

DAILY SCIENCE LOG BOOK

2011-26
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MISSION
NUMBER

2011-26

DATE:

From: 3 JUNE

to: 21 JUNE 2011

VESSEL:

JOHN P TULLY

PROJECT(S):

LING P

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

WaterProperties.ca

Captain: SIMON SCHWARTZ First Officer: AL YOUNG
Second Officer: RHONDA LETAU Third Officer: JOJO HESKE
Fishing Master: _____

Mission Participants / Agencies: IOS, UCC, UW, NOAA, USF, CUNY, BIOS

Scientific Personnel: Chief Scientist: *MARIC ROBERT*

Name	Watch	Cabin	Name	Watch	Cabin
CONSTANCE CAPTURE	1800-2400	B	SETH BUSHINSKY	12-18	F
NES SUTHERLAND	6-12	B	KYLE SIMPSON	6-12	F
ROGER (PAT) KELLY	0-6	C	JOSIANE MELANCON	18-24	H
DOUG BELL	18-24	C	HUI YAN CHOI	12-18	H
JOHAN SCHIFF	0-6	D	MARTINE LIZOTTE	0-6	U-PORT
CRAIG MEWIS	12-18	D	DAVE YELLAND	12-0	3
JOHN SHANLEY	6-12	E	HUGH MACLEON	0-12	4
KEITH ROHN HOLM		E			
KEITH JOHNSON		G			
MINE ARY CHUK		G			

Second leg of Mission:

[illegible]

Data logging computer:

Data acquisition program: _____
CTD deck unit make: SEA-BIRD model: 11 serial number: 0471

Primary CTD

Make: SEABIRD model: 9 serial number: 550

Primary temperature serial number: 2374

Primary conductivity serial number: 3396

Secondary temperature serial number: 2668

Secondary conductivity serial number: 2754

Transmissometer: WE7 LAB Model: C STAR s/n: 1185 DE

Fluorometer: Model WC-7 LAB5 Cable gain: 2.5 x 10⁰⁰ s/n: 2316

Oxygen sensor: SBE
Cable gain: 1.0 S/n: 2216 F, S or NO pump? F
Model: 43 S/n: 1176 P, S or NO pump? P

PAR sensor: BIO SPECIAL Model: 1681
 s/n: 117 S.I.: 117 F.S or NO pump: 117

Other sensors: ALTIMETER S/N: ? Serial: 4601 Model: ? Part No: ?

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

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

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: _____ model: _____

Primary conductivity serial number:

Secondary temperature serial number:

Secondary conductivity serial number:

Transmissometer: _____
Model: _____

Fluorometer: Model _____ Cable gain: _____
 Model: _____

Oxygen sensor: _____
Cable gail. _____
Model: _____

PAR sensor:	Model:
PAR sensor:	Model:

Other's sensors: _____
Model: _____

Other sensors:

Other sensors:

Other sensors:

Other sensors:

Other sensors:

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

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Month <u>JUL 16</u>				Year <u>2011</u>				Ship <u>TULLY</u>				Cruise ID <u>2011-26</u>			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
4	P1	1617	BE	ROS	U.S.	0001	48° 34.44	125° 30.10	134		1-2	2	H.M.	✓	PAR on
		1620	BO				48° 34.46	125° 30.11		125					
		1625	EN				48° 34.46	125° 30.14							
4	Loop 1		BE	USW	—	—	48 33.36	125 37.88	71		LOOP CTD	500	NET MR		9.7 kg
4	P2	2035	BE	ROS	U.S.	2	48 35.85	125 59.79	117				DY S	✓	
		2037	BO				48 35.86	125 59.77		107	3-16	14			fired out of order
		2056	EN				48 35.88	125 59.73							
4	P2	2108	BE	NET		3	48 35.87	125 59.78							Bongo
		2112	BO				48 35.90	125 59.72							
		2115	EN				48 35.91	125 59.72							
4	P2	2135	BE	ROS	U.S.	4	48 35.93	125 59.76	117				DY MR	✓	
		2138	BO				48 35.94	125 59.77		107	17-24	8			
		2147	EN				48 36.01	125 59.85							
4	P3	2321	BE	ROS	U.S.	5	48 37.50	126 19.80	802				DY	✓	
		2335	BO				48 37.47	126 19.76		792	25-26	2			
		2351	EN				48 37.47	126 19.65							
5	P4	0129	BE	ROS	U.S.	6	48 38.98	126 39.88	1306					✓	Deep Cast
		0154	BO				48 38.91	126 39.83		1320	27-45	19			
		0239	EN				48 38.91	126 39.90							

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 — =

Bottle Firing Method:

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

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Month <u>July</u>				Year <u>2011</u>			Ship <u>TULLY</u>				Cruise ID <u>2011-26</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
4 5	P4	0249	BE	NET		7	48 38.94	126 40.01	1317				dy		Bongo
		0256	BO				48 38.91	126 40.19	1325	250					
		0303	EN				48 38.91	126 40.21	1326						
5	P4	0314	BE	NET		8	48 38.92	126 40.29	1326						
		0320	BO				48 38.92	126 40.42	1321	250			JS		Bongo (F/Yan)
		0326	EN				48 38.93	126 40.51	1322						
5	P4	0334	BE	NET		9	48 38.91	126 40.66	1329						
		0339	BO				48 38.93	126 40.72	1331	100			JS		Bongo (Yan)
		0341	EN				48 38.94	126 40.74	1332						
5	P4	0400	BE	ROS	U.S.	10	48 38.95	126 40.59	1326				dy JS	✓	CS #1
		0419	BO				48 38.96	126 40.56		1005	46-69	24			#7 MISFIRE
		0443	EN				48 39.02	126 40.54							
5	P4	0534	BE	ROS	U.S.	11	48 38.82	126 40.94	1326					✓	UBC cast
		0558	BO				48 38.93	126 41.13		1305	70-93	24			pump on late (3m)
		0626	EN				48 38.99	126 41.15							#7 MISSING
5	P4	0700	BE	Pumps		12	48° 39.90	126° 41.33	1337	40					Pumping
5	P4	0954	BE	ROS	U.S.	13	48° 39.11	126° 40.80	1331		94-117	24		✓	TH & P. CAST
		1001	BO				48° 39.05	126° 40.90		500					#7 NO TRIP
			EN												CHANGING TRIP MECH

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Month <u>JUNE</u>				Year <u>2011</u>			Ship <u>TULLY</u>				Cruise ID <u>Z011-26</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
5	P4	1210	BE	ROS	U.S.	14	48° 38.93	126° 40.02	1320		118-141	24	H.M.	✓	CS# 2 CAST
		1214	BO				48° 38.92	126° 39.99		300					
		1224	EN				48° 38.96	126° 39.99							
5	P4	1314	BE	ROS	U.S.	15	48° 39.13	126° 40.47	1325		142-148	7	H.M.	✓	LIGHT CAST
		1317	BO				48° 39.05	126° 40.43		100					
			EN				48° 39.05	126° 40.41							
5	P4	1505	BE	ROS	U.S.	16	48° 39.17	126° 40.00	1300		149-164	16	H.M.	✓	AMS CAST
		1510	BO				48° 39.18	126° 40.01		200					OUT OF ORDER
		1528	EN				48° 39.19	126° 40.30							BOTTLE FIRING
5	P5	1823	BE	ROS	U.S.	17	48° 41.47	127° 10.08	2001		165-166	2	H.M.	✓	
		1856	BO				48° 41.57	127° 10.00		2031					PAR OFF
		1934	EN				48° 41.53	127° 9.96							OPS
5	P6	2220	BE	ROS	U.S.	18	48° 44.66	127° 40.04	2545		167-168	2		✓	Loop on for Sal/Nuts/Chl
		2258	BO				48° 44.68	127° 40.41		2005					
		2336	EN				48° 44.67	127° 40.66							
6	P7	0233	BE	ROS	U.S.	19	48° 46.54	128° 10.00	2503					✓	→ NUTS kept cool in cold room until 0910. Local on 6 June so 12 hours
		0309	BO				48° 46.58	128° 10.03		2005	169-170	2			
		0348	EN				48° 46.57	128° 10.09							

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Month JUNE				Year 2011			Ship TULLY			Cruise ID 2011-26					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
5	P8	0636	BE	NET		20	48 48.18	128° 39.98	2517		—		DT		BONGO
		0651	BO				48 49.00	128° 40.14		250					
		0656	EN				48 49.16	128° 40.19							
6	P8	0706	BE	ROS	U.S.	21	48° 49.16	128° 40.12	2516		171-192	22	H.M.	✓	23 closed + sampled.
		0735	BO				48° 49.03	128° 40.26		2005					
		0824	EN				48° 48.97	128° 40.28							
6	P9	1108	BE	ROS	U.S.	22	48° 51.33	129° 10.01	2338		193-194	2	H.M.	✓	
		1138	BO				48° 51.36	129° 10.05		2005					
		1213	EN				48° 51.30	129° 10.14							
6	P10	1500	BE	ROS	U.S.	23	48° 53.55	129° 40.04	2641		195-196	2	H.M.	✓	+ LOOP while @ 5 for SAC, not ctd.
		1528	BO				48° 53.68	129° 40.52		2005					
		1603	EN				48° 53.63	129° 40.60							
6	P11	1900	BE	ROS	U.S.	24	48 55.91	130 9.95	2758		197-198	2	H.M. DY	✓	
		1941	BO				48 55.87	130 10.10		2005					
		2016	EN				48 55.88	130 10.17							
6	P12	2301	BE	ROS	U.S.	25	48 58.10	130 40.02	3239				dy	✓	DMS + Light cast.
		2306	BO				48 58.11	130 40.04		200	199-221	23			Rosette out-of-order.
		2333	EN				48 58.20	130 40.31							

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
6	P12	23:47	BE	NET		26	48 58.21	130 40.17	3300						Bongo
		0002	BO				48 58.39	130 40.22		250					
		0008	EN				48 58.43	130 40.23							
7	P12	0059	BE	ROS	US	27	48 58.63	130 40.69	3275		222-244	23	DY/MR	✓	PAR OFF DEEP CAST
		0201	BO				48 59.00	130 41.46		3270					
		0320	EN				48 59.16	130 42.38							
7	P12	03:31	BE	NET		28	48° 59.12	130° 42.42	3026						Bongo (CUNY)
		03:43	BO				48° 59.14	130° 42.54		250					
		03:48	EN				48° 59.15	130° 42.57							
7	P12	03:57	BE	NET		29	48° 59.11	130° 42.62	3012						Bongo (CUNY)
		03:59	BO				48° 59.11	130° 42.66		100					
		04:02	EN				48° 59.12	130° 42.70							
7	P12	0425	BE	BOT		30	48 59.00	130 42.69	3002						Go-Fla to
		0440	BO				48 58.90	130 43.01		150					70m 100m 150m
		0450	EN												
7	P12	0500	BE	ROS	U.S	31	48 58.78	130 43.04	2994						Th cast
		0510	BO				48 58.72	130 43.05		500	245-268	24			out of order firing
		0532	EN				48 58.56	130 43.09							

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Month <u>June</u>				Year <u>2011</u>			Ship <u>Tully</u>			Cruise ID <u>2011-26</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
7	P12	0525	BE	Pumps		32	48 58.56	130 43.09	3116						Weights going in
		0530	BO				48 58.56	130 43.09		40					40, 25, 10 m
		0620	EN				48 58.32	130 43.52							
7	P12	0631	BE	ROS	U.S.	33	48 58.32	130 43.56	2994				AY	✓	
			BO							2000	269-292	24			
		0739	EN				48° 58.30	130° 43.60							
7	P12	0752	BE	NET		34	48° 58.37	130° 43.81	3059	200/150/100 - 10 min each			H.M.		WAITING NET FOR
		0758	BO				48° 58.54	130° 43.89		200					JOHANN
		0838	EN				48° 58.61	130° 45.68							
7	P13	1318	BE	ROS	U.S.	35	49° 02.57	131° 39.90	2991		293-294	2	H.M.	✓	
		1350	BO				49° 02.71	131° 40.00		2005					
		1420	EN				49° 02.76	131° 40.47							
7	P14	1927	BE	ROS	U.S.	36	49 7.27	132 39.88	3320		295-296	2			Filename
		2001	BO				49 07.22	132 39.90		2005					2011-26-00336.ber
		2039	EN				49 07.25	132 39.99							One NIST @ 1000, do not count
7	Loop 2	2127	BE	USW	-	-	49 07.69	132 45.16	3320						Loop 2 for Sal + CTD
8	P15	0148	BE	ROS	U.S.	37	49 11.98	133 39.89	3410				AY	✓	TSG #0003
		0226	BO				49 11.90	133 40.17		2005	297-298	2			
		0301	EN				49 11.88	133 40.20							

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
8	P16	0724	BE	NET		38	49° 16.89	134° 37.97	3642	250/200			H.M.		White Net
		0730	BO				49° 16.88	134° 38.26		150					10 min Tow each depth
		0804	EN				49° 17.05	134° 39.71							
8	P16	0817	BE	Pump		39	49° 17.01	134° 39.96	3636						
		0821	BO				49° 16.99	134° 39.99		40			H.M.		11 min 18 sec Pumping
		0852	EN				49° 16.94	134° 40.21							
8	P16	0903	BE	ROS	U.S.	40	49° 17.00	134° 40.15	3636		299-322	24	H.M.	✓	UBC CAST
		0929	BO				49° 17.02	134° 40.34		2000					
		1002	EN				49° 17.06	134° 40.24							
8	P16	1247	BE	ROS	U.S.	41	49° 16.95	134° 40.07	3639		323-346	24	H.M.	✓	TA & 40 CAST
		1255	BO				49° 17.01	134° 40.17		500					
		1318	EN				49° 16.96	134° 40.35							
8	P16	1335	BE	BOT		42	49° 16.93	134° 40.52	3639	155			H.M.		SHALLOW GO FLO.
		1350	EN				49° 16.93	134° 40.56							
8	P16	1359	BE	ROS	U.S.	43	49° 16.93	134° 40.58	3639		347-370	24	H.M.	✓	105 DEEP CAST
		1450	BO				49° 17.06	134° 40.99		3680					
		1603	EN				49° 16.95	134° 41.34							

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							Latitude	Longitude							
8	P16	1617	BE	NET		44	49° 16.95	134° 41.54	3640				H.M.		BONGO 105
		1623	BO				49° 16.97	134° 41.59		250					
		1635	EN				49° 16.99	134° 41.48							
8	P16	1637	BE	NET		45	49° 17.07	134° 41.48	3637	250			H.M.		C.U.N.Y.
		1641	BO				49° 17.11	134° 41.38							
		1645	EN				49° 17.12	134° 41.30							
8	P16	1651	BE	NET		46	49° 17.06	134° 41.19	3636	100			H.M.		C.U.N.Y.
		1653	BO				49° 17.04	134° 41.21							
		1655	EN				49° 17.03	134° 41.23							
8	P16	1725	BE	ROS	V.S.	47	49° 17.04	134° 40.95	3636		371-377	7	H.M.	✓	LIGHT CAST
		1727	BO				49° 17.02	134° 40.81		150					PAR ON
		1740	EN				49° 16.96	134° 40.71							
8	P16	1755	BE	ROS	V.S.	48	49° 17.04	134° 40.14	3636		378-393	16	H.M.	✓	DMS CAST
		1759	BO				49° 16.98	134° 40.14		200					
		1818	EN				49° 17.01	134° 39.95							
8	P17	2222	BE	ROS	V.S.	49	49° 20.98	135° 40.08	3619				H.M.	✓	PAR off
		2300	BO				49° 20.93	135° 40.24		2005	394-395	2			
		2337	EN				49° 20.97	135° 40.11							

Cast Type:

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=

Bottle Firing Method:

US = Up / Stop
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Notes:

Time Code:

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

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Month <u>June</u>				Year <u>2011</u>			Ship <u>Tully</u>			Cruise ID <u>2011-26</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
9	P18	0341	BE	ROS	U.S.	50	49 26.05	136 40.00	3838				MY	✓	
		0418	BO				49 26.11	136 39.79		2005	396-397	2			
		0451	EN				49 26.12	136 39.35							
9	P19	0927	BE	ROS	U.S.	51	49° 30.06	137° 40.04	3930						BOTTLE #1 Hung up
		0953	BO				49° 29.96	137° 39.89		2005	398-399	2	H.M.	✓	LOADED on WRONG SIDE
		1023	EN				49° 29.98	137° 39.91							of POST
9	P20	1435	BE	ROS	U.S.	52	49° 33.85	138° 40.13	3969		400-423	24	H.M.	✓	TH & PO CAST
		1441	BO				49° 33.82	138° 40.20		500					PAR ON
		1501	EN				49° 33.67	138° 40.44							
9	P20	1510	BE	Go-Flos		53	49° 33.25	138° 40.48	3969		-	-	H.M.	-	KIETH'S GO FLOS
		1532	EN				49° 33.20	138° 40.45		150					
9	P20	1549	BE	ROS	U.S.	54	49° 33.21	138° 40.73			424-430	7	H.M.	✓	LIGHT CAST
		1551	BO				49° 33.23	138° 40.76							
		1602	EN				49° 33.30	138° 40.85							
9	P20	1619	BE	ROS	U.S.	55	49° 33.87	138° 40.08	3969		431-454	24	H.M.	✓	LOS DEEP CAST
		1712	BO				49° 34.05	138° 40.26		4024					PAR OFF
		1833	EN				49° 34.07	138° 40.22							
9	P20	1657	BE	BOAT		56	49° 33.97	138° 40.18		SURFACE	-	-	KJ	-	KIETH'S SAMPLING
		1715	EN				49° 34.05	138° 40.22							OFF OF SMALL BOAT

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Month <u>JUN</u>				Year <u>2011</u>			Ship <u>TULLY</u>				Cruise ID <u>2011-26</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
9	P20	1912	BE	NET		57	49°34.2313	138°40.0778	3968	250					Bongo
		1917	BO				49°34.2398	138°40.1204							
		1922	EN				49°34.2570	138°40.1508							
9	P20	1936	BE	NET		58	49°34.2422	138°40.2238	3966	250					Bongo (Yan)
		1940	BO				49°34.2520	138°40.2380							
		1945	EN				49°34.2555	138°40.2477							
9	P20	1956	BE	NET		59	49°34.2227	138°40.2689	3966	100					Bongo (Yan)
		1959	BO				49°34.2121	138°40.2737							
		2001	EN				49°34.2093	138°40.2635							
9	P20	2015	BE	ROS	U.S.	60	49°34.17	138°40.16	3967						PAR on
		2019	BO				49°34.16	138°40.17		200	455-470	16	DT	✓	out of order sampling
		2036	EN				49°34.15	138°40.21							
9	P20	2109	BE	BOT		61	49°34.06	138°40.27							PAR off
		2121	Mess				49°34.04	138°40.34							Go-fies.
		2138	EN				49°33.96	138°40.48							
9	P20	2145	BE	ROS	U.S.	62	49°33.96	138°40.66	3967						
		2222	BO				49°33.81	138°41.07		2000	471-494	24	DT	✓	UBC CAST
		2257	EN				49°33.66	138°41.33							

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Month <u>June</u>				Year <u>2011</u>			Ship <u>Tully</u>			Cruise ID <u>2011-26</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
9	P20	2330	BE	Pumpy		63			3970						1/2 mile off for clean water
10		0233	EN												
	P20-P21	0610	BE	NET		64	49 37.09	139 26.77	3958	500	500-400-350-				MPS
		0737	EN				49 37.68	139 32.55			250-150-50	5 net			
10	P21	0822	BE	ROS	U.S.	65	49° 38.00	139° 40.14	3959						
		0850	BO				49° 38.01	139° 40.07		2005	495-496	2	H.N.	✓	
		0919	EN				49° 37.95	139° 40.11							
10	P22	1316	BE	ROS	U.S.	66	49° 42.00	140° 40.00	3899		497-498	2	H.N.	✓	
		1343	BO				49° 42.07	140° 39.83		2005					
		1409	EN				49° 42.05	140° 39.82							
10	P23	1808	BE	ROS	U.S.	67	49° 46.00	141° 40.07	4053		499-522	24	AM/OY	✓	Calibration Cast
		1835	BO				49° 46.02	141° 39.99		2005					CHL MAX = 78m
		1908	EN				49° 45.94	141° 40.06							
10	P24	2304	BE	ROS		68	49 50.18	142 39.95	3990				4	✓	
		2337	BO				49 50.22	142 39.69		2005	523-525	3			
11	P25	0014	EN				49 50.21	142 39.66							
11	525	0402	BE			69	50 0.04	143 36.20	4139				2	✓	
		0435	BO				50 0.04	143 36.28		2005	526-527	2			
		0512	EN				50 0.13	143 36.38							

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Month <u>June</u>				Year <u>2011</u>			Ship <u>TULLY</u>			Cruise ID <u>2011-26</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
11	P35	0757	BE	ROS	U.S.	70	50° 00.02	144° 18.23	4153				H.M.	✓	
		0825	BO				50° 00.06	144° 18.15		2005	528-529	2			
		0853	EN				50° 00.05	144° 18.14							
11	TRAPS-D	1100	BE	ROS	U.S.	71	50° 00.03	144° 50.15	4225		530-553	24	H.M.	✓	
		1105	BO				50° 00.02	144° 50.10		500					
		1122	EN				50° 00.01	144° 50.06							
11	TRAP	1303	BE	DRF		72	50° 00.49	144° 49.98	4223				PAR/ra/doug		SEDIMENT TRAP DEPLOYMENT
		1324	EN				50° 00.45	144° 49.82							
11	TRAP-D	1452	BE	ROS	US	73	50° 00.54	144° 52.38			554-560	7	H.M.	✓	LIGHT CAST
		1455	BO				50° 00.56	144° 52.41							PAR 001
		1504	EN				50° 00.70	144° 52.37							
11	PAC05	2040	BE	MOR		74	50 11.54	144 53.60	4220						start spooling line
		2342	EN				50 07.222	144 48.768		4221					Anchor away
12	PAC05	0044	BE	ROS	US	75	50 8.14	144 49.05					01	✓	ONAR 1
		0051	BO				50 8.10	144 48.92	4220						Mooring site
		0107	EN				50 8.27	144 48.66		300	561-572	12			ONAR, cast 1
12	P26	0236	BE	ROS	US	76	50 0.06	145 0.04	4255				01		
		0254	BO				50 0.11	145 0.10		1000	573-596	24			Cs cast 1
		0317	EN				50 0.14	144 59.90							

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Month <u>June</u>				Year <u>2011</u>			Ship <u>Tully</u>				Cruise ID <u>2011-26</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
12	P26	0400	BE	ROS	US	77	49 59.94	144 59.95	4258				M	✓	Cs cast 2
		0407	BO				50 0.00	145 0.00		300	597-620	24			
		0416	EN				49 59.89	145 0.02							
12	P26	0456	BE	ROS	US	78	49 59.99	145 0.13	4257				M	✓	ONAR 2
		0457	BO				49 59.99	145 0.15		30	621-625	5			
		0502	EN				49 59.98	145 0.22							
12	P26	0517	BE	NET		79	49 59.98	145 0.33	4257						MPS
		0529	GN				50 0.05	145 0.85		250	250-200-150-100-50-0	5 nets			fishing up
12	P26	0717	BC	PUMPS		80	50° 00.02	145° 00.00	4257		200, 150, 100, 50		H.M/P.K		INSITU PUMPS - PAT
		1140	EN				50° 00.00	144° 59.95			30				3.5 HAS PUMPING
12	P26	1251	BC	ROS	U.S	81	50° 02.72	144° 52.72	4232				H.M	✓	ONAR 3
	PA-004	1255	BO				50° 02.66	144° 52.71		300	626-630	5			
		1302	EN				50° 02.66	144° 52.71							PAR OFF
12	P26	1521	BC	ROS	US	82	49° 59.92	145° 00.00	4257		631-654	24	H.M	✓	105 DEEP CAST
		1615	BO				49° 59.92	145° 00.03		4317					
		1732	EN				49° 59.93	145° 00.02							
12	P26	2010	BE	NET		83	50 0.11	145 0.21	4257						MPS
		2142	BO				50 0.09	145 0.35		2000	5 nets				
		2251	EN				50 00.08	145 00.52							

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Month JUN				Year 2011			Ship TULLY				Cruise ID 2011-26				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
12	P26	2301	BE	ROS		84	50 00.16	145 00.71	4257				MR/DY	✓	PAR ON
		2306					50 00.17	145 00.71		200	655-670	16			DMS cast
		2323					50 0.09	145 0.70							Firing out of order
13	P26	0036	BE	ROS	US	85	50 0.13	144 59.96	4257				MY	✓	ONAR 4
		0037	BO				50 0.12	144 59.98		30	671-675	5			
		0042	EN				50 0.09	145 0.01							
13	P26	0100	BE	Pumping		86	49 59.92	145 0.80							In chains
		0330	EN				49 59.95	145 0.82							
13	P26	0451	BE			87	50 0.03	144 59.79	4257				MY		PAR OFF! ☺
		0528	BO				50 0.10	144 59.80		2000	676-699	24			UGL cast
		0607	EN				50 0.11	144 59.80							
13	P26	0340	BE	BOT		86b	49 59.95	145 0.82							Go-flos
		0356	MR							300					mess line
		0445	EN				50 0.03	144 59.79							300 bottle failed
13	P26	0615	BE	BOT		88	50 0.07	144 59.79	4257						Go-flos
			BO							300					
			EN												

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Month <u>June</u>				Year <u>2011</u>			Ship <u>Tully</u>			Cruise ID <u>2011-76</u>					
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
13	P26	0640	BE	NET		89	49° 59.99	144° 59.99			250, 200, 150				Go Flo's
		0730	EN				49° 59.97	145° 01.77			10 min EACH				white Net
13	P26	0734	BE	Go Flo		90	49° 59.97	145° 01.77	4257	800	400, 600, 800		KJ/HM		Go Flo's
		0747	BO				49° 59.95	145° 01.81							
		0809	EN				49° 59.91	145° 01.81							
13	P26	0815	BE	PUMPS		91	49° 59.90	145° 01.81	4257				PK/HM		INSITU PUMPS
		0830	BO				49° 59.90	145° 01.81		200					5 PUMPS
		1242	EN				50° 00.33	145° 01.74							
13	PA004	1410	BE	MOORING		92	50° 02.94	144° 52.82	4232				KR/JS		MOORING RELEASED
13	P26	1943	BE	ROS		93	50 0.03	144 59.89	4257				dy		ONAr 4.5
		1946	BO				50 0.03	144 59.89		200m	700-704	5			
		1955	EN				50 0.10	144 59.92							
13	P26	2007	BE	NET		94	50° 00.08	144° 59.89	4257				yc		Bongo
		2016	BO				50° 00.13	144° 59.95		250					
		2021	EN				50° 00.11	144° 59.96							

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Month JUN			Year 2011				Ship TULLY				Cruise ID 2011-26				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
13	P26	2028	BE	NET		95	50°00.16	145°00.01	4257						Bongo (Yan)
		2037	BO				50°00.16	145°00.09		250m					
		2042	EN				50°00.18	145°00.15							
13	P26	2050	BE	NET		96	50°00.21	145°00.16	4257						Bongo (Yan)
		2054	BO				50°00.21	145°00.19		100m					
		2057	EN				50°00.21	145°00.19							
14	ARGOS	0809	BE	ROS		97	49°59.86	147°39.85	3957		705-706	2	H.M.	✓	HOWARDS ARGO 47'40.
		0832	BO				49°59.99	147°39.98		2005					
		0852	EN				49°59.99	147°39.99							
14	ARGOS	0902	BE	DRIF		98	50°00.17	147°39.37			—	—	H.M.		ARGOS DRIFTER LAUNCH
14	WHITE NET	0910	BE	NET		99	50°00.28	147°38.45	3955		250/200/150	—	H.M./J.S.		WHITE NET
		0917					50°00.26	147°37.95		250					
		0950					50°00.12	147°35.73							
14	Drift Rec	1400	RE	Drift		100	50 06.30	144 46.26							recover drifting sed trap
15	Drift Rec	0117	BE	ROS		101	50 3.91	144 36.56	4171					✓	
	TRAPS-R	0119	BO				50 3.91	144 36.58		100	707-724	18			Pat's large volume
		0123	EN				50 3.87	144 36.59							

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Month June		Year 2011		Ship Tully		Cruise ID 2011-26									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
15	Def Rez	1431	BE	ROS	US	102	50° 04.02	144° 36.38	4129		725-743	19	H.M	✓	PAR ON
	TRAPS-R	1437	BO				50° 03.96	144° 36.34		500					LIGHT CAST
		1500	EN				50° 03.81	144° 36.47							START ARCHIVING @ 200
16	UW Float	0553	BE	ROS	US	103	50° 28.33	142° 7.41							PAR OFF
		0605	BO				50° 28.23	142° 7.20		500	744-753	10			After recovering UW float!
		0626	EN				50° 28.13	142° 7.01							
16	EDDY CENTER	1054	BE	ROS	US	104	50° 24.50	141° 00.00	4129		754-774	21	H.M	✓	EDDY CENTER
		1116	BO				50° 24.57	141° 00.00		2005					
		1157	EN				50° 24.65	141° 00.01							
16	EDDY EDGE	1644	BE	NET		105	50° 17.11	140° 00.38	3844						
		1654	BO				50° 16.96	139° 59.86		300/200/150	10 min EACH		J.S./H.M		WHITE NET C
		1726	EN				50° 16.43	139° 58.34							
17	WHITE NET	0859	BE	NET		106	49° 44.96	135° 47.35	3650						
		0905	BO				49° 44.81	135° 47.09		250/200/150	10 min EACH		J.S./H.M		WHITE NET
		0940	EN				49° 44.44	135° 44.18							BUCKET BROKE
17	WHITE NET	0955	BE	NET		107	49° 44.36	135° 43.82	3594	RE DO	ABOVE		J.S./H.M		WHITE NET C
		1000	BO				49° 44.20	135° 43.60		250/200/150	10 min EACH				
		1035	EN				49° 44.33	135° 41.65							

Cast Type:

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

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

Bottle Firing Method:

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

Notes:

Time Code:

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

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

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DAILY SCIENCE LOG

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