

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: Haro 59 Event #: 1/2 Ship: Tully UTC Date (dd|mmm|yyyy): 09 | 06 | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	DIC	Oxy	Nut-fr	Sal	pH		BSi	NOT	DSi					
1		1	Bot-10	✓ 229	x	x	x		x									
2		2	200	✓ 200	xx	x	x		x									
3		3	175	✓ 175?	x	x	x		xxx									
4		4	150	✓ 150	x	x	x		x									
5		5	125	✓ 125	x	xx	x		x									
6		6	100	✓ 100	x	x	x		x									
7		7	80	✓ 80	xx	x	xx		x									
8		8	60	✓ 60	x	x	x		x									
9		9	50	✓ 50	x	x	x		x									
10		10	40	✓ 40	x	x	x		x									
11		11	30	✓ 30	x	x	x		x									
12		12	20	✓ 20	x	x	x		x									
13		13	10	✓ 10	xx	x	x		xxx									
14		14	5	✓ 5	x	xx	x		x									
15		15	0	✓	x	x	x		x									
16		16	Bot-10	✓ 229							x	x	x					
17		17	Bot-10	✓ 229							x							
18		18	Mid	✓ 100							x	x	x					
19		19	Mid	✓ 100							x							
20		20	0								x	x	x					
21		21	0								x							
22																		
23																		
24																		Not needed

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

Bottom Depth: 239 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0437	2137
Bottom	0442	
End	0508	

Positional Information
Start
Lat: 48 ° 36.87 N
Lon: 123 ° 14.89 W

Bottom
Lat: 48 ° 36.84 N
Lon: 123 ° 14.88 W

End
Lat: 48 ° 36.83 N
Lon: 123 ° 14.90 W

Extra comments:
Debby and Roger
OUT-OF-ORDER

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: JF2 Event #: 4 Ship: Tully UTC Date (dd|mmm|yyyy): 9 | Jun | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Bsi	Nd											
1	1	22	Bot-10	✓	177.3		x										
2	2	23	Bot-10	✓	177.3		x										
3	3	24	Bot-10	✓	177.3	x											
4	4	25	Bot-10	✓	177.3	x											
5	5	26	Inter 1	✓	125.2	x											
6	6	27	Inter 1	✓	125.2	x											
7	7	28	Inter 2	✓	101.4	x											
8	8	29	Inter 2	✓	101.4	x											
9	9	30	Inter 3	✓	80.8	x											
10	10	31	Inter 3	✓	80.8	x											
11	11	32	Subs	✓	25.3	x											
12	12	33	Subs	✓	25.3	x											
13	13	34	0	✓	2.4	x											
14	14	35	0	✓	2.4	x											
15	15	36	0	✓	2.4		x										
16	16	37	0	✓	2.4		x										
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 187 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	10:34	03:34
Bottom	10:38	03:38
End	10:47	03:47

Positional Information
Start
Lat: 48 ° 18 00 N
Lon: 124 ° 0 09 W

Start

Bottom
Lat: 48 ° 17 99 N
Lon: 124 ° 0 10 W

Bottom

End

End
Lat: 48 ° 18 04 N
Lon: 124 ° 0 13 W

Extra comments:
Roger

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: JF2 Event #: 5 Ship: Tully UTC Date (dd|mmm|yyyy): 9 | Jun | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	DIC	Oxy	Nut-fr	Sal	pH		BSi	Nd	HPIC	CHC			
1	1	38	Bot-10	✓ 176.6	x	x	x		x								
2	2	39	150	✓ 150.6	xx	x	x		x								
3	3	40	125	✓ 125.7	x	x	x		xxx								
4	4	41	100	✓ 100.3	x	x	x		x								
5	5	42	80	✓ 79.8	x	xx	x		x								
6	6	43	60	✓ 60.6	xx	x	x		x								
7	7	44	50	✓ 50.6	x	x	xx		x								
8	8	45	40	✓ 40.3	x	x	x		x								
9	9	46	30	✓ 30.3	x	x	x		x				xx	xx			
10	10	47	20	✓ 19.8	x	x	x		x								
11	11	48	10	✓ 10.1	x	x	x		xxx								
12	12	49	5	✓ 5.3	xx	x	x		x				xx	xx			
13	13	50	0	✓ 2.0	x	x	x		x								
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 187 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	11:16	4:16
Bottom	11:19	4:19
End	11:32	4:32

Positional Information
Lat: 48 ° 18 00 N
Lon: 124 ° 0 01 W

Lat: 48 ° 18 00 N
Lon: 124 ° 0 07 W

Lat: 48 ° 18 00 N
Lon: 124 ° 0 32 W

Extra comments:
Debby

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: Nina S @0730 Event #: 7 Ship: Tully UTC Date (dd|mmm|yyyy): 09 | Jun | 2009

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	DIC	Oxy	Nut-fr	Sal	pH		BSi				
1	9	51	5	✓ 4.6											
2	10	52	5	✓ 5.0											
3	6	53	30	✓ 29.8											
4	7	54	15	✓ 16.1											
5	8	55	15	✓ 16.1											
6	4	56	50	✓ 50.6											
7	5	57	50	✓ 50.6											
8	3	58	60	✓ 59.7											
9	2	59	80	✓ 80.6											
10	1	60	100	✓ 101.2											
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

Profile type: ☒ ROS ☐ TRM ☐ X-Niskin ☐ other?

Watchkeeper(s): MS

Bottom Depth: 186 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	14:35	7:35
Bottom	14:39	7:39
End	14:50	7:50

Positional Information

Start Lat: 48 ° 31 71 N

Start Lon: 124 ° 44 46 W

Bottom Lat: 48 ° 31 71 N

Bottom Lon: 124 ° 44 52 W

End Lat: 48 ° 31 74 N

End Lon: 124 ° 44 76 W

Extra comments:

Nina's rosette, 2 hr after sunrise

Out of Order!!

Cruise ID: 2014-18 Station: P1 Event #: 9 Ship: Tully UTC Date (dd|mmm|yyyy): 09 | Jun | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-F	HPLC	Chl	DIC	pH		Bsi					
1	1	61	Bot-10	✓	102	x x		x		x x	x x x							
2	10	62	30 / Max	✓	30	x		x	x x	x x	x	x						
3	13	63	5 MAX	✓	5	x		x	x x	x x	x	x					Flow 13.	
4	2	64	Bot-10	✓	102								x					
5	3	65	Bot-10	✓	102								x					
6	4	66	90 100	✓	190								x					
7	5	67	90 100	✓	190								x					
8	6	68	70	✓	70								x					
9	7	69	70	✓	70								x					
10	8	70	40	✓	40								x					
11	9	71	40	✓	40								x					
12	11	72	15	✓	15								x					
13	12	73	15	✓	15								x					
14	14	74	0	✓	2								x					
15	15	75	0	✓	2								x					
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 115 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1805	1105
Bottom	1808	
End	1818	

Positional Information
Start
Lat: 48° 34.50 N
Lon: 125° 29.95 W

Bottom
Lat: 48° 34.51 N
Lon: 125° 29.93 W

End
Lat: 48° 34.49 N
Lon: 125° 29.97 W

Extra comments:
Out of order
1; 4 - 11; 2; 12 - 13 - 3 - 14 - 15

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P2 Event #: 10 Ship: Tully UTC Date (dd|mmm|yyyy): 09 | 06 | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC								
1		76	100	✓ 105	x	x	x	xx	x									
2		77	75	✓ 75	x			x	x									
3		78	50	✓ 50	x			x	x									
4		79	40	✓ 40	x			x	x									
5		80	30	✓ 30	x			x	x									
6		81	25	✓ 25	x			x	xx*									
7		82	20	✓ 20	xx	xx	xx	x	x									
8		83	15	✓ 15	x			x	x									
9		84	10	✓ 10	x			x	x									
10		85	5	✓ 5	x	x	x	x	x									
11		86	0	✓ 2	x	x	x	x	x									
12		87	30 / M10	✓ 30					xx	xx								28
13		88	15 / Max	✓ 15					xx	xx								625
14		89	5	✓ 5					xx	xx								625
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 117 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2039	1339
Bottom	2041	
End	2053	

Positional Information
Lat: 48 ° 36.01 N
Lon: 126 ° 0.01 W

Lat: 48 ° 36.03 N
Lon: 126 ° 0.02 W

Lat: 48 ° 35.96 N
Lon: 126 ° 0.11 W

Extra comments:
DMS cast; out-of-order

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P2 Event #: 12 Ship: Tully UTC Date (dd|mmm|yyyy): 9 | JUL | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments			
			Target	Confirmed	Pressure	Oxy	Nut-F	Nut-C	Sal	DIC	pH								
			Pressure	✓		Pressure	MR	D-I			MS/MF	GL							
1	1	90	Bot-10	✓	108	x x	x			x	x								
2	2	91	100	✓	100	x	x			x	x								
3	3	92	75	✓	75	x	x			x x	x								
4	4	93	75	✓	75	x	x			x	x								
5	5	94	50	✓	50	x	x			x	x x x								
6	6	95	25	✓	25	x	x x			x	x								
7	7	96	10	✓	10	x	x			x	x								
8	8	97	5	✓	5	x	x		x	x	x								
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): MR/DY

Bottom Depth: 118 m
 Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2122	1422
Bottom	2125	
End	2132	

Positional Information

Lat:	48 ° 36.01	N
Lon:	126 ° 00.16	W

▼

Lat:	48 ° 36.01	N
Lon:	126 ° 00.16	W

▼

Lat:	48 ° 36.01	N
Lon:	126 ° 00.15	W

Extra comments:
 Deep cast

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P3 Event #: 13 Ship: Tully UTC Date (dd|mmm|yyyy): 09|06|2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed	Nut-F	Sal	Chl	HPLC						Bsi				
				✓ Pressure														
1		98	30 / Max	✓	15	x		xx	xx									
2		99	5	✓	5	x	x	xx	xx									
3		100	Bot-10	✓	810									x				
4		101	Bot-10	✓	810									x				
5		102	750	✓	750									x				
6		103	750	✓	750									x				
7		104	600	✓	600									x				
8		105	600	✓	600									x				
9		106	450	✓	450									x				
10		107	450	✓	450									x				
11		108	300	✓	300									x				
12		109	300	✓	300									x				
13		110	150	✓	150									x				
14		111	150	✓	150									x				
15		112	50	✓	50									x				
16		113	50	✓	50									x				
17		114	25	✓	25									x				
18		115	25	✓	25									x				
19		116	0	✓	2									x				
20		117	0	✓	2									x				
21																		
22																		
23																		
24																		

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

Bottom Depth: 815 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2312	1612
Bottom	2325	
End	2349	

Positional Information
Start
Lat: 48 ° 37.49 N
Lon: 126 ° 19.96 W

Bottom
Lat: 48 ° 37.47 N
Lon: 126 ° 19.98 W

End
Lat: 48 ° 37.48 N
Lon: 126 ° 19.98 W

Extra comments:
Out of order

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P4 Event #: 16 Ship: Tully UTC Date (dd|mmm|yyyy): 10 | 6 | 14

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	UBC												
1	1	118	Bot-10	✓ 1324	x												
2	2	119	Bot-10	✓ 1324	x												
3	3	120	Bot-10	✓ 1324	x												
4	4	121	Bot-10	✓ 1324	x												
5	5	122	1000	✓ 1000	x												
6	6	123	1000	✓ 1	x												
7	7	124	1000	✓ 1	x												
8	8	125	1000	✓ 1	x												
9	9	126	500	✓ 500	x												
10	10	127	500	✓ 1	x												
11	11	128	500	✓ 1	x												
12	12	129	500	✓ 1	x												
13	13	130	10		x												
14	14	131	10		x												
15	15	132	10		x												
16	16	133	10		x												
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 1324 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0342	2042
Bottom	0407	
End	0432	

Positional Information
Start
Lat: 48° 39.00 N
Lon: 126° 40.01 W

Bottom
Lat: 48° 39.00 N
Lon: 126° 40.00 W

End
Lat: 48° 39.00 N
Lon: 126° 39.99 W

Extra comments:
UBC

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P4 Event #: 17 Ship: Tully UTC Date (dd|mmm|yyyy): 10|6|14

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure			Plastics								
							MC CP								
1		134	Bot-10	✓ 1323			x								
2		135	1250	✓ 1250			x								
3		136	1000	✓ 1000			x								
4		137	800	✓ 800			x								
5		138	600	✓ 600			x								
6		139	400	✓ 400			x								
7		140	300	✓ 300			x								
8		141	250	✓ 249			x								
9		142	200	✓ 200			x								
10		143	175	✓ 176			x								
11		144	150	✓ 150			x								
12		145	125	✓ 125			x								
13		146	100	✓ 100			x								
14		147	75	✓ 75			x								
15		148	50	✓ 49			x								
16		149	25	✓ 24			x								
17		150	10	✓ 10			x								
18		151	5	✓ 5			x								
19															
20															
21															
22															
23															
24															

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): DY MC CP

Bottom Depth: 1324 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0511	2211
Bottom	0538	
End	0621	

Positional Information
Start
Lat: 48 ° 39.02 N
Lon: 126 ° 39.99 W

Bottom
Lat: 48 ° 39.01 N
Lon: 126 ° 40.02 W

End
Lat: 48 ° 39.03 N
Lon: 126 ° 40.04 W

Extra comments:
Plastics cast

Cruise ID: 2014-18 Station: P4 Event #: 18 Ship: Tully UTC Date (dd|mmm|yyyy): 10 | JUN | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials								Comments					
			Target Pressure	Confirmed ✓ Pressure	Oxy MP/AM	Nut-F MB	Nut-C MB	Sal MS	DIC MP/USN	pH GC	UBC AM							
1	1	152	Bot-10	✓ 1322	x	x	x		x	x	x							
2	2	153	1250	✓ 1250	x	x	x	x	xx	x	x							
3	3	154	1250	✓ 1250	xx	x	x	xx	x	x								
4	4	155	1000	✓ 1000	x	x	x	xx	x	x	x							
5	5	156	800	✓ 801	x	x	x	x	x	x	x							
6	6	157	600	✓ 600	x	xx	xx		x	xxx	x							
7	7	158	400	✓ 400	x	x	x		x	x	x							
8	8	159	300	✓ 299	x	x			x	x	x							
9	9	160	250	✓ 250	x	x			x	x								
10	10	161	200	✓ 200	x	x			x	x	x							
11	11	162	175	✓ 175	x	x			x	x								
12	12	163	150	✓ 150	x	x			x	x	x							
13	13	164	125	✓ 125	x	xx			x	x								
14	14	165	100	✓ 100	x	x			x	x	x							
15	15	166	75	✓ 75	xx	x			x	x								
16	16	167	50	✓ 50	x	x			x	x	x							
17	17	168	25	✓ 25	x	x			x	xxx	x							
18	18	169	10	✓ 11	x	x			x	x	x							
19	19	170	5	✓ 5	x	x		x	x	x								
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 1323 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	11:37	04:37
Bottom	12:02	
End	12:41	

Positional Information
Lat: 48 ° 38 99 N
Lon: 126 ° 40 08 W

Lat: 48 ° 38 99 N
Lon: 126 ° 40 08 W

Lat: 48 ° 39 09 N
Lon: 126 ° 39 98 W

Extra comments:
Deep cast

Go down to 150m

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P4 Event #: 19 Ship: Tully UTC Date (dd|mmm|yyyy): 10 | Jun | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments			
			Target	Confirmed	Pressure	Oxy	Nut-F	Nut-C	Sal	DIC	pH	UBC							
			Pressure	✓															
1	9	171	5	✓	5														
2	10	172	5	✓	5														
3	8	173	10	✓	10														
4	6	174	15	✓	15														
5	7	175	15	✓	15														
6	2	176	50	✓	50														
7	3	177	50	✓	50														
8	5	178	30	✓	30														
9	4	179	40	✓	40														
10	1	180	60	✓	60														
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

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

Bottom Depth: 1324 m
 Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	14:33	7:33
Bottom	14:35	
End	14:45	

Positional Information
 Start
 Lat: 48 ° 38 94 N
 Lon: 126 ° 40 02 W

Bottom
 Lat: 48 ° 38 93 N
 Lon: 126 ° 40 00 W

End
 Lat: 48 ° 38 92 N
 Lon: 126 ° 40 96 W

Extra comments:
 Light cast
 OUT-OF-ORDER!
 10, 6, 7, 9, 8, 4, 5, 3,
 1.2

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P4 Event #: 70 Ship: Tully UTC Date (dd|mmm|yyyy): 10 | Jun | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	DMS	DMSP	DMSP	Nut-F		Chl	HPLC	Phyto	ONAr				
1	1	181	300	✓ 301	x			x									
2	2	182	200	✓ 199	x	x	x	x									
3	3	183	175	✓ 175	x	x	x	x									
4	4	184	100	✓ 101	x	x	x	x		x							
5	5	185	75	✓ 75	x			x		x							
6	6	186	50	✓ 50	x			x		x							
7	7	187	40	✓ 40	x			x		x							
8	8	188	30	✓ 30	x			x		x							
9	10	189	25	✓ 25	x			x		x							
10	11	190	20	✓ 20	x x	x x	x x	x		x x *							
11	12	191	15	✓ 15	x			x		x							
12	14	192	10	✓ 10	x			x x		x							
13	15	193	5	✓ 5	x	x	x	x		x							
14	18	194	0	✓ 2	x	x	x	x		x							
15	9	195	30	✓ 30						x x	x x						
16	13	196	15/Max	✓ 15						x x	x x						
17	16	197	5	✓ 5						x x	x x	x x x					
18	17	198	5	✓ 5									x				
19																	
20										* precision CHL							
21																	
22																	
23																	
24																	

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): MBBottom Depth: 1324 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	15:21	8:21
Bottom	15:27	8:27
End	15:43	8:43

Positional Information
Start
Lat: 48 ° 38 96 N
Lon: 126 ° 39 96 WBottom
Lat: 48 ° 38 99 N
Lon: 126 ° 39 93 WEnd
Lat: 48 ° 39 02 N
Lon: 126 ° 39 87 WExtra comments:
DMS cast; out-of-order.
1-8, 15, 9, 10, 11, 16, 12, 13, 17, 18, 14

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P5 Event #: 21 Ship: Tully UTC Date (dd|mmm|yyyy): 10 | Jun | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	HPLC	CHL	Nut	Bsi									
1	1	199	Bot-10	✓ 2095				x									
2	2	200	Bot-10	✓ 2095				x									
3	3	201	Bot-10	✓ 2095				x									
4	4	202	Bot-10	✓ 2095				x									
5	5	203	1800	✓ 1799				x									
6	6	204	1800	✓ 1799				x									
7	7	205	1800	✓ 1799				x									
8	8	206	1800	✓ 1799				x									
9	9	207	1400	✓ 1400				x									
10	10	208	1400	✓ 1400				x									
11	11	209	1400	✓ 1400				x									
12	12	210	1000	✓ 999				x									
13	13	211	1000	✓ 1000				x									
14	14	212	1000	✓ 999				x									
15	15	213	600	✓ 600				x									
16	16	214	600	✓ 600				x									
17	17	215	300	✓ 299				x									
18	18	216	300	✓ 299				x									
19	19	217	100	✓ 100				x									
20	20	218	100	✓ 100				x									
21	21	219	10	✓ 10				x									
22	22	220	10	✓ 10				x									
23	23	221	30/Max	✓ 15	x x	x x	x										
24	24	222	5	✓ 5	x x	x x	x										

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

Bottom Depth: 2090 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	18:01	11:01
Bottom	18:36	
End	19:22	

Positional Information

Lat: 48 ° 41 57	N
Lon: 127 ° 9 94	W

Start

Bottom

Lat: 48 ° 41 71	N
Lon: 127 ° 9 08	W

End

Lat: 48 ° 41 97	N
Lon: 127 ° 10 20	W

Extra comments:
Nico and Aram's cast
Out of sequence!
1-20, 23, 21-22, 24

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P6 Event #: 22 Ship: Tully UTC Date (dd|mmm|yyyy): 10 | 6 | 14

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials							Comments					
			Target Pressure	Confirmed Pressure	HPLC	CHL	Nut	pH	SAL								
1	1	223	110	✓ 110				6	x								
2	2	224	100	✓ 99				6	x								
3	3	225	90	✓ 89				6	x								
4	4	226	80	✓ 79				6	x								
5	5	227	30/Max	✓ 30													Max @ 30
6	6	228	5	✓ 5													
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): DY

Bottom Depth: 2546 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	2145	1445
Bottom	2216	
End	2257	

Positional Information

Lat:	48 ° 44.64	N
Lon:	127 ° 39.96	W

▼

Lat:	48 ° 44.60	N
Lon:	127 ° 39.96	W

▼

Lat:	48 ° 44.62	N
Lon:	127 ° 39.98	W

Extra comments:
pH experiment

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P7 Event #: 23 Ship: Tully UTC Date (dd|mmm|yyyy): 11|6|14

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	HPLC	CHL	Nut	Bsi									
1	1	229	2500	✓ 2500				x									
2	2	230	2500	✓ 2500				x									
3	3	231	2500	✓ 2500				x									
4	4	232	2500	✓ 2500				x									
5	5	233	1800	✓ 1800				x									
6	6	234	1800	✓				x									
7	7	235	1800	✓				x									
8	8	236	1800	✓				x									
9	9	237	1400	✓ 1400				x									
10	10	238	1400	✓				x									
11	11	239	1400	✓				x									
12	12	240	1400	✓				x									
13	13	241	1000	✓ 1000				x									
14	14	242	1000	✓ 1000				x									
15	15	243	600	✓ 600				x									
16	16	244	600	✓ 600				x									
17	17	245	300	✓ 300				x									
18	18	246	300	✓ 300				x									
19	19	247	100	✓ 100				x									
20	20	248	100	✓ 99				x									
21	22	249	10	✓ 10				x									
22	23	250	10	✓ 10				x									
23	21	251	30/100	✓ 30	x x	x x	x										may near 30
24	24	252	5	✓ 5	x x	x x	x										

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

Bottom Depth: 2506 m db
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0108	1808
Bottom	0158	
End	0254	

Positional Information
Start
Lat: 48 ° 46.64 N
Lon: 128 ° 9.95 W

Bottom
Lat: 48 ° 46.63 N
Lon: 128 ° 10.15 W

End
Lat: 48 ° 46.62 N
Lon: 128 ° 10.25 W

Extra comments:
Nico's cast
Out of order

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P8 Event #: 26 Ship: Tully UTC Date (dd|mmm|yyyy): 11 | Jun | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut Fr	Nut C	pH	Chl	HPLC	ONAr					
1	1	253	2000	✓ 2000	x x	x x	x	x									
2	2	254	1500	✓ 1500	x	x	x	x									
3	3	255	1250	✓ 1250	x	x	x x	x x									
4	4	256	1000	✓ 1000	x	x x	x	x									
5	5	257	800	✓ 800	x	x	x	x									
6	6	258	600	✓ 600	x		x	x									
7	7	259	400	✓ 400	x		x	x									
8	8	260	300	✓ 300	x		x										
9	9	261	250	✓ 250	x x		x										
10	10	262	200	✓ 200	x		x										
11	11	263	175	✓ 175	x		x										
12	12	264	150	✓ 150	x		x x										
13	13	265	125	✓ 125	x		x										
14	14	266	100	✓ 100	x		x			x							
15	15	267	75	✓ 75	x		x			x							
16	16	268	50	✓ 50	x		x			x							
17	18	269	25	✓ 25	x x		x			x							
18	20	270	10	✓ 10	x		x			x							
19	21	271	5	✓ 5	x	x	x			x							
20	17	272	50	✓ 50						x x	x x						
21	19	273	20/Max	✓ 20						x x	x x						
22	22	274	5	✓ 5						x x	x x						
23	23	275	5	✓ 5								x					
24																	

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

Bottom Depth: 2522 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	6:57	23:57
Bottom	7:31	00:31
End	8:29	01:29

Positional Information

Lat:	48 ° 48 99	N
Lon:	128 ° 40 05	W

Start

Bottom

Lat:	48 ° 48 97	N
Lon:	128 ° 39 94	W

End

Lat:	48 ° 49 08	N
Lon:	128 ° 39 88	W

Extra comments:
Firing out of order
1-16, 20, 17, 21, 18,
19, 22, 23

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P9 Event #: 27 Ship: Tully UTC Date (dd|mmm|yyyy): 11 | Jul | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target	Confirmed	HPLC	CHL	Nut												
			Pressure	✓													Pressure		
1	1	276	25 50/Max	✓	25	xx	xx	x											
2	2	277	5	✓	5	xx	xx	x											
3																			
4																			
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): MB

Bottom Depth: 2348 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	11:00	04:00
Bottom	11:43	04:43
End	12:23	05:23

Positional Information

Lat:	48 ° 51 38	N
Lon:	129 ° 10 02	W

▼

Lat:	48 ° 51 26	N
Lon:	129 ° 10 03	W

▼

Lat:	48 ° 51 36	N
Lon:	129 ° 10 18	W

Extra comments:

Cruise ID: 2014-18 Station: P10 Event #: 28 Ship: Tully UTC Date (dd|mmm|yyyy): 11 Jun 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials													Comments
			Target	Confirmed		HPLC	CHL	Nut											
			Pressure	✓	Pressure														
1		278	50/Max	✓	30	x x	x x	x											~ 2.8 1L
2		279	5			x x	x x	x											~ 1.7 2L
3																			
4																			
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): MB / MR

Bottom Depth: 2642 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1441	0741
Bottom	1516	
End	1549	

Positional Information
Start
Lat: 48 ° 53 62 N
Lon: 129 ° 39 92 W

Bottom
Lat: 48 ° 53 58 N
Lon: 129 ° 39 93 W

End
Lat: 48 ° 53 60 N
Lon: 129 ° 39 96 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P11 Event #: 29 Ship: Tully UTC Date (dd|mmm|yyyy): 11 | Jun | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed ✓	Pressure	HPLC	CHL	Nut											
1		280	50/Max	✓	25	x x	x x	x										30	
2		281	5	✓	5	x x	x x	x										10	
3																			
4																			
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): MR

Bottom Depth: 2753 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1759	1059
Bottom	1830	
End	1905	

Positional Information

Start

Lat: 48° 56.00 N

Lon: 130° 10.16 W

Bottom

Lat: 48° 56.09 N

Lon: 130° 10.14 W

End

Lat: 48° 56.16 N

Lon: 130° 10.13 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P12 Event #: 30 Ship: Tully UTC Date (dd|mmm|yyyy): 11 | Jun | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials													Comments	
			Target	Confirmed		Bsi														
			Pressure	✓	Pressure															
1		282	3000					x												
2		283	2750					x												
3		284	2600					x												
4		285	2450					x												
5		286	2300					x												
6		287	2150					x												
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): in-situ pumps

Bottom Depth: 3230 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2118	1418
Bottom	2227	
End		

Positional Information

Start

Lat: 48 ° 58.17 N

Lon: 130 ° 40.13 W

Bottom

Lat: 48 ° 58.16 N

Lon: 130 ° 39.82 W

End

Lat: ° N

Lon: ° W

Extra comments:

Deep UBC in-situ pumps

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P12 Event #: 31 Ship: Tully UTC Date (dd|mmm|yyyy): 12 | 6 | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	OXY	Sal	Nut-F	Nut-C	DIC	pH				UBC				
					0118	AN	AN	AN	MPH	GC				AN				
1		288	Bot-10	✓ 3275	x		x	x	x	x				x				
2		289	3000	✓ 3000	x	x	x	x	xx	x								
3		290	3000	✓ 3000	xx	x	x	x	x	x				x				
4		291	2500	✓ 2500	x	xx	xx	xx	x	x								
5		292	2000	✓ 2000	x	x	x	x	x	x				x				
6		293	1500	✓ 1500	x	x	x	x	x	x				x				
7		294	1250	✓ 1250	x	x	x	x	x	xxx				x				
8		295	1000	✓ 1001	xx	xx	x	x	x	x				x				
9		296	800	✓ 800	x		x	x	x	x				x				
10		297	600	✓ 600	x		x	x	x	x				x				
11		298	400	✓ 400	x		x	x	x	x				x				
12		299	300	✓ 301	x		x		x	x				x				
13		300	250	✓ 250	x		x		x	x								
14		301	200	✓ 200	x		x		x	xxx				x				
15		302	175	✓ 174	x		x		x	x								
16		303	150	✓ 150	xx		x		x	x				x				
17		304	125	✓ 125	x		x		x	x								
18		305	100	✓ 100	x		xx		x	x				x				
19		306	75	✓ 75	x		x		x	x								
20		307	50	✓ 50	xx		x		x	x				x				
21		308	25	✓ 25	x		x		x	x				x				
22		309	10	✓ 10	x		x		x	x				x				
23		310	5	✓ 5	x	x	x		x	x								
24																		

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

Bottom Depth: 3229 m
 Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0211	1911
Bottom	0310	
End	0428	

Positional Information

Lat:	48° 58.21	N
Lon:	130° 39.99	W

Start

Lat:	48° 58.24	N
Lon:	130° 40.00	W

Bottom

Lat:	48° 58.31	N
Lon:	130° 40.01	W

End

Extra comments:
 Deep cast

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P12 Event #: 34 Ship: Tully UTC Date (dd|mmm|yyyy): 12 | Jun | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials													Comments
			Target Pressure	Confirmed ✓	Pressure		UBC												
1	1	311	2000	✓	2000		x												
2	2	312	2000	✓	2000		x												
3	3	313	2000	✓	2000		x												
4	4	314	2000	✓	2000		x												
5	5	315	1000	✓	999		x												
6	6	316	1000	✓	999		x												
7	7	317	1000	✓	999		x												
8	8	318	1000	✓	999		x												
9	9	319	500	✓	500		x												
10	10	320	500	✓	500		x												
11	11	321	500	✓	500		x												
12	12	322	500	✓	500		x												
13	13	323	10	✓	10		x												
14	14	324	10	✓	10		x												
15	15	325	10	✓	10		x												
16	16	326	10	✓	10		x												
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

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

Bottom Depth: 3231 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	07:34	00:34
Bottom	08:09	
End	08:49	

Positional Information

Lat:	48 ° 58 65	N
Lon:	130 ° 40 34	W

Bottom

Lat:	48 ° 58 66	N
Lon:	130 ° 40 37	W

End

Lat:	48 ° 58 71	N
Lon:	130 ° 40 33	W

Extra comments:
UBC - Andreas
Lds of Uat/kalle in water
UBC Cast Andreas

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P12 Event #: 35 Ship: Tully UTC Date (dd|mmm|yyyy): 12 Jun 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments	
			Target Pressure	Confirmed ✓ Pressure		Bsi													
1	1	327	1000	✓	1000		x												
2	2	328	1000	✓	1000		x												
3	3	329	1000	✓	1000		x												
4	4	330	1000	✓	1000		x												
5	5	331	750	✓	750		x												
6	6	332	750	✓	750		x												
7	7	333	750	✓	750		x												
8	8	334	750	✓	750		x												
9	9	335	500	✓	500		x												
10	10	336	500	✓	500		x												
11	11	337	300	✓	300		x												
12	12	338	300	✓	300		x												
13	13	339	100	✓	100		x												
14	14	340	100	✓	100		x												
15	15	341	80	✓	81		x												
16	16	342	80	✓	81		x												
17	17	343	60	✓	61		x												
18	18	344	60	✓	61		x												
19	19	345	40	✓	39		x												
20	20	346	40	✓	39		x												
21	21	347	20	✓	20		x												
22	22	348	20	✓	20		x												
23	23	349	5	✓	5		x												
24	24	350	5	✓	5		x												

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

Bottom Depth: 3228 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	13:02	06:08
Bottom	13:20	
End	13:47	

Positional Information
Start
Lat: 48 ° 58 20 N
Lon: 130 ° 40 00 W

Bottom
Lat: 48 ° 58 70 N
Lon: 130 ° 40 04 W

End
Lat: 48 ° 58 18 N
Lon: 130 ° 40 06 W

Extra comments:
UBC - Maureen (Nico)

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P12 Event #: 36 Ship: Tully UTC Date (dd|mmm|yyyy): 12 Jun 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-F	Nut-C	Sal	DIC	pH	UBC							
1	1	351	100	✓	100													
2	2	352	80	✓	80													
3	3	353	60	✓	61													
4	4	354	50	✓	50													
5	5	355	50	✓	50													
6	6	356	50	✓	50													
7	7	357	40	✓	40													
8	8	358	30	✓	31													
9	9	359	25	✓	25													
10	10	360	25	✓	25													
11	11	361	25	✓	25													
12	12	362	10	✓	11													
13	13	363	5	✓	5													
14	14	364	5	✓	5													
15	15	365	5	✓	5													
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 3228 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	14:41	7:41
Bottom	14:43	
End	14:56	

Positional Information
Start
Lat: 48 ° 58 12 N
Lon: 130 ° 40 00 W

Bottom
Lat: 48 ° 58 12 N
Lon: 130 ° 39 99 W

End
Lat: 48 ° 58 18 N
Lon: 130 ° 40 14 W

Extra comments:
Light cast
~~OUT-OF-ORDER~~
PAR ON

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P12 Event #: 37 Ship: Tully UTC Date (dd|mmm|yyyy): 12 | Jun | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ☒	Pressure			Bsi									
1		366	1900					x									
2		367	1750					x									
3		368	1600					x									
4		369	1450					x									
5		370	1300					x									
6		371	1150					x									
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): in-situ pumps

Bottom Depth: 3229 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1506	
Bottom	1550	
End	1948	

Positional Information
Start
Lat: 48° 58.13 N
Lon: 130° 40.13 W

Bottom
Lat: 48° 58.18 N
Lon: 130° 40.22 W

End
Lat: 48° 58.66 N
Lon: 130° 40.69 W

Extra comments:
Shallow UBC in-situ pumps

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P12 Event #: 38 Ship: Tully UTC Date (dd/mm/yyyy): 12/6/2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	DMS	DMSP	DMSP	Nut-F		Chl	HPLC		ONAr					
1	1	372	300	✓ 300	x			x										
2	2	373	200	✓ 200	x	x	x	x										
3	3	374	175	✓ 175	x	x	x	x										
4	4	375	100	✓ 100	x	x	x	x		x								
5	5	376	75	✓ 75	x			x		x								
6	6	377	50	✓ 50	x			x x		x								
7	7	378	40	✓ 40	x			x		x x *								
8	9	379	30	✓ 30	x			x		x								
9	10	380	25	✓ 25	x			x		x								
10	12	381	20	✓ 20	x x	x x	x x	x		x								
11	13	382	15	✓ 15	x			x		x								
12	14	383	10	✓ 10	x			x		x								
13	15	384	5	✓ 5	x	x	x	x		x								
14	19	385	0	✓ 2	x	x	x	x		x								
15	8	386	20/M*10	✓ 40						x x	x x							
16	11	387	20/Max	✓ 25						x x	x x							
17	16	388	5	✓ 5						x x	x x							
18	17	389	5	✓ 5									x					
19	18																	← Fired in Error
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 3229 m
 Transmisso Cleaned: ☒ Y / ☐ N

	UTC	Local
Time		
Start	2012	1312
Bottom	2018	
End	2035	

Positional Information
 Start
 Lat: 48° 58.19' N
 Lon: 130° 40.25' W

Bottom
 Lat: 48° 58.10' N
 Lon: 130° 40.34' W

End
 Lat: 48° 58.29' N
 Lon: 130° 40.47' W

Extra comments:
 DMS cast; out-of-order.

Water Properties Group

Sampling Log

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

Cruise ID: 2014-18 Station: P14 Event #: 39 Ship: Tully UTC Date (dd|mmm|yyyy): 13 Jun 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target	Confirmed	HPLC	CHL	Nut	pH	SAL						
			Pressure	✓ Pressure											
1	1	390	50/Max	✓ 50	x x	x x	x								
2	2	391	5	✓ 5	x x	x x	x								
3															
4															
5															
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24															

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

Bottom Depth: 3313 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	08:12	07:12
Bottom	08:47	
End	09:22	

Positional Information

Lat:	49 ° 7 44	N
Lon:	132 ° 39 99	W

▼

Lat:	49 ° 7 39	N
Lon:	132 ° 40 11	W

▼

Lat:	49 ° 7 34	N
Lon:	132 ° 40 18	W

Extra comments:
~~pl. comment~~