

Denne rapport
tilhører



99.595.234-12
L&U DOK.SENTER

L.NR. 12480060037

KODE Well 34/10-9 nr 43

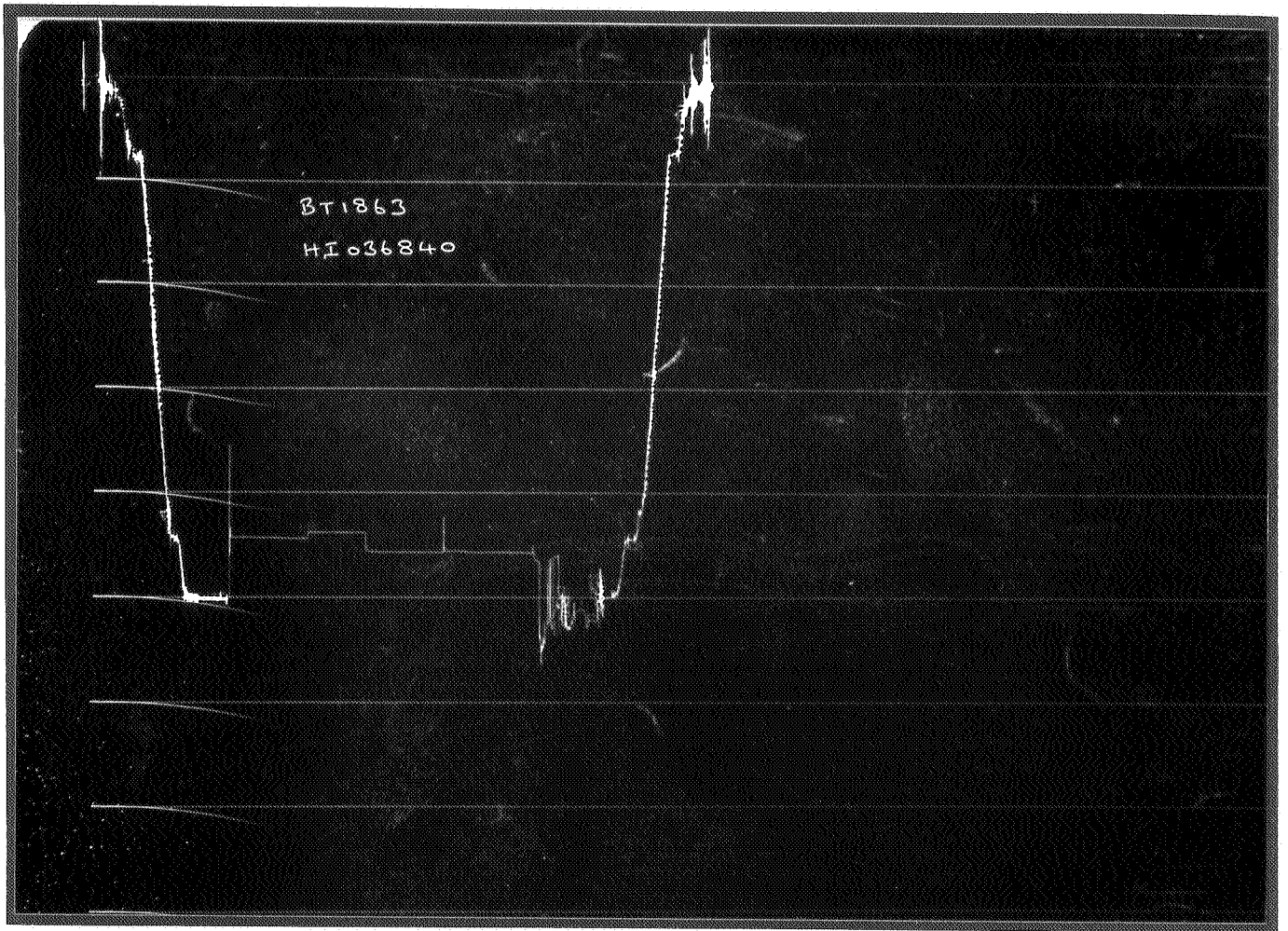
Returneres etter bruk

Formation testing service report

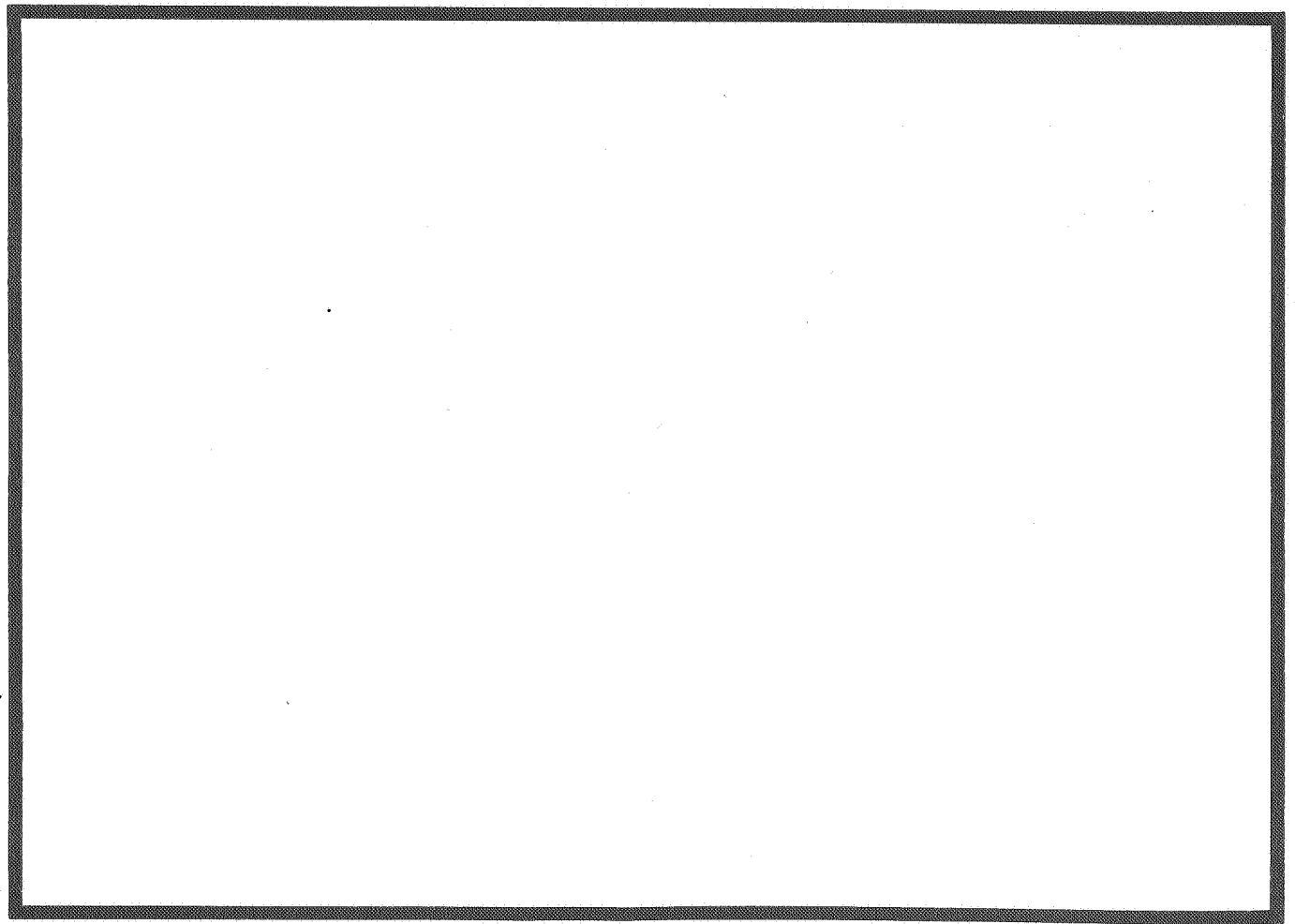


HALLIBURTON
MANUFACTURING & SERVICES LTD.
REGISTERED IN ENGLAND

Pressure



← RPG time BT time →



Each horizontal line = 1000 psi

FLUID SAMPLE DATA				Date 13th June 1980		Ticket Number 036840			
Sampler Pressure _____ P.S.I.G. at Surface				Kind of Job APR-RTTS Type DST		Holliburton Stavanger, District Norway			
Recovery: Cu. Ft. Gas _____				Mike Mitchell		Tester Dan Woodson With ess			
cc. Oil _____				Drilling Contractor Odfjell Drilling and Cons. Co. A.S.					
cc. Water _____				EQUIPMENT & HOLE DATA					
cc. Mud _____				Formation Tested Brent Sand					
Tot. Liquid cc. _____				Elevation 81 RT		Ft.			
Gravity _____ ° API @ _____ °F.		RESISTIVITY _____		CHLORIDE CONTENT _____		Net Productive Interval 6m			
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From Rotary Table					
Recovery Water _____ @ _____ °F. _____ ppm				Total Depth 6817.9 ft. (BP)					
Recovery Mud _____ @ _____ °F. _____ ppm				Main Hole/Casing Size 9 ⁵ / ₈ " 47 # with 7" 29# liner					
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm				Drill Collar Length 652.26		I.D. 2.25			
Mud Pit Sample _____ @ _____ °F. _____ ppm				Tubing Length _____		I.D. 2.75			
Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm				Packer Depth(s) 6146.3		Ft.			
Mud Weight _____ vis _____ cp				Depth Tester Valve 6118.9		Ft.			
TYPE		AMOUNT		Depth Back Pres. Valve		Surface Choke		Bottom Choke	
Cushion		Sea water		Full		None		2.25"	
