

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: JF2 Event #: 2 Ship: Tully UTC Date (dd mmm yyyy): 25 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	UBC	bugs			
1	1	1	Bot-10	✓	179			x								
2	2	2	200	✓	179			x								
3	3	3	100	✓	101			x								
4	5	4	75	✓	75			x								
5	6	5	50	✓	49			x								MAJOR LEAK TOP CAP
6	8	6	40	✓	40			x								
7	9	7	30	✓	30			x								MAJOR LEAK TOP CAP
8	10	8	20	✓	19			xx		xx						
9	11	9	10	✓	9			xx		xx		x x				
10	12	10	5	✓	5			x								
11	14	11	0	✓	3			xx		xx	xx					
12	4	12	100	✓	102								x			
13	7	13	50	✓	49								x			
14	13	14	5	✓	4								x			
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

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

Bottom Depth: 189 m
 Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2241	1541
Bottom	2245	
End	2257	

Positional Information

Lat:	48° 18.58	N
Lon:	124° 03.98	W

▼

Lat:	48° 18.58	N
Lon:	124° 03.97	W

▼

Lat:	48° 18.56	N
Lon:	124° 03.93	W

Extra comments:
 OUT OF ORDER
 ①-②-③ ⑫-⑭-⑮-⑯-
 ⑥-⑦-⑧ ⑨-⑩-⑪-⑫

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB01 Event #: 6 Ship: Tully UTC Date (dd mmm yyyy): 26 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	UBC					
					N ₂	MR	N ₂			N ₂	MR	MR/TV	gases					
1		15	Bot-10	✓	27	x		x				x						
2		16	20	/	20	x		x	xx		xx	x						
3		17	10	✓	10	x		x	xx		xx	x	xx					
4		18	5	✓	5	x		x	xx	xx	xx							
5		19	5	✓	5	x	x					xx						TOP CAP LEAK
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): MK

Bottom Depth: 34 m

Transmisso Cleaned: ☒ Y ☐ N

	UTC	Local
Time Start	0432	2132
Bottom	0434	
End	0438	

Positional Information
Start
Lat: 48° 40.43 N
Lon: 124° 59.50 WBottom
Lat: 48° 40.43 N
Lon: 124° 59.49 WEnd
Lat: 48° 40.43 N
Lon: 124° 59.48 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB02 Event #: 7 Ship: Tully UTC Date (dd|mmm|yyyy): 26 | MAY | 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases	Phyto	DA			
				✓													
1		20	Bot-10 ⁷	✓	50	x		x				xx					
2		21	30	✓	30	x		x				xx					
3		22	20	✓	20	xx		x	xx		xx	xx					
4		23	10	✓	10	x		x	xx		xx	xx					
5		24	5	✓	5	x		xx	xx	xx	xx	xx	xxx	x			TOP CAP LEAK
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): HR

Bottom Depth: 56 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0510	2210
Bottom	0513	
End	0517	

Positional Information

Lat:	48° 39.02	N
Lon:	125° 02.45	W

▼

Lat:	48° 39.03	N
Lon:	125° 02.48	W

▼

Lat:	48° 39.01	N
Lon:	125° 02.51	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB03 Event #: 8 Ship: Tully UTC Date (dd mmm yyyy): 26 May 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed ✓	Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases			
1		25	5	✓	5			x		x x	x x					Fluo:
2																
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: 95 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0549	2249
Bottom	0552	
End	0554	

Positional Information

Start

Lat: 48° 37' 29" N

Lon: 125° 05.64' W

Bottom

Lat: 48° 37' 30" N

Lon: 125° 05.63' W

End

Lat: 48° 37' 28" N

Lon: 125° 05.67' W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB04 Event #: 9 Ship: Tully UTC Date (dd mmm yyyy): 26 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓		Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4			
1		26	Bot-10	✓	104	x		x							
2		27	75	✓	75	xx		x							
3		28	50	✓	50	x		xx							
4		29	30	✓	30	x		x							
5		30	20	✓	21	x		x		xx		xx			
6		31	10	✓	10	x		x		xx		xx			
7		32	5	✓	5	x		x		xx	xx	xx			Fluo:
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: 113 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0623	2323
Bottom	0626	
End	0635	

Positional Information

Lat:	48° 35.73	N
Lon:	125° 08.78	W

▼

Lat:	48° 35.70	N
Lon:	125° 08.78	W

▼

Lat:	48° 35.70	N
Lon:	125° 08.91	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2016-47

Station:

LB05

Event #:

12

Ship:

Tully

UTC Date (dd mmm yyyy): 26 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments		
			Target Pressure	Confirmed ☒ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases	UBC				
1	/	33	5	✓ 5			x		xx	xx							Fluo: 715 (saturated)
2																	
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: 103 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0852	0152
Bottom	0855	
End	0857	

Positional Information

Start

Lat: 48 ° 33 98 N

Lon: 125 ° 12 09 W

Bottom

Lat: 48 ° 33 95 N

Lon: 125 ° 12 10 W

End

Lat: 48 ° 33 93 N

Lon: 125 ° 12 11 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB06 Event #: 13 Ship: Tully UTC Date (dd|mmm|yyyy): 26 | May | 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target	Confirmed	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	UBC							
			Pressure	✓ Pressure															gases
1	1	34	Bot-10	✓	108	x		x											
2	2	35	100	✓	101	x x		x											
3	3	36	75	✓	76	x		x x											
4	4	37	50	✓	50	x		x											
5	5	38	30	✓	30	x		x											
6	6	39	20	✓	20	x		x		x x		x x							
7	7	40	10	✓	10	x		x		x x		x x	x x						
8	8	41	5	✓	5	x		x		x x	x x	x x						Fluo: ~10	
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): WS

Bottom Depth: 117 m

Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	0931	0231
Bottom	0932	
End	0942	

Positional Information
Start
Lat: 48 ° 32 15 N
Lon: 125 ° 15 56 WBottom
Lat: 48 ° 32 13 N
Lon: 125 ° 15 55 WEnd
Lat: 48 ° 32 10 N
Lon: 125 ° 15 51 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: C3 Event #: 18 Ship: Tully UTC Date (dd|mmm|yyyy): 26 May 2016

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed		Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases							
				√	Pressure									UBC						
1	1	42	10	✓	10								x x					Fluo: ~12		
2																				
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: 124 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	13 04	0604
Bottom	13 06	
End	13 09	

Positional Information
Start
Lat: 48 ° 23 48 N
Lon: 125 ° 20 73 W

Bottom
Lat: 48 ° 23 48 N
Lon: 125 ° 20 74 W

End
Lat: 48 ° 23 46 N
Lon: 125 ° 20 75 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB07 Event #: 20 Ship: Tully UTC Date (dd mmm yyyy): 26 May 2016

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed	Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases	UBC			
1	1	43	5	✓	5			x		x x	x x						Fluo: ~ 8
2																	
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: 156 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1418	0718
Bottom	1421	
End	1424	

Positional Information
Start
Lat: 48 ° 28 67 N
Lon: 125 ° 22 11 W

Bottom
Lat: 48 ° 28 68 N
Lon: 125 ° 22 10 W

End
Lat: 48 ° 28 68 N
Lon: 125 ° 22 08 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2016-47

Station:

B8

Event #:

22

Ship:

Tully

UTC Date (dd mmm yyyy): 26 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments		
			Target Pressure	Confirmed ☒ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases	UBC				
1	/	44	10	✓ 10													Fluo: 7-8
2																	
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:	120	m
Transmisso Cleaned:	☒ Y	☐ N

Time	UTC	Local
Start	1556	0856
Bottom	1558	
End	1601	

Positional Information	
Start	Lat: 48 ° 34 49 N Lon: 125 ° 30 00 W
Bottom	Lat: 48 ° 34 51 N Lon: 125 ° 30 00 W
End	Lat: 48 ° 34 55 N Lon: 125 ° 29 98 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB08 Event #: 26 Ship: Tully UTC Date (dd mmm yyyy): 26 May 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												RT				Comments			
			Target	Confirmed	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Gases	UVic	bugs									
			Pressure	✓ Pressure	CS/PT	MR	EM		RE/MR	RE	N ²	HT/VT	UBC	TV	CS									
1	1	45	Bot 10	✓	123	x		x					x											
2	2	46	125	✓	123	x x		x																
3	3	47	100	✓	100	x		x					x		x									
4	5	48	75	✓	75	x		x x					x x		x									
5	6	49	50	✓	50	x		x					x		x									
6	8	50	30	✓	30	x		x					x											
7	9	51	20	✓	20	x		x		x x		x x	x x		x									
8	10	52	10	✓	10	x		x		x x		x x	x	xx	x									
9	11	53	5	✓	5	x		x		x x	x x	x x			x					Fluor: ~ 4.5				
10	12	54	5	✓	5	x	x						x											
11	4	55	100	✓	100											x								
12	7	56	50	✓	50											x								
13	13	57	5	✓	5											x								
14																								
15																								
16																								
17																								
18																								
19																								
20																								
21																								
22																								
23																								
24																								

Profile type: ☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): MBBottom Depth: 135 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1824	1124
Bottom	1827	
End	1837	

Positional Information
Start
Lat: 48 ° 25 22 N
Lon: 125 ° 28 54 WBottom
Lat: 48 ° 25 19 N
Lon: 125 ° 28 53 WEnd
Lat: 48 ° 25 15 N
Lon: 125 ° 28 48 WExtra comments:
Out of order
1, 2, 3, 11, 4, 5, 12, 6, 7,
8, 9, 10, 13

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB09 Event #: 28 Ship: Tully UTC Date (dd mmm/yyyy): 26 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4						
						0.2		SD		N ² H ₄		H ₂ O						
1		58	Bot-10	✓	142	x		x										
2		59	125	✓	126	x		xx										
3		60	100	✓	100	x		x										
4		61	75	✓	76	x		x										
5		62	50	✓	50	x		x										
6		63	30	✓	31	x		x										
7		64	20	✓	20	xx		x		xx		xx						
8		65	10	✓	10	x		x		xx		xx						
9		66	5	✓	6	x		x		xx	xx	xx					Fluo:	
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: 151 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2052	1352
Bottom	2057	
End	2107	

Positional Information
Start
Lat: 48° 21.95 N
Lon: 125° 34.77 WBottom
Lat: 48° 21.99 N
Lon: 125° 34.72 WEnd
Lat: 48° 21.96 N
Lon: 125° 34.70 WExtra comments:
Stop @ 112 on down
cast b/o wire angle

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB10 Event #: 29 Ship: Tully UTC Date (dd mmm/yyyy): 26 May 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases UBC				
1		67	5	✓ 4.8			x		xx	xx						Fluo:
2																
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: 157 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2213	151
Bottom	2217	
End	2221	

Positional Information
Start
Lat: 48° 18.60 N
Lon: 125° 41.32 W

Bottom
Lat: 48° 18.53 N
Lon: 125° 41.33 W

End
Lat: 48° 18.50 N
Lon: 125° 41.36 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB11 Event #: 30 Ship: Tully UTC Date (dd mmm/yyyy): 26 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy ✓ P _{O₂}	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH ₄	Gases				
1		68	Bot-10	✓	200	x		x								
2		69	175	✓	175	x		x x								
3		70	150	✓	150	x		x								
4		71	125	✓	125	x		x								
5		72	100	✓	100	x		x								
6		73	75	✓	75	x		x								
7		74	50	✓	49	x x		x								
8		75	30	✓	30	x		x								
9		76	20	✓	20	x		x		x x		x x				
10		77	10	✓	10	x		x		x x		x x	xx			
11		78	5	✓	5	x		x		x x	x x	x x				Fluo:
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: 208 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2319	1619
Bottom	2323	
End	2336	

Positional Information

Lat:	48° 15.19	N
Lon:	125° 47.70	W

▼

Lat:	48° 15.20	N
Lon:	125° 47.65	W

▼

Lat:	48° 15.21	N
Lon:	125° 47.55	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB12 Event #: 32 Ship: Tully UTC Date (dd|mmm|yyyy): 27 | MAY | 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	DA			
1		79	Bot-10	✓ 503	x		x	x								
2		80	400	✓ 400	x		xx	xx								
3		81	300	✓ 299	xx		x									
4		82	250	✓ 249	x		x									
5		83	200	✓ 200	x		x									
6		84	175	✓ 175	x		x									
7		85	150	✓ 150	x		x									
8		86	125	✓ 124	x		x									
9		87	100	✓ 100	x		x									
10		88	75	✓ 75	x		x									
11		89	50	✓ 50	x		xx									
12		90	30	✓ 30	x		x									
13		91	20	✓ 20	x		x		xx		xx					
14		92	10	✓ 10	xx		x		xx		xx					
15		93	5	✓ 5	x		x		xx	xx	xx	xxx	x			Fluo:
16																
17																
18																
19																
20																
21																
22																
23																
24																

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

Bottom Depth: 509 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0039	1739
Bottom	0050	
End	0112	

Positional Information

Lat:	48° 12.92	N
Lon:	125° 51.82	W

▼

Lat:	48° 12.90	N
Lon:	125° 51.77	W

▼

Lat:	48° 12.91	N
Lon:	125° 51.78	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB13 Event #: 33 Ship: Tully UTC Date (dd mmm yyyy): 27 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target	Confirmed		Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4							
			Pressure	√	Pressure														
1		94	5	✓	5			x		x x	x x								Fluo:
2																			
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: 926 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0152	1852
Bottom	0211	
End	0227	

Positional Information
Start
Lat: 48° 10.56 N
Lon: 125° 56.15 W

Bottom
Lat: 48° 10.56 N
Lon: 125° 56.11 W

End
Lat: 48° 10.55 N
Lon: 125° 56.10 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB14 Event #: 34 Ship: Tully UTC Date (dd mmm yyyy): 27 MAI 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓ Pressure		Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	UBC	gases					
1	1	95	Bot-10	✓	1186	x		x	x										
2	2	96	1000	✓	1000	xx	xx	x	x										
3	3	97	750	✓	751	x	x	x	x										
4	4	98	500	✓	500	x	x	xx	xx										
5	5	99	400	✓	400	x		x	x										
6	6	100	300	✓	300	x		x											
7	7	101	250	✓	250	x		x											
8	9	102	200	✓	197	x		x											
9		103	175	✓	177	x		x											
10		104	150	✓	150	x		x											
11		105	125	✓	125	xx		x											
12		106	100	✓	100	x		x											
13		107	75	✓	76	x		x											
14		108	50	✓	50	x		x											
15		109	30	✓	30	x		xx											
16		110	20	✓	20	x		x		xx		xx							
17		111	10	✓	10	x		x		xx		xx	xx					17 a disaster!	
18	19	112	5	✓	5	x		x		xx	xx	xx						Fluo:	
19	8	113	250	✓	250							x						water for NH4	
20																			
21																			
22																			
23																			
24																			

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

Watchkeeper(s): MR

Bottom Depth: 1185 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0310	2010
Bottom	0331	
End	0412	

Positional Information

Lat: 48° 08.44 N

Lon: 126° 00.01 W

Lat: 48° 08.41 N

Lon: 126° 00.02 W

Lat: 48° 8.37 N

Lon: 125° 59.95 W

Extra comments:

OUT-OF-ORDER

1-7; 19; 8-18

Sampling Log

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

UTC Date (dd|mmm|yyyy): 27 | MAY | 2016

<http://www.pac.dfo-mpo.gc.ca/sci/osap/projects/waterproperties/>

Cruise ID: 2010-01			Rosette Operation			Samples Taken / Sampler's Initials											
Niskin #	Firing #	Sample #	Target Pressure	Confirmed ✓	Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4					
1		114	5	✓	5			x		xx	xx						Fluo:
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

<http://www.pac.dfo.ca>

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

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LB16 Event #: 38 Ship: Tully UTC Date (dd mmm yyyy): 27 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	UBC gases			
1	1	115	10	✓ 10								xx			Fluo: 42
2	2	116	5	✓ 5			x		xx	xx					
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17	3	TEST Srf		✓ 3											test fire @ surface
18															
19															
20															
21															
22															
23															
24															

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

Watchkeeper(s): MB

Bottom Depth: 1797 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0835	0135
Bottom	0907	
End	0943	

Positional Information

Start Lat: 48 ° 00 47 N

Start Lon: 126 ° 16 96 W

Bottom Lat: 48 ° 00 48 N

Bottom Lon: 126 ° 16 83 W

End Lat: 48 ° 00 45 N

End Lon: 126 ° 16 90 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2016-47

Station:

LC12

Event #:

39

Ship:

Tully

UTC Date (dd|mmm|yyyy): 27 | May | 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ☒ Pressure	UBC gases												
1	1	117	10m	☒ 10	xx												
2																	
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: 2543 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	13 14	06 14
Bottom	13 48	
End	14 22	

Positional Information

Start
Lat: 48 ° 15 00 N
Lon: 126 ° 39 90 W

Bottom
Lat: 48 ° 15 00 N
Lon: 126 ° 39 89 W

End
Lat: 48 ° 15 98 N
Lon: 126 ° 39 87 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LC12 Event #: 42 Ship: Tully UTC Date (dd|mmm|yyyy): 27|May|2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	170	ONAr	Oxy	180 inc	NO3 inc	NH4 inc	CHL	Nut-Fr	NH4	Sal	Phyto		
1	2	118	O2 max	✓ 30	xx		xx							x			NOT FIRED!
2	4	119	5m	5	xx	xx	xx								xxx		
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17	5	120	100%	✓ 5			xx	xxx	xxxxx		x	x					
18	6	121	100%	✓ 5						xxxxx			xx				
19	7	122	55%	✓ 5		xx	xx	xxx	x	x	x	x	xx	x			
20	2	123	30%	✓ 30			xx	xxx	x	x	x	x	xxxx	x			
21	3	124	15%	✓ 15			xx	xxx	x	x	x	x	xx	x			
22	1	125	1%	✓ 42			xx	xxx	x	x	x	x	xx	x			
23	8	126	30%	5													TO BE CALLED
24																	118

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

Bottom Depth: 2543 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	15 51	08 51
Bottom	15 54	
End	16 12	

Positional Information

Start	Lat: 48 ° 15 04 N	Lon: 126 ° 39 93 W
Bottom	Lat: 48 ° 15 03 N	Lon: 126 ° 39 93 W
End	Lat: 48 ° 15 04 N	Lon: 126 ° 39 83 W

Extra comments: out of order
22, 20, 21, 2, 17, 18,
19, 23

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47

Station: LC11

Event #: 43

Ship: Tully

UTC Date (dd mmm yyyy): 27 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases	NH4					
				✓								25/100						
				✓								✓	UBC	bulk				
1	1	126	Bot-10	✓	1450	x		x	x			xx						
2	2	127	1250	✓	1250	xx	x	x	x			xx	xx					
3	3	128	1000	✓	1000	x	xx	x	x			xx	xx					
4	4	129	750	✓	750	x	x	xx	xx			xx	xx					
5	5	130	500	✓	500	x	x	x	x			xx	xx					
6	6	131	400	✓	400	x		x	x			xx	xx					
7	7	132	300	✓	300	x		x				xx	xx					
8	8	133	(250)	✓	250	x		x				xx	xx					
9	10	134	200	✓	200	x		x				xx	xx					
10	11	135	175	✓	175	x		x				xx	xx					
11	12	136	150	✓	150	x		x				xx	xx					
12	13	137	125	✓	125	xx		x				xx	xx					
13	14	138	100	✓	100	x		x				xx	xx					
14	15	139	75	✓	75	x		xx				xx	xx					
15	16	140	50	✓	50	x		x				xx	xx					
16	17	141	30	✓	30	x		x				xx	xx					
17	18	142	20	✓	20	x		x	xx			xx	xx					
18	19	143	10	✓	10	x		x	xx			xx	xx					
19	20	144	5	✓	5	x		x	xx	xx		xx	xx					Floor < 2
20	9	145	(250)	✓	250							xx	xp					
21																		
22																		
23																		
24																		

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

Bottom Depth: 1442 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1752	1052
Bottom	1818	
End	1901	

Positional Information

Lat:	48° 18' 96"	N
Lon:	126° 26' 26"	W

Start

Lat:	48° 18' 96"	N
Lon:	126° 26' 56"	W

Bottom

Lat:	48° 18' 96"	N
Lon:	126° 26' 56"	W

End

Extra comments:
Out of order
1 → 8, 20, 9 → 19

Water Properties Group

Sampling Log

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

Cruise ID:

2016-47

Station:

LC09

Event #:

46

Ship:

Tully

UTC Date (dd mmm yyyy): 27 May 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	RF/WB Gases	DIC	Uvic	phyto	DA	
				✓	CS/p		N	CS/p			N	UBC	RR/TV		N	N	
1		162	Bot-10	✓	597	x		xx	xx			xx	x				
2		163	500	✓	500	x	x	x	x			xx	xx				
3		164	400	✓	400	x		x	x			xx	x				
4		165	300	✓	300	x		x				xx	xx				
5		166	250	✓	250	xx		x				xx	x	x			
6		167	200	✓	200	x		x				xx	x				
7		168	175	✓	175	x		x				xx		x			
8		169	150	✓	150	x		x				xx					
9		170	125	✓	124	x		x				xx	x				
10		171	100	✓	101	x		xx				xx					
11		172	75	✓	75	x		x				xx	x	x			
12		173	50	✓	50	x		x				xx	x				
13		174	30	✓	30	xx		x				xx		x			
14		175	20	✓	20	x		x	xx		xx	xx		x			
15		176	10	✓	10	x		x	xx		xx	xx	x	x			
16		177	5	✓	5	x	x					xx	x	x		x	x
17		178	5	✓				x	xx	xx	xx						
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Profile type:

☒ ROS ☐ TRM ☐ X-Niskin ☐ other?

Watchkeeper(s):

MK

Bottom Depth: 598 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	2146	1446
Bottom	2157	
End	2222	

Positional Information

Lat:	48° 26.01	N
Lon:	126° 13.68	W

Lat:	48° 26.00	N
Lon:	126° 13.65	W

Lat:	48° 26.00	N
Lon:	126° 13.49	W

Extra comments:

146-161 not used.

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LC08 Event #: 52 Ship: Tully UTC Date (dd|mmm|yyyy): 28 | MAY | 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments						
			Target	Confirmed	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases	DIC								
			Pressure	✓ Pressure	MB	25	all		all	MR	MB	UBC	MR								
1		179	Bot-10	✓	194	x		x					x x	x							
2		180	175	✓	175	x		x					x x								
3		181	150	✓	150	x		x					x x								
4		182	125	✓	125	x		x					x x								
5		183	100	✓	100	x		x					x x	x x							
6		184	75	✓	75	x		x x					x x								
7		185	50	✓	50	x x		x					x x	x							
8		186	30	✓	30	x		x					x x	x							
9		187	20	✓	20	x		x		x x		x x	x x	x							
10		188	10	✓	10	x		x		x x		x x	x x	x							
11		189	5	✓	5	x	x	x		x x	x x	x x	x x	x x							
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: 201 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0250	1950
Bottom	0254	
End	0305	

Positional Information

Lat:	48° 29.38	N
Lon:	126° 07.21	W

▼

Lat:	48° 29.39	N
Lon:	126° 07.19	W

▼

Lat:	48° 29.37	N
Lon:	126° 07.18	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LC06 Event #: 55 Ship: Tully UTC Date (dd mmm yyyy): 28 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										TV/RT Gases					Comments
			Target	Confirmed	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases								
			Pressure	✓ Pressure	✓/✓							✓	UBC							
1		190	Bot-10	✓ 84	x		x					xx								
2		191	75	✓ 75	x		x					xx								
3		192	50	✓ 50	x		x					xx								
4		193	30	✓ 30	x		x					xx								
5		194	20	✓ 20	x		x		xx		xx	xx								
6		195	10	✓ 10	x		xx		xx		xx	xx								
7		196	5	✓ 5	xx		x		xx	xx	xx	xx						Fluo:		
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: 92 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0514	2214
Bottom	0516	
End	0522	

Positional Information

Start

Lat: 48° 36.43 N

Lon: 125° 53.97 W

Bottom

Lat: 48° 36.42 N

Lon: 125° 53.95 W

End

Lat: 48° 36.40 N

Lon: 125° 53.84 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LC04 Event #: 58 Ship: Tully UTC Date (dd mmm yyyy): 28 May 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases UBC	Uvic					
1	1	197	Bot-10	✓ 158	x		x					xx						
2	2	198	150	✓ 150	x		x					xx	x					
3	3	199	125	✓ 125	x		x					xx						
4	4	200	100	✓ 100	x		x					xx	x					
5	5	201	75	✓ 75	x		x					xx						
6	6	202	50	✓ 50	x		xx					xx	x					
7	7	203	30	✓ 30	xx		x					xx						
8	8	204	20	✓ 20	x		x		xx		xx	xx	x					
9	9	205	10	✓ 10	x		x		xx		xx	xx	x					
10	10	206	5	✓ 5	x		x		xx	xx	xx	xx	x			Fluo: 75		
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: 165 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0716	0616
Bottom	0719	
End	0730	

Positional Information

Lat:	48 ° 43 43 N
Lon:	125 ° 40 82 W

Start

Lat:	48 ° 43 40 N
Lon:	125 ° 40 87 W

Bottom

Lat:	48 ° 43 41 N
Lon:	125 ° 40 79 W

End

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2016-47

Station:

LC02

Event #:

600

Ship:

Tully

UTC Date (dd mmm yyyy):

28

Mar

2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases UBC	DIC	phyto	DA		
1	1	207	Bot-10	✓ 102	x		x					xx	x				
2	2	208	75	✓ 75	xx		x					xx	xx				
3	3	209	50	✓ 50	x		x					xx	x				
4	4	210	30	✓ 31	x		x					xx	xx				
5	5	211	20	✓ 20	x		xx		xx		xx	xx	x				
6	6	212	10	✓ 10	x		x		xx		xx	xx	x				
7	7	213	5	✓ 5	x	x						xx	x				Fluo: 75
8	8	214	5	✓ 5			x		xx	xx	xx			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): MB

Bottom Depth: 110 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0857	0157
Bottom	0859	
End	0907	

Positional Information

Lat:	48 ° 48 68	N
Lon:	125 ° 31 00	W

Lat:	48 ° 48 69	N
Lon:	125 ° 30 99	W

Lat:	48 ° 48 72	N
Lon:	125 ° 31 00	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LC01 Event #: 61 Ship: Tully UTC Date (dd mmm yyyy): 28 May 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases UBC	UVic		
1	1	215	Bot-10	✓ 88	x		x					x x			
2	2	216	75	✓ 75	x		x x					x x			
3	3	217	50	✓ 50	x x		x					x x			
4	4	218	30	✓ 30	x		x					x x			
5	5	219	20	✓ 20	x		x		x x		x x	x x			
6	6	220	10	✓ 10	x		x		x x		x x	x x			
7	7	221	5	✓ 5	x		x		x x	x x	x x	x x			Fluo: 75
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: 96 m
Transmisso Cleaned: Q / N

Time	UTC	Local
Start	09 40	02 40
Bottom	09 47	
End	09 49	

Positional Information

Lat:	48 ° 50 43	N
Lon:	125 ° 27 80	W

▼

Lat:	48 ° 50 43	N
Lon:	125 ° 27 80	W

▼

Lat:	48 ° 50 50	N
Lon:	125 ° 27 79	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LD02 Event #: 63 Ship: Tully UTC Date (dd mmm yyyy): 28 May 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ☒ Pressure		Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases UBC	phyto					
1	1	222	Bot-10	☒	36	x		x					xx						
2	2	223	30	☒	30	x		x					xx						
3	3	224	20	☒	20	xx		x		xx		xx	xx						
4	4	225	10	☒	10	x		xx		xx		xx	xx						
5	5	226	5	☒	5	x		x		xx	xx	xx	xx	x				Fluo: >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: 46 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1146	0446
Bottom	1148	
End	1153	

Positional Information

Start	Lat: 48 ° 58 31 N
	Lon: 125 ° 47 10 W
Bottom	Lat: 48 ° 58 31 N
	Lon: 125 ° 47 09 W
End	Lat: 48 ° 58 37 N
	Lon: 125 ° 47 11 W

Extra comments:
really strong
smell of
incineration during
sampling

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LD04 Event #: 64 Ship: Tully UTC Date (dd mmm/yyyy): 28 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed ☒ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases UBC				
1	1	227	Bot-10	✓ 56	x x		x									
2	2	228	30	✓ 30	x		x x									
3	3	229	20	✓ 20	x		x		x x		x x					
4	4	230	10	✓ 10	x		x		x x		x x	xx				
5	5	231	5	✓ 5	x		x		x x	x x	x x				Fluo: 2-5	
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): MBBottom Depth: 64 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1259	0559
Bottom	1301	
End	1307	

Positional Information
Start
Lat: 48 ° 53 25 N
Lon: 125 ° 57 33 WBottom
Lat: 48 ° 53 25 N
Lon: 125 ° 57 23 WEnd
Lat: 48 ° 53 26 N
Lon: 125 ° 57 33 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LD06.5 Event #: 66 Ship: Tully UTC Date (dd mmm yyyy): 28 May 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ☒ Pressure	17O	ONAr	Oxy	18O ind	NO3 ind	NH4 ind	CHL	Nut-Fr	NH4	Sal	Phyto		
1	1	232	O2 max	✓ 30	xx		xx							x			✓
2	4	233	5 m	✓ 5	xx	xx	xx								xxx		✓
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17	7	234	100%	✓ 34			xx	xxx	xxxxx		x	x					
18	8	235	100%	✓ 34						xxxxx			xx				
19	5	236	55%	✓ 5		xx	xx	xxx	x	x	x	x	xx	x			
20	6	237	30%	✓ 5			xx	xxx	x	x	x	x	xxxx	x			
21	3	238	15%	✓ 7			xx	xxx	x	x	x	x	xx	x			
22	2	239	1%	✓ 20			xx	xxx	x	x	x	x	xx	x			
23																	
24																	

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): <u>ms</u>

Bottom Depth:	<u>178</u> m
Transmisso Cleaned:	☒ Y / ☐ N

Time	UTC	Local
Start	1520	0820
Bottom	1525	
End	1537	

Positional Information			
Lat:	48 ° 43 67		N
Lon:	126 ° 14 93		W

Start

Bottom

End

Lat:	48 ° 43 68		N
Lon:	126 ° 14 92		W

Lat:	48 ° 43 72		N
Lon:	126 ° 14 92		W

Extra comments:
Out of order
1, 22, 21, 2, 19, 20,
17, 18

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LD08 Event #: 67 Ship: Tully UTC Date (dd mmm/yyyy): 28 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	phyto	Gases UBC	DA					
1	1	240	Bot-10	✓ 766	x		x	x												
2	2	241	750	✓ 750	x	x	xx	xx												
3	3	242	500	✓ 500	xx	x	x	x												
4	4	243	400	✓ 401	x		x	x												
5	5	244	300	✓ 301	x		x													
6	6	245	250	✓ 251	x		x													
7	7	246	200	✓ 200	x		x													
8	8	247	175	✓ 175	x		x													
9	9	248	150	✓ 150	x		x													
10	10	249	125	✓ 126	x		x													
11	11	250	100	✓ 100	x		x													
12	12	251	75	✓ 76	x		xx													
13	13	252	50	✓ 50	x		x													
14	14	253	30	✓ 31	xx		x													
15	15	254	20	✓ 20	x		x		xx		xx									
16	16	255	10	✓ 10	x		x		xx		xx			xx						
17	17	256	5	✓ 5	x		x		xx	xx	xx		x		x		Fluo: < 2			
18																				
19																				
20																				
21																				
22																				
23																				
24																				

Profile type: ☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): MBBottom Depth: 766 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	16 52	09 52
Bottom	17 05	
End	17 35	

Positional Information
Start
Lat: 48 ° 39 18 N
Lon: 126 ° 23 35 WBottom
Lat: 48 ° 39 17 N
Lon: 126 ° 23 39 WEnd
Lat: 48 ° 39 23 N
Lon: 126 ° 23 33 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LG09 Event #: 69 Ship: Tully UTC Date (dd|mmm|yyyy): 29|MAI|2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	gases	bugs											
					UBC	UVic											
1		257	250	✓ 250		x											
2		258	150	✓ 150		x											
3		259	50	✓ 50		x											
4		260	20	✓ 20		x											
5		261	10	✓ 9	xx												
6		262	10	✓ 9		x											
7		263	5 }	✓ 5		x											
8		263 5 }	5 }	✓ 5		x									NOT USED		Closed in case 7 doesn't work
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	Fluo:
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 2049 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0037	1737
Bottom	0121	
End	0204	

Positional Information

Start	Lat: 48° 51.17	N
	Lon: 127° 19.48	W
Bottom	Lat: 48° 51.20	N
	Lon: 127° 19.47	W
End	Lat: 48° 51.23	N
	Lon: 127° 19.37	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2016-47

Station:

LG06

Event #: 74

Ship: Tully

UTC Date (dd mmm yyyy): 29 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	DA				
1	1	263	Bot-10	✓ 956	x		x	x									
2	2	264	750	✓ 750	x	x	xx	xx									
3	3	265	500	✓ 500	xx		x	x									
4	4	266	400	✓ 400	x		x	x									
5	5	267	300	✓ 300	x		x										
6	6	268	250	✓ 250	x		x										
7	7	269	200	✓ 200	x		x										
8	8	270	175	✓ 175	x		x										
9	9	271	150	✓ 150	x		xx										
10	10	272	125	✓ 125	x		x										
11	11	273	100	✓ 100	x		x										
12	12	274	75	✓ 75	x		x										
13	13	275	50	✓ 50	x		x										
14	14	276	30	✓ 30	xx		x										
15	15	277	20	✓ 20	x		x		xx		xx						
16	16	278	10	✓ 10	x		x		xx		xx						
17	17	279	5	✓ 5	x		x		xx	xx	xx	xxx	x				Fluo: 75
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 963 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0739	0039
Bottom	0758	
End	0831	

Positional Information

Start	Lat: 49 ° 3 46 N
	Lon: 127 ° 1 20 W
Bottom	Lat: 49 ° 3 46 N
	Lon: 127 ° 1 08 W
End	Lat: 49 ° 3 44 N
	Lon: 127 ° 1 37 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LG04 Event #: 77 Ship: Tully UTC Date (dd|mmm|yyyy): 29 | MAY | 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases UBC				
1	1	280	Bot-10	✓ 138	x		x									
2	2	281	125	✓ 125	x		x									
3	3	282	100	✓ 100	x		x									
4	4	283	75	✓ 75	x		xx									
5	5	284	50	✓ 50	x		x									
6	6	285	30	✓ 30	xx		x									
7	7	286	20	✓ 20	x		x		xx		xx					
8	8	287	10	✓ 10	x		x		xx		xx	xx				
9	9	288	5	✓ 5	x		x		xx	xx	xx				Fluo: <2	
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:	145	m
Transmisso Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	1029	0325
Bottom	1031	
End	1041	

Positional Information
Start
Lat: 49 ° 11 34 N
Lon: 126 ° 49 31 W

Bottom
Lat: 49 ° 11 33 N
Lon: 126 ° 49 30 W

End
Lat: 49 ° 11 28 N
Lon: 126 ° 49 25 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47

Station: LG02

Event #: 80

Ship: Tully

UTC Date (dd mmm yyyy): 29 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Gases UBC	phyto	UVic	DA		
1	1	289	Bot-10	☒ 91	x		x					xx		x			
2	2	290	75	☒ 75	xx		x					xx		x			
3	3	291	50	☒ 51	x		xx					xx		x			
4	4	292	30	☒ 30	x		x					xx					
5	5	293	20	☒ 20	x		x		xx		xx	xx		x			
6	6	294	10	☒ 10	x		x		xx		xx	xx		x			
7	7	295	5	☒ 5	x		x		xx	xx	xx	xx	xxx		x		Fluo: 2-5
8	8	296	5	☒ 5										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): <u>MS</u>

Bottom Depth:	<u>100</u>	m
Transmisso Cleaned:	☒ / ☐ N	

Time	UTC	Local
Start	1235	0535
Bottom	1237	
End	1241	

Positional Information
Start
Lat: <u>49</u> ° <u>18</u> <u>74</u> N
Lon: <u>126</u> ° <u>38</u> <u>02</u> W

Start

Bottom

End

Bottom
Lat: <u>49</u> ° <u>18</u> <u>73</u> N
Lon: <u>126</u> ° <u>38</u> <u>03</u> W

End
Lat: <u>49</u> ° <u>18</u> <u>72</u> N
Lon: <u>126</u> ° <u>38</u> <u>01</u> W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LG01 Event #: 81 Ship: Tully UTC Date (dd|mmm|yyyy): 29|May|2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	gases	UBC					
1	1	297	Bot-10	✓	44	x		x										
2	2	298	30	✓	30	xx		x										
3	3	299	20	✓	21	x		xx		xx		xx						
4	4	300	10	✓	10	x		x		xx		xx	xx					
5	5	301	5	✓	5	x		x		xx	xx	xx					Fluo: 75?	
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Version: 25 Nov 2014

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

Bottom Depth: 52 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1315	0615
Bottom	1316	
End	1321	

Positional Information

Start	Lat: 49 ° 20 54 N	Lon: 126 ° 35 01 W
Bottom	Lat: 49 ° 20 55 N	Lon: 126 ° 35 97 W
End	Lat: 49 ° 20 55 N	Lon: 126 ° 35 96 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2016-47

Station:

AT1 (LG/LBP)

Event #:

82

Ship:

Tully

UTC Date (dd mmm yyyy): 29 MAY 2016

Rosette Operation		Samples Taken / Sampler's Initials												Comments
Target Pressure	Confirmed Pressure	170	ONAr	Oxy	180 ind	NO3 ind	NH4 ind	CHL	Nut-Fr	NH4	Sal	Phyto	HPLC	
	✓													

Niskin # Firing # Sample #

1	1	302	O2 max	✓ 35	xx		xx						x	
2	5	303	5 m	✓ 5	xx	xx	xx					xxx	xx	
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17	6	304	100%	✓ 4			xx	xxx	xxxxx		x	x		
18	7	305	100%	✓ 4						xxxxx		xx		xx
19	8	306	55%	✓ 9		xx	xx	xxx	x	x	x	x	xx	x
20	4	307	30%	✓ 5			xx	xxx	x	x	x	x	xxxx	x
21	3	308	15%	✓ 8			xx	xxx	x	x	x	x	xx	x
22	2	309	1%	✓ 19			xx	xxx	x	x	x	x	xx	x
23														
24														

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

Watchkeeper(s): MB

Bottom Depth: 65 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	15 43	08 43
Bottom	15 48	
End	15 56	

Positional Information

Start Lat: 49 ° 34 40 N

Start Lon: 126 ° 54 85 W

Bottom Lat: 49 ° 34 46 N

Bottom Lon: 126 ° 54 83 W

End Lat: 49 ° 34 44 N

End Lon: 126 ° 54 72 W

Extra comments:

Out of order

1, 22, 21, 20, 2, 17, 18, 19

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

<http://www.pac.dfo-mpo.gc.ca/sci/osap/projects/waterproperties/>

Water Properties Group

Cruise ID: 2016-47 Station: LBP1

Sampling Log

Event #: 83

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

Ship: Tully UTC Date (dd|mmm|yyyy): 29 | MAY | 2016

Comments

Profile type:

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

2016-47

Station:

LBP1

Event #: 83

Ship: Tully

UTC Date (dd mmm yyyy): 29 | MAY | 2016

Bottom Depth: 53 m

Transmisso Cleaned: (Y) / N

<i>Time</i>	<i>UTC</i>	<i>Local</i>
Start	2158	1458
Bottom	2200	
End	2202	

Positional Information		
Lat:	50 ° 04.76	N
Lon:	127 ° 52.77	W

Lat:	50° 04.77	N
Lon:	127° 52.76	W

Lat:	50° 04' 78"	N
Lon:	127° 52' 75"	W

Extra comments:

[illegible]

Water Properties Group

Sampling Log

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

Cruise ID:

2016-47

Station:

LBP 3

Event #:

86

Ship:

Tully

UTC Date (dd mmm yyyy): 29 May 2016

Comments

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	CHL	HPLC	NH4	gases	UVic	phyto	DA			
1		311	bot-10	✓ 160	x		x				xx						
2		312	150	✓ 150	x		xx				xx	x					
3		313	125	✓ 125	x		x				xx						
4		314	100	✓ 100	x		x				xx	x					
5		315	75	✓ 75	x		x				xx						
6		316	50	✓ 50	xx		x				xx	x					
7		317	30	✓ 30	x		x				xx						
8		318	20	✓ 20	x		x	xx	xx	xx	xx	x					
9		319	10	✓ 10	x		x	xx		xx	xx						
10		320	5	✓ 5	x		x	xx	xx	xx	xx	x	xxx				Closed just in case...
11		9320	5	✓ 5				used									
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Profile type:

ROS TRM X-Niskin other?

Watchkeeper(s): M12

Bottom Depth: 166 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2253	1553
Bottom	2258	
End	2309	

Positional Information

Lat:	50° 03.20	N
Lon:	127° 55.33	W

Lat:	50° 03.16	N
Lon:	127° 55.35	W

Lat:	50° 03.17	N
Lon:	127° 55.34	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: LBP5 Event #: 89 Ship: Tully UTC Date (dd mmm yyyy): 30 May 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓	Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	gases	UVic	phyto	DA	
						RP KV	RT	RF KV	RS KV	RT	RP	RT	UBC				
1		321	bot-10	✓	1286	x		x	x								
2		322	1250	✓	1251	x	X	x	x								
3		323	1000	✓	1000	x	X	xx	xx								
4		324	750	✓	750	x		x	x								
5		325	500	✓	500	x		x	x								
6		326	400	✓	400	xx		x	x								
7		327	300	✓	300	x		x									
8		328	250	✓	250	x		x									
9		329	200	✓	200	x		x									
10		330	175	✓	176	x		x									
11		331	150	✓	150	x		x									
12		332	125	✓	125	x		x									
13		333	100	✓	100	x		x									
14		334	75	✓	75	x		x									
15		335	50	✓	50	x		xx									
16		336	30	✓	30	xx		x									
17		337	20	✓	20	x		x		xx		xx					
18		338	10	✓	10	x		x		xx		xx					
19		339	5	✓		x		x		xx	xx	xx					
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth:	1277	m
Transmisso Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	0057	1757
Bottom	0122	
End	0200	

Positional Information
Start
Lat: 49° 59.94 N
Lon: 128° 00.07 W

Bottom
Lat: 49° 59.95 N
Lon: 128° 00.24 W

End
Lat: 49° 59.93 N
Lon: 128° 00.22 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47

Station: LBP7

Event #: 92

Ship: Tully

UTC Date (dd mmm yyyy): 30 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	gases	UVic	phyto	DA		
1		340	2000 1500	✓	2000	x	x	x	x								
2		341	2000	✓	2000	x	x	x	x								
3		342	1500	✓	1500	x	x	x	x								
4		343	1250	✓	1250	x	x	xx	xx								
5		344	1000	✓	1000	x	x	x	x								
6		345	750	✓	750	xx	x	x	x								
7		346	500	✓	500	x		x	x								
8		347	400	✓	400	x		x	x								
9		348	300	✓	300	x		x									
10		349	250	✓	250	x		x									
11		350	200	✓	200	x		x									
12		351	175	✓	175	x		x									
13		352	150	✓	150	x		x									
14		353	125	✓	125	x		x									
15		354	100	✓	100	x		xx									
16		355	75	✓	75	xx		x									
17		356	50	✓	50	x		x									
18		357	30	✓	30	x		x									
19		358	20	✓	20	x		x		xx		xx					
20		359	10	✓	10	x		x		xx		xx					
21		360	5	✓	5	x	x	x		xx	xx	xx					
22																	
23																	
24																	

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

Bottom Depth: 2160 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0425	2125
Bottom	0504	
End	0557	

Positional Information

Start
Lat: 49° 52.35 N
Lon: 128° 11.31 W

Bottom
Lat: 49° 52.37 N
Lon: 128° 11.36 W

End
Lat: 49° 52.35 N
Lon: 128° 11.47 W

Extra comments:

Sampling Log

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

Cruise ID:

2016-47

Station:

LBP8

Event #: 94

Ship: Tully

UTC Date (dd mmm yyyy): 30 MAY 2016

[illegible]

Profile type:

ROS TRM X-Niskin other?

Watchkeeper(s):

Bottom Depth: 2065 m

Transmisso Cleaned: Y / N

<i>Time</i>	<i>UTC</i>	<i>Local</i>
-------------	------------	--------------

Start	07 08	00:08
-------	-------	-------

Bottom	67 40
--------	-------

End	08Zc
-----	------

Positional Information

Lat: 49° 48' 54" N

Lon: 128 ° 16 94 v

Lat: 49° 48' 52"

Lon: 128 ° 16' 95" W

Lat: 49° 48' 45"

Lon: 128 ° 17 03 v

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: CS00 Event #: 105 Ship: Tully UTC Date (dd mmm yyyy): 31 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials													Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	DA	gases	UBC			
1	1	367	2000	✓ 2000	x	x	x	x										
2	2	368	1500	✓ 1499	x	xx	xx	xx										
3	3	369	1250	✓ 1250	x	xx	x	x										
4	4	370	1000	✓ 1000	x	xx	x	x										
5	5	371	750	✓ 750	xx	x	x	x										
6	6	372	500	✓ 500	x	x	x	x										
7	7	373	400	✓ 400	x	x	x	x										
8	8	374	300	✓ 300	x	x	x											
9	9	375	250	✓ 250	x	x	x											
10	10	376	200	✓ 200	x	x	xx											
11	11	377	175	✓ 175	x	x	x											
12	12	378	150	✓ 150	xx	x	x											
13	13	379	125	✓ 125	x	x	x											
14	14	380	100	✓ 100	x	x	x											
15	15	381	75	✓ 75	x	x	x											
16	16	382	50	✓ 51	x	x	x											
17	17	383	30	✓ 30	x	x	x											
18	18	384	20	✓ 20	xx	x	x		xx		xx							
19	19	385	10	✓ 11	x	x	x		xx		xx			xx				
20	20	386	5	✓ 5	x	x	x		xx	xx	xx	x						Fluo: < 2
21																		
22																		
23																		
24																		

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

Bottom Depth: 2167 m
 Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0532	2232
Bottom	0610	
End	0707	

Positional Information
 Start
 Lat: 50° 27' 62" N
 Lon: 129° 55' 16" W

Bottom
 Lat: 50° 27' 69" N
 Lon: 129° 55' 05" W

End
 Lat: 50° 27' 71" N
 Lon: 129° 55' 06" W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: CS02 Event #: 110 Ship: Tully UTC Date (dd mmm/yyyy): 31 MAY 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	UVic				
1	1	387	Bot-10	✓ 1906	x		x	x									
2	2	388	1500	✓ 1500	x	x	x x	x x									
3	3	389	1250	✓ 1250	x	x	x	x									
4	4	390	1000	✓ 1000	x		x	x									
5	5	391	750	✓ 750	x x		x	x									
6	6	391	500	✓ 500	x		x	x									
7	7	392	400	✓ 400	x		x										
8	8	393	300	✓ 300	x		x										
9	9	394	250	✓ 250	x		x						x				
10	10	395	200	✓ 201	x		x x										
11	11	396	175	✓ 175	x		x										
12	12	397	150	✓ 150	x x		x						x				
13	13	398	125	✓ 125	x		x										
14	14	399	100	✓ 101	x		x										
15	15	400	75	✓ 75	x		x										
16	16	401	50	✓ 50	x		x						x				
17	17	402	30	✓ 30	x		x										
18	18	403	20	✓ 20	x x		x		x x		x x		x				
19	19	404	10	✓ 10	x		x		x x		x x		x				
20	20	405	5	✓ 5.5	x	x	x		x x	x x	x x		x				Fluo: <2
21																	
22																	
23																	
24																	

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): MBBottom Depth: 1894 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	1152	0952
Bottom	1227	
End	1318	

Positional Information
Start
Lat: 50 ° 41 32 N
Lon: 129 ° 27 96 WBottom
Lat: 50 ° 41 34 N
Lon: 129 ° 27 83 WEnd
Lat: 50 ° 41 34 N
Lon: 129 ° 27 96 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: CS04 Event #: 113 Ship: Tully UTC Date (dd mmm yyyy): 31 May 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	gases	UBC				
1	1	406	Bot-10	✓	92	x		x					xx					
2	2	407	75	✓	75	x		x										
3	3	408	50	✓	50	x		x					xx					
4	4	409	30	✓	31	xx		x										
5	5	410	20	✓	20	x		x		xx		xx	xx					
6	6	411	10	✓	10	x		x		xx		xx	xx					
7	7	412	5	✓	5	x		xx		xx	xx	xx				Fluo: 42		
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): MBBottom Depth: 100 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	15 28	08 28
Bottom	15 30	
End	15 37	

Positional Information
Start
Lat: 50 ° 49 23 N
Lon: 129 ° 12 85 WBottom
Lat: 50 ° 49 24 N
Lon: 129 ° 12 86 WEnd
Lat: 50 ° 49 23 N
Lon: 129 ° 12 91 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: CS06 Event #: 126 Ship: Tully UTC Date (dd mmm yyyy): 01 06 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	DA	gases	UBC	
1	1	413	Bot-10	✓	55	x		xx								
2	2	414	50	✓	50	xx		x								
3	3	415	30	✓	30	x		x								
4	4	416	20	✓	20	x		x		xx		xx				
5	5	417	10	✓	10	x		x		xx		xx		xx		
6	6	418	5	✓	5	x		x		xx	xx	xx	x	x		Fluo:
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): FY / WB

Bottom Depth: 64 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	09:18	
Bottom	09:21	
End	09:27	

Positional Information

Lat:	50 ° 59.890	N
Lon:	128 ° 51.750	W

▼

Lat:	50 ° 59.890	N
Lon:	128 ° 51.750	W

▼

Lat:	50 ° 59.910	N
Lon:	128 ° 51.750	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47

Station: CS09

Event #: ~~129~~ 131

Ship: Tully

UTC Date (dd mmm yyyy): 01 06 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments		
			Target Pressure	Confirmed	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	UVic	gases					
			Pressure	✓ Pressure										UBC				
1	1	419	Bot-10	✓	185	x		x										
2	2	420	175	✓	176	x		x										
3	3	421	150	✓	150	x		x					x					
4	4	422	125	✓	125	x		xx										
5	5	423	100	✓	100	x		x					x					
6	6	424	75	✓	75	x		x										
7	7	425	50	✓	50	xx		x					x					
8	8	426	30	✓	30	x		x										
9	9	427	20	✓	20	x		x		xx		xx	x					
10	10	428	10	✓	10	x		x		xx		xx	x	xx				
11	11	429	5	✓	5	x		x		xx	xx	xx	x					Fluo: ~2
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Version: 25 Nov 2011

Transmissometer to be cleaned before each cast.

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

Bottom Depth: 192 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1258	0558
Bottom	1301	
End	1315	

Positional Information

Lat:	51 ° 12 48	N
Lon:	128 ° 27 98	W

Start

Bottom

Lat:	51 ° 12 47	N
Lon:	128 ° 27 92	W

End

Lat:	51 ° 12 41	N
Lon:	128 ° 27 69	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47

Station: QCS1

Event #: 154

Ship: Tully

UTC Date (dd mmm yyyy): 2 Jun 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	UVic						
1	1	430	Bot-10	✓	133	x		x											
2	2	431	50	✓	50	xx	x	xx											
3	3	432	30	✓	30	x		x											
4	4	433	20	✓	20.8	x		x		xx									
5	5	434	10	✓	9.8	x		x		xx									
6	6	435	5	✓	5.1	x		x		xx	xx								
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): KY/CS/NN

Bottom Depth: 141 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	18:19	
Bottom	18:22	
End	18:30	

Positional Information

Start	Lat: 51 ° 42.330 N
	Lon: 128 ° 14.290 W
Bottom	Lat: 51 ° 42.340 N
	Lon: 128 ° 14.340 W
End	Lat: 51 ° 42.370 N
	Lon: 128 ° 14.340 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: 14 Event #: 176 Ship: Tully UTC Date (dd mmm yyyy): 04 Jun 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments	
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	UVic		NUT		
1		436	20	✓ 20			xX		xx						XX		
2		437	10	✓ 10			xx		xx						XX		
3		438	0	✓ 2.8			xX		xx	xx					XX		
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																Fluo:	
21																	
22																	
23																	
24																	

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

Bottom Depth: 315 m

Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0206	1906
Bottom	0211	
End	0219	

Positional Information

Start
Lat: 49° 53.09 N
Lon: 124° 59.43 WBottom
Lat: 49° 53.12 N
Lon: 124° 59.48 WEnd
Lat: 49° 53.14 N
Lon: 124° 59.59 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: 11 Event #: 178 Ship: Tully UTC Date (dd mmm yyyy): 04 JUN 2016

Cruise ID: 2016-47			Station: 11		Event: 1											Comments					
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Nut	Filter				
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	UVic								
1		439	b-10	✓	294			x													
2		440	200	✓	200			x													
3		441	100	✓	100			x													
4		442	75	✓	74			x													
5		443	50	✓	50			x													
6		444	40	✓	40			x													
7		445	30	✓	30			xx							xx						
8		446	20	✓	20			x		xx											
9		447	10	✓	10			x		xx											
10		448	5	✓	5			x													
11		449	0	✓	2.9			x		xx	xx		x								
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																			Fluo:		
21																					
22																					
23																					
24																					

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

Bottom Depth: 300 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0408	2108
Bottom	0414	
End	0429	

Positional Information

Start
Lat: 49° 42.41 N
Lon: 124° 43.46 WBottom
Lat: 49° 42.41 N
Lon: 124° 43.52 WEnd
Lat: 49° 42.53 N
Lon: 124° 43.75 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: CPF2 Event #: 180 Ship: Tully UTC Date (dd mmm/yyyy): 04 Jun 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	Nut	Filt				
1		450	20	✓	20			x		xx								
2		451	10	✓	10			x		xx								
3		452	0	✓	3.1			xx		xx	xx			xx				
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		Fluo:
21																		
22																		
23																		
24																		

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

Bottom Depth: 324 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0631	233
Bottom	0637	
End	0645	

Positional Information
Start
Lat: 49° 28.00 N
Lon: 124° 29.94 W

Bottom
Lat: 49° 28.01 N
Lon: 124° 29.96 W

End
Lat: 49° 28.00 N
Lon: 124° 29.98 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2016-47

Station:

CPF1

Event #:

182

Ship:

Tully

UTC Date (dd mmm yyyy): 4 June 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments		
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	Nut Filt						
1	1	453	20	✓	20.6			x		xx									
2	2	454	10	✓	10.1			xx		xx					xx				
3	3	455	0	✓	2.9			x		xx	xx								
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			Fluo:
21																			
22																			
23																			
24																			

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

Bottom Depth: 245 m
Transmisso Cleaned: ☒ Y / ☐ N

	UTC	Local
Start	08:49	
Bottom	08:54	
End		

Positional Information

Lat:	49 ° 22.070	N
Lon:	124 ° 5.010	W

▼

Lat:	49 ° 22.050	N
Lon:	124 ° 5.040	W

▼

Lat:	°	N
Lon:	°	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: 22 Event #: 184 Ship: Tully UTC Date (dd mmm yyyy): 4 JUN 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	Nut filt			
1	1	456	b-10	✓ 353			x									
2	2	457	200	✓ 200			x									
3	3	468	100	✓ 100			x									
4	4	459	75	✓ 75			x									
5	5	460	50	✓ 51			xx						xx - used new filter			
6	6	461	40	✓ 40			x									
7	7	462	30	✓ 30			x									
8	8	463	20	✓ 21			x		xx							
9	9	464	10	✓ 10			x		xx							
10	10	465	5	✓ 5			x									
11	11	466	0	✓ 2.9			x		xx	xx		x				
12																
13																
14																
15																
16																
17																
18																
19																
20																Fluo: ~2
21																
22																
23																
24																

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

Bottom Depth: 356 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	11 17	0317
Bottom	11 25	
End	11 41	

Positional Information

Lat:	49 ° 40 29	N
Lon:	124 ° 16 37	W

Start

Lat:	49 ° 40 36	N
Lon:	124 ° 16 45	W

Bottom

Lat:	49 ° 40 50	N
Lon:	124 ° 16 57	W

End

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: 24 Event #: 186 Ship: Tully UTC Date (dd mmm yyyy): 04 June 16

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	Nut Filt			
1		467	20	20			xx		xx				xx			
2		468	10	10			x		xx							
3		469	0				x		xx	xx						
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																Fluo:
21																
22																
23																
24																

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

Bottom Depth: 424 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	13:16	
Bottom	13:23	
End	13:33	

Positional Information

Start	Lat: 49 ° 30.330 N
	Lon: 124 ° 6.020 W
Bottom	Lat: 49 ° 30.300 N
	Lon: 124 ° 6.010 W
End	Lat: 49 ° 30.25 N
	Lon: 124 ° 06.99 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: 28 Event #: 188 Ship: Tully UTC Date (dd mmm yyyy): 4 JUN 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments	
			Target Pressure	Confirmed ☒ Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	Nut Filt				
1	1	470	20	☒ 20			x		xx								
2	2	471	10	☒ 11			xx		xx				xx				
3	3	472	0	☒ 3.0			x		xx	xx							
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	Fluo:
21																	
22																	
23																	
24																	

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

Bottom Depth: 135 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1533	0833
Bottom	1535	
End	1542	

Positional Information

Lat:	49 ° 24 11	N
Lon:	123 ° 45 14	W

Start

Bottom

End

Lat:	49 ° 24 11	N
Lon:	123 ° 45 13	W

Lat:	49 ° 24 08	N
Lon:	123 ° 45 12	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: GEO1 Event #: 190 Ship: Tully UTC Date (dd mmm yyyy): 04 June 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	Nut firt				
1	1	473	b-10	✓	393		X	x									
2	2	474	200	✓	201			x									
3	3	475	100	✓	100			xx					xx				
4	4	476	75	✓	76			x									
5	5	477	50	✓	50.7			x									
6	6	478	40	✓	40			x									
7	7	479	30	✓	31			x									
8	8	480	20	✓	20.6			x		xx							
9	9	481	10	✓	10			x		xx							
10	10	482	5	✓	5.5			x									
11	11	483	0	✓	3.3			x		xx	xx		x				
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	Fluo:
21																	
22																	
23																	
24																	

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

Bottom Depth: 398 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	16:58	
Bottom	17:05	
End	17:22	

Positional Information

Start
Lat: 49 ° 14.92 N
Lon: 123 ° 45.010 WBottom
Lat: 49 ° 14.93 N
Lon: 123 ° 45.00 WEnd
Lat: 49 ° 14.930 N
Lon: 123 ° 45.020 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: 38 Event #: 193 Ship: Tully UTC Date (dd mmm yyyy): 04 JUN 2016

Event #.		Ship:		Tully		UTC Date (dd m										
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	Nut filt			
1		484	20	✓ 20			x		xx							
2		485	10	✓ 10			x		xx							
3		486	0	✓ 2.9			xx		xx	xx			xx			
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21															Fluo:	
22																
23																
24																

Version: 25 Nov 2011

Transmissometer to be cleaned before each cast, do not use A

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

Bottom Depth: 304 m
 Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1932	1232
Bottom	1938	
End	1947	

Positional Information

Start	Lat: 49° 11.90	N
	Lon: 123° 26.45	W
Bottom	Lat: 49° 11.89	N
	Lon: 123° 26.45	W
End	Lat: 49° 11.88	N
	Lon: 123° 26.43	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2016-47 Station: 41

Event #: 195

Ship: Tully

UTC Date (dd mmm yyyy): 04 JUN 2016

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments		
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto	Nut filt						
1		487	b-10	✓	234			x											
2		488	200	✓	201			xx							xx				
3		489	100	✓	100			x											
4		490	75	✓	76			x											
5		491	50	✓	50			x											
6		492	40	✓	40			x											
7		493	30	✓	30			x											
8		494	20	✓	21			px		xx									
9		495	10	✓	10			x		xx									
10		496	5	✓	5			x											
11		497	0	✓	0			x		xx	xx		x						
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: 240 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2112	1412
Bottom	2116	
End	2129	

Positional Information

Lat:	49° 03.28	N
Lon:	123° 22.29	W

Start

Lat:	49° 03.28	N
Lon:	123° 22.30	W

Bottom

Lat:	49° 03.27	N
Lon:	123° 22.26	W

End

Fluo:

Extra comments: