

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING  
GOVERNOR

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

April 14, 1992

PDEV0020700138  
PDEV0020700140  
PDEV0020600557

Mobil Exploration & Producing U.S. Inc.  
P.O. Box 633  
Midland, Texas 79702-0633

Attention: Judy Dixon

*RE: Injection Pressure Increase  
North Vacuum Abo Unit  
Pressure Maintenance Project  
Lea County, New Mexico*

Dear Ms. Dixon:

Reference is made to your request dated April 6, 1992, to increase the surface injection pressure on twelve wells within the North Vacuum Abo Unit Pressure Maintenance Project. This request is based on step rate tests conducted on these wells during February, 1992. The results of the tests have been reviewed by my staff and we feel an increase in injection pressure on these wells is justified at this time.

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

<u>WELL AND LOCATION</u>	<u>MAXIMUM INJECTION SURFACE PRESSURE</u>
NVAU No. 95 Unit P, Section 26	4040 PSIG
NVAU No. 98 Unit J, Section 26	4140 PSIG
NVAU No. 112 Unit D, Section 25	4170 PSIG

<u>WELL AND LOCATION</u>	<u>MAXIMUM INJECTION SURFACE PRESSURE</u>
NVAU No. 116 Unit L, Section 24	4245 PSIG
NVAU No. 136 Unit D, Section 26	4050 PSIG
NVAU No. 138 Unit I, Section 26	4365 PSIG
NVAU No. 143 Unit B, Section 27	4280 PSIG
NVAU No. 149 Unit J, Section 27	4215 PSIG
NVAU No. 152 Unit B, Section 13	4035 PSIG
NVAU No. 156 Unit J, Section 23	4200 PSIG
NVAU, No. 206 Unit D, Section 19	3100 PSIG
NVAU No. 211 Unit J, Section 24	4270 PSIG

All in Township 17 South, Range 34 East, NMPM  
Lea County, New Mexico.

Mobil Exploration & Producing U.S. Inc.

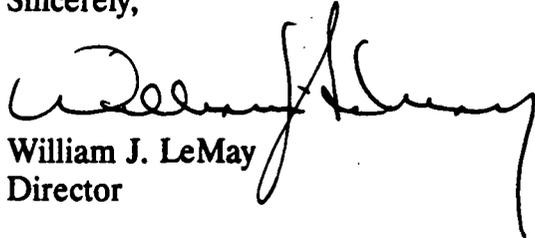
Page 3

April 20, 1992

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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,



William J. LeMay  
Director

WJL/DC/jc

cc: Oil Conservation Division - Hobbs

File: PMX-138

PMX-140

WFX-557

D. Catanach

R. Brown

NO WAITING PERIOD

COMPANY: Mobil Exploration & Producing U.S. Inc.  
ADDRESS: P.O. Box 633  
CITY, STATE, ZIP: Midland, Texas 79701-0633  
ATTENTION: Judy Dixon

Re: Injection Pressure Increase  
North Vacuum Abo Unit  
Pressure Maintenance Project  
Lea County, New Mexico

Dear Sir:

Reference is made to your request dated April 6 1992, to increase the surface injection pressure on twelve wells within the North Vacuum Abo Unit Pressure Maintenance Project. This request is based on step rate tests conducted on these wells during February, 1992. The results of the tests have been reviewed by my staff and we feel an increase in injection pressure on these wells is justified at this time.

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

<u>Well &amp; Location</u>	<u>Maximum Injection Surface Pressure</u>
<u>NVAU No. 95</u> <u>Unit P, Section 26</u>	<u>4040 PSI</u>
<u>NVAU No. 98</u> <u>Unit J, Section 26</u>	<u>4140 PSI</u>
<u>NVAU No. 112</u> <u>Unit D, Section 25</u>	<u>4170 PSI</u>
<u>NVAU No. 116</u> <u>Unit L, Section 24</u>	<u>4245 PSI</u>

Cont  
↓

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: T. GALLEGOS D. CATANACH FILE- PMX-13P OCD- Hobbs  
R. Brown PMX-146  
WFX-557

NUAU No. 136 Unit D, Section 26	4050 AS/6
NUAU No. 138 Unit I, Section 26	4365 AS/6
NUAU No. 143 Unit B, Section 27	4280 AS/6
NUAU No. 149 Unit J, Section 27	4215 AS/6
NUAU No. 152 Unit B, Section 13	4035 AS/6
NUAU No. 156 Unit J, Section 23	4200 AS/6
NUAU No. 206 Unit D, Section 19	3100 AS/6
NUAU No. 211 Unit J, Section 24	4270 AS/6

All in Township 17 South, Range 34 East, NMPM  
Lea County, New Mexico

# Mobil Exploration & Producing U.S. Inc.

'92 APR 8 AM 8 42

April 6, 1992

P.O. BOX 633  
MIDLAND, TEXAS 79702-0633

State of New Mexico  
Oil Conservation Division  
Post Office Box 2088  
Santa Fe, New Mexico 87501

MIDLAND SOUTH ASSET TEAM  
ENVIRONMENTAL, REGULATORY &  
LOSS PREVENTION

PHONE (915) 688-1753  
FACSIMILE (915) 688-2445

Attention: Mr. W. J. LeMay

**INJECTION PRESSURE INCREASE REQUEST  
NORTH VACUUM ABO FIELD  
NORTH VACUUM ABO UNIT  
WELL NO'S. 95, 98, 112, 116, 136, 138,  
143, 149, 152, 156, 206, & 211  
LEA COUNTY, NEW MEXICO**

Gentlemen:

Under the provisions of Order No. PMX-138 dated November 12, 1985; Order No. WFX-557 dated February 11, 1986, and Order No. PMX-140 dated March 7, 1986, permission was granted to inject water into the Abo formation for the subject wells. The order limited the pressure on the injection wells to no more than 0.2 psi. per foot to the uppermost injection interval. A step-rate test for these wells has been completed which shows that higher pressure will not result in migration of the injected fluid from the Abo formation. Permission is requested to increase the injection pressure as follows:

	<u>INJECTION INTERVALS</u>	<u>PRESENT SURFACE INJECTION PRESSURE LIMIT</u>	<u>REQUESTED SURFACE INJECTION PRESSURE LIMIT</u>
WELL NO. 95 UNIT P, SEC. 26 T-17-S, R-34-E ORDER NO. R-4430	8360-8520'	3905 PSIG	4040 PSIG
WELL NO. 98 UNIT J, SEC. 26 T-17-S, R-34-E ORDER NO. PMX-138	8458-8580'	3795 PSIG	4140 PSIG
WELL NO. 112 UNIT D, SEC. 25 T-17-S, R-34-E ORDER NO. PMX-138	8336-8533	4050 PSIG	4170 PSIG
WELL NO. 116 UNIT L, SEC. 24 T-17-S, R-34-E ORDER NO. PMX-138	8438-8497'	3790 PSIG	4245 PSIG



**Environmental  
Awareness**

WELL NO. 136  
UNIT D, SEC. 26                    8525-8680                    3530 PSIG                    4050 PSIG  
T-17-S, R-34-E  
ORDER NO. PMX-138

UNIT NO. 138                    8506-8600                    4110 PSIG                    4365 PSIG  
UNIT I, SEC. 26  
T-17-S, R-34-E  
ORDER NO. PMX-138

WELL NO. 143  
UNIT B, SEC. 27                    8605-8680                    4170 PSIG                    4280 PSIG  
T-17-S, R-34-E  
ORDER NO. WFX-557

WELL NO. 149  
UNIT J, SEC. 27                    8577-8681                    4025 PSIG                    4215 PSIG  
T-17-S, R-34-E  
ORDER NO. WFX-557

UNIT NO. 152  
UNIT B, SEC. 13                    8535-8595                    3420 PSIG                    4035 PSIG  
T-17-S, R-34-E  
ORDER NO. PMX-140

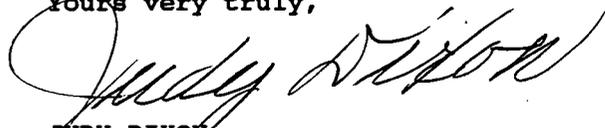
WELL NO. 156  
UNIT J, SEC. 23                    8472-8650'                    3930 PSIG                    4200 PSIG  
T-17-S, R-34-E  
ORDER NO. PMX-138

WELL NO. 206  
UNIT D, SEC. 19                    8597-8763                    2310 PSIG                    3100 PSIG  
T-17-S, R-34-E  
ORDER NO. WFX-557

WELL NO. 211  
UNIT J, SEC. 24                    8458-8518                    3875 PSIG                    4270 PSIG  
T-17-S, R-34-E  
ORDER NO. PMX-183

Enclosed are copies of the Step-rate test.

Yours very truly,

  
JUDY DIXON  
ENVIRONMENTAL/REGULATORY TECHNICIAN

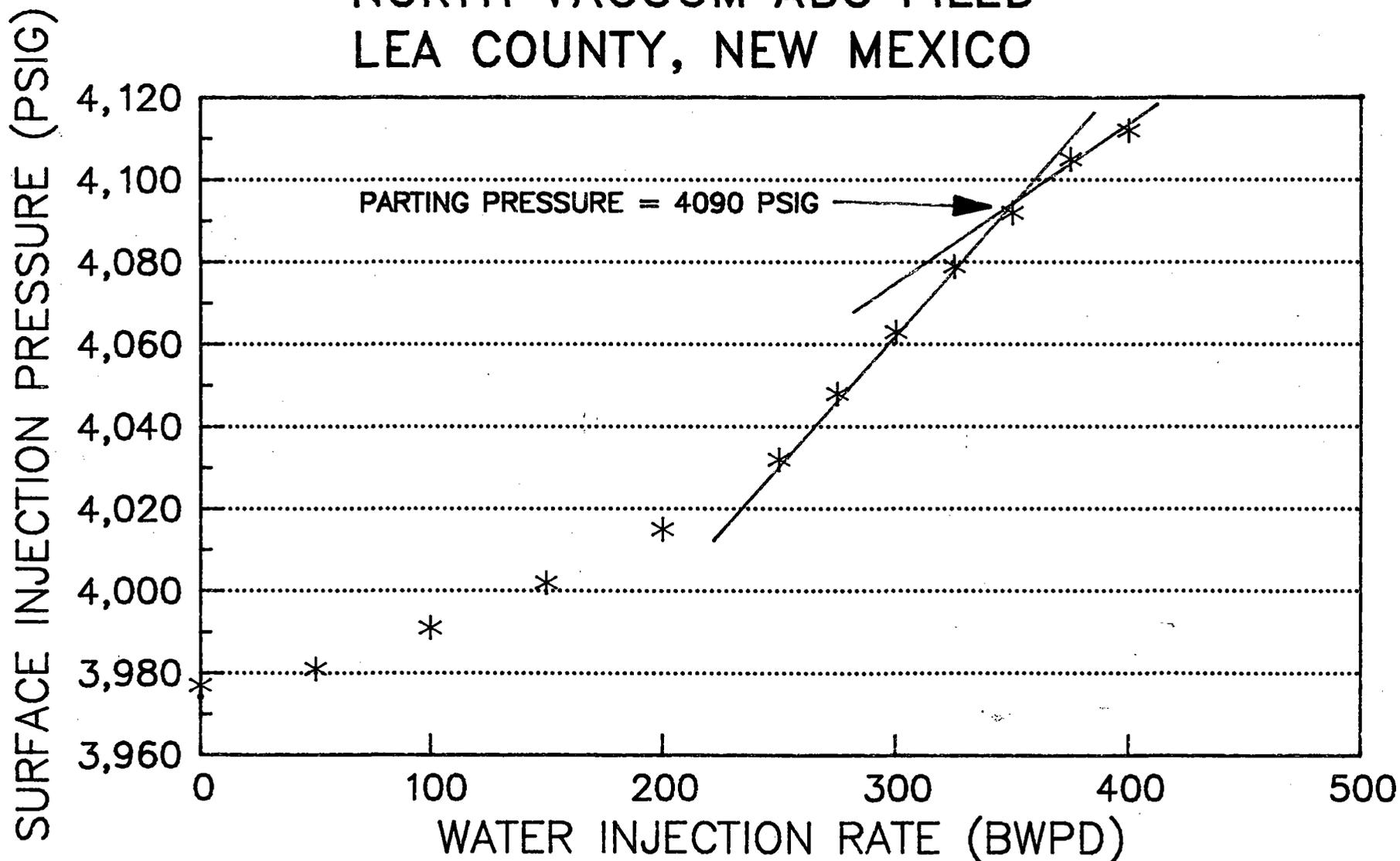
JWDixon  
Attachments  
cc: District Director OCD - Hobbs

B:MM09848A.JWD

# NVAU NO. 95 STEP RATE TEST

## NORTH VACUUM ABO FIELD

### LEA COUNTY, NEW MEXICO

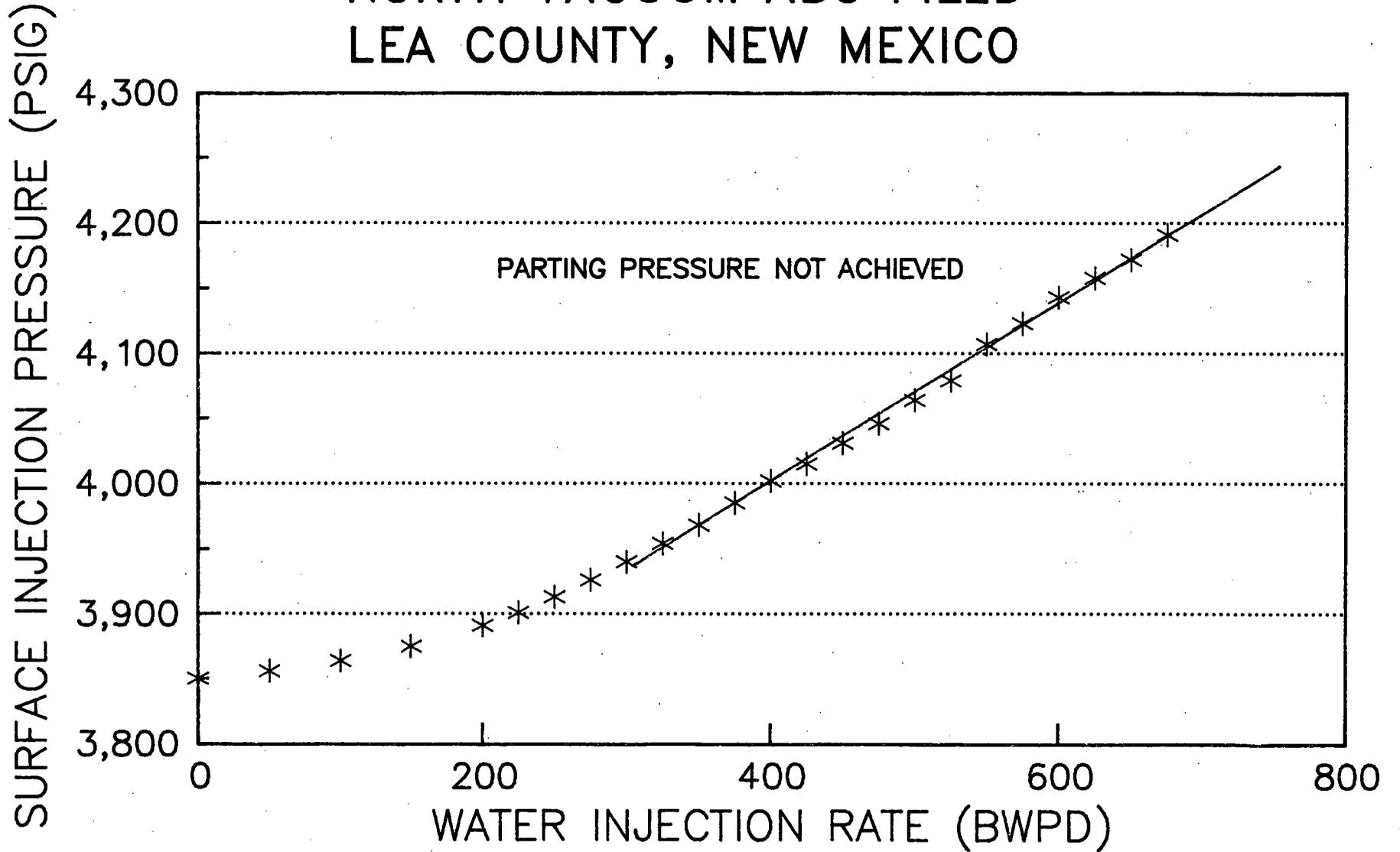


DATE OF TEST: 2-26-92

# NVAU NO. 98 STEP RATE TEST

## NORTH VACUUM ABO FIELD

### LEA COUNTY, NEW MEXICO

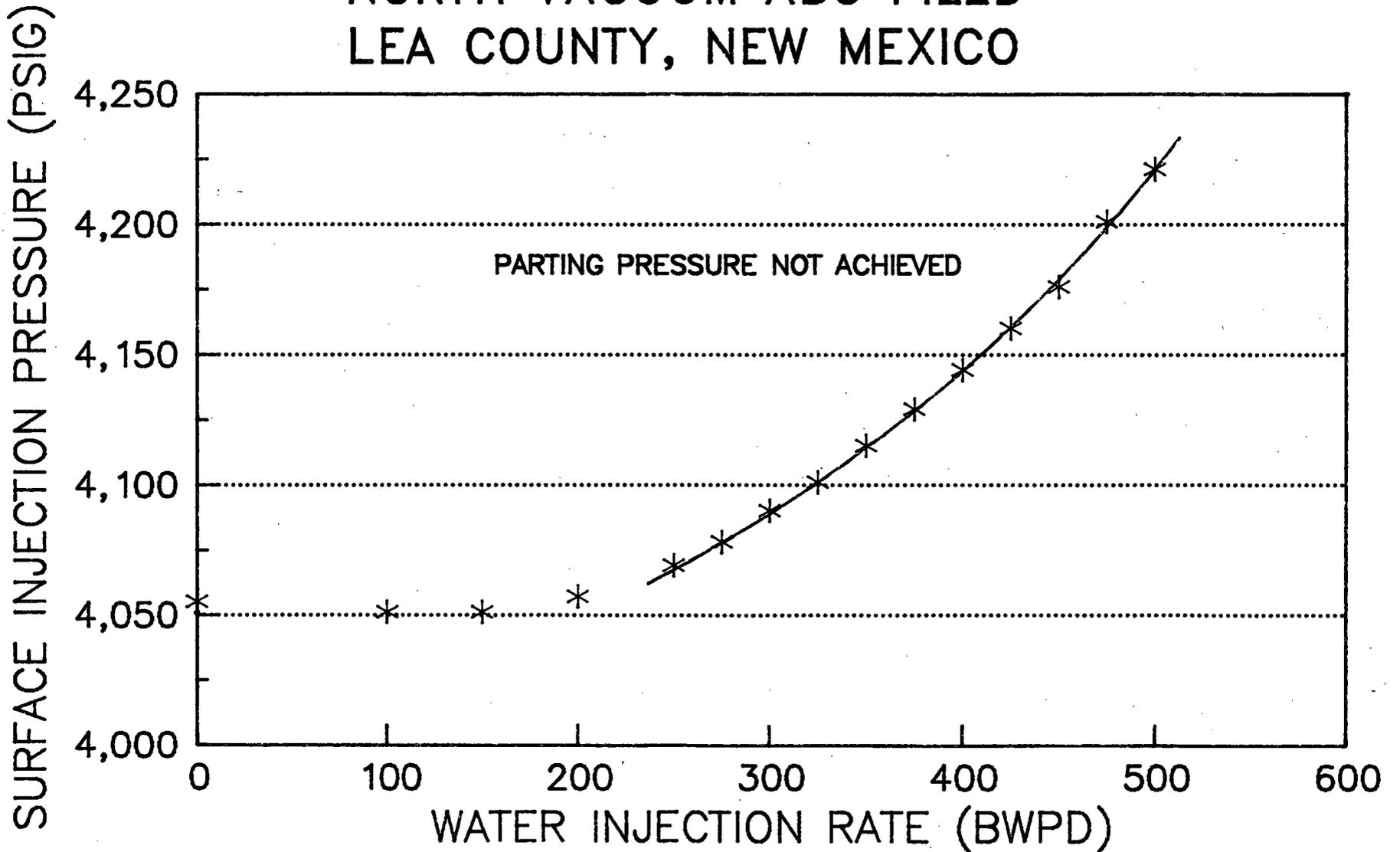


DATE OF TEST: 2-19-92

# NVAU NO. 112 STEP RATE TEST

## NORTH VACUUM ABO FIELD

### LEA COUNTY, NEW MEXICO

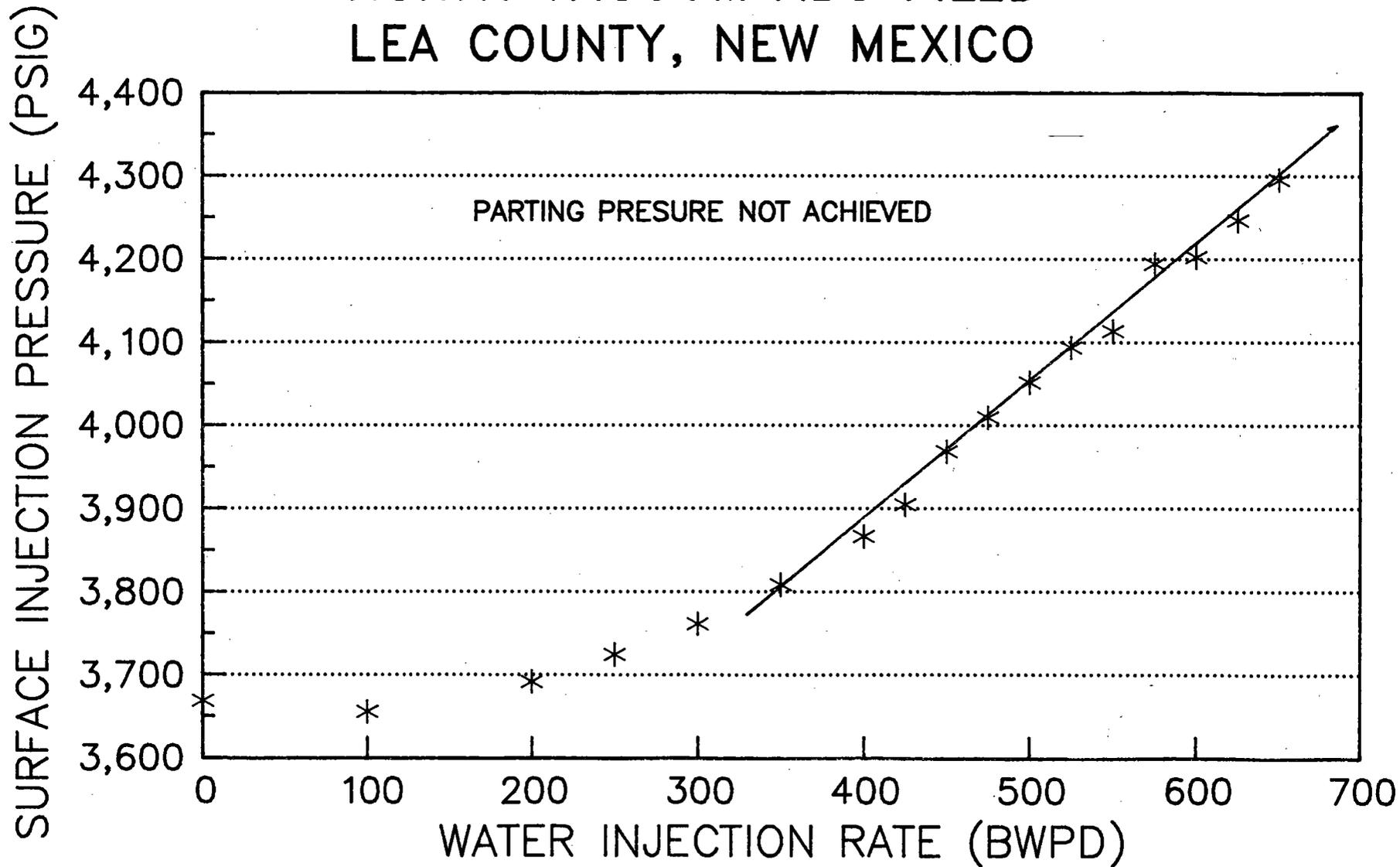


DATE OF TEST: 2-20-92

# NVAU NO. 116 STEP RATE TEST

## NORTH VACUUM ABO FIELD

### LEA COUNTY, NEW MEXICO

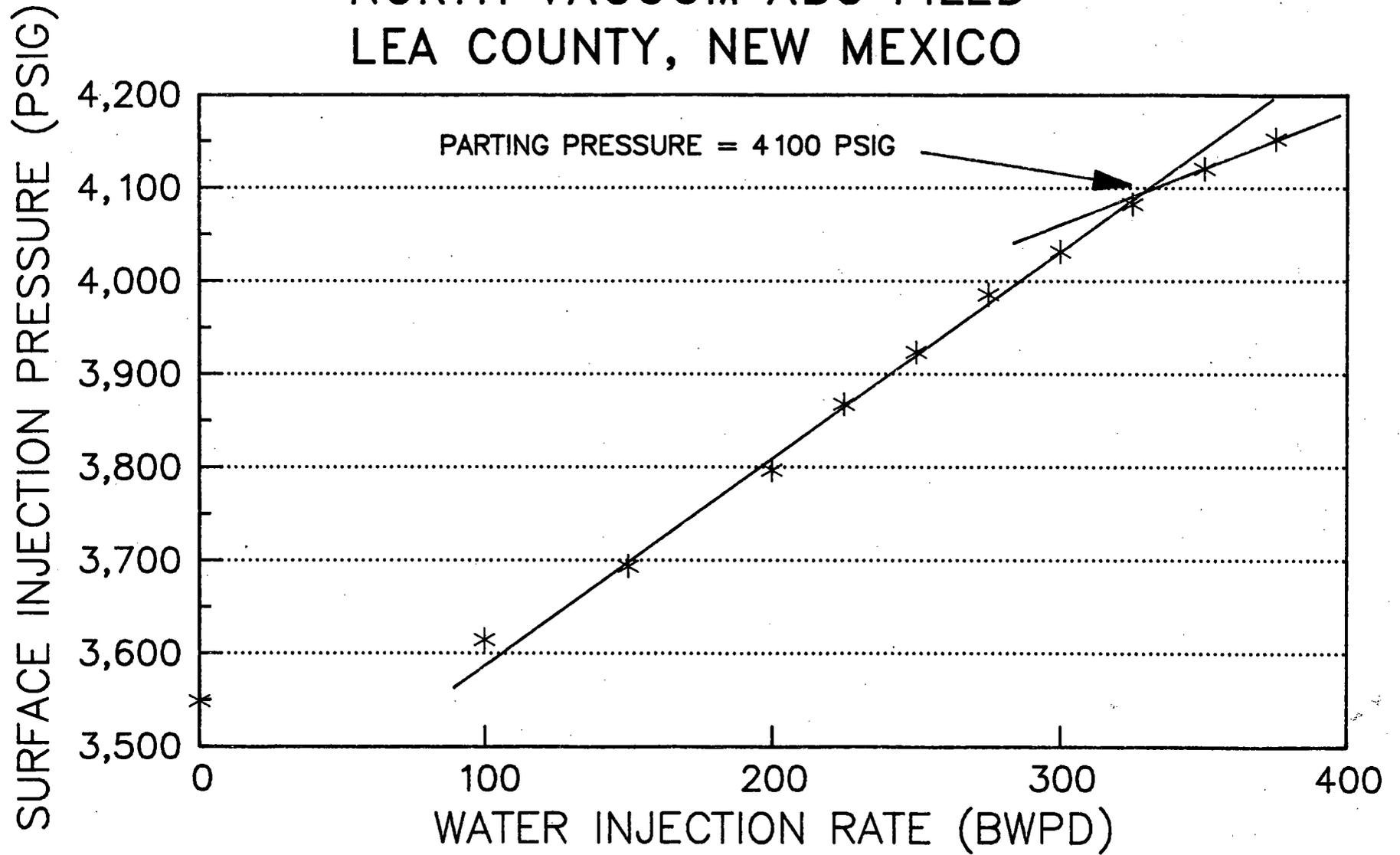


DATE OF TEST: 2-2-92

# NVAU NO. 136 STEP RATE TEST

## NORTH VACUUM ABO FIELD

### LEA COUNTY, NEW MEXICO

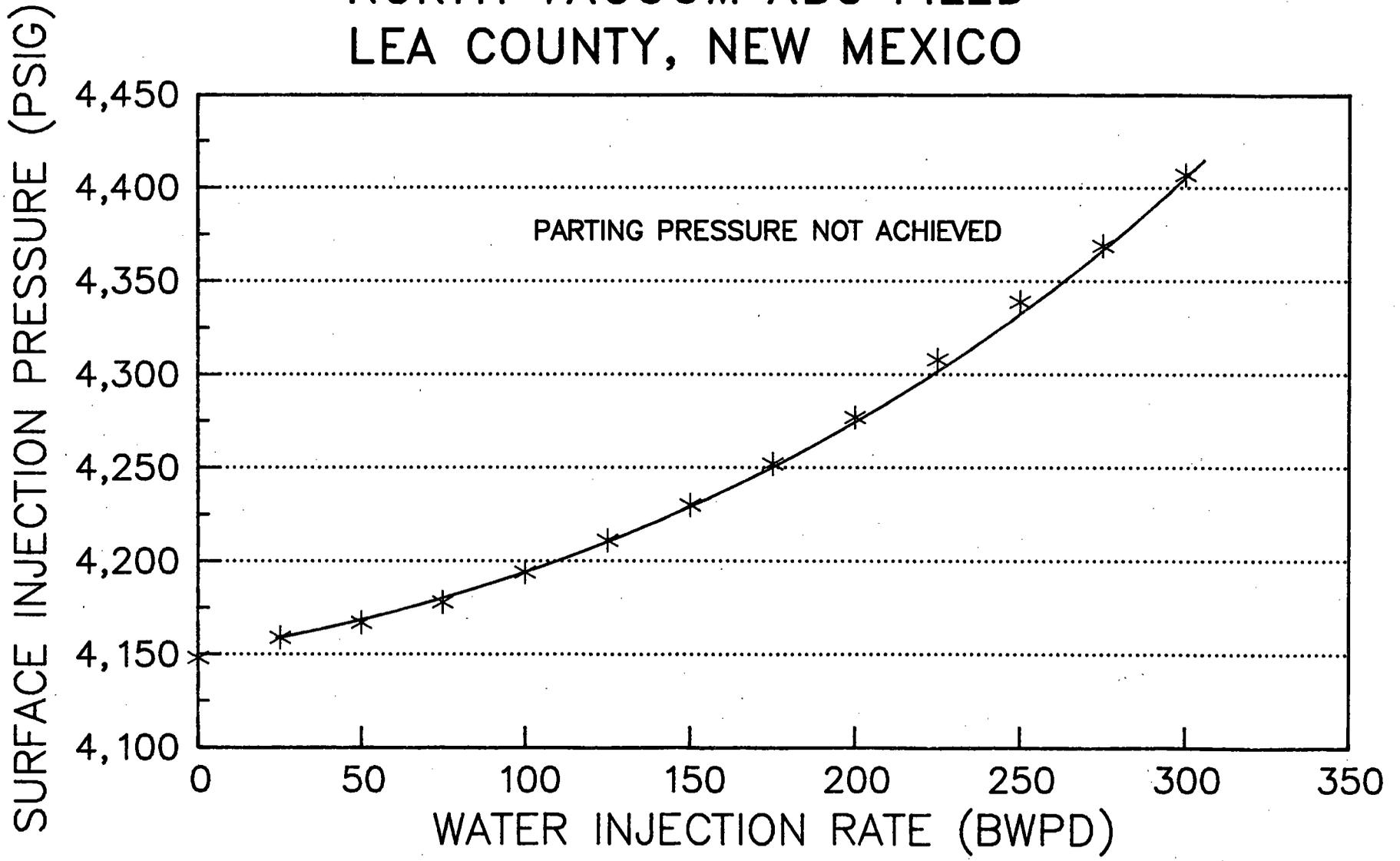


DATE OF TEST: 2-5-92

# NVAU NO. 138 STEP RATE TEST

## NORTH VACUUM ABO FIELD

### LEA COUNTY, NEW MEXICO



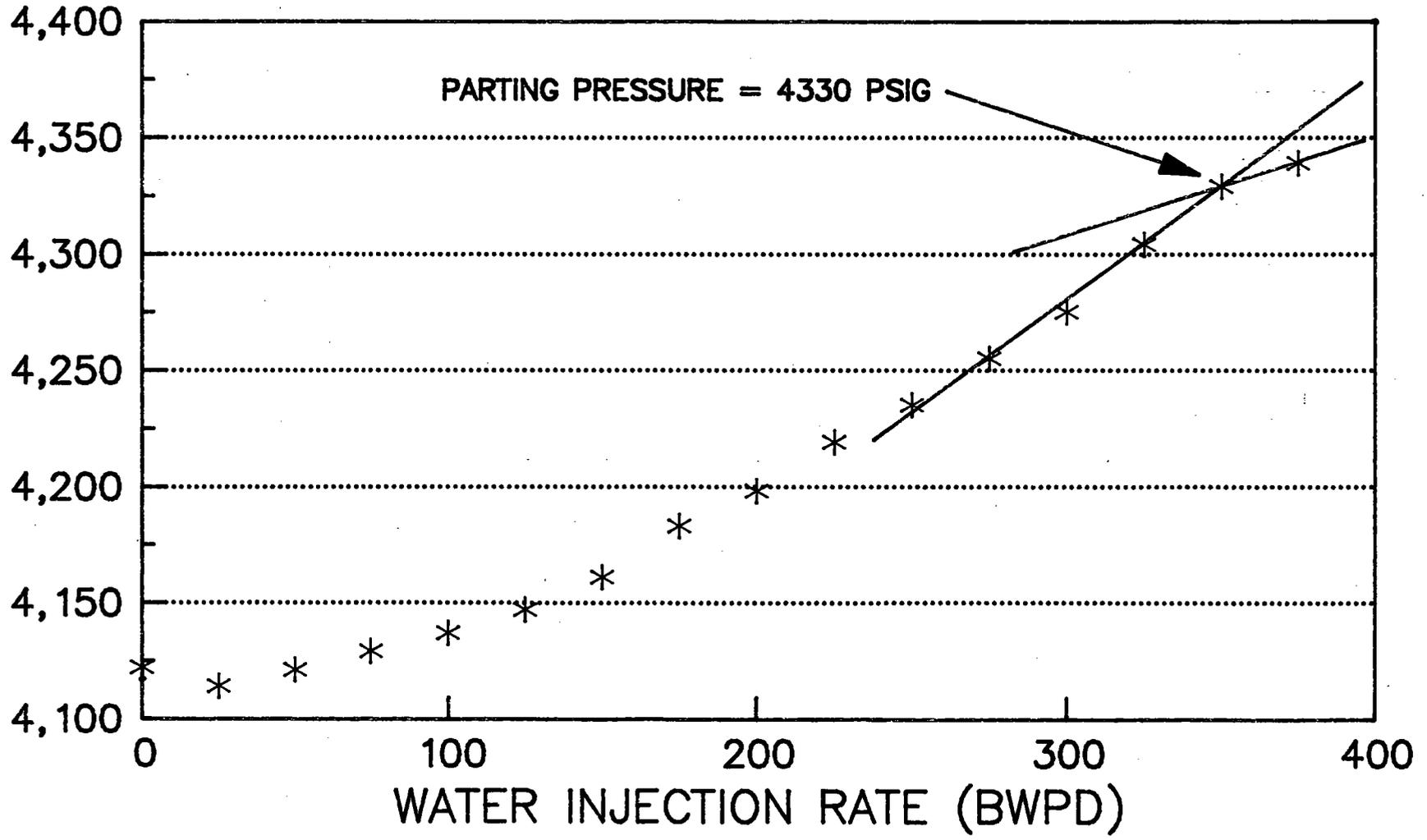
DATE OF TEST: 2-18-92

# NVAU NO. 143 STEP RATE TEST

## NORTH VACUUM ABO FIELD

### LEA COUNTY, NEW MEXICO

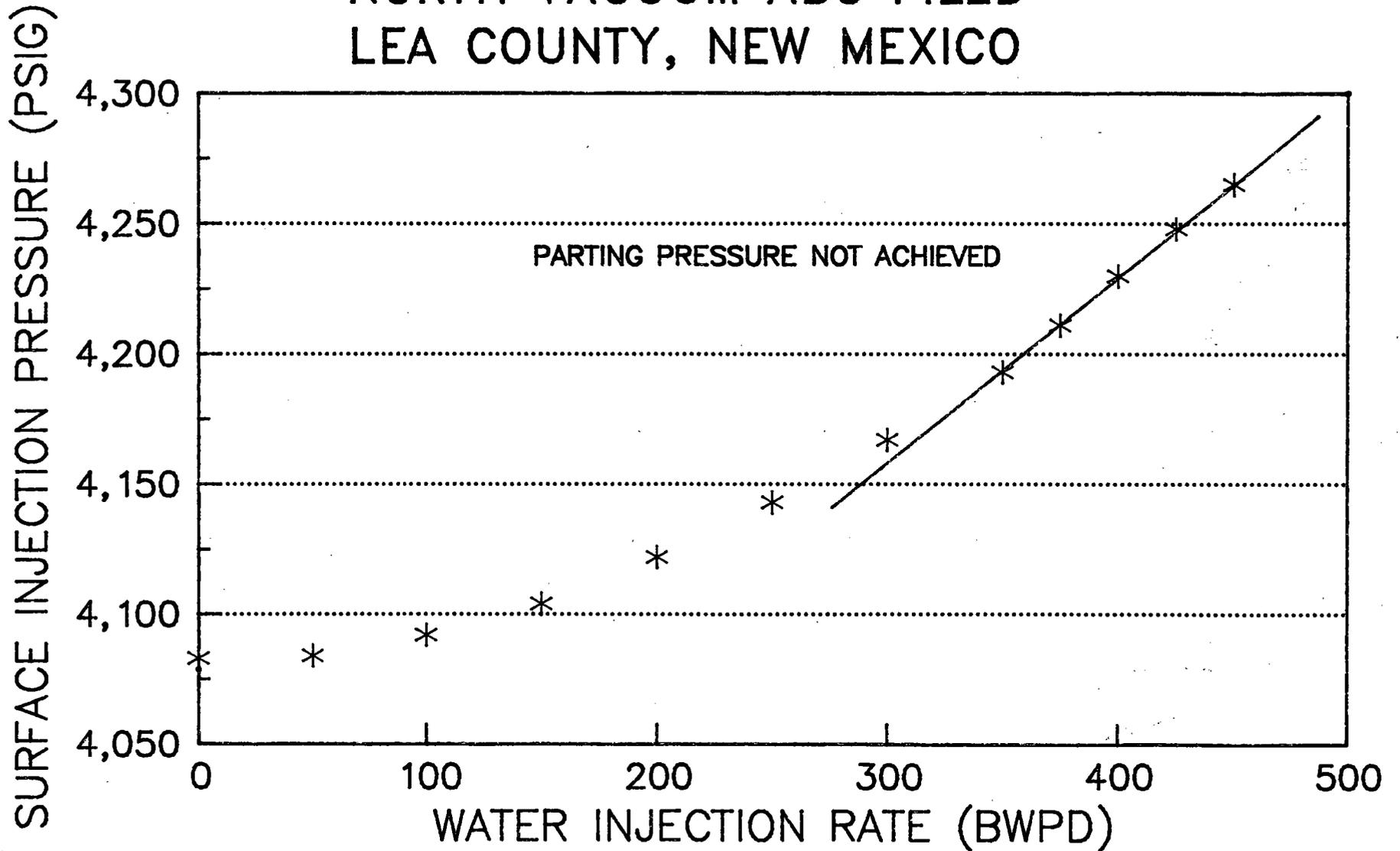
SURFACE INJECTION PRESSURE (PSIG)



DATE OF TEST: 2-17-92

# NVAU NO. 149 STEP RATE TEST

## NORTH VACUUM ABO FIELD LEA COUNTY, NEW MEXICO

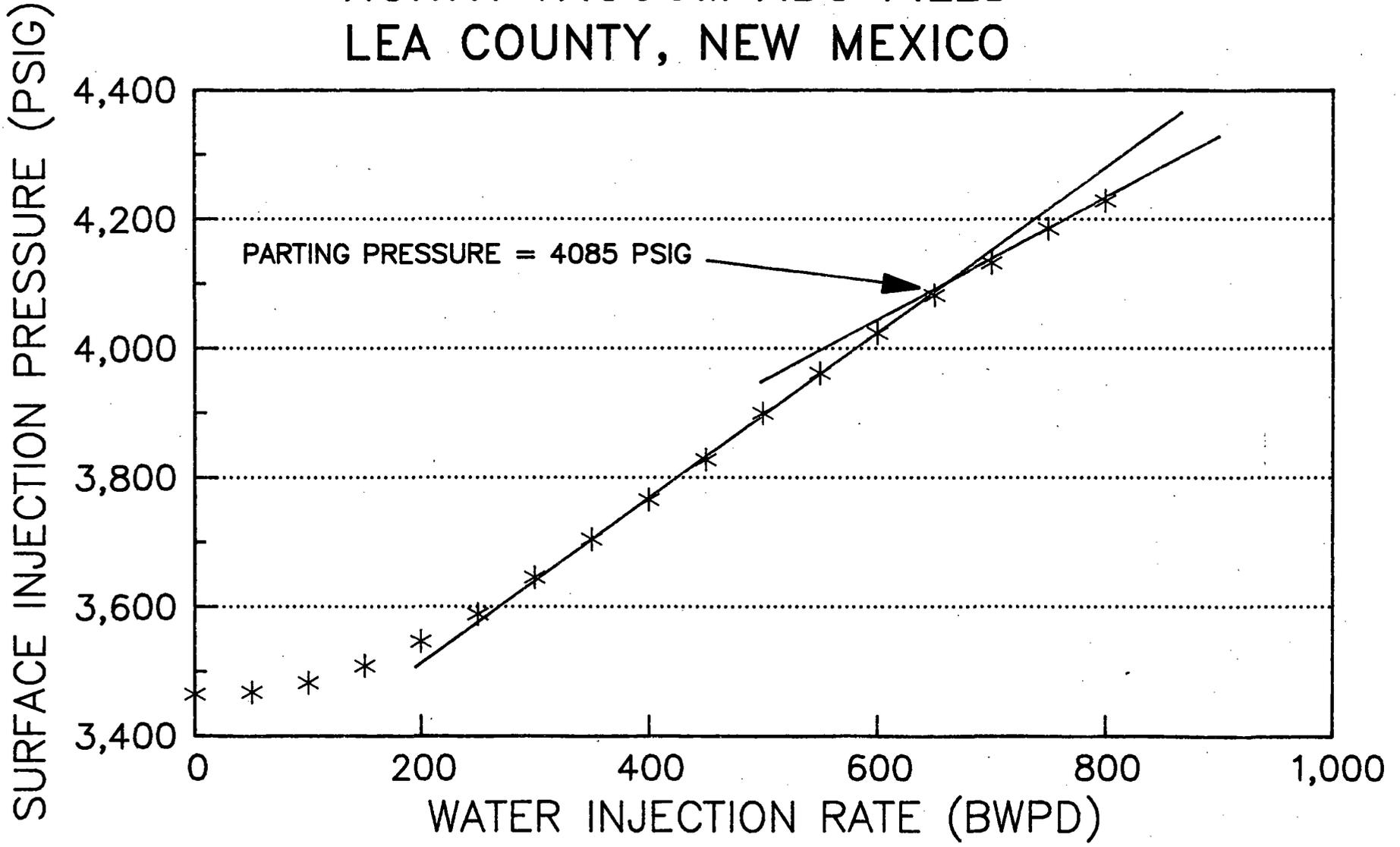


DATE OF TEST: 2-14-92

# NVAU NO. 152 STEP RATE TEST

## NORTH VACUUM ABO FIELD

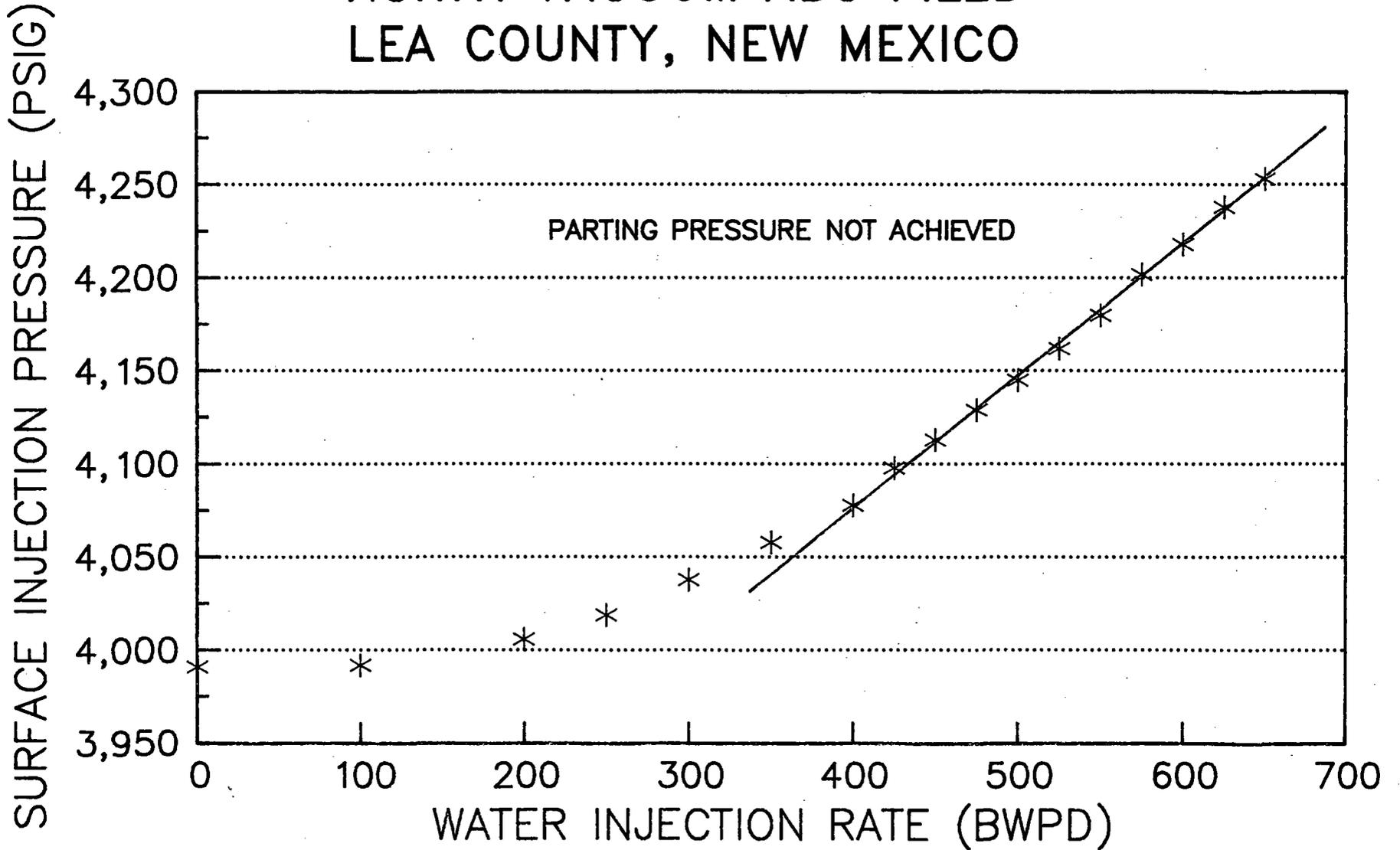
### LEA COUNTY, NEW MEXICO



DATE OF TEST: 2-10-92

# NVAU NO. 156 STEP RATE TEST

NORTH VACUUM ABO FIELD  
LEA COUNTY, NEW MEXICO

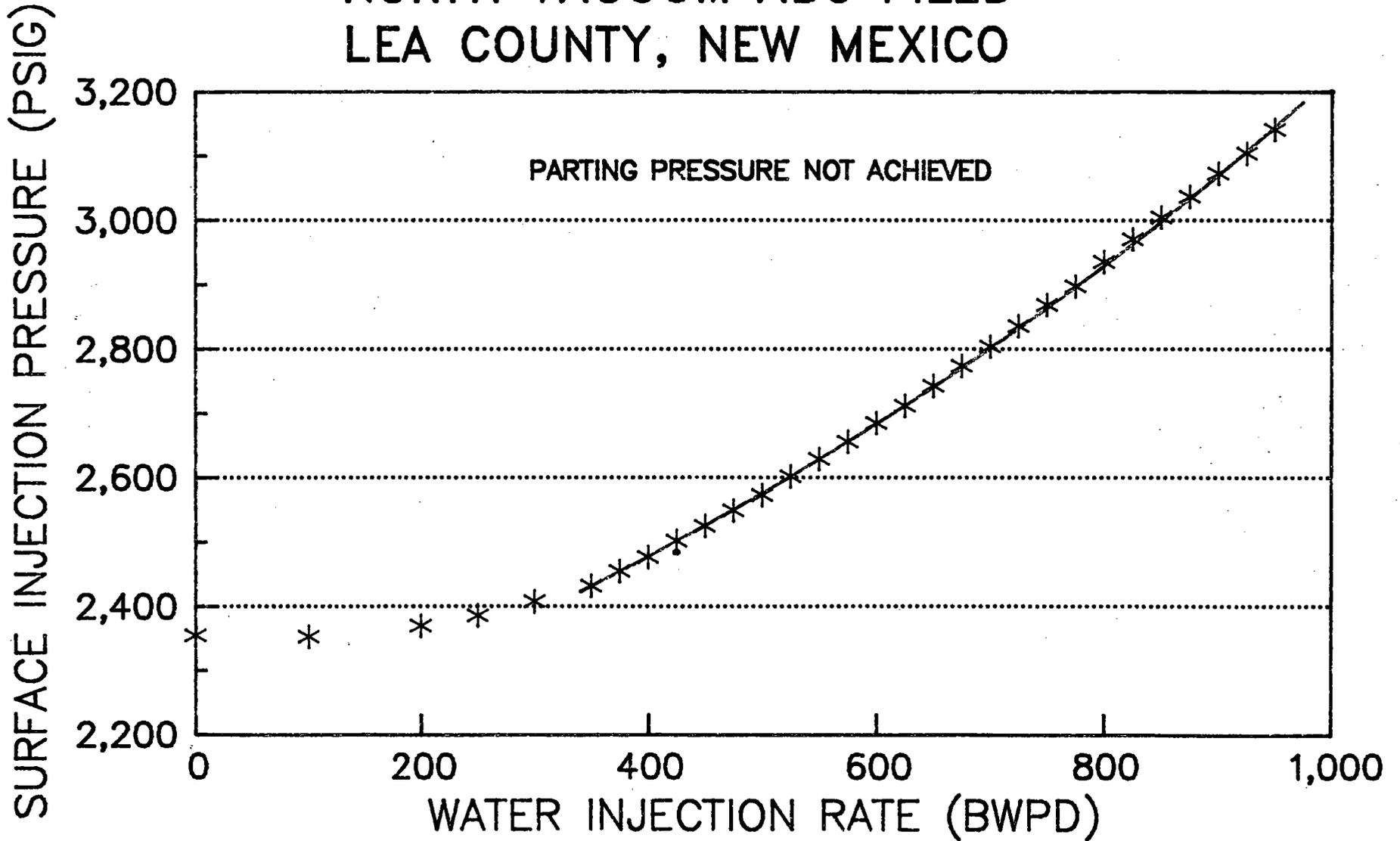


DATE OF TEST: 2-7-92

# NVAU NO. 206 STEP RATE TEST

## NORTH VACUUM ABO FIELD

### LEA COUNTY, NEW MEXICO

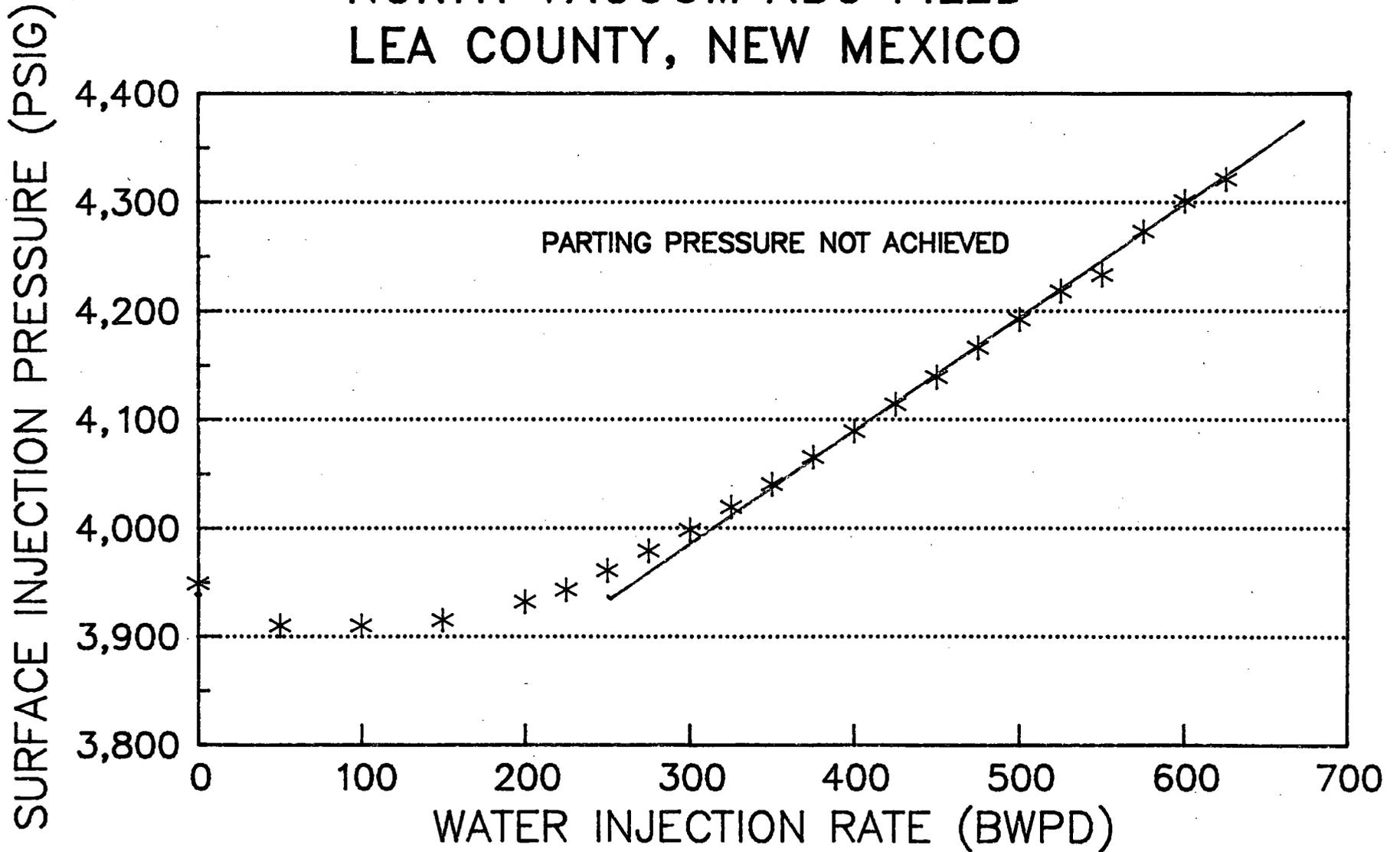


DATE OF TEST: 2-24-92

# NVAU NO. 211 STEP RATE TEST

## NORTH VACUUM ABO FIELD

### LEA COUNTY, NEW MEXICO



DATE OF TEST: 2-6-92



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
 OIL CONSERVATION DIVISION  
 HOBBS DISTRICT OFFICE

OIL CONSERVATION DIVISION  
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 '92 APR 14 AM 8 56

BRUCE KING  
 GOVERNOR

POST OFFICE BOX 1980  
 HOBBS, NEW MEXICO 88240  
 (505) 393-6161

OIL CONSERVATION DIVISION  
 P.O. BOX 2088  
 SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	North Vacuum Abo Unit #95-P	26-17-34
Operator	Lease & Well No. Unit	S-T-R

and my recommendations are as follows:

*Maybe high*

Very truly yours

*Jerry Sexton*

Jerry Sexton  
 Supervisor, District I

/bp



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
 OIL CONSERVATION DIVISION  
 HOBBBS DISTRICT OFFICE

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 GOVERNOR

POST OFFICE BOX 1980  
 HOBBBS, NEW MEXICO 88240  
 (505) 393-6161

OIL CONSERVATION DIVISION  
 P.O. BOX 2088  
 SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	North Vacuum Abo Unit	98-J	26-17-34
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

*OK Robert*

---

Very truly yours

*Jerry Sexton*

Jerry Sexton  
 Supervisor, District I

/bp



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
 OIL CONSERVATION DIVISION  
 HOBBS DISTRICT OFFICE

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OIL CONSERVATION DIVISION  
 P.O. BOX 2088  
 SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	North Vacuum Abo Unit	112-D	25-17-34
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

*OK No Break*

Very truly yours

Jerry Sexton  
 Supervisor, District I

/bp

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STATE OF NEW MEXICO  
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OIL CONSERVATION DIVISION  
P.O. BOX 2088  
SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	North Vacuum Abo Unit	116-L	24-17-34
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

*OK*

Very truly yours

A handwritten signature in cursive script, appearing to read "Jerry Sexton".

Jerry Sexton  
Supervisor, District I

/bp



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
 OIL CONSERVATION DIVISION  
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OIL CONSERVATION DIVISION  
 P.O. BOX 2088  
 SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	North Vacuum Abo Unit	136-D	26-17-34
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

*OK*

Very truly yours

*Jerry Sexton*

Jerry Sexton  
 Supervisor, District I

/bp

OIL CONSERVATION DIVISION  
RECEIVED

'92 APR 14 AM 8 56



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

April 9, 1992

BRUCE KING  
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POST OFFICE BOX 1980  
HOBBS, NEW MEXICO 88240  
(505) 393-6161

OIL CONSERVATION DIVISION  
P.O. BOX 2088  
SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	North Vacuum Abo Unit	138-I	26-17-34
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

*JS*

Very truly yours

A handwritten signature in cursive script, appearing to read "Jerry Sexton".

Jerry Sexton  
Supervisor, District I

/bp



OIL CONSERVATION DIVISION  
RECEIVED  
1992 APR 14 AM 8 56

STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

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HOBBS, NEW MEXICO 88240  
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OIL CONSERVATION DIVISION  
P.O. BOX 2088  
SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

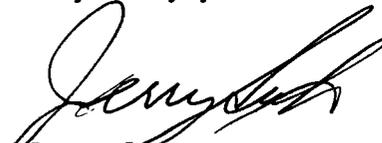
Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	North Vacuum Abo Unit	143-B	27-17-34
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

Very truly yours

  
Jerry Sexton  
Supervisor, District I

/bp



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
 OIL CONSERVATION DIVISION  
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 P.O. BOX 2088  
 SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	North Vacuum Abo Unit	149-J	27-17-34
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

*OK*

Very truly yours

Jerry Sexton  
 Supervisor, District I

/bp



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
 OIL CONSERVATION DIVISION  
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 P.O. BOX 2088  
 SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	North Vacuum Abo Unit	152-B	13-17-34
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton  
 Supervisor, District I

/bp



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
 OIL CONSERVATION DIVISION  
 HOBBS DISTRICT OFFICE

April 9, 1992

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 SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	North Vacuum Abo Unit	156-J	23-17-34
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

*[Handwritten signature]*

Very truly yours

*[Handwritten signature of Jerry Sexton]*

Jerry Sexton  
 Supervisor, District I

/bp



STATE OF NEW MEXICO  
**ENERGY AND MINERALS DEPARTMENT**  
 OIL CONSERVATION DIVISION  
 HOBBS DISTRICT OFFICE

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 P.O. BOX 2088  
 SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	North Vacuum Abo Unit	206-D	19-17-34
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

*CS*

Very truly yours

Jerry Sexton  
 Supervisor, District I

/bp



STATE OF NEW MEXICO OIL CONSERVATION DIVISION  
**ENERGY AND MINERALS DEPARTMENT**  
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 P.O. BOX 2088  
 SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Mobil Producing TX & NM Inc.	North Vacuum Abo Unit	211-J	24-17-34
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

*JA*

Very truly yours

*Jerry Sexton*

Jerry Sexton  
 Supervisor, District I

/bp