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1972

~~WATER QUALITY~~
~~NO ISLAND~~

SOUTH SHORE WATER QUALITY DATA

1972

Nassau County Department of Health
Bureau of Water Pollution Control

REFERENCE DEPARTMENT
VERTICAL FILE
SUNY - STONY BROOK

NOV 9 1973

ATLANTIC OCEAN (WEST)
TIDE AND PRECIPITATION DATA

1972

LOCAL TIME

<u>Date</u>	<u>High Water</u> H.M.	<u>Low Water</u> H.M.	<u>Precipitation-Inches</u> Freeport
4/15			0.04
4/16			0.75
4/17	1003	1553	-
5/15			0.02
5/16			-
5/17	1144	1736	-
6/5			-
6/6			0.05
6/7	1633	1004	0.05
7/29			-
7/30			-
7/31	1151	1801	0.07
8/19			-
8/20			-
8/21	1747	1121	-

OCEAN WEST
AREA NO. 1
WATER QUALITY SURVEY RESULTS

FACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

1972

Sampling Point No. 401				Sampling Point No. 402				Sampling Point No. 403				
Date	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
4/17	1120	3.6	< 3.0	1115	7.3	< 3.0	1105	9.1	< 3.0	1105	9.1	< 3.0
	1131	< 3.0	< 3.0	1140	< 3.0	< 3.0	1140	3.6	< 3.0	1145	3.6	< 3.0
5/17	1115	9.1	3.6	1105	23	< 3.0	1100	93	93	1100	93	93
6/7	1100	2400	28	1055	3.6	< 3.0	1048	7.3	< 3.0	1048	7.3	< 3.0
	1105	430	430	1110	9.1	< 3.0	1114	21	21	1114	21	21
7/31	1115	23	< 3.0	1106	43	< 3.0	1100	< 3.0	< 3.0	1100	< 3.0	< 3.0
8/21	1005	3.6	3.6	1001	3.6	< 3.0	0955	< 3.0	< 3.0	0955	< 3.0	< 3.0
	1007	3.0	3.0	1013	< 3.0	< 3.0	1015	< 3.0	< 3.0	1015	< 3.0	< 3.0
Median		6.3	3.3		5.4	3.0		5.4	3.0		5.4	3.0
Log Average		20.0	7.7		7.3	3.0		7.7	4.6		7.7	4.6

OCEAN WEST
AREA NO. 1

Bacs
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WATER QUALITY SURVEY RESULTS

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

1972

Date	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
							Sampling Point No. 404		
							Sampling Point No. 405		
							Sampling Point No. 406		
4/17	1100	< 3.0	< 3.0	1055	3.6	< 3.0	1043	9.1	< 3.0
	1149	3.0	< 3.0	1152	< 3.0	< 3.0	1150	9.1	< 3.0
5/17	1045	150	75	1035	430	430	1030	240	240
6/7	1044	3.6	3.6	1040	23	3.6	1033	43	9.1
	1118	23	9.1	1122	9.1	3.6	1124	23	3.6
7/31	1049	3.6	< 3.0	1045	43	3.6	1036	43	7.3
8/21	0947	< 3.0	< 3.0	0945	< 3.0	< 3.0	0943	3.6	3.6
	1022	3.6	< 3.0	1019	< 3.0	< 3.0	1026	< 3.0	< 3.0

Median 3.6 3.0 6.3 3.0 16.0 3.6

Log Average 6.8 5.3 11.8 6.0 17.6 7.0

OCEAN WEST
AREA NO. 1

BACS
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WATER QUALITY SURVEY RESULTS

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

1972

Date	Sampling Point No. 407			Sampling Point No. 408			Sampling Point No. 409		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
4/17	1033	< 3.0	< 3.0	1029	9.1	< 3.0	1015	43	< 3.0
	1200	9.1	< 3.0	1205	9.1	< 3.0	1210	< 3.0	< 3.0
5/17	1025	240	240	1015	23	9.1	1007	9.1	9.1
6/7	1030	23	9.1	1028	9.1	< 3.0	1020	3.6	3.6
	1126	23	23	1129	7.3	7.3	1133	240	21
7/31	1032	9.1	< 3.0	1028	23	3.6	1023	43	9.1
8/21	0940	9.1	9.1	0936	23	23	0932	7.3	< 3.0
	1030	< 3.0	< 3.0	1033	< 3.0	< 3.0	1035	3.6	3.6
Median		9.1	6.0		9.1	3.3		8.2	3.6
Log Average		13.1	8.8		10.9	5.1		13.6	5.3

OCEAN WEST
AREA NO. 1

WATER QUALITY SURVEY RESULTS

Bacs
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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

1972

Sampling Point No. 410		Sampling Point No. 411		Sampling Point No. 412		
Date	Time	Total	Fecal	Time	Total	Fecal
4/17	1010	3.6	3.6	0945	23	< 3.0
	1210	15	3.6	1230	9.1	3.6
5/17	1000	930	430	0950	< 3.0	-
6/7	1015	23	9.1	1005	240	240
	1135	430	93	1145	23	3.6
7/31	1015	9.1	3.6	0948	3.6	3.6
8/21	0924	15	15	0915	43	3.6
	1040	43	43	1105	23	23
Median		19.0	12.0		23.0	3.6
Log Average		36.1	18.0		18.3	8.2

OCEAN WEST
 AREA NO. 1
WATER QUALITY SURVEY RESULTS
 1972

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CHEMICAL RESULTS

SAMPLING POINT - L01

Date	Time	Chlorides	pH	Suspended Solids	Temp OC	D.O.	B.O.D.
4/17	1131	18,000	7.9	33	7.0	9.8	2 ***
5/17	1115	16,400	7.1	32	10.0	10.6	3
6/7	1100	16,400	7.9	26	-	7.4	2
7/31	1115	18,600	8.0	31	19.2	8.0	3 ***
8/21	1005	18,000	7.9	56	21.0	6.4	1 ***
Averages		17,500	7.7	36	14.3	8.5	2

- Notes:
- (1) All readings are in mg/l unless otherwise noted.
 - (2) Chlorides expressed as mg/l Cl.
 - (3) pH average is logarithmic
 - (4) * Designates 4 day B.O.D.
 - (5) ** Designates 6 day B.O.D.
 - (6) *** Designates 7 day B.O.D.
 - (7) **** Designates 8 day B.O.D.

OCEAN WEST
 AREA NO. 1
WATER QUALITY SURVEY RESULTS

Chem.
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1972

CHEMICAL RESULTS

SAMPLING POINT - 401

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄		Total
		NH ₃	NO ₂	NO ₃		Ortho	Total	
4/17	1131	0.10	0.003	0.05	29.8	0.12	0.12	0.17
5/17	1115	0.02	0.002	< 0.01	-	0.10	0.10	0.17
6/7	1100	0.12	0.010	< 0.02	-	0.39	0.39	0.48
7/31	1115	0.04	< 0.001	0.05	32.0	0.11	0.11	0.17
8/21	1005	0.14	0.006	0.01	32.0	0.20	0.20	0.26
Averages		0.08	0.004	0.03	31.3	0.18	0.18	0.25

Notes: See Sampling Point - 401

OCEAN WEST
 AREA NO. 1
WATER QUALITY SURVEY RESULTS

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1972
 CHEMICAL RESULTS

SAMPLING POINT - 403

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
4/17	1105	17,800	7.9	25	6.5	9.2	2 ***
5/17	1100	16,800	7.7	40	10.0	9.0	2
6/7	1048	18,000	7.9	30	-	9.0	6
7/31	1100	18,400	8.1	32	20.1	9.4	4 ***
8/21	0955	18,200	8.0	64	21.2	7.6	1 ***
Averages		17,800	7.9	38	14.5	8.9	3

Notes: See Sampling Point - 401

OCEAN WEST
AREA NO. 1
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 403

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃		Ortho	Total
4/17	1105	0.20	0.004	0.08	30.6	0.19	0.26
5/17	1100	0.02	0.003	0.02	-	0.15	0.17
6/7	1048	< 0.02	0.001	< 0.02	-	0.08	0.19
7/31	1100	0.02	< 0.001	< 0.05	31.0	0.08	0.22
8/21	0955	0.10	0.003	0.05	32.2	0.07	0.15
Averages		0.07	0.002	0.04	31.3	0.11	0.20

Notes: See Sampling Point - 401

SAMPLING POINT - 405

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
4/17	1055	18,200	7.8	22	6.6	9.6	2 ***
5/17	1035	17,000	7.8	43	11.0	8.6	2
6/7	1040	18,200	7.7	43	-	7.6	5
7/31	1045	18,400	7.9	28	19.9	7.8	2 ***
Averages		18,000	7.8	34	12.5	8.4	3

Notes: See Sampling Point - 401

OCEAN WEST
AREA NO. 1

WATER QUALITY SURVEY RESULTS

1972

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CHEMICAL RESULTS

SAMPLING POINT - 405

Date	Time	Nitrogen as N			Phosphorous as PO ₄		
		NH ₃	NO ₂	NO ₃	Salinity	Ortho	Total
4/17	1055	0.18	0.003	0.05	30.4	0.12	0.15
5/17	1035	0.02	0.003	0.01	-	0.20	0.25
6/7	1040	0.03	0.002	<0.02	-	0.14	0.29
7/31	1045	0.04	0.001	<0.05	32.4	0.17	0.32
Averages		0.07	0.002	0.03	31.4	0.16	0.25

Notes: See Sampling Point - 401

OCEAN WEST
AREA NO. 1
WATER QUALITY SURVEY RESULTS
1972

CHEMICAL RESULTS

SAMPLING POINT - 409

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.C.	B.O.D.
4/17	1015	18,600	7.3	22	6.6	9.8	2 ***
5/17	1007	16,800	7.8	45	12.0	8.0	2
6/7	1020	17,200	7.4	43	-	8.4	2
7/31	1023	19,000	7.7	22	20.2	7.0	1 ***
8/21	0932	18,400	7.9	46	21.2	7.2	1 ***
Averages		18,000	7.6	36	15.0	8.1	2

Notes: See Sampling Point - 401

OCEAN WEST
AREA NO. 1

WATER QUALITY SURVEY RESULTS

1972

Chem.
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CHEMICAL RESULTS

SAMPLING POINT - 409

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃		Ortho	Total
4/17	1015	0.12	0.004	0.07	30.9	0.06	0.17
5/17	1007	0.03	0.004	0.02	-	0.19	0.19
6/7	1020	0.02	<0.001	<0.02	-	0.15	0.18
7/31	1023	0.06	0.001	<0.05	32.3	0.18	0.23
8/21	0932	0.04	0.003	0.02	32.4	0.22	0.22
Averages		0.05	0.003	0.04	31.9	0.16	0.20

Notes: See Sampling Point - 401

A T L A N T I C O C E A N (E A S T)

W A T E R Q U A L I T Y

S U R V E Y R E S U L T S

1972

NASSAU COUNTY DEPARTMENT OF HEALTH

John J. Dowling, M.D., M.P.H.

Commissioner of Health

Division of Environmental Health
George H. Sumner, M.C.E., P.E.
Deputy Commissioner

Bureau of Water Pollution Control
Stanley Juczak, M.C.E., P.E.
Director

INTRODUCTION

The purpose of this report is to summarize the chemical and bacteriological results of the samples collected by the Department of Health in the Atlantic Ocean (East) during 1972.

STUDY AREA

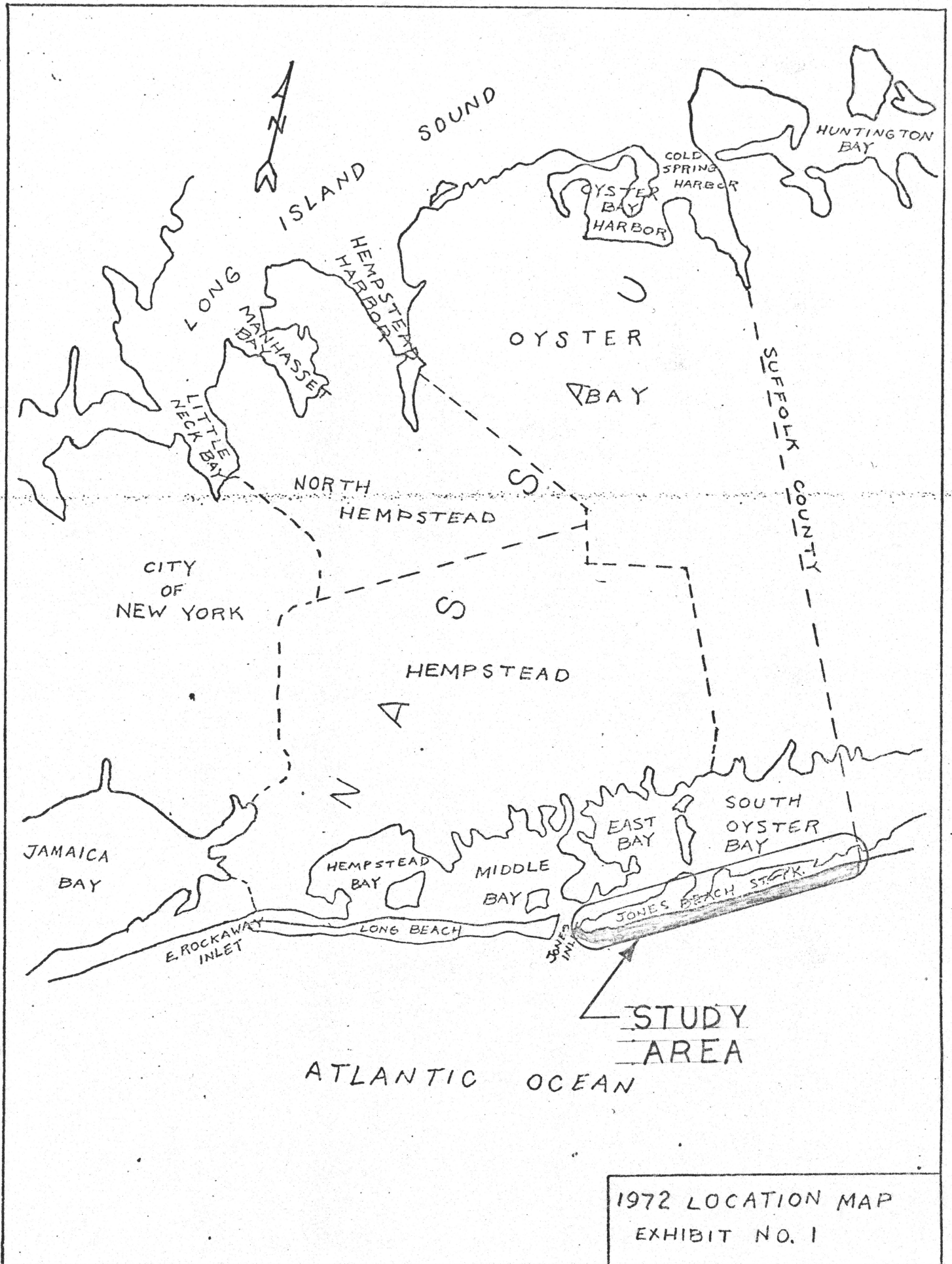
Atlantic Ocean(East)has been defined as the area of water in the Atlantic Ocean immediately south of the Jones Beach barrier island extending from Jones Inlet to the Nassau-Suffolk County line.

Exhibit 1 shows the location of the study area within the County and Exhibit 2 shows the sampling point locations.

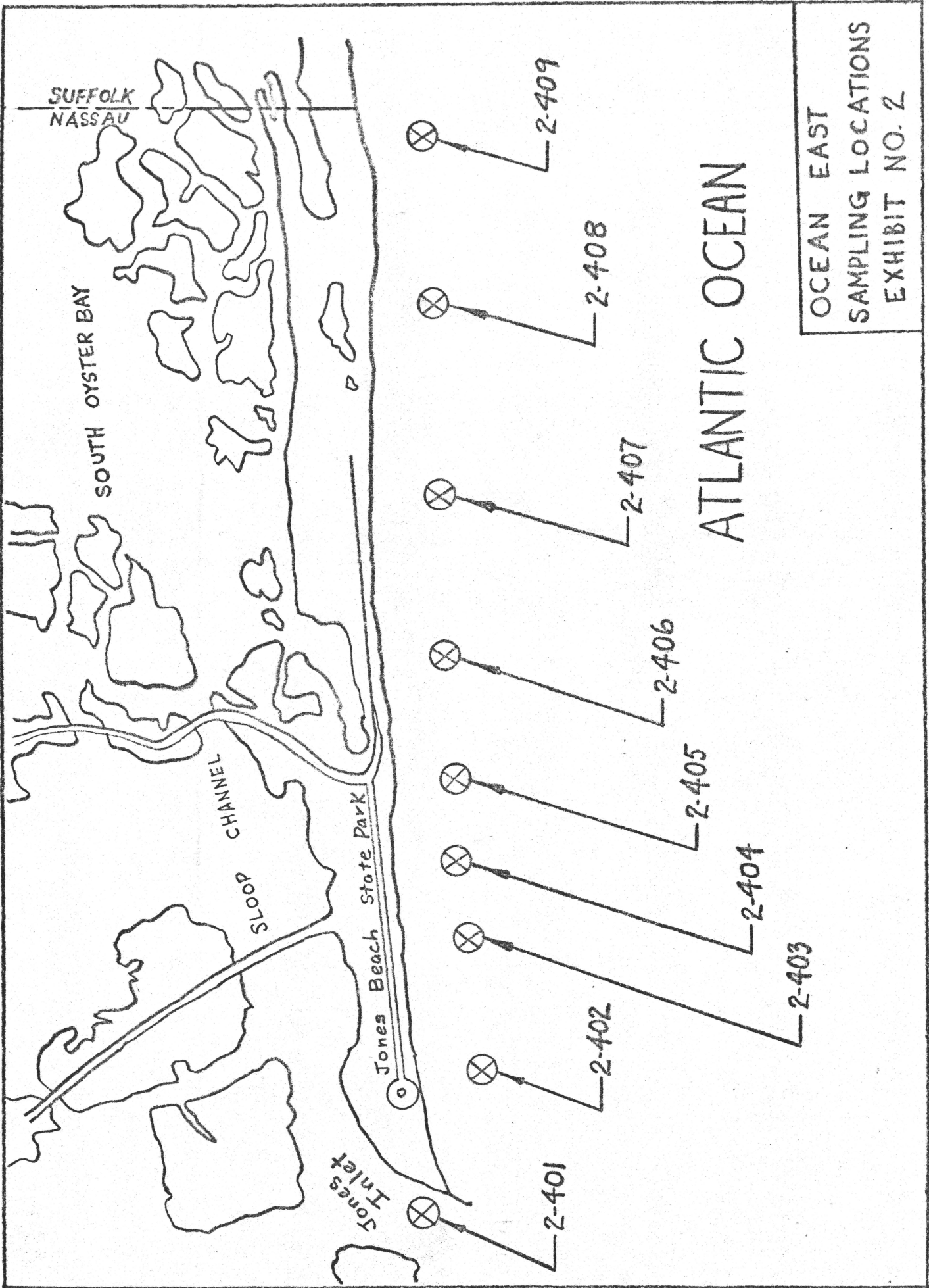
SAMPLING PROCEDURE AND ANALYSES

All samples were collected by Health Department personnel and were analyzed in accordance with the procedures and methods outlined in the 13th edition of Standard Methods. Laboratory analyses were performed by the Health Department's Division of Laboratories and Research.

All bacteriological samples were collected at or near the surface. Most chemical samples were collected approximately 5 feet below the surface.



1972 LOCATION MAP
EXHIBIT NO. 1



OCEAN EAST
SAMPLING LOCATIONS
EXHIBIT NO. 2

ATLANTIC OCEAN EAST
AREA 2
SAMPLING POINT LOCATIONS

POINT NO.

- * 401.0 250 yards west of Radio Beacon in Jones Inlet.
- 402.0 $\frac{1}{4}$ mile offshore off Parking Field West End 2.
- * 403.0 $\frac{1}{4}$ mile offshore off Parking Field West End 1.
- 404.0 $\frac{1}{4}$ mile offshore off Parking Field 1.
- 405.0 $\frac{1}{4}$ mile offshore in line with Jones Beach Tower
- 406.0 $\frac{1}{4}$ mile offshore off Parking Field 6
- 407.0 $\frac{1}{4}$ mile offshore off Parking Field 9
- 408.0 $\frac{1}{4}$ mile offshore in line with Tower at J.F.K. Memorial
Bird Sanctuary (Guggenheim Pond).
- * 409.0 $\frac{1}{4}$ mile offshore off Tobay Beach

* Chemical Analyses in addition to Bacteriological Analyses.

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11/9/71

ATLANTIC OCEAN (EAST)
TIDE AND PRECIPITATION DATA
1972

LOCAL TIME

<u>Date</u>	<u>High Water</u> H.M.	<u>Low Water</u> H.M.	<u>Precipitation-Inches</u> Freeport
4/17			-
4/18			-
4/19	1212	0557	-
6/17			0.70
6/18			1.59
6/19	1453	0834	0.16
7/22			-
7/23			-
7/24	0654	1245	-
8/14	-	-	-
8/15			0.88
8/16	1318	0644	-
9/26			-
9/27			0.35
9/28	1217	0542	-

OCEAN EAST
AREA NO. 2

WATER QUALITY SURVEY RESULTS

Bacs
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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

1972

Date	Sampling Point No. 401			Sampling Point 402			Sampling Point No. 403		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
4/19	0940	9.1	3.6	0955	< 3.0	< 3.0	1010	< 3.0	< 3.0
	1215	3.6	< 3.0	1205	9.1	< 3.0	1155	< 3.0	< 3.0
6/19	1015	93	23	1020	< 3.0	< 3.0	1035	< 3.0	< 3.0
	1205	< 3.0	< 3.0	1145	< 3.0	< 3.0	1140	< 3.0	< 3.0
7/24	1005	23	9.1	1024	3.6	< 3.0	1030	< 3.0	< 3.0
	1155	43	43	1136	3.6	< 3.0	1134	< 3.0	< 3.0
8/16	0920	23	23	0930	< 3.0	< 3.0	0935	< 3.0	< 3.0
	1150	43	9.1	1135	< 3.0	< 3.0	1126	< 3.0	< 3.0
9/28	0938	9.1	-	0950	< 3.0	-	0958	< 3.0	-
	1210	< 3.0	-	1137	< 3.0	-	1129	< 3.0	-
Median		16.0	9.1		3.0	3.0		3.0	3.0
Log Average		13.8	9.4		3.5	3.0		3.0	3.0

OCEAN EAST
AREA NO. 2

WATER QUALITY SURVEY RESULTS

Bacs
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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

1972

Date	Sampling Point No. 404			Sampling Point No. 405			Sampling Point No. 406		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
4/19	1020	< 3.0	< 3.0	1030	3.6	< 3.0	1035	< 3.0	< 3.0
	1145	< 3.0	< 3.0	1135	< 3.0	< 3.0	1130	< 3.0	< 3.0
6/19	1040	< 3.0	< 3.0	1045	< 3.0	< 3.0	1040	3.6	< 3.0
	1138	< 3.0	< 3.0	1135	< 3.0	< 3.0	1131	3.6	< 3.0
7/24	1037	< 3.0	< 3.0	1041	< 3.0	< 3.0	1045	< 3.0	< 3.0
	1130	9.1	9.1	1125	< 3.0	< 3.0	1121	< 3.0	< 3.0
8/16	0945	< 3.0	< 3.0	0955	< 3.0	< 3.0	1002	< 3.0	< 3.0
	1120	< 3.0	< 3.0	1112	< 3.0	< 3.0	1105	< 3.0	< 3.0
9/28	1002	< 3.0	-	1015	< 3.0	-	1019	< 3.0	-
	1124	< 3.0	-	1120	< 3.0	-	1116	< 3.0	-
Median		3.0	3.0		3.0	3.0		3.0	3.0
Log Average		3.4	3.4		3.1	3.0		3.1	3.0

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

1972

Date	Sampling Point No. 407			Sampling Point No. 408			Sampling Point No. 409		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
4/19	1040	< 3.0	< 3.0	1050	< 3.0	< 3.0	1105	< 3.0	< 3.0
	1125	3.0	< 3.0	1120	< 3.0	< 3.0	1106	< 3.0	< 3.0
6/19	1055	< 3.0	< 3.0	1110	3.6	< 3.0	1120	< 3.0	< 3.0
	1129	< 3.0	< 3.0	1126	< 3.0	< 3.0	1123	< 3.0	< 3.0
7/24	1049	< 3.0	< 3.0	1049	3.6	3.6	1100	< 3.0	< 3.0
	1116	9.1	9.1	1108	< 3.0	< 3.0	1104	3.6	< 3.0
8/16	1015	< 3.0	< 3.0	1025	< 3.0	< 3.0	1035	< 3.0	< 3.0
	1059	< 3.0	< 3.0	1050	< 3.0	< 3.0	1040	< 3.0	< 3.0
9/28	1029	< 3.0	-	1045	< 3.0	-	1058	< 3.0	-
	1110	< 3.0	-	1104	< 3.0	-	1059	< 3.0	-
Median		3.0	3.0		3.0	3.0		3.0	3.0
Log Average		3.4	3.4		3.1	3.1		3.1	3.0

OCEAN EAST
AREA NO. 2
WATER QUALITY SURVEY RESULTS
1972

CHEMICAL RESULTS

SAMPLING POINT - 401

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.C.D.
4/19	0940	19,000	7.5	58	-	9.2	2
6/19	1015	18,800	7.6	34	15.4	7.0	2 ***
7/24	1005	19,600	7.2	30	21.4	6.8	2 ****
8/16	0920	19,000	8.0	35	17.8	8.2	2
9/28	0938	18,200	7.5	35	19.0	7.2	<1
Averages		18,900	7.6	38	18.4	7.7	2

- Notes
- (1) All readings are in mg/l unless otherwise noted.
 - (2) Chlorides expressed as mg/l Cl.
 - (3) pH average is Logarithmic
 - (4) * Designates 4 day B.O.D.
 - (5) ** Designates 6 day B.O.D.
 - (6) *** Designates 7 day B.O.D.
 - (7) **** Designates 8 day B.O.D.

OCEAN EAST
AREA NO. 2

Chem.
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WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 401

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃		Ortho	Total
4/19	0940	0.10	0.005	0.10	-	0.12	0.25
6/19	1015	0.03	0.005	< 0.01	30.9	0.18	0.23
7/24	1005	0.04	< 0.001	0.08	31.9	0.18	0.23
8/16	0920	< 0.03	0.015	0.01	32.4	0.12	0.18
9/28	0938	0.02	0.004	0.08	32.6	0.14	0.17
Averages		0.04	0.006	0.06	32.0	0.15	0.21

Notes: See Sampling Point - 401

OCEAN EAST
AREA NO. 2
WATER QUALITY SURVEY RESULTS
 1972

Chem.
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CHEMICAL RESULTS

SAMPLING POINT - 403

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
4/19	1010	18,400	7.9	36	-	9.4	1
6/19	1035	18,600	7.8	35	14.3	10.0	3 ***
7/24	1030	18,800	7.7	27	19.4	7.8	2 ***
8/16	0935	18,400	7.8	27	18.0	9.0	-
9/28	0958	18,600	7.8	31	18.7	7.2	<1
Averages		18,600	7.8	31	17.6	8.8	2

Notes: See Sampling Point - 401

OCEAN EAST
AREA NO. 2

WATER QUALITY SURVEY RESULTS

1972

Chem.
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CHEMICAL RESULTS

SAMPLING POINT - 403

Date	Time	Nitrogen as N			Phosphorous as PO ₄		
		NH ₃	NO ₂	NO ₃	Salinity	Ortho	Total
4/19	1010	0.14	0.003	0.11	-	0.10	0.18
6/19	1035	0.01	0.001	< 0.01	31.2	0.10	0.12
7/24	1030	0.04	< 0.001	< 0.01	32.4	0.08	0.10
8/16	0935	< 0.03	0.001	< 0.01	32.0	0.07	0.11
9/28	0958	0.02	0.003	0.08	32.6	0.17	0.18
Averages		0.05	0.002	0.04	32.1	0.10	0.14

Notes: See Sampling Point - 401

OCEAN EAST
 AREA NO. 2

WATER QUALITY SURVEY RESULTS

Chem.
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1972

CHEMICAL RESULTS

SAMPLING POINT - 409

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
4/19	1105	18,600	7.9	41	-	10.0	2
6/19	1120	19,200	8.0	37	14.0	10.4	3 ***
7/24	1100	20,400	7.8	24	18.4	8.4	2 ***
8/16	1035	19,000	8.2	23	18.4	-	-
9/28	1058	18,200	8.0	16	18.9	7.6	1
Averages		19,100	8.0	28	17.4	9.1	2

Notes: See Sampling Point - 401

OCEAN EAST
AREA NO. 2
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 409

Date	Time	Nitrogen as N				Phosphorous as PO ₄		
		NH ₃	NO ₂	NO ₃	Salinity	Ortho	Total	
4/19	1105	0.08	0.001	0.10	-	0.17	0.18	
6/19	1120	0.01	< 0.001	< 0.01	32.3	0.10	0.11	
7/24	1100	0.04	< 0.001	< 0.01	32.5	0.05	0.10	
8/16	1035	< 0.03	< 0.001	0.01	32.6	0.08	0.08	
9/28	1058	0.05	0.002	< 0.05	32.4	0.08	0.15	
Averages		0.04	0.001	0.04	32.5	0.10	0.12	

Notes: See Sampling Point - 401

H E M P S T E A D B A Y

W A T E R Q U A L I T Y

S U R V E Y R E S U L T S

1972

NASSAU COUNTY DEPARTMENT OF HEALTH

John J. Dowling, M.D., M.P.H.

Commissioner of Health

Division of Environmental Health
George H. Sumner, M.C.E., P.E.
Deputy Commissioner

Bureau of Water Pollution Control
Stanley Juczak, M.C.E., P.E.
Director

INTRODUCTION

The purpose of this report is to summarize the chemical and bacteriological results of the samples collected by the Department of Health in Hempstead Bay during 1972.

STUDY AREA

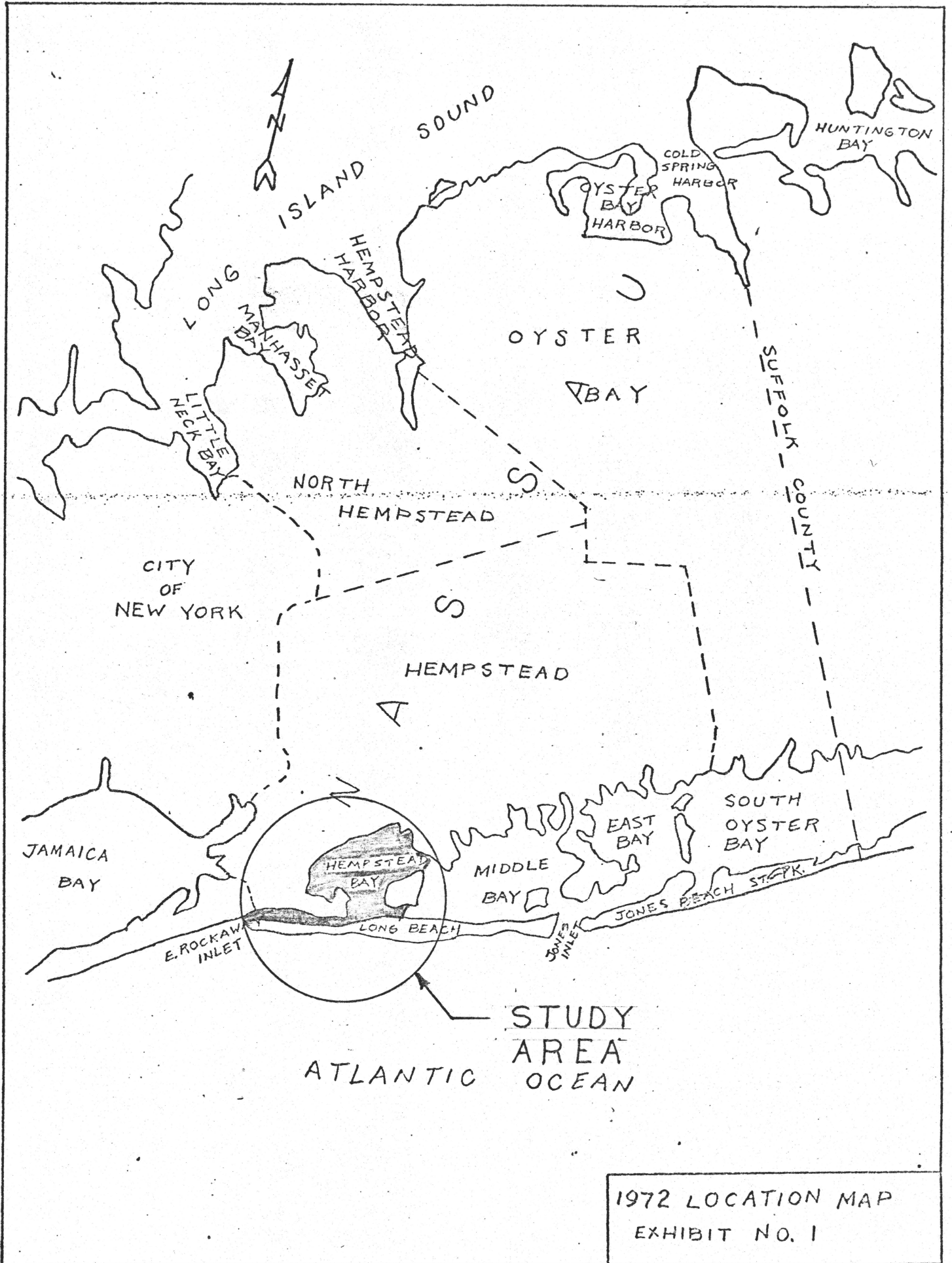
Hempstead Bay is defined as that body of water bounded on the north by the mainland, on the south by the Long Beach barrier island which includes the communities of Atlantic Beach and Long Beach, on the west by the Atlantic Beach Bridge and on the east by the Long Beach Bridge.

Exhibit 1 shows the location of the study area within the County and Exhibit 2 shows the sampling point locations.

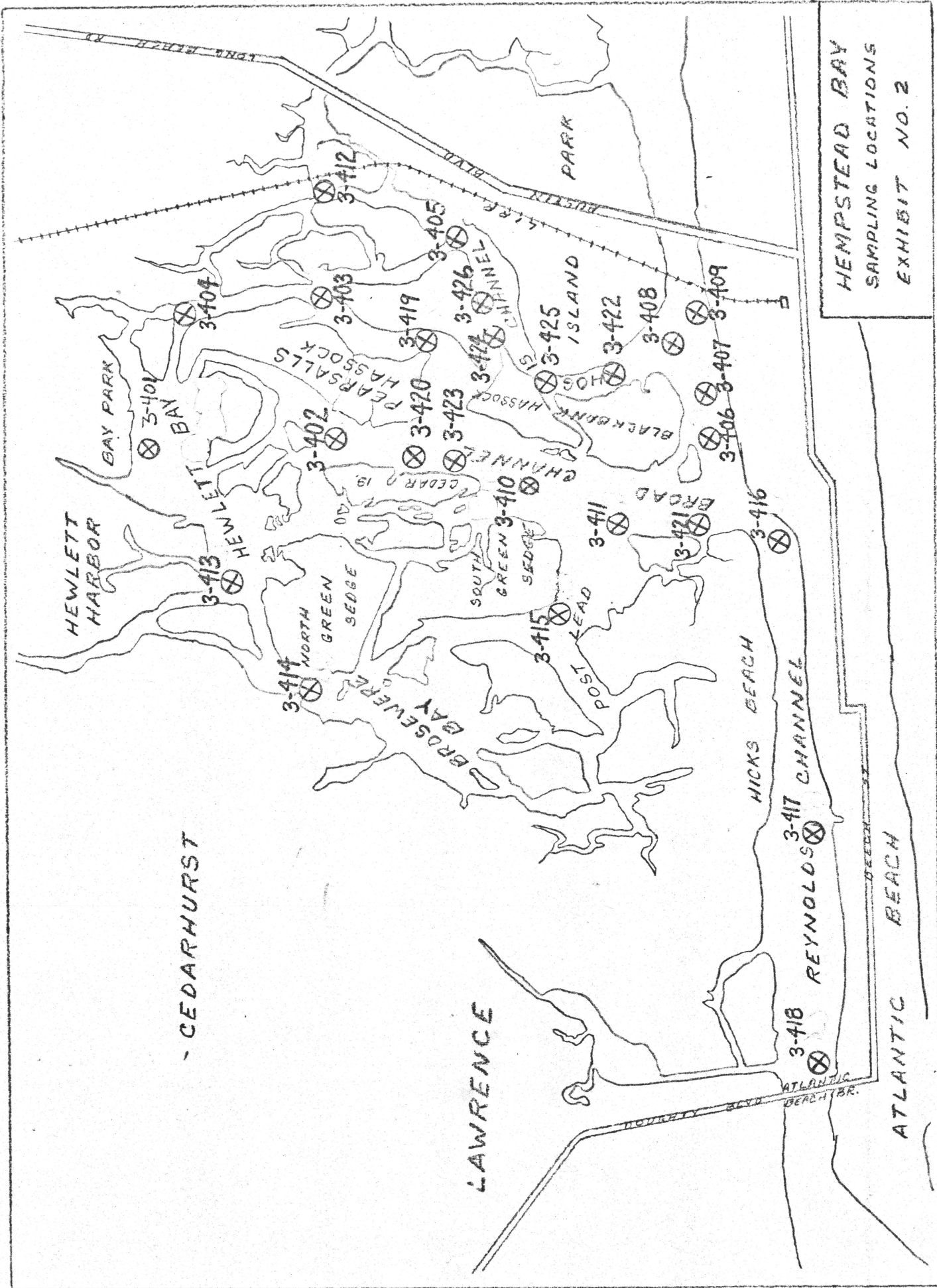
SAMPLING PROCEDURE AND ANALYSES

All samples were collected by Health Department personnel and were analyzed in accordance with the procedures and methods outlined in the 13th edition of Standard Methods. Laboratory analyses were performed by the Health Department's Division of Laboratories and Research.

All bacteriological samples were collected at or near the surface. Most chemical samples were collected approximately 5 feet below the surface.



1972 LOCATION MAP
EXHIBIT NO. 1



HEMPSTEAD BAY
 SAMPLING LOCATIONS
 EXHIBIT NO. 2

HEMPSTEAD BAY
AREA 3
SAMPLING POINT LOCATIONS

POINT NO.

- 401 Hewlett Bay, approximately 250 yards off Bay Park Beach in line with swimming pool.
- 402 Intersection of Ramscat and Nuns Channels.
- 403 East Rockaway Channel directly north of West Meadow.
- 404 East Rockaway Channel, 200 feet north of Swift Creek.
- 405 Hog Island Channel, approximately 250 feet off shore of the center of Island Park Beach.
- 406 Reynolds Channel, 200 feet southwest of the Bay Park sewage treatment plant outfall chamber.
- 407 Reynolds Channel, 200 feet southeast of the Bay Park sewage treatment plant outfall chamber.
- 408 Reynolds Channel off house on south end of Simmons Hassock.
- * 409 Reynolds Channel over the outfall boil of the Long Beach sewage treatment plant.
- 410 Broad Channel off Town of Hempstead Pole B15.
- 411 Broad Channel 50 feet off Woodsburgh Channel.
- * 412 Hog Island Channel at Barnums Channel.
- 413 Hewlett Bay and Macy Channel.
- 414 Brosewere Bay and Woodsburgh Channel, 100 feet south of house on piles.
- * 415 Post Lead and Woodsburgh Channel .
- * 416 Reynolds Channel in the vicinity of Flashing Green Channel marker "7".
- 417 Reynolds Channel north of Capri Parking Field and vacant lot.
- * 418 Reynolds Channel and Bannister Creek.
- 419 Off the sludge tanker loading site.

HEMPSTEAD BAY

AREA 3

(cont'd)

POINT NO.

- 420 Broad Channel in line with the south end of Pearsalls Hassock.
- 421 In Broad Channel, approximately $\frac{1}{4}$ mile north of Reynolds Channel and west of Black Banks Hassock.
- 422 At the northerly tip of Simmons Hassock between Black Banks Hassock and Harbor Isle, Island Park.
- 423 Immediately west of the most northwesterly tip of Black Banks in Broad Channel off Town of Hempstead pole B 22.
- 424 Hog Island Channel immediately east of East Rockaway Channel.
- 425 Hog Island Channel opposite the northwest corner of Harbor Isle.
- 426 Hog Island Channel between Island Park and Harbor Isle.

TBB:cg
7/24/72

HEMPSTEAD BAY
TIDE AND PRECIPITATION DATA

1972

LOCAL TIME

<u>Date</u>	<u>High Water</u> H.M.	<u>Low Water</u> H.M.	<u>Precipitation-Inches</u> Freeport
1/16			-
1/17			-
1/18	0913	1523	-
2/26			0.20
2/27			-
2/28	0730	1334	-
3/6			-
3/7			-
3/8	1329	0732	0.29
4/1			-
4/2			-
4/3	1033	1615	-
5/6			-
5/7			0.20
5/8	1648	1018	0.04
6/10			0.09
6/11			-
6/12	0930	1416	-
7/1			-
7/2			-
7/3	1356	0714	0.10
8/5			-
8/6			-

<u>Date</u>	<u>High Water</u> H.M.	<u>Low Water</u> H.M.	<u>Precipitation-Inches</u> Freeport
8/7	0723	1301	-
9/4			-
9/5			-
9/6	0752	1339	-
10/9			-
10/10			-
10/11	1106	1713	-
12/2			-
12/3			-
12/4	0650	1254	0.02

HEMPSTEAD BAY
AREA NO. 3

Chem.
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WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 409

Date	Time	Chlorides	pH	Alkalinity	Suspended Solids	Temp °C	D.O.	B.O.D.
1/18	1325	19,600	7.8	-	34	4.0	10.0	2 **
2/28	1055	14,800	7.7	-	42	2.6	10.4	4 ***
3/8	1235	13,800	7.7	-	33	4.3	9.8	1
4/3	1130	17,600	7.8	-	26	6.4	10.0	4 ***
5/8	1235	17,400	8.0	-	32	10.0	8.0	4 ***
6/12	1002	18,600	7.4	-	31	12.2	7.2	1 ***
7/3	0938	16,400	7.2	-	28	21.8	5.4	2 ***
8/7	1000	16,800	7.6	-	19	22.5	5.0	2 ***
9/6	1053	16,800	7.5	-	26	21.7	4.2	< 1
10/11	0935	18,200	7.6	-	25	13.6	7.2	2
12/4	1135	15,600	7.7	-	53	7.9	8.6	5 ***
Averages		16,900	7.6		32	11.5	7.8	3

Notes: (1) All readings are in mg/l unless otherwise noted.

(2) Chlorides expressed as mg/l Cl.

(3) pH average is logarithmic

(4) * Designates 4 day B.O.D.

(5) ** Designates 6 day B.O.D.

(6) *** Designates 7 day B.O.D.

(7) **** Designates 8 day B.O.D.

HEMPSTEAD BAY
AREA NO. 3
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 409

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃		Ortho	Total
1/18	1325	0.32	0.007	0.11	30.9	0.36	0.41
2/28	1055	0.95	0.025	0.19	29.7	1.94	2.70
3/8	1235	0.94	0.028	0.29	28.4	3.45	3.55
4/3	1130	0.48	0.006	0.09	29.7	0.75	0.96
5/8	1235	0.47	0.017	< 0.05	-	0.82	1.30
6/12	1002	0.11	0.004	< 0.01	32.2	0.29	0.37
7/3	0938	0.55	0.024	0.06	27.8	0.82	0.93
8/7	1000	0.76	0.035	0.13	30.8	2.36	2.58
9/6	1053	0.86	0.025	0.11	30.9	1.18	1.38
10/11	0935	0.27	0.041	0.15	31.0	0.75	0.82
12/4	1135	1.90	0.037	0.45	32.7	1.80	2.60
Averages		0.69	0.023	0.15	30.4	1.32	1.60

Notes: See Sampling Point - 409

HEMPSTEAD BAY
AREA NO. 3

WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 412

Chem.
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Date	Time	Chlorides	pH	Alkalinity	Suspended Solids	Temp °C	D.O.	B.O.D.
1/18	1050	18,600	7.5	-	33	2.2	10.2	2 **
2/28	1130	17,400	7.6	-	35	2.3	10.0	3 ***
3/8	1020	17,600	7.0	-	20	3.8	10.0	2
4/3	1000	18,000	7.8	-	23	6.4	9.8	3 ***
5/8	1300	17,200	7.9	-	27	12.0	7.8	3 ***
6/12	1027	17,400	7.6	-	22	16.5	6.6	2 ***
7/3	1000	16,200	7.3	-	32	22.3	5.4	2 ***
8/7	1040	18,600	7.6	-	28	23.1	5.4	2 ***
9/6	1130	17,800	7.5	-	23	21.9	4.8	1
10/11	0955	17,600	7.5	-	18	14.6	6.8	1
12/4	1215	16,800	7.9	-	44	6.1	8.0	2 ***
Averages		17,600	7.6		28	11.9	7.7	2

Notes: See Sampling Point - 409

HEMPSTEAD BAY
AREA NO. 3
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 412

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃		Ortho	Total
1/18	1050	0.92	0.023	0.20	30.8	0.67	0.82
2/28	1130	0.18	0.010	0.09	28.7	0.46	0.67
3/8	1020	0.24	0.012	0.20	28.9	0.52	0.69
4/3	1000	0.36	0.010	0.07	29.8	0.54	0.65
5/8	1300	0.37	0.019	< 0.05	-	0.65	1.18
6/12	1027	0.43	0.014	< 0.01	30.2	0.61	0.63
7/3	1000	0.58	0.029	< 0.05	27.2	0.75	0.85
8/7	1040	0.39	0.035	0.15	30.6	0.80	1.60
9/6	1130	0.38	0.028	0.18	30.5	0.90	1.11
10/11	0955	0.31	0.058	0.24	29.9	0.73	0.87
12/4	1215	0.56	0.043	0.34	30.7	0.59	0.73
Averages		0.43	0.026	0.14	29.8	0.66	0.89

Notes: See Sampling Point - 409

HEMPSTEAD BAY
AREA NO. 3

Chem.
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WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 415

Date	Time	Chlorides	pH	Alkalinity	Suspended Solids	Temp °C	D.O.	B.O.D.
1/18	1152	19,200	7.6	-	36	2.0	10.2	2 **
2/28	0938	18,400	6.9	-	30	2.0	10.6	3 ***
3/8	1126	17,600	7.5	-	29	3.5	10.2	2
4/3	1050	18,000	7.8	-	24	6.5	10.4	3 ***
5/8	1200	17,800	6.9	-	33	12.0	8.2	4 ***
6/12	1125	18,200	7.7	-	36	14.5	6.8	2 ***
7/3	1050	16,600	7.5	-	35	21.6	5.8	4 ***
8/7	0900	18,200	7.4	-	20	22.4	4.8	1 ***
9/6	0920	18,000	7.7	-	26	20.8	5.0	2
10/11	1040	18,200	7.8	-	24	14.8	7.4	2
12/4	1008	17,800	7.4	-	30	6.8	8.2	2 ***
Averages		18,000	7.5		29	11.5	8.0	2

Notes: See Sampling Point - 409

HEMPSTEAD BAY
AREA NO. 3

WATER QUALITY SURVEY RESULTS

1972

Chem.
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CHEMICAL RESULTS

SAMPLING POINT - 415

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄		Total
		NH ₃	NO ₂	NO ₃		Ortho	Total	
1/18	1152	0.63	0.016	0.16	30.7	0.54	0.57	0.57
2/28	0938	0.22	0.010	0.15	30.0	0.55	0.61	0.61
3/8	1126	0.29	0.014	0.19	29.5	0.57	0.73	0.73
4/3	1050	0.23	0.007	0.08	30.3	0.50	0.61	0.61
5/8	1200	0.47	0.016	< 0.05	-	0.78	1.22	1.22
6/12	1125	0.25	0.010	< 0.01	31.5	0.48	0.59	0.59
7/3	1050	0.50	0.022	< 0.05	28.3	0.75	0.82	0.82
8/7	0900	0.37	0.029	0.10	31.1	0.67	1.25	1.25
9/6	0920	0.19	0.015	< 0.05	31.5	0.48	0.59	0.59
10/11	1040	0.19	0.031	0.12	31.5	0.61	0.65	0.65
12/4	1008	0.52	0.042	0.30	33.0	0.48	0.67	0.67
Averages		0.35	0.019	0.11	30.8	0.58	0.76	0.76

Notes: See Sampling Point - 409

HEMPSTEAD BAY
AREA NO. 3

WATER QUALITY SURVEY RESULTS

1972

Chem.
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CHEMICAL RESULTS

SAMPLING POINT - 416

Date	Time	Chlorides	pH	Alkalinity	Suspended Solids	Temp °C	D.O.	B.O.D.
1/18	1207	18,800	7.8	-	49	3.9	10.2	2 **
2/28	0950	18,200	7.4	-	35	2.1	10.4	3 ***
3/8	1145	18,200	7.7	-	25	3.3	10.2	2
4/3	1100	18,400	7.9	-	32	6.1	10.2	3 ***
5/8	1211	18,600	7.2	-	31	11.0	7.8	4 ***
6/12	1137	18,200	7.7	-	30	12.9	7.6	2 ***
7/3	1105	16,600	7.5	-	32	20.8	5.4	2 ***
8/7	0925	18,800	7.8	-	17	22.1	6.4	2 ***
9/6	0957	18,200	7.6	-	23	21.5	5.2	< 1
10/11	1105	20,000	7.8	-	39	15.8	7.6	4
12/4	1037	18,000	7.6	-	32	8.0	8.2	2 ***
Averages		18,400	7.6		31	11.6	8.1	2

Notes: See Sampling Point - 409

HEMPSTEAD BAY
AREA NO. 3
WATER QUALITY SURVEY RESULTS
1972

CHEMICAL RESULTS

SAMPLING POINT - 416

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄		Total
		NH ₃	NO ₂	NO ₃		Ortho		
1/18	1207	0.36	0.009	0.10	31.5	0.36		0.39
2/28	0950	0.13	0.006	0.15	30.8	0.43		0.55
3/8	1145	0.26	0.015	0.19	29.8	0.59		0.73
4/3	1100	0.20	0.003	0.07	29.9	0.31		0.43
5/8	1211	0.38	0.015	< 0.05	-	0.69		1.18
6/12	1137	0.49	0.004	< 0.01	32.2	0.63		0.71
7/3	1105	0.42	0.015	< 0.05	28.8	0.57		0.73
8/7	0925	0.26	0.014	< 0.05	31.4	0.44		0.78
9/6	0957	0.17	0.012	< 0.05	31.3	0.52		0.61
10/11	1105	0.06	0.004	0.10	32.8	0.29		0.29
12/4	1037	0.56	0.019	0.05	32.9	0.61		0.75
Averages		0.30	0.011	0.08	31.1	0.49		0.65

Notes: See Sampling Point - 409

HEMPSTEAD BAY

AREA NO. 3

WATER QUALITY SURVEY RESULTS

1972

Chem.
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CHEMICAL RESULTS

SAMPLING POINT - 418

Date	Time	Chlorides	pH	Alkalinity	Suspended Solids	Temp °C	D.O.	B.O.D.
1/18	1225	19,400	7.8	-	38	4.2	10.0	2 **
2/28	1010	18,400	7.3	-	32	2.5	10.6	3 ***
3/8	1207	16,400	7.9	-	36	3.3	10.6	3
4/3	1110	18,400	7.8	-	27	4.8	10.2	2 ***
5/8	1220	18,600	7.9	-	29	9.0	9.6	3 ***
6/12	1147	18,600	7.9	-	34	10.5	8.2	2 ***
7/3	1115	17,800	8.0	-	23	19.5	8.4	2 ***
8/7	0936	18,800	8.0	-	18	21.8	7.2	1 ***
9/6	1020	18,400	7.9	-	26	20.7	6.0	1
10/11	1115	18,400	7.9	-	26	15.6	8.0	1
12/4	1100	19,200	7.9	-	33	9.2	8.6	1 ***
Averages		18,400	7.8		29	11.0	8.9	2

Notes: See Sampling Point - 409

HEMPSTEAD BAY
AREA NO. 3
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 418

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃		Ortho	Total
1/18	1225	0.12	0.004	0.12	31.4	0.19	0.19
2/28	1010	0.13	0.009	0.15	30.6	0.26	0.48
3/8	1207	0.10	0.009	0.25	28.3	0.25	0.32
4/3	1110	0.07	0.001	0.08	31.8	0.15	0.20
5/8	1220	0.09	0.009	< 0.05	-	0.26	0.43
6/12	1147	0.14	0.001	< 0.01	33.3	0.10	0.18
7/3	1115	0.03	0.001	< 0.05	29.8	0.14	0.18
8/7	0936	0.03	0.003	< 0.05	31.8	0.12	0.65
9/6	1020	0.04	0.004	< 0.05	31.9	0.18	0.19
10/11	1115	0.06	0.007	0.01	32.8	0.23	0.25
12/4	1100	0.08	0.009	0.02	32.5	0.18	0.20
Averages		0.08	0.005	0.08	31.4	0.19	0.30

Notes: See Sampling Point - 409

HEMPSTEAD BAY
 AREA NO. 3
 WATER QUALITY SURVEY RESULTS

Bacs.
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1972

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 401			Sampling Point No. 402			Sampling Point No. 403		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/18	1120	15	9.1	1250	15	3.6	1106	240	15
2/28	0900	93	23	0915	43	43	1145	150	43
3/8	1055	240	93	1110	> 24000	> 24000	1040	2400	240
4/3	1025	3.6	3.6	1032	9.1	9.1	1010	23	< 3.0
5/8	1127	93	< 3.0	1143	23	23	1310	93	< 3.0
6/12	1050	43	23	1056	93	9.1	1040	930	9.1
7/3	1022	93	43	1035	1500	1500	1012	2400	2400
8/7	0830	160	43	0840	23	9.1	1100	43	9.1
9/6	0845	43	43	0859	23	9.1	1147	23	9.1
10/11	1017	23	9.1	1025	430	240	1007	240	240
11/1	0933	150	43	0947	240	23	1225	240	93
12/4	0930	240	240	0945	930	430	1232	430	150
Median		93.0	33.0		68.0	23.0		240.0	29.0
Log Average		60.8	24.0		129.8	59.8		215.6	37.8

HEMPSTEAD BAY
AREA NO. 3
WATER QUALITY SURVEY RESULTS
1972

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. L04			Sampling Point No. L05			Sampling Point No. L06		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/18	1111	23	9.1	1039	23	23	1302	240	23
2/28	1140	390	15	1120	43	15	1040	43	23
3/8	1045	930	75	1012	240	43	1220	4600	290
4/3	1005	23	< 3.0	0950	23	3.6	1120	430	11
5/8	1315	93	23	1252	93	3.6	1230	93	3.6
6/12	1043	430	23	1020	240	43	1202	930	23
7/3	1015	750	430	0955	930	150	1130	2400	2400
8/7	1105	43	9.1	1028	43	15	0948	150	150
9/6	1200	23	23	1125	23	9.1	1036	> 24000	> 24000
10/11	1010	93	93	0950	930	240	1125	240	43
11/1	1147	93	93	1137	4600	4600	1113	2400	93
12/4	1227	750	43	1200	430	93	1124	930	240
Median		93.0	23.0		166.5	33.0		680.0	68.0
Log Average		135.1	30.1		155.9	40.1		669.9	101.2

HEMPSTEAD BAY
AREA NO. 3
WATER QUALITY SURVEY RESULTS

1972

BAACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 407			Sampling Point No. 408			Sampling Point No. 409		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/18	1307	430	43	1017	15	3.6	1325	93	39
2/28	1042	43	9.1	1050	93	43	1055	43	15
3/8	1222	2400	930	1225	4600	930	1235	2400	430
4/3	1121	210	43	1125	23	9.1	1130	93	15
5/8	1231	430	23	1230	240	15	1235	430	93
6/12	1204	430	7.3	1208	930	43	1002	150	15
7/3	1131	2400	2400	0940	930	240	0938	930	930
8/7	0950	150	43	0955	43	23	1000	240	93
9/6	1038	2400	430	1049	43	9.1	1053	43	23
10/11	1126	75	9.1	1130	93	93	0935	2400	240
11/1	1114	11000	750	1117	930	930	1120	2400	430
12/4	1125	4600	2400	1130	11000	1500	1135	4600	750

Median

430.0 43.0

64.8 43.0

335.0 93.0

Log Average

649.6 105.5

247.9 166.5

395.5 98.3

HEMPSTEAD BAY
AREA NO. 3

Bacs.
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WATER QUALITY SURVEY RESULTS

1972

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 410			Sampling Point No. 411			Sampling Point No. 412		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/18	1240	93	9.1	1154	9.1	9.1	1050	43	9.1
2/28	0925	150	23	0940	240	43	1130	43	15
3/8	1117	2400	2400	1130	> 24000	2400	1020	240	23
4/3	1040	9.1	< 3.0	1052	23	< 3.0	1000	23	< 3.0
5/8	1153	23	23	1205	430	9.1	1300	43	9.1
6/12	1109	43	7.3	1128	430	7.3	1027	240	23
7/3	1043	4600	2400	1045	4600	930	1000	240	43
8/7	0850	93	3.6	0915	39	9.1	1040	93	23
9/6	0911	43	23	0945	23	9.1	1130	43	< 3.0
10/11	1032	430	75	1035	240	240	0955	430	43
11/1	0955	930	430	0957	930	240	1141	93	23
12/4	0958	930	240	1000	2100	1500	1215	930	930

Median	121.5	23.0	335.0	26.0	93.0	23.0
Log Average	188.9	52.0	294.8	57.3	111.7	20.5

HEMPSTEAD BAY
AREA NO. 3

WATER QUALITY SURVEY RESULTS

1972

Bacs.
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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 413			Sampling Point No. 414			Sampling Point No. 415		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/18	1125	23	23	1138	43	43	1152	43	23
2/28	0905	93	43	-	-	-	0938	150	23
3/8	1102	430	430	-	-	-	1126	4600	4600
4/3	1030	3.6	< 3.0	1045	23	9.1	1050	9.1	< 3.0
5/8	1130	43	7.3	-	-	-	1200	93	21
6/12	1053	75	3.6	1114	240	23	1125	43	9.1
7/3	1028	150	23	1055	4600	430	1050	2400	930
8/7	0835	930	240	0907	23	23	0900	93	7.3
9/6	0852	9.1	9.1	0930	23	23	0920	23	< 3.0
10/11	1020	43	23	1047	430	150	1040	240	43
11/1	0940	23	23	1013	240	93	1001	930	240
12/4	0937	93	93	1018	750	430	1008	2400	430
Median		59.0	23.0		240.0	43.0		121.5	23.0
Log Average		57.3	25.7		152.5	61.3		194.7	47.3

HEMPSTEAD BAY
AREA NO. 3

WATER QUALITY SURVEY RESULTS

1972

Bacs.
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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 416			Sampling Point No. 417			Sampling Point No. 418		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/18	1207	> 24000	4600	1210	43	43	1225	430	240
2/28	0950	93	15	1000	23	9.1	1010	9.1	3.6
3/8	1145	11000	11000	1152	4600	2400	1207	240	240
4/3	1100	43	23	1115	23	< 3.0	1110	3.6	< 3.0
5/8	1211	240	< 3.0	1215	150	23	1220	23	9.1
6/12	1137	23	< 3.0	1144	43	9.1	1147	23	3.6
7/3	1105	11000	4600	1110	930	430	1115	75	3.6
8/7	0925	93	93	0930	930	240	0936	93	23
9/6	0957	23	23	1005	15	< 3.0	1020	23	23
10/11	1105	9.1	9.1	1110	43	< 3.0	1115	43	43
11/1	1028	> 24000	> 24000	1034	11000	4600	1043	11000	2400
12/4	1037	2400	2400	1045	2400	430	1100	430	240

Median	166.5	58.0	96.5	33.0	59.0	23.0
Log Average	451.6	174.7	215.3	56.6	78.9	31.5

HEMPSTEAD BAY
AREA NO. 3
WATER QUALITY SURVEY RESULTS

Bacs.
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1972

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 419				Sampling Point No. 420				Sampling Point No. 421			
	Time	Total	Fecal		Time	Total	Fecal		Time	Total	Fecal	
1/18	1100	23	23		1245	15	3.6		1158	43	23	
2/28	1155	93	23		0920	93	9.1		0945	75	9.1	
3/8	1035	2400	930		1112	4600	2400		1135	> 24000	2400	
4/3	1013	93	9.1		1035	15	9.1		1055	23	23	
5/8	1308	93	3.6		1145	23	23		1207	240	3.6	
6/12	1037	240	43		1058	240	9.1		1132	23	9.1	
7/3	1010	240	93		1038	930	430		1100	1500	1500	
8/7	1053	23	23		0845	93	7.3		0920	39	23	
9/6	1140	23	< 3.0		0903	93	3.6		0947	23	< 3.0	
10/11	1005	930	75		1027	930	430		1053	430	93	
11/1	1230	240	23		0948	93	23		1024	240	93	
12/4	1239	150	150		0948	240	93		1030	2400	930	
Median		121.5	23.0			93.0	16.0			157.5	23.0	
Log Average		137.4	32.0			145.3	32.8			196.3	51.1	

HEMPSTEAD BAY
AREA NO. 3

WATER QUALITY SURVEY RESULTS

1972

Bacs.
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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 422			Sampling Point No. 423			Sampling Point No. 424		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/18	1025	240	23	1242	75	39	1032	23	23
2/28	1102	93	15	0921	93	15	1112	430	43
3/8	1000	4600	430	1115	2400	2400	1005	11000	4300
4/3	0940	23	3.6	1037	15	15	0945	43	23
5/8	1240	240	23	1148	93	15	1246	43	23
6/12	1009	240	23	1100	240	9.4	1014	240	-
7/3	0945	430	430	1040	430	150	0949	430	430
8/7	1007	240	240	0847	93	93	1017	93	43
9/6	1105	43	7.3	0906	43	3.6	1115	93	93
10/11	0940	240	93	1030	930	240	0945	430	430
11/1	1125	930	93	0950	240	93	1130	430	240
12/4	1140	4600	2400	0951	750	390	1150	390	240
Median		240.0	58.0		166.5	66.0		315.0	93.0
Log Average		303.9	63.6		185.1	57.5		220.1	99.6

M I D D L E B A Y
W A T E R Q U A L I T Y
S U R V E Y R E S U L T S
1972

NASSAU COUNTY DEPARTMENT OF HEALTH

John J. Dowling, M.D., M.P.H.

Commissioner of Health

Division of Environmental Health
George H. Sumner, M.C.E., P.E.
Deputy Commissioner

Bureau of Water Pollution Control
Stanley Juczak, M.C.E., P.E.
Director

INTRODUCTION

The purpose of this paper is to summarize the chemical and bacteriological results of the samples collected by the Department of Health in Middle Bay during 1972.

STUDY AREA

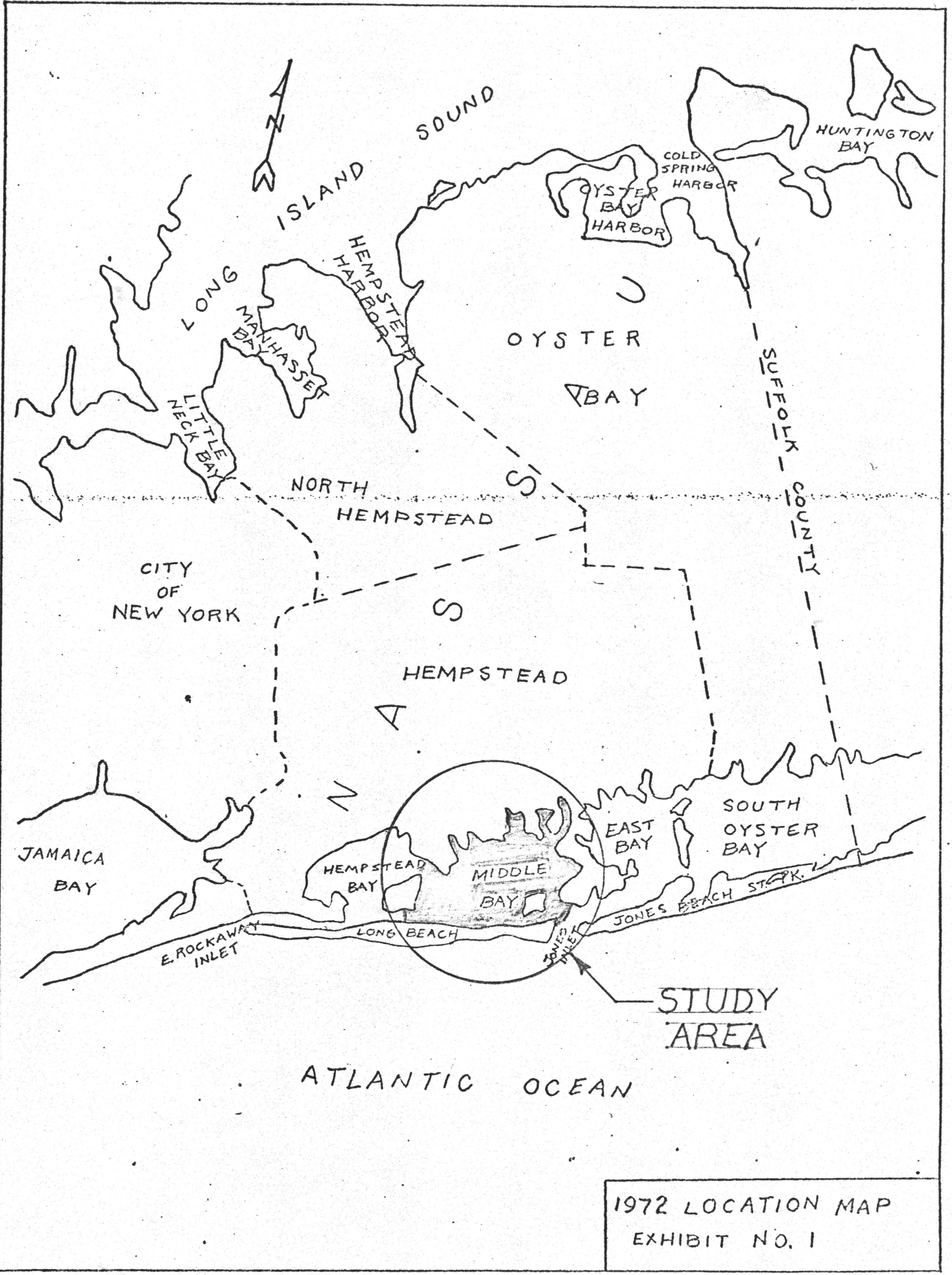
Middle Bay has been redefined as the body of water bounded on the east by the Meadowbrook Parkway, on the south by the Long Beach barrier island and Loop Parkway including, in addition, an area north and west of a line extending from Point Lookout to the southwest tip of Meadow Island. The bay is bounded on the west by the Long Beach Boulevard bridge and on the north by the mainland.

Exhibit I shows the location of Middle Bay and Exhibit 2 shows the details of the sampling locations.

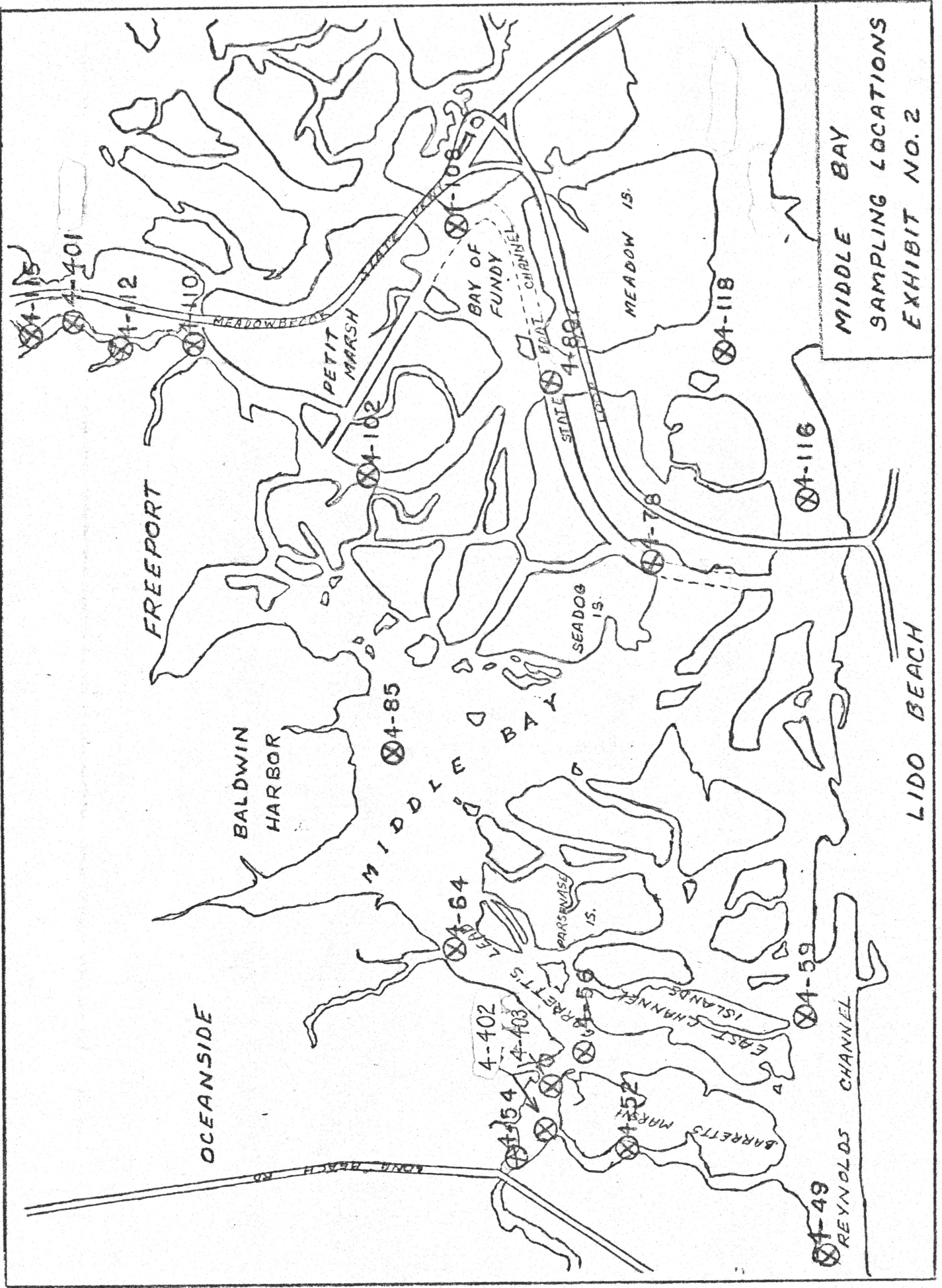
SAMPLING PROCEDURE AND ANALYSES

All samples were collected by personnel from the Health Department and were analyzed in accordance with the procedures and methods outlined in the 13th edition of Standard Methods. Laboratory analyses were performed by the Health Department's Division of Laboratories and Research.

All bacteriological samples were collected near the surface and most chemical samples were collected approximately 5 feet below the surface.



1972 LOCATION MAP
EXHIBIT NO. 1



MIDDLE BAY
 SAMPLING LOCATIONS
 EXHIBIT NO. 2

MIDDLE BAY
AREA 4
SAMPLING POINT LOCATIONS

POINT NO.

- * 49.0 Reynolds Channel, 150 yards east of Long Beach Bridge.
- * 52.0 Main channel off third canal north of Reynold's Channel between Garrett Marsh and Island Park.
- * 54.0 Barnums Channel approximately 100 yards southeast of Long Beach Road.
- 56.0 Mid-channel off Black Can No. 17 east of Garrett Marsh.
- 59.0 Mid-channel off Flashing Green Can No. 13 at the southeast corner of the East Channel Islands.
- 64.0 Main channel just south of the entrance to Bedell Creek.
- 78.0 Sea Dog Creek approximately 70 yards northeast off Town of Hempstead poles "6" and "7".
- 80.0 Junction of Sea Dog and Long Creeks approximately 100 yards southeast of Flashing Green "13".
- * 85.0 Mid-channel, south of Oakwood Creek off Town of Hempstead pole "K" 10".
- 102.0 Off Town of Hempstead pole "P 26" and drain in Long Creek.
- 108.0 Intersection of Sea Dog and Swift Creeks between Flashing Green "25", and poles "F 2", "27" and "22".
- 110.0 Mid-channel off Freeport Creek at intersection with The Narrows, 50 feet north of the Red and Black Can and west of Bridge.
- * 112.0 Junction of Freeport and Stadium creeks.
- 115.0 Mid-channel off Freeport Incinerator stack.
- 116.0 Mid-Reynolds Channel off Town of Hempstead Marina.
- 118.0 Junction of Long Creek and Reynolds Channel approximately 50 yards south of Red Nun "16" and in line with Red Nun "14".
- * 401.0 Freeport S.T.P. outfall.
- 402.0 Barnums Channel approximately 400 yards southeast of Long Beach Rd. across from cooling water intake canal for Oceanside Incinerator.
- 403.0 Barnums Channel between northeast corner of Garrett Marsh and mainland.

* Chemical Analyses in addition to Bacteriological Analyses.

TBB:cg

9/27/71

MIDDLE BAY
TIDE AND PRECIPITATION DATA

1972

LOCAL TIME

<u>Date</u>	<u>High Water</u> H.M.	<u>Low Water</u> H.M.	<u>Precipitation-Inches</u> Freeport
1/2			0.25
1/3			-
1/4	1039	1722	0.55
2/27			-
2/28			-
2/29	0828	1508	-
3/27			-
3/28			-
3/29	0802	1433	-
4/22			0.68
4/23			0.29
4/24	1757	1154	0.28
5/8			0.04
5/9			0.83
5/10	0634	1255	0.06
6/26			0.05
6/27			-
6/28	1017	1639	-
7/16			-
7/17			-
7/18	1504	0900	-
8/21			-
8/22			-
8/23	0801	1429	-
9/9			0.07

Date

High Water
H.M.

Low Water
H.M.

Precipitation-Inches
Freeport

9/10

-

9/11

1125

1756

-

10/28

0.60

10/29

-

10/30

1502

0916

-

11/18

-

11/19

0.16

11/20

0717

1404

1.24

12/4

0.02

12/5

-

12/6

0824

1511

0.66

MIDDLE RAY
AREA NO. 4

WATER QUALITY SURVEY RESULTS

1972

Bacs.
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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 49			Sampling Point No. 52			Sampling Point No. 54		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/4	1020	4600	430	1035	2400	430	1046	930	430
2/29	1130	9.1	9.1	1113	15	3.6	1100	23	3.6
3/29	1105	3.6	< 3.0	1053	23	< 3.0	1045	150	15
4/24	1235	23	23	1245	15	9.1	1310	430	75
5/10	1021	75	23	1033	430	430	1045	1500	430
6/28	1145	240	9.1	1130	240	43	1115	240	93
7/18	1135	2400	2400	1123	430	93	1113	240	43
8/23	0910	430	150	0925	93	9.1	0940	43	43
9/11	0855	93	21	0910	150	93	0925	23	< 3.0
10/30	1050	4600	4600	1038	240	43	1027	240	93
11/20	1105	430	240	1050	4600	140	1042	4600	430
12/6	1030	240	240	1010	930	430	0955	240	240
Median		240.0	86.5		240.0	68.0		240.0	84.0
Log Averages		194.0	83.4		211.2	48.2		236.9	62.7

MIDDLE BAY
AREA NO. 4

WATER QUALITY SURVEY RESULTS

1972

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Bacs.
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Date	Sampling Point No. 56			Sampling Point No. 59			Sampling Point No. 64		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/4	1130	240	240	1007	2100	390	1140	430	43
2/29	1045	430	93	1140	23	9.1	1040	20	15
3/29	1033	15	<3.0	1110	240	3.6	1030	43	3.6
4/24	1318	240	240	1225	23	3.6	1323	75	23
5/10	1053	210	210	1013	43	43	1058	4600	43
6/28	1105	430	43	1200	240	7.3	1100	93	43
7/18	1106	11000	11000	1138	430	93	1104	930	930
8/23	0947	75	43	1125	23	3.6	0951	43	23
9/11	0933	240	240	1150	23	23	0938	43	43
10/30	1020	240	23	1056	930	75	1016	240	43
11/20	1030	930	240	1117	240	93	1024	930	430
12/6	0941	240	240	1040	430	240	0935	240	93
Median		240.0	225.0		240.0	33.0		166.5	43.0
Log Average		290.1	129.3		140.7	27.5		179.1	48.2

MIDDLE BAY
 AREA NO. 4
WATER QUALITY SURVEY RESULTS

Bacs.
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1972

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 78				Sampling Point No. 80				Sampling Point No. 85			
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/4	0950	39	23	0920	43	43	1155	43	43	1155	43	43
2/29	1200	39	39	1205	93	7.3	1025	9.1	9.1	1025	9.1	< 3.0
3/29	1012	23	3.6	0908	9.1	3.6	1010	93	93	1010	93	93
4/24	0940	43	15	0932	23	23	1335	75	75	1335	75	75
5/10	1000	240	240	0955	2100	23	1103	930	930	1103	930	93
6/28	1214	93	23	0935	23	23	1050	240	240	1050	240	23
7/18	0939	93	15	0933	43	23	1100	93	93	1100	93	15
8/23	1110	43	15	1050	23	3.6	1000	23	23	1000	23	9.1
9/11	1138	23	23	1110	< 3.0	< 3.0	0948	23	23	0948	23	9.1
10/30	0911	43	23	0914	240	23	1011	240	240	1011	240	93
11/20	0932	240	43	0921	23	23	1017	240	240	1017	240	93
12/6	1107	23	23	1115	43	23	0925	43	43	0925	43	23

Median 43.0 23.0 33.0 23.0 84.0 33.0

Log Average 54.8 23.7 41.8 13.6 80.5 29.7

MIDDLE BAY
 AREA NO. 4
 WATER QUALITY SURVEY RESULTS

Bacs.
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1972

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 102			Sampling Point No. 108			Sampling Point No. 110		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/4	0915	39	9.1	0924	43	9.1	0910	43	23
2/29	1000	23	23	0900	43	23	0917	93	< 3.0
3/29	1000	23	9.1	0911	43	< 3.0	0923	93	9.1
4/24	1140	240	23	0955	430	93	1045	11000	240
5/10	0952	2400	43	0900	43	23	0945	> 24000	1500
6/28	1037	23	23	0938	21	21	0946	240	240
7/18	1030	23	23	0945	43	43	1020	930	36
8/23	1008	43	23	1045	93	43	1038	240	43
9/11	1010	23	< 3.0	1100	23	23	1050	43	< 3.0
10/30	0950	1500	23	0917	240	43	0945	2400	28
11/20	0910	4600	4600	1201	240	240	0900	> 24000	4600
12/6	0905	240	23	1138	93	7.3	0855	240	9.1
	1148	43	-	-	-	-	1158	93	-
Median		43.0	23.0		43.0	23.0		240.0	32.0
Log Average		112.1	27.2		70.6	25.9		534.5	50.8

MIDDLE BAY
AREA NO. 4

WATER QUALITY SURVEY RESULTS

1972

Bacs.
5 of 7

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 112			Sampling Point No. 115			Sampling Point No. 116		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/4	0905	93	15	0845	23	23	0944	43	43
2/29	0948	43	3.6	0930	< 3.0	< 3.0	1215	240	240
3/29	0945	9.1	9.1	0935	930	75	0900	240	7.3
4/24	1040	> 24000	930	1025	4600	430	0858	23	23
5/10	0940	11000	240	0925	4600	150	1120	2400	43
6/28	1002	430	23	1010	4600	4600	1220	23	23
7/18	1015	2400	930	1003	11000	11000	1200	43	7.3
8/23	1035	240	93	1020	4600	240	1103	21	21
9/11	1040	43	23	1025	93	9.1	1130	43	23
10/30	0941	2400	430	0930	1500	21	1105	240	43
11/20	0850	2400	430	0830	2400	2400	-	-	-
12/6	0848	93	43	0831	3.6	< 3.0	1057	240	93
	1209	150	-	1215	2400	-	-	-	-

Median

240.0

68.0

112.5

43.0

23.0

Log Average

406.3

76.5

115.4

96.9

30.9

MIDDLE BAY
 AREA NO. 4
 WATER QUALITY SURVEY RESULTS

Bacs.
 6 of 7

1972

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Sampling Point No. 118

Sampling Point No. 401

Date	Time	Total	Fecal	Time	Total	Fecal
1/4	0937	93	23	0855	23	23
2/29	1210	23	9.1	0940	240	< 3.0
3/29	0904	430	< 3.0	0940	430	9.1
4/24	0928	43	23	1035	11000	43
5/10	1130	4600	430	0935	4600	23
6/28	0930	43	9.1	1010	240	23
7/18	0930	43	43	1010	430	39
8/23	1055	23	23	1030	93	7.3
9/11	1117	< 3.0	< 3.0	1035	210	< 3.0
10/30	0907	430	43	0937	430	9.1
11/20	1149	430	430	0840	2400	430
12/6	1120	43	43	0840	430	9.1
	-	-	-	1210	430	-

Median
 Log Average

43.0
 86.9

23.0
 26.7

130.0
 164.0

16.0
 16.6

MIDDLE BAY
AREA NO. 4
WATER QUALITY SURVEY RESULTS

1972

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Sampling Point No. 402				Sampling Point No. 403			
Date	Time	Total	Fecal	Date	Time	Total	Fecal
1/4	1102	240	240	1125	430	93	
2/29	1055	23	3.6	1050	43	3.6	
3/29	1037	75	< 3.0	1035	43	3.6	
4/24	1300	240	93	1315	240	240	
5/10	1040	430	430	1050	430	150	
6/28	1113	43	43	1107	240	23	
7/18	1115	240	240	1107	240	240	
8/23	0933	430	43	0944	75	20	
9/11	0915	23	23	0930	93	43	
10/30	1030	430	43	1022	210	23	
11/20	1047	2400	240	1033	2400	210	
12/6	1000	43	43	0945	430	43	
Median		240.0	43.0		240.0	43.0	
Log Average		155.1	52.8		209.5	43.2	

MIDDLE BAY
AREA NO. 4
WATER QUALITY SURVEY RESULTS
1972

Chem.
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CHEMICAL RESULTS

SAMPLING POINT - 52

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
1/4	1035	18,000	7.6	32	6.3	8.8	2 **
2/29	1113	17,600	7.8	32	4.4	10.4	3 **
3/29	1053	18,200	7.9	25	5.0	10.0	2
4/24	1245	17,800	7.6	25	8.0	8.0	3 ***
5/10	1033	18,800	7.8	27	11.0	7.6	2
6/28	1130	16,000	7.4	23	19.5	5.4	1
7/18	1123	16,600	7.9	30	-	7.0	2 **
8/23	0925	18,200	7.8	19	23.4	7.8	< 1
9/11	0910	18,400	7.2	28	21.6	5.4	1***
10/30	1038	17,800	8.0	27	14.0	6.6	1 ***
11/20	1050	17,000	7.6	20	9.0	7.6	2 ***
12/6	1010	17,400	7.8	33	8.4	7.8	2
Averages		17,700	7.7	27	11.9	7.8	2

Notes: See Sampling Point - 49

MIDDLE BAY
AREA NO. 4
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 52

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃		Ortho	Total
1/4	1035	0.63	0.021	0.17	30.3	0.52	0.61
2/29	1113	0.28	0.011	0.13	29.3	0.48	0.59
3/29	1053	0.40	0.008	0.12	30.8	0.36	0.52
4/24	1245	0.29	0.018	0.05	-	0.46	0.71
5/10	1033	0.31	0.012	0.12	-	0.48	0.57
6/28	1130	0.27	0.028	0.10	28.9	0.61	0.63
7/18	1123	0.44	0.020	0.08	-	0.63	0.75
8/23	0925	0.32	0.036	0.08	30.9	0.85	1.11
9/11	0910	0.18	0.024	0.09	31.3	0.73	0.73
10/30	1038	0.33	0.038	0.05	31.8	0.59	0.65
11/20	1050	0.26	0.037	0.19	30.0	0.46	0.59
12/6	1010	0.40	0.033	0.15	31.8	0.46	0.65
Averages		0.34	0.024	0.11	30.6	0.55	0.68

Notes: See Sampling Point - 49

MIDDLE BAY
AREA NO. 4
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 54

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
1/4	1046	17,600	7.6	35	14.1	8.6	2 **
2/29	1100	17,200	7.7	33	15.0	9.6	2 **
3/29	1045	18,200	7.9	26	10.8	9.8	2
4/24	1310	18,000	7.7	26	10.0	7.8	3 ***
5/10	1045	17,200	7.8	25	14.0	7.2	2
6/28	1115	16,200	7.4	29	24.9	4.8	1
7/18	1113	16,400	7.8	26	-	7.8	3 **
8/23	0940	18,200	7.8	28	30.1	6.4	1
9/11	0925	18,000	7.1	37	26.7	5.4	1 ***
10/30	1027	17,200	7.9	28	21.0	6.4	1 ***
11/20	1042	16,200	7.4	33	17.6	7.6	2 ***
12/6	0955	17,400	7.7	36	16.3	7.8	1
Averages		17,300	7.6	30	18.2	7.4	2

MIDDLE BAY
AREA NO. 4
WATER QUALITY SURVEY RESULTS
1972

Chem.
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CHEMICAL RESULTS

SAMPLING POINT - 54

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃		Ortho	Total
1/4	1046	0.83	0.025	0.18	29.6	0.65	0.78
2/29	1100	0.23	0.016	0.15	27.8	0.53	0.73
3/29	1045	0.33	0.010	0.15	29.8	0.39	0.57
4/24	1310	0.29	0.018	0.18	-	0.50	0.67
5/10	1045	0.36	0.018	0.15	-	0.54	0.61
6/28	1115	0.31	0.036	0.13	29.1	0.67	0.73
7/18	1113	0.64	0.024	0.09	-	0.78	0.90
8/23	0940	0.32	0.040	0.07	31.4	1.11	1.34
9/11	0925	0.10	0.033	0.12	31.6	0.85	1.34
10/30	1027	0.20	0.050	0.17	32.0	0.69	0.73
11/20	1042	0.26	0.043	0.25	28.2	0.59	0.71
12/6	0955	0.46	0.040	0.19	31.7	0.55	0.78
Averages		0.36	0.029	0.15	30.1	0.65	0.82

Notes: See Sampling Point - 49

MIDDLE BAY
AREA NO. 4
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 85

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
1/4	1155	18,000	7.4	33	5.0	8.8	1 **
2/29	1025	17,200	7.5	30	4.4	10.6	3 **
3/29	1010	17,600	7.9	33	4.9	10.4	2
4/24	1335	17,400	7.7	27	8.0	8.2	2 **
5/10	1103	18,000	7.8	22	10.0	8.0	6
6/28	1050	16,200	7.6	30	20.5	6.8	2
7/18	1100	17,000	8.1	40	-	9.4	3 **
8/23	1000	18,200	8.0	30	24.3	9.2	1
9/11	0948	18,800	7.4	24	21.1	6.2	1 ***
10/30	1011	17,600	7.8	30	12.8	7.2	1 ***
11/20	1017	16,600	7.5	23	7.8	8.2	1 ***
12/6	0925	17,600	7.5	20	7.1	8.2	1
Averages		17,500	7.7	29	11.4	8.4	2

Notes: See Sampling Point - 49

MIDDLE BAY
AREA NO. 4
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 85

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃		Ortho	Total
1/4	1155	0.60	0.015	0.24	29.7	0.32	0.41
2/29	1025	0.22	0.010	0.17	-	0.36	0.46
3/29	1010	0.23	0.010	0.14	30.1	0.20	0.34
4/24	1335	0.19	0.009	0.37	-	0.19	0.32
5/10	1103	0.24	0.012	0.09	-	0.32	0.44
6/28	1050	0.21	0.022	0.10	28.5	0.39	0.52
7/18	1100	0.11	0.008	0.06	-	0.39	0.50
8/23	1000	0.06	0.030	0.25	31.0	0.71	0.87
9/11	0948	0.13	0.019	0.12	31.5	0.57	0.63
10/30	1011	< 0.07	0.036	0.11	32.2	0.29	0.32
11/20	1017	0.24	0.026	0.23	29.6	0.34	0.37
12/6	0925	0.40	0.033	0.28	31.5	0.39	0.46
Averages		0.23	0.019	0.18		0.37	0.47

Notes: See Sampling Point - 49

MIDDLE BAY
AREA NO. 4
WATER QUALITY SURVEY RESULTS
1972

CHEMICAL RESULTS

SAMPLING POINT - 112

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
1/4	0905	8,800	6.9	26	5.1	9.4	2 **
2/29	0948	12,200	7.1	25	3.0	10.6	3 **
3/29	0945	16,400	7.7	22	4.5	10.8	3
4/24	1040	17,600	7.4	33	7.0	7.2	3 ***
5/10	0940	16,800	7.8	21	8.5	7.2	3
6/28	1002	15,200	7.5	28	19.3	5.4	1
7/18	1015	13,200	7.7	34	-	4.4	1 **
8/23	1035	17,400	7.9	34	24.8	7.8	4
9/11	1040	17,200	7.3	28	21.6	5.6	2 ***
10/30	0941	16,600	7.5	24	13.3	6.6	2 ***
11/20	0850	10,200	7.2	23	8.8	8.4	2 ***
12/6	0848	12,400	7.3	26	7.2	8.6	2
Averages		14,500	7.4	27	11.2	7.7	2

Notes: See Sampling Point - 49

MIDDLE BAY
AREA NO. 4
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 112

Date	Time	Nitrogen as N			Phosphorous as PO ₄		
		NH ₃	NO ₂	NO ₃	Salinity	Ortho	Total
1/4	0905	4.34	0.011	0.49	29.7	4.50	4.90
2/29	0948	0.67	0.011	0.59	29.2	1.80	1.80
3/29	0945	0.30	0.006	0.14	29.5	0.37	0.52
4/24	1040	0.27	0.009	0.08	-	0.39	0.55
5/10	0940	0.40	0.007	0.24	-	0.50	0.67
6/28	1002	0.29	0.012	0.12	28.3	0.46	0.63
7/18	1015	0.64	0.016	0.16	-	0.73	1.01
8/23	1035	0.30	0.010	0.06	29.8	0.71	0.82
9/11	1040	0.18	0.033	0.15	30.7	1.05	1.08
10/30	0941	1.13	0.013	0.07	31.2	0.90	0.98
11/20	0850	0.96	0.011	0.33	20.0	1.80	2.10
12/6	0848	1.37	0.017	1.06	29.8	2.80	3.20
Averages		0.90	0.013	0.29	28.7	1.33	1.52

Notes: See Sampling Point - 49

MIDDLE BAY
AREA NO. 4

Chem.
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WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 401

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
1/4	0855	15,800	6.8	33	6.3	9.2	2 **
2/29	0940	13,600	6.9	28	3.9	10.8	3 **
3/29	0940	17,200	7.4	18	4.4	10.2	3
4/24	1035	16,800	6.8	27	7.0	5.8	4 ***
5/10	0935	17,000	7.7	25	9.0	6.8	2
6/28	1010	16,600	7.2	33	18.9	5.2	2
7/18	1010	15,400	6.8	27	-	1.8	2 **
8/23	1030	15,600	7.9	45	23.7	6.8	2
9/11	1035	18,000	7.2	32	21.6	5.4	1 ***
10/30	0937	15,000	7.4	28	13.9	6.6	3 ***
11/20	0840	10,600	7.0	29	9.0	8.4	3 ***
12/6	0840	14,800	7.1	25	6.8	8.8	2
Averages		15,500	7.2	29	11.3	7.2	2

Notes: See Sampling Point - 49

MIDDLE BAY
 AREA NO. 4
 WATER QUALITY SURVEY RESULTS

Chem.
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1972

CHEMICAL RESULTS

SAMPLING POINT - 401

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃		Ortho	Total
1/4	0855	2.29	0.008	0.19	29.4	2.16	2.44
2/29	0940	0.94	0.010	0.18	27.6	3.40	4.00
3/29	0940	0.30	0.006	0.15	29.8	0.37	0.48
4/24	1035	0.52	0.009	0.12	-	0.57	0.80
5/10	0935	0.22	0.005	0.17	-	0.32	0.41
6/28	1010	0.21	0.009	0.06	28.5	0.50	0.61
7/18	1010	3.54	0.022	0.15	-	2.44	2.70
8/23	1030	2.00	0.016	0.11	28.7	2.36	2.84
9/11	1035	0.43	0.012	0.09	30.6	0.98	1.04
10/30	0937	2.74	0.019	0.33	23.5	2.76	2.76
11/20	0840	1.10	0.012	0.32	20.6	2.44	3.45
12/6	0810	1.16	0.016	0.31	30.8	2.40	2.60
Averages		1.29	0.012	0.18	27.7	1.80	2.01

Notes: See Sampling Point - 49

MIDDLE BAY
AREA NO. 4
WATER QUALITY SURVEY RESULTS
1972

CHEMICAL RESULTS

SAMPLING POINT - 49

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
1/4	1020	18,000	7.2	31	6.0	9.0	2 **
2/29	1130	17,800	7.8	34	3.5	10.2	3 **
3/29	1105	17,800	7.9	20	5.2	10.0	2
4/24	1235	18,000	7.4	24	7.0	8.0	3 ***
5/10	1021	18,000	7.8	21	9.0	8.0	2
6/28	1145	16,000	7.5	30	18.5	5.6	1
7/18	1135	17,800	7.9	22	-	6.0	2 **
8/23	0910	18,400	7.5	32	22.3	5.4	1
9/11	0855	18,800	7.1	28	20.9	5.2	1 ***
10/30	1050	17,800	7.8	24	13.4	6.4	2 ***
11/20	1105	17,400	7.7	25	8.6	8.2	1 ***
12/6	1030	18,400	7.9	29	8.4	8.6	1
Averages		17,900	7.6	27	11.2	7.6	2

Notes: (1) All readings are in mg/l unless otherwise noted.
 (2) Chlorides expressed as mg/l Cl.
 (3) pH average is logarithmic
 (4) * Designates 4 day B.O.D.
 (5) ** Designates 6 day B.O.D.
 (6) *** Designates 7 day B.O.D.
 (7) **** Designates 8 day B.O.D.

MIDDLE BAY
AREA NO. 4
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 49

Date	Time	Nitrogen as N			Phosphorous as PO ₄		
		NH ₃	NO ₂	NO ₃	Salinity	Ortho	Total
1/4	1020	0.72	0.015	0.14	30.6	0.55	0.71
2/29	1130	0.18	0.009	0.12	29.3	0.51	0.59
3/29	1105	0.33	0.006	0.09	30.2	0.43	0.55
4/24	1235	0.35	0.016	0.15	-	0.50	0.71
5/10	1021	0.42	0.010	0.10	-	0.57	0.67
6/28	1145	0.33	0.023	0.08	28.7	0.73	0.80
7/18	1135	0.47	0.017	0.13	-	0.78	0.78
8/23	0910	0.44	0.031	0.10	30.1	0.98	1.34
9/11	0855	0.21	0.025	0.10	31.1	1.01	1.10
10/30	1050	0.53	0.033	0.10	32.0	0.75	0.75
11/20	1105	0.31	0.026	0.19	31.0	0.52	0.54
12/6	1030	0.16	0.014	0.06	33.5	0.43	0.43
Averages		0.37	0.019	0.11	30.7	0.65	0.75

Notes: See Sampling Point - 49

E A S T B A Y
W A T E R Q U A L I T Y
S U R V E Y R E S U L T S

1972

NASSAU COUNTY DEPARTMENT OF HEALTH

John J. Dowling, M.D., M.P.H.

Commissioner of Health

Division of Environmental Health
George H. Sumner, M.C.E., P.E.
Deputy Commissioner

Bureau of Water Pollution Control
Stanley Juczak, M.C.E., P.E.
Director

INTRODUCTION

The purpose of this paper is to summarize the chemical and bacteriological results of the samples collected by the Department of Health in East Bay during 1972.

STUDY AREA

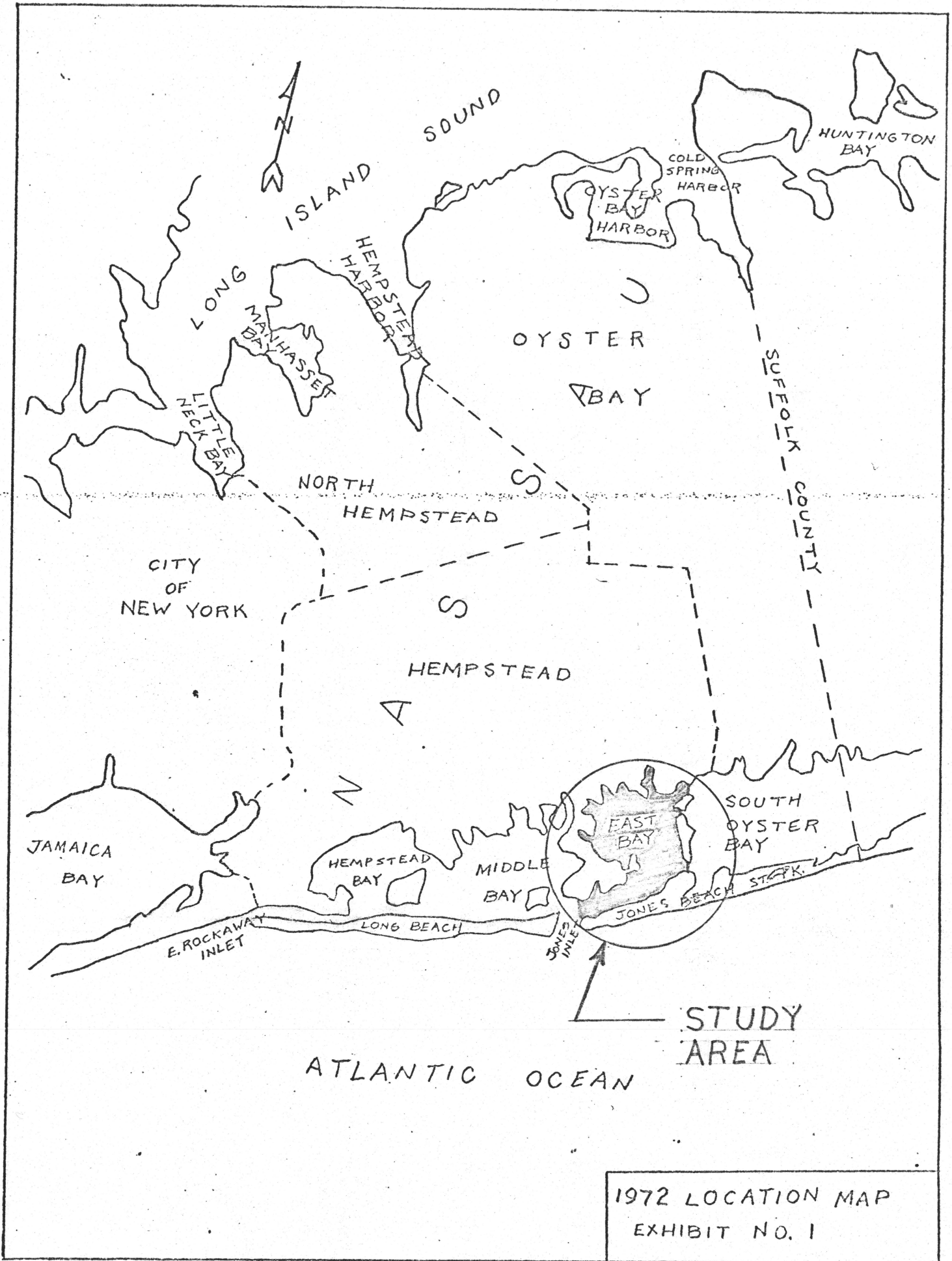
East Bay has been defined as the body of water bounded on the north by the mainland, on the east by the Wantagh Parkway and on the south by the Jones Beach barrier island. On the west, the bay is bounded by the Meadowbrook Parkway and in addition includes a portion of Sloop Channel east of a line running between Point Lookout and the southwest tip of Meadow Island.

Exhibit I shows the location of the study area within the County and Exhibit 2 shows the sampling point locations.

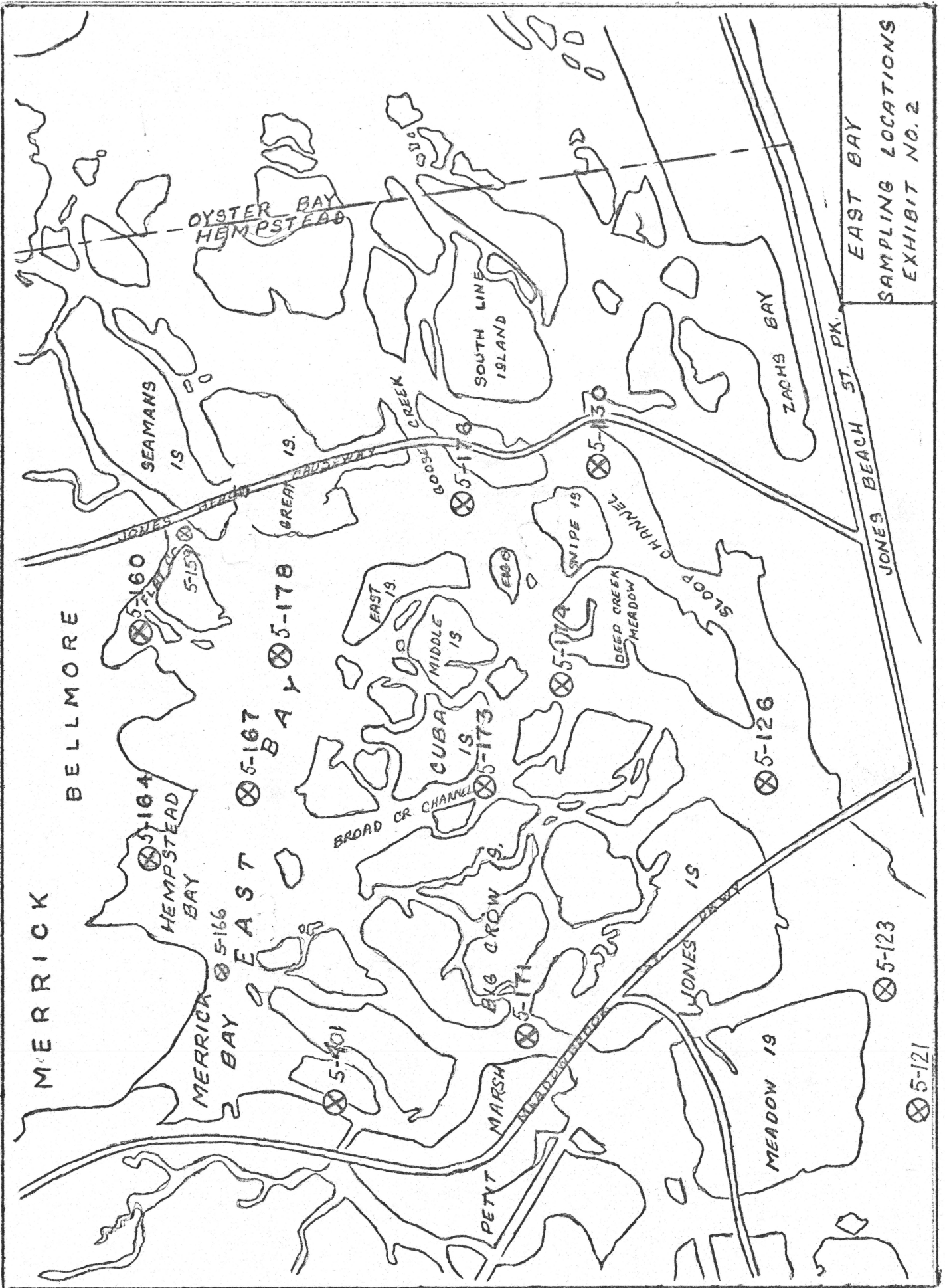
SAMPLING PROCEDURE AND ANALYSES

All samples were collected by Health Department personnel and were analyzed in accordance with the procedures and methods outlined in the 13th edition of Standard Methods. Laboratory analyses were performed by the Health Department's Division of Laboratories and Research.

All bacteriological samples were collected at or near the surface. Most chemical samples were collected approximately five feet below the surface.



1972 LOCATION MAP
EXHIBIT NO. 1



EAST BAY
 SAMPLING LOCATIONS
 EXHIBIT NO. 2

EAST BAY
AREA 5
SAMPLING POINT LOCATIONS

<u>POINT NO.</u>	
121.0	200 yards off Flashing Red light "8" in Sloop Channel.
* 123.0	Sloop Channel, 100 yards south of pole "30" at the Junction of Sloop Channel and Swift Creek.
* 126.0	Sloop Channel in line with State Channel markers 36 and 39.
130.0	Junction of Sloop and Horserace Channels.
159.0	100 yards west of Island Creek Bridge.
160.0	100 yards west of entrance to Wantagh Park Marina.
164.0	100 yards south of Marina.
166.0	100 yards south of Merrick Point.
167.0	250 yards south of Whale Neck Point.
171.0	100 yards east of the Fundy Bridge.
* 173.0	Broad Creek Channel at Town of Hempstead pole W0 9.
174.0	West side of Haunts Creek at intersection with Goose Creek.
* 176.0	Junction of Horserace Channel and Goose Creek.
* 178.0	Approximately 600 yards south of White Point.
* 401.0	In drain east of Fighting Island and 200 yards north of intersection with creek.
* Chemical Analyses	in addition to Bacteriological Analyses.

TBB:cg
11/12/71

EAST BAY
TIDE AND PRECIPITATION DATA

1972

LOCAL TIME

<u>Date</u>	<u>High Water</u> H.M.	<u>Low Water</u> H.M.	<u>Precipitation-Inches</u> Freeport
1/30			-
1/31			-
2/1	1000	1641	-
3/18			0.04
3/19			-
3/20	1253	0657	-
4/3			-
4/4			0.22
4/5	1254	0706	-
4/30			-
5/1			-
5/2	1206	0624	-
6/4			-
6/5			0.18
6/6	1706	1164	-
7/9			-
7/10			-
7/11	1005	1621	-
8/6			-
8/7			-
8/8	0901	1514	-
9/11			-
9/12			-
9/13	1315	0704	0.19

<u>Date</u>	<u>High Water</u> H.M.	<u>Low Water</u> H.M.	<u>Precipitation-Inches</u> Freeport
10/1			-
10/2			-
10/3	0646	1300	-
11/27			-
11/28			-
11/29	1557	1014	-
12/17			-
12/18			-
12/19	0731	1414	-

EAST BAY
AREA NO. 5

Bacs.
1 of 5

WATER QUALITY SURVEY RESULTS

1972

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Sampling Point No. 121				Sampling Point No. 123				Sampling Point No. 126				
Date	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
2/1	0900	23	< 3.0	0908	93	23	0922	43	43	0922	43	43
3/20	0930	43	< 3.0	0940	43	9.1	0950	43	43	0950	43	43
4/5	0900	< 3.0	< 3.0	0910	43	3.6	0918	23	23	0918	23	23
	1210	7.3	3.6	1040	15	7.3	1043	43	43	1043	43	43
5/2	0920	< 3.0	< 3.0	0925	93	93	0915	9.1	9.1	0915	9.1	3.6
	1100	< 3.0	< 3.0	1105	3.6	3.6	1055	< 3.0	< 3.0	1055	< 3.0	< 3.0
6/6	1010	23	9.1	0955	1500	1500	0945	43	43	0945	43	7.3
7/11	0913	43	3.6	0910	15	< 3.0	0900	93	15	0900	93	15
	1035	23	-	1040	23	-	1030	9.1	9.1	1030	9.1	-
8/8	0917	< 3.0	< 3.0	0924	23	23	0912	3.6	3.6	0912	3.6	< 3.0
9/13	-	-	-	1105	3.6	< 3.0	1100	3.6	3.6	1100	3.6	< 3.0
10/3	1054	43	23	1102	93	93	1045	43	43	1045	43	43
11/29	1105	210	43	1112	240	93	1030	93	93	1030	93	23
	1330	240	-	1340	930	-	1250	240	240	1250	240	-
12/19	1158	240	< 3.0	1208	240	43	1145	1500	1500	1145	1500	39
Median		23.0	3.0		43.0	23.0		43.0	43.0		43.0	23.0
Log Average		22.2	5.0		56.4	21.5		31.8	31.8		31.8	13.9

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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Sampling Point No. 130				Sampling Point No. 159				Sampling Point No. 160			
Date	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal		
2/1	0930	23	23	1015	43	3.6	1020	240	7.3		
3/20	0957	9.1	< 3.0	1030	23	23	1038	93	23		
4/5	0923	3.6	< 3.0	0933	9.1	< 3.0	0941	930	11		
	1115	3.6	< 3.0	1124	9.1	< 3.0	1130	150	3.6		
5/2	0905	23	9.1	1040	23	9.1	0850	93	23		
	1050	9.1	3.6	0855	23	23	1140	93	< 3.0		
6/6	0938	23	23	0914	430	43	-	-	-		
7/11	0850	23	< 3.0	0835	43	23	0830	93	23		
	1025	9.1	-	1015	43	-	1135	93	-		
8/8	0903	15	3.6	0852	3.6	3.6	0848	93	43		
9/13	1055	9.1	9.1	1040	43	3.6	1035	430	9.1		
10/3	1030	43	3.6	1014	150	43	1009	240	93		
11/29	1020	93	43	0958	930	240	0950	2400	240		
	1230	430	-	1210	240	-	1205	930	-		
12/19	1108	930	3.6	1315	11000	23	1320	2400	16		
Median		23.0	3.6		43.0	23.0		195.0	19.5		
Log Average		24.3	6.3		66.0	13.5		271.7	18.4		

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 164			Sampling Point No. 166			Sampling Point No. 167		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
2/1	1051	43	< 3.0	1057	9.1	9.1	1003	43	15
3/20	1130	23	< 3.0	1135	43	43	1055	7.3	3.6
4/5	0955	43	3.6	1003	43	9.1	0953	93	9.1
	1150	9.1	< 3.0	1152	23	9.1	1137	23	< 3.0
5/2	0955	23	3.6	0950	23	3.6	1000	9.1	9.1
	1135	43	15	1128	93	15	1025	23	3.6
6/6	0905	> 24000	2400	1045	930	430	1050	240	23
7/11	0940	430	430	0935	240	93	0945	43	43
	1103	93	-	1100	23	-	1105	93	-
8/8	0950	3.6	3.6	0945	240	23	0953	43	9.1
9/13	0955	23	23	0945	75	43	1000	23	< 3.0
10/3	1137	23	9.1	1132	15	3.6	1145	43	7.3
11/29	0925	240	43	0920	93	43	0930	240	23
	1145	240	-	1141	240	-	1152	430	-
12/19	1256	2400	43	1250	430	7.3	1304	2400	93
Median		43.0	9.1		75.0	15.0		43.0	9.1
Log Average		85.6	16.6		74.0	19.9		64.6	10.6

BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 164			Sampling Point No. 166			Sampling Point No. 167		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
2/1	1051	43	< 3.0	1057	9.1	9.1	1003	43	15
3/20	1130	23	< 3.0	1135	43	43	1055	7.3	3.6
4/5	0955	43	3.6	1003	43	9.1	0953	93	9.1
	1150	9.1	< 3.0	1152	23	9.1	1137	23	< 3.0
5/2	0955	23	3.6	0950	23	3.6	1000	9.1	9.1
	1135	43	15	1128	93	15	1025	23	3.6
6/6	0905	> 24000	2400	1045	930	430	1050	240	23
7/11	0940	430	430	0935	240	93	0945	43	43
	1103	93	-	1100	23	-	1105	93	-
8/8	0950	3.6	3.6	0945	240	23	0953	43	9.1
9/13	0955	23	23	0945	75	43	1000	23	< 3.0
10/3	1137	23	9.1	1132	15	3.6	1145	43	7.3
11/29	0925	240	43	0920	93	43	0930	240	23
	1145	240	-	1141	240	-	1152	430	-
12/19	1256	2400	43	1250	430	7.3	1304	2400	93
Median		43.0	9.1		75.0	15.0		43.0	9.1
Log Average		85.6	16.6		74.0	19.9		64.6	10.6

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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 171			Sampling Point No. 173			Sampling Point No. 174		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
2/1	1115	15	3.6	1000	93	43	0947	23	9.1
3/20	1210	3.0	3.0	1118	3.6	< 3.0	-	-	-
4/5	1030	39	7.2	1105	7.3	3.6	1050	3.6	< 3.0
	1200	3.6	3.6	1141	3.6	3.6	1145	9.1	9.1
5/2	0933	9.1	9.1	1011	43	9.1	1018	< 3.0	< 3.0
	1110	< 3.0	< 3.0	1020	9.1	9.1	1019	23	3.6
6/6	1015	430	430	1105	4600	23	1110	240	43
7/11	0920	93	21	0955	43	43	1000	150	150
	1048	23	-	1115	9.1	-	1118	43	-
8/8	0928	93	43	1005	43	43	1008	23	23
9/13	0930	14	14	1015	9.1	9.1	1020	430	430
10/3	1110	43	15	1155	93	11	1200	23	9.1
11/29	1120	150	23	1045	430	75	1038	240	43
	1350	150	-	1305	23	-	1255	93	-
12/19	1220	430	23	1130	2400	93	1125	930	43
Median		39.0	14.0		43.0	11.0		33.0	16.0
Log Average		33.8	13.1		44.5	15.9		48.3	19.4

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WATER QUALITY SURVEY RESULTS

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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 176				Sampling Point No. 178				Sampling Point No. 401			
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
2/1	0936	93	9.1	1010	43	9.1	1110	23	9.1	1110	23	9.1
3/20	1005	23	9.1	1046	43	23	1153	23	23	1153	23	23
4/5	0930	39	3.6	0950	43	9.1	1015	240	15	1015	240	15
	1119	9.1	< 3.0	1135	43	7.3	1155	9.1	9.1	1155	9.1	9.1
5/2	0900	23	23	1035	23	< 3.0	0941	23	9.1	0941	23	9.1
	1045	3.6	< 3.0	1138	23	< 3.0	1115	15	9.1	1115	15	9.1
6/6	0925	240	43	1125	1500	120	1030	930	930	1030	930	930
7/11	0845	43	43	1013	23	23	0930	23	23	0930	23	23
	1020	43	-	1130	43	-	1052	43	-	1052	43	-
8/8	0900	23	9.1	1030	9.1	< 3.0	0937	43	9.1	0937	43	9.1
9/13	1050	9.1	3.6	1030	23	9.1	0940	43	3.6	0940	43	3.6
10/3	1025	23	23	1218	43	9.1	1122	43	< 3.0	1122	43	< 3.0
11/29	1015	93	43	0940	430	93	0910	93	43	0910	93	43
	1224	75	-	1200	240	-	1133	23	-	1133	23	-
12/19	1102	930	9.1	1310	930	240	1237	240	15	1237	240	15
Median		39.0	9.1		43.0	9.1		43.0	9.1		43.0	9.1
Log Average		39.4	11.0		66.7	15.0		47.7	15.6		47.7	15.6

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 WATER QUALITY SURVEY RESULTS
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CHEMICAL RESULTS
 SAMPLING POINT - 123

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
2/1	0908	19,000	7.8	27	3.0	10.8	3 **
3/20	0940	18,600	7.9	39	3.4	10.4	3 ***
4/5	0910	18,400	7.6	35	4.3	10.2	2
5/2	0925	19,000	8.1	28	7.0	10.2	3 **
6/6	0955	17,600	7.7	23	-	6.8	1 ***
7/11	0910	17,600	7.9	30	18.1	6.8	1 ***
8/8	0924	18,800	7.9	26	22.2	7.2	1 **
9/13	1105	19,400	7.7	39	19.3	5.4	< 1
10/3	1102	18,200	8.0	26	17.1	7.0	1 ***
11/29	1112	18,000	7.9	35	6.6	9.6	2
	1340	18,200	8.0	66	8.3	8.6	1
12/19	1208	18,400	7.7	38	3.3	10.4	3 ***
Averages		18,400	7.8	34	10.2	8.6	2

Notes: (1) All readings are in mg/l unless otherwise noted.

(2) Chlorides expressed as mg/l Cl.

(3) pH average is Logarithmic

(4) * Designates 4 day B.O.D.

(5) ** Designates 6 day B.O.D.

(6) *** Designates 7 day B.O.D.

(7) **** Designates 8 day B.O.D.

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WATER QUALITY SURVEY RESULTS
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CHEMICAL RESULTS

SAMPLING POINT - 123

Date	Time	Nitrogen as N			Salinity	Phosphorous as P _L	
		NH ₃	NO ₂	NO ₃		Ortho	Total
2/1	0908	0.12	0.004	0.10	31.5	0.18	0.22
3/20	0940	0.07	0.005	0.08	31.6	0.18	0.31
4/5	0910	0.11	0.003	0.08	31.6	0.15	0.20
5/2	0925	< 0.02	0.003	< 0.04	-	0.15	0.17
6/6	0955	0.06	0.005	< 0.02	-	0.17	0.29
7/11	0910	< 0.02	0.004	< 0.01	30.4	0.18	0.29
8/8	0924	< 0.02	< 0.001	< 0.05	32.0	0.12	0.25
9/13	1105	< 0.02	0.004	< 0.05	32.9	0.17	0.19
10/3	1102	0.11	0.004	0.07	32.2	0.18	0.19
11/29	1112	0.10	0.012	0.17	31.6	0.19	0.26
	1340	0.10	0.016	0.19	33.0	0.18	0.36
12/19	1208	0.17	0.016	0.15	32.6	0.18	0.23
Averages		0.08	0.006	0.08	32.0	0.17	0.25

Notes: See Sampling Point - 123

EAST BAY
AREA NO. 5
WATER QUALITY SURVEY RESULTS

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CHEMICAL RESULTS

SAMPLING POINT - 126

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
2/1	0922	19,000	7.8	36	4.1	10.4	2 **
3/20	0950	19,000	7.4	46	3.2	10.6	3 ***
4/5	0918	18,600	7.9	42	4.2	9.8	2
5/2	0915	18,200	7.9	29	8.0	9.8	3 **
6/6	0945	18,200	7.5	30	-	7.0	1 **
7/11	0900	17,800	8.0	25	18.1	6.6	1 **
8/8	0912	19,000	7.6	25	21.3	7.2	1 **
9/13	1100	19,200	7.6	37	19.1	5.2	1
10/3	1045	18,200	8.1	27	17.4	7.4	> 7 ***
11/29	1030	18,000	7.9	28	6.1	9.4	1
	1250	18,000	8.0	40	7.1	9.2	1
12/19	1145	18,600	7.8	49	3.5	10.4	2 ***
Averages		18,600	7.8	35	11.0	8.7	2

Notes: See Sampling Point - 123

EAST BAY
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WATER QUALITY SURVEY RESULTS

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CHEMICAL RESULTS

SAMPLING POINT - 126

Date	Time	Nitrogen as N				Phosphorous as PO ₄		
		NH ₃	NO ₂	NO ₃	Salinity	Ortho	Total	
2/1	0922	0.08	0.003	0.07	33.2	0.12	0.19	
3/20	0950	0.05	0.004	0.10	31.2	0.19	0.25	
4/5	0918	0.09	0.003	0.10	31.4	0.14	0.19	
5/2	0915	< 0.02	0.004	0.06	-	0.20	0.20	
6/6	0945	0.32	0.004	< 0.02	-	0.14	0.19	
7/19	0900	0.04	< 0.001	< 0.01	30.6	0.15	0.20	
8/8	0912	0.02	0.002	< 0.05	31.9	0.12	0.18	
9/13	1100	0.02	0.003	0.06	32.6	0.15	0.18	
10/3	1045	0.07	0.003	< 0.01	32.6	0.17	0.20	
11/29	1030	0.20	0.009	0.14	31.8	0.12	0.18	
	1250	0.19	0.011	0.20	31.8	0.12	0.20	
12/19	1145	0.17	0.012	0.16	32.7	0.11	0.25	
Averages		0.10	0.005	0.08	32.0	0.14	0.21	

Notes: See Sampling Point - 123

EAST BAY
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CHEMICAL RESULTS

SAMPLING POINT - 173

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
2/1	1000	18,800	7.9	23	3.5	10.4	2 **
3/20	1118	18,800	8.0	40	4.2	10.6	3 ***
4/5	1105	18,200	7.8	38	4.8	10.6	2
5/2	1011	19,000	8.0	30	9.0	9.2	2 **
6/6	1105	17,600	7.8	39	-	7.4	2 **
7/11	0950	17,800	8.0	30	18.9	6.8	1 **
8/8	1005	18,400	7.9	44	22.8	6.4	2
9/13	1015	19,000	7.6	33	20.1	6.0	1
10/3	1155	18,000	8.0	33	17.1	8.2	2 ***
11/29	1045	17,800	7.9	32	6.5	9.4	1
	1305	17,600	8.0	54	6.5	9.4	1
12/19	1130	18,000	7.6	37	1.9	10.8	3 ***
Averages		18,300	7.9	36	10.5	8.8	2

Notes: See Sampling Point - 123

EAST BAY
AREA NO. 5
WATER QUALITY SURVEY RESULTS

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CHEMICAL RESULTS

SAMPLING POINT - 173

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄		Total
		NH ₃	NO ₂	NO ₃		Ortho		
2/1	1000	< 0.04	0.004	0.17	32.5	0.11		0.18
3/20	1118	0.04	0.003	0.08	30.2	0.14		0.14
4/5	1105	0.12	0.003	0.08	31.1	0.14		0.18
5/2	1011	< 0.02	0.005	0.06	-	0.20		0.20
6/6	1105	0.03	0.009	0.06	-	0.11		0.23
7/11	0950	< 0.02	< 0.001	< 0.01	30.4	0.15		0.20
8/8	1005	0.04	0.001	< 0.05	32.2	0.15		0.26
9/13	1015	0.04	0.006	< 0.05	32.4	0.18		0.20
10/3	1155	0.13	0.009	0.07	31.7	0.20		0.20
11/29	1045	0.17	0.009	0.17	31.4	0.11		0.26
	1305	0.13	0.009	0.12	31.8	0.12		0.23
12/19	1130	0.17	0.016	0.21	31.7	0.23		0.23
Averages		0.08	0.006	0.09	31.5	0.15		0.21

Notes: See Sampling Point - 123

EAST BAY
AREA NO. 5
WATER QUALITY SURVEY RESULTS
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CHEMICAL RESULTS

SAMPLING POINT - 176

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
2/1	0936	19,400	7.9	27	3.7	10.4	3 **
3/20	1005	18,200	7.9	39	3.6	10.8	3 ***
4/5	0930	18,400	7.8	43	4.4	10.4	2
5/2	0900	18,400	7.6	33	9.0	9.2	3 **
6/6	0925	18,200	7.2	17	-	6.8	2 **
7/11	0845	17,800	7.9	30	19.9	6.4	1 **
8/8	0900	19,600	7.7	34	21.5	7.2	1 **
9/13	1050	18,800	7.6	38	20.3	6.6	1
10/3	1025	18,200	7.8	35	16.6	7.4	1 ***
11/29	1015	17,600	7.7	39	6.2	9.0	1
	1224	17,800	8.0	24	6.5	9.8	2
12/19	1102	17,600	7.4	36	3.0	10.8	3 ***
Averages		18,300	7.7	34	10.4	8.7	2

Notes: See Sampling Point - 123

EAST BAY
AREA NO. 5
WATER QUALITY SURVEY RESULTS
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CHEMICAL RESULTS

SAMPLING POINT - 176

Date	Time	Salinity	Nitrogen as N			Phosphorous as PO ₄	
			NH ₃	NO ₂	NO ₃	Ortho	Total
2/1	0936	33.1	0.04	0.005	0.09	0.17	0.25
3/20	1005	30.6	0.03	0.004	0.08	0.11	0.19
4/5	0930	31.3	0.07	0.003	0.08	0.14	0.18
5/2	0900	-	0.02	0.006	0.09	0.18	0.18
6/6	0925	-	< 0.02	0.004	0.02	0.12	0.20
7/11	0845	30.5	0.02	< 0.001	< 0.01	0.15	0.19
8/8	0900	31.8	0.02	0.001	< 0.05	0.15	0.20
9/13	1050	32.5	< 0.02	0.003	< 0.05	0.19	0.23
10/3	1025	32.3	0.11	0.004	< 0.01	0.19	0.20
11/29	1015	31.6	0.23	0.010	0.25	0.18	0.20
	1224	31.7	0.17	0.007	0.17	0.06	0.23
12/19	1102	32.8	0.14	0.015	0.21	0.18	0.23
Averages		31.8	0.07	0.005	0.09	0.15	0.21

Notes: See Sampling Point - 123

EAST BAY
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WATER QUALITY SURVEY RESULTS

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CHEMICAL RESULTS

SAMPLING POINT - 178

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
2/1	1010	18,800	8.1	28	1.9	11.0	3 **
3/20	1046	17,400	8.0	25	4.4	11.0	3 ***
4/5	0950	17,600	7.8	49	5.1	10.2	2
5/2	1035	17,800	8.1	38	10.0	9.2	2 **
6/6	1125	17,200	7.9	29	-	7.6	2 **
7/11	1013	17,400	8.1	28	20.8	7.6	2 **
8/8	1030	18,200	7.9	29	22.9	7.4	2 **
9/13	1030	18,600	7.6	23	20.3	6.2	1
10/3	1218	17,800	8.0	23	17.2	8.2	1 ***
11/29	0940	16,000	7.5	23	6.3	-	-
	1200	16,400	7.9	31	6.3	9.6	3
12/19	1310	16,800	7.8	34	3.1	11.0	3 ***
Averages		17,500	7.9	30	10.8	9.0	2

Notes: See Sampling Point - 123

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AREA NO. 5
WATER QUALITY SURVEY RESULTS
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CHEMICAL RESULTS

SAMPLING POINT - 401

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
2/1	1110	18,800	8.2	31	3.2	10.8	3 **
3/20	1153	18,000	8.0	41	4.8	11.0	3 ***
4/5	1015	18,400	7.7	26	4.7	10.2	2
5/2	0941	18,400	8.0	31	9.0	9.2	3 **
6/6	1030	17,400	7.7	25	-	7.6	2 **
7/11	0930	17,800	8.0	36	19.7	6.6	1 **
8/8	0937	19,000	7.9	18	21.9	6.6	1 **
9/13	0940	19,200	7.3	36	20.2	5.8	1
10/3	1127	18,200	7.9	24	17.2	7.0	1 ***
11/29	0910	17,400	7.1	30	6.1	9.2	1
	1133	17,200	7.9	29	6.8	9.2	1
12/19	1237	18,000	7.8	39	2.4	10.4	3 ***
Averages		18,200	7.8	31	10.5	8.6	2

Notes: See Sampling Point - 123

EAST BAY
AREA NO. 5
WATER QUALITY SURVEY RESULTS

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CHEMICAL RESULTS

SAMPLING POINT - 178

Date	Time	Nitrogen as N				Phosphorous as PO ₄		
		NH ₃	NO ₂	NO ₃	Salinity	Ortho	Total	
2/1	1010	0.08	0.005	0.14	31.7	0.12	0.18	
3/20	1046	0.05	0.003	0.16	29.3	0.10	0.12	
4/5	0950	0.11	0.003	0.20	30.6	0.08	0.19	
5/2	1035	< 0.02	0.006	0.11	-	0.17	0.18	
6/6	1125	0.03	0.011	0.07	-	0.14	0.25	
7/11	1013	0.02	0.005	< 0.01	30.4	0.15	0.20	
8/8	1030	0.04	0.002	0.07	31.9	0.12	0.20	
9/13	1030	< 0.02	0.006	0.15	31.9	0.18	0.26	
10/3	1218	0.11	0.011	0.06	31.7	0.12	0.22	
11/29	0940	0.40	0.012	0.70	30.9	0.07	0.15	
	1200	0.23	0.010	0.48	30.5	0.06	0.26	
12/19	1310	0.19	0.015	0.36	31.0	0.19	0.20	
Averages		0.11	0.007	0.21	30.9	0.13	0.20	

Notes: See Sampling Point - 123

EAST BAY
AREA NO. 5
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 401

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃		Ortho	Total
2/1	1110	0.17	0.006	0.10	31.7	0.15	0.18
3/20	1153	0.03	0.003	0.09	29.8	0.18	0.18
4/5	1015	0.12	0.002	0.08	31.0	0.17	0.22
5/2	0941	0.02	0.006	0.08	-	0.23	0.29
6/6	1030	0.05	0.007	0.03	-	0.14	0.31
7/11	0930	0.07	0.002	<0.01	30.4	0.25	0.25
8/8	0937	0.02	<0.001	0.05	32.0	0.17	0.25
9/13	0940	0.02	0.006	<0.05	32.1	0.29	0.46
10/3	1127	0.31	0.010	0.03	31.9	0.23	0.23
11/29	0910	0.20	0.009	0.13	31.7	0.12	0.19
	1133	0.17	0.010	0.14	31.4	0.18	0.29
12/19	1237	0.17	0.016	0.18	32.2	0.23	0.26
Averages		0.11	0.007	0.09	31.4	0.20	0.26

Notes: See Sampling Point - 123

SOUTH OYSTER BAY

WATER QUALITY

SURVEY RESULTS

1972

NASSAU COUNTY DEPARTMENT OF HEALTH

John J. Dowling, M.D., M.P.H.

Commissioner of Health

Division of Environmental Health
George H. Sumner, M.C.E., P.E.
Deputy Commissioner

Bureau of Water Pollution Control
Stanley Juczak, M.C.E., P.E.
Director

INTRODUCTION

The purpose of this paper is to summarize the chemical and bacteriological results of the samples collected by the Department of Health during 1972. These results reflect the overall water quality in the bay, during the sampling period.

STUDY AREA

South Oyster Bay has been defined as the body of water bounded on the east by the Nassau-Suffolk County line, on the south by the Jones Beach Barrier Island, on the west by the Wantagh Parkway and on the north by the mainland.

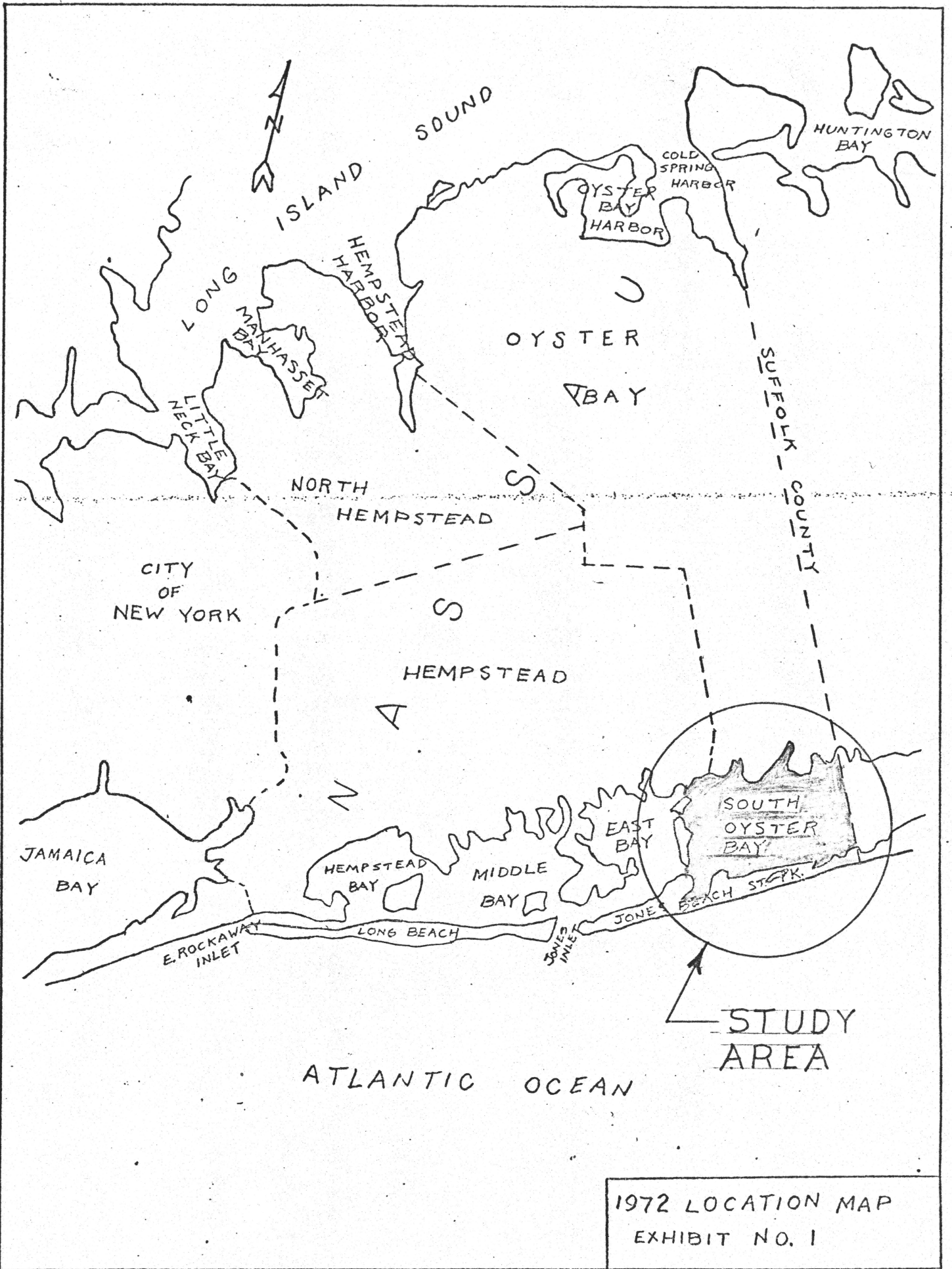
Exhibit I shows the location of South Oyster Bay and Exhibit 2 shows the details of the sampling locations.

South Oyster Bay is influenced by the flow of water coming in and out of Jones Inlet. The tidal divide between South Oyster Bay and Great South Bay is located approximately at the Nassau-Suffolk County line.

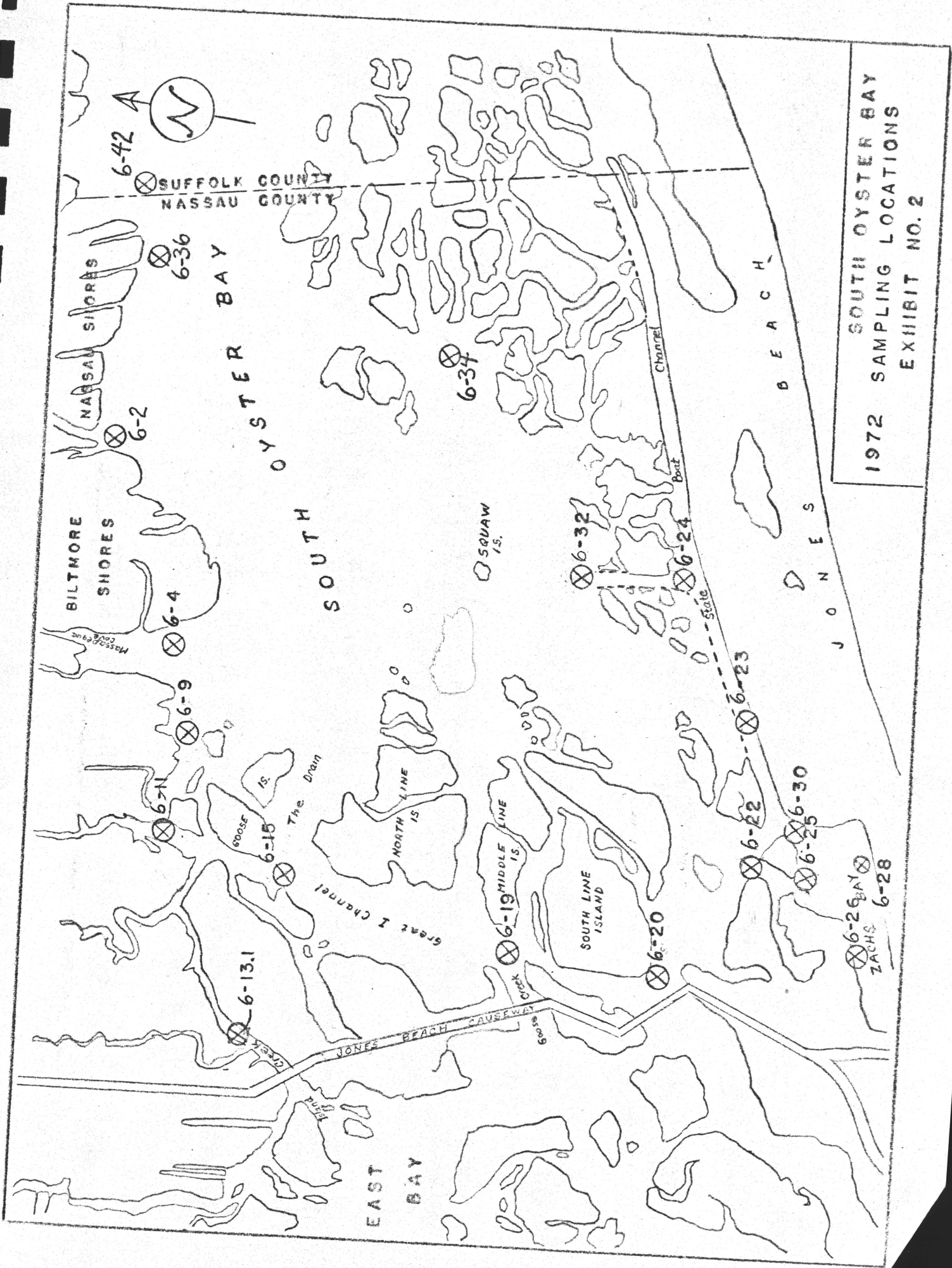
SAMPLING PROCEDURE AND ANALYSES

All samples were collected by personnel from the Health Department and were analyzed in accordance with the procedures and methods outlined in the 13th edition of Standard Methods. Laboratory analyses were performed by the Health Department's Division of Laboratories and Research.

All bacteriological samples were collected at or near the surface. Most samples for chemical analyses were collected approximately 5 feet below the surface.



1972 LOCATION MAP
EXHIBIT NO. 1



SOUTH OYSTER BAY
 1972 SAMPLING LOCATIONS
 EXHIBIT NO. 2

SOUTH OYSTER BAY
SAMPLING POINT LOCATIONS
AREA 6

<u>POINT NO.</u>	
2.0	In channel at entrance to Jones Creek.
4.0	Eastern shore of Massapequa Creek, approximately 250 yards south of channel and 30 yards offshore at Fort Neck Meadow.
* 9.0	Approximately 300 yards off west shore of mouth of Massapequa Creek off cove with "Private Beach" sign.
11.0	Great Island Channel at entrance to Seaford Creek.
13.1	Island Creek approximately 400 yards east of bridge.
15.0	Great Island Channel approximately 200 yards southwest of Goose Island near pole No. Z 13.
* 19.0	Main channel east of Goose Creek Bridge and north of pole "64".
20.0	East of Sloop Channel Bridge at intersection with Great Island Channel.
22.0	West entrance to Zachs Bay off Flashing Red light on pole "74".
23.0	Approximately 350 yards east of pole No. "80" in State Boat Channel.
24.0	State Boat Channel between pole No. "81" and Flashing Green light on pole "83".
25.0	Zachs Bay off Town of Hempstead marker No. "Z-2"
26.0	West end of Zachs Bay approximately 130 yards east of the string of barrier poles and 75 yards offshore.
* 28.0	About 125 yards off south shore of Zachs Bay between east and west bay entrances.
30.0	East entrance to Zachs Bay about 50 yards south of pole No's. "78" and "ZA-1".
* 32.0	Midway between poles "S 1-1", "S 1-2" and "S 1-4".

POINT NO.

* 34.0

Amity Channel, 300 yards south of West Island and in line with southerly channel.

36.0

Approximately 100 yards offshore between 2 easterly canals at Unqua Pt.

* 42.0

In channel between Carman and Narraskatuck/Creek, approximately 1/3 mile southeast of Unqua Point.

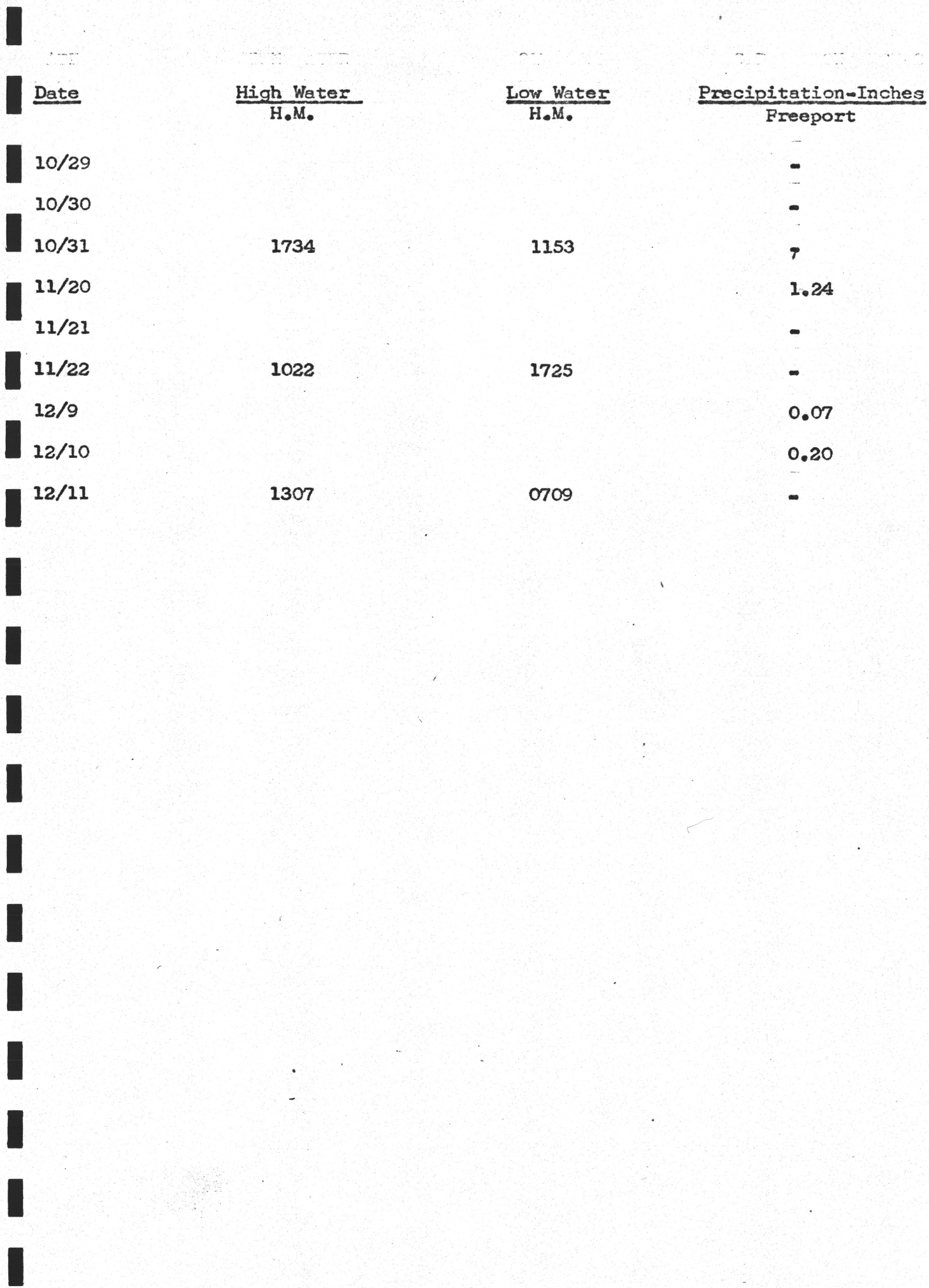
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11/4/71

SOUTH OYSTER BAY
TIDE AND PRECIPITATION DATA

1972

LOCAL TIME

<u>Date</u>	<u>High Water</u> H.M.	<u>Low Water</u> H.M.	<u>Precipitation-Inches</u> Freeport
2/7			0.02
2/8			-
2/9	1706	1150	-
3/11			0.07
3/12			0.36
3/13	0801	1440	-
4/9			-
4/10			-
4/11	0730	1405	-
5/14			0.89
5/15			0.02
5/16	1321	0743	-
6/25			0.03
6/26			0.05
6/27	1104	1737	-
7/24			-
7/25			0.12
7/26	1040	1716	-
8/27			-
8/28			0.02
8/29	1402	0766	-
9/25			-
9/26			-
9/27	1343	0746	0.35



Date

High Water
H.M.

Low Water
H.M.

Precipitation-Inches
Freeport

10/29

-

10/30

-

10/31

1734

1153

7

11/20

1.24

11/21

-

11/22

1022

1725

-

12/9

0.07

12/10

0.20

12/11

1307

0709

-

SOUTH OYSTER BAY
AREA NO. 6
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 9

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
2/9	1135	17,200	7.9	38	2.0	12.6	4
3/13	1115	17,600	7.9	37	3.5	11.4	4 ***
4/11	1050	18,000	8.1	46	5.1	9.8	2 **
5/16	1103	17,200	8.0	53	12.0	7.8	2 **
6/27	1106	16,400	7.6	27	18.1	6.4	1 **
7/26	1200	18,200	7.7	33	24.4	6.6	1
8/29	1005	20,400	7.9	24	23.2	5.8	1 ***
9/27	1247	18,800	7.9	40	20.1	6.8	1
10/31	1042	15,600	8.0	38	10.5	8.6	1 **
11/22	1122	18,200	7.9	37	5.9	9.0	1
12/11	1154	17,800	8.0	40	5.8	9.4	1 ***
Averages		17,800	7.9	38	11.5	8.6	2

- Notes:
- (1) All readings are in mg/l unless otherwise noted.
 - (2) Chlorides expressed as mg/l Cl.
 - (3) pH average is Logarithmic
 - (4) * Designates 4 day B.O.D.
 - (5) ** Designates 6 day B.O.D.
 - (6) *** Designates 7 day B.O.D.
 - (7) **** Designates 8 day B.O.D.

SOUTH OYSTER BAY
AREA NO. 6
WATER QUALITY SURVEY RESULTS
1972

CHEMICAL RESULTS
SAMPLING POINT - 9

Date	Time	Nitrogen as N				Phosphorous as PO ₄		
		NH ₃	NO ₂	NO ₃	Salinity	Ortho	Total	
2/9	1135	0.05	0.009	0.24	29.5	0.14	0.18	
3/13	1115	0.12	0.005	0.24	29.2	0.15	0.17	
4/11	1050	0.07	0.007	0.18	30.2	0.14	0.22	
5/16	1103	0.04	< 0.001	0.07	-	0.14	0.22	
6/27	1106	0.09	0.006	0.04	29.5	0.17	0.22	
7/26	1200	0.04	< 0.001	< 0.01	31.1	0.22	0.23	
8/29	1005	0.02	0.003	0.06	32.0	0.22	0.25	
9/27	1247	0.04	0.001	< 0.01	32.1	0.19	0.25	
10/31	1042	0.29	0.003	0.15	32.2	0.12	0.15	
11/22	1122	0.14	0.008	0.13	32.6	0.19	0.19	
12/11	1154	0.02	0.011	0.21	32.0	0.15	0.22	
Averages		0.08	0.005	0.12	31.0	0.17	0.21	

Notes: See Sampling Point - 9.0

SOUTH OYSTER BAY
AREA NO. 6
WATER QUALITY SURVEY RESULTS
1972

CHEMICAL RESULTS

SAMPLING POINT - 32

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
2/9	1055	18,200	7.9	42	2.0	12.4	4
3/13	1002	18,000	7.9	33	3.5	11.8	4 ***
4/11	0943	18,600	7.9	22	4.9	9.8	3 **
5/16	0952	17,200	8.0	28	11.0	7.8	2 **
6/27	0947	16,400	7.7	25	18.1	7.0	1 **
7/26	1115	18,600	7.8	29	22.8	7.4	3
8/29	1106	22,000	8.1	22	23.6	7.2	1
9/27	1145	18,600	7.9	31	20.3	6.8	2
10/31	0948	18,200	8.1	29	9.4	9.2	2 **
11/22	1010	19,600	8.0	46	7.2	8.8	< 1
12/11	1030	18,000	8.0	41	5.4	10.0	2 ***
Averages		18,500	7.9	32	11.3	8.9	2

Notes: See Sampling Point - 9.0

SOUTH OYSTER BAY
AREA NO. 6
WATER QUALITY SURVEY RESULTS

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1972

CHEMICAL RESULTS

SAMPLING POINT - 32

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄		Total
		NH ₃	NO ₂	NO ₃		Ortho	Total	
2/9	1055	0.03	0.007	0.12	31.3	0.14	0.14	0.22
3/13	1002	0.10	0.002	0.12	30.7	0.11	0.11	0.22
4/11	0943	0.07	0.003	0.08	31.3	0.10	0.10	0.17
5/16	0952	0.02	< 0.001	< 0.01	-	0.11	0.11	0.18
6/27	0947	0.07	0.003	< 0.01	29.8	0.11	0.11	0.17
7/26	1115	0.04	< 0.001	< 0.01	32.8	0.20	0.20	0.25
8/29	1106	0.02	< 0.001	0.09	31.9	0.20	0.20	0.20
9/27	1145	0.02	< 0.001	< 0.01	32.5	0.15	0.15	0.15
10/31	0948	0.09	0.003	0.01	32.9	0.07	0.07	0.17
11/22	1010	0.12	0.004	< 0.05	33.9	0.22	0.22	0.28
12/11	1030	0.02	0.011	0.10	32.2	0.18	0.18	0.19
Averages		0.05	0.003	0.06	31.9	0.14	0.14	0.20

Notes: See Sampling Point - 9.0

SOUTH OYSTER BAY
AREA NO. 6
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 28

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
2/9	1030	18,200	7.6	46	2.0	12.2	5
3/13	0943	18,200	8.0	24	3.1	11.4	3 ***
4/11	0920	19,600	7.4	24	4.7	10.0	2 **
5/16	0934	17,400	8.1	29	10.0	8.4	2 **
6/27	0930	16,600	7.7	27	17.1	7.0	2 **
7/26	1057	18,400	7.8	35	22.9	7.0	2
8/29	1133	21,600	7.9	26	23.1	6.0	1 ***
9/27	1203	18,800	7.9	30	19.5	7.0	1
10/31	0930	18,400	8.0	30	10.9	8.6	1 **
11/22	0945	18,000	7.9	33	5.2	9.8	1
12/11	1008	18,000	7.9	29	6.0	9.6	2 ***
Averages		18,500	7.8	30	11.0	8.8	2

Notes: See Sampling Point - 9.0

SOUTH OYSTER BAY
 AREA NO. 6
 WATER QUALITY SURVEY RESULTS

Chem.
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1972

CHEMICAL RESULTS

SAMPLING POINT - 28

Date	Time	Nitrogen as N				Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃	Ortho		Total	
2/9	1030	< 0.03	0.008	0.114	30.8	0.17	0.20	
3/13	0943	0.07	0.006	0.12	30.1	0.14	0.22	
4/11	0920	0.07	0.003	0.07	31.2	0.11	0.12	
5/16	0934	0.04	< 0.001	< 0.01	-	0.12	0.18	
6/27	0930	0.05	0.003	< 0.01	30.2	0.12	0.18	
7/26	1057	0.04	< 0.001	< 0.01	31.7	0.20	0.26	
8/29	1133	0.02	< 0.001	0.09	32.0	0.14	0.19	
9/27	1203	0.05	0.005	< 0.01	30.8	0.17	0.22	
10/31	0930	0.07	0.005	0.02	33.0	0.10	0.15	
11/22	0945	0.10	0.007	< 0.05	32.2	0.18	0.18	
12/11	1008	0.10	0.011	0.13	33.1	0.18	0.19	
Averages		0.06	0.005	0.06	31.5	0.15	0.19	

Notes: See Sampling Point - 9.0

SOUTH OYSTER BAY
AREA NO. 6
WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 34

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
3/13	1021	18,000	7.9	36	3.9	11.8	4 ***
4/11	0958	19,200	8.0	23	5.0	9.8	2 **
5/16	1006	17,600	8.0	26	12.0	7.8	2 **
6/27	1000	16,600	7.4	30	18.1	6.6	1 **
7/26	1125	18,200	7.9	34	22.8	6.8	2
8/29	1055	20,000	8.0	29	23.4	5.6	1 ***
9/27	1133	18,600	7.7	36	20.0	6.2	1
10/31	1000	18,000	8.1	32	9.0	9.6	1 **
11/22	1020	19,400	8.0	54	6.4	9.2	1
12/11	1045	18,200	7.9	43	5.3	9.8	2 ***
Averages		18,400	7.9	34	12.6	8.3	2

Notes: See Sampling Point - 9.0

SOUTH OYSTER BAY
AREA NO. 6
WATER QUALITY SURVEY RESULTS

Chem.
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1972

CHEMICAL RESULTS

SAMPLING POINT - 34

Date	Time	Nitrogen as N				Phosphorous as PO ₄		
		NH ₃	NO ₂	NO ₃	Salinity	Ortho	Total	
3/13	1021	0.05	0.008	0.10	30.2	0.11	0.19	
4/11	0958	0.07	0.005	0.08	31.1	0.11	0.17	
5/16	1006	0.02	< 0.001	< 0.01	-	0.07	0.12	
6/27	1000	0.05	0.004	0.06	29.8	0.11	0.18	
7/26	1125	0.04	< 0.001	< 0.01	32.8	0.19	0.22	
8/29	1055	0.02	0.001	0.06	32.6	0.18	0.19	
9/27	1133	0.05	< 0.001	< 0.01	32.6	0.15	0.20	
10/31	1000	0.02	< 0.001	0.01	32.9	0.05	0.08	
11/22	1020	0.14	0.007	0.09	32.8	0.26	0.26	
12/11	1045	0.02	0.013	0.19	32.6	0.20	0.23	
Averages		0.05	0.004	0.06	31.9	0.14	0.18	

Notes: See Sampling Point - 9.0

SOUTH OYSTER BAY
AREA NO. 6

Chem.
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WATER QUALITY SURVEY RESULTS

1972

CHEMICAL RESULTS

SAMPLING POINT - 42

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
3/13	1045	17,200	7.8	36	3.2	12.2	3 ***
4/11	1016	18,600	8.1	35	5.0	11.4	3 **
5/16	1025	16,600	8.0	29	13.0	8.4	2 **
6/27	1010	14,600	7.8	20	19.1	8.0	2 **
7/26	1135	18,400	7.9	24	25.2	7.6	2
8/29	1040	19,400	8.1	24	24.8	6.0	< 1 ***
9/27	1117	18,400	7.5	28	20.4	7.4	1
10/31	1010	17,000	8.1	29	10.1	9.2	1 **
11/22	1042	17,000	7.9	32	4.9	9.8	1
12/11	1102	17,000	8.1	34	5.2	9.8	2 ***
Averages		17,400	7.9	29	13.1	9.0	2

Notes: See Sampling Point - 9.0

SOUTH OYSTER BAY
 AREA NO. 6
 WATER QUALITY SURVEY RESULTS
 1972

Chem.
 12 of 12

CHEMICAL RESULTS

SAMPLING POINT - 42

Date	Time	Nitrogen as N			Salinity	Phosphorous as PO ₄	
		NH ₃	NO ₂	NO ₃		Ortho	Total
3/13	1045	0.08	0.008	0.22	28.9	0.12	0.17
4/11	1016	0.04	0.005	0.14	30.0	0.08	0.12
5/16	1025	0.06	0.003	0.06	-	0.08	0.15
6/27	1010	0.17	0.012	0.07	26.3	0.10	0.14
7/26	1135	0.04	< 0.001	< 0.01	30.8	0.23	0.32
8/29	1040	0.02	0.002	0.03	32.0	0.17	0.19
9/27	1117	0.04	0.005	0.02	31.8	0.18	0.18
10/31	1010	0.07	0.006	0.04	31.3	0.08	0.08
11/22	1042	0.12	0.007	0.18	30.6	0.15	0.15
12/11	1102	0.06	0.015	0.26	31.1	0.12	0.12
Averages		0.07	0.006	0.10	30.3	0.13	0.16

Notes: See Sampling Point - 9.0

SOUTH OYSTER BAY
 AREA NO. 6
 WATER QUALITY SURVEY RESULTS

Chem.
 3 of 12

1972

CHEMICAL RESULTS

SAMPLING POINT - 19

Date	Time	Chlorides	pH	Suspended Solids	Temp °C	D.O.	B.O.D.
2/9	1000	14,800	7.0	56	2	12.2	3
3/3	1150	17,600	7.8	96	4	12	4 ***
4/11	1130	18,200	8.0	36	5.4	10	3 **
5/16	1140	17,000	7.9	52	12	8.2	2 **
6/27	0907	17,800	7.6	20	17.1	6.8	1 **
7/26	1235	18,200	7.6	27	22.2	6.2	< 1
8/29	1205	17,800	7.9	21	20.8	6.0	1 ***
9/27	1230	18,400	7.9	30	19.5	6.6	< 1
10/31	0915	17,800	7.8	28	10.1	8.4	1 **
11/22	0919	19,000	7.8	42	6.9	9.2	1
12/11	0935	18,400	7.7	44	5.9	9.2	2 ***
Averages		17,700	7.7	41	11.1	8.6	2

Notes: See Sampling Point - 9.0

SOUTH OYSTER BAY
AREA NO. 6
WATER QUALITY SURVEY RESULTS
1972

CHEMICAL RESULTS
SAMPLING POINT - 19

Date	Time	Nitrogen as N				Phosphorous as PO ₄		
		NH ₃	NO ₂	NO ₃	Salinity	Ortho	Total	
2/9	1000	0.03	0.007	0.24	32.8	0.10	0.20	
3/13	1150	0.25	0.017	0.16	29.5	0.19	0.19	
4/11	1130	0.04	0.003	0.12	30.8	0.14	0.19	
5/16	1140	0.02	0.003	0.05	-	0.12	0.19	
6/27	0907	0.05	0.005	0.02	30.7	0.20	0.23	
7/26	1235	0.04	0.003	< 0.01	31.4	0.20	0.23	
8/29	1205	0.06	0.013	0.22	32.0	0.10	0.11	
9/27	1230	0.02	0.002	0.04	32.5	0.18	0.19	
10/31	0915	0.07	0.006	0.02	33.0	0.36	0.46	
11/22	0919	0.12	0.006	0.09	33.8	0.18	0.19	
12/11	0935	0.06	0.010	0.10	32.6	0.15	0.23	
Averages		0.07	0.007	0.10	31.9	0.17	0.22	

Notes: See Sampling Point - 9.0

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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 2.				Sampling Point No. 4.				Sampling Point No. 9.			
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/17	-	-	-	1346	9.1	3.6	1353	93	43			
2/9	-	-	-	1145	93	3.6	1135	23	23			
3/13	1055	240	21	1108	240	93	1115	75	43			
4/11	1028	93	93	1038	23	23	1050	43	3.6			
5/16	1038	930	93	1051	930	23	1103	240	29			
6/27	1030	430	9.1	1045	430	39	1055	930	93			
7/26	1142	2400	930	1153	930	93	1200	930	93			
8/29	1025	430	93	1012	93	43	1005	150	21			
9/27	1105	240	-	1058	39	-	1247	23	-			
10/31	1022	240	9.1	1033	150	23	1042	240	93			
11/22	1100	140	140	1110	430	93	1122	430	430			
12/11	1121	240	240	1144	93	93	1154	430	43			
	-	-	-	1319	240	-	1309	430	-			
Median		240.0	93.0		150.0	39.0		240.0	43.0			
Log Average		298.2	72.6		141.4	30.3		169.4	44.6			

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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 11.			Sampling Point No. 13.1			Sampling Point No. 15		
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/17	1358	23	23	1305	2400	930	1403	43	23
2/9	1125	150	3.6	1200	43	9.1	1120	93	6.2
3/13	1120	93	23	1130	240	43	1145	43	15
4/11	1055	43	15	1105	93	23	1120	43	9.1
5/16	1106	240	23	1120	930	43	1130	75	39
6/27	1100	930	43	1120	240	23	1143	93	43
7/26	1206	240	43	1217	1500	240	1222	930	75
8/29	0955	93	93	0945	23	23	1215	23	23
9/27	1245	23	-	1330	75	-	1240	9.1	-
10/31	1048	240	93	1110	240	93	1122	240	43
11/22	1127	430	430	1145	240	240	1207	75	75
12/11	1202	930	150	1220	240	43	1240	93	23
	1300	240	-	1339	430	-	1250	240	-
Median		240.0	43.0		240.0	43.0		75.0	23.0
Log Average		157.4	41.8		238.1	61.0		78.1	26.3

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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 19.				Sampling Point No. 20.				Sampling Point No. 22.			
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/17	1108	93	23	1102	240	43	1120	23	9.1	9.1	23	9.1
2/9	1000	39	9.1	1010	9.1	< 3.0	1015	9.1	< 3.0	< 3.0	9.1	< 3.0
3/13	1150	240	9.1	0926	9.1	< 3.0	0931	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
4/11	1130	93	15	0900	93	< 3.0	0905	23	< 3.0	23	< 3.0	< 3.0
5/16	1140	430	430	0913	93	21	0919	23	3.6	23	3.6	3.6
6/27	0907	23	9.1	0913	240	93	0916	43	15	43	15	15
7/26	-	-	-	1040	23	23	1044	23	23	23	23	23
8/29	1205	23	9.1	1153	3.6	< 3.0	1148	23	23	23	23	23
9/27	1230	23	-	1225	3.6	-	1217	3.6	-	3.6	3.6	-
10/31	0915	93	43	0920	93	23	0922	43	23	43	23	23
11/22	0919	93	93	0925	3.6	< 3.0	0931	150	43	150	43	43
12/11	0935 1245	93 23	43 -	0945 -	43 -	43 -	0950 -	93 -	43 -	93 -	43 -	43 -
Median		93.0	19.0		33.0	21.0		23.0	15.0	23.0	15.0	15.0
Log Average		66.8	26.6		27.4	11.5		22.4	11.0	22.4	11.0	11.0

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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 23.				Sampling Point No. 24.				Sampling Point No. 25.			
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/17	1426	23	9.1	1251	93	93	1340	9.1	3.6			
2/9	1040	21	3.6	1045	15	< 3.0	1020	43	< 3.0			
3/13	0950	9.1	< 3.0	0953	9.1	9.1	0933	43	< 3.0			
4/11	0927	15	< 3.0	0933	43	< 3.0	0908	< 3.0	< 3.0			
5/16	0938	23	9.1	0945	23	3.6	0921	23	9.1			
6/27	0935	93	43	0937	43	23	0920	23	3.6			
7/26	1105	23	9.1	1109	23	9.1	1047	43	15			
8/29	1120	93	43	1115	43	43	1145	93	21			
9/27	1156	11	-	1150	23	-	1213	23	-			
10/31	0935	43	9.1	0940	9.1	9.1	0924	23	9.1			
11/22	0958	43	43	1002	43	43	0935	43	23			
12/11	1015	93	15	1020	93	43	0956	9.1	9.1			
Median		10.9	9.1		33.0	9.1		23.0	9.1			
Average		30.2	23.0		29.6	14.0		23.0	7.0			

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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Date	Sampling Point No. 26				Sampling Point No. 28				Sampling Point No. 30			
	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal	Time	Total	Fecal
1/17	1437	7.3	< 3.0	1435	9.1	9.1	1430	23	23	1430	23	23
2/9	1025	23	3.6	1030	23	3.6	1035	7.3	7.3	1035	7.3	3.0
3/13	0935	3.6	< 3.0	0943	15	< 3.0	0947	15	15	0947	15	3.6
4/11	0911	< 3.0	-	0920	3.6	< 3.0	0923	43	43	0923	43	3.6
5/16	0924	23	9.1	0934	9.1	9.1	0935	430	430	0935	430	20
6/27	0923	43	43	0930	23	23	0932	43	43	0932	43	23
7/26	1050	43	43	1057	93	23	1101	43	43	1101	43	3.6
8/29	1137	9.1	3.6	1133	9.1	9.1	1125	9.1	9.1	1125	9.1	9.1
9/27	1210	9.1	-	1203	23	-	1200	9.1	9.1	1200	9.1	-
10/31	0926	9.1	< 3.0	0930	240	9.1	0932	93	93	0932	93	23
11/22	0938	93	93	0945	240	93	0950	93	93	0950	93	93
12/11	1000	43	23	1008	240	29	1011	9.1	9.1	1011	9.1	3.6
Median		16.0	6.3		23.0	9.1		33.0	33.0		33.0	9.1
Log Average		15.7	10.2		30.5	11.1		30.1	30.1		30.1	10.0

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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Sampling Point No. 32				Sampling Point No. 34			
Date	Time	Total	Fecal	Date	Time	Total	Fecal
1/17	1259	9.1	9.1	1/17	1308	43	15
2/9	1055	15	< 3.0	2/9	-	-	-
3/13	1002	9.1	9.1	3/13	1021	3.6	3.6
4/11	0943	23	3.6	4/11	0958	23	3.6
5/16	0952	23	23	5/16	1006	43	15
6/27	0947	93	93	6/27	1000	43	43
7/26	1115	43	3.6	7/26	1125	23	23
8/29	1106	23	9.1	8/29	1055	9.1	< 3.0
9/27	1145	9.1	-	9/27	1133	15	-
10/31	0948	93	43	10/31	1000	240	240
11/22	1010	43	43	11/22	1020	93	93
12/11	1030	39	39	12/11	1045	23	3.6
Median		23.0	9.1			23.0	15.0
Log Average		25.8	14.1			28.6	15.3

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BACTERIOLOGICAL RESULTS - COLIFORM - MPN/100.

Sampling Point No. 36		Sampling Point No. 42	
Date	Time	Total	Fecal
1/17	-	93	93
3/13	1048	93	93
4/11	1020	43	9.1
5/16	1030	930	150
6/27	1020	240	43
7/26	1138	930	930
8/29	1035	150	43
9/27	1111	43	-
10/31	1015	240	9.1
11/22	1050	430	240
12/11	1109	430	43
Median		240.0	68.0
Log Average		201.4	67.3

Sampling Point No. 42	
Time	Fecal
1323	93
1045	23
1016	< 3.0
1025	23
1010	< 3.0
1135	7.3
1040	23
1117	-
1010	15
1042	430
1102	93
Median	43.0
Log Average	45.6

