

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 26UTC Date (ddmmmyyyy) 23 | 2010Ice Coverage 6/10Water Depth(from surface) 2878 mStation CB50UTC Time 0909In Air pressure (before/after) 0.17, 0.09Sound Speed used by Knudsen 1470CTD File 201007-0026Lat (N) 73 28.94Lon (W) 134 12 40Weather/Sea State 12kts, flat in pond -5.5°CCTD Operator JE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	OS-137	I-129	Comments
470	BOT-200	2679	✓1	00	7676	✓	824/0.5 825/0.5 826/0.0	3	1				✓		1	✓	✓						
471		2500	✓2	00	8953		827/-0.2	✓	2						2							✓	
472		2000	✓3	00	7417		828/-0.1		3						3							✓	
473		1500	✓4	10	0314		829/0.0		4						4							✓	slow spigot drip (small snaffle)
474		1000	✓5	00	7222 7629	✓	820/0.3		5						5	✓						✓	
475		800	✓6	00	7201		819/0.5		6						6							✓	
476		600	✓7	00	7332		818/0.8 821/1.0	✓	7						7							✓	
477		500	✓8	00	8995		822/1.0		8						8		✓					✓	
478	TMAX	410	✓9	00	7166		823/1.0		9						9					*		*	* std water for NH ₄
479		400	✓10	00	1224		812/1.1		10						10							✓	
480		350	✓11	00	7433		813/1.1		11						11							✓	
481		300	✓12	00	9114		814/0.9		12					✓	12	✓	✓	✓	✓	✓	✓	✓	
482		275	✓13	00	8968 9069	✓	815/0.8 bubbles in glass		13						13	✓							
483		250	✓14	00	7504		807/0.5		14						14							✓	
484		225	✓15	00	0283		816/0.3 817/0.5	✓	15						15								
485		175	✓16	00			* 806/-0.3		16						16								
486	33.1	162	✓17	00	0326	✓	808/-0.2		17		✓				17							✓	
487		150	✓18	00	9024 7475	✓✓	809/0.0		18						18			✓	✓			✓	
488		125	✓19	00			* 810/-0.3 bubbles in glass		19						19								
489		100	✓20	00	7223	✓	811/-0.1		20						20		✓					✓	
490	Chl MAX	72	✓21	00	7488	✓	803/0.3		21			✓✓			21								
491		50	✓22	00	41D	✓	801/0.0		22			✓✓			22								
492		25	✓23	00			* 800/0.5 bubble in glass		23			✓✓			23								
493		5	✓24	00	7352	✓	802/-0.1	✓	24	✓	✓		✓	✓	24	✓	✓	✓	✓	✓	✓	✓	

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments: ~2800m deep

NO STOP ON BOTTLES

DO: KS Draw, KY pickle

26.13

①

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 25 UTC Date (ddmmmyyyy) 23 | 09 | 2010Station CB50 UTC Time 0726CTD File 201007-0025 Lat (N) 73 29.23Lon (W) 134 0993Ice Coverage 6/10In Air pressure (before/after) 0, 0.20Weather/Sea State 15kts wind / flat in open pondWater Depth(from surface) 2873 mSound Speed used by Knudsen 1470CTD Operator JE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	I-129	Comments
447		1000	✓1	✓✓					1						1						✓		
448		↓	✓2	✓✓					2						2								
449		↓	✓3	00					3						3								
450		↓	✓4	00					4						4								no dribble!
451		800	✓5	00					5						5								
452		↓	✓6	00					6						6								
453		↓	✓7	00					7						7								
454		↓	✓8	00					8						8								
455		600	✓9	00					9						9								
456		↓	✓10	00					10						10								
457		↓	✓11	00					11						11								
458		↓	✓12	00					12						12								
459		400	✓13	00					13						13								
460		↓	✓14	00					14						14								
461		↓	✓15	00					15						15								
462		↓	✓16	00					16						16								
463		300	✓17	00					17						17								
464		↓	✓18	00					18						18								
465		↓	✓19	00					19						19								
466		↓	✓20	00					20						20								
467		5	✓21	01					21						21								lower O-ring drip
468		↓	✓22	00					22						22								
469		↓	✓23	00					23						23						✓		
		↓	✓24	00					24						24								ISUS on

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments: Cs cast to 1000m. Stop to close bottles.
ISUS on, but not PAR (too dark)

22700m

③

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

M₀Y Z = 2763 +10

Cast # 24

UTC Date (ddmmmyyyy) 22 Sep 2010

Ice Coverage 8/10

Water Depth(from surface) 2777 m

Station CB-23a

UTC Time 2130

In Air pressure (before/after) 7.061

Sound Speed used by Knudsen 1470

CTD File 201007-0024

Lat (N) 72 54.360

Lon (W) 136 7.684

Weather/Sea State 8 kt, calm

CTD Operator SZ

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Sample 24 lt then 1-23	Oxy Flask #, and draw tmp	Done 1711	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	P-239	Comments	
423	BOF100	2663	1	✓00			854/0.5 855/1.3 856/0.1			3	1				✓		1	✓	✓							
424		2000	2	✓00			857/-0.1			✓	2						2	✓								
425		1500	3	✓00			858/-0.0				3						3									
426		1200	4	✓10			859/+0.1				4						4									Slow leak from petcock
427		1000	5	✓00			848/0.2				5						5		✓							
428		800	6	✓00			849/0.4 850/0.5			✓	6						6									
429		600	7	✓00			851/0.6				7						7									
430		500	8	✓00			852/0.7				8						8									
431	TMAX	406	9	✓00			853/1.8				9						9									
432	34.78	363	10	✓00			842/+1.9				10						10									
433	34.7	316	11	✓00			835/+1.8				11						11									
434	34.6	285	12	✓00			844/+1.6				12					Y	12			Y	Y					
435	34.4	247	13	✓00			846/+1.3				13						13									
436	34.1	211	14	✓00			847/-1.3				14						14									
437	33.6	186	15	✓01			836/-1.3				15						15									Slow drip bottom
438	33.1	168	16	✓00			837/-1.4				16		✓				16		✓							
439	32.9	160	17	✓00			839/-1.4				17						17									
440	32.6	145	18	✓00			840/-1.5				18						18			✓	✓					
441	32.3	122	19	✓00			841/-1.7				19						19		✓							
442	31.8	96	20	✓00			830/-1.4				20						20									
443	CHLMAX	70	21	✓00			838/-1.5 831/-1.4			✓	21			W			21									
444		50	22	✓00			832/-1.5				22			W			22									
445		25	23	✓00			833/0.1				23	✓		W			23		✓							4m Tintusion @ 23 m.
446		5	24	✓01			843/-0.2			✓	24	✓	✓	W	✓	✓	24	✓	✓	✓	✓					leak from bottom

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column

Comments:

IN ICE: NO STOP ON BOTTLES.

