



Det här verket har digitaliserats vid Göteborgs universitetsbibliotek och är fritt att använda. Alla tryckta texter är OCR-tolkade till maskinläsbar text. Det betyder att du kan söka och kopiera texten från dokumentet. Vissa äldre dokument med dåligt tryck kan vara svåra att OCR-tolka korrekt vilket medför att den OCR-tolkade texten kan innehålla fel och därför bör man visuellt jämföra med verkets bilder för att avgöra vad som är riktigt.

This work has been digitized at Gothenburg University Library and is free to use. All printed texts have been OCR-processed and converted to machine readable text. This means that you can search and copy text from the document. Some early printed books are hard to OCR-process correctly and the text may contain errors, so one should always visually compare it with the images to determine what is correct.



Ödsmål, Kville sn, Bohuslän

Hällristning  
Fiskare från  
bronsåldern

Rock carving  
Bronze age  
fishermen



MEDDELANDE från  
HAVSFISKELABORATORIET · LYSEKIL

nr  
165

BROFJORDEN VI

OCEANOGRAPHICAL DATA

July - Dec. 1973

edited by

Bertil Öström

April 1974





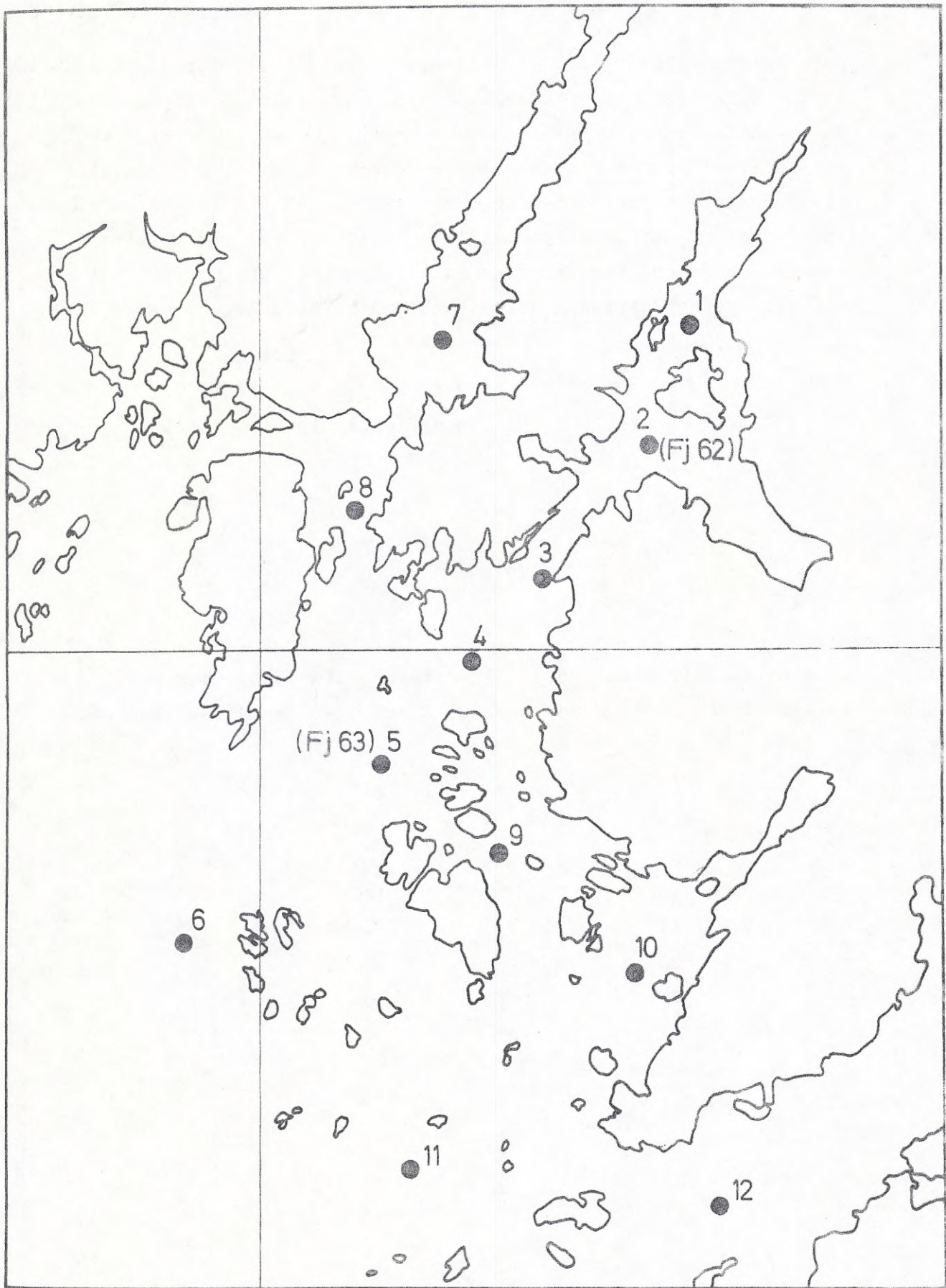
Data from the later half of 1973 are now prepared. For explanations to the data tables see Meddelande från Havsfiskelaboratoriet No 156. The method for determining total nitrogen content is fairly rough and intercalibrations often give differing results. Tot.-N values are therefore to be used with the knowledge of the roughness of the method of determination. All methods used for the chemical analyses are described in "New Baltic Manual, ICES Cooperative Research Report Series A No. 29" edited by Stig R. Carlberg.

Bertil Öström  
Fishery Board of Sweden  
Hydrographic Department

At station 2 (Fj 62) Brofjorden October 3:rd 1973, Data page 50 values of phosphatephosphorus  $PO_4-P$  are missing. These should be

Depth (m)	$PO_4-P$ ( $\mu gAt/l$ )
0	0.05
5	0.19
10	0.39
15	0.39
20	0.45
25	0.46





58° 25'

58° 20'

58° 15'

11° 20'

11° 30'



STATION 1 INRE BROFJORDEN LAT: N 56 22.50 LONG: E 11 26.30 BOTTOM DEPTH: 18 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD WAVE AIR SECOHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMPE DEPTH HR MT HR MT

73 07 11 13 00 73 07 11 12 00 NSW 8 M/S 4 /6 0.1 M 19.0 C  
 DEPTH TEMP. OXYG % SAT A.O.U. SALT PO4P TOTP ORGP NO3N NO2N BOTH NH4N SUMN TOTN ORGN SIGMA SOUNDV STABIL.  
 M CELS. ML/L MA/L O/00 MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L M/S

0	20.8	6.32	114.3		21.015	.04	.57	.53	.22	.04	.17	.4	11.6	11.2	13.99	1508.4
2.5	20.9	6.27	113.6		20.970	.00	.62	.62	.11	.04	.36	.5			13.93	1508.7
5	20.6	6.25	112.6		20.990	.10	.54	.44	.46	.03	.34	.8	17.6	16.8	14.02	1507.9
10	16.1	4.46	76.6	21.5	27.528	.27	1.21	.94	.29	.10	2.93	3.3			20.02	1502.1
15	12.4	4.42	71.5	157.0	30.493	.36	1.03	.65	.84	.17	2.27	3.3	18.9	15.6	23.05	1493.3

DEPTH OIL FEN ORGC VEL. PH CPROD NETPR CORPR NETCO CARB SUMN ORGN TOTN CARB / ORGC / TOTC / MEAN MEAN  
 M MG/L MIG MG/L MGC/QMK MGC/L /PO4 /OP /TP PO4P ORGP TOTP TOTP N/P C/P

0																
2.5																
5																
10																
15																

\* = UNSTABLE DENSITY STRATIFICATION WATER SAMPLER THERMOMETER NO. 42

23.8







STATION 4 YTTRE BROBJORDEN LAT: N 58 19.90 LONG: E 11 23.10 BOTTOM DEPTH 34 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOUR MIN D/R. VELL. COVER HEIGHT TEMP. DEPTH HR MT HR MT

DEPTH TEMP. OXYG % SAT A.O.U. SALT P04P T0TP ORGP NO3N NO2N BOTH NH4N SUMN TOTN ORGN SIGMA SOUNDV STABIL.  
 M CELS. ML/L MA/L O/00 MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L M/S

DEPTH OIL FBN ORGC VEL. PH CPROD NETPR CORR INETCO CARB SUMN ORGN TOTN CARB/ ORGC/ TOTCP/ MEAN MEAN  
 M MG/L L/MG MG/L MG/GMH MG/L /P04 /OP /TP P04P ORGP TOTP N/P C/P

UNSTABLE DENSITY STRATIFICATION WATER SAMPLER THERMOMETER NO 43







STATION 1 INRE BROFJORDEN LAT N 56 22.50 LONG E 11 26.30 BOTTOM DEPTH: 18 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND DIR. WAVE HEIGHT AIR TEMP SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN 73 07 24 12 30 73 07 24 11 30 E 3 M/S 7 /8 0 M HR MT HR MT

DEPTH M	TEMP CELS	OXYG % SAT	A.O.U	SALT MA/L	PO4P MA/L	TOTP MA/L	ORGP MA/L	NO3N MA/L	NO2N MA/L	BOTH MA/L	NH4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/S	SOUNDV STABIL.
0	19.3	6.30	113.4	24.914	.32	.73	.41	.13	.04	1.29	1.5	21.0	19.5	17.31	1508.5	
2.5	18.3	6.10	108.9	26.790	.05	.52	.47	.12	.01	1.13	1.3			18.97	1507.8	663.6
5	16.6	6.10	106.7	29.025	.24	.48	.24	.08	.02	1.30	1.4			21.06	1505.3	634.6
10	15.1	5.80	99.2	4.3	30.208	.22	.22	.09	.04	1.11	1.2			22.29	1502.1	245.5
15	13.3	4.04	66.8	179.2	30.743	.43	1.31	.51	.14	2.15	2.8			23.06	1496.9	155.4
18	13.3	4.33	71.7	152.7	30.840	.68	.99	.52	.14	2.47	3.1	18.0	14.8	23.14	1497.1	25.0

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	VEL. PH	CPROD MGC/GMH	NETPR	CORPR	NETCO	CARB MG/L	SUMN /PO4	ORGN /TP	TOTN CARB/PO4P	ORGC/ ORGF	TOTC/ TOTP	MEAN N/P	MEAN C/P
0										4.5	48.0	20.6				
2.5										23.3						
5										5.9						
10										5.8						
15										6.5						
18										4.6	47.5	10.2				23.5

WATER SAMPLER THERMOMETER NO 44







STATION 3 STRETUDDEN      LAT: N 58 20.55      LONG: E 11 24.15      BOTTOM DEPTH 48 M

LOCAL DATE AND TIME: 73 07 24 15 30      GREENWICH MEAN TIME: 73 07 24 14 30      WIND WIND DIR: ENE      WIND VEL: 2 M/S      WAVE HEIGHT: 0.1 M      AIR TEMP: 1.0

DEPTH M	TEMP CELS	OXYG % SAT	A.O.U. SALT	PO4P	TOTP	ORGP	NO3N	NO2N	CARB	CORPR	NETFR	CFROD	PH	FEN	ORGC	VEL	MG/L	SUMN	ORGN	TOTN	CARB	PO4P	ORGP	TOTC	MEAN
		ML/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MG/L	MG/GMH		MG/L	MG/L	MG/L	MG/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L
0	19.5	6.26	113.0	24.968	.10	.52	.42	.14	.04	.94	1.1	22.8	21.7	17.30	1509	1	658.9								
5	17.4	6.16	109.2	28.658	.04	.46	.42	.05	.03	1.17	1.3	14.9	13.6	20.60	1507.3	3	261.1								
10	16.6	6.15	108.3	30.133	.16	.43	.27	.04	.02	.96	1.0	15.5	13.9	23.71	1506.7	4	264.3								
15	14.5	5.87	99.8	31.256	.27	.58	.31	.09	.03	1.66	1.8	15.5	13.9	23.71	1498.8	8	107.6								
20	13.5	5.62	93.9	32.4	.19	.49	.30	.19	.12	1.29	1.6	15.5	13.9	23.71	1494.9	9	103.8								
30	12.0	5.10	83.0	32.640	.47	.87	.40	1.7	.36	1.35	3.4	15.5	10.5	25.82	1491.0	0	5.7								
40	10.4	5.08	80.5	33.619	.66	1.19	.53	1.8	.36	2.15	4.3	15.5	10.5	25.82	1491.0	0	5.7								
49	10.4	4.95	78.4	33.678	.67	1.08	.41	2.1	.37	2.54	5.0	15.5	10.5	25.82	1491.0	0	5.7								

DEPTH M	OIL	FEN	ORGC	VEL	PH	CFROD	NETFR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	PO4P	ORGP	TOTC	MEAN
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L
0											11.6	51.3	43.9					
5											29.2	32.7	32.3					
10											6.4							
15											6.6							
20											8.3	46.9	31.7					
30											7.2							
40											6.5							
48											7.4	23.5	14.4					

WATER SAMPLER THERMOMETER NO 44







STATION 5 (FU 63) MALMØDRAG LAT: N 58 19.10 LONG: E 11 21.70 BOTTOM DEPTH 36 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMP DEPTH HR MT HR MT  
 73 07 24 09 30 73 07 24 08 30 E 1 M/S: 7 / 8 0 M 14.0 M 10 15 4 0

DEPTH TEMP OXYG % SAT A.O.U. SALT PO4P TOTP ORGP NO3N INO2N BOTH NH4N SUMN TOTN ORGN SIGMA SOUNDV STABIL.  
 M CELS. ML/L MA/L O/00 MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L M/S  
 0 18.7 6.22 111.0 25.182 .49 .13 .06 .65 .8 24.8 24.0 17.65 1507.2  
 2.5 18.6 6.20 110.6 25.751 .14 .39 .25 .09 .04 .55 .7 18.10 1507.6 182.1  
 5 17.3 6.25 110.8 28.833 .05 .52 .47 .03 .05 1.87 1.9 13.9 12.0 20.76 1507.2 1061.7  
 10 16.4 6.19 109.1 30.588 .01 .38 .37 .04 .05 1.52 1.6 22.29 1506.8 306.5  
 15 14.7 6.08 103.7 31.312 .16 .55 .39 .08 .03 1.30 1.4 23.23 1502.1 188.0  
 20 14.5 5.99 102.4 31.974 .29 .38 .09 .25 .06 .94 1.3 15.8 14.5 23.77 1502.5 108.0  
 30 12.3 5.47 89.6 56.6 32.511 .42 .63 .21 1.5 .27 1.01 2.8 24.62 1496.0 85.2  
 34 12.3 5.50 90.1 53.9 32.601 .37 .62 .25 1.6 .26 1.23 3.1 20.0 16.9 24.69 1496.1 17.4

DEPTH OIL FEN ORGC YEL. RH CPROD NETRR CORPR NETCO CARB SUMN ORGN TOTN CARB/ ORGC/ TOTC/ MEAN MEAN  
 M MG/L MIG MG/L MGC/GMH MG/L /P04 /OP /TP P04P ORGP TOTP N/P C/P  
 0 8.2 4.01 3.84 4.41 4.22 22.4 50.7  
 2.5 8.2 5.30 5.83 22.6 4.9  
 5 8.2 3.24 3.11 3.56 3.42 23.5 36.2 25.7 26.8  
 10 8.1 3.24 3.56 24.5  
 15 8.1 2.15 1.98 2.36 2.17 24.8 8.7  
 20 4.3 41.5  
 30 6.7 32.3  
 34 8.5 66.4 32.3

AVERAGE VALUES FOR THE WATER COLUMN 0-30 M AVERAGE VALUES FOR THE WATER COLUMN BELOW 30 M  
 PO4P TOTP SUMN TOTN CARB TOTC PO4P TOTP SUMN TOTN CARB TOTC  
 TONS TONS TONS TONS TONS TONS TONS TONS TONS TONS  
 1.8 4.1 5.5 52.5 5446 .2 .3 .6 2.4  
 WATER SAMPLER THERMOMETER NO 44  
 PRIMARY PRODUCTION VALUES INTEGRATED FROM CPROD AND CORPR VALUES ARE RESP: 57 AND 63 MGC/SQRMH







STATION 7      LAT: 56 22.40      LONG: 11 22.65      BOTTOM DEPTH 27 M

LOCAL DATE AND TIME      GREENWICH MEAN TIME      WIND WIND      CLOUD WAVE      AIR      SECCHI PROD      START DURAT  
 YEA MON DAY HOU MIN      73 07 24 11 05      DIR. VEL.      COVER HEIGHT      TEMP      DEPTH      HR MT HR MT  
 73 07 24 12 05      73 07 24 11 05      N 2 M/S NO OBS      NO OBS

DEPTH (M)	TEMP. CELS.	OXYG % SAT	A.O.U. SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.
		ML/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S		
0	19.3	6.18	111.0	24.634	.05	.56	.10	.03				17.6	17.10	1508.1		
2.5	19.2	6.13	109.9	24.637		.49							17.12	1508.0		5.7
5	18.6	6.06	107.9	25.234	.04	.48	.07	.02				16.2	17.71	1507.0		238.3
10	14.9	5.45	92.9	37.330	.05	.59	.05	.02					22.37	1501.3		932.1
15	14.1	5.48	92.4	40.331	.20	.62	.06	.02					23.20	1500.0		164.6
20	13.7	5.52	92.5	39.831	.22	.60	.09	.04				13.6	23.51	1499.1		62.3
25	13.0	4.82	79.6	409.931	.647	.83							23.82	1497.1		62.9

DEPTH (M)	OIL	FEN	ORGC	VEL.	PH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
	MG/L	MG/L	MG/L			MG/GMH				MG/L	/PO4	/OP	/TP	PO4P	ORGP	TOTP	N/P
0											31.4						
2.5											33.7						
5											22.6						
10																	
15																	
20																	
25																	

29.2



STATION 8      LAT: 58 21.10      LONG: 11 21.35      BOTTOM DEPTH 36 M

LOCAL DATE AND TIME      GREENWICH MEAN TIME      WIND WIND      CLOUD      WAVE      AIR      SECCHI      PRD      START      DURAT  
 YEA MON DAY HOU MIN      /73 07 24 11 55      DIR. VEL.      COVER      HEIGHT      TEMP      DEPTH      HR MT      HR MT

DEPTH	TEMP.	OXYG	% SAT	A.O.U.	SALT	PC4P	TOTP	ORGF	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.
M	CELS.	ML/L	ML/L	ML/L	ML/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/L	M/S	
0	19.2	6.09	109.3		24.772	.03	.45	.42	.15	.02		.49	.7	14.4	13.8	17.23	1508.0	
2.5	19.0	6.13	109.7		24.868		.40							17.34	1507.7	1508.0	43.5	
5	17.8	6.10	108.1		27.015	.03	.56	.53			.1	.31	.4	21.3	20.9	19.25	1506.7	765.0
10	16.1	6.08	106.1		30.119	.06	.44	.38	.06	.02		.49	.6	22.00	1505.2	1505.3	550.3	
15	15.3	6.03	104.0		30.875	.05	.53	.48	.09	.01		.49	.6	22.76	1503.6	1503.6	150.6	
20	14.1	5.80	98.0		10.5	31.548	.11	.48	.06	.03		.49	.6	18.8	18.2	23.53	1500.6	153.8
30	12.1	4.94	80.6		106.2	32.525	.53	.93	1.8	.31		2.45	4.5	24.67	1495.2	1494.0	114.6	
34	11.6	5.20	84.1		88.0	32.898	.83							25.05	1494.0	1494.0	95.3	

DEPTH      OIL      FEN      ORGC      YEL.      PH      CFROD      NETPR      CORPR      NETCO      CARB      SUMN      ORGN      TOTN      CARB      ORGC      TOTCO      MEAN      MEAN  
 M      MG/L      MG/L      MG/L      MG/L      MGC/GMH      MGC/GMH      MGC/GMH      MGC/GMH      MGC/L      /P04      /CP      /TF      PC4P      ORGP      TOTP      N/P      C/P

0													20.2	33.0	32.1			
2.5													12.3	39.7	36.1			
5													18.8					
10													10.9					
15													5.6	48.8	39.1			
20													6.6					
30																		
34																		



STATION 9 LAT 58 18.40 LONG 11 23.50 BOTTOM DEPTH 27 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN 73 07 24 13 05 NW 2 M/AS NO OBS DIR. VEL. COVER HEIGHT TEMP DEPTH HR MT HR MT  
 73 07 24 14 05 73 07 24 13 05

DEPTH M	TEMP. CELS.	OXYG %	SAT	A.O.U.	SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.
				MA/L	O/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S		
0	19.0	6.12	109.8		25.169	.03	.39	.36	.06	.06		.26	.4	21.0	20.6	17.57	1506.0	
2.5	18.9	6.10	109.0		25.136		.39									17.57*	1507.7	
5	17.9	6.11	108.3		26.947	.03	.45	.42	.07	.04		.28	.4	16.5	16.1	19.18	1506.9	64.2
10	16.5	6.12	107.4		29.937	.06	.33	.27	.05	.03		.21	.3			21.78	1506.2	519.7
15	14.8	6.00	102.7		31.177	.06	.42	.36	.10	.03		.21	.3			23.10	1502.4	263.9
20	14.8	5.85	100.4		31.635	.10	.46	.36	.10	.04		.30	.4			23.45	1503.0	70.2
30	12.3	5.33	87.2		69.532	.589	.66				1.11					24.68	1496.0	123.7

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	VEL. RH	CPROD	NETPR	CORPR	NETCO	CARB	MG/L	PO4	POP	TOTN	CARB	ORGC	TOTC	MEAN	MEAN
				MGC/QMH													N/P	C/P
0																		
2.5													11.8	57.7	55.9			
5													12.1	38.5	36.6			
10													4.5					
15													5.3					
20													4.6					
30																		45.2

\* = UNSTABLE DENSITY STRATIFICATION



STATION 10      LAT: 58 17.45      LONG: 11 25.50      BOTTOM DEPTH 22 M

LOCAL DATE AND TIME      GREENWICH MEAN TIME      WIND WIND      CLOUD      WAVE      AIR      SECCCHI PROD: START DURAT  
 YEA: MON DAY HOU: MIN      /73 07 24 14 10      DIR. VEL.      COVER      HEIGHT      TEMP      DEPTH      HR: MT HR: MT  
 73 07 24 15 10      /73 07 24 14 10      NM      3 M/S: NO: OBS      NO: OBS      7.0 M

DEPTH TEMP: OXYG % SAT      A: O: U: SALT      PO4P      TOTP      ORGP      NO3N      NO2N      BOTH      NH4N      SUMM      TOTN      ORGN      SIGMA      SOUNDV      STABIL.  
 M      CELS: ML/L      MA/L      /000      MA/L      MA/L      MA/L      MA/L      MA/L      MA/L      MA/L      MA/L      MA/L      M/S

0	19.0	6.26	112.1	25.114	.14	.49	.35	.09	.03	.64	.8	14.6	13.8	17.53	1508.0
2.5	18.9	6.25	111.9	25.152	.58	.58	.37	.11	.02	.31	.5	14.4	13.9	17.56	1507.8
5	17.5	6.30	110.9	27.050	.02	.39	.37	.11	.02	.31	.5	14.4	13.9	19.35	1505.8
10	16.3	6.24	109.0	29.623	.10	.38	.28	.07	.02	.32	.4			21.59	1505.1
15	15.0	6.09	104.5	31.073	.13	.46	.35	.06	.02	.36	.4			22.97	1502.9
20	14.1	5.48	92.5	39.5	.16	.71	.55	.22	.06	.66	.9			23.44	1500.5

DEPTH      OIL      FEN      ORGC      VEL.      PH      CP      PROD      NETPR      CORPR      NETCO      CARB      SUNN      ORGN      TOTN      CARB      ORGC      TOTOC      MEAN      MEAN  
 M      MG/L      MG/L      MG/L      MG/L      MG/L      MG/L      MG/L      /PO4/      /ORP/      /TP/      PO4P      ORGP      TOTP      N/P      C/P

0								5.4	39.5	29.0							
2.5								21.0	37.6	36.9							
5								4.3									
10								4.1									
15								5.8									
20																	







STATION 12: LAY 58 15.65 LONG 11 26.70 BOTTOM DEPTH 52 M

LOCAL DATE AND TIME	GREENWICH MEAN TIME	WIND DIR.	WIND VEL.	WIND DIR.	WIND VEL.	CLOUD COVER	WAVE HEIGHT	AIR TEMP	SECCHI DEPTH	PROD. DURAT				
YEAR/MON/DAY/HR/MIN	73 07 24 16 00	73 07 24 15 00	NN	3	M/S	NO OBS	NO OBS	9.0 M	HR/MT	HR/MT				
DEPTH TEMP	OXYG % SAT	A.O.U. SALT	TOTP	ORGP	NOBN	NOEN	BOTM	IN4N	SUMN	TOTN	ORGN	SIGKA	SOUNDV	STADIL
M	CELS	ML/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S	
0	19.2	5.65	105.2	39	.2	.24	.5	20.3	19.0	17.61	1506.6		47.4	
2.5	18.9	6.20	111.0	41	.1	.36	.5	11.3	10.6	17.73	1507.0		52.2	
5	17.7	6.20	109.4	34	.1	.15	.3			19.03	1506.0		47.2	
10	16.9	6.23	110.1	40	.1	.08	.2			21.39	1507.0		240.8	
15	16.0	6.02	105.4	39	.3	.41	.7			22.64	1505.9		189.4	
20	14.9	5.91	101.8	40	.2	.61	3.4			23.58	1503.6		131.7	
25	13.5	5.57	97.6	45	.5	.61	5.1			24.25	1499.7		93.2	
30	12.0	5.60	91.2	56	.7	.77	5.6			24.72	1494.9		97.6	
40	10.2	5.39	84.0	73	.6	.72				25.09	1469.7		46.3	
50	9.0	5.22	80.2	88						26.18	1465.9			

DEPTH	OIL	FBN	ORSC	VEL	PH	CPROD	NETPR	CORFR	NETCO	CARE	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
Y	MG/L	MG	MG/L	MG/L	MG/OMH	MG/L	MG/L	MG/L	MG/L	MG/L	PP	PC4P	ORCP	PC4P	ORCP	N/P	C/P
0											52.1						
2.5																	
5																	
10																	
15																	
20																	
25																	
30																	
40																	
50																	



STATION 2 (FJ 62) BROFJORDEN LAT: N 58 21.60 LONG: E 11 25.70 BOTTOM DEPTH: 22 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD AIR SECCHI PROD: START DURAT  
 YEA/MON DAY HOU MIN DIR. VEL. HEIGHT TEMP DEPTH HR MT HR MT  
 73 08 08 11 35 73 08 08 10 35 WNW 12 M/S 2/8 0.1-0.5 M 7.0 M 11 35 4 0

DEPTH TEMP. OXYG % SAT A.O.U. SALT P04P TOTP ORGP NO3N NO2N BOTH NH4N SUMN TOTN ORGN SIGMA SOUNDV STABIL.  
 M CELS. ML/L MA/L 0/00 MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L M/S  
 0 18.2 5.98 105.4 25.128 .00 .74 .74 .31 .07 26.0 17.73 1505.5  
 2.5 18.2 5.91 104.3 25.093 .03 .73 .33 .03 17.70\* 1505.5 -10.7  
 5 18.2 6.11 107.7 25.096 .03 .54 .51 .30 .03 20.5 17.71 1505.6  
 10 17.9 5.80 102.4 26.314 .00 .52 .52 .35 .04 18.70 1506.2 198.8  
 15 17.4 5.85 103.2 27.541 .03 .51 .48 .29 .05 19.74 1506.3 207.1  
 20 4.8 5.24 72.2 180.332.047 .31 .82 .51 .99 .21 .80 20.6 18.6 25.38 1466.6 1128.8  
 22 5.3 5.38 74.9 160.432.232 .28 .87 .59 1.00 .15 1.17 2.3 25.7 23.4 25.48 1468.7 48.1

DEPTH OIL FEN ORGC VEL. RH CPROD NETPR CORR NETCO CARB SUMN ORGN TOTN CARB/ ORGC/ TOTC/ MEAN  
 M MG/L MFG MG/L MGC/QMH MGC/L /P04 /OP /TP P04P ORGP TOTP N/P C/P  
 0 8.1 15.1 14.9 16.6 16.4 22.9 35.2  
 2.5 8.1 10.3 11.4 22.9  
 5 8.1 8.63 8.47 9.50 9.31 22.9 38.0  
 10 8.1 2.16 2.38 23.2  
 15 8.0 .40 .30 .44 .33 24.0  
 20 6.5 36.3 25.1  
 22 8.4 39.4 29.6 32.0

\* = UNSTABLE DENSITY STRATIFICATION WATER SAMPLER THERMOMETER NO 44  
 PRIMARY PRODUCTION VALUES INTEGRATED FROM CPROD AND CORPR VALUES ARE RESP. 90 AND 99 MGC/SORMH







STATION 1 INRE BROFJORDEN LAT: N 58 22.50 LONG: E 11 26.30 BOTTOM DEPTH: 18 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD WAVE AIR SECCHI PROD: START DURAT  
 73 08 23 08 25 73 08 23 07 25 DIR. VEL. COVER COVER HEIGHT TEMP HR MT HR MT  
 73 08 23 08 25 73 08 23 07 25 NNE 2 M/S 2/8 0.1 M 13.0 C

DEPTH	TEMP. CELS.	OXYG %	SAT ML/L	A.O.U.	SALT MA/L	P04P MA/L	N02N MA/L	N03N MA/L	BOTH MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/S	SOUNDV	STABIL.
0	17.0	6.37	109.3		24.419	.06	.55	.49					17.46	1501.1	
2.5	17.0	6.35	109.0		24.414	.06	.54	.48					17.45*	1501.2	4.2
5	17.1	5.83	103.0		29.060	.11	.54	.43					20.98	1506.9	1412.4
10	15.9	4.96	87.1		65.9	.31	.677	.41					23.24	1506.5	451.8
15	15.8	4.43	77.6		114.1	.31	.853	.38					23.40	1506.4	33.2
17	15.6	4.69	82.0		91.7	.32	.116	.60					23.64	1506.2	118.4

DEPTH	OIL	FEN	ORGC	YEL.	PH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
0					8.4					21.4							
2.5					8.4					21.4							
5					8.3					23.1							
10					8.2					24.2							
15					8.2					24.5							
17					8.2					24.6							

# UNSTABLE DENSITY STRATIFICATION  
 NOTE: DATA OBTAINED BY U/F SKAGERAK

8065  
 4854  
 6016



STATION 2 (FU 62) BROFJORDEN

LAT: N 58 21.60 LONG: E 11 25.70

BOTTOM DEPTH: 22 M

LOCAL DATE AND TIME: 73 08 23 09 05  
 GREENWICH MEAN TIME: 73 08 23 08 05  
 WIND WIND DIR: NNE 2 M/S  
 WAVE HEIGHT: 0.1 M  
 AIR TEMP: 14.0 C  
 SECCHI PROD: START DURAT  
 DEPTH HR: MT HR: MT

DEPTH TEMP: 0 17.2 2 17.1 5 17.6 10 16.0 15 15.5 20 15.2 23 15.1  
 OXYG %: 6.47 6.45 6.19 5.16 4.75 4.71 4.49  
 SAT: 111.6 111.0 109.5 90.6 83.0 81.9 78.1  
 MA/L: 24.516 24.532 27.571 47.631 87.032 92.732 112.731  
 U: 0/00  
 SALT: 35.0  
 NO3N: 0.06 0.05 0.06 0.33 0.33 0.48 0.50  
 MA/L: 0.57 0.50 0.50 0.52 0.63 0.72 0.84  
 NO2N: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 MA/L: 0.57 0.50 0.50 0.52 0.63 0.72 0.84  
 BOTH: 0.12 0.11 0.12 0.32 0.43 0.42 0.58  
 MA/L: 0.12 0.11 0.12 0.32 0.43 0.42 0.58  
 SUMN: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 MA/L: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 TOTN: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 MA/L: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 ORGN: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 MA/L: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 SIGMA: 17.48 17.52 19.73 23.23 23.72 24.12 24.22  
 SOUNDY: 1501.9 1501.6 1506.6 1506.6 1506.0 1505.5 1505.5  
 STABIL: 14.6 865.7 700.9 97.3 79.8 33.2

DEPTH: 0 2 5 10 15 20 23  
 OIL: 8.4 8.4 8.3 8.2 8.2 8.2 8.2  
 FEN: 21.4 21.4 22.5 24.1 24.5 24.6 24.8  
 ORGC: 6082 6178 4270 4123  
 MG/L: 21.4 21.4 22.5 24.1 24.5 24.6 24.8  
 PH: 8.4 8.4 8.3 8.2 8.2 8.2 8.2  
 NETPR: 0.06 0.05 0.06 0.33 0.33 0.48 0.50  
 CORPR: 0.57 0.50 0.50 0.52 0.63 0.72 0.84  
 INETCO: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 CARB: 21.4 21.4 22.5 24.1 24.5 24.6 24.8  
 MG/L: 21.4 21.4 22.5 24.1 24.5 24.6 24.8  
 TOTN: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 MA/L: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 ORGC: 6082 6178 4270 4123  
 P04P: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 MA/L: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 ORGF: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 MA/L: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 TOTP: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 MA/L: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 N/P: 0.06 0.05 0.06 0.19 0.30 0.24 0.34  
 C/P: 0.06 0.05 0.06 0.19 0.30 0.24 0.34

