	0	525	56	218	177	147	991	771
Mar-12	41	753	54	36	0	408	47	212	138	124	965	600
Apr-12	41	753	56	36	0	427	47	212	144	124	965	627
May-12	38	768	22	34	0	170	44	217	57	116	985	249
Jun-12	42	877	24	37	0	179	49	247	60	128	1124	263
Jul-12	85	842	45	75	0	339	98	237	115	258	1079	499
Aug-12	88	845	99	77	0	746	101	238	252	266	1083	1097
Sep-12	81	770	70	71	0	526	93	217	178	245	987	774
Oct-12	111	827	90	97	0	683	127	233	231	335	1060	1004
Nov-12	123	770	88	109	0	668	142	217	226	374	987	982
Dec-12	139	814	103	122	0	776	160	230	262	421	1044	1141
Jan-13	117	782	95	103	0	717	134	220	242	354	1002	1054
Feb-13	66	678	64	58	0	482	76	191	163	200	869	709
Mar-13	107	779	74	94	0	561	124	220	190	325	999	825
Apr-13	42	581	13	37	0	95	49	164	32	128	745	140
May-13	41	451	19	36	0	140	48	127	47	125	578	206
Jun-13	56	656	30	49	0	223	65	185	75	170	841	328
Jul-13	56	764	40	49	0	300	65	216	102	170	980	442

Hawk A-5 #3 Allocated Cumulative Production												
Blinebry			Drinkard			Tubb			Total			
Oil	Gas	Water	Oil	Gas	Water	Oil	Gas	Water	Oil	Gas	Water	
(BBL)	(MCF)	(BBL)	(BBL)	(MCF)	(BBL)	(BBL)	(MCF)	(BBL)	(BBL)	(MCF)	(BBL)	
11,254	243,490	14,632	9,888	0	110,575	12,950	32,265	37,397	34,092	275,755	162,604	

# Well Test History Report

Page 1 of 1  
9/11/2013 3:33:57 pm

Select By: Field

Display: All well tests between 01/01/2013 - 09/09/2013

Test Date	Effective Date	Measured Hours	Type	24 Hour Volumes					Ratios					Fluid Level
				Gr Liquid	OIL	GAS	WAT	LIFT	GOR	GLR	IGOR	IGLR	TGLR	
Field: EUNICE AREA <b>BTD</b>														
HAWK /A-5/ #9 (BLINEBRY)														
1/25/2013	1/25/2013	24	A	62	22	79	40	0	3,591	1,274	0	0	1,274	
2/1/2013	2/1/2013	24	A	76	22	71	54	0	3,227	934	0	0	934	
3/19/2013	3/19/2013	24	A	52	12	76	40	0	6,333	1,462	0	0	1,462	
4/29/2013	4/29/2013	24	A	54	18	60	36	0	3,333	1,111	0	0	1,111	
5/1/2013	5/1/2013	24	A	54	18	60	36	0	3,333	1,111	0	0	1,111	
5/15/2013	5/15/2013	24	A	29	10	56	19	0	5,600	1,931	0	0	1,931	
6/21/2013	6/21/2013	24	A	44	10	51	34	0	5,100	1,159	0	0	1,159	
7/17/2013	7/17/2013	24	A	39	16	65	23	0	4,063	1,667	0	0	1,667	
8/29/2013	8/29/2013	24	A	30	13	61	17	0	4,692	2,033	0	0	2,033	
Averages by Completion				49	16	64	33	0						

\*\* All values are recorded using imperial units.



Order Number  
DHC  
HOB-503

API Number  
30-025-40459

Operator  
Apache Corporation

County  
Lea

Order Date  
10-17-12

Well Name  
Hawk A-5

Number  
9

P  
UL

5  
Sec

Location  
21S  
T (+Dir)

37E  
R (+Dir)

Pool 1  
6660

Blinebry Oil + Gas

Oil %  
23%

Gas %  
18%

Pool 2  
10240

Tubb Oil + Gas

13%

46%

Pool 3  
19190

Drinkard

64%

36%

Pool 4

Comments: Posted in RBDMS 10-17-2012 CHM

30-025-40459  
DHC-HOB-503

DOWNHOLE COMMINGLE CALCULATIONS:

OPERATOR: Apache Corp

PROPERTY NAME: Hawk A-5

WNULSTR: 9-P-5-215-37E

SECTION I:		ALLOWABLE AMOUNT	
POOL NO. 1	<u>Blinebry Oil &amp; Gas</u>	<u>107</u>	<u>428</u> MCF
POOL NO. 2	<u>Tubb Oil &amp; Gas</u>	<u>142</u>	<u>284</u> MCF
POOL NO. 3	<u>Drinkard</u>	<u>142</u>	<u>852</u> MCF
POOL NO. 4	<u></u>		
POOL TOTALS		<u>391</u>	<u>1564</u> MCF

