



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

January 12, 1990

Mobil Producing Texas & New Mexico, 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 December 1, 1989, to increase the surface injection pressure on seven wells within the North Vacuum Abo Unit Pressure Maintenance Project. This request is based on step rate tests conducted on these wells on during November, 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. 112 Unit D, Section 25	4051 PSIG
NVAU Well No. 121 Unit L, Section 13	3851 PSIG
NVAU Well No. 129 Unit B, Section 23	4370 PSIG
NVAU Well No. 139 Unit L, Section 14	3750 PSIG

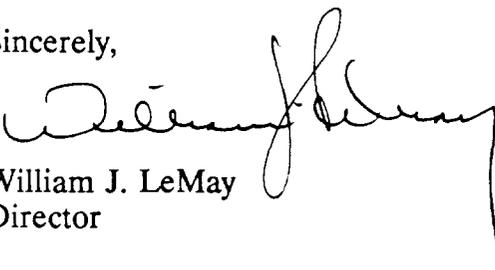
Injection Pressure Increase
Mobil Producing Texas and New Mexico, Inc.
January 12, 1990
Page 2

NVAU Well No. 143 Unit B, Section 27	4050 PSIG
NVAU Well No. 146 Unit B, Section 14	3850 PSIG
NVAU Well No. 149 Unit J, Section 27	3900 PSIG

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

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

cc: Oil Conservation Division - Hobbs
File: PMX-138
PMX-140
WFX-557

T. Gallegos
D. Catanach

Mobil Exploration & Producing U.S. Inc.

April 4, 1990

P.O. BOX 633
MIDLAND, TEXAS 79702

MIDLAND DIVISION

State of New Mexico
Oil Conservation Division
310 Old Santa Fe Trail, Rm. 206
Santa Fe, New Mexico 87503

Attention: Mr. W. J. LeMay

INJECTION PRESSURE INCREASE REQUEST
NORTH VACUUM ABO FIELD
NORTH VACUUM ABO UNIT
WELL NO'S. #152
LEA COUNTY, NEW MEXICO

Gentlemen:

Under the provisions of 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. 152 UNIT B, SEC. 13 T-17-S, R-34-E Order No. PMX-140	8535-8595'	3420 psig	3960 psig

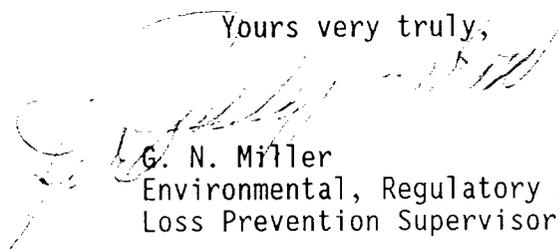
State of New Mexico
North Vacuum Abo Unit
Wells No. 152
Lea County , New Mexico

-2-

April 4, 1990

Enclosed are copies of the Step-rate test.

Yours very truly,



G. N. Miller
Environmental, Regulatory and
Loss Prevention Supervisor

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

JWDixon
Attachments
cc: District Director OCD - Hobbs

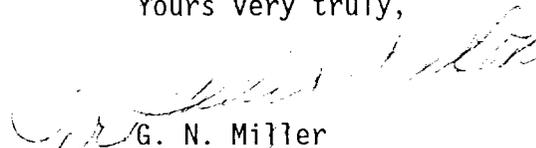
State of New Mexico
North Vacuum Abo Unit
Wells No. 152
Lea County , New Mexico

-3-

April 4, 1990

Enclosed are copies of the Step-rate test.

