

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 1UTC Date (ddmmYYYY) 6 | Aug | 2022Lat (N): 69 47 46Station Name: NRC-02UTC Time: 1408Lon (W): 133 17 57Sequential Station #: 1In Air pressure (before/after) 10.3CTD File: 2023-024-0001CTD Operator: JEWater Depth(from surface): 10 mWeather/Sea State light breeze 0-25 w waves

Smoky

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Alk	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
1	Bot	8.5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓		bottle didn't close - lanyard pinched NRCAN samples + NRCAN samples
2	Bot	8.5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓		
3	Bot	8.5	3	✓	✓	✓	✓	✓	✓	✓	✓	✓		
4		5	4	✓	✓	✓	✓	✓	✓	✓	✓	✓		
			5											
			6											
			7											
			8											
			9											
			10											
			11											
			12											
			13											
			14											
			15											
			16											

Bottle integrity: First test lower petcock then test top valve. 'Check' means pass, 'X' means fail. If Niskin fails, explain this in the comments column.

Comments: Cast for NRCAN - need 13L of water near bottom
remember field blank

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 4UTC Date (ddmmYYYY) 6 1 Aug 2022Lat (N): 69 37.77Station Name: NRC-01UTC Time: 1658Lon (W): 133 02.53Sequential Station #: 2In Air pressure (before/after) 0.33/0.35CTD File: 2023-024-0004CTD Operator: JEWater Depth(from surface): 5 mWeather/Sea State light breeze, small chop, smoky air

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Alk	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
5	Botl	3.7	1											longard hung up when bail # latch not sampled
6	Bot	3.7	2		x	x	x	x	x	x	x	x	x	
7	Bot		3											
8	Bot		4											
9	Bot		5											
- 10	surf	3.7	6		✓	✓	✓	✓	✓	✓	✓	✓	✓	
			7											
			8											
			9											
			10											
			11											
			12											
			13											
			14											
			15											
			16											

Bottle integrity First test lower petcock then test top valve. 'Check' means pass, 'x' means fail. If niskin fails, explain this in the comments column

Comments:

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 8UTC Date (ddmmYYYY) 6 | Aug | 2022Lat (N): 70 06 62Station Name: KUC-01UTC Time: 2340Lon (W): 133 50 60Sequential Station #: 3In Air pressure (before/after) 0.29, 0.31CTD File: 2023-024-0008CTD Operator: JEWater Depth(from surface): 23 mWeather/Sea State Cal. flat warm air

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Alk	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
11	$\overline{B_o+}$	18	1											
12	$\overline{B_o+}$	18	2											
13	$\overline{O1Max}$	18	3		✓	✓	✓	✓	✓	✓	✓	✓	✓	
14	10	10	4		✓	✓	✓	✓	✓	✓	✓	✓	✓	
15	5	5	5		✓	✓	✓	✓	✓	✓	✓	✓	✓	
			6											
			7											
			8											
			9											
			10											
			11											
			12											
			13											
			14											
			15											
			16											

Bottle Integrity: First test lower petcock then test top valve. Check means pass, X means fail. If niskin fails, explain this in the comments column.

Comments:

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 15

UTC Date (ddmmYYYY) 7 Aug 2022

Lat (N): 71 02 88

Station Name: KUC-05

UTC Time: 1446

Lon (W): 134 52.01

Sequential Station #: 5

In Air pressure (before/after) 0.32/0.32

CTD File: 2023-024-0015 downcast - C015m upcast

CTD Operator: JE

Water Depth(from surface): 509 m

Weather/Sea State 10kt breeze 0.5 m seas

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Aik	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
16		80	1											
17	ChlMax	30	2											take all small samples from Bottle 2
18	Bot	502.9	3											
19		300	4											
20		200	5											
21	5+5.1	165	6											
22		125	7											
23		100	8											
24		80?	9											bottle found accidentally - not sampled
25		60	10											
26		50	11											
27		40	12											
28	ChlMax	30	13											ChlMax
29		20	14											
30		10	15											
31		5	16											

Bottle integrity: First test lower petcock then test top valve. 'Check' means pass, 'X' means fail. If niskin fails, explain this in the comments column.

Comments:

Separate files for down & upcasts because needed to activate user input bottle fittings

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 25

UTC Date (ddmmYYYY) 7 Aug 2022

Lat (N): 70 51 01

Station Name: KUG_02

UTC Time: 2214

Lon (W): 134 40 41

Sequential Station #: 6

In Air pressure (before/after) 0.31 / 0.26

CTD File: 2023-024-0025_hex

CTD Operator: JE

Water Depth(from surface): 78 m

Weather/Sea State 1.5 kt breeze, 0.25m seas

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Alk	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
3332	ChlMax	40	12		✓	✓	✓	✓	✓	✓	✓	✓	✓	
3433	ChlMax	40	13		✓	✓	✓	✓	✓	✓	✓	✓	✓	
3534	Bottle	70+8	14		✓	✓	✓	✓	✓	✓	✓	✓	✓	
3635		60	15		✓	✓	✓	✓	✓	✓	✓	✓	✓	
3736		50	16		✓	✓	✓	✓	✓	✓	✓	✓	✓	
3837		40	17		✓	✓	✓	✓	✓	✓	✓	✓	✓	
3938		30	18		✓	✓	✓	✓	✓	✓	✓	✓	✓	
4039		20	19		✓	✓	✓	✓	✓	✓	✓	✓	✓	
4140		10	10		✓	✓	✓	✓	✓	✓	✓	✓	✓	
4241		5	11		✓	✓	✓	✓	✓	✓	✓	✓	✓	
			12											
			13											
			14											
			15											
			16											

Bottle integrity First test lower pelcock then test top valve. "Check" means pass, "X" means fail. If niskin fails, explain this in the comments column.

Comments:

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 34

UTC Date (ddmmYYYY) 8 Aug 2022

Station Name: KUG-03

UTC Time: 1433

Sequential Station #: 7

CTD File: 2023-024-0034_hex

Lat (N): 70 55 84

Lon (W): 134 45 20

In Air pressure (before/after) 0 201034

CTD Operator: JE

Water Depth(from surface): 200 m

Weather/Sea State 10kt breeze, 0.25m waves

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Aik	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
43 42	CLIMax	40	1		✓	✓	✓	✓	✓	✓	✓	✓	✓	
44 43	CLIMax	40	3		✓	✓	✓	✓	✓	✓	✓	✓	✓	
45 44	Bot	196 ⁷⁸	4		✓	✓	✓	✓	✓	✓	✓	✓	✓	
46 45	CLIMax	160	5		✓	✓	✓	✓	✓	✓	✓	✓	✓	
47 46	125	125	6		✓	✓	✓	✓	✓	✓	✓	✓	✓	
48 44	100	100	7		✓	✓	✓	✓	✓	✓	✓	✓	✓	
49 48	80	80	8		✓	✓	✓	✓	✓	✓	✓	✓	✓	
50 49	60	60	9		✓	✓	✓	✓	✓	✓	✓	✓	✓	
51 50	50	50	10		✓	✓	✓	✓	✓	✓	✓	✓	✓	
52 51	40	40	11		✓	✓	✓	✓	✓	✓	✓	✓	✓	
53 52	30	30	12		✓	✓	✓	✓	✓	✓	✓	✓	✓	
54 53	20	20	13		✓	✓	✓	✓	✓	✓	✓	✓	✓	
55 54	10	10	14		✓	✓	✓	✓	✓	✓	✓	✓	✓	
56 55	5	5	15		✓	✓	✓	✓	✓	✓	✓	✓	✓	
57 56	16	16	16		✓	✓	✓	✓	✓	✓	✓	✓	✓	

Bottle integrity First test lower petcock then test top valve 'Check' means pass, 'X' means fail. If niskin fails, explain this in the comments column

Comments:

not sampled, same as CLIMax

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 44UTC Date (ddmmYYYY) 8 Aug 2022Lat (N): 58 48Station Name: KVG-04UTC Time: 2104Lon (W): 134 46.14Sequential Station #: 8In Air pressure (before/after) 0.35/0.31CTD File: 2023-024-0044 hexCTD Operator: JEWater Depth(from surface): 326 mWeather/Sea State 10-15kt wind 0.5m seas, sunny

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Alk	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
57	CalMax	40	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	didn't close, lanyard pinched
58	Bot	312 th	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
59		300	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
60		200	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
61	5-331	175	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
62		125	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
63		100	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
64		80	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
65		60	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
66		50	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
67		40	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	also CalMax
68		30	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
69		20	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
70		10	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
71		5	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	

Bottle Integrity First test lower petcock then test top valve. 'Check' means pass, 'x' means fail. If niskin fails, explain this in the comments column

Comments:

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 54UTC Date (ddmmmyyy) 10 Aug 2022Lat (N): 70 40.83Station Name: C13-06UTC Time: 1428Lon (W): 126 50.32Sequential Station #: 10In Air pressure (before/after) 0.29 / 0.24CTD File: 2023-024-0054CTD Operator: JEWater Depth (from surface): 302 mWeather/Sea State W/lt breeze, 1 m Secs

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Alk	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
73	ChlMax	40	v2		✓	✓	✓	✓	✓	✓	✓	✓	✓	
74	ChlMax	40	v3											
75	Bot	296^{±10}	v4		✓	✓	✓	✓	✓	✓		✓		
76		100	v5		✓	✓	✓	✓						
77	5:21	125	v6		✓	✓								
78		125	v7											Same as 73, 1
79		100	v8		✓									
80		80	v9						✓	✓				
81		60	v10											
82		50	v11		✓									
83		40	v12											Same as ChlMax
84		30	v13											
85		20	v14		✓									
86		10	v15											
87		5	v16		✓	✓	✓	✓	✓	✓		✓		

Bottle integrity: First test lower petcock, then test top valve. 'Check' means pass, 'X' means fail. If Niskin fails, explain this in the comments column.

Comments:

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 63UTC Date (ddmmYYYY) 10 Aug 2022Lat (N): 70 48.53Station Name: CP2, -07UTC Time: 2234Lon (W): 126 06 27Sequential Station #: 11In Air pressure (before/after) 0 201026CTD File: 2023-024-0063CTD Operator: JEWater Depth(from surface): 362 mWeather/Sea State 18kt winds, 15m seas

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Alk	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
788	ChlMax	52	1	X										
89	ChlMax	52	12		✓	✓	✓	✓	✓	✓	✓	✓	✓	bottle did not close - lanyard pinched
90	Tot	349 ⁺¹⁰	13		✓	✓	✓	✓	✓	✓	✓	✓	✓	
91		300	14											
92		200	15		✓	✓	✓	✓	✓	✓	✓	✓	✓	
93	50331	123	16		✓	✓	✓	✓	✓	✓	✓	✓	✓	
94		125	17		✓	✓	✓	✓	✓	✓	✓	✓	✓	same as 5-331
95		100	18		✓	✓	✓	✓	✓	✓	✓	✓	✓	
96		80	19		✓	✓	✓	✓	✓	✓	✓	✓	✓	
97		60	10											
98		40	11		✓	✓	✓	✓	✓	✓	✓	✓	✓	same as ChlMax
99		40	12											
100		30	13		✓	✓	✓	✓	✓	✓	✓	✓	✓	
101		20	14		✓	✓	✓	✓	✓	✓	✓	✓	✓	
102		10	15											
103		5	16		✓	✓	✓	✓	✓	✓	✓	✓	✓	fixed on 16. flg

Bottle integrity: First test lower petcock, then test top valve. 'Check' means pass, 'X' means fail. If niskin fails, explain this in the comments column.

Comments:

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 71

UTC Date (ddmmYYYY) 11 Aug 2022

Lat (N): 71 03 19

Station Name: C13-09

UTC Time: 1402

Lon (W): 124 37 38

Sequential Station #: 12

In Air pressure (before/after) 0.271 0.20

CTD File: 2023-024-0071

CTD Operator:

Water Depth(from surface): 333 m

Weather/Sea State 110 kt wind 1m seas

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Alk	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
104	Chl/Max	50	V1	XX										bottle didn't close, lanyard pinched
105	Chl/Max	50	V2											
106	301	320+12	V3											
107		300	V4											
108		200	V5											
109	S=33.1	130	V6											
110		125	V7											100 close to S=33.1
111		100	V8											
112		80	V9											
113		60	V10											
114		50	V11											same as Chl/Max
115		40	V12											
116		30	V13											
117		20	V14											
118		10	V15											
119		5	V16											fixed on the fly

Bottle integrity First test lower petcock then test top valve. Check means pass, X means fail. If niskin fails, explain this in the comment's column.

Comments:

Rosette Log for IOS Cruise ID 2023-024 Ship: FV Frosti Program: CBS-MEA

Cast/Event #: 81UTC Date (ddmmmyyy) 11 Aug 2022Lat (N): 71 14 91Station Name: CMB-11UTC Time: 2342Lon (W): 123 28 48Sequential Station #: 14In Air pressure (before/after) 0.19/0.14CTD File: 2023-024-0021CTD Operator: TeWater Depth(from surface): 183 mWeather/Sea State 10kts 1m seas, light rain

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Alk	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
120	Chl/Phx	45	✓2		✓	✓	✓	✓	✓	✓	✓	✓	✓	closed to test if lanyard hangs - all ok!
121	Chl/Phx	45	✓3		✓	✓	✓	✓	✓	✓	✓	✓	✓	all
122	Bot	173±0	✓4		✓	✓	✓	✓	✓	✓	✓	✓	✓	
123	Se-331	155	✓5		✓	✓	✓	✓	✓	✓	✓	✓	✓	
124		125	✓6		✓	✓	✓	✓	✓	✓	✓	✓	✓	
125		100	✓7		✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	
126		85	✓8		✓	✓	✓	✓	✓	✓	✓	✓	✓	
127		60	✓9		✓	✓	✓	✓	✓	✓	✓	✓	✓	
128		50	✓10		✓	✓	✓	✓	✓	✓	✓	✓	✓	
129		40	✓11		✓	✓	✓	✓	✓	✓	✓	✓	✓	
130		30	✓12		✓	✓	✓	✓	✓	✓	✓	✓	✓	
131		20	✓13		✓	✓	✓	✓	✓	✓	✓	✓	✓	
132		10	✓14		✓	✓	✓	✓	✓	✓	✓	✓	✓	
133		5	✓15		✓	✓	✓	✓	✓	✓	✓	✓	✓	fired on the fly
134			✓16		✓	✓	✓	✓	✓	✓	✓	✓	✓	

Bottle Integrity First test lower petcock then test top valve. Check means pass, X means fail. If niskin fails, explain this in the comments column

Comments:

2320

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 91UTC Date (ddmm/yyyy) 12 Aug 2022Lat (N): 70 32 16Station Name: CPB-01UTC Time: 1521Lon (W): 127 43 68Sequential Station #: 15In Air pressure (before/after) 0.26/0.20CTD File: 2023-024-0091CTD Operator: JEWater Depth(from surface): 21 mWeather/Sea State 10 kts. 0.5m seas

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Aik	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicroDNA	Taxon	Comments
134	Bot	15	1	XX	✓	✓	✓	✓	✓	✓		✓		Lanyard pinched
135		10	2		✓	✓	✓	✓	✓	✓		✓		
136		5	3			✓	✓	✓	✓	✓		✓		
137	ChlMax	15	4			✓	✓	✓	✓	✓		✓	✓	
138	ChlMax	15	5											
			6											
			7											
			8											
			9											
			10											
			11											
			12											
			13											
			14											
			15											
			16											

Bottle integrity: First test lower petcock then test top valve. 'Check' means pass, 'X' means fail. If niskin fails, explain this in the comments column.

Comments:

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 98

UTC Date (ddmmmyyy) 12 Aug 2022

Station Name: C13_02

UTC Time: 1900

Sequential Station #: 17

CTD File: 2023-024-0098

Lat (N): 70 33 97

Lon (W): 127 33 14

In Air pressure (before/after) 0.21/0.25

CTD Operator: JE

Water Depth(from surface): 124 m

Weather/Sea State 10-12 kts, 0.5 m seas

02 17

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Alk	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
139	ChlMax	28	V2		✓		✓	✓	✓	✓	✓	✓	✓	clear to test longrad pinch
140	ChlMax	28	V3											
141	R _{at}	116+9	V4		✓	✓	✓	✓	✓	✓	✓	✓	✓	
142		160	V5		✓	✓	✓	✓	✓	✓	✓	✓	✓	
143		80	V6		✓	✓	✓	✓	✓	✓	✓	✓	✓	
144		60	V7		✓	✓	✓	✓	✓	✓	✓	✓	✓	
145		50	V8		✓	✓	✓	✓	✓	✓	✓	✓	✓	
146		40	V9											
147		30	V10											same as ChlMax
148		20	V11		✓									
149		10	V12											
150		5	V13		✓	✓	✓	✓	✓	✓	✓	✓	✓	closed on the fly
			V14											
			V15											
			V16											

Bottle integrity: First test lower petcock then test top valve. 'Check' means pass, 'X' means fail. If niskin fails, explain this in the comments column

Comments:

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 112

UTC Date (ddmmYYYY) 13 Aug 2022

Lat (N): 70 35 80

Station Name: CTD-023

UTC Time: 1435

Lon (W): 127 22 07

Sequential Station #: 20

In Air pressure (before/after) 012.619

CTD File: 2023-024-0112

CTD Operator:

Water Depth(from surface): 240 m

Weather/Sea State 15 kts 1m Seas

3130

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Aik	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
151	Chl/Alax	50	12		✓	✓	✓	✓	✓	✓	✓	✓	✓	closed to test beyond - run up
152	Chl/Alax	50	13		✓	✓	✓	✓	✓	✓	✓	✓	✓	
153	Bot	275+2	14		✓	✓	✓	✓	✓	✓	✓	✓	✓	
154		200	15		✓	✓	✓	✓	✓	✓	✓	✓	✓	
155	5.331	177	16		✓	✓	✓	✓	✓	✓	✓	✓	✓	
156		125	17		✓	✓	✓	✓	✓	✓	✓	✓	✓	
157		100	18		✓	✓	✓	✓	✓	✓	✓	✓	✓	
158		80	19		✓	✓	✓	✓	✓	✓	✓	✓	✓	
159		60	10		✓	✓	✓	✓	✓	✓	✓	✓	✓	
160		50	11		✓	✓	✓	✓	✓	✓	✓	✓	✓	same as Chl/Alax
161		40	12		✓	✓	✓	✓	✓	✓	✓	✓	✓	
162		30	13		✓	✓	✓	✓	✓	✓	✓	✓	✓	
163		20	14		✓	✓	✓	✓	✓	✓	✓	✓	✓	
164		10	15		✓	✓	✓	✓	✓	✓	✓	✓	✓	
165		5	16		✓	✓	✓	✓	✓	✓	✓	✓	✓	closed on the fly

Bottle integrity: First test lower petcock then test top valve. 'Check' means pass, 'X' means fail. If niskin fails, explain this in the comments column.

Comments:

Rosette Log for IOS Cruise ID 2023-024

Ship: FV Frosti

Program: CBS-MEA

Cast/Event #: 119

UTC Date (ddmmYYYY) 13 Aug 2022

Lat (N): 70 00 03

Station Name: FKN-03

UTC Time: 2257

Lon (W): 126 14 68

Sequential Station #: 21

In Air pressure (before/after) 0.16/0.25

CTD File: 2023-024-0119

CTD Operator: JE

Water Depth(from surface): 214 m

Weather/Sea State 13 kts 0.75m seas

1.3 13

Samp #	Target Property	Depth (m)	Niskin #	Bottle Integrity	DIC/Alk	Salinity	Nuts	O18	ChlTot	Chl>5um	POC	MicrDNA	Taxon	Comments
			1	XX										
166	Bot	200m	12		✓	✓	✓	✓	✓	✓		✓	✓	
167	Chl(a)	45	13		✓	✓	✓	✓	✓	✓		✓	✓	
168	Chl(a)	45	14											
169		5	15		✓	✓	✓	✓	✓	✓		✓		closed on the fly
			6											
			7											
			8											
			9											
			10											
			11											
			12											
			13											
			14											
			15											
			16											

Bottle Integrity: First test lower petcock then test top valve. 'Check' means pass, 'X' means fail. If niskin fails, explain this in the comments column.

Comments: