TRANSPORT Consecutive Station Log: BT11-01

May 25, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
Ø9	7:38	4.8	38 35.892	76 06.945	O	.5 - 4	4:15	12 0 - 38.10	14.98 - 39.70	bt mid st Ø
Ø1	8:32	10	38 38.162	76 19.089	B	5.0 - 9.5	5:05	61.6 - 92.0	58.1 - 87.1	st Ø1 bot
Ø1	"	"	"	"	S	0.5 - 4.5	4:52	96.5 - 125.5	90.5 - 118.0	st Ø1
H1	9:07	4.5	38 42.889	76 18.754	O	0.5 - 4.0	4:35	140.9 - 162.3	129.5 - 155.0	st H1
H2	9:26	7.5	38 44.155	76 18.259	B	4.0 - 7.0	4:31	188.8 - 216	173.6 - 199	st H2
H2	"	"	"	"	S	0.5 - 3.5	4:31	221 - 228	205 - 230	st H2
Ø3	9:51	5.5	38 41.247	76 16.937	BP	3.0 - 5.0	4:56	267 - 296	243 - 270	st Ø3
Ø3	"	"	"	"	S	0.5 - 2.5	5:14	306 - 337	280 - 307	st Ø3
Ø2	10:31	8.3	38 38.960	76 16.470	B	4.0 - 7.5	4:32	354 - 381	316 - 342	st Ø2
Ø2	"	"	"	"	S	0.5 - 3.5	4:54	383 - 412	344 - 371	st Ø2
Ø4	11:10	6	38 42.930	76 15.640	B	3.0 - 5.5	4:52	433 - 462	387 - 415	st Ø4
Ø4	"	"	"	"	S	0.5 - 2.5	4:34	465 - 493	418 - 444	st Ø4
Ø5	11:37	4.7	38 40 331	76 13. 141	O	0.5 - 4.0	4:34	509 - 537	466 - 492	St Ø5
Ø6	12:04	10	38 38.368	76 11. 786	B	- 8.0				st Ø6
Ø6	"	10	"	"	S	0.5 -				ST Ø6

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

Start [illegible] 493 - 503

BTI1-01 Water Sample Log 5/25/2010

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 1	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
N/A	Ø9						0.3	
B	Ø1	9.5	0.65	0.709	20	0837	1.5	volt 2 = 0.11 volt 3 = 3.10
S	H1	0.5	0.73	0.19	20	0917	0.7	2 = 0.25 3 = 2.07
	H2						0.5	
B	Ø3	3.0	0.88	1.42	20	10:04	0.7	chl max @ 3.0m
	Ø2						1.2	
	Ø4						0.6	
B	Ø5	3.5	2.11	1.43	20	11:50	0.7	
	Ø6						1.3	

TRANSPORT Consecutive Station Log: BT11-02

June 2, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
11	14:10	8.0	38° 34.825	76° 03.482	B	4.0 - 7.0	4:48	1545 - 1573	1262 - 1288	
11	"	"	"	"	S	0.5 - 3.5	6:24	1575 - 1611	1290 - 1325	
13	14:37	7.3	38° 35.310	76° 00.616	B	4.0 - 6.5	4:57	1625 - 1653	1332 - 1360	
13	"	"	"	"	S	0.5 - 3.5	5:42	1661 - 1693	1368 - 1400	
14	1501	9.0	38° 36.344	75° 58.960	B	4.5 - 8.0	5:32	1702 - 1733	1406 - 1438	
14	"	"	"	"	S	0.5 - 4.0	7:42	1736 - 1770	1441 - 1485	
15	1527	3.8	38° 38.081	75° 58.985	O	0.5 - 3.0	5:50	1783 - 1816	1494 - 1527	

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

BTI 02 Water Sample Log 6/7/2011

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 1	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
—	01						1.3	Pycnocline
S	02	0.5	0.49	0.34	20	13:06	1.2	V2 = 0.44 V5 = 3.—
—	03	—	—	—	—	—	0.9	
O-B	04	4.0	0.59	1.42	20	14:09	1.0	V2 = 0.44 V5 = 2.18
S	05	0.5	1.12	0.86	20	14:37	0.7	V2 = 0.22 V5 = 0.49
—	06	—	—	—	—	—	0.8	
O-B	07	5.5	0.42	0.70	20	15:34	0.9	V2 = 0.35 V5 = 2.51
—	08	—	—	—	—	—	0.9	
S	09	0.5	0.88	1.12	20	16:27	0.8	V2 = 0.25 V5 = 0.42
—	10	—	—	—	—	—	0.8	
B	11	4.0	0.66	1.17	20	17:35		V2 = .66 V5 = 2.95
—	12	—	—	—	—	—	0.5	
S	13	0.5	1.06	1.96	20	18:39	0.5	V2 = .53 V5 = .19
	14						0.4	
	15						0.5	
B	16	3.0	0.53	0.86	20	19:43	0.5	V2 = 0.64 V5 = 2.54

Jake Goodwin

527 Engr

TRANSPORT Consecutive Station Log: BT11-03

June 3, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD	
01	8:01	9.5	38 38.173	76 19.677	B/P	9.5-8.5	~~4:~~ 43	1843-1869	1552-1580	B01	
"	"		"	"	T	8.5-0	43 5:16	1877-1917	1588-1632	"	
02	8:47	7.5	38 39.086	76 16.474	B/P	7.5-5.5	~~5:~~ 5:29	1943-1978	1654-1691	02	
"	"	"	"	"	T	5.0-0	5:57	1986-2016	1698-1732	"	
03	9:22	~~8~~ 8.5	38.41.243	76 16.851	B	4.5-2.0	4:39	2041-2069	1752-1780	03	
"	"	"	"	"	T	1.5-0	4:38	2074-2100	1785-1811	"	
H1	9:57	4.5	3842.818	76 18.685	O	4.5-0	4:47	2112-2139	1820-1838	H1	
H2	10:07	6.0	3844.197	76 18.238	B	6-3-0	5:19	2153-2183	18:58-1889	H2	
"	"	"	" "	" "	T	~~3~~ 2.5-0	4:46	2188-2215	1893-1921	H2	~~H3~~
04	10:49	6.0	3842.894	76 15.610	B	6-3-0	4:39	2232-2259	1935-1963	04	
"	"	"	" "	" "	T	2.5-0	4:36	2263-2291	1967-1995	04	
05	11:18	5.0	38 40.352	76 13.227	O	5.0-0	4:47	2305-2332	2005-2033	05	
06	11:41	9.0	38 38.335	76 11.829	B	9.0-8.5	4:53	2344-2372	2040-2069	06	
"	"	"	" "	" "	P	8.0-5.5	4:46	2375-2403	2072-2100	06	
"	"	"	" "	" "	T	5.0-0	5:20	2405-2435	2103-2134	06	
07	12:08	4.5	38 39.589	76 10.912	O	4.5-0	4:44	2447-2476	2141-2171	07	
08	12:33	9.0	3837.769	76 07.930	B	9-5.0	4:59	2650-2650	2148-2151	08	* Lost Interval
"	"	"	" "	" "	T	4.5-0	5:48	2654-2656	2151-2243	08	
09	1:20	4.5	38 35.834	76 07.062	O	4.5-0	~~12.5-6.5~~ 5:09	2564-2592	2253-2281	09	
10	1:32	12.5	3835.953	76 05.020	B	12.5-6.5	~~6-0~~ 5:38	2604-2626	2290-2324	10	
10	—		" "	" "	T	6-0	6:32	2640-2649	2353-2391	10	
11	2:13	7.0	38 34.851	76 03.497	B	7-4.0	4:38	2658-2683	2399-2486	11	
11	—	—	~~76 03.497~~	" "	T	3.5-0	4:36	2686-2713	2429-2458	11	

