



OIL CONSERVATION OXY USA INC.  
Box 250250, Midland, TX 79710

'92 JUL 6 AM 9 34

June 24, 1992

State of New Mexico Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87504

Attn: Mr. David R. Catanach

Re: Owen A #1  
Unit P, Sec 35, T-21-S, R-37-E, Lea County, NM  
Commingle Wantz-Abo and Wantz-Granite Wash

Mr. Catanach:

OXY USA respectfully requests an exception to Rule 303-A to permit downhole commingling of the production from the Wantz-Abo and the Wantz-Granite Wash in the above-referenced well. The well is currently producing from the Wantz-Abo pool.

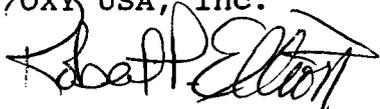
In June of 1991 a retrievable bridge plug was placed above the Granite Wash perforations while the Wantz-Abo was tested. The Wantz-Abo was expected to produce approximately 5 BOPD. The commingled production from the Wantz-Abo and Wantz-Granite Wash would have improved lease economics. However, the production from the Wantz-Abo was much higher than anticipated, and it was not possible to apply for a downhole commingling permit. The well has produced on a steep decline and is rapidly becoming marginally economic. The latest production figures show the Owen A #1 to be producing at a rate of approximately 9 BOPD and 19 MCFPD. Based on its decline, the Owen A #1 will be approaching its economic limit very soon.

By downhole commingling the production in the Owen A #1, OXY USA will be able to produce from the Wantz-Abo longer than if it were produced individually. As indicated in the attached application, it is possible that OXY USA can recover nearly 4600 BO and 9650 MCF of additional reserves from the Wantz-Abo that would not be economic to recover without commingling.

The attached application shows that the Owen A #1 meets the criteria set for downhole commingling of oil zones, and that waste will not occur as a result of the proposed commingling, and that correlative rights will not be violated. It also shows that similar requests have been made by offset operators in the past, and that permission has been granted to downhole commingle the Wantz-Abo and the Wantz-Granite Wash in these cases.

If you require additional information, please contact this office at (915) 685-5821. Thank you for your consideration in this matter.

Sincerely,  
OXY USA, Inc.

A handwritten signature in black ink, appearing to read "Robert P. Elliott". The signature is written in a cursive style with a large, sweeping initial "R".

Robert P. Elliott  
Operations Engineer

#### Attachments

CC: Offset Operators  
Mr. Jerry Sexton, NMOCD Hobbs, NM  
CWP/FAV  
R. Foppiano  
RPE  
Well file

Attachment 1  
Offset Operators  
OXY USA's Owen A Lease

AMOCO Production Co.  
P.O. Box 3092  
Houston, Texas 77253

ARCO Oil and Gas Co.  
P.O. Box 1610  
Midland, Texas 79702

CONOCO Inc.  
10 Desta Dr.  
Midland, Texas 79705

Exxon Company, USA  
P.O. Box 1600  
Midland, Texas 79702-1600

Marathon Oil Company  
P.O. Box 552  
Midland, Texas 79702

Attachment 2  
Owen A #1  
Required Data

In order to obtain approval to commingle production from the Wantz - Abo and the Wantz - Granite Wash in OXY USA's Owen A #1, the following responses to Rule 303 (D) 1 through 10 are made:

1. Name and address of the operator:

OXY USA, Inc.  
P.O. Box 50250  
Midland, Texas 79710

2. Lease name, well number, well location, name of pools to be commingled:

Owen "A" No. 1  
Unit P: 660' FSL and 660' FEL of Sec 35, T-21-S, R-37-E, Lea County, New Mexico.  
Pools to be commingled: Wantz - Abo and Wantz - Granite Wash.

3. A plat of the area showing the acreage dedicated to the well and all offset operators:

Attached.

4. A 24-hour productivity test on Division form C-116 showing the amount of oil, gas, and water produced from each zone:

Attached. The productivity test provided for the Granite Wash zone is the last test taken prior to the Abo recompletion in June of 1991. It is felt that after a small acid job to clean the perforations, the production from the Granite Wash should return to this level and follow the established decline.

