



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CORRECTED ADMINISTRATIVE ORDER DHC-884

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

Attention: Brent D. Lockhart

*Lou Worthan No. 13
Unit C, Section 11, Township 22 South, Range 37 East, NMPM,
Lea County, New Mexico.
Drinkard and Wantz Granite Wash Pools*

Dear Mr. Lockhart:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations to permit the subject well to commingle production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the two zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C-4., total commingled oil production from the subject well shall not exceed 40 barrels per day, and total water production shall not exceed 80 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by multiplying 2000 by the top unit allowable for the Wantz Granite Wash Pool.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Drinkard Pool	Oil	0%	Gas	25%
Wantz Granite Wash Pool	Oil	100%	Gas	75%

Corrected Administrative Order DHC-884
Marathon Oil Company
April 30, 1993
Page 2

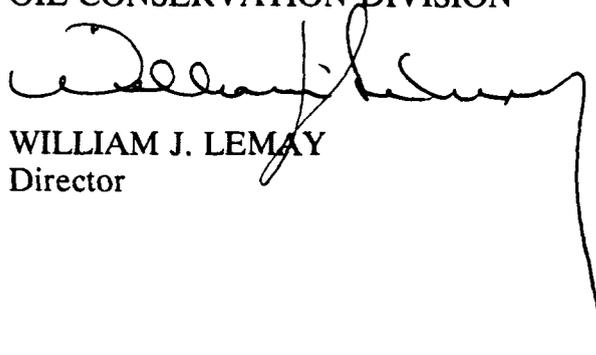
In accordance with the provisions of Rule 303-C, the supervisor of the Hobbs District Office of the Oil Conservation Division shall determine the proper allocation of production from the subject well following its completion.

FURTHER: The operator shall notify the Hobbs District Office of the Division upon implementation of the commingling process.

Pursuant to Rule 303-C-5, the commingling authority granted by the order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 30th day of April, 1993.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

S E A L

WJL/BES/amg

cc: Oil Conservation Division - Hobbs

RELEASE 3-31-93

Mid-Continent Region
Production United States

OIL CONSERVATION DIVISION
RECEIVED



**Marathon
Oil Company**

93 MAR 12 AM 9 09

P.O. Box 552
Midland, Texas 79702
Telephone 915/682-1626

March 5, 1993

Mr. David Catanach
Energy and Mineral Department
Oil Conservation Division
PO Box 2088
Santa Fe, NM 87501

Re: Request for Exception to Rule 303-A
Downhole Commingling
Marathon Oil Company
Lou Worthan Well No. 13
Unit C, 350' FNL & 2,080' FWL
Section 11, T-22-S, R-37-E
Drinkard Gas and Granite Wash Formations
Drinkard Field
Lea County, New Mexico

Dear Mr. Catanach:

Marathon Oil Company requests administrative approval for an exception to Rule 303-A to permit the downhole commingling of production in the above subject well from the Drinkard Gas and Wantz Granite Wash Pools in Lea County, New Mexico.

Currently, the well is dual completed with the Drinkard Gas flowing up the annulus and Granite Wash flowing up the tubing. By allowing the commingling of the two zones, it would economically justify keeping the well on production for an extended period and minimize any associated waste.

Enclosed is pertinent data supporting this application as outlined in rule 303-A. If additional information is necessary, please contact me at (915)682-1626.

Sincerely,

B. D. Lockhart
Northwest Operations

BDL/93117/jo

**REQUEST FOR EXCEPTION TO RULE 303-A
LOU WORTHAN WELL NO. 13
DRINKARD FIELD**

- (a) Marathon Oil Company
PO Box 552
Midland, Texas 79702
- (b) Lou Worthan Well No. 13
Unit C, 330' FNL & 2080' FWL
Section 11, T-22-S, R-37-E
Lea County, New Mexico
Commingled Zones: Drinkard Gas and Wantz Granite Wash
- (c) Plats (2) of area attached.
- (d) The Form C-116 for the Drinkard Gas and Wantz Granite Wash are attached.
- (e) Production decline curves for both the Drinkard Gas and Wantz Granite Wash are attached.
- (f) Estimated bottom hole pressure for each zone:
 Drinkard Gas - 450 psi
 Granite Wash - 550 psi
- (g) Marathon has commingled these fluids at the surface and has encountered no incompatibility problems.
- (h) If the downhole commingling is approved, the economic life of the well will be extended and thus avoid waste. The value of the produced hydrocarbons will not be altered by commingling the production.
- (i) Production from the latest GOR test shows as follows:

<u>NAME</u>	<u>OIL (BOPD)</u>	<u>GAS (MCFD)</u>	<u>WATER (BWPD)</u>
Drinkard	0	13	0
Granite Wash	<u>1</u>	<u>40</u>	<u>0</u>
Total	1	53	0

Allocated percentages should be:

<u>NAME</u>	<u>OIL (%)</u>	<u>GAS (%)</u>
Drinkard	0	25
Granite Wash	100	75

- (j) Ownership of the two pools to be commingled in common and correlative rights will not be violated.
- (k) By copy of this letter, we are notifying all offset operators of the proposed commingling by certified mail.

Submit 2 copies to Appropriate 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

State of New Mexico
 Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
 P.O. Box 2088
 Santa Fe, New Mexico 87504-2088

Form C-116
 Revised 1/1/89

GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool DRINKARD		County LEA									
Address P. O. Box 552, Midland, Texas, 79702		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>									
LEASE NAME LOU WORTHAN	WELL NO. 13	LOCATION			DATE OF TEST 2/19/93	CHOKES SIZE F OPEN	TBG. PRESS. 50	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS 24	PROD. DURING TEST			GAS - OIL RATIO CU.FT/BBL. N/A
		U C	S 11	T 22S						R 37E	WATER BBL.S. 0	GRAV. OIL N/A	

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 percent 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.

Brent D. Lockhart
 Signature

BRENT D. LOCKHART ENGINEERING TECHNICIAN

Printed name and title

MARCH 5, 1993

Date

915-682-1626

Telephone No.

(See Rule 301, Rule 1116 & appropriate pool rules.)

Submit 2 copies to Appropriate 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

State of New Mexico
 Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
 P.O. Box 2088
 Santa Fe, New Mexico 87504-2088

Form C-116
 Revised 1/1/89

GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool WANTZ - GRANITE WASH		County LEA									
Address P.O. Box 552, Midland, Texas, 79702		TYPE OF TEST - (X)		Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>									
LEASE NAME LOU WORTHAN	WELL NO. 13	LOCATION			DATE OF TEST 2/18/93	CHOKE SIZE F OPEN	TBG PRESS. 20	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS 24	PROD. DURING TEST			GAS - OIL RATIO CU.FT/BBBL. 40,000
		U C	S 11	T 22S						R 37E	WATER BBL.S. 0	GRAV. OIL N/A	

I hereby certify that the above information is true and complete to the best of my knowledge and belief.
Brent D. Lockhart
 Signature
 BRENT D. LOCKHART ENGINEERING TECHNICIAN
 Printed name and title
 MARCH 5, 1993
 Date
 915-682-1626
 Telephone No.

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 percent 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.
 (See Rule 301, Rule 1116 & appropriate pool rules.)

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

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 Marathon Oil Company			Lease Lou Worthan		Well No. 13
Unit Letter C	Section 11	Township 22-S	Range 37-E	County Lea	
Actual Footage Location of Well: 330 feet from the North line and 2080 feet from the West line					
Ground level Elev. 3362'	Producing Formation Drinkard		Pool Drinkard-Gas		Dedicated Acreage: 40 Acres

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

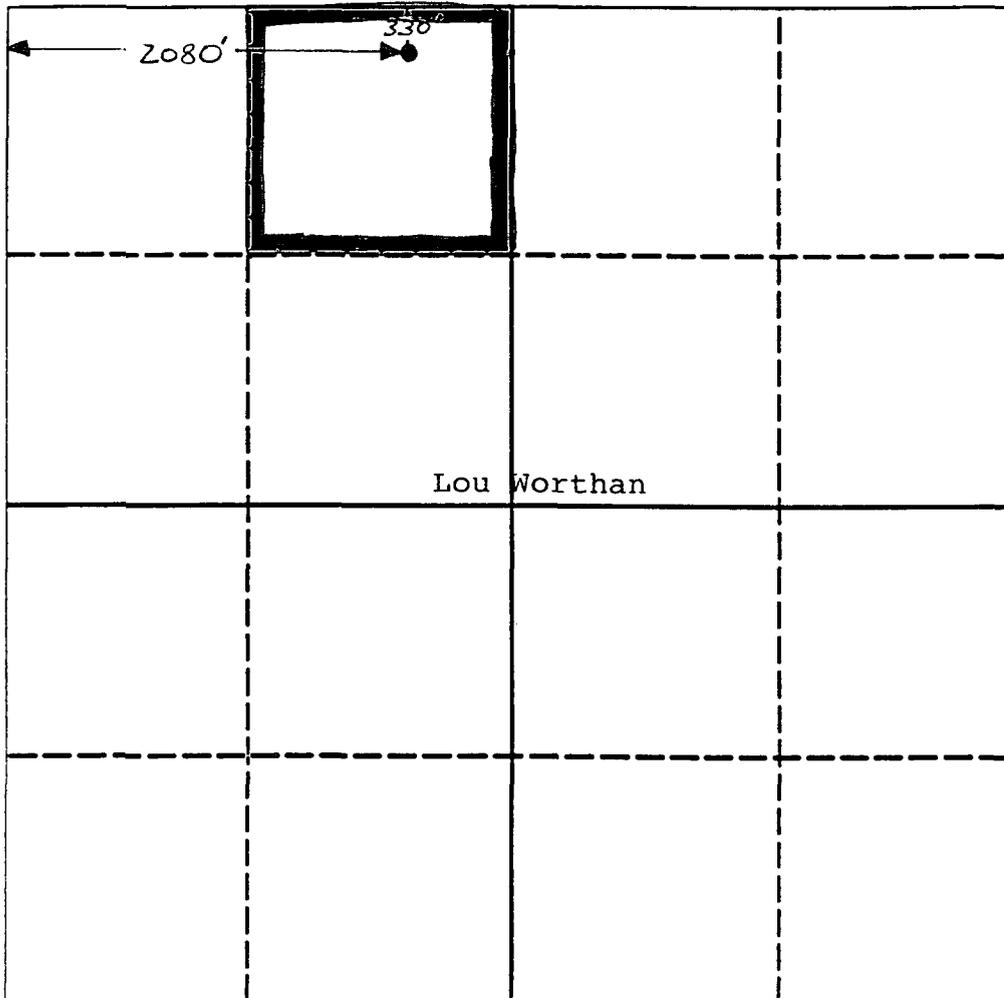
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the 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
Brent D. Lockhart

