

INFILL DRILLING FINDINGS 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-A

I.

Operator Flag-Redfern Oil Company Well Name and No. Osudo State Com. Well No. 2  
Location: Unit H Sec. 18 Twp. 20S Rng. 36E Cty. Lea

II.

THE DIVISION FINDS:

- (1) That Section 271.305(b) of the Federal Energy Regulatory Commission 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 that the infill 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.
- (2) That by Order No. R-6013-A, dated February 8, 1980, 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 completed in the North Osudo-Morrow Gas Pool, and the standard spacing unit in said pool is 640 acres.
- (4) That a 640-acre proration unit comprising the whole of of Sec. 18, Twp. 20S, Rng. 36E, is currently dedicated to the Osudo State Com Well No. 1 located in Unit J 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 286,000 MCF of gas from the proration unit which would not otherwise be recovered.
- (8) That all the requirements of Order No. R-6013-A 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.

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 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 18th day of October, 19 82.

  
DIVISION DIRECTOR

EXAMINER

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

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

Received July 21, 1982  
-Today-  
ADMINISTRATIVE ORDER  
NFL 59

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

C.C. - OGD Hobbs

NMD+GEC Hobbs

OGD Mach. Div. S.F.

Well File

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



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

September 23, 1982

Flag-Redfern Oil Company  
P.O. Box 2280  
Midland, Texas 79702  
ATTN: Marvin D. Witcher  
Reservoir Engineer

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

Com. Well No. 2, Unit H, Section

18, Township 20 South, Range 36

East, Lea County, New Mexico.

Dear Mr. Witcher:

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,

A handwritten signature in cursive script that reads "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.

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- ☒ The geologic and reservoir data is incomplete or insufficient.

Please submit the volumatrical calculations used to derive at the  
addition reserves figure of 50 MMCF and 2000 Barrels of condensate.

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- ☐ Other:

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STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

BRUCE KING  
GOVERNOR

LARRY KEHOE  
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Michael E. Stogner,  
Petroleum Engineer

MES/dp

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- ☐ 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.
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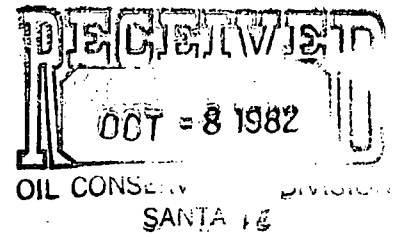
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- ☐ Other:

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Osudo State Com. No. 2  
North Osudo Morrow Field  
Unit H, Section 17, T20S, R36E  
Lea County, New Mexico

VOLUMETRIC RESERVE CALCULATIONS

$$\text{Porosity} = \phi = 7\%$$

$$\text{Water Saturation} = S_w = 30\%$$

$$\text{BHPi} = 2867 \text{ psia}$$

$$\text{BHPa} = 813 \text{ psia}$$

$$\text{BHT} = 156^\circ \text{ F}$$

$$Z_i = 0.87$$

$$Z_a = 0.935$$

$$\text{Gas in place} = (1545.42) \phi (1-S_w) \left( \frac{P}{ZT} \right)$$

Orig. Gas in place:

$$(1545.42) (.07) (.70) \left( \frac{2867}{(616)(.87)} \right) = 405.1 \text{ MCF/Acft.}$$

Gas in Place at Abandonment:

$$(1545.42) (.07) (.70) \left( \frac{813}{(616)(.935)} \right) = 106.9 \text{ MCF/Acft.}$$

$$\text{Recoverable Gas} = 298.2 \text{ MCF/Acft.}$$

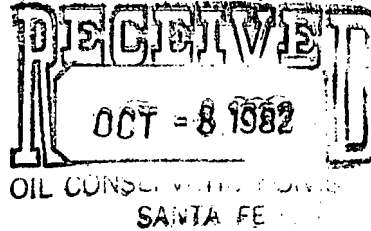
$$\text{Ultimate Recovery} = (298) (6) (160) = 286 \text{ MMCF}$$



# Flag-Redfern Oil Company

1200 WALL TOWERS WEST • MIDLAND, TEXAS 79701 • PHONE (915) 683-5184

October 5, 1982



Mailing address:  
P. O. Box 2280  
Midland, Texas 79702

File:

State of New Mexico  
Energy & Minerals Department  
Oil Conservation Division  
Santa Fe, New Mexico 87501

Re: Osudo State Com. No. 2  
North Osudo Morrow Field  
Unit H, Section 17, T20S, R36E  
Lea County, New Mexico

Attention: Mr. Michael E. Stogner

Gentlemen:

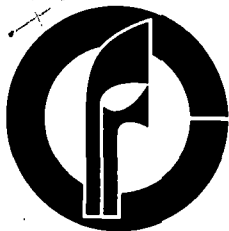
Attached are volumetric reserve calculations for the subject well as requested in your letter dated September 23, 1982. Please note the recoverable gas reserves determined volumetrically are higher than what I originally submitted. Based on the poor deliverability of the subject well, I think the original reserve estimate is more realistic.

If you have additional questions or need more information concerning the above, please advise.

Very truly yours,

Marvin D. Witcher  
Petroleum Engineer





# Flag-Redfern Oil Company

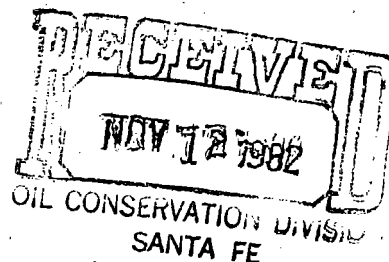
1200 WALL TOWERS WEST • MIDLAND, TEXAS 79701 • PHONE (915) 683-5184

November 5, 1982

Mailing address:  
P. O. Box 2280  
Midland, Texas 79702

RE: NATURAL GAS POLICY ACT OF 1978 (NGPA)  
WELL NAME AND NUMBER: Osudo State Com No. 2  
FIELD AND RESERVOIR: N. Osudo (Morrow) File:  
COUNTY & STATE: Lea, New Mexico  
WELL SPUD DATE: August 1, 1981  
API NUMBER: 30 025 27456

State of New Mexico  
Department of Energy and Minerals  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501



Attention: Mr. Michael E. Stogner  
N.G.P.A. SECTION-WELL CLASSIFICATIONS.

Dear Mr. Stogner:

This has reference to your Letter Notice dated October 19, 1982 in which you requested that we submit a new Oath Statement based upon the Infill Well Finding which has been approved by the Commission, an Affidavit that OCD Form C-132 had been mailed to all concerned parties together with a copy of the Infill Well Finding (NFL) application.

The above material is enclosed herewith and we hope that same will permit you to process our well application to completion.

Sincerely,

Byron H. Greaves  
Voce President

Enclosure

NFL-59 file



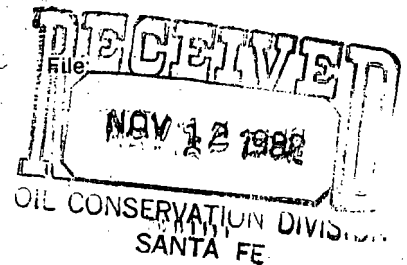
# Flag-Redfern Oil Company

1200 WALL TOWERS WEST • MIDLAND, TEXAS 79701 • PHONE (915) 683-5184

July 19, 1982

State of New Mexico  
Energy & Minerals Dept.  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Mailing address:  
P. O. Box 2280  
Midland, Texas 79702



Re: Osudo State Com. No. 2  
North Osudo Morrow Field  
Unit H, Sec. 17, T20E, R36E  
Lea County, New Mexico

ATTENTION: Mr. Michael E. Stogner

Gentlemen:

Flag-Redfern hereby requests an Infill Well Finding (NFL) for the subject well. Permission to drill the well at an unorthodox location was granted under order R-6640 as amended by letter from Mr. Ramey dated July 1, 1981.

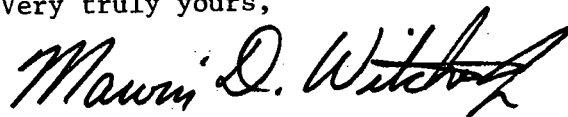
In support of this application we are enclosing the following:

1. Approved copy of Form C-101
2. Copy of Form C-102
3. Memo from Florence Davidson to Mr. Swendig.
4. Letter of Waiver from Jake L. Hamon for Unorthodox Location.
5. Order R-6640 including letter of amendment to the order dated July 1, 1981.
6. Exhibits 1 thru 8 for the hearing for Case 7183 that occurred March 11, 1981.
7. Well Information Sheet for the subject well.

The only offset operator to the subject well is Jake L. Hamon. They are being notified of this application by copy of this letter, via certified mail.

If you have questions or comments concerning this application, please contact this office.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Marvin D. Witcher". The signature is fluid and cursive, with a large, sweeping initial "M".

Marvin D. Witcher  
Reservoir Engineer

MDW/jbs

cc: OCD Hobbs  
Jake L. Hamon  
611 The Petroleum Bldg.  
Midland, Texas 79701

enclosures

NO. OF COPIES RECEIVED	
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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 ☒ FEE ☐

5. State Oil & Gas Lease No.  
LG-2061, A-1375, E-172

## 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"/>		DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>	
2. Name of Operator Flag-Redfern Oil Company		7. Unit Agreement Name	
3. Address of Operator P. O. Box 2280 Midland, Texas 79702		8. Farm or Lease Name Osudo St. Com.	
4. Location of Well UNIT LETTER H LOCATED 1650' FEET FROM THE North LINE AND 990 FEET FROM THE East LINE OF SEC. 18 TWP. 20-S RGE. 36-E NMPM		9. Well No. 2	
		10. Field and Pool, or Wildcat N. Osudo Morrow	
		12. County Lea	
		19. Proposed Depth 11,700	
		19A. Formation Morrow	
		20. Rotary or C.T. Rotary	
21. Elevations (Show whether DF, RT, etc.) 3630 GL		21A. Kind & Status Plug. Bond Blanket	
		21B. Drilling Contractor Peterson Drilling Co.	
		22. Approx. Date Work will start July 6, 1981	

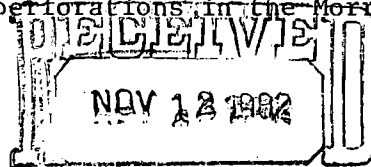
23.

### PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2"	13 3/8"	48 lb. H-40	375'	400sx	Circulate
12 1/4"	9 5/8"	40 lb. K-55	5200'	400sx	2500'
8 3/4"	7"	23 lb. S-95	10,800'	500sx	9000'
6 1/8"	5"	17.9 lb. C-75	11,000-11,700	225sx	11,000'

A 17 1/2" hole will be drilled to 375' and 13 3/8" casing set and cemented with 400 sacks cement.  
A 12 1/4" hole will be drilled to 5200' and 9 5/8" casing set and cemented with 400 sacks cement.  
An 8 3/4" hole will be drilled to 10,800' and 7" casing set and cemented with 500 sacks cement.  
A 6 1/8" hole will be drilled to 11,700' and 5" liner set from 11,000-11,700' and cemented with 275 sacks. The well will be completed through perforations in the Morrow formation.

Blowout Preventers: 12" Series 900  
10" Series 1500 w/Hydril



OIL CONSERVATION DIVISION  
SANTA FE

Cement on the 9 5/8" casing must be brought from the top of the salt or anhydrite to the surface casing by either circulating the csg w/cat. or a DV tool at the top of the salt

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 [Signature] Title Drilling Superintendent Date June 15, 1981

(This space for State Use)

APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT 1 DATE JUN 17 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 <b>FLAG-REDFERN OIL COMPANY</b>		Lease <b>7000 STATE COM</b>		Well No. <b>2</b>
Well Letter <b>H</b>	Section <b>18</b>	Township <b>20-S</b>	Range <b>36-E</b>	County <b>LEA</b>
Actual Footage Location of Well: <b>1650</b> feet from the <b>NORTH</b> line and <b>990</b> feet from the <b>EAST</b> line				
Ground Level Elev. <b>3630</b>	Producing Formation <b>Morrow</b>	Pool <b>N. Osudo</b>	Dedicated Acreage: <b>640</b> 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 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.

**RECEIVED**  
NOV 18 1982  
OIL CONSERVATION DIVISION  
SANTA FE

**SECTION 18, TWP. 20-S, RNC. 36-E**

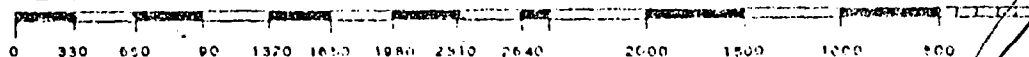
**CERTIFICATION**

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

Name [Signature]  
Position **Drilling Superintendent**  
Company **Flag-Redfern Oil Co.**  
Date **June 15, 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 **JUNE 12, 1981**  
Registered Professional Engineer and/or Land Surveyor  
[Signature]  
Certificate No. **754**



# Memo

From

FLORENE DAVIDSON  
ADMINISTRATIVE SECRETARY

To

February 27, 1981

Mr. Swendig:

We no longer docket the infill findings portion of an application until the well has actually been drilled. Therefore, Case 7183 is only for an unorthodox gas well location.

JJR  
JHI  
GSB  
RMG  
ENG  
GEO  
L&L  
ACCT.

MAR 2 1981

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OIL CONSERVATION COMMISSION-SANTA FE

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

June 12, 1981

State Of New Mexico Energy & Minerals Department  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. D. S. Nutter, Chief Engineer

Re: Flag-Redfern #2 Osudo State Com.  
990' FN&EL Sec. 18,  
T-20-S, R-36-E,  
Lea County, New Mexico

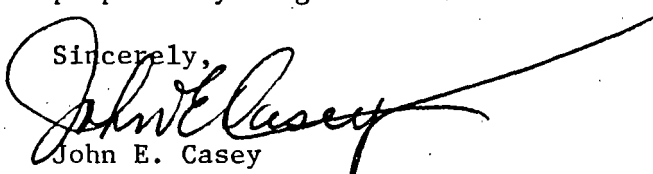
Gentlemen:

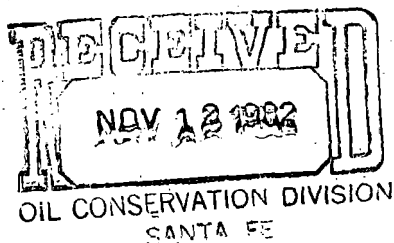
Flag-Redfern has received approval to drill the captioned well at a location 990' FN&EL of Sec. 18, T-20-S, R-36-E, Lea County, New Mexico. This was order Number R-6640.

Flag-Redfern now proposes to amend their location to 1650' FNL & 990' FEL, Sec. 18, T-20-S, R-36-E, Lea County, New Mexico.

This letter will serve to notify the Oil Conservation Commission that Jake L. Hamon has no objection to the location now proposed by Flag-Redfern.

Sincerely,

  
John E. Casey  
District Geologist



JEC/ml



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

BRUCE KING  
GOVERNOR

LARRY KEHOE  
SECRETARY

July 1, 1981

JJR  
JH  
GSR  
RMM  
ENG  
CEO  
L&L  
ACCT.

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

Flag-Redfern Oil Company  
P. O. Box 2280  
Midland, Texas 79702

JUL 6 1981

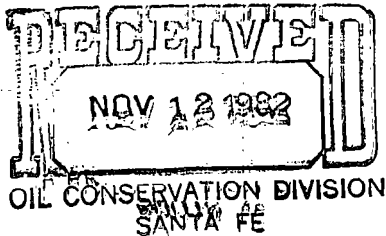
Attention: Mr. Byron H. Greaves

Re: Amended location  
R-6640

Gentlemen:

Reference is made to your letter dated June 12, 1981, wherein you advise that the location for your Osudo State Com. Well No. 2, as approved by Order No. R-6640 at a point 990 feet from the North line and 990 feet from the East line of Section 18, Township 20 South, Range 36 East, NMPM, North Osudo-Morrow Gas Pool, Lea County, New Mexico, was not suitable and that you desired to move the location to a point 1650 feet from the North line and 990 feet from the East line of said Section 18.

Inasmuch as the new location is less unorthodox than the old location, and you accompanied your letter with waivers of objection from the only offset operator, Jake L. Hamon, your request is hereby approved and the location 1650 feet from the North line and 990 feet from the East line may be drilled.



Yours very truly,

JOE D. RAMEY  
Director

JDR/DSN/fd

cc: OCD Hobbs  
Jake L. Hamon  
611 The Petroleum Building  
Midland, Texas 79701  
Case File 7183



STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 7183  
Order No. R-6640

APPLICATION OF FLAG-REDFERN OIL  
COMPANY FOR AN UNORTHODOX GAS  
WELL LOCATION, LEA COUNTY, NEW  
MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 25, 1981,  
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 7th day of April, 1981, the Division  
Director, having considered the testimony, the record, and the  
recommendations of the Examiner, and being fully advised in the  
premises,

FINDS:

(1) That due public notice having been given as required  
by law, the Division has jurisdiction of this cause and the  
subject matter thereof.

(2) That the applicant, Flag-Redfern Oil Company, seeks  
approval of the unorthodox gas well location of its Osudo State  
Com Well No. 2 to be drilled 990 feet from the North line and  
990 feet from the East line of Section 18, Township 20 South,  
Range 36 East, NMPH, to test the Morrow formation, North Osudo-  
Morrow Gas Pool, Lea County, New Mexico.

(3) That all of said Section 18 is to be simultaneously  
dedicated to said well and to applicant's Osudo State Com Well  
No. 1 located in Unit J of said Section 18.

(4) That a well at said unorthodox location will better  
enable applicant to produce the gas underlying the proration  
unit.

(5) That no offset operator objected to the proposed un-  
orthodox location.

(6) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

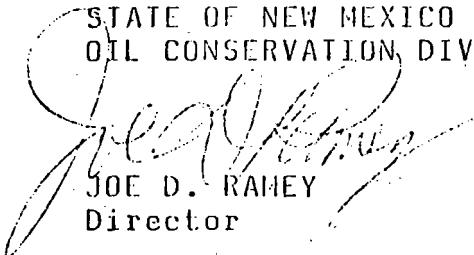
(1) That an unorthodox gas well location for the Morrow formation is hereby approved for the Flag-Redfern Oil Company Osudo State Com Well No. 2 to be located at a point 990 feet from the North line and 990 feet from the East line of Section 18, Township 20 South, Range 36 East, NHPM, North Osudo-Morrow Gas Pool, Lea County, New Mexico.

(2) That all of said Section 18 shall be dedicated to the above-described well and to applicant's Osudo State Com Well No. 1 located in Unit J of said Section 18.

(3) 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 the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
JOE D. RAMEY  
Director

S E A L

fd/

FLAG-REDFERN OIL COMPANY  
Osido State Com. No. 1  
Unit J, Section 18, T-20-S, R-36-E  
Lea County, New Mexico

WELL INFORMATION

Spudded: November 16, 1975

Completed: January 21, 1976

Total Depth: 11,700 feet

Casing: 13 3/8" @ 272 feet  
9 5/8" @ 5030 feet  
7" @ 10,780 feet  
5 1/2" liner from 10,537 feet to 11,665 feet

Perforations: 11,509 - 11,519

Acidized: 1000 gals 15% Morrow-Flo acid

Fractured: 1500 gals gelled KCL water -  
9000 lbs 20-40 mesh sand  
3000 lbs U-Car glass beads  
1000 SCF CO<sub>2</sub> per bbl

Bottom Hole:  
Pressure 5560 psi after 46 1/2 hrs. SI

Initial Tubing:  
Pressure 4228 psi after 46 1/2 hrs. SI.

Initial Potential: 222 MCF/D

Cumulative:  
Production 208,501 MCF 1-1-81

Ex #6

OSUDO ST. COM. NO. 1  
Osudo, North Field  
Lea County, New Mexico

Monthly Gas Production

January 1977	2371
February	5012
March	6767
April	6104
May	6391
June	5712
July	5517
August	5625
September	5630
October	5922
November	4873
December	5213
January 1978	4989
February	5878
March	5845
April	3378
May	5312
June	5017
July	4751
August	4294
September	5036
October	5376
November	7145
December	4624
January 1979	4954
February	4095
March	4346
April	4237
May	4038
June	3833
July	3744
August	3701
September	3568
October	3643
November	0
December	3078
January 1980	3234
February	3162
March	3360
April	3432
May	3371
June	3023

Ex 27

Continued  
Page 2  
Monthly Gas Production

Monthly Gas Production

July 1980	2740
August	3339
September	3309
October	3504
November	2973
December	3035

January 1981	2919
February	<u>2845</u>

Cumulative Total as of 3-1-81	214,265
-------------------------------	---------

<u>Hamon State E.</u>			<u>Hamon Amerada-Fed.</u>			<u>Hamon Union St.</u>		
	<u>SITP</u>	<u>MMcf Cum. Gas</u>	<u>Bbls. Cum Cond.</u>		<u>SITP</u>	<u>MMcf Cum. Gas</u>	<u>Bbls Cum. Cond.</u>	
1965	4076							
1966	2298	4491	60,322	4991				3600
1967	1254	5910	71,199	1387				1370 2475 21,091
1968	807	6778	73,102	783	3628	70,889	917	3580 26,109
1969	532	7172	73,940	654	4034	72,541	690	4186 27,930
1970	399	7544	74,494	384	4450	73,797	501	4760 28,911
1971	291	7809	74,828	271	4705	74,274	412	5118 29,289
1972								
1973	204	8131	74,978	197	4996	74,806	302	5519 29,630
1974	219	8242	74,978	192	5122	74,846	248	5631 29,714
1975	212	8407	74,978	178	5236	74,922	345	5732 29,802
1976	173	8542	74,978	60	5337	75,025	59	5823 29,855
1977	168	8683	74,978	168	5367	75,025	998	5881 29,899
1978	162	8802	74,978	159	5473	75,089	463	5931 29,948
1979	155	8908	74,978	187	5507	75,089	276	5938 29,950

WELL S T R JAN FEB MAR APRIL MAY JUNE JULY AUG SEPT OCT NOV DEC YR-PRCD MP ACCUM.

## OJO CHISO MORROW (GAS) PM

AMERICAN QUASAR PETROLEUM CO. OF NEW MEXICO\*\*\*\*\*  
OJO CHISO 1E2322S34E GAS ZONE ABANDONED423094  
500

## POGO PRODUCING CO.

B R O C O 1M1422S34E GAS  
OIL  
WAT7448 5438 3927 3756 2607 2761 25977 25977  
284 74 144 38 43 61 644 644  
141 173 268

## OJO CHISO STRAWN (GAS) (ABANDONED) PS 11M TO 12M

AMERICAN QUASAR PETROLEUM CO. OF NEW MEXICO\*\*\*\*\*  
OJO CHISO 1E2322S34E GAS PLUGGING APPROVED 197810239  
362

## OSUDO ATOKA (GAS) PA 11M TO 12M

TEXACO INCORPORATED (MONUMENT DISTRICT)\*\*\*\*\*  
NEW MEXICO CV STATE 1B2320S35E GAS 3119 2729 2949 3089 2150 2959 2988 2808 2583  
OIL 3 6 11 10 3 1 1 2  
WAT 31 28 148 144 114 136 135 83248 2868 2561 34051 912638  
8 11 55 2351

## OSUDU DEVONIAN (GAS) DV 12M TO 13M

WESTERN OIL PRODUCERS INCORPORATED\*\*\*\*\*  
STATE CO 1E3220S36E GAS LAST PROD. DATE 05/755 92758  
50488

TANZA STATE 1L3220S36E GAS PLUGGING APPROVED 1980

10753  
3023

## COMPANY TOTAL OIL

932071

## CSUDO MORROW (GAS) PM 11M TO 12M

GULF OIL CORPORATION\*\*\*\*\*  
NORTH WILSON DEEP UNIT 103120S36E GAS 15940 11389 11969 3270 13969 11055 16220 13298 12984  
OIL 5 8 13 2 12 8 20 10 10  
WAT 7 7 13 2 12 8 20 10 10  
2F 521S35E GAS 48480 42555 46351 47552 46150 44898 47543 44159 47484  
OIL 164 139 148 144 146 114 125 136 135  
WAT 31 28 148 144 114 136 135 30  
3I 621S35E GAS PLUGGING APPROVED 1973COMPANY TOTAL OIL 64420 53624 58320 50833 60116 55833 63723 57489 60428  
WAT 51 35 44 32 43 38 51 28 45TEXACO INCORPORATED (MONUMENT DISTRICT)\*\*\*\*\*  
NEW MEXICO CV STATE 1F3120S36E GAS PLUGGING APPROVED 1980

66079

NEW MEXICO CV STATE 1J3620S35E GAS 483 272 293 469 441 527 659 595 563  
OIL 4 4 4 12 2 1 2 1 1  
WAT 18 31 104 16 85 94 102 85 14NEW MEXICO D O STATE 1C1721S35E GAS 8307 7471 8277 7989 8240 8053 8170 8201 7522  
OIL 112 63 107 16 16 26 24 14  
WAT 18 31 104 16 85 94 102 85 14COMPANY TOTAL OIL 8780 7743 8570 8458 8627 8580 8829 8796 8085  
WAT 18 31 17 16 14 26 25 15WESTERN OIL PRODUCERS INCORPORATED\*\*\*\*\*  
STATE CO 1M 521S35E GAS PLUGGING APPROVED 198116555  
377

## OSUDO MORROW, NORTH (GAS) PM 11M TO 12M

ADAMS EXPLORATION CO.\*\*\*\*\*  
STATE CO 1L1620S36E GAS 15885 14043 35190 22603 23559 5762 28611 20626 11252  
OIL 403 352 194 179 40 106 11 112528636 9395 6652 202214 202214  
14 50 30 1379 1379ALPHA TWENTY-ONE PRODUCTION CO.\*\*\*\*\*  
STATE CO 1K2920S36E GAS 2377 3823 3386 2839 2998 2845 2889 2978 2746  
OIL 15 3 2 8 8 1 4 4 27463532 3600 3398 37411 52672  
7 2 24 14 163FLAG REFORM OIL CO\*\*\*\*\*  
OSUDU STATE CO 1J1820S36E GAS 2919 2845 3052 3361 3590 3168 3100 4543 3341

2982 2583 3329 38813 241436

XANERABA HANON FEDERAL\*\*\*\*\*  
IN1720S36E GAS 3046 2789 3189 157410598 5545343  
750852F1720S36E GAS 154495 129556 150382 150803 152265 144372 156323 156687 153294  
OIL 1678 1335 1492 1452 1375 1106 1407 1247 1039  
WAT 1678 1335 1492 1452 1375 76284 802 517 451 332CHILDERS 1K3219S36E GAS 7352 9053 8020 7151 6759 6430 5868 5972 5441 5683 67729 67725  
OIL 97 99 94 73 69 69 72 15 11 81 800STATE E 8913 2K2020S36E GAS 21148 32193 82723 70949 61066 46228 36989 21961 14452 7835 2078 1429 399047 626062  
OIL 208 338 481 231 72 59 10 18  
WAT 208 338 481 231 72 59 10 18

STATE E 8913 COM 102020S36E GAS LAST PRCD. DATE 08/80

5 8940475  
74578

UNION STATE 1H3020S36E GAS LAST PRCD. DATE 10/79

X 5938296  
29950  
22742A3020S36E GAS 26531 11990 22358 27596 19768 23093 18197 15257 8671 13999 8995 22519 218974 1161362  
OIL 11 3 4 14 5 6 6 6 11 11 9 7 70  
WAT 11 3 4 14 5 6 6 6 11 11 9 7 70COMPANY TOTAL OIL 205220 176828 262032 259678 241718 297728 332083 304723 284333 268008 268138 268284 3173182 2681837  
WAT 11 11 11 11 11 11 11 11 11 11 11 11 11MALLARD EXPLORATION, INCORPORATED\*\*\*\*\*  
STATE CO 1P 620S36E GAS PLUGGING APPROVED 1976884354  
37677MORAN EXPLORATION, INC\*\*\*\*\*  
OSUDU STATE CO 1I1920S36E GAS 195 237 72 318 190 201032K 2615495  
25824TNO PRODUCTION CORPORATION\*\*\*\*\*  
OSUDU STATE CO 1D2920S36E GAS 43541 37533 43233 40304 40024 39340 39331 39400 38621  
OIL 118 111 135 119 16 86 189 90 93  
WAT 118 111 135 119 16 86 189 90 9338500 37033 35997 472857 2937777  
81 107 84 1235 11242  
32 21 16 186

## CSUDO MORROW, SOUTH (GAS) PM 12M TO 13M

AMERADA HESS CORPORATION\*\*\*\*\*  
STATE CO 1F1921S35E GAS 6078 4023 3860 2647 1426 4606 5015 4684 3998 4039 3779 3535 47690 6110659  
OIL 118 111 135 119 16 86 189 90 93  
WAT 118 111 135 119 16 86 189 90 93

44 6 49

FLAG-REDFERN OIL COMPANY  
Osudo State Com. No. 2  
Unit H, Section 18, T-20-S, R-36-E  
Lea County, New Mexico

WELL INFORMATION

Spudded: August 1, 1981

Completed: March 9, 1982

Total Depth: 11,882 feet

Casing: 13 3/8" @ 385 feet  
9 5/8" @ 5020 feet  
7" @ 10,869 feet  
5" Liner from 10,519 feet to 11,876 feet

Perforations: 11,633' - 11,819' ((CRC Wireline GRN Log Run 10-20-81)

Acidized: 5,000 gals 7 1/2% Morrow Flow BC acid and 1,250 gals CO<sub>2</sub>

Bottom Hole Pressure: 2,854 psi after 45 hour SI

Initial Tubing Pressure: 1,360 psi after 45 hour SI

Initial Potential: 30 MCF/D w/1.6 BBL Condensate

Current Status: Well CI waiting on pipeline connection.

Justification: The Osudo State Com. No. 2 was drilled in hopes of penetrating the reservoir in a more productive area. Two of the Jake Hamon wells in section 17, T20S, R36E have produced in excess of 3 BCF gas and 30,000 barrels of condensate, while Flag-Redfern's Osudo State Com. No. 1 has produced only 0.24 BCF since 1976. The initial bottom hole pressure of 5,560 psi coupled with the low cumulative production from the No. 1 well indicates the sands in the well to have low permeability. The Osudo State Com. No. 2 well potentialized for 30 MCF/day and 1.6 bcfd in March, 1982. The poor deliverability of the No. 2 well also supports the evidence of the tight sands underlying portions of section 18, T20S, R36E. For these reasons both wells should be produced to depletion to insure effective and efficient drainage of the proration unit in section 18.

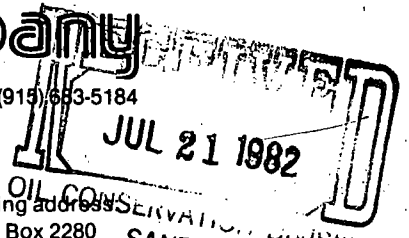
Additional Reserves: Additional reserves to be recovered from the Osudo State Com. No. 2 are estimated to be 50 MMCF gas and 2,000 barrels of condensate. These reserves were determined volumetrically.





# Flag-Redfern Oil Company

1200 WALL TOWERS WEST • MIDLAND, TEXAS 79701 • PHONE (915) 683-5184



Mailing address  
P. O. Box 2280  
Midland, Texas 79702  
OIL CONSERVATION DIVISION  
SANTA FE

July 19, 1982

File:

State of New Mexico  
Energy & Minerals Dept.  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Re: Osudo State Com. No. 2  
North Osudo Morrow Field  
Unit H, Sec. 17, T20E, R36E  
Lea County, New Mexico

ATTENTION: Mr. Michael E. Stogner

Gentlemen:

Flag-Redfern hereby requests an Infill Well Finding (NFL) for the subject well. Permission to drill the well at an unorthodox location was granted under order R-6640 as amended by letter from Mr. Ramey dated July 1, 1981.

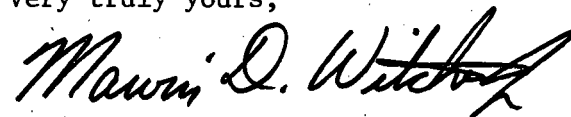
In support of this application we are enclosing the following:

1. Approved copy of Form C-101
2. Copy of Form C-102
3. Memo from Florence Davidson to Mr. Swendig.
4. Letter of Waiver from Jake L. Hamon for Unorthodox Location.
5. Order R-6640 including letter of amendment to the order dated July 1, 1981.
6. Exhibits 1 thru 8 for the hearing for Case 7183 that occurred March 11, 1981.
7. Well Information Sheet for the subject well.

The only offset operator to the subject well is Jake L. Hamon. They are being notified of this application by copy of this letter, via certified mail.

If you have questions or comments concerning this application, please contact this office.

Very truly yours,

A handwritten signature in black ink, appearing to read "Marvin D. Witcher". The signature is fluid and cursive, with a large, stylized initial "M".

Marvin D. Witcher  
Reservoir Engineer

MDW/jbs

cc: OCD Hobbs  
Jake L. Hamon  
611 The Petroleum Bldg.  
Midland, Texas 79701

enclosures

30-025-27456

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

NEW MEXICO OIL CONSERVATION COMMISSION

NEW MEXICO C-101  
Revised 6-1-85

**JUL 21 1982**  
OIL CONSERVATION  
SANTA FE

5A. Indicate Type of Lease  
STATE ☒ FEE ☐  
State Oil & Gas Lease No.  
LG-2051, A-1375, E-1723

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"/> DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Farm or Lease Name Osudo St. Com.	
2. Name of Operator Flag-Redfern Oil Company		9. Well No. 2	
3. Address of Operator P. O. Box 2280 Midland, Texas 79702		10. Field and Pool, or Wildcat N. Osudo Morrow	
4. Location of Well UNIT LETTER <u>H</u> LOCATED <u>1650'</u> FEET FROM THE <u>North</u> LINE AND <u>990</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>18</u> TWP. <u>20-S</u> RGE. <u>36-E</u> NMPM		12. County Lea	
19. Proposed Depth 11,700		19A. Formation Morrow	20. Rotary or C.T. Rotary
21. Elevations (Show whether DF, RT, etc.) 3630 GL	21A. Kind & Status Plug. Bond Blanket	21B. Drilling Contractor Peterson Drilling Co.	22. Approx. Date Work will start July 6, 1981

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2"	13 3/8"	48 lb. H-40	375'	400sx	Circulate
12 1/4"	9 5/8"	40 lb. K-55	5200'	400sx	2500'
8 3/4"	7"	23 lb. S-95	10,800'	500sx	9000'
6 1/8"	5"	17.9 lb. C-75	11,000-11,700	225sx	11,000'

A 17 1/2" hole will be drilled to 375' and 13 3/8" casing set and cemented with 400 sacks cement.  
 A 12 1/4" hole will be drilled to 5200' and 9 5/8" casing set and cemented with 400 sacks cement.  
 An 8 3/4" hole will be drilled to 10,800' and 7" casing set and cemented with 500 sacks cement.  
 A 6 1/8" hole will be drilled to 11,700' and 5" liner set from 11,000-11,700' and cemented with 275 sacks. The well will be completed through perforations in the Morrow formation.

Blowout Preventers: 12" Series 900  
 10" Series 1500 w/Hydril

**Cement on the 9 5/8" casing must be brought from the top of the salt or anhydrite to the surface casing by either circulating the csg w/cmt. or a DV tool at the top of the salt**

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 [Signature] Title Drilling Superintendent Date June 15, 1981

(This space for State Use)  
 APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT 1 DATE JUN 17 1981  
 CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION

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

All distances must be from the outer boundaries of the Section.

JUL 21 1981

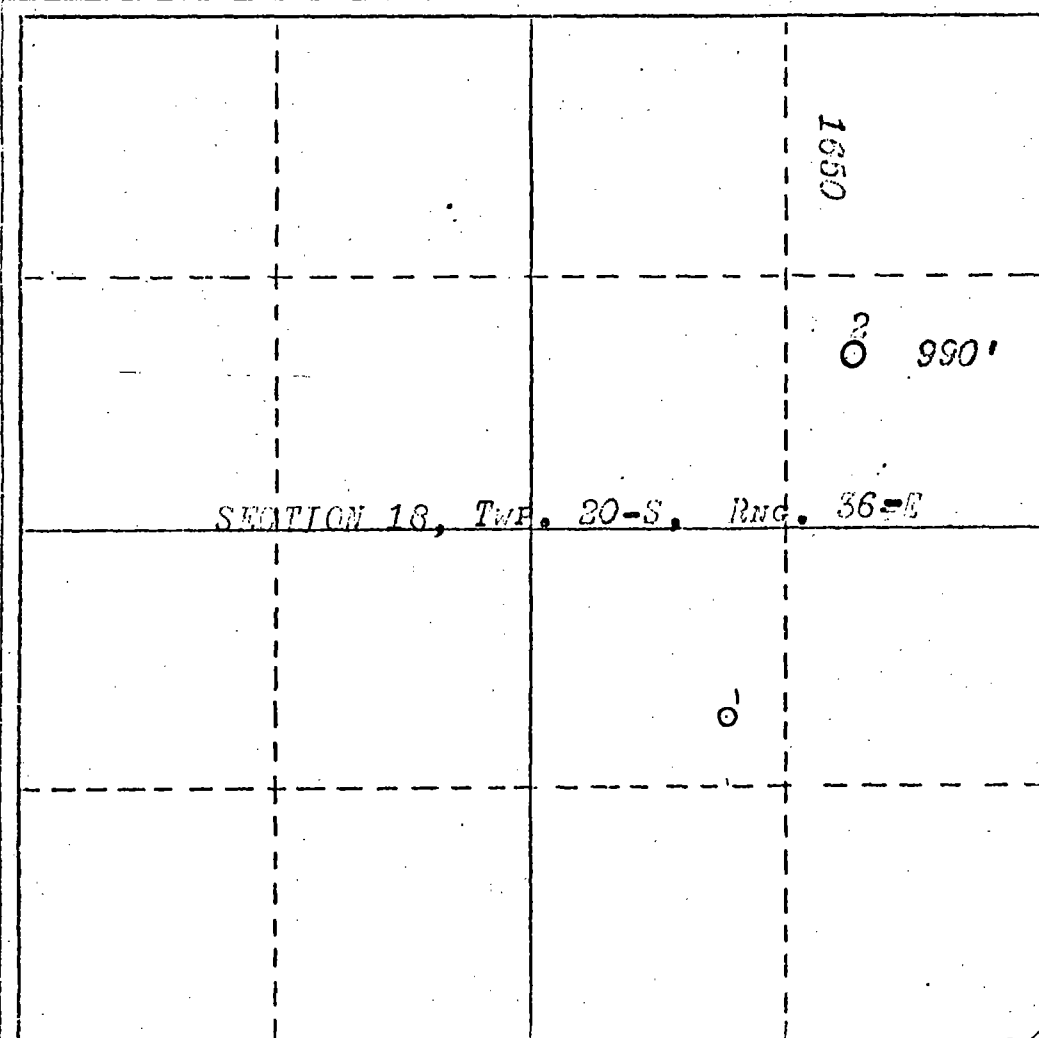
Operator <b>FLAG-REDFERN OIL COMPANY</b>		Lease <b>OSUDO STATE CONSO</b>		Well No. <b>2</b>	
Unit Letter <b>H</b>	Section <b>18</b>	Township <b>20-S</b>	Range <b>36-E</b>	County <b>SANTA FE</b>	
Actual Footage Location of Well: <b>1650</b> feet from the <b>NORTH</b> line and <b>990</b> feet from the <b>EAST</b> line					
Ground Level Elev. <b>3630</b>	Producing Formation <b>Morrow</b>		Pool <b>N. Osudo</b>		Dedicated Acreage <b>640</b> 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 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.



CERTIFICATION

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

Name [Signature]  
Position Drilling Superintendent

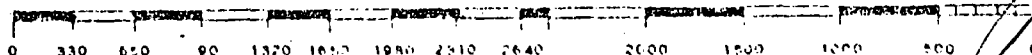
Company Flag-Redfern Oil Co.

Date June 15, 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 JUNE 12, 1981  
Registered Professional Engineer and/or Land Surveyor

[Signature]  
Certificate No. 754





# Memo

From

FLORENE DAVIDSON  
ADMINISTRATIVE SECRETARY

To

February 27, 1981

Mr. Swendig:

We no longer docket the infill findings portion of an application until the well has actually been drilled. Therefore, Case 7183 is only for an unorthodox gas well location.

JJR  
JTH  
GSP  
EMG  
ENG  
GEO  
E&L  
ACCT.

MAR 2 1981

☐  
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OIL CONSERVATION COMMISSION-SANTA FE

Dockets Nos. 12-81 and 13-81 are tentatively set for March 25 and April 8, 1981. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 11, 1981

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

ALLOWABLE: (1) Consideration of the allowable production of gas for April, 1981, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for April, 1981, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 7176: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Marjory M. Grier, U. S. Casualty Company of New York, and all other interested parties to appear and show cause why the Red Mountain Wells Nos. 6, 7, and 10, all located in Unit B of Section 29, Township 20 North, Range 9 West, McKinley County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7177: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Henry S. Birdseye and all other interested parties to appear and show cause why the State Well No. 10-2 in Unit G of Section 10, Township 19 North, Range 10 West, McKinley County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7178: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Noland and Wells and all other interested parties to appear and show cause why the Reinhardt Well No. 1 in Unit A of Section 21, Township 29 North, Range 11 West, San Juan County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7179: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit "26" Oil Company and all other interested parties to appear and show cause why the Jackson Well No. 1 in Unit A of Section 21, Township 29 North, Range 11 West, San Juan County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7180: In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Vincent and Goodrum and all other interested parties to appear and show cause why the Refinery Hare Well No. 1 in Unit A of Section 21, Township 29 North, Range 11 West, San Juan County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 7181: Application of Read & Stevens, Inc. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Hernandez Draw Unit Area, comprising 2,560 acres, more or less, of Federal, State, and Fee lands in Townships 4 and 5 South, Ranges 26 and 27 East.

CASE 7182: Application of Wiser Oil Company for an unorthodox well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Downes A Well No. 5 to be drilled in the approximate center of the SW/4 of Section 32, Township 21 South, Range 37 East, Penrose Skelly Pool.

✓ CASE 7183: Application of Flag-Redfern Oil Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Osudo St. Com Well No. 2 at an unorthodox location 990 feet from the North and East lines of Section 18, Township 20 South, Range 36 East, North Osudo-Morrow Gas Pool.

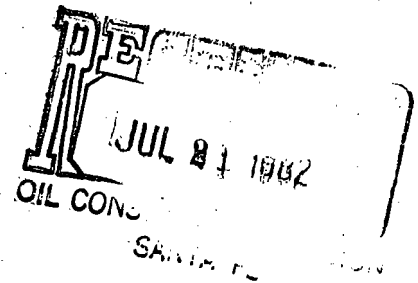
CASE 7147: (Readvertised)

Application of Yates Petroleum Corporation for an unorthodox gas well location and simultaneous dedication, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to test all Pennsylvanian formations to be drilled 1650 feet from the South line and 660 feet from the East line of Section 35, Township 18 South, Range 25 East, the S/2 of said Section 35 to be dedicated to said well and to applicant's "JX" Well No. 2 located in Unit N.

CASE 7184: Application of Harvey E. Yates Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the E/2 of Section 13, Township 17 South, Range 28 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

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

June 12, 1981



State Of New Mexico Energy & Minerals Department  
New Mexico Oil Conservation Commission  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Attn: Mr. D. S. Nutter, Chief Engineer

Re: Flag-Redfern #2 Osudo State Com.  
990' FN&EL Sec. 18,  
T-20-S, R-36-E,  
Lea County, New Mexico

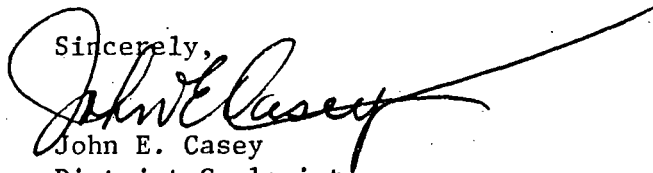
Gentlemen:

Flag-Redfern has received approval to drill the captioned well at a location 990' FN&EL of Sec. 18, T-20-S, R-36-E, Lea County, New Mexico. This was order Number R-6640.

Flag-Redfern now proposes to amend their location to 1650' FNL & 990' FEL, Sec. 18, T-20-S, R-36-E, Lea County, New Mexico.

This letter will serve to notify the Oil Conservation Commission that Jake L. Hamon has no objection to the location now proposed by Flag-Redfern.

Sincerely,

  
John E. Casey  
District Geologist

JEC/ml





STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

BRUCE KING  
GOVERNOR

LARRY KEHOE  
SECRETARY

July 1, 1981

JJR

JHH

GSR

RMC

ENG

GEO

L&L

ACCT.

JUL 6 1981

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

Flag-Redfern Oil Company  
P. O. Box 2280  
Midland, Texas 79702

Attention: Mr. Byron H. Greaves

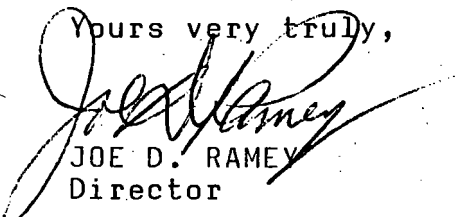
Re: Amended location  
R-6640

Gentlemen:

Reference is made to your letter dated June 12, 1981, wherein you advise that the location for your Osudo State Com. Well No. 2, as approved by Order No. R-6640 at a point 990 feet from the North line and 990 feet from the East line of Section 18, Township 20 South, Range 36 East, NMPM, North Osudo-Morrow Gas Pool, Lea County, New Mexico, was not suitable and that you desired to move the location to a point 1650 feet from the North line and 990 feet from the East line of said Section 18.

Inasmuch as the new location is less unorthodox than the old location, and you accompanied your letter with waivers of objection from the only offset operator, Jake L. Hamon, your request is hereby approved and the location 1650 feet from the North line and 990 feet from the East line may be drilled.

Yours very truly,

  
JOE D. RAMEY  
Director

JDR/DSN/fd

cc: OCD Hobbs  
Jake L. Hamon  
611 The Petroleum Building  
Midland, Texas 79701  
Case File 7183

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

CASE NO. 7183  
Order No. R-6640

APPLICATION OF FLAG-REDFERN OIL  
COMPANY FOR AN UNORTHODOX GAS  
WELL LOCATION, LEA COUNTY, NEW  
MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 25, 1981, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 7th day of April, 1981, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Flag-Redfern Oil Company, seeks approval of the unorthodox gas well location of its Osudo State Com Well No. 2 to be drilled 990 feet from the North line and 990 feet from the East line of Section 18, Township 20 South, Range 36 East, NMPH, to test the Morrow formation, North Osudo-Morrow Gas Pool, Lea County, New Mexico.

(3) That all of said Section 18 is to be simultaneously dedicated to said well and to applicant's Osudo State Com Well No. 1 located in Unit J of said Section 18.

(4) That a well at said unorthodox location will better enable applicant to produce the gas underlying the proration unit.

(5) That no offset operator objected to the proposed unorthodox location.

(6) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

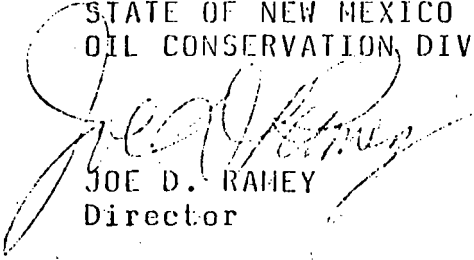
(1) That an unorthodox gas well location for the Morrow formation is hereby approved for the Flag-Redfern Oil Company Osudo State Com Well No. 2 to be located at a point 990 feet from the North line and 990 feet from the East line of Section 18, Township 20 South, Range 36 East, NHPM, North Osudo-Morrow Gas Pool, Lea County, New Mexico.

(2) That all of said Section 18 shall be dedicated to the above-described well and to applicant's Osudo State Com Well No. 1 located in Unit J of said Section 18.

(3) 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 the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
JOE D. RAMEY  
Director

S E A L

fd/

FLAG-REDFERN OIL COMPANY  
Osado State Com. No. 1  
Unit J, Section 18, T-20-S, R-36-E  
Lea County, New Mexico

WELL INFORMATION

Spudded:	November 16, 1975
Completed:	January 21, 1976
Total Depth:	11,700 feet
Casing:	13 3/8" @ 272 feet 9 5/8" @ 5030 feet 7" @ 10,780 feet 5 1/2" liner from 10,537 feet to 11,665 feet
Perforations:	11,509 - 11,519
Acidized:	1000 gals 15% Morrow-Flo acid
Fractured:	1500 gals gelled KCL water 9000 lbs 20-40 mesh sand 3000 lbs U-Car glass beads 1000 SCF CO <sub>2</sub> per bbl
Bottom Hole: Pressure	5560 psi after 46 1/2 hrs. SI
Initial Tubing: Pressure	4228 psi after 46 1/2 hrs. SI.
Initial Potential:	222 MCF/D
Cumulative: Production	208,501 MCF 1-1-81

Ex #6

OSUDO ST. COM. NO. 1  
Osudo, North Field  
Lea County, New Mexico

Monthly Gas Production

January 1977	2371
February	5012
March	6767
April	6104
May	6391
June	5712
July	5517
August	5625
September	5630
October	5922
November	4873
December	5213

January 1978	4989
February	5878
March	5845
April	3378
May	5312
June	5017
July	4751
August	4294
September	5036
October	5376
November	7145
December	4624

January 1979	4954
February	4095
March	4346
April	4237
May	4038
June	3833
July	3744
August	3701
September	3568
October	3643
November	0
December	3078

January 1980	3234
February	3162
March	3360
April	3432
May	3371
June	3023

Continued  
Page 2  
Monthly Gas Production

Monthly Gas Production

July 1980	2740
August	3339
September	3309
October	3504
November	2973
December	3035

January 1981	2919
February	<u>2845</u>

Cumulative Total as of 3-1-81	214,265
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<u>Hamon State E.</u>			<u>Hamon Amerada-Fed.</u>			<u>Hamon Union St.</u>		
	<u>SITP</u>	<u>MMcf Cum. Gas</u>	<u>Bbls. Cum Cond.</u>		<u>SITP</u>	<u>MMcf Cum. Gas</u>	<u>Bbls Cum Cond.</u>	
1965	4076							
1966	2298	4491	60,322	4991				3600
1967	1254	5910	71,199	1387				1370 2475 21,091
1968	807	6778	73,102	783	3628	70,889	917	3580 26,109
1969	532	7172	73,940	654	4034	72,541	690	4186 27,930
1970	399	7544	74,494	384	4450	73,797	501	4760 28,911
1971	291	7809	74,828	271	4705	74,274	412	5118 29,289
1972								
1973	204	8131	74,978	197	4996	74,806	302	5519 29,630
1974	219	8242	74,978	192	5122	74,846	248	5631 29,714
1975	212	8407	74,978	178	5236	74,922	345	5732 29,802
1976	173	8542	74,978	60	5337	75,025	59	5823 29,855
1977	168	8683	74,978	168	5367	75,025	998	5881 29,899
1978	162	8802	74,978	159	5473	75,089	463	5931 29,948
1979	155	8908	74,978	187	5507	75,089	276	5938 29,950

WELL S T R JAN FEB MAR APRIL MAY JUNE JULY AUG SEPT OCT NOV DEC YR-PRCD MP ACCUM.

OJO CHISO MORROW (GAS) PM

AMERICAN QUASAR PETROLEUM CO. OF NEW MEXICO\*\*\*\*\*  
OJO CHISO  
1E2322S34E GAS ZONE ABANDONED

423094  
500

POGO PRODUCING CO.

1M1422S34E GAS 7448 5438 3927 3756 2607 2761 25977 25977  
OIL 284 74 144 38 43 61 644 644  
WAT 141 173 268 582

OJO CHISO STRAWN (GAS) (ABANDONED) PS 11M TO 12M

AMERICAN QUASAR PETROLEUM CO. OF NEW MEXICO\*\*\*\*\*  
OJO CHISO  
1E2322S34E GAS PLUGGING APPROVED 1978

10139  
362

OSUDDO ATOKA (GAS) PA 11M TO 12M

TEXACO INCORPORATED (MCMAHON DISTRICT) \*\*\*\*\*  
NEW MEXICO STATE  
1B2520S35E GAS 3119 2729 2949 3089 2150 2959 2988 2808 2583 3248 2868 2561 34051 912638  
OIL 3 6 11 10 3 1 1 2 8 8 11 55 2351  
WAT 3 6 11 10 3 1 1 2 8 8 11 55 2351

OSUDDO DEVONIAN (GAS) DV 12M TO 13M

WESTERN OIL PRODUCERS INCORPORATED \*\*\*\*\*  
STATE N  
1E3220S36E GAS LAST PROD. DATE 05/75  
OIL

S 92758  
50486

TANZA STATE  
1L3220S36E GAS PLUGGING APPROVED 1980  
OIL

10753  
3683

COMPANY TOTAL OIL

51071  
938271

CSUDDO MORROW (GAS) PM 11M TO 12M

GULF OIL CORPORATION \*\*\*\*\*  
WILSON DEER STATE  
1D3120S36E GAS 15940 11389 11969 3270 13969 11055 16220 13298 12984 12984 11755 11545 146378 8108343  
OIL 7 8 13 2 9 8 20 10 10 10 10 125 31181  
WAT 20 7 13 2 9 8 20 10 10 10 10 125 31181  
2F 521S35E GAS 48480 42555 46351 47552 46150 44898 47543 44159 47484 47352 45258 47015 554837 19465592  
OIL 164 139 148 144 146 114 125 136 135 142 117 136 1646 173113  
WAT 31 28 31 30 31 30 31 28 30 30 30 26 356 614279  
3I 621S35E GAS PLUGGING APPROVED 1973  
OIL

15154

COMPANY TOTAL OIL 64420 53944 58320 50822 60116 55553 63723 57487 60428 60336 57013 58520 701703 28188215  
WAT 51 35 44 32 43 38 51 28 45 38 40 36 481 28188215

TEXACO INCORPORATED (MCMAHON DISTRICT) \*\*\*\*\*  
NEW MEXICO STATE  
1F3120S36E GAS  
NEW MEXICO STATE  
113620S35E GAS 483 272 293 469 441 527 659 595 563 715 709 577 6303 123854  
OIL 4 4 4 12 2 1 2 2 1 1 1 2 821  
WAT 4 4 4 12 2 1 2 2 1 1 1 2 821

NEW MEXICO D Q STATE  
1C1721S35E GAS 8307 7421 8277 7989 8240 8053 8170 8201 7522 7899 7686 7839 55454 763241  
OIL 112 53 104 104 14 94 102 82 82 93 94 1152 8491  
WAT 18 31 17 16 14 14 26 24 14 50 28 46 284 8491

COMPANY TOTAL OIL 8142 7757 8598 8116 8687 8580 8826 8796 8089 8614 8393 8416 10184 93312  
WAT 18 31 17 16 14 14 26 25 15 50 28 46 286 93312

WESTERN OIL PRODUCERS INCORPORATED \*\*\*\*\*  
STATE N  
1N 521S35E GAS PLUGGING APPROVED 1981  
OIL

165555  
517

OSUDDO MORROW, NORTH (GAS) PM 11M TO 12M

ADAMS EXPLORATION CO. \*\*\*\*\*  
STATE N  
1L1620S36E GAS 15885 14043 35190 22603 23559 5762 28611 20626 11252 8636 9395 6652 202214 202214  
OIL 403 352 194 179 40 106 11 11252 14 50 30 1379 1379

ALPHA TWENTY-ONE PRODUCTION CO. \*\*\*\*\*  
STATE N  
1K2920S36E GAS 2377 3823 3386 2839 2998 2845 2889 2978 2746 3532 3600 3398 37411 52672  
OIL 15 3 2 8 8 1 4 4 4 7 2 24 14 163

FLAG REFORM OIL CO \*\*\*\*\*  
OSUDDO STATE CCM  
1J1820S36E GAS 2919 2845 3052 3361 3590 3168 3100 4543 3341 2982 2583 3329 38813 241436

JAKE L HANON \*\*\*\*\*  
AMERADA FEDERAL  
1N1720S36E GAS 3046 2789 3189 1574 10598 5545343  
OIL 1574 75085

2F1720S36E GAS 154495 129958 150382 150803 152265 144372 156323 156687 153294 142150 144029 134958 1769758 3030913  
OIL 1678 1335 1452 1452 1375 1106 1407 1247 1039 909 739 529 14328 30294  
3I1720S36E GAS 76284 76284 76284 76284 76284 76284 76284 76284 76284 76284 76284 76284 76284 76284  
OIL 802 802 802 802 802 802 802 802 802 802 802 802 802 802

CHILDERS \*\*\*\*\*  
1K3219S36E GAS 7352 9053 8020 7151 6759 6430 5868 5972 5441 5683 67725 67725  
OIL 97 99 94 73 69 69 72 75 71 81 800 800

STATE E 8913 \*\*\*\*\*  
2K2020S36E GAS 21144 32193 82723 70949 61066 46228 36989 21961 14452 7835 2078 1429 399047 626062  
OIL 208 338 481 231 72 59 10 18 11 11 11 11 4374  
WAT 11 11 11 11 11 11 11 11 11 11 11 11 11

STATE E 8913 CCM \*\*\*\*\*  
102020S36E GAS LAST PRCD. DATE 08/80  
OIL

S 8940475  
74978

UNION STATE \*\*\*\*\*  
1H3020S36E GAS LAST PRCD. DATE 10/79  
OIL

X 5938296  
29550

2A3020S36E GAS 26531 11990 22358 27596 19768 23093 18197 15257 8671 13999 8995 22519 218974 116136  
OIL 11 3 4 14 5 6 6 6 11 11 9 7 70 2274

COMPANY TOTAL OIL 205920 176928 268004 259979 241178 297728 330784 308135 284333 268008 268134 268224 3173184 26819251  
WAT 11 11 11 11 11 11 11 11 11 11 11 11 11

MALLARD EXPLORATION, INCORPORATED \*\*\*\*\*  
ALVAREZ STATE  
1F 620S36E GAS PLUGGING APPROVED 1976  
OIL

884354  
37677

MORAN EXPLORATION, INC \*\*\*\*\*  
OSUDDO STATE CCM  
1I1920S36E GAS 195 237 72 318 190 20 1032X 2615495  
OIL 2615495

TXO PRODUCTION CORPORATION \*\*\*\*\*  
OSUDDO STATE CCM  
1D2920S36E GAS 43541 37533 43233 40304 40024 39340 39331 39400 38621 38500 37033 35997 472857 2937777  
OIL 118 111 135 119 16 86 189 90 93 87 107 84 1235 11242  
WAT 20 24 25 27 21 32 21 16 186 186

CSUDDO MORROW, SOUTH (GAS) PM 12M TO 13M

AMERADA HESS CORPORATION \*\*\*\*\*  
STATE N  
1F1521S35E GAS 6078 4023 3860 2647 1426 4606 5015 4684 3998 4039 3779 3535 47690 6110699  
OIL 44 6 49 44 6 49 44 6 49 44 6 49 128553  
WAT 44 6 49 44 6 49 44 6 49 44 6 49 128553



FLAG-REDFERN OIL COMPANY  
Osudo State Com. No. 2  
Unit H, Section 18, T-20-S, R-36-E  
Lea County, New Mexico

WELL INFORMATION

Spudded: August 1, 1981

Completed: March 9, 1982

Total Depth: 11,882 feet

Casing: 13 3/8" @ 385 feet  
9 5/8" @ 5020 feet  
7" @ 10,869 feet  
5" Liner from 10,519 feet to 11,876 feet

Perforations: 11,633' - 11,819' (CRC Wireline GRN Log Run 10-20-81)

Acidized: 5,000 gals 7 1/2% Morrow Flow BC acid and 1,250 gals CO<sub>2</sub>

Bottom Hole Pressure: 2,854 psi after 45 hour SI

Initial Tubing Pressure: 1,360 psi after 45 hour SI

Initial Potential: 30 MCF/D w/1.6 BBL Condensate

Current Status: Well CI waiting on pipeline connection.

Justification: The Osudo State Com. No. 2 was drilled in hopes of penetrating the reservoir in a more productive area. Two of the Jake Hamon wells in section 17, T20S, R36E have produced in excess of 3 BCF gas and 30,000 barrels of condensate, while Flag-Redfern's Osudo State Com. No. 1 has produced only 0.24 BCF since 1976. The initial bottom hole pressure of 5,560 psi coupled with the low cumulative production from the No. 1 well indicates the sands in the well to have low permeability. The Osudo State Com. No. 2 well potentialized for 30 MCF/day and 1.6 bcfd in March, 1982. The poor deliverability of the No. 2 well also supports the evidence of the tight sands underlying portions of section 18, T20S, R36E. For these reasons both wells should be produced to depletion to insure effective and efficient drainage of the proration unit in section 18.

Additional Reserves: Additional reserves to be recovered from the Osudo State Com. No. 2 are estimated to be 50 MMCF gas and 2,000 barrels of condensate. These reserves were determined volumetrically.