L 100

~3100m

13 23 26

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 23UTC Date (ddmmmyyyy) 22 / 09 / 2010Ice Coverage 1 / 10Water Depth(from surface) 3118 mStation CB-22UTC Time 1320In Air pressure (before/after) 0.06, 0.17Sound Speed used by Knudsen 1470CTD File 201007-0023Lat (N) 73 26.97Lon (W) 138 02 20Weather/Sea State 18 kts. seas flatCTD Operator JE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DICALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	L-129	Comments
399	207-200	2922	✓1	00			1279 / 0.3 1432 / 0.2 1411 / 0.2 3	✓	1				✓		1	✓	✓						
400		2500	✓2	00			1291 / -0.2	✓	2						2								
401		2000	✓3	00			1281 / -0.1		3						3								
402		1500	✓4	00			1417 / 0.0		4						4								
403		1000	✓5	00			1290 / 0.1		5						5	✓							
404		800	✓6	00			1274 / 0.4		6						6								
405		600	✓7	00			1362 / 0.5		7						7								
406		500	✓8	00			1486 / 0.7		8						8								
407	TMAX	440	✓9	00			1424 / 0.7		9						9		✓						
408	34.78	384	✓10	00			1219 / 0.8	✓	10						10	✓							
409	34.7	334	✓11	00			458 / 0.7		11						11								
410	34.6	302	✓12	00			1238 / 0.5		12						12		✓	✓	✓				
411	34.4	260	✓13	00			1282 / 0.4		13						13								
412	34.1	226	✓14	00			1276 / -0.3		14						14								
413	33.6	200	✓15	00			1228 / 0.7	✓	15						15								
414	33.1	180	✓16	00			1280 / 0.7		16		✓				16	✓							
415	32.9	169	✓17	00			1241 / -1.0		17						17								
416	32.6	142	✓18	00			1270 / -0.7		18						18								
417	32.3	114	✓19	00			1136 / -0.7		19						19								
418	31.8	87	✓20	00			329 / -0.3		20						20				✓	✓			
419	CHLMAX	65	✓21	00			1429 / 0.0		21			✓			21								
420		50	✓22	00			1202 / 0.2		22			✓		✓	22								
421		25	✓23	00			456 / 0.5		23			✓		✓	23								
422		5	✓24				1278 / 0.2	✓	24		✓		✓	✓	24	✓	✓	✓	✓				

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments:

IN ICE : NO STOP ON BOTTLES

DO Draw JE
pickle K/

~ 3200m

(1)

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 22UTC Date (ddmmmyyyy) 22 Sep 2010Ice Coverage 8/10Water Depth(from surface) 3197 mStation CB27UTC Time 0604In Air pressure (before/after) 0.022Sound Speed used by Knudsen 1465 (1470 at end)CTD File 201007-0022Lat (N) 72 59.975Lon (W) 140 0.740Weather/Sea State windy? (nasty)CTD Operator SZ/JE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Ca	Mg	Comments
375	BOT-200 3017	3017	✓1	00	0326	✓	824/0.4 825/0.3 826/0.3	3	1	✓			✓		1	✓	✓						
376		2500	✓2	00	9024		827/0.0	✓	2						2								
377		2000	✓3	00	7475		828/0.0		3						3								
378		1500	✓4	10	7223		829/0.1		4						4								
379		1000	✓5	00	7488		820/0.4 bubble in glass		5						5								
380		800	✓6	00	410		819/0.7 818/0.9	✓	6	✓					6	✓							
381		600	✓7	00	7383 7504		821/1.2		7						7	✓	✓						
382		500	✓8	11	9069	✓			8						8								empty Niskin (tripped in air)
383	TMAX	439	✓9	00	7352 0283	✓	823/1.6		9						9								
384	34.78	383	✓10	00	8995 7552	✓	812/1.4		10						10								
385	34.7	331	✓11	00	7332		813/1.3 sm bubble low in glass		11						11								
386	34.6	304	✓12	00	0321		814/1.2		12						12								
387	34.4	263	✓13	00	9114 9837	✓	815/0.4		13						13								
388	34.1	230	✓14	00	0280		807/0.0		14						14	✓							
389	33.6	204	✓15	00	9061		816/-0.5 sm bubble low in glass		15						15								
390	33.1	189	✓16	00	0257	✓	817/-0.6 bubble in glass		16	✓	✓				16								
391	32.9	178	✓17	00			* 806/-0.7		17						17								
392	32.6	158	✓18	00	0336	✓	808/-0.5		18						18		✓						
393	32.3	132	✓19	00			* 809/-0.3		19	✓					19								
394	31.8	103	✓20	00	7353	✓	810/0.0 sm bubble high		20						20								
395	CHIMAX	85	✓21	00	9054	✓	811/0.5		21			✓			21								
396		50	✓22	00	7637	✓	803/0.5 800/0.3	✓	22			✓		✓	22								
397		25	✓23	00			* 801/0.5		23			✓		✓	23								
398		5	✓24	00	9066	✓	802/0.3	✓	24	✓	✓		✓	✓	24	✓	✓	✓	✓				

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments: IN ICE: NO STOP ON BOTTLES

KS draw, KY pickle

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

MAY 2 2998+10

Cast # 21

UTC Date (ddmmmyyyy) 21 Sep 2010

Ice Coverage 8/10

Water Depth(from surface) 3001 m

Station MK-7

UTC Time 2312

In Air pressure (before/after)

Sound Speed used by Knudsen 1465

CTD File 201007-0021

Lat (N) 72 31.548

Lon (W) 140 1.061

Weather/Sea State 5-10 knot winds calm

CTD Operator SZ

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw trmp Done 1900	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Co-137	137	Comments	
351	ROT-100	2942	1	✓00			1279 +.3/1432 +.1/141 0.03		1				✓		1	✓✓✓								
352		2600	2	✓00				+	2						2									← Nutrient standard bottle
353		2000	3	✓00			1291 -.2	✓	3				✓		3									
354		1500	4	✓00			1281 -.2		4						4	✓✓								
355		1000	5	✓00			1417 +.1		5						5									
356		800	6	✓00			1290 +.3		6						6									
357		600	7	✓00			1274 +.5/1362 +.5	✓	7						7									
358		500	8	✓00			1486 +.6		8						8		✓							
359	TMAX	427	9	✓00			1424 +.7		9						9									
360	34.78	380	10	✓00			1219 +.7		10						10									
361	34.7	323	11	✓00			1271 +.6		11						11									
362	34.6	293	12	✓00			458 +.4		12				✓		12	✓✓		✓	✓					
363	34.4	256	13	✓00			1238 0.0		13						13									
364	34.1	226	14	✓00			1282 -.4		14						14									
365	33.6	201	15	✓00			1276 -.7/1228 -.7	✓	15						15									
366	33.1	182	16	✓00			1267 -1.0		16		✓				16									
367	32.9	171	17	✓00			1280 -1.0 -.9		17						17				✓	✓				redraw on 0
368	32.6	150	18	✓00			1241 -.5		18						18		✓							
369	32.3	125	19	✓00			1270 -.9		19						19									
370	31.8	105	20	✓00			1136 -.6		20						20	✓✓								
371	Chl MAX	75	21	✓01			329 -.1		21			✓✓			21									Slow drip on bottom
372	50	50	22	✓00			1429 +.2		22			✓✓			22									
373	25	25	23	00			1202 0.0		23			✓✓			23									
374	5	5	24	00			456 -.4	✓	24		✓		✓	✓	24	✓✓	✓	✓	✓					

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments: DEPTH ~ 3000m

Bottles closed w/ no stop.

slow on upcast to 30 m/min @ 3000m

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 20 UTC Date (ddmmmyyyy) 21 / 09 / 2010
 Station CB29 UTC Time 1648
 CTD File 201007-0020 Lat (N) 72 00.24 Lon (W) 140 02.16

Ice Coverage 6/10 Water Depth (from surface) 2685 m
 In Air pressure (before/after) 0.03 / 0.15 Sound Speed used by Knudsen 1465
 Weather/Sea State showing, flat seas CTD Operator JE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask # and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NT4	CS-137	F129	Comments
327	GST-100	2595	✓1	00			425/0.3 1474/0.0 1347/0.1	✓	1	✓			✓		1	✓	✓						
328		2500	✓2	10			1244/-0.3	✓	2						2								slow drip on spigot
329		2000	✓3	00			1341/-0.2		3						3								
330		1500	✓4	10			1494/-0.1		4	✓					4								slow spigot drip
331		1000	✓5	00			705/0.1		5						5	✓							
332		800	✓6	00			1343/0.3		6						6								
333		605	✓7	10			1381/0.5		7	✓					7		✓						
334		500	✓8	00			1366/0.6 1361/0.7	✓	8						8								
335	TMAX	460	✓9	00			1422/0.1		9	✓					9								
336	34.78	432	✓10	00			1452/0.1		10						10								
337	34.7	380	✓11	00			1494/0.9		11	✓✓					11	✓	✓	✓					
338	34.6	338	✓12	00			1299/0.5		12						12								
339	34.4	283	✓13	00			1363/0.3		13						13								
340	34.1	240	✓14	00			1293/-0.4		14						14								
341	33.6	211	✓15	00			1285/-0.6		15						15								
342	33.1	190	✓16	00			1445/-0.9 1437/-0.9	✓	16		✓				16		✓						
343	32.9	181	✓17	00			1328/-0.8		17						17								
344	32.6	160	✓18	00			1413/-0.9		18						18			✓	✓				
345	32.3	132	✓19	00			1216/-0.7		19						19	✓							
346	31.8	98	✓20	00			1204/-0.4		20	✓					20								
347	Chlmax	75	✓21	00			1223/-0.0		21			✓			21								
348	50		✓22	00			1418/0.0		22			✓	✓		22								
349	25		✓23	00			1225/0.1		23			✓	✓		23								Ran out of water for ALK
350	5		✓24	01			1499/	✓	24	✓	✓	✓	✓	✓	24	✓	✓	✓	✓				Top valve open

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments: DEPTH~2750m

winch change gears @ 903 ↓
 895 ↑
 no stop for bottles

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 19

UTC Date (ddmmmyyyy) 21 | 09 | 2010

Ice Coverage 0/10

Water Depth(from surface) 2085 m

Station CB-28 b

UTC Time 0935

In Air pressure (before/after) -0.19 0.14

Sound Speed used by Knudsen 1465

CTD File 201007-0019

Lat (N) 71 00 12

Lon (W) 140 00 43

Weather/Sea State Windy 1.5 m seas

CTD Operator JE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	CS-137	I-129	Comments
303		2000	✓1	00	0321	✓	854/0.5 855/0.5 856/0.3	3	1	Y			Y		1	W	Y					✓	
304		1500	✓2	00	7383	✓	857/0.1	Y	2	Y			Y		2	W						✓	
305		1200	✓3	00			858/0.3 859/0.3		3						3		✓						
306		1000	✓4	00	7552	✓	848/0.3		4	✓✓					4							✓	sniffle on spigot
307		800	✓5	00	7332 7222	✓	849/0.5		5						5							✓	
308		700	✓6	00	7629		850/0.5		6	✓					6								
309		600	✓7	00	7676		851/0.7 852/0.7	✓	7						7							✓	
310		500	✓8	00	0326		853/0.8		8	Y					8							✓	
311	Tmax	418	✓9	00	7488 8968	✓	842/0.9		9						9								
312		400	✓10	00	8980		835/0.8		10						10							✓	
313		350	✓11	00	0314		844/0.7		11						11	W						✓	
314		300	✓12	00	9037		846/0.7		12				Y		12		Y	✓				✓	
315		249	✓13	00	1224		847/0.0		13						13			Y	✓	W		✓	
316		225	✓14	00	7223		836/0.0		14						14					W			
317		200	✓15	00	8953		837/-0.3		15						15							✓	
318	33.1	150	✓16	00	410 7433	✓	839/-0.5		16		✓				16								
319		135	✓17	06	7417	✓	840/-0.6 841/-0.3	✓	17						17							✓	
320		125	✓18	00			830/-0.3		18						18								
321		100	✓19	00	7504	✓	838/-0.4		19						19			✓	✓			✓	
322		75	✓20	00	9024	✓	831/-0.3		20						20								
323	Chl a max	42	✓21	00	7475	✓	832/0.6		21			W			21								
324		30	✓22	00			833/0.6		22			W			22								
325		15	✓23	00			843/0.9		23			W			23	W							
326		5	✓24	00	7166	✓	834/2.6	✓	24	W	✓		✓	✓	24	W	✓	✓	✓	✓	✓	✓	

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column

Comments:

ship rolling a bit - can see knitting in sal trace

Winch stop to change gears @ 900 m ↓
1000 m ↑
Far stop bottles on way up

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 18

UTC Date (ddmmmyyyy) 21 Sep 2010

Ice Coverage 0/10

Water Depth(from surface) 2057 m

Station CB-28b

UTC Time 0641

In Air pressure (before/after) -16

Sound Speed used by Knudsen 1448

CTD File 201007-0018

Lat (N) 70 59.773

Lon (W) 140 0.152

Weather/Sea State 10/10 cut, 1m swell

CTD Operator SZ

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	I-129	Comments
283		1000	✓1						1						1								
284			✓2						2						2								
285			✓3						3						3								
286			✓4						4						4								
287		800	✓5						5						5								
288			✓6						6						6								
289			✓7						7						7								
290			✓8						8						8								
291		600	✓9						9						9								
292			✓10						10						10								
293			✓11						11						11								
294			✓12						12						12								
295		400	✓13						13						13								
296			✓14						14						14								
297			✓15						15						15								
298			✓16						16						16								
299		300	✓17						17						17								
300			✓18						18						18								
301			✓19						19						19								
302			✓20						20						20								
283		1000	✓21						21						21								For salt deep water stb
283		1000	✓22						22						22								
			23						23						23								
			24						24						24								

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments:

