



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

October 30, 1997

CF 10094
R-9325

The Wiser Oil Company
P.O. Drawer 2568
Hobbs, New Mexico 88241-2568

WFX-694
PDEV0020600694
WFX-698
PDEV0020606980

Attn: Ms. Stacey Crawford

**RE: Injection Pressure Increase,
Caprock Maljamar Unit Waterflood Project,
Lea County, New Mexico**

Dear Ms. Crawford:

Reference is made to your request dated July 16, 1997 and additional data supplied on October 8, 1997, to increase the surface injection pressure on a field-wide group of wells in the above referenced waterflood project. This request is based on 7 step rate tests conducted between June 2 and October 3, 1997. These tests will similarly affect 7 additional adjacent wells. Additionally, you requested that data inferred from 6 previously tested wells be used to affect 7 adjacent wells. The results of the tests and previous data have been reviewed by my staff. At this time, we feel an increase in injection pressure on the 7 recently tested wells and 13 additional wells in the subject areas of influence is justified.

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

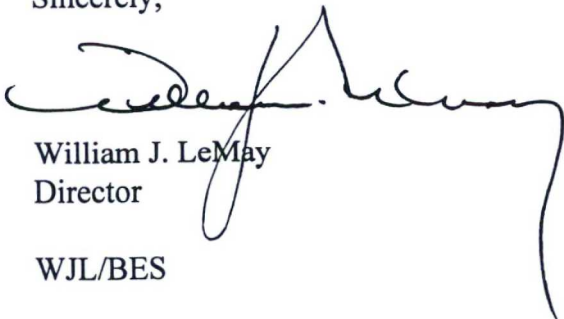
<i>Recently Tested Well Name and Number</i>	<i>Adjacent Well Name and Number</i>	<i>ULSTR</i>	<i>Authorized Pressure</i>
CMU Well No.20		K-17-17S-33E	2242 PSIG
	CMU Well No.29	M-17-17S-33E	2242 PSIG
CMU Well No.58		E-21-17S-33E	2537 PSIG
	CMU Well No.45	D-21-17S-33E	2537 PSIG
CMU Well No.73		M-24-17S-32E	2032 PSIG
	None applicable		
CMU Well No.84		P-20-17S-33E	2130 PSIG
	CMU Well No.82	N-20-17S-33E	2130 PSIG
	CMU Well No.83	O-20-17S-33E	2130 PSIG
CMU Well No.94		K-28-17S-33E	2380 PSIG
	CMU Well No.93	L-28-17S-33E	2380 PSIG
CMU Well No.96		I-28-17S-33E	2685 PSIG
	CMU Well No.100	O-28-17S-33E	2685 PSIG
CMU Well No.267		F-24-17S-32E	2570 PSIG
	CMU Well No.266	E-24-17S-32E	2570 PSIG

Further, the following 7 wells are hereby approved for injection pressure increases based on the previous test data on 6 wells:

<i>Previously Tested Well Name and Number</i>	<i>Adjacent Well Name and Number</i>	<i>ULSTR</i>	<i>Authorized Pressure</i>
CMU Well No.9		E-17-17S-33E	2550 PSIG
	CMU Well No.260	H-18-17S-33E	2550 PSIG
CMU Well No.26		N-18-17S-33E	2755 PSIG
	CMU Well No.261	O-18-17S-33E	2755 PSIG
	CMU Well No.262	B-19-17S-33E	2755 PSIG
CMU Well No.80		P-19-17S-33E	2480 PSIG
	CMU Well No.263	M-20-17S-33E	2480 PSIG
CMU Well No.35		B-24-17S-32E	1910 PSIG
	CMU Well No.265	C-24-17S-32E	1910 PSIG
CMU Well No.53		H-19-17S-33E	2096 PSIG
	CMU Well No.67	I-19-17S-33E	2096 PSIG
CMU Well No.55		F-20-17S-33E	2306 PSIG
	CMU Well No.68	L-20-17S-33E	2306 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.

Sincerely,



William J. LeMay
Director

WJL/BES

cc: Oil Conservation Division - Hobbs
File: Case File No.10094; WFXs-694,698; PSI-X 2ndQTR 98

PS1-X

N/R



THE WISER OIL COMPANY

P.O. BOX 2568 • HOBBS, NM 88241
(Phone) 505-392-9797
(FAX) 505-392-8971

Mike Jones

July 16, 1997



Mr. David Catanach
State UIC Director
New Mexico Oil Conservation Division
P.O. Box 6429
Santa Fe, NM 87505-6429

Re: Petition for higher surface injection press. for Maljamar WIW's, Wiser operated, Lea County, NM.

Dear David:

As per our agreed upon procedure of step-rate testing 1 CMU injection well for every 3 CMU WIW's we would like to submit the following step-rate tests for your approval:

CMU	MAX. PRESS.
#20 for itself and 29. <i>2292 2242</i>	To be determined.
#58 for itself and 45. <i>2587 2537</i>	To be determined.
#9 (previously tested) and 260.	2550#
#26 (previously tested) and 261 and 262	2755#
#80 (previously tested) and 263	2480#
#35 (previously tested) and 265	1910#
#53 (previously tested) and 67	2096#
#55 (previously tested) and #68	2306#
#73 itself <i>2082 2032</i>	To be determined.
#84 itself and 82 and 83 <i>2190 2130</i>	To be determined.
#94 itself and 93 <i>2430 2380</i>	To be determined.
#96 itself and 100 <i>2735 2685</i>	To be determined.

We would also like to request to run step-rate tests on CMU 267 to cover itself and #266. When approval is given on the wells and tests previously mentioned we will have the necessary pressures to adequately waterflood our CMU.

July 16, 1997

We appreciate your time and effort in giving timely OCD approval to expedite waterflood response.

Best regards,

A handwritten signature in cursive script that reads "G. M. Jones". The signature is written in black ink and is positioned above the printed name.

G. M. Jones

GMJ/smc

Cc: Earl Krieg, Matt Eagleston, Bonnie Jones (J.O. Easley)

Attachments

The map displays the following sections and features:

- MALMAR UNIT:** Located in the upper left, showing well locations 1 through 14 and 18.
- CONOCO MCA UNIT:** The central and lower sections, showing well locations 15 through 100 and 101 through 110.
- PHILLIPS US MIN:** Located in the lower right, showing well locations 111 through 120.
- Well Types:** Indicated by symbols such as triangles (e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110).
- Production Data:** Indicated by numbers in circles (e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110).
- Legend:** Located in the bottom right corner, defining symbols for well types and production data.

P. O. BOX 5254
MIDLAND, TEXAS 79704

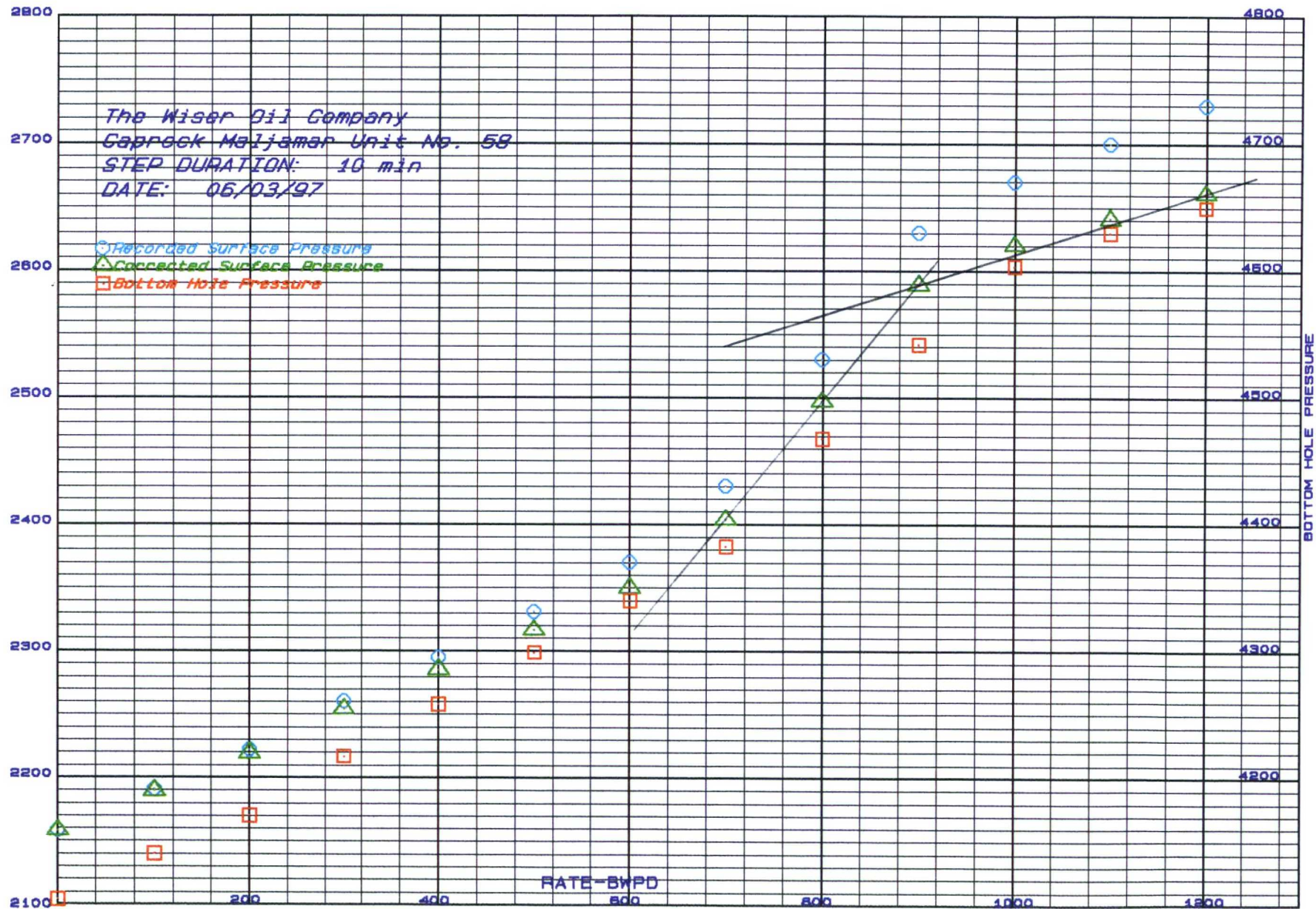


PHONE
915/682-7580

COMPANY: The Wiser Oil Company
LEASE: Caprock Maljamar Unit No. 58
BOMB DEPTH: 4450'
TUBING: 1.875 in. I.D. PC tubing set @ 4152 feet
TEST DATE: 06/03/97
DURATION OF STEPS: 10 min

POINT	TIME	RATE (BWPD)	GAUGE	FRICTION	CORRECTED	BHP
	13:40		2158	0.0	2158	4104
1	13:50	100	2190	0.8	2189	4140
2	14:00	200	2222	2.8	2219	4170
3	14:10	300	2260	5.8	2254	4217
4	14:20	400	2295	9.6	2285	4258
5	14:30	500	2331	14.3	2317	4299
6	14:40	600	2370	19.7	2350	4340
7	14:50	700	2430	26.0	2404	4383
8	1721	800	2530	33.1	2497	4468
9	15:10	900	2630	41.0	2589	4542
10	15:20	1000	2670	49.6	2620	4604
11	15:30	1100	2700	58.9	2641	4630
12	15:40	1200	2730	69.0	2661	4650

SURFACE & CORRECTED PRESSURE



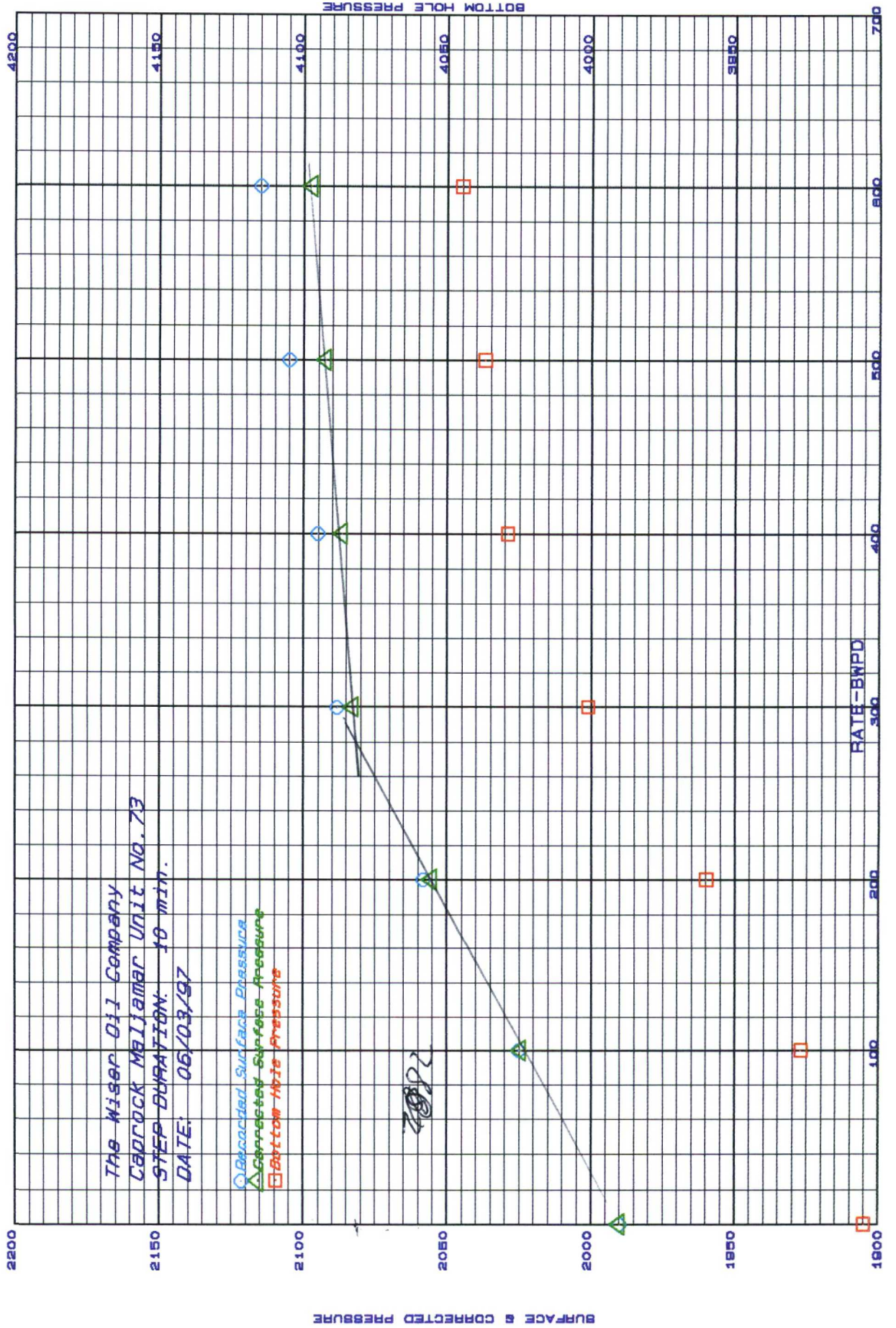
P. O. BOX 5254
MIDLAND, TEXAS 79704



PHONE
915/682-7580

COMPANY: The Wiser Oil Company
LEASE: Caprock Maljamar Unit No.73
BOMB DEPTH: 4308
TUBING: 1.875 in. I.D. PC tubing set @ 3717' feet
TEST DATE: 06/03/97
DURATION OF STEPS: 10 min.

=====						
POINT	TIME	RATE (BWPD)	GAUGE	FRICTION	CORRECTED	BHP
=====						
	08:30		1990	0.0	1990	3905
1	08:40	100	2025	0.8	2024	3927
2	08:50	200	2058	2.5	2055	3960
3	09:00	300	2088	5.2	2083	4001
4	09:10	400	2095	8.6	2086	4029
5	09:20	500	2105	12.8	2092	4037
6	09:30	600	2115	17.7	2097	4045



P. O. BOX 5254
MIDLAND, TEXAS 79704



PHONE
915/682-7580

COMPANY: The Wiser Oil Company
LEASE: Caprock Maljamar Unit #84
BOMB DEPTH: 4322
TUBING: 1.875 in. I.D. 1.875 tubing set @ 4202 feet
TEST DATE: 06/02/97
DURATION OF STEPS: 10 Minute

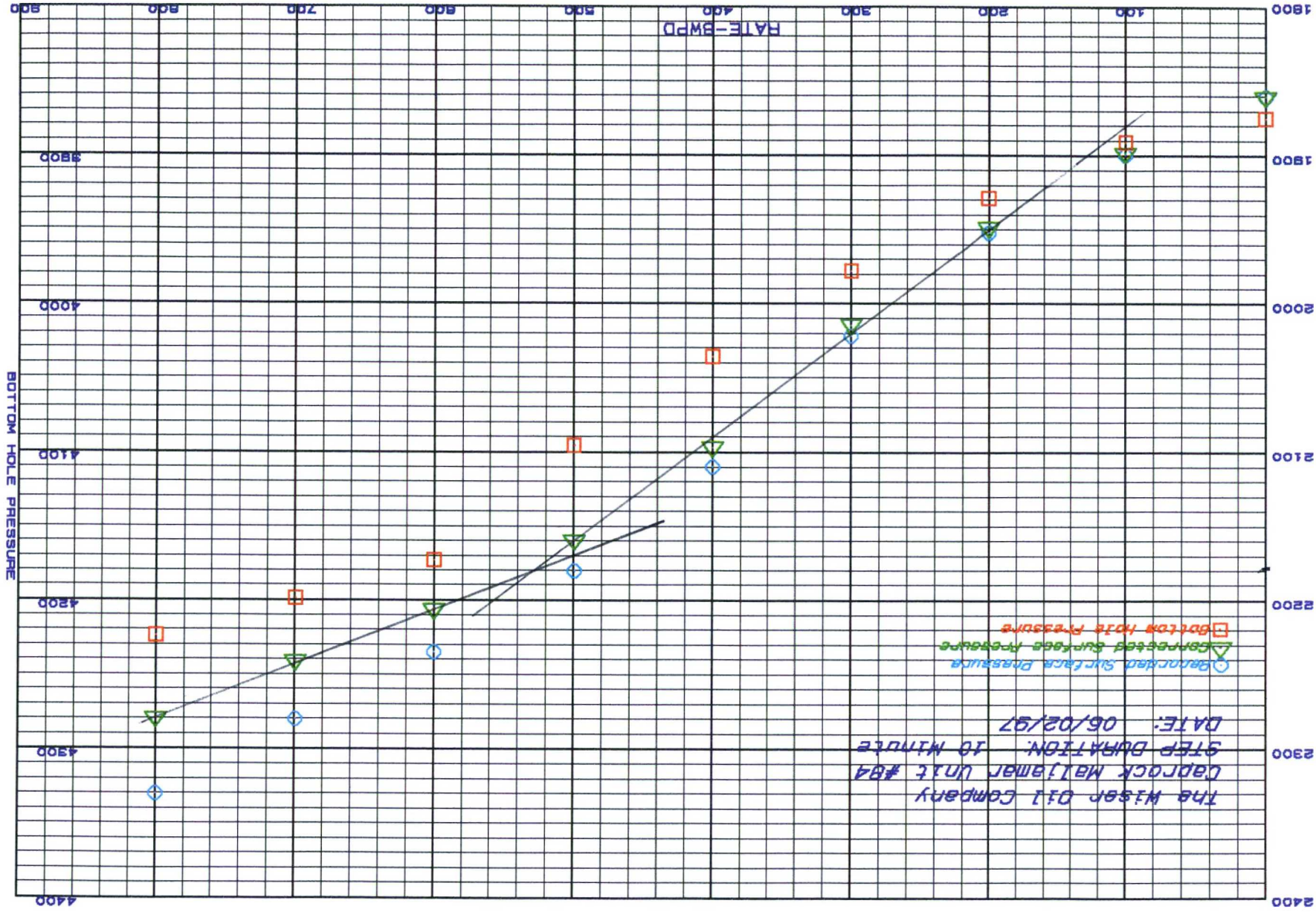
POINT	TIME	RATE (BWPD)	GAUGE	FRICTION	CORRECTED	BHP
	15:20		1860	0.0	1860	3875
1	15:30	100	1899	1.0	1898	3891
2	15:40	200	1952	3.6	1948	3929
3	15:50	300	2022	7.6	2014	3978
4	16:00	400	2110	13.2	2097	4036
5	16:10	500	2180	20.3	2160	4096
6	16:20	600	2235	28.8	2206	4173
7	16:30	700	2280	38.9	2241	4199
8	16:40	800	2330	50.4	2280	4224

SURFACE & CORRECTED PRESSURE

The Wiser Oil Company
 Lapack Malljamar Unit #84
 STEP DURATION: 10 MINUTE
 DATE: 06/02/97

○ Observed Surface Pressure
△ Corrected Surface Pressure
□ Bottom Hole Pressure

RATE-BWPD



BOTTOM HOLE PRESSURE

P. O. BOX 5254
MIDLAND, TEXAS 79704

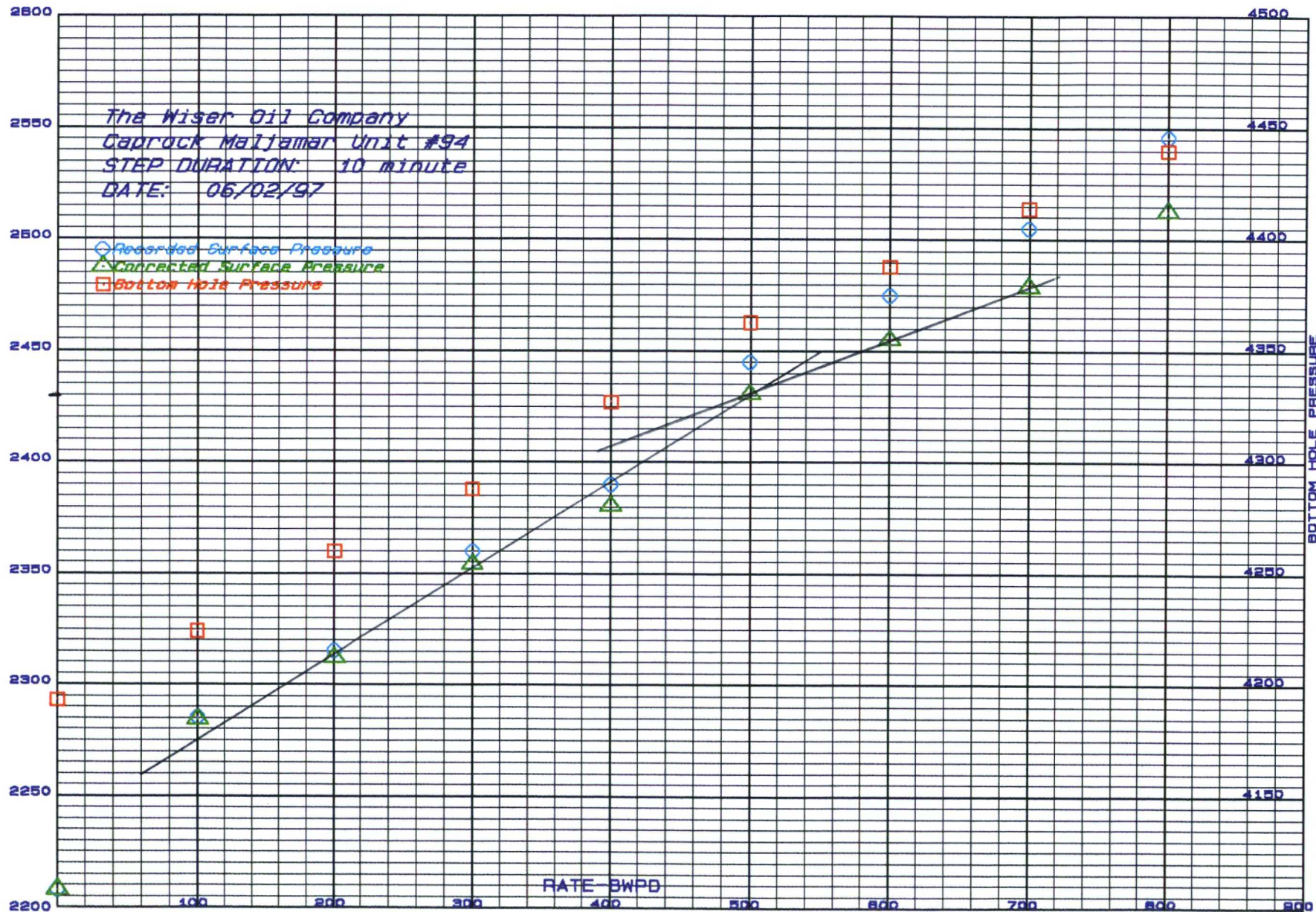


PHONE
915/682-7580

COMPANY: The Wiser Oil Company
LEASE: Caprock Maljamar Unit #94
BOMB DEPTH: 4272
TUBING: 1.875 in. I.D. PC tubing set @ 4149 feet
TEST DATE: 06/02/97
DURATION OF STEPS: 10 minute

=====						
POINT	TIME	RATE(BWPD)	GAUGE	FRICTION	CORRECTED	BHP
=====						
	09:40		2208	0.0	2208	4193
1	09:50	100	2285	0.8	2284	4224
2	10:00	200	2315	2.8	2312	4260
3	10:10	300	2360	5.8	2354	4288
4	10:20	400	2390	9.6	2380	4327
5	10:30	500	2445	14.2	2431	4363
6	10:40	600	2475	19.7	2455	4388
7	10:50	700	2505	26.0	2479	4414
8	11:00	800	2546	33.1	2513	4440

SURFACE & CORRECTED PRESSURE



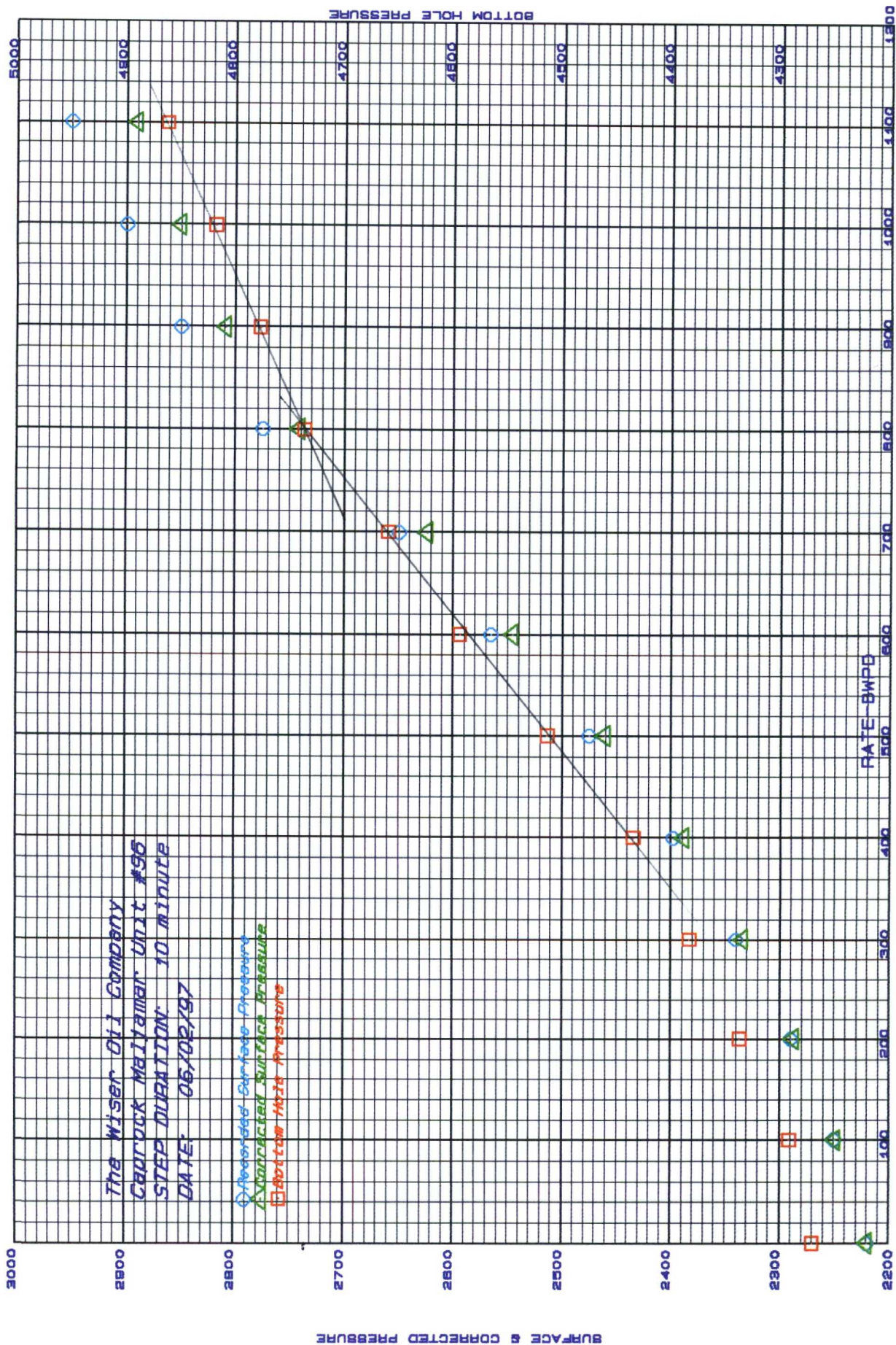
P. O. BOX 5254
MIDLAND, TEXAS 79704



PHONE
915/682-7580

COMPANY: The Wiser Oil Company
LEASE: Caprock Maljamar Unit #96
BOMB DEPTH: 4327
TUBING: 1.875 in. I.D. PC tubing set @ 4158 feet
TEST DATE: 06/02/97
DURATION OF STEPS: 10 minute

POINT	TIME	RATE(BWPD)	GAUGE	FRICTION	CORRECTED	BHP
	12:10		2220	0.0	2220	4270
1	12:20	100	2250	0.9	2249	4291
2	12:30	200	2290	2.8	2287	4337
3	12:40	300	2340	5.8	2334	4383
4	12:50	400	2398	9.6	2388	4435
5	13:00	500	2475	14.3	2461	4514
6	13:10	600	2565	19.8	2545	4594
7	13:20	700	2650	26.1	2624	4660
8	13:30	800	2775	33.2	2742	4737
9	13:40	900	2850	41.0	2809	4778
10	13:50	1000	2900	49.6	2850	4819
11	14:00	1100	2950	59.0	2891	4863



P. O. BOX 5254
MIDLAND, TEXAS 79704

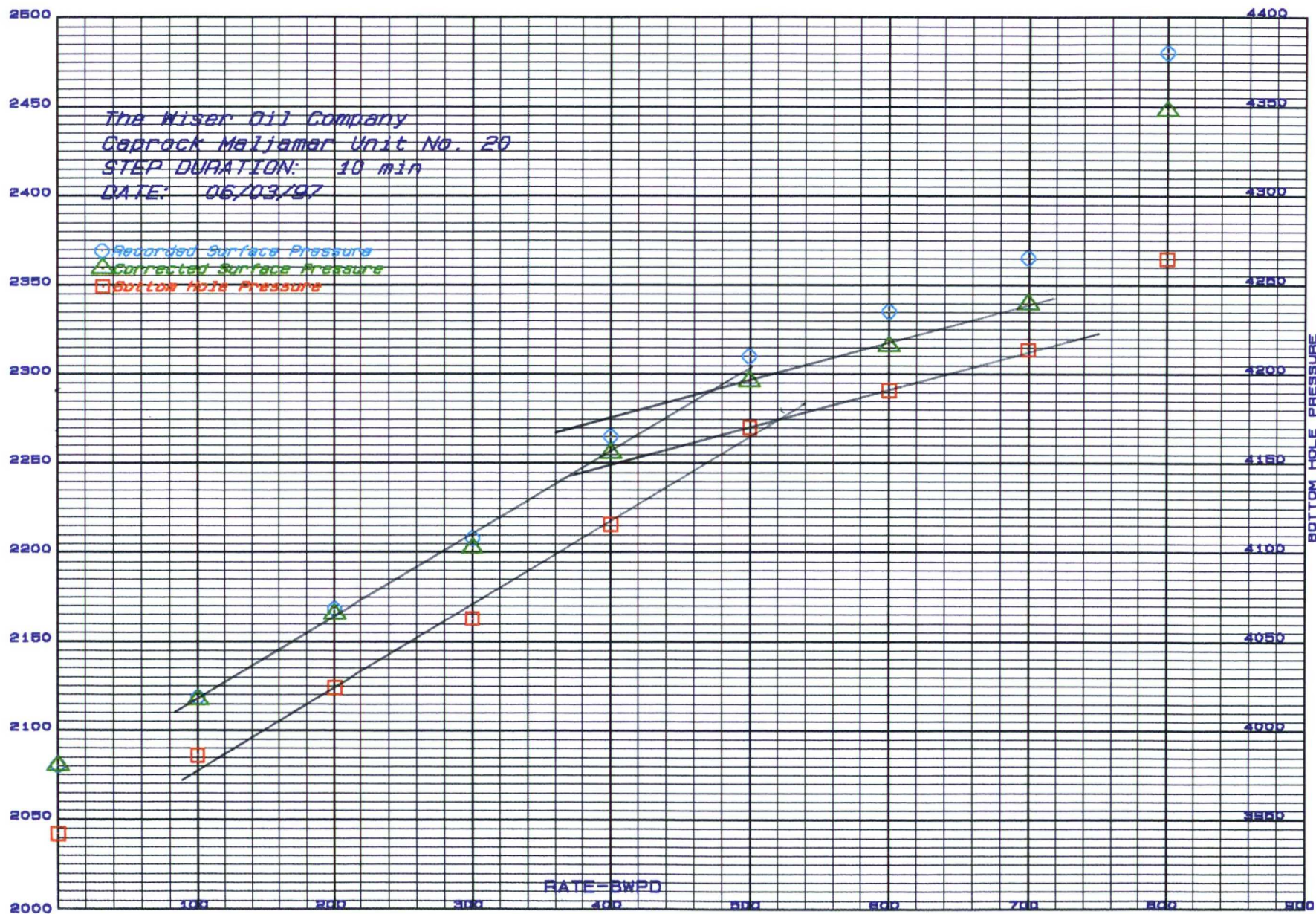


PHONE
915/682-7580

COMPANY: The Wiser Oil Company
LEASE: Caprock Maljamar Unit No. 20
BOMB DEPTH: 4277
TUBING: 1.875 in. I.D. PC tubing set @ 4034' feet
TEST DATE: 06/03/97
DURATION OF STEPS: 10 min

=====						
POINT	TIME	RATE (BWPD)	GAUGE	FRICTION	CORRECTED	BHP
=====						
	16:20		2080	0.0	2080	3942
1	16:30	100	2118	0.8	2117	3986
2	16:40	200	2168	2.7	2165	4024
3	16:50	300	2208	5.6	2202	4063
4	17:00	400	2265	9.3	2256	4116
5	17:10	500	2310	13.8	2296	4170
6	17:20	600	2335	19.2	2316	4191
7	17:30	700	2365	25.3	2340	4214
8	17:40	800	2480	32.2	2448	4265

SURFACE & CORRECTED PRESSURE





THE WISER OIL COMPANY

P.O. BOX 2568 • HOBBS, NM 88241
(Phone) 505-392-9797
(FAX) 505-392-8971



October 8, 1997

Mr. Ben Stone
New Mexico Oil Conservation Division
P.O. Box 6429
Santa Fe, NM 87505-6429

Dear Ben:

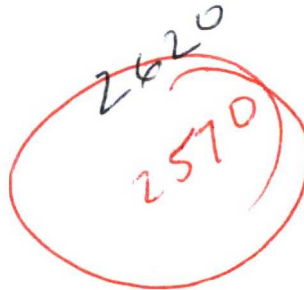
Enclosed please find a step-rate test on the CMU 267 as per our request dated July 16, 1997. I have enclosed a copy of said letter for your quick reference.

Please let us know if you need further information.

Thank you for all your help.

Sincerely,


Stacey M. Crawford



Cc: Bonnie (Hobbs OCD)

Enclosures: as stated.



THE WISER OIL COMPANY

P.O. BOX 2568 • HOBBS, NM 88241
(Phone) 505-392-9797
(FAX) 505-392-8971

July 16, 1997

Mr. David Catanach
State UIC Director
New Mexico Oil Conservation Division
P.O. Box 6429
Santa Fe, NM 87505-6429

Re: Petition for higher surface injection press. for Maljamar WW's, Wiser operated, Lea County, NM.

Dear David:

As per our agreed upon procedure of step-rate testing 1 CMU injection well for every 3 CMU WW's we would like to submit the following step-rate tests for your approval:

CMU	MAX. PRESS.
#20 for itself and 29.	To be determined.
#58 for itself and 45.	To be determined.
#9 (previously tested) and 260.	2550#
#26 (previously tested) and 261 and 262	2755#
#80 (previously tested) and 263	2480#
#35 (previously tested) and 265	1910#
#53 (previously tested) and 67	2096#
#55 (previously tested) and #68	2306#
#73 itself	To be determined.
#84 itself and 82 and 83	To be determined.
#94 itself and 93	To be determined.
#96 itself and 100	To be determined.

We would also like to request to run step-rate tests on CMU 267 to cover itself and #266. When approval is given on the wells and tests previously mentioned we will have the necessary pressures to adequately waterflood our CMU.

July 16, 1997

—We appreciate your time and effort in giving timely OCD approval to expedite waterflood response.

Best regards,

A handwritten signature in cursive script that reads "G. M. Jones". The signature is written in black ink and is positioned above the printed name.

G. M. Jones

GMJ/smc

Cc: Earl Krieg, Matt Eagleston, Bonnie Jones (J.O. Easley)

Attachments

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

STEP RATE INJECTION TEST

CLIENT: THE WISER OIL COMPANY

DATE: OCTOBER 3, 1997

WELL NAME: C.M.U. NO. 267
EDDY COUNTY, NEW MEXICO

WO#: 97-14-1600

PERFS = 3953-4234

PACKER DEPTH = 3897

BHP GAUGE DEPTH = SURFACE ONLY

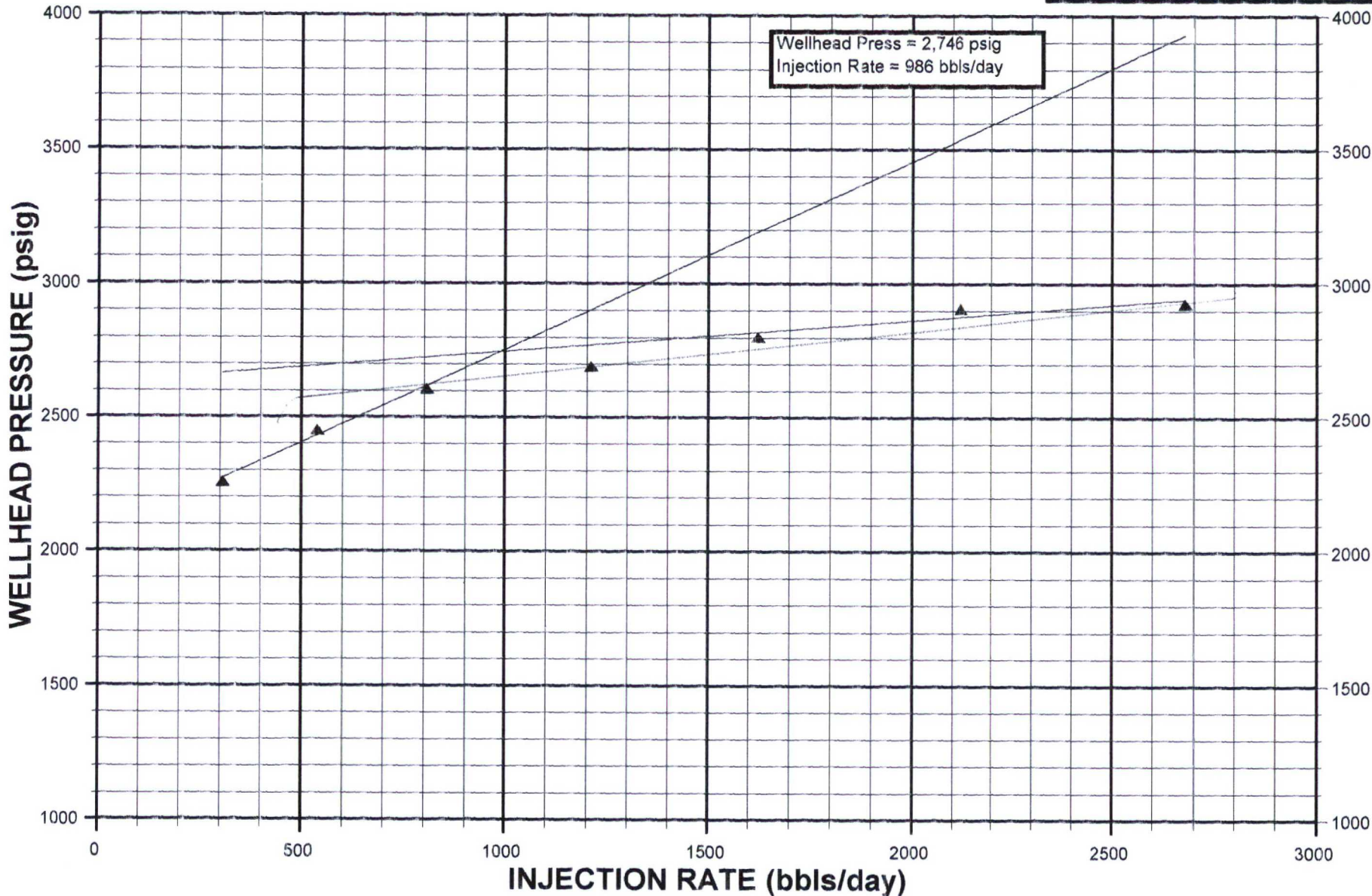
STEP NO. & REMARKS	TIME	(1) SURFACE TUBING PRESS. (psig)	(2) CUMMULATIVE VOL. INJECTED (bbls)	(3) INJECTION RATE (bbls/day)	(4) FRICTION HEAD LOSS (psi)	(5) CORRECTED TUBING PRESS. (psi) (1)-(4)	(6) INJECTION RATE (gpm) (3)/34.2857	(7) MEASURED BHP (psi)
	9:55	1832.0				1832.0		
	10:00	2173.8	1.0	288.0	3.531	2170.3	8.40	
	10:05	2185.2	2.1	316.8	4.212	2181.0	9.24	
1	10:10	2260.1	3.2	316.8	4.212	2255.9	9.24	
				307.2				
	10:15	2350.4	5.0	518.4	10.474	2339.9	15.12	
	10:20	2408.8	6.9	547.2	11.576	2397.2	15.96	
2	10:25	2454.6	8.8	547.2	11.576	2443.0	15.96	
				537.6				
	10:30	2627.5	11.6	806.4	23.720	2603.8	23.52	
	10:35	2515.6	14.4	806.4	23.720	2491.9	23.52	
3	10:40	2610.9	17.2	806.4	23.720	2587.2	23.52	
				806.4				
	10:45	2595.6	21.5	1238.4	52.455	2543.1	36.12	
	10:50	2781.2	25.8	1238.4	52.455	2728.7	36.12	
4	10:55	2692.1	29.8	1152.0	45.886	2646.2	33.60	
				1209.6				
	11:00	2732.6	35.5	1641.6	88.356	2644.2	47.88	
	11:05	2729.9	41.2	1641.6	88.356	2644.5	47.88	
5	11:10	2803.6	46.7	1584.0	82.707	2720.9	46.20	
				1622.4				
	11:15	2910.3	54.1	2131.2	143.201	2767.1	62.16	
	11:20	2805.8	61.4	2102.4	139.642	2666.2	61.32	
6	11:25	2911.2	68.8	2131.2	143.201	2768.0	62.16	
				2121.6				
	11:30	2902.2	78.1	2678.4	218.556	2683.6	78.12	
	11:35	2953.0	87.4	2678.4	218.556	2734.4	78.12	
7	11:40	2928.7	96.7	2678.4	218.556	2710.1	78.12	
				2678.4				

Page 2

STEP RATE INJECTION TEST
THE WISER OIL COMPANY

Well Name:
C.M.U. No. 267
Eddy County, New Mexico

Wellhead Press = 2,746 psig
Injection Rate = 986 bbls/day



▲ WELLHEAD PRESSURE ■ MEASURED BHP