Marbob Energy Corporation

P. O. DRAWER 217
ARTESIA, NEW MEXICO 88210

— OFFICE PHONE —
(505) 748-3303
(505) 746-2422

— NIGHT PHONES —
(505) 746-6197
(505) 746-6500

March 12, 1982

Mr. Michael E. Stogner
Petroleum Engineer
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Infill well applications

Dear Mike:

Please find enclosed two applications for infill well rulings. Although we have several to file with you, I wanted to have you review these before I sent more to see if these were complete, correct, and provided you with enough information to make a ruling. I have tried to closely follow the format you recommended.

When you have had a chance to review these please give me a call. Thanks for your help.

Sincerely,

Raye P. Miller

Raye P. Miller
Land Department

RPM

Encl.

West Artesia Grayburg Unit, Tr. 2, Well #21

Request for Infill Finding on

West Artesia Grayburg Unit, Tr. 2, Well #21

in accordance with Administrative

Procedures Amended February 8, 1980

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR	/	

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RECEIVED
FEB 03 1981
O. C. D.

Form C-103
Revised 10-1-7

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No.: B-11539

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.)

OIL WELL [X] GAS WELL [ ] OTHER-

7. Unit Agreement Name: West Artesia Grbg. Unit

Name of Operator: Marbob Energy Corporation

8. Farm or Lease Name: Tr. 2 West Artesia Grbg. Unit

Address of Operator: P.O. Box 304, Artesia, N.M. 88210

9. Well No.: 21

Location of Well: UNIT LETTER E, 1650 FEET FROM THE North LINE AND 330 FEET FROM THE West LINE, SECTION 8, TOWNSHIP 18S, RANGE 28E, NMPM.

10. Field and Pool, or Wildcat: Artesia Qn. Grbg. SA.

11. Elevation (Show whether DF, RT, GR, etc.): 3627.2GR

12. County: Eddy

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	[ ]	PLUG AND ABANDON	[ ]	REMEDIAL WORK	[ ]	ALTERING CASING	[ ]
TEMPORARILY ABANDON	[ ]			COMMENCE DRILLING OPNS.	[ ]	PLUG AND ABANDONMENT	[ ]
PULL OR ALTER CASING	[X]	CHANGE PLANS	[ ]	CASING TEST AND CEMENT JOB	[ ]		
OTHER	[ ]			OTHER	[ ]		

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.

We need to change our casing program to a 12¼" size hole, 8-5/8" size casing, and 24# weight per foot. Stewart Bros. Drilling will be drilling the well, and will commence drilling on 2-3-81.

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

SIGNED Roger P. Mills TITLE Secretary-Treasurer DATE 2/3/81

APPROVED BY Mike Williams TITLE OIL AND GAS INSPECTOR DATE FEB 06 1981

CONDITIONS OF APPROVAL, IF ANY:

30-015-23619

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FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR	✓	

NEW MEXICO OIL CONSERVATION COMMISSION

JAN 20 1981

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease: STATE [X] FEE [ ]

5. State Oil & Gas Lease No.: B-11539

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. Type of Well: OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. Unit Agreement Name: West Artesia Grbg. Ut.

8. Farm or Lease Name: Tr. 2 West Artesia Grbg. Ut.

2. Name of Operator: Marbob Energy Corporation

9. Well No.: 21

3. Address of Operator: P.O. Box 304, Artesia, N.M. 88210

10. Field and Pool, or Wildcat: Artesia Qn. Grbg. SA

4. Location of Well: UNIT LETTER E LOCATED 1650 FEET FROM THE North LINE AND 330 FEET FROM THE West LINE OF SEC. 8 TWP. 18S RGE. 28E NMPM

12. County: Eddy

19. Proposed Depth: 2500'

19A. Formation: Grayburg

20. Rotary or C.T.: Rotary

21. Elevations (Show whether DF, RT, etc.): 3627.2 GR

21A. Kind & Status Plug. Bond: Statewide active

21B. Drilling Contractor: Yucca Drilling Co.

22. Approx. Date Work will start: 1/23/81

23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
9½"	7" 5/8	28#	500'	Circulate	
6¼"	4 1/2"	10.50#	2500'	Attempt to circulate	

We propose to drill to 500', set 7" 28# casing, drill on to 2500' to test the Grayburg formation, set 4½" 10.50# casing.

APPROVAL VALID FOR 180 DAYS
PERMIT EXPIRES 7-23-81
UNLESS DRILLING UNDERWAY

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed: Carolyn Orrs Title: Production Clerk Date: 1/19/81

(This space for State Use)

APPROVED BY: W. A. Gressett TITLE: SUPERVISOR, DISTRICT II DATE: JAN 23 1981

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
MARBOB ENERGY CORP	WEST ARTESIA GRAYBURG UNIT TRACT 2	21

Unit Letter	Section	Township	Range	County
E	8	18 SOUTH	28 EAST	EDDY COUNTY, NEW MEXICO

Actual Footage Location of Well: 1650 feet from the NORTH line and 330 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3627.2	Grayburg	Artesia Qn. Grbg. SA	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

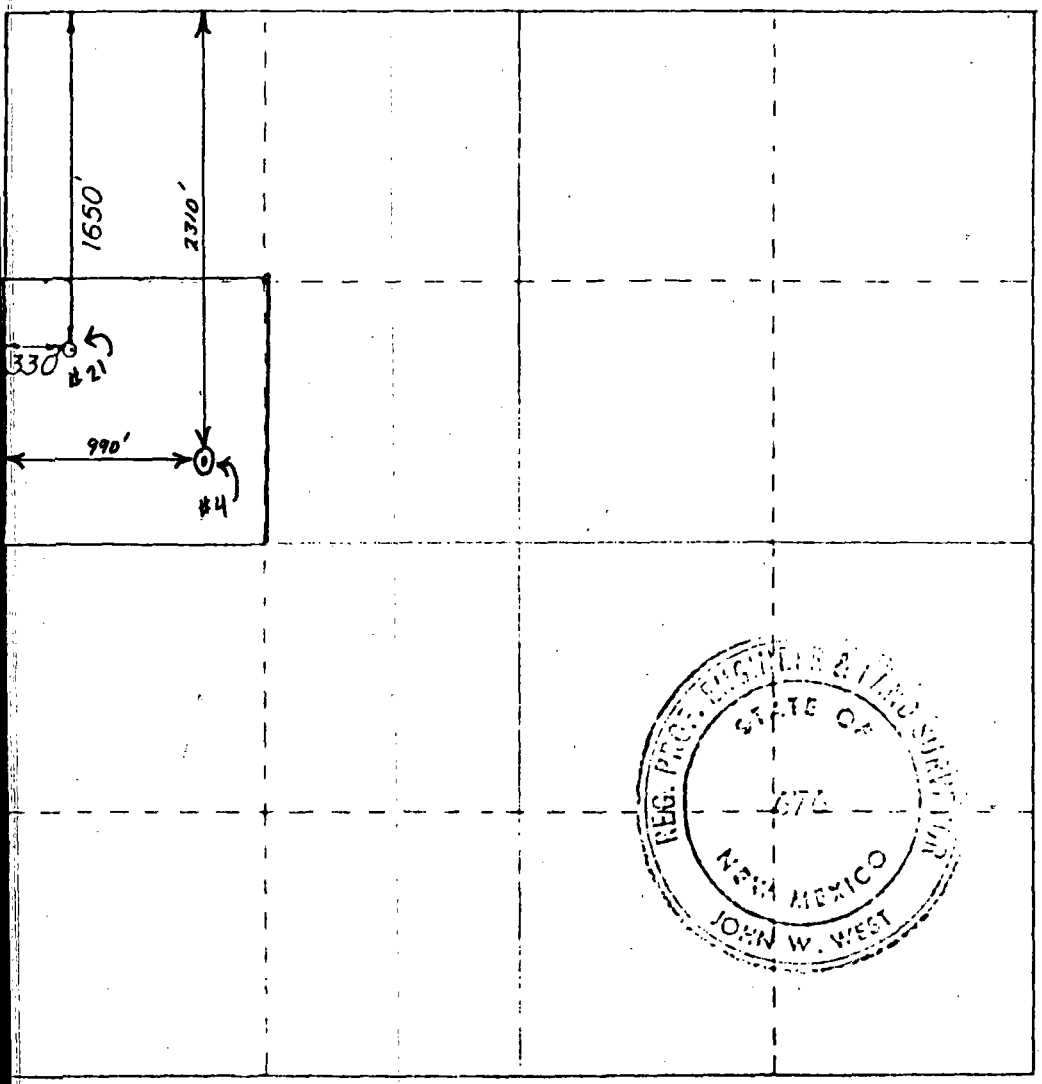
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, 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 communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Carolyn Orris

Name: Carolyn Orris

Position: Production Clerk

Company: Marbob Energy Corporation

Date: January 19, 1981

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: JANUARY 15, 1981

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. JOHN W. WEST 676
PATRICK A. ROMERO 6668
Ronald J. Eidson 3239

Rule 6:

West Artesia Grayburg Unit, Tr. 2, Well #21

Pool: Artesia Queen Grayburg San Andres

Standard spacing unit - 40 acres

Rule 7:

NA

Rule 8:

a. *West Artesia Grayburg Unit, Tr. 2, Well #21, 1650 FNL, 330 FWL, Sec. 8-T18S-R28E*

   West Artesia Grayburg Unit, Tr. 2, Well #4, 2310 FNL, 990 FWL, Sec. 8-T18S-R28E

b. *#21 - 2/3/81*

   #4 - 1/21/58

c. *#21 - 2/25/81*

   #4 - 2/25/58

d. *#21 - none*

   #4 - none recorded

e. *#21 - 10 mcf/day, 11.1 bbl/day*

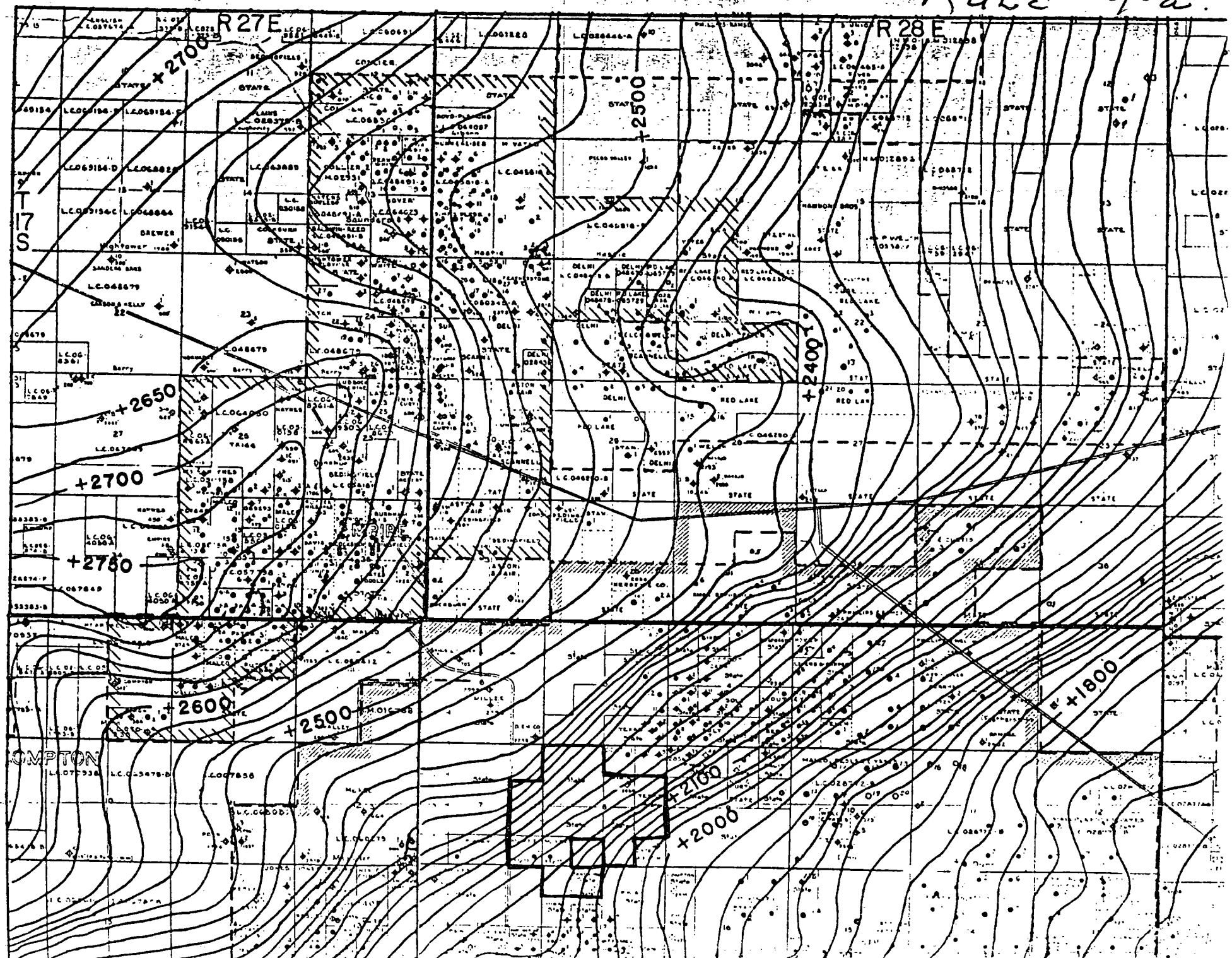
   #4 - none (injection well since 1968)

f. *#21 - NA*

   #4 - NA

g. *Well #4 was placed on injection in 1968 and needs to remain on injection for proper flooding of this unit. Also well #21 was opened in 4 additional zones in the Grayburg formation that had not been treated in well #4, and that possibly could not be properly treated in #4 due to the age of the casing and the old cementing techniques.*

Rule 9-a.


R27E
R28E
T17S
+2700
+2500
+2400
+2650
+2700
+2780
+2600
+2500
+2100
+2000
+1800
STATE
DELNI
RED LAKE
COMPTON

Rule 9:

b. Volume of increased ultimate recovery expected is 14 mmcf based on a 7 year straight decline projection.

Rule 11:

Notice of this infill request has been sent to Sun Production Company, P.O. Box 1861, Midland, Texas, by certified mail, as the only offset operator.

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

April 1, 1982

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mr. Raye Miller
MARBOB ENERGY CORP.
P.O. Box 304
Artesia, NM 88210

Dear Raye:

Re: Application for NGPA Infill Well Findings Under Provisions of Order No. R-6013-A NG

Phillips State # 25, J-27-17S-28E,

Eddy County, New Mexico.

We may not process the subject application for infill findings until the required information, forms, or plats checked on the reverse side of this letter are submitted.

Sincerely,

Michael E. Stogner

Michael E. Stogner,
Petroleum Engineer

MES/dp

- [ ] A copy of Form C-101 must be submitted.
- [ ] A copy of Form C-102 must be submitted.
- [ ] The pool name must be shown.
- [ ] The standard spacing unit size for the pool must be shown.
- [ ] Give the Division Order No. which granted the non-standard proration unit.
- [ ] Please state whether or not the well has been spudded and give the spud date, if any.
- [ ] Information relative to other wells on the proration unit is incomplete.
- [x] The geologic and reservoir data is incomplete or insufficient.

  As per our phone conversation on Thursday, April 1, 1982, please submit a more detailed narrative describing how the volume of ultimate recovery expected was obtained. Thank you for an otherwise complete and readable NFL application.
- [ ] Other:

Marbob Energy Corporation

P. O. DRAWER 217
ARTESIA, NEW MEXICO 88210

— OFFICE PHONE —
(505) 748-3303
(505) 746-2422

— NIGHT PHONES —
(505) 746-6197
(505) 746-6500

April 13, 1982

Mr. Michael E. Stogner
Petroleum Engineer
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Application for NGPA Infill
Well Findings Under Provisions
of Order No. R-6013-A
NG Phillips St. #25-J-27-17S-28E
West Artesia Grayburg Unit, Tr.
Well #21-E-8-18S-28E

Dear Mike:

I have obtained some help from a consulting engineer in preparing the additional information you needed for rule 9b. If you could please substitute these pages for the current page you have, they should complete the application. If there is still not enough information to satisfy rule 9b please contact me.

The production clerk is currently preparing about 6 more infill requests and I will forward them to you as soon as they are completed. Thanks for your help.

Sincerely,

Raye Miller

Raye Miller
Land Department

RPM/co

Encl.

Marbob Energy Corporation
Artesia Queen Grayburg San Andres
West Artesia Grayburg Unit
Well #21

Pertinent Engineering Data and Conclusions:

Well No 21 was completed in the Artesia Queen Grayburg pool in February 1981. This is an infill well located as per the attached plat.

Effective March 1, 1982, oil reserves recoverable will be 25,956 barrels and gas reserves recoverable will be 13,108 mcf.

Oil reserves were calculated from the attached rate/time curves to an economic limit of approximately 1 BOPD. Gas reserves were estimated using a study of the gas oil ratio performance not only on the specific well but on the entire pool.

My study reveals that as early as 1964 the producing well rate was 3.6 barrels of oil per day per well. The wells in the pool have remained on 40 acre spacing up until the past two years.

From infill well performance it is obvious that well density in this pool has to be increased to recover remaining reserves. The low permeability and low quality solution gas recovery mechanism will required reduced spacing to efficiently produce the reserves.

The daily producing rate for Well No. 21 was 11 BOPD in February 1982. This, of course, indicates that no interference has as yet been experienced from offset wells.

In my opinion the infill wells which increase the density of pattern will produce an amount of oil and gas reserves equal to the older wells in the field.

Therefore, it is my recommendation that well density be increased and it is my conclusion that infill wells will experience new reservoir conditions.

RECEIVED
APR 14 1982
OIL CONSERVATION DIVISION
SANTA FE

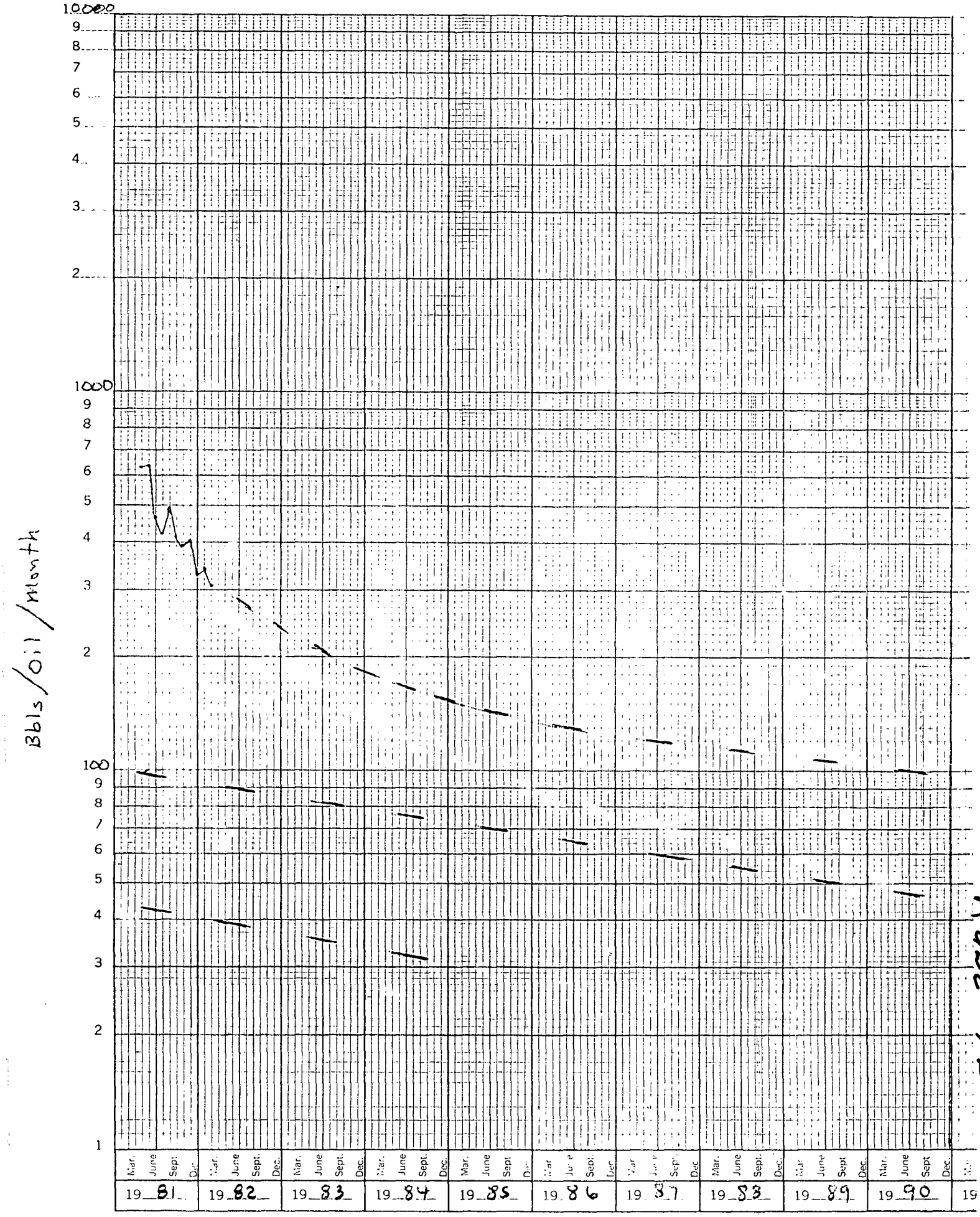
Paul G. White
Paul G. White
Petroleum Engineer

4-13-82
Date

PGW/co
Encl.

Rule 9b.

West Artesia Queen Grayburg
WELL NO 21



Page 96.

Rule 11:

Notice of this infill request has been sent to Sun Production Company, P.O. Box 1861, Midland, Texas 79702, by certified mail, as the only offset operator.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mr. Raye Miller
Marbob Energy Corporation
P.O. Drawer 217
Artesia, NM 88210

Re: Application for NGPA Infill Well Findings Under Provisions of Order No. R-6013-A NG Phillips State Well Nos. 25, 27, 28, 29 and West Artesia Grayburg Unit Well Nos. 22, 24, and 25.

Dear Raye:

We may not process the subject application for infill findings until the required information, forms, or plats checked on the reverse side of this letter are submitted.

Sincerely,

Michael E. Stogner

Michael E. Stogner,
Petroleum Engineer

MES/dp

- [ ] A copy of Form C-101 must be submitted.
- [ ] A copy of Form C-102 must be submitted.
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- [ ] Please state whether or not the well has been spudded and give the spud date, if any.
- [ ] Information relative to other wells on the proration unit is incomplete.
- [x] The geologic and reservoir data is incomplete or insufficient.

  All of Paul G. White's reports refer in paragraph three to calculated oil reserves, please include this calculations.
- [ ] Other:

Marbob Energy Corporation

P. O. DRAWER 217
ARTESIA, NEW MEXICO 88210

— OFFICE PHONE —
(505) 748-3303
(505) 746-2422

— NIGHT PHONES —
(505) 746-6197
(505) 746-6500

April 29, 1982

RECEIVED
MAY 03 1982
OIL CONSERVATION DIVISION
SANTA FE

Mr. Michael Stogner
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Dear Mike:

Per your request, we are enclosing Paul G. White' calculations on the oil reserves for the NG Phillips St. #25, 27, 28 and 29 and the West Artesia Grayburg Unit #22, 24, 21 and 25.

Let us know if you need further information.

Very truly yours,

Carolyn Orris

Carolyn Orris
Production Clerk

co

Encl.

Marbob Energy Corp.
West Artesia Grayburg Unit, Tr. 2, Well #21
1650 FNL 330 FWL Sec. 8-T18S-R28E

Year	Gross Monthly Oil - bbls.	Gross Yearly Oil - bbls.
1982	260	3,360
1983	205	2,460
1984	165	1,980
1985	142	1,704
1986	128	1,536
1987	120	1,440
1988	112	1,344
1989	107	1,284
1990	100	1,200
1991	96	1,152
1992	89	1,068
1993	82	984
1994	76	912
1995	70	840
1996	65	780
1997	60	720
1998	53	636
1999	51	612
2000	47	564
2001	42	504
2002	38	456
2003	35	420
	Total Oil Remaining:	25,956
	Cumulative to 1/1/82	4,829
	Total Ultimate Reserves	30,785

Gas-Oil Ratio Average - 505 to 1

Remaining Gas Reserves - 13,108 MCF

Marbob Energy Corporation

P. O. DRAWER 217
ARTESIA, NEW MEXICO 88210

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(505) 746-2422

— NIGHT PHONES —
(505) 746-6197
(505) 746-6500

March 12, 1982

Mr. Michael E. Stogner
Petroleum Engineer
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Infill well applications

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When you have had a chance to review these please give me a call. Thanks for your help.

Sincerely,

Raye P. Miller

Raye P. Miller
Land Department

RPM

Encl.

West Artesia Grayburg Unit, Tr. 2, Well #21

Request for Infill Finding on

West Artesia Grayburg Unit, Tr. 2, Well #21

in accordance with Administrative

Procedures Amended February 8, 1980

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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OPERATOR	✓	

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RECEIVED
FEB 03 1981
O. C. D.
ARTESIA, OFFICE

Form C-103
Revised 10-1-78

5a. Indicate Type of Lease: State [X] Fee [ ]

5. State Oil & Gas Lease No. B-11539

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.)

OIL WELL [X] GAS WELL [ ] OTHER-

7. Unit Agreement Name: West Artesia Grbg.Unit

Name of Operator: Marbob Energy Corporation

8. Farm or Lease Name: Tr. 2 West Artesia Grbg. ut.

Address of Operator: P.O. Box 304, Artesia, N.M. 88210

9. Well No. 21

Location of Well: UNIT LETTER E, 1650 FEET FROM THE North LINE AND 330 FEET FROM THE West LINE, SECTION 8 TOWNSHIP 18S RANGE 28E NMPM.

10. Field and Pool, or Wildcat: Artesia Qn. Grbg. SA.

15. Elevation (Show whether DF, RT, GR, etc.): 3627.2GR

12. County: Eddy

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK [ ]	PLUG AND ABANDON [ ]	REMEDIAL WORK [ ]	ALTERING CASING [ ]
TEMPORARILY ABANDON [ ]		COMMENCE DRILLING OPNS. [ ]	PLUG AND ABANDONMENT [ ]
PULL OR ALTER CASING [X]	CHANGE PLANS [ ]	CASING TEST AND CEMENT JOB [ ]	
		OTHER [ ]	
OTHER [ ]			

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.

We need to change our casing program to a 12¼" size hole, 8-5/8" size casing, and 24# weight per foot. Stewart Bros. Drilling will be drilling the well, and will commence drilling on 2-3-81.

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

SIGNED Roger P. Miller TITLE Secretary-Treasurer DATE 2/3/81

APPROVED BY Mike Williams TITLE OIL AND GAS INSPECTOR DATE FEB 06 1981

CONDITIONS OF APPROVAL, IF ANY:

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LAND OFFICE		
OPERATOR	✓	

30-015-23619

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

JAN 20 1981

O. C. D.
ARTESIA, OFFICE

5A. Indicate Type of Lease: STATE [X] FEE [ ]

5. State Oil & Gas Lease No. B-11539

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. Type of Well: OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. Unit Agreement Name: West Artesia Grbg. Ut. Tr. 2

8. Farm or Lease Name: West Artesia Grbg. Ut.

2. Name of Operator: Marbob Energy Corporation

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10. Field and Pool, or Wildcat: Artesia Qn. Grbg. SA

4. Location of Well: UNIT LETTER E LOCATED 1650 FEET FROM THE North LINE AND 330 FEET FROM THE West LINE OF SEC. 8 TWP. 18S RGE. 28E NMPM

12. County: Eddy

19. Proposed Depth: 2500'

19A. Formation: Grayburg

20. Rotary or C.T.: Rotary

21. Elevations (Show whether DF, RT, etc.): 3627.2 GR

21A. Kind & Status Plug. Bond: Statewide active

21B. Drilling Contractor: Yucca Drilling Co.

22. Approx. Date Work will start: 1/23/81

23. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
9½"	7" 5⅛	28#	500'	Circulate	
6¼"	4 1/2"	10.50#	2500'	Attempt to circulate	

We propose to drill to 500', set 7" 28# casing, drill on to 2500' to test the Grayburg formation, set 4½" 10.50# casing.

APPROVAL VALID FOR 180 DAYS
PERMIT EXPIRES 7-23-81
UNLESS DRILLING UNDERWAY

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed Carolyn Orms Title Production Clerk Date 1/19/81

(This space for State Use)

APPROVED BY W. A. Gressett TITLE SUPERVISOR, DISTRICT II DATE JAN 23 1981

CONDITIONS OF APPROVAL, IF ANY:

103 Amend

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
MARBOB ENERGY CORP.	WEST ARTESIA GRAYBURG UNIT TRACT 2	21

Unit Letter	Section	Township	Range	County
E	8	18 SOUTH	28 EAST	EDDY COUNTY, NEW MEXICO

Actual Footage Location of Well: 1650 feet from the NORTH line and 330 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
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1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

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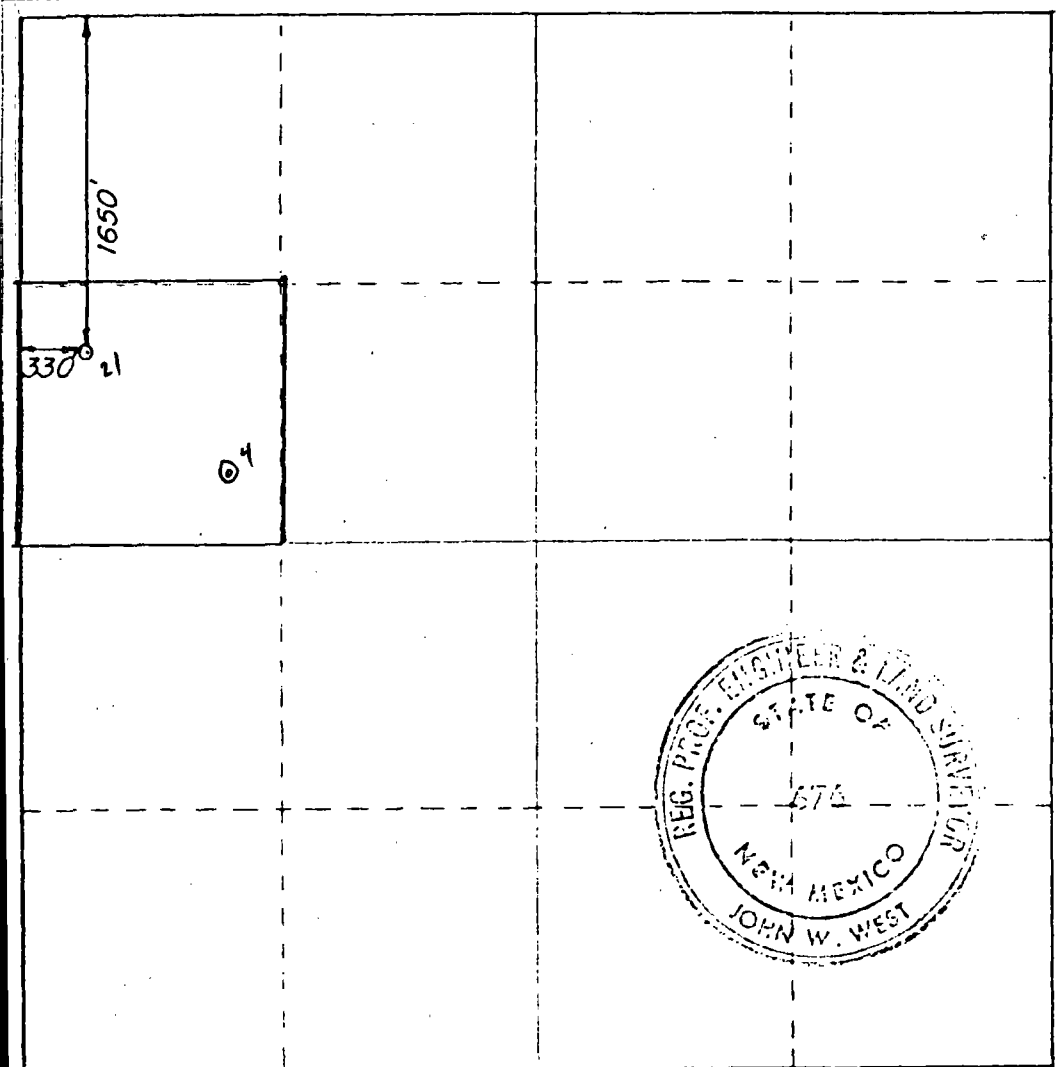
☐ Yes ☐ No If answer is "yes," type of consolidation _____

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 communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Carolyn Orris

Name: Carolyn Orris

Position: Production Clerk

Company: Marbob Energy Corporation

Date: January 19, 1981

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: JANUARY 15, 1981

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. JOHN W. WEST 676
PATRICK A. ROMERO 6668
Ronald J. Eidson 3239

Rule 6:

West Artesia Grayburg Unit, Tr. 2, Well #21

Pool: Artesia Queen Grayburg San Andres

Standard spacing unit - 40 acres

Rule 7:

NA

Rule 8:

a. West Artesia Grayburg Unit, Tr. 2, Well #21, 1650 FNL, 330 FWL, Sec. 8-T18S-R28E

West Artesia Grayburg Unit, Tr. 2, Well #4, 2310 FNL, 990 FWL, Sec. 8-T18S-R28E

b. #21 - 2/3/81

#4 - 1/21/58

c. #21 - 2/25/81

#4 - 2/25/58

d. #21 - none

#4 - none recorded

e. #21 - 10 mcf/day, 11.1 bbl/day

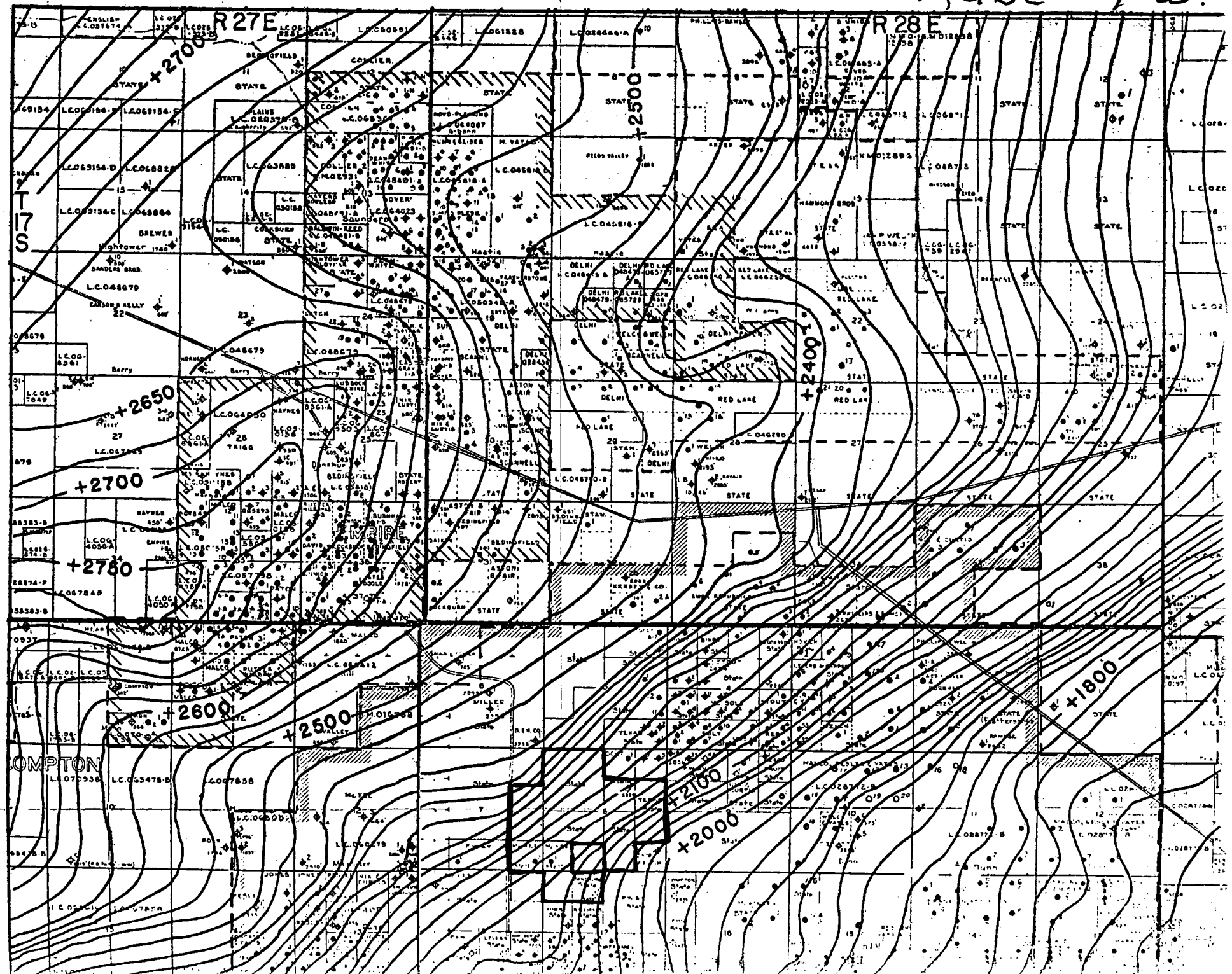
#4 - none (injection well since 1968)

f. #21 - NA

#4 - NA

g. Well #4 was placed on injection in 1968 and needs to remain on injection for proper flooding of this unit. Also well #21 was opened in 4 additional zones in the Grayburg formation that had not been treated in well #4, and that possibly could not be properly treated in #4 due to the age of the casing and the old cementing techniques.

Rule 9-a.


R 27 E
R 28 E
T 17 S
+2700
+2650
+2700
+2760
+2500
+2400
+2600
+2500
+2100
+2000
+1800
EMPIRE
COMPTON

Rule 9:

b. Volume of increased ultimate recovery expected is 14 mmcf based on a 7 year straight decline projection.

Rule 11:

Notice of this infill request has been sent to Sun Production Company, P.O. Box 1861, Midland, Texas, by certified mail, as the only offset operator.

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

April 1, 1982

Mr. Raye Miller
MARBOB ENERGY CORP.
P.O. Box 304
Artesia, NM 88210

Dear Raye:

Re: Application for NGPA Infill Well Findings Under Provisions of Order No. R-6013-A NG

Phillips State # 25, J-27-17S-28E,

Eddy County, New Mexico.

We may not process the subject application for infill findings until the required information, forms, or plats checked on the reverse side of this letter are submitted.

Sincerely,

Michael E. Stogner

Michael E. Stogner,
Petroleum Engineer

MES/dp

- [ ] A copy of Form C-101 must be submitted.
- [ ] A copy of Form C-102 must be submitted.
- [ ] The pool name must be shown.
- [ ] The standard spacing unit size for the pool must be shown.
- [ ] Give the Division Order No. which granted the non-standard proration unit.
- [ ] Please state whether or not the well has been spudded and give the spud date, if any.
- [ ] Information relative to other wells on the proration unit is incomplete.
- [x] The geologic and reservoir data is incomplete or insufficient.

  As per our phone conversation on Thursday, April 1, 1982, please submit a more detailed narrative describing how the volume of ultimate recovery expected was obtained. Thank you for an otherwise complete and readable NFL application.
- [ ] Other:

Marbob Energy Corporation

P. O. DRAWER 217
ARTESIA, NEW MEXICO 88210

— OFFICE PHONE —
(505) 748-3303
(505) 746-2422

— NIGHT PHONES —
(505) 746-6197
(505) 746-6500

April 13, 1982

Mr. Michael E. Stogner
Petroleum Engineer
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Application for NGPA Infill
Well Findings Under Provisions
of Order No. R-6013-A
NG Phillips St. #25-J-27-17S-28E
West Artesia Grayburg Unit, Tr.
Well #21-E-8-18S-28E

Dear Mike:

I have obtained some help from a consulting engineer in preparing the additional information you needed for rule 9b. If you could please substitute these pages for the current page you have, they should complete the application. If there is still not enough information to satisfy rule 9b please contact me.

The production clerk is currently preparing about 6 more infill requests and I will forward them to you as soon as they are completed. Thanks for your help.

Sincerely,

Raye Miller

Raye Miller
Land Department

RPM/co

Encl.

Marbob Energy Corporation
Artesia Queen Grayburg San Andres
West Artesia Grayburg Unit
Well #21

Pertinent Engineering Data and Conclusions:

Well No 21 was completed in the Artesia Queen Grayburg pool in February 1981. This is an infill well located as per the attached plat.

Effective March 1, 1982, oil reserves recoverable will be 25,956 barrels and gas reserves recoverable will be 13,108 mcf.

Oil reserves were calculated from the attached rate/time curves to an economic limit of approximately 1 BOPD. Gas reserves were estimated using a study of the gas oil ratio performance not only on the specific well but on the entire pool.

My study reveals that as early as 1964 the producing well rate was 3.6 barrels of oil per day per well. The wells in the pool have remained on 40 acre spacing up until the past two years.

From infill well performance it is obvious that well density in this pool has to be increased to recover remaining reserves. The low permeability and low quality solution gas recovery mechanism will required reduced spacing to efficiently produce the reserves.

The daily producing rate for Well No. 21 was 11 BOPD in February 1982. This, of course, indicates that no interference has as yet been experienced from offset wells.

In my opinion the infill wells which increase the density of pattern will produce an amount of oil and gas reserves equal to the older wells in the field.

Therefore, it is my recommendation that well density be increased and it is my conclusion that infill wells will experience new reservoir conditions.

Paul G. White
Paul G. White
Petroleum Engineer

4-13-82
Date

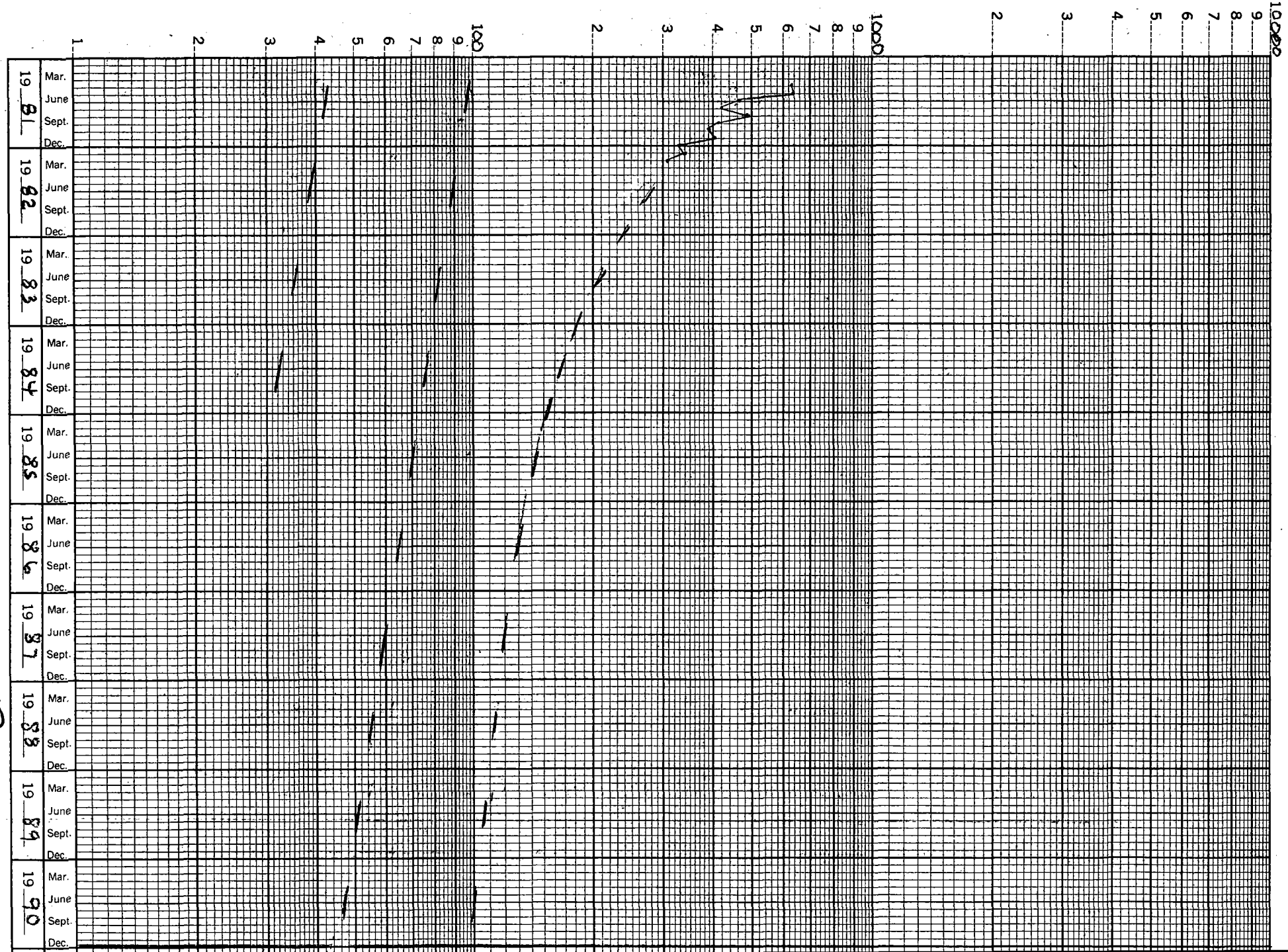
PGW/co
Encl.

Rule 9b.

K+E 20 YEARS BY MONTHS X 3 LOG CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

47 6843

Bbls/oil/month



West Antesia Queen Grayburg
WELL NO 21

Rule 96.

Rule 11:

Notice of this infill request has been sent to Sun Production Company, P.O. Box 1861, Midland, Texas 79702, by certified mail, as the only offset operator.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mr. Raye Miller
Marbob Energy Corporation
P.O. Drawer 217
Artesia, NM 88210

Re: Application for NGPA Infill Well Findings Under Provisions of Order No. R-6013-A NG Phillips State Well Nos. 25, 27, 28, 29 and West Artesia Grayburg Unit Well Nos. 22, 24, and 25.

Dear Raye:

We may not process the subject application for infill findings until the required information, forms, or plats checked on the reverse side of this letter are submitted.

Sincerely,

Michael E. Stogner

Michael E. Stogner,
Petroleum Engineer

MES/dp

- [ ] A copy of Form C-101 must be submitted.
- [ ] A copy of Form C-102 must be submitted.
- [ ] The pool name must be shown.
- [ ] The standard spacing unit size for the pool must be shown.
- [ ] Give the Division Order No. which granted the non-standard proration unit.
- [ ] Please state whether or not the well has been spudded and give the spud date, if any.
- [ ] Information relative to other wells on the proration unit is incomplete.
- [x] The geologic and reservoir data is incomplete or insufficient.

  All of Paul G. White's reports refer in paragraph three to calculated oil reserves, please include this calculations.
- [ ] Other:

Marbob Energy Corporation

P. O. DRAWER 217
ARTESIA, NEW MEXICO 88210

— OFFICE PHONE —
(505) 748-3303
(505) 746-2422

— NIGHT PHONES —
(505) 746-6197
(505) 746-6500

April 29, 1982

RECEIVED
MAY 03 1982
OIL CONSERVATION DIVISION
SANTA FE

Mr. Michael Stogner
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Dear Mike:

Per your request, we are enclosing Paul G. White' calculations on the oil reserves for the NG Phillips St. #25, 27, 28 and 29 and the West Artesia Grayburg Unit #22, 24, 21 and 25.

Let us know if you need further information.

Very truly yours,

Carolyn Orris

Carolyn Orris
Production Clerk

co

Encl.

Marbob Energy Corp.
West Artesia Grayburg Unit, Tr. 2, Well #21
1650 FNL 330 FWL Sec. 8-T18S-R28E

Year	Gross Monthly Oil - bbls.	Gross Yearly Oil - bbls.
1982	260	3,360
1983	205	2,460
1984	165	1,980
1985	142	1,704
1986	128	1,536
1987	120	1,440
1988	112	1,344
1989	107	1,284
1990	100	1,200
1991	96	1,152
1992	89	1,068
1993	82	984
1994	76	912
1995	70	840
1996	65	780
1997	60	720
1998	53	636
1999	51	612
2000	47	564
2001	42	504
2002	38	456
2003	35	420
	Total Oil Remaining:	25,956
	Cumulative to 1/1/82	4,829
	Total Ultimate Reserves	30,785

Gas-Oil Ratio Average - 505 to 1

Remaining Gas Reserves - 13,108 MCF