

DATE IN 9/28/06	SUSPENSE	ENGINEER W. Jones	LOGGED IN 10/3/06	TYPE DHC 3809	APP NO. PTDS0627647177
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ABOVE THIS LINE FOR DIVISION USE ONLY

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



## ADMINISTRATIVE APPLICATION CHECKLIST

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]

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

Print or Type Name	Signature	Title	Date
		e-mail Address	

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  
1220 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

MARBOB ENERGY CORPORATION  
Operator

P O BOX 227  
Address

ARTESIA, NM 88211-0027

AAO FEDERAL #10

K-1-T18S-R27E

EDDY COUNTY, NEW MEXICO

Lease

Well No.

Unit Letter-Section-Township-Range

County

OGRID No. 14049 Property Code 29793 API No. 30-015-34576 Lease Type:  Federal  State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	UNDES RED LAKE Q-GB-SA		RED LAKE GLORIETA YESO NE
Pool Code	51300		96836
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2246-2623' PERFORATED		3583-3770' PERFORATED
Method of Production (Flowing or 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)	EST. 50 PSI PRODUCING BHP		EST. 100 PSI PRODUCING BHP
Oil Gravity or Gas BTU (Degree API or Gas BTU)	38.5°		41.8°
Producing, Shut-In or 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: N/A 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 71 % Gas 68 %	Oil % Gas %	Oil 29 % Gas 32 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones?  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail?

Yes  No   
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: R-11363 PRE-APPROVED POOL

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 Brian Collins TITLE ENGINEER DATE 09/22/06

TYPE OR PRINT NAME BRIAN COLLINS TELEPHONE NO. ( 505 ) 748-3303

E-MAIL ADDRESS engineering@marbob.com

**Engineering Summary**  
**Form C-107A**  
**Application for Downhole Commingling**

**Marbob Energy Corporation**  
**AAO Federal No. 10 (Unit K, Sec. 1-T18S-R27E)**

Marbob Energy proposes to downhole commingle the San Andres (Red Lake Q-GB-SA 51300) and the Yeso (Red Lake Glorieta Yeso, NE 96836) in the captioned well. This proposal is identical to the downhole comminglings that Devon Energy has done offsetting the captioned wells (Orders R-11363, DHC-2390, DHC-2685, DHC-2701).

No crossflow will occur because this well will be rod pumped in a pumped down condition. The MJ State No. 1, when completed in the Yeso, will be used as a "typical" Yeso well. The MJ State No. 2, when completed in the San Andres, will be used as a "typical" San Andres well. The proposed zonal allocation is described below.

Yeso: Production declines exponentially at 84%/yr. for one year, followed by 35%/yr. for oil and 32%/yr. for gas. (Best engineering estimate using the production history of nearby Devon wells.)

Qi	= 90 bopd	d=84%/yr.
Q1yr	= 14 bopd	d=35%/yr.
Qel	= 1.5 bopd	assumed

$$EUR = \frac{-365 (90-14)}{\ln (1-.84)} + \frac{-365 (14-1.5)}{\ln(1-.35)} = 25.7 \text{ MBO}$$

Qi	= 140 mcf/d	d=84%/yr.
Q1yr	= 22 mcf/d	d=32%/yr.
Qel	= 5 mcf/d	assumed

$$EUR = \frac{-365 (140-22)}{\ln (1-.84)} + \frac{-365 (22-5)}{\ln (1-.32)} = 39.6 \text{ MMCF}$$

San Andres: Production declines exponentially at 80%/yr. for one year, followed by 24%/yr. for oil and 20%/yr. for gas. (Best engineering estimate using the production history of nearby Devon wells.)

$Q_i = 145 \text{ bopd}$        $d=80\%/yr.$   
 $Q_{1yr} = 29 \text{ bopd}$        $d=24\%/yr.$   
 $Q_{el} = 1.5 \text{ bopd}$       assumed

$$EUR = \frac{-365 (145-29)}{\ln (1-.80)} + \frac{-365 (29-1.5)}{\ln (1-.24)} = 62.9 \text{ MBO}$$

$Q_i = 180 \text{ mcf/d}$        $d=80\%/yr.$   
 $Q_{1yr} = 36 \text{ mcf/d}$        $d=20\%/yr.$   
 $Q_{el} = 5 \text{ mcf/d}$       assumed

$$EUR = \frac{-365 (180-36)}{\ln (1-.80)} + \frac{-365 (36-5)}{\ln (1-.20)} = 83.4 \text{ MMCF}$$

$$\text{Yeso Oil} = \frac{25.7 \text{ MBO}}{25.7 + 62.9} = .29 = 29\%$$

$$\text{San Andres Oil} = 1-.29 = .71 = 71\%$$

$$\text{Yeso Gas} = \frac{39.6 \text{ MMCF}}{39.6 + 83.4} = .32 = 32\%$$

$$\text{San Andres Gas} = 1-.32 = .68 = 68\%$$

NOV 10 2005

State of New Mexico

DISTRICT I

1225 N. FRANCES DR., BOHEDI, NM 88240

Energy, Minerals and Natural Resources Department

Form C-102

DISTRICT II

1301 V. GRAND AVENUE, ALBERCA, NM 88210

OIL CONSERVATION DIVISION

Revised JUNE 10, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT III

1000 Rio Brazos Ed., Artes, NM 87410

1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number		Pool Code	Pool Name
		96836	Red Lake; Glorieta Yeso, NORTHEAST
Property Code	Property Name		Well Number
29793	A A O FEDERAL		10
OCRID No.	Operator Name		Elevation
14049	MARBOB ENERGY CORPORATION		3607'

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	1	18-S	27-E		2060	SOUTH	2160	WEST	EDDY

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	Joint or Infill	Consolidation Code	Order No.
40			

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

LOT 4	LOT 3	LOT 2	LOT 1	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Nancy T. Bratcher</i> Signature</p> <p>Nancy T. Bratcher Printed Name</p> <p>Land Department Title</p> <p>11/28/2005 Date</p>

GEODETIC COORDINATES  
NAD 27 NME

Y=645537.9 N  
X=530801.4 E

LAT.=32°46'28.69" N  
LONG.=104°13'59.23" W

Submit 3 Copies To Appropriate District Office  
 District I  
 1625 N. French Dr., Hobbs, NM 88240  
 District II  
 1301 W. Grand Ave., Artesia, NM 88210  
 District III  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV  
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
 Energy, Minerals and Natural Resources

Form C-103  
 May 27, 2004

OIL CONSERVATION DIVISION  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

WELL API NO. 30-015-34576
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name AAO FEDERAL
8. Well Number 10
9. OGRID Number 14049
10. Pool name or Wildcat RED LAKE GLORIETA/YESO NE

**SUNDRY NOTICES AND REPORTS ON WELLS**  
 (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well  Gas Well  Other

2. Name of Operator  
MARBOB ENERGY CORPORATION

3. Address of Operator  
P O BOX 227  
ARTESIA, NM 88211-0227

4. Well Location  
 Unit Letter K : 2060 feet from the SOUTH line and 2160 feet from the WEST line  
 Section 1 Township 18S Range 27E NMPM EDDY County NM

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
3607' GR

Pit or Below-grade Tank Application  or Closure

Pit type \_\_\_\_\_ Depth to Groundwater \_\_\_\_\_ Distance from nearest fresh water well \_\_\_\_\_ Distance from nearest surface water \_\_\_\_\_

Pit Liner Thickness: \_\_\_\_\_ mil Below-Grade Tank: Volume \_\_\_\_\_ bbls; Construction Material \_\_\_\_\_

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

<b>NOTICE OF INTENTION TO:</b> PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/>		<b>SUBSEQUENT REPORT OF:</b> REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: DOWNHOLE COMMINGLING <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

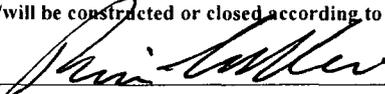
13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

SEE ATTACHED C-107A APPLICATION FOR DOWNHOLE COMMINGLING  
 DIVISION ORDER #R-11363 PRE-APPROVED POOLS

THE PROPOSED ALLOCATION IS: REDLAKE Q-GR-SA 51300 - OIL 71% - GAS 68%  
 REDLAKE GLORIETA/YESO NE 96836 - OIL 29% - GAS 32%

NEW ALLOCATIONS WILL BE SUBMITTED IF ACTUAL WELL PRODUCTION IS SIGNIFICANTLY DIFFERENT THAN THAT ABOVE.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines , a general permit  or an (attached) alternative OCD-approved plan .

SIGNATURE  TITLE ENGINEER DATE 09/22/06

Type or print name BRIAN COLLINS E-mail address: engineering@marbob.com Telephone No. 748-3303  
**For State Use Only**

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
 Conditions of Approval (if any): \_\_\_\_\_

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: March 31, 2007

**SUNDRY NOTICES AND REPORTS ON WELLS**

*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
NMNM557371

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
AAO FEDERAL #10

9. API Well No.  
30-015-34576

10. Field and Pool, or Exploratory Area  
RED LAKE GLORIETA/YESO NE

11. County or Parish, State  
EDDY COUNTY, NM

**SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

1. Type of Well  Oil Well  Gas Well  Other

2. Name of Operator **MARBOB ENERGY CORPORATION**

3a. Address **P O BOX 227, ARTESIA, NM 88211-0227** 3b. Phone No. (include area code) **505-748-3303**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**SEC. 1-T18S-R27E, UNIT K  
2060 FSL 2160 FWL, NE/4SW/4**

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <b>DOWNHOLE</b>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<b>COMMINGLE</b>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

**SEE ATTACHED C-107A APPLICATION FOR DOWNHOLE COMMINGLING  
DIVISION ORDER #R-11363 PRE-APPROVED POOLS**

**THE PROPOSED ALLOCATION IS: RED LAKE Q-GR-SA 51300 - OIL 71% - GAS 68%  
RED LAKE GLORIETA/YESO NE 96836 OIL - 29% - GAS 32%**

**NEW ALLOCATIONS WILL BE SUBMITTED IF ACTUAL WELL PRODUCTION IS SIGNIFICANTLY DIFFERENT THAN THAT ABOVE.**

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

**BRIAN COLLINS**

Title **ENGINEER**

Signature



Date

**09/22/2006**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)