

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2014 - 56

Book 1

DATE:

Mission: Aug 1st - Sept 11th 2014

This book: Aug 2nd - Aug 24th

From: Leg 1: Aug 1st - Aug 21st Leg 2: Aug 21st - Sept 11th

to:

VESSEL:

FROSTI

PROJECT(S):

Beaufort Sea Marine Fishes Project (BSMF)

Fisheries & Oceans Canada; Central & Arctic Region

Freshwater Institute
Winnipeg, MB

Institute of Ocean Sciences
Sidney, BC.

Fisheries and Oceans Canada

Project Lead: Jim Reist

Captain: John Roach First Officer: Ross Gordon
Second Officer: Kelly Muller Third Officer: _____
Fishing Master: _____

Mission Participants / Agencies: FWI

Scientific Personnel:

Name	Chief Scientist:	Watch	Cabin	Name	Watch	Cabin
Andrew Majewski	<u>Andy Majewski</u>					
Carolina Geraldo						
Desmond Rubin						
Laure deMontety				<u>Aug 1 → 21st 2014</u>		
Ashley Stecko						
Kelly Young						
Michael Dempsey						
Andrea Niemi						

Second leg of Mission:

Name	Chief Scientist:	Watch	Cabin	Name	Watch	Cabin
<u>Shannon MacPhee</u>						
<u>Sheila Atchison</u>				<u>Aug 21st → Sept 11th 2014</u>		
<u>Julia Henry</u>						
<u>Joseph Illasiak</u>						
<u>Laure deMontety</u>						
<u>Hugh Maclean</u>						
<u>Gillaume Meitertons</u>						
<u>Michelle Kamula</u>						

Data logging computer:

Franklin

Data acquisition program: SKSsave 7
CTD deck unit make: SBE model: 11 serial number: 425

Primary CTD

Make: SBE model: 9plus serial number: 1189

Primary temperature serial number: _____

Primary conductivity serial number: _____

Secondary temperature serial number: _____

Secondary conductivity serial number: _____

Transmissometer: Buck Labs Model: CSTAR s/n: 1666

Fluorometer: Model Seapoint Cable gain: 30x s/n: _____ P, S or NO pump?

Oxygen sensor: SBE Model: 43 s/n: 202/3594 P, S or NO pump?

PAR sensor: Biophysical Model: QSP2300 s/n: 70501

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

Other sensors: Biophysical QSR2200 PAR s/n: 20277 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: SBE model: 19plus2 serial number: 6009

Primary temperature serial number: _____

Primary conductivity serial number: _____

Secondary temperature serial number: _____

Secondary conductivity serial number: _____

Transmissometer: _____ Model: _____ s/n: _____

Fluorometer: Model Seapoint Cable gain: 30x s/n: 1555 P, S or NO pump?

Oxygen sensor: SBE Model: 43 s/n: 1202 P, S or NO pump?

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

Other sensors: Beathos PSA 716 Attenuator s/n: _____ P, S or NO pump?

Other sensors: Seapoint turbidity meter 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): _____

DAILY SCIENCE LOG

Page 1

Month <u>AUGUST</u>				Year <u>2014</u>				Ship <u>FROSTI</u>			Cruise ID <u>2014-56 BREA</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
02	KUG01	ROS	1	BE	1311	70 0.748	133 46.669	22.4	20.7	md	5 Niskins. NO SPAR.	
				BO	1314	70 0.794	49.496					
				EN	1321	70 0.854	49.216					
02	KUG01	BON	2	BE	1331	70 06.766	133 48.886	21.0	15.0 21.0	ARM	Yo-yo, 15min @ 2 Knots	
				EN	1346	70 02.47	133 48.76				actual speed = 2.0-2.5 knots	
02	KUG01	BOX	3	BE	1424	70 00.53	133 50.65	20.5	20.5	ARM	Good mud	
				BO	1424	70 00.53	133 50.61				Rough landing on deck	
				EN	1426	70 00.53	133 50.51				DEP. ID: Box-130	
02	KUG01	BOX	4	BE	1438	70 00.51	133 49.71	21.0	21.0	ARM	DEP. ID: box-131	
				BO	1438	70 00.51	133 49.67					
				EN	1439	70 00.51	133 49.59					
02	KUG01	BBT	5	BE	1503	70 00.51	133 49.14	21.0	21.0	ARM	using mapout depth sensor	
				BO	1505	70 00.54	133 49.42	21.1			worked well	
				EN	1511	70 00.58	133 49.80	20.9				
02	KUG01	BBT	6	BE	1522	70 00.38	133 50.17	20.1	20.1	ARM		
				BO	1525	70 00.45	133 50.28	20.6	20.6			
				EN	1535	70 00.72	133 50.69	21.1				
02	KUG01	W2A	7	BE	1636	70 00.11	133 49.91	20.1		ARM	Medium mud bomb	
				BO	1638	70 00.23	133 50.14	20.3			Towed cable of stern to flush mud.	

Event Type:

BOT = Bottle cast, no CTD
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ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
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Notes: _____

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

02 Aug 2014

- low cloud cover
- rain
- 15 knots W-SW

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
02	KUG01	W2A	7	EN	1645	70 00.58	133 50.58	20.3			
02	AGK2	ROS	8	BE	1810	70° 2.38	133° 32.72	30.0		MD.	NO SPAR. 5 Nishits.
				BO	1811	70° 2.36	133° 32.67		25.9		
				EN	1814	70° 2.36	133° 32.60				
02	AGK02	BON	9	BE	1853	70 02.88	133 34.04	28.8	25.0	ARM	15min @ 2.0 knots, Yo-Yo
				EN	1908	70 02.99	133 35.33	28.8			
02	AGK02	BOX	10	BE	1924	70 02.65	133 33.37	29.3		ARM	DEP-ID: box-132
				BO	1925	70 02.64	133 33.31	29.4			
				EN	1927	70 02.63	133 33.24	28.4			
02	AGK02	Box	11	BE	1941	70 02.80	133 33.67	28.9		ARM	DEP-ID: box-133
				BO	1942	70 02.79	133 33.62	29.5			
				EN	1943	70 02.78	133 33.55	28.8			
02	AGK02	BBT	12	BE	1958	70 02.77	133 33.54	29.5		ARM	
				BO	2006	70 02.90	133 34.25	29.0			
				EN	2012	70 02.98	133 34.71	29.9			
02	AGK02	BBT	13	BE	2028	70 03.12	133 35.57	29.3		ARM	Failed tow, no bottom contact
				BO							tail wind too strong.
				EN							

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

Notes: _____

Version: 22 May 2014

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
02	AGK02	BBT	14	BE	2050	70 02.69	133 32.94	29.1			Failed tow, winch hydraulics stopped
				BO	2055	70 02.80	133 33.44	29.1			→ towed 20-30 min @ surface
				EN	2103	70 02.93	133 34.05	28.6			
02	AGK02	BBT	15	BE	2208	70 02.65	133 32.75	28.8			
				BO	2212	70 02.73	133 32.97	30.2			
				EN	2220	70 02.88	133 33.81	29.5			
02	AGK02	WZA	16	BE	2242	70 02.81	133 33.02	29.5			
				BO	2247	70 02.86	133 33.82	29.5			
				EN	2253	70 02.94	133 34.59	29.1			
03	AGK01	ROS	17	BE	1320	70 06.13	133 50.36	32.2			6 Niskins SPAR installed!
				BO	1322	70 6.10	133 50.20		28.2		—
				EN	1330	70 6.06	133 49.90				
03	AGK01	BON	18	BE	1340	70 06.05	133 49.74	32.5	25	ARM	yo-yo'd 4X
				EN	1357	70 06.43	133 51.08	31.8			
03	AGK01	BOX	19	BE	1419	70 06.18	133 50.39	30.8		ARM	DEP ID: box-134
				BO	1420	70 06.17	133 50.35	30.8			
				EN	1422	70 06.17	133 50.28	32.0		ARM	
03	AGK01	BOX	20	BE	1436	70 06.22	133 50.81	31.7		ARM	DEP ID: box-135
				BO	1437	70 06.23	133 50.78	31.4			

Event Type:

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Notes: _____

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

03 Aug 2014

- low cloud
- light rain
- cold $\sim 0^{\circ}\text{C}$
- W. 10 Knots

originally 317 cal For SPAR changed to 20279

DAILY SCIENCE LOG

Page _____

Month				Year				Ship				Cruise ID
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
03	AGK01	BOX	20	EN	1439	70 06.23	133 50.72	31.2				
03	AGK01	BBT	21	BE	1455	70 06.08	133 48.58	31.5		ARM		
				BO	1459	70 06.14	133 48.93	31.5				
				EN	1506	70 06.24	133 49.43	31.3				
03	AGK01	BBT	22	BE	1517	70 06.17	133 50.22	31.4		ARM		
				BO	1521	70 06.25	133 50.49	31.0				
				EN	1528	70 06.38	133 50.98	31.9				
03	AGK01	WTA	23	BE	1555	70 06.14	133 48.57			ARM		
				BO	1556	70 06.15	133 48.69	31.4				
				EN	1602	70 06.25	133 49.68	32.2				
03	KUG02	ROS	24	BE	2154	70 50.96	134 40.27	77.2		MD		
				BO	2203	70 50.95	134 39.80		73.5			
				EN	2218	70 50.89	134 39.04					
03	KUG02	MPS	25	BE	2234	70 50.78	134 38.14	76.1	66	ARM	n1 B-50 n2 25-50 n3 25-0	
				BO	2237	70 50.76	134 37.96	76.1			First deployment for 2014	
				EN	2240	70 50.74	134 37.75	75.8				
03	KUG02	BON	26	BE	2250	70 50.76	134 37.58	76.2		ARM	Failed, tow. Mud in nets.	
				EN	2307	70 50.99	134 39.01				125m out	
03	KUG02	BON	27	BE	2313	70 51.09	134 39.56			ARM	100m out	

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

Notes: _____

DAILY SCIENCE LOG

Month

Year

Ship

Cruise ID

Day (UTC)

Station Name

Event Type

Event Number

Time Code

Time (UTC)

Latitude (N)
DD MM.MM...

Longitude (W)
DDD MM.MM...

Bottom Depth

Max Depth

Logger's initials

Comments

3	KUGOL	BON	27	EN	2326	70 51.23	134 40.83				
3	KUGOL	BOX	28	BE	2342	70 51.11	134 40.92	78.5		ARM	DEP. ID: box-136
				BO	2245	70 51.09	134 40.92	78.6			
				EN	2348	70 51.08	134 40.70	78.4			
4	KUGOL	BOX	29	BE	00:02	70 50.98	134 40.16	77.6		ARM	DEP. ID: box-137
				BO	00 04	70 50.96	134 40.07	77.8			
				EN	00 07	70 50.95	134 39.97	77.6			
4	KUGOL	BBT	30	BE	0020	70 50.89	134 39.55	77.2		ARM	
				BO	0027	70 50.98	134 40.09	77.6			
				EN	0037	70 51.09	134 40.86	78.4			
4	KUGOL	WZA	31	BE	01 02	70 50.91	134 42.24	72.9		ARM	
				BO	01 08	70 50.95	134 40.94	78.2			
				EN	01 28	70 51.05	134 38.00	77.1			
4	KUGOL	ROS	32	BE	1314	70 56.14	134 45.87	234	225	MD	Part 1 of KUGOL 4 Nishins.
				BO	1321	70 56.10	134 45.65				CTD file first saved as 2014-56-0031, ignore -> take 2014-56-0032 (good file).
				EN	1330	70 56.06	134 45.60				
	KUGOL	ROS	33	BE	1344	70 55.99	134 44.57	215	80	MD	Part 2 12 Nishins.
				BO	1348	70 55.97	134 44.85				
				EN	1401	70 55.73	134 44.49				

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Notes:

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

probably hit bottom and came up 4m from bottom

DAILY SCIENCE LOG

Page _____

Month				Year		Ship				Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
04	KUG03	MPS	34	BE	1415	70 55.81	134 45.66	207		ARM	u1 B-100m, u2 100-50m, u3 50-25m, ^{u4 25-0m} 425
		CN		BO	1420	70 55.81	134 45.48	201			
				EN	1424	70 55.80	134 45.39	201			
04	KUG03	MPS BON	35	BE	1438	70 55.67	134 46.21	199		ARM	Failed tow. Mud in net. - 260m @ 50°
				EN	1456	70 56.03	134 44.64	216			L40
04	KUG03	MPS BON	36	BE	1512	70 56.17	134 42.75	197		ARM	Second deployment - 250m @ 50°
				EN	1533	70 55.85	134 44.86	197			clean
04	KUG03	BOX	37	BE	1553	70 55.82	134 45.35	201		ADS	DEP-ID: box-138
				BO	1558	70 55.83	134 45.20	200			
				EN	1604	70 55.85	134 45.08	202			
04	KUG03	BOX	38	BE	1616	70 55.89	134 44.77	201		ARM	
				BO	1619	70 55.90	134 44.69	201			
				EN	1625	70 55.92	134 44.55	201			
04	KUG03	BBT	39	BE	1642	70 56.51	134 41.71	211		ARM	
				BO	1656	70 56.26	134 42.94	208			
				EN	1706	70 56.11	134 43.63	204			
04	KUG03	W2A	40	BE	1746	70 55.76	134 45.79	202		ARM	
				BO	18:00	70 56.29	134 42.76	208			
				EN	18:20	70 56.69	134 40.15	204			

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

Notes: _____

Version: 22 May 2014

04 Aug 2014

- low cloud
- light rain
- 1°C

825 - water

DAILY SCIENCE LOG

Month				Year				Ship			Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
04	KU604	ROS	41	BE	1943	70 58.93	134 47 83	345		MD.	6 Nishins. to the bottom	
				BO	1949	70 58.95	134 47.53		340			
				EN	2006	70 58.97	134 46.82					
04	KU604	ROS	42	BE	2024	70 58.74	134 47 78	336		MD.	12 Nishins. to 80m.	
				BO	2029	70 58.72	134 47.52		80			
				EN	2040	70 58.70	134 47.30					
04	KUG04	MPS	43	BE	2058	70 58.79	134 47.62	336	323		N1 325-200 N2 200-100 N3 100-50.	
				BO	2107	70 58.77	134 47.30	333			04 50-25 N5 25-0	
				EN	2119	70 58.74	134 47.03	329				
04	KUG04	BON	44	BE	2128	70 58.89	134 47.71	341	200			
				EN	2149	70 59.67	134 45.82	351				
04	KUG04	BOX	45	BE	2212	70 58.84	134 48.95	353			Box - 140	
				BO	2217	70 58.80	134 48.82	351			Good	
				EN	2224	70 58.76	134 48.50	345				
04	KUG04	BOX	46	BE	2235	70 58.71	134 48.05	337			Box - 141	
				BO	2239	70 58.69	134 47.87	335				
				EN	2247	70 58.67	134 47.55	332				
04	KUG04	BOX	47	BE	2250	70 58.64	134 47.22	327			Box - 142	
				BO	2256	70 58.64	134 47.18	327				

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

Oxygen sensor noisy
After cast, reviewed cast 32, 40 & 41. Noise starts near bottom on down cast
of 40. No noise in 32. Swapped out SBE43 1202 with 2559, for next cast.

DAILY SCIENCE LOG

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04	KUG-04	BOX	47	EN	2302	70 58.62	134 49.90	322						
04	KUG-04	BBT	48	BE	2320	70 58.94	134 48.59	353		ARM				
				BO	2339	70 58.42	134 50.45	346						
				EN	23 49	70 58.24	134 51.12	347						
05	KUG-04	WZA	49	BE	00 24	70 57.35	134 53.86	343		ARM				
				BO	00 34	70 57.96	134 51.95	349						
				EN	00 54	70 58.53	134 49.63	345						
05	KUG-05	ROS	50	BE	1308	71 02.97	134 52.51	505	500	MD	6 Nishins			
				BO	1317	71 02.90	134 52.58							
				EN	1336	71 02.71	134 52.55	497						
05	KUG-05	ROS	51	BE	1400	71 02.74	134 52.26		80		12 Nishins			
				BO	1402	71 02.72	134 52.26							
				EN	1420	71 02.76	134 52.31							
05	KUG-05	BON	52	BE	1431	71 02.92	134 51.90	489	200	ARM	start point estimated from Captains chart			
				EN	1449	71 03.39	134 50.27	485			track			
05	KUG-05	BOX	53	BE	1510	71 02.98	134 52.51	500		ARM	Box - 143			
				BO	1515	71 02.95	134 52.45	498						
				EN	1524	71 02.91	134 52.44	497						
05	KUG-05	BOX	54	BE	1536	71 02.94	134 52.41	496		ARM	Box - 144			

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Notes:

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

05 Aug 2014

- Sunny, calm, cold ($\sim 1^{\circ}\text{C}$)
- up to 3/10 ice

- noisy ΔO — cable, pump plumbing?
- cleaned connector. better, not great.

DAILY SCIENCE LOG

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Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
05	KUG05	BOX		BO	1546	71 02.80	134 52.38	495				
				EN	1552	71 02.76	134 52.40	495				
05	KUG05	BBT	55	BE	1607	71 02.417	134 51.33	479		ARM		
				BO	1619	71 02.71	134 49.86	470				
				EN	1629	71 02.87	134 49.11	466				
05	KUG05	WZA	56	BE	1703	71 02.37	134 52.71	493		ARM		
				BO	1720	71 02.89	134 49.07	466				
				EN	1740	71 03.61	134 47.38	463				
05	KUG05	WZA	57	BE	19:00	71 02.66	134 52.09	488		ARM		
				BO	19:27	71 03.94	134 47.46	471				
				EN	19:47	71 04.51	134 45.06	470				
05	KUG05	MPS	58	BE	20:46	71 02.95	134 52.57	500	490	ARM	N1: B-200 N2: 200-100 N3: 100-50	
				BO	2053	71 02.93	134 52.46	498			N4: 50-25 N5: 25-0	
				EN	2103	71 02.90	134 52.25	495			operator - Mike Dempsey	
05	KUG05a	MWT	59	BE	2350	71 03.87	134 45.07	452	400	ARM	mwt-045	
06				BO	0003	71 03.15	134 43.84	428				
				EN	0019	71 02.40	134 42.71	404				
				OW	0029	71 02.28	134 42.41	398				

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ROS = Rosette plus CTD
WZA = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

ow = out of water

Notes:

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

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
06	KUG05a	MWT	60	BE	01:01	71 02.27	134 43.38	408.01	109	ARM	mwt-046	
				BO	01:04	71 02.53	134 43.29	411.57				
				EN	01:24	71 03.48	134 43.79	434.24				
				OW	01:32	71 03.61	134 44.19	442.78				
06	KUG05a	ROS	61	BE	1316	71 02.84	134 52.41	498	493	MD	12 Nishins Andreu's mixing experiment	
				BO	1325	71 2.76	134 52.35	49			EDIC	
				EN	1346	71 2.62	134 52.30					
06	KUG04a	CTD	62	BE	1504	70 58.65	134 48.16	338	320	ARM	Cable needs more weight	
				BO	1506	70 58.64	134 48.18				→ incomplete cast.	
				EN	1507	70 58.63	134 48.19					
06	KUG04a	CTD	63	BE	1511	70 58.60	134 48.22	336	320	ARM	Set in conjunction w hydroacoustics	
				BO	1516	70 58.56	134 48.23	336			net sampling.	
				EN	1522	70 58.53	134 48.28	336				
06	KUG04a	MPS	64	BE	1531	70 58.47	134 48.61	337	305		Set in conjunction w hydroacoustics	
				BO	1543	70 58.23	134 50.05	335			sampling. U1 300-200 U2 200-175 U3 175-125	
				EN	1609	70 57.76	134 52.81	350			N4 125-50 N5 50-0, but not recording.	
06	KUG04a	MPS	65	BE	1620	70 57.51	134 53.58	349	46		Test run to 40m. Trigger set @ 30m.	
				BO	1622	70 57.55	134 53.39				Did not trigger.	
				EN	1625	70 57.64	134 53.06	346				

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes: _____

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

new DO/ALT cable installed. No noise Hurrah!

