# ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

September 15, 1989

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 97504 (505) 827-5800

Shell Western E & P Inc. P.O. Box 576 Houston, Texas 77001

Attention: W. F. N. Kelldorf

Re: Injection Pressure Increase
N. Hobbs Grayburg San Andres
Pressure Maintenance Project

Lea County, New Mexico

Dear Sir:

Reference is made to your request dated March 27, 1989, to increase the surface injection pressure on twenty-six injection wells located within the N. Hobbs Grayburg San Andres Unit Pressure Maintenance Project. This request is based on step rate tests conducted on these wells during 1989. The results of the tests have been reviewed by my staff and we feel an increase in injection pressure on twenty-five of these wells is justified at this time.

You are therefore authorized to increase the surface injection pressure on the twenty-five wells as shown on Exhibit "A" attached hereto.

We would request that the step rate test conducted on the NHGSAU Well No. 29-132 be reconducted, inasmuch as the test data submitted is inconclusive.

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

xc: Oil Conservation Division-Hobbs

Case File-6653.
D. Catanach

T. Gallegos

### Injection Pressure Increase Exhibit "A"

Well Name and No.	U-S-T-R	Maximum Surface Injection Pressure
NHGSAU Well No. 13-221	F-13-18S-37E	1200 PSIG
NHGSAU Well No. 19-112	D-19-18S-38E	1050 PSIG
NHGSAU Well No. 19-142	M-19-18S-38E	1200 PSIG
NHGSAU Well No. 19-332	J-19-18S-38E	1200 PSIG
NHGSAU Well No. 19-411	A-19-18S-38E	1200 PSIG
NHGSAU Well No. 19-431	I-19-18S-38E	1150 PSIG
NHGSAU Well No. 20-233	K-20-18S-38E	1200 PSIG
NHGSAU Well No. 24-242	P-24-18S-37E	1120 PSIG
NHGSAU Well No. 28-111	D-28-18S-38E	1200 PSIG
NHGSAU Well No. 28-221	F-28-18S-38E	1200 PSIG
NHGSAU Well No. 28-232	K-28-18S-38E	1150 PSIG
NHGSAU Well No. 29-122	E-29-18S-38E	1200 PSIG
NHGSAU Well No. 29-322	G-29-18S-38E	1200 PSIG
NHGSAU Well No. 29-411	A-29-18S-38E	1200 PSIG
NHGSAU Well No. 29-442	P-29-18S-38E	1200 PSIG
NHGSAU Well No. 30-222	F-30-18S-38E	1090 PSIG
NHGSAU Well No. 30-232	K-30-18S-38E	1200 PSIG
NHGSAU Well No. 30-422	H-30-18S-38E	1200 PSIG
NHGSAU Well No. 31-141	M-31-18S-38E	980 PSIG
NHGSAU Well No. 31-312	G-31-18S-38E	1200 PSIG
NHGSAU Well No. 32-141	M-32-18S-38E	1200 PSIG
NHGSAU Well No. 32-222	F-32-18S-38E	1200 PSIG
NHGSAU Well No. 32-432	I-32-18S-38E	930 PSIG
NHGSAU Well No. 33-221	F-33-18S-38E	910 PSIG
NHGSAU Well No. 33-322	G-33-18S-38E	1000 PSIG

# Shell Western E&P Inc.

A Subsidiary of Shell Oil Company



P.O. Box 576 Houston, TX 77001

March 27, 1989

Mr. David R. Catanach New Mexico Oil Conservation Division State Land Office Building 310 Old Santa Fe Trail Santa Fe, New Mexico 87503

Dear Mr. Catanach:

SUBJECT: REQUEST FOR INCREASED SURFACE INJECTION PRESSURE

ON SELECTED WELLS IN THE NORTH HOBBS (G/SA) UNIT

LEA COUNTY, NEW MEXICO

SWEPI, as unit operator of the North Hobbs (G/SA) Unit, requests that the surface injection pressure limit be increased for the attached list of wells. The requested increases are based on step rate tests which are attached for your review.

The increases in surface injection pressure are necessary to maintain adequate injection rates, thus ensuring the optimum performance of the waterflood.

Should you have any questions or require additional information, please contact me at (713) 870-3426.

Yours very truly,

W. F. N. Kelldorf

WEN Kelleby

Staff Production Engineer Regulatory, Permitting, and Environmental

Western Division

FEF: SRP

Enclosures

cc: Mr. Jerry Sexton

New Mexico Oil Conservation Division

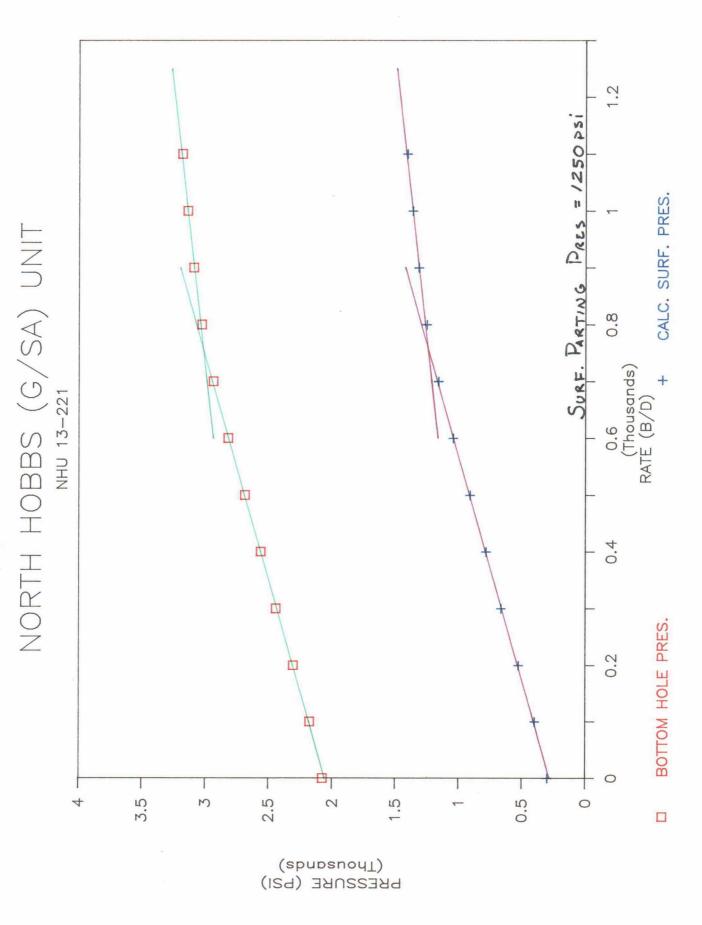
P. 0. Box 1980 Hobbs, NM 88240

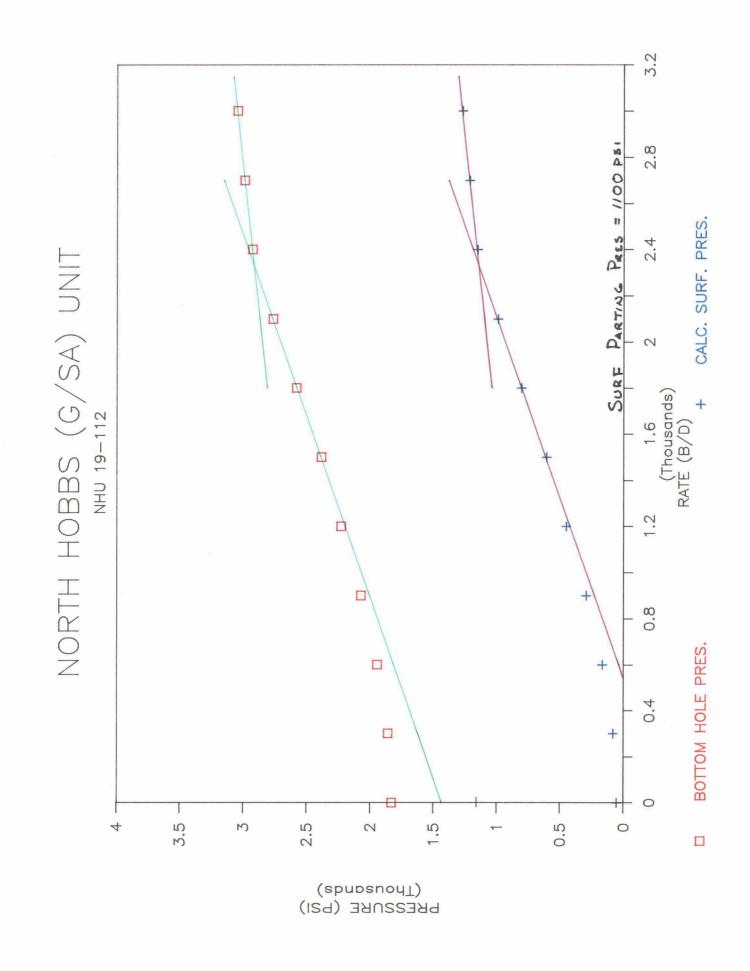
### NORTH HOBBS (G/SA) UNIT STEP RATE TESTS

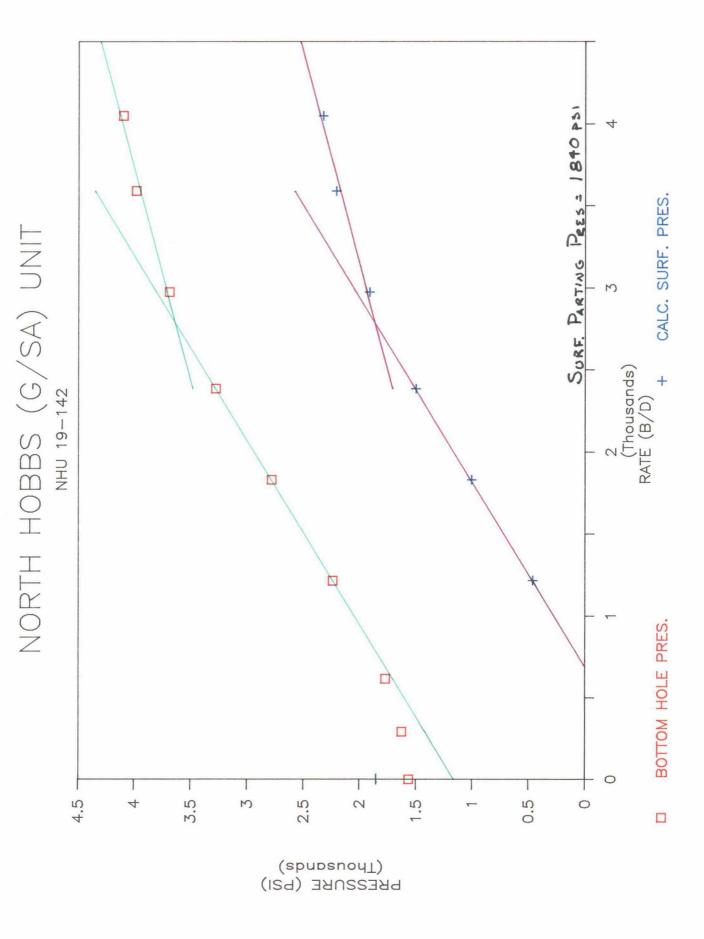
	WELL	SURF PARTING PRESSURE (PSI)	RECOMMENDED SURFACE PRESSURE (PSI)
NHC SAU WW	ль. 13-221	1250	1200 - 1200
	19-112	1100	1050 - 1050
	19-142	1840	1790 / 1200
	19-332	1800	1750 /200
	19-411	2380	2330 – 1200
	19-431	1380	1310 - 1/50
	20-233	1580	1530 - 1200
	24-242	1170	1120 /1/20
	28-111	2000	1950 - 1200
	28-221	1340	1290 - 1200
	28-232	1200	1150 //50
	29-122	1600	1550 - 1200
No good	29-132	1450	1400
	29-322	1585	1530 _ /200
	29-411	2050	2000 - 1200
	29-442	NO PART	1380 - 1200
	30-222	1620	1450 12 - 1090
	30-232	2200	2150 - 1 <del>20</del> 0 1320 - 1 <del>20</del> 0
	30-422	1370	1320 - 1200
	31-141	1033	980 - 980
	31-312	1760	1710 - 1200
	32-141	1360	1310 - 1200

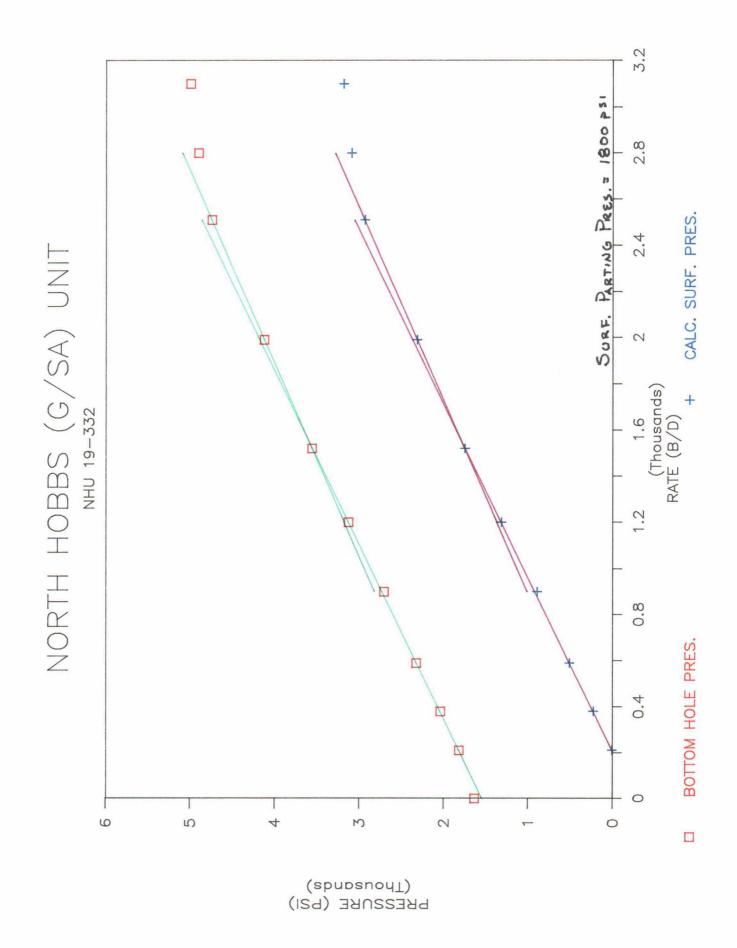
# NORTH HOBBS (G/SA) UNIT STEP RATE TESTS

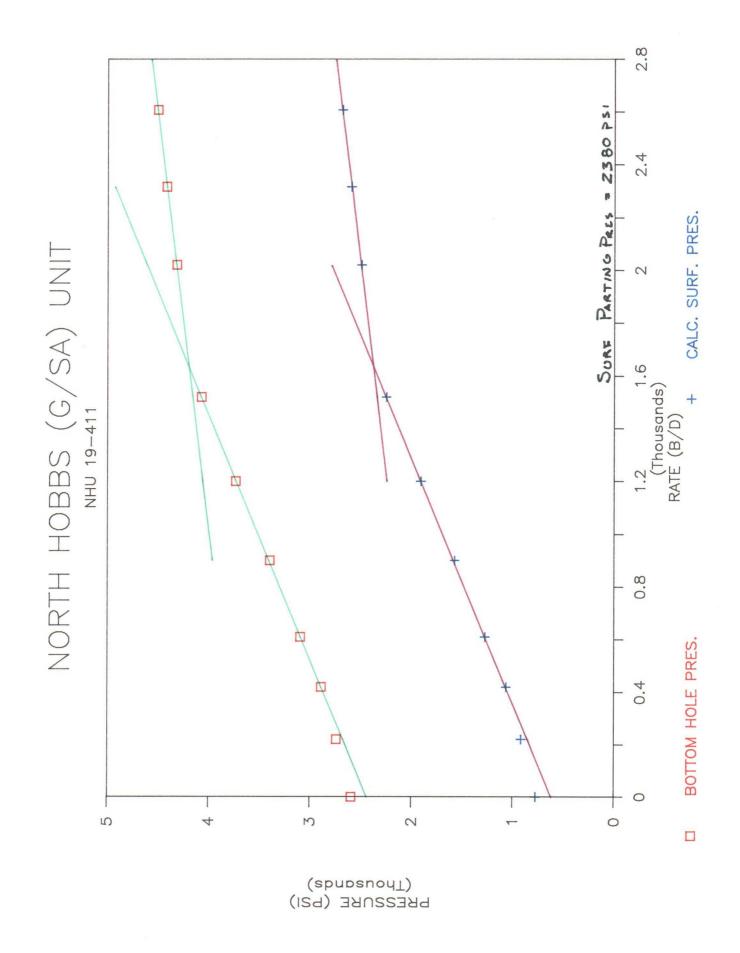
WELL	SURF PARTING PRESSURE (PSI)	RECOMMENDED SURFACE PRESSURE (PSI)
32-222	1480	1430 - 1200
32-432	980	930 - 930
33-221	960	910 910
33-322	1160	1110 /000

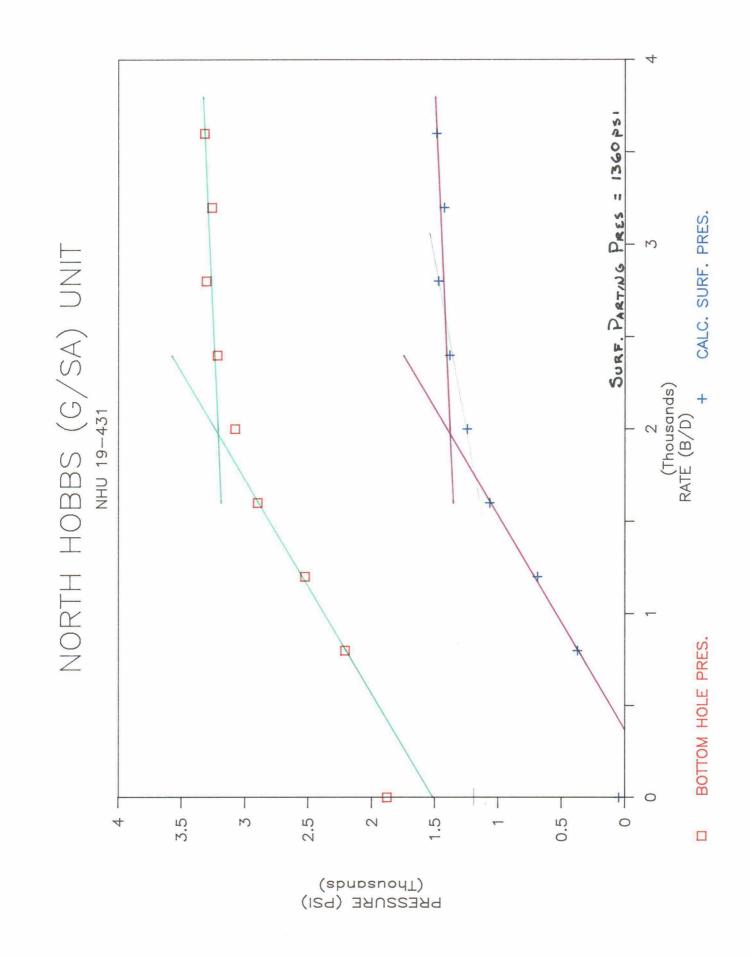


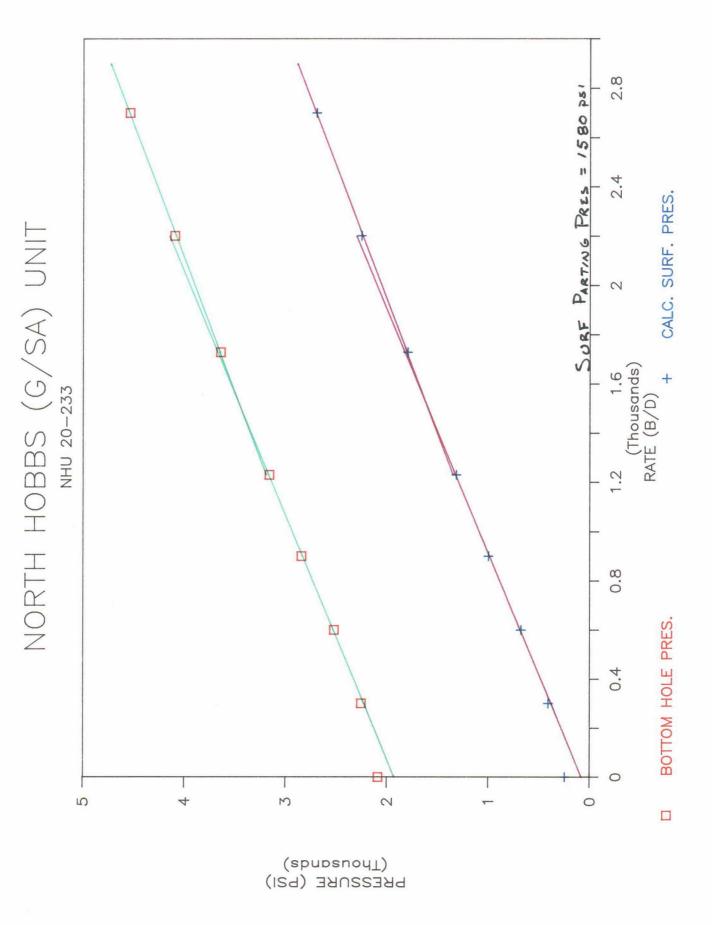


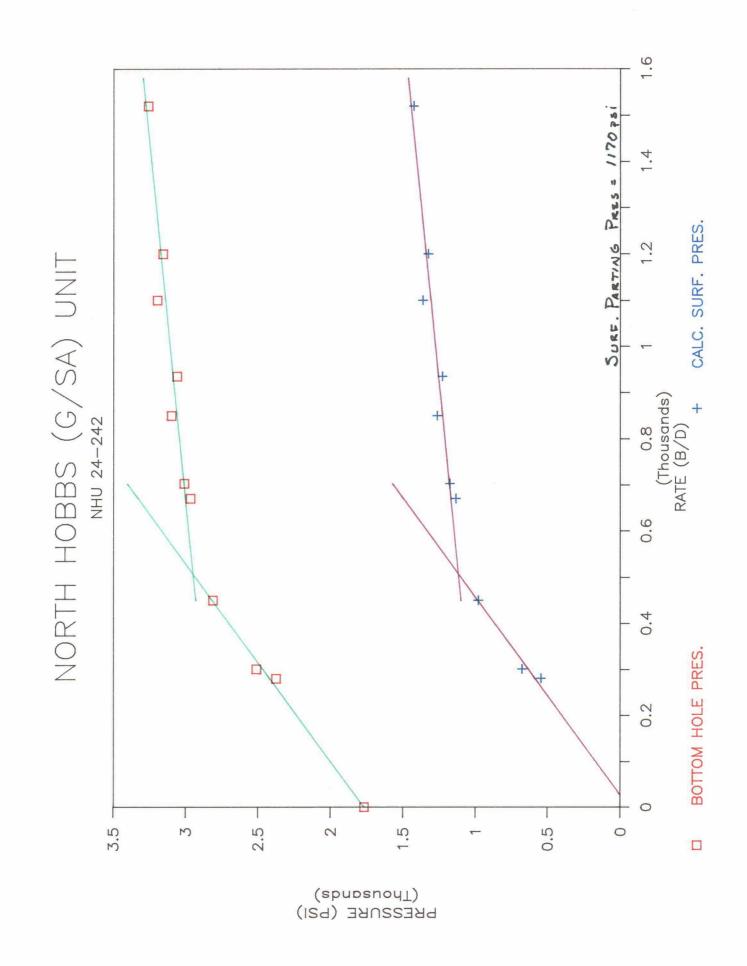


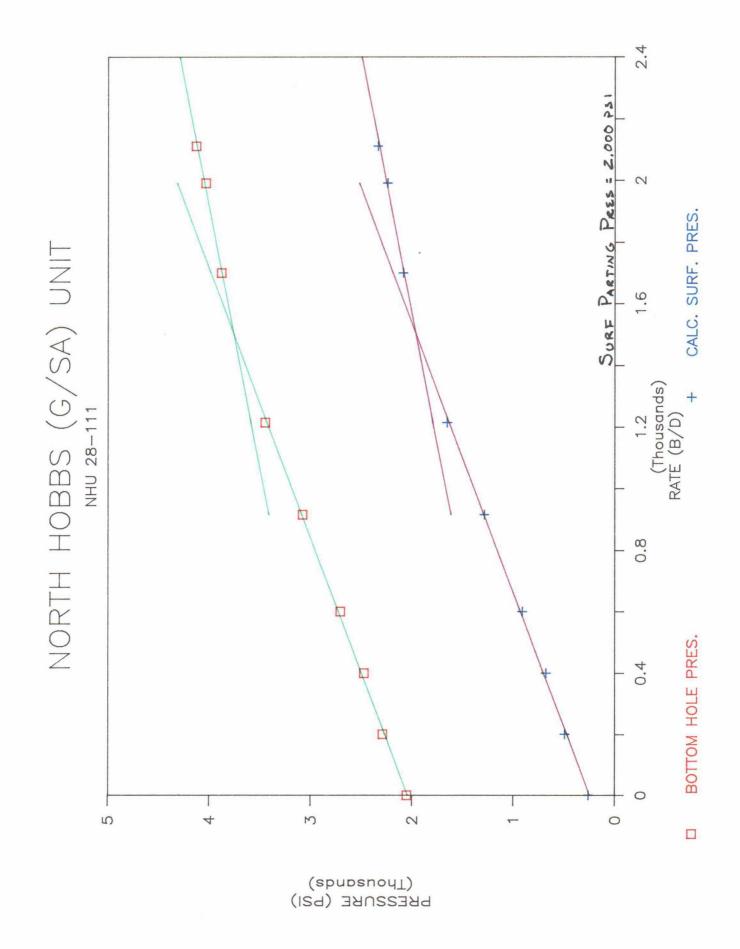


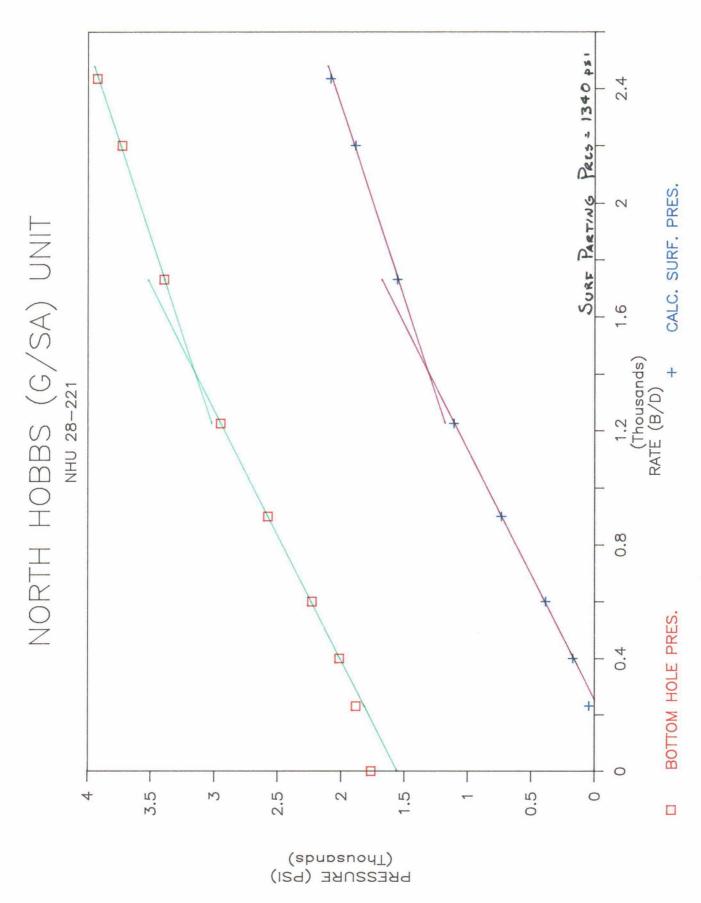


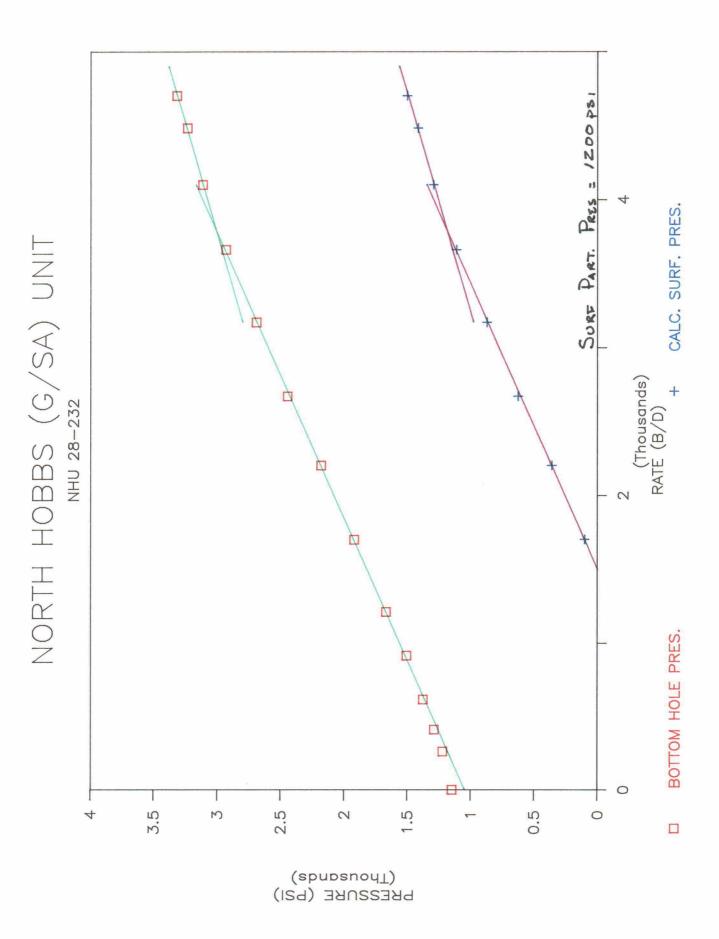


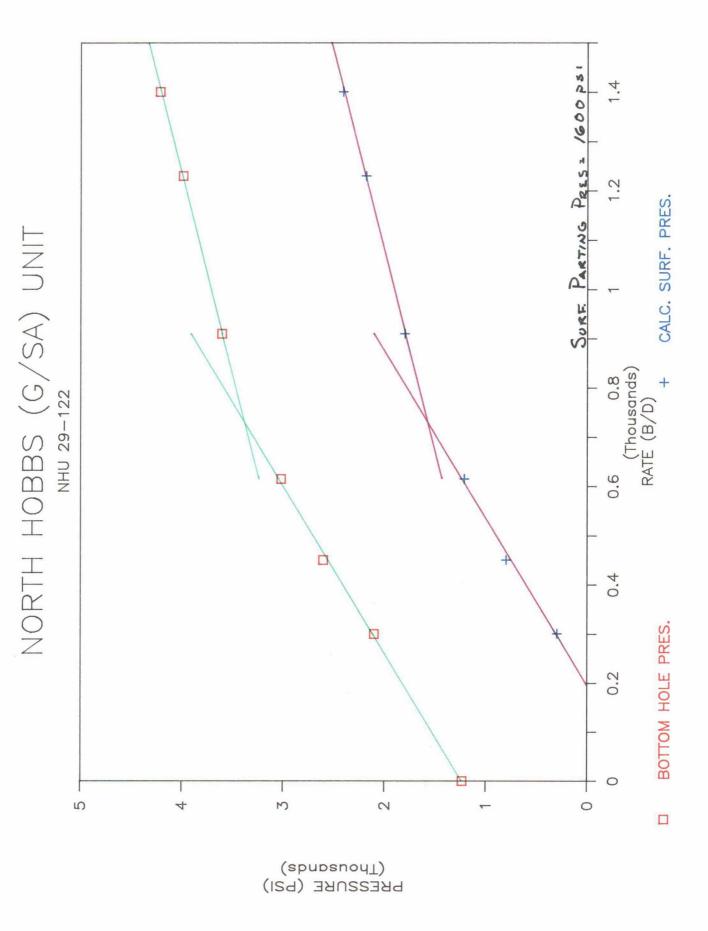


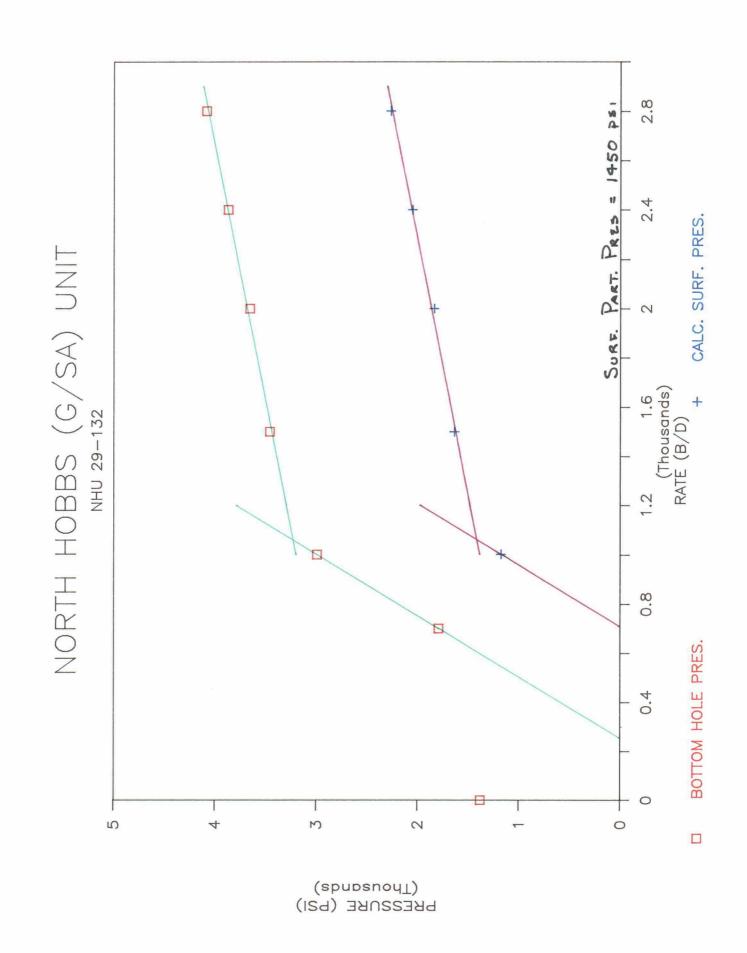


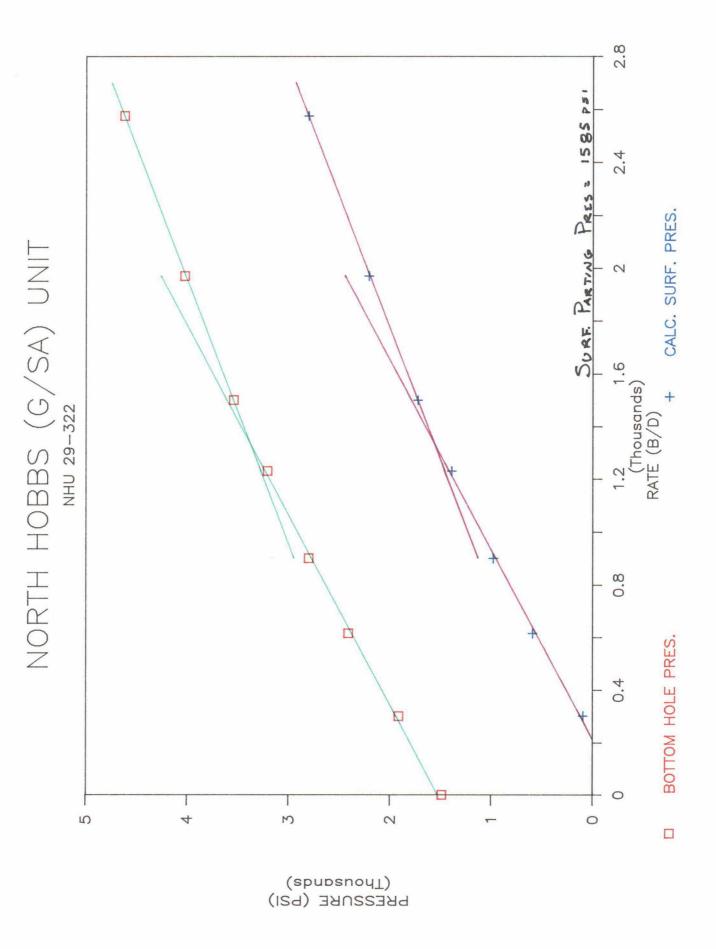


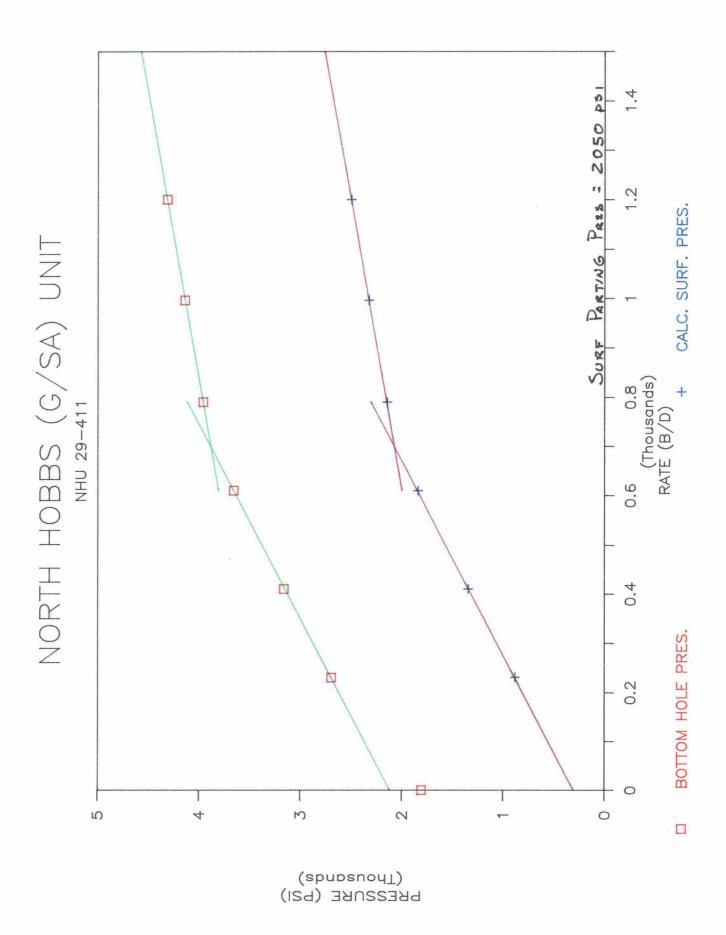


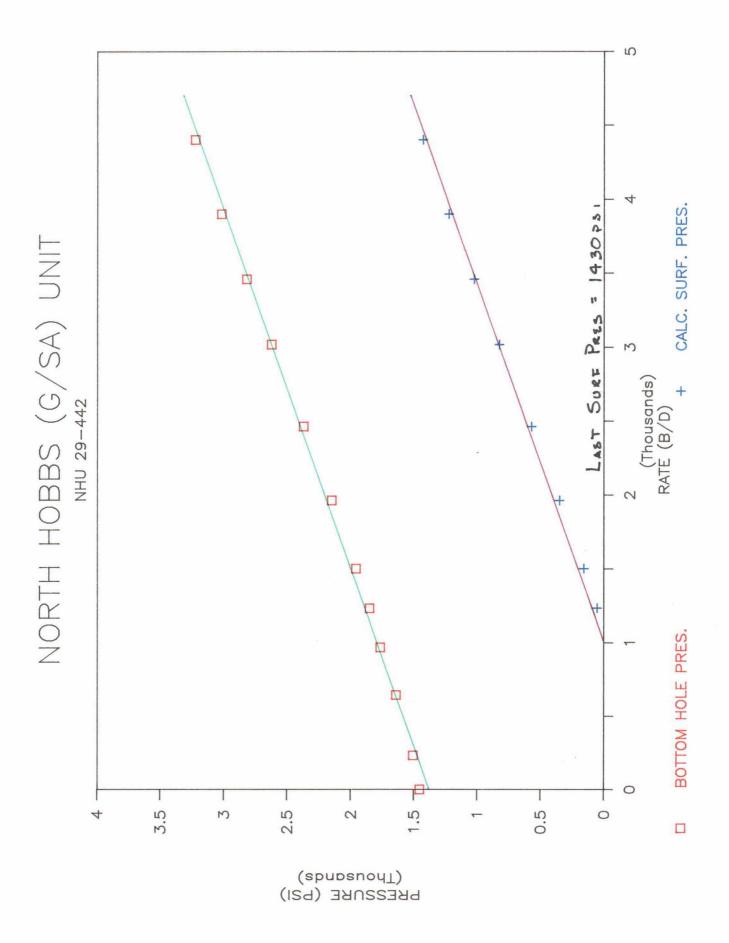


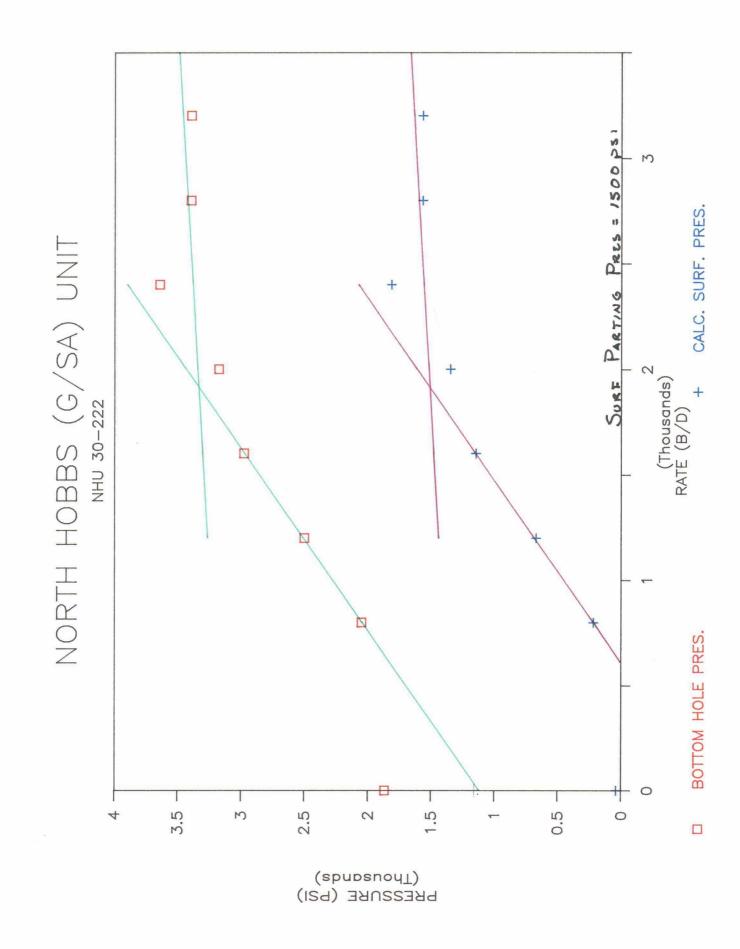


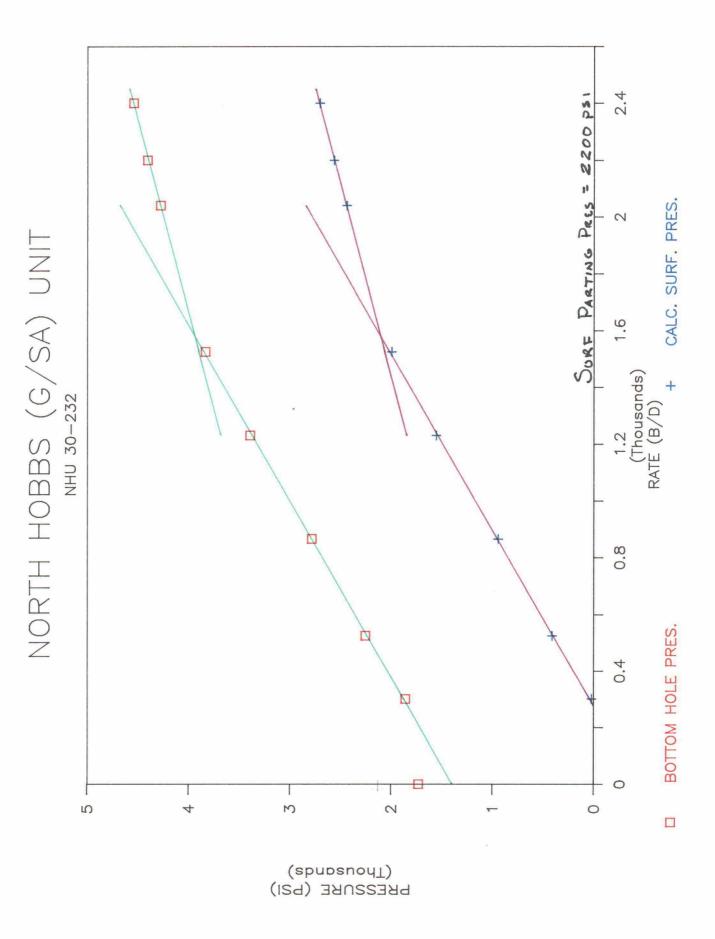


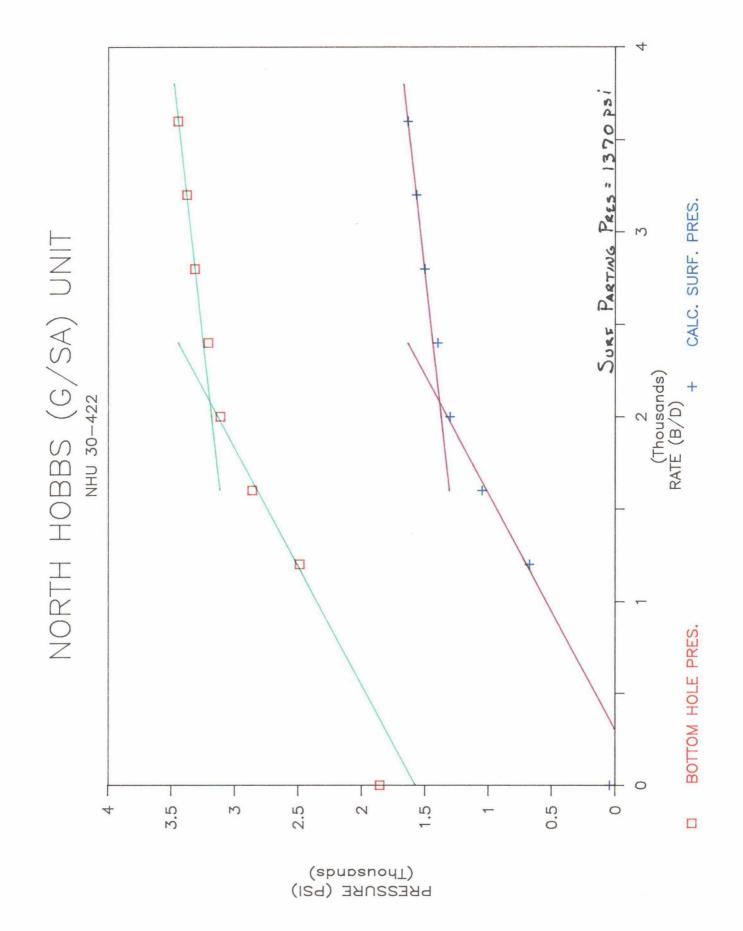


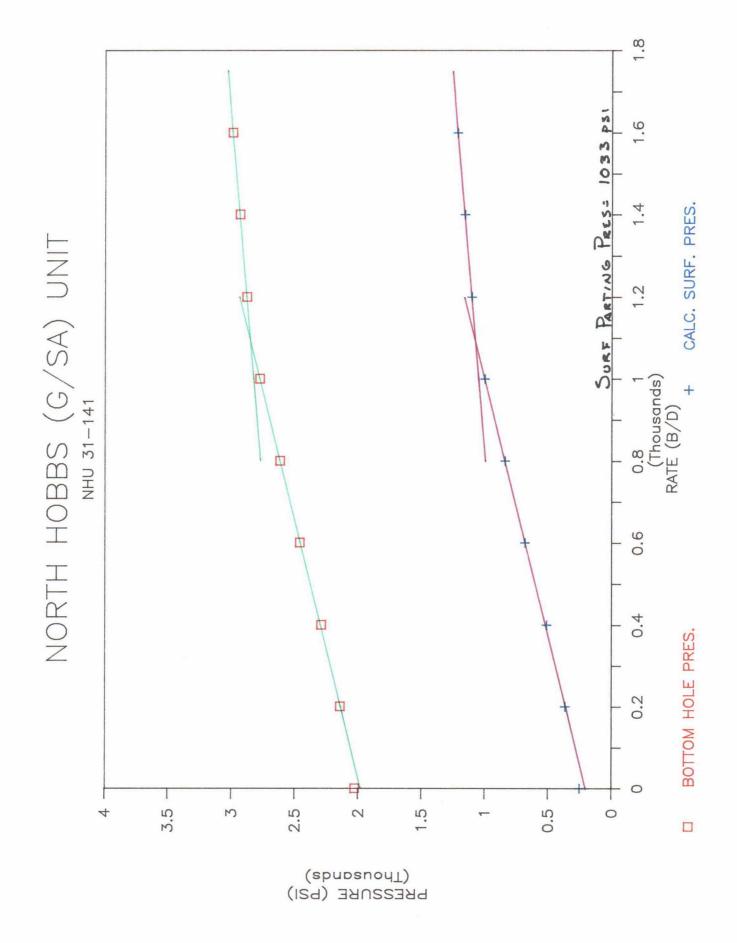


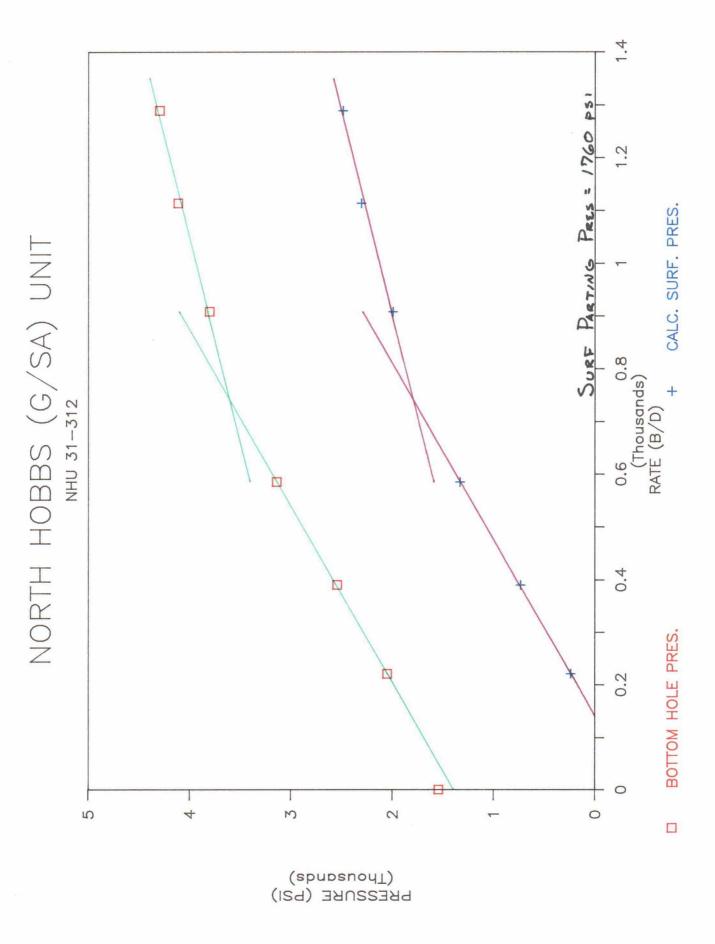


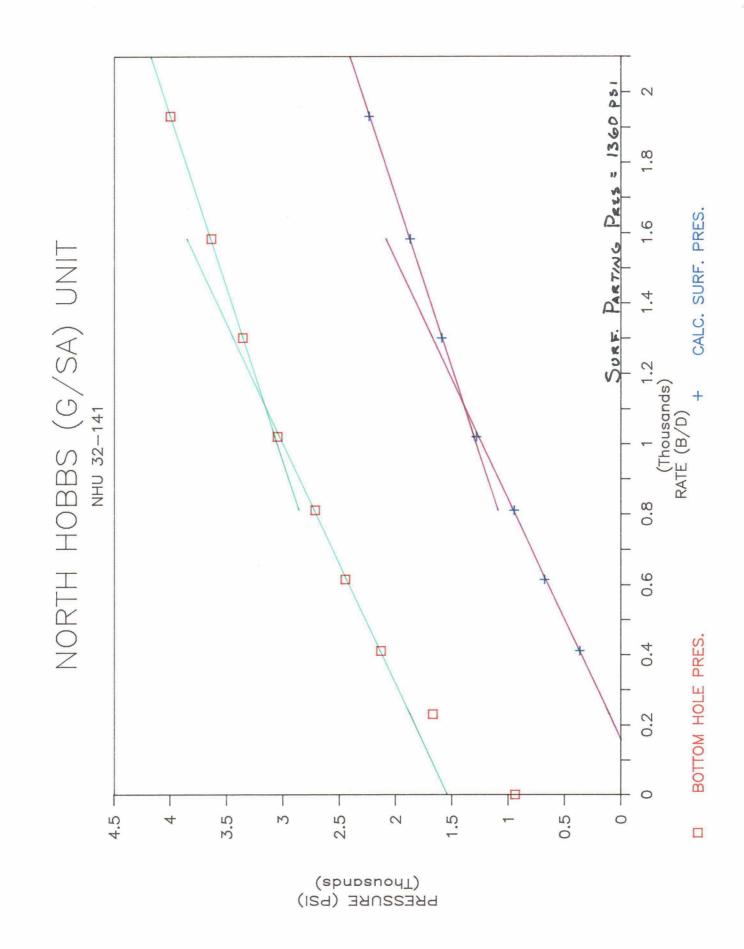


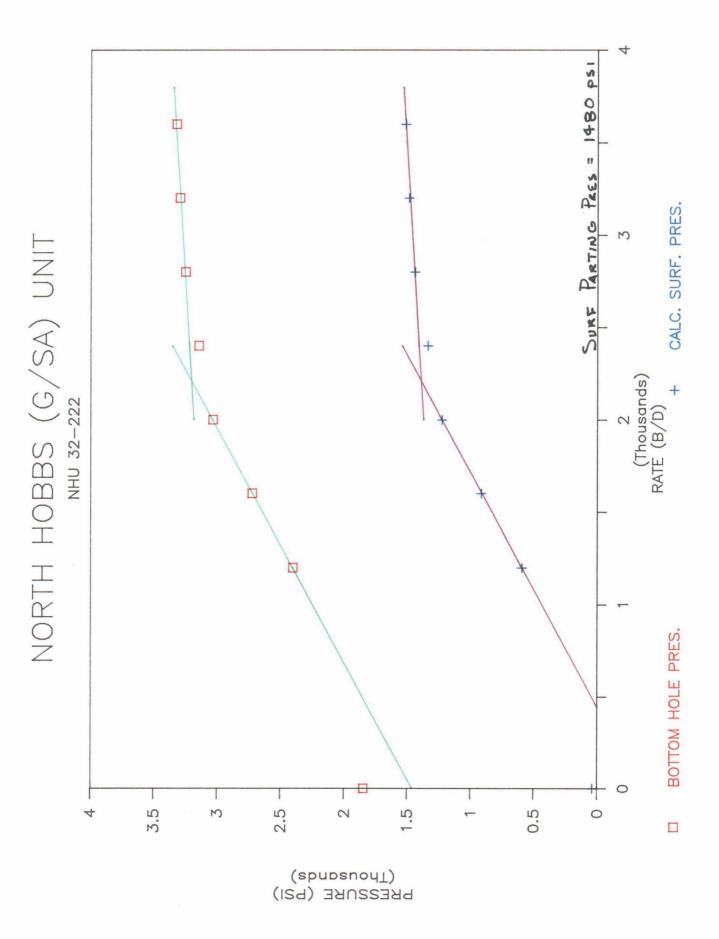


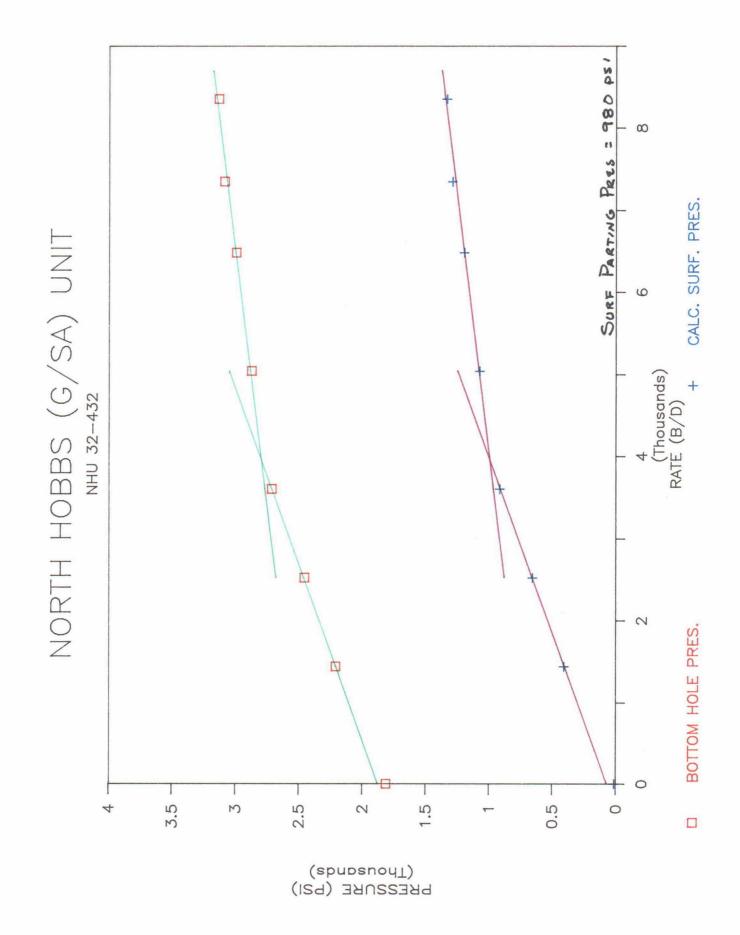


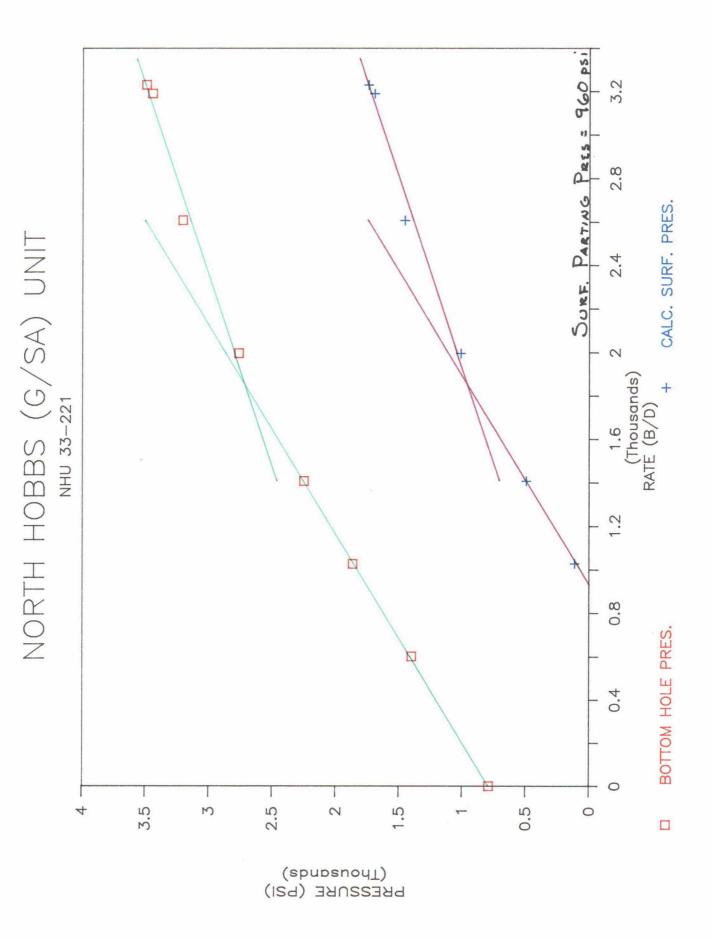


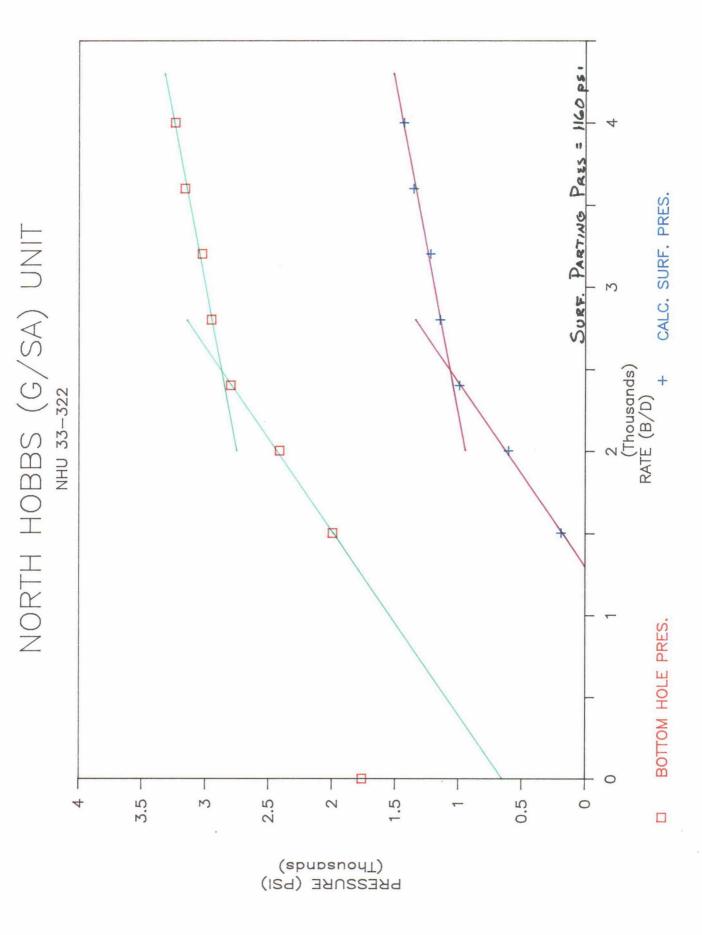














From

BONNIE PRICHARD

District I - UIC Coordinator

March 31, 1989

 $\mathscr{T}_{a}$  David Catanach

Jerry advised that most of these tests are good, they should be using observed surface pressure and not a calculated pressure as indicated by the available information.

OIL COMPANY

Oil Conservation Division PO Box 1980, Hobbs, New Mexico 88240

# ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION

HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc	NHU Sec 32-141		32-18-38
Operator Operator	Lease & Well No.	Unit	S-T-R
and my recommendations are as	follows:		
$\alpha \mathcal{K}$			

Very truly yours

Jerry Sexton

Supervisor, District I

## ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc	NHU Sec 31-312		31-18-38
Operator	Lease & Well No.	Unit	S-T-R

Very truly yours

Jerry Sexton

Supervisor, District I

## ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 31-141

31-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

## ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 30-422

30-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Yerry Sexton

Supervisor, District I

## ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 30-232

30-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

## ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 30-222

30-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows;

Very truly yours

Jerry Sexton

Supervisor, District I

## ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 29-442

29-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc NHU Sec 29-411 29-18-38

Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 29-322

29-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

## ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 29-132

29-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc	NHU Sec 28-221		28-18-38
Operator	Lease & Well No.	Unit	S-T-R
and my recommendations are as fol	lows:		

Very truly yours

Jerry Sexton

Supervisor, District I

## ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 28-111

28-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

## ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 24-242

24-18-37

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

ONLY FAIR 1651

Very truly yours

Yerry Sexton

Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc	NHU Sec 33-221		33-18-38
Operator Operator	Lease & Well No.	Unit	S-T-R
and my recommendations are as	follows:		

Very truly yours

Jerry Sexton

Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 32-432

32-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

March 31, 1989

GARREY CARRUTHERS

POST OFFICE BOX 1980 HO88S, NEW MEXICO 88240 (505) 393-6161

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc	NHU Sec 32-222		32-18-38
Operator	Lease & Well No.	Unit	S-T-R
and my recommendations are as	follows:		

Very truly yours

Jerry Sexton

Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc	NHU Sec 13-221		13-18-37
Operator	Lease & Well No.	Unit	S-T-R
and my recommendations are as	follows:		
OE J	1		

Very truly yours

Jerry Sexton Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc	NHU Sec 19-112		19-18-38
Operator	Lease & Well No.	Unit	S-T-R
and my recommendations are as	follows:		

Very truly yours

Jerry Sexton Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 19-142

19-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 19-332

19-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc	NHU Sec 19-411		19-18-38
Operator Operator	Lease & Well No.	Unit	S-T-R
and my recommendations are as			

Very truly yours

Jerry Sexton

Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 19-431

19-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

TEST OKAY DISPERSE W/ DICK SEE ATTACKEN

Very truly yours

Jerry Sexton

Supervisor, District I

## ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc NHU Sec 20-233 20-18-38

Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton Supervisor, District I

## ENERGY AND MINERALS DEPARTMENT

### OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 33-322

33-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc

NHU Sec 29-122

29-18-38

Operator

Lease & Well No.

Unit

S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I

# ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION HOBBS DISTRICT OFFICE

March 31, 1989

GARREY CARRUTHERS

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

OIL CONSERVATION DIVISON
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:

Shell Western E & P Inc NHU Sec 28-232 28-18-38

Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

Very truly yours

Jerry Sexton

Supervisor, District I