



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

WFX-503
PDEV0020600503



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

August 20, 1993

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

Texaco Exploration and Production Company
P.O. Box 730
Hobbs, NM 88241

Attention: T.L. Frazier

**RE: Injection Pressure Increase, West
Vacuum Unit Well No. 55, Lea
County, New Mexico**

Dear Mr. Fraizer:

Reference is made to your request dated August 8, 1993 to increase the surface injection pressure on your West Vacuum Unit Well No. 55. This request is based on a step rate test conducted on this well on July 19, 1993. The results of the test have been reviewed by my staff and we feel an increase in injection pressure on this well 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
West Vacuum Unit Well No. 55 170' FNL - 110' FEL Unit M, Section 3, Township 18 South, Range 34 East	1350 PSIG
This well located in 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

WJL/BES/amg

cc: Oil Conservation Division - Hobbs
File: WFX-503

NO WAITING PERIOD

COMPANY: **TEXACO EXPLORATION & PRODUCTION, INC.**
ADDRESS: **P.O. Box 730**
CITY, STATE, ZIP: **Hobbs, New Mexico 88241**
ATTENTION: **Mr. T.L. Frazier**

Re: **Injection Pressure Increase**
West Vacuum Unit Well No.55
Lea County, New Mexico

Dear Sir:

Reference is made to your request dated **August 8, 1993**, to increase the surface injection pressure on your **West Vacuum Unit Well No.55**. This request is based on a step rate test conducted on this well **July 19, 1993**. The results of the tests have been reviewed by my staff and we feel an increase in injection pressure on this well is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following:

<u>Well & Location</u>	<u>Maximum Injection Surface Pressure</u>
West Vacuum Unit Well No.55 170' FNL & 110' FEL Unit M, Section 3, T18S, R34E	1350 psig

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.

William J. LeMay
Director

WJL/BES

xc: **OCD - Hobbs**
FILE- WFX-503



Texaco E & P

PO Box 730
Hobbs NM 88241-0730
505 393 7191

N/R
OIL CONSERVATION DIVISION
RECEIVED
'93 AUG 5 AM 9 53

August 8, 1993

Mr. David R. Catanach
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
State Land Office Building
310 Old Santa Fe Trail
P.O. Box 2088
Sante Fe, New Mexico 87504

SUBJECT: REQUEST FOR INCREASED SURFACE INJECTION PRESSURE ON
THE SELECTED WELL IN THE WEST VACUUM UNIT
LEA COUNTY, NEW MEXICO

Mr. David Catanach:

Texaco request that the surface injection pressure limit be increased for the selected well on the attached list. The requested increase is based on a step rate test which is attached for your review.

The increase in surface injection pressure is necessary to maintain adequate injection rate, thus ensuring the optimum performance of the waterflood.

Should you have any questions or require additional information, please contact Todd Lackey at (505) 393-7191.

Yours very truly,

T. L. Frazier/RSP

T. L. Frazier
Hobbs Area Manager

WTL

cc: Mr. Jerry Sexton
Oil Conservation Division
P.O. Box 1980
Hobbs, NM 88240

West Vacuum Unit
Texaco Exploration and Production Inc.
Lea County, New Mexico

<u>Well</u>	<u>Present Allow Inj Press (PSIG)</u>	<u>Observed Surface Parting Press (PSIG)</u>	<u>Requested Allow Inj Press (PSIG)</u>
WVU Well #55	904	1400	1350

WFX-507

170' N 110'E
M 3-18-34

JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION & PRODUCTION

DATE: JULY 19, 1989

WELL NAME: WEST VACUUM UNIT NO. 55
Lea County, New Mexico

WO#: 93-14-1283

MID-PERFS. = 4522 - 4660

PACKER DEPTH = 4462

MDR = 4489

BHP GAUGE DEPTH = 4465

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (ps)	(5) CORRECTED TUBING PRESS. (ps) (1)-(4)	(6) INJECTION RATE (gpm) (8)/34.2867	(7) MEASURED BHP (ps)
CASING	9:35	28.3				28.3		2074
PRESS	9:40	292.3	2.0	576.0	13.894	278.4	16.80	2324
0	9:45	363.6	4.0	576.0	13.894	349.7	16.80	2396
PSI	9:50	424.7	5.9	547.2	12.636	412.1	15.96	2461
	9:55	466.6	7.8	547.2	12.636	454.0	15.96	2506
	10:00	509.4	9.8	576.0	13.894	495.5	16.80	2553
1	10:05	550.0	11.7	547.2	12.636	537.4	15.96	2592
				561.6				
CASING	10:10	745.1	14.7	864.0	29.417	715.7	25.20	2762
PRESS	10:15	813.7	17.7	864.0	29.417	784.3	25.20	2838
0	10:20	869.8	20.7	864.0	29.417	840.4	25.20	2889
PSI	10:25	911.5	23.7	864.0	29.417	882.1	25.20	2929
	10:30	950.2	26.8	892.8	31.257	918.9	26.04	2970
2	10:35	989.1	29.7	835.2	27.629	961.5	24.36	3008
				864.0				
CASING	10:40	1162.3	33.7	1152.0	50.089	1112.2	33.60	3141
PRESS	10:45	1217.5	37.7	1152.0	50.089	1167.4	33.60	3190
0	10:50	1242.8	41.7	1152.0	50.089	1192.7	33.60	3223
PSI	10:55	1275.5	45.7	1152.0	50.089	1225.4	33.60	3248
	11:00	1295.4	49.7	1152.0	50.089	1245.3	33.60	3267
3	11:05	1318.3	53.7	1152.0	50.089	1268.2	33.60	3290
				1152.0				
CASING	11:10	1441.0	58.7	1440.0	75.688	1365.3	42.00	3365
PRESS	11:15	1464.9	63.8	1468.8	78.512	1386.4	42.84	3388
0	11:20	1483.8	68.9	1468.8	78.512	1405.3	42.84	3409
PSI	11:25	1501.9	73.9	1440.0	75.688	1426.2	42.00	3421
	11:30	1513.9	78.9	1440.0	75.688	1438.2	42.00	3437
4	11:35	1537.1	83.9	1440.0	75.688	1461.4	42.00	3449
				1449.5				

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (ps)	(5) CORRECTED TUBING PRESS. (ps) (1)-(4)	(6) INJECTION RATE (gpm) (8)/34.2887	(7) MEASURED BHP (ps)
CASING PRESS 0 PSI	11:40	1652.5	90.0	1756.8	109.343	1543.2	51.24	3504
	11:45	1675.0	96.0	1728.0	106.050	1568.9	50.40	3516
	11:50	1694.9	102.0	1728.0	106.050	1588.8	50.40	3525
	11:55	1683.6	108.0	1728.0	106.050	1577.5	50.40	3529
	12:00	1682.4	114.0	1728.0	106.050	1576.3	50.40	3528
5	12:05	1685.3	120.0	1728.0	106.050	1579.2	50.40	3536
				1732.8				
CASING PRESS 0 PSI	12:10	1784.6	127.1	2044.8	144.797	1639.8	59.64	3580
	12:15	1800.4	134.1	2016.0	141.047	1659.4	58.80	3589
	12:20	1802.0	141.2	2044.8	144.797	1657.2	59.64	3597
	12:25	1799.3	148.2	2016.0	141.047	1658.3	58.80	3604
	12:30	1811.8	155.3	2044.8	144.797	1667.0	59.64	3609
6	12:35	1810.9	162.3	2016.0	141.047	1669.9	58.80	3613
				2030.4				
CASING PRESS 0 PSI	12:40	1922.9	170.5	2361.6	189.011	1733.9	68.88	3650
	12:45	1926.4	178.6	2332.8	184.769	1741.6	68.04	3656
	12:50	1930.4	186.7	2332.8	184.769	1745.6	68.04	3659
	12:55	1934.3	194.8	2332.8	184.769	1749.5	68.04	3662
7	1:00	1934.3	202.9	2332.8	184.769	1749.5	68.04	3666
				2338.5				
OUT OF WATER								
FALLOFF	1:01	1449.0				1449.0		3503
	1:02	1419.5				1419.5		3472
	1:03	1396.5				1396.5		3448
	1:04	1375.9				1375.9		3427
	1:05	1358.0				1358.0		3410
	1:10	1287.5				1287.5		3340
	1:15	1236.7				1236.7		3287

