

ABOVE THIS LINE FOR DIVISION USE ONLY

3677

**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 P O BOX 227 **DAC-3877** ARTESIA, NM 88211-0027  
Operator Address  
D STATE #28 0-25-T17S-R28E EDDY, NM  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. 14049 Property Code 25375 API No. 30-015-31939 Lease Type:  Federal  State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Artesia Qn-GB-SA		Artesia Glorieta/Yes
Pool Code	3230		96830
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2909-3138' Perforated		4028-4327' 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)	50 psi producing BHP		100 psi producing BHP
Oil Gravity or Gas BTU (Degree API or Gas BTU)	36°		39°
Producing, Shut-In or New Zone	New Zone		Producing
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: 03/14/06 Rates: 26 BOPD 6 MCFPD
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 29 % Gas 48 %	Oil % Gas %	Oil 71 % Gas 52 %

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: Administrative Order DHC-2906

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 03/22/06  
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**  
D State No. 21 (I-25-T17S-R28E)  
D State No. 22 (P-25-T17S-R28E)  
D State No. 28 (O-25-T17S-R28E)  
D State No. 29 (P-25-T17S-R28E)  
DAD State No. 41 (J-25-T17S-R28E)  
DAD State No. 42 (I-25-T17S-R28E)

As shown on the attached production plots, the estimated EUR for the Yeso is 42 MBO/56 MMCF and for the San Andres is 17 MBO/51 MMCF. The proposed zonal allocation is:

Oil: Yeso =  $\frac{42 \text{ MBO}}{42+17}$  = 71%

San Andres 1-.71 = 29%

Gas: Yeso =  $\frac{26 \text{ MMCF}}{56+51}$  = 52%

San Andres 1-.52 = 48%

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT I

P.O. Box 1880, Hobbs, NM 88241-1880

DISTRICT II

P.O. Drawer 88, Artesia, NM 88211-0718

DISTRICT III

1000 Rio Brazos Rd., Artec, NM 87410

DISTRICT IV

P.O. BOX 2088, SANTA FE, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number	Pool Code	Pool Name
	96830	ARTESIA GLORIETTA YESO
Property Code	Property Name	Well Number
25375	D STATE	28
OGRID No.	Operator Name	Elevation
14049	MARBOB ENERGY CORPORATION	3683'

Surface Location

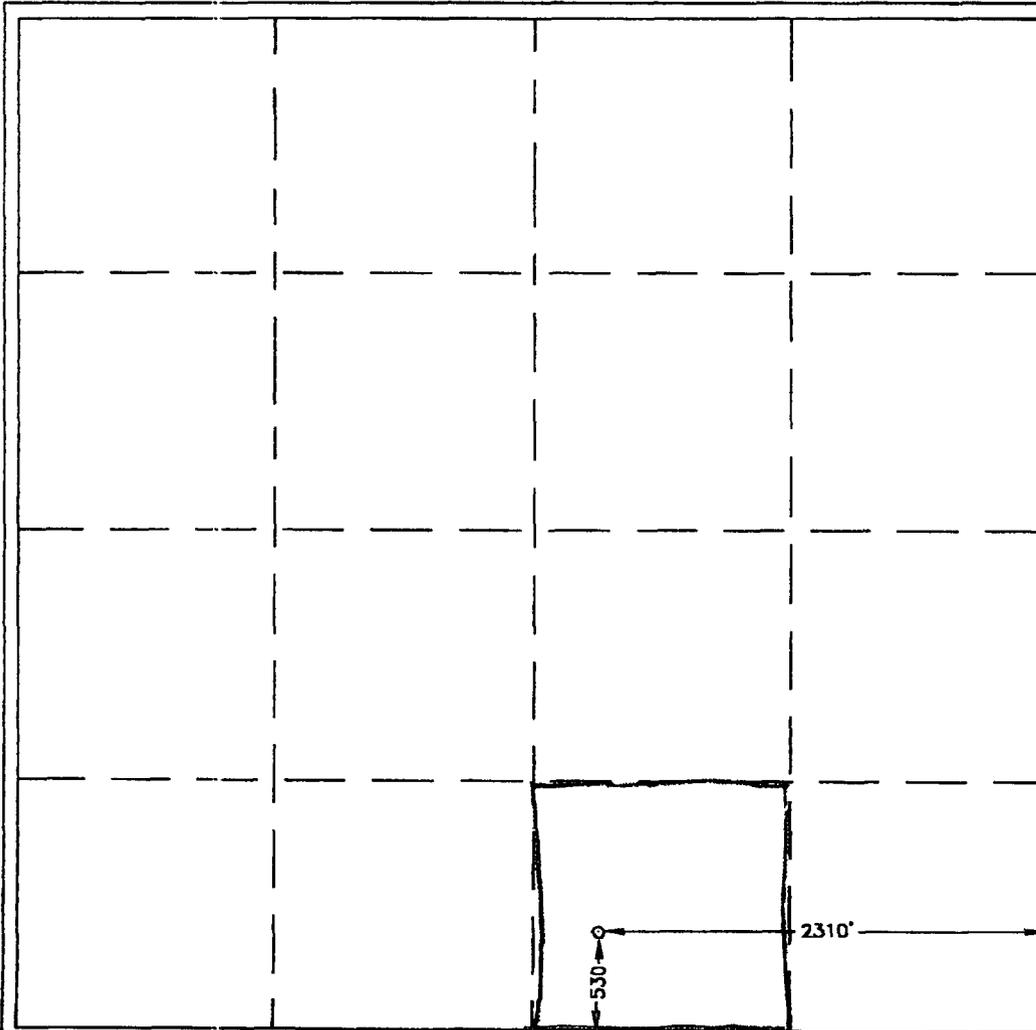
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	25	17-S	28-E		530	SOUTH	2310	EAST	EDDY

