

AR29 CTD Cast Sheet

Station Number: A13

CTD cast number: 117

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 25 20:29:43

20:57:55

Floater ID	Bottle	Target Depth	TOI	Nuts	1°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1	300									✓				
	2	250													
	3	200									✓				
	4	150													
	5	120									✓				
	6	100	✓												
	7	100													
	8	80	✓												
	9	80													
	10	60	✓								✓				
	11	60													
	12	40	✓								✓				
	13	40													
	14	30													
	15	20													
	16	20	✓								✓				
	17	10													
	18	sfc	✓								✓				
	19	sfc													
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300

Floating: Chl max, 10mab

Handwritten checkmarks and scribbles under the 'Sampling depths' text.

Handwritten notes: OA, depth = 47.

AR29 CTD Cast Sheet

Station Number: A12

CTD cast number: 118

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 25 21:57:33

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10mab	1	265													
	2	200													
	3	150													
	4	120													
	5	100													
	6	80													
	7	60													
	8	60													
	9	40													
	10	30													
	11	20													
	12	10													
	13	sfc													
	14	sfc													
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths - Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300

Floating: Chl max, 10mab

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ 265

on
depth: 275 m

AR29 CTD Cast Sheet

Station Number: **All**

CTD cast number: **119**

Initials: **C.Z.**

Start date, time (UTC):

End date, time (UTC):

2018

Apr 25 23:10

23:36

Fbater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10 mab	1	140									✓				
	2	120													
	3	100									✓				
	4	100													
	5	80									✓				
	6	80													
	7	60									✓				
	8	60													
	9	40									✓				
	10	40													
	11	30													
	12	20													
	13	20													
	14	10													
	15	sfc													
	16	sfc													
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300

Floating: Chl max, 10mab

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ 140

on.

h = 150 m.

AR29 CTD Cast Sheet

Station Number: A10

CTD cast number: 120

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 26 00:28:29

00:48:21

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10 mab	1	125									✓				
	2	125													
	3	100	✓								✓				
	4	100													
	5	80	✓								✓				
	6	80													
	7	60	✓								✓				
	8	60													
	9	40	✓								✓				
	10	40													
	11	30													
	12	20													
	13	20	✓								✓				
	14	10													
	15	Sfc	✓								✓				
	16	Sfc													
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths - Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300.

Floating: Chl max, 10mab

Handwritten markings: ✓ = ✓ = ✓ = ✓ = ✓ = ✓ 125 ✓

0.7.
depth = 135

AR29 CTD Cast Sheet

Station Number: A9.

CTD cast number: 121

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 26 01:48:41

02:03:27

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10mab	1	118													
	2	100													
	3	80													
	4	60													
	5	40													
	6	30	✓												
	7	30													
	8	20													
	9	10													
	10	Sfc	✓												
	11	STC													
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300

Floating: Chl max, 10mab

= ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ 118 ✓

on.
h = 128

AR29 CTD Cast Sheet

Station Number: **A8**

CTD cast number: **122**

Initials: **W.E.Z.**

Start date, time (UTC): **2018-04-26 0257**

End date, time (UTC): **0315**

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10 mab	1	114													
	2	100	/												
	3	100													
	4	80	/												
	5	80													
	6	60	/												
	7	60													
	8	40	/												
	9	40													
	10	30													
	11	20													
	12	20	/												
	13	10													
	14	sfc	/												
	15	sfc													
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

AR29 CTD Cast Sheet

Station Number: A7 CTD cast number: 123 Initials: WZ
 Start date, time (UTC): 0415 End date, time (UTC): 0426
2018-04-26

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
<u>10mab</u>	1	<u>90</u>													
<u>10mab</u>	2	<u>90</u>													
	3	<u>80</u>													
	4	<u>60</u>													
	5	<u>60</u>													
	6	<u>40</u>													
	7	<u>40</u>													
	8	<u>30</u>	✓												
	9	<u>30</u>													
	10	<u>20</u>													
	11	<u>20</u>													
	12	<u>10</u>													
	13	<u>10</u>													
	14	<u>Sfc</u>	✓												
	15	<u>Sfc</u>													
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

AR29 CTD Cast Sheet

Station Number: **A6**

CTD cast number: **124**

Initials: **WZ**

Start date, time (UTC): **0505**

End date, time (UTC):

2018-04-26

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10mab	1	80													
	2	60													
	3	40													
	4	30													
	5	20													
	6	20	L												
	7	10													
	8	sfc	L												
	9	sfc													
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

AR29 CTD Cast Sheet

Station Number: AS
 Start date, time (UTC): 2018-04-26 0605

CTD cast number: 125
 End date, time (UTC): 0620

Initials: WZ

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
<u>10mab</u>	1	<u>71</u>													
<u>10mab</u>	2	<u>71</u>		<input checked="" type="checkbox"/>											
	3	<u>60</u>													
	4	<u>60</u>		<input checked="" type="checkbox"/>											
	5	<u>40</u>													
	6	<u>40</u>		<input checked="" type="checkbox"/>											
	7	<u>30</u>													
	8	<u>30</u>													
	9	<u>20</u>													
	10	<u>20</u>		<input checked="" type="checkbox"/>											
	11	<u>10</u>													
	12	<u>10</u>													
	13	<u>Sfc</u>													
	14	<u>Sfc</u>		<input checked="" type="checkbox"/>											
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

Note: Phaeocystis found via IFCB @ N5-30m

AR29 CTD Cast Sheet

Station Number: **A4**
 Start date, time (UTC): **0725**
2018-04-26

CTD cast number: **126**
 End date, time (UTC): **0735**

Initials: **WZ**

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10mab	1	65													
10mab	2	65													
	3	40													
	4	40													
	5	30													
	6	30	✓												
	7	20													
	8	20													
	9	10													
	10	10													
	11	sfc													
	12	sfc	✓												
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, ~~60~~, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab **65**

AR29 CTD Cast Sheet

Station Number: **A3**
 Start date, time (UTC): **0838**
2018-04-26

CTD cast number: **127**
 End date, time (UTC): **10845**

Initials: **WZ**

Floater ID	Bottle	Target Depth	TOI	Nuts	"C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1														
	2														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Large density inversion in the surface layer
 CTD is brought back without triggering bottles for cleaning.
 This station is to be recasted.

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

AR29 CTD Cast Sheet

Station Number: **A3**
 Start date, time (UTC): **0855**
2018-04-26

CTD cast number: **128**
 End date, time (UTC): **0905**

Recast of 127
 Initials: **W2**

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10mab	1	58													
	2	58													
	3	40													
	4	40													
	5	30													
	6	30													
	7	20													
	8	20													
	9	10													
	10	10													
	11	Sfc													
	12	Sfc													
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab **58**

AR29 CTD Cast Sheet

Station Number: A2
 Start date, time (UTC): 1030
 2018-04-26

CTD cast number: 129
 End date, time (UTC): 1040

Initials: WZ

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10mab	1	60													
10mab	2	60	✓												
	3	42													
	4	42	✓												
	5	28													
	6	28													
	7	18													
	8	18	✓												
	9	11													
	10	11													
	11	8													
	12	8													
	13	4													
	14	4													
	15	sfc													
	16	sfc	✓												
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

5-6
 4
 8
 11
 18
 28
 42

Sampling depths - Fixed: sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab
 SPAR: 10
 0 4 8 11 18 28 42 60
 = = = = = = =

AR29 CTD Cast Sheet

Station Number: A16

CTD cast number: 130

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 26 17:01

17:24

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1														
	2														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Forget to record SPAR
do a recast.