NOTE: DATA OBTAINED BY U/F SKAGERAK















STATION 3 STRETUDDEN LAT: N 56 20.55 LONG: E 11 24.15 BOTTOM DEPTH 48 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND DIR. WIND VEL. WAVE HEIGHT AIR TEMP. SECCHI PROD. START DURAT  
 YEA MON DAY HOUR MIN 73 08 28 12 00 SSW 3 M/S: 7/8 0 0.1 M 17.5 C 8.0 M HR MT HR MT

DEPTH (M)	TEMP. CELS.	OXYG. % SAT	A. O. U	SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.
		MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/L	M/S	
0	16.7	6.40	110.9	27.000	.11	.46	.35	.35	.02		.23	.6	9.2	8.6	19.49	1503.2	
5	16.4	6.37	110.1	27.699	.07	.57	.50	.12	.03		.28	.4			20.09	1503.1	119.7
10	16.4	6.49	112.6	28.031	.02	.47	.45	.30	.02		.34	.7	10.8	10.1	20.34	1503.6	50.8
15	16.4	6.36	110.6	28.496	.09	.59	.50	.15	.03		.24	.4			20.70	1504.3	70.9
20	16.4	5.64	99.6	31.159	.12	.52	.40	.33	.02		.50	.8	10.8	10.0	22.73	1507.5	407.0
30	15.0	4.40	76.5	33.029	.42	.65	.23	.97	.40		1.77	3.1			24.47	1505.6	173.9
40	14.3	3.96	68.1	33.815	.76	1.12	.36	1.5	.40		4.34	6.2			25.23	1504.5	75.4
48	14.2	3.48	59.8	33.862	.97	1.50	.53	2.2	.43		5.49	8.2	12.4	4.3	25.28	1504.3	7.1

DEPTH (M)	OIL (MG/L)	FEN (MG/L)	ORGC (MG/L)	VEL. (PH)	PH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
						MGC/QMH			MGC/QMH	MG/L	/PO4	/OP	/TP	PO4P	ORGP	TOTP	N/P
0											5.3	24.7	20.0				
5											5.8						
10											26.5	22.8	23.0				
15											4.8						
20											6.8	25.2	20.8				
30											7.4						21.3
40											8.2						
48											8.4	8.1	8.3				8.3

WATER SAMPLER THERMOMETER NO 44



STATION 4 YTTRE BROFJORDEN LAT: N 58 19.90 LONG: E 11 23.10 BOTTOM DEPTH 34 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. HEIGHT TEMP DEPTH HR MT HR MT  
 73 08 28 15 10 /73 08 26 14 10 S 1 M/S 0 → 0.1 M 19.0 C 8.2 M

DEPTH M	TEMP. CELS.	OXYG % SAT	A.O.U. MA/L	SALT 0/00	PO4P MA/L	TOTP MA/L	ORGP MA/L	NO3N MA/L	NO2N MA/L	CLOUD COVER	WAVE HEIGHT	AIR TEMP	TOTN MA/L	ORGN MA/L	SIGMA M/S	SOUNDV	STABIL.	
0	16.7	6.36	110.3	27.091	.11	.44	.33	.22	.07				.46	.8	7.4	6.7	19.56	1503.3
5	16.4	6.44	111.5	27.818	.05	.53	.48	.09	.05				.35	.5			20.18	1503.3
10	16.4	6.29	109.0	27.949	.16	.49	.33	.19	.07				.41	.7	6.3	5.7	20.28	1503.5
15	16.4	6.37	110.9	28.808	.05	.41	.36	.09	.06				.43	.6			20.94	1504.6
20	16.6	6.13	108.2	30.450	.11	.47	.36	.17	.06				.32	.6	6.9	6.3	22.15	1507.3
30	15.1	4.39	76.4	121.3	32.815	.41	.34	.90	.36		1.22	2.5					24.29	1505.6
33	15.2	4.48	78.1	112.5	32.818	.41	.35	.93	.33		1.43	2.7	12.6	9.9	24.28*	1505.9	2.9	

DEPTH M	OIL MG/L	PEN MG/L	ORGC VEL. PH	CPROD MGC/QMH	NETPR CORPR	NETCO CARB MG/L	SUMN ORGN /PO4	TOTN CARB /TP	PO4P ORGP	ORGC /TOTC	TOTC /TOTP	MEAN N/P	MEAN C/P
0							6.7	20.3	16.9				
5							9.9						
10							4.1	17.3	12.9				
15							11.9						
20							5.0	17.7	14.6				
30							6.0						14.8
33							6.6	28.2	16.5				16.5

\* = UNSTABLE DENSITY STRATIFICATION WATER SAMPLER THERMOMETER NO 44



STATION 5 (FJ 63) MALMÖDRAG LAT: N 58 19.10 LONG: E 11 21.70 BOTTOM DEPTH 36 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WAVE AIR SECOND PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMP HR MT HR MT  
 73 08 28 10 22 73 08 28 09 22 SSW 4 M/S 7 / 8 0 0.1 M 17.0 C 11 15 4 0

DEPTH M	TEMP CELS	OXYG % SAT	A.O.U	SALT MA/L	PO4P MA/L	TOTP MA/L	ORGP MA/L	NO3N MA/L	NO2N MA/L	BOTH MA/L	NH4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA MA/L	SOUNDV M/S	STABIL.
0	16.5	6.42	111.1	27.610	.05	.47	.42	.28	.05	1.77	2.1	11.6	9.5	20.00	1503.3		
2.5	16.4	6.46	111.8	27.649	.06	.39	.33	.11	.05	.39	.6			20.05	1503.0	20.7	
5	16.3	6.39	110.3	27.799	.07	.68	.61		.02	.30		9.3		20.19	1503.0	54.5	
10	16.3	6.32	109.3	27.920	.05	.56	.51	.14	.04	.74	.9			20.28	1503.2	18.4	
15	16.4	6.33	110.1	28.693	.10	.40	.30	.31	.03	1.77	2.1			20.85	1504.5	113.7	
20	16.3	5.76	101.7	31.641	.14	.42	.28	.22	.00	.53	.8	16.1	15.3	23.12	1507.8	455.1	
30	15.0	4.72	82.0	32.934	.36	.64	.28	.83	.33	1.47	2.6			24.40	1505.5	127.5	
34	15.0	4.60	79.9	33.028	.30	.64	.34	.2	.08	2.04	4.3	16.4	12.1	24.47	1505.7	18.1	

DEPTH M	OIL MG/L	FEN MG/L	ORGC	VEL. PH	CPROD MGC/QMH	NETPR	CORPR	NETCO	CARB MG/L	PO4 /P04	ORGN /QOP	TOTN /TTP	CARB /P04P	ORGC /ORGP	TOTC /TOTP	MEAN N/P	MEAN C/P
0	8.1	5.74	5.66	6.32	6.32	23.7	42.2	22.5	24.6								
2.5	8.1	5.04	5.55	5.55	23.7	8.9											25.5
5	8.1	4.64	4.40	5.10	4.84	23.7	13.7										25.6
10	8.1	2.59	2.85	2.85	23.8	18.6											
15	8.1	1.01	.87	1.11	.95	24.0	21.2										
20							5.5	54.1	38.2								
30							7.3										
34							14.3	35.5	25.6								

AVERAGE VALUES FOR THE WATER COLUMN 0-30 M AVERAGE VALUES FOR THE WATER COLUMN BELOW 30 M

PO4P TONS	TOTP TONS	SUMN TONS	CARB TONS	TOTC TONS	PO4P TONS	TOTP TONS	SUMN TONS	CARB TONS	TOTC TONS
.9	4.1	30.8	149.9	5480	.2	.3	.7	1.9	

WATER SAMPLER THERMOMETER NO 44 WATER AND CORRR VALUES ARE RESP. 55 AND 61 MGC/SQRMH  
 PRIMARY PRODUCTION VALUES INTEGRATED FROM CPROD AND CORRR VALUES ARE RESP. 55 AND 61 MGC/SQRMH



STATION 6 DYNABROTT LAT: N 58 17.70 LONG: E 11 18.85 BOTTOM DEPTH 96 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN IGRN WICH TIME DIR. VEL. COVER HEIGHT TEMP DEPTH HR MT HR MT  
 73 08 28 10 45 73 08 28 09 45 SW 3 M/S NO OBS NO OBS 10.0 M 10.0 M

DEPTH M	TEMP. CELS.	OXYG. ML/L	% SAT	A.O.U.	SALT MA/L	PO4P MA/L	TOTP MA/L	ORGP MA/L	NO3N MA/L	NO2N MA/L	BOTH MA/L	NH4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/L	SOUNDV M/S	STABIL.
0	16.4	6.64	114.8		27.586	.11	.49	.38	.30	.02	.00	.3	5.2	4.9	20.00	1502.9		
2.5	16.5	6.54	113.2		27.548		.42		.19	.01	.01	.2	8.2	8.0	19.95*	1503.3	-20.4	
5	16.4	6.69	115.6		27.604		.57		.26	.02	.03	.3			20.02	1503.0	25.7	
10	16.4	6.46	111.9		27.841	.11	.42	.31	.23	.02	.03	.3			20.20	1503.4	36.2	
15	16.4	6.08	105.5		28.171	.17	.45	.28	.35	.03	.38	.8	7.0	6.2	20.45	1503.9	50.4	
20	16.1	5.40	95.1		24.6	.31	.696	.33	.75	.35	.76	1.9			23.21	1507.3	552.3	
30	15.3	4.99	87.1		65.8	.32	.955	.38		.35					24.35	1506.4	114.2	
40	14.6	4.65	80.5		100.6	.33	.726	.59							25.10	1505.3	74.4	
60	11.8	5.11	83.9		87.4	.34	.632	.20	.83	.30	1.66	2.8			26.36	1497.3	63.2	
80	11.8	5.12	84.1		86.4	.34	.663	.68							26.38	1497.7	1.2	
90	11.7	5.07	83.1		91.9	.34	.664	.60	1.4	.00	3.23	4.6			26.40	1497.5	2.0	

DEPTH OIL FEN ORGC YEL. PH CPROD NETFR CORRR NETCO CARB SUMN ORGN TOTN CARB/ ORGC/ TOTC/ MEAN MEAN  
 M MG/L M/G MG/L

0																		
2.5																		
5																		
10																		
15																		
20																		
30																		
40																		
60																		
80																		
90																		

13.0

\* UNSTABLE DENSITY STRATIFICATION







STATION 6      LAT 58 21.10      LONG 11 21.35      BOTTOM DEPTH 36 M

LOCAL DATE AND TIME      GREENWICH MEAN TIME      WIND WIND      CLOUD      WAVE      AIR      SECCHI PROD: START DURAT  
 YEA MON DAY HOUR MIN      /73 06 28 12 25      DIR. VEL.      COVER      HEIGHT      TEMP      DEPTH      HR MT HR MT  
 73 08 28 13 25      SW 2 M/S NO OBS      NO OBS

DEPTH M	TEMP. CELS	OXYG % SAT	A.O.U.	SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	IN4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL
		(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/S)	
0	16.7	6.39	110.9	27.377	.11	.42	.31	.22	.02	.14	.4	.92	16.9	19.78	1503.6		
2.5	16.7	6.36	110.4	27.373	.11	.65	.35	.14	.02	.15	.3	8.8	18.5	19.77*	1503.7	-1.2	
5	16.6	6.32	109.6	27.394	.10	.58	.48	.26	.02	.00	.3	10.9	10.6	20.25	1503.4	15.2	
10	16.7	6.46	112.6	28.004	.10	.37	.27	.20	.01	.00	.3	10.9	10.6	21.19	1504.5	80.5	
15	16.5	6.36	111.2	29.164	.12	.49	.37	.32	.00	.00	.3	10.9	10.6	21.19	1505.4	186.2	
20	16.7	6.40	113.6	30.815	.12	.49	.37	.32	.00	.00	.3	10.9	10.6	22.40	1508.1	243.1	
30	15.1	3.64	63.2	32.518	.76	.95	.30	.12			.49	.3	10.9	24.06	1505.2	165.9	
35	14.6			33.463										24.85	1505.5	158.2	

DEPTH M	OIL	FEN	ORGC	VEL	PH	CFPROD	NETPR	CORFR	NETCO	CARB	SUMN	ORGN	TOTN	CARS	ORGO	TOTCO	MEAN	MEAN
	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/GMH)	(MG/GMH)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)	(M/L)
0											3.4	28.8	22.0					
2.5											2.8	24.5	19.2					
5											2.6	29.1	22.3					
10											1.2							21.2
15																		
20																		
30																		
35																		

\* UNSTABLE DENSITY STRATIFICATION







STATION 10      LAT 156 17.45      LONG 111 25.50      BOTTOM DEPTH 22 M

LOCAL DATE AND TIME      GREENWICH MEAN TIME      WIND WIND      CLOUD      WAVE      AIR      SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN      /73 08 28 14 30      DIR. VEL.      COVER      HEIGHT      TEMP      DEPTH      HR MT HR MT  
 73 08 28 15 30      /73 08 28 14 30      SW 3 M/S NO OBS      NO OBS      NO OBS      9.5 M

DEPTH TEMP. OXYG % SAT	A.O.U. SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.	
M	CELS. ML/L	MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S		
0	16.7	6.50	112.9	27.344	.12	.72	.60	.26	.00	.08	.3	8.0	7.7	19.75	1503.6
2.5	16.7	6.53	113.3	27.340		.58								19.75	1503.6
5	16.7	6.54	113.5	27.372	.19	.56	.37	.14	.01	.09	.2	7.6	7.3	19.77	1503.7
10	16.5	6.47	112.1	27.569	.05	.45	.40	.16	.02	.00	.2			19.97	1503.4
15	16.6	6.30	109.8	28.222	.10	.44	.34	.15	.02					20.44	1504.6
20	16.3	5.75	101.0	30.527	.17	.51	.34	.23	.04			5.9		22.27	1506.5

DEPTH	OIL	FEN	ORGC	VEL.	PH	CRUD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
M	MG/L	MG	MG/L			MG/GMH	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L
0																	
2.5							2.7	12.9	11.1								
5																	
10							1.3	19.6	13.5								
15							.3	.7									
20																	

\* UNSTABLE DENSITY STRATIFICATION

12.0

11.5



STATION 11 LAT: 58 15.95 LONG: 11 22.20 BOTTOM DEPTH 40 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND DIR. WIND VELOCITY WAVE HEIGHT AIR SECCHI PROD: START DURAT DEPTH HR MT HR MT  
 YEA MON DAY HOU MIN 73 08 28 08 30 /73 08 26 07 30 SW 4 M/S NO OBS NO OBS 12.0 M

DEPTH M	TEMP CELS	OXYG % SAT	A.O.U. SALTY	PO4P	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDY	STABIL.			
		ML/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S		M/S			
0	16.4	6.48	111.8	.27	.109	.14	.56	.42	.28	.03	.01	.03	11.5	11.1	19.64	1502.4	9.4
2.5	16.3	6.36	109.3	.27	.111	.10	.58	.39	.18	.03	.26	.03	14.6	14.1	19.68	1502.1	6.7
5	16.3	6.38	109.7	.27	.133	.10	.49	.39	.20	.00	.03	.00	7.1	6.8	22.78	1506.2	473.1
10	16.3	6.58	113.4	.27	.359	.07	.53	.49	.20	.00	.42	.00	7.1	6.8	22.78	1506.2	149.2
15	16.3	6.47	112.0	.26	.095	.07	.56	.26	.29	.02	.00	.00	7.1	6.8	22.78	1506.2	149.2
20	16.0	6.08	106.4	.31	.102	.19	.47	.26	1.1	.35	.36	.35	7.1	6.8	22.78	1506.2	149.2
30	14.9	5.13	108.8	.32	.735	.32	.61	.26	1.1	.35	.36	.35	7.1	6.8	22.78	1506.2	149.2
40	14.3	4.94	104.7	.33	.237	.32	.61	.26	1.1	.35	.36	.35	7.1	6.8	22.78	1506.2	149.2

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	YEL. PH	CPROD	NETPR	CORPR	NETCO	CARB MG/L	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN	MEAN
					MGC/QMH					/PO4	/OP	/TP	PO4P	ORGP	TOTP	N/P	C/P
0										2.4	26.3	20.5					
2.5										4.7	36.2	29.8					
5										8.3							
10										1.7	24.1	15.2					
15										5.7							
20																	
30																	
40																	

