

REPORT NO.
078814

PAGE NO. 1

TEST DATE:
18-DEC-1997

STAR

Schlumberger Testing Data Report Pressure Data Report

Schlumberger

COMPANY: COBRA OIL & GAS CORP.

WELL: STATE-30 #1

TEST IDENTIFICATION

Test Type OPEN HOLE DST
Test No. THREE
Formation UPPER WOLFCAMP
Test Interval (ft) 12964 to 13572
Depth Reference

WELL LOCATION

Field WILDCAT
County LEA
State NEW MEXICO
Sec/Twn/Rng 30/24s/33e
Elevation (ft)

HOLE CONDITIONS

Total Depth (MD/TVD) (ft) 13572
Hole Size (in) 6.125
Casing/Liner I.D. (in) 7.625/6.625
Perf'd Interval/Net Pay (ft) .. / 8
Shot Density/Diameter (in) ...

MUD PROPERTIES

Mud Type B/W GEL-PAC
Mud Weight (lb/gal) 12.0
Mud Resistivity (ohm.m)
Filtrate Resistivity (ohm.m) .. 0.065 @ 60F
Filtrate Chlorides (ppm) 154000

INITIAL TEST CONDITIONS

Initial Hydrostatic (psi) 7927.64
Gas Cushion Type
Surface Pressure (psi)
Liquid Cushion Type FRESH WATER
Cushion Length (ft) 4738

TEST STRING CONFIGURATION

Pipe Length (ft)/I.D. (in) ... 11775 / 6.62
Collar Length (ft)/I.D. (in) .. 0 / 2.25
Packer Depths (ft) 12964,
Bottomhole Choke Size (in) ... 0.94
Gauge Depth (ft)/Type 12759/SLSR-872

NET PIPE RECOVERY

Volume	Fluid Type	Properties
	MUD & GAS	
4355 ft	CUT H2O CUSH	Rw0.408@60F 18000ppm
	WATER & GAS	
816 ft	CUT MUD	Rw0.091@60F 98000ppm

NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
4.95 cuft	Gas	
0 cc	Oil	
0 cc	Water	
1500 cc	Mud	Rw 0.093@60F 95000p
Pressure: 1850	GOR: 0	GLR: 524

INTERPRETATION RESULTS

Model of Behavior
Fluid Type Used for Analysis..
Reservoir Pressure (psi)
Transmissibility (md.ft/cp) ..
Effective Permeability (md) ..
Skin Factor/Damage Ratio
Storativity Ratio, Omega
Interporos.Flow Coef..Lambda..
Distance to an Anomaly (ft) ..
Radius of Investigation (ft) ..
Potentiometric Surface (ft) ..

ROCK/FLUID/WELLBORE PROPERTIES

Oil Density (deg. API)
Basic Solids (%)
Gas Gravity
GOR (scf/STB)
Water Cut (%)
Viscosity (cp)
Total Compressibility (1/psi)..
Porosity (%) 10
Reservoir Temperature (F) 184
Form.Vol.Factor (bbl/STB)

PRODUCTION RATE DURING TEST: Data Report

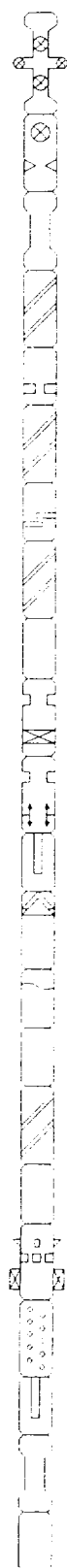
COMMENTS:

The total recovery was 37.3 bbls. At the top was 33.3 bbls. of slightly gas and mud cut water cushion. The bottom was 4 bbls. of slightly water and gas cut mud. There were several anomalies during the final shut in. The maximum pressure during the shut in reached 9,219 lbs. It appears that the by-pass packing may have leaked due over exceeding the limits of the tool design. An inspection of the tools will performed upon return to base

WELL TEST INTERPRETATION REPORT #:078814		PAGE: 2, 20-DEC-97
CLIENT : COBRA OIL & GAS CORP.		
REGION :CSD DISTRICT:HOBBS BASE :MIDLAND ENGINEER:BILL GRAYSHAW	SEQUENCE OF EVENTS	FIELD:WILDCAT ZONE :UPPER WOLFCAMP WELL :STATE-30 #1 LOCATION:30/24s/33e

DATE	TIME (HR:MIN)	DESCRIPTION	ET (MINS)	BHP (PSIA)	WHP (PSIG)
=====					
18-DEC	12:39	HYDROSTATIC MUD	-10	7928	
	12:40	SET PACKER	-9		
	12:49	START FLOW-ON BUBBLE HOSE	0	2221	1/2"
		B.O.B. @ 40 SEC. 5.75 oz.			
	12:50		1		6 oz.
	12:54		5		7.5oz
	12:59		10		8 oz.
	13:04	END FLOW & START SHUT-IN	15	2310	8.25z
	13:34	OPEN TO 3/4" CHOKE ONLY	45		4 oz.
	13:48	OPEN TO BUBBLE HOSE ONLY	59		2"
	13:49	END SHUT-IN	60	4510	2"
	13:52	START FLOW-B.O.B. 15 SEC.	63	2341	2"
	13:57		68		7.5oz
	14:02		73		7 oz.
	14:07		78		7 oz.
	14:22		93		8 oz.
	15:32		163		8.5oz
	15:52		183		9.5oz
	16:02		193		12 oz
	16:12		203		3.3#
	16:52		243		8.9#
	17:48	GAS TO SURFACE	299		18.5#
	17:52	46.49 MCFD	303		20 #
	18:52	70.04 MCFD	363		37.5#
	19:42	MAXIMUM PRESSURE	413		56 #
		56# =95.03 MCFD			
	19:52	END FLOW & START SHUT-IN	423	2793	55#
	21:39	END SHUT-IN	530	7970	
19-DEC	08:00	DROP BAR REVERSE OUT	1151		
	09:05	PULL PACKER LOOSE	1216		

