

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



*Apache*  
*Bertha Barber #22*

**ADMINISTRATIVE APPLICATION CHECKLIST 30-025-39564**

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]

4318

- [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 \_\_\_\_\_

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 2010 SEP - 3 P 2: 37

- [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.

<u>Reesa Holland</u>	<u><i>Reesa Holland</i></u>	<u>Sr. Engineering Tech</u>	<u>8/31/2010</u>
Print or Type Name	Signature	Title	Date
		<u>Reesa.Holland@apachecorp.com</u>	
		e-mail Address	



August 31, 2010

Mr. Will Jones  
New Mexico Oil Conservation Division  
1220 South Saint Francis Drive  
Santa Fe, New Mexico 87505-4225

RE: Application for Exception for Downhole Commingling  
Bertha Barber #22 – Monument Field – API 30-025-39564  
Unit K, Section 5, T-20-S, R-37-E  
Tubb, Drinkard & Abo Pools  
Lea County, New Mexico

Dear Mr. Jones:

Enclosed please find form C-107A 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 nor will it reduce the value of the total remaining production. 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.

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 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".

Reesa Holland  
Sr. Engineering Technician

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  
1320 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  
Bertha Barber 022 K 5 20S 37E Lea  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. 873 Property Code 306595 API No. 30-025-39564 Lease Type:  Federal  State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Monument; Tubb	Monument; Drinkard	Monument; Abo
Pool Code	47090	97060	46970
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	6300'-6520' (Act Perf)	6698'-6800' (Act Perf)	6846'-7640' (Act Perf)
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)	NA	NA	NA
Oil Gravity or Gas BTU (Degree API or Gas BTU)	35.3 API	35.3 API	35.3 API
Producing, Shut-In or New Zone	Producing	New Zone	New Zone
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: 8/21/2010 Rates: 23 oil 109 gas 84 water	Date: Est Rates: 6 oil 9 gas 37 water	Date: Est Rates: 17 oil 118 gas 74 water
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 51 % Gas 46 %	Oil 13 % Gas 4 %	Oil 36 % Gas 50 %

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 Holland TITLE Sr. Engineering Tech DATE 8/31/2010

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

E-MAIL ADDRESS Reesa.Holland@apachecorp.com

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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 30-025-39564		<sup>2</sup> Pool Code 46970	<sup>3</sup> Pool Name Monument; Abo
<sup>4</sup> Property Code 306595	<sup>5</sup> Property Name Bertha Barber		<sup>6</sup> Well Number 022
<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 3563' GR

<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
K	5	20S	37E		1650	South	1650	West	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.
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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.

<p>16</p>	<p><sup>17</sup> OPERATOR CERTIFICATION</p> <p><i>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</i></p> <p><i>Reesa Holland</i> 08/31/2010 Signature Date</p> <p>Reesa Holland. Printed Name</p>
	<p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p>Date of Survey Signature and Seal of Professional Surveyor:</p>
	<p>Certificate Number</p>

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AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-025-39564	<sup>2</sup> Pool Code 97060	<sup>3</sup> Pool Name Monument; Drinkard
<sup>4</sup> Property Code 306595	<sup>5</sup> Property Name Bertha Barber	
<sup>6</sup> Well Number 022		
<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 3563' GR

<sup>10</sup> Surface Location

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				<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. Date of Survey Signature and Seal of Professional Surveyor: Certificate Number</p>

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AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-025-39564		<sup>2</sup> Pool Code 47090	<sup>3</sup> Pool Name Monument; Tubb
<sup>4</sup> Property Code 306595	<sup>5</sup> Property Name Bertha Barber		<sup>6</sup> Well Number 022
<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 3563' GR

<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
K	5	20S	37E		1650	South	1650	West	Lea

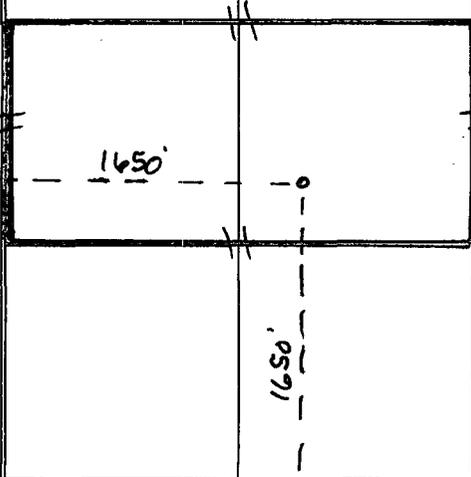
<sup>11</sup> Bottom Hole Location If Different From Surface

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 80	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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Lease Name	Well Number	10DIGITAPI	Location	Tubb	Drinkard	Abo	Tubb	Drinkard	Abo	Tubb	Drinkard	Abo
L M LAMBERT	2	3002505926	6G 20S 37E C SW NE	66			4418			176127		
L M LAMBERT	4	3002505928	6H 20S 37E C SE NE	1981		1466	830357		6991	6011		799
G C MATTHEWS	5	3002505946	6J 20S 37E NW NW SE	121		22337	3228		206022	17248		38034
G C MATTHEWS	12	3002505953	6P 20S 37E SW SE SE	2702			313478			2538		
J R PHILLIPS	5	3002505958	6D 20S 37E			24428			1376245			166279
J R PHILLIPS	6	3002505959	6 20S 37E N2 SW NW	2568		84770	11369		2522178	2944		150923
BERTHA J BARBER	12	3002505978	7A 20S 37E N2 NE NE	862		2743	1136650		13506	1776		160
BERTIE WHITMIRE	6	3002506016	8B 20S 37E SW NW NE			36765			100568			52363
BERTIE WHITMIRE	8	3002506018	8F 20S 37E			36176			154854			79683
L VAN ETTEN	11	3002520217	9I 20S 37E C NE SE	68230			768554			12149		
BARBER ADKINS 8	1	3002520436	8D 20S 37E C NW NW	12561			136884			20333		
LAUGHLIN	1	3002521652	9H 20S 37E	53957			462225			61699		
L VAN ETTEN	12	3002521773	9O 20S 37E NW SW SE	3536			1009082			125654		
V LAUGHLIN	4	3002521926	9A 20S 37E	39976			172669			7415		
T ANDERSON	4	3002525292	8I 20S 37E	1781			8000			19238		
ANDERSON	1	3002529962	8O 20S 37E SW SE	12260			29946			101798		
L VAN ETTEN	13	3002531727	9K 20S 37E SE NE SW	621		16793	368786		62692	2997		5342
L VAN ETTEN	14	3002532518	9M 20S 37E NE SW SW	1564		14009	197064		188770	18214		25609
W H LAUGHLIN	7	3002533141	9E 20S 37E	38990			391696			94255		
BERTHA BARBER	16	3002533919	5K 20S 37E NW NE SW	33442		88931	85789		317485	3104		1808
THEODORE ANDERSON	12	3002534021	8P 20S 37E SE SE SE		1945	21997		3617	436600		8642	48086
LAUGHLIN	2	3002534067	9G 20S 37E SW SW NE	9753			116602			31187		
BERTHA BARBER	17	3002534204	5F 20S 37E SW SE NW	85128		3182	590308		13432	10070		1245
BERTHA BARBER	18Y	3002534327	5L 20S 37E SE NW SW	24837			3565	134986		70677	195999	29732
W H LAUGHLIN	8	3002534341	9F 20S 37E NW SE NW		2543	16152		10622	178085		95345	14920
L VAN ETTEN	19	3002534528	9 20S 37E SE SW SE	1530	191	8512	106	1327	18095	2664	2664	9949
LAUGHLIN	1	3002534975	4N 20S 37E SW SE SW	31270	20627	4626	107399	71363	14213	10272	6288	1869
J R PHILLIPS	15	3002535119	6 20S 37E W2 NE NW	3		16855	505392		71897	33		96703
COOPER 5	6	3002535151	5G 20S 37E SW SW NE	15927	17962		53312	59935		13564	15302	
LAUGHLIN	2	3002535182	4L 20S 37E W2 NW SW	53947			388586			23714		
LAUGHLIN	3	3002535348	4O 20S 37E SE SW SE	45584			117905			30979		
COOPER 5	7	3002535399	5H 20S 37E S2 SE NE	115239			642985			26552		
LAUGHLIN	4	3002535477	4J 20S 37E SW NW SE	103644			278745			35073		
J R PHILLIPS	16	3002535501	6F 20S 37E NE SE NW			5177			244913			169907
LAUGHLIN	5	3002535584	4H 20S 37E SE SE NE	17815			86514			95460		
LAUGHLIN	6	3002535676	4F 20S 37E SW SE NW	24750			71062			25432		
BAXTER CULP 31	5	3002535692	31P 19S 37E SE SE SE	6220	2053	14778	1715	523	25089	22631	2287	16467
LOVE 32	3	3002535694	32O 19S 37E SW SW SE	31114			34585			64572		
LAUGHLIN 5	1	3002535827	5P 20S 37E NE SE SE	32975			156218			95138		
LAUGHLIN 5	2	3002535862	5J 20S 37E SE NW SE	55301			587465			27618		
LAUGHLIN	8	3002535870	4M 20S 37E SE SW SW	27770			116915			15909		
LAUGHLIN	7	3002535891	4K 20S 37E SW NE SW	30454			121277			29624		
COOPER 4	3	3002535934	4E 20S 37E SW SW NW	2297			2101			1558		
LAUGHLIN	9	3002535958	4I 20S 37E SE NE SE	21401			47552			57933		
COOPER 5	9	3002535990	5 20S 37E SE NW NE	34091			111841			90689		
LAUGHLIN 5	3	3002536000	5I 20S 37E NW NE SE	79189			652785			100707		
LAUGHLIN 5	4	3002536023	5O 20S 37E N2 SW SE	68044			150742			21131		
COOPER 5	8	3002536045	5 20S 37E SW NE NE	83332			312844			311655		
BERTHA BARBER	21	3002536134	5 20S 37E SE NE NW	47229			584253			96633		
LAUGHLIN 8	1	3002536147	8A 20S 37E W2 NE NE	42768		13929	223213		44908	17817		8516
LAUGHLIN	10	3002536161	4P 20S 37E NW SE SE	23212			68545			65908		
BERTIE WHITMIRE	11	3002536331	8B 20S 37E W2 NW NE	47758			177109			77669		
BERTHA BARBER 7	1	3002536472	7I 20S 37E NE NE SE			39491			666154			88177
COOPER 8	2	3002536529	8H 20S 37E NE SE NE	3307		39	16594			27301		1278
V LAUGHLIN	5	3002536675	9C 20S 37E N2 NE NW	4937		29290	10478		77943	2317		10375
BARBER ADKINS 8	2	3002536717	8L 20S 37E SW NW SW			10863			76654			29677
V LAUGHLIN	7	3002539587	9D 20S 37E NW NW NW			6172			10866			10858
TOTALS				1,446,044	45,321	523,046	12,400,329	147,387	6,898,837	2,301,309	130,528	1,058,759
AVERAGES				30,126	7,554	20,922	258,340	24,565	287,452	47,944	21,755	42,350

Proposed Allocations	Oil	Gas	Water
Tubb	51%	46%	43%
Drinkard	13%	4%	19%
Abo	36%	50%	38%
TOTAL	100%	100%	100%