Note - bottles 21, 22 tripped out of order to gather more water at 1000m

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 17

UTC Date (ddmmmyyyy) 21 Sep 2010

Ice Coverage 0/10

max depth 2466

Water Depth(from surface) 2448 m

Station MK-6

UTC Time 0128

In Air pressure (before/after) 7.1 /

Sound Speed used by Knudsen 1448

CTD File 201007-0017

Lat (N) 71 34.890

Lon (W) 140 0.206

Weather/Sea State 15kt 1m swell

CTD Operator SZ

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIALK	CDOM	Chl a (Total)	Bacteria	FWALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	I-129	Comments
	B=2466																						
259	B-100	2300	1	✓00			824 1.0 / 825.9 / 869.0	3	1				✓		1	W V							← Not std water, from here
260		2000	2	✓00			827 0.0	✓	2						2		✓						
261		1500	3	✓00			828 0.0		3						3	W							
262		1200	4	✓01			829 0.3		4						4								slow leak spigot
263		1000	5	✓00			820 0.3		5						5								
264		800	6	✓00			819 0.4		6						6								
265		600	7	✓00			818 0.6		7						7								
266		500	8	✓00			821 0.8		8						8		✓						
267		450	9	✓00			822 0.7		9						9								
268	Tmax	430	10	✓00			823 0.8 / 812 +1.2	✓	10						10								← NH4 seawater from here
269	34.78	375	11	✓00			813 1.0		11						11								
270	34.7	321	12	✓00			814 .8		12				Y		12			Y	Y				
271	34.4	248	13	✓00			815 .1		13						13								
272	34.1	218	14	✓00			807 -.4		14						14								
273	33.6	197	15	✓00			816 -.6		15						15								
274	33.1	181	16	✓00			817 -.7		16		✓				16	WV							
275	32.8	170	17	✓00			806 -.7		17						17								
276	32.8	148	18	✓00			808 -.5		18						18			✓	✓				
277	32.3	126	19	✓00			809 -.7		19						19								
278	31.8	99	20	✓00			810 -.5		20						20	WV							
279		75	21	✓00			811 -.1 / 803 0.0	✓	21						21								no dup on 21 oxy
280	Chl max	50	22	✓00			800 -.3		22			✓			22								very low chlorophyll, no
281		25	23	✓00			801 2.0		23			✓			23		✓						distinct max
282		5	24	00			802 1.5	✓	24		✓	✓	✓	✓	24	W	✓	✓	✓				

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments:

STOP TO CLOSE BOTTLES
 Increase speed @ 200 + 60 m/min At bottom: Pressure release test (4) for WHOI
 No 46 from bottom Niskin for nutrient standard - fill carboy - subsample into 500 tubes & freeze
 MnCl changed to 0902M from 0903
 label bags not tubes, use old tubes.

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 16 UTC Date (ddmmmyyyy) 20 Sep 2010 Ice Coverage 0/10 Water Depth(from surface) 1442 m
Station MK-4 UTC Time 2035 In Air pressure (before/after) 103 1.2 Sound Speed used by Knudsen 1448
CTD File 201007-0016 Lat (N) 7048.533 Lon (W) 140 0.944 Weather/Sea State 15knt winds, 1m seas CTD Operator S2

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	23 CFC	Oxy Flask #, and draw tnp	Finish 1600	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cor 137	139	Comments	
235	1500	1426	1	00	7552	✓	1474 +1.0	1309 +8 / 1499 +8	3	1				✓		1	W	✓							NOTE: STARTED on #235, but last cast ended on #238. So #234 was skipped
236		1200	2	00			1223 +1.7		✓	2						2	W								
237		1000	3	00	7637 9061	✓	1418 +1.7			3						3									
238		800	4	00	8978	✓	1223 +1.8			4						4									
239		700	5	00			1204 +1.0			5						5		✓							
240		600	6	00	9066 0322	✓	1216 +1.2			6						6									
241		500	7	00	7383		1443 +1.2			7						7									
242	IMAX	425	8	00	0336		1328 +1.3 / 1482 +1.4		✓	8						8									
243		375	9	00	7201 8968	✓	1445 +1.2			9						9									
244	34.78	322	10	00	0280		1286 +1.2			10						10									
245	34.7	270	11	00	9054		1293 +1.1			11					✓	11	W		✓	✓					
246	34.6	240	12	00	8980		1363 +1.9			12						12						W			
247	34.4	212	13	00	0257		1299 +1.5			13						13									
248	34.1	180	14	00	7353		1494 +1.1			14						14		✓							
249	33.6	154	15	00	7488		1452 +1.3			15						15									
250	33.1	131	16	00	9114, 9069	✓	1422 +1.3			16		✓				16									
251	32.9	122	17	00			1361 +1.3			17						17									
252	32.6	105	18	00	0326	✓	1366 +1.1			18						18									
253	32.3	90	19	00			1381 +1.3 / 1343 +1.2		✓	19						19	W								
254	31.8	65	20	00	0283	✓	705 0.0			20						20									
255	CHLMAX	4.5	21	01	0321	✓	1494 +1.3			21			✓			21									Saw leak bottom
256	50	35	22	00	7352	✓	1364 +1.9			22			✓			22									
257	25		23	00			1244 +2.1			23			✓			23		✓	✓	✓					Add to Niskin 24
258	5		24	00	8995	✓	1347 +5.6		✓	24	✓	✓	✓	✓	✓	24	W	✓	✓	✓	✓				

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments:

STOP TO CLOSE BOTTLES

increase speed at 300 from 30 w/min to 60 w/min

1625 00

6

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 15
Station MK3a
CTD File 201007-0015
UTC Date (ddmmmyyyy) 20 09 2010
UTC Time 1622
Lat (N) 70 39.91

Ice Coverage 0 /10
In Air pressure (before/after) 0.01, 0.26
Weather/Sea State 10kts, 15m seas

Water Depth(from surface) 1321 m
Sound Speed used by Knudsen 1448
CTD Operator JE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	CS-137	I-129	Comments
210	1307	1300	✓1	00	7552	✓	1023/0.7 1352/0.7 1430/0.8	3	1	✓		✓			1	✓	✓					✓	
211		1000	✓2	00	7637	✓	586/0.7	✓	2	✓					2	✓	✓					✓	
212		800	✓3	00	9061	✓	575/1.0		3	✓					3	✓	✓					✓	
213		700	✓4	10	7433	✓	1493/1.0		4						4	✓	✓					✓	Spigot drip
214		600	✓5	00	7332 8978	✓	1150/1.2		5	✓					5	✓	✓					✓	
215		500	✓6	00	7223	✓	1356/1.3		6						6	✓	✓					✓	
216		450	✓7	00	7417	✓	1434/1.6		7	✓					7	✓	✓					✓	
217	TMAX	365	✓8	00	9066	✓	1341/1.5		8	✓					8	✓	✓					✓	
218		350	✓9	00	9024	✓	1446/1.4 1457/1.7	✓	9						9	✓	✓					✓	
219		300	✓10	00	7475 8953	✓	1416/1.6		10	✓				✓	10	✓	✓	✓				✓	
220		250	✓11	00	7352	✓	1413/1.3		11	✓					11	✓	✓					✓	
221		225	✓12	00	7166	✓	1277/1.2		12						12	✓	✓					✓	
222		200	✓13	00	7504	✓	1348/1.0		13	✓					13	✓	✓					✓	
223		175	✓14	00	8995	✓	1212/0.9		14						14	✓	✓					✓	
224		150	✓15	00	41D	✓	1208/0.4		15						15	✓	✓					✓	
225		125	✓16	00		✓	1268/0.3		16						16	✓	✓					✓	
226	33.1	120	✓17	00	7676, 0314	✓✓	1471/0.5		17		✓				17	✓	✓					✓	
227		100	✓18	00	1224	✓	658/0.2		18						18	✓	✓					✓	
228		90	✓19	00		✓	1119/0.0 1331/-0.1	✓	19						19	✓	✓					✓	
229		75	✓20	00	7222	✓	1449/0.3		20						20	✓	✓					✓	
230	CHMAX	36	✓21	00	7629	✓	1310/0.8		21			✓✓			21	✓	✓					✓	
231		30	✓22	00		✓	1188/0.5		22			✓✓			22	✓	✓					✓	
232		15	✓23	00		✓	1433/1.0		23			✓✓			23	✓	✓					✓	
233		5	✓24	00	9837	✓	1442/6.4	✓	24	✓✓	✓	✓	✓	✓	24	✓	✓	✓	✓	✓	✓	✓	

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments:

STOP TO CLOSE BOTTLES
21300m DEEP
NO ISUS/PAR

stayed in low gear, over 56 m/min whole cast

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 14 UTC Date (ddmmmyyyy) 20 | 09 | 2010

Station CB28aa UTC Time 1238

CTD File 201007-0014 Lat (N) 70 00.24 Lon (W) 140 00.89

Ice Coverage 0 /10

In Air pressure (before/after) -0.04 / 0.16

Weather/Sea State Windy, 1m seas

Water Depth(from surface) 59 m

Sound Speed used by Knudsen 1448

CTD Operator JE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FWALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	I-129	Comments
204		50	✓1	00			846 / -0.3	✓3	1	VV			Y		1	VV	Y	Y	Y	VV			
205		40	✓2	00			837 / -0.7	✓	2						2	VV				VV			Second Chl max @ 42m.
206		30	✓3	00			837 / -0.5	✓	3			VV			3					VV			
207	ChlM	23	✓4	10			840 / -0.1	✓	4			VV			4					VV			slight spigot lock
208		15	✓5	00			841 / 1.0	✓	5			VV			5					VV			
209		5	✓6	10			830 / 1.2	✓	6	VV	V		✓		6	VV	VV	V	✓	VV			air vent open
			7						7						7								
			8						8						8								
			9						9						9								
			10						10						10								
			11						11						11								
			12						12						12								
			13						13						13								
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			20						20						20								
			21						21						21								
			22						22						22								
			23						23						23								
			24						24						24								

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments:

~60 m deep

Stop to close bottles

5

10:44

4

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 13 UTC Date (ddmmmyyyy) 20 09 2010Ice Coverage 0 /10Water Depth(from surface) 227 mStation MK-1 UTC Time 1044In Air pressure (before/after) -0.04, 0.23Sound Speed used by Knudsen 1448CTD File 201007-0613 Lat (N) 70 13.51 Lon (W) 139 59.96Weather/Sea State wind 10kts / 1m seasCTD Operator SE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	CS-137	I-129	Comments
192	607-10	213	✓1	00			854/1.2 855/0.8 856/0.5	3	1	Y✓			Y		1	✓✓	✓	✓	✓	✓✓			
193	34.5	192	✓2	00			857/0.5	Y	2						2								
194	34.1	184	✓3	00			858 0.3		3						3								
195	33.6	173	✓4	00			859/-0.5		4						4	W							
196	33.1	161	✓5	00			848/-0.8		5	✓	✓				5								
197	32.9	150	✓6	00			849/-0.8		6						6								
198	32.6	137	✓7	00			850/-0.8		7						7		✓						
199	32.3	100	✓8	00			851/-0.6 852/-0.5	✓	8						8								
200	Chl max	35	✓9	00			853/-0.6		9			✓✓			9								
201	30		✓10	00			842/-0.5		10			✓✓			10	✓✓							
202	15		✓11	00			835/1.4		11			✓✓			11								
203	5		12	00			840/4.1	✓	12	✓✓	✓		✓		12	✓✓	✓	✓✓	✓✓	✓✓			
			13						13						13								
			14						14						14								
			15						15						15								
			16						16						16								
			17						17						17								
			18						18						18								
			19						19						19								
			20						20						20								
			21						21						21								
			22						22						22								
			23						23						23								
			24						24						24								

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments: ~ 250 m deep

Ship to close bottles

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 12 UTC Date (ddmmmyyyy) 20 Sep 2010
 Station MK-2 UTC Time 0816
 CTD File 201007-0012 Lat (N) 70 23 95 Lon (W) 139 59 88

Ice Coverage 0 /10 Water Depth(from surface) 501 m
 In Air pressure (before/after) -0.07, -0.0 Sound Speed used by Knudsen 1448
 Weather/Sea State 1m ? wind CTD Operator JE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	Li-29	Comments
170	B ₀	489	✓ 1	✓✓			1297/11 439/10 456/1.0	3	1			✓			1	✓	✓						
171		450	✓ 2	✓✓			1202/0.8	✓	2						2								
172		425	✓ 3	✓✓			1429/0.8		3						3								
173		400	✓ 4	✓✓			329/0.9		4						4								
174	TMAX	350	✓ 5	✓✓			1136/0.9		5						5	✓							
175	34.78	320	✓ 6	✓✓			1270/0.9 1241/1.0	✓	6						6		✓						
176	34.76	297	✓ 7	✓✓			1280/0.9		7						7								
177	34.7	259	✓ 8	✓			1267		8				✓		8		✓	✓					no water in Niskin 8, although cloud
178	34.6	227	✓ 9	✓✓			1228/0.7		9						9	✓				✓✓			
179	34.5	205	✓ 10	✓✓			1276/0.5		10						10								
180	34.4	200	✓ 11	✓✓			1282/0.3		11						11								
181	34.1	172	✓ 12	✓✓			1238/-0.2		12						12	✓							
182	33.8	147	✓ 13	✓✓			458/-0.7		13						13		✓						
183	33.1	127	✓ 14	✓✓			1271/-0.7 1219/-0.6	✓	14		✓				14								
184	32.9	116	✓ 15	✓✓			1424/-0.7		15						15								
185	32.6	100	✓ 16	✓✓			1385/-0.7		16						16								
186	32.3	85	✓ 17	✓✓			1362/-0.7		17						17								
187		70	✓ 18	✓✓			1274/-0.7		18						18		✓						
188	CHINAX	30	✓ 19	✓✓			1290/0.0		19			✓✓			19			✓	✓				
189		20	✓ 20	✓✓			1281/0.7		20			✓✓			20								
190		15	✓ 21	✓✓			1291/2.3		21			✓✓			21								
191		5	22	✓✓			1417/4.6	✓	22	✓✓	✓	✓	✓	✓	22	✓✓	✓	✓	✓	✓	✓	✓	
			23						23						23								
			24						24						24								

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If Niskin fails, explain this in the comments column.

Comments: ISUS/PAR ~~ON~~ OFF - broken
 STOP TO CLOSE BOTTLES.
 ~500m deep

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 11

UTC Date (ddmmmyyyy) 20 Sep 2010

Ice Coverage 0/10

Water Depth(from surface) 769 m

Station MK-3

UTC Time 0514

In Air pressure (before/after) 0.05, 0.3

Sound Speed used by Knudsen 1448

CTD File 201007-0011

Lat (N) 70 34.244

Lon (W) 140 0.464

Weather/Sea State ~15 knt, 1m swell

CTD Operator SZ

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw trmp	Oxygen	Niskin #	DIALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	CS-137	I-129	Comments
147		700	1	00	7676	✓	824 1.5 / 825 1.5 / 826 1.3	✓	1				✓		1	✓	✓					✓	
148		600	2	00	1224 / 7222	✓	827 1.2	✓	2						2							✓	
149		500	3	00	9837		828 1.7		3						3							✓	
150		450	4	00	7629		829 1.4		4						4								
151		400	5	00	7504		820 1.4		5						5		✓					✓	
152		376	6	00	410 / 0314	✓	819 1.4		6						6							✓	
153	Tmax	350	7	00	8995		818 1.4		7						7	✓							NH4 carbonyl *
154		300	8	00	0236		821 0.2 / 822 0.3	✓	8				✓		8			✓	✓			✓	
155		275	9	00	7552		823 1.2		9						9								
156		250	10	00	7637		812 1.2		10						10					✓		✓	
157		225	11	00	9061		813 1.0		11						11								
158		200	12	00	7433		814 1.0		12						12							✓	
159		175	13	00	7332		815 0.5		13						13	✓							
160		150	14	00	7475		807 0.1		14						14							✓	
161	33.1	118	15	00	7352 / 7201	✓	816 0.2		15	✓					15								
162	110	725	16	00			817 0.0		16						16	✓							
163		100	17	00	5978	✓	806 0.0		17						17		✓					✓	
164		90	18	00			808 0.1 809 0.3	✓	18						18								
165		75	19	00	0322	✓	810 0.0		19						19								810 has glass bubble
166	Chlorophyll	50	20	00	8953	✓	811 0.3		20			✓			20								
167		30	21	00			800 1.2		21			✓			21								
168		15	22				801 2.6		22			✓			22								
169		5	23	00	7383	✓	802 6.7	✓	23	✓		✓	✓	✓	23	✓	✓	✓	✓	✓	✓	✓	
			24						24						24								

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments:

~750m deep
STOP TO CLOSE BOTTLES
~~ISUS/PAR ON~~ NO

sample starts at 1120
oxygen starts at 2333

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 10 UTC Date (ddmmmyyyy) 20 SEP 2010

Ice Coverage 0/10

Water Depth(from surface) 770 m

Station MK-3 UTC Time 0400

In Air pressure (before/after) 0.03, 0.30

Sound Speed used by Knudsen 1448 m/s

CTD File 201007-0010 Lat (N) 70 34.268 Lon (W) 140 0.341

Weather/Sea State 15 kts, 1m

CTD Operator BB

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tnp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	I-129	Comments
123		700	✓ 1	00					1						1						✓		
124			✓ 2	00					2						2								
125			✓ 3	00					3						3								
126			✓ 4	00					4						4								
127		600	✓ 5	00					5						5								
128			✓ 6	00					6						6								
129			✓ 7	00					7						7								
130			✓ 8	00					8						8								
131		400	✓ 9	00					9						9								
132			✓ 10	00					10						10								
133			✓ 11	00					11						11								
134			✓ 12	00					12						12								
135		300	✓ 13	00					13						13								
136			✓ 14	00					14						14								
137			✓ 15	00					15						15								
138			✓ 16	00					16						16								
139		100	✓ 17	01					17						17								slow leak broken
140			✓ 18	00					18						18								
141			✓ 19	00					19						19								
142			✓ 20	00					20						20								
143		5	✓ 21	00					21						21								
144			✓ 22	00					22						22								
145			✓ 23	00					23						23								
146			✓ 24	00					24						24						✓		

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments:

~750m deep

STOP TO CLOSE BOTTLES

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 9 UTC Date (ddmmmyyyy) 19 09 | 2010Ice Coverage 0/10Water Depth(from surface) 77 mStation CB-65 UTC Time 0825In Air pressure (before/after) 0.04/0.13Sound Speed used by Knudsen 1448CTD File 201007-0009 Lat (N) 70 51 55Lon (W) 133 42 21Weather/Sea State 15kts small chopCTD Operator JE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	I-129	Comments
121	Bolton	68	✓ 1	✓					1	✓	✓				1	✓	✓	✓	✓				
122		5	✓ 2	✓					2	✓	✓				2	✓	✓	✓	✓				
			3				/		3						3								
			4						4						4								
			5						5						5								
			6						6						6								
			7						7						7								
			8						8						8								
			9						9						9								
			10						10						10								
			11						11						11								
			12						12						12								
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			19						19						19								
			20						20						20								
			21						21						21								
			22						22						22								
			23						23						23								
			24						24						24								

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments:

Stop to close bottles

2314

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 8

Station CB-64

CTD File 201007-0008

UTC Date (ddmmmyyyy) 19 / 09 / 2010

UTC Time 1723

Lat (N) 70 57.18

Lon (W) 133 48 74

Ice Coverage 0 / 10

In Air pressure (before/after) 0.09 / 0.17

Weather/Sea State Calm, small chgs

Water Depth(from surface) 83 m

Sound Speed used by Knudsen 1448

CTD Operator JE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	I-129	Comments
119	Bottom	73	✓ 1	✓					1	✓	✓				1	✓	✓	✓	✓				
120		5	2	✓					2	✓	✓				2	✓	✓	✓	✓				
			3						3						3								
			4						4						4								
			5						5						5								
			6						6						6								
			7						7						7								
			8						8						8								
			9						9						9								
			10						10						10								
			11						11						11								
			12						12						12								
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			21						21						21								
			22						22						22								
			23						23						23								
			24						24						24								

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.
Comments:

Stop to close bottles

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 7

Station CB-63

CTD File 201007-0007

UTC Date (ddmmmyyyy) 19 Sep 2010

UTC Time 0603

Lat (N) 71 2.160

Lon (W) 133 56.556

Ice Coverage 0/10

In Air pressure (before/after) 13 1.2

Weather/Sea State calm, light wind

Water Depth(from surface) 270 m

Sound Speed used by Knudsen 1448

CTD Operator SZ

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	I-129	Comments
117	Bottom	260	1	00					1	✓	✓				1	✓	✓	✓	✓				
118		5	2	00					2	✓	✓				2	✓	✓	✓	✓				
			3						3						3								
			4						4						4								
			5						5						5								
			6						6						6								
			7						7						7								
			8						8						8								
			9						9						9								
			10						10						10								
			11						11						11								
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			22						22						22								
			23						23						23								
			24						24						24								

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.
Comments:

Stop to
close
bottles

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Max CTD 441 + 10

Cast # 6

Station CB-62

CTD File 201007-0006

UTC Date (ddmmmyyyy) 19 Sep 2010

UTC Time 0435

Lat (N) 71 7.486

Lon (W) 134 3.667

Ice Coverage 0/10

In Air pressure (before/after) -104, 1.3

Weather/Sea State calm night
& no wind

Water Depth(from surface) 450 m

Sound Speed used by Knudsen 1448

CTD Operator SZ

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw trmp	Oxygen	Niskin #	DIC/ALK	CDO	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	I-129	Comments
115		BOTTOM	1	0 0					1	✓	✓				1	✓	✓	✓	✓				
116		5	2	0 0					2	✓	✓				2	✓	✓	✓	✓				
			3						3						3								
			4						4						4								
			5						5						5								
			6						6						6								
			7						7						7								
			8						8						8								
			9						9						9								
			10						10						10								
			11						11						11								
			12						12						12								
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			15						15						15								
			16						16						16								
			17						17						17								
			18						18						18								
			19						19						19								
			20						20						20								
			21						21						21								
			22						22						22								
			23						23						23								
			24						24						24								

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments:

Stop to close bottles

ISUS + PAR on, but ^{ISUS} not working & dark out

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 0005

UTC Date (ddmmmyyyy) 19 SEP 2010

Ice Coverage 0/10

From surface
Water Depth (below hull) 690 m

Station CB-61

UTC Time 0122

In Air pressure (before/after) 0.14

Sound Speed used by Knudsen 1448

CTD File 201007-0005

Lat (N) 71 12.108

Lon (W) 134 12.096

Weather/Sea State calm, no wind
no sea

CTD Operator SZ

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Se	Se	Comments
92		550	6	✓	7223	✓	854, 1.3 / 855, 1.2 / 856, 1.3	✓	1				✓		1	✓	✓						
93		600	2	✓	7433		857 1.1	✓	2						2								
94		500	3	✓	7201		858 1.2		3						3								
95		450	4	✓	8953/9037	✓	859 1.2		4						4								
96		425	5	✓	7552		848 1.2		5						5	✓							
97	MAX	400	6	✓	7352/7629	✓	849 1.3		6						6		✓						
98	375	371	7	✓	7475		850 1.4		7						7								
99	34.78	380	8	✓	7417/7332	✓	851 1.4		8						8								
100	34.76	310	9	✓	7504		852 1.3 / 853 1.4	✓	9						9								
101	34.7	280	10	✓	0322		842 1.3		10				✓		10	✓	✓	✓					
102	34.6	252	11	✓	0314		835 1.1		11						11					✓			
103	34.4	220	12	✓	7637/9024	✓	844 0.9		12						12		✓			✓			
104	34.1	192	13	✓	410		845 0.5		13						13								
105	33.6	164	14	✓	7676		846 0.2		14						14								
106	33.1	140	15	✓	9066		847 0.2		15	✓					15	✓							
107	32.9	132	16	✓	9061/8995	✓	836 0.2		16						16								
108	32.6	117	17	✓	8978		837 0.1		17						17			✓	✓				
109	32.3	101	18	✓	1224		838 0.3		18						18		✓						
110	32.0	70	19	✓	0336		839 0.5 / 840 0.7	✓	19						19								
111	MIN	52	20	✓	7383	✓	841 1.2		20			✓			20								
112	Chl MAX	34	21	✓			830 2.2		21			✓			21								
113	15		22	✓			831 5.9		22			✓			22								
114	5		23	✓	7222	✓	832, 6.1	✓	23	✓	✓	✓	✓	✓	23	✓	✓	✓	✓	✓	✓	✓	
			24						24						24								

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments:

STOP TO CLOSE NISKIN BOTTLES

15US/ PAR ON

NEW STATION: SHOULD BE ~750m DEEP

200PS 100m X2

PAR cap left on during
cast so no PAR dataOxygen sampling start: 19:58 PST
stop: 20:29 PST

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

978

975

232

Cast # 0004

UTC Date (ddmmmyyyy) 18 Sep 2010

Ice Coverage 0/10

From CTD 975+10

Water Depth(from surface) 980 m

Station CB-60

UTC Time 0223 0232 in water

In Air pressure (before/after) 7.01, +24

Sound Speed used by Knudsen 1448

CTD File 201007-0004

Lat (N) 71 18.734

Lon (W) 134 19.584

Weather/Sea State Fog, 5kt wind

CTD Operator SZ

1m seas; minimal ship rock

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Comments
69		1000	1	✓	10	1295 ±6 / 1023 ±5 / 1352 ±5	3	1				✓		1	✓	✓				slow drip off petcock
70		900	2	✓	00	586 ±3	✓	2						2						
71		800	3	✓	00	575 ±1.5		3						3						
72		700	4	✓	10	1493 ±.6		4						4						slow drip on # petcock
73		600	5	✓	00	1150 ±.7		5						5	✓	✓				
74		500	6	✓	00	1356 ±.7		6						6						
75		450	7	✓	00	1434 ±.8		7						7						
76		425	8	✓	00	1341 - .3 / 1446 - .2	✓	8						8						
17	TMAX	403	9	✓	00	1457 ±.8		9						9						
78	34.78	351	10	✓	00	1416 ±.9		10				✓		10			✓	✓		
79	34.76	331	11	✓	00	1413 ±.9		11						11	✓					
80	34.07	291	12	✓	00	1277 ±.8		12						12		✓				
81	34.6	259	13	✓	00	1348 ±.6		13						13				✓	✓	
82	34.4	228	14	✓	00	1212 ±.3		14						14						
83	34.1	194	15	✓	00	1268 - .1		15						15			✓	✓		
84	33.6	165	16	✓	00	1288 - .4 / 1471 - .2	✓	16						16						
85	33.1	145	17	✓	00	658 - .5		17		✓				17						
86	33.0	100	18	✓	00	1119 - .5		18						18	✓	✓				
87	32.7	70	19	✓	00	1331 - .3		19						19			✓	✓		
88	Tmin	545	20	✓	00	1449 ±.7		20			✓			20						* lower chl max
89	chl max	30	21	✓	00	1188 5.6		21			✓			21						
90		15	22	✓	00	1370 5.8		22			✓			22						bottle taken a strong gradient
91		5	23	00		1433 5.2	✓	23	✓	✓	✓	✓	✓	23	✓	✓	✓	✓	✓	
			24					24						24						

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments: STOP TO CLOSE NISKIN BOTTLES

ISUS/PAR ON - BUT WATCH BOTTOM DEPTH (NEW STATION)

OXYGEN: START 2057

Oxy sampled 23, 1→22 (Depth shallows)

STOP 2130

40

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Water depth (CTD) = 2062 + 11m

Cast # 0003

UTC Date (ddmmmyyyy) 17 Sep 2010

Ice Coverage 0/10 little bits in horizon

Water Depth (from surface) 2046 m

Station CB316

UTC Time 1933

In Air pressure (before/after) -110.1

Sound Speed used by Knudsen 1448

CTD File 201007-0003

Lat (N) 72.21.056

Lon (W) 133 59.947

Weather/Sea State calm + sunny

CTD Operator SZ

#12
#14

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	Oxy Flask #, and draw trp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Comments
45	0	2000	*1	00		1432 .7 / 1279 1.0 / 1141 1.0	3	1				✓		1	✓	✓				
46	0	1500	2	00		1278 .7	✓	2				1		2	✓	✓				
47	0	1200	3	00		1291 .7		3						3						
48	✓	1000	*4	10		1417 .7	✓	4						4	✓	✓				leaky spout on missed calibration stop, did stop from Nisk 4 to 5
49	✓	800	5	00		1281 .8 / 1290 1.0	✓	5						5		✓				
50	✓	600	6	00		1274 1.0		6						6	✓					
51	✓	500	7	00		1362 1.0		7						7						
52	✓	450	*8	00		14186 1.2 / 1219 1.4	✓	8						8		✓				
53	TMAX	393	9	00		1434 1.0		9						9						
54	34.78	348	10	00		1271 1.0		10						10						
55	34.7	296	11	00		458 +0.7		11						11						
56	34.4	228	*12	01		1238 +0.3 / 1282 +.3	✓	12				✓		12		✓	✓	✓	✓	slow leak from bottom pickup
57	34.1	197	13	00		1276 -0.3		13						13						
58	33.6	171	14	00		1228 -0.6		14						14						
59	33.1	147	15	00		1267 -0.7		15		✓				15		✓	✓	✓		
60	32.9	138	*16	00		1280 -0.7 / 1241 -0.1	✓	16						16		✓				
61	32.6	124	17	00		1270 -0.7		17						17						
62	Chl Cal	100	*18	00		1136 -0.7		18			✓			18						
63	Chl Cal	80	*19	00		329 -0.7°C		19			✓			19						
64	Chl Cal	58	*20	00		1429 -0.4°C / 1202 -0.5°C	✓	20			✓			20		✓	✓	✓		
65	Chl Nisk	38	*21	01		456 1.0°C		21			✓			21						Slow drip
66	Chl Cal	30	*22	00		439 4.8°C		22			✓			22						
67	✓	25	*23	00		1297 5.3°C		23			✓			23						
68	✓	5	24	01		1430 4.0°C	✓	24	✓	✓	✓	✓	✓	24	✓	✓	✓	✓	✓	Slow leak from bottom

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments:

STOP TO CLOSE BOTTLES
REMOVE ISUS/PAR
CALIBRATION CAST:

All other bottles - STOP 30 sec then Fire

MIX WATER AROUND ROSETTE:
AT * NISKIN#

WAIT 30S
UP 1m down 2m UP 1m
WAIT 30S → FIRE BOTTLE

1416.00

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Cast # 0002

UTC Date (ddmmmyyy) 17/09/2010

Ice Coverage 0/10

Water Depth (total) ^{total} 1113 m

Station CABOS

UTC Time 1416

In Air pressure (before/after) 0.0, 0.28

Sound Speed used by Knudsen 1448

CTD File 201007-0002

Lat (N) 71 46.90

Lon (W) 131 51.85

Weather/Sea State sleek, 5kts wind

CTD Operator JE

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FWALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	1129	Comments	
23		1000	✓1	✓✓	0322	✓	824/1.2, 825/1.1, 826/1.0	3	1				✓		1	✓✓	✓							
24		900	✓2	✓✓	0314	✓	827/1.0	✓	2						2	✓✓	✓							
25		800	✓3	✓✓	7637	✓	828/0.9		3						3	✓✓	✓							
26		700	✓4	X✓	7629	✓	829/1.0		4						4	✓✓	✓							spigot dribble
27		600	✓5	✓✓	9837/9024	✓✓	820/1.3		5						5	✓✓	✓							
28		500	✓6	✓✓	41D	✓	819/1.2		6						6	✓✓	✓			*				Ammonium Standards x 12
29	TMAX	350	✓7	✓✓	9114	✓	818/1.5		7						7	✓✓	✓							
30	34.78	319	✓8	✓✓	7676	✓	821/1.6, 822/1.8	✓	8						8	✓✓	✓							
31	34.76	294	✓9	✓✓	7552	✓	823/1.6		9						9	✓✓	✓							
32	34.7	257	✓10	✓✓	7352/7417	✓✓	812/1.4		10				✓		10	✓✓	✓	✓	✓	✓✓				
33	34.4	200	✓11	✓✓	7223	✓	813/1.9		11						11	✓✓	✓							
34	34.1	168	✓12	✓✓	7433	✓	814/0.9		12						12	✓✓	✓							
35	33.6	136	✓13	✓✓	7201	✓	815/0.6		13						13	✓✓	✓							
36		125	✓14	✓✓	8953/7332	✓✓	807/0.7		14						14	✓✓	✓							
37	33.1	117	✓15	✓✓	7475	✓	816/0.7		15		✓				15	✓✓	✓							← CDOM
38	32.9	107	✓16	✓✓	7166	✓	817/1.0 806/1.2	✓	16						16	✓✓	✓	✓	✓					
39		100	✓17	X✓			808/0.7		17						17	✓✓	✓							slow spigot drip
40		75	✓18	?	7353	✓	809/0.8		18						18	✓✓	✓							not sure if "check check"
41	412	Chl max	✓19	✓✓	8968/7504	✓✓	810/1.2 bubble in glass		19			✓✓			19	✓✓	✓							
42		30	✓20	✓✓			811/2.4		20			✓✓			20	✓✓	✓							
43		15	✓21	✓✓			800/5.9		21			✓✓			21	✓✓	✓							
44		5	✓22	✓✓	9054	✓	801/5.7	✓	22	✓	✓	✓✓	✓	✓	22	✓✓	✓	✓	✓	✓				
			23						23						23	✓✓	✓							
			24						24						24	✓✓	✓							1505

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments: STOP TO CLOSE NISKIN BOTTLES
ISUS/PAR REMAINS ON.

Rosette Log for IOS Cruise ID 2010-07

Ship: CCGS Louis S St-Laurent

Scan # 12700

Cast # 0001

UTC Date (ddmmmyyyy) 17 SEP 2010

Ice Coverage 0/10

Water Depth(below hull) 660 m

Station AG-5

UTC Time 00 29

In Air pressure (before/after) 10.36

Sound Speed used by Knudsen 1500 m/s

CTD File 201007-0001

Lat (N) 70 33.247

Lon (W) 122 54.508

Weather/Sea State 1m swell

CTD Operator SZ

CTD: Bottom 463-636 + 11

Samp #	Target Property	Depth(m)	Niskin #	Bottle Integrity (0=good, 1=bad)	CFC Syringe #	CFC	Oxy Flask #, and draw tmp	Oxygen	Niskin #	DIC/ALK	CDOM	Chl a (Total)	Bacteria	FW ALK	Niskin #	NUT	Salt	O18	Ba	NH4	Cs-137	I-129	1930 Oxy Comments	
1		600	1	✓ 00			856 1.7 / 855 1.6 / 854 2.3	3	1				✓		1	vv	✓							
2		500	2	✓ 00	322/314/7637	3			2						2									did not wait 30 sec
3		500	3	✓ 00			857 1.3	✓	3				✓		3	vv	✓			vv				
4		450	4	✓ 00			858 1.4		4						4	4								lower cap leak on 4 fixed
5		400	5	✓ 00			848 1.5 / 859 1.4	✓	5						5									
6		350	6	✓ 00			849 +1.2		6						6		✓							
7		300	7	✓ 01			850 +1.4		7						7									lower cap leak on 7 bad sent
8	✓	275	8	✓ 00			851 +1.0		8						8									
9		250	9	✓ 00			852 +1.7		9						9			vv	vv	vv				
10		225	10	✓ 00			853 +1.6		10						10									
11		200	11	✓ 00			842 +0.3 / 830 +1.5		11						11		✓							first oxy has bubbles
12		175	12	✓ 01			835 -0.1		12						12									slow drip out 12
13	✓	150	13	✓ 00			845, -0.3°C / 844 -1.4	✓	13					✓	13									
14	✓ 33.1	128	14	✓ 00			846, -0.7°C		14		✓				14			✓	✓					Note in label file CDM sample# changed!
15	✓	105	15	✓ 00			847, -0.7°C		15						15									Rust on outside of bottle *
16	✓	90	16	✓ 00			836, -0.5°C		16						16		✓							
17	✓ 33.1	75	17	✓ 00			837, -0.4°C		17						17	4								Rust on outside of bottle *
18	✓ Chl a	50	18	✓ 00			838, -0.3°C		18			vv			18									
19	✓	30	19	✓ 00			839, 1.7°C		19			vv			19									
20	✓	215	20	✓ 00			840, 6.0°C		20			vv			20									
21	✓	5	21	✓ 01			841, 6.9°C	✓	21	vv	✓		✓	✓	21	vv	✓	✓	✓	✓	✓	✓	✓	
22		5	22	✓ 00	7629/9837/90243				22						22									
			23						23						23									
			24						24						24									

Bottle integrity: First test lower petcock then test top valve. 0 means pass, 1 means fail. If niskin fails, explain this in the comments column.

Comments: WITH 150S / PAR
STOP TO CLOSE BOTTLES* likely due to putting bottles on
dock while setting up CTD prior
to cast.