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



**OPERATOR CERTIFICATION**

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

*Diana J. Cannon*  
Signature

DIANA J. CANNON  
Printed Name

PRODUCTION ANALYST  
Title

AUGUST 7, 2001  
Date

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**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.

JULY 11, 2001  
Date Surveyed

AWB  
Signature & Seal of Professional Surveyor

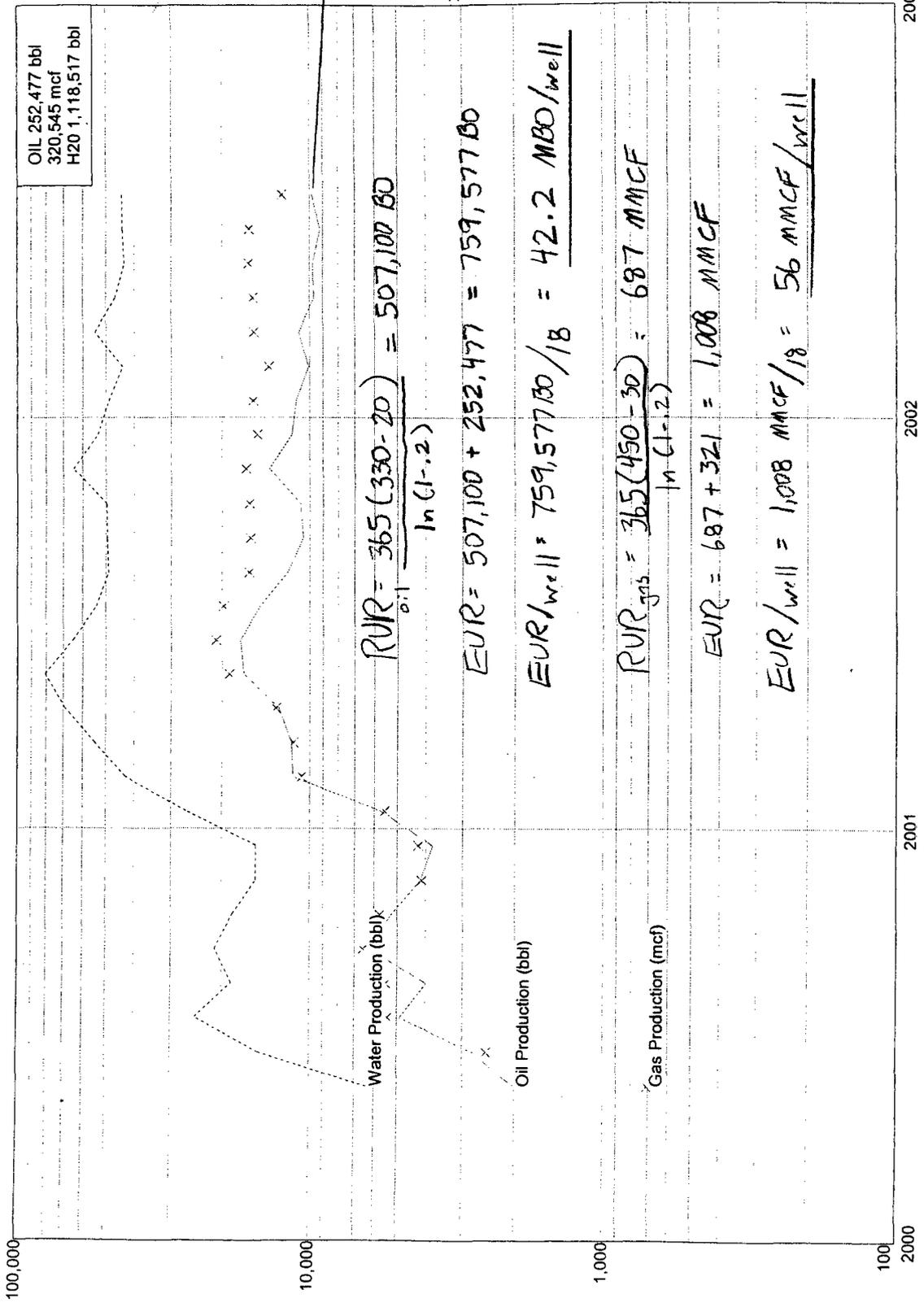
*Ronald J. Edson* 7/16/01  
01.11.0820

Certificate No. RONALD J. EDSON 3239  
GARY EDSON 12641

18 wells Yeso Production

Lease Name: D STATE  
 County, State: EDDY, Unknown  
 Operator: MARBOB ENERGY CORPORATION  
 Field: ARTESIA  
 Reservoir: MULTIPLE  
 Location:

D STATE - [ MULTIPLE



OIL 252,477 bbl  
 320,545 mcf  
 H2O 1,118,517 bbl

$d_0 = 20\% / yr$

$$RVR_{oil} = \frac{365(330-20)}{\ln(1-.2)} = 507,100 \text{ BO}$$

$$EUR = 507,100 + 252,477 = 759,577 \text{ BO}$$

$$EUR_{well} = 759,577 \text{ BO} / 18 = 42.2 \text{ MBO/well}$$

$$RVR_{gas} = \frac{365(450-30)}{\ln(1-.2)} = 687 \text{ MMCF}$$

$$EUR = 687 + 321 = 1,008 \text{ MMCF}$$

$$EUR_{well} = 1,008 \text{ MMCF} / 18 = 56 \text{ MMCF/well}$$

- Oil Production (bbl)  
 x Gas Production (mcf)  
 -- Water Production (bbl)

Production Rates

Time

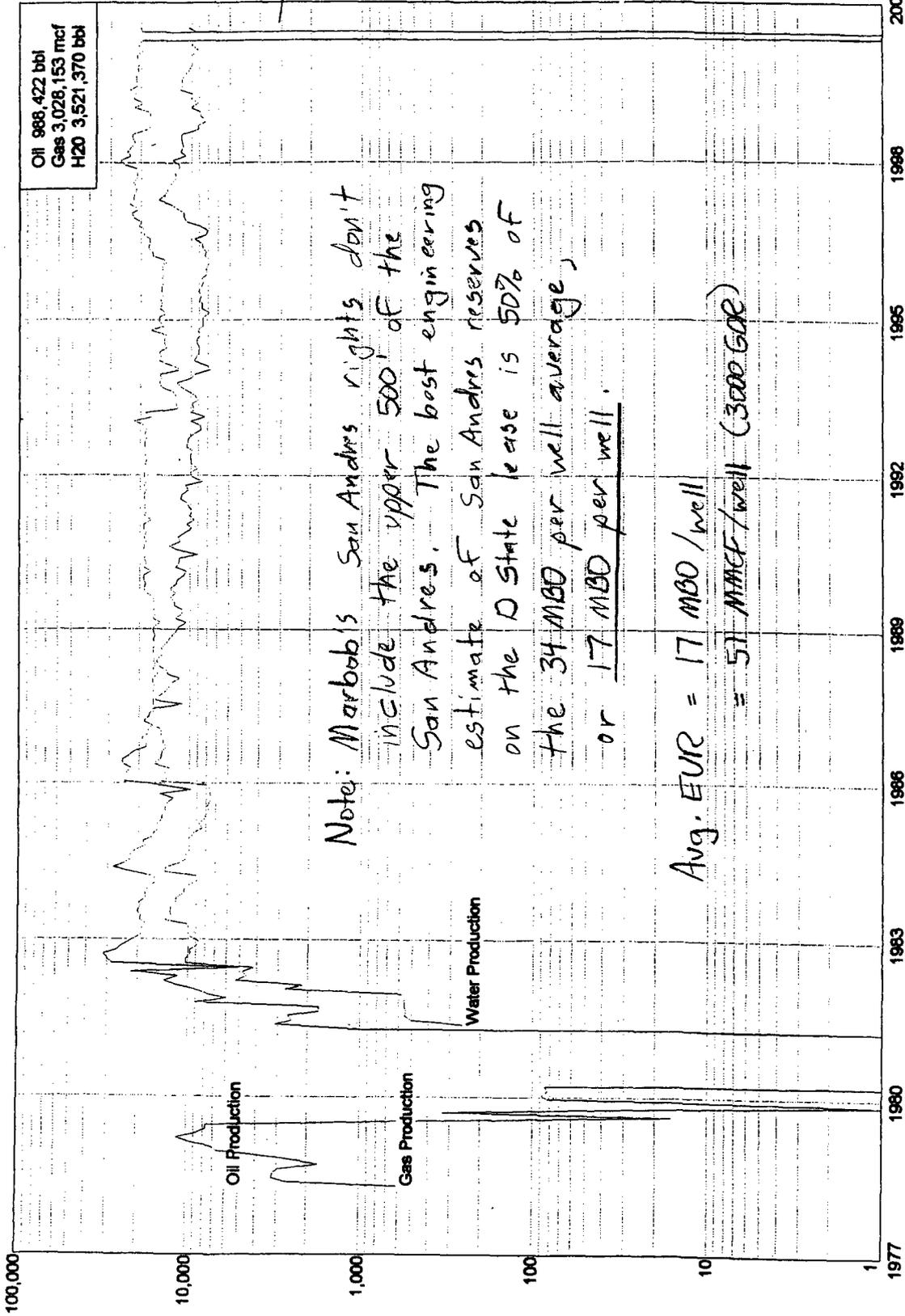
100,000  
10,000  
1,000  
100  
2000 2001 2002 2003

Sec. 26, 27, 34 - 17s-28e  
Eddy, NM

Lease Name: MULTIPLE  
County, State: EDDY, Unknown  
Operator: MARBOB ENERGY CORPORATION  
Field: MULTIPLE  
Reservoir: QUEEN-GRAYBURG-SAN A  
Location:

Avg. EUR per well = 33.9 MBO  
San Andres  
Avg. GOR = 3000 (Avg 101.7 MMCF/w)

MULTIPLE - MULTIPLE



$d_{exp} = 13\%/yr.$

Note: Marbob's San Andres rights don't include the upper 500' of the San Andres. The best engineering estimate of San Andres reserves on the D State lease is 50% of the 34 MBO per well average, or 17 MBO per well.

Avg. EUR = 17 MBO / well  
= 51 MMCF / well (3000 GOR)

Oil Production  
Gas Production  
Water Production

$$RUR = \frac{-365(Q_1 - Q_2)}{\ln(1-d)}$$

$Q_1 = 110 \text{ bopd}$   
 $Q_2 = 60 \text{ bopd (33\% d)}$   
 $d = 13\%/yr$

$$RUR = \frac{-365(110 - 60)}{\ln(1 - .13)} = 131,048 \text{ bo}$$

$$EUR = \frac{988,422}{131,048} = 7.54$$

$$EUR/well = \frac{1,119,470 \text{ bo}}{33} = 33,923 \text{ bo}$$

Production Rates

Time

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

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 <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		WELL API NO. 30-015-31939
2. Name of Operator MARBOB ENERGY CORPORATION		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
3. Address of Operator P O BOX 228 ARTESIA, NM 88211-0228		6. State Oil & Gas Lease No.
4. Well Location Unit Letter <u>0</u> : <u>530</u> feet from the <u>SOUTH</u> line and <u>2310</u> feet from the <u>EAST</u> line Section <u>25</u> Township <u>17S</u> Range <u>28E</u> NMPM EDDY County NM		7. Lease Name or Unit Agreement Name D STATE
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3683' GR		8. Well Number 28
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/> 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 _____		9. OGRID Number 14049
10. Pool name or Wildcat ARTESIA GLORIETA/YESO		10. Pool name or Wildcat ARTESIA GLORIETA/YESO

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

NOTICE OF INTENTION TO: 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"/> OTHER: DOWNHOLE COMMINGLING <input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF: 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: <input type="checkbox"/>
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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  
 ADMINISTRATIVE ORDER DHC-2906

THE PROPOSED ALLOCATION IS: ARTESIA QN-GB-SA - OIL 29% - GAS 48%  
 ARTESIA GLORIETA/YESO - OIL 71% - GAS 52%

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 Brian Collins TITLE ENGINEER DATE 03/22/06

Type or print name BRIAN COLLINS E-mail address: engineering@marbob.com Telephone No. 505-748-3303  
**For State Use Only**

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