

CONSOLIDATED WATER QUALITY SURVEY  
OF THE  
POTOMAC ESTUARY

1970

DATA REPORT

Number 25

Annapolis Field Office  
Region III  
Environmental Protection Agency

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POTOMAC ESTUARY

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## TABLE OF CONTENTS

	Page
I   INTRODUCTION.....	1
II   STATION LOCATIONS.....	8
III   SURVEY RESULTS.....	10
IV   MAP.....	appendix   i

## I INTRODUCTION

### A. Purpose and Scope

In the latter part of March, 1970, the Annapolis Field Office, Region III, Environmental Protection Agency initiated the Potomac Estuary Consolidated program to replace the Potomac Estuary Transport Survey (1969-1970, Data Report 20) and the Potomac Estuary DO Budget Surveys (1970, Data Report 26). The purpose of this monthly sampling was to continue monitoring water quality trends in the Potomac River basin.

### B. General Remarks

Most stations included in this report were sampled nine times during the year (March through December), starting from Key Bridge and terminating at Point Lookout. All surface and bottom samples were taken at mid-channel.

### C. Sampling Procedures

Samples were obtained using a small submersible pump attached to a wire cable calibrated in feet. The pump was lowered to the desired depth and allowed to run for two minutes before receiving in plastic containers (surface samples were taken one foot from surface, depth samples five feet off bottom). Analyses for nutrients, carbon and chlorophyll a were made from these containers. Dissolved oxygen (DO) samples were obtained directly from the pump outlet extending to the bottom of a conventional 300 ml DO bottle. The sample was

allowed to overflow the bottle several times and fixed immediately.

A sterile 160 ml prescription bottle was filled for bacteriological analyses.

All samples were immediately stored on ice and analyses started upon return to the laboratory, generally within two hours of sampling.

D. Measured Parameters and Analytical Methods

1. Water temperature was read from a Beckman Salinometer.
2. Conductivity was read from a calibrated Beckman Salinometer.
3. Salinity was determined with a calibrated Beckman Salinometer.
4. Light extinction, in inches, was read with a 12" (30 cm) white secchi disk.
5. Total Phosphorus

Reference: Menzel, D.W. and Corwin, N., 1965. The Measurement of Total Phosphorus in Seawater Based on the Liberation of Organically Bound Fractions by Persulfate Oxidation. Limnology and Oceanography, 10: 280-282.

Murphy, J. and Riley, J.P., 1962. A Modified Single Solution Method for the Determination of Phosphate in Natural Waters. Analytica Chimica Acta, 27: 31-36.

Total Phosphorus was determined after persulfate

oxidation of the sample in an autoclave at 15 psi for 30 minutes. The resultant ortho-phosphate was then determined colorimetrically as the molybdenum-blue complex with the optical density measured at 882 m $\mu$ .

#### 6. Inorganic Phosphorus

Reference: Murphy, J. and Riley, J.P., 1962. A Modified Single Solution Method for the Determination of Phosphate in Natural Waters. *Analytica Chimica Acta*, 27: 31-36.

Inorganic Phosphorus was determined by automation of the above procedure using the Technicon "Auto Analyzer." The molybdenum-blue complex formed was determined colorimetrically with the optical density measured at 885 m $\mu$ .

#### 7. Total Kjeldahl Nitrogen

Reference: Standard Methods for the Examination of Water and Wastewater, 12 ed., 1965.

Total Kjeldahl Nitrogen includes ammonia and organic nitrogen and was determined by the standard micro-kjeldahl procedure. The sample was digested in the presence of strong acid to convert the organic nitrogen to ammonia. The ammonia was then distilled, collected in boric acid solution, nesslerized and determined colorimetrically.

#### 8. Nitrate + Nitrite

Reference: A Practical Handbook of Sea Water Analysis, J.D.H. Strickland and T.R. Parsons, Bulletin 167, Fisheries

Research Board of Canada, Ottawa, Canada, 1968.

Nitrate plus nitrite nitrogen was determined by automation of the above procedure using the Technicon "Auto Analyzer." This procedure utilizes cadmium reduction of nitrate to nitrite and subsequent diazotization with sulfanilamide and N-(l-naphthyl)-ethylenediamine dihydrochloride with the optical density measured at 540 m $\mu$ . The results were reported as nitrogen.

#### 9. Ammonia

Reference: Southeast Water Laboratory, FWQA, Methodology for the colorimetric determination of ammonia by the phenol-hypochlorite reaction.

FWPCA Methods for Chemical Analysis of Water and Wastes, November 1969.

Ammonia nitrogen was determined by automation of the phenol-hypochlorite procedure as described in the Southeast Water Laboratory Methodology and later adopted as the official FWPCA procedure. The intensity of the indophenol blue color, formed by the reaction of ammonia with alkaline phenol-hypochlorite, was increased using sodium nitroprusside as an intensifying agent. The optical density was measured at 630 m $\mu$  and calculated as NH<sub>3</sub>-N.

#### 10. Dissolved Oxygen

Reference: FWPCA Methods for Chemical Analysis of

Water and Wastes, November 1969.

Dissolved Oxygen was determined by the azide modification of the basic Winkler method with the titration done potentiometrically with a Fisher automatic "titralyzer."

11. Biochemical Oxygen Demand

Reference: Standard Methods for the Examination of Water and Wastewater, 12 ed., 1965.

The Biochemical Oxygen Demand was determined by the azide modification of the basic Winkler method with the titration done potentiometrically with a Fisher automatic "titralyzer." The samples as received were diluted if necessary and transferred to standard 300 ml BOD bottles in triplicate. One initial DO and two final DO determinations were used throughout. Incubation was started immediately at 20°C and continued for five days after which they were titrated.

12. Total Organic Carbon

Reference: FWPCA Methods for Chemical Analysis of Water and Wastes, November 1969.

Total Organic Carbon was determined with a Dow-Beckman Carbonaceous Analyser after the sample had been purged with nitrogen gas for five minutes.

13. Total Carbon

Reference: Beckman Instruments, Bulletin 4059.

Total Carbon was determined with a Dow-Beckman Carbon-

aceous Analyser using the sample as received.

14. Chlorophyll a

Reference: A Practical Handbook of Sea Water Analysis, J.D.H. Strickland and T.R. Parsons, Bulletin 167, Fisheries Research Board of Canada, Ottawa, Canada. 1968.

Chlorophyll a was determined by extraction of millipore filtered samples in 90% acetone and read spectrophotometrically.

15. Coliform

Reference: Standard Methods for the Examination of Water and Wastewater, 12 ed., 1965.

Coliform population was determined using the 5 tube- $\beta$  dilution Multiple-Tube Fermentation Technique. Lauryl sulfate tryptose broth was used for the presumptive test with incubation at  $35^{\circ}\pm0.5^{\circ}\text{C}$ . Brilliant green lactose bile broth was used for the confirmatory test with incubation at  $35^{\circ}\pm0.5^{\circ}\text{C}$ . The results were reported as the Most Probable Number (MPN).

16. Fecal Coliform

Reference: Standard Methods for the Examination of Water and Wastewater, 12 ed., 1965.

Water Pollution Control Research Series, WP-20-3.

Fecal Coliform population was determined using the 5 tube- $\beta$  dilution Multiple-Tube Fermentation Technique. Lauryl sulfate tryptose broth was used for the presumptive test with

incubation at  $35^{\circ}\pm0.5^{\circ}\text{C}$ . EC medium was used for the confirmatory test with air incubation at  $45.5^{\circ}\pm0.5^{\circ}\text{C}$ . The results were reported as the Most Probable Number (MPN).



## II STATION LOCATIONS

<u>Station</u>	<u>Location</u>
1	Key Bridge
1A	One-half mile above Three Sisters Island
2	14th Street Bridge
3	Haines Point, Buoy 2
3B	North Bollingfield, Can 9 Main Channel
4	Bellevue, Nun 8
4B	Blue Plains Effluent
5	Woodrow Wilson Bridge
5A	Rosier Bluff
6	Broad Creek, Nun 86
7	Piscataway Creek, Buoy 77
8	Dogue Creek, Fl 67
9	Hallowing Point, Can 61
10	Indian Head, Nun 54
11	Possum Point, Nun 44
12	Sandy Point, Nun 40
13	Smith Point, Nun 32
14	Maryland Point, Can 19
15	Nanjemoy Creek, Fl 13
15A	Mathias Point, Fl 5
16	Route 301 Bridge, Buoy CN

Station	Location
17	Upper Machodoc, Fl 30 or off Piccowaven Ck.
18	Kettle Bottom Shoals, Fl 25 or M
18A	Cobb Island, Can 15 or RB N
19-3	Wicomico Creek, Nun 2W
19-2	Wicomico Creek, Can 7W
19-1	Wicomico Creek, Beacon 16W
20	Kingcopisco, BWN 52B
21	Ragged Point, BWN 51B
22	Piney Point, BWN 50B
23	Point Lookout, Fl 4 Bell

III SURVEY RESULTS  
 1970  
 POTOMAC ESTUARY CONSOLIDATED  
 ANNAPOLIS FIELD OFFICE

Sample Number	Date Taken	Time Sample Taken	Sample Depth Feet	Secchi Disk Inches	Salinometer Units	Cond. Salinity ‰	Temp °C	Total P mg/l	Inorganic P mg/l	TKN mg/l	NO <sub>2</sub> +NO <sub>3</sub> mg/l	DO mg/l	BOD mg/l	TOC mg/l	Chlorophyll a µg/l	Coliform MPN 100 ml	Fecal Coliform MPN 100 ml
<u>Station 1 - Key Bridge</u>																	
70040701	04-07	1230	Surface	6	7.50	.518	.142	.979	.070	.114	11.99					6.7	
02			10		8.00	.628	.152	.553	1.120	.114	12.18						
050401	05-04	1115	Surface	26	19.00	.244	.070	.500	1.030	.038	8.47						
02			15		19.00	.312	.109	.589	1.050	.031	8.34						
1318	05-13	1110	Surface	36	23.00	.202	.080	.792	.465	.023	8.06					92.3	
2025	05-20	1120	Surface	36	21.00	.199	.077	.494	.974	.015	7.94					13.5	
26			15		22.50	.199	.075	.442	.970	.015	7.84						
060107	06-01	1110	Surface	18	24.00	.435	.123	1.401	.358	.020	9.96					82.5	
08			15		25.00	.300	.083	1.122	.429	.038	7.25						
1523	06-15	1115	Surface	15	25.00	.327	.090	.734	.432	.001	7.17					81.0	
24			15		24.50	.335	.092	.656	.435	.001	7.45						
071001	07-10	1105	Surface	10	25.00	.343	.043	.688	.343	.071	7.27						
081801	08-18	1100	Surface	25	26.00												
093008	09-30	1105	Surface	22	23.00											29.3	
09			10		22.50												
101901	10-19	1100	Surface	28	16.50	.273	.050	.777	.557	.050	7.27					45.0	
02			15		16.00	.218	.038	.853	.551	.055	8.36						
111601	11-16	1135	Surface	4	12.00	.710	.259	1.238	.847	.076	11.12					21.0	
02			15		11.00	.546	.265	.719	.833	.076	11.08						
120803	12-08	1150	Surface	30	2.50	.283	.283	.067	1.350	.044	13.89					6.8	
04			15		3.50	.273	.297	.236	1.350	.052	13.86						
<u>Station 1A - One-half Mile above Three Sisters Island</u>																	
70120801	12-08	1130	Surface	20	2.00	.280	.259	.091	1.300	.042	13.72						
			2.50		2.50	.326	.274	.418	1.350	.046	13.68						
			<u>Station 2 - 14th Street Bridge</u>														
70040703	04-07	1245	Surface	10	8.00	.611	.191	1.150	1.120	.200	12.02					15.0	
04			10		8.00	.644	.247	2.600	1.140	.200	11.43						
050403	05-04	1130	Surface	27	19.50	.260	.116	.400	1.030	.045	8.53						
04			10		19.00	.297	.120	.875	1.080	.031	8.41						
1319	05-13	1140	Surface	36	23.00	.217	.070	.673	.520	.023	8.19					54.8	
2027	05-20	1140	Surface	30	21.00	.187	.077	.494	.989	.019	8.63					15.8	
28			10		22.00	.206	.077	.453	.981	.011	8.55						
060109	06-01	1130	Surface	22	24.00	.433	.104	1.221	.392	.029	10.03						
10			10		24.00	.265	.075	1.035	.392	.018	8.24						

Sample Number	Date Sample Taken	Time Sample Taken	Sample Depth Feet	Secchi Disk Inches	Salinometer Conductivity µmhos/0.60	Total P mg/l	Inorganic P PO <sub>4</sub> <sup>3-</sup> mg/l	NO <sub>2</sub> +NO <sub>3</sub> mg/l N				DO mg/l	BOD mg/l	TOC mg/l	TC mg/l	Chlorophyll a µg/l	Coliform MPN 100 ml	Fecal Coliform MPN 100 ml
								NO <sub>2</sub> -N mg/l	NO <sub>3</sub> -N mg/l	NH <sub>3</sub> N mg/l	N mg/l							
<u>Station 2 - 14th Street Bridge - Continued</u>																		
70061525	06-15	1150	Surface	13	25.00	.431	.112	1.111	.444	.001	8.31	6.19	6.30	4.06	90.0			
26		10	Surface	10	25.00	.420	.127	.667	.080	7.65								
3010	06-29	1043	Surface	11	25.00	.449	.217	.792	1.105	.029	9.43	5.21	3.35	2.81	80.3			
11		12			25.00	.478	.223	.131	1.154	.028	7.60							
071003	07-10	1135	Surface	5	24.50	.480	.480	1.986	.386	.140	6.52							
1313	07-13	0923	Surface	4	23.00	.366	.513	.784	.824	.101	8.62	2.96	7.28					
14		10			23.00	.555	.559	.921	.828	.109	8.60	4.26	10.00					
081802	08-18	1120	Surface	15	26.50	.227	.227	.118	.450	3.82								
092101	09-21	0920	Surface	14	25.00	.468	.250	1.082	.464	4.05								
02		10			24.50	.465												
3010	09-30	1353	Surface	18	23.00													
11		10			22.50													
101903	10-19	1120	Surface	22	17.00	.314	.091	.304	.197									
04		10			17.00	.369	.116	1.210	.293	.217								
111603	11-16	1150	Surface	4	11.50	.754	.288	.756	.207	.091	11.08	6.89	9.74	20.3				
04		12			12.00	.721	.293	1.144	.920	.121	10.87	9.63						
120805	12-08	1205	Surface	36	2.00	.272	.279	.170	1.350	.052	13.18	2.83						
06		15			4.00	.282	.295	.085	1.320	.052	12.92	4.76						
<u>Station 3 - Haines Point, Buoy 2</u>																		
70040705	04-07	1255	Surface	12	7.50	.362	.179	.990	1.120	.129	12.02						12.5	
06		10			7.50	.391	.165	1.240	1.120	.129	12.14							
050405	05-04	1150	Surface	22	19.00	.190	.130	.476	1.080	.061	8.25							
06		10			19.00	.199	.137	.512	1.050	.074	7.82							
1320	05-13	1200	Surface	26	23.00	.317	.090	.274	.509	.021	7.46							
2029	05-20	1200	Surface	18	21.50	.204	.072	.372	.954	.011	8.46							
30		10			22.00	.228	.086	.477	.935	.037	6.09							
060311	06-01	1145	Surface	16	24.00	.500	.086	1.076	.388	.027	9.66							
12		15			24.50	.330	.093	1.134	.498	.025	9.02							
1527	06-15	1210	Surface	14	26.00	.404	.154	.818	.461	.090	6.89							
28		10			25.00	.431	.173	.807	.461	.110	6.73							
3012	06-29	1054	Surface	10	25.00	.472	.205	.488	.921	.026	8.31							
13		10			24.50	.540	.222	.750	.909	.029	7.76							
1315	07-13	0933	Surface	4	24.00	.649	.471	2.000	.358	.112	5.76							
16		10			23.00	.532	.499	1.273	.794	.112	8.42							
081803	08-18	1135	Surface	15	23.00	.588	.513	.943	.794	.126	8.00	4.46	10.52					
092103	09-21	0938	Surface	20	25.00	.991	.880	1.773	.501	1.270	4.06	8.30	22.43	16.5				
04		10			24.00	.881	.691	1.654	.283	1.160	4.11	8.41	20.64	36.6				
3012	09-30	1340	Surface	16	22.50													
13		10			22.50													
101905	10-19	1133	Surface	21	17.50	1.924	1.250	2.255	1.860	1.650	4.29							
																	30.0	



