

OCEAN SCIENCES STRICKLAND CTD LOG

201601

DATE (dd-mm)	local TIME (UTC)	LAT.	LONG.	STN NAME	BOTTOM DEPTH (m)	CAST DEPTH (m)	CTD File Name
28 Jan	0946	48 38.331	123 29.984	S4	199	195	20160128-S4
	1215	48 33.144	123 32.011	S2	215	210	20160128-S2
29 Jan	0924	48 39.976	123 30.098	S4.5	170	168	20160129-S45
	1125	48 36.838	123 29.922	S3.5	223	218	20160129-S35
	1323	48 33.786	123 30.607	S2.5	230	220	20160129-S25
30 Jan	0948	48 35.463	123 30.024	S3	228	223	20160130-S3
	1219	48 32.213	123 32.834	S1.5	205	195	20160130-S15

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

Anastasia Glicman

VESSEL: Strickland

Collected By: Hilary, Mike, Richard

Date: January 28, 2016

Consecutive Stn #: 1

Station Name: S4

Notes: (temperature, wind, barometer, weather, sea-state, etc)

Sunny, not v. windy (light breeze), calm chop, no white caps
~10°C 40% cloud cover, not over inlet.

EVENT NUMBER	EVENT TYPE	TIME (local, 24h format)	LATITUDE (N) (dd mm.mmm)	LONGITUDE (W) (ddd mm.mmm)	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, problems, etc)
1	CTD	09:46	48°38.331	123°29.984	199	195 190	20160128-S4
2	NISK	10:28	48°38.346'	123°30.004'	199	185	deep 110, 120, 125, 130, 135, 145, 160, 185
3	NISK	11:20	48°38.286'	123°29.949'	199	100	Sur, 10m, 20, 30, 40, 50, 75, 100

Sur, 10, 20, 30, 40, 50, 75, 100
100 90 80 70 60 50 25

25+
+ 15.
40.
+ 10.
50.
5

155
60
5
65

110 120 125 130 135 145 160
75 65 60 55 50 40 25

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: RHINOCELOS + DAVE

Date: 28-JAN-16

Consecutive Stn #: 2

Station Name: S2

Notes: (temperature, wind, barometer, weather, sea-state, etc)

(LIGHT RAIN)
SOME WIND BUT NOT TOO MUCH, CALM SEAS, MIXED RAIN/SUN
BRISK BUT NOT ESPECIALLY COLD EV. #1 / WIND: 26 KTS EV. 6
RAIN EV. 6

EVENT NUMBER	EVENT TYPE	TIME (local, 24h format)	LATITUDE (N) (dd mm.mmm)	LONGITUDE (W) (ddd mm.mmm)	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, problems, etc)
4	CTD	12:15	48° 33.144	123° 32.011	215m	210	FIRST 80m OF DESCENT A BIT QUICK SWEET RAINBOW BOT: 12:22 SURF: 12:27 20160128-S2.4ex
5	BOT	1:00					100, 110, 120, 130, 140, 150, 175, 200 100 90 80 70 60 50 25 0 ✓ ✓ ✓ ✓ ✓ ✓ ✓
6	BOT	1:51					0 10 20 30 40 55 70 85 85 75 65 55 45 30 15 0 ✓ ✓ ✓ ✓ ✓ ✓ ✓

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: Kelsay Cullen

Date: January 29, 2016

Consecutive Stn #: ~~48~~ 3

Station Name: S4.5

Notes: (temperature, wind, barometer, weather, sea-state, etc)

10 °C, 7 reliefs N, 29.65 Hg, rain, 0-1 seas

EVENT NUMBER	EVENT TYPE	TIME (local, 24h format)	LATITUDE (N) (dd mm.mmm)	LONGITUDE (W) (ddd mm.mmm)	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, problems, etc)
7	CTD	9:21	48° 39.976'	123° 30.098'	170 m	168 m	2016-01-29-S4.5
8	Niskin	9:45 (10:01)	48° 39.963'	123° 30.053'	170 m	155 m	bottom-surface 155, 145, 135, 130, 125, 120, 115, 110 m ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
9	Niskin		48° 39.994'	123° 30.033'	169	82	bottom-surface 20, 30, 40, 50, 60, 70, 80, 90, 100 m ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: Kelsey Allen

Date: 29 Jan 2016

Consecutive Stn #: 4

Station Name: S3:5

Notes: (temperature, wind, barometer, weather, sea-state, etc)

7°C, 8 SE, 29.45 Hg, rain, 0-1 sea

EVENT NUMBER	EVENT TYPE	TIME (local, 24h format)	LATITUDE (N) (dd mm.mmm)	LONGITUDE (W) (ddd mm.mmm)	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, problems, etc)
10	CTD	11:25	48° 36.838'	123° 29.922'	223m	218m	20160129-S3.5
11	Niskin	11:59	48° 36.830'	123° 30.038'	222m	205m	bottom-surface 205, 180, 160, 140, 135, 130, 125, 120 ✓ ✓ ✓ ✓ ✓ ✓ ✓
12	Niskin	12:34	48° 36.848'	123° 29.992'	223m	100m	bottom-surface 100, 80, 60, 40, 20, 10, 5, 0 ✓ ✓ ✗ ✗ ✗ ✗ ✗ ✗

* Niskin 3 came up wrapped around messenger on recovery -
no evidence that bottle opened.

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Date: 29 Jan 2016

Collected By: Sile Kofrissen

Consecutive Stn #: 5

Station Name: 32.5

Notes: (temperature, wind, barometer, weather, sea-state, etc) temp. 8°C, 29.68 inHg
Calm seas for most of period.
rain on and off for sampling period, S-E ish wind

EVENT NUMBER	EVENT TYPE	TIME (local, 24h format)	LATITUDE (N) (dd mm.mmm)	LONGITUDE (W) (ddd mm.mmm)	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, problems, etc)
13	CTD	13:23	48°33.786 123°30.607	123°30.607	230	220	20160129_S25
14	Niskin	13:48	48°33.754	123°30.601	230	220	220, 180, 150, 130, 125, 120, 115, 110 ↓ ↓ ↓ ↓ ↓ ↓ ↓ 40 30 20 15 5 5 5
15	Niskin	14:35	48°33.717	123°30.503	130	100	100, 80, 65, 55, 40, 30, 10, 0 ↓ ↓ ↓ ↓ ↓ ↓ ↓ 20 15 10 5 10 20 8

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: Brandy Biggar

Date: 30 Jan

Consecutive Stn #: 6

Station Name: S3

Notes: (temperature, wind, barometer, weather, sea-state, etc)

*Wind South 12 knots at 10:00am - glassy chop
Fresh snow on Malahat at dew point few 100 m elev*

EVENT NUMBER	EVENT TYPE	TIME (local, 24h format)	LATITUDE (N) (dd mm.mmm)	LONGITUDE (W) (ddd mm.mmm)	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, problems, etc)
16	CTD	09:48	48°35.522'	123°30.014'	228	218 223	41 m/s down 20160130-S3
17	NISK	10:15	48°35.444'	123°29.994'	228m	215	120, 125, 130, 135 140, 170, 195, 215
18	NISK	11:10	48°35.463'	123°30.024'	228	100	0, 5, 15, 25, 45, 65 85, 100

0 5 15 25 45 65 85 100
100 95 85 75 55 35 15

120 125 130 135 140 170 195 215
95 90 85 80 75 45 20 0

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: Sean Gregory

Date: 30 Jan 2016

Consecutive Stn #: 7

Station Name: S1.5

Notes: (temperature, wind, barometer, weather, sea-state, etc)

Wind: 0-2 KN (no direction) Weather: scattered showers

Temp: 8°C Sea-state: Small waves

EVENT NUMBER	EVENT TYPE	TIME (local, 24h format)	LATITUDE (N) (dd mm.mmm)	LONGITUDE (W) (ddd mm.mmm)	BOTTOM DEPTH (m)	CAST DEPTH (m)	NOTES (e.g. CTD file names, bottle depths, flow meter readings, problems, etc)
19	CTD	1219	48° 32.213	123° 32.834	205	195	>1 m/s, 20160130_S15.hex
20	Nisk	1246	48° 32.191	123° 32.861	205	190	90, 110, 120, 125, 130, 150, 160, 190 100 80 70 65 60 40 30 0
21	Nisk	1341	48° 32.156	123° 32.832	205	70	0, 5, 10, 25, 40, 50, 60, 70 70, 65, 60 45 30 20 10 0

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: S4Date: Jan 28, 2016Time Sampled: 10:30Cast #: 1 Event #: 2Sampler Names: Hilary, Mike, Richard

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	110	002 C ✓	X	A01 ✓	X	✓	X	✓	✓
7	120	003 ✓ / 004 ✓	C01 ✓	A02 ✓	✓	✓	✓	✓	✓
6	125	005 ✓ / 006 ✓	X	A03 ✓	✓	✓	✓	✓	✓
5	130	007 ✓ / 009 ✓	X	A04 ✓	✓	✓	✓	✓	✓
4	135	010 ✓ / 011 ✓	X	A05 ✓	✓	✓	✓	✓	✓
3	145	012 ✓ / 013 ✓	C02 ✓	A06 ✓	✓	✓	✓	✓	✓
2	160	014 ✓	X	A07 ✓	X	✓	X	✓	✓
1	185	015 ✓	X	A08 ✓	✓	✓	✓	✓	✓

NOTES: Bottle ⁺³₂₁ 4 smells like sulfur

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? 1450

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: S4Date: Jan 28, 2016Time Sampled: 11:45Cast #: 2 Event #: 3Sampler Names: Hilary, Mike, Richard

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	SUR	016/017 ✓	CO3 ✓	A09 ✓	✓	✓	✓	X	✓
7	10	018 ✓	CO4 ✓	A10 ✓	✓	✓	✓	X	✓
6	20	/	/	A11 ✓	✓	✓	✓	X	✓
5	30	019 ✓	CO5 ✓	A12 ✓	✓	✓	✓	X	X
4	40	/	/	A13 ✓	✓	✓	✓	X	x
3	50	020 ✓	CO6 ✓	A14 ✓	✓	✓	✓	X	X
2	75	/	/	A15 ✓	✓	✓	✓	✓	✓
1	100	/	/	A16 ✓	✓	✓	✓	✓	✓

NOTES: DIC → CO4 had more atm. exposure than others.

NH4 Stds Vial# STD1 = ^{0 μM} 142 STD2 = ^{1.25 μM} 143 STD3 = ^{2.5 μM} 144 STD4 = ^{5.0 μM} 145 STD5 = ^{10 μM} 146 ^{15 μM} 147 = STD6

NH4 Spiked with Working Reagent: (yes) no Time Spiked? 11:55 amNH4 Time Analysed? 1450

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: 2Date: Jan 28/16

Time Sampled: _____

Cast #: 1 Event #: 5Sampler Names: Zach, max, Anastasia, Declan

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8	100	021C✓ 022C✓	C-08✓	A-17✓	✓	✓	✓	✓
7	110	X	X	A-18✓	✓	✓	✓	✓
6	120	023C✓ 024C✓	C-09✓	A-19✓	✓	✓	✓	✓
5	130(I)	025C✓ 026C✓	X	A-20✓	✓	✓	✓	✓
4	140	027C✓	X	A-21✓	✓	✓	✓	✓
3	150	028C✓ 029C✓	X	A-22✓	✓	✓	✓	✓
2	175	X	X	A-23	✓	✓	✓	✓
1	200	030C✓	X	A-24✓	X	✓	X	✓

NOTES: 5-1 Niskin have sulphur smell

see event 6

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? 2:25NH4 Time Analysed? 1720

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: 2Date: Jan 28/2016Time Sampled: 2:10Cast #: 2 Event #: 6Sampler Names: Anastasia, Zach, Max, Declan

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8	0	031C, 032C ✓	C-10 ✓	A-25 ✓	✓	✓	✓	✓
7	10	033C	C-11	A-26 ✓	✓	✓	✓	✓
6	20	033C ✓ 035C ✓	C-11 ✓	A-27 ✓	✓	✓	✓	✓
5	30	034C	C-12	A-28 ✓	✓	✓	✓	✓
4	40	036C ✓	C-12 ✓	A-29 ✓	✓	✓	✓	✓
3	55	037C	C-13	A-30 ✓	✓	✓	✓	✓
2	70	037C ✓	C-13 ✓	A-31 ✓	✓	✓	✓	✓
1	85	038C	C-14	A-32 ✓	✓	✓	✓	✓

NOTES:

A-136 A-137 A-138 A-139 A-140 A-141
 NH4 Stds Vial# STD1 = 10 µM STD2 = 1.25 µM STD3 = 2.5 µM STD4 = 5 µM STD5 = 10 µM STD6 = 15 µM

NH4 Spiked with Working Reagent: (yes) no Time Spiked? 2:25

NH4 Time Analysed? 1720

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: 4.5Date: Jan 29th/16Time Sampled: 10:10-10:35Cast #: 1 Event #: 8Sampler Names: Sile, Brody, Chris, Michaela

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8	100	X	X	A-43	✓	✓	✓	✓
7	115	(2) 38C 39C	X	A-44	X	✓	X	✓
6	120	X	X	A-45	✓	✓	✓	✓
5	125	(2) 40C 41C	C14	A-46	✓	✓	✓	✓
4	130	(2) 42C 43C	X	A-47	✓	✓	✓	✓
3	135	(2) 44C 45C	X	A-48	✓	✓	✓	✓
2	145	X	X	A-49	✓	✓	✓	✓
1	155	47C	C15	A-50	✓	✓	✓	✓

NOTES:

- Niskin bottle #2 leaking slightly
- Smell sulfide @ Niskin bottle #1, #2, #3, #4

NH4 Stds Vial# STD1 = A115 STD2 = A119 STD3 = A118 STD4 = A117 STD5 = A116NH4 Spiked with Working Reagent: (yes) no Time Spiked? 11:25NH4 Time Analysed? 3:33-3:55

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: 4.5Date: Jan 29th / 16Time Sampled: 10:55 - 11:22Cast #: 2 Event #: 9Sampler Names: Sile, Brady, Chris, Michaela

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	0m	(2) 48C✓ 49C✓	C16✓	A-33✓	✓	✓	✓	X	
7	5m	50C✓	C17✓	A-34✓	✓	✓	✓	X	
6	15m	(2) 51C✓ 52C✓	C18✓	A-35✓	✓	✓	✓	X	
5	25m	X	X	A-36✓	✓	✓	✓	X	
4	35m	(2) 53C✓ 55C✓	X	A-37✓	✓	✓	✓	✓	✓
3	50m	X	X	A-38✓	✓	✓	✓	X	
2	60m	56C✓	C19✓	A-39✓	✓	✓	✓	✓	✓
1	80m	X	X	A-40✓	X	✓	X	X	

NOTES:

NH4 Stds Vial# STD1 = A115 STD2 = A119 STD3 = A118 STD4 = A117 STD5 = A116NH4 Spiked with Working Reagent: (yes) no Time Spiked? 11:25NH4 Time Analysed? 3:33-3:55

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: S3.5Date: Jan 29/16Time Sampled: 12:48Cast #: 2 Event #: 12Sampler Names: Kai, Ryan, Forest

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	0	064 [✓] /065 [✓]	C-20 [✓]	A-59 [✓]	[✓]	[✓]	[✓]		
7	5	066 [✓]	C-21 [✓]	A-60 [✓]	[✓]	[✓]	[✓]		
6	10	067 [✓] /068 [✓]	C-22 [✓]	A-61 [✓]	[✓]	[✓]	[✓]		
5	20	069 [✓]	C-23 [✓]	A-62 [✓]	[✓]	[✓]	[✓]		
4	40	070 [✓] /071 [✓]	C-24 [✓]	A-63 [✓]	[✓]	[✓]	[✓]	✓	
3	60			A-64 [✓]	[✓]	[✓]	[✓]		
2	80	072 [✓]	C-25 [✓]	A-65 [✓]	[✓]	[✓]		✓	
1	100			A-66 [✓]	[✓]	[✓]	[✓]		

NOTES:

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? 30 Jan 09:13

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: S3.5Date: Jan 29/16Time Sampled: 12:13Cast #: 1 Event #: 11Sampler Names: Kai, Ryan, Forest

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	✓ NO3	✓ NO2	✓ PO4	✓ Mn (✓ when acid spiked)
8	120	057 ✓	X	A-51 ✓				✓
7	125	X		A-52 ✓				✓
6	130	058 ✓ / 059 ✓		A-53 ✓	X		X	✓
5	135	X		A-54 ✓				✓
4	140	060 ✓ / 061 ✓		A-55 ✓				✓
3	160	062 ✓		A-56 ✓				✓
2	180	X		A-57 ✓	X		X	✓
1	205	063 ✓		A-58 ✓				✓

NOTES: - Niskin #4 smelled like sulfur

- Niskin bottle 3 smelled of sulfur

- Niskin 5 smelled of sulfur

NH4 Stds Vial# STD1 = A125 STD2 = A126 STD3 = A127 STD4 = A128 STD5 = A129NH4 Spiked with Working Reagent: yes no Time Spiked? 17:31NH4 Time Analysed? 09:15 30 Jan

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: S2.5Date: Jan. 29, 2016Time Sampled: 2:51Cast #: 2 Event #: 15Sampler Names: Kebe, Ed, Holly, Noel

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8	0	079C 080C	C27	A75	✓	✓	✓	✓
7	10	081C 082C	C28	A76	✓	✓	✓	✓
6	30	083C 084C	C29	A77	✓	✓	✓	✓
5	40	085C	C30	A78	✓	✓	✓	✓
4	55	/	/	A79	✓	✓	✓	✓
3	65	086C, 087C	C31	A80	✓	✓	✓	✓
2	80	/	/	A81	✓	✓	✓	✓
1	100	088C	/	A82	✓	✓	/	✓

NOTES:

refilled NO3 bottles (human error)

NH4 Stds Vial# STD1 = A120 (0 μ mol) STD2 = A121 (2.5 μ mol) STD3 = A122 (5.0 μ mol) STD4 = A123 (10.0 μ mol) STD5 = A124 (15.0 μ mol)

NH4 Spiked with Working Reagent: (yes) no Time Spiked? 17:40NH4 Time Analysed? 30 Jan 9:02

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: SZ.5Date: Jan. 29, 2016Time Sampled: 2:10Cast #: 1 Event #: 14Sampler Names: Kelsey, Ed, Holly, Noel

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8	110	0730 0740	C-26	A67	✓	✓	✓	✓
7	115	0750	/	A68	✓	✓	✓	✓
6	120	0760 0770	/	A69	✓	✓	✓	✓
5	125	0780	/	A70	✓	✓	✓	✓
4	130	/	/	A71	✓	✓	✓	✓
3	150	/	/	A72	✓	✓	✓	✓
2	180	/	/	A73	/	/	/	✓
1	220	/	/	A74	/	/	/	✓

NOTES:

only 34mL in Sample A69 for NH4
 Smelled nitrogen 1-4 (130-220 m)
 0.2 Shaker + water in sps ✓

NH4 Stds Vial# STD1 = _____ STD2 = _____ STD3 = _____ STD4 = _____ STD5 = _____

NH4 Spiked with Working Reagent: yes no Time Spiked? _____

NH4 Time Analysed? 30 Jan 9:02

NH4 Time Analysed?

SHALLOW CAST

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: S3Date: Jan 30/2016Time Sampled: 11:28Cast #: 2 Event #: 18Sampler Names: Curtis, Mark, Sean, Krista

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)
8	0	098C 11:29 099C 11:30	C-33	A-91	✓	✓	✓	✓
7	5	100C 11:32		A-92	✓	✓	✓	✓
6	15	101C 11:34	C-34	A-93	✓	✓	✓	✓
5	25	102C 11:35 103C 11:37	C-35	A-94	✓	✓	✓	✓
4	45	104C 11:39	C-36	A-95	✓	✓	✓	✓
3	65	106C 11:40		A-96	✓	✓	✓	✓
2	85			A-97	✓	✓	✓	✓
1	100	107C 11:42	C-37	A-98	✓	✓	✓	✓

NOTES:

12:13

NH4 Stds Vial# STD1 = A130 0μM STD2 = A131 1.25μM STD3 = A132 2.5μM STD4 = A133 5.0μM STD5 = A134 10μM A135 15μM

NH4 Spiked with Working Reagent: yes no Time Spiked? 12:00

NH4 Time Analysed?

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: Sl. 5Date: Jan 30, 2016Time Sampled: 12:13:35Cast #: 1 Event #: 20Sampler Names: Brandy Biggar, Patrick Schroeder, Sarah Bozian

Niskin Bottle	Target Depth (m)	Sarah Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	90	¹ 108c ✓	X	A-99 ✓	✓	✓	✓	✓	✓
7	110	² 109c ✓ 110c ✓	c-38 ✓	A-100 ✓	✓	✓	✓	✓	✓
6	120	² 111c ✓ 112c ✓	c-39 ✓	A-101 ✓	✓	✓	✓	✓	✓
5	125	² 114c ✓ 115c ✓	X	A-102 ✓	✓	✓	✓	✓	✓
4	130	X	X	A-103 ✓	✓	✓	✓	✓	✓
3	150	X	X	A-104 ✓	✓	✓	✓	✓	✓
2	160	X	X	A-105 ✓	X	✓	✓	✓	✓
1	190	X	X	A-106 ✓	X	✓	✓	✓	✓

NOTES:

smell sulfur in Niskin 1
light rain

NH4 Stds Vial# STD1 = A41 STD2 = A42 STD3 = 2.5 μM STD4 = 5.0 μM STD5 = 10 μM

NH4 Spiked with Working Reagent: (yes) ^{0 μM} ^{1.25 μM} no Time Spiked? 14:30

STD6 = 15 μM

NH4 Time Analysed? _____

Water Chemistry Sampling

Cruise: EOS 312 JAN 2016

201601

Station Name: S1.5Date: Jan 30, 2016Time Sampled: 13:44Cast #: 2 Event #: 21Sampler Names: Brandy Bigger, Patrick Schroeder, Sarah Rozdian

Niskin Bottle	Target Depth (m)	^{Sarah} Oxygen Bottle #'s	^{Patrick} DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (✓ when acid spiked)	
8	0	² 116 C ✓ 117 C ✓	C 40 ✓	A-107 ✓	✓	✓	✓	X	X
7	5	² 118 C ✓ 119 C ✓	C 41 ✓	A-108 ✓	✓	✓	✓	X	X
6	10	² 120 C ✓ 121 C ✓	C 42 ✓	A-109 ✓	✓	✓	✓	X	X
5	25	¹ 122 D ✓	X	A-110 ✓	✓	✓	✓	✓	✓
4	40	X	X	A-111 ✓	✓	✓	X	X	X
3	50	¹ 123 C ✓	C 43 ✓	A-112 ✓	✓	✓	✓	X	X
2	60	X	X	A-113 ✓	✓	✓	X	✓	✓
1	70	¹ 124 C ✓	X	A-114 ✓	✓	✓	✓	X	X

NOTES: no rain

Cloudy, little wind, small wind waves

O₂ 123C possible air bubbleNH4 Stds Vial# STD1 = A42 STD2 = A42 STD3 = 2.5 μM STD4 = 5.0 μM STD5 = 10 μM,
_{0 μM 1.25}NH4 Spiked with Working Reagent: (yes) no Time Spiked? 14:30STD 6 = 15 μM

NH4 Time Analysed? _____

OSM January 2016

GROUP Flying Fishes

Responsible for Station S1.5

Saanich Inlet Stations

Station S1.5

Niskin number	Depth (m)	O2	DIC/Alk/pH	MN	NH4	NO2	NO3	PO4
16	8	0	✓		✓	✓	✓	✓
15	7	5	✓		✓	✓	✓	✓
14	6	10	✓		✓	✓	✓	✓
13	5	25	✓	✓	✓	✓	✓	✓
12	4	40			✓	✓	✓	
11	3	50	✓		✓	✓	✓	✓
10	2	60		✓	✓	✓	✓	
9	1	70	✓		✓	✓	✓	✓
8	80	80	✓	✓	✓	✓	✓	✓
7 8	90	✓		✓	✓	✓	✓	✓
6 7	110	✓	✓	✓	✓	✓	✓	✓
5 6	120	✓	✓	✓	✓	✓	✓	✓
4 5	125	✓		✓	✓	✓	✓	✓
3 4	130			✓	✓	✓	✓	✓
2 3	150			✓	✓	✓	✓	✓
1 2	160			✓	✓	✓		✓

1 190 ✓ ✓ ✓ X ✓

Instead of choosing particular depths to target the interface, you could indicate values like "interface + 10 m"

Sampling interval no closer than 5 m.

Anastasia, Declan, Max, Zach

Group A:

OSM January 2016

GROUP Anoxic Anceba

Responsible for Station S2

Saanich Inlet Stations

Station S2

Niskin number	Depth (m)	O2	DIC/Alk/pH	MN	NH4	NO2	NO3	PO4
16	8 surface	✓✓	✓		✓	✓	✓	✓
15	7 5.10-5			✓	✓	✓	✓	✓
14	6 20	✓✓	✓		✓	✓	✓	✓
13	5 30				✓	✓		
12	4 40	✓	✓	✓	✓	✓	✓	✓
11	3 55				✓	✓	✓	✓
10	2 70	✓	✓		✓	✓	✓	✓
9	1 85				✓	✓	✓	✓
8	100	✓✓	✓	✓	✓	✓	✓	✓
7	110			✓	✓	✓	✓	✓
6	120	✓✓	✓	✓	✓	✓	✓	✓
5	Interface	✓✓		✓	✓	✓	✓	✓
4	140	✓✓		✓	✓	✓	✓	✓
3	150	✓✓		✓	✓	✓	✓	✓
2	175			✓	✓	✓	✓	✓
1	200	✓		✓	✓	✓		

Instead of choosing particular depths to target the interface, you could indicate values like "interface + 10 m" ~130/140
Sampling interval no closer than 5 m.

OSM January 2016

GROUP Sea Lions

Responsible for Station Kelsey, Holly, Ed, Noel

Saanich Inlet Stations

Station S 2.5

Niskin number	Depth (m)	O2	DIC/Alk/pH	MN	NH4	NO2	NO3	PO4
16 8	0	✓✓	✓		T	T	T	✓
15 7	10	✓✓	✓					✓
14 6	30	✓✓	✓	✓				✓
13 5	40	✓	✓					✓
12 4	55							✓
11 3	65	✓✓	✓	✓				✓
10 2	80							✓
9 1	100	✓						
8	110	✓✓	✓	✓				✓
7	115	✓✓		✓				✓
6	120	✓✓		✓				✓
5	125	✓✓		✓				✓
4	130			✓				✓
3	150			✓			T	✓
2	180			✓				
1	220			✓	T	T		✓

Instead of choosing particular depths to target the interface, you could indicate values like "interface + 10 m"

Sampling interval no closer than 5 m.

OSM January 2016

GROUP Gutsy Georgians

Responsible for Station S3

Saanich Inlet Stations

Station S3

16 total

Niskin number	Depth (m)	O2	DIC/Alk/pH	MN	NH4	NO2	NO3	PO4
16 8	0	✓	✓		✓	✓	✓	✓
15 7	5	✓			✓	✓	✓	✓
14 6	15	✓	✓		✓	✓	✓	✓
13 5	25	✓	✓		✓	✓	✓	✓
12 4	45	✓	✓		✓	✓	✓	✓
11 3	65	✓			✓	✓	✓	✓
10 2	85		✓	✓	✓	✓	✓	✓
9 1	100	✓		✓	✓	✓	✓	✓
8	120	✓		✓	✓	✓	✓	✓
7	125	✓	✓	✓	✓	✓	✓	✓
6	130	✓	✓	✓	✓	✓	✓	✓
5	135	✓		✓	✓	✓	✓	✓
4	140			✓	✓	✓	✓	
3	170			✓	✓	✓	✓	✓
2	195			✓	✓	✓		
1	215			✓	✓	✓		✓

DEEPCAST FIRST

Instead of choosing particular depths to target the interface, you could indicate values like "interface + 10 m"

Sampling interval no closer than 5 m.

OSM January 2016

GROUP "D" p Sea Divers
 Kai, Ryan, Forest
 Saanich Inlet Stations

Responsible for Station S3.5

Station S3.5

Niskin number	Depth (m)	O2	DIC/Alk/pH	MN	NH4	NO2	NO3	PO4
16	8	0	✓ D		✓	✓	✓	✓
15	7	5	✓		✓	✓	✓	✓
14	6	10	✓ D		✓	✓	✓	✓
13	5	20	✓		✓	✓	✓	✓
12	4	40	✓ D	✓	✓	✓	✓	✓
11	3	60			✓	✓	✓	✓
10	2	80	✓	✓	✓	✓	✓	✓
9	1	100			✓	✓	✓	✓
8	120	✓		✓	✓	✓	✓	✓
7	140 125	140 125		✓	✓	✓	✓	✓
6	145 130*	✓ D		✓	✓	✓	—	—
5	150 135	150 135		✓	✓	✓	✓	✓
4	155 140	✓ D		✓	✓	✓	✓	✓
3	160	✓		✓	✓	✓	✓	✓
2	180			✓	✓	✓	—	—
1	205	✓		✓	✓	✓	✓	✓

Instead of choosing particular depths to target the interface, you could indicate values like "interface + 10 m"

Sampling interval no closer than 5 m.

* = interface ± 10m; samples every 5 m.

D = duplicate

Hilary, Mike, Richard.

OSM January 2016

GROUP Rhinoceros

Responsible for Station S4

Saanich Inlet Stations

Station S4

Niskin number	Depth (m)	O2	DIC/Alk/pH	MN	NH4	NO2	NO3	PO4
16	8 surface	✓x2	✓		✓	✓	✓	✓
15	7 10	✓	✓		✓	✓	✓	✓
14	6 20				✓	✓	✓	✓
13	5 30	✓	✓		✓	✓	✓	✓
12	4 40				✓	✓	✓	✓
11	3 50	✓	✓		✓	✓	✓	✓
10	2 75			✓	✓	✓	✓	✓
9	1 100			✓	✓	✓	✓	✓
110	8 I-15	✓		✓	✓	✓		
120	7 I-10	✓x2	✓	✓	✓	✓	✓	✓
125	6 I-5	✓x2		✓	✓	✓	✓	✓
130	5 Interface	✓x2		✓	✓	✓	✓	✓
135	4 I+5	✓x2		✓	✓	✓	✓	✓
145	3 I+10	✓x2	✓	✓	✓	✓	✓	✓
60	2 I+15			✓	✓	✓		
1	185			✓	✓	✓	✓	✓

bottom 195.

Instead of choosing particular depths to target the interface, you could indicate values like "interface + 10 m"

Sampling interval no closer than 5 m.

OSM January 2016

GROUP E (Element Examiners)Responsible for Station S4.5

Saanich Inlet Stations

Station S4.5

Niskin number	Depth (m)	O2	DIC/Alk/pH	MN	NH4	NO2	NO3	PO4
16	8	0m	✓✓	✓	✓	✓	✓	✓
15	7	5m	✓	✓	✓	✓	✓	✓
14	6	15m	✓✓	✓	✓	✓	✓	✓
13	5	25m			✓	✓	✓	✓
12	4	35m	✓✓	✓	✓	✓	✓	✓
11	3	50m			✓	✓	✓	✓
10	2	60m	✓	✓	✓	✓	✓	✓
9	1	80m			✓	✓		
8		100m		✓	✓	✓	✓	✓
7		115	✓✓	✓	✓	✓		
6		120		✓	✓	✓	✓	✓
5		125	✓✓	✓	✓	✓	✓	✓
4 (130)		130m	✓✓	✓	✓	✓	✓	✓
3		135m	✓✓	✓	✓	✓	✓	✓
2		145m		✓	✓	✓	✓	✓
1		155m	✓	✓	✓	✓	✓	✓

17

6

10

16

16

14

14

Instead of choosing particular depths to target the interface, you could indicate values like:
 "interface + 10 m"

Sampling interval no closer than 5 m.

* = subject to change

* NOTE: above depths based on an oxic/
 anoxic interface at 105m depth.