

DATE IN 9/1/00	SUSPENSE 9/21/00	ENGINEER DC	LOGGED KV	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
- Engineering Bureau -

0024551360

**ADMINISTRATIVE APPLICATION COVERSHEET**

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

**Application Acronyms:**

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]  
[DD-Directional Drilling] [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 - Directional Drilling

NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] and [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

**[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] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding**

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Terry G. Lindeman

Print or Type Name

Signature

Operations Superintendent

Title

08/29/00

Date

# Mallon Oil Company

Denver/Colorado ♦ Durango/Colorado ♦ Carlsbad/New Mexico

*a Mallon Resources Subsidiary*

August 29, 2000

Mr. David Catanach  
OCD Engineering Division  
2040 S. Pacheco  
Santa Fe, New Mexico 87505

Dear Mr. Catanach

Enclosed is Mallon Oil Company's application for approval to down hole commingle the San Jose, Nacimiento, Ojo Alamo and Pictured Cliffs formations in the Jicarilla 462-26 No. 10 wellbore.

If any additional information is required please contact me at 970-382-9100.  
Thank you for your assistance in this matter.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Terry Lindeman', with a long horizontal flourish extending to the right.

Terry Lindeman  
Operations Superintendent

TGL/gd

Enclosures

District I  
1625 N. French Drive, Hobbs, NM 88240  
District II  
811 South First Street, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised May 15, 2000

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, New Mexico 87505

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

APPLICATION FOR DOWNHOLE COMMINGLING

Mallon Oil Company P. O. Box 2797 Durango, CO 81302

Operator

Jicarilla 462-26 10 Address L 26 30N 03W Rio Arriba

Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 013925 Property Code 00023823 API No. 30-039-26060 Lease Type: X Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Cabresto Canyon; Tertiary		East Blanco; Pictured Cliffs
Pool Code	97037		72400
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	1243'-3198		3657'-3679'
Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
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)	1100 psi		1250 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	Each zone will be isolated and	Tested for gas analysis and rate	For allocation percentages
Producing, Shut-In or New Zone	Intent	Intent	Intent
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: Rates:
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 % %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes X 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 X No

Will commingling decrease the value of production? Yes No X

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 X No

NMOCD Reference Case No. applicable to this well: N/A

- 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 TITLE Operations Superintendent DATE 08/29/00

TYPE OR PRINT NAME Terry G. Lindeman TELEPHONE NO. ( 970 ) 382-9100

# Mallon Oil Company

Denver/Colorado ♦ Durango/Colorado ♦ Carlsbad/New Mexico

*a Mallon Resources Subsidiary*

August 29, 2000

Mr. David Catanach  
OCD Engineering Division  
2040 S. Pacheco  
Santa Fe, New Mexico 87505

Dear Mr. Catanach

The following information is intended to be supplemental to Mallon Oil Company's application for approval to down hole commingle the San Jose, Nacimiento, Ojo Alamo and Pictured Cliffs formations in the Jicarilla 462-26 No. 10 well bore.

In regards to the recent changes of Rule 303.C, the commingling of the Nacimiento, Ojo Alamo, and the Pictured Cliffs meet the criteria of section C. The San Jose should also qualify based on the high fracture pressure that has been noted field wide.

The field average bottom hole pressures are:

1. San Jose Formation – **Average Bottom hole Pressure @ 5600' sea level elevation is 305 psia** and the average BTU content of the gas is 1065.
2. Nacimiento Formation – **Average Bottom hole Pressure @ 4600 sea level elevation is 640 psia** and the average BTU content of the gas is 1063.
3. Ojo Alamo Formation – **Average Bottom hole Pressure @ 3900 sea level elevation is 1100 psia** and the average BTU content of the gas is 1098.
4. Pictured Cliffs Formation – **Average Bottom hole Pressure @ 3500 sea level elevation is 1250 psia** and the average BTU content of the gas is 1136.

Based on data obtained from the acid breakdowns performed on the zones in question, in the well bore of the Jicarilla 462-26 No. 10, the following information will show the fracture pressures to be adequate for safely commingling all four zones.

The **Pictured Cliffs Formation** was perforated at 3657' – 3679' with the mid-perf being 3667'. Following the 2% KCl water breakdown the **fracturing pressure at mid-perf calculated to be 2199psi. (0.60 psi / ft).**

The **Ojo Alamo Formation** was perforated at 3178' – 3184', 3197' – 3203', 3208' – 3218', with the mid-perf being 3198'. Following the fracture treatment the **fracturing pressure at mid-perf calculated to be 2257 psi. (0.70 psi / ft).**

The **Nacimiento Formation** was perforated at 2936' – 2942' with the mid-perf being 2939'. Following the acid breakdown the **fracturing pressure at mid-perf calculated to be 1393 psi. (0.47 psi / ft).**

The **San Jose Formation** was perforated at 1243' – 1263', 1273' – 1287', 1720' – 1726', with the mid-perf being 1484'. Following the fracture treatment the **fracturing pressure at mid-perf calculated to be 1453 psi. (0.98 psi / ft).**

Flow tests on each zone were conducted for a period of time as to allow for stabilization. These results are:

<b>Pictured Cliffs Formation:</b>	<b>705 mcf, 72 BWP</b>
<b>Ojo Alamo Formation:</b>	<b>500 mcf, 72 BWP</b>
<b>Nacimiento Formation:</b>	<b>305 mcf, 72 BWP</b>
<b>San Jose Formation;</b>	<b>421 mcf, 0 BWP</b>

705 - 36.5  
1226 63.5

**Total** **1,931 mcf, 216 BWP**

The allocation method that was agreed upon between Mallon Oil Company and the Jicarilla Apache Tribe is to use a percentage based on the initial test.

