



## PRESSURE TEST DATA SUMMARY

COMPANY: PHILLIPS PETROLEUM CO. NORWAY DATE: 14 October 1982

FIELD: TOMMELITEN WELL NO: 1/9 - 6 JOB NO: MRPG-1359(B)-NOR  
MRS-1322(C)-NOR

TEST TYPE: D.S.T. TEST NO: 3A RUN NO: \_\_\_\_\_ MAX B.H.T. 268 °F

PERFORATION INTERVAL: 11770-11740, 11710-11680, 11650-11560 ZONE: \_\_\_\_\_

	TOP	MIDDLE	BOTTOM
GAUGE TYPE/NO.	<u>MK III 0116</u>	<u>MK III 0190</u>	<u>MK III 0003</u>
PRESSURE SENSING DEPTH	<u>11549.5</u>	<u>11557.5</u>	<u>11565.5</u>
ELEMENT SIZE	<u>DELAY (256 MINS.)</u> <u>2 MINS.</u>	<u>4 MINS.</u>	<u>4 MINS.</u>
TIME MODE	<u>SILVER OXIDE</u>	<u>SILVER OXIDE</u>	<u>SILVER OXIDE</u>
BATTERY TYPE	_____	_____	_____

EVENT	SURFACE TIMES & DATES	TEMP.	°F
START GAUGE 0116	00:58 19-10-82		
START GAUGE 0190	01:00		
START GAUGE 0003	01:02		
GAUGES IN 'F' NIPPLE	02:50		
WELL OPEN TO FLOW THROUGH HEATER	05:53	260.8	
CHANGE TO 10/64" ADJ CHOKE	05:56	261.7	
CHANGE TO 20/64" ADJ CHOKE	06:02	261.7	
SWITCH FLOW THROUGH 20/64"			
HEATER CHOKE	06:03	262.6	
CHANGE TO 20/64" FIXED CHOKE	06:28	266.2	
FLOW THROUGH SEPERATOR	06:35	266.2	
WELL SHUT IN DUE TO LEAKING			
FLOW-LINE	14:32	268.0	
OPEN MASTER VALVE	15:56	266.2	
WELL OPEN ON 8/64" ADJ CHOKE	16:00	266.2	
WELL SHUT IN AT CHOKE (LEAK)	16:07	266.2	
WELL OPEN ON 8/64" ADJ CHOKE	17:18	265.3	
CHANGE TO 20/64" FIXED CHOKE			
THROUGH SEPERATOR	17:24	265.3	
SHUT IN FOR BUILD UP	22:32	268.0	
WELL OPEN ON 8/64" ADJ CHOKE	15:26 20-10-82		
SHUT IN AT CHOKE MANIFOLD	15:28		

M.R.P.G. PRESSURES ARE RELATIVE TO GAUGE CLOCK TIMES.

S.P.G. PRESSURES ARE RELATIVE TO TIME GRADIENT CALCULATED FROM SURFACE TIMES.

**PRESSURE TEST DATA SUMMARY  
CONTINUATION SHEET**COMPANY: PHILLIPS PETROLEUM CO. NORWAYJOB NO: MRPG-1359 (B) -NOR  
MRS-1322 (C) -NOR

EVENT	SURFACE TIMES & DATES		TEMP.	°F
WELL OPEN ON 8/64" ADJ CHOKE	15:35	20-10-82		
CHANGE TO 48/64" ADJ CHOKE	15:43			
CHANGE TO 50/64" ADJ CHOKE	15:58			
CHANGE TO 56/64" FIXED CHOKE	16:53			
WELL SHUT IN FOR FINAL BUILD UP	00:02	21-10-82		
END OF FINAL BUILD UP	17:02			

M.R.P.G. PRESSURES ARE RELATIVE TO GAUGE CLOCK TIMES.

S.P.G. PRESSURES ARE RELATIVE TO TIME GRADIENT CALCULATED FROM SURFACE TIMES.

PHILLIPS PETROLEUM CO. NORWAY  
TOMMELITEN  
1/9-6

OFFSHORE NORWAY  
14. OCTOBER 1982  
MRPG-1359(B)-NOR

DST 3A, GAUGE 0190. SENSING DEPTH 11557.5 FT. (INITIAL STATIC PERIOD)

DELTA TIME HOURS	GAUGE PRESSURE (PSI)	TEMP. DEG F	TIME	
0.000	6991.493	249.0	2:50	19/10/82 GAUGES SEATED IN 'F'-NIPPLE
0.067	6987.724	254.4	2:54	
0.133	6988.387	258.1	2:58	
0.200	6990.453	259.9	3: 2	
0.267	6991.266	260.8	3: 6	
0.333	6993.009	260.8	3:10	
0.400	6992.949	261.7	3:14	
0.467	6994.255	261.7	3:18	
0.533	6995.127	261.7	3:22	
0.600	6996.869	261.7	3:26	
0.667	6998.611	261.7	3:30	
0.733	7001.225	261.7	3:34	
0.800	7003.838	261.7	3:38	
0.867	7006.016	261.7	3:42	
0.933	7008.194	261.7	3:46	
1.000	7010.807	261.7	3:50	
1.067	7012.985	261.7	3:54	
1.133	7015.599	261.7	3:58	
1.200	7017.777	261.7	4: 2	
1.267	7020.390	261.7	4: 6	
1.333	7023.004	261.7	4:10	
1.400	7026.053	261.7	4:14	
1.467	7028.666	261.7	4:18	
1.533	7031.280	261.7	4:22	
1.600	7034.329	261.7	4:26	
1.667	7037.378	261.7	4:30	
1.733	7039.992	261.7	4:34	
1.800	7042.170	261.7	4:38	
1.867	7044.784	261.7	4:42	
1.933	7047.397	261.7	4:46	
2.000	7050.011	261.7	4:50	
2.067	7052.625	261.7	4:54	
2.133	7054.803	261.7	4:58	
2.200	7056.981	261.7	5: 2	
2.267	7059.594	261.7	5: 6	
2.333	7061.337	261.7	5:10	
2.400	7063.079	261.7	5:14	
2.467	7066.204	260.8	5:18	
2.533	7067.000	261.7	5:22	
2.600	7070.126	260.8	5:26	
2.667	7071.869	260.8	5:30	
2.733	7073.176	260.8	5:34	
2.800	7074.919	260.8	5:38	
2.867	7076.226	260.8	5:42	
2.933	7077.533	260.8	5:46	
3.000	7078.405	260.8	5:50	END OF INITIAL STATIC PERIOD

PHILLIPS PETROLEUM CO. NORWAY  
TOMMELITEN  
1/9-6

OFFSHORE NORWAY  
14. OCTOBER 1982  
MRPG-1359(B)-NOR

DST 3A, GAUGE 0190. SENSING DEPTH 11557.5 FT. (FIRST FLOW PERIOD)

DELTA TIME HOURS	GAUGE PRESSURE (PSI)	TEMP. DEG F	TIME	
3.400	6579.006	267.1	9:14	19/10/82
3.467	6574.658	267.1	9:18	
3.533	6574.224	267.1	9:22	
3.600	6573.354	267.1	9:26	
3.667	6572.050	267.1	9:30	
3.733	6566.834	267.1	9:34	
3.800	6568.138	267.1	9:38	
3.867	6566.399	267.1	9:42	
3.933	6564.660	267.1	9:46	
4.000	6565.530	267.1	9:50	
4.067	6563.356	267.1	9:54	
4.133	6562.052	267.1	9:58	
4.200	6561.617	267.1	10: 2	
4.267	6560.748	267.1	10: 6	
4.333	6559.444	267.1	10:10	
4.400	6558.140	267.1	10:14	
4.467	6555.966	267.1	10:18	
4.533	6557.705	267.1	10:22	
4.600	6557.270	267.1	10:26	
4.667	6553.358	267.1	10:30	
4.733	6554.227	267.1	10:34	
4.800	6553.793	267.1	10:38	
4.867	6554.227	267.1	10:42	
4.933	6548.576	267.1	10:46	
5.000	6547.707	267.1	10:50	
5.067	6548.142	267.1	10:54	
5.133	6548.576	267.1	10:58	
5.200	6549.011	267.1	11: 2	
5.267	6544.664	267.1	11: 6	
5.333	6546.403	267.1	11:10	
5.400	6544.230	267.1	11:14	
5.467	6540.317	267.1	11:18	
5.533	6542.491	267.1	11:22	
5.600	6541.621	267.1	11:26	
5.667	6539.883	267.1	11:30	
5.733	6540.317	267.1	11:34	
5.800	6536.840	267.1	11:38	
5.867	6540.752	267.1	11:42	
5.933	6538.144	267.1	11:46	
6.000	6537.709	267.1	11:50	
6.067	6538.144	267.1	11:54	
6.133	6535.101	267.1	11:58	
6.200	6535.970	267.1	12: 2	
6.267	6533.362	267.1	12: 6	
6.333	6535.101	267.1	12:10	
6.400	6532.493	267.1	12:14	
6.467	6532.058	267.1	12:18	
6.533	6529.885	267.1	12:22	
6.600	6530.320	267.1	12:26	
6.667	6529.480	268.0	12:30	

PHILLIPS PETROLEUM CO.NORWAY  
TOMMELITEN  
1/9-6OFFSHORE NORWAY  
14.OCTOBER 1982  
MRPG-1359(B)-NOR

DST 3A; GAUGE 0190. SENSING DEPTH 11557.5 FT. (FIRST FLOW PERIOD)

DELTA TIME HOURS	GAUGE PRESSURE (PSI)	TEMP. DEG F	TIME	
6.733	6529.045	268.0	12:34	19/10/82
6.800	6529.480	268.0	12:38	
6.867	6526.438	268.0	12:42	
6.933	6525.569	268.0	12:46	
7.000	6526.438	268.0	12:50	
7.067	6527.307	268.0	12:54	
7.133	6522.961	268.0	12:58	
7.200	6523.830	268.0	13: 2	
7.267	6522.527	268.0	13: 6	
7.333	6522.961	268.0	13:10	
7.400	6522.961	268.0	13:14	
7.467	6522.092	268.0	13:18	
7.533	6522.092	268.0	13:22	
7.600	6519.050	268.0	13:26	
7.667	6520.354	268.0	13:30	
7.733	6522.961	268.0	13:34	
7.800	6518.616	268.0	13:38	
7.867	6517.746	268.0	13:42	
7.933	6518.181	268.0	13:46	
8.000	6519.050	268.0	13:50	
8.067	6516.443	268.0	13:54	
8.133	6518.616	268.0	13:58	
8.200	6513.835	268.0	14: 2	
8.267	6518.181	268.0	14: 6	
8.333	6517.746	268.0	14:10	
8.400	6517.312	268.0	14:14	
8.467	6515.139	268.0	14:18	
8.533	6510.359	268.0	14:22	
8.600	6510.793	268.0	14:26	

END OF FIRST FLOW PERIOD

PHILLIPS PETROLEUM CO.NORWAY  
TOMMELITEN  
1/9-6

OFFSHORE NORWAY  
14.OCTOBER 1982  
MRPG-1359(B)-NOR

DST 3A, GAUGE 0190. SENSING DEPTH 11557.5 FT. (FIRST BUILD-UP PERIOD)

DELTA TIME HOURS	GAUGE PRESSURE (PSI)	TEMP. DEG F	TIME
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0.000	6510.793	268.0	14:26
0.067	6548.167	268.0	14:30
0.133	6732.031	268.0	14:34
0.200	6771.593	268.0	14:38
0.267	6795.505	268.0	14:42
0.333	6812.896	268.0	14:46
0.400	6826.375	268.0	14:50
0.467	6838.115	268.0	14:54
0.533	6848.550	268.0	14:58
0.600	6859.461	267.1	15: 2
0.667	6868.160	267.1	15: 6
0.733	6881.208	267.1	15:10
0.800	6888.602	267.1	15:14
0.867	6894.691	267.1	15:18
0.933	6900.345	267.1	15:22
1.000	6905.130	267.1	15:26
1.067	6909.479	267.1	15:30
1.133	6914.264	267.1	15:34
1.200	6918.613	267.1	15:38
1.267	6922.093	267.1	15:42
1.333	6926.008	267.1	15:46
1.400	6931.282	266.2	15:50
1.467	6934.327	266.2	15:54
1.533	6937.373	266.2	15:58