Sample Number	Date Taken	Time	Sample Taken	Sample Depth Feet	Secchi Disk Inches	Salinometer Cond. 0/oo	Salinity Parts per 1,000	Temp °C	Total P mg/l	Inorganic P mg/l	TKN mg/l	NO <sub>2</sub> +NO <sub>3</sub> mg/l	NH <sub>3</sub> mg/l	DO mg/l	BOD mg/l	TOC mg/l	TC mg/l	Chloro- phyll a µg/l	Coliform MPN 100 ml	Coliform MPN 100 ml
<u>Station 5 - Woodrow Wilson Bridge</u>																				
70040709	04-07	1345	Surface	12	8.00	.415	.202	.195	1.140	.148	11.91								6.7	
10	05-04	1310	Surface	25	8.00	.284	.216	.163	1.120	.152	11.73									
050409	05-04		Surface	18	19.00	.272	.150	.292	1.050	.113	7.71									
10				25	19.00	.227	.163	.821												
1324	05-13	1305	Surface	20	23.50	2.043	.970	.983	.573	.760	7.38								39.8	
2033	05-20	1236	Surface	18	22.50	.972	.597	.942	.830	.491	7.21								12.0	
34				25	22.50	.919	.598	1.012	.816	.543	6.72								2.77	
060115	06-01	1230	Surface	14	24.00	.458	.136	.151	.613	.056	6.42								29.3	
16				25	24.00	1.765	1.035	2.250	.770	.536	5.85								6.88	
1531	06-15	1250	Surface	18	25.00	.797	.538	1.568	.671	.520	5.83								58.5	
32				25	25.00	1.244	.955	2.401	.654	.805	4.67								7.63	
3016	06-29	1110	Surface	11	25.00	.844	.607	.958	.826	.228	6.44								48.8	
17				20	25.50	1.333	.661	.699	.784	.228	5.42								4.52	
071006	07-10	1223	15		25.50	1.789	.465	.665	.531	.408	4.63									
1319	07-13	1015	Surface	5	24.00	.699	.579	1.375	.797	.159	5.44								45.0	
20				25	24.00	.699	.568	1.188	.794	.143	7.80								24.00	
081805	08-18	1158	30		27.00															
090924	09-09	1215	Surface	22	24.10															
2107	09-21	1018	Surface	22	25.50	2.972	2.860	3.182	.950	2.460	2.04									
08				25	24.50	3.443	2.970	2.494	1.240	2.180	2.26								78.0	
3016	09-30	1233	Surface	22	23.00														61.5	
17				20	22.00														2.79	
101909	10-19	1230	Surface	20	17.20	2.752	2.900	2.599	4.030	1.930	2.12								76.5	
10				25	17.00	2.970	2.970	2.923	4.200	1.77	2.87								8.98	
111609	11-16	1225	Surface	6	12.00	6.645	.345	.856	.980	.191	10.29								11.85	
10				20	12.00	.842	.347	.631	.953	.176	10.10								6.50	
120811	12-08	1305	Surface	18	5.50	2.101	1.244	1.303	1.250	1.630	10.48								5.85	
12				25	6.00	2.360	1.249	1.206	1.250	1.600	10.38								5.72	
26																			4.81	
<u>Station 5A - Rosier Bluff</u>																				
70082025	08-20	1430	Surface	20																
70040711	04-07	1405	Surface	6	8.00	.325	.193	1.160	1.110	.148	11.73								7.5	
12	050411	05-04	Surface	25	8.00	1.448	.255	.253	1.110	.219	11.50									
12				19	19.50	.914	.415	1.230	1.030	.598	7.05									
1325	05-13	1323	Surface	22	19.00	1.426	.451	.451	1.050	.671	6.69									
2035	05-20	1312	Surface	15	22.50	1.613	.845	1.616	.636	.833	6.01								27.0	
36				25	22.50	1.410	.850	1.808	.628	1.030	4.59								31.5	
060117	06-01	1250	Surface	14	24.00	1.819	1.050	2.267	.765	.521	3.76								2.74	
18				25	24.50	2.307	1.395	2.704	.765	.707	2.67								13.48	
26																			10.61	
																			17.21	
																			7.22	
																			8.65	
																			8.43	



Sample Number	Date Taken	Time Sample Taken	Sample Depth Feet	Secchi Disk Inches	Salinometer Cond 0/oo	Temp °C	Inorganic Nitrogen mg/1	TKN mg/1	NH <sub>3</sub> mg/1 N	DO mg/1	BOD mg/1	TOC mg/1	TC mg/1	Chlorophyll a µg/l	Fecal Coliform MPN 100 ml			
															NO <sub>2</sub> +NO <sub>3</sub>	NO <sub>3</sub> -N	MPN 100 ml	
<u>Station 7 - Piscataway Creek, Buoy 77 -Continued</u>																		
70071008	07-10	1255	27	4			26.00	1.384	.915	1.040	.752	1.527			5.54	7.80		
1323	07-13	1040	40	Surface			24.00	1.031	.710	1.727	.791	.462	6.06					48.8
24							24.00	1.142	.670	1.773	.797	.474	6.35					
081807	08-18	1245	35				26.50	1.321	1.115	1.868	1.600	.146	3.69					
092111	09-21	1044	40	Surface	20		24.50	1.541	1.055	.774	1.570	.142	3.14					
12							23.00						3.26					
3020	09-30	1155	40	Surface			22.00						2.47					
21																		
101913	10-19	1310	25	Surface			18.00	2.642	1.695	2.102	1.140	.112	5.46					
14							17.00	2.697	1.685	.191	4.230	.085	4.15					
111613	11-16	1254	40	Surface	4		12.00	.896	.568	1.313	1.010	.600	9.53					
14							12.50	.907	.568	1.244	1.020	.652	9.08					
120815	12-08	1335	40	Surface	20		5.50	2.303	1.147	1.751	1.230	1.920	10.38					
16							6.00	2.472	1.145	1.715	1.230	1.900	10.09					
70040801	04-07	1040	10	Surface			8.50	.753	.300	.973	1.030	.617	11.40					
02							9.00	.952	.346	.622	1.120	.270	11.08					
1702	04-15	1125	25	Surface			0.00	10.78										
050103		1433	18	Surface			<.10	16.50										
04							<.10	16.10										
0115	05-04	1410	21	Surface			19.00	.610										
16							18.50	.698										
1327	05-13	1415	20	Surface	27		23.00	.809										
1414	05-13	1300	30	Surface			0.00	22.30										
15							0.00	0.00										
2039	05-20	1351	20	Surface			22.50	1.043	.946	.755	1.651	.508	1.060					
40							22.50	1.043	.770	1.790	.507	1.050						
2803	05-27	1158	25	Surface	30		24.30											
01																		
060121	06-01	1330	15	Surface	20		24.00	1.170	1.005	2.744	.631	.725	3.27					
22							24.50	1.105	1.010	2.773	.631	.791	3.13					
1031	06-10	1110	25	Surface			27.60											
32							27.20											
1537	06-15	1350	20	Surface			25.50	.016	.760	1.588	.812	1.015						
38							25.00	.098	.745	2.526	.827	1.000						
3022	06-29	1145	25	Surface	18		25.50	1.389	1.040	2.250	.732	1.506						
23							25.00	1.333	1.010	2.089	.548	1.443						
071335	07-13	1052	20	Surface	5		25.00	.943	.651	1.665	.857	.441	7.30					
26							24.50	.976	.660	1.466	.855	.478	6.03					
081901	08-19	1020	15	Surface	11		27.50	1.211	.715	1.321	.935	.130	5.56					
092113	09-21	1055	25	Surface	14		25.50	1.927	.745	1.384	.981	.144	5.08					
14																		





Sample Number	Date Taken	Time	Sample Depth Feet	Secchi Disk Inches	Salinometer Conductivity	Total Salinity mg/1	Inorganic P mg/1	NO <sub>2</sub> +NO <sub>3</sub> mg/1 N	DO mg/1 N	BOD mg/1	TOC mg/1	Chlorophyll a µg/1	Coliform MPN 10 <sup>-3</sup>	TOC - ppm
Station 11 - Possum Point, Nun 44 -Continued														
70041705	04-15	1000	1315	Surface	.08	10.10								
050109			32	<.10	17.50									
10			25	<.10	16.00									
0603	05-05	1200	Sur <sup>face</sup>	.15	.20	.591	.333	.818	.675	.5.65				5.3
04			25	.20	.10	.980	.379	1.190	.818	.776				
1420	05-13	1125	Sur <sup>face</sup>	.40	.22	22.80								
21			35	.40	.22	20.70								
1503	05-14	1145	Sur <sup>face</sup>	22	22.50	.454	.295							
2230	05-21	1201	Sur <sup>face</sup>	16	.52	0.00	.405	.936	.832	.311				
31			25	.44	0.00	22.02	.413	.924	.813	.387				
2807	05-27	1040	Sur <sup>face</sup>		.44	23.60								
08			35			23.60								
061037	06-10	1000	Sur <sup>face</sup>	.30	.27	22.70								
38			20	.00	.00	25.30	.303							
1637	06-16	1815	Sur <sup>face</sup>	24	0.00	0.00	.605	.484	.710	.887				
38			20	0.00	0.00	25.00	.650	.561	.947	<.100				
3028	06-29	1257	Sur <sup>face</sup>	18	25.82	.467	.561	.768	.701	.023	5.72			
29			20			25.20	.656	.481	1.143	.972	.023	3.59		
071331	07-13	1147	Sur <sup>face</sup>	13	27.66	1.135	.511	1.239	1.191	.071	8.81			
32			25			26.22	.891	.574	1.386	1.309	.137	9.86		
081904	08-19	1130	Sur <sup>face</sup>	20	1.00	25.00	.623	.994	.710	.887				
091003	09-10	1120	Sur <sup>face</sup>	16	1.84	1.081	.655	.903	.768	.701	.023	4.29		
04			20	2.42	1.34	25.30	1.286	.655	1.143	1.191	.071	4.05		
2119	09-21	1145	Sur <sup>face</sup>	24	2.88	1.60	25.70	1.024	.665	.972				
20			25	2.97	1.70	25.30	1.211	.672	1.094	.194	.137	6.76		
3028	09-30	1045	Sur <sup>face</sup>			22.00								
29			20			21.50								
102005	10-20	1155	Sur <sup>face</sup>	25	2.78	1.81	17.28	.644	.463	.510	.417	.083		
06			25	3.67	2.40	16.94	.823	.505	.911	.362	.087			
111707	11-17	1120	Sur <sup>face</sup>	18		12.00	.593	.485	.613	1.520	.645	.879		
08			25			11.50	.665	.516	.831	1.720	.687	.8.12		
120907	12-09	1230	Sur <sup>face</sup>	11		.5.00	.811	.582	.576	.983	.595	11.06		
08			25			6.00	.856	.599	.697	.983	.603	11.34		
Station 12 - Sandy Point, Nun 40														
70040809	04-08	1250	Sur <sup>face</sup>	3	.02	.8.50	.711	.429	1.000	.962	.470	9.95		
10			25			8.14	.950	.474	1.440	.943	.535	9.76		
1706	04-15	0935	Sur <sup>face</sup>			9.42						11.33		
050111			1253			<.10	16.70					6.18		
12			31									6.35		
0605	05-05	1223	Sur <sup>face</sup>	13	.27	.12	17.83	.615	.386	.922	.812	7.32		
06			25	.31	.14	17.38	1.466	.470	1.430	.807	.748	6.16		
Station 12 - Sandy Point, Nun 40														
70040809	04-08	1250	Sur <sup>face</sup>											
10														
1706	04-15	0935	Sur <sup>face</sup>											
050111			1253											
12														
0605	05-05	1223	Sur <sup>face</sup>											
06														

Sample Number	Date Taken	Time	Sample Sample Taken	Secchi Depth	Salinometer Disk	Total Cond Temp	Inorganic P	$\text{NO}_2 + \text{NO}_3$	DO	BOD	TOC	Chlorophyll a	Fecal Coliform
				Feet	Inches	°/oo	P mg/L	P mg/L	N mg/L	mg/L	mg/L	µg/L	MPN 100 ml
Station 12 - Sandy Point, Nun 40 -Continued													
70051422	05-13	1100	Surface	.30	.24	22.60							
23		20	.30	.20	.20	20.40							
2232	05-21	1226	Surface	.25	.44	22.58	1.165	.420	.860	.290	.689	6.51	
33		.38	.22	.22	.22	22.14	.593	.474	1.076	.886	.343	6.95	
2809	05-27	1012	Surface	.20		23.40						5.93	
10			Surface			23.20						5.50	
061039	06-10	0935	Surface	.25		27.20						7.28	
40			Surface			26.90						6.87	
1639	06-16	1740	Surface	.32	0.00	26.80	.561	.505	.639	.813	<100	9.16	
40		20		0.00	0.00	25.10	.516	.466	.503	.765	<100	6.59	
3030	06-29	1330	Surface	.20		25.67	.517	.518	1.012	.504	.023	9.70	
31		20				25.25	.772	.578	.845	.482	.023	8.66	
071333	07-13	1202	Surface	.16		26.98	.796	.438	2.762	.798	.053	6.51	
34		20				26.34	.883	.388	1.466	.863	.057	9.14	
081905	08-19	1200	Surface	.15		27.50						5.72	
091005	09-10	1137	Surface	.21	3.52	2.00	25.74	1.135	.657	.964	.097	7.04	
06		20		3.88	2.19	25.31	1.135	.660	.957	.076	.136	6.18	
2121	09-21	1200	Surface	.22	4.40	2.53	25.33	1.016	.663	1.057	.144	.054	
22		25		5.00	2.88	25.20	1.156	.682	.931	.168	.164	6.81	
3030	09-30	1022	Surface	.23		22.00						7.17	
31		20				21.00						6.69	
102007	10-20	1207	Surface	.26	4.88	3.26	16.87	.612	.534	.796	.339	.051	
08		25		5.65	3.85	16.97	.762	.579	.546	.363	.363	8.09	
111709	11-17	1145	Surface	.20	.09	11.29	.689	.546	.638	2.110	.871	7.94	
10		25		.20	.13	11.05	.696	.628	.875	2.880	.658	7.49	
120909	12-09	1340	Surface	.18	1.00	5.42	.695	.534	.588	.923	.487	11.34	
10		25		1.13	1.00	5.32	.833	.559	1.679	.933	.454	10.67	
Station 13 - Smith Point, Nun 32													
70040811	04-08	1325	Surface	4									
12		20											
1707	04-15	0912	Surface		.15	9.50							
050113		1227	Surface		<.10	16.20							
14					<.10	15.80							
0607	05-05	1250	Surface	14	.27	.11	18.30	.615	.431	.970	.859	.876	
08		20		.29	.16	17.40	1.485	.446	1.470	.851	.872	6.33	
1424	05-13	1015	Surface	.30	.18	29.00						6.38	
25		15		.35	.20	20.30						6.75	
2234	05-21	1250	Surface	12	.88	.52	22.46	1.190	.447	.866	.399	7.45	
35		20		1.62	1.04	21.54	.669	.476	.817	.509	6.17		
2811	05-27	0947	Surface	15		23.00						5.44	
12												5.72	



