



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE
April 6, 1992

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6151

OIL CONSERVATION DIVISION
P.O. BOX 2088
SANTA FE, NEW MEXICO 87504-2088

RE: APPLICATION FOR PRESSURE LIMIT INCREASE FOR DISPOSAL & INJECTION WELLS

Gentlemen:

I have examined the step rate test for the:

Yates Drilling Company	Doyal #3-I	27-12-31
Operator	Lease & Well No.	Unit
(Request on attached C-103)		
and my recommendations are as follows:		
<u>Lower to 2500 psi</u>		

Very truly yours

Jerry Sexton
Supervisor, District I

/bp

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30-005-20982
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Doyal
8. Well No. 3
9. Pool name or Wildcat

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:
OIL WELL ☐ GAS WELL ☐ OTHER Water Injection Well

2. Name of Operator
Yates Drilling Company

3. Address of Operator
105 South 4th Street, Artesia, NM 88210

4. Well Location
Unit Letter I : 1980 Feet From The South Line and 990 Feet From The East Line
Section 27 Township 12S Range 31E NMPM Chaves County
10. Elevation (Show whether DP, RKB, RT, GR, etc.)
4429' GL

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐

OTHER: Request Increase in Allowable Injection Pressure ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐
OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

We recently authorized a step-rate test to be conducted on the subject well by John West Engineering Company of Hobbs, NM. This test was witnessed by Charlie Perrin of NMOCD. The results of this test are attached. We are requesting that our maximum allowed injection pressure be raised to a level justified by the test.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

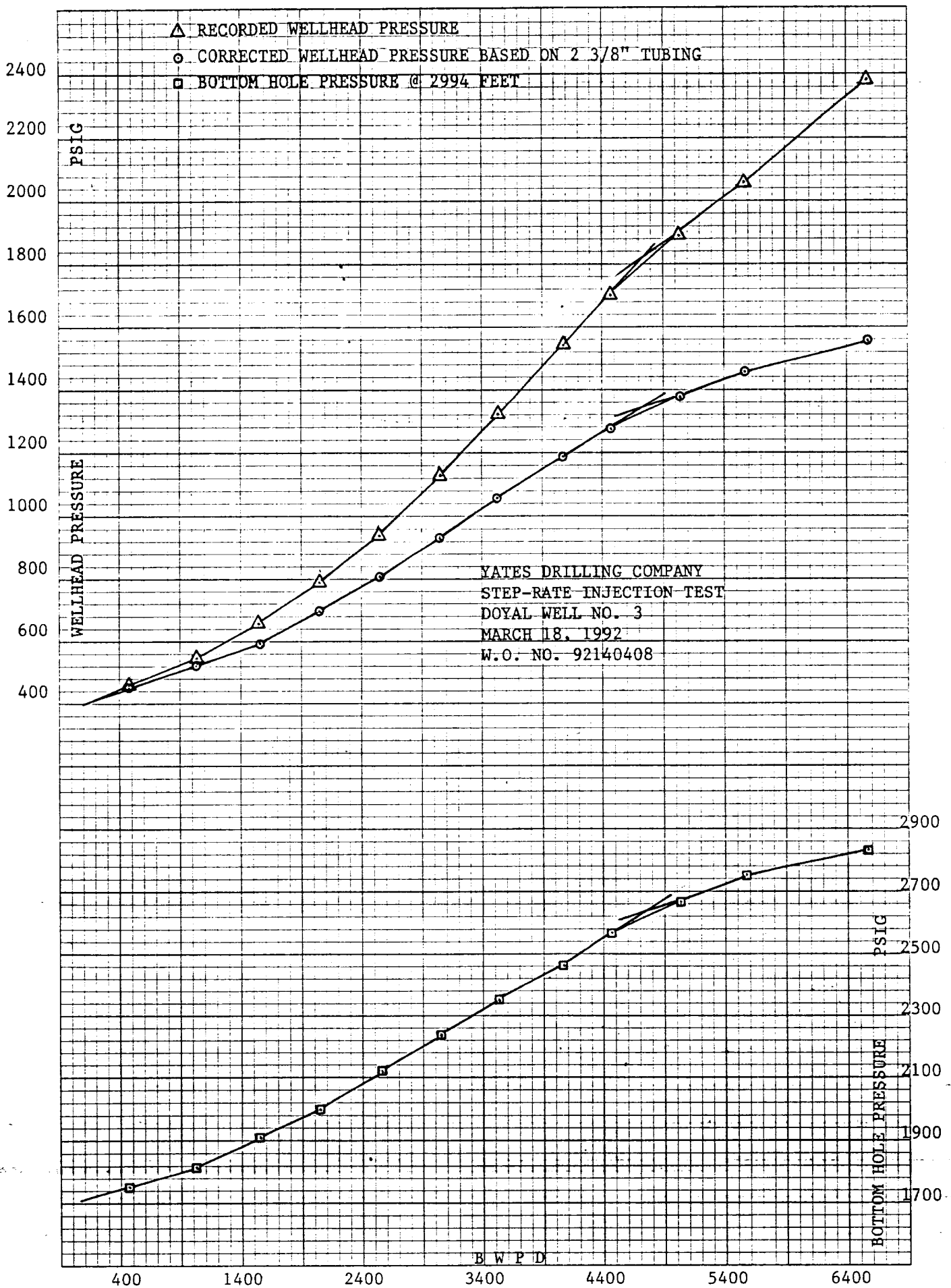
SIGNATURE John West TITLE Petroleum Engineer DATE 4-1-92

TYPE OR PRINT NAME TELEPHONE NO.

(This space for State Use)

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:



JOHN WEST ENGINEERING COMPANY

Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: Yates Drilling Company

DATE: March 18, 1982

WELL NAME: Doyal Well No. 3

WO#: 92140408

Chaves County, New Mexico

MID-PERFS. = 2991 - 2997

PACKER DEPTH =

BHP GAUGE DEPTH = 2994

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	11:25	414.9				414.9		1714
	11:30	431.2	1.7	489.6	6.891	424.3	14.28	1729
	11:35	435.2	3.4	489.6	6.891	428.3	14.28	1739
	11:40	456.5	5.1	489.6	6.891	449.6	14.28	1748
				489.6				
2	11:45	499.1	8.7	1036.8	27.614	471.5	30.24	1779
	11:50	524.2	12.3	1036.8	27.614	496.6	30.24	1799
	11:55	549.5	15.8	1008.0	26.212	523.3	29.40	1816
3				1027.2				
	12:00	612.7	21.2	1555.2	58.466	554.2	45.36	1856
	12:05	634.3	26.6	1555.2	58.466	575.8	45.36	1882
	12:10	656.0	32.0	1555.2	58.466	597.5	45.36	1904
4				1555.2				
	12:15	740.4	39.7	2073.6	99.549	640.9	60.48	1949
	12:20	764.3	46.3	2044.8	97.006	667.3	59.64	1978
	12:25	791.0	53.4	2044.8	97.006	694.0	59.64	2003
5				2054.4				
	12:30	889.4	62.3	2563.2	147.348	742.1	74.76	2052
	12:35	919.9	71.2	2563.2	147.348	772.6	74.76	2085
	12:40	947.8	80.0	2534.4	144.300	803.5	73.92	2116
6				2553.6				
	12:45	1062.9	90.7	3081.6	207.173	855.7	89.88	2166
	12:50	1096.0	101.3	3052.8	203.605	892.4	89.04	2202
	12:55	1127.7	111.8	3024.0	200.066	927.6	88.20	2236
7				3052.8				
	1:00	1254.2	124.1	3542.4	268.100	986.1	103.32	2285
	1:05	1286.9	136.4	3542.4	268.100	1018.8	103.32	2319
	1:10	1319.6	148.5	3484.8	260.091	1059.5	101.64	2351
				3523.2				

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) (3)/34.2357	(7) MEASURED BHP (ps)
8	1:15	1451.1	162.6	4060.8	345.166	1105.9	118.44	2398
	1:20	1481.3	176.6	4032.0	340.651	1140.6	117.60	2431
	1:25	1549.5	191.0	4147.2	358.875	1190.6	120.96	2460
9				4079.9				
	1:30	1641.9	206.4	4435.2	406.337	1235.6	129.36	2509
	1:35	1679.8	222.0	4492.8	416.153	1263.6	131.04	2544
10	1:40	1700.0	237.7	4521.6	421.102	1278.9	131.88	2573
				4483.2				
	1:45	1846.8	255.2	5040.0	514.746	1332.1	147.00	2613
11	1:50	1862.3	272.8	5068.8	520.201	1342.1	147.84	2641
	1:55	1886.5	290.1	4982.4	503.916	1382.6	145.32	2668
				5030.4				
12	2:00	2029.7	309.5	5587.2	622.882	1406.8	162.96	2703
	2:05	2050.1	328.9	5587.2	622.882	1427.2	162.96	2728
	2:10	2065.3	348.2	5558.4	616.955	1448.3	162.12	2751
Fall-Off				5577.6				
	2:15	2368.3	370.8	6508.8	826.178	1542.1	189.84	2788
	2:20	2370.9	393.9	6652.8	860.310	1510.6	194.04	2812
	2:25	2398.9	416.7	6566.4	839.754	1559.1	191.52	2833
				6576.0				
	2:26	1498.4				1498.4		2802
	2:27	1485.7				1485.7		2789
	2:28	1474.4				1474.4		2774
	2:29	1464.3				1464.3		2766
	2:30	1454.2				1454.2		2756
	2:35	1412.4				1412.4		2714
	2:40	1377.9				1377.9		2679