

## STATE OF NEW MEXICO

## ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

## OIL CONSERVATION DIVISION

BRUCE KING  
GOVERNOR

May 12, 1992

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800Meridian Oil Inc.  
P.O. Box 51810  
Midland, Texas 79710-1810

Attention: Joe Small

*RE: Injection Pressure Increase  
Robinson Jackson Unit  
Waterflood Project  
Eddy County, New Mexico*

Dear Sir:

Reference is made to your request dated May 1, 1992, to increase the surface injection pressure on the Robinson Jackson Unit Tract 1-A No. 12. This request is based on a step rate test conducted on the well on April 30, 1992. The results of the test have been reviewed by my staff and we feel an increase in injection pressure on the well is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following well:

<u>WELL AND LOCATION</u>	<u>MAXIMUM INJECTION SURFACE PRESSURE</u>
Robinson Jackson Unit Tract 1-A No. 12 660' FNL & 654' FEL (Unit A) Section 34, T-17 South, R-29 East, NMPM  Eddy County, New Mexico	1550 PSIG

Meridian Oil Inc.

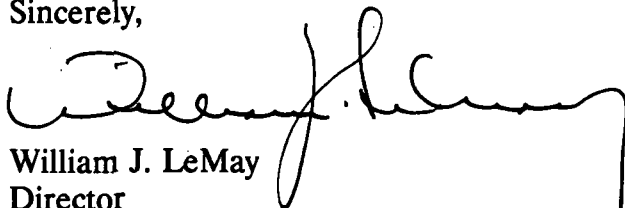
May 12, 1992

Page 2

---

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected water is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,

A handwritten signature in black ink, appearing to read "William J. LeMay". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

William J. LeMay  
Director

WJL/DC/jc

cc: Oil Conservation Division - Artesia

File: WFX-626

David Catanach

Rick Brown

NO WAITING PERIOD

COMPANY: Meridian Oil Inc.  
ADDRESS: PO. Box 51810  
CITY, STATE, ZIP: Midland, Texas 79710-1810  
ATTENTION: Joe Small

Re: Injection Pressure Increase  
Robinson Jackson Unit  
Waterflood Project  
Eddy County, New Mexico

Dear Sir:

Reference is made to your request dated May 1, 1992, to increase the surface injection pressure on the Robinson Jackson Unit T-A No. 12. This request is based on a step rate test conducted on the well on April 30, 1992. The results of the test have been reviewed by my staff and we feel an increase in injection pressure on the well is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following well:

<u>Well &amp; Location</u>	<u>Maximum Injection Surface Pressure</u>
<u>Robinson Jackson Unit T-A No. 12</u>	<u>1550 PSIG</u>
<u>660' FEL &amp; 654' FEL (Unit A)</u>	
<u>Section 34, T-17 South, R-29 East, Nman.</u>	
<u>Eddy County, New Mexico</u>	

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected water is not being confined to the injection zone or is endangering any fresh water aquifers.

xc: R. Brown  
T. GALLEGOS  
D. CATANACH  
FILE- WFX-626  
OCD- Atkins



# MERIDIAN OIL

P.O. Box 51810, Midland, Texas 79710-1810  
3300 North "A" Street Bldg. 6 (Zip) 79705

FAX No. 915/ 688-6006

DATE: 5/1/92 TIME: 1:15 (TX)

TO: DAVID CATANACH

COMPANY: OCD

CITY/STATE \_\_\_\_\_

FAX No. \_\_\_\_\_

FROM: Joe Small PHONE: 915/688- 6830

NO. OF PAGES (INCLUDING THIS COVER SHEET) 5

- DAVID - I will call you this afternoon  
to discuss this step rate test.

Joe

RTU 1A-12 Step Rate Test  
 April 30, 1992

RAW DATA

Rate, BPM      Surf Press

1/4      930  
 1/2      1030  
 3/4      1240  
 1      1550  
 1 1/4      1650  
 5      2200

ISIP = 1570 psi

3000'  
 0.46 psi/ft

<u>Rate</u>	<u>Friction Loss / 1000'</u>	<u>Friction</u>	<u>Mid Perf Hydrostatic</u>	<u>BHP</u>
0.25	1.5	4	1380	2306
0.50	5.5	15	↓	2395
0.75	11.7	33		2587
1.00	20.0	56		2874
1.25	30.1	85		2945
5.00	50.0 (2-1/8")	150		3430

$$\text{Friction} \quad \log y = 1.3 + 1.86 \log x \Rightarrow y = 10^{(1.3 + 1.86 \log x)}$$

1      20  
 2      67  
 3      180  
 4      240

$$y = 2783 + 129x$$

$$y = 1726 + 1148x$$

$$2783 + 129x = 1726 + 1148x$$

$$1019x = 1057$$

$$x = 1.037$$

$$y = 2783 + 129(1.037) = 2917 \text{ psi}$$

SOS 877-5741

 Page \_\_\_\_\_  
 Date \_\_\_\_\_  
 By \_\_\_\_\_

Meridian Oil

## ENGINEERING CALCULATION SHEET

MO-0139 (1-88)

RTU 1A-12

Maximum Inj Press.

$$500 \text{ GUPD} = 0.35 \text{ BPM} = 8.4 \text{ psi/1000 ft Friction}$$

$$(2810' \text{ Hg}) (8.4 / 1000) = 24 \text{ psi friction}$$

$$2917 \text{ psi BHP} = \text{SURF PRESS} = 24 \text{ psi} + .44 (3000)$$

$$\text{SURF PRESS} = 1597 \text{ psi}$$

 26  
25  
24  
23  
22  
21  
20  
19  
18  
17  
16  
15  
14  
13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1

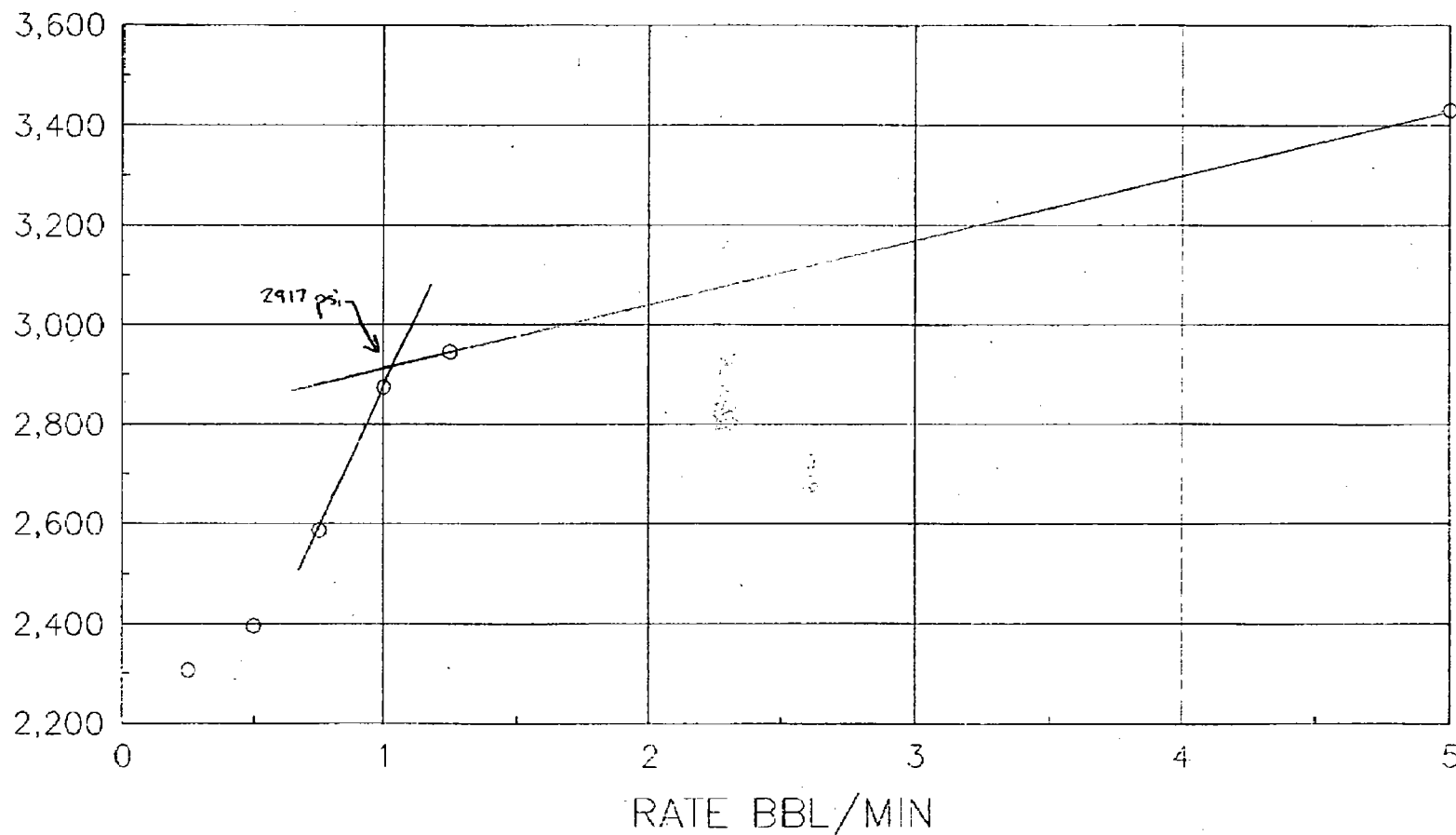
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41

MAY-01-92 FRI 12:11

MAY-01-92 FRI 12:13

RJU TRACT 1A No. 12  
GBG Jackson 7RVS QN SA FIELD  
EDDY COUNTY, NEW MEXICO

BOTTOM HOLE PRESSURE, PSI



P.04

P.04

MAY-01-92 FRI 12:11

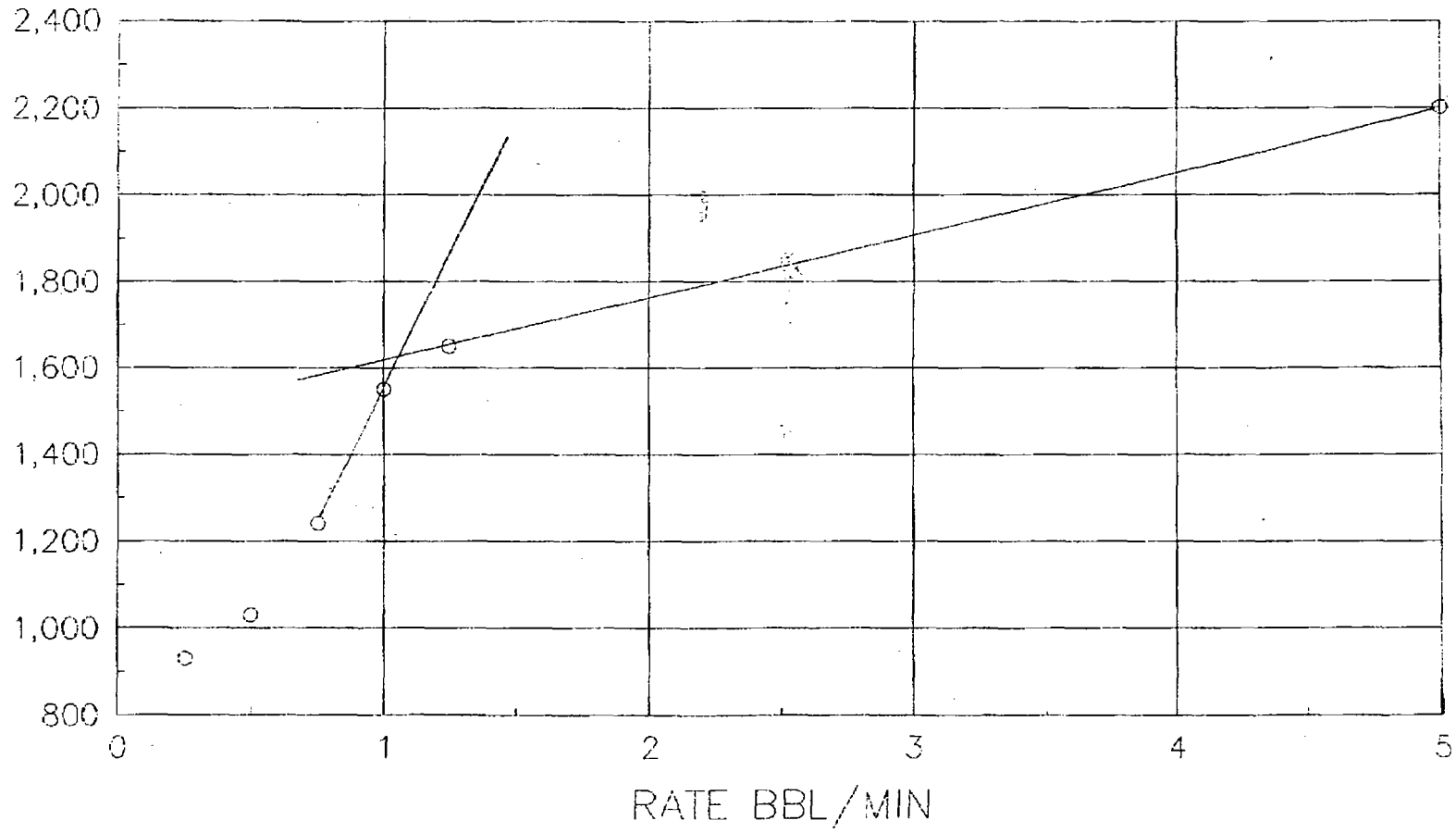
MAY-1-92 FRI 12:14

# RJU TRACT 1A No. 12

## GBG Jackson 7RVS QN SA FIELD

### EDDY COUNTY, NEW MEXICO

SURFACE PRESSURE, PSI



P.05

P.05