



December 11, 1996

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

Attention: Mr. David R. Catanach

Re: Request for Increase in Surface Injection Pressure Limits
Texaco Exploration and Production Inc.
West Vacuum Unit
T-17/18-S, R-34-E, Lea County, New Mexico

Dear Mr. Catanach

Texaco requests that the surface injection pressure limit be increased for the following well:

<u>Well No.</u>	<u>Observed Surface</u>	<u>Requested Permitted</u>
West Vacuum Unit No. 56	<u>Parting Pressure</u>	<u>Injection Pressure</u>
	1856 psig	1800 psig

The step rate test and the results of the teste is attached.

The higher injection limit is requested to obtain more injection and better sweep efficiency in the pattern. If additional information is needed, please contact me at (505) 397-0420.

Yours very truly,

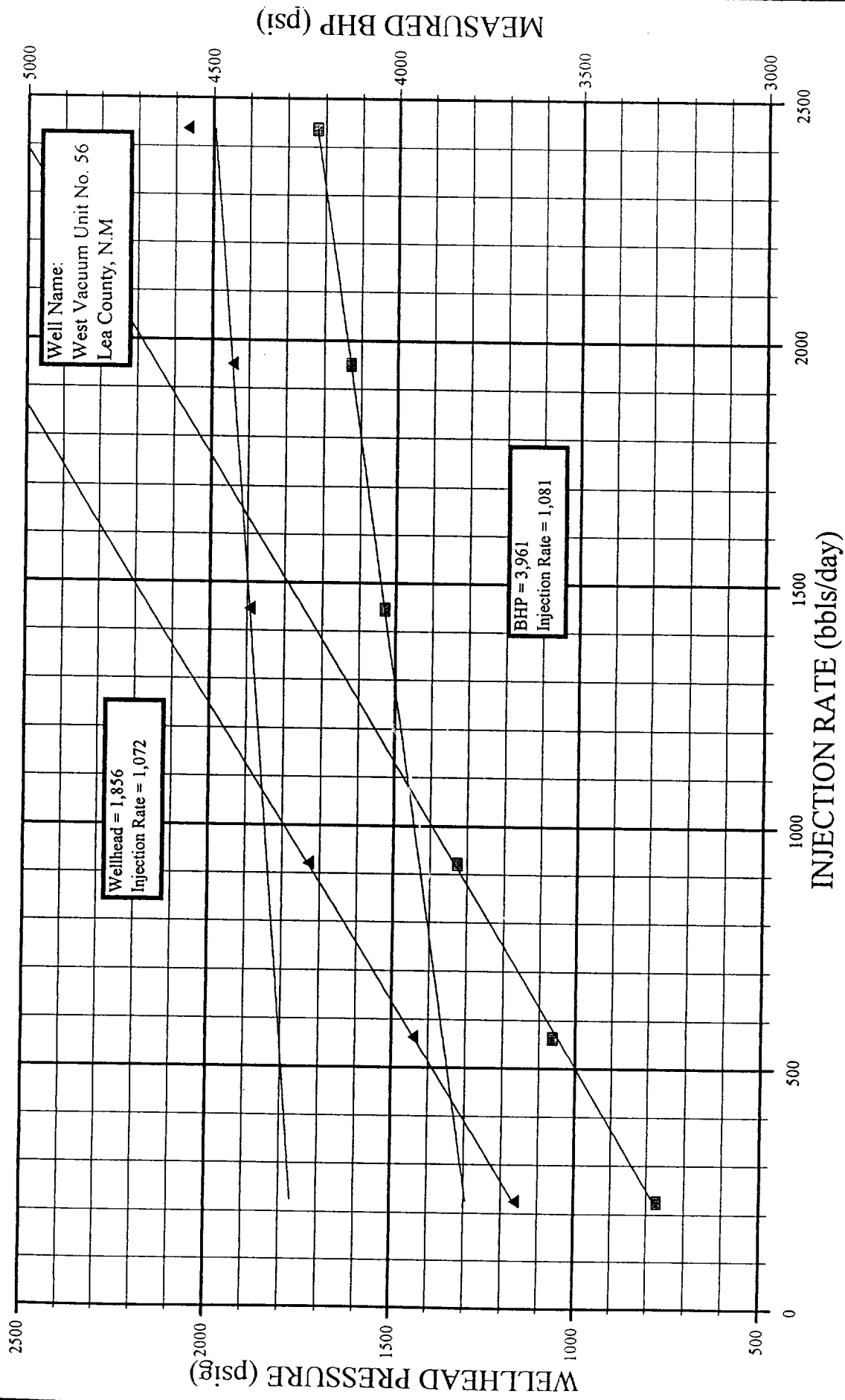
James Anderson
Production Engineer

attachments

cc: Mr. Jerry Sexton
Hobbs NMOCD

STEP RATE INJECTION TEST

TEXACO EXPLORATION AND PRODUCTION



WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: DECEMBER 3, 1996

WELL NAME: WEST VACUUM UNIT NO. 56
LEA COUNTY, NEW MEXICO

WO#: 96-14-1580

PERFS. = 4560-4698

PACKER DEPTH = 4514

BHP GAUGE DEPTH = 4630

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (1)-(4)	(6) INJECTION RATE (gpm) (3)/34.2857	(7) MEASURED BHP (psi)
1	10:05	975.9				975.9		3084.6
	10:10	1069.7	0.9	259.2	1.231	1068.5	7.56	3176.9
	10:15	1102.7	1.7	230.4	0.990	1101.7	6.72	3207.1
	10:20	1116.6	2.5	230.4	0.990	1115.6	6.72	3229.8
	10:25	1131.8	3.2	201.6	0.773	1131.0	5.88	3247.9
	10:30	1148.2	4.0	230.4	0.990	1147.2	6.72	3261.5
	10:35	1164.7	4.7	201.6	0.773	1163.9	5.88	3275.1
				225.6				
	10:40	1277.5	6.7	576.0	5.393	1272.1	16.80	3385.6
	10:45	1311.7	8.6	547.2	4.905	1306.8	15.96	3432.5
2	10:50	1354.7	10.5	547.2	4.905	1349.8	15.96	3467.3
	10:55	1389.0	12.4	547.2	4.905	1384.1	15.96	3506.7
	11:00	1415.6	14.4	576.0	5.393	1410.2	16.80	3538.5
	11:05	1443.4	16.4	576.0	5.393	1438.0	16.80	3564.2
				561.6				
	11:10	1552.4	19.4	864.0	11.419	1541.0	25.20	3661.1
	11:15	1596.8	22.5	892.8	12.133	1584.7	26.04	3706.5
	11:20	1641.1	25.8	950.4	13.621	1627.5	27.72	3747.4
	11:25	1681.7	29.0	921.6	12.867	1668.8	26.88	3779.2
	11:30	1705.7	32.3	950.4	13.621	1692.1	27.72	3804.9
3	11:35	1732.3	35.6	950.4	13.621	1718.7	27.72	3827.6
				921.6				
	11:40	1826.1	40.6	1440.0	29.380	1796.7	42.00	3912.4
	11:45	1861.6	45.7	1468.8	30.477	1831.1	42.84	3951.8
	11:50	1875.6	50.8	1468.8	30.477	1845.1	42.84	3974.6
	11:55	1902.2	55.7	1411.2	28.303	1873.9	41.16	3997.3
	12:00	1898.3	60.7	1440.0	29.380	1868.9	42.00	4014.0
	12:05	1894.5	65.7	1440.0	29.380	1865.1	42.00	4030.7
				1444.8				

STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (1) - (4)	(6) INJECTION RATE (gpm) (3)/34.2857	(7) MEASURED BHP (psi)
5	12:10	1940.1	72.3	1900.8	49.104	1891.0	55.44	4079.4
	12:15	1935.1	79.1	1958.4	51.892	1883.2	57.12	4096.2
	12:20	1940.1	86.0	1987.2	53.313	1886.8	57.96	4102.3
	12:25	1943.9	92.7	1929.6	50.490	1893.4	56.28	4111.5
	12:30	1942.6	99.5	1958.4	51.892	1890.7	57.12	4120.6
	12:35	1946.4	106.3	1958.4	51.892	1894.5	57.12	4129.8
				1948.8				
	12:40	2012.4	114.7	2419.2	76.715	1935.7	70.56	4164.7
	12:45	2025.1	123.3	2476.8	80.128	1945.0	72.24	4183.1
	12:50	2040.3	131.7	2419.2	76.715	1963.6	70.56	4195.2
6	12:55	2049.2	140.1	2419.2	76.715	1972.5	70.56	4205.9
	1:00	2059.4	148.6	2448.0	78.413	1981.0	71.40	4215.1
	1:05	2069.6	157.1	2448.0	78.413	1991.2	71.40	4222.7
				2438.4				
FALLOFF	1:06	1923.6				1923.6		4192.3
	1:07	1927.4				1927.4		4175.6
	1:08	1912.2				1912.2		4161.9
	1:09	1900.7				1900.7		4149.7
	1:10	1890.6				1890.6		4137.6
	1:15	1843.7				1843.7		4088.9
	1:20	1807.0				1807.0		4050.8