Printed Name
Brent D. Lockhart

Position
Engineering Technician

Company
Marathon Oil Company

Date
March 5, 1993

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. _____

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

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

State of New Mexico
 Energy, Minerals and Natural Resources Department

Form C-102
 Revised 1-1-89

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

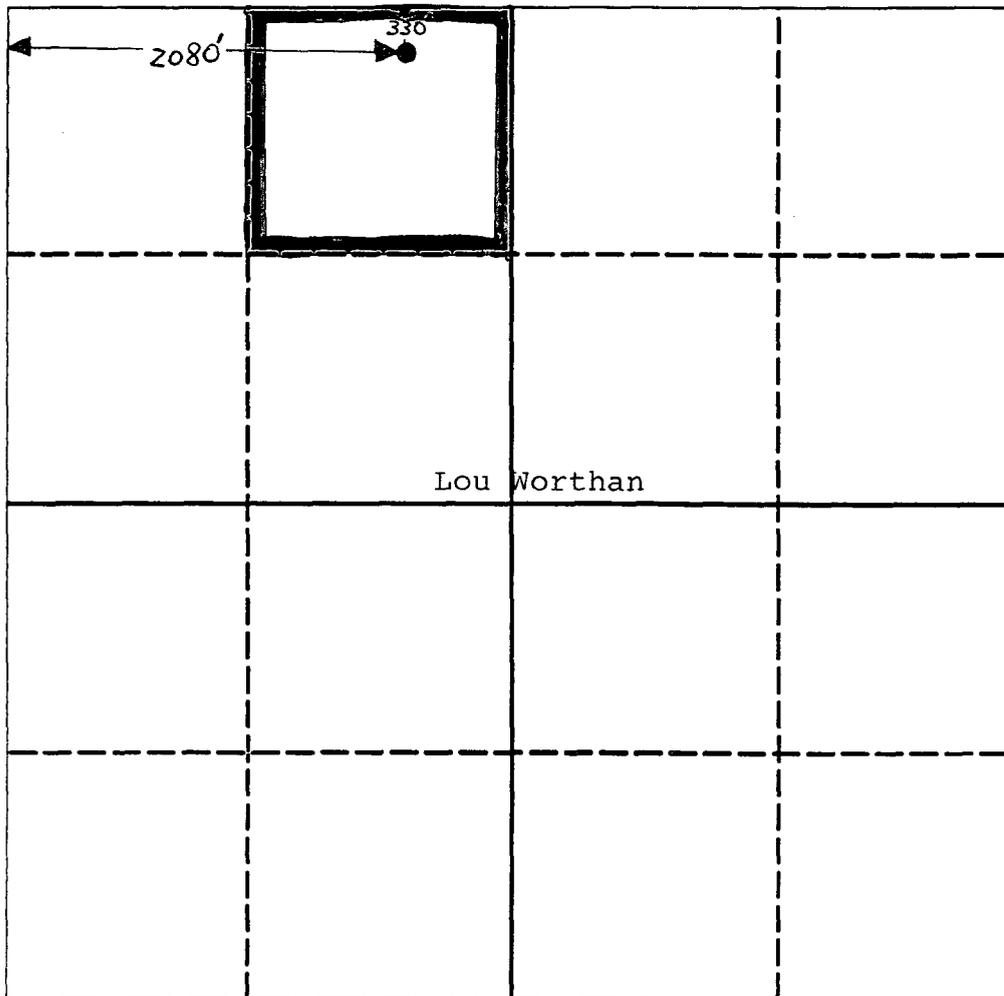
Operator Marathon Oil Company		Lease Lou Worthan		Well No. 13
Unit Letter C	Section 11	Township 22-S	Range 37-E	County Lea
Actual Footage Location of Well: 330 feet from the North line and 2080 feet from the West line				
Ground level Elev. 3362'	Producing Formation Granite Wash	Pool Wantz	Dedicated 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 _____

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OPERATOR CERTIFICATION

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

Signature: *Brent D. Lockhart*

Printed Name: Brent D. Lockhart

Position: Engineering Technician

Company: Marathon Oil Company

Date: March 5, 1993

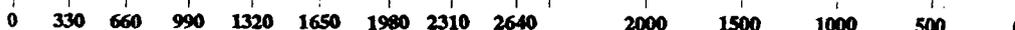
SURVEYOR CERTIFICATION

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.: _____



OFFSET OPERATORS

**LOU WORTHAN LEASE
LEA COUNTY, NEW MEXICO**

Anadarko Petroleum Corporation
Suite 1300
400 W Illinois
Midland, Texas 79701

Exxon Company USA
25 Desta Drive
Midland, Texas 79705

Mobil Exploration and Producing USA, Inc.
500 W Illinois Ave
Midland, Texas 79702

John H. Hendrix Corporation
Suite 325
223 W Wall
Midland, Texas 79702

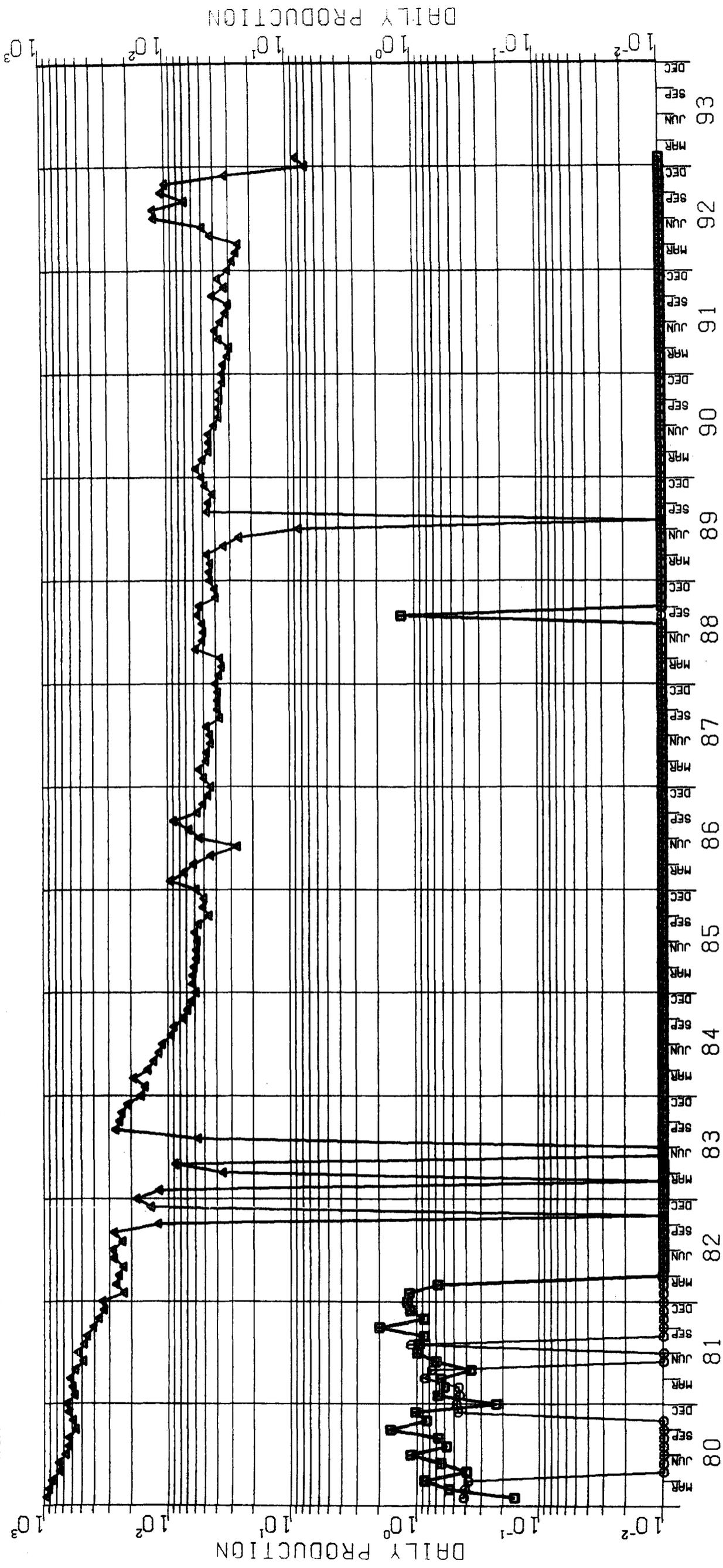
Southwest Royalties
Suite 300
407 N. Big Spring
Midland, Texas 79701

Shell Western E&P Inc
Suite 107
606 W Tennessee Ave
Midland, Texas 79702

Chevron USA, Inc.
P O Box 670
Hobbs, New Mexico 88240

OXY USA, Inc.
Suite 6000
6 Desta Drive
Midland, Texas 79705

FIELD - DRINKARD
 RESERVOIR - DRINKARD
 LEASE - WORTHAN, LOU - BLINEBRY
 WELL - LOU WORTHAN-NO. 13



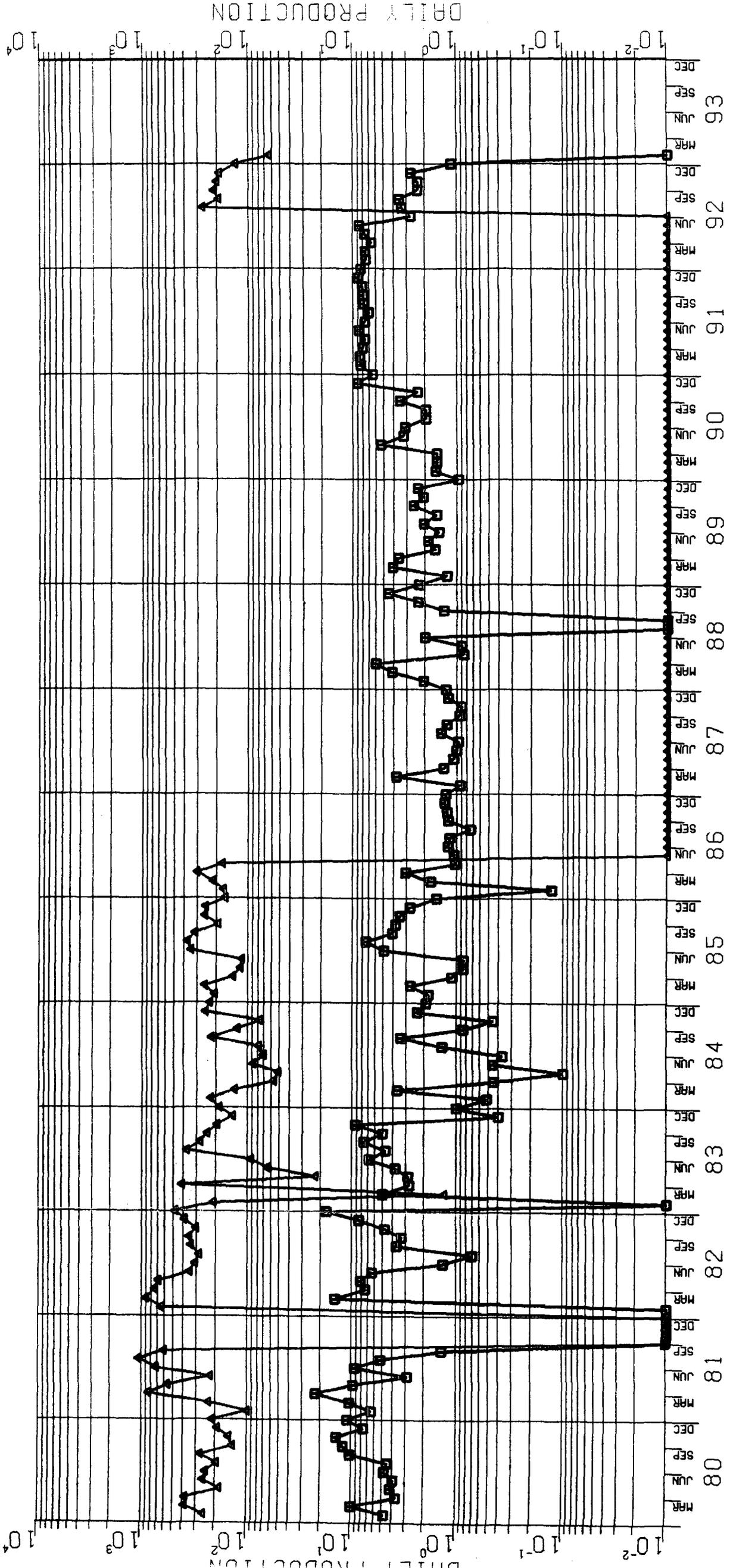
O+C CALENDAR DLY AVG —■—
 GAS CALENDAR DLY AVG —▲—
 WTR CALENDAR DLY AVG —○—

DAILY PRODUCTION

10³
10²
10¹
10⁰
10⁻¹
10⁻²

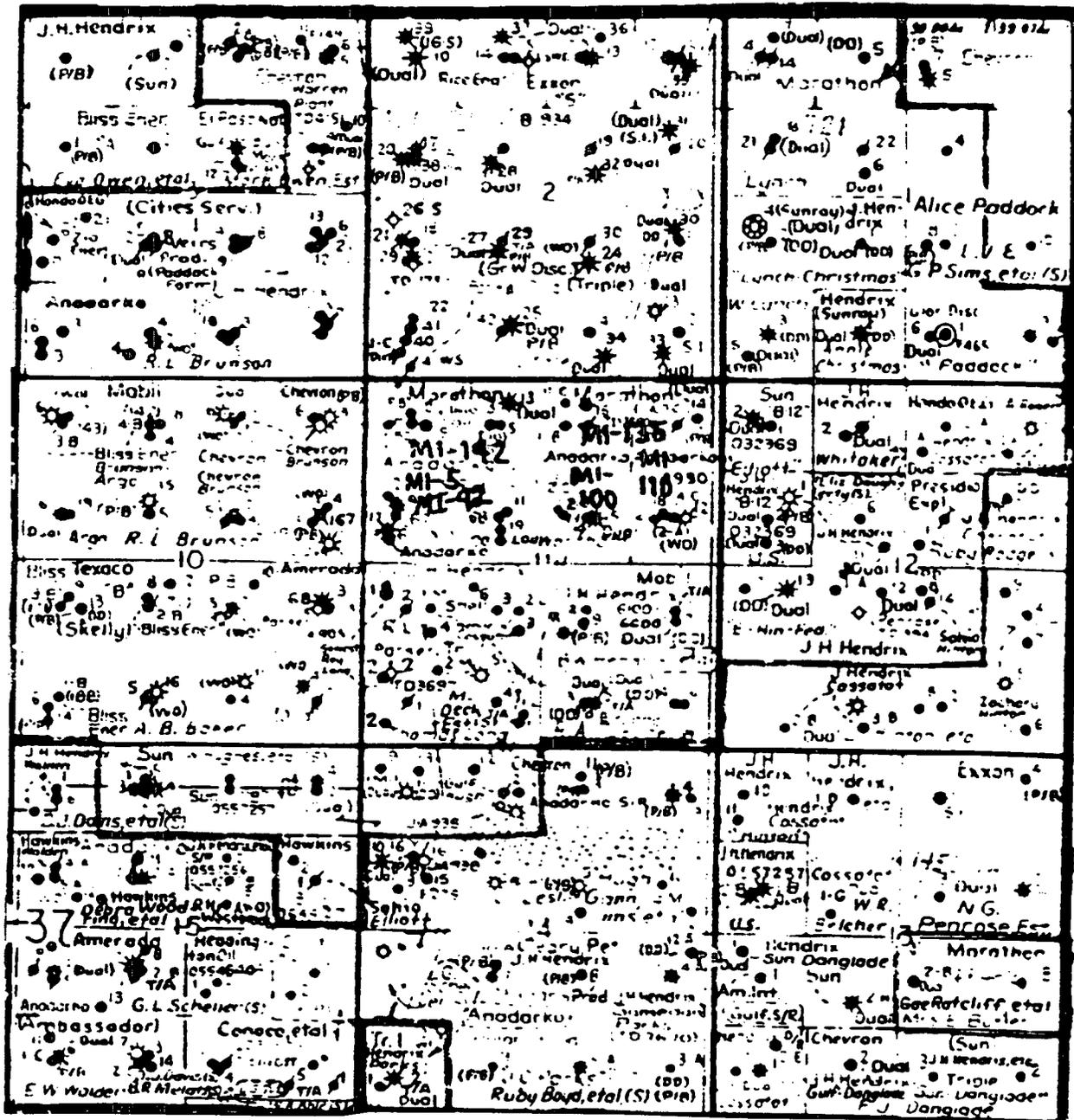
DEC 80
SEP 80
JUN 80
MAR 80
DEC 81
SEP 81
JUN 81
MAR 81
DEC 82
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DEC 83
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DEC 91
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MAR 91
DEC 92
SEP 92
JUN 92
MAR 92
DEC 93
SEP 93
JUN 93
MAR 93

FIELD - DRINKARD
 RESERVOIR - GRANITE WASH
 LEASE - WORTHAN, LOU - BLINEBRY
 WELL - LOU WORTHAN-NO. 13(2)



O+C CALENDAR DLY AVG ————
 GAS CALENDAR DLY AVG ————

T
22
S



R-37-E

DRINKARD FIELD

LOU WORTHAN LEASE

LEA COUNTY, NEW MEXICO