5. A production decline curve for both zones showing that for a period of at least one year a steady rate of decline has been established for each zone which will permit a reasonable allocation of the commingled production to each zone for statistical purposes:

Attached.

6. Estimated bottomhole pressure for each artificially lifted zone:

The estimated bottomhole pressure for the Wantz - Abo is 800 psi. The estimated bottomhole pressure for the Wantz - Granite Wash is 600 psi. These pressures are estimated using offset data.

Owen A #1  
Required Data (Continued)

7. A description of the fluid characteristics of each zone showing that the fluids will not be incompatible in the well-bore:

These zones are being commingled in offset producers without compatibility problems.

8. A computation showing that the value of the commingled production will not be less than the sum of the individual streams:

The value of the commingled stream will be the same as the individual streams since the gravities of the oil produced from each zone are the same.

9. A formula for the allocation of production to each of the commingled zones and a description of the factors or data used in determining such formula:

The Wantz Granite Wash produced an average of 10 BOPD, 2 BWPD and 5 MCFPD prior to being shut-in in June of 1991. The Wantz-Abo is producing at a rate of approximately 9 bopd, 2 BWPD and 19 MCFPD. It is proposed to allocate the oil production to each zone using a simple 50:50 ratio. If it becomes evident that this is not accurate after the recompletion, OXY USA will submit a new formula.

10. A statement that all offset operators, and in the case of a well on federal land, the United States Bureau of Land Management, have been notified in writing of the proposed commingling.

All offset operators have been notified of OXY USA's application to downhole commingle the production from the Owen A #1 by copy of this letter.

The following addresses Rule 303 (C) (1) (a) i through vii which establishes the criteria for commingling oil zones.

- i The total combined oil production before commingling from the Wantz - Abo and the Wantz - Granite Wash is less than 30 BOPD. Since the bottom perforation in the Wantz - Granite Wash is 7490', the oil production criteria is met by not exceeding 50 BOPD.
- ii Both oil zones will require artificial lift.

Owen A #1  
Required Data (Continued)

- iii Neither zone produces more than 50 BWPD which is the limit of the combined oil production for a well in which the bottom perforation of the lowermost pool is between 7,000' and 7,999'.
- iv These zones are being successfully commingled in several offset wells which are operated by Exxon and Marathon. Formation damage is not anticipated through the commingling of the Wantz- Abo and the Wantz - Granite Wash in the Owen A #1.
- v Since the oil produced from these zones is nearly identical, commingling should have no effect on the value of the oil.
- vi Working interest, royalty interest and overriding royalty interest ownership in the Owen A #1 is the same for both zones.
- vii Commingling of the Wantz - Abo and the Wantz - Granite Wash in the Owen A #1 will not jeopardize the efficiency of future secondary recovery operations.

Attachment 3  
Owen A #1  
Additional Recovery from the Wantz - Abo

The following is an estimate of the additional reserves which can be recovered through commingling of the Wantz - Abo and the Wantz Granite Wash:

Current Wantz - Abo Rate: 9 bopd, 19 MCFPD (GOR = 2100 SCF/bbl)

The nominal decline rate projected from last 3 months production is 71.5% per year.

Additional reserves that can be recovered through commingling:

$$(9 \text{ bopd} - 0 \text{ bopd}) (365 \text{ d/yr}) / 0.715/\text{yr} = 4594 \text{ BO}$$

$$(4594 \text{ BO}) (2100 \text{ SCF/BO}) = 9647 \text{ MCF}$$

This is a minimum recovery since the decline will probably begin to flatten out.

Attachment 4  
Offset Operators  
Commingling Wantz-Abo and Wantz-Granite Wash

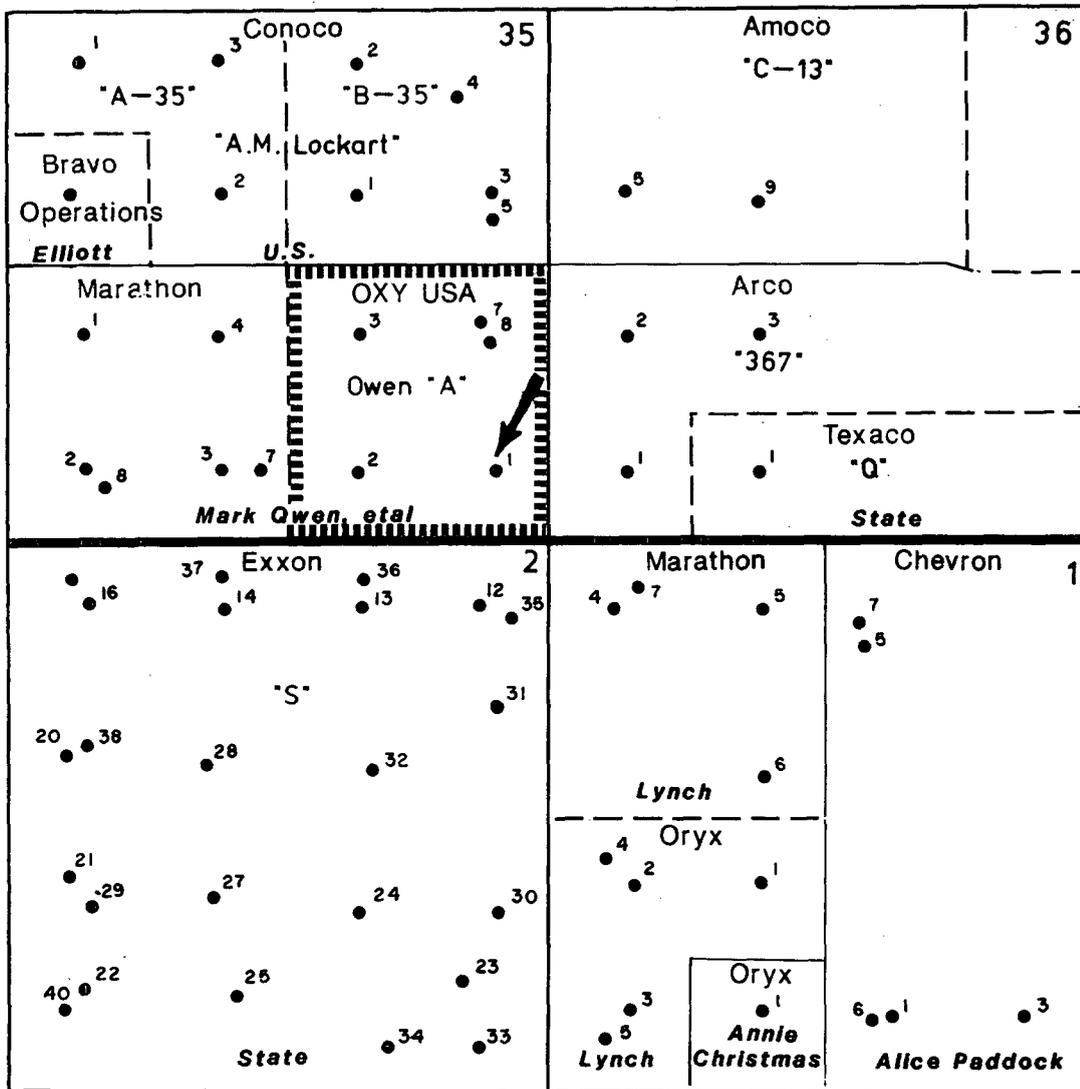
Exxon Company, USA  
New Mexico "S" State #36  
Unit B, Sec 2, T-22-S, R-37-E, Lea Co., NM  
NMOCD Administrative Order No. DHC-770

Exxon Company, USA  
New Mexico "S" State #37  
Unit C, Sec 2, T-22-S, R-37-E, Lea Co., NM  
NMOCD Administrative Order No. DHC-769

Marathon Oil Company  
Mark Owen # 7  
Unit N, Sec 35, T-22-S, R-37-E, Lea Co., NM  
NMOCD Order No. - Unknown

Marathon Oil Company  
Mark Owen # 8  
Unit M, Sec 35, T-22-S, R-37-E, Lea Co., NM  
NMOCD Order No. - Unknown

**Attachment 5  
PLAT SHOWING OWEN "A" LEASE  
AND ALL OFFSET OPERATORS**

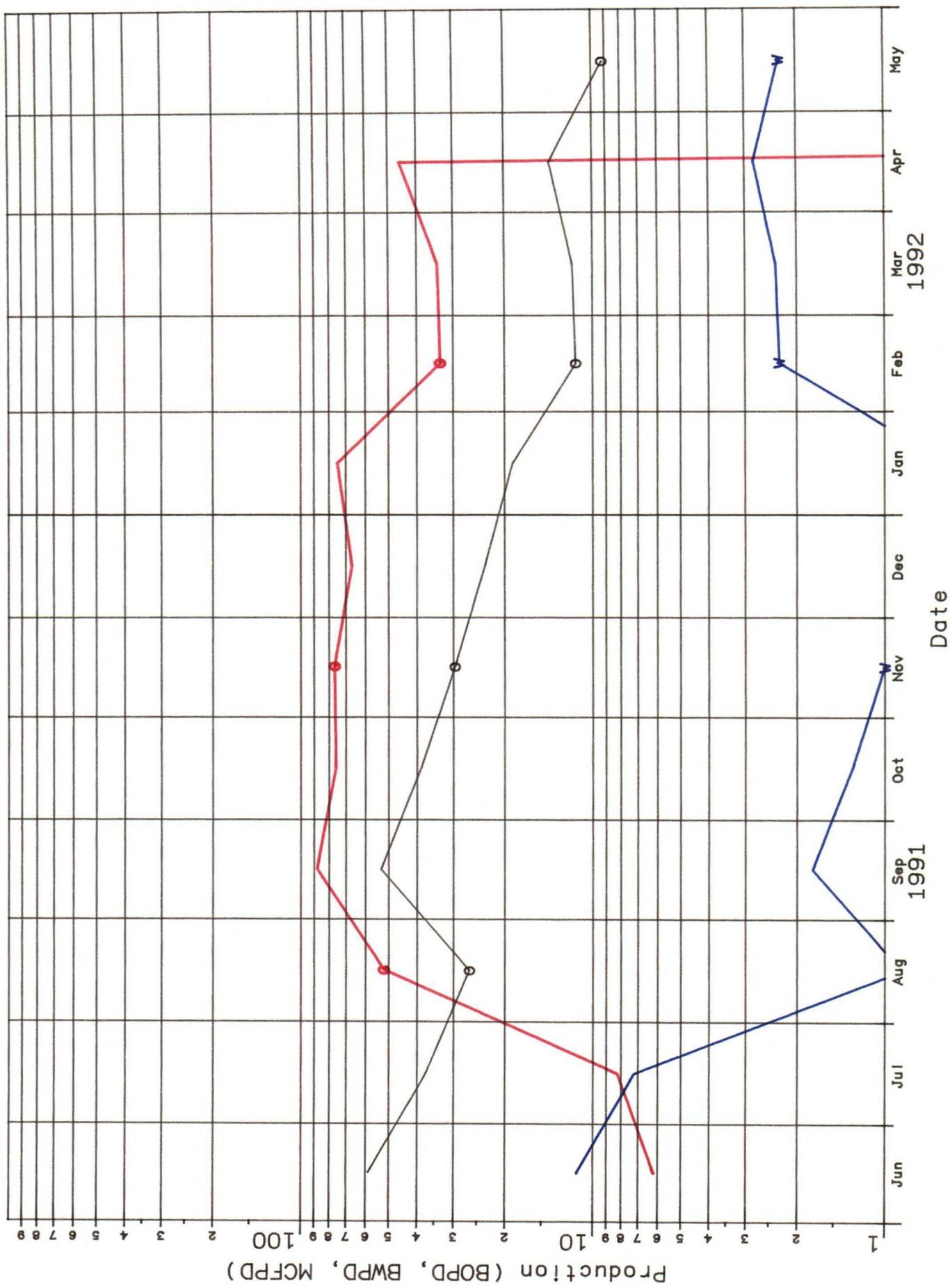


OXY USA, INC.  
**OWEN "A" LEASE**  
SEC. 35, T-22-S, R-37-E  
LEA CO., NEW MEXICO



JUNE, 1992

OWEN A #1  
WANTZ - ABO



to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

# OIL CONSERVATION DIVISION

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

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

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

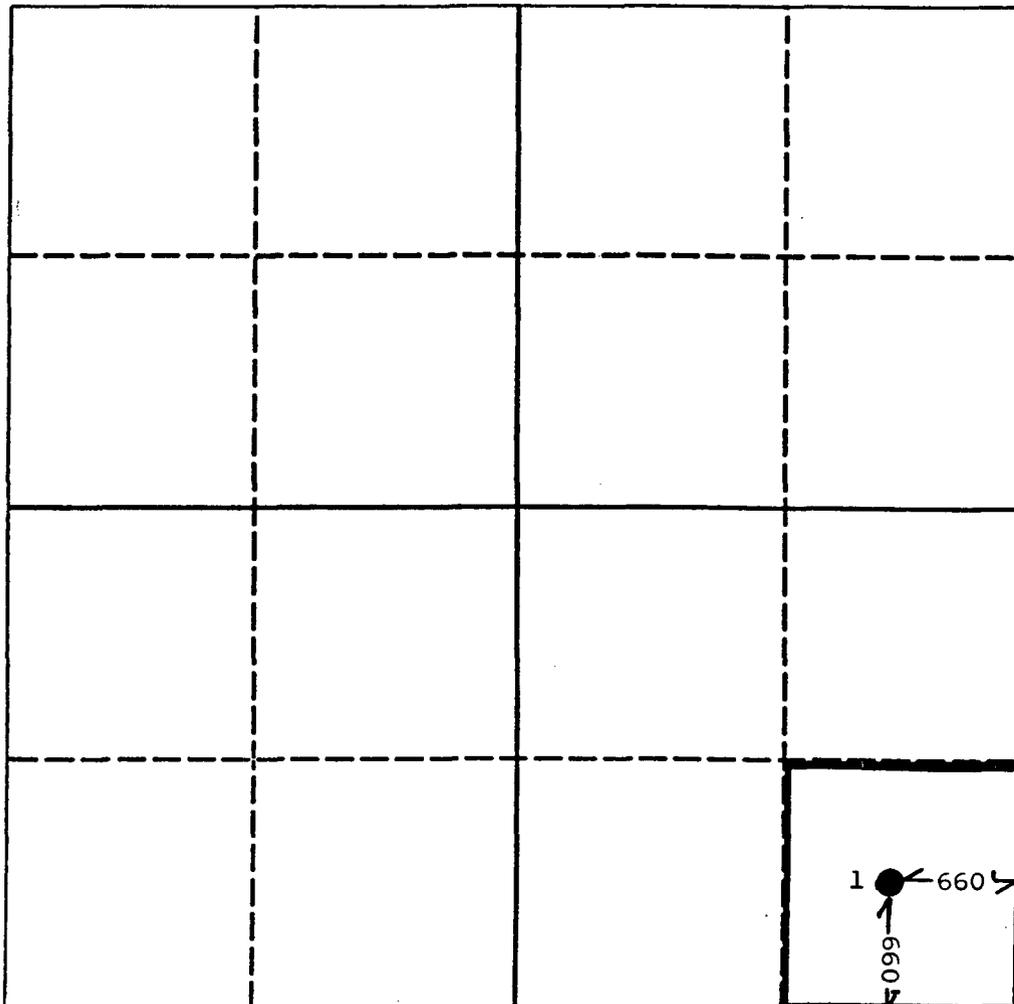
**DISTRICT III**  
1000 Rio Brazos Rd., Aztec, NM 87410

## WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator OXY USA Inc.			Lease Owen		Well No. 1
Unit Letter P	Section 35	Township 21S	Range 37E	County Lea NMPM	
Actual Footage Location of Well: 660 feet from the South line and 660 feet from the East line					
Ground level Elev. 3368'	Producing Formation Abo		Pool Wantz Abo	Dedicated Acreage: 40 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hachure 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 interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
   
 Yes     No    If answer is "yes" type of consolidation \_\_\_\_\_
   
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)
   
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



### OPERATOR CERTIFICATION

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

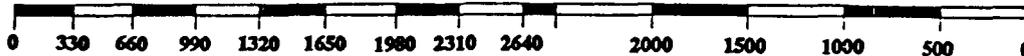
Signature 
Printed Name David Stewart
Position Production Accountant
Company OXY USA Inc.
Date 5/8/91

### SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
Signature & Seal of Professional Surveyor

Certificate No.



District Office  
 DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

**OIL CONSERVATION DIVISION**

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

**GAS - OIL RATIO TEST**

Operator	Address	Pod	WANTZ ABO	WELL NO.	LEASE NAME	LOCATION			DATE OF TEST		TYPE OF TEST - (X)		Scheduled	DAILY ALLOW-ABLE	X	Completion			Special			GAS-OIL RATIO	
						U	S	T	R	S	P	CHOKE SIZE				TBG PRESS	WATER BBLs.	GRAV OIL	OIL BBLs	GAS MCF	CU.FT/BBL		
OWEN A				1	P	35	21S	37E	02/12/92	P							4	24	20	42	2100		
				2	O	35	21S	37E	02/13/92	F								2	24	3	90	30000	
				3	J	35	21S	37E	02/14/92	P								2	24	3	90	30000	
				8	I	35	21S	37E	02/15/92	F								3	24	5	80	16000	
				13	I	3	22S	37E	02/18/92	F									1	24	2	142	71000
BRUNSON C																							

County  
 LEA

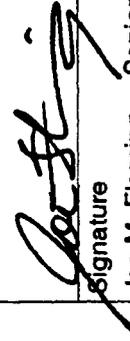
**Instructions:**

During gas-oil ratio test each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25% tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60 F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

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

  
 Signature

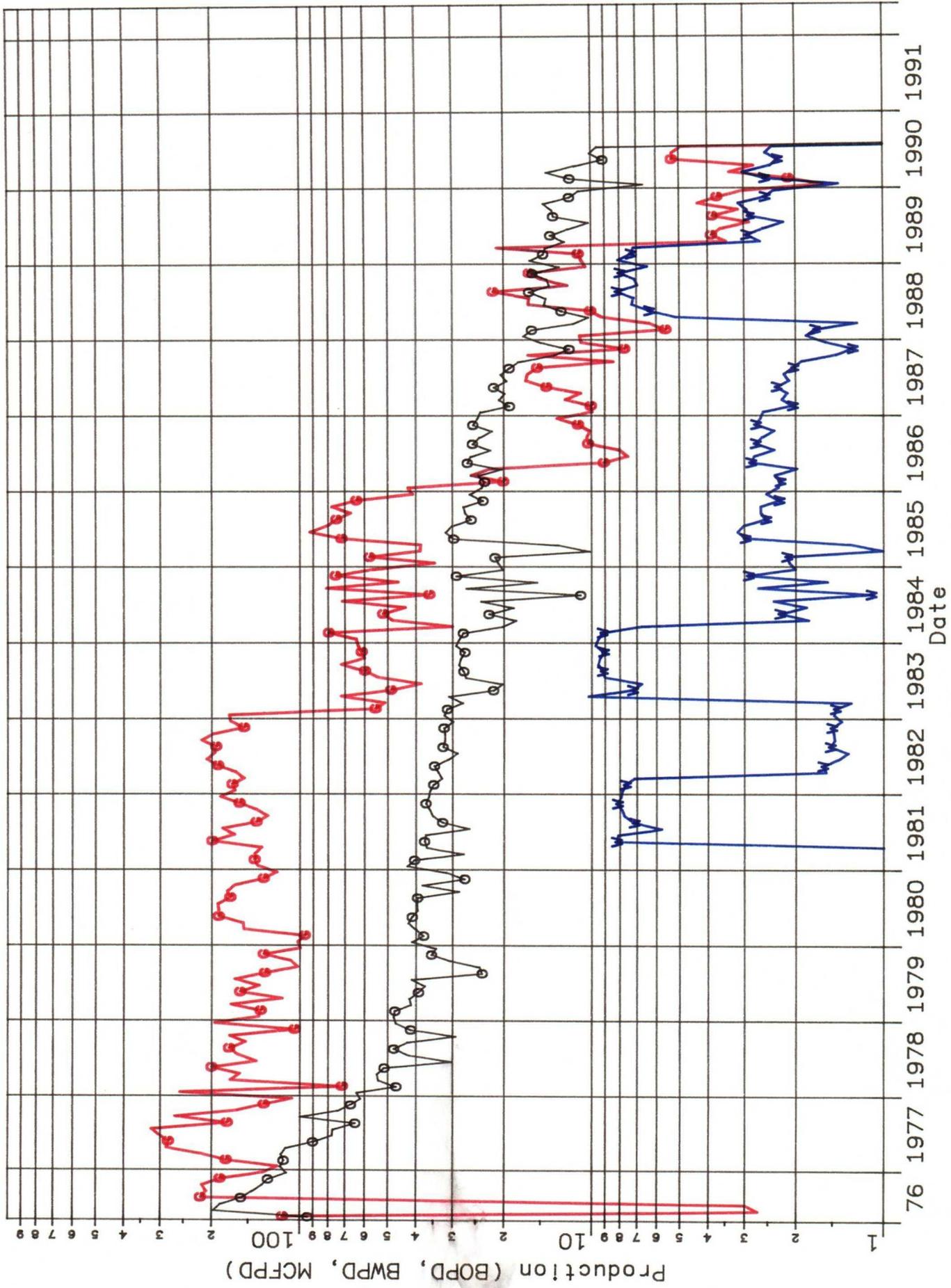
Joe M. Fleming - Senior Engineering Technician

Printed name and title

February 28, 1992

915-685-5600

OWEN A #1  
WANTZ - GRANITE WASH



**NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102  
Supersedes C-128  
Effective 1-4-65

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

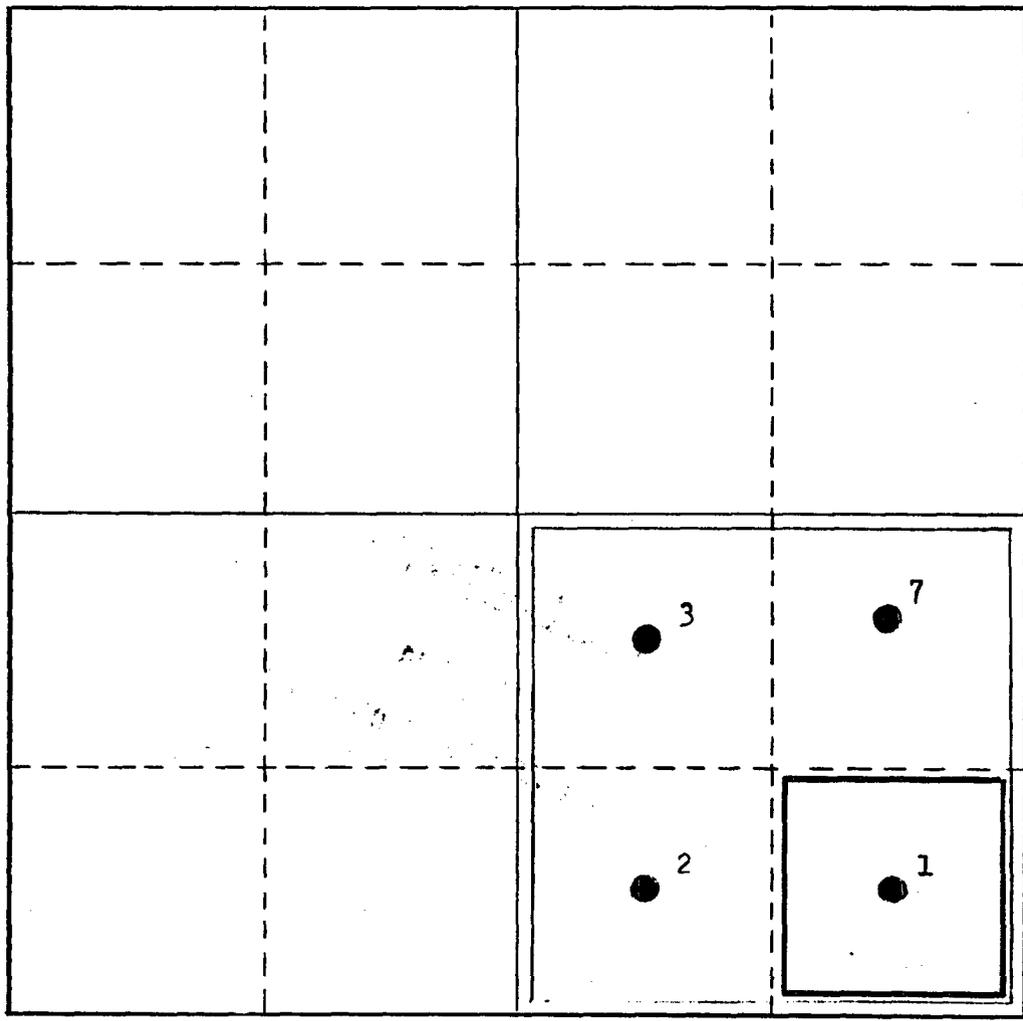
Operator <b>Cities Service Oil Company</b>			Lease <b>Owen</b>		Well No. <b>1</b>
Unit Letter <b>P</b>	Section <b>35</b>	Township <b>21S</b>	Range <b>37E</b>	County <b>Lea</b>	
Actual Footage Location of Well: <b>660</b> feet from the <b>South</b> line and <b>660</b> feet from the <b>East</b> line					
Ground Level Elev. <b>3368'</b>	Producing Formation <b>Granite Wash</b>		Pool <b>Und. Granite Wash</b>		Dedicated Acreage: <b>40</b> Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes     No    If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



**CERTIFICATION**

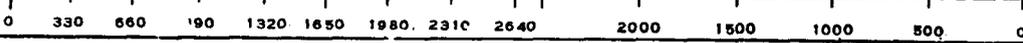
*I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.*

Name *E. Smith*  
 Position **Region Operation Manager**  
 Company **Cities Service Oil Company**  
 Date **March 12, 1976**

*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 \_\_\_\_\_  
 Registered Professional Engineer and/or Land Surveyor \_\_\_\_\_

Certificate No. \_\_\_\_\_





STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

RECEIVED

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

'92 JUL 10 AM 9 09

7-2-92

BRUCE KING  
GOVERNOR

POST OFFICE BOX 1980  
HOBBS, NEW MEXICO 88241-1980  
(505) 393-6161

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

RE: Proposed:

- MC \_\_\_\_\_
- DHC  \_\_\_\_\_
- NSL \_\_\_\_\_
- NSP \_\_\_\_\_
- SWD \_\_\_\_\_
- WFX \_\_\_\_\_
- PMX \_\_\_\_\_

Gentlemen:

I have examined the application for the:

<u>Oxy USA Inc.</u>	<u>Owen #1-P</u>	<u>35-21-37</u>
Operator	Lease & Well No. Unit	S-T-R

and my recommendations are as follows:

OK

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Yours very truly,

*Jerry Sexton*  
 Jerry Sexton  
 Supervisor, District 1

/ed