

REPORT NO.
109015 DST 1

PAGE NO. 1

TEST DATE:

26-Jan-1988

S T A RTM

A Schlumberger Transient Analysis Report
Of A Flopetrol Johnston Drillstem Test

FLOPETROL JOHNSTON

Schlumberger

Company: TERRA RESOURCES, INC.

Well: STATE 26 #1

TEST IDENTIFICATION

Test Type MFE OH DST
Test No. One
Formation Queen
Test Interval (ft) ... 4574 to 4616
Reference Depth Kelly Bushing

WELL LOCATION

Field Wildcat
County Lea
State New Mexico
Sec/Twn/Rng 26/ 18s/ 34e
Elevation (ft) n/a

HOLE CONDITIONS

Total Depth (MD/TUD)(ft) . 4616
Hole Size (in) 7 7/8
Casing/Liner I.D. (in) ... --
Perf'd Interv./Nt Pay(ft). -- / 8
Shot Density/Diameter(in). --

MUD PROPERTIES

Mud Type Gel
Mud Weight (lb/gal) 10.2
Mud Resistivity (ohm.m) .. n/a
Filtrate Resistiv.(ohm.m). --
Filtrate Chlorides (ppm) . 177,000

INITIAL TEST CONDITIONS

Initial Hydrostatic (psi). 2472
Gas Cushion Type None
Surface Pressure (psi) ... --
Liquid Cushion Type None
Cushion Length (ft) --

TEST STRING CONFIGURATION

Pipe Length (ft)/I.D.(in). 3907 / 3.83
Collar Length ft/I.D.(in). 626 / 2.25
Packer Depths (ft) 4568, 4574
Bottomhole Choke Size(in). 15/16
Gauge Depth (ft)/Type 4548 / J-200

NET PIPE RECOVERY

Volume	Fluid Type	Properties
1853 feet	Water	Gas cut
	Top Sample	Rw 0.06 at 60 F
		175,000 PPM
	Mid. Sample	Rw 0.07 at 60 F
		145,000 PPM

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
0.06 scf	Gas	
1900 cc	Water	Rw 0.07 at 65 F
		185,000 PPM
Press. 10		GOR: GLR: 5

VALIDATION RESULTS

Model of Behavior
Fluid Type Used
Reservoir Pressure (psi) .
Transmissivity (md.ft/cp)
Permeability (md)
Skin Factor/Damage Ratio .
Storativity Ratio
Interporosity Flow Coeff..
Distance to Anomaly (ft).
Investigation Radius (ft).
Potentiometric Surf. (ft).

ROCK/FLUID/WELLBORE PROPERTIES

Oil Density (deg. API) ...
Basic Solids (%)
Gas Gravity
Water Cut (%) 100
Viscosity (cp)
Tot. Compress. (1/psi) ...
Porosity (%)
Reservoir Temperature (F). 105
Form.Vol.Factor (bbl/STB).

PRODUCTION RATE DURING TEST: --

COMMENTS:

Enclosed is the data collected during the test of the above captioned well. The zone produced enough water for proper reservoir fluid identification. The erratic nature of the buildup plots is probably due to a combination of recorder port plugging (from slidding to bottom) and the over-pressure (above hydrostatic) of the formation.

The general character of the buildup plots suggest that the zone has good effective permeability and slight wellbore damage at the time and conditions of the test.

