

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

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING THE:**

**APPLICATION OF APACHE CORPORATION FOR APPROVAL,  
RETROACTIVELY, FOR SURFACE COMMINGLING AND EXCEPTION TO  
THE METERING REQUIREMENTS OF DIVISION RULE 19.15.12.10(C)(1)  
NMAC, LEA COUNTY, NEW MEXICO**

**CASE NO. 14944  
ORDER NO. R-13683**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on January 24, 2013 at Santa Fe, New Mexico before Examiner William V. Jones.

NOW, on this 5th day of March, 2013, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

**FINDS THAT:**

(1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.

(2) Apache Corporation ("Apache"), seeks authorization, retroactively, for the surface commingling of oil and gas production from its Hawk B-1 federal lease located in parts of Section 8 and Section 9, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico. Apache seeks exception to the separate metering requirement of Rule 19.15.12.9 NMAC.

(3) Apache appeared at the hearing and presented exhibits and testimony from a landman and facilities manager indicating the following:

- a. Apache is the operator of the Hawk B-1 federal oil and gas lease, No. NMNM-90161, consisting of lands located within the E/2 SW/4 and SE/4 of Section 8 and the E/2 NW/4 and S/2 of Section 9, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

- b. Within this lease, Apache currently operates thirty-four (34) wells listed on Exhibit A to this Order:
  1. Twenty-five wells with common ownership ("normal wells") being produced from the Penrose Skelly-Grayburg Pool and/or the East Hare-San Andres Pool. Production from these 25 normal wells is stored on the lease at the "Hawk B-1 Tank Battery" located in Unit K of Section 9.
  2. Six "leaseline" wells are located at approved unorthodox well locations ("NSLs") near the outer boundaries of the Hawk B-1 lease. These wells have been drilled, completed and produced from the Penrose Skelly-Grayburg Pool, in accordance with Cooperative Well Agreements approved by the United States Bureau of Land Management ("BLM") and the working interest owners. Under the Cooperative Well Agreements, production is shared with owners in the offsetting leases that might be affected by that well's production. Production from the six leaseline wells is taken and stored on lease at the Hawk B-1 Tank Battery located in Unit K of Section 9. By virtue of these six wells sharing production between the Hawk B-1 Lease and various other leases via the Cooperative Well Agreements, the ownership among the six leaseline wells is not identical. Consequently, Apache would normally be required to separately meter the production from each of these wells prior to commingling these wells with other wells on this lease.
  3. A non-consent well, the Hawk B-1 Well No. 55 (Penrose Skelly-Grayburg Pool), is located on the Hawk B-1 lease at a standard well location. Ownership of this well is diverse until payout as a result of certain working interest owners going non-consent in the drilling of the well. The production from this well is taken and stored on lease at the Hawk B-1 Tank Battery located in Unit K of Section 9. Since the ownership of the non-consent well is not common with the twenty-five normal wells and the six leaseline wells, Apache would normally be required to separately meter the production from this well prior to commingling this well with other wells on this lease.
  4. There are two wells producing from the Wantz-Abo Pool (ID-62700): (i) the Hawk B-1 Well No. 69, a leaseline well, at an approved unorthodox well location; and (ii) The Hawk B-1 Well No. 70, a "normal well." The Hawk B-1 Well No. 69 was drilled, completed and produced in accordance with a Communitization Agreement approved by the BLM and the working interest owners that allows for the sharing of production in such a way as to result

in "diverse ownership" of that production. Production from both wells is taken and stored on lease at the Hawk Federal B-1 Tank Battery located in Unit K of Section 9. Production from the Hawk B-1 Well No. 69 is separately metered before being surface commingled with production from the Hawk B-1 Well No. 70.

- c. As a result of internal review of its operations on this lease, Apache discovered that production from the above-described wells had been surface commingled by the prior operator and the practice continued by Apache but there is no record that Division approval was obtained for commingling and the allocation of production by monthly well tests in lieu of the separate metering of production from each well.
- d. Apache's Hawk B-1 battery consists of a free water knock out, a heater treater (fired year round), two test separators, a gas scrubber, two 500 bbl steel oil storage tanks, a LACT meter run, two water storage tanks and two gas sales meters along with associated piping and valves between vessels. Oil, water, and gas production enters the battery at the production header through individual well flow lines. The production stream from each well is then directed through either a common pool line or through one of two test lines by virtue of a valve system at the production header.
- e. The Hawk Federal B-1 battery consists of two 3-phase test separators, a gas scrubber, a heater treater, two 400 bbl steel oil storage tanks, two water storage tanks (same two tanks as identified above for the Hawk B-1 battery) and one common gas sales meter. Production from the Hawk B-1 No. 69 and Hawk B-1 No. 70 Abo wells both enter a common header system, which isolates each well from the other via a valve system. Each well's production first enters its own 3-phase separator where oil, gas and water are all individually metered by well. The two gas streams are then commingled and sent through a gas scrubber prior to a common gas sales meter. Oil production from the two separators is then commingled and sent through a common heater treater prior to storage in the common oil tanks before being trucked to sales. Water production from both separators is sent to the common water storage tanks prior to trucking to disposal. The heater treater is fired 3-5 months a year with gas from the common scrubber prior to sales.
- f. Apache has been measuring and allocating production from the wells under the following method. Each day, two wells are tested for a 24-hour period through one of two test separators that measure oil, water, and gas production. Oil is metered and then sent through the heater-treater prior to storage in one of the two 500 BBL storage tanks. Periodically, the oil is then sold through the LACT meter at the

battery. Water is metered and then sent to one of two 500 BBL water tanks prior to pumping to disposal. Gas is metered through a meter run with an orifice plate prior to flowing through one of two gas sales meters. All other wells (that are not in test on that day) are directed through the pool line to the free water knock out and the heater treater in order to separate the oil and gas for sales, and water for disposal. Oil and gas production volumes are then allocated back to each individual well based on the well tests that were recorded each month in proportion to the monthly oil and gas sales that were attributed to the Hawk B-1 battery.

- g. Apache reconciles the total metered production with its allocation method weekly and monthly. Apache's well test method for measuring and allocating production has proven accurate and reliable, and the equipment utilized has been properly maintained and calibrated.
- h. The wells are all marginal producing wells ranging from 1-2 barrels of oil per day to one well that can produce 20 barrels of oil per day.
- i. If the wells were required to be separately metered on a daily basis, the economic life of the wells would be reduced by almost two years and would cause at least two of the lease line wells to be plugged thereby leaving hydrocarbons unrecovered.
- j. Decline curve analysis for the six lease line wells and single non-consent well utilizing data obtained from monthly well tests demonstrates that the production from these wells is stable and declines at similar rates.
- k. The value of the production from each of the wells to be commingled will not decrease as a result of commingling.
- l. Apache notified the interest owners in accordance with 19.15.4.12 NMAC. No party other than Apache appeared at the hearing, and no person communicated to the Division any opposition to the approval of this application other than a letter sent to the Division by the BLM dated January 10, 2013 stating that it objected to the Application apparently because "There are six co-op well agreements involving two federal leases with different royalty rates involved." The letter from the BLM did not state the basis for the BLM's objection and the BLM did not appear at the hearing. Three other royalty owners notified Apache that they supported the Application.
- m. The BLM previously approved the commingling and allocation of production from the lease line wells through the execution of

Cooperative Well Agreements and has not withdrawn its consent to commingling under these agreements. The BLM had not expressed any objection regarding the commingling of production from the wells drilled at non-standard locations pursuant to these agreements until after Apache filed its application and Apache is currently negotiating with the BLM to address its concerns regarding the six lease line wells.

The Division concludes that:

(4) It appears notice was properly provided - applicant's Exhibit No. 5 shows proof of notice. This is a federal lease and the U.S. BLM "BLM" has protested this application. No other party has entered an appearance in this case or indicated opposition.

(5) The application complies with the requirements for exceptions to allow pool and lease commingling prior to sale, as provided in Division Rule 19.15.12.10 NMAC.

(6) Granting of this Application will prevent waste and promote conservation by utilizing the existing tank battery equipment to process oil and gas, thereby reducing the incremental investment capital that would be needed to install separate metering vessels for individual wells with diverse ownership interests and extend the life of the wells. An exception to 19.15.12.9 NMAC would also prevent waste and promote conservation by reducing the lease operating expense to maintain the number of individual test separators necessary for all wells with diverse ownership.

(7) The method employed by Apache to measure and allocate production is practical, efficient, and appears to protect the interests of all owners.

(8) This application should be granted, authorizing surface commingling of oil and gas production from all 34 wells identified on Exhibit A to this Order, retroactive to the date Apache began operating the wells.

(9) The interest owners in the depths of the Abo formation appear to be numerous and diverse. Apache has maintained separate metering of Abo wells to date and should continue this practice.

(10) As per Division rules, the commingling authority granted herein should be subject to BLM approval.

**IT IS THEREFORE ORDERED THAT:**

(1) Apache Corporation ("Operator") [OGRID 873] is hereby authorized to surface commingle oil and gas production from the Penrose Skelly-Grayburg Pool and the East Hare-San Andres Pool from the wells (identified in Exhibit A to this Order) on Apache's Hawk B-1 lease, located in the E/2 SW/4 and SE/4 of Section 8 and the E/2

NW/4 and S/2 of Section 9, Township 21 South, Range 37E, NMPM, in Lea County, New Mexico, at Apache's *Hawk B-1 Tank Battery* located in Unit K of Section 9.

(2) Apache Corporation is hereby authorized to surface commingle oil and gas production from wells producing from (or downhole commingled with) the Wantz-Abo Pool (62700) on Apache's Hawk B-1 lease (as described above) at the *Hawk B-1 Federal Tank Battery* also located in Unit K of Section 9.

(3) Authorization for surface commingling of the wells identified in Exhibit A to this Order is granted retroactively from the date commingling was first commenced by Apache as identified on Exhibits D, F and H admitted into evidence at the hearing.

(4) Oil and gas production from the wells feeding each of these lease batteries shall be transported to, stored, and sold at each respective lease battery and not commingled between batteries.

(5) The Wantz-Abo production from this Hawk B-1 lease shall be gathered and sold at the *Hawk B-1 Federal Tank Battery* and each well producing from the Abo formation shall have oil and gas separately and continuously metered prior to commingling for production and sales.

(6) Oil and gas production from wells producing from the Penrose Skelly-Grayburg and East Hare-San Andres Pools shall be allocated to each well based on periodic well tests in accordance with the procedure set forth in Finding Paragraph (3)(f) above.

(7) This commingling authority is subject to like approval of the United States Bureau of Land Management (BLM) and may be modified by BLM requirements for additional metering. Such modifications shall not require modification of this Order.

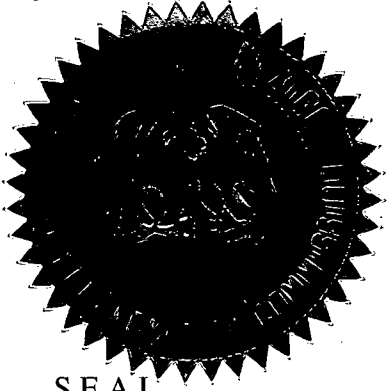
(8) Additional wells drilled and producing only from the Penrose Skelly-Grayburg Pool and/or the East Hare-San Andres Pool and whose production is taken to the *Hawk B-1 Tank Battery* located in Unit K of Section 9 and additional wells drilled and producing only from the Wantz-Abo Pool and whose production is taken to the *Hawk B-1 Federal Tank Battery* located in Unit K of Section 9, may be added to this surface commingling authority in accordance with the following administrative procedure:

- (a) only wells that are located on the Hawk B-1 lease described in Ordering Paragraph (1) may be added pursuant to this Ordering Paragraph;
- (b) Apache shall file a Division Form C-107-B complete with attachments; and

- (c) Apache shall only be required to provide notice to those interest owners owning interests in the production of the well proposed to be added to the commingling authority and to the BLM.

(9) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

A handwritten signature in cursive script, appearing to read "Jami Bailey".

JAMI BAILEY  
Director

EXHIBIT A to Order No. R-13683 issued in Case No. 14944 (Page 1 of 2)

A. HAWK B-1 TANK BATTERY GRAYBURG/SAN ANDRES WELLS

1. Normal Wells:

<u>Well Name</u>	<u>API</u>	<u>Location</u>	<u>Producing Pool</u>	<u>Pool Code</u>
Hawk Federal B-1 #6	30-025-09907	Sec 9: N	East Hare San Andres	96601
Hawk Federal B-1 #12	30-025-06435	Sec 8: O	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #18	30-025-35795	Sec 8: P	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #19	30-025-35796	Sec 9: M	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #20	30-025-35876	Sec 9: L	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #21	30-025-35877	Sec 8: I	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #22	30-025-35878	Sec 8: J	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #23	30-025-35879	Sec 9: C	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #24	30-025-35797	Sec 9: F	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #25	30-025-35798	Sec 9: J	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #26	30-025-35799	Sec 9: K	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #27	30-025-35806	Sec 9: P	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #28	30-025-35880	Sec 9: O	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #29	30-025-35807	Sec 8: K	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #30	30-025-35881	Sec 9: I	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #31	30-025-35882	Sec 9: N	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #32	30-025-36158	Sec 8: I	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #36	30-025-36530	Sec 9: P	Penrose Skelly-Grayburg; East Hare San Andres	50350; 96601
Hawk Federal B-1 #38	30-025-36531	Sec 9: O	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #39	30-025-36532	Sec 8: P	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #40	30-025-36533	Sec 9: M	Penrose Skelly-Grayburg; East Hare San Andres	50350; 96601
Hawk Federal B-1 #50	30-025-38014	Sec 8: I	Penrose Skelly; Grayburg	50350
Hawk Federal B-1 #51	30-025-37997	Sec 8: N	Penrose Skelly; Grayburg	50350
Hawk Federal B-1 #52	30-025-37998	Sec 9: P	Penrose Skelly; Grayburg	50350
Hawk Federal B-1 #68	30-025-38959	Sec 9: P	Penrose Skelly; Grayburg	50350

2. Leaseline Wells:

<u>Well Name</u>	<u>API</u>	<u>Location</u>	<u>Producing Pool</u>	<u>Pool Code</u>
Hawk Federal B-1 #33	30-025-36663	Sec 9: L	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #35	30-025-36662	Sec 9: P	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #37	30-025-36686	Sec 9: I	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #41	30-025-36664	Sec 9: K	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #43	30-025-38173	Sec 9: F	Penrose Skelly-Grayburg	50350
Hawk Federal B-1 #58	30-025-38493	Sec 8: J	Penrose Skelly-Grayburg	50350



**EXHIBIT A to Order No. R-13683 issued in Case No. 14944 (Page 2 of 2)**

**3. Non-consent Well:**

<u>Well Name</u>	<u>API</u>	<u>Location</u>	<u>Producing Pool</u>	<u>Pool Code</u>
Hawk Federal B-1 #55	30-025-39511	Sec 8: K	Penrose Skelly-Grayburg	50350

**B. HAWK B-1 FEDERAL TANK BATTERY ABO WELLS**

<u>Well Name</u>	<u>API</u>	<u>Location</u>	<u>Producing Pool</u>	<u>Pool Code</u>
Hawk Federal B-1 #69	30-025-40458	Sec 8: J	Wantz-Abo	62700
Hawk Federal B-1 #70	30-025-40678	Sec 8: K	Wantz-Abo	62700