Yours very truly,



G. N. Miller
Environmental, Regulatory and
Loss Prevention Supervisor

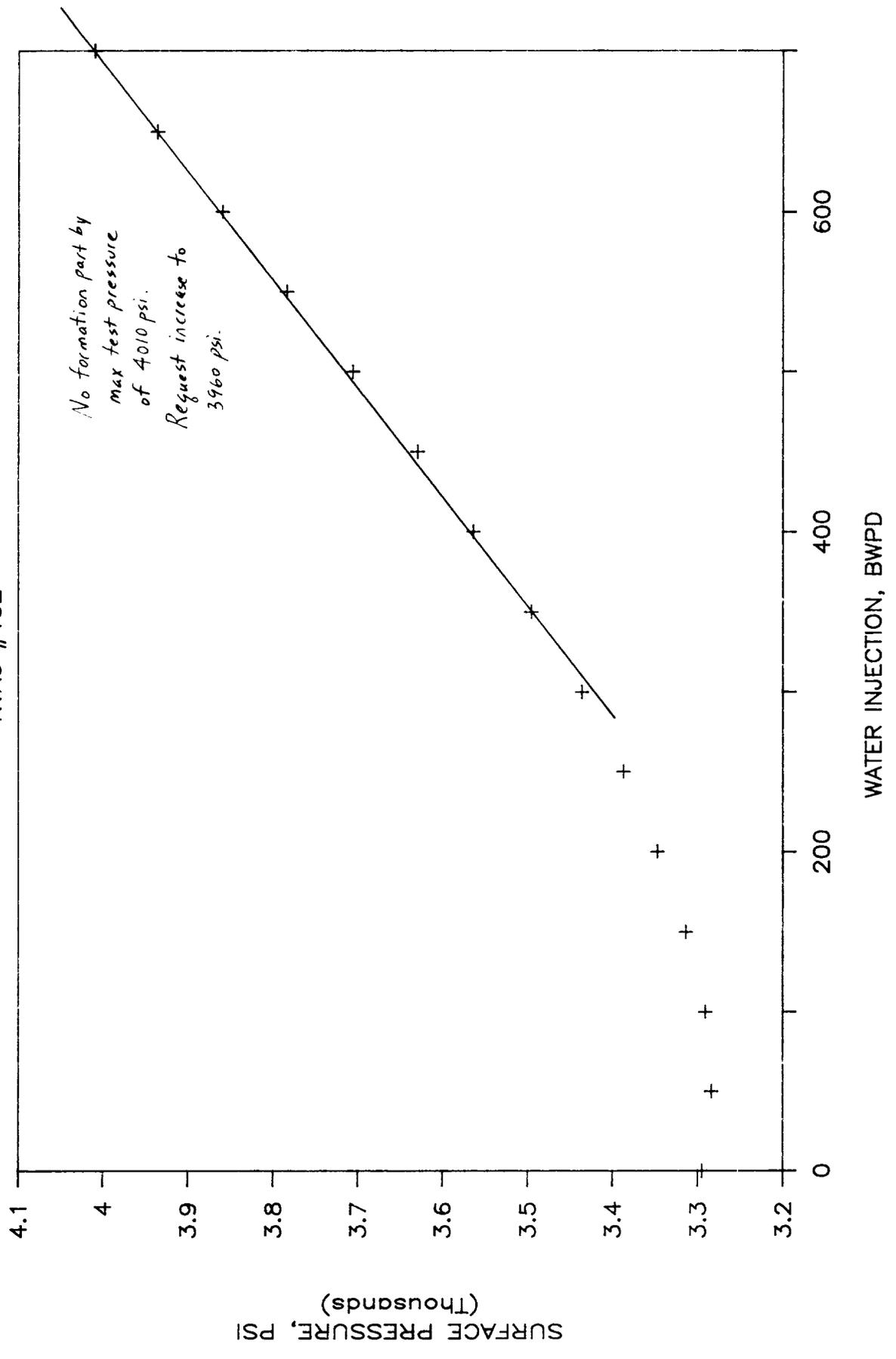
Mobil Exploration & Producing U.S. Inc.
as Agent for
Mobil Producing Texas & New Mexico, Inc.

JWDixon
Attachments
cc: District Director OCD - Hobbs

bcc: Central Files
Regulatory Files
Proration Acct.
Reservoir Engr. Mgr.
Oper. Supv. - E. R. Hanson

MOBIL STEP-RATE TEST

NVAU #152



COMPANY: Mobil Exploration & Production Co. S.
 WELL NAME: NVAJ #132
 LEASE: North Vacuum Abo Ur
 LOCATION: Lee County, New Mexico
 Unit A, Sec 13, T17N, R30W
 TEST DATE: March 7, 1990

STEP-RATE TEST DATA

SAMPLE POINT NUMBER	SAMPLE TIME	SUBMIT PRESSURE
30	7 : 14 : 22	3170
31	7 : 15 : 22	3170
32	7 : 16 : 27	3170
33	7 : 17 : 22	3170
34	7 : 18 : 22	3170
35	7 : 19 : 22	3170
36	7 : 20 : 22	3170
37	7 : 21 : 22	3170
38	7 : 22 : 22	3170
39	7 : 23 : 22	3170
40	7 : 24 : 22	3170
41	7 : 25 : 22	3170
42	7 : 26 : 22	3170
43	7 : 27 : 27	3170
44	7 : 28 : 22	3170
45	7 : 29 : 22	3170
46	7 : 30 : 22	3170
47	7 : 31 : 22	3170
48	7 : 32 : 22	3170
49	7 : 33 : 22	3170
50	7 : 34 : 22	3170
51	7 : 35 : 22	3170
52	7 : 36 : 22	3170
53	7 : 37 : 22	3170
54	7 : 38 : 22	3170
55	7 : 39 : 22	3170
56	7 : 40 : 22	3170
57	7 : 41 : 22	3170
58	7 : 42 : 22	3170
59	7 : 43 : 22	3170
60	7 : 44 : 27	3170
61	7 : 45 : 22	3170
62	7 : 46 : 22	3170
63	7 : 47 : 22	3170
64	7 : 48 : 27	3170
65	7 : 49 : 22	3170
66	7 : 50 : 27	3170
67	7 : 51 : 22	3170
68	7 : 52 : 22	3170

STEP-RATE TEST DATA

SAMPLE POINT NUMBER	SAMPLE TIME	TURBINE PRESSURE
69	7 : 53 : 22	3300
70	7 : 54 : 22	3300
71	7 : 55 : 22	3300
72	7 : 56 : 22	3300
73	7 : 57 : 22	3300
74	7 : 58 : 22	3300
75	7 : 59 : 22	3300
76	8 : 0 : 21	3300
77	8 : 1 : 22	3300
78	8 : 2 : 22	3300
79	8 : 3 : 22	3300
80	8 : 4 : 22	3300
81	8 : 5 : 22	3300
82	8 : 6 : 22	3300
83	8 : 7 : 22	3300
84	8 : 8 : 22	3300
85	8 : 9 : 22	3300
86	8 : 10 : 22	3300
87	8 : 11 : 22	3300
88	8 : 12 : 22	3300
89	8 : 13 : 22	3300
90	8 : 14 : 22	3300
91	8 : 15 : 22	3300
92	8 : 16 : 22	3300
93	8 : 17 : 22	3300
94	8 : 18 : 22	3300
95	8 : 19 : 22	3300
96	8 : 20 : 22	3300
97	8 : 21 : 22	3300
98	8 : 22 : 22	3300
99	8 : 23 : 22	3300
100	8 : 24 : 22	3300
101	8 : 25 : 22	3300
102	8 : 26 : 22	3300
103	8 : 27 : 22	3300
104	8 : 28 : 22	3300
105	8 : 29 : 22	3300
106	8 : 30 : 22	3300
107	8 : 31 : 22	3300
108	8 : 32 : 22	3300
109	8 : 33 : 22	3300
110	8 : 34 : 22	3300
111	8 : 35 : 22	3300
112	8 : 36 : 22	3300
113	8 : 37 : 22	3300
114	8 : 38 : 22	3300
115	8 : 39 : 22	3300
116	8 : 40 : 22	3300
117	8 : 41 : 22	3300
118	8 : 42 : 22	3300
119	8 : 43 : 22	3300
120	8 : 44 : 22	3300

STEP-RATE TEST DATA

SAMPLE POINT NUMBER	SAMPLE TIME	TURBIDITY PRESSURE
121	0 : 45 : 22	343.1
122	0 : 46 : 22	343.7
123	0 : 47 : 22	343.1
124	0 : 48 : 22	343.7
125	0 : 49 : 22	343.6
126	0 : 50 : 22	343.9
127	0 : 51 : 22	344.1
128	0 : 52 : 22	343.1
129	0 : 53 : 22	343.7
130	0 : 54 : 22	343.7
131	0 : 55 : 22	343.6
132	0 : 56 : 22	343.7
133	0 : 57 : 22	343.7
134	0 : 58 : 22	343.3
135	0 : 59 : 22	343.6
136	0 : 0 : 27	343.1
137	0 : 1 : 22	343.3
138	0 : 2 : 22	343.3
139	0 : 3 : 22	343.1
140	0 : 4 : 22	343.1
141	0 : 5 : 22	343.7
142	0 : 6 : 22	343.1
143	0 : 7 : 22	343.7
144	0 : 8 : 22	343.9
145	0 : 9 : 22	343.6
146	0 : 10 : 22	343.9
147	0 : 11 : 22	343.6
148	0 : 12 : 22	343.6
149	0 : 13 : 22	343.6
150	0 : 14 : 22	343.4
151	0 : 15 : 22	343.7
152	0 : 16 : 22	343.6
153	0 : 17 : 22	343.6
154	0 : 18 : 22	343.6
155	0 : 19 : 22	343.1
156	0 : 20 : 22	343.7
157	0 : 21 : 22	343.1
158	0 : 22 : 22	343.1
159	0 : 23 : 22	343.9
160	0 : 24 : 22	343.1
161	0 : 25 : 22	343.6
162	0 : 26 : 22	343.7
163	0 : 27 : 22	343.1
164	0 : 28 : 22	343.1
165	0 : 29 : 22	343.1
166	0 : 30 : 22	343.6
167	0 : 31 : 22	343.9
168	0 : 32 : 22	343.1
169	0 : 33 : 22	343.7
170	0 : 34 : 22	343.1
171	0 : 35 : 22	343.1
172	0 : 36 : 22	343.1

STEP-RATE TEST DATA

SAMPLE POINT NUMBER	SAMPLE TIME	UBIUB. PRESSURE
173	9 : 37 : 22	3610
174	9 : 38 : 22	3610
175	9 : 39 : 22	3620
176	9 : 40 : 22	3620
177	9 : 41 : 22	3610
178	9 : 42 : 22	3610
179	9 : 43 : 22	3620
180	9 : 44 : 22	3620
181	9 : 45 : 22	3610
182	9 : 46 : 22	3620
183	9 : 47 : 17	3610
184	9 : 48 : 22	3610
185	9 : 49 : 22	3620
186	9 : 50 : 22	3610
187	9 : 51 : 22	3630
188	9 : 52 : 22	3630
189	9 : 53 : 22	3630
190	9 : 54 : 22	3630
191	9 : 55 : 22	3610
192	9 : 56 : 22	3630
193	9 : 57 : 22	3630
194	9 : 58 : 22	3610
195	9 : 59 : 22	3610
196	10 : 0 : 22	3680
197	10 : 1 : 22	3680
198	10 : 2 : 22	3694
199	10 : 3 : 22	3690
200	10 : 4 : 22	3700
201	10 : 5 : 22	3700
202	10 : 6 : 22	3700
203	10 : 7 : 22	3700
204	10 : 8 : 22	3700
205	10 : 9 : 22	3700
206	10 : 10 : 22	3700
207	10 : 11 : 22	3700
208	10 : 12 : 22	3700
209	10 : 13 : 22	3700
210	10 : 14 : 22	3700
211	10 : 15 : 22	3700
212	10 : 16 : 22	3700
213	10 : 17 : 22	3700
214	10 : 18 : 22	3700
215	10 : 19 : 22	3700
216	10 : 20 : 22	3700
217	10 : 21 : 22	3700
218	10 : 22 : 22	3700
219	10 : 23 : 22	3800
220	10 : 24 : 22	3800
221	10 : 25 : 22	3800
222	10 : 26 : 22	3800
223	10 : 27 : 17	3800
224	10 : 28 : 17	3800