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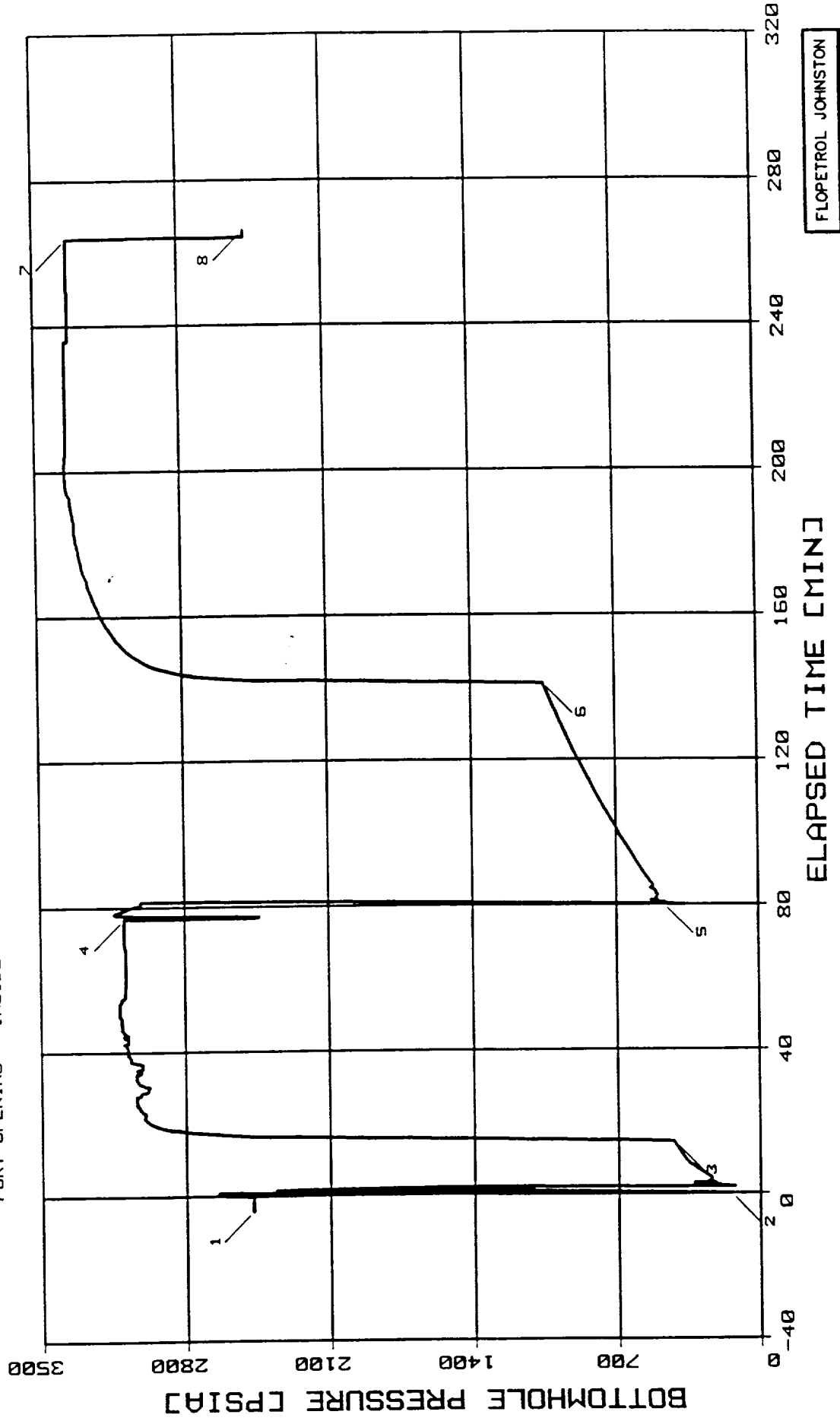
WELL TEST INTERPRETATION REPORT #:109015 DST 1		PAGE: 2
CLIENT : TERRA RESOURCES, INC.		27-JAN-88
REGION :W.T.D.	SEQUENCE OF EVENTS	Field:Wildcat
DISTRICT:Hobbs		Zone :Queen
BASE :Midland		Well :State 26 #1
Engr :Uermeyen / djs		Location:26/18s/34e

