

XCTD List
attached →

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2010-07

Book 1/2

DATE:

From: 15 Sep 2010

to: 15 Oct 2010

VESSEL:

CCGS Louis S. St-Laurent

PROJECT(S):

JOIS

Water Properties Group
Fisheries and Oceans Canada
Institute of Ocean Sciences
Ocean Sciences Division
Sidney, BC, Canada

WaterProperties.ca

Captain: Mark Rothwell
 Second Officer: _____
 Fishing Master: _____
 First Officer: _____
 Third Officer: _____

Mission Participants / Agencies:

[illegible][illegible]

Data logging computer:

Data acquisition program: _____

CTD deck unit make: _____ model: _____ serial number: _____

Primary CTD

Make: SB E 9+ model: serial number: 756

Primary temperature serial number: _____

Primary conductivity serial number:

Secondary temperature serial number:

Secondary conductivity serial number: _____

Transmissometer: _____ Model: _____ s/n: _____

Fluorometer: Model _____ Cable gain: _____ s/n: _____ P, S or NO pump? _____

Oxygen sensor: _____ Model: _____ s/n: _____ P, S or NO pump? _____

PAR sensor: _____ Model: _____ s/n: _____

Other sensors: _____ s/n: _____ P, S or NO pump? _____

Other sensors: _____ s/n: _____ P, S or NO pump? _____

Other sensors: _____ s/n: _____ P, S or NO pump? _____

Other sensors: _____ s/n: _____ P, S or NO pump? _____

Secondary CTD

Make: _____ model: _____ serial number: _____

Primary temperature serial number:

Primary conductivity serial number:

Secondary temperature serial number:

Secondary conductivity serial number:

Transmissometer: Model: s/n:

Fluorometer Model	Cable gain:	s/n:	P, S or NO pump?

Oxygen sensor: _____
 Model: _____ s/n: _____
 P, S or NO pump? _____

Oxygen sensor: _____ Model: _____ s/n: _____
PAR sensor: _____ Model: _____ s/n: _____

Other sensors: _____ P, S or NO pump? _____
 s/n: _____

Other sensors.	s/n:	P, S or NO pump?
Other sensors.		

Outer sensors: _____ s/n: _____ P, S or NO pump? _____

Other sensors: _____ s/n: _____ P, S or NO pump? _____

Other sensors: _____ s/n: _____ P, S or NO pump? _____

CTD calibration bottle location (height above CTD in metres):

Day ^{CTD + Net} Watch : Sarah Zimmermann
Jeffrey Charters
Chelsea Stanley
Zoe

XCTD Day : Kazu

Night ^{CTD + Net} Watch : Mike Dempsey
Jane Eert
Kenny Scozzafava
Kelly Young

XCTD Night : Kohei

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <u>September</u>		Year <u>2010</u>		Ship <u>LSS1</u>		Cruise ID <u>2010-07</u>										Page <u>1</u> of <u> </u>	
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments		
							Latitude	Longitude									
17	AG5	0029	BE	ROS	US	ROS 1	70 33.247	122 54.508	660		1-22	22	DAY	✓	START w/ pump off, brought back to surf & relower		
		0057	BO				70 33.388	122 54.479	"	636.6 ⁺¹⁰			+Night				
		0137	EN				70 33.62	122 54.50									
		0041	BE	ADCP		ADCP1	70 33.330	122 54.368							SSp changed to 1448 @ 01:28:45 added 9m transducer depth		
		0114	BE	NET		NET1	70 33.53	122 54.75	647								
		0120	BO	"			70 33.59	122 54.78		100							
		0122	EN	"													
			BE	NET		NET2											
		0136	BO	"			70 33.62	122 54.50	646	100							
			EN	"													
17	CABOS	1416	BE	ROS	US	ROS 2	71 46.90	131 51.85	1113		23-44	22	Night	✓	Grease on deck		
		1444	BO				71 46.90	131 51.95		1109 ⁺¹⁰					Washing in vic		
		1530	EN				71 46.74	131 52.56							scuppers.		
	CABOS	1425	BE	ADCP		ADCP 2	71 46.90	131 51.86	1111								
	CABOS	1435	BE	NET		NET3	71 46.90	131 51.93	1113								
		1438	BO				71 46.90	131 51.94		100							
		1445	EN														

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 =

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

SPAR cleaned prior to AGS w/ water & wipe
Transmissant dropped out ~280 for ~20m on down cast
ISUS+PAR

⇐ Sounder

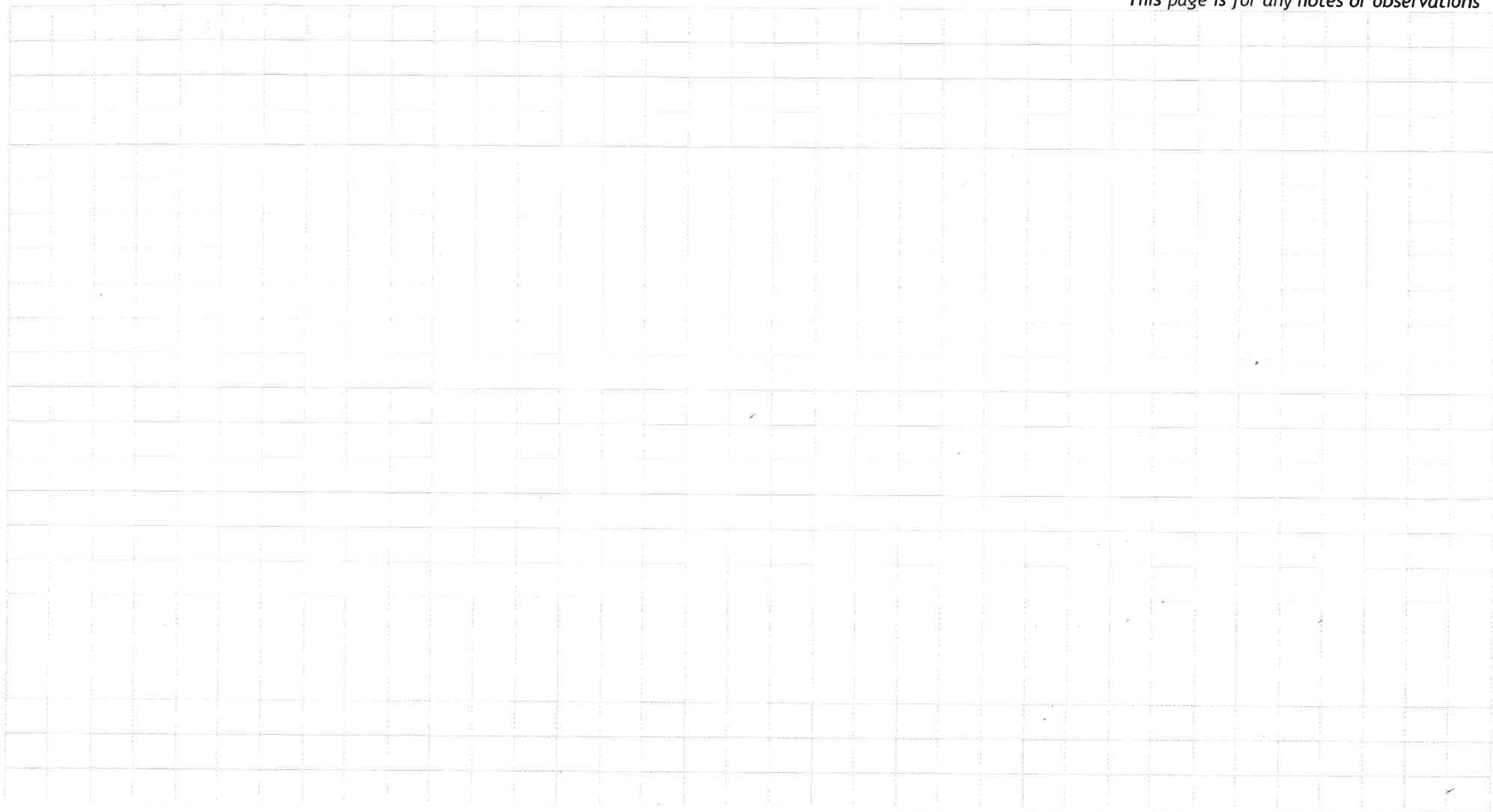
Niskins 4, 7, 12 small leaks on bottom seal
#4 & #7 - clips in bottom seal lip - #7 cleaned out, #4 swapped out
#12 seal looks OK.
Trans cable and connector cleaned and re greased.
ISUS+PAR

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month September			Year 2010			Ship LSSL			Cruise ID 2010-07						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth m	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude W	Longitude W							
17	CABOS		BE	NET		NET4									
		14:53	BO							100 m					
		14:56	EN				71° 46.879'N	13° 51.935'W							
17	CB-31b	1933	BE	ROS	US	ROS3	72° 21.056'	133° 59.947'	2052	2062 ⁺	45-68	24	Dry + Peter	✓	Calibration Cast for Chl, S, O ₂
		2021	BO				72 21.259	134 0.025							
		2142	EN				72 21.611	134 1.412							
		1946	BE	ADCP		ADCP3	72 21.138	133 59.908							
		1949	BE	NET		NET5									
		1952	BO				72 21.190	133 59.851	2052	100					
		?	EN												
		2003	BE	NET		NET6									
		2007	BO				72 21.198	133 59.861	2052	100					
		?	EN												
18	Leave room for XCD3	20:15	BE	XCTD3		XCTD1	71° 48.35	134° 12.22		1000					

This page is for any notes or observations



DAILY SCIENCE LOG

Month Sep				Year 2010			Ship LSSL				Cruise ID 2010-07				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
18	CB-60	0232	BE	ROS	US	ROS4	71 18.734	134 19.584	988		69-91	23	Day	✓	
		0302	BO				71 18.720	134 19.666	978	975+10					
		0348	EN				71 18.858	134 20.782	1036						
		0241	BE	ADCP		ADCP4	71 18.773	134 19.814							
		0249	BE	NET		NET7									
		0253	BO				71 18.749	134 19.794		100					
		0256	EN												
		0309	BE	NET		NET8									
		0313	BO				71 18.738	134 19.876		100					
✓	✓	0315	EN												
19	CB-61	0122	BE	ROS	US	ROS5	71 12.108	134 12.096	690		92-114	23	Day	✓	ISOS+PAR on
			BO							681 ⁺					
		0226	EN				71 11.932	134 12.408	701						
		0133	BE	ADCP		ADCP5									
		0137	BE	NET		NET89									
		0151	BO				71 11.026	134 12.132		100					

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 41 of

Month <u>September</u>		Year <u>2010</u>		Ship <u>LSSL</u>		Cruise ID <u>2010-07</u>									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19	CB-61	0152	EN	NET											
↓	↓	0159	BE	NET		NET#10									
↓	↓	0203	BO				71 11.983	134 12.226	460	100					
↓	↓		EN												
19	CB-62	0435	BE	ROS	US	ROS 6	71 7.487	134 3.660	451		115-116	2	Day	✓	ISUS + PAR on
↓	↓	0456	BO				71 7.544	134 3.566		441 ⁺¹⁰					but not working
↓	↓	0508	EN				71 7.588	134 3.540	474						
↓	↓	0452	BE	ADCP		ADCP 6									
19	CB-63	0603	BE	ROS	US	ROS 7	71 2.160	133 36.556	270		117-118	2	Day	✓	ISUS + PAR
↓	↓	0617	BO				71 2.183	133 36.605		260 ⁺¹⁰					taken off prior
↓	↓	0630	EN				71 2.208	133 36.680							to this cast.
↓	↓	0611		ADCP		ADCP 7									
19	CB-64	0721	BE	ROS	US	ROS 8	70 57.15	133 48.76	84		119-120	2	Night	✓	
		0731	BO				70 57.31	133 48.98		73 ⁺¹⁰					
		0739	EN				70 57.40	133 49.24							hold at 5m while
		0727		ADCP		ADCP 8									ADCP recovered

Cast Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

USW = Sea Water Loop

MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter
=

Bottle Firing Method:

US = Up / Stop
UN = Up / No stop
DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008

ISUS worked on cast 5 downcast but went to ϕ near bottom + on upcast. I unseated, cleaned and reseated cables for ~~upcast~~ cast 6 but ISUS still ready ϕ , ~~at~~ its night, so no info on PAR.

These (CB-62,) are CTD cast w/ 2 bottles each on section up onto shelf as we wait 'til morning for helling off of TUK.

Lowered these cast at 60 m/min

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 5 of

Month				Year		Ship		Cruise ID							
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19	CB-65	0823	BE	ROS	US	ROS 9	70 51.57	133 42 21	78		121-122	2	Night	✓	
		0831	BO				70 51.56	133 42 18		68 +7					
		0835	EN				70 51.57	133 42 17							
		0847	BO	NET		NET 11	70 51.59	133 42 14	77	65					brake off to meet
* * * * *	XX MK3	0400	BE	ROS	US	ROS 10	70 34.268	140 0.341	771		123-146	24	Day	✓	fuelling barge.
		0417	BO				70 34.240	140 0.347		758 +9.6					
			EN				70 34.214	140 0.390							
		0408	BE	ADCP		ADCP 9	70° 34 249	140 0.308	770						
		0514	BE	ROS	US	ROS 11	70 34.207	140 0.487	768		147-169	23	Day	✓	
		0537	BO				70 34.117	140 0.559		756 +10					
		0614	EN				70 34.021	140 0.763							
		0521	BE	NET		NET 12									
		0525	BO				70 34.162	140 0.473	763	100					
			EN												
		0538	BE	NET		NET 13									
		0542	BO				70 34.109	140 0.556	770	100					
		0544	EN												
3 XCTDS in between CB-65 and MK3 see next page															
Transmissometer to be cleaned before each cast, do not use Ammonia products															

Transmissometer to be cleaned before each cast, do not use Ammonia products

Cast Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method:

US = Up / Stop
UN = Up / No stop
DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 6 of

Month		Year		Ship		Cruise ID									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19		22:00	BE	XCTD3		XCTD2	71° 48.35	134° 12.22		1000					
20		00:01	BE	XCTD3		XCTD3	70° 48.74	137° 15.38		1000					
20		01:44	BE	XCTD3		XCTD4	70° 35.81	138° 27.04		1000					
20	MK2	0816	BE	ROS	US	ROS12	70 23 95	139 59 88	501		170-191	22	Night	✓	
		0835	BO				70 23 91	140 00.07		489 ¹⁹					
		0901	EN				70 23.86	140 00.30							
		0824	BE	ADCP		ADCP10	70 23 95	139 59 98	506						
		0833	BO	NET		NET14	70 23 92	140 00.06		100					
		0854	BO	NET		NET15	70 23 87	140 00.25		100					
20	MK1	1044	BE	ROS	US	ROS13	70 13 51	139 59 96	227		192-203	12	Night	✓	
		1055	BO				70 13.53	140 00.13		213 ¹¹⁰					
		1110	EN												
		1051	BE	ADCP		ADCP11	70 13 52	140 00.07							

Transmissometer to be cleaned before each cast, do not use Ammonia products

Cast Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method:

US = Up / Stop
UN = Up / No stop
DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008

This page is for any notes or observations

Nishin #8 misfiled

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month SEPTEMBER				Year 2010			Ship LOUIS ST-LAURENT				Cruise ID 2010-07				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
20	MK1	1059	Bo	NET		NET16	70 13 52	140 00.14	225	100					
		1113	Bo	NET		NET17	70 13 51	140 00.06	225	100					
20	CB28aa	1238	BE	ROS		ROS14	70 00.24	140 00.89	58		204-209	6	Night	✓	
		1243	Bo				70 00.24	140 00.91		50+6					
			EN												
		1245	BE	ADCP		ADCP12	70 00.23	140 00.91							
		1251	Bo	NET		NET18	70 00.20	140 00.95	56	48					
		1306	Bo	NET		NET19	70 00.16	140 1.28	59	49					
20	MK3a	1622	BE	ROS		ROS15	70 39.90	140 00.11	1318		210 - 233	24	Night	✓	drifted shallower
		1657	Bo				70 39.80	140 00.50		1307 ¹⁸					on slope
		1741	EN				70 39.59	140 01.11							
		1633	BE	ADCP		ADCP13	70 39.89	140 00.24	1320						
		1639	Bo	NET		NET20	70 39.84	140 00.30	1305	100					
		1655	Bo	NET		NET21	70 39.80	140 00.50	1315	100					

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 8 of

Month		Year		Ship		Cruise ID									
Sep		2010		RSSL		2010-07									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude N	Longitude W							
20	MK-4	2038	BE	ROS	US	ROS16	70 48.533	140 0.944	1442						
↓	↓	2113	BO				70 48.545	140 2.071		1426+ "	235-258	24	Day	✓	
↓	↓	2204	EN				70 48.738	140 3.103							
↓	↓	2049	BE	ADCP		ADCP14	70 48.539	140 1.415							
↓	↓	2104	BO	NET		NET22	70 48.517	140 1.415							
↓	↓			second net cancelled. Lines connecting weight to cod ends were breaking (at least 2 had broken). Repair needed.											
21	MK-6	0128	BE	ROS		ROS17	71 34.890	140 0.206	2448		259-282	24	Day	✓	Pressure release
↓	↓	0222	BO				71 34.775	140 0.784		2466+10					test (4) for W/HOI
↓	↓	0351	EN				71 34.469	140 2.350	2445						@ 2400m START
↓	↓	0135		ADCP		ADCP15									END
↓	↓	0135	BO	NET		NET 23	71 34.877	140 0.334	2447	100					
↓	↓	0145		NET		NET 24	71 34.877	140 0.334		100					end time 0203

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop

MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

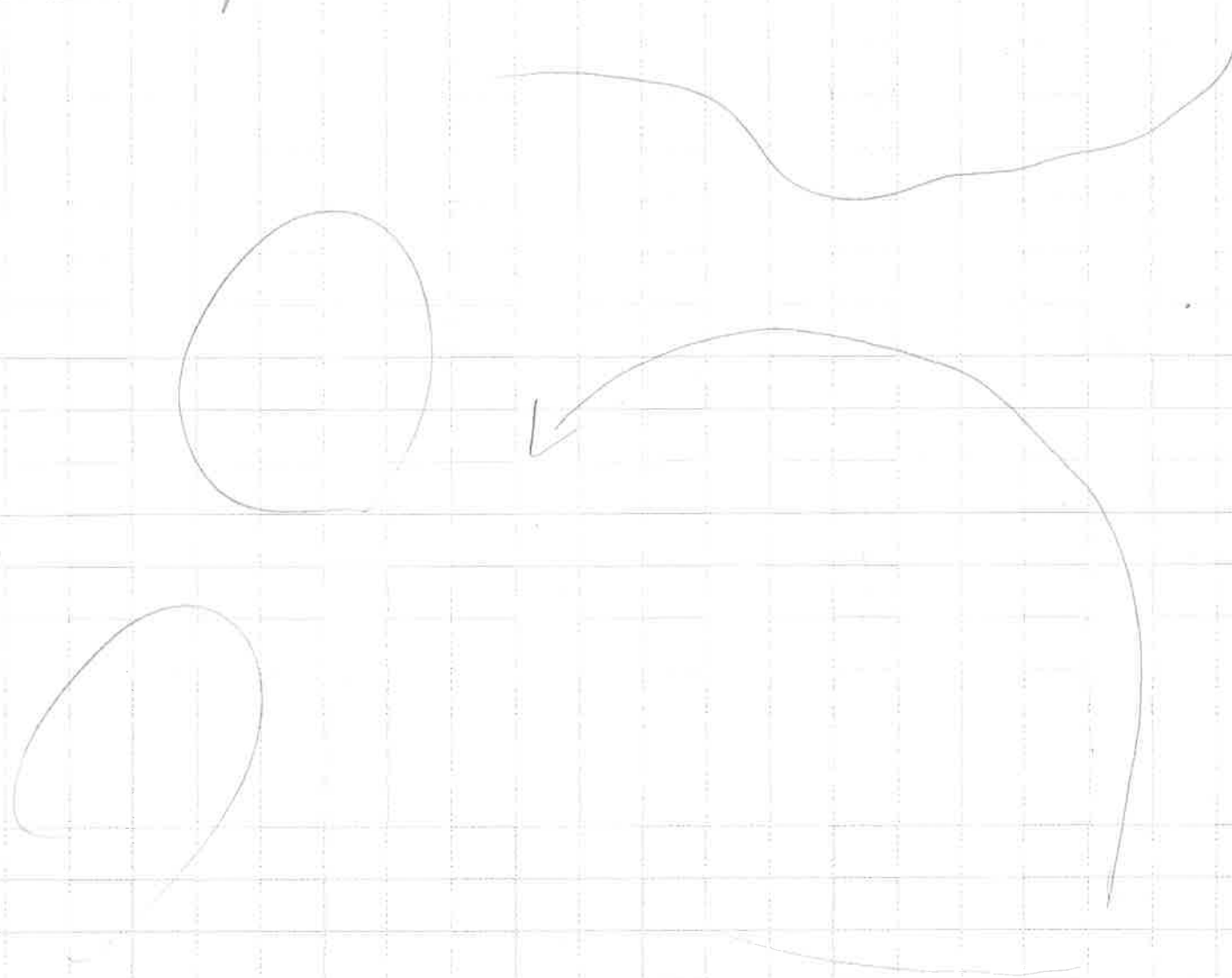
WaterProperties.ca
 Version: 06 March 2008

DAILY SCIENCE LOG

Month <u>Sep</u>				Year <u>2010</u>			Ship <u>LSSL</u>			Cruise ID <u>2010-07</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude <u>N</u>	Longitude <u>W</u>							
21	CB-28b	0641	BE	ROS	US	ROS18	70 59.773	140 01.52	2057		283-302	20	Day	✓	Cesium Cast
		0703	BO				70 59.783	140 00.34		1000			Night	*	Sound Speed changed to 1455 @ 07:01:00
			EN												
		0650	BE	ADCP		ADCP16									
															wait for cfc's to be ready.
	CB28b	0936	BE	ROS	US	ROS19	71 00.13	140 00.51	2085		303-326	24	Night	✓	
		1022	BO				71 00.37	140 01.30		2074 ⁺⁹				*	chang SSp to 1465 @ 09:20
		1125	EN				71 00.434	140 2.377							
		0820	BO	NET		NET25	71 00.56	140 00.06	2100	100					
		0839	BO	NET		NET26	71 00.56	140 00.06	2100	100					changed old 53 net to new.
		0946	BE	ADCP		ADCP17									
21	CB28	1648	BE	ROS	(UN)	ROS20	72 00.24	140 02.17	2690		327-350	24	Night	✓	In Ice.
		1743	BO				71 59.69	140 03.81		2672 ⁺²³				116°	wire angle - stop well off bottom.
		1837	EN				71 59.17	140 05.42							
		1656	BE	ADCP①		ADCP18	72 00.17	140 02.35							ADCP out early - ice
		1656	BO	NET		NET27	72 00.17	140 02.35	2690	100					- back in
		1718	BO	NET		NET28	71 59.91	140 02.97	2693	100					
		1709	BE	ADCP②		ADCP19	72 00.01	140 02.60							

This page is for any notes or observations

* water collected for salt deep water str



DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 10 of [illegible]

Cast Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method:

US = Up / Stop
UN = Up / No stop
DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast DE = Deployment Time
BO = Bottom Time of Cast MR = Messenger Release Time
EN = End Time of Cast RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008

This page is for any notes or observations

Niskin #8 misfired

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 11 of

Month <u>Sept</u>		Year <u>2010</u>					Ship <u>Louis St. Laurent</u>			Cruise ID <u>2010-07</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
22	CB 22	1320	BE	ROS	UN	ROS23	73 26.97	138 02.20	3118		399-422	24	Night	✓	step features
		1424	BO				73 26.85	138 02.89		3112+10					around Tmax
		1523	EN				73 26.88	133 03.54							
		1329	BE	ADCP		ADCP22	73 26.95	138 02.30	3118						
		1341	BO	NET		NET33	73 26.88	138 02.52	3118	100					
		1359	BO	NET		NET34	73 26.88	138 02.62	3119	100					
22	CB 23a	2130	BE	ROS	UN	ROS24	72 54.360	136 7.684	2777		423-446	24	Day	✓	step features showing
		2229	BO				72 54.106	136 8.458		2763+10					up very clearly in or
		2326	EN				72 54.029	136 9.346	2777						as well (good!)
		2140	BE	ADCP		ADCP23									ADCP pulled out & put in again due to prop wash
		2207	BO	NET		NET 35	72 54.203	136 8.150	2774	100					
		2220	BO	NET		NET 36	72 54.139	136 8.342		100					

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 _____ = _____

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

This page is for any notes or observations

Note 4m offset ~~to~~ @ 60m D+V; less 1m offset @ 30m/m (shallower than 300m)

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 12 of

DAILY SCIENCE LOG				OCEAN SCIENCES DIVISION, INSTITUTE OF OCEANOGRAPHY												
Month SEPT				Year 2010			Ship LOUIS ST-LAURENT			Cruise ID 2010-07						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments	
							Latitude	Longitude								
23	CB-50	0726	BE	Ros	US	Ros25	73 29 23	134 09 95	2872		447-469	23	Night	✓	Cesium cast	
		0753	BO				73 29 23	134 10 30		1000						
		0821	EN				73 29 28	134 10 34							new ice at surface.	
		0737	BO	NET		NET37	73 29 22	134 10 14	2873	100					ice chunky on	
		0753	BO	NET		NET38	73 29 23	134 10 14	2874	100					wire for keeping it dry.	
	CB-50	0909	BE	Ros	UN	Ros26	73 28 95	134 12 41	2878		470-493	24	Night	✓		
		1007	BO				73 29 13	134 12 83		2868 ⁺¹¹					ice chunky	
		1107	EN				73 29 10	134 13 14								
		0918	BE	ADCP		ADCP24	73 28 96	134 12 54	2878							
				XCTD												
	CB51	1839	BE	Ros	UN	Ros27	73 30 60	130 56.97	2511		494-517	24	Night-Day	✓	Lost before heading off to Red.	
		1935	BO				73 30 59	130 57.096		2496 ⁺¹⁰						
		2030	EN				73 30 70	130 57 102							Polar Bear!	
		1851	BE	ADCP		ADCP25	73 30 61	130 56.91							sounder turned off	
		1914	BO	NET		NET39	73 30 61	130 56.91		100					Turned on getting underway.	
		1931	BO	NET		NET40	73 30 584	130 57.113	2513	100						

Transmissometer to be cleaned before each cast. do not use Ammonia products

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes: _____

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

← starting to use ice churning from here on. Its attached to wire @ bottom of cast & blows compressed air on wire as ~~it~~^{wire} comes out of water, to rid wire of excess water that would freeze onto wire or ~~disturb~~ & make the next deployment difficult.

→ strong signal in transmissometer seen on way up as well b/w 100 - 800 m

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 13 of

Month <u>Sept</u>				Year <u>2010</u>			Ship <u>LSSL</u>				Cruise ID <u>2010-07</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
23		14:57	BE	XCTD1		XCTD5	73° 22.47	132° 33.92		1000					
23		22:38	BE	XCTD3		XCTD6	73° 07.97	130° 43.32		1000					
24		00:09	BE	XCTD3		XCTD7	72° 47.28	131° 18.29		1000					
24		01:47	BE	XCTD3		XCTD8	72° 24.19	131° 49.93		1000					
25		02:56													up anchor after fuelling off Tuk.
24		03:24	BE	XCTD3		XCTD9	72° 2.05	132° 22.25		1000	} More XCTDs!				→ another fuelling site
26		07:59	BE	XCTD3		XCTD10	71° 18.33	135° 40.95		1000					
26		09:52	BE	XCTD3		XCTD11	71° 32.44	136° 59.83		1000					
26		12:01	BE	XCTD3		XCTD12	71° 44.99	138° 29.96		1000					
26		13:34		XCTD1		XCTD13	71° 51.84	138° 56.02		1000					
27	STA-A	01:56	BE	ROS		ROS28	72 40.685	144 39.810	3451		518-541	24	Day	✓	(cesium cast to 1000m)
		02:25	BO				72 40.696	144 39.367		1000					
		02:53	EN				72 40.679	144 39.113	3450						ISUS battery pack on for pressure test (no sensor batteries inside)
		03:10	BO	NET		NET 41				100					
		03:25	BO	NET		NET 42				100					
		03:46	BE	ROS		ROS29	72 40.636	144 38.977	3451		542-565	24	Day	✓	ISUS battery pack removed before cast
		04:56	PD				72 40.627	144 35.520		3453+9					
		X0602	EN				72 40.882	114 38.657							
✓	✓	03:56		ADCP											

Cast Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method:

US = Up / Stop
UN = Up / No stop
DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008

2010-09-26 0300 - Rinsed τ_{EC} 's with v dilute Triton X

						Type	
XCTD 14	26	BE	14:42	71°	52.28	139°22.36	XCTD-1 1000 m
" 15	26	BE	16:19	71°	49.85	140°03.41	XCTD-1 "
" 16	26	BE	19:53	72°	08.84	141°38.50	XCTD-3 "
→ " 17	26	BE	23:08	72°	37.53	143°21.00	XCTD-1 "

← software started ~ 10 min before cast. Delay due to taking battery pack off before rest. ops!

Forgot to put ice churning on wire. Only -2.5°C now but later could be colder

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 14 of

Month				Year				Ship			Cruise ID					
SEPT				2010				LOUIS ST-LAURENT			2010-07					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments	
							Latitude	Longitude								
27	CB2a	1318	BE	ROS	UN	ROS30	72 30.54	149 58.99	3714		566-589	24	Night	✓	change ssp to 1473 @ 1436.00	
			BO							3711 ⁷⁹						
		1541	EN				72 30.674	149 59.381								
		1335	BE	ADCP				72 30.52	149 59.03	3709						
		1611	BO	NET		NET43	72 30.92	149 59.72	3715	100						
			BO	NET			cancelled due to weather									
27	CB-2	1841	BE	ROS	UN	ROS31	72 59.55	149 59.69	3739		590-613	24	Night/Day	✓		
		1953	BO				72 59.45	150 0.032		3736 ⁺¹⁰						
		2110	EN				72 59.098	150 0.016	3735							
		1848	BE	ADCP				72 59.62	149 59.60	3743						
		1925	BO	NET		NET44	72 59.01	149 59.10		100						
			BO	NET			second net cancelled due to wind									
					XCTD											} to survey CB-2 odd
				XCTD												

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 =

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

This page is for any notes or observations

XCTDs

Date

Event #

27	8:17	BE	XCTD-3	XCTD-18	72° 37.54N	146° 21.63W	1000 m
27	10:31	BE	XCTD-3	XCTD 19	72° 33.55	148° 06.78	1000
27	22:02	BE	XCTD-2	XCTD 20	73° 2.08	149° 59.61	2000 m
27	22:37	BE	XCTD-1	XCTD 21	73° 5.46	150° 00.17	1000 m

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 15 of

Month <u>Sep</u>				Year <u>2010</u>			Ship <u>LSSL</u>				Cruise ID <u>2010-07</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned		Comments
							Latitude	Longitude								
<u>28</u>		<u>00:17</u>	<u>BE</u>	<u>XCTD3</u>		<u>XCTD22</u>	<u>73° 29.31</u>	<u>149° 59.62</u>	<u>1000</u>							
<u>28</u>	<u>CB-3</u>	<u>02:44</u>	<u>BO</u>	<u>Net</u>		<u>Net 45</u>	<u>73 59.65</u>	<u>150° 00.34</u>		<u>100</u>						
<u>1</u>	<u>1</u>	<u>02:59</u>	<u>BO</u>	<u>Net</u>		<u>Net 46</u>	<u>73 59.79</u>	<u>150 00.15</u>		<u>100</u>						
		<u>03:16</u>	<u>BE</u>	<u>ROS</u>	<u>UN</u>	<u>ROS32</u>	<u>73 59.909</u>	<u>149 59.446</u>	<u>3811</u>		<u>614-637</u>	<u>24</u>	<u>Day</u>	<u>✓</u>		
		<u>04:32</u>	<u>BO</u>				<u>73 59.884</u>	<u>149 58.201</u>		<u>3814+9</u>						<u>ice chumny added</u>
		<u>05:47</u>	<u>EN</u>				<u>73 59.852</u>	<u>149 57.059</u>								<u>for upcast</u>
<u>✓</u>	<u>✓</u>	<u>03:20</u>	<u>BE</u>	<u>ADCP</u>												
		<u>08:08</u>	<u>BE</u>	<u>XCTD3</u>		<u>XCTD23</u>	<u>74° 32.51</u>	<u>149° 59.37</u>		<u>1000</u>						<u>Change SSp to</u>
																<u>1478 @ 0855:20</u>
<u>28</u>	<u>CB-4</u>	<u>11:20</u>	<u>BO</u>	<u>Net</u>		<u>Net 47</u>	<u>74 58.90</u>	<u>150 01.05</u>	<u>3825</u>	<u>160</u>						
		<u>11:34</u>	<u>BE</u>	<u>ROS</u>	<u>US</u>	<u>ROS33</u>	<u>74 59.02</u>	<u>150 01.65</u>	<u>3825</u>		<u>638-661</u>	<u>24</u>	<u>Night</u>	<u>✓</u>		<u>Calibration Cast</u>
		<u>12:01</u>	<u>BO</u>				<u>74 59.21</u>	<u>150 02.2</u>		<u>1000</u>						<u>Ice chumny on</u>
		<u>12:54</u>	<u>EN</u>				<u>74 59.55</u>	<u>150 02.48</u>								<u>for upcast.</u>
		<u>11:50</u>	<u>BO</u>	<u>NET</u>		<u>Net 48</u>	<u>74 59.13</u>	<u>150 02.03</u>	<u>3825</u>	<u>500</u>						
		<u>12:18</u>	<u>BO</u>	<u>NET</u>		<u>Net 49</u>	<u>74 59.32</u>	<u>150 02.35</u>		<u>100</u>						
	<u>1</u>	<u>12:23</u>	<u>BE</u>	<u>ADCP</u>			<u>74 59.34</u>	<u>150 02.35</u>	<u>3824</u>							

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set
 USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 _____ = _____

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

Deep water check for salts taken on cast 32 Samples 614+615 mixed ~~with~~ carbonyl & used to
Fill 2 cages of salt bottles.

DAILY SCIENCE LOG

Month		Year		Ship		Cruise ID									
Sep		2010		LSSL		2010-07									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
28	CB-4		BE	MOR											" BGOS-A "
			RE												
28		2026	BE	ROS	UN	ROS 34	75 0.229	150 6.238	3829		662-685	24	Day	✓	Lots of bubbles + stern prop to
		2145	BO				75 0.485	150 8.380		3815 +10					
		22:59	EN				75 0.678	150 9.162							keep clear of
			BE	ADCP						data will be suspect					pancake ice
29		01:02	BE	XCTD2		XCTD24	75 9.44N	151 40.28		2080					
29	CB-5	0320	BE	ROS	UN	ROS35	75 18.136	153 17.455	3840		686-709	24	Day	✓	
		0437	BO				75 18.031	153 18.276		3831 +10					
		0549	EN				75 17.860	153 19.199	3844						
		0330	BE	ADCP											
		0340	BO	NET		NET 50	75 18.125	153 17.600		100					
		0351	BO	NET		NET 51	75 18.106	153 17.717		100					
				XCTD											

← cleared snow out of SPAR tray prior to cast.

← SPAR cleared out @ 700m down. See ice is building in tray.

Nishin 14 misfired - closed on recovery. No signs of hang-up. Replaced pylon trigger with freshly waxed spare.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 17 of

DAILY SCIENCE LOG				Ocean Sciences Division, Institute of Ocean Sciences												
Month Sep				Year 2010			Ship LSSL			Cruise ID 2010-07						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments	
							Latitude	Longitude								
29	CB-4		BE	MOIR											"BGOS-A" deployed	
			OE													
29		08:13	BE	XCTD2		XCTD25	75°-28.64	155° 12.72		2000						
30		02:18	BE	XCTD1		XCTD26	75°-30.24	149° 52.25		2000						
30	CB-7	0533	BE	ROS	UN	ROS36	75 59.171	150 0.838	3832		710-733	24	Day	✓		
↓	↓	0648	BO				75 59.028	149 59.774		3818 ⁺¹⁰			Night			
↓	↓	0804	EN				75 58.68	149 58.32								
↓	↓	0942		ADCP			75 59.142	150 0.776							ADCP not tight to hull - rotated. Fixed	
↓	↓	0555		NET		NET52	75 59.134	150 0.475		100					ENO710	
✓	✓	0607		NET		NET53	75 59.131	150 0.346		100						
30		11:23		XCTD1		XCTD27	76 30.17	149 59.93		1000						
30	CB8	1505	BE	ROS	UN	ROS37	76 59.30	149 57.51	3824		734-757	24	Night	✓	20m off bottom	
↓	↓	16:24	BO				76 59.52	149 54.014		3801 ⁺²⁰					max wire & stab 15°	
↓	↓	1638	EN				76 59.73	149 51.30							off 12°	
↓	↓	15:10	BE	ADCP			76	149								
↓	↓	15:50	BO	NET		NET54	76 59.44	149 55.63		100						
↓	↓	16:06	BO	NET		NET55	76 59.48	149 54.85		100						
Transmissometers to be cleaned before each cast. do not use ammonia products																

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 18 of

Month <u>Sep/Oct</u>		Year <u>2010</u>		Ship <u>LSSL</u>		Cruise ID <u>2010-07</u>								
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information	Bottom Depth	Max Depth	Sample Numbers	#. of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude						
30		20:14	BE	XCTD1		XCTD28	77° 26.16	150° 55.62		1000				
30		23:24	BE	XCTD2		XCTD29	77° 52.63	151° 58.88		2000				
1		10:04	BE	XCTD2		XCTD30	78° 8.77	151° 32.29		2000				
1		23:55	BE	XCTD1		XCTD31	78° 18.17	150° 59.93		1000				
1	CB-10	0331	BE	ROS	US	ROS38	78 17.244	153 5.328	2829					
			BO											
		0430	EN				78 17.000	153 4.582	2916			Day	✓	Cesium Cast
		0340		ADCP										
		0502	BE	ROS	UN	ROS39	78 16.893	153 4.280	2960			Day/Night	✓	Full Cast
		0607	BO				78 16.672	153 3.860	3048	3086-12				
		0708	EN											
		0516		NET		NET56	78 16.823	153 4.174	2990	100				
2		02:26	BE	XCTD1		XCTD32	78° 32.30	151° 55.38		1000				Second net cancelled due to freezing slush
2	CB70	1142	BE	ROS	US	ROS40	79 10.10	155 18.22	3816			Night	✓	
		1259	BO				79 09.97	155 17.40		3805 ¹⁸				
		1458	EN				79 09.67	155 15.76						Cue -7C on entry but pumping OK.
		1233	BE	ADCP			79 10.00	155 17.59	3818					
2		06:13	BE	XCTD1		XCTD33	78 48.14	153 15.52		1000				
2		08:07	BE	XCTD1		XCTD34	78 57.98	154 13.38		1000				* →

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 =

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

CB-70 * hydraulic fluid heater for bongo winch had been disconnected by accident - reconnected but it takes a couple of hours to warm fluid enough that winch can be used...

* then repair of frozen pressure relief valve

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 19 of

Month OCT				Year 2010			Ship LSSL			Cruise ID 2010-07					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
2	CB70	1628	BE	ROS	UN	ROS41	79 0934	155 14 61	3812		830-853	24	Night	✓	high res Net. cast.
	↓	1644	Bo				79 09.28	155 14 46		350					
	↓	1659	EN				79 09 22	155 14.36							
3		0415	BE	XCTD1		XCTD35	79 05.053	153 51.4583		1000					
3	CB11	1000	BE	ROS	UN	ROS42	78 59.79	150 02.44	3825		854-877	24	Night	✓	cup cast * →
		1124	Bo				78 59.48	150 02 47		3808 ⁺¹⁰					
		1246	EN				78 59 22	150 02.49							
		1049	BE	ADCP			78 59 59	150 02.44	3826						
			Bo	NET		NET57									delayed * →
3		06:45	BE	XCTD1		XCTD36	79 2.28	151 56.50		1000					cancelled, block frozen.
3		15:43	BE	XCTD1		XCTD37	78 39.41	150 54.73		1000					
			BE	MOR											B60S-B
			RE												
			BE	Buoy											ITP-35
			RE												no o-bay 12MBB
			BE	Buoy											ITP-? ^{visible}
			DE												
			BE	MOR											B60S-B
			DE												

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop

MOR = Mooring

NET = Plankton Net Haul

DRF = Drifter

— = —

Bottle Firing Method:

US = Up / Stop

UN = Up / No stop

DN = Down / No stop

Notes: _____

Time Code:

BE = Beginning Time of Cast

BO = Bottom Time of Cast

EN = End Time of Cast

DE = Deployment Time

MR = Messenger Release Time

RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

* on descent, go to 60m, then back up to 50 to put cups on, then off to find bottom.

* CB-11 Bongos - on first try, winch turned on 1.5 hrs before cast, could not turn on deck water - valve frozen, block frozen.
Later - standpipe completely frozen, no water tonight

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 20 of

Month <u>Oct</u>				Year <u>2010</u>			Ship <u>LSSL</u>				Cruise ID <u>2010-07</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
4	CB-9	0313	BE	ROS	UN	ROS43	77 58.769	150 4.986	3824		878-901	24	Day	✓	Cesium Cast
		—	BO				—	—		1000					
		0409	EN				77 58.756	150 4.997	3825						
		0322	BE	ADCP											
		0439	BE	ROS		ROS44	77 58.765	150 4.918	3825		902-925	24	Day	✓	Fill On our Cast
		0534	BO				77 58.855	150 4.412		3812 +10			1/8ht		
			EN												
		0519	BO	NET		NET57	77 58.813	150 4.592	3825	100			Day		
		0607	BO	NET		NET58	77 58.864	150 4.338	3825	500			"		
✓	✓	0629	BO	NET		NET59	77 58.843	150 4.008	3825	100			"		
4		10:02	BE	XCTDI		XCTD38	77 52.52	148 16.54		1000					

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop

MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before

Produced by the Water Property

please
 leave room for
 XCTD, Buoyse
 Mooring
 in
 Daily Log

First use of drain chumny. Drain pipe under rosette shack had extension attached when it was time to drain rosette. The extension was removed and brought inside the shack blue casts.

Note! Cable out + max CTD agree w/in 2m at bottom. Yay! Ice chumny is working well to de-ice wire so block can continue to work (ex. not full of ice and slipping like last year).

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 21 of

Month <u>Oct</u>			Year <u>2010</u>			Ship <u>LSSL</u>			Cruise ID <u>2010-07</u>						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
4	CB12	1243	BE		US	Ros45	77 41.34	146 42 36	3809		926-949	24	Night	✓	Cesium cast
		1313	BO				77 41.26	146 42 21		1000					ISUS battery on for
		1342	EN				77 41.22	146 42 13							testing.
	CB12	1418	BE	Ros		Ros46	77 41.20	146 42 16	3809				Night	✓	Short cast - need
		1431	BO				77 41.20	146 42.19		237					to remove ISUS battery
		1440	EN												before > 1000m
															* →
		1443	EN	NET		NET60	77 41.17	146 42.17	3809	100					
		1457	BO	NET		NET61	77 41.16	146 42.14	3809	100					
	CB12	1445	BE	Ros	UN	Ros47	77 41.17	146 42.17	3809		950-973	24	Night	✓	* →
		1558	BO				77 41.14	146 42.05		3860 ⁺¹⁰					
		1715	EN				77 41.17	146 41.65							
		1522	BE	ADCP			77 41.14	146. 42.12	3809						
4	CB12a	2329	BE	Ros		Ros48	77 39.97	146 16.09	3806	350	974-997	24	Day		
		2346	BO												
5		00:07	EN				77 39.54	146 15.78							

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

casts 46, 47 - needed extra deep soak to clean secondary conductivity cell - frozen.

Ship stationary at ice station repositioned for CTD

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 22 of

Month <u>October</u>				Year <u>2010</u>			Ship <u>LSSL</u>				Cruise ID <u>2010-07</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
5		0432	BE	XCTD1		XCTD39	77 48.35	144 24.80		1000					
		0938	BE	XCTD1		XCTD40	77 54.64	142 10.43		1000					
		0947	BE	XCTD3		XCTD41	77 54.64	142 10.43		1000					
✓		20:00	BE	XCTD1		XCTD42	77 34.99	140 43.92		1000					
5	CB-16	1405	BE	ROS	UN	ROS49	77 58.06	140 00.65	3751		998-1021	24	Night	✓	30m/min down to 500
		1526	BO				77 58.64	139 59.23		3742 ⁹					to get T _{max} stops
		1642	EN				77 58.50	139 57.95							Check out 400 M.
		1517	BE	ADCP			77 58.66	139 59.38	3751						* →
		15:02	BO	NET		NET62	77 58.68	139 59.72	3751	100					
		1534	BO	NET		NET63	77 58.63	139 59.08	3751	500					
		1600	BO	NET		NET64	77 58.58	139 58.68	3751	100					

Cast Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set

USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter

Bottle Firing Method:

US = Up / Stop
UN = Up / No stop
DN = Down / No stop

Time Code:

BE = Beginning Time of Cast DE = Deployment Time
BO = Bottom Time of Cast MR = Messenger Release Time
EN = End Time of Cast RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008

This page is for any notes or observations

* CD16 ACPP is angled aft to stbd

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 23 of

Month				Year			Ship			Cruise ID					
Oct				2010			LSSL			2010-07					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
6		0849	BE	XCTD1		XCTD43	77 9.52	141 31.40		1000					
				XCTD											
6	CB-13	01:38	BE	ROS	US	ROS50	77°19.030	143° 11.070	3780		1022-1045	24	Day	✓	Cesium Cast
		02:03	BO				77°18.998	143° 10.739		1000					winch →
		02:36	EN				77°18.932	143° 10.201	3780						
		01:57	BO	NET		NET 65	77 18.994	143 10.771		100					
		02:12	BO	NET		NET 66	77 18.980	143 10.576		100					
		02:01	BE	ADCP			77 18.980	143 10.576							
		03:09	BE	ROS	UN	ROS51	77 18.850	143 9.652	3780		1046-1069	24	Day	✓	winch →
		04:28	BO				77 18.679	143 8.407		3768.10					low end @ 30m/min to
		05:40	EN				77 18.519	143 7.152	3779						500m then increase to 60m/min
	CB-15	1213	BE	ROS	UN	ROS52	77 00.04	140 00.68	3727		1070-1093	24	Night	✓	A. Res Not cast
		1235	BO				77 00.05	140 00.23		500					30m/min → 500m
		1259	EN				77 00.01	139 59.66							
		1220	BE	ADCP			77 00.04	140 00.48							

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop

MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 _____ = _____

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes: _____

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

This page is for any notes or observations

winch squeal on upcast (sounds like a "whale song"). Dave greased the winch though not sure if this has stopped the squeal.

1951

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month <u>OCTOBER</u>				Year <u>2010</u>			Ship <u>LSSL</u>				Cruise ID <u>2010-07</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
6	CB-15	1238	Bo	NET		NET67	77 00.05	140 00 18	3727	100					winch counter frozen for 1st 50m, max depth estimated
		1319	Bo	NET		NET68	77 00.00	139 59.50	3728	500					
		1345	Bo	NET		NET69	76 59.92	139 58.20	3727	100					
		1436	Bo	NET		NET70	76 59.86	139 56.74	3728	1000					15' wire angle at bottom
		1406	BE	ROS	US	ROS53	76 59.90	139 57.65	3730		1094-1117	24	Night	✓	Cesium cast.
		1426	Bo				76 59.88	139 57 08		1000					
		1453	EN				76 59.84	139 56.27							
		Flight to look for suitable ice for buoy													
	CB-15	1859	BE	ROS	UN	ROS54	76 59.58	139 43.49	3722		1118-1141	24	Night/Day	✓	not found.
		2020	Bo				76 59.332	139 41.158	3721	3712+9					no ADCP w/ this cast
		21:46	EN				76 59.147	139 38.650	3723						due to flight ops
7		02:56	BE	XCTD1		XCTD44	76 27.26	139 18.88		1000					
		11:58	BE	XCTD3		XCTD45	76 10.54	138 46.21		1000					
		15:05	BE	XCTD1		XCTD46	76 20.69	130 54.50		1000					

@ 233 m

265 m

281 m

Temp and Silt go low (cool + fresh) for ~ 1 m.

but looks like it doesn't quite compensate & is density inversion in or spikes indicate.

Note! OD steps in intrusion layers.

Don't match on upcast, but do get blips slightly shallower on upcast.

DAILY SCIENCE LOG

Month <u>Oct</u>				Year <u>2010</u>			Ship <u>LSSL</u>		Cruise ID <u>2010-07</u>						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
7	CB-17	0710	BE	ROS	UN	ROS55	76 01.26	139 57.36	3695		1142-1165	24	Night	✓	
		0825	BO				76 01.01	139 56.11		3684 ⁹					
		0936	EN				76 00.82	139 55.04							
		0720	BE	ADCP			76 01.22	139 57.14	3695						
		0745	BO	NET		NET71	76 01.14	139 56.72	3695	100					
		0803	BO	NET		NET72	76 01.06	139 56.40	3696	100					
7	PP-7	22:21	BE	ROS	US	ROS56	76 43.187	135 10.781	3568	1000	1166-1189	24	Day	✓	
		22:58	BO				76 43.110	135 10.909							
		23:38	EN				76 43.049	135 11.002							
				NET		NET73			3568	100					
		00:27		NET		NET74			3568	100					
		00:52	BE	ROS		ROS57	76 46.929	135 11.003	3567	3552 ¹⁰			Day		
		02:13	BO				76 42.761	135 10.954							Paused at 649m for ~
		3:32	EN				76 42.550	135 10.990	3567						45 sec to let skpdr
		12:09	BO	NET		NET75	76 42.550	135 10.996		100					ice. Paused at 642 and
															215 because churning
															caulky stuck.

Transmissometer to be cleaned before each cast, do not use Ammonia products

Stn. #	Filename	Time				Lat			Lon			Bot. Depth	comments	Type	
XCTD	1	201000-XCTD-001	2010	9	18	20:12	71	48.35	N	134	12.22	W	1448		XCTD-3
XCTD	2	201000-XCTD-002	2010	9	19	22:00	71	05.11	N	135	55.15	W	1024		XCTD-3
XCTD	3	201000-XCTD-003	2010	9	19	00:01	70	48.737	N	137	15.38	W	1470		XCTD-3
XCTD	4	201000-XCTD-004	2010	9	20	01:44	70	35.81	N	138	27.04	W	1155	SST >6oC, foggy	XCTD-3
XCTD	5	201000-XCTD-005	2010	9	23	14:57	73	22.48	N	132	33.93	W	2652	Open water in ice area	XCTD-1
XCTD	6	201000-XCTD-006	2010	9	23	22:38	73	07.97	N	130	43.32	W	2187	Open water	XCTD-3
XCTD	7	201000-XCTD-007	2010	9	24	00:09	72	47.28	N	131	18.89	W	1953—>1927	Ice conc. 10%	XCTD-3
XCTD	8	201000-XCTD-008	2010	9	24	01:47	72	24.19	N	131	49.73	W	1664		XCTD-3
XCTD	9	201000-XCTD-009	2010	9	24	03:24	72	02.05	N	132	22.25	W	1438		XCTD-3
XCTD	10	201000-XCTD-010	2010	9	26	07:59	71	18.33	N	135	40.95	W	N/A	Open Water	XCTD-3
XCTD	11	201000-XCTD-011	2010	9	26	09:52	71	30.44	N	136	59.83	W	N/A	Open Water	XCTD-3
XCTD	12	201000-XCTD-012	2010	9	26	12:01	71	44.79	N	138	29.96	W	N/A	Open Water	XCTD-3
XCTD	13	201000-XCTD-013	2010	9	26	13:34	71	51.84	N	138	56.02	W	N/A	Ice conc. 50% Swelling	XCTD-1
XCTD	14	201000-XCTD-014	2010	9	26	14:42	71	52.28	N	139	22.36	W	N/A	Ice conc. 80% Multi-year	XCTD-1
XCTD	15	201000-XCTD-015	2010	9	26	16:19	71	49.85	N	140	03.41	W	2664	Ice conc. 90%	XCTD-1
XCTD	16	201000-XCTD-016	2010	9	26	19:53	72	08.84	N	141	38.50	W	2993	Open Water	XCTD-3
XCTD	17	201000-XCTD-017	2010	9	26	23:08	72	37.53	N	143	02.00	W	4243	Ice conc. 90%	XCTD-1
XCTD	18	201000-XCTD-018	2010	9	27	08:17	72	37.54	N	146	21.63	W	N/A	Open Water	XCTD-3
XCTD	19	201000-XCTD-019	2010	9	27	10:31	72	33.75	N	148	06.78	W	N/A	Open Water	XCTD-3
XCTD	20	201000-XCTD-020	2010	9	27	22:02	73	02.08	N	149	59.61	W	3736	Open Water	XCTD-2
XCTD	21	201000-XCTD-021	2010	9	27	22:37	73	05.46	N	150	00.17	W	3743	Open Water	XCTD-1
XCTD	22	201000-XCTD-022	2010	9	28	00:17	73	29.31	N	149	59.62	W	3796	Open Water	XCTD-3
XCTD	23	201000-XCTD-023	2010	9	28	08:08	74	32.51	N	149	59.37	W	3808	Open Water	XCTD-3
XCTD	24	201000-XCTD-024	2010	9	29	01:02	75	09.44	N	151	40.28	W	3838	Ice conc. 5%	XCTD-2
XCTD	25	201000-XCTD-025	2010	9	29	08:13	75	28.64	N	155	10.32	W	3846	Open Water	XCTD-2
XCTD	26	201000-XCTD-026	2010	9	30	02:18	75	30.24	N	149	52.25	W	3831	Ice conc. 100%	XCTD-1
XCTD	27	201000-XCTD-027	2010	9	30	11:23	76	30.17	N	149	59.93	W	3847	Ice conc. 100%	XCTD-1
XCTD	28	201000-XCTD-028	2010	9	30	20:14	77	26.16	N	150	55.62	W	3828	Ice conc. 100% 10cm	XCTD-1
XCTD	29	201000-XCTD-029	2010	9	30	23:24	77	52.63	N	151	58.88	W	3835	Ice conc. 100% 10cm	XCTD-2
XCTD	30	201000-XCTD-030	2010	10	01	10:04	78	08.77	N	151	32.29	W	N/A	Ice conc. 100% 10cm~20cm	XCTD-2
XCTD	31	201000-XCTD-031	2010	10	01	23:55	78	18.17	N	150	59.93	W	3831	Ice conc. 100% 10cm~20cm	XCTD-1
XCTD	32	201000-XCTD-032	2010	10	02	02:26	78	32.30	N	151	55.38	W	3830	Ice conc. 100% 10cm~30cm	XCTD-1
XCTD	33	201000-XCTD-033	2010	10	02	06:13	78	48.14	N	153	15.52	W	3828	Ice conc. 100% 10cm~30cm	XCTD-1
XCTD	34	201000-XCTD-034	2010	10	02	08:07	78	57.48	N	154	13.38	W	3666	Ice conc. 100%	XCTD-1
XCTD	35	201000-XCTD-035	2010	10	03	4:15	79	5.0532	N	153	51.4583	W	3579	Ice conc. 100% 10cm~100cm	XCTD-1
XCTD	36	201000-XCTD-036	2010	10	03	06:45	79	02.28	N	151	56.50	W	3836	Ice conc. 100% 10cm~200cm	XCTD-1
XCTD	37	201000-XCTD-037	2010	10	03	15:43	78	39.41	N	150	54.73	W	3829	Ice conc. 100% 10cm~200cm	XCTD-1
XCTD	38	201000-XCTD-038	2010	10	04	10:02	77	52.52	N	148	16.54	W	3819	Ice conc. 100% 10cm~200cm	XCTD-1
XCTD	39	201000-XCTD-039	2010	10	05	04:32	77	48.35	N	144	24.80	W	3798	Ice conc. 100% 100cm~200cm	XCTD-1

XCTD	40	201000-XCTD-040	2010	10	05	09:38	77	54.64	N	142	10.43	W	3781	Ice conc. 100% 100cm~200cmHeavy Ice XCTD cast was shorten (700m) due to ice	XCTD-1
XCTD	41	201000-XCTD-041	2010	10	05	09:47	77	54.64	N	142	10.43	W	3781	second trial	XCTD-3
XCTD	42	201000-XCTD-042	2010	10	05	20:00	77	34.99	N	140	43.92	W	3750	Ice conc. 100% 100cm~200cm	XCTD-1
XCTD	43	201000-XCTD-043	2010	10	06	08:49	77	09.52	N	141	31.40	W	3751	Ice conc. 100% 100cm~200cm	XCTD-1
XCTD	44	201000-XCTD-044	2010	10	07	02:56	76	27.26	N	139	18.88	W	3672	Ice conc. 100% 100cm~200cm	XCTD-1
XCTD	45	201000-XCTD-045	2010	10	07	11:58	76	10.536	N	138	46.21	W	3645	Ice conc. 100% 100cm	XCTD-3
XCTD	46	201000-XCTD-046	2010	10	07	15:05	76	20.69	N	136	54.50	W	3588	Ice conc. 100% 30cm	XCTD-1
XCTD	47	201000-XCTD-047	2010	10	08	06:49	76	24.64	N	133	52.44	W	3367	Ice conc. 100% 100cm	XCTD-1
XCTD	48	201000-XCTD-048	2010	10	08	17:31	75	55.39	N	134	06.89	W	3339	Ice conc. 100% 100cm	XCTD-1
XCTD	49	201000-XCTD-049	2010	10	09	04:50	75	40.88	N	136	07.20	W	3530	Ice conc. 100% 10cm-30cm	XCTD-1
XCTD	50	201000-XCTD-050	2010	10	09	08:35	75	22.39	N	138	07.85	W	3555	Ice conc. 100% 10cm-50cm	XCTD-3
XCTD	51	201000-XCTD-051	2010	10	09	17:33	74	29.14	N	140	03.54	W	3643	Ice conc. 100% 10cm-30cm	XCTD-3
XCTD	52	201000-XCTD-052	2010	10	10	06:36	74	08.01	N	141	37.71	W	3635	Ice conc. 100% 10cm-50cm	XCTD-1
XCTD	53	201000-XCTD-053	2010	10	10	15:46	74	29.65	N	144	58.93	W	3737	Ice conc. 100% 10cm-100cm	XCTD-1
XCTD	54	201000-XCTD-054	2010	10	12	01:10	74	08.99	N	138	32.05	W	3426	Ice conc. 100% 10cm-50cm, relative warm air temperature	XCTD-1
XCTD	55	201000-XCTD-055	2010	10	12	04:46	74	20.41	N	136	56.64	W	3300	Ice conc. 100% 10cm-50cm	XCTD-1
XCTD	56	201000-XCTD-056	2010	10	12	08:24	74	00.11	N	134	53.20	W	3066	Ice conc. 100% 10cm-30cm	XCTD-1
XCTD	57	201000-XCTD-057	2010	10	13	10:36	73	30.08	N	130	22.10	W	N/A	Ice conc. 100% heavy ice, 100-300cm	XCTD-3
XCTD	58	201000-XCTD-058	2010	10	13	12:05	73	31.15	N	129	51.78	W	N/A	Ice conc. 100%	XCTD-1
XCTD	59	201000-XCTD-059	2010	10	13	18:13	73	26.19	N	128	57.97	W	573	Ice conc. 100%	XCTD-3