

INFILL DRILLING FINDINGS AND WELL-SPACING WAIVER  
MADE PURSUANT TO SECTION 271.305(b) OF THE  
FEDERAL ENERGY REGULATORY COMMISSION REGULATIONS,  
NATURAL GAS POLICY ACT OF 1978 AND OIL CONSERVATION DIVISION  
ORDER NO. R-6013

I.

Operator Jake L. Hamon Well Name and No. Amerada Federal No. 2  
Location: Unit F Sec. 17 Twp. 20S Rng. 36E Cty. Lea

II.

THE DIVISION FINDS:

- (1) That Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waiver of existing well-spacing requirements.
- (2) That by Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.
- (3) That the well for which a finding is sought is to be completed in the North Osudo Morrow Pool, and the standard spacing unit in said pool is 640 acres.
- (4) That a 640-acre proration unit comprising ~~XX~~ All of Sec. 17, Twp. 20S, Rng. 36E, is currently dedicated to the Amerada Federal No. 1 located in Unit N of said section.
- (5) That this proration unit is ( ☒ ) standard ( ☐ ) nonstandard; if nonstandard, said unit was previously approved by Order No. \_\_\_\_\_.
- (6) That said proration unit is not being effectively and efficiently drained by the existing well(s) on the unit.
- (7) That the drilling and completion of the well for which a finding is sought should result in the production of an additional 7.32 M MCF of gas from the proration unit which would not otherwise be recovered.
- (8) That all the requirements of Order No. R-6013 have been complied with, and that the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.
- (9) That in order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well spacing requirements for the pool.

IT IS THEREFORE ORDERED:

- (1) That the applicant is hereby authorized to drill the well described in Section I above as an infill well on the existing proration unit described in Section II(4) above. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.
- (2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on this 24th day of January, 19 80.

  
DIVISION DIRECTOR ☒ EXAMINER ☐

## OIL CONSERVATION DIVISION

P. O. Box 2088  
SANTA FE, NEW MEXICO  
87501

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

ADMINISTRATIVE ORDER

NFL 13

INFILL DRILLING FINDINGS AND WELL-SPACING WAIVER  
MADE PURSUANT TO SECTION 271.305(b) OF THE  
FEDERAL ENERGY REGULATORY COMMISSION REGULATIONS,  
NATURAL GAS POLICY ACT OF 1978 AND OIL CONSERVATION DIVISION  
ORDER NO. R-6013

I.

Operator JAKE L. HAMON Well Name and No. Amerada Federal No 2  
Location: Unit F Sec. 17 Twp. 20S Rng. 36E Cty. LoA

II.

## THE DIVISION FINDS:

(1) That Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waiver of existing well-spacing requirements.

(2) That by Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.

(3) That the well for which a finding is sought is to be completed in the NORTH OSUDO monow Pool, and the standard spacing unit in said pool is 640 acres.

(4) That a 640-acre proration unit comprising the A11 of Sec. 17, Twp. 20S, Rng. 36E, is currently dedicated to the Amerada Federal #1 located in Unit N of said section.

(5) That this proration unit is (☒) standard ( ) nonstandard; if nonstandard, said unit was previously approved by Order No. \_\_\_\_\_.

(6) That said proration unit is not being effectively and efficiently drained by the existing well(s) on the unit.

(7) That the drilling and completion of the well for which a finding is sought should result in the production of an additional 7.32 M MCF of gas from the proration unit which would not otherwise be recovered.

(8) That all the requirements of Order No. R-6013 have been complied with, and that the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.

(9) That in order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well spacing requirements for the pool.

## IT IS THEREFORE ORDERED:

(1) That the applicant is hereby authorized to drill the well described in Section I above as an infill well on the existing proration unit described in Section II(4) above. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

DIVISION DIRECTOR \_\_\_\_\_ EXAMINER \_\_\_\_\_

JAKE L. HAMON  
OIL AND GAS PRODUCER  
REPUBLIC NATIONAL BANK TOWER  
POST OFFICE BOX 663  
DALLAS, TEXAS 75221

JAMES G. COOKSEY, P.E.  
PRODUCTION ENGINEER

January 22, 1980

Mr. R. L. Stametz  
Technical Support Chief  
Energy & Minerals Dept.  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Stametz:

This is in answer to your letter dated January 17, 1980 concerning Jake L. Hamon's application for NGPA In-Fill Well Findings under provision of Order No. R-6013 for the Amerada-Federal Well No. 2 in Section 17-T20-S-R36E, N. Osudo (Morrow) Field, Lea County, New Mexico.

The standard spacing unit size for the N. Osudo (Morrow) Field, Lea County, New Mexico is 640 acres.

The well has not been spudded as of this date. However, we anticipate a spud date of January 25, 1980.

The 640-acre proration unit consists of the entire Section 17. The Amerada Federal Well No. 1 is located 660' FSL and 1980' FWL of Section 17. Well No. 1 was completed in August 1966 and commenced producing in September, 1966. Cumulative Gas Production has been 5,534,494 MCF through October 1979. The daily gas production is currently less than 50 MCFPD. The last reported condensate production was in May of 1976. Well No. 1 is at its current economic limit. A complete production tabulation was submitted with the original application.

Submitted with the original application was a structure map contoured on top of the Morrow formation. An examination of this structure map indicates that the Amerada-Federal Lease in Section 17 is near the Eastern Morrow Sand pinch-out limit. The wells that were originally drilled and completed in the Morrow Sand in the N. Osudo Field are all now nearing their economic limits. These six wells were in Section 6, 18, 17, 19, 20, and 30. In 1978, Texas Oil & Gas drilled its Osudo State Well No. 1 in Section 29 as an Unorthodox location and on a 320-acre proration unit consisting of the North 1/2 of Section 29. This well encountered a Morrow Sand stringer of virgin reservoir pressure and has produced a large volume of gas. Production rates were in excess of 7,000,000 cu. ft. per day initially.

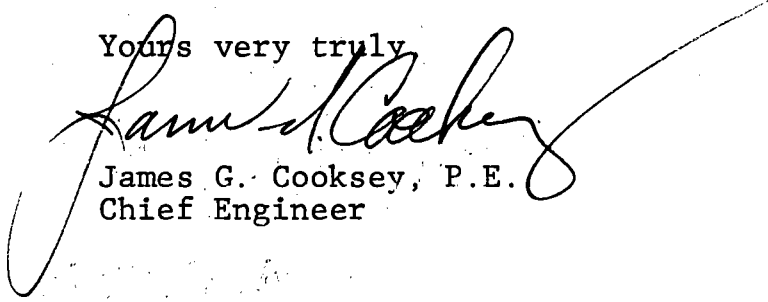
Jake L. Hamon  
Mr. R. L. Stametz, Oil Conservation Division  
Page 2

January 22, 1980

Jake L. Hamon, in 1979, drilled its Union State Well No. 2 in the N. E. corner of Section 30 and encountered Morrow Sand stringers that had not been depleted by the Union State Well No. 1 in Section 30 or Moran State No. 1 in Section 19. Evidence obtained from the drilling of the Texas Oil & Gas, Osudo State No. 1 and the Hamon Union State No. 2 indicates the possibility of Morrow Sand stringers that were not efficiently and effectively drained by the original completions in the field. It is believed that the proposed Amerada-Federal Well No. 2, drilled 1980' out of the northeast corner of Section 17, will encounter Morrow Sand stringers that have not been depleted by the existing wells in the field. Calculations submitted with the original application indicate an additional recovery of 7.32 BCF can be expected from the proposed well.

We respectfully request that a favorable finding for the NGPA In-fill provision of Order R-6013 can be granted administratively. If additional information is required, please advise.

Yours very truly,



James G. Cooksey, P.E.  
Chief Engineer

JGC:po

Enc.



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

BRUCE KING  
GOVERNOR

LARRY KEHOE  
SECRETARY

January 17, 1980

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

Mr. Jake L. Hamon  
611 Petroleum Bldg.  
Midland, Texas 79701

Attention: Mr. John Casey

Re: Application for NGPA Infill Well  
Findings Under Provisions of  
Order No. R-6013 Amerada Fed.  
Well No. 2, Sec. 17, T-20-S, R-36-E,  
N. Osudo Morrow Pool, Lea County

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,

R. L. STAMETS  
Technical Support Chief

RLS/dr

- ☐ 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. There is no explanation why the existing well cannot effectively and efficiently drain the proration unit.
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- ☒ The geologic and reservoir data is incomplete or insufficient. There must be a narrative describing when all reservoir figures were derived and justifying the same.
- \_\_\_\_\_
- \_\_\_\_\_
- ☐ Other:
- \_\_\_\_\_
- \_\_\_\_\_

KELLAHIN and KELLAHIN

*Attorneys at Law*

500 Don Gaspar Avenue

Post Office Box 1769

Santa Fe, New Mexico 87501

Jason Kellahin

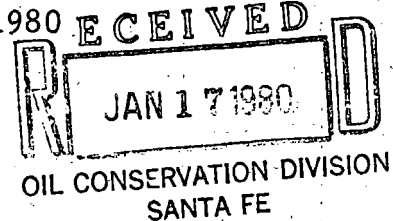
W. Thomas Kellahin

Karen Aubrey

Telephone 982-4285

Area Code 505

January 16, 1980



Mr. Joe Ramey  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

re: Filing Pursuant to Division Order No. R-6013

Dear Mr. Ramey:

On behalf of Jake L. Hamon, the enclosed information is submitted in duplicate in accordance with Division Order No. R-6013 that will allow an infill well (Amerada Federal Well No. 2) to be drilled on the existing proration unit of the Amerada Federal Well No. 1 to which Section 17, T20S, R36E, NMPM, North Osudo Morrow Pool, Lea County, New Mexico is dedicated.

The following information is enclosed:

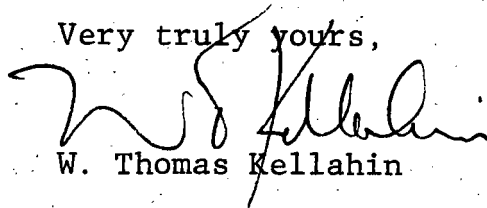
1. Waiver from Flag Redfern Oil Company, being the only offset operator.
2. The Application to Drill (Form C-101)
3. A Well location and Dedication Plat (Form C-102)
4. The calculation of the estimated recoverable gas for the proposed well.
5. A structure map contoured on the top of the Morrow formation on which is outlined the existing 640-acre proration unit.
6. A Well Data Sheet for the existing well on the proration unit (Amerada Federal Well No. 1)
7. A Production Tabulation which shows cumulative production and current rate of production for the existing well on the proration unit.

KELLAHIN and KELLAHIN

Mr. Joe Ramey  
Page Two  
January 16, 1980

This application is submitted for the necessary infill findings so that this well can be drilled pursuant to Section 103 of the Natural Gas Policy Act.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'W. Thomas Kellahin', is written over the typed name. The signature is fluid and cursive, with a large initial 'W' and a long, sweeping underline.

W. Thomas Kellahin

WTK:mm

cc: Mr. John E. Casey  
Mr. James Cooksey



January 11, 1980

Jake L. Hamon  
611 Petroleum Bldg.  
Midland, Texas 79701

Attn: Mr. John Casey

Re: Application for Proposed Infill Well  
Section 17-20S-36E  
Lea County, New Mexico

Dear Sir:

Pertaining to the captioned, Flag Redfern Oil Company has been advised by Certified Mail No. 649609 that Jake L. Hamon has made application to drill an infill well in the North Osudo Morrow Field, Unit F, 1980' FNL, 1980' FWL, Section 17-20S-36E, Lea County, New Mexico.

Mr Hamon has requested a finding that the subject well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by the existing well within the proration unit.

This is to certify that Flag Redfern Oil Company, an offset operator, has no objection to Mr. Hamon drilling the subject well 1980' from N & W lines of Sec 17, T-20-S, R-36-E.

Flag Redfern Oil Company

  
By: Byron H. Greaves Vice President



JAKE L. HAMON  
OIL AND GAS PRODUCER  
REPUBLIC NATIONAL BANK TOWER  
PO BOX 1000 BOX 100  
DALLAS, TEXAS 75221

BRUCE MARTINDALE, III  
LAND AND LAW

January 11, 1980

CERTIFIED MAIL  
NO. 649609

Flag Redfern Oil Company  
Box 23  
1200 Wall Towers West  
Midland, Texas 79702

Attention: Mr. Byron H. Greaves

Re: Application for Proposed Infill Well  
Section 17-20S-36E  
Lea County, New Mexico

Gentlemen:

In accordance with Order No. R-6013 of the State of New Mexico Oil Conservation Division, you are hereby notified that Mr. Jake L. Hamon has made application this date for the drilling of an infill well in the North Osado Morrow Field, Unit F, 1980' FNL, 1980' FNL, Section 17-20S-36E, Lea County, New Mexico, and has requested a finding that the infill well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by the existing well within the proration unit.

Very truly yours,

JAKE L. HAMON

Christy Catanzaro

cc: Mr. James F. Massey  
Mr. James Cooksey.  
Mr. Tom Kellahin

Jake L. Hamon  
OIL PRODUCER  
611 THE PETROLEUM BUILDING  
MIDLAND, TEXAS 79701

December 13, 1979

Oil Conservation Commission  
P. O. Box 1980  
Hobbs, New Mexico 88240

Re: Amerada Federal #2  
North Osudo Morrow  
Lea County, New Mexico

Gentlemen:

We are enclosing six (6) copies of Form C-101, Application for Permit to Drill, and four (4) copies of the Location and Acreage Dedication Plat for the above referenced well.

Please note that the 640 acre spacing unit has been assigned to the No. 1 well located in the C SE SW in the same section. The No. 2 well is to be drilled in the same 640 acre spacing unit after approval has been granted by the Commission on Rule R-6013.

We are also enclosing a list for working interest after communitization on the 1920 acre unit.

Very truly yours,

JAKE L. HAMON

By: *Cecil H. Barton*  
Cecil H. Barton  
Petroleum Engineer

CHB:bmc

encl:

cc: Working Interest per list attached.

James Massey

John Casey

James Cooksey ✓

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OPERATOR	

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101  
Revised 1-1-65

5A. Indicate Type of Lease	
STATE <input type="checkbox"/>	FEE <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		Com AGR SW 437	
DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		8. Farm or Lease Name	
SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		Amerada Federal	
2. Name of Operator		9. Well No.	
Jake L. Hamon		2	
3. Address of Operator		10. Field and Pool, or Wildcat	
611 Petroleum Building, Midland, Texas 79701		North Osudo Morrow	
4. Location of Well		12. County	
UNIT LETTER <u>F</u> LOCATED <u>1980</u> FEET FROM THE <u>North</u> LINE		Lea	
AND <u>1980</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>17</u> TWP. <u>20-S</u> RGE. <u>36-E</u> NMPM			
19. Proposed Depth		19A. Formation	
11,600'		Morrow	
20. Rotary or C.T.		Rotary	
21. Elevations (Show whether DF, RT, etc.)		22. Approx. Date Work will start	
3612.5' GR		February 1980	
21A. Kind & Status Plug. Bond		21B. Drilling Contractor	
Blanket in force		N/A	

## PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
15-1/2"	12-3/4"	35#	350	350	Surface
11"	8-5/8"	24# & 28#	5000	1900	Surface
7-7/8"	5-1/2"	17# & 20#	11600	500	8600'

### Procedure:

- Drill 15-1/2" hole to 350' using gel/lime mud.
- Set 12-3/4" 35# surface casing and cement to surface with 350 sx.
- Install 2 - 3000# BOP's and pressure test BOP's and surface casing.
- Drill 11" hole to 5000' using saltwater base mud.
- Set 8-5/8" 24# & 28# intermediate casing and cement to surface with 1900 sx.
- Install 2 - 5000# BOP's and annular BOP, and pressure test BOP's and casing.
- Drill 7-7/8" hole to T.D. of 11,600' using salt water base mud of 9# - 12#/gal and sufficient properties for samples and hole conditions for logging DST's & casing setting.
- DST any significant shows of oil or gas and run electric logs.
- If production is indicated, set and cement 5-1/2", 17# & 20# casing to TD w/500 sx.
- Perforate productive zone and acidize or frac as needed.

Note: The 640 Ac. spacing unit has been assigned to the No. 1 well located in the C SE SW in the same section. The No. 2 well is to be drilled in the same 640 Ac. spacing unit after approval has been granted by the Commission on rule R-6013.

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 Cecil H. Baxton Title Petroleum Engineer Date 12-13-79  
(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
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

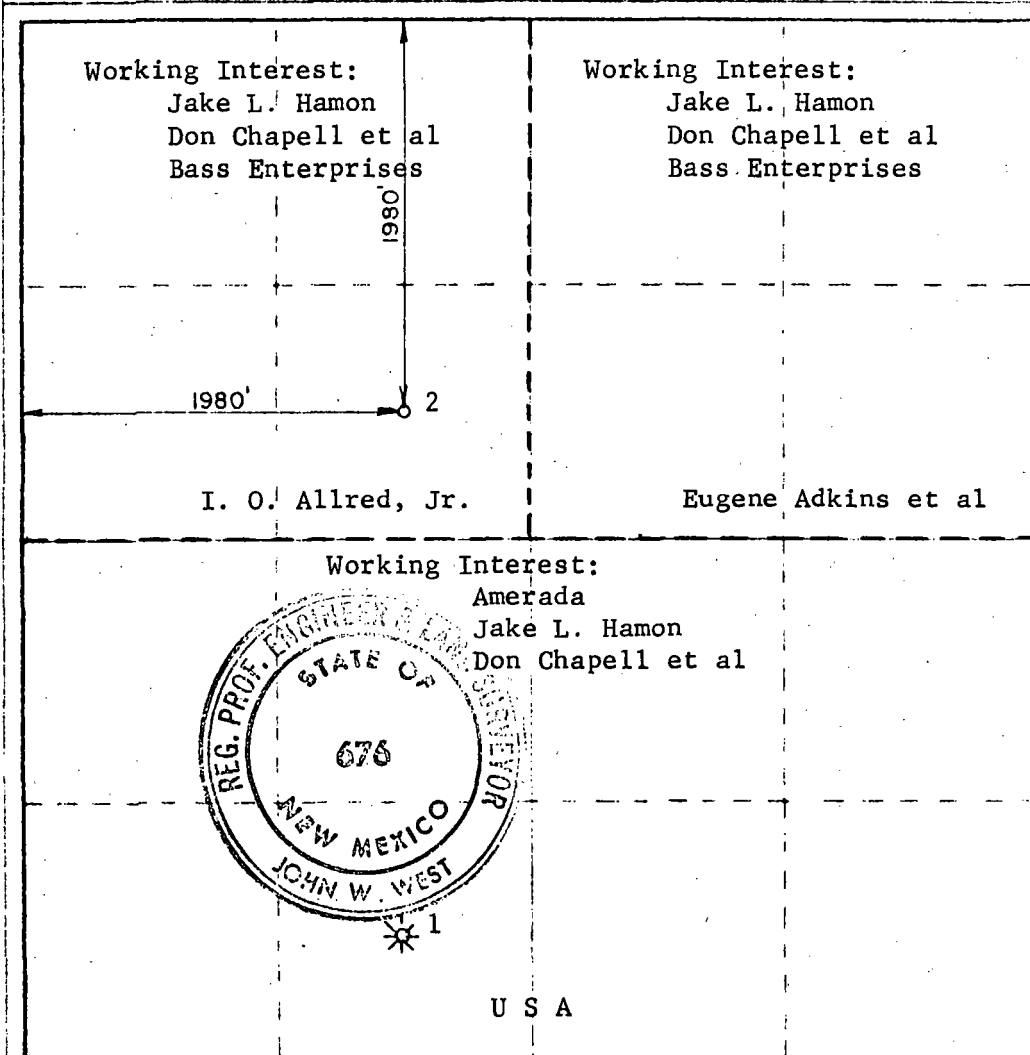
Owner <b>Jake L. Hamon</b>			Lease <b>Amerada Federal</b>			Acreage <b>2</b>		
Section <b>F</b>	Range <b>17</b>	Meridian <b>20 South</b>	Section <b>36</b>	Range <b>East</b>	Meridian <b>Lea</b>			
1980 feet from the North line and			1980 feet from the West line and					
3012.5 Morrow			North Osudo Morrow			640		

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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 Communitization

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. **Remarks:** See attached list for working interest after Com. on 1920 Ac. Unit.



**CERTIFICATION**

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

*Cecil H. Barton*

Cecil H. Barton

Petroleum Engineer

Jake L. Hamon

December 13, 1979

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.

December 7, 1979

*John W. West*

Certified by John W. West

676

Ronald J. Eldon

3212

WORKING INTEREST AFTER COMMUNITIZATION IN SECTION 17

Jake L. Hamon	16.355685%
Amerada Division - Amerada Hess Corporation	12.770528%
Amoco Production Company	42.142528%
Bass Enterprises Production Company	18.692211%
Donald Clayton Chapell	1.168263%
Charles H. Coll	.045360%
James N. Coll	.045360%
Jon F. Coll	.045360%
Max W. Coll II	.045360%
Gulf Oil Corporation	4.618030%
Carol Chapell Henry	1.168263%
Phillips Petroleum Company	2.903052%

Unit Total

100.000000

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OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

PROD. DEPT.

20 1979

AC-  
1A-  
C-  
MIDLAND

JLH  
JLH III  
CORPUS  
E. TEX.

Form C-101  
Revised 1-1-65

5A. Indicate Type of Lease  
STATE ☐ FEE ☒  
5. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		2. Name of Operator Jake L. Hamon		7. Unit Agreement Name Com AGR SW 437	
3. Address of Operator 611 Petroleum Building, Midland, Texas 79701		8. Farm or Lease Name Amerada Federal		9. Well No. 2	
4. Location of Well UNIT LETTER <u>F</u> LOCATED <u>1980</u> FEET FROM THE <u>North</u> LINE AND <u>1980</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>17</u> TWP. <u>20-S</u> RGE. <u>36-E</u> N.M.P.M.		10. Field and Pool, or Wildcat North Caudo Morrow		12. County Lea	
21. Elevations (Show whether DT, RT, etc.) 3612.5' GR		21A. Kind & Status Plug. Bond Blanket in force		21B. Drilling Contractor N/A	
19. Proposed Depth 11,600'		19A. Formation Morrow		20. Rotary or C.T. Rotary	
22. Approx. Date Work will start February 1980					

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
15-1/2"	12-3/4"	35#	350	350	Surface
11"	8-5/8"	24# & 28#	5000	1900	Surface
7-7/8"	5-1/2"	17# & 20#	11600	500	8600'

Procedure:

- Drill 15-1/2" hole to 350' using gel/lime mud.
- Set 12-3/4" 35# surface casing and cement to surface with 350 sx.
- Install 2 - 3000# BOP's and pressure test BOP's and surface casing.
- Drill 11" hole to 5000' using saltwater base mud.
- Set 8-5/8" 24# & 28# intermediate casing and cement to surface with 1900 sx.
- Install 2 - 5000# BOP's and annular BOP, and pressure test BOP's and casing.
- Drill 7-7/8" hole to T.D. of 11,600' using salt water base mud of 9# - 12#/gal and sufficient properties for samples and hole conditions for logging DST's & casing setting.
- DST any significant shows of oil or gas and run electric logs.
- If production is indicated, set and cement 5-1/2", 17# & 20# casing to TD w/500 sx.
- Perforate productive zone and acidize or frac as needed.

Note: The 640 Ac. spacing unit has been assigned to the No. 1 well located in the C SE SW in the same section. The No. 2 well is to be drilled in the same 640 Ac. spacing unit after approval has been granted by the Commission on rule R-6013.

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 Cecil H. Baskin Title Petroleum Engineer Date 12-13-79

(This space for State Use)

APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT DATE DEC 17 1979

CONDITIONS OF APPROVAL, IF ANY:



JAKE L. HAMON  
 Amerada-Federal Well #2  
 Osudo North (Morrow) Field  
 Lea County, New Mexico

RESERVE ESTIMATE:

Specific Gravity, gas	0.600
Reservoir Temperature, °F	164
Reservoir Pressure, psig	4760
Porosity, %	15
Water Saturation, %	5
Deviation Factor	0.862
Productive Acres	320
Thickness, ft.	15
Recovery Factor, %	80

$$\begin{aligned}
 \text{OGIP, mcf/ac-ft} &= \frac{1538 (0) (1-S_w) (BHP+14.73)}{(BHT + 460) (2)} \\
 &= \frac{(1538) (.15) (1-.05) (4760+14.73)}{(164+460) (.862)} \\
 &= 1907
 \end{aligned}$$

$$\begin{aligned}
 \text{REC. GAS} &= (06IP) (Ac) (6) (RF) \\
 &= (1907) (320) (15) (180) \\
 &= 7.32 \text{ BCF}
 \end{aligned}$$

RESERVOIR DATA ESTIMATED FROM:

Texas Oil & Gas, Federal Com Well #1  
 Jake L. Hamon, Union State #2

PERTINENT COMPLETION DATA

JAKE L. HAMON - OPERATOR  
AMERADA FEDERAL NO. 1  
NORTH OSUDO-MORROW POOL  
LEA COUNTY, NEW MEXICO

Location	Unit N. 660' FSL, 1980' FWL, Section 17, T-20-S, R-36-E.	
Date Spudded	June 11, 1966	
Total Depth	11,580'	
Days to Drill & Complete	77 days	
Plug Back Depth	11,538'	
Elevation	3640' KB	
Production Casing	7" set at 11,160' with 300 sacks cement 5" liner from 11,011'-11,570' with 75 sacks cement.	
Morrow Interval	Perf. 11,358'-11,388'	11373 3640' KB -7730
Morrow Stimulation	None	
Potential & Date	CAOF 23,823 MCFPD 8-27-66	
Connection Date to Sales	September, 1966	
Present Gas Purchaser	Phillips Petroleum & Warren Petroleum	
Gas Gravity	0.609	
Original Gas-Liquid Hydrocarbon Ratio	10,442 CF/Bbl.	
Liquid-Hydrocarbon Gravity	50.6° API @ 60°F	

## AMERADA FEDERAL #1

SEC. 17 T-20-S R-36-E

LEA COUNTY, NEW MEXICO

		1 MONTHLY	2 ACC.	3 MONTHLY	4 ACC.	5
	DATE	GAS (SALES) PRODUCTION 14.65*	GAS PRODUCTION	COND. PROD.	COND. PROD.	YIELD B./MMCF
1	9/66	125,565	125,565	12,329	12,329	98.2
2	10/66	237,364	362,929	17,352	29,681	73.1
3	11/66	266,940	629,869	15,540	45,221	58.2
4	12/66	231,937	861,806	11,511	56,732 ✓	49.6
5	1/67	164,559	1,026,365	6,306	63,038	38.3
6	2/67	232,636	1,259,001	7,810	70,848	33.5
7	3/67	246,960	1,505,961	6,629	77,477	26.8
8	4/67	217,640	1,723,601	4,826	82,303	22.2
9	5/67	204,900	1,928,501	3,731	86,034	18.2
10	6/67	185,469	2,113,970	2,958	88,992	15.9
11	7/67	177,366	2,291,336	2,293	91,285	12.9
12	8/67	164,123	2,455,459	1,910	93,195	11.6
13	9/67	141,657	2,597,116	1,387	94,582	9.8
14	10/67	132,949	2,730,065	1,249	95,831	9.4
15	11/67	124,415	2,854,480	997	96,828	8.0
16	12/67	105,311	2,959,791	671	97,499	6.4
17	1/68	108,712	3,068,503	684	98,183	6.3
18	2/68	95,023	3,163,526	580	98,763	6.1
19	3/68	100,864	3,264,390	558	99,321	5.5
20	4/68	81,846	3,346,236	412	99,733	5.0
21	5/68	84,830	3,431,066	412	100,145	4.9
22	6/68	76,914	3,507,980	372	100,517	4.8
23	7/68	72,915	3,580,895	344	100,861	4.7
24	8/68	69,280	3,650,175	320	101,181	4.6
25	9/68	57,707	3,707,882	117 *	101,298	*
26	10/68	52,998	3,760,880	289	101,587	5.5
27	11/68	47,935 ***	3,808,815	203	101,790	4.2
28	12/68	45,841 ***	3,806,721	270	102,060	4.4
29	1/69	54,470 ***	3,863,285 ✓	129 **	102,189	5.0
30	2/69	49,263 ***	3,912,548	98	102,287	2.8
31	3/69	45,988 ***	3,927,091	123	102,410	2.8
32	4/69	35,525	3,942,616	102	102,512	3.9
33	5/69	31,721	3,979,794	102	102,628	4.2
34	6/69	24,135	4,003,929	116	102,749	4.5
35	7/69	26,026	4,029,955	121	102,851	4.9
36	8/69	24,768	4,054,723	10	102,861	3.0
37	9/69	34,030	4,088,753	89	102,950	0.7
38	10/69	14,971	4,103,724	51	103,001	4.7
39	11/69	18,863	4,122,587	74	103,075	2.9
40	12/69	17,372	4,139,959	135	103,210	5.4
41		13,688	4,153,647	1150	103,210	7.6
42		9,679	4,149,638			4.7
43		28,657	4,182,304			
44		31,401.9	4,182,304			

\*\*\* ADJ. DUE TO SQUIER AUDIT

\*\* BLED 65 B H/O TO PIT &amp; TRANS. OIL TO TANK 14231 - MOVED THIRD TANK

\* DRAINED FROM TANK 14231 ON 10/1/69



AMERADA FEDERAL #1

SEC. 17 T-20-S R-36-E

LEA COUNTY, NEW MEXICO

	DATE	<sup>1</sup> MONTHLY GAS SALES	<sup>2</sup> ACC. GAS SALES	<sup>3</sup> MONTHLY COND. PROD.	<sup>4</sup> ACC. COND. PROD.	<sup>5</sup> YIELD B/MMcf.
1970		14.65#				
1	JAN	49735	4232039	176	103386	35
2	FEB	38990	4271029	113	103499	29
3	MAR	47718	4318747	167	103666	35
4	APR	39468	4358275	117	103783	30
5	MAY	36778	4395577	102	103885	28
6	JUNE	41299	4436876	93	103978	23
7	JULY	37764	4474640	88	104066	23
8	AUG	35093	4509733	79	104145	23
9	SEPT	30273	4540006	61	104206	20
10	OCT	26018	4566024	65	104336	25
11	NOV	22984	4589008	84	104420	37
12	DEC	26278	4615286	51	104192	19
13	1971	437152	4615286			
14	JAN	14531	4629017	31	104223	21
15	FEB	12155	4641972	47	104270	39
16	MAR	15524	4657496	32	104302	21
17	APR	17907	4675403	14	104279@	08
18	MAY	27699	4703102	42	104316@	15
19	JUNE	25513	4728615	37	104298@	15
20	JULY	24200	4752815	14	104321	06
21	AUG	21369	4774184	32	104349	15
22	SEPT	19121	4793305	28	104381	15
23	OCT	17406	4791590	28	104409	16
24	NOV	19524	4812829	28	104437	14
25	DEC	21220	4817174	33	104449	16
26	1972	6834	4832334	44	104470	64
27	JAN	14835	4840883	45	104514	30
28	FEB	12252	4855718	20	104559	16
29	MAR	15700	4867970	51	104579	32
30	APR	9590	4883670	31	104630	32
31	MAY	12205	4893260	32	104661	53
32	JUNE	16293	4899270	17	104693	24
33	JULY	10397	4905465	31	104710	30
34	AUG	9107	4906485	30	104741	33
35	SEPT	7911	4922458	22	104771	28
36	OCT	11124	4916002	50	104793	45
37	NOV	7375	4944944	37	104843	50
38	DEC	808	4952319	2	104880	25
39		112244	4953127		104882	
40						
41						
42						
43						

@ DEDUCTED BSAW

\* 574-mcf ABJ DUE TO CLOSER AUNT

AMERADA FEDERAL #1

SEC. 17 T-20-S R-36-E

LEA COUNTY, NEW MEXICO

	DATE	MONTHLY GAS SALES (14.65 #)	ACC. GAS SALES	MONTHLY COND. PROD.	ACC. COND. PROD.	YIELD B/MMcft.
1973						
1	JAN	2462 *	4955589	20	104902	8.1
2	FEB	11801 **	4967390	27	104929	2.3
3	MAR	13372	4980762	1	104930	0.1
4	APR	12517	4993279	9	104939	0.1
5	MAY	12904	5006183	0	104939	0.0
6	JUNE	10621	5016804	0	104939	0.0
7	JULY	1720 #	5018524	2	104941	1.1
8	AUG.	1440	5019964	0	104941	0.0
9	SEPT	945	5020909	0	104941	0.0
10	OCT	925	5021834	0	104941	0.0
11	NOV	1410	5023244	0	104941	0.0
12	DEC	994	5024238	0	104941	—
13	1974	11111				
14	JAN	2879	5027117	0	104941	—
15	FEB	12257	5041374	0	104941	—
16	MAR	14626	5056000	34	104975	2.3
17	APR	13243	5069243	3	104978	0.2
18	MAY	12647	5081890	0	104978	—
19	JUNE	14185	5096075	0	104978	—
20	JULY	16697	5112772	0	104978	—
21	AUG.	16709	5129481	3	104981	0.18
22	SEPT.	14055	5144536	0	104981	—
23	OCT.	9316	5153852	0	104981	—
24	NOV.	12951	5166803	4	104985	0.31
25	DEC.	13161	5179964	14	104999	1.06
26	1975					
27	JAN	12493	5192457	11	105010	.88
28	FEB	10372	5202829	9	105019	.87
29	MAR	11252	5214081	16	105035	1.42
30	APR	10654	5224735	18	105053	1.69
31	MAY	9237	5233972	0	105053	—
32	JUN	8417	5242389	0	105053	—
33	JUL	7392	5249781	0	105053	—
34	AUG	6455	5256236	3	105056	.46
35	SEP	5775	5262014	0	105056	—
36	OCT	6933	5268947	0	105056	—
37	NOV	10673	5279580	0	105056	—
38	DEC	12716	5292296	0	105056	—
39						
40	1976					
41	JAN	12113	5304479	35	105091	2.90
42	FEB	10908	5315387	22	105113	2.02
43	* COMPRESSOR SHUT-DOWN 1/27/73					
44	** CONNECTED TO WARREN AP PRESS LINE 2/1/73					
45	FAGS- REDFERN - OSADU STATE #1					
46	# PHILIPS LOWERED THEIR LINE PRESS 7-21-73					
47	# R. J. ...					

AMERAD + FEDERAL #1

Page 4

SE. 17 T-20-S R-36-E

LEA COUNTY, NEW MEXICO

	DATE	<sup>1</sup> MONTHLY GAS SALES (14.65#)	<sup>2</sup> ALL GAS SALES	<sup>3</sup> MONTHLY COND PROD.	<sup>4</sup> ALL COND PROD.	<sup>5</sup> YIELD B/MMCT
1976						
	MAR	11509	5326896	15	105128	1.30
	Apr	10875	5339771	12	105140	1.10
	May	16363	5344134	15	105155	2.76
	JUN	9818	5353952	0	105155	
	JUL	2860	5356912	0	105155	
	AUG	1832	5358644	0	105155	
	SEP	2053	5360697	0	105155	
	OCT	2105	5363102	0	105155	
	Nov	2317	5365419	0	105155	
	Dec	1741	5367160	0	105155	
		74864	5367160			
1977						
	Jan	680	5367840	- 0 -	105155	
	Feb	1399	5369239	- 0 -	105155	
	Mar.	1436	5370675	- 0 -	105155	
	Apr.	2492	5373167	- 0 -	105155	
	May	3418	5376585	- 0 -	105155	
	June	2786	5379471	- 0 -	105155	
	July	3055	5382526	- 0 -	105155	
	Aug.	3147	5385673	- 0 -	105155	
	Sept.	3121	5388794	- 0 -	105155	
	Oct.	10728	5399522	0	105155	
	Nov.	7349	5406871	0	105155	
	Dec.	8839	5415710	0	105155	
		48550	5415710			
1978						
	Jan.	8593	5424303	0	105155	
	Feb.	6987	5431290	0	105155	
	Mar.	8136	5439426	0	105155	
	Apr.	8549	5447975	27	105182	3.2
	May	10428	5458403	0	105182	
	June	10212	5468615	0	105182	
	July	10044	5478659	0	105182	
	Aug.	10187	5488846	0	105182	
	Sept.	8625	5497471	0	105182	
	Oct.	7151	5504925	0	105182	
	Nov.	5594	5510519	0	105182	
	Dec.	3050	5513569	0	105182	
		97859	5513569			
1979						
	Jan.	2221	5515790	0	105182	
	Feb.	2167	5517957	0	105182	

AMERADA FEDERAL #1

Page 5

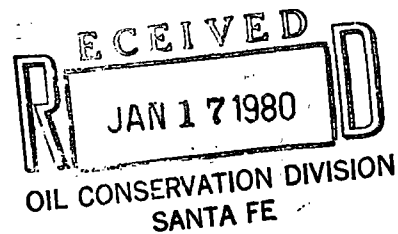
Osudo Field, N.

Lea County, New Mex.

DATE	1 Monthly Gas Sales	2 Acc. Gas Sales	3 Monthly Cond. Prod.	4 Acc. Cond. Prod.	5 Yield	
1979						1
Mar.	2599	5520556	0	105182		2
Apr.	2234	5522790	0	105182		3
May	2714	5525504	0	105182		4
June	2615	5528119	0	105182		5
July	1964	5530083				6
Aug.	1530	5531613				7
Sept.	1464	5533077				8
Oct.	1417	5534494				9
Nov.						10
Dec.						11
						12
1980						13
Jan.						14
Feb.						15
Mar.						16
Apr.						17
May						18
June						19
July						20
Aug.						21
Sept.						22
Oct.						23
Nov.						24
Dec.						25
						26
1981						27
Jan.						28
Feb.						29
Mar.						30
Apr.						31
May						32
June						33
July						34
Aug.						35
Sept.						36
Oct.						37
Nov.						38
Dec.						39
						40
						41
						42
						43



January 11, 1980



Jake L. Hamon  
611 Petroleum Bldg.  
Midland, Texas 79701

Attn: Mr. John Casey

Re: Application for Proposed Infill Well  
Section 17-20S-36E  
Lea County, New Mexico

Dear Sir:

Pertaining to the captioned, Flag Redfern Oil Company has been advised by Certified Mail No. 649609 that Jake L. Hamon has made application to drill an infill well in the North Osudo Morrow Field, Unit F, 1980' FNL, 1980' FWL, Section 17-20S-36E, Lea County, New Mexico.

Mr Hamon has requested a finding that the subject well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by the existing well within the proration unit.

This is to certify that Flag Redfern Oil Company, an offset operator, has no objection to Mr. Hamon drilling the subject well 1980' from N & W lines of Sec 17, T-20-S, R-36-E.

Flag Redfern Oil Company

  
By: Byron H. Greaves Vice President

JAKE L. HAMON  
OIL AND GAS PRODUCER  
REPUBLIC NATIONAL BANK TOWER  
FOUR OFFICE BOX 111  
DALLAS, TEXAS 75221

BRUCE MARTINDALE, III  
LAND AND LAW

January 11, 1980

CERTIFIED MAIL  
NO. 649609

Flag Redfern Oil Company  
Box 23  
1200 Wall Towers West  
Midland, Texas 79702

Attention: Mr. Byron H. Greaves

Re: Application for Proposed Infill Well  
Section 17-20S-36E  
Lea County, New Mexico

Gentlemen:

In accordance with Order No. R-6013 of the State of New Mexico Oil Conservation Division, you are hereby notified that Mr. Jake L. Hamon has made application this date for the drilling of an infill well in the North Osado Morrow Field, Unit P, 1980' FNL, 1980' FNL, Section 17-20S-36E, Lea County, New Mexico, and has requested a finding that the infill well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be effectively and efficiently drained by the existing well within the proration unit.

Very truly yours,

JAKE L. HAMON

Christy Catanzaro

cc: Mr. James F. Massey  
Mr. James Cooksey.  
Mr. Tom Kellahin

Jake L. Hamon  
OIL PRODUCER  
611 THE PETROLEUM BUILDING  
MIDLAND, TEXAS 79701

December 13, 1979

Oil Conservation Commission  
P. O. Box 1980  
Hobbs, New Mexico 88240

Re: Amerada Federal #2  
North Osudo Morrow  
Lea County, New Mexico

Gentlemen:

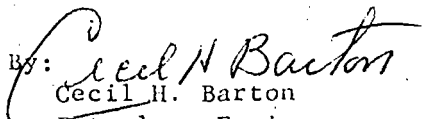
We are enclosing six (6) copies of Form C-101, Application for Permit to Drill, and four (4) copies of the Location and Acreage Dedication Plat for the above referenced well.

Please note that the 640 acre spacing unit has been assigned to the No. 1 well located in the C SE SW in the same section. The No. 2 well is to be drilled in the same 640 acre spacing unit after approval has been granted by the Commission on Rule R-6013.

We are also enclosing a list for working interest after communitization on the 1920 acre unit.

Very truly yours,

JAKE L. HAMON

By:   
Cecil H. Barton  
Petroleum Engineer

CHB:bmc

encl:

cc: Working Interest per list attached.

James Massey

John Casey

James Cooksey ✓

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SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

# NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101  
Revised 1-1-65

5A. Indicate Type of Lease	
STATE <input type="checkbox"/>	FEE <input checked="" type="checkbox"/>
5. State Oil & Gas Lease No.	

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work		7. Unit Agreement Name	
b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		Com AGR SW 437	
DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		8. Farm or Lease Name	
SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		Amerada Federal	
2. Name of Operator		9. Well No.	
Jake L. Hamon		2	
3. Address of Operator		10. Field and Pool, or Wildcat	
611 Petroleum Building, Midland, Texas 79701		North Osudo Morrow	
4. Location of Well		12. County	
UNIT LETTER <u>F</u> LOCATED <u>1980</u> FEET FROM THE <u>North</u> LINE		Lea	
AND <u>1980</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>17</u> TWP. <u>20-S</u> RGE. <u>36-E</u> NMPM			
19. Proposed Depth		19A. Formation	
11,600'		Morrow	
20. Rotary or C.T.		Rotary	
21. Elevations (Show whether DF, RT, etc.)		22. Approx. Date Work will start	
3612.5' GR		February 1980	
21A. Kind & Status Plug. Bond		21B. Drilling Contractor	
Blanket in force		N/A	

## PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
15-1/2"	12-3/4"	35#	350	350	Surface
11"	8-5/8"	24# & 28#	5000	1900	Surface
7-7/8"	5-1/2"	17# & 20#	11600	500	8600'

### Procedure:

- Drill 15-1/2" hole to 350' using gel/lime mud.
- Set 12-3/4" 35# surface casing and cement to surface with 350 sx.
- Install 2 - 3000# BOP's and pressure test BOP's and surface casing.
- Drill 11" hole to 5000' using saltwater base mud.
- Set 8-5/8" 24# & 28# intermediate casing and cement to surface with 1900 sx.
- Install 2 - 5000# BOP's and annular BOP, and pressure test BOP's and casing.
- Drill 7-7/8" hole to T.D. of 11,600' using salt water base mud of 9# - 12#/gal and sufficient properties for samples and hole conditions for logging DST's & casing setting.
- DST any significant shows of oil or gas and run electric logs.
- If production is indicated, set and cement 5-1/2", 17# & 20# casing to TD w/500 sx.
- Perforate productive zone and acidize or frac as needed.

Note: The 640 Ac. spacing unit has been assigned to the No. 1 well located in the C SE SW in the same section. The No. 2 well is to be drilled in the same 640 Ac. spacing unit after approval has been granted by the Commission on rule R-6013.

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 Cecil H. Barton Title Petroleum Engineer Date 12-13-79  
(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
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

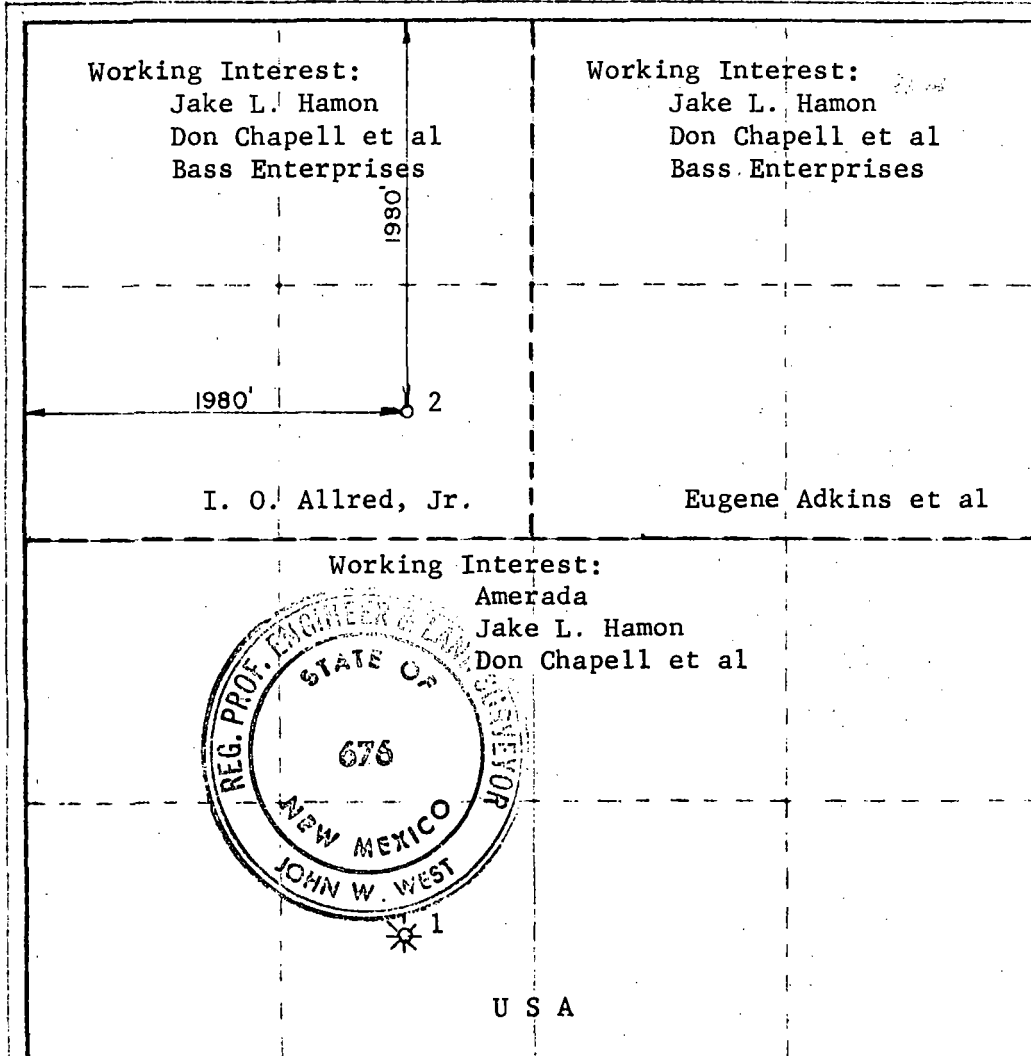
Operator <b>Jake L. Hamon</b>		Lease <b>Amerada Federal</b>		Section <b>2</b>
Quarter <b>F</b>	Section <b>17</b>	Range <b>20 South</b>	Meridian <b>36 East</b>	County <b>Lea</b>
Date of Dedication of Well <b>1980</b>		Date of Dedication of Well <b>1980</b>		Section <b>2</b>
Distance from Section Corner <b>3612.5</b>		Distance from Section Corner <b>North Osudo Morrow</b>		Section <b>640</b>

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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 Communitization

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. **Remarks:** See attached list for working interest after Com. on 1920 Ac. Unit.



**CERTIFICATION**

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

*Cecil H. Barton*

**Cecil H. Barton**

**Petroleum Engineer**

**Jake L. Hamon**

**December 13, 1979**

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 Submitted

**December 7, 1979**

Prepared by  
Checked by

*John W. West*

Certified by **John W. West**

**676**

**Ronald J. Eidson**

**3239**

WORKING INTEREST AFTER COMMUNITIZATION IN SECTION 17

Jake L. Hamon	16.355685%
Amerada Division - Amerada Hess Corporation	12.770528%
Amoco Production Company	42.142528%
Bass Enterprises Production Company	18.692211%
Donald Clayton Chapell	1.168263%
Charles H. Coll	.045360%
James N. Coll	.045360%
Jon F. Coll	.045360%
Max W. Coll II	.045360%
Gulf Oil Corporation	4.618030%
Carol Chapell Henry	1.168263%
Phillips Petroleum Company	2.903052%
Unit Total	100.000000

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U.S.G.S.	
LAND OFFICE	
OPERATOR	

PROD. DEPT.  
NEW MEXICO OIL CONSERVATION COMMISSION  
20 1979

ACC. 1A-5  
JLH  
JLH III  
CORPUS  
E TEX.  
MIDLAND

Form C-101  
Revised 1-1-65

5A. Indicate Type of Lease  
STATE ☐ FCC ☒  
5. State Oil & Gas Lease No.

### APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		7. Unit Agreement Name Com AGR SW 437
b. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Farm or Lease Name Amerada Federal
2. Name of Operator Jake L. Hamon		9. Well No. 2
3. Address of Operator 611 Petroleum Building, Midland, Texas 79701		10. Field and Pool, or Wildcat North Caudo Morrow
4. Location of Well UNIT LETTER <u>F</u> LOCATED <u>1980</u> FEET FROM THE <u>North</u> LINE AND <u>1980</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>17</u> TWP. <u>20-S</u> RGE. <u>36-E</u> NMPM		12. County Lea
19. Proposed Depth 11,600'		19A. Formation Morrow
20. Rotary or C.T. Rotary		
21. Elevations (Show whether DT, RT, etc.) 3612.5' GR	21A. Kind & Status Plug. Bond Blanket in force	22. Approx. Date Work will start February 1980

### PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
15-1/2"	12-3/4"	35#	350	350	Surface
11"	8-5/8"	24# & 28#	5000	1900	Surface
7-7/8"	5-1/2"	17# & 20#	11600	500	8600'

### Procedure:

- Drill 15-1/2" hole to 350' using gel/lime mud.
- Set 12-3/4" 35# surface casing and cement to surface with 350 sx.
- Install 2 - 3000# BOP's and pressure test BOP's and surface casing.
- Drill 11" hole to 5000' using saltwater base mud.
- Set 8-5/8" 24# & 28# intermediate casing and cement to surface with 1900 sx.
- Install 2 - 5000# BOP's and annular BOP, and pressure test BOP's and casing.
- Drill 7-7/8" hole to T.D. of 11,600' using salt water base mud of 9# - 12#/gal and sufficient properties for samples and hole conditions for logging DST's & casing setting.
- DST any significant shows of oil or gas and run electric logs.
- If production is indicated, set and cement 5-1/2", 17# & 20# casing to TD w/500 sx.
- Perforate productive zone and acidize or frac as needed.

Note: The 640 Ac. spacing unit has been assigned to the No. 1 well located in the C SE SW in the same section. The No. 2 well is to be drilled in the same 640 Ac. spacing unit after approval has been granted by the Commission on rule R-6013.

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 Cecil H. Bartsch Title Petroleum Engineer Date 12-13-79

(This space for State Use)

APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT DATE DEC 17 1979

CONDITIONS OF APPROVAL, IF ANY:

JAKE L. HAMON  
 Amerada-Federal Well #2  
 Osudo North (Morrow) Field  
 Lea County, New Mexico

RESERVE ESTIMATE:

Specific Gravity, gas	0.600
Reservoir Temperature, °F	164
Reservoir Pressure, psig	4760
Porosity, %	15
Water Saturation, %	5
Deviation Factor	0.862
Productive Acres	320
Thickness, ft.	15
Recovery Factor, %	80

$$\begin{aligned}
 \text{OGIP, mcf/ac-ft} &= \frac{1538 (0) (1-S_w) (BHP+14.73)}{(BHT + 460) (2)} \\
 &= \frac{(1538) (.15) (1-.05) (4760+14.73)}{(164+460) (.862)} \\
 &= 1907
 \end{aligned}$$

$$\begin{aligned}
 \text{REC. GAS} &= (06IP) (Ac) (6) (RF) \\
 &= (1907) (320) (15) (180) \\
 &= 7.32 \text{ BCF}
 \end{aligned}$$

RESERVOIR DATA ESTIMATED FROM:

Texas Oil & Gas, Federal Com Well #1  
 Jake L. Hamon, Union State #2



PERTINENT COMPLETION DATA

JAKE L. HAMON - OPERATOR  
AMERADA FEDERAL NO. 1  
NORTH OSUDO-MORROW POOL  
LEA COUNTY, NEW MEXICO

Location	Unit N. 660' FSL, 1980' FWL, Section 17, T-20-S, R-36-E.	
Date Spudded	June 11, 1966	
Total Depth	11,580'	
Days to Drill & Complete	77 days	
Plug Back Depth	11,538'	
Elevation	3640' KB	
Production Casing	7" set at 11,160' with 300 sacks cement. 5" liner from 11,011'-11,570' with 75 sacks cement.	
Morrow Interval	Perf. 11,358'-11,388'	M.C. - P.O. - R. 2663 11373 3640' KB -7733
Morrow Stimulation	None	
Potential & Date	CAOF 23,823 MCFPD 8-27-66	
Connection Date to Sales	September, 1966	
Present Gas Purchaser	Phillips Petroleum & Warren Petroleum	
Gas Gravity	0.609	
Original Gas-Liquid Hydrocarbon Ratio	10,442 CF/Bbl.	
Liquid-Hydrocarbon Gravity	50.6° API @ 60°F	

PREPARED BY

DATE

## AMERADA FEDERAL #1

SEC 17 T-20-S R-36-E

LEA COUNTY, NEW MEXICO

		MONTHLY	2	MONTHLY	4	5
	DATE	GAS (SALES) PRODUCTION 14.65"	GAS PRODUCTION	COND. PROD.	COND PROD.	YIELD B/MMCF
1	9/66	125,565	125,565	12,329	12,329	98.2
2	10/66	237,364	362,929	17,352	29,681	73.1
3	11/66	266,940	629,869	15,540	45,221	58.2
4	12/66	231,937	861,806	11,511	56,732 ✓	49.6
5	1/67	164,559	1,026,365	6,306	63,038	38.3
6	2/67	232,636	1,259,001	7,810	70,848	33.5
7	3/67	246,960	1,505,961	6,629	77,477	26.8
8	4/67	217,640	1,723,601	4,826	82,303	22.2
9	5/67	204,900	1,928,501	3,731	86,034	18.2
10	6/67	185,469	2,113,970	2,958	88,992	15.9
11	7/67	177,366	2,291,336	2,293	91,285	12.9
12	8/67	164,123	2,455,459	1,910	93,195	11.6
13	9/67	141,657	2,597,116	1,387	94,582	9.8
14	10/67	132,949	2,730,065	1,249	95,831	9.4
15	11/67	124,415	2,854,480	997	96,828	8.0
16	12/67	105,311	2,959,791	671	97,499	6.4
17	1/68	108,712	3,068,503	684	98,183	6.3
18	2/68	95,023	3,163,526	580	98,763	6.1
19	3/68	100,864	3,264,390	558	99,321	5.5
20	4/68	81,846	3,346,236	412	99,733	5.0
21	5/68	84,830	3,431,066	412	100,145	4.9
22	6/68	76,914	3,507,980	372	100,517	4.8
23	7/68	72,915	3,580,895	344	100,861	4.7
24	8/68	69,280	3,650,175	320	101,181	4.6
25	9/68	57,707	3,707,882	117	101,298	*
26	10/68	52,998	3,760,880	289	101,587	5.5
27	11/68	47,935	3,808,815	203	101,790	4.2
28	12/68	45,841	3,806,721	270	102,060	5.0
29	1/69	49,263	3,912,548	129	102,189	2.8
30	2/69	45,900	3,907,091	98	102,287	2.8
31	3/69	31,721	3,979,794	123	102,410	3.9
32	4/69	24,135	4,003,929	102	102,512	4.2
33	5/69	26,026	4,029,955	116	102,628	4.5
34	6/69	24,768	4,054,723	121	102,749	4.9
35	7/69	34,030	4,088,753	102	102,851	3.0
36	8/69	14,971	4,103,724	10	102,861	0.7
37	9/69	18,863	4,122,587	89	102,950	4.7
38	10/69	17,372	4,139,959	51	103,001	2.9
39	11/69	13,688	4,153,647	74	103,075	5.4
40	12/69	9,679	4,149,638	135	103,210	4.7
41		28,657	4,178,295	1150	103,210	
42		31,901	4,182,304			

XXX ADJ. DUE TO SQUIER AUDIT

XX BED 65 B H.O. TO PIT &amp; TRANS. OIL TO TANK 14231 - MOVED THIRD TANK

X DRAINED TO TANK 14231

AMERADA FEDERAL #1

SEC. 17 T-20-S R-36-E

LEA COUNTY, NEW MEXICO

	DATE	<sup>1</sup> MONTHLY GAS SALES	<sup>2</sup> ACC. GAS SALES	<sup>3</sup> MONTHLY COND. PROD.	<sup>4</sup> ACC. COND. PROD.	<sup>5</sup> YIELD B/MMcf
1970		14.65#				
1	JAN	49735	4232039	176	103386	3.5
2	FEB	38990	4271029	113	103499	2.9
3	MAR	47718	4318747	167	103666	3.5
4	APR	39468	4358275	117	103783	3.0
5	MAY	36778	4395577	102	103885	2.8
6	JUNE	41299	4436876	93	103978	2.3
7	JULY	37764	4474640	88	104066	2.3
8	AUG	35093	4509733	79	104145	2.3
9	SEPT	30273	4540006	61	104206	2.0
10	OCT	26018	4566024	65	104336	2.5
11	NOV	22984	4589008	84	104420	3.7
12	DEC	26278	4615286	51	104192	1.9
13	1971	437482	4615286			
14	JAN	14531	4629817	31	104223	2.1
15	FEB	12155	4641972	47	104270	3.9
16	MAR	15524	4657496	32	104302	2.1
17	APR	17907	4675403	14	104279@	0.8
18	MAY	27699	4703102	42	104316@	1.5
19	JUNE	25513	4728615	37	104298@	1.5
20	JULY	24200	4752815	14	104321	0.6
21	AUG	21369	4774184	32	104349	1.5
22	SEPT	19121	4793305	28	104381	1.5
23	OCT	17406	4791590	28	104409	1.6
24	NOV	19524	4812829	28	104437	1.4
25	DEC	21220	4834049	33	104437	1.4
26	1972	6834	4832334	33	104470	1.6
27	JAN	14835	4840883	44	104514	6.4
28	FEB	12252	4855718	45	104559	3.0
29	MAR	15700	4867970	20	104579	1.6
30	APR	9590	4883670	51	104630	3.2
31	MAY	12205	4893260	31	104661	3.2
32	JUNE	16203	4899270	32	104693	5.3
33	JULY	20565	4905465	17	104710	2.6
34	AUG	9107	4906405	31	104741	2.4
35	SEPT	7911	4922458	30	104771	1.0
36	OCT	11124	4916802	22	104793	3.0
37	NOV	7375	4943023	37	104843	1.5
38	DEC	808	4952319	2	104880	3.3
39		112044	4953127		104882	2.8
40						4.5
41						5.0
42						2.5
43	@ DEDUCTED BSAW					
44	* 574-Mcf ABJ DUE TO CORDER AVAIL					

AMERADA FEDERAL #1

SEC 17 T-20-S R-36-E

LEA COUNTY, NEW MEXICO

	DATE	MONTHLY GAS SALES (14.65 #)	ACC GAS SALES	MONTHLY COND. PROD	ACC COND. PROD	YIELD B/MMCF
1973						
1	JAN	2462 *	4955589	20	104902	8.1
2	FEB	11801 **	4967390	27	104929	2.3
3	MAR	13372	4980762	1	104930	0.1
4	APR	12517	4993279	9	104939	0.1
5	MAY	12904	5006183	0	104939	0.0
6	JUNE	10621	5016804	0	104939	0.0
7	JULY	1720 #	5018524	2	104941	1.1
8	AUG.	1440	5019964	0	104941	0.0
9	SEPT	945	5020909	0	104941	0.0
10	OCT	925	5021834	0	104941	0.0
11	NOV	1410	5023244	0	104941	0.0
12	DEC	994	5024238	0	104941	—
13	1974	11111				
14	JAN	2877	5027117	0	104941	—
15	FEB	12257	5041374	0	104941	—
16	MAR	14626	5056000	31	104975	2.3
17	APR	13243	5069243	3	104978	0.2
18	MAY	12647	5081890	0	104978	—
19	JUNE	14125	5096075	0	104978	—
20	JULY	16697	5112772	0	104978	—
21	AUG.	16709	5129481	3	104981	0.18
22	SEPT.	14055	5144536	0	104981	—
23	OCT.	9316	5157852	0	104981	—
24	NOV.	12951	5166803	4	104983	0.31
25	DEC.	13161	5179964	14	104999	1.06
26	1975					
27	JAN	12493	5192457	11	105010	1.88
28	FEB	10372	5202829	9	105019	1.87
29	MAR	11252	5214081	16	105035	1.42
30	APR	10654	5224735	18	105053	1.69
31	MAY	9237	5233972	0	105053	—
32	JUN	8417	5242389	0	105053	—
33	JUL	7392	5249791	0	105053	—
34	AUG	6455	5256236	3	105056	1.46
35	SEP	5778	5262014	0	105056	—
36	OCT	6933	5268947	0	105056	—
37	NOV	10673	5279580	0	105056	—
38	DEC	12716	5292296	0	105056	—
39						
40	1976					
41	JAN	12113	5304479	35	105091	2.90
42	FEB	10908	5315387	22	105113	2.02
43	* COMPRESSOR SHUT-DOWN 1/28/73					
44	** CONNECTED TO WARREN W. PRESS LINE 2/4/73					
45	# PHILLIPS LOWERED THEIR LINE PRESS 7-21-73					
46	# R. L. PHILLIPS 1-13-74					

AMERADA FEDERAL #1

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SE. 17 T-20-S R-36-E

LEA COUNTY, NEW MEXICO

	DATE	<sup>1</sup> MONTHLY GAS SALES (14.65¢)	<sup>2</sup> ALL GAS SALES	<sup>3</sup> MONTHLY COND PROD.	<sup>4</sup> ALL COND PROD.	<sup>5</sup> YIELD B/MMCT
1976						
	MAR	11509	5326896	15	105128	1.30
	Apr	10875	5337771	12	105140	1.10
	May	16363	5344134	15	105155	2.76
	JUN	9818	5353952	0	105155	
	JUL	2860	5356912	0	105155	
	AUG	1832	5358644	0	105155	
	SEP	2053	5360697	0	105155	
	OCT	2405	5363102	0	105155	
	Nov	2317	5365419	0	105155	
	Dec	1741	5367160	0	105155	
		74864	5367160			
1977						
	Jan	680	5367840	-0-	105155	
	Feb	1399	5369239	-0-	105155	
	Mar.	1436	5370675	-0-	105155	
	Apr.	2492	5373167	-0-	105155	
	May	3418	5376585	-0-	105155	
	June	2886	5379471	-0-	105155	
	July	3055	5382526	-0-	105155	
	Aug.	3147	5385673	-0-	105155	
	Sept.	3121	5388794	-0-	105155	
	Oct.	10728	5399522	0	105155	
	Nov.	7349	5406871	0	105155	
	Dec.	8839	5415710	0	105155	
		48550	5415710			
1978						
	Jan.	8593	5424303	0	105155	
	Feb.	6987	5431290	0	105155	
	Mar.	8136	5439426	0	105155	
	Apr.	8549	5447975	27	105182	3.2
	May	10428	5458403	0	105182	
	June	10212	5468615	0	105182	
	July	10044	5478659	0	105182	
	Aug.	10187	5488846	0	105182	
	Sept.	8625	5497471	0	105182	
	Oct.	7154	5504925	0	105182	
	Nov.	5594	5510519	0	105182	
	Dec.	3050	5513569	0	105182	
		97859	5513569			
1979						
	Jan.	2221	5515790	0	105182	
	Feb.	2167	5517957	0	105182	

AMERADA FEDERAL #1

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Osudo Field, N.

Lea County, New Mex.

DATE	1 Monthly Gas Sales	2 Acc. Gas Sales	3 Monthly Cond. Prod.	4 Acc. Cond. Prod.	5 Yield	
1979						1
Mar.	2599	5520556	0	105182		2
Apr.	2234	5522790	0	105182		3
May	2714	5525504	0	105182		4
June	2615	5528119	0	105182		5
July	1964	5530083				6
Aug.	1530	5531613				7
Sept.	1464	5533077				8
Oct.	1417	5534494				9
Nov.						10
Dec.						11
						12
1980						13
Jan.						14
Feb.						15
Mar.						16
Apr.						17
May						18
June						19
July						20
Aug.						21
Sept.						22
Oct.						23
Nov.						24
Dec.						25
						26
1981						27
Jan.						28
Feb.						29
Mar.						30
Apr.						31
May						32
June						33
July						34
Aug.						35
Sept.						36
Oct.						37
Nov.						38
Dec.						39
						40
						41
						42
						43