EVENT NO.	DATE	TIME (HR:MIN)	DESCRIPTION	ELAPSED TIME (HR:MIN)	BHP (PSIA)	WHP (PSIG)
1	26-JAN	6:04	SET PACKER, Hydrostatic		2472.5	
2			Tools slid to bottom			
3		6:09	START FLOW, Bubble hose	0:00	143.7	
4			Fair initial blow			
5		6:14	10 oz.	0:05		
6		6:19	14 oz.	0:10		
7		6:23	17 oz.	0:14		
8						
9		6:23	END FLOW & START SHUT-IN	0:14	429.8	
10						
11		7:25	END SHUT-IN	1:17	3089.4	
12		7:29	START FLOW, Bubble hose	1:20	468.9	
13			Fair initial blow			
14		7:32	9" blow	1:23		
15		7:34	12" blow	1:25		
16		7:36	8.5 oz.	1:27		
17		7:40	11.5 oz.	1:31		
18		7:45	15 oz.	1:36		
19		7:50	18 oz.	1:41		
20		7:55	20 oz.	1:46		
21		8:00	22 oz.	1:51		
22		8:05	24.5 oz.	1:56		
23		8:10	26.5 oz.	2:01		
24		8:15	28 oz.	2:06		
25		8:20		2:11		2.00
26						
27		8:29	END FLOW & START SHUT-IN	2:21	1047.6	2.00
28						
29		10:32	END SHUT-IN	4:24	3333.1	
30		10:35	SET PACKER, Hydrostatic	4:26	2473.6	
31						
32			Did not reverse out			

BOTTOMHOLE PRESSURE LOG

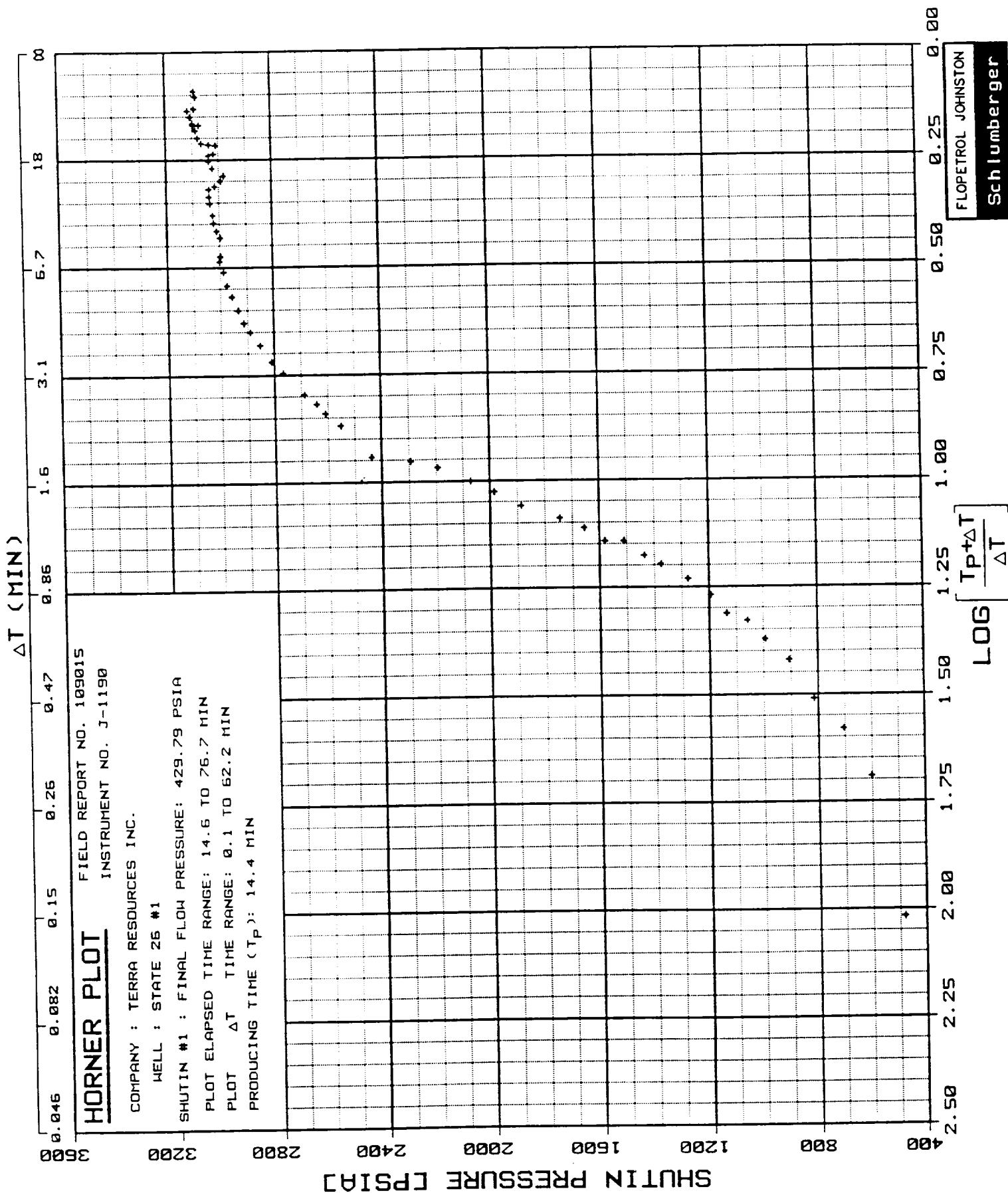
FIELD REPORT NO. 109015
INSTRUMENT NO. J-1190
DEPTH : 4548 FT
CAPACITY : 4700 PSI
PORT OPENING : INSIDE

COMPANY : TERRA RESOURCES INC.
WELL : STATE 26 #1



FLOPETROL JOHNSTON

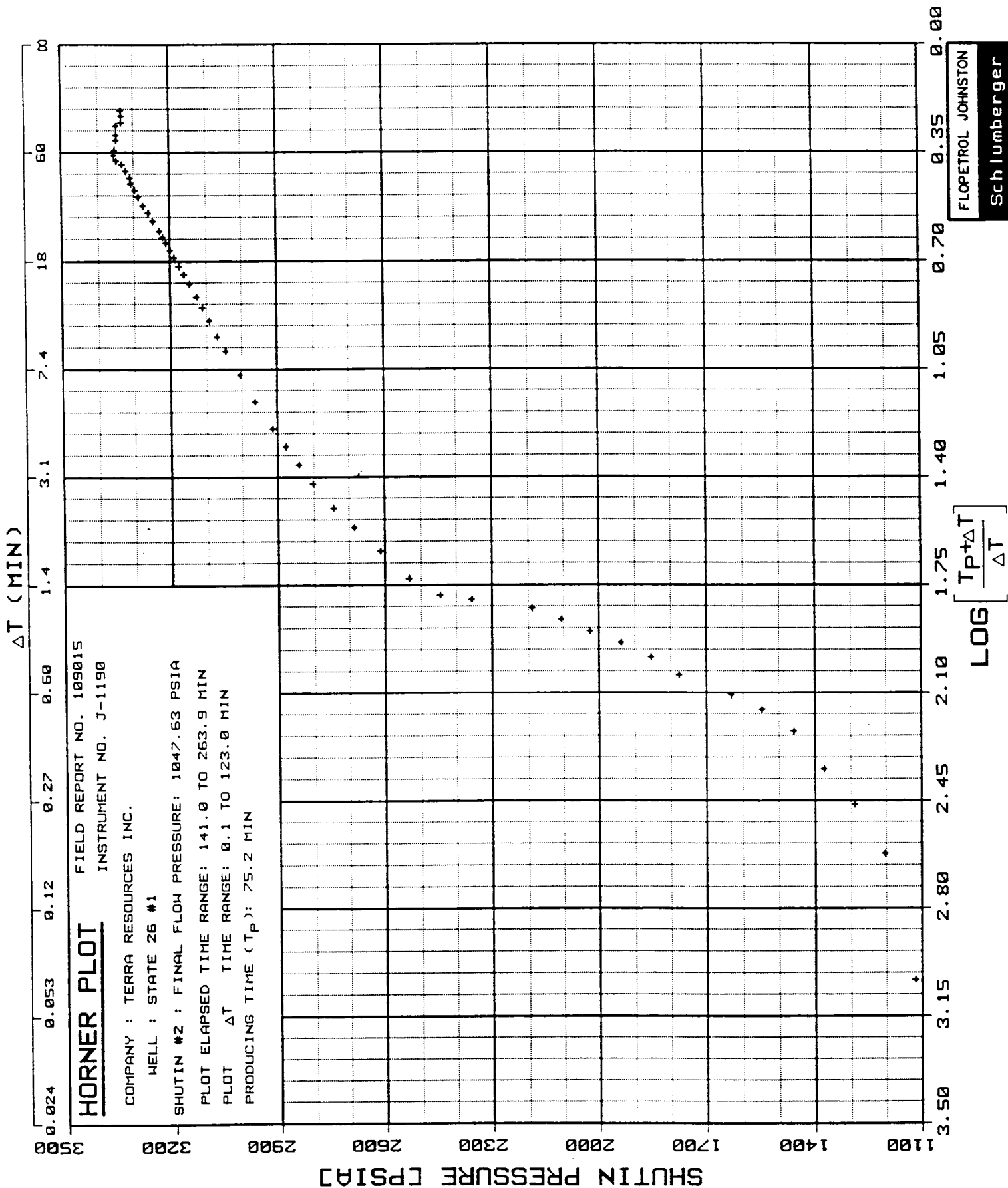
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LOG LOG PLOT

COMPANY : TERRA RESOURCES INC.

WELL : STATE 26 #1

FIELD REPORT NO. 109015

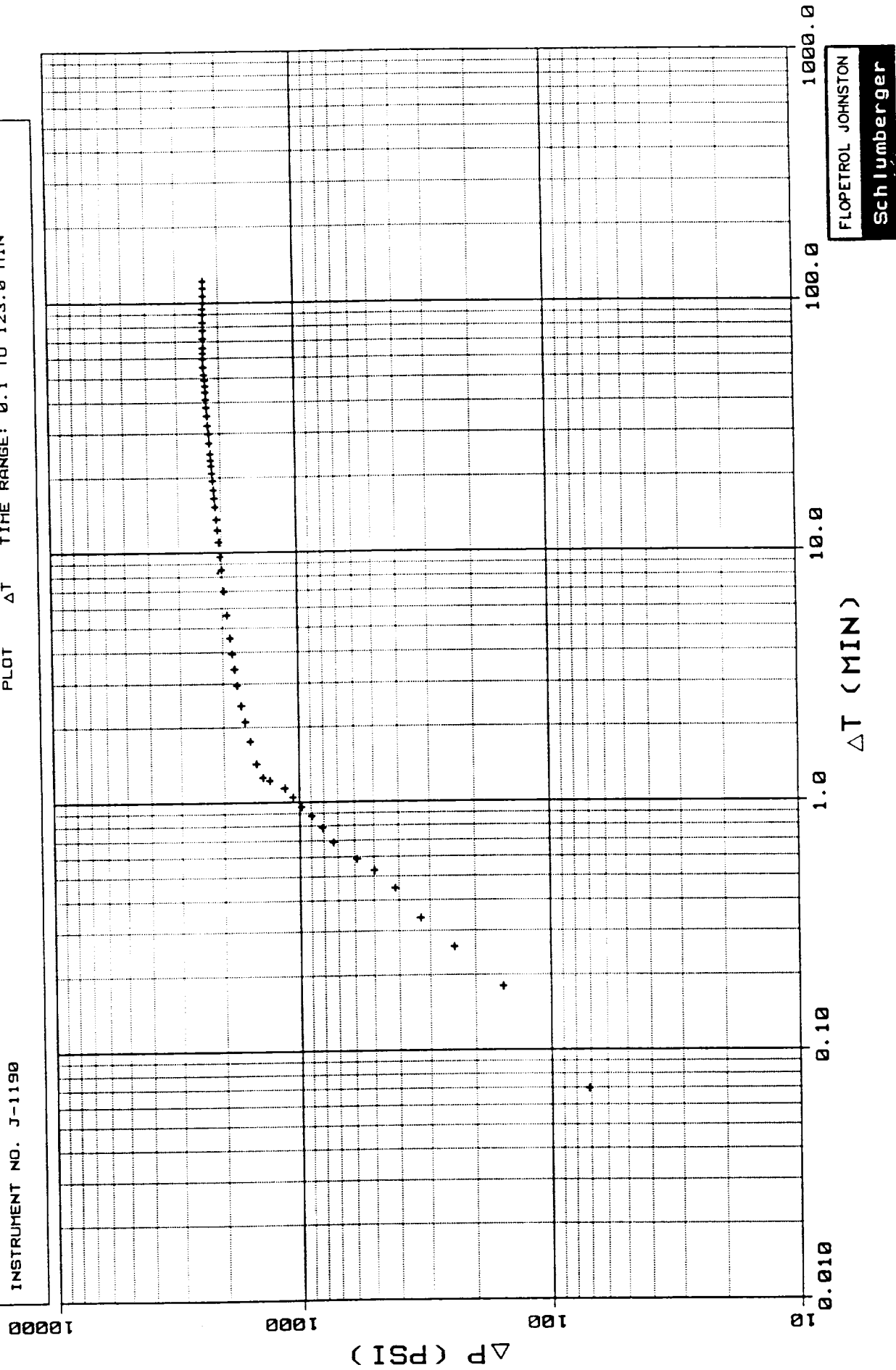
INSTRUMENT NO. J-1190

SHUTIN #2 :

FINAL FLOW PRESSURE (PWF): 1047.63 PSIA

PLOT ELAPSED TIME RANGE: 141.0 TO 263.9 MIN

PLOT ΔT TIME RANGE: 0.1 TO 123.0 MIN



FLOPETROL JOHNSTON

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 * WELL TEST DATA PRINTOUT *

FIELD REPORT # : 109015

COMPANY : TERRA RESOURCES INC.
 WELL : STATE 26 #1

INSTRUMENT # : J-1190
 CAPACITY [PSI] : 4700.
 DEPTH [FT] : 4548.0
 PORT OPENING : INSIDE
 TEMPERATURE [DEG F] : 106.0

LABEL POINT INFORMATION

#	TIME OF DAY	DATE	EXPLANATION	ELAPSED TIME,MIN	BOT HOLE PRESSURE PSIA
1	6: 4:45	26-JA	HYDROSTATIC MUD	-4.25	2472
2	6: 9: 0	26-JA	START FLOW	0.00	144
3	6:23:25	26-JA	END FLOW & START SHUT-IN	14.42	430
4	7:25:40	26-JA	END SHUT-IN	76.66	3089
5	7:29: 8	26-JA	START FLOW	80.13	469
6	8:29:56	26-JA	END FLOW & START SHUT-IN	140.94	1048
7	10:32:56	26-JA	END SHUT-IN	263.94	3333
8	10:35: 5	26-JA	HYDROSTATIC MUD	266.08	2474

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME,MIN	END ELAPSED TIME,MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA
1	0.00	14.42	14.42	144	430
2	80.13	140.94	60.81	469	1048

SUMMARY OF SHUTIN PERIODS

PERIOD	START ELAPSED TIME,MIN	END ELAPSED TIME,MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1	14.42	76.66	62.24	430	3089	430	14.42
2	140.94	263.94	123.00	1048	3333	1048	75.23

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TEST PHASE : FLOW PERIOD # 1

TIME OF DAY	DATE	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MM			

6: 9: 0	26-JA	0.00	0.00	144
6:14: 0	26-JA	5.00	5.00	260
6:19: 0	26-JA	10.00	10.00	377
6:23:25	26-JA	14.42	14.42	430

TEST PHASE : SHUTIN PERIOD # 1

FINAL FLOW PRESSURE [PSIA] = 430
PRODUCING TIME [MIN] = 14.42

TIME OF DAY	DATE	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
HH:MM:SS	DD-MM					

6:23:25	26-JA	14.42	0.00	430	0	
6:24:25	26-JA	15.42	1.00	1398	969	1.188
6:25:25	26-JA	16.42	2.00	2475	2046	0.914
6:26:25	26-JA	17.42	3.00	2736	2306	0.764
6:27:25	26-JA	18.42	4.00	2873	2443	0.663
6:28:25	26-JA	19.42	5.00	2940	2510	0.589
6:29:25	26-JA	20.42	6.00	2977	2547	0.532
6:30:25	26-JA	21.42	7.00	2999	2569	0.486
6:31:25	26-JA	22.42	8.00	2996	2566	0.448
6:32:25	26-JA	23.42	9.00	3009	2579	0.415
6:33:25	26-JA	24.42	10.00	3022	2592	0.388
6:35:25	26-JA	26.42	12.00	3035	2606	0.343
6:37:25	26-JA	28.42	14.00	3013	2584	0.307
6:39:25	26-JA	30.42	16.00	2983	2553	0.279
6:41:25	26-JA	32.42	18.00	3035	2605	0.256
6:43:25	26-JA	34.42	20.00	3017	2587	0.236
6:45:25	26-JA	36.42	22.00	3008	2579	0.219
6:47:25	26-JA	38.42	24.00	3066	2637	0.204
6:49:25	26-JA	40.42	26.00	3077	2647	0.192
6:51:25	26-JA	42.42	28.00	3078	2648	0.180
6:53:25	26-JA	44.42	30.00	3094	2664	0.170
6:58:25	26-JA	49.42	35.00	3108	2679	0.150
7: 3:25	26-JA	54.42	40.00	3103	2673	0.134
7: 8:25	26-JA	59.42	45.00	3083	2653	0.121
7:13:25	26-JA	64.42	50.00	3083	2653	0.110
7:18:25	26-JA	69.42	55.00	3088	2658	0.101
7:23:25	26-JA	74.42	60.00	3089	2660	0.094
7:25:40	26-JA	76.66	62.24	3089	2660	0.090

TEST PHASE : FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
HH:MM:SS	DD-MM			
*****	*****	*****	*****	*****

7:29: 8	26-JA	80.13	0.00	469
7:34: 8	26-JA	85.13	5.00	519
7:39: 8	26-JA	90.13	10.00	579
7:44: 8	26-JA	95.13	15.00	636
7:49: 8	26-JA	100.13	20.00	689
7:54: 8	26-JA	105.13	25.00	741
7:59: 8	26-JA	110.13	30.00	790
8: 4: 8	26-JA	115.13	35.00	836
8: 9: 8	26-JA	120.13	40.00	879
8:14: 8	26-JA	125.13	45.00	922
8:19: 8	26-JA	130.13	50.00	962
8:24: 8	26-JA	135.13	55.00	1002
8:29: 8	26-JA	140.13	60.00	1043
8:29:56	26-JA	140.94	60.81	1048

TEST PHASE : SHUTIN PERIOD # 2

FINAL FLOW PRESSURE [PSIA] = 1048

PRODUCING TIME [MIN] = 75.23

TIME OF DAY	DATE	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
HH:MM:SS	DD-MM					
*****	*****	*****	*****	*****	*****	*****

8:29:56	26-JA	140.94	0.00	1048	0	
8:30:56	26-JA	141.94	1.00	2060	1013	1.882
8:31:56	26-JA	142.94	2.00	2661	1614	1.587
8:32:56	26-JA	143.94	3.00	2804	1757	1.416
8:33:56	26-JA	144.94	4.00	2879	1831	1.297
8:34:56	26-JA	145.94	5.00	2932	1884	1.205
8:35:56	26-JA	146.94	6.00	2972	1924	1.132
8:36:56	26-JA	147.94	7.00	3003	1955	1.070
8:37:56	26-JA	148.94	8.00	3029	1982	1.017
8:38:56	26-JA	149.94	9.00	3054	2006	0.971
8:39:56	26-JA	150.94	10.00	3073	2026	0.931
8:41:56	26-JA	152.94	12.00	3105	2058	0.861
8:43:56	26-JA	154.94	14.00	3130	2083	0.804
8:45:56	26-JA	156.94	16.00	3154	2106	0.756
8:47:56	26-JA	158.94	18.00	3175	2128	0.714
8:49:56	26-JA	160.94	20.00	3192	2144	0.678
8:51:56	26-JA	162.94	22.00	3207	2160	0.645
8:53:56	26-JA	164.94	24.00	3221	2174	0.616
8:55:56	26-JA	166.94	26.00	3235	2187	0.590
8:57:56	26-JA	168.94	28.00	3247	2200	0.567
8:59:56	26-JA	170.94	30.00	3258	2211	0.545
9: 4:56	26-JA	175.94	35.00	3285	2237	0.498
9: 9:56	26-JA	180.94	40.00	3303	2255	0.460
9:14:56	26-JA	185.94	45.00	3312	2264	0.427

TEST PHASE : SHUTIN PERIOD # 2

FINAL FLOW PRESSURE [PSIA] = 1048

PRODUCING TIME [MIN] = 75.23

TIME OF DAY	DATE	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
*****	*****	*****	*****	*****	*****	*****
9:19:56	26-JA	190.94	50.00	3327	2279	0.399
9:24:56	26-JA	195.94	55.00	3348	2300	0.374
9:29:56	26-JA	200.94	60.00	3353	2305	0.353
9:34:56	26-JA	205.94	65.00	3346	2299	0.334
9:39:56	26-JA	210.94	70.00	3346	2299	0.317
9:44:56	26-JA	215.94	75.00	3347	2299	0.302
9:49:56	26-JA	220.94	80.00	3347	2299	0.288
9:54:56	26-JA	225.94	85.00	3347	2299	0.275
9:59:56	26-JA	230.94	90.00	3347	2299	0.264
10: 4:56	26-JA	235.94	95.00	3332	2284	0.253
10: 9:56	26-JA	240.94	100.00	3332	2284	0.244
10:14:56	26-JA	245.94	105.00	3332	2284	0.235
10:19:56	26-JA	250.94	110.00	3333	2285	0.226
10:24:56	26-JA	255.94	115.00	3333	2285	0.219
10:29:56	26-JA	260.94	120.00	3333	2285	0.211
10:32:56	26-JA	263.94	123.00	3333	2285	0.207

REC-24

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WELL TEST INTERPRETATION REPORT #:109015 DST 1		PAGE: 11,
CLIENT : TERRA RESOURCES, INC.		27-JAN-88
REGION :W.T.D.	DISTRIBUTION OF REPORTS	Field:Wildcat
DISTRICT:Hobbs		Zone :Queen
BASE :Midland		Well :State 26 #1
Engr :Uermeyen / djs		Location:26/18s/34e

FLOPETROL JOHNSTON has sent copies of this report to the following:

=====

TERRA RESOURCES, INC.
 10 Desta Drive, Suite 500 West
 Midland, Texas 79705
 Attn: Bruce Lowe, 2 copies
 Bill Siruta, 2 copies
 Ken Purgason, 1 copy

TERRA RESOURCES, INC.
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 Attn: Mike Zlomke
 (1 copy)

ENRON OIL AND GAS COMPANY
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 Attn: Terry Cherryhomes, 1 copy
 Reservoir Engineer, 1 copy