

1.3 dbar surface before ✓
0.9 " " after

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: SI03 Event #: 1 Ship: TULLY UTC Date (dd|mmm|yyyy): 07|Feb|2012

Firing #	Niskin #	Sample #	Rosette Operation		Samples Taken			Oxygen Titrations		Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut Fr.	Sal RUN	Flask Serial #	Value mL · L ⁻¹	
1	1	1	Bot-10	✓ 217	✓	✓				Anoxic
2	2	2	200	✓	✓	✓	✓			Anoxic
3	3	3	175	✓	✓	✓	✓			Anoxic
4	4	4	150	✓	✓	✓				Anoxic
5	5	5	125	✓	✓	✓				Anoxic
6	6	6	100	✓	✓	✓				
7	7	7	75	✓	✓	✓				
8	8	8	50	✓	✓	✓				
9	9	9	25	✓	✓	✓				
10	10	10	10	✓	✓	✓				
11	11	11	5		✓	✓	✓			
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										Not tripped (oops)

Watchkeeper(s): py HM

Bottom Depth: 228 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2323	1523
Bottom	2327	1527
End	2342	1542

Positional Information

Start
 Lat: 48 ° 35.591 N
 Lon: 123 ° 30.100 W

Bottom
 Lat: 48 ° 35.608 N
 Lon: 123 ° 30.085 W

End
 Lat: 48 ° 35.614 N
 Lon: 123 ° 30.072 W

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: _____

Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

Tripped @ surface

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P1 Event #: 2 Ship: TULLY UTC Date (dd|mmm|yyyy): 06 | 02 | 12

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken							Comments			
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	Chl a	NH ₄	TPC					
1	12			MAX	✓ 30		✓		✓		✓					
2	13			5	✓	✓	✓	✓	✓		✓					
3																
4																
5																
6																
X	LOOP	P1				✓	✓	✓	✓		✓					
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s): HM

Bottom Depth: 121 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1158	
Bottom	1202	
End	1205	

Positional Information
 Start
 Lat: 48 ° 34.56 N
 Lon: 125 ° 30.01 W

Bottom
 Lat: 48 ° 34.57 N
 Lon: 125 ° 29.98 W

End
 Lat: 48 ° 34.56 N
 Lon: 125 ° 29.95 W

Oxygen Info For This Cast
 Blank Value: _____ mL · L⁻¹
 Std Value: _____ mL · L⁻¹
 *Date Run: ____ | ____ | ____
 Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

LOOP

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01

Station: P2

Event #: 4

Ship: TULLY

UTC Date (dd mmm yyyy): 08 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials								Comments								
			Target Pressure	Confirmed Pressure	Oxy	Nut Fr	Sal run	Sal St	DIC	pH	TRC	CHL									
				✓		HM	PT	HM	HM	NA/PT	GC	PK	PK								
1	1	28	Bot-10	✓	107	xx	x		x	x	x										
2	2	29	100	✓		x	x	x	x	x	xxx		x								
3	3	30	75	✓		x	x		x	xx	x		x								
4	4	31	75	✓		x	x		x	x	x		x								
5	5	32	50	✓		x	x		x	x	x		x								
6	7	33	25	✓		xx	x		x	x	x		xx								
7	9	34	10	✓		x	xx		x	x	x		x								
8	10	35	5	✓		x	x	x	x	x	xxx		x								
9	6	36	MAX 110	✓	30							xx									
10	8	37	MAX	✓	15							xx									
11	11	38	S	✓	5							xx									
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					
21																					
22																					
23																					
24																					

Profile type: ROS TRM X-Niskin other?

Watchkeeper(s): MK

Bottom Depth: 115 m

Transmisso Cleaned: Y N

Time	UTC	Local
Start	1445	0645
Bottom	1447	0647
End	1500	0700

Positional Information

Start
 Lat: 48° 36' 02" N
 Lon: 126° 00' 02" W

Bottom
 Lat: 48° 36' 01" N
 Lon: 126° 00' 02" W

End
 Lat: 48° 36' 00" N
 Lon: 126° 00' 00" W

Extra comments: Rmy. out-of order PAR on.

1 2 3 4 5 9 10 7 8 11

① LIGHT + PROTONA - CAST

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P4 Event #: 5 Ship: TULLY UTC Date (dd mmm yyyy): 09 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	µPlank	FCM	Chl	HPLC	HPLC	POP	POC/N	Prod	ONAr	Sal				
									Doug	IOS								
1	1	39	1%	✓	50	x	x	x x x x	x x x x	xx								
2	2	40	1%	✓	50							xx	xx					
3	4	41	5%	✓	35		x	x x	x x									
4	6	42	9%	✓	22	x	x	x x x x	x x x x									
5	7	43	9%	✓	22						xx	xx						
6	9	44	17%	✓	17		x	x x	x x									
7	11	45	33%	✓	14	x	x	x x x x	x x x x	xx								
8	12	46	33%	✓	14						xx	xx						
9	14	47	55%	✓	8		x	x x	x x									
10	16	48	100%	✓	5	x	x	x x x x	x x x x	xx								
11	17	49	100%	✓	5						xx	xx						
12	3	50	1%	✓	50							x						
13	5	51	5%	✓	35							x						
14	8	52	9%	✓	22							x						
15	10	53	17%	✓	17							x						
16	13	54	33%	✓	14							x						
17	15	55	55%	✓	8							x						
18	18	56	100%	✓	5							x						
19	19	57	5	✓	5								x	x				
20																		
21																		
22																		
23																		
24																		

Profile type: ROS TRM X-Niskin other?
 Watchkeeper(s):

Bottom Depth: _____ m
 Transmisso Cleaned: Y / N

	UTC	Local
Time Start		
Bottom	2051	1251
End	2110	1310

Positional Information

Start	Lat: 48 ° 39.034 N	Lon: 126 ° 40.010 W
Bottom	Lat: 49 ° 39.029 N	Lon: 126 ° 40.002 W
End	Lat: 48 ° 39.016 N	Lon: 126 ° 40.045 W

Extra comments:
 1-2-12-3-13-4-5-14-6-15-7-8-16-9-17-10-11-18-19

② Th+Po CAST

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P4 Event #: 6 Ship: TULLY UTC Date (dd mmm yyyy): 10 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments					
			Target Pressure	Confirmed Pressure	Th	Po														
1		58	500	✓ 500		x														
2		59	500	✓ 500	x															
3		60	400	✓ 400		x														
4		61	300	✓ 300	x															
5		62	300	✓ 300		x														
6		63	200	✓ 200	x															
7		64	200	✓ 200		x														
8		65	150	✓ 150	x															
9		66	150	✓ 150		x														
10		67	100	✓ 100	x															
11		68	100	✓ 100		x														
12		69	75	✓ 75	x															
13		70	75	✓ 75		x														
14		71	50	✓ 50	x															
15		72	50	✓ 50		x														
16		73	30	✓ 30	x															
17		74	30	✓ 30		x														
18		75	20	✓ 20	x															
19		76	20	✓ 20		x														
20		77	10	✓ 10	x															
21		78	10	✓ 10		x														
22		79	0		x															
23		80	Max	✓ 125		x														
24		81	Max	✓ 140	x															

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): DY

Bottom Depth: 1322 m
 Transmisso Cleaned: Y / N

	Time	UTC	Local
Start		0001	1601
Bottom		0013	1613
End		0040	1640

Positional Information
 Start
 Lat: 48° 39.020 N
 Lon: 126° 39.956 W

Bottom
 Lat: 48° 39.011 N
 Lon: 126° 39.982 W

End
 Lat: 48° 39.006 N
 Lon: 126° 40.026 W

Extra comments:
1, 9, 23, 10, 15, 24, 16, ... 22

③ TM- PUMP

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: PA Event #: 7 Ship: TULLY UTC Date (dd mmm yyyy): 10 FEB 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓ Pressure	Filt	un-filt													
1		82	10		xx	xx													
2		83	25		x	x													
3		84	40		x	x													
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Profile type: PUMP TM
 ROS TRM X-Niskin other?
 Watchkeeper(s): KS

Bottom Depth: _____ m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>0145</u>	<u>1745</u>
Bottom		
End	<u>0225</u>	<u>1825</u>

Positional Information

Start	Lat: <u>48 ° 38.98</u> N
	Lon: <u>126 ° 40.01</u> W
▼	
Bottom	Lat: <u>48 ° 39.00</u> N
	Lon: <u>126 ° 39.94</u> W
▼	
End	Lat: <u>°</u> N
	Lon: <u>°</u> W

Extra comments:

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

④ Deep cast

Cruise ID: 2012-01 Station: P4 Event #: 10 Ship: TULLY UTC Date (dd mmm yyyy): 10 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments						
			Target Pressure	Confirmed Pressure	OXY	Sal St	Sal R	Nut Fr	NutCo	DIC	pH	Chl	HPLC	FCM		DNA	Gases	WGA	H2S		
1		85	Bot-10	✓	1324	x	x		x	x	x	x				x	x	xx	x	x	
2		86	1250	✓		x	x	xx	x	x	xx	x									
3		87	1250	✓		x	x		x	x	x	x			x	x	xx	x	x		
4		88	1000	✓		xx	x	xx	x	x	x	x			x	x	xx	x	x		
5		89	800	✓		x	x	x	x	x	x	x			x	x	xx	x	x		
6		90	600	✓		x	x		xx	xx	x	x			x	x	xx	x	x		
7		91	400	✓		x	x		x	x	x	xxx			x	x	xx	x	x		
8		92	300	✓		x	x		x		x	x			x	x	xx	x	x		
9		93	250	✓		x	x		x		x	x									
10		94	200	✓		x	x		x		x	x			x	x	xx	x	x		
11		95	175	✓		x	x		x		x	x									
12		96	150	✓		xx	x		x		x	x			x	x	xx	x	x		
13		97	125	✓		x	x		x		x	xxx									
14		98	100	✓		x	x		xx		x	x	x		x	x	xx	x	x		
15		99	75	✓		x	x		x		x	x	x								
16		100	50	✓		x	x		x		x	x	x		x	x	xx	x	x		
17		101	25	✓		x	x		x		x	x	x		x	x	xx	x	x		
18		102	10	✓		x	x		x		x	x	xx		x	x	xx	x	x		
19		103	5	✓		x	x	x	x		x	x									
20		104	Max+10	✓	30																
21		105	Max	✓	15																
22		106	5	✓	5																+ phyto
23																					
24																					

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): HM

Bottom Depth: 323 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>0853</u>	
Bottom	<u>0929</u>	
End	<u>1029</u>	<u>0229</u>

Positional Information

Start
 Lat: 48° 39.99' N
 Lon: 126° 40.03' W

Start
Bottom
End

Bottom
 Lat: 48° 39.02' N
 Lon: 126° 39.99' W

End
 Lat: 48° 38.98' N
 Lon: 126° 39.98' W

Extra comments:
16, 20, 17, 21, 18
19, 22

⑤ UBC cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P4 Event #: 13 Ship: TULLY UTC Date (dd:mmm:yyyy): 10 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials								Comments	
			Target Pressure	Confirmed Pressure	FCM	WGA	Gases	RNA	H2S	Sal	Nut Fr	Nut cool		
1	1	107	1300	✓	x	x	xx	x	x	x	x	x		
2	2	108	1300	✓										
3	3	109	1300	✓										
4	4	110	1000	✓	x	x	xx	x	x	x	x	x		
5	5	111	1000	✓										
6	6	112	1000	✓										
7	7	113	500	✓	x	x	xx	x	x	x	x	x		
8	8	114	500	✓										
9	9	115	500	✓										
10	10	116	10	✓	x	x	xx	x	x	x	x			
11	11	117	10	✓										
12	12	118	10	✓										
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): H.M.

Bottom Depth: 1320 m
 Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1237	0437
Bottom	1303	0503
End	1337	

Positional Information

Start
 Lat: 48 ° 39.99 N
 Lon: 126 ° 40.01 W

Bottom
 Lat: 48 ° 39.02 N
 Lon: 126 ° 39.87 W

End
 Lat: 48 ° 38.99 N
 Lon: 126 ° 39.96 W

Extra comments:

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P6 Event #: 14 Ship: TULLY UTC Date (dd|mmm|yyyy): 10 | 2 | 12

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken						Comments					
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed <input checked="" type="checkbox"/> Pressure	Oxy	Nut	Sal	Chl a	chl Hpic							
1	119			MAX	<input checked="" type="checkbox"/>	30		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
2	120			5	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Watchkeeper(s): H.M.

Bottom Depth: 254 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1800	1000
Bottom	1833	
End	1903	1103

Positional Information
 Start
 Lat: 48 ° 44.63 N
 Lon: 127 ° 39.95 W

Bottom
 Lat: 48 ° 44.63 N
 Lon: 127 ° 40.02 W

End
 Lat: 48 ° 44.60 N
 Lon: 127 ° 39.96 W

Oxygen Info For This Cast
 Blank Value: _____ mL · L⁻¹
 Std Value: _____ mL · L⁻¹
 *Date Run: ____ | ____ | ____
 Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P8 Event #: 15 Ship: TULLY UTC Date (dd mmm yyyy): 10 Feb 2010

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed Pressure	Oxy	NutFr	NutCo	Sal St	SalRun	Chl	HPLC	pH	gases						
1		121	2000	✓	2000	x	x	x	x	xx				x	xx				
2		122	1500	✓		x	x	x	x					x	xx				
3		123	1250	✓		x	x	x	x	x				x	xx				
4		124	1000	✓		xx	xx	xx	x	xx				x	xx				
5		125	800	✓		x	x	x	x	x				x	xx				
6		126	600	✓		x	x	x	x					x	xx				
7		127	400	✓		x	x	x	x					x	xx				
8		128	300	✓		x	x	x	x					x	xx				
9		129	250	✓		x	x		x					x					
10		130	200	✓		x	x		x					xxx	xx				
11		131	175	✓		xx	x		x					x					
12		132	150	✓		x	x		x					x	xx				
13		133	125	✓		x	x		x					x					
14		134	100	✓		x	x		x			x		x	xx				
15		135	75	✓		x	x		x			x		xxx					
16		136	50	✓		xx	x		x					x	xx				
17		137	25	✓		x	xx		x			x		x	xx				
18		138	10	✓		x	x		x			x		x	xx				
19		139	5	✓		x	x		x	x				x					
20		140	Max+10	✓										xx	xx				
21		141	Max	✓										xx	xx				
22		142	5	✓										xx	xx				
23																			
24																			

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): DY

Bottom Depth: 2517 m
 Transmisso Cleaned: Y / N

	UTC	Local
Time Start	<u>2334</u>	<u>1534</u>
Bottom	<u>0030</u>	<u>1630</u>
End	<u>0136</u>	

Positional Information
 Start Lat: 48° 49.003 N
 Lon: 128° 40.045 W

Bottom Lat: 48° 48.998 N
 Lon: 128° 40.042 W

End Lat: 48° 49.01 N
 Lon: 128° 40.00 W

Extra comments: 1-15, 16, 20, 17, 21, 18, 19, 22

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 202-01 Station: P10 Event #: 17 Ship: TULLY UTC Date (dd|mmm|yyyy): 11 | Feb | 12

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken						Comments	
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Chl a	NH ₄	HPLC		
1	143			MAX	✓ 30		✓		✓		✓		
2	144			5	✓ 5		✓	✓	✓		✓		
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													

Watchkeeper(s): MY

Bottom Depth: 2638 m

Transmisso Cleaned: (Y) / N

	UTC	Local
Time Start	<u>0707</u>	<u>2303</u>
Bottom	<u>0743</u>	<u>2343</u>
End	<u>0822</u>	<u>0022</u>

Positional Information
 Start
 Lat: 48 ° 53.590 N
 Lon: 129 ° 40.020 W

Bottom
 Lat: 48 ° 53.560 N
 Lon: 129 ° 39.970 W

End
 Lat: 48 ° 53.60 N
 Lon: 129 ° 40.00 W

Oxygen Info For This Cast
 Blank Value: _____ mL · L⁻¹
 Std Value: _____ mL · L⁻¹
 *Date Run: ____ | ____ | ____
 Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

① Deep TM X-NISKINS

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P12 Event #: 18 Ship: TULLY UTC Date (dd mmm yyyy): 11 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials					Comments
			Target Pressure	Confirmed Pressure	Filt	UnFilt	SalRun	NutFr	NutCo	
1		145	800		x	x	x	x	x	
2		146	400		x	x				
3		147	300		x	x				
4		148	200		x	x				
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Profile type: ROS TRM X-Niskin other?
 Watchkeeper(s): KS/HM

Bottom Depth: 2759 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>1300</u>	
Bottom	<u>1339</u>	
End	<u>1411</u>	

Positional Information
 Start
 Lat: 48 ° 58.15 N
 Lon: 130 ° 39.95 W

Bottom
 Lat: 48 ° 58.18 N
 Lon: 130 ° 39.97 W

End
 Lat: 48 ° 58.07 N
 Lon: 130 ° 39.97 W

Extra comments:

② ThePo Cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: A2 Event #: 19 Ship: TALUY UTC Date (dd mmm yyyy): 11 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments						
			Target Pressure	Confirmed Pressure	Th	Po															
1		149	500	✓			x														
2		150	500	✓		x															
3		151	400	✓			x														
4		152	300	✓		x															
5		153	300	✓			x														
6		154	200	✓		x															
7		155	200	✓			x														
8		156	150	✓		x															
9		157	150	✓			x														
10		158	100	✓		x															
11		159	100	✓			x														
12		160	75	✓		x															
13		161	75	✓			x														
14		162	50	✓		x															
15		163	50	✓			x														
16		164	30	✓		x															
17		165	30	✓			x														
18		166	20	✓		x															
19		167	20	✓			x														
20		168	10	✓		x															
21		169	10	✓			x														
22		170	0	✓	S.1	x															
23		171	Max	✓	125		x														
24		172	Max	✓	40	x															

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): H.M.

Bottom Depth: 2645 m
 Transmisso Cleaned: N

Time	UTC	Local
Start	1424	0624
Bottom	1436	
End	1501	0701

Positional Information

Start	Lat: <u>48 ° 58.13</u>	N
Start	Lon: <u>130 ° 39.87</u>	W

Bottom

Bottom	Lat: <u>48 ° 58.18</u>	N
Bottom	Lon: <u>130 ° 40.02</u>	W

End

End	Lat: <u>48 ° 58.20</u>	N
End	Lon: <u>130 ° 40.03</u>	W

Extra comments:
1, 2, 3, 4, 5, 6, 7, 8, 9, (23), 10, 11,
12, 13, 14, 15 (24), 16, 17, 18, 19, 20,
21, 22

③ Shallow TM Niskins

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P12 Event #: 20 Ship: TULLY UTC Date (dd mmm yyyy): 11 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials				Comments
			Target Pressure	Confirmed Pressure	Filt	UnFilt	SalRun	NutFr	
1		173	150		x	x	x	x	
2		174	100		x	x			
3		175	75		x	x			
4		176	50		x	x			
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s):

Bottom Depth: 2695 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1511	0711
Bottom		
End		0750

Positional Information

Start	Lat: 48 ° 58.20 N
	Lon: 130 ° 40.02 W
Bottom	Lat: ° N
	Lon: ° W
End	Lat: ° N
	Lon: ° W

Extra comments:

④ LIGHT + PROD + HPLC + ONA, cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P12 Event #: 23 Ship: Tully UTC Date (dd mmm yyyy): 11 02 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed Pressure	µPlank	FCM	Chl	HPLC	HPLC	POP	POC/N	Prod	ONAr	Sal		Chl IOS		
1	1	177	1%	✓	95	x	x	x x x x	x x x x	xx							xx	
2	2	178	1%	✓	95						xx	xx						
3	4	179	5%	✓	55		x	xx	xx									
4	6	180	9%	✓	41	x	x	x x x x	x x x x									
5	7	181	9%	✓	41					xx	xx							
6	9	182	17%	✓	26		x	xx	xx									
7	11	183	33%	✓	12	x	x	x x x x	x x x x	xx							xx	
8	12	184	33%	✓	12					xx	xx							
9	14	185	55%	✓	8		x	xx	xx									
10	16	186	100%	✓	0	x	x	x x x x	x x x x	xx							xx	
11	17	187	100%	✓	0					xx	xx							
12	3	188	1%	✓	95						x							
13	5	189	5%	✓	55						x							
14	8	190	9%	✓	41						x							
15	10	191	17%	✓	26						x							
16	13	192	33%	✓	12						x							
17	15	193	55%	✓	8						x							
18	18	194	100%	✓	0						x							
19	19	195	5	✓								x	x					
20																		
21																		
22																		
23																		
24																		

Profile type: ROS TRM X-Niskin other?
 Watchkeeper(s): GC

Bottom Depth: 3280 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1712	912
Bottom	1716	917
End	1732	932

Positional Information
 Start
 Lat: 48 ° 58.186 N
 Lon: 130 ° 40.028 W

Bottom
 Lat: 48 ° 58.176 N
 Lon: 130 ° 40.001 W

End
 Lat: 48 ° 58.165 N
 Lon: 130 ° 40.055 W

Extra comments:
 1-2-12-3-13-4-5-14-6-15-7-8-16-9-17-10-11-18-19
12
Par Dr

⑤ TM Pump

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P12 Event #: 24 Ship: TULLY UTC Date (dd mmm yyyy): 11 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials						Comments			
			Target Pressure	Confirmed Pressure	Filt	un-filt								
1		196	40		x	x								
2		197	25		x	x								
3		198	10		xx	xx								
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

Profile type: TM Pumps
 ROS TRM X-Niskin other?
 Watchkeeper(s): KS/GC

Bottom Depth: 3280 m
 Transmisso Cleaned: Y / N

	UTC	Local
Time Start	<u>1904</u>	<u>1004</u>
Bottom		
End	<u>1840</u>	<u>1040</u>

Positional Information
 Start
 Lat: 48 ° 53.25 N
 Lon: 130 ° 39.84 W

Bottom
 Lat: ° N
 Lon: ° W

End
 Lat: 48 ° 53.24 N
 Lon: 130 ° 39.86 W

Extra comments:

⑥ Deep cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P12 Event #: 25 Ship: TULLY UTC Date (dd mmm yyyy): 11 | 2 | 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments					
			Target Pressure	Confirmed Pressure	OXY	Sal St	Sal R	Nut Fr	NutCo	DIC	pH	Chl	FCM	DNA	Gases	WGA		H2S				
				✓	K	DY	IANJ	IAN	PB	PB	MR	KS	G	DY	MB	MB	ALL	PT	DC	MB	MB	
1	1	199	Bot-10	✓	3276	x	x		xx	xx	x	x		x	x	xx	x	x				
2	2	200	3000	✓		x	x	xx	x	x	xx	x										
3	3	201	3000	✓		x	x		x	x	x	x		x	x	xx	x	x				
4	4	202	2500	✓		x	x		x	x	x	x										
5	5	203	2000	✓		x	x	x	xx	xx	x	x		x	x	xx	x	x				
6	6	204	1500	✓		xx	x		x	x	x	x		x	x	xx	x	x				
7	7	205	1250	✓		x	x		x	x	x	x		x	x	xx	x	x				
8	8	206	1000	✓		x	x	xx	x	x	x	x		x	x	xx	x	x				
9	9	207	800	✓		x	x	x	x	x	x	x		x	x	xx	x	x				
10	10	208	600	✓		x	x		x	x	x	x		x	x	xx	x	x				
11	11	209	400	✓		x	x		x	x	x	x		x	x	xx	x	x				
12	12	210	300	✓		x	x		x		x	x		x	x	xx	x	x				
13	13	211	250	✓		x	x		x		x	xxx										
14	14	212	200	✓		x	x		x		x	x		x	x	xx	x	x				
15	15	213	175	✓		xx	x		x		x	x										
16	16	214	150	✓		x	x		xx		x	x		x	x	xx	x	x				
17	17	215	125	✓		x	x		x		x	x										
18	18	216	100	✓		x	x		x		x	x	x	x	x	xx	x	x				
19	19	217	75	✓		x	x		x		x	xxx	x									
20	20	218	50	✓		x	x		x		x	x	x	x	x	xx	x	x				
21	21	219	25	✓		x	x		x		x	x	x	x	x	xx						
22	22	220	10	✓		x	x		x		x	x	xx	x	x	xx	x	x				
23	23	221	5	✓		xx	x	x	x		x	x	x									
24																						

Profile type: ROS TRM X-Niskin other?

Watchkeeper(s): H.M.

Bottom Depth: 3233 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1852	1052
Bottom	2008	1252
End	2207	1407

Positional Information

Lat: 48 ° 58.25 N

Lon: 130 ° 39.95 W

Lat: 48 ° 58.224 N

Lon: 130 ° 39.948 W

Lat: 48 ° 58.210 N

Lon: 130 ° 39.965 W

Extra comments:

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P12 Event #: 27 Ship: TULLY UTC Date (dd mmm yyyy): 12 Feb 2012

⑦ UBC cast

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials								Comments	
			Target Pressure	Confirmed Pressure	FCM	WGA	Gases	RNA	H2S	Sal	Nut Fr	Nut cool		
1	1	222	2000	✓	x	x	xx	x	x	x	x	x		
2	2	223	2000	✓										
3	3	224	2000	✓										
4	4	225	1000	✓	x	x	xx	x	x	x	x	x		
5	5	226	1000	✓										
6	6	227	1000	✓										
7	7	228	500	✓	x	x	xx	x	x	x	x	x		
8	8	229	500	✓										
9	9	230	500	✓										
10	10	231	10	✓	x	x	xx	x	x	x	x			
11	11	232	10	✓										
12	12	233	10	✓										
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): BY

Bottom Depth: 3233 m
 Transmisso Cleaned: Y N

Time	UTC	Local
Start	<u>0236</u>	<u>1836</u>
Bottom	<u>0324</u>	<u>1924</u>
End	<u>0421</u>	<u>2021</u>

Positional Information
 Start
 Lat: 48° 58.195 N
 Lon: 130° 40.028 W

Bottom
 Lat: 48° 58.182 N
 Lon: 130° 39.972 W

End
 Lat: 48° 58.166 N
 Lon: 130° 40.102 W

Extra comments:

① LIGHT + PROD + HPLC cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P16 Event #: 28 Ship: TULLY UTC Date (dd mmm yyyy): 12 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments					
			Target Pressure	Confirmed Pressure	µPlank	FCM	Chl	HPLC	HPLC	POP	POC/N	Prod	ONAr	Sal		Chl IOS				
				✓																
1	1	234	1%	✓	95	x	x	x x x x	x x x x	xx										xx
2	2	235	1%	✓	95						xx	xx								
3	4	236	5%	✓	70		x	x x	x x											
4	6	237	9%	✓	58	x	x	x x x x	x x x x											
5	7	238	9%	✓	58						xx	xx								
6	9	239	17%	✓	50		x	x x	x x											
7	11	240	33%	✓	20	x	x	x x x x	x x x x	xx										xx
8	12	241	33%	✓	20						xx	xx								
9	14	242	55%	✓	10		x	x x	x x											
10	16	243	100%		2	x	x	x x x x	x x x x	xx										xx
11	17	244	100%		2						xx	xx								
12	3	245	1%	✓	95								x							
13	4.5	246	5% 1%	✓	70 ⁹⁵								x							accidental trip @ 95m
14	8	247	9%	✓	58								x							
15	10	248	17%	✓	50								x							
16	13	249	33%	✓	20								x							
17	15	250	55%	✓	10								x							
18	18	251	100%		2								x							
19	19	252	5	✓	5									x	x					
20																				
21																				
22																				
23																				
24																				

Profile type: ROS TRM X-Niskin other?
 Watchkeeper(s): DY

Bottom Depth: 3634 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2125	1325
Bottom	2132	1333
End	2150	1350

Positional Information
 Start
 Lat: 49 ° 17.047 N
 Lon: 134 ° 39.940 W

Bottom
 Lat: 49 ° 17.154 N
 Lon: 134 ° 39.887 W

End
 Lat: 49 ° 17.144 N
 Lon: 134 ° 39.896 W

Extra comments:
~~1-2-12-3-13-4-5-14-6-15-7-8-16-9-17-19-10-11-18~~
 1-2-12-13-3-4-5-14-6-15-7-8-16-9-17-19-10-11-18

1 2 12 1

② TM Deep X-Niskins

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P16 Event #: 29 Ship: TULLY UTC Date (dd mmm yyyy): 12 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials					Comments
			Target Pressure	Confirmed Pressure	Filt	UnFilt	SalRun	NutFr	NutCo	
1		253	800		x	x	x	x	x	
2		254	400		x	x				
3		255	300		xx	xx				
4		256	200		x	x				
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): KS/04

Bottom Depth: 3634 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>2205</u>	<u>1405</u>
Bottom	<u>2245</u>	
End	<u>2318</u>	

Positional Information

Start	Lat: <u>49° 17.36</u>	<u>N</u>
	Lon: <u>134° 40.14</u>	<u>W</u>
Bottom	Lat: <u>49° 17.00</u>	<u>N</u>
	Lon: <u>134° 40.10</u>	<u>W</u>
End	Lat: <u>°</u>	<u>N</u>
	Lon: <u>°</u>	<u>W</u>

Extra comments:

③ Th + Po Cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012- Station: P16 Event #: 30 Ship: TULLY UTC Date (dd mmm yyyy): 12 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments									
			Target Pressure	Confirmed Pressure	Th	Po																		
1	1	257	500	✓			x																	
2	2	258	500	✓		x																		
3	3	259	400	✓			x																	
4	4	260	300	✓		x																		
5	5	261	300	✓			x																	
6	6	262	200	✓		x																		
7	7	263	200	✓			x																	
8	8	264	150	✓		x																		
9	9	265	150	✓			x																	
10	11	266	100	✓		x																		
11	12	267	100	✓			x																	
12	13	268	75	✓		x																		
13	14	269	75	✓			x																	
14	15	270	50	✓		x																		
15	16	271	50	✓			x																	
16	18	272	30	✓		x																		
17	19	273	30	✓			x																	
18	20	274	20	✓		x																		
19	21	275	20	✓			x																	
20	22	276	10	✓		x																		
21	23	277	10	✓			x																	
22	24	278	0	✓		x																		
23	10	279	Max	✓	125		x																	
24	17	280	Max	✓	40	x																		

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): _____

Bottom Depth: 3634 m
 Transmisso Cleaned: Y N

Time	UTC	Local
Start	<u>2330</u>	<u>1530</u>
Bottom	<u>2343</u>	<u>1543</u>
End	<u>0014</u>	<u>1614</u>

Positional Information
Start
 Lat: 49° 12.01 N
 Lon: 134° 39.97 W

Bottom
 Lat: 49° 17.01 N
 Lon: 134° 39.98 W

End
 Lat: 49° 17.008 N
 Lon: 134° 40.000 W

Extra comments: out-of-order
 PAR on
 8-9-23-16-11-12-13-
 4-15-24-16-17

Water Properties Group

④ TM Shallow Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P16 Event #: 31 Ship: TULLY UTC Date (dd mmm yyyy): 13 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials				Comments
			Target Pressure	Confirmed Pressure	Filt	UnFilt	SalRun	NutFr	
1		281	150		x	x	x	x	
2		282	100		x	x			
3		283	75		x	x			
4		284	50		x	x			
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									

Profile type: ROS TRM X-Niskin other?
 Watchkeeper(s): KS/0Y

Bottom Depth: 3635 m
 Transmisso Cleaned: Y/N

Time	UTC	Local
Start	0026	1626
Bottom	0037	
End	0049	

Positional Information

Start	Lat: 49 ° 17.00	N
	Lon: 134 ° 40.01	W
Bottom	Lat: 49 ° 17.01	N
	Lon: 134 ° 40.02	W
End	Lat: 49 ° 16.99	N
	Lon: 134 ° 40.01	W

Extra comments:

Water Properties Group

⑤ Deep cast Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: PI6 Event #: 34 Ship: TULLY UTC Date (dd mmm yyyy): 13 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed Pressure	OXY	Sal St	Sal R	Nut Fr	NutCo	DIC	pH	Chl	FCM	DNA	Gases	WGA		H2S
				✓	KS/GS	KS/GS	NS	DY	DY	NA/PT	GC	NS						
1	1	285	Bot-10	✓	3684	x	x		x	x	x	x		x	x	xx	x	x
2	2	286	3500	✓		x	x	x	x	x	xx	x						
3	3	287	3500	✓		x	x		xx	xx	x	x						
4	4	288	3000	✓		x	x	xx	x	x	x	x		x	x	xx	x	x
5	5	289	2500	✓		xx	x		x	x	x	x						
6	6	290	2000	✓		x	x	x	x	x	x	x		x	x	xx	x	x
7	7	291	1500	✓		x	x		x	x	x	x		x	x	xx	x	x
8	8	292	1250	✓		x	x		x	x	x	x		x	x	xx	x	x
9	9	293	1000	✓		x	x	xx	xx	xx	x	x		x	x	xx	x	x
10	10	294	800	✓		x	x	x	x	x	x	x		x	x	xx	x	x
11	11	295	600	✓		x	x		x	x	x	xxx		x	x	xx	x	x
12	12	296	400	✓		x	x		x	x	x	x		x	x	xx	x	x
13	13	297	300	✓		x	x		x		x	x		x	x	xx	x	x
14	14	298	250	✓		xx	x		x		x	x						
15	15	299	200	✓		x	x		x		x	x		x	x	xx	x	x
16	16	300	175	✓		x	x		x		x	xxx						
17	17	301	150	✓		x	x		x		x	x		x	x	xx	x	x
18	18	302	125	✓		x	x		xx		x	x						
19	19	303	100	✓		x	x		x		x	x	x	x	x	xx	x	x
20	20	304	75	✓		x	x		x		x	x	x					
21	21	305	50	✓		x	x		x		x	x	x	x	x	xx	x	x
22	22	306	25	✓		x	x		x		x	x	xx	x	x	xx	x	x
23	23	307	10	✓		xx	x		x		x	x	x	x	x	xx	x	x
24	24	308	5			x	x	x	x		x	x	x					

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): DY (MA)

Bottom Depth: 3635 m
 Transmisso Cleaned: Y N

Time	UTC	Local
Start	<u>0200</u>	<u>1800</u>
Bottom	<u>0322</u>	<u>1922</u>
End	<u>0503</u>	<u>2103</u>

Positional Information

Start	Lat: <u>49° 16.97</u>	<u>N</u>
	Lon: <u>134° 40.00</u>	<u>W</u>

Bottom

	Lat: <u>49° 16.987</u>	<u>N</u>
	Lon: <u>134° 39.996</u>	<u>W</u>

End

	Lat: <u>49° 16.976</u>	<u>N</u>
	Lon: <u>134° 40.018</u>	<u>W</u>

Extra comments:
PAR OFF

Water Properties Group

⑥ TM pumping
Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P16 Event #: 25 Ship: TULLY UTC Date (dd mmm yyyy): 13 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed Pressure	Filt	un-filt													
1		309	40		x	x													
2		310	25		x	x													
3		311	10		xx	xx													
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Profile type: TM PUMP
 ROS TRM X-Niskin other?
 Watchkeeper(s):

Bottom Depth: 3634 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>0530</u>	<u>2130</u>
Bottom	<u>0537</u>	<u>2137</u>
End	<u>0613</u>	<u>2213</u>

Positional Information

Start	Lat: <u>49</u> ° <u>16.944</u> N
	Lon: <u>134</u> ° <u>40.014</u> W
Bottom	Lat: <u>49</u> ° <u>16.700</u> N
	Lon: <u>134</u> ° <u>40.050</u> W
End	Lat: <u>49</u> ° <u>16.669</u> N
	Lon: <u>134</u> ° <u>40.145</u> W

Extra comments:

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P24 Event #: 36 Ship: TULLY UTC Date (dd mmm yyyy): 14 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed Pressure	pH	DIC	Sal	NutFr	Chl	HPLC									
1		312		✓	2000	xxx	xxx	x											Spigot leaking
2		313		✓	2000	xxx	xxx	x											
3		314		✓	2000	xxx	xxx	x											
4		315		✓	2000	xxx	xxx	x											
5		316		✓	2000	xxx	xxx	x											
6		317		✓	2000			x											
7		318		✓	2000			x											
8		319		✓	2000			x											+48 sals for time exp
9		320		✓	2000			x											} Carbuoy 1
10		321		✓	2000			x											}
11		322		✓	2000			x											} Carbuoy 2
12		323		✓	2000			x											}
13		324		✓	2000			x											
14		325		✓	2000			x											
15		326		✓	2000			x											
16		327		✓	2000			x											
17		328		✓	2000			x											
18		329		✓	2000			x											
19		330		✓	2000			x											
20		331		✓	2000			x											
21		332		✓	2000			x											
22		333		✓	2000			x											
23		334	50	✓	Max			x	x	x	xx								
24		335			5			x	x	x	xx								

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): A.M

Bottom Depth: 3987 m
 Transmisso Cleaned: Y N

Time	UTC	Local
Start	1913	11:13
Bottom	1958	1158
End	2049	1249

Positional Information
 Start
 Lat: 49 ° 50 . 20 N
 Lon: 142 ° 40 . 05 W

Bottom
 Lat: 49 ° 50 . 23 N
 Lon: 142 ° 40 . 08 W

End
 Lat: 49 ° 50 . 28 N
 Lon: 142 ° 40 . 08 W

Extra comments:

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P25 Event #: 37 Ship: TULLY UTC Date (dd|mmm|yyyy): 15 | Feb | 2012

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken						Comments			
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed ✓ Pressure	Oxy	Nut	Sal	Chl a	MP HPLC					
1	336			MAX	✓ 50		✓		✓	✓					
2	337			5	✓		✓	✓	✓	✓					
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s):
DY

Bottom Depth: 4205 m

Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	0100	1700
Bottom	0129	1729
End	0204	1804

Positional Information

Start
 Lat: 50° 00.01 N
 Lon: 143° 36.33 W

Bottom
 Lat: 50° 00.02 N
 Lon: 143° 36.33 W

End
 Lat: 49° 59.986 N
 Lon: 143° 36.454 W

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: ____ | ____ | ____

Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

① UBC + Shallow ONAr cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P26 Event #: 38 Ship: TULLY UTC Date (dd mmm yyyy): 15 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials								Comments				
			Target Pressure	Confirmed Pressure	FCM	WGA	Gases	RNA	H2S	Sal	Nut Fr	Nut cool	Uvic OXY	Uvic ONAr	UW ONAr	UW DIC	
1	1	340	2000	✓	x	x	xx	x	x	x	x	x					
2	2	341	2000	✓													
3	3	342	2000	✓													
4	4	343	1000	✓	x	x	xx	x	x	x	x	x					
5	5	344	1000	✓													
6	6	345	1000	✓													
7	7	346	500	✓	x	x	xx	x	x	x	x	x					
8	8	347	500	✓													
9	9	348	500	✓													
10	13	349	10		x	x	xx	x	x	x	x						
11	14	350	10														
12	15	351	10														
13																	
14																	
15																	
16																	
17	10	352	30							x			xx		xx	x	
18	11	353	20							x			xx		xx	x	
19	12	354	10							x			xx		xx	xx	
20	16	355	5							x			xx	xx	xx	x	
21	17	356	0							x			xx		xx	x	
22																	
23																	
24																	

Profile type: ROS TRM X-Niskin other?
 Watchkeeper(s): A.M.

Bottom Depth: 4494 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>0838</u>	<u>0038</u>
Bottom	<u>0924</u>	
End	<u>1013</u>	

Positional Information
 Start
 Lat: 50 ° 00 . 00 N
 Lon: 145 ° 00 . 10 W

Bottom
 Lat: 50 ° 00 . 03 N
 Lon: 144 ° 59 . 98 W

End
 Lat: 50 ° 00 . 03 N
 Lon: 145 ° 00 . 01 W

Extra comments:
 1-2-3-4-5-6-7-8-9-17-18-19-10-11-12-20-21

② Deep ONAr

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P26 Event #: 40 Ship: TULLY UTC Date (dd mmm yyyy): 15 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials				Comments
			Target Pressure	Confirmed Pressure	Uvic OXY	Uvic ONAr	O17	Sal	
1	1	357	200	✓	xx		xx	x	
2	2	358	150	✓	xx		xx	x	
3	3	359	100	✓	xx		xx	x	
4	4	360	50	✓	xx		xx	x	
5	5	361	10	✓	xx	xx	xx	x	
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): H.M.

Bottom Depth: 4253 m
 Transmisso Cleaned: Y N

Time	UTC	Local
Start	1200	0400
Bottom	1206	
End	1215	

Positional Information
 Start
 Lat: 50 ° 00.04 N
 Lon: 145 ° 00.03 W

Bottom
 Lat: 50 ° 00.01 N
 Lon: 145 ° 00.02 W

End
 Lat: 50 ° 00.02 N
 Lon: 145 ° 00.04 W

Extra comments:

③ TM Deep X-NISK

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01

Station: P26

Event #: 41

Ship: TULLY

UTC Date (dd mmm yyyy): 15 | 2 | 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials					Comments
			Target Pressure	Confirmed Pressure	Filt	UnFilt	SalRun	NutFr	NutCo	
1		362	800		xx	xx	x	x	x	
2		363	400		xx	xx				
3		364	300		xx	xx				
4		365	200		xx	xx				
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): KL/KS

Bottom Depth: 4308 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1245	
Bottom	1303	
End	1330	

Positional Information

Start	Lat: 50 ° 00.00 N	Lon: 145 ° 00.08 W
Bottom	Lat: 50 ° 00.00 N	Lon: 145 ° 00.09 W
End	Lat: 49 ° 59.99 N	Lon: 144 ° 59.96 W

Extra comments:

④ Th+Po Cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P26 Event #: 44 Ship: TULLY UTC Date (dd mmm yyyy): 15 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments					
			Target Pressure	Confirmed Pressure	Th	Po														
1		366	500	✓			x													
2		367	500	✓		x														
3		368	400	✓			x													
4		369	300	✓		x														
5		370	300	✓			x													
6		371	200	✓		x														
7		372	200	✓			x													
8		373	150	✓		x														
9		374	150	✓			x													
10		375	100	✓		x														
11		376	100	✓			x													
12		377	75	✓		x														
13		378	75	✓			x													
14		379	50	✓		x														
15		380	50	✓			x													
16		381	30	✓		x														
17		382	30	✓			x													
18		383	20	✓		x														
19		384	20	✓			x													
20		385	10	✓		x														
21		386	10	✓			x													
22		387	0	✓		x														
23		388	Max	✓	125		x													
24		389	Max	✓	#125	x														

Profile type: ROS TRM X-Niskin other?
 Watchkeeper(s): H.M.

Bottom Depth: 4308 m
 Transmisso Cleaned: Y N

Time	UTC	Local
Start	1450	0650
Bottom		
End	1529	729

Positional Information

Start	Lat: <u>49° 59.99</u> N
	Lon: <u>144° 59.97</u> W

Bottom

Lat: <u>°</u> N
Lon: <u>°</u> W

End

Lat: <u>49° 59.992</u> N
Lon: <u>144° 59.986</u> W

Extra comments:

⑤ TM Shallow X-NISKINS

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P26 Event #: 45 Ship: TULLY UTC Date (dd mmm yyyy): 15 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials				Comments
			Target Pressure	Confirmed Pressure	Filt	UnFilt	SalRun	NutFr	
1		390	150		xx	xx	x	x	
2		391	100		xx	xx			
3		392	75		xx	xx			
4		393	50		xx	xx			
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s):

Bottom Depth: 4308 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1545	
Bottom	1552	
End	1608	

Positional Information

Start
 Lat: 49 ° 59.98 N
 Lon: 144 ° 59.12 W

Bottom
 Lat: 49 ° 59.98 N
 Lon: 144 ° 59.13 W

End
 Lat: 49 ° 59.95 N
 Lon: 144 ° 59.84 W

Extra comments:

⑥ Cast for Roger François (Philippa)
Sampling Log

Water Properties Group

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P26 Event #: 46 Ship: TULLY UTC Date (dd mmm yyyy): 15 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments					
			Target Pressure	Confirmed Pressure																
1	1	394	300	/																
2	2	395	300	/																
3	3	396	300	/																
4	4	397	300	/																
5	5	398	300	/																
6	6	399	300	/																
7	7	400	300	/																
8	8	401	300	/																
9	9	402	300	/																
10	10	403	300	/																
11	11	404	300	/																
12	12	405	300	/																
13	13	406	300	/																
14	14	407	300	/																
15	15	408	300	/																
16	16	409	300	/																
17	17	410	300	/																
18	18	411	300	/																
19	19	412	300	/																
20	20	413	300	/																
21	21	414	300	/																
22	22	415	300	/																
23	23	416	300	/																
24	24	417	300	/																

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): H.M.

Bottom Depth: 4308 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>1622</u>	<u>822</u>
Bottom	<u>1629</u>	<u>829</u>
End	<u>1639</u>	<u>839</u>

Positional Information
 Start
 Lat: 49 ° 59.99 N
 Lon: 144 ° 59.94 W

Bottom
 Lat: 50 ° 00.02 N
 Lon: 144 ° 59.98 W

End
 Lat: 49 ° 59.96 N
 Lon: 144 ° 59.92 W

Extra comments:

⑦ TM- PUMP

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P26 Event #: 43 Ship: TULLY UTC Date (dd mmm yyyy): 15 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed Pressure	Filt	un-filt													
1		418	40		xx	xx													
2		419	25		xx	xx													
3		420	10		xx	xx													
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

Profile type: PUMP
 ROS TRM Niskin other?
 Watchkeeper(s): KS.

Bottom Depth: _____ m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1738	0938
Bottom	1748	0948
End	1843	1043

Positional Information

Start	Lat: _____ ° _____ N
Start	Lon: _____ ° _____ W
Bottom	Lat: _____ ° _____ N
Bottom	Lon: _____ ° _____ W
End	Lat: <u>49</u> ° <u>59.95</u> N
End	Lon: <u>144</u> ° <u>59.97</u> W

Extra comments:

⑧ LIGHT + HPLC cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P26 Event #: 49 Ship: RLLY UTC Date (dd mmm yyyy): 15 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed Pressure	μPlank	FCM	Chl	HPLC	HPLC	POP	POC/N	Prod	ONAr	NutFr		Chl IOS	phyto	
				✓				Doug	IOS									
1		421	1%	✓	75	x	x	xxxx	xxxx									
2		422	1%	✓	75							xx	xx					
3		423	5%	✓	47		x	xx	xx									
4		424	9%	✓	36	x	x	xxxx	xxxx									
5		425	9%	✓	36							xx	xx					
6		426	17%	✓	25		x	xx	xx									
7		427	33%	✓	15	x	x	xxxx	xxxx									
8		428	33%	✓	15							xx	xx					
9		429	55%	✓	10		x	xx	xx									
10		430	100%	○		x	x	xxxx	xxxx									
11		431	100%	○								xx	xx					
12		432	50	✓								xx		x	xx			
13		433	20	✓								xx		x	xx			
14		434	5	✓								xx		x	xx	xxx		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): H.m.

Bottom Depth: 4308 m
 Transmisso Cleaned: Y N

Time	UTC	Local
Start	1853	1053
Bottom	1857	
End	1912	

Positional Information

Start	Bottom	End
Lat: <u>50</u> ° <u>00.01</u> N	Lat: <u>49</u> ° <u>59.99</u> N	Lat: <u>49</u> ° <u>59.99</u> N
Lon: <u>144</u> ° <u>59.98</u> W	Lon: <u>144</u> ° <u>59.97</u> W	Lon: <u>145</u> ° <u>00.00</u> W

Extra comments:

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

⑨ Deep Cast

Cruise ID: 2012-01 Station: P26 Event #: 50 Ship: TULLY UTC Date (dd mmm yyyy): 15 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments			
			Target Pressure	Confirmed Pressure	OXY	Sal St	Sal R	Nut Fr	NutCo	DIC/Aik	pH	Chl	FCM	DNA	Gases		WGA	H2S	
1	1	435	Bot-1015	✓	4313	x	x		xx	x	x	x		x	x	xx	x	x	
2	2	436	4000	✓		xx	x	x	xx	1+4	xx	x		x	x	xx	x	x	
3	3	437	3500	✓		x	x	x	xx	x	x	x							
4	4	438	3000	✓		x	x	xx	xx	x	x	x		x	x	xx	x	x	
5	5	439	2500	✓		x	x		xxx	xx	x	x							
6	6	440	2000	✓		x	x	x	xx	x	x	x		x	x	xx	x	x	
7	7	441	1500	✓		x	x		xx	x	x	x		x	x	xx	x	x	
8	8	442	1250	✓		x	x		xx	x	x	x		x	x	xx	x	x	
9	9	443	1000	✓		xx	x	xx	xx	1+4	x	x		x	x	xx	x	x	
10	10	444	800	✓		x	x	x	xxx	xx	x	x		x	x	xx	x	x	
11	11	445	600	✓		x	x		xx	1+4	x	x		x	x	xx	x	x	
12	12	446	400	✓		x	x		xx	1+4	x	x		x	x	xx	x	x	
13	13	447	300	✓		x	x		xx		x	x		x	x	xx	x	x	
14	14	448	250	✓		xx	x		2+4		x	x							
15	15	449	200	✓		x	x		xx		x	x		x	x	xx	x	x	
16	16	450	175	✓		x	x		xx		x	xxx							
17	17	451	150	✓		x	x		xx		x	x		x	x	xx	x	x	
18	18	452	125	✓		x	x		xx		x	x							
19	19	453	100	✓		x	x		xx		x	x	x	x	x	xx	x	x	
20	20	454	75	✓		xx	x		xx		x	xxx	x						
21	21	455	50	✓		x	x		xxx		x	x	x	x	x	xx	x	x	
22	22	456	25	✓		x	x		xx		x	x	x	x	x	xx	x	x	
23	23	457	10	✓		x	x		2+4		x	x	xx	x	x	xx	x	x	
24	24	458	5	✓		x	x	x	xx		x	x	x						

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): DY

Bottom Depth: 4305 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1952	1152
Bottom	2152	1352
End	2357	1557

Positional Information
 Start
 Lat: 50° 0.023 N
 Lon: 145° 0.035 W

Bottom
 Lat: 49° 59.99 N
 Lon: 144° 59.99 W

End
 Lat: 50° 0.02 N
 Lon: 145° 0.04 W

Extra comments:

Water Properties Group

Sampling Log

ONAr

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01

Station: PA-005

Event #: 56

Ship: TULLY

UTC Date (dd mmm yyyy): 16 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials					Comments
			Target Pressure	Confirmed Pressure	Uvic	UW	DIC	DOC	Sal	
1	1	460	250	✓				XX	X	
2	2	461	200	✓				XX	X	
3	3	462	150	✓				XX	X	
4	4	463	125	✓				XX	X	
5	5	464	100	✓				XX	X	
6	6	465	75	✓				XX	X	
7	7	466	50	✓				XX	X	
8	8	467	30	✓	XX	XX	X	XX	X	
9	9	468	20	✓	XX	XX	X	XX	X	
10	10	469	10	✓	XX	XX	X	XX	X	
11	11	470	5	✓	XX	XX	XX	XX	X	
12	12	471	0	✓	XX	XX	X	XX	X	
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										

Profile type:
 ROS TRM X-Niskin other?
 Watchkeeper(s): DY

Bottom Depth: 4216 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>0548</u>	<u>2148</u>
Bottom	<u>0555</u>	<u>2155</u>
End	<u>0614</u>	<u>2214</u>

Positional Information
 Start
 Lat: 50° 6.98 N
 Lon: 144° 48.69 W

Bottom
 Lat: 50° 6.97 N
 Lon: 144° 48.73 W

End
 Lat: 50° 6.98 N
 Lon: 144° 48.70 W

Extra comments:

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P22 Event #: 58 Ship: TULLY UTC Date (dd|mmm|yyyy): 16 | Feb | 2012

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken						Comments			
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Chl a	MP HPLC					
1	472			600	✓ 600		✓								+NUTS +titration
2	473			40	✓		✓		✓	✓					chl. max
3	474			5	✓		✓	✓	✓	✓					
4	475			5	✓		✓								+NUTS
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Watchkeeper(s): DY

Bottom Depth: 3934 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2105	1305
Bottom	2130	1330
End	2157	1357

Positional Information
 Start
 Lat: 49 ° 42.03 N
 Lon: 140 ° 40.16 W

Bottom
 Lat: 49 ° 42.02 N
 Lon: 140 ° 40.02 W

End
 Lat: 49 ° 42.04 N
 Lon: 140 ° 40.05 W

Oxygen Info For This Cast
 Blank Value: _____ mL · L⁻¹
 Std Value: _____ mL · L⁻¹
 *Date Run: ____ | ____ | ____
 Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P21 Event #: 59 Ship: Tully UTC Date (dd|mmm|yyyy): 16|Feb|2012

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken							Comments			
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed <input checked="" type="checkbox"/> Pressure	Oxy	Nut	Sal	Chl a	NH ₄	HPLC					
1	476			Chr Max	<input checked="" type="checkbox"/>	40	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
2	477			5	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
3																
4																
5																
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18																
19																
20																
21																
22																
23																
24																

Watchkeeper(s):
DY JW

Bottom Depth: 3958 m

Transmisso Cleaned: / N

Time	UTC	Local
Start	<u>0110</u>	<u>1710</u>
Bottom	<u>0133</u>	<u>1733</u>
End	<u>0201</u>	<u>1801</u>

Positional Information

Start
 Lat: 49 ° 38.06 N
 Lon: 139 ° 39.95 W

Bottom
 Lat: 49 ° 38.02 N
 Lon: 139 ° 39.98 W

End
 Lat: 49 ° 38.03 N
 Lon: 139 ° 39.88 W

Oxygen Info For This Cast

Blank Value: _____ mL · L⁻¹

Std Value: _____ mL · L⁻¹

*Date Run: ____ | ____ | ____

Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

① Deep Cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01

Station: P20

Event #: 60

Ship: TULCY

UTC Date (dd mmm yyyy): 17 Feb 2012

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments	
			Target Pressure	Confirmed Pressure	OXY	Sal St	Sal R	Nut Fr	NutCo	DIC	pH	Chl	HPLC	FCM	DNA	Gases	WGA		H2S
1	1	478	1500	✓	x	x		x	x	x	x			x	x	xx	x	x	
2	2	479	1500	✓	x	x	xx	x	x	xx	x								
3	3	480	1250	✓	x	x		x	x	x	x			x	x	xx	x	x	
4	4	481	1000	✓	xx	x	xx	x	x	x	x			x	x	xx	x	x	
5	5	482	800	✓	x	x	x	xx	xx	x	x			x	x	xx	x	x	
6	6	483	600	✓	x	x		x	x	x	x			x	x	xx	x	x	
7	7	484	400	✓	x	x		x	x	x	x			x	x	xx	x	x	
8	8	485	300	✓	x	x		x		x	x			x	x	xx	x	x	
9	9	486	250	✓	x	x		x		x	xxx								
10	10	487	200	✓	x	x		x		x	x			x	x	xx	x	x	
11	11	488	175	✓	x	x		x		x	x								
12	12	489	150	✓	xx	x		x		x	x			x	x	xx	x	x	
13	13	490	125	✓	x	x		x		x	x								
14	14	491	100	✓	x	x		x		x	x	x		x	x	xx	x	x	
15	15	492	75	✓	x	x		x		x	xxx	x							
16	16	493	50	✓	x	x		x		x	x	x		x	x	xx	x	x	
17	19	494	25	✓	x	x		xx		x	x	x		x	x	xx	x	x	
18	20	495	10	✓	x	x		x		x	x	xx		x	x	xx	x	x	
19	21	496	5	✓	x	x	x	x		x	x								
20	17	497	Max+10	✓															
21	18	498	Max	✓															
22	22	499	5	✓															
23			5?																
24																			

Profile type: ROS TRM X-Niskin other?
 Watchkeeper(s): JD

Bottom Depth: 3966 m
 Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	<u>0518</u>	<u>2118</u>
Bottom	<u>0553</u>	<u>2153</u>
End	<u>0646</u>	<u>2246</u>

Positional Information
 Start
 Lat: 49° 34.03 N
 Lon: 138° 39.94 W

Bottom
 Lat: 49° 33.96 N
 Lon: 138° 39.86 W

End
 Lat: 49° 33.88 N
 Lon: 138° 40.13 W

Extra comments:
1-16, 20, 21, 17, 18, 19, 22
+ONAR, 017

Water Properties Group

② TM PUMP Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P20 Event #: 63 Ship: TULLY UTC Date (dd mmm yyyy): 17 2 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials						Comments		
			Target Pressure	Confirmed Pressure	Filt	un-filt							
1		500	40		x	x							
2		501	25		x	x							
3		502	10		xx	xx							
4													
5													
6													
7													
8													
9													
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16													
17													
18													
19													
20													
21													
22													
23													
24													

Profile type: TM PUMP
 ROS TRM X-Niskin other?
 Watchkeeper(s): KS/4.1

Bottom Depth: 3967 m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start	<u>0845</u>	<u>0845</u>
Bottom		
End	<u>0917</u>	<u>0117</u>

Positional Information

Start	Lat: <u>49 ° 34.08</u>	<u>N</u>
	Lon: <u>138 ° 40.33</u>	<u>W</u>
Bottom	Lat: °	<u>N</u>
	Lon: °	<u>W</u>
End	Lat: <u>49 ° 34.22</u>	<u>N</u>
	Lon: <u>138 ° 40.82</u>	<u>W</u>

Extra comments:

③ Th-Po cast

Water Properties Group

Sampling Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P20 Event #: 64 Ship: TULLY UTC Date (dd mmm yyyy): 17 | 2 | 12

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed Pressure	Th	Po													
1		503	500	✓			x												
2		504	500	✓		x													
3		505	400	✓			x												
4		506	300	✓		x													
5		507	300	✓			x												
6		508	200	✓		x													
7		509	200	✓			x												
8		510	150	✓		x													
9		511	150	✓			x												
10		512	100	✓		x													
11		513	100	✓			x												
12		514	75	✓		x													
13		515	75	✓			x												
14		516	50	✓		x													
15		517	50	✓			x												
16		518	30	✓		x													
17		519	30	✓			x												
18		520	20	✓		x													
19		521	20	✓			x												
20		522	10	✓		x													
21		523	10	✓			x												
22		524	0	✓		x													
23		525	Max	✓	125		x												
24		526	Max	✓	40	x													

Profile type: ROS TRM X-Niskin other?
 Watchkeeper(s): H.M.

Bottom Depth: 3967 m
 Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	<u>0930</u>	<u>0130</u>
Bottom	<u>0941</u>	
End	<u>1006</u>	

Positional Information
 Start
 Lat: 49 ° 34.01 N
 Lon: 138 ° 40.15 W

Bottom
 Lat: 49 ° 34.04 N
 Lon: 138 ° 40.14 W

End
 Lat: 49 ° 34.16 N
 Lon: 138 ° 40.04 W

Extra comments:

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01 Station: P18 Event #: 65 Ship: TULLY UTC Date (dd|mmm|yyyy): 18 | 2 | 12

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken					Comments	
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Chl a	PH HPLC		
1	527			MAX	✓ 50		✓		✓	✓		
2	528			5			✓	✓	✓	✓		
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
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14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												

Watchkeeper(s): H. ...

Bottom Depth: 2975 m

Transmisso Cleaned: Y / N

	UTC	Local
Time Start	1126	0526
Bottom	1153	
End	1219	

Positional Information
 Start
 Lat: 49 ° 25.94 N
 Lon: 136 ° 40.05 W

Bottom
 Lat: 49 ° 25.88 N
 Lon: 136 ° 40.17 W

End
 Lat: 49 ° 25.87 N
 Lon: 136 ° 40.39 W

Oxygen Info For This Cast
 Blank Value: _____ mL · L⁻¹
 Std Value: _____ mL · L⁻¹
 *Date Run: ____ | ____ | ____
 Analyst: _____

* Oxygen blanks and standards should be run daily, if possible

Water Properties Group

Rosette Log

Institute of Ocean Sciences, Ocean Sciences Division, Sidney, BC

Cruise ID: 2012-01

Station: P14

Event #: 66

Ship: Tully

UTC Date (dd|mmm|yyyy): 18 Feb 2012

Niskin #	Sample #	Oxygen Titrations		Rosette Operation		Samples Taken					Comments
		Flask Serial #	Value mL · L ⁻¹	Target Pressure	Confirmed Pressure	Oxy	Nut	Sal	Chl a	NH ₄	
1	529			40	✓ Max	✓			✓	✓	
2	530			5	✓ 5	✓	✓		✓	✓	
3											
4											
5											
6											
7											
8											
9											
10											
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12											
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16											
17											
18											
19											
20											
21											
22											
23											
24											

Watchkeeper(s): SY

Bottom Depth: 2977 m

Transmisso Cleaned: Y / N

	UTC	Local
Time Start	0120	1720
Bottom	0144	1744
End	0209	1809

Positional Information
 Start
 Lat: 49 ° 07.37 N
 Lon: 132 ° 40.00 W

Bottom
 Lat: 49 ° 7.46 N
 Lon: 132 ° 40.09 W

End
 Lat: 49 ° 7.46 N
 Lon: 132 ° 40.17 W

Oxygen Info For This Cast
 Blank Value: _____ mL · L⁻¹
 Std Value: _____ mL · L⁻¹
 *Date Run: ____ | ____ | ____
 Analyst: _____

*Oxygen blanks and standards should be run daily, if possible