

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date: <u>Sept 29, 2010</u>	Chemistry T ($^{\circ}\text{C}$):	NO_3 :	NO_3	SiO_4	PO_4
Cruise: <u>2010-07</u>	Thaw time:	SiO_4 :	L 8	16	0.81
Project: <u>J015</u>	<u>290910.013</u>	PO_4 :	M 16	31.9	1.62
			H 32	47.9	2.41

Tray #	Sample ID	DMQX2	Comments
1	0		NEW PUMP TUBING - by KS
2	0		
3	0		
4	L		
5	L		
6	L		
7	M		
8	M		
9	M		
10	H		
11	H		
12	H		
13	0		
14	0		
15	0		
16	NO_2	1.60	
17	NO_2	1.60	
18	0		
19	AY		
20	AY		
21	AY		
22	0		
23	352 MK7	RY	
24	352 MK2	10	
25	352 MK7	6	
26	0		
27	685		SAMPLES CB-4 CAST 34
28	684		
29	683		
30	682		
31	681		
32	680		
33	679		
34	678		
35	677		
36	676		no 675
37	674		
38	673		
39	672		
40	671		

Nutrient Analysis Log

Analyst:

Gain

Standard Ranges ($\mu\text{m/L}$)

Date:

Chemistry
T ($^{\circ}\text{C}$):

NO_3 :

NO_3

SiO_4

PO_4

L

M

H

Cruise:

2010-07

Thaw time:

SiO_4 :

PO_4 :

Project:

Tois

290910

Tray #

Sample ID

Comments

1

670

2

669

3

668

4

667

5

666

6

665

7

664

8

663

9

662

10

0

11

673

12

665

13

0

14

Mck

15

Mck

16

Mck

17

0

18

352

19

352

20

352

21

0

22

0

23

0

24

L

25

L

26

L

27

M

28

M

29

M

30

H

31

H

32

H

33

0

34

0

35

0

36

709

37

708

38

707

39

706

40

705

23.7 $^{\circ}\text{C}$

14:25

CB-5 CAST #35

2/4

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges (µm/L)		
Date: <i>Sep 29/10</i>	Chemistry T (°C):	NO ₃ :		NO ₃	SiO ₄
Cruise: <i>2010-07</i>	Thaw time:	SiO ₄ :	L		
Project:	<i>290910.413</i>	PO ₄ :	M		
			H		
Tray #	Sample ID	Comments			
1	<i>704</i>				
2	<i>713</i>				
3	<i>702</i>				
4	<i>701</i>				
5	<i>700</i>				
6	<i>699</i>				
7	<i>698</i>				
8	<i>697</i>				
9	<i>696</i>				
10	<i>695</i>				
11	<i>694</i>				
12	<i>693</i>				
13	<i>692</i>				
14	<i>691</i>				
15	<i>690</i>				
16	<i>689</i>				
17	<i>688</i>				
18	<i>687</i>				
19	<i>686</i>				
20	<i>0</i>				
21	<i>699</i>	<i>Reps 1</i>			
22	<i>695</i>				
23	<i>691</i>				
24	<i>0</i>				
25	<i>352</i>	<i>16:25 23.4°C</i>			
26	<i>352</i>				
27	<i>352</i>				
28	<i>0</i>				
29	<i>0</i>				
30	<i>0</i>				
31	<i>L</i>				
32	<i>L</i>				
33	<i>L</i>				
34	<i>M</i>				
35	<i>M</i>				
36	<i>M</i>				
37	<i>H</i>				
38	<i>H</i>				
39	<i>H</i>				
40	<i>0</i>				

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date: Sep 29/10	Chemistry T ($^{\circ}\text{C}$):	NO ₃ :		NO ₃	SiO ₄
Cruise: 2010-07	Thaw time:	SiO ₄ :	L:		
Project:	290910	PO ₄ :	M:		
			H:		
Tray #	Sample ID	Comments			
1	0				
2	DMQ				
3	0	DETECTION LIMIT			
4	0				
5	0				
6	0				
7	0				
8	0				
9	0				
10	0				
11	0				
12	0				
13	0				
14	0				
15	DMQ				
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges (µm/L)		
Date:	Chemistry	NO ₃ :	NO ₃	SiO ₄	PO ₄
2010-07-30	T (°C):	1.00	L 8	16	0.81
Cruise:	Thaw time:	SiO ₄ : 4.00	M 16	31.9	1.62
2010-07		PO ₄ : 7.00	H 24	47.9	2.41
Project:	30910				
Jois					
Tray #	Sample ID	Comments			
1	O	fog, snow, white-out & wind # drew in			
2	O				
3	O				
4	L				
5	L				
6	L				
7	M	Wake-up/stress			
8	M				
9	M				
10	H				
11	H				
12	H				
13	O				
14	O				
15	O				
16	AY 0076	opened Sep 29/10			
17	AY 0076				
18	AY 0076				
19	O				
20	352	Ref-frozen MK-7			
21	352				
22	352				
23	O				
24	733	Samples CB-7 CAST #36			
25	732				
26	731	22.5°C 13:02			
27	730				
28	729				
29	728				
30	727				
31	726				
32	725				
33	724				
34	723				
35	722				
36	721				
37	720				
38	719				
39	718				
40	717				

Nutrient Analysis Log

Analyst:		Chemistry	Gain	Standard Ranges ($\mu\text{m/L}$)		
Date:	T ($^{\circ}\text{C}$):	NO ₃ :		NO ₃	SiO ₄	PO ₄
Cruise:	Thaw time:	SiO ₄ :		L:		
Project:		PO ₄ :		M:		
				H:		
Tray #	Sample ID	Comments				
1	716					
2	715					
3	714					
4	713					
5	712					
6	711					
7	710					
8	0					
9	718	Reps				
10	715					
11	0					
12	3 tick					
13	Mek					
14	Mek					
15	0					
16	352	Ref. frozen				
17	352					
18	352					
19	0	22.3°C 14:37				
20	0					
21	0					
22	L					
23	L					
24	L					
25	M					
26	M					
27	M					
28	H					
29	H					
30	H					
31	0					
32	0					
33	0					
34	756	CB8 CAST #37				
35	755					
36	754	note that #757 = Batch 24 runs run as a replicate				
37	753					
38	752					
39	751					
40	750					

2/5

$$\frac{3}{\frac{3}{3}}$$
27

①

22.8°C 17:37

○
○
DmQ

79°N 155°W		Nutrient Analysis Log			
Analyst:		Gain		Standard Ranges (µm/L)	
Date:	Chemistry T (°C):	NO ₃ :	NO ₃	SiO ₄	PO ₄
Cruise:	Thaw time:	SiO ₄ :	L		
Project:		PO ₄ :	M		
Tray #	Sample ID	Comments			
1	0				
2	0				
3	0				
4	L				
5	L				
6	L				
7	M				
8	M				
9	M				
10	H				
11	H				
12	H				
13	0				
14	0				
15	0				
16	AY				
17	AY				
18	AY				
19	0				
20	Waka 20N	19°C 11:36			
21	"	} opened Sep. 29/10			
22	"				
23	Waka 50Si				
24	"	} new bottle			
25	"				
26	0				
27	352				
28	352				
29	352				
30	0				
31	805	CP10 CAST #39			
32	804				
33	803				
34	802				
35	801				
36	800				
37	799				
38	798				
39	797				
40	796				

Si Baseline for setting F7 & F8 Calculat.

Nutrient Analysis Log

Analyst:			Gain	Standard Ranges ($\mu\text{m/L}$)		
Date:	Chemistry T ($^{\circ}\text{C}$):	Thaw time:	NO ₃ :	NO ₃	SiO ₄	PO ₄
Cruise:			SiO ₄ :	L		
Project:			PO ₄ :	M		
Tray #	Sample ID		H			Comments
1	795					
2	794					
3	793					
4	792					
5	791					
6	790					
7	788					
8	787					
9	786					
10	785					
11	784					
12	783					
13	782					
14	0					
15	801	Repeat				
16	792					
17	788					
18	0					
19	Mck					
20	Mck					
21	Mck					
22	0					
23	#352	Nitrogen reference MK-7				
24	352					
25	352					
26	0					
27	0					
28	0					
29	L					
30	L					
31	L					
32	M					
33	M					
34	M					
35	H					
36	H					
37	H					
38	0					
39	0					
40	0					

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date:	Chemistry T ($^{\circ}\text{C}$):	NO ₃ :	NO ₃	SiO ₄	PO ₄
Cruise:	Thaw time:	SiO ₄ :	L:		
Project:		PO ₄ :	M:		
			H:		
Tray #	Sample ID	Comments			
1	829	CB-70 CAST #40 15:04 19.6°C			
2	828	-20°C inside			
3	827				
4	826	2 palm leaves			
5	825	Mon & CUB (14%)			
6	824				
7	823				
8	822				
9	821				
10	820				
11	819				
12	818				
13	817				
14	816				
15	815				
16	814				
17	813				
18	812				
19	811				
20	810				
21	809				
22	808				
23	807				
24	806				
25	0				
26	819	Repa			
27	814				
28	811				
29	0				
30	0				
31	0				
32	L				
33	L				
34	L				
35	M				
36	M				
37	M	19:23 20.4°C Ship stopped			
38	H	settling in ITP			
39	H				
40	H				

0
0
0

unhook reagents for B₄ turbidity
→ leave PASC & NaCl hooked up over to

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date: Oct. 3/2010	Chemistry T ($^{\circ}\text{C}$):	NO ₃ : 1.00	NO ₃	SiO ₄	PO ₄
Cruise: 2010-07	Thaw time:	SiO ₄ : 4.00	L 8	16	0.81
Project: Jois	031010.923	PO ₄ : 7.00	M 16	31.9	1.62
			H 24	47.9	2.41
Tray #	Sample ID	Comments			
1	O	10:31 21.4°C			
2	O				
3	O				
4	L	Wake-up w/ stars			
5	L	10:45 a.m.			
6	L	snowing -16°C fog CORD!			
7	M				
8	M				
9	M				
10	H				
11	H				
12	H				
13	O				
14	O				
15	O				
16	AY 1707	New bottle			
17	AY 1707				
18	AY 1707				
19	O				
20	352	RESTARTED HERE			
21	352				
22	352				
23	O				
24	853	CB70 CAST #41			
25	852				
26	851				
27	850				
28	849				
29	848				
30	847				
31	846				
32	845				
33	844				
34	843				
35	842				
36	841				
37	840				
38	839				
39	838				
40	837				

Nutrient Analysis Log

Analyst:		Chemistry	Gain	Standard Ranges ($\mu\text{m/L}$)		
Date:	Cruise:	T ($^{\circ}\text{C}$):	NO ₃ :	NO ₃	SiO ₄	PO ₄
Project:	Thaw time:		SiO ₄ :	L		
			PO ₄ :	M		
				H		
Tray #	Sample ID	Comments				
1	836					
2	835					
3	834					
4	833					
5	832					
6	831					
7	830					
8	0					
9	848 838	REPS looks more like ^{Rep} 839				
10	843					
11	835					
12	0					
13	Mck	AY 1707				
14	Mck	AY 1707				
15	Mck	AY 1707				
16	0					
17	352					
18	352	Mck				
19	352	Mck				
20	0	Mck				
21	0					
22	0					
23	L					
24	L					
25	L					
26	M					
27	M					
28	M					
29	H					
30	H					
31	H					
32	0					
33	0					
34	0					
35	877	CB11 CAST H2				
36	876					
37	875					
38	874					
39	873					
40	872					

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date: <i>Oct 3/2010</i>	Chemistry T ($^{\circ}\text{C}$):	NO_3 :		NO_3	SiO_4
Cruise: <i>2010-07</i>	Thaw time:	SiO_4 :	L		
Project: <i>J015</i>	<i>031010.003</i>	PO_4 :	M		
			H		
Tray #	Sample ID	Comments			
1	<i>871</i>				
2	<i>870</i>				
3	<i>869</i>				
4	<i>868</i>	<i>21.2°C 15:06pm.</i>			
5	<i>867</i>				
6	<i>866</i>				
7	<i>865</i>				
8	<i>864</i>				
9	<i>863</i>				
10	<i>862</i>				
11	<i>861</i>				
12	<i>860</i>				
13	<i>859</i>				
14	<i>858</i>				
15	<i>857</i>				
16	<i>856</i>				
17	<i>855</i>				
18	<i>854</i>				
19	<i>0</i>				
20	<i>867</i>	<i>Reps</i>			
21	<i>862</i>				
22	<i>859</i>				
23	<i>0</i>				
24	<i>Uck</i>				
25	<i>Mck</i>				
26	<i>Mck</i>				
27	<i>0</i>				
28	<i>0</i>				
29	<i>0</i>				
30	<i>L</i>				
31	<i>L</i>				
32	<i>L</i>				
33	<i>M</i>				
34	<i>M</i>				
35	<i>M</i>				
36	<i>H</i>				
37	<i>H</i>				
38	<i>H</i>				
39	<i>0</i>				
40	<i>0</i>				

DMQ

3/

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges (µm/L)		
Date: <u>Oct 4/10</u>	Chemistry T (°C):	NO ₃ : <u>1.00</u>	NO ₃	SiO ₄	PO ₄
Cruise: <u>2010-07</u>	Thaw time:	SiO ₄ : <u>4.00</u>	L: <u>8</u>	<u>16</u>	<u>0.81</u>
Project: <u>Jois</u>		PO ₄ : <u>7.00</u>	M: <u>16</u>	<u>31.9</u>	<u>1.62</u>
			H: <u>24</u>	<u>47.9</u>	<u>2.41</u>

Tray #	Sample ID	Comments
1	0	
2	0	
3	0	
4	L	
5	L	
6	L	
7	M	Temp 21.8°C 10:47
8	M	Phos Si coils
9	M	
10	H	
11	H	
12	H	
13	0	
14	0	
15	0	
16	AY	
17	AY	Wako N 20 x 3 NEW ALN9352 2011.04
18	AY	Wako Si 50 x 3 Opened Oct 2/10
19	0	
20	352	Ref. frozen) forget to place in
21	352	tray
22	352	
23	0	
24	925	Samples CB9 CAST #44 3614m(d)
25	924	
26	923	High oxygen Pac. waters
27	922	
28	921	
29	920	
30	919	
31	918	
32	917	
33	916	
34	915	
35	914	
36	913	
37	912	
38	911	
39	910	
40	909	

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges (µm/L)		
Date: Oct. 4/10	Chemistry T (°C):	NO ₃ :	NO ₃	SiO ₄	PO ₄
Cruise: 2010-07	Thaw time:	SiO ₄ :	L:		
Project: To15		PO ₄ :	M:		
			H:		
Tray #	Sample ID	Comments			
1	908				
2	907				
3	906				
4	905				
5	904				
6	903				
7	902				
8	0				
9	908	Reps			
10	906				
11	903				
12	0				
13	Mck				
14	Mck				
15	Mck				
16	0				
17	352				
18	352				
19	352				
20	0				
21	0				
22	0				
23	L				
24	L				
25	L	22.1°C 15:51			
26	M				
27	M				
28	M				
29	H				
30	H				
31	H				
32	0				
33	0				
34	0				
35	973	Lampydia CB-12 Last 47			
36	972				
37	971				
38	970				
39	969				
40	968				

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Nutrient Analysis Log

Analyst:		Chemistry	Gain	Standard Ranges ($\mu\text{m/L}$)		
Date:	T (°C):	NO ₃ :	NO ₃ :	SiO ₄ :	PO ₄ :	
Cruise:	Thaw time:	SiO ₄ :	L:			
Project:		PO ₄ :	M:			
			H:			
Tray #	Sample ID	Comments				
1	967	N - Bed pk top Reported later				
2	966					
3	965					
4	964					
5	963					
6	962					
7	961					
8	960					
9	959					
10	958					
11	957					
12	956					
13	955					
14	954					
15	953					
16	952					
17	951					
18	950					
19	0	#967 Repet				
20	966	Reps				
21	956					
22	951					
23	0					
24	Nick					
25	Met					
26	Met					
27	0					
28	352					
29	352					
30	352					
31	0	22°C 16:14				
32	0					
33	0					
34	L					
35	L					
36	L					
37	M					
38	M					
39	M					
40	H					

H
H
H

000, DMQ

3/3

JOIS + C30

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Nutrient Analysis Log

Analyst:		Gain	Standard Ranges ($\mu\text{m/L}$)			
Date:	Chemistry T ($^{\circ}\text{C}$):	NO ₃ :	NO ₃	SiO ₄	PO ₄	
Oct 5/2010		1.00	L	8	16	0.81
Cruise:	Thaw time:	SiO ₄ :	M	16	31.9	1.62
2010-07		4.00	H	24	47.9	2.41
Project:		PO ₄ :				
JOIS		7.00				
051010.000						

Tray #	Sample ID	Comments
1	0	Instrument flushing @ 9a.m. Wakeup w/ 4 stds 10:10 21.8°C
2	0	
3	0	
4	L	
5	L	
6	L	
7	M	
8	M	
9	M	
10	H	
11	H	
12	H	
13	0	
14	0	
15	0	
16	352	MK7 frozen reference 2600m. deepwater
17	352	
18	352	
19	0	
20	A4	1707
21	A4	1707
22	A4	1707
23	0	
24	997	Sampled CB12a / 48 RESTART 997
25	996	
26	995	
27	994	
28	993	
29	992	
30	991	
31	990	
32	989	
33	988	
34	987	
35	986	
36	985	
37	984	
38	983	
39	982	
40	981	

Nutrient Analysis Log

Analyst:		Chemistry	Gain	Standard Ranges ($\mu\text{m/L}$)		
Date:	T ($^{\circ}\text{C}$):	NO ₃ :		NO ₃	SiO ₄	PO ₄
Cruise:	Thaw time:	SiO ₄ :	L			
Project:		PO ₄ :	M			
			H			
Tray #	Sample ID	Comments				
1	980					
2	979					
3	978					
4	979					
5	976					
6	975					
7	974					
8	0					
9	987	Reps				
10	982					
11	979					
12	0					
13	Mck					
14	Mck					
15	Mck					
16	0					
17	352	MK-7 Deep Water Reference >2,500m				
18	352					
19	352					
20	0					
21	0					
22	0					
23	L					
24	L					
25	L					
26	M					
27	M					
28	M					
29	H					
30	H					
31	H					
32	0					
33	0					
34	0					
35	1021	CB-16 Cast 49				
36	1020					
37	1019					
38	1018					
39	1017					
40	1016					

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Nutrient Analysis Log

Analyst:		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date:	Chemistry $T(^{\circ}\text{C})$:	NO_3 :	NO_3	SiO_4	PO_4
Cruise:	Thaw time:	SiO_4 :	L:		
Project:		PO_4 :	M:		
			H:		
Tray #	Sample ID	Comments			
1	1015	23°C 14:20.			
2	1014				
3	1013				
4	1012				
5	1011				
6	1010				
7	1009				
8	1008				
9	1007				
10	1006				
11	1005				
12	1004				
13	1003				
14	1002				
15	1001				
16	1000	22.6°C 15:05			
17	999				
18	998				
19	0				
20	1021	Reps			
21	1017				
22	999				
23	0				
24	McK				
25	McK				
26	McK				
27	0				
28	352				
29	352				
30	352				
31	0				
32	0				
33	0				
34	L				
35	L				
36	L				
37	M				
38	M				
39	M				
40	H				

Nutrient Analysis Log

Analyst:		Chemistry	Gain	Standard Ranges ($\mu\text{m/L}$)		
Date:	T ($^{\circ}\text{C}$):	NO ₃ :	NO ₃ :	SiO ₄ :	PO ₄ :	
Cruise:	Thaw time:	SiO ₄ :	L:	M:	H:	
Project:		PO ₄ :				
Tray #		Comments				
1	H					
2	H					
3	0					
4	0					
5	0					
6	152	- C30 - 2010-06				
7	151	LSSL - Leg 1 FROZEN SAMPLES.				
8	150	6-BEK-6/14				
9	149					
10	148					
11	147	Thawed in ~40°C water				
12	146					
13	145	*topped up Si ASC. for thaw.				
14	0	23°C 16:59				
15	146	Rep.				
16	146					
17	146					
18	146					
19	146					
20	0					
21	175	QM10/18				
22	174					
23	173					
24	172					
25	171					
26	170					
27	0					
28	173	Rep				
29	0					
30	173					
31	173					
32	173					
33	0					
34	206	CG10/25				
35	205					
36	204					
37	203					
38	202					
39	201					
40	200					

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Nutrient Analysis Log

Analyst:		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date:	Chemistry T ($^{\circ}\text{C}$):	NO ₃ :	NO ₃	SiO ₄	PO ₄
Cruise:	Thaw time:	SiO ₄ :	L		
Project:		PO ₄ :	M		
			H		
Tray #	Sample ID	Comments			
1	199				
2	198				
3	197				
4	196				
5	195				
6	194				
7	0				
8	205	Rep			
9	0				
10	0				
11	0				
12	L				
13	L				
14	L				
15	M	23.4°C, 18:54			
16	M				
17	M				
18	H				
19	H				
20	H				
21	0				
22	0				
23	0				
24	D/R				
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

8/

Nutrient Analysis Log

Analyst: <u>Linder</u>		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date: <u>Oct 6/2010</u>	Chemistry T ($^{\circ}\text{C}$):	NO_3 : <u>1.00</u>	NO_3	SiO_4	PO_4
Cruise: <u>2010-07</u>	Thaw time: <u>0</u>	SiO_4 : <u>4.00</u>	L: <u>7.96</u>	<u>15.93</u>	<u>0.81</u>
Project: <u>JOIS</u>	<u>061010</u>	PO_4 : <u>7.00</u>	M: <u>15.93</u>	<u>31.9</u>	<u>1.62</u>
			H: <u>23.98</u>	<u>47.9</u>	<u>2.41</u>

Tray #	Sample ID	Comments
1	0	
2	0	
3	0	
4	L	
5	L	
6	L	
7	M	
8	M	
9	M	
10	H	
11	H	
12	H	
13	0	
14	0	
15	0	23.6 $^{\circ}\text{C}$ 13:36
16	AY 1936	
17	AY 1936	
18	AY 1936	
19	0	
20	352	MK7 Freeze penicillin/ferment 2600
21	352	
22	352	
23	0	
24	1069	Samples CB13/51
25	1068	
26	1067	no tube here. look in -20C freezer
27	1066	
28	1065	
29	1064	
30	1063	
31	1062	
32	1061	
33	1060	
34	1059	
35	1058	- PO_4 peak out of alignment w/baseline
36	1057	
37	1056	
38	1055	
39	1054	
40	1053	

Nutrient Analysis Log

Analyst:

Gain

Standard Ranges ($\mu\text{m/L}$)

Date:

Oct 6/10

Chemistry

T (°C):

NO₃:

NO₃

SiO₄

PO₄

L

M

H

Cruise:

2010-07

Thaw time:

0

SiO₄:

PO₄:

Project:

Jo15

061010

Tray #

Sample ID

Comments

1

1052

2

1051

3

1050

4

1049

5

1048

6

1047

7

1046

8

0

9

1063

Reps

10

1058

11

1051

12

0

13

Mk

14

Mk

15

Mk

16

0

17

352

18

352

19

352

20

0

21

0

22

0

23

L

24

L

25

L

26

M

27

M

28

M

29

H

30

H

31

H

32

0

33

0

34

0

35

1093

CB15/52

36

1092

37

1091

38

1090

39

1089

40

1088

2/4

Nutrient Analysis Log

Analyst:		Chemistry	Gain	Standard Ranges (µm/L)		
Date:	T (°C):	NO ₃ :	NO ₃	SiO ₄	PO ₄	
Cruise:	Thaw time:	SiO ₄ :	L			
Project:		PO ₄ :	M			
			H			
Tray #	Sample ID	Comments				
1	1087					
2	1086					
3	1085					
4	1084					
5	1083					
6	1082					
7	1081					
8	1080					
9	1079					
10	1078	No sample - empty tube : use replicates				
11	1077					
12	1076					
13	1075					
14	1074					
15	1073					
16	1072					
17	1071					
18	1070					
19	0					
20	1083	Repal				
21	1078					
22	1073					
23	0					
24	Nick					
25	Nick					
26	Nick					
27	0					
28	352					
29	352					
30	352					
31	0	Samples CB15/54				
32	1141					
33	1140					
34	1139					
35	1138					
36	1137					
37	1136					
38	1135					
39	1134					
40	1133					

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Nutrient Analysis Log

Analyst:		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date:	Chemistry T ($^{\circ}\text{C}$):	NO ₃ :	NO ₃	SiO ₄	PO ₄
Cruise:	Thaw time:	SiO ₄ :	L		
Project:		PO ₄ :	M		
			H		
Tray #	Sample ID	Comments			
1	1132				
2	1131				
3	1130	ye eluate			
4	1129				
5	1128				
6	1127				
7	1126				
8	1125				
9	1124				
10	1123				
11	1122				
12	1121				
13	1120				
14	1119				
15	1118				
16	0				
17	1137	Reps			
18	1133				
19	1126				
20	0				
21	Mck				
22	Mck				
23	Mck				
24	0				
25	0				
26	0				
27	L				
28	L				
29	L				
30	M				
31	M				
32	M				
33	H				
34	H				
35	H				
36	0				
37	0				
38	0	21:00 24.5°C			
39	DDH ₂ O				
40					