

370B lot ~ 1/2 ml acetone
 378A 20ml
 379A 20ml
 390A "

392B 20ml
 395A 20ml

new batches of 90% acetone
 batch A Rb Ra
 B -0.003 -0.004

Chlorophyll Data Sheet

Cruise: 2017-05

Page: 1 of 2

Dates of Cruise:

Time and date acetone added: 26 Jun 17 1220pm Analyst: SM & MH

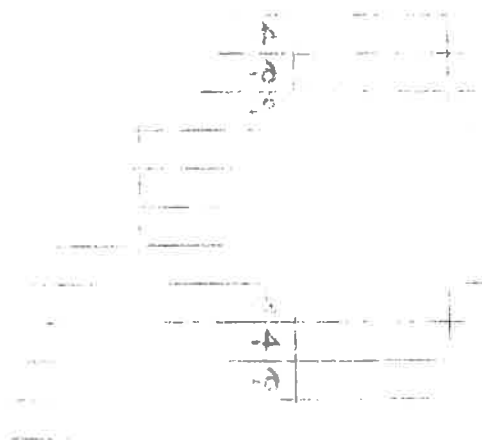
Time and date out of freezer: 27 June 17 1020pm

Time analysis started:

wait after adding fow

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.024			
STD			LOW	2-	11.283			
STD			HIGH	4-	61.130			
Blank				6-	0.006	8- acid	0.005	
258A	SS3	300ml	10ml					
				1-	67.157	2-	39.505	no DF
359A	SS3	300	10	3-	63.753	4-	37.909	no DF
360A	SS3	300	10	5-	63.944	6-	38.072	no DF
361A	SS1		10	7-	76.682	8-	45.201	no DF
363A	SS1		10	1-	70.747	2-	41.174	no DF
364A	SS1		10	3-	71.127	4-	41.245	no DF
367B	NLO1		10	5-	27.523	6-	18.022	no DF
369B				7-	20.820	8-	12.738	no DF
368B				1-	25.370	2-	15.805	no DF
371B	NLO3		10	3-	46.019	4-	28.065	no DF
372A	NLO3		10	5-	48.071	6-	28.623	no DF
370B	NLO3		10	7-	49.460	8-	30.458	no DF
374A	NLO5		10	1-	11.873	2-	103.266	no DF
373A	NLO5		10	3-	37.479	4-	26.603	no DF
375B	NLO5		10	5-	118.682	6-	67.221	no DF
377A	14		10	7-	277.848	8-	158.452	no DF
395A	CPF2		20	1-	234.139	2-	135.138	no DF
394A	CPF2		10	3-	174.956	4-	103.683	no DF
393A	CPF2		10	5-	71.538	6-	45.069	no DF
392B	11		20	7-	174.766	8-	97.531	no DF
390A	11		20	1-	137.375	2-	78.273	no DF
389A	11		10	3-	52.762	4-	33.497	no DF
379A	14		20	5-	203.619	6-	112.59	no DF
378A	14		20	7-	205.402	8-	114.524	no DF
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

358 A CHL SS3 20 m 2017-05 Bot 1	359 A CHL SS3 10 m 2017-05 Bot 2	360 A CHL SS3 5 m 2017-05 Bot 3	361 A CHL SS1 20 m 2017-05 Bot 1	363 A CHL SS1 5 m 2017-05 Bot 3	362 B CHL SS1 10 m 2017-05 Bot 2	367 B CHL NL01 20 m 2017-05 Bot 4	369 B CHL NL01 5 m 2017-05 Bot 6	368 B CHL NL01 10 m 2017-05 Bot 5		
371 B CHL NL03 10 m 2017-05 Bot 2	372 A CHL NL03 5 m 2017-05 Bot 3	370 B CHL NL03 20 m 2017-05 Bot 1	374 A CHL NL05 10 m 2017-05 Bot 2	373 A CHL NL05 20 m 2017-05 Bot 1	375 B CHL NL05 5 m 2017-05 Bot 3	377 A CHL CPF2 14 20 m 2017-05 Bot 1	395 CHL A CPF2 0 m 017-05 Bot 3	394 CHL A CPF2 10 m 017-05 Bot 2	393 CHL A CPF2 20 m 017-05 Bot 1	392 B CHL 11 0 m 2017-05 Bot 13
390 A CHL 11 10 m 2017-05 Bot 11	389 A CHL 11 20 m 2017-05 Bot 10	379 A CHL 14 0 m 2017-05 Bot 3	378 A CHL 14 10 m 2017-05 Bot 2							



407A 20mL acetone

398A 20mL

408A 20mL

410A 20mL

412A 20mL

Cruise: 2017-05

Chlorophyll Data Sheet

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Dates of Cruise:

Time and date acetone added: 26 June 17 3:17pm

Analyst: SM + MH

Time and date out of freezer: 140pm June 18 2017

Time analysis started: 243pm June 18 2017

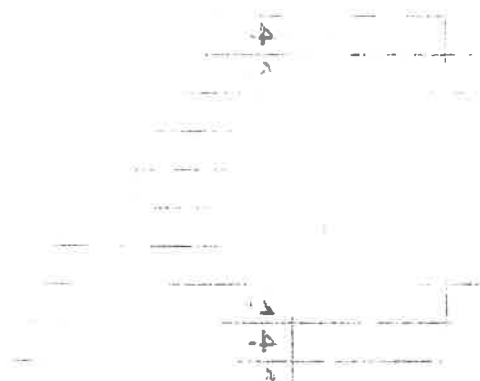
413A 20mL
416A 20mL
423A 20mL
425A 20mL
428A 20mL
441A 20mL

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	0.123			
STD			LOW	2-	11.119			
STD			HIGH	4-	60.839			
Blank				6-	-0.025	8-	-0.025	
396A	CPF1	3060	10	1-	51.256	2-	32.14	NO DF
397A	CPF1		10	3-	91.690	4-	54.348	
398A	CPF1		20	5-	255.081	6-	140.329	
407A	22		20	7-	80.281	8-	48.550	
408A	22		20	1-	121.606	2-	67.071	
410A	22		20	3-	63.345	4-	34.266	
411A	24		10	5-	109.277	6-	67.074	
412A	24		20	7-	102.987	8-	58.718	
413A	24		20	1-	81.160	2-	47.117	
416A	28		20	3-	53.116	4-	28.152	
414A	28		10	5-	25.239	6-	10.967	
415A	28		10	7-	30.604	8-	19.680	
422A	GE01		10	1-	76.505	2-	48.545	
423A	GE01		20	3-	283.333	4-	152.098	
425A	GE01		20	5-	66.451	6-	35.845	
426A	38		10	7-	61.490	8-	30.142	
427A	38		10	1-	52.872	2-	31.505	
428A	38		20	3-	85.554	4-	45.090	
439A	41		10	5-	13.638	6-	8.786	
438A	41		10	7-	11.745	8-	7.626	
441A	41		20	1-	18.660	2-	10.798	
355B	SS5		10	3-	63.534	4-	38.744	✓
356B	SS5		10	5-	79.374	6-	47.745	
357B	SS5	✓	10	7-	70.251	8-	45.892	
Stand-by				1-	-0.024			
Std	Low			2-	11.211			
Std	High			4-	60.728			
Blank	by			6-	-0.026	8-	-0.023	

396 CHL A CPF1 20 m 2017-05 Bot 1	397 A CHL CPF1 10 m 2017-05 Bot 2	398 A CHL CPF1 0 m 2017-05 Bot 3	407 A CHL 22 20 m 2017-05 Bot 9	408 A CHL 22 10 m 2017-05 Bot 10	410 A CHL 22 0 m 2017-05 Bot 12	411 A CHL 24 20 m 2017-05 Bot 1	412 A CHL 24 10 m 2017-05 Bot 2	413 A CHL 24 0 m 2017-05 Bot 3	416 A CHL 28 0 m 2017-05 Bot 24
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414 A CHL 28 20 m 2017-05 Bot 12	415 A CHL 28 10 m 2017-05 Bot 23	422 A CHL GEO1 20m 2017-05 Bot 9	423 A CHL GEO1 10m 2017-05 Bot 10	425 A CHL GEO1 0 m 2017-05 Bot 12	426 A CHL 38 20 m 2016-62 Bot 1	427 A CHL 38 10 m 2016-62 Bot 2	428 A CHL 38 0 m 2016-62 Bot 3	439 A CHL 41 10 m 2017-05 Bot 11	438 A CHL 41 20 m 2017-05 Bot 10
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441 A CHL 41 0 m 2017-05 Bot 13	355 B CHL SS5 20 m 2017-05 Bot 1	356 B CHL SS5 10 m 2017-05 Bot 2	357 B CHL SS5 5 m 2017-05 Bot 3
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279B 20mL

392A 20mL

395B 20mL

390B 20mL

Cruise: 2017-05

Chlorophyll Data Sheet

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Dates of Cruise:

Time and date acetone added: 27 June 17 10:30AM Analyst: SM+MM

Time and date out of freezer: 28 June 17 8:20AM

Time analysis started: 9:25AM 28 June 2017

394B 20mL

374B 20mL

377B 20mL

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.021			
STD			LOW	2-	11.501			
STD			HIGH	4-	67.564			
Blank				6-	-0.018	8-	-0.018	
393B	CPF2	306	10	1-	70.991	2-	43.767	no DF
389B	11		10	3-	50.972	4-	33.243	
377B	14		20	5-	143.954	6-	81.424	
374B	NLO5		20	7-	60.184	8-	34.22	
372B	NLO3		10	1-	49.254	2-	30.210	
367A	NLO1		10	3-	28.640	4-	18.933	
361B	SS1		10	5-	76.426	6-	45.080	
358B	SS3		10	7-	68.374	8-	40.562	
394B	CPF2		20	1-	91.845	2-	55.005	
390B	11		20	3-	132.392	4-	74.789	
378B	14		10	5-	224.652	6-	108.517	no DF, some sample spill (20mL)
373B	NLO5		10	7-	35.948	8-	25.133	no DF
370A	NLO3		10	1-	47.645	2-	29.599	
368A	NLO1		10	3-	25.420	4-	16.042	
362A	SS1		10	5-	71.780	6-	42.718	
359B	SS3		10	7-	67.232	8-	37.789	
366B	SS3		10	1-	54.614	2-	33.300	
363B	SS1		10	3-	71.129	4-	41.597	
369A	NLO1		10	5-	21.119	6-	13.210	
371A	NLO3		10	7-	46.398	8-	28.007	
375A	NLO5		10	1-	118.106	2-	66.765	
379B	14		20	3-	265.651	4-	112.503	
392A	11		20	5-	172.921	6-	96.653	
395B	CPF2		20	7-	243.079	8-	133.883	
Stand-by				1-	-0.007			
Std	Low			2-	11.136			
Std	High			4-	60.758			
Blank	by			6-	-0.022	8-	-0.023	

428B 20ml
423B 20ml

Chlorophyll Data Sheet

Cruise: 2017-05

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Dates of Cruise:

Time and date acetone added: 1130 am 28 June 17 Analyst: SM + MH

Time and date out of freezer: 9:50am 29 June 17

Time analysis started: 10:50am 29 June 2017

398B 20ml
407B 20ml
408B 20ml
410B 20ml
411B 20ml
425B 20ml
416B 20ml
412B 20ml
356B 20ml

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.024			
STD			LOW	2-	11.294			
STD			HIGH	4-	61.070			
Blank				6-	-0.027	8-	-0.027	
413B	24	306	10	1-	177.013	2-	93.889	no PF
396B	CPF1		10	3-	51.454	4-	32.847	
397B	CPF1		10	5-	89.881	6-	53.265	
398B	CPF1		20	7-	244.396	8-	133.752	
407B	22		20	1-	80.097	2-	48.956	
488B	22		20	3-	124.223	4-	68.014	
410B	22		20	5-	60.218	6-	32.689	
414B	28		10	7-	24.821	8-	16.813	
411	24		10	1-	107.184	2-	66.502	
412B	24		20	3-	105.349	4-	59.297	
416B	28		20	5-	54.416	6-	28.967	
425B	GE01		20	7-	64.239	8-	34.815	
426B	38		10	1-	58.129	2-	34.617	
441B	41		20	3-	17.269	4-	10.119	
439B	41		10	5-	14.396	6-	9.438	
438B	41		10	7-	12.113	8-	8.032	
423B	GE01		20	1-	283.236	2-	154.195	
422B	GE01		10	3-	78.012	4-	48.961	
428B	38		20	5-	87.762	6-	46.4	
415B	28		10	7-	27.599	8-	17.595	
427B	38		10	1-	51.904	2-	31.613	
355A	SS5		10	3-	64.392	4-	39.436	
356A	SS5		20	5-	42.083	6-	24.452	
357A	SS5	✓	10	7-	76.183	8-	44.863	✓
Stand-by				1-	-0.013			
Std	Low			2-	11.180			
Std	High			4-	61.072			
Blank	by			6-	-0.022	8-	-0.023	

413 B CHL 24 0 m 2017-05 Bot 3	396 CHL B CPF1 20 m 2017-05 Bot 1	397 B CHL CPF1 10 m 2017-05 Bot 2	398 B CHL CPF1 0 m 2017-05 Bot 3	407 B CHL 22 20 m 2017-05 Bot 9	408 B CHL 22 10 m 2017-05 Bot 10	410 B CHL 22 0 m 2017-05 Bot 12	414 B CHL 28 20 m 2017-05 Bot 12	411 B CHL 24 20 m 2017-05 Bot 1	412 B CHL 24 10 m 2017-05 Bot 2	416 B CHL 28 0 m 2017-05 Bot 34
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425 B CHL GEO1 0 m 2017-05 Bot 12	426 B CHL 38 20 m 2016-62 Bot 1	441 B CHL 41 0 m 2017-05 Bot 13	439 B CHL 41 10 m 2017-05 Bot 11	438 B CHL 41 20 m 2017-05 Bot 10	423 B CHL GEO1 10m 2017-05 Bot 10	422 B CHL GEO1 20m 2017-05 Bot 9	428 B CHL 38 0 m 2016-62 Bot 3	415 B CHL 28 10 m 2017-05 Bot 23	427 B CHL 38 10 m 2016-62 Bot 2	355 A CHL SS5 20 m 2017-05 Bot 1
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356 CHL A SS5 10 m 2017-05 Bot 2	357 CHL A SS5 5 m 2017-05 Bot 3
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255B 20ml
254B 20ml
256A 20ml

353A 20ml
341B 20ml
327A 20ml
286B 20ml
284B 20ml
283B 20ml
275B 20ml
274B 20ml
273B 20ml

Chlorophyll Data Sheet

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Cruise: 2017-05

Dates of Cruise:

Time and date acetone added: 12pm 29 June 2017 Analyst: MRE + SM

Time and date out of freezer: 10am 30 June 2017

Time analysis started: 11am 30 June 2017

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.026			
STD			LOW	2-	11.310			
STD			HIGH	4-	61.396			
Blank				6-	-0.022	8- -	-0.622	
250A	LB P7	300	20	1-	76.956	2-	45.633	NO DF
254B	↓	300	20	3-	280.542	4-	124.787	
255B	↓		20	5-	131.038	6-	74.998	
273B	LB P5		20	7-	82.371	8-	115.641	
274B	↓		20	1-	149.806	2-	83.331	
275B	↓		20	3-	113.882	4-	63.690	
283B	LB P3		20	5-	48.220	6-	27.241	
284B	↓		20	7-	104.162	8-	58.308	
286B	↓		20	1-	155.247	2-	87.047	
305B	CS00		10	3-	48.730	4-	29.943	
306A	↓		10	5-	45.925	6-	27.1723	
308B	↓		10	7-	42.865	8-	25.602	
325A	CS04		10	1-	105.257	2-	61.428	
334A	CS04		10	3-	24.143	4-	17.632	
328A	CS02		10	5-	71.100	6-	46.457	
327A	↓		20	7-	54.105	8-	31.449	
326B	↓		10	1-	67.283	2-	39.933	
330B	CS04		10	3-	43.960	4-	43.238	
342B	CS06		10	5-	140.747	6-	87.895	
341B	↓		20	7-	151.403	8-	85.603	
343B	↓		10	1-	103.629	2-	58.918	
352A	CS09		10	3-	90.681	4-	55.829	
353A	↓		20	5-	110.445	6-	68.644	
354A	↓	↓	10	7-	142.805	8-	85.730	↓
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

256 A CHL LBP7 5 m 2017-05 Bot 21	254 B CHL LBP7 20 m 2017-05 Bot 19	253 B CHL LBP7 10 m 2017-05 Bot 20	273 CHL B LBP5 20 m 2017-05 Bot 17	274 CHL B LBP5 10 m 2017-05 Bot 18	275 CHL B LBP5 5 m 2017-05 Bot 19	283 B CHL LBP3 20 m 2017-05 Bot 8	284 B CHL LBP3 10 m 2017-05 Bot 9	286 B CHL LBP3 5 m 2017-05 Bot 11	305 B CHL CS00 2017-05 Bot 18
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306 A CHL CS00 2017-05 Bot 19	308 B CHL CS00 2017-05 Bot 21	335 A CHL CS04 10 m 2017-05 Bot 6	334 A CHL CS04 20 m 2017-05 Bot 5	328 A CHL CS02 5 m 2017-05 Bot 20	327 A CHL CS02 10 m 2017-05 Bot 19	326 S CHL CS02 20 m 2017-05 Bot 18	336 B CHL CS04 5 m 2017-05 Bot 7	342 B CHL CS06 10 m 2017-05 Bot 5	341 B CHL CS06 20 m 2017-05 Bot 4
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343 B CHL CS06 5 m 2017-05 Bot 6	352 A CHL CS09 20 m 2017-05 Bot 9	353 A CHL CS09 10 m 2017-05 Bot 10	354 A CHL CS09 5 m 2017-05 Bot 11
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Chlorophyll Data Sheet

Cruise:

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Dates of Cruise:

Time and date acetone added: 21 June 2017

Analyst: MM + SM

Time and date out of freezer: 12:00 30 June 2017

Time analysis started: 1:00pm

194A 20mL

187B 20mL

186B 20mL

182B 20mL

167B 20mL

166B 20mL

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.027			
STD			LOW	2-	10.094			
STD			HIGH	4-	60.501			
Blank				6-	-0.010	8-	-0.011	
202A	LG04	306	10	1-	28.282	2-	17.282	no DF
219B	LG06		10	3-	49.195	4-	27.907	
220B	LG06		10	5-	22.22	6-	12.68	
221A	LG06		10	7-	17.814	8-	10.185	
227	LG09		10	1-	38.063	2-	22.23	
229	LG09		10	3-	22.864	4-	13.411	
226	LG09		10	5-	11.865	6-	7.188	
228	LG09		10	7-	24.221	8-	14.356	
185B	LG01		10	1-	92.704	2-	51.677	
186B	LG01		20	3-	115.394	4-	61.111	
187B	LG01		20	5-	160.565	6-	84.227	
192B	LG02		10	7-	52.125	8-	31.334	
193B	LG02		10	1-	106.954	2-	61.247	
194A	LG02		20	3-	107.578	4-	58.256	
201B	LG04		10	5-	42.172	6-	25.281	
203A	LG04		10	7-	37.646	8-	27.844	
166B	LC04		20	1-	129.202	2-	68.505	
167B	LC04		20	3-	65.989	4-	35.253	
172B	LC02		10	5-	33.94	6-	20.379	
175B	LC02		10	7-	163.792	8-	85.617	
173B	LC02		10	1-	133.168	2-	71.087	
180B	LC01		10	3-	19.278	4-	13.308	
191B	LC01		10	5-	52.314	6-	29.447	
182B	LC01		20	7-	113.671	8-	60.791	
Stand-by				1-	-0.024			
Std	Low			2-	11.234			
Std	High			4-	60.557			
Blank	by			6-	-0.024	8-	-0.023	

202 A	219 B	208	221 A	227	229	226	228	185 B	186 B	187 B	192 B
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
LG04	LG06	LG06	LG06	2017-05	2017-05	2017-05	2017-05	LG01	LG01	LG01	LG02
20 m	20 m	10 m	5 m	LG09	LG09	LG09	LG09	20 m	10 m	5 m	20 m
2017-05	2017-05	2017-05	2017-05	20 m	5	50 m	10 m	2017-05	2017-05	2017-05	2017-05
Bot 7	Bot 15	Bot 16	Bot 17	BOT4	BOT6	BOT3	BOT5	Bot 3	Bot 4	Bot 5	Bot 5
193 B	194 A	204 B	203 A	166	167	172	175	173	180 B	181 B	182
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
LG02	LG02	LG04	LG04	LC04	LC04	LC02	LC02	LC02	LC01	LC01	LC01
10 m	5 m	5 m	10 m	10 m	5 m	20 m	5 m	10 m	20 m	10 m	5 m
2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05
Bot 6	Bot 7	Bot 9	Bot 8	Bot 9	Bot 10	Bot 5	Bot 8	Bot 6	Bot 5	Bot 6	Bot 7

Chlorophyll Data Sheet

Cruise: 2017-05

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Dates of Cruise:

Time and date acetone added: July 4, 2017 @ 9:50am Analyst: SM + MBL

Time and date out of freezer: Bam July 5, 2017

Time analysis started: 9am

20ml

167A 254A

166A 284A

182A

180A

194B

187A

186A

256B

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.023			
STD			LOW	2-	11.358			
STD			HIGH	4-	61.911			
Blank				6-	-0.024	8-	-0.022	
182A	LC01	306	20	1-	115.21	2-	60.119	no DF
185A	LG01		10	3-	94.842	4-	52.786	
165B	LC04		10	5-	55.492	6-	31.481	
166A	LC04		20	7-	138.248	8-	73.511	
167A	LC04		20	1-	70.523	2-	37.571	
172A	LC02		10	3-	34.750	4-	21.085	
173A	LC02		10	5-	132.72	6-	70.953	
220A	LG06		10	7-	21.089	8-	11.941	
186A	LG01		20	1-	140.86	2-	74.613	
187A	LG01		20	3-	169.728	4-	89.795	lost some acetone (<20ml)
193A	LG02		10	5-	107.673	6-	61.658	
192A	LG02		10	7-	51.1	8-	31.245	
194B	LG02		20	1-	115.44	2-	63.113	
175A	LC02		10	3-	164.486	4-	85.888	
180A	LC01		20	5-	8.717	6-	6.228	
283A	LBP3		10	7-	94.305	8-	53.246	
284A	LBP3		20	1-	100.877	2-	56.284	
254A	LBP7		20	3-	243.024	4-	131.616	
256B	LBP7		20	5-	76.152	6-	45.211	
204A	LG04		10	7-	40.743	8-	24.223	
203B	LG04		10	1-	38.253	2-	23.286	
202B	LG04		10	3-	27.484	4-	16.996	
219A	LG06		10	5-	53.565	6-	31.005	
181A	LC01		-	7-	-	8-	-	did not add acetone
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

Forgot to add acetone to 181A (did not analyze)

[illegible]

Chlorophyll Data Sheet

Cruise: 2017-05

Page: 2 of 2

Dates of Cruise:

Time and date acetone added: 2:00pm 4 July 2017

Analyst: SM+MH

Time and date out of freezer: 12pm 5 July 2017

Time analysis started: 1:02pm 5 July 2017

20ml

275A 353B

274A 157B

273A 156B

286A

327B

341A

354B

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.022			
STD			LOW	2-	11.293			
STD			HIGH	4-	61.423			
Blank				6-	-0.622	8-	-0.024	
336A	CS02	306	10	1-	68.522	2-	40.110	NO DF
335B	CS04		10	3-	111.033	4-	61.570	
352B	CS09		10	5-	105.997	6-	67.379	
1165A	LC04		10	7-	60.9108	8-	34.898	
208A	CS00		10	1-	45.448	2-	27.418	
275	LBPS		20	3-	108.601	4-	60.209	
274A	LBPS		20	5-	104.082	6-	90.765	
273A	LBPS		20	7-	84.419	8-	47.214	
286A	LBPS		20	1-	154.971	2-	86.794	
274B	CS04		10	3-	23.692	4-	17.312	
204A	CS00		10	5-	48.552	6-	30.363	
306B	CS00		10	7-	45.535	8-	76.868	
326A	CS04		10	1-	75.231	2-	44.123	
328B	CS02		10	3-	73.837	4-	43.819	
255A	LBPS		10	5-	252.472	6-	145.144	
327B	CS02		20	7-	52.551	8-	30.879	
343A	CS00		10	1-	107.417	2-	61.503	
342A	CS010		10	3-	148.815	4-	94.060	
341A	CS010		20	5-	152.707	6-	80.948	
354B	CS09		20	7-	75.521	8-	45.581	
353B	CS09		20	1-	110.467	2-	65.570	
157B	LC06		20	3-	157.783	4-	84.948	
156B	LC06		20	5-	140.152	6-	76.314	
155B	LC06		10	7-	37.987	8-	23.193	
Stand-by				1-	-0.024			
Std	Low			2-	11.317			
Std	High			4-	61.094			
Blank	by			6-	-0.017	8-	-0.017	

326 A	335 B	352 B	165 A	308 A	275	274	273	286 A	334 B	305 A
CHL	CHL	CHL	CHL	CHL	CHLA	CHLA	CHLA	CHL	CHL	CHL
CS02	CS04	CS09	LC04	CHL	LBP5	LBP5	LBP5	LBP5	CS04	CHL
20 m	10 m	20 m	20 m	CS00	5 m	10 m	20 m	5 m	20 m	CS00
2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05
Bot 18	Bot 6	Bot 9	Bot 8	Bot 21	Bot 19	Bot 18	Bot 17	Bot 11	Bot 5	Bot 18

306 B	336 A	328 B	255 A	327 B	343 A	342 A	341 A	354 B	353 B
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
CS00	CS04	CS02	LBP7	CS02	CS06	CS06	CS06	CS09	CS09
2017-05	10 m	5 m	10 m	10 m	5 m	10 m	20 m	5 m	10 m
2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05
Bot 19	Bot 7	Bot 20	Bot 20	Bot 19	Bot 6	Bot 5	Bot 4	Bot 11	Bot 10

157 B	156 B	155 B
CHL	CHL	CHL
LC06	LC06	LC06
5 m	10 m	20 m
2017-05	2017-05	2017-05
Bot 7	Bot 6	Bot 5

20ml
 65A
 66A
 121B
 119B
 120B
 157A

Chlorophyll Data Sheet

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Cruise: 2017-05

Dates of Cruise:

Time and date acetone added: 10am 5 July 2017 Analyst: SM+MH

Time and date out of freezer: 8am 6 July 2017

Time analysis started: 9am

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.025			
STD			LOW	2-	11.381			
STD			HIGH	4-	61.967			
Blank				6-	-0.021	8-	-0.021	
64B	LB11	306	10	1-	35.371	2-	22.727	no DF
65A	LB11		20	3-	39.513	4-	21.827	
66A	LB11		20	5-	30.521	6-	17.742	
79B	LB12		10	7-	52.493	8-	31.351	
80B	LB12		10	1-	35.577	2-	21.618	
100A	LB14		10	3-	20.414	4-	12.272	
99A	LB14		10	5-	23.761	6-	14.364	
98A	LB14		10	7-	54.323	8-	33.051	
82A	LB13		10	1-	40.87	2-	23.803	
81A	LB12		10	3-	47.193	4-	26.8	
101B	LB15		10	5-	26.363	6-	15.11	
102B	LB16		10	7-	9.945	8-	5.925	
121B	LC11		20	1-	167.743	2-	88.809	
119B	LC11		20	3-	137.304	4-	73.232	
120B	LC11		20	5-	149.823	6-	80.443	
139B	LC09		10	7-	54.444	8-	32.547	
136B	LC09		10	1-	57.087	2-	33.163	
138B	LC09		10	3-	56.631	4-	31.825	
147B	LC08		10	5-	40.583	6-	24.434	
148B	LC08		10	7-	29.362	8-	18.307	
150B	LC08		10	1-	20.034	2-	12.065	
155A	LC06		10	3-	38.149	4-	23.055	
156A	LC06		10	5-	262.166	6-	144.095	
157A	LC06		20	7-	148.005	8-	80.121	
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

64 B CHL LB11 20 m 2017-05 Bot 9	65 A CHL LB11 10 m 2017-05 Bot 10	66 A CHL LB11 5 m 2017-05 Bot 11	79 B CHL LB12 20 m 2017-05 Bot 13	80 B CHL LB12 10 m 2017-05 Bot 14	100 A CHL LB14 5 m 2017-05 Bot 18	99 A CHL LB14 10 m 2017-05 Bot 17	98 A CHL LB14 20 m 2017-05 Bot 16	82 A CHL LB13 5 m 2017-05 Bot 1	81 A CHL LB12 5 m 2017-05 Bot 15	101 B CHL LB15 5 m 2017-05 Bot 1	102 B CHL LB16 5 m 2017-05 Bot 1
121 B CHL LC11 5 m 2016-62 2017-05 Bot 19	119 B CHL LC11 20 m 2016-62 2017-05 Bot 17	120 B CHL LC11 10 m 2016-62 2017-05 Bot 18	134 B CHL LC09 20 m 2017-05 Bot 13	136 B CHL LC09 10 m 2017-05 Bot 15	138 B CHL LC09 5 m 2017-05 Bot 17	147 B CHL LC08 20 m 2017-05 Bot 9	148 B CHL LC08 10 m 2017-05 Bot 10	150 B CHL LC08 5 m 2017-05 Bot 12	155 A CHL LC06 20 m 2017-05 Bot 5	156 A CHL LC06 10 m 2017-05 Bot 6	157 A CHL LC06 5 m 2017-05 Bot 7

Chlorophyll Data Sheet

Cruise: 2017-05

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Dates of Cruise:

Time and date acetone added: 1:57 pm July 5 2017 Analyst: SM + MM

Time and date out of freezer: 12:12 pm July 6 2017.

Time analysis started: 1 pm

20 mL

1A 55A
30B 54B
25A 53B
24B 52B
22B 43A
23B 45B
2A 42B
34A

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.025			
STD			LOW	2-	11.323			
STD			HIGH	4-	61.573			
Blank				6-	-0.020	8- -0.021		
5B	LB01	300	10	1-	46.579	2- 38.244		No DF
8A	LB01	1	10	3-	58.005	4- 40.108		
11A	LB02		10	5-	66.891	6- 38.988		
12A	LB02		10	7-	64.346	8- 37.342		
14A	LB02		10	1-	62.270	2- 30.310		
15A	LB03		10	3-	129.119	4- 70.872		
16A	LB01		10	5-	59.775	6- 47.517		
1A	59		20	7-	58.588	8- 36.057		
32B	LB06		10	1-	187.594	2- 101.020		
30B	LB06		20	3-	82.170	4- 45.104		
31A	LB06		10	5-	197.877	6- 107.048		
25A	LB05		20	7-	96.744	8- 52.327		
24B	LB04		20	1-	29.059	2- 42.856		
22B	LB04		20	3-	66.387	4- 37.032		
23B	LB04		20	5-	83.443	6- 45.188		
2A	59		20	7-	62.290	8- 37.272		
55A	LB10		20	1-	221.052	2- 138.990		
54B	LB09		20	3-	252.187	4- 145.532		
53B	LB09		20	5-	245.037	6- 142.051		
52B	LB09		20	7-	80.011	8- 51.676		
43A	LB08		20	1-	253.593	2- 139.862		
45B	LB08		20	3-	237.824	4- 130.925		
42B	LB08		20	5-	241.899	6- 136.706		
34A	LB07	✓	20	7-	206.010	8- 120.748		
Stand-by				1-	-0.024			
Std	Low			2-	11.300			
Std	High			4-	61.149			
Blank	by			6-	-0.017	8- -0.016		

5 B	8 A	11 A	12 A	14 A	15 A	6 A	1 A	32 B	30 A
CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL	CHL
LB01	LB01	LB02	LB02	LB02	LB03	LB01	59	LB06	LB06
20 m	5 m	20 m	10 m	5 m	5 m	10 m	2017-05	5 m	20 m.
2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	2017-05	Bot 14	2017-05	2017-05
Bot 2	Bot 5	Bot 3	Bot 4	Bot 6	Bot 1	Bot 3		Bot 7	Bot 5

31 A	25 A	24 B	22 B	23 B	CHL 2A	55 A	54 B	53 B	52 B
CHL	CHL	CHL	CHL	CHL	59	CHL	CHL	CHL	CHL
LB06	LB05	LB04	LB04	LB04	2017-05	LB10	LB09	LB09	LB09
10 m	5 m	5 m	20 m	10 m	Bot 5	Max 5 m	5 m	10 m	20 m
2017-05	2017-05	2017-05	2017-05	2017-05		2017-05	2017-05	2017-05	2017-05
Bot 6	Bot 1	Bot 7	Bot 5	Bot 6		Bot 1	Bot 9	Bot 8	Bot 7

43 A	45 B	42 B	34 A
CHL	CHL	CHL	CHL
LB08	LB08	LB08	LB07
10m	5m	20m	5 m
2017-05	2017-05	2017-05	2017-05
Bot 8	Bot 10	Bot 17	Bot 2

Chlorophyll Data Sheet

Cruise: 2017-05

Page: 1 of 2

Dates of Cruise:

Time and date acetone added: 10:05am 6 July 2017 Analyst: SM+Mtl

Time and date out of freezer: 8am 7 July 2017

Time analysis started: 9am

20ml

54A

53A

52A

120A

119A

121A

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.025			
STD			LOW	2-	11.324			
STD			HIGH	4-	61.901			
Blank				6-	-0.006	8- -0.022		
119A	LC11	306	20	1-	138.668	2-74.137		NO DF
150A	LC08		10	3-	21.281	4-12.944		
134A	LC09		10	5-	55.758	6-32.824		
101A	LB15		10	7-	25.233	8-14.327		
138A	LC09		10	1-	53.925	2-31.127		
147A	LC08		10	3-	41.191	4-24.660		
148A	LC08		10	5-	28.608	6-17.343		
121A	LC11		20	7-	148.132	8-72.700		
130A	LC09		10	1-	54.676	2-31.309		
120A	LC11		20	3-	164.493	4-87.540		
102A	LB10		10	5-	10.499	6-6.464		
81B	LB12		10	7-	50.688	8-29.279		
92B	LB13		10	1-	41.764	2-24.055		
98B	LB14		10	3-	51.759	4-31.80		
99B	LB14		10	5-	23.473	6-14.451		
100B	LB14		10	7-	20.664	8-12.396		
80A	LB12		10	1-	37.494	2-22.595		
60B	LB11		10	3-	54.158	4-31.005		
79A	LB12		10	5-	54.210	6-32.936		
65A	LB11		10	7-	73.072	8-40.612		
64A	LB11		10	1-	36.364	2-23.121		
52A	LB09		20	3-	82.215	4-51.120		
53A	LB09		20	5-	273.635	6-153.607		
54A	LB09		20	7-	281.980	8-157.622		
Stand-by				1-				
Std	Low			2-				
Std	High			4-				
Blank	by			6-		8-		

119 A CHL LC11 20 m 2016-62 2017-05 Bot 17	150 A CHL LC08 5 m 2017-05 Bot 12	134 A CHL LC09 20 m 2017-05 Bot 13	101 A CHL LB15 5 m 2017-05 Bot 1	138 A CHL LC09 5 m 2017-05 Bot 17	147 A CHL LC08 20 m 2017-05 Bot 9	148 A CHL LC08 10 m 2017-05 Bot 10	121 A CHL LC11 5 m 2016-62 2017-05 Bot 19	136 A CHL LC09 10 m 2017-05 Bot 15	120 A CHL LC11 10 m 2016-62 2017-05 Bot 18
102 A CHL LB16 5 m 2017-05 Bot 1	81 B CHL LB12 5 m 2017-05 Bot 15	82 B CHL LB13 5 m 2017-05 Bot 1	98 B CHL LB14 20 m 2017-05 Bot 16	99 B CHL LB14 10 m 2017-05 Bot 17	100 B CHL LB14 5 m 2017-05 Bot 18	80 A CHL LB12 10 m 2017-05 Bot 14	66 B CHL LB11 5 m 2017-05 Bot 11	79 A CHL LB12 20 m 2017-05 Bot 13	65 B CHL LB11 10 m 2017-05 Bot 10
64 A CHL LB11 20 m 2017-05 Bot 9	52 A CHL LB09 20 m 2017-05 Bot 7	53 A CHL LB09 10 m 2017-05 Bot 8	54 A CHL LB09 5 m 2017-05 Bot 9						

Chlorophyll Data Sheet

Cruise: 2017-05

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Dates of Cruise:

Time and date acetone added: 206 pm 6 July 2017 Analyst: MAF/SMA

Time and date out of freezer: 12pm 7 July 2017

Time analysis started: 1pm 7 July 2017

20ml

34B 3A

42A

55B

45A

43B

25B

2B

59B

Sample #	Station	Vol filt	Vol acet		Rb		Ra	Comments
Stand-	by			1-	-0.027			
STD			LOW	2-	11.321			
STD			HIGH	4-	61.244			
Blank				6-	-0.021	8-	-0.021	
2B	59	306	20	1-	57.406	2-	34.636	no DF
1B	59		20	3-	54.075	4-	33.206	
6B	LB01		10	5-	59.592	6-	42.502	
5A	LB01		10	7-	48.751	8-	40.408	
8B	LB01		10	1-	58.613	2-	41.35	
12B	LB02		10	3-	60.58	4-	34.999	
3A	59		20	5-	58.124	6-	34.142	
24A	LB04		10	7-	163.062	8-	87.81	
23A	LB04		10	1-	165.713	2-	89.449	
31B	LB06		10	3-	200.345	4-	107.584	
22A	LB04		10	5-	133.764	6-	73.697	
11B	LB02		10	7-	63.281	8-	37.432	
14B	LB02		10	1-	60.257	2-	35.328	
15B	LB03		10	3-	121.532	4-	66.682	
3B	59		10	5-	106.601	6-	62.451	
34B	LB07		20	7-	219.229	8-	120.22	
32A	LB06		10	1-	202.903	2-	108.42	
42A	LB08		20	3-	267.088	4-	145.962	
55B	LB10		20	5-	250.574	6-	144.116	
45A	LB08		20	7-	259.934	8-	142.281	
43B	LB08		20	1-	276.515	2-	148.677	
30A	LB06		10	3-	164.408	4-	90.827	
25B	LB05	✓	20	5-	102.829	6-	55.658	↓
-	-	-	-	7-	-	8-	-	
Stand-by				1-	-0.023			
Std	Low			2-	11.265			
Std	High			4-	61.052			
Blank	by			6-	-0.020	8-	-0.019	

2 CHL 59 2017-05 Bot 5	1 CHL 59 2017-05 Bot 4	6 CHL LB01 10 m 2017-05 Bot 3	5 CHL LB01 20 m 2017-05 Bot 2	8 CHL LB01 5 m 2017-05 Bot 5	12 CHL LB02 10 m 2017-05 Bot 4	3 CHL 59 2017-05 Bot 6	24 CHL LB04 5 m 2017-05 Bot 7	23 CHL LB04 10 m 2017-05 Bot 6	31 CHL LB06 10 m 2017-05 Bot 6	22 CHL LB04 20 m 2017-05 Bot 5	11 CHL LB02 20 m 2017-05 Bot 3
14 CHL LB02 5 m 2017-05 Bot 6	15 CHL LB03 5 m 2017-05 Bot 1	3 CHL 59 2017-05 Bot 6	34 CHL LB07 5 m 2017-05 Bot 2	32 CHL LB06 5 m 2017-05 Bot 7	42 CHL LB08 20m 2017-05 Bot 7	55 CHL LB10 5m 2017-05 Bot 1	45 CHL LB08 5m 2017-05 Bot 10	43 CHL LB08 10m 2017-05 Bot 8	30 CHL LB06 20 m 2017-05 Bot 5	25 CHL LB05 5 m 2017-05 Bot 1	