19/10/82 WELL SHUT IN AT  
I FAILSAFE VALVE

END OF FIRST BUILD-UP PERIOD

SPERRY-SUN INTERNATIONAL INC.  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PHILLIPS PETROLEUM CO. NORWAY  
TOMMELITEN  
1/9-6

OFFSHORE NORWAY  
14. OCTOBER 1982  
MRPG-1359(B)-NOR

DST 3A, GAUGE 0190. SENSING DEPTH 11557.5 FT. (SECOND FLOW PERIOD)

DELTA TIME HOURS	GAUGE PRESSURE (PSI)	TEMP. DEG F	TIME	
0.000	6937.373	266.2	15:58	19/10/82 WELL OPEN TO FLOW
0.067	6905.179	266.2	16: 2	
0.133	6908.224	266.2	16: 6	END OF SECOND FLOW PERIOD

SPERRY-SUN INTERNATIONAL INC.  
MAGNETIC RECORDING PRESSURE GAUGE REPORT

PHILLIPS PETROLEUM CO. NORWAY  
TOMMELITEN  
1/9-6

OFFSHORE NORWAY  
14. OCTOBER 1982  
MRPG-1359(B)-NOR

DST 3A, GAUGE 0190. SENSING DEPTH 11557.5 FT. (SECOND BUILD-UP PERIOD)

DELTA TIME HOURS	GAUGE PRESSURE (PSI)	TEMP. DEG F	TIME	
0.000	6908.224	266.2	16: 6	19/10/82 WELL SHUT IN AT
0.067	6929.542	266.2	16:10	CHOKER MANIFOLD
0.133	6936.067	266.2	16:14	
0.200	6941.723	266.2	16:18	
0.267	6945.204	266.2	16:22	
0.333	6948.249	266.2	16:26	
0.400	6951.295	266.2	16:30	
0.467	6953.905	266.2	16:34	
0.533	6956.951	266.2	16:38	
0.600	6959.561	266.2	16:42	
0.667	6962.172	266.2	16:46	
0.733	6965.713	265.3	16:50	
0.800	6967.889	265.3	16:54	
0.867	6970.065	265.3	16:58	
0.933	6972.241	265.3	17: 2	
1.000	6973.982	265.3	17: 6	
1.067	6976.158	265.3	17:10	
1.133	6977.899	265.3	17:14	END OF SECOND BUILD-UP PERIOD



PHILLIPS PETROLEUM CO. NORWAY  
TOMMELITEN  
1/9-6OFFSHORE NORWAY  
14. OCTOBER 1982  
MRPG-1359(B)-NOR

DST 3A, GAUGE 0190. SENSING DEPTH 11557.5 FT. (FINAL FLOW PERIOD)

DELTA TIME HOURS	GAUGE PRESSURE (PSI)	TEMP. DEG F	TIME	
0.000	6977.899	265.3	17:14	19/10/82 WELL OPEN TO FLOW ON
0.067	6940.909	265.3	17:18	8/64" ADJ CHOKE
0.133	6710.752	265.3	17:22	
0.200	6682.913	265.3	17:26	CHANGE TO 20/64" FIXED CHOKE
0.267	6663.778	266.2	17:30	FLOW THROUGH SEPERATOR
0.333	6662.039	266.2	17:34	
0.400	6653.781	267.1	17:38	
0.467	6644.216	267.1	17:42	
0.533	6635.086	267.1	17:46	
0.600	6624.652	267.1	17:50	
0.667	6624.217	267.1	17:54	
0.733	6612.479	267.1	17:58	
0.800	6602.046	267.1	18: 2	
0.867	6593.351	267.1	18: 6	
0.933	6585.961	267.1	18:10	
1.000	6581.179	267.1	18:14	
1.067	6574.679	268.0	18:18	
1.133	6580.329	268.0	18:22	
1.200	6576.852	268.0	18:26	
1.267	6571.636	268.0	18:30	
1.333	6569.029	268.0	18:34	
1.400	6565.552	268.0	18:38	
1.467	6565.986	268.0	18:42	
1.533	6559.902	268.0	18:46	
1.600	6559.033	268.0	18:50	
1.667	6553.383	268.0	18:54	
1.733	6552.079	268.0	18:58	
1.800	6549.906	268.0	19: 2	
1.867	6546.429	268.0	19: 6	
1.933	6540.779	268.0	19:10	
2.000	6539.041	268.0	19:14	
2.067	6539.476	268.0	19:18	
2.133	6539.476	268.0	19:22	
2.200	6536.433	268.0	19:26	
2.267	6530.349	268.0	19:30	
2.333	6531.653	268.0	19:34	
2.400	6527.307	268.0	19:38	
2.467	6524.700	268.0	19:42	
2.533	6526.873	268.0	19:46	
2.600	6523.830	268.0	19:50	
2.667	6517.312	268.0	19:54	
2.733	6518.616	268.0	19:58	
2.800	6521.223	268.0	20: 2	
2.867	6517.746	268.0	20: 6	
2.933	6519.050	268.0	20:10	
3.000	6514.704	268.0	20:14	
3.067	6516.008	268.0	20:18	
3.133	6512.531	268.0	20:22	
3.200	6515.139	268.0	20:26	
3.267	6509.924	268.0	20:30	

PHILLIPS PETROLEUM CO.NORWAY  
TOMMELITEN  
1/9-6

OFFSHORE NORWAY  
14.OCTOBER 1982  
MRPG-1359(B)-NOR

DST 3A, GAUGE 0190. SENSING DEPTH 11557.5 FT. (FINAL FLOW PERIOD)

DELTA TIME HOURS	GAUGE PRESSURE (PSI)	TEMP. DEG F	TIME
3.333	6516.443	268.0	20:34 19/10/82
3.400	6508.620	268.0	20:38
3.467	6505.578	268.0	20:42
3.533	6504.709	268.0	20:46
3.600	6507.317	268.0	20:50
3.667	6504.709	268.0	20:54
3.733	6502.536	268.0	20:58
3.800	6503.840	268.0	21: 2
3.867	6502.102	268.0	21: 6
3.933	6505.144	268.0	21:10
4.000	6502.536	268.0	21:14
4.067	6502.971	268.0	21:18
4.133	6496.887	268.0	21:22
4.200	6497.322	268.0	21:26
4.267	6496.887	268.0	21:30
4.333	6503.840	268.0	21:34
4.400	6499.494	268.0	21:38
4.467	6496.018	268.0	21:42
4.533	6496.018	268.0	21:46
4.600	6500.798	268.0	21:50
4.667	6496.887	268.0	21:54
4.733	6497.322	268.0	21:58
4.800	6495.149	268.0	22: 2
4.867	6493.411	268.0	22: 6
4.933	6489.934	268.0	22:10
5.000	6492.541	268.0	22:14
5.067	6490.803	268.0	22:18
5.133	6489.500	268.0	22:22
5.200	6488.630	268.0	22:26
5.267	6496.018	268.0	22:30

