

OIL CONSERVATION DIVISION Mid-Continent Region
RECEIVED Production United States



**Marathon
Oil Company**

'92 MAR 23 AM 10 05

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

March 16, 1992

Mr. David Catanach
Energy and Mineral Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

RE: Request for Exception to Rule 303-A
Downhole Commingling
Marathon Oil Company
Lou Worthan Well No. 18
Unit H, 1,905' FNL and 860' FEL
Section 11, T-22-S, R-37-E
Tubb and Wantz Granite Wash Formations
Drinkard Field
Lea County, New Mexico

Dear Mr. Catanach,

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

Currently the well is dual completed with the Tubb flowing up 2-1/16" tubing and the Wantz Granite Wash being artificially lifted with rod pump. It is necessary to have the two zones commingled to economically justify remedial well work and to prolong the production life of the well.

Enclosed is pertinent data supporting this application as outlined in Rule 303-C. If additional information is necessary, please contact me at the letterhead address.

Sincerely,

A handwritten signature in cursive script that reads 'R. W. Tracy'.

R. W. Tracy
Operations Engineering Supervisor

xc: S. P. Guidry, Hobbs, NM

RWT/MMA/030.274/sk

- (a) Marathon Oil Company
P. O. Box 552
Midland, Texas 79702
- (b) Lou Worthan Well No. 18
Unit H, 1,905' FNL and 860' FEL
Section 11, T-22-S, R-37-E
Lea County, New Mexico
Commingled Zones: Tubb and Wantz Granite Wash
- (c) Plats (2) dedicated acreage and offset operators attached.
- (d) The Form C-116 for the Tubb and Wantz Granite Wash are attached. Since the Wantz Granite Wash has been shut-in since 1990, the last GOR test for that zone has been attached. These values will be used to allocate production for each zone.
- (e) Production decline curves for both the Tubb and Wantz Granite Wash are attached.
- (f) Estimated bottomhole pressures for each zone:

Tubb: 1,227 psi
Wantz Granite Wash: 1,232 psi
- (g) Marathon Oil Company has commingled oil from the Tubb and Wantz Granite Wash at the surface and has encountered no incompatibility problems.
- (h) For the well to be placed back on production, downhole commingling is necessary to economically justify well workovers and to resolve operational problems.
- (i) Method of allocation from latest GOR tests show:

<u>ZONE</u>	<u>OIL (BOPD)</u>	<u>GAS (MCFPD)</u>	<u>WATER (BWPD)</u>
Tubb	6	77	0
Wantz Granit Wash	<u>3</u>	<u>30</u>	<u>0</u>
	9	107	0

Therefore, the allocated percentages should be:

<u>ZONE</u>	<u>OIL (%)</u>	<u>GAS (%)</u>
Tubb	67	72
Wantz Granite Wash	33	28

- (j) Ownership of the two pools to be commingled is 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 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

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

WELL API NO.

5. Indicate Type of Lease
STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:
OIL WELL ☒ GAS WELL ☐ OTHER

2. Name of Operator
Marathon Oil Company

3. Address of Operator
P. O. Box 552, Midland, Texas 79702

7. Lease Name or Unit Agreement Name

Lou Worthan

8. Well No. 18

9. Pool name or Wildcat
Tubb & Wantz Granite Wash

4. Well Location
Unit Letter H : 1,905 Feet From The North Line and 860 Feet From The East Line
Section 12 Township 22-S Range 37-E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
KB 3,367' GR 3,355'

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐
OTHER: Downhole Commingle ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐
OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Request authorization to downhole commingle the Wantz Granite Wash and the Tubb pools.

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

SIGNATURE M. Mobin Ahmad TITLE Petroleum Engineer DATE 2/26/92

TYPE OR PRINT NAME M. Mobin Ahmad

TELEPHONE NO. (915) 682-1626

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Submit 2 copies to Appropriate District Office.

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-116
Revised 1/1/89

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 Marathon Oil Company		Pool Tubb Oil		County Lea												
Address P. O. Box 552 Midland, Texas 79702		TYPE OF TEST - (X) Scheduled [XX]		Completion [] Special []												
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW. ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT/BBL.			
		U	S	T						R	WATER BBLs.	GRAV. OIL		OIL BBLs.	GAS MCF.	
W. S. Marshall "3" Downhole Commingling Permit #DHC-761 25% Tubb Oil 0.50 BOPD 75% Drinkard Oil 1.50 BOPD 2.00 BOPD	3	K	27	21	37	10-1-91	P	-	40	1	24	4	-	2	66	33,000
Lou Wortham	10	D	11	22	37	10-2-91	P	-	50	7	24	0	-	7	112	16,000
	14	A	11	22	37	10-3-91	P	-	40	6	24	1	-	6	210	35,000
	16	B	11	22	37	10-7-91	F	24/64	-	7	24	0	-	5	51	10,200
	18	H	11	22	37	10-9-91	F	24/64	-	8	24	0	-	6	77	12,833

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.)