Recovered		Feet of							
Recovered		Feet of							
Recovered		Feet of							
Recovered		Feet of							
Recovered		Feet of							
Remarks * BT 1863 Run below perforated tubing									
Surface closure 5 minutes duration preceded 1st flow									
TEMPERATURE		Gauge No. 1863		Gauge No.		Gauge No.		TIME	
Depth: _____ Ft.		Depth: _____ Ft.		Depth: _____ Ft.		Depth: _____ Ft.			
Est. 180 °F.		14226 - 120 Hour Clock		Blanked Off		Blanked Off		Tool A.M.	
		Blanked Off NO		Blanked Off		Blanked Off		Opened P.M.	
Actual °F.		Pressures		Pressures		Pressures		Opened A.M.	
		Field Office		Field Office		Field Office		Bypass P.M.	
		5025						Reported Minutes	
		4340						Computed Minutes	
1st Flow Initial		4385						678	
Flow Final		4571						678	
Closed in								394	
								392	
2nd Flow Initial		4234							
Flow Final		4560						99	
Closed in		4571						109	
								107	
								98	
3rd Flow Initial		4568							
Flow Final		4568						133	
Closed in		4574						134	
								104	
								104	
4th Flow Initial		4500							
Flow Final		4571						8	
Closed in								8	
Final Hydrostatic		5005							

Legal Location Sec. - Twp. - Rng.

Lease Name

Well No.

Test No.

Field Area

Wildcat

Tested Interval

County

North Sea

State

Offshore

Lease Owner/Company Name

Casing perms. _____ Bottom choke 2.25" Surf. temp. _____ °F Ticket No. 036840
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time	23 June a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
11.14						STARTED 120 HR CLOCK # 14226 IN BT # 1863.
						PICK UP TWO JTS 2 7/8 TAILPIPE AND START MAKING UP DST STRING
24 JUNE						
00.20						APR-N TESTER VALVE MADE UP IN STRING AND RIH
01.37						LAST SLIP JOINT MADE UP IN STRING. RUN 1 STD 3 1/2 TUBING. RIGGED LINES AND PRESSURE TESTED DST STRING TO 2500 PSI. RESUME RIH.
06.40						PICKING UP FLOPETROL TEST HEAD.
08.00						TEST HEAD MADE UP. RIG KILL AND FLOW LINES. PRESSURE TESTED APR-N VALVE, E-Z TREE VALVE, LUBRICATOR VALVE, AND ALL SURFACE EQUIPMENT.
09.58						HUNG-OFF AND THEN PICKED UP TO PACKER SETTING DEPTH.
10.04						PACKER SET AND STRING HUNG-OFF
10.11						PUMPING TO PRESSURE ANNULUS
10.12			1652 DWT	(WELL CLOSED IN AT CHOKE MANIFOLD)		1500 PSI ON ANNULUS. APR-N TESTER VALVE OPEN.
10.17		32/64				OPENED WELL
10.18		32/64	920 DWT			

Casing perms. _____ Bottom choke 2.25" Surf. temp. _____ °F Ticket No. 036840
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date	Time	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
24 June			(DWT)			
	10.19	24/64				CHANGE CHOKE SIZE.
	10.20	24/64	1370			
	10.21	24/64	1405			
	10.25	24/64	1520			
	10.33	24/64				WATER CUSHION UNLOADED. RAT HOLE
						MUD TO SURFACE FOLLOWED BY MUDDY
						OIL.
	10.40	24/64	2142			
	10.41	24/64				CLEAN OIL AT SURFACE
	10.45	24/64	2141			74° F.
	11.15	24/64	2152			74° F.
	11.45	24/64	2158			80° F.
	12.15	24/64	2172			
	12.45	24/64	2182			98° F.
	13.45	24/64	2184	1.04 MMSCFD	2724	96° F.
	15.00	24/64	2186	1.02 MMSCFD	2773	100° F.
	16.43					BY-PASS SEPARATOR
	16.45	32/64				INCREASE CHOKE SIZE
	17.00	32/64	1952			107° F.
	17.30	32/64	1952			109° F.
	18.30	32/64	1972	1.58 MMSCFD	4580	113° F. 0.865 sp.gr.oil
						0.633 sp.gr.gas
	21.00	32/64	1982	1.60 MMSCFD	4528	115° F. 0.866 sp.gr.oil
						0.637 sp.gr.gas
	21.30	32/64	1984	1.59 MMSCFD	4574	118° F.

Casing perms. _____ Bottom choke 2.25" Surf. temp _____ °F Ticket No. 036840
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED

Date Time	25 June a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
21.35						CLOSE APR-N.
25 JUNE						
04.09						END OF BUILD-UP. PRESSURIZE ANNULUS AND OPEN APR-N VALVE.
04.09		8/64				OPEN WELL
04.15		8/64	2390			
05.00		8/64	2369			
05.45		8/64	2395			
05.48						SHUT-IN AT CHOKE MANIFOLD FOR RIGGING UP BOTTOM HOLE SAMPLERS
07.20						SAMPLERS R1H TO 1820m.
07.35		8/64				OPEN WELL
07.45		8/64	2401			
09.45		8/64	2404			
09.48						SHUT-IN AT CHOKE MANIFOLD.
10.48						SAMPLERS AT SURFACE. CLOSE LUBRICATOR VALVE. BLEED DOWN SURFACE LINES.
11.32						OPEN LUBRICATOR VALVE.
11.40						START BULL HEADING WATER FOR INJECTIVITY TEST.
13.41						START BULL HEADING MUD.
14.02						FINISH PUMPING MUD.
14.10-14.12						SHEARED APR-A VALVE WITH 2850 PSI
14.13						START REVERSING OUT.

Casing perms. _____ Bottom choke 2.25" Surf. temp _____ °F Ticket No. 036840
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date 25 June Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
					CIRCULATE THE LONG WAY.
17.05					START PICKING UP TO UNSEAT PACKER.
17.08					PACKER UNSEATED.
					LAY DOWN TEST HEAD.
					START P.O.H.
22.50					P.O.H. TO FIRST SLIP JOINT.
26 JUNE					
01.36					P.O.H. TO TESTER VALVE.
					LAYING DOWN TOOLS.

PRODUCTION TEST DATA

TICKET 036840

COMPANY: STATOIL

PERFS: 1904-1910m

TEST NO: 3

WELL NO: 34/10-9

<u>DESCRIPTION</u> (Hang-off point 739.80ft)	<u>DEPTH</u> (ft)	<u>LENGTH</u> (ft)	<u>I.D.</u> (in)	<u>O.D.</u> (in)
3½ TDS Tubing		4658.79	2.750	3.50
X/O 3½ TDS box x 3½ IF Pin		0.95		
Slip Joint (Open)		18.17	2.25	5.00
Slip Joint (Closed)		13.17	2.25	5.00
Drill Collars (5 stds)		465.90	2.25	4.75
X/O 3½ IF box x 2½ 8rd EUE Pin		0.79	2.438	4.75
RTTs Circulating Valve		2.74	2.44	4.87
X/O 2½ 8rd EUE box x 3½ IF Pin		0.69	2.25	5.00
Drill Collars (1 std)		93.18	2.25	4.75
Slip Joint (Closed)		13.17	2.25	5.00
Slip Joint (Closed)		13.17	2.25	5.00
Drill Collars (1 std)		93.18	2.25	4.75
APR-A reversing valve		3.00	2.25	5.03
APR-N Tester Valve		12.78	2.25	5.03
Ful-Flo Hydraulic by-pass		6.32	2.25	4.63
Big John Jars		5.00	2.37	4.63
RTTs Safety Joint		3.30	2.44	5.00
7" RTTs Packer Body (center rubber up)	6146.33	1.69	2.40	5.75
7" RTTs Packer Body (center rubber down)		2.67	2.40	5.75
X/O 2½ 8rd EUE x 2½ 1ON Pin		0.71	2.50	2.875
Perforated 2½ tubing (2½ 1ON box x 2½ 8rd EUE box)		10.83	2.441	2.875
X/O 2½ EUE pin x 2¾ EUE pin		0.83	2.00	2.875
Baker "F" Nipple		0.79	1.81	2.375
X/O 2¾ EUE box x 2½ 8rd EUE pin		1.00	2.00	2.875
Tubing 2½ (2 joints)		62.50	2.441	2.875
X/O 2½ 8rd EUE box x 2½ 8rd DP Pin		0.31		2.875
AP BT Case w/X/O's and Shoe	6231.45	5.48		3.875

COMPANY: STATOIL NORWAY
TICKET NO: H036840
GAUGE NO: 1803

SURF. CLOSURE ----- 0, 5 MINUTE INTERVALS. LAST INTERVAL= 5 MINS.
TOTAL 5 MINUTES

	TIME		PRESSURE		
	MINUTES	INCHES DEFL.	INCHES DEFL.	PSIG	DELTA P
P0	0	.000	1.228	3550	0
P1	5	.003	1.583	4568	1018

COMPANY: STATOIL NORWAY
 TICKET NO: H036840
 GAUGE NO: 1863

1ST FLOW

67, 10 MINUTE INTERVALS. LAST INTERVAL= 8 MINS.
 TOTAL 678 MINUTES

	TIME		PRESSURE		DELTA P
	MINUTES	INCHES DEFL.	INCHES DEFL.	PSIG	
P0	0	.000	1.503	4340	0
P1	10	.007	1.535	4431	91
P2	20	.013	1.536	4434	3
P3	30	.020	1.536	4434	0
P4	40	.026	1.536	4434	0
P5	50	.033	1.536	4434	0
P6	60	.040	1.536	4434	0
P7	70	.046	1.536	4434	0
P8	80	.053	1.536	4434	0
P9	90	.059	1.536	4434	0
P10	100	.066	1.536	4434	0
P11	110	.073	1.536	4434	0
P12	120	.079	1.536	4434	0
P13	130	.086	1.536	4434	0
P14	140	.093	1.536	4434	0
P15	150	.099	1.536	4434	0
P16	160	.106	1.536	4434	0
P17	170	.112	1.537	4437	3
P18	180	.119	1.537	4437	0
P19	190	.126	1.537	4437	0
P20	200	.132	1.537	4437	0
P21	210	.139	1.537	4437	0
P22	220	.145	1.537	4437	0
P23	230	.152	1.537	4437	0
P24	240	.159	1.537	4437	0
P25	250	.165	1.537	4437	0
P26	260	.172	1.538	4440	3
P27	270	.178	1.538	4440	0
P28	280	.185	1.538	4440	0
P29	290	.192	1.539	4442	2
P30	300	.198	1.539	4442	0
P31	310	.205	1.539	4442	0
P32	320	.212	1.539	4442	0
P33	330	.218	1.539	4442	0
P34	340	.225	1.539	4442	0
P35	350	.231	1.539	4442	0
P36	360	.238	1.539	4442	0
P37	370	.245	1.539	4442	0
P38	380	.251	1.539	4442	0
P39	390	.258	1.521	4391	51
P40	400	.264	1.519	4385	6
P41	410	.271	1.519	4385	0
P42	420	.278	1.519	4385	0

COMPANY: STATOIL NORWAY
 TICKET NO: H030840
 GAUGE NO: 1803

1ST FLOW CONTINUED

	TIME		PRESSURE		DELTA P
	MINUTES	INCHES DEFL.	INCHES DEFL.	PSIG	
P43	430	.284	1.519	4385	0
P44	440	.291	1.519	4385	0
P45	450	.297	1.519	4385	0
P46	460	.304	1.519	4385	0
P47	470	.311	1.519	4385	0
P48	480	.317	1.519	4385	0
P49	490	.324	1.519	4385	0
P50	500	.331	1.519	4385	0
P51	510	.337	1.519	4385	0
P52	520	.344	1.519	4385	0
P53	530	.350	1.519	4385	0
P54	540	.357	1.519	4385	0
P55	550	.364	1.519	4385	0
P56	560	.370	1.519	4385	0
P57	570	.377	1.519	4385	0
P58	580	.383	1.519	4385	0
P59	590	.390	1.519	4385	0
P60	600	.397	1.519	4385	0
P61	610	.403	1.519	4385	0
P62	620	.410	1.519	4385	0
P63	630	.416	1.519	4385	0
P64	640	.423	1.519	4385	0
P65	650	.430	1.519	4385	0
P66	660	.436	1.519	4385	0
P67	670	.443	1.519	4385	0
P68	678	.448	1.519	4385	0

COMPANY: STATOIL NORWAY
 TICKET NO: H036840
 GAUGE NO: 1863

1ST CLOSURE 38, 10 MINUTE INTERVALS. LAST INTERVAL= 12 MINS.

 TOTAL 392 MINUTES

	TIME		PRESSURE		DELTA P	LOG T+0/0
	MINUTES	INCHES DEFL.	INCHES DEFL.	PSIG		
P0	0	.000	1.519	4385	0	
P1	10	.007	1.580	4560	175	1.8129
P2	20	.013	1.582	4565	5	1.5498
P3	30	.020	1.582	4565	0	1.3692
P4	40	.026	1.583	4568	3	1.2608
P5	50	.033	1.583	4568	0	1.1636
P6	60	.040	1.583	4568	0	1.0864
P7	70	.046	1.583	4568	0	1.0310
P8	80	.053	1.583	4568	0	.9756
P9	90	.059	1.583	4568	0	.9342
P10	100	.066	1.584	4571	3	.8914
P11	110	.073	1.584	4571	0	.8535
P12	120	.079	1.584	4571	0	.8242
P13	130	.086	1.584	4571	0	.7930
P14	140	.093	1.584	4571	0	.7647
P15	150	.099	1.584	4571	0	.7424
P16	160	.106	1.584	4571	0	.7182
P17	170	.112	1.584	4571	0	.6990
P18	180	.119	1.584	4571	0	.6780
P19	190	.126	1.584	4571	0	.6585
P20	200	.132	1.584	4571	0	.6429
P21	210	.139	1.584	4571	0	.6256
P22	220	.145	1.584	4571	0	.6117
P23	230	.152	1.584	4571	0	.5963
P24	240	.159	1.584	4571	0	.5818
P25	250	.165	1.584	4571	0	.5700
P26	260	.172	1.584	4571	0	.5569
P27	270	.178	1.584	4571	0	.5462
P28	280	.185	1.584	4571	0	.5342
P29	290	.192	1.584	4571	0	.5229
P30	300	.198	1.584	4571	0	.5136
P31	310	.205	1.584	4571	0	.5032
P32	320	.212	1.584	4571	0	.4932
P33	330	.218	1.584	4571	0	.4850
P34	340	.225	1.584	4571	0	.4758
P35	350	.231	1.584	4571	0	.4683
P36	360	.238	1.584	4571	0	.4597
P37	370	.245	1.584	4571	0	.4516
P38	380	.251	1.584	4571	0	.4448
P39	392	.259	1.584	4571	0	.4361

COMPANY: STATOIL NORWAY
 TICKET NO: H036840
 GAUGE NO: 1863

2ND FLOW

21, 5 MINUTE INTERVALS. LAST INTERVAL= 4 MINS.
 TOTAL 109 MINUTES

	TIME		PRESSURE		
	MINUTES	INCHES DEFL.	INCHES DEFL.	PSIG	DELTA P
P0	0	.000	1.466	4234	0
P1	5	.003	1.580	4560	326
P2	10	.007	1.580	4560	0
P3	15	.010	1.580	4560	0
P4	20	.013	1.580	4560	0
P5	25	.017	1.580	4560	0
P6	30	.020	1.580	4560	0
P7	35	.023	1.580	4560	0
P8	40	.026	1.580	4560	0
P9	45	.030	1.580	4560	0
P10	50	.033	1.580	4560	0
P11	55	.036	1.580	4560	0
P12	60	.040	1.580	4560	0
P13	65	.043	1.580	4560	0
P14	70	.046	1.580	4560	0
P15	75	.050	1.580	4560	0
P16	80	.053	1.580	4560	0
P17	85	.056	1.580	4560	0
P18	90	.059	1.580	4560	0
P19	95	.063	1.580	4560	0
P20	100	.066	1.580	4560	0
P21	105	.069	1.580	4560	0
P22	109	.072	1.580	4560	0

COMPANY: STATOIL NORWAY
 TICKET NO: H036840
 GAUGE NO: 1863

2ND CLOSURE ----- 19, 5 MINUTE INTERVALS. LAST INTERVAL= 3 MINS.
 TOTAL 98 MINUTES

	TIME		PRESSURE		DELTA P	LOG T+0/0
	MINUTES	INCHES DEFL.	INCHES DEFL.	PSIG		
P0	0	.000	1.580	4560	0	
P1	5	.003	1.583	4568	8	2.2414
P2	10	.007	1.584	4571	3	1.8767
P3	15	.010	1.584	4571	0	1.7243
P4	20	.013	1.584	4571	0	1.6128
P5	25	.017	1.584	4571	0	1.4995
P6	30	.020	1.584	4571	0	1.4314
P7	35	.023	1.584	4571	0	1.3731
P8	40	.026	1.584	4571	0	1.3222
P9	45	.030	1.584	4571	0	1.2632
P10	50	.033	1.584	4571	0	1.2242
P11	55	.036	1.584	4571	0	1.1888
P12	60	.040	1.584	4571	0	1.1461
P13	65	.043	1.584	4571	0	1.1170
P14	70	.046	1.584	4571	0	1.0901
P15	75	.050	1.584	4571	0	1.0569
P16	80	.053	1.584	4571	0	1.0339
P17	85	.056	1.584	4571	0	1.0122
P18	90	.059	1.584	4571	0	.9918
P19	95	.063	1.584	4571	0	.9663
P20	98	.065	1.584	4571	0	.9542