21.8



STATION 12

LAT: 58 15.65 LONG: 11 26.70

BOTTOM DEPTH 52 M

LOCAL DATE AND TIME YEA MON DAY HOU MIN	GREENWICH MEAN TIME	WIND DIR.	WIND VEL.	CLOUD COVER	WAVE HEIGHT	AIR TEMP	SECCHI DEPTH	PROD: START	DURAT							
73 08 28 16 20	73 06 28 15 20	W	4 M/S	NO OBS	NO OBS		8.5 M	HR MT	HR MT							
DEPTH TEMP. CELS.	OXYG % SAT	A.O.U.	SALT	P04P	T0TP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.
M	ML/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S	
0	16.6	6.53	113.1	27.309	.06	.54	.48	.22	.03	.00	.3	10.7	10.4	19.75	1503.2	
2.5	16.6	6.47	112.1	27.307		.64								19.75*	1503.3	
5	16.6	6.47	112.2	27.311	.01	.73	.72	.13	.00			5.8		19.75	1503.3	
10	16.6	6.59	114.1	27.328	.06	.62	.56	.16	.01	.22	.4			19.76	1503.4	
15	16.4	6.29	109.5	28.578	.05	.62	.57	.18	.00					20.76	1504.4	
20	16.0	5.69	99.8	31.308	.01	.57	.56	.20	.03	.43	.7	6.9	6.2	22.94	1506.5	199.6
30	14.6	4.90	84.4	32.850	.24	1.43	1.19	1.7	.46	.42	2.6			24.42	1504.0	435.2
40	14.0	4.76	81.2	33.467	.26	.75	.49	1.8	.43	1.23	3.5			25.02	1503.0	148.7
50	9.3	4.12	63.6	210.633	.88	1.32	.44	9.4	.19	.00	9.6			25.91	1486.7	60.1

DEPTH	OIL	FEN	ORGC	VEL	RH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
M	MG/L	MG	MG/L			MGC/GMH				MG/L	/P04	/OP	/YP	P04P	ORGP	T0TP	N/P
0											4.1	21.9	19.8				
2.5																	
5											6.3		7.9				
10																	
15																	
20											53.0	11.2	12.1				13.3
30											11.1						
40											13.4						
50											10.8						

\* = UNSTABLE DENSITY STRATIFICATION



STATION 1 INRE BROFJORDEN LAT: N 58 22.50 LONG: E 11 26.30 BOTTOM DEPTH: 18 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMP DEPTH HR MT HR MT

73 09 11 12 25 73 09 11 11 25 E 2 M/S 6/8 0 M  
 DEPTH TEMP. OXYG % SAT A.O.U. SALT P04P T0TP ORGP NO3N NO2N BOTH NH4N SUMN TOTN ORGN SIGMA SOUNDV STABIL.  
 M CELS. ML/L MA/L 0/00 MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L M/S

0 14.9 6.19 103.8 27.600 .20 .60 .40 .37 .02 .74 1.1 16.1 15.0 20.33 1498.2  
 2.5 15.8 5.92 102.8 30.324 .14 .63 .49 .09 .01 .76 .9 22.23 1504.4 758.8  
 5 15.7 5.60 97.5 12.9 31.030 .10 1.05 .95 .06 .02 .27 .3 35.0 34.7 22.79 1504.9 224.8  
 10 15.5 4.57 79.7 104.1 31.891 .22 .52 .30 .14 .07 .63 .8 23.49 1505.4 140.5  
 15 15.2 4.27 74.2 132.6 32.354 .52 .90 .38 .87 .38 2.18 3.4 30.4 27.0 23.91 1505.1 84.1  
 18 15.1 4.22 73.2 138.0 32.466 .56 .99 .43 1.1 .41 2.11 3.6 24.1 20.5 24.02 1505.0 35.9

DEPTH OIL FEN ORGC VEL. PH CPROD NETPR CORPR NETCO CARB SUMN ORGN TOTN CARB/ ORGC/ TOTC/ MEAN MEAN  
 M MG/L MIC MG/L

0 < .05 .55  
 2.5 .41  
 5 .64  
 10 .46  
 15 .41  
 18 .51

5.7 37.3 26.9  
 6.2  
 3.3 36.7 33.4  
 3.8  
 6.5 71.7 33.8  
 6.5 47.4 24.3

29.6

WATER SAMPLER THERMOMETER NO 144



STATION 2 (FJ 62) BROFJORDEN LAT: N 58 21.60 LONG: E 11 25.70 BOTTOM DEPTH: 22 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WAVE AIR SECCHI PROD: START DURAT  
 YEAR/MON DAY HOU MIN DIR. VEL. HEIGHT TEMP DEPTH HR MT HR MT  
 73 09 11 11 10 73 09 11 10 10 0 M/S 0 M 11 25 4 0

DEPTH M	TEMP CELS	OXYG % SAT	A.O.U. SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.
		ML/L	MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/L	M/S	M/S
0	14.9		27.759	.10	.50	.40	.04	.06	.50	.6	22.3	21.7	20.45	1498.4		
2.5	15.5	5.98	102.8	.22	.61	.39	.08	.02	.95	1.1			21.84	1502.7	554.5	
5	15.7	5.34	92.9	.14	.63	.49	.06	.02	1.24	1.3	22.5	21.2	22.66	1504.7	328.1	
10	15.4	4.64	80.8	.22	.60	.38	.22	.10	.92	1.2			23.53	1505.2	175.1	
15	15.2	4.83	83.9	.24	.60	.36	.66	.26	1.19	2.1			23.84	1505.0	61.4	
20	14.1	4.57	78.0	.53	.80	.27	1.8	.47	1.47	3.7	35.3	31.6	24.69	1502.5	169.6	
22	14.2	4.69	80.2	.50	.80	.30	2.5	.41	1.48	4.4	30.8	26.4	24.65*	1502.9	16.2	

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	VEL	PH	CPROD	NETPR	CORPR	NETCO	CARB	MG/L	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
						MGC/QMH	/P04	/OP	/TP	P04P	ORGP	TOTP	TOTC	TOTP	N/P	C/P		
0	<.05			.97	8.2	4.66	4.45	5.13	4.90	23.3	5.7	54.8	44.5					
2.5				.55	8.2	6.18		6.79		23.8	4.8			18979				
5	<.05			.32	8.1	8.17	7.95	8.99	8.75	24.6	9.5	43.2	35.7					
10				.28	8.1	1.24		1.37		24.9	5.6			9393				
15				.41	8.0	.22	.15	.24	.17	25.5	8.7			8692				
20	<.05			.18							6.9	44.2						
22				.32							8.8	88.1	38.5					40.7

\* UNSTABLE DENSITY STRATIFICATION WATER SAMPLER THERMOMETER NO 44  
 PRIMARY PRODUCTION VALUES INTEGRATED FROM CPROD AND CORPR VALUES ARE RESP: 59 AND 65 MGC/SQRMH



STATION 3 STRETUDDEN      LAT: N 58 20.55    LONG: E 11 24.15      BOTTOM DEPTH 48 M

LOCAL DATE AND TIME    GREENWICH MEAN TIME    WIND WIND    WAVE    AIR    SECCHI    PROD:START DURAT  
 YEA MON DAY HOU MIN    0/00    MA/L    M/L    MA/L    M/L    MA/L    M/L    HR MT    HR MT

73 09 11 14 00    73 09 11 13 00    WNW 2 M/S    0 = 0.1 M

DEPTH M	TEMP CELS	OXYG %	SAT ML/L	A.O.U	SALT 0/00	PO4P MA/L	TOTP MA/L	ORGP MA/L	N03N MA/L	N02N MA/L	BOTH MA/L	NH4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/S	SOUNDV	STABIL
0	14.7	6.30	105.7	28.156	.08	.60	.52	.05	.04	.51	.6	19.1	18.5	20.80	1498.2			
5	15.5	5.85	101.3	30.714	.19	.05	.31	.02	.06	.31	.4	22.59	22.59	1503.9	358.7			
10	15.6	5.38	93.7	32.531	.408	.45	.33	.06	.04	1.20	1.3	21.8	20.5	23.10	1505.2	102.1		
15	15.2	4.93	85.6	74.032	.192	.31	.27	.47	.23	1.59	2.3	23.79	23.79	1505.0	137.4			
20	14.4	4.87	83.5	86.232	.805	.41	.27	1.2	.32	1.17	2.7	21.0	18.3	24.43	1503.2	128.3		
30	13.5	4.71	79.5	108.233	.438	.56	.25	.15	.46	.87	1.5	25.10	25.10	1501.2	67.3			
40	13.5	4.75	80.1	105.133	.443	.53	.29	.25	.48	.83	1.6	25.11	25.11	1501.2	1.4			
46	13.3	4.69	78.9	111.833	.513	.50	1.11	.61	.45	1.06	3.9	21.0	17.2	25.20	1500.9	14.0		

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	VEL	PH	CPROD MGC/QMH	NETPR MGC/QMH	CORPR	NETCO	CARB MG/L	SUMN /PO4	ORGN /OP	TOTN /TP	CARB	PO4P	ORGC	TOTC	MEAN N/P	MEAN C/P
0	.10			.69						7.2	35.7	31.8							
5				.46						2.1									
10				.55						11.2	61.5	48.5							
15				.55						7.3									
20				.46						6.7	67.1	30.9							37.1
30				.32						2.6									
40				.32						2.9									
46				.28						7.8	28.1	19.0							19.0

WATER SAMPLER THERMOMETER NO 44



STATION 4 YTTRE BROFJORDEN LAT: N 58 19.90 LONG: E 11 23.10 BOTTOM DEPTH 34 M

LOCAL DATE AND TIME: 73 09 11 13 50 GREENWICH MEAN TIME: 73 09 11 12 50 WIND WIND DIR: NW WIND VEL: 1 M/S WAVE HEIGHT: 0-0.1 M AIR TEMP: 17.8 SECCHI DEPTH: 0

DEPTH M	TEMP CELS	OXYG % SAT	A.O.U.	SALT 0/00	PO4P MA/L	TOTP MA/L	ORGP MA/L	NO3N MA/L	NO2N MA/L	BOTH MA/L	NH4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/S	SOUNDV	STABIL
0	14.9	6.24	104.9	27.905	.19	.57	.38	.06	.02	.90	1.0	18.6	17.6	20.56	1498.5		
5	15.5	5.77	99.7	1.530	.703	.60	.47	.12	.02	.50	.6	18.9	17.9	22.59	1503.8	405.7	
10	15.5	5.04	87.7	63.331	.845	.17	.76	.08	.13	.82	1.0	18.9	17.9	23.47	1505.2	175.1	
15	15.1	4.86	84.3	80.732	.301	.30	.35	.69	.28	1.27	2.2	23.3	20.3	23.89	1504.8	185.0	
20	14.5	4.93	84.7	79.832	.728	.33	.30	1.2	.29	1.54	3.1	23.3	20.3	24.35	1503.4	91.1	
30	13.4	4.74	79.9	106.633	.494	.51	.72	1.00	.43	1.05	2.5	20.5	16.7	25.17	1500.8	182.7	
33	13.2	4.69	78.8	112.633	.556	.51	.79	2.5	.44	.88	3.8	20.5	16.7	25.25	1500.4	25.9	

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	VEL	PH	CPROD MGC/GMH	NETPR	CORPR	NETCO	CARB MG/L	SUMN /PO4	ORGN /OP	TOTN /TP	CARB /PO4P	ORGC /ORGP	TOTC/ TOTP	MEAN N/P	MEAN C/P
0	<.05			.78						5.3	46.0	32.7						
5				.55						5.0								
10				.37						5.9	30.5	24.8						
15				.28						7.4								
20				.18						9.4	66.7	37.1						
30				.28						4.9								
33				.37						7.5	59.9	25.9						

WATER SAMPLER THERMOMETER NO 44



STATION 5 (FJ 63) MALMØDRAG LAT: N 58 19.10 LONG: E 11 21.70 BOTTOM DEPTH 36 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WIND WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMP DEPTH HR MT HR MT  
 73 09 11 09 40 73 09 11 08 40 E 2 M/S 3 /8 0 -0.1 M 10 25 4 0

DEPTH M	TEMP. CELS.	OXYG %	SAT	A.O.U.	SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.
		ML/L	MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/L	M/S	
0	14.6	6.19	104.1		29.055	.07	.49	.42	.06	.04		.38	.5		21.51	1498.9		
2.5	14.6	6.13	103.4		29.584	.06	.45	.39	.03	.04		.63	.7		21.91	1499.6		162.4
5	14.7	6.09	103.1		29.632	.06	.49	.43	.05	.02		.55	.6	28.1	27.5	21.93	1500.1	6.4
10	15.3	5.35	92.9	36.3	31.871	.12	.47	.35	.21	.08		.68	1.0		23.52	1504.8		318.3
15	15.1	5.17	89.5	54.2	32.165	.22	.57	.35	.49	.16		1.07	1.7		23.79	1504.6		53.7
20	14.6	5.15	88.7	58.9	32.677	.33	.57	.24	1.9	.26		1.13	3.3	27.4	24.2	24.29	1503.7	99.9
30	13.1	4.81	80.7	102.8	33.557	.47	.76	.29	2.5	.43		.68	3.6		25.27	1500.0		98.6
34	13.3	4.73	79.6	108.2	33.549	.52	.82	.30	2.7	.39		.87	4.0	29.4	25.4	25.23*	1500.7	-11.6

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	PH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
					MGC/QMH			MG/L	MG/L	/PO4	/OP	/TP	PO4P	ORGP	TOTP	N/P
0	<.05			.83	8.2	3.33	3.18	3.66	3.50	23.7	6.9					
2.5				.64	8.2	4.32		4.75	23.8	12.0						
5	<.05			.64	8.2	4.39	4.20	4.83	4.62	23.8	10.7	63.6	57.3			
10				.41	8.1	3.44		3.78	24.9	8.4						
15				.37	8.1	.44	.25	.49	.27	25.0	7.8		9425			
20				.37					10.1	98.8	48.1					
30				.46					7.7							52.7
34				.51					7.6	85.6	35.8					35.8

AVERAGE VALUES FOR THE WATER COLUMN 0-30 M AVERAGE VALUES FOR THE WATER COLUMN BELOW 30 M

PO4P TONS	TOTP TONS	SUMN TONS	TOTN TONS	CARB TONS	TOTC TONS
1.9	4.5	5.6	79.9	5627	
			.2	.3	.5
			3.3		

\* UNSTABLE DENSITY STRATIFICATION WATER SAMPLER THERMOMETER NO 44  
 PRIMARY PRODUCTION VALUES INTEGRATED FROM CPROD AND CORPR VALUES ARE RESP: 51 AND 56 MGC/SGRMH



STATION 2 (FU 62) BROFJORDEN LAT: N 58 21.60 LONG: E 11 25.70 BOTTOM DEPTH: 22 M

LOCAL DATE AND TIME: 73 10 02 11 20  
 GREENWICH MEAN TIME: 73 10 02 10 20  
 WIND WIND: W 5 M/S  
 WAVE HEIGHT: 0.1-0.5 M  
 AIR TEMP: 11.20 4 10

DEPTH M	TEMP CELS	OXYG %	SAT ML/L	A.O.U	SALT O/00	PO4P MA/L	TOTP MA/L	ORGP MA/L	NO3N MA/L	NO2N MA/L	BOTH MA/L	NH4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA MA/L	SOUNDV M/S	STABIL
0	12.3	6.83	107.4		25.914	.08	.67	.59	.34	.06	1.11	1.5	25.9	24.4	19.53	1487.3		
2.5	12.5	6.81	107.5		25.914	.10		.28	.03	1.03	1.3	19.49*	1488.0		1487.4	14.1		
5	12.3	6.85	107.7		25.915	.17	.70	.53	.19	.04	.82	1.0	19.2	18.1	19.53	1487.4	14.2	
10	12.5	6.31	100.1		26.665	.16	.64	.48	.28	.04	.95	1.3	20.07		1489.1	108.6		
15	12.5	5.08	83.2		31.765	.54	.72	.18	3.4	.49	1.26	5.1	24.01		1495.5	786.9		
20	11.7	5.17	83.9		33.025	.54	.81	.27	3.5	.52	1.01	5.0	22.3	17.3	25.13	1494.3	224.8	
22	12.3					.18	.80	.62	1.2	.19	1.14	2.5					NOT COMPUTED	

DEPTH M	OIL MG/L	FEN ORGC MG/L	PH	CPROD MGC/GMH	NETPR MGC/GMH	CORPR	NETCO	CARB MG/L	SUMN /PO4	ORGN /OP	TOTN /TP	CARB /PO4P	ORGC /ORGP	TOTC /TOTP	MEAN N/P	MEAN C/P
0	8.2	6.48	6.37	7.13	7.00	22.9	19.0	41.3	38.7							
2.5	8.2	10.4		11.5	22.9	13.2										
5	8.2	5.80	5.67	6.38	6.24	22.9	6.2	34.1	27.4							
10	8.2	1.51		1.66	23.1	8.1										
15	8.1	.13	.11	.15	12.25.0	9.5						3857				
20					9.2	64.3	27.6									
22					14.1											31.2

\* = UNSTABLE DENSITY STRATIFICATION  
 PRIMARY PRODUCTION VALUES INTEGRATED FROM CPROD AND CORPR VALUES ARE RESP.: 64 AND 71 MGC/SORMH  
 WATER SAMPLER THERMOMETER NO. 44



STATION 5 (FJ 63) MALMUDRAG LAT: N 58 19.10 LONG: E 11 21.70 BOTTOM DEPTH 36 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMP DEPTH HR MT HR MT

73 10 02 09 16 /73 10 02 08 16 W 9 M/S 4 /8 1.2-2.5 M  
 DEPTH TEMP. OXYG % SAT A.O.U. SALT P04P TOTP ORGP NO3N NO2N BOTH NH4N SUMN TOTN ORGN SIGMA SOUNDV STABIL.  
 M CELS. ML/L MA/L O/00 MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L M/S

0 12.3 6.61 104.4 26.658 .08 .58 .50 .22 .07 1.25 1.5 27.8 26.2 20.10 1488.2  
 2.5 12.6 6.56 104.2 26.670 .17 .57 .40 .90 .06 1.03 2.0 20.06\* 1489.3 -17.8  
 5 12.5 6.63 .16 .56 .40 .31 .06 1.18 1.5 22.5 21.0 NOT COMPUTED  
 10 12.8 5.99 .18 .58 .40 .37 .04 .99 1.4 NOT COMPUTED  
 15 12.3 5.79 94.7 28.9 32.201 .41 .60 .19 .22 .40 1.28 3.9 24.38 1495.3  
 20 11.6 5.38 87.3 70.0 33.192 .41 .65 .24 2.5 .38 1.60 4.5 27.6 23.2 25.28 1494.2 179.4  
 30 10.8 5.20 83.2 93.6 33.823 .59 .76 .17 2.2 .48 1.26 3.9 25.91 1492.3 63.5  
 32 10.6 5.12 81.6 102.7 34.126 .59 .82 .23 4.6 .44 1.42 6.5 26.18 1492.0 135.7

DEPTH OIL FEN ORGC YEL. PH CPROD NETPR CORPR NETCO CARB SUMN ORGN TOTN CARB/ ORGC/ TOTC/ MEAN MEAN  
 M MG/L MG MG/L

0 19.6 52.3 47.8  
 2.5 11.8  
 5 9.8 52.1 40.2  
 10 7.8  
 15 9.7  
 20 11.0 94.7 42.5  
 30 6.6  
 32 11.1 43.5

AVERAGE VALUES FOR THE WATER COLUMN 0-30 M AVERAGE VALUES FOR THE WATER COLUMN BELOW 30 M  
 P04P TOTP SUMN TOTN CARB TOTC P04P TOTP SUMN TOTN CARB TOTC  
 TONS TONS TONS TONS TONS TONS TONS TONS TONS TONS

1.9 4.8 8.5 /78.4 5408 .2 .3 .9  
 \* UNSTABLE DENSITY STRATIFICATION WATER SAMPLER THERMOMETER NO 44



STATION 6 DYNABROTT LAT: N 58 17.70 LONG: E 11 18.85 BOTTOM DEPTH 96 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD WAVE AIR SECCHI PROD:START DURAT  
 YEA MON DAY HOU MIN 73 10 03 10 00 73 10 03 09 00 SW 1 M/S NO OBS NO OBS HEIGHT TEMP HR MT HR MT  
 73 10 03 10 00 73 10 03 09 00 SW 1 M/S NO OBS NO OBS 12.0 C 9.0 M

DEPTH M	TEMP CELS	OXYG %	SAT ML/L	A.O.U	SALT 0/00	PO4P MA/L	TOTP MA/L	ORGP MA/L	NO3N MA/L	NO2N MA/L	BOTH MA/L	NH4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/S	SOUNDV	STABIL.
0	12.6	6.60	105.0	26.944	.09	.57	.48	.53	.04	.34	.9	27.1	26.2	20.27	1489.5			
2.5	12.6	6.57	104.6	27.059										20.36	1489.7		35.3	
5	12.6	6.55	104.7	27.505	.23	.55	.32	.12	.03	.68	.8	18.2	17.4	20.70	1490.3		137.6	
10	12.3	5.81	95.0	27.332	.160	.68	.62	1.1	.26	.54	1.9			24.35	1495.1		729.7	
15	12.3	6.01		.17	.77	.60	.57	.10		.73	1.4			NOT COMPUTED				
20	12.2	6.17	101.5	33.699		.56				.86	1.6			25.56	1496.9			
30	12.2	5.92	97.6	12.9	33.835	.50	.63	.15		.99	1.8			25.67	1497.2		10.5	
40	11.7	5.71	93.1	37.8	33.944	.60								25.85	1495.8		17.9	
60	9.9	5.14	80.9	108.1	34.556	.74	1.02	.28	.38	.52	6.3			26.64	1490.4		39.8	
80	9.6	5.64	88.3	66.6	34.731	.95								26.83	1489.9		9.4	
90	9.5	5.11	79.8	115.4	34.721	.56	1.05	.49	.31	.49	.9			26.84	1489.7		.9	

DEPTH M	OIL MG/L	FEN MG/L	ORGC	VEL	PH	CPROD MGC/QMH	NETPR	CORPR	NETCO	CARB MG/L	SUMN /PO4	ORGN /OP	TOTN /TP	CARB /PO4P	ORGC /ORGP	TOTC /TOTP	MEAN N/P	MEAN C/P
0											10.1	54.5	47.5					
2.5											3.7	53.5	33.1					
3											33.6							
10											8.3							
15																		
20																		
30																		
40																		
60																		
80																		
90																		

40.3



STATION 7      LAT:58 22.40      LONG:11 22.65      BOTTOM DEPTH 27 M

LOCAL DATE AND TIME      GREENWICH MEAN TIME      WIND WIND      CLOUD      WAVE      AIR      SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN      73 10 03 11 15      DIR. VEL.      COVER      HEIGHT      TEMP      DEPTH      HR:MT:HR MT  
 73 10 03 12 15      73 10 03 11 15      SW 2:M/S NO OBS      NO OBS      NO OBS      13.0 C      7.0 M

DEPTH TEMP. OXYG % SAT      A.O.U. SALT      P04P      T0TP      ORGP      NO3N      NO2N      BOTH      NH4N      SUMN      TOTN      ORGN      SIGMA      SOUNDV      STABIL.  
 M      CELLS. ML/L      MA/L      0/00      MA/L      MA/L      MA/L      MA/L      MA/L      MA/L      MA/L      MA/L      MA/L      M/S

0	12.3	6.76	106.3		26.080	.05	.54	.49	.97	.02	.66	1.7	24.8	23.1	19.66	1487.4
2.5	12.2	6.88	108.0		26.091		.68								19.68	1487.1
5	12.3	6.74	106.2		26.199		.72	.24	.01		.54	.8	20.0	19.2	19.75	1487.6
10	12.5	5.37	87.5		68.3	30.938	.32	.77	.45	.44	1.07	3.5			23.37	1494.3
15	11.7	5.28	85.6		79.4	32.821	.41	.74	.33	.44	.76	4.5			24.98	1493.9
20	11.7	5.12	83.4		91.3	33.510	.59	.91	.32	.50	.45	4.9			25.51	1494.9
25	10.9	5.06	81.1		105.2	33.769		.90							25.86	1492.5

DEPTH OIL FEN ORGC VEL. PH      CPROD NETPR CORPR NETCO CARB      SUMN ORGN TOTN CARB/ ORGC/ TOTG/ MEAN MEAN  
 M      MG/L      MIG MG/L      MGC/QMH      MG/L      /P04 /OP /TP P04P ORGP TOTP N/P C/P

0	<	.05														
2.5																
5																
10																
15																
20																
25																

36.7 46.7 45.9      27.8

11.0  
11.2  
8.4

36.8



STATION 8  
 LOCAL DATE AND TIME 73 10 03 12 50  
 YEAR MON DAY HOU MIN  
 GREENWICH MEAN TIME 73 10 03 11 50  
 LAT: 58 21.10 LONG: 11 21.35  
 WIND DIR. VEL. 1 M/S NO OBS  
 WAVE HEIGHT NO OBS  
 AIR TEMP 13.5 C  
 SECCHI DEPTH 8.0 M  
 BOTTOM DEPTH 36 M

DEPTH M	TEMP CELS	OXYG %	SAT ML/L	A O U	SALT MA/L	0/00	PO4P MA/L	TOTP MA/L	ORGP MA/L	NO3N MA/L	NO2N MA/L	BOTH MA/L	NH4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/S	SOUNDY	STABIL
0	12.6	6.83	108.2		26.149		.10	.60	.50	.21	.04		.41	.7	25.9	25.2	19.66	1488.6	
2.5	12.5	6.88	108.8		26.164			.54									19.69	1488.3	
5	12.6	7.06	112.4		26.901		.09	.70	.61	.30	.02			.8	17.3	16.5	20.24	1489.6	
10	12.6	5.46	189.4		58.1	31.433	.30	.67	.37	2.1	.44			3.1			23.73	1495.2	220.2
15	11.8	5.78	93.9		33.6	32.991	.37	.63	.26	3.1	.43			4.0			25.09	1494.5	699.0
20	11.4	5.50	188.9		61.5	33.524	.47	.78	.31	3.8	.48			4.8			25.58	1493.8	271.2
30	10.9	5.35	182.1		104.2	27.059	.62	.83	.21	4.7	.45			5.9			20.65*	1484.1	-492.3
35	9.6	5.08	76.0		143.1	27.505		1.04									21.20	1479.9	110.1

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	VEL	PH	CPROD MGC/QMH	NETRR	CORPR	NETCO	CARB MG/L	SUMN /P04	ORGN /DP	TOTN /TP	CARB /P04P	ORGC /T0TP	TOTC /N/P	MEAN C/P
0											6.5	50.6	43.2				
2.5											9.3	27.0	24.7				
5											10.3						
10											10.8						
15											10.1						
20											9.4						
30																	
35																	

\* UNSTABLE DENSITY STRATIFICATION



STATION 9 LAT:58 18,40 LONG:11 23,50 BOTTOM DEPTH 27 M

LOCAL DATE AND TIME	GREENWICH MEAN TIME	WIND DIR.	WIND VEL.	CLOUD COVER	WAVE HEIGHT	AIR TEMP	SECCHI DEPTH	PROD.	START	DURAT							
YEA MON DAY HOU MIN		SW	M/S	NO	NO	C	M	HR	MT	HR	MT						
73 10 03 13 45	73 10 03 12 45		2			14.5	8.5										
DEPTH TEMP. CELLS	OXYG % SAT	A.O.U	SALT	P04P	T0TP	ORGP	NO3N	NO2N	BOTH	MA/L	MA/L	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.
M	ML/L	MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S		
0	12.7	6.96	110.5	26.104	.07	.59	.52	.28	.02	.75	1.1	22.5	21.4	19.61	1488.9		
2.5	12.6	6.99	110.8	26.352		.59								19.82	1488.6		83.8
5	12.8	6.99	111.9	27.027	.09	.87	.78	.20	.03	.61	.8	24.6	23.8	20.30	1490.4		193.5
10	12.7	5.79	95.0	27.1	31.576	.33	.70	2.4	.44	1.31	4.1			23.82	1495.8		705.2
15	11.9	5.96	97.2	15.6	33.007	.36	.66	2.7	.41	1.72	4.8			25.08	1494.9		251.5
20	12.1	5.85	95.4	25.0	32.577	.28	.63	4.1	.31	1.47	5.9			24.71	1495.1		-74.1
30	11.6	6.20	100.8	33.769		.66								25.73	1495.0		101.6

DEPTH	OIL	FEN	ORGC	VEL.	PH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
M	MG/L	MG/L	MG/L			MGC/QMH			MG/L	MG/L	/P04	/OP	/TP	P04P	ORGP	T0TP	MEAN
0											15.7	41.0	38.1				
2.5											9.3	30.5	28.3				
5											12.6						
10											13.5						
15											21.0						
20																	
30																	

\* = UNSTABLE DENSITY STRATIFICATION



STATION 10

LAT: 58 17.45 LONG: 11 25.50

BOTTOM DEPTH 22 M

LOCAL DATE AND TIME	GREENWICH MEAN TIME	WIND WIND DIR. SW	WIND WIND VEL. 1 M/S	WAVE HEIGHT NO OBS	AIR TEMP 14.0 C	SECCHI DEPTH	PROD: START HR	DURAT HR	MT							
73 10 03 14 25	73 10 03 13 25															
DEPTH TEMP CELS	OXYG % SAT	A.O.U	SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL
M	ML/L	MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S	
0	12.6	7.09	112.2	25.872	.11	.54	.43	.20	.05	.36	.06	15.4	14.8	19.45	1488.2	
2.5	12.7	6.83	108.7	26.485		.56								19.90	1489.4	181.7
5	12.7	6.99	111.3	26.546	.07	.57	.50	.24	.02	.07	.03	6.2	5.9	19.95	1489.5	16.9
10	12.8	5.51	89.8	55.8	30.090	.32	.80	1.6	.31	.25	2.2			22.66	1494.3	542.5
15	12.0	5.34	87.0	71.0	32.835	4.17	.76	3.7	.46	.34	4.5			24.93	1495.0	454.2
20	11.6	5.70	92.5	41.2	33.402	.35	.68	3.3	.40	.66	4.3			25.44	1494.4	102.7

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	VEL. PH	CPROD	NETPR	CORPR	NETCO	CARB	MG/L	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
					MGC/QMH						/P04	/CP	/TP	P04P	ORGP	TOTP	N/P
0											5.4	34.7	28.6				
2.5																	
5											4.9	11.7	10.9				
10											6.9						
15											1.1						
20											12.4						19.8

< .05



STATION 11 LAT:58 15.95 LONG:11 22.20 BOTTOM DEPTH 40 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND DIR. WIND VEL. WIND SW. WAVE HEIGHT NO OBS AIR TEMP DEPTH SECCHI PROD: START DURAT  
 YEA MON DAY MOU MIN 73 10 03 08 25 73 10 03 07 25 1 M/S NO OBS 13.0 C 19.5 M

DEPTH (M)	TEMP (CELS)	OXYG (ML/L)	SAT	A. O. U. (MA/L)	SALT (MA/L)	P04P (MA/L)	TOTP (MA/L)	NO3N (MA/L)	NO2N (MA/L)	BOTH (MA/L)	SUMN (MA/L)	TOTN (MA/L)	ORGN (MA/L)	SIGMA (M/S)	SOUNDV (STABIL.)
0	12.6	6.29	100.4		27.402	.11	.64	.58	.08	.32	1.0	21.4	20.4	20.62	1490.1
2.5	12.6	6.30	100.5		27.385		.59							20.61*	1490.1
5	12.6	6.33	101.2		27.492	.03	.59	.44	.01	.28	.7	20.3	19.5	20.69	1490.3
10	12.7	5.20	85.4		27.231	.674	.68	.18	.33	.52	3.4			23.90	1495.9
15	12.2	5.79	95.3		25.533	.655	.55	.29	.21	.78	2.5			25.53	1496.7
20	12.2	5.92	97.4		14.133	.542	.57	.33	.21	.54	2.2	14.9	12.7	25.44*	1496.7
30	11.9	5.83	95.4		25.433	.732	.67	.19	.23	.72	2.8			25.64	1496.0

DEPTH (M)	OIL (MG/L)	FEN (MG/L)	ORGC (MG/L)	PH	CPROD (MGC/GMH)	NETPR (MGC/GMH)	CARB (MG/L)	SUMN (PO4 / P04 / AOP / TP) (MG/L)	TOTN (MG/L)	CARB (MG/L)	ORGC (MG/L)	TOTC (MG/L)	MEAN (N/P) (C/P)
0	<.05							8.8	38.7	33.4			
2.5								21.9	35.1	34.4			
5								6.8					
10								9.8					
15								9.4	38.0	26.1			
20								1.2					
30													31.3

\* UNSTABLE DENSITY STRATIFICATION



STATION 12

LAT: 58 15.65 LONG: 11 26.70

BOTTOM DEPTH 52.0 M

LOCAL DATE AND TIME	GREENWICH MEAN TIME	WIND DIR.	WIND VEL.	CLOUD COVER	WAVE HEIGHT	AIR TEMP.	SECCHI DEPTH	PROD.	START	DURAT								
YEA/MON/DAY/HR/MT	73/10/03/15/10	SW	1 M/S	NO OBS	NO OBS	14.0 C	7.5 M		HR	MT								
DEPTH TEMP. CELS.	OXYG % SAT	A.O.U.	SALT	MA/L	0/00	MA/L	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.
M	ML/L			MA/L		MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S		
0	12.8	6.82	108.7	26.434	.20	.86	.66	.16	.02	.45	.6	18.8	18.1	19.84	1489.6			
2.5	12.8	6.49	103.6	26.665		.61				.42	.6	24.0	23.4	20.02	1489.9			
5	12.7	6.58	104.9	26.779	.11	.61	.50	.18	.02	.47	3.2			20.13	1489.8			
10	13.8	4.74	79.4	110.0	31.030	.73	.39	2.4	.29	.29	3.6			23.19	1498.8			
15	12.1	5.70	93.3	36.7	32.935	.68		2.9	.35	.54	2.8	23.4	20.6	24.99	1495.5			
20	12.3	5.65	92.3	42.0	32.026	.58	.34	2.0	.28	.47	2.9			24.25*	1495.1			
30	12.0	5.75	94.1	32.0	33.563	.59	.26	2.1	.25					25.49	1496.2			
								2.										

DEPTH	ML/L	ML/L	MG/GMH	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
M	11	11.5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
0	3.1	27.6	21.8																
2.5	5.6	47.0	39.3																
5	9.4																		
10	11.9	59.9	40.3																
15	8.8																		
20	6.1																		
30																			
40																			

UNSTABLE DENSITY STRATIFICATION

33.8



EXTRA STATION AT THE MOUTH OF BROOKLYN

LOCAL DATE AND TIME	GREENWICH MEAN TIME	WIND DIR.	WIND VEL.	CLOUD COVER	WAVE HEIGHT	AIR TEMP	SECCHI DEPTH	PROD.	START	DURAT								
YEA/MON/DAY/HOU/MIN		W	M/S		M				HR	MT								
73 10 02 13 40	73 10 02 12 40	W	4	3/8	0													
DEPTH TEMP. OXYG % SAT	A.O.U. SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.				
M CELS. ML/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S					
.1	3.02	5.18	2.16	25.2	3.5		12.40	41.0	105.9	64.9			NOT	COMPUTED				
.1	3.15	4.90	1.75	24.9	3.5		12.47	40.9	109.5	68.6			NOT	COMPUTED				
DEPTH	OIL	FEN	ORGC	YEL.	PH	CFPROD	NETRR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB/	ORGC/	TOTC/	MEAN	MEAN
M	MG/L	MIG	MG/L			MGC/QMH				MG/L	/PO4	/OP	/TP	PO4P	ORGP	TOTP	N/P	C/P
.1																		
.1																		

13.6 30.0 20.4  
13.0 39.3 22.4



STATION 1 INRE BROFJORDEN LAT: N 58 22.50 LONG: E 11 26.30 BOTTOM DEPTH: 18 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD WAVE AIR SECCHI PROD: START DURAT  
 YEA/MON DAY HOU MIN /73 10 03 11 20 /73 10 03 10 20 DIR. VEL. COVER HEIGHT TEMP. DEPTH HR MT HR MT  
 73 10 03 11 20 /73 10 03 10 20 SSW 1 M/S 0 /8 0 0.1 M 14.5 C 4.0 M

DEPTH	TEMP.	OXYG %	SAT	A.O.U.	SALT	RO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.
M	CELS.	ML/L	ML/L	ML/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S	M/S	M/S
0	12.0	7.09	110.6		25.778	.07	.63	.56							19.48	11485.9		
5	12.9	5.49	89.6	57.1	29.944	.28	.98	.70							22.53	11494.3	610.3	
10	12.1	5.29	86.3	75.1	32.603	.39	.71	.32							24.74	11494.9	440.9	
15	11.5	5.30	85.8	78.2	33.326	.50	.79	.29							25.40	11494.0	132.4	
17	11.5	5.15	83.4	91.8	33.394	.51	.87	.36							25.46	11493.9	130.0	

DEPTH	CHL	FEN	ORGC	VEL.	PH	CPROD	NETPR	CORPR	NETCO	CARB	MG/L	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN	MEAN
M	MG/L	MG	MG/L			MGC/QMH	/OP	/TP	P04P	ORGP	TCTP	N/P	C/P						
0				8.2			22.8				7258								
5				8.1			24.4				5411								
10				8.1			25.3				4260								
15				8.1			25.6				4195								
17				8.1			25.7												

NOTE: UVF THETIS



STATION 2 (FJ 62) BROFJORDEN LAT: N 58 21.60 LONG: E 11 25.70 BOTTOM DEPTH: 22 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WAVE AIR SECCHI PROD:START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMP DEPTH HR MT HR MT  
 73 10 03 11 45 73 10 03 10 45 SSW 1 M/S 0 /8 0 -0.1 M 14 5 C 6.1 M

DEPTH TEMP. OXYG % SAT A.O.U SALT P04P TOTP ORGP N03N N02N BOTH NH4N SUMN TOTN ORGN SIGMA SOUNDV STABIL.  
 M CELS. ML/L MA/L 0/00 MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L M/S  
 0 12.3 7.12 111.9 25.933 .65 .60 19.54 1487.3  
 5 12.9 5.75 93.3 36.8 29.068 .75 21.86 1493.2 462.5  
 10 12.0 5.34 87.0 71.4 32.696 .87 24.82 1494.7 593.7  
 15 11.7 5.57 90.5 52.4 33.238 .70 25.30 1494.4 94.7  
 20 11.3 5.28 85.2 82.0 33.537 .83 25.60 1493.5 61.0  
 25 11.3 5.26 84.9 83.4 33.593 .70 25.65 1493.7 8.3

DEPTH OIL FEN ORGC YEL. PH CPROD NETPR CORPR NETCO CARB SUMN ORGN TOTN CARB/ ORGC/ TOTC/ MEAN MEAN  
 M MG/L MG/L MG/L MGC/QMH MG/L /P04 /OP /TP P04P ORGP TOTP N/P C/P  
 0 8.3 22.7  
 5 8.2 24.0  
 10 8.1 25.3  
 15 8.1 25.5  
 20 8.1 25.7  
 2 8.1 25.7  
 105  
 54  
 54  
 47  
 46

NOTE: U/F THETIS



STATION 3 STRETUDDEN  
 LOCAL DATE AND TIME 73 10 03 13 00 73 10 03 12 00  
 YEAR MON DAY HOU MIN  
 LAT: N 56 20.55 LONG: E 11 24.15  
 BOTTOM DEPTH 48 M

DEPTH M	TEMP CELS	OXYG % SAT	A.O.U	SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL
		ML/L	MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/L	M/S	
0	12.5	6.89	108.9		26.269	.06	.58	.52							19.77	1488.3	
5	12.9	6.28	101.1		27.786	.12	.68	.56							20.87	1491.6	219.2
10	12.3	5.45	89.0	60.4	32.056	.31	.61	.30							24.28	1494.9	681.4
15	11.9	5.78	94.3	31.0	33.501	.27	.66	.39							25.47	1495.3	239.8
20	11.7	5.66	92.0	43.7	33.554	.30	.64	.34							25.55	1494.8	15.3
30	10.7	5.08	81.1	106.0	34.023	.56	.91	.35							26.10	1492.0	54.7
40	9.2	5.06	78.7	122.4	34.832	.78	1.17	.39							26.97	1488.0	87.0
47	9.3	5.02	78.1	125.7	34.833	.79	1.29	.50							26.97*	1488.2	7.4

DEPTH M	OIL	FEN	ORGC	VEL	PH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
	MG/L	MG	MG/L	MG/L		MG/GMH				MG/L	/PO4	/OP	/TP	PO4P	ORGP	TOTP	N/P
0										23.0							
5				8.2						23.5							
10				8.1						25.1				6737			
15				8.1						25.5				7854			
20				8.1						25.4				7062			
30				8.1						25.9				3847			
40				8.1						26.2				2800			
47				8.1						26.3				2770			

\* = UNSTABLE DENSITY STRATIFICATION



STATION 4 YTTRE BROFJORDEN LAT: N 58 19.90 LONG: E 11 23.10 BOTTOM DEPTH 34 M

LOCAL DATE AND TIME 73 10 03 13 30 GREENWICH MEAN TIME 73 10 03 12 30 WIND WIND DIR. WIND VEL. WIND SW WAVE HEIGHT 0.1-0.5 M AIR TEMP 16.0 C SECCHI PROD: START DURAT DEPTH HR MT HR MT 6.4 M

DEPTH M	TEMP CELS	OXYG % SAT	A.O.U	SALT	P04P	TOTP	ORGP	NO3N	NO2N	BOTH	IN4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL
			MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/L	M/S	
0	12.4	7.10	112.0	26.132	.08	.58	.50							19.68	1487.9		
5	12.6	6.78	108.0	27.023	.09	.66	.57							20.33	1489.8		129.8
10	12.3	5.60	91.5	46.732	.141	.70	.43							24.34	1495.0		802.5
15	11.9	5.88	96.0	21.833	.292	.69	.45							25.30	1495.3		191.3
20	11.9	5.94	97.1	16.033	.619	.51	.27							25.56	1495.6		52.9
25	11.5	5.73	93.0	38.333	.736	.60	.28							25.71	1494.7		30.4
31	11.4	5.62	91.0	49.633	.781	.84	.47							25.77	1494.3		10.1

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	VEL PH	CPROD	NETPR	CORPR	NETCO	CARB	MG/L	/P04	/OP	/TP	P04P	ORGP	TOTG	MEAN
					MGC/QMH												
0				8.2					22.8								
5				8.2					23.2								
10				8.1					25.1								7728
15				8.1					25.4								8813
20				8.1					25.4								8829
25				8.1					25.6								6648
31				8.1					25.7								5777

NOTE: U/F THETIS



STATION 5 (FJ 63) MALM6DRAG LAT: N 58 19,10 LONG: E 11 21,70 BOTTOM DEPTH 36 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WAVE AIR SECCHI PROD:START DURAT  
 YEA MON DAY HOU MIN /73 10 03 10 25 /73 10 03 09 25 S 2 M/S 0 /8 0 =0.1 M 14.5 C 7,0 M DEPTH HR MT HR MT

DEPTH M	TEMP CELS	OXYG % SAT	A.O.U	SALT MA/L	PO4P MA/L	TOTP MA/L	ORGP MA/L	NO3N MA/L	NO2N MA/L	BOTH MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/S	SOUNDV	STABIL
0	12.3	6.88	108.4	26.258	.06	.47	.41							19.79	1487.8	
5	12.7	6.45	103.4	27.596	.08	.63	.55							20.75	1490.9	191.8
10	12.1	5.60	91.3	47.4	32.595	.29	.36							24.73	1494.9	796.0
15	11.9	5.83	95.2	26.1	33.427	.23	.29							25.41	1495.4	135.6
20	12.0	5.91	96.8	17.3	33.710	.15	.37							25.61	1496.1	41.6
30	11.5	5.83	94.7	29.1	33.897	.26	.34							25.84	1494.9	23.1
35	11.3	5.55	89.7	56.9	33.914	.35	.33							25.90	1494.1	11.4

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	YEL. PH	CPROD MGC/QMH	NETPR	CORPR	NETCO	CARB MG/L	SUMN /P04	ORGN /OP	TOTN /TP	CARB/ P04P	ORGC/ ORGP	TOTC/ TOTP	MEAN N/P	MEAN C/P
0	<.05			8.2					23.0								
5				8.2					23.5								
10				8.1					25.3				7262				
15				8.1					25.5				9228				
20				8.1					25.5								
30				8.1					25.6				8213				
35				8.1					25.8				6129				

AVERAGE VALUES FOR THE WATER COLUMN 0-30 M				AVERAGE VALUES FOR THE WATER COLUMN BELOW 30 M			
PO4P TONS	TOTP TONS	SUMN TONS	TOTN TONS	PO4P TONS	TOTP TONS	SUMN TONS	TOTN TONS
4.9				2.2			
							260

NOTE: U/F/T/H/T IS



STATION 6 DYNABROTT LAT: N 58 17.70 LONG: E 11 18.85 BOTTOM DEPTH 96 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND DIR. WAVE HEIGHT AIR TEMP DEPTH PROD START DURAT  
 YEA/MON/DAY/HOU/MIN /73 10 03 08 20 /73 10 03 07 20 SE 1 M/S 0 /8 0 --0.1 M 12.5 C 18.0 M

DEPTH TEMP. OXYG % SAT A.O.U. SALT MA/L UO/00 MA/L TOTP ORGP NO3N NO2N BOTH NH4N SUMN TOTN ORGN SIGMA SOUNDV STABIL.  
 M CELS. ML/L MA/L

0	12.3	7.06	111.8	27.140	.10	.56	.46	20.48	1488.7										
5	12.5	6.53	104.6	28.192	.13	.51	.38	21.24	1490.9										153.6
10	12.2	6.00	98.2	10.0	32.849	.21	.30	24.91	1495.5										733.5
15	12.2	6.19	101.9		33.655	.11	.33	25.53	1496.8										122.9
20	12.2	6.12	100.8		33.781	.18	.33	25.62	1497.0										19.9
30	12.1	6.03	99.2	4.6	33.850	.20	.42	25.70	1496.9										7.2
40	11.5	5.81	94.5	30.3	33.972	.33	.33	25.90	1495.2										20.0
50	10.4	5.35	85.1	83.5	34.282	.53	.31	26.34	1491.9										43.9
75	9.4	5.34	83.3	95.8	34.742	.62	.32	26.87	1489.0										21.5
89	9.4	5.26	82.0	103.0	34.777	.66	.33	26.90	1489.3										2.1

DEPTH	OIL	FEN	ORGC	VEL	PH	CPRD	NETPR	CORPR	NETCO	CARB	MG/L	/P04	/OP	/TP	P04P	ORGP	TOTP	MEAN	MEAN
M	MG/L	MG	MG/L			MGC/QMH													
0	<.05			8.1						23.7									
5				8.1						24.0									
10				8.1						25.5									
15				8.1						25.5									
20	<.05			8.1						25.6									
30				8.1						25.6									
40				8.1						25.8									
50				8.1						26.1									
75				8.0						26.5									
89				8.0						26.4									

6501  
 4093  
 3555  
 3335



STATION 1 INREIBROBJORDEN LAT: N 58 22.50 LONG: E 11 26.30 BOTTOM DEPTH: 18.1M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND DIR. WIND VEL. CLOUD COVER WAVE HEIGHT AIR TEMP SECCHI DEPTH PROD: START DURAT  
 YEA MON DAY HOUR MIN 73 10 16 15 40 73 10 16 14 40 0 MMS: 0 10 0 M

DEPTH M	TEMP CELS	OXYG ML/L	% SAT	A.O.U	SALT	PO4P MA/L	TOTP MA/L	NO3N MA/L	NO2N MA/L	BOTH MA/L	IN4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/S	SOUNDY	STABIL
0	8.5	6.65	96.7	20.4	26.883	.18	.56	.38	2.7	.13	.63	3.4	19.2	15.7	20.87	1474.4	
2.5	9.8	6.53	98.4	19.4	27.780	.24	.54	.30	2.7	.14	.64	3.5			21.38	1480.5	203.6
5	10.2	6.56	100.1		28.551	.09	.56	.47	.49	.02	1.13	1.6	18.3	16.7	21.92	1483.0	214.6
10	10.4	6.18	95.1	28.5	29.088	.14	.73	.59	.24	.03	1.99	2.3			22.30	1484.5	176.9
15	10.9	5.84	91.3	49.8	29.775	.21	.64	.43	2.2	.12	2.76	5.1			22.75	1487.3	189.8
16	10.9	5.71	89.4	60.5	30.022	.28	.71	.43	1.00	.17	1.58	2.7	13.4	10.7	22.94	1487.6	191.4

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	VEL. RH	CPKOD	NETRR	CORPR	NETCO	CARB MG/L	SUMN /PO4	ORGN /OP	TOTN /TP	CARB /ORGP	ORGN /ORGP	TOTC/ N/P	MEAN	MEAN
0	<.05		.46							18.9	41.5	34.2					
2.5			.46							14.8							
5			.28							18.2	35.5	32.7					
10			.32							16.7							
15			.28							23.7							
16			.28							19.7	25.1	18.9					28.6

WATER SAMPLER THERMOMETER NO: 44



STATION 12 (FU-62) BROFJORDEN LAT: N 58 21.60 LONG: E 11 25.70 BOTTOM DEPTH: 22 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WIND WAVE WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMP DEPTH HR:MT HR:MT

73 10 16 14 55 / 73 10 16 13 55 0 M/S: 0 / 8 0 M

DEPTH (M)	TEMP (CELS)	OXYG %	SAT	A.O.U	SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL
M	CELS	ML/L	MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/L	M/S	
0	8.1	6.75	97.0	18.7	26.590	.15	.53	.38	.48	.05		.87	1.4	16.5	15.1	20.70	1472.5	
2.5	10.1	6.25	95.1	28.5	28.336	.12	.52	.40	.23	.04		.79	1.1			21.77	1482.4	427.8
5	10.2	6.44	98.4	9.5	28.589	.08	.51	.43	.11	.04		1.36	1.5	17.9	16.4	21.95	1483.1	72.1
10	10.4	6.29	96.8	18.4	29.074	.10	.67	.57	.17	.03		1.53	1.7			22.29	1484.5	68.9
15	10.9	5.95	93.3	38.2	30.187	.17	.52	.35	.41	.14		1.71	2.3			23.07	1487.8	156.0
20	12.1	4.73	77.4	123.5	32.822	.46	.74	.28	2.2	.59		1.55	4.3	16.9	12.6	24.90	1495.5	365.0
22	12.0	4.66	76.0	131.3	32.811	.54	.92	.38	2.8	.56		1.21	4.5	15.1	10.6	24.91	1495.2	5.3

DEPTH (M)	OIL	FEN	ORGC	VEL.	PH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN	MEAN
M	MG/L	MIG	MG/L			MGC/GMH	MG/L	MG/L	MG/L	MG/L	/PO4	/OP	/TP	PO4P	ORGP	TOTP	N/P	C/P
0	<.05			.46							9.5	39.3	31.0					
2.5				.28							8.5							
5	<.05			.23							19.0	38.1	35.1					
10				.23							17.0							
15				.23							13.3							
20	<.05			.09							9.4	45.5	22.9					
22				.09							8.4	28.0	16.4					26.4

WATER SAMPLER THERMOMETER NO 44



STATION 3 STRETUDDEN LAT: N 58 20.55 LONG: E 11 24.15 BOTTOM DEPTH 48 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMP HR MT HR MT  
 73 10 16 14 05 73 10 16 13 05 0 M/S 0 /8 0 M

DEPTH M	TEMP CELS	OXYG ML/L	% SAT	A.O.U	SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL
		MA/L	0/00	MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S	
0	8.3	6.62	95.8	25.6	26.848	.08	.53	.45	.69	.07		1.42	2.2	18.3	16.1	20.87	1473.6	
5	10.1	6.54	99.5	2.9	28.360	.06	.61	.55	.16	.02		.58	.8	25.6	24.8	21.79	1482.4	182.7
10	10.2	6.48	99.3	4.0	29.032	.00	.56	.56	.09	.02		2.90	3.0			22.29	1483.7	101.1
15	10.6	6.20	96.3	21.6	29.886	.10	.48	.38	2.6	.07		1.55	4.3			22.89	1486.4	119.4
20	12.1	4.98	81.4	101.7	32.661	.37	.73	.36	2.1	.50				17.7		24.77	1495.3	376.7
30	12.0	4.79	78.4	117.9	33.284	.53	.89	.36		.56		1.07				25.27	1495.9	50.1
40	10.1	3.38	53.5	262.5	34.502	1.48	2.22	.74	8.3	.53		1.97	10.9			26.56	1490.8	128.8
43	9.7	3.13	49.2	289.1	34.676	1.43	1.92	.49	8.1	.57		2.59	11.3	18.9	7.6	26.77	1489.6	67.8

DEPTH M	OIL MG/L	FEN MG/L	ORGC	VEL	PH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
						MGC/QMH			MG/L	MG/L	/P04	/OP	/TF	P04P	ORGP	TOTP	C/P
0	<.05			.78							27.6	35.7	34.5				
5				.92							13.4	44.9	41.9				
10				.60													
15				.69													
20				.92													
30				.78													
40				.78							7.3	15.4	9.9				
43				.46													

WATER SAMPLER THERMOMETER NO 44



STATION 4 YTTRE BROFJORDEN LAT: N 58 19.90 LONG: E 11 23.10 BOTTOM DEPTH 34 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WIND WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMP DEPTH HR MT HR MT

73 10 16 13 05 73 10 16 12 05 0 M/S: 0 /8 0 M

DEPTH M	TEMP. CELS.	OXYG % SAT	A.O.U.	SALT	P04P	TOTP	ORGP	NO3N	NO2N	CLOUD COVER	WAVE HEIGHT	AIR TEMP	TOTN	ORGN	SIGMA	SOUNDY	STABIL.		
	ML/L	MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S	M/S		
0	9.0	6.67	98.4	9.5	27.410	.17	.50	.33	.13	.02			.4	12.2	11.8	21.21	1477.0		
5	10.3	6.50	99.5	2.9	28.714	.09	.72	.63	.12	.02			1.17	17.1	15.8	22.03	1483.6		
10	10.4	6.40	98.6	8.1	29.219	.06	.52	.46	.16	.01			1.22			22.40	1484.7		
15	11.0	5.99	94.3	32.3	30.546	.15	.55	.40	.57	.12			1.58	2.3	23.33	1488.6	185.7		
20	12.2	5.08	83.3	91.2	32.816	.37	.74	.37	1.1	.46			2.36	4.0	16.9	24.87	1495.8	308.2	
30	12.2	5.11	84.0	86.9	33.347	.42	.76	.34	2.6	.48			1.59	4.6	25.28	1496.7	41.1		
31	12.2	5.01	82.4	95.7	33.384	.43	.74	.31	3.0	.47			2.62	6.1	17.5	11.4	25.31	1496.7	29.3

DEPTH M	OIL FEN ORGC	YEL.	PH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
	MG/L	MG/L	MG/L	MGC/QMH	MGC/QMH	MGC/QMH	MGC/QMH	MGC/QMH	/P04	/OP	/TP	P04P	ORGP	TOTP	N/P
0	<	.05							2.5	35.6	24.4				
5									14.5	25.1	23.7				23.7
10									24.8						23.7
15									15.4						
20									10.6	35.3	22.9				
30									11.1						
31									14.2	36.8	23.7				

WATER SAMPLER THERMOMETER NO 44



STATION 5 (FJ 63) MALMÖDRAG LAT: N 58 19.10 LONG: E 11 21.70 BOTTOM DEPTH 36 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMPERATURE HR MT HR MT  
 73 10 16 12 20 73 10 16 11 20 0 M/S: 0 /8 0 M

DEPTH M	TEMP. CELS.	OXYG. ML/L	% SAT	A.O.U.	SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.
				MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/L	M/S	
0	8.5	6.76	98.5	9.3	27.169	.15	.49	.34	.11	.07			.99	1.2	14.1	12.9	21.10	1474.8
2.5	8.6	6.69	97.8	13.2	27.439	.16			.25	.02			.84	1.1			21.29	1475.5
5	9.9	6.55	99.2	4.7	28.219	.03	.69	.66	.12	.03			2.50	2.7	15.2	12.6	21.71	1481.5
10	10.3	6.38	98.2	10.2	29.464	.09	.58	.49	.14	.02			1.67	1.8			22.61	1484.6
15	10.6	6.26	97.3	15.7	29.975	.12	.50	.38	.30	.05			3.26	3.6			22.96	1486.5
20	12.1	5.05	82.5	95.5	32.730	.44	.63	.19	2.0	.49			1.50	4.0	15.8	11.7	24.83	1495.4
30	12.2	5.16	84.9	82.2	33.509	.42	.66	.24	2.3	.48			2.72	5.5			25.41	1496.9
33	12.2	5.35	88.1	64.8	33.509	.41	1.05	.64	2.3	.47			1.07	3.9	14.3	10.4	25.41*	1496.9

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	VEL. PH	CPROD	NETPR	CORPR	NETCO	CARB	MG/L	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
					MGC/QMH						/PO4	/OP	/TP	PO4P	ORGP	TOTP	MEAN
0	<.05			.46							7.9	37.7	28.8				
2.5	<.05			.46							7.0						
5				.41							78.3	19.2	22.1				
10				.32							20.2						
15				.28							29.0						
20	<.05			.23							9.1	62.1	25.0				25.3
30				.23							13.1						13.6
33				.18							9.5	16.2	13.6				

AVERAGE VALUES FOR THE WATER COLUMN 0-30 M AVERAGE VALUES FOR THE WATER COLUMN BELOW 30 M

PO4P TONS	TOTP TONS	SUMN TONS	TOTN TONS	CARB TONS	TOTC TONS
1.5	4.5	8.6	54.7		
		.3	.5	1.1	2.4

UNSTABLE DENSITY STRATIFICATION WATER SAMPLER THERMOMETER NO 44



STATION 6 DYNABROTT LAT: N 58 17.70 LONG: E 11 18.85 BOTTOM DEPTH 96 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND DIR. WIND VEL. WAVE HEIGHT AIR TEMP SECCHI DEPTH PROD: START DURAT  
 YEA MON DAY HOU MIN 73 10 16 10 50 73 10 16 09 50 0 M/S: 0 / 8 0 M

DEPTH M	TEMP. CELS.	OXYG % SAT	A.O.U. SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDY	STABIL.
		MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/L	M/S	
0	9.7	6.53	98.3	10.2	27.966	.03	.59	.56	.04	.13	18.7	18.7	21.54	1480.4		
5	10.1	6.54	99.4	3.8	28.214	.08	.58	.50	.02	.18	18.2	18.2	21.67	1482.2	26.2	
10	10.8	6.37	98.8	6.7	28.931	.10	.52	.42	.04	.33	.9	.9	22.12	1485.8	88.5	
15	11.1	6.24	97.8	12.4	29.576	.08	.49	.41	.02	.07	.7	.7	22.56	1487.8	89.7	
20	12.4	5.39	88.8	60.7	33.155	.23	.51	.28	.35	1.22	2.9	18.5	25.10	1496.9	506.9	
30	12.3	5.18	85.4	79.1	33.504	.26	.66	.40	.23	1.43	4.1	1.43	25.39	1497.2	28.9	
50	11.2	5.02	81.2	103.6	34.220	.49	.90	.41	.33	1.04	5.3	1.04	26.15	1494.6	38.1	
88	9.5	5.19	81.1	107.7	34.815	.76	1.16	.40	.33	.46	7.9	27.6	19.7	26.91	1489.8	20.0

DEPTH M	OIL	FEN	ORGC	VEL.	PH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
	MG/L	MG	MG/L			MGC/GMH			MG/L	MG/L	/PO4	/OP	/TP	PO4P	ORGP	TOTP	N/P
0				.46									31.7				
5				.46									31.4				
10				.55						8.4							
15				.51						8.3							
20				.23						13.0	54.7		36.2				33.1
30				.18						15.8							
50				.18						10.8							
88				.14						10.4	49.1		23.8				23.8

WATER SAMPLER THERMOMETER NO 44



EXTRA STATION AT BROALVEN BRODALEN

LOCAL DATE AND TIME	GREENWICH MEAN TIME	WIND DIR.	WIND VEL.	CLOUD COVER	WAVE HEIGHT	AIR TEMP	SECCHI DEPTH	PROD. START	DURAT			
YEA MON DAY HOU MIN					NO OBS			HR MT	HR MT			
73 10 16 07 45	73 10 16 06 45			0 / 8								
DEPTH TEMP. CELS. ML/L	A. O. U. SALT MA/L	TOTR ORGP MA/L	NO3N MA/L	NO2N MA/L	BOTH MA/L	NH4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/S	SOUNDV	STABIL.
0		1.88	50.6	1.1	9.71	61.4	71.5	10.2			NOT	COMPUTED
0		1.83	51.3	1.1	9.59	62.0	70.6	8.7			NOT	COMPUTED
DEPTH M	OIL FEN ORGC YEL. PH	CPROD NETPR CORPR NETCO CARB	SUMN ORGN TOTN CARB/ ORGC/	TOTC/	MEAN	MEAN						
	MG/L MG/L MG/L	MGC/GMH	MG/L /P04 /OP /TP P04P ORGP	TOTP	N/P	C/P						

0.327  
0.338



EXTRA STATION BRO OVER BROALVEN BRODALEN

LOCAL DATE AND TIME	GREENWICH MEAN TIME	WIND DIR.	WIND VEL.	CLOUD COVER	WAVE HEIGHT	AIR TEMP	SECCH DISP	PROD	START	DURAT									
YEA MON DAY HOU MIN		SSW	10 M/S		NO OBS		DEPTH		HR	MT									
73 11 06 09 00	73 11 06 08 00			3 78		7.5 C													
DEPTH TEMP. OXYG % SAT	A.O.U SALT	P04P	T0TP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	T0TN	ORGN	SIGMA	SOUNDY	STABIL					
M CELS. ML/L	MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S						
0				.84	62.1	1.5	12.92	76.5					NOT COMPUTED						
0					64.2	1.5							NOT COMPUTED						
DEPTH	OIL	FEN	ORGC	YEL.	PH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	T0TN	CARB	ORGC	T0TC	MEAN	MEAN	
M	MG/L	MG	MG/L			MG/GMH					MG/L	/P04	/OP	/TP	P04P	ORGP	T0TP	N/P	G/P
0																			
0																			

90.6



STATION 1 INRE BROFJORDEN LAT: N 58 22,50 LONG: E 11 26,30 BOTTOM DEPTH: 16 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD WAVE AIR (SECOMI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMP DEPTH HR MT HR MT  
 73 11 21 11 30 /73 11 21 10 30 W 15 M/S: 3 /8 NO OBS

DEPTH M	TEMP CELS	OXYG % SAT	A.O.U	SALT	P04P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL				
		MA/L	0/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/L	M/S					
0	6.9	7.02	101.5	31.747	.41	1.16	.75	3.0	.29	1.33	4.6	1.38	4.4	1.40	5.0	13.4	8.5	24.91	24.89	1474.4	1474.0
2.5	6.8	6.95	100.3	31.739	.37	.77	.40	2.7	.32	1.38	4.4	1.40	5.0	13.4	8.5	24.91	24.89	1474.4	1474.0	1474.0	1474.0
5	7.0	7.57	109.8	31.788	.41	.79	.38	3.3	.31	1.40	5.0	1.35	4.0	1.46	3.2	25.02	25.02	1477.3	1477.3	1474.9	1474.9
10	7.5	7.09	104.1	32.014	.29	.81	.52	2.4	.29	1.35	4.0	1.46	3.2	1.70	3.3	20.5	17.2	25.30	25.30	1480.7	1480.7
15	8.2	7.12	106.6	32.491	.24	.78	.54	1.5	.24	1.46	3.2	1.70	3.3	1.70	3.3	20.5	17.2	25.30	25.30	1480.7	1480.7
17	8.2	7.08	106.0	32.497	.25	.82	.57	1.4	.24	1.70	3.3	1.70	3.3	1.70	3.3	20.5	17.2	25.30	25.30	1480.7	1480.7

DEPTH M	OIL	FEN	ORGC	VEL.	PH	CFPROD	NETPR	CORPR	NETOC	CARB	MG/L	/F04	/OP	TOTN	CARB	ORGC	TOTC	MEAN	C/P	
	MG/L	MG	MG/L			MGC/QMH														
0	<.05			.60							11.4									
2.5				.46							11.8									
5				.37							12.2	22.1	17.0							
10				.37							14.0									
15				.32							13.1									
17				.37							13.1	30.3	25.0							21.0

WATER SAMPLER THERMOMETER NO 44



STATION 2 (FJ 62) BROPJORDEN LAT: N 58 21.60 LONG: E 11 25.70 BOTTOM DEPTH: 22 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND DIR. WIND SW WAVE HEIGHT AIR TEMP SECCHI PROD: START DUKAT HR: MT HR MT  
 YEA: MON DAY HOU MIN 73 11 21 11 00 73 11 21 10 00 SW 12 M/S 8/8 0.1-0.5 M

DEPTH M	TEMP. CELS.	OXYG %	SAT ML/L	A.O.U	SALT MA/L	PO4F MA/L	TOTP MA/L	ORGF MA/L	NO3N MA/L	NO2N MA/L	BOTH MA/L	NH4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/S	SOUNDV	STABIL.
0	6.4	7.05	100.8		31.763	.21	.72	.51	2.4	.31		1.52	4.3		24.97	1472.5		
2.5	6.5	7.20	103.2		31.775	.22	.77	.55	2.5	.33		1.60	4.5		24.97	1472.9		.4
5	7.0	6.96	101.1		32.116	.22	.76	.54	2.4	.30		1.52	4.2	14.8	10.5	25.17	1475.4	81.2
10	8.3	7.23	108.8		33.027	.63	.80	.17	1.8	.35		1.97	4.1		25.70	1481.7	106.0	
15	8.2	6.65	103.0		33.230	2.00	.86		1.6	.31		2.43	4.4		25.87	1481.7	34.8	
20	8.2	6.98	105.0		33.324	.38	.74	.36	1.4	.29		1.71	3.4	15.5	12.1	25.95	1481.9	14.7

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	VEL.	PH	CPROD MGC/GMH	NETPR	CORPR	NETCO	CARB MG/L	SUMN /PO4	ORGN /OP	TOTN /TP	CARB/PO4P	ORGC/ ORGF	TOTC/ TOTP	MEAN N/P	MEAN C/P
0	.06			.37							20.5							
2.5				.41							20.3							
5	.05			.46							19.3	19.5	19.4					
10				.28							6.5							
15				.46							2.2							
20	.05			.51							8.9	34.1	21.0					20.2

WATER SAMPLER: THERMOMETER NO: 44



STATION 5 (FJ-63) MALMÖDRAG LAT: N 58 19.10 LONG: E 11 21.70 BOTTOM DEPTH 36 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMPERATURE HR MT HR MT  
 73 11 21 09 30 73 11 21 08 30 SW 12 M/S 8 / 8 0.5-1.2 M

DEPTH M	TEMP CELS	OXYG % SAT	A.O.U. SALT MA/L	0/00	P04P MA/L	T0TP MA/L	ORGP MA/L	N03N MA/L	N02N MA/L	BOTH MA/L	NH4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/L	SOUNDV M/S	STABIL
0	7.2		32.350	.33				1.9	.29		1.88	4.1		25.33	1476.4		
2.5	7.2	7.07	32.327	.73				1.8	.29		3.59	5.7		25.31*	1476.4	-7.4	
5	7.4	7.10	32.359	.49	.34			1.8	.28		3.59	5.6	23.3	25.31*	1477.3	-0.8	
10	7.5	6.98	32.370	.40	.29			1.6	.29		1.52	3.4		25.30*	1477.7	-1.0	
15	8.1	7.04	33.090	.33	.51			1.5	.28		1.87	3.6		25.78	1481.1	95.6	
20	8.2	6.96	33.462	.38	.77			1.5	.31		2.78	4.6	15.7	26.06	1482.0	55.2	
30	8.5	6.60	34.190	.48	.79			1.3	.34		2.24	3.9		26.58	1484.3	52.4	
34	8.8	7.04		.51				1.7	.32		1.77	3.8	30.7	26.9	NOT COMPUTED		

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	VEL	PH	CPROD MGC/GMH	NETPR	CORPR	NETCO	CARB MG/L	SUMN /P04	ORGN /OP	TOTN /TP	CARB /P04P	ORGC /ORGP	TOTC /TOTP	MEAN N/P
0				.37													
2.5				.51							12.5						
5				.32							11.4	52.8	28.1				
10				.32							8.5						
15				.32							11.0						
20				.32							12.0	28.9	20.4				
30				.14							8.1						
34				.28							7.5						24.3

AVERAGE VALUES FOR THE WATER COLUMN 0-30 M  
 P04P TOTP SUMN TOTN CARB TOTC  
 TONS TONS TONS TONS TONS TONS  
 3.2 5.7 13.7 55.7

AVERAGE VALUES FOR THE WATER COLUMN BELOW 30 M  
 P04P TOTP SUMN TOTN CARB TOTC  
 TONS TONS TONS TONS TONS TONS  
 .2 .5 4.3

UNSTABLE DENSITY STRATIFICATION WATER SAMPLER THERMOMETER NO 44



STATION 2 (FJ 62) BROFJORDEN LAT: N 58 21.60 LONG: E 11 25.70 BOTTOM DEPTH: 22 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMP HR MT HR MT  
 73 11 27 11 00 /73 11 27 10 00 NNE 6 M/S 6 /8 NO OBS 6.5 M 10 50 4 5

DEPTH TEMP. OXYG % SAT A.O.U SALT P04P TOTP ORGP NO3N NO2N BOTH NH4N SUMN TOTN ORGN SIGMA SOUNDV STABIL.  
 M CELS. ML/L MA/L O/00 MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L MA/L M/S  
 0 5.4 32.275  
 2.5 5.7 32.341  
 5 6.4 32.526  
 10 8.0 33.029  
 15 8.0 33.072

DEPTH OIL FEN ORGC VEL. PH CPROD NETPR CORPR NETCO CARB SUMN ORGN TOTN CARB/ ORGC/ TOTC/ MEAN MEAN  
 M MG/L MFG MG/L MA/L MGC/GMH MG/L /P04 /TP /P04P ORGP TOTP N/P C/P  
 0 .418.0 .86 .84 .94 .92 26.0  
 2.5 .418.0 .67 .74 .74 .26.0  
 5 .418.0 .32 .30 .36 .32 26.0  
 10 .378.0 .07 .08 .08 .26.1  
 15 .328.0 .03 .04 .04 .26.1

PRIMARY PRODUCTION VALUES INTEGRATED FROM CPROD AND CORPR VALUES ARE RESP: 4.5 AND 4.9 MGC/SCRMH







STATION 1 INREBROFJOREN LAY: N 58 22.50 LONG: E 11 26.30 BOTTOM DEPTH: 18 M

LOCAL DATE AND TIME	GREENWICH MEAN TIME	WIND DIR.	WIND VEL.	WIND SW	CLOUD COVER	WAVE HEIGHT	AIR TEMP	SECCHI DEPTH	PROD: HR	START: HR	DURAT: MT					
73. 12. 12. 09 05	73. 12. 12. 08 05	5	5 M/S	8	46	0.0-0.1 M	2.0 C									
DEPTH: 0 M	TEMP: 3.8	OXYG: 7.31	SAT: 96.1	A.O.U: 12.6	SALT: 31.675	PO4P: .49	NO3N: 3.9	NO2N: .46	BOTH: 1.57	INHAN: 5.9	SUMN: 36.5	TOYN: 30.6	ORGN: 25.16	SIGMA: 1461.6	SOUNDV: 1461.6	STABIL: 42.5
5	4.0	7.55	102.0	31.967	.48	3.7	3.7	.39	1.48	5.6	34.6	29.0	25.40	1463.0		9.6
10	4.1	7.49	101.4	32.034	.47	3.8	3.8	.44	1.55	5.8			25.44	1463.4		4.1
15	4.1	7.38	100.0	32.066	.49	3.8	3.8	.39	1.48	5.7			25.47	1463.7		2.5
19	4.1	7.39	100.1	32.076	.47	3.9	3.9	.39	1.39				25.47	1463.7		2.5

DEPTH M	CHL: MG/L	FEN: MG/L	ORGC: MG/L	VEL: PH	CPRD: KCC/GMH	NETPR: KCC/GMH	CORFR: KCC/GMH	NETGC: KCC/GMH	CARD: KCC/GMH	SUMN: /PC4	ORGN: /PC4	TOYN: /PC4	CARB: /PC4	ORGP: /PC4	TOYCV: /PC4	MEAN: /PC4	MEAN: /PC4
0				8.6					23.1	12.1				3917			
5				8.3				24.6	11.7					4300			
10				8.3				24.7	12.4					4376			
15				8.3				24.7	11.5					4290			
19				8.2				25.1						4430			

NOTES: U/P/T/TH/TS



STATION 2 (FU 62) BRORJORDEN LAT: N 58 21.60 LONG: E 11 25.70 BOTTOM DEPTH: 22 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN DIR. VEL. COVER HEIGHT TEMP DEPTH HR MT HR MT

DEPTH	TEMP	OXYG %	SAT	A.O.U.	SALT	PO4P	TOTP	ORGP	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.
M	CELS.	ML/L	ML/L	ML/L	ML/L	ML/L	ML/L	ML/L	ML/L	ML/L	ML/L	ML/L	ML/L	ML/L	ML/L	M/L	M/S	
0	4.6	7.49	102.5		31.877	.46			2.3	.39	1.08	3.7	25.2	21.4	25.27	1465.1		
5	4.6	7.54	103.2		31.875	.48			2.7	.36	1.14	4.2	27.6	23.4	25.27	1465.1	.1	
10	4.6	7.57	103.6		31.876	.49			3.0	.31	1.27	4.6			25.27	1465.2	.2	
15	4.4	7.52	102.4		31.928	.48	.80	.32	3.1	.34	1.19	4.6			25.33	1464.4	12.7	
20	4.3	7.47	101.6		31.999	.51	.80	.29	3.2	.35	1.37	4.9	34.3	29.4	25.39	1464.4	12.1	
23	4.2	7.42	100.7		32.057	.47	.81	.34	3.7	.35		34.3			25.45	1464.1	19.0	

DEPTH	OIL	FEN	ORGC	VEL.	RH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	ORGC	TOTC	MEAN
M	MG/L	MG/L	MG/L	MG/L		MGC/QMH			MG/L	MG/L	/P04	/OP	/TF	P04P	ORGP	TOTP	C/P
0					8.3				24.5	8.1				4429			
5					8.3				24.4	8.8				4235			
10					8.3				24.4	9.4				4149			
15					8.3				24.5	9.6				4250			
20					8.3				24.6	9.7	42.9			4012			
23					8.3				24.6		42.4			4367			42.6

NOTE: U/F/T/H/E/S



STATION 3 STRETUDDEN

LAT: N 58 20.55 LONG: E 11 24.15

BOTTOM DEPTH 48 M

LOCAL DATE AND TIME	GREENWICH MEAN TIME	WIND DIR	WIND VEL	CLOUD COVER	WAVE HEIGHT	AIR TEMP	SECHCHI DEPTH	PROD	START	DURAT					
YEA MON DAY HOU MIN	73 12 09 10	73 12 06 10	SW 5 M/S	8 / 8	0.1-0.5 M	21.2 C		HR	MT	HR	MT				
DEPTH TEMP	OXYG % SAT	A.O.U SALT	PO4P	TOTP	ORGF	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDY	STABIL
M CELS	ML/L	MA/L	O/00	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S		
0	4.6	7.63	104.3	31.701	.45	.73	.26	.52	.33	1.02	1.9	19.9	18.0	25.13	1464.9
5	4.7	7.65	104.8	31.699	.49	.76	.27	2.8	.30	1.15	4.3	24.2	19.9	25.12	1465.4
10	4.7	7.68	105.4	31.707	.45	.78	.33	3.1	.33	1.16	4.6			25.12	1465.6
15	4.7	7.54	103.4	31.713	.46	.79	.33	3.1	.31	1.16	4.6			25.12	1465.7
20	4.7	7.58	104.0	31.841	.46	.79	.33	3.2	.31	1.14	4.7	35.7	31.1	25.23	1465.9
25	4.6	7.49	102.5	31.902	.44	.88	.44	3.5	.35	1.56	5.4			25.29	1465.6
30	4.5	7.48	102.1	31.993	.46	.77	.31	3.6	.37	1.68	5.7			25.37	1465.2
44	4.4	7.39	100.7	32.002	.47	.66	.39				27.9			25.39	1465.2

DEPTH	OIL	FEN	ORGC	YEL	PH	CPROD	NETPR	CORPR	NETCO	CARB	SUMN	ORGN	TOTN	CARB	PO4P	ORGP	TOTP	ORGP	TOTP	MEAN	MEAN
M	MG/L	MG/L	MG/L			MGC/QMH				MG/L	/P04	/OP	/TP	PO4P	CRGP	TOTP	N/P	C/P			
0				8.3						24.4	4.2	64.3	27.2			4519					
5				8.3						24.4	8.8	73.7	31.0			4149					
10				8.3						24.4	10.3					4517					
15				8.3						24.4	9.9					4419					
20				8.3						24.5	10.1	94.2	45.2			4426					
25				8.3						24.5	12.4					4641					
30				8.3						24.6	12.3					4446					
44				8.3						24.6	32.5					4352					

\* UNSTABLE DENSITY STRATIFICATION  
 NOTE: U/F THE TIS

34.8  
32.5



STATION 4 YTTRE BROFJORDEN LAT: N 58 19.90 LONG: E 11 23.10 BOTTOM DEPTH 34 M  
 LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND CLOUD WAVE AIR SECCHI PROD: START DURAT  
 YEA MON DAY HOU MIN 73 12 12 08 40 SW 5 M/S 8 / 8 0.1-0.5 M 2.2 C DEPTH HR MT HR MT

DEPTH M	TEMP CELS	OXYG ML/L	% SAT	A.O.U	SALT MA/L	PO4P MA/L	TOTP MA/L	ORGP MA/L	NO3N MA/L	NO2N MA/L	BOTH MA/L	NH4N MA/L	SUMN MA/L	TOTN MA/L	ORGN MA/L	SIGMA M/S	SOUNDV	STABIL
0	4.7	7.61	104.1	31.588	.46	.77	.31	.26	.28	1.07	3.9	24.0	20.0	25.03	1465.0			
5	4.8	7.51	103.0	31.584	.45	.79	.34	.30	.27	1.12	4.4			25.02*	1465.5		-2.5	
10	4.7	7.57	103.8	31.654	.48	.68	.20	.31	.30	1.18	4.5	23.1	18.6	25.08	1465.5		11.7	
15	4.7	7.53	103.2	31.719	.48	.85	.37	.31	.31	1.23	4.6			25.14	1465.5		11.3	
20	4.7	7.51	103.0	31.771	.48	.80	.32	.34	.29	1.17	4.8	23.7	18.8	25.18	1465.7		8.0	
30	4.6	7.49	102.6	31.888	.45	.82	.37	.33	.31	1.30	5.0			25.28	1465.7		10.1	
33	4.7	7.56	103.6	31.897	.45	.78	.33	.39	.31	1.48	5.7	33.2	27.5	25.28	1466.0		.6	

DEPTH M	OIL MG/L	FEN MG/L	ORGC MG/L	YEL	PH	CPROD MGC/GMH	NETPR	CORPR	NETCO	CARB MG/L	SUMN /PO4	ORGN /OP	TOTN /TP	CARB/PO4P	ORGC/ ORGP	TOTC/ TOTP	MEAN N/P	MEAN C/P
0				8.3						24.3	8.5	64.7	31.1	4405				
5				8.3						24.4	9.8			4511				
10				8.3						24.4	9.5	92.8	34.0	4232				
15				8.3						24.4	9.6			4236				
20				8.3						24.4	10.1	58.8	29.6	4238				
30				8.3						24.5	11.0			4528				31.6
33				8.3						24.5	12.7	83.3	42.5	4528				42.5

\* = UNSTABLE DENSITY STRATIFICATION  
 NOTE: U/F THETIS



STATION 5 (FU 63) MAUMDRAG LAT: N 58 19.10 LONG: E 11 21.70 BOTTOM DEPTH 36 M

LOCAL DATE AND TIME GREENWICH MEAN TIME WIND WIND WAVE AIR SECCHI PROD: START DURAT  
 YEA: MON DAY: HOU: MIN DIR. VEL. COVER HEIGHT TEMP HR: MT: HR: MT  
 73 12 12 10 25 / 73 12 12 09 25 SW 5 M/S 8 / 8 0.1-0.5 M 2.2 C

DEPTH M	TEMP. CELS.	OXYG % SAT	A. O. U. SALT	NO3N	NO2N	BOTH	NH4N	SUMN	TOTN	ORGN	SIGMA	SOUNDV	STABIL.		
	ML/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	MA/L	M/S			
0	4.8	7.61	104.5	31.481	.46	.76	.30	2.4	.28	.98	3.7	24.6	20.9	24.93	1465.5
5	4.9	7.58	104.2	31.481	.48	.77	.29	2.6	.26	.98	4.1	21.6	17.5	24.93*	1465.8
10	4.8	7.53	103.4	31.568	.48	.78	.30	2.9	.29	1.06	4.3			25.00	1465.7
15	4.8	7.57	104.0	31.623	.48	.78	.30	2.9	.30	.99	4.2			25.05	1465.9
20	4.7	7.47	102.4	31.871	.48	.77	.29	3.2	.31	1.16	4.6	22.7	18.0	25.26	1465.7
30	6.1	7.07	101.3	33.387	.51	.60	.29	2.7	.32	1.07	4.1			26.29	1473.8
37	6.2	7.06	101.5	33.597	.52	.98	.46	2.7	.31	1.12	4.1	26.3	22.3	26.45	1474.4

DEPTH M	OIL	FEN	ORGC	YEL.	PH	CPROD	NETPR	CORPR	NETOO	CARB	MG/L	SUMN	ORGN	TOTN	TP	PO4P	ORGP	ORGC	TOTC	MEAN
	MG/L	MG	MG/L			MG/G	MG/G					TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	C/P
0						8.3				24.2		8.1	69.6	32.3						4388
5						8.3				24.3		8.5	60.2	28.0						4214
10						8.3				24.3		8.9								4209
15						8.3				24.3		8.8								4212
20						8.3				24.4		9.6	62.2	29.4						4234
30						8.3				24.7		8.0								4033
37						8.3				24.8		7.9	48.4	26.9						3972

AVERAGE VALUES FOR THE WATER COLUMN 0-30 M AVERAGE VALUES FOR THE WATER COLUMN BELOW 30 M

PO4P	TOTP	SUMN	TOTN	CARB	TOTC
TONS	TONS	TONS	TONS	TONS	TONS
3.4	5.6	14.8	89.9	5647	
			.1	.3	
			.7	4.1	246

UNSTABLE DENSITY STRATIFICATION  
 UNFITNES







