CF 10572

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

October 26, 1993

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

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

Attention: Darlene de Aragao

RE: Injection Pressure Increase Rhodes Yates Unit Well No. 13, Lea County, New Mexico

Dear Ms. de Aragao:

Reference is made to your request dated September 28,. 1993 to increase the surface injection pressure on your Rhodes Yates Unit Well No. 13. This request is based on a step rate test conducted on this well on August 30, 1993. The results of the test have been reviewed by my staff and we feel an increase in injection pressure on this wells 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**
Rhodes Yates Unit Well No. 13 660' FSL & 660' FWL Unit M, Section 27, Township 26 South, Range 37 East	1100 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: Case No. 10572

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
Rhodes Yates Unit Well No.13
Lea County, New Mexico

Dear Sir:

Reference is made to your request dated **September 28**, 1993, to increase the surface injection pressure on **your Rhodes Yates Unit Well No.13.** This request is based on a step rate test conducted on this well **August 30,** 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:

Well & Location	Maximum Injection Surface Pressure
Rhodes Yates Unit Well No.13 **660' FSL & 660' FWL** **Unit M, Section 27-T26S-R27E** **Lea County, New Mexico**	**1100 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- **Case File 10573**
ref: **R-9848**

September 28, 1993

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe N.M. 87504

Attn: Mr. David Catanach
Engineer, New Mexico Oil Conservation Division

Re: PRESSURE INCREASE ON INJECTION WELL
Rhodes Yates Unit No. 13
Unit M, Section 27
T-26-S, R-37-E
Lea County, New Mexico

Dear David:

Texaco Exploration and Production Inc. requests an increase in the maximum allowable pressure on the above well from 660 psig to 1100 psig. A step rate injection test was ran on the well. Results of the test are attached.

If you have any questions concerning this request, please contact me at 397-0424. Thank you for your assistance in this matter.

Yours very truly,

Darlene de Aragao
Production Engineer

/ddd
Chrono
Attachments
cc: Jerry Sexton/NMOCD/Hobbs

JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 00, 1000

WELL NAME: RHODES YATES NO. 13

Lea County, New Mexico

WO#: 93-14-1593

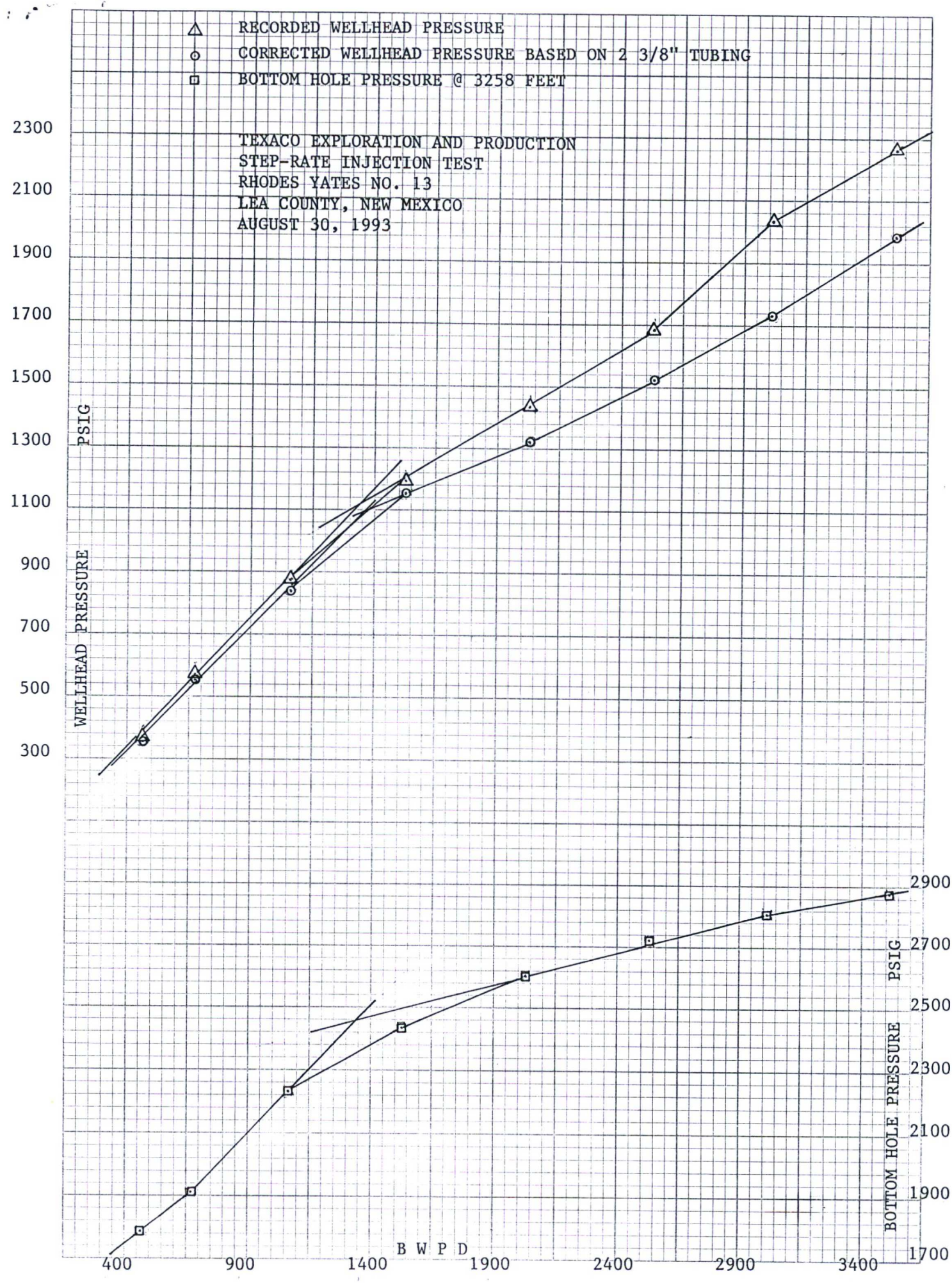
MID-PERFS. = 3258

PACKER DEPTH = 2984

BHP GAUGE DEPTH = 3258

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)
	9:30							1482
	9:35	139.7	1.7	489.6	7.499	132.2	14.28	1584
	9:40	197.2	3.2	432.0	5.949	191.3	12.60	1636
	9:45	263.4	4.8	460.8	6.703	256.7	13.44	1689
	9:50	326.1	6.5	489.6	7.499	318.6	14.28	1728
	9:55	358.3	8.0	432.0	5.949	352.4	12.60	1760
1	10:00	374.9	9.6	460.8	6.703	368.2	13.44	1787
				460.8				
	10:05	474.1	12.0	691.2	14.193	459.9	20.16	1859
	10:10	503.1	14.4	691.2	14.193	488.9	20.16	1899
	10:15	520.4	16.7	662.4	13.118	507.3	19.32	1932
	10:20	533.8	19.0	662.4	13.118	520.7	19.32	1962
	10:25	547.6	21.3	662.4	13.118	534.5	19.32	1988
2	10:30	575.5	23.6	662.4	13.118	562.4	19.32	2010
				672.0				
	10:35	697.9	27.3	1065.6	31.612	666.3	31.08	2083
	10:40	737.2	31.1	1094.4	33.210	704.0	31.92	2122
	10:45	770.2	34.8	1065.6	31.612	738.6	31.08	2155
	10:50	800.7	38.5	1065.6	31.612	769.1	31.08	2184
	10:55	832.5	42.1	1036.8	30.049	802.5	30.24	2210
3	11:00	874.5	45.8	1065.6	31.612	842.9	31.08	2233
				1065.6				
	11:05	1046.0	51.1	1526.4	61.459	984.5	44.52	2297
	11:10	1085.8	56.5	1555.2	63.621	1022.2	45.36	2334
	11:15	1124.1	61.9	1555.2	63.621	1060.5	45.36	2365
	11:20	1150.8	67.2	1526.4	61.459	1089.3	44.52	2393
	11:25	1177.6	72.5	1526.4	61.459	1116.1	44.52	2418
4	11:30	1195.4	77.8	1526.4	61.459	1133.9	44.52	2441
				1536.0				

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)
	11:35	1374.5	84.9	2044.8	105.560	1268.9	59.64	2493
	11:40	1396.1	92.0	2044.8	105.560	1290.5	59.64	2524
	11:45	1419.4	99.0	2016.0	102.826	1316.6	58.80	2549
	11:50	1442.5	106.1	2044.8	105.560	1336.9	59.64	2571
	11:55	1448.9	113.1	2016.0	102.826	1346.1	58.80	2590
5	12:00	1434.6	120.2	2044.8	105.560	1329.0	59.64	2607
				2035.2				
	12:05	1609.8	129.0	2534.4	157.024	1452.8	73.92	2643
	12:10	1637.9	137.8	2534.4	157.024	1480.9	73.92	2664
	12:15	1650.5	146.6	2534.4	157.024	1493.5	73.92	2681
	12:20	1659.2	155.3	2505.6	153.739	1505.5	73.08	2695
	12:25	1674.2	164.1	2534.4	157.024	1517.2	73.92	2708
6	12:30	1684.1	173.0	2563.2	160.341	1523.8	74.76	2720
				2534.4				
	12:35	1890.1	183.6	3052.8	221.558	1668.5	89.04	2748
	12:40	1901.6	194.0	2995.2	213.887	1687.7	87.36	2762
	12:45	1918.3	204.5	3024.0	217.707	1700.6	88.20	2775
	12:50	1923.6	215.0	3024.0	217.707	1705.9	88.20	2786
	12:55	1935.8	225.4	2995.2	213.887	1721.9	87.36	2796
7	1:00	1950.7	235.8	2995.2	213.887	1736.8	87.36	2805
				3014.4				
	1:05	2200.7	248.0	3513.6	287.368	1913.3	102.48	2828
	1:10	2214.3	260.3	3542.4	291.740	1922.6	103.32	2840
	1:15	2230.9	272.5	3513.6	287.368	1943.5	102.48	2852
	1:20	2244.7	284.8	3542.4	291.740	1953.0	103.32	2862
	1:25	2252.2	297.1	3542.4	291.740	1960.5	103.32	2871
8	1:30	2261.9	309.1	3456.0	278.713	1983.2	100.80	2879
				3518.4				
FALLOFF	1:31	1457.7				1457.7		2847
	1:32	1432.3				1432.3		2833
	1:33	1422.2				1422.2		2822
	1:34	1413.4				1413.4		2813
	1:35	1404.6				1404.6		2804
	1:40	1370.7				1370.7		2771
	1:45	1342.9				1342.9		2743


RECORDED WELLHEAD PRESSURE
CORRECTED WELLHEAD PRESSURE BASED ON 2 3/8" TUBING
BOTTOM HOLE PRESSURE @ 3258 FEET
TEXACO EXPLORATION AND PRODUCTION
STEP-RATE INJECTION TEST
RHODES YATES NO. 13
LEA COUNTY, NEW MEXICO
AUGUST 30, 1993
WELLHEAD PRESSURE PSIG
2300
2100
1900
1700
1500
1300
1100
900
700
500
300
BOTTOM HOLE PRESSURE PSIG
2900
2700
2500
2300
2100
1900
1700
B W P D
400
900
1400
1900
2400
2900
3400