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300

Floating: Chl max, 10mab

SPAR:

on.
depth = 18

AR29 CTD Cast Sheet

Station Number: **A16**

CTD cast number: **131**

Initials: **C.Z.**

Start date, time (UTC):

End date, time (UTC):

2018 Apr 26. 17:25

17:48

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1	300									✓				
	2	250													
	3	200													
	4	150									✓				
	5	120													
	6	100													
	7	80									✓				
	8	80													
	9	57									✓				
	10	57													
	11	38									✓				
	12	38													
	13	25	✓												
	14	25													
JT	15	16													
	16	16													
	17	16									✓	✓			
	18	11													
	19	11													
	20	6													
	21	6													
	22	sfc													
	23	sfc	✓								✓	✓			
	24														
	Sampler														

⁶
 Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

11 16 25 38 57 ✓ ✓ ✓ ✓ ✓ ✓
 ↗ ↘ ↗ ↘ ↗ ↘ ↗

10

36m

SPAR:
7800

AR29 CTD Cast Sheet

Station Number: A16

CTD cast number: 132

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 26 18:44:52

18:53:22

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1	16													
	2	16													
	3	16													
	4	16													
	5	16													
	6	16													
	7	16													
	8	16													
	9	16													
	10	16													
	11	16													
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300

Floating: Chl max, 10mab

16 m

depth = 1750 m

AR29 CTD Cast Sheet

Station Number: A8

CTD cast number: 133

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 27 00:15:07

00:30:58

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1														
	2														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300

Floating: Chl max, 10mab

~~110~~
105

depth = 120 m

AR29 CTD Cast Sheet

Station Number: **A9**

CTD cast number: **134**

Initials: **C.Z.**

Start date, time (UTC):

End date, time (UTC):

2018 Apr 27 01:01:43

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1														
	2														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, ~~120, 150, 200, 250, 300~~

Floating: Chl max, 10mab

118

depth = 128 m

AR29 CTD Cast Sheet

Station Number: A10

CTD cast number: 135

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 27 01:53:04

02:03:40

Float ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1														
	2														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, ~~120, 150, 200, 250, 300~~
 Floating: Chl max, 10mab

125

depth = 135 m

AR29 CTD Cast Sheet

Station Number: *A11*

CTD cast number: *136*

Initials: *C.Z.*

Start date, time (UTC):

End date, time (UTC):

2018 Apr 27 02:42:18

02:54:15

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1														
	2														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, ~~150, 200, 250, 300~~

Floating: Chl max, 10mab

~~136~~
138

depth = 14

AR29 CTD Cast Sheet

Station Number: A12

CTD cast number: 137

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 27 03:28:55

03:49:09

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1														
	2														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300

Floating: Chl max, 10mab

~~250~~
250

depth = 270 m

AR29 CTD Cast Sheet

Station Number: *A13*
 Start date, time (UTC): *0430*
2018-04-27

CTD cast number: *138*
 End date, time (UTC): *0450*

Initials: *WZ*

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1														
	2														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

AR29 CTD Cast Sheet

Station Number: A14
 Start date, time (UTC): 2018-04-27 0520

CTD cast number: 139
 End date, time (UTC): 0540

Initials: WZ

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1														
	2														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

AR29 CTD Cast Sheet

Station Number: A15

CTD cast number: 140

Initials: W2

Start date, time (UTC): 0625

End date, time (UTC): 0640

2018-04-27

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1														
	2														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

AR29 CTD Cast Sheet

Station Number: A16
 Start date, time (UTC): 0820
 2018-04-27

CTD cast number: 141
 End date, time (UTC): 0840

Initials: WZ

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
Cmax	1	20													
	2	SFC													
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

AR29 CTD Cast Sheet

Station Number: A17
 Start date, time (UTC): 0920
 2018-04-27

CTD cast number: 142
 End date, time (UTC): 0935

Initials: WZ

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1	sfc													
	2														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

AR29 CTD Cast Sheet

Station Number: A18
 Start date, time (UTC): 1025
2018-04-27

CTD cast number: 143
 End date, time (UTC): 1055

Initials: WZ

Floater / ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSi	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1	300	✓												
	2	250													
	3	200	✓												
	4	150	✓												
	5	120	✓												
	6	100	✓												
	7	80													
	8	80	✓												
	9	72													
	10	72	✓												
	11	48													
	12	48	✓												
	13	31													
	14	31													
	15	20													
	16	20	✓												
	17	14													
	18	14													
	19	7													
	20	7													
JT	21	7													
	22	SFC	✓												
	23	SFC													
	24	1													
	Sampler														

Sur
7
14
 20
 31
 48
 72

Sampling depths - Fixed: Sfc, ~~10~~, 20, ~~30~~, ~~40~~, ~~60~~, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

SPAR: 25 0 7 14 20 31 48 72 =
 = = = = = = =

AR29 CTD Cast Sheet

Station Number: **A18**
 Start date, time (UTC): **1130**
2018-04-27

CTD cast number: **144**
 End date, time (UTC): **1138**

Initials: **WZ**

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1														
	2														
	3														
	4														
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

AR29 CTD Cast Sheet

Station Number: A17
 Start date, time (UTC): 1220
 2018-04-27

CTD cast number: 145
 End date, time (UTC): 1250

Initials: WZ

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1	300													
	2	250													
	3	200													
	4	150													
	5	120													
	6	100													
	7	80													
	8	60													
	9	40													
	10	30													
	11	20													
	12	10													
	13	SFC	/												
	14	SFC													
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

AR29 CTD Cast Sheet

Station Number: **A16**
 Start date, time (UTC): **1325**
2018-04-27

CTD cast number: **146**
 End date, time (UTC): **1355**

Initials: **WZ**

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1	300													
	2	250													
	3	200													
	4	150													
	5	120													
	6	100													
	7	80													
	8	60													
	9	40													
	10	30													
	11	20													
	12	10													
	13	sfc													
	14	sfc													
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

the primary CTD reports big density inversion during the upcast. The downcast is fine.

Both upcast and downcast of the secondary CTD give good data.

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

SPAR 120.

AR29 CTD Cast Sheet

Station Number: ~~A15~~ A15

CTD cast number: 147

Initials: WZ

Start date, time (UTC): 1425

End date, time (UTC): 1458

2018-04-27

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1	300													
DIC	2	300													
	3	250													
	4	200													
	5	150													
DIC	6	150													
	7	120													
DIC	8	100													
	9	100													
	10	80													
	11	60													
DIC	12	60													
	13	40													
DIC	14	40													
	15	30													
	16	20													
	17	10													
DIC	18	sfc	✓												
	19	sfc													
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths - Fixed: sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

SPAR 120.

AR29 CTD Cast Sheet

Station Number: A14
 Start date, time (UTC): 1530
2018-04-27

CTD cast number: 148
 End date, time (UTC): 1600

Initials: WZ

Floater ID	Bottle	Target Depth	TOI	Nuts	¹⁴ C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1	300													
	2	250													
	3	200													
	4	150													
	5	120													
	6	100	/												
WS	7	100													
	8	90	/												
WS	9	90													
	10	60	/												
WS	11	60													
	12	39	/												
WS	13	39													
	14	25													
WS	15	25													
	16	18	/												
WS	17	18													
WS	18	9													
WS	19	sfc													
	20	sfc	/												
	21														
	22														
	23														
	24														
	Sampler														

SUR
~~9~~
~~18~~
~~25~~
~~39~~
~~60~~
 90

Sampling depths - Fixed: sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab
 SPAR: 150
 0 9 18 25 39 60 90 =
 = = = = =

AR29 CTD Cast Sheet

Station Number: A13

CTD cast number: 149

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 29 16:42:39

~~17~~ 17:04

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1	300													
	2	250													
	3	200													
	4	150													
	5	120													
	6	100													
	7	80													
	8	60													
	9	40													
	10	30													
	11	20													
	12	10													
JF	13	sfc													
	14	sfc													
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300
 Floating: Chl max, 10mab

depth = 480m

AR29 CTD Cast Sheet

Station Number: A12

CTD cast number: 150

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 27 17:41:15

18:05:05

Floater ID	Bottle	Target Depth	TOI	Nuts	14C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10mab	1	260									✓				
	2	200									✓				
	3	150													
	4	120													
	5	100									✓				
	6	100													
	7	80													
	8	60													
	9	60									✓				
	10	40	✓												
	11	40													
	12	30													
	13	20									✓				
	14	20													
	15	10													
	16	sfc	✓								✓				
	17	sfc													
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths - Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300-

Floating: Chl max, 10mab

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ 260

depth = 270

AR29 CTD Cast Sheet

Station Number: All

CTD cast number: 151

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 27 18:44:55

19:06:20

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10 mab	1	140													
	2	120													
	3	100									✓				
	4	100													
	5	80									✓				
	6	80													
	7	60									✓				
	8	60													
	9	40									✓				
	10	40													
	11	30													
	12	20													
	13	20									✓				
	14	10													
	15	sfc	✓								✓				
	16	sfc									✓				
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300

Floating: Chl max, 10mab

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ 140 ✓

depth = 150

AR29 CTD Cast Sheet

Station Number: A10

CTD cast number: 152

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 27 20:00:14

20:18:25

Floater ID	Bottle	Target Depth	TOI	Nuts	"C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10 mab	1	125													
	2	125	✓												
	3	100													
	4	100	✓												
	5	80													
	6	80	✓												
	7	68													
	8	68	✓												
	9	45													
	10	45	✓												
	11	29													
	12	19	✓												
	13	19													
	14	13													
	15	7													
	16	sfc	✓												
	17	sfc													
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

SURF
7
13
19
29
45
68

Sampling depths - Fixed: ~~Sfc, 10, 20, 30, 40, 60, 80, 100, 120, 150, 200, 250, 300~~

Floating: Chl max, 10mab

✓
✓ 13 19 29 45 68 ✓ ✓ 125
✓ ✓ ✓ ✓ ✓
✓

SPAR: 4.5 . 45 m

depth > 135

AR29 CTD Cast Sheet

Station Number: A9

CTD cast number: 153

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 27 21:02:37

21:19:45

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
	1	118													
	2	118	✓												
	3	100													
	4	100	✓												
	5	80													
	6	80	✓												
	7	60													
	8	60	✓												
	9	40													
	10	40	✓												
	11	30													
	12	20	✓												
	13	20													
	14	10													
	15	sfc													
	16	sfc	✓												
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths - Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, ~~120, 150, 200, 250, 300~~
 Floating: Chl max, 10mab

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ 118 ✓

depth = 128 m

AR29 CTD Cast Sheet

Station Number: A8

CTD cast number: 154

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018 Apr 27 22:01:23

22:16:29

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10mab	1	110													
	2	100													
	3	80													
	4	60													
	5	40													
	6	30													
	7	20													
	8	10													
	9	sfc													
	10	sfc													
	11														
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths – Fixed: Sfc, 10, 20, 30, 40, 60, 80, 100, ~~120, 150, 200, 250, 300~~

Floating: Chl max, 10mab

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ 110

depth = 120 m

AR29 CTD Cast Sheet

Station Number: A7

CTD cast number: 155

Initials: C.Z.

Start date, time (UTC):

End date, time (UTC):

2018

Apr 27 22:54:25

23:06:40

Floater ID	Bottle	Target Depth	TOI	Nuts	°C	Chl a vol	Chl b vol	BSI	HPLC ID	HPLC vol	CO ₂	C/N	FCM	IFCB	IFCBS
10 mab	1	90													
	2	80													
	3	60													
	4	40													
	5	40													
	6	30													
	7	20													
	8	20													
	9	10													
	10	sfc													
	11	sfc													
	12														
	13														
	14														
	15														
	16														
	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	Sampler														

Sampling depths - Fixed: Sfc, 10, 20, 30, 40, 60, 80, ~~100, 120, 150, 200, 250, 300~~
 Floating: Chl max, 10mab

✓ ✓ ✓ ✓ ✓ ✓ ✓ 90 m.

100 m