Sample Number	Date Taken	Time Sample Taken	Sample Depth Feet	Secchi Disk Inches	Salinometer Cond. 0/60	Salinity ‰	Total P mg/l	Inorganic P mg/l	TKN mg/l	NO <sub>2</sub> +NO <sub>3</sub> mg/l	NH <sub>3</sub> mg/l	DO mg/l	BOD mg/l	TOC mg/l	TC mg/l	Chlorophyll a µg/l	Coliform MPN 100 ml	Fecal Coliform MPN 100 ml
Station 14 - Maryland Point, Can 19 -Continued																		
70071337	07-13	1238	Surface 20	15	1.52	.82	26.98	1.04	.570	2.284	.185	.054	9.24	9.55	17.76	266.3	20	
08190738	08-19	1240	Surface 20	9.68	5.73	26.50	26.26	1.029	.569	1.118	.332	.086	8.52	4.60	4.54			
09100910	09-10	1210	Surface 25	10.67	6.17	25.73	1.114	1.070	.685	.570	.266	.061	5.77	6.86	6.55	29.3		
212509-21	09-21	1233	Surface 25	10.80	6.34	25.46	1.080	1.058	.683	.339	.317	.095	4.70	7.12	13.71	26.3		
303409-30	09-30	0945	Surface 25	12.03	7.14	25.40	1.211	1.211	.692	.780	.240	.166	6.14	7.85	13.28			
35102011	10-20	1240	Surface 25	9.45	6.46	22.00	12.02	8.20	17.90	.644	.588	.484	.285	.089	7.18	8.08	48.8	
12111713	11-17	1220	Surface 25	1.42	1.01	11.49	1.42	1.01	.806	.700	.700	.2310	.047	7.93	6.79	5.63	26.3	
14120913	12-09	1430	Surface 25	4.92	3.69	12.10	1.033	1.033	.686	.825	.2160	.047	7.80	7.11	6.69			
14120914	12-09	1430	Surface 25	8.80	6.80	6.58	8.27	7.20	.500	.450	.206	.679	.225	10.37	10.26			
14120914	12-09	1430	Surface 25	8.80	6.80	6.58	8.27	7.20	.667	.435	.485	.671	.240					
Station 15 - Nanjemoy Creek, Fl. 13																		
70040815	04-08	1410	Surface 15	10	9.80	1.220	9.50	1.282	.480	1.160	1.030	.300	.300		10.38			
16170904-15	04-15	0815	Surface 15	24	9.00	9.00	10	16.60	.471	1.150	1.030	.329	.329		9.95			
050117		1120	Surface 30	.32	.20	18.88	.30	17.75	1.081	.495	1.050	.925	.882		10.33			
18061105-05	05-05	1335	Surface 20	.50	.30	17.75	1.081	.546	1.290	.546	1.290	.925	.899		6.60			
12142805-13	05-13	0900	Surface 30	10.20	2.10	19.40	10.20	7.30	15.10	.402	.382	.738	.675		5.39			
29223805-21	05-21	1344	Surface 15	6.16	4.02	20.14	5.08	19.24	.481	.348	.762	.635	.449		6.45			
39281505-27	05-27	0835	Surface 20	7.56	5.08	22.20							.386		5.84			
1606104506-10	06-10	0808	Surface 27	26.20	25.80										5.12			
16164506-16	06-16	1520	Surface 22	6.10	3.45	25.55	4.48	4.48	.416	1.168	.434	<.100	6.21		4.52			
46303606-29	06-29	1429	Surface 20	8.10	4.60	23.70	4.88	4.88	.404	.709	.357	<.100	2.62		4.35			
3707133907-13	07-13	1257	Surface 20	5.13	2.93	25.39	5.17	5.17	.532	.381	.316	.026	6.14		2.65			
4008190808-19	08-19	1320	Surface 15	6.33	3.68	25.16	6.00	6.00	.530	.524	.299	.038	6.16		2.65			
1209101109-10	09-10	1228	Surface 24	13.69	8.99	26.02	1.243	1.243	.673	.915	.390	.039	7.30		4.58			
12212709-21	09-21	1251	Surface 36	14.60	8.59	25.50	8.81	6.65	1.018	.428	.024	4.34		8.16				
1528			15.70	9.48	25.29	.859	.641	.641	.528	.273	.094	5.64		4.85				
												.283	.190	5.13		5.41		



Sample Number	Date Sample Taken	Time Sample Taken	Sample Depth Feet	Secchi Disk Inches	Salinometer Cond. P/oo	Total Temp °C	Inorganic			NO <sub>2</sub> +NO <sub>3</sub> mg/l N	DO mg/l N	BOD mg/l	TOC mg/l	Chlorophyll a μg/l	Coliform MPN 100 ml	Coliform MPN 100 ml
							P mg/l	P <sub>o4</sub> mg/l	TKN mg/l N							
Station 16 - 301 Bridge, Buoy CN -Continued																
70050119 20 0813	05-07 11h	1713 10	Surface 62	14	3.00 6.30	14.10 14.90	.603 .348	.438 .798	.893 .816	.930 .551	.550 .551	6.44 7.13	2.29 8.29	1.03 3.77	6.0	
1140 31	05-13 31	0800 1745	Surface 45	20	2.90 11.60	14.80 8.80	.641 13.50	.420 5.60	.551 19.45	.424 .120	.623 .509	.016 .122	10.15 7.35	4.60 3.49	10.91 4.48	56.8
2140 11	05-20 2817	1047 05-27	Surface 40	20	11.60 10.50	8.80 7.10	.641 17.85	.420 .291	.551 1.09	.424 .120	.623 .509	.016 .122	10.15 7.35	4.60 3.49	10.91 4.48	56.8
060301 02	06-01 1047	1135 06-10	Surface 40	13	7.80 8.40	4.50 5.30	23.20 22.75	.462 .414	.328 1.047	.921 .546	.568 .303	.581 .303	5.81 5.69	1.53 1.73	10.5	
16149 50	06-16 07-07	1325 1045	Surface 30	24	9.20 10.10	5.50 5.90	23.90 23.00	.360 .461	.194 .285	.968 .946	.041 .119	<.100 <.100	8.32 7.80	4.07 4.97	5.24 6.07	56.3
070717 48	07-07 07-14	0937 30	Surface 26	26	9.88 15.15	5.73 9.26	25.25 23.93	.414 .525	.444 .525	.444 .525	.082 .053	.138 .214	6.33 7.80	4.65 4.97	6.06 6.06	36.0
1401 02	07-14 07-28	1015 35	Surface 40	29	6.04 13.40	3.43 7.92	26.02 25.26	.581 .589	.638 .642	.855 .844	.133 .123	.252 .150	4.97 3.10	3.64 4.16	17.3 17.3	20
2801 02	08-19 08-19	1412 1410	Surface 40	24	8.82 12.38	5.00 7.24	27.67 26.30	.609 .629	.402 .574	.729 .489	.146 .126	.293 .217	2.49 1.76	2.73 1.76	5.30 4.24	39.8
081901 13	08-19 09-30	1412 0845	Surface 40	22	11.70 12.40	6.48 7.00	28.10 27.74	.580 .590	.580 .590	.072 .072	.027 .024	10.65 9.03	9.03	61.5		
093010 11	09-30 10-20	1325 1040	Surface 40	48	23.00	20.50	44.6	.433	.580	.129	.207	5.44	8.13	1.60	22.5	
10207 18	10-20 11-18	1325 1040	Surface 40	58	14.83 15.62	10.38 10.93	14.48 17.46	.515	.668	.159	.244	7.50	7.50	2.56		
111801 02	11-18 12-10	1040 1105	Surface 40	24	5.50 13.70	4.19 10.51	11.30 12.62	.567 .394	.548 .392	.456 .456	<.200 .331	8.18 7.88	2.17 1.80	8.30 4.25	12.8	
121101 02	12-10 02	1105 02	Surface 40	32	9.47 14.10	8.38 12.46	6.64 7.32	.389 .291	.365 .268	.321 .268	.188 .163	10.47 10.20	1.96 1.61	5.3		
Station 17 - Upper Machodoc, Fl. 30 or off Piccawaven Creek																
70032603 01	03-25 04-09	1030 15	Surface 20	40	6.54 3.42	5.34 2.50	4.70 2.10	.103 .069	.553 .656	.726 .389	.157 .167	11.72 8.79	3.43 2.46	36.0		
040903 04	04-09 050121	1730 22	Surface 45	15	10.90 7.12	4.40 5.52	10.36 9.32	.696 .551	.429 .346	.429 .486	.361 .352	8.79 7.55	1.84 1.83			
0815	05-07	1627	Surface 18	18	5.75 3.90	<10 14.20	.416 16.30	.383 .416	.851 .851	.540 .540	7.08 8.09	1.51 1.51	3.59	2.3		

Sample Number	Date Taken	Time Sample Taken	Depth Feet	Secchi Disk Inches	Cond Salinity o/oo	Temp °C	Total P mg/l	Inorganic P PO <sub>4</sub> mg/l	NO <sub>2</sub> mg/l	NO <sub>3</sub> mg/l	TKN mg/l	NH <sub>3</sub> N mg/l	DO mg/l	BOD mg/l	TOC mg/l	Chlorophyll a µg/l	Coliform MPN 100 ml	Coliform MPN 100 ml
																	Station 11 - Upper Machodoc, Fl.	Station 11 - Upper Machodoc, Fl.
70050816 21142	05-07 05-20	1627 1715	20 40	22 11.00	6.00 7.00	4.10 19.70	.427 .274	.374 .097	.774 .424	.862 .517	.562 .134	.7.98 7.40	1.14 6.19	1.31 4.42	4.39 3.76	3.31 69.0	3.31 69.0	
113 060303 014	06-01 06-16	1215 1255	Surface Surface	17 20	8.45 8.80	5.10 5.45	23.00 22.50	.452 .406	.379 .367	1.151 .977	.518 .480	.266 .245	6.19 5.89	2.56 1.77	4.42 4.11	9.8 41.3	9.8 41.3	
1651 52 070749 50	06-16 07-07	1255 1100	Surface Surface	10 20	10.60 10.65	6.25 6.40	23.85 23.30	.646 .393	.271 .136	2.210 .807	.028 .022	<.100 <.100	8.20 7.58	8.73 3.20	4.76 5.60	5.20 5.20	52.5 52.5	52.5 52.5
1403 04 082001	07-14 07-28 08-20	0954 1025 0930	Surface Surface Surface	30 27 40	14.40 13.77	8.58 8.16	24.45 25.88	.473 .559	.473 .608	.058 .211	.102 .081	.102 .097	1.78 1.27	1.63 7.42	1.42 2.97	4.02 4.02	30.0 43.5	30.0 43.5
2803 04	08-20	0930	Surface	36	11.50	6.70	25.70	.656	.595	.309	.132	.126	8.28	3.37	4.89	3.71	3.71	
08 08 102131 02 111803 014 121103 014	09-07 10-21 10-21 11-18 12-10	1025 1045 1120 35	Surface Surface Surface Surface	75 24 40 36	9.40 6.67 10.17 10.90	5.37 5.16 6.90 6.83	27.45 11.20 12.44 10.90	.559 .503	.527 .402	.488 .370	.058 .333	.058 .368	.102 .333	1.78 1.23	1.63 1.23	5.09 5.09	9.8 9.8	9.8 9.8
70032605 06 040905 06 050817 18 11432	03-25 04-09 05-07	1115 1050 1542 0745 55	Surface Surface Surface Surface	46 15 22 20	15.57 15.72 13.36 12.40	10.92 11.09 10.26 11.70	17.36 17.32 12.44 9.80	.415 .392 .370 .404	.045 .433 .402 .032	.094 .085 .086 .726	.033 .078 .0200 .282	.030 .078 <.200 .117	10.84 2.39 2.06 10.29	10.29 2.52 6.55 9.13	30.0 7.14 6.55 30.0	30.0 9.8 9.8 30.0	30.0 9.8 9.8 30.0	
21144 45 060305 06 1653 51 070751 52 11435 06	05-20 06-16 06-01 06-16 07-07	1630 1215 1314 20 11.10 20 42 20 32	Surface Surface Surface Surface Surface	26 20 18 10.85 11.00 11.10 11.45 9.62	10.00 13.90 10.85 6.65 6.90 6.70 6.88 5.50	6.30 9.90 9.14 9.74 12.70 13.10 11.05 11.05	20.80 15.65 22.70 21.65 23.25 23.10 25.63 26.00	.248 .214 .271 .257 .168 .168 .325 .424	.093 .093 .198 .189 .168 .168 .325 .514	.790 .726 .293 .762 .357 .861 .459 .659	.012 .301 .037 .240 .044 .030 .237 .046	1.431 4.52 8.76 7.66 8.92 7.64 8.21 4.42	5.97 2.83 2.37 2.06 3.97 5.64 5.17 4.42	3.15 3.15 3.52 3.52 3.52 3.52 3.52 3.28	67.5 37.5 37.5 37.5 48.8 66.0 31.5 48.8	67.5 37.5 37.5 37.5 48.8 66.0 31.5 48.8		

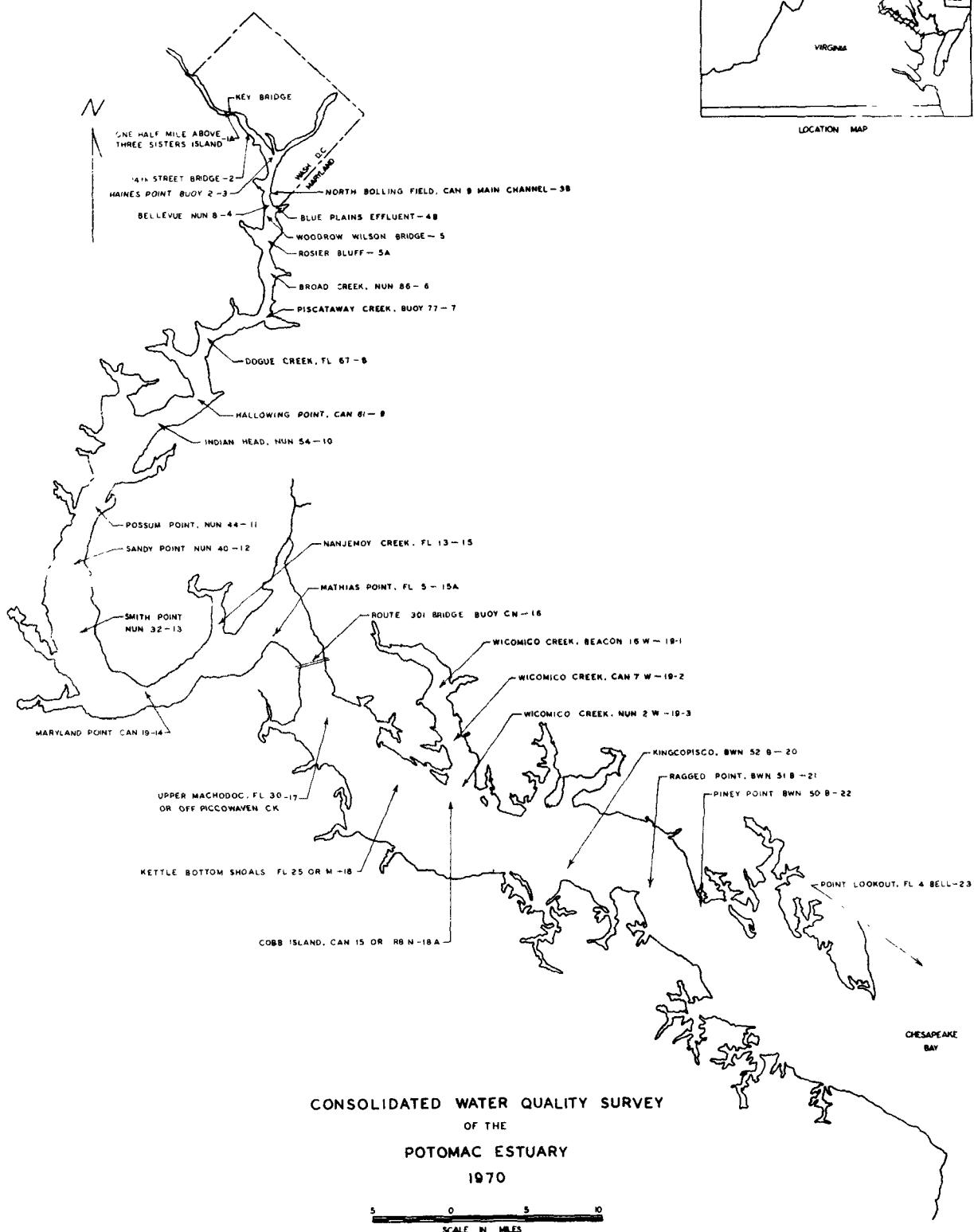
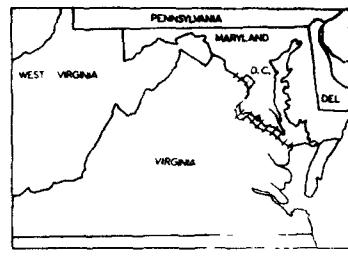
Date	Time	Sample	Secchi	Salinometer	Total P	Inorganic P	$\text{NO}_2 + \text{NO}_3$	$\text{NH}_3$	DO	BOD	TOC	Chloro-	Chloro-	Fecal
Sample Number	Sample Taken	Depth Feet	Disk Inches	Cond Salinity ‰	Temp °C	$\text{PO}_4$ mg/l	$\text{mg/l}$	$\text{NO}_2 + \text{NO}_3$ mg/l N	$\text{NH}_3$ mg/l N	DO mg/l	BOD mg/l	TOC mg/l	Chlorophyll a $\mu\text{g/l}$	Coliform MPN 100 ml
Station 18 - Kettle Bottom Shoals, Fl. 25 or M - Continued														
70072805	07-28	1045	Surface	40	12.70	7.26	.565	.513	.063	.068	10.04	3.89	4.77	21.0
082002	08-20	1620	Surface	20	17.20	10.39	.25.85	.362	.452	.068	10.03	2.22	3.52	54.8
102103	10-21	1055	Surface	15	16.00	9.10	27.76	.438	.001	.027				
111805	11-18	1105	Surface	20	16.54	11.82	16.96	.333	.465	.024	.069	9.06	2.53	28.5
121105	12-10	1150	Surface	15	16.80	11.98	.452	.362	.650	.018	.107	8.52	2.46	5.3
06														
70032607	03-25	1130	Surface	46	9.00	8.10	5.90	.357	.026	.530	.077	12.36	3.47	56.3
050819	05-07	1513	Surface	20	12.80	12.00	4.65	.293	.025	.870	.282	.120	9.50	2.71
2146	05-20													
060307	06-01	1315	Surface	30	7.80	5.35	15.50	.272	.209	.970	.736	.321	9.30	1.45
08														
1655	06-16	1145	Surface	10	8.00	5.50	14.85	.286	.182	.762	.723	.329	9.14	1.56
56														
070753	07-07	1230	Surface	20	10.85	7.11	19.50	.194	.086	.732	.360	.030	11.79	4.93
54														
2807	07-28	1150	Surface	54	12.05	7.30	23.40	.231	.148	.878	.001	.037	12.10	4.34
08														
082003	08-20	1600	Surface	22	12.10	7.70	7.70	.213	.154	.221	.001	.051	8.32	3.01
08														
121107	12-10	1215	Surface	15	11.50	7.20	22.90	.237	.121	.942	<.015	<.100	8.69	3.42
08														
70032609	03-25	1140	Surface	52	16.57	9.34	28.86	.392	.030	.235	.001	5.06	5.16	6.77
10														
050821	05-07	1400	Surface	20	19.80	11.54	27.38	.359	.012	.051				
22														
Station 19-3 - Wicomico Creek, Nunaw														
70032609	03-25	1140	Surface	20	12.10	11.20	5.22	.587	.027	.370	.083	13.41	3.94	63.8
050821	05-07	1400	Surface	30	8.95	6.45	14.40	.275	.135	.554	.602	.173	9.41	2.55
22														
08														

Date Sample Number Taken	Time Sample Taken	Sample Depth Feet	Secchi Disk Inches	Salinometer Cond Hmhos	Temp °oo	Total P mg/l	Inorganic P mg/l	TKN mg/l	NO <sub>2</sub> +NO <sub>3</sub> mg/l	DO mg/l	BOD mg/l	TOC mg/l	Chloro- phyll a μg/l	Coliform MPN 100 ml	Fecal Coliform MPN 100 ml	
<b>Station 12-3 - Wicomico Creek, Nun 2W -Continued</b>																
70052148	05-20	1500	Surface	34	11.10	7.20	20.60	.218	.095	.802	.294	.011	12.42	5.41	10.68	
49		10	Surface	11.50	7.98	18.40	.217	.095	.721	.366	.025	.935	4.09	3.79		
060309	06-01	1418	Surface	23	7.55	25.05	.233	.125	1.017	.001	.030	11.13	4.30		48.8	
10		20	Surface	12.45	7.65	21.85	.217	.135	.797	.001	.019	7.47	2.67			
070755	07-07	1110	Surface	36	15.84	9.23	26.60	.251	.030	.001	6.04	3.53	6.06		52.5	
56		20	Surface	18.28	11.30	23.50	.163	.032	.712	.34	.96	2.86				
1407	07-14	1038	Surface	48	12.57	7.28	26.00	.481	.437	.254	.048	.067	2.81	2.95		22.5
08		20	Surface	16.44	9.80	25.48	.526	.485	.272	.045	.156	7.76	2.19			
2809	07-28	1100	Surface	48	13.89	8.01	28.02	.516	.439	.521	.049	.082	2.60	4.59		30.0
10		30	Surface	18.44	11.16	25.90	.365	.418	.553	.049	.318	2.71	1.01			
082017	08-20	1110	Surface	36	17.80	10.20	27.87	.350	.350	.001	.030	.030	11.56			22.5
18		25	Surface	17.84	10.34	27.20	.370	.370	.001	.030	.030	.123				
102107	10-21	1130	Surface	78	17.60	12.58	17.20	.358	.275	.497	.024	.123	8.69	2.78		24.0
08		30	Surface	17.72	12.60	17.24	.344	.271	.560	.029	.063	7.73	1.90			
111901	11-19	1020	Surface	144	12.10	9.56	11.00	.336	.265	.288	.221	.105	8.85	1.57		6.8
02		25	Surface	16.56	13.00	12.24	.240	.230	.050	.098	.150	.150	1.32			
121109	12-10	1235	Surface	37	13.48	12.00	6.75	.430	.182	.200	.222	.030	12.55	5.61		39.8
10		20	Surface	17.20	15.06	8.12	.193	.142	.3103	.131	.095	.095		8.88		
<b>Station 19-2 - Wicomico, Can 7W</b>																
70032611	03-25	1150	Surface	40	11.70	10.40	6.60	.209	.027	.783	.067	.090	12.67	4.73		44.3
050822	05-07	1430	Surface	40	11.70	10.56	6.10	.486	.021	.622	.087	.100	12.01	3.46		28.5
23		10	Surface	9.75	15.40	6.29	.122	.762	.529	.092	.1036			2.94		
2150	05-20	1525	Surface	22	12.30	7.70	21.20	.662	.685	.522	.055	.836	3.34			
060311	06-01	1435	Surface	15	13.00	7.60	23.40	.181	.158	.698	.047	.020	13.86	4.57		33.0
070755	07-07	1150	Surface	32	14.86	8.37	26.40	.227	.227	.001	.026	.927	3.71			
58		20	Surface	17.25	10.47	23.87	.454	.366	.36	.149	.447	.148	1.24			
1409	07-14	1048	Surface	44	15.00	8.79	25.83	.481	.398	.301	.046	.065	2.27	2.55		20.3
10		20	Surface	16.84	10.04	25.27	.483	.433	.936	.047	.148	.148	4.26			
2811	07-28	1115	Surface	44	16.08	9.22	28.48	.406	.404	.543	.047	.090	1.84	2.56		9.8
12		20	Surface	16.66	9.94	26.20	.453	.482	.383	.052	.248	.560	1.50			
082015	08-20	1100	Surface	24	17.60	10.00	28.10	.330	.330	.001	.033			10.59		18.8
16		9	Surface	17.71	10.12	27.81	.354	.354	.001	.046				8.84		
102109	10-21	1145	Surface	60	17.82	12.72	16.90	.404	.270	.446	.035	.061	8.18	2.30		31.5
10		20	Surface	17.82	12.70	16.80	.387	.282	.834	.024	.058	.810	2.06			
111903	11-19	1040	Surface	72	12.62	10.38	9.60	.233	.171	.081	.078	.930	1.92			
04		15	Surface	15.44	12.30	11.40	.226	.208	.056	.087	.083	.780	1.20			15.0
121111	12-10	1245	Surface	20	13.82	12.22	7.01	.658	.157	2.588	.019	.026	15.70	>9.02		
12		15	Surface	15.60	13.77	7.38	.174	.118	.321	.145	.084	.972	8.90			



Date	Time	Sample Taken	Sample Depth	Sample Feet	Secchi Disk	Salinometer	Total Cond	Inorganic Salinity	Total P	Inorganic P	NO <sub>2</sub> -NO <sub>3</sub>	DO	BOD	TOC	Chloro-	Chloro-	Fecal	
Sample Number					_inchs	Mhos	°/oo	mg/1	P	Poly	mg/1	N	mg/1	mg/1	mg/1	phyl a	Coliform	Coliform
70063114	06-01	1635	Surface	34	13.95	8.50	22.70	.237	.126	1.331	.001	.037	11.14	6.55			52.5	
15			30	14.45	9.35	20.35	.349	.126	1.221	.039	.158	.590	2.87					
1659	06-16	1000	Surface	36	15.10	9.65	22.45	.272	.179	.784	<.015	<.100	.594	4.09	4.90		6.0	
60			20	10.00	11.00	22.60	.225	.432	.858	<.015	<.100	.580	3.19	5.26			21.0	
070762	07-07	1325	Surface	72	13.10	7.49	25.92	.244			.030	.001	.982	3.58	3.81			
63			30	22.06	13.91	23.11		.270		.345		.105	1.10					
2816	07-28	1228	Surface	56	16.80	9.75	28.31	.370	.356	.819	.047	.083	4.17	2.82	3.97		11.3	
17			23.10	14.32	25.30	.362	.377	.473	.047	.592	1.05	1.14		3.18				
082005	08-20	1245	Surface	35	19.01	10.92	27.90		.306		.001	.033						
21			20.63	12.00	27.21		.285	.150		.353	<.200	.903	1.94					
22			35	11.50	.252	.367		.128	.184		<.200	.668	1.43					
111811	11-18	1158	Surface	108	14.00	.138		.128	.119					11.07				
12			30											9.20	4.91		7.5	
Station 21 - Regged Point, BWN 5LB -Continued																		
70032618	03-25		Surface	80	11.00	10.00	5.50	.068	.017	.530	.284	.107	12.04	3.56			15.0	
19			40	15.80	15.45	4.30	.064	.017	.587	.240	.157	.927	2.22					
050829	05-07	1102	Surface	46	11.55	8.60	13.25	.166	.050	.792	.566	.238	9.32	2.47	3.59		17.3	
30			40	12.20	9.10	13.10	.157	.050	.786	.525	.221	9.30	2.47	3.21				
2155	05-20	1220	Surface	34	12.70	8.45	19.80	.159	.061	.703	.219	.013	13.11	5.55	5.55		42.0	
56			30	13.50	9.50	17.30	.129	.050	.604	.336	.040	9.29	2.43	5.03				
060316	06-01	1710	Surface	34	15.45	9.70	22.65		.137		.001	.012	8.11	8.12			74.3	
17			40	19.85	14.29	16.30	.191	.096	.814	.128	.552	2.06	1.55					
1661	06-16	0920	Surface	48	16.10	9.95	22.85	.193	.167	.574	<.015	<.100	6.43	3.67			11.3	
62			22	18.55	12.35	20.20		.240	.755	.015	.160			1.91	3.79			
070764	07-07	1340	Surface	54	22.91	14.07	23.87		.135		.030	.066	9.05	5.71			16.5	
65			40	15.84	9.09	26.14		.124		.036	.273	2.25	1.49					
2818	07-28	1243	Surface	50	19.00	11.00	28.50	.294	.300	.617	.047	.103	9.33	3.21	4.24		11.3	
19			40	22.90	14.24	25.53	.212	.283	.739	.058	.336	1.81	1.21					
082006	08-20	1300	Surface	52	21.60	12.53	28.01		.223		.001	.036						
23			35	30.45	18.82	25.73		.252		.001	.132							
24			120	12.50	.345		.208	.700		<.200								
111813	11-18	1215	Surface	40	13.50	.115	.080	.319	.162		<.200							
14																		
Station 22 - Piney Point, BWN 50B																		
70032618	03-25		Surface	80	11.00	10.00	5.50	.068	.017	.530	.284	.107	12.04	3.56				
19			40	15.80	15.45	4.30	.064	.017	.587	.240	.157	.927	2.22					
050829	05-07	1102	Surface	46	11.55	8.60	13.25	.166	.050	.792	.566	.238	9.32	2.47	3.59		17.3	
30			40	12.20	9.10	13.10	.157	.050	.786	.525	.221	9.30	2.47	3.21				
2155	05-20	1220	Surface	34	12.70	8.45	19.80	.159	.061	.703	.219	.013	13.11	5.55	5.55		42.0	
56			30	13.50	9.50	17.30	.129	.050	.604	.336	.040	9.29	2.43	5.03				
060316	06-01	1710	Surface	34	15.45	9.70	22.65		.137		.001	.012	8.11	8.12			74.3	
17			40	19.85	14.29	16.30	.191	.096	.814	.128	.552	2.06	1.55					
1661	06-16	0920	Surface	48	16.10	9.95	22.85	.193	.167	.574	<.015	<.100	6.43	3.67			11.3	
62			22	18.55	12.35	20.20		.240	.755	.015	.160			1.91	3.79			
070764	07-07	1340	Surface	54	22.91	14.07	23.87		.135		.030	.066	9.05	5.71			16.5	
65			40	15.84	9.09	26.14		.124		.036	.273	2.25	1.49					
2818	07-28	1243	Surface	50	19.00	11.00	28.50	.294	.300	.617	.047	.103	9.33	3.21	4.24		11.3	
19			40	22.90	14.24	25.53	.212	.283	.739	.058	.336	1.81	1.21					
082006	08-20	1300	Surface	52	21.60	12.53	28.01		.223		.001	.036						
23			35	30.45	18.82	25.73		.252		.001	.132							
24			120	12.50	.345		.208	.700		<.200								
111813	11-18	1215	Surface	40	13.50	.115	.080	.319	.162		<.200							
14																		
Station 23 - Point Lookout, Fl. 4 B-11																		
70032620	03-25	1515	Surface	240	14.80	13.80	5.50	.037	.001	.374	.344	.213	11.71	1.10			10.5	
21			160	16.20	4.78		.027	.001	.455	.234	.143	11.04	1.08					
050831	05-07	0945	Surface	44	12.20	8.95	13.75	.222	.055	.643	.495	.137	10.64	3.06	3.27		28.5	
32			12.55	9.30	13.75	.108	.045	.595	.655	.250	.088	10.38	3.03	3.27				
2157	05-20	1110	Surface	46	13.50	9.00	18.70	.166	.050	.762	.250	.015	12.32	4.94	6.05		26.3	
58			30	14.20	9.70	17.70	.117	.001	.378	.282	.024	10.40	1.12					





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