DAILY SCIENCE LOG

Page _____

Month				Year				Ship				Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
06	KUG04a	MWT	66	BE	1648	70 58.29	134 50.43	343	300	ARM	Failed tow. Net did not deploy		
				BO	1657	70 57.92	134 52.10	349			correctly. Not enough height, too much		
				EN							speed. Retrieved early & re-deployed.		
				OW	1715	70 57.55	134 53.59				mwt_047		
06	KUG04a	MWT	67	BE	1740	70 58.15	134 51.08	344	300	ARM	MWT-048		
				BO	1748	70 57.77	134 52.51						
				EN	1808	70 57.19	134 55.11						
				OW	1816	70 57.11	134 55.58						
06	KUG04a	MWT	68	BE	1840	70 56.81	134 57.07	354	150	ARM	MWT-049		
				BO	1845	70 57.02	134 56.22						
				EN	1905	70 57.63	134 53.72						
				OW	1909	70 57.70	134 53.61						
06	KUG04a	MPS	69	BE	1954	70 58.16	134 52.07	355	40	ARM	Test 2 to 40m. Trigger set at 30m.		
				BO	1956	70 58.12	134 52.33	356			worked properly.		
				EN	1958	70 58.08	134 52.55	356			Re-set of event 63.		
06	KUG04a	MPS	70	BE	2006	70 57.90	134 53.60	360	315	ARM	Success.		
				BO	2020	70 52.54	134 54.74	360					
				EN	2046	70 56.87	134 56.85	359					

Event Type:
BOT = Bottle cast, no CTD

BBT = Benthic Beam Trawl
BON = Bongo (astrolite) haul

Time Code:

Transducer to be used in this event

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes: _____

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

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
06	KUG04a	ROS	71	BE	20:59	70 56.78	134 57.30	362	300	MD	12 Nishins - water for Andrew.	
				BO	2104	70 56.82	134 57.48					
				EN	2114	70 56.84	134 57.74					
06	KUG03a	CTD	72	BE	2223	70 55.77	134 45.29	191	180	ARM		
				BO	2227	70 55.77	134 45.27	191				
				EN	2231	70 55.78	134 45.29	192				
06	KUG03a	MWT	73	BE	2259	70 55.83	134 47.56	217	150	ARM	MWT-50	
				BO	2303	70 55.71	134 46.65	204				
				EN	2323	70 56.12	134 43.75	201				
				OW	2327	70 56.19	134 43.56	204				
06	KUG03a	MWT	74	BE	2345	70 56.49	134 41.69	202	50	ARM	MWT-51	
				BO	2347	70 56.34	134 42.23	199				
07?				EN	0007	70 55.85	134 44.77	190				
				OW	0008	70 55.84	134 44.80	190				
08	BVK01	ROS	75	BE	1302	72 07.78	127 02.31	56	50	MD	9 Nishins.	
				BO	1303	72 07.82	127 02.28					
				EN	1313	72 07.78	127 02.18					
08	BVK01	MPS	76	BE	1320	72 07.75	127 02.08	50	40	ARM	No flow. Do it again	
				BO	1322	72 07.74	127 02.04					

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)

MPS = Multi-net

MWT = Midwater trawl

BOX = Box Core

Time Code:

BE = Beginning Time

BO = Arrive on Bottom Time

UP = Start up Time

EN = End Time

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

Notes: _____

$\Delta T \propto \Delta S$ large at times on upcast?

DAILY SCIENCE LOG

Page _____

Month				Year			Ship				Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
				EN	1324	72 07.73	127 01.99	50				
08	BNK01	MPS	77	BE	1329	72 07.71	127 01.89	48		ARM	Repeat of event 76. Still no flow readings	
				BO	1333	72 07.69	127 01.83	49			40-20, 20-10, 10-0 m	
				EN	1334	72 07.68	127 01.80	48				
08	BNK01	BON	78	BE	1341	72 07.68	127 01.48	50	40	ARM		
				EN	1405	72 08.23	127 03.20	51				
08	BNK01	BOX	79	BE	1418	72 07.82	127 02.29	51		ARM	Box 145	
				BO	1419	72 07.81	127 02.27	51			-hard bottom, no sample	
				EN	1421	72 07.80	127 02.24	50				
08	BNK01	BOX	80	BE	1425	72 07.78	127 02.17	50		ARM	Box 146	
				BO	1426	72 07.77	127 02.14	50			-hard bottom, no sample	
				EN	1428	72 07.75	127 02.11	50				
08	BNK01	BOX	81	BE	1433	72 07.72	127 02.04	51		ARM	Box 147	
				BO	1434	72 07.72	127 02.02	50			-same	
				EN	1436	72 07.71	127 01.99	50				
08	BNK01	BOX	82	BE	1450	72 08.21	127 03.17	51		ARM	Box 148	
				BO	1457	72 08.18	127 03.18	51			-moved to new location, new station	
				EN	1453	72 08.18	127 03.19	51			to find softer ground	
											-partial box	

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

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Notes: _____

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

08 Aug 2014

This page is for any notes or observations

Fog - visibility 50m at times
Calm seas
Light easterly winds

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
08	BNK01	BBT	83	BE	1511	72 08.51	127 03.84	52		ARM	bbt-91	
				BO	1520	72 08.05	127 02.80	51				
				EN	1530	72 07.78	127 02.21	52				
08	BNK01	WZA	84	BE	1555	72 08.35		52		ARM	wza-115	
				BO	1559	72 08.08	127 02.96	52				
				EN	1619	72 07.26	127 01.05	51				
08	BNK02	ROS	85	BE	1844	72 5.92	127 28.75	359	346	MD	6 Nishins.	
				BO	1850	72 5.84	127 28.65					
				EN	1905	72 5.76	127 28.63					
08	BNK02	ROS	86	BE	1927	72 5.52	127 28.63	350	80	MD	12 Nishins	
				BO	1928	72 5.91	127 28.60					
				EN	1937	72 5.86	127 28.46					
08	BNK02	MPS	87	BE	1945	72 05.80	127 28.36	348	348	ARM	N1 340-200 N2 200-100 N3 100-50	
				BO	1955	72 05.73	127 28.24	348			N4 50-25 N5 25-0	
				EN	2003	72 05.66	127 28.16	351				
08	BNK02	BON	88	BE	2013	72 05.63	127 28.05	351	200	ARM		
				EN	2031	72 06.14	127 29.55	350				
08	BNK02	BOX	89	BE	2043	72 05.93	127 28.93	349		ARM	Box-149	
				BO	2047	72 05.89	127 28.87	350				

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 WZA = Western Trawl

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BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
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Time Code:

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

Notes: _____

Fluorometer noisy with offset on upcast — clean connectors.

DAILY SCIENCE LOG

Page _____

Month				Year				Ship				Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...		Longitude (W) DDD MM.MM...		Bottom Depth	Max Depth	Logger's initials	Comments
				EN	2054	72	05.84	127	28.81	351			
8	BNK02	Box	90	BE	2103	72	05.75	127	28.78	352		ARM	Box -150
				BO	2108	72	05.71	127	28.76	352			
				EN	2113	72	05.67	127	28.75	352			
8	BNK02	BBT	91	BE	2132	72	06.64	127	31.40	350		ARM	bbt-92
				BO	2148	72	06.43	127	29.44	350			
				EN	2158	72	05.81	127	28.67	351			
8	BNK02	WZA	92	BE	2225	72	05.20	127	26.69	353		ARM	WZA-116
				BO	2235	72	05.79	127	28.60	351			
				EN	2255	72	06.45	127	30.90	352			
9	BNK03	ROS	93	BE	1426	72	5.59	129	58.30	367	362	MD	5 Nishins
				BO	1433	72	5.49	129	58.42				
				EN	1444	72	5.33	129	58.62				
9	BNK03	ROS	94	BE	1505	72	5.61	129	58.44	365	80	MD	12 Nishins.
				BO	1507	72	5.57	129	58.48				
				EN	1521	72	5.37	129	58.80				
9	BNK03	^{MPS} ROS	95	BE	1532	72	05.66	129	58.36	366	350		N31-200 N2 200-100 N3 100-50
				BO	1542	72	05.54	129	58.35	366 365			N4 50-25 N5 25-0
				EN	1550	72	05.45	129	58.45	366			

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
WZA = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes: _____

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

Version: 22 May 2014

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
9	BNK03	BOX	96	BE	1604	72 05.61	129 58.43	363	363	ARM	Box - 151
				BO	1608	72 05.54	129 58.45	364	364		
				EN	1614	72 05.47	129 58.52	365			
9	BNK03	Box	97	BE	1623	72 05.35	129 58.70	364		ARM	Box - 152
				BO	1627	72 05.30	129 58.78	365			
				EN	1633	72 05.28	129 58.87	366			
9	BNK03	BON	98	BE	1644	72 05.07	129 59.72	365		ARM	BE coord. recorded at 1646
				EN	1701	72 04.63	130 01.51	381			
9	BNK03	BBT	99	BE	1748	72 06.51	129 53.69	371		ARM	
				BO	1803	72 06.07	129 55.65	367			
				EN	1813	72 05.82	129 56.65	365			
9	BNK03	WZA	100	BE	1850	72 06.35	129 57.04	365		ARM	Hauled back early b/c we may have scooped mud.
				BO	1904	72 05.35	129 56.46	361			
				EN	1915	72 04.85	129 56.63	356			
9	BNK04	ROS	101	BE	2208	72 05.78	128 48.42	380		MD	5 Nishins
				BO							aborted 6nd display
				EN							
	BNK04	ROS	102	BE	2217	72 5.70	128 48.39	388	377	MD	6 Nishins
				BO	2225	72 5.61	128 48.43				good CTD file = 2014-56-002 and 2014-56-003, disregard 2014-56-100

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
WZA = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes: _____

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

PAR cover on whole cast ops!

DAILY SCIENCE LOG

Month				Year				Ship				Cruise ID		Page
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...		Longitude (W) DDD MM.MM...		Bottom Depth	Max Depth	Logger's initials	Comments	
9	BNK04	ROS	102	EN	2236	72	5.48	128	48.42					
9	BNK04	MPS ROS	103	BE	2255	72	6.03	128	49.24	380	80	MD.	12 Niskins	
				BO	2257	72	6.00	128	49.26					
				EN	2307	72	5.87	128	49.38					
9	BNK04	MPS	104	BE	2316	72	05.79	128	48.65	379	370	ARM	N1 -200 N2 200-100 N3 100-50	
				BO	2325	72	05.73	128	48.59	379			N4 50-25 N5 25-0	
				EN	2335	72	05.60	128	48.67	380				
9	BNK04	BON	105	BE	2344	72	05.50	128	48.67	376	200	ARM		
				EN	00.04	72	06.21	128	48.87	376				
10	BNK04	BOX	106	BE	0013	72	05.95	128	49.06	378		ARM	Box 153	
				BO	0019	72	05.92	128	49.04	379				
				EN	0026	72	05.86	128	49.04	379				
10	BNK04	BOX	107	BE	0036	72	05.74	128	49.20	382		ARM	Box 154	
				BO	0040	72	05.68	128	49.27	380				
				EN	0046	72	05.62	128	49.28	380				
10	BNK04	BBT	108	BE	0104	72	04.87	128	47.23	386			bbt_94	
				BO	0120	72	05.53	128	48.22	380				
				EN	0130	72	5.80	128	48.69	379				

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Ob/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

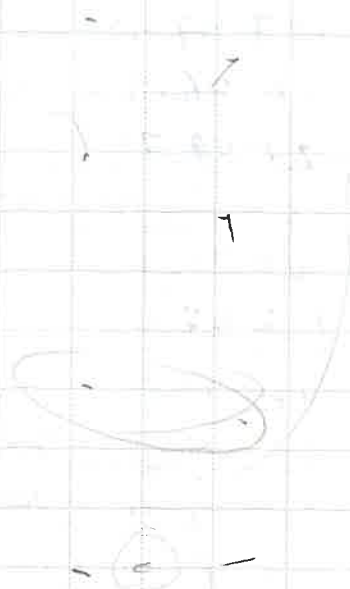
BE = Beginning Time
 BO = Arrive on Bottom Tim
 UP = Start up Time
 EN = End Time

Notes:

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

10 Aug 2014

- Some fog in morning
- cloud 4/10
- wind N10-15, calm by evening



DAILY SCIENCE LOG

Page _____

Month				Year				Ship				Cruise ID
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
10	BNK04	WZA	109	BE	0200	72 06.36	128 49.65	378		ARM	Lat/long recorded at 02:02	
				BO	0211	72 05.82	128 48.77	382				
				EN	0231	72 04.93	128 47.34	387				
10	BNK05	ROS	110	BE	1336	72 55.72	127 47.08	249	245	MD	5 Niskings	
				BO	1342	72 55.68	127 46.87					
				EN	1353	72 55.56	127 46.79					
10	BNK05	ROS	111	BE	1411	72 55.71	127 47.18	249	80	MD	12 Niskings.	
				BO	1413	72 55.69	127 47.12					
				EN	1426	72 55.56	127 47.03					
10	BNK05	MPS	112	BE	1437	72 55.88	127 47.53	251	240	ARM	N1 240-100 N2 100-50 N3 50-25 N4 25-0	
				BO	1445	72 55.62	127 47.55	250				
				EN	1450	72 55.56	127 47.52	249				
10	BNK05	BON	113	BE	1503	72 55.46	127 47.30	250	200	ARM		
				EN	1524	72 56.21	127 47.93					
10	BNK05	BOX	114	BE	1536	72 55.73	127 47.47	250		ARM	Box - 155	
				BO	1540	72 55.69	127 47.43	252				
				EN	1545	72 55.65	127 47.38	252				
10	BNK05	BOX	115	BE	1553	72 55.57	127 47.37	244		ARM	Box - 156	
				BO	1556	72 55.53	127 47.39	248				

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
WZA = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes: _____

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

OAT OC.

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID		Page _____
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
10	BNK05	BOX	115	EN	1601	72 55.49	127 47.41	250					
10	BNK05	BBT	116	BE	1618	72 54.63	127 47.87	252		ARM			
				BO	1627	72 55.06	127 47.63	250					
				EN	1637	72 55.38	127 47.30	245					
10	BNK05	W2A	117	BE	1705	72 54.49	127 48.04	254		ARM			
				BO	1712	72 55.08	127 47.64	251					
				EN	1732	72 56.02	127 47.56	249					
10	BNK06	ROS	118	BE	2049	72 55.83	126 23.57	61	56	MD	9 Nishins		
				BO	2051	72 55.84	126 23.56						
				EN	2100	72 55.84	126 23.61						
10	BNK06	MPS	119	BE	2109	72 55.82	126 23.67	58		ARM	N1 49-20 N2 20-20 N3 10-0		
				BO	2112	72 55.82	126 23.66	49					
				EN	2114	72 55.82	126 23.66	58					
10	BNK06	BON	120	BE	2123	72 55.85	126 23.46	58		ARM			
				EN	2144	72 56.57	126 21.83	53					
10	BNK06	BOX	121	BE	2204	72 55.71	126 23.74	55		ARM	BOX-157		
				BO	2206	72 55.71	126 23.74	55					
				EN	2207	72 55.71	126 23.72	55					
10	BNK06	BOX	122	BE	2215	72 55.72	126 23.57	52		ARM	BOX 158		

Event Type: BBT = Benthic Beam Trawl Time Code:

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes:

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

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
10	BNK06	BOX	122	BO	2216	72 55.72	126 23.56	52				
				EN	2218	72 55.72	126 23.54	51				
10	BNK06	Box	123	BE	2223	72 55.71	126 23.48	50		ARM	BOX_159	
				BO	2224	72 55.71	126 23.47	50				
				EN	2225	72 55.71	126 23.46	49				
10	BNK06	Box	124	BE	2228	72 55.70	126 23.41	48		ARM	BOX_160	
				BO	2229	72 55.70	126 23.40	48				
				EN	2230	72 55.70	126 23.38	48		ARM		
10	BNK06	Box	125	BE	2240	72 55.62	126 24.81	63		↓	BOX_161	
				BO	2241	72 55.62	126 24.80	63				
				EN	2243	72 55.62	126 24.79	63				
10	BNK06	BBT	126	BE	2257	72 55.31	126 24.43	43		ARM	bbt-96	
				BO	2308	72 55.77	126 23.33	51				
				EN	2318	72 56.01	126 22.64	49				
10	BNK06	WZA	127	BE	2338	72 56.85	126 21.25	50		ARM	WZA_126	
				BO	2342	72 56.64	126 21.61	50				
				EN	0002	72 55.76	126 23.37	51				
11	BNK07	ROS	128	BE	1303	72 5.89	127 8.46	209	203	MD	4 Nishins Big chlamax!	
				BO	1308	72 5.82	127 8.47					

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 WZA = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

BE = Beginning Time
 BO = Arrive on Bottom Time
 UP = Start up Time
 EN = End Time

Notes: _____

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

11 Aug 2014

- Sunny (4/10)
- 4°C
- minor chop $< 0.5\text{m}$

DAILY SCIENCE LOG

Page _____

Month				Year				Ship				Cruise ID
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
11	BNK07	ROS	128	EN	1316	72 5.73	127 8.47					
	BNK07	ROS	129	BE	1337	72 5.91	127 8.54	207	80		12 Nishins	
				BO	1340	72 5.88	127 8.53					
				EN	1352	72 5.77	127 8.49					
11	BNK07	MPS	130	BE	1403	72 06.02	127 08.77	199	199	ARM	N1 10A-100m N2 100-50m N3 50-25m	
				BO	1414	72 05.92	127 08.82	207	199		N4 25-0m	
				EN	1419	72 05.88	127 08.77	207				
11	BNK07	BON	131	BE	1433	72 06.01	127 08.37	195	190	ARM	wire out = 280m	
				EN	1455	72 05.29	127 06.45	200				
11	BNK07	BOX	132	BE	1513	72 06.04	127 08.94	204		ARM	BOX - 162	
				BO	1516	72 06.02	127 08.96	205				
				EN	1520	72 06.00	127 08.96	206				
11	BNK07	BOX	133	BE	1529	72 06.06	127 08.56	193		ARM	BOX - 163	
				BO	1531	72 06.06	127 08.55	192				
				EN	1535	72 06.06	127 08.56	193				
11	BNK07	BBT	134	BE	1545	72 06.36	127 09.62	198		ARM	bbt - 97	
				BO	1557	72 05.97	127 08.52	199				
				EN	1607	72 05.71	127 07.82	201				

