

01-27-30-3 - J.C 30-3-27 #2

DATE IN	SUSPENSE	ENGINEER	LOGGED	TYPE
---------	----------	----------	--------	------

ABOVE THIS LINE FOR DIVISION USE ONLY

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



[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		Operations Superintendent	6/29/00
Print or Type Name	Signature	Title	Date

Mallon Oil Company

a Mallon Resources Subsidiary

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

June 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 30-03-27 No. 2 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. 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 wellbore of the Jicarilla 30-03-27 No. 2, the following information will show the fracture pressures to be adequate for safely commingling all four zones.

The **Pictured Cliffs Formation** was perforated at 3566' – 3574', 3581' – 3588', 3597' – 3599', 3606' – 3614', 3627' – 3640'. Following the fracture treatment the **fracturing pressure at mid-perf** calculated to be **2345psi. (0.65 psi / ft).**

The **Ojo Alamo Formation** was perforated at 3058' – 3096', 3107' – 3109', 3123' – 3133' with the mid-perf being 3095'. Following the acid breakdown the **fracturing pressure at mid-perf** calculated to be **2311 psi. (0.75 psi / ft).**

The **Nacimiento Formation** was perforated at 2447' – 2489', 2830' – 2834', 2942' – 2948' with the mid-perf being 2697'. Following the acid breakdown the **fracturing pressure at mid-perf** calculated to be **1986 psi. (0.74 psi / ft).**

The **San Jose Formation** was perforated at 1458' – 1468', 1472' – 1488', 1514' – 1534', 1605' – 1614', 1620' – 1628', 1896' – 1908', Mid-perf: 1683', Following the fracture treatment the **fracturing pressure at mid-perf** calculated to be **1449 psi. (0.86 psi / ft).**

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

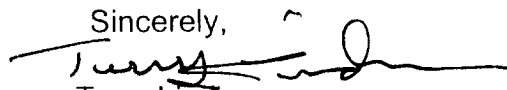
Pictured Cliffs Formation:	138 mcf, 7 BWPD
Ojo Alamo Formation:	358 mcf, 48 BWPD
Nacimiento Formation:	610 mcf, 48 BWPD
San Jose Formation;	570 mcf, 15 BWPD

Total	1,676 mcf, 118 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:	138 / 1676 = .0823 (08.23%)
Ojo Alamo Formation:	358 / 1676 = .2136 (21.36%)
Nacimiento Formation:	610 / 1676 = .3640 (36.40%)
San Jose Formation;	570 / 1676 = .3401 (34.01%)

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