Halifax Harbour Water Quality Monitoring Project
Weekly Summary #17

Survey Date: 13 Oct 04
Nature of Survey: Complete Survey
Report File (this document): HHWQMP_report017_041013.doc
Data File: HHWQMP_data017_041013.xls

Data Return:

Profile:	103%
Bacteria:	100%
Chemical:	100%
Overall:	**101%**

Sample Notes:
Additional CTD profile at optional Station B1.

QA/QC samples:

Chemical Analysis

Detectable Parameter	units	H2-1m reference sample	H2-1m QA/QC	B2- 10m reference sample	B2- 10m Dup
Ammonia (as N)	mg/L	0.15	0.13	0.07	0.06
Total Suspended Solids	mg/L	4.4	2.8	2.0	n/a
Boron	ug/L	4100	5100	5100	4900
Lithium	ug/L	210	220	220	240
Lead	ug/L	8.2	<5	<5	<5
Strontium	ug/L	6700	6800	6800	6900
Titanium	ug/L	80	69	67	71
Uranium	ug/L	3.4	2.8	2.8	2.7
Zinc	ug/L	83	<50	<50	<50

Fecal Coliform (CFU/100 ml)

Site	F3-10m	F3-1m	DYC-1m	E1-10m	E1-1m	H2-1m
Reference	260	150	89	240	140	180
QA/QC	320	130	83	260	270	240

Regulated parameters with all samples below detection (<EQL)

Parameter	EQL(µg/L)	Parameter	EQL(µg/L)	Parameter	EQL(mg/L)
Cadmium	3	Nickel	20	Oil and Grease	5
Chromium	20				
Copper	20				

Detectable non-regulated metals

Metal	EQL (µg/L)	Number >EQL	Mean (µg/L)	Range (µg/L)
Aluminum	100	1	140	140
Boron	500	16	4430	4000-5100
Lithium	20	16	220	190-240
Molybdenum	20	1	39	39
Strontium	50	16	6630	6000-7000
Titanium	20	16	77	67-86
Uranium	1	16	3.1	2.7-3.9
Vanadium	20	1	20	20

Comments:

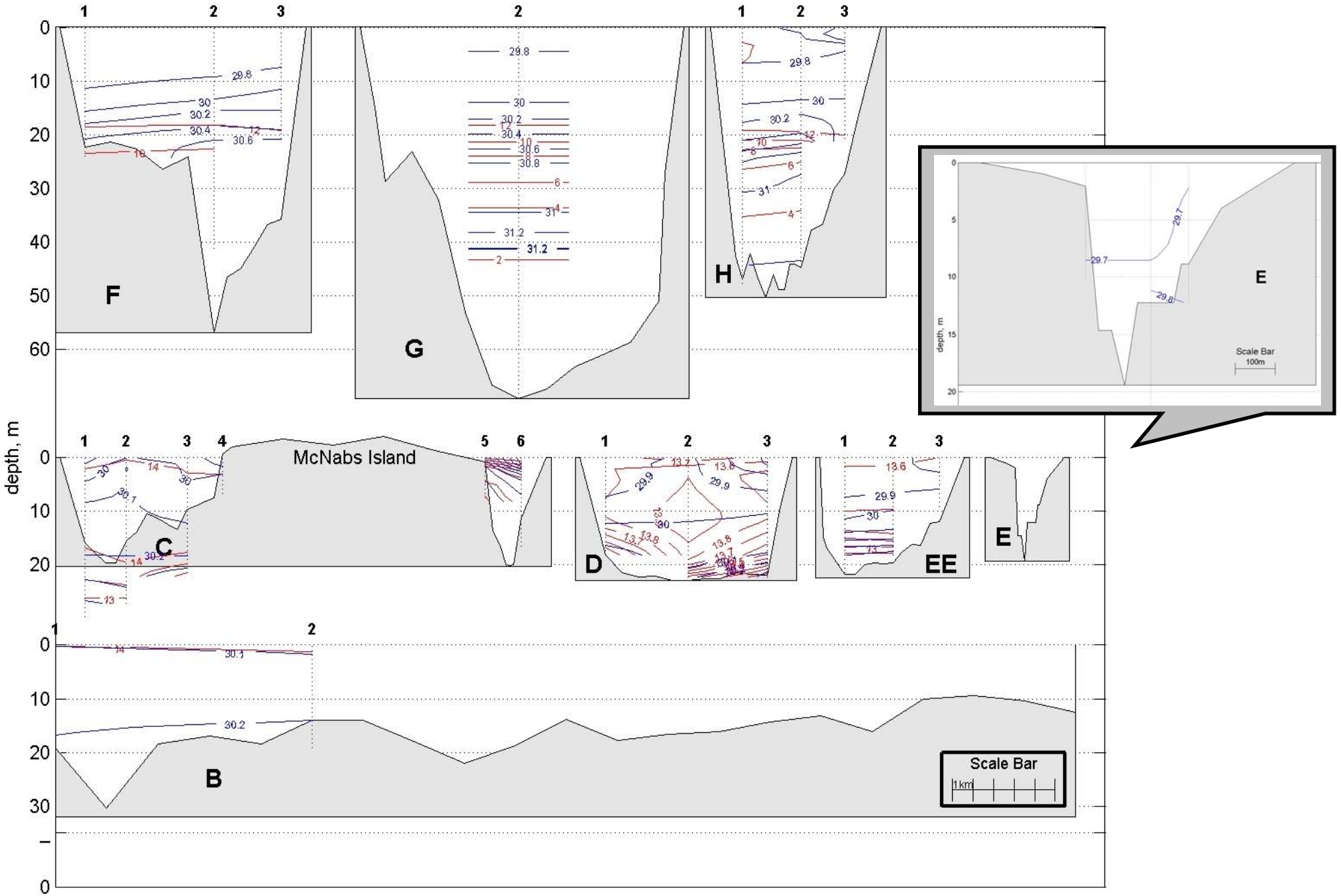
$CBOD_5$: A value of 6 mg/l was found at station B2-1m.

Lead: Two samples (H2-1m, 8.2 µg/L and H2-10m, 5.5 µg/L) had detectable values of lead. The H2-1m value exceeds the guideline of 5.6 µg/l. The QA/QC sample at the same station had undetectable lead (EQL = 5.0 µg/L).

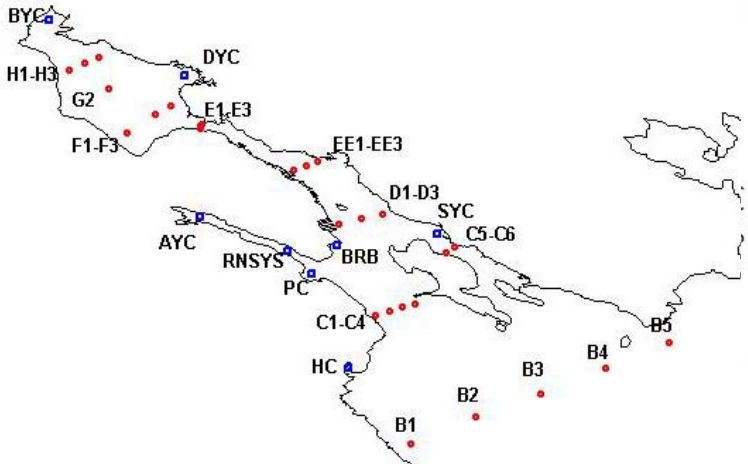
Manganese: Two samples (EE2-10m, 24 µg/l and G2-10m, 28 µg/l) had detectable levels of manganese. Guideline = 100 µg/L.

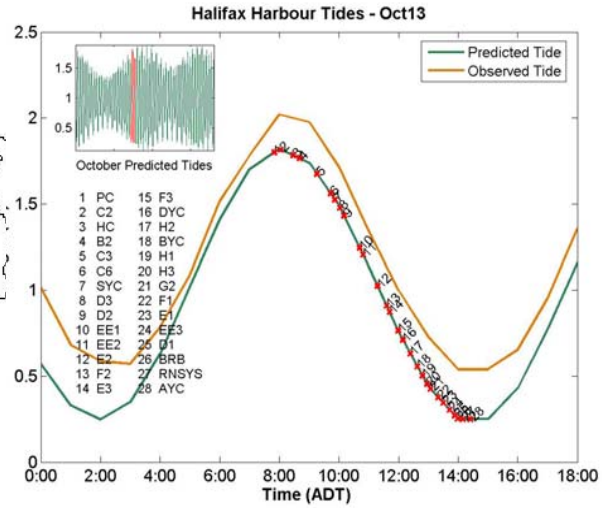
Zinc: One sample (H2-1m, 83 µg/l) had detectable levels of Zinc. The QA/QC sample at the same station had undetectable zinc (EQL = 50.0 µg/L). Guideline = 86 µg/L.

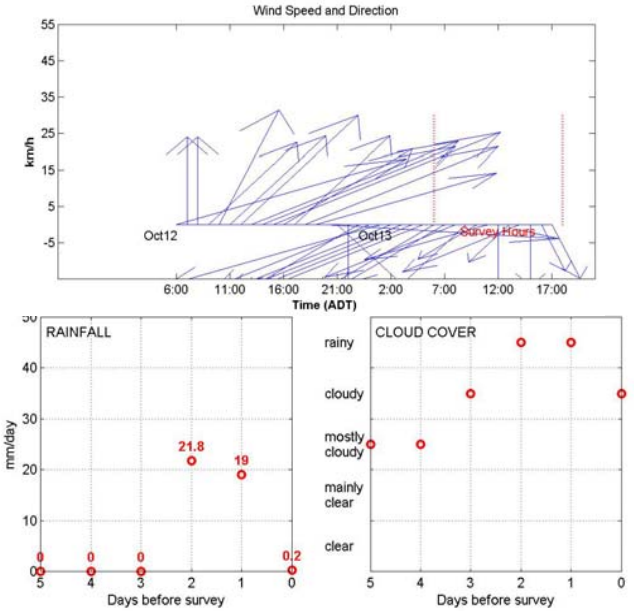
Dissolved Oxygen: The apparent lower oxygen values at the near surface are likely the result of flow problems in the sensor (See report #12). The dissolved oxygen continues to drop (2.7 mg/L) in the bottom of Bedford Basin. In addition to this, the SA criteria (8 mg/l) is violated at stations B2 (max values about 7.7mg/l).



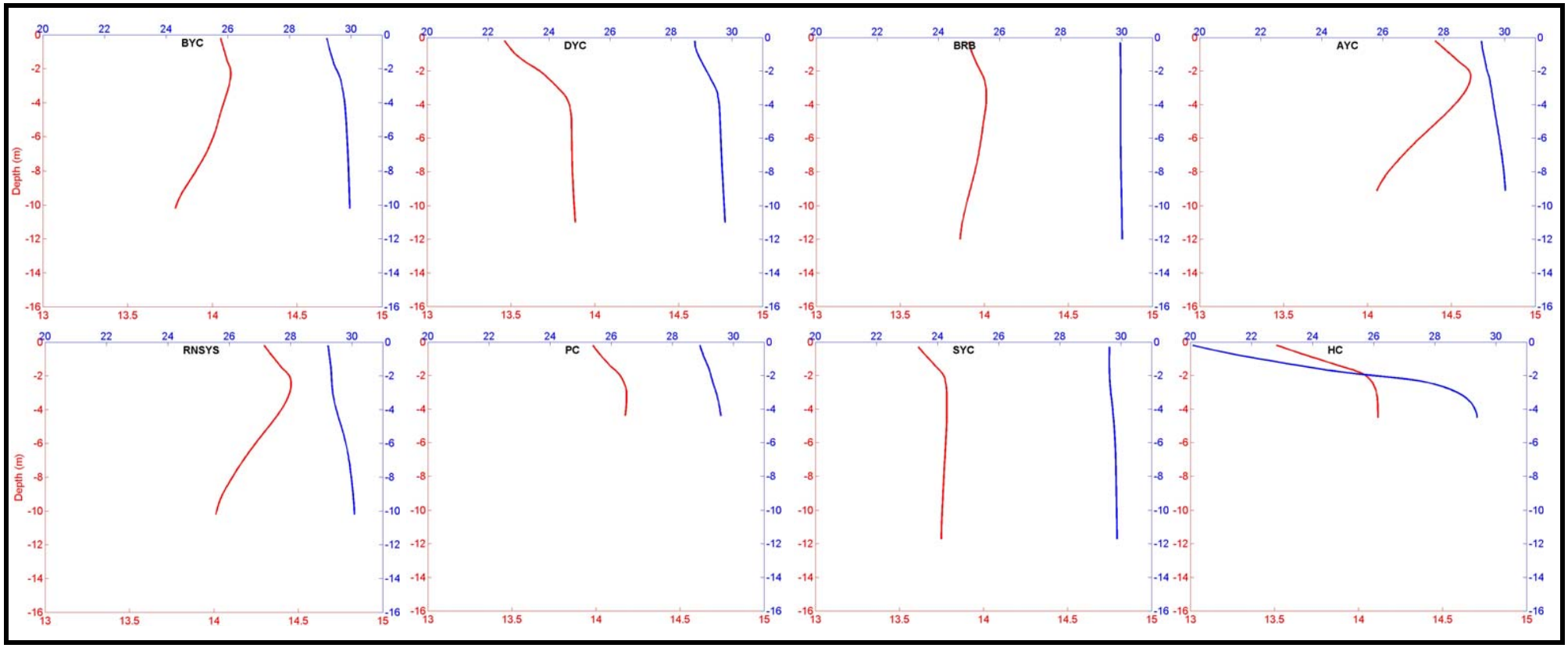
Salinity in PSU **Temperature in ^{o}C**







Yacht Clubs



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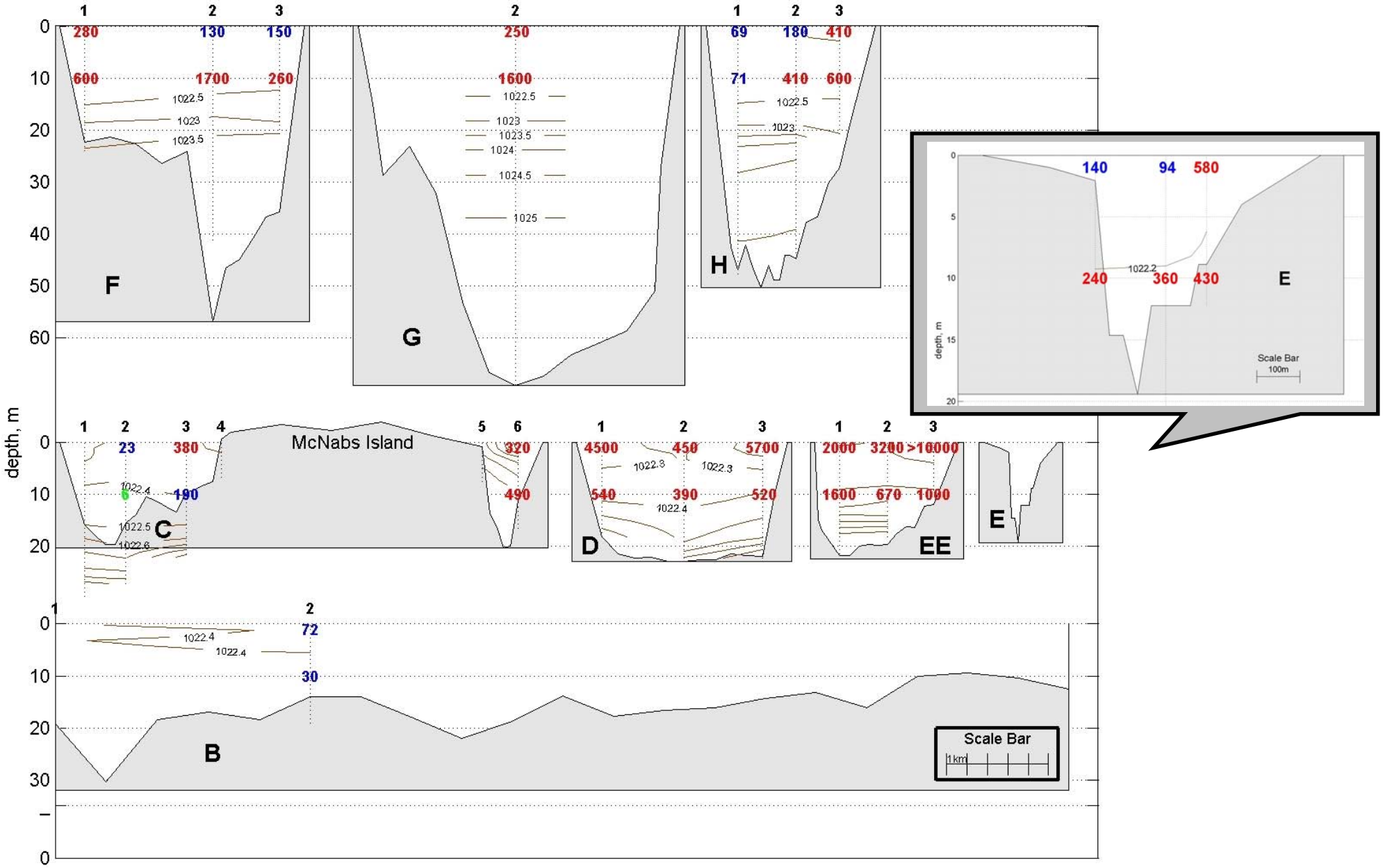
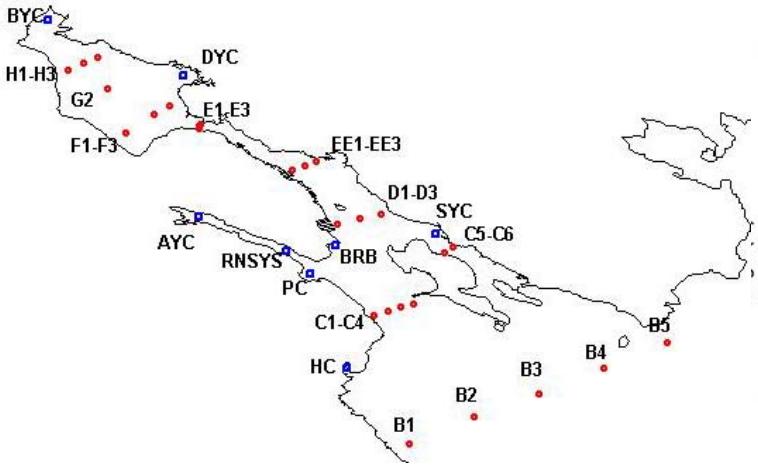
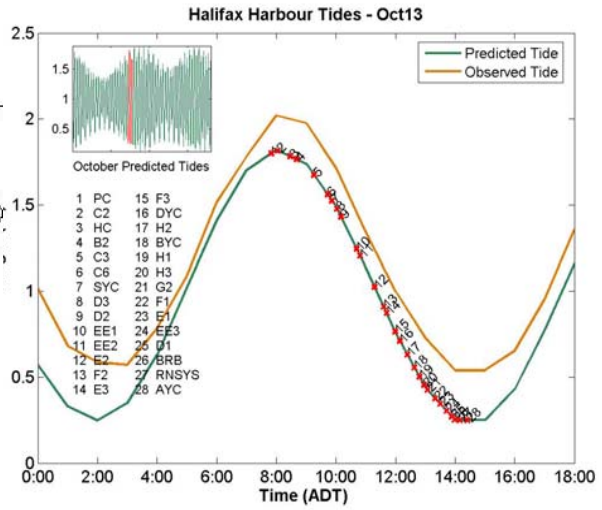
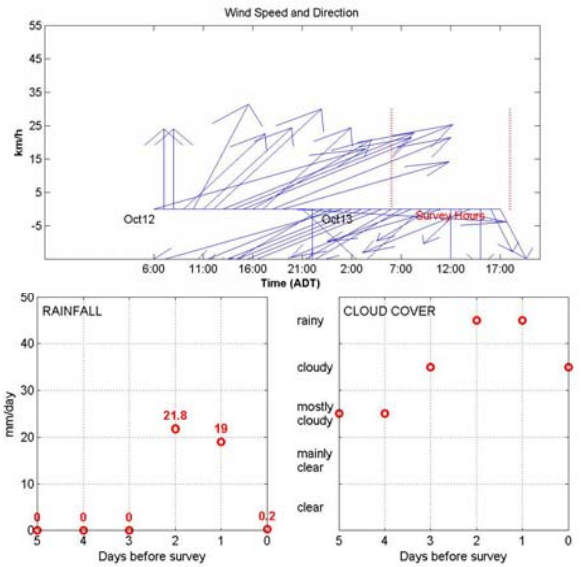