COMPANY: STATOIL NORWAY
 TICKET NO: H036840
 GAUGE NO: 1863

3RD FLOW

26, 5 MINUTE INTERVALS. LAST INTERVAL= 4 MINS.
 TOTAL 134 MINUTES

	TIME		PRESSURE		
	MINUTES	INCHES DEFL.	INCHES DEFL.	PSIG	DELTA P
P0	0	.000	1.583	4568	0
P1	5	.003	1.583	4568	0
P2	10	.007	1.583	4568	0
P3	15	.010	1.583	4568	0
P4	20	.013	1.583	4568	0
P5	25	.017	1.583	4568	0
P6	30	.020	1.583	4568	0
P7	35	.023	1.583	4568	0
P8	40	.026	1.583	4568	0
P9	45	.030	1.583	4568	0
P10	50	.033	1.583	4568	0
P11	55	.036	1.583	4568	0
P12	60	.040	1.583	4568	0
P13	65	.043	1.583	4568	0
P14	70	.046	1.583	4568	0
P15	75	.050	1.583	4568	0
P16	80	.053	1.583	4568	0
P17	85	.056	1.583	4568	0
P18	90	.059	1.583	4568	0
P19	95	.063	1.583	4568	0
P20	100	.066	1.583	4568	0
P21	105	.069	1.583	4568	0
P22	110	.073	1.583	4568	0
P23	115	.076	1.583	4568	0
P24	120	.079	1.583	4568	0
P25	125	.083	1.583	4568	0
P26	130	.086	1.583	4568	0
P27	134	.088	1.583	4568	0

COMPANY: STATOIL NORWAY
 TICKET NO: H036840
 GAUGE NO: 1863

3RD CLOSURE 20, 5 MINUTE INTERVALS. LAST INTERVAL= 4 MINS.

 TOTAL 104 MINUTES

	TIME		PRESSURE		DELTA P	LOG T+(%)
	MINUTES	INCHES DEFL.	INCHES DEFL.	PSIG		
P0	0	.000	1.583	4568	0	
P1	5	.003	1.584	4571	3	2.3089
P2	10	.007	1.584	4571	0	1.9438
P3	15	.010	1.584	4571	0	1.7910
P4	20	.013	1.584	4571	0	1.6791
P5	25	.017	1.584	4571	0	1.5654
P6	30	.020	1.584	4571	0	1.4969
P7	35	.023	1.584	4571	0	1.4383
P8	40	.026	1.584	4571	0	1.3871
P9	45	.030	1.584	4571	0	1.3277
P10	50	.033	1.584	4571	0	1.2883
P11	55	.036	1.584	4571	0	1.2526
P12	60	.040	1.585	4574	3	1.2095
P13	65	.043	1.585	4574	0	1.1801
P14	70	.046	1.585	4574	0	1.1528
P15	75	.050	1.585	4574	0	1.1193
P16	80	.053	1.585	4574	0	1.0959
P17	85	.056	1.585	4574	0	1.0740
P18	90	.059	1.585	4574	0	1.0533
P19	95	.063	1.585	4574	0	1.0274
P20	100	.066	1.585	4574	0	1.0091
P21	104	.069	1.585	4574	0	.9917

COMPANY: STATOIL NORWAY
 TICKET NO: H036840
 GAUGE NO: 1803

4TH FLOW ----- 0, 8 MINUTE INTERVALS. LAST INTERVAL= 8 MINS.
 ----- TOTAL 8 MINUTES

	TIME		PRESSURE		
	MINUTES	INCHES DEFL.	INCHES DEFL.	PSIG	DELTA P
P0	0	.000	1.559	4500	0
P1	8	.005	1.584	4571	71

COMPANY: STATOIL NORWAY
 TICKET NO: H036840
 GAUGE NO: 1863

BULLHEAD H20 24, 5 MINUTE INTERVALS. LAST INTERVAL= 3 MINS.
 ----- TOTAL 123 MINUTES

	TIME		PRESSURE		DELTA P
	MINUTES	INCHES DEFL.	INCHES DEFL.	PSIG	
P0	0	.000	1.584	4571	0
P1	5	.003	1.611	4648	77
P2	10	.007	1.612	4651	3
P3	15	.010	1.613	4654	3
P4	20	.013	1.614	4657	3
P5	25	.017	1.873	5399	742
P6	30	.020	1.861	5364	35
P7	35	.023	1.962	5655	291
P8	40	.026	1.917	5525	130
P9	45	.030	1.895	5462	63
P10	50	.033	1.885	5433	29
P11	55	.036	1.813	5227	206
P12	60	.040	1.838	5298	71
P13	65	.043	1.830	5275	23
P14	70	.046	1.639	4728	547
P15	75	.050	1.817	5238	510
P16	80	.053	1.601	4620	618
P17	85	.056	1.825	5261	641
P18	90	.059	1.838	5298	37
P19	95	.063	1.841	5307	9
P20	100	.066	1.599	4614	693
P21	105	.069	1.597	4608	6
P22	110	.073	1.596	4605	3
P23	115	.076	1.596	4605	0
P24	120	.079	1.611	4648	43
P25	123	.081	1.593	4597	51

COMPANY: STATOIL NORWAY
 TICKET NO: H036840
 GAUGE NO: 1863

BULLHEAD MUD 5, 5 MINUTE INTERVALS. LAST INTERVAL= 5 MINS.
 ----- TOTAL 30 MINUTES

	TIME		PRESSURE		DELTA P
	MINUTES	INCHES DEFL.	INCHES DEFL.	PSIG	
P0	0	.000	1.593	4597	0
P1	5	.003	1.728	4982	385
P2	10	.007	1.730	4988	6
P3	15	.010	1.732	4994	6
P4	20	.013	1.735	5002	8
P5	25	.017	1.737	5008	6
P6	30	.020	1.739	5014	6

COMPANY: STATOIL NORWAY
 TICKET NO: H030840
 GAUGE NO: 1803

REV. CIRC. 33, 5 MINUTE INTERVALS. LAST INTERVAL= 7 MINS.

 TOTAL 172 MINUTES

	TIME		PRESSURE		DELTA P
	MINUTES	INCHES DEFL.	INCHES DEFL.	PSIG	
P0	0	.000	1.739	5014	0
P1	5	.003	1.837	5295	281
P2	10	.007	1.843	5313	18
P3	15	.010	1.829	5272	41
P4	20	.013	1.845	5318	46
P5	25	.017	1.837	5295	23
P6	30	.020	1.812	5224	71
P7	35	.023	1.811	5221	3
P8	40	.026	1.826	5264	43
P9	45	.030	1.750	5045	219
P10	50	.033	1.812	5224	179
P11	55	.036	1.783	5140	84
P12	60	.040	1.780	5132	8
P13	65	.043	1.779	5129	3
P14	70	.046	1.777	5123	6
P15	75	.050	1.773	5112	11
P16	80	.053	1.775	5117	5
P17	85	.056	1.776	5120	3
P18	90	.059	1.777	5123	3
P19	95	.063	1.777	5123	0
P20	100	.066	1.777	5123	0
P21	105	.069	1.807	5209	86
P22	110	.073	1.826	5264	55
P23	115	.076	1.830	5275	11
P24	120	.079	1.790	5160	115
P25	125	.083	1.812	5224	64
P26	130	.086	1.812	5224	0
P27	135	.089	1.812	5224	0
P28	140	.093	1.812	5224	0
P29	145	.096	1.812	5224	0
P30	150	.099	1.813	5227	3
P31	155	.102	1.814	5229	2
P32	160	.106	1.814	5229	0
P33	165	.109	1.738	5011	218
P34	172	.114	1.834	5287	276

Nomenclature

b	= Approximate Radius of Investigation	Feet
b₁	= Approximate Radius of Investigation (Net Pay Zone h ₁)	Feet
D.R.	= Damage Ratio	—
EI	= Elevation	Feet
GD	= B.T. Gauge Depth (From Surface Reference)	Feet
h	= Interval Tested	Feet
h₁	= Net Pay Thickness	Feet
K	= Permeability	md
K₁	= Permeability (From Net Pay Zone h ₁)	md
m	= Slope Extrapolated Pressure Plot (Psi ² /cycle Gas)	psi/cycle
OF₁	= Maximum Indicated Flow Rate	MCF/D
OF₂	= Minimum Indicated Flow Rate	MCF/D
OF₃	= Theoretical Open Flow Potential with /Damage Removed Max.	MCF/D
OF₄	= Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
P_s	= Extrapolated Static Pressure	Psig.
P_F	= Final Flow Pressure	Psig.
P_{ot}	= Potentiometric Surface (Fresh Water*)	Feet
Q	= Average Adjusted Production Rate During Test	bbis/day
Q₁	= Theoretical Production w/Damage Removed	bbis/day
Q_g	= Measured Gas Production Rate	MCF/D
R	= Corrected Recovery	bbis
r_w	= Radius of Well Bore	Feet
t	= Flow Time	Minutes
t_o	= Total Flow Time	Minutes
T	= Temperature Rankine	°R
Z	= Compressibility Factor	—
μ	= Viscosity Gas or Liquid	CP
Log	= Common Log	

*Potentiometric Surface Reference to Rotary Table When Elevation Not Given,
Fresh Water Corrected to 100° F.