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

H1 5.7 9 15

TRANSPORT Consecutive Station Log: BT11-03

June 3, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
13	2:39	6	38 35.296	76 00.591	B	6-3	5:08	2731-2757	2473-2503	#13
13	"	6	" "	" "	T	2.5-0	4:53	2760-2786	2505-2534	13
14	3:00	~~10.0~~ 9	38 36.313	75 58.944	B	9-5.0	5:06	2799-2826	2546-2576	14
14	"	9	" "	" "	T	4.5-0	4:40	2828-2851	2578-2604	14
~~15~~	~~3:23~~	~~4.1~~	38 38.082	75 58.942	O	3.5-0	5:10	2859-2884	2610-2639	15 ~~cast~~ 2
15		3.5	↓	↓	↓	↓	↓	↓	↓	↓

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

BT11-03 Water Sample Log 6/15/2011

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
	01				20	12:15	7	Pycnocline at bottom (13) ppt
Bottom	02	7.5	0.921	0.89			6	Pycnocline @ bottom (11) ppt 23
	03					1:33	4	
	H1						3	
Top	H2	0	0.338	0.962		2:36	3	6.2 ppt 24°C
	04	0	0.330	0.823			4	6.2 ppt 24°C
Bottom	05	5.5	0.296	0.8315		3:32	4	6 ppt 25°C
	06					3:57	5	Pycnocline 6→10 25° → 23 @ bottom
Bottom	07	4.5	0.542	0.6928		4:24	3	6 ppt
	08					4:47	4	6 ppt No py
Bottom	09	4.5	0.603	0.8245		5:32	3	6 ppt
	10						3	
Top	11	0	0.459	0.1379		6:39	3	6 ppt 1
	13						3	5.8 ppt 1
	14						2	5.5
Bottom	15	3.5	0.648	0.8139		7:40	2	4.8 25°C

5, 7, 9, 11, 15

TRANSPORT Consecutive Station Log: BT11-04

6/21, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
Ø1	0749	10.5	38° 36.191	76° 19.614	B	6.0 - 8.5	5:53	2 - 35	1 - 35	btm of st Ø1
Ø1	"		↓	↓	P	4.0 - 5.5	5:44	44 - 76	45 - 77	"
Ø1	"		↓	↓	S	0.5 - 3.5	5:01	72 - 105	80 - 109	"
Ø2	0828	8.6	38° 38.953	76° 16.489	B	6.0 - 7.5	5:38	116 - 146	118 - 152	st Ø2
Ø2	↓	↓	↓	↓	P	3.5 - 5.5	5:10	148 - 176	154 - 185	
Ø2	↓	↓	↓	↓	S	0.5 - 3.0	5:15	179 - 207	189 - 219	
Ø3	9:32	5.8	38° 41.199	76° 17.009	O	0.5 - 5.0	6:05	218 - 250	227 - 262	st Ø3
H1	09:22	4.8	38° 42.841	76° 18.749	O	0.5 - 4.0	5:22	263 - 291	271 - 303	H1
H2	09:38	5.7	38° 44.194	76° 18.209	O	0.5 - 5.0	5:16	302 - 331	312 - 343	H2
Ø4	10:09	6.5	38° 42.849	76° 15.623	B	3.5 - 5.5	5:34	337 - 360	348 - 380	st Ø4
Ø4	"	"	"	"	S	0.5 - 3.0	5:23	368 - 396	382 - 413	st Ø4
Ø6	1044	10.3	38° 38.399	76° 11.835	BP	5.0 - 9.0	4:51	404 - 430	419 - 448	st Ø6
Ø6	"	"	"	"	S	0.5 - 4.5	5:15	432 - 460	450 - 480	st Ø6
Ø7	11:06	5.4	38° 39.855	76° 11.008	B	3.0 - 4.5	5:00	468 - 495	486 - 515	st 07
07	"	"	"	"	S	0.5 - 2.5	5:16	498 - 525	519 - 549	st 07
Ø9	11:35	10.5	38° 37.721	76° 07.927	B	4.5 - 8.5	4:59	533 - 560	555 - 585	st Ø8
Ø8	"	"	"	"	S	0.5 - 4.0	5:30	561 - 590	586 - 618	st Ø8
Ø9	12:13	5.1	38° 35.852	76° 07.015	O	0.5 - 4.0	5:03	600 - 627	626 - 655	st Ø9
10	12:28	12.0	38° 35.891	76° 05.003	B	6.0 - 11.0	5:22	633 - 659	660 - 687	st 10
10	"	"	"	"	S	0.5 - 5.5	5:32	661 - 686	689 - 716	st 10
11	~~12:51~~	~~8.0~~	~~38° 34.856~~	~~76° 03.463~~	B	3.5 - 7.0		698 -	725 -	
11	"	"	38° 34.856	76° 03.546	B	4.0 - 7.0	5:07	741 - 769	746 - 773	st 11b
11	"	"	"	"	S	0.5 - 3.5	5:01	773 - 800	776 - 803	st 11b

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

TRANSPORT Consecutive Station Log: BT11-04

0, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
13	1328	8.0	38°35.319	76°00.609	B	4.0 - 7.0	5:03	809 - 837	809 - 837	St 13
13	"	"	"	"	S	0.5 - 3.5	5:50	840 - 871	840 - 872	St 13
14	1351	10.5	38°36.354	75°58.965	B	4.5 - 8.5	5:11	879 - 909	877 - 907	St 14
14	"	"	"	"	S	0.5 - 4.0	5:11	911 - 940	909 - 938	St 14

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

BT11-04 Water Sample Log 6/20/2011

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
B	Ø1	8.5	0.19	0.54	20	12:10	0.9	
S	Ø2	0.5	0.20	0.51	20	13:04	0.9	
—	Ø3	—	—	—	—	—	0.6	
—	H1	—	—	—	—	—	0.6	
B	H2	5.0	0.53	0.76	20	13:55	0.5	
—	Ø4	—	—	—	—	—	0.6	
S	Ø6	0.5	0.21	1.03	20	15:12	0.8	
—	Ø7	—	—	—	—	—	0.8	
B	Ø8	8.5	0.26	0.72	20	15:51	0.7	
	Ø9						0.7	
S	10	0.5	0.29	1.38	20	16:57	0.6	
B	11	7.0	0.64	1.33	20	17:08	0.6	
—	13	—	—	—	—	—	0.5	
B	14	8.5	0.79	0.63	20	18:06	0.5	

TRANSPORT Consecutive Station Log: BT11-05

June 28, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
Ø1	07 57	10.1	38° 38.121	76 19.691	B P	4.5 - 8.5	4:25	4 - 30	1 - 26	St Ø1
Ø1	"	"	"	"	S	0.5 - 4.0	4:50	32 - 60	28 - 55	
Ø2	0827	8.3	38° 38.943	76° 16.469	B P	4.0 - 7.0	5:16	69 - 99	61 - 91	St Ø2
Ø2	"	"	"	"	S	0.5 - 3.5	5:12	101 - 131	93 - 121	~150 ml of bubbly H2O, x4
Ø3	0851	5.5	38° 41.089	76° 17.038	O	0.5 - 4.5	4:36	141 - 168	129 - 154	St Ø3
H1	0908	4.5	38° 42.819	76° 18.743	O	0.5 - 3.5	4:55	182 - 211	164 - 191	St H1
H2	0929	5.3	38° 44.201	76° 18.208	B	2.5 - 4.0	4:39	220 - 247	197 - 223	St H2
H2	"	"	"	"	S	0.5 - 2.0	4:57	250 - 278	225 - 252	St H2
Ø4	0958	6.0	38° 42.835	76° 15.711	B	3.0 - 5.0	5:10	287 - 320	258 - 289	St Ø4
Ø4	"	"	"	"	S	0.5 - 2.5	5:16	327 - 357	293 - 322	St Ø4
Ø6	1033	10.1	38° 38.406	76° 11.802	B P	5.0 - 9.0	5:04	366 - 397	329 - 358	St Ø6
Ø6	"	"	"	"	S	0.5 - 4.5	4:38	401 - 427	362 - 387	St Ø6
Ø7	1054	5.4	38° 39.933	76° 10.261	B	3.0 - 4.5	4:37	438 - 465	395 - 420	St Ø7
Ø7	"	"	"	"	S	0.5 - 2.5	5:06	468 - 497	423 - 451	St Ø7
Ø8	1119	10.6	38° 37.765	76° 08.023	B	5.0 - 8.5	5:54	508 - 543	459 - 492	St Ø8
Ø8	"	"	"	"	S	0.5 - 4.5	5:03	547 - 576	496 - 524	St Ø8
Ø9	1142	4.8	38 35.823	76 06.934	O	0.5 - 4.0	4:59	585 - 614	529 - 557	St Ø9
10	1212	14.0	38 35.922	76 04.981	B	6.5 - 12.5	8:27	622 - 664	563 - 600	St 10
10	"	"	"	"	S	0.5 - 6.0	5:53	667 - 695	603 - 631	St 10
11	1239	8.5	38° 34.804	76° 03.459	B	4.0 - 7.5	6:24	709 - 740	642 - 672	St 11
"	"	"	"	"	S	0.5 - 3.5	5:51	742 - 770	674 - 701	St 11
13	1305	9.0	38° 35.349	76° 00.546	B	5.0 - 9.0	5:18	786 - 812	712 - 736	St 13
"	"	"	"	"	S	0.5 - 4.5	5:53	814 - 842	738 - 764	St 13

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

TRANSPORT Consecutive Station Log: BT11-05

June 28, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
14	1331	13.5	38° 36.186	75° 59.060	B	6.5 - 12.0	5:43	850 - 878	769 - 796	St 14
"	"	"	"	"	S	0.5 - 6.0	6:10	880 - 909	798 - 827	St 14
15	1354	4.2	38 38.020	75 58.989	O	0.5 - 3.0	6:05	918 - 954	832 - 863	St 15

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

BT11-05 Water Sample Log 6/28/2011

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
	Ø1						0.9	
S	Ø2	0.5	0.169	0.643	20	12:56	0.7	≈4½
	Ø3						0.7	Obligue b/c wind + current
	H1						0.6	
B	H2	4.0	0.63	0.670	20	13:40	0.6	
B	Ø4	5 0	0.58	0.41	20	14:14	0.7	
S	Ø6	0.5	0.21	0.63	20	15:00	0.9	
	Ø7						0.7	
B	Ø8	8.5	0.26	0.79	20	15:35	0.8	
S	10	0.5	0.31	1.19	20	16:46	0.7	
B	11	7.5	1.04	0.81	20	16:55	0.6	
	13						0.5	
B	14	12.0	1.01	1.05	20	17:47	0.4	
	15						0.4	

TRANSPORT Consecutive Station Log: BT11-06 0, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
13	13134	8.0	38 35. 338	76 00. 623	B	4.0 - 7.0	6:07	713 - 741	739 - 769	St13
13	"	"	"	"	S	0.5 - 3.5	5:59	742 - 769	770 - 800	St13
14	1400	13.0	38 36. 270	75 59. 044	B	6.5 - 12.0	6:29	783 - 813	812 - 837	St14
14	"	"	"	"	S	0.5 - 6.0	6:40	814 - 844	838 - 865	St14
15	1425	4.0	38 38. 080	75 58. 951	O	0.5 - 3.0	6:46	854 - 885	871 - 898	St15

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

Adminishing

TRANSPORT Consecutive Station Log: BT11-06 0, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
Ø1	0748	10	38 38.057	76 19.721	B	8.0 - 9.0	6:24	1 - 29	1 - 32	st Ø1
Ø1					P	4.0 - 7.5	6:43	30 - 59	33 - 67	st Ø1
Ø1					S	0.5 - 3.5	6:33	61 - 90	68 - 100	st Ø1
Ø2	0834	8.2	38 39.076	76 16.609	BP	4.0 - 7.5		92 -	106 -	st Ø2
Ø2	"	"	"	"	S	0.5 - 3.5				st Ø2
Ø2			38 39.066	76 16.594	BP	3.5 - 7.0	5:48	113 - 146	121 - 154	st Ø2 6
Ø2					S	0.5 - 3.0	5:46	148 - 180	157 - 190	st Ø2 6
Ø3	0912	5.2	38 41.377	76 17.010	O	0.5 - 4.0	5:14	192 - 220	200 - 229	st Ø3
H1	0929	4.4	38 42.946	76 18.718	O	0.5 - 3.5	4:46	229 - 255	236 - 263	st H1
H2	0943	6.0	38 44.208	76 18.217	O	0.5 - 4.0	5:00	263 - 290	270 - 298	st H2
Ø4	1008	6.0	38 42.951	76 15.619	B	3.0 - 5.0	4:52	300 - 326	307 - 334	Ø4
Ø4	"	"	"	"	S	0.5 - 2.5	4:57	328 - 355	336 - 364	Ø4
Ø6	1038	9.6	38 38.470	76 11.875	B	4.5 - 8.5	4:40	361 - 387	369 - 396	st Ø6
Ø6	"	"	"	"	S	0.5 - 4.0	4:52	389 - 415	398 - 426	st Ø6
Ø7	1101	5.1	38 40.002	76 10.872	B	2.5 - 4.0	4:50	425 - 451	434 - 462	st Ø7
Ø7	"	"	"	"	S	0.5 - 2.0	5:17	453 - 481	463 - 494	st Ø7
Ø8	1126	11.0	38 37.776	76 07.946	B	5.5 - 10.0	5:31	488 - 513	500 - 528	st Ø8
Ø8	"	"			S	0.5 - 5.0	5:33	515 - 540	529 - 557	st Ø8
Ø9	1149	4.7	3835.847	76 06.969	O	0.5 - 3.5	6:01	550 - 576	563 - 593	st Ø9
10	1246	13.6	38 35.927	76 04.995	B	6.5 - 12.0	6:16	582 - 610	598 - 629	st 10
10	"	"	"	"	S	0.5 - 6.0	5:59	611 - 638	630 - 661	st 10
11	1310	8.1	38 34.850	76 03.535	B	4.0 - 7.0	6:01	650 - 677	671 - 701	st 11
11	"	"	"	"	S	0.5 - 3.5	6:12	678 - 706	702 - 733	st 11

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

BT11-06 Water Sample Log 6/30/2011

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
—	Ø1	—	—	—	—	—	0.8	- bottom H2O Hypoxia
S	Ø2	0.5	0.19	0.56	20	1313	0.7	
—	Ø3	—	—	—	—	—	0.6	
—	H1	—	—	—	—	—	0.5	
B	H2	4.0	0.53	0.65	20	1359	0.5	
B	Ø4	5.0	0.45	0.50	20	1424	0.6	
S	Ø6	0.5	0.21	0.66	20	1506	0.9	
—	Ø7	—	—	—	—	—	0.7	
B	Ø8	10.0	0.31	0.67	20	1543	0.7	
—	Ø9	—	—	—	—	—	0.7	
S	10	0.5	0.43	1.32	20	1715	0.4	
B	11	7.0	0.86	0.96	20	1727	0.3	
	13						0.3	
	14	11.5	0.82	1.37	20	1816	0.3	

bad weather Dave Tom Ford, Kala

DATE? 7/6/11

TRANSPORT Consecutive Station Log: BT11-07

July 6, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
[illegible]	[illegible]	[illegible]	38° 38.122	76° 9.616	BP	4.5 - 8.5	7:54	21 - 65	1 - 15	st ø1
ø1	"	"	"	"	S	0.5 - 4.0	7:25	[illegible] - 110	[illegible] - 22	st ø1
ø2	0822	8.5	38° 39.523	76° 16.600	BP	4.0 - 8.0	9:41	144 - 201	35 - 63	st ø2
ø2	"	"	"	"	S	0.5 - 3.5	4:33	[illegible] - 230	65 - 92	st ø2
ø3	0900	5.7	38° 41.[illegible]28	76° 16.965	O	0.5 - 4.5	4:30	240 - 262	100 - 126	st ø3
H2	0917	4.9	38° 42.856	76° 18.709	O	0.5 - 4.0	4:31	282 - 309	135 - 162	St H2
H2	0936	6.0	38° 41.232	76° 18.265	O	0.5 - 5.0	5:34	325 - 358	174 - 206	St H2
ø4	1000	6.3	38° 42.295	76° 15.637	O	0.5 - 5.0	5:37	[illegible] - 415	[illegible] - 255	[illegible]
ø6	1036	9.8	38° 38.476	76° 11.955	B	[illegible]	4:33	431 - 463	269 - 296	St ø6
ø6	"	"	"	"	S	[illegible]	4:59	468 - 498	302 - 330	St ø6
ø7	1121	5.4	38° 39.933	[illegible] 10.858	B	2.5 - 4.5	5:29	502 - 540	337 - 368	St ø7
ø7	"	"	"	"	S	0.5 - 2.0	4:42	542 - 570	370 - 397	St ø7
ø8	1219	11.0	38° 37.803	76° 02.083	B	5.5 - 10.0	5:31	581 - 609	411 - 436	St ø8
"	"	"	"	"	S	0.5 - 5.0	5:42	619 - 646	444 - 466	St ø8
ø9	1259	4.5	38° 35.850	76° 06.909	O	0.5 - 4.0	6:04	658 - 686	474 - 504	St ø9

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

BT11-07 Water Sample Log ~~6/30/2011~~ 7/6/11

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
	Ø1						0.6	
B	Ø2	8.0	0.21	0.21	20	12:50	0.6	
	Ø3						0.5	
	H1						0.5	
S	H2	0.5	0.41	0.75	20	1400	0.4	
S	Ø4	5.5	0.25	[illegible]	20	[illegible]	0.5	
S	Ø6	0.5	0.1355	0.1355	20	15:07	0.5	
	Ø7						0.5	
B	Ø8	10.0	0.27	0.37	20	1546	0.6	

7/11/11 mostly sunny humid hot

Tom, Steve, Kayla, Julia

TRANSPORT Consecutive Station Log: BT11-08

July 11, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
01	0827	10.2	38 36.211	76 19.479	BP	5.0 - 9.0	5:10	753 - 777	546 - 570	
01					S	0.5 - 4.5	5:19	780 - 824	573 - 603	
02	0911	8.4	38.20.986	76 16.552	BP	4.0 - 7.0	5:28	823 - 858	614 - 646	
02					S	0.5 - 3.5	5:41	861 - 891	654 - 687	
03	0942	5.5	38° 41.215'	76 16.991	O	0.5 - 4.5	6:12	904 - 937	696 - 731	
H1	1004	4.2	38 42.955	76 18.730	O	0.5 - 4.0	5:46	950 - 976	742 - 775	
H2	1025	5.5	38 44.136	76 18.273	B	2.5 - 4.5	6:11	985 - 1016	780 - 816	
H2					S	0.5 - 2.0	5:00	1020 - 1045	820 - 848	
04	1106	7.1	38 42.852	76 15.653	B	3.0 - 5.5	6:23	1054 - 1086	856 - 893	
04					S	0.5 - 2.5	5:21	1091 - 1118	898 - 929	
06	1148	10.5	38 38.393	76 11.837	B	5.0 - 9.5	6:07	1130 - 1157	938 - 969	
06					S	0.5 - 4.5	6:10	1161 - 1188	~~967~~ 973 - 1003	
07	1220	5.7	38° 39.936'	76° 10.910'	B	2.5 - 4.5	6:01	1196 - 1226	1069 - 1045	
07					S	0.5 - 2.0	6:13	1228 - 1260	1047 - 1083	
08	1301	10.8	38 37.737	76 07.951	B	5.0 - 9.5	6:15	1269 - 1295	1092 - 1123	
08					S	0.5 - 4.5	6:05	1297 - 1322	1125 - 1155	
09	1330	4.9	38 35.814	76 06.901	O	0.5 - 4.0	7:02	1332 - 1361	1162 - 1196	
10	1415	14.2	38° 35.936'	76 05.010	B	6.5 - 12.0	6:16	1368 - 1394	1203 - 1234	
10					S	0.5 - 6.0	6:24	1396 - 1422	1238 - 1270	
11	1446	14.0	38° 34.752'	76° 03.524'	B	6.5 - 12.5	6:58	1432 - ~~1460~~	1281 - 1317	
11					S	0.5 - 6.0	6:24	1463 - 1490	1319 - 1351	
13	1516	8.5	38 35.323	76 00.592	B	~~3.5~~ 4.5 - 8.0	7:15	1504 - 1536	1365 - 1401	
13					S	0.5 - ~~4.0~~	7:16	~~1538~~ - 1569	1404 - 1440	

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

7/11/11

TRANSPORT Consecutive Station Log: BT11-08

July 11, 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
014	1546	10.1	38° 39.345'	75 58.981	B	~~5.0~~ -9.0	7:12	1579 - 1610	1446 - 1482	
014	—				S	0.5 - 4.5	7:04	1613 - 1644	1485 - 1528	
015	1617	4.3	38° 38.061'	75° 58.983'	O	0.5 - 3.5	6:06	1652 - 1683	1534 - 1569	

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

BT11-08 Water Sample Log 7/11/2011 7/11/11

Computer Time - OFF +≈ 13 min

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
	01						0.8	Mark #1 - bl mapped as H1.hex
B	02	7.0				13:29	0.6	↳
	03						0.5	
S	H1	4.5				14:21	0.4	Mark #1 - bl Mapped H1.hex
	H2	5.3					0.3	
	04						04	
B	06	9.0				16:07	0.6	Mark #1 - " St06.hex
S	07	0.5				16:50	0.5	Mark #1 - " St07.hex
	08						0.55	
	09						0.4	
S	10	0.5				18:47	0.4	Mark #1 - " St10.hex
S	11	0.4				19:17	0.4	Mark #1 - " St11.hex
B	13	7.8				19:33	0.2	Mark #1 -
	14						0.3	
S	15	0.5				20:40	0.3	Mark #1 - " St15.hex

TRANSPORT Consecutive Station Log: BT11-09 21-Jul 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
Ø1	0739	10.0	38° 38.181	76° 19.603	BP	5.0 - 9.0	5:44	1740-75	1717-1751	Dmap St Ø1
Ø1	"	"	"	"	S	0.5 - 4.5	5:20	1778-1810	1754-1786	
Ø2	0810	8.4	38° 39.015	76° 16.583	B	4.0 - 8.0	6:10	1820-59	1792-1830	
Ø2	"	"	"	"	S	0.5 - 3.5	5:46	1861-1896	1832-1866	
Ø3	0836	5.8	38° 41.256	76° 16.969	O	0.5 - 5.0	5:02	1903-34	1871-1902	
H1	0854	5.0	38° 42.902	76° 18.754	O	0.5 - 4.0	5:48	1945-80	1909-1945	
H2	0912	6.6	38° 44.135	76° 18.260	B	3.0 - 5.5	5:40	1988-2028	1951-1986	
H2	"	"	"	"	S	0.5 - 2.5	5:03	2024-55	1988-2019	
Ø4	0946	6.6	38° 42.883	76° 15.626	B	3.5 - 6.0	5:51	2063-99	2023-2060	
Ø4	"	"	"	"	S	0.5 - 3.0	5:04	2101-32	2063-2095	
Ø6	1022	10.4	38° 38.402	76° 11.846	B	7.5 - 9.0	4:54	2144-74	2104-2135	-weak
Ø6	"	"	"	"	P	4.0 - 7.0	4:35	2178-2206	2139-2168	pycnocline
Ø6	"	"	"	"	S	0.5 - 3.5	4:58	2208-38	2170-2201	
Ø7	1050	5.5	38° 39.921	76° 10.880	B	2.5 - 4.5	4:46	2249-77	2209-2240	
Ø7	"	"	"	"	S	0.5 - 2.0	4:32	2280-2307	2243-2271	
Ø8	1116	"	38° 37.746	76° 07.938	B	5.5 - 10.0	5:11	2317-44	2278-2307	
Ø8	"	"	"	"	SP	0.5 - 5.0	5:15	2345-73	2309-2337	
Ø9	1141	5.2	38° 35.858	76° 06.992	O	0.5 - 4.0	5:41	2380-2410	2342-2374	
10	1208	13.0	38° 35.958	76° 05.026	B	6.5 - 12.0	6:07	2415-47	2377-2412	
10	"	"	"	"	S	0.5 - 6.0	5:54	2450-81	2415-2447	
11	1231	8.5	38° 34.819	76° 03.484	B	4.5 - 7.0	5:03	2489-2515	2451-2480	
					S	0.5 - 4.0	5:40	2518-47	2482-2513	-weak
13	1259	7.5	38° 35.290	76° 00.628	B	3.5 - 6.5	5:27	2559-87	2525-2555	pycnocline

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

TRANSPORT Consecutive Station Log: BT11-09 21-Jul 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
13	1259	7.5	38°35.290	76°00.628	S	0.5 - 3.0	5:30	2589-2617	2552 - 2587	
14	1322		38°36.356	75°58.981	B	4.5 - 8.5	5:04	2628-55	2595 - 2622	
14	"	9.2	"	"	S	0.5 - 4.0	5:44	2656-86	2624 - 55	
15	1345	4.3	38°38.101	75°58.992	O	0.5 - 4.5	5:06	2694-2720	2660 - 88	

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

page ____

BT11-09 Water Sample Log 7/21/2011

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
B	Ø1	9.0	0.145	0.355	20	12:01	1.0	
—	Ø2	—	—	—	—	—	1.0	
S	Ø3	0.5	0.197	0.321	20	12:58	0.9	
—	H2	—	—	—	—	—	0.9	
B	H2	5.5	0.54	0.64	20	13:29	0.8	
—	Ø4	—	—	—	—	—	1.0	
S	Ø6	0.5	0.16	0.94	20	14:56	1.1	
—	Ø7	—	—	—	—	—	1.1	
—	Ø8	—	—	—	—	—	0.9	
B	09	4.2	0.22	1.11	20	15:56	0.9	
—	10	—	—	—	—	—	0.7	
S	11	0.5	0.28	2.18	20	17:00	0.7	
	13	6.5	.13	0.719	20	17:16	0.4	
	14						0.4	
	15					18:05	0.4	

-Left Jack @ 0720 27 Jul Engine Hrs Start 586

TRANSPORT Consecutive Station Log: BT11-10 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
Ø1	0753	10.1	38° 38.214	76° 19.633	BP	5.0-9.0	6:40	2776-2808	2741-27450	
Ø1	"	"	"	"	S	0.5-4.5	6:13	2819-2850	2747-2779	
Ø2	0835	9.0	38° 39.055	76° 16.607	B	4.0-7.5	5:14	7-33	5-32	
Ø2	"	"	"	"	S	0.5-3.5	5:26	37-64	37-65	
Ø3	0904	5.4	38° 41.388	76° 16.983	O	0.5-4.5	5:53	71-100	69-99	
H1	0925	4.5	38° 42.998	76° 18.755	O	0.5-3.5	5:38	109-137	103-131	
H2	0943	7.0	38° 44.172	76° 18.243	B	3.5-6.0	6:03	146-176	138-168	
H2	"	"	"	"	S	0.5-3.0	5:44	178-207	170-199	
Ø4	1019	6.5	38° 42.957	76° 15.585	B	3.5-5.5	6:16	214-246	205-237	
Ø4	"	"	"	"	S	0.5-3.0	5:57	248-278	238-269	
Ø6	1056	10.0	38° 38.411	76° 11.843	B	5.0-9.0	6.15	289-321	274-307	
Ø6	"	"	"	"	S	0.5-4.5	6:08	322-353	309-342	
Ø7	1124	5.5	38° 39.979	76° 10.841	B	2.5-4.5	5:59	365-395	351-382	
Ø7	"	"	"	"	S	0.5-2.0	5:57	397-426	384-415	
Ø8	1152	11.5	38° 37.792	76° 07.937	B	5.5-10.5	5:25	434-461	421-450	
Ø8	"	"	"	"	S	0.5-5.0	5:11	462-488	452-478	
Ø9	1219	5.0	38° 35.852	76° 06.972	O	0.5-4.0	5:40	497-525	487-516	
10	1251	13.0	38° 35.972	76° 05.045	B	6.5-12	5:59	532-562	523-555	
10	"	"	"	"	S	0.5-6.0	6:02	565-595	558-590	
11	1315	8.5	38° 34.830	76° 03.503	B	4.0-7.0	5:39	603-631	596-625	
11	"	"	"	"	S	0.5-3.5	5:38	632-660	626-655	
13	1341	7.2	38° 35.328	76° 00.595	B	3.5-6.5	5:21	668-695	661-690	
13	"	"	"	"	S	0.5-3.0	5:47	696-724	692-722	

TRANSPORT Consecutive Station Log: BT11-10 ~~26~~ 27 Jul 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
14	1404	9.8	38° 36.281	75° 58.999	B	4.5-8.5	5:35	737-764	731-761	
14	"	"	"	"	S	0.5-4.0	5:25	766-793	763-792	
15	1429	4.1	38° 38.130	75° 58.945	O	0.5-3.0	5:32	802-829	798-828	

BT11-10 Water Sample Log

7/~~26~~27/2011

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
B	Ø1	9.0	0.122	0.49	20	12:15	0.9	
—	Ø2	—	—	—	—	—	0.9	
S	Ø3	0.5	0.19	1.08	20	13:29	0.8	
—	H1	—	—	—	—	—	0.8	
B	H2	6.0	0.74	0.886	20	14:00	0.6	
—	Ø4	—	—	—	—	—	0.8	
S	Ø6	0.6	0.16	1.03	20	15:27	0.9	
—	Ø7	—	—	—	—	—	0.7	
—	Ø8	—	—	—	—	—	0.7	
S	Ø9	0.5	0.26	1.32	20	16:43	0.7	
—	1Ø	—	—	—	—	—	0.6	
S	11	0.6	0.37	1.46	20	17:45	0.5	
—	~~12~~	—	—	—	—	—	—	
S	13	0.7	0.42	2.18	20	18:11	6.5	
—	14	—	—	—	—	—	—	
B	15	3.0	0.82	1.38	20	18:45	0.4	

TRANSPORT Consecutive Station Log: BT11-11 2-Aug 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
Ø2	0807	6.5	38° 39.147	76° 16.674	B	3.0 - 5.5	5:49	13 - 44	6 - 36	
Ø2	"	"	"	"	S	0.5 - 2.5	5:27	45 - 74	37 - 65	
Ø3	084[illegible]	5.3	38° 41.433	76° 17.216	O	0.5 - 4.0	5:50	85 - 116	71 - 100	
H1	0900	4.5	38° 42.941	76° 18.752	O	0.5 - 3.5	5:44	125 - 155	105 - 134	
H2	0919	6.6	38° 44.180	76° 18.234	B	3.0 - 5.5	4:49	170 - 195	146 - 170	
H2	"	"	"	"	S	0.5 - 2.5	5:46	197 - 227	172 - 202	
Ø4	0956	5.0	38° 42.993	76° 15.694	B	3.0 - 5.0	6:09	233 - 266	205 - 235	
Ø4	"	"	"	"	S	0.5 - 2.5	5:22	268 - 296	237 - 264	
Ø6	1030	9.5	38° 38.525	76° 11.962	B	4.5 - 8.5	5:47	305 - 336	271 - 300	
Ø6	"	"	"	"	S	0.5 - 4.0	5:35	339 - 368	303 - 330	
Ø7	105[illegible]	5.0	38° 40.014	76° 10.882	O	0.5 - 4.0	5:16	373 - 401	332 - 358	
Ø8	1120	10.7	38° 37.858	76° 08.022	B	5.0 - 9.5	5:19	408 - 436	363 - 389	
Ø8	"	"	"	"	S	0.5 - 4.5	5:51	438 - 469	391 - 421	
Ø9	1145	5.5	38° 35.898	76° 07.066	O	0.5 - 4.5	5:42	477 - 507	424 - 452	
10	1216	12.5	38° 35.966	76° 05.069	B	6.0 - 11.5	5:39	524 - 555	465 - 493	
10	"	"	"	"	S	0.5 - 5.5	5:29	558 - 586	496 - 523	
11	1241	8.0	38° 34.849	76° 03.544	B	4.0 - 7.0	8:09	600 - 643	530 - 570	
11	"	"	"	"	S	0.5 - 3.5				
13	1304	8.0	38° 35.370	76° 00.588	B	4.0 - 7.0	5:45	650 - 681	573 - 601	
13	"	"	"	"	S	0.5 - 3.5	5:36	683 - 712	603 - 631	
14	1329	9.0	38° 36.422	75° 58.937	B	4.5 - 8.0	4:54	723 - 749	636 - 660	
14	"	"	"	"	S	0.5 - 4.0	5:15	752 - 778	663 - 689	

engineer due to current

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

TRANSPORT Consecutive Station Log: BT11-11 2-Aug 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
15	1352	4.4	38° 38.110	75° 59.005	O	0.5-3.5	6:03	789-820	793-720	

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

BT11-11 Water Sample Log 8/2/2011

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
S	Ø2	0.6	0.17	0.76	20	12:40	1.0	
"	Ø3	"	"	"	"	"	0.9	
B	H1	3.6	0.38	0.83	20	1318	0.7	
"	H2	"	"	"	"	"	0.5	
S	Ø4	0.5	0.25	0.66	20	1427	0.7	
B	Ø6	8.5	0.43	0.43	20	1447	0.8	
"	Ø7	"	"	"	"	"	0.6	
"	Ø8	"	"	"	"	"	0.8	
S	Ø9	0.6	0.37	1.62	20	16:09	0.6	
"	10	"	"	"	"	"	0.6	
B	11	7.0	0.82	1.04	20	16:59	0.6	
S	13	0.6	0.68	1.74	20	17:36	0.5	
"	14	"	"	"	"	"	0.4	
	15	3.5	0.89	1.66	20	18:10	0.4	

TRANSPORT Consecutive Station Log: BT11-12 11-Aug 2011

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
Ø1	0749	10.0	38° 38.121	76° 19.756	BP	4.0-9.0	5:43	857-887	731-759	
Ø1	"	"	"	"	S	0.5-3.5	6:38	2-36	2-34	
Ø2	0827	8.0	38° 39.071	76° 16.566	BP	4.0-7.0	5:11	47-74	41-67	
Ø2	"	"	"	"	S	0.5-3.5	5:39	76-104	69-97	
Ø3	0857	5.0	38° 41.367	76° 16.973	O	0.5-4.0	5:07	114-141	104-129	
H1	0915	4.3	38° 42.812	76° 18.741	O	0.5-3.0	5:13	142-175	133-159	
H2	0934	7.0	38° 44.150	76° 18.228	B	3.5-6.0	5:18	182-209	163-189	
H2	"	"	"	"	S	0.5-3.0	5:21	211-238	191-217	
Ø4	1009	6.0	38° 42.968	76° 15.635	B	3.0-5.0	5:23	252-281	221-247	
Ø4	"	"	"	"	S	0.5-2.5	5:28	282-310	249-276	
Ø6	1041	9.5	38° 38.474	76° 11.900	B	4.5-8.5	5:09	318-346	280-307	
Ø6	"	"	"	"	S	0.5-4.0	5:20	347-374	308-335	
Ø7	1104	5.2	38° 39.988	76° 12.870	B	2.5-4.0	5:29	384-413	340-367	
Ø7	"	"	"	"	S	0.5-2.0	5:23	415-442	369-395	
Ø8	1132	11.0	38° 37.809	76° 07.977	B	5.5-10.0	5:23	450-478	401-428	
Ø8	"	"	"	"	S	0.5-5.0	5:47	480-510	430-459	
Ø9	1157	5.0	38° 35.845	76° 06.973	O	0.5-4.0	5:20	520-548	465-491	
10	1231	13.0	38° 35.958	76° 05.076	B	6.0-12.0	6:22	554-589	496-528	
10	"	"	"	"	S	0.5-5.5	5:54	591-621	530-559	
11	1254	8.6	38° 34.895	76° 03.615	B	4.0-7.5	5:56	630-663	565-594	
11	"	"	"	"		0.5-3.5	5:56	665-697	596-626	

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

TRANSPORT Consecutive Station Log: BT11-12 11-Aug 2011

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
13	1320	7.7	38° 35.315	76° 00.630	B	4.0-7.0	5:20	710-739	629-655	
13	"	"	"	"	S	0.5-3.5	5:47	742-773	658-686	
14	1344	9.5	38° 36.403	75° 59.012	B	4.5-8.5	5:22	780-809	690-717	
14	"	"	"	"	S	0.5-4.0	5:46	811-841	719-748	
15	1407	4.0	38° 38.110	75° 58.945	O	0.5-3.0	5:41	849-878	752-779	

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

BT11-12 Water Sample Log 8/11/2011

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth (↗ messed up)	Station Notes
S	Φ1	0.6	0.11	0.87	20	12:24		
	Φ2							
B	Φ3	4.0	0.19	0.64	20	13:15		
	H1							
S	H2	0.6	0.32	0.95	20	14:03		
	Φ4							
B	Φ6	8.5	0.21	0.52	20	14:59		
	Φ7							
S	Φ8	0.6	0.26	1.63	20	16:03		
	Φ9							
B	10	12.0	0.63	0.81	20	16:49		
S	11	0.6	0.41	1.37	20	17:25		
	13							
B	14	8.5	0.92	1.38	20	18:03		

This cruise was entered directly on spreadsheet

TRANSPORT Consecutive Station Log: BT11-13

August 17, 2011, RV T

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)
1	7:46	10	38 38.138	76 19.616	BP	5.0-9.0	5:57	-29	-30.00
1	7:46	10	38 38.138	76 19.616	S	0.5-4.5	5:37	-27	-28.00
2	8:20	9	38 38.972	76 16.569	B	4.5-8	5:40	-29	-29.00
2	8:20	9	38 38.972	76 16.569	S	0.5-4	5:50	-31	-28.00
3	8:54	5.5	38 41.248	76 16.977	O	0.5-4.5	5:33	-29	-28.00
H1	9:12	4.5	38 42.852	76 18.753	O	0.5-4.0	5:31	-31	-30.00
H2	9:27	8.8	38 44.015	76 18.206	B	4.5-8.0	5:18	-27	-27.00
H2	9:27	8.8	38 44.015	76 18.206	S	0.5-4.0	5:59	-31	-31.00
4	10:01	6.1	38 42.889	76 15.637	B	3.0-5.0	5:48	-31	-29.00
4	10:01	6.1	38 42.889	76 15.637	S	0.5-2.5	5:37	-29	-29.00
6	10:33	10	38 38.412	76 11.815	B	5.0-9.0	5:24	-28	-28.00
6	10:33	10	38 38.412	76 11.815	S	0.5-4.5	5:40	-29	-29.00
7	10:56	5.2	38 39.930	76 10.863	B	2.5-4.5	5:16	-28	-27.00
7	10:56	5.2	38 39.930	76 10.863	S	0.5-2.0	5:34	-29	-28.00
8	11:24	11	38 37.835	76 07.956	B	5.5-10	5:11	-27	-25.00
8	11:24	11	38 37.835	76 07.956	S	0.5-5.0	5:45	-29	-29.00
9	11:53	5.2	38 35.848	76 07.033	O	0.5-4-5	5:24	-28	-27.00
10	12:27	13	38 35.944	76 05.035	B	6.0-12	6:10	-33	-33.00
10	12:27	13	38 35.944	76 05.035	S	0.5-5.5	5:39	-29	-29.00
11	12:51	8.8	38 34.840	76 03.556	B	4.5-8.0	5:44	-30	-30.00
11	12:51	8.8	38 34.840	76 03.556	S	0.5-4.0	5:35	-28	-29.00
13	13:26	7	38 35.324	76 00.667	B	3.5-6.0	5:26	-29	-27.00
13	13:26	7	38 35.324	76 00.667	S	0.5-3.0	5:34	-28	-29.00
14	13:50	9	38 36.363	75 58.971	B	4.5-8.0	5:47	-30	-29.00

14	13:50	9	38 36.363	75 58.971	S	0.5-4.0	5:34	-29	-28.00
15	14:17	3.8	38 38.072	75 58.981	O	0.5-3.0	5:35	-28	-27.00
Interval		O=Oblique, S = Surface, B = Bottom, P = Pycnocline							

Terrapin

BT02 CTD	Secchi
	1.4
	1.4
	1.4
	1.4
	1.2
	1
	0.8
	0.8
	1.2
	1.2
	1.3
	1.3
	0.9
	0.9
	0.7
	0.7
	0.7
	0.7
	0.7
	0.6
	0.6
	0.4
	0.4
	0.3

	0.3
	0.4

BT11-12 Water Sample Log

3

8/11, 2011, RV Terrapin

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 1	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
S	1	0.6	0.11	0.87	20	12:24		
	2							
B	3	4.0	0.19	0.64	20	13:15		
	H1							
S	H2	0.6	0.32	0.95	20	14:03		
	4							
B	6	8.5	0.21	0.52	20	14:59		
	7							
S	8	0.6	0.26	1.63	20	16:03		
	9							
B	10	12	0.63	0.81	20	16:49		
S	11	0.6	0.41	1.37	20	17:25		
	13							
B	14	8.5	0.92	1.38	20	18:03		

TRANSPORT Consecutive Station Log: BT11-14 24-Aug 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
01	0801	10.5	38° 38.005	76° 19.489	B	8.0 - 9.5	5:34	13 - 41	5 - 34	
01	"	"			P	5.5 - 7.5	5:33	44 - 71	37 - 65	
01	"	"			S	0.5 - 5.0	5:28	73 - 101	67 - 95	
02	0839	8.0	38° 38.928	76° 16.403	BP	4.0 - 7.0	5:49	117 - 146	109 - 139	
02	"	"			S	0.5 - 3.5	5:38	149 - 178	142 - 171	
03	0907	5.5	38° 41.273	76° 16.948	O	0.5 - 4.5	5:51	188 - 217	178 - 208	
H1	0928	4.5	38° 42.864	76° 18.734	O	0.5 - 3.5	5:51	224 - 254	213 - 244	
H2	0945	8.0	38° 44.016	76° 18.202	B	4.0 - 7.0	5:25	269 - 297	255 - 284	
H2	"	"	"	"	S	0.5 - 3.5	5:38	299 - 328	286 - 316	
04	1026	6.4	38° 42.867	76° 15.609	B	3.0 - 5.5	5:10	336 - 362	321 - 349	
04	"	"	"	"	S	0.5 - 2.5	5:29	364 - 392	351 - 379	
06	1111	10.3	38° 38.435	76° 11.788	BP	5.0 - 9.0	5:37	400 - 429	394 - 423	
06	"	"	"	"	S	0.5 - 4.5	5:29	430 - 458	425 - 453	
07	1140	5.6	38° 39.944	76° 10.854	O	0.5 - 4.5	5:43	464 - 494	457 - 487	
08	1203	11.0	38° 37.794	76° 08.009	BP	5.5 - 10.0	5:20	500 - 527	492 - 520	
08	"	"	"	"	S	0.5 - 5.0	5:30	529 - 556	522 - 550	
09	1229	4.8	38° 35.819	76° 06.935	O	0.5 - 4.0	6:17	568 - 600	558 - 591	
10	1300	12.8	38° 35.946	76° 04.911	B	6.0 - 11.0	5:47	609 - 638	600 - 630	
10	"				S	0.5 - 5.5	5:57	640 - 668	632 - 663	
11	1324	8.1	38° 34.855	76° 03.517	BP	4.0 - 7.0	5:30	675 - 702	669 - 697	
11	"	"	"	"	S	0.5 - 3.5	5:17	705 - 730	700 - 727	

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

TRANSPORT Consecutive Station Log: BT11-14 24-Aug 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
13	1352	7.0	38° 35.328	76° 00.576	BP	3.5 - 6.0	5:30	739 - 766	733 - 762	
13	"	"	"	"	S	0.5 - 3.0	6:15	768 - 798	764 - 795	
14	1415	10.0	38° 36.393	75° 58.743	B	5.5 - 9.0	5:42	805 - 835	801 - 830	
14	"	"	"	"	S	0.5 - 5.0	5:28	838 - 866	834 - 862	
15	1438	4.3	38° 38.092	75° 58.972	O	0.5 - 3.0	5:23	875 - 903	867 - 895	

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

BT11-14 Water Sample Log 8/24/2011

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
S	Ø1	0.6	0.11	0.65	20	12:41	1.0	
S	Ø2	0.6	0.11	0.60	20	13:11	1.2	* no CTD mark 4 sample
	Ø3							
	H1						0.6	
B	H2	8.0	0.62	1.01	20	14:03	0.6	
	Ø4							
B	Ø6	9.4	0.37	0.52	20	15:33	1.0	
	Ø7						0.8	
S	Ø8	0.6	0.18	1.19	20	16:32	1.2	
	Ø9						0.9	
B	10	11.3	0.38	0.73	20	17:19	0.8	
						~~17:54~~	~~1.9~~	
S	11	0.60	0.18	1.97	20	17:54	0.9	
	13					1	0.5	
B	14	9.0	0.38	1.07	20	18:33		

TRANSPORT Consecutive Station Log: BT11-15 31-Aug 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
Ø1	0904	10.0	38° 38.138	76° 19.676	B	5.0 - 9.0	5:14	15 - 40	4 - 33	Stø1
Ø1	"	"	"	"	S	0.5 - 4.5	5:46	42 - 70	36 - 66	
Ø2	0933	8.3	38° 39.002	76° 16.583	B	5.5 - 7.0	5:42	82 - 109	74 - 105	Stø2
Ø2	"	"	"	"	P	2.5 - 5.0	5:52	110 - 139	106 - 139	
Ø2	"	"	"	"	S	0.5 - 2.0	5:40	141 - 169	141 - 171	
03	1005	5.5	38° 41.042	76° 17.026	O	0.5 - 4.5	5:31	180 - 207	176 - 206	
H2	1023	4.5	38° 42.875	76° 18.790	O	0.5 - 3.5	5:29	223 - 250	217 - 247	
H2	1040	8.8	38° 43.992	76° 18.205	B	4.0 - 7.5	5:23	261 - 286	250 - 279	
H2	"	"	"	"	S	0.5 - 3.5	5:23	288 - 313	281 - 310	
Ø4	1110	6.0	38° 42.905	76° 15.629	B	3.0 - 5.0	5:52	322 - 350	314 - 346	
Ø4	"	"	"	"	S	0.5 - 2.5	5:28	352 - 378	348 - 378	
Ø6	1141	10.0	38 38.416	76° 11.800	B	5.0 - 9.0	5:17	390 - 415	385 - 413	
Ø6	"	"	"	"	SP	0.5 - 4.5	5:32	416 - 442	415 - 444	
Ø7	1203	5.1	38° 39.939	76° 10.861	BP	2.5 - 4.0	5:38	448 - 475	447 - 478	
Ø7	"	"	"	"	S	0.5 - 2.0	5:16	477 - 503	481 - 510	
Ø8	1228	10.4	38° 37.780	76° 08.000	B	8.5 - 9.5	5:23	510 - 535	514 - 545	
Ø8	"	"	"	"	P	4.5 - 8.0	5:36	538 - 565	548 - 579	
Ø8	"	"			S	0.5 - 4.0	5:45	566 - 593	581 - 611	
Ø9	1256	4.5	38° 35.841	76° 06.957	O	0.5 - 3.5	5:43	603 - 629	616 - 647	
10	1324	12.4	38° 35.956	76° 05.083	B	6.0 - 10.0	5:24	637 - 663	653 - 683	
10	"	"	"	"	P	3.0 - 5.5	5:40	665 - 691	685 - 716	
10	"	"	"	"	S	0.5 - 2.5	5:52	693 - 720	717 - 749	

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

TRANSPORT Consecutive Station Log: BT11-15 31-Aug 2011, RV Terrapin

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
11	1352	8.0	38°34.824	76°03.494	BP	3.5-7.0	5;48	728-755	752-783	
11	"				S	0.5-3.0	5:40	756-782	785-815	
13	1417	7.6	38°35.330	76°00.616	B	3.5-6.5	5:40	792-818	818-849	
13	"	"	"	"	S	0.5-3.0	5;32	820-845	852-881	
14	1441	10.5	38°36.358	75°58.976	BP	5.5-10.0	5:32	853-879	885-915	
14	"	"	"	"	S	0.5-5.0	5;22	880-906	917-947	
15	1503	3.8	38°38.095	75°58.984	O	0.5-3.0	5:57	919-946	954-986	

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

BT11-~~0~~ 15 Water Sample Log

8/~~24~~ 31/2011

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
S ~~#~~	Ø1	0.6	0.11	1.16	20	13:38	1.2	tons of ctenophores
S	Ø2	0.5	0.13	2.18	20	14:11	1.4	couple of jellies
	Ø3						1.4	- some jellies
B	H1	3.6	0.93	1.05	20	14:43	1.0	-
	H2						0.8	-
	Ø4						1.8	- jellies here
B	Ø6	9.0	0.34	0.35	20	16:00	1.2	
	Ø7						0.9	- some jellies
S	Ø8	0.6	0.25	1.80	20	17:04	0.8	- very fresh on surface
	Ø9						0.7	↳ no wildlife
B	10	10.0	0.27	0.40	20	17:43	0.7	
S	11	0.5	0.41	0.16	20	18:22	0.6	
	13						0.4	
B	14	10.0	0.81	0.62	20	19:00	0.3	
							0.2	

TRANSPORT Consecutive Station Log: BT11-16 8-Sep 2011

Station	Time (LMT)	Depth (m)	Latitude	Longitude	Interval	Interval Range (m)	Pump Duration	Vol. Filtered Pump (1)	Vol. Filtered Pump (2)	BT02 CTD
Φ1	0748	10.0	38°38.097	76°19.749	BP	5.5-9.0	5:32	19-46	25-53	
Φ1	"	"	"	"	S	0.5-4.5	5:41	48-75	55-84	
Φ2	0825	8.5	38°39.021	76°16.548	B	4.0-7.5	5:16	81-107	86-113	
Φ2	"	"	"	"	S	0.5-3.5	5:40	102-136	114-142	
Φ3	0851	5.6	38°41.236	76°16.983	O	0.5-4.5	5:25	147-173	148-175	
H1	0911	4.7	38°42.972	76°18.766	O	0.5-4.0	5:21	181-207	179-206	
H2	0926	8.8	38°44.021	76°18.206	B	4.5-8.0	5:25	220-242	211-239	
H2	"	"	"	"	S	0.5-4.0	5:35	248-275	240-268	
Φ4	0958	6.3	38°42.890	76°15.623	B	3.5-5.5	5:22	283-310	271-298	
Φ4	"	"	"	"	S	0.5-3.0	5:39	312-340	301-329	
Φ5	1032	10.4	38°38.427	76°11.229	B	5.0-9.5	5:33	349-376	333-361	
Φ6	"	"	"	"	S	0.5-4.5	5:34	378-405	363-391	
Φ7	1054	5.6	38°39.972	76°10.881	B	3.0-5.0	5:29	412-439	394-421	
Φ7	"	"	"	"	S	0.5-2.5	5:30	441-468	424-451	
Φ8	1119	11.0	38°37.761	76°07.988	B	5.5-10.0	5:25	475-502	454-481	
Φ8	"	"	"	"	S	0.5-5.0	5:26	504-531	484-511	
Φ9	1142	5.3	38°35.840	76°06.962	O	0.5-4.5				

Interval O=Oblique, S = Surface, B = Bottom, P = Pycnocline

BTI1-16 Water Sample Log

8

9/3/2011

Sample Type	Station Number	Sample Depth (m)	OBS Voltage 2	Fluorometer Voltage 4	Volume filtered (ml)	Time (GMT)	Secchi Depth	Station Notes
	Ø1						1.3	
S	Ø2	0.6	0.16	0.67	20	12:55	1.6	-ctenophores
	Ø3						1.2	-jellies here
B	H2	4.0	0.41	0.39	20	13:29	0.8	
	H2						0.7	
S	Ø4	0.6	0.19	2.11	20	14:29	1.1	-jellies here
	Ø6						1.2	
B	Ø7	5.0	0.28	0.40	20	15:11	1.3	
	Ø8						1.1	
S	Ø9						1.0	