Density in kg/m^3 **Fecal coliform:** below limits
above shellfish limit (14 cfu/100mL)
above swimming limit (200 cfu/100mL)







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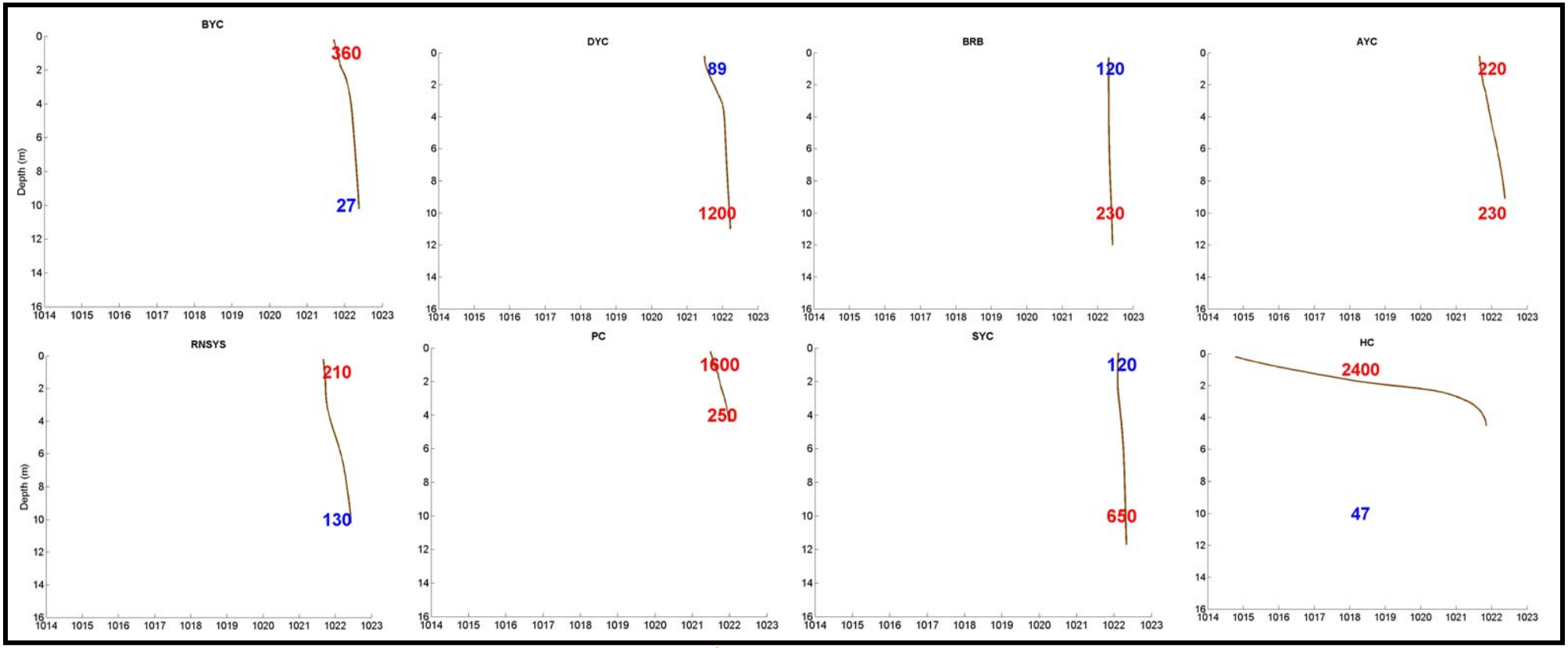

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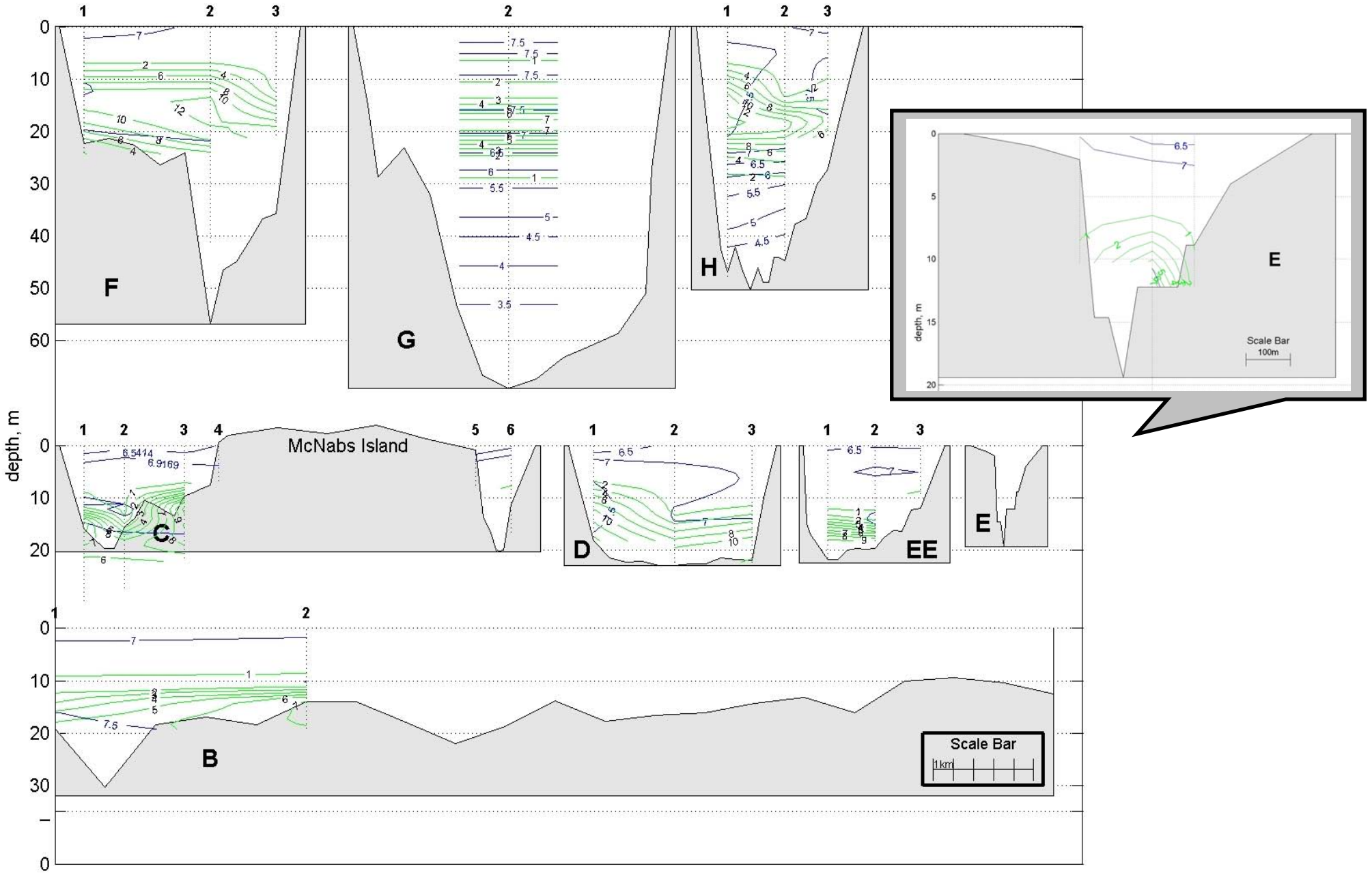
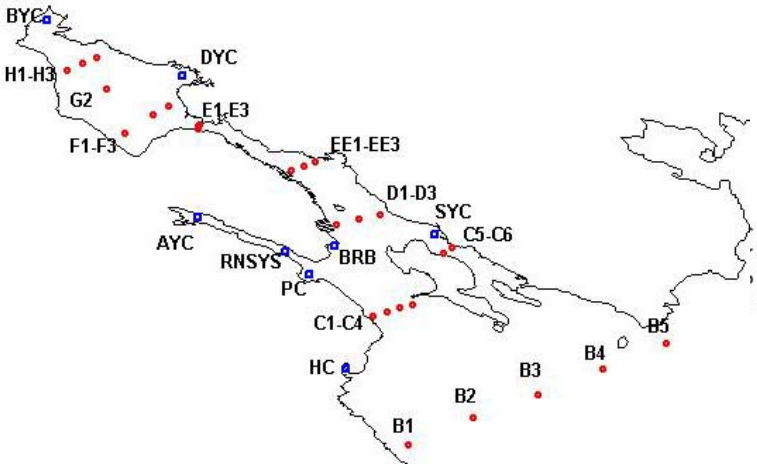
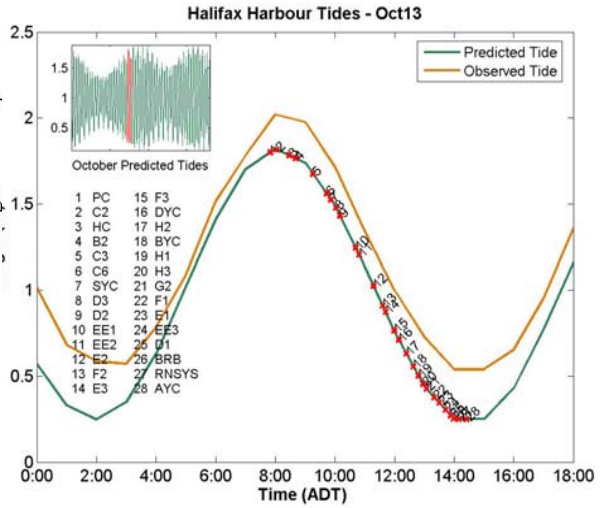
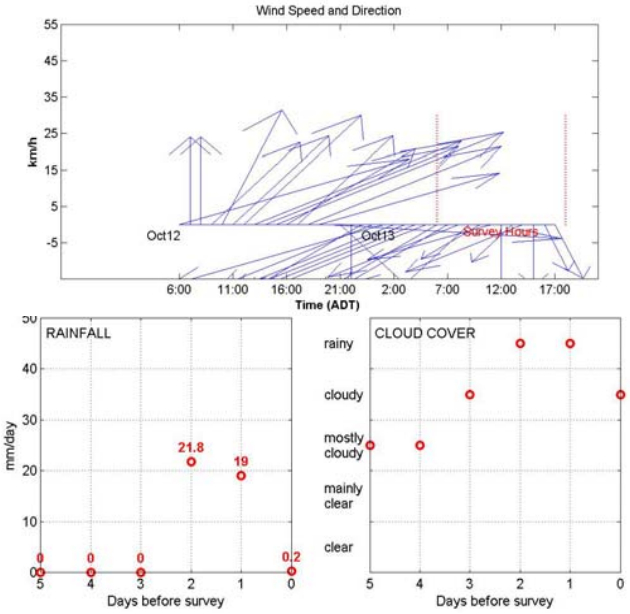


DO in mg/L **Chlorophyll in mg/m^3**







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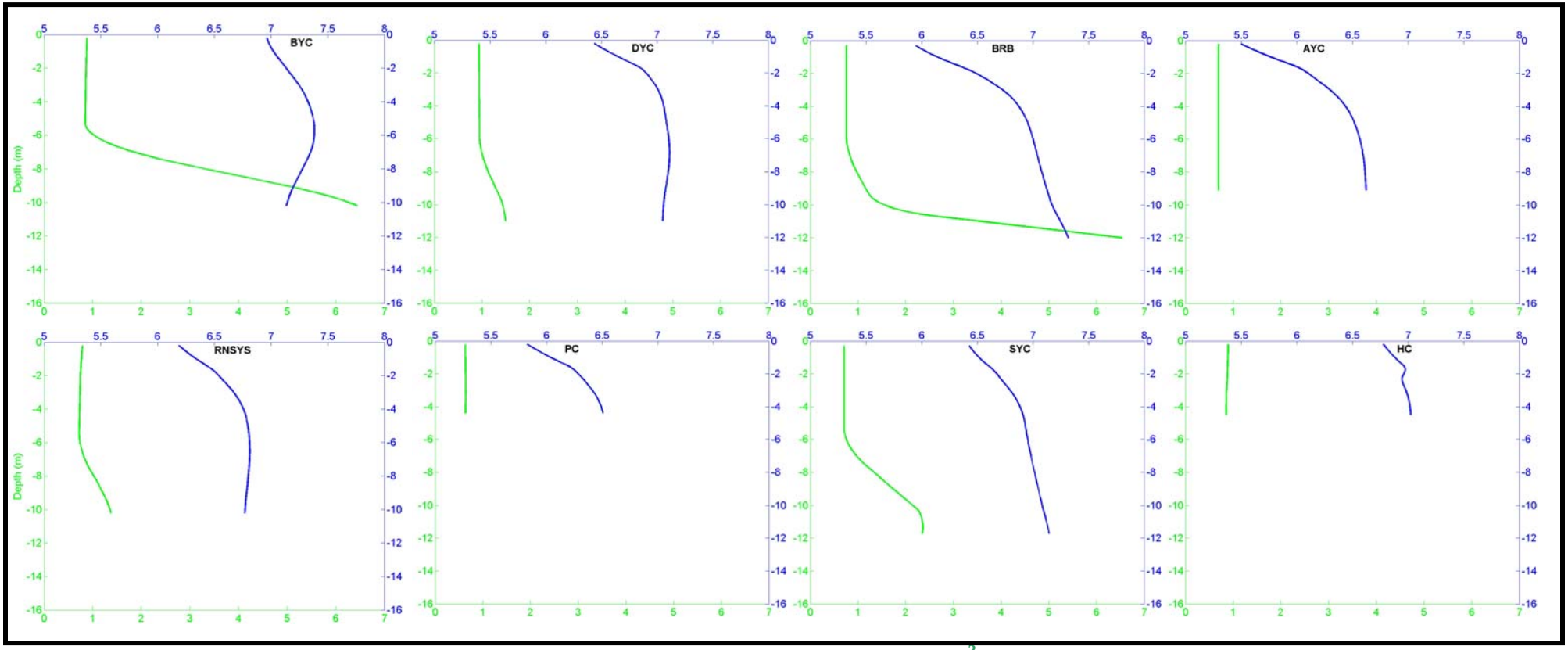
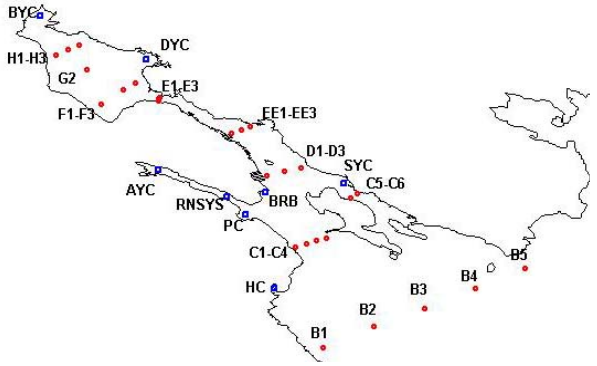
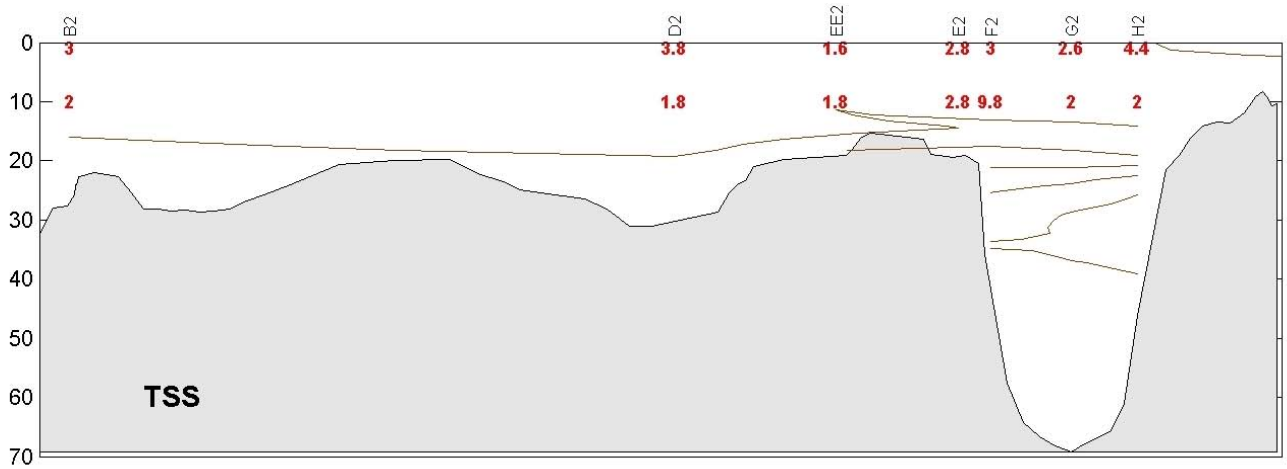
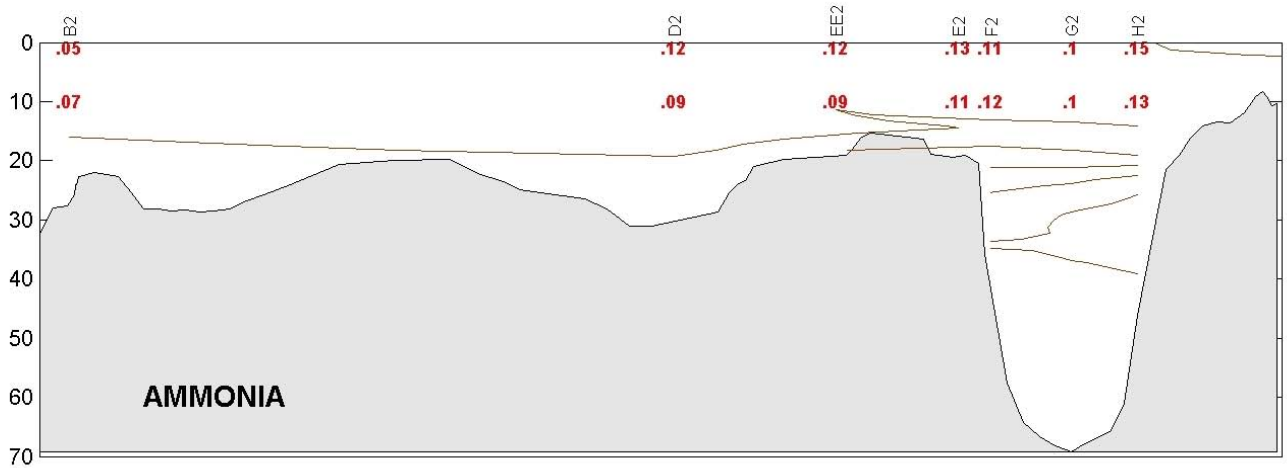
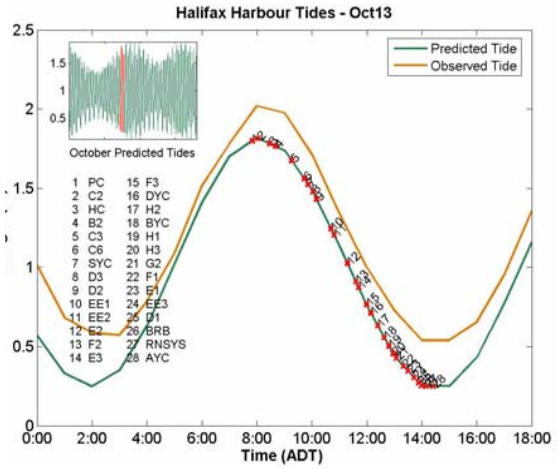


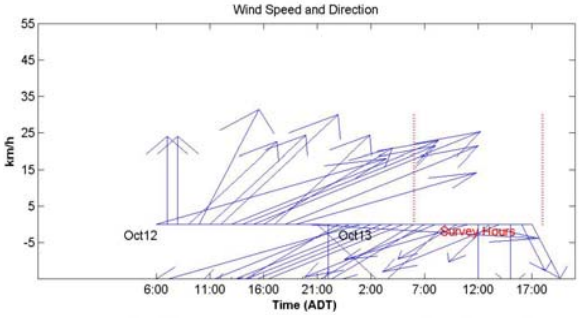
DO in mg/L **Chlorophyll in mg/m^3**

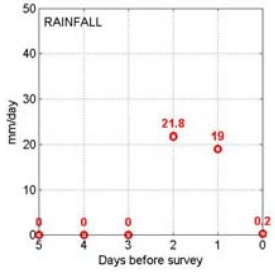


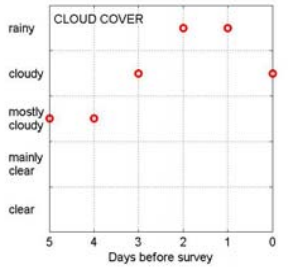












Density in kg/m^3 **Ammonia in mg/L** **TSS in mg/L**