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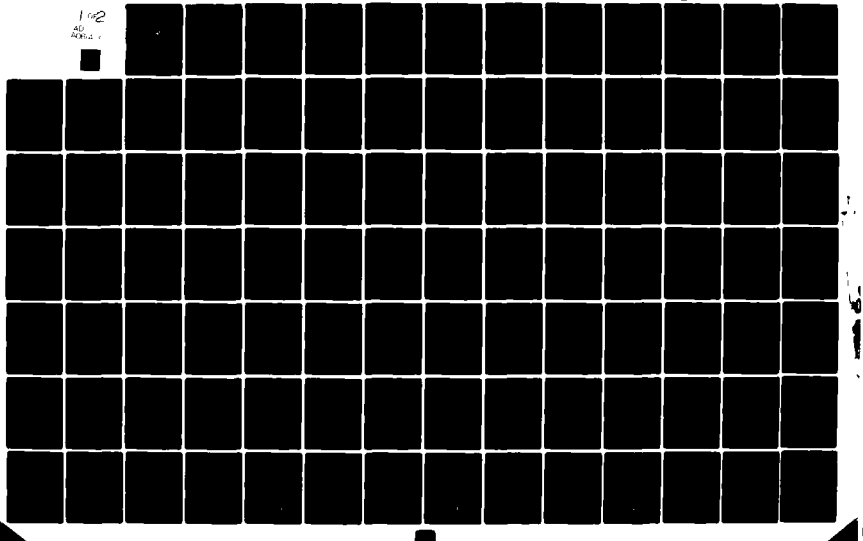

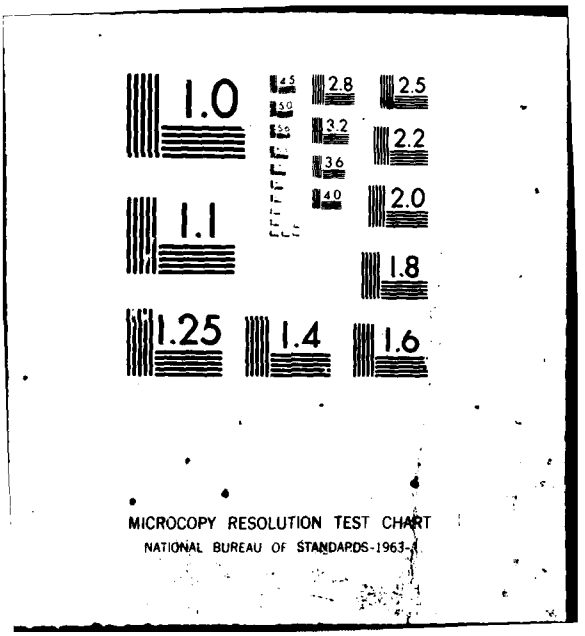
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LEVEL II

CONTAMINATION DISPERSION IN ESTUARIES

NEW YORK HARBOR

Hydraulic Model Investigation

MISCELLANEOUS PAPER NO. [illegible]

Report 1

January 1980

U. S. Army Engineer Waterways Experiment Station
CORPS OF ENGINEERS

(6) # CONTAMINATION DISPERSION IN ESTUARIES

NEW YORK HARBOR

Hydraulic Model Investigation

(12) 169

(9) MISCELLANEOUS PAPER NO. 2-332

Report 3

(11) January 1961

(14) WES-MP-2-332-3

U. S. Army Engineer Waterways Experiment Station

CORPS OF ENGINEERS

Vicksburg, Mississippi

Preface

This report is one of a series describing flushing tests conducted for the Nuclear Projects Office, Maritime Administration, U. S. Department of Commerce, on several hydraulic models of estuaries. These reports simply present the data obtained in the tests; analysis of the data and preparation of a comprehensive report will be done by Dr. Donald W. Pritchard, Director of the Chesapeake Bay Institute, Johns Hopkins University.

The tests were requested by the U. S. Department of Commerce in a letter, dated 11 June 1958, to the Director, U. S. Army Engineer Waterways Experiment Station. The Office, Chief of Engineers, authorized the Waterways Experiment Station to perform the tests in first indorsement, dated 9 July 1958, to Waterways Experiment Station letter of 27 June 1958.

The tests were conducted under the general supervision of Messrs. E. P. Fortson, Jr., Chief, Hydraulics Division; G. B. Fenwick, Chief, Rivers and Harbors Branch; and H. B. Simmons, Chief, Estuaries Section, and under the immediate supervision of Mr. W. H. Bobb.

Director of the Waterways Experiment Station during the course of this investigation and preparation of this report was Col. Edmund H. Lang, CE. Technical Director was Mr. J. B. Tiffany.

Contents

CONTAMINATION DISPERSION IN ESTUARIES

NEW YORK HARBOR

Hydraulic Model Investigation

Purpose and Scope of Dispersion Studies

1. The increasing use of nuclear reactors in the production of automotive power, both on land and sea, presents new problems pertaining to the dispersal of radioactive wastes that might be released either accidentally or purposely into rivers, estuaries, and harbors. The Nuclear Projects Office, Maritime Administration, U. S. Department of Commerce, is concerned with the probable dispersion patterns of radioactive matter that could be released in accidents involving nuclear-powered ships. Therefore, that agency engaged the Waterways Experiment Station to conduct tests on several existing models of important estuaries in order to obtain data from which dispersion effects could be computed. Reports 1 and 2 of this Contamination Dispersion in Estuaries series, published in April 1959, present the results of the first two series of tests, which were conducted on the Delaware River and Narragansett Bay models, respectively.

2. The third series of tests was accomplished on the New York Harbor model, and the data thus obtained are presented in this report. It is expected that similar flushing tests will probably be made on models of other estuaries, including the Savannah Harbor model now in operation at the Waterways Experiment Station, and the San Francisco Bay model of the U. S. Army Engineer District, San Francisco, California. Subsequent studies will be reported as each series of tests is completed.

Scope of This Report

3. This report describes and gives the results of a series of nine tests conducted on the New York Harbor model. These tests involved assumed, simulated accidents of nuclear-powered vessels at the six locations indicated as release points on the location map (plate 1). Accidents were simulated in the Hudson and East Rivers (release points 1 and 2), in the

Upper and Lower New York Bays (release points 3 and 6), and in the Kills (release points 4 and 5). The data obtained in the tests are presented in forms suitable for analysis, but no analysis is made (see Preface).

The Model

4. The New York Harbor model is of the fixed-bed type and is constructed to linear scale ratios, model to prototype, of 1:1000 horizontally and 1:100 vertically. The prototype area reproduced is shown or described in plate 1. Tides and tidal currents are generated in the reproduced portions of the Raritan, Hudson, and East Rivers by separate but synchronized, secondary, two-way flow-control devices located at the model limit of each stream. Thus, with the primary ocean tide generator, four synchronized tide generators are used to reproduce the flooding and ebbing of tides on the model. The salinity of the model ocean is maintained at the same salinity as the prototype (the salinity scale being 1:1); and the scaled upland discharge of the Hudson River is introduced at Hyde Park, New York. This results in an accurate reproduction of prototype tidal elevations and phases, current velocities, and salinities in plan and vertical throughout the model. Upland fresh-water flows into rivers other than the Hudson are disregarded.

Tests and Procedures

Preliminary dye-loss determinations

5. In this series of tests, as in the two previous series, a tracer simulating radioactive material was injected into the model in a manner representing the release of contamination in an assumed accident to a nuclear-powered ship. Methylene blue chloride dye was selected for use as the tracer for the reasons given in paragraph 6 of Report 1; other information concerning the dye concentration used and rate of dye loss with time is also discussed in Report 1, paragraphs 6-9. Preliminary tests to determine the rate of dye loss were made in the New York Harbor model, as was done in the Delaware River model and described in paragraph 8 of

Report 1, since it could not be assumed that the dye-loss rate would be the same for both models.

6. For the dye-loss tests in the New York Harbor model, the central portion of the model was divided into six sections by constructing temporary dams at approximately miles -6, 0.5, 5, 12, and 16 in the Hudson River; at miles 1, 8, and 15 in the East River; at miles 3 and 8 in the Harlem River; and at mile 2 in Kill Van Kull. Three sections were in the Hudson River and two in the East River, and the last section was made up of Upper Bay and The Narrows. Dye was then injected in each section, with the turbidity and initial dye concentration in each section being adjusted to cover the expected ranges of both during actual testing. The water in each section was circulated by pumps to simulate tidal flow, samples were obtained periodically and analyzed, and dye-loss curves for each section were constructed. The six curves were averaged to obtain a general dye-loss curve for the entire model, and an average correction factor was derived for each tidal cycle after release of the dye. All values of dye concentration included in this report have been corrected by application of the respective factor determined by the age of the dye. Table 1 presents a list of correction factors for dye loss for each cycle from 1 to 100, inclusive. Cycle zero is the injection cycle, which explains the need to correct cycle-1 observations.

Test conditions

7. All tests were made for mean-tide conditions. The fresh-water discharge for tests 1, 2, and 5-9 was adjusted to 6000 cfs; this was increased to 12,000 cfs for tests 3 and 4. The 6000-cfs flow was selected for use in the majority of the tests because an examination of current and salinity data indicated that flows of that order of magnitude would produce the maximum upstream movement of contamination. The median fresh-water flow in the Hudson at Hyde Park, New York, is about 12,000 cfs, which was the reason for the selection of that value. Each test involved the release of 6 liters of the dye solution adjusted to an initial concentration of approximately 1000 ppm and to the average density of water in the immediate vicinity of the injection station utilized in that particular test. A rapid-type dye release, in which all dye was injected at a uniform rate during the 3-hr interval (prototype) following local low-water slack, was

used for all tests. Test 1 was terminated 75 tidal cycles after the dye release, but all other tests were continued for 100 tidal cycles. Test conditions are summarized in the following tabulation.

Test No.	Release Point* No.	Release Point* Location	Release Depth	Fresh-Water Discharge** cfs	Actual Initial Dye Concentration ppm†	Salinity ppt	Volume of Contamination cc
1	1	Hudson River Mile 2.0	Bottom	6,000	1019	280	6000
2	1	Hudson River Mile 2.0	Surface	6,000	1028	222	6000
3	1	Hudson River Mile 2.0	Bottom	12,000	973	245	6000
4	1	Hudson River Mile 2.0	Surface	12,000	981	224	6000
5	2	East River Mile 2.0	Middepth	6,000	1024	290	6000
6	3	The Narrows Hudson River Mile -5.2	Middepth	6,000	1084	270	6000
7	4	Kill Van Kull Mile 3.0	Middepth	6,000	1045	276	6000
8	5	Arthur Kill Mile 11.0	Middepth	6,000	1001	286	6000
9	6	Lower Bay Hudson River Mile -9.8	Middepth	6,000	1059	280	6000

* Location of release points shown in plate 1.
** Fresh-water discharge introduced into the Hudson at Hyde Park, New York.
† Desired initial dye concentration for all tests was 1000 ppm.

Dye concentration and sampling

8. The amount of dye necessary to obtain the desired initial concentration of 1000 ppm was based on the fact that the addition of 1 gram of dye to 1 liter of water produces a dye concentration of 1000 ppm. It was found necessary to increase the weight of dye in the above-mentioned ratio to compensate for moisture and impurities. The actual dye concentrations shown in the tabulation are results of final checks of the dye solution and were determined by spectrophotometer analysis. For this analysis, a sample

was taken from the dye solution just prior to its release and diluted at the ratio of 1000:1; from this diluted sample, three samples were taken and analyzed. Thus, each of the actual concentrations in the preceding tabulation is the mean of three samples. The differences between the desired and actual concentrations are considered insignificant and within the probable error of the diluting process. Therefore, an initial concentration of 1000 ppm was used in reducing the results of all tests.

9. Water samples for analysis on the Beckman spectrophotometer were obtained at times of local high-water slack from river mileage stations selected from those shown in plate 1. Surface and bottom samples were obtained at Hudson River channel stations betwen mile -18 at the ocean headbay and mile 22 above Yonkers, since maximum stratification between the salt and fresh water occurred in this area. The water in other areas was known to be fairly well mixed, so sampling elsewhere was confined to mid-depth.

10. After completion of test 1, it was realized that a true picture of the dispersion could not be obtained using the sampling procedures developed in previous tests. The spread of contamination throughout the many channels and waterways of the New York Harbor model was so rapid, and the changes in dye concentration were so great, that a great many observations were required to definitely fix the time-concentration relation during the early part of the test. The required number of samples could not be analyzed at three wave lengths on the spectrophotometer in the available time. Therefore, the following procedure was developed during test 2 and used on all subsequent tests. Immediately prior to release of the tracer, samples were obtained at all observation points to be used during the test. These samples were analyzed at three wave lengths on the spectrophotometer in order to determine the turbidity correction (E'_m) at each observation point. Samples were obtained every other cycle during the first 25 cycles at all locations where dye was present, and these samples were analyzed at only the 665 wave length on the spectrophotometer. By the twenty-fifth cycle, the rate of change of dye concentration had become uniform and the sampling interval was increased to every fifth cycle. The samples obtained at cycles 30 and 31, and at several of the regular intervals thereafter, were analyzed at three wave lengths so that a total of 10 of the

samples from each location were analyzed at three wave lengths during the test. The average E'_m for the 10 samples analyzed at three wave lengths was applied to samples analyzed at one wave length in order to remove the turbidity effect from all samples obtained during each test.

Method Used in Reduction of Data

11. The method of reducing the raw test data to the form shown in the tables and plates was as follows:

a. The dye concentration of each sample was determined from a curve of E'_{665} versus concentration after determining E'_{665} by substituting Beckman spectrophotometer values in the equation $E'_{665} = E_{665} - E'_m$, where E_{665} is the sample reading at the 665 wave length and E'_m is the correction for turbidity; E'_m was computed by solving the equation, $E'_m = E_{800} + 0.168\,(E_{400} - E_{800})$, where E_{400} and E_{800} are the respective sample readings at the 400 and 800 wave lengths.

b. The dye concentration values determined as outlined in a were corrected for dye loss by multiplying them by the factors obtained as described in paragraph 6 and listed in table 1. The corrected values were then converted to percentages of the initial concentration by dividing by 1000 and converting to per cent.

c. Curves of dye concentration versus time for each observation point were next prepared by plotting the values determined in b on semilog paper and drawing an average curve.

d. Profiles of dye concentration at high-water slack for cycles 5, 10, 15, 25, 50, 75, and 100 were prepared from values taken from the curves of dye concentration versus time.

Test Results

12. The results of this series of tests are presented in tables 2-20 and plates 2-111. Tables 12-20 present the dye concentrations observed during tests 1-9, respectively, and include the location, time of observation (cycle), and dye concentration of each sample obtained during this series of tests. The concentrations are expressed as percentages of the initial concentration and have been corrected for dye loss as explained in paragraph 6. All data presented in tables 12-20 are also presented in

graphic form in plates 25-111 (semilog plots of dye concentration versus time). On these plots, the vertical logarithmic scale represents dye concentration in per cent of initial concentration, while the standard divisions of the horizontal scale represent tidal cycles after the contamination was released. Smooth curves have been drawn to represent average concentration versus time. As mentioned in paragraph 10, the sampling program originally planned for test 1 was inadequate at several stations, especially during the early cycles of the test. However, it was possible to complete the curves for test 1 by interpolating the curves for such stations from the results of tests 2, 3, and 4, all of which involved dye releases at location 1. The interpolated portions of the curves for test 1 are so noted on the appropriate plates. The curves for test 1 were extended to cycle 100 although the test was stopped at cycle 75. However, the deterioration rate was definitely established by cycle 75 at all observation points.

13. On many plots throughout plates 25 to 111, dye concentration values of 0.0001 per cent of the initial concentration are shown. The actual values of these samples were found to be zero which cannot be plotted on a logarithmic scale. Therefore, in order to show that a sample had actually been taken and evaluated, all zero values were plotted as 0.0001 values.

14. Profiles of high-water slack dye concentration at intervals throughout each test were prepared for the Hudson River channel and other sections of the model for which sufficient data were available. The data for these curves, which are presented in plates 11-24, are also included in tables 3-11 and were obtained from the curves just described in paragraphs 12 and 13 and shown in plates 25 to 111. Profiles of dye concentration at cycles 5, 10, 15, 25, 50, 75, and 100 for both surface and bottom depths were prepared for the Hudson River channel, which extends through Lower Bay, Upper Bay, and the Hudson River. Using the same profile interval, profiles of middepth dye concentrations were constructed for other areas since all observations in those areas were made at middepth.

15. The peak value of contamination at each sampling station and the tidal cycle during which the peak occurred were obtained from the curves included in plates 25-111. These values for all tests are given in table 2.

These data are also presented in plates 2-10 so that the shifting of the peak value with time can be noted.

Table 1

Correction Factors for Dye Loss

Tidal Cycle	Factor	Tidal Cycle	Factor
1	1.013	51	1.363
2	1.025	52	1.369
3	1.035	53	1.376
4	1.045	54	1.382
5	1.053	55	1.389
6	1.061	56	1.395
7	1.069	57	1.402
8	1.078	58	1.409
9	1.085	59	1.415
10	1.092	60	1.422
11	1.099	61	1.429
12	1.106	62	1.437
13	1.112	63	1.443
14	1.119	64	1.450
15	1.125	65	1.456
16	1.132	66	1.463
17	1.138	67	1.470
18	1.145	68	1.477
19	1.151	69	1.484
20	1.158	70	1.490
21	1.165	71	1.496
22	1.171	72	1.500
23	1.178	73	1.509
24	1.184	74	1.516
25	1.191	75	1.523
26	1.197	76	1.529
27	1.204	77	1.536
28	1.210	78	1.542
29	1.217	79	1.549
30	1.223	80	1.555
31	1.231	81	1.562
32	1.237	82	1.568
33	1.244	83	1.575
34	1.250	84	1.581
35	1.257	85	1.588
36	1.263	86	1.594
37	1.270	87	1.601
38	1.276	88	1.607
39	1.283	89	1.614
40	1.289	90	1.620
41	1.296	91	1.627
42	1.302	92	1.633
43	1.309	93	1.640
44	1.315	94	1.646
45	1.323	95	1.653
46	1.329	96	1.659
47	1.336	97	1.666
48	1.342	98	1.672
49	1.349	99	1.679
50	1.356	100	1.685

Table 2

Peak Contamination, Time of Occurrence and Value

River and Station	Test 1		Test 2		Test 3		Test 4		Test 5		Test 6		Test 7		Test 8		Test 9	
	Time of Occurrence	Peak Value	Time of Occurrence	Peak Value	Time of Occurrence	Peak Value	Time of Occurrence	Peak Value	Time of Occurrence	Peak Value	Time of Occurrence	Peak Value	Time of Occurrence	Peak Value	Time of Occurrence	Peak Value	Time of Occurrence	Peak Value
Hudson River																		
Mile -18	-	----	-	----	40	0.0049 S&B	-	----	-	----	-	----	28	0.0022 S&B	36	0.0025 S&B	23	0.0022 S&B
Mile -16	-	----	-	----	34	0.0048 S&B	34	0.0078 S	52	0.0023 S&B	32	0.0024 B	38	0.0032 S&B	22	0.0032 S&B	20	0.0022 S&B
Mile -12	-	----	-	----	30	0.0067 S&B	30	0.0077 S	26	0.0019 S	24	0.0024 S&B	18	0.0028 S	23	0.0025 S&B	7	0.0034 S&B
Sta 9A	-	----	20	0.0082	8	0.0248	9	0.0188	8	0.0205	6	0.0390	4	0.0270	12	0.0138	2	0.0630
Mile -8	12	0.0068 S	32	0.0041 S	5	0.0217 S	8	0.0235 S	12	0.0140 S	5	0.0375 S	8	0.0100 S	10	0.0040 S&B	3	0.0182 S
Sta 8A	-	----	27	0.0070	6	0.0320	9	0.0198	6	0.0228	7	0.0210	9	0.0107	17	0.0080	2	0.1435
Mile -4	6	0.0450 S	7	0.0360 S	4	0.0410 S	8	0.0385 S	6	0.0350 S	4	0.0620 S	4	0.0890 B	12	0.0162 S&B	2	0.1900 B
Mile 0	4	0.0520 S	5	0.0530 S	4	0.0670 S	2	0.0670 S	2	0.0880 S	2	0.1100 S	6	0.0228 B	14	0.0136 S&B	2	0.1110 B
Mile 4	3	0.1350 S	2	0.1850 S	2	0.1930 S	2	0.1850 S	2	0.0960 B	2	0.1730 S&B	9	0.0082 B	21	0.0089 S&B	4	0.0269 B
Mile 8	3	0.1350 S	2	0.1950 S&B	2	0.1760 S	2	0.1670 S	2	0.0730 B	2	0.1030 B	9	0.0075 B	21	0.0063 S&B	7	0.0148 B
Mile 12	3	0.1800 B	2	0.1750 B	2	0.2930 B	2	0.2950 S&B	6	0.0430 B	6	0.0355 B	14	0.0054 B	20	0.0062 S&B	12	0.0084 B
Mile 16	4	0.0680 B	6	0.0525 B	4	0.0570 B	4	0.0530 B	12	0.0210 B	11	0.0160 B	14	0.0045 B	24	0.0050 S&B	16	0.0047 B
Mile 20	7	0.0250 B	11	0.0238 B	8	0.0187 B	8	0.0146 B	14	0.0088 B	14	0.0081 B	-	----	-	----	-	----
Mile 23	21	0.0143 B	19	0.0137 B	18	0.0070 B	12	0.0089 B	16	0.0052 B	-	----	-	----	-	----	-	----
East River																		
Mile 2	3	0.0680	3	0.0770	5	0.0540	3	0.0740	2	0.0900	3	0.0780	10	0.0089	13	0.0130	3	0.0285
Mile 7	3	0.1080	3	0.0960	3	0.0920	3	0.0750	2	0.1770	3	0.0900	10	0.0080	16	0.0056	5	0.0141
Mile 12	4	0.0180	5	0.0540	3	0.0375	3	0.0125	2	0.1170	3	0.0295	12	0.0022	28	0.0020	9	0.0038
Mile 17	16	0.0037	18	0.0088	18	0.0032	-	----	5	0.0145	16	0.0020	-	----	-	----	27	0.0023
Kill Van Kull																		
Mile 3	5	0.0370	3	0.0680	5	0.0490	5	0.0475	3	0.0650	3	0.0900	2	0.0540	8	0.0233	4	0.0330
Harlem River																		
Mile 3	12	0.0150	17	0.0155	5	0.0480	10	0.0120	5	0.0670	5	0.0175	-	----	-	----	19	0.0027
Arthur Kill																		
Mile 7	23	0.0590	23	0.0056	14	0.0082	20	0.0049	14	0.0055	12	0.0045	6	0.0900	3	0.9950	22	0.0046
Mile 10	-	----	-	----	-	----	-	----	-	----	-	----	20	0.0145	6	0.3300	29	0.0044
Mile 14	-	----	-	----	-	----	-	----	-	----	-	----	36	0.0037	8	0.0970	25	0.0037
Mile 18	-	----	-	----	-	----	-	----	-	----	-	----	44	0.0039	30	0.0136	30	0.0039
Passaic River																		
Mile 2	20	0.0120	21	0.0120	20	0.0090	20	0.0088	18	0.0114	16	0.0160	9	0.2270	18	0.1160	20	0.0061
Mile 6	-	----	-	----	-	----	-	----	-	----	-	----	26	0.0850	33	0.0520	-	----
Mile 10	-	----	-	----	-	----	-	----	-	----	-	----	46	0.0380	56	0.0315	-	----
Newark Bay																		
Mile 2	11	0.0225	9	0.0260	10	0.0185	9	0.0197	6	0.0215	8	0.0330	2	0.4400	7	0.6500	9	0.0131
Hackensack River																		
Mile 2	19	0.0110	18	0.0140	21	0.0120	15	0.0115	20	0.0143	10	0.0170	3	0.3500	10	0.1480	15	0.0090
Mile 6	-	----	-	----	-	----	-	----	-	----	-	----	12	0.1630	24	0.0850	38	0.0043
Mile 10	-	----	-	----	-	----	-	----	-	----	-	----	24	0.0600	38	0.0470	-	----
Mile 14	-	----	-	----	-	----	-	----	-	----	-	----	46	0.0330	50	0.0247	-	----
Raritan River Channel																		
Mile 26	-	----	-	----	-	----	-	----	-	----	-	----	22	0.0036	26	0.0100	21	0.0057
Mile 30	-	----	-	----	-	----	-	----	-	----	-	----	18	0.0086	26	0.0096	13	0.0205
Mile 35	-	----	-	----	-	----	14	0.0099	12	0.0125	8	0.0240	8	0.0140	18	0.0082	4	0.0460
Mile 38	-	----	-	----	-	----	-	----	-	----	-	----	-	----	-	----	5	0.0280
Mile 41	-	----	-	----	-	----	20	0.0075	18	0.0059	10	0.0130	12	0.0070	32	0.0051	5	0.0235
Chapel Hill Channel																		
Mile 46	-	----	-	----	-	----	14	0.0098	14	0.0110	12	0.0155	12	0.0109	19	0.0077	5	0.0310
Jamaica Bay																		
Station J-0	-	----	-	----	-	----	-	----	-	----	-	----	-	----	-	----	11	0.0036
Station J-1	-	----	-	----	20	0.0077	26	0.0074	6	0.0033	13	0.0075	16	0.0043	38	0.0058	3	0.0094
Station J-2	-	----	-	----	20	0.0064	20	0.0071	6	0.0032	12	0.0055	12	0.0038	37	0.0034	4	0.0143

Note: Time of occurrence of the peak concentration refers to tidal cycles after release. Peak values are percentages of the initial concentration.
The suffix "S" denotes a surface observation, while "B" denotes a bottom observation. Dye concentrations not followed by either "S" or "B" were observed at middepth.

Table 3

Dye Concentrations at High-Water Slack, in Per Cent of Initial Concentration, Taken from Station Curves, Test 1

River and Station	Cycle 5		Cycle 10		Cycle 15		Cycle 25		Cycle 50		Cycle 75		Cycle 100	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
Hudson River														
Mile -8	0.0000	0.0000	0.0069	0.0023	0.0065	0.0027	0.0049	0.0026	0.0022	0.0015	0.0012	0.0007	0.0005	0.0003
Mile -4	0.0448	0.0239	0.0305	0.0165	0.0200	0.0112	0.0094	0.0058	0.0024	0.0017	0.0011	0.0007	0.0006	0.0003
Mile 0	0.0505	0.0345	0.0320	0.0280	0.0240	0.0190	0.0125	0.0102	0.0037	0.0029	0.0018	0.0011	0.0009	0.0005
Mile 4	0.0660	0.0630	0.0380	0.0360	0.0250	0.0250	0.0130	0.0130	0.0039	0.0039	0.0018	0.0016	0.0009	0.0007
Mile 8	0.0710	0.0700	0.0420	0.0399	0.0310	0.0275	0.0184	0.0153	0.0052	0.0041	0.0021	0.0018	0.0010	0.0009
Mile 12	0.0950	0.0950	0.0443	0.0443	0.0300	0.0280	0.0165	0.0143	0.0054	0.0043	0.0022	0.0019	0.0011	0.0009
Mile 16	0.0450	0.0680	0.0390	0.0425	0.0275	0.0278	0.0158	0.0158	0.0060	0.0061	0.0027	0.0030	0.0013	0.0015
Mile 20	0.0145	0.0245	0.0168	0.0235	0.0153	0.0205	0.0115	0.0145	0.0045	0.0057	0.0017	0.0022	0.0006	0.0008
Mile 23	0.0000	0.0000	0.0002	0.0002	0.0082	0.0088	0.0096	0.0137	0.0030	0.0054	0.0009	0.0020	0.0003	0.0008
	Middepth		Middepth		Middepth		Middepth		Middepth		Middepth		Middepth	
East River														
Mile 2	0.0530		0.0328		0.0230		0.0126		0.0037		0.0017		0.0008	
Mile 7	0.0690		0.0365		0.0250		0.0135		0.0039		0.0016		0.0007	
Mile 12	0.0179		0.0151		0.0128		0.0090		0.0038		0.0016		0.0007	
Mile 17	0.0002		0.0032		0.0037		0.0027		0.0011		0.0005		0.0002	

Table 4

Dye Concentrations at High-Water Slack, in Per Cent of Initial Concentration, Taken from Station Curves, Test 2

River and Station	Cycle 5		Cycle 10		Cycle 15		Cycle 25		Cycle 50		Cycle 75		Cycle 100	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
Hudson River														
Mile -8	0.0010	0.0002	0.0024	0.0027	0.0032	0.0036	0.0039	0.0022	0.0037	0.0011	0.0027	0.0008	0.0017	0.0006
Mile -4	0.0325	0.0080	0.0305	0.0150	0.0220	0.0090	0.0107	0.0051	0.0038	0.0020	0.0021	0.0011	0.0012	0.0006
Mile 0	0.0530	0.0230	0.0430	0.0250	0.0290	0.0160	0.0135	0.0078	0.0031	0.0022	0.0015	0.0009	0.0013	0.0006
Mile 4	0.0900	0.0550	0.0444	0.0350	0.0290	0.0240	0.0160	0.0135	0.0056	0.0043	0.0023	0.0016	0.0013	0.0008
Mile 8	0.0980	0.0800	0.0520	0.0465	0.0350	0.0310	0.0170	0.0150	0.0051	0.0055	0.0023	0.0036	0.0019	0.0030
Mile 12	0.0900	0.0900	0.0530	0.0530	0.0350	0.0350	0.0195	0.0195	0.0064	0.0062	0.0023	0.0025	0.0007	0.0014
Mile 16	0.0250	0.0520	0.0305	0.0410	0.0225	0.0290	0.0142	0.0170	0.0059	0.0054	0.0027	0.0025	0.0013	0.0018
Mile 20	0.0005	0.0015	0.0100	0.0270	0.0115	0.0220	0.0108	0.0130	0.0033	0.0053	0.0015	0.0027	0.0004	0.0014
Mile 23	----	----	0.0048	0.0105	0.0095	0.0133	0.0080	0.0105	0.0039	0.0042	0.0018	0.0022	0.0003	0.0004
	Middepth		Middepth		Middepth		Middepth		Middepth		Middepth		Middepth	
East River														
Mile 2	0.0580		0.0385		0.0285		0.0168		0.0054		0.0020		0.0010	
Mile 7	0.0700		0.0445		0.0310		0.0175		0.0062		0.0028		0.0010	
Mile 12	0.0470		0.0340		0.0260		0.0135		0.0028		0.0011		0.0008	
Mile 17	0.0000		0.0035		0.0075		0.0042		0.0015		0.0010		0.0008	
Hudson River, average surface and bottom														
Mile -4	0.0203		0.0228		0.0155		0.0079		0.0029		0.0016		0.0009	
Kill Van Kull														
Mile 3	0.0610		0.0385		0.0265		0.0150		0.0053		0.0027		0.0015	
Newark Bay														
Mile 2	0.0230		0.0260		0.0230		0.0150		0.0058		0.0028		0.0016	
Hackensack River														
Mile 2	0.0040		0.0110		0.0138		0.0123		0.0054		0.0024		0.0012	

Table 5

Dye Concentrations at High-Water Slack, in Per Cent of Initial Concentration, Taken from Station Curves, Test 3

River and Station	Cycle 5		Cycle 10		Cycle 15		Cycle 25		Cycle 50		Cycle 75		Cycle 100	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
Hudson River														
Mile -18	----	----	----	----	----	----	0.0032	0.0032	0.0046	0.0046	0.0031	0.0031	0.0017	0.0017
Mile -16	----	----	----	----	----	----	0.0044	0.0044	0.0043	0.0043	0.0029	0.0029	0.0018	0.0018
Mile -12	----	----	----	----	0.0040	0.0040	0.0064	0.0064	0.0052	0.0052	0.0035	0.0035	0.0023	0.0023
Mile -8	0.0215	0.0020	0.0125	0.0049	0.0090	0.0061	0.0071	0.0068	0.0043	0.0054	0.0026	0.0038	0.0015	0.0025
Mile -4	0.0400	0.0110	0.0273	0.0130	0.0189	0.0122	0.0109	0.0090	0.0040	0.0058	0.0022	0.0042	0.0015	0.0032
Mile 0	0.0600	0.0178	0.0320	0.0180	0.0216	0.0134	0.0111	0.0090	0.0033	0.0051	0.0019	0.0034	0.0013	0.0024
Mile 4	0.0783	0.0420	0.0360	0.0273	0.0235	0.0185	0.0118	0.0084	0.0034	0.0027	0.0018	0.0016	0.0013	0.0012
Mile 8	0.0720	0.0600	0.0370	0.0318	0.0210	0.0188	0.0095	0.0085	0.0029	0.0024	0.0017	0.0014	0.0011	0.0009
Mile 12	0.0650	0.0790	0.0335	0.0390	0.0197	0.0235	0.0093	0.0109	0.0017	0.0020	0.0005	0.0005	0.0001	0.0001
Mile 16	0.0380	0.0500	0.0225	0.0285	0.0148	0.0176	0.0065	0.0077	0.0011	0.0014	0.0002	0.0003	----	----
Mile 20	0.0035	0.0140	0.0101	0.0175	0.0073	0.0123	0.0035	0.0053	0.0006	0.0009	0.0001	0.0002	----	----
Mile 23	0.0010	0.0023	0.0030	0.0057	0.0047	0.0069	0.0024	0.0037	0.0002	0.0002	----	----	----	----

	Middepth	Middepth	Middepth	Middepth	Middepth	Middepth	Middepth
East River							
Mile 2	0.0540	0.0290	0.0190	0.0093	0.0024	0.0009	0.0004
Mile 7	0.0630	0.0330	0.0210	0.0099	0.0018	0.0005	0.0002
Mile 12	0.0333	0.0192	0.0122	0.0051	0.0013	0.0004	0.0002
Mile 17	----	0.0019	0.0029	0.0084	----	----	----
Hudson River, average surface and bottom							
Mile -4	0.0255	0.0201	0.0156	0.0100	0.0049	0.0032	0.0024
Kill Van Kull							
Mile 3	0.0500	0.0315	0.0198	0.0105	0.0035	0.0021	0.0017
Newark Bay							
Mile 2	0.0100	0.0185	0.0170	0.0110	0.0035	0.0022	0.0017
Hackensack River							
Mile 2	0.0012	0.0080	0.0110	0.0104	0.0036	0.0021	0.0012

Table 6

Dye Concentrations at High-Water Slack, in Per Cent of Initial Concentration, Taken from Station Curves, Test 4

River and Station	Cycle 5		Cycle 10		Cycle 15		Cycle 25		Cycle 50		Cycle 75		Cycle 100	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
Hudson River														
Mile -16			0.0046	0.0033	0.0060	0.0039	0.0074	0.0044	0.0070	0.0045	0.0042	0.0033	0.0015	0.0021
Mile -12	0.0030	0.0014	0.0048	0.0038	0.0063	0.0050	0.0075	0.0063	0.0058	0.0060	0.0032	0.0037	0.0016	0.0020
Mile -8	0.0185	0.0037	0.0225	0.0055	0.0130	0.0067	0.0067	0.0070	0.0047	0.0053	0.0038	0.0034	0.0030	0.0020
Mile -4	0.0330	0.0115	0.0318	0.0155	0.0170	0.0103	0.0066	0.0074	0.0043	0.0051	0.0028	0.0035	0.0020	0.0024
Mile 0	0.0600	0.0290	0.0335	0.0185	0.0165	0.0123	0.0064	0.0084	0.0032	0.0051	0.0022	0.0034	0.0016	0.0023
Mile 4	0.0740	0.0490	0.0345	0.0240	0.0175	0.0132	0.0084	0.0064	0.0031	0.0028	0.0017	0.0017	0.0010	0.0011
Mile 8	0.0750	0.0620	0.0335	0.0280	0.0185	0.0162	0.0070	0.0085	0.0026	0.0034	0.0015	0.0019	0.0011	0.0012
Mile 12	0.0750	0.0750	0.0365	0.0365	0.0200	0.0200	0.0075	0.0075	0.0027	0.0027	0.0020	0.0020	0.0018	0.0018
Mile 16	0.0295	0.0480	0.0195	0.0235	0.0125	0.0150	0.0057	0.0070	0.0021	0.0028	0.0014	0.0021	0.0012	0.0019
Mile 20	0.0025	0.0130	0.0068	0.0145	0.0061	0.0115	0.0027	0.0050	0.0007	0.0015	0.0002	0.0008	0.0000	0.0004
Mile 23	0.0015	0.0054	0.0049	0.0086	0.0035	0.0077	0.0005	0.0027	0.0000	0.0001	----	----	----	----
	Middepth		Middepth		Middepth		Middepth		Middepth		Middepth		Middepth	
East River														
Mile 2	0.0600		0.0300		0.0245		0.0075		0.0035		0.0024		0.0019	
Mile 7	0.0550		0.0255		0.0145		0.0070		0.0026		0.0018		0.0015	
Mile 12	0.0110		0.0076		0.0056		0.0036		0.0016		0.0013		0.0012	
Harlem River														
Mile 3	0.0105		0.0118		0.0096		0.0040		0.0011		0.0008		0.0007	
Hudson River, average surface and bottom														
Mile -4	0.0223		0.0237		0.0137		0.0070		0.0047		0.0032		0.0022	
Kill Van Kull														
Mile 3	0.0470		0.0290		0.0163		0.0075		0.0030		0.0019		0.0017	
Newark Bay														
Mile 2	0.0163		0.0193		0.0158		0.0067		0.0028		0.0018		0.0014	
Hackensack River														
Mile 2	0.0016		0.0090		0.0106		0.0082		0.0044		0.0030		0.0024	

Table 7

Dye Concentrations at High-Water Slack, in Per Cent of Initial Concentration, Taken from Station Curves, Test 5

River and Station	Cycle 5		Cycle 10		Cycle 15		Cycle 25		Cycle 50		Cycle 75		Cycle 100	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
Hudson River														
Mile -16	0.0005	0.0005	0.0012	0.0012	0.0016	0.0016	0.0020	0.0020	0.0022	0.0022	0.0020	0.0020	0.0016	0.0016
Mile -12	0.0006	0.0006	0.0095	0.0013	0.0011	0.0016	0.0013	0.0019	0.0014	0.0005	0.0015	----	0.0016	----
Mile -8	0.0020	0.0004	0.0128	0.0052	0.0135	0.0050	0.0064	0.0026	0.0022	0.0007	0.0016	0.0003	0.0014	0.0001
Mile -4	0.0350	0.0215	0.0260	0.0170	0.0168	0.0105	0.0090	0.0058	0.0036	0.0026	0.0205	0.0014	0.0014	0.0008
Mile 0	0.0600	0.0370	0.0335	0.0255	0.0205	0.0155	0.0071	0.0061	0.0028	0.0021	0.0016	0.0013	0.0011	0.0009
Mile 4	0.0520	0.0630	0.0310	0.0360	0.0190	0.0230	0.0100	0.0095	0.0037	0.0045	0.0021	0.0029	0.0012	0.0020
Mile 8	0.0350	0.0575	0.0320	0.0350	0.0220	0.0220	0.0094	0.0094	0.0021	0.0033	0.0010	0.0018	0.0006	0.0011
Mile 12	0.0310	0.0400	0.0315	0.0360	0.0210	0.0245	0.0105	0.0113	0.0025	0.0030	0.0011	0.0016	0.0005	0.0009
Mile 16	0.0135	0.0135	0.0180	0.0205	0.0165	0.0020	0.0084	0.0103	0.0021	0.0023	0.0012	0.0013	0.0011	0.0011
Mile 20	0.0004	0.0022	0.0042	0.0076	0.0050	0.0088	0.0038	0.0065	0.0012	0.0028	0.0044	0.0012	0.0002	0.0005
Mile 23	0.0000	0.0000	0.0027	0.0044	0.0050	0.0053	0.0026	0.0032	0.0008	0.0011	0.0002	0.0004	----	0.0002
	Middepth		Middepth		Middepth		Middepth		Middepth		Middepth		Middepth	
Lower Bay														
Station -8A	0.0225		0.0138		0.0088		0.0044		0.0020		0.0015		0.0012	
Station -9A	0.0185		0.0192		0.0137		0.0060		0.0021		0.0011		0.0007	
East River														
Mile 2	0.0670		0.0040		0.0235		0.0082		0.0024		0.0015		0.0012	
Mile 7	0.0076		0.0405		0.0235		0.0092		0.0024		0.0016		0.0013	
Mile 12	0.0050		0.0170		0.0100		0.0005		0.0022		0.0015		0.0012	
Mile 17	0.0145		0.0095		0.0050		0.0002		----		----		----	
Harlem River														
Mile 3	0.0660		0.0123		0.0072		0.0043		0.0022		0.0014		0.0012	
Hudson River, average surface and bottom														
Mile -4	0.0283		0.0215		0.0137		0.0074		0.0031		0.0018		0.0011	
Kill Van Kull														
Mile 3	0.0600		0.0323		0.0205		0.0097		0.0033		0.0020		0.0016	
Newark Bay														
Mile 2	0.0210		0.0200		0.0160		0.0094		0.0037		0.0021		0.0013	
Hackensack River														
Mile 2	0.0038		0.0105		0.0138		0.0112		0.0041		0.0018		0.0012	

Table 8

Dye Concentrations at High-Water Slack, in Per Cent of Initial Concentration, Taken from Station Curves, Test 6

River and Station	Cycle 5		Cycle 10		Cycle 15		Cycle 25		Cycle 50		Cycle 75		Cycle 100	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
Hudson River														
Mile -16	----	----	0.0003	----	0.0016	0.0008	0.0022	0.0022	0.0020	0.0021	0.0015	0.0016	0.0009	0.0012
Mile -12	0.0006	----	0.0016	0.0009	0.0023	0.0018	0.0021	0.0019	0.0017	0.0016	0.0015	0.0015	0.0014	0.0014
Mile -8	0.0375	0.0151	0.0081	0.0068	0.0046	0.0042	0.0028	0.0026	0.0018	0.0017	0.0015	0.0015	0.0014	0.0015
Mile -4	0.0540	0.0350	0.0310	0.0210	0.0180	0.0128	0.0077	0.0055	0.0024	0.0022	0.0016	0.0017	0.0014	0.0015
Mile 0	0.0650	0.0580	0.0285	0.0305	0.0150	0.0170	0.0056	0.0062	0.0019	0.0021	0.0015	0.0017	0.0014	0.0016
Mile 4	0.0710	0.0660	0.0360	0.0305	0.0200	0.0165	0.0065	0.0060	0.0023	0.0027	0.0014	0.0019	0.0009	0.0015
Mile 8	0.0600	0.0620	0.0300	0.0340	0.0180	0.0200	0.0069	0.0081	0.0024	0.0029	0.0017	0.0020	0.0014	0.0017
Mile 12	0.0290	0.0350	0.0270	0.0310	0.0180	0.0210	0.0085	0.0098	0.0026	0.0031	0.0016	0.0019	0.0011	0.0014
Mile 16	----	----	0.0107	0.0158	0.0110	0.0148	0.0048	0.0075	0.0007	0.0011	0.0002	0.0003	----	----
Mile 20	----	----	----	0.0068	0.0044	0.0082	0.0030	0.0057	0.0005	0.0009	0.0001	0.0003	----	----

	Middepth	Middepth	Middepth	Middepth	Middepth	Middepth	Middepth
East River							
Mile 2	0.0600	0.0315	0.0175	0.0078	0.0024	0.0016	0.0013
Mile 7	0.0610	0.0295	0.0170	0.0082	0.0029	0.0015	0.0010
Mile 12	0.0190	0.0086	0.0044	0.0018	0.0011	0.0009	0.0009
Mile 17	0.0002	0.0013	0.0019	0.0013	0.0005	0.0002	----
Harlem River							
Mile 3	0.0175	0.0074	0.0051	0.0034	0.0021	0.0016	0.0013
Hudson River, average surface and bottom							
Mile -4	0.0445	0.0260	0.0154	0.0066	0.0023	0.0155	0.0014
Kill Van Kull							
Mile 3	0.0650	0.0330	0.0195	0.0090	0.0034	0.0019	0.0012
Newark Bay							
Mile 2	0.0270	0.0320	0.0190	0.0090	0.0020	0.0013	0.0012
Hackensack River							
Mile -4	.0050	0.0170	0.0160	0.0105	0.0019	0.0010	0.0009

Table 9

Dye Concentrations at High-Water Slack, in Per Cent of Initial Concentration, Taken from Station Curves, Test 7

River and Station	Cycle 5		Cycle 10		Cycle 15		Cycle 25		Cycle 50		Cycle 75		Cycle 100	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
Hudson River														
Mile -18	----	----	0.0015	0.0015	0.0019	0.0019	0.0021	0.0021	0.0020	0.0020	0.0018	0.0018	0.0016	0.0016
Mile -16	----	----	0.0018	0.0018	0.0027	0.0027	0.0031	0.0031	0.0031	0.0031	0.0027	0.0027	0.0022	0.0022
Mile -12	0.0020	0.0010	0.0026	0.0016	0.0027	0.0019	0.0026	0.0021	0.0023	0.0023	0.0021	0.0021	0.0020	0.0020
Mile -8	0.0050	0.0014	0.0100	0.0024	0.0074	0.0027	0.0040	0.0024	0.0021	0.0021	0.0020	0.0020	0.0020	0.0020
Mile -4	0.0400	0.0830	0.0205	0.0275	0.0144	0.0115	0.0080	0.0059	0.0031	0.0029	0.0019	0.0019	0.0019	0.0019
Mile 0	0.0140	0.0220	0.0108	0.0162	0.0063	0.0101	0.0043	0.0055	0.0027	0.0033	0.0020	0.0030	0.0016	0.0028
Mile 4	0.0049	0.0063	0.0074	0.0081	0.0053	0.0057	0.0034	0.0034	0.0025	0.0025	0.0022	0.0022	0.0020	0.0020
Mile 8	0.0003	0.0064	0.0053	0.0074	0.0054	0.0054	0.0035	0.0035	0.0020	0.0020	0.0014	0.0014	0.0012	0.0012
Mile 12	----	0.0020	0.0039	0.0048	0.0048	0.0053	0.0033	0.0033	0.0016	0.0016	0.0011	0.0011	0.0010	0.0010
Mile 16	----	----	0.0005	0.0033	0.0013	0.0045	0.0020	0.0034	0.0017	0.0017	0.0014	0.0014	0.0013	0.0013
	Middepth		Middepth		Middepth		Middepth		Middepth		Middepth		Middepth	
East River														
Mile 2	0.0078		0.0088		0.0072		0.0033		0.0016		0.0012		0.0011	
Mile 7	0.0066		0.0079		0.0062		0.0025		0.0013		0.0011		0.0009	
Mile 12	0.0004		0.0022		0.0020		0.0014		0.0009		0.0007		0.0006	
Kill Van Kull														
Mile 3	0.0400		0.0225		0.0155		0.0077		0.0029		0.0022		0.0019	
Arthur Kill														
Mile 7	0.0890		0.0720		0.0534		0.0290		0.0091		0.0042		0.0021	
Mile 10	0.0040		0.0089		0.0128		0.0125		0.0050		0.0029		0.0023	
Mile 14	----		0.0026		0.0031		0.0036		0.0035		0.0018		0.0007	
Mile 18	----		----		0.0024		0.0032		0.0037		0.0018		0.0006	
Passaic River														
Mile 2	0.1850		0.2200		0.1630		0.1040		0.0380		0.0160		0.0075	
Mile 6	0.0100		0.0440		0.0670		0.0845		0.0490		0.0250		0.0140	
Mile 10	----		----		0.0060		0.0240		0.0370		0.0240		0.0165	
Newark Bay														
Mile 2	0.4430		0.1460		0.0900		0.0470		0.0168		0.0049		0.0028	
Hackensack River														
Mile 2	0.3330		0.2150		0.1600		0.0950		0.0290		0.0120		0.0060	
Mile 6	0.0850		0.1600		0.1550		0.0994		0.0420		0.0225		0.0125	
Mile 10	0.0035		0.0260		0.0480		0.0600		0.0375		0.0245		0.0175	
Mile 14	----		0.0005		0.0080		0.0195		0.0310		0.0199		0.0132	
Raritan River Channel														
Mile 21	----		----		0.0023		0.0035		0.0020		0.0014		0.0012	
Mile 30	0.0002		0.0064		0.0084		0.0064		0.0026		0.0019		0.0017	
Mile 35	0.0115		0.0143		0.0096		0.0050		0.0024		0.0018		0.0016	
Mile 41	0.0010		0.0068		0.0066		0.0042		0.0020		0.0015		0.0012	

Table 10

Dye Concentrations at High-Water Slack, in Per Cent of Initial Concentration, Taken from Station Curves, Test 8

River and Station	Cycle 5 Surface & Bottom	Cycle 10 Surface & Bottom	Cycle 15 Surface & Bottom	Cycle 25 Surface & Bottom	Cycle 50 Surface & Bottom	Cycle 75 Surface & Bottom	Cycle 100 Surface & Bottom
Hudson River							
Mile -18	----	0.0002	0.0011	0.0020	0.0019	0.0010	0.0006
Mile -16	----	0.0023	0.0030	0.0031	0.0021	0.0012	0.0006
Mile -12	----	0.0022	0.0025	0.0024	0.0013	0.0009	0.0006
Mile -8	0.0034	0.0040	0.0040	0.0037	0.0021	0.0012	0.0007
Mile -4	0.0088	0.0150	0.0157	0.0097	0.0033	0.0015	0.0007
Mile 0	0.0092	0.0130	0.0136	0.0095	0.0025	0.0009	0.0005
Mile 4	0.0008	0.0052	0.0076	0.0075	0.0013	0.0007	0.0005
Mile 8	----	0.0031	0.0055	0.0060	0.0010	0.0006	0.0004
Mile 12	----	0.0019	0.0051	0.0048	0.0013	0.0006	0.0004
Mile 16	----	----	0.0011	0.0056	0.0011	0.0003	----
	Middepth	Middepth	Middepth	Middepth	Middepth	Middepth	Middepth
East River							
Mile 2	0.0010	0.0096	0.0125	0.0043	0.0014	0.0008	0.0005
Mile 7	0.0002	0.0041	0.0056	0.0032	0.0009	0.0006	0.0004
Mile 12	----	0.0002	0.0007	0.0019	0.0005	0.0003	0.0002
Kill Van Kull							
Mile 3	0.0145	0.0215	0.0175	0.0116	0.0045	0.0021	0.0014
Arthur Kill							
Mile 7	0.7100	0.4400	0.3100	0.1650	0.0460	0.0180	0.0103
Mile 10	0.3350	0.2650	0.1970	0.1180	0.0315	0.0116	0.0069
Mile 14	0.0580	0.0950	0.0685	0.0375	0.0137	0.0073	0.0043
Mile 18	0.0017	0.0049	0.0082	0.0127	0.0083	0.0056	0.0043
Passaic River							
Mile 2	0.0260	0.0920	0.1120	0.0890	0.0385	0.0193	0.0102
Mile 6	----	0.0090	0.0215	0.0470	0.0405	0.0285	0.0210
Mile 10	----	----	0.0000	0.0032	0.0297	0.0235	0.0195
Newark Bay							
Mile 2	0.5800	0.3000	0.1180	0.0600	0.0207	0.0087	0.0039
Hackensack River							
Mile 2	0.0760	0.1480	0.1360	0.0870	0.0350	0.0176	0.0093
Mile 6	0.0070	0.0400	0.0625	0.0850	0.0425	0.0255	0.0173
Mile 10	----	0.0015	0.0150	0.0375	0.0425	0.0280	0.0160
Mile 14	----	----	0.0018	0.0113	0.0245	0.0205	0.0121
Raritan River Channel							
Mile 21	----	0.0002	0.0050	0.0100	0.0065	0.0043	0.0025
Mile 30	----	0.0002	0.0038	0.0095	0.0048	0.0023	0.0011
Mile 35	----	0.0020	0.0077	0.0058	0.0023	0.0011	0.0006
Mile 41	----	0.0020	0.0047	0.0051	0.0043	0.0017	0.0006

Table 11

Dye Concentrations at High-Water Slack, in Per Cent of Initial Concentration, Taken from Station Curves, Test 9

River and Station	Cycle 5		Cycle 10		Cycle 15		Cycle 25		Cycle 50		Cycle 75		Cycle 100	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
Hudson River														
Mile -18	----	----	0.0016	0.0016	0.0020	0.0020	0.0022	0.0022	0.0018	0.0018	0.0013	0.0013	0.0010	0.0010
Mile -16	----	----	0.0016	0.0016	0.0020	0.0020	0.0022	0.0022	0.0018	0.0018	0.0013	0.0013	0.0010	0.0010
Mile -12	0.0033	0.0033	0.0028	0.0028	0.0021	0.0021	0.0022	0.0022	0.0018	0.0018	0.0016	0.0016	0.0014	0.0014
Mile -8	0.0163	0.0078	0.0045	0.0030	0.0028	0.0026	0.0022	0.0022	0.0018	0.0018	0.0016	0.0016	0.0015	0.0015
Mile -4	0.0420	0.0330	0.0142	0.0100	0.0075	0.0051	0.0038	0.0029	0.0024	0.0019	0.0017	0.0015	0.0014	0.0014
Mile 0	0.0285	0.0380	0.0149	0.0149	0.0085	0.0085	0.0048	0.0048	0.0026	0.0026	0.0018	0.0018	0.0015	0.0015
Mile 4	0.0125	0.0255	0.0120	0.0140	0.0085	0.0085	0.0044	0.0044	0.0022	0.0022	0.0016	0.0016	0.0013	0.0013
Mile 8	0.0067	0.0140	0.0108	0.0138	0.0079	0.0089	0.0045	0.0045	0.0021	0.0021	0.0014	0.0014	0.0010	0.0010
Mile 12	0.0035	0.0055	0.0067	0.0084	0.0070	0.0080	0.0042	0.0043	0.0015	0.0015	0.0008	0.0008	0.0006	0.0006
Mile 16	----	----	0.0010	0.0010	0.0029	0.0046	0.0027	0.0035	0.0011	0.0011	0.0005	0.0005	0.0003	0.0003
	Middepth		Middepth		Middepth		Middepth		Middepth		Middepth		Middepth	
East River														
Mile 2	0.0240		0.0125		0.0079		0.0045		0.0022		0.0015		0.0012	
Mile 7	0.0141		0.0107		0.0072		0.0042		0.0019		0.0012		0.0009	
Mile 12	0.0034		0.0038		0.0035		0.0026		0.0014		0.0009		0.0006	
Mile 17	----		----		----		0.0023		0.0013		0.0007		0.0004	
Kill Van Kull														
Mile 3	0.0315		0.0140		0.0084		0.0044		0.0018		0.0011		0.0009	
Arthur Kill														
Mile 7	0.0004		0.0039		0.0040		0.0045		0.0026		0.0016		0.0012	
Mile 10	----		0.0003		0.0026		0.0043		0.0027		0.0016		0.0011	
Mile 14	----		0.0001		0.0021		0.0037		0.0026		0.0016		0.0010	
Mile 18	----		----		0.0012		0.0038		0.0032		0.0017		0.0010	
Passaic River														
Mile 2	0.0003		0.0046		0.0058		0.0059		0.0036		0.0022		0.0014	
Newark Bay														
Mile 2	0.0117		0.0131		0.0105		0.0061		0.0019		0.0010		0.0007	
Hackensack River														
Mile 2	0.0006		0.0079		0.0090		0.0068		0.0024		0.0011		0.0006	
Mile 6	----		----		----		0.0023		0.0034		0.0018		0.0010	
Raritan River Channel														
Mile 21	----		0.0009		0.0050		0.0055		0.0037		0.0026		0.0020	
Mile 30	----		0.0120		0.0185		0.0087		0.0033		0.0022		0.0017	
Mile 35	0.0400		0.0130		0.0078		0.0040		0.0022		0.0016		0.0012	
Mile 38	0.0280		0.0150		0.0072		0.0038		0.0020		0.0014		0.0010	
Mile 41	0.0237		0.0120		0.0070		0.0035		0.0017		0.0012		0.0009	

(Continued)

Table 11 (Concluded)

River and Station	Cycle 5 Middepth	Cycle 10 Middepth	Cycle 15 Middepth	Cycle 25 Middepth	Cycle 50 Middepth	Cycle 75 Middepth	Cycle 100 Middepth
Jamaica Bay							
Station J-0	0.0019	0.0035	0.0033	0.0025	0.0015	0.0011	0.0008
Station J-1	0.0084	0.0038	0.0029	0.0017	0.0009	0.0007	0.0005
Station J-2	0.0135	0.0046	0.0030	0.0018	0.0009	0.0006	0.0005
Harlem River							
Mile 3	----	0.0005	0.0027	0.0025	0.0014	0.0010	0.0007
Chapel Hill Channel							
Mile 46	0.0310	0.0160	0.0086	0.0048	0.0240	0.0018	0.0015

Table 12

Observed Dye Concentrations at High-Water Slack in Per Cent of Initial Concentration, Test 1

Cycle	Surface	Bottom	Cycle	Surface	Bottom	Cycle	Surface	Bottom
	Hudson River, Mile -8			Hudson River, Mile 4			Hudson River, Mile 16	
8	0.0109	0.0024	3	0.1371	0.0344	3	0.0421	0.0675
12	0.0014	0.0004	7	0.0459	0.0416	6	0.0432	0.0589
20	0.0060	0.0025	10	0.0348	0.0372	8	0.0439	0.0481
25	0.0042	0.0005	14	0.0284	0.0270	11	0.0371	0.0495
30	0.0016	0.0016	21	0.0148	0.0133	15	0.0261	0.0290
35	0.0011	0.0011	26	0.0110	0.0126	22	0.0138	0.0143
40	0.0017	0.0012	31	0.0081	0.0081	27	0.0137	0.0142
45	0.0012	0.0034	36	0.0055	0.0066	32	0.0125	0.0141
50	0.0023	0.0018	41	----	0.0051	37	0.0084	0.0084
55	0.0018	0.0006	46	0.0058	0.0064	42	0.0091	0.0068
60	0.0018	0.0031	51	0.0042	0.0042	47	0.0064	0.0069
65	0.0006	0.0000	56	0.0024	0.0031	52	0.0030	0.0036
70	0.0025	0.0006	61	0.0031	0.0006	57	0.0049	0.0043
75	0.0020	0.0006	66	0.0025	0.0025	62	0.0132	0.0045
			71	0.0006	0.0019	67	0.0025	0.0046
						72	0.0039	0.0033
	Hudson River, Mile -4			Hudson River, Mile 8			Hudson River, Mile 20	
3	0.0249	0.0040	3	0.1263	0.1173	6	0.0162	0.0274
5	0.0341	0.0120	7	0.0542	0.0524	8	0.0175	0.0198
9	0.0328	0.0176	10	0.0454	0.0401	12	0.0150	0.0208
13	0.0238	0.0127	14	0.0313	0.0309	15	0.0147	0.0201
20	0.0132	0.0076	21	0.0230	0.0199	22	0.0287	0.0138
25	0.0094	0.0020	26	0.0099	0.0157	27	0.0126	0.0137
30	0.0059	0.0021	31	0.0140	0.0097	32	----	0.0146
35	0.0065	0.0055	36	----	0.0128	37	0.0077	0.0072
40	0.0034	0.0022	41	0.0108	0.0045	42	0.0051	0.0079
45	0.0058	0.0034	46	0.0157	0.0047	47	0.0052	0.0059
50	0.0023	0.0023	51	0.0048	0.0042	52	0.0012	0.0053
55	0.0031	0.0018	56	0.0054	0.0049	57	0.0031	0.0062
60	0.0018	0.0013	61	0.0024	0.0019	62	0.0032	0.0032
65	0.0032	0.0025	66	0.0045	0.0019	67	0.0025	0.0032
70	0.0006	0.0006	71	0.0046	0.0013	72	0.0020	0.0014
75	0.0006	0.0014						
	Hudson River, Mile 0			Hudson River, Mile 12			Hudson River, Mile 23	
3	0.0403	0.0254	3	0.1594	0.1625	15	0.0083	0.0098
6	0.0408	0.0432	5	0.0875	0.0848	22	0.0097	0.0190
9	0.0356	0.0261	7	0.0734	0.0711	27	0.0073	0.0095
14	0.0254	0.0270	11	0.0423	0.0428	32	0.0092	0.0087
20	0.0141	0.0167	14	0.0245	0.0284	37	0.0066	0.0033
25	0.0245	0.0114	21	0.0137	0.0209	42	0.0040	0.0046
30	0.0097	0.0059	26	0.0073	0.0110	47	0.0035	0.0059
35	0.0049	0.0039	31	0.0124	0.0107	52	0.0023	0.0036
40	0.0045	0.0028	36	0.0066	0.0056	57	0.0018	0.0080
45	0.0046	0.0034	41	0.0074	0.0079	62	0.0019	0.0032
50	0.0035	0.0042	46	0.0093	0.0088	67	0.0051	0.0046
55	0.0024	0.0031	51	0.0048	0.0048	72	0.0000	0.0020
60	0.0044	0.0024	56	0.0036	0.0043			
65	0.0006	0.0006	61	0.0024	0.0019			
70	0.0033	0.0013	66	0.0038	0.0013			
75	0.0000	0.0006	71	0.0025	0.0019			

(Continued)

Table 12 (Concluded)

Cycle	Middepth
East River Mile 2	
6	0.0479
8	0.0405
10	0.0340
12	0.0275
18	0.0180
23	0.0113
28	0.0111
33	0.0082
38	0.0056
43	0.0051
48	0.0047
53	0.0030
58	0.0018
63	0.0038
68	0.0046
73	0.0014
East River Mile 7	
3	0.1014
6	0.0487
8	0.0443
10	0.0316
12	0.0324
16	0.0200
23	0.0102
28	0.0085
33	0.0098
38	0.0094
43	0.0068
48	0.0047
53	0.0018
58	0.0018
63	0.0025
68	0.0025
73	0.0020

Cycle	Middepth
East River Mile 12	
3	0.0195
7	0.0150
9	0.0086
11	0.0125
13	0.0102
18	0.0110
23	0.0119
28	0.0080
33	0.0126
38	0.0061
43	0.0041
48	0.0052
53	0.0054
58	0.0031
63	0.0013
68	0.0065
73	0.0014
East River Mile 17	
33	0.0000
38	0.0005
43	0.0012
48	0.0000
53	0.0012
58	0.0018
63	0.0000
68	0.0000
73	0.0006

Cycle	Middepth
Harlem River Mile 3	
3	0.0116
7	0.0140
9	0.0148
11	0.0130
13	0.0127
18	0.0125
23	0.0139
28	0.0096
33	0.0082
38	0.0056
43	0.0058
48	0.0047
53	0.0018
58	0.0024
63	0.0013
68	0.0013
73	0.0006
Hackensack River Mile 2	
44	0.0063
49	0.0042
54	0.0030
59	0.0013
64	0.0025
69	0.0025
74	0.0000

Cycle	Middepth
Passaic River Mile 2	
44	0.0104
49	0.0047
54	0.0043
59	0.0031
64	0.0019
69	0.0013
74	0.0006
Newark Bay Mile 2	
44	0.0063
49	0.0065
54	0.0043
59	0.0024
64	0.0025
69	0.0013
74	0.0014
Kill Van Kull Mile 3	
44	0.0068
49	0.0042
54	0.0018
59	0.0024
64	0.0032
69	0.0019
74	0.0000
Arthur Kill Mile 7	
44	0.0046
49	0.0035
54	0.0030
59	0.0062
64	0.0032
69	0.0052
74	0.0006

River and Station	Cycle 75 Middepth
Additional Stations	
Hudson River	
Mile -9	0.0000
Mile -11	0.0000
Mile -13	0.0000
Mile -16	0.0000
Mile -18	0.0000
Chapel Hill Channel	
Mile 48	0.0000
Mile 46	0.0040
Arthur Kill	
Mile 12	0.0014
Mile 18	0.0014
Raritan River Channel	
Mile 23	0.0000
Mile 26	0.0000
Mile 29	0.0014
Mile 32	0.0006
Mile 35	0.0000
Mile 38	0.0000
Mile 39	0.0000
Mile 42	0.0006
Mile 45	0.0000
Headbay	
A	0.0000
B	0.0000
C	0.0000

Table 13

Observed Dye Concentrations at High-Water Slack in Per Cent of Initial Concentration, Test 2

Cycle	Surface	Bottom	Cycle	Surface	Bottom	Cycle	Surface	Bottom
	Hudson River, Mile -8			Hudson River, Mile 0			Hudson River, Mile 8	
6	----	0.0004	2	0.0247	0.0017	2	0.1946	0.1924
8	0.0018	0.0010	4	0.0521	0.0133	4	0.1101	0.0983
10	0.0014	0.0014	6	0.0483	0.0204	6	0.0789	0.0692
12	0.0029	0.0039	8	0.0471	0.0298	8	0.0669	0.0576
14	0.0004	0.0039	10	0.0387	0.0215	10	0.0545	0.0420
16	0.0035	0.0025	12	0.0377	0.0257	12	0.0430	0.0334
18	0.0025	0.0010	14	0.0235	0.0167	14	0.0377	0.0338
20	0.0015	0.0020	16	0.0203	0.0144	16	0.0346	0.0302
22	----	0.0026	18	0.0196	0.0110	18	0.0260	0.0276
24	0.0031	0.0000	20	0.0207	0.0147	20	0.0258	0.0243
26	0.0031	0.0020	22	0.0138	0.0108	22	0.0205	0.0220
30	0.0016	0.0011	24	0.0124	0.0041	24	0.0135	0.0150
35	0.0044	0.0000	26	0.0146	0.0053	26	0.0130	0.0110
40	----	0.0062	30	0.0075	0.0043	30	0.0128	0.0139
45	0.0005	0.0000	35	0.0049	0.0044	35	0.0088	0.0065
50	0.0000	0.0012	40	0.0057	0.0028	40	0.0073	0.0057
55	0.0036	0.0000	45	0.0034	0.0052	45	0.0075	0.0087
60	0.0024	0.0013	50	0.0018	0.0012	50	0.0018	0.0012
65	0.0032	0.0019	55	0.0013	0.0054	55	0.0049	0.0031
70	0.0025	0.0046	60	0.0031	0.0024	60	0.0031	0.0013
75	0.0006	0.0006	65	0.0006	0.0006	65	0.0006	0.0006
80	0.0014	0.0006	70	0.0019	0.0019	70	0.0033	0.0033
85	0.0027	0.0006	75	0.0000	0.0014	75	0.0020	0.0059
90	0.0028	0.0015	80	0.0040	0.0026	80	0.0020	0.0034
95	0.0021	0.0000	85	0.0014	0.0006	85	0.0021	0.0014
100	0.0007	0.0007	90	0.0021	0.0028	90	0.0000	0.0000
			95	0.0015	0.0007	95	0.0021	0.0000
			100	0.0015	0.0022	100	0.0029	0.0029
	Hudson River, Mile -4			Hudson River, Mile 4			Hudson River, Mile 12	
2	0.0144	----	2	0.1866	0.0470	2	0.0852	0.1749
4	0.0283	0.0054	4	0.1152	0.0493	4	0.0932	0.1134
6	0.0358	0.0111	6	0.0724	0.0506	6	0.0784	0.0858
8	0.0349	0.0137	8	0.0481	0.0405	8	0.0618	0.0660
10	0.0310	0.0149	10	0.0406	0.0378	10	0.0531	0.0525
12	0.0290	0.0135	12	0.0383	0.0338	12	0.0445	0.0392
14	0.0191	0.0064	14	0.0328	0.0231	14	0.0372	0.0396
16	0.0119	0.0194	16	0.0321	0.0248	16	0.0317	0.0336
18	0.0145	0.0065	18	0.0281	0.0205	18	0.0325	0.0310
20	0.0147	0.0071	20	0.0233	0.0182	20	0.0258	0.0273
22	0.0164	0.0067	22	0.0184	0.0169	22	0.0282	0.0246
24	0.0129	0.0037	24	0.0186	0.0114	24	0.0259	0.0244
26	0.0062	0.0053	26	0.0168	0.0115	26	0.0146	0.0163
30	0.0106	0.0043	30	0.0144	0.0086	30	0.0144	0.0133
35	0.0055	0.0005	35	0.0088	0.0077	35	0.0127	0.0109
40	0.0040	0.0040	40	0.0079	0.0102	40	0.0107	0.0090
45	0.0046	0.0017	45	0.0064	0.0052	45	0.0093	0.0075
50	0.0000	0.0023	50	0.0000	0.0060	50	0.0047	0.0023
55	0.0072	0.0092	55	0.0054	0.0000	55	0.0067	0.0043
60	0.0037	0.0037	60	0.0013	0.0018	60	0.0044	0.0037
65	0.0000	0.0000	65	0.0045	0.0045	65	0.0000	0.0000
70	0.0000	0.0019	70	0.0052	0.0006	70	0.0019	0.0019
75	0.0000	0.0000	75	0.0126	0.0014	75	0.0073	0.0006
80	0.0000	0.0020	80	0.0026	0.0020	80	0.0006	0.0020
85	0.0006	0.0006	85	0.0014	0.0006	85	0.0014	0.0014
90	0.0000	0.0000	90	0.0000	0.0000	90	0.0006	0.0000
95	0.0000	0.0000	95	0.0015	0.0043	95	0.0007	0.0021
100	0.0015	0.0000	100	0.0037	0.0000	100	0.0015	0.0022

(Continued)

Table 13 (Continued)

Cycle	Surface	Bottom
	Hudson River Mile 16	
2	0.0009	0.0004
4	0.0150	0.0439
6	0.0348	0.0553
8	0.0354	0.0433
10	0.0258	0.0439
12	0.0275	0.0344
14	0.0264	0.0328
16	0.0217	0.0302
18	0.0226	0.0266
20	0.0248	0.0243
22	0.0241	0.0266
24	0.0192	0.0150
26	0.0089	0.0136
30	0.0124	0.0128
35	0.0093	0.0093
40	0.0079	0.0073
45	0.0052	0.0064
50	0.0030	0.0047
55	0.0061	0.0043
60	0.0044	0.0024
65	0.0051	0.0019
70	0.0025	0.0019
75	0.0020	0.0006
80	0.0014	0.0026
85	0.0014	0.0021
90	0.0021	0.0006
95	0.0015	0.0021
100	0.0015	0.0007
	Hudson River Mile 20	
2	0.0000	0.0000
4	0.0000	0.0004
6	0.0028	0.0139
8	0.0071	0.0203
10	0.0072	0.0272
12	0.0106	0.0198
14	0.0103	0.0231
16	0.0119	0.0194
18	0.0095	0.0145
20	0.0117	0.0198
22	0.0097	0.0143
24	0.0120	0.0150
26	0.0104	0.0115
30	0.0086	0.0106
35	0.0065	0.0088
40	0.0057	0.0067
45	0.0022	0.0052
50	0.0030	0.0023
55	0.0049	0.0000
60	0.0031	0.0050
65	0.0032	0.0057
70	0.0025	0.0025
75	0.0040	0.0034
80	0.0014	0.0014
85	0.0000	0.0021
90	0.0000	0.0000
95	0.0000	0.0028
100	0.0000	0.0022

Cycle	Surface	Bottom
	Hudson River Mile 23	
8	0.0042	0.0080
10	0.0038	0.0105
12	0.0058	0.0102
14	0.0068	0.0093
16	0.0104	0.0129
18	0.0105	0.0127
20	0.0111	0.0141
22	0.0093	0.0112
24	0.0083	0.0057
26	0.0042	0.0089
30	0.0064	0.0097
35	0.0055	0.0060
40	0.0040	0.0050
45	0.0046	0.0075
50	0.0042	0.0030
55	0.0092	0.0000
60	0.0044	0.0031
65	0.0032	0.0006
70	0.0013	0.0033
75	0.0073	0.0000
80	0.0026	0.0006
85	0.0014	0.0006
90	0.0006	0.0000
95	0.0000	0.0000
100	0.0015	0.0007

Cycle	Middepth
	East River Mile 2
3	0.0765
5	0.0580
7	0.0514
9	0.0384
11	0.0365
13	0.0365
15	0.0280
17	0.0283
19	0.0181
21	0.0199
23	0.0196
25	0.0182
27	0.0153
31	0.0118
36	0.0133
41	0.0074
46	0.0116
51	0.0023
56	0.0043
61	0.0030
66	0.0013
71	0.0033
76	0.0026
81	0.0006
86	0.0021
91	0.0015
96	0.0028
101	0.0015
	East River Mile 7
3	0.0969
5	0.0737
7	0.0533
9	0.0474
11	0.0419
13	0.0379
15	0.0300
17	0.0274
19	0.0227
21	0.0199
23	0.0201
25	0.0162
27	0.0153
31	0.0124
36	0.0083
41	0.0040
46	0.0041
51	0.0065
56	0.0043
61	0.0037
66	0.0006
71	0.0019
76	0.0026
81	0.0000
86	0.0000
91	0.0028
96	0.0015
101	0.0015

Cycle	Middepth
	East River Mile 12
3	0.0566
5	0.0410
7	0.0412
9	0.0370
11	0.0342
13	0.0316
15	0.0290
17	0.0229
19	0.0216
21	0.0199
23	0.0176
25	0.0145
27	0.0100
31	0.0090
36	0.0039
41	0.0045
46	0.0035
51	0.0005
56	0.0006
61	0.0056
66	0.0019
71	0.0006
76	0.0000
81	0.0020
86	0.0006
91	0.0021
96	0.0007
101	0.0022
	East River Mile 17
5	0.0009
7	0.0010
9	0.0024
11	0.0063
13	0.0063
15	0.0074
17	0.0080
19	0.0157
21	0.0077
23	0.0078
25	0.0037
27	0.0026
31	0.0011
36	0.0011
41	0.0000
46	0.0000
51	0.0000
56	0.0036
61	0.0013
66	0.0025
71	0.0019
76	----
81	0.0006
86	0.0006
91	0.0015
96	0.0007
101	0.0015

Cycle	Middepth
	Harlem River Mile 3
3	0.0009
5	0.0046
7	0.0084
9	0.0132
11	0.0149
13	0.0151
15	0.0133
17	0.0139
19	0.0157
21	0.0158
23	0.0154
25	0.0120
27	0.0095
31	0.0097
36	0.0121
41	0.0051
46	0.0052
51	0.0030
56	0.0061
61	0.0037
66	0.0025
71	0.0019
76	0.0073
81	0.0027
86	0.0006
91	0.0028
96	0.0007
101	0.0015
	Hackensack River Mile 2
3	0.0000
5	0.0037
7	0.0079
9	0.0110
11	0.0115
13	0.0146
15	0.0133
17	0.0139
19	0.0140
21	0.0168
23	0.0119
25	0.0125
27	0.0095
31	0.0097
36	0.0077
41	0.0086
46	0.0058
51	0.0053
56	0.0073
61	0.0024
66	0.0025
71	0.0025
76	0.0020
81	0.0027
86	0.0021
91	0.0015
96	0.0015
101	0.0007

(Continued)

Table 13 (Concluded)

Cycle	Middepth	Cycle	Middepth	Cycle	Middepth	Cycle	Middepth
Passaic River Mile 2		Newark Bay Mile 2		Kill Van Kull Mile 3		Arthur Kill Mile 7	
3	0.0000	3	0.0077	3	0.0692	3	0.0004
5	0.0004	5	0.0175	5	0.0613	5	0.0000
7	0.0014	7	0.0248	7	0.0486	7	0.0047
9	0.0056	9	0.0280	9	0.0418	9	0.0024
11	0.0053	11	0.0211	11	0.0356	11	0.0034
13	0.0068	13	0.0224	13	0.0316	13	0.0058
15	0.0168	15	0.0251	15	0.0280	15	0.0039
17	0.0099	17	0.0214	17	0.0229	17	0.0035
19	0.0131	19	0.0191	19	----	19	0.0040
21	0.0122	21	0.0163	21	0.0204	21	0.0056
23	0.0124	23	0.0165	23	0.0201	23	0.0067
25	0.0083	25	0.0177	25	0.0145	25	0.0005
27	0.0111	27	0.0131	27	0.0111	27	0.0026
31	0.0102	31	0.0124	31	0.0102	31	0.0032
36	0.0110	33	0.0066	33	0.0083	33	0.0021
41	0.0062	41	0.0096	41	0.0074	41	0.0022
46	0.0081	46	0.0052	46	0.0058	46	0.0047
51	0.0012	51	0.0071	51	0.0060	51	0.0060
56	0.0121	56	0.0049	56	0.0036	56	0.0031
61	0.0037	61	0.0037	61	0.0006	61	0.0013
66	0.0154	66	0.0051	66	0.0045	66	0.0019
71	0.0130	71	0.0006	71	0.0013	71	0.0025
76	0.0034	76	0.0014	76	0.0014	76	0.0000
81	0.0020	81	0.0020	81	0.0027	81	0.0020
86	0.0006	86	0.0021	86	0.0021	86	0.0027
91	0.0042	91	0.0021	91	0.0021	91	0.0007
96	0.0007	96	0.0036	96	0.0015	96	0.0028
101	0.0015	101	0.0022	101	0.0015	101	0.0022
Lower Bay Station 8A		Lower Bay Station 9A					
22	0.0097	22	0.0071				
24	0.0052	24	0.0103				
26	0.0062	26	0.0068				
30	0.0070	30	0.0075				
35	0.0055	35	0.0033				
40	0.0028	40	0.0045				
45	0.0052	45	0.0046				
50	0.0060	50	0.0047				
55	0.0054	55	0.0013				
60	0.0074	60	0.0050				
65	0.0013	65	0.0000				
70	0.0019	70	0.0019				
75	0.0000	75	0.0026				
80	0.0020	80	0.0000				
85	0.0014	85	0.0041				
90	0.0036	90	0.0021				
95	0.0021	95	0.0021				
100	0.0007	100	0.0029				

River and Station	50 Cycles Middepth	100 Cycles Middepth
Additional Stations		
Kill Van Kull		
Mile 2	0.0023	0.0022
Mile 4	0.0035	0.0022
Arthur Kill		
Mile 6	0.0042	0.0007
Mile 8	0.0012	0.0037
Mile 10	0.0030	0.0007
Mile 12	0.0030	0.0007
Mile 14	0.0023	0.0029
Mile 16	0.0023	0.0000
Mile 18	0.0018	0.0015
Raritan River Channel		
Mile 20	0.0023	0.0000
Mile 22	0.0012	0.0015
Mile 21	0.0023	0.0007
Mile 24	0.0005	0.0007
Mile 28	0.0023	0.0029
Mile 30	0.0030	0.0000
Mile 32	0.0065	0.0029
Mile 34	0.0035	0.0044
Mile 36	0.0023	0.0015
Mile 37	0.0030	0.0029
Mile 38	0.0018	0.0015
Mile 40	0.0018	0.0007
Mile 42	0.0030	0.0022
Mile 44	0.0030	0.0015
Mile 45	0.0018	0.0015
Chapel Hill Channel		
Mile 46	0.0107	0.0037
Mile 48	0.0000	0.0015
Mile 50	0.0071	0.0015
Hudson River		
Mile -10	0.0000	0.0000
Mile -12	0.0023	0.0022
Mile -14	0.0012	0.0044
Mile -16	0.0053	0.0000
Mile -18	0.0018	0.0015
Headbay		
A	----	0.0000
B	----	0.0000
C	----	0.0029

Table 14

Observed Dye Concentrations at High-Water Slack in Per Cent of Initial Concentration, Test 3

Cycle	Surface	Bottom
	Hudson River, Mile -18	
40	0.0062	0.0050
45	0.0064	0.0050
50	0.0053	0.0035
55	0.0031	0.0031
60	0.0000	0.0024
65	0.0025	0.0025
70	0.0039	0.0025
75	0.0034	----
80	----	0.0040
85	0.0035	0.0021
90	----	----
95	0.0015	0.0015
100	0.0015	0.0022
	Hudson River, Mile -16	
40	----	0.0028
45	0.0041	0.0058
50	0.0053	0.0047
55	0.0043	0.0024
60	0.0031	0.0000
65	0.0025	0.0006
70	0.0033	0.0052
75	0.0073	0.0026
80	0.0014	0.0026
85	0.0021	0.0006
90	0.0015	0.0021
95	0.0021	----
100	0.0022	0.0022

Cycle	Surface	Bottom
	Hudson River, Mile -12	
40	0.0057	0.0045
45	0.0081	0.0064
50	0.0035	0.0060
55	0.0061	0.0043
60	0.0024	0.0044
65	0.0045	0.0045
70	0.0046	0.0039
75	0.0087	0.0047
80	0.0035	0.0034
85	0.0049	0.0027
90	0.0015	0.0028
95	0.0021	0.0028
100	0.0022	0.0007
	Hudson River, Mile -8	
4	0.0215	0.0037
6	0.0199	0.0014
8	0.0231	0.0024
10	0.0086	0.0028
12	0.0087	0.0058
14	0.0122	0.0058
16	0.0089	0.0098
18	0.0070	0.0065
20	0.0086	0.0066
22	0.0071	0.0067
24	0.0072	0.0062
30	0.0070	0.0064
35	0.0055	0.0065
40	0.0067	0.0063
45	0.0052	0.0058
50	0.0042	0.0053
55	0.0013	0.0061
60	0.0050	0.0013
65	0.0025	0.0025
70	0.0039	0.0066
75	0.0020	0.0034
80	0.0020	0.0040
85	0.0027	0.0021
90	0.0015	0.0042
95	0.0015	0.0028
100	0.0022	0.0000

Cycle	Surface	Bottom
	Hudson River, Mile -4	
2	0.0004	0.0000
4	0.0429	0.0096
6	0.0381	0.0116
8	0.0316	0.0148
10	0.0316	0.0201
12	0.0285	0.0126
14	0.0196	0.0097
16	0.0158	0.0123
18	0.0145	0.0100
20	0.0152	0.0117
22	0.0102	0.0097
24	0.0109	0.0067
30	0.0106	0.0081
35	0.0065	0.0049
40	0.0040	0.0050
45	0.0052	0.0075
50	0.0053	0.0042
55	0.0036	0.0024
60	0.0013	0.0050
65	0.0025	0.0070
70	0.0019	0.0046
75	0.0026	0.0040
80	0.0054	0.0054
85	0.0035	0.0041
90	0.0028	0.0006
95	0.0028	0.0073
100	0.0015	0.0037
	Hudson River, Mile 0	
2	0.0395	0.0085
4	0.0695	0.0142
6	0.0571	0.0186
8	0.0396	0.0179
10	0.0320	0.0181
12	0.0314	----
14	0.0191	0.0117
16	0.0203	0.0123
18	0.0171	0.0100
20	0.0152	0.0096
22	0.0133	0.0102
24	0.0103	0.0083
30	0.0075	0.0075
35	0.0065	0.0077
40	0.0034	0.0034
45	0.0046	0.0041
50	0.0030	0.0060
55	0.0000	0.0024
60	0.0006	0.0031
65	0.0000	0.0032
70	0.0025	0.0000
75	0.0006	0.0059
80	0.0026	0.0026
85	0.0006	0.0006
90	0.0006	0.0050
95	0.0015	0.0007
100	0.0000	0.0015

(Continued)

Table 14 (Continued)

Cycle	Surface	Bottom
	Hudson River, Mile 4	
2	0.1964	0.0260
4	0.0864	0.0429
6	0.0510	0.0381
8	0.0476	0.0292
10	0.0330	0.0272
12	0.0305	0.0222
14	0.0260	0.0196
16	0.0198	0.0194
18	0.0185	0.0125
20	0.0152	0.0142
22	0.0174	0.0108
24	0.0094	0.0088
30	0.0075	0.0049
35	0.0049	0.0049
40	0.0034	0.0034
45	0.0034	0.0017
50	0.0035	0.0042
55	0.0031	0.0000
60	0.0018	0.0013
65	0.0019	0.0000
70	0.0000	0.0025
75	0.0020	0.0014
80	0.0020	0.0020
85	0.0014	0.0041
90	0.0000	0.0006
95	0.0015	0.0000
100	0.0015	0.0015
	Hudson River, Mile 8	
2	0.1739	0.1094
4	0.0937	0.0741
6	0.0590	0.0534
8	0.0425	0.0411
10	0.0392	0.0301
12	0.0271	0.0242
14	0.0235	0.0220
16	0.0208	0.0190
18	0.0165	0.0165
20	0.0117	0.0142
22	0.0138	0.0102
24	0.0094	0.0078
30	0.0070	0.0043
35	0.0049	0.0055
40	0.0017	0.0022
45	0.0022	0.0029
50	0.0030	0.0035
55	0.0013	0.0013
60	0.0031	0.0018
65	0.0032	0.0000
70	0.0025	0.0013
75	0.0040	0.0014
80	0.0020	0.0006
85	0.0006	0.0006
90	0.0021	0.0000
95	0.0064	0.0007
100	0.0044	0.0000

Cycle	Surface	Bottom
	Hudson River, Mile 12	
2	0.1152	0.3049
4	0.0855	0.0965
6	0.0636	0.0645
8	0.0448	0.0500
10	0.0348	0.0401
12	0.0281	0.0338
14	0.0225	0.0260
16	0.0213	0.0217
18	0.0171	0.0196
20	0.0152	0.0152
22	0.0133	0.0133
24	0.0098	0.0114
30	0.0075	0.0081
35	0.0072	0.0055
40	0.0028	0.0028
45	0.0017	0.0034
50	0.0023	0.0018
55	0.0000	0.0006
60	0.0000	0.0013
65	0.0013	0.0000
100	0.0015	0.0015
	Hudson River, Mile 16	
2	0.0053	0.0702
4	0.0310	0.0585
6	0.0385	0.0432
8	0.0260	0.0326
10	0.0195	0.0306
12	0.0184	0.0237
14	0.0176	0.0215
16	0.0183	0.0158
18	0.0140	0.0135
20	0.0142	0.0111
22	0.0102	0.0077
24	0.0078	0.0072
30	0.0043	0.0038
35	0.0021	0.0039
40	0.0022	0.0012
45	0.0017	0.0017
50	0.0012	0.0018
55	0.0006	0.0000
60	0.0013	0.0006
100	0.0000	0.0000

Cycle	Surface	Bottom
	Hudson River, Mile 20	
2	0.0009	0.0017
4	0.0046	0.0100
6	0.0047	0.0167
8	0.0052	0.0184
10	0.0062	0.0157
12	0.0082	0.0121
14	0.0054	0.0132
16	0.0059	0.0109
18	0.0070	0.0110
20	0.0182	0.0076
22	0.0056	0.0093
24	0.0040	0.0057
30	0.0021	0.0038
35	0.0016	0.0028
40	0.0022	0.0017
45	0.0017	0.0017
	Hudson River, Mile 23	
4	0.0004	0.0009
6	0.0014	0.0041
8	0.0014	0.0052
10	0.0034	0.0052
12	0.0039	0.0067
14	0.0035	0.0064
16	0.0040	0.0050
18	0.0050	0.0070
20	0.0030	0.0045
22	0.0046	0.0061
24	0.0020	0.0026
30	0.0021	0.0016
35	0.0005	0.0011
40	0.0005	0.0012

(Continued)

Table 14 (Continued)

Cycle	Middepth
Lower Bay Station 8A	
4	0.0224
6	0.0256
8	0.0231
10	0.0225
12	0.0165
14	0.0117
16	0.0123
18	0.0145
20	0.0096
22	0.0102
24	0.0078
30	0.0070
35	0.0044
40	0.0028
45	0.0041
50	0.0042
55	0.0013
60	0.0168
65	0.0025
70	0.0013
75	0.0014
80	0.0006
85	0.0006
90	0.0036
95	0.0015
100	0.0029
Lower Bay Station 9A	
4	0.0049
6	0.0153
8	0.0245
10	0.0205
12	0.0198
14	0.0140
16	0.0142
18	0.0120
20	0.0126
22	0.0123
24	0.0088
30	0.0070
35	0.0060
40	0.0028
45	0.0058
50	0.0047
55	0.0018
60	0.0000
65	0.0032
70	0.0072
75	0.0014
80	0.0006
85	0.0000
90	0.0006
95	0.0015
100	0.0022

Cycle	Middepth
East River Mile 2	
3	0.0421
5	0.0539
7	0.0411
9	0.0318
11	0.0274
13	0.0229
15	0.0187
17	0.0159
19	0.0140
21	0.0118
23	0.0108
25	0.0062
31	0.0070
36	0.0028
41	0.0034
46	0.0029
51	0.0023
56	0.0018
61	0.0031
66	0.0019
71	0.0019
76	0.0026
81	0.0006
86	0.0006
91	0.0007
96	0.0051
101	0.0000
East River Mile 7	
3	0.0919
5	0.0608
7	0.0466
9	0.0356
11	0.0288
13	0.0248
15	0.0197
17	0.0179
19	0.0140
21	0.0118
23	0.0057
25	0.0046
31	0.0059
36	0.0049
41	0.0029
46	0.0029
51	0.0018
56	0.0013
61	0.0000
66	0.0006
71	0.0006
76	0.0000
81	0.0000
86	0.0000
91	0.0015
96	0.0000
101	0.0000

Cycle	Middepth
East River Mile 12	
3	0.0372
5	0.0341
7	0.0266
9	0.0204
11	0.0192
13	0.0141
15	0.0133
17	0.0094
19	0.0070
21	0.0082
23	0.0046
25	0.0037
31	0.0021
36	0.0039
41	0.0000
46	0.0005
51	0.0000
56	0.0013
61	0.0019
66	0.0000
101	0.0015
East River Mile 17	
3	0.0000
5	0.0000
7	0.0010
9	0.0014
11	0.0010
13	0.0000
15	0.0005
17	0.0005
19	0.0030
21	0.0030
23	0.0000
25	0.0000
31	0.0000
36	0.0000
41	0.0000
46	0.0023
51	0.0000
56	0.0000
61	0.0000
66	----
101	0.0000

Cycle	Middepth
Harlem River Mile 3	
3	0.0032
5	0.0543
7	0.0108
9	0.0118
11	0.0120
13	0.0121
15	0.0093
17	0.0094
19	0.0076
21	0.0056
23	0.0057
25	0.0052
31	0.0048
36	0.0049
41	0.0040
46	0.0012
51	0.0000
56	0.0031
61	0.0013
66	0.0000
71	0.0013
76	0.0020
81	0.0000
86	0.0000
91	0.0000
96	0.0015
101	0.0066
Hackensack River Mile 2	
5	0.0000
7	0.0033
9	0.0076
11	0.0091
13	0.0107
15	0.0089
17	0.0115
19	0.0121
21	0.0122
23	0.0087
25	0.0120
31	0.0070
36	0.0061
41	0.0045
46	0.0035
51	0.0042
56	0.0043
61	0.0031
66	0.0038
71	0.0033
76	0.0020
81	0.0000
86	0.0021
91	0.0007
96	0.0007
101	0.0015

Cycle	Middepth
Passaic River Mile 2	
5	0.0004
7	0.0010
9	0.0038
11	0.0043
13	0.0078
15	0.0064
17	0.0094
19	0.0085
21	0.0071
23	0.0098
25	0.0088
31	0.0054
36	0.0066
41	0.0051
46	0.0064
51	0.0042
56	0.0018
61	0.0024
66	0.0025
71	0.0033
76	0.0006
81	0.0020
86	0.0014
91	0.0000
96	0.0022
101	0.0022
Newark Bay Mile 2	
3	0.0009
5	0.0111
7	0.0130
9	0.0186
11	0.0168
13	0.0180
15	0.0172
17	0.0159
19	0.0131
21	0.0097
23	0.0128
25	0.0114
31	0.0075
36	0.0056
41	0.0034
46	0.0069
51	0.0023
56	0.0024
61	0.0006
66	0.0006
71	0.0025
76	0.0014
81	0.0014
86	0.0027
91	0.0021
96	0.0000
101	0.0000

(Continued)

Table 14 (Concluded)

Cycle	Middepth
Arthur Kill Mile 7	
3	0.0000
5	0.0018
7	0.0028
9	0.0062
11	0.0057
13	0.0082
15	0.0069
17	0.0050
19	0.0066
21	0.0056
23	0.0052
25	0.0042
31	0.0032
36	0.0029
41	0.0029
46	0.0029
51	0.0053
56	0.0043
61	0.0000
66	0.0032
71	0.0025
76	0.0014
81	0.0014
86	0.0021
91	0.0021
96	0.0022
101	0.0007
Kill Van Kull Mile 3	
3	0.0376
5	0.0502
7	0.0434
9	0.0352
11	0.0256
13	0.0234
15	0.0201
17	0.0170
19	0.0125
21	0.0118
23	0.0124
25	0.0094
31	0.0091
36	0.0044
41	0.0029
46	0.0029
51	0.0030
56	0.0110
61	0.0000
66	0.0013
71	0.0013
76	0.0000
81	0.0000
86	0.0014
91	0.0015
96	0.0015

Cycle	Middepth
Jamaica Bay Station J-1	
16	0.0035
18	0.0076
20	0.0076
22	0.0082
24	0.0046
30	0.0064
35	0.0060
40	0.0067
45	0.0046
50	0.0018
55	0.0031
60	----
65	0.0013
70	0.0025
75	0.0026
80	0.0000
85	0.0021
90	0.0028
95	0.0028
Jamaica Bay Station J-2	
16	0.0059
18	0.0060
20	0.0051
22	0.0067
24	0.0041
30	0.0043
35	0.0049
40	0.0022
45	0.0022
50	0.0030
55	0.0018
60	0.0000
65	0.0025
70	0.0039
75	0.0006
80	0.0020
85	0.0006
90	0.0036
95	0.0015

River and Station	50 Cycles Middepth	100 Cycles Middepth
Additional Stations		
Kill Van Kull		
Mile 2	0.0035	0.0015
Mile 4	0.0023	0.0015
Arthur Kill		
Mile 6	0.0018	0.0015
Mile 8	0.0023	0.0015
Mile 10	0.0030	0.0015
Mile 12	0.0035	0.0022
Mile 14	0.0047	0.0029
Mile 16	0.0047	0.0029
Mile 18	0.0035	0.0044
Raritan River Channel		
Mile 20	0.0023	0.0015
Mile 21	0.0047	0.0022
Mile 22	0.0035	0.0015
Mile 24	0.0023	0.0015
Mile 28	0.0042	0.0015
Mile 30	0.0042	0.0037
Mile 32	0.0065	0.0029
Mile 34	0.0018	0.0000
Mile 36	0.0042	0.0015
Mile 37	0.0047	0.0029
Mile 38	0.0053	0.0022
Mile 39	0.0047	0.0015
Mile 40	0.0060	0.0007
Mile 42	0.0065	0.0015
Mile 44	0.0047	0.0015
Mile 45	0.0053	0.0029
Chapel Hill Channel		
Mile 46	0.0047	0.0007
Mile 48	0.0065	0.0015
Mile 50	0.0053	0.0000
Hudson River		
-10 surface	0.0047	0.0015
-10 bottom	0.0035	0.0007
-14 surface	0.0071	0.0015
-14 bottom	0.0077	0.0022
Headbay		
A	----	0.0000
B	----	0.0029
C	----	0.0029

Table 15

Observed Dye Concentrations at High-Water Slack in Per Cent of Initial Concentration, Test 4

Cycle	Surface	Bottom
Hudson River, Mile -16		
10	0.0052	0.0038
12	0.0053	0.0039
14	0.0039	0.0035
16	0.0075	0.0040
18	0.0070	0.0019
20	0.0076	0.0036
22	0.0077	0.0036
24	0.0072	0.0031
30	0.0070	0.0043
35	0.0077	0.0033
40	0.0073	0.0057
45	0.0093	0.0041
50	0.0100	0.0042
55	0.0092	0.0036
60	0.0050	0.0037
65	0.0045	0.0038
70	0.0046	0.0039
75	0.0047	0.0014
80	0.0020	0.0020
85	0.0035	0.0027
90	0.0021	0.0028
95	0.0021	0.0028
100	0.0015	0.0052
Hudson River, Mile -12		
4	0.0023	0.0014
6	0.0041	0.0018
8	0.0042	0.0042
10	0.0048	0.0024
12	0.0053	0.0058
14	0.0068	0.0058
16	0.0054	0.0059
18	0.0035	0.0035
20	0.0071	0.0071
22	0.0077	0.0067
24	0.0088	0.0057
30	0.0048	0.0027
35	0.0028	0.0049
40	0.0057	0.0057
45	0.0069	0.0064
50	0.0047	0.0018
55	0.0054	0.0061
60	0.0055	0.0050
65	0.0038	0.0038
70	0.0058	0.0039
75	0.0014	0.0034
80	0.0026	0.0034
85	0.0021	0.0027
90	0.0021	0.0028
95	0.0043	0.0015
100	0.0015	----

Cycle	Surface	Bottom
Hudson River, Mile -8		
4	0.0041	0.0014
6	0.0092	0.0037
8	0.0141	0.0033
10	0.0258	0.0057
12	0.0159	0.0034
14	0.0152	0.0025
16	0.0138	0.0069
18	0.0090	0.0045
20	0.0071	0.0045
22	0.0052	0.0041
24	0.0094	0.0072
30	0.0075	0.0054
35	0.0044	0.0065
40	0.0057	0.0057
45	0.0029	0.0058
50	0.0035	0.0053
55	0.0049	0.0049
60	0.0044	0.0050
65	0.0038	0.0038
70	0.0039	0.0039
75	0.0047	0.0034
80	0.0014	0.0020
85	0.0027	0.0027
90	0.0042	0.0036
95	0.0036	0.0021
100	0.0029	0.0022
Hudson River, Mile -4		
2	0.0000	0.0000
4	0.0297	0.0064
6	0.0352	0.0139
8	0.0377	0.0151
10	0.0301	0.0157
12	0.0251	0.0145
14	0.0186	0.0097
16	0.0144	0.0098
18	0.0116	0.0080
20	0.0101	0.0060
22	0.0071	0.0077
24	0.0072	----
30	0.0027	0.0059
35	0.0049	0.0055
40	0.0040	0.0062
45	0.0052	0.0081
50	0.0023	0.0053
55	0.0031	0.0036
60	0.0031	0.0031
65	0.0045	0.0038
70	0.0052	0.0039
75	0.0026	0.0034
80	0.0034	0.0020
85	0.0035	0.0035
90	0.0021	0.0036
95	0.0028	0.0028
100	0.0015	0.0022

Cycle	Surface	Bottom
Hudson River, Mile 0		
2	0.0672	0.0036
4	0.0595	0.0288
6	0.0561	0.0278
8	0.0344	0.0231
10	0.0310	0.0187
12	0.0237	----
14	0.0171	0.0132
16	0.0129	0.0114
18	0.0120	0.0100
20	0.0101	0.0071
22	0.0071	0.0052
24	0.0057	0.0094
30	0.0054	0.0091
35	0.0033	0.0055
40	0.0057	0.0062
45	0.0017	0.0058
50	0.0030	0.0042
55	0.0031	0.0049
60	0.0037	0.0018
65	0.0045	0.0045
70	0.0019	0.0046
75	0.0014	0.0014
80	0.0006	0.0034
85	0.0006	0.0021
90	0.0006	0.0021
95	0.0007	0.0021
100	0.0015	0.0029
Hudson River, Mile 4		
2	0.1825	0.0269
4	0.0833	0.0562
6	0.0516	0.0441
8	0.0419	0.0335
10	0.0277	0.0229
12	0.0281	0.0208
14	0.0186	0.0132
16	0.0169	0.0119
18	0.0125	0.0105
20	0.0111	0.0086
22	0.0093	0.0067
24	0.0094	0.0078
30	0.0070	0.0054
35	0.0044	0.0044
40	0.0040	0.0045
45	0.0034	0.0012
50	0.0030	0.0018
55	0.0036	0.0024
60	0.0013	0.0031
65	0.0025	0.0019
70	0.0025	0.0025
75	0.0014	0.0006
80	0.0026	0.0014
85	0.0006	0.0014
90	0.0006	0.0015
95	0.0015	0.0007
100	0.0000	0.0007

(Continued)

Table 15 (Continued)

Cycle	Surface	Bottom
	Hudson River Mile 8	
2	0.1637	0.0991
4	0.0974	0.0589
6	0.0590	0.0516
8	0.0415	0.0391
10	0.0296	0.0282
12	0.0247	0.0194
14	0.0186	0.0200
16	0.0134	0.0158
18	0.0135	0.0120
20	0.0091	0.0111
22	0.0108	0.0102
24	0.0072	0.0078
30	0.0048	0.0064
35	0.0028	0.0033
40	0.0028	0.0050
45	0.0034	0.0041
50	0.0023	0.0030
55	0.0024	0.0043
60	0.0018	0.0024
65	0.0019	0.0032
70	0.0013	0.0025
75	0.0014	0.0020
80	0.0014	0.0014
85	0.0014	0.0021
90	0.0006	0.0006
95	0.0000	0.0015
100	0.0015	0.0007
	Hudson River Mile 12	
2	0.1412	0.2928
4	0.0822	0.0851
6	0.0590	0.0627
8	0.0453	0.0433
10	0.0348	0.0334
12	0.0281	0.0281
14	0.0206	0.0210
16	0.0138	0.0154
18	0.0150	0.0156
20	0.0152	0.0132
22	0.0133	0.0108
24	0.0098	0.0047
30	0.0048	0.0054
35	0.0039	0.0039
40	0.0034	0.0028
45	0.0034	0.0029
50	0.0023	0.0023
55	0.0018	0.0018
60	0.0005	0.0018
65	0.0013	0.0019
70	0.0013	0.0019
75	0.0026	0.0026
80	0.0006	0.0000
85	0.0021	0.0014
90	0.0006	0.0021
95	0.0021	0.0021
100	0.0021	0.0021

Cycle	Surface	Bottom
	Hudson River Mile 16	
2	0.0085	0.0125
4	0.0302	0.0535
6	----	0.0422
8	0.0268	0.0282
10	0.0181	0.0219
12	0.0174	0.0189
14	0.0142	0.0157
16	0.0109	0.0144
18	0.0095	0.0100
20	0.0076	0.0101
22	0.0097	0.0093
24	0.0058	0.0058
30	0.0016	0.0032
35	0.0039	0.0033
40	0.0022	0.0034
45	0.0022	0.0034
100	0.0015	0.0022
	Hudson River Mile 20	
4	0.0009	0.0106
6	0.0055	0.0139
8	0.0052	0.0132
10	0.0052	0.0149
12	0.0067	0.0184
14	0.0068	0.0113
16	0.0029	0.0109
18	0.0050	----
20	0.0041	0.0071
22	0.0030	0.0077
24	0.0031	0.0052
30	0.0011	0.0032
35	0.0016	0.0028
40	0.0005	0.0022
100	0.0000	0.0007
	Hudson River Mile 23	
6	0.0023	0.0060
8	0.0038	0.0075
10	0.0048	0.0086
12	0.0082	----
14	0.0019	0.0049
16	0.0040	0.0025
18	0.0005	0.0010
20	0.0020	0.0015
22	0.0005	0.0015
24	0.0031	0.0037
30	0.0000	0.0016

Cycle	Middepth
	Lower Bay Station 8A
4	0.0133
6	0.0023
8	0.0198
10	0.0201
12	0.0194
14	0.0142
16	0.0123
18	0.0140
20	0.0101
22	0.0082
24	0.0046
30	0.0070
35	0.0055
40	0.0050
45	0.0046
50	0.0035
55	0.0036
60	0.0044
65	0.0032
70	0.0046
75	0.0059
80	0.0020
85	0.0021
90	0.0015
95	0.0021
100	0.0015
	Lower Bay Station 9A
4	0.0127
6	0.0149
8	0.0203
10	0.0191
12	0.0179
14	0.0113
16	0.0114
18	0.0110
20	0.0056
22	0.0093
24	----
30	0.0064
35	0.0055
40	0.0050
45	0.0041
50	0.0042
55	0.0031
60	0.0031
65	0.0019
70	0.0039
75	0.0034
80	0.0026
85	0.0014
90	0.0028
95	0.0021
100	0.0037

Cycle	Middepth
	East River Mile 2
3	0.0774
5	0.0599
7	----
9	0.0332
11	0.0249
13	0.0209
15	0.0147
17	0.0130
19	0.0096
21	0.0092
23	0.0102
25	0.0094
31	0.0048
36	0.0039
41	0.0040
46	0.0041
51	0.0018
56	0.0036
61	0.0063
66	0.0025
71	0.0025
76	0.0026
81	0.0020
86	0.0027
91	0.0015
96	0.0015
101	0.0037
	East River Mile 7
3	0.0738
5	0.0497
7	0.0360
9	0.0232
11	0.0235
13	0.0175
15	0.0147
17	0.0124
19	0.0081
21	0.0092
23	0.0102
25	0.0068
31	0.0048
36	0.0039
41	0.0045
46	0.0017
51	0.0023
56	0.0024
61	0.0019
66	0.0019
71	0.0019
76	0.0026
81	0.0006
86	0.0014
91	0.0021
96	0.0015
101	0.0015

(Continued)

Table 15 (Continued)

Cycle	Middepth	Cycle	Middepth	Cycle	Middepth	Cycle	Middepth	Cycle	Middepth
	East River Mile 12		Harlem River Mile 3		Passaic River Mile 2		Kill Van Kull Mile 3		Raritan River Channel, Mile 35
3	0.0126	3	0.0072	3	0.0000	3	0.0376	12	0.0135
5	0.0092	5	0.0097	5	0.0009	5	0.0475	14	0.0107
7	0.0084	7	0.0112	7	0.0065	7	0.0337	16	0.0098
9	0.0080	9	0.0118	9	0.0028	9	0.0332	18	0.0085
11	0.0073	11	0.0120	11	0.0067	11	0.0249	20	0.0086
13	0.0024	13	0.0049	13	0.0068	13	0.0205	22	0.0082
15	0.0064	15	0.0074	15	0.0064	15	0.0162	24	0.0083
17	0.0044	17	0.0069	17	0.0065	17	0.0130	30	0.0064
19	0.0030	19	0.0055	19	0.0091	19	0.0110	35	----
21	0.0015	21	0.0056	21	0.0082	21	0.0097	40	0.0062
23	0.0041	23	0.0026	23	0.0078	23	0.0082	45	0.0069
25	0.0052	25	0.0057	25	0.0130	25	0.0068	50	0.0065
31	0.0021	31	0.0038	31	0.0070	31	0.0059	55	0.0043
36	0.0028	36	0.0021	36	0.0049	36	0.0061	60	0.0037
41	0.0017	41	0.0012	41	0.0074	41	0.0045	65	0.0032
46	0.0017	46	0.0005	46	0.0052	46	0.0041	70	----
51	0.0053	51	0.0012	51	0.0018	51	0.0023	75	0.0053
56	0.0013	56	0.0000	56	0.0024	56	0.0018	80	0.0034
61	0.0013	61	0.0000	61	0.0038	61	0.0024	85	0.0035
66	0.0013	66	0.0006	66	0.0025	66	0.0025	90	0.0015
71	0.0013	71	0.0006	71	0.0025	[illegible]	0.0013	95	0.0028
76	0.0006	76	0.0000	76	0.0026	76	0.0020	100	0.0007
81	0.0014	81	0.0014	81	0.0041	81	0.0041		
86	0.0041	86	0.0000	86	0.0027	86	0.0021		
91	0.0050	91	0.0007	91	0.0021	91	0.0015		
96	0.0015	96	0.0000	96	0.0022	96	0.0022		
101	0.0000	101	0.0007	101	0.0029	101	0.0015		
	East River Mile 17		Hackensack River Mile 2		Newark Bay Mile 2		Arthur Kill Mile 7		Raritan River Channel, Mile 41
3	0.0000	3	0.0145	3	0.0023	3	0.0009	12	0.0073
5	0.0000	5	0.0014	5	0.0165	5	0.0004	14	0.0083
7	0.0000	7	0.0028	7	0.0164	7	0.0018	16	0.0054
9	0.0000	9	0.0080	9	0.0200	9	0.0014	18	0.0050
11	0.0014	11	0.0073	11	0.0158	11	0.0029	20	0.0056
13	0.0000	13	0.0112	13	0.0180	13	0.0053	22	0.0077
15	0.0019	15	0.0114	15	0.0153	15	0.0050	24	0.0057
17	0.0000	17	0.0119	17	----	17	0.0044	30	0.0070
19	0.0000	19	0.0106	19	0.0110	19	0.0025	35	0.0062
21	0.0000	21	0.0097	21	0.0097	21	0.0030	40	0.0045
23	0.0000	23	0.0087	23	0.0067	23	0.0005	45	0.0058
25	0.0000	25	0.0057	25	0.0057	25	0.0042	50	0.0023
31	0.0000	31	0.0070	31	0.0048	31	0.0032	55	0.0049
36	0.0000	36	0.0056	36	0.0039	36	0.0066	60	0.0050
41	0.0000	41	0.0057	41	0.0022	41	0.0034	65	0.0038
46	0.0000	46	0.0047	46	0.0041	46	0.0029	70	0.0033
51	0.0000	51	0.0030	51	0.0018	51	0.0035	75	0.0040
56	0.0000	56	0.0043	56	0.0024	56	0.0024	80	0.0020
61	0.0000	61	0.0037	61	0.0024	61	0.0031	85	0.0027
66	0.0000	66	0.0032	66	0.0013	66	0.0038	90	0.0021
71	0.0000	71	0.0033	71	0.0019	71	0.0039	95	0.0028
76	0.0000	76	0.0034	76	0.0006	76	0.0020	100	0.0037
81	0.0000	81	0.0014	81	0.0014	81	0.0027		
86	0.0000	86	0.0027	86	0.0021	86	0.0027		
91	0.0000	91	0.0028	91	0.0021	91	0.0021		
96	0.0000	96	0.0028	96	0.0015	96	0.0015		
101	0.0000	101	0.0022	101	0.0022	101	0.0029		

(Continued)

Table 15 (Concluded)

Cycle	Middepth
Chapel Hill Channel, Mile 46	
12	0.0131
14	0.0088
16	0.0098
18	0.0090
20	0.0091
22	----
24	----
30	0.0054
35	0.0028
40	0.0073
45	0.0058
50	0.0030
55	0.0018
60	----
65	0.0025
70	0.0025
75	0.0040
80	0.0054
85	0.0027
90	0.0000
95	0.0015
100	0.0015

Cycle	Middepth
Jamaica Bay Station J-1	
6	0.0033
8	0.0042
10	0.0057
12	0.0063
14	0.0058
16	0.0044
18	0.0076
20	0.0060
22	0.0071
24	0.0041
30	0.0043
35	0.0072
40	0.0067
45	0.0065
50	0.0047
55	0.0036
60	0.0050
65	0.0045
70	0.0046
75	0.0040
80	0.0040
85	0.0021
90	0.0036
95	0.0028
100	0.0037

Cycle	Middepth
Jamaica Bay Station J-2	
6	0.0018
8	0.0010
10	0.0067
12	0.0063
14	0.0058
16	0.0044
18	0.0070
20	----
22	0.0046
24	0.0052
30	0.0038
35	0.0052
40	0.0040
45	0.0075
50	0.0083
55	0.0049
60	0.0044
65	0.0038
70	0.0046
75	0.0034
80	0.0020
85	0.0021
90	0.0041
95	0.0015
100	0.0037

River and Station	50 Cycles Middepth	100 Cycles Middepth
Additional Stations		
Kill Van Kull		
Mile 2	0.0035	0.0007
Mile 4	0.0035	0.0015
Arthur Kill		
Mile 6	0.0035	0.0015
Mile 8	0.0018	0.0029
Mile 10	0.0030	0.0022
Mile 12	0.0023	0.0022
Mile 14	0.0035	0.0029
Mile 16	0.0042	0.0022
Mile 18	0.0035	0.0007
Raritan River Channel		
Mile 20	0.0042	0.0029
Mile 21	0.0047	0.0052
Mile 22	0.0023	0.0022
Mile 24	0.0030	0.0037
Mile 28	0.0042	0.0029
Mile 30	0.0047	0.0044
Mile 32	0.0065	0.0029
Mile 34	0.0060	0.0029
Mile 36	0.0000	0.0029
Mile 37	0.0042	0.0037
Mile 38	0.0042	0.0029
Mile 39	0.0042	0.0029
Mile 40	0.0060	0.0037
Mile 42	0.0060	0.0029
Mile 44	0.0042	0.0029
Mile 45	0.0035	0.0037
Chapel Hill Channel		
Mile 46	0.0023	0.0044
Mile 48	0.0030	0.0052
Mile 50	0.0035	0.0037
Hudson River		
-18 surface	0.0053	0.0022
-18 bottom	0.0018	0.0029
Headbay		
A	----	0.0044
B	----	0.0022
C	----	0.0022

Table 16

Observed Dye Concentrations at High-Water Slack in Per Cent of Initial Concentration, Test 5

Cycle	Surface	Bottom
Hudson River, Mile -16		
12	0.0010	0.0024
14	0.0019	0.0048
16	0.0015	0.0019
18	0.0040	0.0025
20	0.0020	0.0025
22	0.0020	0.0015
24	0.0005	0.0020
30	0.0011	0.0005
35	0.0016	0.0005
40	0.0017	0.0005
45	0.0022	0.0012
50	0.0012	0.0018
55	0.0013	0.0024
60	0.0018	0.0006
65	0.0019	0.0025
70	0.0013	0.0025
75	0.0034	0.0034
80	0.0014	0.0000
85	0.0006	0.0021
90	0.0006	0.0000
95	0.0021	0.0028
100	0.0015	----
Hudson River, Mile -12		
6	0.0010	0.0000
8	0.0004	0.0004
10	0.0014	----
12	0.0000	0.0004
14	0.0000	0.0004
16	0.0000	0.0010
18	0.0010	0.0015
20	0.0015	0.0015
22	0.0011	0.0020
24	0.0011	0.0005
30	0.0016	0.0016
35	0.0011	0.0011
40	0.0022	0.0017
45	0.0005	0.0005
50	0.0000	0.0000
55	0.0006	0.0000
60	0.0000	0.0006
65	0.0013	0.0000
70	0.0013	0.0006
75	0.0006	0.0020
80	0.0014	0.0006
85	0.0000	0.0014
90	0.0021	0.0015
95	0.0021	0.0036
100	0.0000	0.0022

Cycle	Surface	Bottom
Hudson River, Mile -8		
4	0.0004	0.0000
6	0.0084	0.0037
8	0.0071	0.0085
10	0.0048	0.0010
12	0.0131	0.0019
14	0.0142	0.0025
16	0.0123	0.0010
18	0.0065	0.0045
20	0.0020	0.0020
22	0.0087	0.0020
24	0.0083	0.0015
30	0.0038	0.0021
35	0.0028	0.0005
40	0.0012	0.0012
45	0.0029	0.0005
50	0.0012	0.0012
55	0.0000	0.0000
60	0.0018	0.0006
65	0.0032	0.0013
70	0.0000	0.0072
75	0.0006	0.0020
80	0.0014	0.0006
85	0.0014	0.0000
90	0.0015	0.0015
95	0.0021	0.0021
100	0.0022	0.0015
Hudson River, Mile -4		
4	0.0339	0.0091
6	0.0358	0.0219
8	0.0316	0.0193
10	0.0258	0.0171
12	0.0204	0.0135
14	0.0176	0.0132
16	0.0154	0.0129
18	0.0140	0.0050
20	0.0122	0.0066
22	0.0102	0.0067
24	0.0072	0.0052
30	0.0113	0.0086
35	0.0077	0.0016
40	0.0040	0.0017
45	0.0029	0.0041
50	0.0030	0.0030
55	0.0036	0.0006
60	0.0018	0.0024
65	0.0000	0.0057
70	0.0006	0.0000
75	0.0034	0.0000
80	0.0014	0.0014
85	0.0021	0.0021
90	0.0000	0.0006
95	0.0015	0.0021
100	0.0022	0.0000

Cycle	Surface	Bottom
Hudson River, Mile 0		
2	0.0888	0.0215
4	0.0654	0.0362
6	0.0504	0.0557
8	0.0354	0.0282
10	0.0320	0.0239
12	0.0267	0.0184
14	0.0223	0.0196
16	0.0188	0.0158
18	0.0120	0.0156
20	0.0117	0.0109
22	0.0123	0.0112
24	0.0072	0.0072
30	0.0038	0.0032
35	0.0028	0.0039
40	0.0017	0.0040
45	0.0000	0.0022
50	0.0012	0.0012
55	0.0000	----
60	0.0013	0.0013
65	0.0013	0.0013
70	0.0019	0.0019
75	0.0020	0.0000
80	0.0006	0.0026
85	0.0000	0.0014
90	0.0006	0.0000
95	0.0007	0.0036
100	0.0015	0.0007
Hudson River, Mile 4		
2	0.0421	0.0967
4	0.0549	0.0759
6	0.0422	0.0516
8	0.0405	0.0425
10	0.0354	0.0358
12	0.0242	0.0281
14	0.0215	0.0264
16	0.0169	0.0242
18	0.0150	0.0171
20	0.0162	0.0152
22	0.0112	0.0112
24	0.0103	0.0103
30	0.0032	0.0043
35	0.0039	0.0039
40	0.0005	0.0022
45	0.0012	0.0017
50	0.0005	0.0005
55	----	0.0043
60	0.0018	0.0006
65	0.0025	0.0006
70	0.0000	0.0006
75	0.0000	0.0020
80	0.0034	0.0020
85	0.0035	0.0027
90	0.0015	0.0028
95	0.0021	0.0028
100	0.0000	0.0000

(Continued)

Table 16 (Continued)

Cycle	Surface	Bottom
	Hudson River, Mile 8	
2	0.0287	0.0735
4	0.0293	0.0668
6	0.0358	0.0510
8	0.0363	0.0439
10	0.0330	0.0292
12	0.0242	0.0275
14	0.0245	0.0239
16	0.0198	0.0217
18	0.0171	0.0180
20	0.0173	0.0162
22	0.0118	0.0138
24	0.0088	0.0098
30	0.0059	0.0054
35	0.0033	0.0049
40	0.0012	0.0017
45	0.0017	0.0022
50	0.0012	0.0005
55	0.0000	0.0031
60	0.0006	0.0018
65	0.0013	0.0051
70	0.0025	0.0019
75	0.0006	0.0026
80	0.0006	0.0006
85	0.0021	0.0014
90	0.0021	0.0021
95	0.0000	0.0007
100	0.0044	0.0015
	Hudson River, Mile 12	
2	0.0004	0.0000
4	0.0270	0.0375
6	0.0307	0.0348
8	0.0373	0.0405
10	0.0324	0.0358
12	0.0204	0.0261
14	0.0215	0.0235
16	0.0169	0.0188
18	0.0215	0.0215
20	0.0005	0.0137
22	0.0102	0.0169
24	0.0120	0.0098
30	0.0081	0.0075
35	0.0039	0.0044
40	0.0057	0.0050
45	0.0029	0.0017
50	0.0000	0.0023
55	0.0018	0.0000
60	0.0024	0.0013
65	0.0006	0.0019
70	0.0013	0.0006
75	0.0026	0.0040
80	0.0026	0.0040
85	0.0027	0.0027
90	0.0028	0.0006
95	0.0015	0.0028
100	0.0044	0.0029

Cycle	Surface	Bottom
	Hudson River, Mile 16	
2	0.0004	0.0098
4	0.0014	0.0054
6	0.0092	0.0149
8	0.0165	0.0193
10	0.0187	0.0153
12	0.0150	0.0169
14	0.0128	0.0186
16	0.0158	0.0183
18	0.0140	0.0165
20	0.0132	0.0152
22	0.0108	0.0102
24	0.0078	0.0072
30	0.0075	0.0070
35	0.0028	0.0028
40	0.0028	0.0000
45	0.0012	0.0022
50	0.0012	0.0018
55	0.0043	0.0018
60	0.0006	0.0024
65	0.0025	0.0025
70	0.0013	0.0019
75	0.0014	0.0014
80	0.0014	0.0020
85	0.0027	0.0041
90	0.0078	0.0028
95	0.0021	0.0036
100	0.0015	0.0015
	Hudson River, Mile 20	
6	0.0010	0.0047
8	0.0033	0.0061
10	0.0028	0.0076
12	0.0049	0.0077
14	0.0039	0.0088
16	0.0050	0.0098
18	0.0040	0.0080
20	0.0025	0.0066
22	0.0041	0.0082
24	0.0031	0.0037
30	0.0021	0.0048
35	0.0021	0.0033
40	0.0022	0.0050
45	0.0017	0.0022
50	0.0018	0.0005
55	0.0013	0.0018
60	0.0006	0.0024
65	0.0006	0.0006
70	0.0000	----
75	0.0000	0.0014
80	0.0014	0.0006
100	----	0.0007

Cycle	Surface	Bottom
	Hudson River, Mile 23	
10	0.0024	0.0043
12	0.0034	0.0043
14	0.0049	0.0044
16	----	----
18	0.0050	0.0025
20	0.0036	0.0036
22	0.0030	0.0046
24	0.0026	0.0031
30	0.0032	0.0032
35	0.0011	0.0005
40	0.0012	0.0012
45	0.0005	0.0012
50	0.0012	0.0030
55	0.0000	0.0000
60	0.0018	0.0018
65	0.0006	0.0019
70	0.0000	0.0000
100	0.0015	0.0000

(Continued)

Table 16 (Continued)

Cycle	Middepth	Cycle	Middepth	Cycle	Middepth	Cycle	Middepth	Cycle	Middepth
Lower Bay Station 8A		East River Mile 2		East River Mile 12		Harlem River Mile 3		Passaic River Mile 2	
4	0.0046	3	0.0860	3	0.1077	3	0.0335	5	0.0004
6	0.0232	5	0.0650	5	0.0497	5	0.0663	7	0.0014
8	0.0132	7	0.0520	7	0.0272	7	0.0126	9	0.0052
10	0.0119	9	0.0408	9	0.0186	9	0.0090	11	0.0063
12	0.0067	11	0.0351	11	0.0134	11	0.0125	13	0.0078
14	0.0093	13	0.0277	13	0.0117	13	0.0063	15	0.0104
16	0.0084	15	0.0192	15	0.0098	15	0.0035	17	0.0109
18	0.0095	17	0.0184	17	0.0084	17	0.0044	19	0.0091
20	0.0056	19	0.0161	19	0.0066	19	0.0045	21	0.0112
22	0.0046	21	0.0127	21	0.0071	21	0.0026	23	0.0108
24	----	23	0.0102	23	0.0046	23	0.0072	25	0.0104
30	0.0038	25	0.0073	25	----	25	0.0046	31	0.0075
35	0.0028	31	0.0059	31	0.0000	31	0.0032	36	0.0066
40	0.0022	36	0.0033	36	0.0000	36	0.0033	41	0.0051
45	0.0012	41	0.0017	41	0.0017	41	0.0040	46	0.0047
50	0.0000	46	0.0005	46	0.0000	46	0.0017	51	0.0042
55	0.0006	51	0.0012	51	0.0000	51	0.0018	56	0.0018
60	0.0018	56	0.0000	56	0.0000	56	0.0000	61	0.0044
65	0.0019	61	0.0013	61	----	61	0.0006	66	0.0038
70	0.0000	66	0.0013	66	0.0025	66	0.0013	71	0.0033
75	0.0014	71	0.0025	71	0.0000	71	0.0025	76	0.0034
80	0.0000	76	0.0020	76	0.0006	76	----	81	0.0020
85	0.0014	81	0.0014	81	0.0020	81	0.0014	86	0.0014
90	0.0021	86	0.0024	86	----	86	0.0000	91	0.0042
95	0.0028	91	0.0028	91	0.0021	91	0.0000	96	0.0036
100	0.0015	96	0.0022	96	0.0022	96	0.0000	101	0.0022
		101	0.0000	101	0.0029	101	0.0022		
Lower Bay Station 9A		East River Mile 7		East River Mile 17		Hackensack River Mile 2		Newark Bay Mile 2	
4	0.0064	3	0.1064	3	0.0050	5	0.0027	3	0.0036
6	0.0199	5	0.0710	5	0.0051	7	0.0061	5	0.0000
8	0.0207	7	0.0528	7	----	9	0.0100	7	0.0211
10	0.0191	9	0.0465	9	0.0024	11	0.0120	9	0.0190
12	0.0131	11	0.0370	11	----	13	0.0146	11	0.0197
14	0.0153	13	0.0287	13	0.0019	15	0.0128	13	0.0185
16	0.0129	15	0.0226	15	0.0000	17	0.0109	15	0.0168
18	0.0100	17	0.0184	17	0.0010	19	0.0140	17	0.0170
20	----	19	0.0171	19	0.0000	21	0.0127	19	0.0157
22	0.0082	21	0.0137	21	0.0020	23	0.0139	21	0.0127
24	0.0052	23	0.0113	23	----	25	----	23	0.0160
30	0.0043	25	0.0073	25	0.0000	31	0.0134	25	0.0114
35	0.0039	31	0.0054	31	0.0000	36	0.0116	31	0.0054
40	0.0022	36	0.0033	36	0.0000	41	0.0074	36	----
45	0.0000	41	0.0017	41	0.0000	46	----	41	0.0051
50	0.0000	46	0.0017	46	0.0000	51	0.0048	46	0.0029
55	0.0000	51	0.0005	51	0.0000	56	0.0054	51	0.0030
60	0.0006	56	0.0000	56	0.0000	61	0.0024	56	0.0024
65	0.0006	61	0.0037	61	0.0000	66	0.0019	61	0.0024
70	0.0025	66	0.0000	66	----	71	0.0039	66	0.0057
75	0.0006	71	0.0006	71	----	76	0.0054	71	0.0039
80	0.0014	76	0.0014	76	----	81	0.0014	76	0.0026
85	0.0006	81	0.0027	81	0.0014	86	0.0027	81	0.0027
90	0.0015	86	0.0035	86	0.0014	91	0.0028	86	0.0056
95	0.0021	91	0.0015	91	0.0028	96	0.0028	91	0.0007
100	0.0015	96	0.0022	96	0.0022	101	0.0007	96	0.0036
		101	0.0015	101	0.0015			101	0.0022

(Continued)

Table 16 (Concluded)

Cycle	Mid-depth
Kill Van Kull Mile 3	
3	0.0648
5	0.0617
7	0.0467
9	0.0328
11	0.0284
13	0.0287
15	0.0212
17	0.0179
19	0.0146
21	0.0133
23	0.0108
25	0.0099
31	0.0054
36	0.0049
41	0.0029
46	0.0012
51	0.0012
56	0.0018
61	0.0044
66	0.0019
71	0.0000
76	0.0040
81	0.0020
86	0.0021
91	0.0015
96	0.0022
101	0.0015
Arthur Kill Mile 7	
5	0.0000
7	0.0018
9	0.0024
11	0.0057
13	0.0043
15	0.0054
17	0.0044
19	0.0040
21	0.0041
23	0.0067
25	0.0046
31	0.0027
36	0.0028
41	0.0057
46	0.0023
51	0.0018
56	0.0031
61	0.0019
66	0.0013
71	0.0033
76	0.0026
81	0.0014
86	0.0035
91	0.0021
96	0.0015
101	0.0015

Cycle	Mid-depth
Raritan River Channel Mile 35	
12	0.0126
14	0.0097
16	0.0109
18	0.0070
20	0.0051
22	0.0077
24	0.0052
30	0.0043
35	0.0028
40	0.0005
45	0.0005
50	0.0012
55	0.0013
60	0.0018
65	0.0025
70	0.0025
75	----
80	0.0034
85	0.0014
90	0.0028
95	----
100	0.0000
Raritan River Channel Mile 41	
12	0.0024
14	0.0074
16	0.0050
18	0.0045
20	0.0071
22	0.0052
24	0.0037
30	0.0048
35	0.0028
40	0.0045
45	0.0005
50	0.0000
55	0.0013
60	0.0013
65	0.0000
70	0.0019
75	0.0006
80	0.0014
85	0.0014
90	0.0006
95	0.0007
100	0.0037

Cycle	Mid-depth
Chapel Hill Channel Mile 46	
12	0.0112
14	0.0117
16	0.0104
18	0.0131
20	0.0086
22	0.0071
24	0.0057
30	0.0043
35	0.0049
40	0.0017
45	0.0017
50	0.0023
55	0.0018
60	0.0037
65	0.0013
70	0.0033
75	0.0020
80	0.0026
85	0.0049
90	0.0000
95	0.0007
100	0.0007
Jamaica Bay Station J-1	
4	0.0014
6	0.0033
8	0.0014
10	0.0019
12	0.0019
14	0.0029
16	0.0035
18	0.0035
20	0.0015
22	0.0015
24	0.0015
30	0.0027
35	0.0033
40	0.0022
45	0.0022
50	0.0000
55	0.0031
60	0.0018
65	0.0000
70	0.0019
75	0.0020
80	0.0006
85	0.0014
90	0.0006
95	0.0006
100	0.0022

Cycle	Mid-depth
Jamaica Bay Station J-2	
4	0.0032
6	0.0037
8	0.0052
10	0.0028
12	0.0024
14	0.0019
16	0.0019
18	0.0030
20	0.0020
22	0.0005
24	0.0011
30	0.0005
35	0.0021
40	0.0012
45	0.0012
50	0.0000
55	0.0018
60	0.0006
65	0.0006
70	0.0019
75	0.0026
80	0.0020
85	0.0006
90	0.0000
95	0.0028
100	0.0000

River and Station	50 Cycles Middepth	100 Cycles Middepth
Additional Stations		
Kill Van Kull		
Mile 2	0.0018	0.0022
Mile 4	0.0018	0.0037
Arthur Kill		
Mile 6	0.0030	0.0015
Mile 8	0.0005	0.0000
Mile 10	0.0023	0.0007
Mile 12	0.0018	0.0007
Mile 14	0.0018	0.0015
Mile 16	0.0005	0.0029
Mile 18	0.0023	0.0022
Raritan River Channel		
Mile 20	0.0000	0.0015
Mile 21	0.0023	0.0037
Mile 22	0.0012	0.0044
Mile 24	0.0000	0.0000
Mile 28	0.0030	0.0000
Mile 30	0.0042	0.0022
Mile 32	0.0025	0.0022
Mile 34	0.0005	0.0000
Mile 36	0.0012	0.0022
Mile 37	0.0023	0.0022
Mile 38	0.0018	0.0029
Mile 39	0.0035	0.0022
Mile 40	0.0030	0.0037
Mile 42	0.0012	0.0022
Mile 44	0.0005	0.0007
Mile 45	0.0005	0.0007
Chapel Hill Channel		
Mile 48	0.0018	0.0015
Mile 50	0.0012	0.0007
Hudson River		
-18 surface	0.0005	0.0015
-18 bottom	0.0000	0.0007
Headbay		
A	----	0.0000
B	----	0.0000
C	----	0.0007

(4 of 4 sheets)

Table 17

Observed Dye Concentrations at High-Water Slack in Per Cent of Initial Concentration, Test 6

Cycle	Surface	Bottom
Hudson River, Mile -16		
12	0.0000	0.0000
14	0.0015	0.0000
16	0.0000	0.0010
18	0.0000	0.0000
20	0.0000	0.0025
22	0.0000	0.0000
24	0.0005	0.0005
30	0.0005	0.0000
35	0.0000	0.0005
40	0.0012	0.0012
45	0.0000	0.0000
50	0.0000	0.0000
55	0.0018	0.0024
60	0.0031	0.0031
65	0.0025	0.0019
70	0.0000	0.0006
75	0.0006	0.0020
80	0.0000	0.0000
85	0.0014	0.0014
90	0.0021	0.0006
95	0.0007	0.0021
100	0.0000	0.0000
Hudson River, Mile -12		
8	0.0014	0.0004
10	0.0014	0.0000
12	0.0010	0.0019
14	0.0004	0.0010
16	0.0010	0.0019
18	0.0000	0.0000
20	0.0020	0.0005
22	0.0005	0.0000
24	0.0005	0.0011
30	0.0011	0.0000
35	0.0005	0.0005
40	0.0005	0.0017
45	0.0000	0.0000
50	0.0000	0.0012
55	0.0000	0.0043
60	0.0024	0.0018
65	0.0019	0.0025
70	0.0006	0.0006
75	0.0006	0.0020
80	0.0000	0.0006
85	0.0000	0.0014
90	0.0015	0.0021
95	0.0000	0.0000
100	0.0000	0.0000

Cycle	Surface	Bottom
Hudson River, Mile -8		
2	0.0000	0.0000
4	0.0347	0.0041
6	0.0055	0.0041
8	0.0103	0.0033
10	0.0086	0.0043
12	0.0043	0.0019
14	0.0039	0.0035
16	0.0054	0.0040
18	0.0005	0.0005
20	0.0025	0.0015
22	0.0011	----
24	0.0015	0.0031
30	0.0005	0.0005
35	0.0021	0.0005
40	0.0005	0.0005
45	0.0005	0.0005
50	0.0012	0.0000
55	0.0006	0.0013
60	0.0000	0.0006
65	0.0032	0.0013
70	0.0006	0.0006
75	0.0014	0.0020
80	0.0000	0.0000
85	0.0021	0.0014
90	0.0021	0.0021
95	0.0015	0.0007
100	0.0000	0.0000
Hudson River, Mile -4		
2	0.0350	0.0045
4	0.0622	0.0270
6	0.0516	0.0358
8	0.0425	0.0274
10	0.0215	0.0324
12	0.0222	0.0165
14	0.0220	0.0142
16	0.0163	0.0114
18	0.0140	0.0100
20	0.0117	0.0076
22	0.0093	0.0067
24	0.0067	0.0062
30	0.0059	0.0038
35	0.0044	0.0039
40	0.0045	0.0012
45	0.0000	0.0017
50	0.0005	0.0042
55	0.0018	0.0018
60	0.0018	0.0013
65	0.0032	0.0019
70	0.0013	0.0025
75	0.0020	0.0020
80	0.0006	0.0014
85	0.0000	0.0021
90	0.0015	0.0015
95	0.0021	0.0015
100	0.0015	0.0015

Cycle	Surface	Bottom
Hudson River, Mile 0		
2	0.1067	0.0412
4	0.0786	0.0608
6	0.0543	0.0501
8	0.0415	0.0439
10	0.0282	0.0272
12	0.0189	0.0237
14	0.0171	0.0161
16	0.0158	0.0163
18	0.0120	0.0110
20	0.0117	0.0091
22	0.0067	0.0077
24	0.0062	0.0078
30	0.0032	0.0021
35	0.0011	0.0028
40	0.0012	0.0034
45	0.0000	0.0000
50	0.0000	0.0000
55	0.0018	0.0031
60	0.0018	0.0006
65	0.0013	0.0019
70	0.0000	0.0000
75	0.0014	0.0020
80	0.0026	0.0026
85	0.0014	0.0021
90	0.0015	0.0015
95	0.0021	0.0028
100	0.0015	0.0007
Hudson River, Mile 4		
2	0.1632	0.1771
4	0.0379	0.0772
6	0.0427	0.0516
8	0.0377	0.0373
10	0.0301	0.0282
12	0.0290	0.0320
14	0.0196	0.0196
16	0.0203	0.0144
18	0.0131	0.0110
20	0.0107	0.0086
22	0.0087	0.0077
24	0.0088	0.0078
30	0.0032	0.0021
35	0.0021	0.0016
40	0.0000	0.0000
45	0.0005	0.0000
50	0.0005	0.0000
55	0.0013	0.0000
60	0.0018	0.0024
65	0.0013	0.0006
70	0.0006	0.0006
75	0.0014	0.0020
80	0.0006	0.0020
85	0.0006	0.0014
90	0.0000	0.0000
95	0.0007	0.0007
100	0.0007	0.0015

(Continued)

Table 17 (Continued)

Cycle	Surface	Bottom	Cycle	Surface	Bottom	Cycle	Middepth	Cycle	Middepth
	Hudson River Mile 8			Hudson River Mile 16			East River Mile 2		East River Mile 12
2	0.0870	0.1005	6	0.0033	0.0088	3	0.0765	3	0.0294
4	0.0713	0.0676	8	0.0109	0.0137	5	0.0636	5	0.0161
6	0.0320	0.0510	10	0.0095	0.0171	7	0.0435	7	0.0108
8	0.0373	0.0425	12	0.0112	0.0140	9	0.0370	9	0.0110
10	0.0306	0.0354	14	0.0078	0.0152	11	0.0259	11	0.0057
12	0.0247	0.0237	16	0.0114	0.0098	13	0.0234	13	0.0063
14	0.0200	0.0220	18	0.0085	0.0131	15	0.0158	15	0.0064
16	0.0154	0.0163	20	0.0081	0.0107	17	0.0164	17	0.0019
18	0.0160	0.0140	22	0.0118	0.0097	19	0.0106	19	0.0020
20	0.0107	0.0122	24	0.0046	0.0041	21	0.0107	21	0.0015
22	0.0112	0.0112	30	0.0048	0.0043	23	0.0087	23	0.0011
24	0.0103	0.0083	35	0.0060	0.0028	25	0.0042	25	0.0011
30	0.0059	0.0059	40	0.0012	0.0012	31	0.0011	31	0.0000
35	0.0109	0.0028	45	0.0005	0.0000	36	0.0028	36	0.0000
40	0.0022	0.0022	50	0.0018	0.0000	41	0.0017	41	0.0000
45	0.0005	0.0000				46	0.0000	46	0.0005
50	0.0012	0.0012				51	0.0012	51	0.0023
55	0.0018	0.0031				56	0.0018	56	0.0054
60	0.0013	0.0006				61	0.0013	61	0.0006
65	0.0019	0.0025				66	0.0013	66	0.0025
70	0.0025	0.0019				71	0.0019	71	0.0000
75	0.0020	0.0026				76	0.0020	76	0.0020
80	0.0006	0.0006				81	0.0020	81	0.0014
85	0.0021	0.0006				86	0.0021	86	0.0014
90	0.0015	0.0015				91	0.0021	91	0.0021
95	0.0021	0.0028				96	0.0015	96	0.0028
100	0.0000	0.0007				101	0.0007	101	0.0000
	Hudson River Mile 12			Hudson River Mile 20			East River Mile 7		East River Mile 17
2	0.0112	0.0161	12	0.0039	0.0077	3	0.0865	3	0.0000
4	0.0064	0.0173	14	0.0039	0.0083	5	0.0594	5	0.0018
6	0.0283	0.0352	16	0.0040	0.0054	7	0.0435	7	0.0010
8	0.0335	0.0302	18	0.0055	0.0080	9	0.0328	9	0.0004
10	0.0292	0.0306	20	0.0036	0.0051	11	0.0284	11	0.0014
12	0.0208	0.0257	22	0.0030	0.0046	13	0.0195	13	0.0014
14	0.0206	0.0231	24	0.0037	0.0062	15	0.0147	15	0.0000
16	0.0188	0.0169	30	0.0016	0.0000	17	0.0155	17	0.0019
18	0.0150	0.0175	35	0.0016	0.0034	19	0.0040	19	0.0010
20	0.0126	0.0126	40	0.0028	0.0040	21	0.0101	21	0.0000
22	0.0087	0.0118	45	0.0012	0.0012	23	0.0078	23	0.0000
24	0.0094	0.0109	50	0.0000	0.0012	25	0.0083	25	0.0011
30	0.0070	0.0059				31	0.0064	31	0.0000
35	0.0005	0.0049				36	0.0056	36	0.0000
40	0.0028	0.0057				41	0.0005	41	0.0000
45	0.0017	0.0012				46	0.0017	61	0.0006
50	0.0035	0.0012				51	0.0005	66	0.0006
55	0.0018	0.0018				56	0.0024	71	0.0000
60	0.0018	0.0024				61	0.0000	76	0.0014
65	0.0013	0.0006				66	0.0013	81	0.0014
70	0.0013	0.0013				71	0.0000	86	0.0000
75	0.0020	0.0034				76	0.0020	91	0.0015
80	0.0000	0.0006				81	0.0000	96	0.0000
85	0.0021	0.0006				86	0.0021	101	0.0000
90	0.0021	0.0021				91	0.0007		
95	0.0021	0.0021				96	0.0015		
100	0.0022	0.0015				101	0.0007		

(Continued)

Table 17 (Continued)

Cycle	Middepth	Cycle	Middepth	Cycle	Middepth	Cycle	Middepth	Cycle	Middepth
Harlem River Mile 3		Passaic River Mile 2		Kill Van Kull Mile 3		Raritan River Channel, Mile 35		Chapel Hill Channel, Mile 46	
3	0.0000	3	0.0009	3	0.0919	6	0.0172	6	0.0065
5	0.0175	5	0.0078	5	0.0704	8	0.0231	8	0.0132
7	0.0098	7	0.0047	7	0.0463	10	0.0163	10	0.0110
9	0.0086	9	0.0090	9	0.0380	12	0.0126	12	0.0159
11	0.0048	11	0.0120	11	0.0312	14	0.0103	14	0.0117
13	0.0078	13	0.0151	13	0.0244	16	0.0089	16	0.0094
15	0.0079	15	0.0172	15	0.0192	18	0.0076	18	0.0100
17	0.0059	17	0.0155	17	0.0149	20	0.0045	20	0.0056
19	0.0066	19	0.0151	19	0.0131	22	0.0041	22	0.0061
21	0.0036	21	0.0142	21	0.0122	24	0.0037	24	0.0062
23	0.0041	23	0.0139	23	0.0113	30	0.0021	30	0.0021
25	0.0042	25	0.0110	25	0.0088	35	0.0005	35	0.0021
31	0.0005	31	0.0064	31	0.0048	40	0.0022	40	0.0005
36	0.0011	36	0.0039	36	0.0033	45	0.0000	45	0.0000
41	0.0022	41	0.0029	41	0.0000	50	0.0012	50	0.0005
46	0.0012	46	0.0041	46	0.0000	55	0.0036	55	0.0013
51	0.0023	51	0.0042	51	0.0000	60	0.0013	60	0.0024
56	0.0031	56	0.0098	56	0.0006	65	0.0000	65	0.0013
61	0.0013	61	0.0074	61	0.0013	70	0.0006	70	0.0013
66	0.0013	66	0.0083	66	0.0025	75	0.0006	75	0.0000
71	0.0000	71	0.0066	71	0.0013	80	0.0014	80	0.0006
76	0.0006	76	0.0067	76	0.0026	85	0.0035	85	0.0006
81	0.0006	81	0.0136	81	0.0006	90	0.0015	90	0.0015
86	0.0006	86	0.0021	86	0.0000	95	0.0021	95	0.0015
91	0.0028	91	0.0015	91	0.0000	100	0.0007	100	0.0007
96	0.0022	96	0.0028	96	0.0028				
101	0.0007	101	0.0015	101	0.0000				
Hackensack River Mile 2		Newark Bay Mile 2		Arthur Kill Mile 7		Raritan River Channel, Mile 41		Jamaica Bay Station J-1	
3	0.0009	3	0.0313	3	0.0000	8	0.0103	6	0.0004
5	0.0060	5	0.0225	5	0.0000	10	0.0129	8	0.0018
7	0.0122	7	0.0317	7	0.0000	12	0.0102	10	0.0043
9	0.0170	9	0.0322	9	0.0042	14	0.0093	12	0.0073
11	0.0158	11	0.0308	11	0.0024	16	0.0059	14	0.0025
13	0.0160	13	0.0190	13	0.0024	18	0.0080	16	0.0065
15	0.0147	15	0.0177	15	0.0010	20	0.0041	18	0.0025
17	0.0164	17	0.0139	17	0.0015	22	0.0030	20	0.0025
19	0.0125	19	0.0140	19	0.0000	24	0.0057	22	0.0020
21	0.0118	21	0.0148	21	0.0026	30	0.0016	24	----
23	0.0154	23	0.0098	23	0.0015	35	0.0005	30	0.0016
25	0.0099	25	0.0083	25	0.0046	40	0.0012	35	0.0021
31	0.0059	31	0.0048	31	0.0005	45	0.0005	40	0.0028
36	0.0033	36	0.0033	36	0.0000	50	0.0000	45	0.0017
41	0.0012	41	0.0005	41	0.0005	55	0.0024	50	0.0018
46	0.0017	46	0.0017	46	0.0005	60	0.0000	55	0.0013
51	0.0023	51	0.0000	51	0.0000	65	0.0013	60	0.0006
56	0.0031	56	0.0061	56	0.0013	70	0.0006	65	0.0019
61	0.0006	61	0.0044	61	0.0013	75	0.0000	70	0.0000
66	0.0019	66	0.0000	66	0.0019	80	0.0014	75	0.0014
71	0.0006	71	0.0000	71	0.0019	85	0.0000	80	0.0006
76	0.0014	76	0.0006	76	0.0020	90	0.0000	85	0.0021
81	0.0006	81	0.0014	81	0.0014	95	0.0021	90	0.0000
86	0.0014	86	0.0049	86	0.0021	100	0.0007	95	0.0015
91	0.0007	91	0.0015	91	0.0015			100	0.0000
96	0.0028	96	0.0015	96	0.0007				
101	0.0022	101	0.0000	101	0.0000				

(Continued)

Table 17 (Concluded)

Cycle	Middepth
Jamaica Bay Station J-2	
6	0.0018
8	0.0024
10	0.0057
12	0.0034
14	0.0049
16	0.0050
18	0.0030
20	0.0020
22	0.0015
24	0.0015
30	0.0016
35	----
40	0.0000
45	0.0000
50	0.0005
55	0.0018
60	0.0018
65	0.0006
70	0.0006
75	0.0006
80	0.0014
85	0.0014
90	0.0006
95	0.0028
100	0.0000

Cycle	Middepth
Lower Bay Station 8A	
4	0.0041
6	0.0186
8	0.0113
10	0.0187
12	0.0092
14	0.0058
16	0.0079
18	0.0060
20	0.0051
22	0.0020
24	0.0031
30	0.0043
35	0.0016
40	0.0017
45	0.0005
50	0.0000
55	0.0024
60	0.0006
65	0.0019
70	0.0013
75	0.0026
80	0.0026
85	0.0021
90	0.0006
95	0.0015
100	0.0007

Cycle	Middepth
Lower Bay Station 9A	
4	0.0160
6	0.0381
8	0.0326
10	0.0277
12	0.0218
14	0.0161
16	0.0146
18	0.0116
20	0.0091
22	0.0082
24	0.0052
30	0.0043
35	0.0011
40	0.0022
45	0.0017
50	0.0000
55	0.0006
60	0.0018
65	0.0019
70	0.0033
75	0.0026
80	0.0014
85	0.0014
90	0.0015
95	0.0015
100	0.0000

River and Station	50 Cycles Middepth	100 Cycles Middepth
Additional Stations		
Kill Van Kull		
Mile 2	0.0012	0.0015
Mile 4	0.0030	0.0007
Arthur Kill		
Mile 6	0.0012	0.0000
Mile 8	0.0030	0.0015
Mile 10	0.0005	0.0000
Mile 12	0.0018	0.0000
Mile 14	0.0030	0.0007
Mile 16	0.0012	0.0000
Mile 18	0.0035	0.0000
Raritan River Channel		
Mile 20	0.0042	0.0000
Mile 21	0.0018	0.0000
Mile 22	0.0000	0.0007
Mile 24	0.0000	0.0000
Mile 28	0.0012	0.0015
Mile 30	0.0012	0.0015
Mile 32	0.0012	0.0015
Mile 34	0.0030	0.0000
Mile 36	0.0000	0.0000
Mile 37	0.0018	0.0007
Mile 38	0.0018	0.0000
Mile 39	0.0030	0.0000
Mile 40	0.0018	0.0000
Mile 42	0.0000	0.0000
Mile 44	0.0000	0.0000
Mile 45	0.0000	0.0000
Chapel Hill Channel		
Mile 48	0.0012	0.0000
Mile 50	0.0023	0.0000
Hudson River		
-18 surface	0.0005	0.0022
-18 bottom	0.0000	0.0022
Headbay		
A	----	0.0000
B	----	0.0000
C	----	0.0000

Table 18

Observed Dye Concentrations at High-Water Slack in Per Cent of Initial Concentration, Test 7

Cycle	Surface	Bottom
Hudson River, Mile -18		
0	0.0000	0.0000
8	0.0014	0.0028
10	0.0000	0.0014
12	0.0014	0.0014
14	0.0015	0.0019
16	0.0015	0.0015
18	0.0000	0.0010
20	0.0020	0.0000
22	0.0061	0.0026
24	0.0000	0.0011
30	0.0005	0.0016
35	0.0021	0.0055
40	0.0017	0.0017
45	0.0005	0.0022
50	0.0018	0.0000
55	0.0036	0.0013
60	0.0000	0.0018
65	0.0006	0.0006
70	0.0046	0.0000
75	0.0020	0.0014
80	0.0034	0.0026
85	0.0021	0.0027
90	0.0028	0.0028
95	0.0000	0.0007
100	0.0007	0.0007
Hudson River, Mile -16		
0	0.0000	0.0000
8	0.0000	----
10	0.0004	0.0014
12	0.0000	0.0029
14	0.0015	0.0025
16	----	0.0035
18	0.0030	0.0025
20	0.0005	0.0015
22	0.0011	0.0020
24	0.0037	0.0020
30	0.0011	0.0011
35	0.0000	0.0005
40	0.0000	0.0017
45	0.0012	0.0022
50	0.0012	0.0005
55	0.0024	0.0036
60	0.0037	0.0044
65	0.0013	0.0045
70	0.0006	0.0000
75	0.0000	0.0020
80	0.0014	0.0014
85	0.0041	0.0014
90	0.0000	0.0071
95	0.0007	0.0015
100	0.0029	0.0088

Cycle	Surface	Bottom
Hudson River, Mile -12		
0	0.0000	0.0000
4	0.0023	0.0009
6	0.0000	0.0004
8	0.0000	0.0014
10	0.0000	0.0019
12	0.0019	0.0019
14	0.0029	0.0019
16	0.0000	0.0015
18	0.0015	0.0015
20	0.0000	0.0020
22	0.0011	0.0030
24	0.0000	0.0011
30	0.0005	0.0000
35	0.0049	----
40	0.0022	0.0017
45	0.0022	0.0017
50	0.0000	0.0023
55	0.0036	0.0036
60	0.0044	0.0024
65	0.0000	0.0025
70	0.0013	0.0013
75	0.0020	0.0020
80	0.0026	0.0034
85	0.0014	0.0006
90	0.0006	0.0036
95	0.0015	0.0036
100	0.0000	0.0022
Hudson River, Mile -8		
0	0.0000	0.0000
2	0.0000	0.0017
4	0.0018	0.0009
6	0.0033	0.0031
8	0.0118	0.0056
10	0.0052	0.0028
12	0.0043	0.0014
14	0.0019	0.0015
16	0.0079	0.0025
18	0.0019	0.0010
20	0.0010	0.0000
22	0.0056	0.0056
24	0.0037	0.0011
30	0.0032	0.0011
35	0.0016	0.0016
40	0.0005	0.0017
45	0.0005	0.0022
50	0.0023	0.0012
55	0.0013	0.0013
60	0.0031	0.0024
65	0.0000	0.0000
70	0.0025	0.0000
75	0.0006	0.0020
80	0.0006	0.0020
85	0.0021	0.0041
90	0.0006	0.0000
95	0.0028	0.0036
100	0.0029	0.0015

Cycle	Surface	Bottom
Hudson River, Mile -4		
0	0.0000	0.0000
2	0.0744	0.0017
4	0.0366	0.0187
6	0.0320	0.0181
8	0.0207	0.0161
10	0.0195	0.0119
12	0.0204	0.0092
14	0.0162	0.0113
16	0.0114	0.0054
18	0.0131	0.0076
20	0.0000	0.0045
22	0.0026	0.0067
24	0.0062	0.0062
30	0.0048	0.0048
35	0.0011	0.0088
40	0.0045	0.0028
45	0.0046	0.0034
50	0.0035	0.0030
55	0.0018	0.0000
60	0.0044	0.0037
65	0.0006	0.0000
70	0.0013	0.0019
75	0.0006	0.0040
80	0.0026	0.0026
85	0.0035	0.0035
90	0.0006	0.0015
95	0.0021	0.0021
100	0.0029	0.0000
Hudson River, Mile 0		
0	0.0000	0.0000
2	0.0551	0.0391
4	0.0110	0.0142
6	0.0144	0.0223
8	0.0147	0.0198
10	0.0086	0.0095
12	0.0063	0.0106
14	0.0058	0.0122
16	0.0054	0.0104
18	0.0055	0.0076
20	0.0045	0.0076
22	0.0056	----
24	0.0031	----
30	0.0027	0.0043
35	0.0028	0.0033
40	0.0022	0.0028
45	0.0017	0.0046
50	0.0000	0.0042
55	0.0031	0.0049
60	0.0000	0.0006
65	0.0019	0.0076
70	0.0025	0.0025
75	0.0020	0.0067
80	0.0000	0.0034
85	0.0027	0.0049
90	0.0000	0.0006
95	0.0021	0.0043
100	0.0015	0.0029

(Continued)

Table 18 (Continued)

Cycle	Surface	Bottom
	Hudson River, Mile 4	
0	0.0000	0.0000
4	0.0027	0.0054
6	0.0055	0.0074
8	0.0085	0.0066
10	0.0057	0.0081
12	0.0077	0.0077
14	0.0054	0.0064
16	0.0054	0.0040
18	0.0035	0.0040
20	0.0045	0.0030
22	0.0030	0.0036
24	----	----
30	----	0.0016
35	0.0000	0.0028
40	0.0057	0.0012
45	0.0012	0.0022
50	0.0005	0.0018
55	0.0000	0.0054
60	0.0013	0.0024
65	0.0045	0.0025
70	0.0019	0.0033
75	0.0026	0.0006
80	0.0000	0.0020
85	0.0027	0.0021
90	0.0021	0.0000
95	0.0021	0.0036
100	0.0022	0.0015
	Hudson River, Mile 8	
0	0.0000	0.0000
4	0.0014	0.0041
6	0.0033	0.0084
8	0.0028	0.0071
10	0.0043	0.0052
12	0.0073	0.0063
14	0.0049	0.0054
16	0.0050	0.0050
18	0.0045	0.0045
20	0.0066	0.0020
22	0.0020	0.0020
24	0.0020	0.0031
30	0.0016	0.0048
35	0.0021	0.0000
40	0.0017	0.0005
45	0.0022	0.0034
50	0.0000	0.0000
55	0.0031	0.0018
60	0.0000	0.0024
65	0.0000	0.0019
70	0.0006	0.0013
75	0.0000	0.0000
80	0.0006	0.0000
85	0.0041	0.0000
90	0.0006	0.0006
95	0.0000	0.0000
100	0.0000	0.0000

Cycle	Surface	Bottom
	Hudson River, Mile 12	
0	0.0000	0.0000
6	0.0023	0.0028
8	0.0018	0.0038
10	0.0019	0.0034
12	0.0043	0.0049
14	0.0044	0.0068
16	0.0054	0.0040
18	0.0050	0.0050
20	0.0000	0.0000
22	0.0020	0.0036
24	0.0005	0.0005
30	0.0374	0.0439
35	0.0088	0.0005
40	0.0012	0.0022
45	0.0000	0.0000
50	0.0012	0.0005
55	0.0018	0.0000
60	0.0000	0.0013
65	0.0006	0.0025
70	0.0039	0.0006
75	0.0006	0.0040
80	0.0014	0.0000
85	0.0014	0.0041
90	0.0021	0.0057
95	0.0021	0.0021
100	0.0015	0.0029
	Hudson River, Mile 16	
14	0.0010	0.0049
16	0.0000	0.0015
18	0.0015	0.0045
20	0.0020	0.0030
22	0.0005	0.0041
24	0.0000	0.0000
30	0.0000	0.0000
35	0.0000	0.0005
40	0.0000	0.0022
45	0.0000	0.0012
50	0.0000	0.0000
55	0.0000	0.0013
60	0.0018	0.0013
65	0.0000	0.0000
70	----	0.0000
75	0.0014	0.0000
80	0.0000	0.0014
85	0.0006	0.0014
90	0.0000	0.0021
95	0.0000	0.0000
100	0.0000	0.0022

Cycle	Middepth
	Lower Bay, Station 8A
0	0.0000
4	0.0054
6	0.0111
8	0.0099
10	0.0105
12	0.0058
14	0.0107
16	0.0069
18	0.0080
20	0.0045
22	0.0046
24	0.0037
30	0.0032
35	0.0039
40	0.0012
45	0.0000
50	0.0012
55	0.0013
60	0.0018
65	0.0000
70	0.0013
75	0.0014
80	0.0014
85	0.0014
90	0.0006
95	0.0000
100	0.0029
	Lower Bay, Station 9A
0	0.0000
4	0.0274
6	0.0213
8	0.0203
10	0.0187
12	0.0106
14	0.0097
16	0.0123
18	0.0080
20	0.0076
22	0.0077
24	0.0005
30	0.0027
35	0.0016
40	0.0040
45	0.0041
50	0.0023
55	0.0036
60	0.0024
65	0.0013
70	0.0033
75	0.0006
80	0.0000
85	0.0041
90	0.0006
95	0.0015
100	0.0029

(Continued)

Table 18 (Continued)

Cycle	Middepth	Cycle	Middepth	Cycle	Middepth	Cycle	Middepth	Cycle	Middepth
East River Mile 2		East River Mile 12		Arthur Kill Mile 7		Arthur Kill Mile 14		Hackensack River Mile 2	
0	0.0000	7	0.0000	0	0.0000	0	0.0000	0	0.0000
3	0.0036	9	0.0000	3	0.0602	5	0.0000	3	0.3478
5	0.0064	11	0.0024	5	0.0857	7	0.0000	5	0.3349
7	0.0065	13	0.0014	7	0.0879	9	0.0000	7	0.2932
9	0.0072	15	0.0000	9	0.0783	11	0.0029	9	0.2378
11	0.0063	17	0.0015	11	0.0644	13	0.0029	11	0.2302
13	0.0068	19	0.0000	13	0.0584	15	0.0029	13	0.1970
15	0.0050	21	0.0000	15	0.0541	17	0.0030	15	0.1619
17	0.0035	23	0.0005	17	0.0518	19	0.0025	17	0.1409
19	0.0020	25	0.0015	19	0.0428	21	0.0036	19	0.1163
21	0.0036	31	0.0000	21	0.0433	23	0.0037	21	0.0800
23	0.0037	36	----	23	0.0443	25	0.0005	23	0.0814
25	0.0042	41	0.0017	25	0.0318	31	0.0021	25	0.0959
31	0.0027	46	0.0017	31	0.0313	36	0.0011	31	0.0689
36	0.0011	51	0.0000	36	0.0110	41	0.0051	36	0.0453
41	0.0012	56	0.0006	41	0.0153	46	0.0041	41	0.0476
46	0.0012	61	0.0019	46	0.0122	51	0.0030	46	0.0367
51	0.0000	66	0.0000	51	0.0078	56	0.0024	51	0.0251
56	0.0000	71	0.0006	56	0.0054	61	0.0019	56	0.0103
61	0.0013	76	0.0006	61	0.0050	66	0.0013	61	0.0163
66	0.0000	81	0.0027	66	0.0057	71	0.0033	66	0.0192
71	0.0006	86	0.0006	71	0.0046	76	0.0020	71	0.0130
76	0.0020	91	0.0015	76	0.0047	81	0.0014	76	0.0080
81	0.0041	96	0.0007	81	0.0034	86	0.0006	81	0.0081
86	0.0000	101	0.0007	86	0.0035	91	0.0050	86	0.0112
91	0.0000			91	0.0021	96	0.0007	91	0.0042
96	0.0000			96	0.0036	101	0.0007	96	0.0073
101	0.0015			101	0.0000			101	0.0074
East River Mile 7		Kill Van Kull Mile 3		Arthur Kill Mile 10		Arthur Kill Mile 18		Hackensack River Mile 6	
0	0.0000	0	0.0000	0	0.0000	0	0.0000	0	0.0000
3	0.0009	3	0.0539	3	0.0000	11	0.0029	3	0.0326
5	0.0033	5	0.0401	5	0.0037	13	0.0000	5	0.0585
7	0.0079	7	0.0313	7	0.0051	15	0.0015	7	0.1225
9	0.0048	9	0.0228	9	0.0090	17	0.0005	9	0.1590
11	0.0038	11	0.0149	11	0.0096	19	0.0005	11	0.1591
13	0.0078	13	0.0141	13	0.0107	21	0.0015	13	0.1454
15	0.0050	15	0.0104	15	0.0143	23	0.0020	15	0.1560
17	0.0055	17	0.0139	17	0.0145	25	0.0015	17	0.1419
19	0.0036	19	0.0106	19	0.0096	31	0.0021	19	0.1319
21	0.0030	21	0.0086	21	0.0137	36	0.0000	21	0.1213
23	0.0015	23	0.0072	23	0.0128	41	0.0045	23	0.0979
25	0.0020	25	0.0079	25	0.0136	46	0.0041	25	0.0886
31	0.0011	31	0.0016	31	0.0091	51	0.0012	31	0.0737
36	0.0000	36	0.0039	36	0.0072	56	0.0024	36	0.0729
41	0.0017	41	0.0022	41	0.0062	61	0.0013	41	0.0527
46	0.0012	46	0.0023	46	0.0064	66	0.0038	46	0.0512
51	0.0023	51	0.0042	51	0.0048	71	0.0033	51	0.0412
56	0.0000	56	0.0000	56	0.0006	76	0.0040	55	0.0372
61	0.0024	61	0.0006	61	0.0031	81	0.0027	61	0.0344
66	0.0000	66	0.0025	66	0.0032	86	0.0014	66	0.0262
71	0.0000	71	0.0000	71	0.0039	91	0.0050	71	0.0242
76	0.0026	76	0.0014	76	0.0034	96	0.0022	76	0.0240
81	0.0034	81	0.0034	81	0.0034	101	0.0000	81	0.0144
86	0.0000	86	0.0049	86	0.0035			86	0.0182
91	0.0000	91	0.0000	91	0.0007			91	0.0156
96	0.0007	96	0.0022	96	0.0015			96	0.0138
101	0.0015	101	0.0000	101	0.0022			101	0.0112

(Continued)

Table 18 (Continued)

Cycle	Middepth
Hackensack River Mile 10	
0	0.0000
5	0.0033
7	0.0089
9	0.0152
11	0.0308
13	0.0408
15	0.0429
17	0.0612
19	0.0494
21	0.0449
23	0.0634
25	0.0610
31	0.0587
36	0.0514
41	0.0494
46	0.0529
51	0.0399
56	0.0287
61	0.0363
66	0.0301
71	0.0190
76	0.0234
81	0.0178
86	0.0265
91	0.0234
96	0.0217
101	0.0118
Hackensack River Mile 14	
0	----
3	----
5	----
7	----
9	----
11	----
13	0.0041
15	0.0074
17	0.0084
19	0.0106
21	0.0137
23	0.0191
25	0.0193
31	0.0204
36	0.0314
41	0.0294
46	0.0255
51	0.0281
56	0.0250
61	0.0274
66	0.0218
71	0.0190
76	0.0200
81	0.0150
86	0.0238
91	0.0114
96	0.0138
101	0.0147

Cycle	Middepth
Passaic River Mile 2	
0	0.0000
3	0.1277
5	0.1829
7	0.1987
9	0.2307
11	0.2082
13	0.1907
15	0.1772
17	0.1598
19	0.1410
21	0.1177
23	0.1108
25	0.0996
31	0.0776
36	0.0663
41	0.0494
46	0.0477
51	0.0376
56	0.0170
61	0.0269
66	0.0269
71	0.0190
76	0.0194
81	0.0061
86	0.0153
91	0.0085
96	0.0086
101	0.0088
Passaic River Mile 6	
0	0.0000
5	0.0188
7	0.0191
9	0.0314
11	0.0409
13	0.0579
15	0.0773
17	0.0568
19	0.0554
21	0.0704
23	0.0896
25	0.0740
31	0.0678
36	0.0712
41	0.0748
46	0.0622
51	0.0399
56	0.0385
61	0.0294
66	0.0423
71	0.0308
76	0.0200
81	0.0219
86	0.0238
91	0.0185
96	0.0159
101	0.0206

Cycle	Middepth
Passaic River Mile 10	
0	0.0000
23	0.0330
25	0.0187
31	0.0275
36	0.0342
41	0.0391
46	0.0284
51	0.0328
56	0.0311
61	0.0169
66	0.0294
71	0.0223
76	0.0301
81	0.0239
86	0.0300
91	0.0192
96	0.0153
101	0.0193
Raritan River Channel, Mile 21	
0	0.0000
11	0.0024
13	0.0000
15	0.0015
17	0.0005
19	0.0015
21	0.0051
23	0.0020
25	0.0015
31	0.0043
36	0.0016
41	0.0040
46	0.0017
51	0.0000
56	0.0006
61	0.0019
66	0.0019
71	0.0000
76	0.0034
81	0.0034
86	0.0014
91	0.0007
96	0.0000
101	0.0000

Cycle	Middepth
Raritan River Channel, Mile 30	
0	0.0000
10	0.0062
12	0.0067
14	0.0078
16	0.0084
18	0.0125
20	0.0086
22	0.0067
24	0.0067
30	0.0038
35	0.0055
40	0.0028
45	0.0034
50	0.0012
55	----
60	0.0024
65	0.0000
70	0.0019
75	0.0040
80	0.0020
85	0.0035
90	0.0015
95	0.0036
100	0.0022
Raritan River Channel, Mile 35	
0	0.0000
4	0.0041
6	0.0116
8	0.0137
10	0.0143
12	0.0077
14	0.0097
16	0.0084
18	0.0085
20	0.0066
22	0.0067
24	0.0057
30	0.0027
35	0.0011
40	0.0028
45	0.0041
50	0.0035
55	0.0061
60	0.0006
65	0.0019
70	0.0052
75	0.0014
80	0.0000
85	0.0021
90	0.0021
95	0.0021
100	0.0015

Cycle	Middepth
Newark Bay Mile 2	
0	0.0000
3	0.4274
5	0. 906
7	0.2113
9	0.1633
11	0.1259
13	0.0836
15	0.0846
17	0.0772
19	0.0680
21	0.0672
23	0.0356
25	0.0406
31	0.0361
36	0.0304
41	0.0187
46	0.0191
51	0.0119
56	0.0067
61	0.0063
66	0.0076
71	0.0033
76	0.0047
81	0.0034
86	0.0027
91	0.0028
96	0.0043
101	0.0037
Chapel Hill Channel, Mile 46	
0	0.0000
4	0.0009
6	0.0074
8	0.0099
10	0.0115
12	0.0102
14	0.0097
16	0.0079
18	0.0080
20	0.0081
22	0.0046
24	0.0020
30	0.0054
35	0.0000
40	0.0045
45	0.0017
50	0.0012
55	0.0036
60	0.0044
65	0.0025
70	0.0013
75	0.0006
80	0.0020
85	0.0021
90	0.0000
95	0.0036
100	0.0000

(Continued)

Table 18 (Concluded)

Cycle	Middepth
Jamaica Bay Station J-1	
0	0.0000
12	0.0034
14	0.0049
16	0.0035
18	0.0045
20	0.0020
22	0.0036
24	0.0037
30	0.0005
35	0.0028
40	0.0017
45	0.0029
50	0.0035
55	0.0013
60	0.0006
65	0.0013
70	0.0000
75	0.0000
80	0.0020
85	0.0014
90	0.0015
95	0.0007
100	0.0007

Cycle	Middepth
Jamaica Bay Station J-2	
0	0.0000
12	0.0039
14	0.0035
16	0.0035
18	0.0035
20	0.0015
22	0.0026
24	0.0000
30	0.0021
35	0.0005
40	0.0000
45	0.0000
50	0.0023
55	0.0024
60	0.0013
65	0.0000
70	0.0006
75	0.0026
80	0.0034
85	0.0014
90	0.0021
95	0.0021
100	0.0022

Cycle	Middepth
Raritan River Channel, Mile 41	
0	0.0000
4	0.0000
6	0.0014
8	0.0056
10	0.0072
12	0.0067
14	0.0054
16	0.0069
18	0.0045
20	0.0071
22	0.0020
24	----
30	0.0038
35	0.0016
40	0.0028
45	0.0022
50	0.0012
55	0.0013
60	0.0024
65	0.0025
70	0.0019
75	0.0020
80	0.0026
85	0.0027
90	0.0000
95	0.0007
100	0.0044

River and Station	Cycle 50 Middepth	Cycle 100 Middepth
Additional Stations		
Kill Van Kull		
Mile 2	0.0000	0.0295
Mile 4	0.0018	0.0015
Arthur Kill		
Mile 6	0.0172	0.0066
Mile 8	0.0089	0.0022
Mile 12	0.0053	0.0000
Mile 16	0.0000	0.0000
Raritan River Channel		
Mile 22	0.0018	0.0000
Mile 24	0.0012	0.0015
Mile 28	0.0012	0.0029
Mile 32	0.0071	0.0081
Mile 34	0.0030	0.0000
Mile 36	0.0042	0.0000
Mile 37	0.0053	0.0000
Mile 38	0.0030	0.0022
Mile 39	0.0018	0.0000
Mile 40	0.0053	0.0015
Mile 42	0.0018	0.0000
Mile 44	0.0000	0.0007
Mile 45	0.0012	0.0000
Chapel Hill Channel		
Mile 48	0.0000	0.0037
Mile 50	0.0012	0.0015

Table 19

Observed Dye Concentrations at High-Water Slack in Per Cent of Initial Concentration, Test 8

Cycle	Surface	Bottom
	Hudson River, Mile -18	
8	0.0000	0.0000
10	0.0000	0.0000
12	0.0000	0.0000
14	0.0000	0.0010
16	0.0005	0.0019
18	0.0000	0.0000
20	0.0015	0.0000
22	0.0015	0.0026
24	0.0026	0.0000
30	0.0011	0.0027
35	0.0028	0.0016
40	0.0034	0.0022
45	0.0022	0.0000
50	0.0018	0.0000
55	0.0013	0.0000
60	0.0013	0.0013
65	0.0000	0.0006
70	0.0013	0.0006
75	0.0000	0.0000
80	0.0000	0.0000
85	0.0000	0.0006
90	0.0000	0.0000
95	0.0000	0.0000
100	0.0000	0.0015
	Hudson River, Mile -16	
6	0.0139	0.0033
8	0.0033	0.0014
10	0.0034	0.0014
12	0.0010	0.0000
14	0.0025	0.0004
16	0.0010	0.0019
18	0.0019	0.0025
20	0.0020	0.0010
22	0.0000	0.0005
24	0.0015	0.0011
30	0.0027	0.0021
35	0.0011	0.0039
40	0.0040	0.0022
45	0.0022	0.0012
50	0.0030	0.0018
55	0.0013	0.0013
60	0.0013	0.0013
65	0.0000	0.0000
70	0.0000	0.0000
75	0.0020	0.0000
80	0.0000	0.0034
85	0.0006	0.0000
90	0.0000	0.0000
95	0.0000	----
100	0.0007	0.0022

Cycle	Surface	Bottom
	Hudson River, Mile -12	
6	0.0000	0.0000
8	0.0000	0.0000
10	0.0000	0.0000
12	0.0000	0.0000
14	0.0015	0.0000
16	0.0005	0.0010
18	0.0019	0.0010
20	0.0010	0.0000
22	0.0000	0.0020
24	0.0005	0.0000
30	0.0011	0.0005
35	0.0021	0.0021
40	0.0017	0.0028
45	0.0022	0.0005
50	0.0012	0.0012
55	0.0013	0.0013
60	0.0006	0.0018
65	0.0006	0.0000
70	0.0006	0.0006
75	0.0000	0.0000
80	0.0000	0.0006
85	0.0014	0.0000
90	0.0000	0.0000
95	0.0000	0.0015
100	0.0007	0.0000
	Hudson River, Mile -8	
4	0.0046	0.0037
6	0.0000	0.0000
8	0.0000	0.0004
10	0.0019	0.0038
12	0.0039	0.0024
14	0.0039	0.0015
16	0.0025	0.0019
18	0.0015	0.0005
20	0.0010	0.0010
22	0.0041	0.0036
24	0.0031	0.0005
30	0.0027	0.0011
35	0.0028	0.0033
40	0.0040	0.0012
45	0.0005	0.0012
50	0.0023	0.0023
55	0.0024	0.0000
60	0.0024	0.0013
65	0.0000	0.0000
70	0.0000	0.0000
75	0.0000	0.0000
80	0.0000	0.0000
85	0.0041	0.0000
90	0.0000	0.0000
95	0.0000	0.0000
100	0.0000	0.0007

Cycle	Surface	Bottom
	Hudson River, Mile -4	
4	0.0110	0.0023
6	0.0098	0.0060
8	0.0207	0.0132
10	0.0167	0.0124
12	0.0204	0.0121
14	0.0171	0.0107
16	0.0169	0.0119
18	0.0165	0.0120
20	0.0126	0.0096
22	0.0118	0.0082
24	0.0057	0.0072
30	0.0064	0.0027
35	0.0049	0.0055
40	0.0057	0.0063
45	0.0029	0.0041
50	0.0035	0.0042
55	0.0024	0.0061
60	0.0018	0.0013
65	0.0000	0.0006
70	0.0006	0.0013
75	0.0006	0.0014
80	0.0020	0.0000
85	0.0000	0.0000
90	0.0015	0.0000
95	0.0000	0.0015
100	0.0000	0.0000
	Hudson River, Mile 0	
4	0.0100	0.0060
6	0.0092	0.0158
8	0.0066	0.0071
10	0.0115	0.0129
12	0.0126	0.0121
14	0.0132	0.0152
16	0.0154	0.0123
18	0.0131	0.0131
20	0.0147	0.0081
22	0.0097	0.0093
24	0.0072	0.0083
30	0.0021	0.0070
35	0.0049	0.0039
40	0.0040	0.0028
45	0.0000	0.0000
50	0.0012	0.0000
55	0.0000	0.0000
60	0.0006	0.0000
65	0.0013	0.0000
70	0.0013	0.0000
75	0.0000	0.0006
80	0.0006	0.0014
85	0.0000	0.0014
90	0.0015	0.0000
95	0.0000	0.0028
100	0.0000	0.0000

(Continued)

Table 19 (Continued)

Cycle	Surface	Bottom
	Hudson River Mile 4	
4	0.0000	0.0000
6	0.0000	0.0000
8	0.0047	0.0047
10	0.0038	0.0057
12	0.0054	0.0049
14	0.0064	0.0064
16	0.0055	0.0148
18	0.0090	0.0080
20	0.0071	0.0057
22	0.0046	0.0061
24	0.0098	0.0072
30	0.0021	0.0021
35	0.0021	0.0021
40	0.0028	0.0022
45	0.0012	0.0005
50	0.0000	0.0000
55	0.0000	0.0031
60	0.0000	0.0000
65	0.0000	0.0000
70	0.0000	0.0000
75	0.0000	0.0000
80	0.0000	0.0006
85	----	0.0000
90	0.0000	0.0000
95	0.0000	0.0000
100	0.0007	0.0007
	Hudson River Mile 8	
6	0.0010	0.0018
8	0.0010	0.0028
10	0.0019	0.0038
12	0.0029	0.0054
14	0.0035	0.0064
16	0.0040	0.0040
18	0.0056	0.0060
20	0.0036	0.0045
22	0.0052	0.0061
24	0.0020	0.0026
30	0.0064	0.0015
35	0.0005	0.0028
40	0.0045	0.0034
45	0.0017	0.0005
50	0.0005	0.0005
55	0.0006	0.0000
60	0.0000	----
65	0.0000	0.0000
70	0.0000	0.0000
75	0.0000	0.0000
80	0.0000	0.0000
85	0.0000	0.0000
90	0.0000	0.0000
95	0.0000	0.0000
100	0.0000	0.0000

Cycle	Surface	Bottom
	Hudson River Mile 12	
8	0.0010	0.0004
10	0.0004	0.0000
12	0.0019	0.0039
14	0.0035	0.0044
16	0.0050	0.0059
18	0.0050	0.0055
20	0.0025	0.0025
22	0.0036	0.0026
24	0.0072	0.0026
30	0.0005	0.0011
35	0.0016	0.0011
40	0.0012	0.0017
45	0.0017	0.0000
50	0.0030	0.0030
55	0.0024	0.0013
60	0.0006	0.0000
65	0.0006	0.0006
70	0.0000	0.0000
75	0.0006	0.0000
80	0.0000	0.0000
85	0.0014	0.0006
90	0.0000	0.0000
95	0.0007	0.0007
100	0.0000	0.0007
	Hudson River Mile 16	
18	0.0010	0.0041
20	0.0005	0.0026
22	0.0061	0.0020
24	0.0015	0.0015
30	0.0027	0.0016
35	0.0011	0.0016
40	0.0028	0.0012
45	0.0012	0.0000
50	0.0018	0.0018
55	0.0000	0.0006
60	0.0000	0.0000
65	0.0000	0.0000
70	0.0000	0.0006
75	0.0000	0.0000
80	0.0000	0.0000
85	0.0000	0.0000
90	0.0000	0.0000
95	0.0000	0.0000
100	0.0000	0.0000

Cycle	Middepth
	Lower Bay Station 8A
4	0.0000
6	0.0018
8	0.0014
10	0.0072
12	0.0067
14	0.0058
16	0.0019
18	0.0080
20	0.0066
22	0.0046
24	0.0041
30	0.0032
35	0.0039
40	0.0045
45	0.0000
50	0.0018
55	0.0018
60	0.0006
65	0.0013
70	0.0000
75	0.0000
80	0.0000
85	0.0000
90	0.0000
95	0.0000
100	0.0022
	Lower Bay Station 9A
4	0.0051
6	0.0074
8	0.0132
10	0.0124
12	0.0106
14	0.0117
16	0.0114
18	0.0160
20	0.0091
22	0.0087
24	0.0078
30	0.0064
35	0.0055
40	0.0045
45	0.0052
50	0.0023
55	0.0013
60	0.0018
65	0.0006
70	0.0000
75	0.0006
80	0.0000
85	0.0000
90	0.0000
95	0.0015
100	0.0000

Cycle	Middepth
	East River Mile 2
5	0.0000
7	0.0047
9	0.0072
11	0.0115
13	0.0068
15	0.0079
17	0.0075
19	0.0100
21	0.0086
23	0.0082
25	0.0031
31	0.0027
36	0.0033
41	0.0022
46	0.0005
51	0.0000
56	0.0013
61	0.0000
66	0.0000
71	0.0000
76	0.0000
81	0.0000
86	0.0006
91	0.0000
96	0.0000
101	0.0000
	East River Mile 7
7	0.0010
9	0.0034
11	0.0038
13	0.0029
15	0.0054
17	0.0055
19	0.0051
21	0.0041
23	0.0041
25	0.0083
31	0.0032
36	0.0016
41	0.0012
46	0.0005
51	0.0000
56	0.0006
61	0.0000
66	0.0006
71	0.0000
76	0.0000
81	0.0000
86	0.0000
91	0.0021
96	0.0000
101	0.0000

Cycle	Middepth
	East River Mile 12
7	0.0000
9	0.0004
11	0.0000
13	0.0000
15	0.0000
17	0.0000
19	0.0010
21	0.0000
23	0.0000
25	0.0000
31	0.0005
36	0.0000
41	0.0000
46	0.0052
51	0.0000
56	0.0000
61	0.0000
66	0.0000
71	0.0000
76	0.0006
81	0.0000
86	0.0000
91	0.0000
96	0.0000
101	0.0000
	Hackensack River Mile 2
3	0.0068
5	0.0617
7	0.1103
9	0.1357
11	0.1452
13	0.1348
15	0.1211
17	0.0971
19	0.1158
21	0.1243
23	0.0944
25	0.0896
31	0.0814
36	0.0614
41	0.0566
46	0.0348
51	0.0309
56	0.0396
61	0.0263
66	0.0237
71	0.0229
76	0.0194
81	0.0130
86	0.0111
91	0.0114
96	0.0101
101	0.0088

(Continued)

Table 19 (Continued)

Cycle	Middepth
Hackensack River Mile 6	
5	0.0055
7	0.0145
9	0.0342
11	0.0476
13	0.0545
15	0.0610
17	0.0682
19	0.0795
21	0.0723
23	0.0866
25	0.0833
31	0.0803
36	0.0691
41	0.0413
46	0.0331
51	0.0489
56	0.0342
61	0.0350
66	0.0364
71	0.0268
76	0.0281
81	0.0219
86	0.0223
91	0.0164
96	0.0174
101	0.0134
Hackensack River Mile 10	
13	0.0082
15	0.0158
17	0.0170
19	0.0252
21	0.0260
23	0.0345
25	0.0266
31	0.0463
36	0.0471
41	0.0448
46	0.0326
51	----
56	0.0414
61	0.0350
66	0.0345
71	0.0334
76	0.0261
81	0.0287
86	0.0174
91	0.0234
96	0.0153
101	0.0162

Cycle	Middepth
Hackensack River Mile 14	
19	0.0040
21	0.0036
23	0.0087
25	0.0130
31	0.0167
36	0.0116
41	0.0181
46	0.0152
51	0.0256
56	0.0244
61	0.0174
66	0.0237
71	0.0242
76	0.0200
81	0.0219
86	0.0174
91	0.0185
96	0.0116
101	0.0118
Passaic River Mile 2	
3	0.0000
5	0.0231
7	0.0482
9	0.0864
11	0.0832
13	0.0973
15	0.1122
17	0.1025
19	0.1062
21	0.1142
23	0.1041
25	0.0943
31	0.0630
36	0.0586
41	0.0499
46	0.0441
51	0.0465
56	0.0360
61	0.0324
66	0.0301
71	0.0203
76	0.0200
81	0.0191
86	0.0132
91	0.0135
96	0.0123
101	0.0096

Cycle	Middepth
Passaic River Mile 6	
11	0.0115
13	0.0185
15	0.0162
17	0.0229
19	0.0453
21	0.0352
23	0.0345
25	0.0474
31	0.0517
36	0.0453
41	0.0420
46	0.0460
51	0.0507
56	0.0434
61	0.0444
66	0.0435
71	0.0275
76	0.0321
81	0.0245
86	0.0273
91	0.0198
96	0.0168
101	0.0200
Passaic River Mile 10	
36	0.0160
41	0.0203
46	0.0274
51	0.0322
56	0.0299
61	0.0294
66	0.0192
71	0.0281
76	0.0234
81	0.0239
86	0.0258
91	0.0213
96	0.0239
101	0.0200

Cycle	Middepth
Newark Bay Mile 2	
3	0.0666
5	0.1566
7	0.1623
9	0.1571
11	0.1245
13	0.1231
15	0.1221
17	0.1021
19	0.0906
21	0.0897
23	0.0609
25	0.0485
31	0.0458
36	0.0398
41	0.0284
46	0.0245
51	0.0262
56	0.0170
61	0.0131
66	0.0148
71	0.0085
76	0.0166
81	0.0069
86	0.0070
91	0.0063
96	0.0015
101	0.0037
Kill Van Kull Mile 3	
3	0.0050
5	0.0161
7	0.0234
9	0.0186
11	0.0207
13	0.0185
15	0.0197
17	0.0155
19	0.0166
21	0.0122
23	0.0128
25	0.0114
31	0.0113
36	0.0072
41	0.0057
46	0.0041
51	0.0012
56	0.0013
61	0.0013
66	0.0013
71	0.0000
76	0.0020
81	0.0020
86	0.0000
91	0.0000
96	0.0015
101	0.0000

Cycle	Middepth
Arthur Kill Mile 7	
3	0.9970
5	0.7213
7	0.6135
9	0.5088
11	0.4394
13	0.3697
15	0.3140
17	0.2877
19	0.2483
21	0.2243
23	0.1736
25	0.1714
31	0.1125
36	0.0961
41	0.0697
46	0.0506
51	0.0316
56	0.0414
61	0.0306
66	0.0262
71	0.0183
76	0.0141
81	0.0150
86	0.0105
91	0.0150
96	0.0116
101	0.0147
Arthur Kill Mile 10	
3	0.2734
5	0.3298
7	0.3208
9	0.2986
11	0.2851
13	0.2399
15	0.2116
17	0.2061
19	0.1727
21	0.1468
23	0.1268
25	0.1407
31	0.0908
36	0.0707
41	0.0482
46	0.0372
51	0.0269
56	0.0219
61	0.0194
66	0.0186
71	0.0171
76	0.0101
81	0.0123
86	0.0070
91	0.0093
96	0.0058
101	0.0112

(Continued)

Table 19 (Concluded)

Cycle	Mid-depth
Arthur Kill Mile 14	
3	0.0113
5	0.0336
7	0.0931
9	0.0758
11	0.0808
13	0.0832
15	0.0674
17	0.0767
19	0.0579
21	0.0438
23	0.0531
25	0.0417
31	0.0360
36	0.0198
41	0.0074
46	0.0110
51	0.0149
56	0.0110
61	0.0100
66	0.0097
71	0.0085
76	0.0080
81	0.0061
86	0.0070
91	0.0028
96	0.0043
101	0.0052
Arthur Kill Mile 18	
3	0.0000
5	0.0014
7	0.0071
9	0.0024
11	0.0048
13	0.0063
15	0.0083
17	0.0090
19	0.0096
21	0.0082
23	0.0078
25	0.0099
31	0.0102
36	0.0198
41	0.0119
46	0.0069
51	0.0065
56	0.0067
61	0.0063
66	0.0076
71	0.0046
76	0.0067
81	0.0055
86	0.0049
91	0.0057
96	0.0036
101	0.0052

Cycle	Mid-depth
Raritan River Channel Mile 26	
5	0.0000
7	0.0000
9	0.0000
11	0.0019
13	0.0010
15	0.0079
17	0.0075
19	0.0076
21	0.0071
23	0.0082
25	0.0073
31	0.0064
36	0.0121
41	0.0210
46	0.0064
51	0.0060
56	0.0061
61	0.0063
66	0.0076
71	0.0046
76	0.0040
81	0.0048
86	0.0027
91	0.0028
Raritan River Channel Mile 30	
6	0.0000
8	0.0000
10	0.0000
12	0.0014
14	0.0015
16	0.0050
18	0.0065
20	0.0051
22	0.0052
24	0.0094
30	0.0086
35	0.0083
40	0.0063
45	0.0058
50	0.0071
55	0.0049
60	0.0031
65	0.0038
70	0.0006
75	0.0026
80	0.0000
85	0.0006
90	0.0006
95	0.0000
100	0.0007

Cycle	Mid-depth
Raritan River Channel Mile 35	
6	0.0004
8	0.0004
10	0.0014
12	0.0049
14	0.0074
16	0.0079
18	0.0080
20	0.0071
22	0.0061
24	0.0041
30	0.0043
35	0.0055
40	0.0045
45	0.0022
50	0.0042
55	0.0024
60	0.0006
65	0.0006
70	0.0000
75	0.0000
80	0.0000
85	0.0014
90	0.0000
95	0.0000
100	0.0007
Raritan River Channel Mile 41	
6	0.0010
8	0.0000
10	0.0028
12	0.0043
14	0.0044
16	0.0044
18	0.0045
20	0.0051
22	0.0046
24	0.0046
30	0.0032
35	0.0044
40	0.0045
45	0.0052
50	0.0047
55	0.0006
60	0.0031
65	0.0000
70	0.0000
75	0.0014
80	0.0000
85	0.0000
90	0.0000
95	0.0007
100	0.0007

Cycle	Mid-depth
Chapel Hill Channel Mile 46	
6	0.0037
8	0.0018
10	0.0043
12	0.0067
14	0.0083
16	0.0069
18	0.0070
20	0.0066
22	0.0067
24	0.0067
30	0.0075
35	0.0039
40	0.0050
45	0.0029
50	0.0053
55	0.0018
60	0.0063
65	0.0019
70	0.0000
75	0.0000
80	0.0000
85	0.0000
90	0.0015
95	0.0000
100	0.0015
Jamaica Bay Station J-1	
16	0.0040
18	0.0045
20	0.0030
22	0.0015
24	0.0011
30	0.0038
35	0.0011
40	0.0045
45	0.0058
50	0.0035
55	0.0006
60	0.0013
65	0.0019
70	0.0013
75	0.0006
80	0.0000
85	0.0021
90	0.0000
95	0.0000
100	0.0000

Cycle	Mid-depth
Jamaica Bay Station J-2	
16	0.0010
18	0.0030
20	0.0015
22	0.0026
24	0.0026
30	0.0032
35	0.0033
40	0.0028
45	0.0005
50	0.0035
55	0.0013
60	0.0018
65	0.0000
70	0.0000
75	0.0000
80	0.0000
85	0.0000
90	0.0000
95	0.0000
100	0.0000

River and Station	50 Cycles Mid-depth	100 Cycles Mid-depth
Additional Stations		
Kill Van Kull		
Mile 2	0.0030	0.0000
Mile 4	0.0030	0.0000
Arthur Kill		
Mile 6	0.0469	0.0111
Mile 8	0.0433	0.0096
Mile 12	0.0220	0.0066
Mile 16	0.0035	0.0059
Raritan River Channel		
Mile 20	0.0100	0.0029
Mile 22	0.0118	0.0052
Mile 24	0.0083	0.0059
Mile 28	0.0035	0.0015
Mile 32	0.0071	0.0000
Mile 34	0.0035	0.0000
Mile 36	0.0030	0.0015
Mile 37	0.0030	0.0000
Mile 38	0.0042	0.0000
Mile 39	0.0035	0.0000
Mile 40	0.0047	0.0000
Mile 42	0.0035	0.0000
Mile 44	0.0030	0.0000
Mile 45	0.0012	0.0000
Chapel Hill Channel		
Mile 48	0.0030	0.0000
Mile 50	0.0030	0.0000
Headbay		
A	----	0.0007
B	----	0.0000
C	----	0.0000
Raritan River Headbay	----	0.0083

Table 20

Observed Dye Concentrations at High-Water Slack in Per Cent of Initial Concentration, Test 9

Cycle	Surface	Bottom	Cycle	Surface	Bottom	Cycle	Surface	Bottom
	Hudson River, Mile -18			Hudson River, Mile -12			Hudson River, Mile -4	
10	0.0014	0.0010	2	0.0000	0.0000	2	0.0587	0.1892
12	0.0019	0.0019	4	0.0041	0.0027	4	0.0539	0.0581
14	0.0029	0.0010	6	0.0014	0.0004	6	0.0307	0.0260
16	0.0025	0.0010	8	0.0024	0.0010	8	0.0212	0.0147
18	0.0030	0.0025	10	0.0014	0.0004	10	0.0153	0.0110
20	0.0036	0.0030	12	0.0019	0.0019	12	0.0106	0.0073
22	0.0020	0.0020	14	0.0019	0.0019	14	0.0083	0.0049
24	0.0015	0.0011	16	0.0029	0.0035	16	0.0065	0.0029
30	0.0032	0.0038	18	0.0030	0.0030	18	0.0050	0.0050
35	0.0016	0.0011	20	0.0010	0.0030	20	0.0051	0.0030
40	0.0040	0.0017	22	0.0030	0.0030	22	0.0041	0.0030
45	0.0034	0.0022	24	0.0011	0.0026	24	0.0031	0.0026
50	0.0030	0.0030	30	0.0027	0.0038	30	0.0027	0.0027
55	0.0036	0.0043	35	0.0016	0.0000	35	0.0021	0.0033
60	0.0044	0.0018	40	0.0022	0.0028	40	0.0028	0.0034
65	0.0025	0.0032	45	0.0022	0.0029	45	0.0005	0.0012
70	0.0000	0.0000	50	0.0018	0.0012	50	0.0030	0.0018
75	0.0006	0.0006	55	0.0013	0.0013	55	0.0018	0.0018
80	0.0006	0.0000	60	0.0000	0.0000	60	0.0037	0.0024
85	0.0021	0.0006	65	0.0000	0.0013	65	0.0013	0.0006
90	0.0000	0.0000	70	0.0006	0.0000	70	0.0006	0.0033
95	0.0021	0.0007	75	0.0006	0.0006	75	0.0006	0.0014
100	0.0000	0.0000	80	0.0026	0.0020	80	0.0000	0.0026
			85	0.0000	0.0014	85	0.0000	0.0014
			90	0.0006	0.0006	90	0.0000	0.0000
			95	0.0015	0.0015	95	0.0015	0.0015
			100	0.0015	0.0007	100	0.0000	0.0000
	Hudson River, Mile -16			Hudson River, Mile -8			Hudson River, Mile 0	
10	0.0004	0.0014	2	0.0161	0.0148	2	0.0104	0.1103
12	0.0019	0.0019	4	0.0129	0.0106	4	0.0306	0.0466
14	0.0010	0.0010	6	0.0041	0.0055	6	0.0256	0.0338
16	0.0025	0.0019	8	0.0028	0.0033	8	0.0198	0.0212
18	0.0015	0.0015	10	0.0024	0.0019	10	0.0153	0.0157
20	0.0015	0.0015	12	0.0029	0.0014	12	0.0116	0.0126
22	0.0011	0.0005	14	0.0010	0.0015	14	0.0093	0.0088
24	0.0020	0.0011	16	0.0019	0.0025	16	0.0079	0.0065
30	0.0016	0.0021	18	0.0030	0.0025	18	0.0065	0.0055
35	0.0011	0.0005	20	0.0045	0.0036	20	0.0051	0.0045
40	0.0034	0.0022	22	0.0020	0.0020	22	0.0056	0.0067
45	0.0005	0.0012	24	0.0015	0.0026	24	0.0041	0.0052
50	0.0018	0.0023	30	0.0016	0.0016	30	0.0048	0.0043
55	0.0018	0.0000	35	0.0039	0.0011	35	0.0028	0.0021
60	0.0006	0.0013	40	0.0022	0.0022	40	0.0034	0.0040
65	0.0013	0.0013	45	0.0022	0.0022	45	0.0022	0.0029
70	0.0000	0.0006	50	0.0023	0.0030	50	0.0005	0.0005
75	0.0006	0.0026	55	0.0000	0.0000	55	0.0031	0.0024
80	0.0034	0.0020	60	0.0000	0.0000	60	0.0013	0.0000
85	0.0006	0.0006	65	0.0051	0.0025	65	0.0025	0.0006
90	0.0014	0.0042	70	0.0006	0.0006	70	0.0019	0.0013
95	0.0015	0.0007	75	0.0040	0.0014	75	0.0020	0.0026
100	0.0015	0.0022	80	0.0026	0.0020	80	0.0000	0.0000
			85	0.0014	0.0014	85	0.0000	0.0076
			90	0.0006	0.0000	90	0.0000	0.0000
			95	0.0007	0.0021	95	0.0036	0.0000
			100	0.0000	0.0000	100	0.0015	0.0015

(Continued)

Table 20 (Continued)

Cycle	Surface	Bottom
	Hudson River Mile 4	
4	0.0114	0.0274
6	0.0139	0.0237
8	0.0118	0.0155
10	0.0133	0.0143
12	0.0106	0.0106
14	0.0097	0.0093
16	0.0069	0.0084
18	0.0065	0.0050
20	0.0060	0.0066
22	0.0056	0.0052
24	0.0041	0.0037
30	0.0027	0.0021
35	0.0028	----
40	0.0040	0.0028
45	0.0041	0.0022
50	0.0018	0.0012
55	0.0024	0.0000
60	0.0037	0.0018
65	0.0025	0.0019
70	0.0013	0.0006
75	0.0020	0.0006
80	0.0006	0.0006
85	0.0021	0.0000
90	0.0000	0.0000
95	0.0015	0.0000
100	0.0022	0.0029
	Hudson River Mile 8	
4	0.0046	0.0114
6	0.0084	0.0153
8	0.0085	0.0147
10	0.0105	0.0139
12	0.0102	0.0126
14	0.0078	0.0083
16	0.0084	0.0079
18	0.0065	0.0076
20	0.0060	0.0060
22	0.0056	0.0061
24	0.0026	0.0037
30	0.0038	0.0027
35	0.0021	0.0021
40	0.0034	0.0022
45	0.0022	0.0029
50	0.0030	0.0030
55	0.0018	0.0013
60	0.0013	0.0006
65	0.0025	0.0019
70	0.0013	0.0019
75	0.0000	0.0000
80	0.0000	0.0000
85	0.0000	0.0000
90	0.0021	0.0000
95	0.0015	0.0007
100	0.0000	0.0000

Cycle	Surface	Bottom
	Hudson River Mile 12	
4	0.0027	0.0032
6	0.0065	0.0070
8	0.0075	0.0080
10	0.0086	0.0081
12	0.0067	0.0087
14	0.0068	0.0082
16	0.0079	0.0059
18	0.0065	0.0080
20	0.0036	0.0056
22	0.0041	0.0077
24	0.0041	0.0037
30	0.0011	0.0021
35	0.0039	0.0028
40	0.0028	0.0017
45	0.0022	0.0017
50	0.0005	0.0012
55	0.0013	0.0018
60	0.0000	0.0000
65	0.0006	0.0000
70	0.0000	0.0013
75	0.0006	0.0020
80	0.0000	0.0000
85	0.0014	0.0000
90	0.0015	0.0015
95	0.0000	0.0000
100	0.0007	0.0000
	Hudson River Mile 16	
12	0.0029	0.0034
14	0.0025	0.0049
16	0.0019	0.0040
18	0.0035	0.0050
20	0.0025	0.0036
22	0.0067	0.0052
24	0.0020	0.0026
30	0.0005	0.0016
35	0.0016	0.0021
40	0.0017	0.0022
45	0.0005	0.0005
50	0.0012	0.0006
55	0.0000	0.0000
60	0.0000	0.0000
100	0.0015	0.0007

Cycle	Middepth
	Lower Bay Station 8A
2	0.1444
4	0.0603
6	0.0209
8	0.0165
10	0.0139
12	0.0077
14	0.0049
16	0.0054
18	0.0030
20	0.0056
22	0.0020
24	0.0026
30	0.0016
35	0.0021
40	0.0028
45	0.0022
50	0.0018
55	0.0000
60	0.0013
65	0.0032
70	0.0006
75	0.0020
80	0.0014
85	0.0000
90	0.0021
95	0.0021
100	0.0022
	Lower Bay Station 9A
2	0.0646
4	0.0516
6	0.0358
8	0.0236
10	0.0105
12	0.0096
14	0.0074
16	0.0054
18	0.0050
20	0.0060
22	0.0046
24	0.0041
30	0.0021
35	0.0028
40	0.0017
45	0.0022
50	0.0005
55	0.0006
60	0.0037
65	0.0000
70	0.0013
75	0.0006
80	0.0000
85	0.0035
90	0.0006
95	0.0007
100	----

Cycle	Middepth
	East River Mile 2
3	0.0286
5	0.0221
7	0.0220
9	0.0152
11	0.0106
13	0.0092
15	0.0069
17	0.0069
19	0.0060
21	0.0056
23	0.0041
25	0.0037
31	0.0016
36	0.0021
41	0.0029
46	0.0029
51	0.0000
56	0.0018
61	0.0000
66	0.0013
71	0.0000
76	0.0014
81	0.0014
86	0.0000
91	0.0000
96	0.0022
101	0.0000
	East River Mile 7
3	0.0054
5	0.0134
7	0.0140
9	0.0110
11	0.0101
13	0.0073
15	0.0074
17	0.0055
19	0.0051
21	0.0061
23	0.0052
25	0.0037
31	0.0011
36	0.0028
41	0.0000
46	0.0035
51	0.0018
56	0.0000
61	0.0006
66	0.0019
71	0.0000
76	0.0000
81	----
86	----
91	0.0000
96	0.0022
101	----

Cycle	Middepth
	East River Mile 12
3	0.0000
5	0.0018
7	0.0037
9	0.0038
11	0.0034
13	0.0049
15	0.0035
17	0.0030
19	0.0030
21	0.0026
23	0.0037
25	0.0026
31	0.0005
36	0.0016
41	0.0029
46	0.0017
51	0.0018
56	0.0013
61	0.0000
66	0.0064
71	0.0013
76	0.0000
81	0.0041
86	0.0027
91	0.0007
96	0.0000
101	0.0007
	East River Mile 17
11	0.0000
13	0.0000
15	0.0000
17	0.0005
19	0.0000
21	0.0015
23	0.0026
25	0.0000
31	0.0000
36	0.0016
41	0.0017
46	0.0005
51	0.0018
56	0.0024
61	0.0024
66	0.0000
71	0.0000
76	0.0000
81	0.0020
86	0.0000
91	0.0028
96	0.0015
101	0.0007

(Continued)

Table 20 (Continued)

Cycle	Middepth
Harlem River Mile 3	
9	0.0000
11	0.0019
13	0.0004
15	0.0019
17	0.0019
19	0.0030
21	0.0015
23	0.0026
25	0.0000
36	0.0016
41	0.0005
46	0.0000
51	0.0012
56	0.0000
61	0.0018
66	0.0006
71	0.0000
76	0.0000
81	0.0014
86	0.0021
91	0.0015
96	0.0000
101	0.0000
Hackensack River Mile 2	
5	0.0018
7	0.0033
9	0.0062
11	0.0077
13	0.0092
15	0.0089
17	0.0084
19	0.0076
21	0.0082
23	0.0098
25	0.0062
31	0.0054
36	0.0039
41	0.0045
46	0.0047
51	0.0030
56	0.0036
61	0.0013
66	0.0013
71	0.0046
76	0.0020
81	0.0027
86	0.0006
91	0.0015
96	0.0036
101	0.0007

Cycle	Middepth
Hackensack River Mile 6	
31	0.0032
36	0.0039
41	0.0045
46	0.0047
51	0.0023
56	0.0031
60	0.0019
66	0.0038
71	0.0046
76	0.0020
81	0.0020
86	0.0021
91	0.0000
96	0.0015
101	0.0007
Passaic River Mile 2	
5	0.0004
7	0.0014
9	0.0042
11	0.0043
13	0.0039
15	0.0059
17	0.0059
19	0.0060
21	0.0056
23	0.0072
25	0.0052
31	0.0064
36	0.0044
41	0.0017
46	0.0035
51	0.0030
56	0.0018
61	0.0044
66	0.0038
71	0.0019
76	0.0014
81	0.0027
86	0.0027
91	0.0036
96	0.0000
101	0.0022

Cycle	Middepth
Newark Bay Mile 2	
3	0.0023
5	0.0111
7	0.0126
9	0.0132
11	0.0125
13	0.0117
15	0.0083
17	0.0080
19	0.0085
21	0.0077
23	0.0078
25	0.0068
31	0.0032
36	0.0028
41	0.0040
46	0.0029
51	0.0012
56	0.0018
61	0.0013
66	0.0006
71	0.0006
76	0.0014
81	0.0020
86	0.0000
91	0.0021
96	0.0007
101	0.0007
Kill Van Kull Mile 3	
3	0.0172
5	0.0313
7	0.0243
9	0.0170
11	0.0120
13	0.0088
15	0.0089
17	0.0075
19	0.0066
21	0.0056
23	0.0052
25	0.0037
31	0.0021
36	0.0016
41	0.0029
46	0.0023
51	0.0018
56	0.0000
61	0.0000
66	0.0013
71	0.0013
76	0.0000
81	0.0000
86	0.0014
91	0.0036
96	0.0007
101	0.0007

Cycle	Middepth
Arthur Kill Mile 7	
3	0.0000
5	0.0004
7	0.0028
9	0.0018
11	0.0019
13	0.0019
15	0.0025
17	----
19	0.0015
21	0.0036
23	0.0015
25	0.0011
31	0.0021
36	0.0021
41	0.0034
46	0.0035
51	0.0042
56	0.0018
61	0.0024
101	0.0015
Arthur Kill Mile 10	
36	0.0016
41	0.0040
46	0.0035
51	0.0030
56	0.0018
61	0.0006
66	----
71	0.0006
76	----
81	0.0014
86	0.0000
91	0.0007
96	0.0007
101	0.0007

Cycle	Middepth
Arthur Kill Mile 14	
25	0.0037
31	0.0016
36	0.0028
41	0.0040
46	0.0041
51	0.0023
56	0.0006
61	0.0013
66	----
71	0.0039
76	0.0034
81	0.0000
86	0.0000
91	0.0015
96	0.0022
101	0.0007
Arthur Kill Mile 18	
13	0.0004
15	0.0029
17	0.0035
19	0.0015
21	0.0030
23	0.0046
25	0.0046
31	0.0038
36	0.0039
41	0.0057
46	0.0041
51	0.0035
56	0.0031
61	0.0031
66	0.0032
71	0.0000
76	0.0040
81	0.0020
86	0.0000
91	0.0000
96	0.0000
101	0.0015

(Continued)

Table 20 (Concluded)

Cycle	Middepth
Raritan River Channel, Mile 26	
13	0.0039
15	0.0050
17	0.0055
19	0.0055
21	0.0061
23	0.0067
25	0.0031
31	0.0032
36	0.0039
41	0.0051
46	0.0047
51	0.0012
56	0.0013
61	0.0031
66	0.0038
71	0.0046
76	0.0047
81	0.0027
86	0.0000
91	0.0015
96	0.0036
101	0.0022
Raritan River Channel, Mile 41	
4	0.0054
6	0.0232
8	0.0198
10	0.0105
12	0.0116
14	0.0078
16	0.0065
18	0.0060
20	0.0051
22	0.0041
24	0.0038
30	0.0033
35	0.0017
40	0.0017
45	0.0023
50	0.0006
55	0.0000
60	0.0006
65	0.0033
70	0.0020
75	0.0000
80	0.0026
85	0.0014
90	0.0015
95	0.0000
100	0.0000

Cycle	Middepth
Chapel Hill Channel, Mile 46	
4	0.0179
6	0.0307
8	0.0240
10	0.0191
12	0.0155
14	0.0088
16	0.0089
18	0.0060
20	0.0036
22	0.0056
24	0.0032
30	0.0039
35	0.0012
40	0.0046
45	0.0030
50	0.0024
55	0.0013
60	0.0032
65	0.0013
70	0.0026
75	0.0021
80	0.0034
85	0.0006
90	0.0015
95	0.0028
100	0.0022
Jamaica Bay Station J-0	
4	0.0014
6	0.0014
8	0.0004
10	0.0034
12	0.0014
14	0.0039
16	0.0029
18	0.0030
20	0.0030
22	0.0015
24	0.0032
30	0.0021
35	0.0022
40	0.0034
45	0.0023
50	0.0013
55	0.0018
60	0.0000
65	0.0013
70	0.0006
75	0.0034
80	0.0014
85	0.0027
90	0.0000
95	0.0000
100	0.0029

Cycle	Middepth
Jamaica Bay Station J-1	
2	0.0076
4	0.0091
6	0.0060
8	0.0052
10	0.0024
12	0.0029
14	0.0019
16	0.0025
18	0.0025
20	0.0010
22	0.0011
24	0.0032
30	0.0021
35	0.0022
40	0.0029
45	0.0030
50	0.0018
55	0.0000
60	0.0000
65	0.0000
70	0.0000
75	0.0014
80	0.0000
85	0.0035
90	0.0006
95	0.0000
100	0.0015
Jamaica Bay Station J-2	
2	0.0117
4	0.0146
6	0.0074
8	0.0066
10	0.0038
12	0.0034
14	0.0035
16	0.0029
18	0.0030
20	0.0020
22	0.0015
24	0.0021
30	0.0016
35	0.0012
40	0.0005
45	0.0023
50	0.0006
55	0.0013
60	0.0025
65	0.0006
70	0.0014
75	0.0000
80	0.0000
85	0.0006
90	0.0000
95	0.0000
100	0.0000

River and Station	50 Cycles Middepth	100 Cycles Middepth
Additional Stations		
Kill Van Kull		
Mile 2	----	0.0015
Mile 4	0.0018	0.0022
Arthur Kill		
Mile 6	0.0023	0.0015
Mile 8	0.0042	0.0022
Mile 12	0.0023	0.0000
Mile 16	----	0.0015
Raritan River Channel		
Mile 20	0.0023	0.0029
Mile 22	0.0012	0.0000
Mile 24	0.0023	0.0000
Mile 28	0.0023	0.0007
Mile 32	0.0065	0.0022
Mile 34	0.0018	0.0022
Mile 36	0.0030	0.0015
Mile 37	0.0035	0.0000
Mile 39	0.0042	0.0037
Mile 40	0.0030	0.0000
Mile 42	----	0.0022
Mile 44	0.0012	0.0022
Mile 45	0.0030	0.0015
Chapel Hill Channel		
Mile 48	0.0030	0.0022
Mile 50	0.0012	0.0015
Raritan River Headbay	----	0.0015

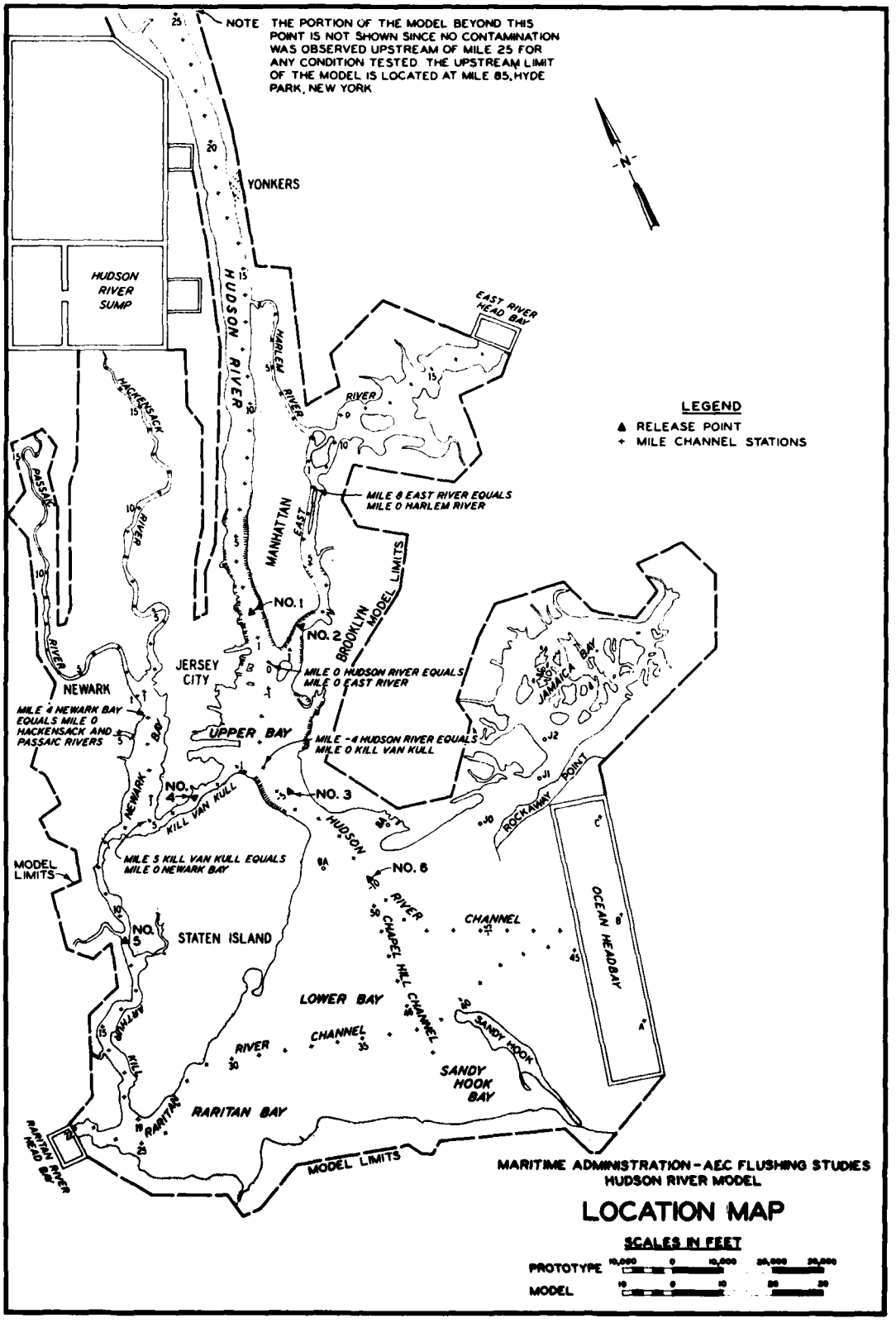

NOTE THE PORTION OF THE MODEL BEYOND THIS POINT IS NOT SHOWN SINCE NO CONTAMINATION WAS OBSERVED UPSTREAM OF MILE 25 FOR ANY CONDITION TESTED THE UPSTREAM LIMIT OF THE MODEL IS LOCATED AT MILE 85, HYDE PARK, NEW YORK
N
YONKERS
HUDSON RIVER SUMP
HUDSON RIVER
HARLEM RIVER
EAST RIVER HEAD BAY
RIVER
MACKENSACK RIVER
PASSAIC RIVER
MILE 8 EAST RIVER EQUALS MILE 0 HARLEM RIVER
MANHATTAN
EAST
NO. 1
NO. 2
BROOKLYN
MODEL LIMITS
JERSEY CITY
NEWARK
MILE 0 HUDSON RIVER EQUALS MILE 0 EAST RIVER
MILE 4 NEWARK BAY EQUALS MILE 0 HACKENSACK AND PASSAIC RIVERS
UPPER BAY
MILE -4 HUDSON RIVER EQUALS MILE 0 KILL VAN KULL
JAMAICA BAY
ROCKAWAY POINT
NO. 4
NO. 3
NEWARK BAY
KILL VAN KULL
HUDSON
MILE 5 KILL VAN KULL EQUALS MILE 0 NEWARK BAY
MODEL LIMITS
NO. 6
RIVER
CHANNEL
OCEAN HEADBAY
NO. 5
STATEN ISLAND
CHAPEL HILL CHANNEL
LOWER BAY
ARTHUR KILL
RIVER
CHANNEL
SANDY HOOK
SANDY HOOK BAY
RARITAN
RARITAN BAY
RARITAN HEAD BAY
MODEL LIMITS
LEGEND
▲ RELEASE POINT
+ MILE CHANNEL STATIONS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
LOCATION MAP
SCALES IN FEET
PROTOTYPE
MODEL

PLATE I

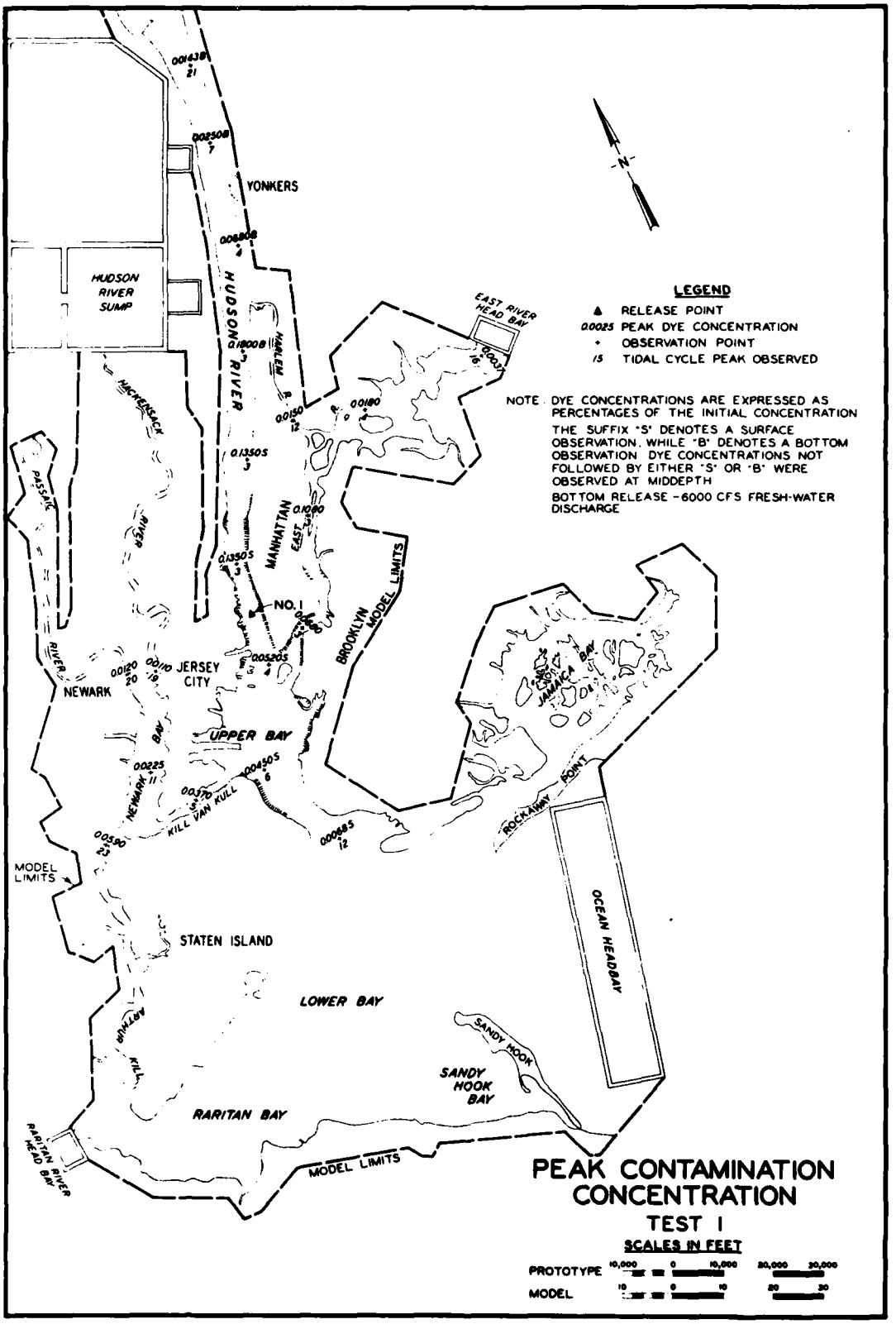

YONKERS
HUDSON RIVER SUMP
HUDSON RIVER
HARLEM R.
EAST RIVER HEAD BAY
HACKENSACK
PASSAIC
MANHATTAN
EAST
BROOKLYN
MODEL LIMITS
NO. 1
NEWARK
JERSEY CITY
NEWARK BAY
UPPER BAY
KILL VAN KULL
ROCKAWAY POINT
JAMAICA BAY
OCEAN HEADBAY
MODEL LIMITS
STATEN ISLAND
LOWER BAY
ARTHUR KILL
SANDY HOOK
SANDY HOOK BAY
RARITAN BAY
RARITAN RIVER HEAD BAY
MODEL LIMITS
N
LEGEND
▲ RELEASE POINT
0.0025 PEAK DYE CONCENTRATION
+ OBSERVATION POINT
15 TIDAL CYCLE PEAK OBSERVED
NOTE: DYE CONCENTRATIONS ARE EXPRESSED AS PERCENTAGES OF THE INITIAL CONCENTRATION
THE SUFFIX "S" DENOTES A SURFACE OBSERVATION, WHILE "B" DENOTES A BOTTOM OBSERVATION. DYE CONCENTRATIONS NOT FOLLOWED BY EITHER "S" OR "B" WERE OBSERVED AT MIDDEPTH
BOTTOM RELEASE -6000 CFS FRESH-WATER DISCHARGE
PEAK CONTAMINATION CONCENTRATION
TEST I
SCALES IN FEET
PROTOTYPE 10,000 0 10,000 20,000 30,000
MODEL 10 0 10 20 30

PLATE 2

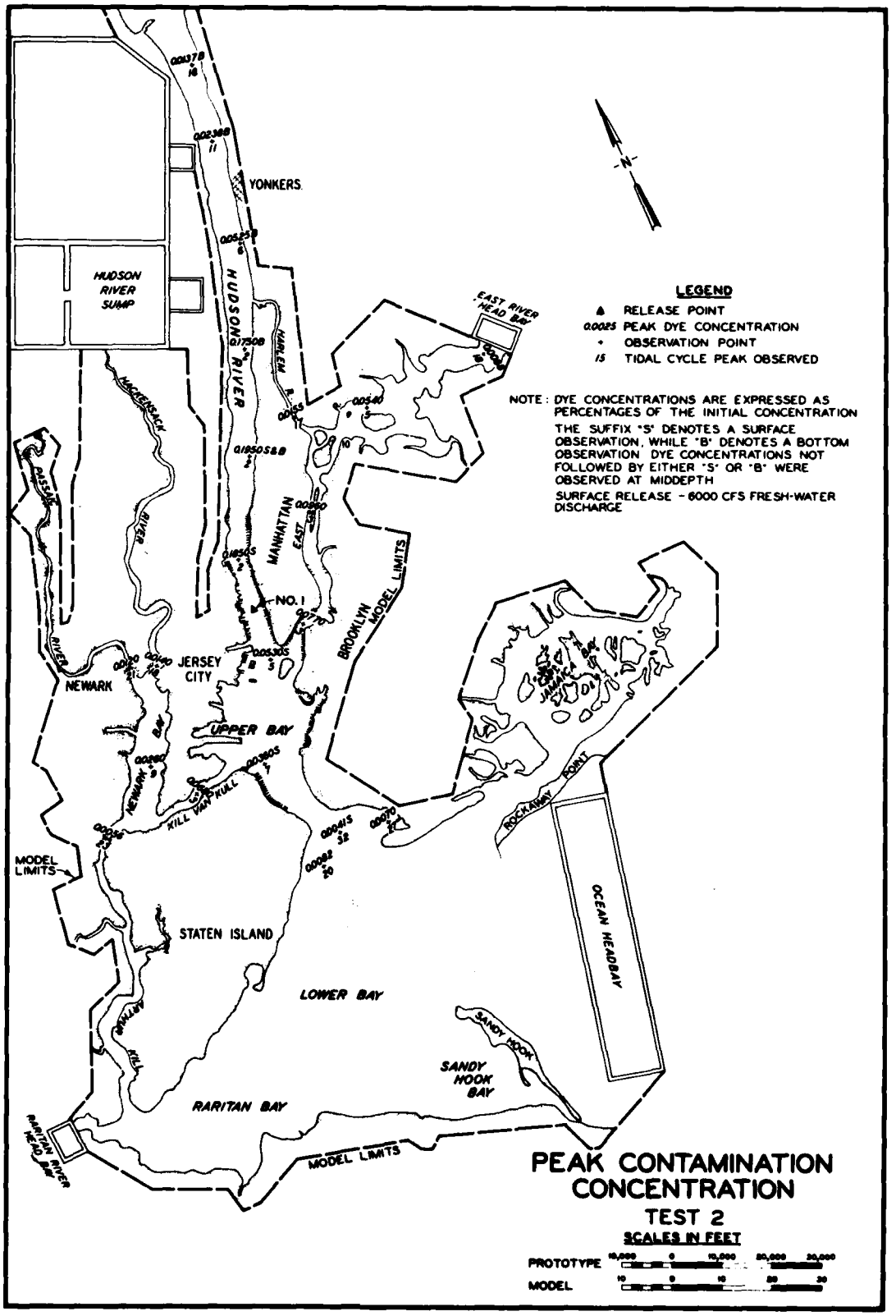

LEGEND
RELEASE POINT
0.0025 PEAK DYE CONCENTRATION
OBSERVATION POINT
15 TIDAL CYCLE PEAK OBSERVED
NOTE: DYE CONCENTRATIONS ARE EXPRESSED AS PERCENTAGES OF THE INITIAL CONCENTRATION
THE SUFFIX "S" DENOTES A SURFACE OBSERVATION, WHILE "B" DENOTES A BOTTOM OBSERVATION DYE CONCENTRATIONS NOT FOLLOWED BY EITHER "S" OR "B" WERE OBSERVED AT MIDDEPTH
SURFACE RELEASE - 6000 CFS FRESH-WATER DISCHARGE
YONKERS
HUDSON RIVER SUMP
HUDSON RIVER
HARLEM R.
EAST RIVER HEAD BAY
HACKENSACK RIVER
PASSAIC RIVER
MANHATTAN
NO. 1
BROOKLYN
MODEL LIMITS
JERSEY CITY
NEWARK
NEWARK BAY
UPPER BAY
KILL VAN KULL
ROCKAWAY POINT
OCEAN HEADBAY
MODEL LIMITS
STATEN ISLAND
LOWER BAY
ARTHUR KILL
SANDY HOOK
SANDY HOOK BAY
RARITAN BAY
RARITAN RIVER HEAD BAY
MODEL LIMITS
PEAK CONTAMINATION CONCENTRATION
TEST 2
SCALES IN FEET
PROTOTYPE
MODEL

PLATE 3

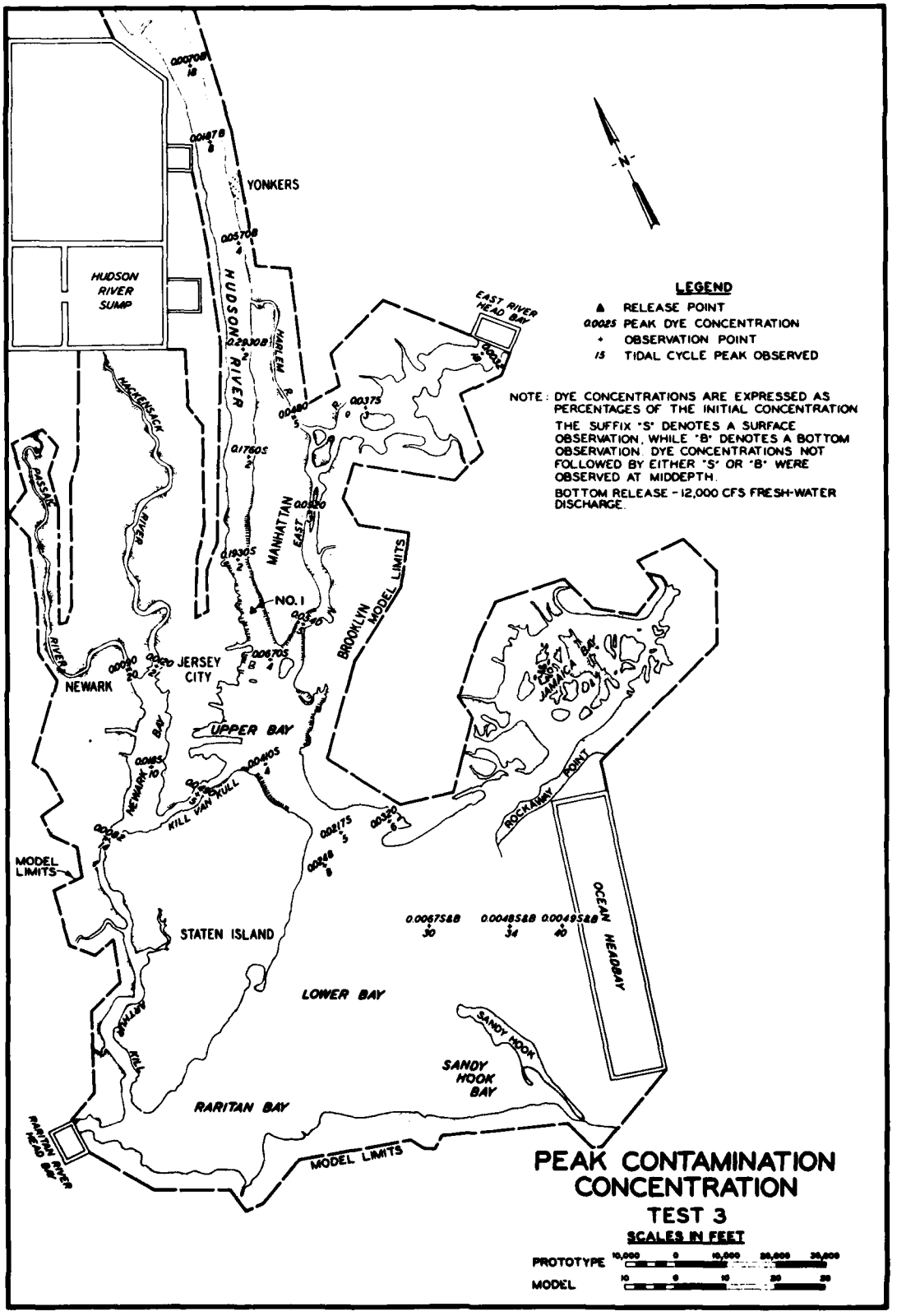

LEGEND
▲ RELEASE POINT
0.0025 PEAK DYE CONCENTRATION
+ OBSERVATION POINT
15 TIDAL CYCLE PEAK OBSERVED
NOTE: DYE CONCENTRATIONS ARE EXPRESSED AS PERCENTAGES OF THE INITIAL CONCENTRATION
THE SUFFIX "S" DENOTES A SURFACE OBSERVATION, WHILE "B" DENOTES A BOTTOM OBSERVATION. DYE CONCENTRATIONS NOT FOLLOWED BY EITHER "S" OR "B" WERE OBSERVED AT MIDDEPTH.
BOTTOM RELEASE - 12,000 CFS FRESH-WATER DISCHARGE.
N
YONKERS
HUDSON RIVER SUMP
HUDSON RIVER
HARLEM R.
EAST RIVER
HEAD BAY
HACKENSACK RIVER
PASSAIC RIVER
MANHATTAN
BROOKLYN
MODEL LIMITS
NO. 1
NEWARK
JERSEY CITY
NEWARK BAY
KILL VAN KULL
UPPER BAY
JAMAICA BAY
ROCKAWAY POINT
OCEAN HEADBAY
MODEL LIMITS
STATEN ISLAND
LOWER BAY
ARTHUR KILL
SANDY HOOK
SANDY HOOK BAY
RARITAN BAY
RARITAN RIVER HEAD BAY
MODEL LIMITS
PEAK CONTAMINATION CONCENTRATION
TEST 3
SCALES IN FEET
PROTOTYPE
MODEL

PLATE 4

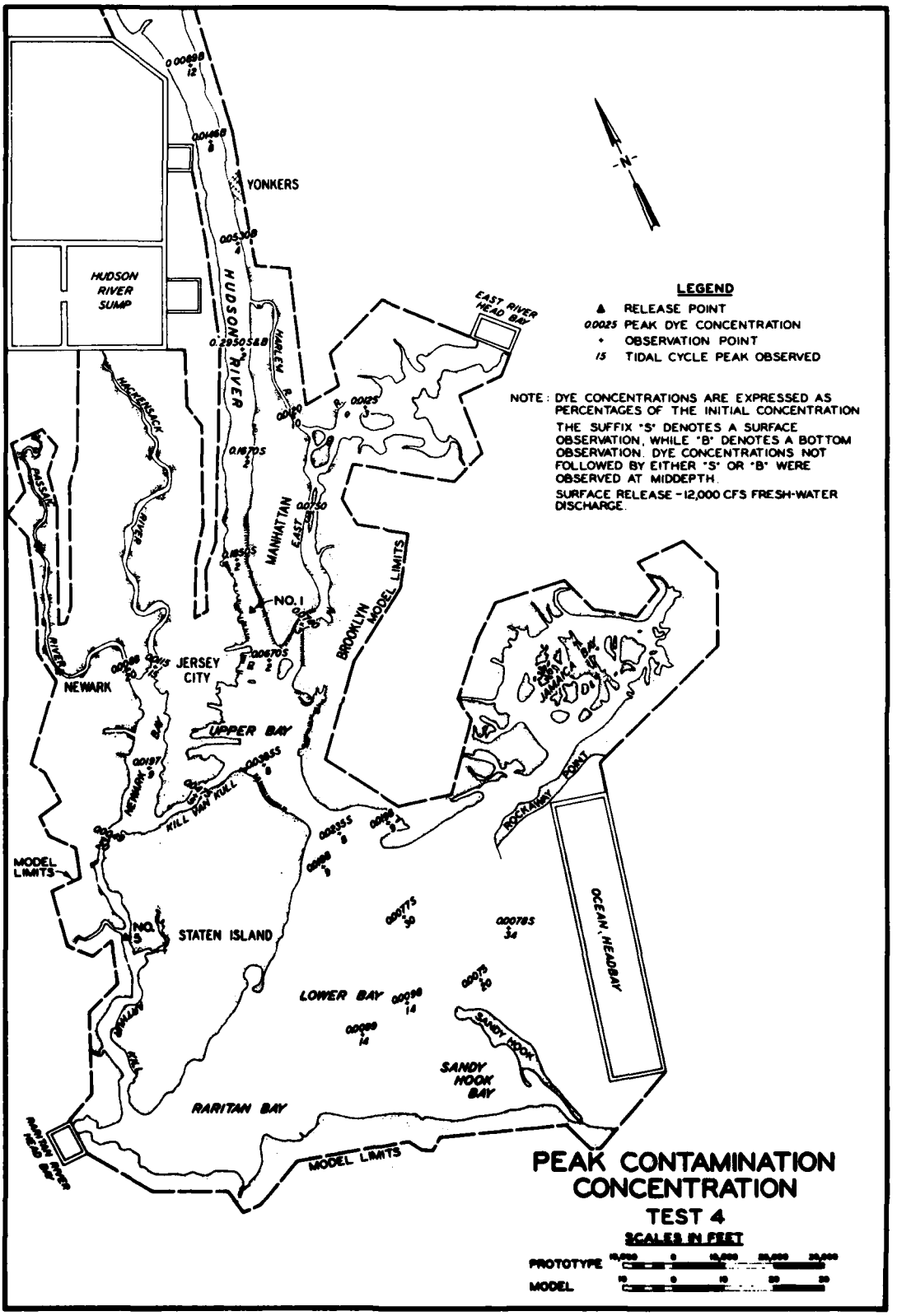

LEGEND
▲ RELEASE POINT
0.0025 PEAK DYE CONCENTRATION
• OBSERVATION POINT
15 TIDAL CYCLE PEAK OBSERVED
NOTE: DYE CONCENTRATIONS ARE EXPRESSED AS PERCENTAGES OF THE INITIAL CONCENTRATION
THE SUFFIX "S" DENOTES A SURFACE OBSERVATION, WHILE "B" DENOTES A BOTTOM OBSERVATION. DYE CONCENTRATIONS NOT FOLLOWED BY EITHER "S" OR "B" WERE OBSERVED AT MIDDEPTH.
SURFACE RELEASE - 12,000 CFS FRESH-WATER DISCHARGE.
YONKERS
HUDSON RIVER SLUMP
HUDSON RIVER
HARLEM R.
EAST RIVER
HEAD BAY
HACKENSACK
PASSAIC
RIVER
NEWARK
BAY
JERSEY CITY
MANHATTAN
BROOKLYN
MODEL LIMITS
NO. 1
UPPER BAY
NEWARK BAY
KILL VAN KULL
MODEL LIMITS
NO. 2
STATEN ISLAND
ROCKAWAY POINT
OCEAN HEADBAY
LOWER BAY
SANDY HOOK
SANDY HOOK BAY
RARITAN BAY
RARITAN RIVER
MODEL LIMITS
PEAK CONTAMINATION CONCENTRATION
TEST 4
SCALES IN FEET
PROTOTYPE
MODEL

PLATE 5

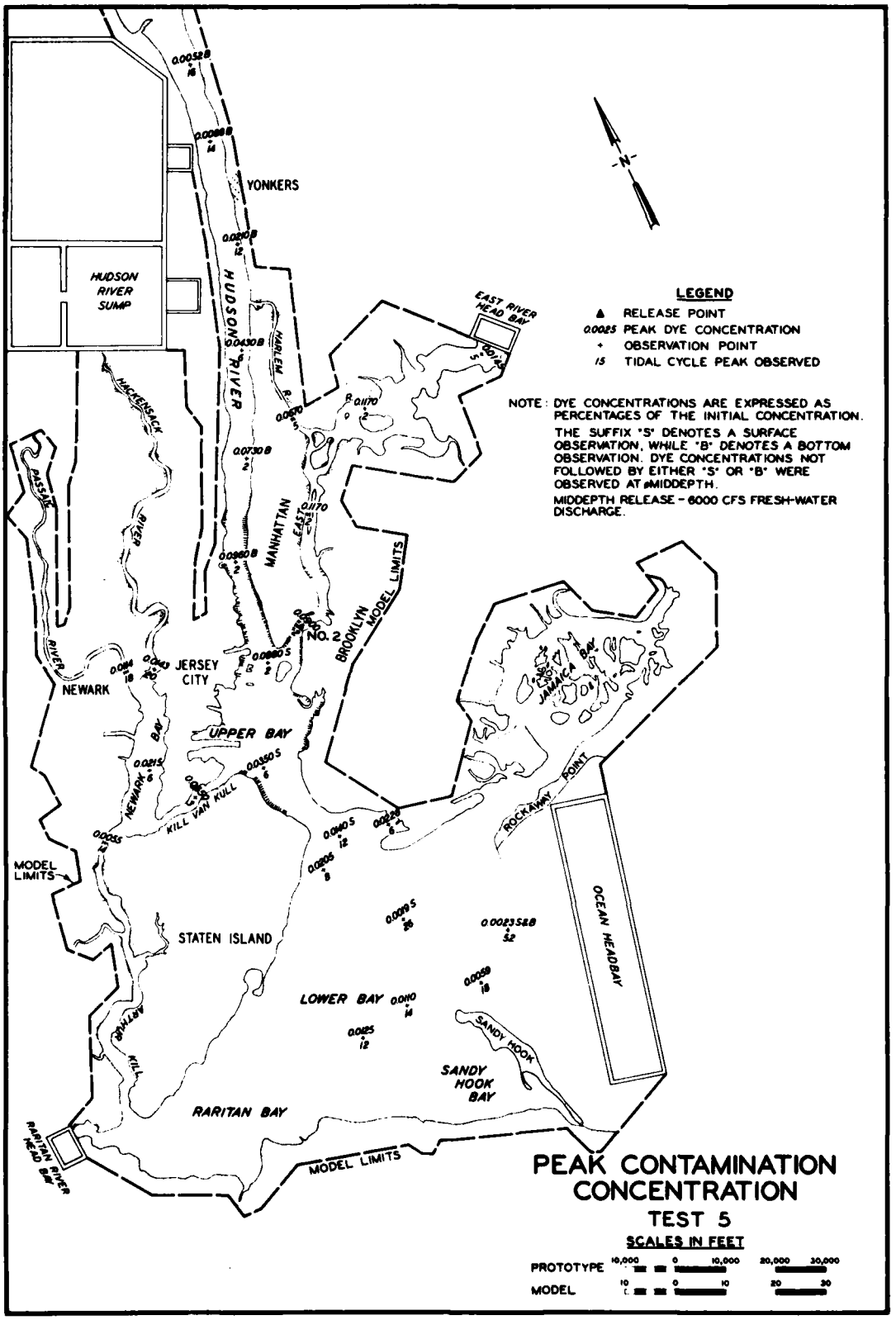

YONKERS
HUDSON RIVER SUMP
HUDSON RIVER
HARLEM
EAST RIVER
HEAD BAY
HACKENSACK
RIVER
PASSAIC
RIVER
MANHATTAN
EAST
BROOKLYN
MODEL LIMITS
NO. 2
NEWARK
JERSEY CITY
UPPER BAY
NEWARK BAY
KILL VAN KULL
JAMAICA BAY
ROCKAWAY POINT
OCEAN HEADBAY
MODEL LIMITS
STATEN ISLAND
LOWER BAY
SANDY HOOK
SANDY HOOK BAY
ARTHUR KILL
RARITAN BAY
RARITAN RIVER HEAD BAY
MODEL LIMITS
N
LEGEND
▲ RELEASE POINT
0.0025 PEAK DYE CONCENTRATION
+ OBSERVATION POINT
15 TIDAL CYCLE PEAK OBSERVED
NOTE: DYE CONCENTRATIONS ARE EXPRESSED AS PERCENTAGES OF THE INITIAL CONCENTRATION.
THE SUFFIX "S" DENOTES A SURFACE OBSERVATION, WHILE "B" DENOTES A BOTTOM OBSERVATION. DYE CONCENTRATIONS NOT FOLLOWED BY EITHER "S" OR "B" WERE OBSERVED AT ½MIDDEPTH.
MIDDEPTH RELEASE - 6000 CFS FRESH-WATER DISCHARGE.
PEAK CONTAMINATION CONCENTRATION
TEST 5
SCALES IN FEET
PROTOTYPE 10,000 0 10,000 20,000 30,000
MODEL 10 0 10 20 30

PLATE 6

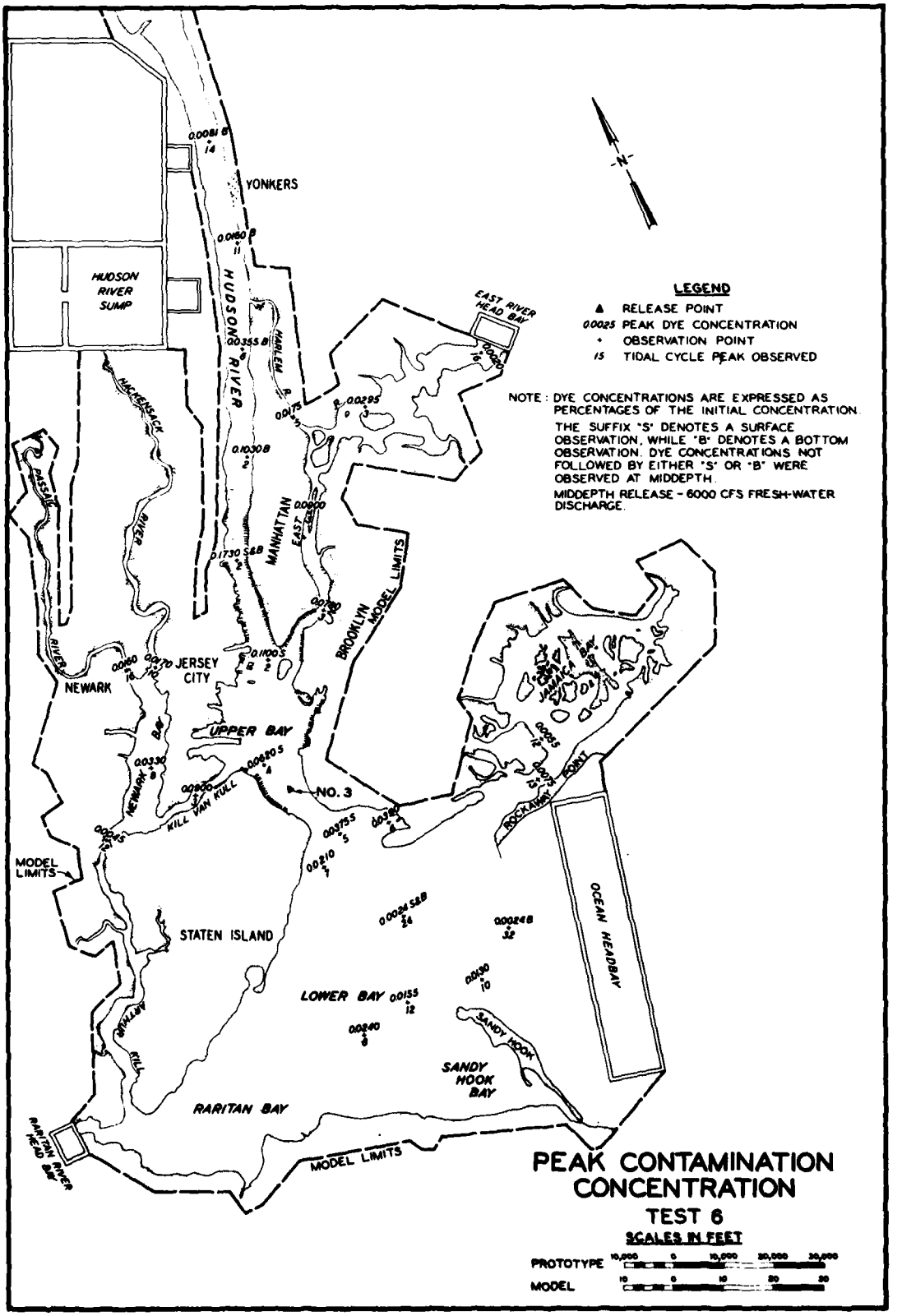

LEGEND
▲ RELEASE POINT
0.0025 PEAK DYE CONCENTRATION
• OBSERVATION POINT
15 TIDAL CYCLE PEAK OBSERVED
NOTE: DYE CONCENTRATIONS ARE EXPRESSED AS PERCENTAGES OF THE INITIAL CONCENTRATION.
THE SUFFIX "S" DENOTES A SURFACE OBSERVATION, WHILE "B" DENOTES A BOTTOM OBSERVATION. DYE CONCENTRATIONS NOT FOLLOWED BY EITHER "S" OR "B" WERE OBSERVED AT MIDDEPTH.
MIDDEPTH RELEASE - 6000 CFS FRESH-WATER DISCHARGE.
N
YONKERS
HUDSON RIVER SUMP
HUDSON RIVER
HARLEM R.
EAST RIVER HEAD BAY
HACKENSACK RIVER
PASSAIC RIVER
MANHATTAN
EAST RIVER
BROOKLYN
MODEL LIMITS
NEWARK
JERSEY CITY
NEWARK BAY
UPPER BAY
KILL VAN KULL
NO. 3
JAMAICA BAY
ROCKAWAY POINT
OCEAN HEADBAY
MODEL LIMITS
STATEN ISLAND
LOWER BAY
ARTHUR KILL
SANDY HOOK
SANDY HOOK BAY
RARITAN BAY
RARITAN RIVER HEAD BAY
MODEL LIMITS
PEAK CONTAMINATION CONCENTRATION
TEST 6
SCALES IN FEET
PROTOTYPE 10,000 0 10,000 20,000 30,000
MODEL 10 0 10 20 30

PLATE 7

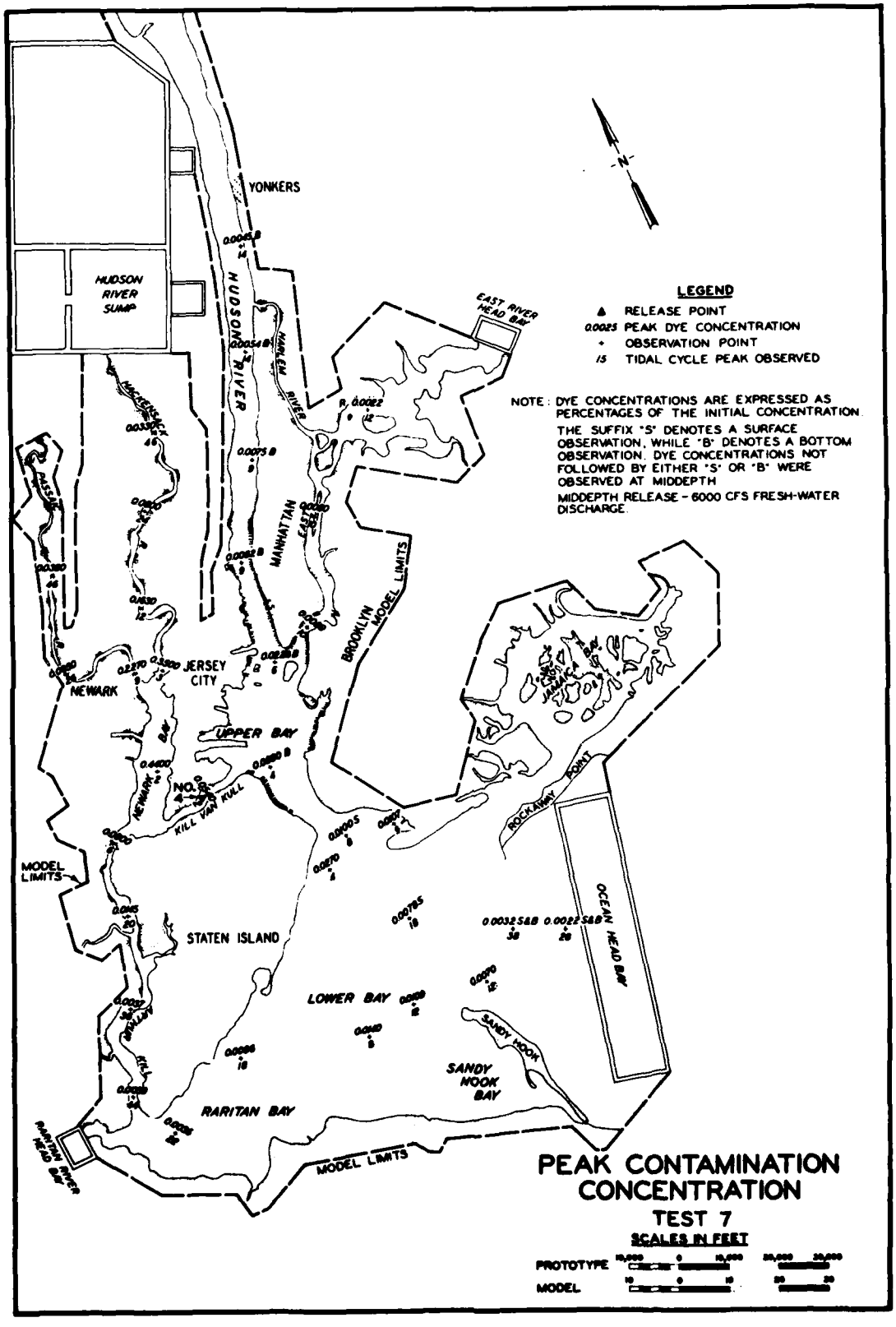

YONKERS
HUDSON RIVER SUMP
HUDSON RIVER
HARLEM RIVER
EAST RIVER
HEAD BAY
MANHATTAN
BROOKLYN
MODEL LIMITS
PASSAIC
NEWARK
JERSEY CITY
UPPER BAY
NEWARK BAY
KILL VAN KULL
ROCKAWAY POINT
OCEAN HEAD BAY
MODEL LIMITS
STATEN ISLAND
LOWER BAY
SANDY HOOK
SANDY HOOK BAY
RARITAN BAY
RARITAN RIVER HEAD BAY
MODEL LIMITS
LEGEND
RELEASE POINT
0.0025 PEAK DYE CONCENTRATION
OBSERVATION POINT
15 TIDAL CYCLE PEAK OBSERVED
NOTE: DYE CONCENTRATIONS ARE EXPRESSED AS PERCENTAGES OF THE INITIAL CONCENTRATION.
THE SUFFIX "S" DENOTES A SURFACE OBSERVATION, WHILE "B" DENOTES A BOTTOM OBSERVATION. DYE CONCENTRATIONS NOT FOLLOWED BY EITHER "S" OR "B" WERE OBSERVED AT MIDDEPTH
MIDDEPTH RELEASE - 6000 CFS FRESH-WATER DISCHARGE.
PEAK CONTAMINATION CONCENTRATION
TEST 7
SCALES IN FEET
PROTOTYPE
MODEL

PLATE 8

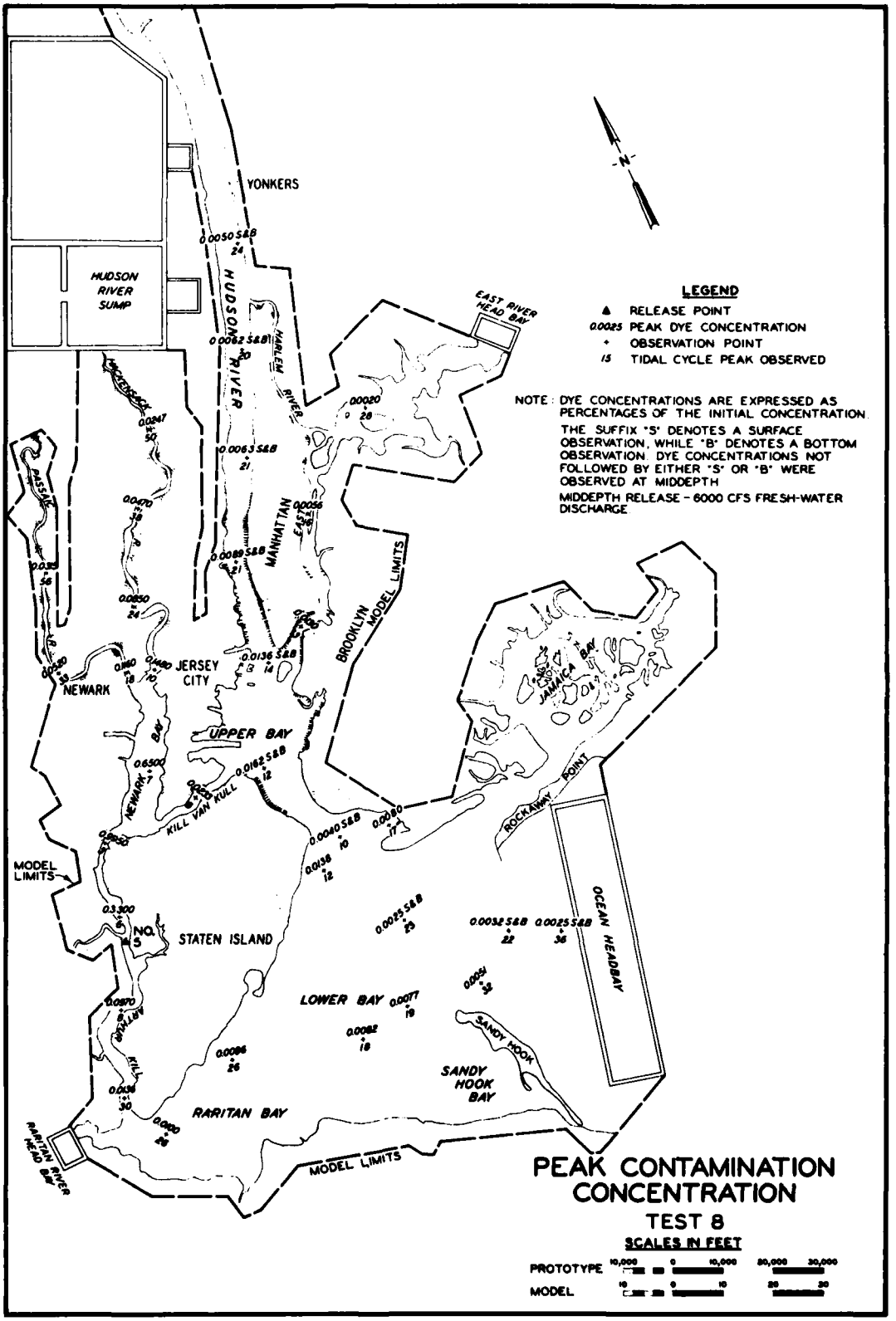

YONKERS
HUDSON RIVER SUMP
HUDSON RIVER
HARLEM RIVER
EAST RIVER HEAD BAY
PASSAIC
NEWARK
JERSEY CITY
MANHATTAN
BROOKLYN
MODEL LIMITS
UPPER BAY
NEWARK BAY
KILL VAN KULL
CAPE JAMAICA BAY
ROCKAWAY POINT
OCEAN HEADBAY
MODEL LIMITS
NO
STATEN ISLAND
LOWER BAY
SANDY HOOK
SANDY HOOK BAY
ARTHUR KILL
RARITAN BAY
RARITAN RIVER MEAD BAY
MODEL LIMITS
LEGEND
RELEASE POINT
0.0025 PEAK DYE CONCENTRATION
OBSERVATION POINT
15 TIDAL CYCLE PEAK OBSERVED
NOTE: DYE CONCENTRATIONS ARE EXPRESSED AS PERCENTAGES OF THE INITIAL CONCENTRATION.
THE SUFFIX "S" DENOTES A SURFACE OBSERVATION, WHILE "B" DENOTES A BOTTOM OBSERVATION. DYE CONCENTRATIONS NOT FOLLOWED BY EITHER "S" OR "B" WERE OBSERVED AT MIDDEPTH
MIDDEPTH RELEASE - 6000 CFS FRESH-WATER DISCHARGE
PEAK CONTAMINATION CONCENTRATION
TEST 8
SCALES IN FEET
PROTOTYPE
MODEL

PLATE 9

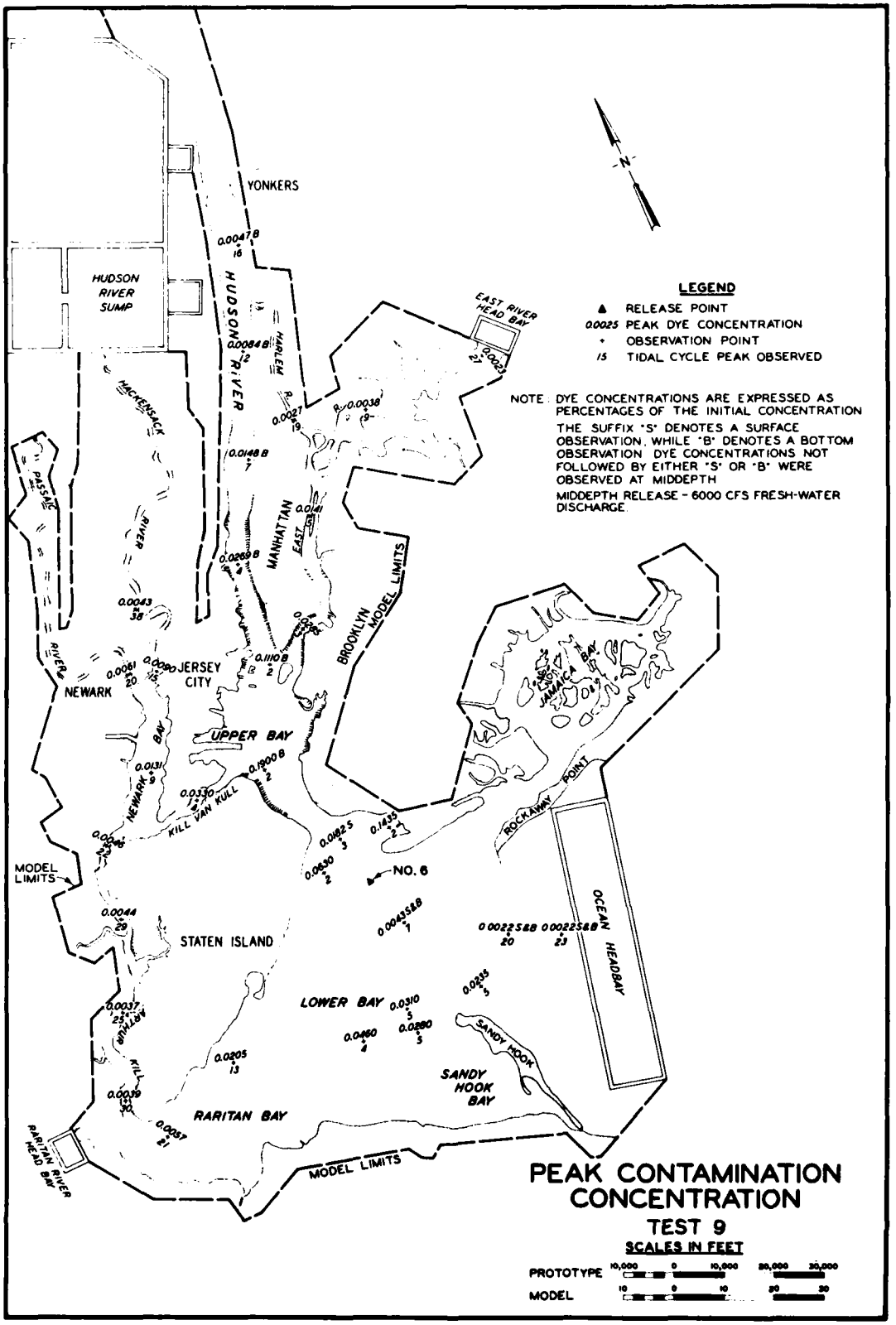
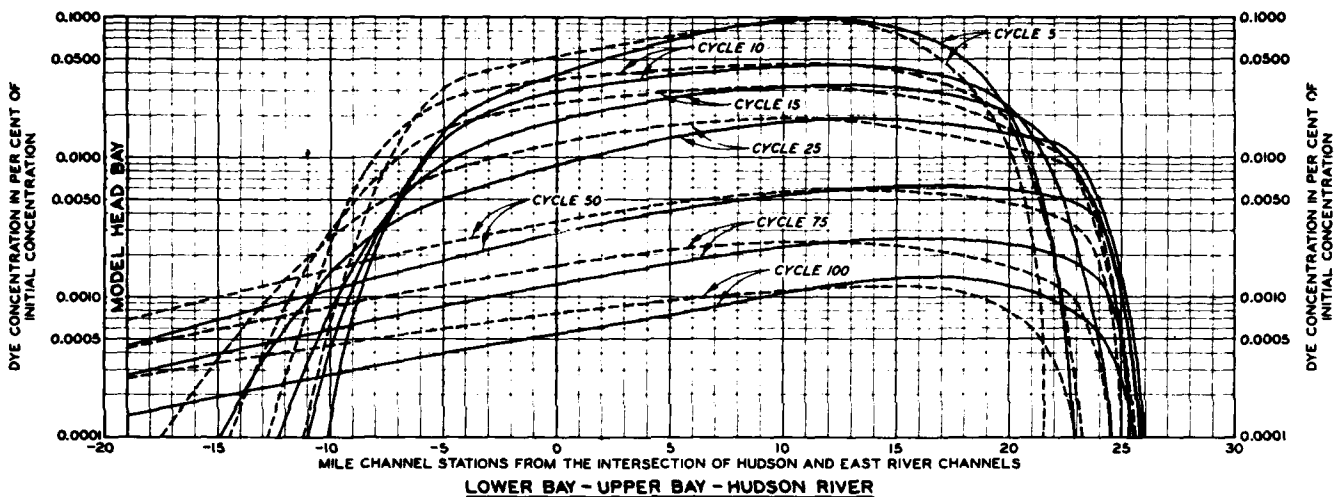
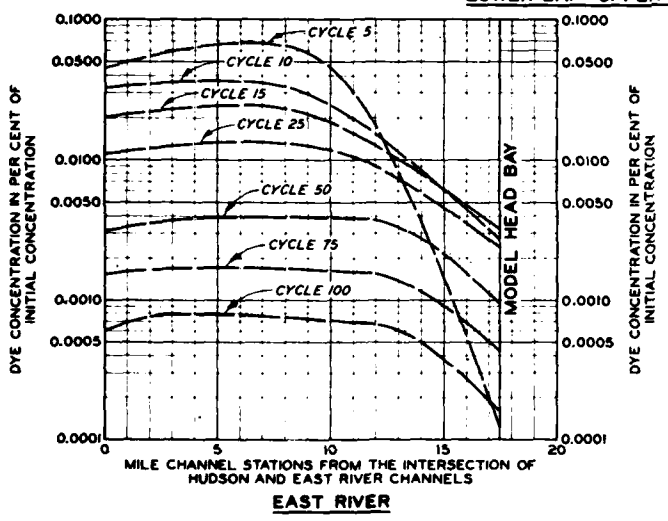

YONKERS
HUDSON RIVER SUMP
HUDSON RIVER
HARLEM R.
EAST RIVER HEAD BAY
HACKENSACK RIVER
PASSAIC RIVER
MANHATTAN
EAST
BROOKLYN
MODEL LIMITS
NEWARK
JERSEY CITY
NEWARK BAY
KILL VAN KULL
UPPER BAY
JAMAICA BAY
ROCKAWAY POINT
OCEAN HEADBAY
NO. 6
MODEL LIMITS
STATEN ISLAND
LOWER BAY
SANDY HOOK
SANDY HOOK BAY
RARITAN BAY
RARITAN RIVER HEAD BAY
MODEL LIMITS
N
LEGEND
▲ RELEASE POINT
0.0025 PEAK DYE CONCENTRATION
+ OBSERVATION POINT
15 TIDAL CYCLE PEAK OBSERVED
NOTE: DYE CONCENTRATIONS ARE EXPRESSED AS PERCENTAGES OF THE INITIAL CONCENTRATION
THE SUFFIX "S" DENOTES A SURFACE OBSERVATION, WHILE "B" DENOTES A BOTTOM OBSERVATION. DYE CONCENTRATIONS NOT FOLLOWED BY EITHER "S" OR "B" WERE OBSERVED AT MIDDEPTH
MIDDEPTH RELEASE - 6000 CFS FRESH-WATER DISCHARGE.
PEAK CONTAMINATION CONCENTRATION
TEST 9
SCALES IN FEET
PROTOTYPE 10,000 0 10,000 20,000 30,000
MODEL 10 0 10 20 30

PLATE 10



LOWER BAY - UPPER BAY - HUDSON RIVER



EAST RIVER

LEGEND

HUDSON RIVER.

- - - - - - - - SURFACE CONCENTRATION

———— BOTTOM CONCENTRATION

EAST RIVER:

———— ———— MIDDEPTH CONCENTRATION

NOTE: LOW-WATER SLACK BOTTOM RELEASE AT POINT I FOR 6,000 CFS FRESH-WATER DISCHARGE.

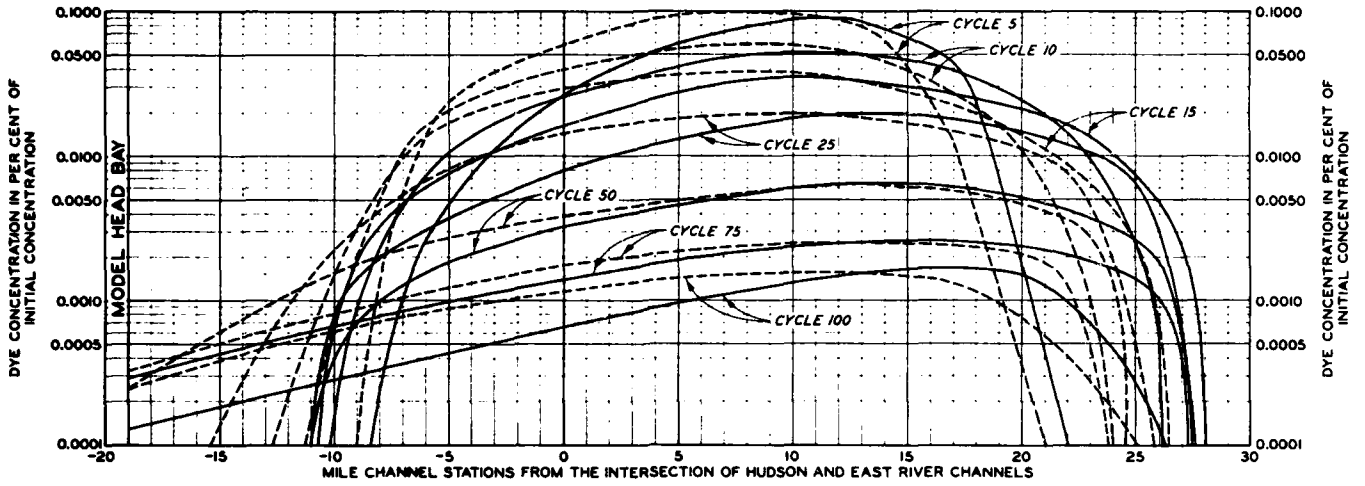
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

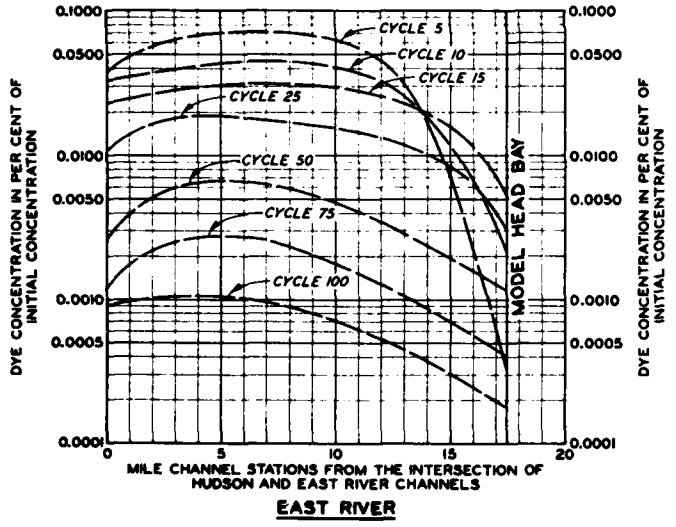
DISTRIBUTION OF CONTAMINATION AT HIGH-WATER SLACK

TEST I

PLATE II

PLATE 12





LEGEND

HUDSON RIVER:

- - - - - - - - SURFACE CONCENTRATION

———— BOTTOM CONCENTRATION

EAST RIVER:

———— MIDDEPTH CONCENTRATION

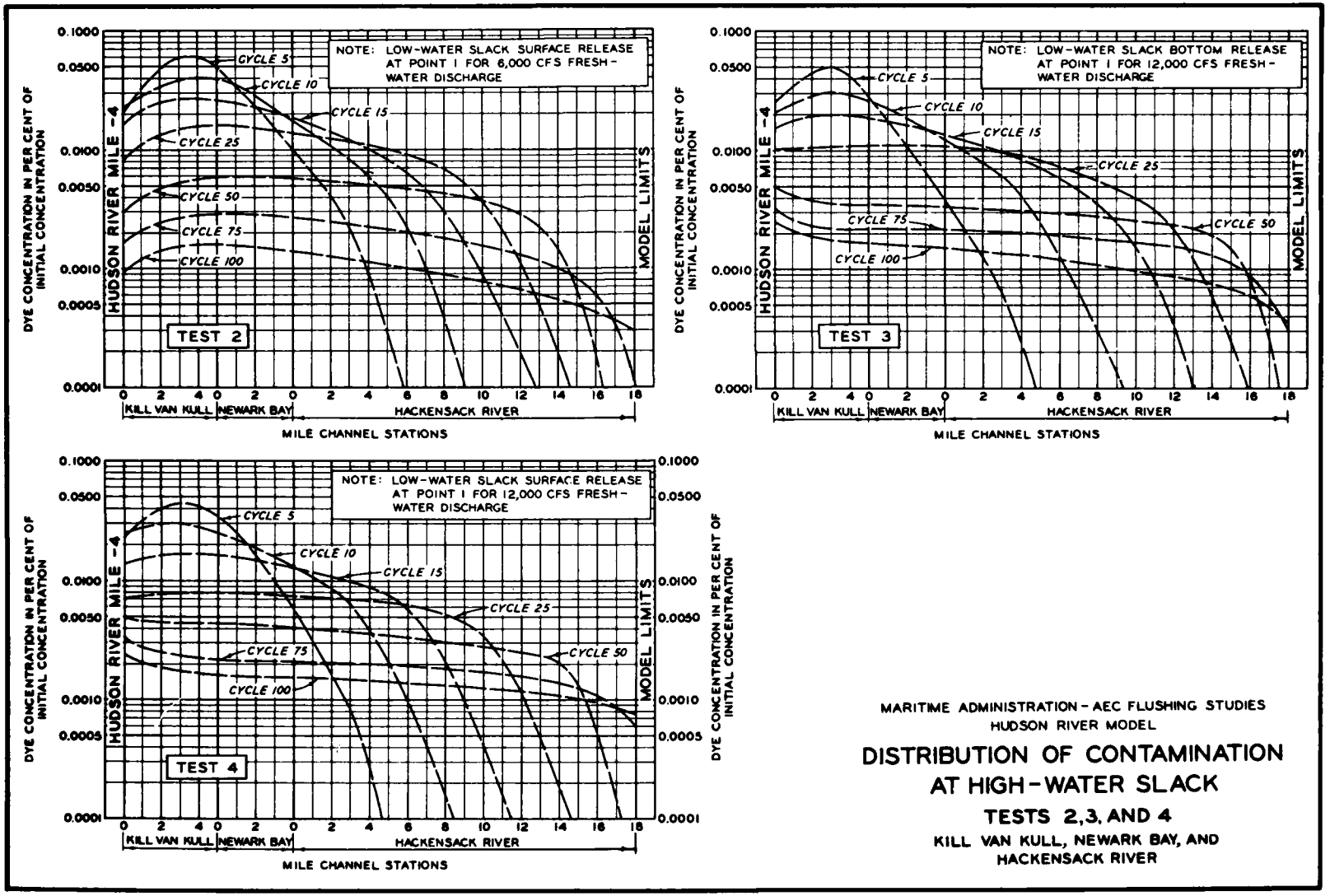
NOTE: LOW-WATER SLACK SURFACE RELEASE AT POINT I FOR 6,000 CFS FRESH-WATER DISCHARGE.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

DISTRIBUTION OF CONTAMINATION AT HIGH-WATER SLACK

TEST 2

HUDSON AND EAST RIVERS



MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

DISTRIBUTION OF CONTAMINATION AT HIGH-WATER SLACK

TESTS 2, 3, AND 4

KILL VAN KULL, NEWARK BAY, AND HACKENSACK RIVER

PLATE 13

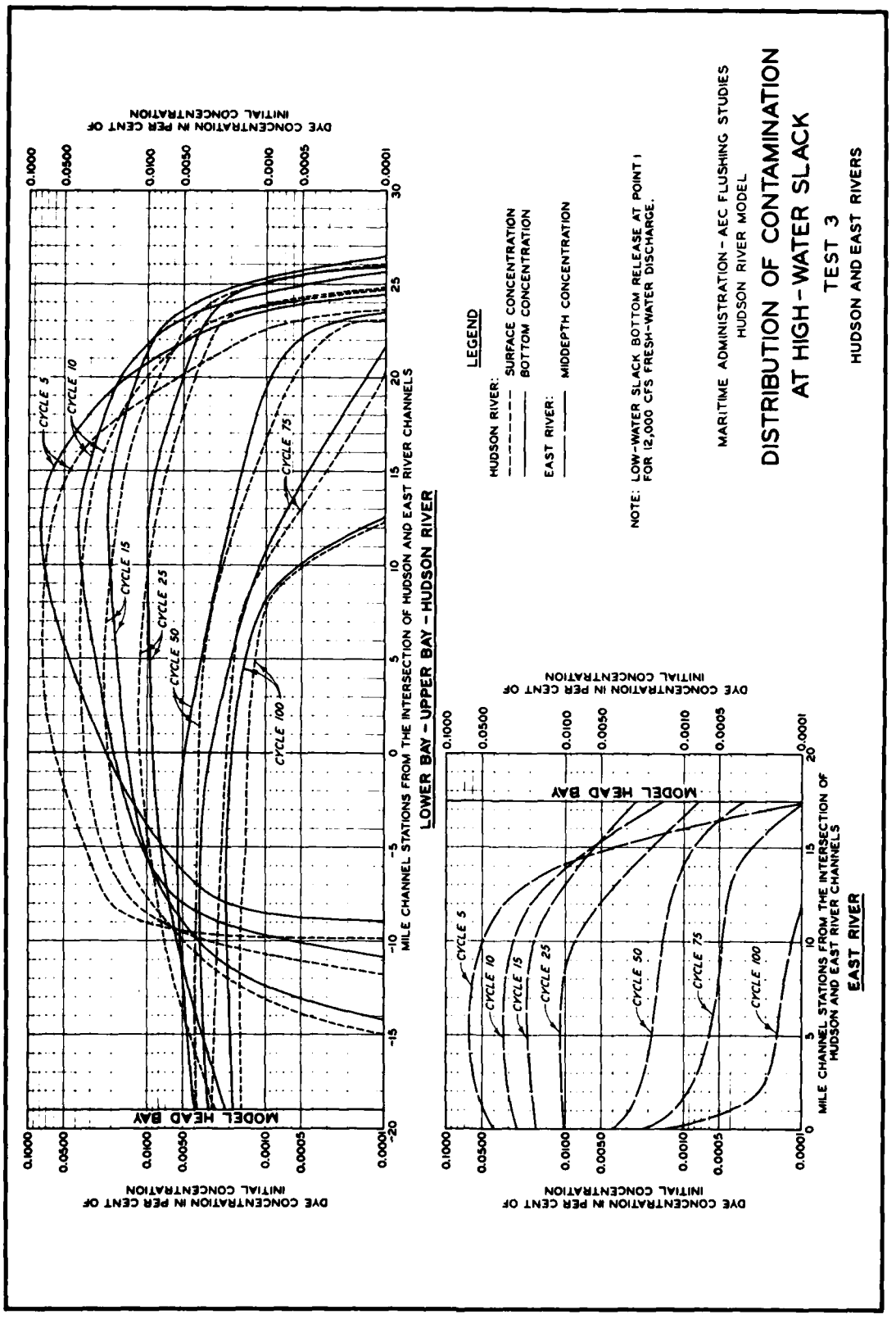
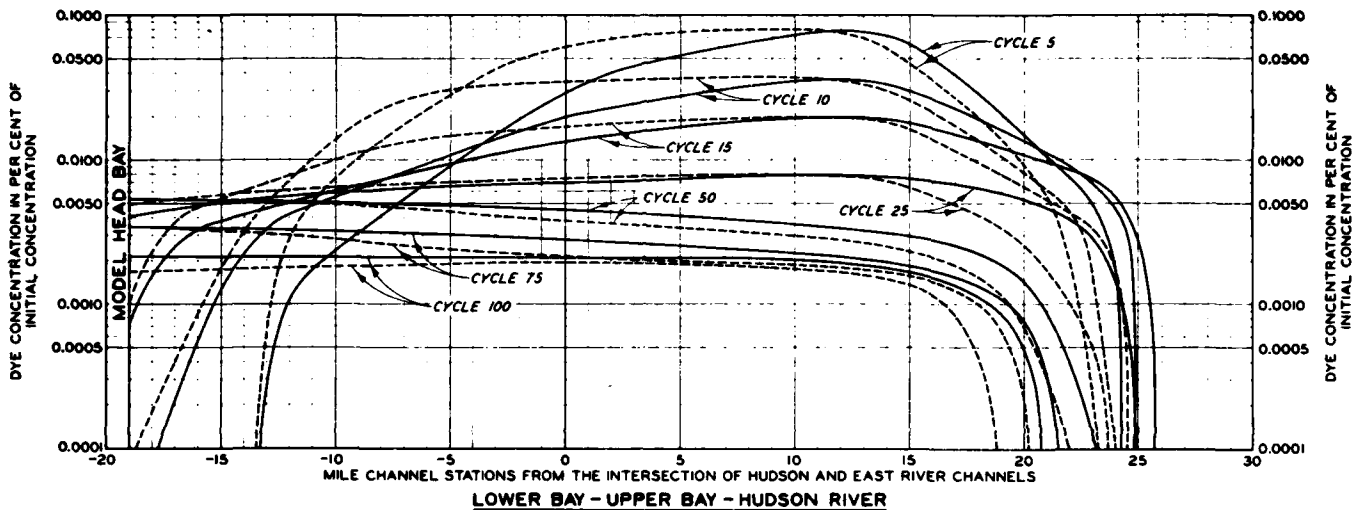
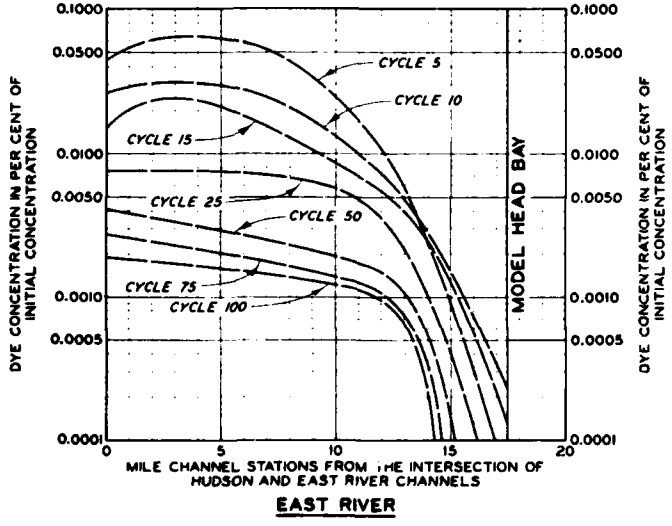

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
DISTRIBUTION OF CONTAMINATION
AT HIGH-WATER SLACK
TEST 3
HUDSON AND EAST RIVERS
LEGEND
HUDSON RIVER:
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
EAST RIVER:
MIDDEPTH CONCENTRATION
NOTE: LOW-WATER SLACK BOTTOM RELEASE AT POINT I FOR 12,000 CFS FRESH-WATER DISCHARGE.
LOWER BAY - UPPER BAY - HUDSON RIVER
MILE CHANNEL STATIONS FROM THE INTERSECTION OF HUDSON AND EAST RIVER CHANNELS
EAST RIVER
MILE CHANNEL STATIONS FROM THE INTERSECTION OF HUDSON AND EAST RIVER CHANNELS
MODEL HEAD BAY
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
CYCLE 5
CYCLE 10
CYCLE 15
CYCLE 25
CYCLE 50
CYCLE 75
CYCLE 100

PLATE 14



LOWER BAY - UPPER BAY - HUDSON RIVER



EAST RIVER

LEGEND

HUDSON RIVER:
- SURFACE CONCENTRATION
- BOTTOM CONCENTRATION

EAST RIVER:
- MIDDEPTH CONCENTRATION

NOTE: LOW-WATER SLACK SURFACE RELEASE AT POINT I FOR 12,000 CFS FRESH-WATER DISCHARGE.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

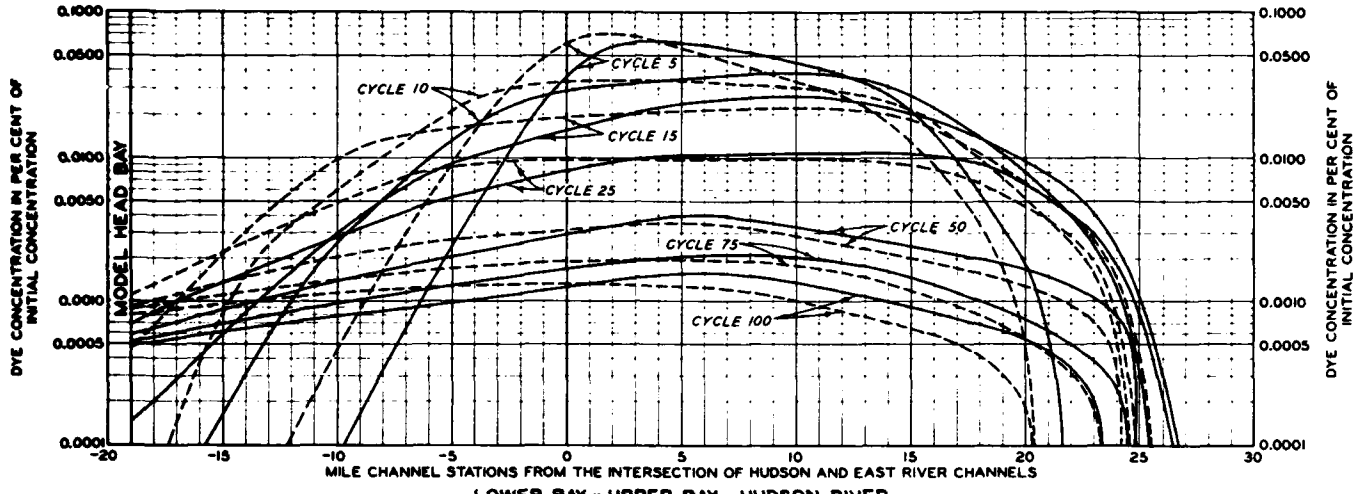
DISTRIBUTION OF CONTAMINATION AT HIGH-WATER SLACK

TEST 4

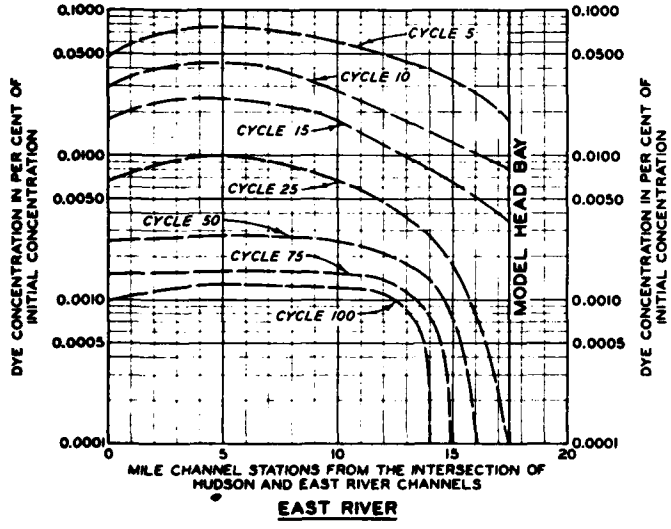
HUDSON AND EAST RIVERS

PLATE 15

PLATE 16



LOWER BAY - UPPER BAY - HUDSON RIVER



EAST RIVER

LEGEND

HUDSON RIVER:
- SURFACE CONCENTRATION
- BOTTOM CONCENTRATION

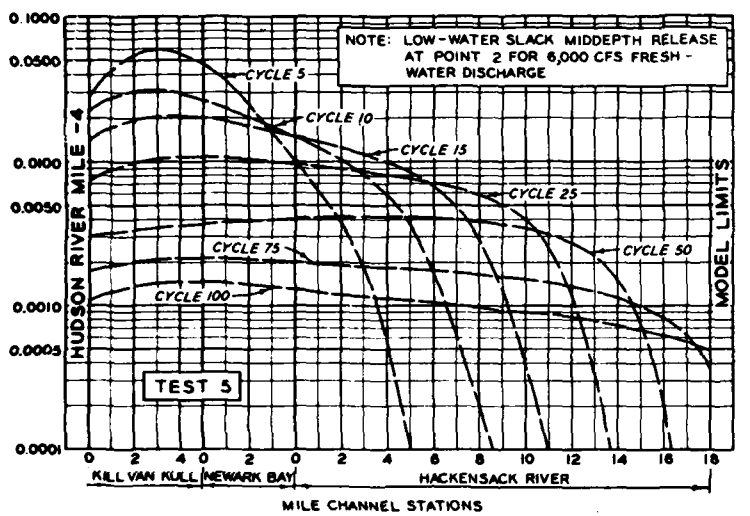
EAST RIVER:
- MIDDEPTH CONCENTRATION

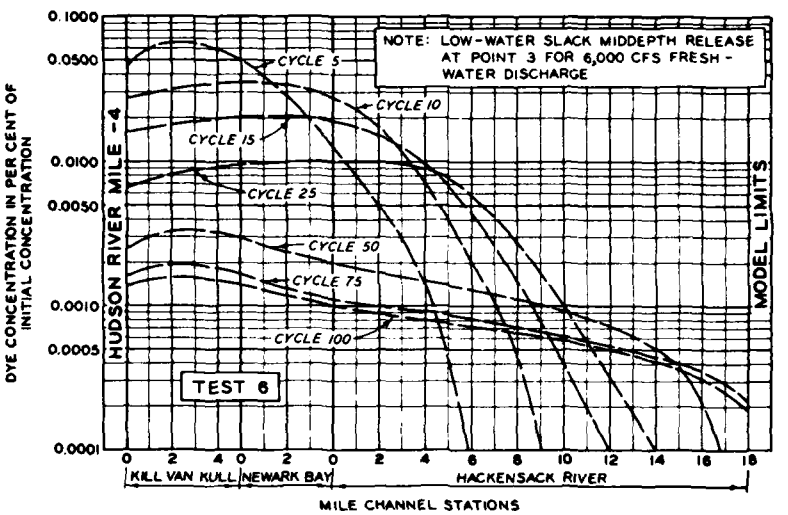
NOTE: LOW-WATER SLACK MIDDEPTH RELEASE AT POINT 2 FOR 6,000 CFS FRESH-WATER DISCHARGE.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

DISTRIBUTION OF CONTAMINATION AT HIGH-WATER SLACK

TEST 5
HUDSON AND EAST RIVERS





MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

DISTRIBUTION OF CONTAMINATION AT HIGH-WATER SLACK

TESTS 5 AND 6

KILL VAN KULL, NEWARK BAY, AND HACKENSACK RIVER

PLATE 17

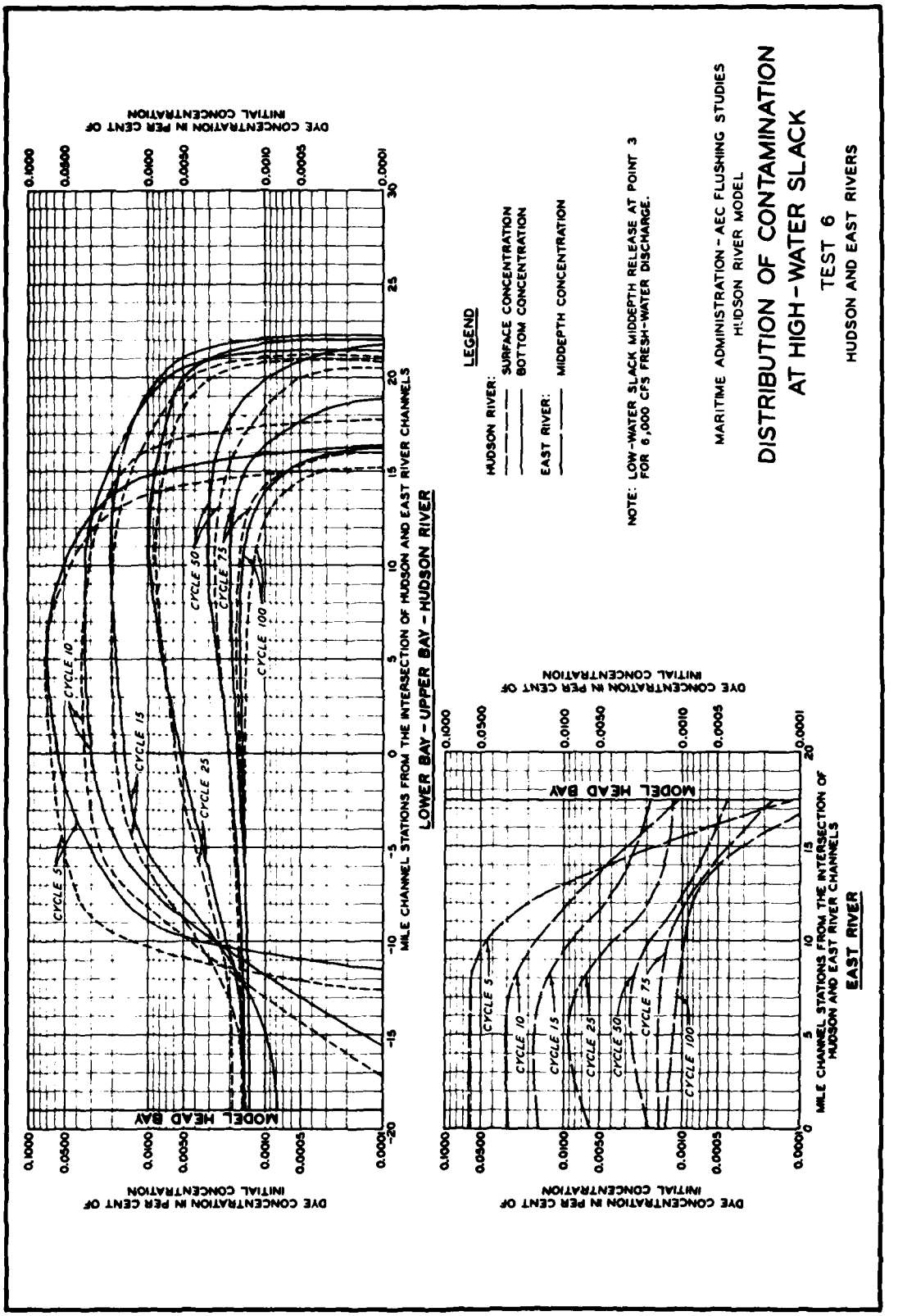
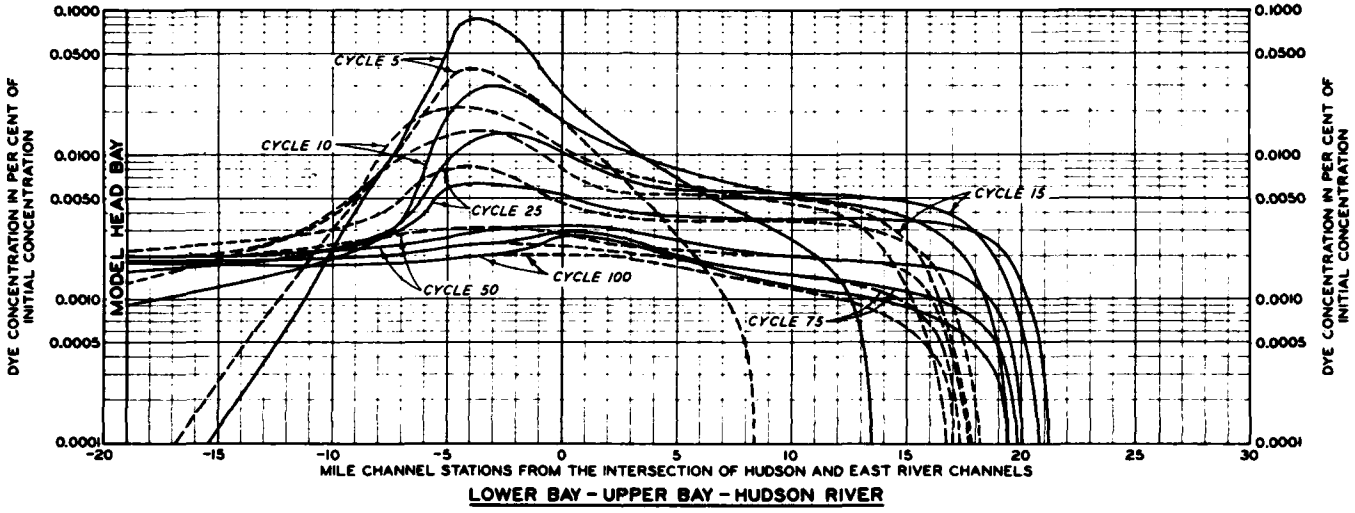
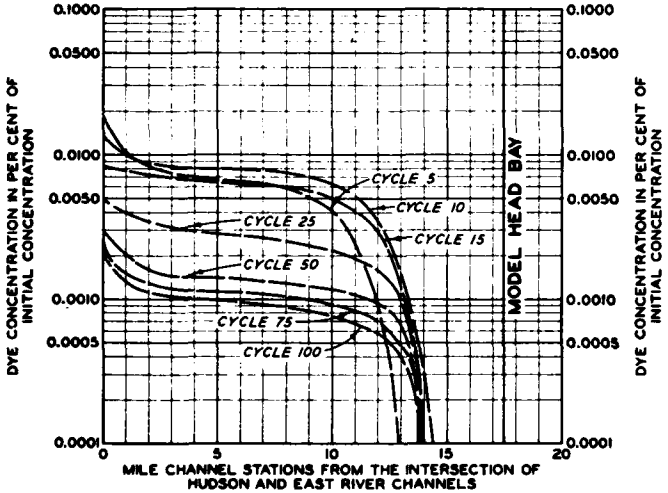

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
DISTRIBUTION OF CONTAMINATION
AT HIGH-WATER SLACK
TEST 6
HUDSON AND EAST RIVERS
NOTE: LOW-WATER SLACK MIDDEPTH RELEASE AT POINT 3
FOR 6,000 CFS FRESH-WATER DISCHARGE.
LEGEND
HUDSON RIVER:
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
EAST RIVER:
MIDDEPTH CONCENTRATION
LOWER BAY - UPPER BAY - HUDSON RIVER
MILE CHANNEL STATIONS FROM THE INTERSECTION OF HUDSON AND EAST RIVER CHANNELS
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
MODEL HEAD BAY
CYCLE 5
CYCLE 10
CYCLE 15
CYCLE 25
CYCLE 50
CYCLE 75
CYCLE 100
EAST RIVER
MILE CHANNEL STATIONS FROM THE INTERSECTION OF HUDSON AND EAST RIVER CHANNELS

PLATE 18.



LOWER BAY - UPPER BAY - HUDSON RIVER



EAST RIVER

LEGEND

HUDSON RIVER:

— — — — SURFACE CONCENTRATION

———— BOTTOM CONCENTRATION

EAST RIVER:

—— —— MIDDEPTH CONCENTRATION

NOTE: LOW-WATER SLACK MIDDEPTH RELEASE AT POINT 4 FOR 6,000 CFS FRESH-WATER DISCHARGE.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES

HUDSON RIVER MODEL

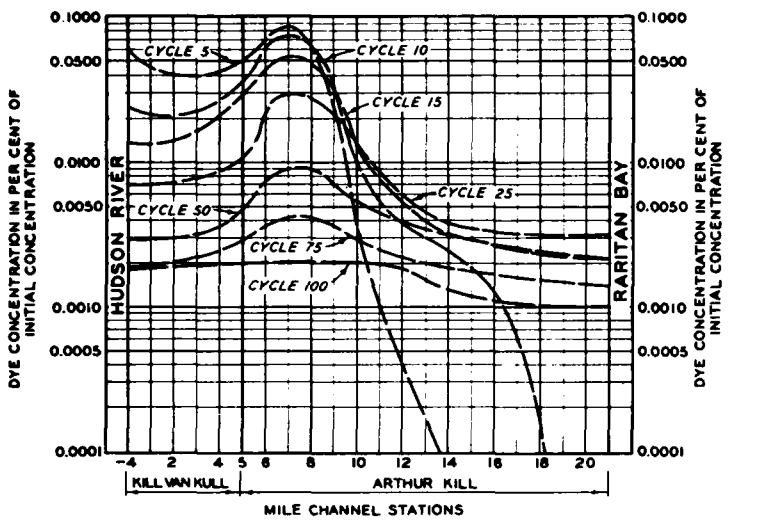
DISTRIBUTION OF CONTAMINATION AT HIGH-WATER SLACK

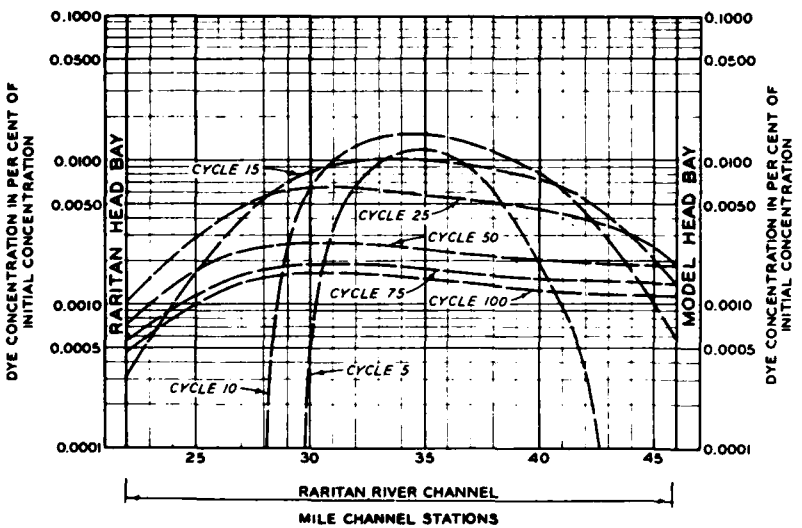
TEST 7

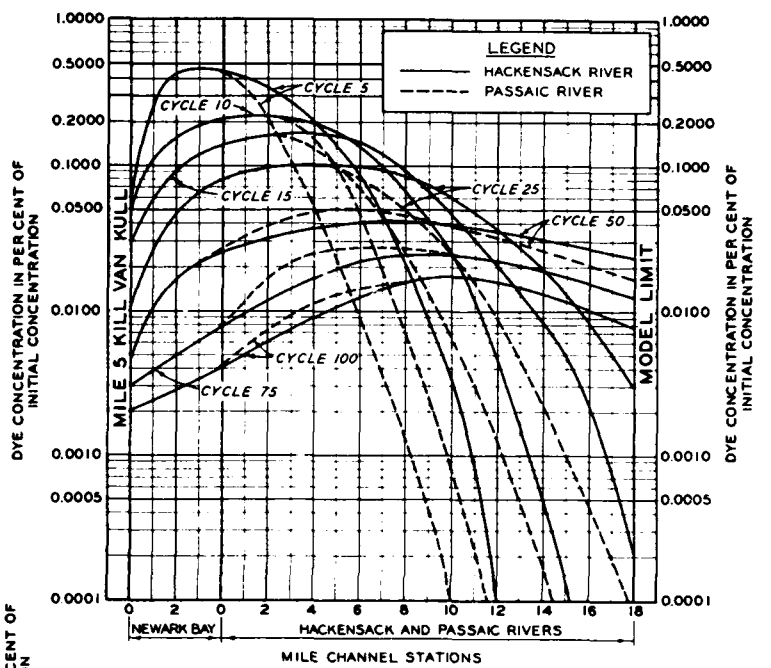
HUDSON AND EAST RIVERS

PLATE 19

PLATE 20







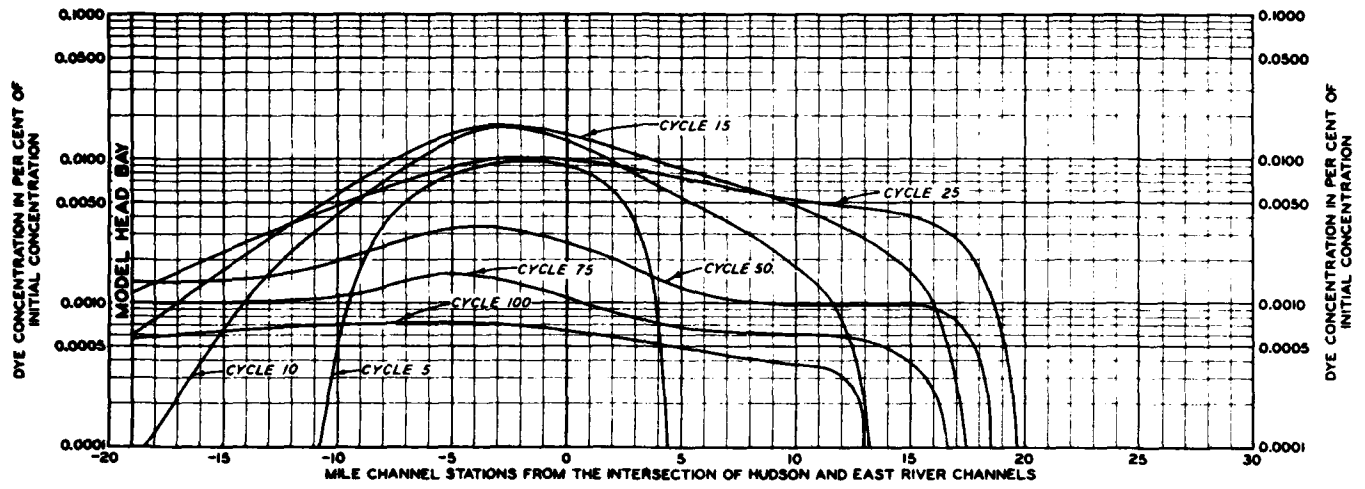
NOTE: LOW-WATER SLACK MIDDEPTH RELEASE AT POINT 4 FOR 6,000 CFS FRESH-WATER DISCHARGE.
ALL DISTRIBUTION CURVES DERIVED FROM MIDDEPTH OBSERVATIONS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

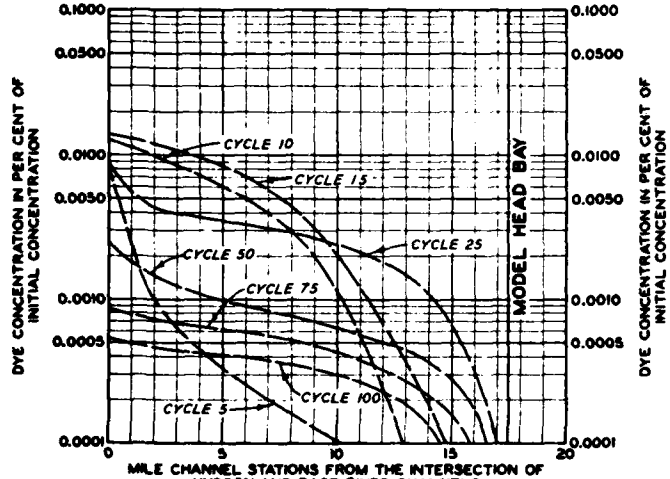
DISTRIBUTION OF CONTAMINATION AT HIGH-WATER SLACK

TEST 7

KILL VAN KULL, ARTHUR KILL, RARITAN RIVER CHANNEL, AND NEWARK BAY, AND HACKENSACK AND PASSAIC RIVERS



LOWER BAY – UPPER BAY – HUDSON RIVER



EAST RIVER

LEGEND

HUDSON RIVER:
——— SURFACE CONCENTRATION
——— BOTTOM CONCENTRATION

EAST RIVER:
— — — MIDDEPTH CONCENTRATION

NOTE: LOW-WATER SLACK MIDDEPTH RELEASE AT POINT 5 FOR 6,000 CFS FRESH-WATER DISCHARGE.

MARITIME ADMINISTRATION – AEC FLUSHING STUDIES
HUDSON RIVER MODEL

DISTRIBUTION OF CONTAMINATION AT HIGH-WATER SLACK

TEST 8

HUDSON AND EAST RIVERS

PLATE 21

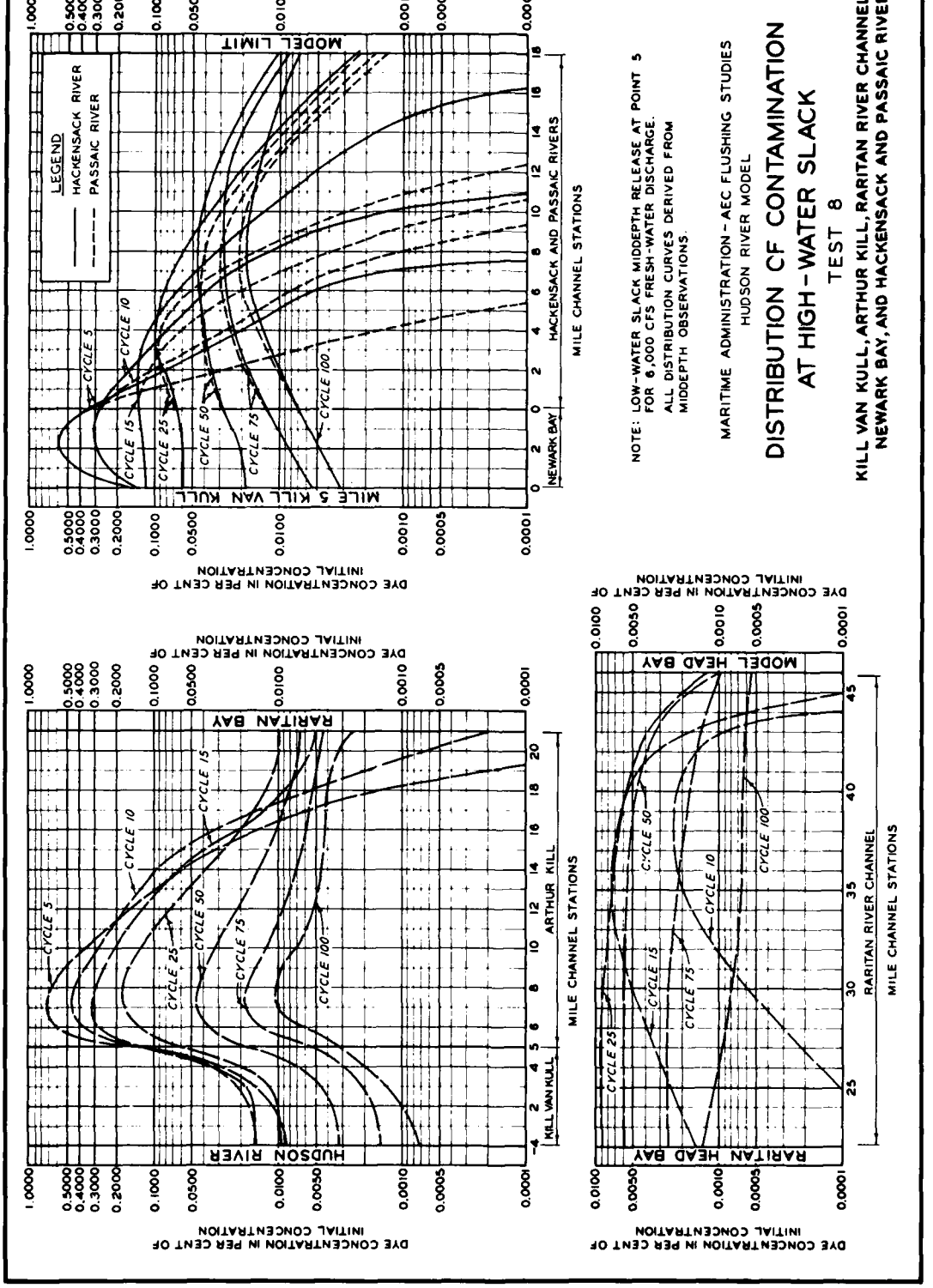
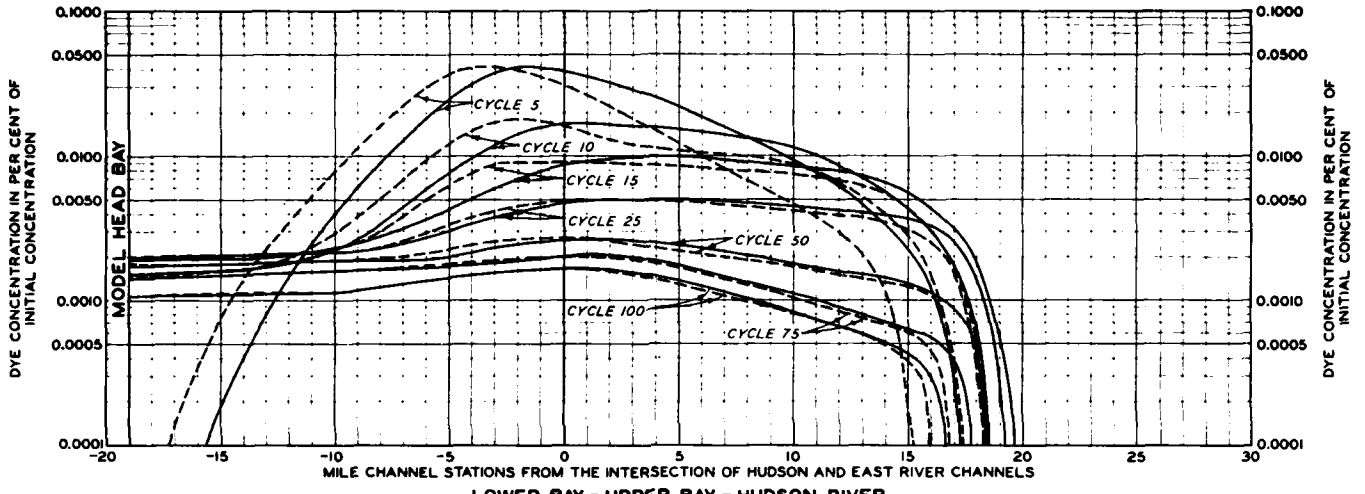
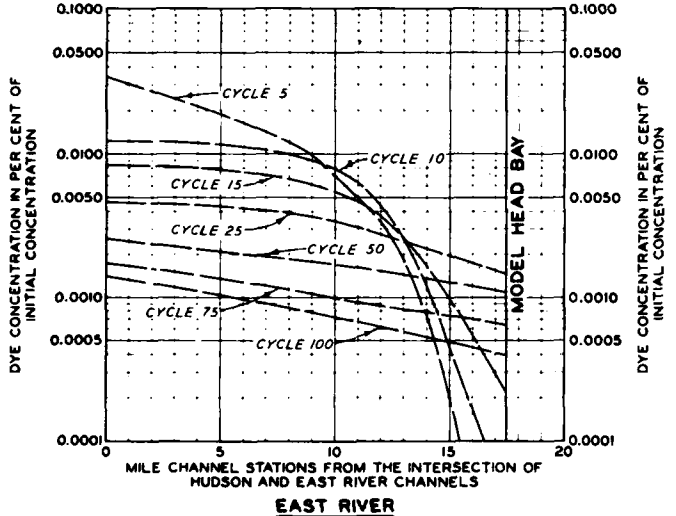

DISTRIBUTION OF CONTAMINATION
AT HIGH-WATER SLACK
TEST 8
KILL VAN KULL, ARTHUR KILL, RARITAN RIVER CHANNEL, AND
NEWARK BAY, AND HACKENSACK AND PASSAIC RIVERS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
NOTE: LOW-WATER SLACK MIDDEPTH RELEASE AT POINT 5
FOR 6,000 CFS FRESH-WATER DISCHARGE.
ALL DISTRIBUTION CURVES DERIVED FROM
MIDDEPTH OBSERVATIONS.
LEGEND
HACKENSACK RIVER
PASSAIC RIVER
MODEL LIMIT
MILE 5 KILL VAN KULL
CYCLE 5
CYCLE 10
CYCLE 15
CYCLE 25
CYCLE 50
CYCLE 75
CYCLE 100
NEWARK BAY
HACKENSACK AND PASSAIC RIVERS
MILE CHANNEL STATIONS
RARITAN BAY
HUDSON RIVER
KILL VAN KULL
ARTHUR KILL
MODEL HEAD BAY
RARITAN HEAD BAY
RARITAN RIVER CHANNEL
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION

PLATE 22



LOWER BAY - UPPER BAY - HUDSON RIVER



EAST RIVER

LEGEND

HUDSON RIVER:

SURFACE CONCENTRATION

BOTTOM CONCENTRATION

EAST RIVER:

MIDDEPTH CONCENTRATION

NOTE: LOW-WATER SLACK MIDDEPTH RELEASE AT POINT 6 FOR 6,000 CFS FRESH-WATER DISCHARGE.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

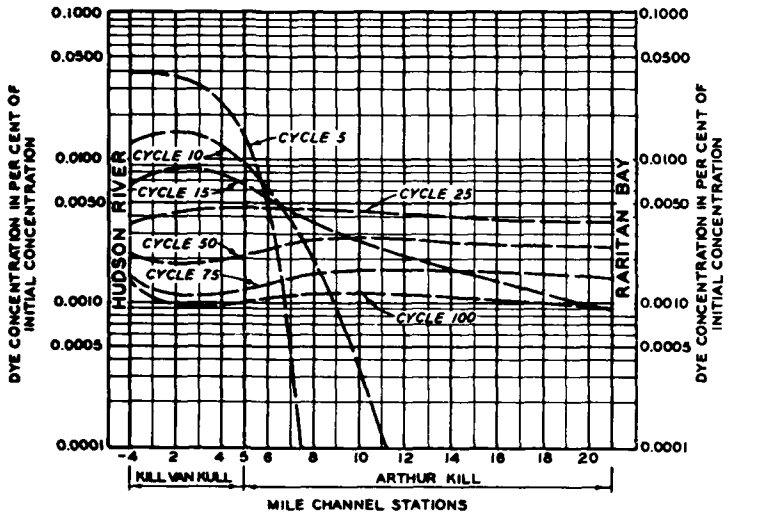
DISTRIBUTION OF CONTAMINATION AT HIGH-WATER SLACK

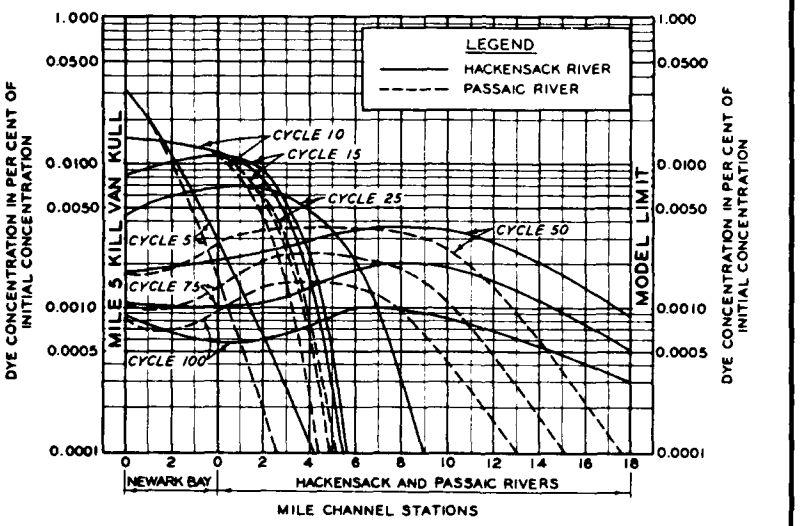
TEST 9

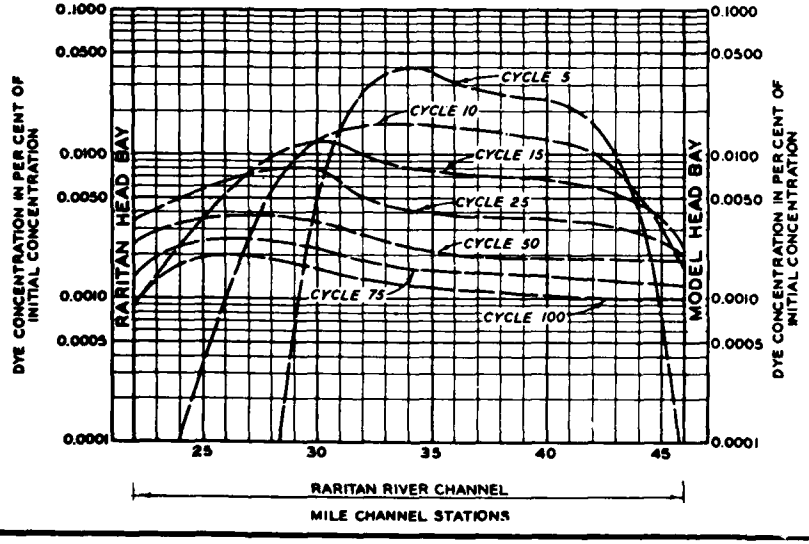
HUDSON AND EAST RIVERS

PLATE 23

PLATE 24







NOTE: LOW-WATER SLACK MIDDEPTH RELEASE AT POINT 6 FOR 6,000 CFS FRESH-WATER DISCHARGE.

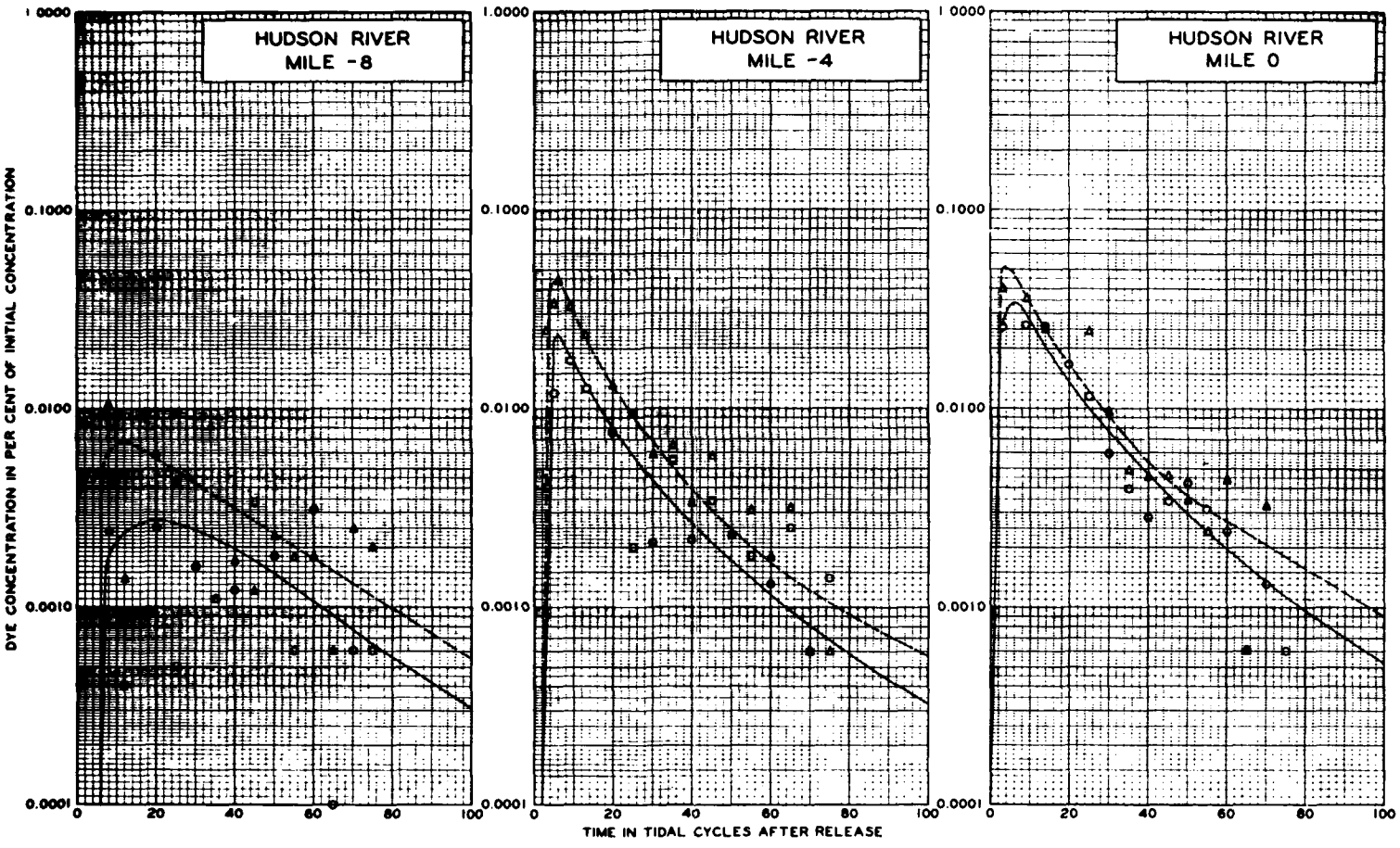
ALL DISTRIBUTION CURVES DERIVED FROM MIDDEPTH OBSERVATIONS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

DISTRIBUTION OF CONTAMINATION AT HIGH-WATER SLACK

TEST 9

KILL VAN KULL, ARTHUR KILL, RARITAN RIVER CHANNEL, AND NEWARK BAY, AND HACKENSACK AND PASSAIC RIVERS



MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

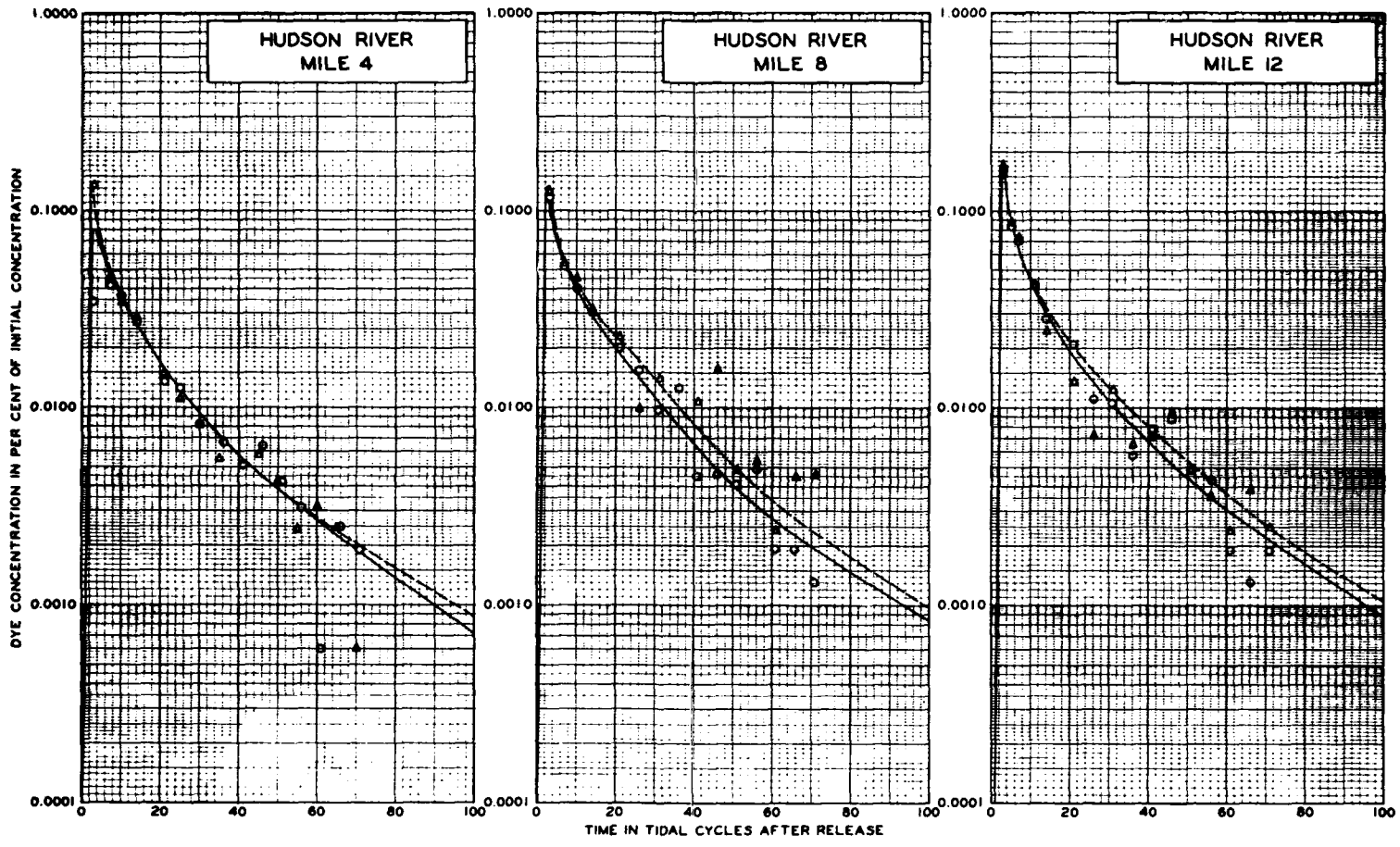
HIGH-WATER SLACK DYE CONCENTRATIONS

TEST I

HUDSON RIVER - MILES -8, -4, AND 0

PLATE 25

PLATE 26



LEGEND

△------△ SURFACE CONCENTRATION

O——O BOTTOM CONCENTRATION

NOTE: LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT I HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST I

HUDSON RIVER - MILES 4, 8, AND 12

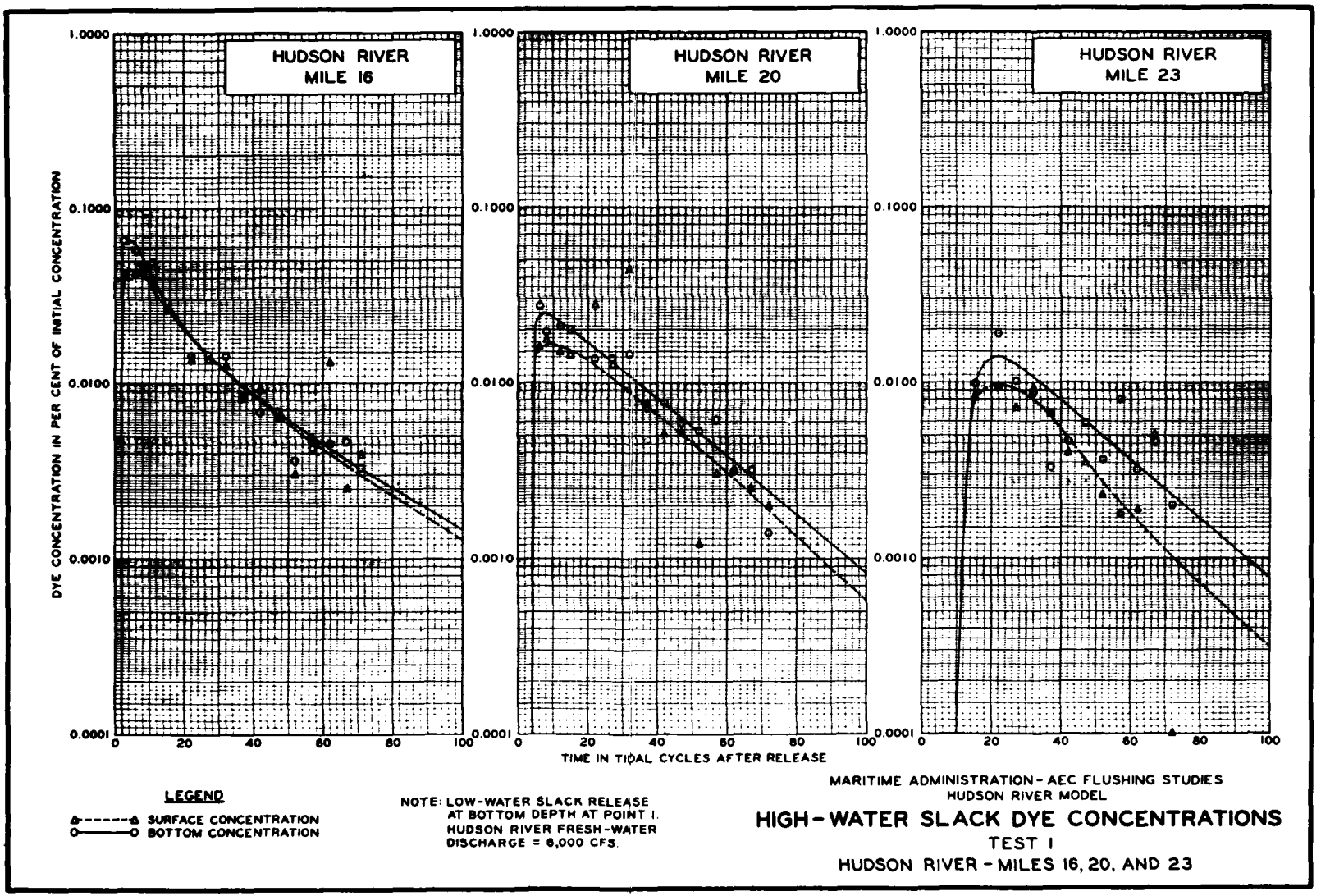

HUDSON RIVER
MILE 16
HUDSON RIVER
MILE 20
HUDSON RIVER
MILE 23
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT 1. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 1
HUDSON RIVER - MILES 16, 20, AND 23

PLATE 27

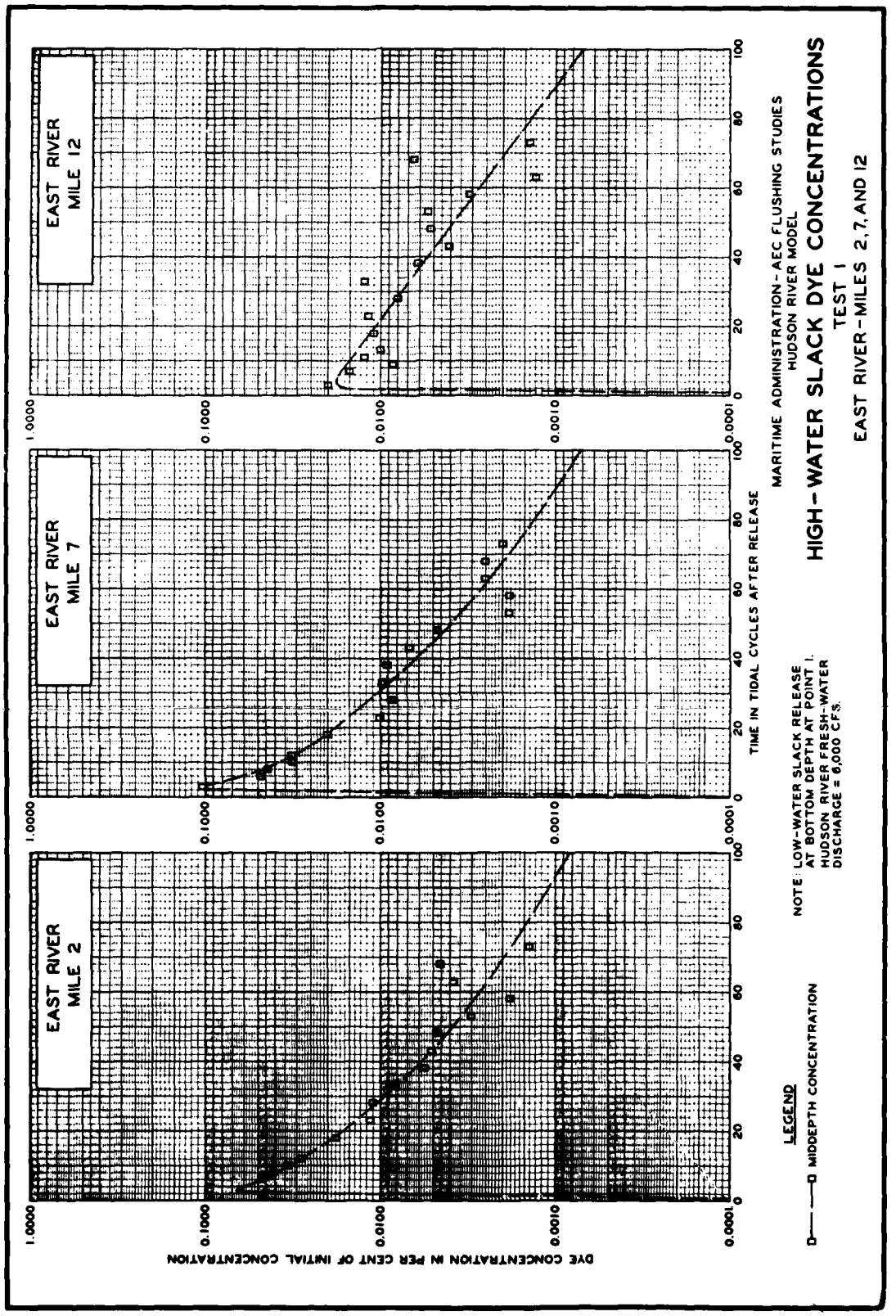

EAST RIVER MILE 2
EAST RIVER MILE 7
EAST RIVER MILE 12
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT I. HUDSON RIVER FRESH-WATER DISCHARGE = 8,000 C.F.S.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 1
EAST RIVER - MILES 2, 7, AND 12

PLATE 28

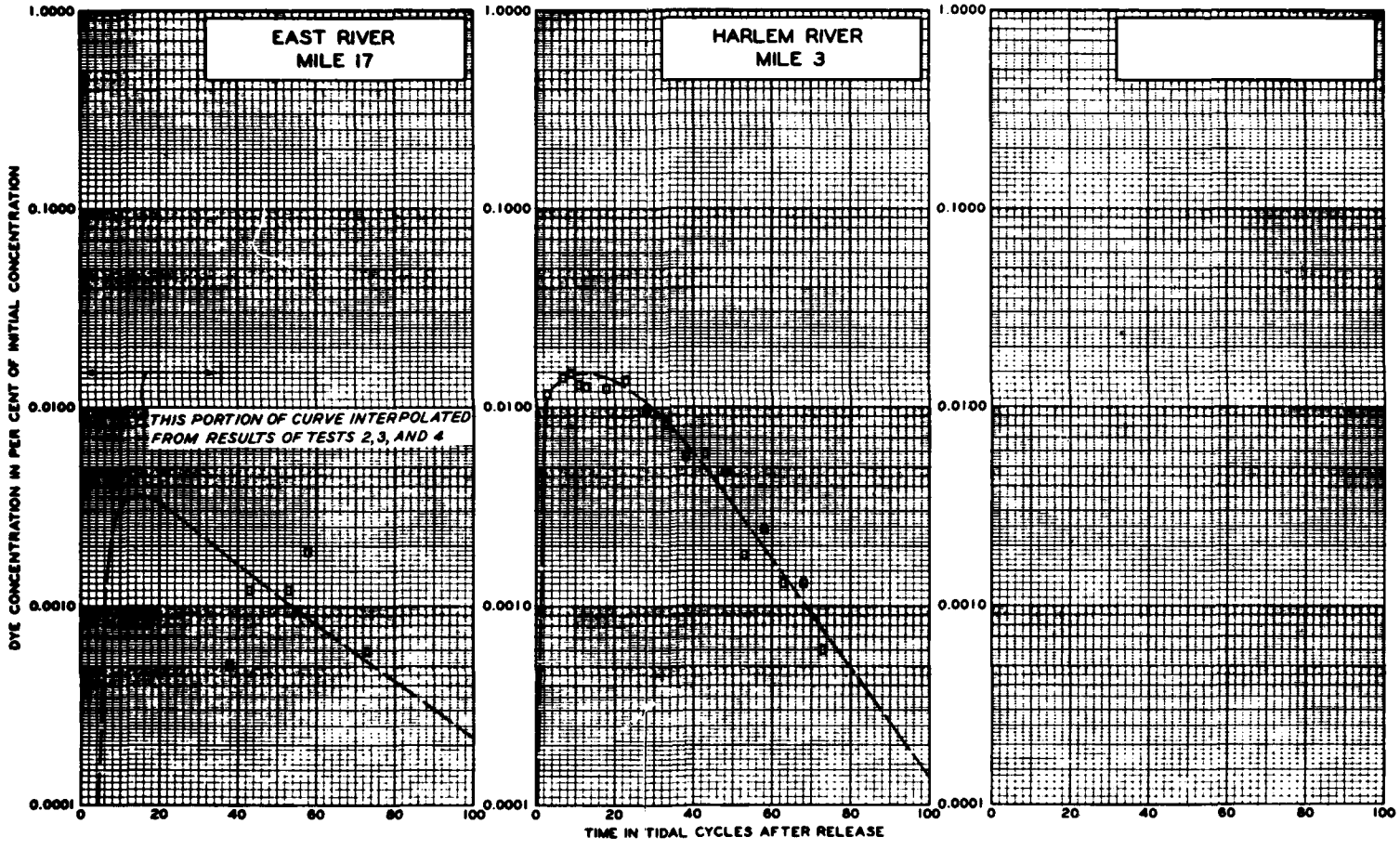
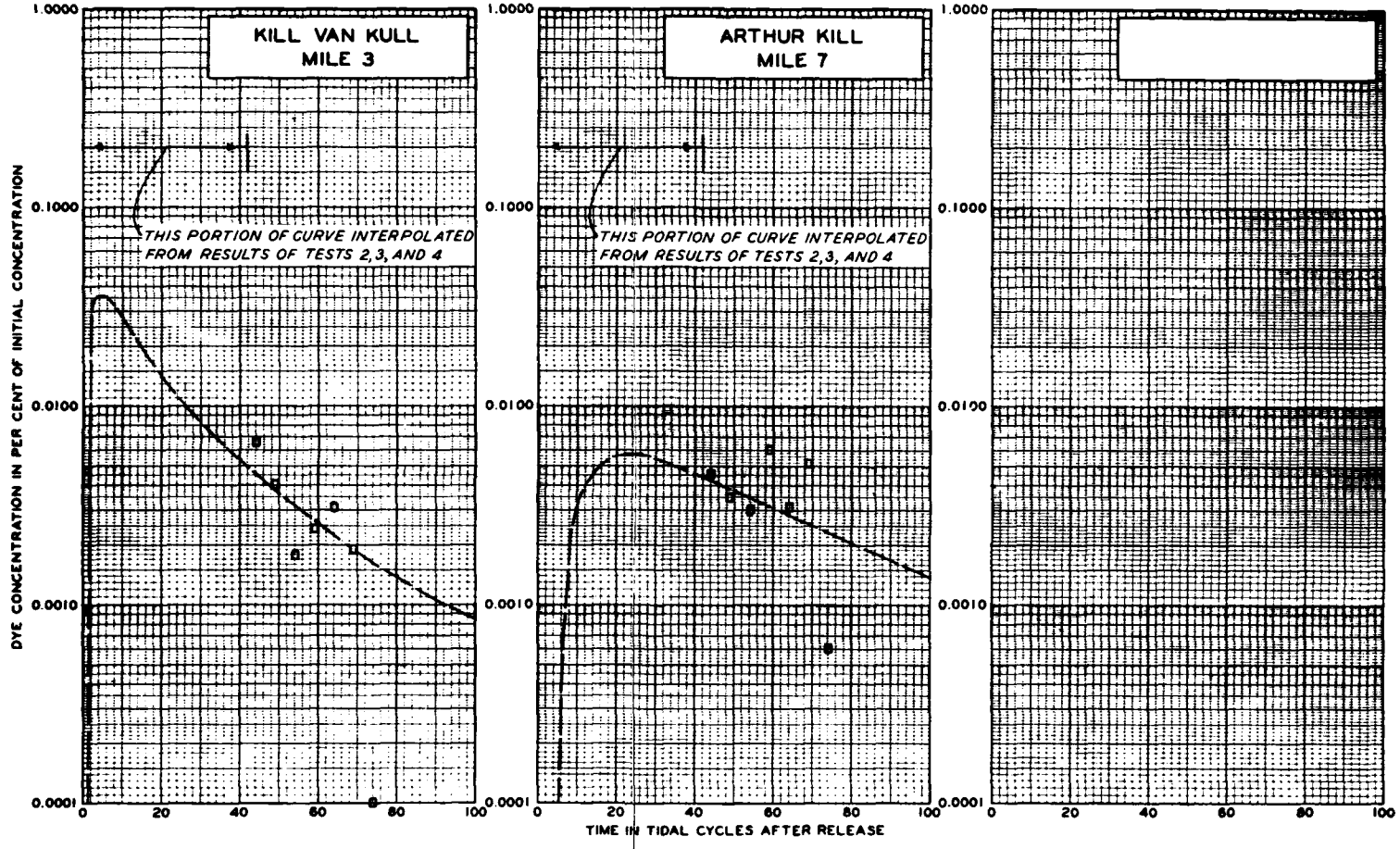

EAST RIVER
MILE 17
HARLEM RIVER
MILE 3
1.0000
0.1000
0.0100
0.0010
0.0001
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
THIS PORTION OF CURVE INTERPOLATED
FROM RESULTS OF TESTS 2, 3, AND 4
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE
AT BOTTOM DEPTH AT POINT 1.
HUDSON RIVER FRESH-WATER
DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 1
EAST RIVER - MILE 17 AND HARLEM RIVER - MILE 3

PLATE 29

PLATE 30



LEGEND

□——□ MIDDEPTH CONCENTRATION

NOTE: LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT I. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 1

KILL VAN KULL - MILE 3 AND ARTHUR KILL - MILE 7

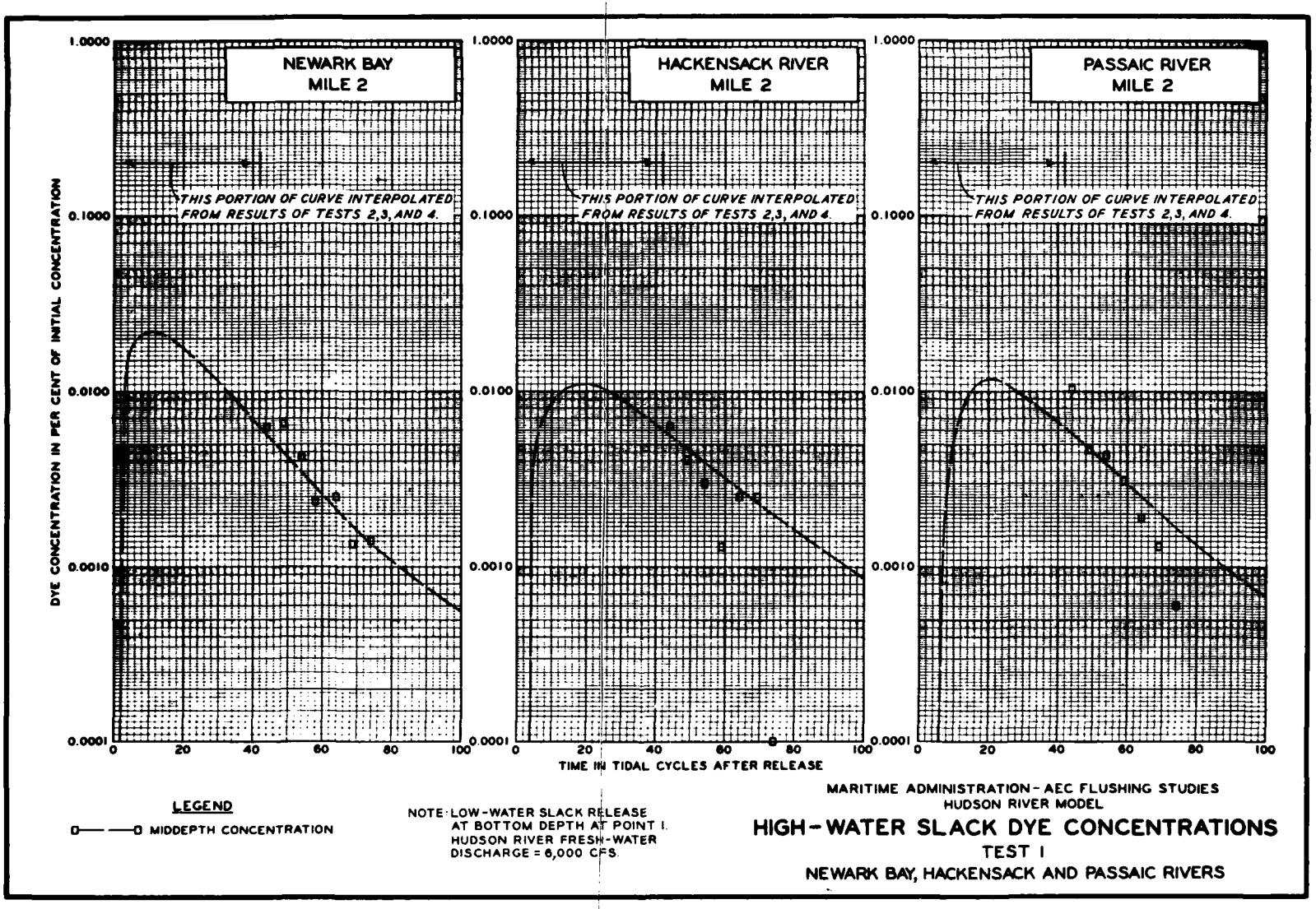
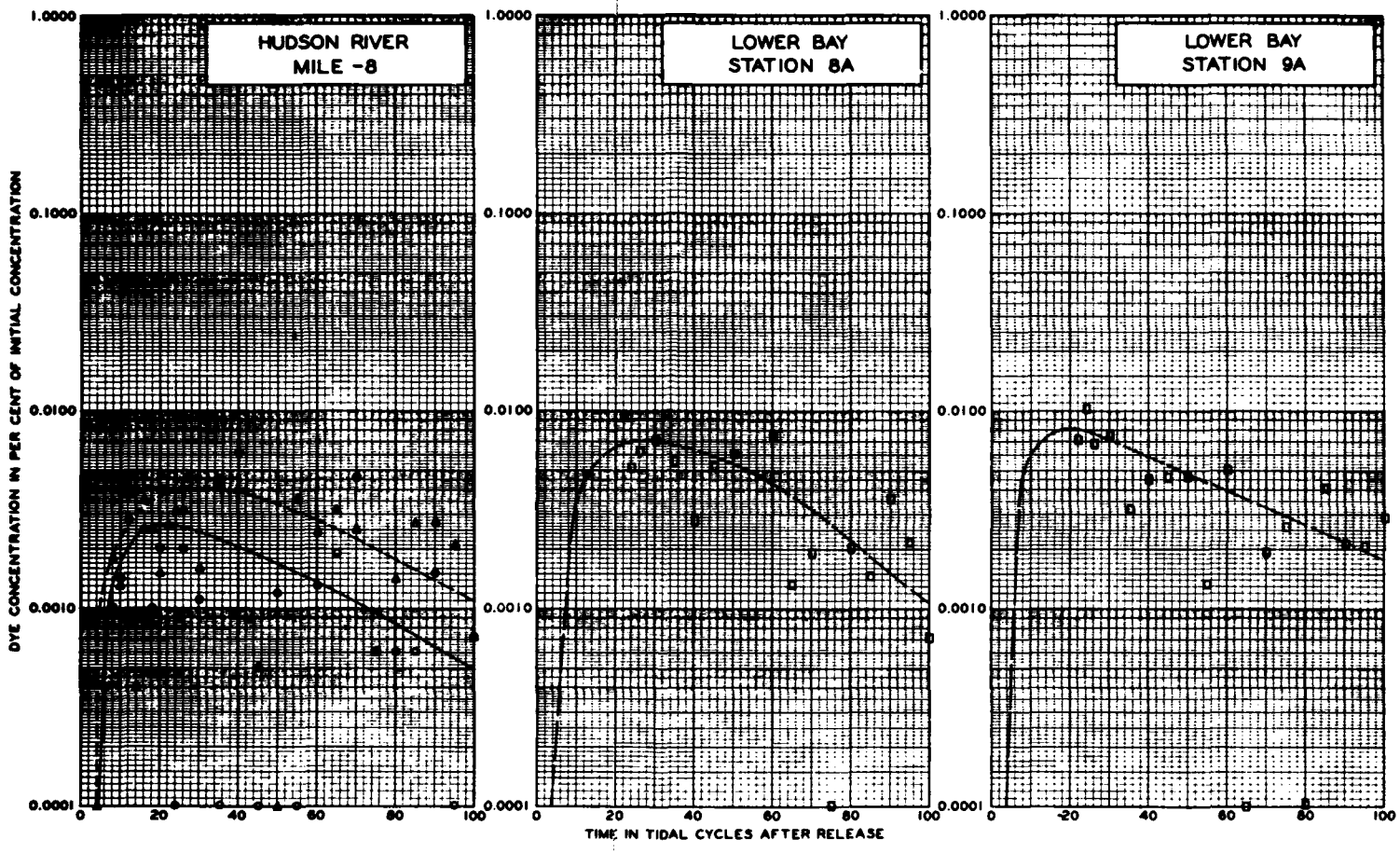

NEWARK BAY
MILE 2
HACKENSACK RIVER
MILE 2
PASSAIC RIVER
MILE 2
THIS PORTION OF CURVE INTERPOLATED FROM RESULTS OF TESTS 2,3, AND 4.
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT 1. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 1
NEWARK BAY, HACKENSACK AND PASSAIC RIVERS

PLATE 31

PLATE 32



MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 2

HUDSON RIVER-MILE-8, LOWER BAY-STATIONS 8A AND 9A

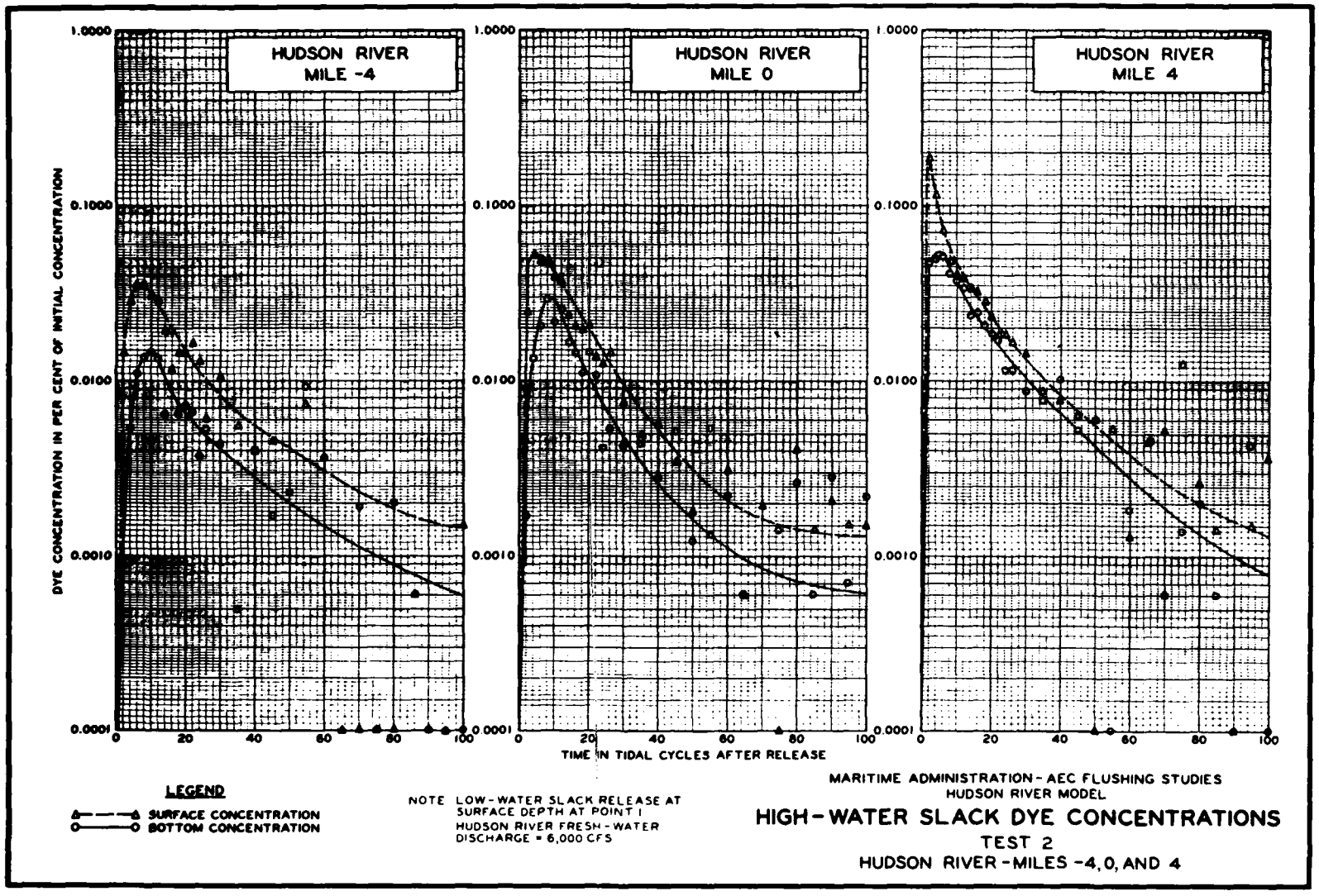
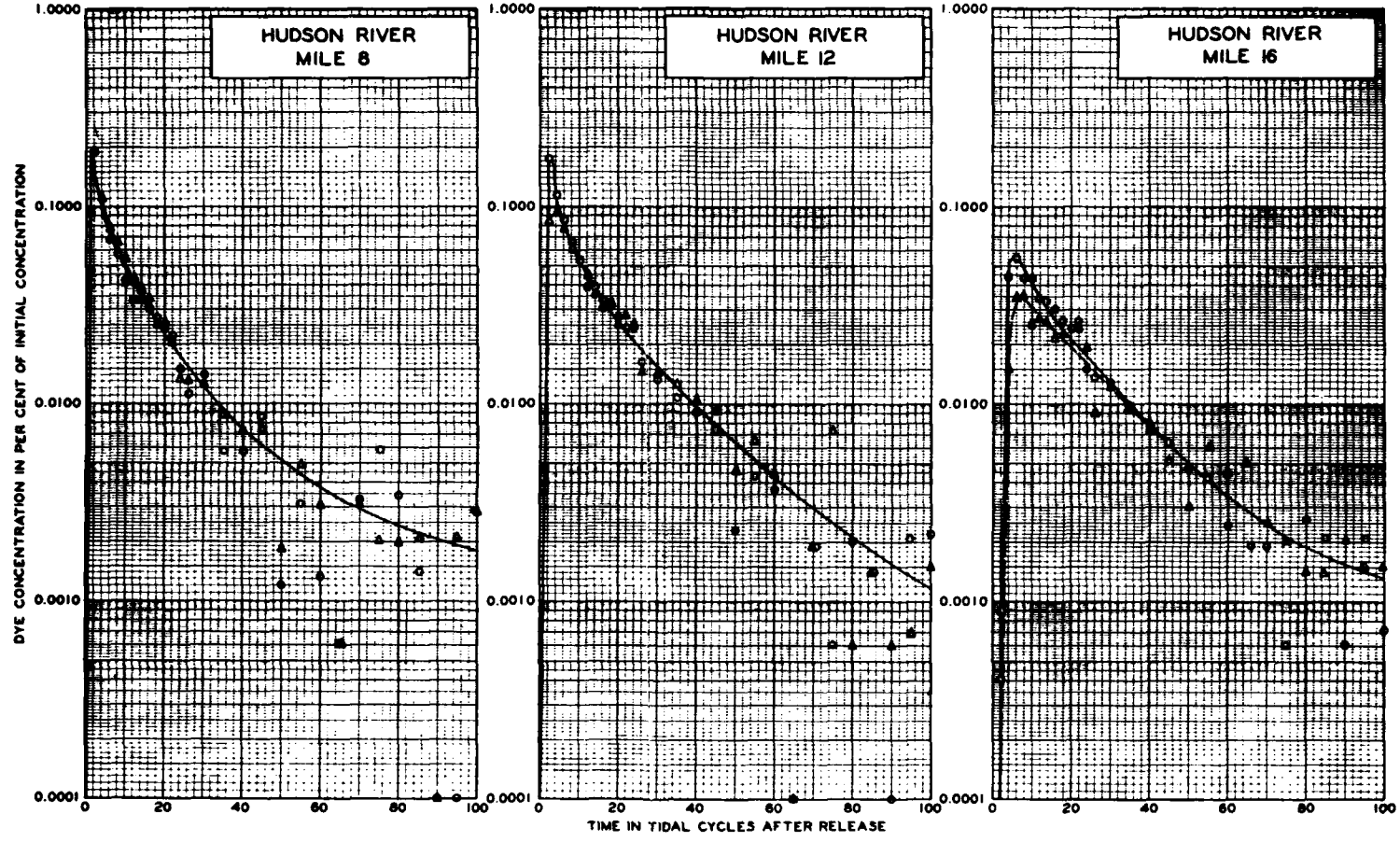

HUDSON RIVER
MILE -4
HUDSON RIVER
MILE 0
HUDSON RIVER
MILE 4
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT SURFACE DEPTH AT POINT 1
HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 2
HUDSON RIVER - MILES -4, 0, AND 4

PLATE 33

PLATE 34


HUDSON RIVER
MILE 8
HUDSON RIVER
MILE 12
HUDSON RIVER
MILE 16
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT SURFACE DEPTH AT POINT 1
HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION-AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 2
HUDSON RIVER-MILES 8, 12, AND 16

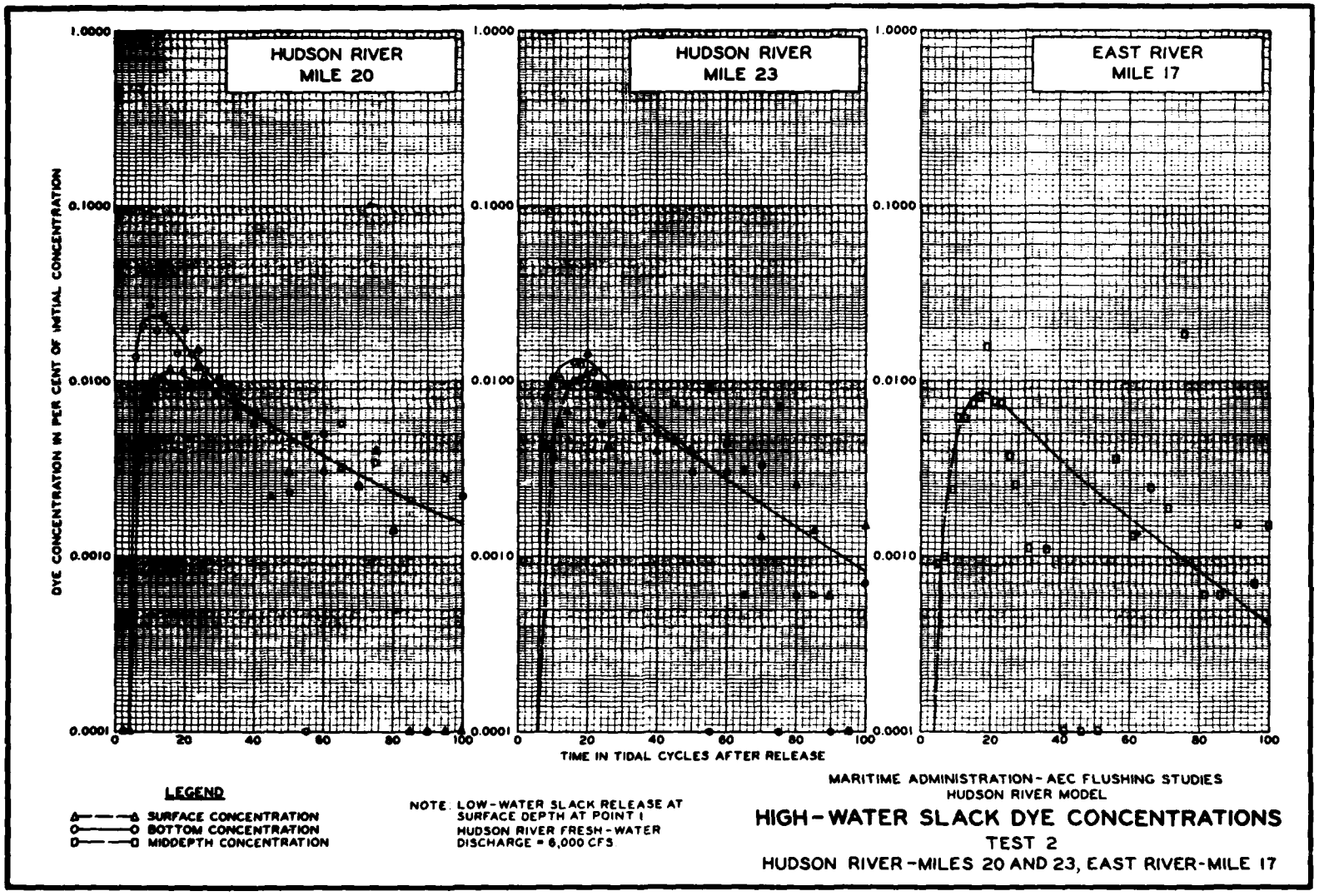
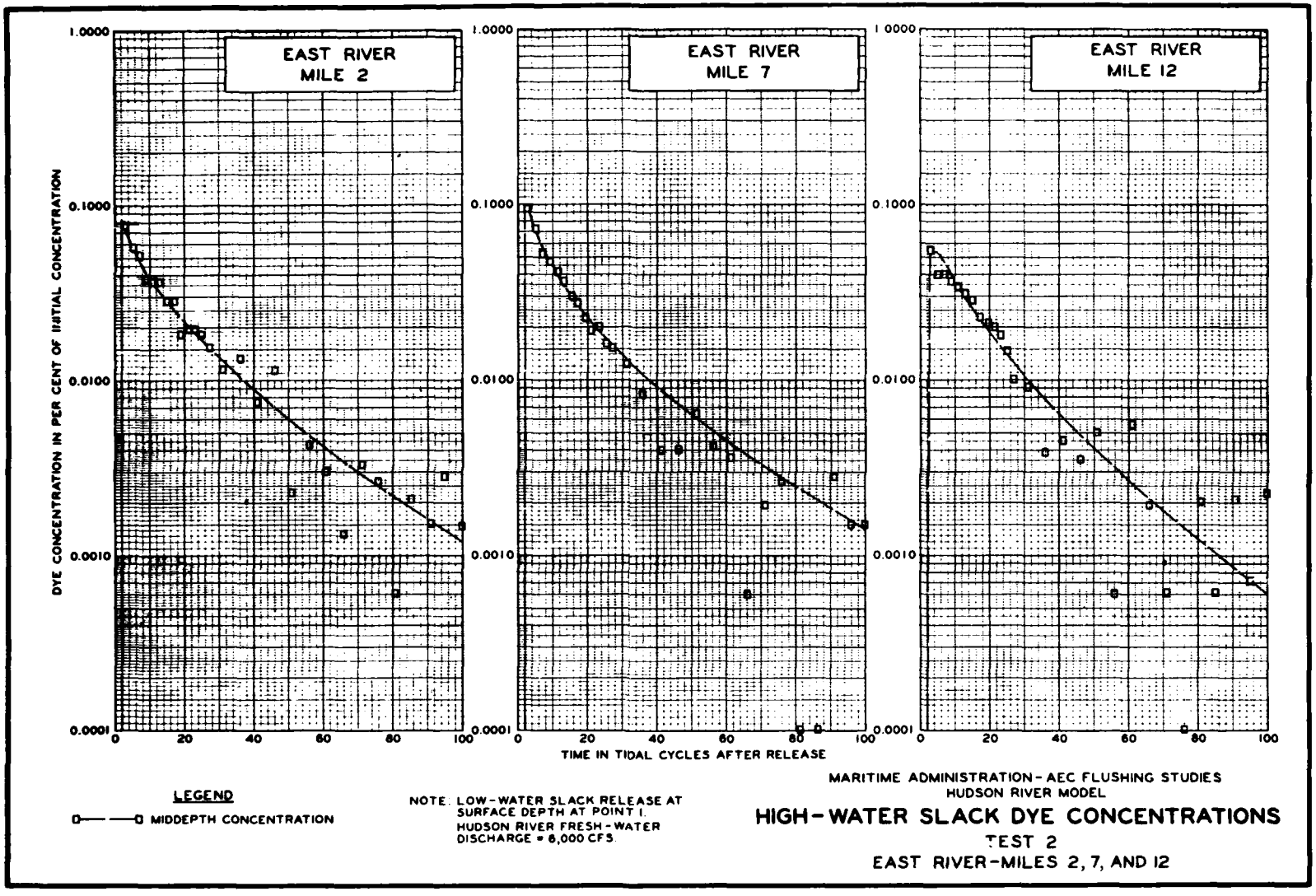
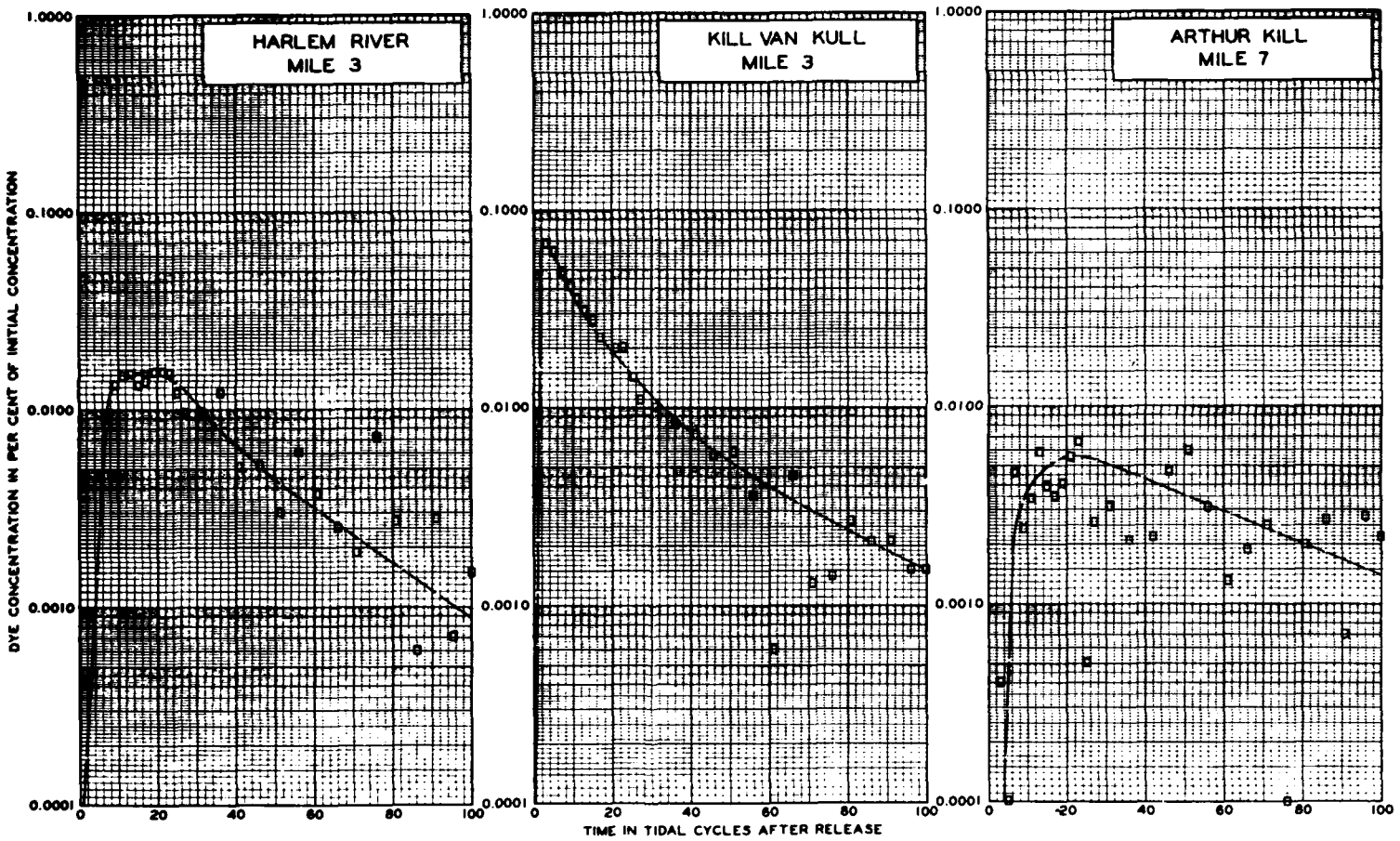

HUDSON RIVER
MILE 20
HUDSON RIVER
MILE 23
EAST RIVER
MILE 17
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
MIDDEPTH CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT SURFACE DEPTH AT POINT I
HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION-AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 2
HUDSON RIVER-MILES 20 AND 23, EAST RIVER-MILE 17

PLATE 35

PLATE 36


EAST RIVER
MILE 2
EAST RIVER
MILE 7
EAST RIVER
MILE 12
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT SURFACE DEPTH AT POINT 1.
HUDSON RIVER FRESH-WATER DISCHARGE = 8,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 2
EAST RIVER-MILES 2, 7, AND 12



LEGEND

□—— ——□ MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT SURFACE DEPTH AT POINT I
HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

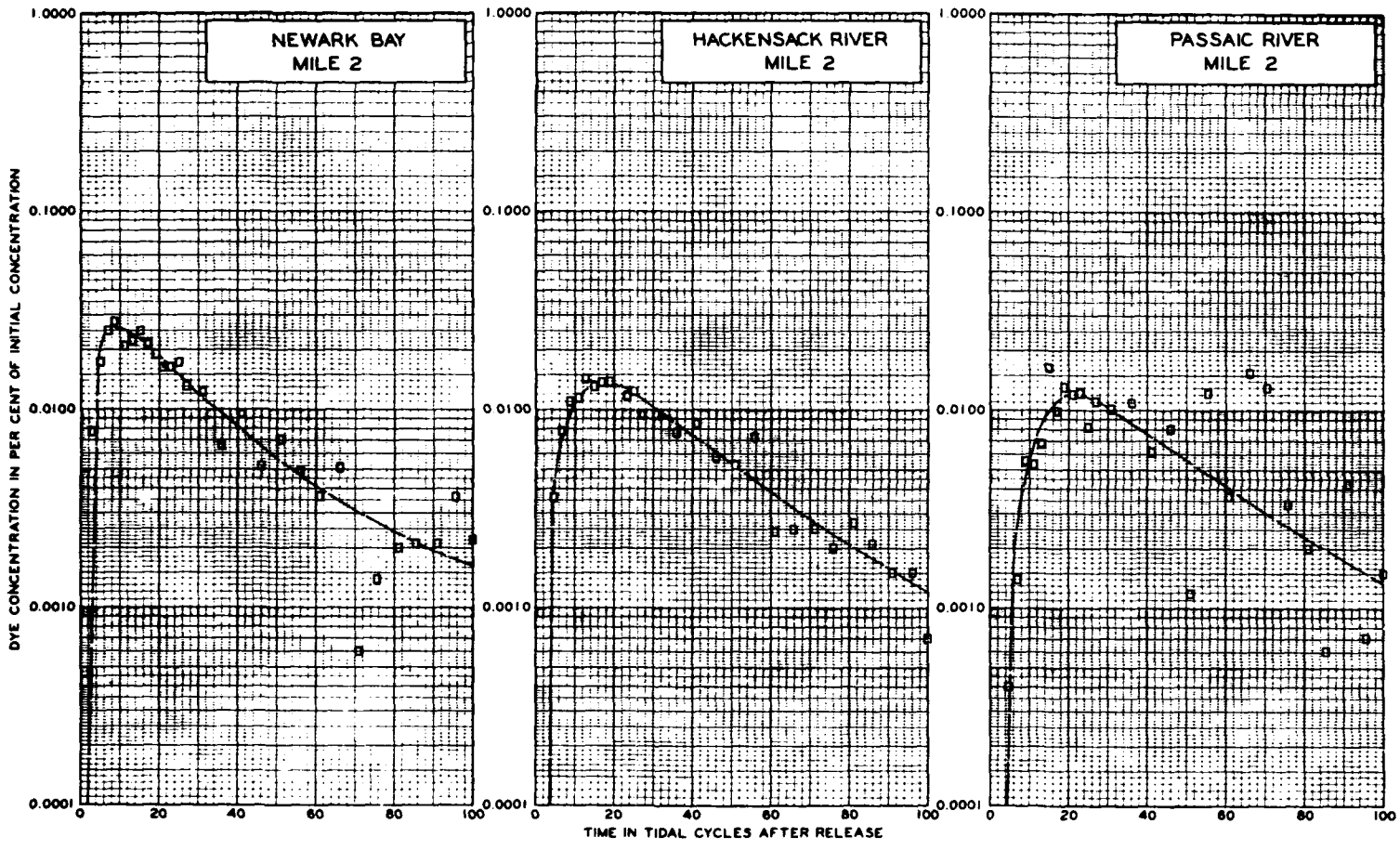
HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 2

HARLEM RIVER, KILL VAN KULL, AND ARTHUR KILL

PLATE 37

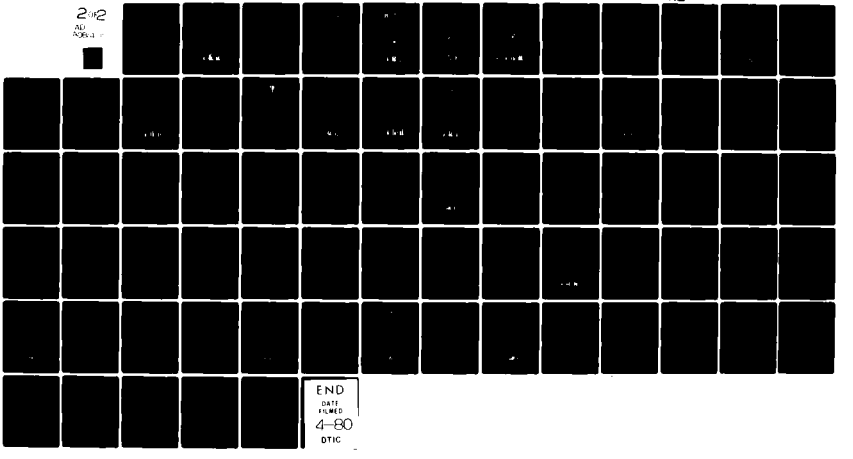
PLATE 38

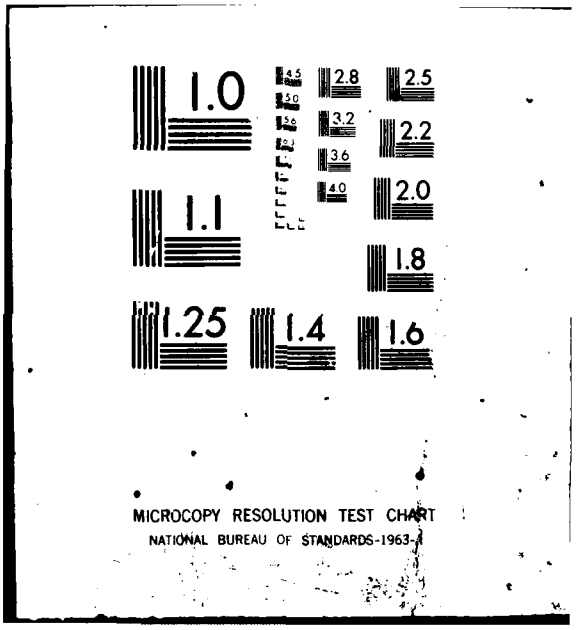

NEWARK BAY
MILE 2
HACKENSACK RIVER
MILE 2
PASSAIC RIVER
MILE 2
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT SURFACE DEPTH AT POINT I.
HUDSON RIVER FRESH-WATER DISCHARGE = 8,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 2
NEWARK BAY, HACKENSACK AND PASSAIC RIVERS

AD-A081 412 ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG MS F/G 8/8
CONTAMINATION DISPERSION IN ESTUARIES NEW YORK HARBOR, HYDRAULI--ETC(U)
JAN 61

UNCLASSIFIED WES-MP-2-332-3 NL

2 OF 2
AD
A081412




1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
5.6
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

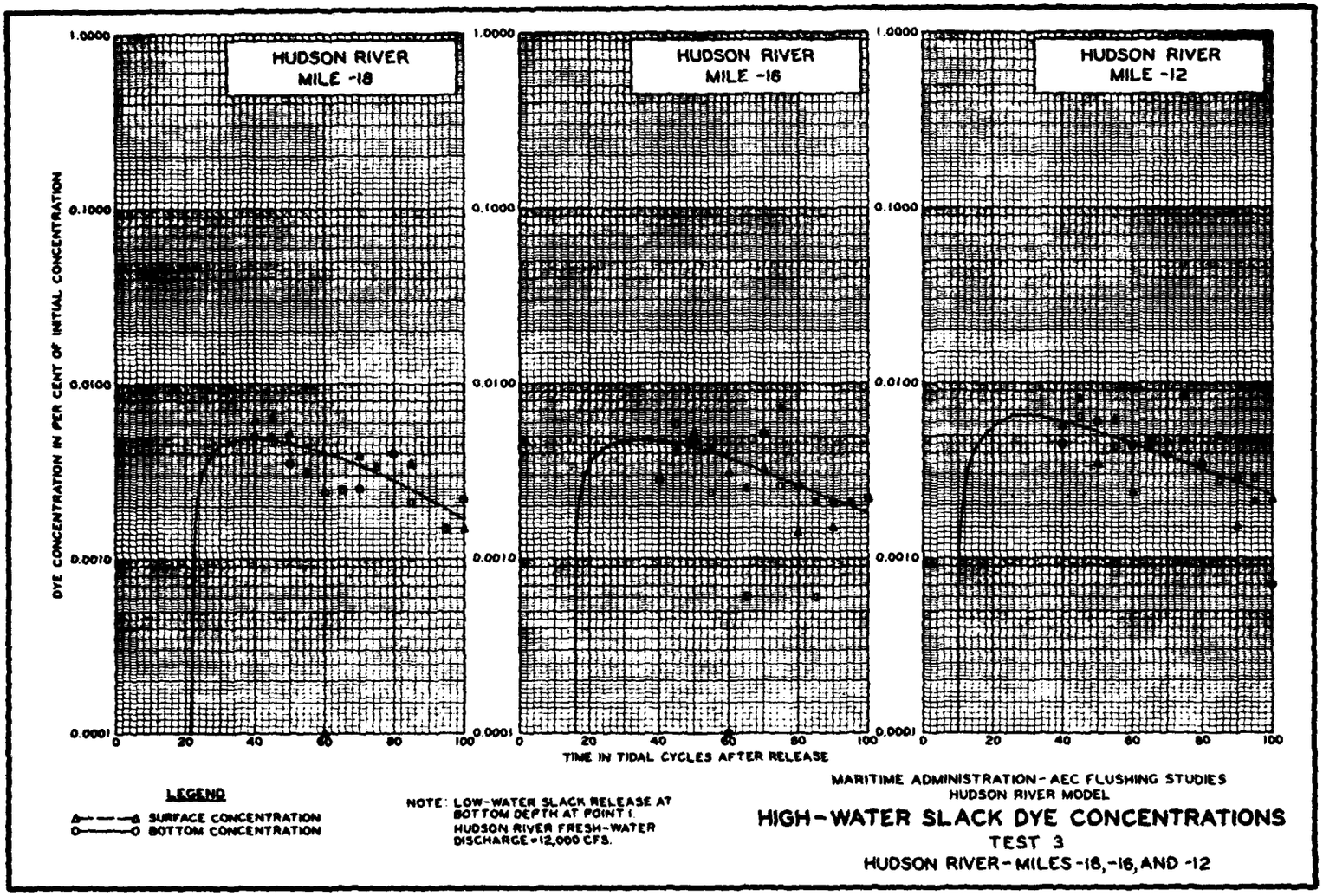
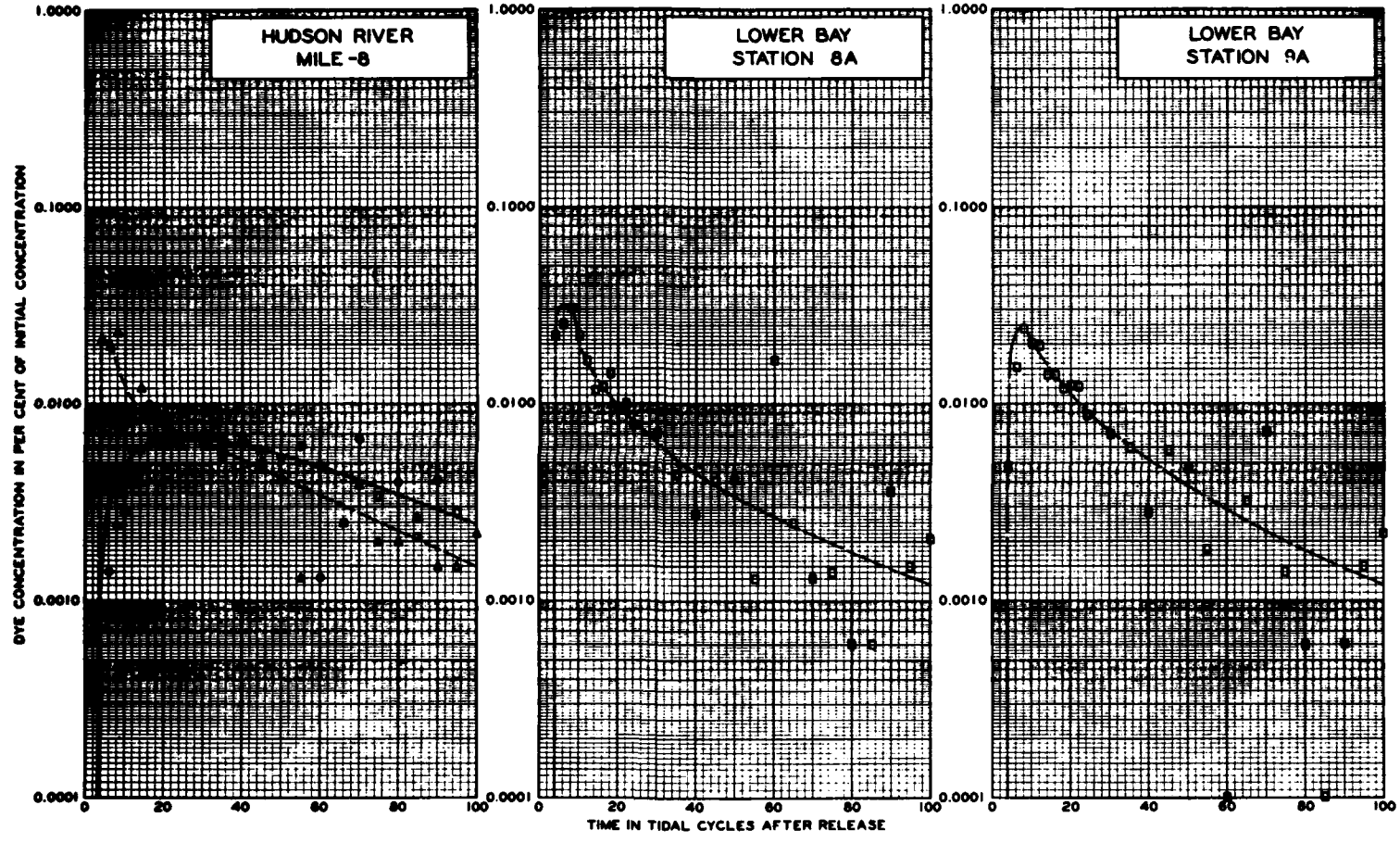

HUDSON RIVER
MILE -18
HUDSON RIVER
MILE -16
HUDSON RIVER
MILE -12
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT 1. HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 3
HUDSON RIVER - MILES -18, -16, AND -12

PLATE 39

PLATE 40



LEGEND

△——△ SURFACE CONCENTRATION
○——○ BOTTOM CONCENTRATION
□——□ MIDDEPTH CONCENTRATION

NOTE: LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT 1. HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 3

HUDSON RIVER-MILE -8, LOWER BAY-STATIONS 8A AND 9A

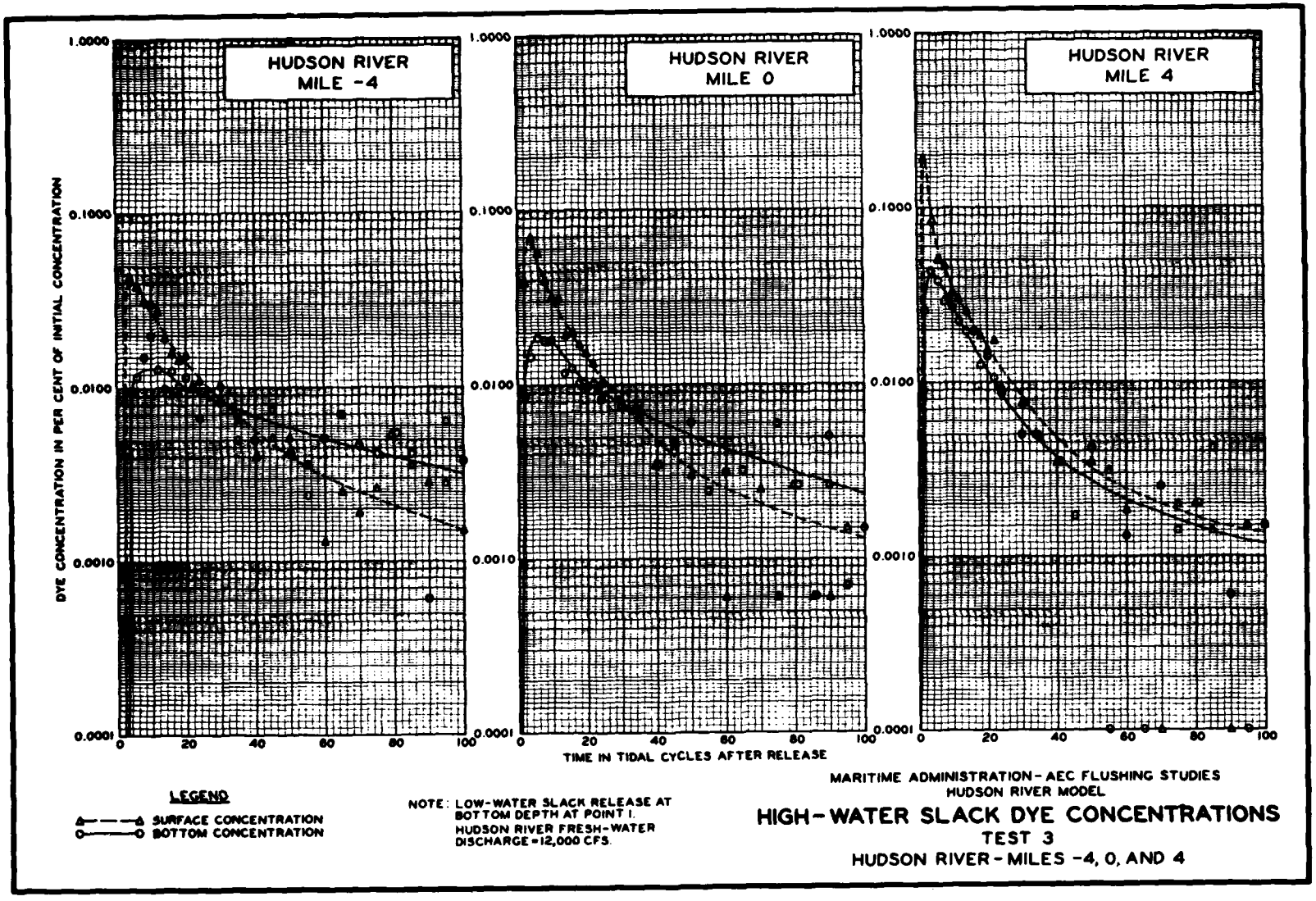
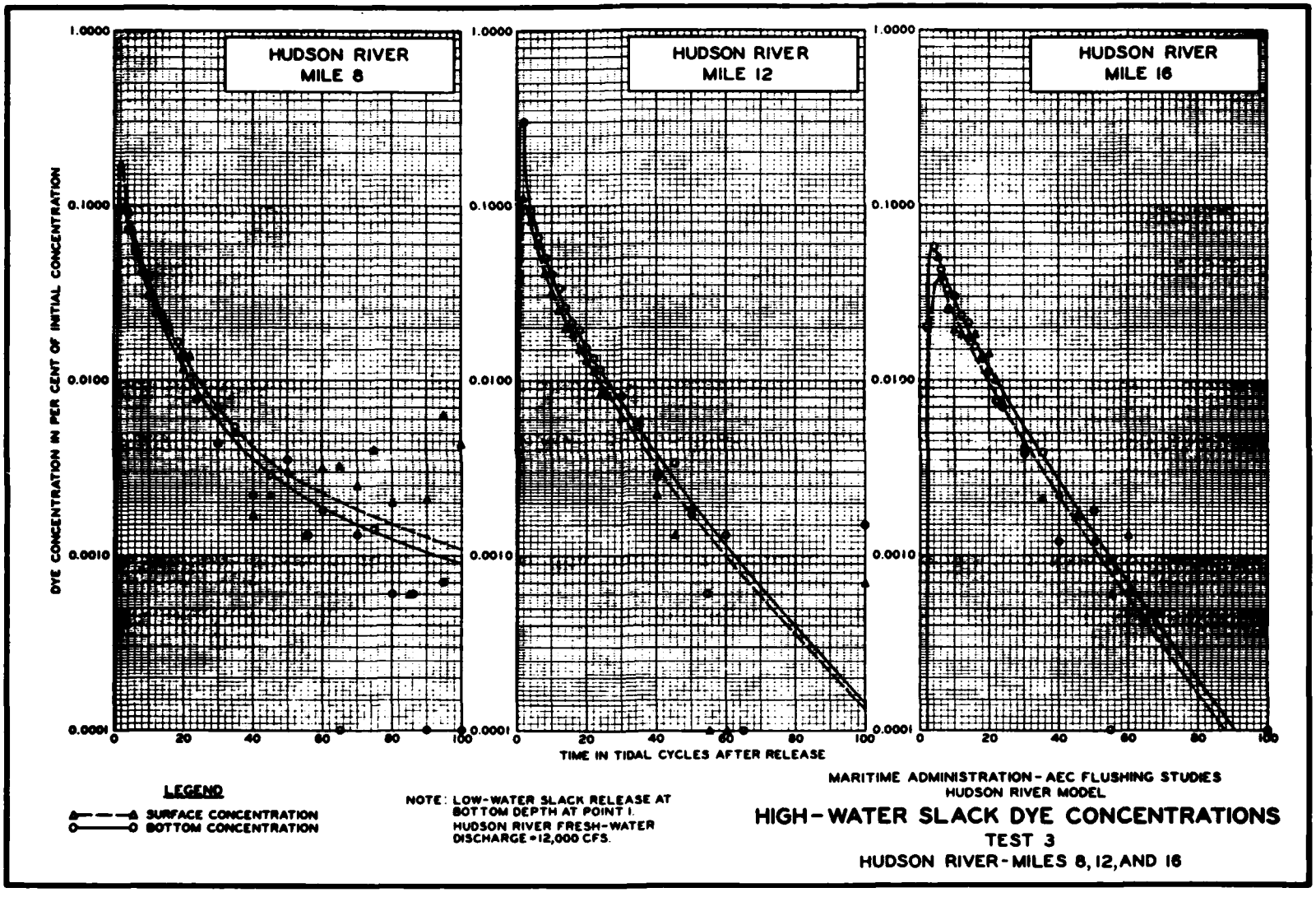
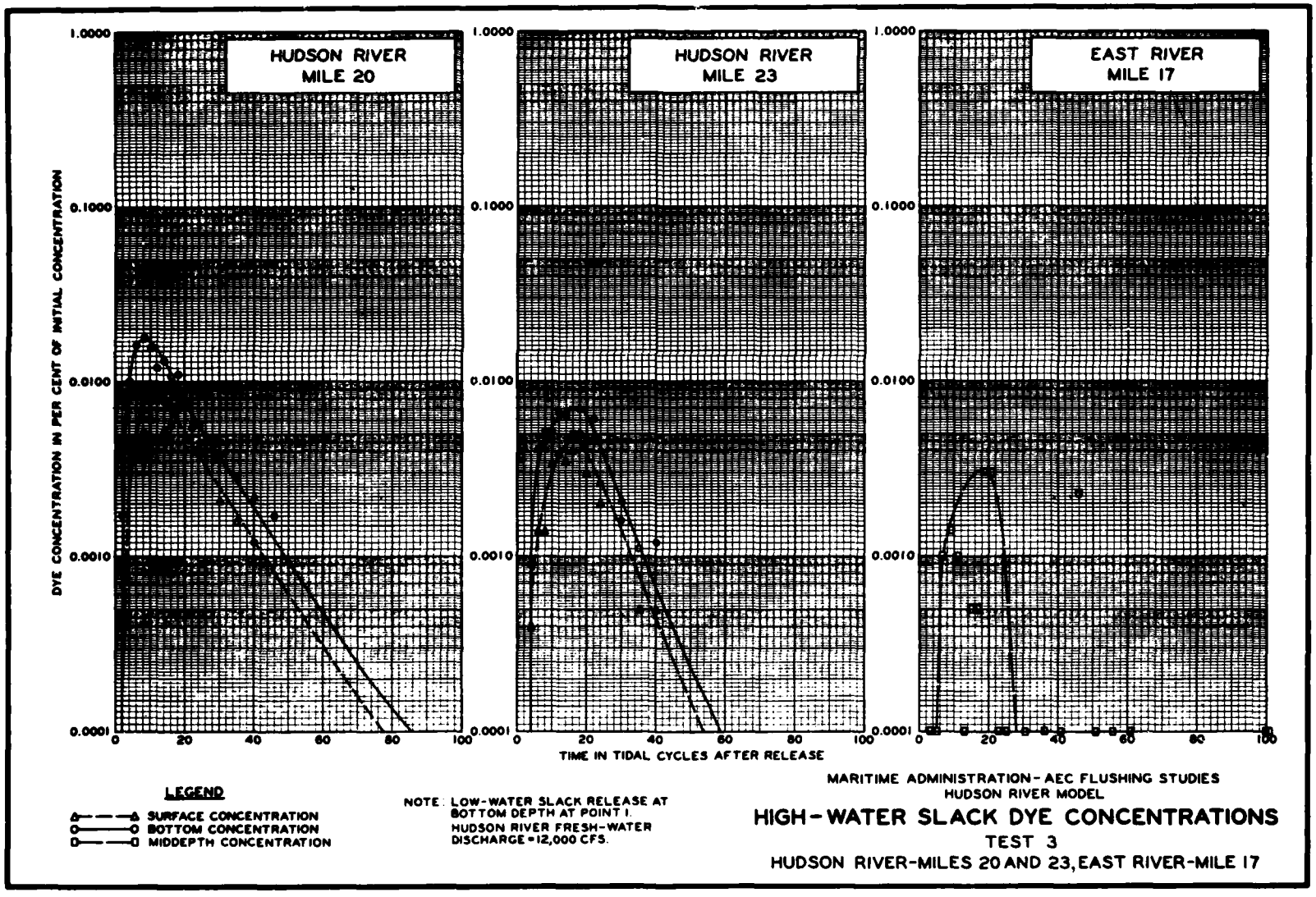

HUDSON RIVER
MILE -4
HUDSON RIVER
MILE 0
HUDSON RIVER
MILE 4
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT 1.
HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 3
HUDSON RIVER - MILES -4, 0, AND 4

PLATE 41

PLATE 42


HUDSON RIVER
MILE 8
HUDSON RIVER
MILE 12
HUDSON RIVER
MILE 16
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT I. HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 3
HUDSON RIVER - MILES 8, 12, AND 16



MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

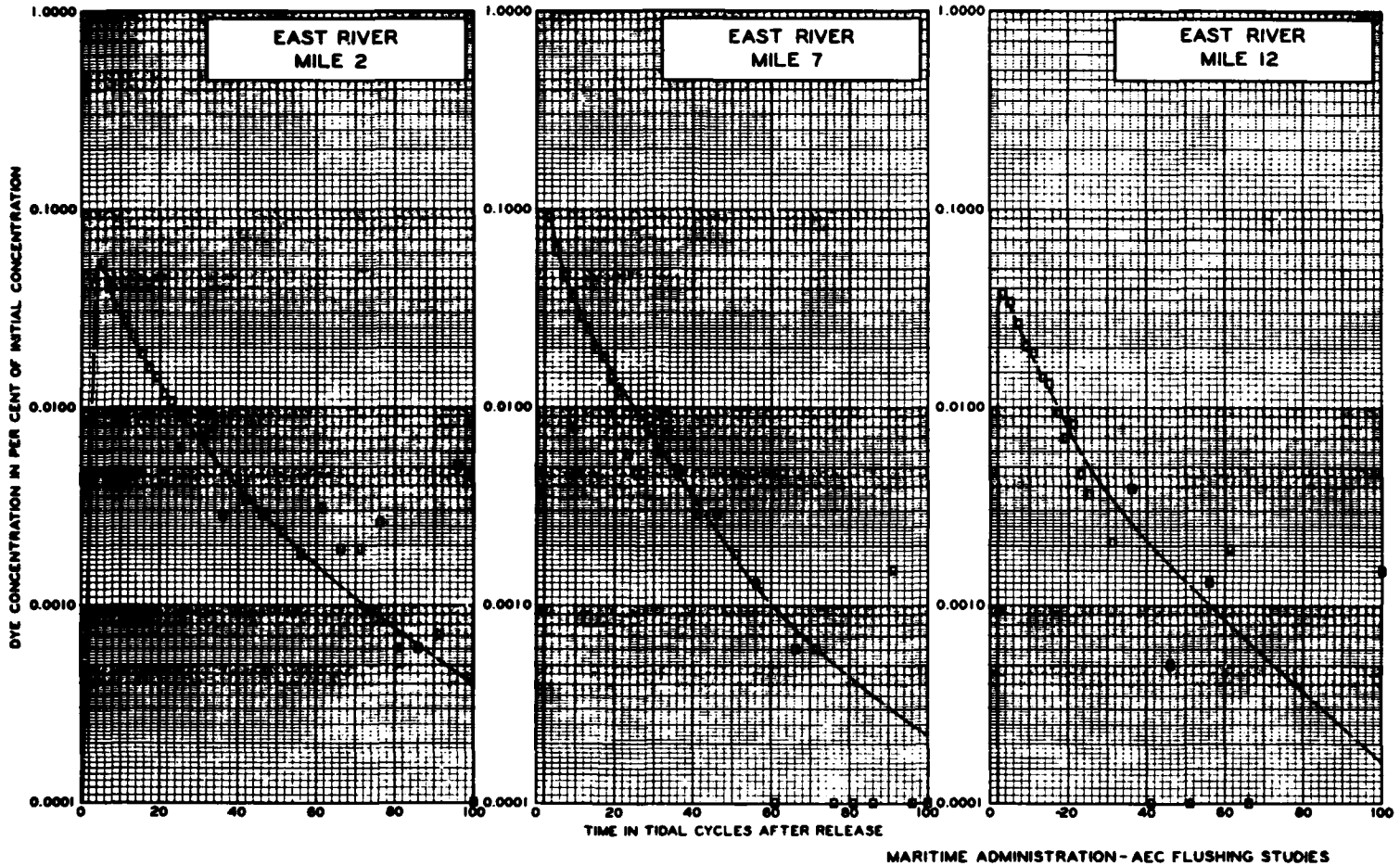
HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 3

HUDSON RIVER-MILES 20 AND 23, EAST RIVER-MILE 17

PLATE 43

PLATE 44


EAST RIVER
MILE 2
EAST RIVER
MILE 7
EAST RIVER
MILE 12
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
-20
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT 1. HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 3
EAST RIVER - MILES 2, 7, AND 12

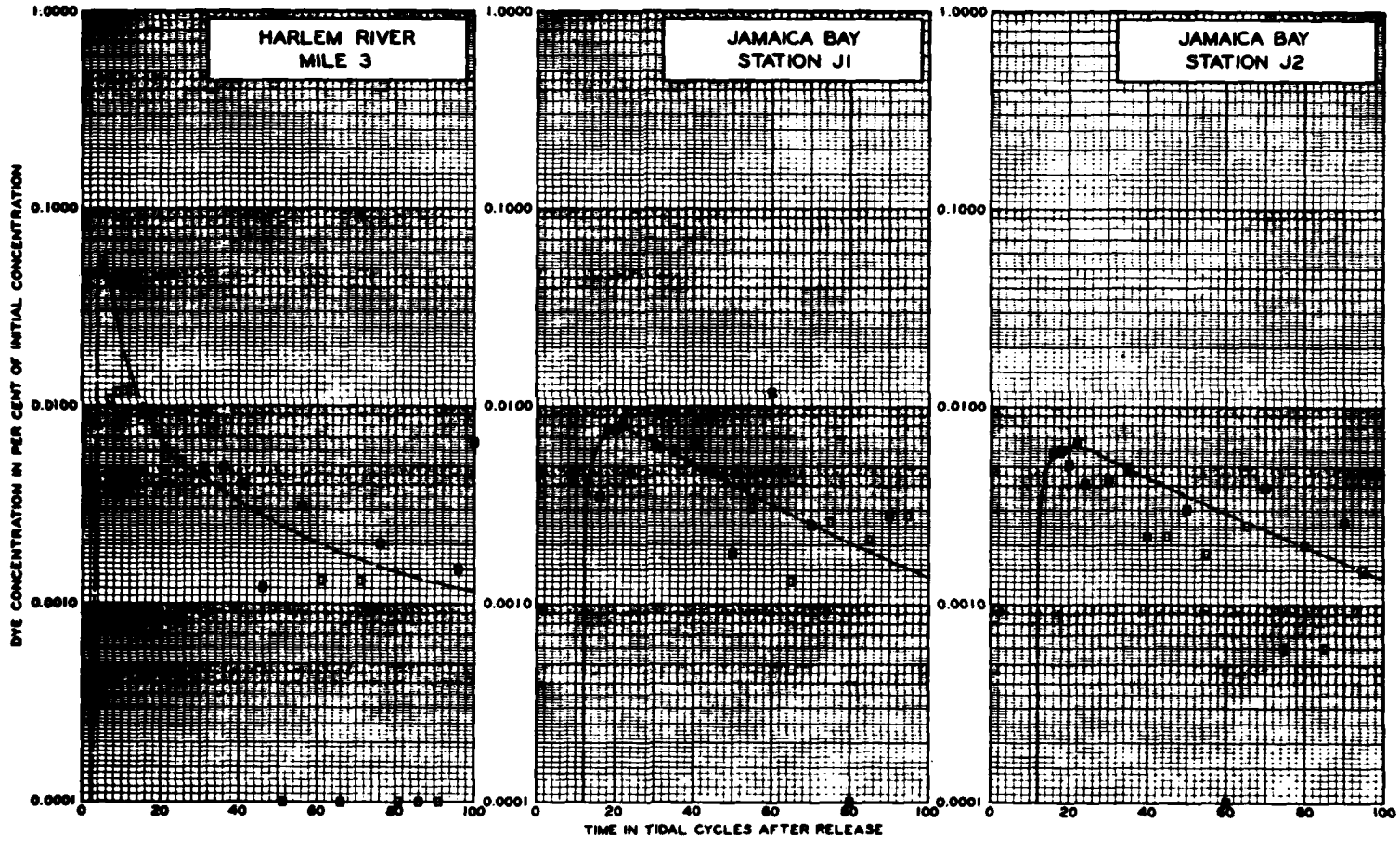
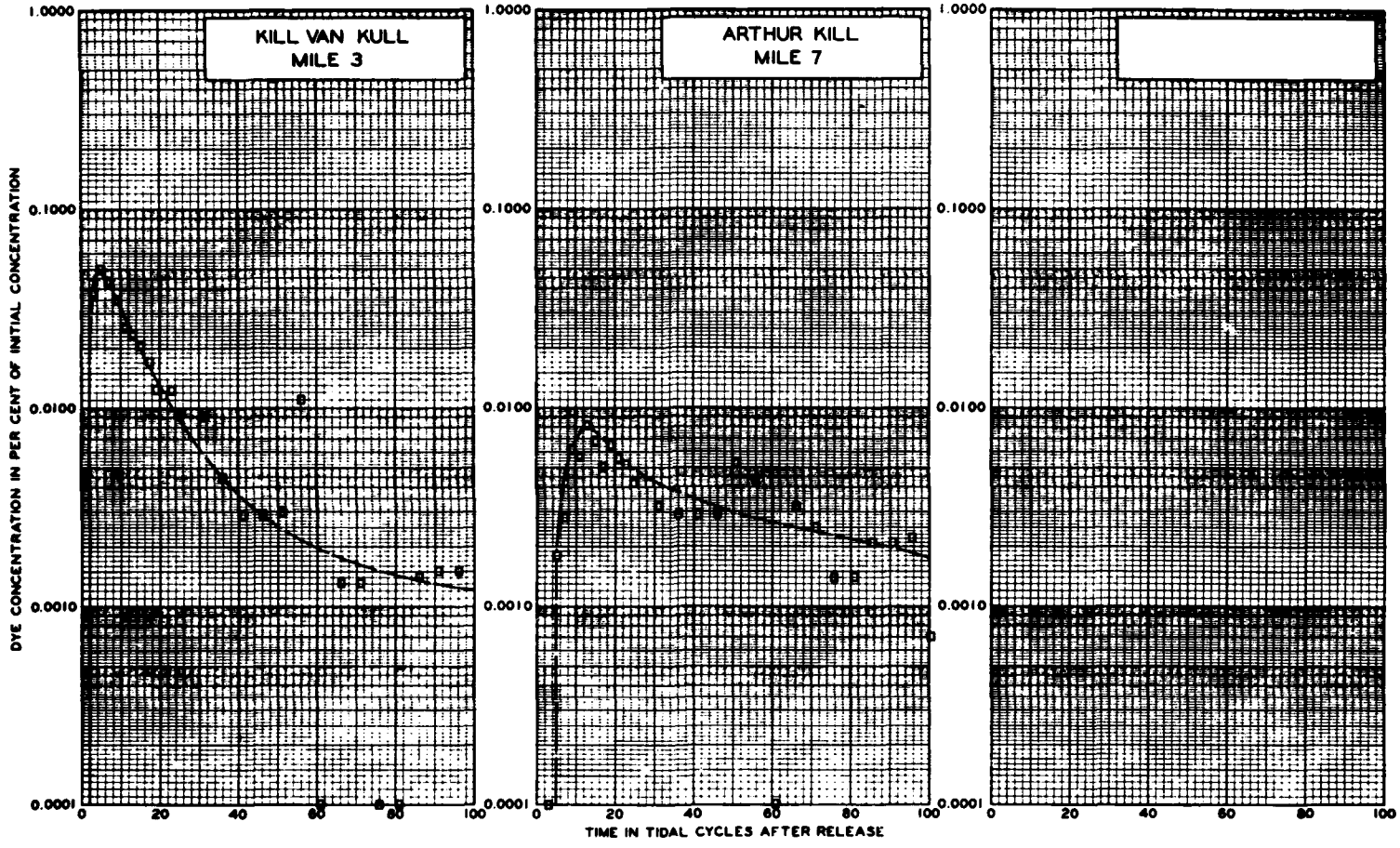

HARLEM RIVER
MILE 3
JAMAICA BAY
STATION J1
JAMAICA BAY
STATION J2
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT I
HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 3
HARLEM RIVER-MILE 3, JAMAICA BAY-STATIONS J1 AND J2

PLATE 45

PLATE 46



LEGEND

D—— ——D MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT 1.
HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 3

KILL VAN KULL - MILE 3 AND ARTHUR KILL - MILE 7

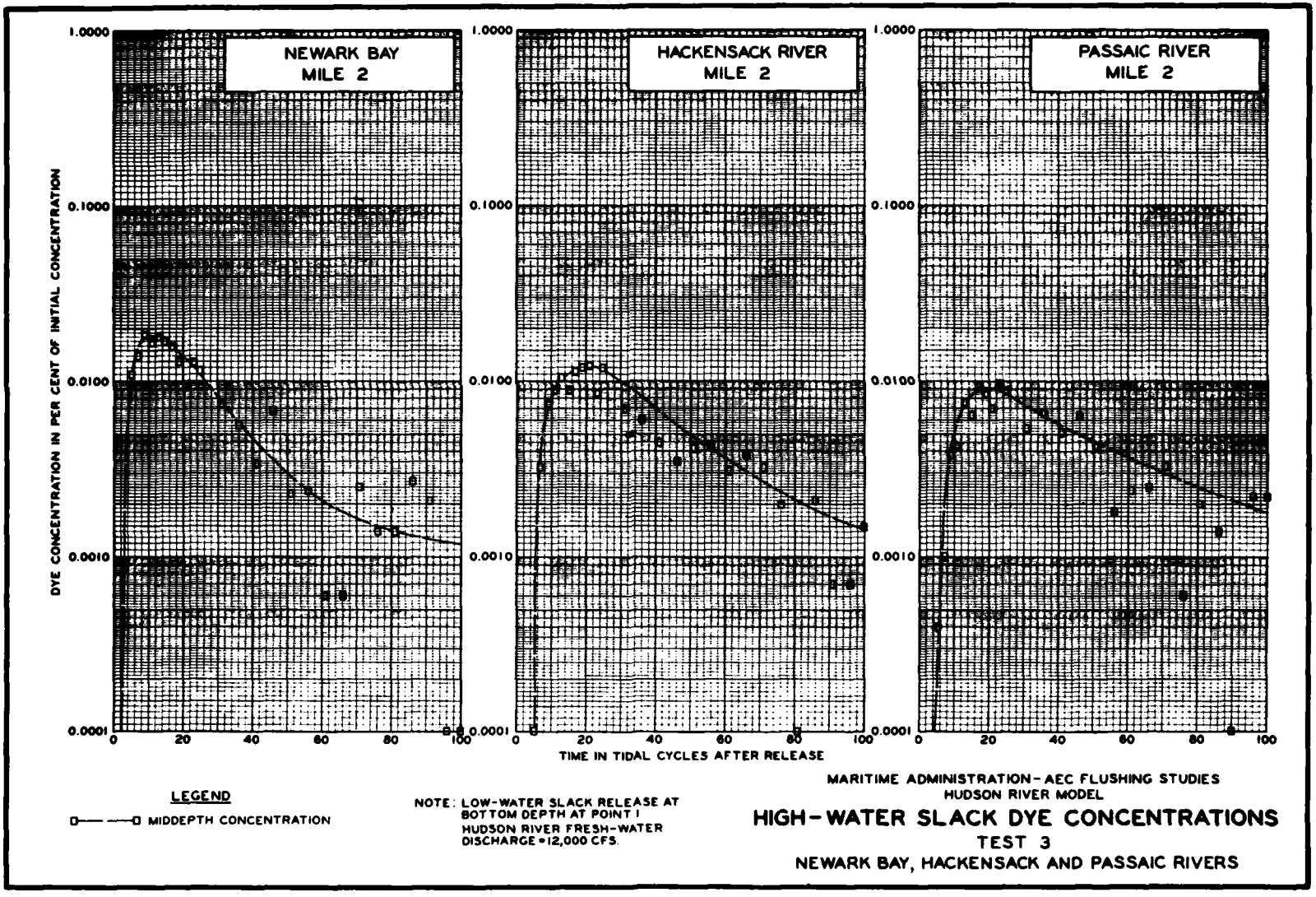
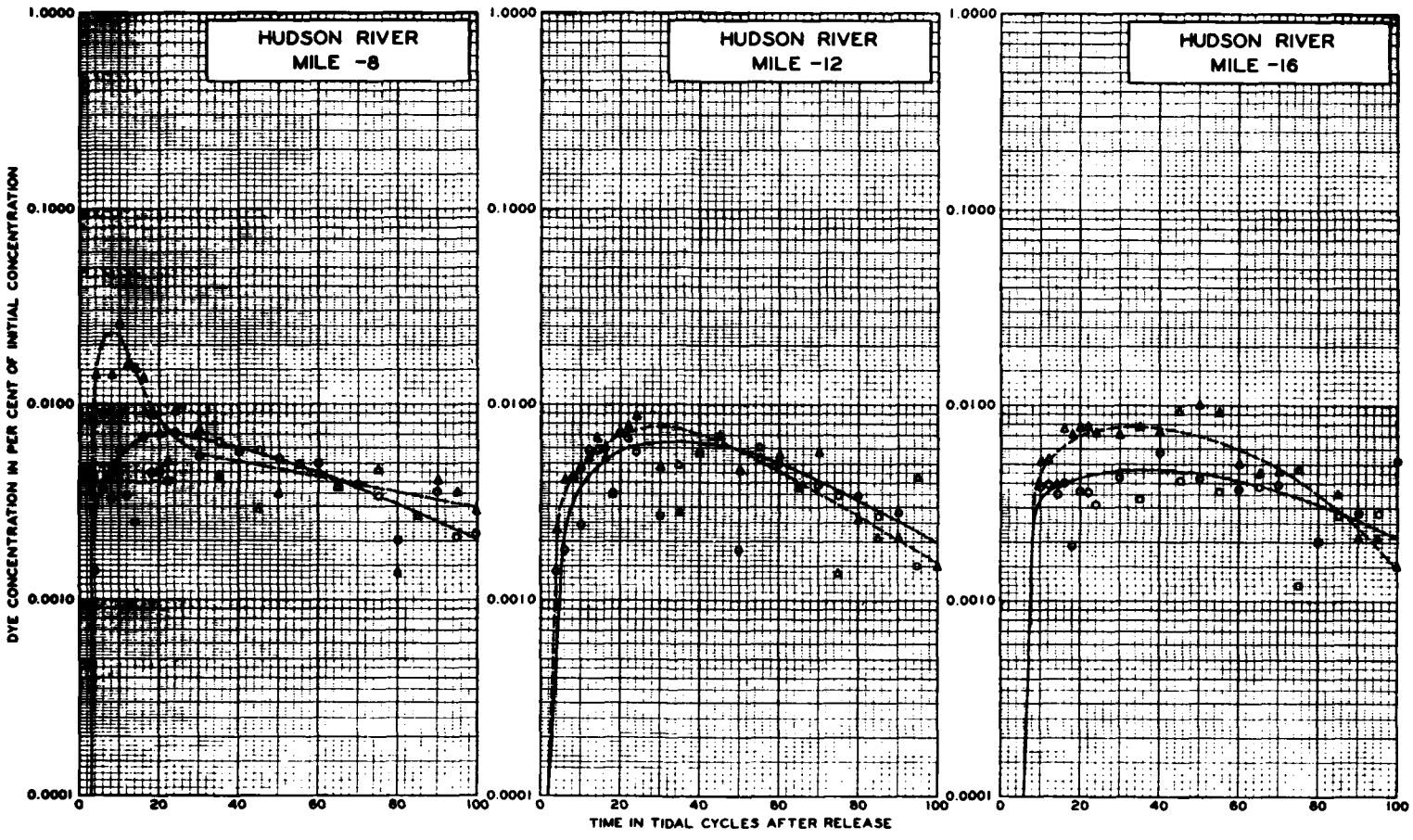

NEWARK BAY
MILE 2
HACKENSACK RIVER
MILE 2
PASSAIC RIVER
MILE 2
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT BOTTOM DEPTH AT POINT 1
HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 3
NEWARK BAY, HACKENSACK AND PASSAIC RIVERS

PLATE 47

PLATE 48



MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 4
HUDSON RIVER-MILES -8, -12, AND -16

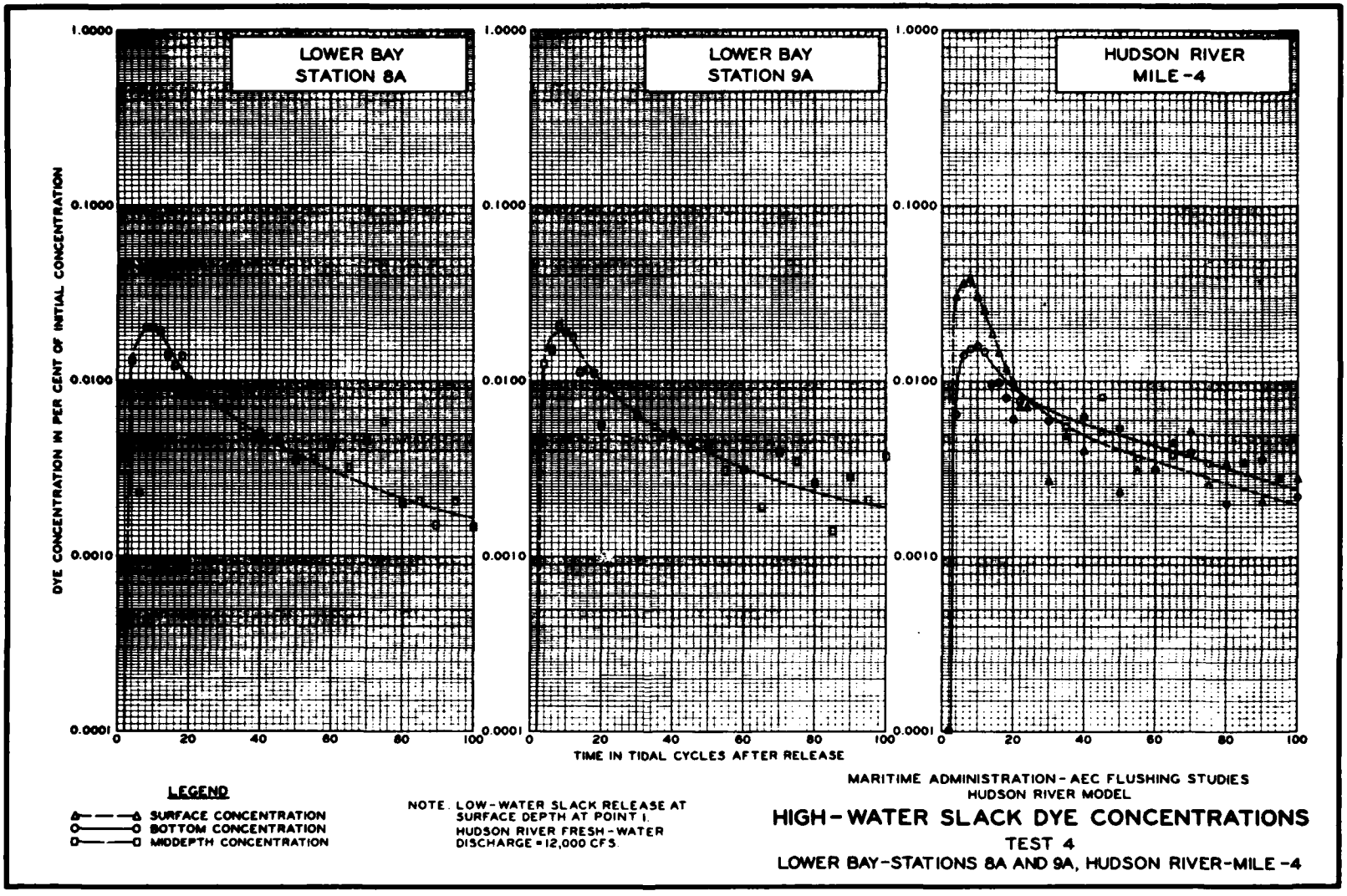
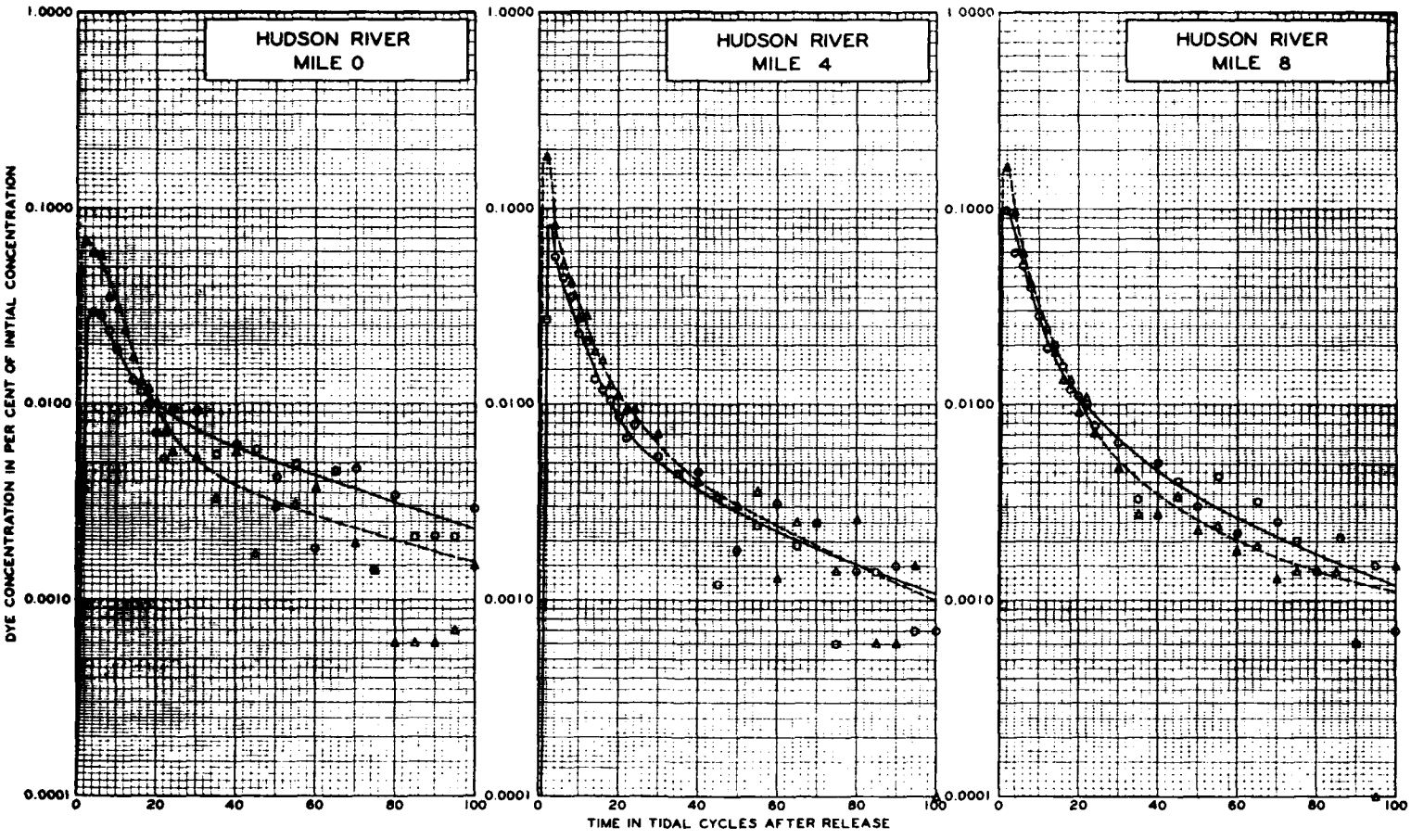

LOWER BAY
STATION 8A
LOWER BAY
STATION 9A
HUDSON RIVER
MILE -4
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
MIDDEPTH CONCENTRATION
NOTE. LOW-WATER SLACK RELEASE AT SURFACE DEPTH AT POINT I.
HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 4
LOWER BAY-STATIONS 8A AND 9A, HUDSON RIVER-MILE -4

PLATE 49

PLATE 50



MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 4

HUDSON RIVER-MILES 0, 4, AND 8

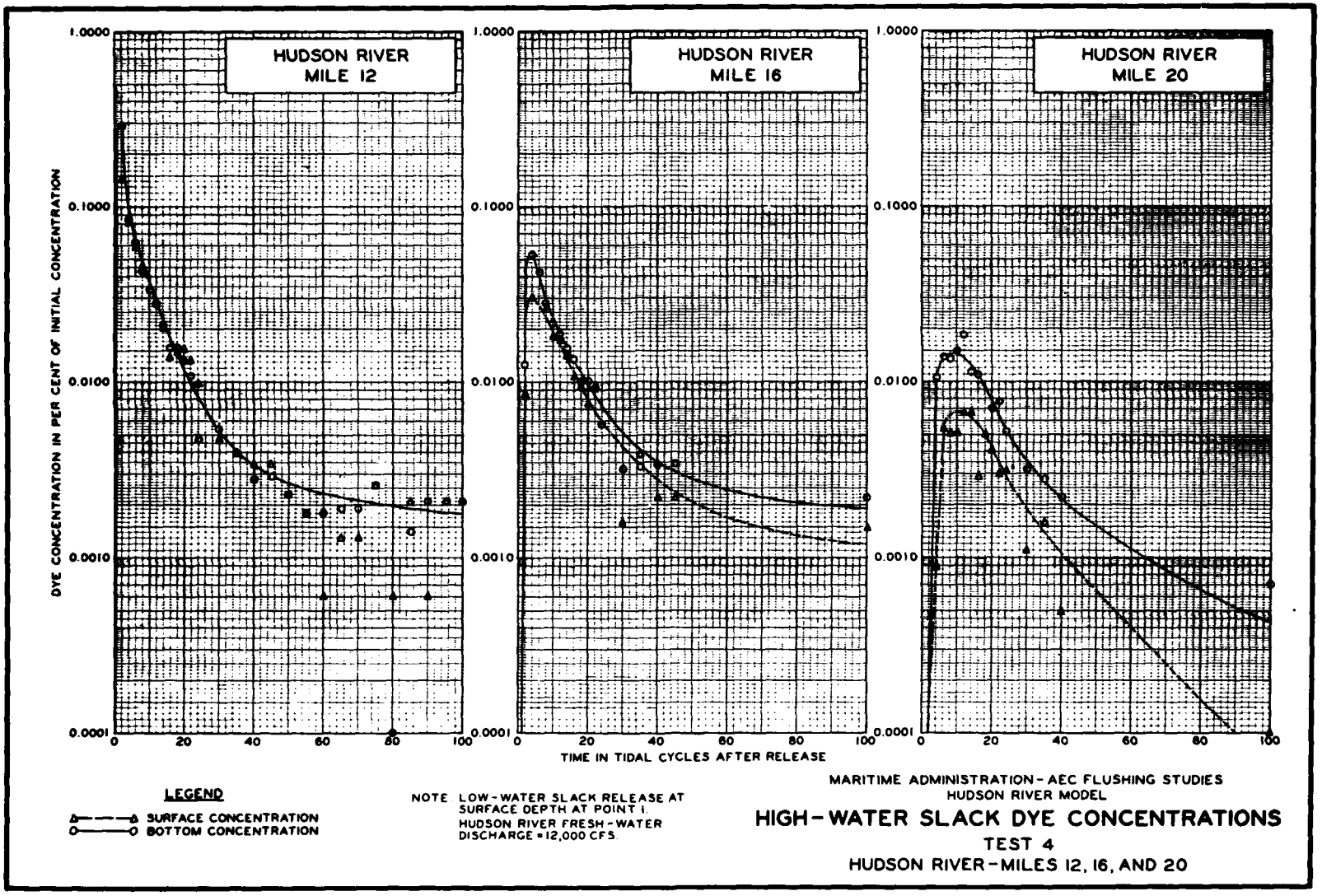
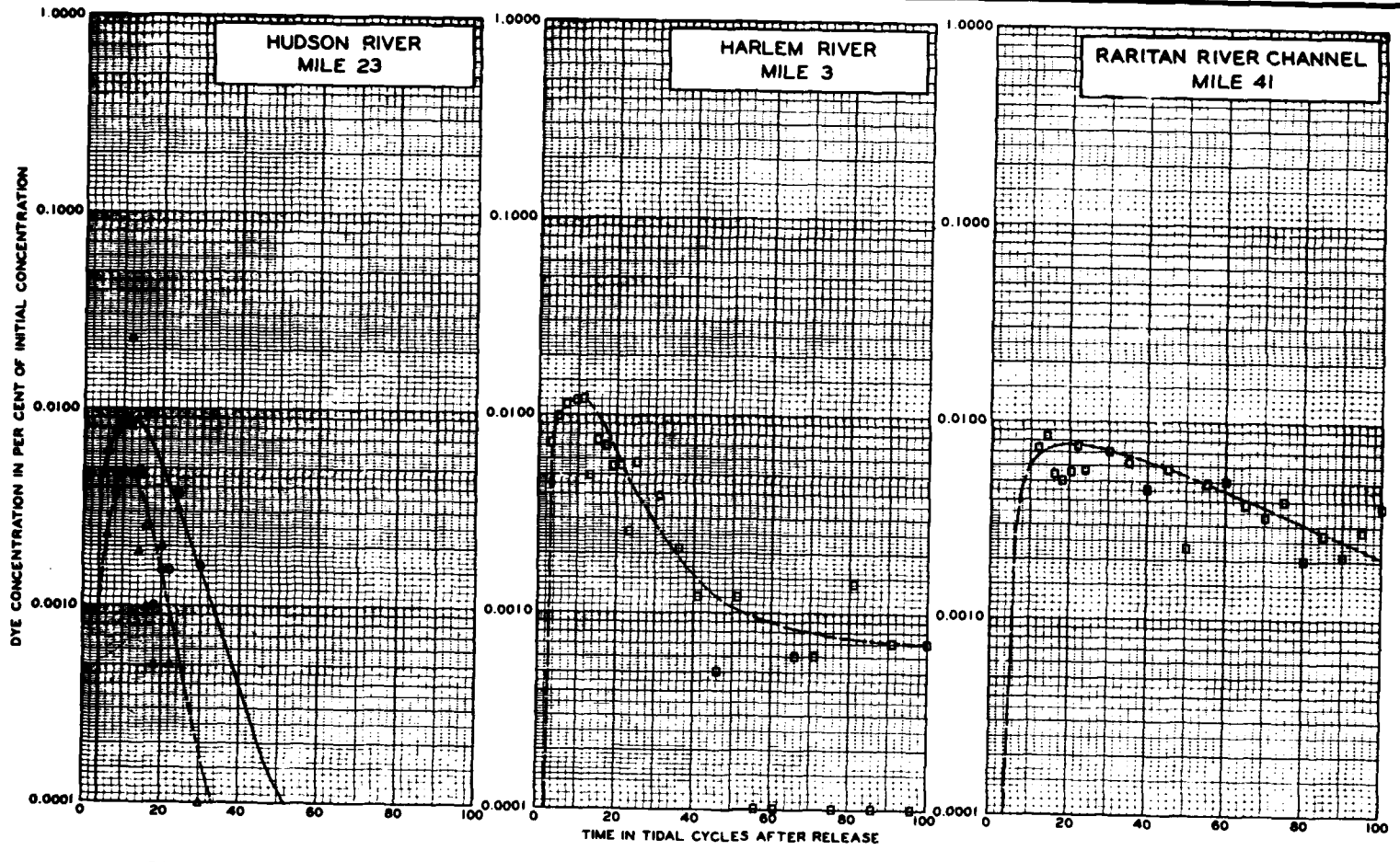

HUDSON RIVER
MILE 12
HUDSON RIVER
MILE 16
HUDSON RIVER
MILE 20
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT SURFACE DEPTH AT POINT I.
HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 4
HUDSON RIVER - MILES 12, 16, AND 20

PLATE 51

PLATE 52



HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 4

HUDSON AND HARLEM RIVERS AND RARITAN RIVER CHANNEL

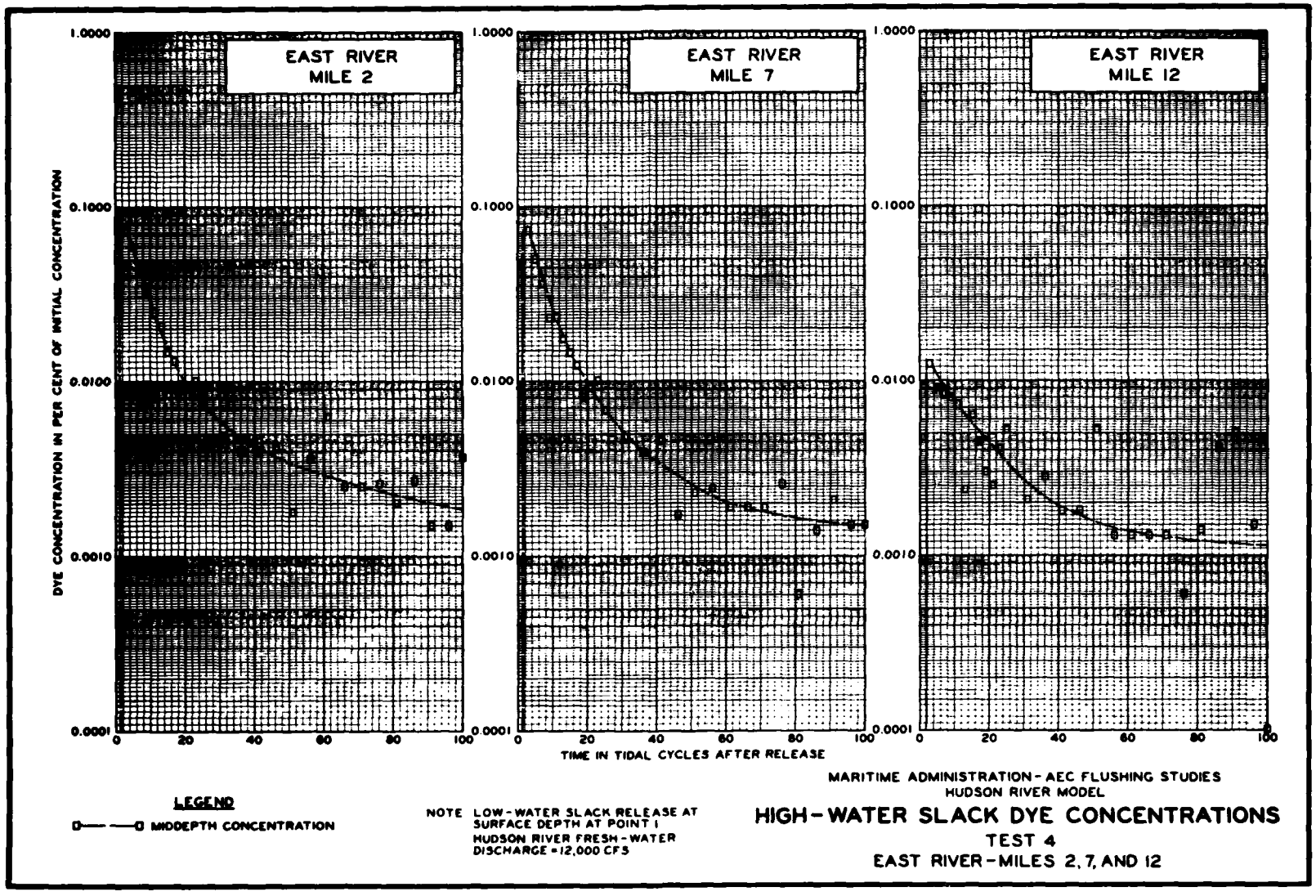
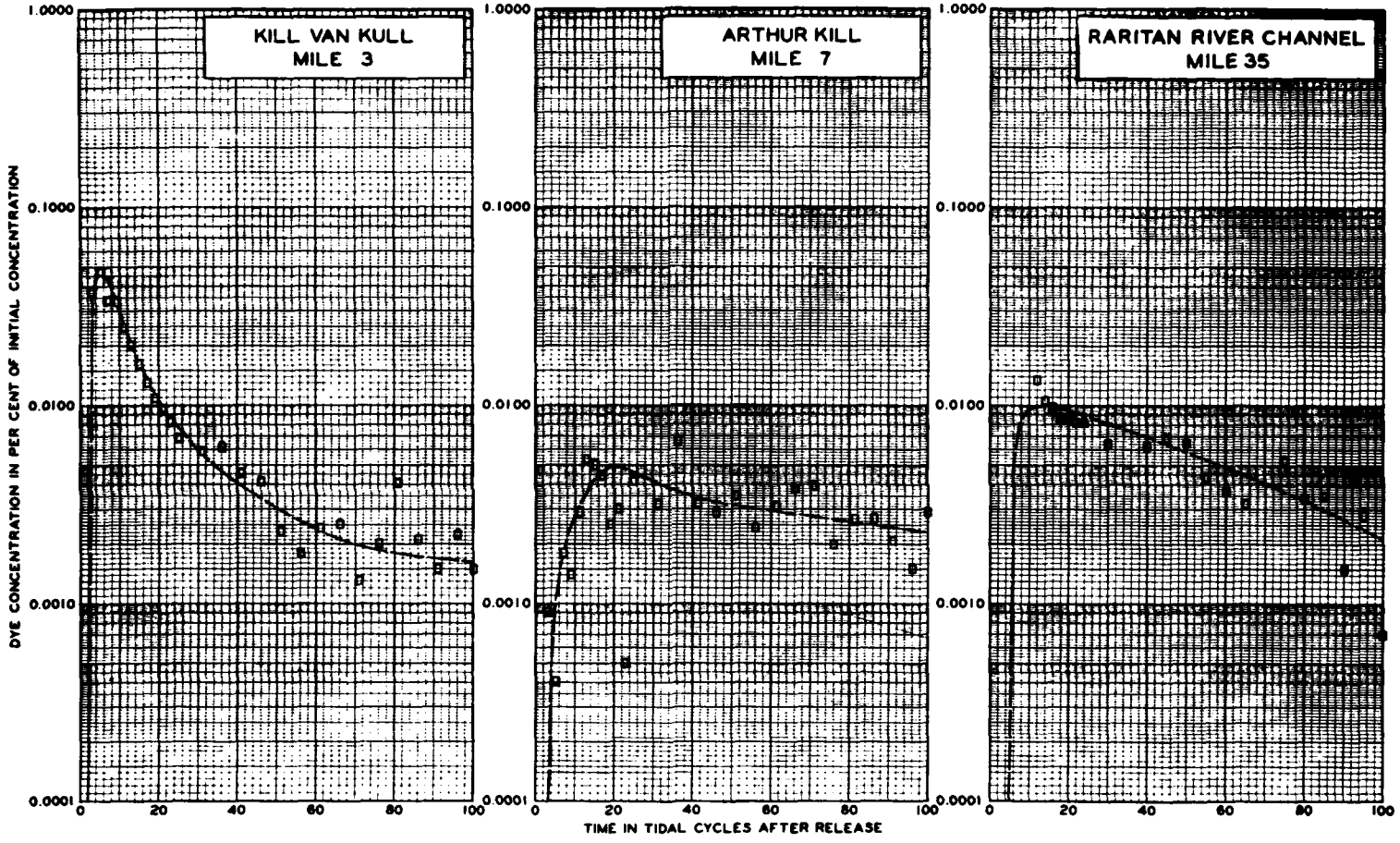

EAST RIVER
MILE 2
EAST RIVER
MILE 7
EAST RIVER
MILE 12
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT SURFACE DEPTH AT POINT 1
HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 4
EAST RIVER - MILES 2, 7, AND 12

PLATE 53

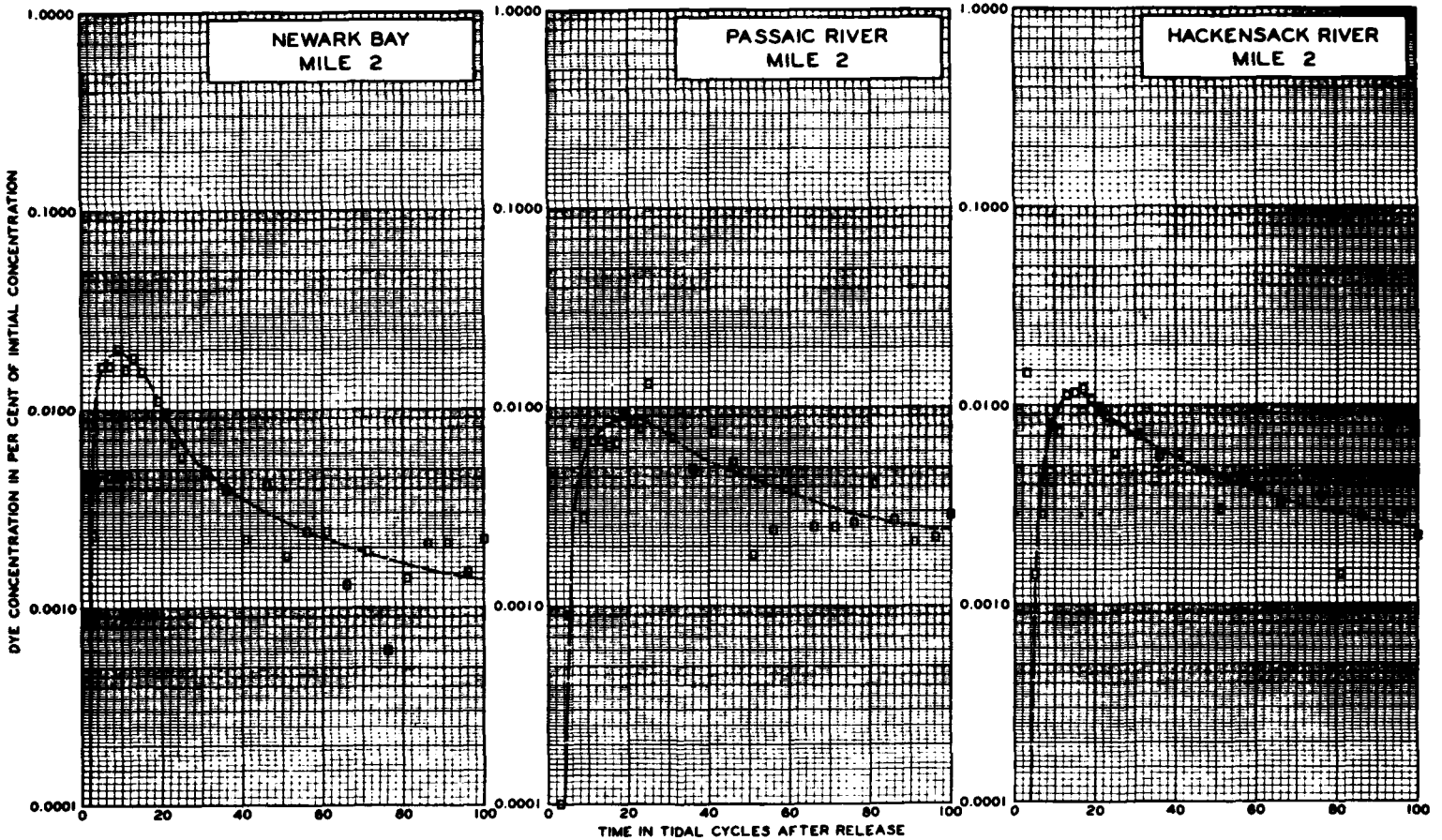
PLATE 54



HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 4

KILL VAN KULL, ARTHUR KILL, AND RARITAN RIVER CHANNEL



LEGEND

o——o MIDDEPTH CONCENTRATION

NOTE: LOW-WATER SLACK RELEASE AT SURFACE DEPTH AT POINT 1. HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

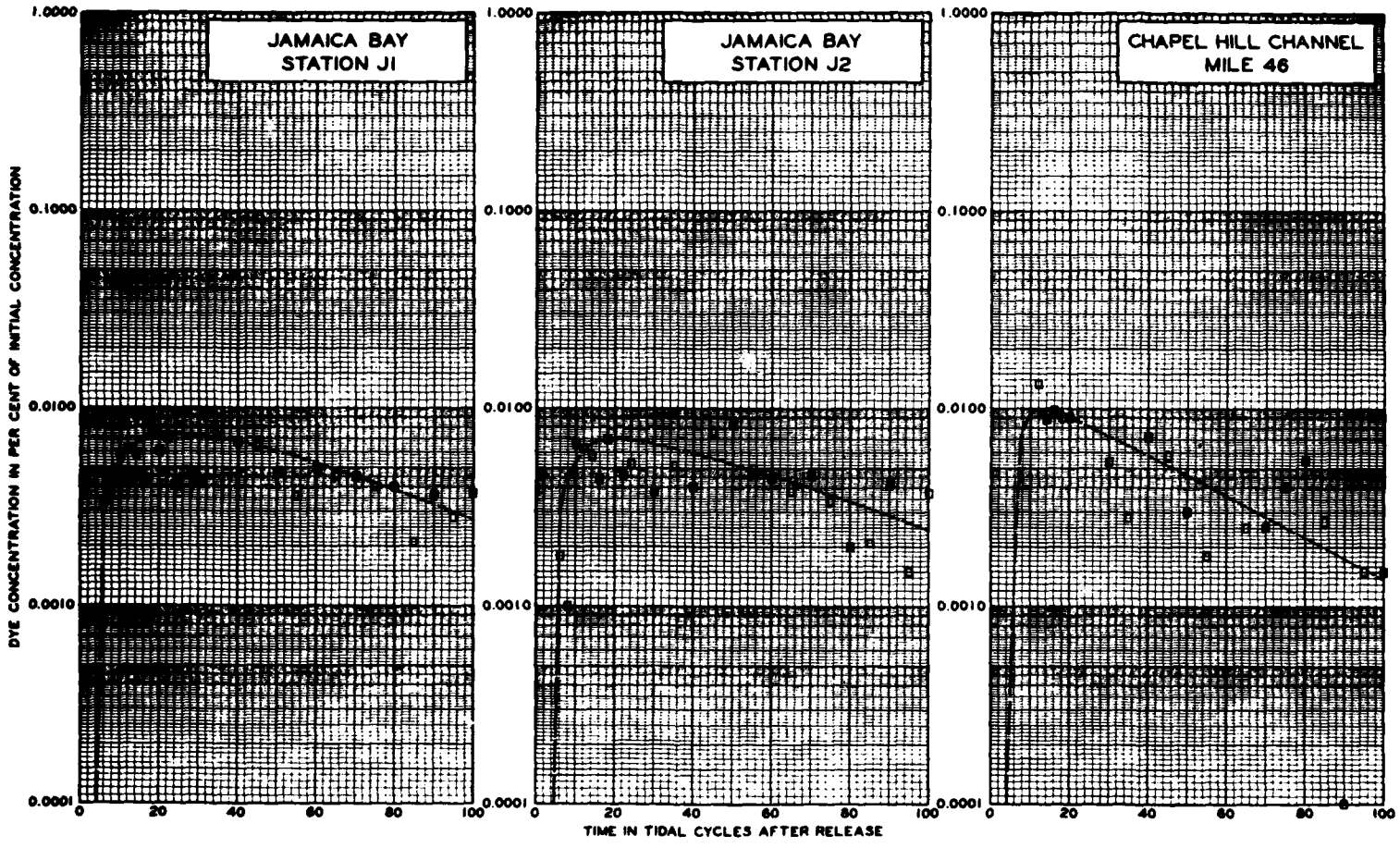
HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 4

NEWARK BAY, PASSAIC AND HACKENSACK RIVERS

PLATE 55

PLATE 56


JAMAICA BAY
STATION J1
JAMAICA BAY
STATION J2
CHAPEL HILL CHANNEL
MILE 46
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE. LOW-WATER SLACK RELEASE AT SURFACE DEPTH AT POINT I.
HUDSON RIVER FRESH-WATER DISCHARGE = 12,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 4
JAMAICA BAY AND CHAPEL HILL CHANNEL

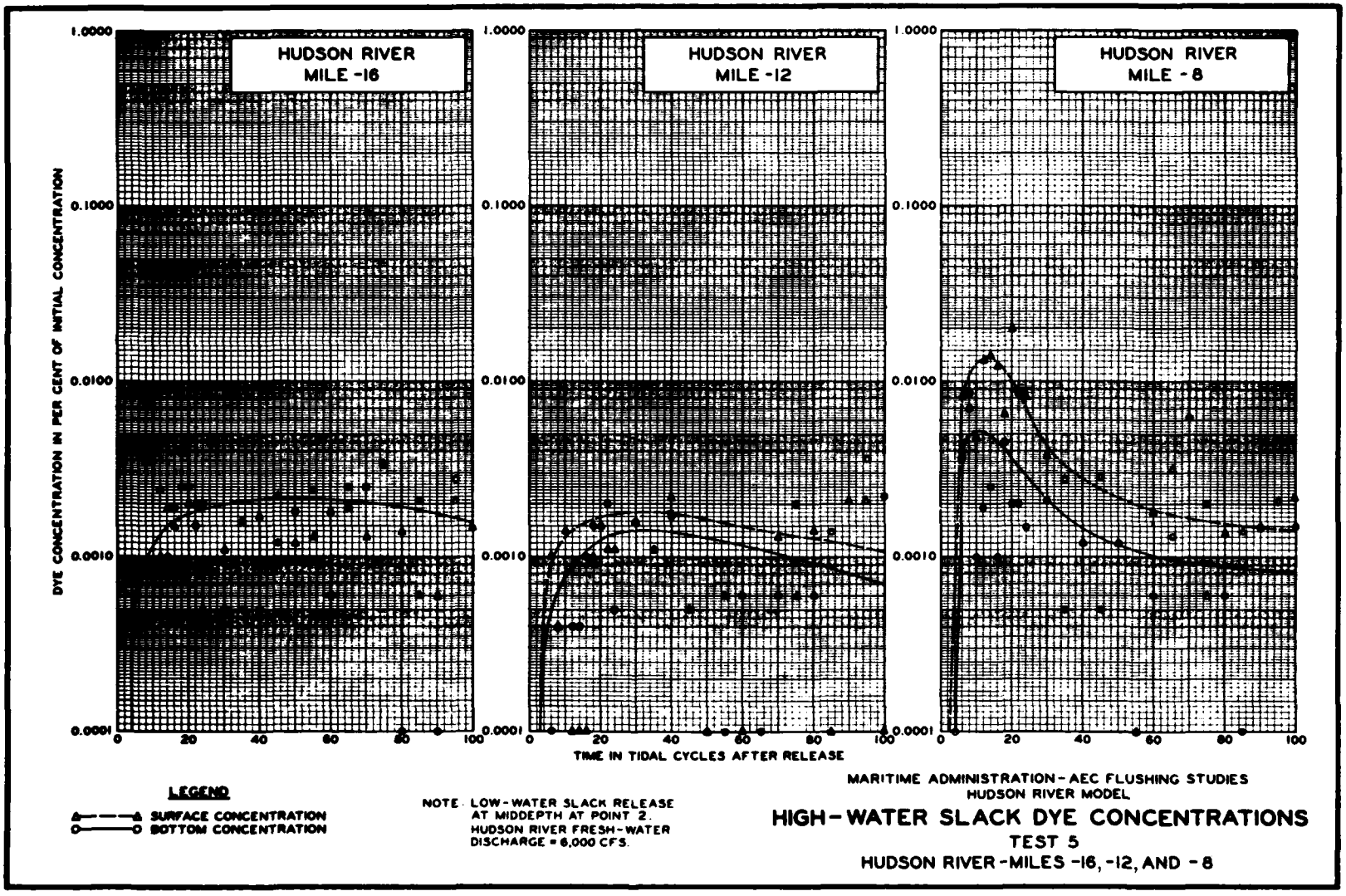
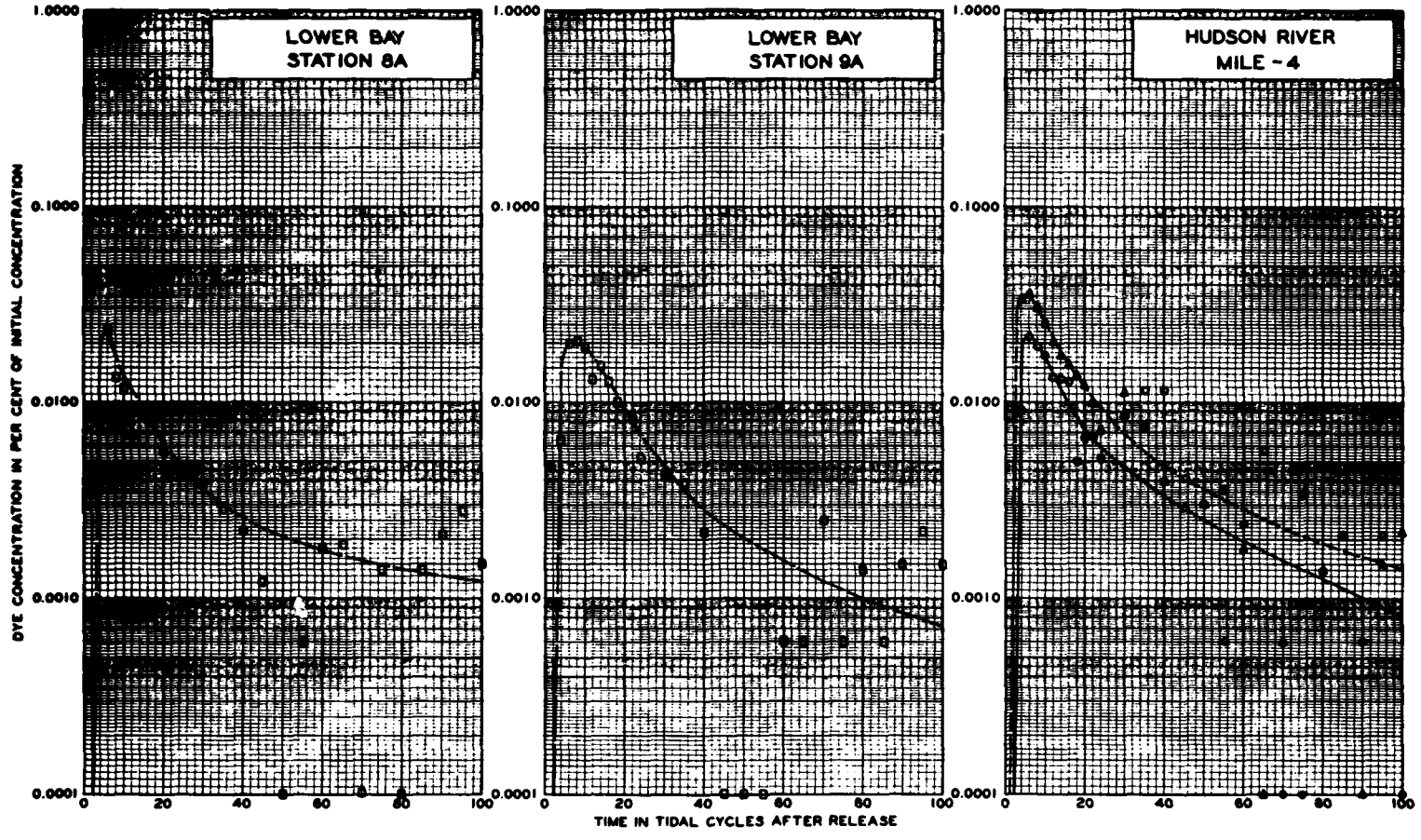

HUDSON RIVER
MILE -16
HUDSON RIVER
MILE -12
HUDSON RIVER
MILE - 8
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 2. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 5
HUDSON RIVER - MILES -16, -12, AND - 8

PLATE 57

PLATE 58



MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 5

LOWER BAY-STATIONS 8A AND 9A, HUDSON RIVER-MILE-4

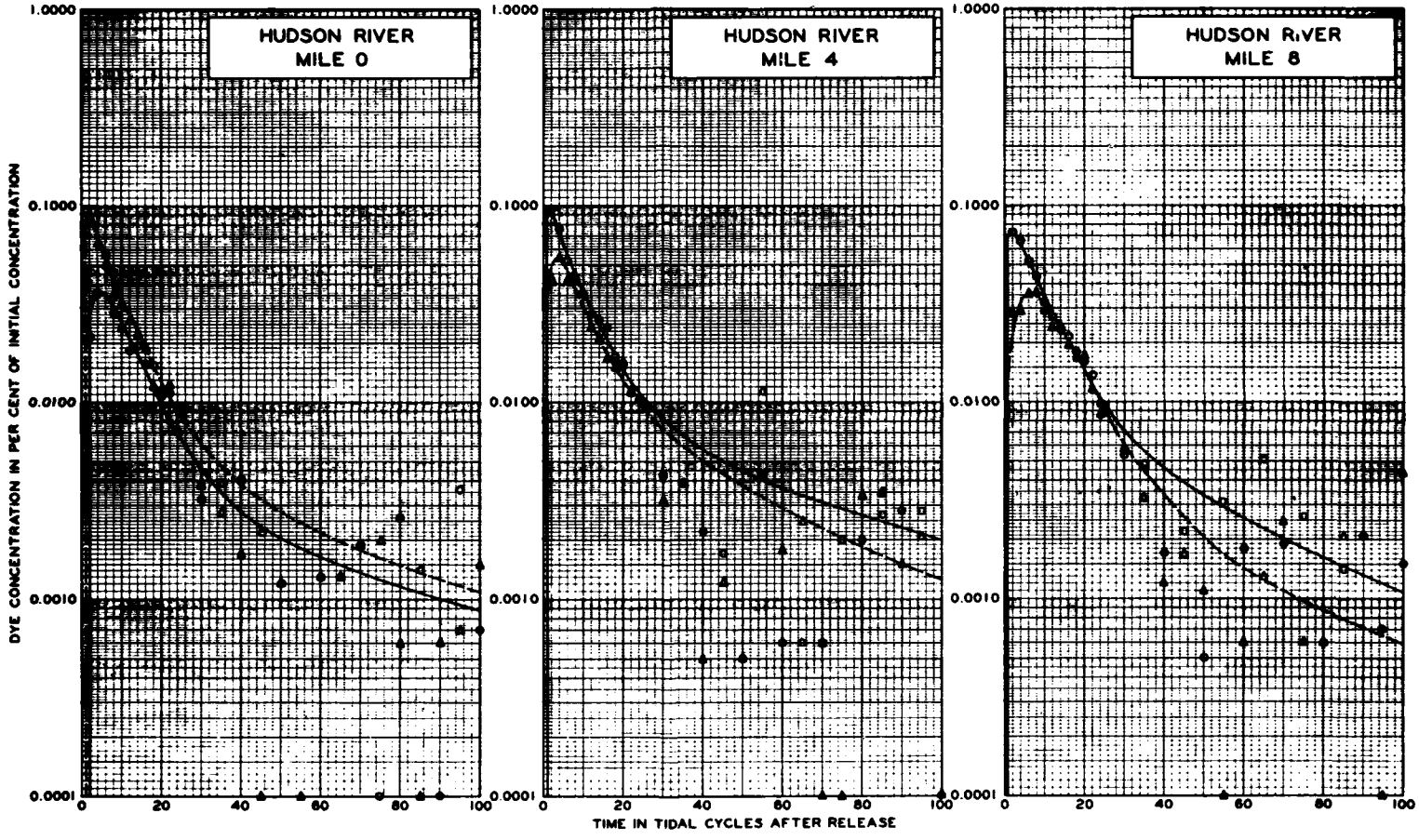
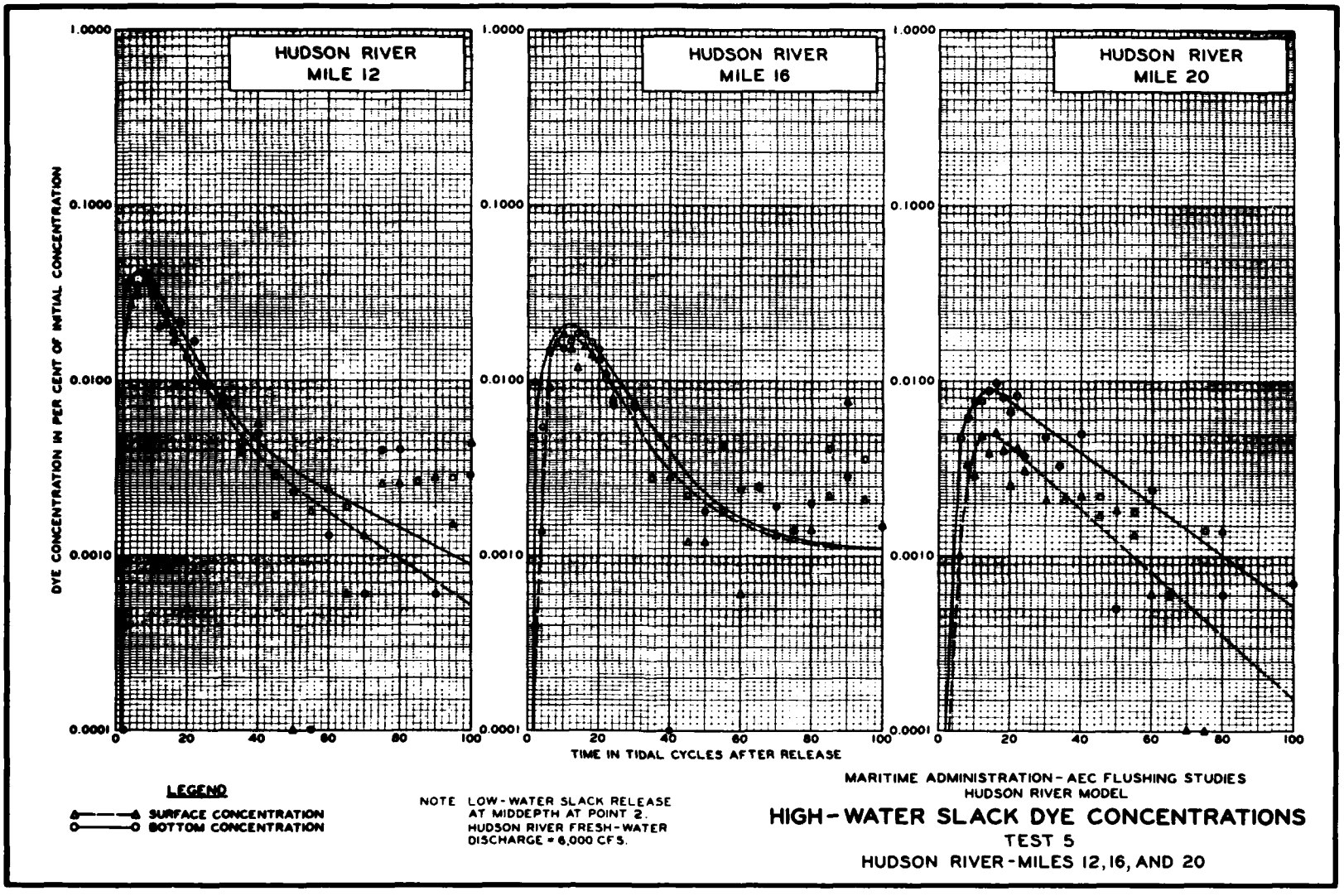

HUDSON RIVER
MILE 0
HUDSON RIVER
MILE 4
HUDSON RIVER
MILE 8
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 2. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 5
HUDSON RIVER - MILES 0, 4, AND 8

PLATE 59

PLATE 60


HUDSON RIVER
MILE 12
HUDSON RIVER
MILE 16
HUDSON RIVER
MILE 20
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 2. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 5
HUDSON RIVER - MILES 12, 16, AND 20

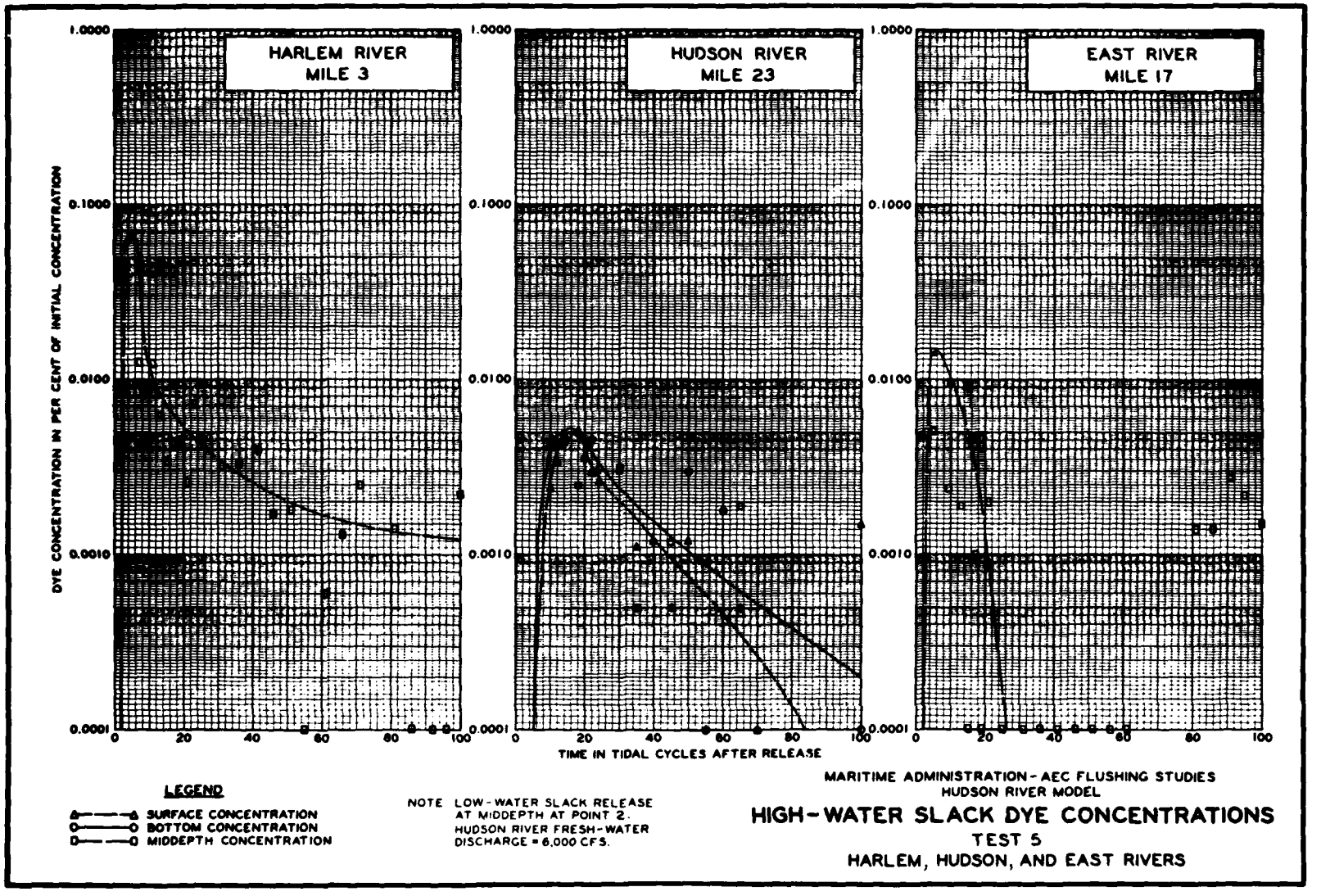
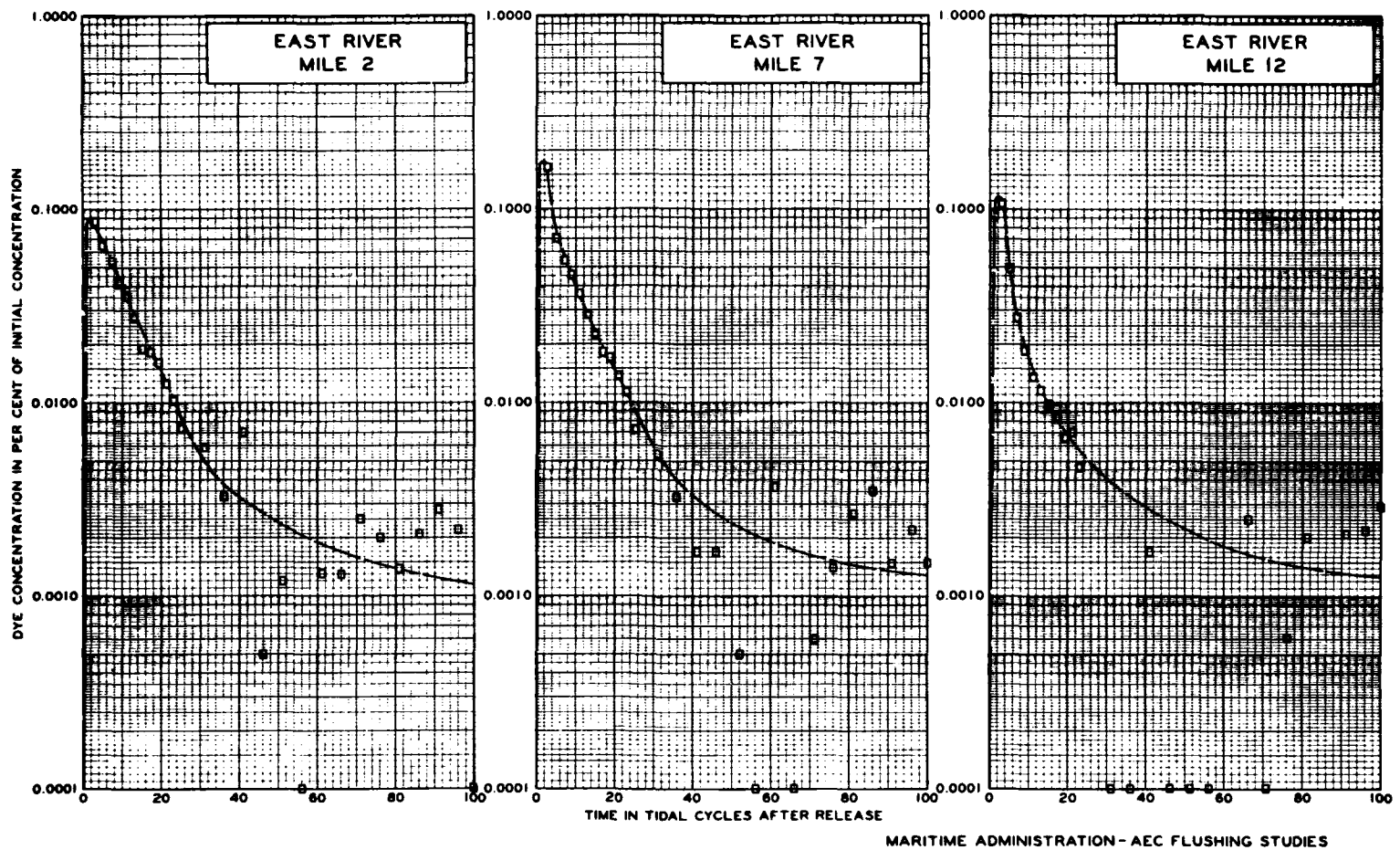

HARLEM RIVER
MILE 3
HUDSON RIVER
MILE 23
EAST RIVER
MILE 17
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 2. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 5
HARLEM, HUDSON, AND EAST RIVERS

PLATE 61

PLATE 62



LEGEND

o——o MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 2. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 5

EAST RIVER - MILES 2, 7, AND 12

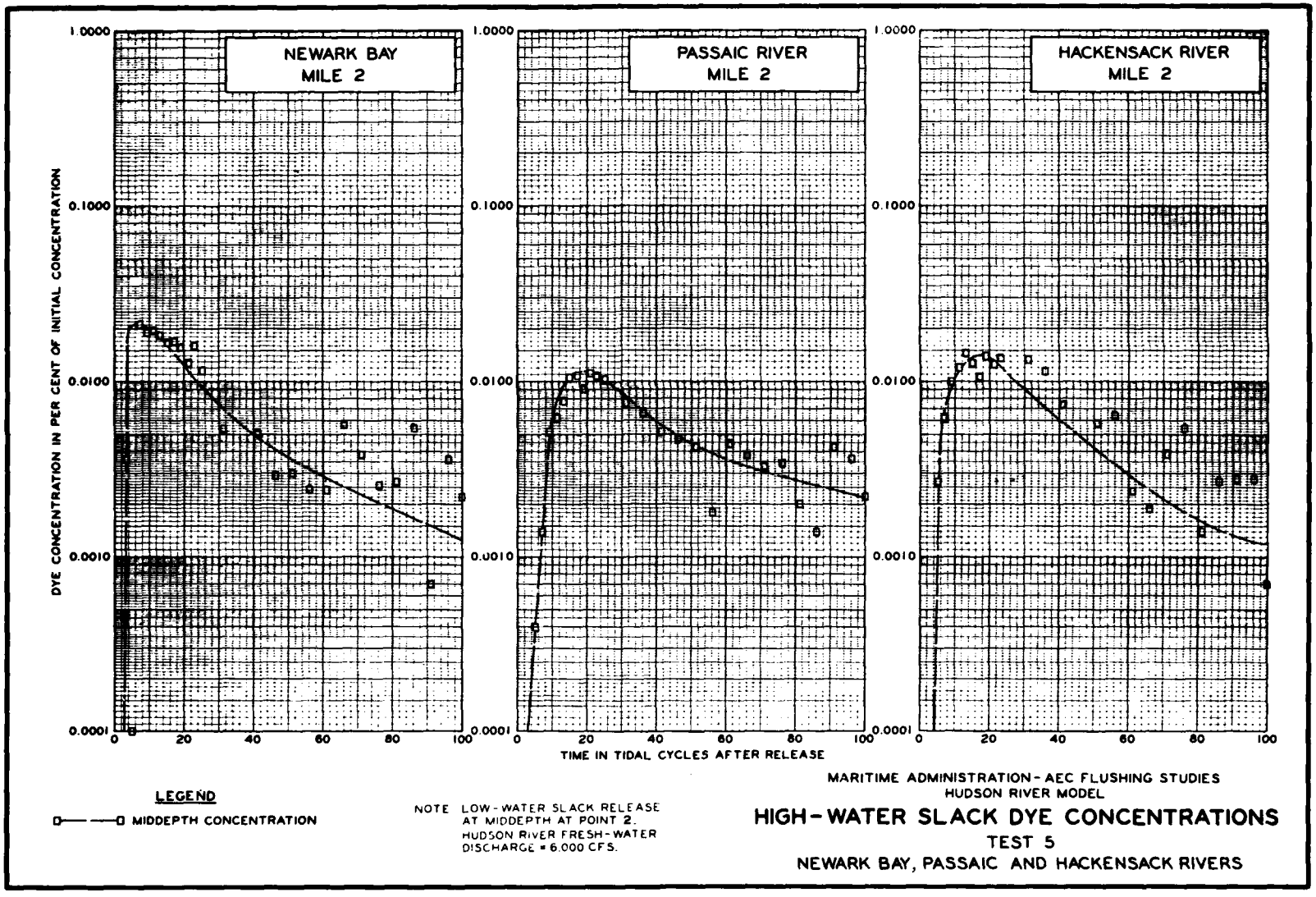
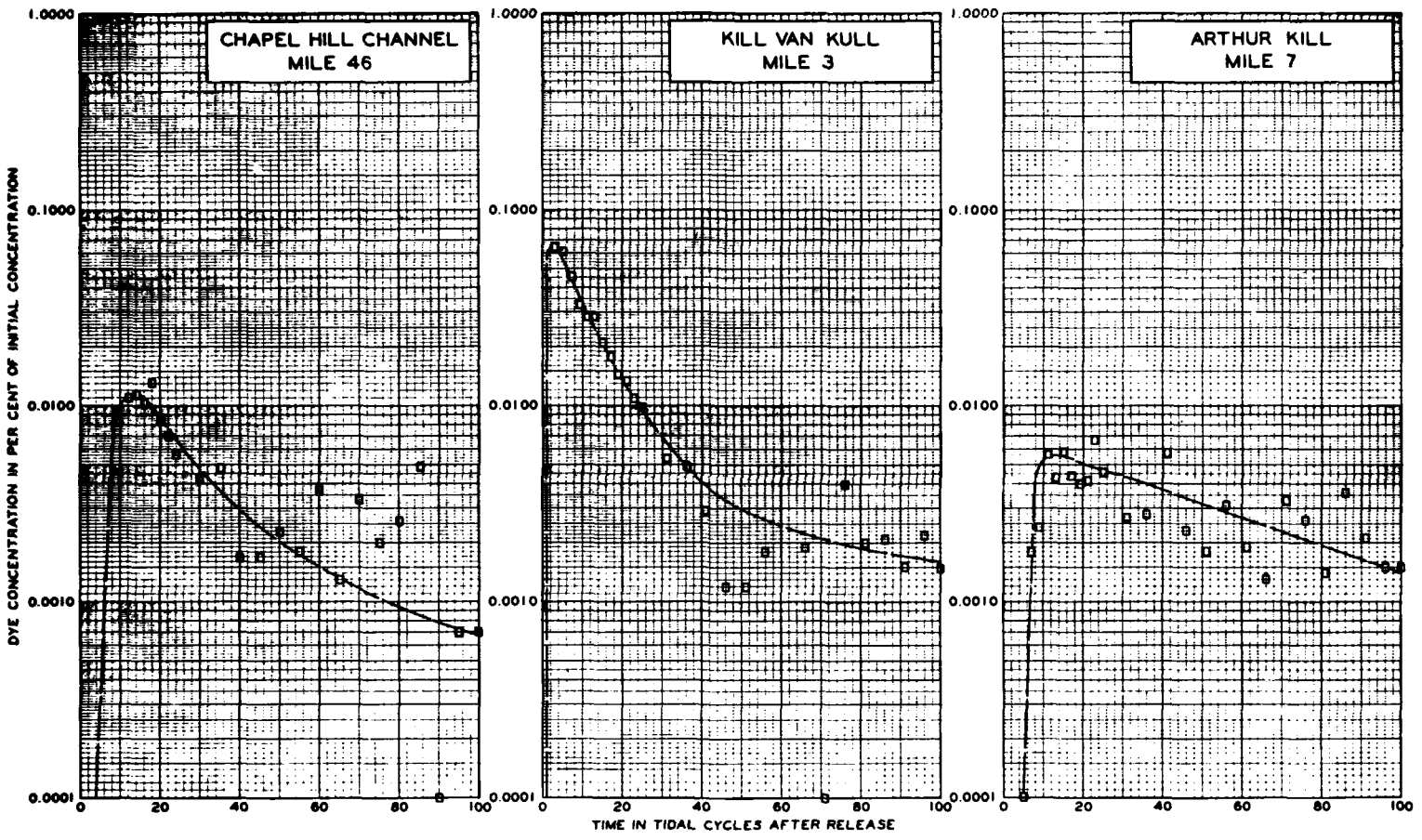

NEWARK BAY
MILE 2
PASSAIC RIVER
MILE 2
HACKENSACK RIVER
MILE 2
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 2. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 5
NEWARK BAY, PASSAIC AND HACKENSACK RIVERS

PLATE 63

PLATE 64



LEGEND

o—— ——o MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 2. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 5

CHAPEL HILL CHANNEL, KILL VAN KULL, AND ARTHUR KILL

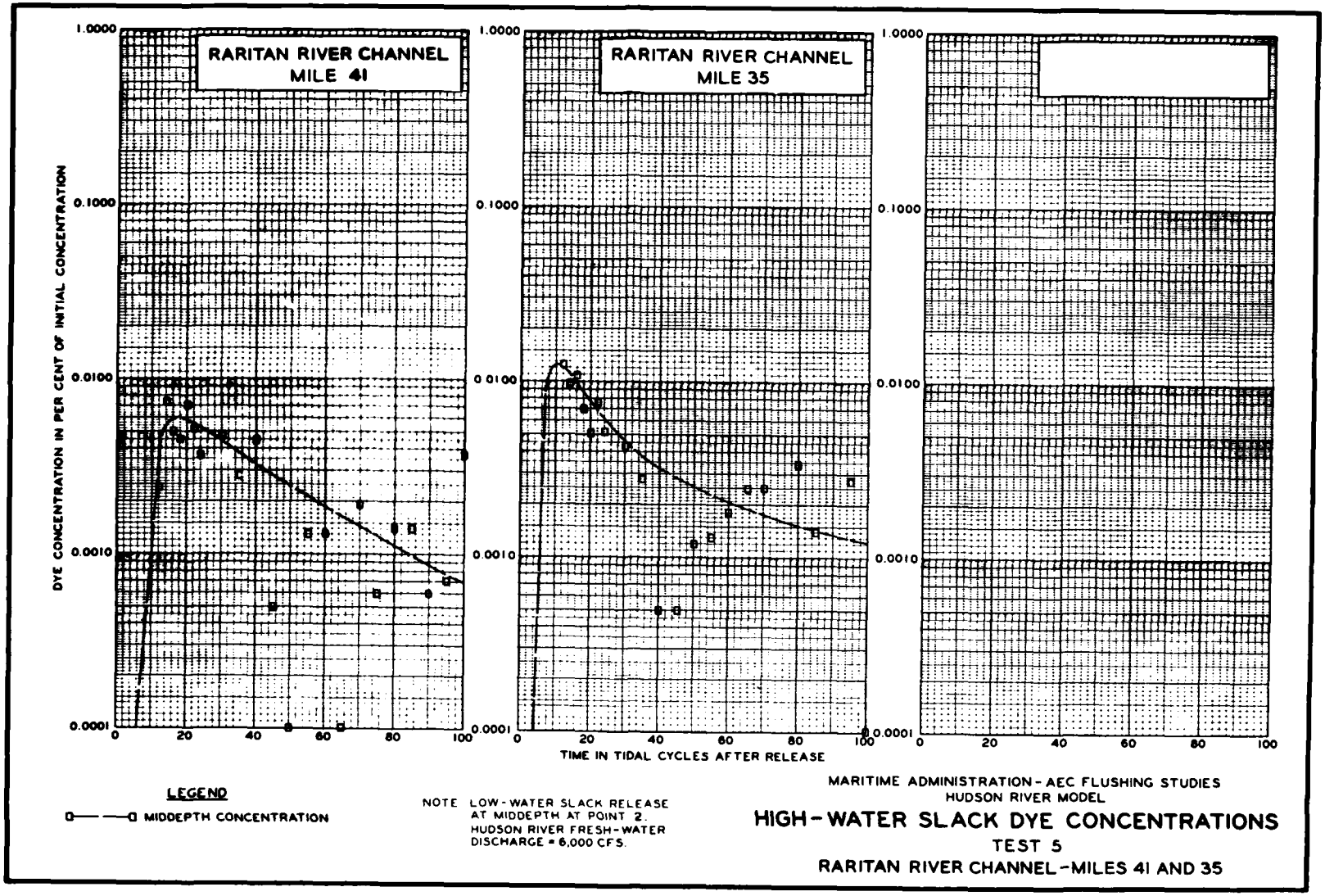
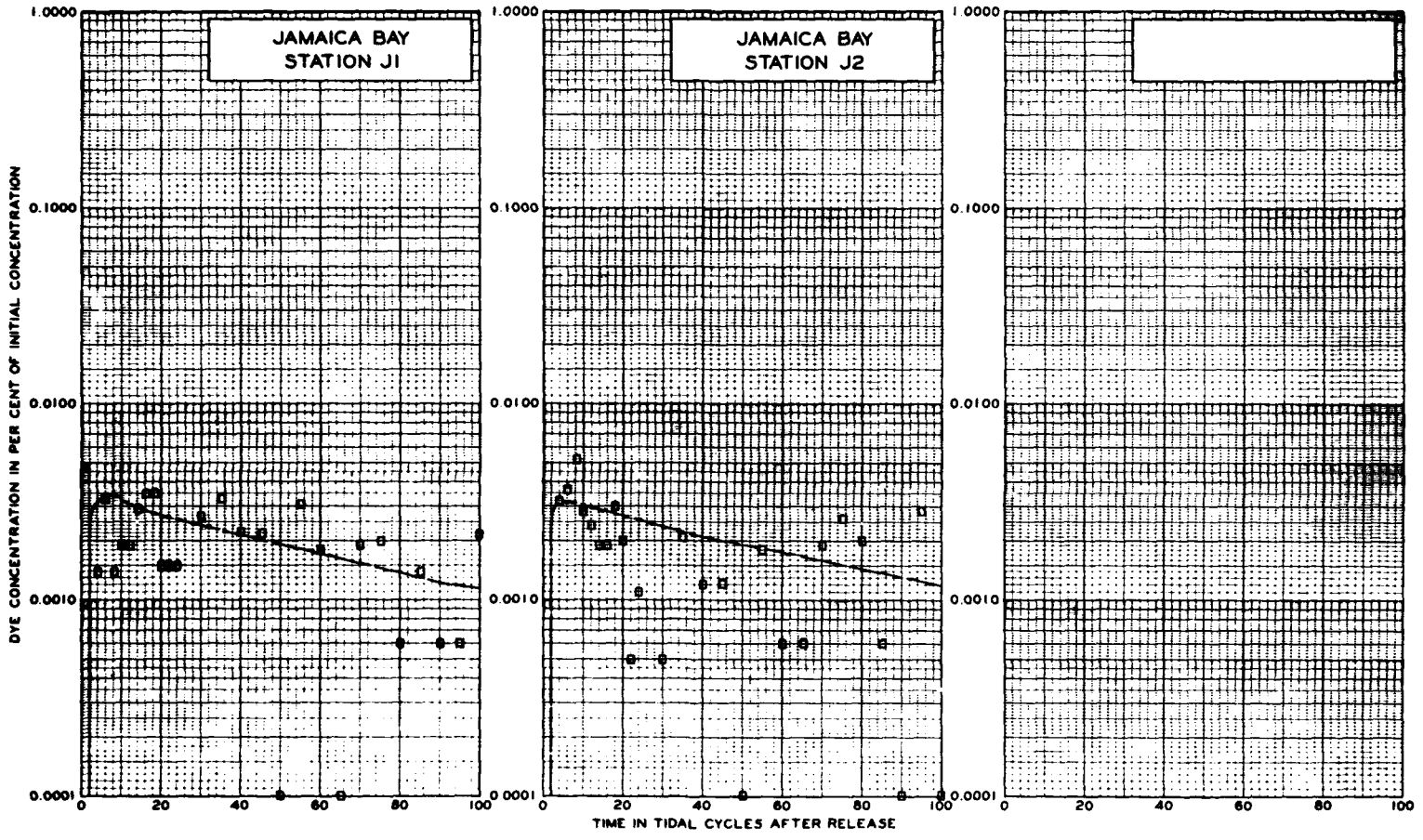

RARITAN RIVER CHANNEL
MILE 41
RARITAN RIVER CHANNEL
MILE 35
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 2. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 5
RARITAN RIVER CHANNEL - MILES 41 AND 35

PLATE 65

PLATE 66



MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 5

JAMAICA BAY - STATIONS J1 AND J2

LEGEND

o——o MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 2. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS

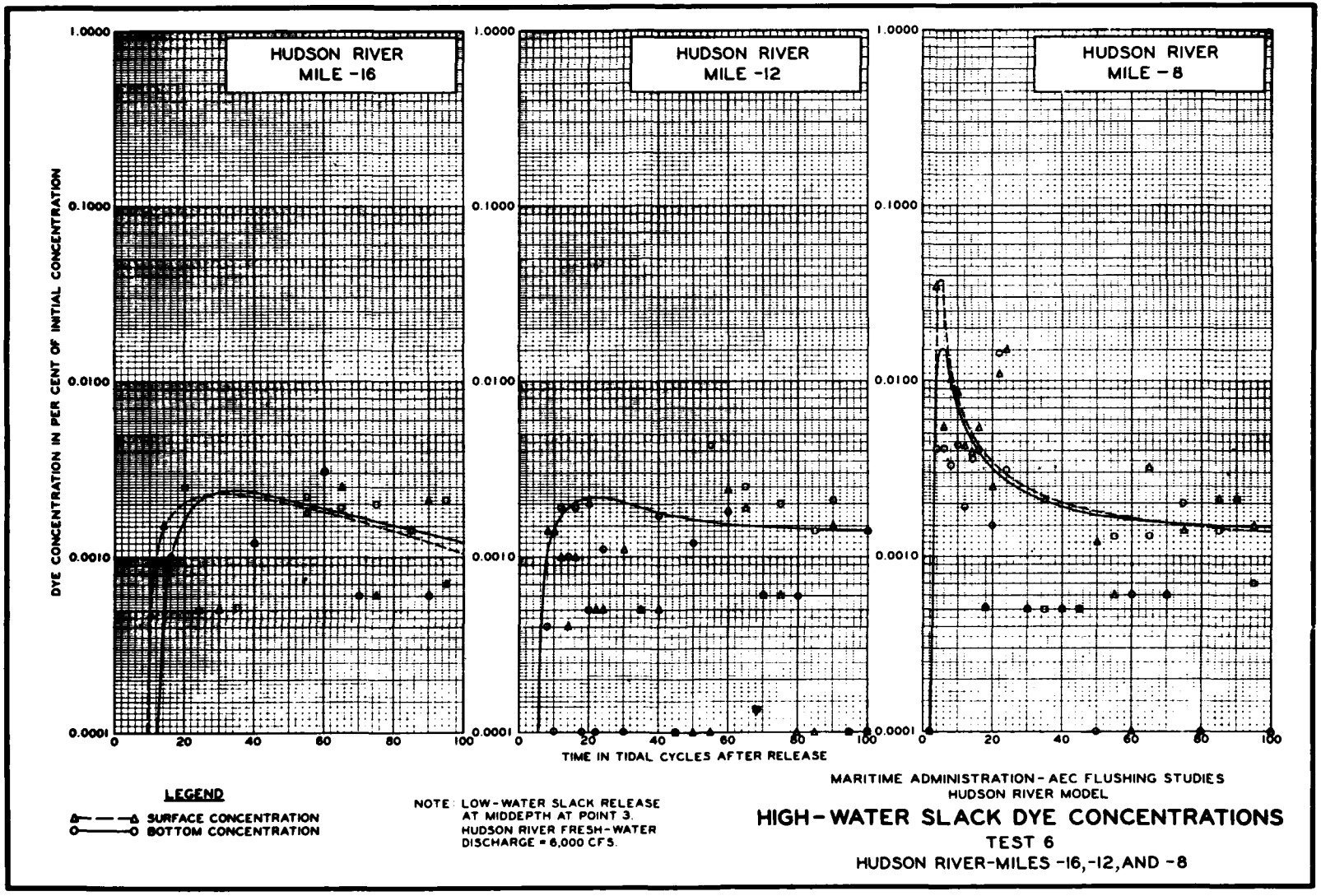
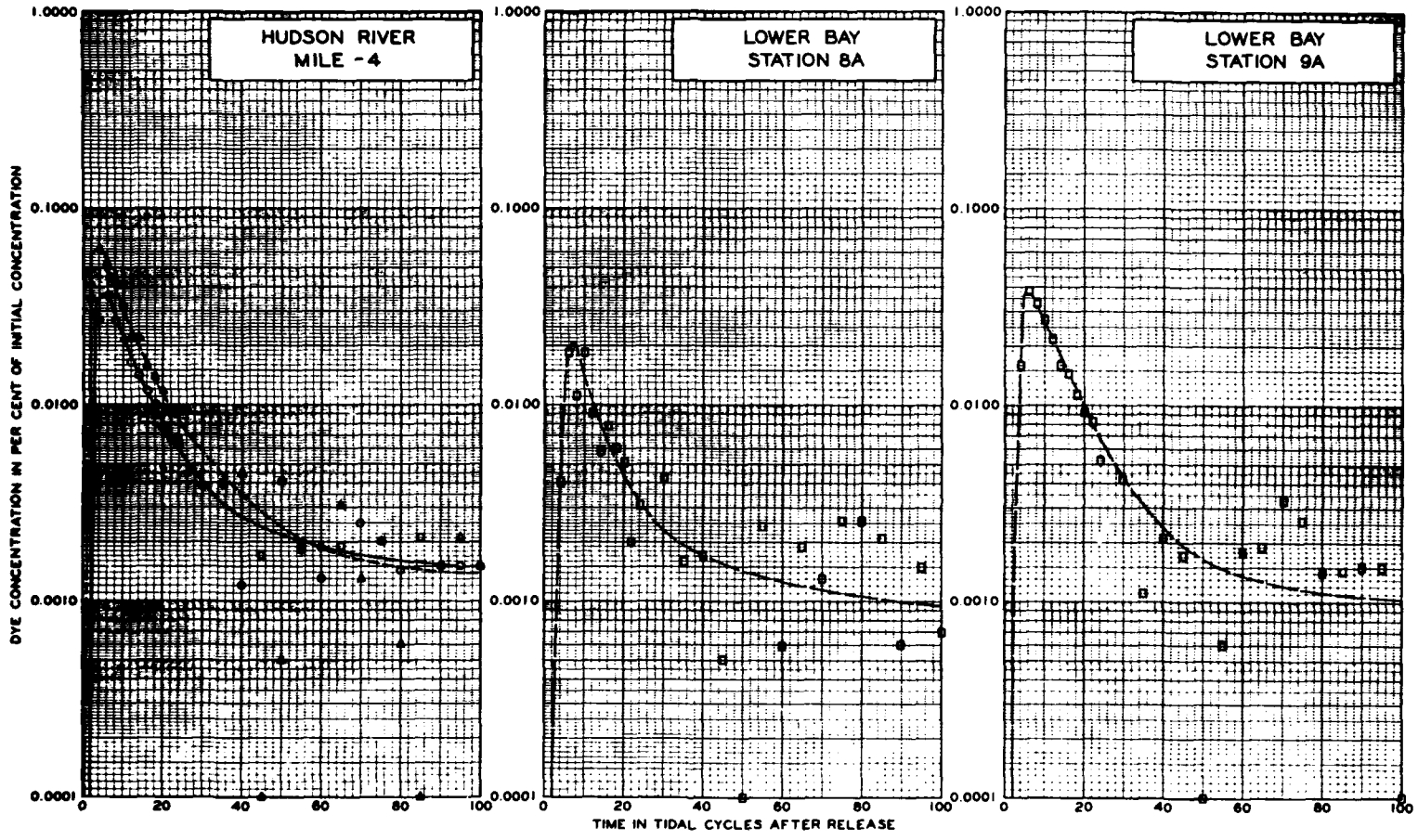

HUDSON RIVER
MILE -16
HUDSON RIVER
MILE -12
HUDSON RIVER
MILE - 8
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 3. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 6
HUDSON RIVER-MILES -16, -12, AND -8

PLATE 67

PLATE 68


HUDSON RIVER
MILE -4
LOWER BAY
STATION 8A
LOWER BAY
STATION 9A
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 3. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 6
HUDSON RIVER-MILE -4, LOWER BAY-STATIONS 8A AND 9A

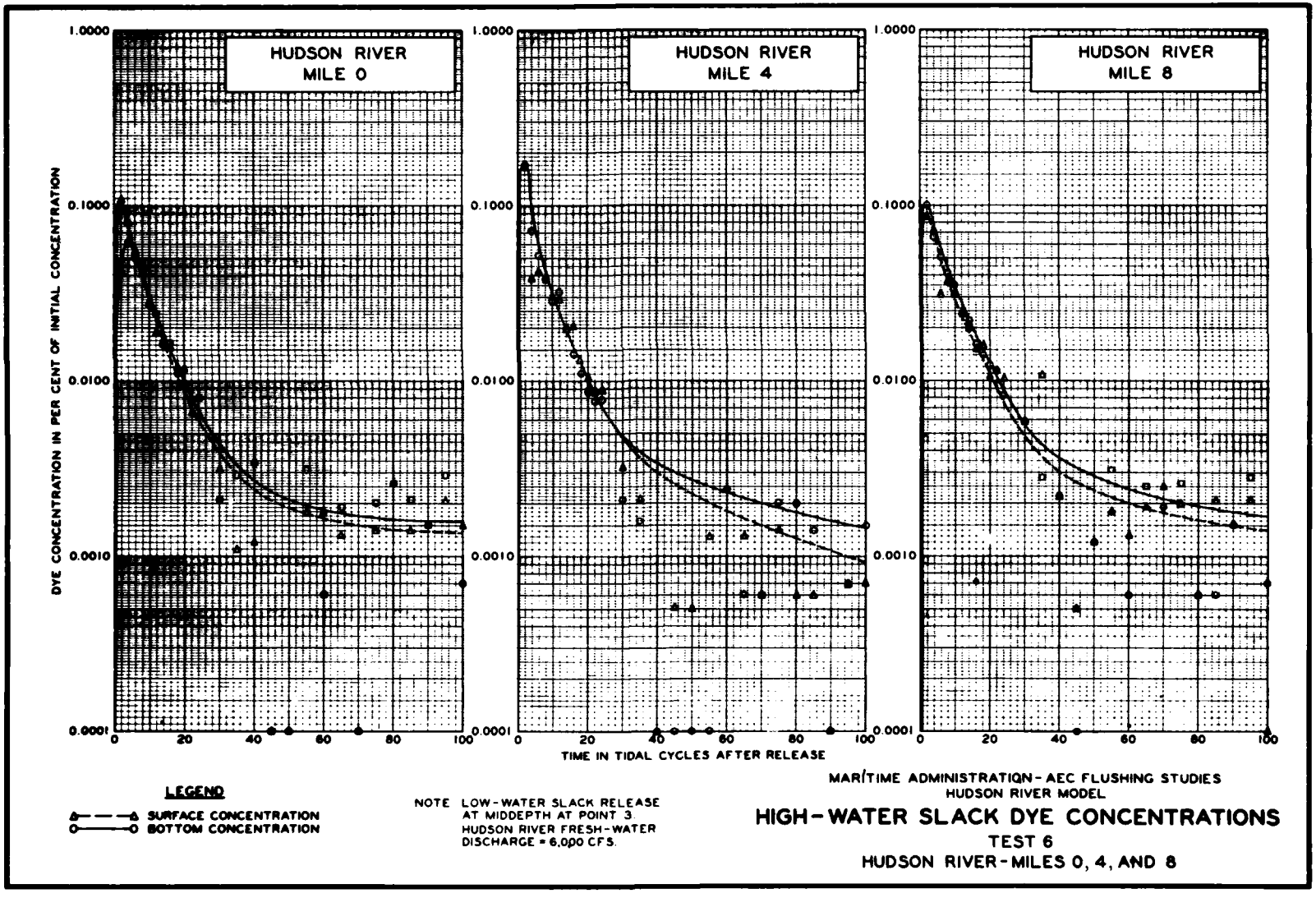
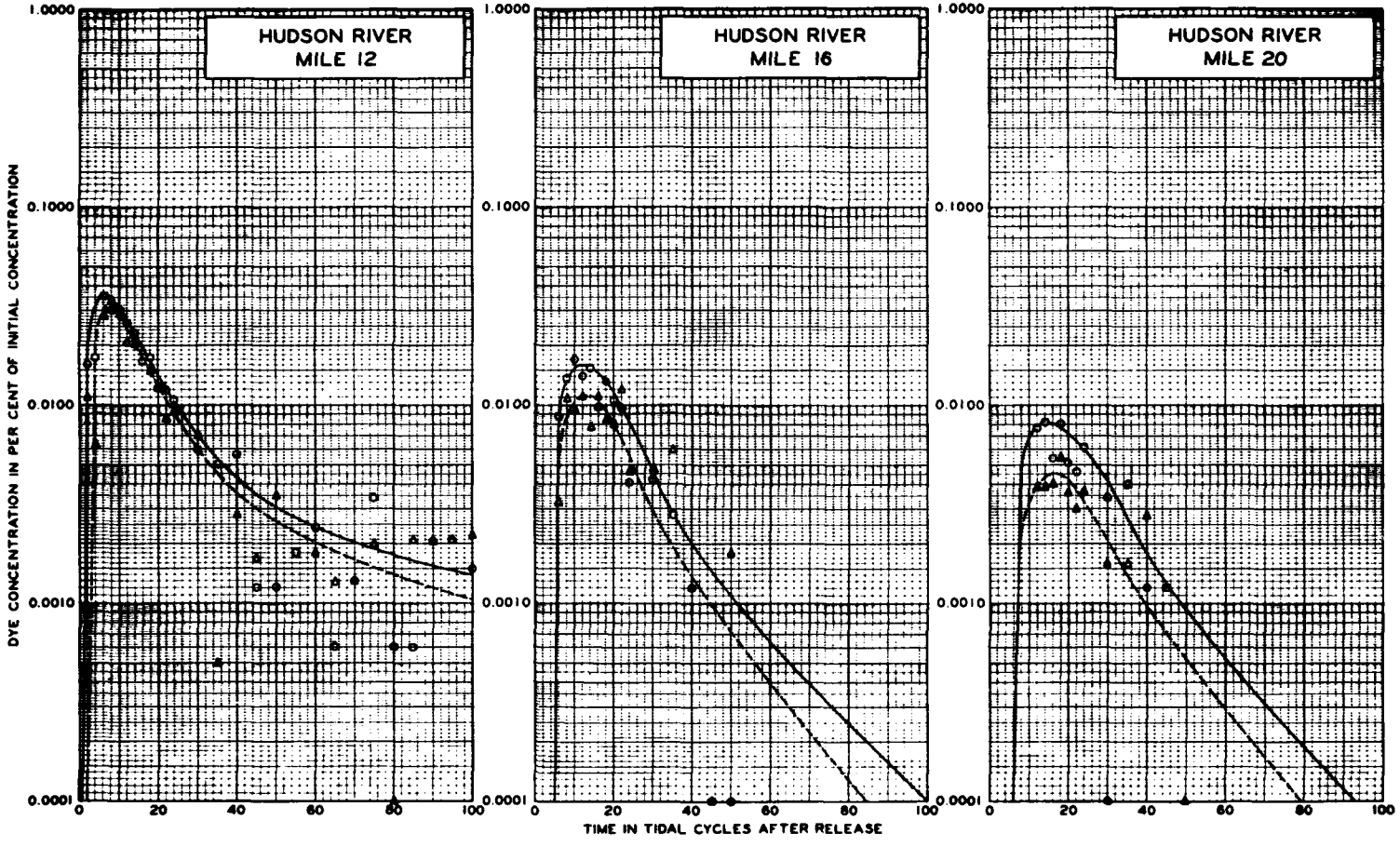

HUDSON RIVER
MILE 0
HUDSON RIVER
MILE 4
HUDSON RIVER
MILE 8
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 3.
HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 6
HUDSON RIVER - MILES 0, 4, AND 8

PLATE 69

PLATE 70


HUDSON RIVER
MILE 12
HUDSON RIVER
MILE 16
HUDSON RIVER
MILE 20
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 3. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 6
HUDSON RIVER - MILES 12, 16, AND 20

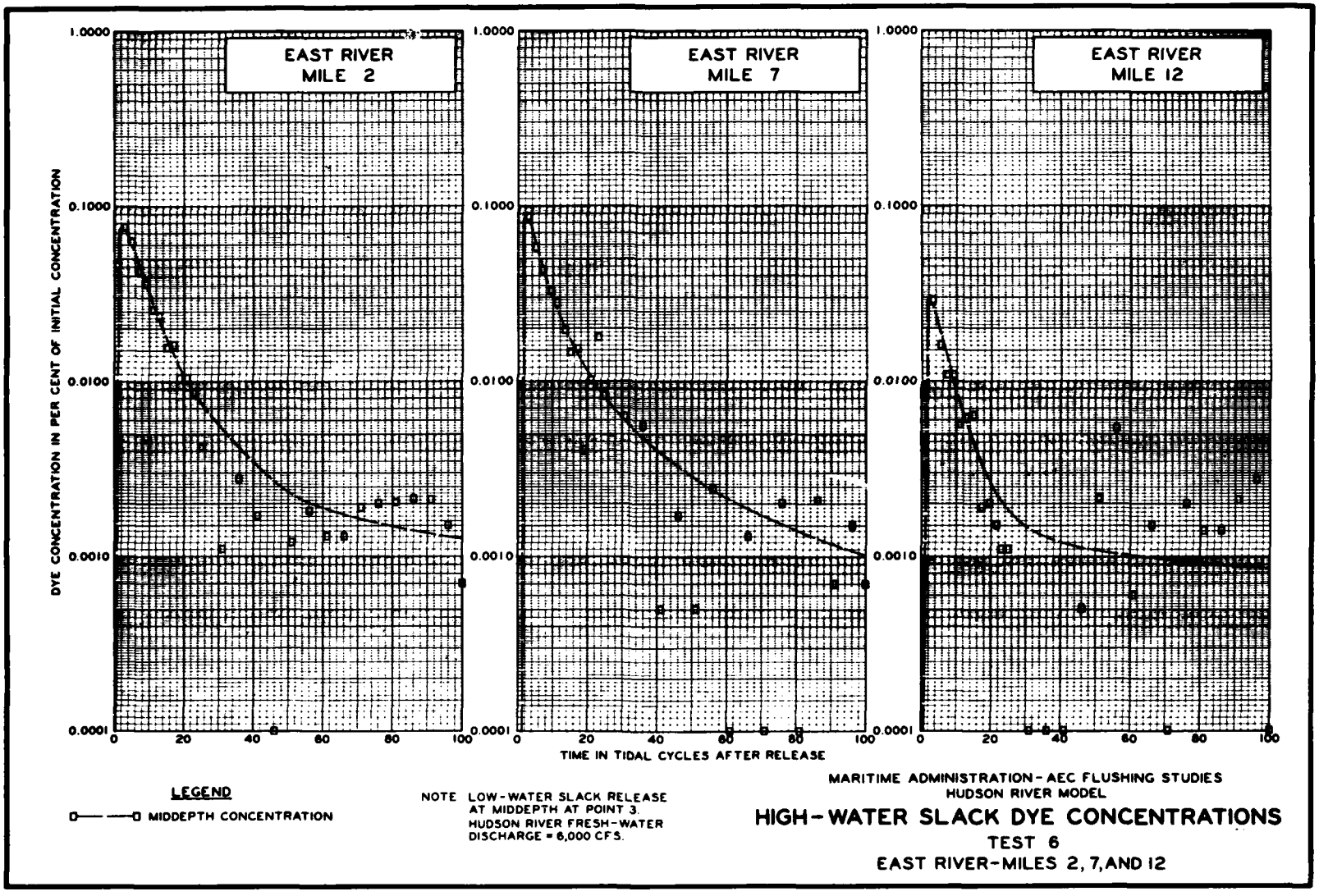
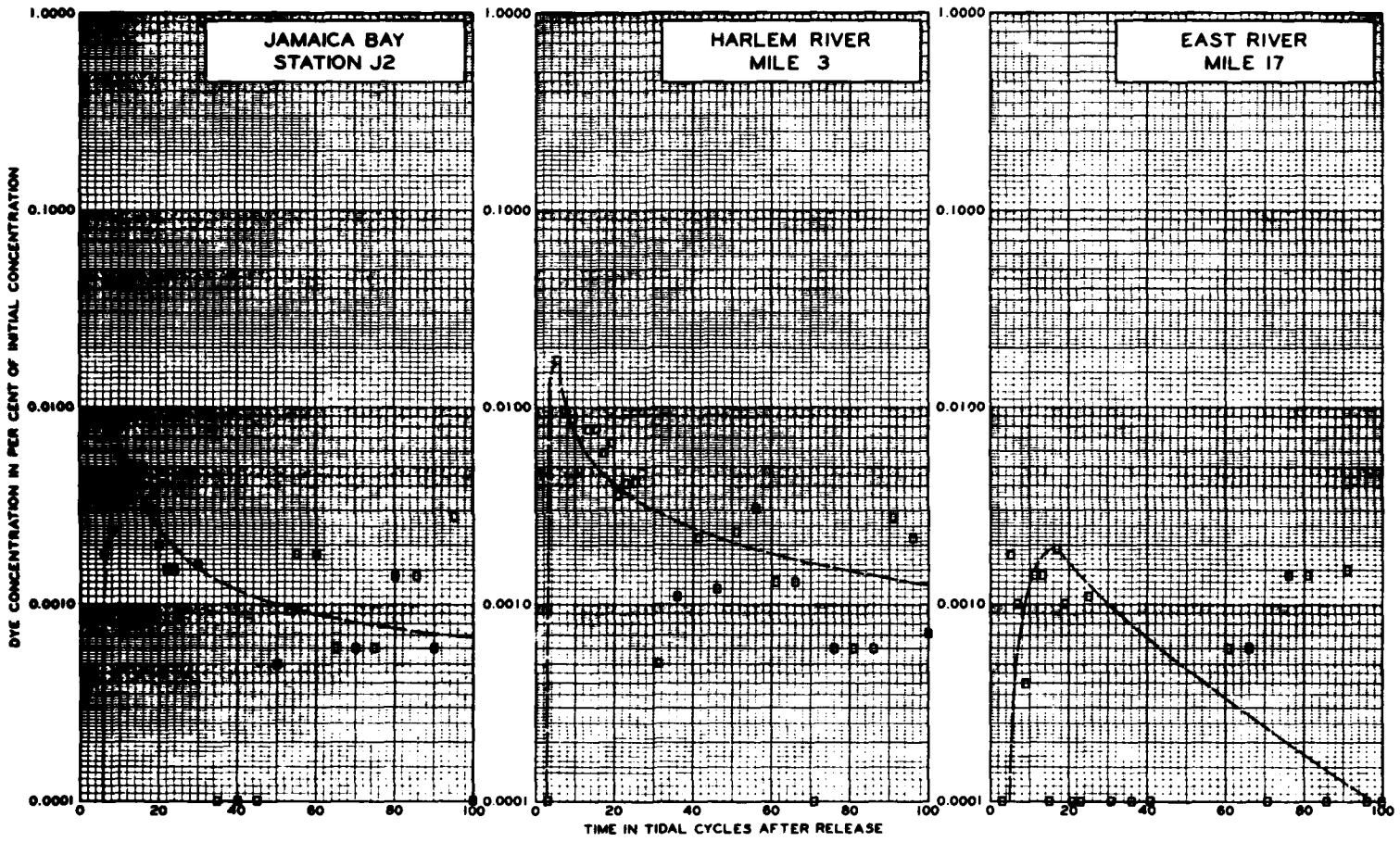

EAST RIVER
MILE 2
EAST RIVER
MILE 7
EAST RIVER
MILE 12
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 3. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 6
EAST RIVER-MILES 2, 7, AND 12

PLATE 71

PLATE 72



LEGEND

o—— ——o MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 3 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 6

JAMAICA BAY, HARLEM AND EAST RIVERS

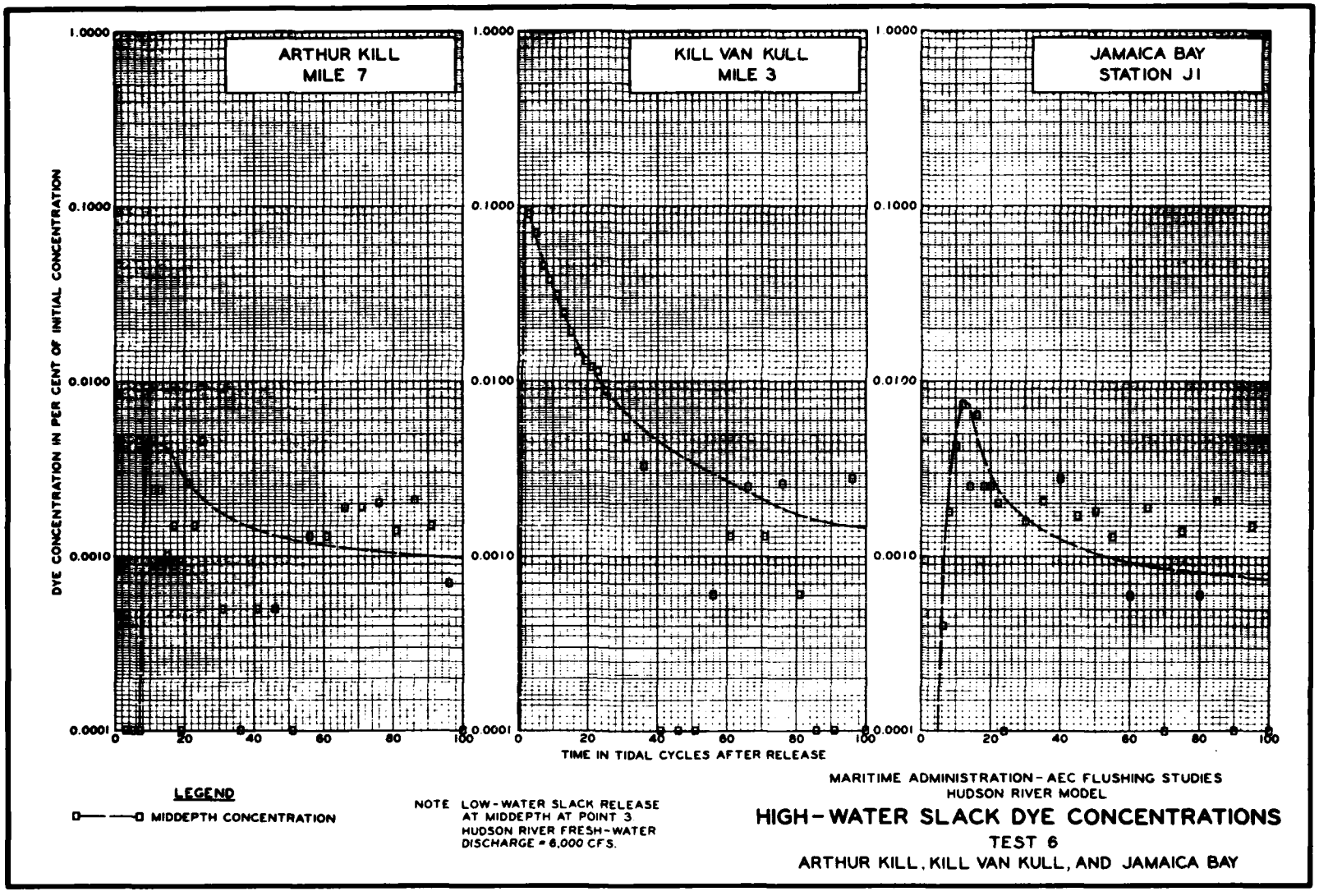
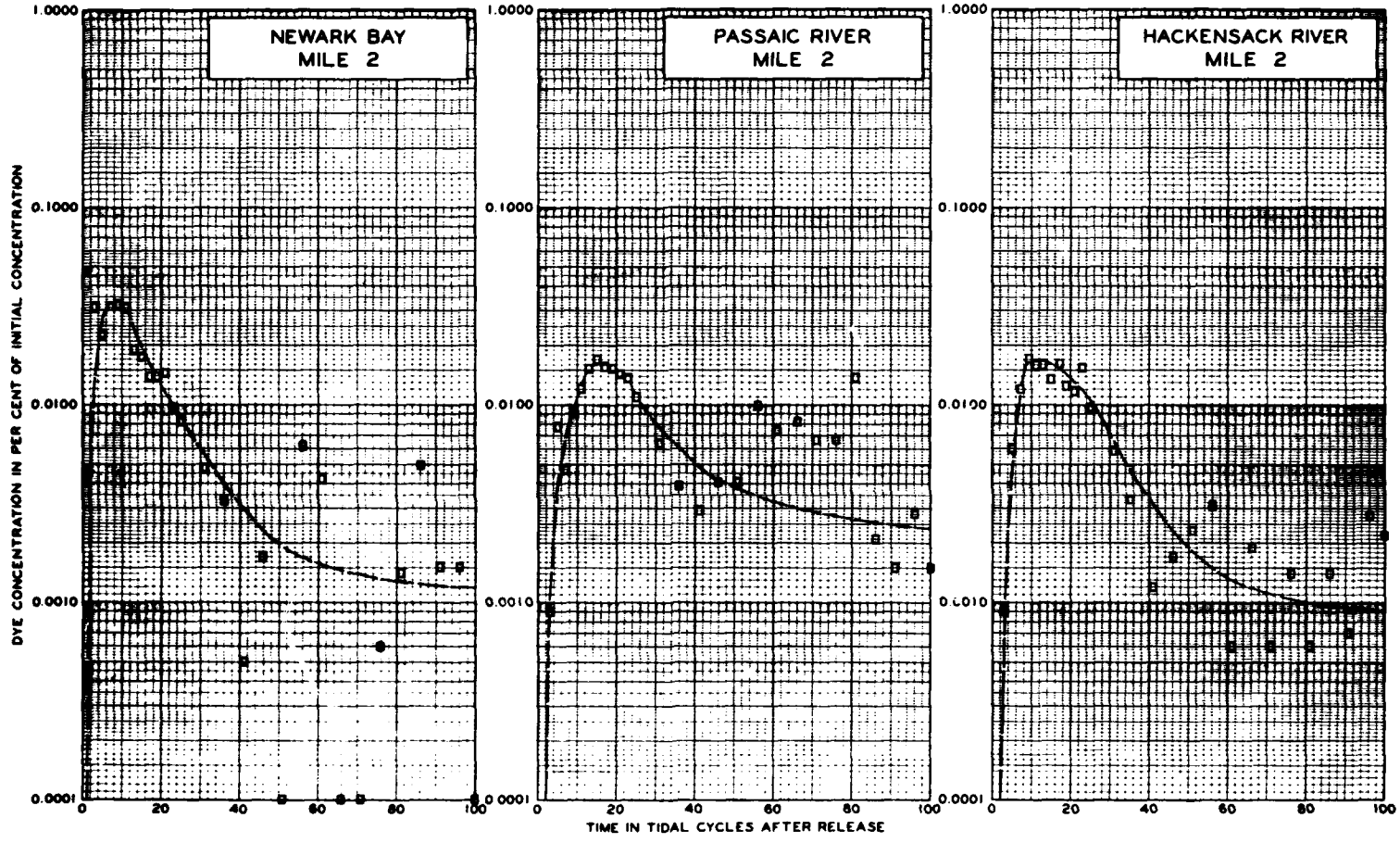

ARTHUR KILL
MILE 7
KILL VAN KULL
MILE 3
JAMAICA BAY
STATION J1
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 3
HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 6
ARTHUR KILL, KILL VAN KULL, AND JAMAICA BAY

PLATE 73

PLATE 74



LEGEND

o—— ——o MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 3 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 6

NEWARK BAY, PASSAIC AND HACKENSACK RIVERS

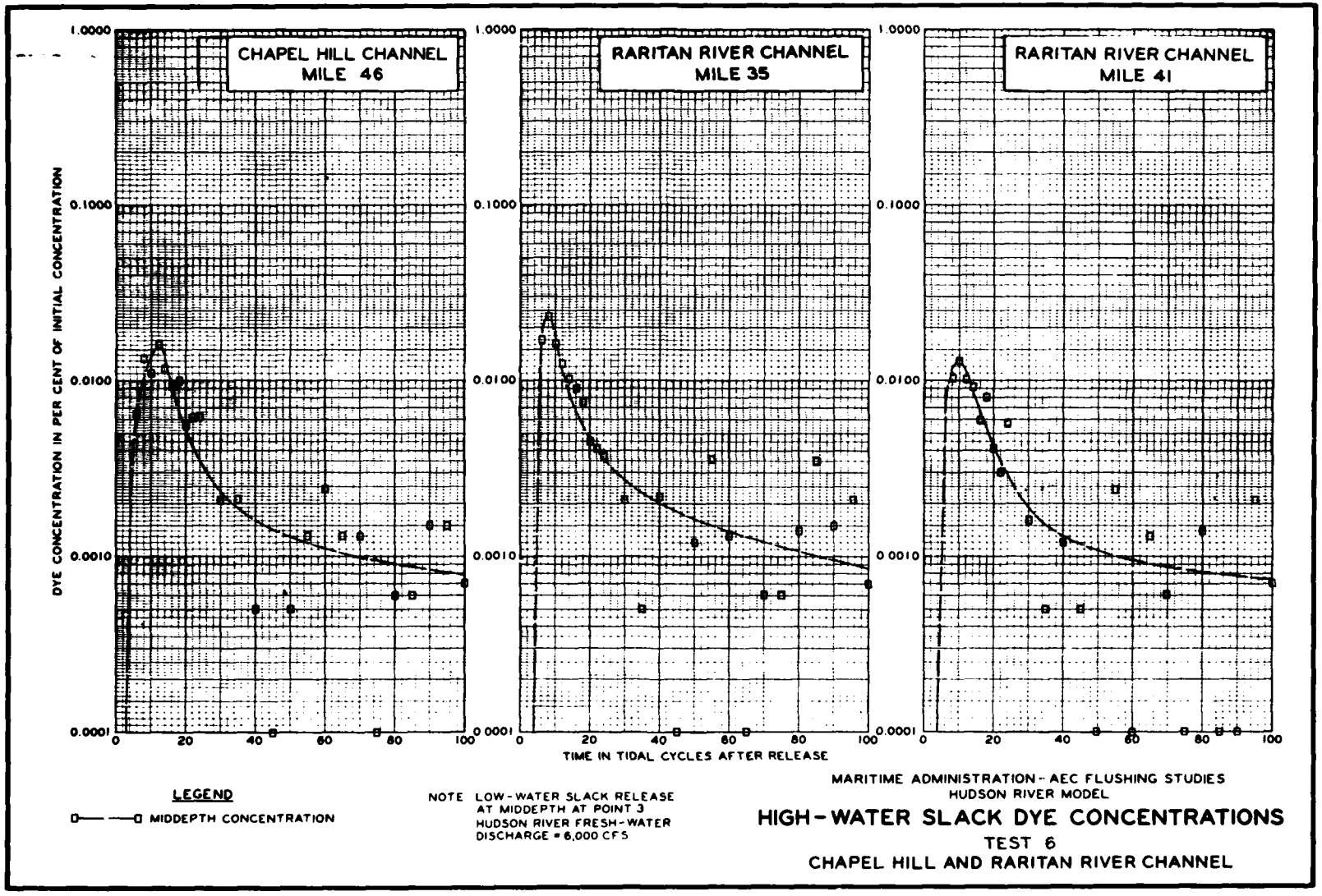
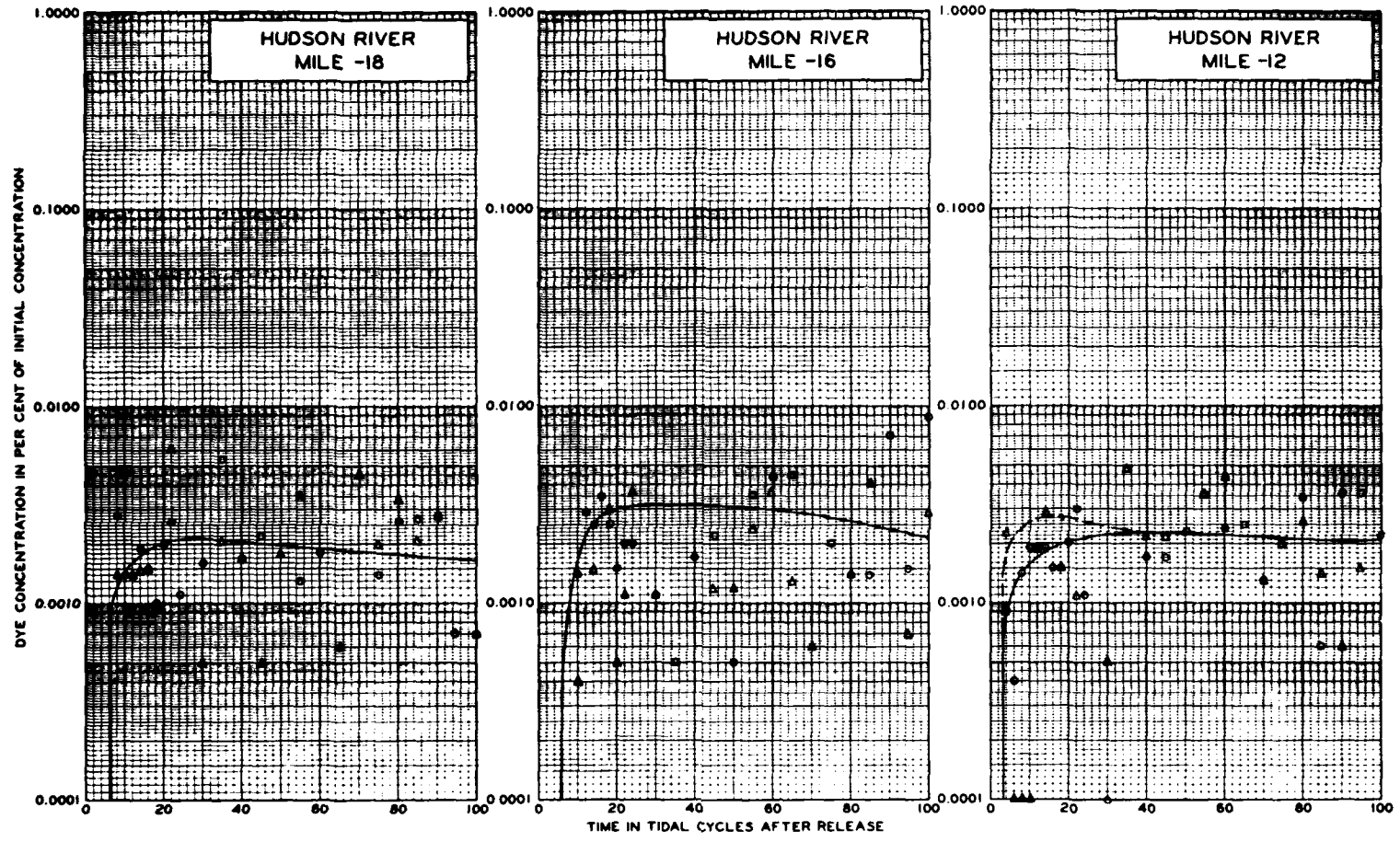

CHAPEL HILL CHANNEL
MILE 46
RARITAN RIVER CHANNEL
MILE 35
RARITAN RIVER CHANNEL
MILE 41
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 3 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 6
CHAPEL HILL AND RARITAN RIVER CHANNEL

PLATE 75

PLATE 76



MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 7

HUDSON RIVER - MILES -18, -16, AND -12

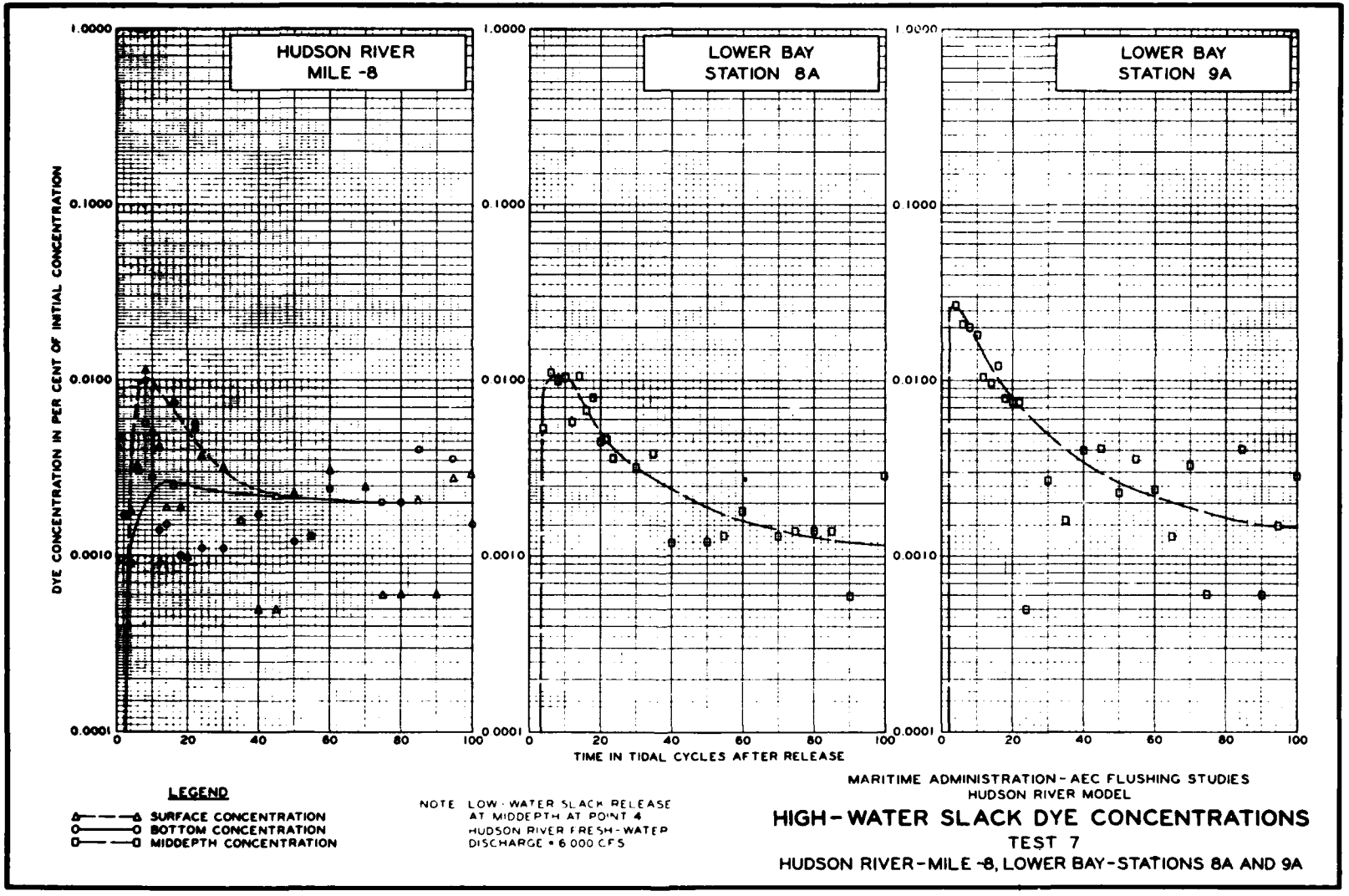
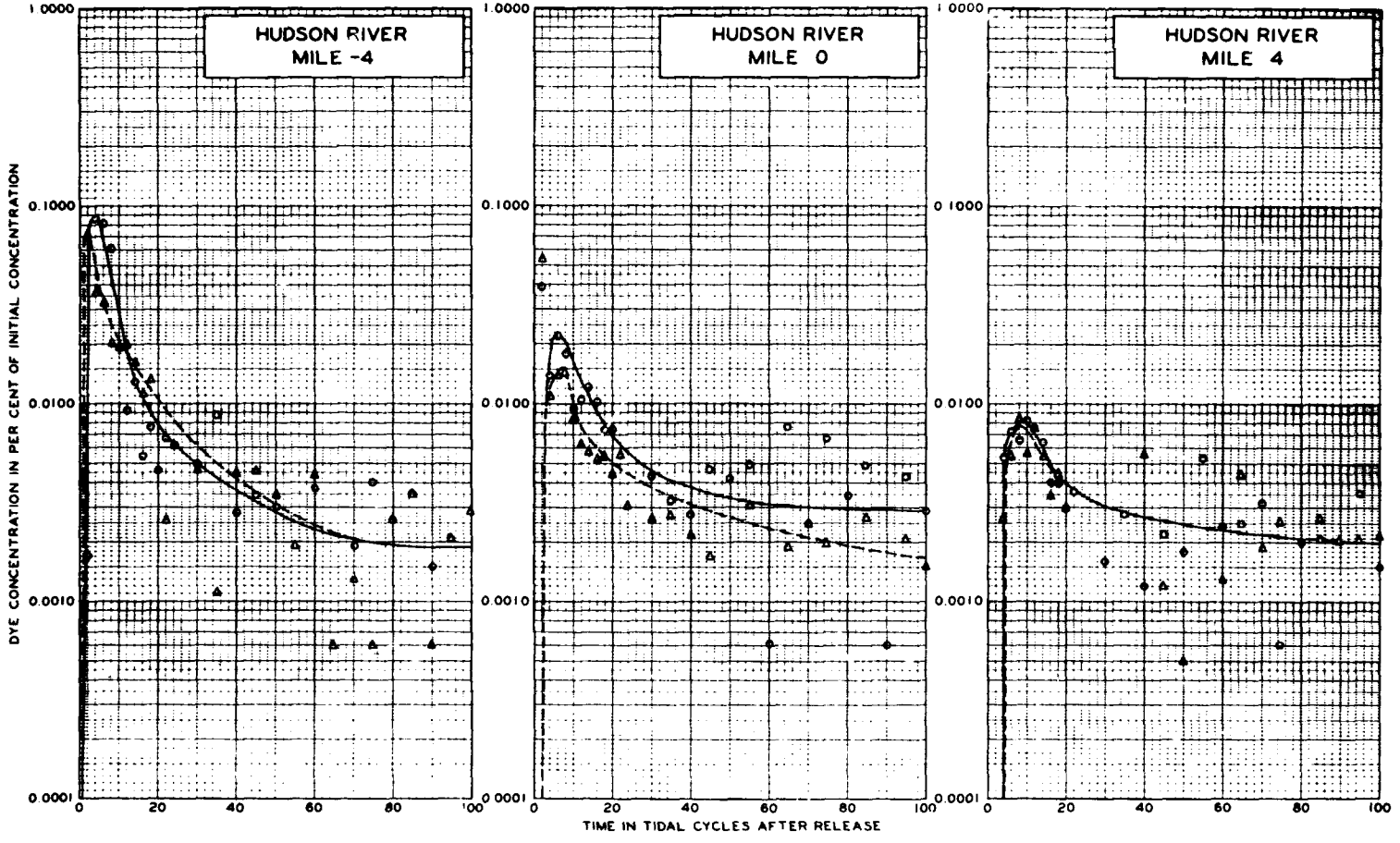

HUDSON RIVER
MILE -8
LOWER BAY
STATION 8A
LOWER BAY
STATION 9A
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 4 HUDSON RIVER FRESH-WATER DISCHARGE = 6 000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 7
HUDSON RIVER - MILE -8, LOWER BAY - STATIONS 8A AND 9A

PLATE 77

PLATE 78


HUDSON RIVER
MILE -4
HUDSON RIVER
MILE 0
HUDSON RIVER
MILE 4
1.0000
0.1000
0.0100
0.0010
0.0001
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 4 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 7
HUDSON RIVER - MILES -4, 0, AND 4

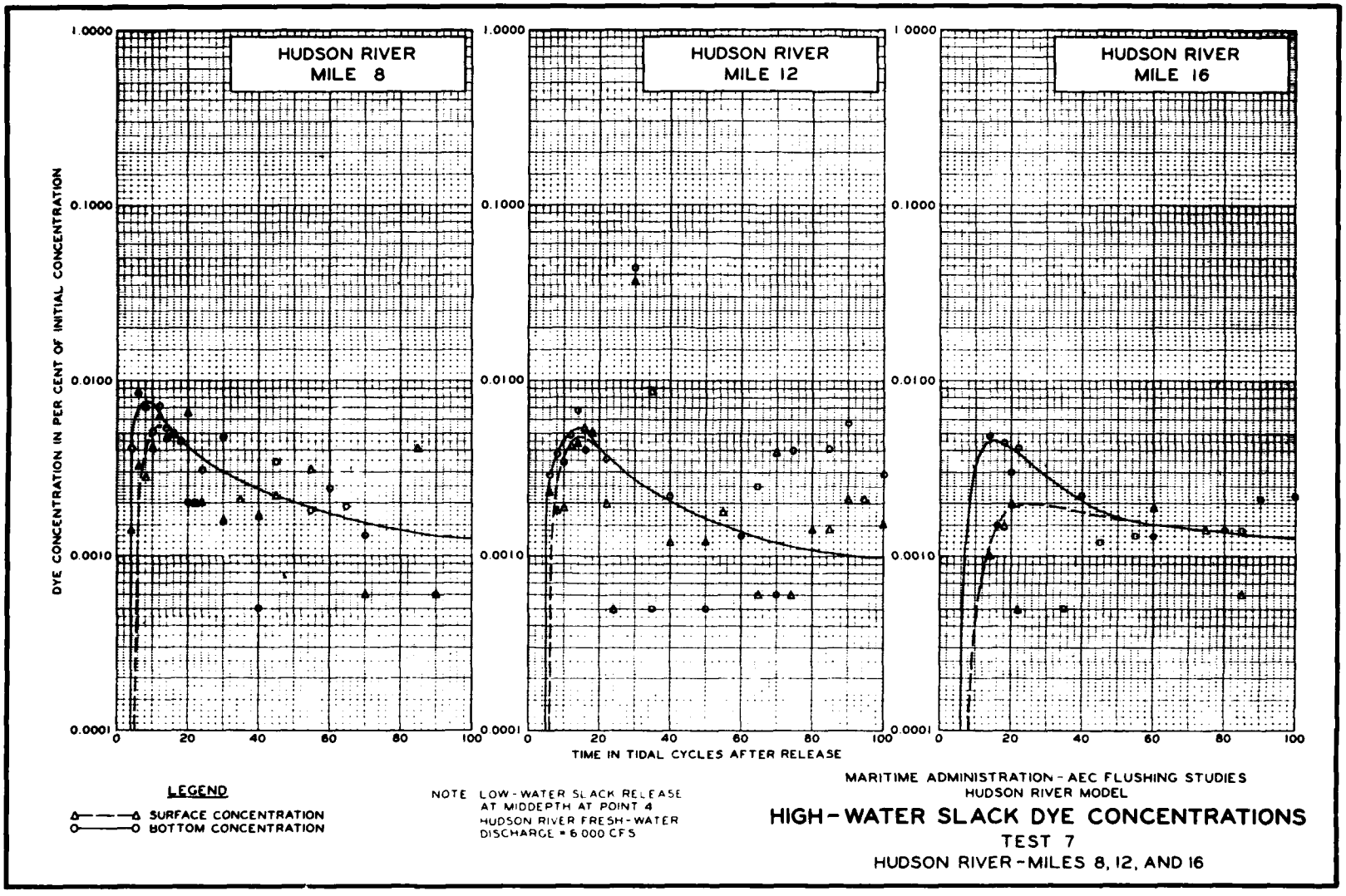
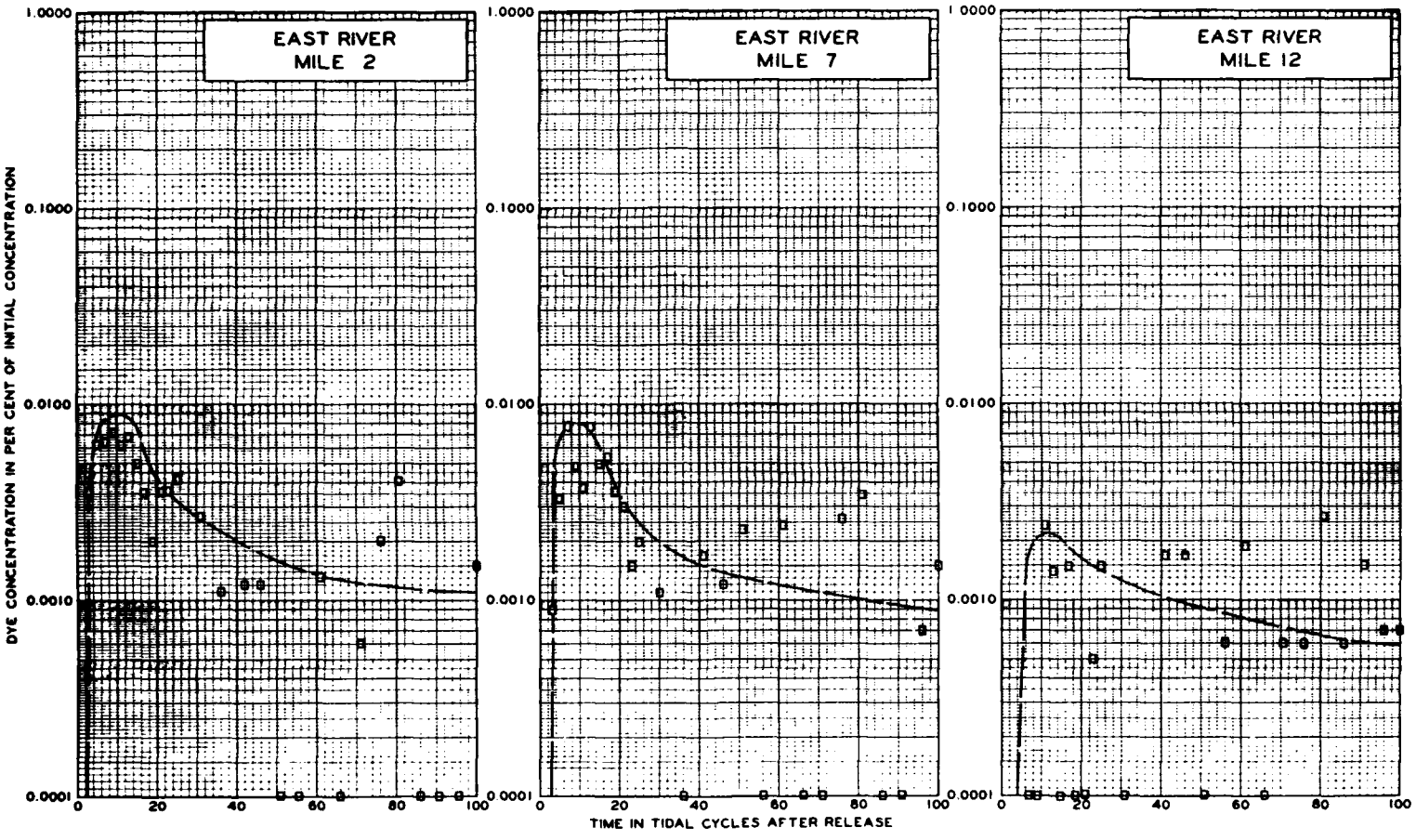

HUDSON RIVER
MILE 8
HUDSON RIVER
MILE 12
HUDSON RIVER
MILE 16
1.0000
0.1000
0.0100
0.0010
0.0001
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 4 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 7
HUDSON RIVER - MILES 8, 12, AND 16

PLATE 79

PLATE 80



LEGEND

□—— ——□ MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 4 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 7

EAST RIVER - MILES 2, 7, AND 12

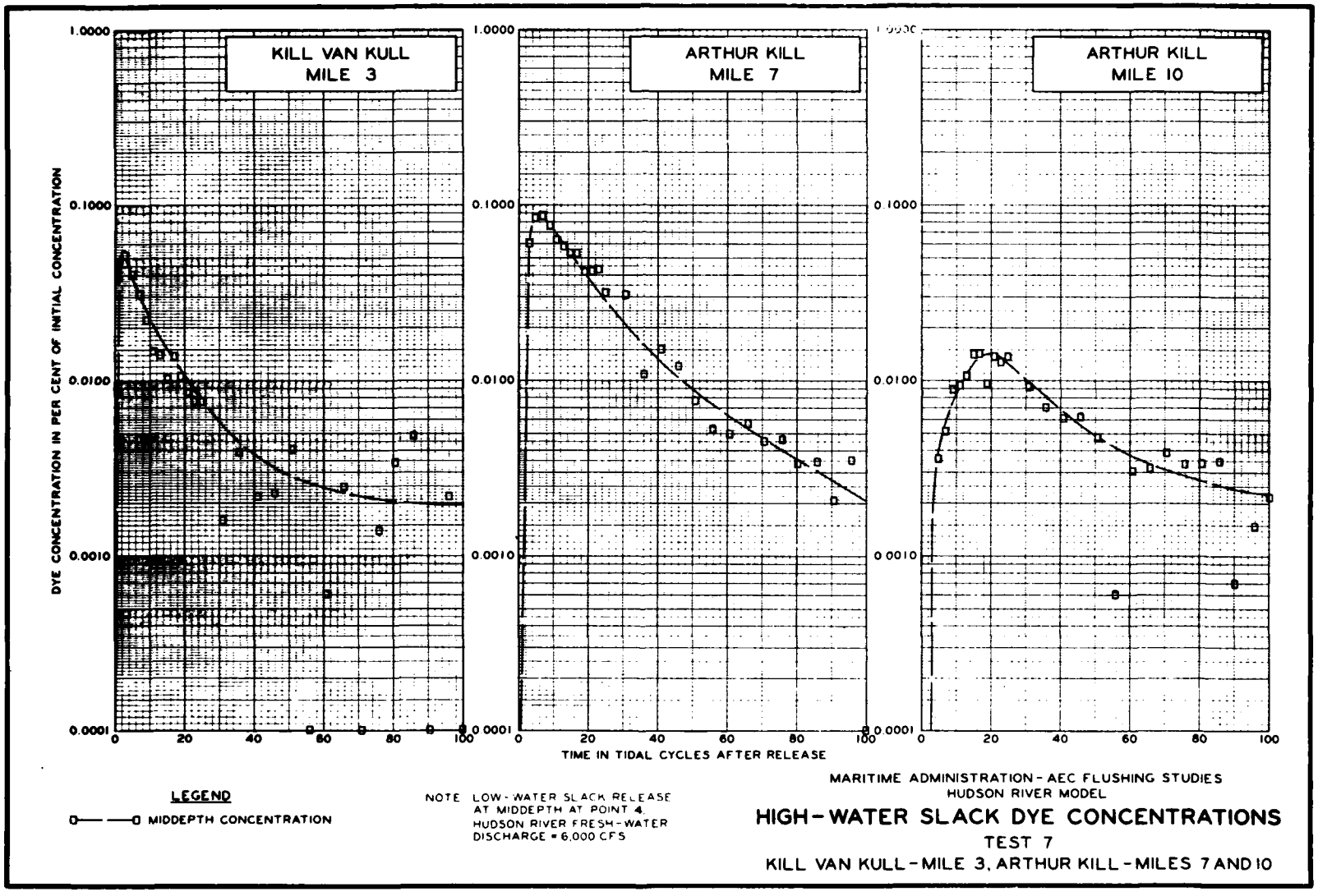
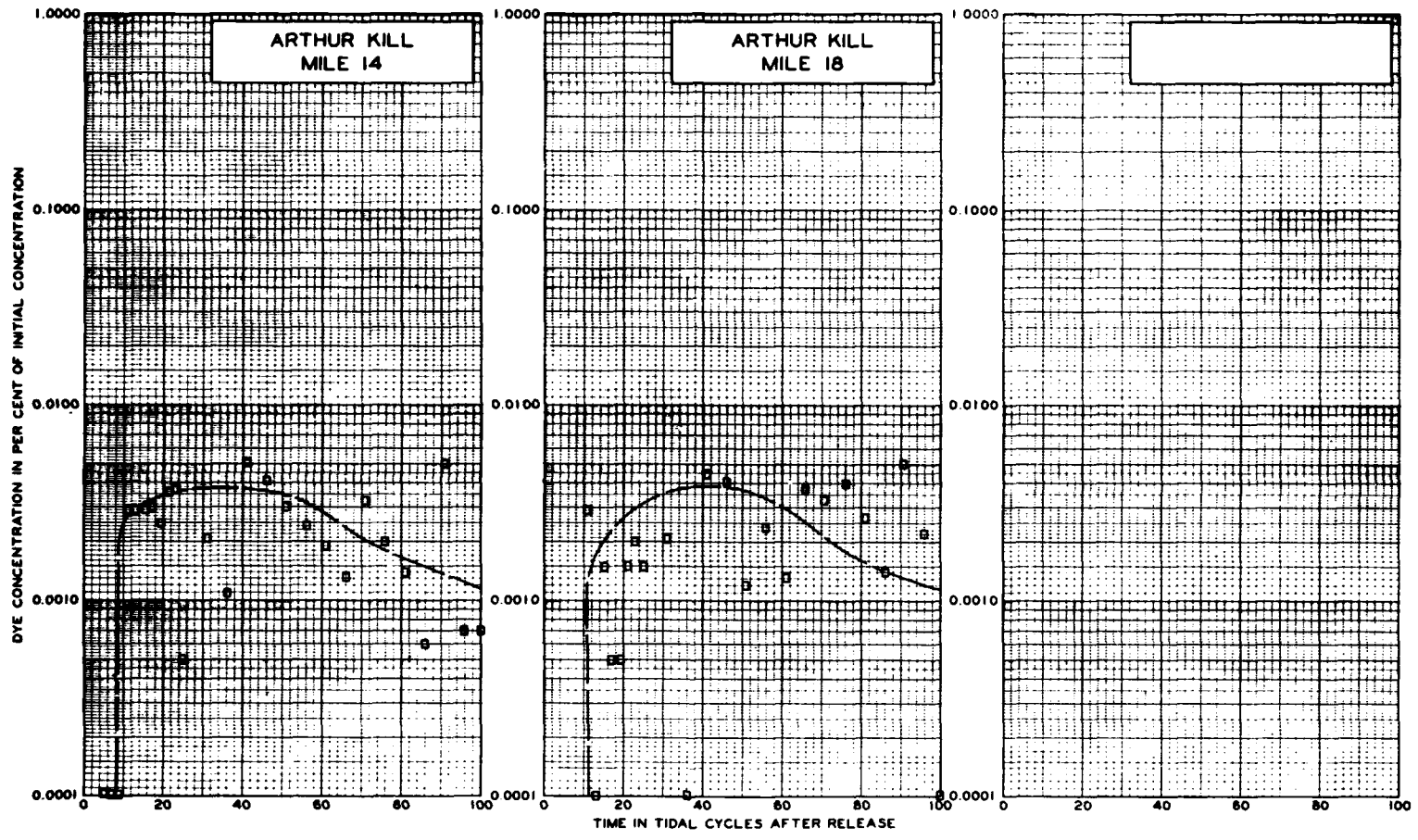

KILL VAN KULL
MILE 3
ARTHUR KILL
MILE 7
ARTHUR KILL
MILE 10
DYE CONCENTRATION IN PER CENT OF INTIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 4. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 7
KILL VAN KULL - MILE 3, ARTHUR KILL - MILES 7 AND 10

PLATE 81

PLATE 82



LEGEND

MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 4. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 7

ARTHUR KILL - MILES 14 AND 18

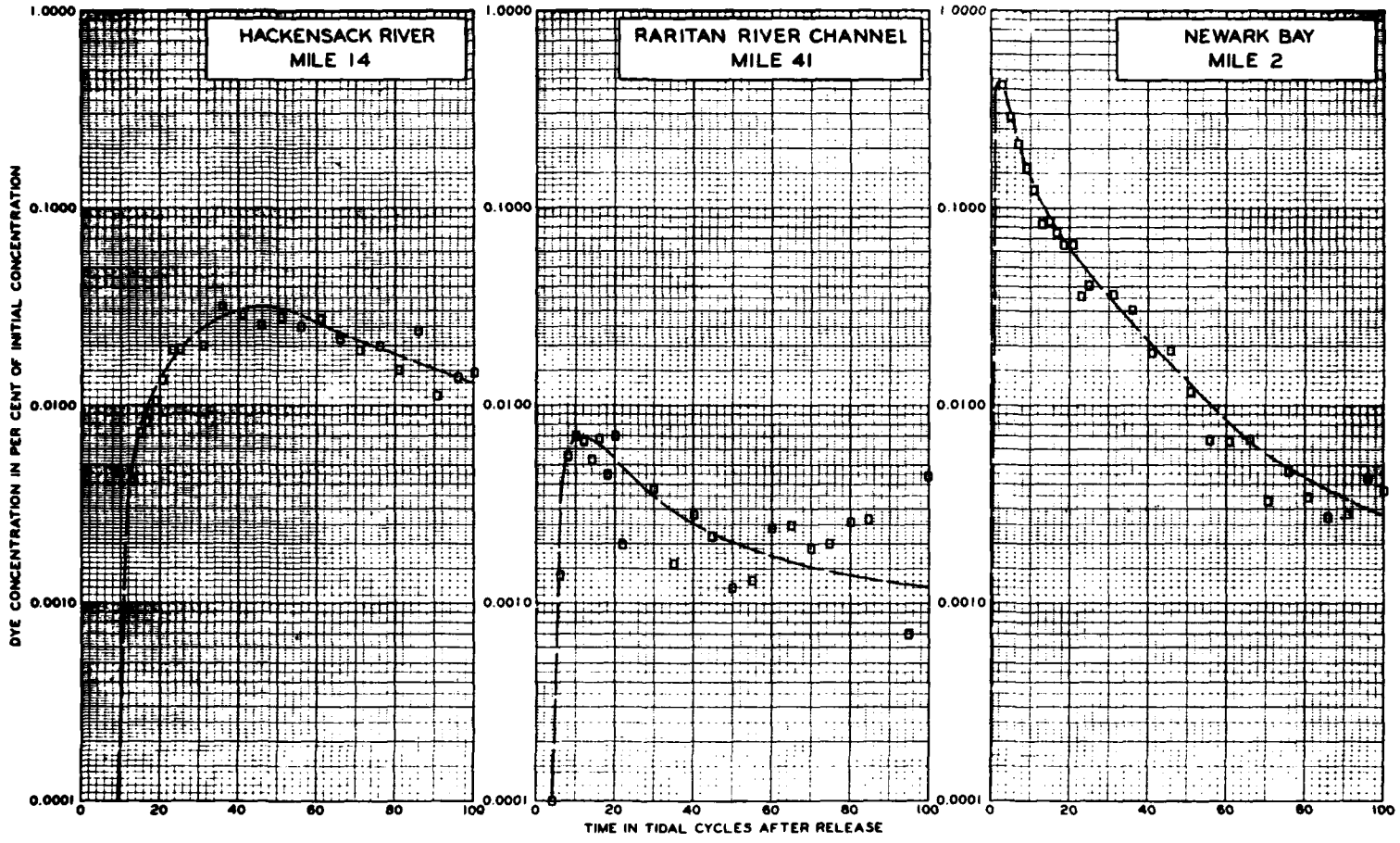


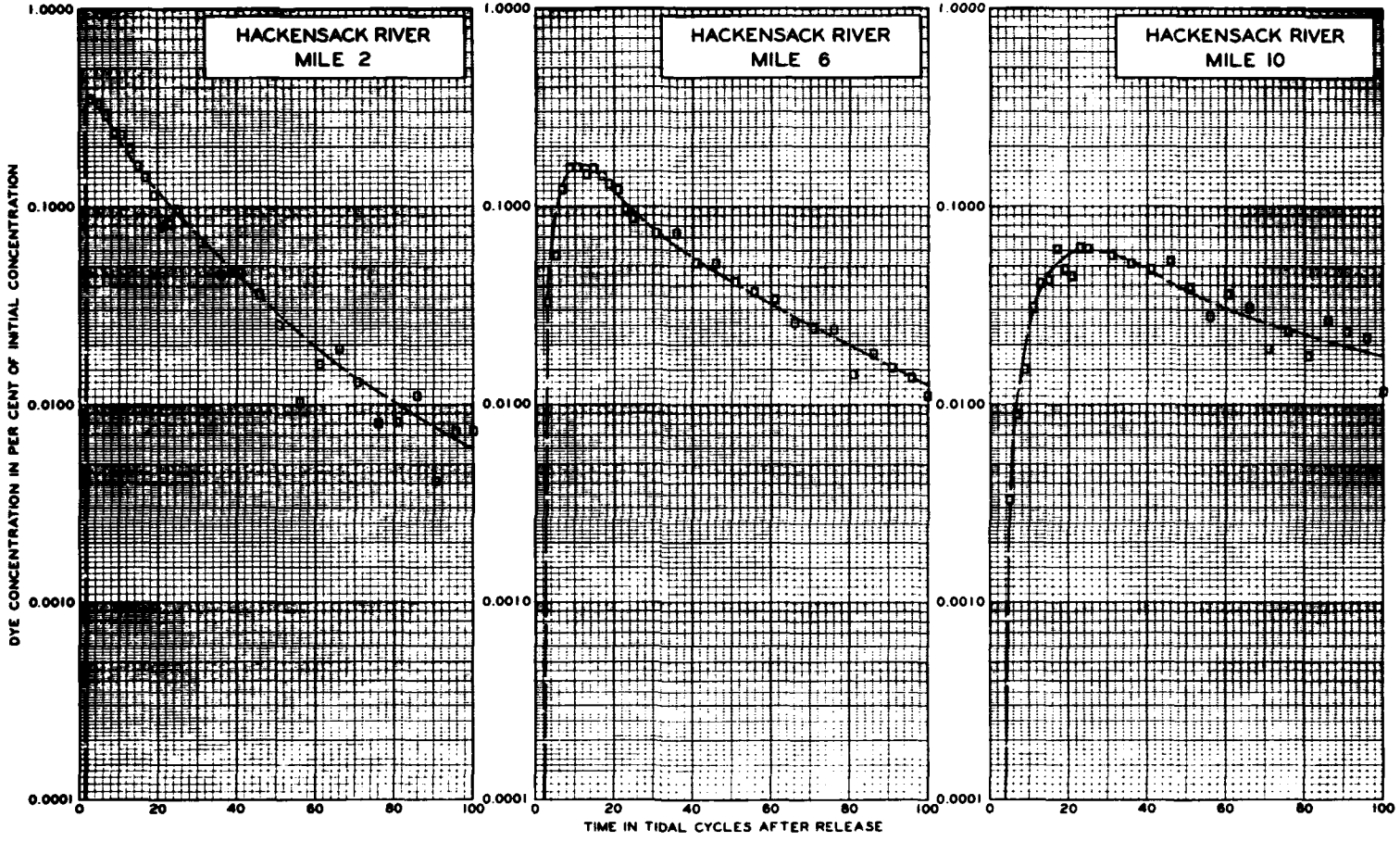
PLATE 83

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 7

HACKENSACK RIVER, RARITAN RIVER CHANNEL AND NEWARK BAY

PLATE 84



LEGEND

o—— ——o MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 4 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 7

HACKENSACK RIVER - MILES 2, 6, AND 10

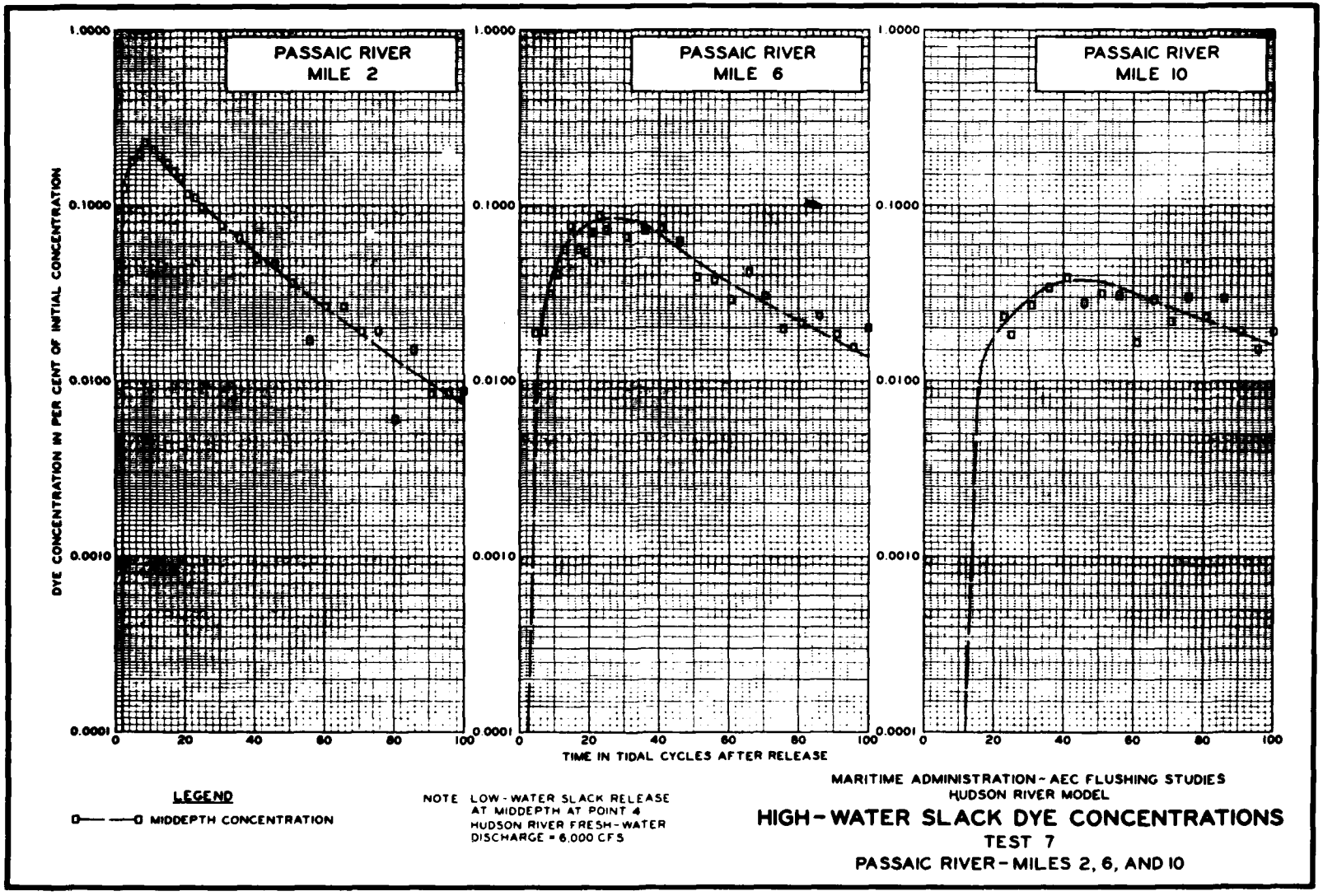
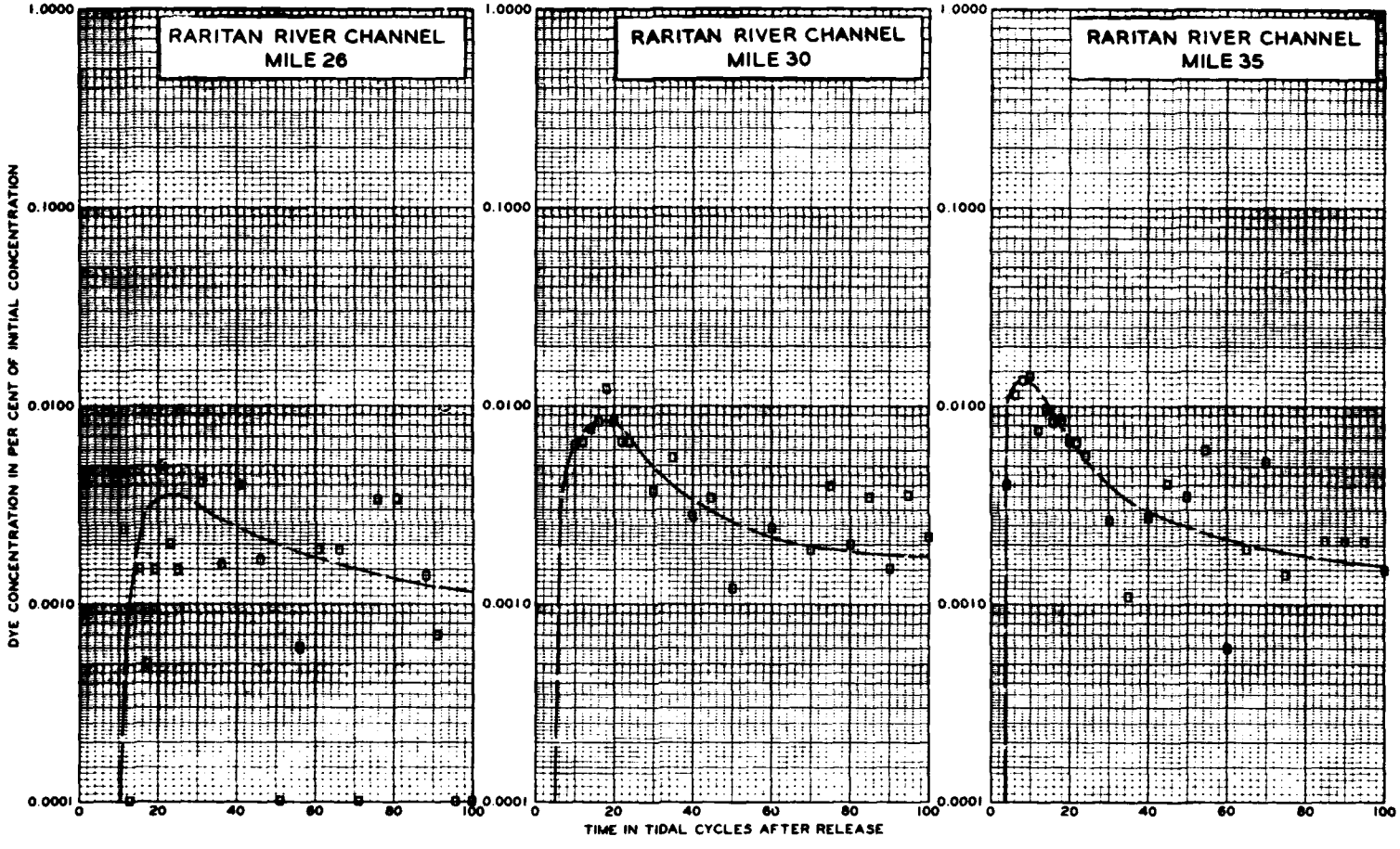

PASSAIC RIVER
MILE 2
PASSAIC RIVER
MILE 6
PASSAIC RIVER
MILE 10
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 4 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 7
PASSAIC RIVER - MILES 2, 6, AND 10

PLATE 85

PLATE 86



HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 7

RARITAN RIVER CHANNEL - MILES 26, 30, AND 35

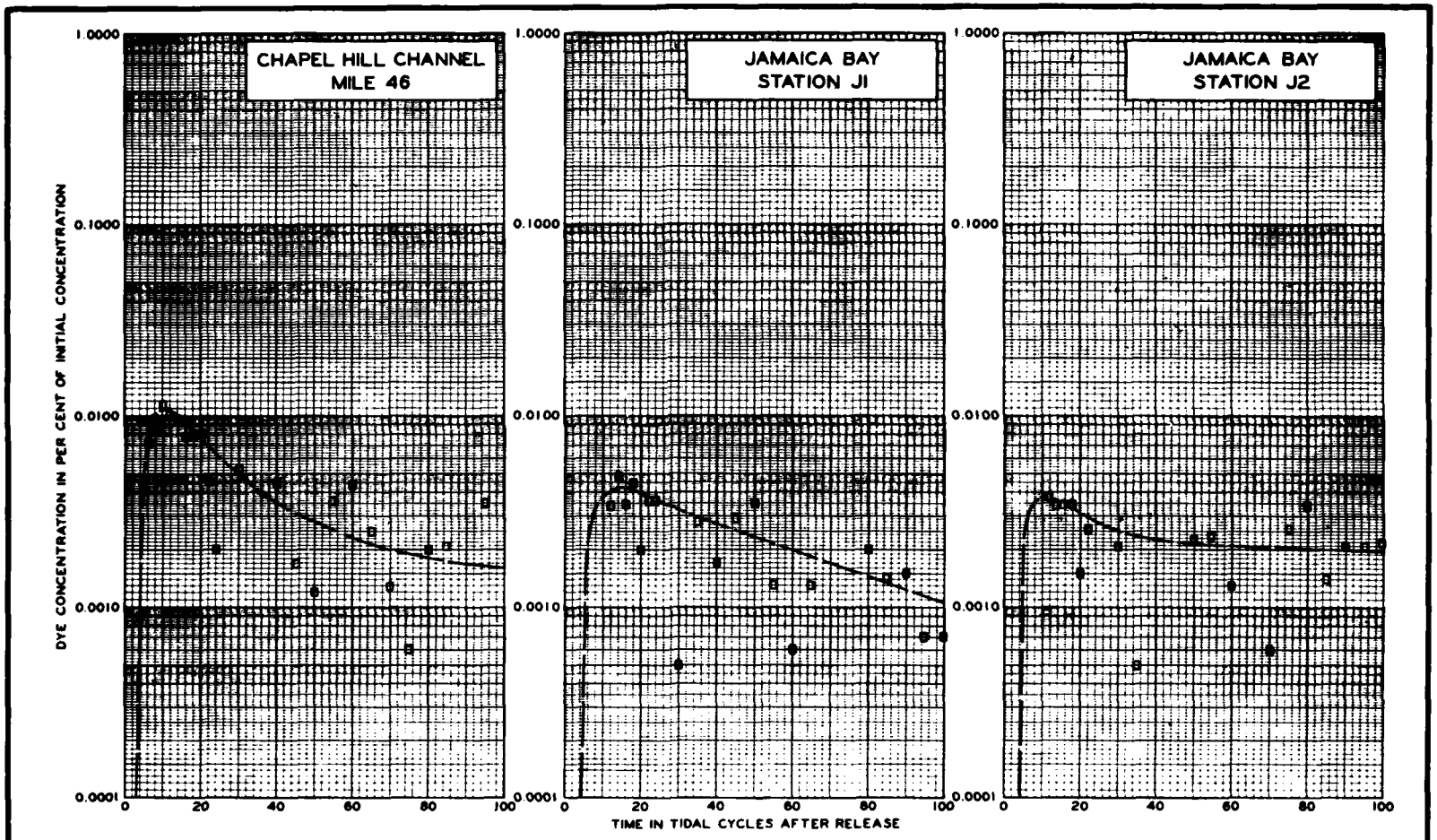
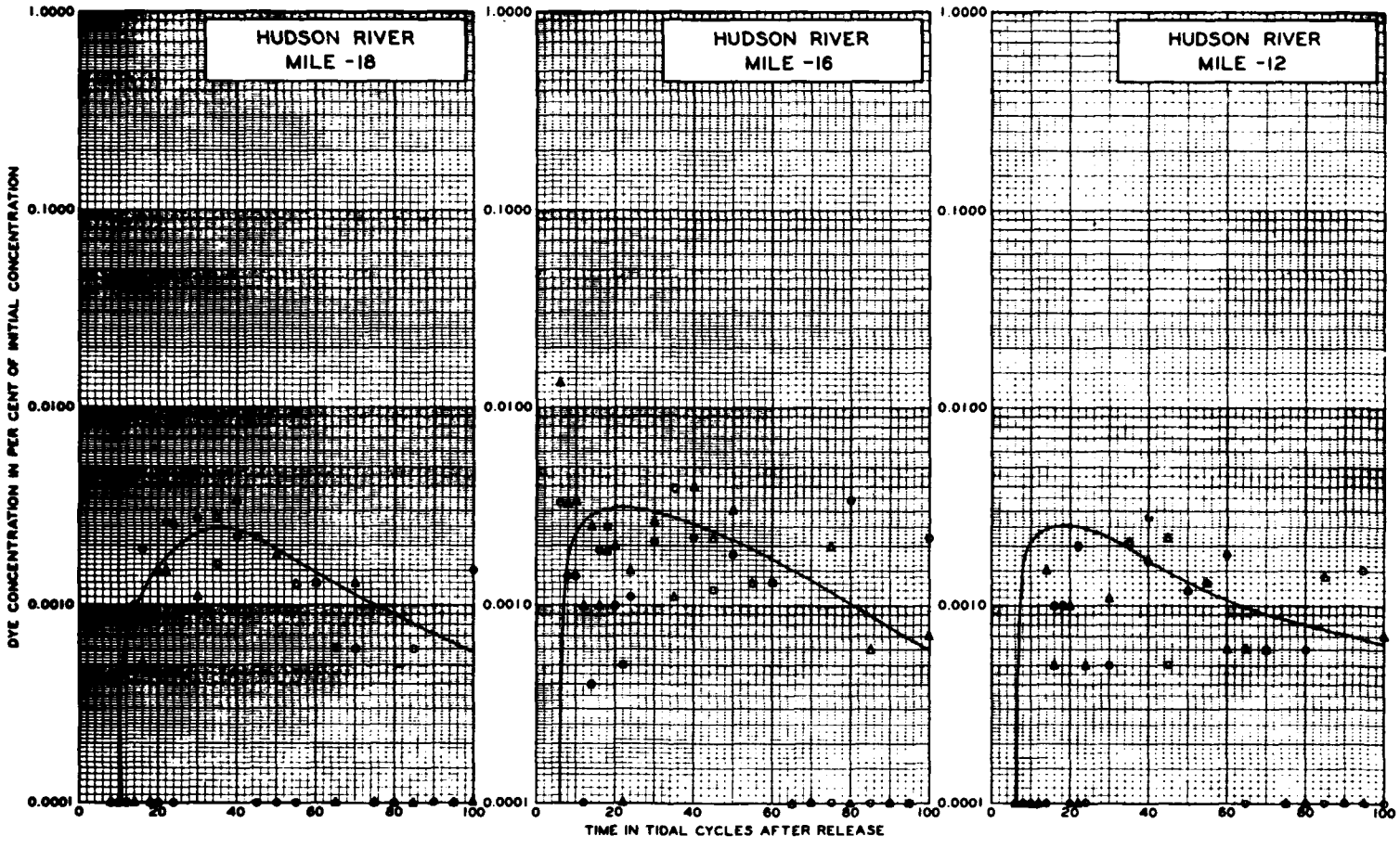

CHAPEL HILL CHANNEL
MILE 46
JAMAICA BAY
STATION J1
JAMAICA BAY
STATION J2
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 4. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 7
CHAPEL HILL CHANNEL AND JAMAICA BAY

PLATE 87

PLATE 88



MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 8

HUDSON RIVER-MILES -18, -16, AND -12

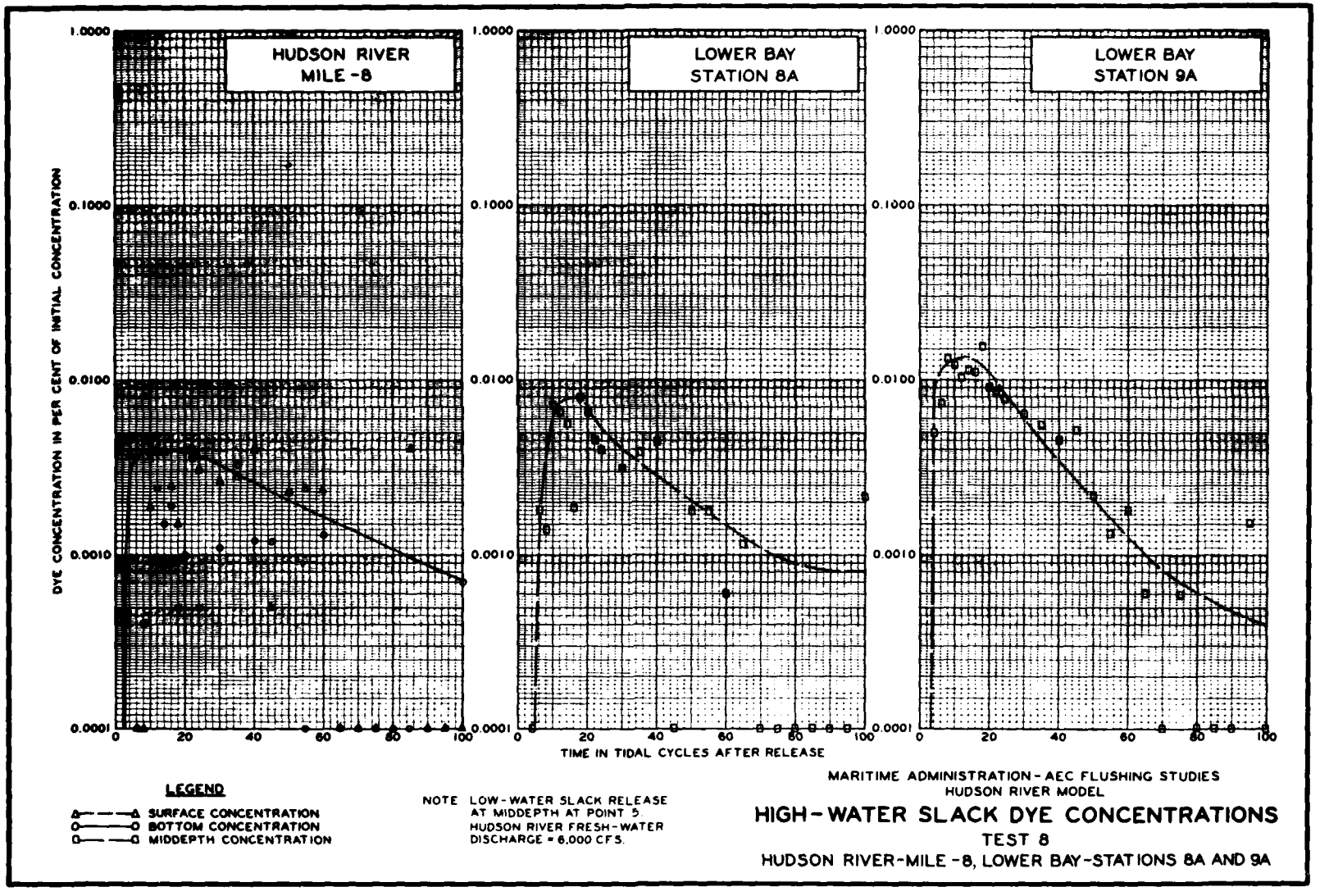
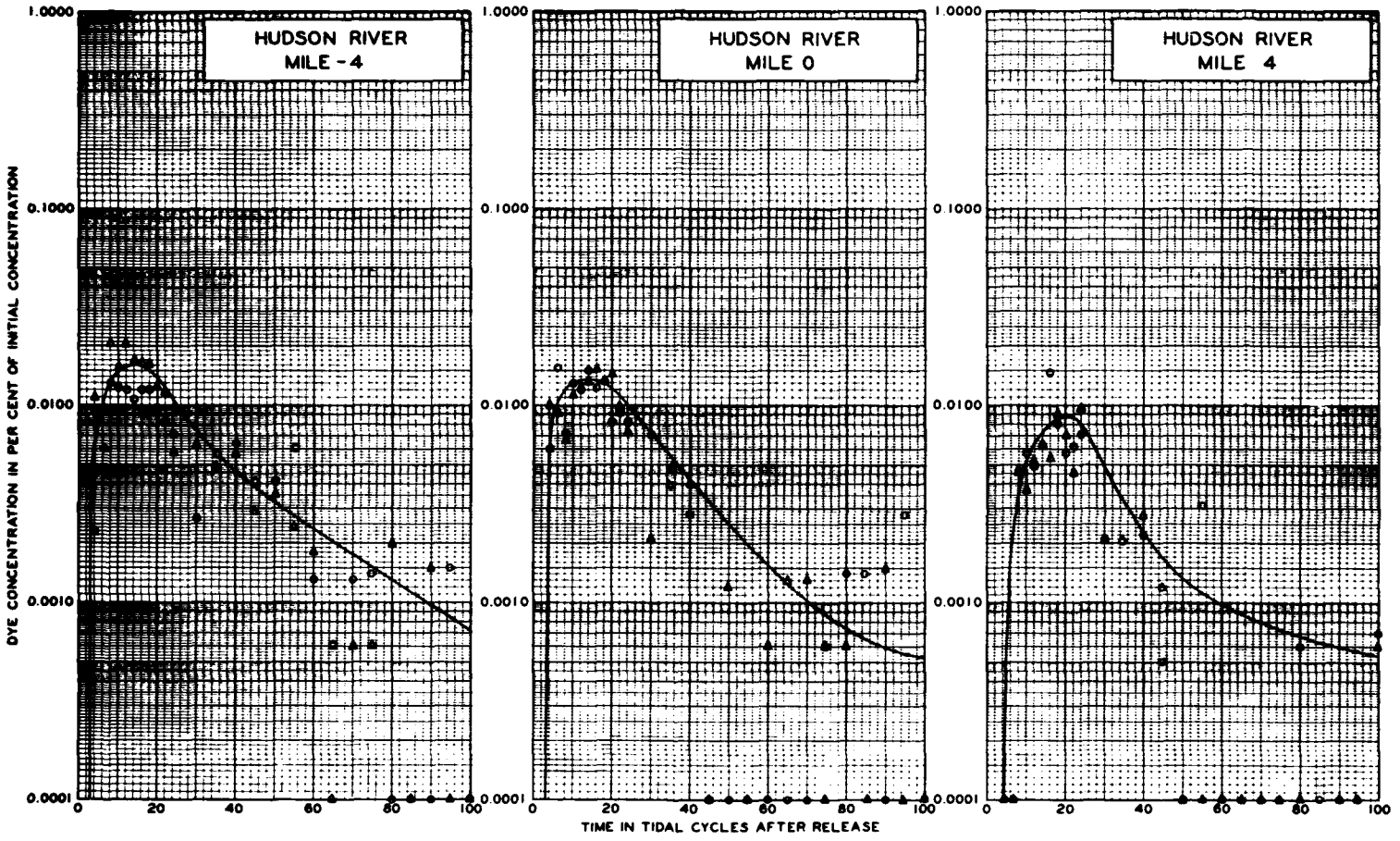

HUDSON RIVER
MILE -8
LOWER BAY
STATION 8A
LOWER BAY
STATION 9A
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 5. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 8
HUDSON RIVER-MILE -8, LOWER BAY-STATIONS 8A AND 9A

PLATE 89

PLATE 90



LEGEND

△———△ SURFACE CONCENTRATION
○———○ BOTTOM CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 5 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 8

HUDSON RIVER - MILES -4, 0, AND 4

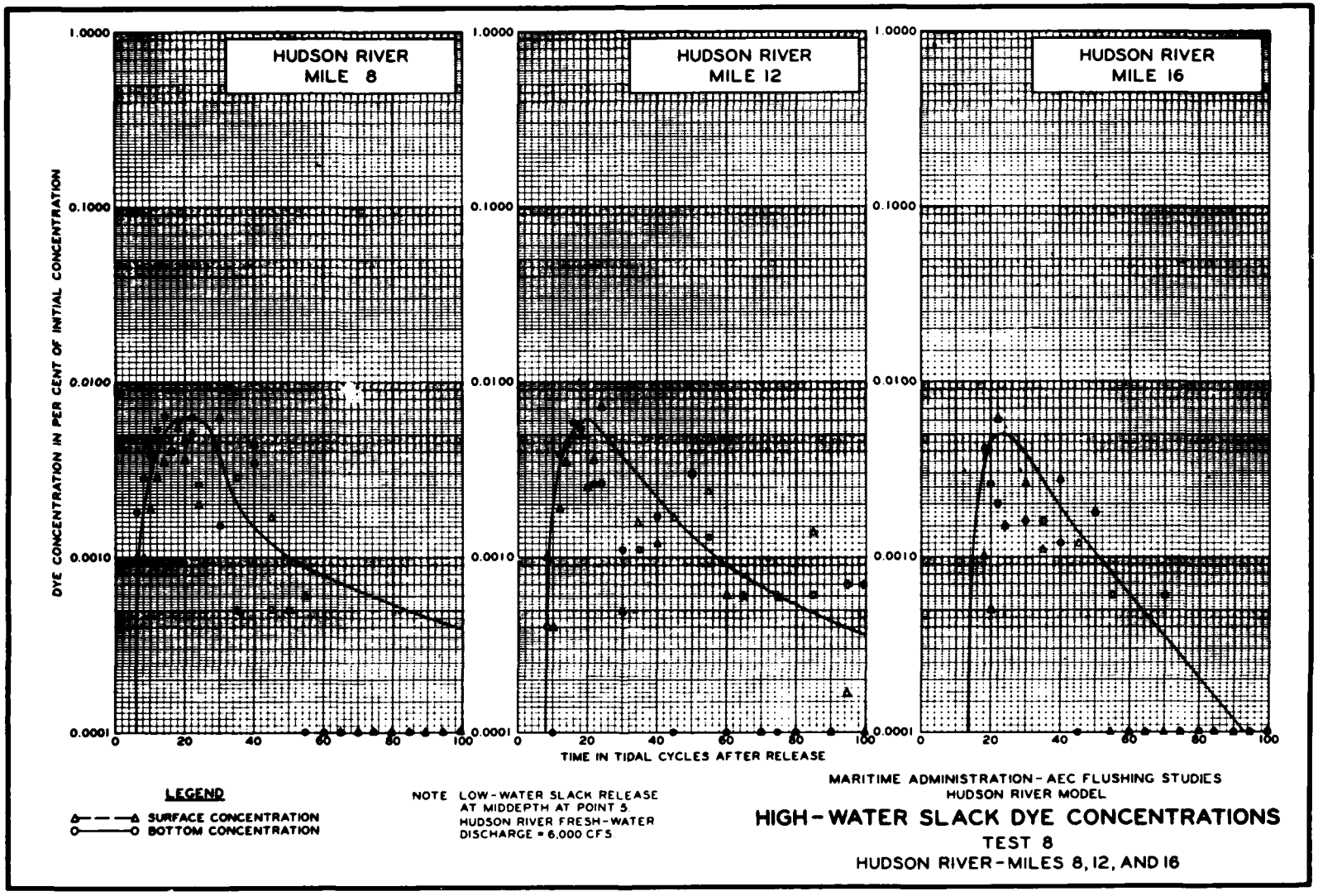
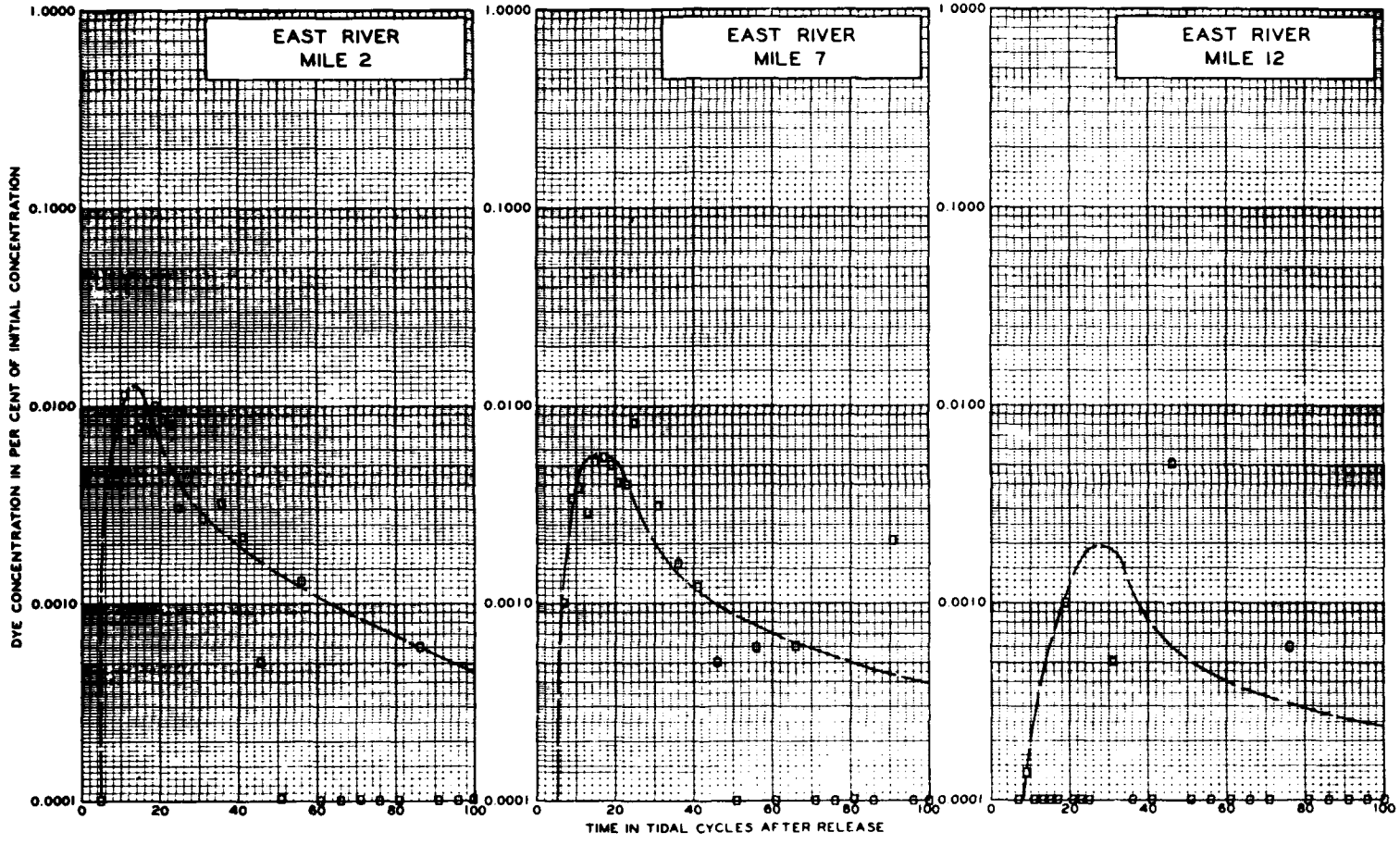

HUDSON RIVER
MILE 8
HUDSON RIVER
MILE 12
HUDSON RIVER
MILE 16
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 5
HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 8
HUDSON RIVER - MILES 8, 12, AND 16

PLATE 91

PLATE 92


EAST RIVER
MILE 2
EAST RIVER
MILE 7
EAST RIVER
MILE 12
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 5 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 8
EAST RIVER - MILES 2, 7, AND 12

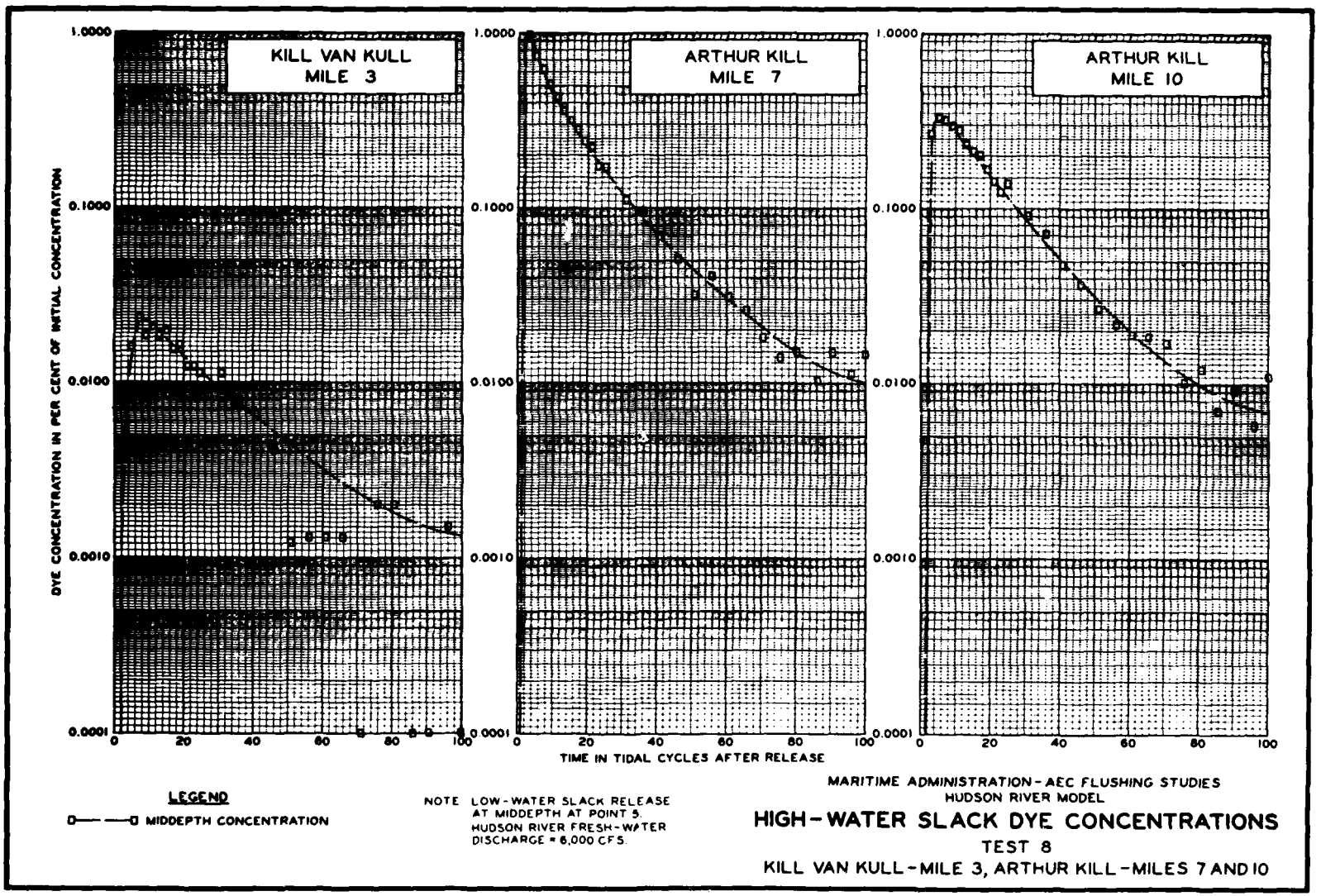
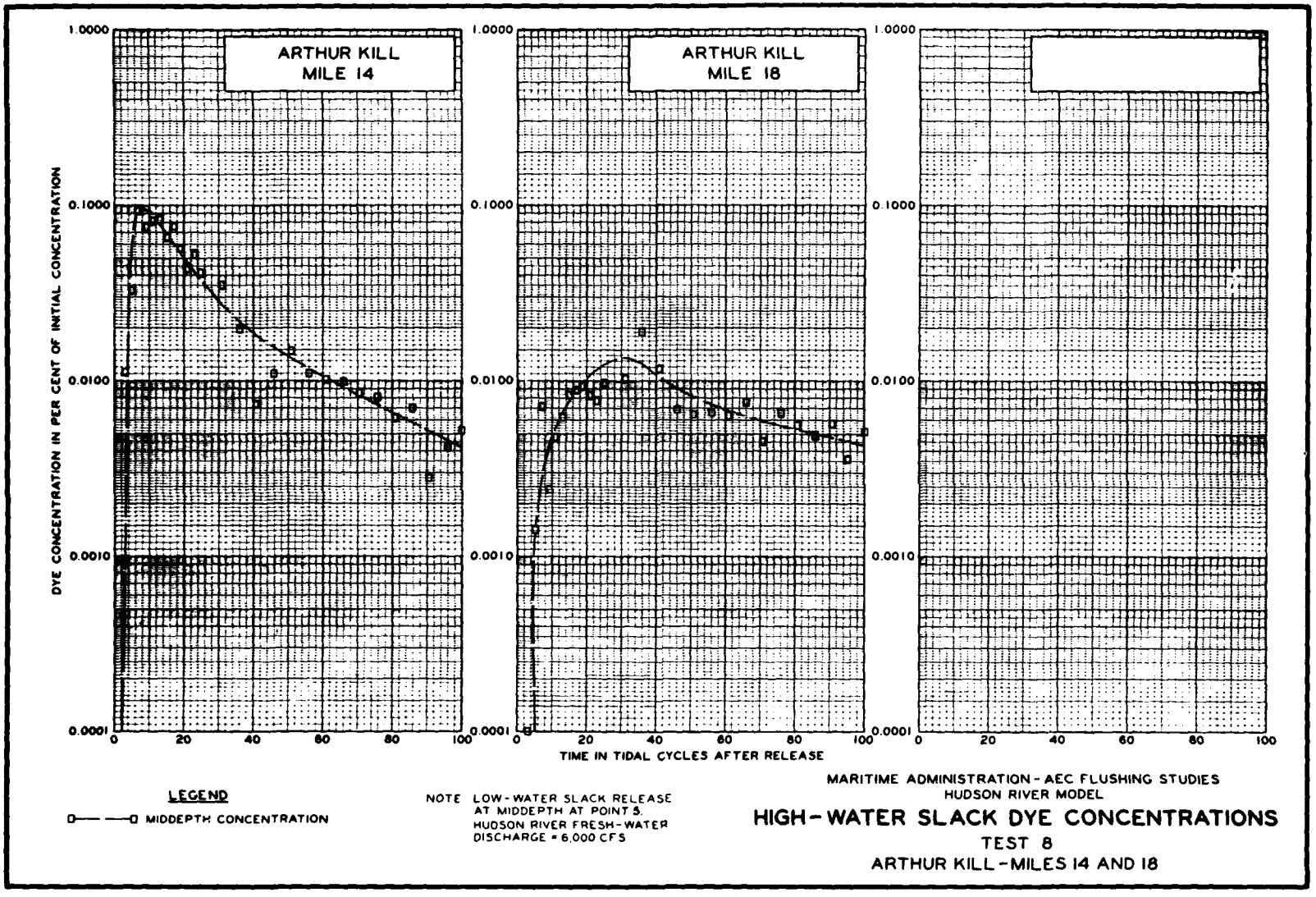

KILL VAN KULL
MILE 3
ARTHUR KILL
MILE 7
ARTHUR KILL
MILE 10
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 5. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION-AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 8
KILL VAN KULL-MILE 3, ARTHUR KILL-MILES 7 AND 10

PLATE 93

PLATE 94


ARTHUR KILL
MILE 14
ARTHUR KILL
MILE 18
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 3. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 8
ARTHUR KILL - MILES 14 AND 18

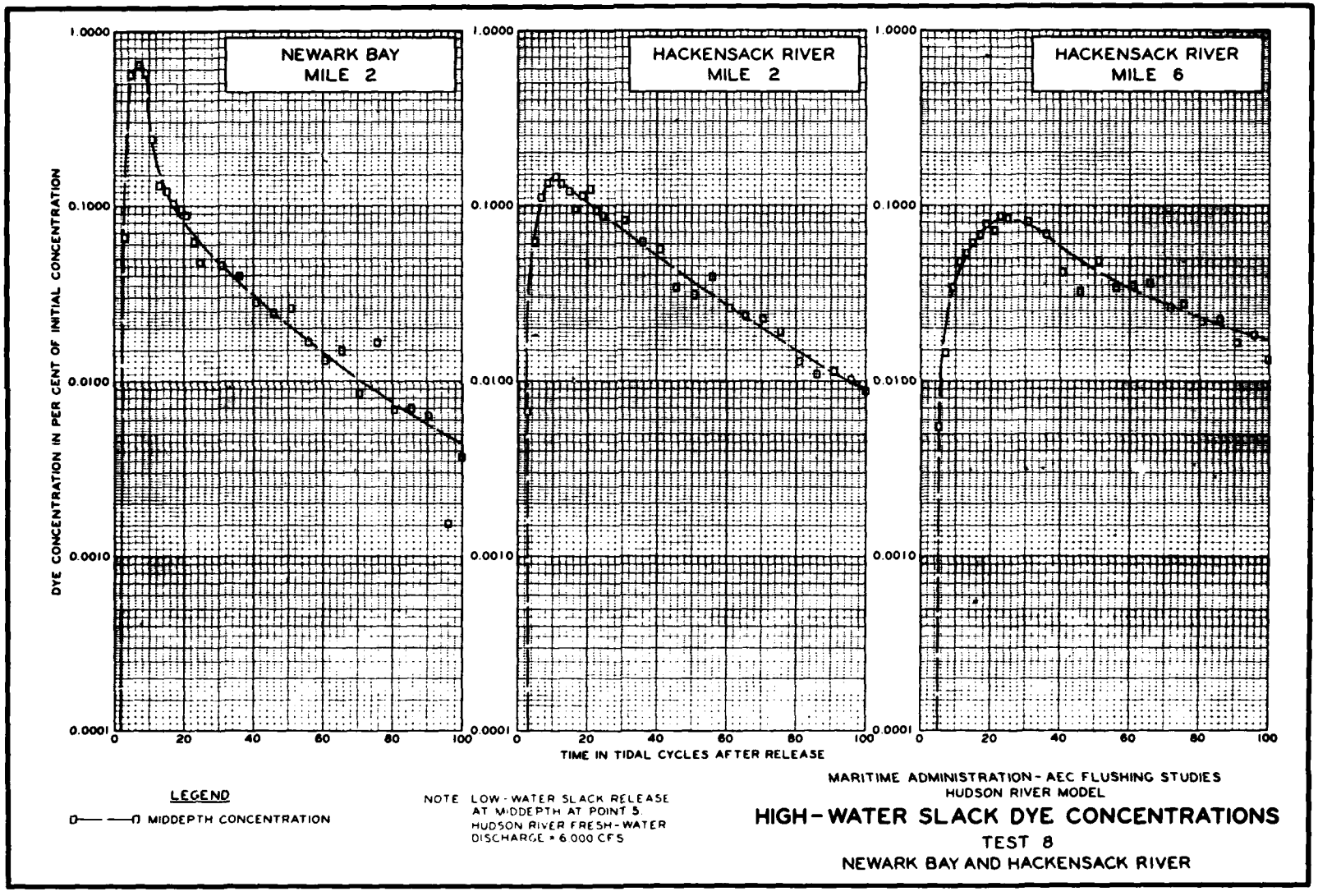
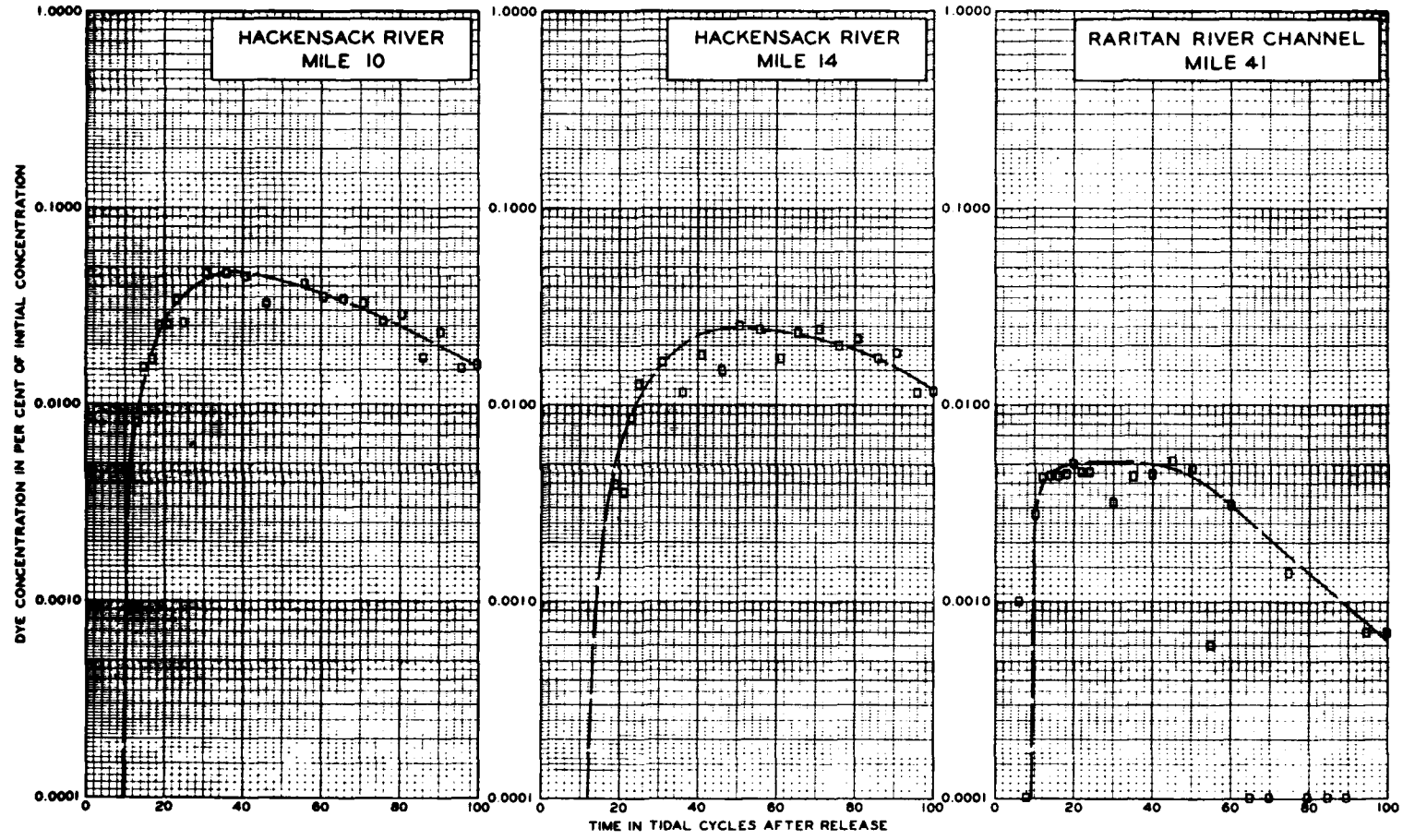

NEWARK BAY
MILE 2
HACKENSACK RIVER
MILE 2
HACKENSACK RIVER
MILE 6
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 5. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 8
NEWARK BAY AND HACKENSACK RIVER

PLATE 95

PLATE 96



LEGEND

o——o MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 5 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 8

HACKENSACK RIVER AND RARITAN RIVER CHANNEL

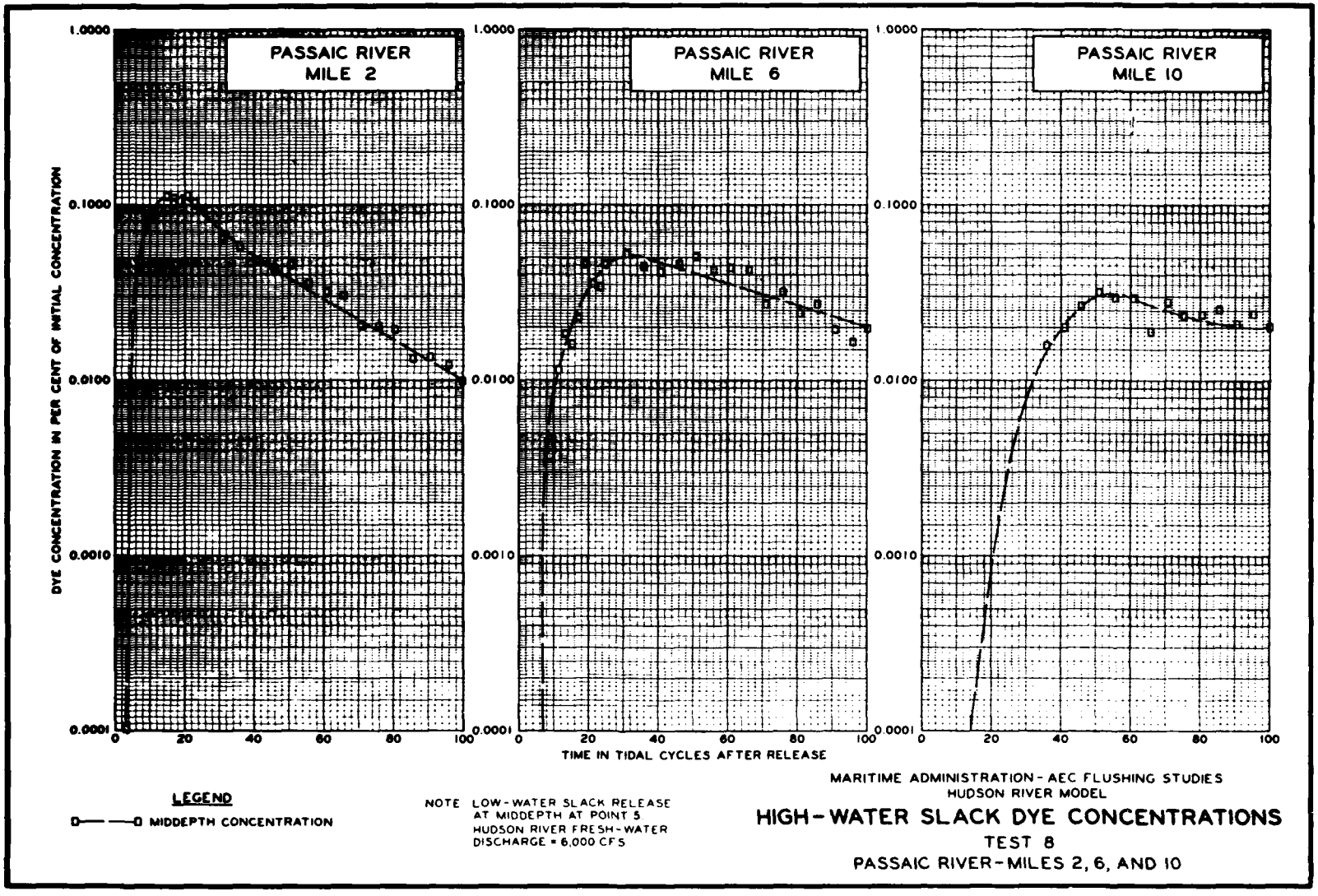
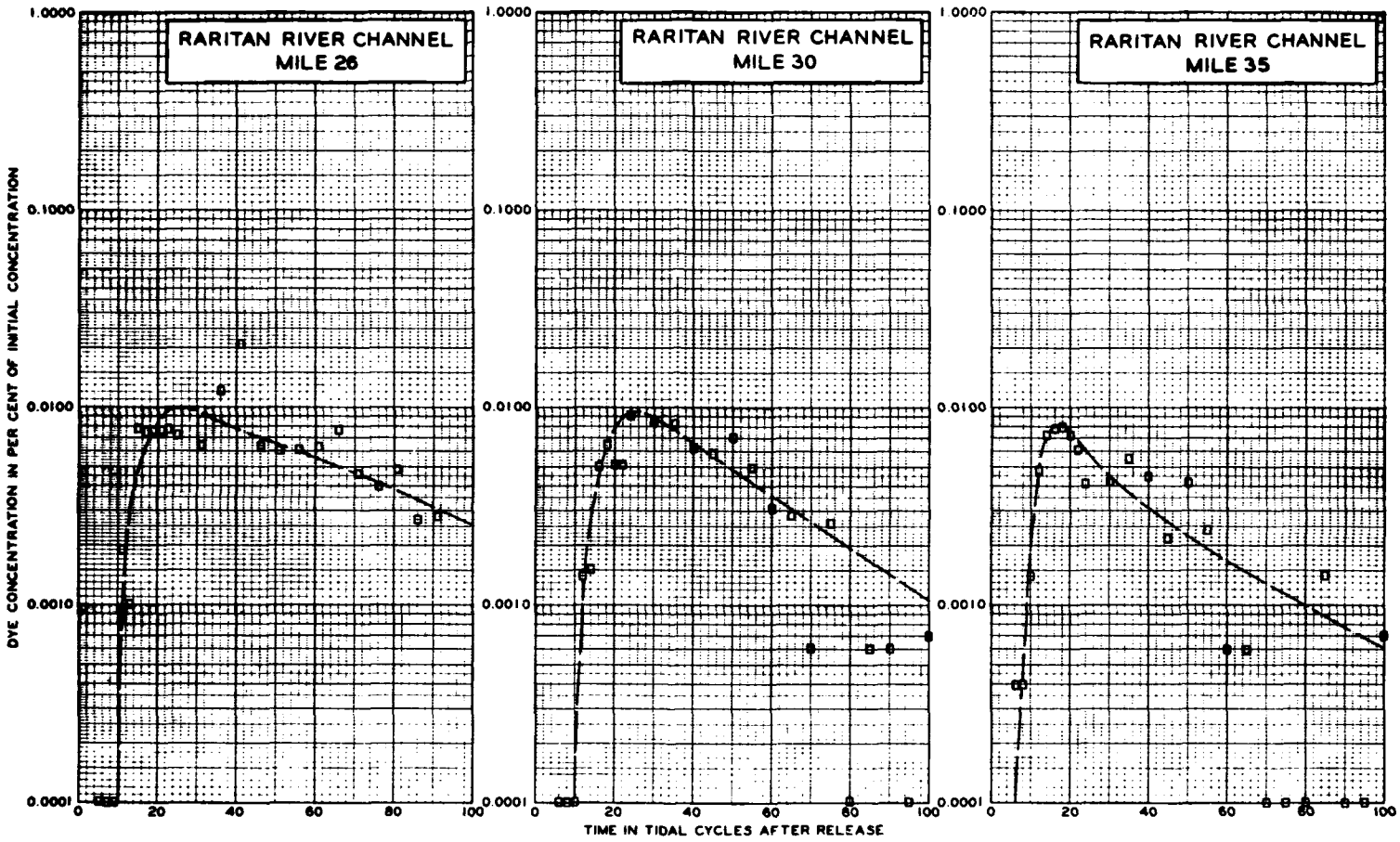

PASSAIC RIVER
MILE 2
PASSAIC RIVER
MILE 6
PASSAIC RIVER
MILE 10
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE
AT MIDDEPTH AT POINT 5
HUDSON RIVER FRESH-WATER
DISCHARGE = 6,000 CFS
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 8
PASSAIC RIVER-MILES 2, 6, AND 10

PLATE 97

PLATE 98



MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 8

RARITAN RIVER CHANNEL - MILES 26, 30, AND 35

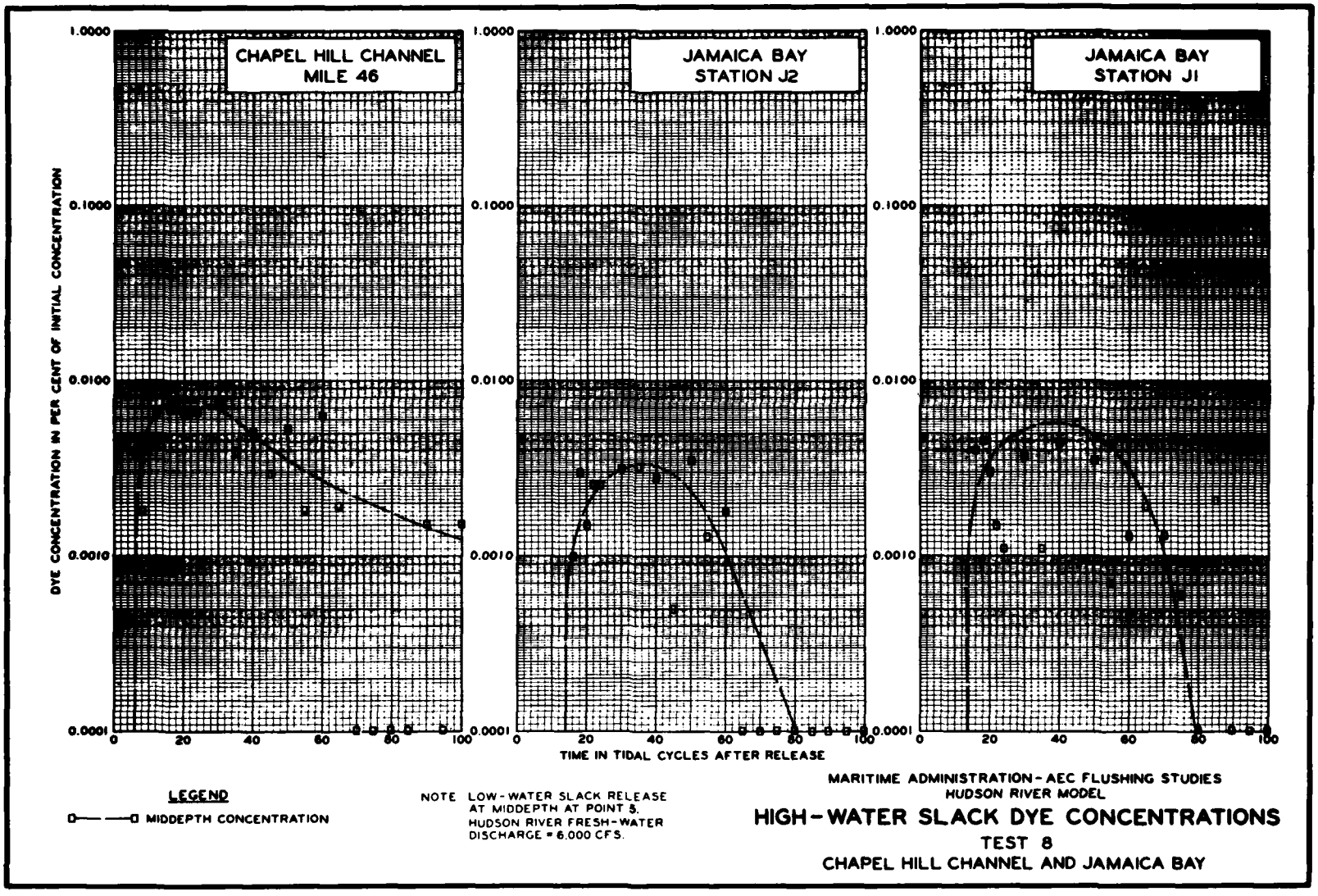
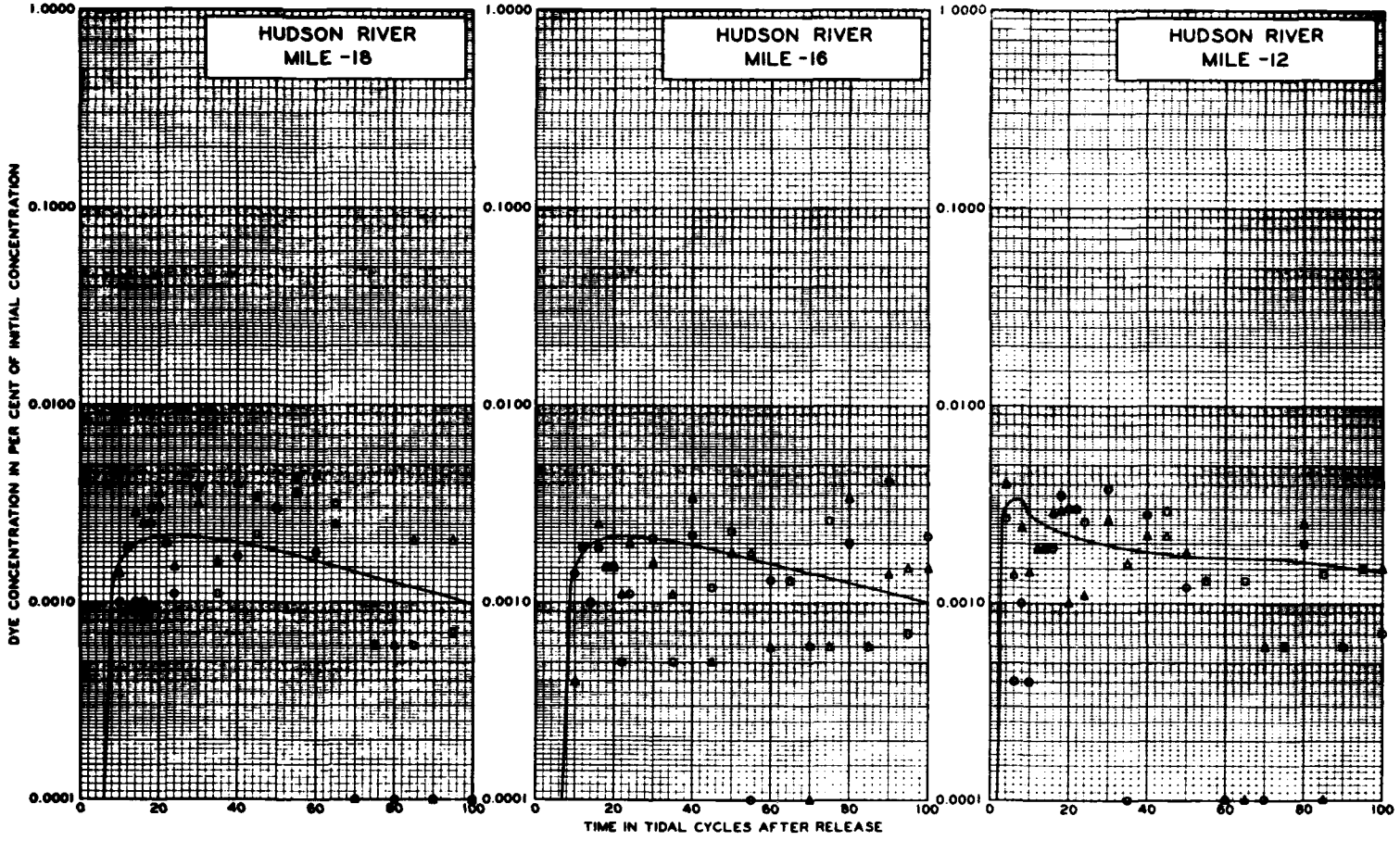

CHAPEL HILL CHANNEL
MILE 46
JAMAICA BAY
STATION J2
JAMAICA BAY
STATION J1
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT S. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 8
CHAPEL HILL CHANNEL AND JAMAICA BAY

PLATE 99

PLATE 100



MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 9

HUDSON RIVER - MILES -18, -16, AND -12

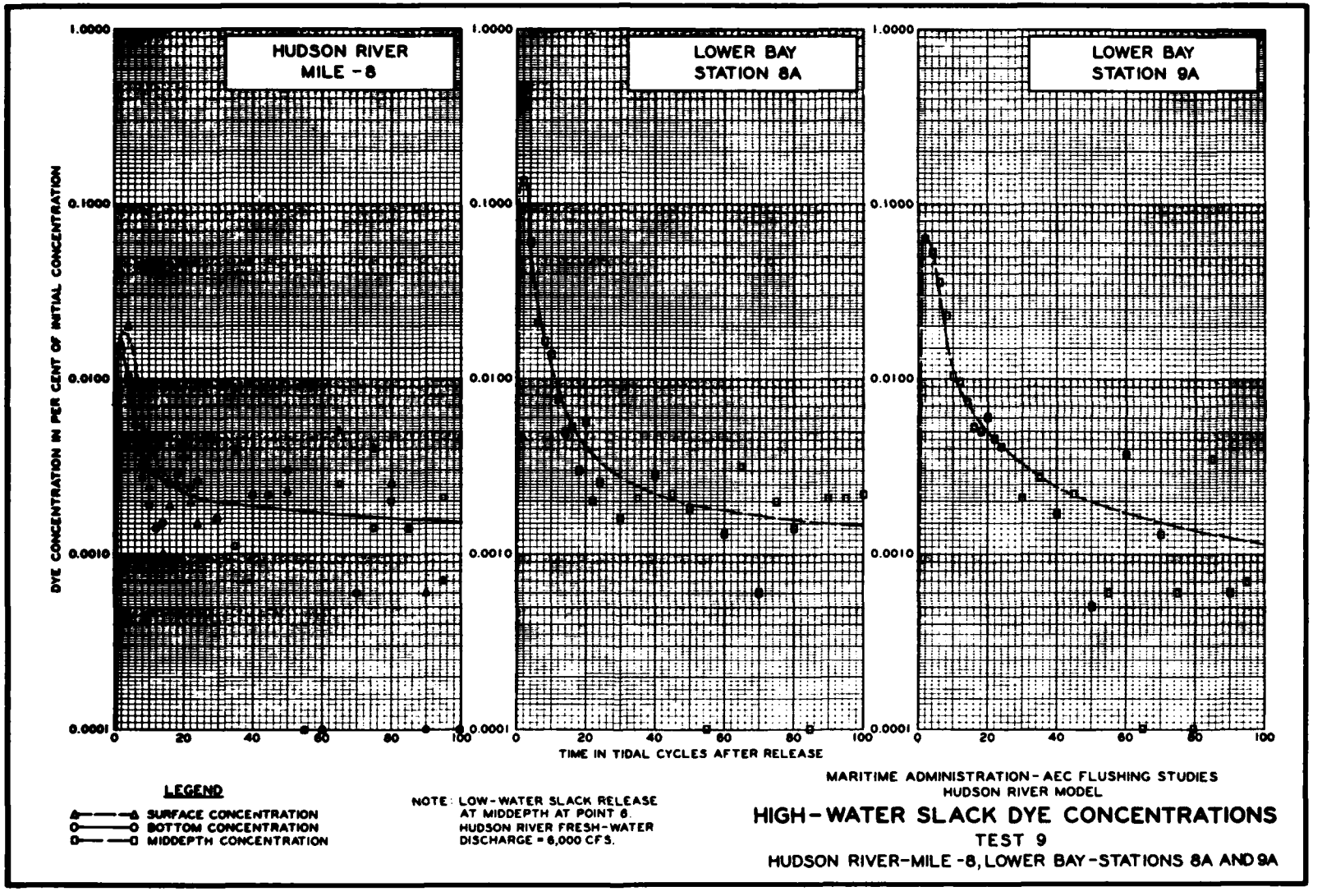
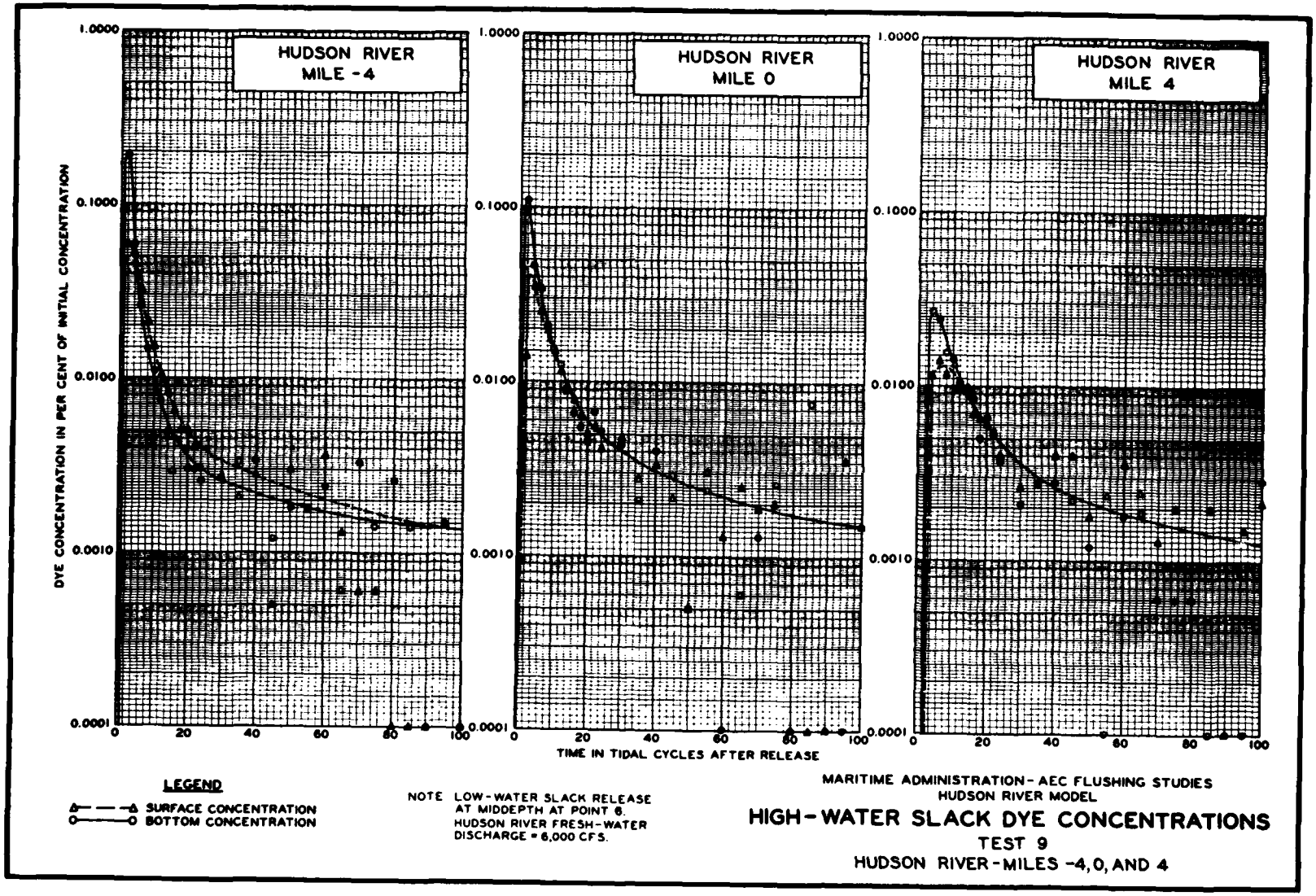

HUDSON RIVER
MILE - 8
LOWER BAY
STATION 8A
LOWER BAY
STATION 9A
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
MIDDEPTH CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 6. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 9
HUDSON RIVER-MILE -8, LOWER BAY-STATIONS 8A AND 9A

PLATE 101

PLATE 102


HUDSON RIVER
MILE -4
HUDSON RIVER
MILE 0
HUDSON RIVER
MILE 4
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 6. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 9
HUDSON RIVER - MILES -4, 0, AND 4

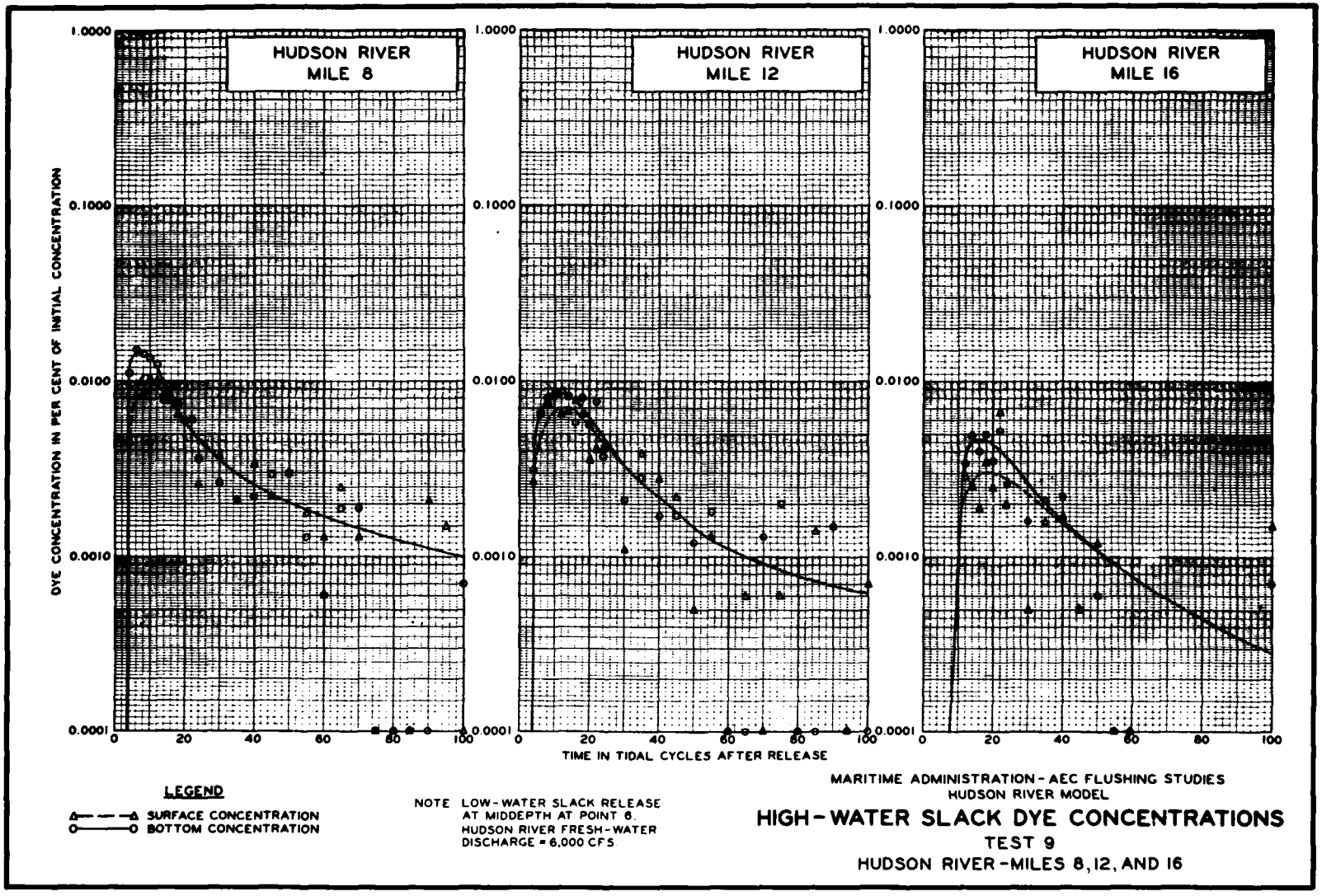
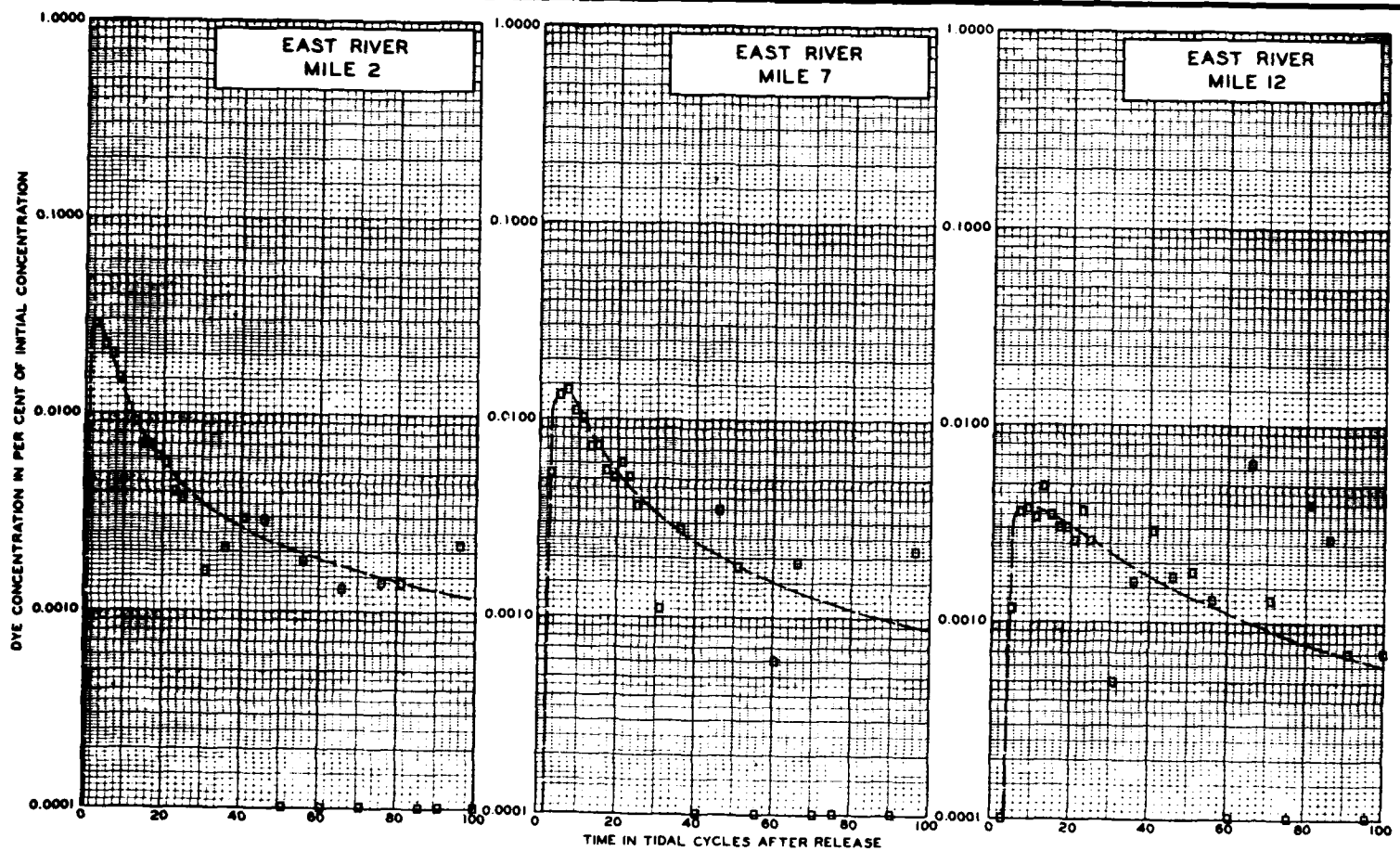
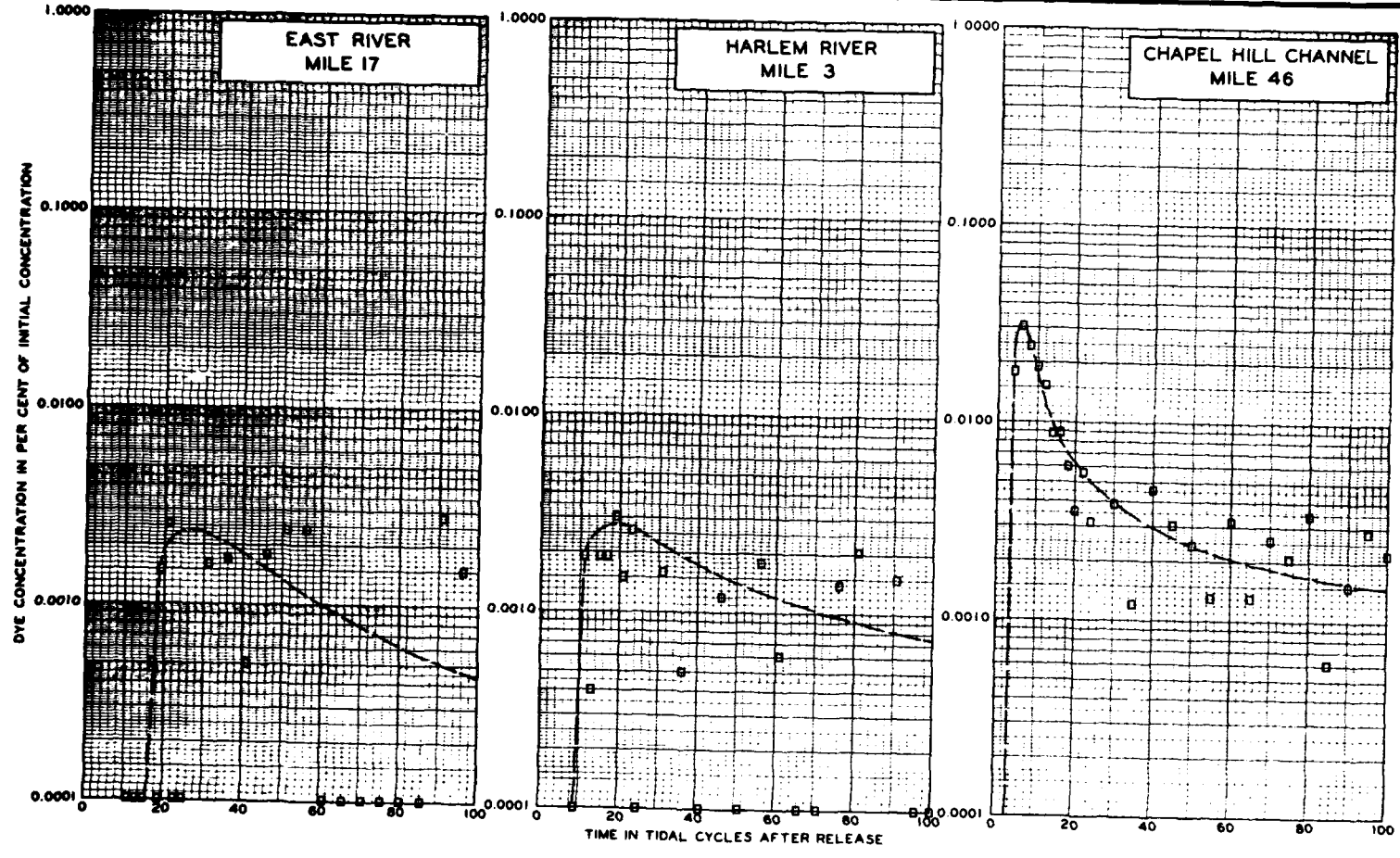

HUDSON RIVER
MILE 8
HUDSON RIVER
MILE 12
HUDSON RIVER
MILE 16
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
SURFACE CONCENTRATION
BOTTOM CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 6. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 9
HUDSON RIVER - MILES 8, 12, AND 16

PLATE 103

PLATE 104


EAST RIVER
MILE 2
EAST RIVER
MILE 7
EAST RIVER
MILE 12
DYE CONCENTRATION IN PER CENT OF INTIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 6 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 9
EAST RIVER - MILES 2, 7, AND 12



LEGEND

□——□ MIDDEPTH CONCENTRATION

NOTE: LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 6. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

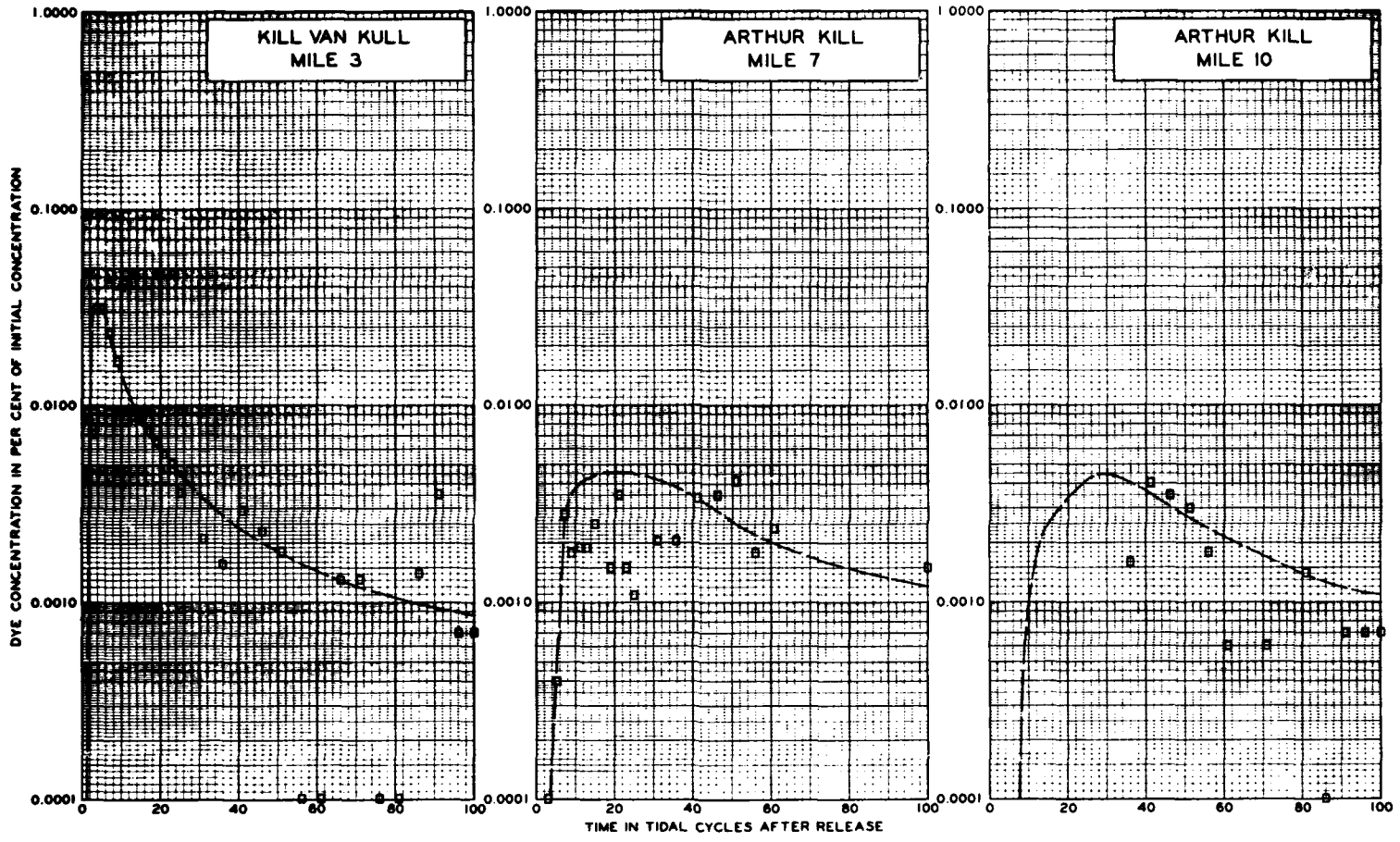
HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 9

EAST AND HARLEM RIVERS, CHAPEL HILL CHANNEL

PLATE 105

PLATE 106



LEGEND

MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 6 HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 9

KILL VAN KULL - MILE 3 AND ARTHUR KILL - MILES 7 AND 10

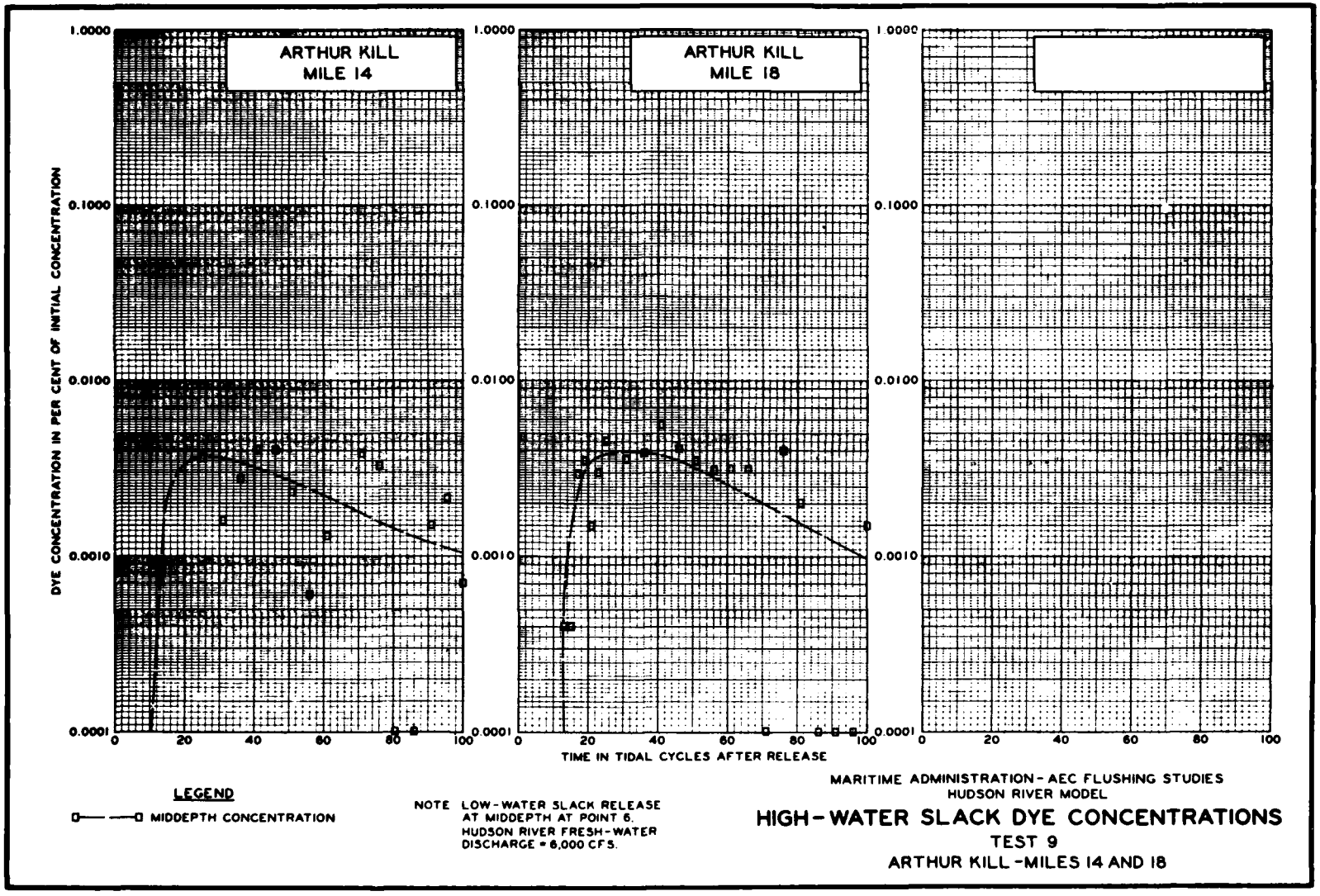

ARTHUR KILL
MILE 14
ARTHUR KILL
MILE 18
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 6. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 9
ARTHUR KILL - MILES 14 AND 18

PLATE 107

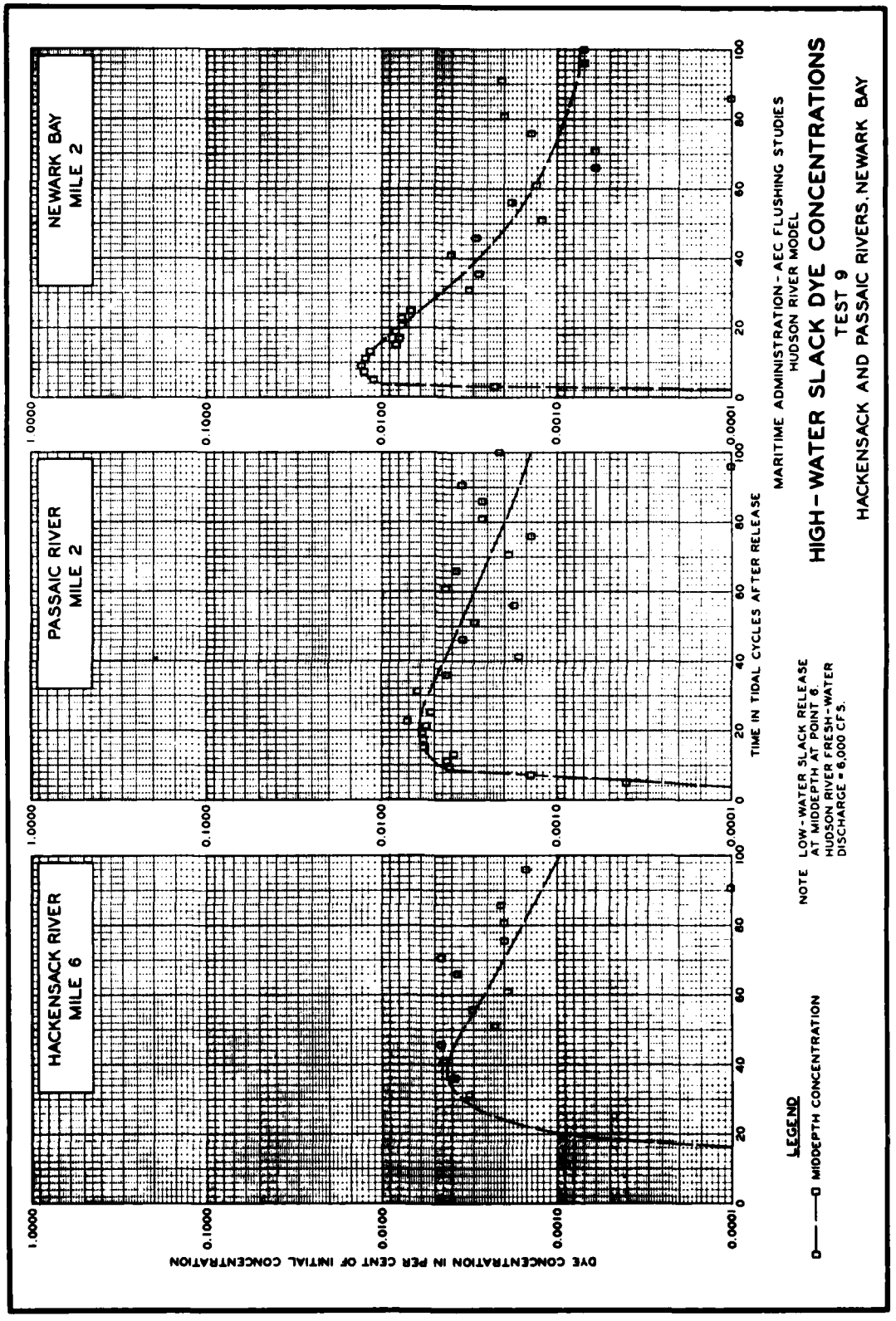

HACKENSACK RIVER
MILE 6
PASSAIC RIVER
MILE 2
NEWARK BAY
MILE 2
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 6. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 9
HACKENSACK AND PASSAIC RIVERS, NEWARK BAY

PLATE 108

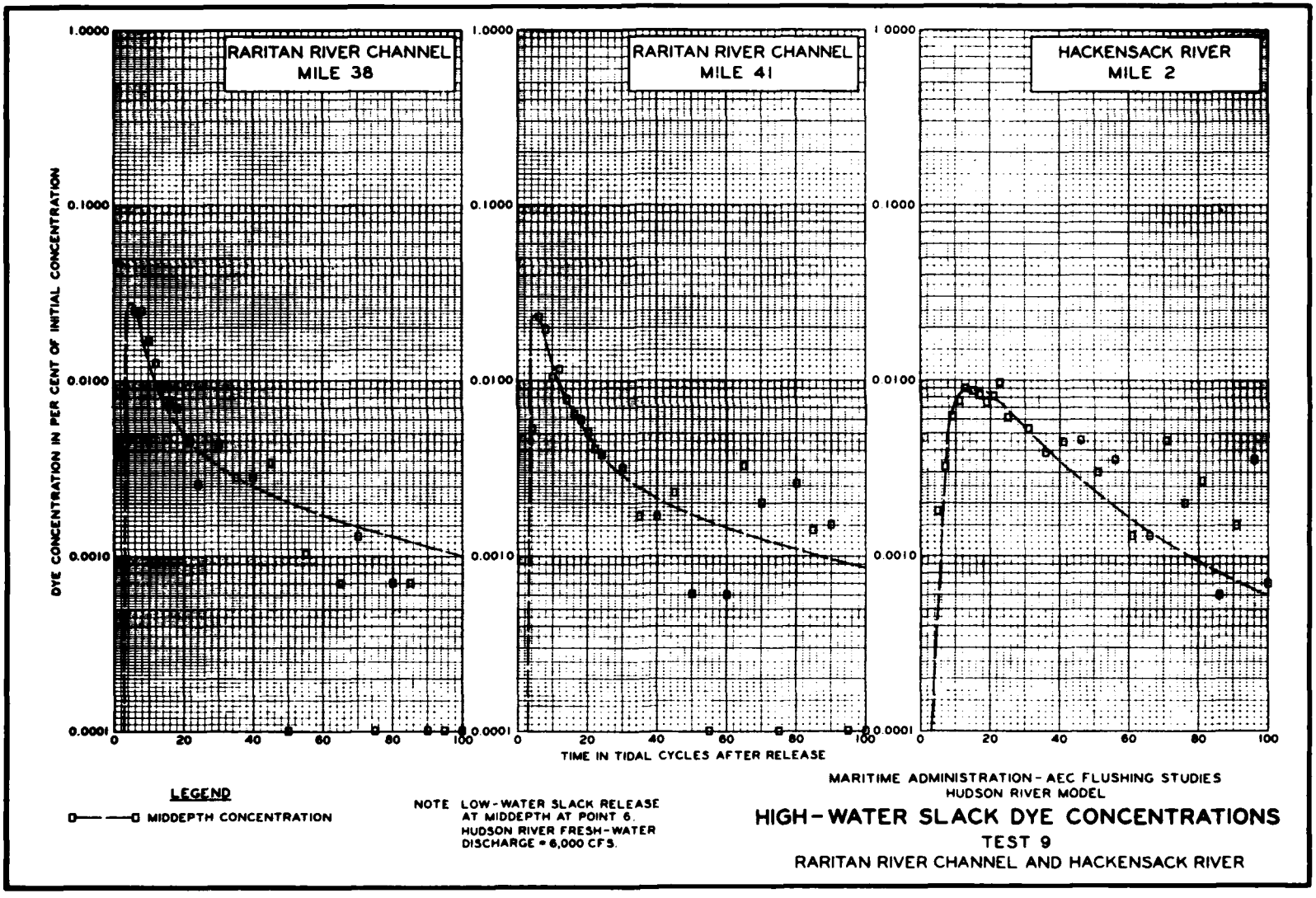
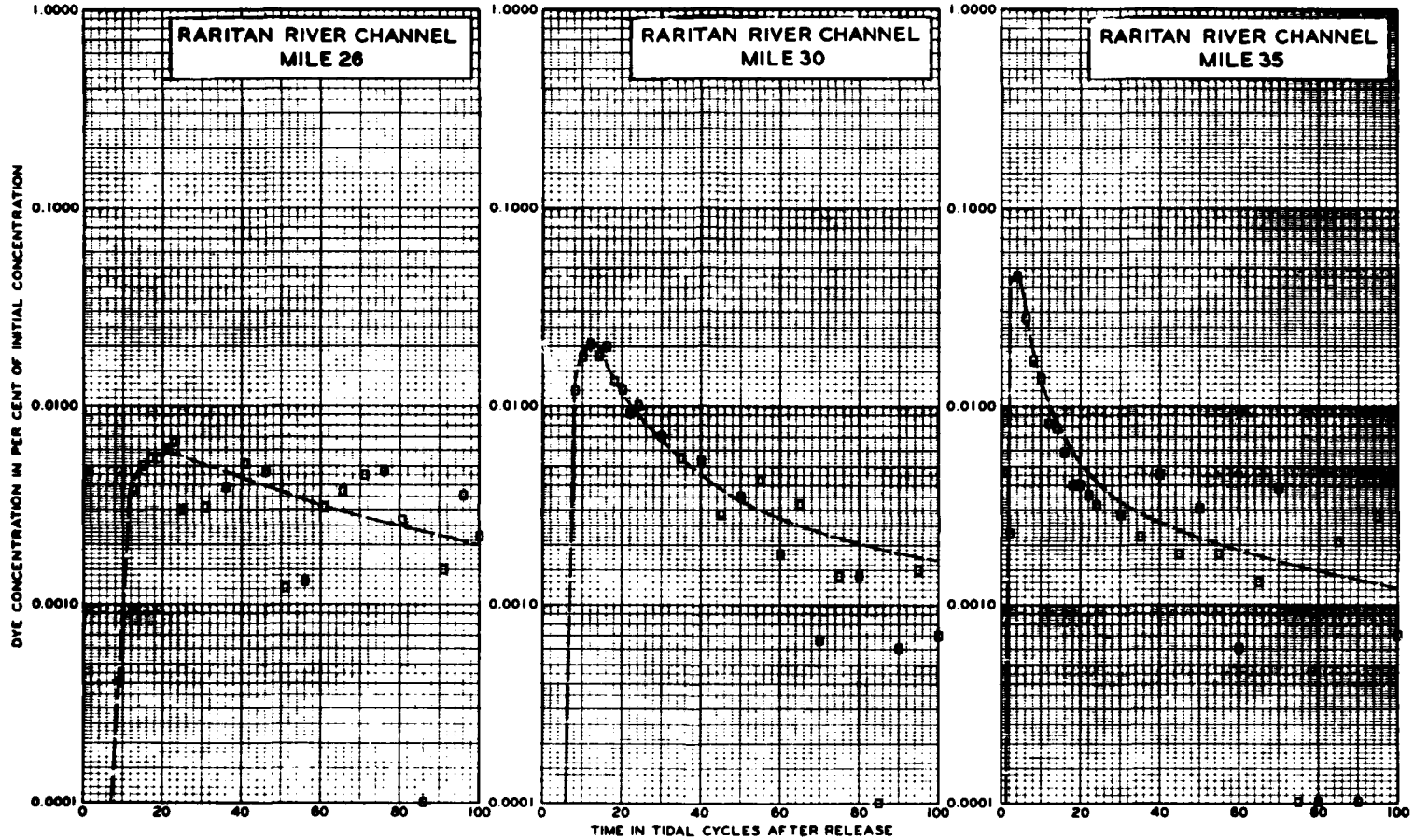

RARITAN RIVER CHANNEL
MILE 38
RARITAN RIVER CHANNEL
MILE 41
HACKENSACK RIVER
MILE 2
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 6. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 9
RARITAN RIVER CHANNEL AND HACKENSACK RIVER

PLATE 109

PLATE 110



LEGEND

o——o MIDDEPTH CONCENTRATION

NOTE LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 6. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.

MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL

HIGH-WATER SLACK DYE CONCENTRATIONS

TEST 9

RARITAN RIVER CHANNEL - MILES 26, 30, AND 35

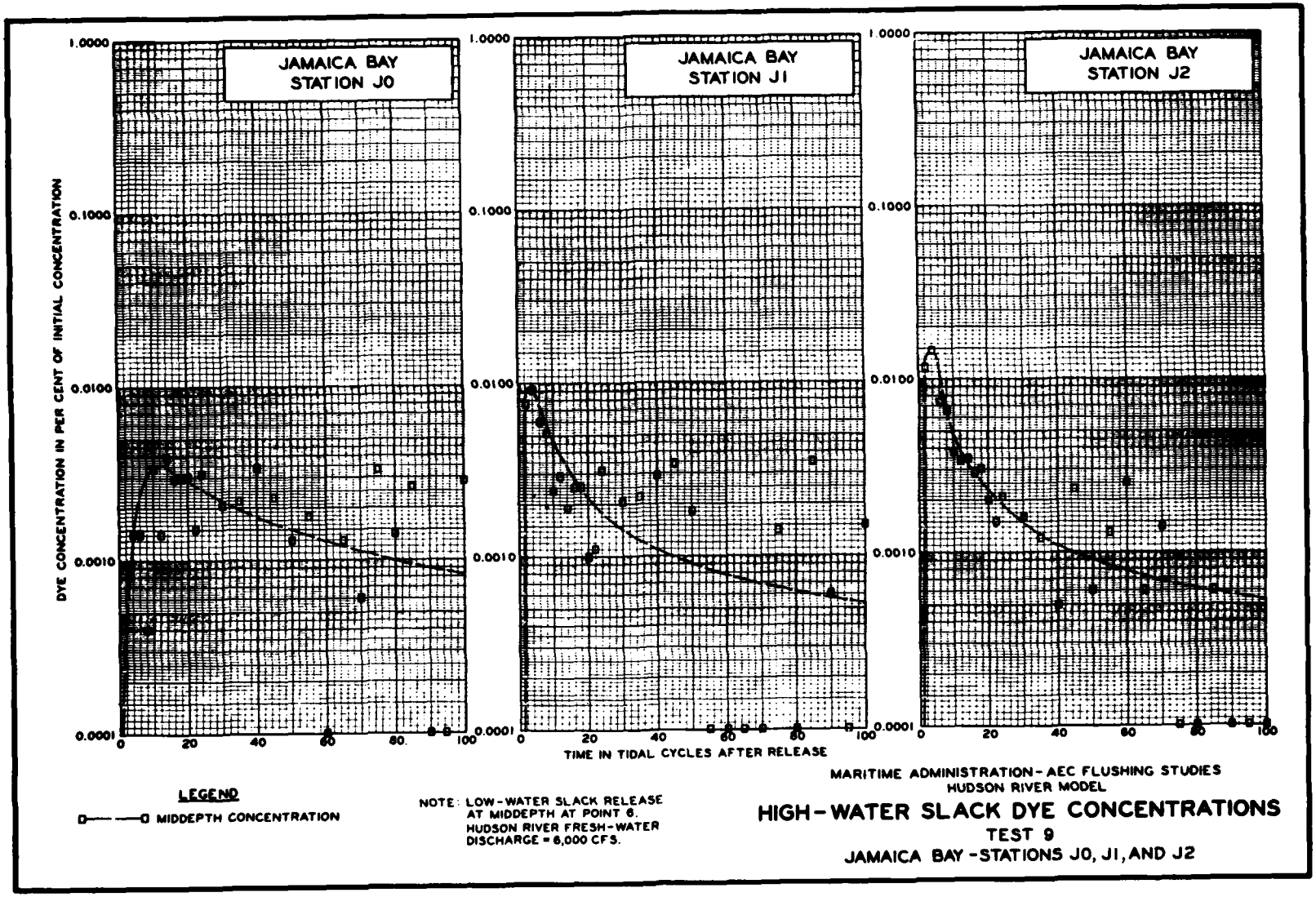

JAMAICA BAY
STATION J0
JAMAICA BAY
STATION J1
JAMAICA BAY
STATION J2
DYE CONCENTRATION IN PER CENT OF INITIAL CONCENTRATION
1.0000
0.1000
0.0100
0.0010
0.0001
0
20
40
60
80
100
TIME IN TIDAL CYCLES AFTER RELEASE
LEGEND
MIDDEPTH CONCENTRATION
NOTE: LOW-WATER SLACK RELEASE AT MIDDEPTH AT POINT 6. HUDSON RIVER FRESH-WATER DISCHARGE = 6,000 CFS.
MARITIME ADMINISTRATION - AEC FLUSHING STUDIES
HUDSON RIVER MODEL
HIGH-WATER SLACK DYE CONCENTRATIONS
TEST 9
JAMAICA BAY - STATIONS J0, J1, AND J2

PLATE III