EOS 312

OCEAN SCIENCES STRICKLAND CTD LOG

201701

DATE (dd-mmm)	TIME (local)	LAT. (N)	LONG. (W)	STN NAME	BOTTOM DEPTH (m)	CAST DEPTH (m)	CTD File Name
26-Jan	10:30	48 35.586	123 30.001	S3	228	218	20170126_S3.hex
	13:00	48 30.914	123 32.398	S1	145	140	20170126_S1
27 Jan	9:57	48 38.489	123 30.002	S4	195	189	20170127_S4
	1220	48.5636	123.5078	S2.5	232	220	20170127_S25
	1415	48 32.552	123 32.944	S1.5	210	200	20170127_S15
28 Jan	942	48 40.153	123 30.019	S4.5	165	155	20170128_S45
	1132	48 36.846	123 30.024	S3.5	221	210	20170128_S35
	1342	48 33.151	123 32.018	S2	215	205	20170128_S2

clock in PDT

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: Tyler Armeneau

Date: 26 Jan 2017

Consecutive Stn #: 1

Station Name: S3

Notes: (temperature, wind, barometer, weather, sea-state, etc)
7°C ø 30.65 in Hg Over cast, calm sea 15 mm Viz

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	10:30	N 48° 35.586	123° 30.001	228 m	218 m	2017012603 → CTD File Name. 105
2	Deep Niskin cast	11:17			228 m	105-200 m	105, 110, 115, 120, 125, 145 160, 200
3	Shallow Niskin Cast	12:09			228 m	0-90 m	0, 5, 10, 15, 30, 50, 70, 90 90 m valve not closed.

EVENT NUMBER = each "cast" of equipement is given a new number, sequential from the beginning of the cruise.
EVENT TYPE = CTD, NISK, ZOOP, PHYTO, GRAB
Bottom Depth = depth of water
Cast Depth = deepest depth the equipment reaches

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Date: 26 Jan 2017

Collected By: Aaron M.

Consecutive Stn #: 2

Station Name: S1

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

Calm and cloudy

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	13:00	48 30.914	123 32.398	~~151~~ 145	140	Station S1 20170126_S1
5	NISK deep	13:24	48 30.928	123 32.421	149	~~140~~	5* 4 3 2 1 100, 105, 110, 115, 125, 140 40 35 30 25 15
6	NISK shallow	14:17	48° 30.948'	123° 32.413'	150	95	0, 5, 15, 30, 50, 70, 90, 95
							*sulfide smell ~~bottom~~ at 105m

EVENT NUMBER = each "cast" of equipement is given a new number, sequential from the beginning of the cruise.
EVENT TYPE = CTD, NISK, ZOOP, PHYTO, GRAB
Bottom Depth = depth of water
Cast Depth = deepest depth the equipment reaches

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: ~~Danger Zone~~

Date: Jan. 27th, 2017

Consecutive Stn #: 3

Station Name: S4

Notes: (temperature, wind, barometer, weather, sea-state, etc)
Cloudy, overcast, light breeze

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	9:57	~~123° 38.002'~~ 48° 38.489'	123° 30.002'	195	189	20170127-54
8	NISK	10:45	48° 38.461'	123° 29.979	196	185	D: 105, 110, 115, 130, 150, 185 55 105,110,115,130,150,185
9	NISK 2	11:52	48° 38.443'	123° 29.993'	196	100	D: 0,5,10,25,50,75,95,100 0,5,10,25,50,75,95,100
							100 95 ~~90~~ 75 50 25 5 0

EVENT NUMBER = each "cast" of equipement is given a new number, sequential from the beginning of the cruise.
EVENT TYPE = CTD, NISK, ZOOP, PHYTO, GRAB
Bottom Depth = depth of water
Cast Depth = deepest depth the equipment reaches

wire out | 100 | 95 | 90 | 70 | 50 | 30 | 10 | 0

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: Ken

Date: 2017-01-27

Consecutive Stn #: 4

Station Name: S2.5

Notes: (temperature, wind, barometer, weather, sea-state, etc)
~~cloudy, ...~~ 10 °C
cloudy, sea state 0, 1

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	12:20	~~48 56 36 64~~ 48 33.767'	~~123 30 29 28~~ 123 30.504'	232	220	20170127_S25 * note: fix GPS format in header
11	Niskin Bottle Cast.	13:04	48 33.856	123 30.436	232	~~220~~ 220	105 110 115 120 130 160 190 220
12	Niskin Bottle Cast	13:34	48 33 727	123 30. 582	231	100	0(100), 5(95), 10(90), 30(70), 50(50), 70(30), 90(10), 100(0) Depth (wire out)
		depart 13:50					

EVENT NUMBER = each "cast" of equipment is given a new number, sequential from the beginning of the cruise.
EVENT TYPE = CTD, NISK, ZOOP, PHYTO, GRAB
Bottom Depth = depth of water
Cast Depth = deepest depth the equipment reaches

Depth | 105 | 110 | 115 | 120 | 130 | 160 | 190 | 21
wire out | 115 | 110 | 105 | 100 | 90 | 60 | 30 | 0

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: Kyle Bailey

Date: Jan 27

Consecutive Stn #: 5

Station Name: S1.5

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

cloudy, flat calm, 16.5°C, barometer ↓ 30.75

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	14:15	48° 32.552'	123° 32.944'	210	200	slow through 90-130m on the way down
14	Niskin	12:50	48° 32.366'	123° 32.980	210	180	0, 110, 115, 120, 130, 150, 180m 70 65 60 50 30 Niskin 6 5 4 3 2 1
15	Nisk	15:22	48°32.583'	123°33.016'	210	105	0 10 20 40 60 80 100 105 10 95 85 65 45 25 5 0

EVENT NUMBER = each "cast" of equipement is given a new number, sequential from the beginning of the cruise.
EVENT TYPE = CTD, NISK, ZOOP, PHYTO, GRAB
Bottom Depth = depth of water
Cast Depth = deepest depth the equipment reaches

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland

Collected By: Galloping Geese (S.W)

Date: Jan 28th 2017

Consecutive Stn #: 6

Station Name: S4.5

Notes: (temperature, wind, barometer, weather, sea-state, etc)
fresh right on sfc (can see refraction)
partly cloudy, 7°C, calm 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)
16	CTD	9:42	48°40.153'	123°30.119'	165	155	20170128_545 first drop (6 5 4) second drop (3 2 1)
17	NISK	10:19	48°40.142'	123°30.119'	165	150	Depths: 100 105 118 115 125 150 (a) wire: 50 45 40 35 25 0 only 3 NISKINS closed on 1st cast
18	NISK	10:52	48°40.200'	123°30.104'	161	95	(1 2? 3) 4 5 6 7 8 95, 90, 80, 60, 25, 10, 5, 0 d 5 15 35 70 85 90 95 wire out
							*Swap out NISK 4 ~~for NISK~~ ?
							possibly messenger hang up! all niskins closed on recovery but I'm a bit concerned about bottom 3. (when closed?)

EVENT NUMBER = each "cast" of equipement is given a new number, sequential from the beginning of the cruise.
EVENT TYPE = CTD, NISK, ZOOP, PHYTO, GRAB
Bottom Depth = depth of water
Cast Depth = deepest depth the equipment reaches

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland
Date: Jan. 28th

Collected By: O'Hara, Spencer, Stuart, James

Consecutive Stn #: 7
Station Name: S3.5

Notes: (temperature, wind, barometer, weather, sea-state, etc)
Calm. Bottom depth: 221m.

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	11:32	48°36.846	123°30.024	221m	210m	20170128_S35
20	NISK	12:20			221m	210m	100, 105, 110, 115, 120, 160, 180, 210* ✓ -110 ✓ 105 ✓ 100 ✓ 95 ✓ 90 ✓ 50 ✓ 30 ✓ 0 ✓
21	NISK	13:05	48°36.843	123°29.995	220	95	0, 15, 10, 20, 40, 70, 90, 95* ✓ 95 ✓ 90 ✓ 85 ✓ 75 ✓ 55 ✓ 25 ✓ 5 ✓ 0 ✓
							and 95m (N1) *210m^ bottle opened while putting onto bottle rack - spigot pushed in

EVENT NUMBER = each "cast" of equipement is given a new number, sequential from the beginning of the cruise.
EVENT TYPE = CTD, NISK, ZOOP, PHYTO, GRAB
Bottom Depth = depth of water
Cast Depth = deepest depth the equipment reaches

UVIC OCEAN SCIENCES STRICKLAND EVENT LOG

VESSEL: Strickland
Date: Jan 28, 2017

Collected By: Ryan T (F)

Consecutive Stn #: 8
Station Name: S2

Notes: (temperature, wind, barometer, weather, sea-state, etc)
Temperature: 7°C
Weather: Sunny, Low wind, Calm water

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
22	CTD	1342	48°33.151	123°32.018	215	205	20170128_S2
23	NISK	1420	48 33.136	123 31.966	215	205	105 110 115 120 130 150 180 2 100 95 90 85 75 55 25
24	NISK	1507	48 33.150	123 31.965	215	100	0 5 10 15 30 50 75 100 100 95 90 85 70 50 25 0
		Head for dock @ 15:15.					

EVENT NUMBER = each "cast" of equipement is given a new number, sequential from the beginning of the cruise.
EVENT TYPE = CTD, NISK, ZOOP, PHYTO, GRAB
Bottom Depth = depth of water
Cast Depth = deepest depth the equipment reaches

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S3 Date: 26 Jan 2017 Time Sampled: 12:12

Cast #: 2 Event #: 3 Sampler Names: Aaron, Ryan G. Lynn

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8	0	6C ✓ 7C ✓	C05 ✓	A-09 ✓	✓	✓	✓	X	✓
7	5	8C ✓ 9C ✓	X	X	✓	✓	X	X	✓
6	10	10C ✓	C06 ✓	A-10 ✓	✓	✓	✓	X	✓
5	15	11C ✓	X	X	✓	✓	X	X	✓
4	30	12C ✓	C07 ✓	A-11 ✓	✓	✓	✓	X	✓
3	50	13C ✓	C08 ✓	A-12 ✓	✓	✓	✓	X	✓
2	70	14C ✓	X	A-13 ✓	✓	✓	✓	✓	✓
1	90	15C ✓	C09 ✓	A-14 ✓	✓	✓	✓	✓	✓

NOTES:

NH4 Stds Vial# STD1 = A-34 (0) STD2 = A-35 (2) STD3= A-36 (4) STD4= A-37 (10) STD5= A-38 (16)

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

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S3 Date: 26-Jan-2017 Time Sampled: 11:05

Cast #: A Event #: 2 Sampler Names: Aaron, Ryan G., Lynn

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8	105	5C		A-08	✓	✓	✓	✓	✓
7	110	004C	C-03	A-07	✓	✓	✓	✓	✓
6	115	003C		A-06	✓	✓	✓	✓	✓
5	120	002C		A-05	✓	✓	✓	✓	✓
4	125	001D	C-02	A-04	✓	✓	✓	✓	✓
3	145			A-03	✓	✓	✓	✓	✓
2	160			A-02			✓	✓	✓
1	200		C-01	A-01			✓	✓	✓

NOTES:
smelled sulfide in Niskin #1 & #2

NH4 Stds Vial# STD1 = A-15 (0) STD2 = A-16 (2) STD3= A-17 (4) STD4= A-18 (10) STD5= A-19 (16)

NH4 Spiked with Working Reagent: (yes) no Time Spiked? 13:08

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S1 Date: 26 Jan 2017 Time Sampled: _____

Cast #: 2 Event #: 6 Sampler Names: Tyler Mike Chad Jessica

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8	0	24C 25C	C-10	A-26	✓	✓	✓	X	X
7	5	26C 27C	C-11	A-27	✓	✓	✓	X	X
6	15	X	X	A-28	✓	✓	✓	X	X
5	30	X	X	A-29	✓	✓	✓	X	X
4	50	X	X	A-30	✓	✓	✓	✓	✓
3	70	28C	X	A-31	✓	✓	✓	✓	✓
2	90	29C	X	A-32	✓	✓	✓	✓	✓
1	95	30C	X	A-33	✓	✓	✓	✓	✓

NOTES:

NH4 Stds Vial# STD1 = A-34 (0) STD2 = A-35 (2) STD3= A-36 (4) STD4= A-37 (10) STD5= A-38 (16)

NH4 Spiked with Working Reagent: (yes) no Time Spiked? 14:50

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S1 Date: 26 Jan 2017 Time Sampled: ~13:40-14:00

Cast #: 1 Event #: 5 Sampler Names: Tyler, Mike, Chad, Jessica

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8	X	X	X	X	X	X	X	X	X
7	X	X	X	X	X	X	X	X	X
6	100	18C 17C	X	A-20	✓	✓	✓	✓	
5	105	18C 19C	X	A-21	✓	✓	✓	✓	
4	110	20C 21C	X	A-22	✓	✓	✓	✓	
3	115	22C	X	A-23	✓	✓	✓	✓	
2	125	23C	X	A-24	✓	✓	✓	✓	
1	140	X	X	A-25	✓	✓	✓	✓	

smelly water

NOTES:

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

NH4 Spiked with Working Reagent: (yes) no Time Spiked? 1450

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S4 Date: Jan 27 Time Sampled: 11:45 - 12:00

Cast #: 2 Event #: 9 Sampler Names: Kyle, Harry, Anny, Andrew (Junyo)

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s (Kyle)	DIC Bottle# (Andrew)	NH4 Vial# (Harry)	NO3	NO2	PO4	Mn (√ when acid spiked)	
8	0	37C ✓	C-15 ✓	A-45 ✓	✓	✓	✓	✓	✓
7	5	/	/	A-46 ✓	✓	✓	✓	/	/
6	50	038C ✓	C-16 ✓	A-47 ✓	✓	✓	✓	/	/
5	25	039C ✓	C-17 ✓	A-48 ✓	✓	✓	✓	/	/
4	50	040E ✓	/	A-49 ✓	✓	✓	✓	✓	✓
3	75	041E ✓	C-18 ✓	A-50 ✓	✓	✓	✓	/	/
2	125	042C ✓ 043 ✓	/	A-51 ✓	✓	✓	✓	✓	✓
1	100	044 ✓ 045D ✓	C-36 ✓	A-52 ✓	✓	✓	✓	✓	✓

NOTES:

NH4 before O_2 on niskin #4 bubble in 043

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

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

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S4 Date: Jan 27 Time Sampled: 12:55

Cast #: 1 Event #: 8 Sampler Names: Kyle, Andrew, Harry, Anna (Junyo)

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s (Harry)	DIC Bottle# (Andrew)	NH4 Vial# (Kyle)	NO3	NO2	PO4	Mn (√ when acid spiked)	
8									
7									
6	165	031C ✓ 032C ✓		A-39 ✓	✓	✓	✓	✓	✓
5	110	033C ✓ 034D ✓	C-12 ✓	A-46 ✓	✓	✓	✓	✓	✓
4	115	035C ✓ 036C ✓		A-41 ✓	✓	✓	✓	✓	✓
3	130		C-13 ✓	A-42 ✓	✓	✓	✓	✓	✓
2	150			A-43 ✓	✓	✓	✓	✓	✓
1	185		C-14 ✓	A-44 ✓	✓	✓	✓	✓	✓

sulfur

NOTES:

NH4 Stds Vial# STD1 = A-53 (0) STD2 = A-54 (2.2 µM) STD3= A-55 (4.4 µM) STD4= A-56 (16.4 µM) STD5= A-57 (16.0 µM)

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

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S 2.5 Date: Jan 27th/17 Time Sampled: 14:10

Cast #: 2 Event #: 12 Sampler Names: James, David, Conner, Tashi

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8	0	51C, 52C	C-19	A-66	✓	✓	✓	X	
7	5	53C	C-20	A-67	✓	✓	✓	X	
6	10	X	X	X	✓	X	✓	X	
5	30	54D	X	A-68	✓	✓	✓	X	
4	50	55C	X	X	✓	X	✓	X	
3	70	56C	X	A-69	✓	✓	✓	X	
2	90	57C, 58C	X	A-70	✓	✓	✓	✓	
1	100	59C, 60E	X	A-71	✓	✓	✓	✓	

NOTES:

0 2.2 4.4 10.4 16

NH4 Stds Vial# STD1 = A-72 STD2 = A-73 STD3= A-74 STD4= A-75 STD5= A-76

NH4 Spiked with Working Reagent: (yes) no Time Spiked? 14:10

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S25 Date: Jan 27th/17 Time Sampled: 13:20

Cast #: 1 Event #: 11 Sampler Names: James, David, Conner, Tushi

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8	105	46D ✓, 48C ✓	X	A-58 ✓	✓	✓	✓	✓	
7	110	47C ✓	X	A-59 ✓	✓	✓	✓	✓	
6	115	49C ✓	X	A-60 ✓	✓	✓	✓	✓	
5	120	50E ✓	X	A-61 ✓	✓	✓	✓	✓	
4	130	X	X	A-62 ✓	X	✓	X	✓	
3	160	X	X	A-63 ✓	✓	✓	✓	✓	
2	190	X	X	A-64 ✓	✓	✓	✓	✓	
1	220	X	X	A-65 ✓	X	✓	X	✓	

smelt sulphur ←

NOTES:

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

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

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S1.5 Date: 2017-01-27 Time Sampled: 3:45

Cast #: 2 Event #: 15 Sampler Names: Ken, Austin, BeKah, Sean

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8	0	067C ✓ 068E ✓	C-24 ✓	A102 ✓	✓	✓	✓	—	—
7	10	069E ✓ 070C ✓	C-25 ✓	A-103 ✓	✓	✓	✓	—	—
6	20	071C ✓	C-26 ✓	A-104 ✓	✓	✓	✓	—	—
5	40	—	—	A-105 ✓	✓	✓	✓	—	—
4	60	072C ✓	C-27 ✓	A106 ✓	✓	✓	✓		
3	80	—	—	A-107 ✓	✓	✓	✓		
2	100	073C ✓	—	A108 ✓	✓	✓	✓		
1	105	074C ✓ 075C ✓	C-28 ✓	A109 ✓	✓	✓	✓		

NOTES:

NH4 Stds Vial# STD1 (0.0) = A110 STD2 (2.2) = A111 STD3 (4.4) = A112 STD4 (10.4) = A113 STD5 (16.0) = A114

NH4 Spiked with Working Reagent: (yes) no Time Spiked? 16:05

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S1.5 Date: 2017-01-27 Time Sampled: 3:00 pms

Cast #: 1 Event #: 14 Sampler Names: Ken, Austin, Bekah, Sean

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8									
7									
6	110	061C ✓ 062C ✓		A-96 ✓	✓	✓	✓	✓	
5	115	063C ✓ 064C ✓		A-97 ✓	✓	✓	✓	✓	
4	120	065E ✓	C-21 ✓	A-98 ✓	✓	✓	✓	✓	
3	130	066C ✓		A-99 ✓	✓	✓	✓	✓	
2	150		C-22 ✓	A100 ✓	✓	✓	✓	✓	
1	160		C-23 ✓	A101 ✓	✓	✓	✓	✓	

NOTES:

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

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

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S4.5 Date: JAN 28/2017 Time Sampled: 11:00 am

Cast #: 2 Event #: 18 Sampler Names: Catheryn, Ryan, Aaron, Justin

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8	0	81C✓, 82C✓	C-29✓	A83✓	✓	✓	✓	X	X
7	5	83C✓	X	A84✓	✓	✓	✓	X	X
6	10	84C✓	C-30✓	A85✓	✓	✓	✓	X	X
5	25	85C✓	X	A86✓	✓	✓	✓	X	X
4	60	86C✓	X	A87✓	✓	✓	✓	✓	✓
3	80	87E✓	X	A88✓	✓	✓	✓	✓	✓
2	90	88C✓, 89C✓	X	A89✓	✓	✓	✓	✓	✓
1	95	90C✓	X	A90✓	✓	✓	✓	✓	✓

NOTES:

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

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

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S4.5 Date: Jan 28/2017 Time Sampled: 10:18am

Cast #: 1 Event #: 17 Sampler Names: Aaron, Cathryn, Ryan, Justin

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8									
7									
6	100	76C ✓	X	A-77 ✓	✓	✓	✓	☐ ✓	✓
5	105	77D ✓, 78C ✓	X	A-78 ✓	✓	✓	✓	☐ ✓	✓
4	110	79C ✓	X	A-79 ✓	✓	✓	✓	☐ ✓	✓
3	115	80C ✓	X	A-80 ✓	✓	✓	✓	☐ ✓	✓
2	125	X	X	A-81 ✓	✓	✓	✓	☐ ✓	✓
1	150	X	X	A-82 ✓	✓	✓	✓	☐ ✓	✓

Anaylse 5

Sulphide

NOTES:

NH4 Stds Vial# STD1 = (0) A91 STD2 = (~2.2) A92 STD3= (~4.4) A93 STD4= (~10.4) A94 STD5= (~16.0) A95

NH4 Spiked with Working Reagent: yes no Time Spiked? 11:41am

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S3.5 Date: Jan 28th Time Sampled: _____

Cast #: 2 Event #: 21 Sampler Names: Spencer, James, Othra, Stu

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s ✓	DIC Bottle# ✓	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8	0	99C ✓ 100C ✓	C-54 ✓	A123 ✓	✓	✓	✓	X	○
7	5	~~100C~~ 101C ✓	X	A124 ✓	✓	✓	✓	X	
6	10	102C ✓	C-33 ✓	A125 ✓	✓	✓	✓	X	
5	20	X	X	X	✓	X	✓	X	
4	40	X	X	A126 ✓	X		X	X	
3	70	103C ✓	X	X	✓	X	✓	X	
2	90	104E ✓	X	A127 ✓	✓		✓	○	✓
1	95	105D ✓	X	A128 ✓	✓		✓	○	✓

NOTES:

NH4 Stds Vial# STD1 = 0 A129 STD2 = 2.2 A130 STD3= 4.4 A131 STD4= 10.4 A132 STD5= 16.0 A133

NH4 Spiked with Working Reagent: (yes) no Time Spiked? 1:40PM

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S.3.5 Date: Jan 28th Time Sampled: 12:37

Cast #: 1 Event #: 20 Sampler Names: Spencer, O'Hara, James, Stew

little sulphide ↓

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8	100	91C ✓ 92D ✓	X	A115 ✓	✓	✓	✓	✓	✓
7	105	93C ✓ 94C ✓	X	A116 ✓	✓	✓	✓	✓	✓
6	110	95C ✓ 96C ✓	X	A117 ✓	✓	✓	✓	✓	✓
5	115	97C ✓	X	A118 ✓	✓	✓	✓	✓	✓
4	120	98E ✓	X	A119 ✓	✓	✓	✓	✓	✓
3	160	X	X	A120 ✓	✓	✓	✓	✓	✓
2	180	X	X	A121 ✓	X	✓	X	✓	✓
1	210	X	X	A122 ✓	✓	✓	✓	✓	✓

sulphide

NOTES:

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

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

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S2 Date: Jan 28th Time Sampled: 15:10

Cast #: 2 Event #: 24 Sampler Names: G, S, R, J

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3	NO2	PO4	Mn (√ when acid spiked)	
8	0	(x2) 111D, 112C	C-37	A-142	✓	✓	✓	✓	✓
7	5	113D	C-38	X	✓	X	✓	X	X
6	10	(x2) 114C, 115C	C-39	A-143	✓	✓	✓	X	X
5	15	116E	X	X	✓	X	✓	X	X
4	30	(x2) 117C, 118C	C-40	A-144	✓	✓	✓	X	X
3	50	X	X	A-145	✓	✓	✓	X	X
2	75	119E	C-41	A-146	✓	✓	✓	X	X
1	100	120C	X	A-147	✓	✓	✓	✓	✓

NOTES:

NH4 Stds Vial# STD1 = A148 STD2 = A149 STD3= A150 STD4= A151 STD5= A152

NH4 Spiked with Working Reagent: (yes) no Time Spiked? 4:00 pm Jan 28

NH4 Time Analysed? _____

Water Chemistry Sampling **Cruise: EOS 312 JAN 2017** **201701**

Station Name: S2 Date: Jan. 28th/2017 Time Sampled: 14:25

Cast #: 1 Event #: 23 Sampler Names: Gina, Ryan, Sushn, Saskia

Niskin Bottle	Target Depth (m)	Oxygen Bottle #'s	DIC Bottle#	NH4 Vial#	NO3'	NO2'	PO4'	Mn' (√ when acid spiked)	
8	105	106C ✓	C-34 ✓	A134 ✓	✓	✓	X	✓	✓
7	110	(x2) ✓ ✓ 107E, 108C	X	A135 ✓	✓	✓	✓	✓	✓
6	115	109C ✓	C-35 ✓	A136 ✓	✓	✓	X	✓	✓
5	120	110C ✓	X	A137 ✓	✓	✓	✓	✓	✓
4	130	X	X	A138 ✓	X	✓	✓	✓	✓ *
3	150	X	C-36 ✓	A139 ✓	✓	✓	✓	✓	✓
2	180	X	X	A140 ✓	X	✓	✓	✓	✓
1	205	X	X	A141 ✓	✓	✓	✓	✓	✓

Sulfide present N7 & beneath

* ½ bottle spilled w/ acid in

NOTES:

NH4 Stds Vial# STD1 = A-148 STD2 = A149 STD3= A150 STD4= A151 STD5= A152

NH4 Spiked with Working Reagent: (yes) no Time Spiked? 4:00pm Jan 28

NH4 Time Analysed? _____