



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



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2068
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

April 20, 1994

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

Attention: T.L. Fraizer

WFX-630

PKRV0309349838

WFX-646

PDEV0020600646

RE: Injection Pressure Increase West Dollarhide Drinkard Unit, Lea County, New Mexico

Dear Mr. Fraizer:

Reference is made to your request dated April 7, 1994 to increase the surface injection pressure on four wells in your West Dollarhide Drinkard Unit. This request is based on step rate tests conducted on these between March 23 and April 5, 1994. The results of the tests have been reviewed by my staff and we feel an increase in injection pressure on these wells is justified at this time.

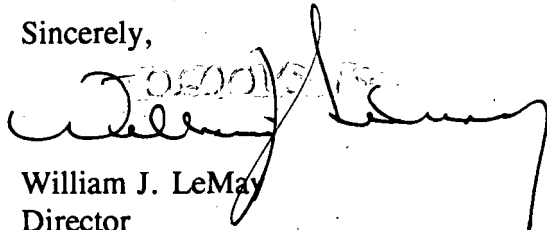
You are therefore authorized to increase the surface injection pressure on the following wells:

Well and Location	Maximum Injection Surface Pressure
WDDU Well No. 121 Unit E, Section 32, Township 24 South, Range 38 East	1470 PSIG
WDDU Well No. 122 Unit K, Section 32, Township 24 South, Range 38 East	1560 PSIG
WDDU Well No. 130 Unit G, Section 32, Township 24 South, Range 38 East	1580 PSIG
WDDU Well No. 140 Unit J, Section 32, Township 24 South, Range 38 East	1570 PSIG
All wells located in Lea County, New Mexico.	

Injection Pressure Increase
Texaco Exploration and Production, Inc.
April 20, 1994
Page 2

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-630 PSI-X 2nd Quarter 1994
WFX-646 *4th*

NO WAITING PERIOD

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

Re: Injection Pressure Increase
West Dollarhide Drinkard Unit
Lea County, New Mexico

Dear Sir:

Reference is made to your request dated April 7, 1994, to increase the surface injection pressure on 4 wells in your West Dollarhide Drinkard Unit. This request is based on step rate tests conducted on these wells between March 23, and April 5, 1994. The results of the tests have been reviewed by my staff and we feel an increase in injection pressure on these wells is justified at this time.

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

<u>Well & Location</u>	<u>Maximum Injection Surface Pressure</u>
WDDU Well No.121 Unit E, Section 32, T24S, R38E	1470 psig
WDDU Well No.122 Unit K, Section 32, T24S, R38E	1560 psig
WDDU Well No.130 Unit G, Section 32, T24S, R38E	1580 psig
WDDU Well No.140 Unit J, Section 32, T24S, R38E	1570 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-630; WFX-646; PSI-X 2nd Qtr 1994



Texaco E & P

PO Box 730
Hobbs NM 88241-0730
505 393 7191

OIL CONSERVATION DIVISION
RECEIVED

APR 12 AM 8:49 1994

New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 88240

Attention: David R. Catanach

Re: Request for Increase in Surface Injection Pressure Limits
Texaco Exploration and Production Inc.
West Dollarhide Drinkard Unit, Dollarhide Tubb-Drinkard
T-24/25-S, R-38-E, Lea County, New Mexico

Gentlemen:

Texaco Exploration and Production Inc. requests that the surface injection pressure limits be increased for the four wells on the attached list, based on step rate tests. The pressure increases are necessary to maintain nominal injection rates. This will greatly enhance the performance of the infill drilled wells as the patterns are closed. If additional information is needed, please contact Robert McNaughton at 505-397-0428.

Yours very truly,

Terry L. Frazier
Hobbs Area Manager

TLF/rtm

cc: Mr. Jerry Sexton
Hobbs NMOCD

attachments

West Dollarhide Drinkard Unit

Texaco Exploration and Production

Lea County, New Mexico

<u>Well No.</u>	<u>Present Injection Rate & Pressure</u>	<u>Observed Surface Parting Pressure</u>	<u>Requested Injection Pressure Limit</u>
121	95 bw @ 1200 psi	1520 psi	1470 psi
(WFX-630: 1330 psi limit)			
122	0 bw @ 1200 psi	1600 psi	1550 psi 1540
(WFX-630: 1330 psi limit)			
130	91 bw @ 1280 psi	1630 psi	1580 psi
(WFX-646: 1297 psi limit)			
140	285 @ 1400 psi	1620 psi	1570 psi
(WFX-646: 1277 psi limit, current limit 1550 psi)			

WEST-TEST, INC.
A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: APRIL 5, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 121
LEA COUNTY, NEW MEXICO

WO#: 94-14-0602

MID-PERFS. = 6465-6574

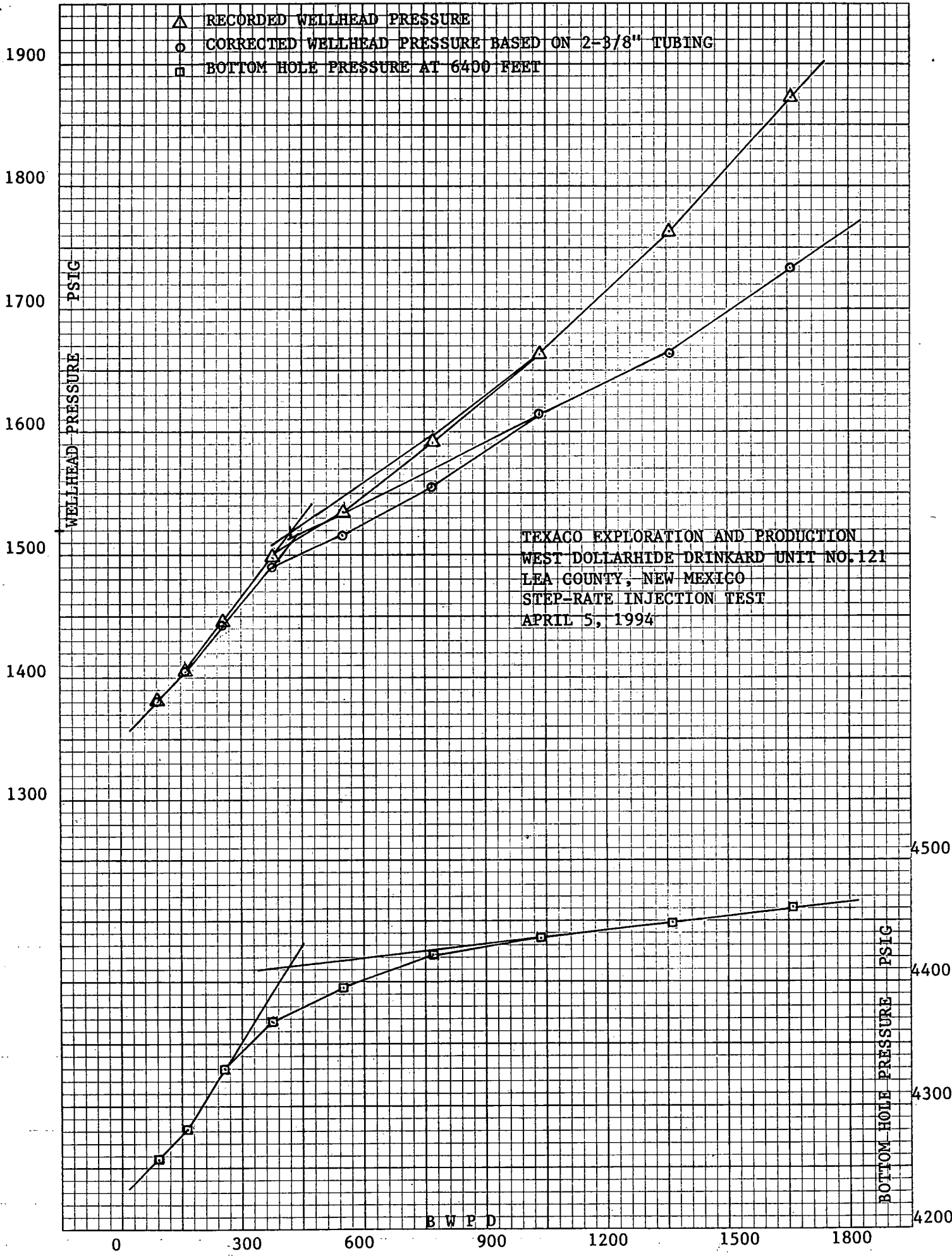
PACKER DEPTH = 6444

BHP GAUGE DEPTH = 6400

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)/24.2857	(7) MEASURED BHP (psi)
1	7:55	1361.7				1361.7		4234.6
	8:00	1376.9	15.0	86.4	0.595	1376.3	2.52	4250.4
	8:05	1379.4	15.3	86.4	0.595	1378.8	2.52	4254.3
	8:10	1379.2	15.6	86.4	0.595	1378.6	2.52	4255.8
	8:15	1379.0	15.9	86.4	0.595	1378.4	2.52	4256.9
	8:20	1380.2	16.3	115.2	1.013	1379.2	3.36	4258.2
	8:25	1380.1	16.6	86.4	0.595	1379.5	2.52	4258.2
				91.2				
	8:30	1394.3	17.2	172.8	2.145	1392.2	5.04	4270.3
	8:35	1395.5	17.7	144.0	1.531	1394.0	4.20	4273.9
2	8:40	1398.0	18.3	172.8	2.145	1395.9	5.04	4275.8
	8:45	1399.1	18.8	144.0	1.531	1397.6	4.20	4276.9
	8:50	1402.7	19.4	172.8	2.145	1400.6	5.04	4280.3
	8:55	1403.8	20.0	172.8	2.145	1401.7	5.04	4281.3
				163.2				
	9:00	1433.2	0.9	259.2	4.542	1428.7	7.56	4306.8
	9:05	1445.8	1.8	259.2	4.542	1441.3	7.56	4314.1
	9:10	1443.0	2.7	259.2	4.542	1438.5	7.56	4318.8
	9:15	1445.3	3.6	259.2	4.542	1440.8	7.56	4322.6
	9:20	1443.9	4.5	259.2	4.542	1439.4	7.56	4326.3
3	9:25	1445.0	5.4	259.2	4.542	1440.5	7.56	4330
				259.2				
	9:30	1482.0	6.7	374.4	8.968	1473.0	10.92	4347.5
	9:35	1492.1	8.1	403.2	10.286	1481.8	11.76	4353.8
	9:40	1484.3	9.4	374.4	8.968	1475.3	10.92	4359.3
	9:45	1493.2	10.7	374.4	8.968	1484.2	10.92	4360.4
	9:50	1485.4	12.1	403.2	10.286	1475.1	11.76	4365.2
	9:55	1498.0	13.4	374.4	8.968	1489.0	10.92	4367.1
				384.0				

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)/24.2657	(7) MEASURED BHP (psi)
5	10:00	1533.6	15.3	547.2	18.097	1515.5	15.96	4387.2
	10:05	1543.7	17.3	576.0	19.898	1523.8	16.80	4392.2
	10:10	1542.3	19.2	547.2	18.097	1524.2	15.96	4394.7
	10:15	1542.1	21.1	547.2	18.097	1524.0	15.96	4396.2
	10:20	1545.8	23.0	547.2	18.097	1527.7	15.96	4397.6
	10:25	1534.1	24.9	547.2	18.097	1516.0	15.96	4396.4
				552.0				
	10:30	1591.6	27.6	763.2	33.489	1558.1	22.26	4417.4
	10:35	1601.7	30.2	763.2	33.489	1568.2	22.26	4420.2
	10:40	1593.8	32.9	777.6	34.668	1559.1	22.68	4421.3
6	10:45	1592.4	35.5	748.8	32.330	1560.1	21.84	4421.3
	10:50	1594.9	38.2	777.6	34.668	1560.2	22.68	4422.1
	10:55	1591.0	40.9	777.6	34.668	1556.3	22.68	4421.1
				768.0				
	11:00	1666.4	44.5	1036.8	59.028	1607.4	30.24	4439.2
	11:05	1675.2	48.1	1036.8	59.028	1616.2	30.24	4442.1
	11:10	1668.8	51.7	1036.8	59.028	1609.8	30.24	4440.9
	11:15	1662.2	55.3	1036.8	59.028	1603.2	30.24	4437.1
	11:20	1676.1	59.0	1065.6	62.098	1614.0	31.08	4439.5
	11:25	1672.1	62.6	1036.8	59.028	1613.1	30.24	4437
7				1041.6				
	11:30	1772.9	67.3	1353.6	96.668	1676.2	39.48	4455.1
	11:35	1770.1	72.0	1353.6	96.668	1673.4	39.48	4454.8
	11:40	1769.9	76.7	1353.6	96.668	1673.2	39.48	4454.4
	11:45	1768.6	81.4	1353.6	96.668	1671.9	39.48	4452.9
	11:50	1764.6	86.1	1353.6	96.668	1667.9	39.48	4451.1
	11:55	1763.1	90.9	1382.4	100.507	1662.6	40.32	4449.2
				1358.4				
	12:00	1866.7	96.7	1656.0	140.374	1726.3	48.30	4463
	12:05	1869.2	102.4	1656.0	140.374	1728.8	48.30	4462.5
8	12:10	1872.9	108.3	1699.2	147.224	1725.7	49.56	4461.7
	12:15	1875.4	113.9	1612.8	133.675	1741.7	47.04	4462.3
	12:20	1874.1	119.7	1670.4	142.640	1731.5	48.72	4460.3
	12:25	1871.3	125.4	1641.6	138.124	1733.2	47.88	4460.7
				1656.0				
	FALLOFF	1528.1				1528.1		4460.7
	12:26							
	12:27							
	12:28							
	12:29	1512.6				1512.6		4406.8
9	12:30	1512.6				1512.6		4406.3

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)/24.2857	MEASURED BHP (psi)
	12:35	1508.7				1508.7		4400
	12:40	1507.4				1507.4		4397.2
	12:45	1506.0				1506.0		4395.2
	12:50	1503.4				1503.4		4395.3
	12:55	1503.4				1503.4		4395.3



WEST-TEST, INC.
A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: MARCH 23, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 122
LEA COUNTY, NEW MEXICO

WO#: 94-14-0545

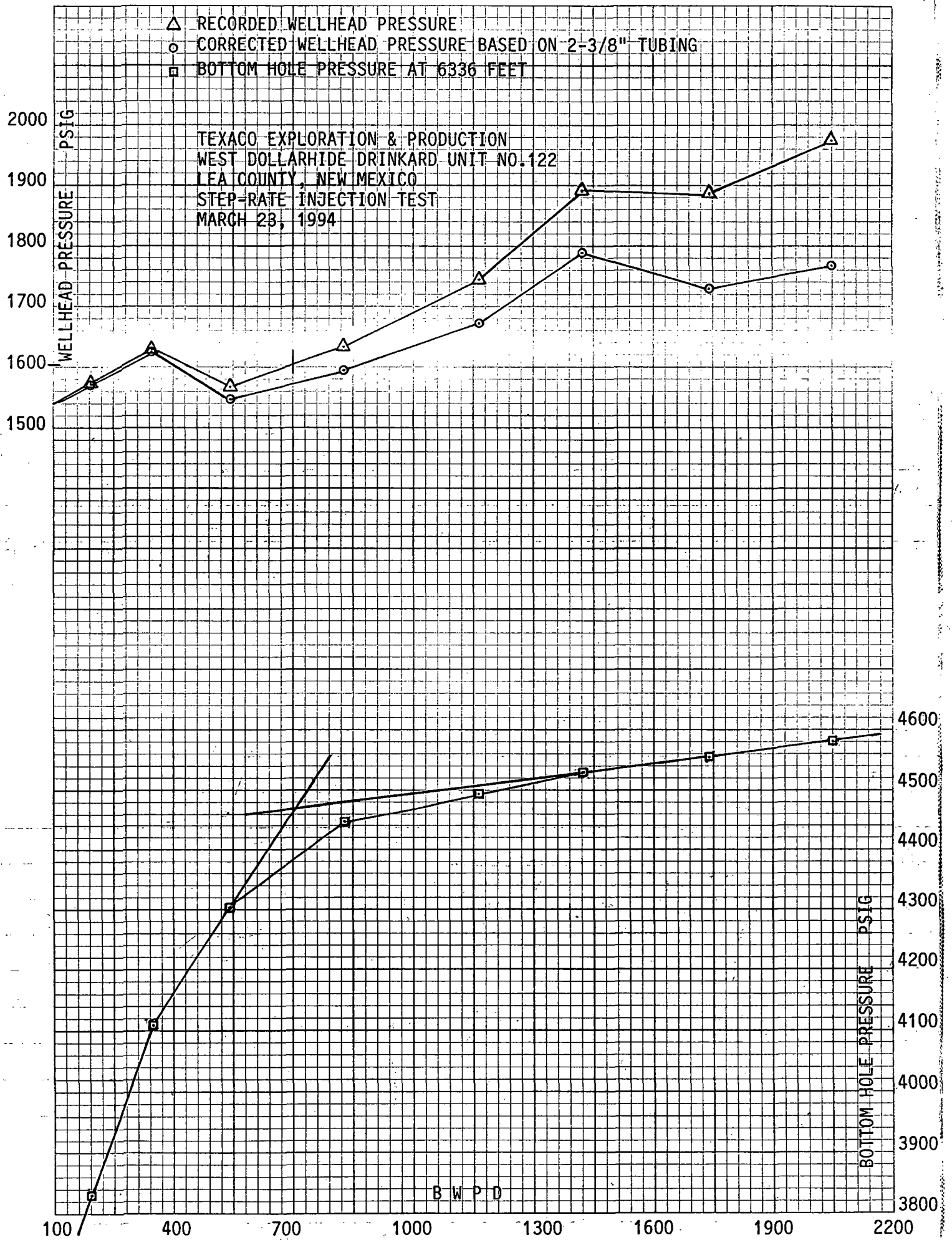
MID-PERFS. = 6446-6594

PACKER DEPTH = 6389

BHP GAUGE DEPTH = 6336

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)/34.2657	(7) MEASURED BHP (psi)
1	8:10	1271.7				1271.7		3407.7
	8:15	1496.8	0.8	230.4	3.616	1493.2	6.72	3664.9
	8:20	1572.1	1.4	172.8	2.124	1570.0	5.04	3719.6
	8:25	1552.7	2.0	172.8	2.124	1550.6	5.04	3756.7
	8:30	1565.1	2.6	172.8	2.124	1563.0	5.04	3786.6
	8:35	1599.3	3.3	201.6	2.825	1596.5	5.88	3810.1
	8:40	1574.6	4.0	201.6	2.825	1571.8	5.88	3830.3
				191.99				
	8:45	1667.7	5.1	302.4	5.980	1661.7	8.82	3973
	8:50	1697.0	6.1	302.4	5.980	1691.0	8.82	4015.2
2	8:55	1655.7	7.4	374.4	8.878	1646.8	10.92	4042.8
	9:00	1650.2	8.7	374.4	8.878	1641.3	10.92	4071.2
	9:05	1652.6	10.0	374.4	8.878	1643.7	10.92	4082.7
	9:10	1630.7	11.2	345.6	7.656	1623.0	10.08	4110
				345.6				
	9:15	1658.8	13.1	547.2	17.916	1640.9	15.96	4178.8
	9:20	1635.7	14.9	518.4	16.210	1619.5	15.12	4214.6
	9:25	1606.2	16.8	547.2	17.916	1588.3	15.96	4241.5
	9:30	1572.9	18.7	547.2	17.916	1555.0	15.96	4264
	9:35	1549.9	20.6	547.2	17.916	1532.0	15.96	4282.6
3	9:40	1566.5	22.6	576.0	19.699	1546.8	16.80	4301.5
				547.2				
	9:45	1561.3	25.5	835.2	39.172	1522.1	24.36	4358.2
	9:50	1585.6	28.3	806.4	36.710	1548.9	23.52	4396.6
	9:55	1612.4	31.2	835.2	39.172	1573.2	24.36	4418
	10:00	1612.4	34.1	835.2	39.172	1573.2	24.36	4418
	10:05	1618.6	37.0	835.2	39.172	1579.4	24.36	4439.3
	10:10	1635.1	39.9	835.2	39.172	1595.9	24.36	4447.3
				830.4				

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	10:15	1713.2	43.9	1152.0	71.015	1642.2	33.60	4473.4
	10:20	1711.8	47.9	1152.0	71.015	1640.8	33.60	4483.6
	10:25	1725.8	52.0	1180.8	74.334	1651.5	34.44	4487.9
	10:30	1737.2	56.0	1152.0	71.015	1666.2	33.60	4494.5
	10:35	1728.0	60.1	1180.8	74.334	1653.7	34.44	4494.6
	10:40	1743.3	64.1	1152.0	71.015	1672.3	33.60	4496.9
				1161.6				
	10:45	1803.2	69.0	1411.2	103.371	1699.8	41.16	4519.8
	10:50	1795.3	73.9	1411.2	103.371	1691.9	41.16	4526.6
	10:55	1792.7	78.9	1440.0	107.308	1685.4	42.00	4526
6	11:00	1800.2	83.8	1411.2	103.371	1696.8	41.16	4525.2
	11:05	1803.9	88.8	1440.0	107.308	1696.6	42.00	4528.4
	11:10	1893.7	93.7	1411.2	103.371	1790.3	41.16	4526.7
				1420.8				
	11:15	1884.6	99.8	1756.8	155.023	1729.6	51.24	4550.4
	11:20	1879.4	105.8	1728.0	150.354	1729.0	50.40	4554.8
	11:25	1889.6	111.9	1756.8	155.023	1734.6	51.24	4554.1
	11:30	1881.9	118.0	1756.8	155.023	1726.9	51.24	4558.2
	11:35	1884.4	124.0	1728.0	150.354	1734.0	50.40	4555.7
	11:40	1885.7	130.1	1756.8	155.023	1730.7	51.24	4557.8
7				1747.2				
	11:45	1958.7	137.1	2016.0	199.971	1758.7	58.80	4567.7
	11:50	1959.9	144.2	2044.8	205.288	1754.6	59.64	4571.9
	11:55	1966.2	151.4	2073.6	210.669	1755.5	60.48	4575.9
	12:00	1973.7	158.5	2044.8	205.288	1768.4	59.64	4577.3
	12:05	1969.7	165.6	2044.8	205.288	1764.4	59.64	4578.7
	12:10	1977.4	172.8	2073.6	210.669	1766.7	60.48	4580
				2049.6				
	12:11	1654.7				1654.7		4519.2
	12:12	1647.1				1647.1		4506.2
8	12:13	1639.4				1639.4		4495.5
	12:14	1630.4				1630.4		4486.3
	12:15	1624.0				1624.0		4478.6
	12:20	1593.2				1593.2		4447
	12:25	1571.2				1571.2		4423.6
	12:30	1550.3				1550.3		4403.4
	12:35	1532.2				1532.2		4385.8
	12:40	1517.0				1517.0		4369.1
FALLOFF								



WEST-TEST, INC.

A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION AND PRODUCTION

DATE: APRIL 4, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 130
LEA COUNTY, NEW MEXICO

WO#: 94-14-0601

MID-PERFS. = 6548-6655

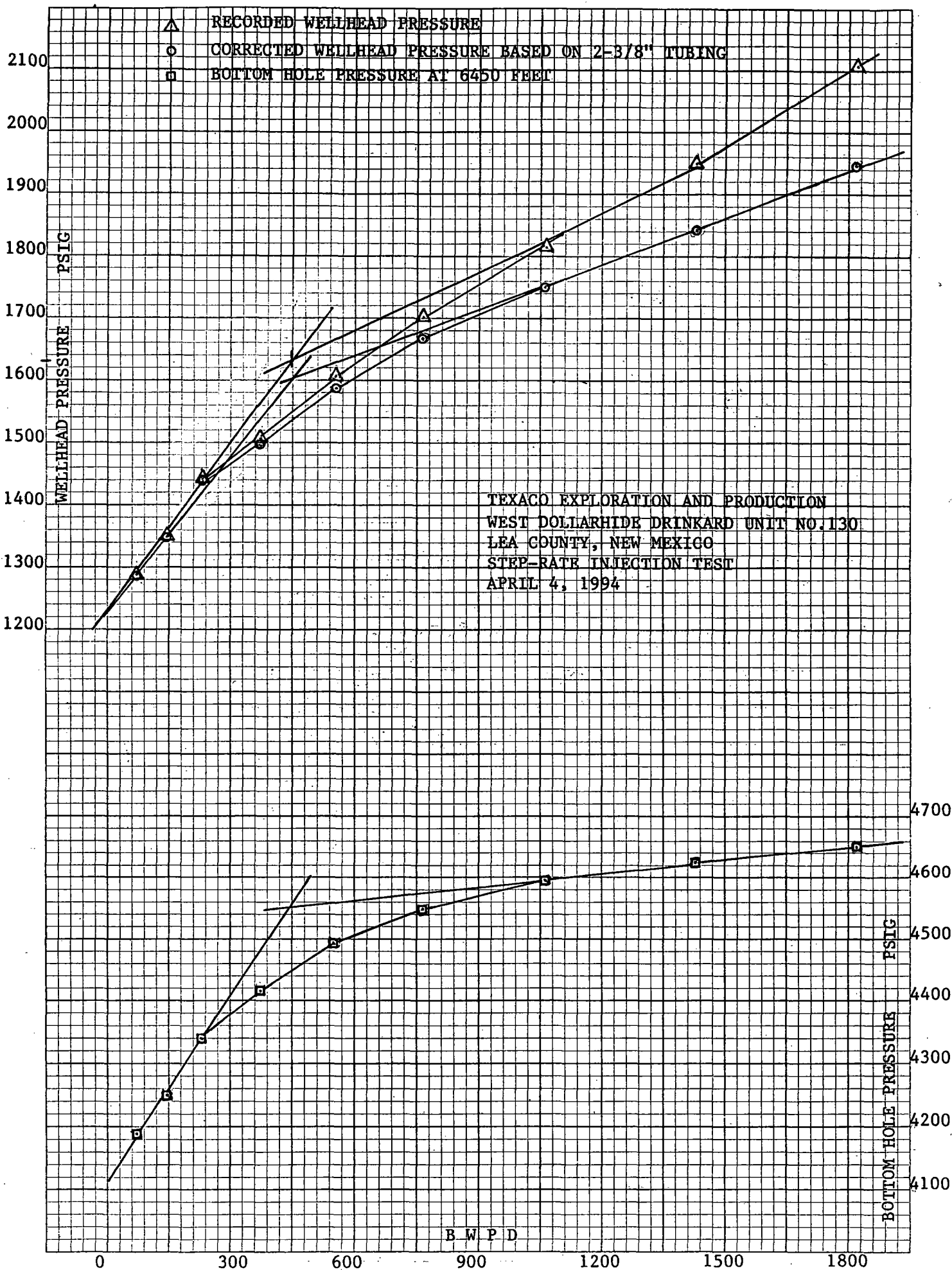
PACKER DEPTH = 6483

BHP GAUGE DEPTH = 6450

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)
1	8:10	1253.2				1253.2		4142
	8:15	1263.3	6.6	57.6	0.283	1263.0	1.68	4159.9
	8:20	1270.8	6.9	86.4	0.600	1270.2	2.52	4168.8
	8:25	1275.8	7.1	57.6	0.283	1275.5	1.68	4175
	8:30	1280.9	7.4	86.4	0.600	1280.3	2.52	4180.5
	8:35	1284.6	7.6	57.6	0.283	1284.3	1.68	4184.5
	8:40	1288.4	7.9	86.4	0.600	1287.8	2.52	4188.5
				72.0				
	8:45	1307.5	8.4	144.0	1.543	1306.0	4.20	4206.5
	8:50	1316.5	8.9	144.0	1.543	1315.0	4.20	4216.5
2	8:55	1324.1	9.4	144.0	1.543	1322.6	4.20	4225.6
	9:00	1334.2	10.0	172.8	2.162	1332.0	5.04	4235.6
	9:05	1343.0	10.5	144.0	1.543	1341.5	4.20	4244.7
	9:10	1350.8	11.0	144.0	1.543	1349.3	4.20	4252.1
				148.8				
	9:15	1378.9	0.8	230.4	3.681	1375.2	6.72	4280
	9:20	1372.4	1.7	259.2	4.578	1367.8	7.56	4297.6
	9:25	1396.6	2.5	230.4	3.681	1392.9	6.72	4309.4
	9:30	1392.7	3.3	230.4	3.681	1389.0	6.72	4321.9
	9:35	1413.0	4.1	230.4	3.681	1409.3	6.72	4329.5
3	9:40	1441.0	4.9	230.4	3.681	1437.3	6.72	4339.5
				235.2				
	9:45	1466.5	6.2	374.4	9.038	1457.5	10.92	4363.4
	9:50	1490.8	7.4	345.6	7.794	1483.0	10.08	4378.7
	9:55	1493.2	8.7	374.4	9.038	1484.2	10.92	4390.6
	10:00	1486.6	10.1	403.2	10.366	1476.2	11.76	4400.9
	10:05	1515.9	11.4	374.4	9.038	1506.9	10.92	4411.9
	10:10	1504.2	12.7	374.4	9.038	1495.2	10.92	4417.9
				374.4				

STEP NO. 8		(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)/24.2657	(7) MEASURED BHP (psi)
REMARKS	TIME							
5	10:15	1575.7	14.6	547.2	18.238	1557.5	15.96	4442.8
	10:20	1580.7	16.6	576.0	20.053	1560.6	16.80	4456.8
	10:25	1598.2	18.5	547.2	18.238	1580.0	15.96	4466.6
	10:30	1596.5	20.4	547.2	18.238	1578.3	15.96	4477.1
	10:35	1612.7	22.4	576.0	20.053	1592.6	16.80	4485.7
	10:40	1606.0	24.3	547.2	18.238	1587.8	15.96	4493.6
				556.8				
	10:45	1663.3	27.0	777.6	34.938	1628.4	22.68	4511.4
	10:50	1665.7	29.6	748.8	32.582	1633.1	21.84	4523
	10:55	1683.8	32.3	777.6	34.938	1648.9	22.68	4529.7
6	11:00	1696.6	34.9	748.8	32.582	1664.0	21.84	4537.8
	11:05	1692.2	37.5	748.8	32.582	1659.6	21.84	4543.3
	11:10	1700.5	40.2	777.6	34.938	1665.6	22.68	4547.9
				763.2				
	11:15	1785.8	43.8	1036.8	59.489	1726.3	30.24	4565.2
	11:20	1783.1	47.4	1036.8	59.489	1723.6	30.24	4575.6
	11:25	1801.3	51.2	1094.4	65.748	1735.6	31.92	4582.7
	11:30	1807.8	54.8	1036.8	59.489	1748.3	30.24	4587
	11:35	1811.8	58.6	1094.4	65.748	1746.1	31.92	4590.3
	11:40	1815.7	62.3	1065.6	62.583	1753.1	31.08	4594.2
7				1060.8				
	11:45	1936.1	67.2	1411.2	105.231	1830.9	41.16	4610.8
	11:50	1941.3	72.3	1468.8	113.315	1828.0	42.84	4617.3
	11:55	1942.7	77.2	1411.2	105.231	1837.5	41.16	4620.4
	12:00	1950.4	82.2	1440.0	109.238	1841.2	42.00	4624.6
	12:05	1947.9	87.2	1440.0	109.238	1838.7	42.00	4626.3
	12:10	1949.0	92.2	1440.0	109.238	1839.8	42.00	4626.1
				1435.2				
	12:15	2122.9	98.6	1843.2	172.470	1950.4	53.76	4641.7
	12:20	2106.8	104.9	1814.4	167.518	1939.3	52.92	4645.5
8	12:25	2106.7	111.2	1814.4	167.518	1939.2	52.92	4647.3
	12:30	2101.9	117.6	1843.2	172.470	1929.4	53.76	4649.7
	12:35	2108.6	124.0	1843.2	172.470	1936.1	53.76	4650.3
	12:40	2107.4	130.2	1785.6	162.632	1944.8	52.08	4651.5
				1824.0				
9								
FALLOFF	12:41	1688.6				1688.6		4627.2
	12:42	1689.9				1689.9		4618
	12:43	1682.3				1682.3		4610.1
	12:44	1675.9				1675.9		4602.1
	12:45	1670.8				1670.8		4595.5

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)/24.2657	(7) MEASURED BHP (psi)
	12:50	1649.1				1649.1		4570.6
	12:55	1632.5				1632.5		4553.7
	1:00	1618.3				1618.3		4540.1
	1:05	1607.8				1607.8		4528.7
	1:10	1595.6				1595.6		4517.9



WEST-TEST, INC.
A SUBSIDIARY OF JOHN WEST ENGINEERING COMPANY
Hobbs, New Mexico

STEP RATE INJECTION TEST

CLIENT: TEXACO EXPLORATION & PRODUCTION

DATE: MARCH 24, 1994

WELL NAME: WEST DOLLARHIDE DRINKARD UNIT NO. 140
LEA COUNTY, NEW MEXICO

WO#: 94-14-0562

MID-PERFS. = 6385-6350

PACKER DEPTH = 6335

BHP GAUGE DEPTH = 6295

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)/54.2837	(7) MEASURED BHP (psi)
1	7:30	1116.2				1116.2		3945.1
	7:35	1137.7	714.9	86.4	0.585	1137.1	2.52	3968.4
	7:40	1142.6	715.2	72.0	0.418	1142.2	2.10	3975.9
	7:45	1147.5	715.4	72.0	0.418	1147.1	2.10	3979.9
	7:50	1149.9	715.7	86.4	0.585	1149.3	2.52	3983.6
	7:55	1152.3	716.0	86.4	0.585	1151.7	2.52	3986.5
	8:00	1154.7	716.3	86.4	0.585	1154.1	2.52	3988.8
				81.6				
	8:05	1187.8	716.8	144.0	1.506	1186.3	4.20	4021.1
	8:10	1199.2	171.4	158.4	1.796	1197.4	4.62	4033.5
2	8:15	1205.7	717.9	158.4	1.796	1203.9	4.62	4041.7
	8:20	1212.1	718.4	144.0	1.506	1210.6	4.20	4048.3
	8:25	1217.2	718.9	144.0	1.506	1215.7	4.20	4053.3
	8:30	1222.3	719.5	172.8	2.110	1220.2	5.04	4058.3
				153.6				
	8:35	1315.7	1.2	331.2	7.031	1308.7	9.66	4122.5
	8:40	1336.3	2.3	331.2	7.031	1329.3	9.66	4157
	8:45	1349.1	3.5	345.6	7.607	1341.5	10.08	4178
	8:50	1378.6	4.7	345.6	7.607	1371.0	10.08	4193.2
	8:55	1366.9	6.0	374.4	8.821	1358.1	10.92	4201.1
3	9:00	1393.6	7.2	345.6	7.607	1386.0	10.08	4218.5
				345.6				
	9:05	1466.4	9.2	576.0	19.571	1446.8	16.80	4259.6
	9:10	1470.1	11.2	576.0	19.571	1450.5	16.80	4284.2
	9:15	1480.1	13.3	604.8	21.420	1458.7	17.64	4295.7
	9:20	1485.1	15.4	604.8	21.420	1463.7	17.64	4311.2
	9:25	1500.6	17.3	547.2	17.800	1482.8	15.96	4315.1
	9:30	1512.1	19.3	576.0	19.571	1492.5	16.80	4323.7
				580.8				

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)/24.2857	(7) MEASURED BHP (psi)
5	9:35	1622.1	22.7	979.2	52.234	1569.9	28.56	4364.5
	9:40	1633.6	25.9	921.6	46.692	1586.9	26.88	4379.8
	9:45	1647.6	29.3	979.2	52.234	1595.4	28.56	4390.2
	9:50	1651.4	32.7	979.2	52.234	1599.2	28.56	4402.7
	9:55	1659.2	36.0	950.4	49.427	1609.8	27.72	4406.9
	10:00	1664.4	39.3	950.4	49.427	1615.0	27.72	4416.5
				960.0				
	10:05	1743.7	43.7	1267.2	84.160	1659.5	36.96	4437.8
	10:10	1764.1	48.0	1238.4	80.655	1683.4	36.12	4446.4
	10:15	1784.5	52.3	1238.4	80.655	1703.8	36.12	4457
6	10:20	1771.5	56.6	1238.4	80.655	1690.8	36.12	4461.1
	10:25	1775.3	60.9	1238.4	80.655	1694.6	36.12	4464.1
	10:30	1779.1	65.1	1209.6	77.220	1701.9	35.28	4469.4
				1238.4				
	10:35	1900.6	70.5	1555.2	122.926	1777.7	45.36	4492.9
	10:40	1914.5	75.8	1526.4	118.748	1795.8	44.52	4496.5
	10:45	1902.8	81.2	1555.2	122.926	1779.9	45.36	4506.4
	10:50	1910.4	86.6	1555.2	122.926	1787.5	45.36	4505.4
	10:55	1916.0	91.9	1526.4	118.748	1797.3	44.52	4512.3
	11:00	1922.8	97.3	1555.2	122.926	1799.9	45.36	4514.3
7				1545.6				
	11:05	2048.3	103.7	1843.2	168.325	1880.0	53.76	4532.1
	11:10	2050.8	110.2	1872.0	173.223	1877.6	54.60	4534
	11:15	2046.8	116.7	1872.0	173.223	1873.6	54.60	4536
	11:20	2058.7	123.2	1872.0	173.223	1885.5	54.60	4539
	11:25	2062.0	129.7	1872.0	173.223	1888.8	54.60	4542
	11:30	2049.1	136.2	1872.0	173.223	1875.9	54.60	4544
				1867.2				
	11:31	1655.9				1655.9		4509.3
	11:32	1634.2				1634.2		4500.2
8	11:33	1627.8				1627.8		4493.3
	11:34	1621.3				1621.3		4488
	11:35	1617.5				1617.5		4482.4
	11:40	1598.3				1598.3		4461.2
	11:45	1581.6				1581.6		4444.3
	11:50	1567.4				1567.4		4430.5
	11:55	1555.9				1555.9		4418.1
	12:00	1544.3				1544.3		4406.9
	FALLOFF							

