

DATE IN 8/17/00	SUSPENSE 9/6/00	ENGINEER DC	LOGGED WV	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

23531177

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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

AUG 17 2000

[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

Terry G. Lindeman

Signature

Operations Superintendent

Title

8/14/00

Date

Mallon Oil Company

a Mallon Resources Subsidiary

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

August 14, 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 and Pictured Cliffs formations in the Jicarilla 30-03-35 No. 3 wellbore.

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

Sincerely,



Terry Lindeman
Operations Superintendent

TGL/gd

Enclosures

Cc: Brian Davis / Bureau of Land Management
Dorothy Jacquez / Oil Conservation Division – Aztec
Thurman Velarde / Jicarilla Oil and Gas
Don Erickson / Mallon Resources
File

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 FOR DOWNHOLE COMMINGLING

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

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

Operator
Jicarilla 30-03-35 3 Address B 35 30N 03W Rio Arriba

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

OGRID No. 013925 Property Code 00024235 API No. 30-039-26114 Lease Type: X Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Cabresto Canyon; San Jose Ext.	Cabresto Canyon; Nacimiento Ext.	East Blanco; Pictured Cliffs Ext.
Pool Code	96822	96821	72400
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	1330'-1836' San Jose	2433'-2490' Nacimiento	3738'-3802' Pictured Cliffs
Method of Production (Flowing or Artificial Lift)	Flowing	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)	305 psia	640 psia	1250 psia
Oil Gravity or Gas BTU (Degree API or Gas BTU)			
Producing, Shut-In or 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: 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 Terry G. Lindeman TITLE Operations Superintendent DATE 08/14/00
TYPE OR PRINT NAME Terry G. Lindeman TELEPHONE NO. (970) 382-9100

Mallon Oil Company

a Mallon Resources Subsidiary

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

August 14, 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, and Pictured Cliffs formations in the Jicarilla 30-03-35 No. 3 wellbore.

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. 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 wellbore of the Jicarilla 30-03-35 No. 3, the following information will show the fracture pressures to be adequate for safely commingling all three zones.

The **Pictured Cliffs Formation** was perforated from 3738' to 3802' with a total of 36' of perforations. Following the acid breakdown the **fracturing pressure at mid-perf calculated to be 2058psi. (0.55 psi / ft).**

The **Nacimiento Formation** was perforated at 2433' – 2437', 2526' – 2531', 2538' – 2540', 2545' – 2547' with the mid-perf being 2490'. Following the acid breakdown the **fracturing pressure at mid-perf calculated to be 1795 psi. (0.72 psi / ft).**

The **San Jose Formation** was perforated at 1330' – 1352', 1359' – 1368', 1642' – 1650', 1670' – 1678', 1798' – 1806', 1828' – 1836', Mid-pef: 1583', Following the acid breakdown the **lowest fracturing pressure was found at the perforations 1798' – 1836' at mid-perf calculated to be 1391 psi. (0.76 psi / ft).**

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

Pictured Cliffs Formation:	626 mcf, 72 BWPD
Nacimiento Formation:	469 mcf, 84 BWPD
San Jose Formation;	560 mcf, 12 BWPD

626 - 37.8
1029 - 62.2

Total **1,655 mcf, 168 BWPD**

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.

Pictured Cliffs Formation:	626 / 1655 = .3782 (37.82%)
Nacimiento Formation:	469 / 1655 = .2834 (28.34%)
San Jose Formation;	560 / 1655 = .3384 (33.84%)

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

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

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

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION

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

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State Lease - 4 Copies
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-26114		*Pool Code 96821	*Pool Name Cabresto Canyon; Nacimiento Ext.
*Property Code 00024235	*Property Name JICARILLA 30-3-35		*Well Number 3
*OGRID No. 013925	*Operator Name MALLON OIL COMPANY		*Elevation 7325'

10 Surface Location

UL or lot no. B	Section 35	Township 30-N	Range 3-W	Lot Idn	Feet from the 469'	North/South line NORTH	Feet from the 2159'	East/West line EAST	County RIO ARRIBA
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11 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
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*Dedicated Acres 160	*Joint or Infill	*Consolidation Code	*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

FD. MARKED
STONE

N 89-41-10 E 5202.50'

FD. MARKED STONE

16	2801'	469'	2159'	1316'	5264.00'	N 00-06-29 W	17 OPERATOR CERTIFICATION
							I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief
							Signature Terrance G. Lindeman Printed Name Operations Superintendent Title December 21, 1998 Date
35	5264.00'	N 00-06-29 W	18 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 11-16 Signature and Seal of Professional Surveyor 8894 Certificate Number
CALC. COR. 128' U.S.G.L.O. 1917							

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

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

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PO Box 2088, Santa Fe, NM 87504-2088

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-26114		Pool Code 72400		Pool Name East Blanco; Pictured Cliffs	
Property Code 00024235		Property Name JICARILLA 30-3-35			Well Number 3
OGRID No. 013925		Operator Name MALLON OIL COMPANY			Elevation 7325'

10 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	35	30-N	3-W		469'	NORTH	2159'	EAST	RIO ARRIBA

11 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 160	Joint or Infill	Consolidation Code	Order No.
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FD. MARKED
STONE

N 89-41-10 E 5202.50'

FD. MARKED STONE

16	35	1316'	5254.00'	N 00-06-29 W	469'	2601'	2159'	17 OPERATOR CERTIFICATION	
								I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief	
								Signature <u>Terrance G. Lindeman</u> Printed Name Terrance G. Lindeman Title Operations Superintendent Date December 21, 1998	
								18 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 knowledge and belief								Date of Survey 11-16-98 Signature <u>Roy A. Rush</u> Seal of Professional Surveyor 8894 Certificate Number 8894	

CALC. COR.
128'
U.S.G.L.O. 1917

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-26114		*Pool Code 96822	*Pool Name Cabresto Canyon; San Jose Ext.
*Property Code 00024235	*Property Name JICARILLA 30-3-35		*Well Number 3
*GRID No. 013925	*Operator Name MALLON OIL COMPANY		*Elevation 7325'

¹⁰ 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	35	30-N	3-W		469'	NORTH	2159'	EAST	RIO ARRIBA

¹¹ 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

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

FD. MARKED
STONE

N 89-41-10 E 5202.50'

FD. MARKED STONE

16	35	N 89-41-10 E 5202.50'	469'	2601'	2159'	1316'	15284.00'	N 00-06-29 W	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature Terrance G. Lindeman Printed Name Operations Superintendent Title December 21, 1998 Date
									¹⁸ 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. 11-16 Date of Survey Signature and Seal of Professional Surveyor ROY A. RUSH NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR 8894 Certificate Number

CALC. COR.
128'
U.S.G.L.O. 1917