

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date: <u>Oct 7/2010</u>	Chemistry T ($^{\circ}\text{C}$):	NO ₃ :		NO ₃	SiO ₄
Cruise: <u>2010-07</u>	Thaw time:	SiO ₄ :	L:		
Project: <u>Jois</u>	<u>071010</u>	PO ₄ :	M:		
	<u>2x DDH₂O</u>		H:		

Tray #	Sample ID	Comments
1	O	
2	O	
3	O	
4	L	
5	L	
6	L	
7	M	
8	M	
9	M	
10	H	
11	H	
12	H	
13	O	
14	O	
15	O	
16	Wako 20N	
17	"	
18	"	
19	Wako 50 Si	
20	"	
21	"	
22	O	
23	AY 1936	
24	AY 1936	
25	AY 1936	
26	O	
27	MK7 352	
28	MK7 352	
29	MK7 352	
30	O	
31	1165	
32	1164	
33	1163	
34	1162	
35	1161	
36	1160	
37	1159	
38	1158	
39	1157	
40	1156	

HAPPY BIRTHDAY Bob!

Wakeup w/ 4 stars

9:54 a.m. 24.2°C

Samples

CB17/55

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	1155				
2	1154				
3	1153				
4	1152				
5	1151				
6	1150				
7	1148	No 1148			
8	1147				
9	1146				
10	1145				
11	1144				
12	1143				
13	1142				
14	0				
15	1164	Reps			
16	1156				
17	1146				
18	0				
19	Mck				
20	Mck				
21	Mck				
22	0				
23	MK 352				
24	MK 352				
25	MK 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				

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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	102	Samples BB10-02/6 2010-06				
2	101					
3	100					
4	99					
5	98					
6	97					
7	96					
8	95					
9	94					
10	93					
11	92					
12	91					
13	90					
14	89					
15	88					
16	87					
17	86					
18	0					
19	88 98	Reps				
20	87					
21	Mk					
22	Mk					
23	Mk					
24	0					
25	MK7 352	Samples				
26	352					
27	352					
28	0					
29	129	PS-3/10				
30	128					
31	127					
32	126	14:58 22.2°C				
33	125					
34	124					
35	123					
36	122					
37	121					
38	120					
39	119					
40	118					

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Nutrient Analysis Log

Analyst:		Gain		Standard Ranges (µm/L)		
Date: Oct 7/10	Chemistry T (°C):	NO ₃ :		NO ₃	SiO ₄	PO ₄
Cruise:	Thaw time:	SiO ₄ :		L:		
Project: C30	071010	PO ₄ :		M:		
				H:		
Tray #	Sample ID	Comments				
1	Mck					
2	0					
3	34	LS10-02/2; 2010-06				
4	33					
5	32					
6	31					
7	30					
8	29					
9	28					
10	27					
11	26					
12	25	20.6°C ~ 17:43				
13	24					
14	23					
15	22					
16	21					
17	20					
18	19					
19	0					
20	30	Reps				
21	21					
22	19					
23	0					
24	MK7-352					
25	MK7-352					
26	-352					
27	0					
28	0					
29	0					
30	L					
31	L					
32	L					
33	M					
34	M					
35	M					
36	H					
37	H					
38	H					
39	0					
40	0					

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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	0					
2	68	DS10-01/4				
3	67					
4	66					
5	65					
6	64					
7	63					
8	62					
9	61					
10	60					
11	59					
12	58					
13	57					
14	56					
15	55					
16	54					
17	53					
18	52					
19	0					
20	68	reps				
21	57					
22	MK7352					
23	MK7352					
24	MK7-352					
25	0					
26	0					
27	0					
28	L					
29	L					
30	L					
31	M					
32	M					
33	M					
34	H					
35	H					
36	H					
37	0					
38	0					
39	0					
40	DDH ₂ O					

240,
S & S

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Nutrient Analysis Log

Analyst: <i>Leider</i>		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date: <i>Oct 8/2010</i>	Chemistry T ($^{\circ}\text{C}$):	NO_3^-	NO_3^-	SiO_4	PO_4
Cruise: <i>2010-07</i>	Thaw time: <i>0</i>	SiO_4	L		
Project: <i>Jois</i>	<i>08/10/10</i>	PO_4	M		
			H		
Tray #	Sample ID	Comments			
1	0				
2	0				
3	0				
4	L				
5	L				
6	L	21.8°C 14:53 Late start			
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	MK7 352				
21	"				
22	"				
23	0				
24	4999	LH5 + DMQ (0)	Mickiyo's sample		4999
25	0				LH5 + DMQ
26	1189	PP7/56			0
27	1188				Nuts
28	1187				2010-07
29	1178				
30	0				
31	1213	PP7/57			
32	1212				
33	1211				
34	1210				
35	1209				
36	1208				
37	1207				
38	1206				
39	1205				
40	1204				

Do not use Reg

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	1203				
2	1202				
3	1201				
4	1200				
5	1199				
6	1198				
7	1197				
8	1196				
9	1195				
10	1194				
11	1193				
12	1192				
13	1191				
14	1190				
15	0				
16	1211	Reps			
17	1200				
18	1193				
19	0				
20	Mck				
21	Mck				
22	Mck				
23	0				
24	MK7 352				
25	352				
26	352				
27	0				
28	0				
29	0				
30	L				
31	L				
32	L				
33	M				
34	M				
35	M				
36	H				
37	H				
38	H				
39	0				
40	0				

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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	0					
2	1261	PP-6/59 22°C 18:37				
3	1260					
4	1259					
5	1258 ✓	jagged peak top - repeating out of day.				
6	1257					
7	1256					
8	1255					
9	1254					
10	1253					
11	1252					
12	1251					
13	1250					
14	1249					
15	1248					
16	1247					
17	1246					
18	1245					
19	1244					
20	1243					
21	1242					
22	1241					
23	1240					
24	1239					
25	1238					
26	0					
27	1260	REPS				
28	1246					
29	1243					
30	0					
31	1241					
32	1240					
33	1239					
34	0					
35	0					
36	0					
37	L					
38	L					
39	L					
40	M					

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date: Oct 8/2010	Chemistry T ($^{\circ}\text{C}$):	NO ₃ :	NO ₃	SiO ₄	PO ₄
Cruise: 2010-07	Thaw time:	SiO ₄ :	L		
Project: C30	08/10/10	PO ₄ :	M		
			H		

Tray #	Sample ID	Comments
1	M	
2	M	
3	H	
4	H	
5	H	
6	0	
7	0	
8	0	
9	193	C30 30CG/21 2010-06
10	192	
11	191	22°C 20:48
12	190	
13	189	x Tube cracked / leaked out
14	188	
15	187	
16	186	
17	185	
18	184	
19	183	
20	182	
21	0	
22	193	REP
23	0	
24	Wk	
25	Wk	
26	Wk	
27	0	
28	181	CG10-01
29	180	
30	179	
31	178	
32	177	
33	176	
34	0	
35	176	REP 1258 repeat for Si 22°C 21:45
36	0	
37	0	
38	0	
39	L	
40	L	

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date: <i>Oct 8/2010.</i>	Chemistry T ($^{\circ}\text{C}$):	NO ₃ :	NO ₃	SiO ₄	PO ₄
Cruise:	Thaw time:	SiO ₄ :	L		
Project: <i>C30</i>	<i>08/10/10</i>	PO ₄ :	M		
			H		
Tray #	Sample ID	Comments			
1	<i>L</i>				
2	<i>M</i>				
3	<i>M</i>				
4	<i>M</i>				
5	<i>H</i>				
6	<i>H</i>				
7	<i>H</i>				
8	<i>O</i>				
9	<i>O</i>				
10	<i>O</i>				
11	<i>DHQ</i>				
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
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Nutrient Analysis Log

Analyst: <i>Liu</i>		Gain	Standard Ranges ($\mu\text{m/L}$)		
Date: <i>Oct 8/2010</i>	Chemistry T ($^{\circ}\text{C}$):	NO_3^-	NO_3^-	SiO_4	PO_4
Cruise: <i>2010-07</i>	Thaw time:	SiO_4	L:		
Project: <i>JOIS</i>	<i>081010.003</i>	PO_4	M:		
			H:		
Tray #	Sample ID	Comments			
1	0	<i>Conditioned New C_d. Column</i>			
2	0				
3	0				
4	L M 0				
5	K M 0				
6	K M 0				
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	MK7 352				
21	MK7 352				
22	MK7 352				
23	0				
24	4999	<i>LH5 + DMQ (0)</i>			
25	0				
26	1189	<i>PP7/56</i>	<i>Bot 24</i>	<i>* NED CAME AHEAD RESTART AT #1189 Cleaning NED line w/ 10% HCl</i>	
27	1188		<i>23</i>		
28	1187		<i>22</i>		
29	1178		<i>13</i>		
30	0				
31	1213	<i>PP7/57</i>			
32	1212				
33	1211				
34	1210				
35	1209				
36	1208	<i>N.E.D. Disconnected Started from beginning</i>			
37	1207				
38	1206				
39	1205				
40	1204				

*Replaced NED lines to
cells*

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ABOARD LSSL 2010-07 Nutrient Analysis Log					
Analyst: <i>L. Shute</i>		Gain	Standard Ranges (µm/L)		
Date: <i>Oct 9/10</i>	Chemistry T (°C):	NO ₃ :	NO ₃	SiO ₄	PO ₄
Cruise: <i>2010-06</i>	Thaw time:	SiO ₄ :	L		
Project: <i>C30 FROZEN</i> <i>JOIS 091010.443</i>	2x DDH ₂ O	PO ₄ :	M		
			H		
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	MK7 352				
21	"				
22	"				
23	0				
24	#144	<i>Samples C30 2010-06</i> <i>8-BEL-8/12</i> <i>FROZEN</i>			
25	143				
26	142				
27	141				
28	140				
29	139				
30	138				
31	137				
32	136				
33	135				
34	134				
35	133				
36	132				
37	131				
38	130				
39					
40	142	<i>Kept</i>			

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	133					
2	0					
3	nick					
4	nick					
5	nick					
6	0					
7	51	LS10-03/3 2010-06				
8	50	FROZEN				
9	49					
10	48					
11	47					
12	45					
13	44					
14	43					
15	41					
16	40					
17	39	21.6°C 12:35				
18	38					
19	37					
20	35					
21	30	37 Rep.				
22	0					
23	MK 352					
24	MK 352					
25	MK 352					
26	0					
27	0					
28	0					
29	L					
30	L					
31	M					
32	M					
33	H					
34	H					
35	H					
36	0					
37	0					
38	0					
39	163	FS10-01/15 2010-06				
40	162	FROZEN				

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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		
			H		
Tray #	Sample ID	Comments			
1	161				
2	160				
3	159				
4	158				
5	157				
6	156				
7	155				
8	154				
9	153				
10	0				
11	158	Rep			
12	156				
13	0				
14	169	VS10/02/17 2010-06			
15	168	FROZEN			
16	167				
17	166				
18	165				
19	164				
20	0				
21	169	Rep			
22	0				
23	uck				
24	uck				
25	uck				
26	0				
27	MK7-352				
28	MK7-352				
29	MK7-352				
30	0				
31	1309	1285	2010-07 JOIS CB- 60 /60 DW		
32	1308	1284	FRESH		
33	1307	1283			
34	1306	1282			
35	1305	1281			
36	1304	1280			
37	1303	1279			
38	1302	1278			
39	1301	1277			
40	1300	1276			

Nutrient Analysis Log

Analyst:		Gain	Standard Ranges (µm/L)		
Date: <i>Oct 9/10</i>	Chemistry T (°C):	NO ₃ : <i>1.00</i>	NO ₃	SiO ₄	PO ₄
Cruise: <i>2010-07</i>	Thaw time:	SiO ₄ : <i>4.00</i>	L <i>8</i>	<i>16.0</i>	<i>0.81</i>
Project: <i>JOIS</i>	<i>091010</i>	PO ₄ : <i>7.00</i>	M <i>16</i>	<i>31.9</i>	<i>1.62</i>
			H <i>24</i>	<i>47.9</i>	<i>2.41</i>
Tray #	Sample ID	Comments			
1	<i>1299</i>	<i>1275</i>			
2	<i>1298</i>	<i>1274</i>			
3	<i>1297</i>	<i>1273</i>			
4	<i>1296</i>	<i>1272</i>			
5	<i>1295</i>	<i>1271</i>			
6	<i>1294</i>	<i>1270</i>			
7	<i>1293</i>	<i>1269</i>			
8	<i>1292</i>	<i>1268</i>			
9	<i>1291</i>	<i>1267</i>			
10	<i>1290</i>	<i>1266</i>			
11	<i>1289</i>	<i>1265</i>			
12	<i>1288</i>	<i>1264</i>			
13	<i>1287</i>	<i>1263</i>			
14	<i>1286</i>	<i>1262</i>			
15	<i>0</i>				
16	<i>1307</i>	<i>Reps 1285</i>			
17	<i>1302</i>	<i>1281</i>			
18	<i>1294</i>	<i>1264</i>			
19	<i>0</i>				
20	<i>uck</i>				
21	<i>uck</i>				
22	<i>uck</i>				
23	<i>0</i>				
24	<i>0</i>				
25	<i>0</i>				
26	<i>L</i>				
27	<i>L</i>				
28	<i>L</i>				
29	<i>M</i>				
30	<i>M</i>				
31	<i>M</i>				
32	<i>H</i>				
33	<i>H</i>				
34	<i>H</i>				
35	<i>0</i>				
36	<i>0</i>				
37	<i>0</i>				
38	<i>DMP</i>				
39					
40					

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