

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P1 Event #: 6 Ship: Tully UTC Date (dd mmm yyyy): 6 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Nut-F	Sal	Chl	HPLC	DIC	Oxy	Phyto	DA	Gases					
1	1	1	Bot-10	✓ 110	x				x x	x								
2	2	2	30	✓ 30	x				x	x								
3	3	3	5	✓ 5	x	x			x	x x			x x					
4	4	4	5	✓ 5	x		x x	x x			x	x						
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 116 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	16 25	08 25
Bottom	16 27	
End	16 37	

Positional Information
Start
Lat: 48 ° 34 550 N
Lon: 125 ° 30 110 W

Bottom
Lat: 48 ° 34 556 N
Lon: 125 ° 30 110 W

End
Lat: 48 ° 34 550 N
Lon: 125 ° 30 110 W

Extra comments:

Phyto: Lugol only

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P2 Event #: 7 Ship: Tully UTC Date (dd mmm yyyy): 6 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	DMS	DMSP	DMSP	Nut-Fr	Chl	HPLC		Bugs	Phyto		
1		5	100	✓								x			CANCELLED
2	1	6	100	✓	100	x	x	x	x	x					
3	2	7	75	✓	76	x			xx	x					
4	3	8	50	✓	50	x			x	xx					
5		9	50									x			CANCELLED
6	4	10	40	✓	40	x			x	x					
7	5	11	30	✓	30	x			x	x	xx				Fluo
8	6	12	25	✓	25	x			x	x	xx				Fluo
9	7	13	20	✓	20	xx	xx	xx	x	x	xx				Fluo
10	8	14	15	✓	15	x			x	x	xx				Fluo
11	9	15	10	✓	10	x			x	xx	xx				Fluo
12	10	16	5	✓	5	x	x	x	x	x	xx				Fluo
13		17	5									x			CANCELLED
14	11	18	0	✓	2.8	x	x	x	x	x					
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 113 m
Transmissio Cleaned: Y / N

Time	UTC	Local
Start	1846	1046
Bottom	1848	
End	1859	

Positional Information
Start Lat: 48 ° 36 180 N
Lon: 125 ° 59 946 W

Bottom Lat: 48 ° 36 180 N
Lon: 125 ° 59 950 W

End Lat: 48 ° 36 180 N
Lon: 125 ° 59 950 W

Extra comments:
DMS
- CHECK ORDER

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P2 Event #: 10 Ship: Tully UTC Date (dd mmm yyyy): 2019 02 06

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed ✓	Pressure	Oxy	Nut-F	Nut-C	Sal	DIC	DOC	TOC DH	Gels	Gases	Cr	TOC SJ	CDOM		
1	1	19	Bot-10	✓	108	x	x			x	x	xx	x		x	x	xx		
2	2	20	100	✓	100	xx	x			x		xx	x		x				
3	3	21	75	✓	75	x	x			x		xx	x						
4	4	22	75	✓	75	x	x			xx					x				
5	5	23	50	✓	50	x	x			x	x	xx	x		x	x	x		
6	6	24	25	✓	25	x	xx			x		xx	x		x				
7	7	25	10	✓	10	x	x			x		xx	x		x				
8	8	26	5	✓	5	xx	x		x	x		xx	x	xx	x				
9	9	27	0	✓	0						xx					x	x		
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: 112 m
Transmissio Cleaned: Y / N

Time	UTC	Local
Start	1952	1152
Bottom	1955	
End	2006	

Positional Information

Lat:	48 °	36.18	N
Lon:	125 °	59.96	W

Start

Bottom

Lat:	48 °	36.18	N
Lon:	125 °	59.96	W

End

Lat:	48 °	36.18	N
Lon:	125 °	59.96	W

Extra comments:
Deep cast
NO LAT ON FEED FROM NMEA

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P2 Event #: 11 Ship: Tully UTC Date (dd mmm yyyy): 06 02 2019

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials													Comments
			Target Pressure	Confirmed ✓	Pressure	Oxy	Nut-F	Nut-C	Sal	DIC	DOC	TOC	Gels	Gases	Cr	TOC	CDOM		
						MG	MG		MG	MG/R	MG/R	DH	JW	R	10	SJ	JW		
1	1	19	Bot-10	✓	109	x	x			x	x	xx	x		x	x	xx		
2	2	20	100	✓	100	xx	x			x		xx	x		x				
3	3	21	75	✓	75	x	x			x		xx	x						
4	4	22	75	✓	75	x	x			xx					x				
5	5	23	50	✓	50	x	x			x	x	xx	x		x	x	x		
6	6	24	25	✓	25	x	xx			x		xx	x		x				
7	7	25	10	✓	10	x	x			x		xx	x		x				
8	8	26	5	✓	5	xx	x		x	x		xx	x	xx	x				
9	9	27	0	✓	35						xx					x	x		
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

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

Watchkeeper(s): MG

Bottom Depth: 113 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	2015	1215
Bottom	2017	
End	2028	

Positional Information

Start Lat: 48 ° 36.18 N

Start Lon: 125 ° 59.94 W

Bottom Lat: 48 ° 36.17 N

Bottom Lon: 125 ° 59.96 W

End Lat: 48 ° 36.18 N

End Lon: 125 ° 59.96 W

Extra comments:

Deep cast

Redo - SPIGOT OPEN

BOTTLE 14 CLOSED ON RETURN

AND WATER RUNNING OUT

W SPIGOT OPEN + VALVE CLOSED

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P3 Event #: 13 Ship: Tully UTC Date (dd mmm yyyy): 06 02 2019

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials														Comments
			Target Pressure	Confirmed ✓	Pressure	Nut-F	Sal	Chl	HPLC	Gases										
						RI			MG	UBC										
1		28	5	✓	5	x	x	xx	xx	xx									fire bot. 14!	
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14				✓	5															
15																				
16																				
17																				
18																				
19																				
20																				
21																				
22																				
23																				
24																				

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

Bottom Depth: 818 m
Transmissio Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2156	1356
Bottom	2211	
End	2229	

Positional Information
Start
Lat: 48 ° 37.52 N
Lon: 126 ° 20.02 W

Bottom
Lat: 48 ° 37.51 N
Lon: 126 ° 20.07 W

End
Lat: 48 ° 37.53 N
Lon: 126 ° 19.98 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P4 Event #: 14 Ship: Tuily UTC Date (dd mmm yyyy): 06 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	DMS	DMSP	DMSP	Nut-F		Chl	HPLC	Phyto	DA				
1		29	300	✓	300	x			x									
2		30	200	✓	201	x	x	x	x									
3		31	150	✓	150	x	x	x	x									
4		32	100	✓	100	x			x		x							
5		33	75	✓	75	x			x		x							
6		34	60	✓	60				x		x	xx						
7		35	50	✓	50	x			x		x	xx						
8		36	40	✓	40	x			x		x	xx						
9		37	30	✓	30	x	x	x	x		x	xx						
10		38	25	✓	25	x			x		xx							
11		39	20	✓	20	xx	xx	xx	xx		x							HAS TO BE RESEATED TOP CAP
12		40	15	✓	15	x			x		x	xx						
13		41	10	✓	10	x			x		x							
14		42	5	✓	5	x	x	x	x									
15		43	5	✓	5				x		xx	xx	xxx	x				
16		44	0	✓	0	x	x	x	x		x							
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Watchkeeper(s): MG

Bottom Depth: 1324 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2352	1552
Bottom	2358	
End	0024	

Positional Information

Start Lat: 48 ° 39.03 N

Start Lon: 126 ° 40.02 W

Start

Bottom

Lat: 48 ° 39.02 N

Lon: 126 ° 40.02 W

End

Lat: 48 ° 39.02 N

Lon: 126 ° 40.03 W

Extra comments:

DMS cast

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P4 Event #: 16 Ship: Tully UTC Date (dd mmm yyyy): 07 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials														Comments
			Target Pressure	Confirmed	Pressure	Oxy	Nut-F	Nut-C	Sal	DIC		TOC	DNA	gases	SAGs	Gels	Cr			
				✓		MG/15	15/MR	MR	MG	2/3			JW	JS	MR/1			18		
1		45	Bot-10	✓	1322	x	x	x		x		xx	x	xx	x	x	x			
2		46	1250	✓	1250	xx	x	x	x	xx			x		x					
3		47	1250	✓	1250	x	x	x	xx	x		xx		xx		x	x			
4		48	1000	✓	1000	x	x	x	xx	x		xx	x	xx	x	x	x		3 SEA LIONS	
5		49	800	✓	800	x	x	x	x	x		xx	x	xx	x	x	x			
6		50	600	✓	600	x	xx	xx		x		xx	x	xx	x	x	x		STOP @ 500 TO CORRECT	
7		51	400	✓	402	x	x	x		x		xx	x	xx	x	x	x			
8		52	300	✓	300	x	x			x		xx	x		x	x	x			
9		53	250	✓	251	x	x			x		xx		xx		x	x			
10		54	200	✓	200	x	x			x		xx	x	xx	x	x	x			
11		55	175	✓	174	xx	x			x		xx				x	x			
12		56	150	✓	150	x	x			x		xx	x	xx	x	x	x			
13		57	125	✓	125	x	xx			x		xx				x	x			
14		58	100	✓	100	x	x			x		xx	x	xx	x	x	x			
15		59	75	✓	76	x	x			x		xx				x	x			
16		60	50	✓	49	x	x			x		xx	x	xx	x	x	x			
17		61	25	✓	26	x	x			x		xx	x	xx	x	x	x			
18		62	10	✓	10	x	x			x		xx	x		x	x	x			
19		63	5	✓	5	xx	x		x	x		xx		xx		x	x			
20																				
21																				
22																				
23																				
24																				

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

Bottom Depth: 1328 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0101	1701
Bottom	0121	
End	0208	

Positional Information

Lat:	48° 39.00	N
Lon:	126° 40.00	W

Start

Bottom

Lat: 48° 39.00 N
Lon: 126° 40.02 W

End

Lat: 48° 39.20 N
Lon: 126° 40.48 W

Extra comments:
Deep cast
Plus OXY loops
2x IOS, 2x UBC

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P4 Event #: 19 Ship: Tully UTC Date (dd mmm/yyyy): 07 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	UBC												
1	1	64	Bot-10	✓ 1302	x												
2	2	65	Bot-10	✓ 1302													
3	3	66	Bot-10	✓ 1302													
4	4	67	Bot-10	✓ 1301													
5	5	68	1000	✓ 1000	x												
6	6	69	1000	✓ 1000													
7	7	70	1000	✓ 1000													
8	8	71	1000	✓ 1001													
9	9	72	500	✓ 500	x												
10	10	73	500	✓ 500													
11	11	74	500	✓ 500													
12	12	75	500	✓ 500													
13	13	76	10	✓ 10	x												
14	14	77	10	✓ 10													
15	15	78	10	✓ 10													
16	16	79	10	✓ 10													STOP @ 141 TO FIX WIRE L
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 1316 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0455	2055
Bottom	0519	
End	0550	

Positional Information

Start	Lat: 48 ° 39.69 N
	Lon: 126 ° 39.83 W
Bottom	Lat: 48 ° 39.16 N
	Lon: 126 ° 39.75 W
End	Lat: 48 ° 39.17 N
	Lon: 126 ° 39.76 W

Extra comments:
UBC cast

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P5 Event #: 20 Ship: Tully UTC Date (dd:mmm:yyyy): 07 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ☒ Pressure	Nut-F	Sal	Chl	HPLC	Gases	UBC					
1	1	80	5	✓ 3.44	x	x	xx	xx	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: 2106 m
 Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0749	2349
Bottom	0823	
End	0900	

Positional Information

Start	Lat: 48 ° 41 520 N
	Lon: 127 ° 9 990 W

Bottom

Lat: 48 ° 41 490 N
Lon: 127 ° 9 910 W

End

Lat: 48 ° 41 490 N
Lon: 127 ° 9 960 W

Extra comments:
 Will also have loops
 1x Sal, 2x Chl (5021)
 Oops closed case @
 SRF Not SM

Sampling Log

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

Cruise ID: 2019-001 Station: P6

Event #: 22

Ship: Tully

UTC Date (dd mmm yyyy): 7 FEB 2019

[illegible]

Profile type: ROS TRM X-Niskin other?

Watchkeeper(s): MB

Bottom Depth: 2567 m

Transmisso Cleaned: Y / N

<i>Time</i>	<i>UTC</i>	<i>Local</i>
Start	1103	0303
Bottom	1136	
End	1209	

Positional Information

Lat:	48° 44' 640	N
Lon:	127° 40' 120	W

Start

Bottom	Lat: 48 ° 44 600 N
	Lon: 127 ° 40 020 W

Bottom

End	Lat:	48	°	44	590	N
	Lon:	127	°	39	980	W

End

Extra comments:
Will also have loops
1x Sal, 2x Shl
Oops. Closed bottle @
SRF not 5m

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P7 Event #: 23 Ship: Tully UTC Date (dd mmm/yyyy): 7 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC	Gases	UBC					
1	1	82	5	5	x	x	xx	xx	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: 2526 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	1409	0709
Bottom	1443	06
End	1518	

Positional Information

Start	Lat: 48 ° 46 640 N
	Lon: 128 ° 10 130 W
Bottom	Lat: 48 ° 46 650 N
	Lon: 128 ° 9 970 W
End	Lat: 48 ° 46 610 N
	Lon: 128 ° 9 940 W

Extra comments:
Will also have loops
1x Sal, 2x Chl

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P8 Event #: 25 Ship: Tully UTC Date (dd mmm yyyy): 7 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut Fr	Nut C	Chl	HPLC	TOC	UBC	Gels	Cr				
					MB/gw				EB	EB	DH	gases						
1	1	83	2000	✓ 2000	x	x x	x	x			x x	x x	x	x				
2	2	84	1500	✓ 1500	x	x	x	x			x x	x x	x	x				
3	3	85	1250	✓ 1250	x	x	x	x			x x	x x	x	x				
4	4	86	1000	✓ 1000	x	x x	x	x			x x	x x	x	x				
5	5	87	800	✓ 800	x x	x	x	x			x x	x x	x	x				
6	6	88	600	✓ 600	x		x x	x x			x x	x x	x	x				
7	7	89	400	✓ 400	x		x	x			x x	x x	x	x				
8	8	90	300	✓ 300	x		x				x x		x	x				
9	9	91	250	✓ 250	x		x				x x	x x	x	x				
10	10	92	200	✓ 200	x		x				x x	x x	x	x				
11	11	93	175	✓ 175	x x		x				x x		x	x				
12	12	94	150	✓ 150	x		x				x x	x x	x	x				
13	13	95	100	✓ 100	x		x		x		x x	x x	x	x				
14	14	96	75	✓ 75	x		x x		x		x x		x	x				
15	15	97	60	✓ 60	x		x		x	x x				x				
16	16	98	50	✓ 50	x		x		x	x x	x x	x x	x	x				
17	17	99	40	✓ 40	x		x		x	x x				x				
18	18	100	30	✓ 30	x		x		x	x x				x				
19	19	101	25	✓ 25	x		x		x x		x x	x x	x	x				
20	20	102	20	✓ 20	x x		x		x x					x				
21	21	103	15	✓ 15	x		x		x	x x				x				
22	22	104	10	✓ 10	x		x		x		x x		x	x				
23	23	105	5	✓ 5	x	x	x				x x	x x	x	x				
24	24	106	5	✓ 5			x		x	x x								

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

Bottom Depth:	2540	m
Transmisso Cleaned:	(Y) / N	

Time	UTC	Local
Start	1723	0923
Bottom	1756	
End	1850	

Positional Information
Lat: 48 ° 49 040 N
Lon: 128 ° 40 140 W

Start

Bottom

End

Lat: 48 ° 49 040 N
Lon: 128 ° 40 020 W

Lat: 48 ° 49 020 N
Lon: 128 ° 40 000 W

Extra comments:
Plus OXY loops
2x IOS, 2x UBC

98/	98/	98 0	98 0	103	103	103
TOC	TOC	Gels	Gels	CHL	OXY	
P8	P8	P8	P8	P8	P8	
50 m	50 m	50 m	50 m	15 m	15 m	
2019-001	2019-001	2019-001	2019-001	2019-001	2019-001	
Bot 16	Bot 16	Bot 16	Bot 16	Bot 21	Bot' 21	
		(PP Bottle)				

Water Properties Group

Sampling Log

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

Cruise ID:

2019-001

Station:

P9

Event #:

29

Ship:

Tully

UTC Date (dd mmm yyyy):

07 02 19

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC	Gases	UBC								
1		107	5	✓	5	x	x	xx	xx	xx								FIRE 21
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21				✓	5													
22																		
23																		
24																		

Profile type:

ROS TRM X-Niskin other?

Watchkeeper(s):

Me

Bottom Depth: 2364 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2235	1435
Bottom	2309	
End	2346	

Positional Information

Start
Lat: 48 ° 51.40 N
Lon: 129 ° 10.00 W

Bottom
Lat: 48 ° 51.43 N
Lon: 129 ° 10.02 W

End
Lat: 48 ° 51.42 N
Lon: 129 ° 10.03 W

Extra comments:

Fired #21 to test
DID NOT CLOSE

FORGOT TO PUT DEPTH IN
FILE

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P10 Event #: 30 Ship: Tully UTC Date (dd mmm yyyy): 08 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ☒ Pressure	Nut-F	Sal	Chl	HPLC	Gases	UBC					
1		108	5	☒	5	x	x	xx	xx	xx					
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20				☒	2005										
21				☒	2005										
22				☒	2005										
23				☒	5										
24															

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

Watchkeeper(s): MG

Bottom Depth: 2664 m

Transmisso Cleaned: ☒ Y / ☐ N

	UTC	Local
Start	0152	1752
Bottom	0225	
End	0303	

Positional Information

Start Lat: 48 ° 53.58 N

Start Lon: 129 ° 40.06 W

Bottom Lat: 48 ° 53.57 N

Bottom Lon: 129 ° 40.06 W

End Lat: 48 ° 53.58 N

End Lon: 129 ° 40.02 W

Extra comments:

Will also have loops

1x Sal, 2x Chl ✓

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P11 Event #: 32 Ship: Tully UTC Date (dd mmm yyyy): 08 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials						Comments							
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC	Gases	UBC								
1		109	5	✓ 5	x	x	xx	xx	xx									PAUSE STOP TO FIX LEAD
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): MG

Bottom Depth:	2776	m
Transmisso Cleaned:	(Y) / N	

Time	UTC	Local
Start	0501	2101
Bottom	0537	
End	0613	

Positional Information
Start
Lat: 48 ° 56.02 N
Lon: 130 ° 09.87 W

Bottom
Lat: 48 ° 55.99 N
Lon: 130 ° 09.69 W

End
Lat: 48 ° 55.90 N
Lon: 130 ° 09.44 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P12 Event #: 33 Ship: Tully UTC Date (dd mmm yyyy): 8 Feb 2019

			Rosette Operation		Samples Taken / Sampler's Initials												Comments
Niskin #	Firing #	Sample #	Target Pressure	Confirmed Pressure	UBC												
			✓	✓													
1	1	110	2000	✓ 2000	x												
2	2	111	2000	✓ ↓													
3	3	112	2000	✓ ↓													
4	4	113	2000	✓ ↓													
5	5	114	1000	✓ 1000	x												
6	6	115	1000	✓ ↓													
7	7	116	1000	✓ ↓													
8	8	117	1000	✓ ↓													
9	9	118	500	✓ 500	x												
10	10	119	500	✓ ↓													
11	11	120	500	✓ ↓													
12	12	121	500	✓ ↓													
13	13	122	10	✓ 10	x												
14	14	123	10	✓ ↓													
15	15	124	10	✓ ↓													
16	16	125	10	✓ ↓													
17																	
18																	
19																	
20																	
21	LT	TEST SRF															
22																	
23																	
24																	

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

Bottom Depth: 3255 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0818	0018
Bottom	0851	
End	0928	

Positional Information
Start
Lat: 48 ° 58 210 N
Lon: 130 ° 39 940 W

Bottom
Lat: 48 ° 58 240 N
Lon: 130 ° 40 030 W

End
Lat: 48 ° 58 250 N
Lon: 130 ° 40 070 W

Extra comments:
UBC cast

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001

Station: P12

Event #: 37

Ship: Tully

UTC Date (dd mmm yyyy): 8 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target	Confirmed	OXY	Sal	Nut-F	Nut-C	DIC	TOC	TOC	Gels	SAGs	DNA	Gases	DOC	CDOM	Cr	
			Pressure	✓ Pressure	✓ 1.0	RT	SS 1.4	SS	1.4	DH	SJ	SW	UBC	UBC	UBC				
1	2	126	Bot-10	✓ 3275	x		x	x	x	xx		x	x	x	xx			x	
2	3	127	3000	✓ 3000	x	xx	x	x	xx						xx			x	
3	4	128	3000	✓ 3000	x	x	x	x	x	xx		x	x	x					
4	5	129	2500	✓ 2500	x	x	x	x	x	xx		x						x	
5	6	130	2000	✓ 2000	xx	x	x	x	x	xx		x	x	x	xx			x	
6	7	131	1500	✓ 1500	x	xx	x	x	x	xx		x	x	x	xx			x	
7	8	132	1250	✓ 1250	x	x	xx	xx	x	xx		x	x	x	xx			x	
8	9	133	1000	✓ 1000	x	xx	x	x	x	xx		x	x	x	xx			x	
9	10	134	800	✓ 800	x		x	x	x	xx		x	x	x	xx			x	
10	11	135	600	✓ 600	xx		x	x	x	xx		x	x	x	xx			x	
11	12	136	400	✓ 400	x		x	x	x	xx		x	x	x	xx			x	
12	13	137	300	✓ 300	x		x		x	xx		x	x	x				x	
13	14	138	250	✓ 250	x		x		x	xx		x			xx			x	
14	15	139	200	✓ 200	x		x		x	xx		x	x	x	xx			x	
15	16	140	175	✓ 175	xx		x		x	xx		x						x	
16	17	141	150	✓ 150	x		xx		x	xx		x	x	x	xx			x	
17	18	142	125	✓ 125	x		x		x	xx		x						x	
18	19	143	100	✓ 100	x		x		x	xx		x	x	x	xx			x	
19	20	144	50	✓ 50	xx		x		x	xx		x	x	x	xx			x	
20	21	145	25	✓ 25	x		x		x	xx		x	x	x	xx			x	
21	22	146	10	✓ 10	Not Firing													TEST AGAIN	
22	23	147	10	✓ 10	x		x		x	xx		x	x	x				x	
23	24	148	5	✓ 5	x	x	x		x	xx		x			xx			x	
24	1	149	Bot-10	✓ 3275							xx						x	x	

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

Watchkeeper(s): MB

Bottom Depth: 3255 m

Transmissio Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1128	0328
Bottom	1227	
End	1341	

Positional Information

Start

Lat: 48 ° 58 190 N

Lon: 130 ° 40 030 W

Bottom

Lat: 48 ° 58 220 N

Lon: 130 ° 40 050 W

End

Lat: 48 ° 58 230 N

Lon: 130 ° 40 100 W

Extra comments:

Deep cast - OUT-OF-ORDER!

Plus OXY loops

2x IOS, 2x UBC

Bottle 21 Not Firing

Revised 75m Samples

Bot 2.1

Bot 21

— 1 —

100

100

Figure 1

2

2000

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P12 Event #: 38 Ship: Tully UTC Date (dd mmm yyyy): 8 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials								JW				Comments			
			Target Pressure	Confirmed Pressure	DMS	DMSP	DMSP	Nut-F		Chl	HPLC		TOC	DOC	CDOM					
					MR	t VP	d VP	LV		SW	MR/G		SJ	SW	SW					
1	1	150	300	✓ 300	x			x x												
2	2	151	200	✓ 200	x	x	x	x												
3	3	152	150	✓ 150	x	x	x	x												
4	4	153	100	✓ 100	x			x		x										
5	5	154	75	✓ 75	x			x		x										
6	6	155	60	✓ 60				x		x	x x									
7	7	156	50	✓ 50	x			x		x	x x									
8	9	157	40	✓ 41	x			x		x	x x									
9	10	158	30	✓ 30	x	x	x	x		x	x x									
10	11	159	25	✓ 25	x			x		x										
11	12	160	20	✓ 20	x x	x x	x x	x		x										
12	13	161	15	✓ 15	x			x		x x	x x									
13	14	162	10	✓ 10	x			x		x x										
14	15	163	5	✓ 5	x	x	x	x		x	x x									
15	16	164	0	✓ 4	x	x	x	x		x										
16	8	165	50	✓ 50									x	x	x					
17	17	166	0	✓ 4									x	x x	x x					
18																				
19																				
20																				
21																				
22																				
23																				
24																				

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

Bottom Depth: 3244 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1518	0718
Bottom	1525	
End	1541	

Positional Information
Start
Lat: 48 ° 58 250 N
Lon: 130 ° 40 070 W

Bottom
Lat: 48 ° 58 280 N
Lon: 130 ° 40 110 W

End
Lat: 48 ° 58 290 N
Lon: 130 ° 40 270 W

Extra comments:
DMS cast + TOC/DOC/CDOM
OUT-OF-ORDER!!!
1 to 7; 16; 8 to 15; 17

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P17 Event #: 39 Ship: Tully UTC Date (dd:mmm/yyyy): 9 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials						Comments								
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC	Gases	UBC									
1	1	167	5	✓ 5	x	x	xx	xx	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: 3721 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1058	0258
Bottom	1131	
End	1202	

Positional Information

Lat:	49 ° 20 940 N
Lon:	135 ° 40 040 W

Start

Lat: 49 ° 20 940 N
Lon: 135 ° 40 130 W

Bottom

Lat: 49 ° 20 980 N
Lon: 135 ° 40 220 W

End

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001

Station: P18

Event #: 41

Ship: Tully

UTC Date (dd mmm yyyy): 89 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	CHL	HPLC	Nut	Sal	DOC	Gels	Gases	TOC	Cr					
1		168	Bot-10							x		xx	x					
2		169	3500					x		x		xx	x					
3		170	3000					xx		x		xx	x					
4		171	2500					x		x		xx	x					
5	1	172	2000	✓ 1998				x		x		xx	x					
6	2	173	1750	✓ 1750				x		x		xx	x					
7	3	174	1500	✓ 1500				x		x		xx	x					
8	4	175	1250	✓ 1250				x		x		xx	x					
9	5	176	1000	✓ 1000				x		x		xx	x					
10	6	177	800	✓ 800				x		x		xx	x					
11	7	178	600	✓ 600				x		x		xx	x					
12	8	179	400	✓ 400				x		x		xx	x					
13	9	180	300	✓ 300				x		x		xx	x					
14	10	181	250	✓ 250				x		x		xx	x					
15	11	182	200	✓ 200				x		x		xx	x					
16	12	183	175	✓ 175				x		x		xx	x					
17	13	184	150	✓ 150				x		x		xx	x					
18	14	185	100	✓ 100				x		x		xx	x					
19	15	186	75	✓ 75				x		x		xx	x					
20	16	187	50	✓ 50				x		x		xx	x					
21																		
22	17	188	25	✓ 25				x		x		xx	x					
23	18	189	10	✓ 10				x		x		xx	x					
24	19	190	5	✓ 5				x		x		xx	x					

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

Bottom Depth:	3853 m
Transmisso Cleaned:	☒ Y / ☐ N

Time	UTC	Local
Start	1544	0744
Bottom	1618	
End	1708	

Positional Information
Start
Lat: 49 ° 25 900 N
Lon: 136 ° 40 000 W

Bottom
Lat: 49 ° 25 750 N
Lon: 136 ° 40 090 W

End
Lat: 49 ° 25 940 N
Lon: 136 ° 40 190 W

Extra comments:
TOC, Gels & Cr cast
AMENDED CAST
TO 2000m

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P19 Event #: 42 Ship: Tully UTC Date (dd mmm yyyy): 09 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials							Comments								
			Target	Confirmed	Nut-F	Sal	Chl	HPLC	Gases											
			Pressure	✓ Pressure					UBC											
1		191	5	✓	6.5	x	x	xx	xx	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): MG

Bottom Depth:	3946	m
Transmisso Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	2347	1547
Bottom	0022	
End	0059	

Positional Information	
Lat:	49 ° 29.98 N
Lon:	137 ° 39.86 W

Start

Bottom

Lat:	49 ° 30.00 N
Lon:	137 ° 39.89 W

End

Lat:	49 ° 30.01 N
Lon:	137 ° 39.90 W

Extra comments:
LOOP 1 SAL 2 CHL
@ 5m BOT
ARGO

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P20 Event #: 44 Ship: Tully UTC Date (dd mmm yyyy): 10 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓	Pressure	OXY	Sal	Nut-F	Nut-C	DIC	TOC		Gels	Gases	SAGs	DNA	Cr		
1		192	Bot-10	✓	4029	x x		x x	x x	x	x x		x	x x	x	x	x		
2		193	3500	✓	3499	x	x x	x	x	x x	x x		x				x		
3		194	3000	✓	3000	x	x	x	x	x	x x		x	x x	x	x	x		
4		195	2500	✓	2502	x x	x	x	x	x	x x		x				x		
5		196	2000	✓	1997	x	x x	x	x	x	x x		x	x x	x	x	x		
6		197	1500	✓	1499	x	x	x	x	x	x x		x	x x	x	x	x		
7		198	1250	✓	1249	x	x	x	x	x	x x		x	x x	x	x	x		
8		199	1000	✓	1001	x	x	x	x	x	x x		x	x x	x	x	x		
9		200	800	✓	800	x		x	x	x	x x		x	x x	x	x	x		
10		201	600	✓	603	x		x	x	x	x x		x	x x	x	x	x		
11		202	400	✓	402	x		x	x	x	x x		x	x x	x	x	x		
12		203	300	✓	300	x		x		x	x x		x		x	x	x		
13		204	250	✓	250	x x		x		x	x x		x	x x			x		
14		205	200	✓	200	x		x		x	x x		x	x x	x	x	x		
15		206	175	✓	176	x		x		x	x x		x				x		
16		207	150	✓	151	x		x		x	x x		x	x x	x	x	x		
17		208	125	✓	123	x		x x		x	x x		x				x		
18		209	100	✓	99	x		x		x	x x		x	x x	x	x	x		
19		210	75	✓	75	x x		x		x	x x		x				x		
20		211	50	✓	50	x		x		x	x x		x	x x	x	x	x		
21																			
22		212	25	✓	27	x		x		x	x x		x	x x	x	x	x		
23		213	10	✓	10	x		x		x	x x		x		x	x	x		
24		214	5	✓	5	x	x	x		x	x x		x	x x			x		

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

Bottom Depth:	<u>3980</u>	m
Transmisso Cleaned:		Y / N

Time	UTC	Local
Start	<u>0508</u>	<u>2108</u>
Bottom	<u>0617</u>	
End	<u>0753</u>	

Positional Information		
Lat:	<u>49 ° 34.02</u>	N
Lon:	<u>138 ° 39.99</u>	W

Start

Bottom

End

Lat:	<u>49 ° 33.96</u>	N
Lon:	<u>138 ° 40.08</u>	W

Lat:	<u>49 ° 33.96</u>	N
Lon:	<u>138 ° 40.08</u>	W

Extra comments:
Deep cast
Plus OXY loops
2x IOS, 2x UBC

Sampling Log

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

Cruise ID: 2019-001 **Station:** P21

Event #: 47

Ship: Tully

UTC Date (dd mmm yyyy): 10 FEB 2019

[illegible]

Profile type: ROS TRM X-Niskin other?

Watchkeeper(s): MB

Bottom Depth: 3975 m

Transmisso Cleaned: (Y) / N

<i>Time</i>	<i>UTC</i>	<i>Local</i>
Start	1314	0514
Bottom	1348	
End	1425	

Positional Information

Lat:	49	°	37	960	N
Lon:	139	°	40	010	W

Bottom	Lat:	49	°	38	050	N
	Lon:	139	°	46	080	W

End	Lat:	49	°	38	070	N
	Lon:	139	°	40	400	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001

Station: P22

Event #: 49

Ship: Tully

UTC Date (dd mmm yyyy): 10 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	CHL	HPLC	Nut	Sal	DOC	Gels	Gases	TOC						
1		216	Bot-10	✓ 3998						x		x x						
2		217	3500	✓ 3501				x		x		x x						
3		218	3000	✓ 3000				x x		x		x x						
4		219	2500	✓ 2500				x		x		x x						
5		220	2000	✓ 2001				x		x		x x						
6		221	1750	✓ 1751				x		x		x x						
7		222	1500	✓ 1501				x		x		x x						
8		223	1250	✓ 1250						x		x x						
9		224	1000	✓ 1002						x		x x						
10		225	800	✓ 800						x		x x						
11		226	600	✓ 601						x		x x						
12		227	400	✓ 401						x		x x						
13		228	300	✓ 300						x		x x						
14		229	250	✓ 250						x		x x						
15		230	200	✓ 200						x		x x						
16		231	175	✓ 175						x		x x						
17		232	150	✓ 150						x		x x						
18		233	100	✓ 100						x		x x						
19		234	75	✓ 75						x		x x						
20		235	50	✓ 50						x		x x						
21																		
22		236	25	✓ 25						x		x x						
23		237	10	✓ 10						x		x x						
24		238	5	✓ 5.6						x	x x	x x						

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

Bottom Depth:	4036	m
Transmisso Cleaned:	☒ (Y) ☐ (N)	

Time	UTC	Local
Start	1840	1040
Bottom	1947	
End	2128	

Positional Information
Lat: 49 ° 42 000 N
Lon: 140 ° 39 920 W

Start

Bottom

End

Lat: 49 ° 41.96 N
Lon: 140 ° 40.05 W

Lat: 49 ° 42.00 N
Lon: 140 ° 39.90 W

Extra comments:
TOC & Gels cast

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P26 Event #: 51 Ship: Tully UTC Date (dd mmm yyyy): 12 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	UBC										
1	1	239	2000	✓ 2000	x										
2	2	240	2000	✓											
3	3	241	2000	✓											
4	4	242	2000	✓											
5	5	243	1000	✓ 1000	x										
6	6	244	1000	✓											
7	7	245	1000	✓											
8	8	246	1000	✓											
9	9	247	500	✓ 500	x										
10	10	248	500	✓											
11	11	249	500	✓											
12	12	250	500	✓											
13	13	251	10	✓ 10	x										
14	14	252	10	✓ 10											
15	15	253	10	✓ 10											
16	16	254	10	✓ 10											
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 4263 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	1058	0258
Bottom	1131	
End	1208	

Positional Information
Start
Lat: 49 ° 59 970 N
Lon: 144 ° 59 960 W

Bottom
Lat: 49 ° 59 990 N
Lon: 145 ° 0 050 W

End
Lat: 49 ° 59 980 N
Lon: 145 ° 0 140 W

Extra comments:
UBC cast

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P26 Event #: 54 Ship: Tully UTC Date (dd mmm yyyy): 12 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments		
			Target Pressure	Confirmed ✓ Pressure	OXY	SAL	Nut-F	Nut-C	DIC	ALK	TOC	Gels	Gases	SAGs	DNA		Cr	
1	1	255	Bot-10		4319	x		x	x	x	x	xx	x	xx	x	x	x	
2	2	256	4000		4002	x	x	x	x	x	x	xx	x	xx	x	x	x	
3	3	257	3500	✓	3500	x	xx	x	x	xx	x	xx	x				x	
4	4	258	3000	✓	3000	xx	x	x	x	x	x	xx	x	xx	x	x	x	
5	5	259	2500	✓	2500	x	x	x	x	x	x	xx	x				x	
6	6	260	2000	✓	2000	x	x	x	x	x	x	xx	x	xx	x	x	x	
7	7	261	1500	✓	1500	x	x	x	x	x	x	xx	x	xx	x	x	x	
8	8	262	1250	✓	1250	xx	x	xx	xx	x	x	xx	x	xx	x	x	x	
9	9	263	1000	✓	1000	x	xx	x	x	x	x	xx	x	xx	x	x	x	
10	10	264	800	✓	800	x		x	x	x	x	xx	x	xx	x	x	x	
11	11	265	600	✓	600	x		x	x	x	x	xx	x	xx	x	x	x	
12	12	266	400	✓	400	xx		x	x	x	x	xx	x	xx	x	x	x	
13	13	267	300	✓	300	x		x		x	x	xx	x		x	x	x	
14	14	268	250	✓	250	x		x		x	x	xx	x	xx			x	
15	15	269	200	✓	200	x		x		x	x	xx	x	xx	x	x	x	
16	16	270	150	✓	150	x		x		x	x	xx	x	xx	x	x	x	
17	17	271	125	✓	125	x		xx		x	x	xx	x				x	
18	18	272	100	✓	100	x		x		x	x	xx	x	xx	x	x	x	
19	19	273	75	✓	75	xx		x		x	x	xx	x				x	
20	20	274	50	✓	50	x		x		x	x	xx	x	xx	x	x	x	
21																		
22	21	275	25	✓	25	x		x		x	x	xx	x	xx	x	x	x	
23	22	276	10	✓	10	x		x		x	x	xx	x		x	x	x	
24	23	277	5	✓	5	x	x	x	x	x	x	xx	x	xx			x	

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

Bottom Depth:	4263	m
Transmisso Cleaned:	(Y) / N	

Time	UTC	Local
Start	1316	0516
Bottom	1429	
End	1600	

Positional Information
Lat: 50 ° 0 014 N
Lon: 145 ° 0 088 W

Start

Bottom

End

Lat: 50 ° 00.01 N
Lon: 145 ° 00.25 W

Lat: 50 ° 0 077 N
Lon: 145 ° 0 469 W

Extra comments:
Deep cast
Plus OXY loops
2x IOS, 2x UBC

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001

Station: P26

Event #: 55

Ship: Tully

UTC Date (dd mmm yyyy): 12 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed ✓ Pressure	DMS	Nut-F	CHL	HPLC	Phyto	DA	DMPSt d	TOC DH	TOC SJ	DOC JS	CDOM SJ	PIC SJ		POC SJ
1	1	278	400	✓ 400								xx	x	x	x	x	x	
2	2	279	300	✓ 300	x	x						xx	x	x	x	x	x	
3	3	280	250	✓ 250								xx	x	x	x	x	x	
4	4	281	200	✓ 200	x	x					x	xx	x	xx	x	x	x	
5	5	282	175	✓ 175								xx	x	x	x	x	x	
6	6	283	150	✓ 150	x	x					x	xx	xx	x	x	x	x	
7	7	284	125	✓ 125								xx	x	x	x	x	x	
8	8	285	100	✓ 100	x	x	x					xx	x	x	x	x	x	
9	9	286	75	✓ 75	x	x	x					xx	x	x	xx	x	x	Bottle dripping (9)
10	10	287	60	✓ 60		x	x	xx										
11	11	288	50	✓ 50	x	x	x	xx										
12	12	289	50	✓ 50								xx	x	x	x	x	x	
13	13	290	40	✓ 40	x	x	x	xx										
14	14	291	30	✓ 30	x	xx	xx	xx			x							
15	15	292	25	✓ 25	x	x	x					xx	x	x	x	x	x	
16	17	293	15	✓ 15	x	x	x	xx										
17	18	294	10	✓ 10	x	x	x					xx	x	x	x	xx	x	
18	19	295	5	✓ 5	x	x					x	xx	x	x	x	x	xx	
19	20	296	5	✓ 5		x	x	xx	xxx	x								
20	21	297	0	✓ 4.1	x	x	x				x		x	x	x			
21																		
22	16	298	20	✓ 20	xx	x	xx				xx							
23																		
24																		

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

Bottom Depth:	4262	m
Transmisso Cleaned:	☒ Y / ☐ N	

	UTC	Local
Start	1746	0946
Bottom	1752	
End	1815	

Positional Information
Start
Lat: 50 ° 0 000 N
Lon: 145 ° 0 000 W

Start

Bottom

End

Bottom
Lat: 49 ° 59 996 N
Lon: 145 ° 0 070 W

End
Lat: 49 ° 59 990 N
Lon: 145 ° 0 220 W

Extra comments:
"C", DMS and HPLC cast
OUT-OF-ORDER!!
Check for 20 m bottle

289	289
PIC	POC
P26	P26
50 m	50 m
2019-001	2019-001
Bot 12	Bot 12

294 B
PIC
P26
10 m
2019-001
Bot 17

← Miscommunication
about collecting this
water... it ended up not
being collected. //

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001

Station: P25

Event #: 59

Ship: Tully

UTC Date (dd mmm yyyy): 13 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Nut-F	Sal	Chl	HPLC	Gases	UBC					
1		299	2005	✓ 2004		x									Cubitainer A
2		300	2005	✓		x									Cubitainer A
3		301	2005	✓		x									Cubitainer A
4		302	2005	✓		x									Cubitainer B
5		303	2005	✓		x									Cubitainer B
6		304	2005	✓		x									Cubitainer B
7		305	2005	✓		x									Case 1
8		306	2005	✓		x									Case 2
9		307	2005	✓		x									Case 3
10		308	2005	✓		x									Spare
11		309	600	✓ 601	x										10 L for nutrients
12		310	5	✓ 5	x										10 L for nutrients
13		311	5	✓ 5	x	x	xx	xx	xx						
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth:	4161	m
Transmisso Cleaned:	Y	N

Time	UTC	Local
Start	0052	1652
Bottom	0126	
End	0208	

Positional Information
Lat: 50 ° 00.08 N
Lon: 143 ° 36.22 W

Start

Bottom

End

Lat: 50 ° 00.16 N
Lon: 143 ° 36.20 W

Lat: 50 ° 00.16 N
Lon: 143 ° 36.25 W

Extra comments:
Salinity cubitainers and storage experiment PLUS
10 L NUTS X 2
LOOP 1 SAL 2019

Water Properties Group

Sampling Log

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

Cruise ID:

2019-001

Station:

P24

Event #: 60

Ship: Tully

UTC Date (dd mmm, yyyy): 13 02 2019

Cruise ID: 2019-001			Station: 124		Event: 1												Comments		
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials						Gels	Gases	TOC	TOC	DOC	CDOM	PIC	POC	
			Target Pressure	Confirmed Pressure	Oxy	DIC	Nut-F	Sal											
				✓		MC/15	RL	15			JW	RL	DH	SJ	JS	SJ	SJ	SJ	
1		312	Bot -10								X		xx						} NOT CLOSED, CAST STOPPED @ 2000 m
2		313	3500						X		X		xx						
3		314	3000						xx		X		xx						
4		315	2500						x		X		xx						
5		316	2000	✓	2000				xx		X		xx						
6		317	1750	✓	1751				x		X		xx						
7		318	1500	✓	1501				x		X		xx						
8		319	1250	✓	1250						X		xx						
9		320	1000	✓	1000						X		xx						
10		321	800	✓	801			x	x		X		xx						
11		322	600	✓	602			x	x		X		xx						LEAKING Bottom CIP NOT SEALED WELL
12		323	400		400	x	xx	x											
13		324	400		402						X		xx	x	x	x	x	x	
14		325	300		300	x	x	x											
15		326	300		299						X		xx	x	x	x	x	x	
16		327	250		251	x	x	x											
17		328	250		250						X		xx	x	x	x	x	x	
18																			
19																			
20																			
21																			
22																			
23																			
24																			

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

Bottom Depth: 4002 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0533	2133
Bottom	0606	
End	0655	

Positional Information

Lat:	49 ° 50.19	N
Lon:	142 ° 40.08	W

Start

Lat:	49 ° 50.20	N
Lon:	142 ° 40.09	W

Bottom

Lat:	49 ° 50.18	N
Lon:	142 ° 40.08	W

End

Extra comments:
"C" cast

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: P24 Event #: 61 Ship: Tully UTC Date (dd mmm yyyy): 13 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials								Comments							
			Target Pressure	Confirmed ✓ Pressure	Oxy	DIC	Nut-F	Sal	CHL	Gels	Gases	TOC	TOC	DOC	CDOM	PIC	POC			
									HPLC			DH	SJ	JS	SJ	SJ	SJ			
1		329	200	✓ 202	x	x	x													
2		330	200	✓ 201						x		xx	x	x	x	x	x			
3		331	175	✓ 177	xx	x	x													
4		332	175	✓ 174						x		xx	x	xx	x	x	x			
5		333	150	✓ 149	x	x	xx													
6		334	150	✓ 151						x		xx	xx	x	x	x	x			
7		335	125	✓ 124	x	x	x													
8		336	125	✓ 124						x		xx	x	x	x	x	x			
9		337	100	✓ 100	x	x	x													
10		338	100	✓ 100						x		xx	x	x	x	x	x			
11		339	75	✓ 76	xx	x	x													
12		340	75	✓ 76						x		xx	x	x	x	x	x			
13		341	50	✓ 50	x	x	x													
14		342	50	✓ 49						x		xx	x	x	x	x	x			
15		343	25	✓ 25	x	x	x													
16		344	25	✓ 25						x		xx	x	x	x	xx	xx			
17		345	10	✓ 11	x	x	x													
18		346	10	✓ 11						x		xx	x	x	xx	x	x			
19		347	5	✓ 5	xx	x	x													
20		348	5	✓ 5						x		xx	x	x	x	x	x			
21																				
22		349	5	✓ 5			x	x	xx		xx									
23		350	0	✓ 3									x	x	x					
24																				

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

Bottom Depth:	<u>4001</u> m
Transmissio Cleaned:	☒ Y / ☐ N

Time	UTC	Local
Start	<u>0728</u>	<u>2328</u>
Bottom	<u>0732</u>	
End	<u>0751</u>	

Positional Information
Start
Lat: <u>49 ° 50.19</u> N
Lon: <u>142 ° 40.03</u> W

Bottom
Lat: <u>49 ° 50.22</u> N
Lon: <u>142 ° 40.02</u> W

End
Lat: <u>49 ° 50.26</u> N
Lon: <u>142 ° 40.03</u> W

Extra comments:
"C" cast

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: DIX5 Event #: 67 Ship: Tully UTC Date (dd mmm yyyy): 15 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target	Confirmed	Oxy	Nut-t	DIC	Sal	Cr										
			Pressure	✓ Pressure															
1		351	Bot-5	✓	452	x	x	x		x									
2		352	400	✓	400	x	x	xx		x									
3		353	350	✓	350	xx	x	x		x									
4		354	300	✓	299	x	xx	x		x									
5		355	250	✓	250	x	x	x		x									
6		356	200	✓	199	x	x	x		x									
7		357	175	✓	175	x	x	x		x									
8		358	150	✓	150	x	x	x		x									
9		359	125	✓	125	x	x	x		x									
10		360	100	✓	100	x	x	x		x									
11		361	75	✓	75	x	x	x		x									
12		362	50	✓	50	x	x	x		x									
13		363	30	✓	31	xx	x	x		x									
14		364	20	✓	20	x	x	x		x									
15		365	10	✓	10	x	x	x		x									
16		366	5	✓	4	x	x	x	x	x									
17		367	0	✓	2.8	x	x	x	x	x									
18																			
19																			
20																			
21																			
22																			
23																			
24																			

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

Bottom Depth: 456 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0651	2251
Bottom	0659	
End	0724	

Positional Information
Start
Lat: 54 ° 26.02 N
Lon: 133 ° 20.08 W

Bottom
Lat: 54 ° 20.01 N
Lon: 133 ° 20.10 W

End
Lat: 54 ° 19.95 N
Lon: 133 ° 20.14 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: DIX3 Event #: 70 Ship: Tully UTC Date (dd mmm yyyy): 15 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure			Cr								
1	1	368	Bot-10	✓ 356			xxx								
2	2	369	300	✓ 300			xxx								
3	3	370	250	✓ 250			xxx								
4	4	371	200	✓ 200			xxx								
5	5	372	175	✓ 175			xxx								
6	6	373	150	✓ 150			xxx								
7	7	374	125	✓ 125			xxx								
8	8	375	100	✓ 100			xxx								
9	9	376	75	✓ 75			xxx								
10	10	377	50	✓ 50			xxx								
11	11	378	25	✓ 25			xxx								
12	12	379	10	✓ 10			xxx								
13	13	380	5	✓ 5			xxx								
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>363</u>	m
Transmisso Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	<u>1323</u>	<u>05</u>
Bottom	<u>1329</u>	
End	<u>1345</u>	

Positional Information
Start
Lat: <u>54 ° 28 730 N</u>
Lon: <u>132 ° 17 940 W</u>

Bottom
Lat: <u>54 ° 28 790 N</u>
Lon: <u>132 ° 17 960 W</u>

End
Lat: <u>54 ° 29 010 N</u>
Lon: <u>132 ° 18 020 W</u>

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: HECS5 Event #: 74 Ship: Tully UTC Date (dd mmm yyyy): 15 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18					
						MC/MA				JAZ	+ ROBERT							
1		381	Bot-5	✓	84	x	x			x	x							
2		382	75	✓	75	x	x				x							
3		383	50	✓	50	x	x			x	x							
4		384	30	✓	30	x	x			x	x							
5		385	20	✓	20	x	x x			x	x							
6		386	10	✓	10	x x	x			x	x							
7		387	5	✓	5	x	x		x	x	x							
8		388	0	✓	2.3	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): MG

Bottom Depth:	84	m
Transmissio Cleaned:	☒ Y / ☐ N	

	UTC	Local
Start	2225	1425
Bottom	2229	
End	2240	

Positional Information	
Start	Lat: 53 ° 56.14 N
	Lon: 131 ° 00.40 W

Bottom	Lat: 53 ° 56.14 N
	Lon: 131 ° 00.38 W

End	Lat: 53 ° 56.14 N
	Lon: 131 ° 00.37 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: HECS6 Event #: 75 Ship: Tully UTC Date (dd mmm yyyy): 16 02 19

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18						
					MG/MA	MG	RI/MA		LAZ									
1		389	Bot-5	✓ 106	x	x	x		x	x								
2		390	75	✓ 75	x x	x	x											
3		391	50	✓ 50	x	x	x		x	x								
4		392	30	✓ 30	x	x	x		x	x								
5		393	20	✓ 20	x	x	x		x	x								
6		394	10	✓ 10	x	x	x		x	x								
7		395	5	✓ 5	x	x x	x	x	x	x								
8		396	0	✓ 2.7	x	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): MG

Bottom Depth: 107 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0134	1734
Bottom	0136	
End	0150	

Positional Information

Lat:	54 °	07.38	N
Lon:	131 °	02.53	W

Start

▼

Lat:	54 °	07.38	N
Lon:	131 °	02.52	W

Bottom

▼

Lat:	54 °	07.44	N
Lon:	131 °	02.60	W

End

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2019-001

Station:

HECS7

Event #: 76

Ship: Tully

UTC Date (dd:mmm:yyyy): 16 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	d018					
						MG/1B	MG/1B		1B	JAB + ROBERT								
1		397	Bot-5	✓	119	x	x			x	x							
2		398	100	✓	100	x	x											
3		399	75	✓	75	x	x			x	x							
4		400	50	✓	50	x	x											
5		401	30	✓	30	xx	x			x	x							
6		402	20	✓	20	x	x			x	x							
7		403	10	✓	10	x	x			x	x							
8		404	5	✓	5	x	x		x	x	x							
9		405	0	✓	2.5	x	xx		x	x	x							
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth:	120	m
Transmisso Cleaned:	(Y) / N	

Time	UTC	Local
Start	0248	1824
Bottom	0252	
End	0305	

Positional Information
Start
Lat: 54 ° 13.70 N
Lon: 131 ° 02.20 W

Bottom
Lat: 54 ° 13.70 N
Lon: 131 ° 02.18 W

End
Lat: 54 ° 13.69 N
Lon: 131 ° 02.19 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: HECS8 Event #: 77 Ship: Tully UTC Date (dd mmm yyyy): 16 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Cr				
						MG/18	18/121			12	+ ROBERT			18				
1		406	Bot-5	✓	112	x	x			x	x			x				
2		407	100	✓	100	x	x x			x	x			x				
3		408	75	✓	75	x	x			x	x			x				
4		409	50	✓	50	x	x			x	x			x				
5		410	30	✓	30	x	x			x	x			x				
6		411	20	✓	20	x	x			x	x			x				
7		412	10	✓	10	x	x			x	x			x				
8		413	5	✓	5	x x	x		x	x	x			x				
9		414	0	✓	2.6	x	x		x	x	x	x	x	x				
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 112 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0427	2027
Bottom	0430	
End	0442	

Positional Information
Start
Lat: 54 ° 23.16 N
Lon: 131 ° 05.42 W

Bottom
Lat: 54 ° 23.16 N
Lon: 131 ° 05.41 W

End
Lat: 54 ° 23.19 N
Lon: 131 ° 05.39 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: EDR Event #: 79 Ship: Tully UTC Date (dd mmm yyyy): 16 02 2019

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18		Cr						
1	1	415	Bot-5	✓	329	x	x			x	x									
2	2	416	300	✓	300	x	x													
3	3	417	250	✓	250	x	x			x	x									
4	4	418	200	✓	200	x x	x													
5	5	419	175	✓	175	x	x x			x	x									
6	6	420	150	✓	150	x	x			x	x									
7	7	421	125	✓	125	x	x			x	x									
8	8	422	100	✓	100	x	x			x	x									
9	9	423	75	✓	75	x	x			x	x									
10	10	424	50	✓	50	x	x			x	x									
11	11	425	30	✓	30	x x	x			x	x									
12	12	426	20	✓	20	x	x			x	x									
13	13	427	10	✓	10	x	x x			x	x									
14	14	428	5	✓	5	x	x		x	x	x									
15	15	429	0	✓	2.5	x	x		x	x	x									
16																				
17																				
18																				
19																				
20																				
21																				
22																				
23																				
24																				

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

Bottom Depth:	330	m
Transmissio Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	0736	2336
Bottom	0743	
End	0801	

Positional Information		
Lat:	54 ° 40.85	N
Lon:	131 ° 12.64	W

Start

Lat:	54 ° 40.86	N
Lon:	131 ° 12.63	W

Bottom

Lat:	54 ° 40.950	N
Lon:	131 ° 12.610	W

End

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH3 Event #: 80 Ship: Tully UTC Date (dd mmm yyyy): 16 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18		Cr				
1	1	430	Bot-5	✓ 568	x	x x			x	x								
2	2	431	500	✓ 500	x	x		x										
3	3	432	450	✓ 450	x x	x		x	x	x								
4	4	433	400	✓ 400	x	x												
5	5	434	350	✓ 350	x	x			x	x								
6	6	435	300	✓ 300	x	x			x	x								
7	7	436	250	✓ 250	x	x			x	x								
8	8	437	200	✓ 200	x	x			x	x								
9	9	438	175	✓ 175	x	x			x	x								
10	10	439	150	✓ 150	x	x			x	x								
11	11	440	125	✓ 125	x	x			x	x								
12	12	441	100	✓ 100	x	x			x	x								
13	13	442	75	✓ 75	x x	x			x	x								
14	14	443	50	✓ 50	x	x			x	x								
15	15	444	30	✓ 30	x	x			x	x								
16	16	445	20	✓ 20	x	x			x	x								
17	17	446	10	✓ 10	x	x x			x	x								
18	18	447	5	✓ 5	x	x		x	x	x								
19	19	448	0	✓ 28	x	x		x	x	x	x	x						
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth:	555 m
Transmisso Cleaned:	☒ Y ☐ N

Time	UTC	Local
Start	14 39	06 39
Bottom	14 50	
End	15 14	

Positional Information		
Lat:	54 ° 41 380	N
Lon:	130 ° 55 470	W

Start

Bottom

Lat:	54 ° 41 420	N
Lon:	130 ° 55 360	W

End

Lat:	54 ° 41 540	N
Lon:	130 ° 55 070	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: AB1 Event #: 81 Ship: Tully UTC Date (dd/mm/yyyy): 16 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-p	DIC	Sal	TOC	DOC	CDOM	dO18		Cr				
1	1	464	Bot-5	✓	189		x											
2	2	465	150	✓	150		x											
3	3	466	125	✓	125		x											
4	4	467	100	✓	100		x											
5	5	468	75	✓	75		x											
6	6	469	50	✓	50		x											
7	7	470	30	✓	30		x											
8	8	471	20	✓	20		x											
9	9	472	10	✓	10		x											
10	10	473	5	✓	5		x											
11	11	474	0	✓	25		x		x									
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth:	<u>189</u> m
Transmisso Cleaned:	☒ Y ☐ N

Time	UTC	Local
Start	1700	0900
Bottom	1704	
End	1716	

Positional Information	
Start	
Lat:	<u>54 ° 42 120 N</u>
Lon:	<u>130 ° 38 370 W</u>

Bottom	
Lat:	<u>54 ° 42 146 N</u>
Lon:	<u>130 ° 38 380 W</u>

End	
Lat:	<u>54 ° 42 170 N</u>
Lon:	<u>130 ° 38 380 W</u>

Extra comments:
Plastic bottles for nutrients

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH2 Event #: 82 Ship: Tully UTC Date (dd mmm yyyy): 16 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18		Cr					
1	1	449	Bot-5	✓ 303	x	x x	x		x	x									
2	2	450	300	✓ 300	x	x	x												
3	3	451	250	✓ 250	x x	x	x		x	x									
4	4	452	200	✓ 200	x	x	x		x	x									
5	5	453	175	✓ 175	x	x	x		x	x									
6	6	454	150	✓ 150	x	x	x x		x	x									
7	7	455	125	✓ 125	x	x	x		x	x									
8	8	456	100	✓ 100	x	x	x		x	x									
9	9	457	75	✓ 75	x	x	x		x	x									
10	10	458	50	✓ 50	x	x x	x		x	x									
11	11	459	30	✓ 30	x	x	x		x	x									
12	12	460	20	✓ 20	x	x	x		x	x									
13	13	461	10	✓ 10	x x	x	x		x	x									
14	14	462	5	✓ 5	x	x	x	x	x	x									
15	15	463	0	✓ 2.5	x	x	x	x	x	x	x	x							
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

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

Bottom Depth: 303 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	18:12	10:12
Bottom	18:17	10:17
End	18:35	10:35

Positional Information
Start
Lat: 54 ° 39.80 N
Lon: 130 ° 38.23 W

Bottom
Lat: 54 ° 39.818 N
Lon: 130 ° 38.250 W

End
Lat: 54 ° 39.85 N
Lon: 130 ° 38.250 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH1 Event #: 83 Ship: Tuily UTC Date (dd mmm yyyy): 16 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Nut-p	Cr				
							R1			R1/MA/13/LW				MA	13	JW	JW	
1		475	Bot-5	✓	610		x							x	x			ALTIMETER NOT WORKING
2		476	500	✓	500		x		x					x	x			
3		477	450	✓	450		x		x					x	x			
4		478	400	✓	400		x		x					x	x			
5		479	350	✓	350		x							x	x			
6		480	300	✓	300		x							x	x			
7		481	250	✓	250		x x							x x	x			
8		482	200	✓	200		x							x	x			
9		483	175	✓	175		x							x	x			
10		484	150	✓	150		x							x	x			
11		485	125	✓	125		x							x	x			
12		486	100	✓	100		x							x	x			
13		487	75	✓	75		x							x	x			
14		488	50	✓	50		x							x	x			
15		489	30	✓	30		x							x	x			
16		490	20	✓	20		x							x	x			
17		491	10	✓	10		x							x	x			
18		492	5	✓	5		x		x					x	x			
19		493	0	✓	2.4		x		x					x	x	x x	x x	
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 616 m
Transmissio Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2014	1214
Bottom	2027	
End	2104	

Positional Information

Lat:	54 °	41.72	N
Lon:	130 °	27.15	W

Start

▼

Lat:	54 °	41.72	N
Lon:	130 °	27.17	W

Bottom

▼

Lat:	54 °	41.72	N
Lon:	130 °	27.18	W

End

Extra comments:
Nutrient tube & plastic
comparison

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH6

Event #: 85

Ship: Tully

UTC Date (dd mmm yyyy): 16 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	do18	Cr	Grases		
1		494	Bot-5	✓	246		x									
2		495	200	✓	199		x									ALTIMETER NOT WORKING
3		496	175	✓	175		x									
4		497	150	✓	150		x									
5		498	125	✓	125		x									
6		499	100	✓	100		x									
7		500	75	✓	75		x									
8		501	50	✓	50		x									
9		502	30	✓	30		x									
10		503	20	✓	20		x									
11		504	10	✓	10		x									
12		505	5	✓	5		x									
13		506	0	✓	2.4		x							xx		
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

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

Watchkeeper(s): MG

Bottom Depth: 243 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	2248	1448
Bottom	2255	
End	2316	

Positional Information

Start
Lat: 54 ° 34.91 N
Lon: 130 ° 31.86 W

Bottom
Lat: 54 ° 34.96 N
Lon: 130 ° 31.97 W

End
Lat: 54 ° 35.11 N
Lon: 130 ° 31.95 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH5 Event #: 86 Ship: Tully UTC Date (dd mmm yyyy): 16 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18			
					Mg/RJ	MA/RJ	MA/RJ		JW						
1		507	Bot-5	✓	137	x	x	x		x	x				
2		508	125	✓	125	x	x				x				FLAKY ALTIMETER
3		509	100	✓	100	x	xx	x		x	x				
4		510	75	✓	75	x	x			x	x				
5		511	50	✓	50	x	x	x		x	x				
6		512	30	✓	30	x	x	x		x	x				
7		513	20	✓	20	x	x	x		x	x				
8		514	10	✓	10	x	x	x		x	x				
9		515	5	✓	5	xx	x	x	x	x	x				
10		516	0	✓	2.4	x	x	x	x	x	x	x	x		
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 139 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2355	1555
Bottom 17	0000	
End	0014	

Positional Information
Start
Lat: 54 ° 33.71 N
Lon: 130 ° 37.59 W

Bottom
Lat: 54 ° 33.72 N
Lon: 130 ° 37.57 W

End
Lat: 54 ° 33.71 N
Lon: 130 ° 37.52 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH4 Event #: 87 Ship: Tully UTC Date (dd|mmm|yyyy): 17|02|2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18		Cr		
						RI/MA		MA								
1		517	Bot-5	✓ 70		x										Hit Bottom
2		518	50	✓ 50		x										
3		519	30	✓ 30		x										
4		520	20	✓ 20		x										
5		521	10	✓ 10		x										
6		522	5	✓ 5		x		x								
7		523	0	✓ 2.3		x		x								
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): MG

Bottom Depth: 80 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	0048	1648
Bottom	6053	
End	0103	

Positional Information

Lat:	54 ° 32.41	N
Lon:	130 ° 30.47	W

▼

Lat:	54 ° 32.41	N
Lon:	130 ° 43.46	W

▼

Lat:	54 ° 32.42	N
Lon:	130 ° 43.53	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH11 Event #: 88 Ship: Tully UTC Date (dd mmm yyyy): 17 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Cr		
						1B/21		MG							
1		524	Bot-5	✓	121		x								
2		525	100	✓	100		x								
3		526	75	✓	75		x								
4		527	50	✓	50		x								
5		528	30	✓	30		x								
6		529	20	✓	20		x								
7		530	10	✓	10		x								
8		531	5	✓	5		x		x						
9		532	0	✓	2.4		x		x						
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth:	120	m
Transmissio Cleaned:	Y / N	

Time	UTC	Local
Start	0207	1807
Bottom	0211	
End	0223	

Positional Information		
Lat:	54 ° 29.92	N
Lon:	130 ° 33.58	W

Start

Lat:	54 ° 29.94	N
Lon:	130 ° 33.57	W

Bottom

Lat:	54 ° 29.92	N
Lon:	130 ° 33.61	W

End

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH10 Event #: 89 Ship: Tully UTC Date (dd mmm yyyy): 17 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Oxy	Nut-b	DIC	Sal	TOC	DOC	CDOM	dO18	Cr				
							R1/1B		MG									
1		533	Bot-5	✓	77		x											
2		534	50	✓	50		x											
3		535	30	✓	30		x											
4		536	20	✓	20		x											
5		537	10	✓	10		x											
6		538	5	✓	5		x											
7		539	0	✓	2.5		x		x									
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): MG

Bottom Depth: 78 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0306	2006
Bottom	0309	19
End	0318	

Positional Information
Start
Lat: 54 ° 26.78 N
Lon: 130 ° 39.26 W

Bottom
Lat: 54 ° 26.78 N
Lon: 130 ° 39.25 W

End
Lat: 54 ° 26.79 N
Lon: 130 ° 39.28 W

Extra comments:
Plastic bottles for nuts

Cruise ID:

2019-001

Station:

CH13

Event #:

90

Ship:

Tully

UTC Date (dd/mm/yyyy):

17 02 2019

Cruise ID: 2019-001			Station: C113		Event ID: 1										Comments				
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Cr				
			Target Pressure	Confirmed Pressure	Oxy	Nut-b	DIC	Sal	TOC	DOC	CDOM	dO18							
				✓		R1/13		MG											
1		540	Bot-5	✓	151		x												
2		541	125	✓	125		x												
3		542	100	✓	100		x												
4		543	75	✓	75		x												
5		544	50	✓	50		x												
6		545	30	✓	30		x												
7		546	20	✓	20		x												
8		547	10	✓	10		x												
9		548	5	✓	5		x												
10		549	0	✓	2.5		x		x										
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

http://www.pa

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

Watchkeeper(s): MG

Bottom Depth: 152 m

Transmisso Cleaned: ☒ Y ☐ N

	UTC	Local
Start	0357	2057
Bottom	0401	A
End	0415	

Positional Information

Start

Lat: 54 ° 23.06 N

Lon: 130 ° 39.02 W

Bottom

Lat: 54 ° 23.07 N

Lon: 130 ° 39.04 W

End

Lat: 54 ° 23.08 N

Lon: 130 ° 38.99 W

Extra comments:

Plastic bottles for nuts

Water Properties Group

Sampling Log

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

Cruise ID:

2019-001

Station:

CH12

Event #:

91

Ship:

Tully

UTC Date (dd mmm yyyy):

17 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials														Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut-b	DIC	Sal	TOC	DOC	CDOM	dO18		Cr					
				✓		R1/M6		13											
1		550	Bot-5	✓	142		x												
2		551	125	✓	125		x												
3		552	100	✓	100		x												
4		553	75	✓	75		x												
5		554	50	✓	50		x												
6		555	30	✓	30		x												
7		556	20	✓	20		x												
8		557	10	✓	10		x												
9		558	5	✓	5		x												
10		559	0	✓	215		x		x										
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

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

Bottom Depth: 144 m
Transmisso Cleaned: Y / N

	UTC	Local
Start	0451	2051
Bottom	0455	
End	0507	

Positional Information

Lat:	54 ° 23.70	N
Lon:	130 ° 33.97	W

Start

Lat:	54 ° 23.72	N
Lon:	130 ° 33.97	W

Bottom

Lat:	54 ° 23.72	N
Lon:	130 ° 33.92	W

End

Extra comments:
Plastic bottles for nuts

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH17 Event #: 92 Ship: Tully UTC Date (dd mmm yyyy): 17 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-b	DIC	Sal	TOC	DOC	CDOM	dO18		Cr	
						RI/RB		MG							
1		560	Bot-5	✓ 86		x									
2		561	50	✓ 50		x									
3		562	30	✓ 30		x x									
4		563	20	✓ 20		x									
5		564	10	✓ 10		x									
6		565	5	✓ 5		x									
7		566	0	✓ 2.5		x		x							
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): MG

Bottom Depth: 87 m
 Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0541	2141
Bottom	0544	
End	0551	

Positional Information

Lat:	54 ° 20.52	N
Lon:	130 ° 33.34	W

▼

Lat:	54 ° 20.53	N
Lon:	130 ° 33.32	W

▼

Lat:	54 ° 20.53	N
Lon:	130 ° 30.28	W

Extra comments:
 Plastic bottles for nuts

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH15 Event #: 93 Ship: Tully UTC Date (dd mmm yyyy): 17 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Oxy	Nut-b	DIC	Sal	TOC	DOC	CDOM	dO18	Cr				
							R/16		MG									
1		567	Bot-5	✓	187		x											
2		568	175	✓	175		x											
3		569	150	✓	150		x											
4		570	125	✓	125		x											
5		571	100	✓	100		x											
6		572	75	✓	75		x x											
7		573	50	✓	50		x											
8		574	30	✓	30		x											
9		575	20	✓	20		x											
10		576	10	✓	10		x											
11		577	5	✓	5		x									LEAKING BOTTOM CAP		
12		578	0	✓	2.4		x		x									
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

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

Time	UTC	Local
Start	0638	2238
Bottom	0643	
End	0648	

Positional Information

Lat:	54 °	18.43	N
Lon:	130 °	42.50	W

▼

Lat:	54 °	18.44	N
Lon:	130 °	42.50	W

▼

Lat:	54 °	18.43	N
Lon:	130 °	42.50	W

Extra comments:
Plastic bottles for nuts

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH14 Event #: 94 Ship: Tully UTC Date (dd mmm yyyy): 17 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18		Cr		
1	1	579	Bot-5	✓ 124	x	x			x	x						
2	2	580	100	✓ 100	x	x			x	x						
3	3	581	75	✓ 75	xx	x			x	x						
4	4	582	50	✓ 50	x	x			x	x						
5	5	583	30	✓ 30	x	x			x	x						
6	6	584	20	✓ 20	x	xx			x	x						
7	7	585	10	✓ 10	x	x			x	x						
8	8	586	5	✓ 5	x	x			x	x						
9	9	587	0	✓ 2.3	x	x		x	x	x	x	x				
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: 127 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	14 53	06 53
Bottom	14 57	
End	15 06	

Positional Information
Start
Lat: 54 ° 20 570 N
Lon: 130 ° 49 700 W

Bottom
Lat: 54 ° 20 590 N
Lon: 130 ° 49 710 W

End
Lat: 54 ° 20 550 N
Lon: 130 ° 49 650 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CHAT2A Event #: 95 Ship: Tully UTC Date (dd mmm yyyy): 17 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18		Nut-p				
1	1	588	Bot-5	✓ 182	x	x	x		x	x				x				
2	2	589	175	✓ 175	x	x	x		x	x				x				
3	3	590	150	✓ 150	xx	x	x		x	x				x				
4	4	591	125	✓ 125	x	x	xx		x	x				x				
5	5	592	100	✓ 100	x	x	x		x	x				x				
6	6	593	75	✓ 75	x	xx	x		x	x				xx				
7	7	594	50	✓ 50	x	x	x		x	x				x				
8	8	595	30	✓ 30	x	x	x		x	x				x				
9	9	596	20	✓ 20	x	x	x		x	x				x				
10	10	597	10	✓ 10	x	x	x		x	x				x				
11	11	598	5	✓ 5	x	x	x	x	x	x				x				
12	12	599	0	✓ 2.4	x	x	x	x	x	x	x	x		x				
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 184 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	15 54	08 57
Bottom	15 57	
End	16 09	

Positional Information

Lat:	54 ° 16	150	N
Lon:	130 ° 46	640	W

Bottom

Lat:	54 ° 16	160	N
Lon:	130 ° 46	622	W

End

Lat:	54 ° 16	220	N
Lon:	130 ° 46	620	W

Extra comments:
Both plastic bottles and regular tubes for nutrients

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH20 Event #: 96 Ship: Tully UTC Date (dd mmm yyyy): 17 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed Pressure	Oxy	Nut-p	DIC	Sal	TOC	DOC	CDOM	dO18	Nut-p					
1	1	600	Bot-5	✓	153		x											
2	2	601	125	✓	125		x											
3	3	602	100	✓	100		x											
4	4	603	75	✓	75		x											
5	5	604	50	✓	50		x											
6	6	605	30	✓	30		x x											
7	7	606	20	✓	20		x											
8	8	607	10	✓	9.4		x											
9	9	608	5	✓	5		x											
10	10	609	0	✓	2.8		x		x									
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): MB & LICBottom Depth: 154 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	17:00	09:00
Bottom	17:04	09:04
End	17:15	09:15

Positional Information
Start
Lat: 54 ° 13.48 N
Lon: 130 ° 43.82 WBottom
Lat: 54 ° 13.52 N
Lon: 130 ° 43.82 WEnd
Lat: 54 ° 13.53 N
Lon: 130 ° 43.86 WExtra comments:
Plastic bottles for nuts

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH21 Event #: 97 Ship: Tully UTC Date (dd mmm yyyy): 17 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-p	DIC	Sal	TOC	DOC	CDOM	dO18		Nut-p					
1	1	610	Bot-5	✓	120		x												
2	2	611	100	✓	100		x												
3	3	612	75	✓	75		x												
4	4	613	50	✓	50		x												
5	5	614	30	✓	30		x												
6	6	615	20	✓	20		x x												
7	7	616	10	✓	10		x												
8	8	617	5	✓	5		x												
9	9	618	0	✓	25		x		x										
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: 121 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	18 16	10 16
Bottom	18 19	
End	18 28	

Positional Information
Start Lat: 54 ° 11 970 N
Lon: 130 ° 39 250 W

Bottom Lat: 54 ° 11 960 N
Lon: 130 ° 39 270 W

End Lat: 54 ° 11 970 N
Lon: 130 ° 39 350 W

Extra comments:
Plastic bottles for nuts

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH19 Event #: 98 Ship: Tully UTC Date (dd mmm yyyy): 17 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-p	DIC	Sal	TOC	DOC	CDOM	dO18		Nut-p				
1		619	Bot-5	✓ 86		x												
2		620	50	✓ 50		x												
3		621	30	✓ 30		x												
4		622	20	✓ 20		x												
5		623	10	✓ 10		x												
6		624	5	✓ 5		x												
7		625	0	✓ 27		x		x										
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): MG

Bottom Depth: 83 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2004	1204
Bottom	2006	
End	2015	

Positional Information
Start
Lat: 54 ° 15.27 N
Lon: 130 ° 35.65 W

Bottom
Lat: 54 ° 15.27 N
Lon: 130 ° 35.65 W

End
Lat: 54 ° 15 28 N
Lon: 130 ° 35.65 W

Extra comments:
Plastic bottles for nuts

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH18 Event #: 100 Ship: Tully UTC Date (dd mmm yyyy): 17 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-p	DIC	Sal	TOC	DOC	CDOM	dO18	Nut-p					
1		626	Bot-5	✓	32		x											
2		627	20	✓	20		x											
3		628	10	✓	10		x											
4		629	5	✓	5		x											
5		630	0	✓	2.6		x		x									
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 32 m
Transmisso Cleaned: Y / N

	UTC	Local
Start	2110	1310
Bottom	2112	
End	2117	

Positional Information

Lat:	54 ° 16.30	N
Lon:	130 ° 29.69	W

▼

Lat:	54 ° 16.30	N
Lon:	130 ° 29.66	W

▼

Lat:	54 ° 16.32	N
Lon:	130 ° 29.64	W

Extra comments:
Plastic bottles for nuts
GRAB TRAPS @ ORIGINAL POSITION

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: PRHR74 Event #: 101 Ship: Tully UTC Date (dd mmm yyyy): 17 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Nut-p					
						MG/R	MG	MA	R	JW / R								
1		631	Bot-5	✓	27	x	x	x		x	x							
2		632	20	✓	20	x	xx	x		x	x							
3		633	10	✓	10	x	x	x		x	x							
4		634	5	✓	5	xx	x	xx	x	x	x							
5		635	0	✓	2.4	x	x	x	x	x	x	x	x					
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

Version: 25 Nov 2011

Transmissometer to be placed at 1 m

Profile type: ☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
Watchkeeper(s): MGBottom Depth: 27 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2226	1426
Bottom	2228	
End	2233	

Positional Information
Start
Lat: 54 ° 13.57 N
Lon: 130 ° 21.40 WBottom
Lat: 54 ° 13.58 N
Lon: 130 ° 21.41 WEnd
Lat: 54 ° 13.57 N
Lon: 130 ° 21.41 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH23 Event #: 102 Ship: Tully UTC Date (dd:mmm/yyyy): 17 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed ✓	Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Nut-p		
							MA/WW		21							
1		636	Bot-5	✓	95		x									ACT JUMPING AROUND
2		637	75	✓	75		x									
3		638	50	✓	50		x x									
4		639	30	✓	30		x									
5		640	20	✓	20		x									
6		641	10	✓	10		x									
7		642	5	✓	5		x									
8		643	0	✓	24		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): MG

Bottom Depth: 95 m
Transmisso Cleaned: ☒ Y / ☐ N

	UTC	Local
Start	2314	1514
Bottom	2317	
End	2327	

Positional Information
Start
Lat: 54 ° 11.45 N
Lon: 130 ° 23.22 W

Bottom
Lat: 54 ° 11.45 N
Lon: 130 ° 23.21 W

End
Lat: 54 ° 11.46 N
Lon: 130 ° 23.23 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001

Station: CHAT1

Event #: 103

Ship: Tully

UTC Date (dd mmm yyyy): 18 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Nut-p				
						MG/MA	MA		MG	JW	RI							
1		644	Bot-5	✓	109	x	x			x	x							
2		645	100	✓	100	x x	x			x	x							
3		646	75	✓	75	x	x x			x	x							
4		647	50	✓	50	x	x			x	x							
5		648	30	✓	30	x	x			x	x							
6		649	20	✓	20	x	x			x	x							
7		650	10	✓	10	x	x			x	x							
8		651	5	✓	5	x	x		x	x	x							
9		652	0	✓	2.4	x	x		x	x	x	x	x					
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth:	110	m
Transmissio Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	0003	1603
Bottom	0007	
End	0018	

Positional Information		
Start	Lat: 54 ° 12.07	N
	Lon: 130 ° 27.27	W

Bottom	Lat: 54 ° 12.07	N
	Lon: 130 ° 27.27	W

End	Lat: 54 ° 12.07	N
	Lon: 130 ° 27.26	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH22 Event #: 104 Ship: Tully UTC Date (dd mmm yyyy): 18 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18		Nut-p				
1		653	Bot-5	✓ 121		x												
2		654	100	✓ 100		x												
3		655	75	✓ 75		x												
4		656	50	✓ 50		x												
5		657	30	✓ 30		xx												
6		658	20	✓ 20		x												
7		659	10	✓ 10		x												
8		660	5	✓ 5		x												
9		661	0	✓ 2.7		x		x										
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 120 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0204	1804
Bottom	0207	
End	0218	

Positional Information
Start Lat: 54 ° 10.03 N
Lon: 130 ° 34.96 W

Bottom Lat: 54 ° 10.02 N
Lon: 130 ° 34.90 W

End Lat: 54 ° 10.01 N
Lon: 130 ° 34.85 W

Extra comments:
PLASTIC BOTTLES FOR NUTS

Sampling Log

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

Cruise ID: 2019-001 Station: CH24

Event #: 105

Ship: _____ Tully

UTC Date (dd mmm yyyy): 18 02 2019

Niskin #		Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Ship: Tully				UTC Date (dd mm)	
				Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Nut-p				Comments			
1			662	Bot-5	✓ 85				13						18/MG/R						
2			663	75	✓ 75									x							
3			664	50	✓ 50									x							
4			665	30	✓ 30									x							
5			666	20	✓ 20									x							
6			667	10	✓ 10									x							
7			668	5	✓ 5									x							
8			669	0	✓ 2.5				x					x							
9														x							
10																					
11																					
12																					
13																					
14																					
15																					
16																					
17																					
18																					
19																					
20																					
21																					
22																					
23																					
24																					

Version: 25 Nov 2011
Transmissometer to be cleaned before each cast. do not use Ammonia products

Profile type: ROS TRM X-Niskin other?

Watchkeeper(s): MG

Bottom Depth: 87 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0300	1900
Bottom	0302	
End	0311	

Positional Information	
Lat:	54 ° 07.62
Lon:	130 ° 34.07

Bottom	Lat: 54 ° 07.62	N
	Lon: 130 ° 34.08	W

End	Lat: 54 ° 07.61	N
	Lon: 130 ° 34.10	W

Extra comments:
Plastic bottles for nutrients

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH25 Event #: 166 Ship: Tully UTC Date (dd mmm yyyy): 18 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed ✓	Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Nut-p		
									18					18/MG/R		
1		670	Bot-5	✓	111									x		
2		671	100	✓	100									x		
3		672	75	✓	75									x		
4		673	50	✓	50									x		
5		674	30	✓	30									x		
6		675	20	✓	20									x		
7		676	10	✓	10									x		
8		677	5	✓	5									x		
9		678	0	✓	2.4				x					x		
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

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

Bottom Depth: 112 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	0355	1955
Bottom	0358	
End	0408	

Positional Information

Lat:	54 ° 08.88	N
Lon:	130 ° 26.28	W

Start

Bottom

End

Lat:	54 ° 08.89	N
Lon:	130 ° 26.31	W

Lat:	54 ° 08.90	N
Lon:	130 ° 26.27	W

Extra comments:
Plastic bottles for nutrients

Cruise ID: 2019-001 Station: CH26 Event #: 107 Ship: Tully UTC Date (dd mmm yyyy): 18 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18		Nut-p					
1	1	679	Bot-5	✓	59	x	x	x		x	x								
2	2	680	50	✓	50	x	xx	x		x	x								
3	3	681	30	✓	30	x	x	x		x	x								
4	4	682	20	✓	20	x	x	xx		x	x								
5	5	683	10	✓	10	x	x	x		x	x								
6	6	684	5	✓	5	xx	x	x	x	x	x								
7	7	685	0	✓	2.7	x	x	x	x	x	x	x	x						
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): MS

Bottom Depth: 600 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1606	0806
Bottom	1607	
End	1614	

Positional Information
Start
Lat: 54 ° 8 750 N
Lon: 130 ° 21 500 W

Bottom
Lat: 54 ° 8 760 N
Lon: 130 ° 21 490 W

End
Lat: 54 ° 8 790 N
Lon: 130 ° 21 460 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001

Station: CH27

Event #: 108

Ship: Tully

UTC Date (dd:mmm:yyyy): 18 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Cr	Nut-p		
1	1	686	Bot-5	✓ 46									x	x		
2	2	687	30	✓ 30									x	x		
3	3	688	20	✓ 20									x	x		
4	4	689	10	✓ 10									x	x		
5	5	690	5	✓ 5									x	x		
6	6	691	0	✓ 2.6				x					x	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): MS

Bottom Depth: 47 m

Transmisso Cleaned: ☒ Y ☐ N

	Time	UTC	Local
Start		16 49	08
Bottom		16 50	
End		16 55	

Positional Information

Start

Lat: 54 ° 6 580 N

Lon: 130 ° 16 450 W

Bottom

Lat: 54 ° 6 590 N

Lon: 130 ° 16 450 W

End

Lat: 54 ° 6 620 N

Lon: 130 ° 16 460 W

Extra comments:

Plastic bottles for nutrients

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: MP55 Event #: 109 Ship: Tully UTC Date (dd:mmm:yyyy): 18 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Cr	Nut-p			
1	1	692	Bot-5	✓ 106										x			
2	2	693	75	✓ 75										x			
3	3	694	50	✓ 50										x			
4	4	695	30	✓ 30										x			
5	5	696	20	✓ 20										x			
6	6	697	10	✓ 10										x			
7	7	698	5	✓ 5										x			
8	8	699	0	✓ 2.75				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: 107 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	17 29	09 29
Bottom	17 32	
End	17 39	

Positional Information

Start	Lat: 54 ° 4 210 N
	Lon: 130 ° 16 180 W
Bottom	Lat: 54 ° 4 220 N
	Lon: 130 ° 16 180 W
End	Lat: 54 ° 4 220 N
	Lon: 130 ° 16 210 W

Extra comments:
Plastic bottles for nutrients

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CH31 Event #: 110 Ship: Tully UTC Date (dd mmm yyyy): 18 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Cr	Nut-p			
1	1	700	Bot-5	✓ 84	x	x			x	x							
2	2	701	75	✓ 75	x	x				x							
3	3	702	50	✓ 50	x	x			x	x							
4	4	703	30	✓ 30	x	x			x	x							
5	5	704	20	✓ 20	xx	x			x	x							
6	6	705	10	✓ 10	x	x			x	x							
7	7	706	5	✓ 5	x	x		x	x	x							
8	8	707	0	✓ 2.3	x	xx		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): MB

Bottom Depth: 84 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	18 39	10 39
Bottom	18 41	
End	18 49	

Positional Information

Start	Lat: 54 ° 1 904 N
	Lon: 136 ° 14 000 W
Bottom	Lat: 54 ° 1 920 N
	Lon: 130 ° 13 997 W
End	Lat: 54 ° 1 960 N
	Lon: 130 ° 14 016 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001

Station: OGCH50

Event #: 111

Ship: Tully

UTC Date (dd mmm yyyy):

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Cr	Nut-p			
1	1	708	Bot-5														
2	2	709	100											x			} MIS FIRE
3	3	710	75	131										x			
4	4	711	50	125										x			
5	5	712	30	100										x			
6	6	713	20	75										x			
7	7	714	10	50										x			
8	8	715	5	30										x			
9	9	716	0	20										x			
10	10	708		10										x			
11	11	709		5													
12	12			0													
13																	NO WARM COLLECT
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: m
 Transmisso Cleaned: Y / N

Time	UTC	Local
Start		
Bottom		
End		

Positional Information

Start	Lat: °	N
	Lon: °	W
Bottom	Lat: °	N
	Lon: °	W
End	Lat: °	N
	Lon: °	W

Extra comments:
 Plastic bottles for nutrients

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: OGCH⁵⁰₄₈ Event #: 111 Ship: Tully UTC Date (dd mmm yyyy): 18 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Cr	Nut-p			
83	1	707	Bot-5	✓ 131										x			
84	2	708	125	✓ 125										x			extra depth
85	3	709	100	✓ 100										x			
86	4	710	75	✓ 75										x			
87	5	711	50	✓ 50										x			
88	6	712	30	✓ 30										x			
89	7	713	20	✓ 20										x			
810	8	714	10	✓ 10										x			
811	9	715	5	✓ 5				X						x			
812	10	716	0	✓ 2.4				x						x			Water not collected here
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Watchkeeper(s): MB + LIC

Bottom Depth: 131 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	19:20	11:20
Bottom	19:24	11:24
End	19:35	

Positional Information

Start Lat: 53 ° 59.42 N
Lon: 130 ° 12.54 W

Bottom Lat: 53 ° 59.42 N
Lon: 130 ° 12.53 W

End Lat: 53 ° 59.47 N
Lon: 130 ° 12.44 W

Extra comments:

Plastic bottles for nutrients
Bottles 1 & 2
fired early.

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: OGCH46 Event #: 112 Ship: Tully UTC Date (dd mmm yyyy): 18 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Nut-t	DIC	Sal	TOC	DOC	CDOM	dO18	Cr	Nut-p		
1		717	Bot-5	✓	151									x		
2		718	125	✓	125									x		
3		719	100	✓	100									x		
4		720	75	✓	75									x x		
5		721	50	✓	50									x		
6		722	30	✓	30									x		
7		723	20	✓	20									x		
8		724	10	✓	10									x		
9		725	5	✓	5									x		
10		726	0	✓	24			x						x		
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

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

Bottom Depth: 152 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2020	1220
Bottom	2024	
End	2036	

Positional Information

Lat:	53 ° 55.39	N
Lon:	130 ° 13.09	W

▼

Lat:	53 ° 55.40	N
Lon:	130 ° 13.09	W

▼

Lat:	53 ° 55.45	N
Lon:	130 ° 13.12	W

Extra comments:
Plastic bottles for nutrients

Cruise ID: 2019-001 Station: 14 Event #: 120 Ship: Tully UTC Date (dd mmm yyyy): 20 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-F	Chl	HPLC		Phyto				
1	1	727	20	3.13			x	xx							Mis-fire
2	2	728	20	20			x	xx							
3	3	728	10	10			x	xx							
4	4	730	0	2.6			x	xx	xx		x				
5		729													
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: 315 m
Transmisso Cleaned: ☒ Y ☐ N

	UTC	Local
Time Start	1538	0738
Bottom	1544	
End	1553	

Positional Information
Start
Lat: 49 ° 52 940 N
Lon: 124 ° 59 610 W

Bottom
Lat: 49 ° 52 980 N
Lon: 124 ° 59 600 W

End
Lat: 49 ° 53 020 N
Lon: 124 ° 59 700 W

Extra comments:

Cruise ID: 2019-001 Station: 12 Event #: 124 Ship: Tully UTC Date (dd mmm yyyy): 2 FEB 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-F	Chl	HPLC		Phyto				
1	1	730	20	✓ 20			x	x x							
2	2	731	10	✓ 10			x	x x							
3	3	732	0	✓ 2.5			x	x x	x x		x				
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 355 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	19 10	11 10
Bottom	19 16	
End	19	

Positional Information
Start
Lat: 49 ° 43 640 N
Lon: 124 ° 40 790 W

Bottom
Lat: 49 ° 43 620 N
Lon: 124 ° 40 820 W

End
Lat: 49 ° 43 650 N
Lon: 124 ° 40 880 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: 22 Event #: 127 Ship: Tully UTC Date (dd mmm yyyy): 20 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy MA/R	Sal	Nut-F	Chl	HPLC	Phyto					
1		733	Bot-5	✓	352	x		x							ALT IS FLAKY AGAIN
2		734	200	✓	200	x		x							SOFT BOTTOM?
3		735	100	✓	100	x		x x							
4		736	75	✓	75	x		x							
5		737	50	✓	50	x		x							
6		738	40	✓	40	x		x							
7		739	30	✓	30	x		x							
8		740	20	✓	20	x		x	x x						
9		741	10	✓	10	x x		x	x x						
10		742	5	✓	5	x	x	x							
11		743	0	✓	2.3	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): MG

Bottom Depth: 351 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	2254	1454
Bottom	2302	
End	2318	

Positional Information
Start
Lat: 49 ° 40.19 N
Lon: 124 ° 16.26 W

Bottom
Lat: 49 ° 40.20 N
Lon: 124 ° 16.28 W

End
Lat: 49 ° 40.27 N
Lon: 124 ° 16.30 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CPF2 Event #: 131 130 Ship: Tully UTC Date (dd mmm yyyy): 21 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-F	Chl	HPLC						
1		744	20	✓ 20			x	xx							
2		745	10	✓ 10			x	xx							
3		746	0	✓ 2.5			x	xx	xx						
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 326 350 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0416	2016
Bottom	0424	
End	0433	

Positional Information
Start Lat: 49 ° 27.97 N
Lon: 124 ° 29.98 W

Bottom Lat: 49 ° 27.99 N
Lon: 124 ° 29.98 W

End Lat: 49 ° 27.99 N
Lon: 124 ° 29.99 W

Extra comments:
~30-40
Sea lions

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: CPF1 Event #: 132 Ship: Tully UTC Date (dd mmm/yyyy): 21 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓	Pressure	Oxy	Sal	Nut-F	Chl	HPLC					
1		747	20	✓	20			x	xx						
2		748	10	✓	10			x	xx						
3		749	0	✓	2.5			x	xx	xx					
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 241 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0658	
Bottom	0703	
End	0710	

Positional Information

Lat:	49 ° 21.96	N
Lon:	124 ° 04.97	W

Start

Bottom

Lat:	49 ° 21.96	N
Lon:	124 ° 04.94	W

End

Lat:	49 ° 21.96	N
Lon:	124 ° 04.95	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: 28 Event #: 134 Ship: Tully UTC Date (dd mmm yyyy): 21 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-F	Chl	HPLC									
1	1	750	20	✓	20			x	xx									
2	2	751	10	✓	10			x	xx									
3	3	752	5	✓	5			x	xx	xx								
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 130 m

Transmisso Cleaned: ☒ Y / ☐ N

	Time	UTC	Local
Start		0904	01
Bottom		0906	
End		0912	

Positional Information
Start
Lat: 49 ° 24 060 N
Lon: 123 ° 45 274 WBottom
Lat: 49 ° 24 072 N
Lon: 123 ° 45 290 WEnd
Lat: 49 ° 24 090 N
Lon: 123 ° 45 290 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: GEO1 Event #: 136 Ship: Tuli UTC Date (dd mmm yyyy): 21 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal	Nut-F	Chl	HPLC	Phyto					
1	1	753	Bot-5	✓ 357	x		x								
2	2	754	200	✓ 200	x		x								
3	3	755	100	✓ 100	x		x								
4	4	756	75	✓ 75	x		x								
5	5	757	50	✓ 50	x		x								
6	6	758	40	✓ 40	xx		x								
7	7	759	30	✓ 30	x		x								
8	8	760	20	✓ 20	x		xx	xx							
9	9	761	10	✓ 10	x		x	xx							
10	10	762	5	✓ 5	x	x	x								
11	11	763	0	✓ 2.9	x		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): MB

Bottom Depth: 400 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1044	0244
Bottom	1051	
End	1106	

Positional Information
Start
Lat: 49 ° 15 050 N
Lon: 123 ° 45 040 W

Bottom
Lat: 49 ° 15 050 N
Lon: 123 ° 45 090 W

End
Lat: 49 ° 15 110 N
Lon: 123 ° 45 330 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: 38 Event #: 139 Ship: Tully UTC Date (dd mmm yyyy): 21 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Sal	Nut-F	Chl	HPLC						
1	1	764	20	✓ 20			x	x x							
2	2	765	10	✓ 10			x	x x							
3	3	766	0	✓ 2.5			x	x x	x x						
4															
5															
6															
7															
8															
9															
10															
11															
12															
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15															
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17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth:	307	m
Transmisso Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	13 31	05 31
Bottom	13 37	
End	13 45	

Positional Information	
Start	
Lat:	49 ° 12 020 N
Lon:	123 ° 26 360 W

Bottom	
Lat:	49 ° 12 040 N
Lon:	123 ° 26 380 W

End	
Lat:	49 ° 12 040 N
Lon:	123 ° 26 480 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2019-001

Station:

42

Event #:

141

Ship:

Tully

UTC Date (dd mmm yyyy):

21 Feb 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal	Nut-F	Chl	HPLC	Phyto					
1	1	767	Bot-5	✓ 317	x		x								
2	2	768	200	✓ 200	x		x								
3	3	769	100	✓ 100	x		x								
4	4	770	75	✓ 75	x		xx								
5	5	771	50	✓ 50	x		x								
6	6	772	40	✓ 40	x		x								
7	7	773	30	✓ 30	xx		x								
8	8	774	20	✓ 20	x		x	xx							
9	9	775	10	✓ 10	x		x	xx							
10	10	776	5	✓ 5	x	x	x								
11	11	777	0	✓ 2.7	x		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):

MB

Bottom Depth:

320

m

Transmisso Cleaned:

☒ Y

/ N

Time

UTC

Local

Start

1519

0719

Bottom

1525

End

1538

Positional Information

Start

Lat: 49 ° 1 760 N

Lon: 123 ° 26 100 W

Bottom

Lat: 49 ° 1 750 N

Lon: 123 ° 26 060 W

End

Lat: 49 ° 1 720 N

Lon: 123 ° 26 110 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2019-001 Station: 59 Event #: 143 Ship: Tully UTC Date (dd:mmm/yyyy): 21 02 2019

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy R1/Jw	Sal	Nut-F	Chl	HPLC	DIC					
1		778	Bot-5	✓ 229	x		x			x					
2		779	200	✓ 200	x		x			xx					
3		780	150	✓ 150	xx		x			x					
4		781	100	✓ 100	x		x			x					
5		782	75	✓ 75	x		x			x					
6		783	50	✓ 51	x		x			x					
7		784	40	✓ 40	x		xx								
8		785	30	✓ 30	x		x			x					
9		786	20	✓ 20	x		x	xx		xx					
10		787	10	✓ 10	x		x	xx		x					
11		788	5	✓ 5	xx	x	x			x					
12		789	0	✓ 2.3	x		x	xx	xx	x					
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 232 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1955	1155
Bottom	2000	
End	2015	

Positional Information

Lat:	48 ° 36.82	N
Lon:	123 ° 14.79	W

▼

Lat:	48 ° 36.75	N
Lon:	123 ° 14.74	W

▼

Lat:	48 ° 36.46	N
Lon:	123 ° 14.64	W

Extra comments: