

Chlorophyll Data Sheet

Cruise: 2014-18

Page: 1 of

Date acetone added: 21 Jun 2014

Time acetone added: 0800

Date of analysis: 22 Jun 2014 ~ 0800

Analyst: NTS

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by	-		1-5363	0.002			
STD			LOW	2-5364	12.3			
			HIGH	4-5365	67.5			
Blank				6-5406	0.005		53.7 0.001	
195B	P4	330	10	1-5368	49.1	2-5369	79.4	4x diluted
197B	P4	330	20	3-5370	43.8	4-5371	24.5	5x diluted
LOO PA	P4	330	20	5-5372	65.5	6-5373	37.9	4x diluted
197A	P4	330	20	7-5374	43.9	8-5375	25.2	4x diluted
196A	P4	330	20	1-5376	48.6	2-5377	27.3	4x diluted
195A	P4	330	10	3-5378	47.3	4-5379	77.9	4x diluted
194	P4	330	20	5-5381	34.5	6-5382	20.2	8x diluted
193	P4	330	20	7-5383	54.0	8-5384	30.5	4x diluted
196	P4	330	20	1-5385	42.6	2-5386	24.9	4x diluted
192	P4	330	20	3-5387	56.5	4-5388	33.2	4x diluted
196B	P4	330	20	5-5389	62.0	6-5390	35.8	4x diluted
196A	P4	330	20	7-5391	36.3	8-5392	20.2	8x diluted
188	P4	330	10	1-5393	45.3	2-5394	77.0	4x diluted
189	P4	330	10	3-5395	24.3	4-5396	14.1	4x diluted
191	P4	330	20	5-5397	46.8	6-5398	77.8	4x diluted
185	P4	330	10	7-5399	7.45	8-5400	5.59	
186	P4	330	10	1-5401	16.1	2-5402	12.7	
187	P4	330	10	3-5403	16.1	4-5404	11.7	
99A	P3	330	10	5-5405	41.3	6-5406	23.2	2x diluted
99B	P3	330	10	7-5407	45.8	8-5408	27.1	2x diluted
184	P4	330	10	1-5409	5.30	2-5410	4.02	
99B	P2	330	20	3-5411	38.4	4-5412	24.0	4x diluted
98A	P3	330	10	5-5413	33.0	6-5414	19.3	4x diluted
98B	P3	330	10	7-5415	33.0	8-5416	19.4	4x diluted
Blank				3-				
Std	Low			5-				
Std	High			7-				
Stand-	by			8-				

195 B	197 B	P4	197 A	196 A	195 A	194	193
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P4	P4	P4	P4	P4	P4	P4	P4
30 m	5 m	5 m	15/Max	30 m	0 m	5 m	
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 15	Bot 17	Bot 17	Bot 16	Bot 15	Bot 14	Bot 13	

196	192	190 *	190 *	188	189	191	185
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P4	P4	P4 B	P4 A	P4	P4	P4	P4
15/Max	10 m	20 m	20 m	30 m	25 m	15 m	75 m
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 16	Bot 12	Bot 10	Bot 10	Bot 8	Bot 9	Bot 11	Bot 5

186	187	99 A	99 B	184	P2	98 A	98 B
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P4	P4	P3	P3	P4	P3	P3	P3
50 m	40 m	5 m	5 m	100 m	30/Max	30/Max	30/Max
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 6	Bot 7	Bot 2	Bot 2	Bot 4	Bot 1	Bot 1	Bot 1

Chlorophyll Data Sheet

Cruise: 2014-18

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Date acetone added: 21 JUN 2014

Time acetone added: 0800

Date of analysis: 22 JUN 2014 ~ 1030

Analyst: MB

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-5417	0.000			
STD			LOW	2-5418	12.3			
			HIGH	4-5419	66.7			
Blank				6-5420	0.013	5421	0.010	
274	P8	330	10	1-5422	22.7	2-5423	12.8	
277	P8	330	10	3-5424	16.2	4-5425	11.3	
271	P8	330	10	5-5426	23.2	6-5427	12.8	
268	P8	330	10	7-5428	14.2	8-5429	10.0	
273	P8	330	10	1-5430	30.7	2-5431	17.7	
273	P8	330	10	3-5432	26.5	4-5433	15.0	
267	P8	330	10	5-5434	6.77	6-5435	4.93	
269	P8	330	10	7-5436	29.4	8-5437	16.9	
272	P8	330	10	1-5438	13.7	2-5439	9.41	
252	P7	330	10	3-5440	23.9	4-5441	13.73	
270	P8	330	10	5-5442	77.0	6-5443	15.6	
266	P8	330	10	7-5444	3.65	8-5445	2.83	
251A	P7	330	10	1-5446	40.1	2-5447	23.2	
251B	P7	330	10	3-5448	38.1	4-5449	22.1	
252A	P7	330	10	5-5450	72.9	6-5451	13.0	
227B	P6	330	10	7-5452	46.2	8-5453	26.8	2x Diluted
228A	P6	330	10	1-5454	49.7	2-5455	28.9	
228B	P6	330	10	3-5456	49.9	4-5457	29.6	
222A	P5	330	10	5-5458	39.5	6-5459	22.7	4x Diluted
222B	P5	330	10	7-5460	41.4	8-5461	23.4	4x Diluted
227A	P6	330	10	1-5462	46.1	2-5463	27.9	2x Diluted
200PB	P4	330	70	3-5464	39.6	4-5465	22.4	8x Diluted
221A	P5	330	10	5-5466	33.4	6-5467	19.3	4x Diluted
221B	P5	330	10	7-5468	34.8	8-5469	17.7	4x Diluted
Blank				3-5470	0.015	5471	0.013	
Std	Low			5-5472	12.4			
Std	High			7-5473	67.0			
Stand-	by			8-5474	0.013			

274	272	271	268	273	273	267	269
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P8	P8	P8	P8	P8	P8	P8	P8
5 m	50 m	5 m	50 m	20/Max	20/Max	75 m	25 m
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 22	Bot 20	Bot 19	Bot 16	Bot 21	Bot 21	Bot 15	Bot 17
272	252 B	270	266	251 A	251 B	252 A	227 B
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P8	P7	P8	P8	P7	P7	P7	P6
50 m	5 m	10 m	100 m	30/Max	30/Max	5 m	30/Max
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 20	Bot 24	Bot 18	Bot 14	Bot 23	Bot 23	Bot 24	Bot 5
228 A	228 B	222 A	222 B	227 A	221 A	221 B	
CHL	CHL	CHL	CHL	CHL	CHL	CHL	
P6	P6	P5	P5	P6	P5	P5	
5 m	5 m	5 m	5 m	30/Max	30/Max	30/Max	
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	
Bot 6	Bot 6	Bot 24	Bot 24	Bot 5	Bot 23	Bot 23	

LEASY
STICK

P4
CHL
Loop
B

started reading
@ 3:40p.m.

Chlorophyll Data Sheet

Cruise: 2014-18

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Date acetone added: 17 July 14

Time acetone added: 2 pm

Date of analysis: 18 July 14

Analyst: TF

5m
20m
5m
20m
15m
5m
5m
30m
50 max
50 max
5m
25m
50 max
15m
50 max
50 max
5m
25m
15m

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-				
STD			LOW	2-	12.177			
			HIGH	4-	65.922			
Blank				6-	0.000		0.000	
281B	P11			1-	23.188	2-	12.883	
381	P12			3-	29.439	4-	17.199	
388B	P12			5-	27.389	6-	15.401	
419	P16			7-	20.981	8-	11.597	
420	P16			1-	20.236	2-	11.355	
453B	P17			3-	19.289	4-	10.810	
479B	P19			5-	17.431	6-	9.776	
LOOP	P20			7-	11.483	8-	6.972	
511	P20			1-	11.505	2-	6.823	
518A	P20			3-	10.753	4-	6.461	
476A	P18			5-	15.327	6-	10.010	
426A	P16			7-	21.435	8-	12.012	
418	P16			1-	23.402	2-	13.040	
390A	P14			3-	19.383	4-	12.536	
382	P12			5-	27.296	6-	15.313	
280B	P11			7-	36.475	8-	21.786	
276A	P9			1-	35.092	2-	20.703	
274	P8			3-	22.507	4-	12.561	
512	P20			5-	11.125	6-	6.632	
514B	P20			7-	11.469	8-	6.846	
				1-		2-		
				3-		4-		
				5-		6-		
				7-		8-		
Blank				3-				
Std	Low			5-				
Std	High			7-				
Stand-	by			8-				

281 B	381	388 B	419	420	453	479 B	P20	511
CHL	CHL	CHL	CHL	CHL	CHL B	CHL	Loop	CHL
P11	P12	P12	P16	P16	P17	P19		P20
5 m	20 m	5 m	20 m	15 m	5 m	5 m	2014-18	30 m
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	B	2014-18
Bot 2	Bot 10	Bot 17	Bot 10	Bot 11	Bot 2	Bot 2		Bot 8

518 A	476 A	426 A	418	390	382	280 B	276
CHL	CHL	CHL	CHL	CHL A	CHL	CHL	CHL
P20	P18	P16	P16	P14	P12	P11	P9 A
50/Max*10	50/Max	5 m	25 m	50/Max	15 m	50/Max	50/Max
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 15	Bot 23	Bot 17	Bot 9	Bot 1	Bot 11	Bot 1	Bot 1

274	512	514 B
CHL	CHL	CHL
P8	P20	P20
5 m	25 m	15 m
2014-18	2014-18	2014-18
Bot 22	Bot 9	Bot 11

started reading @ 4:45p.m.

Chlorophyll Data Sheet

Cruise: 2014-18

Page: 3 of 3

Date acetone added: 17 July 14

Time acetone added: 3:40 pm

Date of analysis: 18 July 14

Analyst: TF

50/max
40m
15m
50/max
20/max
50m
10m
5m
50/max
50/max
20/max
20m
5m
5m
5m
5m
5m
50/max
5m

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by		1 Dml	1-				
STD			LOW	2-	12.100			
			HIGH	4-	65.922			
Blank				6-				
539A	P21			1-5	34.104	2-6	19.173	
510	P20			3-	11.701	4-	6.927	
514A	P20			5-	11.282	6-	6.569	
476B	P18			7-	15.082	8-	9.553	
425A	P16			1-	22.348	2-	12.413	
415	P16			3-	12.869	4-	8.151	
383	P12			5-	20.625	6-	13.847	← 390B P14
281A	P11			7-	29.948	8-	16.919	
276B	P9			1-	26.995	2-	15.215	
539B	P21			3-	36.041	4-	21.638	
514B	P20			5-	33.939	6-	19.548	
				7-	11.937	8-	7.147	
513	P20			1-	11.395	2-	6.695	
477A	P18			3-	34.241	4-	19.151	
426B	P16			5-	21.129	6-	11.784	
472	P16			7-	20.791	8-	11.529	
391A	P14			1-	26.297	2-	14.811	
384	P12			3-	29.959	4-	17.165	
280A	P11			5-	37.829	6-	22.658	
277A	P9			7-	25.935	8-	14.666	
				1-		2-		
				3-		4-		
				5-		6-		
				7-		8-		
Blank				3-	0.002		0.002	
Std	Low			5-	12.089			
Std	High			7-	65.823			
Stand-	by			8-	0.000			

539A	510	514A	476B	425A	415	390	383	281A
CHL	CHL	CHL	CHL	CHL	CHL	CHL B	CHL	CHL
P21	P20	P20	P18	P16	P16	P14	P12	P11
50/Max	40 m	15 m	50/Max	20/Max	50 m	50/Max	10 m	5 m
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 2	Bot 7	Bot 11	Bot 23	Bot 16	Bot 6	Bot 1	Bot 12	Bot 2

276	539A	519B	513	477A	426B	422	391
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL A
P9 B	P21	P20	P20	P18	P16	P16	P14
50/Max	50/Max	20/Max	20 m	5 m	5 m	5 m	5 m
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 1	Bot 2	Bot 16	Bot 10	Bot 24	Bot 17	Bot 13	Bot 2

384	280 A	277
CHL	CHL	CHL
P12	P11	P9 A
5 m	50/Max	5 m
2014-18	2014-18	2014-18
Bot 13	Bot 1	Bot 2

11:15 spec on, out of freezer

Chlorophyll Data Sheet

Cruise: 2014-18

Page: 1 of 3

Date acetone added: 31 July 2014

Time acetone added: 10:35 a.m.

Date of analysis: 01 Aug 14

Analyst: TF

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.001			
STD			LOW	2-	12.45			
			HIGH	4-	66.412			
Blank				6-	0.000		71 - 0.001	
379	P12	330	10ml	1-	30.917	2-	18.716	
279B	P10			3-	32.960	4-	18.679	
541B	P22			5-	15.609	6-	8.912	
LOOBA	P20			7-	11.809	8-	6.959	
479A	P09			1-	17.703	2-	9.885	
453A	P17			3-	19.207	4-	10.929	
*417A	P16			5-	18.801	6-	10.664	
414	P16			7-	7.830	8-	4.884	
388A	P12			1-	28.793	2-	16.232	
380	P12			3-	33.161	4-	19.284	
269A	75			5-	23.368	6-	13.603	
272B	75		20ml	7-	37.59	8-	163.232	
272A	75		20ml	1-	311.305	2-	160.048	
270B	75		20ml	3-	100.201	4-	52.688	
269B	75		10ml	5-	23.857	6-	14.185	
270A	75		20ml	7-	96.875	8-	51.344	
258A	72		20ml	1-	263.019	2-	134.355	DF=2
258B	72		20ml	3-	245.691	4-	126.249	DF=2
255B	72		10ml	5-	109.041	6-	57.466	
256B	72		20ml	7-	147.825	8-	76.381	
256A	72		20ml	1-	123.845	2-	64.163	
255A	72		10ml	3-	115.834	4-	61.531	
243B	69		20ml	5-	151.219	6-	78.869	
245B	69		20ml	7-	268.182	8-	138.843	
Blank				3-				
Std	Low			5-				
Std	High			7-				
Stand-	by			8-				

416 leaked a bit @ extraction

2014-18
ext leak
5m
5m
2014-23

ext leak

379	279 B	541 B	P202	479 A	453	* 417 A	414
CHL	CHL	CHL	Loop	CHL	CHL A	CHL	CHL
P12	P10	P22	8	P19	P17	P16	P16
30 m	5 m	5 m	2014-18	5 m	5 m	30 m	75 m
2014-18	2014-18	2014-18	A	2014-18	2014-18	2014-18	2014-18
Bot 8	Bot 2	Bot 2		Bot 2	Bot 2	Bot 8	Bot 5

388 A	380	269 A	272 B	272 A	270 B	269 B	270 A
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P12	P12	Stn 75	Stn 75	Stn 75	Stn 75	Stn 75	Stn 75
5 m	25 m	2014-23	2014-23	2014-23	2014-23	2014-23	2014-23
2014-18	2014-18	2014-23	2014-23	2014-23	2014-23	2014-23	2014-23
Bot 17	Bot 9	Bot 11	Bot 14	Bot 14	Bot 12	Bot 11	Bot 12

258 A	258 B	255 B	256 B	256 A	255 A	243 B	245 B
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
Stn 72	Stn 72	Stn 72	Stn 72	Stn 72	Stn 72	Stn 69	Stn 69
2014-23	2014-23	2014-23	2014-23	2014-23	2014-23	2014-23	2014-23
Bot 13	Bot 13	Bot 10	Bot 11	Bot 11	Bot 10	Bot 10	Bot 12

out of freezer 12:20pm

Chlorophyll Data Sheet

Cruise: 2014-18

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Date acetone added: 31 July 2014

Time acetone added: 12:40 p.m.

Date of analysis: 01 Aug 14

Analyst: TF

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.001			
STD			LOW	2-	12.197			
			HIGH	4-	66.024			
Blank				6-	-0.000	[#]	-0.002	
540A	P21	330	10ml	1-8	31.486	2-	17.942	←
520A	P20			3-	11.741	4-	7.045	
507	P20			5-	5.142	6-	3.348	
477B	P18			7-	36.579	8-	21.017	
475B	P16			1-	22.189	2-	12.343	
416	P16			3-	16.910	4-	10.183	
391B	P14			5-	27.025	6-	15.395	
385	P12			7-	29.397	8-	16.612	
376	P12			1-	8.238	2-	6.530	
277B	P9			3-	26.212	4-	14.990	
540B	P21			5-	32.052	6-	18.376	←
517	P20			7-	11.255	8-	6.652	
519A	P20			1-	11.909	2-	7.015	
Loop	51A			3-	19.759	4-	11.194	
424A	P16			5-	19.734	6-	11.233	
423	P16			7-	20.446	8-	11.294	
408A	P15			1-	8.550	2-	5.513	
386A	P12			3-	26.557	4-	16.521	
278A	P10			5-	45.329	6-	26.996	
377	P12			7-	21.591	8-	14.707	
540A	P22			1-	27.512	2-	15.525	←
520B	P20			3-	12.383	4-	7.425	
518B	P20			5-	10.857	6-	6.613	
Loop	51B			7-	19.727	8-	11.322	
Blank				3-				
Std	Low			5-				
Std	High			7-				
Stand-	by			8-				

on lake

540 A
CHL
P21
5 m
2014-18
Bot 3

520 A
CHL
P20
5 m
2014-18
Bot 17

507
CHL
P20
100 m
2014-18
Bot 4

477 B
CHL
P18
5 m
2014-18
Bot 24

425 B
CHL
P16
20/Max
2014-18
Bot 16

416
CHL
P16
40 m
2014-18
Bot 7

391
CHL B
P14
5 m
2014-18
Bot 2

385
CHL
P12
0 m
2014-18
Bot 14

376
CHL
P12
75 m
2014-18
Bot 5

277
CHL
P9 B
5 m
2014-18
Bot 2

540 B
CHL
P21
5 m
2014-18
Bot 3

517
CHL
P20
0 m
2014-18
Bot 14

519 A
CHL
P20
20/Max
2014-18
Bot 16

LOOP A
51
CHL
14/6/14
2014-18

424 A
CHL
P16
50/Max*10
2014-18
Bot 15

423
CHL
P16
0 m
2014-18
Bot 14

408 A
CHL
P15
50/Max
2014-18
Bot 1

386 A
CHL
P12
50/Max*10
2014-18
Bot 15

278 A
CHL
P10
50/Max
2014-18
Bot 1

377
CHL
P12
50 m
2014-18
Bot 6

540 A
CHL
P22
50/Max
2014-18
Bot 1

520 B
CHL
P20
5 m
2014-18
Bot 17

518 B
CHL
P20
50/Max*10
2014-18
Bot 15

LOOP B
51
CHL
14/6/14
2014-18

CincP Mane

out of freezer @ 2:20 pm

Chlorophyll Data Sheet

Cruise: 2014-18 + 2014-23

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Date acetone added: 31 July 2014

Time acetone added: 2:05 p.m.

Date of analysis: 01 Aug 14

Analyst: TF

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.000			
STD			LOW	2-	12.174			
			HIGH	4-	66.081			
Blank				6-	0.001 + add	-0.000		
424B	P16			1-	19.126	2-	10.871	
*477B	P16			3-	19.565	4-	11.103	
408B	P15			5-	8.825	6-	5.472	
386B	P12			7-	27.330	8-	16.553	
*378A	P12			1-	27.394	2-	16.568	
298B	P10			3-	44.685	4-	26.134	
452A	P17			5-	12.060	6-	7.036	
421	P16			7-	22.891	8-	12.832	
515	P20			1-	11.811	2-	7.101	
540B	P22			3-	20.740	4-	11.950	
516	P20			5-	11.630	6-	6.879	
508	P20			7-	6.116	8-	3.879	
478A	P19			1-	13.376	2-	9.788	
409B	P15			3-	18.018	4-	10.065	
387A	P12			5-	33.415	6-	19.599	
*378B	P12			7-	27.272	8-	16.825	
279A	P10			1-	33.065	2-	18.742	
541A	P22			3-	9.675	4-	9.278	problem?
509	P20			5-	10.953	6-	6.785	
478B	P19			7-	17.136	8-	9.628	
452B	P17			1-	12.340	2-	7.293	
409B	P15			3-	4.076	4-	2.563	
413	P16			5-	16.745	6-	9.399	
387B	P12			7-	33.464	8-		
Blank				3-1	0.003	121 + add	0.002	
Std	Low			5-	12.240			
Std	High			7-	66.079			
Stand-	by			8-	0.001			

ext leak

←

20ml - 2014-23

272B+A 242B

2706+A 245B

258A+B

256B+A

424C
CHL
P16
50/Max*10
2014-18
Bot 15

* 417B
CHL
P16
30 m
2014-18
Bot 8

408B
CHL
P15
50/Max
2014-18
Bot 1

386B
CHL
P12
50/Max*10
2014-18
Bot 15

* 378A
CHL
P12
40 m
2014-18
Bot 7

278B
CHL
P10
50/Max
2014-18
Bot 1

452
CHL^A
P17
50/Max
2014-18
Bot 1

421
CHL
P16
10 m
2014-18
Bot 12

515
CHL
P20
10 m
2014-18
Bot 12

540B
CHL
P22
50/Max
2014-18
Bot 1

516
CHL
P20
5 m
2014-18
Bot 13

508
CHL
P20
75 m
2014-18
Bot 5

478A
CHL
P19
50/Max
2014-18
Bot 1

409A
CHL
P15
5 m
2014-18
Bot 2

387A
CHL
P12
20/Max
2014-18
Bot 16

* 378B
CHL
P12
40 m
2014-18
Bot 7

279A
CHL
P10
5 m
2014-18
Bot 2

541A
CHL
P22
5 m
2014-18
Bot 2

509
CHL
P20
50 m
2014-18
Bot 6

478B
CHL
P19
50/Max
2014-18
Bot 1

452
CHL^B
P17
50/Max
2014-18
Bot 1

413
CHL
P16
100 m
2014-18
Bot 4

409B
CHL
P15
5 m
2014-18
Bot 2

387B
CHL
P12
20/Max
2014-18
Bot 16

out of freezer @ 1:30 p.m.
start reading @ 2:55 p.m.

Chlorophyll Data Sheet

Cruise: 2014-36 + 2014-18

Page: 3 of 3

Date acetone added: 06 Aug 14

Time acetone added: 3:05 p.m.

Date of analysis: 07 Aug 14

Analyst: RF

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.000			
STD			LOW	2-				
			HIGH	4-				
Blank				6-	0.003	total	0.001	
168	16C17	332	20	1-	220.255	2-	18.119	
168	16C17		20	3-	204.928	4-	110.360	
171	16C18		20	5-	274.222	6-	148.722	
171	16C18		20	7-	273.537	8-	153.610	
174	16C19		20	1-	264.167	2-	143.663	
174	16C19		20	3-	261.188	4-	141.624	
181	R105		20	5-	253.557	6-	142.787	
181	R105		20	7-	253.703	8-	142.282	
185	16C20		20	1-	135.713	2-	97.975	DF=2
185	16C20		20	3-	177.666	4-	101.417	DF=2
188	16C21		10	5-	232.160	6-	135.276	
188	16C21		10	7-	216.385	8-	133.883	
542A	P23		10	1-	19.328	2-	11.373	
542B	P23		10	3-	19.418	4-	11.394	
543A	P23		10	5-	11.384	6-	6.701	
543B	P23		10	7-	11.014	8-	6.443	
1008 B	P24		10	1-	17.489	2-	10.335	
1008A	P24		10	3-	17.563	4-	10.464	
548B	P24		10	5-	15.931	6-	12.120	
548A	P24		10	7-	16.379	8-	10.1493	
549A	P24		10	1-	22.845	2-	13.269	
549B	P24		10	3-	20.784	4-	12.042	
551A	P25		10	5-	14.433	6-	8.338	
551B	P25		10	7-	14.022	8-	8.093	
Blank				3-	0.002	total	0.000	
Std	Low			5-	12.187			
Std	High			7-	66.197			
Stand-	by			8-	0.002			

20ml . 168A+B
171 A+B
174 A+B
181 A+B
185A+B

HS 2014-36
CHL
163

HS 2014-36
CHL
163

HS 2014-36
CHL
163

HS 2014-36
CHL
163

HS 2014-36
CHL
163

HS 2014-36
CHL
163

HS 2014-36
CHL
163

HS 2014-36
CHL
163

HS 2014-36
CHL
163

HS 2014-36
CHL
163

HS 2014-36
CHL
163

HS 2014-36
CHL
163

542A
CHL
P23
50/Max
2014-18
Bot 1

542B
CHL
P23
50/Max
2014-18
Bot 1

543A
CHL
P23
5 m
2014-18
Bot 2

543B
CHL
P23
5 m
2014-18
Bot 2

P24
CHL B
Loop
2014-18

P24
CHL A
Loop
2014-18

548B
CHL
P24
50/Max
2014-18
Bot 5

548A
CHL
P24
50/Max
2014-18
Bot 5

549A
CHL
P24
5 m
2014-18
Bot 6

549B
CHL
P24
5 m
2014-18
Bot 6

551A
CHL
P25
5 m
2014-18
Bot 2

551B
CHL
P25
5 m
2014-18
Bot 2

Chlorophyll Data Sheet

Cruise: 2014-18

Page: 1 of 3

Date acetone added: ^{Aug} July 7, 2014

Time acetone added: 10:25 a.m.

Date of analysis: ^{Aug} July 8, 2014 @ 08:40

Analyst: KS

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.001			
STD			LOW	2-6417	12.5			
			HIGH	4-6418	67.9			
Blank		330		6-6419	0.007	2-6420-0.006		
574A	P35		10	1-6421	14.5	2-	8.59	
574B	"		"	3-	14.1	4-	8.38	A few filler particles in cuvette.
575A	"		"	5-	11.9	6-	6.71	
575B	"		"	7-	11.6	8-	6.48	
633	P26		"	1-6429	4.70	2-	3.04	
634	"		"	3-	6.65	4-	4.04	
635*	"		"	5-	11.1	6-	6.83	
635*	"		"	7-	11.8	8-	7.17	
636	"		"	1-6437	11.6	2-	6.90	
637	"		"	3-	11.3	4-	6.65	
638	"		"	5-	8.48	6-	4.94	
639	"		"	7-	9.38	8-	5.35	
640	"		"	1-6445	9.87	2-	5.60	
641	"		"	3-	11.4	4-	6.45	
642	"		"	5-	9.52	6-	5.51	
643	"		"	7-	10.2	8-	5.85	
644A	"		"	1-6453	11.0	2-	6.79	
644B	"		"	3-	11.3	4-	7.00	
645A	"		"	5-	11.9	6-	7.19	
645B	"		"	7-	11.1	8-	6.75	Filler particles in cuvette.
646A	"		"	1-6461	9.77	2-	5.66	
646B	"		"	3-	9.13	4-	5.23	
loop 90A			"	5-	17.7	6-	10.4	
loop 90B		✓	"	7-	18.9	8-	11.1	
Blank				3-				
Std	Low			5-6469	12.3			
Std	High			7-6470	66.7			
Stand-	by			8-6471	0.001			

574A	574B	575A	575B	633	634	635*	635*
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P35	P35	P35	P35	P26	P26	P26	P26
50/Max	50/Max	5 m	5 m	100 m	75 m	50 m	50 m
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 1	Bot 1	Bot 2	Bot 2	Bot 4	Bot 5	Bot 6	Bot 6

636	637	638	639	640	641	642	643	644A
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P26	P26	P26	P26	P26	P26	P26	P26	P26
40 m	30 m	25 m	20 m	15 m	10 m	5 m	0 m	50/Max*10
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 7	Bot 8	Bot 9	Bot 10	Bot 11	Bot 12	Bot 13	Bot 14	Bot 15

644B	645A	645B	646A	646B	LOOP 90	LOOP 90
CHL	CHL	CHL	CHL	CHL	CHL	CHL
P26	P26	P26	P26	P26	A	B
50/Max*10	20/Max	20/Max	5 m	5 m		
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 15	Bot 16	Bot 16	Bot 17	Bot 17		

out of freezer @ 11:30 a.m

Chlorophyll Data Sheet

Cruise: 2014-18

Page: 2 of 3

Date acetone added: 07 Aug 14

Time acetone added: 11:55 a.m.

Date of analysis: 08 Aug 14

Analyst: TF

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.000			
STD			LOW	2-	12.375			
			HIGH	4-	66.687			
Blank				6-	0.000	+0.002	-0.002	
LOOP	91A	352	10	1-	28.864	2-	16.481	
LOOP	91B		10	3-	28.315	4-	15.812	
LOOP	93A		10	5-	15.277	6-	8.947	
LOOP	93B		10	7-	14.767	8-	8.502	
87B	P2		10	1-	94.634	2-	56.886	
88A	P2		20	3-	181.455	4-	100.747	
88B	P2		20	5-	201.334	6-	110.966	
89A	P2		20	7-	182.764	8-	98.383	DF=2
89B	P2		20	1-	184.970	2-	99.229	DF=2
LOOP	P2A		20	3-	206.121	4-	157.647	
LOOP	95B		10	5-	29.755	6-	16.977	
LOOP	95A		10	7-	27.459	8-	15.693	
80	P2		10	1-	64.837	2-	39.791	
81A	P2		10	3-	146.27	4-	84.195	
81B	P2		10	5-	142.075	6-	82.305	
83	P2		20	7-	217.809	8-	121.669	
82	P2		10	1-	268.830	2-	151.129	← delete 1st entry #2
84	P2		20	3-	187.868	4-	102.791	
85	P2		20	5-	268.511	6-	149.542	
86	P2		20	7-	191.257	8-	104.932	DF=2
88	LOOP JF4		10	1-	210.658	2-	115.283	
87A	P2		10	3-	79.038	4-	48.585	
62A	P1		10	5-	13.556	6-	10.164	(-150 ml)
62B	P1		10	7-	24.320	8-	17.222	
Blank				3-				
Std	Low			5-				
Std	High			7-				
Stand-	by			8-				

20 ml
88A+B
89A+B
P2 LOOP A+B
83

84
85
86

Loop 91	Loop 91	Loop 93	Loop 93	87 C	88 A	88 B	89 A
CHL A	CHL B	CHL A	CHL B	CHL	CHL	CHL	CHL
				P2	P2	P2	P2
				Max*10	15/Max	15/Max	5 m
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
				Bot 12	Bot 13	Bot 13	Bot 14

89 B	P2	Loop	Loop	80	81 A	81 B	83
CHL	CHL	95 B	95 A	CHL	CHL	CHL	CHL
P2				P2	P2	P2	P2
5 m	Loop A	CHL 25	CHL	30 m	25 m	25 m	15 m
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 14				Bot 5	Bot 6	Bot 6	Bot 8

82	84	85	86	0 B	87 A	62 A	62 B
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P2	P2	P2	P2	JF4	P2	P1	P1
20 m	10 m	5 m	0 m	Loop	Max*10	30 / Max	30 / Max
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 7	Bot 9	Bot 10	Bot 11	Bot 1	Bot 12	Bot 2 -15m	Bot 2

out of freezer @ 12:30 p.m.
started reading @ 2 p.m.

Chlorophyll Data Sheet

Cruise: 2014-18

Page: 3 of 3

Date acetone added: 07 Aug 14

Time acetone added: 1:40 p.m.

Date of analysis: 08 Aug 14

Analyst: TF

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.002			
STD			LOW	2-	12.258			
			HIGH	4-	66.454			
Blank				6-	0.003 + acid	0.002		
63A	P1		10	1-	119.993	2-	77.387	DF=3
63B	P1		20	3-2	197.580	4-	125.187	original first # 4
76	P2		10	5-	19.999	6-	13.890	
77	P2		10	7-	27.588	8-	17.666	
78	P2		10	1-	8.901	2-	6.466	
79	P2		10	3-	28.069	4-	18.141	
6A LOOP	JF1		10	5-	74.644	6-	41.882	
6B LOOP	JF1		10	7-	72.905	8-	40.658	
46A	JF2		10	1-	17.658	2-	11.498	
46B	JF2		10	3-	17.700	4-	11.566	
49A	JF2		10	5-	61.900	6-	35.440	
49B	JF2		10	7-	61.342	8-	35.436	
8A LOOP	JF3		10	1-	90.253	2-	51.282	
8B LOOP	JF3		10	3-	93.285	4-	52.889	
8A LOOP	JF4		10	5-	216.199	6-	117.520	
				7-		8-		
				1-		2-		
				3-		4-		
				5-		6-		
				7-		8-		
				1-		2-		
				3-		4-		
				5-		6-		
				7-		8-		
Blank				3-	0.000 + acid	0.002		
Std	Low			5-	12.270			
Std	High			7-	66.391			
Stand-	by			8-	0.000			

63	63	76	77	78	79	0 A	0 B
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
P1	P1	P2	P2	P2	P2	JF1	JF1
5 m	5 m	100 m	75 m	50 m	40 m	Loop	Loop
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 3	Bot 3	Bot 1	Bot 2	Bot 3	Bot 4	Bot 1	Bot 1

46 A	46 B	49 A	49 B	0 A	0 B	0 A
CHL	CHL	CHL	CHL	CHL	CHL	Nut-Fr
JF2	JF2	JF2	JF2	JF3	JF3	JF4
30 m	30 m	5 m	5 m	Loop	Loop	Loop
2014-18	2014-18	2014-18	2014-18	2014-18	2014-18	2014-18
Bot 9	Bot 9	Bot 12	Bot 12	Bot 1	Bot 1	Bot 1