SECTION II:	<u>Oil</u>	<u>Gas</u>
POOL NO. 1 <u>Blinebry</u>	<u>23%</u>	<u>18%</u>
POOL NO. 2 <u>Tubb</u>	<u>13%</u>	<u>46%</u>
POOL NO. 3 <u>Drinkard</u>	<u>64% x 391 = 250.24</u>	<u>36%</u>
POOL NO. 4 <u></u>	<u>&lt;250&gt;</u>	

<u>OIL</u>	<u>GAS</u>
SECTION III: <u>64% x 391 = 250.24</u>	<u>&lt;222&gt;</u>

SECTION IV:	
<u>23% x 222 = 51.06</u>	<u>&lt;51&gt;</u>
<u>13% x 222 = 28.86</u>	<u>&lt;29&gt;</u>
<u>64% x 222 = 142.08</u>	<u>&lt;142&gt;</u>

OCT 17 2012

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Serial No. NMNM-125795
2. Name of Operator Apache Corporation	6. If Indian, Allottee or Tribe Name
3a. Address 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705	7. If Unit of CA/Agreement, Name and/or No.
3b. Phone No. (include area code) 432/818-1062	8. Well Name and No. Hawk A-5 #009 (31036)
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 990' FSL & 990' FEL UL X Sec 5 T21S R37E	9. API Well No. 30-025-40459
	10. Field and Pool or Exploratory Area Blaine O&G(6660)/Tubb O&G(60240)/Drinkard(19190)
	11. Country or Parish, State Lea County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other DHC
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Apache requests permission to complete and DHC the Blinebry-Tubb-Drinkard, per the following:

Pool Names: Blinebry Oil & Gas	6660	Perforations: Blinebry	5849'-5955'
Tubb Oil & Gas	60240	Tubb	6249'-6459'
Drinkard	19190	Drinkard	6741'-6892'

The allocation method will be as follows based on offset production (See attached application for State Allocation to Rule 293-C)

	OIL	GAS	WATER
Blinebry	23%	18%	30%
Tubb	13%	46%	24%
Drinkard	64%	36%	46%

Downhole commingling will not reduce the value of these pools. Ownership is the same for each of these pools.

14 I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Reesa Holland		Title Sr. Staff Engr Tech
Signature <i>Reesa Holland</i>	Date 08/07/2012	<b>APPROVED</b>  <b>OCT 13 2012</b> Date <i>WHL</i> <b>WESLEY W. INGRAM</b> PETROLEUM ENGINEER
THIS SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by	Title	
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime 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)

OCT 17 2012

30-025-40459

## 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 and Natural Resources Department

HOBBS OCD

Form C-102

Revised July 16, 2010

Submit one copy to appropriate  
District OfficeOIL CONSERVATION DIVISION FEB 27 2012  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

RECEIVED

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-40459</b>	Pool Code <b>66660</b>	Pool Name <b>Blinebry O &amp; G (O)</b>
Property Code <b>31036</b>	Property Name <b>HAWK FEDERAL A-5</b>	Well Number <b>9</b>
GRID No. <b>873</b>	Operator Name <b>APACHE CORPORATION</b>	Elevation <b>3492'</b>

## Surface Location

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

## 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 <b>40</b>	Joint or Infill	Consolidation Code	Order No. <b>DHC-HOB-503</b>
------------------------------	-----------------	--------------------	---------------------------------

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

LOT 12		LOT 9
LOT 13	<p><b>SURFACE LOCATION</b>          Lot - N 32°30'12.33"          Long - W 103°10'47.28"          NMSPC- N 548801.091          E 896963.316          (NAD-83)</p> <p><b>SURFACE LOCATION</b>          Lot - N 32°30'11.80"          Long - W 103°10'45.58"          NMSPC- N 548740.589          E 855779.322          (NAD-27)</p> <p><b>32.503278</b>  <b>103.179328</b></p>	LOT 16
LOT 17		
LOT 18		

3489.9' 3487.3'

990'

3497.0' 3494.1'

990'

**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.

Sorina L. Flores 11/9/11  
Signature Date

Sorina L. Flores  
Printed Name

sorina.flores@apachecorp.com  
Email Address

**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 Surveyed: 11/9/11  
Signature & Seal of Professional Surveyor: [Signature]  
Certificate No. Gary L. Jones 7977

BASIN SURVEYS 24875

MAR 01 2012

DISTRICT I  
1825 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 and Natural Resources Department

Form C-102  
Revised July 18, 2010

Submit one copy to appropriate  
District Office

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

FEB 27 2012

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-40459</b>	Pool Code <b>60240</b>	Property Name <b>Tubb Dog (o)</b>
Property Code <b>31036</b>	Operator Name <b>APACHE CORPORATION</b>	Well Number <b>9</b>
GRID No. <b>873</b>		Elevation <b>3492'</b>

Surface Location

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 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 <b>40</b>	Joint or Infill	Consolidation Code	Order No. <b>DHC-HOB-503</b>						

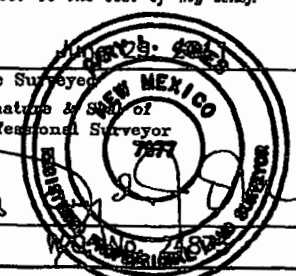
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LOT 12		LOT 9
LOT 13	<p><b>SURFACE LOCATION</b> Lat - N 32°30'12.33" Long - W 103°10'47.26" NMSPCE- N 548801.091 E 896963.316 (NAD-83)</p> <p><b>SURFACE LOCATION</b> Lat - N 32°30'11.80" Long - W 103°10'45.58" NMSPCE- N 548740.589 E 855779.322 (NAD-27)</p> <p><b>32.503278</b> <b>103.179328</b></p>	LOT 16
LOT 17		
LOT 18		

**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.

*Sorina L Flores* 11/9/11  
Signature Date  
**Sorina L Flores**  
Printed Name  
**sorina.flores@apachecorp.com**  
Email Address

**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 Surveyed  
Signature & Seal of Professional Surveyor  
  
Certificate No. Gary L. Jones 7977  
BASIN SURVEYS 24875

DISTRICT I  
1825 N. French Dr., Hobbs, NM 88240

DISTRICT II  
1501 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 and Natural Resources Department

HOBBS OGD

Form C-102  
Revised July 18, 2010  
submit one copy to appropriate  
District Office

**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

FEB 27 2012

RECEIVED

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

☐ AMENDED REPORT

API Number <b>30-025-40459</b>	Pool Code <b>19190</b>	Pool Name <b>Drinkard</b>
Property Code <b>31036</b>	Property Name <b>HAWK FEDERAL A-5</b>	Well Number <b>9</b>
GRID No. <b>873</b>	Operator Name <b>APACHE CORPORATION</b>	Elevation <b>3492'</b>

**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>X</b>	<b>5</b>	<b>21 S</b>	<b>37 E</b>		<b>990</b>	<b>SOUTH</b>	<b>990</b>	<b>EAST</b>	<b>LEA</b>

**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 <b>40</b>	Joint or Infill	Consolidation Code	Order No. <b>DHC-HOB-503</b>
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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

LOT 12		LOT 9
LOT 13	<p><b>SURFACE LOCATION</b> Lat - N 32°30'12.33" Long - W 103°10'47.26" NMSPC- N 548801.091 E 896963.316 (NAD-83)</p> <p><b>SURFACE LOCATION</b> Lat - N 32°30'11.80" Long - W 103°10'45.58" NMSPC- N 548740.589 E 855779.322 (NAD-27)</p> <p><b>32.503278</b> <b>103.1719328</b></p>	LOT 16
LOT 17		
LOT 18		

3489.9' 3487.3'

990'

3497.0' 3494.1'

990'

**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.

Sorima L Flores 11/9/11  
Signature Date

Sorima L Flores  
Printed Name

sorima.flores@apachecorp.com  
Email Address

**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 Surveyed: 11/9/11

Signature & Seal of Professional Surveyor: [Signature]

Certificate No. Gary L. Jones 7977

BASIN SURVEYS 24875

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
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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

Form C-102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-025-40459	<sup>2</sup> Pool Code 62700	<sup>3</sup> Pool Name Wantz; Abo
<sup>4</sup> Property Code 31036	<sup>5</sup> Property Name Hawk Federal A-5	<sup>6</sup> Well Number 009
<sup>7</sup> OGRID No. 873	<sup>8</sup> Operator Name Apache Corporation: 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705	<sup>9</sup> Elevation 3492'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
X / P	5	21S	37E		990	South	990	East	Lea

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres 40	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. DHC-HOB-503
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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.

16					<p><sup>17</sup> <b>OPERATOR CERTIFICATION</b> 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.</p> <p><i>Reesa Fisher</i> 09/11/2013 Signature Date Reesa Holland Fisher Printed Name</p> <p><sup>18</sup> <b>SURVEYOR CERTIFICATION</b> 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 Signature and Seal of Professional Surveyor:  Certificate Number</p>





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.

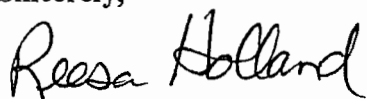
The main reason for using this method is based on economics and minimizing reservoir damage. Past completion practices had all three zones perforated and fracture stimulated during one full week. Each zone was isolated by a retrievable bridge plug to allow for production testing of each zone for allocation 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,

A handwritten signature in black ink that reads "Reesa Holland". The signature is written in a cursive, flowing style.

**Reesa Holland**  
**Sr. Staff Engineering Technician**

Lease Name	Well Number	10DIGITAPI	Location	Cum Oil (BBL)			Cum Gas (MCF)			Cum Water (BBL)		
				Blneby	Tubb	Drnkard	Blneby	Tubb	Drnkard	Blneby	Tubb	Drnkard
Lease Name	Well Number	10 Digit API	Location	neby Oil	ubb Oil	kard Oil	bry Gas	b Gas	ard Gas	neby	ubb	kard Water
SOUTHLAND ROYALTY A	3	3002506395	21S 37E 4N W2 SE SW	18867	45196	148761	259667	408458	834920	8789	8099	21943
SOUTHLAND ROYALTY A	4	3002506396	21S 37E 4	69211	35274	177285	305283	3699959	781800	5424	4092	9651
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 SE SE	24510	74001	11665	619996	4690633	369526	12740	260	32891
HAWK FEDERAL B 1	9	3002506441	21S 37E 9M C SW SW	33130	2502	218928	1142763	111299	1934151	5931	2213	11862
SOUTHLAND ROYALTY A	1	3002506442	21S 37E 9G	100106	7306	187324	1083762	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	13586	656	8811
HAWK FEDERAL B 1	5	3002509908	21S 37E 9K C NE SW	2741	38181	233532	21325	744954	2453819	1228	6143	11165
HAWK B 1	3	3002509909	21S 37E 9C	52835	24243	187807	561357	2418897	1191581	14614	2728	3883
SOUTHLAND ROYALTY A	8	3002520089	21S 37E 4O	43272	40308	87469	621215	1230082	1325984	8838	9582	16683
HAWK FEDERAL B 1	34	3002536344	21S 37E 9N NW SE SW	5138	17100	5055	8130	368481	81814	1424	9473	1046
GULF HILL	2	3002536811	21S 37E 4 NE SW NE	12641	409	778	54138	4901	5359	3764	15161	5992
SOUTHLAND ROYALTY A	16	3002537200	21S 37E 9H SE SE NE	596	4593	7018	45686	67046	125026	1752	1980	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 5O 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	7	3002539062	21S 37E 4 NW SE	8089	4044	10938	63629	17358	66574	23692	16994	57613
HAWK FEDERAL A 5	4	3002539380	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
Blneby	23%	18%	30%
Tubb	13%	46%	24%
Drnkard	64%	36%	46%
TOTAL	100%	100%	100%

ALL OIL AND GAS REVENUE  
DISTRIBUTED

SEE PAGE 2

ALL OIL AND GAS REVENUE  
DISTRIBUTED

**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 and Natural Resources**  
**Oil Conservation Division**  
**1220 South St. Francis Dr.**  
**Santa Fe, NM 87505**

Form C-101  
Revised July 18, 2013

☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

<sup>1</sup> Operator Name and Address <p style="text-align: center;">Apache Corporation 303 Veterans Airpark Lane, Suite 3000 Midland, TX 79705</p>		<sup>2</sup> OGRID Number <p style="text-align: center;">873</p>
<sup>4</sup> Property Code <p style="text-align: center;">31036</p>		<sup>3</sup> API Number <p style="text-align: center;">30-025-40459</p>
<sup>5</sup> Property Name <p style="text-align: center;">Hawk A-5</p>		<sup>6</sup> Well No. <p style="text-align: center;">009</p>

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
X	5	21S	37E		990	S	990	E	Lea

**8. Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

**9. Pool Information**

Pool Name Blinbry (6660) - Tubb (60240) - Drinkard (19190) Completed, Adding Wantz; Abo	Pool Code 62700
--	--------------------

**Additional Well Information**

<sup>11</sup> Work Type A	<sup>12</sup> Well Type O	<sup>13</sup> Cable/Rotary	<sup>14</sup> Lease Type F	<sup>15</sup> Ground Level Elevation 3492'
<sup>16</sup> Multiple N	<sup>17</sup> Proposed Depth 7500'	<sup>18</sup> Formation Wantz; Abo (62700)	<sup>19</sup> Contractor	<sup>20</sup> Spud Date 6/8/2012
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
J-55	11"	8-5/8"	27#	1350'	710 sx Class C	Surface
J-55/L-80	7-7/8"	5-1/2"	17#	7499'	1600 sx Class C	960' CBL

**Casing/Cement Program: Additional Comments**

--

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input type="checkbox"/> , if applicable. Signature: <i>Reesa Fisher</i> Printed name: Reesa Holland Fisher Title: Sr Staff Reg Tech E-mail Address: Reesa.Holland@apachecorp.com Date: 9/11/2013	<b>OIL CONSERVATION DIVISION</b> Approved By:  Title: Approved Date:      Expiration Date:
Phone: 432/818-1062	Conditions of Approval Attached