



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

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

March 3, 1989

Mobil Exploration & Production U.S., Inc.
P.O. Box 633
Midland, TX 79702

Attention: M.E. Sweeney

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

Dear Mr. Sweeney:

Reference is made to your request dated February 9, 1989, to increase the surface injection pressure on four wells within the North Vacuum Abo Unit Waterflood Project. This request is based on step rate tests conducted on these wells during January, 1989. 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.

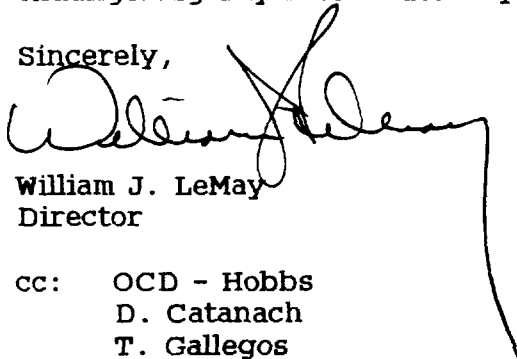
<u>WELL AND LOCATION</u>	<u>MAXIMUM INJECTION SURFACE PRESSURE</u>
NVAU Well No. 142 Unit J, Section 14, T-17 South, R-34 East, NMPM	3790 PSIG
NVAU Well No. 146 Unit B, Section 14, T-17 South, R-34 East, NMPM	3690 PSIG
NVAU Well No. 152 Unit B, Section 13, T-17 South, R-34 East, NMPM	3420 PSIG
NVAU Well No. 164 Unit B, Section 14, T-17 South, Range 34 East, NMPM	4030 PSIG

All in Lea County, New Mexico.

Injection Pressure Increase
Mobil Exploration and Producing, U.S., Inc.
March 3, 1989
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', is written over the typed name and extends downwards with a long vertical line.

William J. LeMay
Director

cc: OCD - Hobbs
D. Catanach
T. Gallegos
File: WFX-557, PMX-140

Mobil Exploration & Producing U.S. Inc.

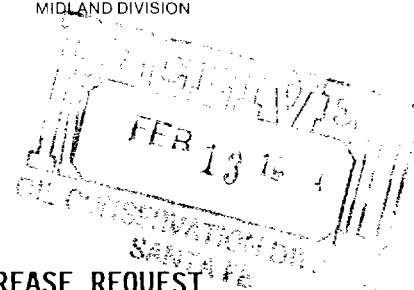
P.O. BOX 633
MIDLAND, TEXAS 79702

February 9, 1989

MIDLAND DIVISION

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

Attention: Mr. W. J. LeMay



INJECTION PRESSURE INCREASE REQUEST
NORTH VACUUM ABO FIELD
NORTH VACUUM ABO UNIT
WELL NO. 142, 146, 152 & 164
LEA COUNTY, NEW MEXICO

Gentlemen:

Under the provisions of 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 on 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. 142 Unit J, Sec. 14 T-17-S, R-34-E Order No. WFX-557	8532-8609'	3520 psig	3790 psig
Well No. 146 Unit B, Sec. 14 T-17-S, R-34-E Order No. PMX-140	8516-8613'	3420 psig	3690 psig
Well No. 152 Unit B, Sec. 13 T-17-S, R-34-E Order No. PMX-140	8535-8595'	2450 psig	3420 psig

State of New Mexico
North Vacuum Abo Unit

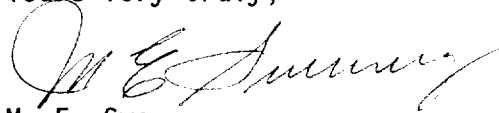
-2-

February 9, 1989

	<u>INJECTION INTERVALS</u>	<u>PRESENT SURFACE INJECTION PRESSURE LIMIT</u>	<u>REQUESTED SURFACE INJECTION PRESSURE LIMIT</u>
Well No. 164 Unit B, Sec. 14 T-17-S, R-34-E Order No. PMX-140	8676-8735'	3612 psig	4030 psig

Enclosed are copies of the Step-rate test.

Yours very truly,



M. E. Sweeney
Environmental & Regulatory Manager

Mobil Exploration & Producing U.S. Inc.
as Agent for
Mobil Producing Texas & New Mexico, Inc.

CCS/arr

Attachments

cc: District Director OCD - Hobbs

STEP RATE TEST

COMPANY: MOBIL EXPLORATION & PRODUCING U.S. INC.
 LEASE: NORTH VACUUM ABO UNIT
 WELL NO. 142
 LOCATION: J14-T17S-R34E
 TEST DATE: 1-31-89
 PERFORATIONS: 8532' - 8609'
 TOTAL DEPTH: 8700'
 PLUG BACK TD: 8664'
 PACKER SET AT: 8644'

TIME	SURFACE PRESSURE	RATE (BWPD)
06:50:24	63	0
06:51:24	62	0
06:52:24	62	0
06:53:24	62	0
06:54:24	62	0
06:55:24	62	0
06:56:24	62	0
06:57:24	62	0
06:58:24	62	0
06:59:24	62	0
07:00:24	62	0
07:01:24	62	0
07:02:24	62	0
07:03:24	62	0
07:04:24	63	0
07:05:24	63	0
07:06:24	63	0
07:07:24	63	0
07:08:24	63	0
07:09:24	62	0
07:10:24	62	0
07:11:24	62	0
07:12:24	62	0
07:13:24	502	0
07:14:24	3400	0
07:15:24	3398	0
07:16:24	3397	0
07:17:24	3396	0
07:18:24	3395	0
07:19:24	3395	0
07:20:24	3394	0
07:21:24	3404	0
07:22:24	3397	0
07:23:24	3401	0
07:24:24	3402	100
07:25:24	3403	100
07:26:24	3403	100

07:27:24	3404	100
07:28:24	3405	100
07:29:24	3406	100
07:30:24	3407	100
07:31:24	3408	100
07:32:24	3409	100
07:33:24	3409	100
07:34:24	3410	100
07:35:24	3411	100
07:36:24	3420	100
07:37:24	3421	100
07:38:24	3424	100
07:39:24	3427	200
07:40:24	3430	200
07:41:24	3432	200
07:42:24	3435	200
07:43:24	3436	200
07:44:24	3436	200
07:45:24	3438	200
07:46:24	3441	200
07:47:24	3444	200
07:48:24	3446	200
07:49:24	3447	200
07:50:24	3449	200
07:51:24	3456	200
07:52:24	3463	200
07:53:24	3468	200
07:54:24	3472	300
07:55:24	3476	300
07:56:24	3478	300
07:57:24	3482	300
07:58:24	3485	300
07:59:24	3488	300
08:00:24	3491	300
08:01:24	3494	300
08:02:24	3496	300
08:03:24	3499	300
08:04:24	3502	300
08:05:24	3504	300
08:06:24	3510	300
08:07:24	3521	300
08:08:24	3526	300
08:09:24	3530	400
08:10:24	3534	400
08:11:24	3538	400
08:12:24	3541	400
08:13:24	3544	400
08:14:24	3548	400
08:15:24	3551	400
08:16:24	3554	400
08:17:24	3558	400
08:18:24	3561	400
08:19:24	3564	400
08:20:24	3567	400
08:21:24	3570	400
08:22:24	3585	400

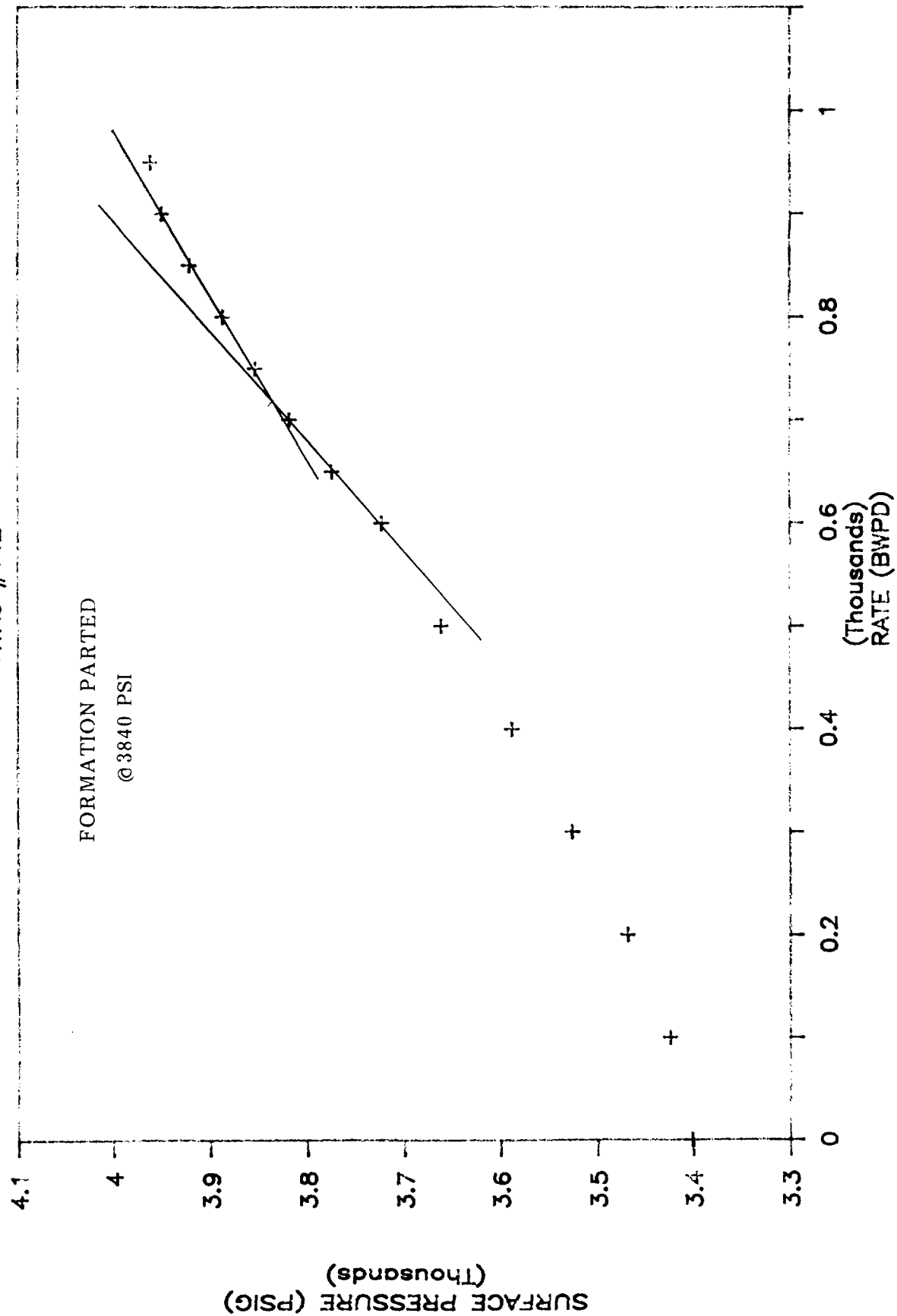
08:23:24	3588	400
08:24:24	3594	500
08:25:24	3597	500
08:26:24	3605	500
08:27:24	3607	500
08:28:24	3611	500
08:29:24	3614	500
08:30:24	3618	500
08:31:24	3624	500
08:32:24	3627	500
08:33:24	3631	500
08:34:24	3633	500
08:35:24	3637	500
08:36:24	3648	500
08:37:24	3657	500
08:38:24	3662	500
08:39:24	3666	600
08:40:24	3670	600
08:41:24	3674	600
08:42:24	3677	600
08:43:24	3681	600
08:44:24	3684	600
08:45:24	3688	600
08:46:24	3692	600
08:47:24	3695	600
08:48:24	3698	600
08:49:24	3702	600
08:50:24	3705	600
08:51:24	3713	600
08:52:24	3720	600
08:53:24	3724	600
08:54:24	3728	650
08:55:24	3731	650
08:56:24	3733	650
08:57:24	3736	650
08:58:24	3739	650
08:59:24	3742	650
09:00:24	3744	650
09:01:24	3747	650
09:02:24	3750	650
09:03:24	3752	650
09:04:24	3755	650
09:05:24	3757	650
09:06:24	3766	650
09:07:24	3772	650
09:08:24	3775	650
09:09:24	3779	700
09:10:24	3781	700
09:11:24	3783	700
09:12:24	3785	700
09:13:24	3788	700
09:14:24	3790	700
09:15:24	3792	700
09:16:24	3794	700
09:17:24	3796	700
09:18:24	3798	700

09:19:24	3800	700
09:20:24	3803	700
09:21:24	3816	700
09:22:24	3816	700
09:23:24	3819	700
09:24:24	3821	750
09:25:24	3823	750
09:26:24	3824	750
09:27:24	3827	750
09:28:24	3830	750
09:29:24	3831	750
09:30:24	3832	750
09:31:24	3834	750
09:32:24	3836	750
09:33:24	3838	750
09:34:24	3839	750
09:35:24	3840	750
09:36:24	3849	750
09:37:24	3853	750
09:38:24	3854	750
09:39:24	3856	800
09:40:24	3859	800
09:41:24	3860	800
09:42:24	3861	800
09:43:24	3863	800
09:44:24	3864	800
09:45:24	3865	800
09:46:24	3867	800
09:47:24	3868	800
09:48:24	3870	800
09:49:24	3871	800
09:50:24	3873	800
09:51:24	3885	800
09:52:24	3886	800
09:53:24	3887	800
09:54:24	3889	850
09:55:24	3891	850
09:56:24	3893	850
09:57:24	3894	850
09:58:24	3895	850
09:59:24	3896	850
10:00:24	3898	850
10:01:24	3904	850
10:02:24	3903	850
10:03:24	3904	850
10:04:24	3905	850
10:05:24	3907	850
10:06:24	3921	850
10:07:24	3919	850
10:08:24	3921	850
10:09:24	3922	900
10:10:24	3925	900
10:11:24	3926	900
10:12:24	3927	900
10:13:24	3928	900
10:14:24	3929	900

10:15:24	3930	900
10:16:24	3932	900
10:17:24	3932	900
10:18:24	3934	900
10:19:24	3935	900
10:20:24	3936	900
10:21:24	3949	900
10:22:24	3948	900
10:23:24	3950	900
10:24:24	3951	950
10:25:24	3952	950
10:26:24	3952	950
10:27:24	3955	950
10:28:24	3956	950
10:29:24	3956	950
10:30:24	3957	950
10:31:24	3958	950
10:32:24	3959	950
10:33:24	3959	950
10:34:24	3960	950
10:35:24	3961	SI
10:36:24	3950	SI
10:37:24	3858	SI
10:38:24	3858	SI
10:39:24	3856	SI
10:40:24	3852	SI
10:41:24	3849	SI

STEP RATE TEST

NVAU #142



STEP RATE TEST

COMPANY: MOBIL EXPLORATION & PRODUCING U.S. INC.
 LEASE: NORTH VACUUM ABO
 WELL NO. 146
 LOCATION: B14-T17S-R34E
 TEST DATE: 1-31-89
 PERFORATIONS: 8516' - 8613'
 TOTAL DEPTH: 8700'
 PLUG BACK TD: 8669'
 PACKER SET AT: 8462'

TIME	SURFACE PRESSURE	RATE (BWPD)

10:43:24	41	0
10:44:24	36	0
10:45:24	30	0
10:46:24	26	0
10:47:24	24	0
10:48:24	22	0
10:49:24	21	0
10:50:24	21	0
10:51:24	22	0
10:52:24	3102	0
10:53:24	3097	0
10:54:24	3097	0
10:55:24	3097	0
10:56:24	3096	0
10:57:24	3099	0
10:58:24	3105	0
10:59:24	3109	100
11:00:24	3113	100
11:01:24	3115	100
11:02:24	3117	100
11:03:24	3119	100
11:04:24	3121	100
11:05:24	3123	100
11:06:24	3125	100
11:07:24	3127	100
11:08:24	3129	100
11:09:24	3130	100
11:10:24	3132	100
11:11:24	3141	100
11:12:24	3149	100
11:13:24	3154	100
11:14:24	3161	200
11:15:24	3166	200
11:16:24	3170	200
11:17:24	3173	200

11:18:24	3178	200
11:19:24	3181	200
11:20:24	3185	200
11:21:24	3189	200
11:22:24	3193	200
11:23:24	3195	200
11:24:24	3199	200
11:25:24	3203	200
11:26:24	3205	200
11:27:24	3223	200
11:28:24	3231	200
11:29:24	3238	300
11:30:24	3245	300
11:31:24	3251	300
11:32:24	3257	300
11:33:24	3262	300
11:34:24	3267	300
11:35:24	3272	300
11:36:24	3277	300
11:37:24	3282	300
11:38:24	3286	300
11:39:24	3291	300
11:40:24	3296	300
11:41:24	3318	300
11:42:24	3323	300
11:43:24	3332	300
11:44:24	3339	400
11:45:24	3346	400
11:46:24	3353	400
11:47:24	3359	400
11:48:24	3366	400
11:49:24	3373	400
11:50:24	3380	400
11:51:24	3385	400
11:52:24	3391	400
11:53:24	3396	400
11:54:24	3401	400
11:55:24	3407	400
11:56:24	3413	400
11:57:24	3435	400
11:58:24	3444	400
11:59:24	3451	500
12:00:24	3459	500
12:01:24	3464	500
12:02:24	3471	500
12:03:24	3480	500
12:04:24	3487	500
12:05:24	3492	500
12:06:24	3498	500
12:07:24	3503	500
12:08:24	3509	500
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12:11:24	3523	500
12:12:24	3540	500
12:13:24	3547	500

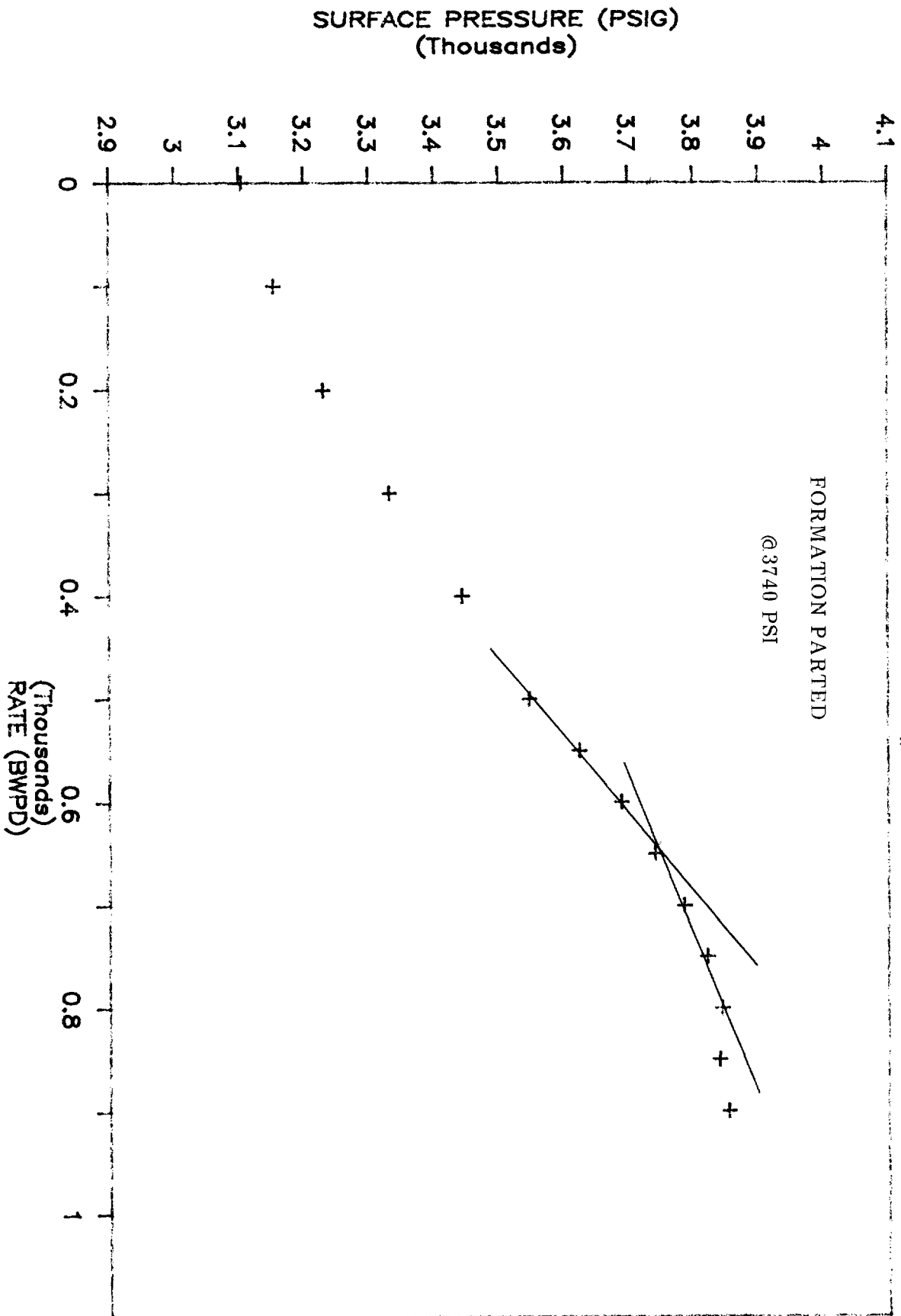
12:14:24	3553	550
12:15:24	3558	550
12:16:24	3562	550
12:17:24	3565	550
12:18:24	3569	550
12:19:24	3574	550
12:20:24	3578	550
12:21:24	3582	550
12:22:24	3586	550
12:23:24	3592	550
12:24:24	3596	550
12:25:24	3599	550
12:26:24	3620	550
12:27:24	3619	550
12:28:24	3624	550
12:29:24	3628	600
12:30:24	3631	600
12:31:24	3634	600
12:32:24	3638	600
12:33:24	3642	600
12:34:24	3644	600
12:35:24	3648	600
12:36:24	3651	600
12:37:24	3654	600
12:38:24	3657	600
12:39:24	3661	600
12:40:24	3664	600
12:41:24	3666	600
12:42:24	3684	600
12:43:24	3689	600
12:44:24	3691	650
12:45:24	3695	650
12:46:24	3698	650
12:47:24	3700	650
12:48:24	3703	650
12:49:24	3706	650
12:50:24	3708	650
12:51:24	3711	650
12:52:24	3713	650
12:53:24	3715	650
12:54:24	3718	650
12:55:24	3720	650
12:56:24	3737	650
12:57:24	3737	650
12:58:24	3740	650
12:59:24	3743	700
13:00:24	3745	700
13:01:24	3747	700
13:02:24	3748	700
13:03:24	3751	700
13:04:24	3753	700
13:05:24	3754	700
13:06:24	3757	700
13:07:24	3760	700
13:08:24	3760	700
13:09:24	3761	700

13:10:24	3763	700
13:11:24	3780	700
13:12:24	3783	700
13:13:24	3785	700
13:14:24	3787	750
13:15:24	3789	750
13:16:24	3790	750
13:17:24	3792	750
13:18:24	3793	750
13:19:24	3795	750
13:20:24	3796	750
13:21:24	3798	750
13:22:24	3799	750
13:23:24	3800	750
13:24:24	3802	750
13:25:24	3803	750
13:26:24	3805	750
13:27:24	3819	750
13:28:24	3821	750
13:29:24	3822	800
13:30:24	3824	800
13:31:24	3824	800
13:32:24	3826	800
13:33:24	3826	800
13:34:24	3827	800
13:35:24	3828	800
13:36:24	3829	800
13:37:24	3829	800
13:38:24	3829	800
13:39:24	3829	800
13:40:24	3829	800
13:41:24	3843	800
13:42:24	3844	850
13:43:24	3844	850
13:44:24	3844	850
13:45:24	3844	850
13:46:24	3843	850
13:47:24	3842	850
13:48:24	3842	850
13:49:24	3841	850
13:50:24	3841	850
13:51:24	3840	850
13:52:24	3840	850
13:53:24	3839	850
13:54:24	3839	850
13:55:24	3839	850
13:56:24	3839	850
13:57:24	3853	900
13:58:24	3853	900
13:59:24	3853	900
14:00:24	3853	900
14:01:24	3852	SI
14:02:24	3852	SI
14:03:24	3852	SI
14:04:24	3852	SI
14:05:24	3852	SI

14:06:24	3851	SI
14:07:24	3851	SI
14:08:24	3851	SI
14:09:24	3852	SI
14:10:24	3852	SI
14:11:24	3691	SI
14:12:24	3716	SI
14:13:24	3718	SI
14:14:24	3710	SI
14:15:24	3705	SI
14:16:24	3701	SI
14:17:24	130	SI
14:18:24	15	SI
14:19:24	13	SI
14:20:24	13	SI
14:21:24	13	SI
14:22:24	13	SI
14:23:24	13	SI
14:24:24	13	SI
14:25:24	13	SI
14:26:24	13	SI
14:27:24	13	SI
14:28:24	13	SI
14:29:24	13	SI
14:30:24	13	SI
14:31:24	13	SI
14:32:24	13	SI
14:33:24	13	SI
14:34:24	13	SI

STEP RATE TEST

NVAU #146



STEP RATE TEST -----

COMPANY: MOBIL EXPLORATION & PRODUCING U.S. INC.
LEASE: NORTH VACUUM ABO UNIT
WELL NO. 152
LOCATION: B13-T17S-R34E
TEST DATE: 01-26-89
PERFORATIONS: 8535' - 8595'
TOTAL DEPTH: 8700'
PLUG BACK TD: 8661'
PACKER SET AT: 8435'

TIME	SURFACE PRESSURE	RATE (BWPD)
09:05:19	10	0
09:06:19	9	0
09:07:19	9	0
09:08:19	9	0
09:09:19	10	0
09:10:19	10	0
09:11:19	10	0
09:12:19	10	0
09:13:19	9	0
09:14:19	9	0
09:15:19	9	0
09:16:19	9	0
09:17:19	10	0
09:18:19	9	0
09:19:19	10	0
09:20:19	10	0
09:21:19	10	0
09:22:19	10	0
09:23:19	10	0
09:24:19	10	0
09:25:19	10	0
09:26:19	10	0
09:27:19	10	0
09:28:19	10	0
09:29:19	26	0
09:30:19	2078	0
09:31:19	2081	0
09:32:19	2073	0
09:33:19	2062	0
09:34:19	2055	0
09:35:19	2052	0
09:36:19	2051	0
09:37:19	2047	0
09:38:19	2049	0

09:39:19	2053	100
09:40:19	2061	100
09:41:19	2069	100
09:42:19	2075	100
09:43:19	2077	100
09:44:19	2082	100
09:45:19	2086	100
09:46:19	2090	100
09:47:19	2093	100
09:48:19	2096	100
09:49:19	2098	100
09:50:19	2104	100
09:51:19	2109	100
09:52:19	2118	100
09:53:19	2126	100
09:54:19	2134	200
09:55:19	2140	200
09:56:19	2145	200
09:57:19	2150	200
09:58:19	2156	200
09:59:19	2159	200
10:00:19	2165	200
10:01:19	2168	200
10:02:19	2174	200
10:03:19	2176	200
10:04:19	2180	200
10:05:19	2183	200
10:06:19	2189	200
10:07:19	2205	200
10:08:19	2216	200
10:09:19	2226	300
10:10:19	2234	300
10:11:19	2240	300
10:12:19	2247	300
10:13:19	2254	300
10:14:19	2261	300
10:15:19	2267	300
10:16:19	2273	300
10:17:19	2279	300
10:18:19	2286	300
10:19:19	2288	300
10:20:19	2294	300
10:21:19	2307	300
10:22:19	2320	300
10:23:19	2331	300
10:24:19	2343	400
10:25:19	2353	400
10:26:19	2361	400
10:27:19	2370	400
10:28:19	2377	400
10:29:19	2385	400
10:30:19	2393	400
10:31:19	2399	400
10:32:19	2406	400
10:33:19	2414	400
10:34:19	2419	400

10:35:19	2426	400
10:36:19	2438	400
10:37:19	2456	400
10:38:19	2470	400
10:39:19	2484	500
10:40:19	2493	500
10:41:19	2502	500
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10:44:19	2528	500
10:45:19	2543	500
10:46:19	2552	500
10:47:19	2562	500
10:48:19	2570	500
10:49:19	2578	500
10:50:19	2590	500
10:51:19	2598	500
10:52:19	2616	500
10:53:19	2626	500
10:54:19	2636	550
10:55:19	2648	550
10:56:19	2666	550
10:57:19	2680	550
10:58:19	2682	550
10:59:19	2694	550
11:00:19	2694	550
11:01:19	2699	550
11:02:19	2711	550
11:03:19	2718	550
11:04:19	2724	550
11:05:19	2732	550
11:06:19	2746	550
11:07:19	2758	550
11:08:19	2768	550
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11:10:19	2787	600
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11:15:19	2828	600
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11:20:19	2869	600
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11:22:19	2887	600
11:23:19	2896	600
11:24:19	2906	650
11:25:19	2914	650
11:26:19	2923	650
11:27:19	2931	650
11:28:19	2938	650
11:29:19	2944	650
11:30:19	2963	650

11:31:19	2967	650
11:32:19	2972	650
11:33:19	2981	650
11:34:19	2995	650
11:35:19	2999	650
11:36:19	3009	650
11:37:19	3023	650
11:38:19	3033	650
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11:41:19	3058	700
11:42:19	3067	700
11:43:19	3082	700
11:44:19	3083	700
11:45:19	3091	700
11:46:19	3100	700
11:47:19	3107	700
11:48:19	3109	700
11:49:19	3118	700
11:50:19	3135	700
11:51:19	3142	700
11:52:19	3139	700
11:53:19	3135	700
11:54:19	3192	750
11:55:19	3191	750
11:56:19	3183	750
11:57:19	3186	750
11:58:19	3186	750
11:59:19	3196	750
12:00:19	3203	750
12:01:19	3207	750
12:02:19	3219	750
12:03:19	3225	750
12:04:19	3229	750
12:05:19	3240	750
12:06:19	3253	750
12:07:19	3264	750
12:08:19	3275	750
12:09:19	3282	800
12:10:19	3291	800
12:11:19	3299	800
12:12:19	3303	800
12:13:19	3310	800
12:14:19	3315	800
12:15:19	3326	800
12:16:19	3333	800
12:17:19	3336	800
12:18:19	3343	800
12:19:19	3348	800
12:20:19	3357	800
12:21:19	3366	800
12:22:19	3377	800
12:23:19	3386	800
12:24:19	3392	850
12:25:19	3402	850
12:26:19	3406	850

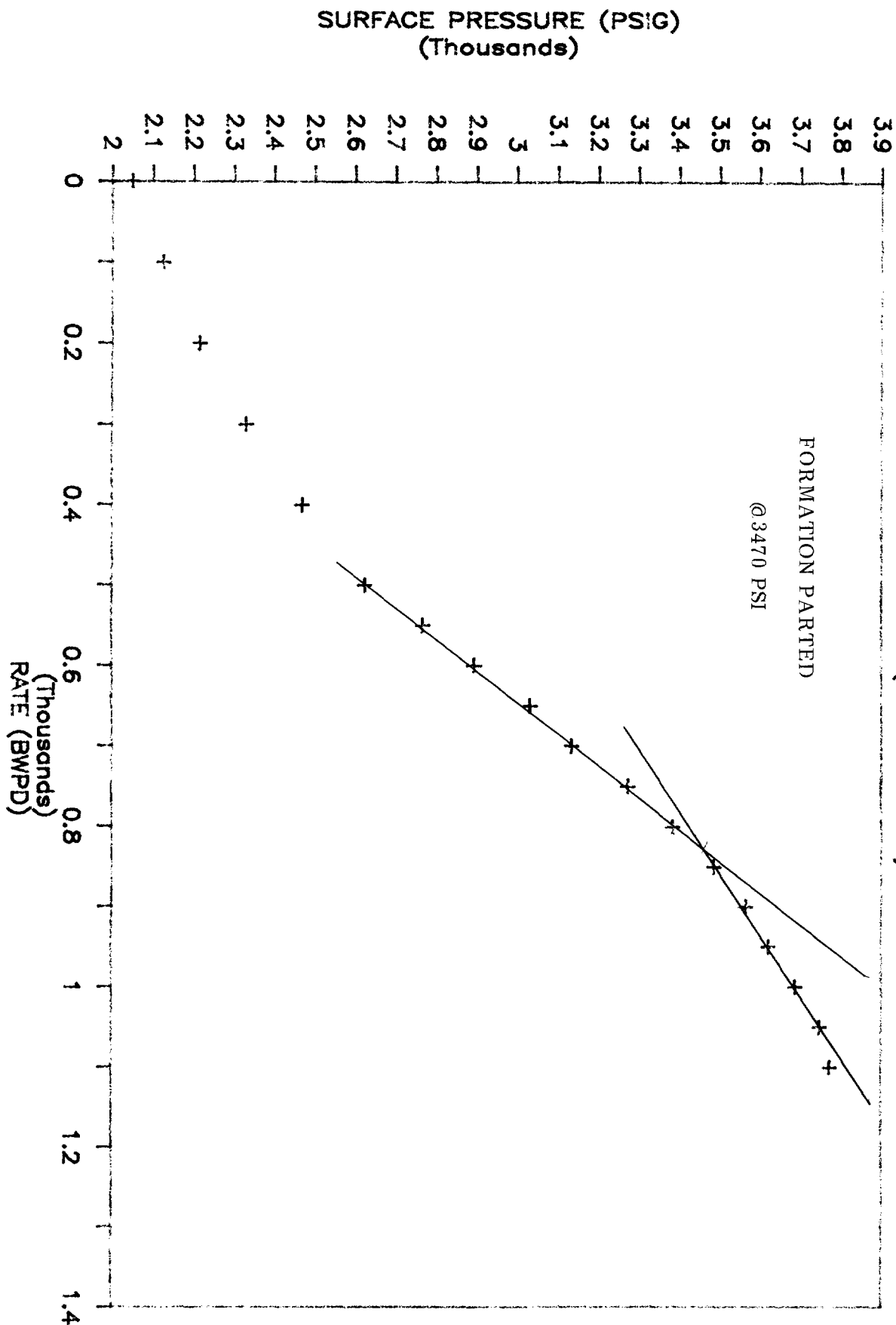
12:27:19	3408	850
12:28:19	3414	850
12:29:19	3419	850
12:30:19	3432	850
12:31:19	3434	850
12:32:19	3438	850
12:33:19	3446	850
12:34:19	3447	850
12:35:19	3454	850
12:36:19	3463	850
12:37:19	3479	850
12:38:19	3487	850
12:39:19	3492	900
12:40:19	3497	900
12:41:19	3501	900
12:42:19	3506	900
12:43:19	3512	900
12:44:19	3515	900
12:45:19	3520	900
12:46:19	3525	900
12:47:19	3527	900
12:48:19	3531	900
12:49:19	3539	900
12:50:19	3549	900
12:51:19	3557	900
12:52:19	3561	900
12:53:19	3566	900
12:54:19	3573	950
12:55:19	3575	950
12:56:19	3578	950
12:57:19	3580	950
12:58:19	3582	950
12:59:19	3585	950
13:00:19	3595	950
13:01:19	3596	950
13:02:19	3599	950
13:03:19	3600	950
13:04:19	3603	950
13:05:19	3612	950
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13:07:19	3620	950
13:08:19	3624	950
13:09:19	3628	1000
13:10:19	3631	1000
13:11:19	3639	1000
13:12:19	3639	1000
13:13:19	3641	1000
13:14:19	3648	1000
13:15:19	3651	1000
13:16:19	3655	1000
13:17:19	3659	1000
13:18:19	3660	1000
13:19:19	3660	1000
13:20:19	3667	1000
13:21:19	3674	1000
13:22:19	3686	1000

13:23:19	3688	1000
13:24:19	3693	1050
13:25:19	3697	1050
13:26:19	3700	1050
13:27:19	3702	1050
13:28:19	3704	1050
13:29:19	3708	1050
13:30:19	3712	1050
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13:35:19	3723	1050
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13:37:19	3739	1050
13:38:19	3747	1050
13:39:19	3749	1100
13:40:19	3756	1100
13:41:19	3759	1100
13:42:19	3758	1100
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13:44:19	3760	1100
13:45:19	3762	1100
13:46:19	3761	1100
13:47:19	3762	1100
13:48:19	3763	1100
13:49:19	3773	0
13:50:19	3773	0
13:51:19	3675	0
13:52:19	3632	0
13:53:19	3622	0
13:54:19	3611	0
13:55:19	3600	0
13:56:19	3590	0
13:57:19	104	0
13:58:19	65	0
13:59:19	54	0
14:00:19	48	0
14:01:19	41	0
14:02:19	36	0
14:03:19	36	0
14:04:19	37	0
14:05:19	37	0
14:06:19	37	0
14:07:19	38	0
14:08:19	38	0
14:09:19	38	0
14:10:19	38	0
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14:12:19	38	0
14:13:19	39	0
14:14:19	39	0
14:15:19	39	0
14:16:19	39	0
14:17:19	39	0
14:18:19	39	0

14:19:19	39	0
14:20:19	39	0
14:21:19	39	0
14:22:19	40	0
14:23:19	40	0
14:24:19	40	0
14:25:19	40	0
14:26:19	40	0
14:27:19	40	0
14:28:19	40	0
14:29:19	40	0
14:30:19	41	0
14:31:19	41	0
14:32:19	41	0
14:33:19	39	0
14:34:19	39	0

STEP RATE TEST

NVAU 152 (RUN 1-26-89)



STEP RATE TEST

COMPANY: MOBIL EXPLORATION & PRODUCING U.S. INC.
LEASE: NORTH VACUUM ABO UNIT
WELL NO. 164
LOCATION: B13-T17S-R34E
TEST DATE: 01-27-89
PERFORATIONS: 8676' - 8735'
TOTAL DEPTH: 8850'
PLUG BACK TD: 8802'
PACKER SET AT: 8627'

TIME	SURFACE PRESSURE	RATE (BWPD)
07:18 19	39	0
07:19 19	39	0
07:20 19	39	0
07:21 19	39	0
07:22 19	39	0
07:23 19	39	0
07:24 19	39	0
07:25 19	39	0
07:26 19	39	0
07:27 19	39	0
07:28 19	39	0
07:29 19	39	0
07:30 19	39	0
07:31 19	39	0
07:32 19	3571	0
07:33 19	3565	0
07:34 19	3559	0
07:35 19	3550	0
07:36 19	3550	0
07:37 19	3560	0
07:38 19	3567	0
07:39 19	3573	100
07:40 19	3577	100
07:41 19	3580	100
07:42 19	3584	100
07:43 19	3586	100
07:44 19	3588	100
07:45 19	3588	100
07:46 19	3589	100
07:47 19	3590	100
07:48 19	3589	100
07:49 19	3590	100

07:50:19	3595	100
07:51:19	3602	100
07:52:19	3611	100
07:53:19	3617	100
07:54:19	3622	200
07:55:19	3628	200
07:56:19	3631	200
07:57:19	3635	200
07:58:19	3639	200
07:59:19	3643	200
08:00:19	3646	200
08:01:19	3649	200
08:02:19	3654	200
08:03:19	3657	200
08:04:19	3661	200
08:05:19	3664	200
08:06:19	3678	200
08:07:19	3687	200
08:08:19	3694	200
08:09:19	3700	300
08:10:19	3705	300
08:11:19	3709	300
08:12:19	3716	300
08:13:19	3721	300
08:14:19	3726	300
08:15:19	3728	300
08:16:19	3734	300
08:17:19	3737	300
08:18:19	3741	300
08:19:19	3746	300
08:20:19	3750	300
08:21:19	3762	300
08:22:19	3778	300
08:23:19	3785	300
08:24:19	3791	400
08:25:19	3796	400
08:26:19	3801	400
08:27:19	3807	400
08:28:19	3811	400
08:29:19	3815	400
08:30:19	3820	400
08:31:19	3824	400
08:32:19	3829	400
08:33:19	3833	400
08:34:19	3836	400
08:35:19	3843	400
08:36:19	3846	400
08:37:19	3869	400
08:38:19	3878	400
08:39:19	3884	500
08:40:19	3890	500
08:41:19	3894	500
08:42:19	3900	500
08:43:19	3904	500
08:44:19	3907	500
08:45:19	3912	500

08:46:19	3916	500
08:47:19	3921	500
08:48:19	3927	500
08:49:19	3931	500
08:50:19	3935	500
08:51:19	3939	500
08:52:19	3955	500
08:53:19	3962	500
08:54:19	3967	550
08:55:19	3970	550
08:56:19	3974	550
08:57:19	3977	550
08:58:19	3980	550
08:59:19	3987	550
09:00:19	3991	550
09:01:19	3995	550
09:02:19	3997	550
09:03:19	4003	550
09:04:19	4005	550
09:05:19	4010	550
09:06:19	4015	550
09:07:19	4030	550
09:08:19	4036	550
09:09:19	4040	600
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09:12:19	4053	600
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09:14:19	4060	600
09:15:19	4061	600
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09:18:19	4072	600
09:19:19	4077	600
09:20:19	4082	600
09:21:19	4086	600
09:22:19	4091	600
09:23:19	4101	600
09:24:19	4106	650
09:25:19	4110	650
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09:33:19	4137	650
09:34:19	4143	650
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09:36:19	4147	650
09:37:19	4155	650
09:38:19	4158	650
09:39:19	4163	700
09:40:19	4169	700
09:41:19	4168	700

09:42:19	4169	700
09:43:19	4174	700
09:44:19	4175	700
09:45:19	4174	700
09:46:19	4178	700
09:47:19	4180	700
09:48:19	4181	700
09:49:19	4183	700
09:50:19	4185	SI
09:51:19	4186	SI
09:52:19	4129	SI
09:53:19	4125	SI
09:54:19	4119	SI
09:55:19	4113	SI
09:56:19	4107	SI
09:57:19	4102	SI
09:58:19	4092	SI
09:59:19	57	SI
10:00:19	41	SI
10:01:19	35	SI
10:02:19	30	SI
10:03:19	26	SI
10:04:19	26	SI
10:05:19	26	SI
10:06:19	26	SI
10:07:19	27	SI

STEP RATE TEST

NVAU 164 (RUN 1-27-89)