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

BE = Beginning Time
 BO = Arrive on Bottom Tim
 UP = Start up Time
 EN = End Time

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

Notes: _____

Version: 22 May 2014

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
11	BURLOT	WTA	135	BE	1632	72 04.95	127 05.40	200		ARM	WTA-121	
				BO	1640	72 05.41	127 06.87	200				
				EN	1700	72 06.12	127 08.99	199				
11	BURLOT CTD		136	BE	1955	72 06.00	126 48.98	30		ARM	Scabirrol 19	
				BO	1956	72 05.98	126 48.98	32				
				EN	1957	72 05.98	126 48.97	32				
11	BURLOT	BON	137	BE	20:02	72 06.04	126 48.89	31	25	ARM		
				EN	2020	72 06.73	126 49.85	32				
11	BURLOT	MWT	138	BE	2049	72 07.74	126 51.77	31	10	ARM	MWT-52	
				BO	2050	72 07.63	126 51.56	31				
				EN	2110	72 06.43	126 49.51	30				
				OW	2111	72 06.43	126 49.51	30				
11	BURLOT	CTD	139	BE	2307	72 05.92	127 09.91	225	215	ARM		
				BO	2311	72 05.89	127 09.83	225				
				EN	2314	72 05.86	127 09.75	225				
11	BURLOT	MPS	140	BE	2319	72 05.86	127 09.64	224	205	ARM	205m is trigger depth	
				BO	2329	72 06.13	127 10.26	221			N1 200-150 (Swim) N2 150-100 (Swim)	
				EN	2357	72 06.86	127 12.27	218			N3 100-50 (Swim) N4 50-25 (Swim)	
											N5 25-0 (Swim)	

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
WTA = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
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EN = End Time

Notes: _____

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

DAILY SCIENCE LOG

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Page _____

Month				Year				Ship			Cruise ID
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
11	BNK-HC2	MWT	141	BE	0023	72 06.74	127 11.97	218	197	ARM	MWT-53
				BO	0025	72 06.65	127 11.75				
				EN	0047	72 05.81	127 09.37				
				OW	0053	72 05.68	127 09.13				
12	BNK-HC3	ROS	142	BE	1503	72 5.76	127 50.03	379	373	MD	12 Niskins DIC & Not test
				BO	1510	72 5.86	127 50.21				
				EN	1527	72 5.61	127 50.77				
12	BNK-HC3	MPS	143	BE	1539	72 05.46	127 50.78	380	360	ARM	N1 350-300 N2 300-250 N3 250-200
				BO	1659						N4 200-60 N5 60-0
				EN	1639	72 05.80	127 43.44	374			
12	BNK-HC3	MWT	144	BE	1657	72 05.88	127 42.08			ARM	MWT-54
				BO	1713	72 05.88	127 45.43	373			
				EN	1733	72 05.91	127 48.65	377			
				OW	1744	72 05.83	127 49.50	378			
12	BNK-HC4	CTD	145	BE	2117	72 05.87	128 53.58	382		ARM	
				BO	2123	72 05.89	128 53.76	380			
				EN	2128	72 05.91	128 53.94	382			
12	BNK-HC4	MPS	146	BE	2133	72 05.93	128 53.92	380		ARM	N1 350-250 N2 250-200 N3 200-60
				BO	2147	72 06.45	128 54.40	380	360		N4 60-30 N5 30-0

Event Type:

BOT = Bottle cast, no CTD
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ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
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EN = End Time

Notes: _____

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

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
12	BNK-HC4	MPS	146	EN	2220	72 07.52	128 56.40	372			
12	BNK-HC4	MWT	147	BE	2235	72 07.81	128 56.91	371			MWT-55
				BO	2347	72 07.13	128 55.68	376	300		
				EN	2307	72 08.21	128 53.65	379			
				OW	2317	72 06.05	128 53.48				
12	BNK-HC4	MWT	148	BE	2349	72 05.90	128 50.54				MWT-56
				BO	2352	72 05.22	128 51.05	383	50		
				EN	0012	72 05.96	128 53.56	381			
				OW	0015	72 05.98	128 53.75				
13	NTC01	ROS	149	BE	1303	71 19.09	126 53.12	354	348		6 Nishins.
				BO	1311	71 18.98	126 53.03				in CTD file says station = NTC01
				EN	1323	71 18.81	126 52.88	353	80		
13	NTC01	ROS	150	BE	1343	71 19.07	126 53.46	353	80		12 Nishins
				BO	1345	71 19.03	126 53.42				in CTD file says station = NTC02
				EN	1356	71 18.85	126 53.25				
13	NTC01	MPS	151	BE	1415	71 19.04	126 53.31	353			N1 341-200 N2 200-100 N3 100-50
				BO	1423	71 18.90	126 53.18	351	341		N4 50-25 N5 25-0
				EN	1431	71 18.79	126 53.13	351			

Event Type:

BOT = Bottle cast, no CTD
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 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

BE = Beginning Time
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Notes: _____

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

DAILY SCIENCE LOG

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Month				Year				Ship			Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
13	NTC01	BON	152	BE	1442	71 18.63	126 52.83	351	200	ARM		
				EN	1503	71 19.22	126 54.08	351				
13	NTC01	BOX	153	BE	1517	71 19.16	126 53.25	352		ARM	Box - 164	
				BO	1522	71 19.08	126 53.19	351			No good.	
				EN	1528	71 18.99	126 53.14	351				
13	NTC01	BOX	154	BE	1538	71 18.81	126 52.99	351		ARM	Box - 165	
				BO	1543	71 18.73	126 52.95	352			Good	
				EN	1551	71 18.62	126 52.89	351				
13	NTC01	BOX	155	BE	1609	71 19.03	126 53.09	351		ARM	Box - 166	
				BO	1613	71 18.96	126 53.31	351				
				EN	1618	71 18.89	126 53.27	351				
13	NTC01	BBT	156	BE	1634	71 17.84	126 52.56	351		ARM	BBT - 98	
				BO	1653	71 18.66	126 53.11	350				
				EN	1703	71 18.97	126 53.48	350				
13	NTC02	WLA	157	BE	1735	71 19.66	126 54.97	350		ARM	WLA - 122	
				BO	1747	71 18.88	126 53.31	350				
				EN	1807	71 17.91	126 52.48	351				

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
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Notes:

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

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
14	ESC03	ROS	158	BE	1304	70 20.092	131 0.42	20	18.1		6 Nishins
				BO	1306	70 20.07	131 0.54				
				EN	1313	70 20.00	131 0.82				
14	ESC03	BON	159	BE	1320	70 19.94	131 00.89	17		ARM	
				EN	1342	70 20.48	130 59.41	17			
14	ESC03	BOX	160	BE	1356	70 20.31	131 00.35	17		ARM	Box - 167
				BO	1356	70 20.31	131 00.05	17			No good
				EN	1357	70 20.30	131 00.89	17			
14	ESC03	BOX	161	BE	1401	70 20.26	131 00.27	17		ARM	Box - 168
				BO	1402	70 20.26	131 00.31	17			Good.
				EN	1403	70 20.24	131 00.36	17			
14	ESC03	BOX	162	BE	1415	70 20.09	131 00.12	16		ARM	Box - 169
				BO	1415	70 20.09	131 00.13	17			
				EN	1416	70 20.08	131 00.15	17			
14	ESC03	BBT	163	BE	1429	70 20.04	131 00.35	17		ARM	BBT - 99
				BO	1434	70 20.18	131 00.13	18			
				EN	1438	70 20.31	130 59.92	17			
14	ESC03	BBT	164	BE	1446	70 20.48	130 59.61	17		ARM	BBT - 100
				BO	1449	70 20.55	130 59.47	16			

Event Type:

BOT = Bottle cast, no CTD
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ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

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

Notes: _____

14 Aug 2014

overcast

5°C

158 ROS - bottles 5 & 6 did not drip

- no water sampler control.

tested on deck - no comms with pylon

inspected and cleaned pylon connections

- some gunk on pin 1 on pylon found.

TOK.

This page is for any notes or observations

DAILY SCIENCE LOG

Month				Year				Ship				Cruise ID		Page
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments			
14	ESC-03	BBT	164	EN	1454	70 20.68	130 59.19	18						
14	ESC-03	W2A	165	BE	1510	70 20.66	130 58.70	17		ARM	W2A-123			
				BO	1513	70 20.51	130 59.18	17						
				EN	1518	70 20.34	130 59.79	18						
14	ESC04	ROS	166	BE	1841	70 5.24	132 7.76	20			6 Niskins			
				BO	1843	70 5.23	132 7.86							
				EN	1846	70 ↓	132 ↓							
14	ESC04	BON	167	BE	1903	70 05.17	132 08.63	19		ARM				
				EN	1922	70 05.70	132 07.42	20						
14	ESC04	BOX	168	BE	1937	70 05.29	132 07.88	20		ARM	BOX-170			
				BO	1937	70 05.29	132 07.91	20						
				EN	1938	70 05.29	132 07.94	20						
14	ESC04	BOX	169	BE	1948	70 05.27	132 08.31	20		ARM	BOX-171			
				BO	1949	70 05.26	132 08.33	19						
				EN	1950	70 05.25	132 08.41	20						
14	ESC04	BBT	170	BE	1959	70 05.14	132 08.57	19		ARM	bbt-101			
				BO	2002	70 05.16	132 08.26	19						
				EN	2007	70 05.22	132 07.88	19						
14	ESC04	BBT	171	BE	2013	70 05.28	132 07.41	20		ARM	bbt-102			

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

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Notes:

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

This page is for any notes or observations

NO dropped out
-connectors cleaned

DAILY SCIENCE LOG

Month				Year				Ship				Cruise ID		Page
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments			
14	ESCO4	BBT	171	BO	2015	70 05.31	132 07.19	21						
				EN	2020	70 05.37	132 06.81	21						
14	ESCO4	WZA	172	BE	2037	70 05.44	132 06.14	19		ARM	WZA-124			
				BO	2041	70 05.35	132 06.67	19						
				EN	2046	70 05.22	132 07.41	18						
17	FRK01	ROS	173	BE	1314	70 4.94	126 11.87	36	31		7 Niskins.			
				BO	1315	70 4.96	126 11.97							
				EN	1322	70 4.94	126 12.17							
17	FRK01	MPS	174	BE	1338	70 04.90	125 11.59	35	27	ARM	N1 27-20 N2 20-10 N3 10-0			
				BO										
				EN	1340	70 04.89	125 11.65	35						
17	FRK01	BON	175	BE	1350	70 04.91	125 11.83	36	20	ARM				
				EN	1409	70 05.24	125 10.27							
17	FRK01	BOX	176	BE	1429	70 05.01	125 11.52	35		ARM	BOX-172			
				BO	1430	70 05.00	125 11.53				Good!			
				EN	1431	70 04.98	125 11.56							
17	FRK01	BOX	177	BE	1440	70 04.85	125 11.887	32			Box-173			
				BO	1441	70 04.84	125 11.91							
				EN	1442	70 04.83	125 11.94							

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 WZA = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

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Notes:

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

17 Aug 2014

Sunny, 7°C

Winds light in morning

→ increased to SE 25 Knots in afternoon

no DO drop out

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID		Page
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
17	FRK01	BBT	178	BE	14:49	70 05.26	125 10.73	44		ARM	bbt-103		
				BO	15:05	70 05.02	125 11.40	35					
				EN	15:15	70 04.82	125 12.31	34					
17	FRK01	WZA	179	BE	15:35	70 04.50	125 15.05	34		ARM	wza-125		
				BO	15:38	70 04.58	125 14.63	34					
				EN	15:59	70 04.94	125 11.75	50					
17	FRK02	ROS	180	BE	17:37	70 4.94	125 25.19	79	74	MD	14 Niskins		
				BO	17:40	70 4.90	125 25.31						
				EN	17:51	70 4.84	125 25.71						
17	FRK02	MPS	181	BE	18:02	70 05.05	125 25.11	70	61	ARM	M1 60-25 N2 25-0		
				BO	18:05	70 05.04	125 25.17						
				EN	18:07	70 05.03	125 25.23						
17	FRK02	BON	182	BE	18:15	70 05.01	125 25.54	77	65	ARM			
				EN	18:32	70 05 619	125 25 241						
17	FRK02	BOX	183	BE	18:47	70 04 966	125 25 163	72		CGL	Box - 174		
				BO	18:48	70 04 946	125 25 193						
				EN	18:50	70 04 925	125 25 254						
17	FRK02	BOX	184	BE	19:04	70 05 120	125 25 159	73		CGL	Box - 175		
				BO	19:05	70 05 115	125 25 188						

Event Type:BBT = Benthic Beam TrawlTime Code:

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
WZA = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)

MPS = Multi-net

MWT = Midwater trawl

BOX = Box Core

Time Code:

BE = Beginning Time

BO = Arrive on Bottom Tim

UP = Start up Time

EN = End Time

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

Notes: _____

DAILY SCIENCE LOG

Page _____

Month				Year				Ship				Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
17	FRK02	BOX	184	EN	19:07	70 05 107	125 25 242	73					
17	FRK02	BBT	185	BE	19:21	70 04 166	125 26 217	82		CGL	BBT_104		
				BO	19:25	70 04 285	125 25 942	77					
				EN	19:35	70 04 532	125 25 381						
17	FRK02	W2A	186	BE	20:04	70 04.51	125 25.46			ARM	W2A-126		
				BO	20:12	70 04.95	125 25.39	77					
				EN	20:32	70 05.84	125 25.33	73					
17	FRK03	ROS	187	BE	21:53	70 5.06	125 51.27	128	123		2 Nishins		
				BO	21:57	70 5.03	125 51.55						
				EN	22:01	70 5.01	125 51.79						
17	FRK03	ROS	188	BE	22:16	70 5.06	125 51.30	126	80		12 Nishins		
				BO	22:18	70 5.11	125 51.41						
				EN	22:30	70 5.09	125 51.13						
17	FRK03	MPS	189	BE	22:51	70 05.09	125 50.84	124	115	ARM	N1 115-100 N2 100-51 N3 51-25 N4 25-0		
				BO	22:56	70 05.05	125 51.12	124					
				EN	22:59	70 05.02	125 51.25	124					
17	FRK03	BON	190	BE	23:08	70 04.89	125 51.69	124	115	ARM/CGL			
				EN	23:36	70 05 71	125 51 328						
17	FRK03	BBT	191	BE	23:50	70 06.35	125 50.49	127		ARM	BBT_105		

Event Type:

BRT - Benthic Beam Trawl

Time Code:

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes: _____

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

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
17	FRK03	BBT	191	BO	00:00	70 05.94	125 50.97	130				
				EN	00:16	70 05.64	125 51.21	128				
17	FRK03	WZA	192	BE	00:38	70 06.16	125 50.84	128		ARM	WZA - 127	
				BO	00:48	70 05.54	125 51.08	128				
				EN	01:08	70 04.66	125 51.83	123				
17	FRK03	BOX	193	BE	01:34	70 05.16	125 51.29	126		ARM	BOX - 176	
				BO	01:36	70 05.17	125 51.40	126			Did not work - no mud. Too windy. Putting it away.	
				EN	01:39	70 05.17	125 51.56	126				
18	FRK03	BOX	194	BE	1306	70 04.92	125 51.03	123		ARM	BOX - 177	
				BO	1308	70 04.92	125 51.10	124			Good! - -	
				EN	1310	70 04.93	125 51.21	124				
18	FRK03	BOX	195	BE	1322	70 05.02	125 51.56	125		ARM	BOX - 178	
				BO	1324	70 05.03	125 51.65	126			Good!	
				EN	1326	70 05.05	125 51.74	125				
18	FRK04	ROS	196	BE	1417	70 4.99	126 2.11	202	197		3 Nishins	
				BO	1421	70 5.03	126 2.33					
				EN	1432	70 5.11	126 2.74					
18	FRK04	ROS	197	BE	1458	70 5.03	126 1.86	198	80		12 Nishins	
				BO	1501	70 5.06	126 1.96					

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
WZA = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

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

Notes: _____

Aug 18

Sunny 2c

Winds 20-25 knots

This page is for any notes or observations

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's Initials	Comments	
18	FRK04	ROS	197	EN	15:14	70 5.16	126 2.48	197	80	MD		
18	FRK04	MPS	198	BE	15:26	70 05.02	126 02.21	199	191	ARM	N1 191-100 N2 100-50 N3 50-25	
				BO	15:29	70 05.05	126 02.33	199			N4 25-0	
				EN	15:34	70 05.09	126 02.52	201				
18	FRK04	BON	199	BE	15:43	70 05.18	126 02.85	205	190	ARM		
				EN	16:08	70 04.80	126 01.65	193				
18	FRK04	BOX	200	BE	16:22	70 04.99	126 01.72	196		ARM	BOX-179	
				BO	16:26	70 05.03	126 01.84	196				
				EN	16:30	70 05 071	126 02 020	198				
18	FRK04	BOX	201	BE	16:44	70 05 202	126 02 524	202		CGL	BOX-180	
				BO	16:46	70 05 236	126 02 607					
				EN	16:51	70 05 278	126 02 787					
18	FRK04	BBT	202	BE	17:09	70 06 332	126 02 427	204		CGL	BBT-106	
				BO	17:16	70 05 956	126 02 452					
				EN	17:26	70 05 669	126 02 509					
18	FRK04	W2A	203	BE	17:59	70 66.52	126 02.20	203		ARM	W2A-128	
				BO	18:06	70 05.94	126 02.40					
				EN	18:26	70 04.96	126 02.21					

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)

MPS = Multi-net

MWT = Midwater trawl

BOX = Box Core

Time Code:

BE = Beginning Time

BO = Arrive on Bottom Time

UP = Start up Time

EN = End Time

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

Notes: _____

DAILY SCIENCE LOG

Page _____

Month				Year				Ship				Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...		Longitude (W) DDD MM.MM...		Bottom Depth	Max Depth	Logger's initials	Comments
18	FRK05	ROS	204	BE	1948	70	5.03	126	25.81	228	222	MD	4 Nishins
				BO	1953	70	5.09	126	26.03				
				EN	2005	70	5.18	126	26.46				
18	FRK05	MPS	205	BE	2017	70	04.99	126	25.95	225		ARM	N1: 217-100 N2: 100-50 N3: 50-25 N4: 25-0
				BO	2023	70	05.04	126	26.14	217			
				EN	2028	70	05.07	126	26.33	225			
18	FRK05	ROS	206	BE	2049	70	05.02	126	25.74	228	80	MD	12 Nishins
				BO	2052	70	05.05	126	25.85				
				EN									
18	FRK05	Box	207	BE	2122	70	04.91	126	25.45	225		ARM	BOX - 181
				BO	2125	70	04.93	126	25.57	225			
				EN	2131	70	04.94	126	25.77	225			
18	FRK05	Box	208	BE	2143	70	05.02	126	26.27	225		ARM	BOX - 182
				BO	2147	70	05.04	126	26.40	225			Perfect core. Ashley decided to just do the
				EN	2151	70	05.06	126	26.58	225			one.
18	FRK05	BON	209	BE	2203	70	05.02	126	26.14	225		ARM	
				EN	2222	70	04.75	126	24.37	225			
18	FRK05	BBT	210	BE	2234	70	04.70	126	23.53	226		ARM	BBT - 107
				BO	2246	70	04.97	126	25.26	226			

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Time
UP = Start up Time
EN = End Time

Notes:

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

chla & xmiss failed - noisy then dead.

replaced floor/xmiss cable - TOK.

DAILY SCIENCE LOG

Page _____

Month				Year				Ship				Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
18	FRK05	BBT	210	EN	2256	70 05.10	126 26.16	225					
18	FRK05	W2A	211	BE	2322	70 05.49	126 28.99	225		ARM	W2A-129		
				BO	2332	70 05.22	126 27.07	225					
				EN	2352	70 04.78	126 24.56	225					
19	FRK06	ROS	212	BE	1302	70 05.23	126 46.39	125	119	MD	3 Nishias		
				BO	1305	70 05.34	126 46.63				originally saved as 2014-56-0230 and -0231 (disregard those CTD file) use -0212 and -0213		
				EN	1308	70 05.40	126 46.80						
19	FRK06	ROS	213	BE	1330	70 05.04	126 46.11	125	80		11 Nishias.		
				BO	1332	70 5.07	126 46.19						
				EN	1346	70 5.29	126 46.77						
19	FRK06	MPS	214	BE	1358	70 05.07	126 46.07	127	116	ARM	N1 113-50 N2 50-25 N3 25-0		
				BO	1403	70 05.15	126 46.77	125					
				EN	1406	70 05.23	126 46.46	123					
19	FRK06	BON	215	BE	1415	70 05.37	126 46.79	119		ARM			
				EN	1440	70 04.78	126 45.38	134					
19	FRK06	BOX	216	BE	1451	70 04.99	126 45.87	129		ARM	Box-183		
				BO	1454	70 05.03	126 45.98	127			Good		
				EN	1457	70 05.07	126 46.11	126					
19	FRK06	BOX	217	BE	1515	70 05.06	126 46.09	127		ARM	Box-184		

Event Type:

BBT = Benthic Beam Trawl

Time Code:

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

BE = Beginning Time
 BO = Arrive on Bottom Tim
 UP = Start up Time
 EN = End Time

Notes:

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

DAILY SCIENCE LOG

Month

Day (UTC)

Station Name

Event Type

Event Number

Year

Time Code

Time (UTC)

Latitude (N)
DD MM.MM...

Longitude (W)
DDD MM.MM...

Bottom Depth

Max Depth

Logger's initials

Cruise ID

Comments

19	FRK06	BOX	217	BO	1518	70 05.11	126 46.11	127				
				EN	1521	70 05.17	126 46.21	126				No mud.
A	FRK06	BOX	218	BE	1524	70 05.24	126 46.33	125		ARM	BOX-185	
				BO	1526	70 05.28	126 46.41	124				No mod
				EN	1529	70 05.32	126 46.51	123				
19	FRK06	BOX	219	BE	1540	70 04 975	126 46 051	126		CFL	BOX-186	
				BO	1542	70 05 015	126 46 079					Load!
				EN	1545	70 05 079	126 46 204					
19	FRK06	BBT	220	BE	1600	70 05.60	126 46.83	122		ARM	BBT-107	
				BO	1606	70 05.39	126 46.56	123				
				EN	1616	70 05.15	126 46.28	125				
19	FRK06	W2A	221	BE	1643	70 06.01	126 47.11	123		ARM	W2A-130	
				BO	1648	70 05.67	126 46.85	122				
				EN	1708	70 04.76	126 45.74	128				
19	FRK07	ROS	222	BE	1854	70 05.08	126 54.63	42	37	MD	7 Niskins.	
				BO	1857	70 05.14	126 54.84					
				EN	1903	70 05.29	126 54.14					CTD file originally saved as 2014-56-0226 -> DISCARD
19	FRK07	MPS	223	BE	19:20	70 05.00	126 54.58	40		ARM	use 2014-56-0222	
				BO	19:22	70 05.04	126 54.74	39	32			

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

BE = Beginning Time
 BO = Arrive on Bottom Tim
 UP = Start up Time
 EN = End Time

Notes:

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

This page is for any notes or observations

muddled - oops!

DAILY SCIENCE LOG

Month				Year				Ship				Cruise ID		Page
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments			
19	FRK07	MPS	223	EN	19:23	70 05.02	126 54.85	38		ARM	N1 31-20 N2 20-10 N3 10-0			
19	FRK07	BON	224	BE	19:33	70 05.38	126 55.12	39		ARM				
				EN	19:51	70 04 939	126 54 526	40						
19	FRK07	BOX	225	BE	20:01	70 04 968	126 54 553	40		CGL	Box- 187			
				BO	20:02	70 04 985	126 54 585	38						
				EN	20:04	70 05 028	126 54 654	40						
19	FRK07	BOX	226	BE	20:12	70 05 270	126 55 139	37		CGL	Box- 188			
				BO	20:13	70 05 295	126 55 190							
				EN	20:14	70 05 324	126 55 248							
19	FRK07	BBT	227	BE	20:31	70 06 180	126 55 485	40		CGL	BBT- 108			
				BO	20:37	70 06 025	126 55 365							
				EN	20:47	70 05 727	126 55 139							
19	FRK07	W2A	228	BE		missed		38		ARM	W2A - 131			
				BO	21:11	70 06.65	126 56.28	38						
				EN	21:31	70 05.80	126 55.10	40						
20	ISMO	ROS	229	BE	0020	67 51.67	126 44.67	43	39	MD	smoking hills productivity			
				BO	0021	51.67	44.67							
				EN		missed					CTD file originally named as 2014-56-0247-0Ds regard. use 2014-56-0229			

Event Type:

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 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

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 BO = Arrive on Bottom Time
 UP = Start up Time
 EN = End Time

Notes:

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

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
20	SMD	MPS	230	BE	0039	69 51.72	126 44.69	40		ARM	N1 32-20 N2 20-10 N3 10-0	
				BO	0040	69 51.74	126 44.73	40	32			
				EN	0042	69 51.76	126 44.76	40				
20	SMD	BOX	231	BE	0056	69 51.62	126 44.54	42		ARM	Box - 189	
				BO	0057	69 51.63	126 44.55	42			Good!	
				EN	0058	69 51.64	126 44.57	42				
20	SMD	BBT	232	BE	0114	69 50.86	126 44.40	41		ARM		
				BO	0117	69 51.12	126 44.42	41				
				EN	0127	69 51.46	126 44.56	40				
20	BOW	BON	233	BE	02:12	69 56.38	126 44.76	34		ARM	Bowhead feeding area. 10-15 whales	
				EN	02:30	69 57.37	126 45.38	30			at mouth of Horton River	
20	BOW2	ROS	234	BE	1244	69 58.27	126 46.41	43	38	MD	Bowhead Feeding re-visiting.	
				BO	1246	69 58.26	126 46.41				7 whisks.	
				EN	1255	69 58.22	126 46.45					
20	FRK-HCI	CTD	235	BE	1444	70 05.13	126 45.25	141	135	ARM		
				BO	1448	70 05.18	126 45.44	138				
				EN	1452	70 05.22	126 45.65	135				
20	FRK-HCI	MPS	236	BE	1456	70 05.32	126 46.05	129	120	ARM	N1 115-100 N2 100-20 N3 60-30	
				BO	1508	70 05.26	126 46.06	129			N4 30-10 N5 10-0	

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes: _____

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

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
20	FRK-HC1	MPS	236	EN	1537	70 05.12	126 49.32	86				
20	FRK-HC1	MWT	237	BE	1557	70 05.18	126 51.60	64	50	ARM	MWT-57	
				BO	1602	70 05.19	126 51.85	69				
				EN	1622	70 05.21	126 48.9	91				
				OW	1626	70 05.28	126 48.83	93				
20	FRK-HC2	CTD	238	BE	1847	70 04.96	126 10.71	225	215	ARM		
				BO	1853	70 04.91	126 10.75	226				
				EN	1856	70 04.90	126 10.77	225				
20	FRK-HC2	MPS	239	BE	1902	70 04.91	126 10.96	225	215	ARM	N1-210-175 N2-175-80 N3-80-30 N4-30-15 N5-50	
				BO								
				EN	1948	70 04.97	126 17.21	227				
20	FRK-HC2	MWT	240	BE	2003	70 05.06	126 18.84	227	200	ARM	MWT-58	
				BO	2016	70 05.039	126 16.798	227				
				EN	2036	70 05.034	126 14.161	225				
				OW	2042	70 05.018	126 13.95	225				
20	FRK-HC2	MWT	241	BE	2102	70 04.99	126 12.83	225		ARM	MWT-59	
				BO	2107	70 04.99	126 13.71	225				
				EN	2117	70 04.99	126 15.37	226				
				OW	2121	70 04.94	126 16.47	226				

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
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Time Code:

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Notes: _____

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

DAILY SCIENCE LOG

Month				Year			Ship				Cruise ID		Page _____
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
20	FRK-HC2	UCTD	242		16:56L			125 m			OUT OF WATER 17:03		
21	FRK-HC3	CTD	243	BE	00:32	70 05.06	125 24.32	59	50	ARM			
				BO	00:34	70 05.06	125 24.35	60					
				EN	00:36	70 05.06	125 24.37	61					
21	FRK-HC3	MPS	244	BE	00:52	70 05.08	125 24.31	61	65	ARM	N1-55-45m N2 45-30m N3 30-20 N4 20-10 N5 10-0m		
				EN	01:22	70 04.97	125 28.81	82					
21	FRK-HC3	MWT	245	BE	01:38	70 05.009	125 30.057	98	30		MWT-60		
				BO	01:40	70 05.016	125 29.709	98					
				EN	01:50	70 05.029	125 28.185	83					
				OW	01:51	70 05.024	125 28.061						
22	BPT-Cal	W2A	246	BE	13:35	69 39.587	123 16.028	72.9	77.9	SPA	End of leg 1 sampling		
				EN	13:48	69 38.904	123 16.404	66.9			W2A calibration trawl in Darnley Bay		
22	BPT-OS	ROS	248	BE	14:36	69 42.005	123 11.622	36.5		AM.			
				BO	14:37	69 42.010	123 11.597		35.4				
				GM	14:43	69 42.048	123 11.449						
22	BPT-OS	MPS	249	BE							EN time + coords taken from "Seasave" prog.		
				BO									
				EN	14:51	69 42.18	123 11.004						
22	BPT-OS	BON	250	BE	15:11	69 42.252	123 10.748	30	SPA		Let out 70m wire, 05° angle		

Event Type:

BOT = Bottle cast, no CTD
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Notes: _____

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

Aug 22 3/10 overcast
Sunny
Wind 10-12^{South} K; 0.5m waves

DAILY SCIENCE LOG

Page _____

Month				Year				Ship				Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...		Longitude (W) DDD MM.MM...		Bottom Depth	Max Depth	Logger's initials	Comments
22	BPT-05	BON	250	EN	15:32	69	41.690	123	12.611	36.3		SPA	
22	BPT-05	BOX	251	BE	15:46	69	42.090	123	11.966	36.4			Box-190 good
				BO	15:47	69	42.087	123	11.718	36.3		SPA	
				EN	15:48	69	42.084	123	11.724	36.4			
22	BPT-05	BOX	252	BE	15:56	69	42.099	123	11.617	36.8			Box-191 good
				BO	15:57	69	42.102	123	11.598	36.7		SPA	wind slowed, S ~7 knots
				EN	15:58	69	42.110	123	11.566	36.3			
22	BPT-05	BBT	253	BE	16:17	69	43.068	123	11.392	43.2			BBT-111
				BO	16:22	69	42.773	123	11.362	38.88		SPA	Start of tow
				EN	16:32	69	42.405	123	11.371	35.28			
22	BPT-05	W2A	254	BE	16:54	69	42.274	123	11.400	38.01			W2A-132
				BO	17:58	69	42.498	123	11.415	39.10		SPA	
				EN	17:18	69	42.425	123	11.030	38.57			
22	BPT-04	ROS	255	BE	18:40	69	41.891	123	14.520	72		H.M.	
				BO	18:42	69	41.881	123	14.503		70.5		
				EN	18:52	69	41.803	123	14.221				
22	BPT-04	MPS	256	BE	19:09	69	41.861	123	14.611	73.8		SPA	
				BO	19:12	69	41.838	123	14.621	73.8	60		
				EN	19:14	69	41.820	123	14.608	73.3			

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes:

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

DAILY SCIENCE LOG

Page _____

Month				Year				Ship			Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
22	BPT-04	BON	257	BE	19:24	69 41.741	123 14.542	71.3		SPA	100m out, assume 50° angle	
				EN	19:43	69 42.347	123 15.290	78.94				
22	BPT-04	BOX	258	BE	19:56	69 41.840	123 14.398	69.9		SPA	BOX-192 Success	
				BO	19:58	69 41.825	123 14 340	68.1				
				EN	19:59	69 41.801	123 14.283	67.5				
22	BPT-04	BOX	259	BE	20:10	69 41.919	123 14.287	69.4		SPA	BOX-193 Success	
				BO	20:11	69 41.902	123 14.261	68.5				
				EN	20:13	69 41.879	123 14.230	67.7				
22	BPT-04	BBT	260	BE	20:29	69 41.852	123 14.096	65.1		SPA	BBT-112	
				BO	20:41	69 41.107	123 14.471	70.3				
				EN	20:51	69 41.413	123 14.663	73.3				
22	BPT-04	W2A	261	BE	21:13	69 42.167	123 14.567	68		SPA	W2A-133	
				BO	21:15	69 42.045	123 14.437	65				
				EN	21:35	69 40.960	123 14.732	71				
22 23	BPT-03	ROS	262	BE	22:36	69 42.001	123 26.79	121		H.M.	33.1 @ 95m	
				BO	22:41	69 41.984	123 26.854		117		1st cast	
				EN	22:44	69 41.986	123 26.870					

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes: _____

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

→ 21:00 Aug 22, 2/10 clouds, calm, < 5kt wind S, Sunny ☀

DAILY SCIENCE LOG

Page _____

Month <u>AUG</u>			Year <u>2014</u>			Ship <u>FROST</u>			Cruise ID <u>2014-56</u>		
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
22 22	BPT 03	ROS	263	BE	2317	69 41.850	123 26.300	121		H.M	
				BO	2320	69 41.866	123 26.310		70		
				EN	2326	69 41.888	123 26.317				
23	BPT 03	BON	264	BE	07:14	69 41.930	123 27.79	121		8m	* multinet motor unit won't take to deck unit; suspected low battery or blown fuse.
				EN	30:49	69 41.959	123 25.560				170m wire, L=45°
23	BPT 03	CTD	265	BE	1311	69 41.915	123 26.539	121		H.M	CTD ONLY - NO SAMPLES
				BO	1313	69 41.911	123 26.544		119		
				EN	1316	69 41.902	123 26.560				
23	BPT 03	BOX	266	BE	13:27	69 41.874	123 26.609	122		SPA	Box-194 Success
				BO	13:29	69 41.867	123 26.622	122			
				EN	13:32	69 41.857	123 26.643	121			
23	BPT 03	BOX	267	BE	1341	69 41.841	123 26.722	121		SPA	Box-195 Success
				BO	1343	69 41.839	123 26.744	122			
				EN	1347	69 41.837	123 26.776	122			
23	BPT 03	BBT	268	BE	1402	69 41.916	123 28.302	121		SPA	BBT-113
				BO	1416	69 41.932	123 26.292	121			
				EN	14:26	69 41.964	123 25.340	124			
23	BPT 03	W2A	269	BE	14:55	69 42.184	123 24.315	128		SPA	W2A-134
				BO	14:58	69 42.147	123 24.457	124			

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Time
UP = Start up Time
EN = End Time

Notes: _____

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

Aug 23rd
Start of the day: BPT-03 CTD event 265. 9/10 overcast, calm no waves, light drizzle.

DAILY SCIENCE LOG

Month August				Year 2014				Ship F/V Frush			Page	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Cruise ID 2014-56 Comments	
23	BPT-03	W2A	269	EN	1518	69 41.827	123 27.479	119		SPA	W2A-134	
23	BPT-02	ROS	270	BE	1635	69 41.981	123 47.245	67		H.M.		
				BO	1639	69 42.602	123 47.237		66			
				EN	1649	69 42.064	123 47.111					
23	BPT-02	BON	271	BE	17:02	69 42.061	123 47.761	68.4	45?	SPM	towed depth 45m, wire angle ~60; 70m wire V=2.5 kn (1.4 in water)	
				EN	17:22	69 41.822	123 45.511					
23	BPT-02	BOX	272	BE	17:39	69 42.062	123 47.390	70		SPA	Box-196 success	
				BO	17:41	69 42.054	123 47.358	70				
				EN	17:43	69 42.053	123 47.310	70				
23	BPT-02	BOX	273	BE	17:54	69 42.082	123 47.104	71		SPA	Box-197	
				BO	17:56	69 42.088	123 47.076	71				
				EN	17:58	69 42.095	123 47.042	72				
23	BPT-02	BBT	274	BE	18:12	69 42.129	123 47.817	67		SPA	BBT-114 Started raining, still no wind 10/10 overcast	
				BO	18:21	69 41.993	123 46.697	70				
				EN	18:31	69 41.888	123 45.747	70				
23	BPT-02	W2A	275	BE	18:57	69 41.907	123 46.207	68		SPA	W2A-135 10 min tow	
				BO	18:58	69 41.918	123 46.241	68			Ship pulling starboard before beginning of tow; rain ended	
				EN	19:08	69 42.141	123 47.640	65				

Event Type:

BBT = Benthic Beam Trawl

Time Code:

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

BE = Beginning Time
 BO = Arrive on Bottom Tim
 UP = Start up Time
 EN = End Time

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

Notes: _____

DAILY SCIENCE LOG

Page _____

Month <u>Aug</u>				Year <u>2014</u>				Ship <u>F/V Frost</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
23	BPT-01	ROS	276	BE	2015	69 42.223	123 49.183	41		H.M.		
				BO	2018	69 42.217	123 49.157		35		CHL MAX = 28m	
				EN	2026	69 42.204	123 49.063					
23	BPT-01	BON	277	BE	2043	69 42.109	123 48.068	103			can't find suitable btm, towing from 61m → 40m 10 min tow only, 140 @ 50m wire, 140 @ 35m wire	
				EN	2053	69 42.203	123 49.249		25?			
23	BPT-01	Box	278	BE	21:03	69 42.203	123 49.229		SPA	SPA	Box-198 Success	
				BO	21:05	69 42.213	123 49.204	40				
				EN	21:08	69 42.219	123 49.189	40				
23	BPT-01	Box	279	BE	21:15	69 42.153	123 49.162	30		SPA	Box-199 dumped	
				BO	21:16	69 42.141	123 49.167	31				
				EN	21:17	69 42.126	123 49.177	30				
23	BPT-01	Box	280	BE	21:25	69 42.318	123 49.253	41		SPA	Box-200	
				BO	21:26	69 42.316	123 49.240	41				
				EN	21:27	69 42.313	123 49.219					
23	BPT-01	BBT	281	BE	21:44	69 42.136	123 48.139			SPA	BBT-115 no W2A @ BPT-01	
				BO	21:52	69 42.225	123 48.227					
				EN	22:01	69 42.361	123 49.933					
23	BPT-01	MPS	282	BE	23:01	69 42.245	123 49.438	43		SAM		
				BO	23:04	69 42.216	123 49.469					

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
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EN = End Time

Notes: _____

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

DAILY SCIENCE LOG

Page _____

Month <i>August</i>				Year <i>2014</i>				Ship <i>F/V Frost</i>			Cruise ID <i>2014-56</i>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
23	BPT-01	MPS	282	EN	23:05	69 42.204	123 49.481	42.3	35	SAM	Hush changed motor unit fuse → motor has power!	
24	BPT-03	MPS	283	BE	1:07	69 41.906	123 26.333	123				
				BO	1:11	69 41.878	123 26.412		110		✓ Net #3 motor turn very slow, depth strata likely offset; check CTD	
				EN	1:13	69 41.860	123 26.446					
24	BPT-02	MPS	284	BE	13:04	69 42.071	123 47.292					
				BO	13:07	69 42.083	123 47.253	71				
				EN	13:09	69 42.094	123 47.231		60			
24	BPT-HC1	CTD	285	BE	14:28	69 42.174	123 35.224	93		H.M.	CTD 19 ONLY 2 min SURFACE @ START	
				BO	14:30	69 42.186	123 35.261		85			
				EN	14:32	69 42.185	123 35.282					
24	BPT-HC1	MPS	286	BE	14:53	69 42.164	123 35.347			SPA / SAM		
				BO	15:03	69 42.111	123 33.039	90				
				EN	15:30	69 41.932	123 30.534					
24	BPT-HC1	MWT	287	BE	15:53	69 41.865	123 28.512	122		SPA	MWT-061	
				BO	15:54	69 41.870	123 28.733					
				EN	16:14	69 41.985	123 31.661					
				OW	16:20	69 41.968	123 32.082	112				
24	BPT-HC1	MWT	288	BE	16:38	69 41.857	123 32.571	107		SPA	MWT-062	
				EN	16:40	69 41.870	123 31.990	118				

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

BE = Beginning Time
 BO = Arrive on Bottom Tim
 UP = Start up Time
 EN = End Time

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

Notes: _____

DAILY SCIENCE LOG

Page _____

Month <u>AUG</u>				Year <u>2014</u>				Ship <u>FROSTI</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
24	BPT-HC1	MWT	288	EN	17:00	69 41.975	123 29.130	123		SPA	Sunny, calm, 4/10 overcast	
				OW	17:07	69 42.016	123 28.693	122			resumed transect: 17:37 69 42.282 123 35.121	
24	BPT-HC2	CTD	289	BG	18:44	69 41.707	123 22.537	120		H.M.	CTD ONLY -	
				BO	18:48	69 41.680	123 22.508		115			
				EN	18:52	69 41.666	123 22.516					
24	BPT-HC2	Hmps	290	BG	19:02	69 41.678	123 22.520	128.2		Sam	unlock @ 110 105m	
				BO	19:15	69 41.802	123 24.126		105			
				EN	19:40	69 41.963	123 27.350		105			
24	BPT-HC2	MWT	291	BE	20:04	69 41.919	123 26.391	122		SPA	mwt-063	
				BO	20:06	69 41.908	123 26.131	123				
				EN	20:26	69 41.880	123 23.221	128				
				OW	20:33	69 41.896	123 22.262	118				
24	BPT-HC2	MWT	292	BE	20:53	69 42.076	123 22.723	126	<	SPA	mwt-064	
				BO	20:57	69 42.054	123 23.387	127				
				EN	21:17	69 41.949	123 26.379	121				
				OW	21:28	69 41.936	123 27.314	122				
24	BPT-05	DBC	293	BE	23:35	69 42.211	123 11.784	37.7		SAM/SPA	Benthic camera	
				BO		69 42.189	123 11.786					
				EN	23:50	69 42.102	123 11.824	38.4				

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl
DBC = digital benthic camera

BBT

= Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
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EN = End Time

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

Notes: _____

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2014 - 56

Book 2

DATE:

Mission: Aug 1st - Sept 11th 2014
From: Leg 1: Aug 1st - Aug 21st Leg 2: Aug 21st - Sept 11th to: This book: Aug 25th - Sept 16th 2014

VESSEL:

F/V FROSTI

PROJECT(S):

Beaufort Sea Marine Fishes Project (BSMF)

Fisheries and Oceans Canada, Central + Arctic Region

Fisheries and Oceans Canada

Project Lead: Jim Reist

Freshwater Institute
Winnipeg MB.

Institute of Ocean Sciences
Sidney, B.C.

Captain: John Roach First Officer: Ross Gordon
Engineer/Second Officer: Kelly Muller Third Officer: _____
Fishing Master: _____

Mission Participants / Agencies: FWI / IOS

Scientific Personnel: Chief Scientist: Andrew Majewski

Name	Watch	Cabin	Name	Watch	Cabin
<u>Andrew Majewski</u>	_____	_____	_____	_____	_____
<u>Carolina Giraldo</u>	_____	_____	_____	_____	_____
<u>Desmond Ruben</u>	_____	_____	_____	_____	_____
<u>Laure deMontety</u>	_____	_____	_____	_____	_____
<u>Ashley Stasko</u>	_____	_____	_____	_____	_____
<u>Kelly Young</u>	_____	_____	_____	_____	_____
<u>Michael Dempsey</u>	_____	_____	_____	_____	_____
<u>Andrea Niemi</u>	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Second leg of Mission: Chief Scientist: Shannon MacPhee

Name	Watch	Cabin	Name	Watch	Cabin
<u>Shannon MacPhee</u>	_____	_____	_____	_____	_____
<u>Sheila Atkinson</u>	_____	_____	_____	_____	_____
<u>Julie Henry</u>	_____	_____	_____	_____	_____
<u>Joseph Ellariak</u>	_____	_____	_____	_____	_____
<u>Laure deMontety</u>	_____	_____	_____	_____	_____
<u>Hugla Mailean</u>	_____	_____	_____	_____	_____
<u>Guillaume Maisterhans</u>	_____	_____	_____	_____	_____
<u>Michelle Kamula</u>	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Data logging computer: _____
Data acquisition program: _____
CTD deck unit make: _____ model: _____ serial number: _____

Primary 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: _____ 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: _____ 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?

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

DAILY SCIENCE LOG

Month				Year				Ship				Page	
AUGUST				2014				FROSTI				Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
25	WIS-01	ROS	294	BE	1306	70 06.278	125° 03 728	49		H.M.			
				BO	1311	70 06 281	125 03 802		45				
				EN	1318	70 06 272	125 03 893						
25	WIS-01	MPS	295	BE	1327	70 06.282	125 03.992	50.5			*bottom on echosounder looks "different" screenshot: "MS-01-25-aug-2014" ↳ different depositional environment than in Darnley Bay?		
				BO	1330	70 06.254	125 04.014		40	SPM			
				EN	1331	70 06.250	125 04.024						
25	WIS-01	BON	296	BE	1340	70 06.205	125 04.037	49		SPA	Sunny, 7/10 overcast, calm, wind ESE 15 knots		
				EN	1359	70 06.356	125 02.054						
25	WIS-01	BOX	297	BE	1413	70 06.160	125 03.816	53		SPA	BOX-201		
				BO	1414	70 06.151	125 03.834	54					
				EN	1416	70 06.148	125 03.855	54					
25	WIS-01	BOX	298	BE	1424	70 06.119	125 04.005	55		SPA	BOX-2032		
				BO	1425	70 06.116	125 04.034	54					
				EN	1427	70 06.112	125 04 064	54					
25	WIS-01	BBT	299	BE	1437	70 05.968	125 05.227	44		SPA	bbt-116		
				BO	1445	70 06.020	125 04.556	53					
				EN	1455	70 06.118	125 03.936	53					
25	WIS-01	W2A	300	BE	1520	70 06.276	125 01.070	48		SPA	W2A-0136 Kelp bomb. Hauled back early; net appeared to be dragging something → mud		
				BO	1520	70 06 276	125 01.070	48					

Event Type:

BBT = Benthic Beam Trawl
BOT = Bottle cast, no CTD

Time Code:

EN = Encompass (aka Hec/Hec/Hec)

Transmissometer to be used

if possible

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

BE = Beginning Time
 BO = Arrive on Bottom Tim
 UP = Start up Time
 EN = End Time

Notes:

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

DAILY SCIENCE LOG

Page _____

Month <u>Aug</u>				Year <u>2014</u>			Ship <u>Frosti</u>			Cruise ID <u>2014-56</u>		
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
25	WIS-01	WZA	300	EN	15:34	70 06.129	125 03.168	52			non-quantitative tow hauled back early, doors full down, hung up on huge kelp bunch	
25	WIS-02	ROS	301	BE	1730	70 10.411	124 50 071	44		H.M.	CHL max @ 30m	
				Bo	1732	70 10.387	124 50 106		40			
				EN	1740	70 10.339	124 50.314					
25	WIS-02	MPS	302	BE	1749	70 10.279	124 50.651	41		SAM	vertical tow: left net at layer interface until net A occurred	
				BO	1751	70 10.271	124 50.692		35			
				EN	1753	70 10.257	124 50.778					
25	WIS-02	BON	303	BE	1802	70 10.187	124 50.729	40.8		SAM	CTD 60m wire out, 20min	
				EN	1820	70 10.480	124 49.443		30	SA		
25	WIS-02	BOX	304	BE	19:11	70 10.469	124 50.488	44		SPA	box-203 unsuccessful. corner of box core is bent.	
				BO	19:12	70 10.468	124 50.509	44			3 Rivets came apart in one corner. Crew will try and repair.	
				EN	19:14	70 10.463	124 50.539	44				
25	WIS-02	BOX	305	BE	19:31	70 10.397	124 50.141	44		SPA	box-204 Sunny, clear, 0.5m swells	
				BO	19:32	70 10.393	124 50.161	44				
				EN	19:33	70 10.388	124 50.194	43			Failed deployment, <u>Deployment at new site</u>	
25	WIS-02	BOX	306	BE	19:42	70 10.508	124 49.902	44.7		SPA	1/4 mile from last spot → try again in what looks like softer ground.	
				BO	19:43	70 10.504	124 49.914	44				
				EN	19:45	70 10.499	124 49.938	44.9		SPA	box-205 unsuccessful	
25	WIS-02	WZA	307	W	summer "WIS-02-25 Aug 2014 - hard bottom no bbt"						No bbt at this station WZA-137	

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
WZA = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

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

Notes: _____

Version: 22 May 2014

DAILY SCIENCE LOG

Page _____

Month				Year				Ship				Cruise ID	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N)	Longitude (W)	Bottom Depth	Max Depth	Logger's initials	Comments		
						DD MM.MM...	DDD MM.MM...						
25	WIS-02	W2A	307	BE	20:04	70 10.308	124 50.510	44		SPA	W2A-137		
				BO	20:05	70 10.385	124 50.296	44.5					
				EN	20:25	70 11.145	124 48.237	43			rock in net,		
25	CPY-01	ROS	308	BE	21:49	70 13.552	124 29.823	44		H.M.			
				BO	21:52	70 13.541	124 29.882		40		CULL MAX = 30 m		
				EN	21:59	70 13.565	124 30.077						
25	CPY-01	MPS	309	BE	22:20	70 13.617	124 30.530	44		Sam	vertical tow; changed block position		
				BO	22:22	70 13.620	124 30.549		35				
				EN	22:24	70 13.630	124 30.615						
25	CPY-01	BON	310	BE	22:45	70 13.630	124 31.100	44.1		Sam	Som wire, ~50L;		
				EN	23:06	70 13.636	124 28.858						
25	CPY-01	BOX	311	BE	23:19	70 13.595	124 29.660	42.7		SPA	*repaired box; BOX-206		
				BO	23:20	70 13.598	124 29.669	42.9					
				EN	23:22	70 13.599	124 29.701	43.4					
25	CPY-01	BBT	312	BE	23:37	70 13.545	124 31.765	43		SPA	BBT-117		
				BO	23:42	70 13.566	124 30.930	43					
				EN	23:52	70 13.656	124 29.993	42					
26	CPY-01	CTD	313	BE	12:56	70 13.642	124 29.858	42		H.M.	CTD ONLY		
				EN	13:02	70 13.636	124 29.624		37				

Event Type:

BBT = Benthic Beam Trawl

Time Code:

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes: _____

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

DAILY SCIENCE LOG

Month <u>AUGUST</u>				Year <u>2014</u>		Ship <u>FROSTI</u>				Page <u> </u>		Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
26	CPY-01	W2A	314	BE	13:17	70 13.516	124 28.756	41		SPA	foggy, wind NW 15 knot winds ~1m swells. Fog lifted by end of trawl		
				BO	13:18	70 13.531	124 28.998	42					
				EN	13:38	70 13.357	124 31.904	40					
26	CPY-02	ROS	315	BE	14:25	70 15.667	124 30.457	89		H.N	CHL MAX = 30		
				BO	14:28	70 15.646	124 30.425		80				
				EN	14:40	70 15.547	124 30.373						
26	CPY-02	MPS	316	BE	14:50	70 15.516	124 30.495	74.9		SPAM	* fired all 5 nets to test meter spool		
				BO	14:53	70 15.495	124 30.511						
				EN	14:56	70 15.463	124 30.496						
26	CPY-02	BON	317	BE	15:09	70 15.639	124 30.435	72.0		SPAM	L = 50 Wire out = 100m V = 1.5 km in H2O target Z = 60m		
				EN	15:30	70 16.168	124 31.201		(No?)				
26	CPY-02	BOX	318	BE	15:48	70 15.517	124 30.533			SPAM	box 208 screenshot "CPY02-26 Aug 2014 - box 207.jpg"		
				BO	15:50	70 15.509	124 30.562						
				EN	15:52	70 15.484	124 30.557						
26	CPY-02	BOX	319	BE	16:02	70 15.411	124 30.615	69.1		SPAM	box 208		
				BO	16:05	70 15.393	124 30.619						
				EN	16:07	70 15.380	124 30.625						
26	CPY-02	bbt	320	BE	16:48	70 14.935	124 33.572			SPAM	bbt-118		
				BO	16:53	70 15.086	124 32.945	70.2	74				

Event Type:

BBT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

Notes: _____

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

DAILY SCIENCE LOG

Month <u>August</u>				Year <u>2014</u>		Ship <u>F/V Frusti</u>			Cruise ID <u>2014-56</u>			Page <u> </u>
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
26	CPY-02	bbr	320	EN	17:03	70 15.501	124 31.982	70.1		SAM		
26	CPY-02	W2a	321	BE	17:25	70 15.451	124 30.748	70.6		SAM	W2a-139	
				BO	17:29	70 15.315	124 31.340		73.6		*hit one small hump at t=17:47; rest flat towing	
				EN	17:49	70 14.880	124 34.151	70.2				
26	CPY-03	ROS	322	BE	19:54	70 26.788	124 31.254	222	212	H.M.	CHL MAX = 40/55 33.1 SAL = 11	
				BO	20:01	70 26.730	124 31.249		205		1 ST CAST (TOUCHED BOTTOM)	
				EN	20:10	70 26.668	124 31.240					
	2 ND CAST	ROS	323	BE	20:32	70 26.513	124 31.152	160		H.M.	2 ND CAST	
				BO	20:38	70 26.478	124 31.123		70			
				EN	20:47	70 26.432	124 31.061					
26	CPY-03	MPS	324	BE	21:04	70 26.690	124 31.306	2050		SAM	btmz = 205.0 / but will only sample to 190m due to dropoff (rosette skimmed btm)	
				BO	21:10	70 26.662	124 31.171	194.0	190		hit bottom? -> nope!	
				EN	21:16	70 26.633	124 31.133	177.				
26	CPY-03	BON	325	BE	21:26	70 26.637	124 30.965	182		SAM	WIRE 50° t=20 min tow Wire out = 2160m	
				EN	21:47	70 26.434	124 33.154	178				
26	CPY-03	BOX	326	BE	22:04	70 26.653	124 31.372	175		SPA	box-209 success	
				BO	22:07	70 26.637	124 31.337	173				
				EN	22:10	70 26.613	124 31.277	169		S		
26	CPY-03	BOX	327	BE	22:19	70 26.542	124 31.129	171		SPA	box-210	

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

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Notes: _____

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

DAILY SCIENCE LOG

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Month <u>Aug</u>				Year <u>2014</u>				Ship <u>Frosti</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
26	CPY-03	Box	327	BO	20:22	70 26.522	124 31.087	171				
				EN	20:26	70 26.496	124 31.010	169				
26	cpy-03	Box	328	BE	20:50	70 26.238	124 33.484	181		SPA	bbt-119	
				BO	23:01	70 26.610	124 32.312	173				
				EN	23:11	70 26.656	124 31.312	176				
26	cpy-03	WZA	329	BE	23:40	70 26.737	124 32.071	200		SPA	wza-140 Hauled back early b/c	
				BO	—	—	—	175			depth changed dramatically (200-175) no net was	
				EN	23:44	70 26.488	124 32.748	196			setting; going to try in shallower spot	
26	cpy-03	WZA	330	BE	00:12	70 26.437	124 33.062	185		SPA	wza-141	
				BO	00:12	70 26.437	124 33.062	198			Tried for a 20 min tow in shallower area;	
				EN	00:25	70 26.659	124 31.159	192			got to 13 min & bottom started looking	
27	CPY-HCI	CTD	331	BE	1434	70 19.640	124 30.312	115			questionable, decided to haul back.	
				BO	1438	70 19.634	124 30.305		100		CTD ONLY	
				EN	1441	70 19.629	124 30.287					
27	CPY-HCI	Hmps	332	BE	14:54	70 19.654	124 30.133	113		SPM		
				BO	15:02	70 19.944	124 29.959	107	105		Unlock at 105 105m	
				EN	15:24	70 20.866	124 29.013	139				
27	CPY-HCI	MWT	333	BE	15:48	70 21.555	124 31.142	902		SPA	mwt-065	
				BO	15:52	70 21.362	124 30.000	98				

Event Type:

✓ BOT = Bottle cast, no CTD
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Notes: _____

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

Aug 26, Afternoon:

Wind NW 15 knots, 10/10 overcast, 1m waves

This page is for any notes or observations

Aug 27 2014

Calm, $\emptyset$ waves, foggy, N light winds < 5 knots

DAILY SCIENCE LOG

Page _____

Month <u>August</u>		Year <u>2014</u>		Ship <u>R/V Frash</u>				Cruise ID <u>2014-56</u>			
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
27	CPY-HC1	MWT	333	EN	16:17	70 20.630	124 30.244	80		SPA	25 min tow
				OW	1624	70 19.904	124 30.234				
27	CPY-HC2	CTD	334	BG	19 11	70 10.384	124 50.247	44		H.M.	CTD ONLY
				BO	19 14	70 10.377	124 50.295		40		
				EN	19 15	70 10.375	124 50.319				
27	CPY-HC2	Hmps	335	BE	1927	70 10.311	124 50.468	42.0		Sam	Unlock @ 35.0m
				BO	1934	70 10.589	124 49.710		35		-longer tow since 1st tow didn't have many organisms @ HC-1
				EN	1952	70 11.08	124 49.520	43.8			
27	CPY-HC2	MWT	336	BE	20:11	70 11.571	124 47.362	41		SPA	mwt-066 Took 2 screenshots: 1 @ beginning of tow
				BO	20:13	70 11.471	124 47.578	43			"CPY-HC2-27Aug2014-mwt-066" 3 one at end
				EN	20:33	70 10.585	124 49.685	44			to show targets that appeared 1/2 way through
				OW	20:38	70 10.479	124 49.977	43			"CPY-HC2-27Aug2014-mwt-066 end of tow"
27	CPY-HC3	CTD	337	BG	21:53	70 06.214	125 03.866	46		H.M.	CTD ONLY
				BG	21:55	70 06.218	125 03.835		40		Sunny, clear, calm, 0.25m waves
				EN	21:57	70 06.222	125 03.800				Wind N 10Knots
27	CPY-HC3	Hmps	338	BE	2213	70 06.272	125 03.043	46		Sam	Unlock @ 32.0m; 080-20, 020-10, 0-0
				BO	2218	70 06.058	125 04.400	52			
				EN	2233	70 06.249	125 02.381				
27	CPY-HC3	MWT	339	BE	22:53	70 06.445	125 59.660	42		SPA	mwt-067

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

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MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
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EN = End Time

Notes: _____

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

DAILY SCIENCE LOG

Month <u>Aug</u>				Year <u>2014</u>				Ship <u>Frosti</u>			Page <u> </u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
27	CP4-HC3	MWT	339	BO	22:55	70 06.393	125 00.198	47		SPA		
				EN	23:15	70 06.143	125 03.034	51				
				DW	23:19	70 06.127	125 03.351	54				
28	MNT-01	ROS	340	BE	1648	71 13.766	118 21.961	214		H.M.	1 ST CAST 33.1 SAL = 12 m	
				B6	1653	71 13.883	118 21.814		205		CHL MAX = 47	
				EN	1705	71 14.098	118 21.557					
	MNT_01	ROS	341	BE	1727	71 13.894	118 22.145	215		H.M.	2 ND CAST	
				B6	1729	71 13.936	118 22.085		70			
				EN	1739	71 14.101	118 21.866					
28	MNT-01	MPS	342	BE	17:49	71 14.286	118 21.517					
				BO	17:55	71 14.397	118 21.395					
				EN	18:00	71 14.487	118 21.287					
28	MNT-01	Bon	343	BE	18:11	71 14.3093	118 21.8903					
				EN	18:30	71 14.028	118 22.222					
28	MNT-01	BOX	344	BE	18:46	71 13.463	118 22.313	211		SPA	box-211 Unsuccessful	
				BO	18:50	71 13.521	118 22.227	212				
				EN	18:54	71 13.607	118 22.158	213				
28	MNT-01	BOX	345	BE	18:58	71 13.673	118 22.061	213		SPA	box-212; got some mud, not a great sample. Bottom looks good on	
				BO	19:01	71 13.737	118 21.972	214			→	

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
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Notes: _____

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

DAILY SCIENCE LOG

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Month				Year				Ship				Page	
August				2014				FROST				Cruise ID 2014-56	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N)	Longitude (W)	Bottom Depth	Max Depth	Logger's initials	Comments		
						DD MM.MM...	DDD MM.MM...						
28	MNT-01	Box	345	EN	19:06	71 13.814	118 21.903	215		SPA	box-212 cont: echosounder but box core is salt grabbing		
28	MNT-01	Box	346	BE	19:21	71 13.708	118 22.395	214		SAM	box-213		
				BO	19:25	71 13.761	118 22.309	214			let out wire @ a faster speed to hit btm w/ force		
				EN	19:29	71 13.842	118 22.241	215			thick sediment @ btm of box; water running out; removed "stubby" holder from frame		
28	MNT-01	BBT	347	BE	19:45	71 14.730	118 20.788	216		SPA	bbt-120 ; gravel bottom		
				BO	19:55	71 14.281	118 21.323	216					
				EN	20:05	71 13.951	118 21.717	215					
28	MNT-01	W2A	348	BE	20:40	71 14.103	118 21.651	215		SPA	W2A-142		
				BO	20:42	71 14.040	118 21.745	214					
				EN	21:02	71 13.157	118 23.284	209					
29	MNT-02	ROS	349	BE	00:21	71 15.444	117 05.071	283		H.M.	CAST #1 33.1 SAL = 112 _m		
				BO	00:28	71 15.547	117 04.787		275				
				EN	00:40	71 15.713	117 04.410				CHL MAX = 47 _m		
29	MNT-02	ROS	350	BE	01:00	71 15.437	117 05.761	280		H.M.	2 nd CAST		
				BO	01:02	71 15.479	117 05.640		70				
				EN	01:12	71 15.635	117 05.168						
29	MNT-02	BON	351	BE	01:27	71 16.147	117 03.540	282.6		SAM	180 _m wire; target depth = 200 _m = 45° V=1.75m		
				EN	01:46	71 15.713	117 04.384	280.3					
Event Type: BBT = Benthic Beam Trawl Time Code:													

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl
 BON = Bongo (note Hor/Obl/Ver)
 MPS = Multi-net
 MWT = Midwater trawl
 BOX = Box Core

Time Code:

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Notes: _____

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

DAILY SCIENCE LOG

Page _____

Month <u>AUGUST</u>				Year <u>2014</u>				Ship <u>FROST</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
29	MNT-02	CTD	352	BE	1257	71 15.566	117 05.047	281		H.M.	CTD ONLY	
				BO	1305	71 15.632	117 04.648		270			
				EN	1311	71 15.662	117 04.456					
29	MNT-02	MPS	353	BE	1323	71 15.473	117 05.202	282		Sam		
				BO	1330	71 15.556	117 05.004	282	270			
				EN	1343	71 15.607	117 04.645	281				
29	MNT-02	Box	354	BE	13:55	71 15.381	117 05.471	283		SPA	Strong tide, no wind (E < 5 knots) 6/10 clear	
				BO	14:00	71 15.402	117 05.331	283			tide is making boat drift.	
				EN	14:06	71 15.421	117 05.152	283			Box-214, not much sediment, can do SI w/ sample	
29	MNT-02	Box	355	BE	14:13	71 15.454	117 04.879	283		SPA	Box-215	
				BO	14:17	71 15.477	117 04.761	283				
				EN	14:23	71 15.494	117 04.598	283				
29	MNT-02	BBT	356	BE	14:39	71 16.487	117 02.877	284		SPA	bbt-121	
				BO	14:55	71 15.863	117 04.072	281			-really flat, excellent tow	
				EN	15:05	71 15.621	117 04.749	283			-full bucket of specimens	
29	MNT-02	W2A	357	BE	15:42	71 15.683	117 04.479	282		SPA	w2a-143 doors touched down @ same	
				BO	15:42	71 15.683	117 04.479	282			time as trawl finished shooting	
				EN	16:02	71 15.282	117 07.273	280				

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
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W2A = Western Trawl

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

Notes: _____

DAILY SCIENCE LOG

Page _____

Month				Year				Ship				Cruise ID	
August				2014				FROST				2014-56	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
29	MNT-03	ROS	358	BE	1658	71 19.544	117 08.760	154	146	H.A.			
				BO	1701	71 19.586	117 08.873		140		33.1 = 120m		
				EN	?	oops →							
29	MNT-03	ROS	359	BE	1728	71 19.517	117 09.014	155		H.A.			
				BO	1729	71 19.544	117 09.080		70		CHL MAX = 43m		
				EN	1738	71 19.603	117 09.269						
29	MNT-03	MPS	360	BE	1749	71 19.482	117 08.530	169		SAM			
				BO	1754	71 19.513	117 08.582	164					
				EN	1758	71 19.532	117 08.649	159					
29	MNT-03	BON	361	BE	1821	71 19.243	117 11.350	141		SAM	L=45° CTISV target Z=140m wire out = 200m		
				EN	1840	71 19.446	117 09.525	154					
29	MNT-03	BOX	362	BE	19:15	71 19.472	117 08.604	166		SPA	box-216		
				BO	19:18	71 19.485	117 08.639	165					
				EN	19:22	71 19.500	117 08.699	162					
29	MNT-03	BOX	363	BE	19:29	71 19.512	117 08.787	160		SPA	box-217		
				BO	19:31	71 19.513	117 08.798	160					
				EN	19:35	71 19.514	117 08.801	160					
29	MNT-03	BBT	364	BE	19:50	71 19.832	117 07.307	141		SPA	bbt-122		
				BO	20:06	71 19.442	117 09.628	153					

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

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BON = Bongo (note Hor/Obl/Ver)
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MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

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

Notes: _____

DAILY SCIENCE LOG

Page _____

Month <u>Aug</u>				Year <u>2014</u>				Ship <u>Frost</u> 				Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
29	MNT-03	bbt	364	EN	20:16	71 19.308	117 10.591	155					
29	MNT-03	W2A	365	BE	20:40	71 19.426	117 09.720	151		SPA	w2a-144		
				BO	20:41	71 19.440	117 09.638	152					
				EN	21:01	71 19.820	117 06.782	154					
29	MNT-04	ROS	366	BE	22:03	71 23.664	117 11.736	80		H.M.	CHL MAX = 48m		
				BO	22:05	71 23.633	117 11.846		75				
				EN	22:15	71 23.530	117 12.497						
29	MNT-04	MPS	367	BE	22:41	71 23.868	117 10.730	74.0		SAM			
				BO	22:43	71 10.835	117 23.847	74.6					
				EN	22:46	71 23.830	117 10.943	75.4					
29	MNT-04	BON	368	BE	23:00	71 23.919	117 09.935	77.45		SAM	wire out = 1' =	target 2' = CTD? ✓	
				EN	23:20	71 23.679	117 12.427	72.8	~60m?				
29	MNT-04	BOX	369	BE	23:35	71 23.821	117 11.442	75		SPA	box-218 Success		
				BO	23:37	71 23.821	117 11.555	73					
				EN	23:39	71 23.818	117 11.670	73					
29	MNT-04	BOX	370	BE	23:46	71 23.789	117 12.084	70		SPA	box-219 Success		
				BO	23:47	71 23.784	117 12.158	68					
				EN	23:48	71 23.780	117 12.254	65					
29	MNT-04	BBT	371	BE	00:06	71 23.207	117 13.950	96		SPA	bbt-123 Started deep so net could settle @ proper depth.		

Event Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 W2A = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)

MPS = Multi-net

MWT = Midwater trawl

BOX = Box Core

Time Code:

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Notes: _____

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

Version: 22 May 2014

DAILY SCIENCE LOG

Aug 6 - Aug 12
500m → 200m

Page _____

Month August		Year 2014				Ship Frosti				Cruise ID 2014-56	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
29	MNT-04	BBT	371	BO	00:16	71 23.503	117 12.847	75		SPA	bbt-123
				EN	00:26	71 23.713	117 12.048	75			no fish → fish in W2A (tomorrow)
30	MNT-04	CTD	372	BE	1304	71 23.784	117 11.799	8475		H.M.	CTD ONLY
				BO	1306	71 23.777	117 11.996		70		Sunny, 1/10 clear, 0.25m waves
				EN	1308	71 23.773	117 12.159				wind E 5-10 knots.
30	MNT-04	W2A	373	BE	1324	71 23.435	117 13.152	75		SPA	W2A-145
				BO	1325	71 23.482	117 12.966	75			
				EN	1345	71 23.836	117 10.184	81			
30	MNT-05	ROS	374	BE	1611	71 26.236	116 17.707	14239		H.M.	33.1 SAL = 120
				BO	1616	71 26.328	116 17.787		130		1 ST CAST
				EN	1623	71 26.415	116 17.969				CHL MAX = 48u
30	MNT-05	ROS	375	BE	1641	71 26.081	116 18.044	154		H.M.	
				BO	1644	71 26.140	116 18.119		70		2 ND CAST
				EN	1653	71 26.262	116 18.354				
30	MNT-05	MPS	376	BE	17:05	71 26.080	116 17.668	154		SPM	- go to 10m off bottom ✓
				BO	17:11	71 26.163	116 17.725	147			
				EN	17:14	71 26.220	116 17.881	143			
30	MNT-05	BON	377	BE	17:28	71 26.209	116 16.742	141.2			↳ steep, 35-40°C; 180m wire out 2.1 kn SPT; 1.65 m
				EN	17:48	71 26.132	116 14.105	150.7			

Event Type:

BOT = Bottle cast, no CTD
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W2A = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
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Notes: _____

MNT-05 → drifting back fast all day; there's a tide or current
at the mouth of MINTO INLET that is over-riding
20 kn winds

DAILY SCIENCE LOG

Page _____

Month <i>August</i>				Year <i>2014</i>				Ship <i>Frosti</i>			Cruise ID <i>2014-56</i>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
30	MNT-05	Box	378	BE	18:10	71 26.147	116 17.725	147		SPA	box-220 success, sealed nicely,	
				BO	18:12	71 26.175	116 17.727	145			H2O on top was still clear.	
				EN	18:16	71 26.223	116 17.768	143				
30	MNT-05	Box	379	BE	18:25	71 26.068	116 17.963	159		SPA	box-221 unsuccessful	
				BO	18:27	71 26.089	116 18.020	155				
				EN	18:30	71 26.125	116 18.106	151				
30	MNT-05	Box	380	BE	18:34	71 26.174	116 18.191	148		SPA	box-222 didn't close all the way; rock	
				BO	18:36	71 26.207	116 18.222	147			stuck in spade, bent box.	
				EN	18:40	71 26.255	116 18.298	147			→ box core w/ rock; Shovelme w/ 15; sharp, jagged rocks; skip bot, searching for spot to tow wra	
30	MNT-HCI	CTD	381	BE	19:39	71 26.178	116 17.882	147		H.M.	CTD ONLY	
				BO	19:42	71 26.230	116 17.905		140			
				EN	19:46	71 26.278	116 17.957					
30	MNT-HCI	MPS	382	BE	19:56	71 26.376	116 18.050	147		S.M.	HORIZONTAL MULTI NET	
				BO	20:08	71 26.561	116 18.830	152	130			
				EN	20:33	71 27.008	116 13.802					
30	MNT-HCI	MWT	383	BE	20:57	71 27.091	116 13.538	125		SPA	20m tow through safe targets; see	
				BO	20:58	71 27.046	116 13.743				green layer in screeners	
				EN	21:18	71 26.422	116 17.049				see "30aug2014-MNT-HCI-129m-mwt-ppg"	
				OW	21:24	71 26.370	116 17.449	145			or "30aug2014-MNT-HCI-20m-mwt-068"	
											mwt-068	

Event Type:	BBT = Benthic Beam Trawl	Time Codes:
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Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Ob/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

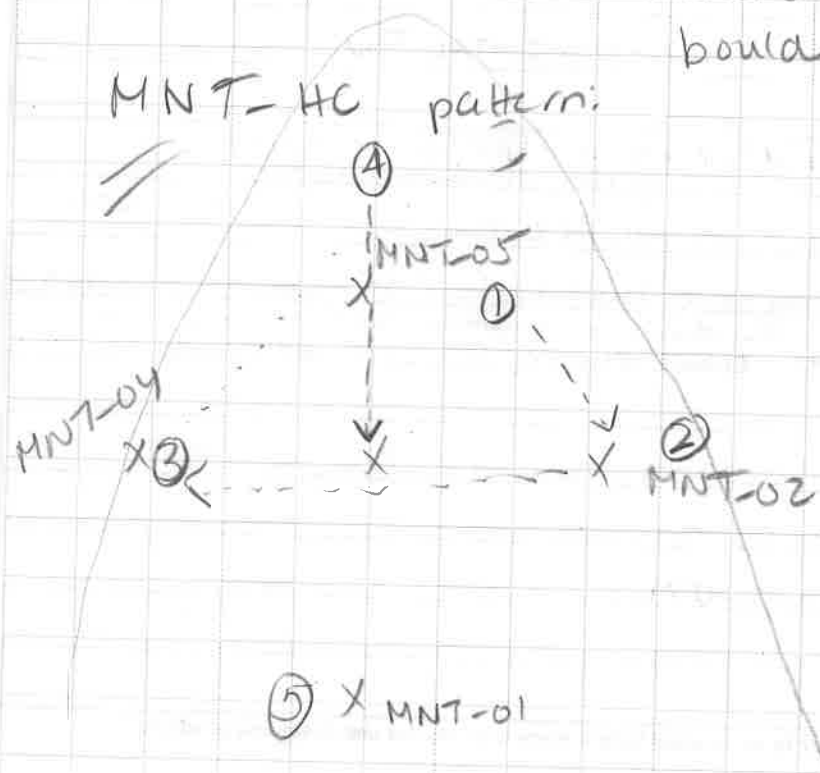
Time Code:

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Notes: _____

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

- box core failed twice due to lrs, sharp rocks
- binoculars: Shoreline full of lrs, jagged rocks sloping into water
- Captain thought it was too rocky to deploy bottom nets
- ~~boxed~~ ~~boxed~~ trolled around over lunch to look for a better spot; noted boulders on seafloor; decided to skip bpt & wza @ MNT-05
- Straight into MNT-HC; MNT-HC1 = MNT-05 (approximately)
- See screenshots "30aug2014-MNT-05-skip-wza-rocks.jpeg" to see boulders & hard bottom on echogram



- ① Start MNT-HC @ MNT-05
 - ② run to MNT-02 w/ hydroacoustics
 - ③ bisect MINTO INLET from MNT-02 → MNT-04
 - ④ head ^{farther} down MINTO INLET past MNT-05; begin hydroacoustic work to transect MINTO INLET from ④ to ⑤ (ie, MNT-01)
- Steam overnight to Walter Bay.

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

Notes:

Version: 22 May 2014

DAILY SCIENCE LOG

Page _____

Month August				Year 2014				Ship Frosti			Cruise ID 2014-56	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
31	MNT_HC3	CTD	389	BE	2136	71 16.884	117 43.875	196		H.M.	CTD ONLY	
				BO	2140	71 16.874	117 43.877		185			
				EN	2145	71 16.878	117 43.879					
31	MNT_HC3	MPS	390	BE	2154	71 16.755	117 44.895	198		SAM	HORIZONTAL MULTI NET TOW	
				BO	2207	71 16.874	117 43.212		185			
				EN	2030	71 17.111	117 40.432					
31	MNT_HC3	MWT	391	BE	22:47	71 16.998	117 40.118	190	SPA		mwt_072	
				BO	22:54	71 16.965	117 41.410	194				
				EN	23:14	71 16.810	117 44.472	198				
				OW	23:22	71 16.736	117 45.008	199				
31	MNT_HC3	MWT	392	BE	23:36	71 16.596	117 45.209	196	SPA		mwt_073	
				BO	23:41	71 16.723	117 44.391	198				
				EN	00:01	71 17.105	117 41.484	186				
				OW	00:06	71 17.150	117 41.175	199				
01	WLK_01	ROS	393	BE	1308	71 28.789	118 41.713	100		H.M.		
				BO	1311	71 28.801	118 41.677		95			
				EN	1322	71 28.832	118 41.549					
01	WLK_01	MPS	394	BE	1331	71 28.858	118 41.445	105		SAM		
				BO	1334	71 28.865	118 41.423	99				

Event Type:

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W2A = Western Trawl

BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
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UP = Start up Time
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Transmissometer to be cleaned before each cast, do not use Ammonia products

Notes: _____

Both Boothia

Version: 22 May 2014

DAILY SCIENCE LOG

Page _____

Month <u>September</u>				Year <u>2014</u>				Ship <u>F/V Frost</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
01	WLK-01	MPS	394	1338	EN	71 28.875	118 41.392	99		SAM	* hit bottom, redeploy	
01	WLK-01	MPS	395	1345	BE	71 28.903	118 41.314	99		SAM	10/10 overcast	
				1348	BO	71 28.913	118 41.284	99			wind W < 5 knots, Ø waves. calm	
				1350	EN	71 28.921	118 41.251	98				
01	WLK-01	BON	396	14:00	BE	71 28.942	118 41.296	99.2		SAM	wire out=140 V=2.5504 target 2.90m L=4.5 ft m=98m	
				14:19	EN	71 28.375	118 39.923	98.4			✓ good one.	
01	WLK-01	Box	397	14:34	BE	71° 28.765	118° 41.482	100		SPA	box-223 no sample	
				14:36	BO	71° 28.782	118° 41.487	99				
				14:38	EN	71° 28.794	118° 41.495	100				
01	WLK-01	Box	398	14:41	BE	71 28.804	118 41.492	100		SPA	box-224 success	
				14:43	BO	71 28.808	118 41.489	100			gravel bottom.	
				14:45	EN	71 28.814	118 41.480	99				
01	WLK-01	Box	399	14:53	BE	71 28.829	118 41.384	100		SPA	box-225 success	
				14:55	BO	71 28.829	118 41.357	99			Grabbed a rock - box core bent; not	
				14:57	EN	71 28.831	118 41.319	99			bad, easy fix.	
01	WLK-01	bbt	400	15:20	BE	71 27.586	118 38.486	97		SPA	bbt-124	
				15:31	BO	71 28.039	118 39.334	96				
				15:41	EN	71 28.321	118 39.874	97				
01	WLK-01	W2A	401	16:10	BE	71 27.857	118 38.004	98		SPA	W2A-146	

Event Type:

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BBT = Benthic Beam Trawl

BON = Bongo (note Hor/Ob/Ver)
MPS = Multi-net
MWT = Midwater trawl
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Notes: _____

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

01 sept, 2014

— SPOT to try for HC work w/ MW7:

71 31.017 } thick btm aggregation
118 29.227 } for acoustics work

snapshot: "WLK-01sept2014 - between WLK0102-61m.jpg"

— 71 32.541' 118 17.543, t = 17:48

"WLK-01sept2014-56m.jpg"

↳ top layer drops into bottom layer of targets over a peak; same signal detected or eked as on ship's sonar (Furuno)
(ship's sonar less sensitive)

— lots of green targets @ SFC; "WLK-02-01sept2014-62m.jpg"

DAILY SCIENCE LOG

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Month <u>Sept</u>				Year <u>2014</u>				Ship <u>Frosti</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
01	WLK-02	WZA	408	BE	21:37	71 32.492	118 17.255	55	SPA		wza-147	
				BO	21:38	71 32.519	118 17.062	52				
				EN	21:58	71 32.720	118 14.077	50				
01	WLK-03	ROS	409	BE	2307	71 35.833	118 00.368	45		H.M.		
				BO	2309	71 35.852	118 00.401		40			
				EN	2315	71 35.900	118 00.390					
01	WLK-03	MPS	410	BE	2323	71 35.953	118 00.258	40.1		SAM		
				BO	2325	71 35.967	118 00.224	42.7				
				EN	2327	71 35.980	118 00.188					
01	WLK-03	BON	411	BE	2352	71 37.380	117 59.872			SAM	Wire out = 80 btm 2 = 60 Wire in = 45 target 2 = 55	
				EN	00:11	71 36.895	117 59.601					
01	WLK-03	BOX	412	BE	00:25	71 35.698	118 00.360	44		SPA	box-228 2 unsuccessful	
				BO	00:26	71 35.498	118 00.404	44				
				EN	00:27	71 35.706	118 00.431	44				
01	WLK-03	BOX	413	BE	00:31	71 35.735	118 00.457	45		SPA	box-229	
				BO	00:32	71 35.743	118 00.457	45				
				EN	00:33	71 35.756	118 00.455	46				

Event Type:

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Notes: _____

WKK-03 01 Sept

- Started Ras @ 40m @ WKK-03; had to look for a place to tow bongos; found that most of area is deeper (~50-70m) towed bongos @ 60m line; prob. will fish deeper (60) as well.

DAILY SCIENCE LOG

2870m } wire on
1800lbs } conducting
winch

Page _____

Month <u>September</u>				Year <u>2014</u>				Ship <u>F/V Frost</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
02	WLK-03	CTD	414	EN	1334	71 35.711	118 00.357	45		H.M.	CTD ONLY	
				BO	1335	71 35.724	118 00.365		40			
				EN	1336	71 35.734	118 00.370					
02	WLK-03	BBT	415	BE	13:48	71 36.263	117 59.239	60		SPA	bbt-126	
				BO	13:56	71 36.675	117 59.511	59			trawl skipping along bottom - came up to 45m	
				EN	14:06	71 37.007	117 59.808	60			(from 60m) at one point. Full of Foraminifera	
02	WLK-03	W2A	416	BE	14:30	71 36.989	117 59.761	59		SPA	W2A-148 13 min tow - ran out of bottom	
				BO	14:31	71 36.872	117 59.748	62			trawleye not charged. Switched to ship's	
				EN	14:43	71 36.300	117 59.077	65			trawleye system; redeploy net for 10 min tow	
02	WLK-03	W2A	417	BE	15:13	71 36.522	117 59.835	62		SPA	W2A-149	
				BO	15:15	71 36.640	117 59.469	60			10 min tow; used ship's trawleye.	
				EN	15:25	71 37.145	117 59.921	61				
02	WLK-HC1	CTD	418	BE	1634	71 35.544	118 00.487	45		H.M.	CTD ONLY	
				BO	1635	71 35.544	118 00.526		40			
				EN	1637	71 35.546	118 00.572					
02	WLK-HC1	H.M.P.S.	419	BE	1652	71 35.396	117 59.996	42.0		SPM	btm A quickly from ~40-65m; awaits for ~40m CTD cast	
				BO	1656	71 36.019	117 59.951	60.4				
				EN	1657	71 36.864	117 59.546					
02	WLK-HC1	MWT	420	BE	17:36	71 37.522	117 59.466	70		SPA	mwt-074	

Event Type:

BRT = Benthic Beam Trawl

Time Codes:

Event Type:

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W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
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Notes: _____

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

Sept 02 2014 15:30

3/10 clear, sunny, wind ^{NSE} < 5 knots (v. light), no waves

Ⓐ Ship's GPS compares (time we've been recording in bridge log book) & Ektro laptop offset by 1 min & 1 sec. (Ektro 1:01 faster than ship's log)

DAILY SCIENCE LOG

Page _____

Month <u>Sept</u>				Year <u>2014</u>				Ship <u>Frosti</u>				Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...		Longitude (W) DDD MM.MM...		Bottom Depth	Max Depth	Logger's initials	Comments
02	WLK-HC1	mwt	420	BD	17:37	71	37.500	117	59.468	70		SPA	mwt-074 20m target
				EN	17:37	71	36.413	117	59.474	62			Screenshot: "02 Sept 2014-WLK-HC1-mwt-074"
				OW	18:02	71	36.278	117	59.423	61			
02	WLK-HC2	CTD	421	BE	20:49	71	28.764	118	41.658	99		H.M.	CTD ONLY
				BO	20:52	71	28.810	118	41.655		90		
				EN	20:55	71	28.851	118	41.664				
02	WLK-HC2	MPS	422	BE	21:08	71	28.878	118	42.488	100.29		SAM	
				BO	21:15	71	29.013	118	41.835	96.05			
				EN	21:38	71	29.351	118	39.170	76.47			
02	WLK-HC2	MWT	423	BE	21:58	71	29.539	118	37.906			SPA	mwt-075 50m target
				BO	22:01	71	29.458	118	38.347	92			Screenshot: "02 Sept 2014-WLK-HC2-50m-mwt-075"
				EN	22:21	71	28.912	118	40.913	99			
				OW	22:27	71	28.903	118	41.403	99			
04	ALX-01	ROS	424	BE	15:32	71	37.130	120	20.215	76		H.M.	CHL MAX = 52
				BO	15:34	71	37.135	120	20.227		70		
				EN	15:46	71	37.156	120	20.497	76.11			
04	ALX-01	MPS	425	BE	15:58	71	37.198	120	19.973	76.14		SAM	
				BO	16:00	71	37.198	120	20.020	76.55			
				EN	16:03	71	37.201	120	20.057	76.56			

Event Type:

BOT = Bottle cast, no CTD
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W2A = Western Trawl

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Notes: _____

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

DAILY SCIENCE LOG

Month				September				Year				2014				Ship				F/V Frosti				Cruise ID		2014-56		Page	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments																		
04	ALX-01	BON	426	BE	16:12	71 37.153	120 20.157	76.7		SAM	Wire out = 90m Target 2 = 63m Wire L =																		
				EN					63		depressor rope wrapped around cod end. cancel + redeploy Bungos FAIL																		
04	ALX-01	BON	427	BE	16:25	71 37.540	120 20.046	75.8m		SAM	Wire out = 90m Target 2 = 63m Wire L = 40-45'																		
				EN	16:47	71 38.290	120 20.227		63		✓ good one; 1 me cups rods. No 404b5 = 3																		
04	ALX-01	BOX	428	BE	17:03	71 37.048	120 20.060	76.9		SPA	box-230. OK sample - didn't seal properly but kept.																		
				BO	17:05	71 37.033	120 20.099	75.4																					
				EN	17:07	71 37.015	120 20.186	73.8																					
04	ALX-01	BOX	429	BE	17:16	71 36.981	120 20.292	76.1		SPA	box-231 Successful																		
				BO	17:18	71 36.982	120 20.350	76.4																					
				EN	17:20	71 36.974	120 20.423	76.1																					
04	ALX-01	BBT	430	BE	17:29	71 36.876	120 20.520	75.1		SPA	bbt-127 six fish. 511111 fish!																		
				BO	17:35	71 37.097	120 20.260	75.4																					
				EN	17:45	71 37.419	120 20.038	75.9																					
04	ALX-01	W2A	431	BE	18:12	71 38.168	120 19.983	76.1		SPA	w2a-150																		
				BO	18:15	71 38.056	120 19.012	76.1																					
				EN	18:35	71 36.997	120 20.145	76.1																					
04	ALX-02	ROS	432	BE	20:27	71 39.635	119 45.976	14		H.M.																			
				BO	20:31	71 39.596	119 46.160		135																				
				EN	20:38	71 39.546	119 46.394																						

vent Type:

BOT = Bottom Trawl

BBT = Benthic Beam Trawl

Time Code:

Event Type:

BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
W2A = Western Trawl

BBT = Benthic Beam Trawl
BON = Bongo (note Hor/Obl/Ver)
MPS = Multi-net
MWT = Midwater trawl
BOX = Box Core

Time Code:

BE = Beginning Time
BO = Arrive on Bottom Tim
UP = Start up Time
EN = End Time

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

Notes: _____

DAILY SCIENCE LOG

Month <u>SEPT</u>				Year <u>2014</u>		Ship <u>FROST</u>				Page <u> </u>		Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
04	ALX-02	ROS	433	BE	20:59	71 39.384	119 47.496	139		H.N.	2 ND CAST		
				BO	21:01	71 39.370	119 47.576		70		CHL MAX = 50m		
				EN	21:12	71 39.276	119 48.082						
04	ALX-02	MPS	434	BE	21:26	71 39.710	119 46.137	141.03		SPM	No flow data at any depth interval No time to redeploy.		
				BO	21:30	71 39.686	119 46.213		130				
				EN	21:33	71 39.641	119 46.356						
04	ALX-02	BON	435	BE	21:41	71 39.602	119 46.612	141		SPM	Wire out = 185m target 3 = 130m no 4040's =) Wire A = btm 3 = 141.17		
				EN	22:02	71 40.363	119 46.134	139.7	130?				
04	ALX-02	BOX	436	BE	22:18	71 39.614	119 46.425	141		SPA	box-232 dud.		
				BO	22:21	71 39.606	119 46.521	140			unsuccessful, hard like cement		
				EN	22:24	71 39.589	119 46.633	141					
04	ALX-02	BOX	437	BE	22:27	71 39.571	119 46.789	140		SPA	box-233 ; only water, no grab		
				BO	22:29	71 39.564	119 46.880	140					
				EN	22:33	71 39.546	119 46.996	141					
04	ALX-02	BOX	438	BE	22:44	71 39.911	119 46.029	139		SPA	box 234 → moved 1/2 mile from last 2 box cores; bottom may be softer here. Got an OK sample		
				BO	22:46	71 39.894	119 46.076	139					
				EN	22:49	71 39.885	119 46.142	139					
04	ALX-02	BOX	439	BE	23:00	71 39.858	119 46.620	140		SPA	box-235 not very good sample, kept what was there & moving on to 440		
				BO	23:02	71 39.851	119 46.700	140					

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ALX-02 → 04 Sept 2014; heavy fuzets at 50-60m
- lots of snow on Banks Island; look several feet thick; a couple hundred
meters above sea level

Sept 4 am → 10/10 cloud (completely overcast), wind NE 15-20 knots, waves 1m; ^{light} rain

(22:13 UTC)
pm → 9/10 cloud; wind 10-15 knots NE, waves 1m, intermittent light showers

DAILY SCIENCE LOG

Month <u>Sept</u>						Year <u>2014</u>			Ship <u>Frosti</u>			Page <u> </u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...		Longitude (W) DDD MM.MM...		Bottom Depth	Max Depth	Logger's initials	Comments
04	ALX-02	BOX	439	EN	23:05	71	39.843	119	46.800	140		SPA	box-235. 11
04	ALX-02	BBT	440	BE	23:18	71	39.416	119	46.284	141		SPA	bot-128
				BO	23:25	71	39.743	119	46.321	140			
				EN	23:35	71	40.061	119	46.290	140			
04	ALX-02	WZA	441	BE	00:00	71	40.343	119	46.110	140		SPA	wza-151
				BO	00:02	71	40.250	119	46.167	140			
				EN	00:22	71	39.230	119	46.353	141			
05	ALX-03	ROS	442	BE	12:58	71	40.987	119	17.066	46		H.M.	
				BO	13:01	71	40.990	119	17.111		40		
				EN	13:07	71	40.992	119	17.180				
05	ALX-03	MPS	443	BE	13:15	71	40.985	119	17.199	47.5		SPM	greased pins before deployment
				BO	13:16	71	40.983	119	17.200	47.6			bearded seal spotted; in MMO book
				EN	13:18	71	40.978	119	17.201	47.6			
05	ALX-03	BON	444	BE	13:28	71	40.962	119	17.395	47.5	35?	SPM	wire out = 50m target 3 = 35m A = 45 V = 2.2504, 1.651N
				EN	13:48	71	41.552	119	16.509	47.02			
05	ALX-03	BOX	445	BE	14:05	71	41.056	119	17.062	47.0		SPA	box-236 didn't seal
				BO	14:06	71	41.058	119	17.108	47.3			
				EN	14:07	71	41.062	119	17.164	47.4			
05	ALX-03	BOX	446	BE	14:11	71	41.048	119	17.286	47.7		SPA	box-237

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⑩ 05 Sept 2014 , 13:57 71 41.443 119 16.442

- Ramsay Island, 7 mi north of us; SPA got photo on fancy Nikon camera

looks to be 700 ft tall,



DAILY SCIENCE LOG

Page _____

Month <i>Sept</i>				Year <i>2014</i>				Ship <i>F/V Frosh</i>			Cruise ID <i>2014</i>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
05	ALX-03	BOX	446	BO	14:12	71 41.044	119 17.302	48.0		SPA	box-237	
				EN	14:13	71 41.037	119 17.324	48.0			No sample, very hard bottom, moving 1/2 mile away & redeploying	
05	ALX-03	BOX	447	BE	14:25	71 41.409	119 16.390	45.1		SPA	box-238	
				BO	14:26	71 41.405	119 16.393	44.7			Mud on outside of box, leaking water, not sealed; not good sample	
				EN	14:27	71 41.401	119 16.399	44.9			4 hr sieved lots of worms for SI; no other surface samples taken	
05	ALX-03	WZA	448	BE	14:46	71 41.545	119 16.400	46.4		SPA	WZA-152	
				BO	14:52	71 41.222	119 16.646	45.3			no bbt -> large rocks @ bottom. 10 min	
				EN	15:02	71 40.817	119 16.343	45.1			offer trawl in case bottom is too rocky	
05	ALX-03	WZA	449	BE	15:20	71 40.500	119 17.639	46.1		SPA	Added 36 cable @ 14:51 b/c trawl wasn't sitting on bottom correctly	
				BO	15:22	71 40.593	119 17.520	46.7			WZA-153 1st tow looked good; re-deploy	
				EN	15:32	71 41.096	119 16.900	46.8			2nd 10 min tow @ ALX-03	
05	PWS-01	ROS	450	BE	19:05	72 06.540	119 25.666	106		H.M.	Skip bbt due to rough bottom; lots of rocks in box core (sharp-looking)	
				BO	19:10	72 06.530	119 25.655		100		1 CAST	
				EN	19:19	72 06.509	119 25.645				-chla max low relatively low (~45m)	
05	PWS-01	MPS	451	BE	19:28	72 06.487	119 25.726	106		SHM		
				BO	19:32	72 06.490	119 25.757	106.04				
				EN	19:35	72 06.538	119 25.852	106.4				
05	PWS-01	BON	452	BE	19:43	72 06.544	119 25.871	106.3		SHM	130m wire out btm3=106.4	
				EN	20:04	72 07.324	119 25.167	102.7			L=45' target3=93.0m	

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Notes: _____

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- ① Trawltype only lasts 2 days, with minimum towing (5 x 20 min tows in 2 days)
→ also only charges to 80% according to computer display
↳ return to Thomas for servicing

PWS-01, 05 Sept 2014:

- broken ice, melting, busy bits
- not as thick as ice chart showed on 3rd Sept 2014
- no ice chart for 04 Sept, or 5th Sept as of yet
- after str PWS-01, will head north to assess ice conditions; may drop W2R w/ seabird CTD

DAILY SCIENCE LOG

Page _____

Month <u>Sept</u>				Year <u>2014</u>				Ship <u>Frosti</u>			Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
05	PWS-01	BOX	453	BE	20:21	72 06.514	119 25.721	105.9		SPA	box-239	success
				BO	20:23	72 06.512	119 25.772	105.5				
				EN	20:26	72 06.512	119 25.824	105.5				
05	PWS-01	BOX	454	BE	20:33	72 06.525	119 25.945	105.6		SPA	box-240	
				BO	20:35	72 06.531	119 25.976	105.3				
				EN	20:38	72 06.536	119 25.022	105.5				
05	PWS-01	BBT	455	BE	20:52	72 05.981	119 25.404	105.3		SPA	bbt-129	
				BO	21:04	72 06.551	119 25.640	105.2				
				EN	21:14	72 06.876	119 25.580	106.6				
05	PWS-01	W2A	456	BE	21:49	72 07.421	119 24.976	104.9			W2a-154	
				BO	21:50	72 07.348	119 24.048	105.3				
				EN	22:10	72 06.351	119 25.870	104.1				
06	PWS-02	CTD	457	BE	00:22	72 19.002	118 52.520	103		H.M.	CTD ONLY	
				BO	00:25	72 18.183	118 52.459		95			
				EN	00:27	72 18.976	118 52.381					
06	PWS-02	W2A	458	BE	00:50	72 19.666	118 52.042	102.2			W2A-155	
				BO	00:53	72 19.556	118 51.988	104.5			mud on rollers looks soft	
				EN	01:13	72 18.507	118 52.381	101.5				

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05-Sept- P.M.

light, intermittent snow. Calm, almost no wind (W). 0 waves, 9/10⁺ overcast.

PWS-02 → ice extent was farther north than anticipated @ PWS-01; decided to head north as far as we could before hitting the ice wall; bonus station to deploy CTD + WRA.
→ head back to PWS-01 to begin hydroacoustics work

DAILY SCIENCE LOG

Page _____

Month Sept				Year 2014			Ship Frothi			Cruise ID 2014-56		
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N)	Longitude (W)	Bottom Depth	Max Depth	Logger's initials	Comments	
						DD MM.MM...	DDD MM.MM...					
07	AMN-01	ROS	459	BE	1304	70 50.326	119 46.981	255		H.M.	1 ST CAST	
				BO	1309	70 50.306	119 46.895		245		33.1 SAL = 115	
				EN	1321	70 50.268	119 46.747				CHL MAX = 45m	
07	AMN-01	ROS	460	BE	1345	70 50.206	119 46.376	256		H.M.	2 ND CAST	
				BO	1346	70 50.148	119 46.349		70		CHL MAX = 45	
				EN	1356	70 50.164	119 46.202					
07	AMN-01	MPS	461	BE	14:03	70 50.132	119 46.084	257		SAM	250-200, 200-100, 100-50, 50-25, 25-0	
				BO	14:10	70 50.104	119 45.964	257.9	246			
				EN	14:18	70 50.067	119 45.835					
07	AMN-01	BON	462	BE	14:25	70 50.081	119 45.643	256		SAM	wire out = 285 btm = 257.6 wire in = 40' target = 200m	
				EN	14:41	70 50.393	119 47.404	256				
07	AMN-01	BOX	463	BE	14:57	70 50.275	119 46.708	255		SPA	box-241	
				BO	15:01	70 50.253	119 46.662	255			mod on one edge of box, other side leaking.	
				EN	15:06	70 50.220	119 46.542	255			not a good sample. Rocks in sed. <u>Dumped sample</u>	
07	AMN-01	BOX	464	BE	15:09	70 50.195	119 46.443	256		SPA	box_242	
				BO	15:13	70 50.167	119 46.349	257			sealed nicely. not sure how slumped, will keep	
				EN	15:18	70 50.126	119 46.271	255				
07	AMN-01	BOX	465	BE	15:29	70 50.312	119 46.669	256		SPA	box 243	
				BO	15:32	70 50.286	119 46.613	255				

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Notes: _____

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

Version: 22 May 2014

Sept 7th - 9/10th overcast clearing mid-morning to 6/10th overcast.
Sunny, no precipitation, Wind NW 10-15 knots. Air temp. = Very cold.

DAILY SCIENCE LOG

Month Sept
Year 2014
Ship Frosti
Cruise ID 2014-56

Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
07	AMN_01	Box	465	EN	15:37	70 50.248	119 46.520	255		SPA	box-243 no sample
07	AMN_01	Box	466	BE	15:41	70 50.208	119 46.373	255		SPA	box-244
				BO	15:45	70 50.177	119 46.212	256			didn't seal, enough sample for some infauna & SI
				EN	15:49	70 50.131	119 46.151	257			
07	AMN_01	W2A	467	BE	16:24	70 50.257	119 47.809	254		SPA	W2A-156 (10 min tow) → See bracket sheet for more info
				BO	16:27	70 50.254	119 47.485	255			no blot - bottom is 'gnarley'
				EN	16:37	70 50.178	119 45.914	256			*Screenshot 7sep2014-amn-01-250m-w2a-156"
07	AMN_01	W2A	468	BE	17:09	70 50.428	119 47.494			SPA	W2A-157 Last tow good → trying for 2nd (10 min tow)
				BO	17:10	70 50.243	119 47.615	253			No recordings → camera started recording when it came back on ship, must have hit wrong button when launching.
				EN	17:20	70 50.183	119 49.138	258			
07	AMN_02	ROS	469	BE	21:36	70 13.140	119 28.235	397		H.M.	1ST CAST 33.1 SAL = 106
				BO	21:45	70 13.024	119 28.226		390		
				EN	22:00	70 12.859	119 28.232				CHL MAY = (45)
07	AMN_02	ROS	470	BE	22:38	70 13.120	119 28.597	398		H.M.	2ND CAST
				BO	22:41	70 13.100	119 28.640		70		
				EN	22:48	70 13.043	119 28.693				
07	AMN_02	MPS	471	BE	22:58	70 13.213	119 28.062	395		8am	385-200, 200-100, 100-50, 50-25, 25-0 NO flow data!
				BO	23:08	70 13.167	119 28.161	395.7	380		
				EN	23:15	70 13.143	119 28.203	397.2			✓ flow readings cutting in + out

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Notes:

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

DAILY SCIENCE LOG

Page _____

Month <i>September</i>		Year <i>2014</i>				Ship <i>F/V Froshi</i>				Cruise ID <i>2014-56</i>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
07	AMN-02	BON	472	BE	23:24	70 13.125	119 28.208	397		SPM	wire out = 290 target = 200m wire in = 45 bottom = 395.9m
				EN	23:44	70 13.225	119 30.439		~200		
08	AMN-02	BOX	473	BE	00:02	70 13.135	119 28.066	398		SPA	box 245 area not much sample → can take for
				BO	00:07	70 13.122	119 28.121	397			Stable isotopes; no time to re-deploy
				EN	00:16	70 13.114	119 28.155	397			
08	AMN-02	WZA	474	BE	00:46	70 13.125	119 28.130			SPA	WZA-158
				BO	00:51	70 13.121	119 28.941	398			
				EN	01:11	70 13.162	119 31.907	399			
08	DOL-05	ROS	475	BE	13 11	69 44.088	117 23.130	132		H.M.	1 st CAST 33-1 SAL =
				BO	13 14	69 44.094	117 23.143		125		CHL MAX = 30
				EN	13 20	69 44.090	117 23.203				* NOTE NAME CHANGE DOL-01 TO DOL-15
08	DOL-05	ROS	476	BE	13 36	69 44.095	117 23.366	127		H.M.	BOT 3 LEAKED ON 1 st CAST
				BO	13 40	69 44.101	117 23.402		80		Re do 80m BOT on 2 nd CAST
				EN	13 51	69 44.112	117 23.524				
08	DOL-05	MPS	477	BE	14:01	69 44.119	117 23.676	124.7		SPM	H. just beyond 0.2km distance from CTD "spot", deploy anyway
				BO	14:05	69 44.136	117 23.691	125.7	110		
				EN	14:10	69 44.167	117 23.749	125			
08	DOL-05	BON	478	BE	14:17	69 44.177	117 23.692	124		SPM	wire out = 155m botm 3 = 124 target = 110
				EN	14:36	69 44.105	117 22.014	148			Attowed deeper than expected! good seeping for trawling

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Sept 8 AM:

Wind N 15 knots, 0.5 m waves, 10/10 overcast

This page is for any notes or observations

DAILY SCIENCE LOG

Page _____

Month <i>September</i>				Year <i>2014</i>				Ship <i>F/V Frosti</i>			Cruise ID <i>2014-56</i>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments	
08	DOL-05	BOX	479	BE	14:50	69 44.035	117 22.932	139		8Am	box-246	
				BO	14:52	69 44.045	117 22.954	135			rock in sample!	
				EN	14:55	69 44.068	117 22.988	135				
08	DOL-05	BOX	480	BE	14:59	69 44.092	117 23.038	133		SPA	box-247 good sample; keep 1 box	
				BO	15:01	69 44.108	117 23.059	132				
				EN	15:05	69 44.135	117 23.091	131				
08	DOL-05	WZA	481	BE	15:27	69 44.248	117 22.550	125		SPA	wza-159 no bbt	
				BO	15:29	69 44.200	117 22.729	125				
				EN	15:49	69 43.825	117 25.412	135				
08	DOL-04	ROS	482	BE	1712	69 38.357	117 47.503	373		H.M.	1 ST CAST 33.1 SAL = 91 m	
				BO	1720	69 38.314	117 47.316		365		CHL MAX = 73 m	
				EN	1735	69 38.207	117 47.063					
08	DOL-04	ROS	483	BE	1759	69 38.354	117 47.286	351		H.M.	2 ND CAST CHL MAX = 73	
				BO	1801	69 38.336	117 47.255		73		NO SALINITIES (SHORT OF BOTTLES)	
				EN	1811	69 38.293	117 47.094					
08	DOL-04	MPS	484	BE	1821	69 38.482	117 47.288	372		SPM		
				BO	1831	69 38.436	117 47.139	372				
				EN	1841	69 38.372	117 46.925	371				

Event Type: BBT = Benthic Beam Trawl Time Codes:

Event Type:

BOT = Bottle cast, no CTD
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Notes: _____

DAILY SCIENCE LOG

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Month <u>September</u>			Year <u>2014</u>			Ship <u>F/V Frosh</u>			Cruise ID <u>2014-56</u>		
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
08	DOL-04	BON	485	BE	18:47	69 38.378	117 46.817	372		SPM	Wire out = 285m Wire in = 45' target = 200m btmg = 370m
				EN	19:07	69 38.808	117 48.442	370	200m		
08	DOL-04	BOX	486	BE	19:54	69 38.584	117 47.668	370		SPA	box-248 good sample
				BO	19:59	69 38.593	117 47.586	371			
				EN	20:06	69 38.563	117 47.479	372			
08	DOL-04	BOX	487	BE	20:14	69 38.520	117 47.353	372		SPA	box-249 good sample
				BO	20:19	69 38.491	117 47.279	372			
				EN	20:26	69 38.468	117 47.144	372			
08	DOL-04	BBT	488	BE	20:39	69 37.746	117 45.691	368		SPA	bbt-130 Lycodes sagittarius?
				BO	20:57	69 38.402	117 47.405	372			
				EN	21:07	69 38.989	117 47.977	372			
08	DOL-04	WZA	489	BE	21:48	69 39.040	117 48.571	370		SPA	Wza-160 Trawleye not working; no net height data → no time to re-deploy
				BO	21:50	69 38.966	117 48.448	371			
				EN	22:10	69 38.171	117 46.855	371			
08	DOL-03	ROS	490	BE	23:50	69 32.160	118 13.190	439		Hm.	1 st CAST
				BO	23:58	69 32.095	118 13.020		430		33.1 SAL = 131
09				EN	00:13	69 31.995	118 12.790				CHL MAX = 46

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Notes: _____

Sept 8 2014

Winds calmer than this morning (<10 knots), N. 9/10 overcast, Waves 0-5m

DAILY SCIENCE LOG

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Month <u>September</u>				Year <u>2014</u>			Ship <u>F/V Frosti</u>				Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N)	Longitude (W)	Bottom Depth	Max Depth	Logger's initials	Comments	
						DD MM.MM...	DDD MM.MM...					
09	DOL_03	ROS	491	BE	0034	69 32.100	118 13.002	440	70	H.M.	2 nd CAST	
				BO	0037	69 32.086	118 13.057				CHL MAX = 46m	
				EN	0046	69 32.035	118 12.910					
09	DOL-03	MPS	492	BE	0054	69 31.979	118 12.749	425		SAM	A bit late (7pm) but at a bright evening; brighter than at 7am.	
				BO	01:04	69 31.931	118 12.592	434	420			
				EN	01:12	69 31.908	118 12.444	430				
09	DOL-03	BON	493	BE	01:19	69 31.902	118 12.292	424		SAM	L' = 415 Wire out = 285m	
				EN	01:38	69 32.368	118 13.442	437				
09	DOL_03	CTD	494	BE	1305	69 32.115	118 13.048	440		H.M.	CTD ONLY	
				BO	1313	69 32.140	118 13.033		430			
				EN	1320	69 32.162	118 12.966					
09	DOL-03	BOX	495	BE	1327	69 32.189	118 12.894	428		SAM	box-250	
				BO	1333	69 32.217	118 12.829	424				
				EN	1341	69 32.248	118 12.732	427			✓ good one.	
09	DOL-03	BOX	496	BE	1351	69 32.155	118 13.192	439		SAM	box-251; both boxes bent, water o-rings at rivets; repair both boxes	
				BO	1357	69 32.223	118 13.206	437	437		good mud at this site!	
				EN	14:06	69 32.268	118 13.138	431			✓ good one.	
09	DOL_03	BBT	497	BE	14:26	69 31.189	118 11.462	431		SPA	bbt-131	
				BO	14:58	69 32.532	118 13.636	432				

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Version: 22 May 2014

This page is for any notes or observations

Sept 9th AM: Winds light, 5 knots, SW. Waves Om. Sunny 1/10 overcast (almost no clouds)

DAILY SCIENCE LOG

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Month <u>September</u>				Year <u>2014</u>		Ship <u>FV Frosti</u>				Cruise ID <u>2014-56</u>	
Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments
09	DOL-03	BBT	497	EN	15:08	69 32.783	118 14.103	436		SPA	blt-131 Turbot! Greenland Halibut! ^{whatever you want to call it! (R. hippoglossoides)}
09	DOL-03	WZA	498	BE	15:47	69 32.584	118 13.828	437		SPA	Wza-161
				BO	15:52	69 32.420	118 13.493	435			
				EN	16:12	69 31.585	118 12.020	435			
09	DOL-02	ROS	499	BE	18:08	69 25.938	118 41.371	269		H.M.	1 st CAST 33.1 SAL = 155
				BO	18:13	69 25.924	118 41.136		260		CHL MAX = 50
				EN	18:26	69 25.896	118 40.529				CTD file name = 2014-56-0498 and -0499
09	DOL-02	ROS	500	BE	18:48	69 25.993	118 41.494	276		H.M.	2 nd CAST 34.0 13.03.2015. (should be changed to -0499 and -0500)
				BO	18:50	69 25.984	118 41.402		70		
				EN	18:59	69 25.976	118 40.985				
09	DOL-02	MPS	501	BE	19:14	69 25.959	118 41.656	236		SAM	
				BO	19:20	69 25.974	118 41.562	256	240		* just missed a GIANT 15m Hump!! when
				EN	19:25	69 25.957	118 41.356	278			
09	DOL-02	BON	502	BE	19:57	69 25.641	118 40.160	2733		SAM	
				EN	20:15	69 26.096	118 41.577	2788	300		went win out = 295m; L =
09	DOL-02	BOX	503	BE	20:29	69 25.970	118 41.385	276			box-252 -
				BO	20:33	69 25.954	118 41.215	273			no sample; some gravel
				EN	20:39	69 25.947	118 40.938	277			

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DAILY SCIENCE LOG

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Day (UTC)	Station Name	Event Type	Event Number	Time Code	Time (UTC)	Latitude (N) DD MM.MM...	Longitude (W) DDD MM.MM...	Bottom Depth	Max Depth	Logger's initials	Comments		
09	DOL-02	BOX	504	BE	20:44	69 25.935	118 40.775	279		SPA	box - 253		
				BO	20:48	69 25.916	118 40.602	288					
				EN	20:52	69 25.908	118 40.425	286					
09	DOL-02	W2A	505	BE	21:23	69 25.909	118 40.031	274			No bot; bottom too hard.		
				BO	21:24	69 25.870	118 40.931	274			W2a-162 Planned for a 10 ^{min} tow → 9 mins into tow		
				EN	21:40	69 25.441	118 38.986	263			bottom looked good enough to keep going; had to haul back at 21:40 → 16 min tow		
09	AXL-01	ROS	506	BE	20:43	69 22.724	118 46.134	145		H.M.			
				BO	20:46	69 22.711	118 45.937		135		ONE CAST 33.1 sal = → DEEP		
				EN	20:58	69 22.669	118 45.304				CHL MAX = 40.		
09	DOL-01	MPS	507	BE	23:16	69 22.968	118 46.370	168		SAM			
				BO	23:22	69 22.895	118 46.205	175	140		bottom uneven, don't want to get too close (>10m clearance needed)		
				EN	23:27	69 22.878	118 45.941	172					
09	DOL-01	BON	508	BE	23:47	69 22.548	118 45.185	156	150	SAM	hairs down slope		
10				EN	00:07	69 23.045	118 46.991	160			wire out - 210m target 3=150m Wire 2. = 45°		
10	DOL-01	BOX	509	BE	00:31	69 22.809	118 45.932	178		SPA	box - 254		
				BO	00:34	69 22.821	118 45.818	184.7			GOOD ONE!		
				EN	00:39	69 22.822	118 45.633	195.5					

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DAILY SCIENCE LOG

Month September

Year 2014

Ship F/V Frosti

Cruise ID 2014-56

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[illegible]

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Version: 22 May 2014