

Mobil Producing Texas & New Mexico Inc.

December 16, 1986

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

P.O. BOX 633
MIDLAND, TEXAS 79702

MIDLAND DIVISION

Attention: R. L. Stamets

MOBIL PRODUCING TX. & N.M., INC.
NORTH VACUUM ABO UNIT
WATER INJECTION WELLS NO. 155,
AND 205
NORTH VACUUM ABO FIELD
LEA COUNTY, NEW MEXICO

Gentlemen:

Under the provisions of Order Nos. WFX-557, dated February 11, 1986, and PMX 138, dated November 12, 1985, Mobil Producing Texas & New Mexico, Inc. (MPTM) was granted permission 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. MPTM has completed step-rate tests for these wells which show that higher pressure will not result in migration of the injected fluid from the Abo formation. MPTM therefore requests an increase in the injection pressure as follows:

	<u>Injection Interval</u>	<u>Present Surface Inj. Pressure Limit</u>	<u>Requested Surface Inj. Pressure Limit</u>
Well No. 155 560' FNL & 560' FWL Sec 23, T-17-S, R-34-E	8593-8654'	1719 psig.	3096 psig.
Well No. 205 660' FNL & 1980' FEL, Sec. 24, T-17-S, R-34-E	8523-8570'	1705 psig	2993 psig

Copies of the step-rate tests are enclosed.

Sincerely,



M. E. Sweeney
Environmental & Reg. Mgr.

CCSmith/

cc: Oil Conservation Division - Hobbs

TYLER SURVEYS, INC

915/523-6826

908 CARDINAL CREST
ANDREWS, TEXAS 79714

BOBBANY - MOBIL PROD. TEX.& N.M. INC
WELL NUMBER N.VACUUM ABO UNIT NO.155
BHP@ DEPTH - SURFACE FT

DATE - 11-2

STABILIZATION

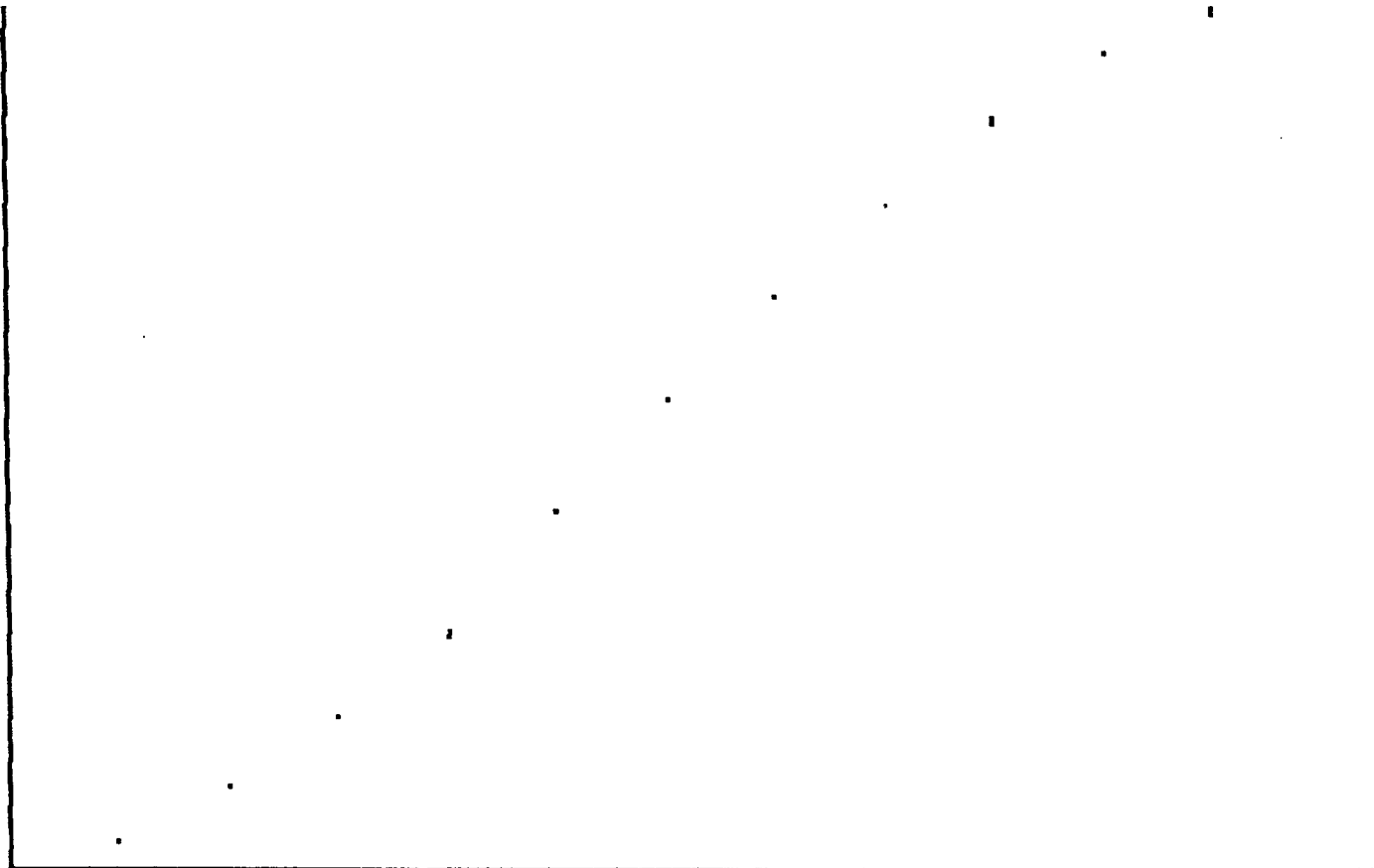
RATE - 0 BWPD PRESURE - 1507 PSIG

INCREMENTS:

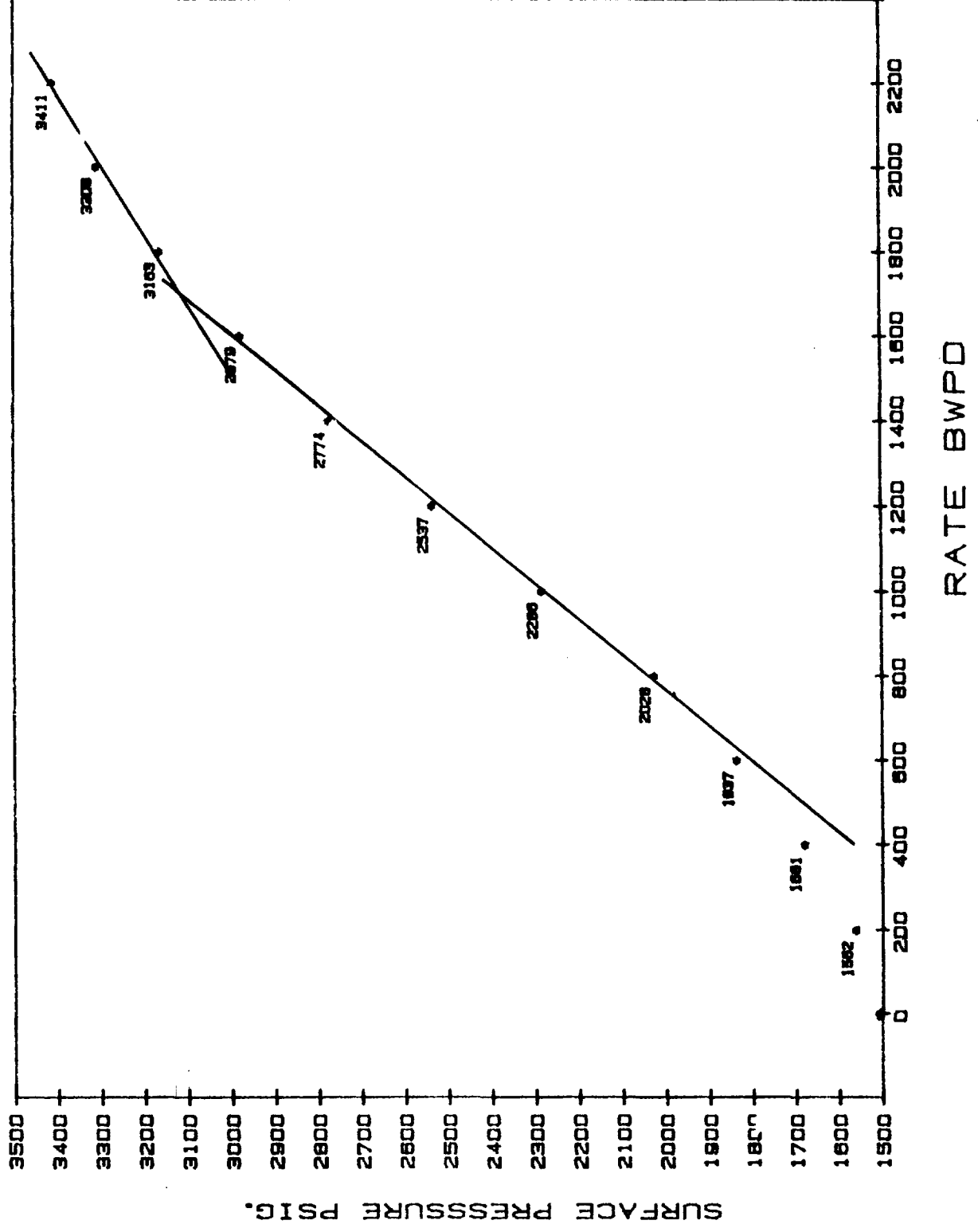
RATE - 200 BWPD STEP LENGTH - 15 MIN

TEST RESULTS

FORMATION PARTING POINT - 3096 PSIG @ 1682 BWPD
SURFACE STATIC PART. 3096 PSIG



NORTH VACUUM ABO UNIT NO. 155 STEP RATE TEST 11-22-86



STEP RATE TESTERS, INC.

915/366-3409

P. O. Box 6414

ODESSA, TEXAS 79762

No. _____

COMPANY Mobil DATE 11-22-86

ADDRESS _____

WELL # 155 LEASE N. VAC. ABO Unit

WELL FILE DATA:

T.D. _____ PACKERS @ _____ PERFS. _____

TBG. ID. _____ TBG. COATING _____ DEPTH SN. _____ BHP @ _____

STABILIZATION:

RATE _____ BHPD PRES. 1600 PSIG. CUMULATIVE _____ BBLS.

INCREMENTS:

RATE 200 BHPD PRES. _____ PSIG. STEP LENGTH 15 MINS.

TEST RESULTS:

FORMATION PARTING POINT _____ PSIG. @ _____ BHPD

	RATE BHPD	PRESSURE SURFACE PSIG.		PRESSURE MINUS FRICTION PSIG.	PRESSURE BOTTOM HOLE PSIG.
1.	0	1507			
2.	200	1560	55	3.63	
3.	400	1681	119	2.298	
4.	600	1837	156	1.818	
5.	800	2038	250	1.536	
6.	1000	2286	258	1.283	
7.	1200	2537	251	1.165	
8.	1400	2774	237	1.105	
9.	1600	2979	205	1.087	
10.	1800	3163	186	1.087	
11.	2000	3308	145	1.11	
12.	2200	3417	103		
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					

REMARKS _____

TESTER _____ COMPANY REP. _____

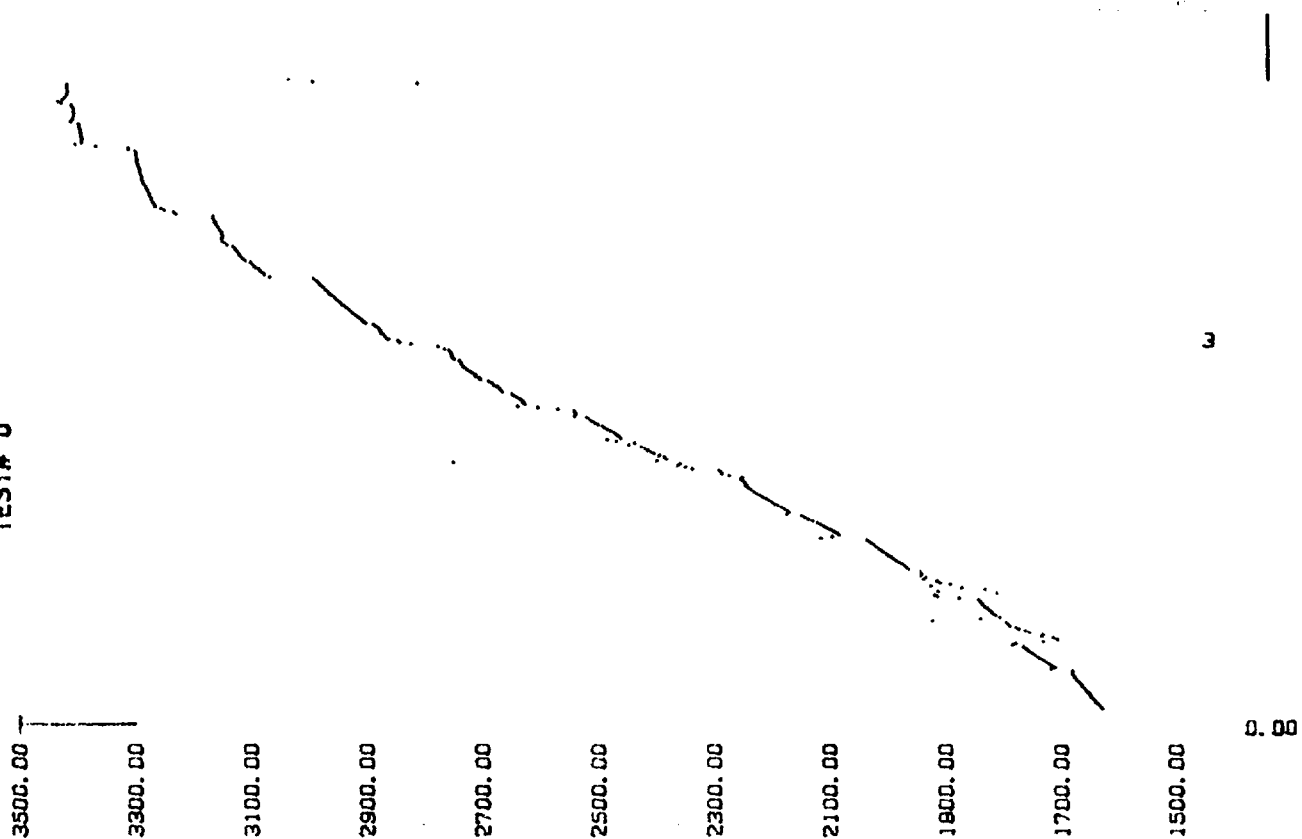
*** LINEAR PLOT ***

14400.00

LIJENI:
 WELL NAME: NVAU
 TEST OPERATOR:
 LOCATION:
 COMMENTS:

21 : 44

GAUGE# 54219
 WELL# 8 155
 TEST# 0



TYLER SURVEYS, INC

915/523-6826

908 CARDINAL CREST
ANDREWS, TEXAS 79714

COMPANY - MOBIL PROD. TEX. & N.M.
WELL NUMBER NORTH VACUUM ABO UNIT NO.205
BHP@ DEPTH - SURFACE FT

DATE - 11-22-8

STABILIZATION

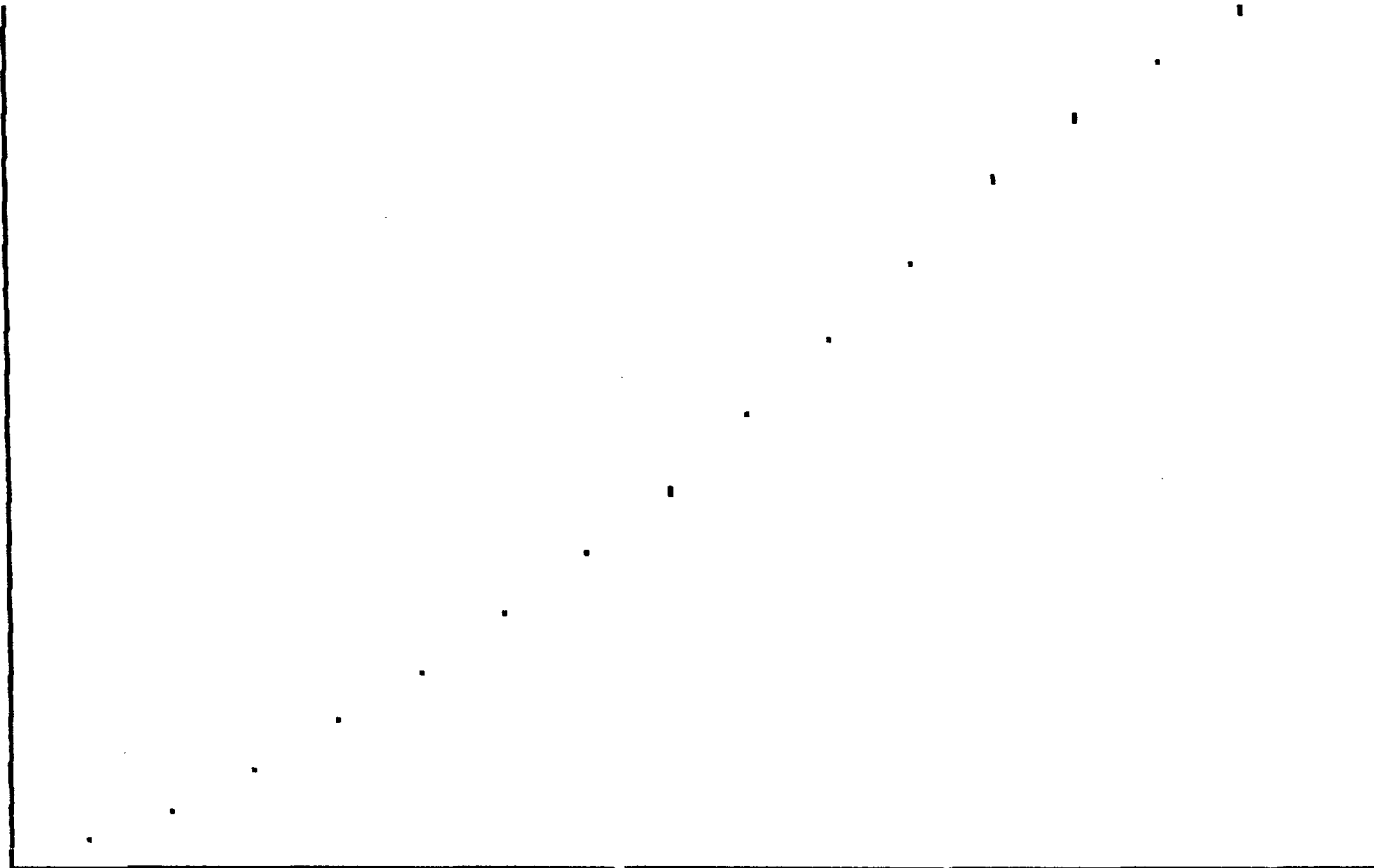
RATE - 0 BWPD PRESURE - 1547 PSIG

INCREMENTS:

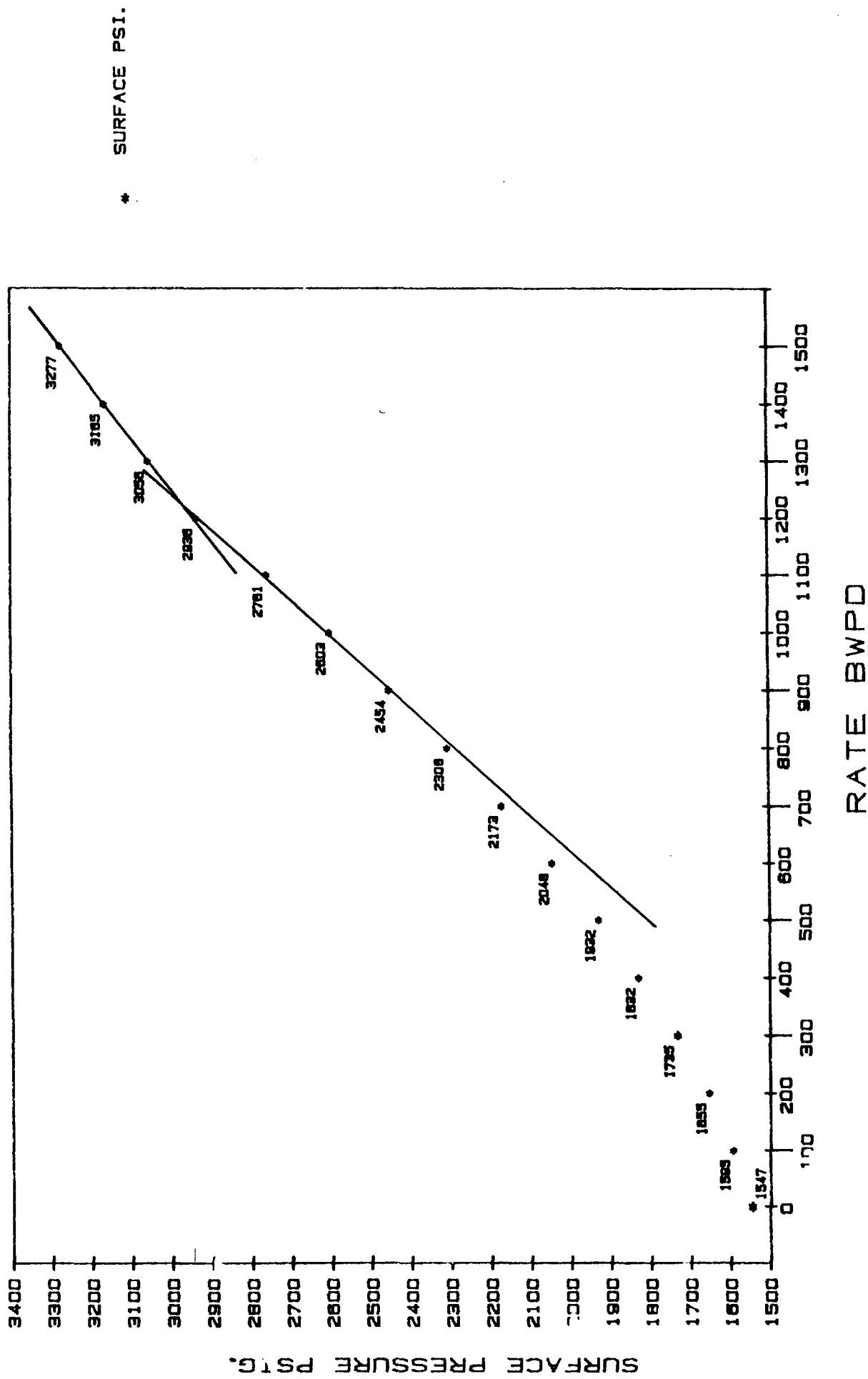
RATE - 100 BWPD STEP LENGTH - 15 MIN

TEST RESULTS

FORMATION PARTING POINT - 2993 PSIG @ 1243 BWPD
SURFACE STATIC PART. 2993 PSIG



NORTH VACUUM ABO UNIT NO. 205 STEP RATE TEST 11-22-86



STEP RATE TESTERS, INC.

915/366-3409

P. O. Box 6414

ODESSA, TEXAS 79762

No. _____

COMPANY Mobil DATE 11-22-86

ADDRESS _____

WELL # 205 LEASE North Vacuum ABO Unit

WELL FILE DATA:

T.D. _____ PACKERS @ _____ PERFS. _____

TBG. ID. _____ TBG. COATING _____ DEPTH SN. _____ BHP @ NA

STABILIZATION:

RATE _____ BWPD PRES. 1800 PSIG. CUMULATIVE _____ BBLS.

INCREMENTS:

RATE 100 BWPD PRES. _____ PSIG. STEP LENGTH 15 MINS.

TEST RESULTS:

FORMATION PARTING POINT _____ PSIG. @ _____ BWPD

					<i>Injectivity</i>
	RATE BWPD	PRESSURE SURFACE PSIG.		PRESSURE MINUS FRICTION PSIG.	PRESSURE BOTTOM HOLE PSIG.
1.	0	1547		<i>Index</i>	
2.	100	1595	48	2.083	
3.	200	1655	60	1.852	
4.	300	1735	80	1.596	
5.	400	1832	97	1.404	
6.	500	1932	100	1.299	
7.	600	2048	116	1.198	
8.	700	2173	125	1.118	
9.	800	2308	125	1.051	
10.	900	2454	146	.992	
11.	1000	2603	149	1.04	
12.	1100	2761	158	.906	
13.	1200	2936	165	.936	
14.	1300	3056	120	.86	
15.	1400	3165	109	.865	
16.	1500	3277	112	.867	
17.	1600				
18.	1700				
19.	1800				
20.	1900				

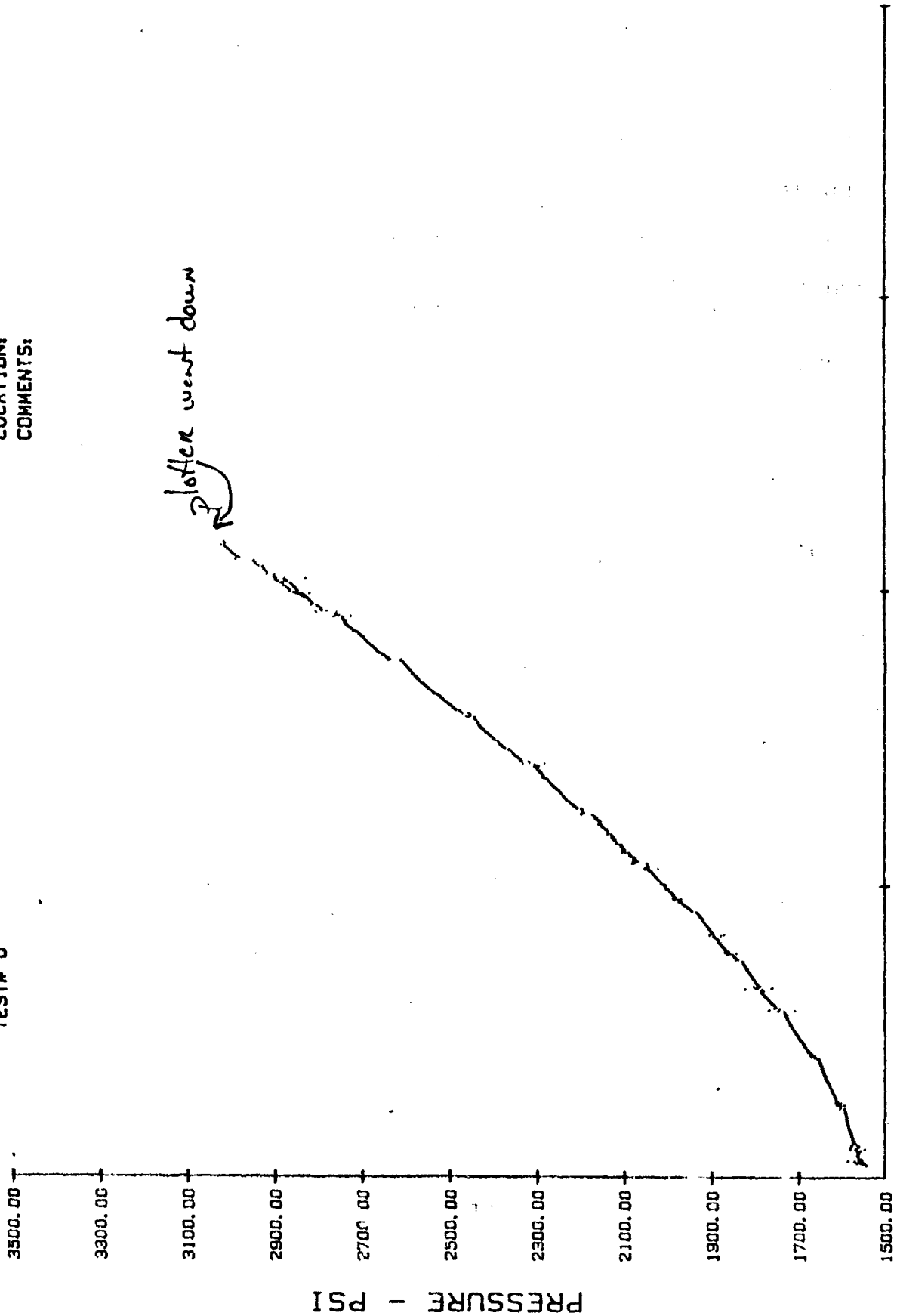
REMARKS _____

TESTER _____ COMPANY REP. _____

*** LINEAR PLOT ***

CLIENT: DBIL
WELL NAME: NVVA
TEST OPERATOR:
LOCATION:
COMMENTS:

START TIME: 12:16:13
GAUGE# 54219
WELL# 8205
TEST# 0





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

December 12, 1986

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 1580
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 & N.M. Inc.	North Vacuum Abo #155 & 205		
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

OK

Very truly yours

Jerry Sexton
Supervisor, District I

/bp