AYER-RATE TEST DATA

SAMPLE POINT NUMBER	SAMPLE TIME	TUBING FREQUENCY
225	10 : 29 : 30	3650
226	10 : 30 : 22	3740
227	10 : 31 : 22	3830
228	10 : 32 : 22	3870
229	10 : 33 : 22	3900
230	10 : 34 : 22	3930
231	10 : 35 : 22	3960
232	10 : 36 : 22	3970
233	10 : 37 : 22	3980
234	10 : 38 : 22	3990
235	10 : 39 : 22	3990
236	10 : 40 : 22	3990
237	10 : 41 : 22	3990
238	10 : 42 : 22	3990
239	10 : 43 : 22	3990
240	10 : 44 : 22	3990
241	10 : 45 : 22	3990
242	10 : 46 : 22	3990
243	10 : 47 : 22	3990
244	10 : 48 : 22	3990
245	10 : 49 : 22	3990
246	10 : 50 : 22	3990
247	10 : 51 : 22	3990
248	10 : 52 : 22	3990
249	10 : 53 : 22	3990
250	10 : 54 : 22	3990
251	10 : 55 : 22	3990
252	10 : 56 : 22	3990
253	10 : 57 : 22	3990
254	10 : 58 : 22	3990
255	10 : 59 : 22	3990
256	11 : 0 : 22	3990
257	11 : 1 : 22	3990
258	11 : 2 : 22	4000
259	11 : 3 : 22	4000
260	11 : 4 : 22	4000
261	11 : 5 : 22	3990
262	11 : 6 : 22	3990
263	11 : 7 : 22	3990
264	11 : 8 : 22	3990
265	11 : 9 : 22	3990
266	11 : 10 : 22	3990
267	11 : 11 : 22	3990
268	11 : 12 : 22	3990
269	11 : 13 : 22	3990
270	11 : 14 : 22	3990
271	11 : 15 : 22	3990
272	11 : 16 : 22	3990



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

April 12, 1990

GARREY CARRUTHERS
 GOVERNOR

APR 13 1990

10:50 AM

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 Prod 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:

OK

Very truly yours

Jerry Sexton
 Supervisor, District I

/bp

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

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2086
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

April 26, 1990

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

Attention: G.N. Miller

*RE: Injection Pressure Increase
North Vacuum Abo Unit Well No. 152
Lea County, New Mexico*

Dear Mr. Miller:

Reference is made to your request dated April 4, 1990, to increase the surface injection pressure on the North Vacuum Abo Unit Well No. 152. This request is based on a step rate test conducted on the well on March 7, 1990. 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.

WELL AND LOCATION

MAXIMUM INJECTION
SURFACE PRESSURE

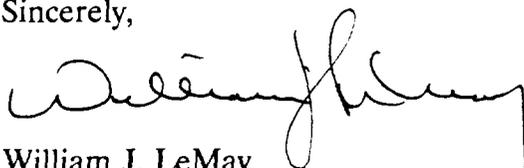
NVAU Well No. 152
Unit B, Section 13, T-17 South,
Range 34 East, NMPM, Lea County,
New Mexico.

3960 PSIG

Injection Pressure Increase
Mobil Exploration & Producing U.S., Inc.
April 26, 1990
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 written in a cursive style with a long horizontal stroke extending to the right.

William J. LeMay
Director

cc: Oil Conservation Division - Hobbs
File: PMX-140
T. Gallegos
D. Catanach

NO WAITING PERIOD

COMPANY: Abil Ex. Production & Producing Co. Inc.
ADDRESS: P.O. Box 633
CITY, STATE, ZIP: Mitchell, Texas 79702
ATTENTION: G. H. Miller

Re: Injection Pressure Increase
Abil Ex. Production & Producing Co. Inc.
Well No. 150
Rea County, New Mexico

Dear Sir:

Reference is made to your request dated April 4 1980, to increase the surface injection pressure on Abil Ex. Production & Producing Co. Inc. Well No. 150. This request is based on a step rate test conducted on the well on March 7, 1980. 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 & Location</u>	<u>Maximum Injection Surface Pressure</u>
<u>Abil Ex. Well No. 150</u> <u>Abil Ex. Section 13, T-10N, R-10E, 1000</u> <u>Rea County, New Mexico</u>	<u>3960 PSIG</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: T. GALLEGOS
D. CATANACH
FILE- AMX-140
OCD- abk