COBRA OIL & GAS CORP.
STATE-30 #1
TOOL STRING SCHEMATIC



TOOL DESCRIPTION	OD	ID	LENGTH	DEPTH
10 K SURFACE FLOWHEAD				0
SINGLE BALL SAFETY VALVE	5.00	2.25	2.354	2.35
DRILL PIPE 13.3#	3.50	2.76	11613	11615.35
DRILL COLLARS-30	4.75	2.25	934.3	12549.65
PUMPOUT DISK REVERSING VALVE	4.75	2.43	0.740	12550.39
DRILL COLLARS-3	4.75	2.25	93.83	12644.22
BREAKOFF PIN REVERSING VALVE	4.75	2.31	0.770	12644.99
DRILL COLLARS-3	4.75	2.25	93.12	12738.11
CROSS OVER SJB	4.75	1.87	1.010	12739.12
MFE (MFEV-B)	5.00	0.94	10.02	12749.14
MFE OH BYPASS (MBYP-B)	5.00	1.18	2.980	12752.12
INSIDE RECORDER CARRIER	4.88	1.25	6.875	12759
DC HYDRAULIC JAR	4.75	1.88	7.090	12766.09
SAFETY JOINT	4.75	2.50	1.880	12767.97
CROSS OVER SUB	4.75	2.37	0.680	12768.65
DRILL COLLARS-6	4.75	2.25	186.9	12955.55
CROSS OVER SUB	4.75	2.37	0.930	12956.48
ARROWSET I-X PACKER	6.45	3.00	7.520	12964
PERFORATED TUBING	2.87	2.44	4.750	12968.75
J-200 RECORDER	2.88	0.00	4.250	12973
OPEN CASING	0.00	6.62	162.0	13135
OPEN HOLE	0.00	6.50	437.0	13572

Report Number: 078814
Test Number: THREE
Test Date: 18-DEC-1997

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BOTTOMHOLE PRESSURE LOG

FIELD REPORT NO. 078814

COMPANY : COBRA OIL & GAS CORP.

INSTRUMENT NO. SLSR872

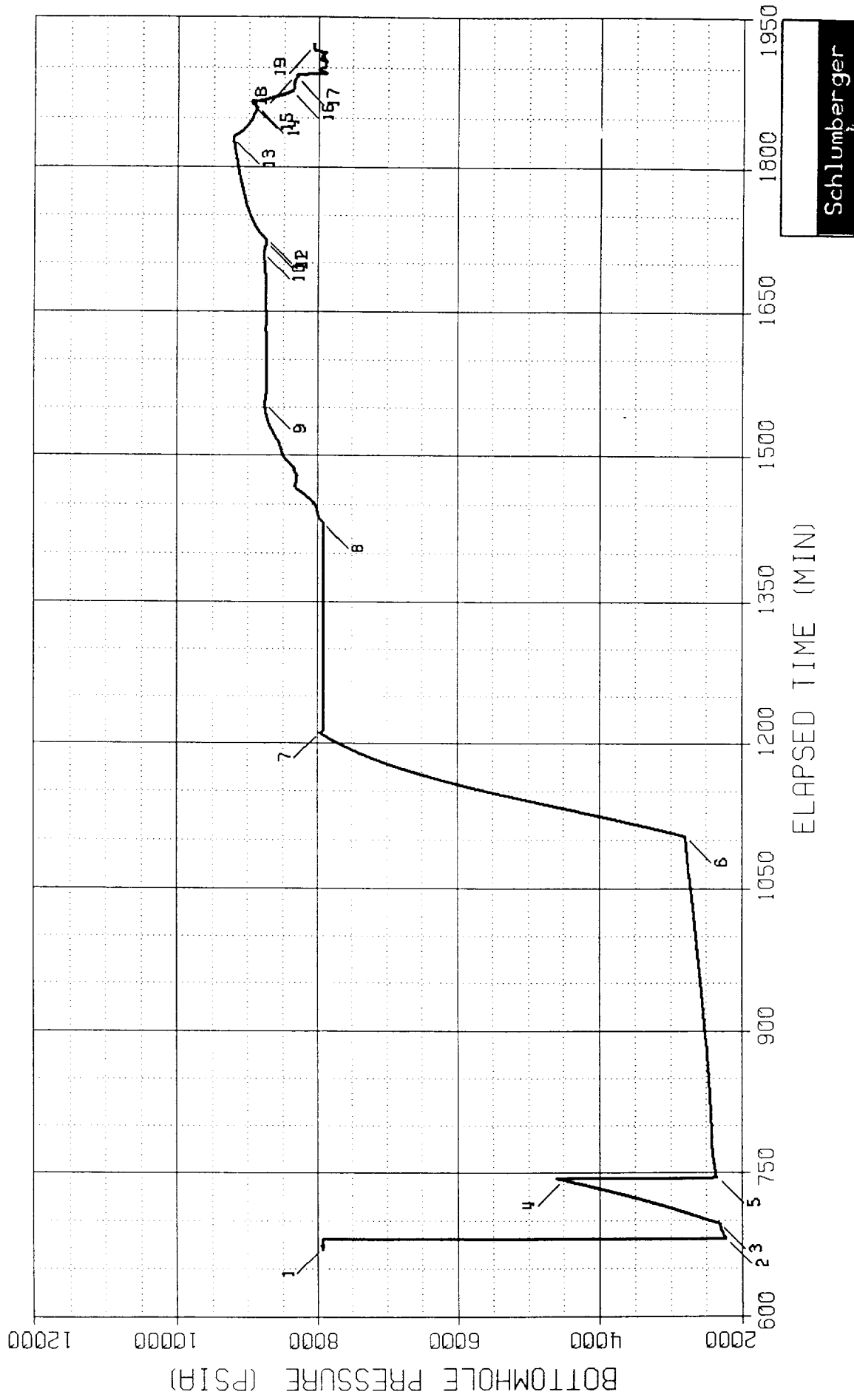
WELL : STATE-30 #1

DEPTH : 12759 FT

CAPACITY : 10000 PSI

Electronic Pressure Data

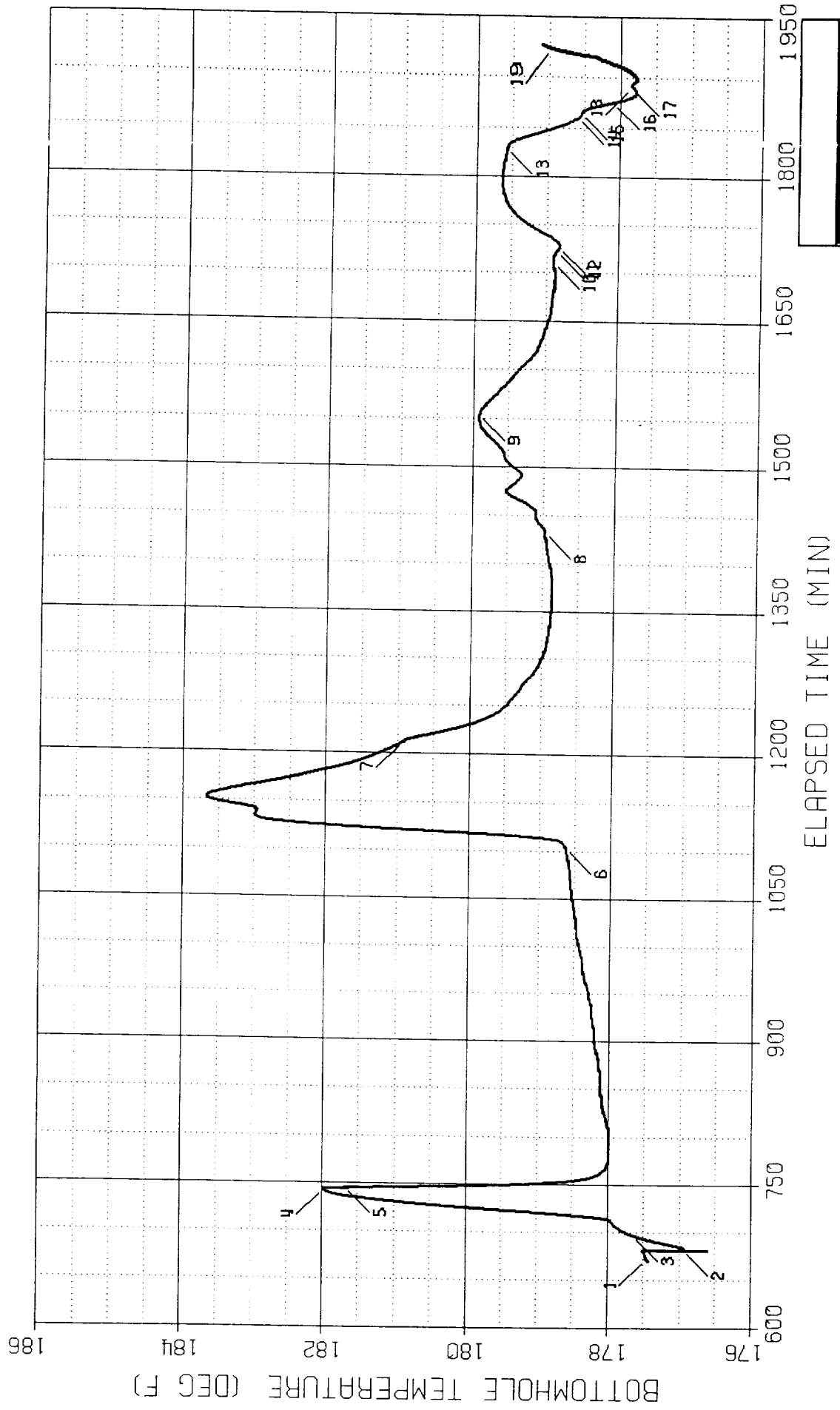
PORT OPENING : INSIDE



BOTTOMHOLE TEMPERATURE LOG

FIELD REPORT NO. 078814 COMPANY : COBRA OIL & GAS CORP.
INSTRUMENT NO. SLSR872 WELL : STATE-30 #1
DEPTH : 12759 FT

Electronic Temperature Data



LOG LOG PLOT

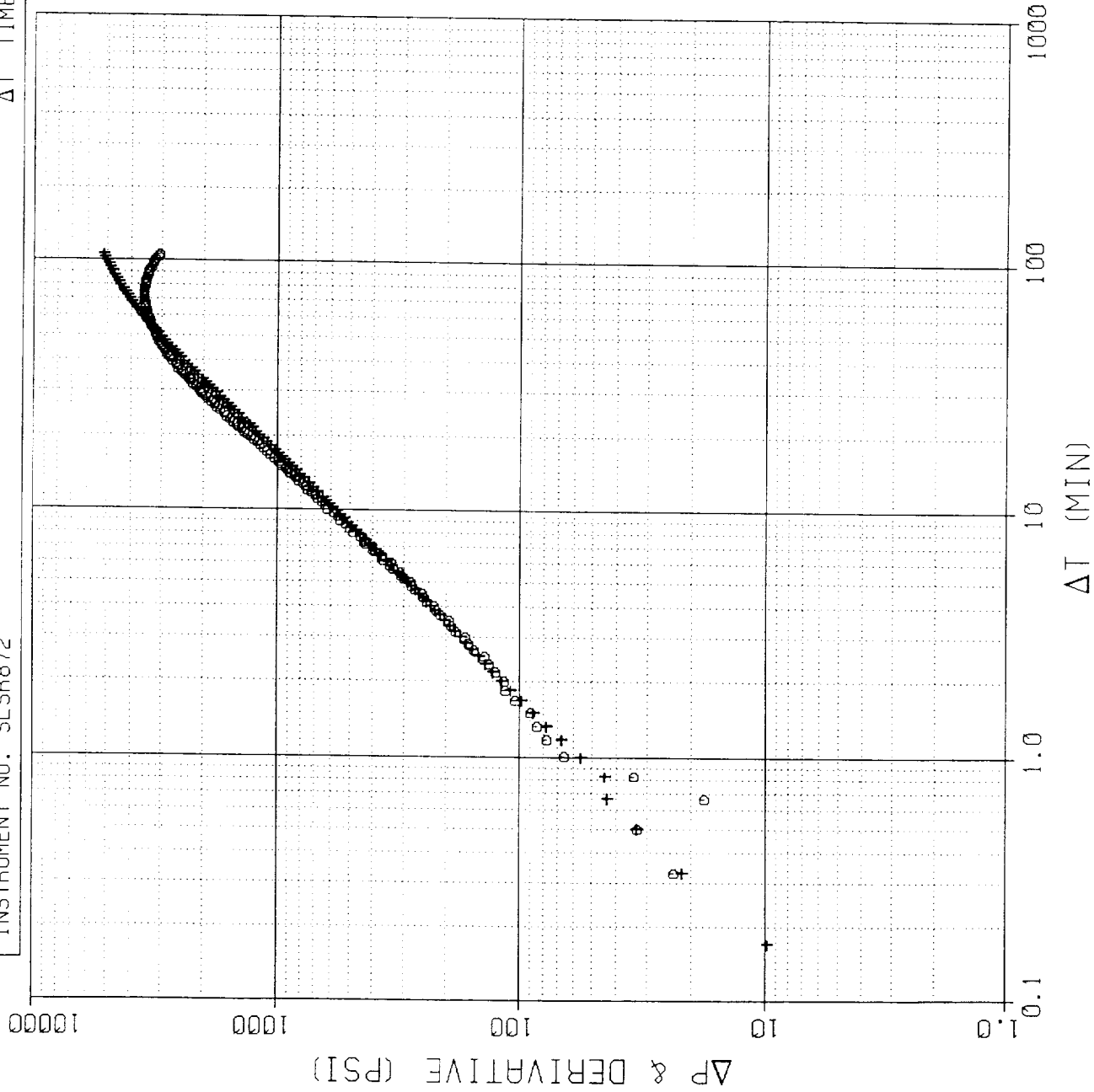
COMPANY : COBRA OIL & GAS CORP.

WELL : STATE-30 #1

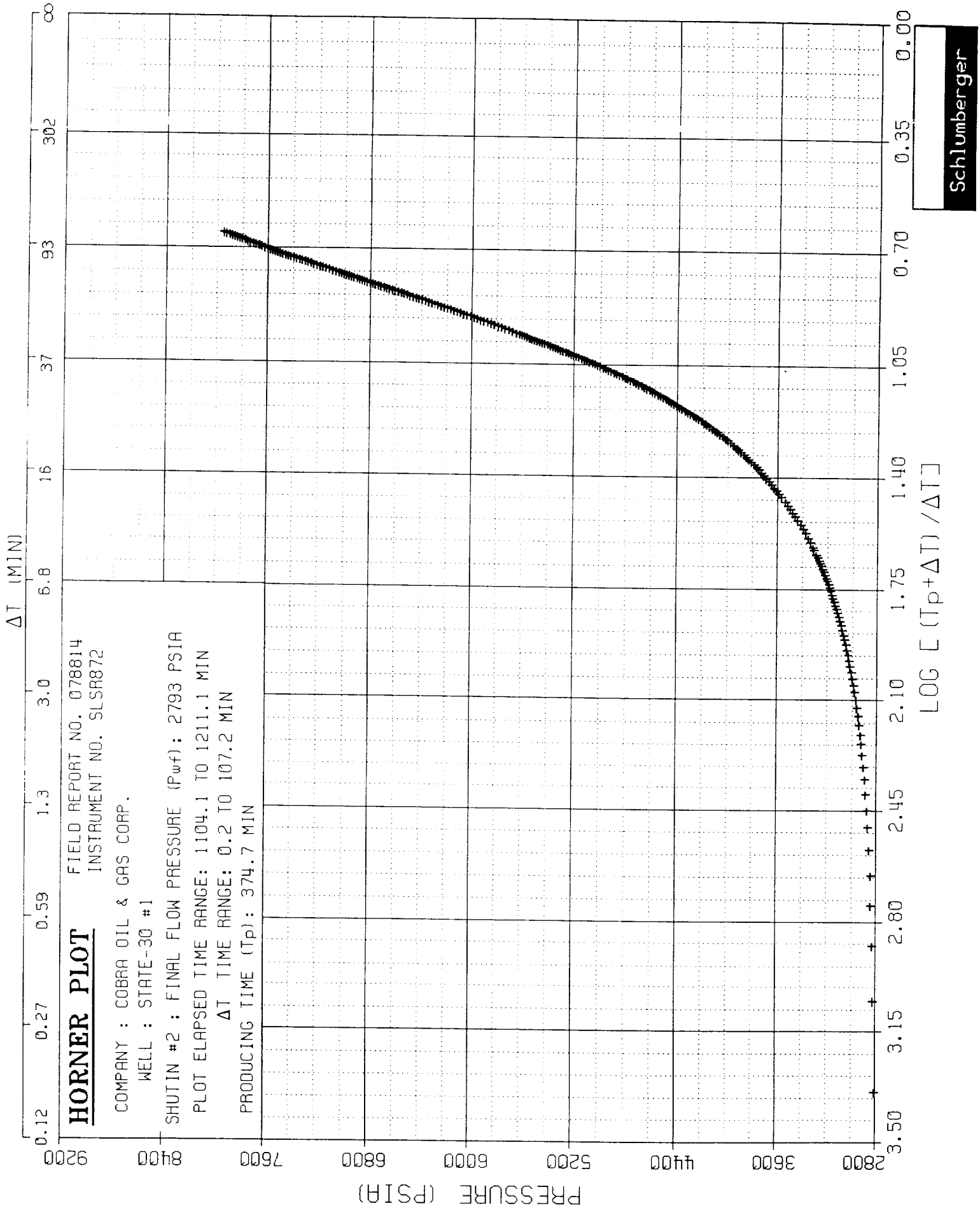
FIELD REPORT NO. 078814

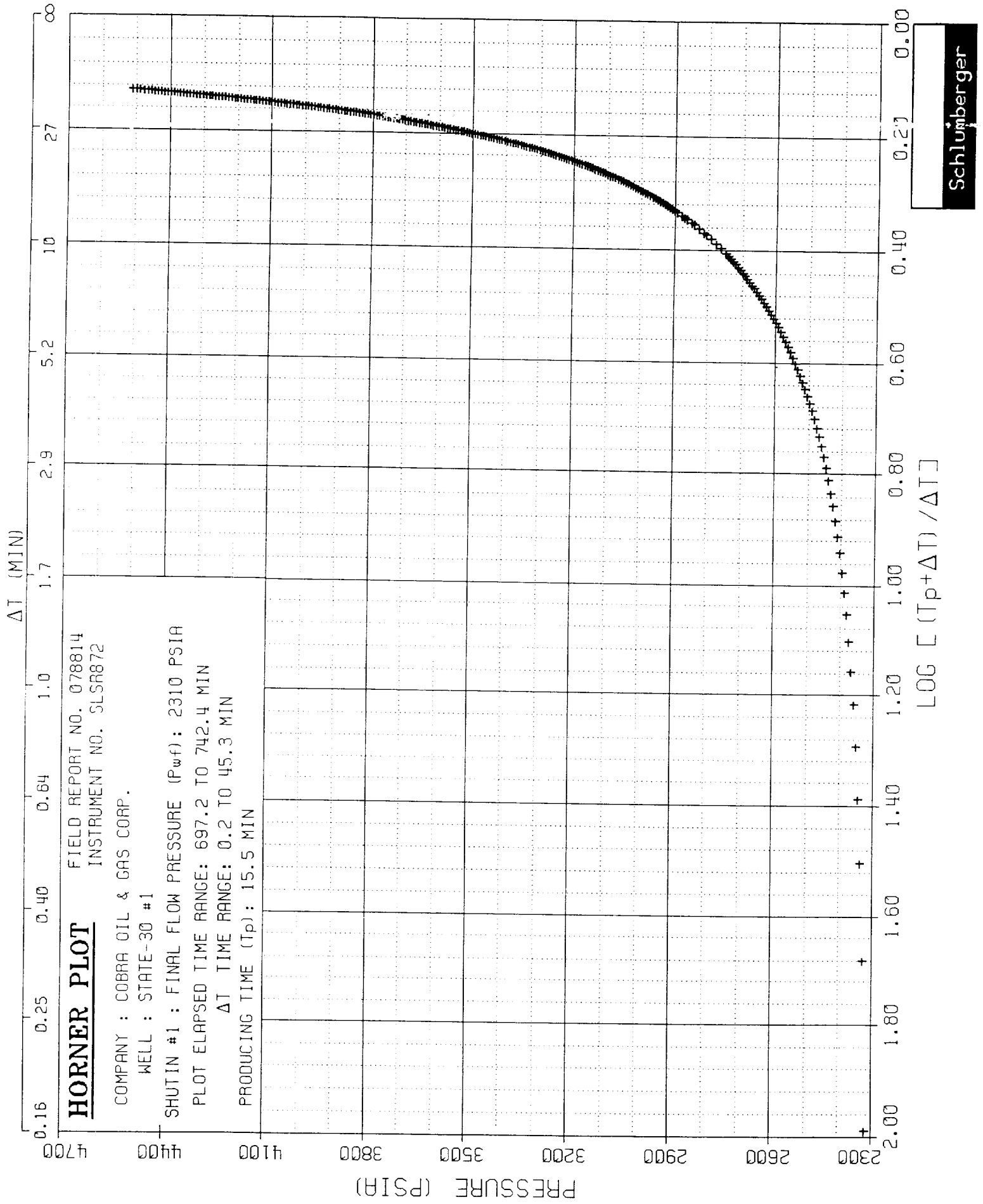
INSTRUMENT NO. SLSR872

SHUTIN #2 : PRODUCING TIME (Tp): 374.7 MIN
FINAL FLOW PRESSURE (Pwf): 2793 PSIA
PLOT ELAPSED TIME RANGE: 1104.1 TO 1211.1 MIN
 ΔT TIME RANGE: 0.2 TO 107.2 MIN



Schlumberger





** *****
 ** WELL TEST DATA PRINTOUT **

COMPANY: COBRA OIL & GAS CORP.
 WELL: STATE-30 #1

FIELD REPORT NO. 078814
 INSTRUMENT NO. SLSR872

RECORDER CAPACITY: 10000 PSI PORT OPENING: INSIDE DEPTH: 12759 FT

LABEL POINT INFORMATION

#	TIME OF DAY HH:MM:SS	DATE DD-MMM	EXPLANATION	ELAPSED TIME, MIN	BOT HOLE PRESSURE PSIA	BOT HOLE TEMP. DEG F
1	12:39:34	18-DEC	HYDROSTATIC MUD	671.57	7927.64	177.46
2	12:49:34	18-DEC	START FLOW	681.57	2220.94	176.95
3	13:05:04	18-DEC	END FLOW & START SHUT-IN	697.07	2310.09	177.66
4	13:50:24	18-DEC	END SHUT-IN	742.40	4509.56	181.98
5	13:52:44	18-DEC	START FLOW	744.73	2340.89	181.69
6	19:51:54	18-DEC	END FLOW & START SHUT-IN	1103.90	2792.56	178.63
7	21:39:04	18-DEC	END SHUT-IN	1211.07	7970.05	180.93
8	1:19:34	19-DEC	UNDETERMINED	1431.57	7919.70	178.97
9	3:22:04	19-DEC	UNDETERMINED	1554.07	8759.29	179.92
10	5:58:24	19-DEC	UNDETERMINED	1710.40	8779.71	178.90
11	6:10:24	19-DEC	UNDETERMINED	1722.40	8742.87	178.86
12	6:13:34	19-DEC	UNDETERMINED	1725.57	8740.32	178.83
13	7:57:34	19-DEC	UNDETERMINED	1829.57	9219.50	179.58
14	8:28:54	19-DEC	UNDETERMINED	1860.90	8879.37	178.59
15	8:34:24	19-DEC	UNDETERMINED	1866.40	8966.58	178.54
16	8:45:14	19-DEC	UNDETERMINED	1877.23	8373.10	178.09
17	8:59:14	19-DEC	UNDETERMINED	1891.23	8302.76	177.82
18	9:00:14	19-DEC	PULLED LOOSE	1892.23	8336.86	177.84
19	9:29:14	19-DEC	HYDROSTATIC MUD	1921.23	8070.18	178.97

SUMMARY OF FLOW PERIODS

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME, MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	INITIAL PRESSURE PSIA
1	681.57	697.07	15.50	2220.94	2310.09	2220.94
2	744.73	1103.90	359.17	2340.89	2792.56	2340.89

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	697.07	742.40	45.33	2310.09	4509.56	2310.09	15.50
2	1103.90	1211.07	107.17	2792.56	7970.05	2792.56	374.67

TEST PHASE: FLOW PERIOD # 1

TIME OF DAY	DATE	ELAPSED	DELTA	BOT HOLE TEMP.	BOT HOLE PRESSURE
HH:MM:SS	DD-MMM	TIME,MIN	TIME,MIN	DEG F	PSIA
12:49:34	18-DEC	681.57	0.00	176.95	2220.94
13:04:34	18-DEC	696.57	15.00	177.64	2307.96
13:05:04	18-DEC	697.07	15.50	177.66	2310.09

TEST PHASE: SHUTIN PERIOD # 1

FINAL FLOW PRESSURE = 2310.09 PSIA
PRODUCING TIME = 15.50 MIN

TIME OF DAY	DATE	ELAPSED	DELTA	BOT HOLE TEMP.	BOT HOLE PRESSURE	DELTA P	LOG HORNER TIME
HH:MM:SS	DD-MMM	TIME,MIN	TIME,MIN	DEG F	PSIA	PSI	
13:05:04	18-DEC	697.07	0.00	177.66	2310.09	0.00	
13:06:04	18-DEC	698.07	1.00	177.69	2357.94	47.85	1.2175
13:07:04	18-DEC	699.07	2.00	177.73	2403.05	92.96	0.9420
13:08:04	18-DEC	700.07	3.00	177.76	2446.85	136.76	0.7901
13:09:04	18-DEC	701.07	4.00	177.78	2490.21	180.12	0.6880
13:10:04	18-DEC	702.07	5.00	177.80	2533.36	223.27	0.6128
13:11:04	18-DEC	703.07	6.00	177.82	2576.40	266.31	0.5543
13:12:04	18-DEC	704.07	7.00	177.84	2619.34	309.25	0.5071
13:13:04	18-DEC	705.07	8.00	177.85	2662.30	352.21	0.4680
13:14:04	18-DEC	706.07	9.00	177.87	2705.27	395.18	0.4349
13:15:04	18-DEC	707.07	10.00	177.89	2748.35	438.26	0.4065
13:17:04	18-DEC	709.07	12.00	177.93	2834.80	524.71	0.3602
13:19:04	18-DEC	711.07	14.00	177.94	2921.93	611.84	0.3237
13:21:04	18-DEC	713.07	16.00	177.98	3010.01	699.92	0.2942
13:23:04	18-DEC	715.07	18.00	178.12	3099.51	789.42	0.2698
13:25:04	18-DEC	717.07	20.00	178.43	3191.20	881.11	0.2492
13:27:04	18-DEC	719.07	22.00	178.79	3284.76	974.67	0.2316
13:29:04	18-DEC	721.07	24.00	179.19	3379.95	1069.86	0.2164
13:31:04	18-DEC	723.07	26.00	179.64	3476.75	1166.66	0.2031
13:33:04	18-DEC	725.07	28.00	180.07	3575.68	1265.59	0.1913
13:35:04	18-DEC	727.07	30.00	180.45	3676.60	1366.51	0.1809
13:40:04	18-DEC	732.07	35.00	181.22	3937.34	1627.25	0.1592
13:45:04	18-DEC	737.07	40.00	181.76	4210.06	1899.97	0.1422
13:50:04	18-DEC	742.07	45.00	181.98	4488.42	2178.33	0.1285
13:50:24	18-DEC	742.40	45.33	181.98	4509.56	2199.47	0.1277

TEST PHASE: FLOW PERIOD # 2

TIME OF DAY	DATE	ELAPSED	DELTA	BOT HOLE TEMP.	BOT HOLE PRESSURE
HH:MM:SS	DD-MMM	TIME,MIN	TIME,MIN	DEG F	PSIA
13:52:44	18-DEC	744.73	0.00	181.69	2340.89
14:07:44	18-DEC	759.73	15.00	178.16	2388.93
14:22:44	18-DEC	774.73	30.00	178.00	2414.88
14:37:44	18-DEC	789.73	45.00	178.00	2421.64
14:52:44	18-DEC	804.73	60.00	178.00	2429.64
15:07:44	18-DEC	819.73	75.00	178.03	2440.01
15:22:44	18-DEC	834.73	90.00	178.09	2450.59
15:37:44	18-DEC	849.73	105.00	178.11	2462.43

TEST PHASE: FLOW PERIOD # 2

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA
15:52:44	18-DEC	864.73	120.00	178.12	2477.82
16:07:44	18-DEC	879.73	135.00	178.14	2493.06
16:22:44	18-DEC	894.73	150.00	178.20	2512.08
16:37:44	18-DEC	909.73	165.00	178.21	2530.71
16:52:44	18-DEC	924.73	180.00	178.25	2548.69
17:07:44	18-DEC	939.73	195.00	178.27	2567.47
17:22:44	18-DEC	954.73	210.00	178.30	2586.79
17:37:44	18-DEC	969.73	225.00	178.36	2606.57
17:52:44	18-DEC	984.73	240.00	178.39	2627.03
18:07:44	18-DEC	999.73	255.00	178.43	2646.87
18:22:44	18-DEC	1014.73	270.00	178.47	2666.73
18:37:44	18-DEC	1029.73	285.00	178.48	2687.94
18:52:44	18-DEC	1044.73	300.00	178.52	2708.80
19:07:44	18-DEC	1059.73	315.00	178.54	2733.33
19:22:44	18-DEC	1074.73	330.00	178.57	2760.53
19:37:44	18-DEC	1089.73	345.00	178.59	2779.22
19:51:54	18-DEC	1103.90	359.17	178.63	2792.56

TEST PHASE: SHUTIN PERIOD # 2

 FINAL FLOW PRESSURE = 2792.56 PSIA
 PRODUCING TIME = 374.67 MIN

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORN TIME
19:51:54	18-DEC	1103.90	0.00	178.63	2792.56	0.00	
19:52:54	18-DEC	1104.90	1.00	178.65	2848.21	55.65	2.5748
19:53:54	18-DEC	1105.90	2.00	178.65	2910.46	117.90	2.2749
19:54:54	18-DEC	1106.90	3.00	178.66	2966.61	174.05	2.1000
19:55:54	18-DEC	1107.90	4.00	178.68	3022.74	230.18	1.9762
19:56:54	18-DEC	1108.90	5.00	178.68	3079.01	286.45	1.8804
19:57:54	18-DEC	1109.90	6.00	178.70	3135.62	343.06	1.8024
19:58:54	18-DEC	1110.90	7.00	178.72	3192.68	400.12	1.7366
19:59:54	18-DEC	1111.90	8.00	178.77	3250.59	458.03	1.6797
20:00:54	18-DEC	1112.90	9.00	178.88	3309.17	516.61	1.6297
20:01:54	18-DEC	1113.90	10.00	179.01	3368.16	575.60	1.5851
20:03:54	18-DEC	1115.90	12.00	179.35	3487.23	694.67	1.5082
20:05:54	18-DEC	1117.90	14.00	179.83	3607.58	815.02	1.4435
20:07:54	18-DEC	1119.90	16.00	180.43	3729.43	936.87	1.3877
20:09:54	18-DEC	1121.90	18.00	181.02	3852.81	1060.25	1.3388
20:11:54	18-DEC	1123.90	20.00	181.58	3977.56	1185.00	1.2952
20:13:54	18-DEC	1125.90	22.00	182.08	4103.32	1310.76	1.2560
20:15:54	18-DEC	1127.90	24.00	182.48	4230.15	1437.59	1.2204
20:17:54	18-DEC	1129.90	26.00	182.77	4357.59	1565.03	1.1878
20:19:54	18-DEC	1131.90	28.00	182.93	4485.56	1693.00	1.1578
20:21:54	18-DEC	1133.90	30.00	182.98	4613.60	1821.04	1.1300
20:26:54	18-DEC	1138.90	35.00	182.97	4931.45	2138.89	1.0684
20:31:54	18-DEC	1143.90	40.00	183.13	5243.17	2450.61	1.0156
20:36:54	18-DEC	1148.90	45.00	183.54	5542.93	2750.37	0.9697
20:41:54	18-DEC	1153.90	50.00	183.67	5828.03	3035.47	0.9291
20:46:54	18-DEC	1158.90	55.00	183.47	6097.34	3304.78	0.8928

TEST PHASE: SHUTIN PERIOD # 2

FINAL FLOW PRESSURE = 2792.56 PSIA

PRODUCING TIME = 374.67 MIN

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE TEMP. DEG F	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
20:51:54	18-DEC	1163.90	60.00	183.16	6350.31	3557.75	0.8600
20:56:54	18-DEC	1168.90	65.00	182.82	6586.67	3794.11	0.8302
21:01:54	18-DEC	1173.90	70.00	182.48	6806.42	4013.86	0.8029
21:06:54	18-DEC	1178.90	75.00	182.19	7009.96	4217.40	0.7778
21:11:54	18-DEC	1183.90	80.00	181.90	7197.60	4405.04	0.7546
21:16:54	18-DEC	1188.90	85.00	181.65	7370.28	4577.72	0.7330
21:21:54	18-DEC	1193.90	90.00	181.45	7528.56	4736.00	0.7129
21:26:54	18-DEC	1198.90	95.00	181.29	7673.50	4880.94	0.6941
21:31:54	18-DEC	1203.90	100.00	181.13	7805.55	5012.99	0.6764
21:36:54	18-DEC	1208.90	105.00	180.99	7925.96	5133.40	0.6598
21:39:04	18-DEC	1211.07	107.17	180.93	7970.05	5177.49	0.6528

February 3, 1998

WELL NAME AND NUMBER:
LOCATION:
OPERATOR:
DRILLING CONTRACTOR:

STATE 30 #1
SEC. 30 T24S R33E
COBRA OIL & GAS
PATTERSON DRILLING

Unit B 30-24s-33e
660/W & 1980/E
30-025-34148

The undersigned hereby certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

<u>DEGREE AND DEPTH</u>		<u>DEGREE AND DEPTH</u>		<u>DEGREE AND DEPTH</u>	
0.00	412	0.75	5502	2.25	10534
1.25	600	0.75	6003	1.00	11035
0.75	1090	0.50	6536	1.75	11536
1.00	1591	1.00	7069	2.00	12038
0.75	2061	0.75	7445	1.50	12537
0.50	2564	1.00	7538	1.00	13140
0.50	3021	1.50	8041	1.50	13572
1.50	3565	2.25	8543	0.50	13961
1.00	3690	2.00	9079	0.75	14430
0.50	4192	1.75	9549	0.75	15127
2.50	4694	1.50	10050	0.50	15470
1.75	5000				

Drilling Contractor:
PATTERSON DRILLING CO.

By: Billy Jensen
Billy Jensen

Subscribed and sworn to before me on this 3rd day of February 1998.

My Commission Expires:
June 30, 2001

Mary G. Henson
Mary G. Henson