

| | | | | | |
|---------------------|----------|----------------------|-----------------------|-------------|---------------------------|
| 12-30-08 DATE IN | SUSPENSE | W. Jones ENGINEER | 12-30-08 LOGGED IN | DHC TYPE | AKAA0836542654 APP NO. |
|---------------------|----------|----------------------|-----------------------|-------------|---------------------------|

ABOVE THIS LINE FOR DIVISION USE ONLY

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



RECEIVED
APL 30-015-26308
FOSTER EDDY #10
MAR 2008
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.

| | | | |
|----------------------|-----------|----------------------------|-----------------|
| <u>BRIAN COLLINS</u> | <u></u> | <u>PETROLEUM ENGINEER</u> | <u>12/19/08</u> |
| Print or Type Name | Signature | Title | Date |
| | | <u>bcollins@marbob.com</u> | |
| | | 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 Hrazon 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 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
Operator

P O BOX 227
Address

ARTESIA NM 88210

FOSTER EDDY

10

F - 17 - T17S - R31E

EDDY

Lease

Well No.

Unit Letter-Section-Township-Range

County

OGRID No. 14049 Property Code 6514 API No. 30-015-26308 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) | 2882-3845' Perf 3484-3513' Sqzd | | 4756-5484' Perf |
| 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 product on 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

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

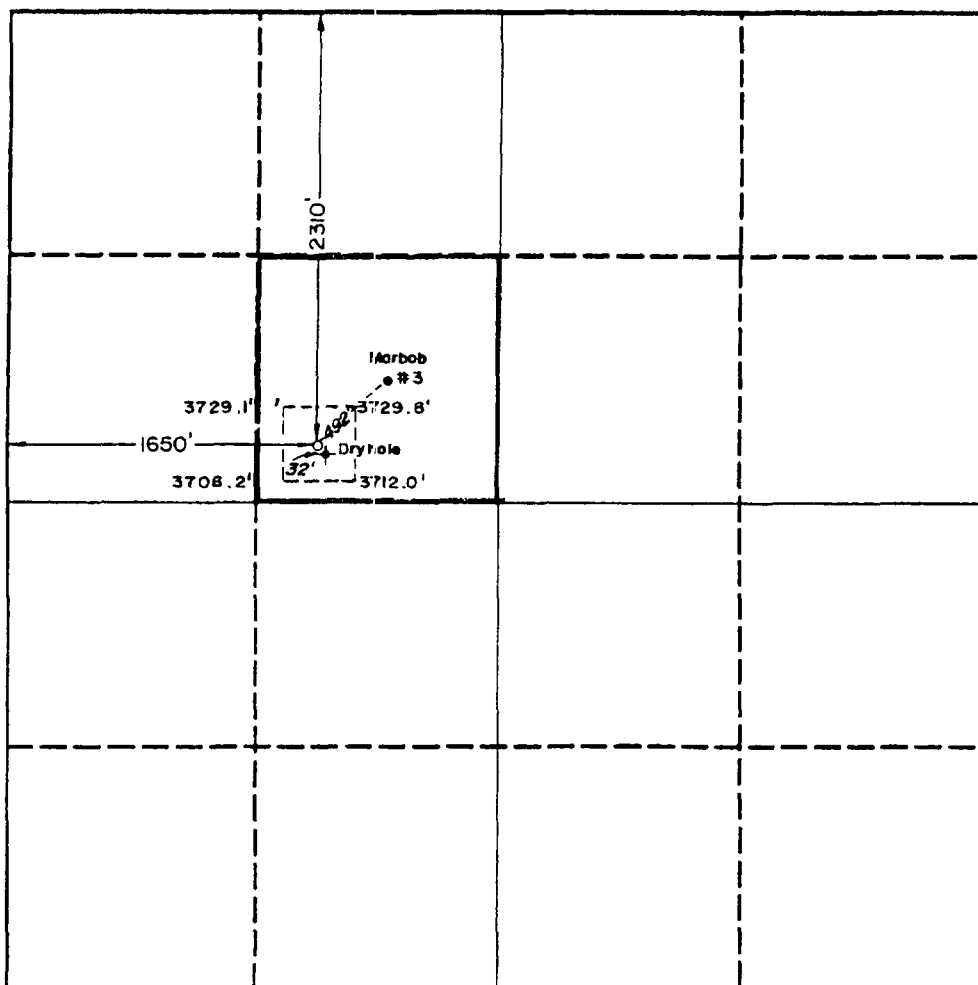
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

| | | | | | |
|--|-----------------------------------|----------------------|-----------------------------------|----------------|--------------------------------|
| Operator Marbob Energy Corp. | | | Lease Foster Eddy | | Well No. 10 |
| Unit Letter F | Section 17 | Township 17 South | Range 31 East | County Eddy | NMPM |
| Actual Footage Location of Well: 1650 feet from the West line and 2310 feet from the North line | | | | | |
| Ground level Elev. 3718.6 | Producing Formation San Andres | | Pool Grbg Jackson SR Q Grbg SA | | Dedicated Acreage: 40 Acres |

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communization, unitization, force-pooling, etc.?
- ☐ Yes ☐ No If answer is "yes" type of consolidation _____
- If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary). _____
- No allowable will be assigned to the well until all interests have been consolidated (by communization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

150

Signature Rhonda Nelson

Printed Name _____

Rhonda Nelson

Position

Production Clerk

Сопрану

Marbob Energy Corporation

Date _____

August 10, 1989

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 Surveyed

August 2, 1989

Signature & Seal of
Professional Surveyor

Carroll Mc

| | |
|------------------|-----|
| JOHN W. WEST, | 876 |
| RONALD J. EIDSON | 323 |

NEW MEXICO
JOHN W. WEST

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:

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

$$\text{Yeso Oil} : 100 - 27 = 73\%$$

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

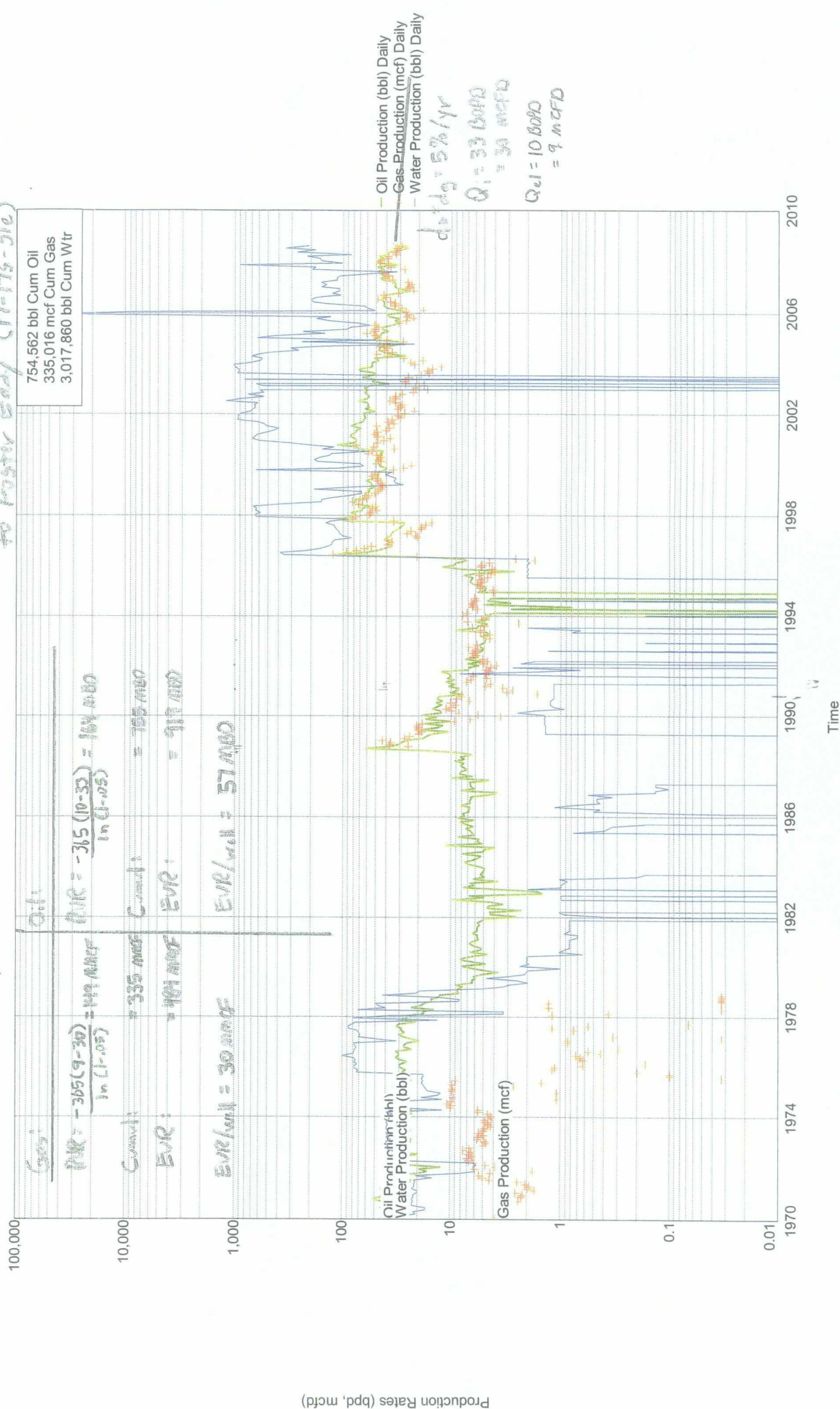
$$\text{Yeso Gas} : 100 - 5 = 95\%$$

Reservoir: SEVEN RIVERS QUEEN-G

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

Direct Contact San Andrs Offsets
to Costa Rica (17-175-36)

MULTIPLE



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

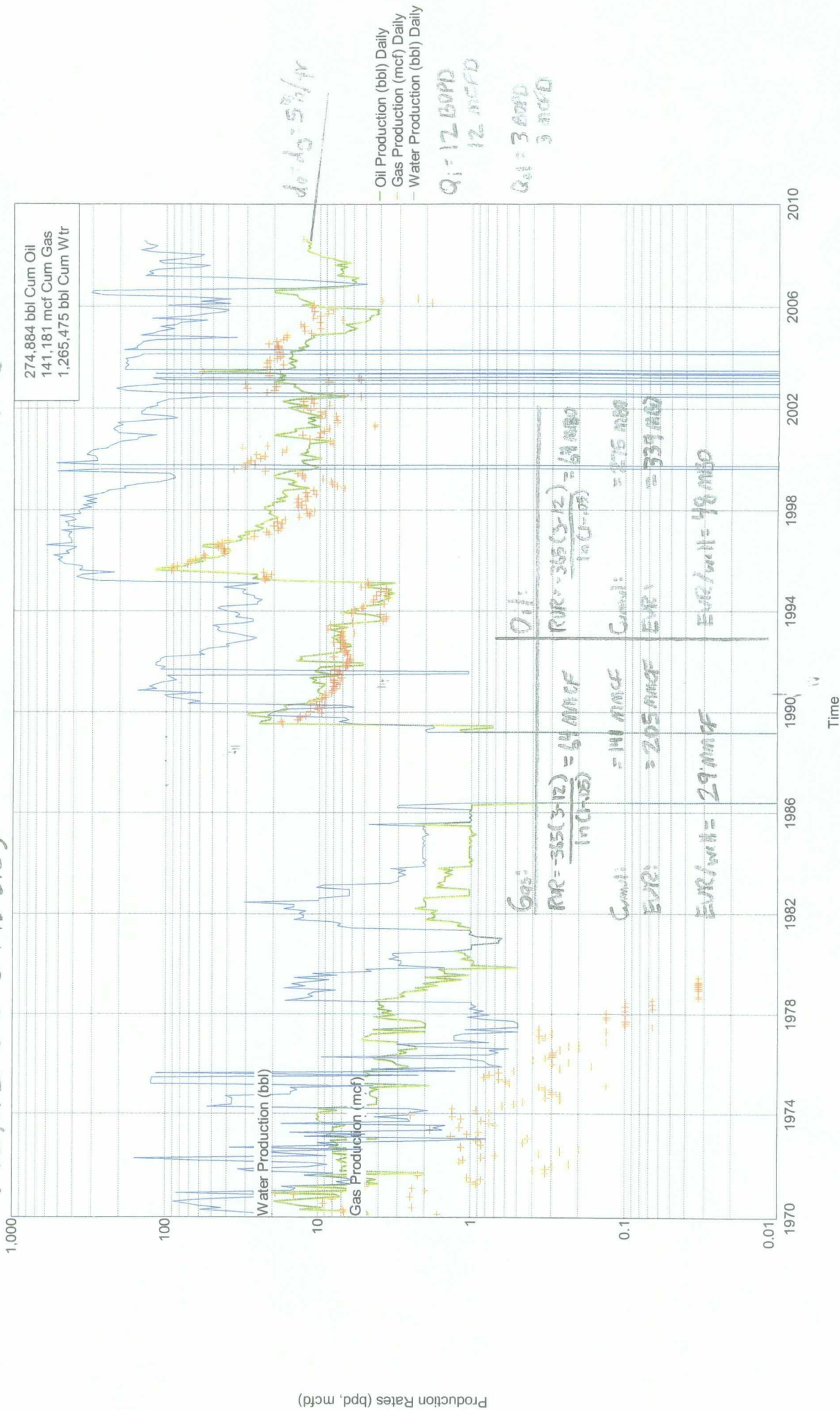
7 Wells

Grayburg San Andres

(S12, S12 Sec. 8-17s-31e)

J L KEEL B

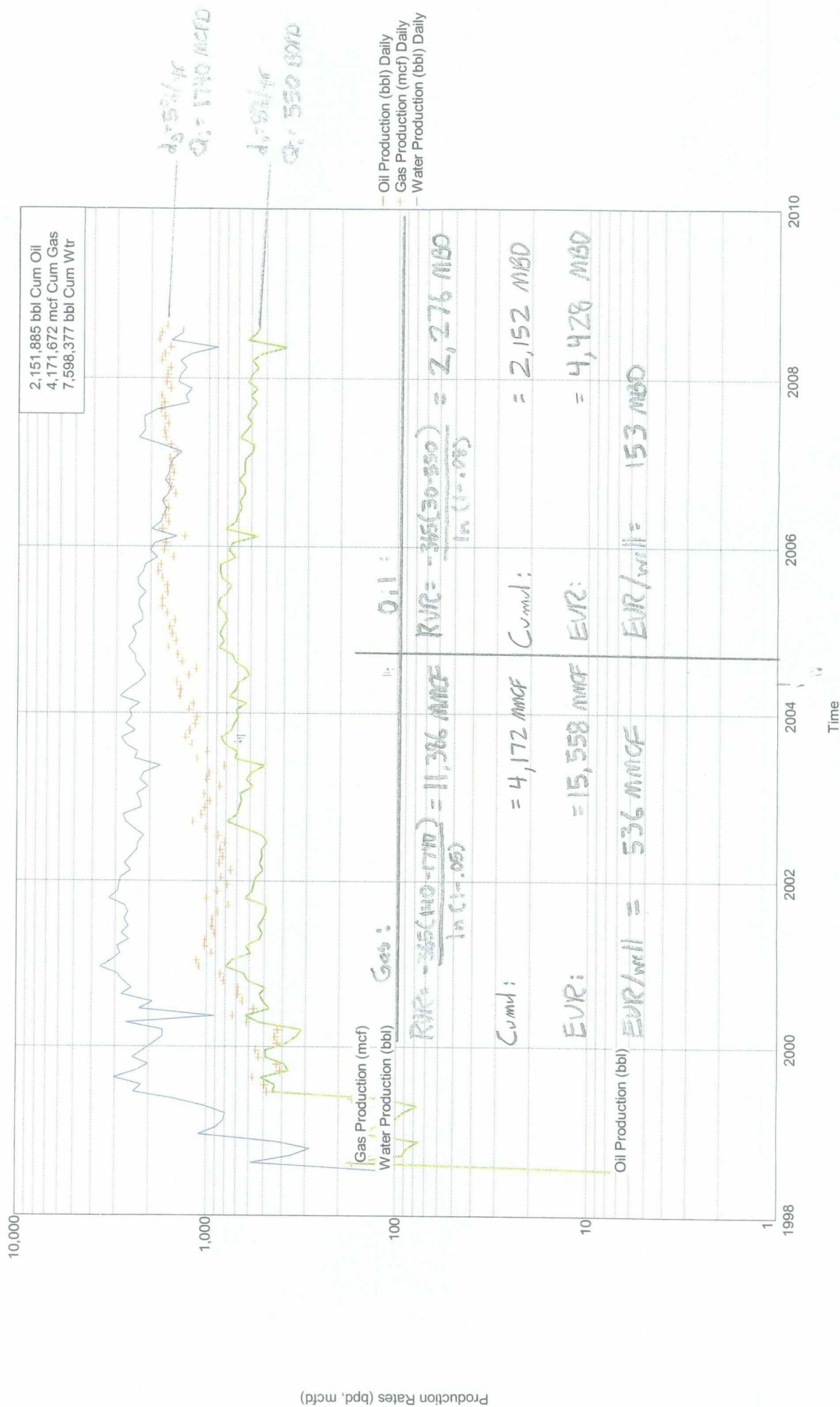
North Offset Wells to Foster Eddy
 from Grayburg San Andres



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

29 Wells

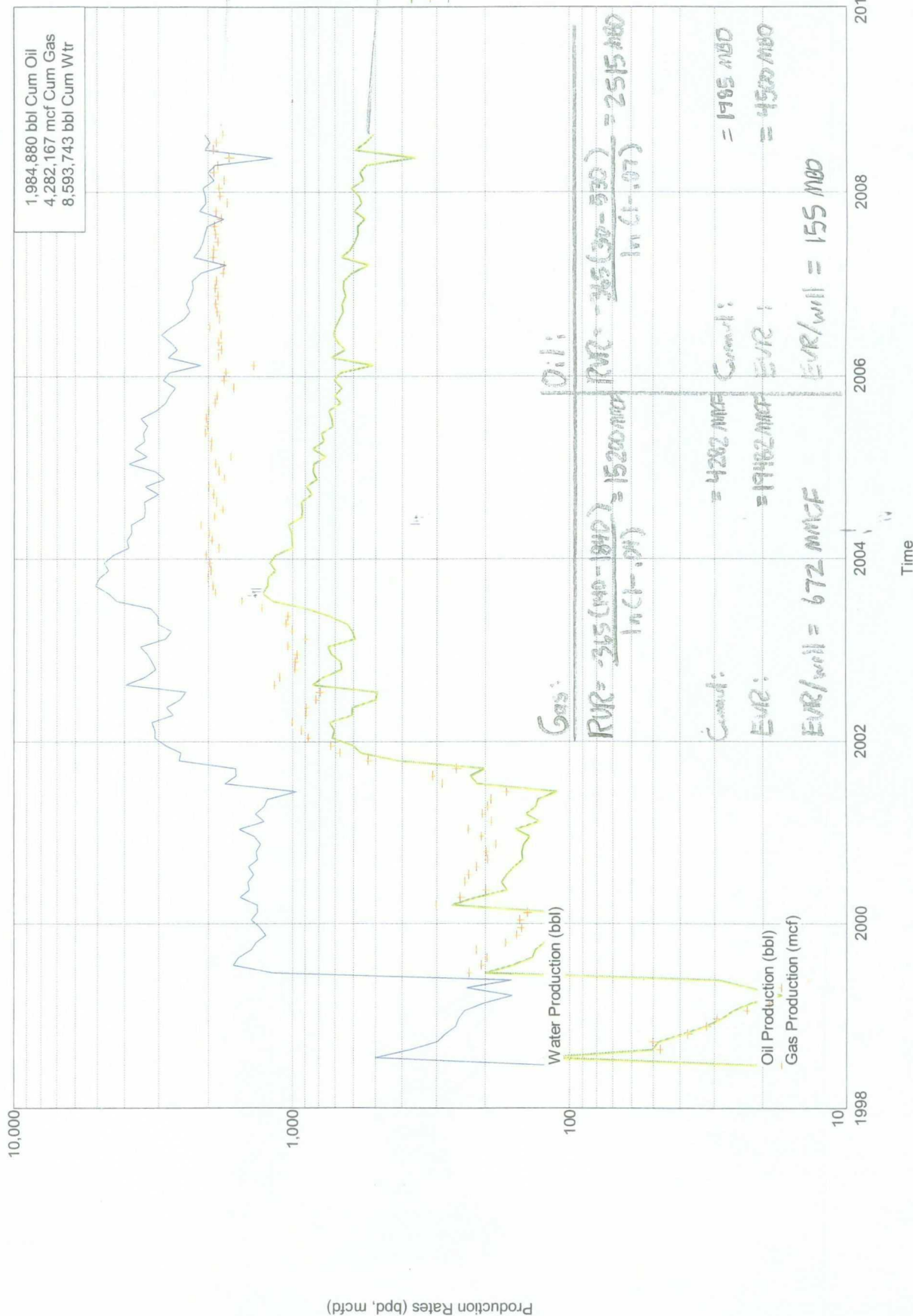
TONY FEDERAL Yeso (Sec 18+19, 17s-3/e)



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

29 Wells

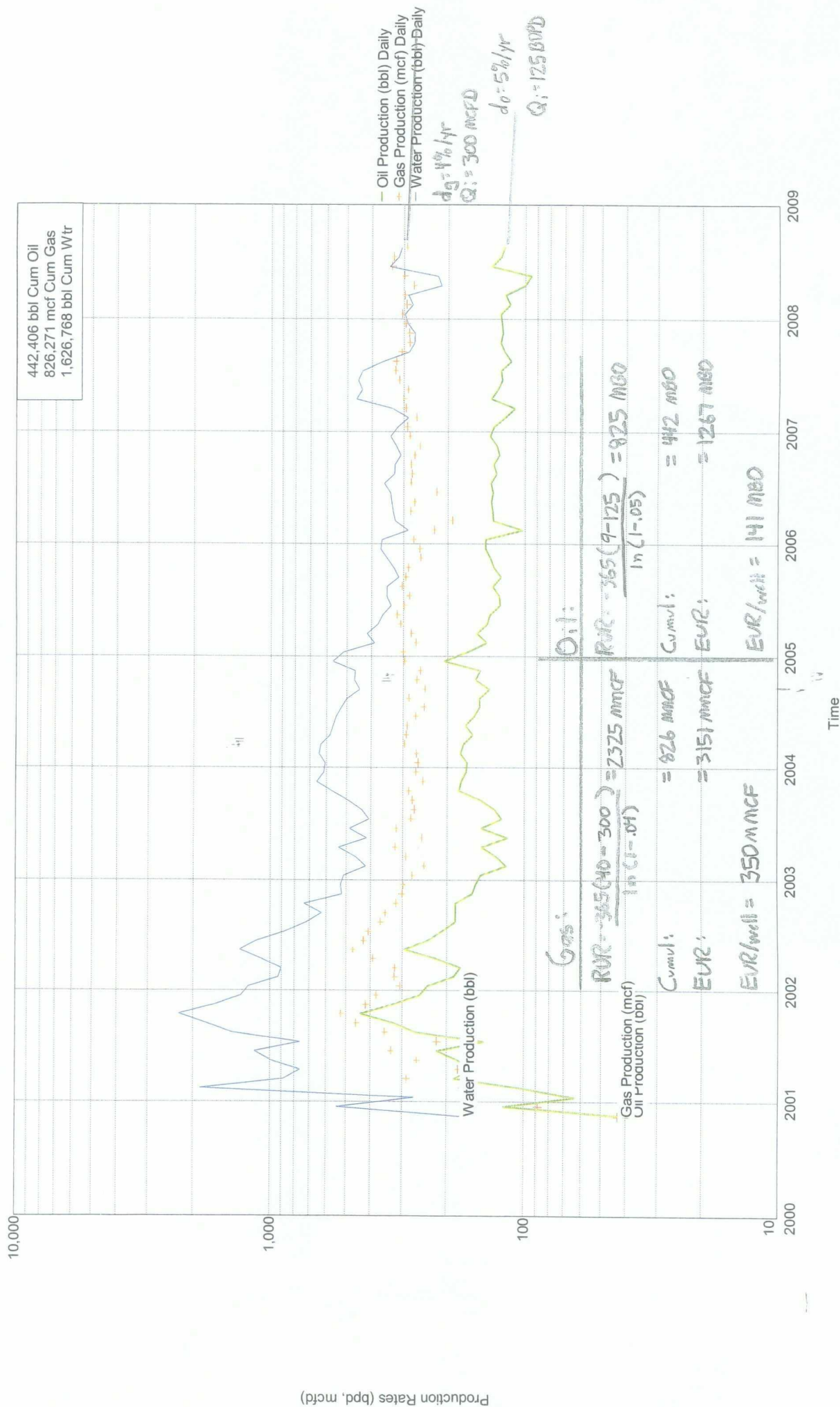
LEE FEDERAL Yeso (Sec 17 & 20, 17s-31e)



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

| | | |
|---|--|--|
| 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.) | | WELL API NO. 30-015-26308 |
| 1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> | | 5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/> |
| 2. Name of Operator MARBOB ENERGY CORPORATION | | 6. State Oil & Gas Lease No. |
| 3. Address of Operator P O BOX 227 ARTESIA NM 88211-0227 | | 7. Lease Name or Unit Agreement Name FOSTER EDDY |
| 4. Well Location Unit Letter <u>F</u> : <u>2310</u> feet from the <u>NORTH</u> line and <u>1650</u> feet from the <u>WEST</u> line Section <u>17</u> Township <u>17S</u> Range <u>31E</u> NMPM <u>EDDY</u> County | | 8. Well Number <u>10</u> |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3718.6' GR | | 9. OGRID Number 14049 |
| | | 10. Pool name or Wildcat GRAYBURG JACKSON; SR-Q-G-SA |

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: DOWNHOLE COMMINGLING ☒

OTHER: ☐

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 Brian Collins 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 #9

2. Name of Operator
MARBOB ENERGY CORPORATION

9. API Well No.
30-015-26273

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
2310 FSL 1650 FEL UNIT J

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 recompleat 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 recompleat 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)