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

Signature

Carl A. Bagwell

Eng. Tech.

Printed name and title

11-8-91

Date

(915) 682-1626

Telephone No.

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

Form C-116
Revised 1/1/89

OIL CONSERVATION DIVISION

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

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 ☐ Scheduled ☐ Special ☒											
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO		
		U	S	T						R	WATER BBL'S	GRAV. OIL	OIL BBL'S	GAS MCF	CU FT/BBL
Lou Worthan	18	11	11	22	37	5-21-90	P	--	50	3	24	0	38	30	10,000

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.)

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

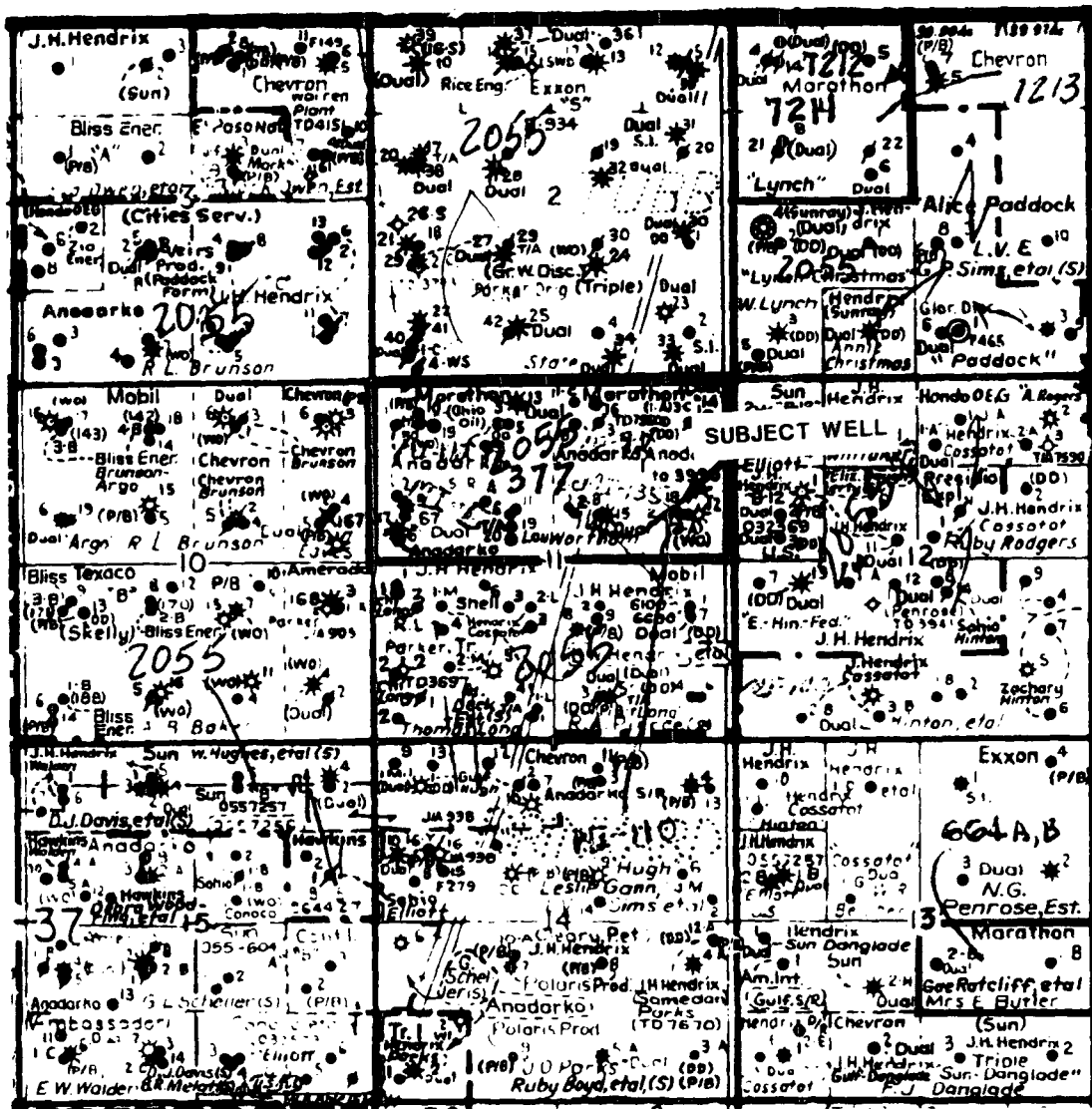
Signature

J. R. Jenkins, Hobbs Production Sup't.
Printed name and title

6-25-90
Date

(915) 682-1626
Telephone No.

R-37-E



T-22-S



**Marathon
Oil Company**

Mid-Continent Region
Production United States

LOU WORTHAN LEASE

SECTION 11, T-22-S, R-37-E

LEA COUNTY, NEW MEXICO

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

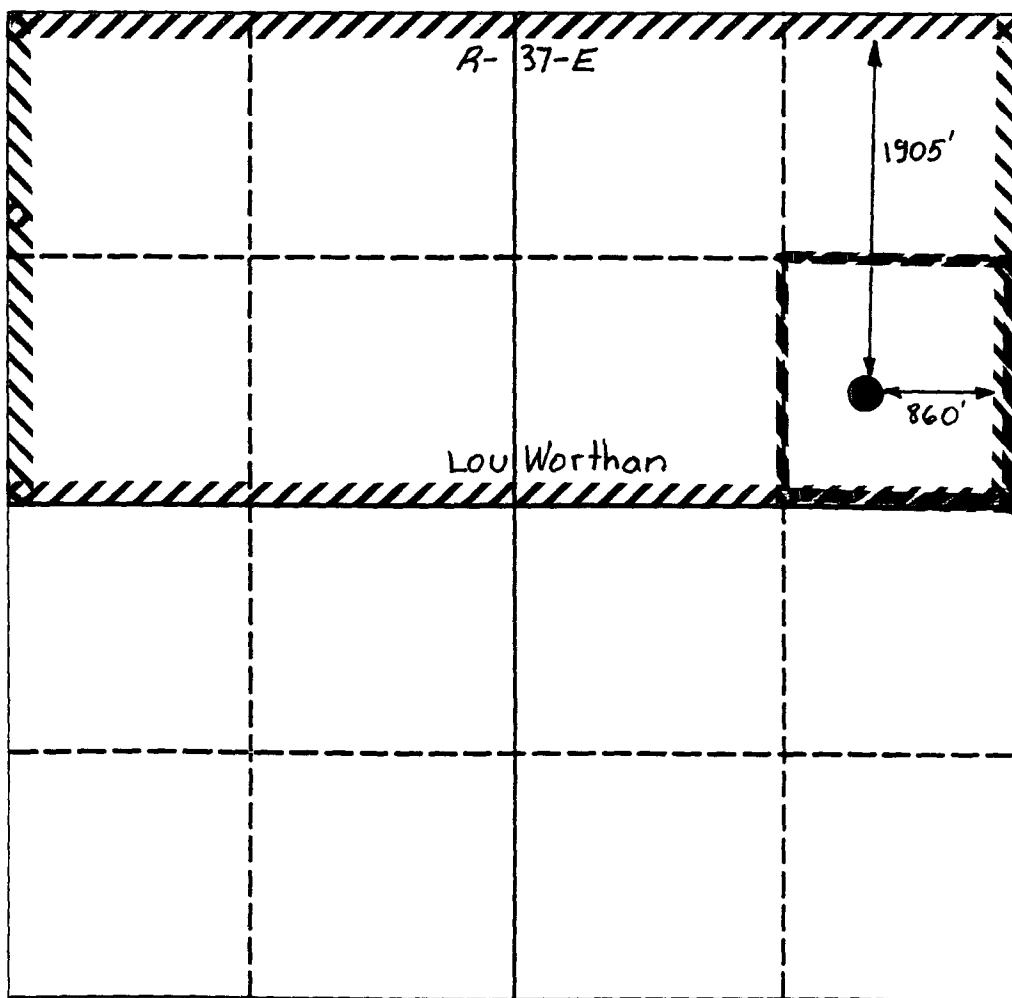
All Distances must be from the outer boundaries of the section

Operator Marathon Oil Company			Lease Lou Worthan		Well No. 18
Unit Letter H	Section 11	Township 22-S	Range 37-E	County Lea	
NMPM					

Actual Footage Location of Well:

1,905 feet from the North line and 860 feet from the East line			
Ground level Elev. 3,355'	Producing Formation Tubb/Wantz Granite Wash	Pool Tubb/Wantz Granite Wash	Dedicated Acreage: 40 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 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 <i>M. Mobin Ahmad</i>
Printed Name M. Mobin Ahmad
Position Petroleum Engineer
Company Marathon Oil Company
Date February 26, 1992

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

DRINKARD

LOU WORTHAN NO. 18
SECTION 11, T-22S, R-37E
LEA COUNTY, NEW MEXICO

TD: 7551' PBD: 7501'

KB: 3363' GL: 3355'

STATUS: TUBB (FLOWING OIL)
WANTZ GRANITE WASH (PUMP OIL)

SURFACE: 9-5/8" 32.3# SET @ 1249'. CEMENT W/500sx.

PRODUCTION: 7" 23# SET TO 6549', 26# SET TO 7549'
CEMENT W/2275sx.

TUBING: 2-1/16" I.J. 10 rd (SHORTSTRING). 2-3/8" J-55
SET @ 6976', W/7" BAKER LOK-SET PACKER.
(LONGSTRING).

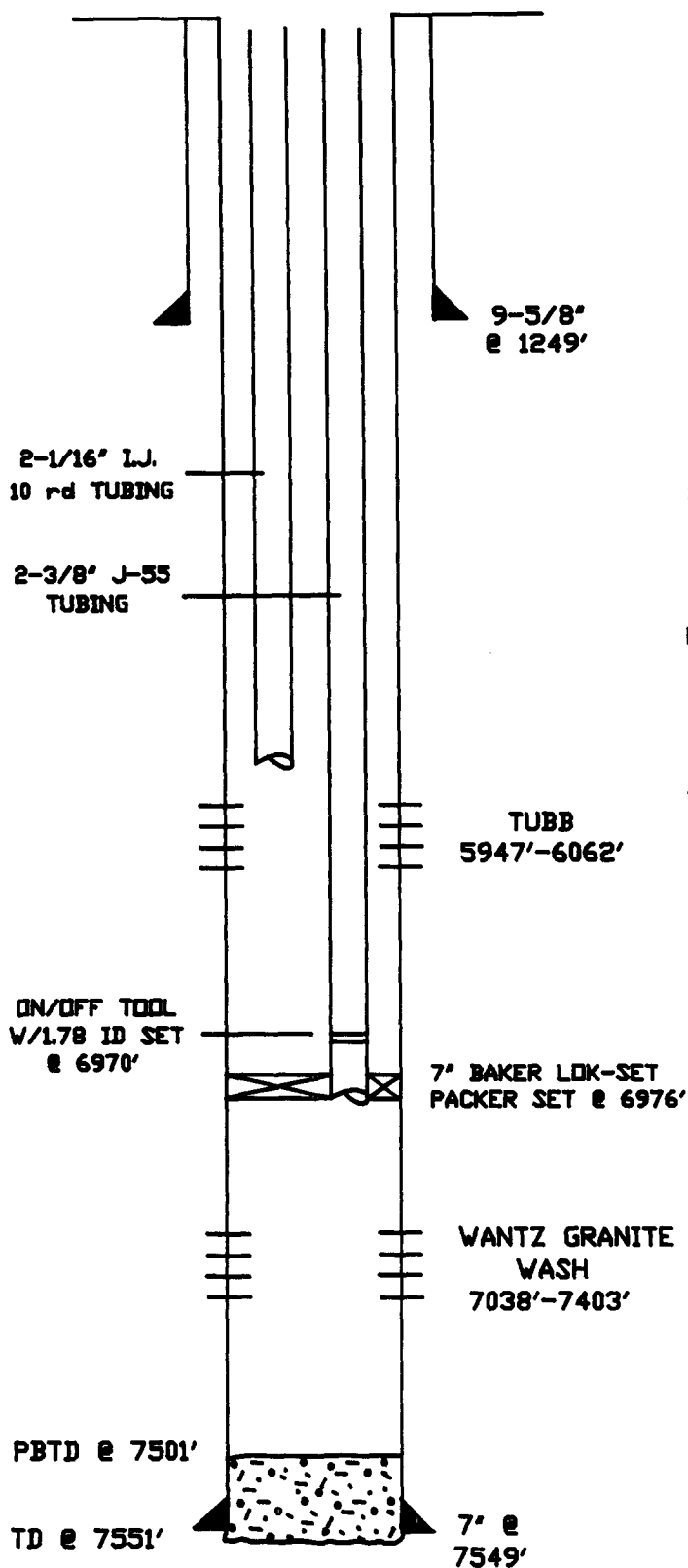
RODS: 3/4" & 7/8" RODS. 2"X1-1/4"X16' ROD PUMP.
1 - 6' GAS ANCHOR

