

JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: AUGUST 28, 1993

WELL NAME: RHODES B FEDERAL NCT-1 NO. 6
Lea County, New Mexico

WO#: 93-14-1592

MID-PERF8. = 3115

PACKER DEPTH = 3016

BHP GAUGE DEPTH = 3115

STEP NO. 2		(1) SURFACE TUBING PRESS. (psig)	(2) CUMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psig) (1)-(4)	(6) INJECTION RATE (gpm) (8)/24, 2857	(7) MEASURED BHP (psi)
REMARKS	TIME							
1	8:15	235.7				235.7		1530
	8:20	581.7	1.0	288.0	2.686	579.0	8.40	1921
	8:25	695.2	1.7	201.6	1.389	693.8	5.88	2033
	8:30	742.2	2.3	172.8	1.044	741.2	5.04	2078
	8:35	781.7	2.8	144.0	0.745	781.0	4.20	2114
	8:40	807.0	3.3	144.0	0.745	806.3	4.20	2141
	8:45	828.6	3.8	144.0	0.745	827.9	4.20	2155
				182.4				
	8:50	1027.7	4.7	259.2	2.211	1025.5	7.56	2346
	8:55	1094.1	5.6	259.2	2.211	1091.9	7.56	2412
2	9:00	1163.0	6.4	230.4	1.778	1161.2	6.72	2470
	9:05	1183.3	7.3	259.2	2.211	1181.1	7.56	2517
	9:10	1198.5	8.2	259.2	2.211	1196.3	7.56	2548
	9:15	1212.4	9.1	259.2	2.211	1210.2	7.56	2576
				254.4				
	9:20	1368.4	10.4	374.4	4.365	1364.0	10.92	2727
	9:25	1420.7	11.7	374.4	4.365	1416.3	10.92	2787
	9:30	1456.4	12.9	345.6	3.764	1452.6	10.08	2830
	9:35	1487.0	14.2	374.4	4.365	1482.6	10.92	2863
	9:40	1511.1	15.4	345.6	3.764	1507.3	10.08	2892
3	9:45	1527.6	16.6	345.6	3.764	1523.8	10.08	2913
				360.0				
	9:50	1613.1	18.3	489.6	7.170	1605.9	14.28	2998
	9:55	1637.2	19.9	460.8	6.409	1630.8	13.44	3021
	10:00	1653.7	21.5	460.8	6.409	1647.3	13.44	3033
	10:05	1662.6	23.1	460.8	6.409	1656.2	13.44	3041
	10:10	1690.7	24.7	460.8	6.409	1684.3	13.44	3052
	10:15	1686.7	26.3	460.8	6.409	1680.3	13.44	3060
				465.6				