



May 28, 1987

State of New Mexico
Department of Energy and Minerals
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Attn: R. L. Staments
Director

Re: Injection Pressure Increase
Teas Yates Unit
Well No's. 1-2, 2-1, 5-3,
8-4, 10-3 & 13-2,
Lea County, New Mexico

Dear Sir:

Anadarko Petroleum Corporation, as operator of the Teas Yates Unit Waterflood in Lea County, New Mexico, requests administrative approval to increase the surface injection pressure limitation from 1567 psig to 1610 psig. The current surface pressure limitation of 1567 psig is as authorized by letter amendment to Case No. 7677 (Order No. R-7084) effective October 20, 1987.

Enclosed please find two copies of a step rate test conducted May 14, 1987 on the Teas Yates Unit No. 1-2. The surface pressure readings indicate a fracture pressure of 1660 psig at a rate of 284 BWIPD. The request for a surface injection pressure limitation of 1610 psig is based on the 1660 psig fracture pressure less a safety factor of approximately 50 psig.

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Further testing will be periodically conducted on the Teas Yates Unit in order to substantiate future increased pressure requests as such increases become necessary. Additional test data will be supplied to the Commission along with each future request.

Sincerely,

A handwritten signature in black ink, appearing to read "Tommy W. Thompson". The signature is cursive and somewhat stylized, with a large initial "T" and "W".

Tommy W. Thompson
Senior Production Engineer

TWT/jma

enclosures

cc John English
Well File (6)

STEP RATE TEST
TEAS YATES 1-2
MAY 14, 1987

<u>TIME</u>	<u>SURFACE INJECTION PRESSURE (PSIG)</u>	<u>INJECTION RATE (BWPD)</u>
8:40	1515	56
8:45	1524	62
8:50	1530	59
8:55	1534	55
9:00	1540	51
9:05	1540	49
9:10	1542	45
1st Setting Average Pressure =		Rate =
	1532	53.9
9:10	1552	108
9:15	1555	102
9:20	1558	92
9:25	1565	90
9:30	1567	104
9:35	1567	101
9:40	1570	109
2ND Setting Average Pressure =		Rate =
	1562	100.9
9:40	1580	152
9:45	1585	161
9:50	1588	145
9:55	1590	148
10:00	1591	146
10:05	1594	154
10:10	1598	139
3rd Setting Average Pressure =		Rate =
	1589	149.3
10:10	1605	202
10:15	1609	209
10:20	1610	194
10:25	1612	192
10:30	1614	189
10:35	1618	189
10:40	1621	188
4th Setting Average Pressure =		Rate =
	1613	194.8

<u>TIME</u>	<u>SURFACE INJECTION PRESSURE (PSIG)</u>	<u>INJECTION RATE (BHPD)</u>
10:40	1627	252
10:45	1630	246
10:50	1632	246
10:55	1638	254
11:00	1639	247
11:05	1642	239
11:10	1643	241
5th Setting Average Pressure =	1636	246.5
11:10	1650	356
11:15	1655	353
11:20	1660	341
11:25	1663	343
11:30	1667	344
11:35	1670	338
11:40	1670	344
6th Setting Average Pressure =	1662	Rate = 345.6
11:40	1675	450
11:45	1677	459
11:50	1680	441
11:55	1682	438
12:00	1685	453
12:05	1686	468
12:10	1688	437
7th Setting Average Pressure =	1682	Rate = 449.5
12:10	1700	584
12:15	1702	578
12:20	1705	563
12:25	1705	565
12:30	1706	591
12:35	1700	587
12:40	1700	577
8th Setting Average Pressure =	1703	Rate = 577.9
12:40	1720	880
12:45	1720	878
12:50	1720	883
12:55	1724	892
1:00	1718	871
1:05	1716	868
1:10	1720	877
9th Setting Average Pressure =	1720	Rate = 878.5