PUMPING UNIT: 228 LUFKIN

PRESENT COMPLETION:

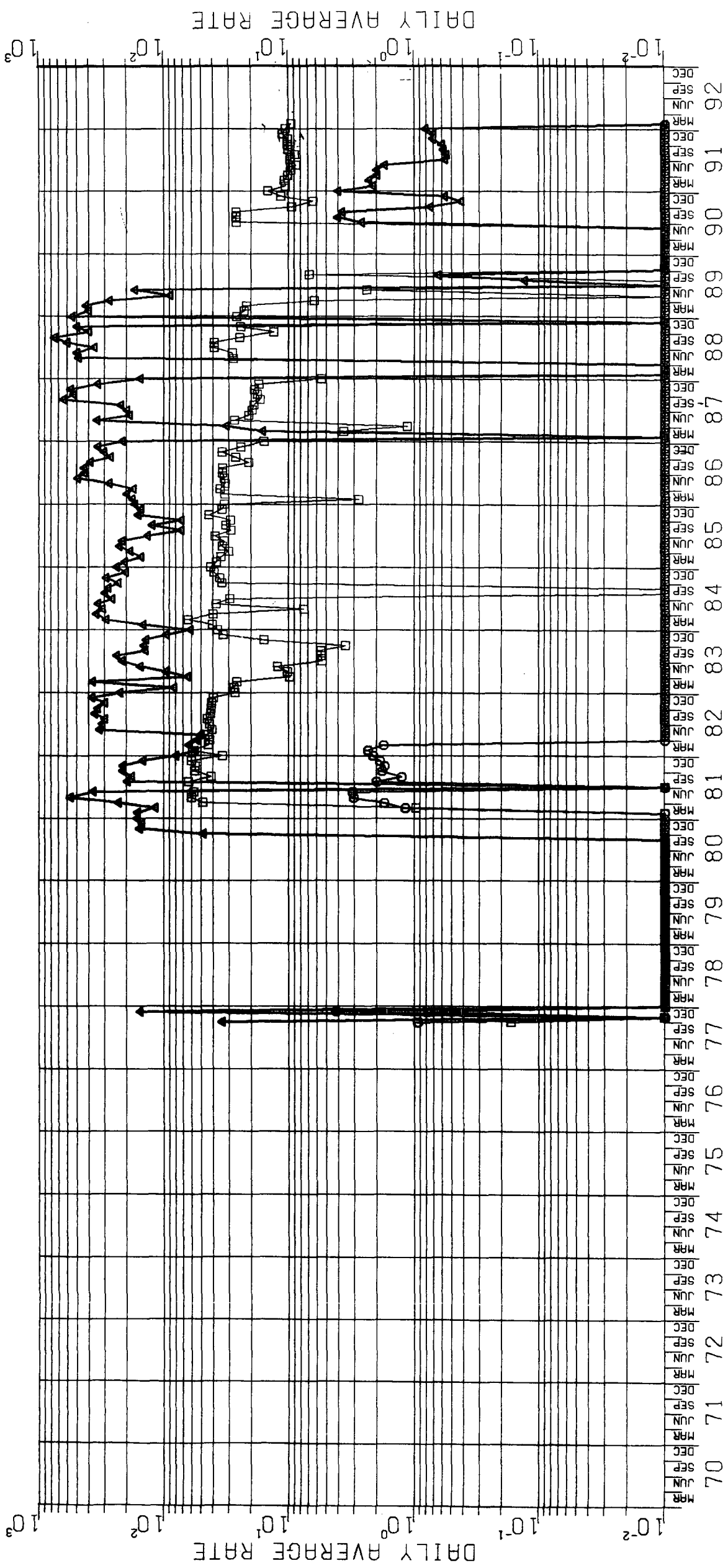
TUBB - (5747' - 6062')

WANTZ GRANITE WASH - (7038' - 7403')



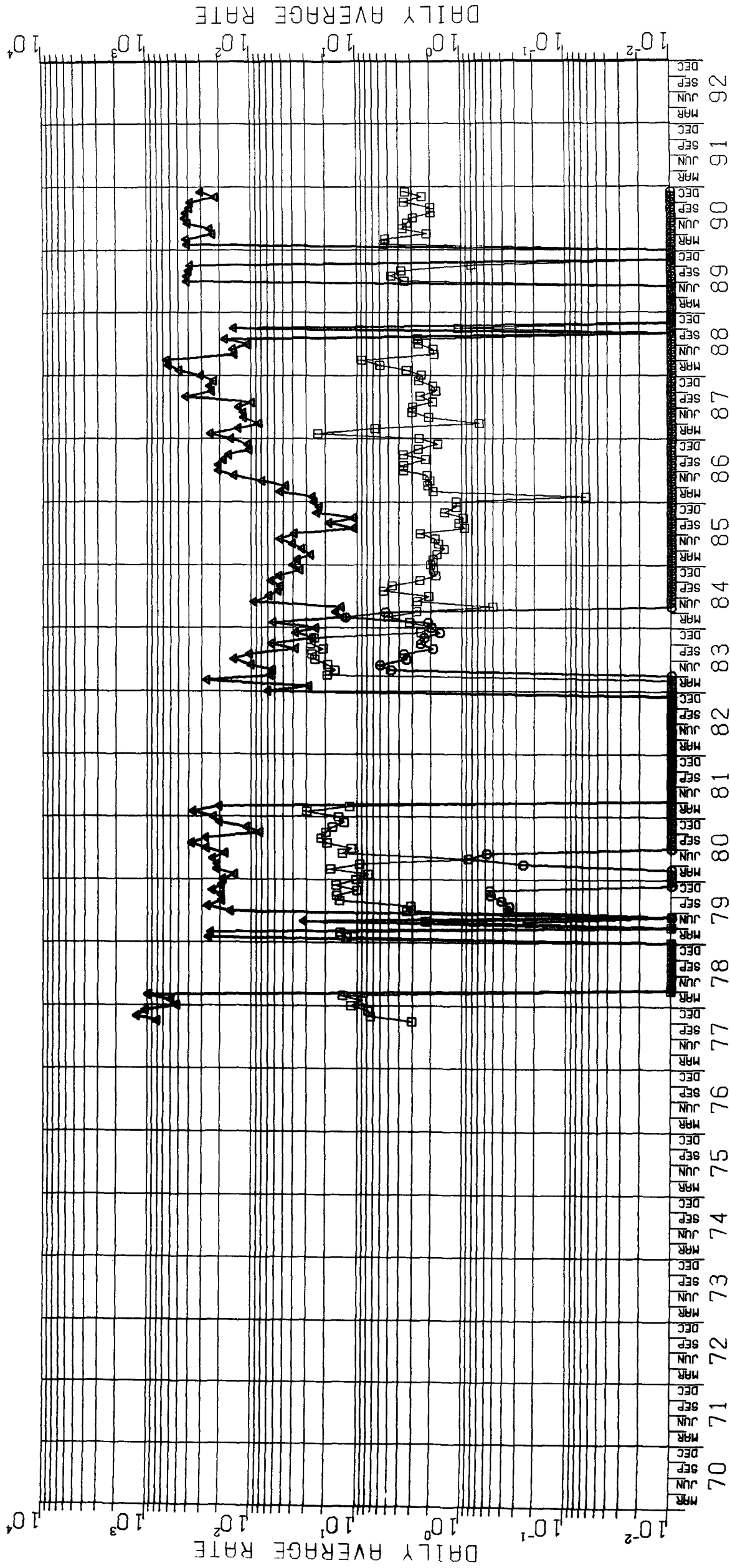
HISTORY: ORIGINALLY COMPLETED IN THE TUBB AND WANTZ GRANITE WASH 10/77. WANTZ
GRANITE WASH WAS PLACED ON A PUMP 12/82.

FIELD - DRINKARD
 RESERVOIR - TUBB
 LEASE - WORTHAN, LOU - BLINEBRY
 WELL - LOU WORTHAN-NO. 18



O+C CALENDAR DLY AVG
 GAS CALENDAR DLY AVG
 WTR CALENDAR DLY AVG

FIELD - DRINKARD
 RESERVOIR - GRANITE WASH
 LEASE - WORTHAN, LOU - BLINEBRY
 WELL - LOU WORTHAN-NO. 18



O+C CALENDAR DLY AVG □
 GAS CALENDAR DLY AVG ▲
 WTR CALENDAR DLY AVG ●