<b>Pictured Cliffs Formation:</b>	<b>705 / 1931 = .3651 ( 36.51% )</b>
<b>Ojo Alamo Formation:</b>	<b>500 / 1931 = .2589 ( 25.89% )</b>
<b>Nacimiento Formation:</b>	<b>305 / 1931 = .1579 ( 15.79% )</b>
<b>San Jose Formation;</b>	<b>421 / 1931 = .2180 ( 21.80% )</b>

I hope this information will help expedite the administrative approval for the commingling of the above referenced well. If you should require any additional information concerning this matter please contact me at (907) 382-9100. I appreciate the help and attention you have shown on this matter.

Sincerely,

  
Terry Lindeman

Operations Superintendent

Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

**OIL CONSERVATION DIVISION**

**P.O. Box 2088**

**Santa Fe, NM 87504-2088**

DISTRICT IV  
PO Box 2080, Santa Fe, NM 87504-2080

☐ AMENDED REPORT

*API Number 30-039-26060		*Pool Code 97037	*Pool Name Cabresto Canyon; Tertiary	
*Property Code 00023823	*Property Name JICARILLA 462 26			*Well Number 10
*OGRM No. 013925	*Operator Name MALLON OIL COMPANY			*Elevation 7236'

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	26	30-N	3-W		1454	SOUTH	1136	WEST	RIO ARriba

Bl. or lot no.	Section	Township	Range	Lot Idx	Feet from the	North/South line	Feet from the	East/West line	County
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160			
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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 CALC'D. CORNER</p>				<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><u>[Signature]</u> Signature</p> <p><u>T. G. Lindeman</u> Printed Name</p> <p><u>Operations Superintendent</u> Title</p> <p><u>September 4, 1998</u> Date</p>
<p>5270.0'</p> <p>N 00-19-32 W</p> <p>1138'</p> <p>1317.5'</p> <p>145'</p> <p>1301.0'</p> <p>FD. MARKED STONE</p>	<p>26</p> <p>N 80-41-10 E</p> <p>5202.5'</p>		<p>FD. MARKED STONE</p>	<p>18 SURVEYOR CERTIFICATION</p> <p>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><u>      </u> Date of Survey</p> <p><u>      </u> Signature and Seal of Professional Surveyor</p> <p><u>8894</u> Certificate Number</p>

DISTRICT II  
P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III  
1000 Rio Blanco Rd., Aztec, N.M. 87410

DISTRICT IV  
P.O. Box 2088, Santa Fe, NM 87504-2088

# OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, NM 87504-2088

Revised February 21, 1994  
Instructions on back  
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 30-039-26060	<sup>2</sup> Pool Code 72400	<sup>3</sup> Pool Name East Blanco; Pictured Cliffs
<sup>4</sup> Property Code 00023823	<sup>5</sup> Property Name JICARILLA 462 26	<sup>6</sup> Well Number 10
<sup>7</sup> OGRD No. 013925	<sup>8</sup> Operator Name MALLON OIL COMPANY	<sup>9</sup> Elevation 7236'

### <sup>10</sup> Surface Location

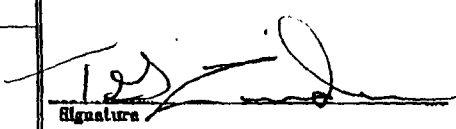
Tr. or lot no. L	Section 26	Township 30-N	Range 3-W	Lot Idn	Feet from the 1454	North/South line SOUTH	Feet from the 1136	East/West line WEST	County RIO ARKIBIA
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### <sup>11</sup> Bottom Hole Location If Different From Surface

Tr. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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<sup>12</sup> Dedicated Acres 160	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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OR A NON STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<sup>16</sup> CALC'D. CORNER				<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature  R. G. Lindeman Printed Name Operations Superintendent Title September 4, 1998 Date
570.0'				<sup>18</sup> SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  Date of Survey Signature and Seal of Professional Surveyor  8894 Certificate Number
N 69-19-32 W				
1136'				
1317.5'				
1454'				
1301.0'				
FD. MARKED STONE	N 69-41-10 E	6202.6'		FD. MARKED STONE

**The following document(s) have been intentionally omitted from this file due to the indicated reasons.**

### **DESCRIPTION OF OMITTED DOCUMENTS**

REASON OMITTED

Spectral Density Dual Spaced Neutron Log  
Too Large