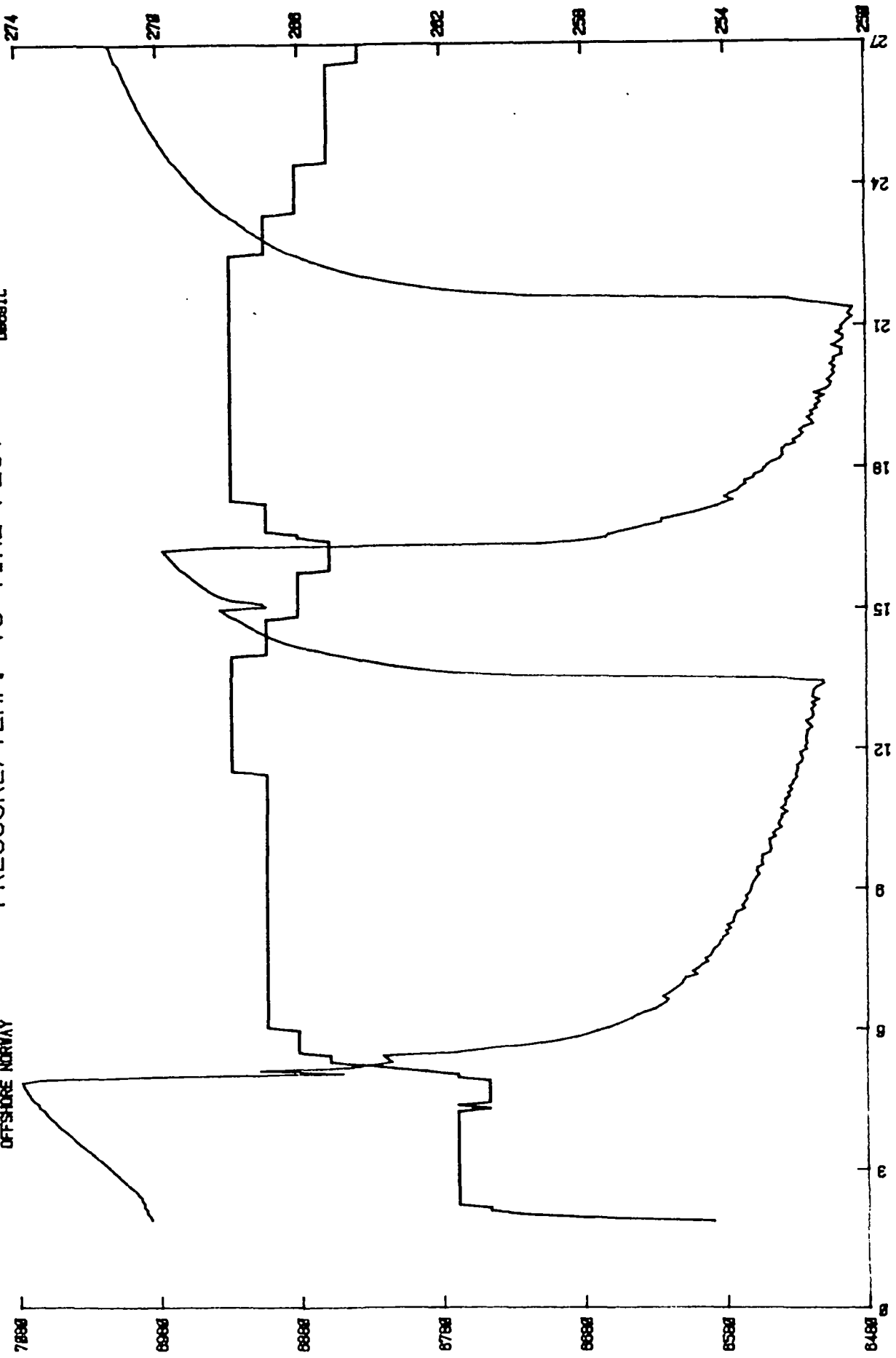
END OF FINAL FLOW PERIOD

2.200	6944.769	266.2	0:42
2.267	6946.944	266.2	0:46
2.333	6949.120	266.2	0:50
2.400	6951.730	266.2	0:54
2.467	6953.170	266.2	0:58

14. OCTOBER 1982  
MRPG-1358 (B)-NOR  
9199  
08891C

# NL Sperry-Sun, Inc. PRESSURE/TEMP. Vs TIME PLOT

PHILLIPS PETROLEUM CO. NORWAY  
1/9-8  
TOMELITEN  
OFFSHORE NORWAY



TEMPERATURE  
Scale 1 inch = 4 (deg. F)

PRESSURE  
Scale 1 inch = 100 (psi)

DELTA TIME  
Scale 1 inch = 3 hours

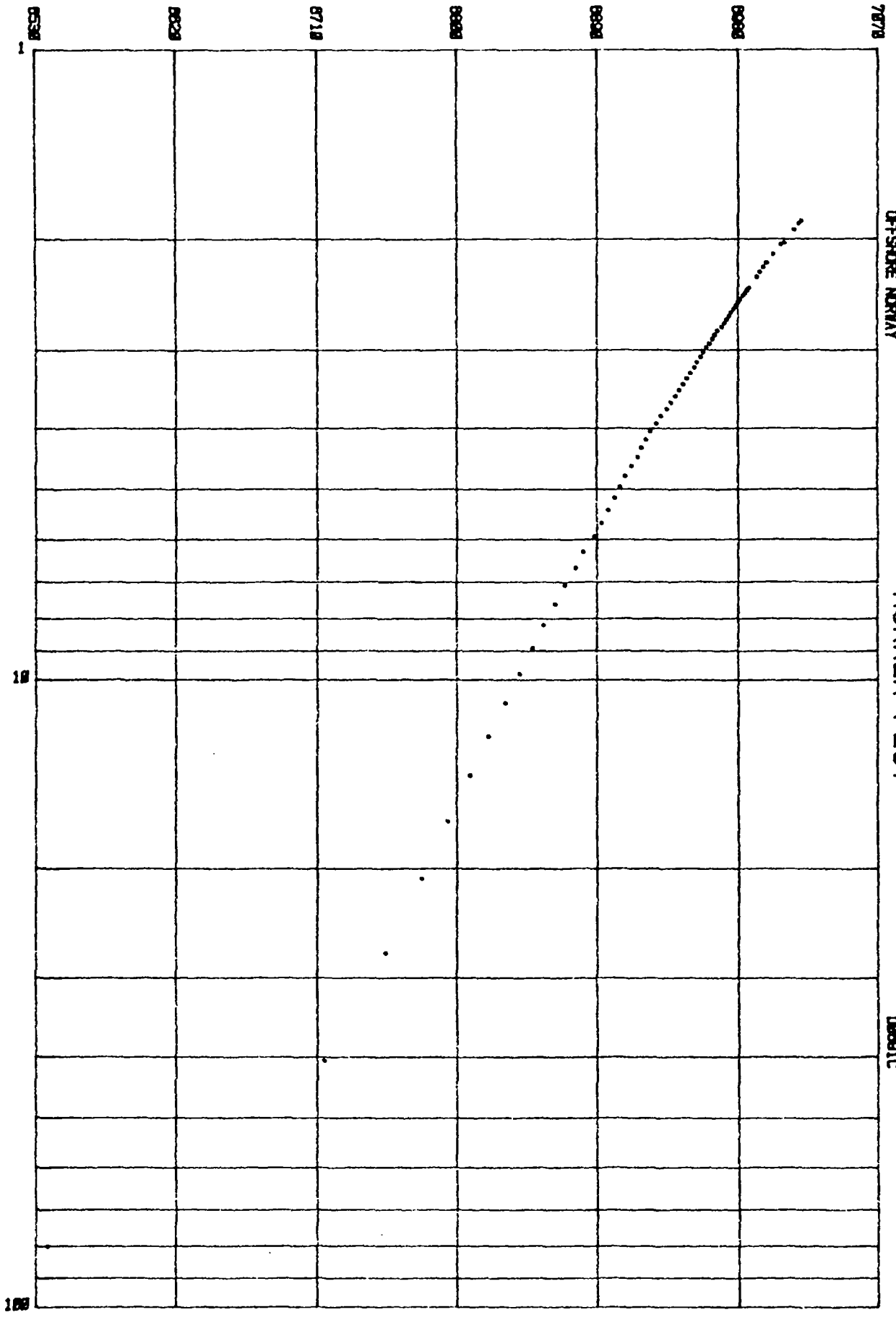
# PRESSURE

Scale 1 inch = 88 (PSIG)

PHILLIPS PETROLEUM CO. NORWAY  
1/9-8  
TOMMELITEN  
OFFSHORE NORWAY

NL Sperry-Sun, Inc.  
HORNER PLOT

14. OCTOBER 1982  
MRPC-1359 (D) -HOR  
8108  
D8891C



(T+DT) / DT      T = 5.267 hours  
T = Final Flowline 17:18 to 22:32 on 19/10/82

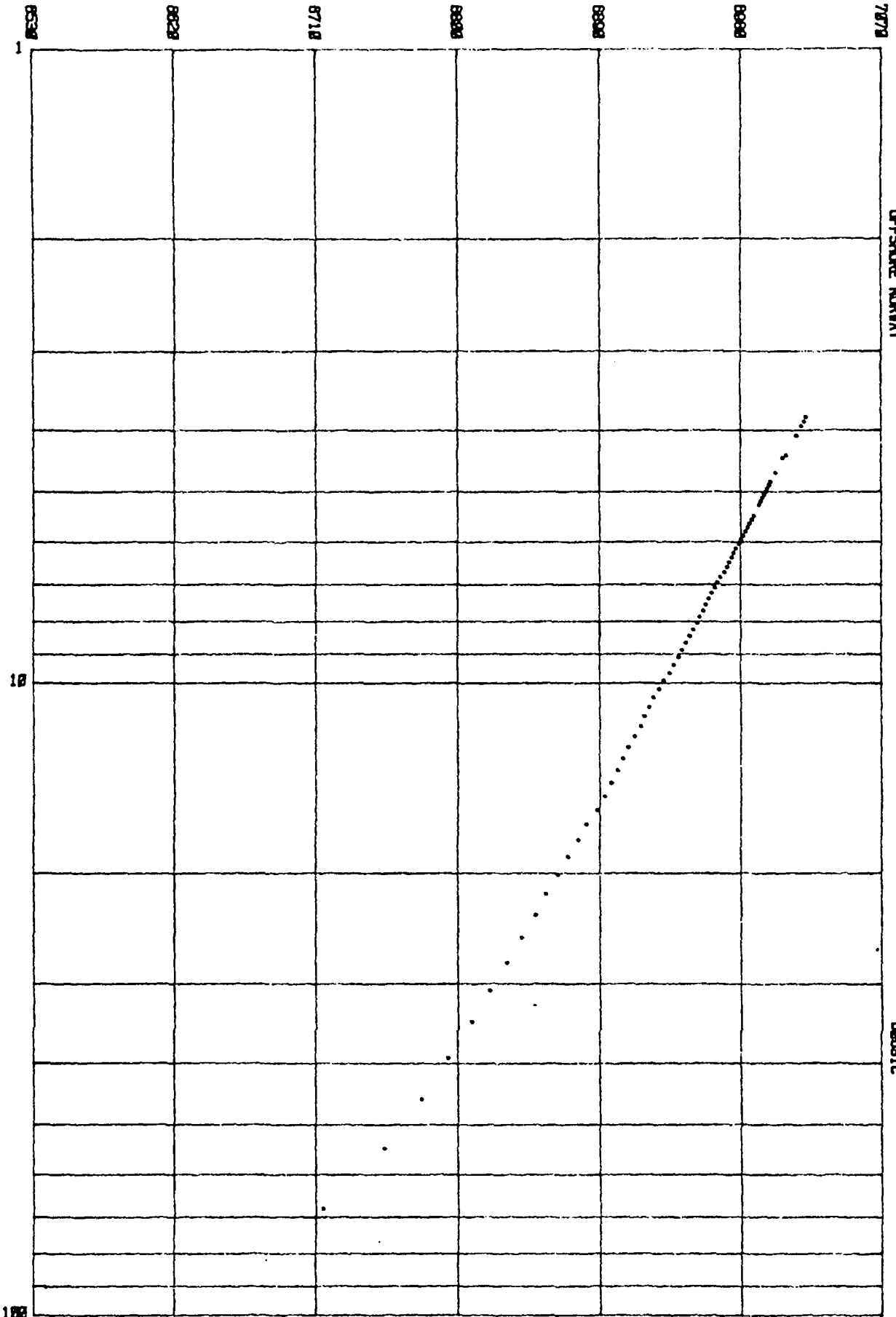
# PRESSURE

Scales 1 inch = 88 (PSIG)

PHILLIPS PETROLEUM CO. NORWAY  
1/9-8  
TOMMELITEN  
OFFSHORE NORWAY

NL Sperry-Sun, Inc.  
HORNER PLOT

14 OCTOBER 1982  
MRP-1358 (D)-NOR  
0190  
00891C



(T+DT) / DT

T = 17.8 hours

T = Flowtime from first flow (5:53) to final build-up (22:32)