

DATE IN 12-30-08	SUSPENSE	ENGINEER W. Jones	LOGGED IN 12-30-08	TYPE DHC 4139	APPROVAL DKAA0836542211
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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



30-015-26187  
10-10  
Eddy #8  
Marbob  
14049

## 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.

BRIAN COLLINS  
Print or Type Name

Signature

PETROLEUM ENGINEER  
Title

12/19/08  
Date

bcollins@marbob.com  
e-mail Address

District I  
1623 N. French Drive, Hobbs, NM 88240

District II  
1301 W. Grand Avenue, Artesia, NM 88210

District III  
1090 Rio Brazos Road, Aztec, NM 87410

District IV  
1229 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised May 15, 2000

**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 ARTESIA, NM 88210  
Operator Address

*DHE 4139*

FOSTER EDDY 8 C-17-T17S-R31E EDDY  
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 14049 Property Code 6514 API No. 30-015-26187 Lease Type:  Federal  State  
Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Grayburg Jackson 7R-Q-GB-SA		Cedar Lake Yeso
Pool Code	28509		96831
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2888-3813' Perf		4720-5171' Perf 5477-5999' beneath CIBP
Method of Production (Flowing or Artificial Lift)	A/L		A/L
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)	~100 psi producing BHP well is pumped off		~100 psi producing BHP well is pumped off
Oil Gravity or Gas BTU (Degree API or Gas BTU)	35.1° API		37.9° API
Producing, Shut-In or New Zone	Producing		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: see engineering summary Rates:	Date: Rates:	Date: see engineering summary 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 27 %    5 %	Oil      Gas %        %	Oil      Gas 73 %    95 %

**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: 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 *Brian Collins* TITLE PETROLEUM ENGINEER DATE 12/19/08

TYPE OR PRINT NAME BRIAN COLLINS TELEPHONE NO. (575) 748-3303



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

Marbob Energy Corporation  
 Foster Eddy 6 (C-17-17S-31E)  
 Foster Eddy 7 (B-17-17S-31E)  
 Foster Eddy 8 (C-17-17S-31E)  
 Foster Eddy 9 (J-17-17S-31E)  
 Foster Eddy 10 (F-17-17S-31E)  
 Foster Eddy 11 (J-17-17S-31E)

Marbob Energy proposes the following zonal allocation between the Grayburg San Andres (Grayburg Jackson 7R-Q-GB-SA 28509) and the Yeso (Cedar Lake Yeso 96831) in the captioned wells. We propose to use the same zonal allocation for each well for simplicity, since the Grayburg San Andres and Yeso were commingled on the initial completion without separate zonal testing. No zonal crossflow has occurred because these wells have been rod pumped in a pumped down condition.

To determine the zonal allocation, we calculated the estimated ultimate recoveries (EUR) for the nearby Grayburg San Andres wells and our nearby Yeso wells and used the EUR ratios to calculate the percentage allocations for oil and gas.

Grayburg San Andres: (Production plots with calculations attached)

Relative Location	No. Wells	EUR Oil	EUR Gas
East, West, South Offsets	16	919 MBO	484 MMCF
North Offsets	7	339 MBO	205 MMCF
Total	23	1258 MBO	689 MMCF

EUR/well = 55 MBO / 30 MMCF

Yeso: (Production plots with calculations attached)

Lease	Relative Location	No. Wells	EUR Oil	EUR Gas
Tony Federal	East, Southeast	29	4428 MBO	15558 MMCF
Lee Federal	South	29	4500 MBO	19482 MMCF
Coffee Federal	East	9	1267 MBO	3151 MMCF
Total		67	10195 MBO	38191 MMCF

EUR/well = 152 MBO / 570 MMCF

Zonal Allocation:

Grayburg San Andres Oil :  $\frac{55 \text{ MBO}}{55 + 152 \text{ MBO}}$  = .266 say 27%

Yeso Oil : 100 - 27 = 73%

Grayburg San Andres Gas :  $\frac{30 \text{ MMCF}}{30 + 570 \text{ MMCF}}$  = .05 say 5%

Yeso Gas : 100 - 5 = 95%

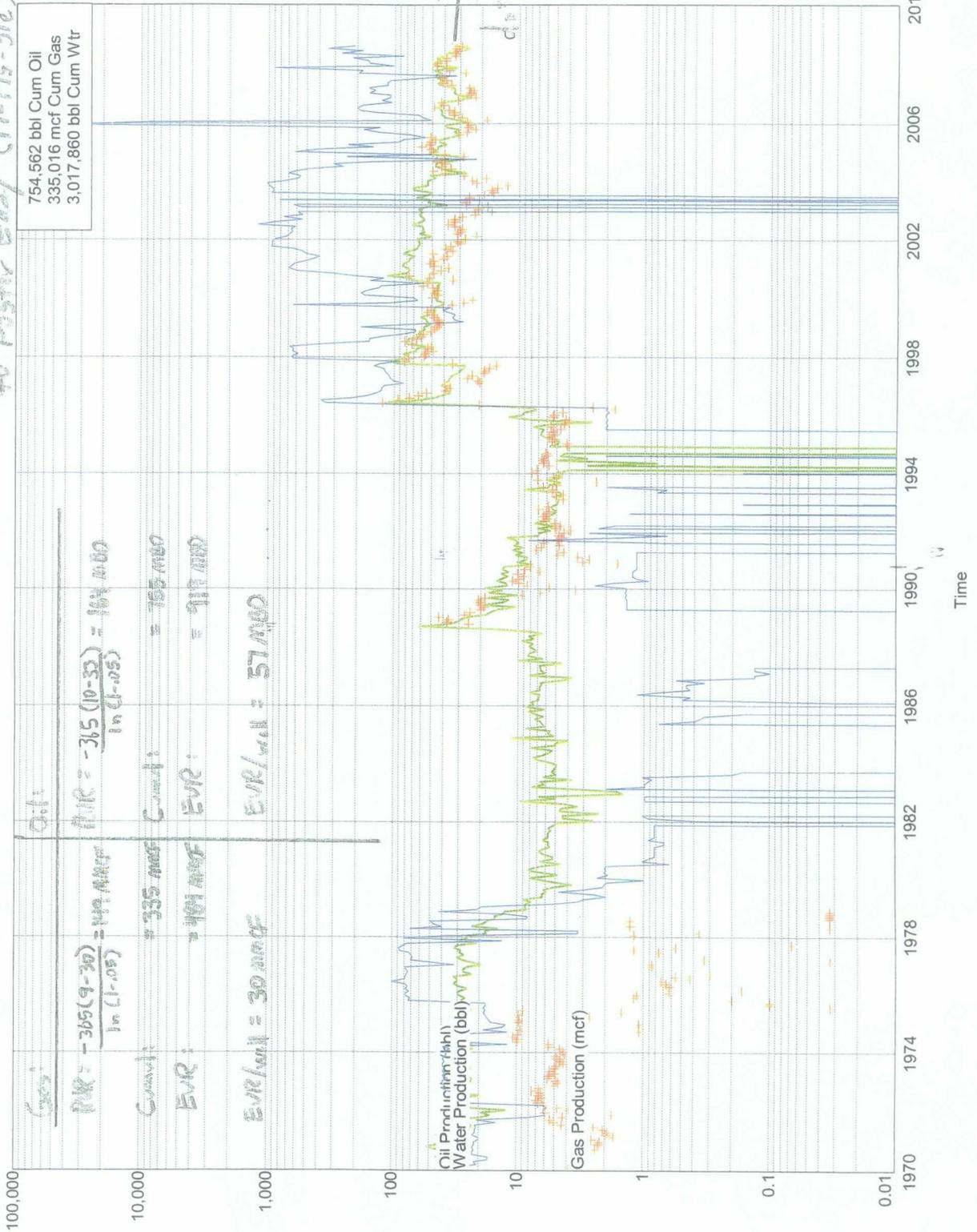
Lease Name: MULTIPLE  
 County, State: EDDY, NM  
 Operator: MULTIPLE  
 Field: MULTIPLE  
 Reservoir: SEVEN RIVERS QUEEN-G  
 Location:

16 Wells

Grayburg San Andres  
 (Sec. 17-17s-31e)

Direct Grayburg San Andres Offsets  
 to Foster Eddy (17-17s-31e)

MULTIPLE



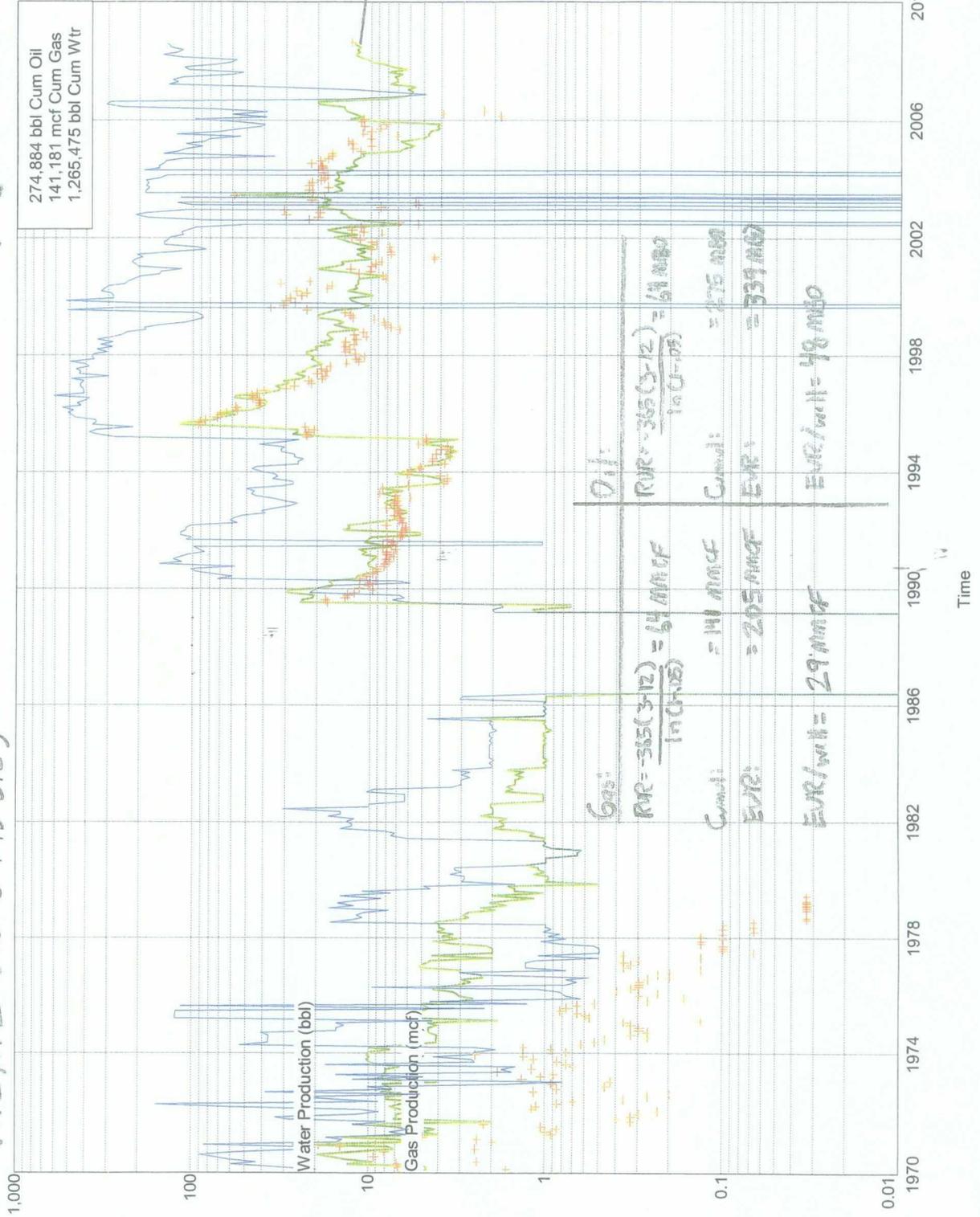
Lease Name: J L KEEL B  
 County, State: EDDY, NM  
 Operator: MERIT ENERGY COMPANY  
 Field: GRAYBURG JACKSON  
 Reservoir: SEVEN RIVERS QUEEN-G  
 Location:

7 Wells

Grayburg San Andres  
 (S1/2, S1/2 Sec. 8-17s-31e)

North Offset Wells to Foster Eddy  
 from Grayburg San Andres

J L KEEL B



Lease Name: TONY FEDERAL  
 County, State: EDDY, NM  
 Operator: MARBOB ENERGY CORPORATION  
 Field: MULTIPLE  
 Reservoir: MULTIPLE  
 Location:

29 Wells

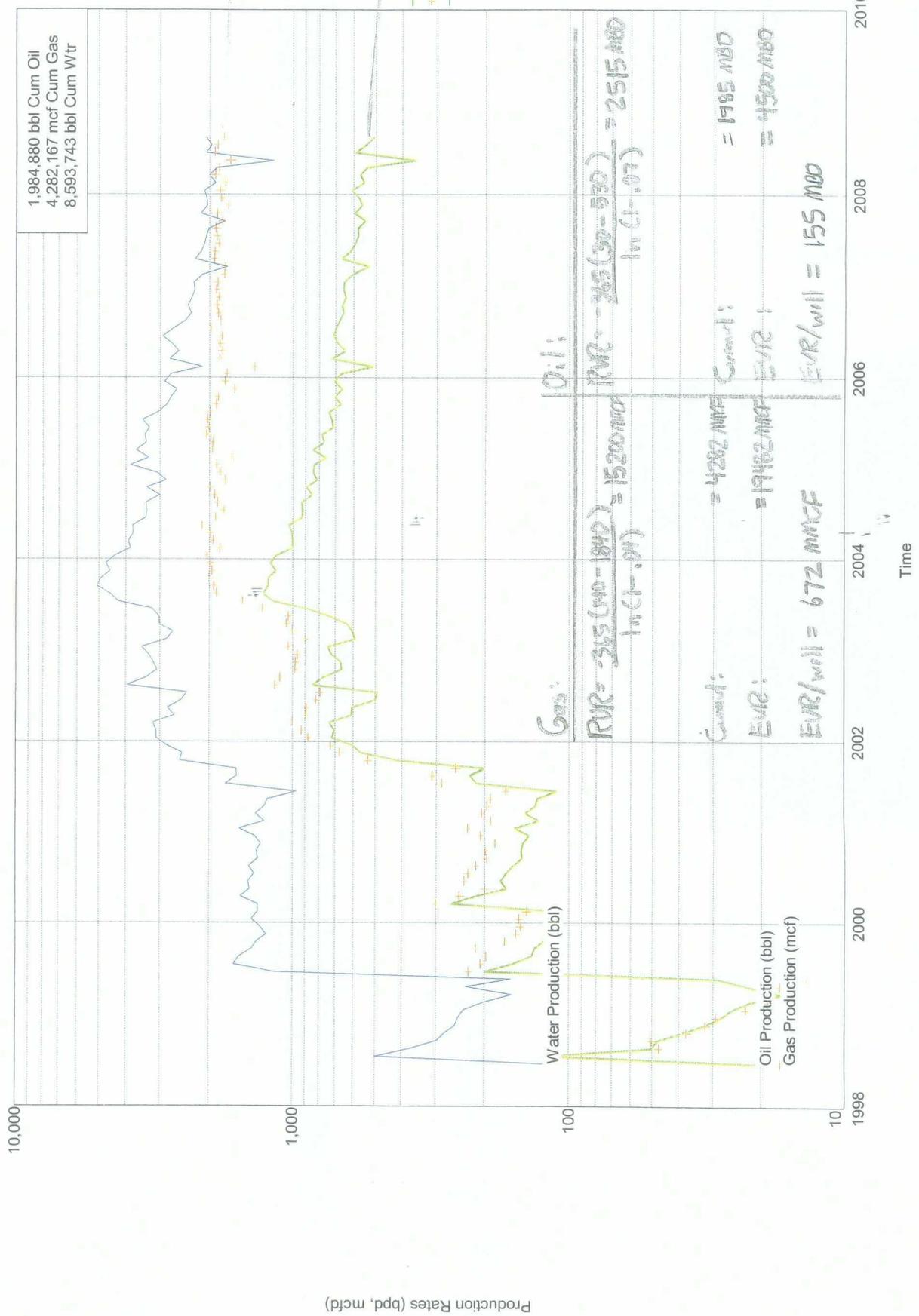
TONY FEDERAL Yeso (Sec 18+19, 17s-31e)



Lease Name: LEE FEDERAL  
 County, State: EDDY, NM  
 Operator: MARBOB ENERGY CORPORATION  
 Field: MULTIPLE  
 Reservoir: MULTIPLE  
 Location:

29 Wells

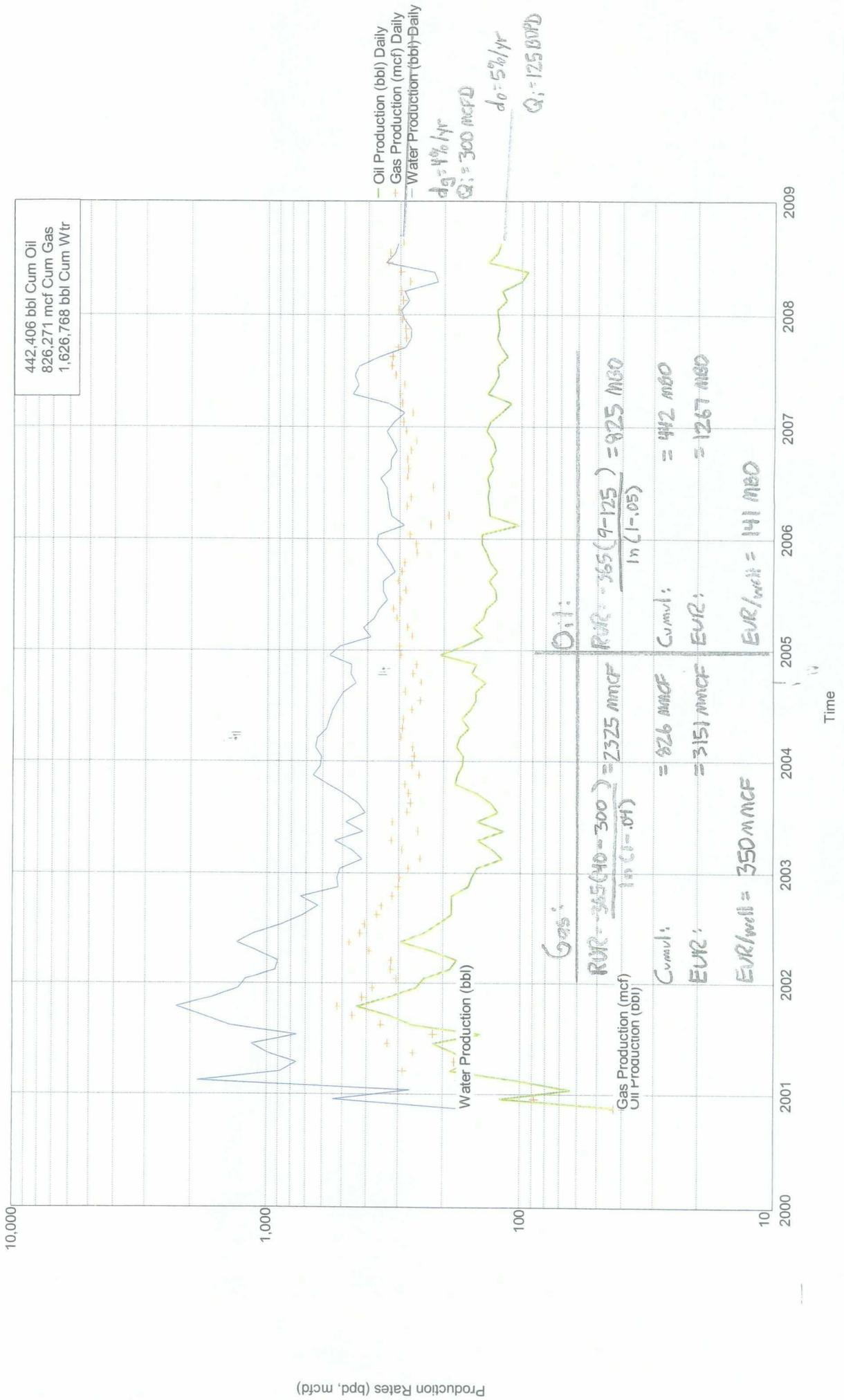
LEE FEDERAL Yeso (Sec 17&20, 17s-31e)



Lease Name: COFFEE FEDERAL  
 County, State: EDDY, NM  
 Operator: MARBOB ENERGY CORPORATION  
 Field: CEDAR LAKE  
 Reservoir: YESO  
 Location:

9 Wells

COFFEE FEDERAL  
 YESO (Sec. 18-17s-31e)



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  
 June 19, 2008

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

WELL API NO. 30-015-26187
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 FOSTER EDDY
8. Well Number 8
9. OGRID Number 14049
10. Pool name or Wildcat GRAYBURG JACKSON; SR-Q-G-SA
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3701.2' GR

**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 C : 330 feet from the NORTH line and 1650 feet from the WEST line  
 Section 17 Township 17S Range 31E NMPM EDDY County

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

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

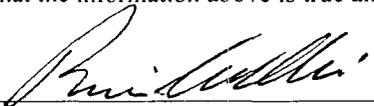
13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

SEE ATTACHED C-107A APPLICATION FOR DOWNHOLE COMMINGLING

THE PROPOSED ALLOCATION IS: GRAYBURG JACKSON 7R-Q-GB-SA 28509 - OIL 27% - GAS 5%  
 CEDAR LAKE YESO 96831 - OIL 73% - GAS 95%

NEW ALLOCATIONS WILL BE SUBMITTED IF ACTUAL WILL 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.

SIGNATURE  TITLE PETROLEUM ENGINEER DATE 12/19/08

Type or print name BRIAN COLLINS E-mail address: bcollins@marbob.com PHONE: 575-748-3303

**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: July 31, 2010

**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.  
NMLC049998 (A)

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE** - Other instructions on page 2.

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

1. Type of Well

Oil Well     Gas Well     Other

8. Well Name and No.  
FOSTER EDDY #8

2. Name of Operator  
MARBOB ENERGY CORPORATION

9. API Well No.  
30-015-26187

3a. Address  
P O BOX 227  
ARTESIA NM 88211-0227

3b. Phone No. (include area code)  
575-748-3303

10. Field and Pool or Exploratory Area  
GRAYBURG JACKSON; SR-Q-GRBG-SA

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
SEC. 17-T17S-R30E  
330 FNL 1650 FWL UNIT C

11. Country or Parish, State  
EDDY COUNTY, NM

**12. CHECK THE 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 <u>DOWNHOLE</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<u>COMMINGLING</u>
	<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 must 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 must be filed once testing has been completed. Final Abandonment Notices must 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

THE PROPOSED ALLOCATION IS: GRAYBURG JACKSON 7R-Q-GB-SA 28509 - OIL 27% - GAS 5%  
CEDAR LAKE YESO 96831 - OIL 73% - GAS 95%

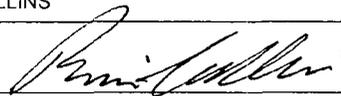
NEW ALLOCATIONS WILL BE SUBMITTED IF ACTUAL WELL PRODUCTION IS SIGNIFICANTLY DIFFERENT THAN THAT ABOVE.

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

BRIAN COLLINS

Title PETROLEUM ENGINEER

Signature



Date 12/19/2008

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

Approved by

Title

Date

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.

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)