

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

May 22, 1987

POST OFFICE BOX 2089
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800Texaco, Inc.
P.O. Box 728
Hobbs, NM 88240

Attention: J.A. Head

RE: Injection Pressure Increase
Skelly Unit
Eddy County, New Mexico

Dear Sir:

Reference is made to your request dated March 25, 1987, to increase the surface injection pressure on eight wells in the Skelly Unit Waterflood Project. This request is based on step rate tests conducted on these wells during February and March, 1987. 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 & LOCATIONMAXIMUM INJECTION
SURFACE PRESSURE

Skelly Unit No. 3
660 FNL & 660 FWL
(Unit D) Section 22

1575 PSIG

Skelly Unit No. 30
650 FSL & 2087 FWL
(Unit N) Section 15

1200 PSIG

Skelly Unit No. 32
660 FSL & 660 FEL
(Unit P) Section 15

1330 PSIG

Skelly Unit No. 42
660 FNL & 1880 FEL
(Unit B) Section 22

1395 PSIG

R-4717-A

30-015
05347

16774

05762

05356

Skelly Unit No. 46
1980 FNL & 560 FEL
(Unit H) Section 22

1495 PSIG

Skelly Unit No. 73
2130 FSL & 660 FWL
(Unit L) Section 23

1590 PSIG

Skelly Unit No. 89
660 FNL 7 1980 FEL
(Unit B) Section 28

1380 PSIG

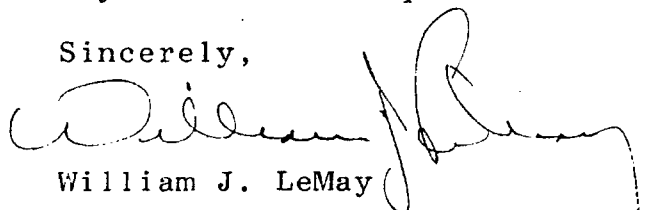
Skelly Unit No. 96
1980 FNL & 1980 FWL
(Unit F) Section 27

1315 PSIG

All in Township 17 South, Range 31 East, NMPM, Eddy
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

xc: OCD - Artesia
Case File - 5138 & 6103
D. McDonald
D. Catanach

05357
10504
05429
05424

Permit For
T#5
well = ?



Texas USA

PO BOX 1000
HOUSTON TEXAS 77255
505 397 3571

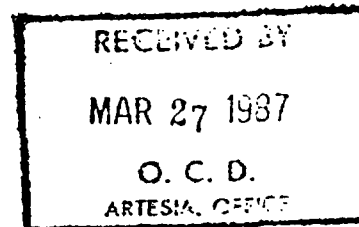
APR 28 1987

March 25, 1987

New Mexico Oil Conservation Division
Mr. Mike Williams
P. O. Drawer DD
Artesia, New Mexico 88210

Re: Skelly Unit

Mr. Williams:



Eight step rate tests were recently run on the Skelly Unit. The 7-Rivers zone was tested in Wells No. 3, 30, 32, 42, 46, 73, 89, and 96. Prior to conducting the tests, the wells were shut-in for at least one week to allow the pressure to decline. Copies of the step rate tests are attached.

Skelly Unit No. 52, 56, and 83 are dual injection wells which are presently shut-in. We are presently evaluating alternate means of dual injection and/or possible abandonment of one zone in these three wells.

Skelly Unit No. 114 is a dually completed well which produces from the 7-Rivers and injects into the Grayburg-Jackson. A tubing leak in the Grayburg-Jackson string is anticipated, and both strings are currently shut-in. The well is presently being reviewed for repair.

If you have any questions, please contact Glenn Carter at 397-3572.

Sincerely,

J. A. Head

Hobbs Area Superintendent

KGC/clp

Attachments

cc: File

B & D WELL TESTERS

Step Rate Test

Phone (505) 397-3914

Hobbs, New Mexico 88240

Company Texaco Inc.						Test Date 3-13-87		Unit	
Total Depth 3772						Plug Back TD 3772		Lease Skelly Unit	
Csg size 7" Wt d Set at						Perfs: From 2224 To 2342		Well # 3	
Tbg size 2 3/8 Wt d Set at						Perfs: From To		Sec Twp-Blk Rge	
Producing thru						Packer set at 2113		County Eddy State New Mexico	
Co. Rep Glen Carter									
Well Information									
Time of Reading	Elap Time Hrs.	Rate BBLS Per Day	Total BBLS Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP	Remarks		
11:55	SI			680					
12:00	Start	200		680					
12:05		200		720					
12:10		200		745					
12:15	:15	200		760					
12:20		400		810					
12:25		400		850					
12:30	:30	400		870					
12:35		600		950					
12:40		600		990					
12:45	:45	600		1010					
12:50		800		1095					
12:55		800		1120					
1:00	1:00	800		1150					
1:05		1000		1235					
1:10		1000		1290					
1:15	1:15	1000		1320					
1:20		1200		1420					
1:25		1200		1465					
1:30	1:30	1200		1480					
1:35		1400		1570					
1:40		1400		1600					
1:45	1:45	1400		1610					
1:50		1600		1660			Start Pumping		
1:55		1600		1680					
2:00	2:00	1600		1690					
2:05		1800		1705					
2:10		1800		1740					
2:15	2:15	1800		1750					
See page #2									

Hobbs, New Mexico 88240

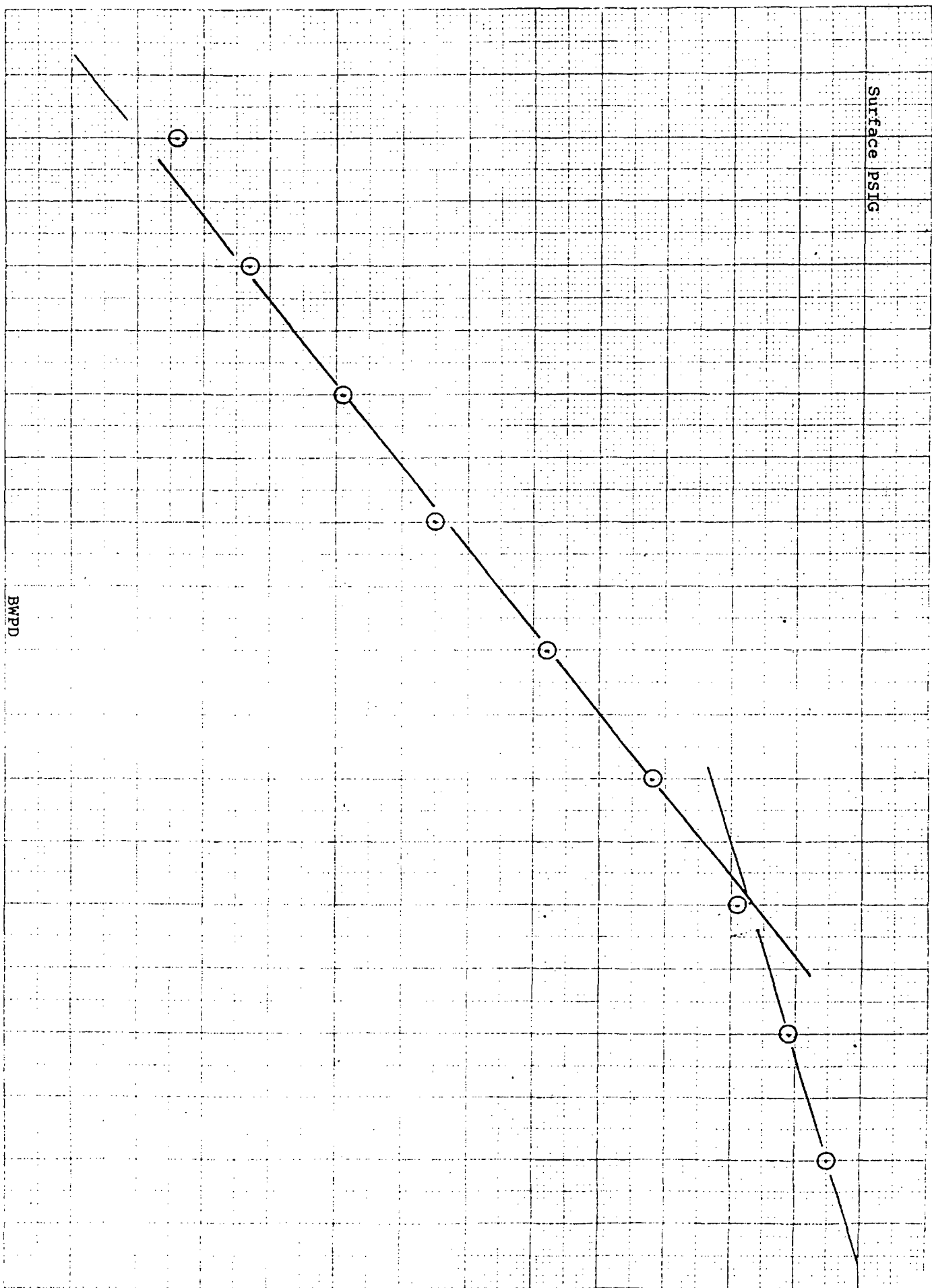
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Texaco Inc.

Skelly Unit #3

3-13-87

Surface PSIG



BPPD

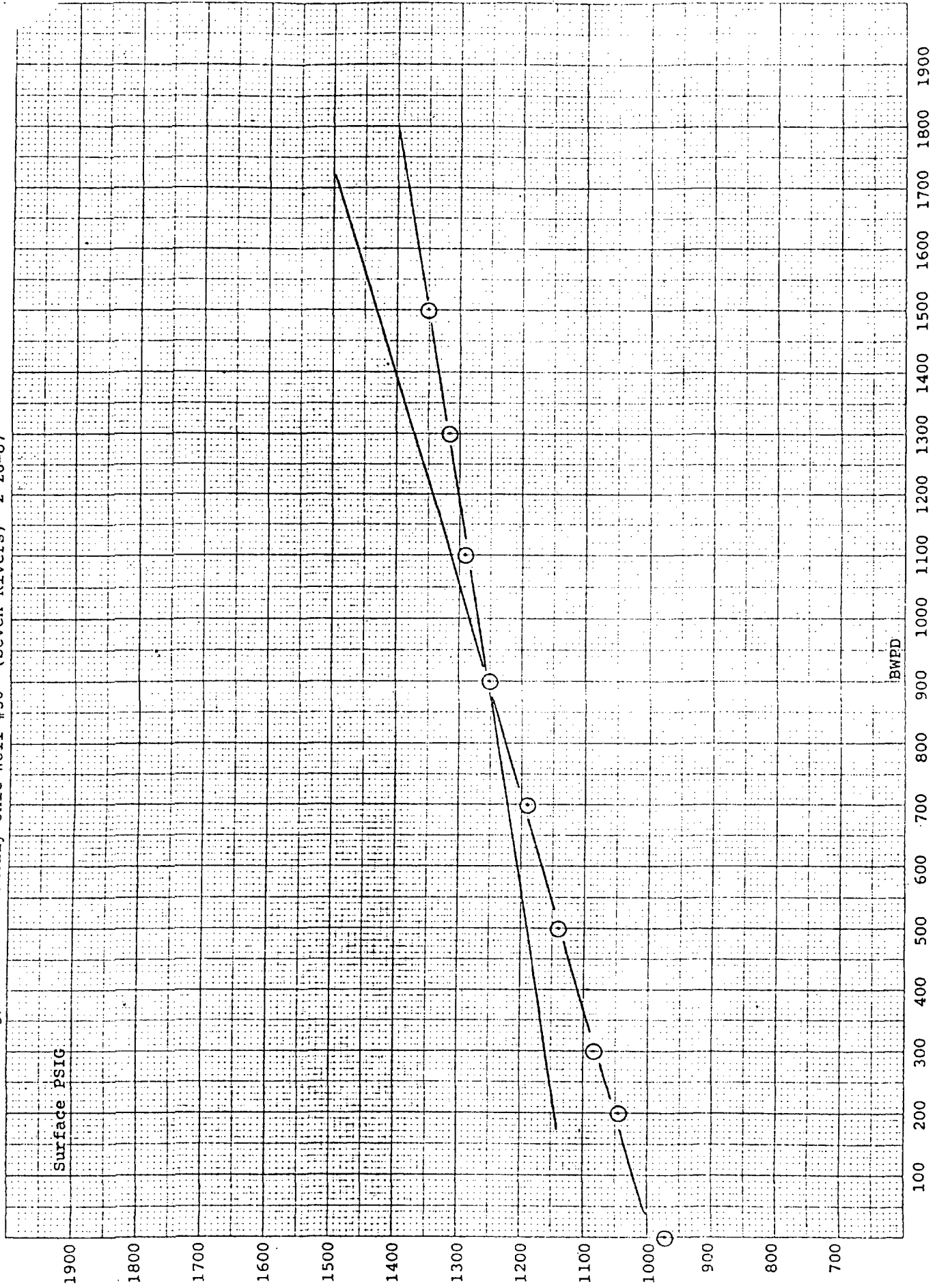
B & D WELL TESTERS

Step Rate Test

Phone (505) 397-3914

Hobbs, New Mexico 88240

Company Texaco Producing, Inc.						Test Date 2-26-87		Unit
Total Depth 3900'						Plug Back TD 3879		Lease Skelly Unit
Csg size 5½"						Perfs: From 2258 To 2403		Well # 30
Tbg size 2 3/8						Perfs: From To		Sec 15 Twp-Blk 17S Rge 31E
Producing thru						Packer set at 2166'		County Eddy State NM
Co. Rep Glen Carter								
Time of Reading	Elap Time Hrs.	Well Information					Remarks	
		Rate BBLs Per Day	Total BBLs Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP		
10:00	SI			975				
10:10	Start	200		975				
10:15		200		1020				
10:20		200		1040				
10:25	:15	200	2.1	1045				
10:30		300		1065				
10:35		300		1080				
10:40	:30	300	3.1	1085				
10:45		500		1125				
10:50		500		1135				
10:55	:45	500	5.2	1140				
11:00		700		1180				
11:05		700		1185				
11:10	1:00	700	7.3	1190				
11:15		900		1235				
11:20		900		1250				
11:25	1:15	900	9.3	1250				
11:30		1100		1285			1½ TM	
11:35		1100		1290				
11:40	1:30	1100	11.4	1290				
11:45		1300		1320				
11:50		1300		1320				
11:55	1:45	1300	13.5	1315				
12:00		1500		1345				
12:05		1500		1350				
12:10	2:00	1500	15.6	1350				
	End Test							
12:11	ISIP			1255				
12:12	5-minute fall off			1195				
12:13				1180				
12:14				1175				
12:15				1170				

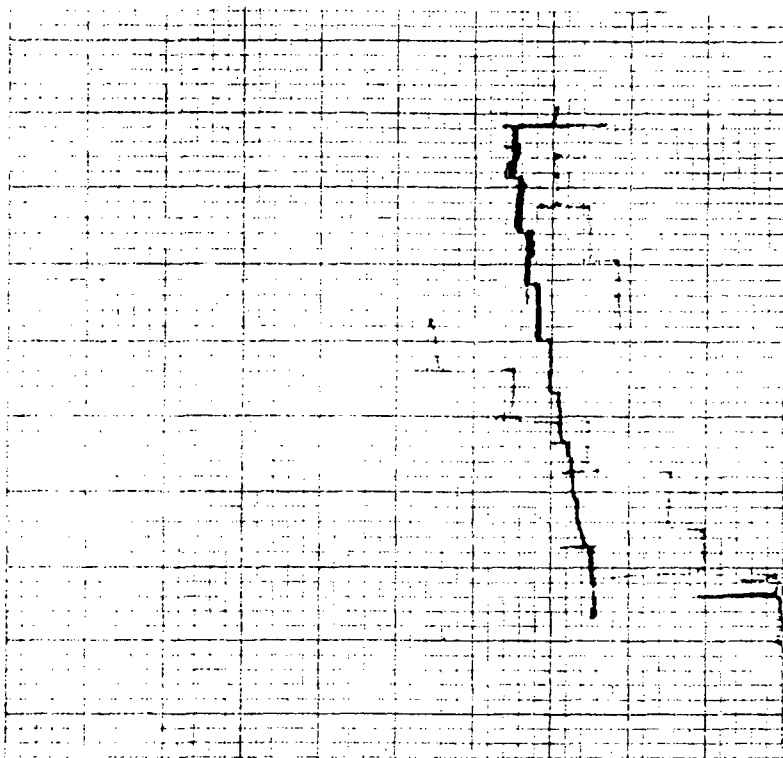


B & D WELL TESTERS, INC.

P.O. Box 5683
HOBBS, NEW MEXICO

505 397-3914

Texaco Producing, Inc.
Skelly Unit Well #30 (Seven Rivers)
2-26-87



B & D WELL TESTERS

Step Rate Test

Phone (505) 397-3914

Hobbs, New Mexico 88240

Company Texaco Producing Inc.						Test Date 2-26-87		Unit	
Total Depth 3808'		Plug Back TD 3803'		Elevation 3880' GL		Lease Skelly Unit			
Csg size 5 1/2		Wt 15.5# d		Set at		Perfs: From 2321 To 2446		Well # 32	
Tbg size 2 3/8		Wt PC d		Set at		Perfs: From To		Sec 15 Twp-Blk 17S Rge 31E	
Producing thru				Packer set at 2243'		County Eddy State NM			
						Co. Rep Glen Carter			

Time of Reading	Elap Time Hrs.	Well Information					Remarks
		Rate BBLS Per Day	Total BBLS Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP	
12:45	SI			480			
12:50	Start	200		480			
12:55		200		560			
1:00		200		610			
1:05	:15	200	2.1	640			
1:10		300		705			
1:15		300		750			
1:20	:30	300	3.1	775			
1:25		400		830			
1:30		400		880			
1:35	:45	400	4.2	920			
1:40		500		985			
1:45		500		1030			
1:50	1:00	500	5.2	1065			
1:55		600		1115			
2:00		600		1160			
2:05	1:15	600	6.3	1200			
2:10		700		1255			
2:15		700		1290			
2:20	1:30	700	7.3	1315			
2:25		800		1360			
2:30		800		1385			
2:35	1:45	800	8.4	1405			
2:40		900		1435			
2:45		900		1450			
2:50	2:00	900	9.4	1455			
2:55		1000		1470			
3:00		1000		1480			
3:05	2:15	1000	10.5	1485			
3:06	End Test	ISIP		1425			
3:07	5-minute fall	off		1420			
	See Page #2						

Step Rate Test

Page #2

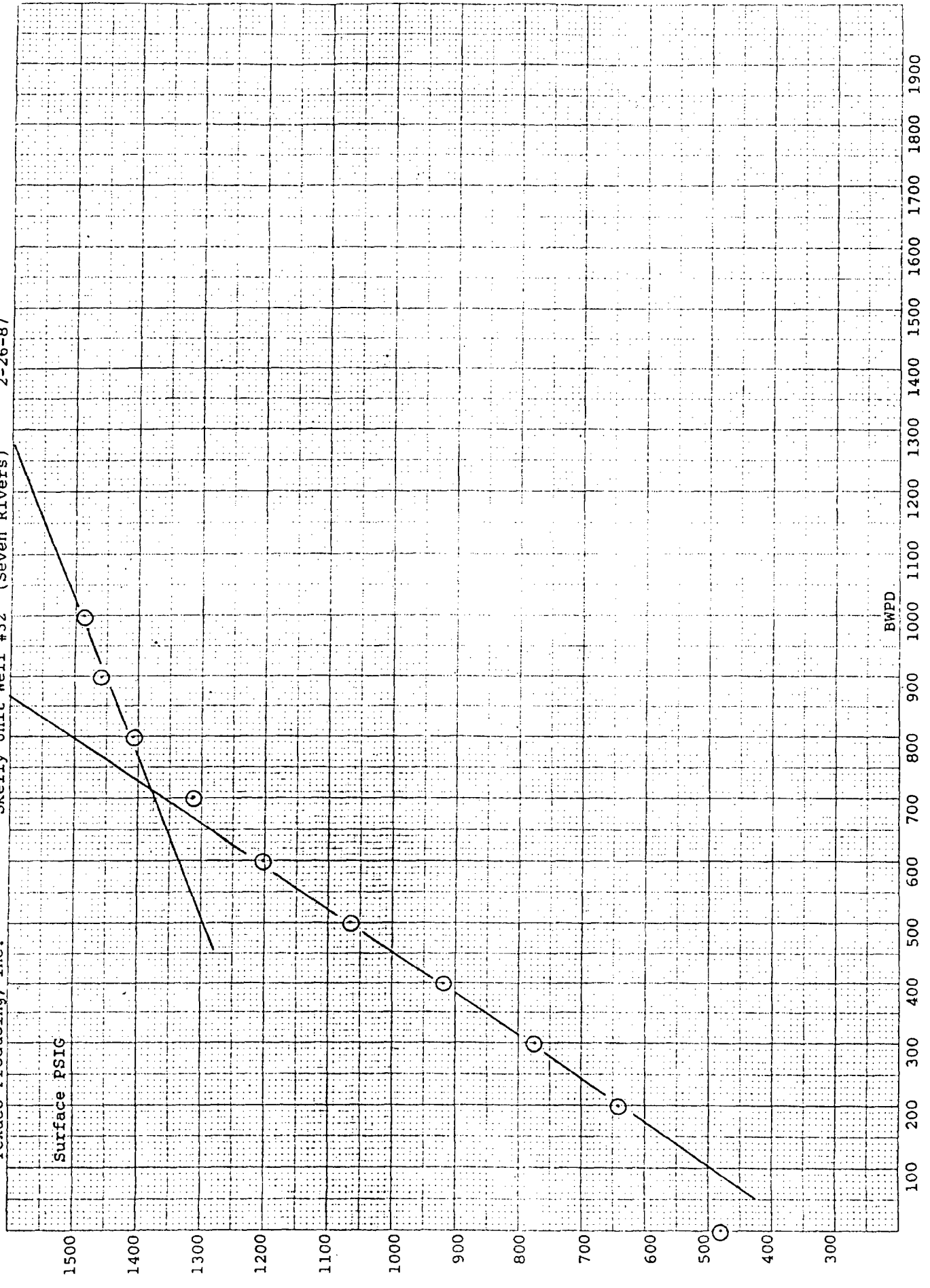
Phone (505) 397-3914

Hobbs, New Mexico 88240

						Unit
Company	Texaco Producing, Inc.			Test Date	2-26-87	Lease Skelly Unit
Total Depth	3808'	Plug Back TD	3803'	Elevation	3880' GL	Well # 32
Csg size	5½	Wt 15.5#	d	Set at	Perfs: From 2321 To 2446	Sec 15 Twp-Blk 17S Rge 31E
Tbg size	2 3/8	Wt PC	d	Set at	Perfs: From To	County Eddy State NM
Producing thru		Packer set at	2243			Co. Rep Glen Carter

[illegible]

Texaco Producing, Inc. Skelly Unit Well #32 (Seven Rivers) 2-26-87

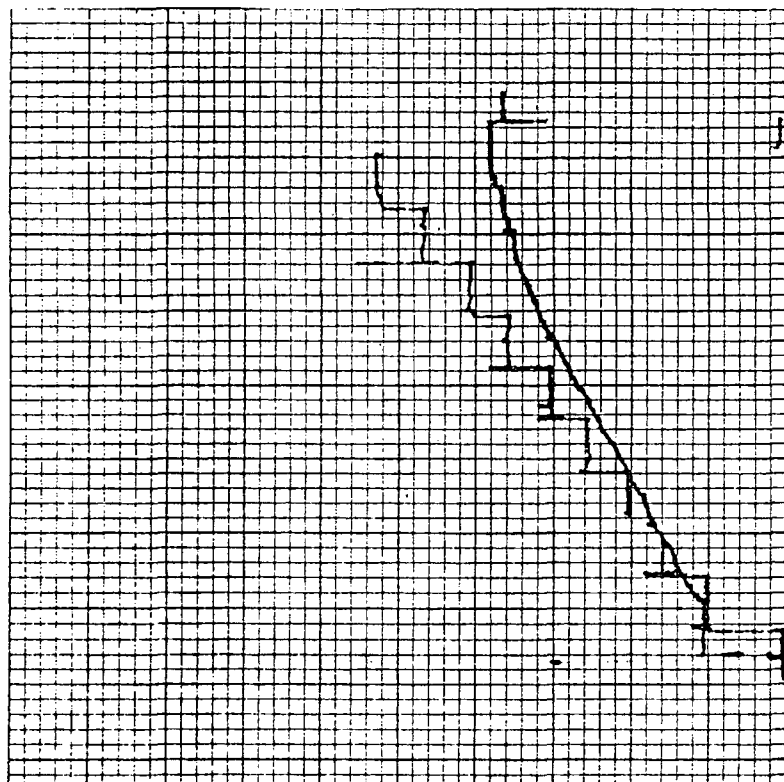


B & D WELL TESTERS, INC.

P.O. Box 5683
HOBBS, NEW MEXICO

505 397-3914

Texaco Producing, Inc.
Skelly Unit Well #32 (Seven Rivers)
2-26-87



GRAPHIC CONTROLS CORPORATION BUFFALO, NEW YORK

7.

Hobbs, New Mexico 88240

Company Texaco Inc.						Test Date 3-13-87		Unit
Total Depth		Plug Back TD 3787		Elevation		Lease Skelly Unit		
Csg size		Wt	d	Set at	Perfs: From 2283	To 2400	Well # 42	
Tbg size 1.66		Wt	d	Set at	Perfs: From	To	Sec Twp-Blk Rge	
Producing thru						Packer set at 2197		County Eddy State New Mexico
								Co. Rep Glen Carter
Time of Reading	Elap Time Hrs.	Well Information					Remarks	
		Rate BBLS Per Day	Total BBLS Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP		
3:00	SI			1025				
3:05	Start	200		1025				
3:10		200		1065				
3:15		200		1080				
3:20	:15	200		1085				
3:25		400		1125				
3:30		400		1150				
3:35	:30	400		1155				
3:40		600		1215				
3:45		600		1230				
3:50	:45	600		1235				
3:55		800		1280				
4:00		800		1310				
4:05	1:00	800		1330				
4:10		1000		1390				
4:15		1000		1410				
4:20	1:15	1000		1425				
4:25		1200		1460				
4:30		1200		1470				
4:35	1:30	1200		1475				
4:40		1400		1525				
4:45		1400		1535				
4:50	1:45	1400		1540				
4:55		1600		1565				
5:00		1600		1580				
5:05	2:00	1600		1590				
5:06	ISIP			1390				
5:07	5 minute fall	off		1165				
5:08				1145				
5:09				1120				
5:10				1110				

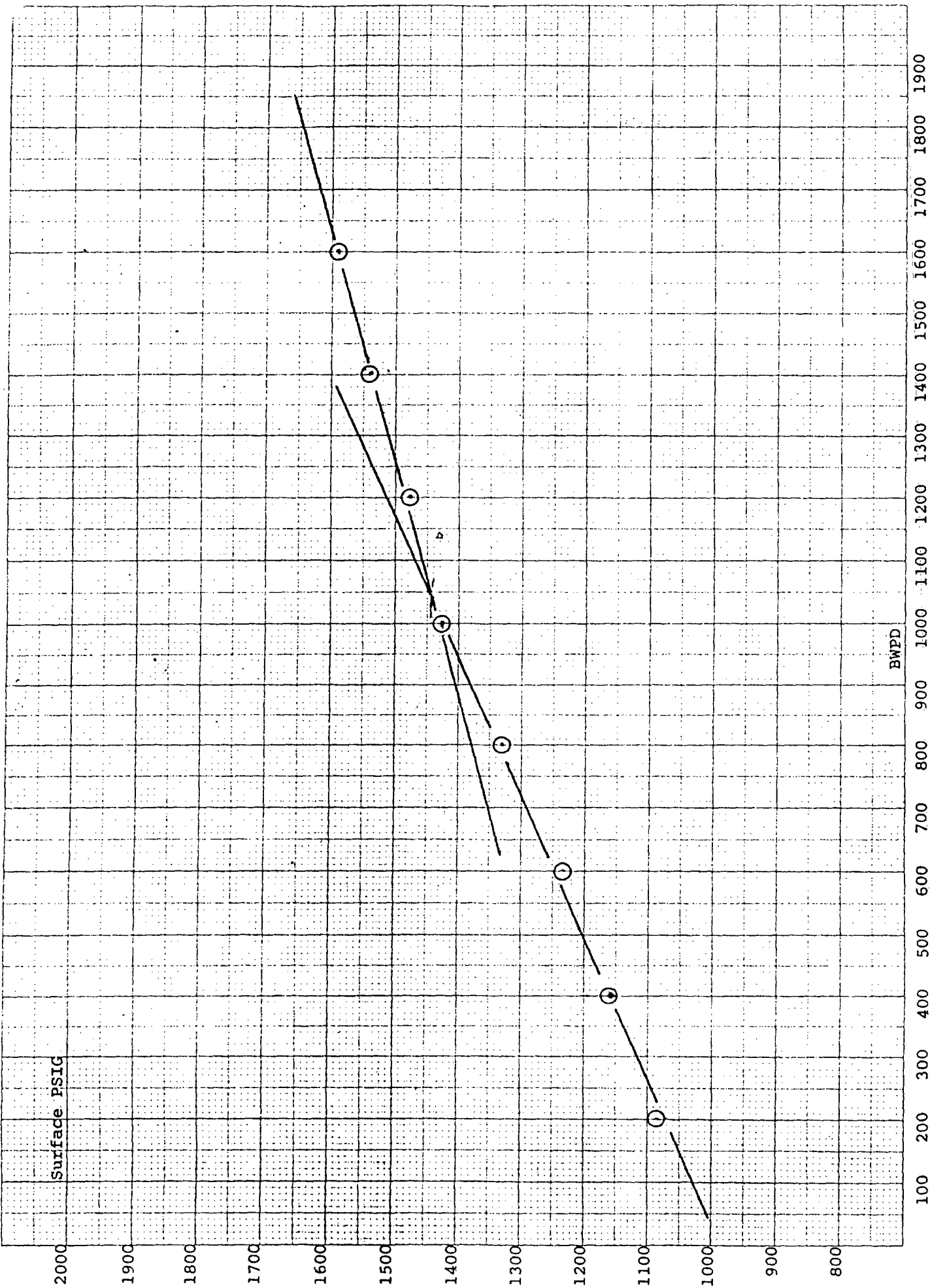
3-14-87

Skelly Unit (Seven Rivers) #42

Texaco, Inc.

Surface PSIG

BWPD



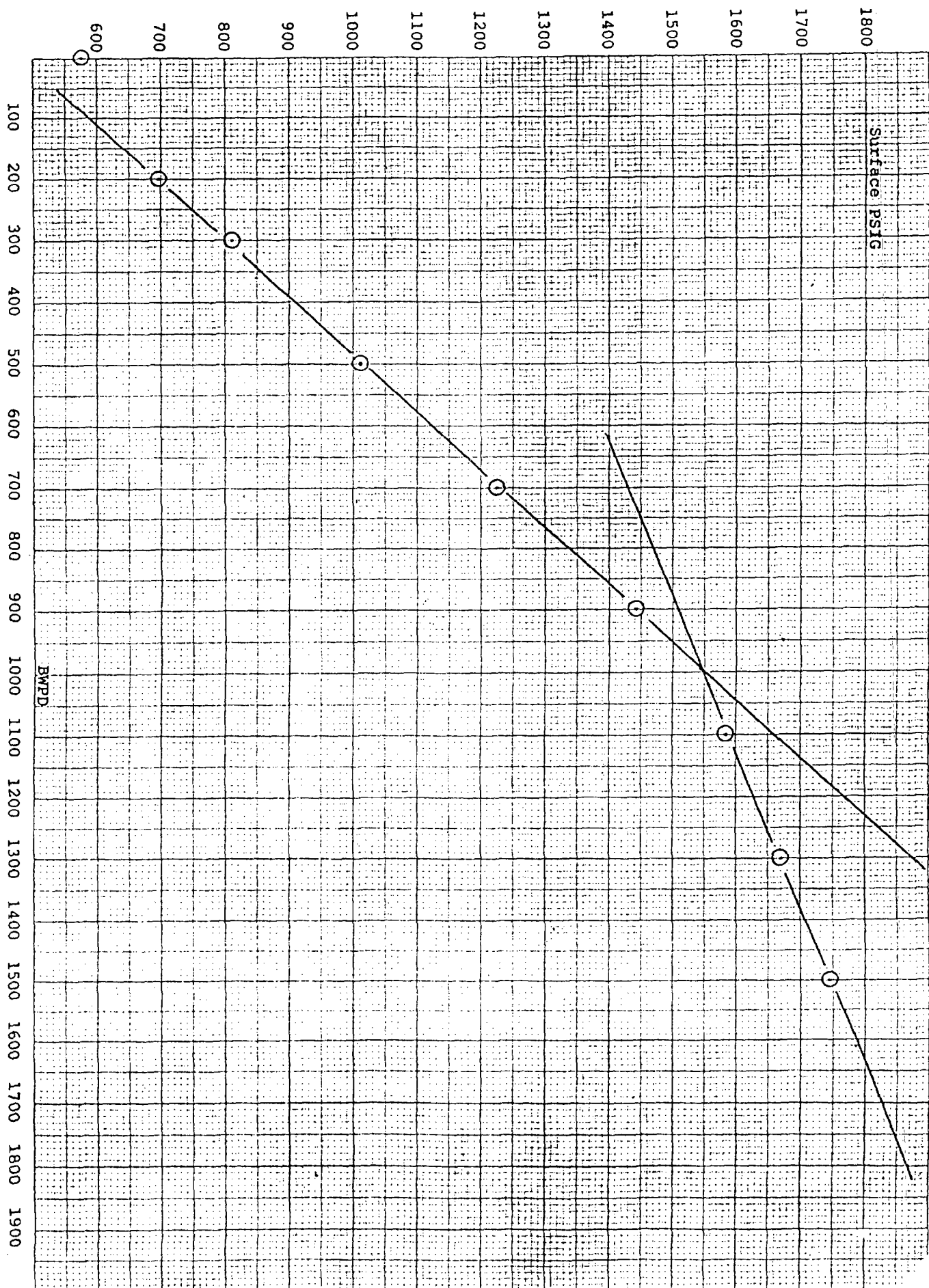
B & D WELL TESTERS

Step Rate Test

Phone (505) 397-3914

Hobbs, New Mexico 88240

Company Texaco Producing, Inc.						Test Date 2-27-87		Unit
Total Depth 3820'		Plug Back TD		Elevation 3856' GL		Lease Skelly Unit		
Csg size 4 1/2	Wt 11.6#	d	Set at	Perfs: From 2302	To 2431	Well # 46 (Seven Rivers)		
Tbg size 2 3/8	Wt PC	d	Set at	Perfs: From	To	Sec 22 Twp-Blk 17S Rge 31E		
Producing thru						Packer set at 2239'		County Eddy State NM
Well Information						Co. Rep Glen Carter		
Time of Reading	Elap Time Hrs.	Rate BBLS Per Day	Total BBLS Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP	Remarks	
8:40	SI			575				
8:45	Start	200		575				
8:50		200		645				
8:55		200		670				
9:00	:15	200	2.1	695				
9:05		300		755				
9:10		300		790				
9:15	:30	300	3.1	810				
9:20		500		920				
9:25		500		975				
9:30	:45	500	5.2	1010				
9:35		700		1130				
9:40		700		1185				
9:45	1:00	700	7.3	1225				
9:50		900		1355				
9:55		900		1415				
10:00	1:15	900	9.3	1440				
10:05		1100		1535			1.5" T.M.	
10:10		1100		1570				
10:15	1:30	1100	11.4	1585				
10:20		1300		1665				
10:25		1300		1670				
10:30	1:45	1300	13.5	1670				
10:35		1500		1740				
10:40		1500		1745				
10:45	2:00	1500	15.6	1745				
10:46	ISIP	End Test		1455				
10:47	5-minute fall off			1440				
10:48				1435				
10:49				1430				
10:50				1425				

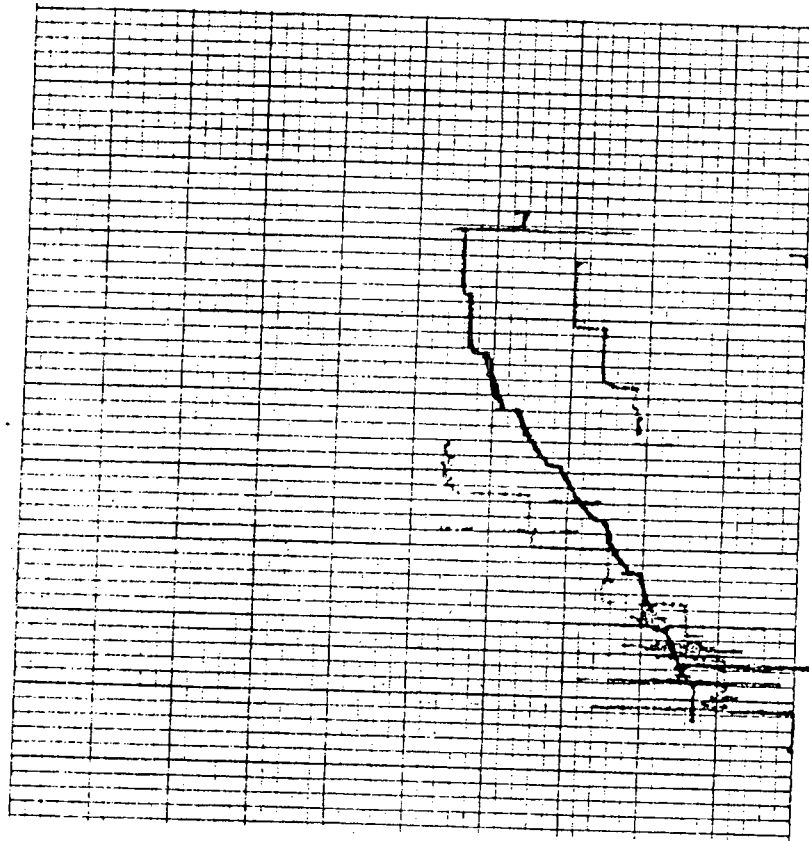


B & D WELL TESTERS, INC.

P.O. Box 5683
HOBBS, NEW MEXICO

505 397-3914

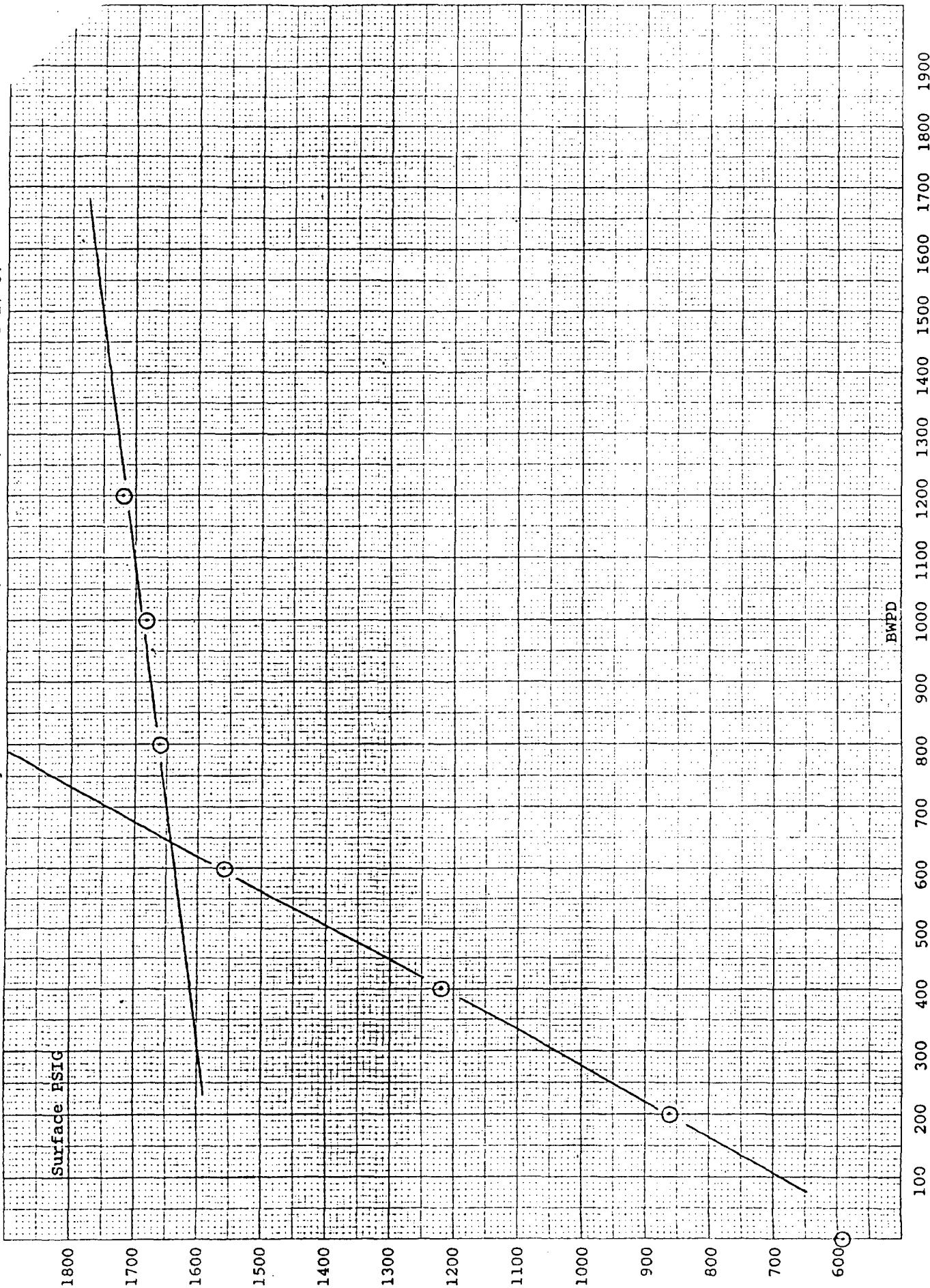
Texaco Producing, Inc.
Skelly Unit Well #46 (Seven Rivers)
2-27-87



Texaco Producing, Inc.

Skelly Unit Well #73 (Seven Rivers)

2-27-67

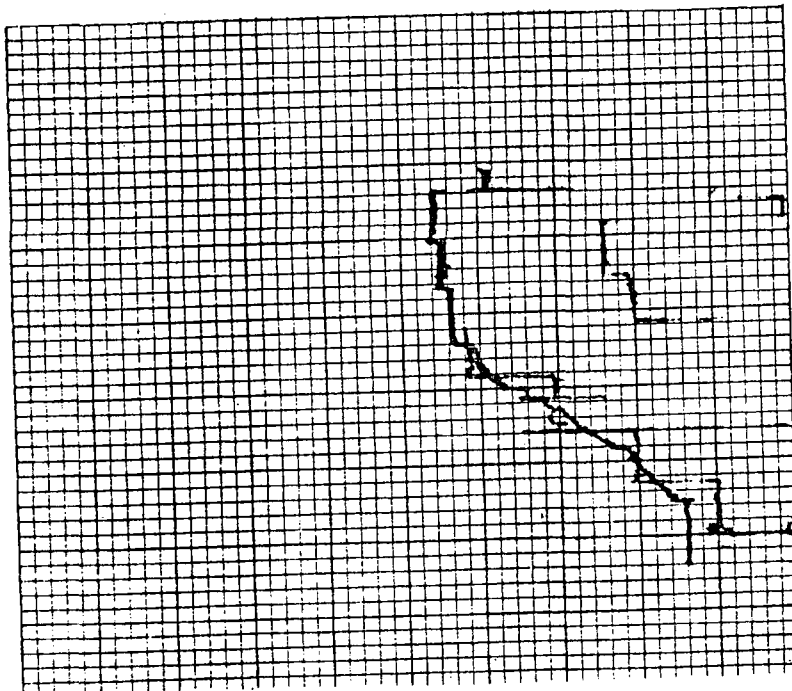


B & D WELL TESTERS, INC.

P.O. Box 5683
HOBBS, NEW MEXICO

505 397-3914

Texaco Producing, Inc.
Skelly Unit #73 (Seven Rivers)
2-27-87



NO. 59018

B & D WELL TESTERS

Step Rate Test

Phone (505) 397-3914

Hobbs, New Mexico 88240

Company Texaco Inc.						Unit
Test Date 3-14-87						Lease Skelly Unit (Seven River)
Total Depth		Plug Back TD 3670		Elevation		Well # 89
Csg size 7"	Wt d	Set at	Perfs: From 2264	To 2329		Sec 22 Twp-Blk 17S Rge 31E
Tbg size 2 3/8	Wt 4.7 d	Set at	Perfs: From	To		County Eddy State New Mexico
Producing thru		Packer set at 2112				Co. Rep Glen Carter

Time of Reading	Elap Time Hrs.	Well Information					Remarks
		Rate BBLS Per Day	Total BBLS Per Rate	Surface PSIG	Surface PSI Cor for Friction	BHP	
8:30				720			
8:35	Start	200		720			
8:40		200		770			
8:45		200		785			
8:50	:15	200		795			
8:55		400		850			
9:00		400		880			
9:05	:30	400		900			
9:10		600		960			
9:15		600		990			
9:20	:45	600		1020			
9:25		800		1090			
9:30		800		1120			
9:35	1:00	800		1150			
9:40		1000		1210			
9:45		1000		1245			
9:50	1:15	1000		1280			
9:55		1200		1335			
10:00		1200		1370			
10:05	1:30	1200		1390			
10:10		1400		1420			
10:15		1400		1450			
10:20	1:45	1400		1470			
10:25		1600		1500			
10:30		1600		1510			
10:35	2:00	1600		1520			
10:40		1750		1540			
10:45		1750		1545			
10:50	2:15	1750		1555			
10:51	5 minute fall	off		1445			
10:52				1440			
10:53				1435			

Phone (505) 397-3914

Company Texaco Inc.

Test Date 3-14-87

Total Depth	Plug Back TD	3670
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Elevation

Lease Skelly Unit (Seven Riv

Well # 89

Csg size	7"	Wt	d	Set at	Perfs: From 2264	To 2329
----------	----	----	---	--------	------------------	---------

Sec 22 Twp-Blk 17S Rge 31E

Tbg size	2 3/8	Wt	4.7	d	Set at	Perfs: From	To
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County Eddy	State New Mexico
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Producing thru _____ Packer set at 2112

Co. Rep Glen Carter

[illegible]

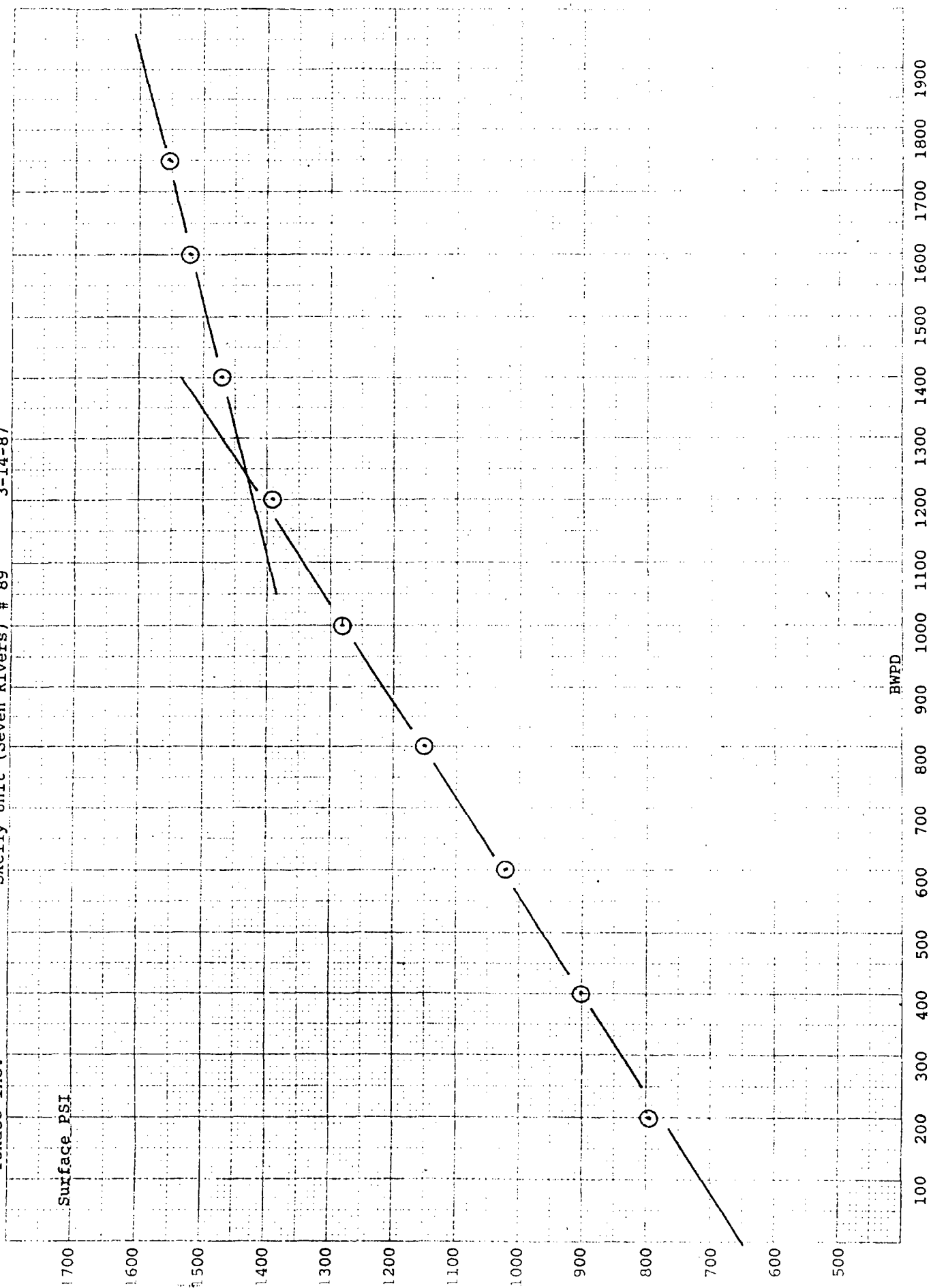
3-14-87

Skelly Unit (Seven Rivers) # 89

Texaco Inc.

Surface PSI

BWPD



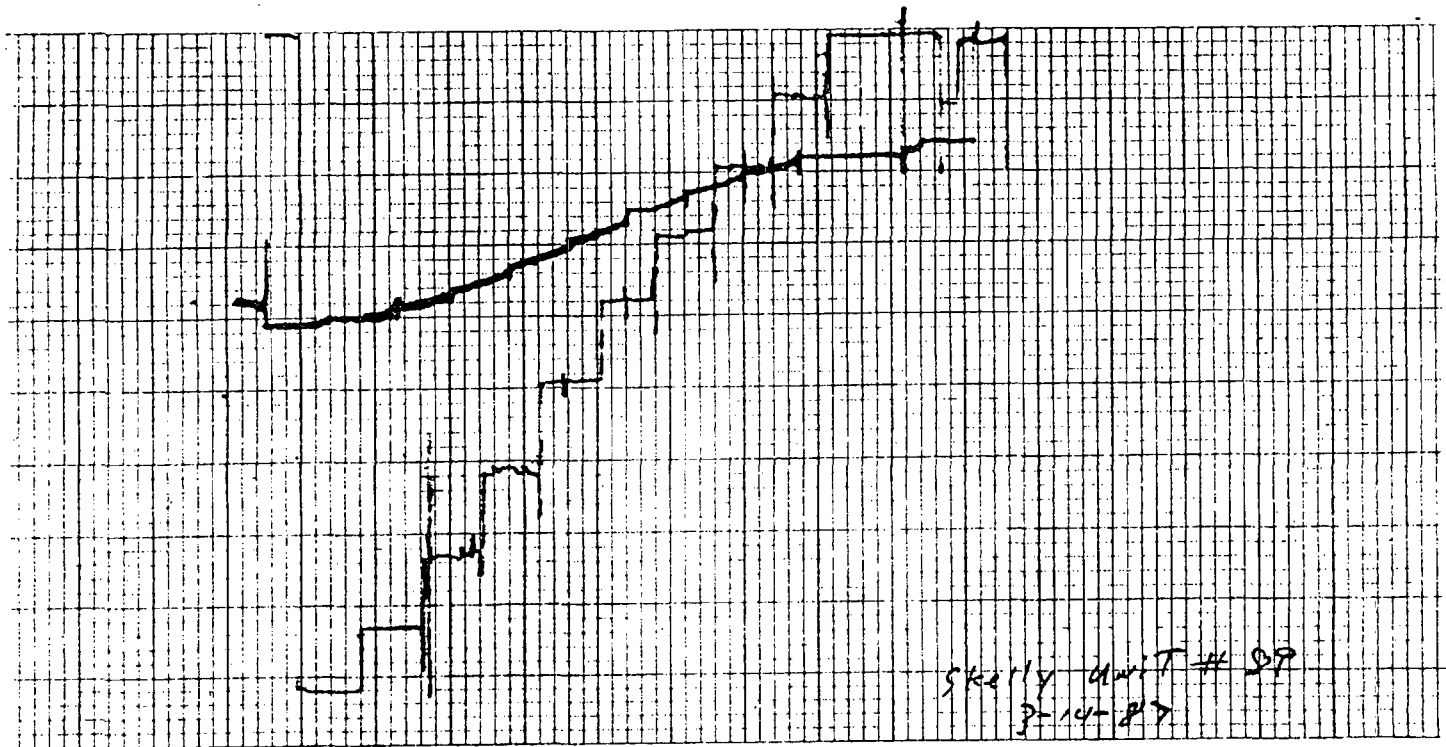
B & D WELL TESTERS, INC.

P.O. Box 5683
HOBBS, NEW MEXICO
505 397-3914

Texaco Inc.
Skelly Unit (Seven Rivers) #89
3-14-87

PRINTED IN U.S.A.

NOTION BUFFALO, NEW YORK



Step Rate Test

Hobbs, New Mexico 88240

[illegible]

3-14-87

Skelly Unit (Seven Rivers) #96

Texaco Inc.

Surface PSI

BWPD

100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900

2000

1900

1800

1700

1600

1500

1400

1300

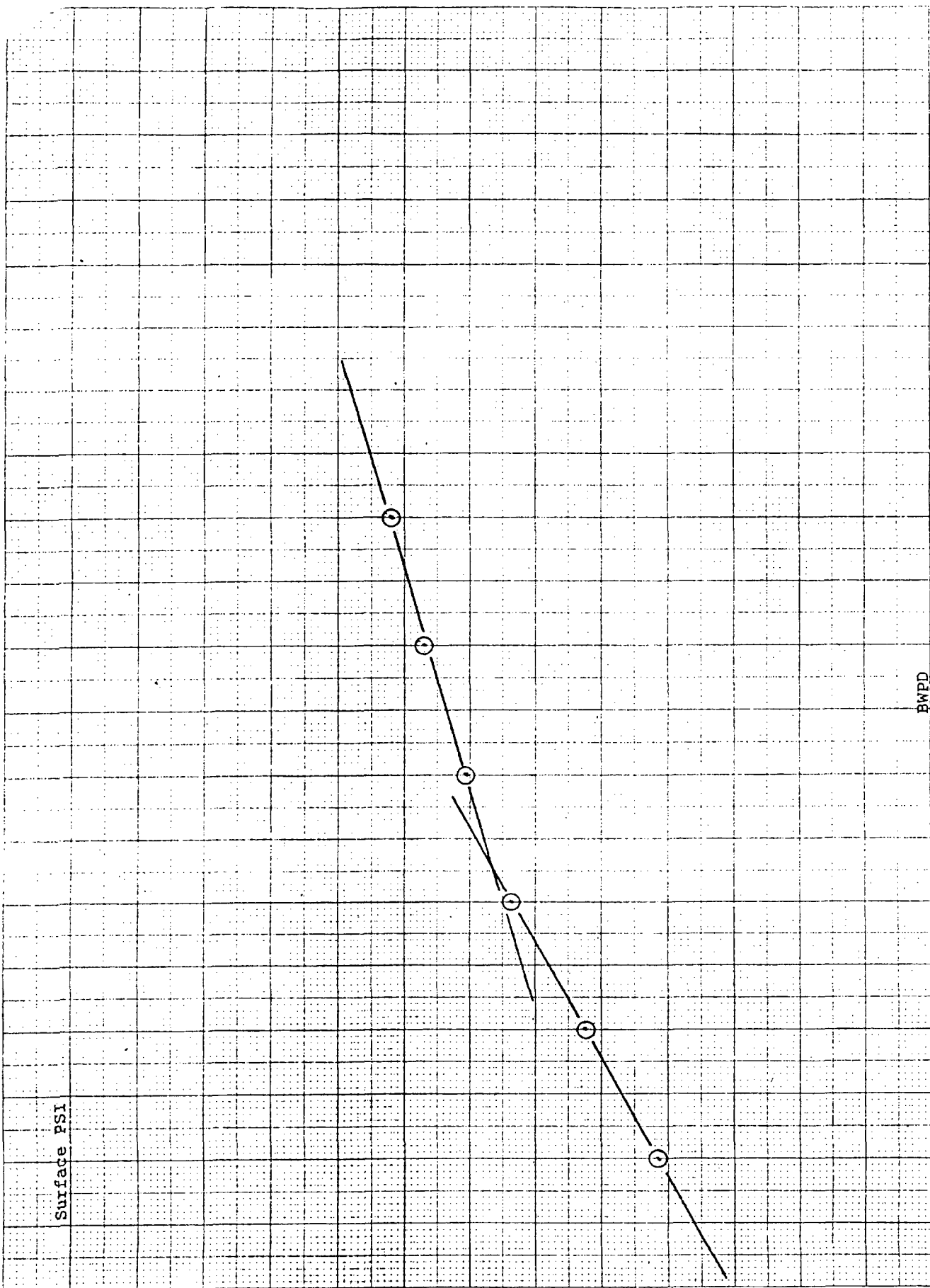
1200

1100

1000

900

800



B & D WELL TESTERS, INC.

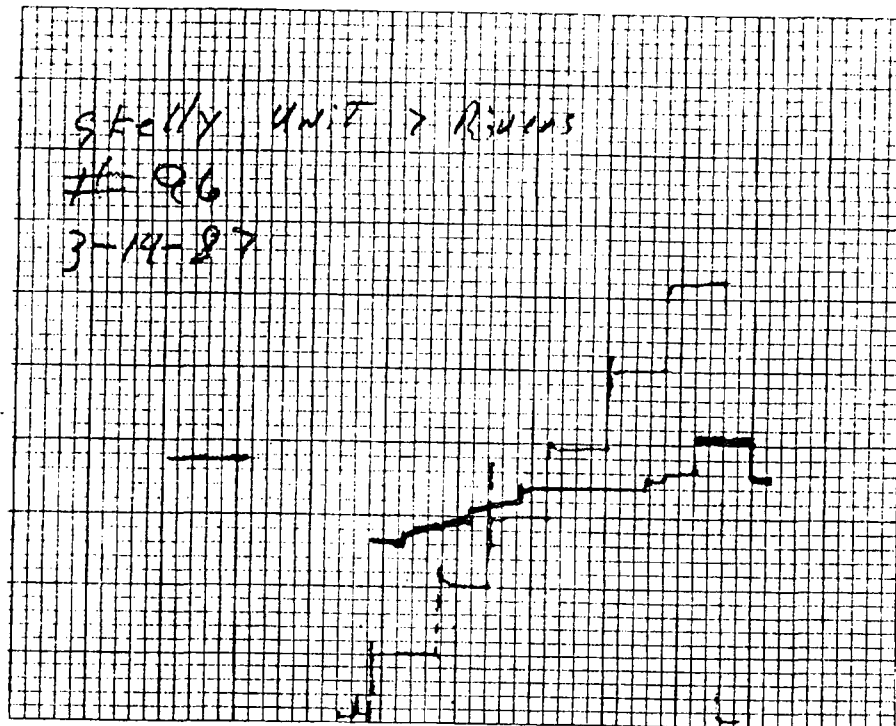
P.O. BOX 5683
HOBBS, NEW MEXICO

505 397-3914

Texaco Inc.

Skelly Unit (Seven Rivers) #96

3-14-87



Reproduced By
West Texas Electrical Log Service
 1305 Commerce Street
 Dallas 1, Texas

APPROXIMATE NO. WIRELOGS

SCHLUMBERGER WELL SURVEYING CORPORATION
 HOUSTON, TEXAS



Electrical Log

COUNTY FIELD or LOCATION WELL COMPANY	Eddy	Maljamar	Lynch A #5	Skelly Oil Co.	COMPANY <u>SKELLY OIL CO.</u> <u>Skelly Unit #45</u> WELL <u>LYNCH A #5</u> FIELD <u>MALJAMAR</u> LOCATION <u>SEC. 22-17S-31E</u> COUNTY <u>EDDY</u> STATE <u>NEW MEXICO</u>	Location of Well <u>1980' fr N&E/L</u> <u>Sec. 22-17S-31E</u> Elevation: D.Fw. _____ K.B.: _____ or G.L.: _____

RUN No.	1				
Date	2-14-51				
First Reading	5039				
Last Reading	612				
Feet Measured	4427				
Csg. Schlum.	612				
Csg. Driller	603				
Depth Reached	5042				
Bottom Driller	5040				
Depth Datum	RT - 9' abv. G.L.				
Mud Nat.	Zengel, Impermix				
" Density	10.1				
" Viscosity	39				
" Resist.	05 @ 42 °F	@ °F	@ °F	@ °F	@ °F
" Res. BHT	025 @ 110 °F	@ °F	@ °F	@ °F	@ °F
" pH	5 @ °F	@ °F	@ °F	@ °F	@ °F
" Wtr. Loss	5.6 CC 30 min.	CC 30 min.	CC 30 min.	CC 30 min.	CC 30 min.
Max. Temp. °F	110				
Bit Size	8" - 3100, 7/8-5022, 6 3/4"				
Spchs. - AM	10				
A 0	32 LS				
AO	19'				
Opr. Rig Time	3 1/2 hrs.				
Truck No.	504-Hobbs				
Recorded By	Crump				
Witness By	Wittke				
REMARKS					

THIS IS NOT A COMPLETE REPRODUCTION OF
 THE ORIGINAL THREE-TRACK SCHLUMBERGER LOG.