

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB01 Event #: 1 Ship: Tully UTC Date (dd|mmm|yyyy): 06 | SEP | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments	
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC				
					MP/WP		SP		PL	NL	NL	DE/1P				
1		1	Bot-10	✓ 25	x		x		x x		x x	x				
2		2	10	✓	x		x		x x		x x	x x				
3		3	5		x		x				x x	x			Fluo:	
4		4	5						xx	xx					Fluo: 6.1	
5		5	Chl-Max		NOT USED											
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

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

Watchkeeper(s):

Bottom Depth: 36 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0502	2202
Bottom	0503	
End	0506	

Positional Information

Start

Lat: 48 ° 40 43 N

Lon: 124 ° 59.51 W

Bottom

Lat: 48 ° 40 42 N

Lon: 124 ° 59.51 W

End

Lat: 48 ° 40 40 N

Lon: 124 ° 59.53 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB02 Event #: 2 Ship: Tully UTC Date (dd|mmm|yyyy): 06 | SEP | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy MP/MP	Sal-R	Nut-Fr MP	Nut-C	CHL ALL	HPLC ALL	NH4 SP/MP	Phyto MP						
1		6	Bot-10	✓	46	x		x		xx	xx							< 1
2		7	30	✓	30	x		x		xx	xx							< 1
3		8	20	✓	20	x x		x		x x	xx	x x						< 1
4		9	10	✓	10	x		x		x x	xx	x x						1.4
5		10	5	✓	5	x		x x		x x	x x	x x	x					Fluo: 1.2
6		11	Max			NOT		USED										Fluo:
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Watchkeeper(s): MR

Bottom Depth: 58 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0528	2228
Bottom	0529	
End	0535	

Positional Information

Start Lat: 48 ° 39.01 N

Start Lon: 125 ° 02.46 W

Bottom Lat: 48 ° 39.01 N

Bottom Lon: 125 ° 02.45 W

End Lat: 48 ° 39.00 N

End Lon: 125 ° 02.44 W

Extra comments:

Cruise ID: 2014-22 Station: LB03 Event #: 3 Ship: Tully UTC Date (dd|mmm|yyyy): 06 | SEP | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target	Confirmed	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4				
			Pressure	✓ Pressure					✓	✓					
1		12	5						xx	xx	-	lost chl dup during filtration			Fluo: 1.5
2		13	Max						NOT	USED					Fluo:
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Watchkeeper(s): MR

Bottom Depth: 96 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0602	2302
Bottom	0604	
End	0606	

Positional Information

Start

Lat: 48 ° 37.33 N

Lon: 125 ° 05.70 W

Bottom

Lat: 48 ° 37.32 N

Lon: 125 ° 05.71 W

End

Lat: 48 ° 37.32 N

Lon: 125 ° 05.73 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB04 Event #: 4 Ship: Tully UTC Date (dd|mmm|yyyy): 06 | SEP | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4						
						NR/10		RV		LY	LY	IP						
1		14	Bot-10	✓	103	x		x										
2		15	75	✓	75	xx		x										
3		16	50	✓		x		xx										
4		17	30	✓		x		x										
5		18	20	✓		x		x		xx		xx						
6		19	10	✓		x		x		xx		xx						
7		20	5	✓		x		x		xx	xx	xx					Fluo: 8.8	
8		21	Max							NOT USED							Fluo:	
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

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

Time	UTC	Local
Start	0629	2329
Bottom	0632	
End	0642	

Positional Information

Lat:	48 ° 35.60	N
Lon:	125 ° 08.75	W

▼

Lat:	48 ° 35.58	N
Lon:	125 ° 08.74	W

▼

Lat:	48 ° 35.55	N
Lon:	125 ° 08.75	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB05 Event #: 7 Ship: Tully UTC Date (dd|mmm|yyyy): 6 | Sept | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments		
			Target Pressure	Confirmed ☒ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4						
1		22	5		4.6					xx	xx						Fluo: ≈ 6.6
2		23	Max														Fluo:
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): SR

Bottom Depth:	102	m
Transmisso Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	0832	0132
Bottom	0835	
End	0839	

Start	Positional Information	
	Lat: 48 ° 34.00 N	Lon: 125 ° 11.98 W
Bottom	Lat: 48 ° 34.00 N	Lon: 125 ° 11.97 W
	Lat: 48 ° 33.99 N	Lon: 125 ° 12.00 W
End		

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB06 Event #: 6 Ship: Tully UTC Date (dd|mmm|yyyy): 6 Sept 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4				
1		24	Bot-10	✓ 110	x		x								
2		25	75	✓	xx		x								
3		26	30-30	X	x		xx								50m bottle wasn't
4		27	20-20	✓	x		x		xx		xx				dripped, became
5		28	10-20	✓	x		x		xx		xx				the 30m bottle
6		29	5-10		x		x		xx	xx	xx				
7		30	5		x		x		xx	xx	xx				Fluo:
8		31	Chl Max												Fluo:
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): SRBottom Depth: 114 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0907	0207
Bottom	0909	
End	0919	

Positional Information
Start
Lat: 48 ° 32.20 N
Lon: 125 ° 15.51 WBottom
Lat: 48 ° 32.21 N
Lon: 125 ° 15.54 WEnd
Lat: 48 ° 32.20 N
Lon: 12 ° 15.63 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB07 Event #: 15 Ship: Tully UTC Date (dd|mmm|yyyy): 6 | Sept | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4					
1		32	5	✓					xx	xx						Fluo: 2.7
2		33	Max													Fluo:
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): SR

Bottom Depth: 154 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1327	
Bottom	1332	
End	1336	

Positional Information

Start

Lat: 48 ° 28.86 N

Lon: 125 ° 22.01 W

Bottom

Lat: 48 ° 28.87 N

Lon: 125 ° 21.95 W

End

Lat: 48 ° 28.89 N

Lon: 125 ° 21.96 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2014-22

Station:

LB08

Event #:

17

Ship:

Tully

UTC Date (dd|mmm|yyyy):

6 | Sept | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto				
					SR+RL												
1		34	Bot-10	✓ 154	x x		x					x					
2		35	125	✓	x x		x					x					
3		36	100	✓	x x		x					x					
4		37	75	✓	x		x x					x					
5		38	50	✓	x		x		xx	xx		x x					
6		39	30	✓	x		x		x x	x x		x					
7		40	20	✓	x		x		x x	x x		x					
8		41	10	✓	x		x		x x	x x	x x	x x					Chl on bot 8 may have
9		42	5			x x	x		xx		x x	x					been drawn from bot 9.
10		43	5						xx	x x			x x x				Fluo: 3.8
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Profile type:

ROS TRM X-Niskin other?

Watchkeeper(s):

SR

Bottom Depth: 157 m

Transmisso Cleaned: (Y) N

Time UTC Local

Start 1441 0741

Bottom 1444

End 1455

Positional Information

Start Lat: 48 ° 25.40 N

Lon: 125 ° 28.62 W

Bottom Lat: 48 ° 25.42 N

Lon: 125 ° 28.59 W

End Lat: 48 ° 25.51 N

Lon: 125 ° 28.47 W

Extra comments:

Out-of-Order

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB09 Event #: 23 Ship: Tully UTC Date (dd|mmm|yyyy): 6 | Sept | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4					
					MP / MP		MP / MP		52	N2	N2					
1		44	Bot-10	✓	141	x		x								
2		45	125	✓		x		x x								
3		46	100	✓		x		x								
4		47	75	✓		x		x								
5		48	50	✓		x		x								
6		49	30	✓		x		x								
7		50	20	✓		x x		x		x x		x x				
8		51	10	✓		x		x		x x		x x				
9		52	5	✓		x		x		x x	x x	x x				Fluo: 2.5
10		53	Max			NOT USED.										Fluo:
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

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

Bottom Depth: 150 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1852	1152
Bottom	1855	
End	1906	

Positional Information
Start
Lat: 48 ° 21.98 N
Lon: 125 ° 34.45 W

Bottom
Lat: 48 ° 21.99 N
Lon: 125 ° 34.45 W

End
Lat: 48 ° 22.05 N
Lon: 125 ° 34.29 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB10 Event #: 24 Ship: Tully UTC Date (dd|mmm|yyyy): 6 | Sep | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments		
			Target Pressure	Confirmed ☒ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4						
1		53	5							xx	xx						Fluo: 0.8
2		58	Max														Fluo: 0
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 153 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1952	1252
Bottom	1955	
End	1959	

Positional Information

Lat:	48° 18.61	N
Lon:	125° 41.25	W

Start

Lat:	48° 18.61	N
Lon:	125° 41.22	W

Bottom

Lat:	48° 18.59	N
Lon:	125° 41.18	W

End

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB11 Event #: 26 Ship: Tully UTC Date (dd|mmm|yyyy): 06 | Sep | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4							
					SP/ND		TP/SP		SP/AL	N2	N2							
1		54	Bot-10	✓	193	x		x										
2		55	175	✓		x		x										
3		56	150	✓		x		x										
4		57	125	✓		x		x										
5		58	100	✓		xx		x										
6		59	75	✓		x		xx										
7		60	50	/		x		x										
8		61	30	/		x		x										
9		62	20	✓		x		x		xx		xx						
10		63	10	✓		x		x		xx		xx						
11		64	5			x		x		xx	xx	xx					Fluo: 2.6	
12		65	Max					NOT	USED								Fluo:	
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 205 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	2103	1403
Bottom	2106	
End	2119	

Positional Information
Lat: 48° 15' 29 N
Lon: 125° 47.77 W

Lat: 48° 15.30 N
Lon: 125° 47.79 W

Lat: 48° 15.23 N
Lon: 125° 47.82 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB12 Event #: 27 Ship: Tully UTC Date (dd|mmm|yyyy): 06 | Sep | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	Phyto				
					✓		SR		SR	ALL	MG	MG				
1		66	Bot-10	✓	502	x		x	x							
2		67	400	✓		x		x	x							
3		68	300	✓		x		x								
4		69	250	✓		xx		x								
5		70	200	✓		x		x								
6		71	175	✓		x		xx								
7		72	150	✓		x		x								
8		73	125	✓		x		x								
9		74	100	✓		x		x								
10		75	75	✓		x		x								
11		76	50	✓		x		x	xx	xx						
12		77	40	✓		x		x	xx	xx						
13		78	30	✓		x		x	xx	xx						
14		79	20	✓		x		x	xx	xx	xx					
15		80	10	✓		x		x	xx	xx	xx					
16		81	5	✓		x		x	xx	xx	xx	x				Fluo:
17																
18																
19																
20																
21																
22																
23																
24																

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

Bottom Depth: 507 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	2149	1449
Bottom	2158	
End	2220	

Positional Information
Start
Lat: 48 ° 12.90 N
Lon: 125 ° 51.86 W

Bottom
Lat: 48 ° 12.89 N
Lon: 125 ° 51.91 W

End
Lat: 48 ° 12.90 N
Lon: 125 ° 51.92 W

Extra comments:
OUT OF ORDER!!

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB13 Event #: 28 Ship: Tully UTC Date (dd|mmm|yyyy): 6 | SEP | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4							
1	2	82	5							xx	xx							Fluo: 0.83
2	1	83	Max	✓	15													Fluo: 8.25
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 905 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	2251	1551
Bottom	2306	
End	2323	

Positional Information

Start	Lat: 48 ° 10 68	N
	Lon: 125 ° 56.00	W

Bottom

Lat: 48 ° 10 69	N
Lon: 125 ° 55.91	W

End

Lat: 48 ° 10.69	N
Lon: 125 ° 55.98	W

Extra comments:
out-of-order

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB14 Event #: 29 Ship: Tully UTC Date (dd|mmm|yyyy): 06 | Sep | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓	Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4						
						MP/WP	MP	SP	SP	SP		SP						
1		84	Bot-10	✓	1168	x		x	x									
2		85	1000	✓		x x	x x	x	x									
3		86	750	✓		x	x	x	x									
4		87	500	✓		x	x	x x	x x									
5		88	400	✓		x		x	x									
6		89	300	✓		x		x										
7		90	250	✓		x		x										
8		91	200	✓		x		x										
9		92	175	✓		x		x										
10		93	150	✓		x		x										
11		94	125	✓		x x		x										
12		95	100	✓		x		x										
13		96	75	✓		x		x										
14		97	50	✓		x		x										
15		98	30	✓		x		x x										
16		99	20	✓		x		x		x x		x x						
17		100	10	✓		x		x		x x		x x						
18		101	5	✓		x		x		x x	x x	x x					Fluo:	
19		102	Max														Fluo:	
20																		
21																		
22																		
23																		
24																		

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

Bottom Depth: 1176 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	2353	1653
Bottom	7 0010	
End	0046	

Positional Information
Start
Lat: 48 ° 08.50 N
Lon: 125 ° 59.89 W

Bottom
Lat: 48 ° 08.46 N
Lon: 125 ° 59.95 W

End
Lat: 48 ° 8.47 N
Lon: 125 ° 59.98 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LB15 Event #: 30 Ship: Tully UTC Date (dd|mmm|yyyy): 07 | SEP | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓	Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4			
1		103	5							xx	xx				Fluo:
2		104	Max							NOT	USED				Fluo:
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															

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

Bottom Depth: 1554 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0139	1839
Bottom	0205	
End	0231	

Positional Information

Lat:	48 ° 04.31	N
Lon:	126 ° 08 49	W

▼

Lat:	48 ° 04.34	N
Lon:	126 ° 08.45	W

▼

Lat:	48 ° 04 36	N
Lon:	126 ° 08 45	W

Extra comments:

Cruise ID: 2014-22 Station: LB16 Event #: 31 Ship: Tully UTC Date (dd|mmm|yyyy): 07 | Sep | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials											Comments		
			Target	Confirmed	Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4							
			Pressure	√		Pressure													
1		105	5							x x	x x								Fluo: 2.4
2		106	Max																
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

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

Bottom Depth: 1792 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0321	2021
Bottom	0354	
End	0426	2126

Positional Information

Lat:	48 ° 00.52	N
Lon:	126 ° 16.97	W

Start

Lat:	48 ° 00 53	N
Lon:	126 ° 16 93	W

Bottom

Lat:	48 ° 00.56	N
Lon:	126 ° 16.90	W

End

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LC11 Event #: 38 Ship: Tully UTC Date (dd|mmm|yyyy): 7 Sept 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto						
1		116	Bot-10	✓ 1492	x		x	x											
2		117	1250	✓	x	x	x x	x x											
3		118	1000	✓	x	x x	x	x											
4		119	750	✓	x	x	x	x											
5		120	500	✓	x x	x	x	x											
6		121	400	✓	x		x	x											
7		122	300	✓	x		x												
8		123	250	✓	x		x												
9		124	200	✓	x		x												
10		125	175	✓	x		x												
11		126	150	✓	x		x												
12		127	125	✓	x x		x												
13		128	100	✓	x		x												
14		129	75	✓	x		x		x										
15		130	50	✓	x		x		x										
16		131	30	✓	x		x x												
17		132	20	✓	x		x		x x		x x								
18		133	10	✓	x		x		x x		x x								
19		134	5	✓	x		x		x x	x x	x x								
20		135	Max																
21																			
22																			
23																			
24																			

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

Bottom Depth: 1420 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1508	0808
Bottom	1533	
End	1615	

Positional Information
Start Lat: 48 ° 18.94 N
Lon: 126 ° 26.85 W

Bottom Lat: 48 ° 18.95 N
Lon: 126 ° 26.85 W

End Lat: 48 ° 18.98 N
Lon: 126 ° 26.84 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LC01 Event #: 40 Ship: Tully UTC Date (dd|mm|yyyy): 08|09|14

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments	
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto				
					N2/MG		SP		N2	N2	SP						
1		196	Bot-10	✓	85	x		x									
2		197	75	✓		x		x x									
3		198	50	✓		x x		x									
4		199	30	✓		x		x									
5		200	20	✓		x		x	x x		x x						
6		201	10	✓		x		x	x x		x x						
7		202	5	✓	MAX	x		x	x x	x x	x x					Fluo:	
8		203	Max													Fluo:	
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:	97	m
Transmisso Cleaned:	☒ Y ☐ N	

Time	UTC	Local
Start	0029	1729
Bottom	0031	
End	0040	

Start	Positional Information		
	Lat:	48 ° 50.38	N
Bottom	Lon:	125 ° 27.84	W
	▼		
End	Lat:	48 ° 50.39	N
	Lon:	125 ° 27.84	W
	▼		
	Lat:	48 ° 50.41	N
	Lon:	125 ° 27.82	W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LC02 Event #: 41 Ship: Tully UTC Date (dd|mmm|yyyy): 08 | 09 | 14

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto				
					N ₂ /MG		SP		SP	N ₂	MG	2E/1P					
1		186	Bot-10	✓ 98	x		x					x					
2		187	75	✓	x x		x					x x					
3		188	50	✓	x		x					x					
4		189	40	✓	x		x										
5		190	30	✓	x		x x					x x					
6		191	20	✓	x		x		x x		x x	x					
7		192	10	✓	x		x		x x		x x	x					
8		193	5	✓	x		x				x x	x					
9		194	5	✓					x x	x x							
10		195	Max														
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: 188 m
Transmisso Cleaned: (Y) / N

Time	UTC	Local
Start	0111	1811
Bottom	0113	
End	0122	

Positional Information

Lat:	48 ° 48.67	N
Lon:	125 ° 30.93	W

Start

Lat:	48 ° 48.68	N
Lon:	125 ° 30.93	W

Bottom

Lat:	48 ° 48.71	N
Lon:	125 ° 30.90	W

End

Extra comments:
OUT-OF-ORDER!
1-9-10-2-3-11-4-5-12
13-6-7-14-15-8
MAX 0-20

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LC04 Event #: 43/44 Ship: Tully UTC Date (dd|mmm|yyyy): 08 | 09 | 14

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4							
						N2/MG		IP/SP		SP	N2	SP-fusl						
1		175	Bot-10	✓		x		x										
2		176	150	✓		x		x										
3		177	125	✓		x		x										
4		178	100	✓		xx		xx										
5		179	75	✓		x		x										
6		180	50	✓		x		x										
7		181	30	✓		x		x										
8		182	20	✓		x		x	xx		xx							
9		183	10	✓		x		x	xx		xx							
10		184	5	✓	MAX	x		x	xx	xx	xx							Fluo:
11		185	Max															
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: 167 m

Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	0240	1940
Bottom	0243	
End	0303	

Positional Information

Start Lat: 48 ° 43.46 N

Start Lon: 125 ° 40.85 W

Bottom Lat: 48 ° 43.45 N

Bottom Lon: 125 ° 40.87 W

End Lat: 48 ° 43.46 N

End Lon: 125 ° 40.92 W

Extra comments:

PROGRAM CRASH @ 100M

↑ CAST

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LC06 Event #: 47 Ship: Tully UTC Date (dd|mmm|yyyy): 08|09|2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto				
1		167	Bot-10	✓ 83	x		x										
2		168	75	✓ 75	x		x x										
3		169	50	✓ 50	x		x										
4		170	30	✓ 30	x		x										
5		171	20	✓ 20	x		x		x x		x x						
6		172	10	✓ 10	x x		x		x x		x x						
7		173	5	✓ 5	x		x		x x	x x	x x						Fluo:
8		174	Max		NOT USED												
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Profile type:
ROS TRM X-Niskin other?

Watchkeeper(s): DY

Bottom Depth: 93 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0443	2143
Bottom	0445	
End	0452	

Positional Information

Start

Lat: 48 ° 36.46 N

Lon: 125 ° 53.91 W

Bottom

Lat: 48 ° 36.46 N

Lon: 125 ° 53.90 W

End

Lat: 48 ° 36.43 N

Lon: 125 ° 53.94 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LC08 Event #: 50 Ship: Tully UTC Date (dd|mmm|yyyy): 08|09|2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto				
					SP/L		SP		N2	N2	RL	ZE/ID					
1		154	Bot-10	✓ 191	x		x					x					
2		155	175	✓ 175	x		x										
3		156	150	✓ 150	x		x										
4		157	125	✓ 125	x		x										
5		158	100	✓ 100	x		x					x x					
6		159	75	✓ 75	x		x										
7		160	50	✓ 50	x		x x					x x					
8		161	30	✓ 30	x x		x					x					
9		162	20	✓ 20	x		x		x x		x x	x					
10		163	10	✓ 10	x		x		x x		x x	x					
11		164	5	✓ 5	x		x				x x	x					
12		165	5	✓ 5					x x	x x							Fluo :
13		166	Max		NOT USED												
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Watchkeeper(s):

Bottom Depth: 202 m

Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0640	2340
Bottom	0644	
End	0656	

Positional Information

Lat: 48 ° 29.43 N

Lon: 126 ° 7.06 W

Lat: 48 ° 29.45 N

Lon: 126 ° 7.08 W

Lat: 48 ° 29.47 N

Lon: 126 ° 7.05 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LC09 Event #: 58 Ship: Tully UTC Date (dd|mmm|yyyy): 8|Sept|2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC					
1		136	Bot-10	✓ 618	x		x x	x x				x					
2		137	500	✓	x		x	x				x					
3		138	400	✓	x		x	x				x					
4		139	300	✓	x		x					x x					
5		140	250	✓	x x		x					x					
6		141	200	✓	x		x					x					
7		142	175	✓	x		x										
8		143	150	✓	x		x										
9		144	125	✓	x		x x										
10		145	100	✓	x		x					x x					
11		146	75	✓	x		x										
12		147	50	✓	x x		x					x					
13		148	30	✓	x		x					x					
14		149	20	✓	x		x		x x		x x						
15		150	10	✓	x		x		x x		x x	x					
16		151	5		x		x				x x	x					
17		152	5						x x	x x							Fluo:
18		153	Max														
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 604 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1045	0441
Bottom	1152	
End	1217	

Positional Information
Start
Lat: 48 ° 25.96 N
Lon: 126 ° 13.82 W

Bottom
Lat: 48 ° 25.96 N
Lon: 126 ° 13.85 W

End
Lat: 48 ° 25.93 N
Lon: 126 ° 13.86 W

Extra comments:
OUT-OF-ORDER
1-12; 18-13-14; 19-20; 15-16
21-22; 17

Cruise ID: 2014-22 Station: LD11 Event #: 57 Ship: Tully UTC Date (dd|mmm|yyyy): 8 | Sept | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto			
					SR/L						RL					
1		204	Bot-10	✓ 1595	x		x	x								
2		205	1500	✓	x	x x	x	x								
3		206	1250	✓ 1251	x x	x	x	x								
4		207	1000	✓	x	x	x	x								
5		208	750	✓	x	x	x x	x x								
6		209	500	✓	x		x	x								
7		210	400	✓	x		x	x								
8		211	300	✓	x		x									
9		212	250	✓	x		x									
10		213	200	✓	x		x									
11		214	175	✓	x		x									
12		215	150	✓	x		x									
13		216	125	✓	x x		x									
14		217	100	✓	x		x									
15		218	75	✓	x		x x									
16		219	50	✓	x		x									
17		220	30	✓	x		x									
18		221	20	✓	x		x		x x		x x					
19		222	10	✓	x		x		x x		x x					
20		223	5	✓	x		x		x x	x x	x x					Fluo: only one chl sample, ran out of water
21		224	Max													
22																
23																
24																

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

Watchkeeper(s): SR

Bottom Depth: 1591 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1515	0826
Bottom	1540	
End		

Positional Information

Start

Lat: 48 ° 28.77 N

Lon: 126 ° 42.91 W

Bottom

Lat: 48 ° 28.77 N

Lon: 126 ° 42.95 W

End

Lat: 48 ° N

Lon: 126 ° W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-21 Station: LD08 Event #: 63 Ship: Tully UTC Date (dd|mmm|yyyy): 08|09|14

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials											Comments				
			Target Pressure	Confirmed	Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DOC	Phyto							
			✓																		
1		225	Bot-10	✓	764	x		x	x												
2		226	750	✓		x	x	xx	xx												
3		227	500	✓		xx	x	x	x												
4		228	400	✓		x		x	x												
5		229	300	✓		x		x													
6		230	250	✓		x		x													
7		231	200	✓		x		x													
8		232	175	✓		x		x													
9		233	150	✓		x		x													
10		234	125	✓		x		x													
11		235	100	✓		x		x													
12		236	75	✓		x		xx													
13		237	50	✓		x		x													
14		238	30	✓		xx		x													
15		239	20	✓	Max	x		x		xx		xx									
16		240	10	✓		x		x		xx		xx									
17		241	5	✓		x		x		xx	xx	xx							Fluo:		
18		242	Max																		
19																					
20																					
21																					
22																					
23																					
24																					

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

Bottom Depth: 772 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	2319	1619
Bottom	2332	
End	0004	

Positional Information
Start
Lat: 48 ° 39.17 N
Lon: 126 ° 23.36 W

Bottom
Lat: 48 ° 39.18 N
Lon: 126 ° 23.37 W

End
Lat: 48 ° 39.21 N
Lon: 126 ° 23.38 W

Extra comments:
~~OUT OF ORDER~~
1/13/14/14/18

Water Properties Group

Sampling Log

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

Cruise ID:

2014-22

Station:

LD06

Event #:

65

Ship:

Tully

UTC Date (dd|mmm|yyyy):

08 | 09 | 14

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments	
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto				
1		243	Bot-10	✓	127	x		x									
2		244	100	✓		x		x x									
3		245	75	✓		x		x									
4		246	50	✓		x		x									
5		247	30	✓		x		x									
6		248	20	✓		x		x		x x		x x					
7		249	10	✓	Max	x x		x		x x		x x					
8		250	5	✓	↓	x		x		x x	x x	x x				Fluo:	
9		251	Max														
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: 137 m

Transmisso Cleaned: Y / N

Time UTC Local

Start 0245 1945

Bottom 0247

End 0257

Positional Information

Start Lat: 48 ° 46.14 N
Lon: 126 ° 10.24 WBottom Lat: 48 ° 46.14 N
Lon: 126 ° 10.24 WEnd Lat: 48 ° 46.15 N
Lon: 126 ° 10.27 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LD04 Event #: 67 Ship: Tully UTC Date (dd|mmm|yyyy): 09 | SEP | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments		
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	Cases	DMSO	DMSR			
					N2						SP						
1		252	Bot-10	✓ 52	x		x										
2		253	30	✓	x		x										
3		254	20	✓	x x		x		x x		x x						
4		255	10	✓	x		x x		x x		x x						
5		256	5	✓	x		x		x x	x x	x x					Fluo:	
6		257	5	MAX					x x			MAX	MAX	MAX		NOT USED	
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): N2/MGBottom Depth: 63 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0440	2140
Bottom	0441	2141
End	0446	

Positional Information
Start
Lat: 48 ° 53.17 N
Lon: 125 ° 56.94 WBottom
Lat: 48 ° 53.16 N
Lon: 125 ° 56.94 WEnd
Lat: 48 ° 53.15 N
Lon: 125 ° 59.93 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LD02 Event #: 70 Ship: Tully UTC Date (dd|mmm|yyyy): 08 | 09 | 14

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials															Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto							
1		258	Bot-10	✓	35	x		x												
2		259	30	✓		x		x												
3		260	20	✓		x x		x		x x		x x								
4		261	10	✓		x		x x		x x		x x								
5		262	5	✓		x		x		x x	x x	x x						Fluo: 16		
6		263	Max																	
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: 45 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0614	2314
Bottom	0616	
End	0620	

Positional Information

Start	Lat: 48 ° 58.37 N
	Lon: 125 ° 47.03 W
Bottom	Lat: 48 ° 58.38 N
	Lon: 125 ° 47.03 W
End	Lat: 48 ° 58.40 N
	Lon: 125 ° 47.11 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LD01 Event #: 72 Ship: Tully UTC Date (dd|mmm|yyyy): 9 | Sept | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto				
1		264	Bot-10	✓ 34	x		x										
2		265	20	✓	x		x		xx		xx						
3		266	10	✓ 11	xx		x		xx		xx						
4		267	5	✓	x		xx		xx	xx	xx						Fluo: 5.6
5		268	Max														
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 39 m
Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	0701	0001
Bottom	0702	
End	0707	

Positional Information
Start Lat: 49 ° 0.10 N
Lon: 125 ° 43.95 W

Bottom Lat: 49 ° 0.10 N
Lon: 125 ° 43.95 W

End Lat: 49 ° 0.10 N
Lon: 125 ° 43.99 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2014-22

Station:

LG01

Event #:

73

Ship:

Tully

UTC Date (dd|mmm|yyyy):

9 | Sept | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ☒ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto				
1		269	Bot-10		x		x										
2		270	30		x		x										
3		271	20		x x		x x		x x		x x						
4		272	10		x		x		x x		x x						
5		273	5		x		x		x x	x x	x x						Fluo: 5.1
6		274	Max														
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):

SR

Bottom Depth: 55 m

Transmisso Cleaned: ☒ Y ☐ N

Time UTC Local

Start 1134 0434

Bottom 1135

End 1140

Positional Information

Start Lat: 49 ° 20.47 N

Lon: 126 ° 34.93 W

Bottom Lat: 49 ° 20.46 N

Lon: 126 ° 34.93 W

End Lat: 49 ° 20.42 N

Lon: 126 ° 34.91 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LG02 Event #: 74 Ship: Tully UTC Date (dd|mmm|yyyy): 9|Sept|2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto				
					SR+RL		SR		Various	N ²	N ²		KY				
1		275	Bot-10	✓ 95	x		x										
2		276	75	✓	x		x										
3		277	50	✓	xx		xx		xx	xx							
4		278	40	✓	x		x		xx	xx							
5		279	30	✓	x		x		xx	xx							tripped on bot 11 also
6		280	20		x		x		xx	xx	xx						as 5 is leaky,
7		281	10		x		x		xx	xx	xx						no time to fix it.
8		282	5		x		x		xx	xx	xx		x				
9																	Fluo:
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Bottom Depth: 100 m
Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1249	0549
Bottom	1251	
End	1251	

Positional Information

Lat:	49 °	18.58	N
Lon:	126 °	38.18	W

▼

Lat:	49 °	18.57	N
Lon:	126 °	38.19	W

▼

Lat:	49 °	18.59	N
Lon:	126 °	38.23	W

Extra comments:
Out of order?

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22

Station: LG04

Event #: 79

Ship: Tully

UTC Date (dd|mmm|yyyy): 9 | Sept | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto			
1		285	Bot-10	✓ 138	x		x									
2		286	125	✓	x		x									
3		287	100	✓	x		x									
4		288	75	✓	x x		x x									
5		289	50	✓	x		x									
6		290	30	✓	x		x									
7		291	20	✓	x		x		x x		x x					
8		292	10	✓	x		x		x x		x x					
9		293	5	✓	x		x		x x	x x	x x					Fluo: ~2.4
10		294	Max													
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

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

Bottom Depth: 144 m

Transmisso Cleaned: ☒ N

Time	UTC	Local
Start	1504	0804
Bottom	1507	
End	1518	

Positional Information

Start
Lat: 49 ° 11.32 N
Lon: 126 ° 49.41 W

Bottom
Lat: 49 ° 11.32 N
Lon: 126 ° 49.41 W

End
Lat: 49 ° 11.33 N
Lon: 126 ° 49.42 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2014-22

Station:

LG06

Event #:

81

Ship:

Tully

UTC Date (dd|mmm|yyyy):

9 | Sept | 2014

Cruise ID:			2014-22		Station:		LG06		Event #:		01		Sample		01		Comments		
Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials														
			Target Pressure	Confirmed Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto						
				✓	SR,RL		RL	SR	KY	N ² ,KY	N ²								
1		295	Bot-10	✓	971	x	x	x	x										
2		296	750	✓	750	x	xx	x	x										
3		297	500	✓	750	x	x	xx	xx									Tripped @ 750 by accident	
4		298	400	✓		xx	x	x	x										
5		299	300	✓		x	x	x											
6		300	250	✓		x	x	x											
7		301	200	✓		x	x	x											
8		302	175	✓		x	x	x											
9		303	150	✓		x	x	x											
10		304	125	✓		x	x	xx											
11		305	100	✓		x	x	x											
12		306	75	✓		x	x	x											
13		307	50	✓		x	x	x		xx	xx								
14		308	40	✓						xx	xx								
15		309	30	✓		xx	x	x		xx	xx								
16		310	20	✓		x	x	x		xx	xx	xx						Fluo: 1.3	
17		311	10	✓		x	x	x		xx	xx	xx						Fluo: 0.8	
18		312	5	✓		x	x	x		xx	xx	xx							
19				✓														Replaces bot 3	
20		297	500	✓															
21																			
22																			
23																			
24																			

http://www.pac

Profile type:

☒ ROS ☐ TRM ☐ X-Niskin ☐ other?

Watchkeeper(s):

SR

Bottom Depth: 960 m

Transmisso Cleaned: ☒ Y ☐ N

Time UTC Local

Start 1659 0959

Bottom 1715

End 1748

Positional Information

Start Lat: 49 ° 3.48 N

Lon: 127 ° 1.17 W

Bottom Lat: 49 ° 3.50 N

Lon: 127 ° 1.18 W

End Lat: 49 ° 3.51 N

Lon: 127 ° 1.28 W

Out of Order

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LJ08 Event #: 90 Ship: Tully UTC Date (dd|mmm|yyyy): 10 | Sept | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓	Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto			
1		315	5 m	✓						xx	xx						Fluo 2 4.5
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	Fluo:
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Watchkeeper(s): SR

Bottom Depth: 1755 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0821	0121
Bottom	0850	
End	0918	

Positional Information

Start Lat: 49 ° 20.10 N

Start Lon: 127 ° 41.10 W

Bottom Lat: 49 ° 20.20 N

Bottom Lon: 127 ° 41.18 W

End Lat: 49 ° 20.28 N

End Lon: 127 ° 41.16 W

Cruise ID: 2014-22 Station: LJ05 Event #: 94 Ship: Tully UTC Date (dd|mmm|yyyy): 10 | 9 | 2014

Niskin #	Firing #	Sample #	Rosette Operation			Samples Taken / Sampler's Initials												Comments	
			Target Pressure	Confirmed		Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto					
				✓	Pressure														
1		314	5 m	✓	5					xx	xx								
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			Fluo:
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			

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

Watchkeeper(s): SK (DY)

Bottom Depth: 1063 m

Transmisso Cleaned: ☒ Y / ☐ N

Time	UTC	Local
Start	1345	0645
Bottom	1403	0703
End	1421	

Positional Information

Start

Lat: 49 ° 31.67 N

Lon: 127 ° 22.51 W

▼

Bottom

Lat: 49 ° 31.68 N

Lon: 127 ° 22.47 W

▼

End

Lat: 49 ° 31.66 N

Lon: 127 ° 22.47 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22

Station: LJ02

Event #: 98

Ship: Tully

UTC Date (dd|mmm|yyyy): 10 | Sept | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments		
			Target Pressure	Confirmed ☒ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4	DIC	Phyto				
1		313	5 m	☒	5					xx	xx						Fluo: 5.0
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	Fluo:
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

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

Watchkeeper(s): SR

Bottom Depth: 82 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1704	1004
Bottom	1706	
End	1708	

Positional Information

Start
Lat: 49 ° 42.63 N
Lon: 127 ° 5.36 WBottom
Lat: 49 ° 42.63 N
Lon: 127 ° 5.37 WEnd
Lat: 49 ° 42.63 N
Lon: 127 ° 5.38 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22

Station: LBP3

Event #: 105

Ship: Tully

UTC Date (dd|mm|yyyy): 10 | SEPT | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4					
					N2/TF						SP					
1		316	Bot-10	✓ 155	x		x									
2		317	150	✓	x		x									
3		318	125	✓	xx		x									
4		319	100	✓	x		x									
5		320	75	✓	x		x									
6		321	50	✓	x		x		xx	xx						
7		322	40	✓	x		x		xx	xx						
8		323	30	✓	x		xx		xx	xx						
9		324	20	✓	x		x		xx	xx	xx					
10		325	10	✓	x		x		xx	xx	xx					FLOW:
11		326	5	✓	x		x		xx	xx	xx					FLOW:
12																
13																
14																
15																
16																
17																
18																
19																
20																
21																
22																
23																
24																

Profile type:
ROS TRM X-Niskin other?
Watchkeeper(s): N2/MG

Bottom Depth: 165 m
Transmisso Cleaned: (Y) N

Time	UTC	Local
Start	2232	1532
Bottom	2236	1536
End	2248	

Positional Information
Start
Lat: 50 ° 3.25 N
Lon: 127 ° 55.27 W

Bottom
Lat: 50 ° 3.25 N
Lon: 127 ° 55.25 W

End
Lat: 50 ° 3.24 N
Lon: 127 ° 55.30 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: CS00 Event #: 121 Ship: Tully UTC Date (dd|mmm|yyyy): 12|9|2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments				
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4								
						N ₂ H ₂				SP		SP							
1		368	2000	✓	2000	x	x	x	x										
2		369	1500	✓		x	x x	x	x										
3		370	1250	✓		x	x	x	x										
4		371	1000	✓		x	x	x	x										
5		372	750	✓		x x	x	x	x										
6		373	500	✓		x	x	x	x										
7		374	400	✓		x	x	x x	x x										
8		375	300	✓		x	x	x											
9		376	250	✓		x	x	x											
10		377	200	✓		x	x	x											
11		378	175	✓		x	x	x											
12		379	150	✓		x	x	x											
13		380	125	✓		x x	x	x											
14		381	100	✓		x	x	x											
15		382	75	✓		x	x	x											
16		383	50	✓		x	x	x x											
17		384	30	✓		x	x	x											
18		385	20	✓		x	x	x		xx		xx							
19		386	10	✓		x x	x	x		xx		xx							
20		387	5	✓		x	x	x		xx	xx	x x							Flow: 2.5
21		388	Max																
22																			
23																			
24																			

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

Watchkeeper(s): JY/MG

Bottom Depth: 2177 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0024	1724
Bottom	0059	
End	0152	

Positional Information

Start

Lat: 50 ° 27.78 N

Lon: 129 ° 55.14 W

Bottom

Lat: 50 ° 27.70 N

Lon: 129 ° 55.10 W

End

Lat: 50 ° 27.66 N

Lon: 129 ° 55.04 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LBP7 Event #: 111 Ship: Tully UTC Date (dd|mmm|yyyy): 10 | 09 | 14

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments			
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4							
					N ² /TF	N ² /SP	ALL	ALL		N ²	SP							
1		347	2000	✓	2000	x	x	x	x									
2		348	1500	✓		xx	xx	x	x									
3		349	1250	✓		x	x	xx	xx									
4		350	1000	✓		x	x	x	x									
5		351	750	✓		x	x	x	x									
6		352	500	✓		x	x	x	x									
7		353	400	✓		x	x	x	x									
8		354	300	✓		xx		x										
9		355	250	✓		x		x										
10		356	200	✓		x		x										
11		357	175	✓		x		x										
12		358	150	✓		x		x										
13		359	125	✓		x		xx										
14		360	100	✓		x		x										
15		361	75	✓		x		x										
16		362	50	✓		x		x										
17		363	30	✓		xx		x										
18		364	20	✓		x		x		xx		xx						
19		365	10	✓		x		x		xx		xx						
20		366	5	✓		x		x		xx	xx	xx						
21		367	Max			hl		hl		hl	hl	hl						
22																		
23																		
24																		

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

Bottom Depth: 2195 m
Transmisso Cleaned: Y / N

Time	UTC	Local
Start	0348	2048
Bottom	0419	
End	0512	

Positional Information
Start
Lat: 49 ° 52.34 N
Lon: 128 ° 11.10 W

Bottom
Lat: 49 ° 52.29 N
Lon: 128 ° 11.09 W

End
Lat: 49 ° 52.37 N
Lon: 128 ° 11.12 W

Extra comments:
WENT TO 2005 THEN
STARTED ARCHIVE ON
10M UP/DOWN

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: LBP5 Event #: 108 Ship: Tully UTC Date (dd|mmm|yyyy): 11 | 09 | 14

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4					
					NPT				SP	AL	SP					
1		327	Bot-10	✓	1278	x		x	x							
2		328	1250	✓		x	xx	x	x							
3		329	1000	✓		x	x	x	x							
4		330	750	✓		xx	x	x	x							
5		331	500	✓		x	x	xx	xx							
6		332	400	✓		x		x	x							
7		333	300	✓		x		x								
8		334	250	✓		x		x								
9		335	200	✓		x		x								
10		336	175	✓		x		x								
11		337	150	✓		x		x								
12		338	125	✓		xx		x								
13		339	100	✓		x		xx								
14		340	75	✓		x		x								
15		341	50	✓		x		x	xx	xx						
16		342	40	✓		x		x	xx	xx						
17		343	30	✓		x		x	xx	xx						
18		344	20	✓		x		x	xx	xx	xx					
19		345	10	✓		xx		x	xx	xx	xx					Fluo: 4.8
20		346	5	✓		x		x	xx	xx	xx					Fluo: 4.7
21																
22																
23																
24																

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

Bottom Depth:	1286	m
Transmisso Cleaned:	(Y) / N	

Time	UTC	Local
Start	0029	1729
Bottom	0050	
End	0131	

Positional Information
Start
Lat: 50 ° 0.03 N
Lon: 127 ° 59.97 W

Bottom
Lat: 50 ° 0.04 N
Lon: 127 ° 59.96 W

End
Lat: 50 ° 0.06 N
Lon: 127 ° 59.92 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2014-22

Station:

CS02

Event #:

127

Ship:

Tully

UTC Date (dd|mmm|yyyy):

12 | Sept | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4					
1		389	Bot-10	✓ 1910	x		x	x								
2		390	1500	✓	x	x	x	x								
3		391	1250	✓	x	xx	xx	xx								
4		392	1000	✓	x	x	x	x								
5		393	750	✓	x		x	x								
6		394	500	✓	xx		x	x								
7		395	400	✓	x		x	x								
8		396	300	✓	x		x									
9		397	250	✓	x		x									
10		398	200	✓	x		x									
11		399	175	✓	x		xx									
12		400	150	✓	x		x									
13		401	125	✓	xx		x									
14		402	100	✓	x		x									
15		403	75	✓	x		x									
16		404	50	✓	x		x									
17		405	30	✓	x		x									
18		406	20	✓	x		x		xx		xx					
19		407	10	✓	x		x		xx		xx					
20		408	5	✓	x		x		xx	xx	xx					Fluo: 23.0
21		409	Max													
22																
23																
24																

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

Bottom Depth:	1902 m
Transmisso Cleaned:	☒ Y ☐ N

Time	UTC	Local
Start	0927	0227
Bottom	0956	
End	1046	

Positional Information	
Start	Lat: 50 ° 41.27 N
	Lon: 129 ° 27.91 W

Bottom	Lat: 50 ° 41.30 N
	Lon: 129 ° 27.89 W

End	Lat: 50 ° 41.29 N
	Lon: 129 ° 27.95 W

Extra comments:
burning garbage during sampling

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: CS04 Event #: 130 Ship: Tully UTC Date (dd|mmm|yyyy): 12|Sept|2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials											Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4					
1		410	Bot-10	✓ 91	x		x									
2		411	75	✓	x		x									
3		412	50	✓	x		x									
4		413	30	✓	xx		x									
5		414	20	✓	x		x		xx		xx					
6		415	10	✓	x		x		xx		xx					
7		416	5	✓	x		xx		xx	xx	xx					Fluo ≈ 8.0
8		417	Max													
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): SR

Bottom Depth: 102 m

Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	1300	
Bottom	1302	
End	1314	

Positional Information

Start

Lat: 50 ° 49.19 N

Lon: 129 ° 13.24 W

Bottom

Lat: 50 ° 49.19 N

Lon: 129 ° 13.23 W

End

Lat: 50 ° 49.19 N

Lon: 129 ° 13.30 W

Extra comments:

Water Properties Group

Sampling Log

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

Cruise ID:

2014-22

Station:

CS06

Event #: 140

Ship: Tully

UTC Date (dd|mmm|yyyy): 13 | SEPT | 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials										Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4				
1	1	418	Bot-10	✓ 55	x		xx								
2	2	419	50	✓ 51	xx		x								
3	3	420	30	✓	x		x								
4	4	421	20	✓	x		x		xx		xx				
5	5	422	10	✓	x		x		xx		xx				
6	6	423	5	✓	x		x		xx	xx	xx				
7		424	Max												NOT USED
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): NZ

Bottom Depth: 68 m

Transmisso Cleaned: Y / N

Time UTC Local

Start 0156 1856

Bottom 0201 1901

End 0207

Positional Information

Start Lat: 50 ° 59.92 N
Lon: 128 ° 51.88 WBottom Lat: 50 ° 59.96 N
Lon: 128 ° 51.91 WEnd Lat: 50 ° 59.98 N
Lon: 128 ° 52.00 W

Extra comments:

STOPPED TO STRAIGHTEN
WIRE

Water Properties Group

Sampling Log

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

Cruise ID: 2014-22 Station: CS09 Event #: 146 Ship: Tully UTC Date (dd|mmm|yyyy): 13 SEPT 2014

Niskin #	Firing #	Sample #	Rosette Operation		Samples Taken / Sampler's Initials												Comments
			Target Pressure	Confirmed ✓ Pressure	Oxy	Sal-R	Nut-Fr	Nut-C	CHL	HPLC	NH4						
1	1	425	Bot-10	✓ 184	x		x										
2	2	426	175	✓	x		x										
3	3	427	150	✓	x		x										
4	4	428	125	✓	x		xx										
5	5	429	100	✓	x		x										
6	6	430	75	✓	x		x										
7	7	431	50	✓	xx		x										
8	8	432	30	✓	x		x										
9	9	433	20	✓	x		x		xx		xx						
10	10	434	10	✓	x		x		xx		xx						
11	11	435	5	✓	x		x		xx	xx	xx						
12	12	436	Max	✓ 1					xx	xx							FLVD: 4.4 higher @ surface 10.5
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	

Profile type:
☒ ROS ☐ TRM ☐ X-Niskin ☐ other?
 Watchkeeper(s): N2

Bottom Depth: 194 m
 Transmisso Cleaned: ☒ Y ☐ N

Time	UTC	Local
Start	0536	2236
Bottom	0540	2240
End	0554	2254

Positional Information

Start	Lat: 51 ° 12.49 N
	Lon: 128 ° 28.09 W

Bottom

Lat: 51 ° 12.48 N
Lon: 128 ° 28.10 W

End

Lat: ° N
Lon: ° W

Extra comments: