



Statlig program for forurensningsovervåking

**Hydrografi/hydrokjemi  
Datarapport 2000**

**Rapport  
844/02**

Kystovervåkingsprogrammet

**s ft:**

NIVA 

**Statlig program for forurensningsovervåking**

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge

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**LANGTIDSOVERVÅKING AV MILJØKVALITETEN I  
KYSTOMRÅDENE AV NORGE**

**HYDROGRAFI/HYDROKJEMI**

**DATARAPPORT 2000**

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## Forord

Statens forurensningstilsyn (SFT) ba i 1989 Norsk institutt for vannforskning (NIVA) om å utarbeide et program for langtidsovervåking av tendensen i trofikutviklingen langs kysten av Sør-Norge (Kystovervåkingsprogrammet). Ferdige programforslag forelå våren 1990, og feltarbeidet startet samme år med hydrokjemiske og biologiske undersøkelser (hard- og bløtbunn). Den hydrokjemiske overvåkingen utføres i samarbeid med Havforskningsinstituttet i Bergen (HI) og Havforskningsinstituttets forskningsstasjon Flødevigen (HFF).

NIVA har hovedansvaret for gjennomføring av prosjektet og utarbeidelse av rapporter.

For innsamling av vannprøver fra Jomfruland har Kystverkets båt Munin blitt brukt. Ved Arendal har forskningsfartøyet "G.M.Dannevig" blitt brukt, og ved Lista "Brekne". Vi vil takke mannskapet ombord på fartøyene for en fin innsats.

Feltarbeidet er blitt utført av mannskapet på Munin, samt Einar Dahl, Terje Jåvold, Anita Reisvåg og Lena Omli ved Havforskningsinstituttets forskningsstasjon Flødevigen og Hans Heimvoll har gjennomført feltarbeidet ved Lista.

Foreliggende rapport er en datarapport med presentasjon av de hydrografiske data i tabellform.

Oslo den 20.1.2002

Jan Magnusson

## Innhold

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## 1. Formål

Kystovervåkingsprogrammet skal gi en oversikt over trofitalstanden og kartlegge utviklingstendenser i området fra svenskegrensen til Vestlandet.

I 2000 er det gjennomført hydrografiske/hydrokjemiske tokt til 4 hovedstasjoner i kystvannet mellom svenskegrensen og Lista.

Formålet med denne datarapporten er å presentere de hydrografiske/hydrokjemiske observasjonene fra 2000.

## 2. Gjennomføring

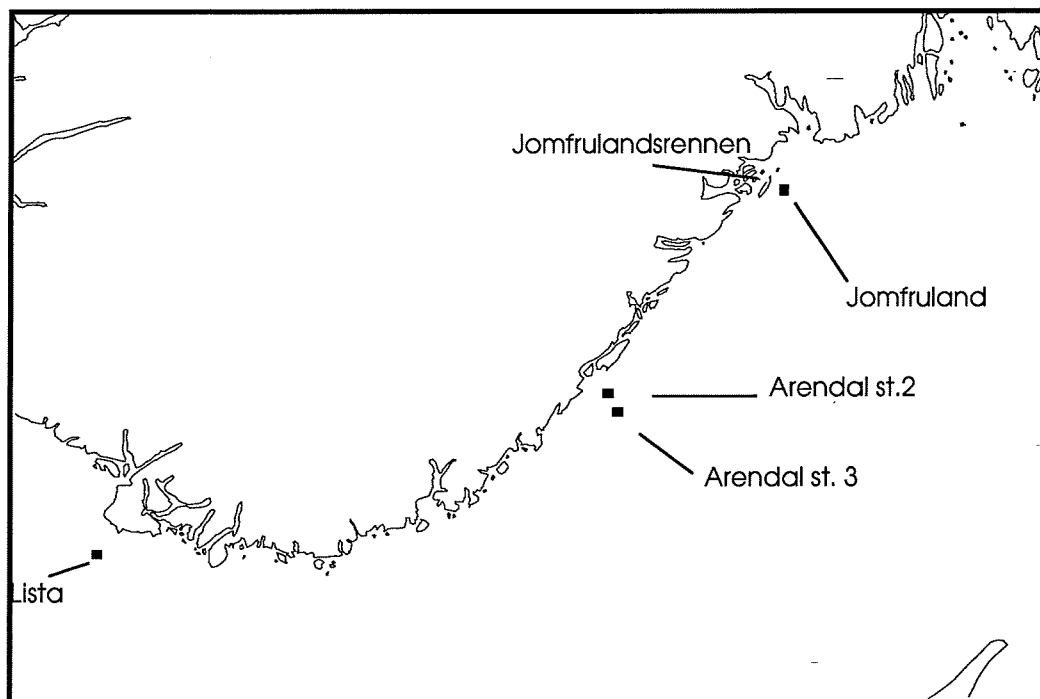
Stasjoner og observasjonsfrekvens fremgår av tabell 1 og figur 1.

I 2000 ble observasjonsfrekvensen noe lavere enn beregnet som følge av praktiske vanskeligheter med gjennomføringen av toktprogrammet (dårlig vær, motorhaverier m.m.). Tabell 2 viser en oversikt over gjennomførte tokt i 2000.

Tabell 1. Stasjoner og observasjonsfrekvens i 2000.

Stasjon	Posisjon		Dyp	Observasjonsfrekvens
Jomfruland	N: 58° 51'	E: 09°40.'	ca. 100 m	Ca. hver 14 dag.
Arendal st 2.	N: 58° 23'	E: 08°49'	ca. 75 m	Ca. hver 14 dag.
Arendal st.3.	N: 58° 20.'	E: 08°54.'	ca. 260 m	Ca. 1 gang pr. måned
Lista	N: 58° 01'	E: 06°32.'	ca. 350 m	Ca. 1 gang pr. måned

I tillegg er det tatt overflateobservasjoner i Jomfrulandsrennen ( N: 58° 53.5' E: 09° 37.0').



Figur 1. Hydrografiske/hydrokjemiske stasjoner i kystovervåkingsprogrammet 2000.

Tabell 2. Gjennomførte tokter i 2000.

Dato	Jomfruland	Arendal St 2	Arendal St 3	Lista
13.1				1
16.1		1	1	
25.1	1			
9.2	2			
13.2		2	2	
16.2				2
22.2	3			
8.3		3	3	
9.3				3
20.3		4		
29.3	4			
11.4	5			
12.4		5	4	
26.4	6			
8.5	7			5
9.5		6		
17.5		7	5	
26.5		8		
1.6	8			
6.6				6
10.6		9	6	
20.6	9			
23.6		10		
4.7		11	7	
6.7				7
10.7	10			
26.7	11			
27.7		12		
6.8				8
9.8	12			
18.8		13	8	
22.8	13			
31.8		14		
5.9				9
6.9	14			
15.9		15	9	
27.9	15			
3.10				10
5.10		16		
21.10		17	10	
2.11		18	11	
10.11				11
13.11	16			
28.11		19		
29.11	17			
4.12		20	12	
11.12				12
18.12		21		
19.12	18			

Enkelte parametre ble kun analysert på et begrenset antall dyp. I felt ble vann til næringssalt-analyser filtrert gjennom en zooplanktonduk med maskevidde på 180 µm.

Samtlige analyser av TSM er gjennomført ved NIVA. Øvrige analyser er gjennomført ved HFF (Arendal St 2 og 3 samt Lista) og NIVA (Jomfruland), unntatt partikulært karbon og nitrogen ved Arendal St. 2, Arendal St. 3 og Lista, som ble analysert av Havforskningsinstituttet i Bergen. For en beskrivelse av analysemetoder henvises til tidligere rapport (Aure m.fl.1991).

Tabell 3 viser observerte variable på de ulike stasjonene i 2000 og tabell 4 viser observasjonsdyp.

Tabell 3. Oversikt av observasjoner på de ulike stasjoner i 2000

Stasjon/parameter	Jomfrulands- rennen	Jomfruland	Arendal St. 2	Arendal St. 3	Lista
Temperatur	x	x	x	x	x
Saltholdighet	x	x	x	x	x
Oksygen		x	x	x	
Tot-P	x	x	x	x	x
PO <sub>4</sub> -P		x	x	x	x
POP		x	x	x	x
Tot-N	x	x	x	x	x
NO <sub>3</sub> -N+ NO <sub>2</sub> -N		x			
NO <sub>3</sub> -N			x	x	x
NO <sub>2</sub> -N			x	x	x
NH <sub>4</sub> -N		x	x	x	
PON		x	x	x	x
Si <sub>2</sub> O <sub>3</sub> -Si		x	x	x	x
POC		x	x	x	x
TSM		x	x		
KI-a		x	x	x	x
Siktedyp	x	x	x	x	x
Gulstoff(Ay380)		x			
PlantepI.*		x	x		
Zooplankton*			x		

\* Rapporteres i hovedrapporter

Tabell 4. Observasjonsdyp.

Stasjon	Jomfruland	Arendal St. 2	Arendal St. 3	Lista
Dyp	0, 5, 10, 15, 20, 30, 50, 75, 100	0, 5, 10, 15, 20, 30, 50, 75.	100, 125, 150, 200, 240*	0, 5, 10, 15, 20, 30, 50, 75, 100, 150, 200, 300

\* bare observasjoner i kystovervåkingsprogrammet fra 100-240 meters dyp. Øvrige observasjoner (0-75m) fra denne stasjonen er fra Havforskningsinstituttets eget program.

For observasjoner av saltholdighet og temperatur er det brukt SEACAT CTD (SEABIRD) på Jomfruland, og Gytresonde (Sensordata) på Lista. På Arendalstasjonene er det som regel brukt Neil Brown CTD (Mark III).

Kvaliteten på CTD-sonder varierer og hver sonde må kontrolleres jevnlig. SEACAT-sonden blir kontrollert dels ved normale rutiner, men også ved at det gjennomføres prøvetaking med vendetermometre og analyseres på saltholdighet på de to nederste vannhenterdypene (75 og 100 meters dyp). På Lista gjennomføres samme prosedyre på saltholdighet, for å kontrollere Gytresonden (Sensordata).

Der hvor det er foretatt saltanalyser på Jomfruland (75 og 100 m) er disse resultatene presentert i tabellen, øvrige dyp er observasjonene fra CTD.

Havforskningsinstituttet Forskningstasjonen Flødevigen (HFF) og Norsk institutt for vannforskning (NIVA) deltok i kvalitetssikringsprogrammet Quasimeme 2 ganger i 2000 (Runde 22 og 24). Det ble analysert på tot-P, tot-N, nitrat, nitrit, ammonium, fosfat og silikat, både lave og høye konsentrasjoner. Resultatet var for samtlige næringsaltsanalyser meget bra (satisfactory).



### 3. Hydrografiske/hydrokjemiske observasjoner 2000

#### 3.1 Jomfruland

Station: Jomfruland				Date: 25.01.2000		Time (UTC): 07:30			Position: N: 58° 51'		E: 9° 40'				
Ship: Munin				Institute: NIVA		Echodepth (m): 126			Secchidepth (m): 8		Secchicolour: Green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	2.34	28.884	7.20	0.71	0.58	34.6	10.1	4.9	23.5	36.6	7.1	0.1	2.10	0.25	1.08
5	3.00	28.976	7.17	0.74	0.68	32.5	10.1	5.5	23.5	34.1	6.5	0.1	1.51	0.34	1.01
10	4.56	31.193	7.08	0.74	0.58	31.8	10.0	5.0	21.7	32.9	6.1	0.1	1.99	0.10	< 0.88
20	5.65	32.895	6.56	0.77	0.61	41.1	8.1	5.1	13.4	52.0	10.3	0.1	3.42	0.16	0.60
30	5.83	33.308	6.52	0.77	0.65	38.9	8.2	4.8	13.1	52.0	10.1	0.1	4.17	0.10	< 0.51
50	6.06	33.753	6.49	0.84	0.68	52.8	7.8	6.7	14.5					0.19	0.44
75	6.70	34.188	6.36	0.71	0.58	27.8	6.9	5.0	9.8	27.5	4.2	0.1	1.79		0.35
100	6.83	34.307	6.37	0.74	0.58	26.8	6.8	4.3	9.8						0.37

Station: Jomfruland				Date: 09.02.2000		Time (UTC): 07:17			Position: N: 58° 51'		E: 9° 40'				
Ship: Munin				Institute: NIVA		Echodepth (m): 120			Secchidepth (m): 7		Secchicolour: Green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	4.94	33.251	6.66	0.68	0.58	20.3	8.1	0.4	12.7	17.2	2.7	0.1	1.42	0.33	0.55
5	4.97	32.920	6.66	0.68	0.61	22.1	8.1	1.1	12.7	22.7	3.8	0.1	1.92	0.36	0.55
10	5.18	32.988	6.63	0.68	0.58	18.2	7.9	< 0.4	12.4	15.7	2.3	0.1	1.18	0.33	0.41
20	5.29	33.251	6.66	0.68	0.58	21.1	7.9	0.5	11.6	22.6	3.4	0.1	1.50	0.42	0.51
30	5.33	33.399	6.60	0.68	0.58	16.8	7.7	0.5	11.8	18.4	2.4	0.1	1.85	0.23	0.37
50	5.36	33.460	6.63	0.71	0.58	20.3	7.9	0.6	11.6					0.26	0.35
75	5.34	33.530	6.61	0.68	0.58	18.9	7.8	0.6	11.8	16.6	2.0	0.1	1.93		0.41

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjem. Datarapport 2000. (TA-1878/2002)

Station: Jomfruland				Date: 22.02.2000		Time (UTC): 10:50			Position: N: 58° 51'		E: 9° 40'				
Ship: Munin				Institute: NIVA		Echodepth (m): 130			Secchidepth (m): 8.5		Secchicolour: Gray/green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	1.07	25.285	7.68	0.65	0.48	28.9	12.1	1.0	35.6	26.4	3.7	0.1	0.71	0.39	1.43
5	2.82	28.658	7.28	0.74	0.55	31.8	9.1	1.0	22.9	40.1	6.4	0.1	1.29	0.65	1.15
10	3.65	30.310	6.95	0.74	0.58	24.3	9.9	0.8	19.7	28.6	4.1	0.1	1.14	0.54	0.97
20	5.25	32.921	6.50	0.74	0.61	25.7	8.5	0.6	14.1	38.4	6.2	0.1	1.39	0.21	0.69
30	5.63	33.542	6.46	0.71	0.58	23.6	8.1	0.5	12.7	29.7	4.5	0.1	1.53	0.24	0.62
50	5.64	33.899	6.53	0.81	0.65	43.9	9.0	1.6	12.5					0.28	0.76
75	5.80	34.236	6.49	0.84	0.68	51.0	7.8	1.8	11.6	53.4	8.1	0.1	2.43		1.11
100	6.14	34.556	6.42	0.74	0.61	24.6	6.6	0.6	10.6						0.35

Station: Jomfruland				Date: 16.03.2000		Time (UTC): 11:00			Position: N: 58° 51'		E: 9° 40'				
Ship: Hugin				Institute: NIVA		Echodepth (m): 130			Secchidepth (m): 9		Secchicolour: Green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	3.99	30.182	7.09	0.58	0.45	20.7	10.6	0.6	16.4	18.3	2.3	0.1	0.79	0.34	0.67
5	3.93	32.070	6.97	0.61	0.45	23.2	10.7	0.5	13.6	25.4	4.4	0.1	1.01	1.04	0.55
10	4.00	32.270	6.98	0.61	0.45	25.3	11.4	0.5	12.6	24.6	4.3	0.1	1.16	1.23	0.44
20	4.67	33.226	6.92	0.61	0.45	18.2	7.7	0.5	8.0	22.6	3.7	0.1	0.94	1.17	0.39
30	4.94	33.619	6.73	0.61	0.48	18.9	8.6	0.4	10.1	17.6	2.3	0.1	1.05	0.83	0.35
50	5.02	33.766	6.67	0.68	0.55	34.3	8.9	1.1	10.5					0.53	0.32
75	5.10	33.831	6.68	0.61	0.52	18.6	8.6	< 0.4	10.9	14.8	1.5	0.1	1.20		0.35
100	5.09	33.840	6.70	0.61	0.52	16.8	8.6	< 0.4	10.9						0.28

Station: Jomfruland				Date: 29.03.2000		Time (UTC): 08:45			Position: N: 58° 51'		E: 9° 40'				
Ship: Hugin				Institute: NIVA		Echodepth (m): 125			Secchidepth (m): 8.5		Secchicolour: Grey/green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	3.69	27.556	7.59	0.55	0.06	22.1	1.4	0.5	7.6	61.6	10.6	0.5	1.29	1.92	0.90
5	4.18	28.351	7.60	0.36	0.06	19.6	1.0	0.5	6.7	46.6	7.6	0.3	0.79	2.39	0.74
10	4.19	28.874	7.51	0.39	0.06	22.1	1.3	0.5	5.9	44.2	7.5	0.3	1.34	2.56	0.83
20	4.28	31.030	7.07	0.48	0.26	34.6	6.1	1.4	8.4	51.0	8.3	0.1	1.88	1.15	0.81
30	4.49	32.580	6.87	0.55	0.39	29.6	9.4	1.1	10.5	32.1	5.8	0.1	1.08	0.54	0.51
50	5.33	34.442	6.29	0.74	0.65	26.1	8.1	0.6	9.7					0.48	0.23
75	6.10	34.937	6.33	0.77	0.65	31.1	8.1	0.6	8.4	37.0	5.9	0.1	1.88		0.21
100	6.27	35.007	6.29	0.77	0.65	27.5	8.7	0.6	8.8						0.18

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Jomfruland				Date: 11.04.2000		Time (UTC): 09:15			Position: N: 58° 51'		E: 9° 40'				
Ship: Hugin				Institute: NIVA		Echodepth (m): 145			Secchidepth (m): 13		Secchicolour: Green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	5.05	23.449	7.65	0.39	0.06	20.0	1.1	0.9	8.4	47.7	6.6	0.3	1.16	2.25	0.69
5	3.94	25.110	7.81	0.26	0.06	15.3	1.1	1.0	6.9	23.6	3.4	0.1	0.66	0.78	0.65
10	3.87	26.979	7.44	0.29	0.13	21.1	2.5	2.1	8.0	24.1	3.7	0.1	0.91	0.39	0.71
20	4.39	31.565	6.94	0.52	0.39	25.3	8.7	1.5	10.1	31.7	4.6	0.1	1.00	0.26	0.48
30	4.74	32.847	6.69	0.58	0.48	22.5	9.4	1.0	10.1	26.6	3.8	0.1	1.04	0.16	0.35
50	5.81	34.344	6.35	0.71	0.61	22.8	9.4	0.6	9.9					0.16	0.32
75	6.15	34.800	6.23	0.71	0.65	17.8	9.5	0.4	9.9	16.8	2.0	0.0	0.93		0.16
100	6.13	34.805	6.29	0.74	0.65	21.4	9.5	0.6	9.7						0.25

Station: Jomfruland				Date: 26.04.2000		Time (UTC): 06:34			Position: N: 58° 51'		E: 9° 40'				
Ship: Munin				Institute: NIVA		Echodepth (m): 130			Secchidepth (m): 8.5		Secchicolour: Grey/green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	7.35	13.226	7.73	0.19	< 0.03	27.5	9.4	1.1	32.3	34.1	5.2	0.2	1.02	1.30	1.56
5	5.89	23.647	7.46	0.23	< 0.06	24.6	2.4	0.9	8.4	39.4	5.6	0.2	1.22	1.17	0.92
10	5.20	26.695	7.60	0.29	0.10	23.9	3.9	1.5	7.6	36.7	5.3	0.1	1.22	0.62	0.92
20	4.81	29.795	7.45	0.39	0.23	22.8	5.9	1.2	6.3	30.4	4.1	0.1	1.01	0.50	0.76
30	5.38	33.326	6.26	0.71	0.58	20.0	9.5	0.6	12.6	12.5	1.9	0.1	0.63	0.24	0.46
50	6.01	34.548	6.12	0.77	0.65	20.3	9.4	0.4	10.9					0.18	0.32
75	6.25	34.843	6.15	0.77	0.68	15.3	9.4	< 0.4	10.9	10.5	1.3	0.0	1.01		0.32
100	6.32	34.923	6.18	0.81	0.71	18.9	10.0	< 0.4	10.7						0.35

Station: Jomfruland				Date: 08.05.2000		Time (UTC): 11:00			Position: N: 58° 51'		E: 9° 40'				
Ship: Hugin				Institute: NIVA		Echodepth (m): 140			Secchidepth (m): 8.5		Secchicolour: Grey/green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	12.55	12.409	7.13	0.19	< 0.03	20.0	1.6	0.4	8.0	33.4	4.8	0.2	1.09	1.84	1.08
5	10.76	19.112	7.22	0.19	< 0.03	19.3	1.1	0.5	5.3	29.1	3.9	0.2	1.24	1.37	0.92
10	9.05	24.447	7.15	0.29	< 0.03	24.6	2.2	1.1	3.1	46.8	6.8	0.3	1.80	2.03	0.85
20	6.73	33.103	6.94	0.26	0.13	15.3	3.6	1.5	3.6	17.4	2.2	0.1	0.74	0.67	0.55
30	6.24	34.158	6.18	0.55	0.45	16.8	6.6	0.7	9.4	12.2	1.8	0.1	0.56	0.22	0.39
50	6.39	34.421		0.39	0.29	12.1	3.4	1.6	5.3					0.26	0.32
75	6.51	34.617	6.43	0.42	0.29	15.3	2.8	2.6	4.5	13.9	1.6	0.1	0.79		0.55
100	6.55	34.712	6.35	0.48	0.36	15.0	3.3	3.0	5.3						0.44

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Jomfruland				Date: 01.06.2000		Time (UTC): 15:00			Position: N: 58° 51'		E: 9° 40'				
Ship: Munin				Institute: NIVA		Echodepth (m): 120			Secchidepth (m): 5		Secchicolour: Grey/green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	12.48	24.565	6.33	0.26	< 0.03	18.9	1.2	0.6	2.3	56.9	8.0	0.3	1.56	2.38	0.85
5	12.40	25.053	6.20	0.23	< 0.03	16.8	1.5	0.9	2.1	42.3	5.9	0.2	1.62	2.60	0.76
10	11.97	27.017	5.94	0.19	< 0.03	15.7	1.8	1.4	2.3	36.7	5.4	0.2	1.36	1.89	0.81
20	11.05	30.692	5.55	0.23	< 0.03	18.2	3.3	3.3	3.4	27.2	4.1	0.1	1.04	0.64	0.78
30	10.47	32.422	5.54	0.29	0.10	18.9	3.9	3.9	3.8	18.4	2.9	0.1	0.88	0.47	0.76
50	8.86	33.928	5.94	0.39	0.19	17.8	3.1	3.1	4.2					0.31	< 0.58
75	7.29	34.452	6.14	0.55	0.36	23.6	3.9	3.1	5.5	35.7	5.5	0.1	1.47		0.37
100	7.01	34.761	6.05	0.61	0.48	20.3	4.7	2.9	5.5						0.32

Station: Jomfruland				Date: 20.06.2000		Time (UTC): 06:35			Position: N: 58° 51'		E: 9° 40'				
Ship: Munin				Institute: NIVA		Echodepth (m): 150			Secchidepth (m): 8.5		Secchicolour: Green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	13.78	26.761	6.01	0.19	< 0.03	22.5	1.0	1.0	< 0.2	44.7	7.6	0.2	1.31	1.18	0.97
5	13.49	26.894	5.92	0.19	< 0.03	20.7	1.4	1.6	< 0.2	38.0	6.4	0.2	1.14	1.31	1.29
10	13.01	28.475	5.85	0.23	0.03	23.9	1.6	1.9	0.4	44.0	7.6	0.2	1.18	1.09	0.90
20	11.86	31.701	5.58	0.23	0.06	25.7	5.3	3.1	2.0	34.4	6.5	0.2	0.91	0.69	0.78
30	9.77	33.300	5.26	0.39	0.16	23.9	5.7	3.4	8.3	32.2	5.4	0.1	1.14	1.27	0.67
50	8.97	33.920	5.13	0.48	0.32	29.6	4.7	3.6	9.6					0.30	0.58
75	8.89	34.240	5.31	0.52	0.36	23.9	3.1	3.0	7.9	43.9	8.0	0.2	1.74		0.48
90	8.83	34.403	5.43	0.55	0.39	23.9	3.1	3.1	7.0						0.78

Station: Jomfruland				Date: 09.07.2000		Time (UTC): 23:00			Position: N: 58° 51'		E: 9° 40'				
Ship: Munin				Institute: NIVA		Echodepth (m): 130			Secchidepth (m):		Secchicolour:				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	16.17	25.743	5.82	0.23	< 0.03	16.1	0.6	0.6	0.9	31.3	4.3	0.2	1.14	0.83	0.65
5	16.12	27.144	6.01	0.19	< 0.03	13.6	0.5	0.4	1.3	23.9	3.0	0.2	0.98	0.94	0.65
10	14.98	30.109	6.14	0.23	< 0.03	13.6	0.8	0.6	0.4	24.2	3.0	0.2	0.84	0.99	0.69
20	13.47	31.360	5.45	0.23	< 0.03	15.3	2.9	1.9	1.9	19.1	2.5	0.1	0.61	0.86	0.60
30	12.10	32.469	5.18	0.23	< 0.06	16.1	3.9	2.1	3.4	13.6	2.1	0.1	0.51	0.34	0.58
50	10.13	33.598	5.15	0.32	0.16	13.9	5.0	1.5	5.9					0.16	< 0.48
75	9.68	34.048	5.46	0.36	0.19	14.6	4.2	1.9	5.1	11.5	1.4	0.1	0.63		0.44
100	8.58	34.794	5.48	0.52	0.36	11.4	3.1	2.2	5.7						0.25

## Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemii. Datarapport 2000. (TA-1878/2002)

Station: Jomfruland				Date: 26.07.2000		Time (UTC): 06:31				Position: N: 58° 51'		E: 9° 40'			
Ship: Munin				Institute: NIVA		Echodepth (m): 140				Secchidepth (m): 7		Secchicolour: Green			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	17.25	25.317	5.89	0.29	0.03	20.3	0.3	< 0.4	2.5	70.2	11.1	0.2	1.91	1.41	0.85
5	16.75	28.420	5.92	0.26	0.03	25.0	0.4	0.7	2.5	58.9	9.9	0.2	1.36	1.08	0.83
10	16.69	30.471	6.06	0.19	< 0.03	19.3	0.4	0.4	0.4	43.2	7.4	0.2	0.90	0.90	0.58
20	14.27	32.101	5.61	0.23	< 0.03	14.6	0.4	< 0.4	1.3	37.2	6.1	0.2	0.78	1.02	0.46
30	13.39	32.608	5.31	0.16	< 0.03	11.8	0.4	< 0.4	2.1	26.5	3.8	0.1	0.69	0.88	0.44
50	11.61	33.955	5.23	0.26	0.10	18.2	0.7	1.2	2.1					0.36	0.47
75	9.65	34.814	5.22	0.48	0.36	18.2	3.6	1.2	6.3	34.9	6.3	0.1	1.16		0.37
100	8.06	35.032	5.22	0.77	0.65	21.1	7.6	0.9	10.5						0.39

Station: Jomfruland				Date: 09.08.2000		Time (UTC): 07:11				Position: N: 58° 51'		E: 9° 40'			
Ship: Munin				Institute: NIVA		Echodepth (m): 120				Secchidepth (m): 10.5		Secchicolour: Yellow/green			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	17.05	23.867	5.96	0.19	< 0.03	14.6	0.3	0.4	1.9	28.1	3.8	0.2	1.69	1.21	0.76
5	16.85	24.758	5.90	0.26	0.03	15.7	0.3	< 0.4	1.5	42.0	5.4	0.2	1.07	2.21	0.74
10	16.41	28.050	5.56	0.26	0.03	13.9	0.3	0.5	1.3	38.0	4.5	0.2	0.99	1.91	0.69
20	15.00	31.836	5.13	0.19	0.03	10.7	0.3	0.4	1.9	24.0	3.0	0.2	1.17	1.31	0.45
30	13.98	32.571	5.14	0.23	0.06	11.1	0.7	0.4	3.1	21.1	2.5	0.2	0.68	1.17	0.39
50	11.73	34.067	4.94	0.23	0.06	9.4	0.7	< 0.4	4.6					0.76	0.31
75	10.15	34.811	5.10	0.36	0.23	8.9	2.3	0.6	5.6	8.6	1.1	0.1	0.70		0.25
100	8.92	35.028	5.09	0.52	0.42	11.4	4.8	0.9	7.8						0.32

Station: Jomfruland				Date: 22.08.2000		Time (UTC): 05:34				Position: N: 58° 51'		E: 9° 40'			
Ship: Munin				Institute: NIVA		Echodepth (m): 118				Secchidepth (m): 9		Secchicolour: yellow/green			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	16.79	24.041	6.20	0.36	< 0.03	16.1	0.3	< 0.4	1.0	73.6	7.4	0.4	2.25	3.06	0.65
5	16.73	25.168	6.11	0.29	0.03	15.0	0.3	< 0.4	1.1	62.3	5.7	0.3	1.50	2.60	0.70
10	16.70	26.534	6.06	0.26	0.03	16.1	0.3	< 0.4	1.9	47.5	4.6	0.2	1.39	1.98	0.62
20	16.27	29.561	5.50	0.23	0.06	13.6	0.5	0.6	1.9	40.3	4.7	0.2	1.08	1.11	0.52
30	15.56	31.065	4.96	0.19	0.06	11.4	0.6	0.4	3.1	25.9	3.4	0.2	0.94	0.69	0.44
50	12.48	34.103	4.81	0.23	0.06	10.4	0.4	< 0.4	5.0					0.59	0.32
75	10.85	34.760	4.92	0.32	0.16	9.6	1.0	0.4	7.2	17.1	2.8	0.1	0.94		0.29
100	9.87	34.885	4.98	0.39	0.26	10.4	2.8	0.4	7.4						0.23

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemii. Datarapport 2000. (TA-1878/2002)

Station: Jomfruland				Date: 06.09.2000		Time (UTC): 08:20			Position: N: 58° 51'		E: 9° 40'						
Ship: Munin				Institute: NIVA			Echodepth (m): 99			Secchidepth (m): 7			Secchicolour: Green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)		
0			5.84	0.32	0.06	23.9	0.3	0.4	<	0.2	66.0	10.9	0.3	1.78	2.05	0.82	
5			5.64	0.29	0.06	15.7	0.3	0.4		1.5	41.8	6.6	0.3	1.13	1.45	0.43	
10			5.59	0.26	< 0.03	15.7	0.3	< 0.4		1.9	52.0	8.1	0.2	1.69	0.93	0.47	
20			5.20	0.42	0.16	33.9	0.6	1.6		2.5	107.4	18.7	0.2	2.22	0.78	0.50	
30			4.53	0.29	0.13	12.5	0.7	1.1		4.7	44.2	6.1	0.2	1.23	0.43	0.32	
50			4.68	0.48	0.36	30.7	2.4	1.3		6.7				0.23	0.18		
75	9.44	35.073	4.84	0.45	0.32	24.6	2.4	1.2		4.7	77.3	11.2	0.1	2.48		0.23	
100	7.52	35.104	5.10	1.00	0.87	36.8	10.4	1.3		9.5						0.18	

Station: Jomfruland				Date: 27.09.2000		Time (UTC): 05:40			Position: N: 58° 51'		E: 9° 40'						
Ship: Munin				Institute: NIVA			Echodepth (m): 110			Secchidepth (m): 6.5			Secchicolour: Green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)		
0			6.09	0.55	0.13	38.6	0.3	1.1		1.5	99.9	18.8	0.4	2.64	1.61	1.30	
5			6.09	0.39	0.10	27.8	0.3	< 0.4		2.1	58.7	11.4	0.2	1.58	0.95	0.73	
10			6.05	0.45	0.13	35.0	0.3	0.6		1.1	88.2	17.1	0.2	2.74	1.32	0.66	
20			5.71	0.32	0.10	28.9	0.3	0.6		1.9	69.6	13.7	0.2	2.12	1.06	0.48	
30			5.00	0.32	0.13	32.5	0.5	1.4		3.9	81.9	15.5	0.2	2.32	0.67	0.36	
50			5.28	0.36	0.13	36.1	0.5	1.7		4.5				0.51	0.52		
75	14.02	34.033	5.27	0.32	0.13	22.1	0.6	1.1		5.1	46.2	8.4	0.1	2.00		0.25	
100	10.04	34.755	4.54	0.84	0.65	44.3	4.7	2.1		9.1						0.36	

Station: Jomfruland				Date: 13.11.2000		Time (UTC): 11:00			Position: N: 58° 51'		E: 9° 40'						
Ship: Munin				Institute: NIVA			Echodepth (m): 120			Secchidepth (m): 5			Secchicolour: Yellow/green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)		
0			6.61	0.55	0.36	25.3	9.7	2.6		40.5	27.9	4.4	0.2	1.65	0.71	2.75	
5			6.04	0.68	0.48	19.6	4.9	2.1		15.8	21.2	3.6	0.1	1.34	0.72	1.29	
10			5.98	0.71	0.48	20.7	3.9	1.9		12.0	33.6	6.4	0.1	2.38	0.58	1.06	
20			5.59	0.68	0.52	16.1	2.6	1.7		8.1	19.7	3.2	0.1	0.71	0.42	0.65	
30			5.47	0.68	0.52	15.0	2.6	1.5		8.1	13.8	1.8	0.1	0.79	0.35	0.56	
50			5.47	0.71	0.55	14.6	2.8	2.0		9.2				0.43	0.57		
75	8.44	33.705	5.29	0.58	0.45	10.7	3.4	< 0.4		8.3	6.9	1.2	0.1	1.00		0.33	
100	8.44	34.450	5.23	0.58	0.45	10.7	3.3	< 0.4		8.7						0.28	

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemii. Datarapport 2000. (TA-1878/2002)

Station: Jomfruland				Date: 29.11.2000		Time (UTC): 09:37			Position: N: 58° 51'		E: 9° 40'				
Ship: Munin				Institute: NIVA		Echodepth (m): 133			Secchidepth (m): 6.5		Secchicolour: Green				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	8.51	26.887	6.36	0.61	0.45	16.8	4.4	1.4	12.5	14.4	1.6	0.1	0.72	1.50	0.95
5	8.86	27.606	6.37	0.65	0.45	16.8	4.4	1.6	11.8	14.9	2.1	0.1	0.84	1.40	0.81
10	8.89	27.755	6.35	0.65	0.45	17.8	4.4	1.6	11.2	20.5	2.8	0.1	0.87	1.20	0.84
20	9.23	28.618	6.18	0.68	0.52	17.8	4.4	1.6	11.6	13.8	1.9	0.1	0.84	0.95	0.74
30	9.73	30.068	5.97	0.71	0.55	18.6	4.8	1.4	11.8	11.2	1.3	0.1	1.01	0.73	0.51
50	11.18	32.903	5.65	0.71	0.58	16.8	6.3	0.4	12.2					0.41	0.51
75	11.80	33.874	5.55	0.65	0.52	16.1	5.3	0.6	10.4	14.1	1.6	0.1	0.88		0.23
100	12.03	34.283	5.46	0.65	0.52	13.6	5.1	0.9	10.0						0.28

Station: Jomfruland				Date: 19.12.2000		Time (UTC): 09:00			Position: N: 58° 51'		E: 9° 40'				
Ship: Munin				Institute: NIVA		Echodepth (m): 165			Secchidepth (m): 4.5		Secchicolour: Brown				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	Ay380 (m-1)
0	5.91	22.730	6.57	0.68	0.52	23.6	11.4	1.2	33.7	14.7	1.8	0.1	1.13	0.31	< 2.22
5	7.21	23.534	6.47	0.71	0.52	23.9	11.4	1.1	33.7	16.9	2.5	0.1	1.24	0.31	< 2.08
10	8.59	26.221	6.14	0.77	0.61	20.0	9.1	0.5	20.0	16.7	2.1	0.1	1.26	0.31	< 1.13
20	9.74	32.798	5.75	0.71	0.55	18.9	7.8	< 0.4	12.0	17.2	3.1	0.1	1.08	0.31	< 0.55
30	9.73	33.418	5.82	0.68	0.42	30.0	7.6	1.0	10.3	43.7	7.9	0.1	2.16	0.31	< 0.64
50	9.87	34.090	5.88	0.68	0.48	30.3	7.0	1.1	8.1					0.31	< 0.75
75	9.99	34.219	5.85	0.68	0.55	13.6	6.4	< 0.4	8.7	12.0	1.5	0.1	1.28		0.40
100	9.88	34.335	5.86	0.68	0.55	18.2	6.6	0.4	9.1						0.47

### 3.2 Arendal St. 2

Station: Arendal St. 2				Date: 16.01.2000		Time (UTC): 07:00			Position: N: 58° 23'		E: 8° 49'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 105			Secchidepth (m):		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	4.82	30.461	7.60	0.67	0.16	25.0	8.1	2.6	12.0	15.7	2.5	0.2	2.14	0.60
5	5.16	31.110	7.24	0.75	0.54	16.9	8.3	0.4	7.9	8.5	1.4	0.1	1.00	0.40
10	5.37	31.822	7.14	0.74	0.53	17.9	7.7	0.4	6.8	10.6	1.4	0.1	1.08	0.50
20	5.91	32.736	6.98	0.71	0.55	14.8	7.0	0.1	5.7	12.3	1.5	0.1	1.06	0.40
30	6.10	33.111	6.90	0.73	0.54	15.7	7.1	0.1	5.4	13.7	1.6	0.1	0.99	0.30
50	6.31	33.538	6.89	0.72	0.54	16.1	6.7	0.2	4.9			0.1		0.30
75	6.61	33.887	6.76	0.75	0.56	16.2	6.1	0.3	4.8	9.7	1.3	0.1	1.35	

Station: Arendal St. 2				Date: 13.02.2000		Time (UTC): 19:00			Position: N: 58° 23'		E: 8° 49'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 105			Secchidepth (m):		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	5.22	33.023	7.03	0.73	0.52	16.9	7.8	0.4	6.4	6.6	0.8	0.1	1.18	0.40
5	5.33	33.358	7.03	0.69	0.55	14.7	7.7	0.1	6.5	5.2	0.6	0.1	1.49	0.40
10	5.38	33.475	6.99	0.70	0.58	14.5	7.6	0.2	6.1	5.2	0.5	0.1	1.34	0.40
20	5.39	33.522	6.96	0.71	0.58	14.7	7.6	0.2	6.0	4.4	0.5	0.1	1.10	0.50
30	5.61	33.785	6.96	0.71	0.57	16.1	7.4	0.2	5.7	5.6	0.6	0.1	1.46	0.40
50	5.68	33.857	6.92	0.73	0.55	13.1	7.3	0.2	5.6					0.30
75	5.76	33.978	6.92	0.72	0.51	13.8	7.1	0.2	5.5	5.5	0.5	0.1	1.82	



Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemii. Datarapport 2000. (TA-1878/2002)

Station: Arendal St. 2				Date: 08.03.2000		Time (UTC): 05:00			Position: N: 58° 23'		E: 8° 49'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 105			Secchidepth (m):		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	4.62	32.606	7.20	0.64	0.43	19.8	8.8	2.5	6.6	12.8	2.0	0.1	0.81	0.90
5	4.66	32.728	7.16	0.63	0.51	19.9	8.9	0.5	6.2	7.8	1.3	0.1	1.59	1.10
10	4.86	33.057	7.10	0.66	0.52	19.3	8.8	0.3	6.0	6.5	1.0	0.1	1.31	1.10
20	5.04	33.379	7.05	0.67	0.53	19.7	8.2	0.4	5.7	5.6	0.8	0.1	1.91	1.00
30	5.31	33.937	7.01	0.66	0.56	17.5	8.2	0.2	5.6	4.7	0.6	0.1	1.54	0.50
50	5.44	34.102	6.93	0.62	0.58	16.8	7.6	0.1	5.3					0.40
75	5.52	34.217	6.94	0.63	0.58	17.8	7.9	0.6	5.3	4.1	0.5	0.1	2.02	

Station: Arendal St. 2				Date: 20.03.2000		Time (UTC): 10:00			Position: N: 58° 23'		E: 8° 49'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 105			Secchidepth (m):		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	3.99	30.930	7.80	0.56	0.30	22.6	7.8	0.6	6.0	15.8	2.6	0.1	0.73	2.70
5	4.00	32.180	7.58	0.70	0.39	23.4	10.3	0.4	6.0	12.4	2.1	0.2	0.89	3.10
10	4.14	32.410	7.46	0.68	0.43	22.8	11.0	0.6	6.3	10.8	1.8	0.1	1.11	2.60
20	4.26	32.800	7.44	0.67	0.47	25.0	10.1	0.6	5.3	8.8	1.4	0.1	0.96	2.10
30	4.47	33.230	7.35	0.66	0.46	22.7	9.5	1.0	4.7	10.6	1.5	0.1	0.80	2.00
50	4.71	33.640	7.22	0.77	0.56	26.4	9.1	1.7	5.3					1.20
75	5.28	34.580	6.97	0.75	0.61	19.1	7.9	1.3	5.1	7.7	0.9	0.1	1.52	

Station: Arendal St. 2				Date: 12.04.2000		Time (UTC): 13:16			Position: N: 58° 23'		E: 8° 49'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 105			Secchidepth (m): 9		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	5.37	23.612	7.98	0.32	0.01	16.8	0.6	1.1	3.9	17.4	2.3	0.2	0.62	2.60
5	5.38	23.612	8.01	0.32	0.01	16.3	0.5	0.9	5.3	17.9	2.5	0.2	0.55	2.00
10	4.83	25.379	8.26	0.27	0.01	16.4	1.0	1.1	3.3	10.0	1.5	0.1	0.31	1.70
20	4.31	30.508	7.63	0.43	0.18	20.1	5.8	1.1	3.7	8.9	1.2	0.1	0.25	1.10
30	4.74	33.002	7.37	0.45	0.31	16.7	5.4	1.3	2.9	5.7	0.6	0.0	0.34	0.90
50	5.49	34.214	6.84	0.68	0.55	18.6	8.8	0.6	4.5					0.50
75	6.13	34.788	6.65	0.74	0.62	17.7	8.8	0.2	4.4	6.7	0.9	0.1	1.40	

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Arendal St. 2				Date: 09.05.2000		Time (UTC): 07:40			Position: N: 58° 23'		E: 8° 49'			
Ship: Munin				Institute: HFF		Echodepth (m): 105			Secchidepth (m):		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	12.76	17.810	7.24	0.33	0.01	17.2	0.5	1.1	2.5	20.3	2.5	0.1	0.86	1.20
5	11.81	20.350	7.49	0.29	0.01	17.8	0.4	0.8	3.0	17.3	2.5	0.1	0.89	1.30
10	10.36	21.630	7.66	0.29	0.01	18.9	0.5	1.6	2.6	14.3	2.2	0.1	0.72	1.40
20	6.82	32.120	7.28	0.42	0.19	18.9	3.8	2.4	1.9	10.9	1.5	0.1	0.23	1.10
30	6.54	33.780	7.31	0.40	0.24	15.2	2.7	1.8	1.4	7.1	1.0	0.1	0.36	0.70
50	6.45	34.110	6.96	0.47	0.30	15.9	1.2	3.3	2.1					0.20
75	6.55	34.270	6.79	0.56	0.41	27.3	2.2	3.3	2.3	25.1	4.3	0.1	1.14	

Station: Arendal St. 2				Date: 17.05.2000		Time (UTC): 06:00			Position: N: 58° 23'		E: 8° 49'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 105			Secchidepth (m): 5		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	14.39	16.939	7.22	0.30	0.01	26.5	0.1	3.2	2.6	26.4	3.6	0.2	1.10	1.70
5	11.77	19.390	7.82	0.36	0.01	19.2	0.1	2.6	1.2	23.9	3.2	0.2	0.97	1.90
10	8.08	28.671	7.24	0.43	0.06	21.1	4.6	1.0	2.3	17.6	2.6	0.2	0.64	2.10
20	7.38	33.459	7.96	0.34	0.03	15.4	2.0	0.8	1.3	16.6	2.5	0.2	1.63	3.20
30	6.56	34.163	7.16	0.47	0.28	17.3	3.0	2.0	2.0	10.9	1.8	0.1	0.74	0.30
50	6.39	34.512	6.83	0.54	0.38	17.4	3.6	2.1	2.6					0.10
75	6.47	34.668	6.67	0.61	0.45	16.7	4.0	2.7	3.2	5.3	0.7	0.0	0.10	

Station: Arendal St. 2				Date: 26.05.2000		Time (UTC): 07:01			Position: N: 58° 23'		E: 8° 49'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 105			Secchidepth (m):		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	12.43	17.407	7.09	0.34	0.04	17.7	0.1	1.7	1.9	20.7	2.7	0.2	1.14	2.20
5	12.30	23.981	7.18	0.35	0.01	18.5	0.4	0.4	1.3	21.1	2.5	0.2	1.02	4.10
10	11.30	27.265	7.17	0.36	0.02	17.0	1.4	0.3	1.3	32.8	3.1	0.2	0.97	4.50
20	7.29	30.892	6.97	0.43	0.18	18.8	5.0	2.0	1.8	10.7	1.2	0.1	0.57	0.90
30	6.84	31.339	6.98	0.40	0.22	14.8	4.4	2.1	1.8	6.7	0.8	0.1	0.46	0.40
50	6.40	31.890	7.01	0.44	0.26	15.4	2.8	3.1	0.9					0.20
75	6.47	32.074	6.69	0.59	0.44	14.9	4.6	2.1	3.1	5.3	0.7	0.0	3.35	

## Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: <b>Arendal St. 2</b>				Date: 10.06.2000	Time (UTC): 06:00	Position: N: 58° 23'	E: 8° 49'								
Ship: G.M.Dannevig				Institute: HFF	Echodepth (m): 105	Secchidepth (m): 5	Secchicolour:								
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	
0	14.14	24.028	6.93	0.32	0.01	17.9	0.3	0.3	1.5	28.5	3.7	0.2	1.23	2.80	
5	12.81	26.407	6.91	0.39	0.01	18.2	0.4	0.4	0.6	26.1	3.3	0.2	1.06	3.50	
10	11.42	30.307	6.10	0.38	0.03	20.0	2.8	2.5	1.6	16.7	2.3	0.2	3.38	2.20	
20	10.83	31.616	5.89	0.40	0.10	24.0	4.1	3.8	2.4	13.6	2.1	0.2	0.92	0.90	
30	9.93	33.278	5.86	0.41	0.21	17.9	3.7	4.2	2.6	7.8	1.1	0.1	0.95	0.20	
50	9.03	34.178	6.15	0.52	0.26	18.9	2.6	2.8	2.6					0.20	
75	8.56	34.542	6.24	0.48	0.31	15.3	2.5	2.4	2.7	7.8	1.1	0.1	1.48		

Station: Arendal St. 2				Date: 22.06.2000	Time (UTC): 07:18	Position: N: 58° 23'	E: 8° 49'								
Ship: G.M.Dannevig				Institute: HFF	Echodepth (m): 105	Secchidepth (m): 10	Secchicolour:								
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	
0	13.84	27.657	6.36	0.26	0.01	15.1	1.5	1.2	0.5	15.7	2.0	0.1	0.81	1.60	
5	12.95	28.884	6.53	0.29	0.01	13.4	0.7	0.5	0.1	15.4	2.0	0.2	0.53	1.80	
10	12.41	30.214	6.02	0.29	0.03	18.0	3.6	2.5	0.8	10.6	1.4	0.1	0.30	1.10	
20	11.80	31.620	5.90	0.31	0.06	19.7	5.3	2.6	1.4	9.4	1.4	0.1	0.46	1.50	
30	9.88	33.290	5.66	0.44	0.21	15.2	4.1	2.6	3.5	8.0	0.9	0.1	0.73	0.50	
50	8.95	34.171	5.69	0.50	0.27	14.8	3.7	2.5	3.7					0.40	
75	8.93	34.318	5.78	0.48	0.31	13.3	3.0	2.2	3.0	6.3	0.7	0.1	0.92		

Station: Arendal St. 2				Date: 04.07.2000	Time (UTC): 06:00	Position: N: 58° 23'	E: 8° 49'								
Ship: G.M.Dannevig				Institute: HFF	Echodepth (m): 105	Secchidepth (m): 9	Secchicolour:								
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	
0	13.53	30.114	5.99	0.36	0.01	21.0	2.6	1.6	0.7	27.9	4.1	0.1	0.52	1.00	
5	13.47	30.243	5.95	0.36	0.01	19.4	2.8	1.6	0.7	20.6	2.2	0.2	1.05	1.40	
10	12.42	31.688	5.67	0.35	0.02	20.7	3.8	2.6	1.1	12.5	1.6	0.1	0.10	0.80	
20	10.30	33.937	5.75	0.36	0.09	13.8	2.0	2.1	1.4	8.0	1.0	0.1	1.27	0.20	
30	9.65	34.198	5.89	0.41	0.17	12.3	1.8	2.1	1.3	8.6	1.3	0.1	0.41	0.20	
50	9.02	34.555	5.85	0.54	0.28	13.2	2.7	2.2	2.1					0.30	
75	8.76	34.718	5.97	0.55	0.32	13.1	2.4	2.2	1.9	9.1	1.1	0.1	0.76		

## Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: <b>Arendal St. 2</b>				Date: 27.07.2000	Time (UTC): 08:30	Position: N: 58° 23'	E: 8° 49'								
Ship: Munin				Institute: HFF	Echodepth (m): 105			Secchidepth (m):		Secchicolour:					
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	
0	16.86	27.600	6.18	0.60	0.15	23.8	0.2	0.5	1.3	52.8	4.1	0.3	1.96	5.30	
5	16.69	27.990	6.24	0.48	0.10	22.9	0.0	0.3	1.3	46.1	4.0	0.3	1.58	5.00	
10	16.72	28.240	6.16	0.45	0.08	23.6	0.0	0.3	1.1	35.5	3.4	0.3	1.46	4.20	
20	14.25	31.680	6.03	0.40	0.08	20.8	0.0	0.3	0.9	30.9	2.7	0.2	1.00	3.30	
30	12.55	33.140	5.63	0.31	0.09	17.2	0.5	0.7	1.8	13.6	1.6	0.1	0.47	0.90	
50	10.95	34.270	5.50	0.46	0.22	19.1	1.2	1.7	1.8					1.10	
75	10.07	34.800	5.53	0.51	0.33	20.0	2.4	1.5	2.7	6.7	0.8	0.1	0.60		
Station: Arendal St. 2				Date: 18.08.2000	Time (UTC): 10:45	Position: N: 58° 23'	E: 8° 49'								
Ship: G.M.Dannevig				Institute: HFF	Echodepth (m): 105			Secchidepth (m): 11		Secchicolour:					
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	
0	15.62	30.765	5.70	0.38	0.09	14.2	0.3	0.6	1.8	24.9	2.8	0.2	1.84	1.70	
5	15.65	30.963	5.62	0.36	0.09	12.9	0.2	0.3	1.5	22.5	2.6	0.2	0.88	1.70	
10	15.66	31.179	5.45	0.35	0.11	12.7	0.0	0.6	1.4	20.8	2.5	0.2	0.93	2.10	
20	14.51	32.446	5.04	0.31	0.13	10.1	0.3	0.6	2.0	12.3	1.4	0.1	0.66	0.90	
30	12.72	33.412	5.02	0.34	0.22	11.5	0.9	1.1	3.1	12.2	1.3	0.1	0.71	0.80	
50	11.62	34.240	5.26	0.38	0.26	11.3	0.9	1.1	2.6					0.30	
75	10.47	34.745	5.30	0.46	0.24	10.0	1.9	1.7	3.3	8.6	1.0	0.1	0.95		
Station: Arendal St. 2				Date: 31.08.2000	Time (UTC): 12:30	Position: N: 58° 23'	E: 8° 49'								
Ship: G.M.Dannevig				Institute: HFF	Echodepth (m): 105			Secchidepth (m): 8		Secchicolour:					
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	
0	21.08	25.000	6.01	0.45	0.10	20.8	0.3	0.3	0.6	24.4	3.0	0.3	1.09	1.50	
5	15.99	30.500	5.79	0.59	0.11	15.5	0.1	0.2	0.9	21.3	2.7	0.4	0.95	2.10	
10	15.86	30.790	5.65	0.45	0.10	14.0	0.1	0.3	1.0	21.4	2.7	0.3	1.08	2.20	
20	15.35	31.790	5.53	0.44	0.09	13.7	0.1	0.5	1.1	20.0	2.1	0.3	0.77	2.00	
30	14.61	32.730	5.20	0.36	0.08	12.9	0.1	0.6	1.6	16.1	1.6	0.2	0.74	1.30	
50	13.40	33.500	4.87	0.34	0.12	11.8	0.5	0.6	1.9					0.70	
70	11.15	34.580	5.04	0.46	0.22	10.4	1.9	0.3	3.7	6.7	0.9	0.1	0.69		

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Arendal St. 2				Date: 15.09.2000		Time (UTC): 11:22			Position: N: 58° 23'		E: 8° 49'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 105			Secchidepth (m): 5		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	14.39	25.807	6.14	0.46	0.12	20.7	0.3	1.3	2.3	28.2	2.9	0.2	1.06	2.60
5	14.40	25.822	6.13	0.39	0.08	18.8	0.2	1.7	2.3	27.1	2.6	0.2	1.01	3.20
10	14.50	27.138	5.98	0.36	0.07	16.7	0.1	0.9	2.0	26.2	3.1	0.2	1.81	2.70
20	14.95	31.486	5.19	0.31	0.14	14.0	0.5	1.2	2.5	14.6	1.8	0.1	0.37	0.60
30	14.44	32.213	4.94	0.32	0.17	11.3	0.8	1.9	2.8	12.5	1.9	0.1	0.48	0.20
50	11.26	34.677	4.74	0.39	0.27	11.0	1.2	1.0	3.6					0.10
75	8.97	34.930	4.97	0.63	0.51	12.2	6.1	0.2	5.2	7.8	1.1	0.1	0.61	

Station: Arendal St. 2				Date: 05.10.2000		Time (UTC): 07:30			Position: N: 58° 23'		E: 8° 49'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 105			Secchidepth (m): 9		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	13.73	25.313	6.03	0.43	0.15	16.9	0.8	1.5	2.7	18.2	2.1	0.1	0.60	1.60
5	13.74	25.572	5.95	0.42	0.14	15.6	0.3	1.4	1.4	10.6	1.3	0.1	0.38	1.90
10	14.11	29.416	5.47	0.39	0.19	13.1	0.4	1.4	1.7	6.4	0.9	0.1	0.57	0.80
20	14.24	32.513	5.58	0.35	0.15	11.3	0.3	1.2	1.7	5.3	0.8	0.1	0.27	0.60
30	14.41	33.075	5.45	0.35	0.15	10.7	0.2	0.9	2.1	4.3	0.6	0.1	0.51	0.30
50	13.36	34.037	5.16	0.38	0.20	11.1	1.6	0.6	2.8					0.40
75	9.32	34.881	4.96	0.60	0.46	14.2	5.2	0.3	4.7	4.5	0.6	0.0	0.40	

Station: Arendal St. 2				Date: 21.10.2000		Time (UTC): 06:00			Position: N: 58° 23'		E: 8° 49'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 105			Secchidepth (m): 8		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	12.51	23.638	6.54	0.49	0.15	16.0	0.6	1.5	2.2	25.6	3.3	0.2	0.91	2.00
5	12.51	23.638	6.54	0.56	0.15	17.4	0.6	2.1	2.2	28.7	3.8	0.3	1.09	2.60
10	12.51	23.637	6.51	0.46	0.18	16.6	0.5	1.4	2.2	19.4	2.6	0.2	0.75	2.00
20	13.46	29.415	5.73	0.41	0.27	14.6	1.0	1.4	2.3	11.2	1.6	0.1	0.47	0.40
30	13.98	32.401	5.59	0.41	0.24	12.5	1.3	2.0	2.1	10.1	1.4	0.1	0.46	0.40
50	14.30	33.635	5.51	0.40	0.23	12.5	1.4	1.3	2.3					0.20
75	13.81	34.165	5.34	0.41	0.26	12.8	2.8	0.5	3.7	8.3	1.2	0.1	0.38	

## Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: <b>Arendal St. 2</b>				Date: 02.11.2000		Time (UTC): 14:39			Position: N: 58° 23'		E: 8° 49'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 105			Secchidepth (m): 5		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	12.53	30.960	5.89	0.66	0.40	12.5	2.3	1.5	3.7	12.7	1.6	0.1	1.67	0.80
5	12.82	31.675	5.72	0.62	0.40	13.3	2.2	1.5	3.1	7.1	0.9	0.1	1.35	0.50
10	13.37	32.965	5.45	0.62	0.40	12.1	2.2	1.0	3.0	6.6	0.9	0.1	1.24	0.40
20	13.43	33.098	5.49	0.64	0.40	13.0	2.2	0.9	3.1	7.3	0.9	0.1	1.11	0.40
30	13.44	33.155	5.50	0.65	0.42	14.3	2.2	1.1	3.2	9.1	1.2	0.1	1.61	0.40
50	13.49	33.303	5.45	0.61	0.42	15.5	1.9	1.5	3.2					0.40
75	13.34	33.999	5.45	0.67	0.41	13.1	2.5	1.0	3.7	14.5	1.3	0.1	3.78	
Station: Arendal St. 2				Date: 28.11.2000		Time (UTC): 10:00			Position: N: 58° 23'		E: 8° 49'			
Ship: Munin				Institute: HFF		Echodepth (m): 105			Secchidepth (m):		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	8.40	24.880	7.06	0.74	0.39	20.4	6.1	3.4	7.4	10.9	1.4	0.1	1.10	0.80
5	9.87	31.130	6.62	0.80	0.61	21.4	6.1	1.9	6.6	15.3	1.9	0.1	1.57	0.80
10	10.05	31.230	6.33	0.81	0.58	20.5	5.8	1.6	6.1	7.7	1.2	0.1	0.87	0.70
20	10.33	31.770	6.02	0.80	0.59	18.6	6.1	1.0	4.7	7.1	1.1	0.1	0.96	0.50
30	10.23	32.090	6.12	0.81	0.60	20.8	6.3	0.6	4.7	9.3	1.6	0.1	0.75	0.60
50	11.29	33.400	5.85	0.78	0.60	19.9	5.3	0.3	3.9					0.40
68	11.78	33.950	5.67	0.75	0.59	17.6	5.0	0.3	3.7	8.7	1.2	0.1	0.86	
Station: Arendal St. 2				Date: 04.12.2000		Time (UTC): 07:26			Position: N: 58° 23'		E: 8° 49'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 105			Secchidepth (m): 5		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	9.01	28.322	6.64	0.82	0.35	21.9	6.3	2.1	7.7	17.0	2.7	0.1	4.01	0.53
5	9.02	28.343	6.60	0.79	0.47	19.4	6.8	2.7	7.3	7.1	0.9	0.1	2.18	0.59
10	9.09	28.607	6.22	0.81	0.55	17.7	7.2	1.2	6.6	9.4	1.2	0.1	0.88	0.47
20	10.90	33.116	5.79	0.77	0.55	14.8	6.4	0.2	5.2	4.7	0.7	0.1	3.61	0.25
30	11.26	33.513	5.82	0.80	0.56	15.8	6.4	0.2	5.0	5.4	0.6	0.1	0.87	0.25
50	11.04	34.009	5.93	0.79	0.52	15.1	5.3	0.4	4.1					0.25
75	11.08	34.366	5.92	0.74	0.51	13.2	4.8	0.2	3.9	5.7	0.7	0.1	0.87	

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: <b>Arendal St. 2</b>				Date: 18.12.2000		Time (UTC): 14:05			Position: N: 58° 23'		E: 8° 49'				
Ship: Munin				Institute: HFF			Echodepth (m): 105			Secchidepth (m):		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	
0	7.81	26.240	6.89	0.70	0.49	20.0	9.4	1.1	12.3	7.9	0.8	0.1	1.97	0.40	
5	7.82	26.410		0.69	0.55	21.8	8.7	1.1	12.3	8.1	0.9	0.1	1.07	0.40	
10	8.10	29.580	6.42	0.69	0.55	21.3	8.7	1.1	12.1	7.8	0.9	0.1	1.22	0.40	
20	8.32	31.170		0.72	0.60	18.8	7.7	0.5	7.9	7.2	0.8	0.1	1.18	0.60	
30	9.65	33.440	6.21	0.69	0.60	16.8	7.6	0.3	6.0	8.9	1.2	0.1	0.90	0.40	
50	9.95	34.040		0.72	0.60	19.9	6.4	0.4	4.8					0.30	
69	9.87	34.310	6.13	0.68	0.57	14.1	5.9	0.3	4.3	6.4	0.7	0.1	1.42		

### 3.3 Arendal St. 3

Station: Arendal St. 3				Date: 16.01.2000		Time (UTC): 08:00		Position: N: 58° 20'		E: 8° 54'				
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 260			Secchidepth (m): 6		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	4.32	29.630	7.47		0.25		8.2		9.0					0.50
5	4.34	29.786	7.42		0.54		8.3		8.6					0.40
10	5.31	32.383	7.13		0.52		7.0		5.6					0.60
20	5.84	33.200	6.99		0.52		6.6		5.0					0.40
30	6.68	33.812	6.77		0.54		6.2		4.6					0.30
50	6.69	34.037	6.73		0.56		6.2		4.6					0.30
75	6.71	34.063	6.77		0.55		6.1		4.6					
100	6.84	34.171	6.70	0.74	0.56	15.5	5.7		4.6	11.5	1.5	0.1	1.58	
125	7.21	34.539	6.74	0.68	0.56	15.9	5.9		4.5					
150	7.57	34.702	6.51	0.67	0.54	16.2	5.8		4.6					
200	7.60	34.901	6.37	0.68	0.56	15.2	6.5		4.0	10.6	1.3	0.1	1.75	
240	7.61	34.903	6.36	0.71	0.58	16.3	6.8		4.0					

Station: Arendal St. 3				Date: 13.02.2000		Time (UTC): 18:00		Position: N: 58° 20'		E: 8° 54'				
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 260			Secchidepth (m):		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	5.24	33.279	7.03		0.47		7.8		6.3					0.40
5	5.25	33.278	7.01		0.57		8.0		6.3					0.40
10	5.26	33.277	6.98		0.57		7.9		6.3					0.40
20	5.27	33.278	7.00		0.58		7.8		6.4					0.40
30	5.27	33.275	7.00		0.57		8.0		6.4					0.40
50	5.29	33.295	6.99		0.59		8.0		6.4					0.40
75	5.97	34.264	6.95		0.56		6.9		5.3					
100	6.09	34.450	6.90	0.69	0.56	13.1	6.7		4.8	4.6	0.5	0.1	2.18	
125	6.09	34.487	6.89	0.72	0.56	13.7	6.7		4.8					
150	6.17	34.587	6.87	0.71	0.57	13.2	6.7		4.8					
200	6.28	34.662	6.83	0.79	0.57	14.4	6.9		4.6	12.6	1.2	0.1		
240	6.45	34.794	6.81	1.01	0.58	16.2	7.4		4.5					



Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Arendal St. 3				Date: 08.03.2000	Time (UTC): 06:00	Position: N: 58° 20'	E: 8° 54'							
Ship: G.M.Dannevig				Institute: HFF	Echodepth (m): 260	Secchidepth (m): 6	Secchicolour:							
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	3.96	31.083	7.41		0.39		9.6		7.7					1.60
5	4.12	31.409	7.37		0.47		9.6		7.2					1.40
10	4.35	31.899	7.28		0.49		9.5		6.8					0.70
20	4.45	32.106	7.23		0.50		9.3		6.6					1.30
30	5.00	33.237	7.05		0.54		8.5		5.4					0.80
50	5.70	34.396	6.92		0.57		7.6		4.6					0.50
75	5.83	34.576	6.86		0.59		7.2		4.6					
100	6.23	34.775	6.79	0.71	0.62	16.6	8.1		4.3	4.5	0.6	0.0	2.10	
125	6.48	34.916	6.72	0.75	0.63	16.3	8.4		4.3					
150	6.42	34.925	6.72	0.74	0.63	16.6	8.3		4.3					
200	6.43	34.936	6.72	0.77	0.64	16.8	7.9		4.3	6.9	0.8	0.1	3.98	
240	6.60	34.998	6.72	0.76	0.65	16.8	8.5		4.3					

Station: Arendal St. 3				Date: 12.04.2000	Time (UTC): 12:28	Position: N: 58° 20'	E: 8° 54'							
Ship: G.M.Dannevig				Institute: HFF	Echodepth (m): 260	Secchidepth (m): 9	Secchicolour:							
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	4.91	23.570												
5	4.91	23.596												
10	4.14	27.293												
20	4.44	31.406												
30	4.76	32.956												
50	5.81	34.455												
75	6.26	34.895												
100	6.50	35.029	6.53	0.74	0.67	17.7	9.2		5.0	7.1	0.9	0.1	0.75	
125	6.52	35.038	6.53	0.80	0.67	19.9	9.5		5.1					
150	6.55	35.054	6.54	0.80	0.65	20.0	9.3		5.2					
200	6.58	35.064	6.52	0.78	0.67	18.3	9.6		5.2	6.6	0.9	0.1	0.86	
240	6.63	35.082	6.45	0.74	0.69	17.4	9.6		4.9					

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Arendal St. 3				Date: 17.05.2000		Time (UTC): 07:00		Position: N: 58° 20'		E: 8° 54'					
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 260			Secchidepth (m): 5		Secchicolour:				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	
0	13.30	17.948	7.17		0.01		0.1		1.7					1.50	
5	12.31	19.349	7.80		0.01		0.1		1.6					2.10	
10	9.88	30.921	8.37		0.03		1.0		1.0					4.70	
20	6.55	33.742	7.10		0.18		3.9		2.2					1.00	
30	6.57	34.422	7.02		0.28		2.4		1.5					0.40	
50	6.38	34.598	6.77		0.41		4.2		2.6					0.20	
75	7.05	34.837	6.43		0.65		8.8		4.2						
100	6.83	35.015	6.34	0.83	0.69	18.5	9.6		4.5	12.7	1.1	0.0	0.48		
125	6.86	35.090	6.30	0.94	0.74	17.4	10.1		5.1						
150	6.88	35.133	6.23	0.87	0.77	16.7	10.6		5.7						
200	6.90	35.165	6.20	0.92	0.78	20.4	10.7		6.2	8.4	1.2	0.0	0.51		
240	6.90	35.172	6.22	0.97	0.79	20.4	10.5		7.0						

Station: Arendal St. 3				Date: 10.06.2000		Time (UTC): 07:00		Position: N: 58° 20'		E: 8° 54'					
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 260			Secchidepth (m): 4		Secchicolour:				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	
0	14.28	22.909	6.89		0.01		0.6		2.4					2.90	
5	14.28	24.333	6.97		0.02		0.1		1.0					3.60	
10	12.10	28.693	6.56		0.01		1.9		0.9					5.30	
20	9.93	32.785	6.16		0.06		2.2		1.7					0.60	
30	9.34	34.302	6.26		0.16		0.9		0.9					0.30	
50	8.28	34.595	6.31		0.31		2.4		2.4					0.20	
75	8.17	34.713	6.49		0.29		1.4		0.9						
100	7.21	34.944	6.14	0.76	0.66	16.4	7.6		3.2	3.9	0.5	0.0	3.40		
125	6.91	35.017	6.24	0.81	0.65	17.3	9.6		3.8						
150	7.05	35.118	6.27	0.85	0.72	17.2	10.6		4.5						
200	6.90	35.122	6.21	0.85	0.75	18.8	11.3		4.6	5.1	0.7	0.1	0.57		
240	6.91	35.148	6.14	0.98	0.80	20.9	11.5		5.4						

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Arendal St. 3				Date: 04.07.2000		Time (UTC): 07:00		Position: N: 58° 20'		E: 8° 54'				
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 260			Secchidepth (m): 8			Secchicolour:		
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	14.81	28.287	6.31		0.01		1.0		0.6					1.10
5	14.74	28.492	6.21		0.01		1.2		0.5					1.30
10	14.61	29.540	6.30		0.01		1.5		0.3					1.70
20	11.66	32.952	5.68		0.20		2.4		1.1					0.30
30	9.94	34.306	5.89		0.17		1.4		1.1					0.30
50	9.45	34.754	6.04		0.23		0.7		0.9					0.30
75	8.61	34.903	6.04		0.35		1.6		1.4					
100	7.97	35.004	5.94	0.67	0.62	13.6	3.5		2.4	5.0	0.7	0.0	0.32	
125	7.24	35.040	6.07	0.82	0.67	17.1	7.5		3.8					
150	7.10	35.061	5.87	0.88	0.72	16.4	8.6		4.4					
200	7.03	35.078	5.97	0.90	0.74	17.4	9.3		4.7	8.7	1.3	0.0	0.75	
240	6.98	35.094	5.94	0.95	0.77	19.3	9.5		4.8					

Station: Arendal St. 3				Date: 14.08.2000		Time (UTC): 08:40		Position: N: 58° 20'		E: 8° 54'				
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 260			Secchidepth (m): 8			Secchicolour:		
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	15.66	29.498	6.55		0.10		0.2		0.3					
5	15.81	29.936	6.00		0.04		0.1		0.6					
10	15.50	31.585	6.06		0.04		0.1		0.4					
20	13.49	33.018	5.82		0.09		0.2		1.5					
30	11.47	34.107	5.23		0.17		1.3		4.5					
50	9.70	34.990	5.45		0.22		1.1		2.5					
75	7.61	35.033	5.56		0.57		6.3		3.7					
100	7.33	35.057	5.62	0.83	0.65	16.1	7.6		4.1	5.2	0.6	0.1	0.64	
125	7.22	35.100	5.69	0.99	0.78	21.1	10.8		5.6					
150	7.20	35.103	5.67	1.00	0.80	21.4	11.3		5.8					
200	7.17	35.112	5.68	0.99	0.82	20.2	11.7		6.0	9.8	1.0	0.1	0.69	
240	7.16	35.140	5.81	0.98	0.79	19.7	11.2		5.3					

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: <b>Arendal St. 3</b>				Date: 11.09.2000		Time (UTC): 06:57		Position: N: 58° 20'		E: 8° 54'				
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 260		Secchidepth (m): 10		Secchicolour:				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	14.94	28.315	5.95		0.06		0.3		0.9					2.00
5	15.26	29.272	5.85		0.15		0.1		1.3					2.50
10	15.34	30.088	5.81		0.06		0.1		1.4					2.10
20	15.13	31.387	5.64		0.08		0.1		1.4					0.90
30	14.48	32.547	4.91		0.09		0.6		1.7					0.20
50	11.46	34.190	4.84		0.27		2.8		4.0					0.20
75	9.00	34.943	5.02		0.48		5.3		5.1					
100	7.99	35.041	5.29	0.74	0.61	15.3	7.8		4.9	8.5	1.0	0.1	0.56	
125	7.62	35.086	5.36	0.86	0.67	18.7	8.7		4.9					
150	7.46	35.099	5.36	0.90	0.70	18.3	9.2		4.8					
200	7.46	35.118	5.12	0.88	0.74	16.6	9.9		5.3	5.9	0.7	0.1	1.74	
240	7.38	35.129		0.93	0.75	16.5	10.3		5.4					

StaJan Magnusson/Niva,				Date: 21.10.2000		Time (UTC): 07:25		Position: N: 58° 20'		E: 8° 54'				
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 260		Secchidepth (m): 6		Secchicolour:				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	12.45	23.658	6.51		0.17		1.2		3.2					1.90
5	12.47	23.693	6.52		0.17		1.0		2.9					2.20
10	12.78	24.403	6.42		0.08		1.1		3.0					1.50
20	13.92	32.088	5.61		0.27		1.4		2.1					0.30
30	14.25	33.238	5.57		0.26		1.0		1.8					0.20
50	14.29	33.908	5.49		0.24		1.4		2.6					0.20
75	14.22	34.259	5.51		0.25		1.9		3.7					
100	11.11	34.609	4.74	0.54	0.42	13.3	5.1		5.2	7.9	1.0	0.1	0.22	
125	8.52	34.997	5.00	0.71	0.56	17.4	7.3		5.2					
150	7.60	35.095	5.38	0.85	0.72	18.1	9.9		5.3					
200	7.21	35.160	5.66	0.97	0.84	19.2	10.3		6.2	10.3	1.5	0.1	0.35	
240	7.16	35.173	5.68	0.94	0.86	20.6	10.6		7.0					

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Arendal St. 3				Date: 02.11.2000		Time (UTC): 15:27			Position: N: 58° 20'		E: 8° 54'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 260			Secchidepth (m): 5		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	12.03	29.825												
5	12.56	31.493												
10	13.28	32.744												
20	13.43	33.068												
30	13.45	33.323												
50	12.99	33.837												
75	12.99	34.601												
100	12.35	34.668	5.74	0.54	0.35	10.0	1.8		2.7	7.1	0.8	0.1	1.73	
125	11.88	34.713	5.61	0.57	0.38	16.9	2.8		3.3					
150	11.10	34.770	5.38	0.68	0.49	14.7	4.8		4.4					
200	8.40	35.022	5.07	0.96	0.79	16.5	9.9		6.7	5.8	0.6	0.1	1.44	
240	7.82	35.092	5.16	1.03	0.88	19.3	11.3		7.4					

Station: Arendal St. 3				Date: 04.12.2000		Time (UTC): 08:20			Position: N: 58° 20'		E: 8° 54'			
Ship: G.M.Dannevig				Institute: HFF		Echodepth (m): 260			Secchidepth (m): 6		Secchicolour:			
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	8.89	27.660	6.71		0.39		5.9		7.7					0.74
5	9.03	27.880	6.66		0.49		6.4		7.4					0.56
10	9.45	29.999	6.52		0.51		6.7		7.4					0.37
20	10.28	33.295	6.16		0.51		5.8		4.5					0.28
30	11.26	34.200	6.00		0.52		5.2		4.3					0.24
50	10.87	34.427	6.06		0.49		3.6		3.2					0.24
75	10.62	34.522	6.06		0.47		3.7		2.9					
100	10.35	34.698	5.77	0.74	0.53	12.6	4.8		4.1	8.0	1.2	0.1	1.30	
125	9.64	34.865	5.47	0.76	0.60	14.6	6.9		4.9					
150	8.92	34.949	5.32	0.90	0.71	16.6	8.7		6.0					
200	7.17	35.183	5.69	1.09	0.90	18.5	12.1		6.9	5.7	0.5	0.0	0.58	
240	7.14	35.188	5.67	1.15	0.92	21.8	12.3		7.5					

## 3.4 Lista

Station: Lista				Date: 13.01.2000		Time (UTC): 14:45		Position: N: 58° 1'		E: 6° 32'				
Ship: Brekne				Institute: HFF		Echodepth (m): 310		Secchidepth (m): 10		Secchicolour:				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	7.07	32.675		0.78	0.41	17.3	6.2		4.8	36.3	2.5	0.2		0.20
5	7.22	32.947		0.64	0.46	13.4	5.9		4.8	4.0	0.5	0.1		0.20
10	7.53	33.701		0.65	0.47	12.5	5.6		4.6	4.1	0.6	0.1		0.10
20	7.85	34.189		0.66	0.49	13.3	5.2		3.6	5.2	0.7	0.1		0.10
30	8.42	34.544		0.64	0.50	11.7	5.0		4.1	4.6	0.5	0.1		0.10
50	7.28	34.481		0.65	0.48	11.5	4.6		4.1					0.10
75	7.39	34.570		0.66	0.49	11.0	4.4		4.1					
100	7.76	34.688		0.65	0.50	11.1	4.4		4.1					
150	7.95	34.774		0.67	0.51	11.2	4.6		4.1					
200	7.80	34.767		0.66	0.43	11.5	4.0		4.1	5.5	0.7	0.1		
300	8.18	34.950		0.64	0.50	12.2	6.2		3.7	8.0	0.6			

Station: Lista				Date: 16.02.2000		Time (UTC): 15:47		Position: N: 58° 1'		E: 6° 32'				
Ship: Brekne				Institute: HFF		Echodepth (m): 310		Secchidepth (m): 8		Secchicolour:				
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	5.38	33.461		0.80	0.59	18.7	7.6		5.4	18.9	1.6	0.1		0.50
5	5.38	33.484		0.69	0.57	13.7	7.3		5.5	4.9	0.5	0.1		0.50
10	5.38	33.488		0.68	0.56	14.2	7.3		5.5	3.9	0.4	0.0		0.50
20	5.43	33.537		0.69	0.58	14.0	7.4		5.5	4.8	0.5	0.0		0.50
30	5.54	33.648		0.68	0.57	14.7	7.3		5.4	5.8	0.5	0.0		0.40
50	5.98	34.087		0.66	0.58	14.9	7.3		5.4					0.30
75	6.03	34.180		0.67	0.59	14.2	7.1		5.2					
100	6.05	34.235		0.69	0.61	14.2	7.1		5.2					
150	6.07	34.353		0.67	0.62	14.2	7.1		5.3					
200	6.31	34.487		0.65	0.60	14.0	7.2		4.8	4.7	0.4	0.0		
300	7.34	34.884		0.68	0.64	14.8	8.3		4.7					

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjem. Datarapport 2000. (TA-1878/2002)

Station: Lista		Date: 09.03.2000	Time (UTC): 07:45	Position: N: 58° 1'	E: 6° 32'									
Ship: Brekne		Institute: HFF	Echodepth (m): 310	Secchidepth (m): 8	Secchicolour:									
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	5.80	34.160		0.71	0.61	14.1	7.1		5.3	4.7	0.3	0.1		0.30
5	5.83	34.176		0.65	0.60	13.6	7.1		5.3	3.6	0.3	0.0		0.20
10	5.85	34.184		0.66	0.60	13.2	7.2		5.3	3.0	0.2	0.0		0.20
20	5.99	34.399		0.66	0.60	12.7	7.0		5.3	3.1	0.3	0.0		0.20
30	6.25	34.574		0.66	0.63	13.5	6.9		5.3	3.1	0.2	0.0		0.20
50	6.16	34.614		0.68	0.63	13.4	6.8		5.2					0.10
75	6.20	34.637		0.68	0.64	13.3	6.9		5.0					
100	6.43	34.734		0.65	0.62	13.3	6.9		4.8					
150	6.92	34.938		0.68	0.67	13.4	8.2		4.6					
200	7.05	35.024		0.70	0.67	14.8	8.6		4.7	4.9	0.1	0.0		
300	7.15	35.093		0.74	0.70	14.6	9.4		5.0	2.3	0.1			

Station: Lista		Date: 07.04.2000	Time (UTC): 17:00	Position: N: 58° 1'	E: 6° 32'									
Ship: Brekne		Institute: HFF	Echodepth (m): 310	Secchidepth (m): 10	Secchicolour:									
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	4.87	32.132		0.45	0.05	14.7	2.7		2.5	18.8	3.0	0.2		5.60
5	4.72	32.237		0.46	0.08	14.7	2.5		2.5	16.1	2.6	0.2		6.00
10	4.68	32.277		0.43	0.12	14.5	2.5		2.6	14.5	2.5	0.3		5.90
20	4.64	32.384		0.41	0.20	16.0	3.7		2.9	8.4	1.3	0.2		3.20
30	4.67	32.488		0.52	0.33	15.8	5.0		3.2	4.6	0.6	0.1		1.50
50	5.88	34.567		0.71	0.62	16.2	8.1		4.5					0.50
75	6.63	34.906		0.72	0.64	16.1	8.6		4.4					
100	6.86	35.066		0.77	0.68	16.7	9.1		4.5					
150	6.82	35.112		0.71	0.69	16.7	9.3		4.7					
200	6.84	35.124		0.75	0.68	17.5	9.3		4.8	5.2	0.3	0.1		
300	6.88	35.140		0.73	0.70	17.6	9.6		5.1	3.0	0.2			

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Lista		Date: 08.05.2000	Time (UTC): 17:00	Position: N: 58° 1'	E: 6° 32'									
Ship: Brekne		Institute: HFF	Echodepth (m): 310	Secchidepth (m): 11	Secchicolour:									
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	13.53	21.087		0.35	0.01	18.3	0.5		3.7	21.9	2.1	0.2		1.50
5	10.40	21.745		0.29	0.01	15.3	0.3		3.1	10.6	1.4	0.1		1.20
10	8.61	23.966		0.33	0.01	15.3	0.3		3.0	12.0	1.8	0.1		1.50
20	6.25	31.021		0.31	0.13	15.0	3.3		2.7	7.0	0.8	0.1		1.00
30	4.99	32.785		0.46	0.31	15.2	4.8		2.9	4.8	0.6	0.0		0.40
50	6.21	34.449		0.69	0.59	16.1	7.9		3.9					0.10
75	7.04	34.923		0.77	0.67	16.7	8.6		4.2					
100	6.87	34.978		0.76	0.68	16.9	8.7		4.5					
150	6.80	35.044		0.79	0.73	16.3	9.4		4.9					
200	6.80	35.070		0.80	0.73	18.0	9.5		4.9	1.8	0.2	0.0		
300	6.80	35.110		0.79	0.72	16.7	9.7		5.0	2.6	0.3			

Station: Lista		Date: 06.06.2000	Time (UTC): 17:50	Position: N: 58° 1'	E: 6° 32'									
Ship: Brekne		Institute: HFF	Echodepth (m): 310	Secchidepth (m): 6	Secchicolour:									
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	12.52	25.719		0.41	0.11	18.9	0.2		0.9	29.5	3.2	0.3		3.80
5	12.38	26.149		0.35	0.13	14.6	0.2		0.9	21.7	2.6	0.2		3.50
10	12.16	26.835		0.35	0.12	15.0	0.7		1.1	20.8	2.8	0.3		3.00
20	11.15	29.121		0.32	0.12	14.8	1.8		1.3	13.3	1.6	0.2		2.00
30	10.45	30.386		0.34	0.13	14.8	2.4		2.0	10.9	1.5	0.2		1.40
50	9.02	33.442		0.33	0.16	14.4	2.5		1.6					1.10
75	7.36	34.368		0.43	0.29	14.2	3.8		2.2					
100	6.81	34.589		0.55	0.32	14.5	5.3		3.0					
150	6.65	34.880		0.58	0.36	15.6	5.7		3.0					
200	6.81	35.031		0.78	0.68	16.6	9.4		4.7	1.8	0.2	0.0		
300	6.87	35.161		0.84	0.75	17.7	10.1		5.8	3.4	0.3			



Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Lista		Date: 06.07.2000	Time (UTC): 08:15	Position: N: 58° 1'	E: 6° 32'										
Ship: Brekne		Institute: HFF	Echodepth (m): 310	Secchidepth (m): 7	Secchicolour:										
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	
0	14.67	29.494		0.34	0.07	16.1	1.1		0.5	19.8	2.2	0.2		0.40	
5	14.37	30.272		0.32	0.06	15.5	1.0		0.4	16.4	2.0	0.2		1.30	
10	11.29	32.464		0.35	0.10	17.6	4.4		0.2	13.4	1.6	0.1		1.00	
20	9.88	33.424		0.37	0.25	16.0	6.7		3.4	7.6	0.8	0.1		0.10	
30	9.08	34.167		0.46	0.33	17.7	5.1		3.0	5.1	0.5	0.1		0.10	
50	8.64	34.688		0.45	0.32	16.9	3.2		2.1					0.20	
75	7.91	34.886		0.55	0.27	17.7	3.8		2.2						
100	7.22	34.946		0.77	0.55	14.9	8.0		3.1						
150	7.09	35.049		0.74	0.60	20.4	9.0		3.6						
200	6.99	35.099		0.76	0.71	15.9	10.0		4.3	7.1	1.1	0.0			
300	6.87	35.166		0.85	0.74	16.9	10.6		5.8	3.7	0.3				

Station: Lista		Date: 06.08.2000	Time (UTC): 08:00	Position: N: 58° 1'	E: 6° 32'										
Ship: Brekne		Institute: HFF	Echodepth (m): 310	Secchidepth (m): 8	Secchicolour:										
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)	
0	16.02	30.392		0.36	0.05	13.3	0.3		0.5	28.2	2.3	0.2		2.20	
5	15.95	30.541		0.35	0.05	12.9	0.2		0.3	22.2	2.0	0.2		2.30	
10	15.01	31.711		0.30	0.05	10.8	0.2		0.9	13.5	1.2	0.1		1.20	
20	12.82	32.948		0.28	0.06	9.8	0.5		1.7	14.2	1.1	0.1		1.60	
30	11.86	33.667		0.33	0.14	10.3	2.1		2.2	5.9	0.6	0.1		0.60	
50	10.73	34.352		0.36	0.14	10.6	2.0		2.7					0.60	
75	9.63	34.726		0.45	0.32	11.1	4.7		2.8						
100	8.95	34.935		0.53	0.39	11.1	5.2		3.0						
150	7.22	35.074		0.80	0.39	16.2	5.1		3.0						
200	6.97	35.135		0.81	0.73	16.2	10.5		5.1	2.9	0.3	0.0			
300	6.89	35.178		0.89	0.78	20.4	11.1		6.4	4.4	0.4				

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemii. Datarapport 2000. (TA-1878/2002)

Station: Lista		Date: 05.09.2000		Time (UTC): 17:30		Position: N: 58° 1'		E: 6° 32'						
Ship: Brekne		Institute: HFF		Echodepth (m): 310		Secchidepth (m): 7		Secchicolour:						
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	15.69	30.259		0.65	0.13	14.2	0.1		0.5	23.4	3.6	0.5		1.10
5	15.55	30.464		0.49	0.13	13.9	0.1		0.6	19.1	2.8	0.2		0.70
10	15.51	30.515		0.30	0.07	11.5	0.1		0.6	15.8	2.2	0.1		1.00
20	15.54	30.930		0.32	0.12	11.5	0.1		0.9	14.8	1.7	0.1		1.00
30	15.34	31.567		0.25	0.10	10.9	0.2		1.2	10.4	1.1	0.1		0.70
50	9.97	34.799		0.32	0.23	9.8	2.5		2.8					0.20
75	8.10	35.017		0.55	0.51	12.3	6.7		3.8					
100	7.54	35.089		0.72	0.65	12.4	9.4		4.4					
150	7.11	35.150		0.81	0.77	13.3	10.9		5.0					
200	7.04	35.169		0.82	0.77	16.5	11.0		5.1	2.9	0.2	0.0		
300	6.95	35.191		0.83	0.82	16.9	11.2		6.1	2.5	0.1			

Station: Lista		Date: 03.10.2000		Time (UTC): 17:10		Position: N: 58° 1'		E: 6° 32'						
Ship: Brekne		Institute: HFF		Echodepth (m): 310		Secchidepth (m): 8		Secchicolour:						
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	13.74	25.693		0.48	0.11	20.2	0.3		0.9	31.9	2.6	0.3		2.90
5	13.75	25.698		0.40	0.12	14.2	0.2		0.9	16.5	1.7	0.2		1.90
10	13.73	25.881		0.46	0.13	14.7	0.2		0.9	14.8	1.5	0.1		1.80
20	13.77	28.066		0.34	0.14	13.2	0.2		0.8	11.8	1.5	0.1		1.40
30	13.92	31.847		0.33	0.11	10.7	0.3		1.3	6.8	0.9	0.1		0.80
50	13.82	33.626		0.33	0.12	11.9	0.4		1.8					0.70
75	13.05	34.342		0.31	0.18	9.0	1.6		2.5					
100	7.67	35.087		0.68	0.59	13.6	7.9		4.3					
150	7.22	35.156		0.87	0.76	16.3	10.8		4.9					
200	7.02	35.187		0.88	0.80	18.5	11.3		5.3	3.7	0.5	0.2		
300	7.00	35.221		0.90	0.85	18.3	11.9		7.7	4.3	0.5			

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Lista		Date: 10.11.2000	Time (UTC): 12:00	Position: N: 58° 1'	E: 6° 32'									
Ship: Brekne		Institute: HFF	Echodepth (m): 310	Secchidepth (m): 8	Secchicolour:									
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	11.64	30.885		0.71	0.43	16.0	4.0		4.6	10.7	1.6	0.2		1.10
5	11.74	31.272		0.86	0.47	14.2	3.9		4.3	6.5	0.8	0.1		0.50
10	11.94	31.695		0.60	0.47	13.7	3.8		4.0	6.6	0.8	0.1		0.20
20	12.67	32.739		0.54	0.45	12.8	3.6		3.4	8.0	0.7	0.1		0.20
30	13.00	33.386		0.56	0.44	11.9	3.4		3.2	3.8	0.5	0.1		0.20
50	12.87	34.027		0.56	0.45	11.4	3.2		3.2					0.20
75	12.98	34.294		0.56	0.46	10.1	3.0		3.0					
100	12.70	34.584		0.52	0.44	10.8	3.0		3.0					
150	7.38	35.135		0.88	0.80	16.0	9.9		5.2					
200	7.07	35.184		0.96	0.88	17.4	11.7		6.4	3.2	0.3	0.0		
300	7.05	35.183		0.98	0.92	17.2	12.1		6.7	3.4	0.3			

Station: Lista		Date: 11.12.2000	Time (UTC): 14:15	Position: N: 58° 1'	E: 6° 32'									
Ship: Brekne		Institute: HFF	Echodepth (m): 310	Secchidepth (m): 7	Secchicolour:									
Depth	Temp (°C)	Salinity	Oxygen (ml/l)	TotP (µM)	Po4-P (µM)	Tot-N (µM)	NO3+NO2-N (µM)	NH4-N (µM)	SiO3 (µM)	POC (µM)	PON (µM)	POP (µM)	TSM (mg/l)	Chla (µg/l)
0	9.44	30.267		0.76	0.52	16.9	6.6		6.2	6.2	0.7	0.1		0.40
5	9.45	30.287		0.73	0.53	17.2	7.2		6.2	5.8	0.6	0.0		0.30
10	9.46	30.313		0.73	0.53	16.8	7.3		6.1	4.5	0.5	0.0		0.30
20	9.55	31.247		0.75	0.54	17.5	7.5		5.9	5.8	0.5	0.0		0.30
30	11.24	33.070		0.73	0.53	14.7	5.7		4.6	3.0	0.3	0.0		0.10
50	11.79	34.238		0.62	0.50	11.6	4.6		3.9					0.10
75	11.58	34.438		0.62	0.49	14.0	4.5		3.7					
100	10.79	34.613		0.62	0.57	11.2	4.4		4.0					
150	8.94	34.922		0.68	0.64	15.2	7.7		5.3					
200	7.52	35.084		0.88	0.76	18.6	10.0		5.9	2.9	0.2	0.0		
300	7.11	35.122		0.95	0.83	15.2	11.5		6.7	2.7	0.2			

### 3.5 Jomfrulandsrennen

Station: Jomfrulandsrennen			Date: 25.01.2000	Time (UTC): 09:10	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24	Secchidepth (m): 8.5	Secchicolour: Yellow/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	1.55	21.289	0.52	31.1		
Station: Jomfrulandsrennen			Date: 09.02.2000	Time (UTC): 08:43	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24.5	Secchidepth (m): 9	Secchicolour: Green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	4.31	27.824	0.55	27.8		
Station: Jomfrulandsrennen			Date: 22.02.2000	Time (UTC): 12:10	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24	Secchidepth (m): 9	Secchicolour: Grey/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	1.52	22.831	0.52	25.7		
Station: Jomfrulandsrennen			Date: 16.03.2000	Time (UTC): 13:15	Position: N: 58° 53.5'	E: 9° 37'
Ship: Hugin			Institute: NIVA	Echodepth (m): 22	Secchidepth (m): 8.5	Secchicolour: Grey/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	3.97	29.694	0.55	20.0		
Station: Jomfrulandsrennen			Date: 29.03.2000	Time (UTC): 10:20	Position: N: 58° 53.5'	E: 9° 37'
Ship: Hugin			Institute: NIVA	Echodepth (m): 23	Secchidepth (m): 11	Secchicolour: Green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	3.32	22.221	0.36	26.8		

Station: Jomfrulandsrennen			Date: 25.01.2000	Time (UTC): 09:10	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24	Secchidepth (m): 8.5	Secchicolour: Yellow/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	1.55	21.289	0.52	31.1		
Station: Jomfrulandsrennen			Date: 09.02.2000	Time (UTC): 08:43	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24.5	Secchidepth (m): 9	Secchicolour: Green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	4.31	27.824	0.55	27.8		
Station: Jomfrulandsrennen			Date: 22.02.2000	Time (UTC): 12:10	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24	Secchidepth (m): 9	Secchicolour: Grey/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	1.52	22.831	0.52	25.7		
Station: Jomfrulandsrennen			Date: 16.03.2000	Time (UTC): 13:15	Position: N: 58° 53.5'	E: 9° 37'
Ship: Hugin			Institute: NIVA	Echodepth (m): 22	Secchidepth (m): 8.5	Secchicolour: Grey/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	3.97	29.694	0.55	20.0		
Station: Jomfrulandsrennen			Date: 29.03.2000	Time (UTC): 10:20	Position: N: 58° 53.5'	E: 9° 37'
Ship: Hugin			Institute: NIVA	Echodepth (m): 23	Secchidepth (m): 11	Secchicolour: Green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	3.32	22.221	0.36	26.8		

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Jomfrulandsrennen	Date: 11.04.2000	Time (UTC): 11:24	Position: N: 58° 53.5'	E: 9° 37'
Ship: Hugin	Institute: NIVA	Echodepth (m): 22	Secchidepth (m): 13.5	Secchicolour: Light green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)
0	5.29	21.648	0.19	19.3
Station: Jomfrulandsrennen	Date: 26.04.2000	Time (UTC): 09:40	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin	Institute: NIVA	Echodepth (m): 25	Secchidepth (m): 8.5	Secchicolour: Grey/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)
0	7.91	16.258	0.19	20.7
Station: Jomfrulandsrennen	Date: 08.05.2000	Time (UTC): 12:35	Position: N: 58° 53.5'	E: 9° 37'
Ship: Hugin	Institute: NIVA	Echodepth (m): 22	Secchidepth (m): 8.5	Secchicolour: Grey/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)
0	13.96	15.049	0.29	27.8
Station: Jomfrulandsrennen	Date: 01.06.2000	Time (UTC): 16:36	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin	Institute: NIVA	Echodepth (m): 25	Secchidepth (m): 4.5	Secchicolour: Green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)
0	12.22	23.378	0.39	23.9
Station: Jomfrulandsrennen	Date: 20.06.2000	Time (UTC): 08:00	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin	Institute: NIVA	Echodepth (m): 25	Secchidepth (m): 9	Secchicolour: Green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)
0	14.01	26.908	0.16	16.1

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Jomfrulandsrennen	Date: 10.07.2000	Time (UTC): 00:38	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin	Institute: NIVA	Echodepth (m): 24	Secchidepth (m):	Secchicolour:
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)
0	16.39	24.662	0.19	13.6
Station: Jomfrulandsrennen	Date: 26.07.2000	Time (UTC): 08:00	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin	Institute: NIVA	Echodepth (m): 25	Secchidepth (m): 6	Secchicolour: Green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)
0	17.61	23.154	0.32	25.7
Station: Jomfrulandsrennen	Date: 09.08.2000	Time (UTC): 09:45	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin	Institute: NIVA	Echodepth (m): 23	Secchidepth (m): 8	Secchicolour: Yellow/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)
0	16.70	23.446	0.39	18.6
Station: Jomfrulandsrennen	Date: 22.08.2000	Time (UTC): 06:55	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin	Institute: NIVA	Echodepth (m): 24	Secchidepth (m): 6.5	Secchicolour: Yellow/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)
0	16.66	21.436	0.55	20.6
Station: Jomfrulandsrennen	Date: 06.09.2000	Time (UTC):	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin	Institute: NIVA	Echodepth (m): 24	Secchidepth (m): 6	Secchicolour: Green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)
0			0.29	17.5

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Jomfrulandsrennen			Date: 27.09.2000	Time (UTC):	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24	Secchidepth (m): 7.5	Secchicolour: Brown/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0			0.39	19.3		
Station: Jomfrulandsrennen			Date: 13.11.2000	Time (UTC): 13:15	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 23	Secchidepth (m): 3.5	Secchicolour: Yellow
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0			0.52	26.1		
Station: Jomfrulandsrennen			Date: 29.11.2000	Time (UTC): 10:54	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24.5	Secchidepth (m): 2.5	Secchicolour: Brown/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	7.59	15.784	0.52	26.8		
Station: Jomfrulandsrennen			Date: 19.12.2000	Time (UTC): 10:20	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 25	Secchidepth (m): 3.5	Secchicolour: Brown
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	5.71	19.445	0.58	24.3		
Station: Jomfrulandsrennen			Date: 11.04.2000	Time (UTC): 11:24	Position: N: 58° 53.5'	E: 9° 37'
Ship: Hugin			Institute: NIVA	Echodepth (m): 22	Secchidepth (m): 13.5	Secchicolour: Light green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	5.29	21.648	0.19	19.3		



Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Jomfrulandsrennen			Date: 26.04.2000	Time (UTC): 09:40	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 25	Secchidepth (m): 8.5	Secchicolour: Grey/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	7.91	16.258	0.19	20.7		
Station: Jomfrulandsrennen			Date: 08.05.2000	Time (UTC): 12:35	Position: N: 58° 53.5'	E: 9° 37'
Ship: Hugin			Institute: NIVA	Echodepth (m): 22	Secchidepth (m): 8.5	Secchicolour: Grey/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	13.96	15.049	0.29	27.8		
Station: Jomfrulandsrennen			Date: 01.06.2000	Time (UTC): 16:36	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 25	Secchidepth (m): 4.5	Secchicolour: Green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	12.22	23.378	0.39	23.9		
Station: Jomfrulandsrennen			Date: 20.06.2000	Time (UTC): 08:00	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 25	Secchidepth (m): 9	Secchicolour: Green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	14.01	26.908	0.16	16.1		
Station: Jomfrulandsrennen			Date: 10.07.2000	Time (UTC): 00:38	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24	Secchidepth (m):	Secchicolour:
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	16.39	24.662	0.19	13.6		

Station: Jomfrulandsrennen			Date: 26.07.2000	Time (UTC): 08:00	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 25	Secchidepth (m): 6	Secchicolour: Green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	17.61	23.154	0.32	25.7		
Station: Jomfrulandsrennen			Date: 09.08.2000	Time (UTC): 09:45	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 23	Secchidepth (m): 8	Secchicolour: Yellow/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	16.70	23.446	0.39	18.6		
Station: Jomfrulandsrennen			Date: 22.08.2000	Time (UTC): 06:55	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24	Secchidepth (m): 6.5	Secchicolour: Yellow/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	16.66	21.436	0.55	20.6		
Station: Jomfrulandsrennen			Date: 06.09.2000	Time (UTC):	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24	Secchidepth (m): 6	Secchicolour: Green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0			0.29	17.5		
Station: Jomfrulandsrennen			Date: 27.09.2000	Time (UTC):	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24	Secchidepth (m): 7.5	Secchicolour: Brown/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0			0.39	19.3		

Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemi. Datarapport 2000. (TA-1878/2002)

Station: Jomfrulandsrennen			Date: 13.11.2000	Time (UTC): 13:15	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 23	Secchidepth (m): 3.5	Secchicolour: Yellow
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0			0.52	26.1		
Station: Jomfrulandsrennen			Date: 29.11.2000	Time (UTC): 10:54	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 24.5	Secchidepth (m): 2.5	Secchicolour: Brown/green
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	7.59	15.784	0.52	26.8		
Station: Jomfrulandsrennen			Date: 19.12.2000	Time (UTC): 10:20	Position: N: 58° 53.5'	E: 9° 37'
Ship: Munin			Institute: NIVA	Echodepth (m): 25	Secchidepth (m): 3.5	Secchicolour: Brown
Depth	Temp (°C)	Salinity	TotP (µM)	Tot-N (µM)		
0	5.71	19.445	0.58	24.3		



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Tittel  Langtidsovervåking av miljøkvaliteten i kystområdene av Norge. Hydrografi/hydrokjemii. Datarapport 2000.
Sammendrag  Rapporten gjengir hydrografiske/hydrokjemiske observasjoner fra 4 stasjoner i kystvannet mellom svenskegrensen og Lista i 2000.  Det er gjennomført 18 tokt til Jomfruland, 21 tokt til Arendal St. 2 og 12 tokt til Arendal St. 3 og Lista, jevnt fordelt over året.

4 emneord Langtidsovervåking Trofiutvikling Norskekysten Hydrografi/hydrokjemii	4 subject words Long-term monitoring Eutrophication Norwegian Coast Hydrography/hydrochemistry
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