

MOCNESS TOWS- CCE-P1106

HAUL	CYCLE	TOW	DATE (Time)	EVENT No. Start Stop	DEPTH Intervals	FIXATIVE 50% Formalin	FIXATIVE 95% EtOH	COMMENTS
1	1	1	24-Jun-11 (1406-1520)	84 85	50m (350-100m) 25m (100-0)	nets 1-9 100%	net 0 100%	401 m MAX
2	1	2	25-Jun-11 (1153-1300)	110 111	50m (350-100m) 25m (100-0)	nets 1-9 50%	nets 1-9 50% net 0 100%	400 m MAX Lost net 0 & 3 cod ends
3	1	3	26-Jun-11 (0133-0238)	125 126	50m (350-100m) 25m (100-0)	nets 1-9 50%	nets 1-9 50% net 0 100%	400 m MAX
4	2	1	27-Jun-11 (1011-1118)	169 170	50m (350-100m) 25m (100-0)	nets 1-9 100%	net 0 100%	401 m MAX
5	2	2	27-28 Jun-11 (2304-0013)	185 186	50m (350-100m) 25m (100-0)	nets 1-9 100%	net 0 100%	401 m MAX
6	2	3	28-Jun-11 (1310-1419)	203 204	50m (350-100m) 25m (100-0)	nets 1-9 50%	nets 1-9 50% net 0 100%	401 m MAX
7	2	4	28-Jun-11 (2202-2318)	209 210	50m (350-100m) 25m (100-0)	nets 1-9 50%	nets 1-9 50% net 0 100%	401 m MAX
8	3	1	30-Jun-11 (1229-1341)	222.1 222.2	50m (350-100m) 25m (100-0)	nets 1-9 100%	net 0 100%	418 m MAX
9	3	2	30-Jun-11 (2240-0003)	260 261	50m (350-100m) 25m (100-0)	nets 1-9 100%	net 0 100%	400 m MAX
10	3	3	1-Jul-11 (1224-1340)	287 293	50m (350-100m) 25m (100-0)	nets 1-9 50%	nets 1-9 50% net 0 100%	400 m MAX
11	3	4	1-Jul-11 (2204-2321)	295 296	50m (350-100m) 25m (100-0)	nets 1-9 50%	nets 1-9 50% net 0 100%	401 m MAX
12	4	1	7-Jul-11 (1251-1404)	401 402	50m (350-100m) 25m (100-0)	nets 1-9 100%	net 0 100%	401 m MAX
13	4	2	7-8-Jul- 11 (2307-0023)	413 414	50m (350-100m) 25m (100-0)	nets 1-9 100%	net 0 100%	401 m MAX
14	4	3	8-Jul-11 (1233-1358)	442 443	50m (350-100m) 25m (100-0)	nets 1-9 50%	nets 1-9 50% net 0 100%	401 m MAX
15	4	4	8-Jul-11 (2227-2338)	450 451	50m (350-100m) 25m (100-0)	nets 1-9 50%	nets 1-9 50% net 0 100%	410 m MAX
16	5	1	10-Jul-11 (1234-1400)	485 486	50m (350-100m) 25m (100-0)	nets 1-9 100%	net 0 100%	411 m MAX
17	5	2	10-Jul-11 (2235-2350)	496 497	50m (350-100m) 25m (100-0)	nets 1-9 100%	net 0 100%	401 m MAX
18	5	3	11-Jul-11 (1223-1356)	524 525	50m (350-100m) 25m (100-0)	nets 0-9 50%	net 0 25% net 0 25% (buffered) nets 1-9 50% (buffered)	401 m MAX
19	5	4	11-Jul-11 (2215-2328)	530 531	50m (350-100m) 25m (100-0)	nets 1-9 50%	nets 0 50% net 0-9 50% (buffered)	401 m MAX
20	6	1	13-14-Jul- 11 (2251-0010)	562 563	50m (350-100m) 25m (100-0)	nets 1-9 100%	net 0 50% net 0 50% (buffered)	401 m MAX
21	6	2	14-Jul-11 (1233- 1349)	586 587	50m (350-100m) 25m (100-0)	nets 1-9 50%	net 0 50% net 0-9 50% (buffered)	400 m MAX
22	6	3	14-Jul-11 (2223-2338)	594 595	50m (350-100m) 25m (100-0)	nets 1-9 50%	net 0 50% net 0-9 50% (buffered)	400 m MAX

13:00 NW re-deploy
14-02

C:\Mocness\metadata\CCE-P1106-Mocness MOCNESS Data Sheet

Tow 1 Cycle 1
Flow Meter #2

Cruise CCE-P1106 Date 24 June 2011 Haul # 1 Cycle # 1 Tow # 1

Wind Speed 20²⁵ (kts.) Direction 333 (°) Sea State 6-8 (3-5) (ft.)

File Name: Processed H1-P1106.PRO Raw H1-P1106.RAW

Start Time 14:06 (PDT) End Time 15:20 (PDT)

Lat 33.9847 Lat 34.0164

Long 121.5973 Long 121.6291

Event deploy # 84 Event rec. # 85

Bottom Depth 3472 (m) Console Operator MDO

Pre-deployment checks:

- Flow Meter
- Net Response
- Stepping Motor
- Clean Optical Surface
- Transmissometer
- Fluorometer

Net Mesh 202 μ m

Frame Size 1 m²

		HAUL 1		mation						
Net	Time Open GMT	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	21:06	14:06	196	820	401	348		5% Form.	1	95% EtOH
1	21:38	14:38	49	193	348	298	1	5% Form.		95% EtOH
2	21:41	14:41	80	272	298	250	1	5% Form.		95% EtOH
3	21:47	14:47	148	505	250	199	1	5% Form.		95% EtOH
4	21:56	14:56	110	358	199	149	1	5% Form.		95% EtOH
5	22:03	15:03	73	229	149	99	1	5% Form.		95% EtOH
6	22:07	15:07	50	160	99	73	1	5% Form.		95% EtOH
7	22:10	15:10	53	164	73	50	1	5% Form.		95% EtOH
8	22:13	15:13	62	161	50	25	1	5% Form.		95% EtOH
9	22:16	15:16	80	205	25	0	1	5% Form.		95% EtOH
Closed	22:20	15:20								

At Depth Data

wire out (m)
Time 14:33 (PDT)

Surface Data

Pressure (m)
Temp. (°C)
Salinity 50 (‰)
O₂ (ml/l)
Fluoresc. (V)
Trans (V/m)
Battery 20.1 (V)

Notes:

21937 - Cond
0365 - Flu.
O₂ sensor ~~bad~~ o.k., but can't be
Down @ ~ 20 m/min, then to 25 m/min.
Net #3 - caught in subsurface flow; v. slow ascent
#4 - " " " "
14:33 down tot. 8 m. up at ~ 8 m/min at end

Flow meter
Step motor

T 5.71
S 34.16
Fl 0.0728
Light 00531

(A) Counts and volumes corrected for time lags in adding manual net advances.
(B) No net correction needed. MDO 8 July 2011

MOCNESS Data Sheet

Cruise CCE-P1106 Date 25 June 2011 Haul # 2 Cycle # 1 Tow # 2

Wind Speed 18-22 (kts.) Direction 329 (°) Sea State 6-8 (ft.)

File Name: Processed H2-P1106.PRO Raw H2-P1106.RAW

Start Time 11:53 (PDT) End Time 13:00 (PDT)

Lat 33.8443 Lat 33.8709

Long 121.3537 Long 121.3787

Event deploy # 110 Event rec. # 111

Bottom Depth 3,342 (m) Console Operator MOE

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

Frame Size 1 m²

Net	Time Open PDT	Angle (°)	HAUL 2		Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
			Corrected Flow Counts	Corrected Volume Filtered (m3)						
0	11:54	No cod	123	494	400	0	5% Form.	1	95% EtOH	
1	12:18		55	237	348	300	50%	50%	95% EtOH	
2	12:23		72	287	300	249			95% EtOH	
3	12:30	No cod	79	302	249	200			95% EtOH	
4	12:36		78	277	200	149			95% EtOH	
5	12:41		65	228	149	100			95% EtOH	
6	12:45		48	169	100	75			95% EtOH	
7	12:49		56	192	75	51			95% EtOH	
8	12:53		50	159	51	26			95% EtOH	
9	12:56		70	204	26	0	✓	✓	95% EtOH	
Closed	13:00									

cod end missing →

cod end missing →

inc. net
✓ net tripped
✓ tripped
inc. net
inc. net

830567
176.833449

At Depth Data

wire out 510 (m)
Time 12:13 (PDT)

Surface Data

Pressure -0.1 (m)
Temp. 19.25 (°C)
Salinity 33.29 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.325 (V)
Trans 0.231 (1/m)
Battery 19.6 (V)

Notes:

Cond. 04937
Tchl. 0365

At depth:

397 start down @ 20 m/min; increase to 30 m/min.

6.13
34.18 Had to increment net # for nets: 2
50 6
0.0746 8
0.0563 9

orig haul 2 was going to be at ~0200 - started off deck, but tube-locked MOCNESS. Aborted & re-attached Chinese finger

ⓑ Vol. corrected for initial spin (Net 0)

MOCNESS Data Sheet

Cruise CCE-P1106 Date 26 June 2011 Haul # 3 Cycle # 1 Tow # 3

Wind Speed 24 (kts.) Direction 333 (°) Sea State 6-8 (ft.)

File Name: Processed H3-P1106_PRO Raw H3-P1106_RAW

Start Time 0133 (PDT) End Time 0238 (PDT)

Lat 33.7151 Lat 33.7352

Long 121.2311 Long 121.2515

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

Event deploy # 125 Event rec. # 126 Frame Size 1 m²

Bottom Depth 3162 (m) Console Operator D. Jensen

		HAUL 3		Information						
Net	Time Open	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	<u>0133</u>		91	402	400	0		5% Form.		95% EtOH
1	<u>0153</u>		63	291	350	300	50%	5% Form.	50%	95% EtOH
2	<u>0201</u>		46	204	300	250		5% Form.		95% EtOH
3	<u>0206</u>		58	249	250	201		5% Form.		95% EtOH
4	<u>0211</u>		69	294	201	149		5% Form.		95% EtOH
5	<u>0218</u>		58	236	149	103		5% Form.		95% EtOH
6	<u>0224</u>		39	159	103	75		5% Form.		95% EtOH
7	<u>0227</u>		35	141	75	50		5% Form.		95% EtOH
8	<u>0229</u>		38	138	50	26		5% Form.		95% EtOH
9	<u>0238</u>		65	225	26	0	↓	5% Form.	↓	95% EtOH
Closed	<u>0238</u>									

✓ response
No net response

At Depth Data

wire out 424 (m)
Time 0146 (PDT)

Notes: No net response indication after net 1 increment net 7 at 0227

Surface Data

Pressure 203 (m)
Temp. 19.26 (°C)
33.3 Salinity 22.71 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.6716 (V)
0.2648 Trans 0.0632 (/m)
Battery 19.3 (V)

At depth
400
6.87
34.29
50
0.0828
0.0632
19.2
* small amount of sample from cod end
* g lost while splitting (<2%)

Ⓐ Counts and volumes corrected for time lags in adding manual net advances. MDR 8 July 2011

Ⓑ Vol. corrected for initial spin

MOCNESS Data Sheet

Cruise CCE-P1106 Date 27 June 2011 Haul # 4 Cycle # 2 Tow # 1

Wind Speed 22-25 (kts.) Direction (°) Sea State 4-6 (ft.)

File Name: Processed H4-P1106-PRO Raw H4-P1106-RAW

Start Time 10:11 (PDT) End Time 11:18 (PDT)

Lat 33.5197 Lat 33.5392

Long 121.7050 Long 121.7327

Course: 323°

Event deploy # 169 Event rec. # 170

Bottom Depth 3603 (m) Console Operator MDB

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

Frame Size 1 m²

		HAUL 4		nation						
Net	Time Open	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	10:11		153	627	401	0		5% Form.	100%	95% EtOH
1	10:36		54	231	350	300	100%	5% Form.		95% EtOH
2	10:42		68	282	300	252		5% Form.		95% EtOH
3	10:48		74	312	252	198		5% Form.		95% EtOH
4	10:55		44	166	198	149		5% Form.		95% EtOH
5	10:58		88	317	149	101		5% Form.		95% EtOH
6	11:05		51	200	101	76		5% Form.		95% EtOH
7	11:09		35	143	76	50		5% Form.		95% EtOH
8	11:11		41	161	50	25		5% Form.		95% EtOH
9	11:15		29	123	25	0	↓	5% Form.		95% EtOH
Closed	11:18									

✓ net response c.k.
inc. net
inc. net
inc. net
inc. net

At Depth Data

wire out 554 (m)
Time 10:30 (PDT)

Surface Data

Pressure 1.2 (m)
Temp. 15.09 (°C)
Salinity 32.96 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.0742 (V)
Trans 0.1067 (1/m)
Battery 21.4 (V)

Notes:

initial ship speed ~ 2.0 kts.
no net response after #1

ⓑ Net ∅ vol. corrected for initial spin.

MOCNESS Data Sheet

Cruise CCE-P1106 Date 27th June 2011 Haul # 5 Cycle # 2 Tow # 2

Wind Speed 18-20 (kts.) Direction _____ (°) Sea State 4-6 (ft.)

File Name: Processed H5-P1106.PRO Raw H5-P1106.RAW

Start Time 23:04 (PDT) End Time 00:13 (PDT)

Lat 33.4335 Lat 33.4506

Long 121.6222 Long 121.6547

Event deploy # 185 Event rec. # 186

Bottom Depth 3520 (m) Console Operator ~~ADD~~ CBA

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

Frame Size 1 m²

Net	Time Open	Angle	HAUL 5		ation					
			Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	23:04		127	544	401	0		5% Form.	100%	95% EtOH
1	23:30		56	253	351	299.8	100%	5% Form.		95% EtOH ✓
2	23:36		35	154	299.8	250		5% Form.		95% EtOH ✓
3	23:39		84	350	250	201		5% Form.		95% EtOH ✓
4	23:47		84	330	201	150		5% Form.		95% EtOH ✓
5	23:55		74	266	150	100		5% Form.		95% EtOH ✓
6	00:00		41	143	100	76		5% Form.		95% EtOH ✓
7	00:03		53	181	76	50		5% Form.		95% EtOH ✓
8	00:06		50	158	50	25		5% Form.		95% EtOH ✓
9	00:09		54	173	25	0	↓	5% Form.		95% EtOH ✓
Closed	00:13									

At Depth Data

wire out 493 (m)
Time 23:20 (PDT)

Surface Data

Pressure 37 (m)
Temp. 15.12 (°C)
Salinity 32.97 (‰)
O₂ _____ (ml/l)
Fluoresc. 0.0508 (V)
Trans 0.1637 (m)
Battery 20.8 (V)

Notes:

AT DEPTH

All nets received confirmation (net response indicator repaired prior to this haul) prob. w/ mechanical spring assembly.

ⓑ Net ∅ vol. corrected for initial spin.

MOCNESS Data Sheet

Cruise CCE-P1106 Date 28 June 2011 Haul # 6 Cycle # 2 Tow # 3

Wind Speed 6-10 (kts.) Direction _____ (°) Sea State ~2 (ft.)

File Name: Processed H6-P1106.PRO Raw H6-P1106.RAW

Start Time 1310 (PDT) End Time 1419 (PDT)

Lat 33.3359 Lat 33.3478

Long 121.5341 Long 121.5675

Event deploy # 203 Event rec. # 204

Bottom Depth 3,810 (m) Console Operator MDE

Pre-deployment checks:

- Flow Meter
- Net Response
- Stepping Motor
- Clean Optical Surface
- Transmissometer
- Fluorometer

Net Mesh .202 μm

Frame Size 1 m²

		HAUL 6		nation						
Net	Time Open	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	1310		126	530	401	350		5% Form.	100%	95% EtOH
1	13:36		56	253	350	301	50%	5% Form.	50%	95% EtOH
2	13:43		35	154	301	252		5% Form.		95% EtOH
3	13:49		84	350	252	200		5% Form.		95% EtOH
4	13:54		84	330	200	149		5% Form.		95% EtOH
5	13:59		74	266	149	100		5% Form.		95% EtOH
6	14:04		41	143	100	76		5% Form.		95% EtOH
7	14:08		53	181	76	51		5% Form.		95% EtOH
8	14:11		50	159	51	25		5% Form.		95% EtOH
9	14:15		53	170	25	0		5% Form.		95% EtOH
Closed	14:19									

← net in increments
✓
✓
✓
✓
✓
✓
✓

At Depth Data

wire out 563 (m)
Time 13:31 (PDT)

Surface Data

Pressure 1.4 (m)
Temp. 15.51 (°C)
Salinity 32.99 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.0570 (v)
Trans 0.1003 (/m)
Battery 20.4 (v)

Notes: responses from all net trip commences

<u>401</u>
<u>6.37</u>
<u>34.14</u>
<u>50</u>
<u>0.0790</u>
<u>0.0591</u>
<u>20.1</u>

Ⓟ Net ∅ vol. corrected for initial spin.

MOCNESS Data Sheet

Cruise CCE-P1106 Date 28 June 2011 Haul # 7 Cycle # 2 Tow # 4

Wind Speed 10 (kts.) Director _____ (°) Sea State 2 (ft.)

File Name: Processed H7-P1106.PRO ^{foggy} Raw H7-P1106.RAW

Start Time 22:02 (PDT) End Time 23:18 (PDT)

Lat 33.2566 Lat 33.2740

Long 121.4875 Long 121.5234

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

Event deploy # 209 Event rec. # 210 Frame Size 1 m²

Bottom Depth 3824 (m) Console Operator MDP

PDT			HAUL 7		ation					
Net	Time Open	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	22:02		203	777	401	0		5% Form.	100	95% EtOH
1	22:29		71	298	350	301	50%	5% Form.	50%	95% EtOH ✓ net response
2	22:36		68	283	301	250		5% Form.		95% EtOH ✓
3	22:42		78	309	250	201		5% Form.		95% EtOH ✓
4	22:49		89	352	201	150		5% Form.		95% EtOH ✓
5	22:57		58	233	150	100		5% Form.		95% EtOH ✓
6	23:01		42	163	100	74		5% Form.		95% EtOH ✓
7	23:05		49	186	74	51		5% Form.		95% EtOH ✓
8	23:09		42	157	51	25		5% Form.		95% EtOH ✓
9	23:12		57	213	25	0	↓	5% Form.	↓	95% EtOH ✓
Closed	23:18									

At Depth Data Notes: _____

wire out 591 (m) 401m
Time 22:29 (PDT)

ship speed ~2.5 kts initially, then slowed to ~2.1 kts.

Surface Data	At depth	Notes
Pressure <u>0.9</u> (m)	<u>398</u>	Removed mid-water fish → Koskar group
Temp. <u>15.56</u> (°C)	<u>6.39</u>	Net 6 - dragon fish - >120mm
Salinity <u>33.0</u> (‰)	<u>34.14</u>	
O ₂ <u>50</u> (ml/l)	<u>50</u>	Net 7 - 2 myctophids - 47mm, 14mm
Fluoresc. <u>0.1006</u> (V)	<u>0.0768</u>	
Trans <u>0.1598</u> (m)	<u>0.0596</u>	Net 9 - big scale - ~60mm
Battery <u>19.8</u> (v)	<u>19.7 v.</u>	Net 1 - larger mid-water fish - ~40-45mm

ⓑ Net ∅ vol. corrected for initial spin

MOCNESS Data Sheet

Cruise CCE-P1106 Date 30 June 2011 Haul # 8 Cycle # 3 Tow # 1

Wind Speed 24-25 (kts.) Direction 324 (°) Sea State 4-6 (ft.)

Pre-deployment checks:

- Flow Meter
- Net Response
- Stepping Motor
- Clean Optical Surface
- Transmissometer
- Fluorometer

File Name: Processed H8-P1106.PRO Raw H8-P1106.RAW

Start Time 12:29 (PDT) End Time 13:41 (PDT)

Lat 34.0565 Lat 34.0850

Long 121.5507 Long 121.5788

Event deploy # 222.1 Event rec. # 222.2

Frame Size 1 m²

Bottom Depth 3442 (m) Console Operator CBA

		HAUL 8		ation						
Net	Time Open	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	12:29		221	898	418	0		5% Form.	100%	95% EtOH
1	13:00		35	143	342	299	100%	5% Form.		95% EtOH
2	13:03		83	333	299	252		5% Form.		95% EtOH
3	13:11		106	410	252	197		5% Form.		95% EtOH
4	13:19		59	215	197	150		5% Form.		95% EtOH
5	13:23		72	268	150	99		5% Form.		95% EtOH
6	13:29		45	174	99	74		5% Form.		95% EtOH
7	13:33		36	143	74	52		5% Form.		95% EtOH
8	13:36		31	126	52	25		5% Form.		95% EtOH
9	13:39		33	128	25	0		5% Form.		95% EtOH
Closed	13:41									

Manual increment ✓
Manual increment ✓
Manual increment ✓
Manual increment ✓
Manual increment ✓
Manual increment ✓
Manual increment ✓
Manual increment ✓

At Depth Data

wire out 580 (m)
Time 12:50 (PDT)

Notes: _____

Surface Data

Pressure 0.3 (m)
Temp. 14.37 (°C)
Salinity 33.52 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.1464 (V)
Trans 0.0906 (1/m)
Battery 21.7 (V)

At depth
418
6.05
34.17
50
0.0764
0.0572
21.5

ⓑ Net ∅ volume corrected for initial spin.

MOCNESS Data Sheet

Cruise CCE-P1106 Date 30 June 2011 Haul # 9 Cycle # 3 Tow # 2

Wind Speed 24 (kts.) Direction 318 (°) Sea State 6-8 (ft.)

File Name: Processed H9-P1106.PRO Raw H9-P1106.RAW

Start Time 22:40 (PDT) End Time 00:03 (PDT)

Lat 34.0402 Lat 34.0706

Long 121.4493 Long 121.4828

Event deploy # 260 Event rec. # 261 Frame Size 1 m²

Bottom Depth 3,267 (m) Console Operator DJ

- Pre-deployment checks:
- Flow Meter
 - Net Response
 - Stepping Motor
 - Clean Optical Surface
 - Transmissometer
 - Fluorometer

Net Mesh .202 μm

		HAUL 9		ation						
Net	Time Open	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	22:40		270	1077	400	0		5% Form.	100%	95% EtOH
1	23:16		59	249	348	302	100%	5% Form.		95% EtOH
2	23:21		85	355	302	249		5% Form.		95% EtOH
3	23:30		74	312	249	198		5% Form.		95% EtOH
4	23:36		60	255	198	149		5% Form.		95% EtOH
5	23:42		61	254	149	97		5% Form.		95% EtOH
6	23:47		46	184	97	75		5% Form.		95% EtOH
7	23:51		51	199	75	50		5% Form.		95% EtOH
8	23:55		42	163	50	27		5% Form.		95% EtOH
9	23:58		48	196	27	0		5% Form.		95% EtOH
Closed	00:03									

At Depth Data

wire out 544 (m)
Time 23:07 (PDT)

Notes: _____

Surface Data

Pressure 0.8 (m)
Temp. 14.64 (°C)
Salinity 33.49 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.5112 (V)
Trans 0.237 (m)
Battery 20.6 (V)

At Depth
400.
6.07
34.17
50
0.0776
0.057
20.3

Ⓟ Net ∅ volume corrected for initial spin.

MOCNESS Data Sheet

Cruise CCE-P1106 Date 1 July 2011 Haul # 10 Cycle # 3 Tow # 3

Wind Speed 20 (kts.) Direction 313 (°) Sea State 6-9 (ft.)

File Name: Processed H10-P1106.PRO Raw H10-P1106.RAW

Start Time 12:24 (PDT) End Time 13:40 (PDT)

Lat 34.0644 Lat 34.1000

Long 121.4143 Long 121.4431

Event deploy # 287 Event rec. # 293 288

Bottom Depth 3,132 (m) Console Operator Ellen Umeda

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

Frame Size 1 m²

		HAUL 10		ation						
Net	^{PDT} Time Open	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	12:24		194	806	400	0		5% Form.	100%	95% EtOH
1	12:51		67	278	348	300	50%	5% Form.	50%	95% EtOH ✓✓
2	12:57		68	276	300	251		5% Form.		95% EtOH ✓✓
3	13:03		84	341	251	201		5% Form.		95% EtOH ✓✓
4	13:10		77	304	201	150		5% Form.		95% EtOH ✓✓
5	13:16		85	323	150	101		5% Form.		95% EtOH ✓✓
6	13:23		55	208	101	75		5% Form.		95% EtOH ✓✓
7	13:27		66	245	75	50		5% Form.		95% EtOH ✓✓
8	13:32		41	152	50	26		5% Form.		95% EtOH ✓✓
9	13:35		50	194	26	0		5% Form.	✓	95% EtOH ✓✓
Closed	13:40									

At Depth Data

wire out 571.0 (m)

Time 12:45 (PDT)

Surface Data

Pressure 3.9 (m)

Temp. 14.65 (°C)

Salinity 33.18 (‰)

O₂ 50 (ml/l)

Fluoresc. 0.2056 (V)

Trans 0.2293 (m)

Battery 20.4 (V)

Notes:

At depth

400

6.15

34.17

50

0.00804

0.0607

20.0

At 175m ship's speed 2.0 knots and horizontal velocity on screen ~1.6 kts

All net confirmations

③ Net ϕ volume corrected for initial spin.

MOCNESS Data Sheet

Cruise CCE-P1106 Date 1 July 2011 Haul # 11 Cycle # 3 Tow # 4

Wind Speed 17-20 (kts.) Direction 310 (°) Sea State 6-8 (ft.)

File Name: Processed H11-P1106.PRO Raw H11-P1106.RAW

Start Time 22:04 (PDT) End Time 23:21 (PDT)

Lat 34.0594 Lat 34.0855

Long 121.3819 Long 121.4162

Event deploy # 295 Event rec. # 296 Frame Size 1 m²

Bottom Depth 3170 (m) Console Operator D Jensen

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

HAUL 11										
Net	Time Open	Angle	Corrected		Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
			Flow Counts	Volume Filtered (m3)						
0	22:04		147	615	401	0		5% Form.	100%	95% EtOH ✓
1	22:31		84	363	351	300	50%	5% Form.	50%	95% EtOH ✓
2	22:39		62	267	300	250		5% Form.		95% EtOH ✓
3	22:45		81	344	250	200		5% Form.		95% EtOH ✓
4	22:53		67	290	200	150		5% Form.		95% EtOH ✓
5	22:59		66	271	150	100		5% Form.		95% EtOH
6	23:05		43	180	100	75		5% Form.		95% EtOH
7	23:09		36	155	75	51		5% Form.		95% EtOH
8	23:13		33	141	51	26		5% Form.		95% EtOH
9	23:16		47	201	26	0		5% Form.		95% EtOH
Closed	23:21									

At Depth Data

wire out 519 (m)
Time 22:24 (PDT)

Surface Data

Pressure 2.2 (m)
Temp. 18.69 (°C)
Salinity 33.46 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.5204 (V)
Trans 0.2345 (/m)
Battery 19.8 (V)

Notes:

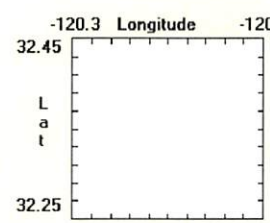
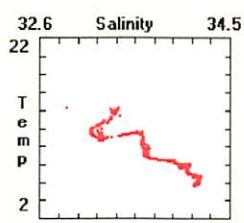
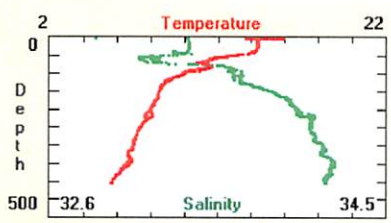
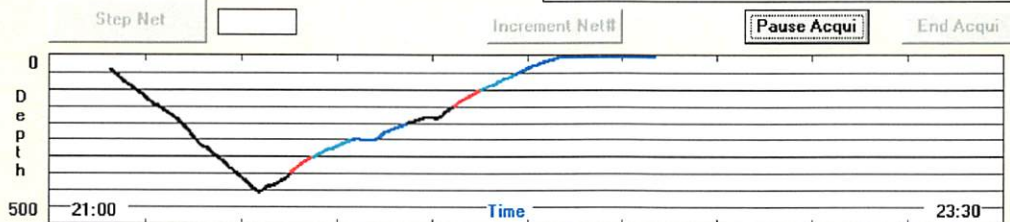
Propeller in Flow meter missing one blade.

Ⓟ Net ∅ volume corrected for initial spin

Haul 1 Cycle 1, Tow 1

Data Acquisition and Control System

Environmental Parameters	Net Operation	Net - Ship Position	Program Settings
Time: 22:35:14	Net_Num: 7	Latitude: 34N 1.4075'	Reset
Pressure: -0.9 m	OpenTime: 21.9 min	Longitude: 121W 38.19	Baud Rate: 2400
Temp: 15.77 C	Vol_Filtered: 997.0 m3	Net_Dist: 1582.0 m	Sample Rate: 4.0 sec
Salinity: 0.24 o/oo	Angle: 27 deg	Total_Dist: 5665.9 m	Printer: Off
Density: -0.835	Flow_Counts: 265	Processed File Name: C:\MOCNESS\MOCDATA\CCE-P0~1\TOW1_CYCLE	
Oxygen: 50.00 ml/l	Hor_Vel: 0.0 kts	Raw File Name: C:\MOCNESS\MOCDATA\CCE-P0~1\TOW1_CYCLE	
Fluoresc.: 0.0974 V	Vert_Vel: -0.3 m/min	Acquisition Ended. trys = 0	
LightXmis: 0.0903 /m	Battery: 19.8 V		



Haul 1, Cycle1, Tow 1
~~M-01-001~~
 2A 20/06/11
 RV/Melville

#1 348 401

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	03.3	401.8	226.0	05.7	15.7	08.4	05.7	15.7	08.4	32.14	34.22	33.91
2	247.4	295.5	270.3	07.0	07.4	07.2	07.0	07.4	07.2	34.07	34.15	34.10
3	197.6	248.8	230.0	07.4	08.1	07.6	07.4	08.1	07.6	34.00	34.09	34.05
4	148.8	196.4	178.3	08.0	08.6	08.3	08.0	08.5	08.3	33.87	33.99	33.96
5	98.4	146.7	120.5	08.6	09.9	09.1	08.6	09.9	09.1	33.64	33.86	33.72
6	48.573	97.3	73.4	09.9	12.5	11.2	09.9	12.5	11.2	33.11	33.64	33.40
7	-01.8	47.625	1950.9	12.6	15.9	4753.1	12.6	15.9	4752.8	00.13	33.39	3824.16

net#	smin	smax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	23.60	26.94	26.33	00.00	00.24	00.08	00.00	00.91	00.13	50.0	50.0	50.0
2	26.63	26.74	26.68	00.05	00.07	00.06	00.08	00.09	00.08	50.0	50.0	50.0
3	26.48	26.64	26.59	00.05	00.07	00.06	00.07	00.10	00.08	50.0	50.0	50.0
4	26.31	26.48	26.41	00.06	00.07	00.06	00.07	00.08	00.08	50.0	50.0	50.0
5	25.91	26.29	26.10	00.06	00.09	00.07	00.07	00.39	00.10	50.0	50.0	50.0
6	25.07	25.90	25.49	00.08	00.15	00.10	00.15	00.60	00.27	50.0	50.0	50.0
7	-00.89	25.07	2666.4	00.07	09.31	94.57	00.09	01.76	104.28	50.0	50.0	16250.0

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	36.0	83.0	56.1	00.3	02.2	00.9	-59.7	21.1	-11.5	00460	00805
2	37.0	47.0	42.3	01.6	02.5	02.1	00.1	12.8	08.5	00086	00347
3	34.0	44.0	41.8	01.6	03.0	02.3	-08.0	18.9	05.5	00133	00618
4	34.0	44.0	39.9	01.6	02.7	02.3	-06.8	21.0	06.9	00106	00482
5	34.0	42.0	38.2	02.2	02.7	02.5	08.8	17.9	12.0	00062	00310
6	30.0	41.0	38.0	02.5	03.3	02.7	04.9	14.8	08.8	00084	00478
7	07.0	89.0	16984.0	00.0	12.8	588.0	-00.5	10.0	768.0	00325	00997

haul 1, Cycle1, Tow 1
~~M-01-001~~
 2A 20/06/11
 RV/Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	03.3	401.8	226.0	05.7	15.7	08.4	05.7	15.7	08.4	32.14	34.22	33.91
2	247.4	295.5	270.3	07.0	07.4	07.2	07.0	07.4	07.2	34.07	34.15	34.10
3	197.6	248.8	230.0	07.4	08.1	07.6	07.4	08.1	07.6	34.00	34.09	34.05
4	148.8	196.4	178.3	08.0	08.6	08.3	08.0	08.5	08.3	33.87	33.99	33.96
5	98.4	146.7	120.5	08.6	09.9	09.1	08.6	09.9	09.1	33.64	33.86	33.72
6	48.5	97.3	73.4	09.9	12.5	11.2	09.9	12.5	11.2	33.11	33.64	33.40
7	-01.8	47.6	1950.9	12.6	15.9	4753.1	12.6	15.9	4752.8	00.13	33.39	3824.16

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	23.60	26.94	26.33	00.00	00.24	00.08	00.00	00.91	00.13	50.0	50.0	50.0
2	26.63	26.74	26.68	00.05	00.07	00.06	00.08	00.09	00.08	50.0	50.0	50.0
3	26.48	26.64	26.59	00.05	00.07	00.06	00.07	00.10	00.08	50.0	50.0	50.0
4	26.31	26.48	26.41	00.06	00.07	00.06	00.07	00.08	00.08	50.0	50.0	50.0
5	25.91	26.29	26.10	00.06	00.09	00.07	00.07	00.39	00.10	50.0	50.0	50.0
6	25.07	25.90	25.49	00.08	00.15	00.10	00.15	00.60	00.27	50.0	50.0	50.0
7	-00.89	25.07	2666.4	00.07	09.31	94.57	00.09	01.76	104.28	50.0	50.0	16250.0

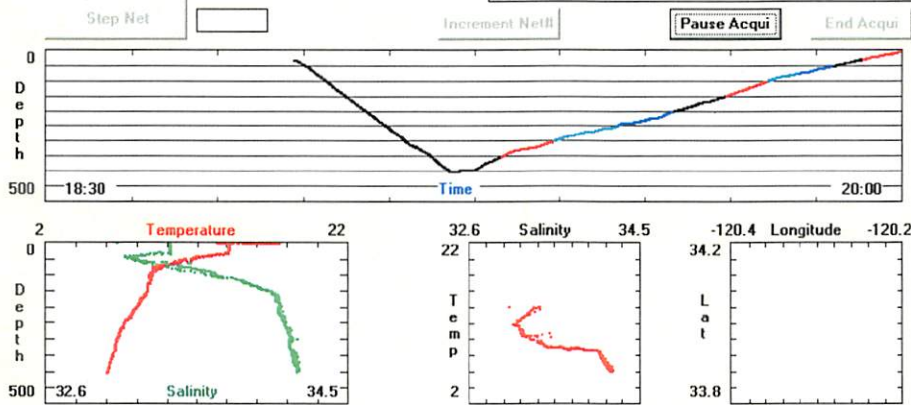
net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	36.0	83.0	56.1	00.3	02.2	00.9	-59.7	21.1	-11.5	00460	00805
2	37.0	47.0	42.3	01.6	02.5	02.1	00.1	12.8	08.5	00086	00347
3	34.0	44.0	41.8	01.6	03.0	02.3	-08.0	18.9	05.5	00133	00618
4	34.0	44.0	39.9	01.6	02.7	02.3	-06.8	21.0	06.9	00106	00482
5	34.0	42.0	38.2	02.2	02.7	02.5	08.8	17.9	12.0	00062	00310
6	30.0	41.0	38.0	02.5	03.3	02.7	04.9	14.8	08.8	00084	00478
7	07.0	89.0	16984.0	00.0	12.8	588.0	-00.5	10.0	768.0	00325	00997

Haul 2 Cycle 1, Tow 2

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters	Net Operation	Net - Ship Position	Program Settings
Time: 20:11:45	Net_Num: 9	Latitude: 33N 52.392	Reset
Pressure: 1.6 m	OpenTime: 15.7 min	Longitude: 121W 22.84	Baud Rate: 2400
Temp: 17.36 C	Vol_Filtered: 609.6 m3	Net_Dist: 592.9 m	Sample Rate: 4.0 sec
Salinity: 0.26 o/oo	Angle: 26 deg	Total_Dist: 3725.1 m	Printer: Off
Density: -1.086	Flow_Counts: 207	Processed File Name: C:\MOCNESS\MOCDATA\CCE-P1~1\H2-P1106.PH	
Oxygen: 50.00 ml/l	Hor_Vel: 0.0 kts	Raw File Name: C:\MOCNESS\MOCDATA\CCE-P1~1\H2-P1106.raw	
Fluoresc.: 0.0396 V	Vert_Vel: -0.1 m/min	Acquisition Ended. trys = 0	
LightXmis: 1.0840 /m	Battery: 19.2 V		



Haul 2, Cycle 1, Tow 2

~~1-02-002~~

25/06/11

RV/Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-02.3	400.1	128.6	06.1	19.0	11.8	06.1	19.0	11.8	00.01	50.00	39.00
2	249.4	296.5	271.7	06.8	07.2	07.0	06.8	07.2	07.0	34.10	34.14	34.12
0	-02.3	400.1	128.6	06.1	19.0	11.8	06.1	19.0	11.8	00.01	50.00	39.00
3	200.6	247.6	227.3	07.2	08.0	07.6	07.2	08.0	07.6	34.06	34.10	34.08
5	99.7	145.7	121.8	08.7	09.0	08.9	08.7	09.0	08.9	33.68	33.97	33.84
6	74.9	98.1	85.3	08.9	09.2	09.1	08.9	09.2	09.1	33.49	33.68	33.60
7	50.2	74.4	62.5	09.2	11.0	10.1	09.2	11.0	10.1	33.17	33.51	33.34
8	25.7	49.7	36.9	11.1	14.2	12.9	11.1	14.2	12.9	33.10	33.39	33.25
9	-02.1	24.5	374.4	13.4	17.5	3498.6	13.4	17.5	3498.6	00.14	33.38	
2446.23												

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.59	37.83	29.62	-00.04	05.63	00.04	00.01	00.75	00.09	50.0	50.0	50.0
2	26.69	26.78	26.73	00.05	00.07	00.06	00.07	00.09	00.08	50.0	50.0	50.0
0	-01.59	37.83	29.62	-00.04	05.63	00.04	00.01	00.75	00.09	50.0	50.0	50.0
3	26.55	26.68	26.61	00.05	00.07	00.06	00.07	00.09	00.08	50.0	50.0	50.0
5	26.10	26.35	26.23	00.06	00.08	00.07	00.06	00.08	00.07	50.0	50.0	50.0
6	25.91	26.10	26.01	00.06	00.19	00.07	00.06	00.08	00.07	50.0	50.0	50.0
7	25.35	25.90	25.63	00.07	00.09	00.08	00.07	00.20	00.12	50.0	50.0	50.0
8	24.90	25.34	25.05	00.09	00.20	00.15	00.21	01.05	00.49	50.0	50.0	50.0
9	-01.11	24.91	1671.05	00.00	31.85	203.89	00.04	02.05	41.20	50.0	50.0	
11700.0												

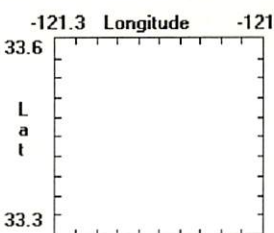
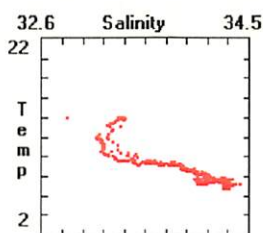
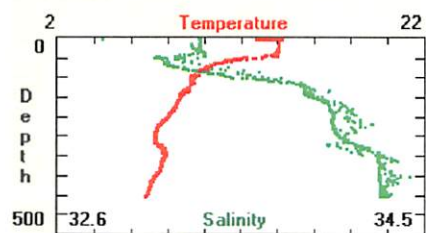
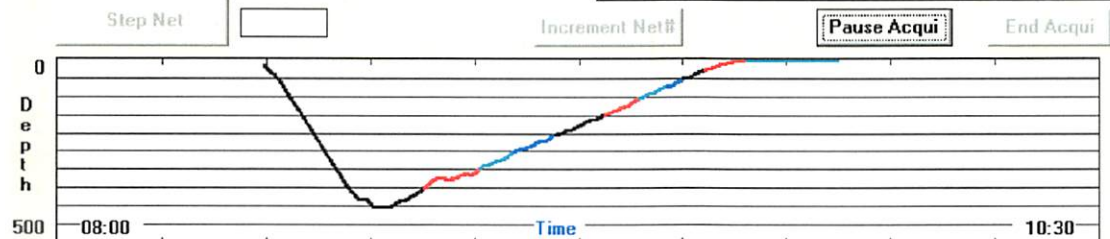
net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	24.0	89.0	51.7	00.0	11.5	01.2	-29.6	21.5	-08.2	00647	00812
2	47.0	55.0	50.9	01.4	01.9	01.6	02.3	12.8	07.5	00095	00252
0	24.0	89.0	51.7	00.0	11.5	01.2	-29.6	21.5	-08.2	00647	00812
3	44.0	51.0	48.0	01.6	02.2	01.9	00.5	17.7	08.2	00090	00289
5	41.0	46.0	43.6	01.9	02.2	02.2	07.4	12.7	11.0	00065	00245
6	39.0	45.0	44.2	01.9	02.5	02.2	03.7	12.3	07.8	00047	00189
7	38.0	45.0	42.8	02.2	02.5	02.3	03.3	10.9	06.9	00053	00230
8	33.0	43.0	39.1	02.2	02.5	02.3	04.5	10.2	07.8	00047	00217
9	24.0	89.0	13154.00	00.0	14.8	458.1	-00.9	10.0	421.5	00234	00610

Haul 3 Cycle 1, Tow 3

DCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters	Net Operation	Net - Ship Position	Program Settings
Time: 09:52:33	Net_Num: 10	Latitude: 33N 44.215	Reset
Pressure: 1.2 m	OpenTime: 13.0 min	Longitude: 121W 15.21	Baud Rate: 2400
Temp: 14.2 C	Vol_Filtered: 169.2 m3	Net_Dist: 233.0 m	Sample Rate: 4.0 sec
Salinity: 0.25 o/oo	Angle: 26 deg	Total_Dist: 3638.6 m	Printer: Off
Density: -0.588	Flow_Counts: 144	Processed File Name: C:\MOCNESS\MOCDATA\CCE-P1~1\H3-P1106.PR	
Oxygen: 50.00 ml/l	Hor_Vel: 0.0 kts	Raw File Name: C:\MOCNESS\MOCDATA\CCE-P1~1\H3-P1106.raw	
Fluoresc.: 0.0418 V	Vert_Vel: -0.2 m/min	Acquisition Ended. tlys = 0	
LightXmis: 2.0938 /m	Battery: 18.9 V		



Ham 3 Cycle, Tow 3

H3-P1106.TAB

M-02-002
26/06/11
RV/Melville

MOCNESS STATISTICAL SUMMARY

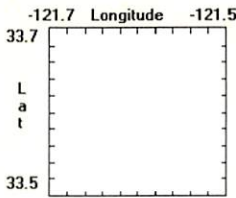
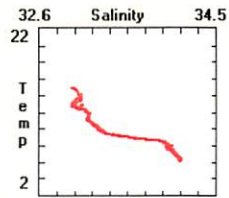
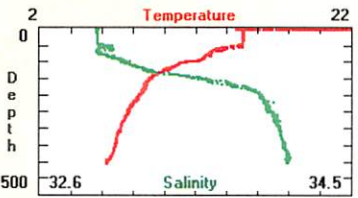
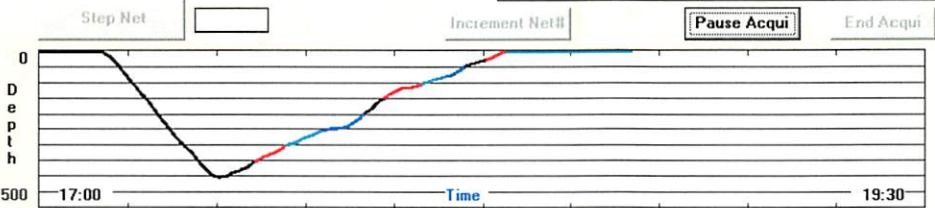
net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-01.2	401.0	161.9	06.8	14.5	10.5	06.8	14.5	10.5	00.01	50.00	27.03
2	247.3	293.6	273.2	07.4	08.0	07.6	07.3	07.9	07.6	34.06	34.27	34.18
3	200.2	245.8	226.2	07.4	08.0	07.5	07.3	08.0	07.5	34.02	34.06	34.04
4	147.2	199.9	175.1	08.0	08.7	08.4	08.0	08.7	08.4	33.93	34.04	34.01
5	102.3	146.4	125.4	08.7	09.4	09.1	08.7	09.4	09.1	33.66	33.92	33.85
6	70.8	101.4	85.6	09.3	10.3	09.7	09.3	10.3	09.7	33.21	33.64	33.40
7	48.5	69.8	61.4	10.3	11.8	10.8	10.3	11.8	10.8	33.14	33.21	33.18
8	25.5	47.6	37.6	11.7	14.1	13.3	11.7	14.1	13.3	33.11	33.35	33.25
9	-02.1	24.7	07.9	12.9	14.1	14.0	12.9	14.1	14.0	00.26	33.35	29.35
0	-01.2	401.0	161.9	06.8	14.5	10.5	06.8	14.5	10.5	00.01	50.00	27.03

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-00.82	37.97	20.67	-00.03	15.25	00.20	00.00	01.10	00.16	50.0	50.0	50.0
2	26.63	26.72	26.68	00.06	00.07	00.06	00.07	00.09	00.08	50.0	50.0	50.0
3	26.52	26.63	26.59	00.06	00.07	00.06	00.07	00.08	00.07	50.0	50.0	50.0
4	26.32	26.52	26.44	00.06	00.07	00.07	00.07	00.12	00.08	50.0	50.0	50.0
5	26.01	26.32	26.19	00.07	00.14	00.07	00.07	00.09	00.08	50.0	50.0	50.0
6	25.51	25.99	25.75	00.07	00.09	00.08	00.09	00.23	00.12	50.0	50.0	50.0
7	25.19	25.51	25.40	00.08	00.11	00.09	00.13	00.30	00.18	50.0	50.0	50.0
8	24.89	25.21	24.99	00.10	00.19	00.15	00.30	00.93	00.51	50.0	50.0	50.0
9	-00.41	24.89	21.83	-00.12	17.18	00.65	00.07	01.16	00.58	50.0	50.0	50.0
0	-00.82	37.97	20.67	-00.03	15.25	00.20	00.00	01.10	00.16	50.0	50.0	50.0

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	25.0	89.0	63.1	00.0	10.9	00.8	-34.2	16.9	-09.2	00572	00586
2	55.0	64.0	61.7	01.1	01.6	01.3	02.3	19.1	09.7	00074	00109
3	52.0	62.0	58.0	01.1	01.9	01.4	-01.8	18.1	08.2	00087	00161
4	51.0	59.0	56.1	01.1	01.9	01.5	01.0	14.0	07.5	00103	00212
5	48.0	56.0	53.7	01.4	01.9	01.6	03.3	16.8	08.8	00078	00181
6	47.0	55.0	52.3	01.4	01.9	01.7	00.8	12.9	08.1	00056	00150
7	45.0	55.0	51.8	01.4	02.2	01.8	01.4	14.4	09.2	00034	00096
8	39.0	52.0	47.0	01.6	02.2	01.9	-00.2	14.1	07.9	00044	00140
9	39.0	81.0	46.4	01.1	11.8	02.3	-01.3	09.2	04.6	00093	00420
0	25.0	89.0	63.1	00.0	10.9	00.8	-34.2	16.9	-09.2	00572	00586

Haul A Cycle 2 Tow 1

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	18:40:12	Net_Num	10	Latitude	33N 31.408	<input type="button" value="Reset"/>	
Pressure	-1.8 m	OpenTime	21.0 min	Longitude	121W 43.00	Baud Rate	2400
Temp	22.01 C	Vol_Filtered	34.8 m3	Net_Dist	2324.8 m	Sample Rate	4.0 sec
Salinity	0.19 o/oo	Angle	27 deg	Total_Dist	5994.8 m	Printer	Off
Density	-2.085	Flow_Counts	58	Processed File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H4-P1106.PR		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H4-P1106.raw		
Fluoresc.	0.0368 V	Vert_Vel	0.1 m/min	Acquisition Ended. trys = 0			
LightXmis	0.0000 /m	Battery	20.5 V				



Haul 4 Cycle 2 Tow 1

~~M-02-002~~
2725/06/11
RV/Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-02.2	401.3	165.0	06.3	20.2	11.7	06.3	20.2	11.7	00.01	50.00	36.83
2	251.0	298.4	276.0	07.2	07.7	07.4	07.2	07.7	07.4	34.02	34.07	34.04
3	195.8	250.8	234.1	07.7	08.5	07.9	07.7	08.5	07.8	33.94	34.02	33.99
4	147.4	194.1	170.3	08.5	09.0	08.8	08.5	09.0	08.7	33.62	33.94	33.82
5	100.2	145.7	118.7	09.1	11.0	10.2	09.1	11.0	10.2	33.14	33.59	33.27
6	75.8	98.8	87.6	11.1	12.7	12.3	11.1	12.7	12.2	33.00	33.14	33.08
7	48.1	76.0	63.7	12.7	14.3	13.2	12.7	14.3	13.2	32.95	33.05	32.98
8	24.2	47.3	35.3	14.3	15.1	15.0	14.3	15.1	15.0	32.96	33.03	32.96
9	-02.0	23.2	09.3	14.6	15.1	15.1	14.6	15.1	15.1	00.61	32.96	28.80
0	-02.2	401.3	165.0	06.3	20.2	11.7	06.3	20.2	11.7	00.01	50.00	36.83

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.83	37.64	27.94	00.00	01.54	00.07	00.00	00.48	00.07	50.0	50.0	50.0
2	26.55	26.66	26.61	00.06	00.06	00.06	00.07	00.08	00.07	50.0	50.0	50.0
3	26.38	26.55	26.50	00.05	00.06	00.06	00.06	00.07	00.06	50.0	50.0	50.0
4	26.03	26.37	26.23	00.05	00.06	00.06	00.06	00.06	00.06	50.0	50.0	50.0
5	25.33	26.00	25.57	00.06	00.06	00.06	00.06	00.12	00.09	50.0	50.0	50.0
6	24.90	25.31	25.05	00.07	00.11	00.09	00.13	00.41	00.25	50.0	50.0	50.0
7	24.62	24.90	24.79	00.10	00.12	00.10	00.12	00.44	00.26	50.0	50.0	50.0
8	24.38	24.60	24.40	00.10	00.11	00.10	00.06	00.13	00.08	50.0	50.0	50.0
9	-00.38	24.38	21.19	-00.11	12.24	00.60	00.01	00.85	00.11	50.0	50.0	50.0
0	-01.83	37.64	27.94	00.00	01.54	00.07	00.00	00.48	00.07	50.0	50.0	50.0

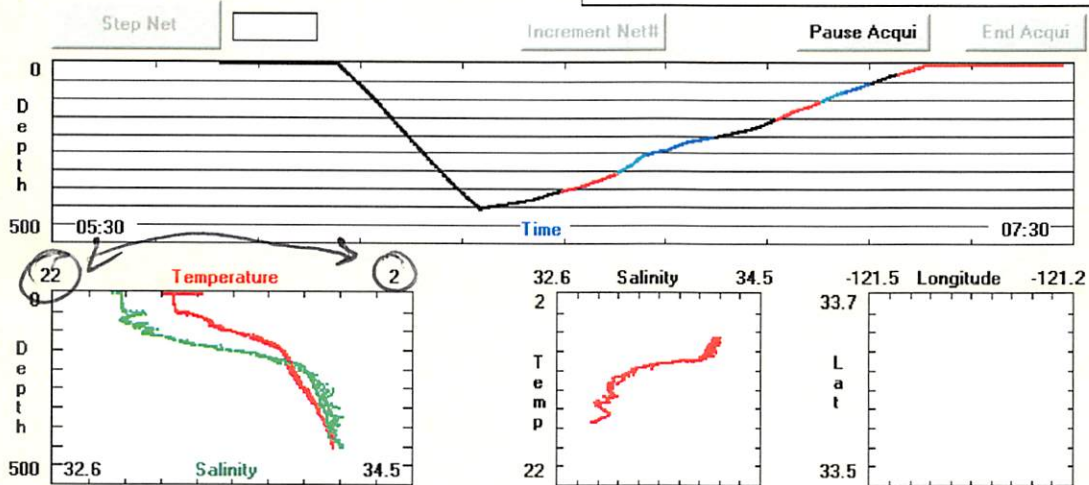
net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	25.0	89.0	52.5	00.0	08.5	01.0	-26.8	16.0	-09.1	00582	00797
2	48.0	55.0	53.7	01.4	01.6	01.6	02.7	11.8	07.7	00094	00221
3	48.0	59.0	54.9	01.4	02.2	01.6	-03.2	19.7	07.6	00103	00230
4	44.0	54.0	48.8	01.6	02.2	02.0	12.1	18.5	15.5	00047	00135
5	43.0	49.0	45.2	01.6	02.2	02.0	-00.4	14.4	07.2	00098	00344
6	47.0	54.0	50.9	01.6	02.2	01.8	03.2	09.6	06.1	00061	00179
7	46.0	56.0	52.8	01.4	02.2	01.7	01.4	13.1	09.0	00043	00113
8	46.0	57.0	51.6	01.4	01.9	01.7	04.2	11.6	06.8	00053	00140
9	43.0	72.0	56.3	01.4	05.2	01.7	01.0	12.0	08.1	00051	00145
0	25.0	89.0	52.5	00.0	08.5	01.0	-26.8	16.0	-09.1	00582	00797

Haul 5 Cycle 2 Tow 2

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	07:28:41	Net_Num	9	Latitude	33N 27.141	Reset	
Pressure	-1.1 m	OpenTime	19.3 min	Longitude	121W 39.40	Baud Rate	2400
Temp	14.56 C	Vol_Filtered	471.4 m3	Net_Dist	469.1 m	Sample Rate	4.0 sec
Salinity	0.25 ‰	Angle	27 deg	Total_Dist	3728.4 m	Printer	Off
Density	-0.642	Flow_Counts	177	Processed File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H5-P1106.PR		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H5-P1106.raw		
Fluoresc.	0.0932 V	Vert_Vel	0.2 m/min	Acquisition Ended. trys = 0			
LightXmis	0.7483 /m	Battery	19.9 V				



Haul 5 Cycle 2 Tow 2

~~27/06/11~~
27/06/11
RV/Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-01.7	401.6	172.9	06.3	17.0	10.9	06.3	17.0	10.9	00.01	34.14	22.29
1	300.5	350.7	328.1	06.6	07.1	06.9	06.6	07.1	06.9	34.04	34.07	34.05
2	251.3	299.1	275.0	07.1	07.7	07.4	07.1	07.7	07.4	34.00	34.04	34.01
3	201.0	249.8	223.9	07.8	08.5	08.3	07.7	08.5	08.2	33.94	34.00	33.97
4	150.9	200.4	180.0	08.5	09.1	08.8	08.5	09.0	08.7	33.61	33.94	33.85
5	100.1	149.6	124.0	09.1	11.9	10.1	09.0	11.9	10.1	33.08	33.59	33.29
6	76.1	99.1	86.7	11.9	13.2	12.7	11.9	13.2	12.6	32.99	33.13	33.08
7	50.1	75.6	63.2	13.0	14.4	13.6	13.0	14.4	13.5	32.95	33.09	33.00
8	25.2	48.8	36.5	14.4	15.2	15.1	14.4	15.2	15.1	32.97	33.08	32.98

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.22	26.83	16.96	00.00	11.21	00.58	00.01	00.44	00.07	50.0	50.0	50.0
1	26.65	26.74	26.69	00.05	00.06	00.05	00.07	00.07	00.07	50.0	50.0	50.0
2	26.53	26.64	26.58	00.05	00.06	00.05	00.06	00.07	00.07	50.0	50.0	50.0
3	26.36	26.53	26.43	00.05	00.06	00.06	00.06	00.06	00.06	50.0	50.0	50.0
4	26.03	26.36	26.26	00.06	00.06	00.06	00.05	00.07	00.06	50.0	50.0	50.0
5	25.15	26.01	25.60	00.06	00.07	00.06	00.06	00.17	00.09	50.0	50.0	50.0
6	24.83	25.14	24.97	00.07	00.14	00.10	00.18	00.50	00.32	50.0	50.0	50.0
7	24.62	24.83	24.74	00.10	00.14	00.11	00.13	00.49	00.21	50.0	50.0	50.0
8	24.36	24.62	24.40	00.10	00.15	00.11	00.08	00.13	00.10	50.0	50.0	50.0

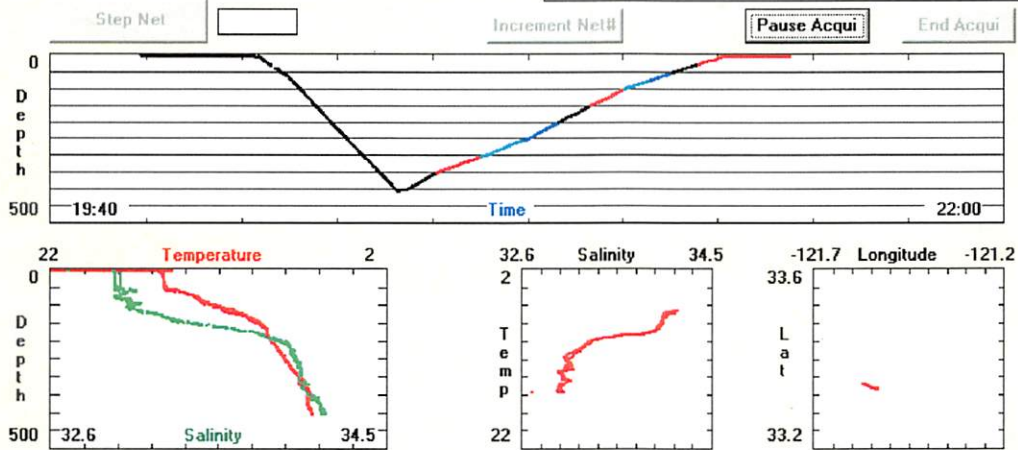
net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	25.0	89.0	54.0	00.0	07.1	00.6	-28.1	09.1	-08.7	00611	00591
1	57.0	64.0	61.5	01.1	01.4	01.2	04.0	10.9	07.7	00097	00145
2	56.0	62.0	58.7	01.4	01.6	01.5	10.3	19.3	14.7	00050	00083
3	50.0	58.0	54.2	01.4	01.6	01.6	03.1	10.9	06.4	00118	00278
4	46.0	54.0	50.1	01.4	01.9	01.7	03.5	11.3	06.7	00108	00304
5	41.0	48.0	44.4	01.9	02.2	02.0	05.1	11.9	09.4	00079	00287
6	41.0	44.0	42.6	02.2	02.5	02.4	07.1	11.9	10.0	00037	00166
7	40.0	43.0	41.7	02.2	02.7	02.4	05.5	09.8	07.8	00048	00225
8	36.0	42.0	38.2	02.2	02.7	02.4	05.7	09.6	08.3	00045	00225

haul 6 Cycle 2 Tow 3

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	21:28:45	Net_Num	9	Latitude	33N 20.916	Reset	
Pressure	-1.3 m	OpenTime	13.5 min	Longitude	121W 34.25	Baud Rate	2400
Temp	17.74 C	Vol_Filtered	296.0 m3	Net_Dist	505.0 m	Sample Rate	4.0 sec
Salinity	0.22 o/oo	Angle	27 deg	Total_Dist	3687.0 m	Printer	Off
Density	-1.184	Flow_Counts	82	Processed File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H6-P1106.PR		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H6-P1106.raw		
Fluoresc.	0.0748 V	Vert_Vel	-0.1 m/min	Acquisition Ended. trys = 0			
LightXmis	0.1447 /m	Battery	19.7 V				



Haul 6 cycle 2 Tow 3
 28/06/11
 RV/Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-02.6	402.0	140.6	06.4	22.3	13.3	06.3	22.3	13.3	00.01	50.00	39.54
1	301.3	348.4	323.8	06.5	07.1	06.8	06.5	07.1	06.8	34.01	34.08	34.04
2	252.3	300.6	276.9	07.0	08.0	07.5	07.0	07.9	07.5	33.99	34.02	34.01
3	199.6	252.8	227.5	07.9	08.8	08.3	07.9	08.8	08.3	33.90	33.99	33.96
4	149.3	198.3	173.8	08.8	09.5	09.1	08.8	09.4	09.1	33.44	33.90	33.72
5	101.1	147.8	125.1	09.4	11.8	10.4	09.4	11.8	10.4	33.03	33.44	33.22
6	76.1	99.7	87.8	11.9	13.2	12.7	11.9	13.2	12.7	32.97	33.10	33.05
7	51.1	74.8	62.5	13.2	14.8	13.9	13.1	14.8	13.9	32.96	33.09	33.02
8	24.8	50.0	36.9	14.9	15.2	15.1	14.9	15.2	15.1	32.97	32.99	32.97

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-02.16	37.52	29.65	00.00	10.14	00.12	00.00	00.90	00.07	50.0	50.0	50.0
1	26.64	26.76	26.69	00.05	00.06	00.06	00.07	00.08	00.07	50.0	50.0	50.0
2	26.49	26.64	26.57	00.05	00.06	00.05	00.06	00.07	00.07	50.0	50.0	50.0
3	26.30	26.50	26.42	00.05	00.06	00.06	00.06	00.07	00.06	50.0	50.0	50.0
4	25.83	26.29	26.11	00.06	00.06	00.06	00.05	00.06	00.06	50.0	50.0	50.0
5	25.10	25.83	25.49	00.06	00.08	00.07	00.06	00.18	00.10	50.0	50.0	50.0
6	24.80	25.09	24.95	00.08	00.15	00.10	00.18	00.42	00.29	50.0	50.0	50.0
7	24.49	24.80	24.68	00.10	00.15	00.11	00.13	00.29	00.16	50.0	50.0	50.0
8	24.36	24.45	24.38	00.10	00.11	00.11	00.06	00.12	00.09	50.0	50.0	50.0

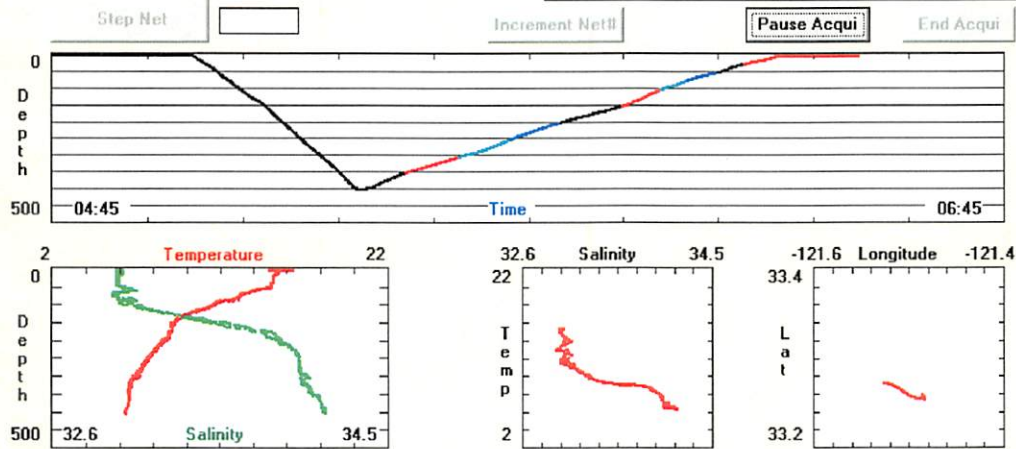
net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	26.0	89.0	49.1	00.0	03.3	00.7	-28.1	13.4	-08.2	00641	00877
1	53.0	60.0	55.9	01.4	01.6	01.5	04.7	12.1	07.5	00097	00199
2	53.0	56.0	55.0	01.4	01.6	01.5	04.8	10.6	08.1	00091	00197
3	51.0	58.0	54.3	01.4	01.9	01.7	00.9	13.8	09.8	00078	00186
4	48.0	53.0	50.7	01.4	01.9	01.8	05.2	14.0	10.8	00068	00184
5	45.0	52.0	49.7	01.6	02.2	01.8	07.0	12.8	10.0	00073	00206
6	46.0	49.0	47.9	01.9	02.2	02.0	04.7	09.8	06.8	00055	00185
7	44.0	49.0	46.3	01.9	02.2	02.1	05.9	09.8	07.5	00049	00178
8	42.0	46.0	44.8	01.6	02.2	02.0	03.6	09.4	06.7	00057	00205

Haul 7 Cycle 2 Tow 4

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	06:26:43	Net_Num	9	Latitude	33N 16.461	Reset	
Pressure	-1.6 m	OpenTime	14.4 min	Longitude	121W 31.51	Baud Rate	2400
Temp	15.59 C	Vol_Filtered	235.2 m3	Net_Dist	409.3 m	Sample Rate	4.0 sec
Salinity	0.34 o/oo	Angle	27 deg	Total_Dist	4099.7 m	Printer	Off
Density	-0.729	Flow_Counts	61	Processed File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H7-P1106.PRI		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H7-P1106.raw		
Fluoresc.	0.0630 V	Vert_Vel	0.1 m/min	Acquisition Ended. trys = 0			
LightXmis	0.7818 /m	Battery	19.4 V				



Haul 7 Cycle 2 Tow 4

~~M-02-002~~

28/06/11

RV/Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-02.8	400.9	131.9	06.4	17.9	12.0	06.3	17.9	12.0	00.09	34.15	20.10
1	301.1	349.1	324.6	06.5	06.8	06.7	06.5	06.8	06.6	34.01	34.09	34.04
2	250.3	300.3	278.3	06.8	07.7	07.2	06.8	07.6	07.2	34.00	34.04	34.01
3	201.3	249.1	223.6	07.7	08.5	08.1	07.6	08.5	08.1	33.90	34.00	33.96
4	150.9	200.3	175.9	08.5	09.2	09.0	08.5	09.2	08.9	33.60	33.91	33.81
5	100.8	149.7	125.7	09.1	11.3	10.0	09.1	11.3	10.0	33.07	33.60	33.32
6	75.3	99.7	87.8	11.5	13.1	12.1	11.5	13.1	12.1	32.96	33.05	33.01
7	51.6	73.7	61.3	13.1	14.7	13.8	13.1	14.7	13.8	32.94	33.09	33.01
8	25.3	50.2	37.4	15.0	15.2	15.2	15.0	15.2	15.2	32.96	33.00	32.97

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.31	26.83	15.09	-00.04	14.63	00.06	00.00	00.46	00.07	50.0	50.0	50.0
1	26.67	26.76	26.71	00.06	00.06	00.06	00.07	00.08	00.07	50.0	50.0	50.0
2	26.54	26.67	26.61	00.05	00.06	00.06	00.06	00.07	00.07	50.0	50.0	50.0
3	26.34	26.54	26.45	00.06	00.07	00.06	00.06	00.07	00.07	50.0	50.0	50.0
4	26.01	26.34	26.19	00.06	00.07	00.06	00.05	00.06	00.06	50.0	50.0	50.0
5	25.21	26.01	25.64	00.06	00.07	00.06	00.06	00.16	00.09	50.0	50.0	50.0
6	24.80	25.15	25.01	00.07	00.13	00.09	00.16	00.44	00.24	50.0	50.0	50.0
7	24.50	24.79	24.70	00.10	00.13	00.11	00.14	00.30	00.18	50.0	50.0	50.0
8	24.36	24.44	24.38	00.10	00.12	00.11	00.07	00.14	00.09	50.0	50.0	50.0

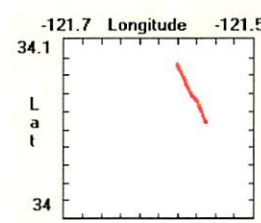
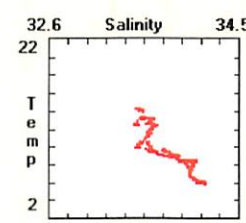
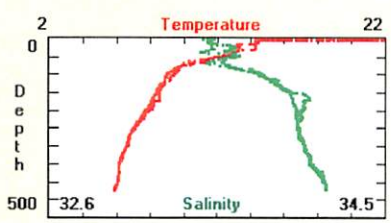
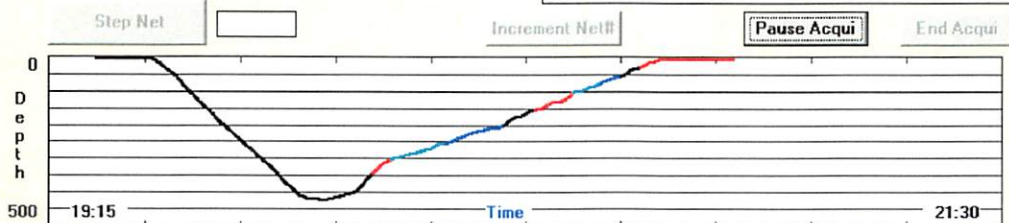
net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	26.0	89.0	46.7	00.0	02.5	00.7	-25.0	12.9	-07.6	00694	01058
1	50.0	58.0	54.6	01.4	01.6	01.5	05.6	09.7	07.1	00104	00228
2	51.0	56.0	54.2	01.4	01.9	01.6	04.4	11.3	07.9	00094	00218
3	46.0	54.0	50.3	01.6	01.9	01.8	05.6	10.1	07.9	00093	00274
4	47.0	54.0	50.4	01.4	01.9	01.7	03.7	08.8	06.4	00116	00321
5	48.0	53.0	51.3	01.6	01.9	01.7	07.6	13.1	10.2	00073	00191
6	47.0	51.0	49.2	01.6	02.2	01.9	06.5	09.0	07.8	00048	00152
7	45.0	49.0	47.4	01.6	02.2	01.9	03.8	09.6	06.4	00056	00188
8	44.0	51.0	46.7	01.6	02.2	01.9	05.1	10.0	07.9	00048	00160

Haul 8 Cycle 3 Tow 1

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	20:52:03	Net_Num	9	Latitude	34N 5.2313'	<input type="button" value="Reset"/>	
Pressure	-1.8 m	OpenTime	13.2 min	Longitude	121W 34.04'	Baud Rate	2400
Temp	19.52 C	Vol_Filtered	483.2 m3	Net_Dist	449.2 m	Sample Rate	4.0 sec
Salinity	0.29 o/oo	Angle	28 deg	Total_Dist	4661.0 m	Printer	Off
Density	-1.475	Flow_Counts	207	Processed File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H8-P1106.PRJ		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H8-P1106.raw		
Fluoresc.	0.0542 V	Vert_Vel	0.3 m/min	Acquisition Ended. trys = 0			
LightXmis	0.7086 /m	Battery	20.4 V				



H8-P1106.TAB

Haul 8 cycle 3 Tow 1

~~M-02-002~~

30/06/11

RV/Melville

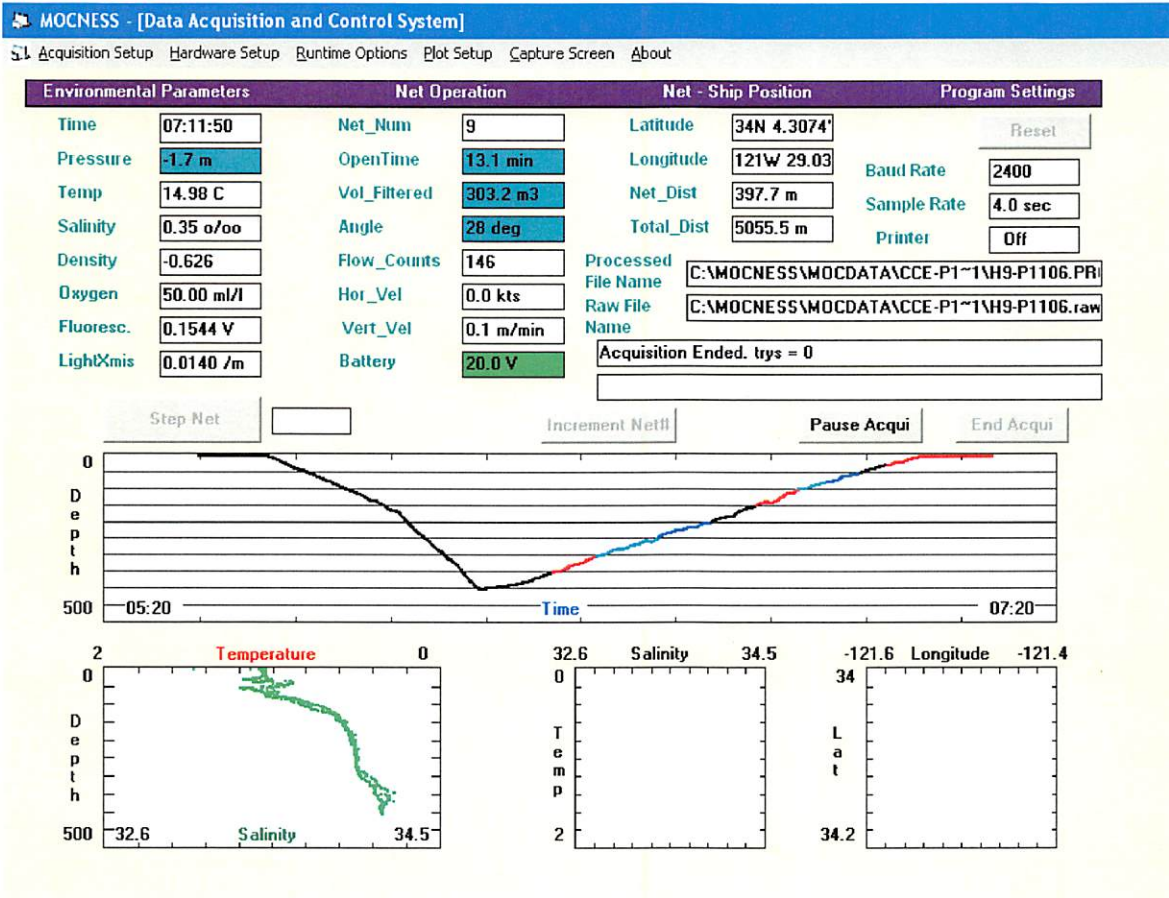
MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
1	300.0	340.6	317.2	06.3	06.6	06.5	06.2	06.6	06.4	34.05	34.09	34.06
1	300.0	340.6	317.2	06.3	06.6	06.5	06.2	06.6	06.4	34.05	34.09	34.06
2	252.4	298.3	276.0	06.6	07.0	06.8	06.6	07.0	06.8	34.01	34.05	34.03
4	151.0	194.9	170.8	08.0	08.6	08.4	08.0	08.6	08.4	34.03	34.08	34.05
0	-00.3	419.7	212.1	05.9	22.5	09.8	05.9	22.5	09.8	00.86	50.00	36.58
5	99.2	149.2	128.5	08.5	09.4	08.8	08.5	09.4	08.8	33.82	34.00	33.91
6	74.8	98.3	88.8	09.4	09.8	09.6	09.4	09.8	09.6	33.62	33.81	33.75
7	51.9	73.3	61.4	09.9	11.7	11.0	09.9	11.7	11.0	33.49	33.62	33.59
8	24.9	51.3	37.0	11.7	13.3	12.6	11.7	13.3	12.6	33.58	33.66	33.62

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
1	26.72	26.80	26.76	00.05	00.16	00.06	00.07	00.08	00.07	50.0	50.0	50.0
1	26.72	26.80	26.76	00.05	00.16	00.06	00.07	00.08	00.07	50.0	50.0	50.0
2	26.64	26.72	26.69	00.06	00.07	00.06	00.07	00.08	00.07	50.0	50.0	50.0
4	26.43	26.52	26.47	00.06	00.09	00.07	00.08	00.17	00.09	50.0	50.0	50.0
0	-00.22	37.59	28.07	00.00	13.02	00.11	00.00	00.86	00.10	50.0	50.0	50.0
5	26.14	26.42	26.30	00.07	00.10	00.07	00.07	00.18	00.08	50.0	50.0	50.0
6	25.91	26.13	26.05	00.07	00.10	00.08	00.09	00.11	00.09	50.0	50.0	50.0
7	25.56	25.90	25.68	00.08	00.17	00.11	00.12	00.38	00.23	50.0	50.0	50.0
8	25.29	25.55	25.40	00.15	00.22	00.19	00.38	00.88	00.55	50.0	50.0	50.0

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
1	50.0	58.0	55.0	01.6	02.2	01.8	05.9	21.5	16.2	00041	00087
1	50.0	58.0	55.0	01.6	02.2	01.8	05.9	21.5	16.2	00041	00087
2	49.0	54.0	51.2	01.4	01.9	01.6	01.1	15.5	06.6	00111	00292
4	45.0	49.0	46.2	01.6	02.2	02.0	03.1	16.7	10.6	00065	00211
0	14.0	89.0	53.0	00.0	10.9	01.3	-29.2	26.8	-08.9	00584	01150
5	43.0	49.0	46.5	01.6	02.2	01.9	-02.1	20.9	08.9	00082	00267
6	45.0	51.0	48.6	01.6	02.2	01.9	00.8	16.2	06.9	00053	00167
7	48.0	55.0	50.8	01.6	02.2	01.8	04.1	13.3	08.0	00044	00125
8	49.0	58.0	52.6	01.4	01.9	01.7	03.2	16.8	09.8	00040	00099

Haul 9 Cycle 3 Tow 2



H9-P1106.TAB

H9-Cycle3-Tow2
 30 June - 1 July 2011
 R/V Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-01.3	400.1	174.3	06.1	15.3	09.7	06.0	15.3	09.6	00.01	50.00	35.51
1	301.8	346.3	324.7	06.5	06.7	06.6	06.4	06.7	06.6	34.06	34.14	34.11
2	246.9	301.2	273.9	06.5	07.0	06.6	06.4	06.9	06.6	34.03	34.06	34.04
3	199.4	243.7	219.4	07.0	07.6	07.3	07.0	07.5	07.2	34.00	34.03	34.01
4	149.3	197.5	173.4	07.6	08.4	08.0	07.6	08.4	08.0	33.96	34.00	33.98
5	98.3	147.7	125.6	08.4	09.0	08.7	08.4	09.0	08.7	33.79	33.97	33.90
6	75.0	96.8	87.6	09.0	09.4	09.2	09.0	09.4	09.2	33.62	33.78	33.72
7	50.7	74.6	62.5	09.4	10.6	09.8	09.4	10.5	09.8	33.37	33.61	33.50
8	26.3	50.0	36.9	10.9	13.0	12.3	10.9	13.0	12.3	33.39	33.67	33.57

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-00.94	37.75	27.35	-00.08	08.22	00.10	00.00	01.25	00.16	50.0	50.0	50.0
1	26.75	26.81	26.78	00.06	00.07	00.06	00.07	00.08	00.08	50.0	50.0	50.0
2	26.67	26.75	26.71	00.06	00.07	00.06	00.07	00.10	00.07	50.0	50.0	50.0
3	26.55	26.66	26.61	00.06	00.07	00.06	00.06	00.11	00.07	50.0	50.0	50.0
4	26.41	26.55	26.48	00.06	00.07	00.06	00.07	00.08	00.07	50.0	50.0	50.0
5	26.17	26.40	26.31	00.07	00.08	00.07	00.07	00.08	00.08	50.0	50.0	50.0
6	25.97	26.16	26.09	00.07	00.09	00.08	00.08	00.13	00.09	50.0	50.0	50.0
7	25.60	25.96	25.82	00.08	00.11	00.09	00.11	00.42	00.18	50.0	50.0	50.0
8	25.18	25.57	25.42	00.12	04.34	00.25	00.32	01.16	00.55	50.0	50.0	50.0

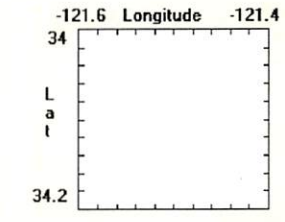
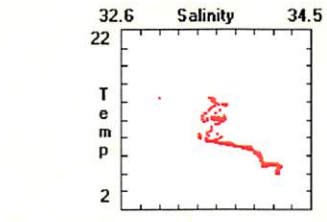
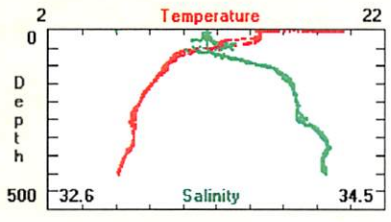
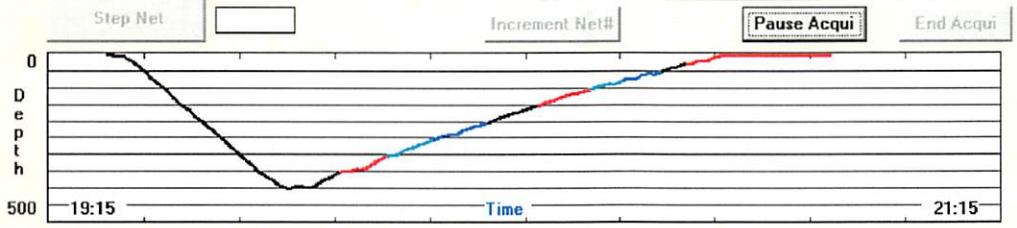
net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	21.0	89.0	54.3	00.0	10.4	01.2	-32.0	12.6	-07.9	00669	01371
1	50.0	58.0	55.3	01.4	01.9	01.6	02.5	15.5	08.8	00080	00180
2	52.0	57.0	54.4	01.1	01.9	01.6	-09.2	18.1	06.6	00116	00276
3	49.0	59.0	54.9	01.1	02.2	01.6	-05.1	22.0	07.2	00100	00233
4	52.0	58.0	55.8	01.1	01.9	01.6	-01.2	17.5	09.0	00082	00179
5	50.0	57.0	54.0	01.4	01.9	01.7	-05.1	19.7	09.3	00080	00189
6	48.0	54.0	50.8	01.4	02.2	01.8	-02.5	14.8	06.5	00054	00163
7	46.0	53.0	49.5	01.6	02.2	01.9	01.0	17.4	06.2	00059	00187
8	45.0	53.0	49.0	01.6	02.2	01.8	02.2	10.8	07.2	00051	00154

Haul 10, Cycle 3, Tow 3

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	20:53:35	Net_Num	9	Latitude	34N 6.1488'	Reset	
Pressure	-1.6 m	OpenTime	18.1 min	Longitude	121W 26.70	Baud Rate	2400
Temp	19.58 C	Vol_Filtered	349.3 m3	Net_Dist	595.2 m	Sample Rate	4.0 sec
Salinity	0.21 o/oo	Angle	26 deg	Total_Dist	5131.4 m	Printer	Off
Density	-1.548	Flow_Counts	171	Processed File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H10-P1106.PF		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H10-P1106.ra		
Fluoresc.	0.0588 V	Vert_Vel	-0.1 m/min	Acquisition Ended. trys = 0			
LightXmis	0.2919 /m	Battery	19.8 V				



H10-P110.TAB

H10-Cycle3-Tow3
 1 July 2011
 R/V Melville

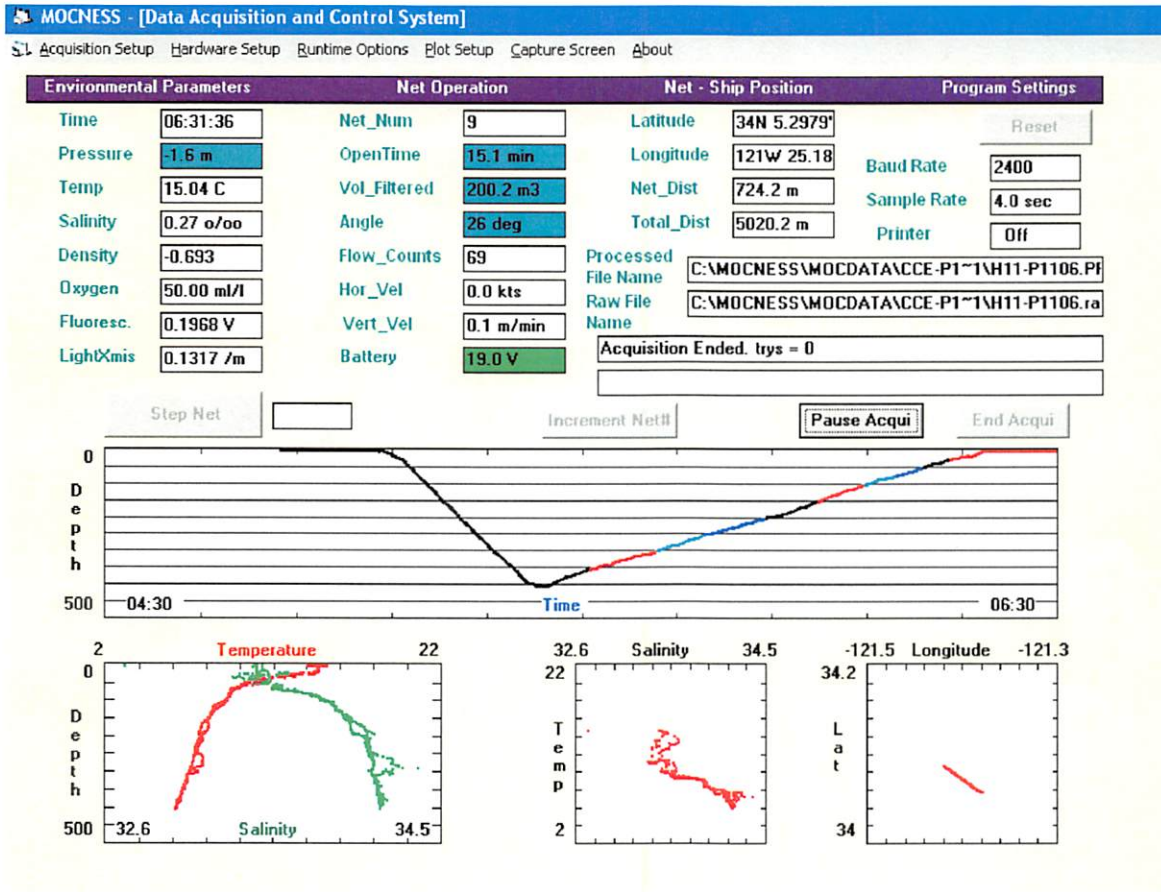
MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-02.2	400.5	232.3	06.1	17.7	08.4	06.1	17.7	08.4	00.01	50.00	34.06
1	301.4	345.7	329.8	06.6	07.1	06.8	06.5	07.0	06.8	34.16	34.19	34.17
2	251.1	300.5	276.9	06.9	07.2	07.0	06.8	07.1	07.0	34.02	34.17	34.11
3	201.2	250.6	225.5	06.9	07.5	07.1	06.9	07.4	07.1	34.00	34.02	34.01
4	149.7	200.1	173.8	07.5	08.2	07.7	07.4	08.1	07.7	33.97	34.01	33.99
5	100.8	148.7	122.4	08.2	08.9	08.6	08.2	08.9	08.6	33.86	33.98	33.93
6	74.7	100.2	88.5	08.9	09.4	09.1	08.9	09.4	09.1	33.64	33.84	33.75
7	49.5	73.8	62.4	09.4	10.4	09.7	09.4	10.4	09.7	33.38	33.63	33.51
8	26.0	47.9	37.0	11.3	12.5	12.1	11.3	12.5	12.1	33.41	33.64	33.56

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.33	37.55	26.44	00.06	19.87	00.17	00.00	00.58	00.11	50.0	50.0	50.0
1	26.76	26.82	26.80	00.06	00.07	00.06	00.08	00.13	00.09	50.0	50.0	50.0
2	26.66	26.76	26.72	00.06	00.07	00.06	00.07	00.13	00.08	50.0	50.0	50.0
3	26.57	26.66	26.63	00.06	00.09	00.06	00.07	00.08	00.07	50.0	50.0	50.0
4	26.45	26.57	26.52	00.06	00.10	00.07	00.07	00.13	00.07	50.0	50.0	50.0
5	26.25	26.44	26.35	00.07	00.09	00.07	00.07	00.09	00.08	50.0	50.0	50.0
6	26.00	26.23	26.13	00.08	00.15	00.08	00.08	00.14	00.09	50.0	50.0	50.0
7	25.61	25.98	25.84	00.08	00.13	00.10	00.10	00.33	00.17	50.0	50.0	50.0
8	25.27	25.55	25.45	00.14	00.26	00.18	00.35	00.78	00.48	50.0	50.0	50.0

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	29.0	89.0	52.6	00.3	06.6	01.1	-27.3	18.7	-12.0	00440	00955
1	48.0	56.0	53.6	01.4	02.2	01.7	-02.7	18.6	08.2	00087	00214
2	50.0	56.0	52.1	01.4	01.9	01.7	-01.1	15.3	08.6	00087	00225
3	48.0	55.0	52.1	01.4	02.2	01.8	-05.1	15.9	07.3	00103	00285
4	47.0	54.0	50.0	01.6	01.9	01.8	04.8	13.8	08.0	00093	00272
5	44.0	51.0	47.7	01.6	02.2	01.9	01.8	12.3	07.5	00098	00319
6	44.0	49.0	47.1	01.6	02.5	02.0	-01.9	15.2	06.2	00059	00213
7	43.0	50.0	46.3	01.6	02.5	02.0	-05.2	16.6	05.2	00072	00265
8	43.0	51.0	46.5	01.6	02.2	01.9	02.2	11.3	07.7	00046	00157

Haul 11, Cycle 3, Tow 4



H11-P110.TAB

Haul 11-Cycle3-Tow4
 1 July 2011
 R/V Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-00.9	403.5	164.1	06.2	15.2	10.4	06.1	15.2	10.4	00.56	50.00	38.90
1	299.5	350.4	323.7	06.6	07.0	06.9	06.6	07.0	06.8	34.11	34.15	34.13
2	249.6	298.0	274.7	07.0	07.4	07.2	07.0	07.4	07.2	34.09	34.13	34.12
3	199.9	249.6	225.9	07.4	07.9	07.6	07.4	07.8	07.6	34.06	34.10	34.09
4	149.6	199.2	179.1	07.6	08.1	07.8	07.6	08.1	07.8	33.97	34.06	34.01
5	100.3	148.6	122.9	08.1	09.2	08.6	08.1	09.2	08.6	33.84	33.97	33.92
6	75.2	99.4	86.6	09.2	09.5	09.4	09.2	09.5	09.3	33.71	33.82	33.79
7	50.8	74.7	63.1	09.4	10.3	09.8	09.4	10.3	09.8	33.48	33.69	33.58
8	25.5	49.7	37.4	10.2	13.3	11.5	10.2	13.2	11.5	33.32	33.58	33.47

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-00.38	37.76	29.83	-00.06	01.16	00.05	00.00	00.87	00.14	50.0	50.0	50.0
1	26.72	26.80	26.76	00.06	00.07	00.06	00.08	00.09	00.08	50.0	50.0	50.0
2	26.65	26.72	26.70	00.06	00.07	00.06	00.08	00.09	00.08	50.0	50.0	50.0
3	26.57	26.66	26.62	00.06	00.08	00.06	00.08	00.09	00.08	50.0	50.0	50.0
4	26.45	26.57	26.53	00.06	00.07	00.06	00.07	00.09	00.07	50.0	50.0	50.0
5	26.19	26.44	26.33	00.06	00.09	00.07	00.07	00.11	00.08	50.0	50.0	50.0
6	26.03	26.16	26.12	00.07	00.12	00.08	00.09	00.11	00.10	50.0	50.0	50.0
7	25.74	26.02	25.87	00.08	00.10	00.09	00.11	00.22	00.15	50.0	50.0	50.0
8	25.24	25.70	25.49	00.11	00.20	00.15	00.24	00.68	00.44	50.0	50.0	50.0

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	25.0	89.0	52.6	00.0	04.4	00.6	-30.3	14.1	-09.0	00585	00650
1	48.0	61.0	57.3	01.1	01.9	01.5	-02.4	16.3	06.1	00125	00257
2	55.0	60.0	56.8	01.4	01.6	01.5	01.1	15.2	08.1	00090	00184
3	49.0	60.0	55.6	01.4	01.9	01.6	00.6	12.7	06.5	00113	00256
4	54.0	60.0	57.2	01.4	01.6	01.5	01.6	13.4	07.6	00097	00199
5	50.0	56.0	53.2	01.4	01.9	01.7	03.3	11.7	08.5	00087	00214
6	49.0	58.0	54.1	01.4	01.9	01.6	01.8	12.7	06.3	00058	00142
7	51.0	60.0	56.7	01.4	01.6	01.5	03.1	11.9	07.1	00051	00110
8	51.0	61.0	56.3	01.1	01.6	01.5	-00.4	11.7	07.5	00049	00100

MOCNESS Data Sheet

New Flow Meter
FM. #1

Cruise CCE-P1106 Date 7 July 2011 Haul # 12 Cycle # 4 Tow # 1

Wind Speed 10 (kts.) Direction 297 (°) Sea State 2-3 (ft.)

File Name: Processed H12-P1106.PRO Raw H12-P1106.RAW

Start Time 12:51 (PDT) End Time 14:04 (PDT)

Lat 33.4756 Lat 33.4996

Long 121.0805 Long 121.1100

Event deploy # 401 Event rec. # 402

Bottom Depth 3376 (m) Console Operator MDP

- Pre-deployment checks:
- Flow Meter
 - Net Response
 - Stepping Motor
 - Clean Optical Surface
 - Transmissometer
 - Fluorometer

Net Mesh .202 μm

Frame Size 1 m²

HAUL 12 nation

Net	Time Open	Angle	Corrected	Corrected	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
			Flow Counts	Volume Filtered (m3)						
0	12:51		43*	(est. from \bar{x}) 722	401	0		5% Form.	100%	95% EtOH
1	13:15		--	(est. from \bar{x}) 271	349	300	100%	5% Form.		95% EtOH ✓
2	13:22		59	269	300	250		5% Form.		95% EtOH ✓
3	13:28		66	302	250	201		5% Form.		95% EtOH ✓
4	13:35		58	270	201	151		5% Form.		95% EtOH ✓
5	13:42		53	248	151	100		5% Form.		95% EtOH ✓
6	13:48		28	122	100	76		5% Form.		95% EtOH ✓
7	13:51		46	194	76	51		5% Form.		95% EtOH ✓
8	13:55		42	177	51	26		5% Form.		95% EtOH ✓
9	14:00		39	174	26	0	↓	5% Form.		95% EtOH ✓
Closed	14:04									

At Depth Data

wire out 488 (m)
Time 13:08 (PDT)

Surface Data

Pressure 0.5 (m)
Temp. 16.15 (°C)
Salinity 33.6 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.5272 (V)
Trans 0.6310 (m)
Battery 21.1 (V)

Notes: Cycle 4 waters rich w/ phytopl.
Flow meter changed during SeaSon interlude (5 July 2011)

New flow meter = Flow #1
New coeff. = 4.221 m/cut

6.24 * After net 1 tripped saw no increases in flow counts;
3.4.2 flow meter not working properly for Net 1
50 Flow counts advancing w/ Net 2.

0.0742
0.0602 ① Flow meter stopped advancing on way down (Net 0)
20.8 ② ~ 290 m.

Reset to 0 at net #1 trip, but didn't start advancing again until reached 307 m; then counts advancing again, and re-set to 0 at trip at 299 m.
③ Net 0 volume corrected for initial spin, but not corrected for stuck flow meter. Severe underestimate of volume.

MOCNESS Data Sheet

Cruise CCE-P1106 Date 7⁸ July 2011 Haul # 13 Cycle # 4 Tow # 2

Wind Speed 16-18 (kts.) Direction 292 (°) Sea State 3-4 (ft.)

File Name: Processed H13-P1106.PRO Raw H13-P1106.RAW

Start Time 23:07 (PDT) End Time 00:23 (PDT)

Lat 33.3965 Lat 34.4043

Long 121.1198 Long 121.1647

Event deploy # 413 Event rec. # 414

Bottom Depth 3604 (m) Console Operator MDR

- Pre-deployment checks:
- Flow Meter
 - Net Response
 - Stepping Motor
 - Clean Optical Surface
 - Transmissometer
 - Fluorometer

Net Mesh .202 μm

Frame Size 1 m²

		HAUL 13		nation						
Net	PDT Time Open	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	23:07		105	(est. from 7) 722	401	0		5% Form.	100%	95% EtOH
1	23:36		84		350	301	100%	5% Form.		95% EtOH ✓
2	23:45		57		301	249		5% Form.		95% EtOH ✓
3	23:51		62		249	201		5% Form.		95% EtOH ✓
4	23:57		66		201	149		5% Form.		95% EtOH ✓
5	00:03		69		149	100		5% Form.		95% EtOH ✓
6	00:09		51		100	76		5% Form.		95% EtOH ✓
7	00:13		33		76	50		5% Form.		95% EtOH ✓
8	00:17		22		50	25		5% Form.		95% EtOH
9	00:19		44		25	0	↓	5% Form.		95% EtOH
Closed	00:23									

At Depth Data

wire out 571 (m)
Time 23:29 (PDT)

Surface Data

Pressure 0.8 (m)
Temp. 16.08 (°C)
Salinity 33.61 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.7662 (v)
Trans 0.3838 (m)
Battery 20.4 (v)

Notes: 2 pyrosomes retrieved from Mochness bridle and tow cable upon net recovery! (preserved separately)

<u>400 m.</u>
<u>400 m.</u>
<u>6.10</u>
<u>34.16</u>
<u>50</u>
<u>0.0752</u>
<u>0.0565</u>
<u>20.1</u>

ⓑ Net ∅ volume corrected for initial spin.

MOCNESS Data Sheet

Cruise CCE-P1106 Date 8 July 2011 Haul # 14 Cycle # 4 Tow # 3

Wind Speed 14-15 (kts.) Direction 312 (°) Sea State 2-3 (ft.)

File Name: Processed H14-P1106.Pro Raw H14-P1106.RAW

Start Time 12:33 (PDT) End Time 13:58 (PDT)

Lat 33.2716 Lat 33.3008

Long 121.1584 Long 121.1997

Event deploy # 442 Event rec. # 443

Bottom Depth 3442 (m) Console Operator MDO

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

Frame Size 1 m²

HAUL 14 Station										
Net	Time Open	Angle	Corrected		Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
			Flow Counts	Volume Filtered (m3)						
0	12:33		140*	(est. from \bar{x}) 722	401	0		5% Form.	100%	95% EtOH
1	13:07		13*	(est. from \bar{x}) 271	351	301	50%	5% Form.	50%	95% EtOH ✓
2	13:17		104		301	251		5% Form.		95% EtOH ✓
3	13:25		101		251	199		5% Form.		95% EtOH ✓
4	13:32		92		199	150		5% Form.		95% EtOH ✓
5	13:39		71		150	99		5% Form.		95% EtOH ✓
6	13:45		50		99	76		5% Form.		95% EtOH ✓
7	13:49		48		76	51		5% Form.		95% EtOH ✓
8	13:52		34		51	24		5% Form.		95% EtOH
9	13:55		36		24	0		5% Form.		95% EtOH
Closed	13:58									

At Depth Data

wire out 695 (m)

Time 12:59 (PDT)

Surface Data

Pressure 3.3 (m)

Temp. 16.07 (°C)

Salinity 33.62 (‰)

O₂ (ml/l)

Fluoresc. 0.4716 (V)

Trans 0.3510 (m)

Battery 20.0 (v)

Notes:

Net 0, and continued to Net #1
** Flow meter stuck on Net #1*
Began spinning again late in Net #1 haul

At depth

401

6.15

34.16

50

0.0779

0.0582

19.8

ⓑ Net 0 volume corrected for initial spin, but not corrected for stuck flow meter. Underestimates true vol. Altered.

MOCNESS Data Sheet

Cruise CCE-P1106 Date 8 July 2011 Haul # 15 Cycle # 4 Tow # 4

Wind Speed 16-18 (kts.) Direction 307 (°) Sea State 3-5⁺ (ft.)

File Name: Processed H15-P1106.Pro Raw H15-P1106.RAW

Start Time 22:27 (PDT) End Time 23:38 (PDT)

Lat 33.1637 Lat 33.1740

Long 121.1487 Long 121.1732

Event deploy # 450 Event rec. # 451 Frame Size 1 m²

Bottom Depth 3634 (m) Console Operator MDE

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

HAUL 15										
			Corrected	Corrected	ation					
Net	Time Open	Angle	Flow Counts	Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	22:27		83	(est. from \bar{x}) 722	410	0		5% Form.	100%	95% EtOH
1	22:55		45	214	350	297	50%	5% Form.	50%	95% EtOH ✓
2	23:01		40	189	297	250		5% Form.		95% EtOH ✓
3	23:05		49	224	250	203		5% Form.		95% EtOH ✓
4	23:10		63	278	203	150		5% Form.		95% EtOH ✓
5	23:17		70	288	150	100		5% Form.		95% EtOH
6	23:23		51	211	100	75		5% Form.		95% EtOH
7	23:27		41	165	75	50		5% Form.		95% EtOH
8	23:31		44	165	50	22		5% Form.		95% EtOH
9	23:34		51	188	22	0		5% Form.		95% EtOH
Closed	23:38									

At Depth Data

wire out 490 (m)
Time 22:46 (PDT)

Notes: 4 pteropods retrieved from Mochness tow bridle upon recovery.

Surface Data

Pressure 0.3 (m)
Temp. 16.09 (°C)
Salinity 33.60 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.8204 (V)
Trans 0.8763 (/m)
Battery 19.8 (v)

409 m
6.40°
34.22
50
0.0778
0.0598
19.5

ⓑ Net φ vol. corrected.

MOCNESS Data Sheet

Cruise CCE-P1106 Date 10 July 2011 Haul # 16 Cycle # 5 Tow # 1

Wind Speed 22-24 (kts.) Direction 329 (°) Sea State 3-5 (ft.)

File Name: Processed H16-P1106.PRO Raw H16-P1106.RAW

Start Time 12:34 (PDT) End Time 14:00 (PDT)

Lat 33.2882 Lat 33.3100

Long 121.3839 Long 121.4099

Event deploy # 485 Event rec. # 486

Bottom Depth 3770 (m) Console Operator MDP

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

Frame Size 1 m²

HAUL 16 nation										
Net	Time Open	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	12:34		99*	(est. from $\frac{1}{x}$) 722	411	0		5% Form.	100%	95% EtOH
1	13:02		60	278	350	298	100%	5% Form.		95% EtOH ✓
2	13:10		70	331	298	250	↓	5% Form.		95% EtOH ✓
3	13:19		63	298	250	201		5% Form.		95% EtOH ✓
4	13:27		55	259	201	151		5% Form.		95% EtOH ✓
5	13:33		79	339	151	101		5% Form.		95% EtOH ✓
6	13:41		55	227	101	75		5% Form.		95% EtOH ✓
7	13:46		51	198	75	51		5% Form.		95% EtOH ✓
8	13:50		59	225	51	25		5% Form.		95% EtOH
9	13:55		58	221	25	0		5% Form.		95% EtOH
Closed	14:00									

At Depth Data

wire out 508 (m)

Time 12:53 (PDT)

Surface Data

Pressure 0.1 (m)

Temp. 15.97 (°C)

Salinity 30.04 (‰)

O₂ 50 (ml/l)

Fluoresc. 0.084 (V)

Trans 0.1220 (/m)

Battery 19.4 (v)

Notes:

January = 400 m. * Flow meter stuck at 152 from ~ 378 → 411 → 350 m.
411 Severe underestimate
6.33
24.18
50
0.0736
0.0602
19.2

ⓑ Net φ vol. corrected (but remains an underestimate)

MOCNESS Data Sheet

Cruise CCE-P1106 Date 10 July 2011 Haul # 17 Cycle # 5 Tow # 2

Wind Speed 22-25 (kts.) Direction 323 (°) Sea State 5-7 (ft.)

File Name: Processed H17-P1106.Pro Raw H17-P1106.RAW

Start Time 22:36 (PDT) End Time 23:50 (PDT)

Lat 33.1265 Lat 33.1398

Long 121.3890 Long 121.4160

Event deploy # 496 Event rec. # 497

Bottom Depth 3985 (m) Console Operator MDR

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

Frame Size 1 m²

HAUL 17 nation										
Net	Time Open	Angle	Corrected		Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
			Flow Counts	Volume Filtered (m3)						
0	<u>22:36</u>		111	<u>(est. from 81) 722</u>	<u>401</u>	<u>0</u>		5% Form.	<u>100%</u>	95% EtOH
1	<u>23:01</u>		89	401	<u>350</u>	<u>300</u>	<u>100%</u>	5% Form.		95% EtOH ✓
2	<u>23:11</u>		52	231	<u>300</u>	<u>250</u>		5% Form.		95% EtOH ✓
3	<u>23:17</u>		67	294	<u>250</u>	<u>200</u>		5% Form.		95% EtOH ✓
4	<u>23:23</u>		54	235	<u>200</u>	<u>150</u>		5% Form.		95% EtOH ✓
5	<u>23:29</u>		59	256	<u>150</u>	<u>98</u>		5% Form.		95% EtOH ✓
6	<u>23:34</u>		56	220	<u>98</u>	<u>76</u>		5% Form.		95% EtOH ✓
7	<u>23:39</u>		43	179	<u>76</u>	<u>48</u>		5% Form.		95% EtOH ✓
8	<u>23:43</u>		37	147	<u>48</u>	<u>25</u>		5% Form.		95% EtOH ✓
9	<u>23:46</u>		47	185	<u>25</u>	<u>0</u>	↓	5% Form.		95% EtOH ✓
Closed	<u>23:50</u>									

At Depth Data

wire out 508 (m)
Time 22:54 (PDT)

Surface Data

Pressure 0.8 (m)
Temp. 15.94 (°C)
Salinity 33.04 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.2158 (V)
Trans 0.1844 (1/m)
Battery 19.1 (v)

Notes: pyrosome colony retrieved from Moccuss Yoke again! Fixed in 95% EtOH (separately)

At depth
<u>401</u>
<u>6.48</u>
<u>34.14</u>
<u>0.0756</u>
<u>0.0616</u>
<u>18.9</u>

ⓑ Net φ volume corrected.

MOCNESS Data Sheet

Cruise CCE-P1106 Date 11 July 2011 Haul # 18 Cycle # 5 Tow # 3

Wind Speed 14-16 (kts.) Direction 335 (°) Sea State 2-3 (ft.)

File Name: Processed H18-P1106.PRO Raw H18-P1106.RAW

Start Time 12:23 (PDT) End Time 13:56 (PDT)

Lat 32.9272 Lat 32.9469

Long 121.3722 Long 121.3956

Event deploy # 524 Event rec. # 525

Bottom Depth 4.028 (m) Console Operator DJ

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

Frame Size 1 m²

HAUL 18										
Net	Time Open	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	12:23		106	<i>(est. from X) 722</i>	401	0	50%	5% Form.	50%	95% EtOH
1	12:55		77		350	300	50%	5% Form.	50%	95% EtOH
2	13:05		77		300	251		5% Form.		95% EtOH
3	13:14		80		251	199		5% Form.		95% EtOH
4	13:24		60		199	150		5% Form.		95% EtOH
5	13:31		67		150	102		5% Form.		95% EtOH
6	13:39		54		102	74		5% Form.		95% EtOH
7	13:44		44		74	50		5% Form.		95% EtOH
8	13:47		45		50	25		5% Form.		95% EtOH
9	13:51		59		25	0		5% Form.		95% EtOH
Closed	13:56									

** NH₄OH - 25% buffered EtOH
25% unbuffered EtOH
All fixed in 5 mM NH₄OH - buffered 95% EtOH; first samples buffered*

At Depth Data

wire out _____ (m)
Time _____ (PDT)

Surface Data

Pressure 1.8 (m)
Temp. 15.94 (°C)
Salinity 33.05 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.0712 (V)
Trans 0.1229 (μm)
Battery 19.0 (v)

Notes: 1 pyrosome on tow bridle upon recovery - fixed in EtOH

* Net 0 split and 50% fixed in standard, unbuffered - 5% Formalin
401 250 in fixed in NH₄OH-buffered EtOH
7.22 25% fixed in unbuffered EtOH
34.28 All other nets split and 50% in 5% Form,
26.83 50 50% in NH₄OH-buffered 95% EtOH
0.0848
0.0687
18.5

(B) Net ∅ Vol. corrected Net ∅
50% formalin
25% ethanol
25% buffered ethanol

MOCNESS Data Sheet

Cruise CCE-P1106 Date 11 July 2011 Haul # 19 Cycle # 5 Tow # 4

Wind Speed 16-18 (kts.) Direction 300 (°) Sea State 3-5 (ft.)

File Name: Processed 1 Raw 1

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Start Time 22:15 (PDT) End Time 23:28 (PDT)

Lat 32.77362 Lat 32.79615

Long -121.3157 Long -121.3407

Net Mesh .202 μm

Event deploy # 530 Event rec. # 531

Frame Size 1 m²

Bottom Depth 3,687 (m) Console Operator MDP

① Have only
A19-P110.TAB
file; no .PRO
or .RAW
(overwritten)

HAUL 19										
Net	Time Open	Angle	Corrected		Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
			Flow Counts	Volume Filtered (m3)						
0	22:15		100	(est. from \bar{x}) 722	401	0	50%	5% Form. 95% EtOH	50%	95% EtOH
1	22:45		57	(est. from \bar{x}) 271	351	301	50%	5% Form. 95% EtOH	50%	95% EtOH
2	22:52		68	292	301	250		5% Form.		95% EtOH
3	22:59		78	331	250	200		5% Form.		95% EtOH
4	23:06		55	234	200	150		5% Form.		95% EtOH
5	23:11		57	229	150	100		5% Form.		95% EtOH
6	23:16		41	157	100	73		5% Form.		95% EtOH
7	23:19		41	153	73	51		5% Form.		95% EtOH
8	23:22		35	133	51	25		5% Form.		95% EtOH
9	23:24		36	141	25	0		5% Form.		95% EtOH
Closed	23:28									

buffered w/ 5 mM NH₄OH

At Depth Data

wire out 560 (m)
Time 22:37 (PDT)

Notes:

Surface Data

Pressure 0.4 (m)
Temp. 15.94 (°C)
Salinity 33.05 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.1082 (V)
Trans 0.1416 (m)
Battery 18.9 (v)

At depth
401
6.37
34.16
50
0.0774
0.0598
18.6

* Flow meter stopped responding on Net 0
* partially stuck on Net 1

(A) Estimated from \bar{x} of other tows

MOCNESS Data Sheet

Cruise CCE-P1106 Date 13⁻¹⁴ July 2011 Haul # 20 Cycle # 6 Tow # 1

Wind Speed 20-22 (kts.) Direction 334 (°) Sea State 3-4 (ft.)

File Name: Processed H20-P1106.PRO Raw H20-P1106.RAW

Start Time 22:51 (PDT) End Time 00:10 (PDT)

Lat 33.1485 Lat 33.1597

Long 121.2247 Long 121.2550

Event deploy # 562 Event rec. # 563 Frame Size 1 m²

Bottom Depth 3,793 (m) Console Operator Sara Walkup

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

HAUL 20										
Net	Time Open	Angle	Corrected	Corrected	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
			Flow Counts	Volume Filtered (m3)						
0	22:51		71	(est. from $\frac{722}{8}$) 722	401	0	50%	unbuffered 5% Form.	50%	buffered 95% EtOH
1	23:19		70	315	351	301	100%	5% Form.		95% EtOH
2	23:27		84	389	301	249		5% Form.		95% EtOH
3	23:37		78	360	249	201		5% Form.		95% EtOH
4	23:46		40	202	201	150		5% Form.		95% EtOH
5	23:53		26	136	150	99		5% Form.		95% EtOH
6	23:59		11	57	99	75		5% Form.		95% EtOH
7	00:02		13	65	75	48		5% Form.		95% EtOH
8	00:04		16	66	48	23		5% Form.		95% EtOH
9	00:05		67	216	23	0		5% Form.		95% EtOH
Closed	00:10									

At Depth Data

wire out 520 (m)
Time 23:11 (PDT)

Surface Data

Pressure 0.3 (m)
Temp. 15.12 (°C)
Salinity 33.57 (‰)
O₂ 50 (ml/l)
Fluores 1.4658 (V)
Trans 0.4865 (m)
Battery 21.3 (v)

Notes: Net 2 - ship slowed briefly + net sank
1 Pyrosome on tow bridle upon net recovery

At depth
400m
6.18
34.14
50
0.0734
0.0602
21.1
Very strong subsurface currents; ship moving at 2 kts through the water but barely moving over the bottom; extremely steep wire angles, implying nearly vertical ascent of net, minimal flow through net.

ⓑ Net φ volume corrected.

MOCNESS Data Sheet

Cruise CCE-P1106 Date 14 July 2011 Haul # 21 Cycle # 6 Tow # 2

Wind Speed 12-15 (kts.) Direction 335 (°) Sea State 3-4 (ft.)

File Name: Processed H21-P1106.PRO Raw H21-P1106.RAW

Start Time 12:33 (PDT) End Time 13:49 (PDT)

Lat 32.8251 Lat 32.8476

Long 121.2338 Long 121.2464

Event deploy # 586 Event rec. # 587

Bottom Depth 3745 (m) Console Operator MDO

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input checked="" type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

Frame Size 1 m²

		HAUL 21		nation						
Net	Time Open	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	12:33		63*	(est. from $\frac{722}{8}$) 722	400	0	50%	Etch 5% Form. 95% EtOH	50%	95% EtOH
1	12:57		11*	(est. from $\frac{271}{8}$) 271	349	301	30%	5% Form.	50%	95% EtOH
2	13:01		44	203	301	250		5% Form.		95% EtOH
3	13:06		62	275	250	201		5% Form.		95% EtOH
4	13:12		89	374	201	150		5% Form.		95% EtOH
5	13:21		94	384	150	101		5% Form.		95% EtOH
6	13:29		45	181	101	75		5% Form.		95% EtOH
7	13:33		44	168	75	50		5% Form.		95% EtOH
8	13:36		50	168	50	26		5% Form.		95% EtOH
9	13:39		76	246	26	0	↓	5% Form.	↓	95% EtOH
Closed	13:49									

At Depth Data

wire out 12:52 (m)
Time 46.6 (PDT)

Surface Data

1.2 Pressure 10.1 (m)
14.32 Temp. 14.32 (°C)
33.24 Salinity 33.25 (‰)
O₂ 5.0 (ml/l)
0.2332 Fluoresc. 0.21 (V)
0.2129 Trans 0.2142 (m)
20.5 Battery 20.5 (V)

Notes: Net 0: Flow counts stuck @ 101 on descent.
Net 1: No flow counts initially, started again on ascent
Net 2: Flow meter seems to be advancing normally.

At Depth

400
6.37°
34.17°
50
0.0730
0.0630
20.2

ⓑ Net ϕ volume corrected

MOCNESS Data Sheet

Cruise CCE-P1106 Date 14 July 2011 Haul # 22 Cycle # 6 Tow # 3

Wind Speed 18.20 (kts.) Direction 322 (°) Sea State 3-4 (ft.)

File Name: Processed H22-P1106.PRO Raw H22-P1106.RAW

Start Time 22:23 (PDT) End Time 23:38 (PDT)

Lat 32.6185 Lat 32.6396

Long 121.1176 Long 121.1406

Event deploy # 594 Event rec. # 595 Frame Size 1 m²

Bottom Depth 3783 (m) Console Operator Amanda Netburn

Pre-deployment checks:	
<input checked="" type="checkbox"/>	Flow Meter
<input type="checkbox"/>	Net Response
<input checked="" type="checkbox"/>	Stepping Motor
<input checked="" type="checkbox"/>	Clean Optical Surface
<input checked="" type="checkbox"/>	Transmissometer
<input checked="" type="checkbox"/>	Fluorometer

Net Mesh .202 μm

PDT			HAUL 22		mation					
Net	Time Open	Angle	Corrected Flow Counts	Corrected Volume Filtered (m3)	Max Depth (m)	Min Depth (m)	Split	Fixative	Split	Fixative
0	2223		79	<i>(est. from x) 722</i>	400	0	50%	<i>unbuffered EtOH</i> 5% Form.	50%	95% EtOH
1	2247		37		349	299	50%	5% Form.	50%	95% EtOH ✓
2	2252		38		299	251		5% Form.		95% EtOH ✓
3	2257		90		251	200		5% Form.		95% EtOH ✓
4	2306		81		200	150		5% Form.		95% EtOH ✓
5	2313		89		150	99		5% Form.		95% EtOH ✓
6	2321		69		99	75		5% Form.		95% EtOH ✓
7	2326		64		75	52		5% Form.		95% EtOH ✓
8	2332		35		52	25		5% Form.		95% EtOH ✓
9	2335		30		25	0	↓	5% Form.	↓	95% EtOH ✓
Closed	2338									

At Depth Data

wire out 460 (m)
Time 2041 (PDT)

Surface Data

Pressure 0.7 (m)
Temp. 14.69 (°C)
Salinity 33.28 (‰)
O₂ 50 (ml/l)
Fluoresc. 0.5426 (V)
Trans 0.2074 (m)
Battery 20.0 (V)

Notes: Net #0: Hung up at 157 flow counts on descent then began advancing intermittently

At depth

Pressure	398
T	6.57
S	34.17
O ₂	50
Fl	0.0740
light	0.0623
bat	19.9

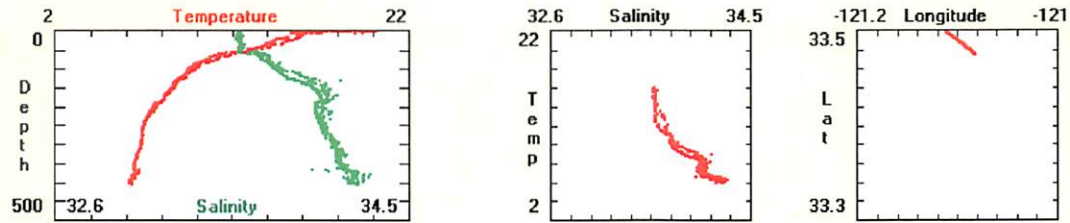
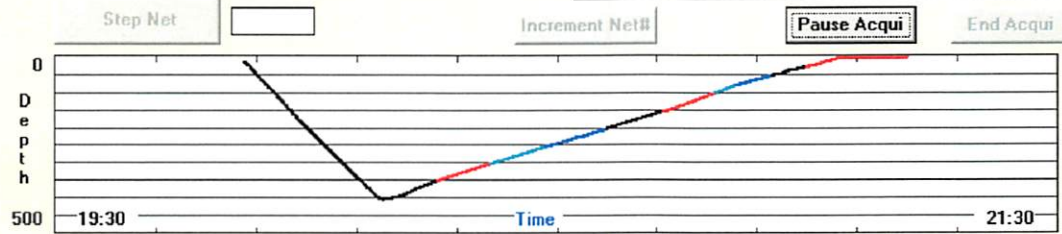
ⓑ Net φ vol. corrected

Haul 12, Cycle 4, Tow 1

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	21:12:07	Net_Num	9	Latitude	33N 30.083	Reset	
Pressure	-2.3 m	OpenTime	12.2 min	Longitude	121W 6.739	Baud Rate	2400
Temp	19.95 C	Vol_Filtered	164.7 m3	Net_Dist	510.7 m	Sample Rate	4.0 sec
Salinity	0.25 o/oo	Angle	27 deg	Total_Dist	4454.6 m	Printer	Off
Density	-1.594	Flow_Counts	61	Processed	C:\MOCNESS\MOCDATA\CCE-P1~1\H12-P1106.PI		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H12-P1106.ra		
Fluoresc.	0.0494 V	Vert_Vel	0.3 m/min	Raw File	C:\MOCNESS\MOCDATA\CCE-P1~1\H12-P1106.ra		
LightXmis	0.6712 /m	Battery	20.2 V	Name	Acquisition Ended. trys = 0		



*New flow meter
(FM#1)
May need new calibration.*

Haul 12-Cycle4-Tow1
7 July 2011
R/V Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-01.7	401.3	171.3	06.1	22.4	12.0	06.1	22.4	12.0	00.01	50.00	37.21
1	299.6	348.0	324.0	06.5	06.9	06.7	06.4	06.8	06.6	34.10	34.13	34.12
2	250.5	298.7	274.7	06.9	07.0	07.0	06.8	07.0	06.9	34.03	34.11	34.08
3	200.9	249.4	225.6	07.0	07.5	07.2	07.0	07.5	07.2	34.00	34.04	34.01
4	151.0	199.1	175.2	07.5	08.5	08.1	07.5	08.5	08.1	34.00	34.03	34.02
5	99.5	150.6	126.6	08.5	09.5	09.0	08.5	09.5	09.0	33.80	34.01	33.90
6	75.8	98.1	86.8	09.5	10.4	09.9	09.5	10.4	09.9	33.73	33.80	33.76
7	51.1	75.3	62.6	10.5	12.6	11.1	10.5	12.6	11.1	33.59	33.75	33.72
8	25.8	49.7	37.3	12.8	14.2	13.5	12.8	14.2	13.5	33.59	33.61	33.59

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-02.29	37.09	28.09	-00.05	16.28	00.12	00.00	03.56	00.19	50.0	50.0	50.0
1	26.74	26.81	26.77	00.06	00.06	00.06	00.08	00.08	00.08	50.0	50.0	50.0
2	26.66	26.73	26.70	00.06	00.06	00.06	00.07	00.08	00.08	50.0	50.0	50.0
3	26.56	26.66	26.61	00.06	00.06	00.06	00.07	00.08	00.07	50.0	50.0	50.0
4	26.42	26.56	26.49	00.06	00.07	00.06	00.07	00.10	00.08	50.0	50.0	50.0
5	26.09	26.42	26.26	00.06	00.08	00.07	00.08	00.09	00.08	50.0	50.0	50.0
6	25.90	26.09	26.01	00.07	00.08	00.08	00.09	00.15	00.10	50.0	50.0	50.0
7	25.39	25.88	25.77	00.08	00.17	00.09	00.11	00.39	00.15	50.0	50.0	50.0
8	25.06	25.34	25.19	00.17	00.41	00.27	00.40	02.18	01.00	50.0	50.0	50.0

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	27.0	89.0	56.1	00.0	02.3	00.2	-31.3	14.4	-10.0	00525	00307
1	57.0	66.0	61.3	00.0	01.0	00.1	06.3	10.0	07.9	00093	00012
2	58.0	61.0	59.6	01.0	01.5	01.2	05.4	11.4	07.6	00097	00152
3	54.0	63.0	59.5	01.0	01.5	01.2	04.2	09.1	06.7	00109	00173
4	59.0	63.0	61.4	01.0	01.3	01.2	04.5	10.1	07.4	00101	00141
5	58.0	65.0	62.1	01.0	01.5	01.2	03.3	11.1	08.3	00091	00123
6	53.0	59.0	55.8	01.3	01.5	01.5	07.4	11.7	09.4	00038	00077
7	50.0	55.0	52.7	01.3	01.5	01.5	03.3	08.2	06.0	00062	00148
8	50.0	56.0	53.0	01.3	01.8	01.4	01.2	12.5	06.1	00060	00133

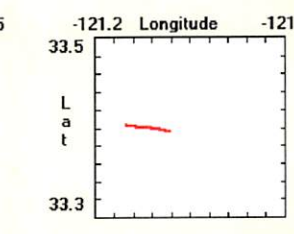
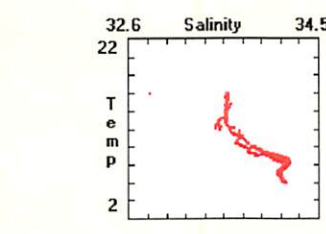
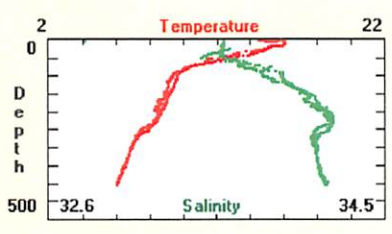
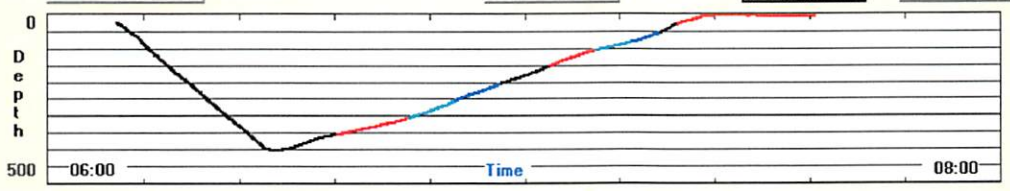
Haul 13, Cycle 1, Tow 2

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	07:36:44	Net_Num	9	Latitude	33N 24.308	Reset	
Pressure	-1.4 m	OpenTime	17.5 min	Longitude	121W 10.08	Baud Rate	2400
Temp	15.39 C	Vol_Filtered	348.4 m3	Net_Dist	543.5 m	Sample Rate	4.0 sec
Salinity	0.26 o/oo	Angle	27 deg	Total_Dist	4813.6 m	Printer	Off
Density	-0.759	Flow_Counts	152	Processed File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H13-P1106.P1		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H13-P1106.ra		
Fluoresc.	0.0408 V	Vert_Vel	-0.3 m/min	Acquisition Ended. trys = 0			
LightXmis	0.4150 /m	Battery	19.9 V				

Step Net Increment Net#



H13-P110.TAB

Haul 13-Cycle4-Tow2
7 July 2011
R/V Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-02.5	400.9	195.4	06.1	18.0	09.9	06.0	18.0	09.9	00.01	50.00	36.64
1	300.8	349.4	326.4	06.5	07.0	06.7	06.5	06.9	06.7	34.11	34.13	34.12
2	248.8	299.5	276.5	07.0	07.5	07.2	06.9	07.5	07.1	34.09	34.11	34.10
3	201.3	248.1	224.6	07.5	08.7	08.2	07.5	08.7	08.2	34.11	34.21	34.18
4	149.0	199.9	175.9	08.4	09.0	08.7	08.3	09.0	08.6	34.05	34.20	34.11
5	100.5	147.9	121.7	08.9	09.4	09.2	08.9	09.4	09.2	33.85	34.06	33.95
6	76.1	99.8	88.8	09.4	10.2	09.6	09.4	10.2	09.6	33.76	33.84	33.80
7	49.9	76.0	63.5	10.2	11.5	10.9	10.2	11.5	10.9	33.66	33.75	33.69
8	24.5	48.4	36.7	11.6	14.9	13.7	11.6	14.9	13.6	33.57	33.64	33.59

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.39	37.60	28.16	-00.05	16.30	00.12	00.00	01.14	00.15	50.0	50.0	50.0
1	26.73	26.81	26.77	00.06	00.07	00.06	00.08	00.08	00.08	50.0	50.0	50.0
2	26.65	26.73	26.69	00.06	00.19	00.06	00.08	00.09	00.08	50.0	50.0	50.0
3	26.54	26.65	26.60	00.06	00.12	00.06	00.08	00.09	00.09	50.0	50.0	50.0
4	26.39	26.54	26.48	00.06	00.08	00.07	00.08	00.09	00.08	50.0	50.0	50.0
5	26.16	26.39	26.27	00.07	00.10	00.07	00.08	00.10	00.09	50.0	50.0	50.0
6	25.95	26.15	26.08	00.07	00.13	00.08	00.09	00.13	00.10	50.0	50.0	50.0
7	25.63	25.94	25.77	00.08	00.18	00.09	00.12	00.20	00.15	50.0	50.0	50.0
8	24.91	25.60	25.17	00.10	00.63	00.31	00.20	04.01	01.39	50.0	50.0	50.0

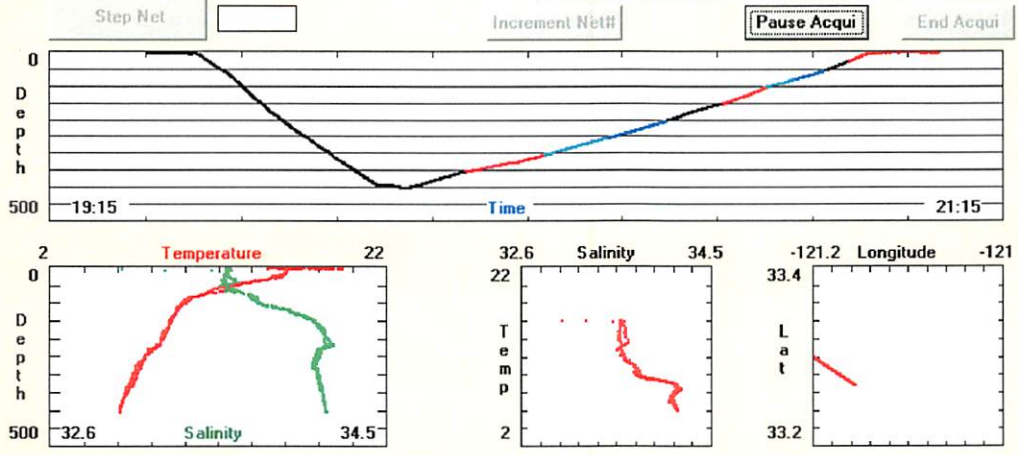
net#	amin	amax	aaavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	27.0	89.0	56.4	00.0	04.6	00.6	-29.0	11.2	-09.5	00555	00550
1	50.0	58.0	54.0	00.0	01.5	01.3	01.9	09.3	05.3	00138	00268
2	52.0	57.0	55.2	01.3	01.5	01.4	05.4	14.0	09.0	00083	00161
3	50.0	57.0	54.1	01.3	01.8	01.5	05.8	12.5	08.7	00084	00181
4	52.0	56.0	54.0	01.3	01.8	01.5	05.5	11.7	08.2	00094	00196
5	46.0	52.0	49.2	01.5	01.8	01.6	03.9	12.1	08.4	00086	00229
6	47.0	55.0	51.7	01.3	01.8	01.5	03.1	07.8	05.4	00068	00170
7	52.0	60.0	57.5	01.3	01.5	01.4	03.5	09.4	07.5	00050	00090
8	47.0	62.0	55.5	01.3	01.8	01.5	09.2	15.8	12.2	00030	00057

Haul 14, Cycle 4, Tow #3

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	21:07:00	Net_Num	9	Latitude	33N 18.106'	<input type="button" value="Reset"/>	
Pressure	-2.2 m	OpenTime	11.3 min	Longitude	121W 12.05	Baud Rate	2400
Temp	18.29 C	Vol_Filtered	228.5 m3	Net_Dist	322.7 m	Sample Rate	4.0 sec
Salinity	0.33 ‰	Angle	27 deg	Total_Dist	5741.0 m	Printer	Off
Density	-1.199	Flow_Counts	106	Processed File Name	C:\MOCNESS\MOCDATA\ACCE-P1~1\H14-P1106.PI		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\ACCE-P1~1\H14-P1106.ra		
Fluoresc.	0.1212 V	Vert_Vel	-0.1 m/min	Acquisition Ended. trys = 0			
LightXmis	0.6554 /m	Battery	19.5 V				



Haul 14-Cycle4-Tow3
 8 July 2011
 R/V Melville

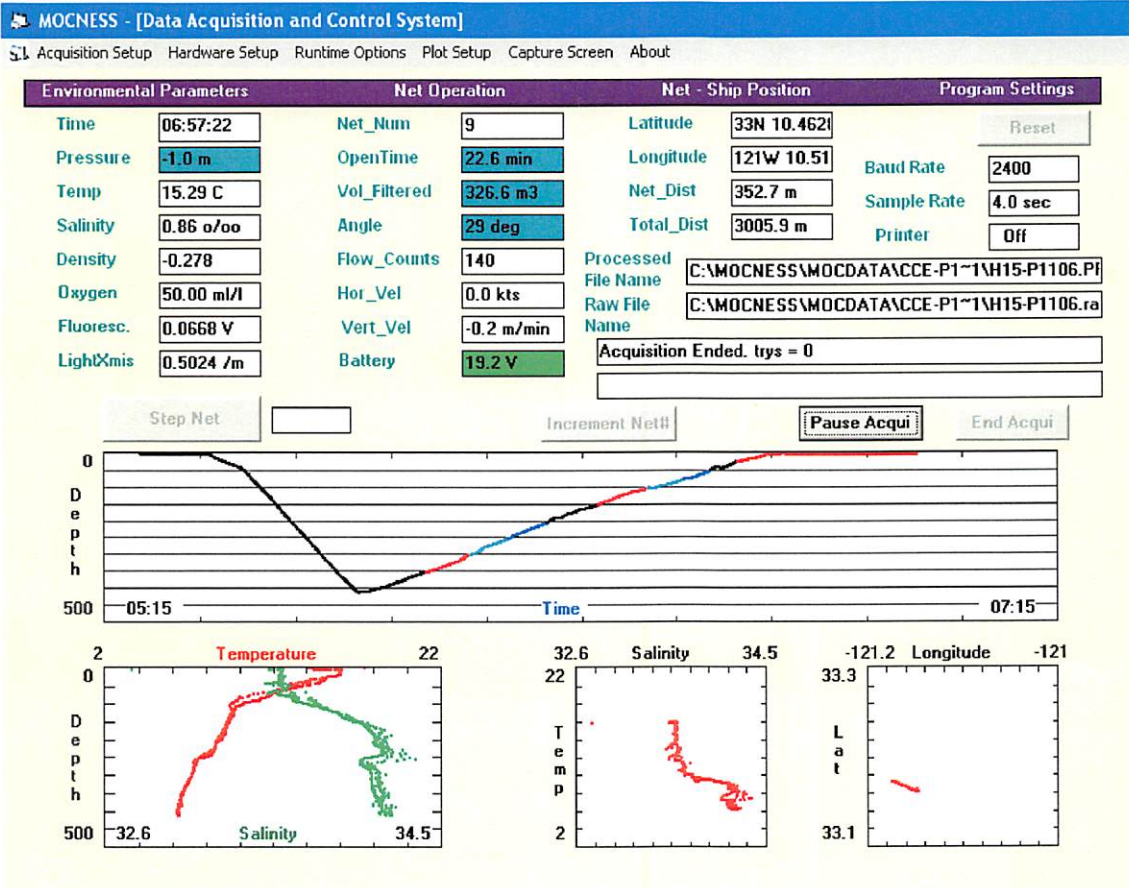
MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-02.0	400.5	169.0	06.1	20.1	11.9	06.1	20.1	11.9	00.01	50.00	39.24
1	301.0	350.1	327.0	06.5	06.9	06.7	06.4	06.9	06.7	34.11	34.14	34.13
2	251.0	300.1	275.2	06.9	07.6	07.2	06.9	07.6	07.2	34.08	34.12	34.10
3	199.4	251.0	226.2	07.6	08.6	08.1	07.6	08.6	08.1	34.10	34.20	34.15
4	150.2	198.1	173.4	08.6	09.1	08.9	08.6	09.1	08.9	34.10	34.17	34.14
5	98.5	149.6	126.0	09.1	09.8	09.4	09.1	09.8	09.4	33.79	34.10	33.98
6	75.6	97.8	86.8	09.8	11.0	10.2	09.8	11.0	10.2	33.73	33.79	33.76
7	50.8	74.9	62.6	11.0	12.6	11.6	11.0	12.5	11.6	33.60	33.73	33.67
8	24.2	49.6	37.1	12.6	15.2	14.0	12.6	15.2	14.0	33.57	33.61	33.59

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.62	37.42	29.71	-00.03	02.02	00.06	00.00	00.94	00.12	50.0	50.0	50.0
1	26.73	26.82	26.78	00.06	00.07	00.06	00.08	00.09	00.08	50.0	50.0	50.0
2	26.64	26.73	26.69	00.06	00.07	00.06	00.08	00.17	00.08	50.0	50.0	50.0
3	26.54	26.64	26.59	00.06	00.07	00.06	00.08	00.09	00.09	50.0	50.0	50.0
4	26.40	26.53	26.46	00.07	00.08	00.07	00.09	00.14	00.09	50.0	50.0	50.0
5	26.04	26.39	26.25	00.08	00.14	00.08	00.09	00.11	00.09	50.0	50.0	50.0
6	25.80	26.04	25.95	00.08	00.11	00.08	00.10	00.12	00.10	50.0	50.0	50.0
7	25.40	25.79	25.64	00.09	00.15	00.11	00.13	00.33	00.18	50.0	50.0	50.0
8	24.84	25.38	25.10	00.16	01.78	00.47	00.33	06.46	02.04	50.0	50.0	50.0

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	26.0	89.0	45.8	00.0	04.4	00.4	-26.4	09.4	-06.8	00778	00743
1	44.0	50.0	47.0	00.0	01.8	00.1	00.9	07.9	05.0	00149	00048
2	43.0	47.0	44.8	01.5	02.1	01.8	03.3	08.7	06.4	00118	00392
3	42.0	49.0	46.2	01.5	02.1	01.9	02.3	09.4	06.8	00111	00368
4	42.0	48.0	44.4	01.5	02.1	01.8	03.7	11.9	07.1	00103	00345
5	43.0	49.0	47.0	01.5	02.1	01.8	05.1	13.9	09.1	00083	00244
6	44.0	48.0	45.9	01.8	02.1	01.9	02.8	10.9	06.6	00054	00184
7	45.0	49.0	47.8	01.5	02.1	01.8	04.3	09.2	06.7	00055	00169
8	46.0	52.0	49.4	01.5	01.8	01.7	05.3	12.3	08.8	00043	00112

Haul 15 Cycle 4, Tow 4



Haul 15-Cycle4-Tow4
8 July 2011
R/V Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-02.6	410.1	185.3	06.3	17.5	10.4	06.2	17.5	10.3	00.01	50.00	34.97
1	297.4	349.1	326.6	06.6	07.2	06.8	06.5	07.2	06.8	34.11	34.13	34.12
2	250.0	296.3	272.3	07.2	07.7	07.4	07.2	07.6	07.3	34.05	34.11	34.08
3	203.0	249.7	225.2	07.8	08.7	08.4	07.8	08.7	08.4	34.09	34.18	34.15
4	149.8	201.7	174.2	08.7	09.3	09.1	08.7	09.3	09.1	34.05	34.14	34.10
5	99.7	148.2	121.8	09.3	10.0	09.7	09.3	10.0	09.6	33.77	34.05	33.91
6	74.9	99.9	89.7	10.1	11.8	10.7	10.1	11.8	10.7	33.63	33.77	33.71
7	49.5	74.0	63.4	11.7	13.3	12.2	11.7	13.3	12.2	33.53	33.63	33.59
8	21.8	46.7	36.0	13.5	15.3	14.6	13.5	15.2	14.6	33.58	33.61	33.59

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.30	37.69	26.80	-00.04	14.42	00.20	00.04	05.31	00.34	50.0	50.0	50.0
1	26.69	26.80	26.75	00.06	00.08	00.06	00.08	00.08	00.08	50.0	50.0	50.0
2	26.59	26.69	26.65	00.06	00.07	00.06	00.07	00.08	00.08	50.0	50.0	50.0
3	26.48	26.59	26.54	00.06	00.08	00.07	00.08	00.09	00.09	50.0	50.0	50.0
4	26.33	26.48	26.40	00.07	00.10	00.08	00.08	00.09	00.09	50.0	50.0	50.0
5	25.98	26.32	26.16	00.08	00.09	00.09	00.09	00.13	00.10	50.0	50.0	50.0
6	25.56	25.98	25.83	00.09	00.12	00.10	00.13	00.22	00.16	50.0	50.0	50.0
7	25.25	25.56	25.45	00.11	00.20	00.14	00.22	00.53	00.31	50.0	50.0	50.0
8	24.83	25.21	24.97	00.21	00.63	00.45	00.58	03.51	02.29	50.0	50.0	50.0

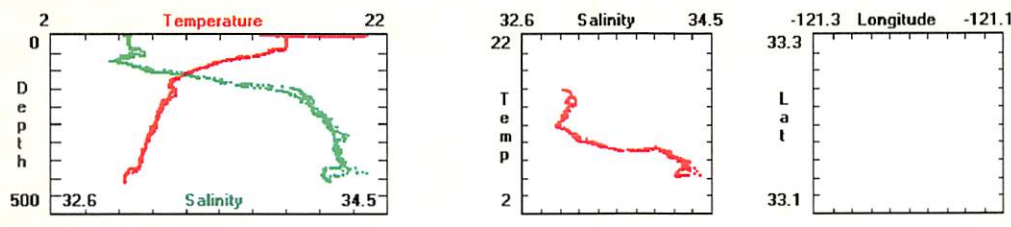
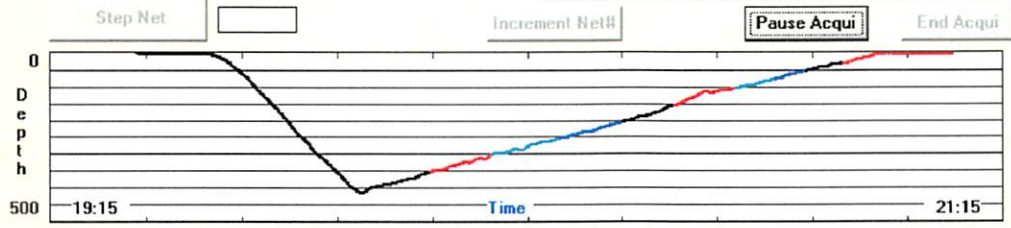
net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	27.0	89.0	60.0	00.0	06.2	00.6	-32.0	12.2	-09.8	00538	00458
1	56.0	69.0	64.2	00.8	01.3	01.1	05.6	14.9	09.0	00084	00094
2	61.0	66.0	63.2	01.0	01.5	01.2	05.0	20.6	10.3	00069	00083
3	54.0	64.0	59.3	01.3	01.5	01.4	07.8	11.9	09.6	00073	00119
4	55.0	58.0	56.8	01.0	01.5	01.4	-01.6	15.8	08.1	00096	00174
5	49.0	56.0	51.0	01.3	01.8	01.5	02.7	13.5	08.1	00093	00224
6	47.0	54.0	51.3	01.3	01.8	01.6	-02.1	10.0	05.6	00065	00170
7	46.0	53.0	49.7	01.5	02.1	01.7	01.6	10.9	07.4	00049	00137
8	37.0	51.0	45.7	01.3	02.1	01.8	-05.0	15.8	08.0	00051	00158

Haul 16, Cycle 5, Tow 1

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	21:08:43	Net_Num	9	Latitude	33N 18.696	Reset	
Pressure	-1.6 m	OpenTime	13.6 min	Longitude	121W 24.70	Baud Rate	2400
Temp	18.75 C	Vol_Filtered	508.6 m3	Net_Dist	445.2 m	Sample Rate	4.0 sec
Salinity	0.28 o/oo	Angle	27 deg	Total_Dist	3905.6 m	Printer	Off
Density	-1.331	Flow_Counts	197	Processed File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H16-P1106.P		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H16-P1106.ra		
Fluoresc.	0.0450 V	Vert_Vel	0.1 m/min	Acquisition Ended. trys = 0			
LightXmis	0.6093 /m	Battery	18.3 V				




 Lau1 16-Cycle5-Tow1
 10 July 2011
 R/V Melville

H16-P110.TAB

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-02.5	411.1	189.7	06.3	20.8	11.2	06.3	20.8	11.2	00.01	50.00	36.55
1	298.2	348.2	324.9	07.2	07.7	07.5	07.2	07.6	07.4	34.20	34.23	34.22
2	249.1	296.7	274.8	07.7	08.1	07.8	07.6	08.1	07.8	34.16	34.21	34.19
3	200.7	249.4	226.4	08.1	08.5	08.3	08.1	08.5	08.3	34.08	34.18	34.13
4	150.9	200.0	178.1	08.5	09.3	08.8	08.5	09.3	08.8	34.00	34.08	34.05
5	101.1	149.5	118.4	09.0	10.2	09.6	09.0	10.2	09.6	33.18	33.98	33.48
6	74.5	100.8	88.6	10.2	11.7	10.9	10.2	11.6	10.9	33.01	33.18	33.11
7	50.4	73.5	61.2	11.7	14.7	13.1	11.7	14.7	13.1	32.93	33.13	33.02
8	25.4	48.5	36.4	14.8	16.0	15.5	14.8	16.0	15.5	33.04	33.10	33.06

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.95	37.37	27.82	-00.03	02.16	00.07	00.00	00.71	00.09	50.0	50.0	50.0
1	26.71	26.78	26.74	00.06	00.06	00.06	00.08	00.09	00.08	50.0	50.0	50.0
2	26.60	26.71	26.67	00.06	00.07	00.06	00.08	00.08	00.08	50.0	50.0	50.0
3	26.49	26.61	26.55	00.06	00.07	00.06	00.07	00.09	00.08	50.0	50.0	50.0
4	26.29	26.48	26.41	00.07	00.08	00.07	00.07	00.09	00.08	50.0	50.0	50.0
5	25.49	26.27	25.84	00.06	00.08	00.07	00.06	00.15	00.09	50.0	50.0	50.0
6	25.11	25.50	25.32	00.07	00.12	00.09	00.14	00.43	00.24	50.0	50.0	50.0
7	24.52	25.10	24.84	00.13	00.21	00.16	00.21	00.76	00.57	50.0	50.0	50.0
8	24.24	24.52	24.37	00.12	00.16	00.13	00.06	00.19	00.11	50.0	50.0	50.0

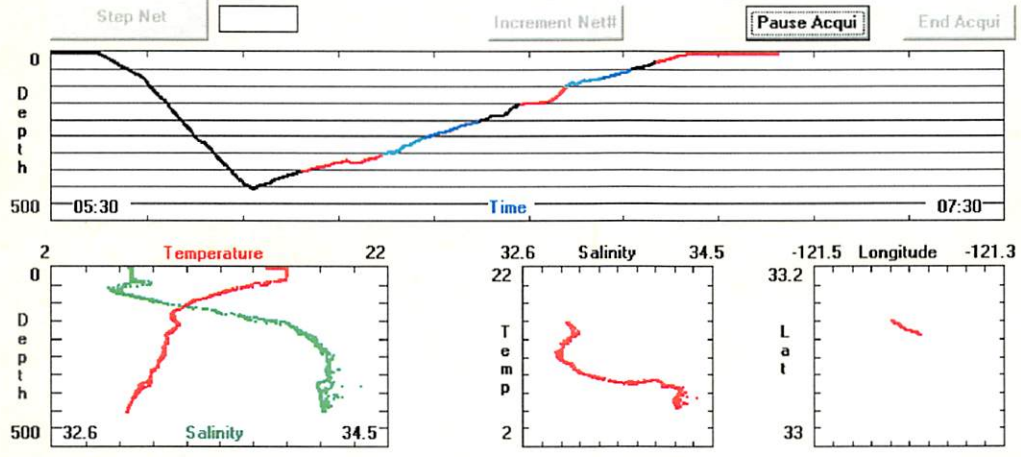
net#	amin	amax	aaavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	25.0	89.0	56.0	00.0	07.9	00.6	-33.7	20.1	-09.5	00555	00641
1	56.0	66.0	61.3	00.0	01.3	01.0	-04.0	16.3	06.5	00115	00149
2	61.0	65.0	63.2	00.8	01.5	01.1	-09.0	18.5	05.7	00130	00166
3	59.0	67.0	63.3	01.0	01.3	01.1	01.5	11.9	06.2	00115	00148
4	59.0	66.0	62.8	01.0	01.5	01.2	01.0	15.0	07.7	00097	00126
5	50.0	61.0	54.4	01.0	01.8	01.4	-05.6	16.4	06.6	00115	00240
6	49.0	54.0	51.2	01.3	01.8	01.6	00.8	08.6	05.2	00071	00185
7	44.0	50.0	47.3	01.5	02.1	01.8	03.2	10.2	06.4	00058	00183
8	41.0	52.0	46.2	01.5	02.1	01.7	-01.3	10.4	05.1	00071	00221

Haul 17, Cycle 5, Tow 2

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	07:01:36	Net_Num	9	Latitude	33N 8.47'	Reset	
Pressure	-1.3 m	OpenTime	15.3 min	Longitude	121W 25.06	Baud Rate	2400
Temp	15.3 C	Vol_Filtered	349.5 m3	Net_Dist	359.8 m	Sample Rate	4.0 sec
Salinity	0.25 ‰	Angle	30 deg	Total_Dist	3396.6 m	Printer	Off
Density	-0.748	Flow_Counts	160	Processed File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H17-P1106.Pf		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H17-P1106.ra		
Fluoresc.	0.1626 V	Vert_Vel	-0.1 m/min	Acquisition Ended. trys = 0			
LightXmis	0.5555 /m	Battery	18.7 V				



Haul 17-Cycle5-Tow2
 10 July 2011
 R/V Melville

H17-P110.TAB

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-01.8	402.5	170.7	06.5	16.9	11.0	06.4	16.9	11.0	00.01	50.00	35.97
1	300.2	350.4	325.6	07.0	07.9	07.4	06.9	07.9	07.3	34.10	34.17	34.12
2	250.2	298.4	277.6	07.9	08.5	08.2	07.9	08.4	08.1	34.15	34.17	34.16
3	200.3	249.2	225.2	08.5	08.9	08.7	08.4	08.9	08.7	34.10	34.17	34.14
4	149.5	199.5	178.6	08.8	09.5	09.1	08.8	09.5	09.0	33.91	34.10	34.02
5	99.0	149.4	136.9	09.1	10.0	09.4	09.1	10.0	09.4	33.26	33.90	33.72
6	75.9	97.5	84.7	10.1	11.5	10.9	10.1	11.5	10.9	33.04	33.23	33.11
7	48.9	74.3	63.8	11.6	13.7	12.5	11.6	13.7	12.4	32.97	33.03	32.99
8	25.1	46.4	38.1	13.8	16.0	14.7	13.8	16.0	14.7	33.01	33.12	33.06

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.20	37.53	27.46	-00.08	12.41	00.13	00.01	00.72	00.12	50.0	50.0	50.0
1	26.64	26.74	26.68	00.06	00.08	00.06	00.07	00.09	00.08	50.0	50.0	50.0
2	26.55	26.64	26.59	00.06	00.07	00.07	00.08	00.09	00.08	50.0	50.0	50.0
3	26.43	26.55	26.49	00.07	00.10	00.07	00.08	00.11	00.08	50.0	50.0	50.0
4	26.18	26.43	26.35	00.07	00.10	00.08	00.08	00.13	00.08	50.0	50.0	50.0
5	25.59	26.18	26.06	00.07	00.10	00.07	00.07	00.37	00.09	50.0	50.0	50.0
6	25.16	25.55	25.32	00.07	00.11	00.09	00.12	00.44	00.25	50.0	50.0	50.0
7	24.71	25.14	24.94	00.12	00.19	00.15	00.39	00.79	00.61	50.0	50.0	50.0
8	24.25	24.69	24.54	00.12	00.19	00.15	00.09	00.56	00.36	50.0	50.0	50.0

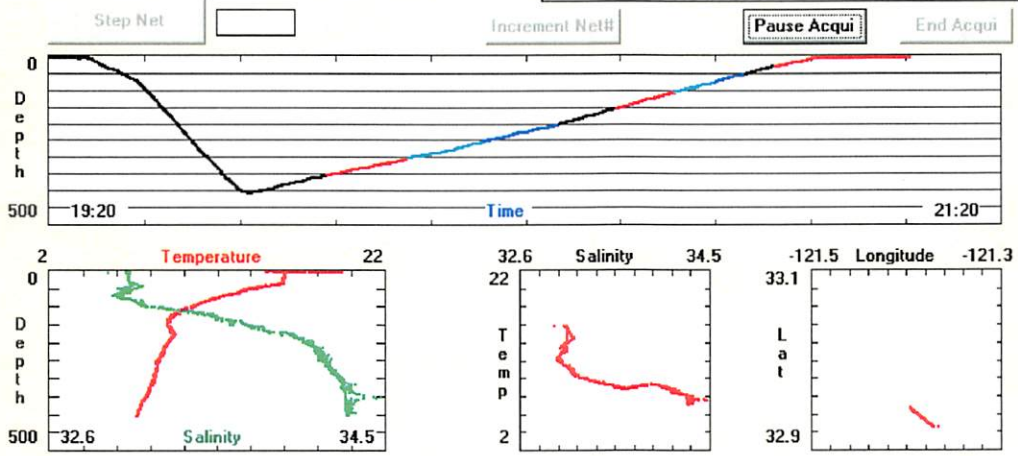
net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	23.0	89.0	54.8	00.0	08.2	00.9	-36.9	15.9	-10.2	00519	00759
1	51.0	63.0	58.3	00.8	01.5	01.2	-10.8	12.6	04.9	00152	00252
2	54.0	61.0	57.1	01.0	01.8	01.4	-01.6	22.2	09.4	00079	00136
3	50.0	60.0	56.1	01.3	01.5	01.4	01.4	10.5	07.3	00101	00192
4	52.0	58.0	55.4	01.0	01.8	01.4	-03.3	23.2	09.5	00078	00148
5	46.0	60.0	55.6	01.0	02.1	01.4	-05.1	26.3	08.4	00084	00163
6	42.0	52.0	47.9	01.5	02.1	01.7	-03.5	20.1	05.7	00067	00201
7	49.0	55.0	52.0	01.3	02.1	01.6	00.8	17.4	06.8	00054	00137
8	46.0	54.0	50.6	01.3	01.8	01.6	02.8	16.2	07.7	00046	00117

Haul 18, Cycle 5, Tow 3

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	21:08:36	Net_Num	9	Latitude	32N 56.885	Reset	
Pressure	-1.7 m	OpenTime	17.1 min	Longitude	121W 23.81	Baud Rate	2400
Temp	18.75 C	Vol_Filtered	473.9 m3	Net_Dist	352.5 m	Sample Rate	4.0 sec
Salinity	0.25 o/oo	Angle	28 deg	Total_Dist	3457.1 m	Printer	Off
Density	-1.354	Flow_Counts	173	Processed File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H18-P1106.PI		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H18-P1106.ra		
Fluoresc.	0.0380 V	Vert_Vel	0.1 m/min	Acquisition Ended. trys = 0			
LightXmis	0.4246 /m	Battery	18.5 V				



Haul 18-Cycle5-Tow3
11 July 2011
R/V Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-02.0	401.7	198.9	07.2	20.5	11.0	07.2	20.5	11.0	00.01	50.00	34.69
1	300.2	349.5	325.5	07.7	08.2	08.0	07.7	08.2	07.9	34.26	34.28	34.27
2	250.7	299.6	277.6	08.2	08.5	08.3	08.2	08.4	08.3	34.15	34.26	34.21
3	198.8	249.2	224.2	08.4	09.0	08.7	08.4	09.0	08.7	34.05	34.14	34.11
4	150.4	197.6	174.0	09.0	09.4	09.2	09.0	09.4	09.2	33.72	34.04	33.93
5	102.8	149.2	126.1	09.0	10.0	09.3	09.0	10.0	09.3	33.28	33.72	33.54
6	74.1	102.2	88.3	10.0	11.7	10.9	10.0	11.7	10.8	33.02	33.26	33.13
7	50.6	72.9	60.3	11.7	13.6	12.9	11.7	13.6	12.8	32.96	33.07	33.03
8	25.1	49.6	36.9	13.7	16.0	15.1	13.7	16.0	15.1	33.05	33.13	33.09

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.89	37.32	26.46	-00.02	01.45	00.07	00.01	00.69	00.11	50.0	50.0	50.0
1	26.66	26.75	26.71	00.07	00.08	00.07	00.08	00.10	00.08	50.0	50.0	50.0
2	26.55	26.66	26.61	00.07	00.08	00.07	00.08	00.08	00.08	50.0	50.0	50.0
3	26.37	26.54	26.47	00.07	00.14	00.07	00.08	00.09	00.08	50.0	50.0	50.0
4	26.11	26.37	26.24	00.07	00.11	00.08	00.07	00.08	00.08	50.0	50.0	50.0
5	25.62	26.11	25.94	00.06	00.08	00.07	00.06	00.10	00.07	50.0	50.0	50.0
6	25.11	25.59	25.34	00.07	00.11	00.08	00.10	00.37	00.21	50.0	50.0	50.0
7	24.78	25.11	24.89	00.11	00.16	00.13	00.23	00.60	00.42	50.0	50.0	50.0
8	24.25	24.75	24.46	00.12	00.19	00.15	00.07	00.62	00.27	50.0	50.0	50.0

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	25.0	89.0	58.6	00.0	02.8	00.5	-33.7	10.2	-09.5	00554	00520
1	56.0	68.0	63.4	00.8	01.3	01.0	-00.3	09.5	04.8	00153	00185
2	59.0	64.0	62.1	01.0	01.3	01.1	00.2	10.7	05.1	00142	00195
3	54.0	67.0	60.6	01.0	01.3	01.2	-00.2	10.5	05.4	00141	00210
4	60.0	64.0	62.1	01.0	01.3	01.1	00.8	12.3	06.8	00108	00145
5	54.0	62.0	58.3	01.0	01.5	01.3	01.0	11.1	06.6	00107	00184
6	51.0	57.0	54.5	01.3	01.8	01.5	-00.8	11.3	05.5	00076	00168
7	48.0	54.0	51.2	01.5	01.8	01.6	03.0	10.9	06.3	00056	00145
8	44.0	52.0	48.5	01.5	01.8	01.6	04.0	09.4	06.9	00055	00157

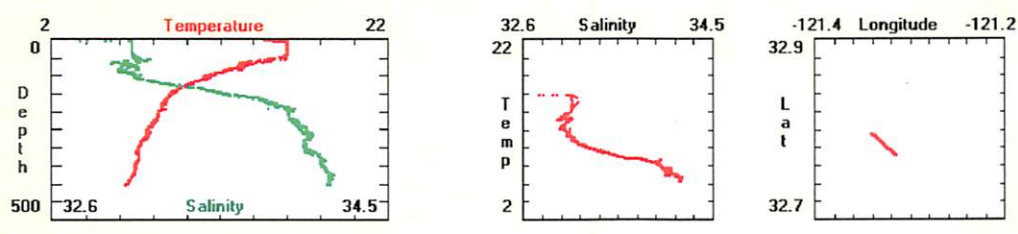
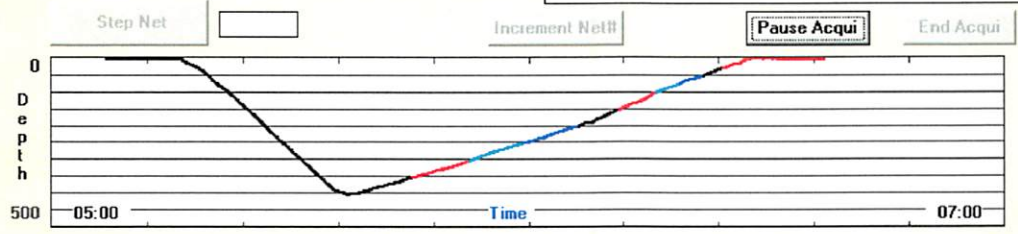
Haul 19, Cycle 5, Tow 4

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	06:37:22	Net_Num	9	Latitude	32N 47.797	Reset	
Pressure	-1.7 m	OpenTime	12.7 min	Longitude	121W 20.46	Baud Rate	2400
Temp	15.9 C	Vol_Filtered	327.4 m3	Net_Dist	374.9 m	Sample Rate	4.0 sec
Salinity	0.31 ‰	Angle	27 deg	Total_Dist	3671.7 m	Printer	Off
Density	-0.799	Flow_Counts	222	Processed File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H18-P1106.Pf	Acquisition Ended. trys = 0	
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H18-P1106.ra		
Fluoresc.	0.0604 V	Vert_Vel	-0.3 m/min				
LightXmis	0.0469 /m	Battery	18.3 V				

should have been H19



Haul 19-Cycle5-Tow4
 11 July 2011
 R/V Melville

MOCNESS STATISTICAL SUMMARY

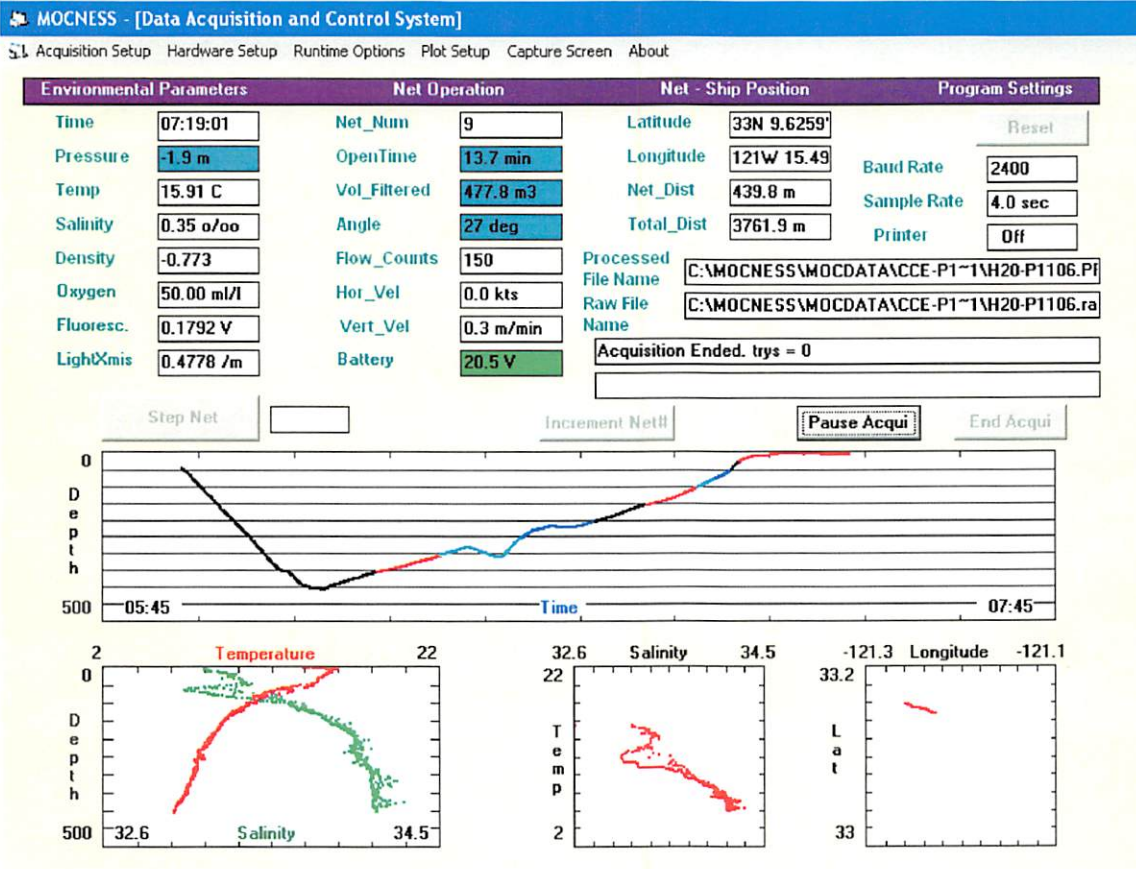
net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-01.0	401.9	187.8	06.4	16.1	10.7	06.3	16.1	10.6	00.01	50.00	35.59
1	300.6	349.9	326.2	07.0	07.2	07.1	07.0	07.2	07.1	34.03	34.14	34.11
2	250.1	299.5	273.8	07.1	07.7	07.5	07.1	07.7	07.4	34.02	34.07	34.04
3	200.3	249.4	224.8	07.6	08.3	08.1	07.6	08.3	08.1	33.94	34.01	33.97
4	149.8	198.5	175.7	08.3	09.0	08.7	08.3	09.0	08.7	33.64	33.98	33.86
5	100.0	148.2	125.3	09.0	11.1	09.9	09.0	11.1	09.9	33.08	33.61	33.34
6	73.2	99.4	86.5	11.1	13.0	11.9	11.1	13.0	11.9	32.97	33.11	33.03
7	50.7	71.5	59.9	13.1	14.9	13.7	13.1	14.8	13.7	32.94	33.10	33.03
8	25.4	49.2	36.8	14.9	16.0	15.8	14.9	16.0	15.8	33.05	33.10	33.06

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.04	37.54	27.22	-00.04	10.59	00.11	00.00	00.55	00.10	50.0	50.0	50.0
1	26.65	26.74	26.70	00.06	00.07	00.06	00.07	00.08	00.08	50.0	50.0	50.0
2	26.56	26.65	26.60	00.06	00.08	00.06	00.07	00.08	00.07	50.0	50.0	50.0
3	26.39	26.55	26.45	00.06	00.08	00.06	00.06	00.07	00.07	50.0	50.0	50.0
4	26.06	26.39	26.28	00.06	00.08	00.07	00.06	00.07	00.07	50.0	50.0	50.0
5	25.28	26.03	25.67	00.06	00.09	00.07	00.06	00.26	00.12	50.0	50.0	50.0
6	24.87	25.28	25.08	00.08	00.13	00.11	00.25	00.58	00.41	50.0	50.0	50.0
7	24.53	24.85	24.73	00.11	00.20	00.14	00.19	00.58	00.36	50.0	50.0	50.0
8	24.24	24.52	24.30	00.12	00.17	00.13	00.08	00.23	00.12	50.0	50.0	50.0

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol (m ³)
0	26.0	89.0	54.1	00.0	06.2	00.6	-25.5	10.8	-09.2	00576	00697
1	54.0	60.0	56.6	00.0	01.5	01.0	03.6	10.3	06.9	00109	00162
2	52.0	57.0	54.4	01.3	01.5	01.4	04.3	10.3	07.8	00097	00202
3	48.0	57.0	53.1	01.3	01.8	01.5	02.7	10.7	07.0	00106	00241
4	50.0	57.0	53.8	01.0	01.8	01.5	00.2	15.6	09.9	00075	00158
5	44.0	53.0	49.5	01.5	02.1	01.7	03.5	17.0	10.9	00068	00178
6	44.0	48.0	46.5	01.8	02.1	01.9	06.3	10.8	08.6	00044	00143
7	43.0	47.0	44.9	01.8	02.3	02.0	05.3	12.5	08.1	00043	00152
8	44.0	49.0	45.9	01.8	02.1	01.9	07.3	11.6	09.6	00038	00122

9 199 (esti.)

Hand 20, Cycle 6, Tow 1



H20-P110.TAB

Haul 20-cycle6-Tow1
 13 July 2011
 R/V Melville

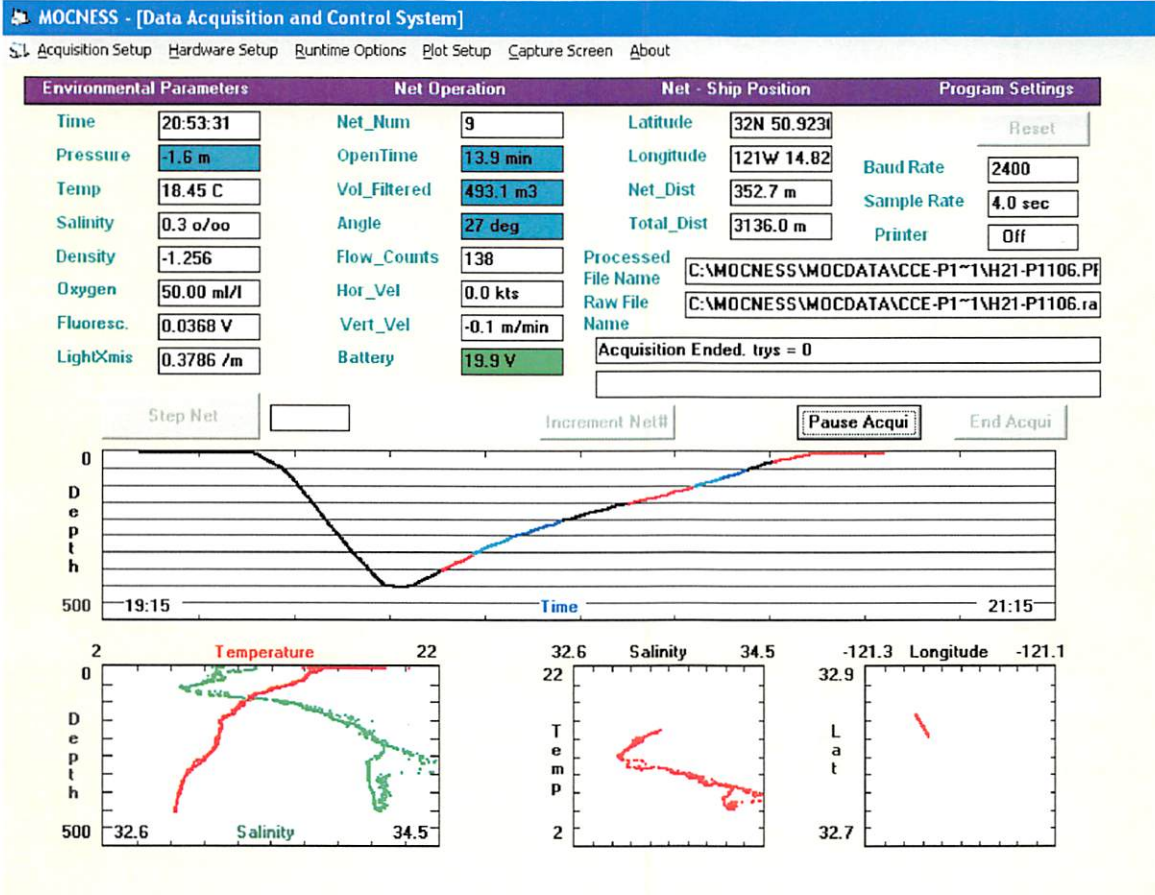
MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-01.0	403.1	180.8	06.1	16.0	10.6	06.1	16.0	10.5	02.98	50.00	37.55
1	300.6	350.0	326.9	06.8	07.4	07.0	06.8	07.4	07.0	34.11	34.13	34.12
2	249.0	308.5	288.1	07.2	08.0	07.4	07.2	08.0	07.4	34.04	34.13	34.11
3	201.2	246.4	219.3	07.6	08.3	08.0	07.6	08.3	08.0	34.01	34.06	34.02
4	150.4	200.6	176.0	08.3	09.1	08.7	08.3	09.1	08.7	33.88	34.03	33.97
5	99.4	149.9	128.3	09.1	10.6	09.6	09.1	10.6	09.6	33.65	33.89	33.80
6	74.5	98.0	86.5	10.6	11.1	10.9	10.5	11.1	10.9	33.24	33.67	33.45
7	48.4	72.8	61.6	11.4	14.2	12.2	11.4	14.2	12.2	33.06	33.39	33.17
8	22.5	45.7	33.7	14.4	15.1	14.7	14.3	15.0	14.7	33.28	33.44	33.37

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	01.41	37.56	28.74	-00.03	15.22	00.14	00.00	01.98	00.23	50.0	50.0	50.0
1	26.67	26.76	26.72	00.06	00.08	00.06	00.07	00.08	00.08	50.0	50.0	50.0
2	26.56	26.70	26.67	00.06	00.07	00.06	00.07	00.12	00.08	50.0	50.0	50.0
3	26.46	26.58	26.50	00.06	00.09	00.07	00.06	00.08	00.07	50.0	50.0	50.0
4	26.23	26.46	26.36	00.07	00.08	00.07	00.07	00.08	00.08	50.0	50.0	50.0
5	25.80	26.23	26.08	00.07	00.15	00.08	00.08	00.16	00.09	50.0	50.0	50.0
6	25.39	25.80	25.60	00.09	00.11	00.10	00.16	00.29	00.23	50.0	50.0	50.0
7	24.88	25.32	25.13	00.11	00.17	00.13	00.32	00.49	00.39	50.0	50.0	50.0
8	24.68	24.88	24.79	00.17	00.21	00.18	00.53	00.64	00.57	50.0	50.0	50.0

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	27.0	89.0	57.7	00.0	06.9	00.6	-30.5	13.9	-09.2	00578	00469
1	52.0	63.0	58.2	00.3	01.5	01.2	02.5	10.7	06.3	00119	00193
2	57.0	68.0	61.4	00.5	01.5	01.1	-11.1	27.7	04.7	00154	00208
3	55.0	70.0	60.8	00.8	01.5	01.2	-03.9	18.3	05.3	00137	00202
4	67.0	76.0	73.1	00.5	01.0	00.9	04.5	10.9	07.9	00097	00055
5	75.0	86.0	82.5	00.3	00.8	00.6	03.9	12.9	07.8	00095	00009
6	76.0	83.0	79.9	00.5	01.0	00.7	09.2	13.1	11.1	00033	00004
7	63.0	76.0	71.3	00.8	01.3	01.0	10.2	18.6	13.5	00026	00015
8	43.0	62.0	51.8	01.3	02.1	01.8	18.6	22.9	21.4	00017	00036

Haul 21, Cycle 6, Tow 2



H21-P110.TAB

Haul 21-Cycle6-Tow2
 14 July 2011
 R/V Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-01.9	401.0	150.9	06.3	20.2	11.9	06.3	20.2	11.9	00.01	50.00	30.51
1	300.1	346.2	323.9	06.5	06.9	06.7	06.5	06.9	06.7	34.10	34.13	34.11
2	249.6	298.2	274.3	06.9	08.1	07.3	06.9	08.0	07.3	34.09	34.16	34.11
3	201.0	248.8	226.2	08.1	08.8	08.5	08.0	08.8	08.5	34.13	34.19	34.18
4	150.3	199.3	174.7	08.7	09.1	09.0	08.7	09.1	09.0	33.95	34.13	34.07
5	101.0	149.4	126.4	08.9	10.3	09.6	08.9	10.3	09.5	33.70	33.95	33.83
6	75.3	100.1	88.1	10.2	11.0	10.7	10.2	11.0	10.6	33.20	33.68	33.47
7	50.3	74.5	62.9	10.9	12.8	11.8	10.9	12.8	11.8	33.04	33.20	33.10
8	25.6	49.3	36.3	12.9	14.1	13.7	12.9	14.1	13.6	33.13	33.29	33.24

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.56	37.40	23.08	-00.03	04.20	00.08	00.01	00.60	00.12	50.0	50.0	50.0
1	26.73	26.80	26.76	00.06	00.09	00.07	00.07	00.08	00.08	50.0	50.0	50.0
2	26.60	26.73	26.67	00.06	00.08	00.06	00.07	00.11	00.08	50.0	50.0	50.0
3	26.48	26.60	26.55	00.07	00.10	00.07	00.08	00.22	00.09	50.0	50.0	50.0
4	26.31	26.48	26.39	00.07	00.09	00.08	00.08	00.21	00.08	50.0	50.0	50.0
5	25.88	26.31	26.11	00.07	00.11	00.08	00.08	00.11	00.09	50.0	50.0	50.0
6	25.38	25.88	25.65	00.09	00.13	00.10	00.12	00.25	00.19	50.0	50.0	50.0
7	24.97	25.38	25.15	00.10	00.14	00.12	00.24	00.53	00.35	50.0	50.0	50.0
8	24.83	24.97	24.90	00.14	00.20	00.17	00.45	00.92	00.54	50.0	50.0	50.0

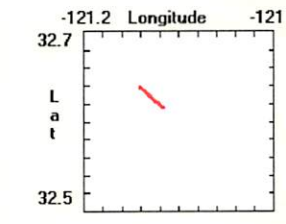
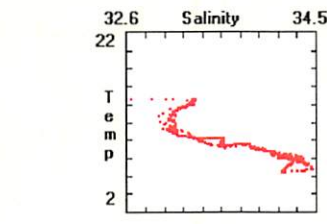
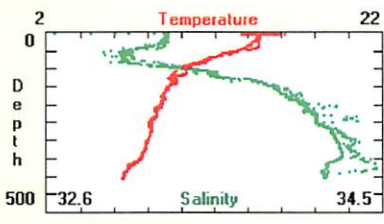
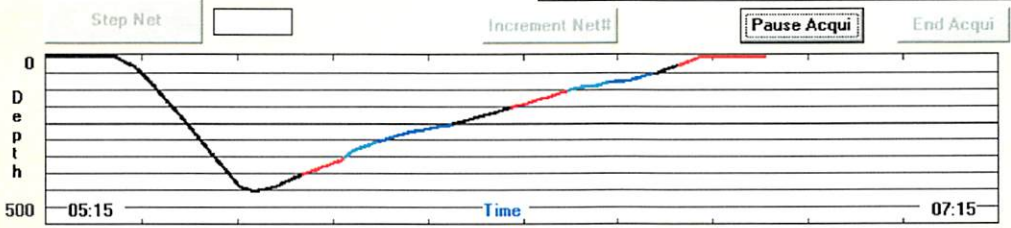
net#	amin	amax	aaavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	26.0	89.0	55.0	00.0	04.6	00.4	-32.3	16.4	-09.3	00569	00419
1	60.0	68.0	64.6	00.0	01.3	00.3	03.8	17.4	12.1	00059	00019
2	57.0	64.0	60.6	01.0	01.5	01.2	05.8	15.1	10.4	00072	00101
3	50.0	62.0	57.0	01.0	01.5	01.4	02.5	12.6	07.9	00093	00171
4	49.0	56.0	52.5	01.3	01.8	01.5	01.5	11.1	06.2	00123	00286
5	49.0	53.0	50.6	01.3	01.8	01.6	02.0	10.9	05.9	00123	00317
6	48.0	51.0	49.6	01.5	02.1	01.8	04.5	09.8	07.1	00053	00152
7	43.0	48.0	46.3	01.8	02.3	01.9	05.7	10.4	08.0	00046	00157
8	36.0	44.0	40.0	01.8	02.3	02.1	04.3	11.1	07.6	00049	00206

Haul 22, Cycle 6, Tow 3

MOCNESS - [Data Acquisition and Control System]

Acquisition Setup Hardware Setup Runtime Options Plot Setup Capture Screen About

Environmental Parameters		Net Operation		Net - Ship Position		Program Settings	
Time	06:45:37	Net_Num	9	Latitude	32N 38.405	Reset	
Pressure	-1.3 m	OpenTime	10.7 min	Longitude	121W 8.479	Baud Rate	2400
Temp	15.63 C	Vol_Filtered	197.2 m3	Net_Dist	161.4 m	Sample Rate	4.0 sec
Salinity	0.3 o/oo	Angle	27 deg	Total_Dist	3601.2 m	Printer	Off
Density	-0.767	Flow_Counts	96	Processed File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H22-P1106.Pf		
Oxygen	50.00 ml/l	Hor_Vel	0.0 kts	Raw File Name	C:\MOCNESS\MOCDATA\CCE-P1~1\H22-P1106.ra		
Fluoresc.	0.0360 V	Vert_Vel	-0.3 m/min	Acquisition Ended. trys = 0			
LightXmis	0.4622 /m	Battery	19.4 V				



Haul 22-Cycle6-Tow3
 14 July 2011
 R/V Melville

MOCNESS STATISTICAL SUMMARY

net#	pmin	pmax	pavg	tmin	tmax	tavg	thmin	thmax	thavg	smin	smax	savg
0	-01.1	400.4	167.5	06.6	16.2	10.9	06.5	16.2	10.9	00.01	50.00	36.36
1	299.1	347.4	324.2	07.5	08.0	07.8	07.5	08.0	07.8	34.25	34.28	34.27
2	250.9	297.1	270.3	08.0	08.3	08.2	08.0	08.3	08.2	34.14	34.24	34.20
3	200.0	250.5	222.3	08.1	08.9	08.5	08.1	08.8	08.5	34.06	34.14	34.10
4	150.4	199.1	175.5	08.9	09.2	09.0	08.8	09.2	09.0	33.89	34.06	33.97
5	99.4	148.9	124.8	09.2	10.4	09.8	09.2	10.4	09.7	33.43	33.89	33.69
6	75.3	98.7	87.6	10.3	11.5	10.7	10.3	11.5	10.7	32.97	33.42	33.20
7	51.6	75.0	66.2	11.5	12.6	11.8	11.5	12.6	11.8	32.93	33.07	33.05
8	24.8	51.9	37.7	12.5	14.2	13.7	12.5	14.2	13.7	32.92	33.27	33.15

net#	simin	simax	siavg	cmin	cmax	cavg	fmin	fmax	favg	oxmin	oxmax	oxavg
0	-01.08	37.55	27.78	-00.02	02.72	00.09	00.00	01.06	00.17	50.0	50.0	50.0
1	26.69	26.77	26.73	00.07	00.09	00.07	00.08	00.09	00.08	50.0	50.0	50.0
2	26.59	26.69	26.62	00.06	00.08	00.07	00.08	00.08	00.08	50.0	50.0	50.0
3	26.41	26.59	26.49	00.07	00.08	00.07	00.07	00.09	00.08	50.0	50.0	50.0
4	26.23	26.41	26.31	00.07	00.09	00.07	00.07	00.11	00.08	50.0	50.0	50.0
5	25.68	26.22	25.97	00.07	00.10	00.08	00.07	00.18	00.11	50.0	50.0	50.0
6	25.12	25.67	25.43	00.09	00.11	00.09	00.16	00.31	00.21	50.0	50.0	50.0
7	24.94	25.19	25.11	00.10	00.17	00.12	00.29	00.57	00.37	50.0	50.0	50.0
8	24.76	24.97	24.83	00.14	00.20	00.17	00.50	00.65	00.55	50.0	50.0	50.0

net#	amin	amax	aavg	spmin	spmax	spavg	armin	armax	aravg	#obs	vol
0	26.0	89.0	59.0	00.0	08.5	00.7	-31.8	14.3	-10.4	00510	00519
1	58.0	67.0	64.3	00.5	01.3	00.9	05.0	14.4	09.3	00079	00076
2	60.0	64.0	62.4	01.0	01.5	01.2	06.0	18.7	11.5	00064	00078
3	51.0	62.0	56.2	01.0	01.5	01.3	00.4	08.9	05.5	00138	00269
4	48.0	55.0	51.1	01.3	01.8	01.5	03.9	10.3	06.8	00109	00266
5	45.0	51.0	48.3	01.5	01.8	01.7	03.3	10.9	06.8	00109	00311
6	44.0	49.0	46.3	01.5	02.1	01.8	01.0	08.8	04.8	00076	00259
7	45.0	53.0	49.5	01.5	02.1	01.6	-00.6	10.0	04.5	00081	00227
8	52.0	57.0	54.7	01.3	01.5	01.5	02.0	12.3	08.0	00048	00103