

NIAGARA MOHAWK POWER CORPORATION  
POWER AUTHORITY OF THE STATE OF NEW YORK

1976

ANNUAL DATA REPORT  
NINE MILE POINT AQUATIC ECOLOGY STUDIES  
LMS Project No. 191-040, 041, 042

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February 28, 1976

LAWLER, MATUSKY AND SKELLY ENGINEERS  
Environmental Science & Engineering Consultants  
415 Route 303  
Tappan, New York 10983

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- Chlorophyceae
- Chrysophyceae
- Cryptophyceae
- Dinophyceae
- Euglenophyceae
- Myxophyceae
- Total Phytoplankton





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- Bacillariophyceae
- Chlorophyceae
- Chrysophyceae
- Cryptophyceae
- Dinophyceae
- Euglenophyceae
- Myxophyceae
- Total Phytoplankton

### 3. Abundance of Selected Species

- Ankistrodesmus falcatus
- Asterionella formosa
- Chrysochromulina parva
- Coelosphaerium kuetzingianum
- Coelosphaerium naegelianum
- Chroococcus dispersus var. minor
- Cyclotella atomus
- Katablepharis ovalis
- Melosira italica var. subarctica
- Oscillatoria limnetica
- Rhodomas minuta var. nannoplantica

### 4. Biovolume of Selected Species

- Ankistrodesmus falcatus
- Asterionella formosa
- Chroococcus dispersus var. minor
- Chrysochromulina parva
- Coelosphaerium kuetzingianum
- Coelosphaerium naegelianum
- Cyclotella atomus
- Katablepharis ovalis
- Melosira italica var. subarctica
- Oscillatoria limnetica
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- Copepoda
- Cladocera
- Protozoa
- Rotifera
- Total Zooplankton

#### 2. Abundance of Selected Species

##### . Cladocera

- Bosmina longirostris
- Daphnia retrocurva

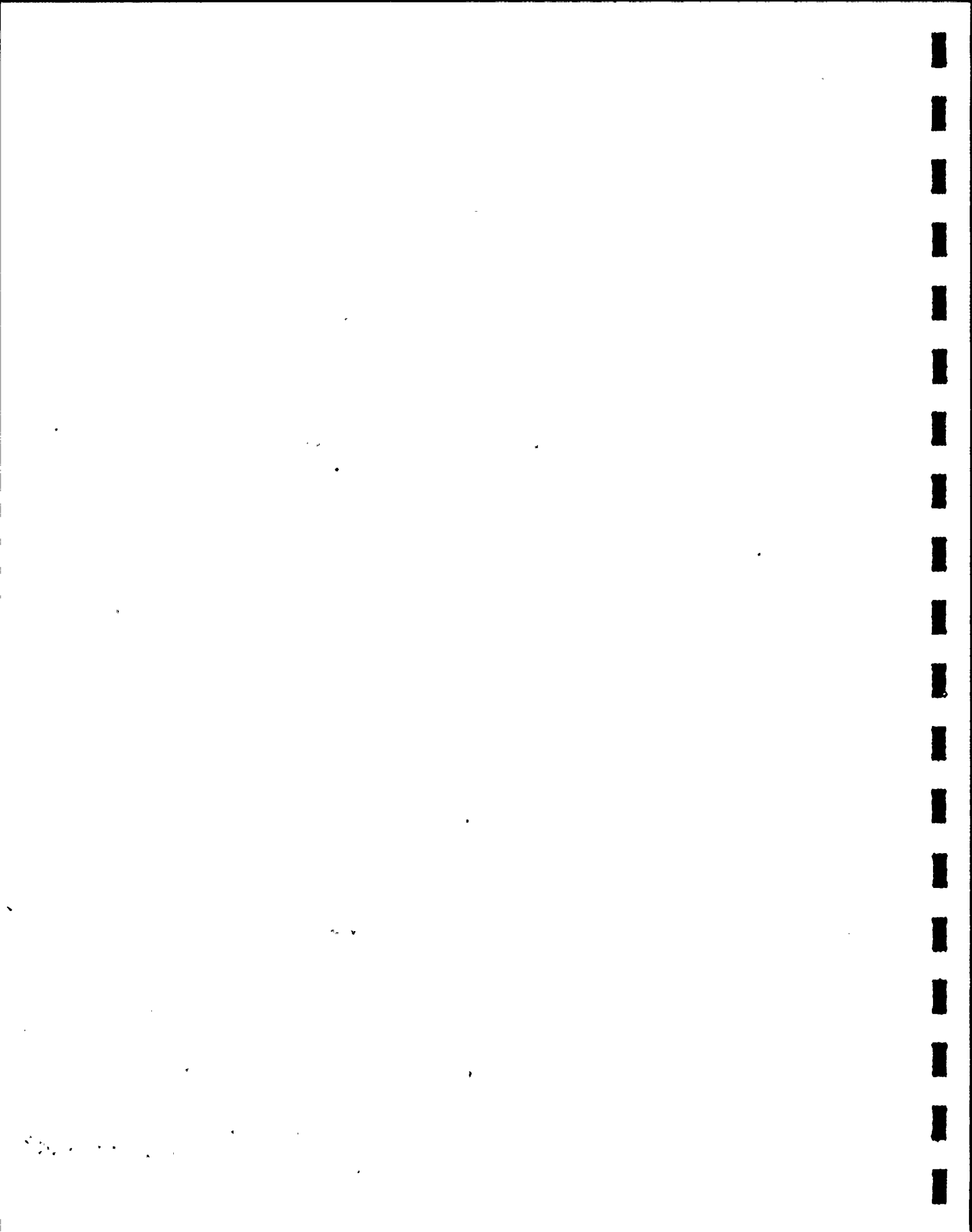
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#### 1. Abundance of Selected Species in Day Collections

- Alewife
- Rainbow smelt
- White perch
- Yellow perch

#### 2. Abundance of Selected Species in Night Collections

- Alewife
- Rainbow smelt
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- Rainbow smelt
- Spottail shiner
- Threespine stickleback
- White perch
- Yellow perch

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- Coho salmon
- Rainbow smelt
- Smallmouth bass
- Spottail shiner
- White perch
- Yellow perch

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- Alewife
- Brown trout
- Coho salmon
- Rainbow smelt
- Smallmouth bass
- Spottail shiner
- White perch
- Yellow perch

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#### - JAMES A. FITZPATRICK NUCLEAR POWER PLANT

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  - Ciliata
  - Suctoria
  - Total Protozoa
  - Rotifera
  - Total Zooplankton
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  - Calanoida
  - Cyclopoida
  - Copepoda
  - Cladocera
  - Ciliata
  - Suctoria
  - Total Protozoa
  - Rotifera
  - Total Zooplankton
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Viability Studies
  - Bosmina longirostris
  - Keratella crassa
  - Keratella quadrata
  - Polyarthra dolichoptera
  - Polyarthra major
  - Synchaeta lackowitziana
  - Synchaeta pectinata
  - Trichocera multicrotus
  - Tropocyclops prasinus mexicanus

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- Bosmina longirostris
- Keratella crassa
- Keratella quadrata
- Polyarthra dolichoptera
- Polyarthra major
- Synchaeta lackowitziana
- Synchaeta pectinata
- Trichocerca multiricinus
- Tropocyclops prasinus mexicanus

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  - Johnny darter
  - Mottled sculpin
  - Rainbow smelt
  - White perch
  - Total ichthyoplankton
- . Juvenile
  - Alewife
  - Rainbow smelt
  - Total ichthyoplankton

- NINE MILE POINT NUCLEAR STATION UNIT 1

A. ICHTHYOPLANKTON

1. Abundance of Selected Species: Intake Forebay

a. Larvae

- Alewife
- Rainbow smelt
- White perch
- Yellow perch

b. Fish Eggs

- Alewife
- Rainbow smelt
- White perch
- Yellow perch

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James A. FitzPatrick Nuclear Power Plant

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IV.A. TWICE MONTHLY WATER CHEMISTRY  
(20 and 60 FT STATIONS): SELECTED PARAMETERS



TWICE MONTHLY WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS\*

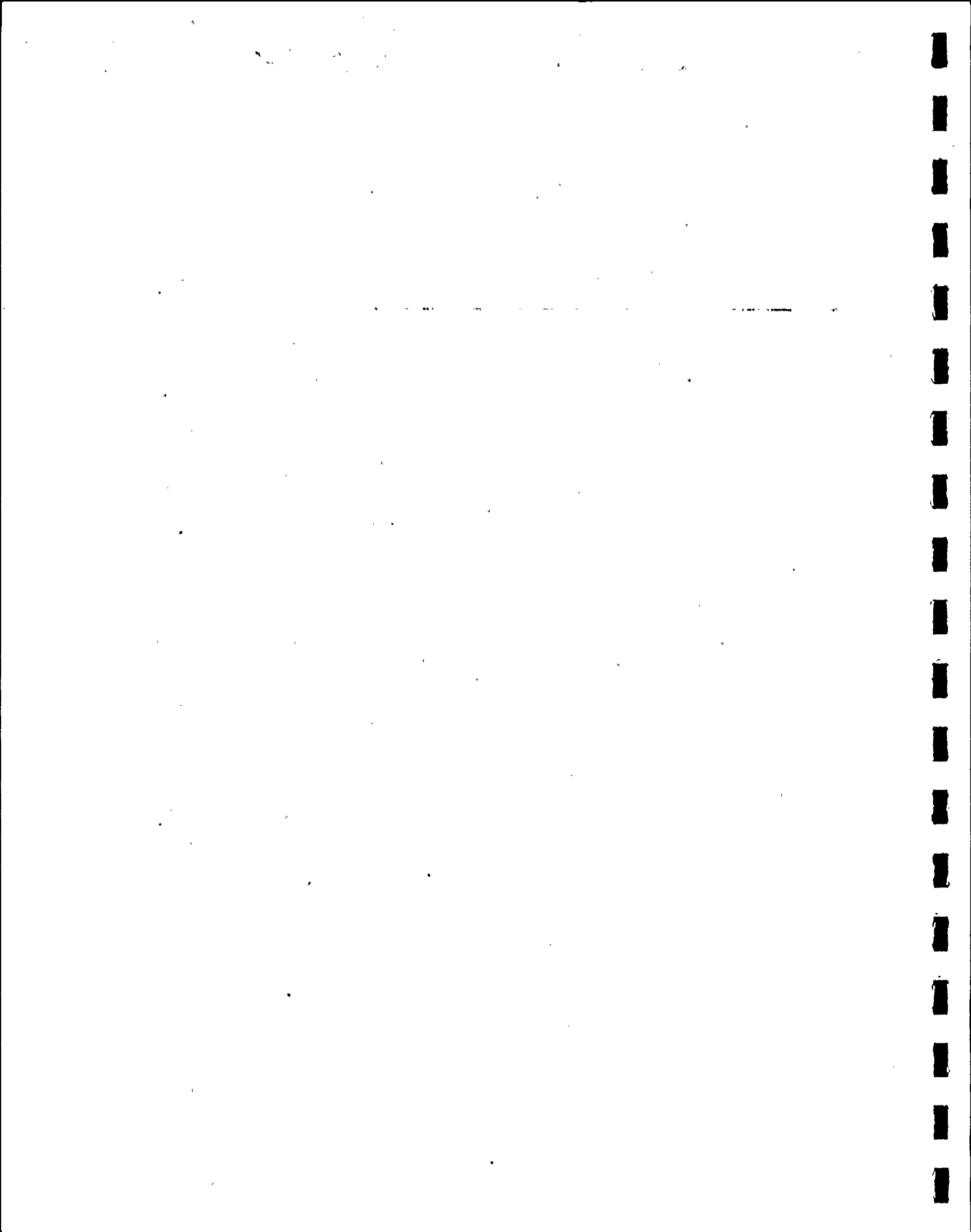
NINE MILE POINT VICINITY - 1976

I. CHLOROPHYLL A ( $\mu\text{g/l}$ )

DATE	20 FT			60 FT		
	NMPW	NMPP/FITZ	NMPE	NMPW	NMPP/FITZ	NMPE
14 APR	12.6	17.2	13.9	17.8	11.5	12.2
29 APR	7.8	7.4	9.0	4.4	4.6	6.8
10 MAY	11.5	5.2	7.9	3.5	7.1	6.6
24 MAY	6.0	5.0	5.5	5.5	5.7	4.1
8 JUN	13.0	9.3	8.2	5.6	10.0	9.6
21 JUN	13.3	7.0	9.6	12.8	5.6	6.3
6 JUL	8.9	9.8	11.0	13.3	11.9	14.2
19 JUL	10.5	8.2	6.3	11.0	9.6	5.6
2 AUG	2.1	6.1	6.3	4.2	3.3	2.8
23 AUG	12.8	8.6	8.6	8.4	14.9	5.6
7 SEP	6.3	4.2	6.3	1.4	4.2	3.7
20 SEP	9.3	7.7	7.9	11.0	10.7	8.9
4 OCT	2.1	4.2	8.4	8.4	6.1	4.0
19 OCT	3.5	2.6	3.0	3.3	2.6	2.6
2 NOV	4.2	1.4	<0.1	2.1	3.0	2.3
15 NOV	2.3	2.1	1.6	1.4	1.9	1.6
6 DEC	3.3	4.7	5.1	4.2	4.4	5.1

\*Surface samples





TWICE MONTHLY WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS\*

NINE MILE POINT VICINITY - 1976

II. DISSOLVED OXYGEN (mg/l)

DATE	20 FT			60 FT		
	NMPW	NMPP/FITZ	NMPE	NMPW	NMPP/FITZ	NMPE
14 APR	13.4	13.9	13.4	13.3	13.6	13.6
29 APR	11.8	11.8	11.4	12.2	11.5	11.4
10 MAY	10.7	11.1	10.6	11.5	11.0	11.3
24 MAY	10.5	10.8	10.8	10.9	10.6	11.5
8 JUN	10.8	11.1	11.1	11.2	10.7	11.7
21 JUN	9.4	10.2	11.0	9.9	10.1	11.0
6 JUL	9.9	9.8	10.2	10.1	10.2	10.2
19 JUL	8.7	8.5	8.5	8.5	8.6	8.7
2 AUG	8.9	8.5	8.6	8.9	8.7	8.4
23 AUG	10.6	10.4	10.1	10.3	10.7	10.3
7 SEP	8.9	8.8	8.8	8.5	8.4	8.5
20 SEP	8.8	8.8	9.2	8.9	9.0	8.7
4 OCT	8.8	9.1	9.8	9.7	9.4	9.0
19 OCT	10.0	9.6	10.0	9.9	9.9	9.7
2 NOV	10.6	10.7	10.6	10.6	10.2	10.3
15 NOV	12.4	10.8	11.0	10.8	10.9	10.9
6 DEC	13.6	12.9	12.6	13.0	13.0	12.3

\*Surface samples



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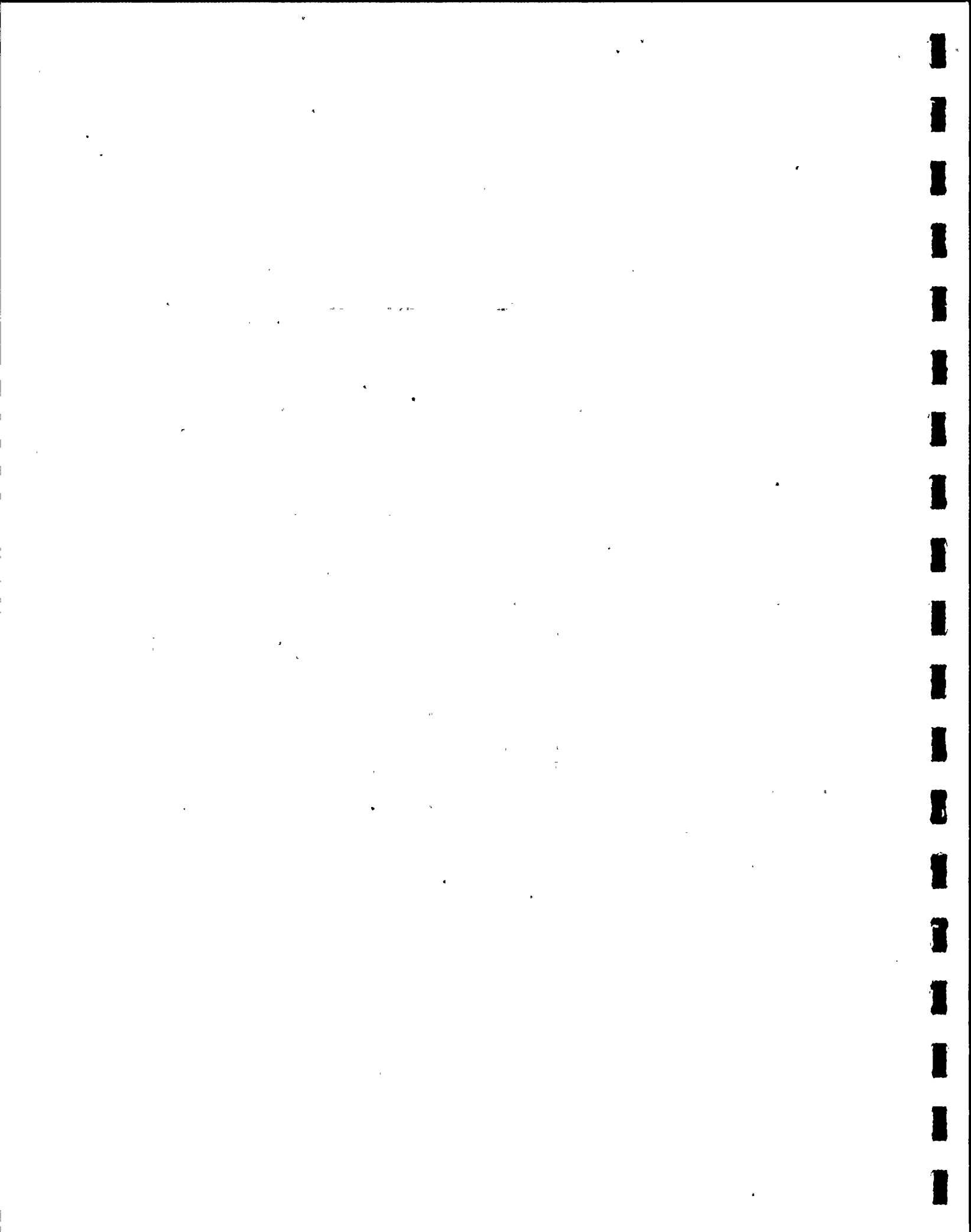
TWICE MONTHLY WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS\*

NINE MILE POINT VICINITY - 1976

III. AMMONIA NITROGEN (mg/l-N)

DATE	20 FT			60 FT		
	NMPW	NMPP/FITZ	NMPE	NMPW	NMPP/FITZ	NMPE
14 APR	0.14	0.04	0.17	0.17	0.07	0.06
29 APR	0.30	0.40	0.51	0.31	0.31	0.50
10 MAY	0.26	0.29	0.27	0.25	0.25	0.30
24 MAY	0.26	0.30	0.39	0.37	0.23	0.20
8 JUN	0.37	0.16	0.30	0.12	0.22	0.22
21 JUN	0.09	0.07	0.28	0.13	0.17	0.16
6 JUL	0.12	0.16	0.28	0.16	0.17	0.23
19 JUL	0.25	0.28	0.44	0.29	0.28	0.30
2 AUG	0.42	0.26	0.27	0.31	0.21	0.23
23 AUG	0.15	0.14	0.16	0.14	0.18	0.18
7 SEP	0.17	0.26	0.49	0.15	0.26	0.32
20 SEP	0.18	0.29	0.37	0.19	0.24	0.26
4 OCT	0.10	0.24	0.26	0.28	0.18	0.33
19 OCT	0.14	0.17	0.14	0.12	0.16	0.13
2 NOV	0.09	0.15	0.17	0.07	0.05	0.14
15 NOV	0.29	0.34	0.23	0.29	0.29	0.22
6 DEC	0.22	0.19	0.39	0.13	0.12	0.27

\*Surface samples



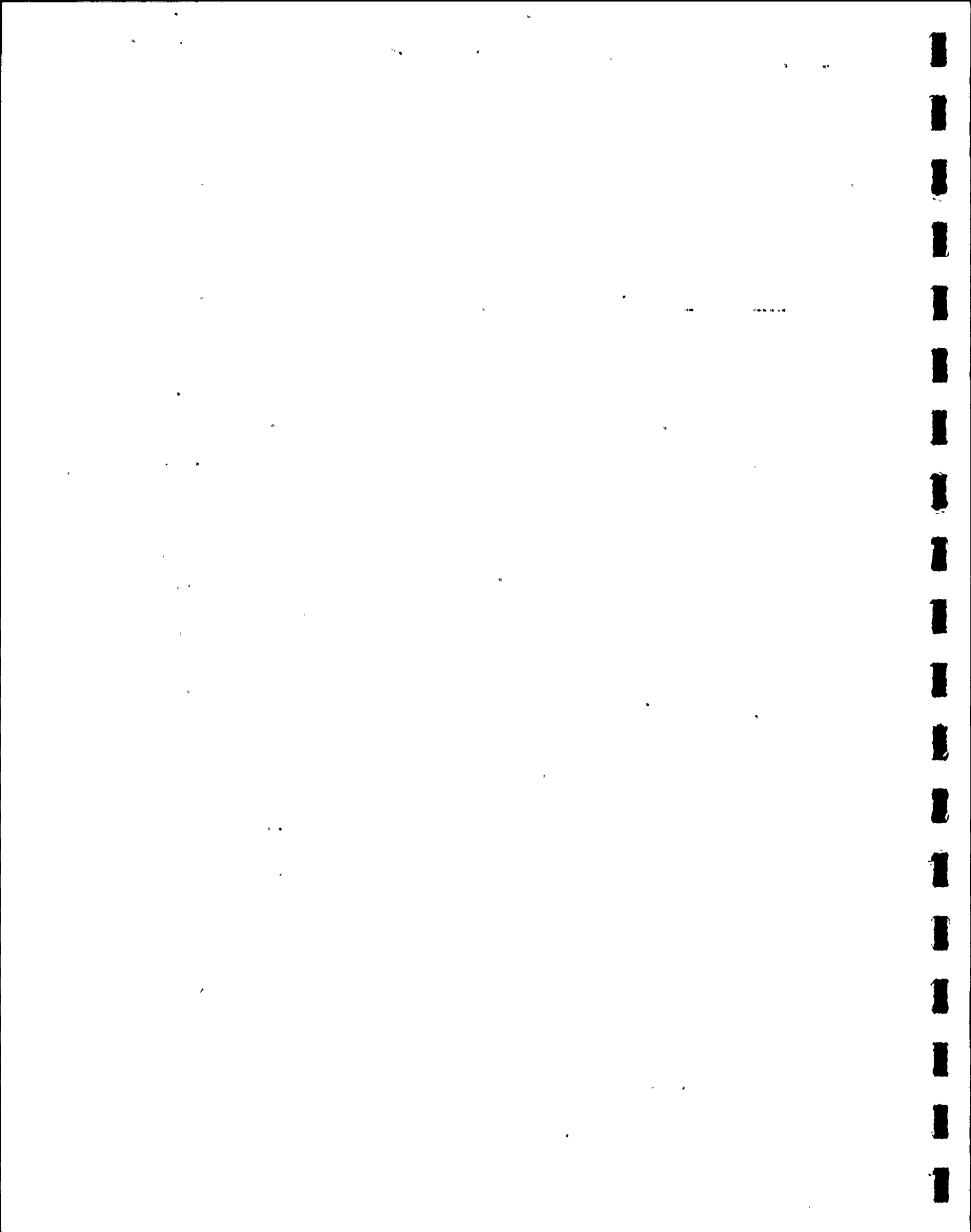
TWICE MONTHLY WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS\*

. NINE MILE POINT VICINITY - 1976

IV. NITRATE NITROGEN (mg/l-N)

DATE	20 FT			60 FT		
	NMPW	NMPP/FITZ	NMPE	NMPW	NMPP/FITZ	NMPE
14 APR	0.248	0.207	0.255	0.199	0.155	0.241
29 APR	0.385	0.385	0.373	0.300	0.315	0.376
10 MAY	0.512	0.431	0.437	0.386	0.429	0.476
24 MAY	0.397	0.325	0.291	0.359	0.371	0.282
8 JUN	0.416	0.387	0.278	0.362	0.392	0.312
21 JUN	0.213	0.145	0.173	0.200	0.114	0.124
6 JUL	0.155	0.146	0.129	0.167	0.162	0.117
19 JUL	0.409	0.399	0.177	0.149	0.155	0.183
2 AUG	0.107	0.035	0.041	0.065	0.028	0.025
23 AUG	0.028	0.020	0.028	0.023	0.017	0.020
7 SEP	0.021	0.043	0.041	0.013	0.020	0.038
20 SEP	0.018	0.022	0.035	0.018	0.033	0.037
4 OCT	0.107	0.091	0.048	0.091	0.079	0.066
19 OCT	0.150	0.144	0.121	0.151	0.150	0.139
2 NOV	0.252	0.225	0.242	0.178	0.235	0.208
15 NOV	0.283	0.263	0.284	0.267	0.280	0.256
6 DEC	0.415	0.294	0.254	0.279	0.298	0.260

\*Surface samples



TWICE MONTHLY WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS\*

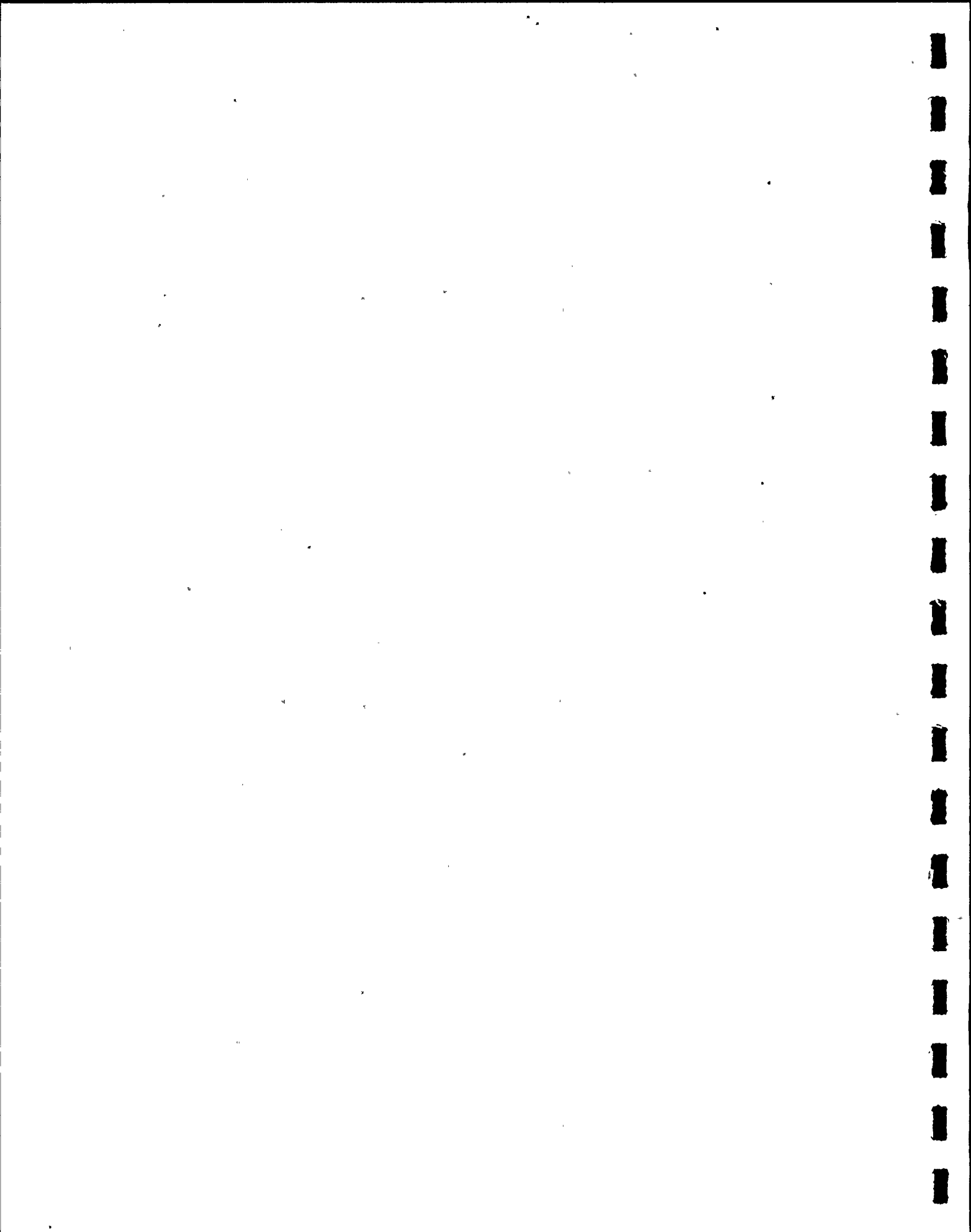
NINE MILE POINT VICINITY - 1976

V. TOTAL SOLIDS (mg/l)

DATE	20 FT			60 FT		
	NMPW	NMPP/FITZ	NMPE	NMPW	NMPP/FITZ	NMPE
14 APR	237	203	267	207	200	208
29 APR	267	288	303	187	210	273
10 MAY	463	254	278	208	281	247
24 MAY	321	260	248	292	272	198
8 JUN	295	252	232	243	281	242
21 JUN	276	222	196	267	205	203
6 JUL	266	261	244	259	261	238
19 JUL	303	264	266	206	268	240
2 AUG	212	196	212	210	196	193
23 AUG	265	239	206	205	247	198
7 SEP	207	210	211	195	194	214
20 SEP	203	180	186	185	179	178
4 OCT	200	204	200	198	198	205
19 OCT	187	186	184	186	188	180
2 NOV	195	182	177	193	188	184
15 NOV	202	186	189	187	187	184
6 DEC	347	240	227	192	202	209

\*Surface samples





TWICE MONTHLY WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS\*

NINE MILE POINT VICINITY - 1976

VI. TEMPERATURE (°C)

DATE	20 FT			60 FT		
	NMPW	NMPP/FITZ	NMPE	NMPW	NMPP/FITZ	NMPE
14 APR	6.2	5.0	5.8	6.5	5.8	4.3
29 APR	7.6	7.8	8.6	6.0	6.7	7.5
10 MAY	11.8	11.2	10.8	10.1	11.1	9.4
24 MAY	11.0	12.6	10.2	10.5	11.7	8.7
8 JUN	14.2	15.3	13.8	12.6	14.6	12.8
21 JUN	17.5	17.8	16.2	17.3	20.0	16.3
6 JUL	18.4	21.4	18.8	19.1	20.3	18.8
19 JUL	20.1	20.4	19.5	19.3	20.9	19.3
2 AUG	14.6	19.8	19.9	17.9	19.8	19.6
23 AUG	23.1	26.1	23.2	22.5	26.0	22.1
7 SEP	19.7	20.3	20.0	19.7	19.6	19.5
20 SEP	19.3	22.5	19.5	19.5	20.4	19.2
4 OCT	15.3	19.1	15.5	16.3	16.0	15.3
19 OCT	12.6	17.0	12.6	12.8	12.9	12.7
2 NOV	8.8	11.8	10.0	9.2	10.0	9.4
15 NOV	4.2	7.5	7.6	7.7	7.6	7.9
6 DEC	0.2	1.1	1.9	1.9	1.2	-0.6

\*Surface samples



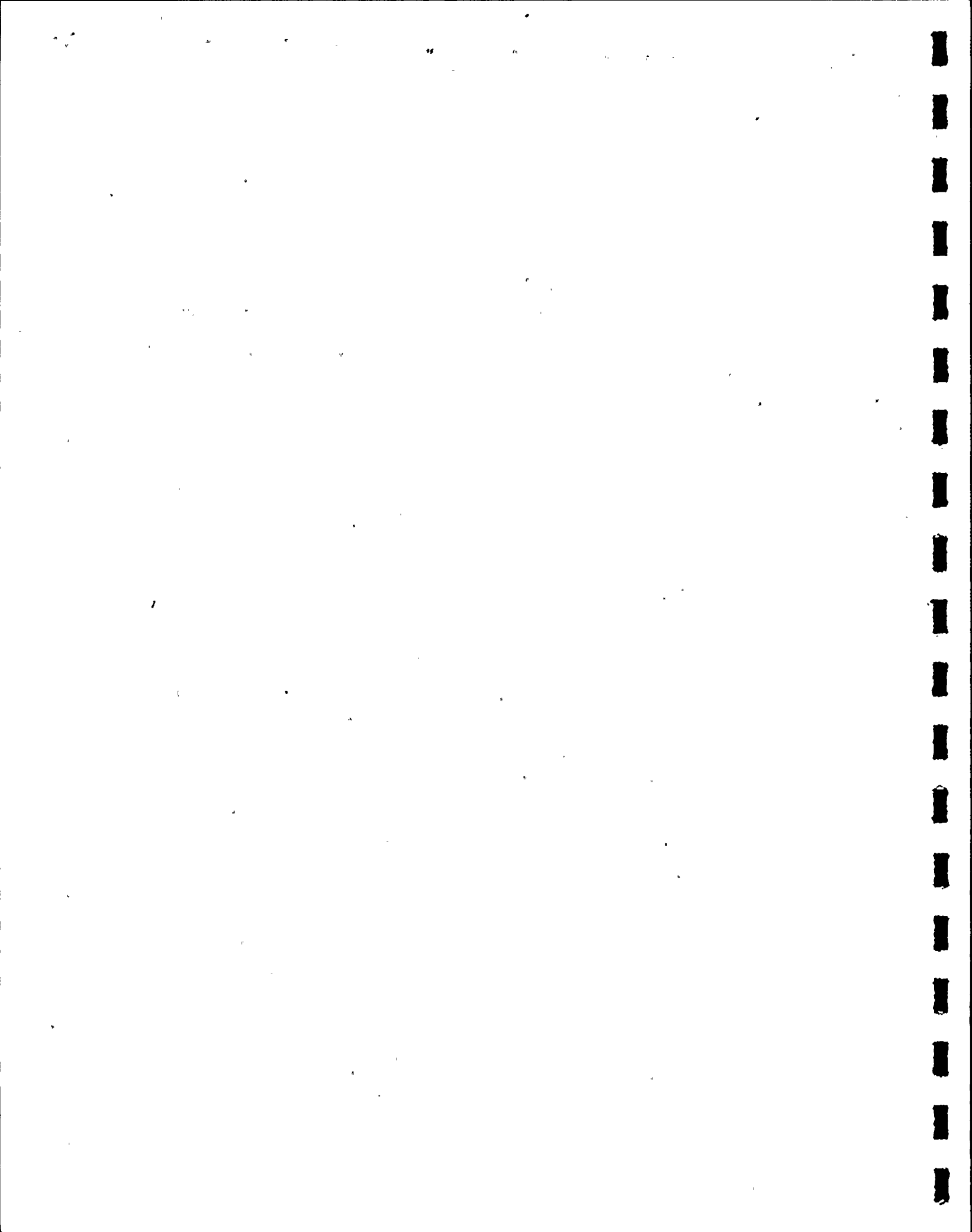
TWICE MONTHLY WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS\*

NINE MILE POINT VICINITY - 1976

VII. TOTAL SUSPENDED SOLIDS (mg/l)

DATE	20 FT			. 60 FT		
	NMPW	NMPP/FITZ	NMPE	NMPW	NMPP/FITZ	NMPE
14 APR	11	8	10	11	8	5
29 APR	12	12	9	7	9	8
10 MAY	8	5	8	8	6	7
24 MAY	22	17	15	21	20	16
8 JUN	7	4	4	4	6	3
21 JUN	5	3	3	4	2	2
6 JUL	4	3	3	4	4	4
19 JUL	8	6	5	4	9	5
2 AUG	3	5	4	2	2	1
23 AUG	7	6	5	6	7	4
7 SEP	2	3	4	2	2	3
20 SEP	3	3	3	3	3	2
4 OCT	2	2	3	2	2	2
19 OCT	1	2	2	2	2	2
2 NOV	3	2	2	3	2	2
15 NOV	7	1	1	2	2	2
6 DEC	5	5	5	4	4	4

\*Surface samples



TWICE MONTHLY WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS\*

NINE MILE POINT VICINITY - 1976

VIII.SILICATE (mg/l)

DATE	20 FT			60 FT		
	NMPW	NMPP/FITZ	NMPE	NMPW	NMPP/FITZ	NMPE
14 APR <sup>a</sup>	0.40	0.70	0.80	0.50	0.10	0.40
29 APR <sup>a</sup>	0.60	<0.02	0.40	<0.02	0.20	0.10
10 MAY <sup>a</sup>	0.40	0.20	0.03	0.20	0.20	0.20
24 MAY <sup>a</sup>	0.50	0.30	0.10	0.10	0.50	<0.02
8 JUN <sup>b</sup>	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
21 JUN <sup>b</sup>	<0.96	5.6	1.3	0.8	3.7	0.6
6 JUL <sup>b</sup>	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
19 JUL <sup>b</sup>	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
2 AUG <sup>b</sup>	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
23 AUG <sup>b</sup>	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
7 SEP <sup>b</sup>	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
20 SEP <sup>b</sup>	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
4 OCT <sup>b</sup>	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
19 OCT <sup>b</sup>	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
2 NOV <sup>b</sup>	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
15 NOV <sup>b</sup>	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96
6 DEC <sup>b</sup>	<0.96	<0.96	<0.96	<0.96	<0.96	<0.96

\*Surface samples

<sup>a</sup>Molybdosilicate method

<sup>b</sup>Atomic absorption spectrophotometric method



IV.B. MONTHLY WATER CHEMISTRY  
(20 and 40 FT STATIONS): SELECTED PARAMETERS





MONTHLY WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS\*

NINE MILE POINT VICINITY - 1976

I CALCIUM (mg/l)

DATE	20 FT			40 FT		
	NMPW	NMPP/FITZ	NMPE	NMPW	NMPP/FITZ	NMPE
14 APR	NAn	NAn	45.200	NAn	38.800	NAn
10 MAY	NAn	NAn	48.000	NAn	49.600	NAn
8 JUN	46.000	42.400	41.200	48.800	46.000	40.400
6 JUL	42.342	41.675	39.675	42.342	42.008	40.341
2 AUG	35.942	35.942	35.328	35.942	35.328	35.328
7 SEP	43.380	43.600	44.340	41.380	43.120	42.240
4 OCT	38.228	38.228	37.712	38.228	38.228	38.745
2 NOV	41.328	40.295	39.262	42.361	40.811	39.262
6 DEC	59.000	48.400	44.700	42.420	44.500	44.500

\*Surface samples  
NAn = Not analyzed

MONTHLY WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS\*

NINE MILE POINT VICINITY - 1976

II. DISSOLVED OXYGEN (mg/l)

DATE	20 FT			40 FT		
	NMPW	NMPP/FITZ	NMPE	NMPW	NMPP/FITZ	NMPE
14 APR	13.4	13.9	13.4	13.6	13.3	13.7
10 MAY	10.7	11.1	10.6	11.3	11.2	11.3
8 JUN	10.8	11.1	11.1	10.7	10.9	11.1
6 JUL	9.9	9.8	10.2	9.9	9.8	10.4
2 AUG	8.9	8.5	8.6	8.9	8.8	8.4
7 SEP	8.9	8.8	8.8	8.6	8.6	8.7
4 OCT	8.8	9.1	9.8	9.3	9.5	9.6
2 NOV	10.6	10.7	10.6	10.5	10.5	11.0
6 DEC	13.6	12.9	12.6	13.0	12.9	12.9

\*Surface samples



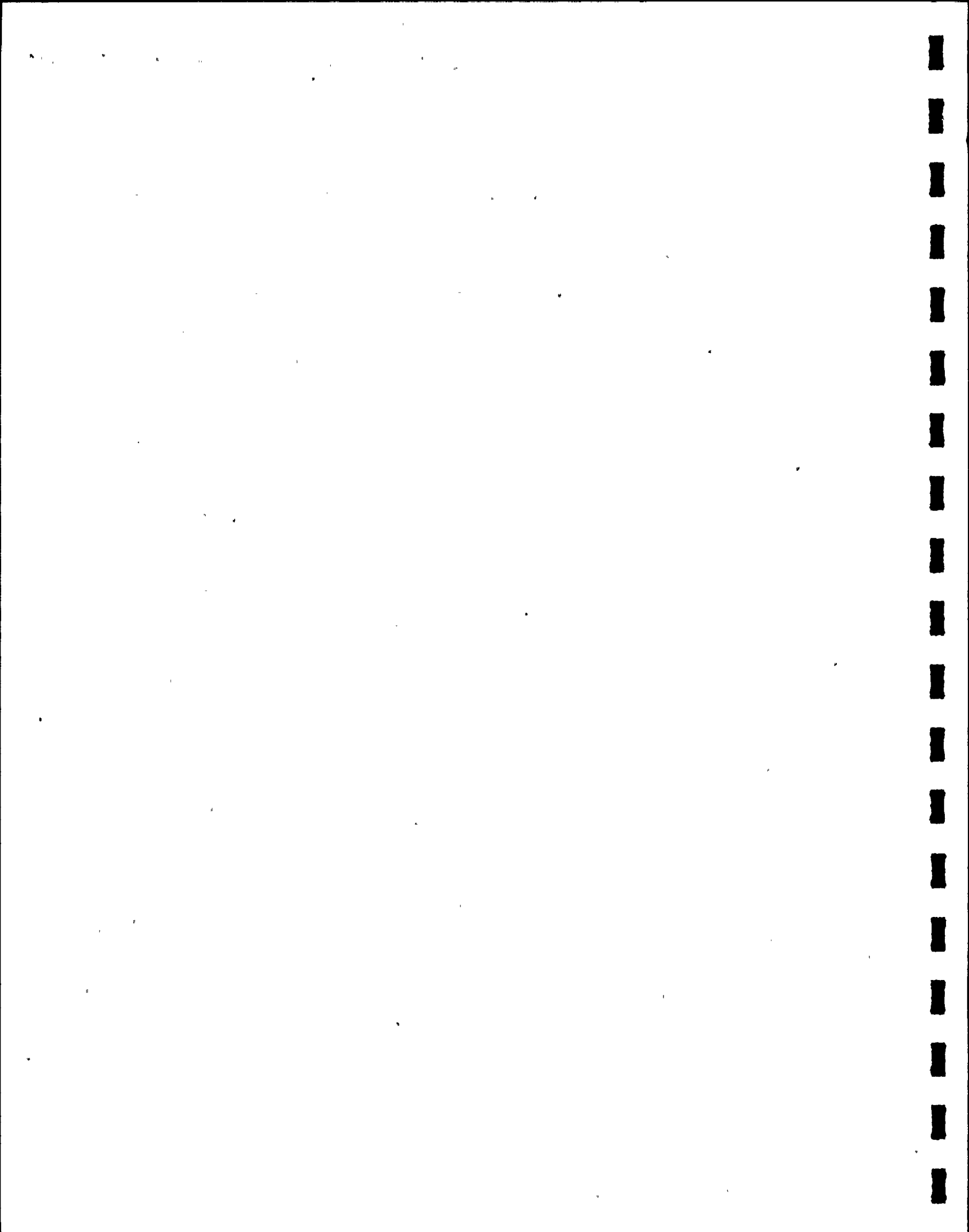
MONTHLY WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS\*

NINE MILE POINT VICINITY - 1976

III. SODIUM (mg/l))

DATE	20 FT			40 FT		
	NMPW	NMPP/FITZ	NMPE	NMPW	NMPP/FITZ	NMPE
14 APR	NAn	NAn	23.921	NAn	13.764	NAn
10 MAY	NAn	NAn	31.857	NAn	27.417	NAn
8 JUN	32.079	22.755	20.313	38.850	28.305	21.757
6 JUL	14.914	15.287	14.969	15.508	15.411	14.652
2 AUG	11.713	11.403	11.885	11.610	11.489	11.644
7 SEP	15.401	16.097	16.212	14.156	15.750	19.051
4 OCT	12.500	13.000	13.000	13.000	13.000	13.340
2 NOV	14.800	13.650	13.350	15.100	13.650	13.350
6 DEC	42.000	27.200	26.600	21.700	24.000	25.600

\*Surface samples  
NAn = Not analyzed



MONTHLY WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS\*

NINE MILE POINT VICINITY - 1976

IV. SULFATE (mg/l)

DATE	20 FT			40 FT		
	NMPW	NMPP/FITZ	NMPE	NMPW	NMPP/FITZ	NMPE
14 APR	27	28	32	28	28	30
10 MAY	60	37	38	31	37	35
8 JUN	36	32	33	46	35	31
6 JUL	30	30	31	30	30	29
2 AUG	29	23	24	24	27	27
7 SEP	23	23	22	22	23	24
4 OCT	29	26	28	27	28	28
2 NOV	26	25	24	26	25	23
6 DEC	37	30	28	27	27	27

\*Surface samples

IV.C. WATER CHEMISTRY PROGRAM  
(25 and 45 FT STATIONS): SELECTED PARAMETERS



WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS

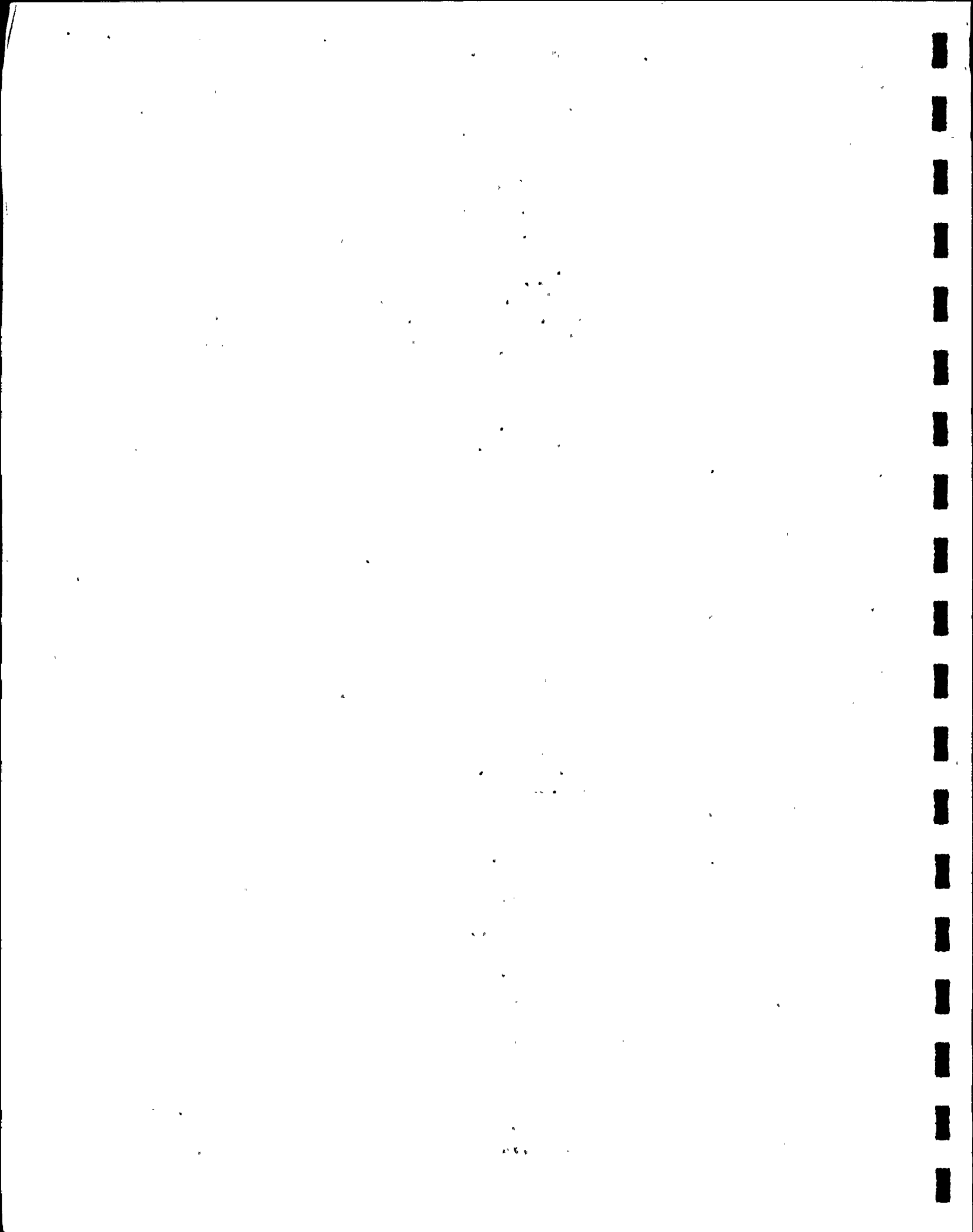
NMPP/FITZ TRANSECT, NINE MILE POINT VICINITY - 1976

I. CALCIUM (mg/l)

DATE	25 FT		45 FT	
	SURFACE	BOTTOM	SURFACE	BOTTOM
20 APR.	53.200	54.400	56.800	46.800
24 MAY	54.720	44.340	56.658	44.340
14 JUN	43.665	42.132	46.732	44.049
19 JUL	46.633	41.556	48.664	36.141
9 AUG	39.498	41.878	39.100	41.878
13 SEP	42.200	42.800	40.600	42.400
11 OCT	32.270	36.508	36.889	39.175
9 NOV	41.460	41.079	40.698	41.841
8 DEC	47.937	45.651	46.413	45.651

II. CHLORIDE (mg/l)

DATE	25 FT		45 FT	
	SURFACE	BOTTOM	SURFACE	BOTTOM
20 APR	80	78	89	56
24 MAY	59	30	61	29
14 JUN	26	27	28	28
19 JUL	51	35	54	30
9 AUG	30	34	29	31
13 SEP	29	29	29	31
11 OCT	32	32	32	33
9 NOV	27	26	25	26
8 DEC	41	37	39	39



WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS

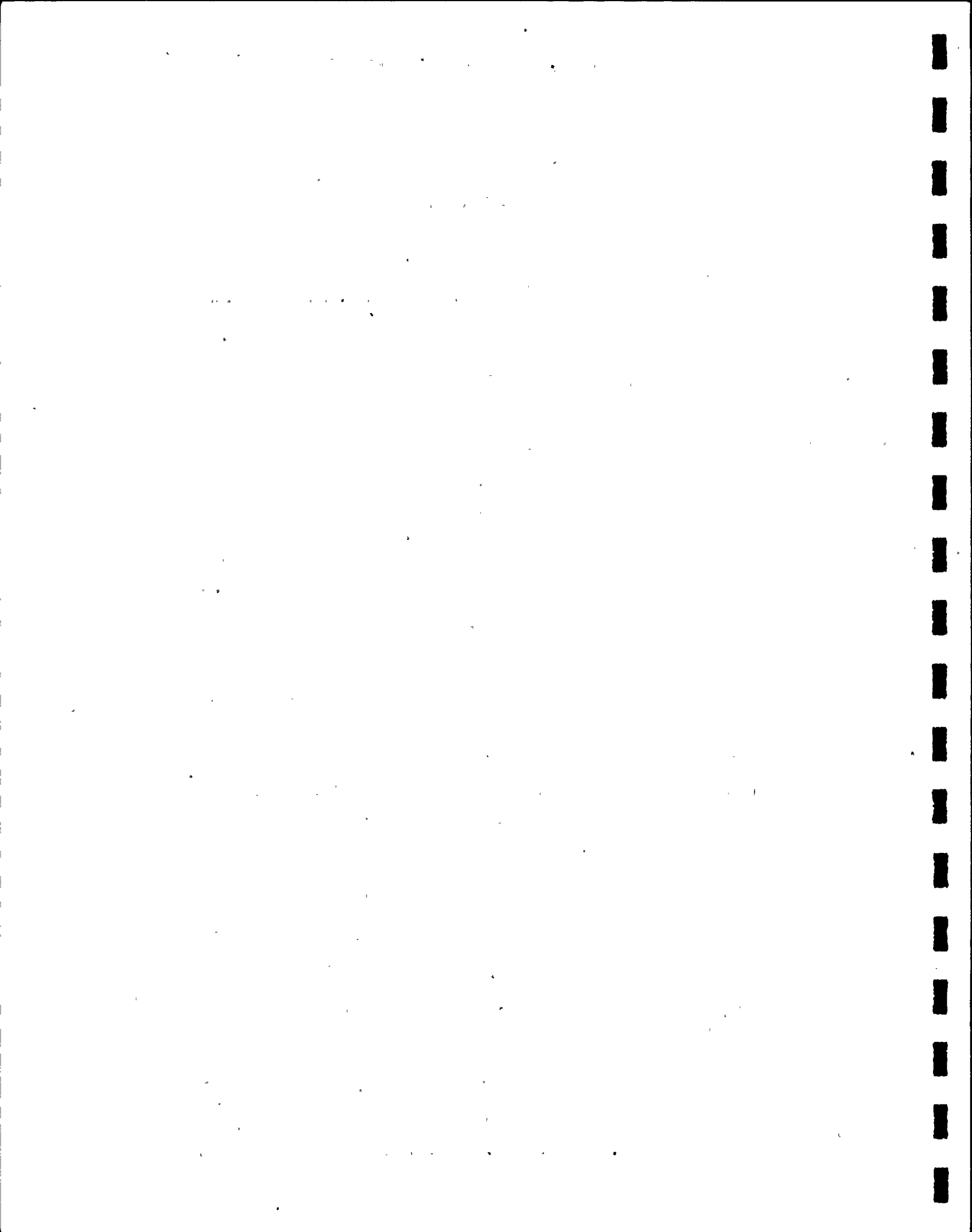
NMPP/FITZ TRANSECT, NINE MILE POINT VICINITY - 1976

III. DISSOLVED OXYGEN (mg/l).

DATE	25 FT		45 FT	
	SURFACE	BOTTOM	SURFACE	BOTTOM
20 APR	11.3	11.5	11.7	12.3
24 MAY	10.6	11.9	10.5	11.9
14 JUN	10.9	11.4	12.2	11.6
19 JUL	8.7	8.6	8.6	8.7
9 AUG	9.6	9.0	9.4	10.2
13 SEP	9.5	8.8	9.0	8.7
11 OCT	9.6	9.4	9.4	9.3
9 NOV	10.4	11.1	10.6	10.6
8 DEC	13.3	12.5	12.9	12.3

IV. SODIUM (mg/l)

DATE	25 FT		45 FT	
	SURFACE	BOTTOM	SURFACE	BOTTOM
20 APR	33.855	34.299	37.740	25.641
24 MAY	27.257	14.331	24.672	14.556
14 JUN	12.298	11.489	12.539	11.954
19 JUL	10.633	9.943	11.655	9.915
9 AUG	11.475	12.963	11.050	11.475
13 SEP	13.721	14.359	13.199	13.924
11 OCT	28.875	31.771	30.922	30.273
9 NOV	27.254	26.680	26.904	26.904
8 DEC	32.569	31.796	32.095	31.297



WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS

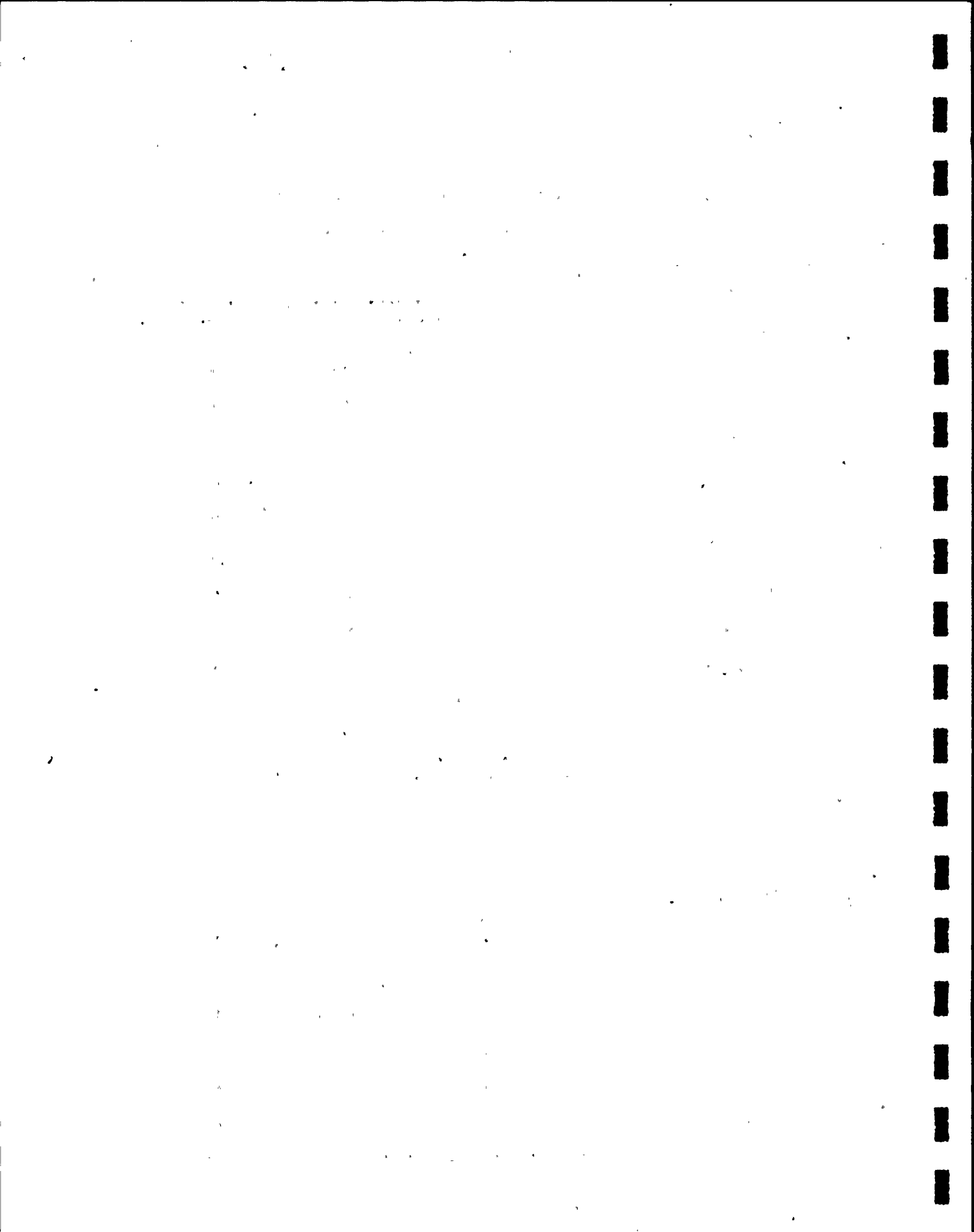
NMPP/FITZ TRANSECT, NINE MILE POINT VICINITY - 1976

V. AMMONIA NITROGEN (mg/l-N)

DATE	25 FT		45 FT	
	SURFACE	BOTTOM	SURFACE	BOTTOM
20 APR	0.29	0.32	0.36	0.42
24 MAY	0.41	0.36	0.31	0.25
14 JUN	0.22	0.10	0.12	0.19
19 JUL	0.29	0.27	0.29	0.29
9 AUG	0.32	0.27	0.29	0.25
13 SEP	0.27	0.28	0.18	0.21
11 OCT	0.33	0.23	0.24	0.23
9 NOV	0.37	0.18	0.14	0.13
8 DEC	0.45	0.27	0.18	0.14

VI. NITRATE NITROGEN (mg/l-N)

DATE	25 FT		45 FT	
	SURFACE	BOTTOM	SURFACE	BOTTOM
20 APR	0.428	0.470	0.506	0.360
24 MAY	0.291	0.229	0.351	0.222
14 JUN	0.170	0.173	0.178	0.176
19 JUL	0.380	0.212	0.374	0.138
9 AUG	0.063	0.181	0.101	0.312
13 SEP	0.035	0.038	0.035	0.057
11 OCT	0.142	0.154	0.153	0.184
9 NOV	0.270	0.282	0.256	0.256
8 DEC	0.321	0.342	0.350	0.350



WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS

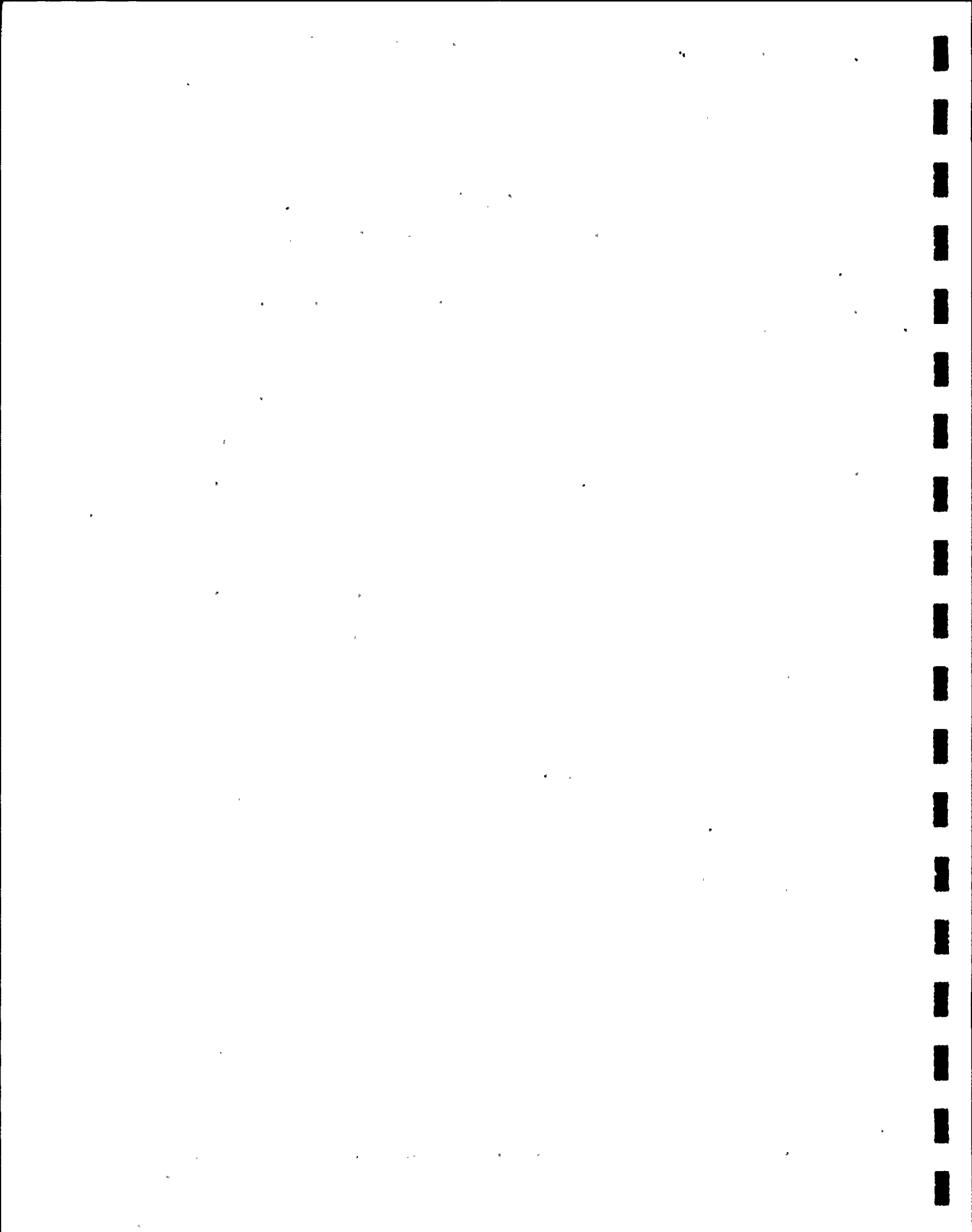
NMPP/FITZ TRANSECT, NINE MILE POINT VICINITY - 1976

VII. SULFATE (mg/l)

DATE	25 FT		45 FT	
	SURFACE	BOTTOM	SURFACE	BOTTOM
20 APR	38	41	40	34
24 MAY	37	30	37	28
14 JUN	28	28	28	28
19 JUL	35	28	33	26
9 AUG	23	24	23	23
13 SEP	26	26	26	26
11 OCT	30	32	31	33
9 NOV	26	26	26	26
8 DEC	31	29	30	29

VIII. TOTAL SUSPENDED SOLIDS (mg/l)

DATE	25 FT		45 FT	
	SURFACE	BOTTOM	SURFACE	BOTTOM
20 APR	21	19	26	19
24 MAY	19	17	18	21
14 JUN	3	3	3	3
19 JUL	10	24	11	69
9 AUG	2	4	2	2
13 SEP	3	4	3	5
11 OCT	5	5	5	27
9 NOV	2	2	2	7
8 DEC	2	3	5	5





WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS

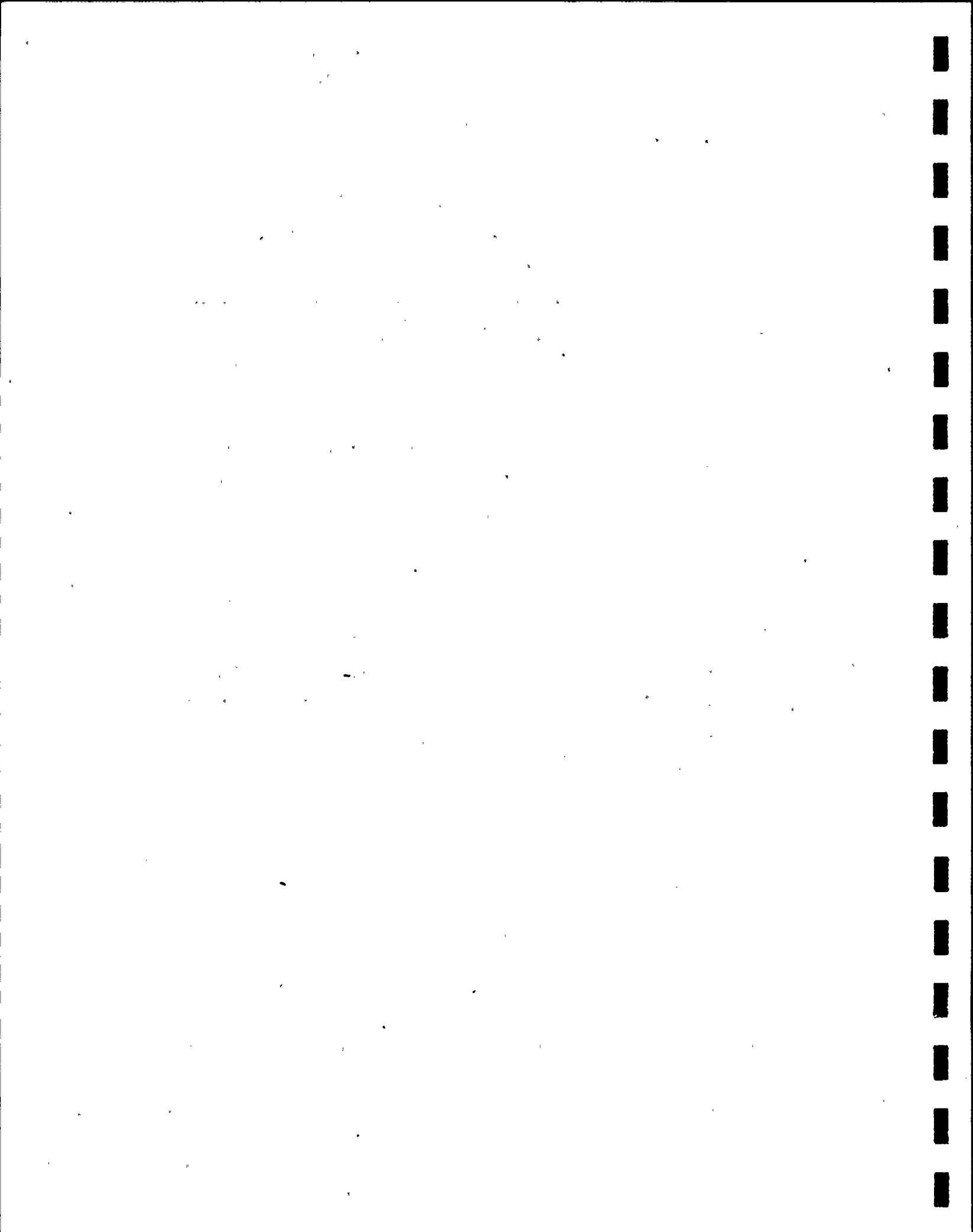
NMPP/FITZ TRANSECT, NINE MILE POINT VICINITY - 1976

IX. TOTAL DISSOLVED SOLIDS (mg/l)

DATE	25 FT		45 FT	
	SURFACE	BOTTOM	SURFACE	BOTTOM
20 APR	328	326	366	260
24 MAY	273	188	270	181
14 JUN	199	202	203	205
19 JUL	260	209	266	199
9 AUG	196	220	198	206
13 SEP	192	193	189	197
11 OCT	221	219	218	218
9 NOV	193	190	183	187
8 DEC	241	224	227	229

X. TOTAL SOLIDS (mg/l)

DATE	25 FT		45 FT	
	SURFACE	BOTTOM	SURFACE	BOTTOM
20 APR	349	345	392	278
24 MAY	292	205	288	202
14 JUN	202	205	206	208
19 JUL	270	233	277	268
9 AUG	198	224	200	208
13 SEP	195	197	192	202
11 OCT	226	224	223	245
9 NOV	195	192	185	194
8 DEC	243	227	232	234



WATER CHEMISTRY PROGRAM : SELECTED PARAMETERS

NMPP/FITZ TRANSECT, NINE MILE POINT VICINITY - 1976

XI. SILICATE (mg/l)

DATE	25 FT		45 FT	
	SURFACE	BOTTOM	SURFACE	BOTTOM
20 APR <sup>a</sup>	<0.96	1.47	1.68	0.97
24 MAY <sup>b</sup>	0.85	0.43	0.85	<0.04
14 JUN <sup>a,c</sup>	<0.96	<0.96	<0.96	<0.96
19 JUL <sup>c</sup>	<0.96	<0.96	<0.96	<0.96
9 AUG <sup>c</sup>	1.09	1.13	<0.96	1.00
13 SEP <sup>c</sup>	<0.96	<0.96	<0.96	<0.96
11 OCT <sup>c</sup>	<0.96	<0.96	<0.96	<0.96
9 NOV <sup>c</sup>	<0.96	<0.96	<0.96	<0.96
8 DEC <sup>c</sup>	<0.96	<0.96	<0.96	<0.96

<sup>a</sup>Analysis rerun Feb 1976; spectrophotometric method

<sup>b</sup>Molybdosilicate method

<sup>c</sup>Atomic absorption spectrophotometric method



V.A.1. ABUNDANCE OF SELECTED TAXA  
OF PHYTOPLANKTON

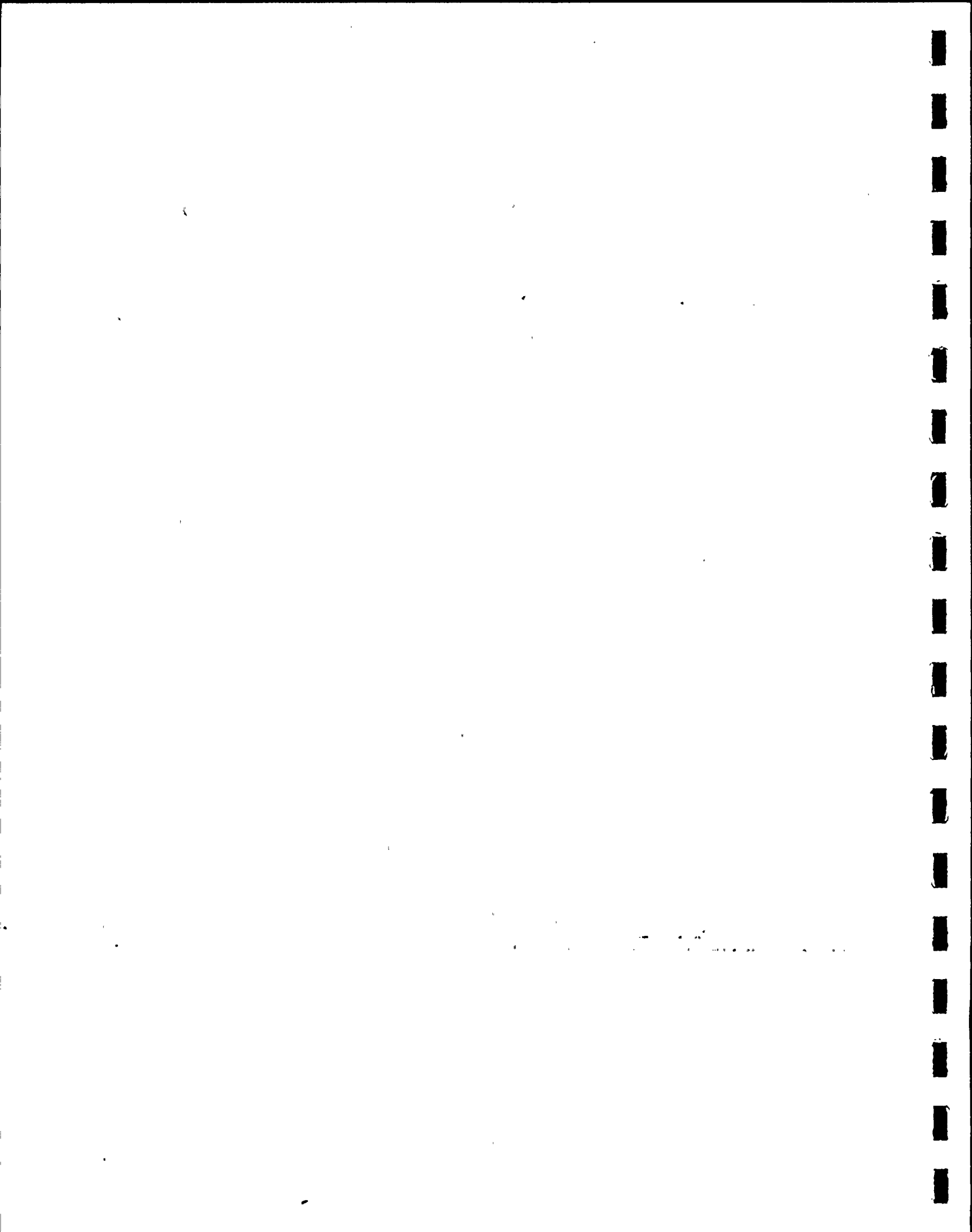
**ABUNDANCE<sup>a</sup> OF BACILLARIOPHYCEAE IN WHOLE WATER COLLECTIONS**  
**NINE MILE POINT VICINITY - 1976**

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	
10	NMPW	2418	3847	2882	10175	319	517	114	656	1353	2475.7
	NMPP	3158	2952	2321	553	10	626	144	321	796	1209.0
	FITZ	2820	3278	826	5426	417	249	98	227	1043	1598.2
	NMPE	2225	2112	512	2187	39	316	141	275	1245	1005.8
	CONTOUR MEAN	2655.2	3047.2	1635.2	4585.2	196.2	427.0	124.2	369.8	1109.2	
20	NMPW	1333	4859	2422	3858	327	396	110	521	1104	1658.9
	NMPP	3113	2517	1867	755	99	338	133	203	991	1112.9
	FITZ	2952	3102	1323	1988	374	293	83	172	1026	1257.0
	NMPE	1284	1029	336	1932	141	372	52	150	1360	739.6
	CONTOUR MEAN	2170.5	2876.8	1487.0	2133.2	235.2	349.8	94.5	261.5	1120.2	
40	NMPW	692	3783	2971	4447	308	203	178	199	1073	1539.3
	NMPP	3414	2964	916	1961	91	213	144	123	785	1179.0
	FITZ	891	2698	684	637	98	332	147	56	1080	735.9
	NMPE-S/50%	2021	2216	614	832	91	317	63	70	1300	836.0
	25%	1510	1477	176	1250	21	153	128	110	463	587.6
	1%	1723	1965	806	1462	151	197	124	96	730	806.0
	CONTOUR MEAN <sup>c</sup>	1754.5	2915.2	1296.2	1969.2	147.0	266.2	133.0	112.0	1059.5	
60	NMPW	695	2536	307	4211	156	270	119	129	1147	1063.3
	NMPP	690	3984	853	1750	164	148	93	118	698	944.2
	FITZ	916	1978	703	1335	78	215	76	158	837	699.6
	NMPE	103	1735	500	624	144	170	59	72	1064	496.8
	CONTOUR MEAN	601.0	2558.2	590.8	1980.0	135.5	200.8	86.8	119.2	936.5	
DAILY MEAN <sup>c</sup>		1795.3	2849.4	1252.3	2666.9	178.5	310.9	109.6	215.6	1056.4	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



ABUNDANCE<sup>a</sup> OF CHLOROPHYCEAE IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

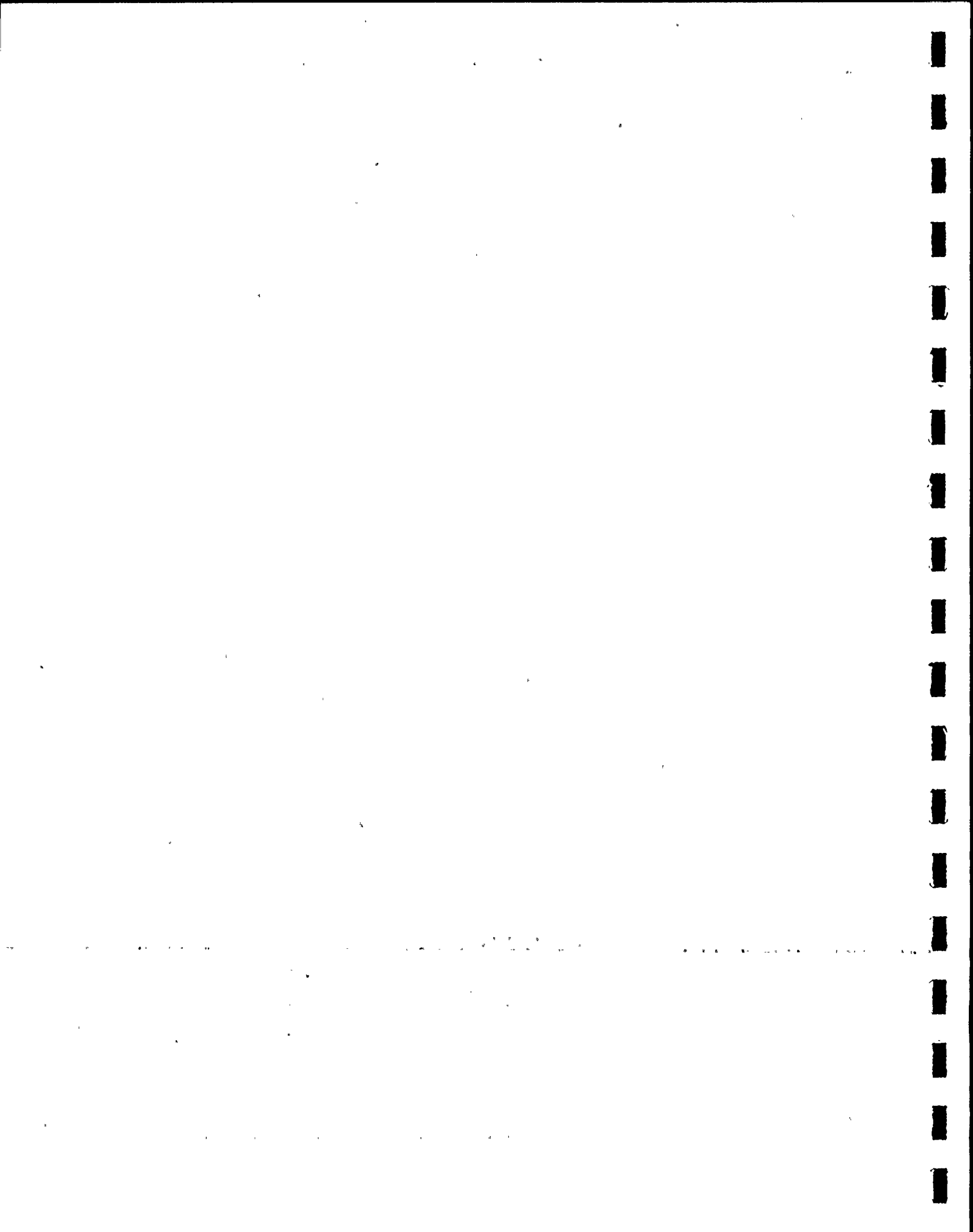
DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	
10	NMPW	1356	2061	2364	9913	5130	3289	577	321	245	2806.2
	NMPP	1457	2604	2286	586	894	3541	964	306	203	1426.8
	FITZ	1569	2585	1116	4476	4605	2426	588	270	203	1982.0
	NMPE	1228	1663	1132	2277	1990	3026	941	142	224	1402.6
	CONTOUR MEAN	1402.5	2228.2	1724.5	4313.0	3154.8	3070.5	767.5	259.8	218.8	
20	NMPW	853	2035	1773	4287	3715	2348	728	271	222	1803.6
	NMPP	1660	1854	1879	1338	1006	3749	458	170	259	1374.8
	FITZ	1097	1909	1499	960	3239	3082	614	177	293	1430.0
	NMPE	1061	999	820	1829	2964	2587	620	158	277	1257.2
	CONTOUR MEAN	1167.8	1699.2	1492.8	2103.5	2731.0	2941.5	605.0	194.0	262.8	
40	NMPW	396	1957	1808	5263	3083	2351	838	189	206	1787.9
	NMPP	1088	1481	1045	1984	3086	1858	676	205	310	1303.7
	FITZ	718	1796	781	822	2787	2275	1540	150	251	1235.6
	NMPE-S/50%	959	1520	921	909	2630	2058	536	184	274	1110.1
	25%	868	1566	594	2885	2119	3136	767	207	213	1372.8
	1%	845	1151	1005	1709	3641	1645	835	121	349	1255.7
	CONTOUR MEAN <sup>c</sup>	790.2	1688.5	1138.8	2244.5	2896.5	2135.5	897.5	182.0	260.2	
60	NMPW	412	1157	596	2815	3119	3704	809	184	264	1451.1
	NMPP	213	2162	1160	1717	2454	2629	679	184	245	1271.4
	FITZ	475	1000	1223	1781	3505	2341	820	160	363	1296.4
	NMPE	803	1207	764	912	2147	2038	972	123	227	1021.4
	CONTOUR MEAN	475.8	1381.5	935.8	1806.2	2806.2	2678.0	820.0	162.8	274.8	
DAILY MEAN <sup>c</sup>		959.1	1749.4	1322.9	2616.8	2897.1	2706.4	772.5	199.6	254.1	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples





ABUNDANCE<sup>a</sup> OF CHRYSOPHYCEAE IN WHOLE WATER COLLECTIONS

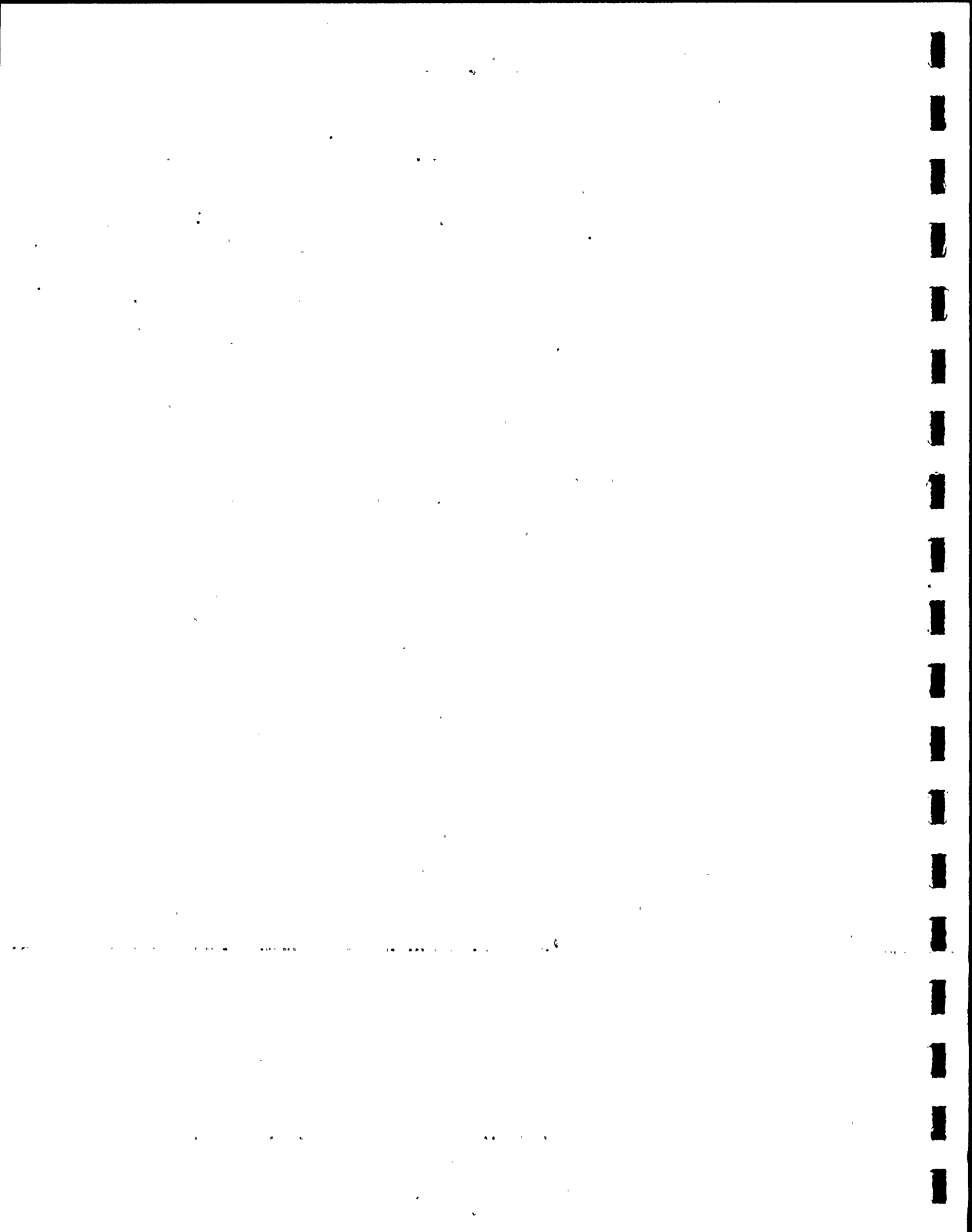
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	
10	NMPW	644	225	1842	351	2160	490	192	78	198	686.7
	NMPP	1088	265	2455	223	164	654	246	197	317	623.2
	FITZ	1176	312	1472	111	1756	635	184	95	199	660.0
	NMPE	866	292	1392	402	583	729	422	161	199	560.7
	CONTOUR MEAN	943.5	273.5	1790.2	271.8	1165.8	627.0	261.0	132.8	228.2	
20	NMPW	561	234	2002	137	1991	666	280	138	229	693.1
	NMPP	1051	208	2924	172	302	650	233	111	354	667.2
	FITZ	689	212	2303	196	1434	1058	280	65	291	725.3
	NMPE	744	348	903	469	612	451	491	353	236	511.9
	CONTOUR MEAN	761.2	250.5	2033.0	243.5	1084.8	706.2	321.0	166.8	277.5	
40	NMPW	526	451	4516	292	1629	809	570	99	236	1014.2
	NMPP	603	206	1576	117	1073	838	195	162	331	566.8
	FITZ	698	182	1552	177	1666	797	306	88	321	643.0
	NMPE-S/50%	594	350	1076	97	1513	1077	224	109	301	593.4
	25%	567	254	747	592	1166	888	434	124	126	544.2
	1%	741	306	1754	266	416	511	355	126	308	531.4
	CONTOUR MEAN <sup>c</sup>	605.2	297.2	2180.0	170.8	1470.3	880.2	323.8	114.5	297.2	
60	NMPW	562	293	1156	271	685	1145	382	134	266	543.8
	NMPP	766	351	5076	143	637	894	366	120	355	967.6
	FITZ	773	236	1811	260	1361	612	379	94	460	665.1
	NMPE	657	395	1330	148	1847	880	573	93	312	692.8
	CONTOUR MEAN	689.5	318.8	2343.2	205.5	1132.5	882.8	425.0	110.2	348.2	
DAILY MEAN <sup>c</sup>		749.9	285.0	2086.6	222.9	1213.4	774.1	332.7	131.1	287.8	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



ABUNDANCE<sup>a</sup> OF CRYPTOPHYCEAE IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	
10	NMPW	566	383	505	1014	3039	1687	781	306	104	931.7
	NMPP	585	666	580	1284	235	1360	607	287	137	637.9
	FITZ	502	852	575	1027	2691	1720	527	354	77	925.0
	NMPE	299	1436	468	2379	4249	1255	1332	383	111	1323.6
	CONTOUR MEAN	488.0	834.2	532.0	1426.0	2553.5	1505.5	811.8	332.5	107.2	
20	NMPW	502	774	390	2368	1292	1718	799	317	91	916.8
	NMPP	617	579	838	937	312	1583	827	338	215	694.0
	FITZ	584	798	505	3084	1780	1610	609	283	149	1044.7
	NMPE	398	1897	229	2134	3969	1104	728	370	92	1213.4
	CONTOUR MEAN	525.2	1012.0	490.5	2130.8	1838.3	1503.8	740.8	327.0	136.8	
40	NMPW	585	620	702	2476	2058	2214	979	361	104	1122.1
	NMPP	489	661	240	4671	1652	1859	765	479	164	1220.0
	FITZ	438	683	345	1327	957	1780	929	334	198	776.8
	NMPE-S/50%	566	2576	348	1892	1793	1692	930	318	155	1141.1
	25%	453	1832	252	2368	1572	1739	949	332	95	1065.8
	1%	787	1711	542	473	1020	1648	978	358	100	846.3
	CONTOUR MEAN <sup>c</sup>	519.5	1135.0	408.8	2591.5	1615.0	1886.3	900.8	373.0	155.2	
60	NMPW	378	1035	171	2822	2090	2333	848	433	130	1137.8
	NMPP	566	871	835	4957	1084	1872	766	381	141	1274.8
	FITZ	472	909	577	2915	2275	1347	816	407	196	1101.6
	NMPE	610	1337	191	2799	1659	1719	1311	287	166	1119.9
	CONTOUR MEAN	506.5	1038.0	443.5	3373.2	1777.0	1817.8	935.2	377.0	158.2	
DAILY MEAN <sup>c</sup>		509.8	1004.8	468.7	2380.4	1945.9	1678.3	847.1	352.4	139.4	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



ABUNDANCE<sup>a</sup> OF DINOPHYCEAE IN WHOLE WATER COLLECTIONS

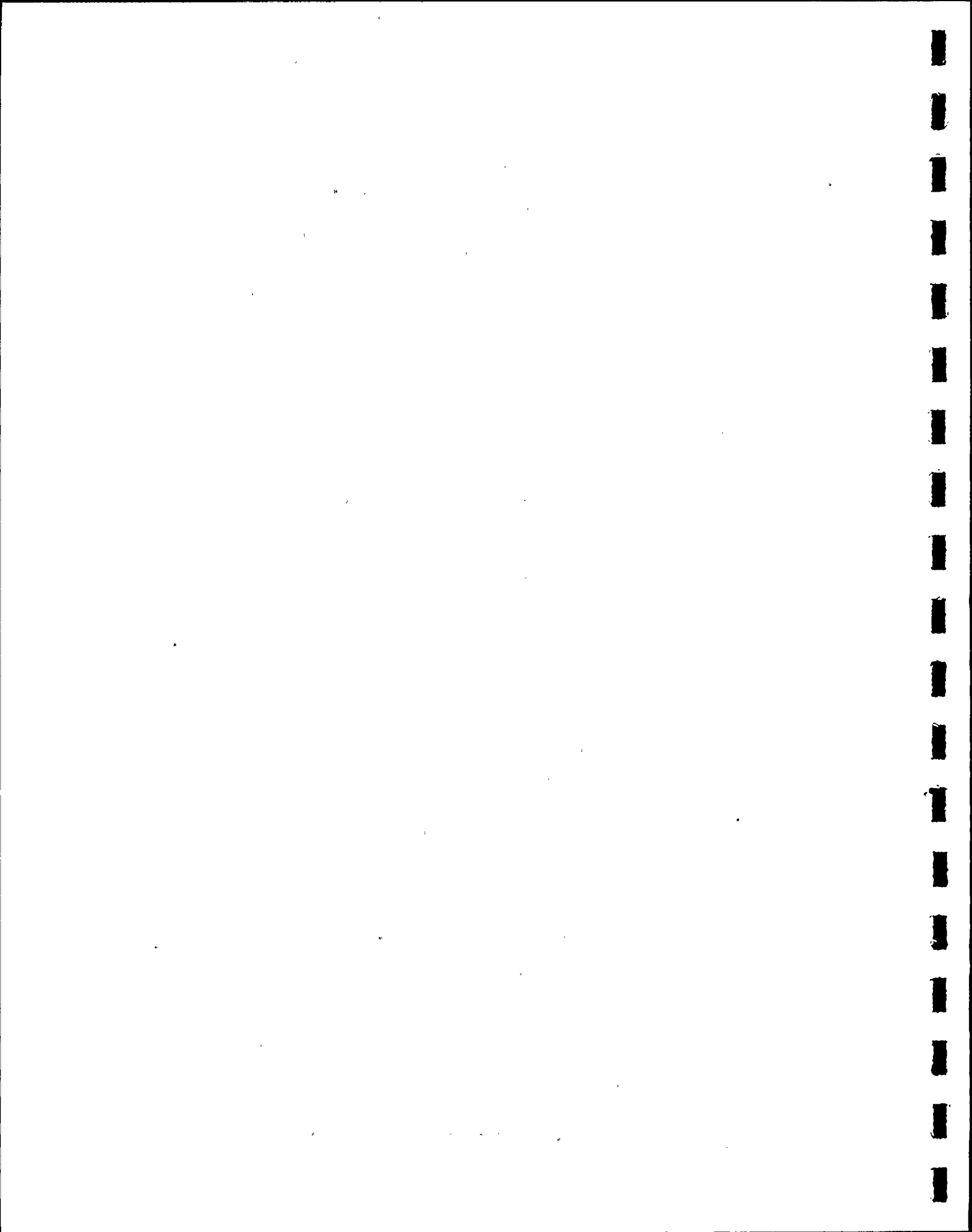
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	
10	NMPW	0	12	5	7	52	21	35	4	5	15.7
	NMPP	22	49	4	0	3	7	25	5	8	13.7
	FITZ	0	26	0	13	81	5	5	7	9	16.2
	NMPE	23	31	4	5	47	7	3	13	0	14.8
	CONTOUR MEAN	11.2	29.5	3.2	6.2	45.8	10.0	17.0	7.2	5.5	
20	NMPW	34	13	0	26	54	33	15	7	2	20.4
	NMPP	21	33	22	10	13	20	0	0	13	14.7
	FITZ	17	35	7	23	60	34	0	3	12	21.2
	NMPE	79	72	23	0	33	11	2	3	10	25.9
	CONTOUR MEAN	37.8	38.2	13.0	14.8	40.0	24.5	4.2	3.2	9.2	
40	NMPW	26	5	13	29	31	26	0	8	3	15.7
	NMPP	37	13	0	39	36	42	7	7	5	20.7
	FITZ	19	13	0	3	13	21	3	4	15	10.1
	NMPE-S/50%	55	92	7	15	38	6	9	6	18	27.3
	25%	19	68	12	7	57	14	3	8	10	22.0
	1%	33	46	7	16	17	14	3	9	4	16.6
	CONTOUR MEAN <sup>c</sup>	34.2	30.8	5.0	21.5	29.5	23.8	4.8	6.2	10.2	
60	NMPW	20	46	0	34	21	7	16	9	10	18.1
	NMPP	44	7	0	13	53	9	15	4	3	16.4
	FITZ	14	24	0	13	53	0	9	5	17	15.0
	NMPE	65	52	0	11	69	11	4	3	21	26.2
	CONTOUR MEAN	35.8	32.2	0.0	17.8	49.0	6.8	11.0	5.2	12.8	
DAILY MEAN <sup>c</sup>		29.8	32.7	5.3	15.1	41.1	16.2	9.2	5.5	9.4	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



ABUNDANCE<sup>a</sup> OF EUGLENOPHYCEAE IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	
10	NMPW	147	17	0	0	0	0	0	0	0	18.2
	NMPP	318	21	0	0	0	0	0	0	0	37.7
	FITZ	436	0	0	0	0	0	0	0	0	48.4
	NMPE	466	0	0	.3	0	0	0	0	0	52.1
	CONTOUR MEAN	341.8	9.5	0.0	0.8	0.0	0.0	0.0	0.0	0.0	
20	NMPW	42	0	0	0	0	0	0	0	1	4.7
	NMPP	257	0	13	0	0	0	0	0	0	30.0
	FITZ	328	7	0	0	0	.7	0	0	0	38.0
	NMPE	220	0	0	0	0	0	0	0	0	24.4
	CONTOUR MEAN	211.8	1.8	3.2	0.0	0.0	1.8	0.0	0.0	0.2	
40	NMPW	5	12	0	0	0	0	0	0	0	1.9
	NMPP	182	5	0	0	0	0	0	0	0	20.8
	FITZ	70	0	0	0	0	0	0	0	0	7.8
	NMPE-S/50%	86	0	0	0	0	0	0	0	0	9.6
	25%	78	0	0	0	0	0	0	0	0	8.7
	1%	78	7	0	0	0	0	0	0	0	9.4
	CONTOUR MEAN <sup>c</sup>	85.8	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
60	NMPW	5	0	0	0	0	0	0	0	0	0.6
	NMPP	29	18	0	0	0	0	0	0	0	5.2
	FITZ	92	5	0	0	0	0	0	0	0	10.8
	NMPE	18	10	0	0	0	0	0	0	0	3.1
CONTOUR MEAN		36.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
DAILY MEAN <sup>c</sup>		168.8	5.9	0.8	0.2	0.0	0.4	0.0	0.0	0.1	

<sup>a</sup>Cells/ml, mean of R-1 and R-2

<sup>b</sup>Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup>Mean of surface samples





ABUNDANCE<sup>a</sup> OF MYXOPHYCEAE IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	
10	NMPW	1441	5015	12666	21789	22413	7282	3738	1540	835	8524.3
	NMPP	1011	2209	13589	3282	4300	6058	3465	1220	691	3980.6
	FITZ	1749	5856	5613	5603	12302	6679	1371	1219	987	4597.7
	NMPE	1097	2936	13643	4057	7743	3993	1518	963	1869	4202.1
	CONTOUR MEAN	1324.5	4004.0	11377.8	8682.8	11689.5	6003.0	2523.0	1235.5	1095.5	
20	NMPW	941	3631	11708	11132	15200	6041	3355	1085	1730	6091.4
	NMPP	1732	2993	16024	3881	4260	10362	2320	984	1195	4861.2
	FITZ	1365	3425	14468	2808	9640	5752	1493	627	1043	4513.4
	NMPE	867	1197	12981	2555	9340	3313	608	1852	1647	3817.8
	CONTOUR MEAN	1226.2	2811.5	13795.2	5094.0	9610.0	6367.0	1944.0	1137.0	1403.8	
40	NMPW	515	3037	17378	7345	15134	3946	2348	770	1130	5733.7
	NMPP	1328	3532	7227	5739	12169	2718	866	858	651	3898.7
	FITZ	1317	3793	6578	1377	14415	7646	1401	461	533	4169.0
	NMPE-S/50%	1454	2523	10318	2457	14352	3567	567	581	1221	4115.6
	25%	948	604	14587	554	17983	6005	1506	877	802	4874.0
	1%	1477	1952	6877	1109	11818	3741	1960	676	783	3377.0
	CONTOUR MEAN <sup>c</sup>	1153.5	3221.2	10375.2	4229.5	14017.5	4469.2	1295.5	667.5	883.8	
60	NMPW	521	2694	3803	3989	12591	8032	3354	946	1227	4128.6
	NMPP	1050	2322	8379	3760	8695	2178	713	442	927	3162.9
	FITZ	352	3340	10902	1728	11559	4268	945	1142	518	3861.6
	NMPE	394	1338	11885	2215	14889	3856	2599	424	722	4258.0
	CONTOUR MEAN	579.2	2423.5	8742.2	2923.0	11933.5	4583.5	1902.8	738.5	848.5	
DAILY MEAN <sup>c</sup>		1070.9	3115.1	11072.6	5232.3	11812.6	5355.7	1916.3	944.6	1057.9	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



ABUNDANCE<sup>a</sup> OF TOTAL PHYTOPLANKTON IN WHOLE WATER COLLECTIONS

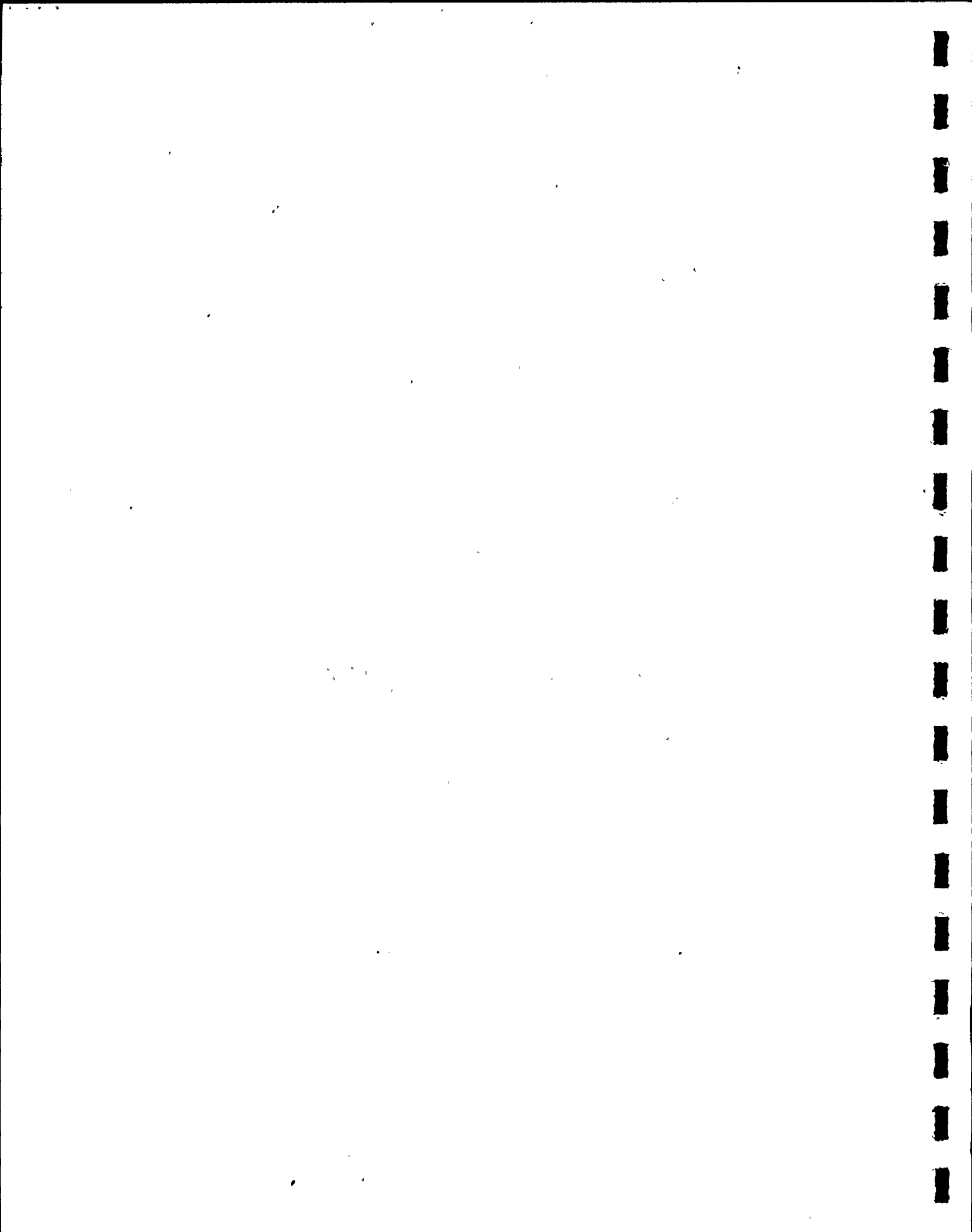
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	6570	11558	20263	43248	33112	13284	5436	2905	2738	15457.1
	NMPP	7637	8765	21234	5926	5605	12244	5450	2335	2151	7927.4
	FITZ	8251	12909	9601	16655	21851	11713	2772	2170	2516	9826.4
	NMPE	6203	8469	17150	11309	14650	9324	4355	1936	3648	8560.4
	CONTOUR MEAN	7165.2	10425.2	17062.0	19284.5	18804.5	11641.2	4503.2	2336.5	2763.2	
20	NMPW	4264	11546	18293	21806	22576	11200	5285	2338	3378	11187.3
	NMPP	8449	8183	23565	7092	5991	16702	3970	1805	3025	8753.6
	FITZ	7029	9487	20104	9057	16527	11834	3078	1326	2813	9028.3
	NMPE	4652	5540	15292	8917	17057	7838	2500	2884	3620	7588.8
	CONTOUR MEAN	6098.5	8689.0	19313.5	11718.0	15537.8	11893.5	3708.2	2088.2	3209.0	
40	NMPW	2744	9864	27387	19851	22243	9547	4913	1626	2750	11213.8
	NMPP	7139	8861	11003	14511	18107	7526	2562	1833	2245	8198.6
	FITZ	4150	9164	9938	4342	19934	12849	4325	1093	2396	7576.8
	NMPE-S/50%	5733	9277	13282	6201	20417	8716	2327	1268	3267	7832.0
	25%	4443	5801	16367	7654	22917	11933	3785	1657	1708	8473.8
	1%	5683	7136	10989	5033	17062	7755	4255	1384	2274	6841.2
	CONTOUR MEAN <sup>c</sup>	4941.5	9291.5	15402.5	11226.2	20175.2	9659.5	3531.8	1455.0	2664.5	
60	NMPW	2591	7759	6032	14141	18661	15490	5527	1833	3042	8341.8
	NMPP	3356	9714	16302	12339	13086	7728	2360	1247	2367	7611.0
	FITZ	3094	7492	15215	8031	18830	8782	3044	1964	2390	7649.1
	NMPE	2647	6073	14669	6708	20754	8673	5517	1000	2511	7616.8
	CONTOUR MEAN	2922.0	7759.5	13054.5	10304.8	17832.8	10168.2	4112.0	1511.0	2577.5	
DAILY MEAN <sup>c</sup>		5281.8	9041.3	16208.1	13133.4	18087.6	10840.6	3963.8	1847.6	2803.6	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

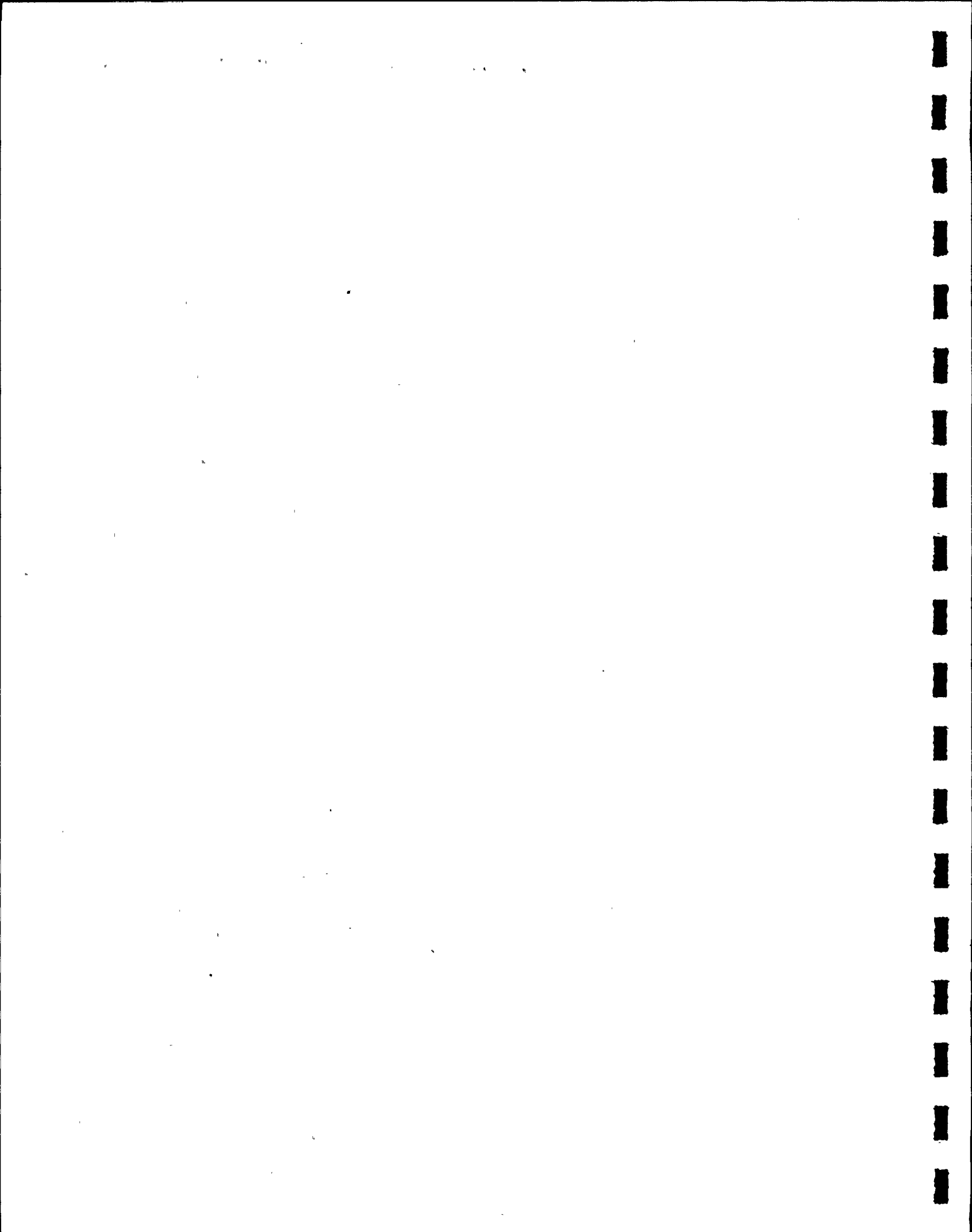
<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



V.A.2. BIOVOLUME OF SELECTED TAXA  
OF PHYTOPLANKTON

V.A.2. BIOVOLUME OF SELECTED TAXA  
OF PHYTOPLANKTON





BIOVOLUME<sup>a</sup> OF BACILLARIOPHYCEAE IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14, 19 DEC	
10	NMPW	1407.55	2042.81	1310.58	2677.60	83.75	448.74	83.11	402.10	1177.31	1070.39
	NMPP	1535.49	1754.58	768.41	218.24	44.84	672.01	61.41	272.22	961.65	698.76
	FITZ	1584.08	1693.57	261.99	1126.29	157.83	126.98	321.67	201.17	1350.80	758.26
	NMPE	1422.36	1060.64	183.17	1879.55	25.02	140.60	40.36	388.22	1062.62	689.17
	CONTOUR MEAN	1487.37	1637.90	631.04	1475.42	77.96	347.08	126.64	315.93	1138.10	
20	NMPW	898.47	2148.56	879.59	1614.83	125.92	1370.77	221.12	188.50	991.56	937.70
	NMPP	1577.74	1580.92	685.62	485.35	60.87	246.63	220.47	115.76	768.65	642.44
	FITZ	1882.38	1665.79	379.83	518.59	146.47	199.67	130.29	214.17	1433.18	730.04
	NMPE	1072.23	720.48	202.57	783.32	28.62	285.18	111.23	186.78	854.92	471.70
	CONTOUR MEAN	1357.70	1528.94	536.90	850.52	90.47	525.56	170.78	186.30	1012.08	
40	NMPW	600.52	1956.68	886.43	2846.16	145.77	104.32	208.80	137.74	1348.94	915.05
	NMPP	1989.49	1385.11	304.16	642.56	8.51	131.59	164.35	124.65	740.87	610.14
	FITZ	649.75	1569.95	274.68	265.00	59.00	1030.06	73.61	104.13	1259.73	587.32
	NMPE-S/50%	1421.32	1305.46	185.29	585.78	28.13	262.29	33.10	113.09	1450.53	598.33
	25%	889.63	766.62	96.11	354.56	42.95	140.11	146.07	136.38	791.84	373.81
	1%	1333.89	1032.93	296.12	1000.72	47.40	181.71	184.97	145.76	988.81	579.15
	CONTOUR MEAN <sup>c</sup>	1165.27	1554.30	412.64	1084.88	60.35	382.06	119.96	119.90	1200.02	
60	NMPW	547.61	1576.80	127.01	3483.00	19.82	694.93	110.76	133.17	1249.05	882.46
	NMPP	549.38	2098.77	213.92	893.85	64.68	95.61	170.60	254.27	1066.35	600.81
	FITZ	728.11	944.36	172.53	574.59	17.85	967.11	48.99	194.13	1052.72	522.27
	NMPE	68.98	1093.77	188.19	204.53	60.13	319.31	213.55	94.45	1083.47	369.60
	CONTOUR MEAN	473.52	1428.42	175.41	1288.99	40.62	519.24	135.95	169.00	1112.90	
DAILY MEAN <sup>c</sup>		1120.97	1537.39	439.00	1174.95	67.33	443.49	138.33	197.78	1115.77	

<sup>a</sup>  $\mu\text{g}/\text{m}^3$ , mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



BIOVOLUME<sup>a</sup> OF CHLOROPHYCEAE IN WHOLE WATER COLLECTIONS

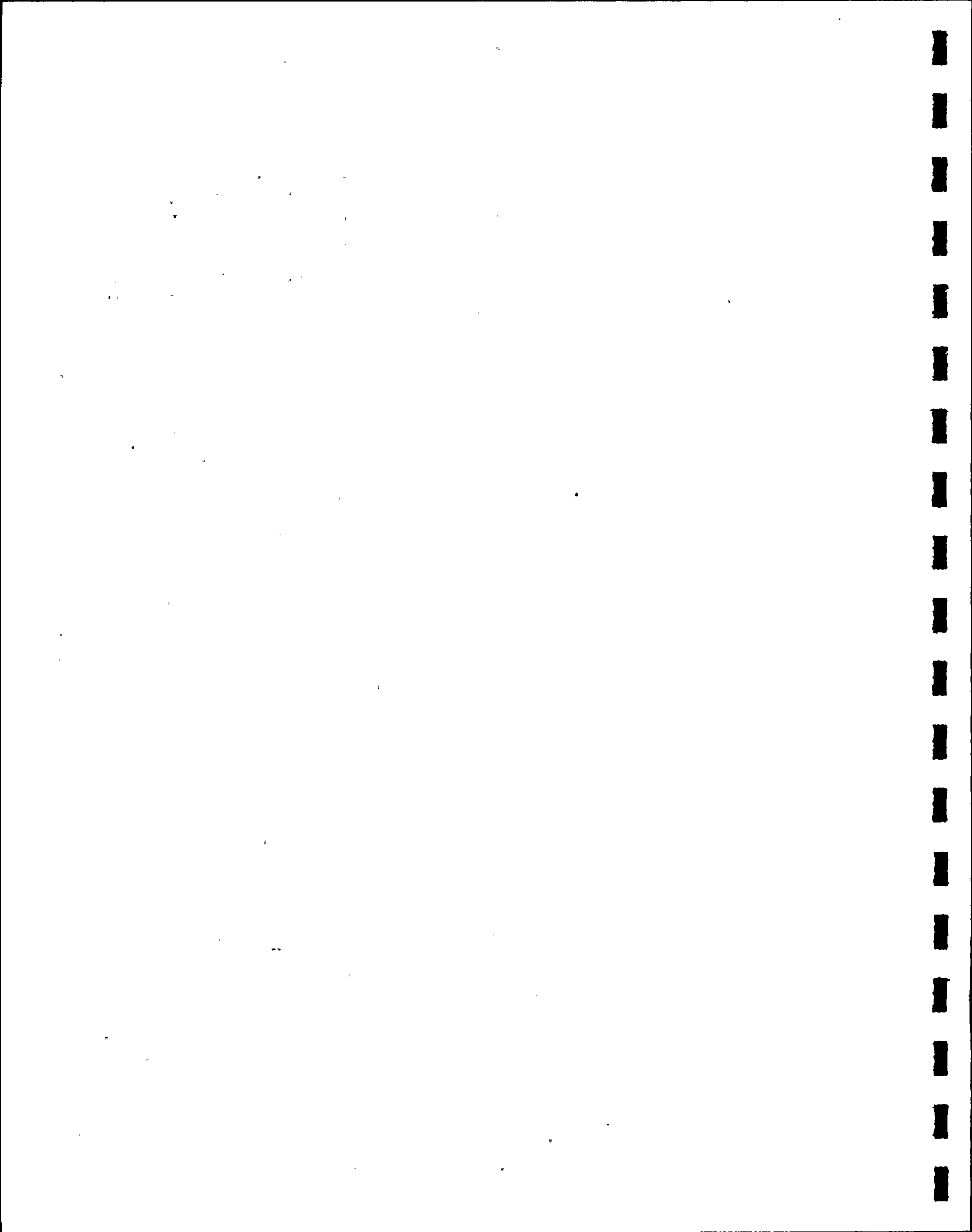
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN.
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14, 19 DEC	
10	NMPW	103.62	176.42	201.02	1095.27	735.08	803.86	150.39	99.81	37.55	378.11
	NMPP	135.45	197.71	172.49	63.05	123.45	609.71	282.37	74.98	20.87	186.68
	FITZ	115.83	229.63	97.16	395.03	652.82	475.65	188.05	92.68	14.17	251.22
	NMPE	123.31	224.16	35.83	394.71	268.49	489.88	241.61	76.71	62.95	213.01
	CONTOUR MEAN	119.55	206.98	126.62	487.02	444.96	594.78	215.60	85.91	33.88	
20	NMPW	74.53	191.62	137.39	524.88	668.22	537.92	265.90	40.23	27.71	274.27
	NMPP	210.42	125.39	96.95	137.84	333.82	774.84	242.59	56.67	22.33	222.32
	FITZ	82.09	120.85	114.01	78.28	486.89	593.54	172.80	77.20	42.43	196.45
	NMPE	61.80	99.47	77.89	197.07	343.59	450.72	168.91	90.27	32.26	169.11
	CONTOUR MEAN	107.21	134.33	106.56	234.52	458.13	589.26	212.55	66.09	31.18	
40	NMPW	24.48	156.48	120.73	549.52	576.79	663.02	212.98	151.46	46.04	277.94
	NMPP	88.52	118.08	74.48	243.04	711.55	515.14	244.23	81.43	43.44	235.55
	FITZ	62.18	173.24	72.65	77.36	367.78	426.82	338.73	101.39	28.95	183.23
	NMPE-S/50%	54.87	143.60	66.94	92.11	390.55	387.71	149.12	62.85	25.35	152.57
	25%	80.12	133.27	21.18	440.56	307.36	506.25	11396.02	111.93	15.20	1445.76
	1%	54.01	9833.72	87.43	245.01	3467.97	337.88	328.23	109.75	40.95	1611.66
	CONTOUR MEAN <sup>c</sup>	57.51	147.85	83.70	240.51	511.67	498.17	1236.26	99.28	35.94	
60	NMPW	15.66	102.98	34.47	358.59	482.09	647.84	222.82	68.67	19.92	217.00
	NMPP	12.13	187.89	57.41	280.44	422.23	465.94	219.14	60.63	24.63	192.27
	FITZ	64.56	88.78	97.65	174.69	402.95	501.89	262.00	111.21	85.41	198.79
	NMPE	40.09	124.98	41.76	61.51	369.38	436.24	413.66	40.17	20.43	171.94
	CONTOUR MEAN	33.11	125.98	57.82	218.81	419.16	512.98	279.40	70.17	37.60	
DAILY MEAN <sup>c</sup>		79.35	153.78	93.68	295.21	458.48	548.80	235.95	80.36	34.65	

<sup>a</sup> mg/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



BIOVOLUME<sup>a</sup> OF CHRYSOPHYCEAE IN WHOLE WATER COLLECTIONS

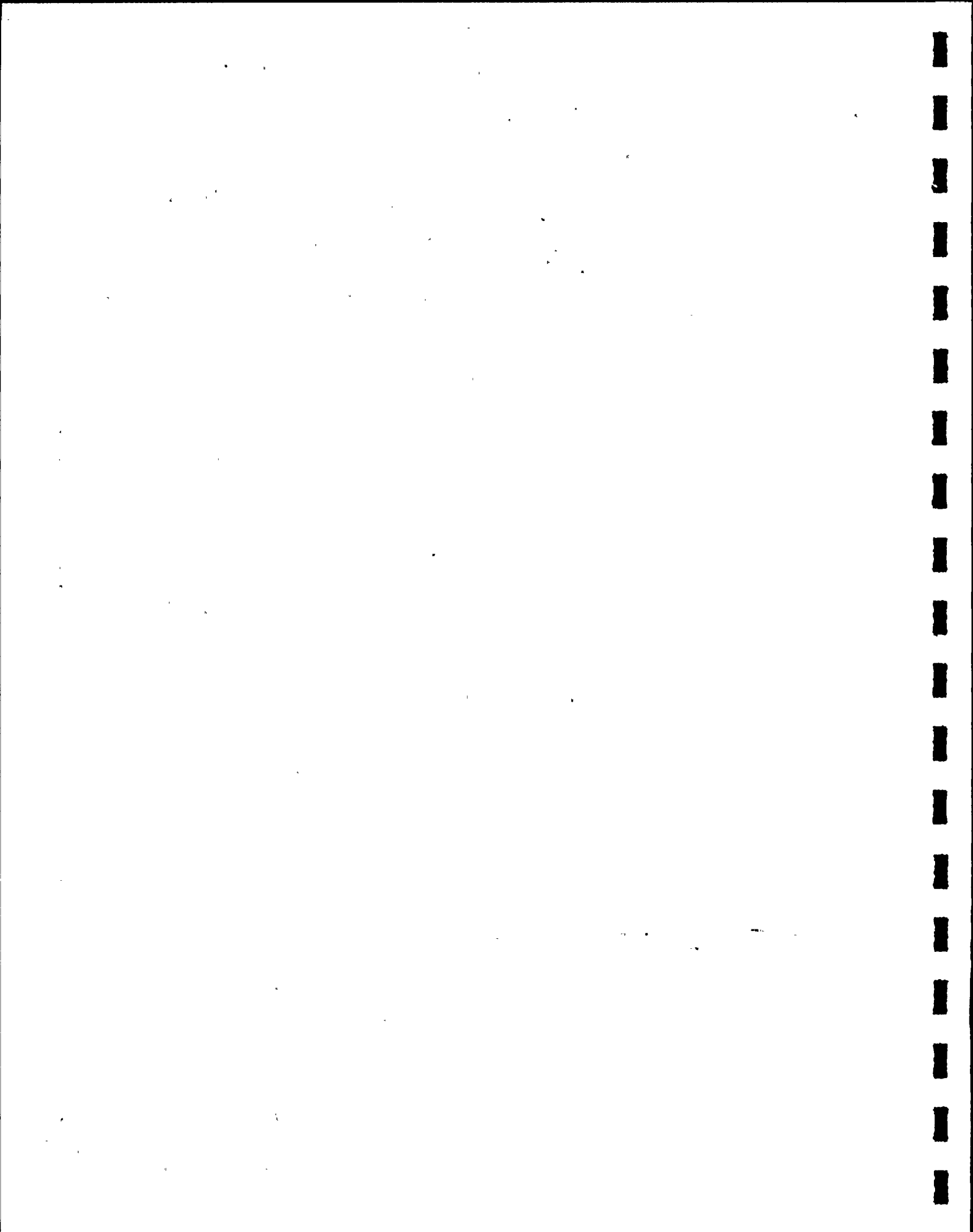
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14, 19 DEC	
10	NMPW	64.36	33.94	110.50	36.66	99.88	24.03	20.32	9.56	26.54	47.31
	NMPP	87.60	24.62	160.95	8.93	8.89	75.67	40.40	25.04	20.56	50.30
	FITZ	118.68	17.80	91.01	8.02	110.67	70.52	19.63	13.03	12.20	51.28
	NMPE	128.65	13.70	88.38	19.28	32.87	67.93	32.90	12.06	13.61	45.49
	CONTOUR MEAN	99.82	22.52	112.71	18.22	63.08	59.54	28.31	14.92	18.23	
20	NMPW	42.74	42.15	124.89	30.20	116.08	130.25	15.07	11.36	28.42	60.13
	NMPP	82.03	25.72	193.36	9.76	17.81	59.49	12.91	7.69	27.93	48.52
	FITZ	80.23	41.35	117.42	14.94	64.00	153.44	47.32	14.30	22.60	61.73
	NMPE	62.35	79.98	63.79	18.66	38.18	33.97	32.02	16.33	16.06	40.15
	CONTOUR MEAN	66.84	47.30	124.86	18.39	59.02	94.29	26.83	12.42	23.75	
40	NMPW	30.11	43.84	222.10	40.38	75.52	77.63	62.13	10.75	15.69	64.24
	NMPP	66.93	106.55	93.12	18.96	76.21	57.04	10.77	9.80	21.03	51.16
	FITZ	60.00	31.78	103.57	9.93	91.68	89.39	25.72	5.66	22.81	48.95
	NMPE-S/50%	99.27	85.83	77.59	7.44	67.93	82.25	11.08	7.93	18.80	50.90
	25%	46.61	24.71	51.67	30.36	53.80	83.39	27.80	7.15	11.85	37.48
	1%	64.05	23.21	121.53	17.68	39.98	65.91	48.96	11.17	21.16	45.96
	CONTOUR MEAN <sup>c</sup>	64.08	67.00	124.10	19.18	77.84	76.58	27.42	8.54	19.58	
60	NMPW	31.92	50.90	65.80	40.52	27.84	116.30	46.99	11.14	19.02	45.60
	NMPP	40.61	44.56	250.05	12.89	34.78	139.46	32.12	12.93	20.92	65.37
	FITZ	41.88	33.89	105.07	16.11	66.01	58.69	25.92	7.10	34.45	43.24
	NMPE	43.41	54.09	86.17	7.41	85.55	136.66	70.92	6.98	26.86	57.56
	CONTOUR MEAN	39.46	45.86	126.77	19.23	53.54	112.78	43.99	9.54	25.31	
DAILY MEAN <sup>c</sup>		67.55	45.67	122.11	18.76	63.37	85.80	31.64	11.36	21.72	

<sup>a</sup> mg/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



BIOVOLUME<sup>a</sup> OF CRYPTOPHYCEAE IN WHOLE WATER COLLECTIONS

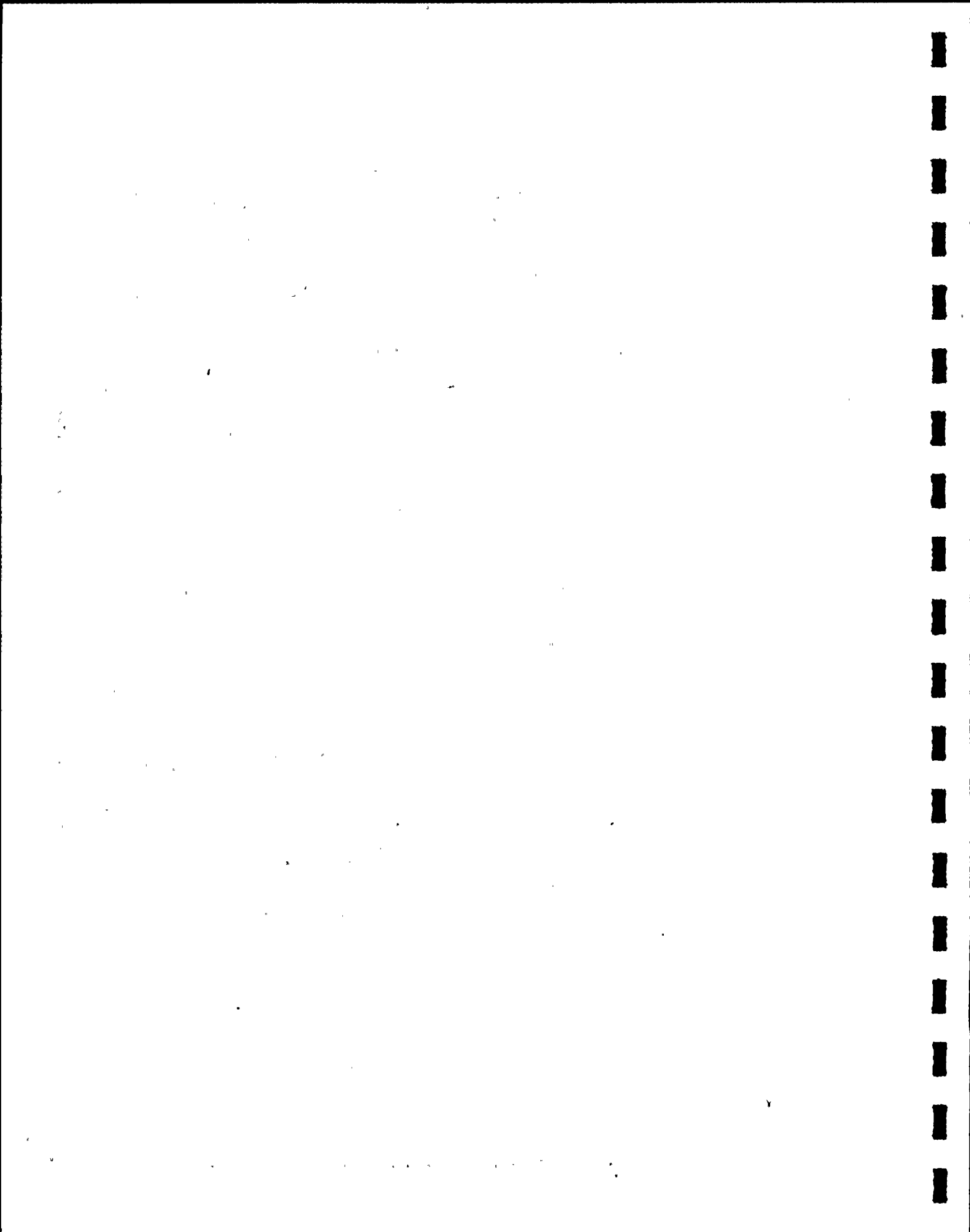
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	
10	NMPW	147.40	111.15	187.70	919.80	411.02	559.48	308.05	201.21	57.72	322.61
	NMPP	178.02	182.73	199.98	1393.00	22.42	490.89	268.93	240.12	57.47	337.06
	FITZ	170.25	146.33	158.72	832.20	369.01	572.48	169.68	217.91	31.00	296.40
	NMPE	84.62	259.60	359.09	2684.65	558.13	408.38	519.63	216.06	53.56	571.52
	CONTOUR MEAN	145.07	174.95	226.37	1457.41	340.14	507.81	316.57	218.82	49.94	
20	NMPW	120.16	414.97	146.37	2641.07	227.05	634.36	262.04	266.53	30.82	527.04
	NMPP	181.90	195.62	342.99	996.09	35.69	625.48	342.69	298.70	88.53	345.30
	FITZ	187.83	184.24	146.14	2858.15	199.22	658.93	199.68	189.18	52.59	519.55
	NMPE	141.08	515.33	134.12	2086.17	485.15	387.55	233.53	244.72	30.00	473.07
	CONTOUR MEAN	157.74	327.54	192.40	2145.37	236.78	576.58	259.48	249.78	50.48	
40	NMPW	152.97	371.42	145.96	2723.56	259.06	895.25	292.27	219.04	45.36	567.21
	NMPP	163.88	165.68	38.37	4684.88	235.27	758.93	236.57	334.45	92.27	745.59
	FITZ	120.74	261.38	138.34	1105.75	114.48	567.43	399.41	240.08	111.64	339.92
	NMPE-S/50X	187.77	813.44	97.46	2330.12	235.95	454.44	372.36	255.02	94.18	537.86
	25X	150.94	452.41	79.13	2623.81	232.74	676.26	392.84	253.46	48.93	545.61
	1X	241.30	506.31	175.08	447.44	142.38	590.26	477.19	176.49	38.42	310.54
	CONTOUR MEAN <sup>c</sup>	156.34	402.98	105.03	2711.08	211.19	669.01	325.15	262.15	85.86	
60	NMPW	85.99	381.27	27.05	2903.38	251.87	1099.18	261.99	387.59	52.58	605.66
	NMPP	153.83	439.88	141.11	4695.01	131.77	831.12	302.87	251.18	91.46	782.03
	FITZ	118.68	298.61	268.09	3325.28	264.75	499.48	329.36	273.99	81.66	606.66
	NMPE	175.22	377.67	121.46	2940.43	200.98	759.37	387.69	181.32	82.87	580.78
	CONTOUR MEAN	133.43	374.36	139.43	3466.02	212.34	797.29	320.48	273.52	77.14	
DAILY MEAN <sup>c</sup>		148.15	319.96	165.81	2444.97	250.11	637.67	305.42	251.07	65.86	

<sup>a</sup> mg/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples





BIOVOLUME<sup>a</sup> OF DINOPHYCEAE IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES								ANNUAL MEAN.
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV 14,19 DEC	
10	NMPW	0.00	73.63	47.43	24.18	1070.98	364.19	38.08	52.67 11.76	186.99
	NMPP	72.47	411.87	28.25	0.00	69.07	33.86	32.58	21.02 9:29	75.38
	FITZ	0.00	180.98	0.00	41.45	2069.65	27.08	7.61	103.57 33.85	273.80
	NMPE	195.74	251.43	52.38	58.58	1243.35	28.11	7.95	151.19 0.00	220.97
	CONTOUR MEAN	67.05	229.48	32.02	31.05	1113.26	113.31	21.55	82.11 13.72	
20	NMPW	392.57	13.94	0.00	103.96	662.29	482.15	44.73	73.75 35.59	201.00
	NMPP	114.87	222.54	245.89	37.31	60.17	177.55	0.00	0.00 63.36	102.41
	FITZ	91.89	264.17	13.30	230.05	1349.26	437.37	0.00	37.16 40.67	273.76
	NMPE	603.06	511.90	137.78	0.00	652.23	34.38	40.58	53.13 14.22	227.48
	CONTOUR MEAN	300.60	253.14	99.24	92.83	680.99	282.86	21.33	41.01 38.46	
40	NMPW	182.77	45.84	26.60	217.20	788.38	108.36	0.00	59.31 2.54	159.00
	NMPP	198.92	30.65	0.00	544.40	658.75	172.00	85.41	97.18 5.81	199.24
	FITZ	109.81	114.60	0.00	50.29	345.38	99.14	29.69	84.83 33.98	96.41
	NMPE-S/50%	320.13	698.28	2.31	236.69	899.74	30.47	66.62	136.21 71.70	273.57
	25%	183.00	559.72	106.73	20.72	1411.89	47.92	24.03	78.99 30.24	273.69
	1%	266.15	352.88	13.30	49.73	448.99	22.34	29.69	117.05 38.21	148.70
	CONTOUR MEAN <sup>c</sup>	202.91	222.34	7.23	262.14	673.06	102.49	45.43	94.38 28.51	
60	NMPW	142.66	289.36	0.00	294.17	288.59	30.98	27.53	109.90 15.61	133.20
	NMPP	249.08	38.59	0.00	251.48	401.61	171.94	16.60	56.85 2.90	132.12
	FITZ	36.02	165.66	0.00	209.47	1218.36	0.00	24.87	59.69 19.22	192.59
	NMPE	481.15	345.63	0.00	201.18	712.37	7.82	6.29	37.16 78.97	207.84
	CONTOUR MEAN	227.23	209.81	0.00	239.08	655.23	52.68	18.82	65.90 29.18	
DAILY MEAN <sup>c</sup>		199.45	228.69	34.62	156.28	780.64	137.84	26.78	70.85 27.47	

<sup>a</sup> mg/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



BIOVOLUME<sup>a</sup> OF EUGLENOPHYCEAE IN WHOLE WATER COLLECTIONS

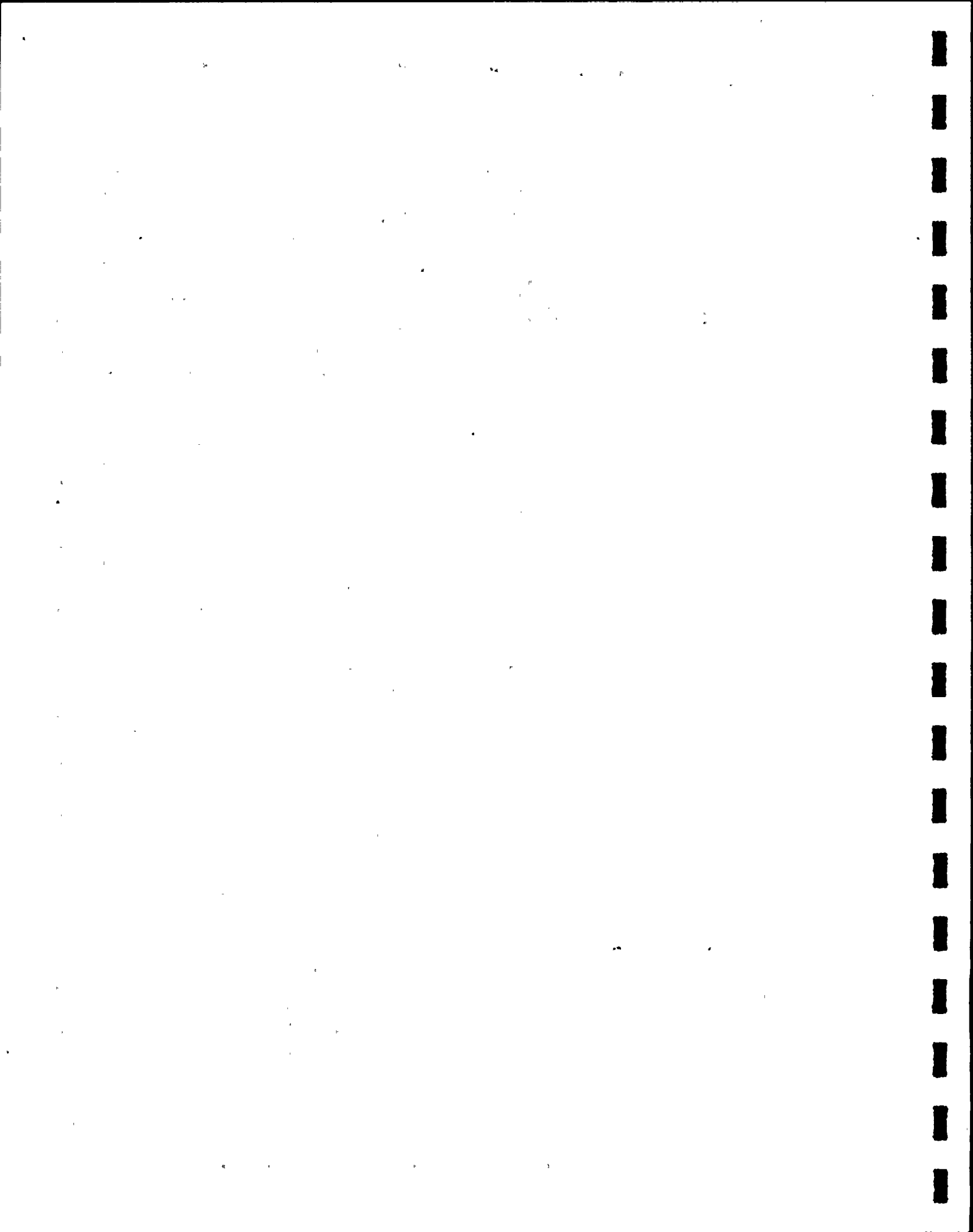
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	
10	NMPW	521.65	54.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	63.99
	NMPP	1100.95	67.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	129.84
	FITZ	1539.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	171.04
	NMPE	1661.93	0.00	0.00	10.15	0.00	0.00	0.00	0.00	0.00	185.79
	CONTOUR MEAN	1205.98	30.46	0.00	2.54	0.00	0.00	0.00	0.00	0.00	
20	NMPW	145.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.36	16.64
	NMPP	918.73	0.00	43.55	0.00	0.00	0.00	0.00	0.00	0.00	106.92
	FITZ	1176.82	22.28	0.00	0.00	0.00	366.56	0.00	0.00	0.00	173.96
	NMPE	771.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.74
	CONTOUR MEAN	753.15	5.57	10.89	0.00	0.00	91.64	0.00	0.00	1.09	
40	NMPW	18.82	40.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.55
	NMPP	638.24	2.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.21
	FITZ	254.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.23
	NMPE-S/50%	261.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.04
	25%	265.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.55
	1%	277.19	6.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.50
	CONTOUR MEAN <sup>c</sup>	293.13	10.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
60	NMPW	18.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.09
	NMPP	103.51	62.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.43
	FITZ	327.11	17.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.33
	NMPE	65.87	35.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.28
	CONTOUR MEAN	128.83	28.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DAILY MEAN <sup>c</sup>		595.27	18.92	2.72	0.63	0.00	22.91	0.00	0.00	0.27	

<sup>a</sup>  $\mu\text{g}/\text{m}^3$ , mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



BIOVOLUME<sup>a</sup> OF MYXOPHYCEAE IN WHOLE WATER COLLECTIONS

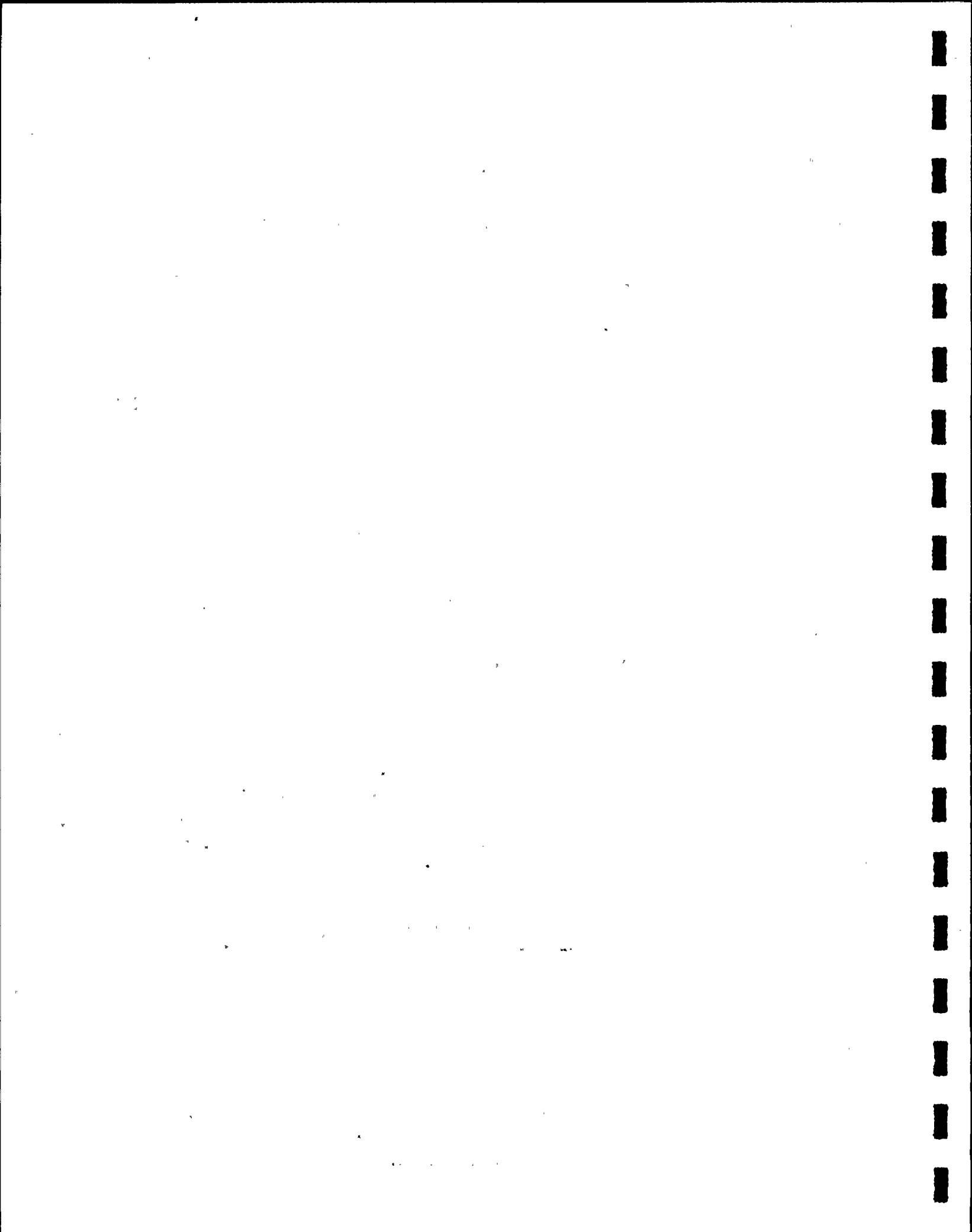
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14 DEC	
10	NMPW	18.41	43.64	46.89	280.10	108.79	268.96	25.53	47.60	7.42	94.15
	NMPP	14.46	16.16	42.88	7.24	31.39	85.58	17.15	30.54	25.74	30.13
	FITZ	21.00	28.47	20.29	39.05	622.89	122.19	34.85	23.77	12.52	102.78
	NMPE	14.95	15.98	35.92	27.58	668.33	80.36	11.77	15.91	29.47	100.03
	CONTOUR MEAN	17.20	26.06	36.50	88.49	357.85	139.27	22.32	29.46	18.79	
20	NMPW	11.99	34.33	55.29	70.96	71.73	112.67	27.00	29.76	9.32	47.01
	NMPP	24.07	19.50	43.36	9.23	130.07	335.76	44.94	7.49	12.96	69.71
	FITZ	18.42	24.68	46.36	7.80	155.39	242.59	21.16	8.39	11.82	59.62
	NMPE	12.39	14.77	45.59	7.68	139.58	23.79	2.98	22.66	17.25	31.85
	CONTOUR MEAN	16.72	23.32	47.65	23.92	124.19	178.70	24.02	17.08	12.84	
40	NMPW	7.37	30.34	41.04	52.32	214.01	58.05	16.79	18.65	14.40	50.33
	NMPP	18.39	27.20	18.95	43.48	126.50	93.57	12.95	5.78	4.09	38.99
	FITZ	18.83	29.07	18.94	29.89	115.86	181.56	4.85	7.35	6.43	45.86
	NMPE-S/50%	15.49	35.20	56.20	35.70	274.65	29.51	8.74	5.76	11.22	52.50
	25%	13.55	6.81	23.04	10.35	378.80	30.46	25.63	7.51	8.54	56.08
	1%	18.74	11.81	26.40	3.06	100.78	29.67	20.09	11.32	7.66	25.50
	CONTOUR MEAN <sup>c</sup>	15.02	30.45	33.78	40.35	182.78	90.67	10.83	9.38	9.04	
60	NMPW	5.99	34.15	92.98	38.32	118.79	67.25	12.56	10.66	18.08	44.31
	NMPP	9.75	19.73	18.70	55.62	396.70	17.58	7.44	7.46	16.53	61.06
	FITZ	5.03	25.38	56.12	23.72	60.87	100.61	11.51	12.86	15.77	34.65
	NMPE	4.62	15.91	26.71	25.29	367.93	37.60	21.27	5.90	17.03	58.03
	CONTOUR MEAN	6.35	23.79	48.63	35.74	236.07	55.76	13.20	9.22	16.85	
DAILY MEAN <sup>c</sup>		13.82	25.91	41.64	47.12	225.22	116.10	17.59	16.28	14.38	

<sup>a</sup>  $\text{mg/m}^3$ , mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



BIOVOLUME<sup>a</sup> OF TOTAL PHYTOPLANKTON IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	
10	NMPW	2263.00	2535.83	1904.12	5033.62	2509.50	2469.26	625.49	812.95	1318.31	2163.56
	NMPP	3124.43	2655.27	1372.97	1690.46	300.06	1967.71	702.84	663.93	1095.59	1508.14
	FITZ	3549.21	2296.78	629.18	2442.03	3982.86	1394.91	741.48	652.12	1454.55	1904.79
	NMPE	3631.56	1825.51	754.78	5074.52	2796.19	1215.26	854.22	859.61	1222.21	2025.98
	CONTOUR MEAN	3142.05	2328.35	1165.26	3560.16	2397.15	1761.78	731.01	747.15	1272.66	
20	NMPW	1685.89	2845.58	1343.54	4985.89	1871.29	3268.11	835.87	610.13	1127.78	2063.79
	NMPP	3109.76	2169.69	1651.70	1675.59	638.43	2219.75	863.61	526.30	983.77	1537.62
	FITZ	3519.66	2323.37	817.06	3707.81	2401.23	2652.09	571.25	540.39	1603.29	2015.13
	NMPE	2724.52	1941.94	661.73	3092.91	1687.34	1215.60	589.24	613.89	964.72	1499.10
	CONTOUR MEAN	2759.96	2320.14	1118.51	3365.55	1649.57	2338.89	714.99	572.68	1169.89	
40	NMPW	1020.03	2644.71	1442.87	6429.13	2059.52	1906.64	792.97	596.94	1472.96	2040.64
	NMPP	3164.36	1835.90	529.08	6177.32	1816.79	1728.28	754.29	653.29	907.52	1951.87
	FITZ	1275.39	2180.01	608.18	1538.22	1094.18	2394.39	872.00	543.42	1463.54	1329.93
	NMPE-S/50%	2360.22	3081.80	485.79	3287.83	1896.96	1246.67	641.02	580.86	1671.79	1694.77
	25%	1629.78	1943.55	377.85	3480.36	2427.54	1484.40	12012.40	595.42	906.61	2761.99
	1%	2255.33	11767.21	719.86	1763.64	4247.51	1227.77	1089.13	571.53	1135.20	2753.02
	CONTOUR MEAN <sup>c</sup>	1955.00	2435.60	766.48	4358.12	1716.86	1819.00	765.07	593.63	1378.95	
60	NMPW	848.65	2435.47	347.31	7117.99	1189.00	2656.48	682.65	721.13	1374.26	1930.33
	NMPP	1118.28	2891.81	681.18	6189.29	1451.76	1721.65	748.68	643.33	1222.79	1852.09
	FITZ	1321.39	1574.52	699.47	4323.85	2030.80	2127.79	702.64	658.99	1289.24	1636.52
	NMPE	879.34	2046.96	464.28	3440.34	1796.35	1697.00	1113.38	365.98	1309.63	1457.03
	CONTOUR MEAN	1041.92	2237.19	548.06	5267.87	1616.98	2050.73	811.84	597.36	1298.98	
DAILY MEAN <sup>c</sup>		2224.73	2330.32	899.58	4137.92	1845.14	1992.60	755.73	627.70	1280.12	

<sup>a</sup> ng/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples





V.A.3. ABUNDANCE OF SELECTED SPECIES  
OF PHYTOPLANKTON

ABUNDANCE<sup>a</sup> OF ANKISTRODESMUS FALCATUS IN WHOLE WATER COLLECTIONS

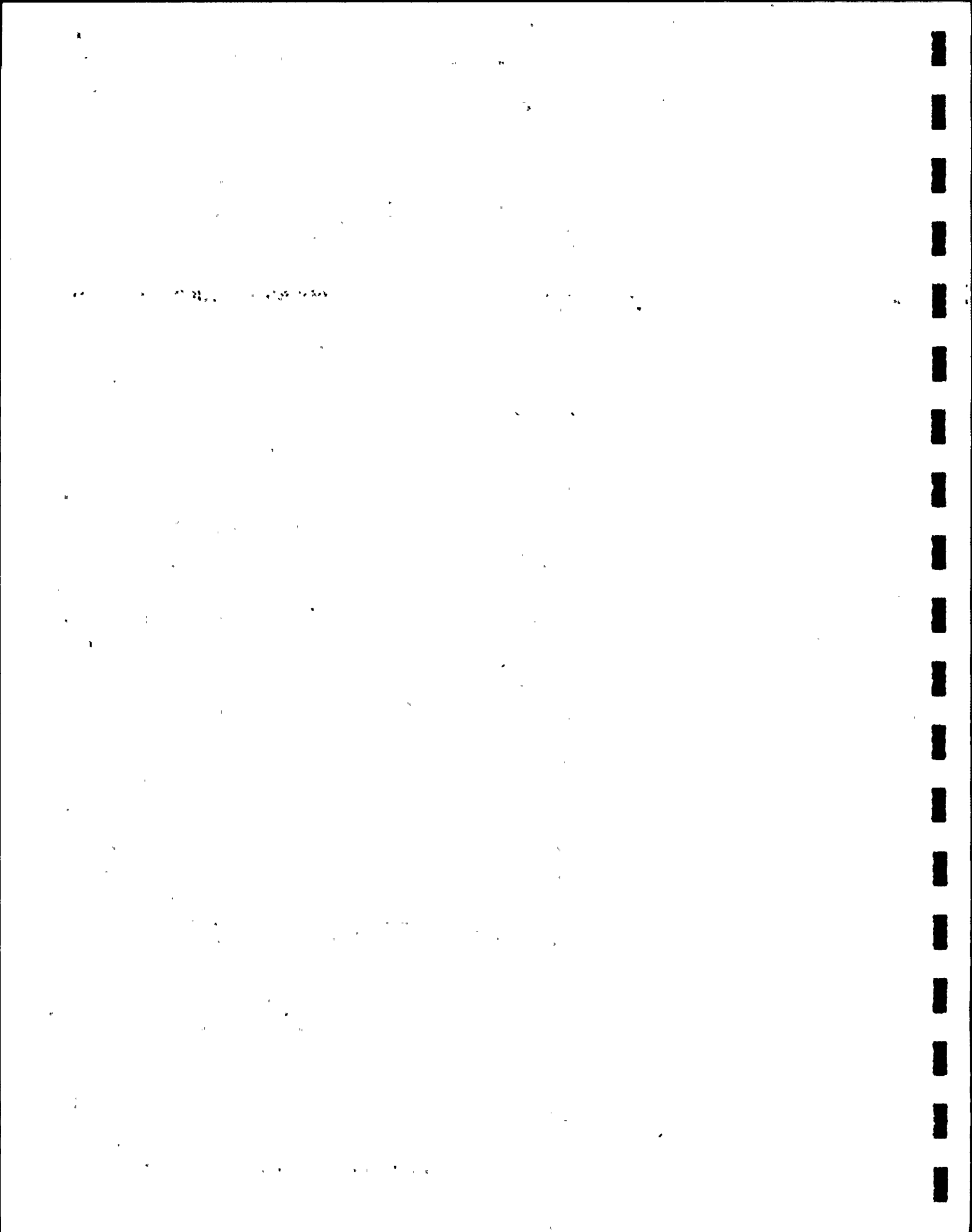
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	
10	NMPW	130	276	297	221	325	62	30	51	39	159.0
	NMPP	151	651	591	46	52	91	32	38	60	190.2
	FITZ	128	521	223	91	159	100	24	37	51	148.2
	NMPE	277	484	469	96	292	91	78	34	42	207.0
	CONTOUR MEAN	171.5	483.0	395.0	113.5	207.0	86.0	41	40.0	48.0	
20	NMPW	163	306	306	117	201	29	63	42	44	141.2
	NMPP	212	384	489	42	52	91	30	24	63	154.1
	FITZ	165	512	298	52	195	85	22	28	51	156.4
	NMPE	180	423	271	68	292	63	33	38	58	158.4
	CONTOUR MEAN	180.0	406.2	341.0	69.8	185.0	67.0	37	33.0	54.0	
40	NMPW	213	320	351	136	193	60	47	21	29	152.2
	NMPP	183	263	224	78	39	42	19	35	37	102.2
	FITZ	238	280	325	73	169	63	36	14	47	138.3
	NMPE-S/50%	253	567	269	83	258	50	23	18	71	176.9
	25%	172	432	272	39	188	70	38	32	49	143.6
	1%	182	442	323	32	125	67	21	9	65	140.7
	CONTOUR MEAN <sup>c</sup>	221.8	357.5	292.2	92.5	164.8	53.8	31.2	22.0	46.0	
60	NMPW	236	215	203	52	94	78	21	39	55	110.3
	NMPP	111	351	486	52	97	78	25	19	44	140.3
	FITZ	147	232	379	73	193	72	13	25	34	129.8
	NMPE	210	354	302	73	130	38	39	14	55	135.0
CONTOUR MEAN		176.0	288.0	342.5	62.5	128.5	66.5	24.5	24.2	47.0	
DAILY MEAN <sup>c</sup>		187.3	383.7	342.7	84.6	171.3	68.3	33.4	29.8	48.8	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



ABUNDANCE<sup>a</sup> OF ASTERIONELLA FORMOSA IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	170	1005	76	0	0	0	17	32	135	159.4
	NMPP	195	849	12	0	0	0	12	6	37	123.4
	FITZ	371	1142	56	0	0	0	0	3	48	180.0
	NMPE	228	396	33	0	0	10	0	5	137	96.6
	CONTOUR MEAN	256.0	848.0	44.2	0	0	2.5	7.2	11.5	89.2	
20	NMPW	241	1536	56	0	0	37	2	16	112	222.2
	NMPP	507	996	19	0	0	0	23	8	33	176.2
	FITZ	460	1417	0	0	0	0	18	14	70	219.9
	NMPE	233	378	34	0	0	0	0	12	66	80.3
	CONTOUR MEAN	360.2	1081.8	27.2	0	0	9.2	10.8	12.5	70.2	
40	NMPW	216	941	36	0	0	0	0	15	146	150.4
	NMPP	526	924	29	0	0	0	8	4	41	170.2
	FITZ	107	1087	49	0	0	5	26	6	67	149.7
	NMPE-S/50%	372	849	8	0	0	0	11	8	94	149.1
	25%	346	219	44	4	0	0	34	4	46	77.4
	1%	254	348	13	0	0	0	4	11	71	77.9
	CONTOUR MEAN <sup>c</sup>	305.2	950.2	30.5	0	0	1.2	11.2	8.2	87.0	
60	NMPW	257	1015	26	11	0	0	9	6	115	159.9
	NMPP	165	945	8	0	0	0	21	9	58	134.0
	FITZ	175	587	44	0	0	0	0	4	59	96.6
	NMPE	0	487	8	0	0	0	0	3	44	60.2
	CONTOUR MEAN	149.2	758.5	21.5	2.8	0	0	7.5	5.5	69.0	
DAILY MEAN <sup>c</sup>		267.7	909.6	30.9	0.7	0	3.2	9.2	9.4	78.8	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



ABUNDANCE<sup>a</sup> OF CHRYSOCHROMULINA PARVA IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	
10	NMPW	208	11	1333	78	1484	385	138	31	50	413.1
	NMPP	659	32	1463	116	78	495	177	121	123	362.7
	FITZ	519	33	1131	52	1231	445	141	46	69	404.1
	NMPE	106	37	950	273	448	344	333	81	52	291.6
	CONTOUR MEAN	373.0	28.2	1219.2	129.8	810.2	417.2	197.2	69.8	73.5	
20	NMPW	293	7	1276	65	1135	468	172	110	59	398.3
	NMPP	513	7	1895	89	68	492	146	65	175	383.3
	FITZ	310	37	1877	143	958	612	166	38	131	474.7
	NMPE	162	189	573	396	422	318	175	98	88	269.0
	CONTOUR MEAN	319.5	60.0	1405.2	173.2	645.8	472.5	164.8	77.8	113.2	
40	NMPW	276	24	3969	73	1187	664	323	68	138	746.9
	NMPP	234	16	1338	91	547	573	165	121	188	363.7
	FITZ	298	13	963	125	1041	510	203	71	160	376.0
	NMPE-S/50%	227	63	635	50	1317	601	149	83	102	358.6
	25%	214	89	524	377	989	656	271	87	10	357.4
	1%	319	7	1375	99	260	351	219	94	67	310.1
	CONTOUR MEAN <sup>c</sup>	258.8	29.0	1726.2	84.8	1023.0	587.0	210	85.8	147.0	
60	NMPW	299	7	781	73	424	846	251	90	117	320.9
	NMPP	353	26	4250	78	370	596	181	92	152	677.6
	FITZ	388	47	1464	187	708	456	275	57	206	420.9
	NMPE	268	83	788	73	1262	540	312	78	146	394.4
	CONTOUR MEAN	327.0	40.8	1820.8	102.8	691.0	609.5	254.8	79.2	155.2	
DAILY MEAN <sup>c</sup>		319.6	39.5	1542.9	122.6	792.5	521.6	206.7	78.2	122.2	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



ABUNDANCE<sup>a</sup> OF COELOSPHAERIUM KUETZINGIANUM IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

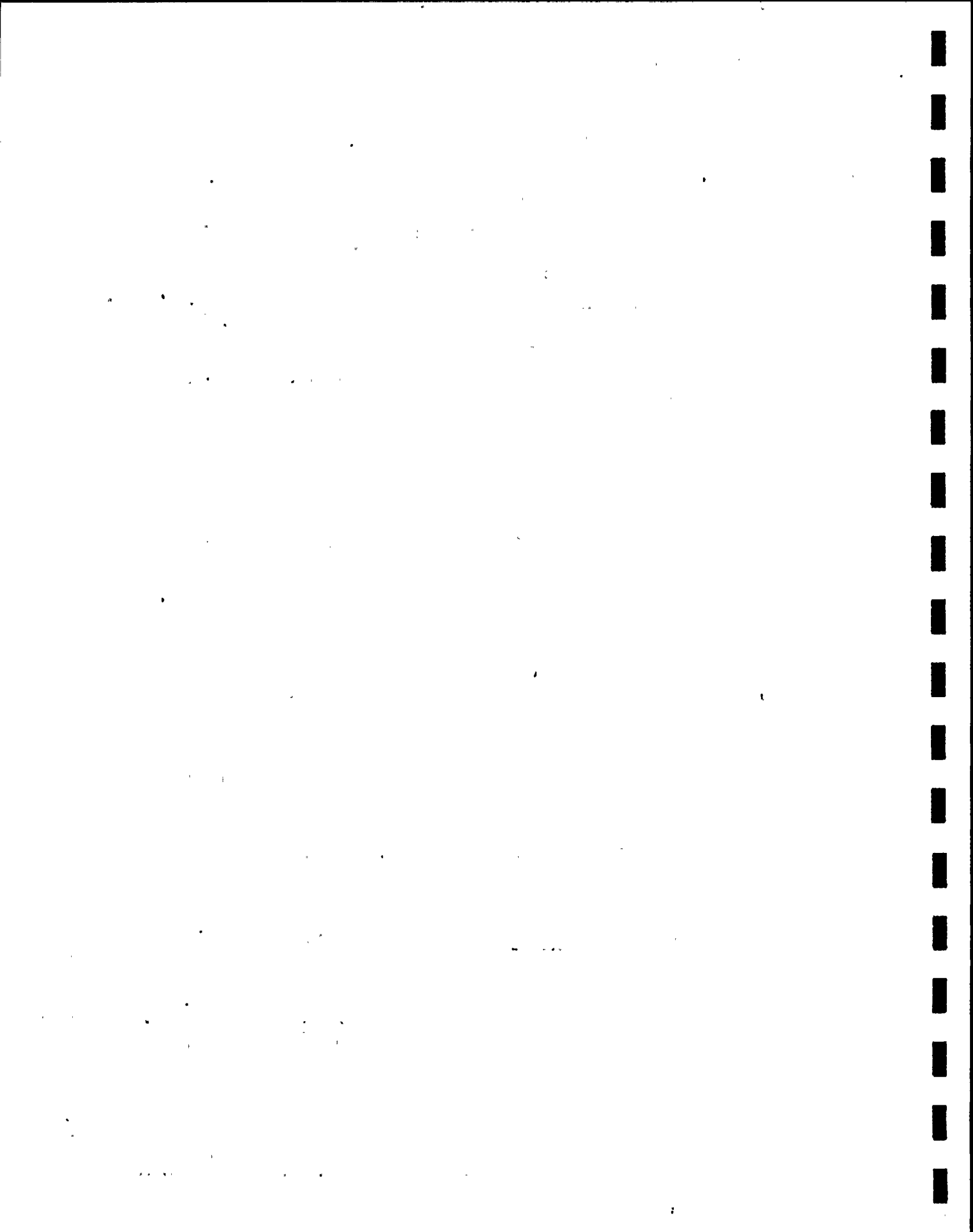
DEPTH CONTOUR		DATES									ANNUAL
(FT)	TRANSECT <sup>b</sup>	30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	0	0	0	0	1464	0	0	213	0	186.3
	NMPP	0	0	0	0	0	488	75	0	0	62.6
	FITZ	0	0	0	0	1139	1822	242	0	0	355.9
	NMPE	0	0	0	0	1083	203	0	0	833	235.4
	CONTOUR MEAN	0	0	0	0	921.5	628.2	79.2	53.2	208.2	
20	NMPW	0	0	0	0	565	1523	1029	0	267	376.0
	NMPP	0	0	0	0	479	3156	0	0	0	403.9
	FITZ	0	0	0	0	1249	0	375	0	250	208.2
	NMPE	0	0	0	0	1920	0	0	0	219	237.7
	CONTOUR MEAN	0	0	0	0	1053.2	1169.8	351.0	0	184.0	
40	NMPW	0	0	0	0	992	0	0	52	0	116.0
	NMPP	0	0	0	0	0	0	0	0	0	0
	FITZ	0	0	0	0	326	0	0	40	0	40.7
	NMPE-S/50%	0	0	0	0	163	0	0	0	0	18.1
	25%	0	0	0	0	0	1269	167	0	0	159.6
	1%	0	0	0	0	326	838	430	37	0	181.2
	CONTOUR MEAN <sup>c</sup>	0	0	0	0	370.2	0	0	23.0	0	
60	NMPW	0	0	0	0	1164	651	0	0	0	201.7
	NMPP	0	0	0	0	488	0	0	49	0	59.7
	FITZ	0	0	0	0	0	1171	208	0	0	153.2
	NMPE	0	0	0	0	1627	801	326	84	0	315.3
	CONTOUR MEAN	0	0	0	0	819.8	655.8	133.5	33.2	0	
DAILY MEAN <sup>c</sup>		0	0	0	0	791.2	613.4	140.9	27.4	98.0	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples





ABUNDANCE<sup>a</sup> OF COELOSPHAERIUM NAEGELIANUM IN WHOLE WATER COLLECTIONS

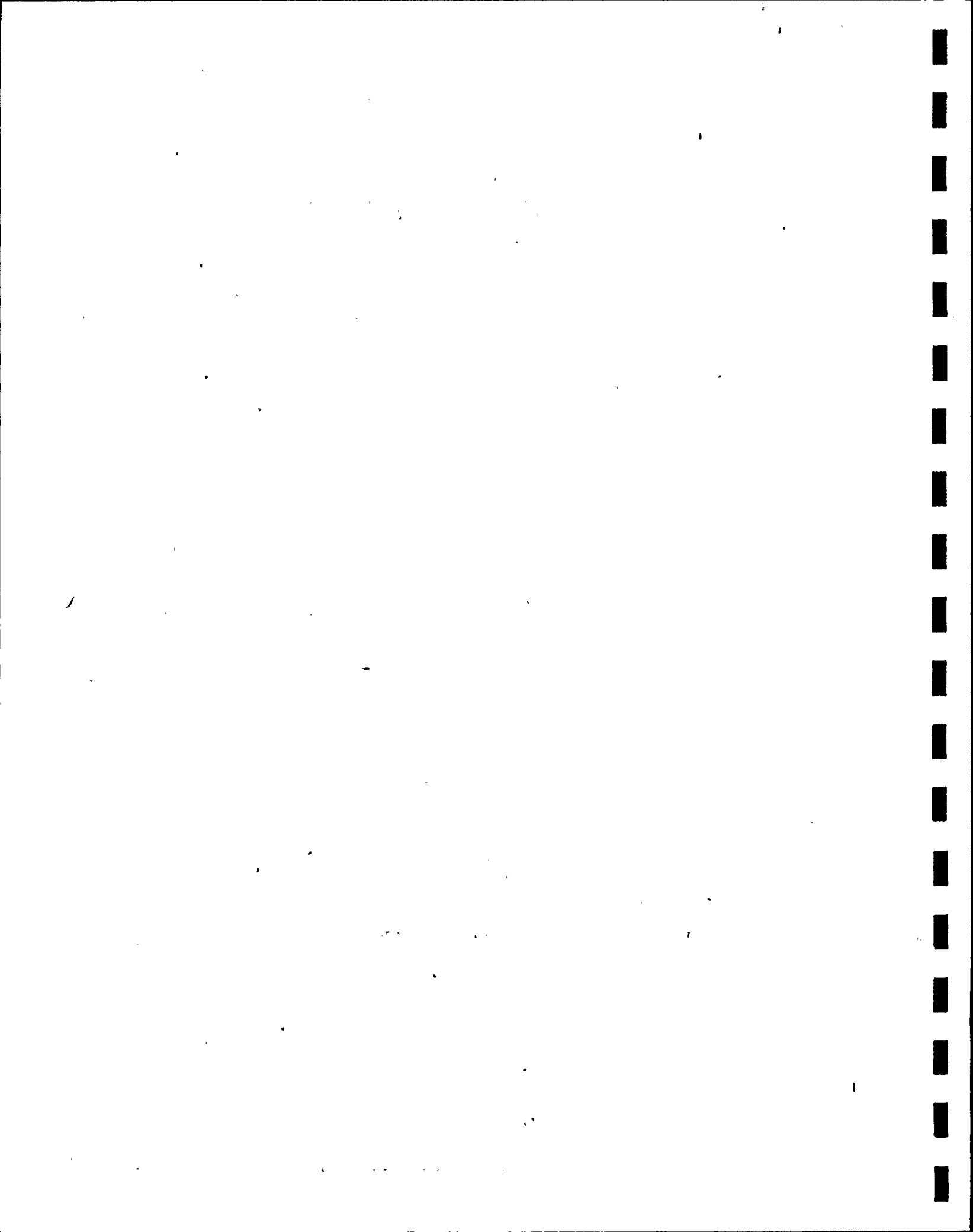
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES									ANNUAL
(FT)	TRANSECT <sup>b</sup>	30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	0	0	0	0	0	979	573	0	0	172.4
	NMPP	0	0	0	0	266	65	236	0	0	63.0
	FITZ	0	0	0	0	0	0	0	130	0	14.4
	NMPE	0	0	0	0	843	651	188	0	0	186.9
	CONTOUR MEAN	0	0	0	0	277.2	423.8	249.2	32.5	0	
20	NMPW	0	0	651	0	0	0	0	0	0	72.3
	NMPP	0	0	0	0	0	163	96	98	214	63.4
	FITZ	0	0	0	0	0	0	156	24	0	20.0
	NMPE	0	0	0	0	469	0	0	0	0	52.1
	CONTOUR MEAN	0	0	162.8	0	117.2	40.8	63.0	30.5	53.5	
40	NMPW	0	0	0	0	0	195	0	0	177	41.3
	NMPP	0	0	0	0	0	469	53	111	0	70.3
	FITZ	0	0	0	0	0	1822	0	0	0	202.4
	NMPE-S/50%	0	0	0	0	2033	287	0	131	0	272.3
	25%	0	0	0	0	1374	0	562	221	78	248.3
	1%	0	0	0	0	1041	0	0	65	0	122.9
	CONTOUR MEAN <sup>c</sup>	0	0	0	0	508.2	693.2	13.2	60.5	44.2	
60	NMPW	0	0	0	0	125	1464	0	117	292	222.0
	NMPP	0	0	0	0	0	0	0	0	0	0
	FITZ	0	0	0	0	1464	274	0	0	0	193.1
	NMPE	0	0	0	0	234	651	0	0	0	98.3
	CONTOUR MEAN	0	0	0	0	455.8	597.2	0	29.2	73.0	
DAILY MEAN <sup>c</sup>		0	0	40.7	0	339.6	438.8	81.4	38.2	42.7	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



ABUNDANCE<sup>a</sup> OF CHROOCOCCUS DISPERSUS V. MINOR IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14, 19 DEC	MEAN
10	NMPW	156	1687	9661	11243	15094	1999	733	446	108	4569.7
	NMPP	0	1124	10743	3144	3581	3019	575	667	50	2544.8
	FITZ	568	3852	4216	3436	9182	2280	792	604	362	2810.2
	NMPE	52	1791	11191	2436	4331	1530	1083	666	100	2575.6
	CONTOUR MEAN	194.0	2113.5	8952.8	5064.8	8047.0	2207.0	795.8	595.8	155.0	
20	NMPW	104	1210	8797	7079	13241	2353	108	653	217	3751.3
	NMPP	42	1562	13075	3665	3332	2884	1033	646	333	2952.4
	FITZ	78	1593	11493	2395	6475	2967	654	421	304	2931.1
	NMPE	0	52	9827	2165	5143	2749	566	350	200	2339.1
	CONTOUR MEAN	56.0	1104.2	10798.0	3826.0	7047.8	2738.2	590.2	517.5	263.5	
40	NMPW	0	719	13949	3914	11451	2728	1624	358	209	3883.6
	NMPP	42	1499	6204	4581	8328	1166	107	633	333	2543.7
	FITZ	0	2394	5257	375	11139	2832	1083	304	159	2615.9
	NMPE-S/50%	0	1229	6933	1666	11055	2811	500	350	479	2780.3
	25%	0	21	13283	273	15407	2519	633	517	292	3660.6
	1%	59	1093	4934	1041	9057	2478	750	435	417	2251.6
	CONTOUR MEAN <sup>c</sup>	10.5	1460.2	8085.8	2634.0	10493.2	2384.2	828.5	411.2	295.0	
60	NMPW	104	397	3082	2040	8848	5309	808	617	292	2388.6
	NMPP	375	833	7235	2498	5351	1895	400	250	329	2129.6
	FITZ	0	1832	9411	1249	8640	1093	533	760	167	2631.7
	NMPE	72	115	10348	1832	9993	1780	1874	256	271	2949.0
	CONTOUR MEAN	137.8	794.2	7519.0	1904.8	8208.0	2519.2	903.8	470.8	264.8	
DAILY MEAN <sup>c</sup>		99.6	1368.1	8838.9	3357.4	8449.0	2462.2	779.6	498.8	244.6	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples

ABUNDANCE<sup>a</sup> OF CYCLOTELLA ATOMUS IN WHOLE WATER COLLECTIONS

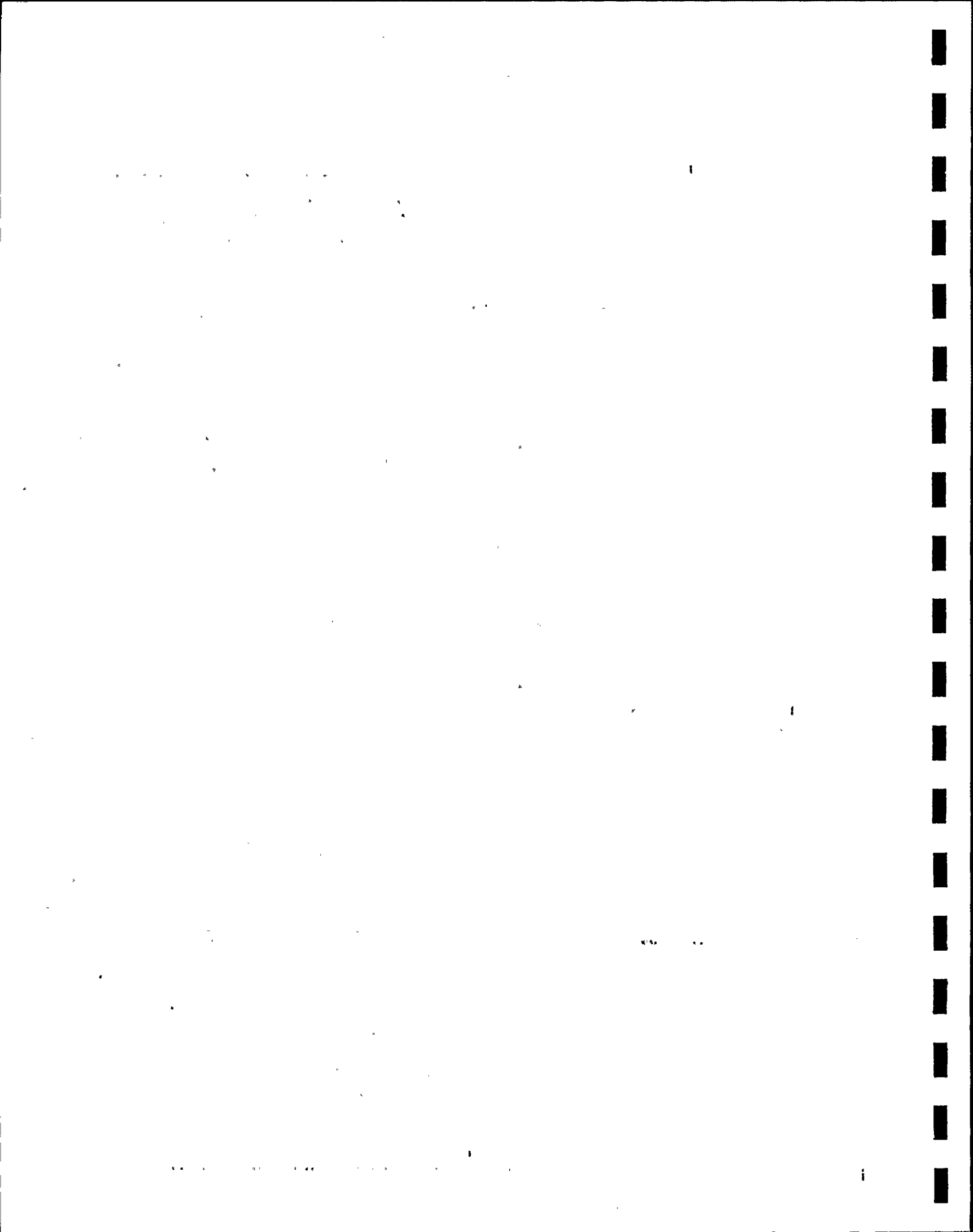
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES									ANNUAL
(FT)	TRANSECT <sup>b</sup>	30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	85	492	94	7235	273	31	46	423	528	1023.0
	NMPP	117	265	182	403	0	65	58	154	388	181.3
	FITZ	63	260	30	4255	104	77	39	141	396	596.1
	NMPE	167	203	20	895	0	54	78	154	409	220.0
	CONTOUR MEAN	108.0	305.0	81.5	3197.0	94.2	56.8	55.2	218.0	430.2	
20	NMPW	39	944	59	2395	253	44	63	393	402	510.2
	NMPP	143	208	294	328	42	47	9	99	435	178.3
	FITZ	87	217	93	1379	70	59	32	65	406	267.6
	NMPE	71	13	0	1072	120	72	21	52	568	221.0
	CONTOUR MEAN	85.0	345.5	111.5	1293.5	121.2	55.5	31.2	152.2	452.8	
40	NMPW	0	514	150	1270	136	65	78	109	401	302.6
	NMPP	99	398	37	1119	78	89	38	50	396	256.0
	FITZ	52	189	26	297	78	52	63	14	432	133.7
	NMPE-S/50%	91	181	13	431	65	117	29	31	505	162.6
	25%	58	26	22	729	11	29	42	68	59	116.0
	1%	52	254	43	510	128	25	73	47	344	164.0
	CONTOUR MEAN <sup>c</sup>	60.5	320.5	56.5	779.2	89.2	80.8	52	51.0	433.5	
60	NMPW	0	280	0	1291	133	65	40	74	443	258.4
	NMPP	7	612	31	1152	146	39	34	37	289	260.8
	FITZ	44	168	24	812	26	98	42	54	326	177.1
	NMPE	11	94	0	406	104	34	33	34	211	103.0
	CONTOUR MEAN	15.5	288.5	13.8	915.2	102.2	59.0	37.2	49.8	317.2	
DAILY MEAN <sup>c</sup>		67.2	314.9	65.8	1546.2	101.8	63.0	43.9	108.9	408.4	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



ABUNDANCE<sup>a</sup> OF KATABLEPHARIS OVALIS IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES									ANNUAL
(FT)	TRANSECT <sup>b</sup>	30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	189	246	271	169	508	344	63	21	14	202.8
	NMPP	110	323	286	38	146	612	99	25	23	184.7
	FITZ	96	495	306	78	294	494	81	18	9	207.9
	NMPE	185	490	163	0	312	338	162	29	12	187.9
	CONTOUR MEAN	145.0	388.5	256.5	71.2	315.0	447.0	101.2	23.2	14.5	
20	NMPW	112	469	169	78	440	344	103	13	6	192.7
	NMPP	181	332	411	141	214	654	75	21	13	226.9
	FITZ	109	520	332	26	305	482	104	6	18	211.3
	NMPE	147	456	110	117	458	401	58	23	8	197.6
	CONTOUR MEAN	137.2	444.2	255.5	90.5	354.2	470.2	85.0	15.8	11.2	
40	NMPW	193	282	345	62	370	549	162	6	3	219.1
	NMPP	141	346	151	13	325	521	96	18	13	180.4
	FITZ	113	397	143	94	481	573	115	19	16	216.8
	NMPE-S/50%	136	596	172	21	453	677	94	21	13	242.6
	25%	99	573	112	39	333	578	88	13	13	205.3
	1%	221	358	221	135	583	565	99	15	9	245.1
	CONTOUR MEAN <sup>c</sup>	145.8	405.2	202.8	47.5	407.2	580.0	116.8	16.0	11.2	
60	NMPW	91	267	120	21	292	742	104	25	5	185.2
	NMPP	117	364	366	39	169	471	102	15	4	183.0
	FITZ	116	349	283	21	515	371	75	27	11	196.4
	NMPE	77	547	61	73	260	517	208	13	21	197.4
	CONTOUR MEAN	100.2	381.8	207.5	38.5	309.0	525.2	122.2	20.0	10.2	
DAILY MEAN <sup>c</sup>		132.1	404.9	230.6	61.9	346.4	505.6	106.3	18.8	11.8	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples

ABUNDANCE<sup>a</sup> OF MELOSIRA ITALICA VAR. SUBARCTIA IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

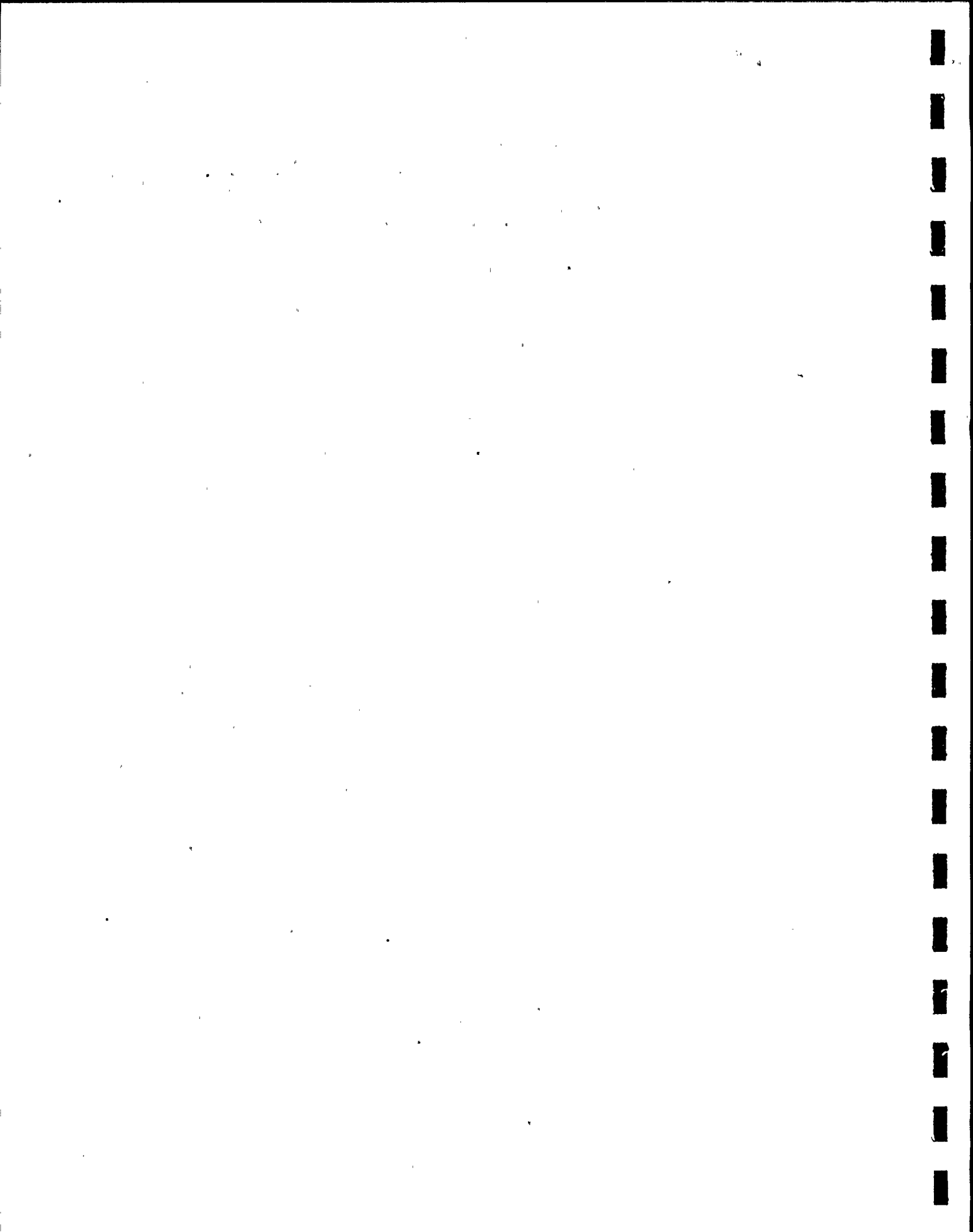
DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	384	918	1957	742	0	0	0	0	0	444.6
	NMPP	750	771	1239	0	0	0	0	0	0	306.7
	FITZ	574	957	576	273	0	21	3	0	0	267.1
	NMPE	276	437	254	0	0	97	42	7	0	123.7
	CONTOUR MEAN	496.0	770.8	1006.5	253.8	0	29.5	11.2	1.8	0	
20	NMPW	106	1327	1197	143	0	26	0	0	0	311.0
	NMPP	368	449	695	42	0	0	9	0	0	173.7
	FITZ	438	736	681	26	0	26	5	2	0	212.7
	NMPE	11	189	94	263	0	37	0	0	0	66.0
	CONTOUR MEAN	230.8	675.2	666.8	118.5	0	22.2	3.5	0.5	0	
40	NMPW	0	1243	1640	250	0	0	20	2	0	350.6
	NMPP	609	897	536	0	0	11	9	0	0	229.1
	FITZ	11	683	306	42	0	11	0	2	0	117.2
	NMPE-S/50%	43	462	152	42	0	0	0	0	0	77.6
	25%	198	490	50	208	0	0	0	0	0	105.1
	1%	0	684	510	0	0	0	0	0	0	132.7
	CONTOUR MEAN <sup>c</sup>	165.8	821.2	658.5	83.5	0	5.5	7.2	1.0	0	
60	NMPW	0	351	109	0	0	0	0	0	0	51.1
	NMPP	0	1295	582	33	0	0	0	0	0	212.2
	FITZ	0	642	508	11	0	0	4	0	0	129.4
	NMPE	0	500	227	42	0	0	0	0	0	85.4
	CONTOUR MEAN	0	697.0	356.5	21.5	0	0	1	0	0	
DAILY MEAN <sup>c</sup>		223.1	741.1	672.1	119.3	0	14.3	5.8	0.8	0	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples





ABUNDANCE<sup>a</sup> OF OSCILLATORIA LIMNETICA IN WHOLE WATER COLLECTIONS

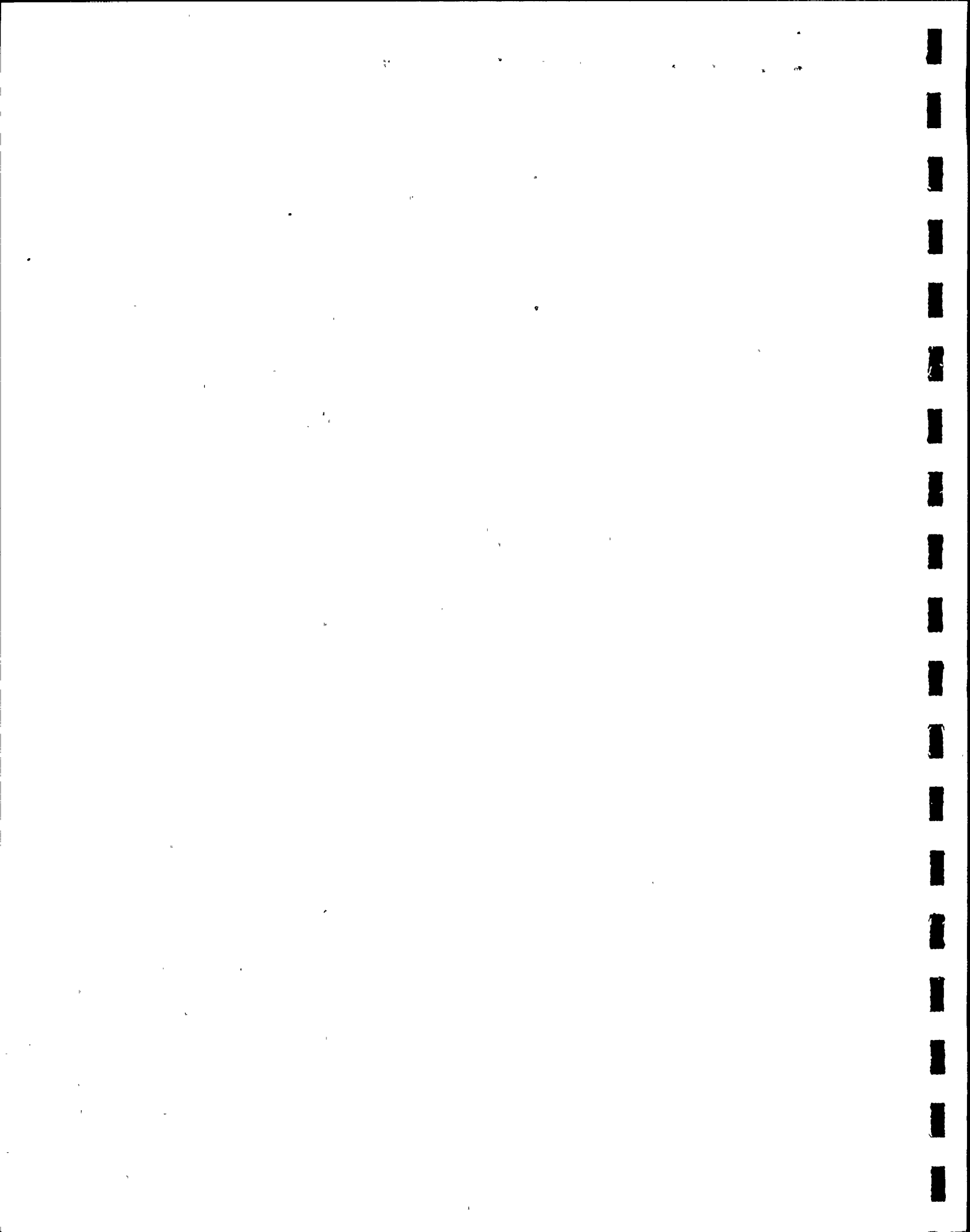
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES									ANNUAL
(FT)	TRANSECT <sup>b</sup>	30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	1285	3264	2415	5960	429	0	0	512	259	1569.3
	NMPP	1011	1031	2434	50	86	0	29	304	207	572.4
	FITZ	1112	2004	1283	1035	0	271	145	164	293	700.8
	NMPE	1045	1145	2453	656	0	0	0	0	358	628.6
	CONTOUR MEAN	1113.2	1861.0	2146.0	1925.2	128.8	67.8	43.5	245.0	279.2	
20	NMPW	837	2291	2170	1093	86	0	0	219	245	771.2
	NMPP	1675	1432	2321	146	0	0	511	109	448	738.0
	FITZ	1287	1833	2755	121	0	0	59	77	249	709.0
	NMPE	867	1145	2642	390	0	68	23	110	241	609.6
	CONTOUR MEAN	1166.5	1675.2	2472.0	437.5	21.5	17.0	148.2	128.8	295.8	
40	NMPW	515	2319	1321	927	0	68	0	261	308	635.4
	NMPP	1286	2033	378	368	0	271	464	61	187	560.9
	FITZ	1317	1074	1321	242	0	136	57	50	287	498.2
	NMPE-S/50%	704	1002	2491	316	108	68	0	44	164	544.1
	25%	948	458	1283	124	0	169	0	98	274	372.7
	1%	1126	859	1943	0	0	0	0	52	227	467.4
	CONTOUR MEAN <sup>c</sup>	955.5	1607.0	1377.8	463.2	27.0	135.8	130.2	104.0	236.5	
60	NMPW	417	2147	302	778	0	0	0	55	118	424.1
	NMPP	675	1489	962	481	0	0	23	77	329	448.4
	FITZ	352	1346	1151	193	172	0	0	55	164	381.4
	NMPE	322	1203	1038	0	0	68	0	33	306	330.0
	CONTOUR MEAN	441.5	1546.2	863.2	363.0	43.0	17.0	5.8	55.0	229.2	
DAILY MEAN <sup>c</sup>		919.2	1672.4	1714.8	797.2	55.1	59.4	81.9	133.2	260.2	

<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



ABUNDANCE<sup>a</sup> OF RHODOMONAS MINUTA VAR. NANNOPLANCTICA IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	338	95	130	273	2460	1010	579	166	64	568.3
	NMPP	388	297	159	302	89	338	395	119	54	237.9
	FITZ	358	345	193	351	2329	771	375	199	48	352.1
	NMPE	94	921	228	651	3810	656	927	208	65	840.0
	CONTOUR MEAN	294.5	414.5	177.5	394.2	2172.0	693.8	569.0	173.0	57.8	
20	NMPW	368	163	163	625	781	885	556	159	63	418.1
	NMPP	362	208	286	183	89	445	583	169	149	274.9
	FITZ	402	250	133	1210	1465	638	393	166	91	527.6
	NMPE	164	1340	78	612	3477	442	579	215	55	773.6
	CONTOUR MEAN	324.0	490.2	165.0	657.5	1453.0	602.5	527.8	177.2	89.5	
40	NMPW	365	212	241	770	1637	953	630	240	70	568.7
	NMPP	271	260	68	1796	1249	859	565	288	102	606.4
	FITZ	268	215	137	573	455	771	661	198	118	377.3
	NMPE-S/50%	338	1834	145	407	1291	664	643	180	86	620.9
	25%	250	1156	95	664	1208	700	662	172	38	549.4
	1%	456	1256	224	63	398	690	599	215	50	439.0
	CONTOUR MEAN <sup>c</sup>	310.5	630.2	147.8	886.5	1158.0	811.8	624.8	226.5	94.0	
60	NMPW	251	671	42	844	1773	690	566	204	91	570.2
	NMPP	406	371	389	2017	890	817	485	224	81	631.1
	FITZ	323	498	163	843	1723	671	598	246	143	578.7
	NMPE	422	698	26	822	1366	698	885	168	104	576.6
	CONTOUR MEAN	350.5	559.5	155.0	1131.5	1438.0	719.0	633.5	210.5	104.8	
DAILY MEAN <sup>c</sup>		319.9	523.6	161.3	767.4	1555.2	706.8	588.8	196.8	86.5	

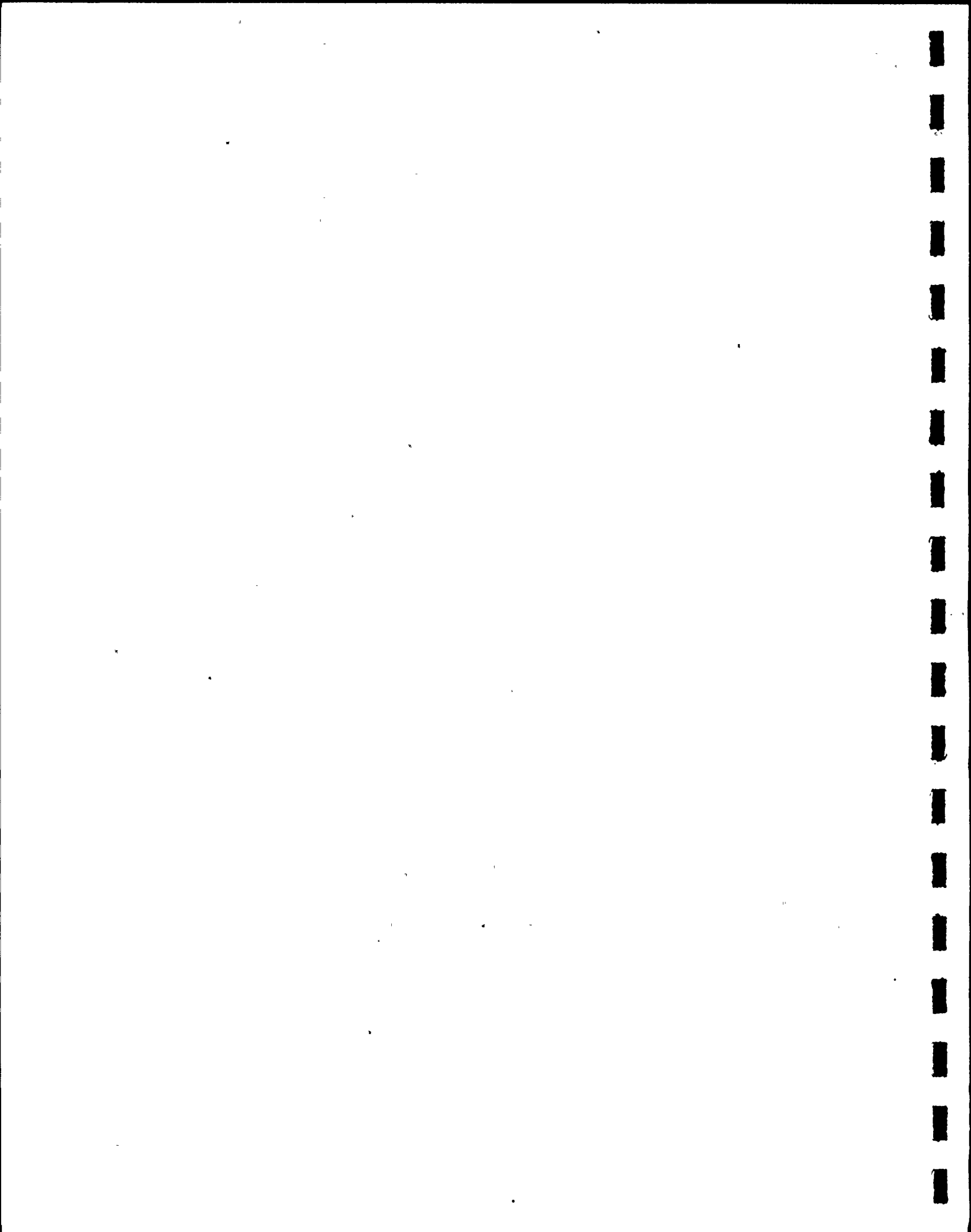
<sup>a</sup> Cells/ml, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



V.A.4. BIOVOLUME OF SELECTED SPECIES  
OF PHYTOPLANKTON



BIOVOLUME<sup>a</sup> OF ANKISTRODESMUS FALCATUS IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

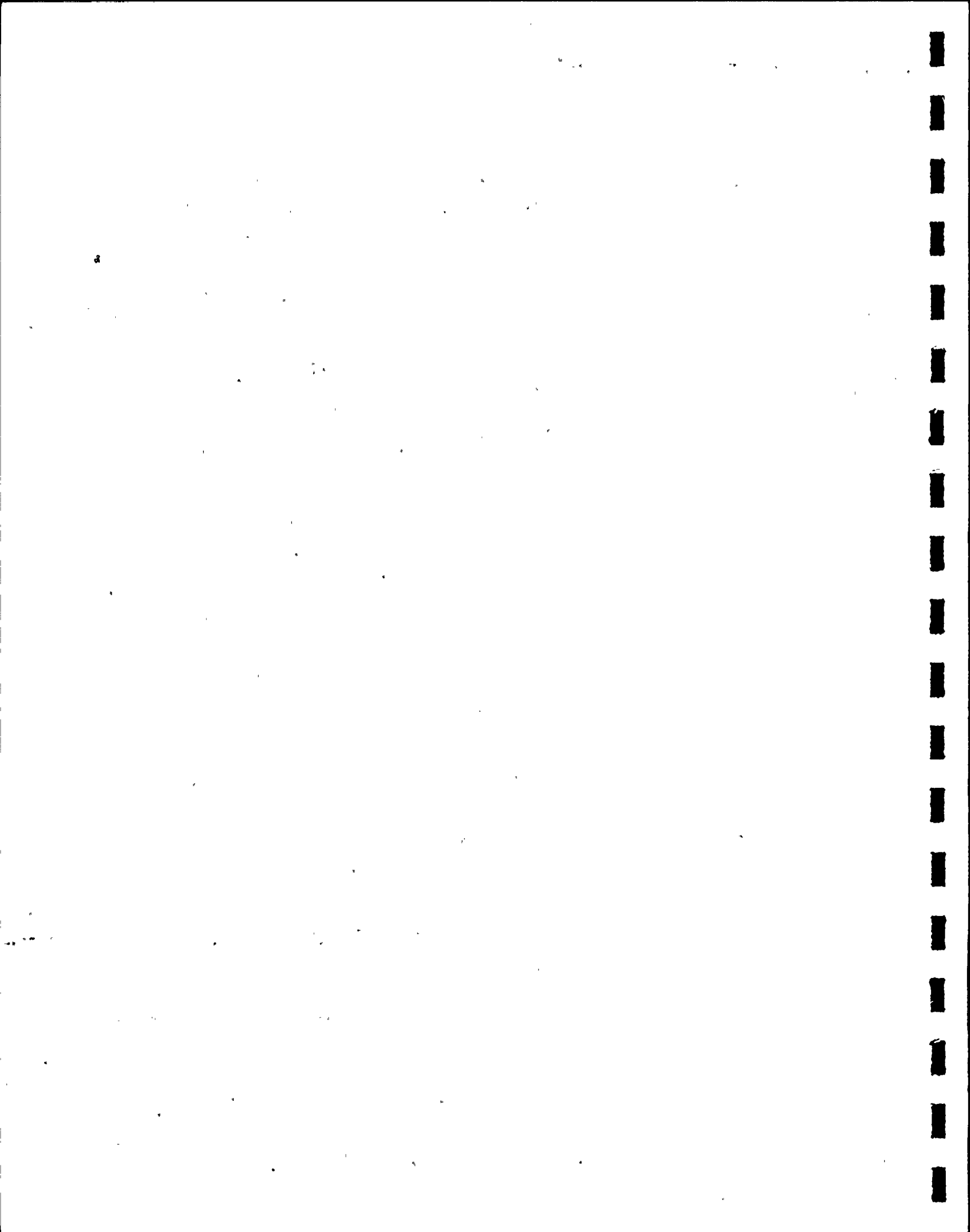
DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	1.60	3.57	1.55	1.37	2.23	0.34	0.23	0.80	0.55	1.36
	NMPP	1.86	8.41	3.09	0.28	0.36	0.50	0.25	0.59	0.86	1.80
	FITZ	1.57	6.73	1.16	0.56	1.09	0.55	0.18	0.57	0.72	1.46
	NMPE	3.42	6.26	2.45	0.59	2.00	0.50	0.62	0.53	0.59	1.88
	CONTOUR MEAN	2.11	6.24	2.06	0.70	1.42	0.47	0.32	0.62	0.68	
20	NMPW	2.00	3.96	1.60	0.72	1.37	0.16	0.49	0.65	0.62	1.28
	NMPP	2.61	4.96	2.56	0.26	0.36	0.50	0.23	0.37	0.89	1.42
	FITZ	2.04	6.61	1.56	0.32	1.34	0.46	0.17	0.43	0.72	1.52
	NMPE	2.21	5.47	1.41	0.42	2.00	0.34	0.26	0.59	0.83	1.50
	CONTOUR MEAN	2.22	5.25	1.78	0.43	1.27	0.37	0.29	0.51	0.76	
40	NMPW	2.63	4.14	1.84	0.84	1.32	0.33	0.37	0.32	0.40	1.35
	NMPP	2.24	3.40	1.17	0.48	0.27	0.23	0.15	0.54	0.52	1.00
	FITZ	2.94	3.62	1.70	0.45	1.16	0.34	0.29	0.21	0.66	1.26
	NMPE-S/50%	3.11	7.34	1.41	0.51	1.77	0.27	0.18	0.28	1.00	1.76
	25%	2.12	5.59	1.42	0.24	1.28	0.38	0.29	0.49	0.69	1.39
	1%	2.25	5.72	1.69	0.19	0.86	0.36	0.16	0.15	0.92	1.37
	CONTOUR MEAN <sup>c</sup>	2.73	4.63	1.53	0.57	1.13	0.29	0.25	0.34	0.64	
60	NMPW	2.90	2.78	1.06	0.32	0.64	0.43	0.16	0.61	0.78	1.08
	NMPP	1.36	4.54	2.54	0.32	0.66	0.43	0.20	0.29	0.63	1.22
	FITZ	1.81	2.99	1.98	0.45	1.32	0.38	0.10	0.39	0.48	1.10
	NMPE	2.58	4.58	1.58	0.45	0.89	0.20	0.31	0.21	0.78	1.29
	CONTOUR MEAN	2.16	3.72	1.79	0.39	0.88	0.36	0.19	0.38	0.67	
DAILY MEAN <sup>c</sup>		2.31	4.96	1.79	0.52	1.17	0.37	0.26	0.46	0.69	

<sup>a</sup> mg/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples





BIOVOLUME<sup>a</sup> OF ASTERIONELLA FORMOSA IN WHOLE WATER COLLECTIONS

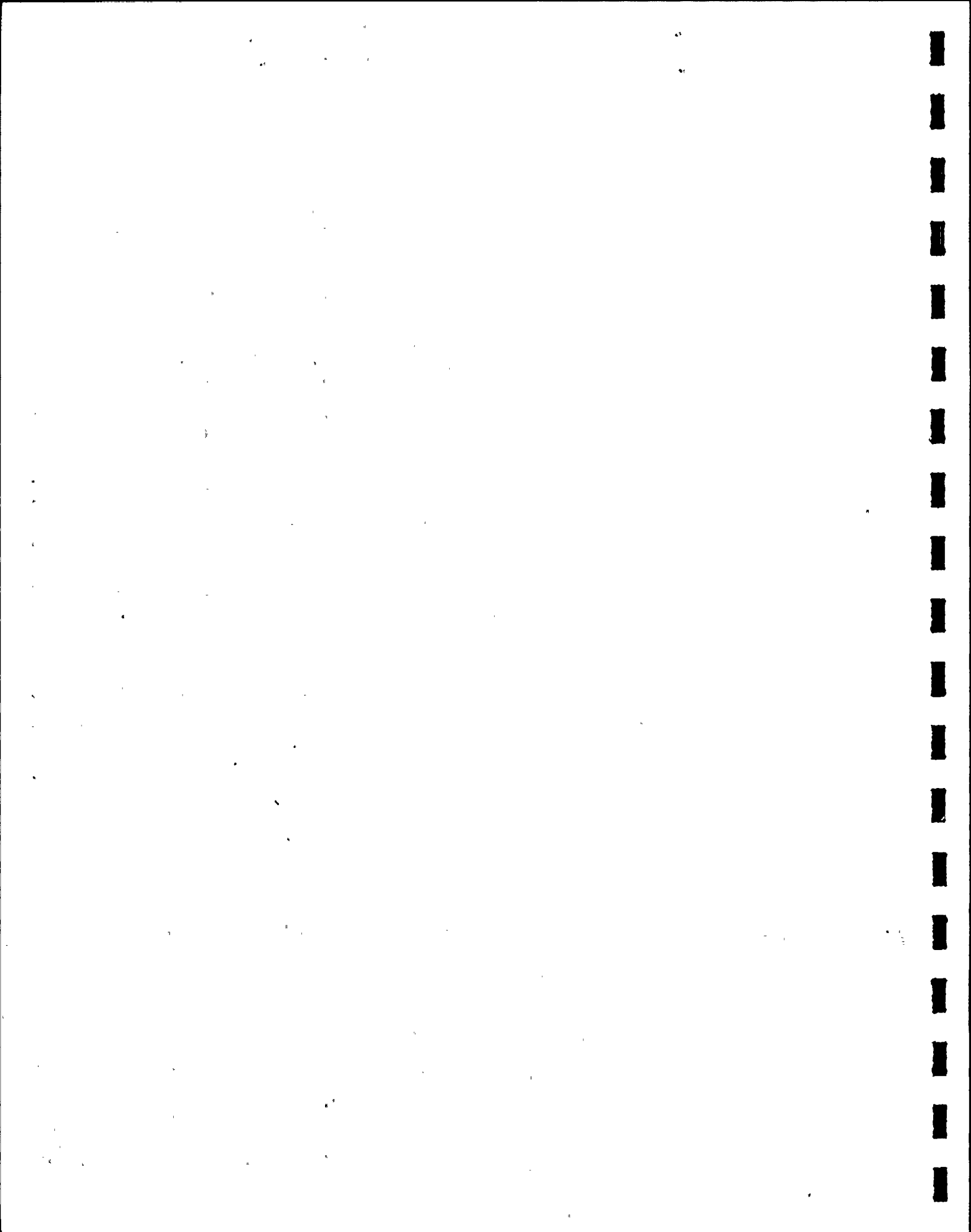
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES									ANNUAL
(FT)	TRANSECT <sup>b</sup>	30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	77.91	618.04	62.68	0.00	0.00	0.00	12.31	19.74	65.18	95.10
	NMPP	89.90	521.98	9.73	0.00	0.00	0.00	8.46	3.88	18.12	72.45
	FITZ	170.81	702.51	46.47	0.00	0.00	0.00	0.00	1.62	23.15	104.95
	NMPE	132.45	243.38	27.02	0.00	0.00	8.60	0.00	3.24	66.44	53.46
	CONTOUR MEAN	117.77	521.48	36.48	0.00	0.00	2.15	5.19	7.12	43.22	
20	NMPW	110.57	944.68	45.93	0.00	0.00	32.11	0.96	9.71	53.85	133.09
	NMPP	233.14	612.44	15.67	0.00	0.00	0.00	16.92	4.85	15.73	99.86
	FITZ	211.86	871.83	0.00	0.00	0.00	0.00	13.46	8.58	33.59	126.59
	NMPE	107.28	232.17	28.10	0.00	0.00	0.00	0.00	7.12	32.08	45.19
	CONTOUR MEAN	165.71	665.28	22.42	0.00	0.00	8.03	7.84	7.56	33.81	
40	NMPW	99.49	578.82	29.72	0.00	0.00	0.00	0.00	9.14	70.46	87.51
	NMPP	242.13	568.41	23.78	0.00	0.00	0.00	5.38	2.26	19.50	95.72
	FITZ	48.84	668.48	40.53	0.00	0.00	4.59	19.23	3.56	32.21	90.83
	NMPE-S/50%	171.41	521.98	6.48	0.00	0.00	0.00	7.69	4.77	45.30	84.18
	25%	159.42	134.50	36.20	1.32	0.00	0.00	24.62	2.02	22.27	42.26
	1%	116.87	214.15	10.81	0.00	0.00	0.00	2.88	6.80	34.22	42.86
	CONTOUR MEAN <sup>c</sup>	140.47	584.42	25.13	0.00	0.00	1.15	8.08	4.93	41.87	
60	NMPW	118.07	624.45	21.61	4.22	0.00	0.00	6.15	3.56	55.36	92.60
	NMPP	75.81	581.22	6.48	0.00	0.00	0.00	15.39	5.83	27.93	79.18
	FITZ	80.31	361.06	36.75	0.00	0.00	0.00	0.00	2.02	28.31	56.49
	NMPE	0.00	299.41	6.48	0.00	0.00	0.00	0.00	1.62	21.39	36.54
	CONTOUR MEAN	68.55	466.54	17.83	1.06	0.00	0.00	5.38	3.26	33.25	
DAILY MEAN <sup>c</sup>		123.12	599.43	25.46	0.26	0.00	2.83	6.62	5.72	38.04	

<sup>a</sup> mg/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



BIOVOLUME<sup>a</sup> OF CHROOCOCCUS DISPERSUS V. MINOR IN WHOLE WATER COLLECTIONS

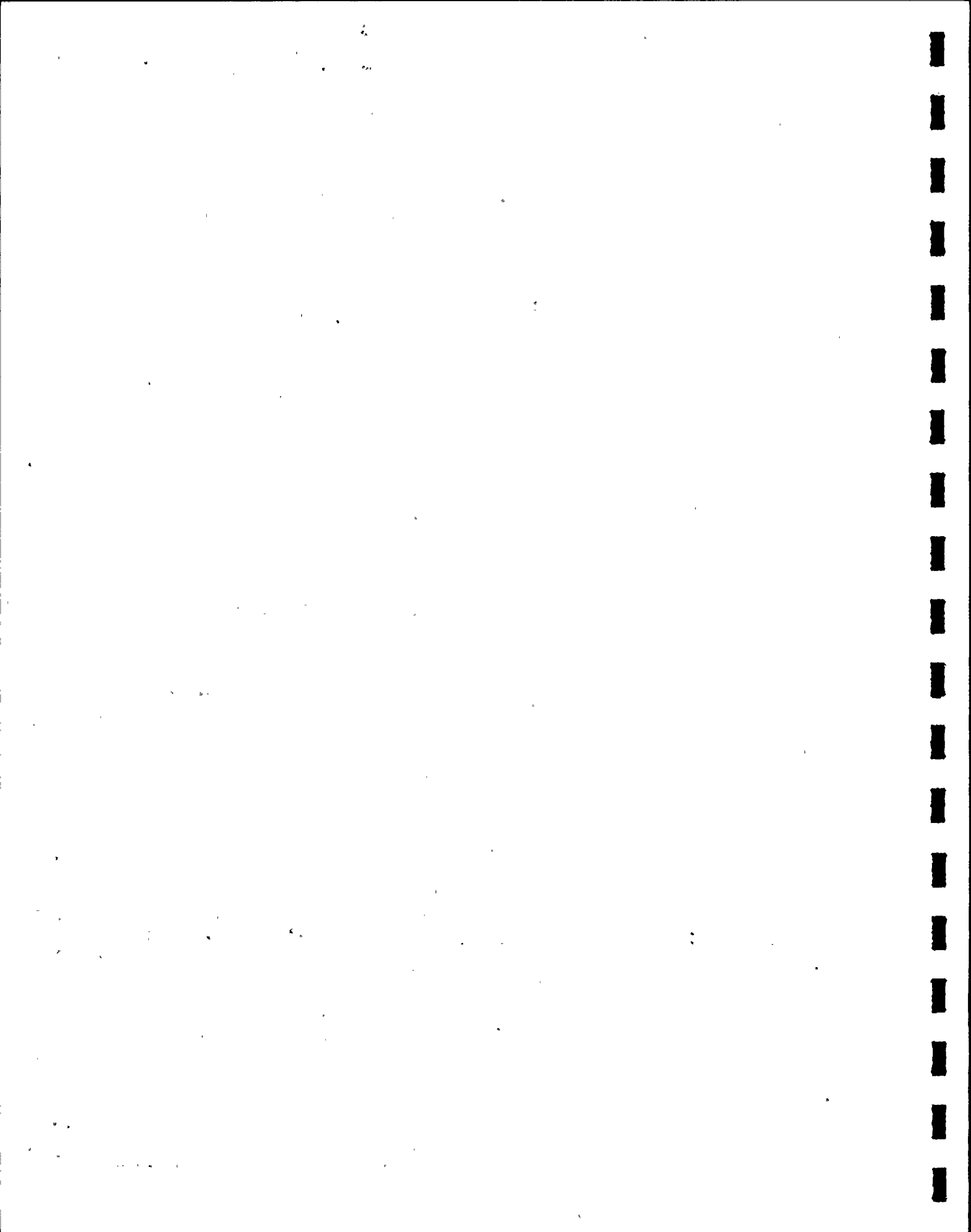
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES									ANNUAL
(FT)	TRANSECT <sup>b</sup>	30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	0.04	1.17	5.06	5.88	17.36	2.87	1.57	0.95	0.12	3.89
	NMPP	0.00	0.78	5.62	1.64	4.12	4.34	1.23	1.43	0.06	2.14
	FITZ	0.15	2.68	2.21	1.80	10.56	3.27	1.69	1.29	0.42	2.68
	NMPE	0.01	1.25	5.86	1.27	4.98	2.20	2.32	1.43	0.11	2.16
	CONTOUR MEAN	0.05	1.47	4.69	2.65	9.26	3.17	1.70	1.28	0.18	
20	NMPW	0.03	0.84	4.60	3.71	15.23	3.38	0.23	1.20	0.25	3.27
	NMPP	0.01	1.09	6.84	1.92	3.83	4.14	2.21	1.38	0.38	2.42
	FITZ	0.02	1.11	6.02	1.25	7.45	4.26	1.40	0.90	0.35	2.53
	NMPE	0.00	0.04	5.14	1.13	5.91	3.95	1.21	0.75	0.23	2.04
	CONTOUR MEAN	0.02	0.77	5.65	2.00	8.11	3.93	1.26	1.06	0.30	
40	NMPW	0.00	0.50	7.30	2.05	13.17	3.92	3.48	0.77	0.24	3.49
	NMPP	0.01	1.04	3.25	2.40	9.58	1.67	0.23	1.36	0.38	2.18
	FITZ	0.00	1.67	2.75	0.19	12.81	4.07	2.32	0.65	0.18	2.73
	NMPE-S/50%	0.00	0.86	3.63	0.87	12.72	4.04	1.07	0.75	0.55	2.72
	25%	0.00	0.01	6.95	0.14	17.72	3.62	1.36	1.11	0.33	3.47
	1%	0.02	0.76	2.58	0.54	10.42	3.56	1.61	0.93	0.48	2.32
	CONTOUR MEAN <sup>c</sup>	.0025	1.02	4.23	1.38	12.07	3.43	1.78	0.88	0.34	
60	NMPW	0.03	0.27	1.61	1.07	10.18	7.63	1.73	1.32	0.33	2.69
	NMPP	0.10	0.58	3.79	1.31	6.15	2.72	0.86	0.53	0.38	1.82
	FITZ	0.00	1.28	4.93	0.65	9.94	1.57	1.14	1.63	0.19	2.33
	NMPE	0.02	0.08	5.42	0.96	11.49	2.56	4.02	0.55	0.31	2.77
	CONTOUR MEAN	0.04	0.55	3.94	1.00	9.44	3.62	1.94	1.01	0.30	
DAILY MEAN <sup>c</sup>		0.03	0.95	4.63	1.76	9.72	3.54	1.67	1.06	0.28	

<sup>a</sup> mg/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



BIOVOLUME<sup>a</sup> OF CHRYSOCHROMULINA PARVA IN WHOLE WATER COLLECTIONS

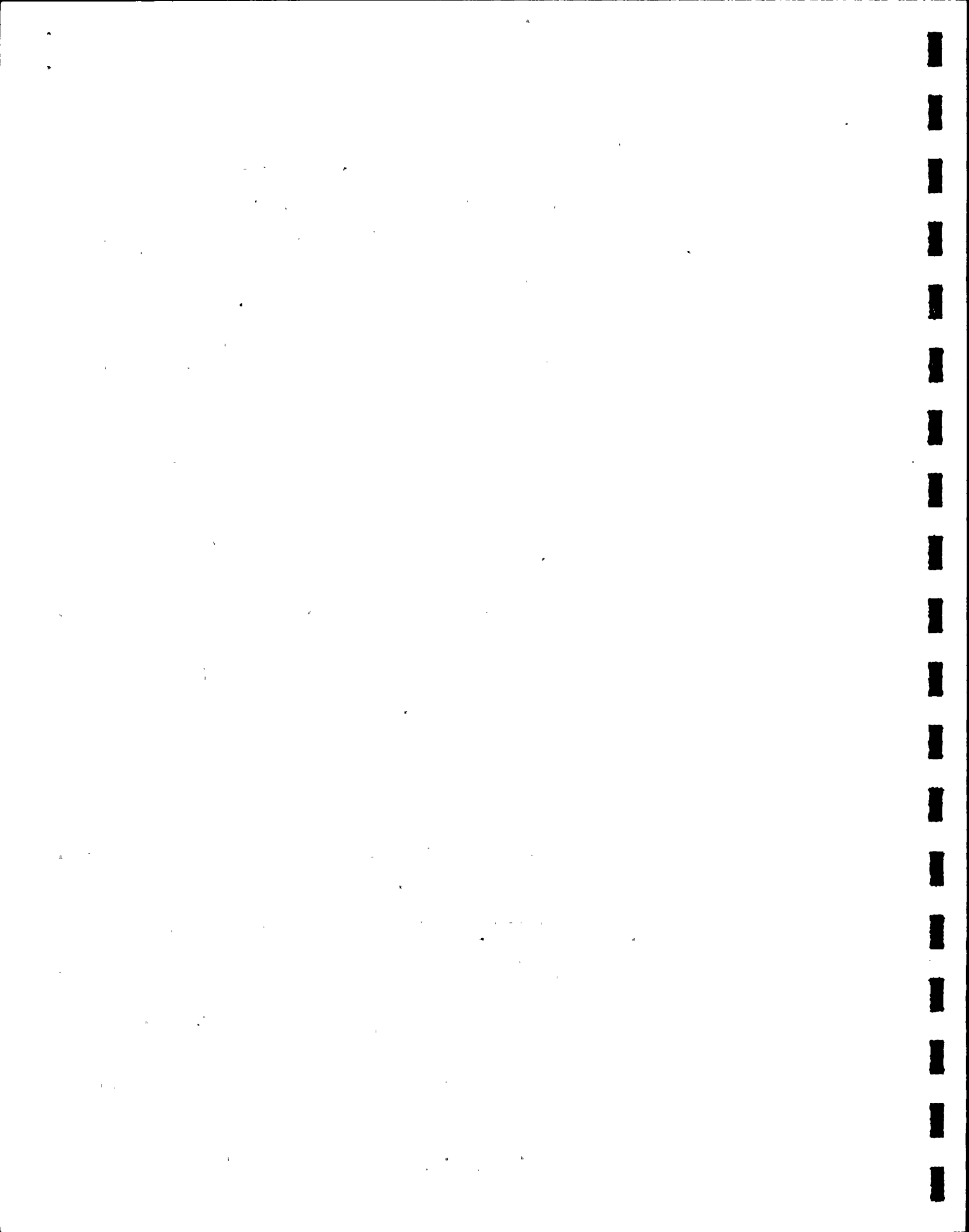
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14, 19 DEC	MEAN
10	NMPW	9.92	0.56	52.89	3.10	55.05	16.21	6.12	1.53	3.47	16.54
	NMPP	31.37	1.67	58.05	4.60	2.90	20.82	7.88	6.02	8.52	15.76
	FITZ	24.73	1.74	44.88	2.06	45.68	18.73	6.26	2.27	4.76	16.79
	NMPE	5.02	1.95	37.70	10.85	16.61	14.46	14.83	4.02	3.61	12.12
	CONTOUR MEAN	17.76	1.48	48.38	5.15	30.06	17.56	8.77	3.46	5.09	
20	NMPW	13.95	0.35	50.62	2.58	42.11	19.72	7.65	5.45	4.04	16.27
	NMPP	24.42	0.35	75.20	3.51	2.51	20.71	6.49	3.24	12.10	16.50
	FITZ	14.75	1.95	74.48	5.68	35.54	25.75	7.37	1.87	9.06	19.60
	NMPE	7.69	10.13	22.73	15.70	15.64	13.37	7.79	4.88	6.10	11.56
	CONTOUR MEAN	15.20	3.20	55.76	6.87	23.95	19.89	7.32	3.86	7.82	
40	NMPW	13.14	1.26	157.53	2.89	44.04	27.94	14.37	3.40	9.57	30.46
	NMPP	11.16	0.84	53.10	3.61	20.28	24.10	7.32	6.02	13.00	15.49
	FITZ	14.20	0.70	38.22	4.96	38.63	21.47	9.04	3.55	11.05	15.76
	NMPE-S/50%	10.79	3.35	25.20	1.96	48.87	25.31	6.60	4.11	7.04	14.80
	25%	10.17	4.75	20.76	14.98	36.70	27.61	12.05	4.30	0.70	14.67
	1%	15.19	0.35	54.54	3.92	9.66	14.79	9.73	4.67	4.62	13.05
	CONTOUR MEAN <sup>c</sup>	12.32	1.54	68.51	3.36	37.96	24.70	9.33	4.27	10.16	
60	NMPW	14.26	0.35	30.99	2.89	15.74	35.61	11.17	4.46	8.12	13.73
	NMPP	16.80	1.40	168.69	3.10	13.71	25.09	8.07	4.56	10.51	27.99
	FITZ	18.47	2.51	58.11	7.44	26.27	19.17	12.24	2.85	14.26	17.92
	NMPE	12.77	4.47	31.25	2.89	46.84	22.73	13.91	3.88	10.11	16.54
	CONTOUR MEAN	15.58	2.18	72.26	4.08	25.64	25.65	11.35	3.94	10.75	
DAILY MEAN <sup>c</sup>		15.22	2.10	61.23	4.86	29.40	21.95	9.19	4.09	8.46	

<sup>a</sup>  $\mu\text{g}/\text{m}^3$ , mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



BIOVOLUME<sup>a</sup> OF COELOSPHAERIUM KUETZINGIANUM IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	0.00	0.00	0.00	0.00	16.58	0.00	0.00	2.36	0.00	2.10
	NMPP	0.00	0.00	0.00	0.00	0.00	2.86	1.31	0.31	0.00	0.47
	FITZ	0.00	0.00	0.00	0.00	12.90	10.68	4.22	0.00	0.00	3.09
	NMPE	0.00	0.00	0.00	0.00	12.26	1.19	0.00	0.00	6.15	2.18
	CONTOUR MEAN	0.00	0.00	0.00	0.00	10.44	3.68	1.38	0.67	1.54	
20	NMPW	0.00	0.00	0.00	0.00	6.39	8.93	17.94	0.00	1.97	3.91
	NMPP	0.00	0.00	0.00	0.00	5.42	18.50	0.00	0.00	0.00	2.66
	FITZ	0.00	0.00	0.00	0.00	14.15	0.00	6.53	0.00	1.85	2.50
	NMPE	0.00	0.00	0.00	0.00	21.74	0.00	0.00	0.00	1.61	2.59
	CONTOUR MEAN	0.00	0.00	0.00	0.00	11.93	6.86	6.12	0.00	1.36	
40	NMPW	0.00	0.00	0.00	0.00	11.23	0.00	0.00	0.58	0.00	1.31
	NMPP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FITZ	0.00	0.00	0.00	0.00	3.68	0.00	0.00	0.44	0.00	0.46
	NMPE-S/50%	0.00	0.00	0.00	0.00	1.84	0.00	0.00	0.00	0.00	0.20
	25%	0.00	0.00	0.00	0.00	0.00	7.44	2.90	0.00	0.00	1.15
	1%	0.00	0.00	0.00	0.00	3.68	4.91	7.49	0.40	0.00	1.83
	CONTOUR MEAN <sup>c</sup>	0.00	0.00	0.00	0.00	4.19	0.00	0.00	0.26	0.00	
60	NMPW	0.00	0.00	0.00	0.00	13.18	3.81	0.00	0.00	0.00	1.89
	NMPP	0.00	0.00	0.00	0.00	5.53	0.00	0.00	0.54	0.00	0.67
	FITZ	0.00	0.00	0.00	0.00	0.00	6.87	3.63	0.00	0.00	1.17
	NMPE	0.00	0.00	0.00	0.00	18.42	4.69	5.67	0.93	0.00	3.30
	CONTOUR MEAN	0.00	0.00	0.00	0.00	9.28	3.84	2.33	0.37	0.00	
DAILY MEAN <sup>c</sup>		0.00	0.00	0.00	0.00	8.96	3.60	2.46	0.32	0.73	

<sup>a</sup> mg/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



BIOVOLUME<sup>a</sup> OF COELOSPHAERIUM NAEGELIANUM IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES									ANNUAL
(FT)	TRANSECT <sup>b</sup>	30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	0.00	0.00	0.00	0.00	0.00	22.03	10.34	0	0	3.60
	NMPP	0.00	0.00	0.00	0.00	4.38	1.46	4.26	0	0	1.12
	FITZ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	0	0.20
	NMPE	0.00	0.00	0.00	0.00	13.91	14.65	3.38	0	0	3.55
	CONTOUR MEAN	0.00	0.00	0.00	0.00	4.57	9.54	4.50	0.45	0	
20	NMPW	0.00	0.00	22.12	0.00	0.00	0.00	0.00	0	0	2.46
	NMPP	0.00	0.00	0.00	0.00	0.00	3.66	1.73	1.35	3.50	1.14
	FITZ	0.00	0.00	0.00	0.00	0.00	0.00	2.82	0.33	0	0.35
	NMPE	0.00	0.00	0.00	0.00	7.73	0.00	0.00	0	0	0.86
	CONTOUR MEAN	0.00	0.00	5.53	0.00	1.93	0.92	1.14	0.42	0.88	
40	NMPW	0.00	0.00	0.00	0.00	0.00	4.39	0.00	0	2.90	0.81
	NMPP	0.00	0.00	0.00	0.00	0.00	10.55	0.96	1.53	0	1.45
	FITZ	0.00	0.00	0.00	0.00	0.00	41.02	0.00	0	0	4.56
	NMPE-S/50%	0.00	0.00	0.00	0.00	33.52	6.45	0.00	1.80	0	4.64
	25%	0.00	0.00	0.00	0.00	22.66	0.00	10.15	3.05	1.28	4.13
	1%	0.00	0.00	0.00	0.00	17.17	0.00	0.00	0.90	0	2.01
	CONTOUR MEAN <sup>c</sup>	0.00	0.00	0.00	0.00	8.38	15.60	0.24	0.83	0.72	
60	NMPW	0.00	0.00	0.00	0.00	2.06	32.96	0.00	1.62	4.79	4.60
	NMPP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
	FITZ	0.00	0.00	0.00	0.00	24.14	6.15	0.00	0	0	3.36
	NMPE	0.00	0.00	0.00	0.00	3.86	14.65	0.00	0	0	2.06
	CONTOUR MEAN	0.00	0.00	0.00	0.00	7.52	13.44	0.00	0.40	1.20	
DAILY MEAN <sup>c</sup>		0.00	0.00	1.38	0.00	5.61	9.88	1.47	0.52	0.70	

<sup>a</sup> mg/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples

BIOVOLUME<sup>a</sup> OF CYCLOTELLA ATOMUS IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES									ANNUAL
(FT)	TRANSECT <sup>b</sup>	30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14, 19 DEC	MEAN
10	NMPW	7.26	37.60	6.44	629.95	24.68	2.37	3.04	37.74	44.20	88.14
	NMPP	10.05	20.29	12.52	35.12	0.00	4.94	3.81	13.74	32.43	14.77
	FITZ	5.36	19.89	2.06	370.49	9.40	5.83	2.59	12.53	33.13	51.25
	NMPE	14.29	15.52	1.34	77.95	0.00	4.05	5.19	13.70	34.18	18.47
	CONTOUR MEAN	9.24	23.33	5.59	278.38	8.52	4.30	3.66	19.42	35.98	
20	NMPW	3.35	72.13	4.02	208.47	22.80	3.36	4.15	35.05	33.65	43.00
	NMPP	12.28	15.92	20.21	28.55	3.76	3.56	0.55	8.82	36.40	14.45
	FITZ	7.48	16.61	6.35	120.10	6.34	4.45	2.14	5.80	34.00	22.59
	NMPE	6.03	0.99	0.00	93.36	10.81	5.44	1.38	4.64	47.56	18.91
	CONTOUR MEAN	7.29	26.41	7.65	112.62	10.93	4.20	2.06	13.57	37.90	
40	NMPW	0.00	39.29	10.28	110.58	12.22	4.94	5.19	9.70	33.57	25.08
	NMPP	8.48	30.44	2.50	97.44	7.05	6.72	2.49	4.43	33.13	21.41
	FITZ	4.47	14.42	1.79	25.83	7.05	3.96	4.15	1.28	36.14	11.01
	NMPE-S/50%	7.81	13.83	0.89	37.50	5.88	8.90	1.90	2.74	42.29	13.53
	25%	4.91	1.99	1.52	63.45	0.94	2.17	2.77	6.06	4.90	9.86
	1%	4.47	19.40	2.95	44.41	11.52	1.88	4.84	4.15	28.77	13.60
	CONTOUR MEAN <sup>c</sup>	5.19	24.50	3.87	67.84	8.05	6.13	3.43	4.53	36.28	
60	NMPW	0.00	21.39	0.00	112.39	11.99	4.94	2.63	6.59	37.05	21.89
	NMPP	0.56	46.76	2.14	100.27	13.16	2.97	2.21	3.25	24.19	21.72
	FITZ	3.79	12.83	1.61	70.70	2.35	7.42	2.77	4.76	27.24	14.83
	NMPE	0.89	7.16	0.00	35.35	9.40	2.57	2.16	2.99	17.65	8.68
	CONTOUR MEAN	1.31	22.04	0.94	79.68	9.23	4.48	2.44	4.39	26.53	
DAILY MEAN <sup>c</sup>		5.76	24.07	4.51	134.63	9.18	4.78	2.90	10.48	34.17	

<sup>a</sup>  $\mu\text{g}/\text{m}^3$ , mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples

BIOVOLUME<sup>a</sup> OF KATABLEPHARIS OVALIS IN WHOLE WATER COLLECTIONS

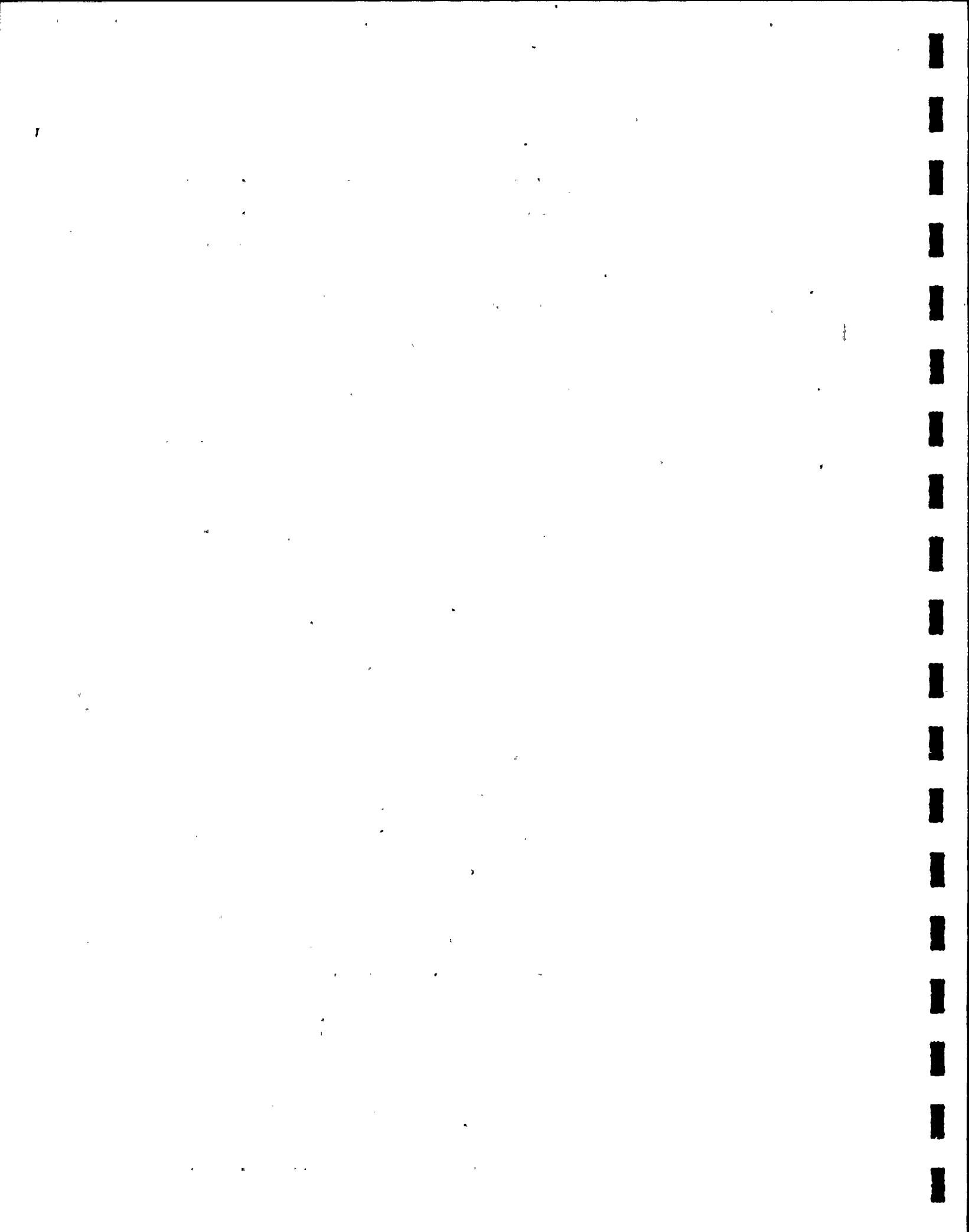
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	15.26	25.66	18.38	13.89	42.17	24.03	5.89	1.54	1.41	16.47
	NMPP	8.84	16.29	19.44	3.10	12.11	42.78	9.32	1.90	2.31	12.90
	FITZ	7.79	51.59	20.77	6.41	24.44	34.58	7.61	1.38	0.89	17.27
	NMPE	14.94	51.05	11.05	0.00	25.95	23.66	15.21	2.17	1.26	16.14
	CONTOUR MEAN	11.71	36.15	17.41	5.85	26.17	31.26	9.51	1.74	1.46	
20	NMPW	9.05	48.88	11.49	6.41	36.55	24.03	9.69	0.99	0.63	16.41
	NMPP	14.63	34.62	27.93	11.54	17.73	45.69	7.07	1.58	1.31	18.01
	FITZ	8.84	54.31	22.53	2.14	25.30	33.67	9.77	0.43	1.78	17.64
	NMPE	11.89	47.52	7.42	9.62	38.06	28.03	5.50	1.74	0.79	16.73
	CONTOUR MEAN	11.10	46.33	17.34	7.43	29.41	32.86	8.01	1.18	1.13	
40	NMPW	15.58	29.46	23.42	5.13	30.71	38.41	15.21	0.45	0.26	17.63
	NMPP	11.37	36.11	10.25	1.07	27.03	36.40	9.03	1.32	1.31	14.88
	FITZ	9.16	41.41	9.72	7.69	40.01	40.04	10.80	1.40	1.57	17.98
	NMPE-S/50%	10.94	62.18	11.67	1.71	37.63	47.33	8.83	1.60	1.31	20.36
	25%	8.00	59.74	7.60	3.20	27.68	40.41	8.24	0.99	1.31	17.46
	1%	17.89	37.34	15.02	11.11	48.44	39.50	9.32	1.11	0.84	20.06
	CONTOUR MEAN <sup>c</sup>	11.76	42.29	13.77	3.90	33.85	40.55	10.97	1.19	1.11	
60	NMPW	7.37	27.83	8.13	1.71	24.22	51.88	9.82	1.86	0.52	14.82
	NMPP	9.47	38.02	24.83	3.20	14.06	32.95	9.62	1.11	0.42	14.85
	FITZ	9.37	36.39	19.18	1.71	42.82	25.94	7.07	2.08	1.05	16.18
	NMPE	6.21	57.02	4.15	5.98	21.62	36.13	19.63	0.93	2.10	17.09
	CONTOUR MEAN	8.11	39.82	14.07	3.15	25.68	36.73	11.54	1.50	1.02	
DAILY MEAN <sup>c</sup>		10.67	41.15	15.65	5.08	28.78	35.35	10.00	1.40	1.18	

<sup>a</sup> mg/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



BIOVOLUME<sup>a</sup> OF MELOSIRA ITALICA V. SUBARCTIA IN WHOLE WATER COLLECTIONS

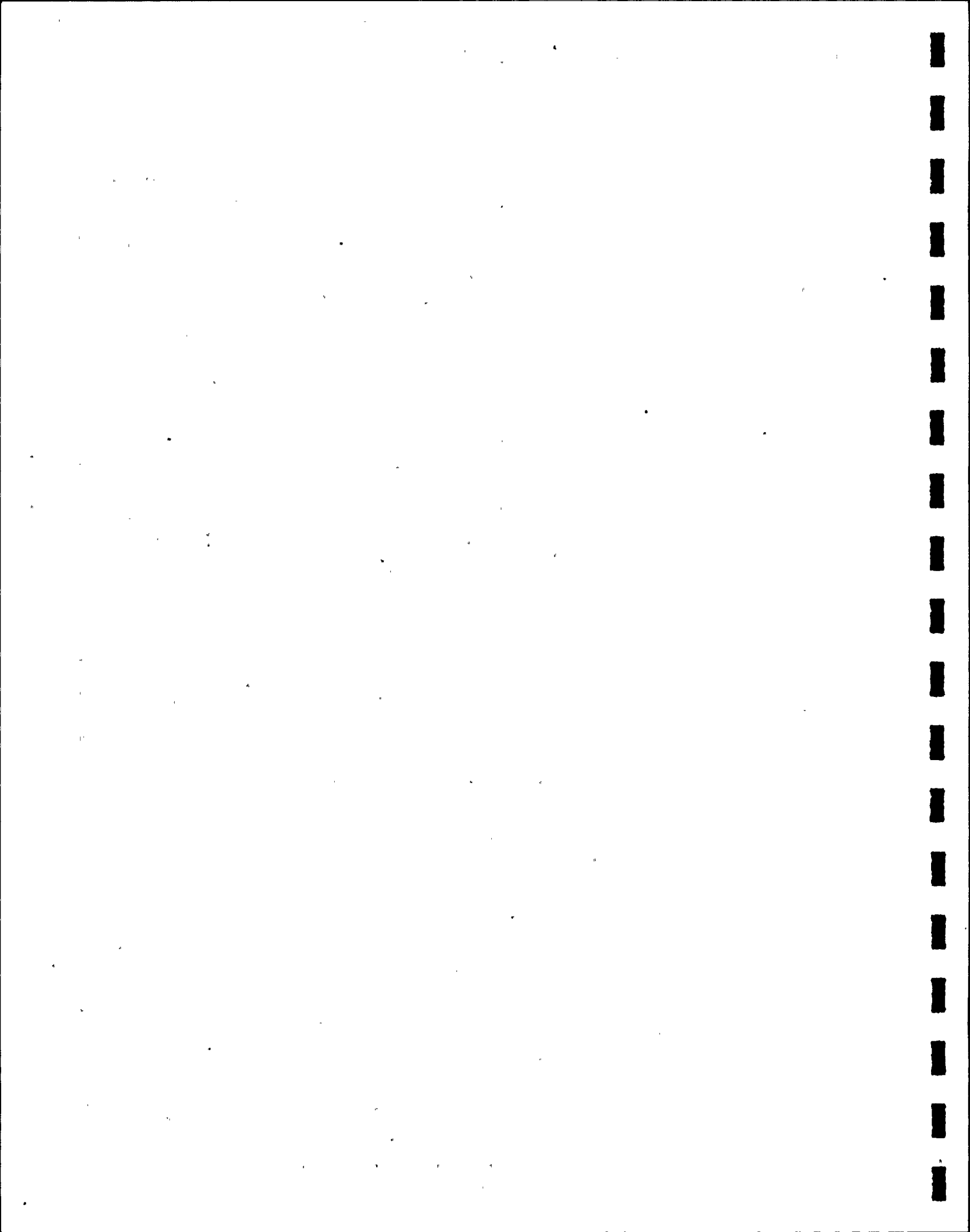
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14, 19 DEC	MEAN
10	NMPW	28.97	76.89	199.20	80.55	0.00	0.00	0.00	0.00	0.00	42.84
	NMPP	56.57	64.57	126.09	0.00	0.00	0.00	0.00	0.00	0.00	27.47
	FITZ	43.31	80.16	58.67	29.67	0.00	1.64	0.28	0.35	0.00	23.79
	NMPE	20.82	36.65	25.83	0.00	0.00	7.61	4.53	0.71	0.00	10.68
	CONTOUR MEAN	37.42	64.57	102.45	27.56	0.00	2.31	1.20	0.26	0.00	
20	NMPW	7.95	111.25	121.85	15.54	0.00	2.05	0.00	0.35	0.00	28.78
	NMPP	27.79	37.63	70.73	4.52	0.00	0.00	0.91	0.00	0.00	15.73
	FITZ	33.00	61.62	69.27	2.83	0.00	2.05	0.57	0.00	0.00	18.82
	NMPE	0.79	15.81	9.54	28.54	0.00	2.88	0.00	1.70	0.00	6.58
	CONTOUR MEAN	17.38	56.58	67.85	12.86	0.00	1.74	0.37	0.51	0.00	
40	NMPW	0.00	104.16	166.88	27.13	0.00	0.00	2.12	0.28	0.00	33.40
	NMPP	45.96	75.15	54.57	0.00	0.00	0.82	0.91	0.00	0.00	19.71
	FITZ	0.79	57.26	31.12	4.52	0.00	0.82	0.00	0.28	0.00	10.53
	NMPE-S/50%	3.24	38.72	15.50	4.52	0.00	0.00	0.00	0.00	0.00	6.89
	25%	14.93	41.01	5.03	22.61	0.00	0.00	0.00	0.00	0.00	9.29
	1%	0.00	57.26	51.92	0.00	0.00	0.00	0.00	0.00	0.00	12.13
	CONTOUR MEAN <sup>c</sup>	12.50	68.82	67.02	9.04	0.00	0.41	0.76	0.14	0.00	
60	NMPW	0.00	24.04	11.13	0.00	0.00	0.00	0.00	0.00	0.00	3.91
	NMPP	0.00	108.52	59.20	3.53	0.00	0.00	0.00	0.00	0.00	19.03
	FITZ	0.00	53.77	51.65	1.13	0.00	0.00	0.45	0.00	0.00	11.89
	NMPE	0.00	41.88	23.04	4.52	0.00	0.00	0.00	0.00	0.00	7.72
	CONTOUR MEAN	0.00	57.05	36.26	2.30	0.00	0.00	0.11	0.00	0.00	
DAILY MEAN <sup>c</sup>		16.82	61.76	68.48	12.94	0.00	1.12	0.61	0.23	0.00	

<sup>a</sup>  $\mu\text{g}/\text{m}^3$ , mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



BIOVOLUME<sup>a</sup> OF OSCILLATORIA LIMNETICA IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14, 19 DEC	
10	NMPW	18.37	41.99	29.60	100.09	5.53	0.00	0.00	8.72	4.88	23.24
	NMPP	14.46	13.26	29.83	0.83	1.11	0.00	0.33	5.18	3.90	7.66
	FITZ	15.89	25.78	15.73	17.37	0.00	2.82	1.65	2.79	5.51	9.72
	NMPE	14.94	14.73	30.06	11.01	0.00	0.00	0.00	0	6.75	8.61
	CONTOUR MEAN	15.92	23.94	26.31	32.33	1.66	0.71	0.50	4.17	5.26	
20	NMPW	11.96	29.47	26.59	18.36	1.11	0.00	0.00	3.73	4.61	10.65
	NMPP	23.95	18.42	28.44	2.45	0.00	0.00	5.84	1.86	8.43	9.93
	FITZ	18.40	23.57	33.76	2.02	0.00	0.00	0.67	1.30	4.70	9.38
	NMPE	12.39	14.73	32.37	6.54	0.00	0.70	0.26	1.86	4.52	8.15
	CONTOUR MEAN	16.68	21.55	30.29	7.34	0.28	0.18	1.69	2.18	5.56	
40	NMPW	7.37	29.84	16.19	15.56	0.00	0.70	0.00	4.44	5.78	8.88
	NMPP	18.38	26.15	4.62	6.17	0.00	2.82	5.32	1.02	3.53	7.56
	FITZ	18.83	13.81	16.19	4.06	0.00	1.41	0.66	0.84	5.41	6.80
	NMPE-S/50%	10.07	12.89	30.52	5.30	1.38	0.70	0.00	0.75	3.09	7.19
	25%	13.55	5.89	15.73	2.08	0.00	1.76	0.00	1.68	5.15	5.09
	1%	16.09	11.05	23.82	0.00	0.00	0.00	0.00	0.88	4.27	6.23
	CONTOUR MEAN <sup>c</sup>	13.66	20.67	16.88	7.77	0.35	1.41	1.50	1.76	4.45	
60	NMPW	5.96	27.63	3.70	13.07	0.00	0.00	0.00	0.93	2.20	5.94
	NMPP	9.65	19.15	11.79	8.08	0.00	0.00	0.26	1.30	6.20	6.27
	FITZ	5.03	17.31	14.11	3.23	2.21	0.00	0.00	0.93	3.09	5.10
	NMPE	4.60	15.47	12.72	0.00	0.00	0.70	0.00	0.56	5.76	4.42
	CONTOUR MEAN	6.31	19.89	10.58	6.10	0.55	0.18	0.07	0.93	4.31	
DAILY MEAN <sup>c</sup>		13.14	21.51	21.01	13.39	0.71	0.62	0.94	2.26	4.90	

<sup>a</sup> mg/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples





BIOVOLUME<sup>a</sup> OF RHODOMONAS MINUTA V. NANNOPLANCTICA IN WHOLE WATER COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES									ANNUAL
(FT)	TRANSECT <sup>b</sup>	30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14,19 DEC	MEAN
10	NMPW	63.94	16.32	13.19	40.25	286.51	127.89	89.84	40.64	13.80	76.93
	NMPP	73.28	50.97	16.09	44.47	10.31	42.85	61.24	29.14	11.77	37.79
	FITZ	66.93	59.25	19.51	51.75	271.35	97.56	58.17	48.89	10.41	75.98
	NMPE	17.70	158.29	23.07	95.84	443.87	83.06	143.81	51.12	14.03	114.53
	CONTOUR MEAN	55.46	71.21	17.97	58.08	253.01	87.84	88.27	42.44	12.50	
20	NMPW	69.59	27.94	16.48	92.00	90.96	112.07	86.24	38.98	13.58	60.87
	NMPP	68.36	35.77	29.01	26.83	10.31	56.36	90.49	41.54	32.24	43.43
	FITZ	75.99	42.93	13.45	178.25	170.69	80.75	60.91	40.83	19.68	75.94
	NMPE	30.98	230.28	7.91	90.09	405.06	56.03	89.84	52.66	11.88	108.30
	CONTOUR MEAN	61.23	84.23	16.71	96.79	169.26	76.30	81.87	43.50	19.34	
40	NMPW	68.85	36.44	24.39	113.47	190.70	120.64	97.76	58.79	15.27	80.70
	NMPP	51.15	44.71	6.85	264.51	145.53	108.77	87.58	70.74	22.06	89.10
	FITZ	50.66	36.89	13.84	84.34	53.06	97.57	102.60	48.50	25.57	57.00
	NMPE-S/50%	63.94	315.01	14.64	59.99	150.38	84.05	99.78	44.22	18.67	94.52
	25%	47.21	198.53	9.63	97.75	140.68	88.67	102.77	42.24	8.15	81.74
	1%	86.07	215.75	22.68	9.20	46.39	87.35	92.91	52.72	10.86	69.33
	CONTOUR MEAN	58.65	108.26	14.93	130.58	134.92	102.76	96.93	55.56	20.39	
60	NMPW	47.46	115.14	4.22	124.20	206.47	87.35	87.74	50.10	19.80	82.50
	NMPP	76.72	63.72	39.43	297.09	103.69	103.50	75.30	55.08	17.54	92.45
	FITZ	60.98	85.63	16.48	124.20	200.71	84.87	92.75	60.39	31.11	84.12
	NMPE	79.68	119.84	2.64	121.14	159.17	88.34	137.34	41.09	22.63	85.76
	CONTOUR MEAN	66.21	96.08	15.69	166.66	167.51	91.02	98.28	51.66	22.77	
DAILY MEAN <sup>c</sup>		60.39	89.95	16.33	113.03	181.17	89.48	91.34	48.29	18.75	

<sup>a</sup>  $\mu\text{g}/\text{m}^3$ , mean of R-1 and R-2

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples

V.A.5. CHLOROPHYLL A CONCENTRATION

CONCENTRATION OF CHLOROPHYLL A<sup>a</sup> IN WHOLE WATER DAY COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES															ANNUAL MEAN												
		30 APR			27 MAY			17 JUN			28 JUL			26 AUG				23 SEP			19 OCT			16 NOV			14 DEC		
		R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN		R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
10	NMPW	6.3	6.9	6.6	11.4	9.8	10.6	13.3	14.0	13.6	19.1	16.1	17.6	3.3	5.8	4.6	7.0	7.7	7.4	2.6	2.1	2.4	2.6	2.3	2.4	4.0	5.4	4.7	7.8
	NMPP	12.0	9.6	10.8	9.6	9.3	9.4	8.2	8.6	8.4	5.1	5.4	5.2	2.6	1.6	2.1	5.6	5.8	5.7	3.0	3.3	3.2	2.8	2.6	2.7	4.2	4.7	4.4	5.8
	FITZ	10.7	12.0	11.4	10.3	10.5	10.4	9.3	8.2	8.8	11.0	11.0	11.0	7.9	6.3	7.1	9.3	1.6	9.2	1.6	1.8	1.7	1.9	1.6	1.8	4.9	4.2	4.6	6.9
	NMPE	12.6	11.7	12.2	8.4	9.6	9.0	6.8	5.1	6.0	11.4	11.0	11.2	5.4	4.0	4.7	6.6	7.0	6.8	3.3	3.5	3.4	2.8	2.8	2.8	3.7	4.9	4.3	6.7
	CONTOUR MEAN	10.4	10.0	10.2	9.9	9.8	9.9	9.4	9.0	9.2	11.6	10.9	11.3	4.8	4.4	4.6	7.1	7.4	7.3	2.6	2.7	2.6	2.5	2.3	2.4	4.2	4.8	4.5	.
20	NMPW	4.0	4.0	4.0	13.1	12.6	12.8	10.3	12.6	11.5	10.0	11.7	10.8	6.8	7.2	7.0	5.8	7.2	6.5	2.1	2.3	2.2	2.8	3.0	2.9	4.0	6.3	5.2	7.0
	NMPP	11.7	11.2	11.4	9.8	9.5	9.6	10.5	7.0	8.8	4.4	4.2	4.3	1.9	2.6	2.2	5.6	5.8	5.7	3.3	3.0	3.2	2.3	2.3	2.3	4.2	4.2	4.2	5.8
	FITZ	13.4	12.6	13.0	9.1	8.4	8.8	9.3	10.5	9.9	11.9	11.0	11.4	5.4	4.4	4.9	4.7	2.3	6.0	2.3	2.3	2.3	1.4	2.3	1.8	3.5	4.4	4.0	6.6
	NMPE	9.6	9.6	9.6	12.6	11.0	11.8	6.8	6.5	6.6	13.8	11.2	12.5	5.1	7.9	6.5	7.0	7.0	7.0	3.3	2.8	3.0	2.6	2.6	2.6	4.4	4.2	4.3	7.1
	CONTOUR MEAN	9.7	9.4	9.5	11.2	10.4	10.8	9.2	9.2	9.2	10.0	9.5	9.8	4.8	5.5	5.2	5.8	6.8	6.3	2.8	2.6	2.7	2.3	2.6	2.4	4.0	4.8	4.4	
40	NMPW	3.0	2.7	2.8	12.8	12.9	12.8	10.0	10.7	10.4	13.8	12.8	13.3	5.1	5.8	5.4	8.2	7.9	8.0	2.8	1.9	2.4	2.3	2.6	2.4	4.9	4.4	4.6	6.9
	NMPP	7.6	7.1	7.4	9.1	10.2	9.6	11.4	9.8	10.6	12.8	14.0	13.4	5.8	5.8	5.8	6.5	6.5	6.5	2.6	1.9	2.2	2.8	2.6	2.7	3.5	4.2	3.8	6.9
	FITZ	4.6	4.9	4.8	8.9	8.4	8.6	9.1	9.6	9.4	7.0	6.1	6.6	4.4	3.0	3.7	7.2	7.0	7.1	2.8	3.0	2.9	2.3	2.3	2.3	4.0	4.0	4.0	5.5
	NMPE-S/50%	5.5	7.4	6.4	12.4	12.1	12.2	7.7	8.6	8.2	16.6	13.1	14.8	2.3	2.8	2.6	6.1	7.0	6.6	3.7	2.6	3.2	3.0	3.0	3.0	5.1	4.9	5.0	6.9
	25%	6.3	6.0	6.2	12.1	11.0	11.6	8.9	8.4	8.6	11.4	10.5	11.0	3.3	4.0	3.6	5.8	6.5	6.2	3.0	2.8	2.9	2.8	2.6	2.7	3.7	4.4	4.0	6.3
	12%	6.0	4.9	5.4	12.1	10.3	11.2	7.0	8.2	7.6	3.7	4.0	3.8	4.4	3.7	4.0	7.9	6.3	7.1	1.6	1.9	1.8	2.1	1.3	1.7	3.1	3.0	3.0	5.1
	CONTOUR MEAN <sup>c</sup>	5.2	5.5	5.4	10.8	10.9	10.8	9.6	9.7	9.6	12.6	11.5	12.0	4.4	4.4	4.4	7.0	7.1	7.0	3.0	2.4	2.7	2.6	2.6	2.6	4.4	4.4	4.4	
50	NMPW	2.5	2.7	2.6	10.5	10.5	10.5	6.1	6.1	6.1	12.6	13.8	13.2	4.7	4.7	4.7	7.0	7.0	7.0	3.0	2.8	2.9	3.0	2.1	2.6	4.0	6.2	5.1	6.1
	NMPP	3.6	3.6	3.6	10.0	10.5	10.2	8.2	8.9	8.6	11.7	11.7	11.7	5.1	4.2	4.6	7.2	7.2	7.2	2.6	2.6	2.6	2.8	2.3	2.6	3.7	4.0	3.8	6.1
	FITZ	3.8	4.0	3.9	7.7	8.9	8.3	9.6	8.9	9.2	14.0	11.7	12.8	7.2	4.4	5.8	7.5	7.9	7.7	3.3	2.8	3.0	2.6	3.0	2.8	3.0	3.0	3.0	6.3
	NMPE	3.8	3.6	3.7	8.6	8.9	8.8	9.3	7.9	8.6	13.8	11.2	12.5	4.0	4.4	4.2	5.6	7.5	6.6	2.6	2.3	2.4	2.1	2.1	2.1	4.0	4.0	4.0	5.9
	CONTOUR MEAN	3.4	3.5	3.4	9.2	9.7	9.4	8.3	8.0	8.1	13.0	12.1	12.6	5.2	4.4	4.8	6.8	7.4	7.1	2.9	2.6	2.8	2.6	2.4	2.5	3.7	4.3	4.0	
DAILY MEAN <sup>c</sup>		7.2	7.1	7.1	10.3	10.2	10.2	9.1	8.9	9.0	11.8	11.0	11.4	4.8	4.7	4.7	6.7	7.2	6.9	2.8	2.6	2.7	2.5	2.4	2.4	4.1	4.6	4.3	

<sup>a</sup>g/l

<sup>b</sup>Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup>Mean of surface samples

V.A.6. PHAEOPIGMENT CONCENTRATION



PHAEOPIGMENT CONCENTRATION<sup>a</sup> IN WHOLE WATER DAY COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES															ANNUAL MEAN												
		30 APR			27 MAY			17 JUN			28 JUL			26 AUG				23 SEP			19 OCT			16 NOV			14 DEC		
		R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN		R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
10	NMPW	2.9	2.0	2.4	2.7	4.1	3.4	3.4	3.5	3.4	1.0	3.4	2.2	3.0	1.4	2.2	2.4	2.9	2.6	0.8	1.1	1.0	0.5	0.7	0.6	1.3	1.7	1.5	2.2
	NMPP	2.3	3.9	3.1	1.7	2.0	1.8	3.2	3.1	3.2	1.8	2.8	2.3	0	1.2	0.6	1.9	2.5	2.2	0.7	<1	-	0.6	1.1	0.8	1.3	0.8	1.0	<1.7
	FITZ	2.7	3.2	3.0	1.5	1.6	1.6	1.3	1.4	1.4	2.0	2.4	2.2	0	2.0	1.0	1.6	0.8	1.2	1.5	1.3	1.4	1.2	2.0	1.6	0.9	0.5	0.7	1.6
	NMPE	2.1	3.0	2.6	5.3	3.6	4.4	1.1	1.2	1.2	3.0	3.9	3.4	1.4	1.0	1.2	7.0	5.0	6.0	1.2	0.8	1.0	0.1	0.1	0.1	2.0	0.4	1.2	2.3
	CONTOUR MEAN	2.5	3.0	2.8	2.8	2.8	2.8	2.2	2.3	2.3	2.0	3.1	2.5	1.1	1.4	1.2	3.2	2.8	3.0	1.0	-	<0.9	0.6	1.0	0.8	1.4	0.8	1.1	
20	NMPW	0.9	0.6	0.8	2.7	2.3	2.5	7.6	3.0	5.3	2.8	2.7	2.8	0.8	0.6	0.7	4.5	3.2	3.8	1.4	1.3	1.4	<0.1	<0.1	-	1.2	1.6	1.4	<2.1
	NMPP	2.9	2.3	2.6	2.0	2.1	2.0	2.5	2.8	2.6	2.0	1.3	1.6	1.3	0.5	0.9	2.2	2.8	2.5	0.4	0.5	0.4	0.6	0.6	0.6	0.5	0.5	0.5	1.5
	FITZ	3.0	2.3	2.6	2.0	2.5	2.2	1.5	1.0	1.2	2.1	2.3	2.2	1.2	1.8	1.5	2.5	4.7	3.6	1.0	1.2	1.1	1.7	1.3	1.5	1.6	1.0	1.3	1.9
	NMPE	2.3	2.1	2.2	2.4	2.9	2.6	0.8	0.9	0.8	3.8	4.0	3.9	0.7	1.1	0.9	2.9	2.3	2.6	1.1	1.6	1.4	0.5	0.5	0.5	1.3	1.9	1.6	1.8
	CONTOUR MEAN	2.3	1.8	2.0	2.3	2.4	2.4	3.1	1.9	2.5	2.7	2.6	2.6	1.0	1.0	1.0	3.0	3.2	3.1	1.0	1.2	1.1	-	-	<0.7	1.2	1.2	1.2	
40	NMPW	1.1	0.7	0.9	3.0	3.4	3.2	3.9	2.8	3.4	2.2	2.5	2.4	1.5	1.3	1.4	2.3	2.8	2.6	2.7	2.2	2.4	0.6	0.3	0.4	0.8	1.5	1.2	2.0
	NMPP	2.9	2.3	2.6	4.0	2.5	3.2	2.7	4.0	3.4	2.3	3.8	3.0	1.3	0.6	1.0	2.0	3.5	2.8	1.0	0.7	0.8	0.1	<0.1	-	0.5	0.2	0.4	<1.9
	FITZ	2.9	1.4	2.2	1.3	2.1	1.7	1.4	1.7	1.6	2.5	2.4	2.4	0.3	1.1	0.7	2.8	4.0	3.4	1.2	0.8	1.0	0.6	0.4	0.5	1.0	0.6	0.8	1.6
	NMPE-S/50%	1.2	0.9	1.0	1.4	1.3	1.4	0.6	1.2	0.9	4.0	5.2	4.6	0.9	0.7	0.8	1.8	2.2	2.0	0.9	0.6	0.8	<0.1	<0.1	-	0.7	0.9	0.8	<1.4
	25%	2.1	1.6	1.8	1.2	2.0	1.6	0.4	1.0	0.7	2.4	4.4	3.4	1.7	1.3	1.5	2.8	2.7	2.8	1.0	0.9	1.0	0.3	0.8	0.6	0.2	<0.1	-	<1.5
	1%	1.4	2.1	1.8	1.2	1.1	1.2	1.7	3.0	2.4	4.0	2.7	3.4	0.4	0.6	0.5	0	3.1	1.6	1.4	1.3	1.4	0.8	1.9	1.4	1.5	1.3	1.4	1.6
	CONTOUR MEAN <sup>c</sup>	2.0	1.3	1.7	2.4	2.3	2.4	2.2	2.4	2.3	2.8	3.5	3.1	1.0	0.9	1.0	2.2	3.1	2.7	1.4	1.1	1.3	-	-	<0.3	0.8	0.8	0.8	
60	NMPW	1.1	1.1	1.1	2.5	2.4	2.4	1.8	2.0	1.9	2.6	3.8	3.2	1.3	1.1	1.2	1.7	2.6	2.2	0.8	0.9	0.8	<0.1	1.2	-	<0.1	0.1	-	<1.5
	NMPP	1.1	0	0.6	3.3	2.4	2.8	2.7	2.1	2.4	2.8	4.2	3.5	0.7	1.7	1.2	1.6	2.2	1.9	1.4	1.3	1.4	<0.1	0.7	-	0.3	0.6	0.4	<1.6
	FITZ	1.4	1.1	1.2	2.7	1.2	2.0	0.8	0.9	0.8	1.6	2.4	2.0	0.6	0.6	0.6	2.2	2.5	2.4	1.1	1.6	1.4	0.5	0.7	0.6	1.7	1.6	1.6	1.4
	NMPE	1.1	2.0	1.6	2.3	1.0	1.6	2.4	1.9	2.2	2.7	0.1	1.4	0.9	1.3	1.1	1.8	2.8	2.3	1.0	1.6	1.3	0.8	1.4	1.1	0.3	0.3	0.3	1.4
	CONTOUR MEAN	1.2	1.0	1.1	2.7	1.8	2.2	1.9	1.7	1.8	2.4	2.6	2.5	0.9	1.2	1.0	1.8	2.5	2.2	1.1	1.4	1.2	-	-	<0.7	-	0.6	<0.6	
DAILY MEAN <sup>c</sup>		2.0	1.8	1.9	2.6	2.3	2.4	2.4	2.1	2.2	2.4	3.0	2.7	1.0	1.1	1.1	2.6	2.9	2.8	1.1	<1.1	<1.1	<0.5	<0.7	<0.6	<1.0	0.9	<0.9	

<sup>a</sup>  $\mu\text{g/l}$

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples

- = Not applicable

Revised/Final

V.A.7. PRIMARY PRODUCTION AFTER 4-HOUR INCUBATION PERIOD





PRIMARY PRODUCTION<sup>a</sup> AFTER FOUR-HOUR INCUBATION PERIOD

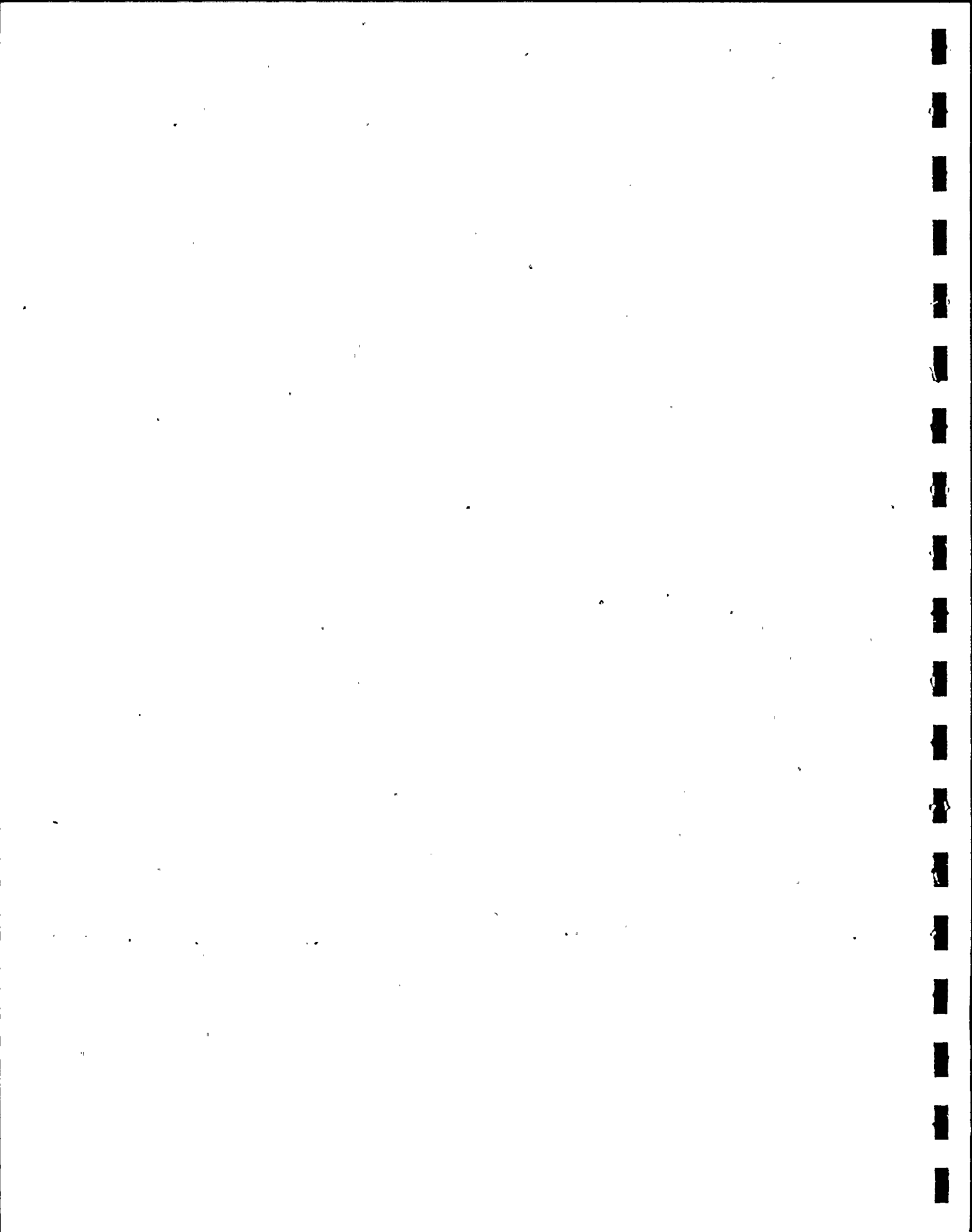
NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT <sup>b</sup>	DATES									ANNUAL MEAN
		30 APR	27 MAY	17 JUN	28 JUL	26 AUG	23 SEP	19 OCT	16 NOV	14 DEC	
10	NMPW	36.50	35.32	28.36	53.66	20.76	9.16	1.76	4.83	9.34	22.19
	NMPP	42.46	17.50	11.29	5.90	7.03	12.08	6.46	5.98	7.98	12.96
	FITZ	33.64	10.42	9.26	18.74	12.12	22.68	6.77	4.20	8.80	14.07
	NMPE	9.58	20.93	6.96	15.98	17.25	12.76	6.50	2.65	10.36	11.44
	CONTOUR MEAN	30.54	21.04	13.97	23.57	14.29	14.17	5.37	4.42	9.12	
20	NMPW	30.14	32.80	36.14	28.42	19.73	11.78	6.08	5.86	10.60	20.17
	NMPP	44.40	14.02	14.32	5.46	9.50	13.30	3.82	2.12	8.20	12.79
	FITZ	21.89	8.00	13.48	7.34	6.78	15.90	7.39	4.28	8.16	10.36
	NMPE	13.14	22.16	8.17	12.22	15.66	10.26	2.93	0.84	11.62	10.78
	CONTOUR MEAN	27.39	19.24	18.03	13.36	12.92	12.81	5.06	3.28	9.64	
30	NMPW	17.62	28.46	30.10	36.18	12.32	11.75	6.85	3.05	10.14	17.39
	NMPP	15.93	16.46	25.87	13.12	15.21	19.36	6.28	4.74	8.96	13.99
	FITZ	24.71	8.04	11.47	7.86	13.52	25.20	7.82	5.17	10.30	12.68
	NMPE-S/50%	11.74	25.30	7.24	10.10	8.12	7.00	5.30	2.06	13.34	10.02
	25%	13.12	28.62	9.32	18.02	6.31	10.31	9.19	1.96	11.44	12.03
	1%	10.82	24.32	14.02	8.08	13.50	9.36	5.68	3.40	10.43	11.07
	CONTOUR MEAN <sup>c</sup>	17.50	19.56	18.67	16.82	12.29	15.83	6.56	3.76	10.68	
50	NMPW	11.24	16.26	11.04	27.92	11.06	14.02	5.94	5.29	11.68	12.72
	NMPP	11.18	11.32	15.78	8.07	10.48	12.74	6.16	4.10	9.46	9.92
	FITZ	10.38	7.16	15.32	9.52	16.69	25.19	5.55	3.92	10.54	11.59
	NMPE	7.45	17.26	12.21	8.64	11.27	12.28	4.70	1.92	9.32	9.45
	CONTOUR MEAN	10.06	13.00	13.59	13.54	12.38	16.06	5.59	3.81	10.25	
DAILY MEAN <sup>c</sup>		21.38	18.21	16.06	16.82	12.97	14.72	5.64	3.81	9.92	

<sup>a</sup> C-14, 2 light and 1 dark bottle, mg C/m<sup>3</sup>/hr (day collections)

<sup>b</sup> Surface collection except at the NMPE-40 ft station where samples were collected at three light transmittance levels

<sup>c</sup> Mean of surface samples



V.B.1. ABUNDANCE OF SELECTED TAXA  
OF ZOOPLANKTON



ABUNDANCE<sup>a</sup> OF CALANOIDA IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT	DATES								ANNUAL MEAN
		28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	
10	NMPW	0	0	0	0	2184	1396	5930	38	1193.5
	NMPP	0	0	0	1865	0	621	3807	21	789.2
	FITZ	0	0	0	0	2464	958	6467	133	1252.8
	NMPE	0	2241	4438	10973	656	715	1935	52	2626.2
	CONTOUR MEAN	0	560.2	1109.5	3209.5	1326.0	922.5	4534.8	61.0	
20	NMPW	0	2047	0	0	1423	2035	2190	27	965.2
	NMPP	1786	2434	0	1150	4181	5056	6809	280	2712.0
	FITZ	1741	0	1626	0	0	1343	6309	20	1379.9
	NMPE	0	1464	3037	6942	0	1416	4223	83	2145.6
	CONTOUR MEAN	881.8	1486.2	1165.8	2023.0	1401.0	2462.5	4882.8	102.5	
40	NMPW	0	0	0	0	642	2848	4485	136	1013.9
	NMPP	0	0	0	0	674	7624	4224	335	1607.1
	FITZ	0	0	0	0	1788	618	4971	34	926.4
	NMPE	0	3467	0	922	0	248	3439	68	1018.0
	CONTOUR MEAN	0	866.8	0	230.5	776.0	2834.5	4279.8	143.2	
60	NMPW	0	3467	0	719	1550	1991	0	0	965.9
	NMPP	0	1566	0	1159	1450	2438	1487	77	1022.1
	FITZ	842	266	0	1044	1170	999	1032	66	677.4
	NMPE	1018	1782	0	3259	1368	0	2723	72	1277.8
	CONTOUR MEAN	465.0	1770.2	0	1545.2	1384.5	1357.0	1310.5	53.8	
DAILY MEAN		336.7	1170.9	568.8	1752.1	1221.9	1894.1	3751.9	90.1	

<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep



ABUNDANCE<sup>a</sup> OF CYCLOPOIDA IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	MEAN
10	NMPW	4200	5363	213997	10889	100017	54949	270517	2467	82799.9
	NMPP	10655	10608	111327	2409	97923	58278	193009	4125	61041.8
	FITZ	14406	12265	40646	14485	130036	10265	449724	3316	84392.9
	NMPE	3043	22420	41222	48477	69940	48648	272648	3727	63765.6
	CONTOUR MEAN	8076.0	12664.0	101798.0	19065.0	99479.0	43035.0	296474.5	3408.8	
20	NMPW	10300	17009	91316	15768	70437	59746	189601	1683	56982.5
	NMPP	14877	19843	59485	21285	93169	122394	255770	11591	74801.8
	FITZ	17471	34575	69675	49553	119379	50178	458349	2116	100162.0
	NMPE	10373	10495	158669	27646	73422	74915	213024	5078	71702.8
	CONTOUR MEAN	13255.2	20480.5	94786.2	28563.0	89101.8	76808.2	279186.0	5117.0	
40	NMPW	4628	24330	175104	16709	45903	59132	137661	3680	58393.4
	NMPP	9623	24195	196310	38672	97026	112420	204610	9331	86523.4
	FITZ	6862	24226	153207	20330	154980	74203	298893	3746	92055.9
	NMPE	16604	6752	106370	23308	170142	41811	160885	5389	66407.6
	CONTOUR MEAN	9429.2	19875.8	157747.8	24754.8	117012.8	71891.5	200512.2	5536.5	
60	NMPW	15370	33970	138680	15037	57714	50019	147467	2580	57604.6
	NMPP	23804	24350	135090	38089	78462	50472	198912	5030	69276.1
	FITZ	28442	10881	179917	41619	102423	85192	303004	2220	94212.2
	NMPE	8625	13921	156949	21124	125908	69883	147017	6931	68794.8
	CONTOUR MEAN	19060.2	20780.5	152659.0	28967.2	91126.8	63891.5	199100.0	4190.2	
DAILY MEAN		12455.2	18450.2	126747.8	25337.5	99180.1	63906.6	243818.2	4563.1	

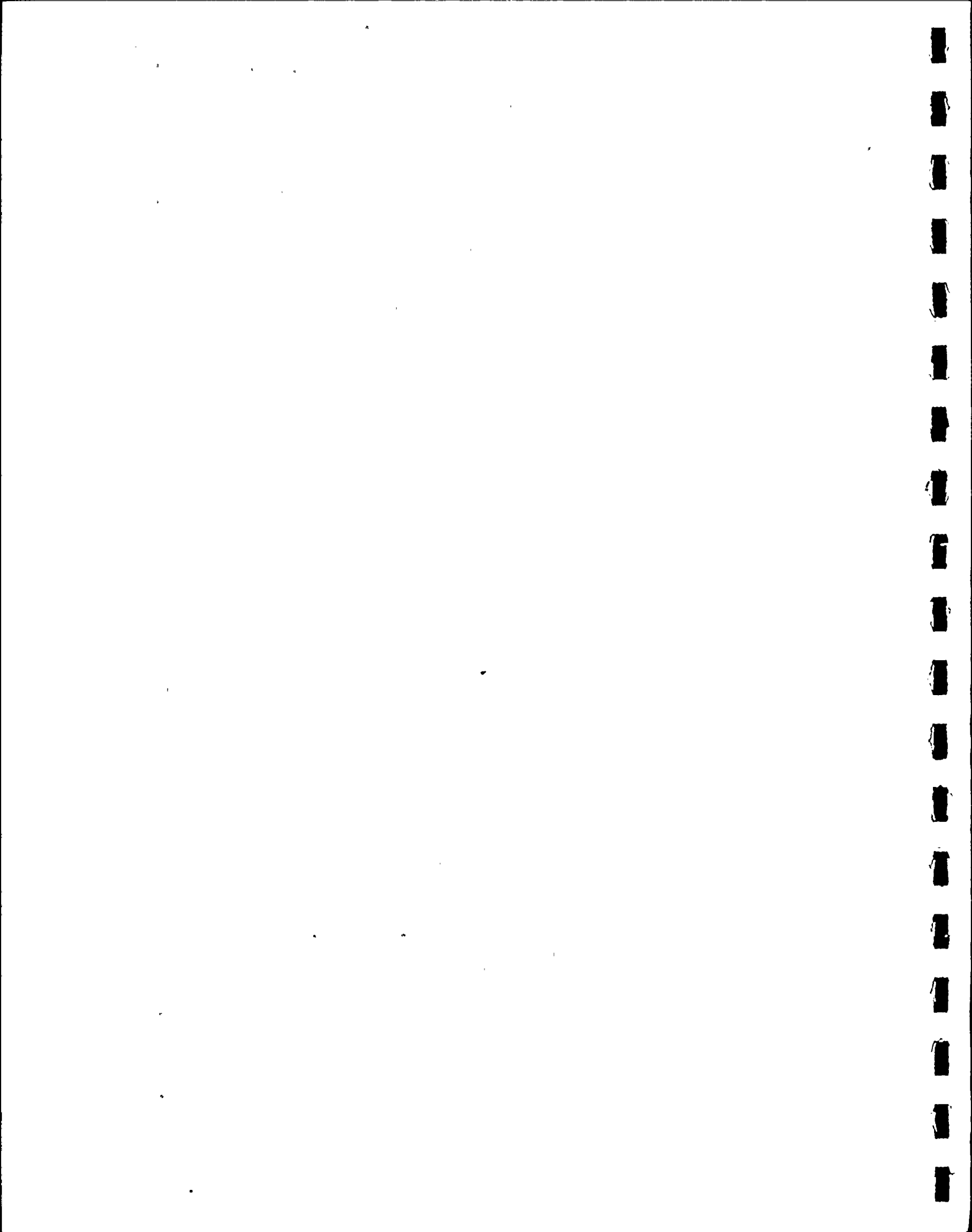
<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun.

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep





ABUNDANCE<sup>a</sup> OF COPEPODA NAUPLII IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL MEAN
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	
10	NMPW	13955	7566	38056	11653	45211	30796	19653	1860	21093.8
	NMPP	8272	4924	128803	13366	29663	31325	35691	3070	31889.2
	FITZ	27207	14785	121787	47669	48407	13512	21725	3183	37284.4
	NMPE	19132	11349	116367	128702	25026	26955	21338	1316	43773.1
	CONTOUR MEAN	17141.5	9656.0	101253.2	50347.5	37076.8	25647.0	24601.8	2357.2	
20	NMPW	52788	6123	95949	22953	30471	30567	25493	2656	33375.0
	NMPP	18448	8261	122329	42344	23292	32536	30802	4594	35325.8
	FITZ	27948	20152	126303	54458	54802	30329	51933	2056	45997.6
	NMPE	13122	16601	157484	72706	32723	27413	35299	2927	44784.4
	CONTOUR MEAN	28076.5	12784.2	125516.2	48115.3	35322.0	30211.2	35881.8	3058.2	
40	NMPW	6447	9895	204042	33733	29803	30084	38325	4094	44556.2
	NMPP	13121	19938	211413	32954	45171	75419	25986	3200	53400.2
	FITZ	10099	14489	122081	37679	67201	38961	42277	3245	42004.0
	NMPE	23939	3893	91709	57020	60956	15898	37566	3174	36769.4
	CONTOUR MEAN	13408.2	12053.2	157311.2	40346.5	50782.8	40090.5	36038.5	3428.2	
60	NMPW	15233	2771	151833	49098	21085	20704	32412	4012	37143.5
	NMPP	22322	4542	135085	41004	22810	23417	40189	3554	36615.4
	FITZ	28381	6904	120489	52918	24999	31868	71505	2307	42421.4
	NMPE	17345	10358	164522	60712	66706	48875	35600	3433	50943.9
	CONTOUR MEAN	20820.2	6143.8	142982.2	50933.0	33900	31216.0	44926.5	3326.5	
DAILY MEAN		19861.6	10159.4	131765.8	47435.6	39270.4	31791.2	35362.1	3042.6	

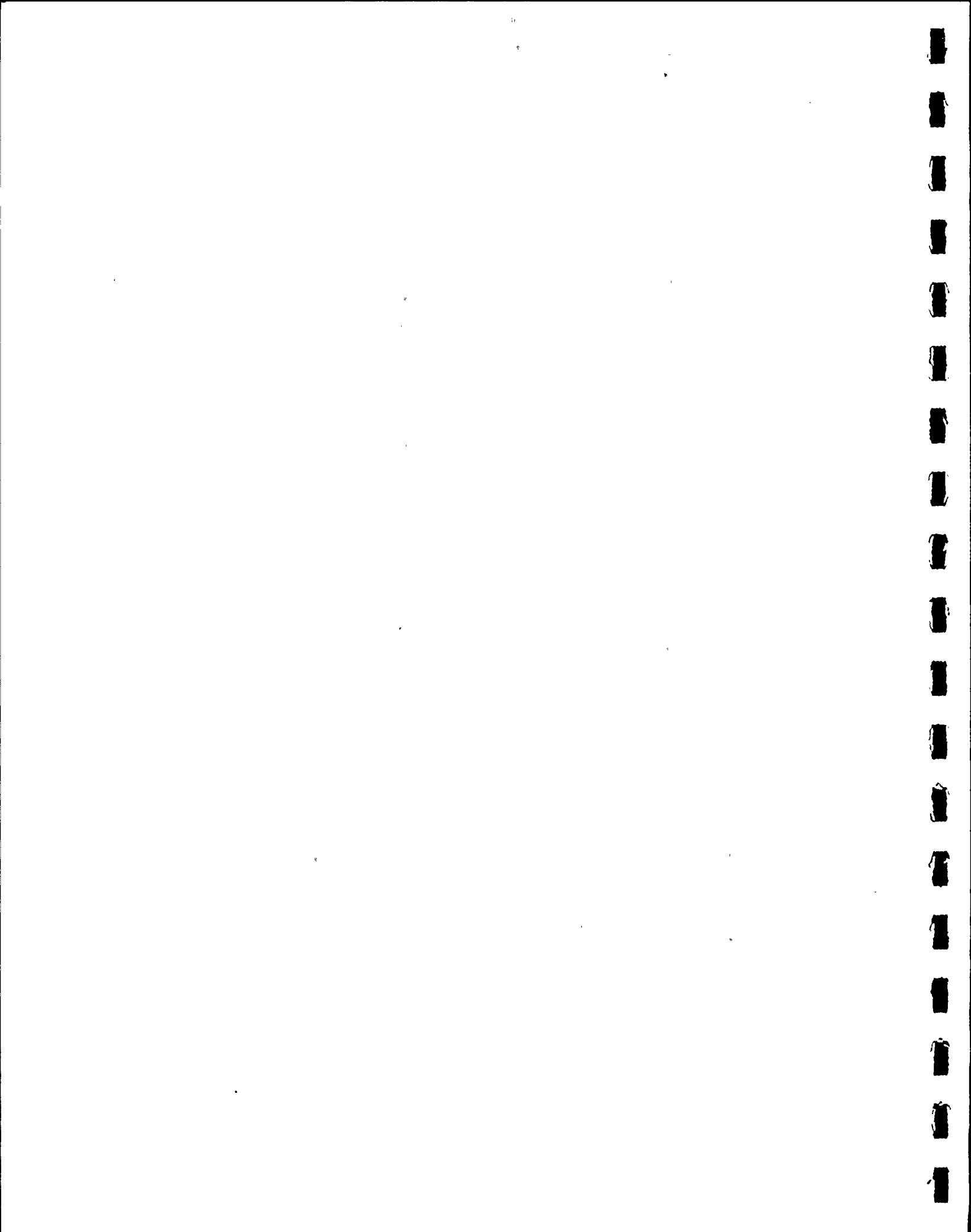
<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76 µm mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep



ABUNDANCE<sup>a</sup> OF COPEPODA<sup>b</sup> IN ZOOPLANKTON<sup>c</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT	DATES								ANNUAL MEAN
		28 MAY	17 JUN <sup>d</sup>	28 JUL	26 AUG <sup>e</sup>	23 SEP <sup>f</sup>	19 OCT	16 NOV	19 DEC	
10	NMPW	18155	12929	254209	22542	150778	97336	307909	4625	108560.4
	NMPP	18927	15532	242288	17640	127586	101180	239310	7693	96269.5
	FITZ	41613	27050	165025	62154	182478	26158	507941	6839	127407.2
	NMPE	22175	36010	163852	188152	98246	82467	309581	5270	113219.1
	CONTOUR MEAN	25217.5	22880.2	206343.5	72622.0	139772.0	76785.2	341185.2	6106.8	
20	NMPW	63088	25179	187265	38721	111237	100915	230571	4570	95193.2
	NMPP	35111	30538	181814	66966	122434	176133	306779	17387	117145.2
	FITZ	47160	54727	197604	116236	174181	90125	540033	4219	153035.6
	NMPE	23495	28560	319190	110745	109694	112238	262844	8244	121876.2
	CONTOUR MEAN	42213.5	34751.0	221468.2	83167.0	129386.5	119852.8	335056.8	8605.0	
40	NMPW	11102	34225	379146	51146	79418	99208	186535	7990	106096.2
	NMPP	22744	44133	407723	85518	142871	218336	247492	14147	147870.5
	FITZ	16961	38715	275288	64456	225757	131717	351112	7234	138905.0
	NMPE	40543	14112	198079	84059	233130	61529	206763	8976	105898.9
	CONTOUR MEAN	22837.5	32796.2	315059.0	71294.8	170294.0	127697.5	247975.5	9586.8	
60	NMPW	30603	40208	293724	67654	82790	75853	191432	6592	98607.0
	NMPP	46126	30458	270175	86598	103345	87654	249450	8854	110332.5
	FITZ	57665	18051	300406	100386	128592	124608	394614	4593	141114.4
	NMPE	26988	26061	321471	86181	195280	141271	192285	10867	125050.5
	CONTOUR MEAN	40345.5	28694.5	296444.0	85200.2	127501.8	107346.5	256945.2	7726.5	
DAILY MEAN		32653.5	29780.5	259828.7	78071.0	141738.6	107920.5	295290.7	8006.3	

<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Nauplii, juvenile, and adults

<sup>c</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>d</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>e</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>f</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep



ABUNDANCE<sup>a</sup> OF CLADOCERA IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT	DATES								ANNUAL MEAN
		28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	
10	NMPW	0	1903	256359	203681	184528	39300	60247	448	94208.2
	NMPP	1542	10513	762984	346912	31864	58603	88811	262	162686.4
	FITZ	1223	18232	768986	312616	67469	11838	68345	448	156144.6
	NMPE	1741	3783	460400	385462	31421	47113	95435	296	128206.4
	CONTOUR MEAN	1126.5	10407.8	562182.2	312167.8	78820.5	39213.5	78209.5	363.5	
20	NMPW	1292	16339	512437	145075	190235	35601	48327	422	118716.0
	NMPP	595	3909	743291	253508	17022	80161	105964	574	150628.0
	FITZ	1171	21559	469947	156372	80413	36836	64457	283	103879.8
	NMPE	1882	16349	1136033	200705	63197	63811	55467	394	192229.8
	CONTOUR MEAN	1235.0	14539.0	715427.0	188915.0	87716.8	54102.2	68553.8	418.2	
40	NMPW	0	11961	464583	73044	70099	31159	38222	499	86195.9
	NMPP	1203	9969	729207	78154	31226	98888	66982	737	127045.8
	FITZ	0	10770	404705	48346	91695	76054	105161	99	92103.8
	NMPE	870	5254	438338	84892	65075	45796	53884	298	86800.9
	CONTOUR MEAN	518.2	9488.5	509208.2	71109.0	64523.8	62974.2	66062.2	408.2	
60	NMPW	947	11785	405694	67132	33515	19144	40197	550	72370.5
	NMPP	1482	6185	496232	55290	21667	41564	73717	350	87060.9
	FITZ	0	8079	283382	102244	56619	68449	151000	274	83755.9
	NMPE	749	9422	386556	65319	59868	36453	53090	735	76524.0
	CONTOUR MEAN	794.5	8867.8	392966.0	72496.2	42917.2	41402.5	79501.0	477.2	
DAILY MEAN		918.6	10825.8	544945.9	161172.0	68494.6	49423.1	73081.6	416.8	

<sup>a</sup>Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup>Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup>NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun.

<sup>d</sup>NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup>NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep



ABUNDANCE<sup>a</sup> OF PROTOZOA IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT	DATES								ANNUAL
		28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	MEAN
10	NMPW	133994	2870	7285	8882	2184	17006	0	78	21537.4
	NMPP	65871	19984	29987	15232	494	44813	1153	21	22194.4
	FITZ	105082	10608	2592	17909	20415	7638	0	54	20537.2
	NMPE	119553	37274	204196	60619	21642	30064	821	884	59381.6
	CONTOUR MEAN	106125.0	17684.0	61015.0	25660.5	11183.8	24880.2	493.5	259.2	
20	NMPW	60254	0	13989	29232	7336	25751	0	81	17080.4
	NMPP	51772	41523	18582	30033	8885	12722	0	0	20439.6
	FITZ	109607	0	10065	31710	2737	13156	2706	254	21279.4
	NMPE	125492	1464	147705	116390	24933	22076	0	280	54792.5
	CONTOUR MEAN	86781.2	10746.8	47585.2	51841.2	10972.8	18426.2	676.5	153.8	
40	NMPW	57001	0	4243	25659	2428	14761	0	476	13071.0
	NMPP	29407	1419	15692	12528	9667	13510	2424	555	10650.2
	FITZ	56676	29367	10352	41913	2803	11118	0	69	19037.2
	NMPE	48943	9947	77294	71244	61974	26869	2855	796	37490.4
	CONTOUR MEAN	48006.8	10183.2	26895.5	37836.0	19218.0	16564.5	1319.8	474.0	
60	NMPW	42323	1385	6525	74411	3402	35612	722	248	20578.5
	NMPP	49491	7830	23653	15573	54610	9357	715	0	20153.6
	FITZ	50796	23875	14998	75409	11659	27580	2064	1955	260452.0
	NMPE	67633	43818	28163	41236	16939	25787	715	341	28079.0
	CONTOUR MEAN	52560.8	19227.0	18334.8	51657.2	21652.5	24584.0	1054.0	636.0	
DAILY MEAN		73368.4	14460.2	38457.6	41748.7	15756.8	21113.7	886.0	380.8	

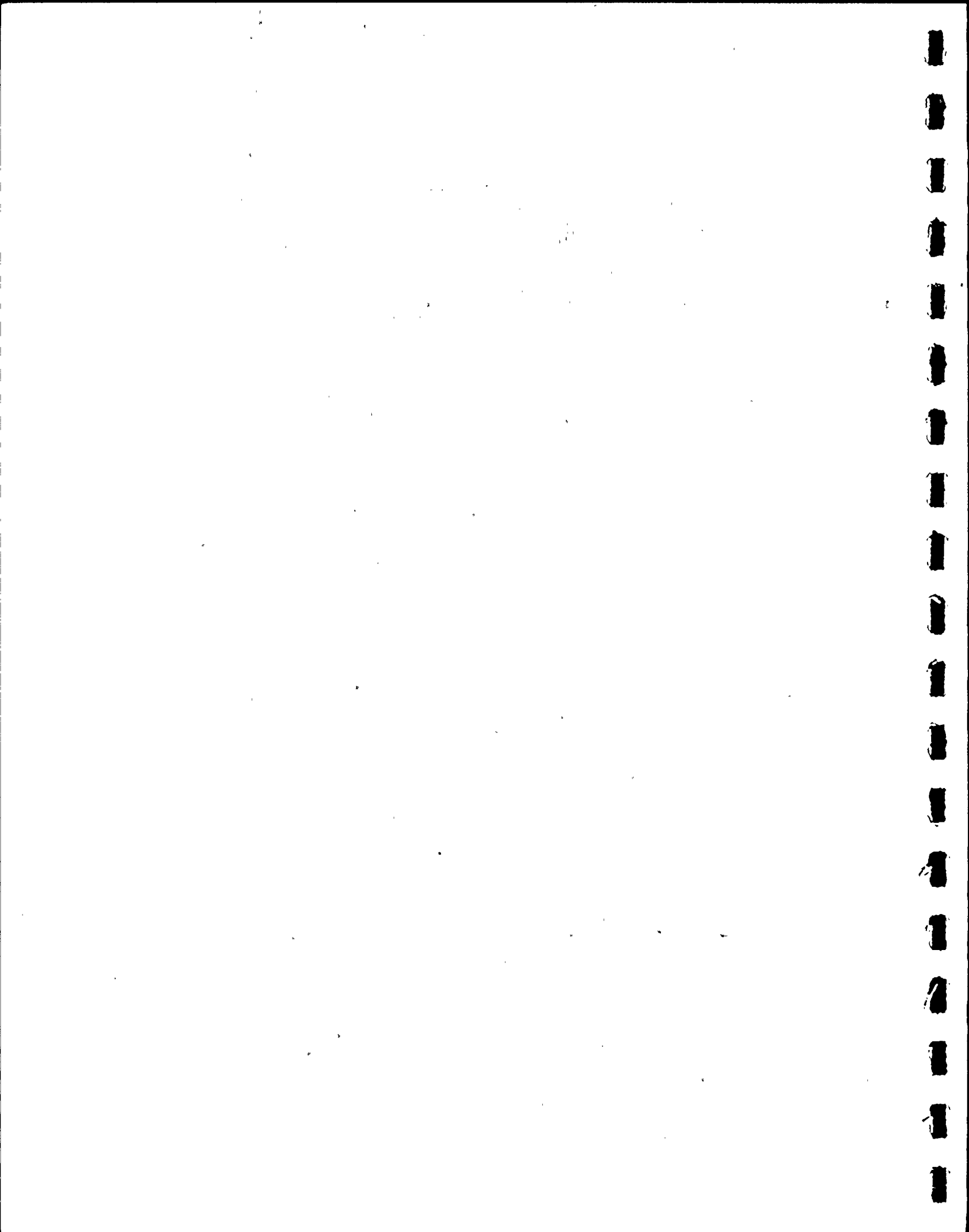
<sup>a</sup>Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup>Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup>NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup>NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup>NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep





ABUNDANCE<sup>a</sup> OF ROTIFERA IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT	DATES								ANNUAL
		28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	MEAN
10	NMPW	1088577	574284	295908	180837	503413	75467	34682	3814	344622.8
	NMPP	276430	1006980	820110	256300	124695	57362	55071	9305	325781.6
	FITZ	730254	624582	663240	519624	300386	47634	32100	8429	365781.1
	NMPE	647269	1347867	825359	1277938	91040	58273	38516	6112	536546.8
	CONTOUR MEAN	685632.5	888428.2	651154.2	558674.8	254884.5	59684.0	40092.2	6915.0	-
20	NMPW	756072	1034179	307632	306732	339354	73348	49819	8181	359414.6
	NMPP	362434	1006981	587610	615318	140059	74696	42283	9360	354842.6
	FITZ	616619	787119	456911	478708	295581	56338	58698	5311	378160.6
	NMPE	308200	1856136	1222112	859009	188973	53008	42087	11429	567619.2
	CONTOUR MEAN	510831.2	1171103.7	643566.2	632441.8	240991.8	64347.5	48221.8	8570.2	-
40	NMPW	366139	798589	376232	158604	146416	49233	45901	10864	243997.2
	NMPP	444923	1117436	717607	163941	134887	98591	44676	8414	341309.4
	FITZ	304971	699361	408004	197560	302770	50734	40101	8617	251514.8
	NMPE	457456	621529	490353	325363	307938	31929	54483	8369	287177.5
	CONTOUR MEAN	393372.2	809228.8	498049.0	211367.0	223002.8	57621.8	46290.2	9066.0	-
60	NMPW	431134	1015466	482649	192059	94733	42969	48220	9575	289600.6
	NMPP	489516	703013	664616	130590	78149	35859	49881	5610	269654.2
	FITZ	396501	463787	430099	225591	144947	58879	86693	7332	226728.6
	NMPE	451532	1040646	526537	167231	248311	52939	53809	7482	318560.9
	CONTOUR MEAN	442170.8	805728.0	525975.2	178867.8	141535.0	47661.5	59650.8	7499.8	-
DAILY MEAN		508001.7	918622.2	579686.2	395337.9	215103.3	57328.7	48563.8	8012.8	-

<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep



ABUNDANCE<sup>a</sup> OF TOTAL ZOOPLANKTON<sup>b</sup>

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	MEAN
10	NMPW	1240726	599186	813761	415942	840903	229109	402838	.8965	568928.8
	NMPP	362770	1053009	1855369	636084	284639	261958	384345	17281	606931.9
	FITZ	878172	680472	1599843	912303	570748	93268	608386	15770	669870.2
	NMPE	790738	1424934	1653807	1912171	242349	217917	444353	12562	837353.9
	CONTOUR MEAN	818101.5	939400.2	1480695.0	969125.0	484659.8	200563.0	459980.5	136644.5	
20	NMPW	880706	1075697	1021323	519760	648162	235615	328717	13254	590404.2
	NMPP	449912	1082951	1531297	965825	288400	343712	455026	27321	643055.5
	FITZ	774557	863405	1134527	1053026	552912	196455	665894	10067	656355.4
	NMPE	459069	1902509	2825040	1286849	386797	251133	360398	20347	936517.8
	CONTOUR MEAN	641061.0	1231140.5	1628046.8	956365.0	469067.8	256728.8	452508.8	17747.2	
40	NMPW	434242	844775	1224204	308453	298361	194361	270658	19829	449360.4
	NMPP	498277	1172957	1870229	340141	318651	429325	361574	23853	626875.9
	FITZ	378608	778213	1098349	352275	623025	269623	496374	16019	501560.8
	NMPE	547812	650842	1204065	565558	668117	166123	317985	18439	517367.6
	CONTOUR MEAN	464734.8	861696.8	1349211.8	391606.8	477038.5	264858.0	361647.8	19535.0	
60	NMPW	505007	1068844	1188592	401256	214440	173578	280571	16965	481156.6
	NMPP	586615	747486	1454676	288051	257771	174434	373763	14814	487201.2
	FITZ	504962	513792	1028885	503630	341817	279516	634371	14154	477640.9
	NMPE	546902	1119947	1262727	359967	520398	256450	299899	19425	548214.4
	CONTOUR MEAN	535871.5	862517.2	1233720.0	388226.0	333606.5	220994.5	397151.0	16339.5	
DAILY MEAN		614942.2	973688.7	1422918.3	676330.7	441093.2	235786.1	417822.0	16816.6	

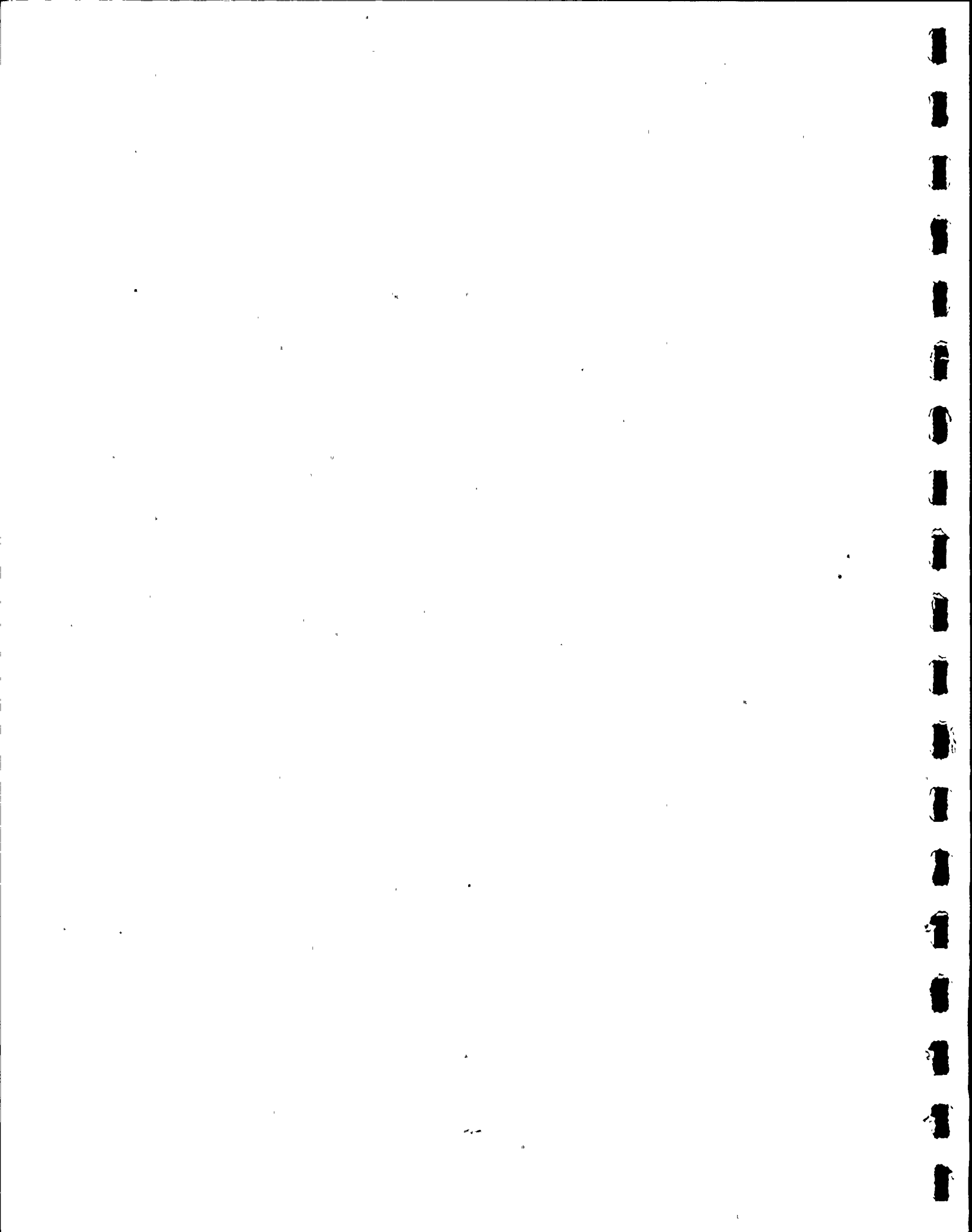
<sup>a</sup>Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup>Zooplankton collection with 12.7 cm Clarke-Bumpus, 76µm mesh net

<sup>c</sup>NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup>NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup>NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep



V.B.2. ABUNDANCE OF SELECTED SPECIES  
OF ZOOPLANKTON



ABUNDANCE<sup>a</sup> OF BOSMINA LONGIROSTRIS (CLADOCERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL MEAN
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	
10	NMPW	0	9103	254872	186716	151597	15398	31411	347	81180.5
	NMPP	1542	10513	762984	324065	5442	28694	49016	145	147800.1
	FITZ	1223	17370	761209	270213	22079	8074	35149	394	139462.9
	NMPE	1741	3783	460400	346160	8908	27238	56510	296	113129.5
	CONTOUR MEAN	1126.5	10192.2	559866.2	281788.5	47006.5	19851.0	43021.5	295.5	
20	NMPW	1292	14980	512437	133233	165455	12581	28792	154	180615.5
	NMPP	595	3909	743291	214049	4480	31721	67509	574	133266.0
	FITZ	1171	21559	469947	128718	24632	16616	17668	256	85070.9
	NMPE	966	16349	1132403	156942	19736	22595	31267	140	172549.8
	CONTOUR MEAN	1006.0	14199.2	714519.5	158235.5	53575.8	20878.2	36309.0	281.0	
40	NMPW	0	11961	464583	64896	55894	10071	21462	472	78667.4
	NMPP	1203	9969	729207	67258	14689	35288	45244	508	112920.8
	FITZ	0	9582	397607	37471	33286	40804	86488	99	75667.1
	NMPE	870	5254	438338	72688	26843	18749	26371	210	73665.4
	CONTOUR MEAN	518.2	9191.5	507433.8	60578.2	32678.0	26228.0	44891.2	322.2	
60	NMPW	947	11785	404037	60740	14138	8032	20540	362	65072.6
	NMPP	741	6185	494227	47222	9015	14840	54882	246	78419.8
	FITZ	0	6889	282141	91789	16678	28666	107959	155	66784.6
	NMPE	749	8063	386556	53483	17572	14470	34032	636	64445.1
	CONTOUR MEAN	609.2	8230.5	391740.2	63308.5	14350.8	16502.0	54353.2	349.8	
DAILY MEAN		815.0	10453.4	543389.9	140977.7	36902.8	20864.8	44643.8	312.1	

<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76µ m mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep





ABUNDANCE<sup>a</sup> OF DAPHNIA RETROCURVA (CLADOCERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	MEAN
10	NMPW	0	0	1487	13163	24198	21109	25549	38	10693.0
	NMPP	0	0	0	5595	24541	26531	35987	0	11581.8
	FITZ	0	0	0	14222	33503	1191	31243	0	10019.9
	NMPE	0	0	0	0	15628	17587	37459	0	8834.2
	CONTOUR MEAN	0.0	0.0	371.8	8245.0	24467.5	16604.5	32559.5	9.5	
20	NMPW	0	0	0	1796	8759	19433	18017	0	6000.6
	NMPP	0	0	0	21285	10302	38408	36229	0	13278.0
	FITZ	0	0	0	20790	43204	11987	46789	27	15349.6
	NMPE	0	0	3630	5765	29248	32122	21921	0	11585.8
	CONTOUR MEAN	0.0	0.0	907.5	12409.0	22878.2	25487.5	30739.0	6.8	
40	NMPW	0	0	0	2619	10493	14357	16062	0	5441.4
	NMPP	0	0	0	8715	16537	26746	19314	58	8921.2
	FITZ	0	0	7098	7923	43481	30302	15247	0	13006.4
	NMPE	0	0	0	4697	21763	21495	24645	88	9086.0
	CONTOUR MEAN	0.0	0.0	1774.5	5988.5	23068.5	23225.0	18817.0	36.5	
60	NMPW	0	0	1657	1041	12430	8336	18213	63	5217.5
	NMPP	0	0	2005	6909	8506	12618	17292	0	5916.2
	FITZ	0	0	1241	4391	24693	35260	37247	0	12854.0
	NMPE	0	0	0	6817	28968	15698	18343	0	8728.2
	CONTOUR MEAN	0.0	0.0	1225.8	4789.5	18649.2	17978.0	22773.8	15.8	
DAILY MEAN		0.0	0.0	1069.9	7858.0	22265.9	20823.8	26222.3	17.1	

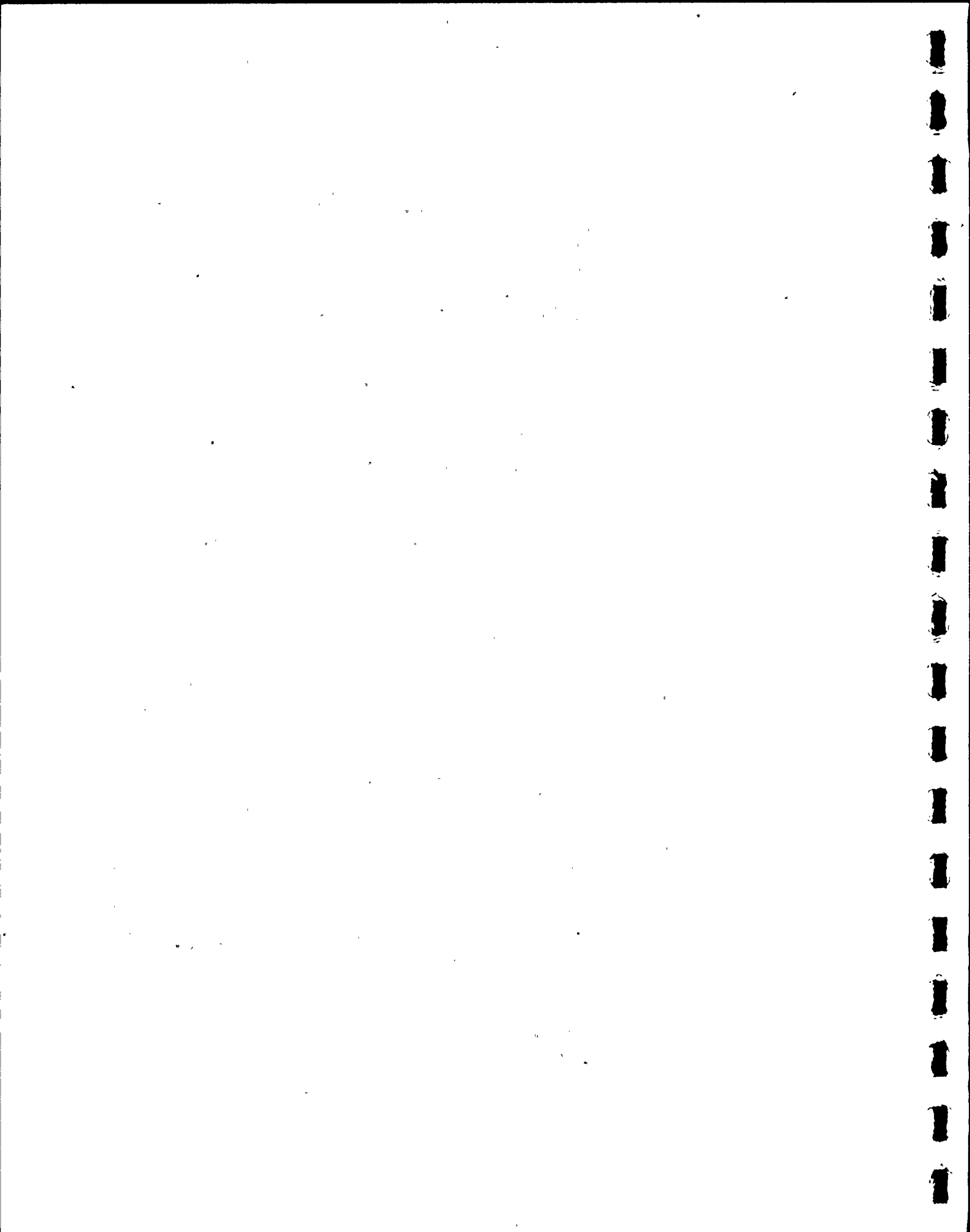
<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76µ m mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep



ABUNDANCE<sup>a</sup> OF ASPLANCHNA PRIODONTA (ROTIFERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT	DATES								ANNUAL MEAN
		28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	
10	NMPW	12600	61196	4460	0	7232	4188	2626	282	11573.0
	NMPP	5305	100766	56531	0	1881	1068	9919	294.5	21970.5
	FITZ	10928	16508	58987	0	2803	726	2807	256	11626.9
	NMPE	2605	351140	27909	0	2569	1931	4573	195	48865.2
	CONTOUR MEAN	7859.5	132402.5	36971.8	0	3621.2	1978.2	4981.2	256.8	
20	NMPW	7087	130020	21970	0	2846	5193	12206	400	22465.2
	NMPP	0	103114	40361	0	822	816	11661	355	19641.1
	FITZ	180041	117283	14786	0	5995	1365	20106	262	42479.8
	NMPE	0	539939	75113	0	5927	5636	9062	436	79514.1
	CONTOUR MEAN	46782.0	222589.0	38057.5	0	3897.5	3252.5	13258.8	363.2	
40	NMPW	0	107134	58895	0	893	2868	20432	499	23840.1
	NMPP	13342	112415	42989	0	674	2956	13278	332	23248.3
	FITZ	2549	113924	14126	738	7392	1855	13367	261	19276.5
	NMPE	772	77671	38824	0	3040	4502	8884	473	16770.8
	CONTOUR MEAN	4165.8	102786.0	38708.5	184.5	2999.8	3045.3	13990.3	391.3	
60	NMPW	7631	113672	27551	0	0	1932	15724	261	20846.4
	NMPP	17956	60914	33672	0	0	4436	14206	449	16454.1
	FITZ	12507	67981	14716	0	1170	1263	21640	90	14920.9
	NMPE	4553	181724	38557	0	2595	2290	16610	332	30832.6
	CONTOUR MEAN	10661.8	106072.8	28624	0	941.2	2480.2	17045.0	283	
DAILY MEAN		17367.3	140962.6	35590.5	46.1	2864.9	2689.1	12318.8	323.6	

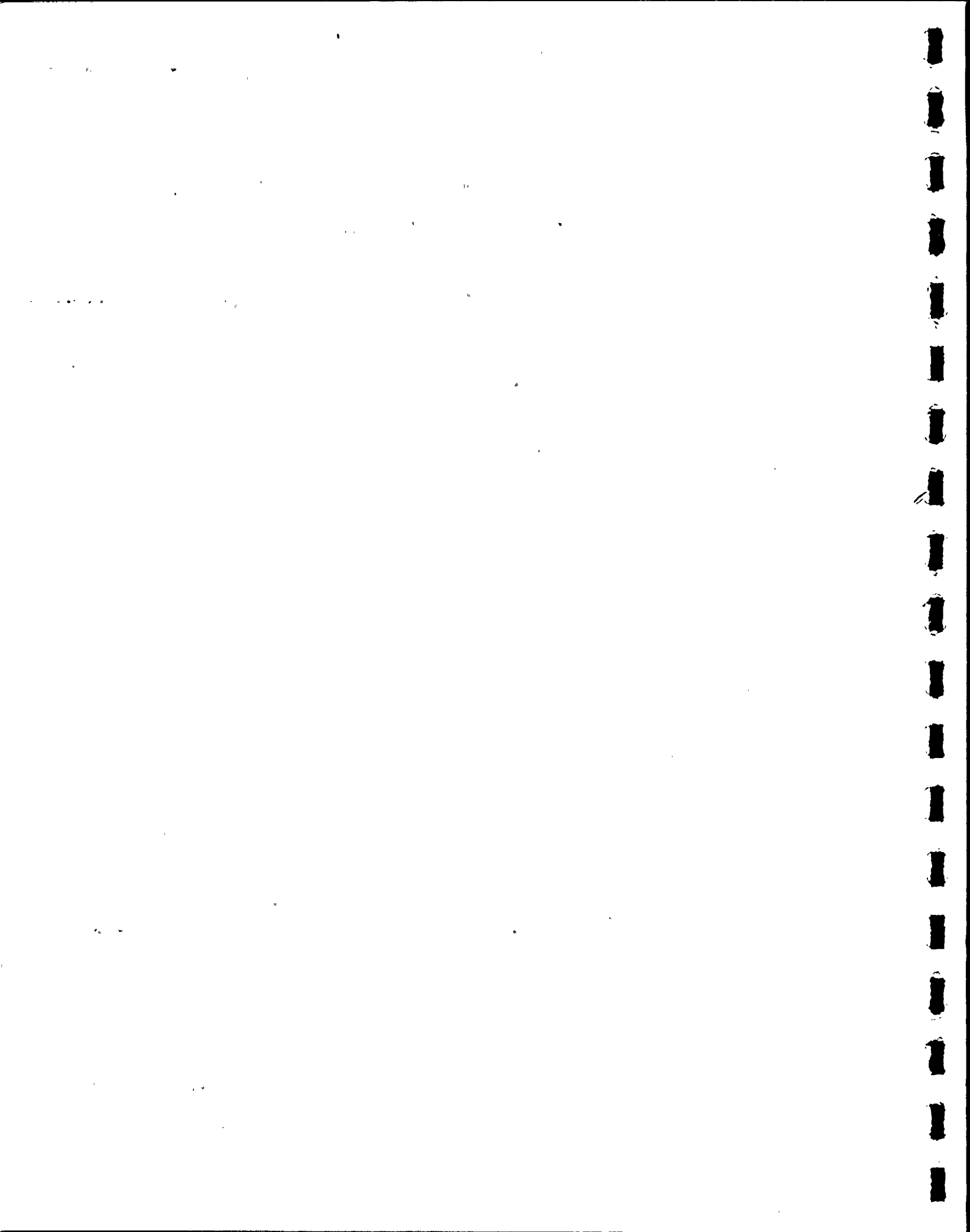
<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep



ABUNDANCE<sup>a</sup> OF KELLICOTTIA LONGISPINA (ROTIFERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	MEAN
10	NMPW	25698	56908	2156	0	0	1058	0	364	10773.0
	NMPP	16637	107116	0	0	0	621	520	1044	15742.3
	FITZ	14406	49752	5185	0	0	247	1708	1082	9047.5
	NMPE	11733	392315	4438	0	0	0	1466	451	51300.4
	CONTOUR MEAN	17118.5	151522.8	2944.8	0	0	481.5	923.5	735.2	
20	NMPW	11244	156627	2446	0	0	375	1344	649	21585.6
	NMPP	10115	159313	1535	0	0	0	0	1087	21506.2
	FITZ	18642	75929	0	0	0	0	1353	529	12056.6
	NMPE	10324	304521	16964	0	0	0	0	1109	41614.8
	CONTOUR MEAN	12581.2	174097.5	5236.2	0	0	93.8	674.2	843.5	
40	NMPW	10164	121267	2597	0	0	946	1213	835	17127.8
	NMPP	18259	146597	7258	0	0	0	600	645	21669.9
	FITZ	20885	101500	5990	0	0	0	931	1114	16302.5
	NMPE	15539	132241	2021	0	0	0	863	426	18886.3
	CONTOUR MEAN	16211.8	125401.2	4466.5	0	0	236.5	901.8	755.0	
60	NMPW	20242	198240	9736	0	445	0	1204	802	28833.6
	NMPP	22899	114702	8819	0	0	0	1487	493	18550.0
	FITZ	22744	89025	2199	630	0	632	1931	820	14747.6
	NMPE	18748	202953	5148	0	0	0	2077	1272	28774.8
	CONTOUR MEAN	21158.2	151230.0	6475.5	157.5	111.2	158.0	1674.8	846.8	
DAILY MEAN		16767.4	150562.9	4780.8	39.4	27.8	242.4	1043.6	795.1	

<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep



ABUNDANCE<sup>a</sup> OF KERATELLA COCHLEARIS (ROTIFERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT	DATES								ANNUAL MEAN
		28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	
10	NMPW	125368	38412	0	1777	8233	3130	661	437	22252.2
	NMPP	40308	16574	7335	1477	3961	4447	0	874	9372.0
	FITZ	109245	43591	5185	9481	5266	2860	1099	1211	22242.2
	NMPE	109975	0	0	21945	656	3109	3107	980	17471.5
	CONTOUR MEAN	96224.0	24644.2	3130.0	8670.0	4529.0	3386.5	1216.8	875.5	
20	NMPW	73103	53744	0	1685	2920	13545	1431	342	18346.2
	NMPP	45229	50091	2655	20834	822	4241	624	706	15650.2
	FITZ	81026	37846	0	44527	2737	1835	2344	687	21375.2
	NMPE	62435	11707	3037	11529	3951	4247	1519	1135	12445.0
	CONTOUR MEAN	65448.2	38347.0	1423.0	19643.8	2607.5	5967.0	1479.5	717.5	
40	NMPW	76654	59588	0	2425	6671	4769	0	1000	18888.4
	NMPP	48220	66818	2321	5177	2728	4669	0	714	16330.9
	FITZ	55997	27829	0	25356	1401	4954	2793	525	14856.9
	NMPE	59254	5323	0	13170	12459	2770	1434	730	11892.5
	CONTOUR MEAN	60013.2	39889.5	580.2	11532.0	5814.8	4290.5	1056.8	742.2	
60	NMPW	56554	112982	0	3196	1479	3923	803	778	22464.4
	NMPP	68276	62871	0	21989	1450	1488	2916	264	19906.8
	FITZ	63047	29603	3439	16964	1170	1131	1931	797	14760.2
	NMPE	83959	23765	0	16255	7856	2821	2145	717	17189.8
	CONTOUR MEAN	67959.0	57305.2	859.8	14601.0	2988.8	2340.8	1948.8	639.0	
DAILY MEAN		72415.6	40046.5	1498.2	13611.7	3985.0	3996.2	1425.4	743.6	

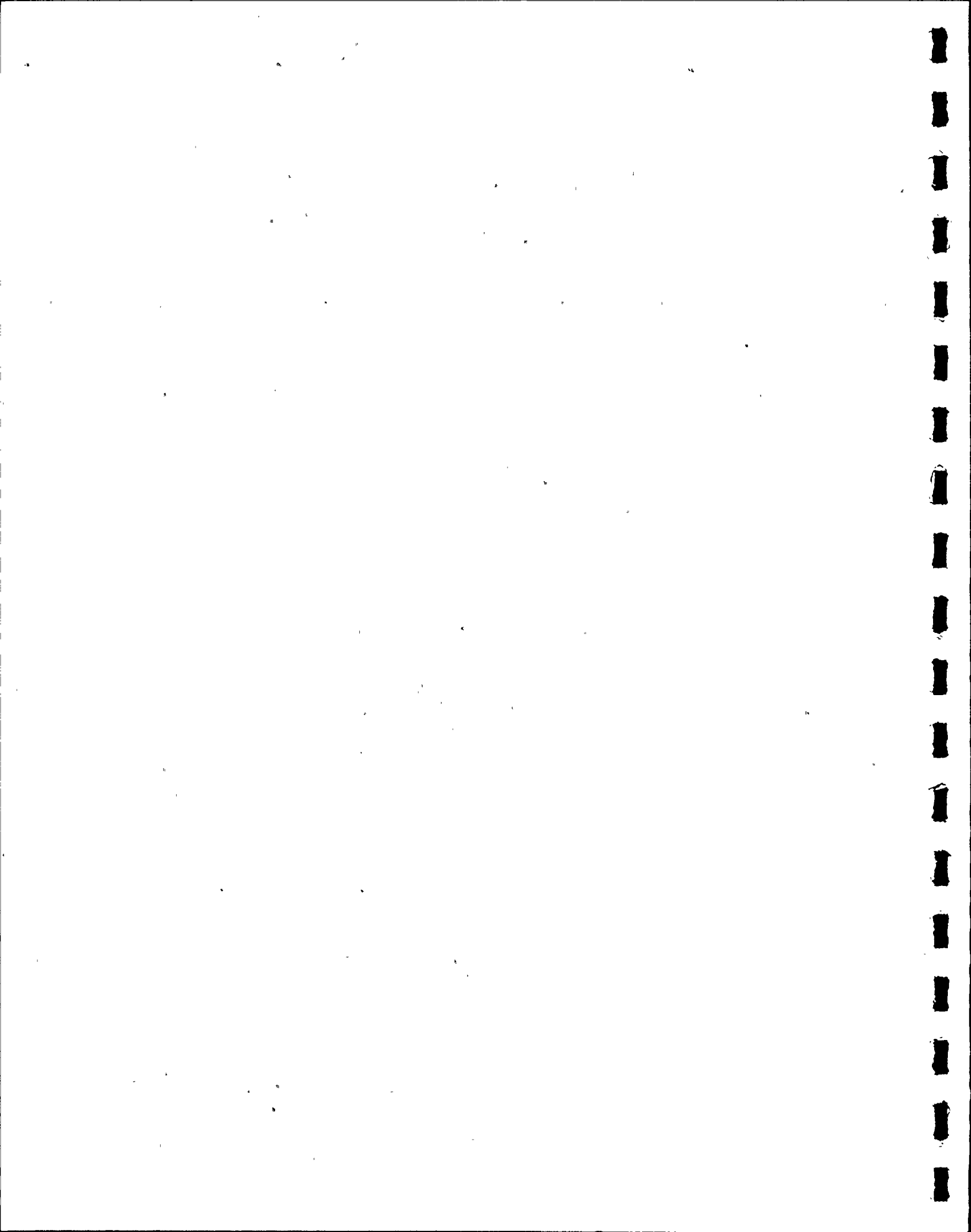
<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76µ m mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep





ABUNDANCE<sup>a</sup> OF KERATELLA CRASSA (ROTIFERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	MEAN
10	NMPW	2349	2203	42888	45493	18830	6938	2609	335	15205.6
	NMPP	748	0	170453	94575	23154	3752	520	928	36766.2
	FITZ	0	1691	155244	187253	18045	5298	854	822	46150.9
	NMPE	0	14433	204036	114852	10821	6863	6038	705	44718.5
	CONTOUR MEAN	774.2	4581.8	143155.2	110543.2	17712.5	5712.8	2505.2	697.5	
20	NMPW	1607	3405	63722	77123	15947	4337	5052	416	21451.1
	NMPP	0	3393	156170	135893	21203	5056	5831	1019	41070.6
	FITZ	1171	1288	81479	216191	48742	7446	5050	506	45234.1
	NMPE	916	4390	169708	104980	11451	5880	0	337	37207.8
	CONTOUR MEAN	923.5	3119.0	117769.8	133546.8	24335.8	5679.8	3983.2	569.5	
40	NMPW	0	17290	50850	33053	9961	2858	2094	861	14620.9
	NMPP	547	9960	104252	40291	26739	8394	2418	1195	24224.5
	FITZ	882	6057	52280	67060	37490	4332	7167	508	21972.0
	NMPE	772	2532	120130	58907	33954	1356	4873	778	27912.8
	CONTOUR MEAN	550.2	8959.8	81878.0	49827.8	27036.0	4235.0	4138.0	835.5	
60	NMPW	0	0	67945	69063	14425	2413	5457	596	19987.4
	NMPP	3048	0	127065	44470	9435	565	6002	400	23873.1
	FITZ	842	266	47869	71356	10615	2893	12883	606	18416.2
	NMPE	1767	6281	48852	35131	54153	2821	7659	484	19643.5
	CONTOUR MEAN	1414.2	1636.8	72932.8	55005.0	22157.0	2173.0	8000.2	521.5	
DAILY MEAN		915.6	4574.3	103933.9	87230.7	22810.3	4450.1	4656.7	656.0	

<sup>a</sup>Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup>Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup>NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup>NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup>NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep



ABUNDANCE<sup>a</sup> OF KERATELLA EARLINA<sup>b</sup> (ROTIFERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL MEAN
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	
10	NMPW	36310	289753	100866	3926	19150	7699	9810	497	58501.4
	NMPP	16848	454281	105939	7227	12377	5789	14821	1127	77301.1
	FITZ	20443	320425	27490	28707	35873	7693	14278	827	56967.0
	NMPE	9128	71304	70212	79685	7541	8687	12720	628	32488.1
	CONTOUR MEAN	20682.2	283940.8	76126.8	29886.2	18735.2	7467.0	12907.2	769.8	
20	NMPW	16756	432264	51108	7185	18719	7227	14221	1037	68564.6
	NMPP	11310	398322	63422	28884	13514	18264	12016	883	68326.9
	FITZ	10476	268768	107261	39029	24110	10557	17133	682	59752.0
	NMPE	12255	311461	144742	106157	22133	4438	16557	1813	77444.5
	CONTOUR MEAN	12699.2	352703.8	91633.2	45313.8	19610.0	10121.5	14981.8	1103.8	
40	NMPW	11160	328357	69723	2013	9600	11450	7276	1431	55126.2
	NMPP	23947	454043	113536	6267	13067	7301	11490	1402	78881.6
	FITZ	19809	314509	105290	16807	31499	6806	9941	866	63190.9
	NMPE	16800	140940	52366	33801	66677	2157	17794	872	41425.9
	CONTOUR MEAN	17929.0	309462.2	85228.8	14722.0	30210.8	6928.5	11625.2	1142.8	
60	NMPW	13422	350029	90525	10875	17008	7846	10189	841	62591.9
	NMPP	20179	258218	94210	15046	6523	5413	14206	1332	51890.9
	FITZ	23000	169067	139603	11714	35865	8180	26269	755	51806.6
	NMPE	18421	282915	117206	23820	28757	6649	9598	744	61013.8
	CONTOUR MEAN	18755.5	265057.2	110386.0	15363.8	22038.2	7022.0	15065.5	918.0	
DAILY MEAN		17516.5	302791.0	90843.7	26321.4	22650.8	7884.8	13644.9	983.6	

<sup>a</sup>Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup>Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup>NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup>NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup>NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep

ABUNDANCE<sup>a</sup> OF KERATELLA QUADRATA (ROTIFERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	MEAN
10	NMPW	131059	19743	3642	0	0	0	0	245	19336.1
	NMPP	41803	44797	11651	0	0	0	1153	299	12462.9
	FITZ	47190	10607	7973	0	0	0	0	285	8256.9
	NMPE	66537	82248	8875	0	0	0	645	51	19794.5
	CONTOUR MEAN	71647.2	39348.8	8035.2	0.0	0.0	0.0	449.5	220.0	
20	NMPW	75339	43581	2661	0	0	0	759	269	15326.1
	NMPP	49389	54208	1535	0	0	0	0	287	13177.4
	FITZ	85077	37490	2516	0	0	470	0	66	15702.4
	NMPE	42163	110428	13334	0	0	0	0	280	20775.6
	CONTOUR MEAN	62992.0	61426.8	5011.5	0.0	0.0	117.5	189.8	225.5	
40	NMPW	29584	21692	6586	0	0	0	0	333	7274.4
	NMPP	49529	52646	7552	0	0	0	0	426	13769.1
	FITZ	27359	24265	9833	710	0	0	0	380	7818.4
	NMPE	55201	30817	3741	2809	0	0	0	250	11602.2
	CONTOUR MEAN	40418.2	32355.0	6928.0	879.8	0.0	0.0	0.0	347.2	
60	NMPW	40292	55443	17815	1041	0	0	1444	226	14532.6
	NMPP	55023	32101	14428	0	0	0	0	104	12707.0
	FITZ	44647	22404	10036	0	0	0	0	173	9657.5
	NMPE	58106	71991	25540	0	0	0	0	233	19483.8
	CONTOUR MEAN	49517.0	45484.8	16954.8	260.2	0.0	0.0	361/0	184.0	
DAILY MEAN		56143.6	44653.8	9232.4	285.0	0.0	29.4	250.1	244.2	

<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep

ABUNDANCE<sup>a</sup> OF PLOESOMA TRUNCATUM (ROTIFERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	MEAN
10	NMPW	0	0	71356	7106	191759	0	0	0	33777.6
	NMPP	0	0	249636	14067	1387	0	0	0	33126.2
	FITZ	0	862	153240	1844	24449	0	0	0	22549.4
	NMPE	0	2241	271883	35255	8197	608	0	0	39773.0
	CONTOUR MEAN	0.0	775.8	186528.8	14568.0	56448.0	152.0	0.0	0.0	
20	NMPW	1292	0	69516	10157	110647	643	0	0	24031.9
	NMPP	0	959	165922	11500	4405	0	0	0	22848.2
	FITZ	0	2576	87402	5361	15900	448	0	0	13960.9
	NMPE	0	1464	386311	17294	5524	0	0	0	51324.1
	CONTOUR MEAN	323.0	1249.8	177287.8	11078.0	34119.0	272.8	0.0	0.0	
40	NMPW	0	0	66939	5748	24306	483	0	0	12184.5
	NMPP	0	0	144626	3813	3436	0	0	0	18984.4
	FITZ	0	1188	89537	2214	21305	0	0	0	14280.5
	NMPE	0	1103	142054	6541	12405	0	0	0	20262.9
	CONTOUR MEAN	0.0	572.8	110789.0	4579.0	15363.0	120.8	0.0	0.0	
60	NMPW	0	0	83064	1041	2814	0	0	0	10864.9
	NMPP	0	0	87380	0	1869	0	0	0	11156.1
	FITZ	0	266	54355	3762	6585	7990	0	0	9119.8
	NMPE	0	0	66818	1423	5261	0	0	0	9187.8
	CONTOUR MEAN	0.0	66.5	72904.2	1556.5	4132.2	1997.5	0.0	0.0	
DAILY MEAN		80.8	666.2	136877.4	7945.4	27515.6	635.8	0.0	0.0	

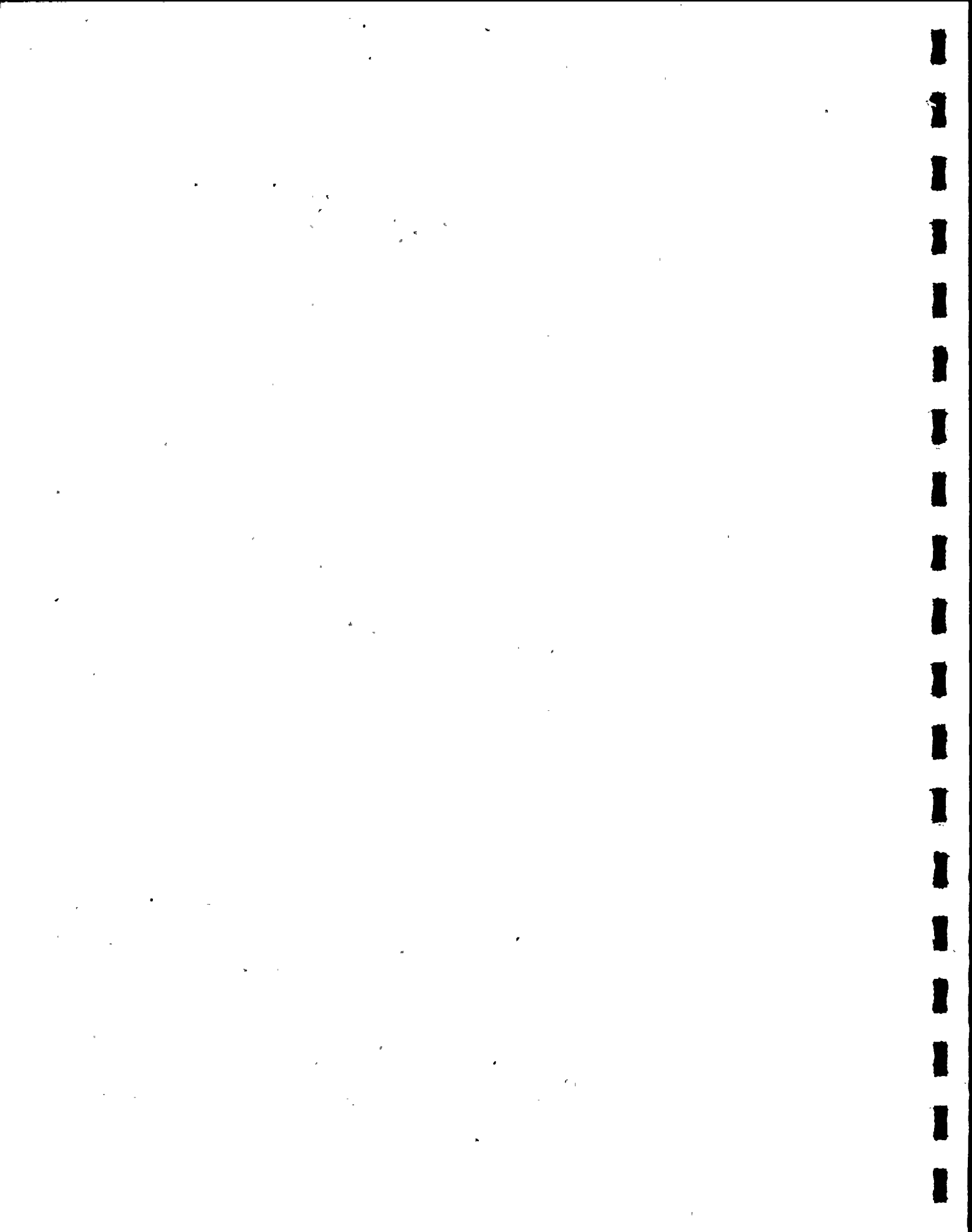
<sup>a</sup>Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup>Zooplankton collection with 12.7 cm Clarke-Bumpus, 76µ m mesh net

<sup>c</sup>NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup>NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup>NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep



ABUNDANCE<sup>a</sup> OF POLYARTHRA MAJOR (ROTIFERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL MEAN
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	
10	NMPW	0	0	2973	15348	72273	13832	2609	87	13390.2
	NMPP	0	0	12948	15932	32063	9266	9571	912	10086.5
	FITZ	0	0	29494	25810	76428	9567	1099	25	17802.9
	NMPE	0	0	25837	38674	14316	12478	1466	0	11596.4
	CONTOUR MEAN	0.0	0.0	17813.0	23941.0	48770.0	11285.8	3686.2	256	
20	NMPW	0	0	5107	22842	39303	13277	0	521	10131.2
	NMPP	1190	6714	3070	33370	49421	16228	1247	513	13969.1
	FITZ	0	0	17303	82705	86993	15273	2344	118	25592.0
	NMPE	0	0	6667	57606	43077	10264	3321	1130	15258.1
	CONTOUR MEAN	297.5	1678.5	8036.8	49130.8	54698.5	13760.5	1728.0	570.5	
40	NMPW	908	0	11779	17801	16632	6731	0	393	6780.5
	NMPP	0	8550	55183	3813	27048	19594	3012	429	14703.6
	FITZ	0	0	8725	6475	68504	14845	931	976	12557.0
	NMPE	0	1103	12942	21598	68495	4254	6586	0	14372.2
	CONTOUR MEAN	227.0	2413.2	22157.2	12421.8	45169.8	11356.0	2632.2	449.5	
60	NMPW	0	0	35630	8794	28620	6699	4331	1137	10651.4
	NMPP	2800	1566	18438	2892	20522	5538	1430	494	6710.0
	FITZ	0	1190	14716	18407	35262	16962	1032	767	11042.0
	NMPE	0	3141	15245	4308	52363	5642	1939	0	10329.8
	CONTOUR MEAN	700.0	1474.2	21007.2	8600.2	34191.8	8710.2	2183.0	599.5	
DAILY MEAN		306.1	1391.5	17253.6	23523.4	45707.5	11278.1	2557.4	468.9	

<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76µm mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep

ABUNDANCE<sup>a</sup> OF POLYARTHRA VULGARIS (ROTIFERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR (FT)	TRANSECT	DATES								ANNUAL
		28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	MEAN
10	NMPW	2349	5073	19549	4690	3366	5626	9166	257	6259.5
	NMPP	0	9377	72060	9092	6136	5341	8418	344	13846.0
	FITZ	2637	5072	124379	72689	27128	7405	3052	1207	30446.1
	NMPE	1741	0	92647	222603	8798	3504	2286	1247	41603.2
	CONTOUR MEAN	1681.8	4880.5	77158.8	77268.5	11357.0	5469.0	5730.5	763.8	
20	NMPW	3874	8187	57330	17850	5913	6371	6220	875	13327.5
	NMPP	595	8261	46790	74473	4031	7666	2983	698	18187.1
	FITZ	5254	5390	63483	59561	33950	6059	2344	780	22102.6
	NMPE	0	1464	191561	78591	20981	3430	4223	694	37618.0
	CONTOUR MEAN	2430.8	5825.5	89791.0	57618.8	16218.8	5881.5	3942.5	761.8	
40	NMPW	938	4540	47370	5942	7533	7627	6064	1095	10138.6
	NMPP	2186	7140	85357	26687	7475	4346	4230	547	17246.0
	FITZ	5883	2454	44144	13061	44738	3709	2178	639	14600.8
	NMPE	870	13178	29323	37620	35344	2899	4873	2049	15769.5
	CONTOUR MEAN	2469.2	6828.0	51548.5	20827.5	23772.5	4645.2	4336.2	1082.5	
60	NMPW	3898	13178	86481	4558	9975	7601	1926	880	16062.1
	NMPP	4530	6185	105028	17950	6841	7851	5231	154	19221.2
	FITZ	0	266	48041	27235	12648	5758	14815	719	13685.2
	NMPE	6320	4500	99437	21686	31704	7346	5817	573	22172.9
	CONTOUR MEAN	3687.0	6032.2	84746.8	17857.2	15292.0	7139.0	6947.2	581.5	
DAILY MEAN		2567.2	5891.6	75811.3	43393.0	16660.1	5783.7	5239.1	797.4	

<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

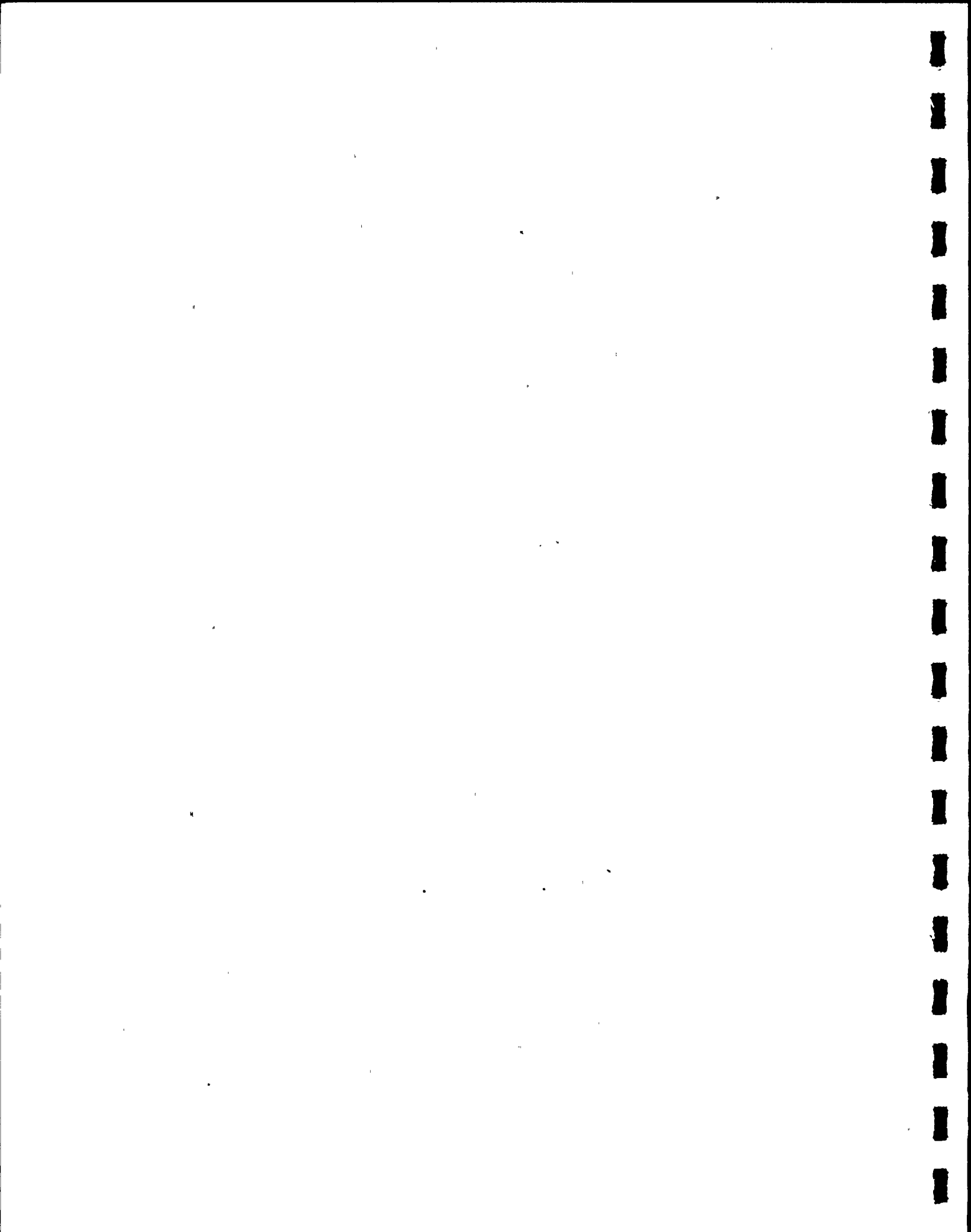
<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76µ m mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep





ABUNDANCE<sup>a</sup> OF SYNCHAETA LACKOWITZIANA (ROTIFERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	MEAN
10	NMPW	405232	6696	0	0	0	0	0	432	51545.0
	NMPP	71992	4830	0	0	0	0	0	1612	9804.2
	FITZ	373322	431	0	0	0	0	0	1078	46854.0
	NMPE	303405	53383	0	0	0	0	0	1022	44726.2
	CONTOUR MEAN	288487.8	16335.0	0	0	0	0	0	1036.0	
20	NMPW	307120	4076	0	0	0	0	0	1193	39048.6
	NMPP	103552	4796	0	0	0	0	0	2041	13798.6
	FITZ	215667	0	0	0	0	0	0	414	27010.0
	NMPE	94618	53940	0	0	0	0	1519	2456	19066.6
	CONTOUR MEAN	180239.2	15703.0	0	0	0	0	379.8	1526.0	
40	NMPW	132042	1033	0	0	0	483	0	2246	16976.0
	NMPP	147730	5685	0	0	0	0	0	1292	19338.0
	FITZ	99231	0	0	0	0	0	0	1168	12550.0
	NMPE	170231	7786	0	0	0	0	0	1358	22422.0
	CONTOUR MEAN	137308.5	3626.0	0	0	0	120.8	0	1516.0	
60	NMPW	159917	2082	0	0	0	0	0	1179	20397.2
	NMPP	147687	1566	0	0	0	0	0	483	18717.0
	FITZ	115209	3571	0	0	0	0	0	1230	15001.2
	NMPE	129119	12139	0	0	0	0	0	1191	17806.1
	CONTOUR MEAN	137983.0	4839.5	0	0	0	0	0	1020.8	
DAILY MEAN		186004.6	10125.9	0	0	0	30.2	95.0	1274.7	

<sup>a</sup> Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup> Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup> NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup> NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup> NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep

ABUNDANCE<sup>a</sup> OF SYNCHAETA PECTINATA (ROTIFERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL MEAN
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	
10	NMPW	43219	0	0	0	0	8587	3914	404	7015.5
	NMPP	35144	4924	0	0	0	10682	4497	936	7022.9
	FITZ	23921	0	0	0	0	0	0	867	3098.5
	NMPE	36927	21577	0	0	0	5221	821	448	8124.2
	CONTOUR MEAN	34802.8	6625.2	0	0	0	6122.5	2308.0	663.8	
20	NMPW	55717	0	0	0	0	8941	2774	861	8536.6
	NMPP	46420	4425	0	0	0	0	3337	1340	6940.2
	FITZ	64662	0	0	0	0	0	7033	694	9048.6
	NMPE	41492	29187	0	3451	0	3839	1661	565	10024.4
	CONTOUR MEAN	52072.8	8403.0	0	862.8	0	3195.0	3701.2	865.0	
40	NMPW	18600	2066	0	0	0	0	0	1186	2731.5
	NMPP	46145	0	0	0	0	0	2418	800	6170.4
	FITZ	35597	2454	0	0	2803	0	0	892	5218.2
	NMPE	59461	6615	0	0	0	1108	2005	580	8721.1
	CONTOUR MEAN	39950.8	2783.8	0	0	700.8	277.0	1105.8	864.8	
60	NMPW	35365	0	0	0	0	2413	722	1280	4972.5
	NMPP	60294	0	0	0	0	0	1430	766	7811.2
	FITZ	51907	3711	0	0	0	0	2064	940	7327.8
	NMPE	53015	8576	0	0	0	8718	0	924	8904.1
	CONTOUR MEAN	50145.2	3071.8	0	0	0	2782.8	1054.0	977.5	
DAILY MEAN		44242.9	5221.0	0	215.7	175.2	3094.2	2042.2	842.7	

<sup>a</sup>Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup>Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup>NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup>NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup>NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep

ABUNDANCE<sup>a</sup> OF SYNCHAETA STYLATA (ROTIFERA) IN ZOOPLANKTON<sup>b</sup> COLLECTIONS

NINE MILE POINT VICINITY - 1976

DEPTH CONTOUR		DATES								ANNUAL
(FT)	TRANSECT	28 MAY	17 JUN <sup>c</sup>	28 JUL	26 AUG <sup>d</sup>	23 SEP <sup>e</sup>	19 OCT	16 NOV	19 DEC	MEAN
10	NMPW	1852	67775	8771	10516	146772	7445	0	49	30397.5
	NMPP	0	217055	6474	28521	16325	9266	1673	0	34914.2
	FITZ	1414	159929	26706	9745	75751	6376	2198	0	35264.9
	NMPE	0	292671	44623	37505	21967	3824	0	0	50073.8
	CONTOUR MEAN	816.5	184357.5	21643.5	21571.8	65203.8	6727.8	967.8	12.2	
20	NMPW	3874	138913	3776	13638	125614	4605	0	0	36302.5
	NMPP	1191	166841	4190	11387	20904	14677	2848	0	27754.8
	FITZ	1741	203296	13316	3858	41118	5950	0	0	33659.9
	NMPE	0	408942	49705	11529	45107	9066	760	0	65638.6
	CONTOUR MEAN	1701.5	229498.0	17746.8	10103.0	58185.8	8574.5	902.0	0	
40	NMPW	2754	89219	3293	5238	56756	7184	5366	0	21226.2
	NMPP	2296	188083	7258	2997	29033	38889	0	0	33569.5
	FITZ	2549	95483	5990	0	61741	9282	931	30	22000.8
	NMPE	870	154186	30224	7507	32938	6599	0	0	29040.5
	CONTOUR MEAN	2117.2	131742.8	11691.2	3935.5	45117.0	15488.5	1574.2	7.5	
60	NMPW	3815	108145	11290	2081	962	3501	803	0	16324.6
	NMPP	4038	97712	16833	574	16580	6130	715	0	17822.8
	FITZ	1037	62770	1241	3977	26078	11675	2064	0	13605.2
	NMPE	749	212614	17967	5394	29250	2821	1362	0	33769.6
	CONTOUR MEAN	2409.8	120310.2	11832.8	3006.5	18217.5	6031.8	1236.0	0	
DAILY MEAN		1761.2	166477.1	15728.6	9654.2	46681.0	9205.6	1170.0	4.9	

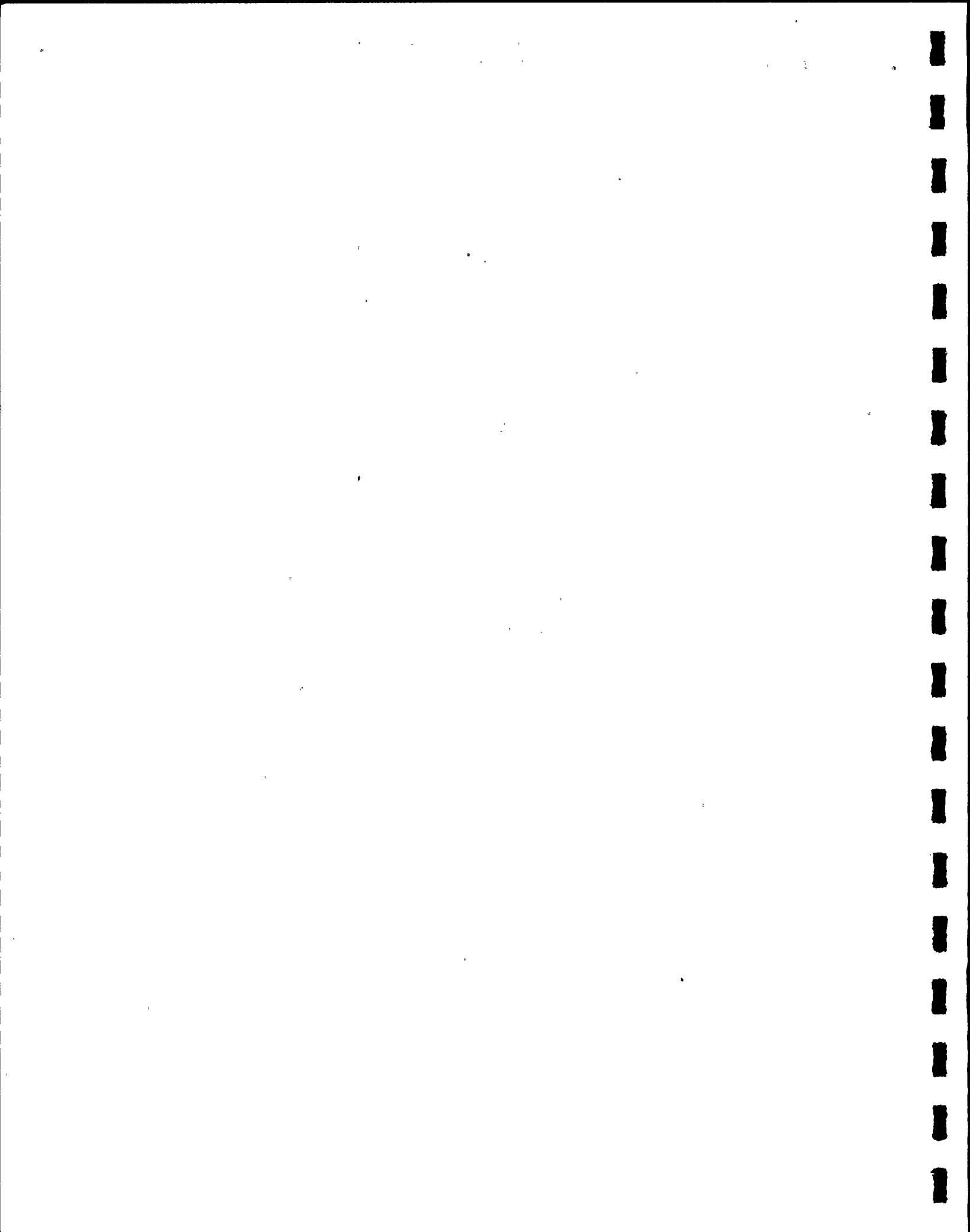
<sup>a</sup>Organisms/m<sup>3</sup>, mean of R-1 and R-2

<sup>b</sup>Zooplankton collection with 12.7 cm Clarke-Bumpus, 76  $\mu$ m mesh net

<sup>c</sup>NMPW, NMPP and FITZ (all depth contours) sampled 18 Jun

<sup>d</sup>NMPW (all depth contours), NMPP-10' and NMPP-20' sampled 27 Aug

<sup>e</sup>NMPW and NMPP (all depth contours) and FITZ-60' R-2, sampled 26 Sep



V.C.1. ABUNDANCE OF SELECTED SPECIES IN DAY COLLECTIONS  
(MACROZOOPLANKTON)



ABUNDANCE<sup>a</sup> OF CHAEBORUS IN DAY MACROZOOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	MEAN
16 JUN	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	6	0.4
	B	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2	0.1
GRAND MEAN <sup>b</sup>	S	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
	M	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.7	
	B	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	
	MEAN	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.2	

None collected 14 Apr, 13 May, and 15 Jul - 10 Dec

<sup>a</sup>Number of organisms/1000 m<sup>3</sup>

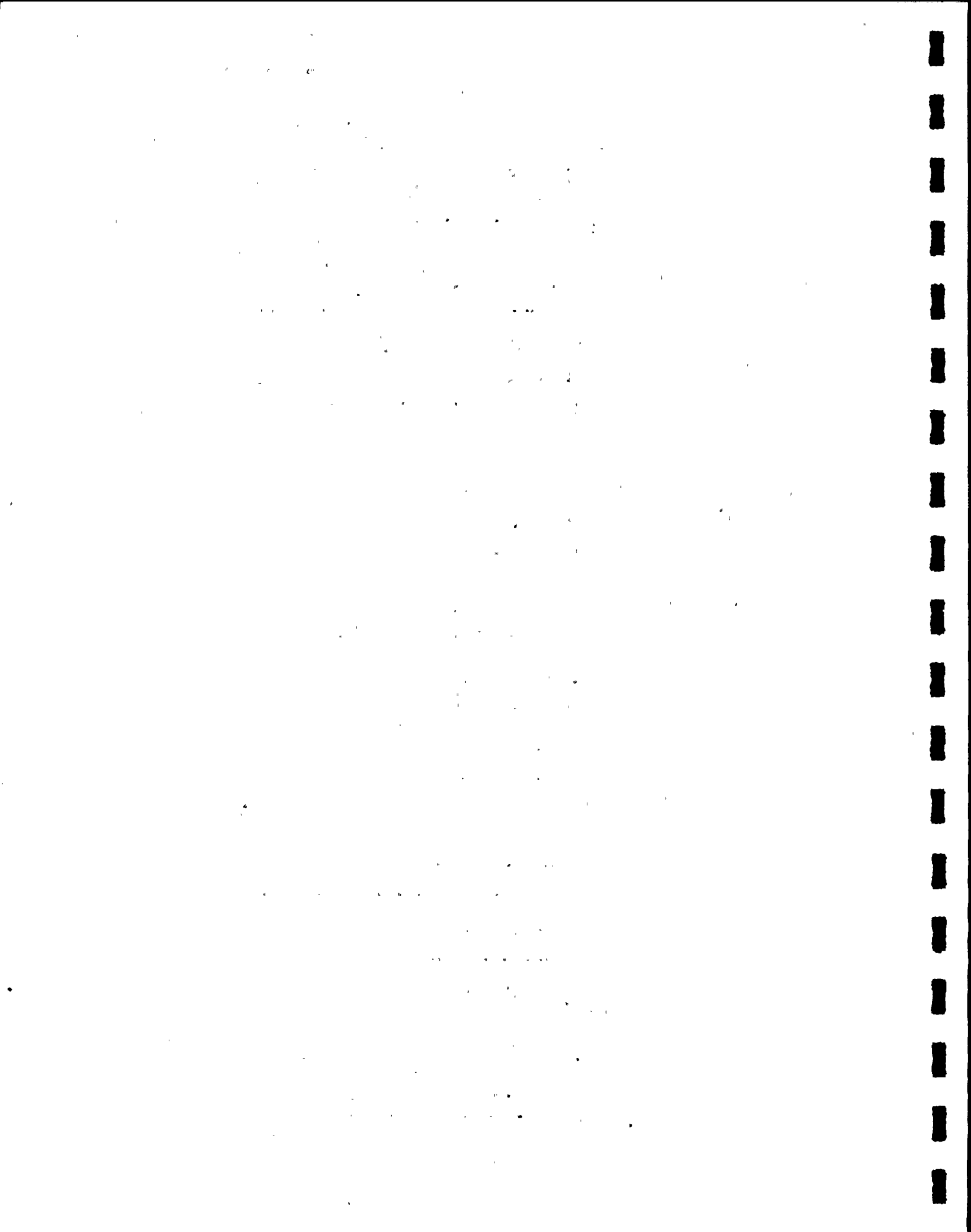
<sup>b</sup>April-December sampling period

S = Surface sample

M = Mid-depth sample

B = Bottom sample





ABUNDANCE<sup>a</sup> OF DIPTERA IN DAY MACROZOOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR								40 FT DEPTH CONTOUR								60 FT	80 FT	100 FT	GRAND MEAN
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP			
14 APR	S	0	0	0	5	0	0	0.8	5	0	0	0	0	5	1.7	0	0	0	1.0		
	M	0	0	0	0	0	0	0.0	0	0	0	6	6	0	2.0	0	0	0	0.8		
	B	0	0	5	11	0	0	2.7	0	0	0	6	0	5	1.8	0	0	0	1.8		
	MEAN	0	0	1.7	5.3	0	0	1.2	1.7	0	0	4	2	3.3	1.8	0	0	0	1.2		
13 MAY	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0		
	M	0	0	5	0	0	0	0.8	0	0	0	0	0	0	0.0	0	0	0	0.3		
	B	0	5	0	0	0	0	0.8	0	5	0	0	0	5	1.7	5	0	0	1.3		
	MEAN	0	1.7	1.7	0	0	0	0.6	0	1.7	0	0	0	1.7	0.6	1.7	0	0	0.6		
16 JUN	S	15	6	0	0	0	0	3.5	0	0	0	6	0	0	1.0	0	0	0	1.8		
	M	15	0	0	7	5	0	4.5	20	0	0	0	5	0	4.2	0	0	12	4.3		
	B	0	0	16	0	0	0	2.7	5	0	0	0	0	50	9.2	0	0	0	4.7		
	MEAN	10	2	5.3	2.3	1.7	0	3.6	8.3	0	0	2	1.7	16.7	4.8	0	0	4	3.6		
15 JUL	S	16	34	0	0	6	16	12.0	16	8	0	5	0	6	5.8	5	0	0	7.5		
	M	5	18	9	0	0	0	5.3	7	0	0	7	0	5	3.2	0	0	0	3.4		
	B	5	30	0	0	14	0	8.2	5	16	5	4	9	10	8.2	4	0	0	6.8		
	MEAN	8.7	27.3	3	0	6.7	5.3	8.5	9.3	8.0	1.7	5.3	3	7.0	5.7	3	0	0	5.9		
18 AUG	S	27	10	7	43	21	15	20.5	0	4	5	37	10	19	12.5	12	0	0	14.0		
	M	14	11	5	21	10	14	12.5	10	0	5	4	5	0	4.0	7	4	0	7.3		
	B	21	16	5	15	35	15	17.8	4	0	0	.5	0	7	2.7	0	10	14	9.8		
	MEAN	20.7	12.3	5.7	26.3	22.0	14.7	16.9	4.7	1.3	3.3	15.3	5.0	8.7	6.4	6.3	4.7	4.7	10.4		
8 SEP	S	44	5	6	0	24	0	13.2	21	94	10	23	5	5	26.3	5	0	0	16.1		
	M	55	0	5	0	13	0	12.2	5	27	6	10	5	0	8.8	10	14	5	10.3		
	B	61	16	0	33	27	0	22.8	16	83	10	8	0	0	19.5	0	5	0	17.3		
	MEAN	53.3	7	3.7	11	21.3	0	16.1	14	68	8.7	13.7	3.3	1.7	18.2	5	6.3	1.7	14.6		
6 OCT	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0		
	M	5	0	0	5	0	0	1.7	0	0	0	0	0	0	0.0	0	0	0	1.3		
	B	0	0	0	16	0	0	2.7	0	0	24	32	0	0	9.3	0	10	5	5.8		
	MEAN	1.7	0	0	7.0	0	0	1.5	0	0	8	10.7	0	0	3.1	0	3.3	1.7	2.4		
GRAND MEAN	S	11.3	6.1	1.4	5.3	5.7	3.4		4.7	11.8	1.7	7.9	1.7	3.9		2.4	0.0	0.0			
	M	10.4	3.2	2.7	3.6	3.1	1.6		4.7	3.0	1.2	3.0	2.3	0.6		1.9	2.0	1.9			
	B	9.7	7.4	2.9	8.3	8.4	1.7		3.3	11.6	4.3	6.1	1.0	8.6		1.0	2.8	2.1			
	MEAN	10.5	5.6	2.3	5.7	5.7	2.2		4.2	8.8	2.4	5.7	1.7	4.4		1.8	1.6	1.3			

None collected 3 Nov-10 Dec

<sup>a</sup>Number of organisms/1000 m<sup>3</sup>

<sup>b</sup>April-December sampling period

S = Surface sample

M = Mid-depth sample

B = Bottom sample

ABUNDANCE<sup>a</sup> OF HYDROIDA IN DAY MACROZOOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NHPP	NMPP	MEAN
14 APR	S	0	0	0	0	25	0	4.2	0	0	0	0	22	0	3.7	0	5	0	3.5
	M	0	0	0	0	11	0	1.8	0	0	0	0	6	0	1.0	0	5	0	1.5
	B	0	0	0	22	0	0	3.7	5	0	0	0	34	23	10.3	0	5	0	5.9
	MEAN	0	0	0	7.3	12.0	0	3.2	1.7	0	0	11.3	17.0	0	5.0	0	5.0	0	3.6
13 MAY	S	0	44	29	4	145	0	37.0	0	4	0	4	63	93	27.3	27	0	0	27.5
	M	0	168	163	57	342	1007	289.5	4	0	30	176	0	79	48.2	60	40	52	145.2
	B	5	146	0	62	32	21	44.3	5	5	25	65	16	239	59.2	5	5	5	42.4
	MEAN	1.7	119.3	64.0	41.0	173.0	342.7	123.6	3.0	3.0	18.3	81.7	26.3	137.0	44.9	30.7	15.0	19.0	71.7
16 JUN	S	0	0	0	0	0	0	0.0	0	0	5	6	0	0	1.8	0	0	0	0.7
	M	5	0	5	0	25	0	5.8	0	0	0	5	0	0	0.8	0	0	0	2.7
	B	0	19	89	5	72	0	30.8	0	0	0	0	4	0	0.7	0	0	0	12.6
	MEAN	1.7	6.3	31.3	1.7	32.3	0	12.2	0	0	1.7	3.7	1.3	0	1.1	0	0	0	5.3
15 JUL	S	0	0	0	0	0	0	0.0	0	0	0	5	0	0	0.8	0	0	0	0.3
	M	0	0	17	0	0	0	2.8	7	0	54	0	0	0	10.2	0	0	0	5.2
	B	0	0	14	0	0	5	3.2	5	5	9	105	22	0	24.3	21	0	0	12.4
	MEAN	0	0	10.3	0	0	1.7	2.0	4.0	1.7	21.0	36.7	7.3	0	11.8	2.0	0	0	6.0
18 AUG	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	5	0.8	0	0	0	0	0	0	0.0	0	0	0	0.3
	B	0	5	0	0	0	0	0.8	0	0	8	9	6	0	2.8	0	0	0	1.5
	MEAN	0	1.7	0	0	0	1.7	0.6	0	0	2.7	3	0	0	0.9	0	0	0	0.6
8 SEP	S	0	5	0	0	0	0	0.8	0	0	0	0	0	5	0.8	0	0	0	0.7
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	6	0	0	0	0	0	1.0	0	0	0	8	0	0	1.3	0	0	0	0.9
	MEAN	2.0	1.7	0	0	0	0	0.6	0	0	0	2.7	0	1.7	0.7	0	0	0	0.5
6 OCT	S	6	301	0	15	14	0	56.0	31	13	0	0	5	0	8.2	0	9	0	26.3
	M	25	180	0	10	44	0	43.2	10	66	0	0	0	0	12.7	15	5	0	23.7
	B	11	12	21	60	0	0	17.3	66	129	510	1070	0	0	295.8	0	10	24	127.5
	MEAN	14.0	164.3	7.0	17.3	19.3	0	38.8	35.7	69.3	170.0	356.7	1.7	0	105.6	5.0	8.0	8.0	59.2
3 NOV	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	10	0	1.7	0	0	0	0	13	0	2.2	0	0	0	1.5
	B	0	114	0	5	100	0	36.5	0	18	5	5	8	0	6.0	0	0	0	17.0
	MEAN	0	38.0	0	1.7	36.7	0	12.7	0	6.0	1.7	1.7	7.0	0	2.7	0	0	0	6.2
10 DEC	S	15	16	44	16	39	34	27.3	5	5	9	19	0	18	9.3	28	0	19	17.8
	M	0	5	0	39	34	0	13.0	14	5	42	0	4	6	11.8	6	11	0	11.1
	B	0	0	21	90	0	54	27.5	0	15	43	96	8	14	29.3	45	29	5	28.0
	MEAN	5.0	7.0	21.7	48.3	24.3	29.3	22.6	6.3	8.3	31.3	38.3	4.0	12.7	16.8	26.3	13.3	8.0	19.0
GRAND MEAN	S	2.3	40.7	8.1	3.9	24.8	3.8		4.0	2.4	1.6	3.8	10.0	12.9		6.1	1.6	2.1	
	M	3.3	39.2	20.6	11.8	51.8	112.4		3.9	7.9	14.0	20.1	2.6	9.4		9.0	6.7	5.8	
	B	2.4	32.9	16.1	27.1	22.7	8.9		9.0	19.1	66.7	154.7	9.0	28.1		7.9	5.4	3.8	
	MEAN	2.7	37.6	14.9	14.3	33.1	41.7		5.6	9.8	27.4	59.5	7.2	16.8		7.7	4.6	3.9	

<sup>a</sup> Number of organisms/1000 m<sup>3</sup>

<sup>b</sup> April-December sampling period

S = Surface sample

M = Mid-depth sample

B = Bottom sample



**ABUNDANCE<sup>a</sup> OF LEPTODORA KINDTII IN DAY MACROZOOPLANKTON COLLECTIONS**

NINE MILE POINT VICINITY - 1976

SAMPLE DATE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND
	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	MEAN
13 MAY	S 0	4	0	0	0	0	0.7	0	0	4	0	0	4	1.3	4	4	8	1.9
	M 0	5	0	0	0	11	2.7	46	0	4	0	0	0	8.3	9	15	0	6.0
	B 0	5	0	0	5	0	1.7	0	0	5	0	0	0	0.8	0	0	0	1.0
	MEAN 0	4.7	0	0	1.7	3.7	1.7	15.3	0	4.3	0	0	1.3	3.5	4.3	6.3	2.7	3.0
16 JUN	S 5399	270	713	548	307	8700	2656.2	526	600	809	1128	412	1718	865.5	418	616	45	1480.6
	M 414	526	1011	1125	1806	7037	1986.5	1001	0	160	1002	2417	2102	1113.7	402	347	120	1298.0
	B 1095	956	1019	1271	1038	3407	1464.3	355	346	589	568	1238	587	613.8	47	30	70	841.1
	MEAN 2302.7	584.0	914.3	981.3	1050.3	6381.3	2035.7	627.3	315.3	519.3	899.3	1355.7	1469.0	864.3	289.0	331.0	78.3	1206.6
15 JUL	S 24052	51488	21902	8360	39198	20754	27625.7	6090	20879	44453	67163	14536	20183	28884.0	813	1466	3395	22982.1
	M 46998	54853	14426	12706	17263	25894	28690.0	23912	30578	64340	23700	25323	14555	30401.3	34164	51295	306	29354.2
	B 17010	38669	13044	28016	13719	20523	21830.2	51116	11358	28431	73201	39860	11720	35947.7	52416	11289	13771	28276.2
	MEAN 29353.3	48336.7	16457.3	16360.7	23393.3	22390.3	26048.6	27039.3	20938.3	45741.3	54688.0	26573.0	15486.0	31744.3	29131.0	21350.0	5824.0	26870.8
18 AUG	S 139739	48076	236336	53160	37506	174032	114808.2	496	35220	7681	1142	31329	10053	14320.2	23736	389	9357	53883.5
	M 65833	188948	67664	43149	95785	317370	129791.5	61008	109301	66127	24496	61825	60905	63943.7	48119	22134	30701	84224.3
	B 61618	47673	55026	33184	125954	293169	102770.7	229951	14935	37408	959	123704	72182	79856.5	14800	31647	34588	78453.2
	MEAN 89063.3	94899.0	119675.3	43164.3	86415.0	261523.7	115790.1	97151.7	53152.0	37072.0	8865.7	72286.0	47713.3	52706.8	28885.0	18056.7	24882.0	72187.0
8 SEP	S 633339	29530	549840	159155	198118	572117	357016.5	493598	514479	330655	59632	354889	333337	347765.0	265700	325405	456447	351749.4
	M 933059	57193	793410	296122	151348	938272	528234.0	208935	197469	214697	26951	473311	485611	267829.0	393620	222680	346285	382597.5
	B 331472	260365	611628	664828	663549	364614	482742.7	117759	323022	294780	114940	863914	366062	346746.2	321536	310810	364687	398264.4
	MEAN 632623.3	115696	651626	373368.3	337671.7	625001	455997.7	273430.7	344990	280044	67174.3	564038	395003.3	320780.1	326952	286298.3	389139.7	377537.1
6 OCT	S 6116	15713	22598	29694	26990	7457	18094.7	32359	22586	81295	27522	9480	33217	34409.8	37037	11047	653	24250.9
	M 67323	3114	34797	43868	37127	34172	36733.5	103879	82291	56532	40435	83351	67390	72313.0	73879	49916	47063	55009.1
	B 13654	34378	48356	99079	42289	36012	45628.0	69476	41047	49427	2673	55975	86697	50882.5	65254	13463	50134	47194.3
	MEAN 29031.0	17735.0	35250.3	57547.0	35468.7	25880.3	33485.4	68571.3	48641.3	62418.0	23543.3	49602.0	62434.7	52535.1	58723.3	24808.7	32616.7	42151.4
3 NOV	S 1467	1530	139	1899	27	588	941.7	149	225	225	248	467	525	306.5	145	388	338	557.3
	M 6547	3608	4897	6317	8386	4083	5639.7	7500	2284	3859	4164	19211	6115	7188.8	1974	3361	1670	5598.4
	B 2655	7303	20817	20046	1774	34429	14504.0	5124	3102	4625	10575	5118	2115	5109.8	2925	2928	1840	8358.4
	MEAN 3556.3	4147.0	8617.7	9420.7	3395.7	13033.3	7028.5	4257.7	1870.3	2903.0	4995.7	8265.3	2918.3	4201.7	1681.3	2225.7	1282.7	4838.0
10 DEC	S 0	0	0	0	0	0	0.0	0	5	0	0	0	0	0.8	0	0	0	0.3
	M 0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B 0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	MEAN 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1
GRAND MEAN <sup>b</sup>	S 90012.4	16290.1	92392.0	28090.7	33571.8	87072.0		59246.4	65999.3	51680.2	17426.1	45679.2	44337.4		36428.1	37701.7	52249.2	
	M 124463.8	34249.7	101800.6	44809.7	34635.0	147426.6		45142.3	46880.3	45079.9	13416.4	73937.6	70742.0		61351.9	38860.9	47349.4	
	B 47500.4	43261.0	83321.1	94047.1	94258.7	83572.7		52642.3	43756.7	46140.6	22546.2	121089.9	59929.2		50775.3	41129.7	51676.7	
	MEAN 87325.5	31266.9	92504.6	55649.2	54155.2	106023.8		52343.7	52212.1	47633.6	17796.2	80235.6	58336.2		49518.4	39230.8	50425.1	

None collected 14 Apr

<sup>a</sup>Number of organisms/1000 m<sup>3</sup>

<sup>b</sup>April-December sampling period

S = Surface sample

M = Mid-depth sample

B = Bottom sample

ABUNDANCE<sup>a</sup> OF GAMMARUS FASCIATUS IN DAY MACROZOOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND MEAN
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	
14 APR	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	M	0	0	0	0	0	0	0	0	0	0	6	0	0	1.0	0	0	0	.4
	B	0	0	0	27	0	0	4.5	0	0	0	0	0	10	1.7	0	0	0	2.5
	MEAN	0	0	0	9	0	0	1.5	0	0	0	2	0	3.3	0.9	0	0	0	1.0
13 MAY	S	0	0	0	0	0	0	0	0	0	0	4	0	0	.7	0	0	0	.3
	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B	0	0	0	5	0	52	9.5	0	0	0	0	0	25	4.2	0	0	0	5.5
	MEAN	0	0	0	1.7	0	17.3	3.2	0	0	0	1.3	0	8.3	1.6	0	0	0	1.9
16 JUN	S	8	0	0	0	0	0	1.3	0	20	0	0	0	0	8	4.7	0	20	3.7
	M	0	9	0	0	10	49	11.3	10	0	0	0	5	0	2.5	0	0	44	8.5
	B	0	0	77	0	5	34	19.3	0	31	14	0	0	0	7.5	26	0	9	13.1
	MEAN	2.7	3	25.7	0	5	27.7	10.7	3.3	17.0	4.7	0	1.7	2.7	4.9	8.7	6.7	17.7	8.4
15 JUL	S	0	0	0	0	6	0	1.0	0	0	0	0	0	0	0	5	0	5	1.1
	M	5	0	0	0	5	0	1.7	0	0	20	4	0	0	4.0	0	0	0	2.3
	B	0	0	0	10	0	0	1.7	0	0	9	0	9	0	3.0	0	30	49	7.1
	MEAN	1.7	0	0	3.3	3.7	0	1.4	0	0	9.7	1.3	3	0	2.3	1.7	10	18	3.5
18 AUG	S	140	35	230	6	0	53	77.3	0	8	19	9	0	0	6.0	156	0	128	52.3
	M	24	28	9	0	0	9	11.7	14	14	0	0	0	4	5.3	7	0	6	7.7
	B	17	11	5	0	10	0	7.2	102	0	4	0	0	0	17.7	0	7	55	14.1
	MEAN	60.3	24.7	81.3	2.0	3.3	20.7	32.1	38.7	7.3	7.7	3.0	0	1.3	9.7	54.3	2.3	63.0	24.7
8 SEP	S	0	0	0	0	0	0	0.0	0	0	0	6	0	10	2.7	0	0	8	1.6
	M	0	0	0	5	0	0	0.8	0	4	0	5	0	5	2.3	0	5	0	1.6
	B	37	0	0	270	11	0	53.0	0	0	0	0	0	0	0.0	0	0	6	21.6
	MEAN	12.3	0	0	91.7	3.7	0	18.0	0	1.3	0	3.7	0	5.0	1.7	0	1.7	4.7	8.3
6 OCT	S	0	0	0	0	0	7	1.2	0	0	0	0	5	5	1.7	0	0	0	1.1
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	0	0	0	0	6	0	1.0	0	10	18	26	0	0	9.0	0	0	0	4.0
	MEAN	0	0	0	0	2.0	2.3	0.7	0	3.3	6.0	8.7	1.7	1.7	3.6	0	0	0	1.7
3 NOV	S	4	0	0	5	0	0	1.5	0	0	0	0	0	0	0.0	0	0	4	0.9
	M	0	0	0	0	0	0	0.0	0	0	0	0	4	0	0.7	0	0	9	0.9
	B	0	33	0	27	687	0	124.5	0	0	0	0	13	53	11.0	0	0	0	54.2
	MEAN	1.3	11.0	0	10.7	229.0	0	42.0	0	0	0	0	5.7	17.7	3.9	0	0	4.3	18.7
10 DEC	S	0	0	0	0	0	5	0.8	0	0	0	0	0	0	0.0	0	0	0	0.3
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	MEAN	0.0	0.0	0.0	0.0	0.0	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
GRAND MEAN <sup>b</sup>	S	16.9	3.9	25.6	1.2	0.7	7.2		0.0	3.1	2.1	2.1	0.6	2.6		17.9	2.2	16.1	
	M	3.2	4.1	1.0	0.6	1.7	6.4		2.7	2.0	2.2	1.7	1.0	1.0		0.8	0.6	6.6	
	B	6.0	4.9	9.1	37.7	79.9	9.6		11.3	4.6	5.0	2.9	2.4	9.8		2.9	4.1	13.2	
	MEAN	8.7	4.3	11.9	13.2	27.4	7.7		4.7	3.2	3.1	2.2	1.3	4.5		7.2	2.3	12.0	

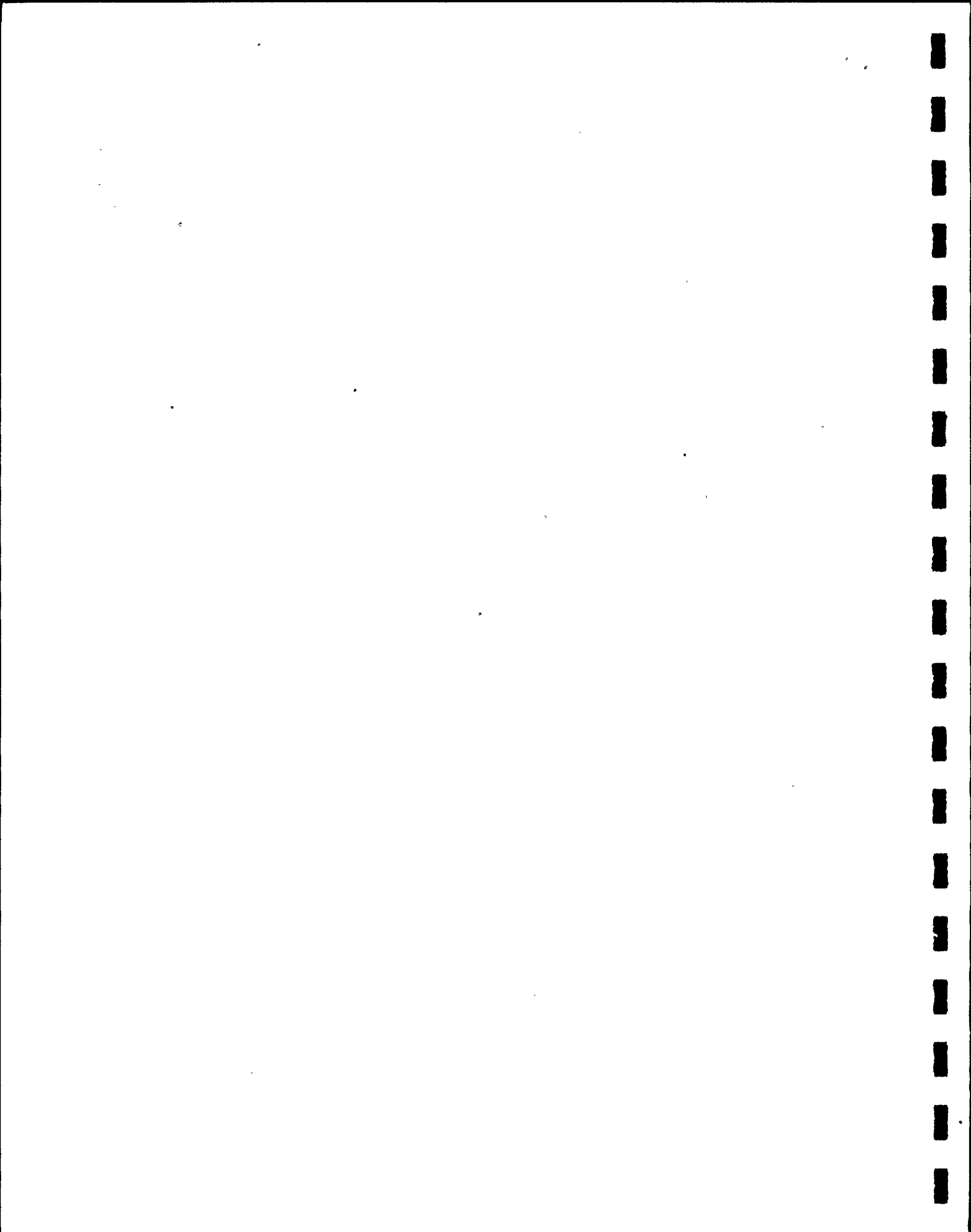
<sup>a</sup> Number of organisms/1000 m<sup>3</sup>

<sup>b</sup> April-December sampling period

S = Surface sample

M = Mid-depth sample

B = Bottom sample



V.C.2. ABUNDANCE OF SELECTED SPECIES IN NIGHT COLLECTIONS  
(MACROZOOPLANKTON)



ABUNDANCE<sup>a</sup> OF GAMMARUS FASCIATUS IN NIGHT MACROZOOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND MEAN
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	
16 JUN	S	498	623	625	490	394	311	490.2	819	661	415	490	515	480	563.3	352	143	9	455.0
	M	791	840	561	86	420	989	614.5	789	468	532	1088	1318	539	789.0	441	128	62	603.5
	B	1706	547	515	531	992	192	747.2	893	441	252	1234	761	433	669.0	260	129	58	596.3
	MEAN	998.3	670.0	567.0	369.0	602.0	497.3	617.3	833.7	523.3	399.7	937.3	864.7	484.0	673.8	351.0	133.3	43.0	551.6
15 JUL	S	34	126	342	512	922	864	466.7	41	35	161	141	174	413	160.8	367	785	201	341.2
	M	32	116	615	579	0	40	230.3	205	192	346	317	100	3310	745.0	751	1425	996	601.6
	B	315	613	890	1314	6717	1266	1852.5	200	422	400	500	1866	1452	806.7	815	1046	482	1219.9
	MEAN	127.0	285.0	615.7	801.7	2546.3	723.3	849.8	148.7	216.3	302.3	319.3	713.3	1725.0	570.8	644.3	1085.3	559.7	720.9
18 AUG	S	684	1121	621	1119	1996	983	1087.3	189	701	657	1620	622	772	760.2	291	318	163	790.5
	M	70	1981	2076	2779	3308	2768	2163.7	1337	1438	2457	1200	3088	1604	1854.0	5532	558	893	2072.6
	B	2556	2690	3131	2626	9221	3586	3968.3	1463	2536	6147	4035	2702	1569	3075.3	2268	899	522	3063.4
	MEAN	1103.3	1930.7	1942.7	2174.7	4841.7	2445.7	2406.4	996.3	1558.3	3087.0	2285.0	2137.3	1315.0	1896.5	2697.0	591.7	526.0	1975.5
8 SEP	S	0	0	0	6	0	0	1.0	5	0	0	5	0	0	1.7	5	9	0	2.0
	M	0	5	0	16	0	11	5.3	0	5	0	0	0	15	3.3	252	606	611	101.4
	B	26	26	21	53	30	120	46.0	69	136	245	221	309	637	269.5	384	367	647	219.4
	MEAN	8.7	10.3	7.0	25.0	10.0	43.7	17.4	24.7	47.0	81.7	75.3	103.0	217.3	91.5	213.7	327.3	419.3	107.6
GRAND MEAN	S	304.0	467.5	397.0	531.8	828.0	539.5		263.5	349.2	308.2	564.0	327.8	416.2		253.8	313.8	93.2	
	M	223.2	735.5	813.0	865.0	932.0	952.0		582.8	525.8	833.8	651.2	1126.5	1367.0		1744.0	679.2	640.5	
	B	1150.8	969.0	1139.2	1131.0	4240.0	1291.0		656.2	883.8	1761.0	1497.5	1409.5	1022.8		931.8	610.2	427.2	
	MEAN	559.3	724.0	783.1	842.6	2000.0	927.5		500.8	586.2	967.7	904.2	954.6	935.3		976.5	534.4	387.0	

<sup>a</sup>Number of organisms/1000 m<sup>3</sup>

<sup>b</sup>June-September sampling period

S = Surface sample

M = Mid-depth sample

B = Bottom sample

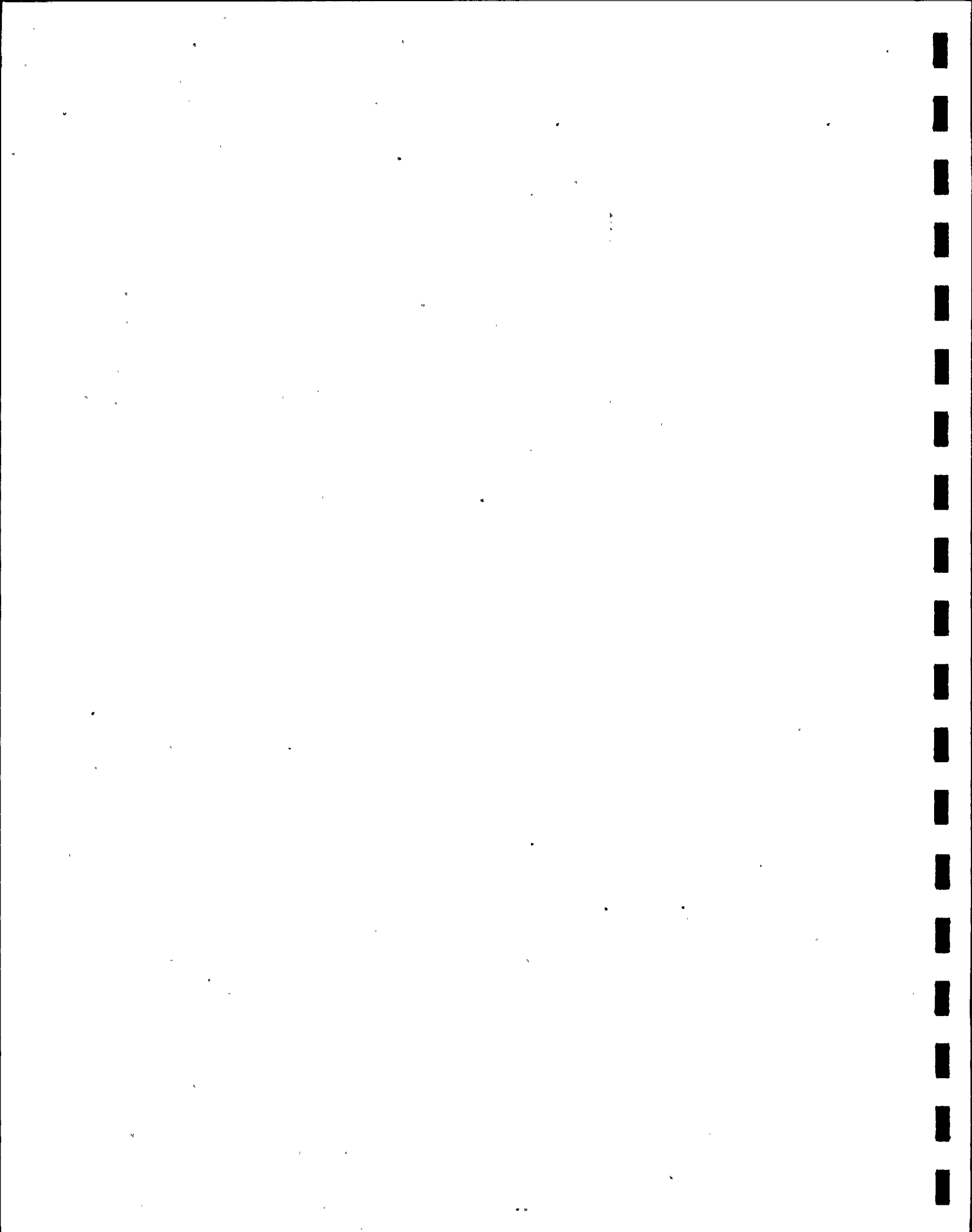
V.D.1. LARVAL ABUNDANCE OF SELECTED SPECIES OF ICHTHYOPLANKTON  
IN DAY COLLECTIONS

1976 ICHTHYOPLANKTON COLLECTIONS

Larvae of the following selected species were not collected in lake collections:

DAY:           BROWN TROUT  
                COHO SALMON  
                SMALLMOUTH BASS  
                SPOTTAIL SHINER  
                THREESPINE STICKLEBACK

NIGHT:         BROWN TROUT  
                COHO SALMON  
                SMALLMOUTH BASS  
                SPOTTAIL SHINER



ABUNDANCE<sup>a</sup> OF ALEWIFE IN DAY ICHTHYOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT. DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	MEAN
16,17 JUN	S	15	0	0	0	0	0	2.5	5	5	0	0	0	4	2.3	0	0	0	1.9
	M	0	9	0	0	0	6	2.5	11	0	0	0	0	0	1.8	0	4	0	2.0
	B	0	0	0	0	5	0	0.8	0	0	0	0	0	0	0.0	0	0	5	0.7
	MEAN	5.0	3.0	0.0	0.0	1.7	2.0	1.9	5.3	1.7	0.0	0.0	0.0	1.3	1.4	0.0	1.3	1.7	1.5
23 JUN	S	0	0	8	6	14	0	4.7	0	5	0	0	0	111	19.3	9	0	0	10.2
	M	0	5	12	0	5	9	5.2	0	0	0	0	5	7	2.0	0	4	0	3.1
	B	0	0	40	0	21	5	11.0	0	0	0	0	36	0	6.0	0	5	9	7.7
	MEAN	0.0	1.7	20.0	2.0	13.3	4.7	6.9	0.0	1.7	0.0	0.0	13.7	39.3	9.1	3.0	3.0	3.0	7.0
30 JUN	S	5	0	5	0	0	29	6.5	6	0	0	5	0	26	6.2	0	14	18.	7.2
	M	5	6	17	0	13	5	7.7	15	0	0	0	23	16	9.0	5	11	10.	8.4
	B	0	6	0	10	16	15	7.8	5	24	8	0	13	22	12.0	14	46	18.	13.1
	MEAN	3.3	4.0	7.3	3.3	9.7	16.3	7.3	8.7	8.0	2.7	1.7	12.0	21.3	9.1	6.3	23.7	15.3	9.6
7 JUL	S	18	15	12	5.	0	9	9.8	49	4	0	24	5	23	17.5	5	0	0	11.3
	M	5	0	5	5	0	48	10.5	5	41	0	6	11	12	12.5	11	0	0	9.9
	B	0	16	5	11	10	24	11.0	0	0	11	6	0	35	8.7	0	0	0	7.9
	MEAN	7.7	10.3	7.3	7.0	3.3	27.0	10.4	18.0	15.0	3.7	12.0	5.3	23.3	12.9	5.3	0.0	0.0	9.7
15 JUL	S	161	162	0	10	231	48	102.0	308	180	22	19	6	6	90.2	0	0	0	76.9
	M	20	26	9	22	126	80	47.2	22	10	0	4	9	5	8.3	5	0	0	22.5
	B	62	35	5	35	95	52	47.3	59	26	91	12	31	5	37.3	0	9	4	34.7
	MEAN	81.0	74.3	4.7	22.3	150.7	60.0	65.5	129.7	72.0	37.7	11.7	15.3	5.3	45.3	1.7	3.0	1.3	44.7
21 JUL	S	4	19	5	34	32	365	76.5	5	0	5	5	13	317	57.5	31	75	50	64.0
	M	0	5	5	15	89	65	29.8	14	0	5	0	20	87	21.0	9	5	12	22.1
	B	0	0	5	0	0	95	16.7	4	4	4	0	25	159	32.7	33	13	0	22.8
	MEAN	1.3	8.0	5.0	16.3	40.3	175.0	41.0	7.7	1.3	4.7	1.7	19.3	187.7	37.1	24.3	31.0	20.7	36.3
28 JUL	S	113	141	84	14	80	61	82.2	55	32	86	43	26	5	41.2	125	156	299	88.0
	M	19	4	277	91	35	317	123.8	0	125	35	8	16	305	81.5	195	115	53	106.3
	B	506	350	203	82	25	127	215.5	79	125	88	101	48	249	115.0	74	144	104	153.7
	MEAN	212.7	165.0	188.0	62.3	46.7	168.3	140.5	44.7	94.0	69.7	50.7	30.0	186.3	79.2	131.3	138.3	152.0	116.0
4 AUG	S	1629	1111	1320	2932	808	476	1379.3	1178	1750	1667	2293	676	138	1283.7	1497	2790	177	1362.8
	M	3301	1195	3247	1552	240	247	1630.3	534	845	2594	431	69	6	746.5	393	307	19	998.7
	B	1535	1527	2212	246	215	104	973.2	643	373	1812	131	59	11	504.8	122	102	30	608.1
	MEAN	2155.0	1277.7	2259.7	1576.7	421.0	275.7	1327.6	785.0	989.3	2024.3	951.7	268.0	51.7	845.0	670.7	1066.3	75.3	989.9
11 AUG	S	61	237	38	108	68	147	109.8	131	254	280	274	81	70	181.7	123	190	83	143.0
	M	91	20	261	11	0	29	68.7	32	129	136	36	12	17	60.3	10	47	0	55.4
	B	87	49	485	17	153	37	138.0	56	75	20	16	39	6	35.3	23	29	0	72.8
	MEAN	79.7	102.0	261.3	45.3	73.7	71.0	105.5	73.0	152.7	145.3	108.7	44.0	31.0	92.4	52.0	88.7	27.7	90.4
18 AUG	S	1793	1482	1732	1202	438	437	1180.7	36	743	529	1069	440	526	557.2	1347	702	1426	926.8
	M	222	290	490	1159	356	208	454.2	210	106	452	1086	26	76	326.0	441	342	335	386.6
	B	124	233	505	1252	354	160	438.0	218	44	293	92	88	54	131.5	241	396	242	286.4
	MEAN	713.0	668.3	909.0	1204.3	382.7	268.3	690.9	154.7	297.7	424.7	749.0	184.7	218.7	338.2	676.3	480.0	667.7	533.3
25 AUG	S	20	24	7	0	6	41	16.3	15	5	6	13	29	10	13.0	21	17	0	14.3
	M	12	24	11	0	18	6	11.8	18	6	22	0	12	19	12.8	0	0	6	10.3
	B	12	17	16	25	29	0	16.5	31	27	6	0	0	6	11.7	5	10	15.	13.3
	MEAN	14.7	21.7	11.3	8.3	17.7	15.7	14.9	21.3	12.7	11.3	4.3	13.7	11.7	12.5	8.7	9.0	7.0	12.6

ABUNDANCE<sup>a</sup> OF ALEWIFE IN DAY ICHTHYOPLANKTON COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND MEAN
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	
1 SEP	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	5	5	0	0	0	1.7	0	0	0	0.7
	B	0	0	6	0	0	0	1.0	0	0	0	0	0	0	0.0	0	0	4	0.7
	MEAN	0.0	0.0	2.0	0.0	0.0	0.0	0.3	0.0	1.7	1.7	0.0	0.0	0.0	0.6	0.0	0.0	1.3	0.4
8 SEP	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	21	0	0	0	0	3.5	0	0	0	0	0	0	0.0	0	0	0	1.4
	B	0	0	9	0	0	0	1.5	0	0	0	8	0	0	1.3	0	0	0	1.1
	MEAN	0.0	7.0	3.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	2.7	0.0	0.0	0.4	0.0	0.0	0.0	0.8
15 SEP	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	5	0.3
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	6	0.4
	MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.2
25,26 SEP	S	0	0	0	0	0	0	0.0	5	0	0	0	0	0	0.8	0	0	0	0.3
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	0	6	0	0	0	0	1.0	0	0	0	0	0	0	0.0	0	0	6	0.8
	MEAN	0.0	2.0	0.0	0.0	0.0	0.0	0.3	1.7	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	2.0	0.4
29 SEP	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
	B	0	0	0	0	6	0	1.0	0	0	0	0	0	0	0	0	0	0	0.4
	MEAN	0.0	0.0	0.0	0.0	2.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
13,15 OCT	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	4	0	0	0.3
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
	B	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0.0
	MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.1
GRAND MEAN <sup>b</sup>	S	109.1	91.2	91.7	123.2	48.0	46.1		51.2	85.1	74.1	107.0	36.4	35.3		90.3	112.7	58.8	
	M	105.0	45.9	123.8	81.6	25.2	29.1		24.6	36.2	92.8	44.9	5.8	15.7		30.5	23.9	12.4	
	B	66.5	64.0	99.5	47.9	26.5	17.7		31.3	19.9	66.6	10.5	9.7	15.6		14.6	21.5	12.7	
	MEAN	93.5	67.0	105.0	84.2	33.2	31.0		35.7	47.1	77.8	54.1	17.3	22.2		45.1	52.7	28.0	

None collected 7 Apr - 9 Jun, 6 Oct, and 20 Oct - 20 Dec.

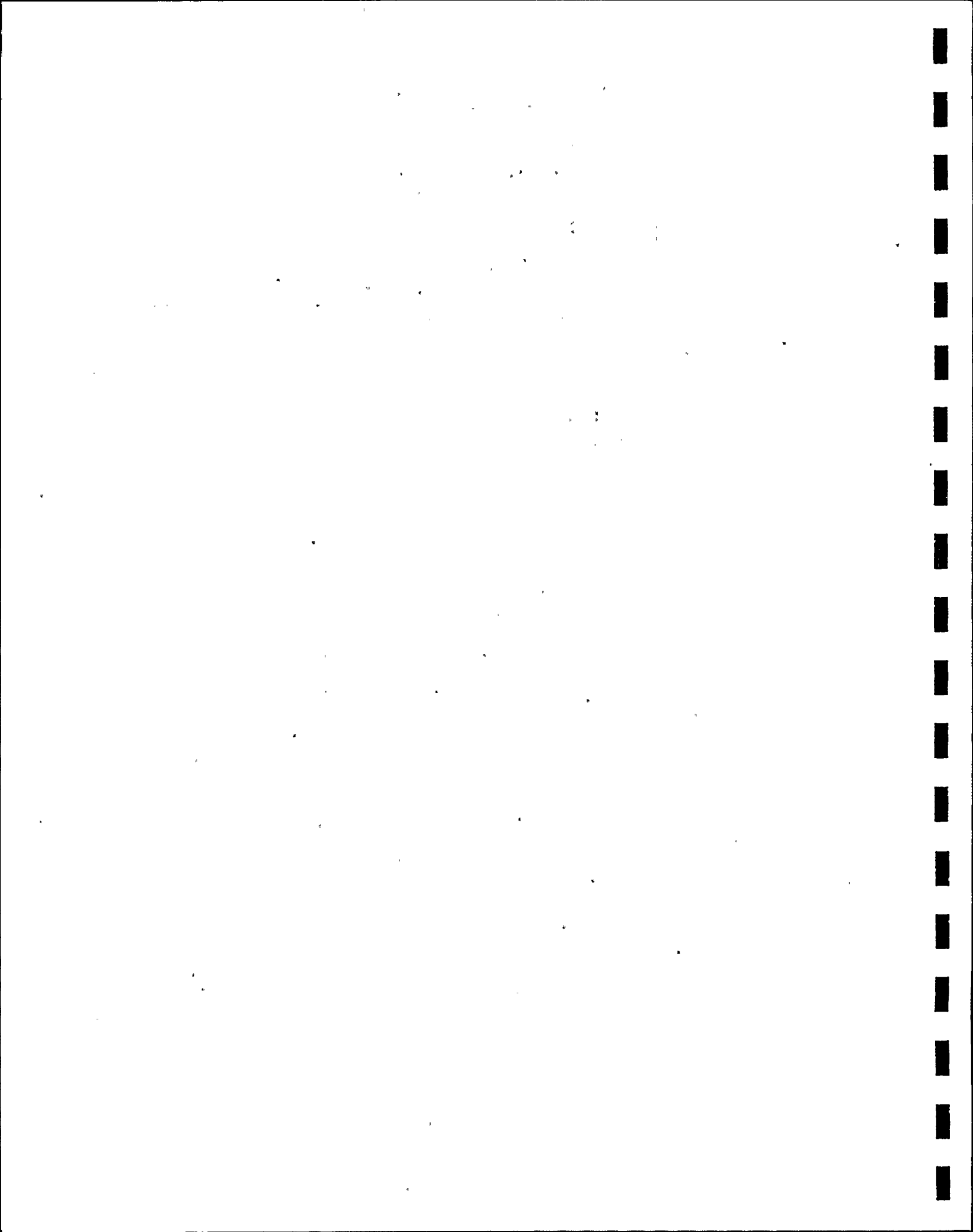
<sup>a</sup>Number of organisms/1000 m<sup>3</sup>

<sup>b</sup>April - December sampling period

S = Surface sample

M = Mid-depth sample

B = Bottom sample



ABUNDANCE<sup>a</sup> OF RAINBOW SMELT IN DAY ICHTHYOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND MEAN
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	
13 MAY	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	4	0	0.7	0	0	0	6	0	0	1.0	0	0	0	0.7
	B	0	0	0	0	0	0	0.0	0	0	5	0	0	0	0.8	0	0	0	0.3
	MEAN	0.0	0.0	0.0	0.0	1.3	0.0	0.2	0.0	0.0	1.7	2.0	0.0	0.0	0.6	0.0	0.0	0.0	0.3
22 MAY	S	7	10	0	22	5	5	8.2	5	11	5	0	16	5	7.0	0	5	0	6.4
	M	5	0	0	0	0	0	0.8	0	12	0	10	6	0	4.7	0	0	0	2.2
	B	0	11	0	0	5	0	2.7	0	10	5	0	11	5	5.2	4	0	0.0	3.4
	MEAN	4.0	7.0	0.0	7.3	3.3	1.7	3.9	1.7	11.0	3.3	3.3	11.0	3.3	5.6	1.3	1.7	0.0	4.0
26 MAY	S	0	0	0	4	0	0	0.7	9	5	0	0	0	0	2.3	0	0	0	1.2
	M	0	0	5	0	0	0	0.8	0	0	5	38	0	0	7.2	0	0	5	3.5
	B	0	0	0	5	5	0	1.7	5	0	0	0	10	0	2.5	0	0	0	1.7
	MEAN	0.0	0.0	1.7	3.0	1.7	0.0	1.1	4.7	1.7	1.7	12.7	3.3	0.0	4.0	0.0	0.0	1.7	2.1
2 JUN	S	0	0	0	11	4	5	3.3	0	0	6	6	37	0	8.2	0	53	0	8.1
	M	5	0	0	7	13	17	7.0	6	0	0	7	6	7	4.3	0	10	16	6.3
	B	0	0	0	5	0	11	2.7	0	0	5	0	0	0	0.8	0	0	4	1.7
	MEAN	1.7	0.0	0.0	7.7	5.7	11.0	4.3	2.0	0.0	3.7	4.3	14.3	2.3	4.4	0.0	21.0	6.7	5.4
9 JUN	S	41	7	0	9	26	28	18.5	14	6	12	11	12	18	12.2	28	23	0	15.7
	M	89	19	15	10	78	87	49.7	10	47	12	0	21	24	19.0	0	15	5	28.8
	B	52	0	0	5	68	25	25.0	10	14	20	0	4	27	12.5	0	18	12	17.0
	MEAN	60.7	8.7	5.0	8.0	57.3	46.7	31.1	11.3	22.3	14.7	3.7	12.3	23.0	14.6	9.3	18.7	5.7	20.5
16,17 JUN	S	0	0	0	0	0	10	1.7	0	5	0	0	0	0	0.8	4	0	0	1.3
	M	5	0	0	0	5	11	3.5	37	0	0	0	0	0	6.2	0	13	6	5.1
	B	6	0	0	0	0	0	1.0	0	0	0	0	4	9	2.2	0	0	0	1.3
	MEAN	3.7	0.0	0.0	0.0	1.7	7.0	2.1	12.3	1.7	0.0	0.0	1.3	3.0	3.1	1.3	4.3	2.0	2.6
23 JUN	S	0	0	0	0	0	0	0.0	0	0	0	0	0	37	6.2	0	0	4	2.7
	M	0	0	0	0	0	13	2.2	0	0	0	0	0	0	0.0	0	4	4	1.4
	B	0	0	0	0	0	0	0.0	5	0	0	0	0	0	0.8	9	0	4	1.2
	MEAN	0.0	0.0	0.0	0.0	0.0	4.3	0.7	1.7	0.0	0.0	0.0	0.0	12.3	2.3	3.0	1.3	4.0	1.7
30 JUN	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	0	0	0	0	0	0	0.0	0	0	4	0	0	0	0.7	0	0	0	0.3
	MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1
7 JUL	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	5	0	0.3
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.1
25 AUG	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	0	0	0	6	0	0	1.0	0	0	0	0	0	0	0.0	0	0	0	0.4
	MEAN	0.0	0.0	0.0	2.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
GRAND MEAN <sup>b</sup>	S	1.4	0.5	0.0	1.3	1.0	1.4		0.8	0.8	0.7	0.5	1.9	1.7		0.9	2.5	0.1	
	M	3.0	0.5	0.6	0.5	2.9	3.7		1.5	1.7	0.5	1.7	0.9	0.9		0.0	1.2	1.0	
	B	1.7	0.3	0.0	0.6	2.2	1.0		0.6	0.7	1.1	0.0	0.8	1.2		0.4	0.5	0.6	
	MEAN	2.0	0.4	0.2	0.8	2.0	2.0		1.0	1.1	0.8	0.7	1.2	1.3		0.4	1.4	0.6	

None collected 7-29 Apr, 15 Jul - 18 Aug, and 1 Sep - 20 Dec

<sup>a</sup> Number of organisms/1000 m<sup>3</sup>

<sup>b</sup> April - December sampling period

S = Surface sample  
M = Mid-depth sample  
B = Bottom sample

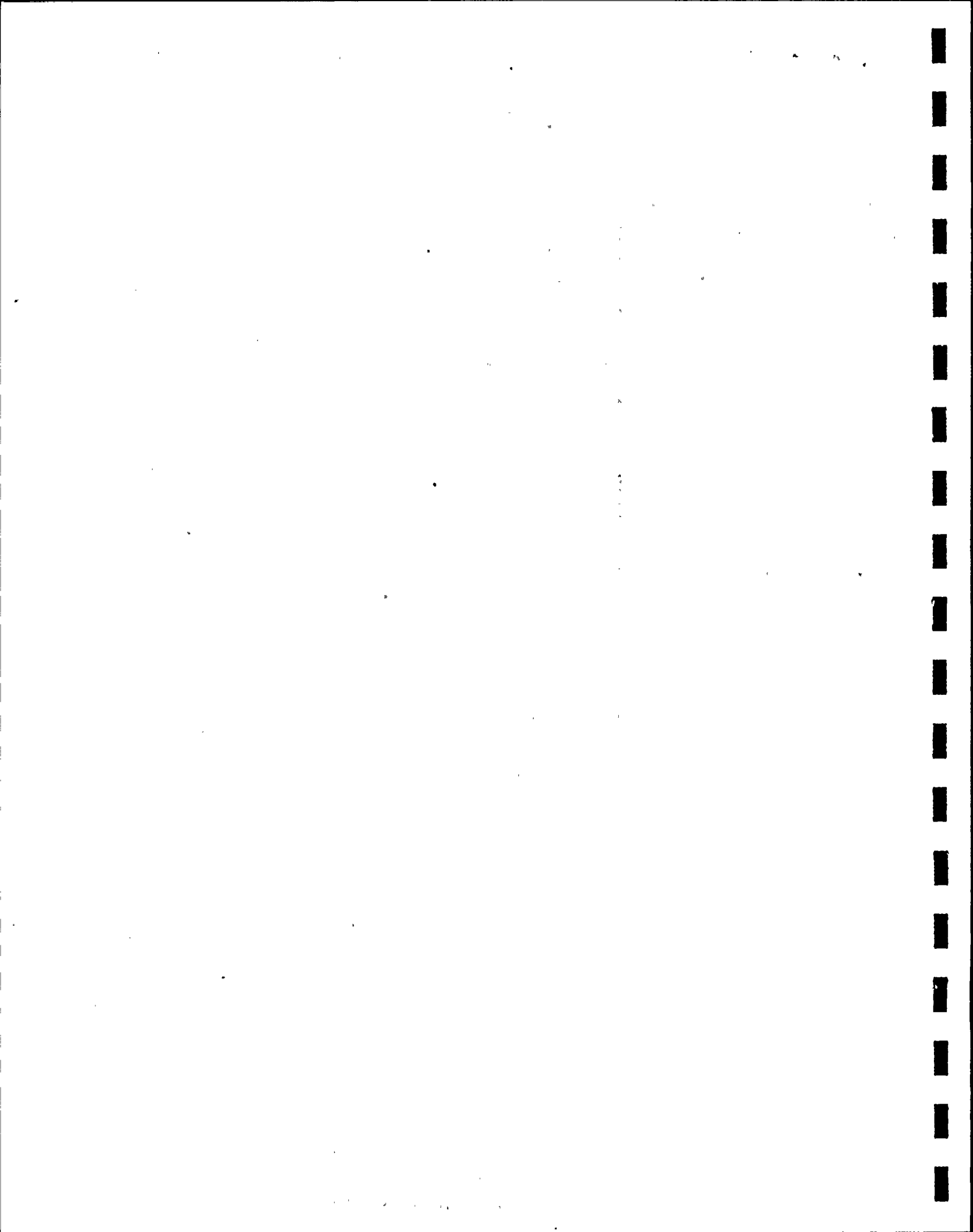
Revised/final



ABUNDANCE<sup>a</sup> OF WHITE PERCH IN DAY ICHTHYOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND MEAN
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	
26 MAY	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	4	0	0	0	0	0	0.7	0	0	0	0	0	0	0.0	0	0	0	0.3
	MEAN	1.3	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
2 JUN	S	0	0	0	0	0	0	0.0	0	0	0	6	0	0	1.0	0	0	0	0.4
	M	5	0	0	7	13	0	4.2	6	0	0	7	0	0	2.2	0	0	0	2.5
	B	5	6	0	5	15	42	12.2	0	0	0	0	0	0	0.0	0	0	0	4.9
	MEAN	3.3	2.0	0.0	4.0	9.3	14.0	5.4	2.0	0.0	0.0	4.3	0.0	0.0	1.1	0.0	0.0	0.0	2.6
9 JUN	S	0	7	0	4	4	0	2.5	0	0	4	0	0	0	0.7	4	0	0	1.5
	M	5	5	10	0	0	0	3.3	0	0	0	0	0	0	0.0	0	0	0	1.3
	B	0	0	0	0	0	5	0.8	0	0	0	0	4	0	0.7	0	0	0	0.6
	MEAN	1.7	4.0	3.3	1.3	1.3	1.7	2.2	0.0	0.0	1.3	0.0	1.3	0.0	0.4	1.3	0.0	0.0	1.2
16,17 JUN	S	15	0	4	0	0	0	3.2	5	0	0	0	0	0	0.8	4	4	0	2.1
	M	10	4	0	0	0	0	2.3	16	0	0	0	0	0	2.7	5	4	0	2.6
	B	0	5	0	10	9	0	4.0	5	0	0	0	0	0	0.8	0	0	0	1.9
	MEAN	8.3	3.0	1.3	3.3	3.0	0.0	3.2	8.7	0.0	0.0	0.0	0.0	0.0	1.4	3.0	2.7	0.0	2.2
23 JUN	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	4	0	0.3
	B	5	0	3	0	0	0	1.3	0	0	0	0	0	0	0.0	0	0	4	0.8
	MEAN	1.7	0.0	1.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.4
30 JUN	S	0	0	0	5	0	0	0.8	0	0	0	0	0	0	0.0	0	0	0	0.3
	M	5	0	0	0	7	0	2.0	0	0	0	6	0	0	1.0	0	0	0	1.2
	B	12	0	0	0	0	0	2.0	5	0	0	0	0	0	0.8	0	0	0	1.1
	MEAN	5.7	0.0	0.0	1.7	2.3	0.0	1.6	1.7	0.0	0.0	2.0	0.0	0.0	0.6	0.0	0.0	0.0	0.9
7 JUL	S	5	0	0	0	0	0	0.8	0	0	0	0	0	0	0.0	0	0	0	0.3
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	0	0	0	0	5	0	0.8	0	0	0	0	5	0	0.8	0	0	0	0.7
	MEAN	1.7	0.0	0.0	0.0	1.7	0.0	0.6	0.0	0.0	0.0	0.0	1.7	0.0	0.3	0.0	0.0	0.0	0.3
15 JUL	S	0	0	0	0	0	0	0.0	0	0	6	0	0	0	1.0	0	0	0	0.4
	M	0	0	4	0	0	0	0.7	0	0	0	0	0	0	0.0	0	0	0	0.3
	B	0	15	0	0	0	0	2.5	0	0	0	0	0	0	0.0	0	0	0	1.0
	MEAN	0.0	5.0	1.3	0.0	0.0	0.0	1.1	0.0	0.0	2.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.6
21 JUL	S	0	0	0	0	0	4	0.7	0	0	0	0	0	0	0.0	0	0	0	0.3
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	5	0	0.3
	B	4	0	0	5	0	5	2.3	0	0	0	0	0	0	0.0	0	0	0	0.9
	MEAN	1.3	0.0	0.0	1.7	0.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.5
28 JUL	S	9	0	0	5	3	5	3.7	0	0	0	0	0	0	0.0	0	4	0	1.7
	M	0	0	4	9	5	5	3.8	0	19	0	0	0	0	3.2	5	0	0	3.1
	B	10	5	0	7	0	0	3.7	0	0	0	14	0	0	2.3	0	0	0	2.4
	MEAN	6.3	1.7	1.3	7.0	2.7	3.3	3.7	0.0	6.3	0.0	4.7	0.0	0.0	1.8	1.7	1.3	0.0	2.4
4 AUG	S	9	0	0	0	18	7	5.7	4	0	10	0	5	5	4.0	10	0	0	4.5
	M	21	5	0	0	21	6	8.8	15	8	38	0	5	17	13.8	0	0	0	9.1
	B	4	15	0	0	16	18	8.8	13	4	16	0	0	11	7.3	5	0	4	7.1
	MEAN	11.3	6.7	0.0	0.0	18.3	10.3	7.8	10.7	4.0	21.3	0.0	3.3	11.0	8.4	5.0	0.0	1.3	6.9



ABUNDANCE<sup>a</sup> OF WHITE PERCH IN DAY ICHTHYOPLANKTON COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	MEAN
11 AUG	S	0	0	0	6	0	0	1.0	5	0	0	0	5	0	1.7	0	5	10	2.1
	M	5	0	5	0	0	0	1.7	0	0	0	6	0	12	3.0	0	0	0	1.9
	B	0	0	5	0	14	0	3.2	6	0	0	0	0	0	1.0	5	5	0	2.3
	MEAN	1.7	0.0	3.3	2.0	4.7	0.0	1.9	3.7	0.0	0.0	2.0	1.7	4.0	1.9	1.7	3.3	3.3	2.1
18 AUG	S	0	0	0	0	0	5	0.8	0	0	0	0	0	0	0.0	0	0	0	0.3
	M	0	6	0	12	0	0	3.0	3	0	5	0	5	4	2.8	0	0	0	2.3
	B	0	5	5	4	0	10	4.0	4	0	4	0	6	0	2.3	0	0	5	2.9
	MEAN	0.0	3.7	1.7	5.3	0.0	5.0	2.6	2.3	0.0	3.0	0.0	3.7	1.3	1.7	0.0	0.0	1.7	1.8
25 AUG	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	11	0	0.7
	B	0	0	0	0	0	0	0.0	0	0	6	0	0	0	1.0	0	0	0	0.4
	MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.3	0.0	3.7	0.0	0.4
GRAND MEAN <sup>b</sup>	S	1.1	0.2	0.1	0.6	0.7	0.6		0.4	0.0	0.6	0.2	0.3	0.1		0.5	0.4	0.3	
	M	1.5	0.6	0.7	0.8	1.3	0.3		1.1	0.8	1.2	0.5	0.3	0.9		0.3	0.7	0.0	
	B	1.3	1.5	0.4	0.9	1.7	2.3		0.9	0.1	0.7	0.4	0.4	0.3		0.3	0.1	0.4	
	MEAN	1.3	0.8	0.4	0.8	1.2	1.1		0.8	0.3	0.8	0.4	0.3	0.4		0.4	0.4	0.2	

None collected 7 Apr-22 May and 1 Sep-20 Dec

<sup>a</sup> Number of organisms/1000 m<sup>3</sup>

<sup>b</sup> April-December sampling period

S = Surface sample

M = Mid-depth

B = Bottom sample

ABUNDANCE<sup>a</sup> OF YELLOW PERCH IN DAY ICHTHYOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND MEAN
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	
29 APR	S	0	0	6	18	128	0	25.3	15	19	0	9	0	5	8.0	4	0	0	13.6
	M	16	0	0	19	54	0	14.8	0	0	21	7	7	0	5.8	6	0	0	8.7
	B	15	0	0	41	43	15	19.0	22	8	9	13	19	0	11.8	14	0	0	13.3
	MEAN	10.3	0.0	2.0	26.0	75.0	5.0	19.7	12.3	9.0	10.0	9.7	8.7	1.7	8.6	8.0	0.0	0.0	11.8
22 MAY	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B	5	0	0	0	0	0	0.8	0	0	0	5	0	0	0.8	0	0	0	0.7
	MEAN	1.7	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	1.7	0.0	0.0	0.3	0.0	0.0	0.0	0.2
GRAND MEAN <sup>b</sup>	S	0.0	0.0	0.2	0.5	3.7	0.0		0.4	0.5	0.0	0.3	0.0	0.1		0.1	0.0	0.0	
	M	0.5	0.0	0.0	0.5	1.5	0.0		0.0	0.0	0.6	0.2	0.2	0.0		0.2	0.0	0.0	
	B	0.6	0.0	0.0	1.2	1.2	0.4		0.6	0.2	0.3	0.5	0.5	0.0		0.4	0.0	0.0	
	MEAN	0.4	0.0	0.1	0.7	2.1	0.1		0.3	0.2	0.3	0.3	0.2	<0.1		0.2	0.0	0.0	

None collected 7-21 Apr, 13 May, and 26 May-20 Dec

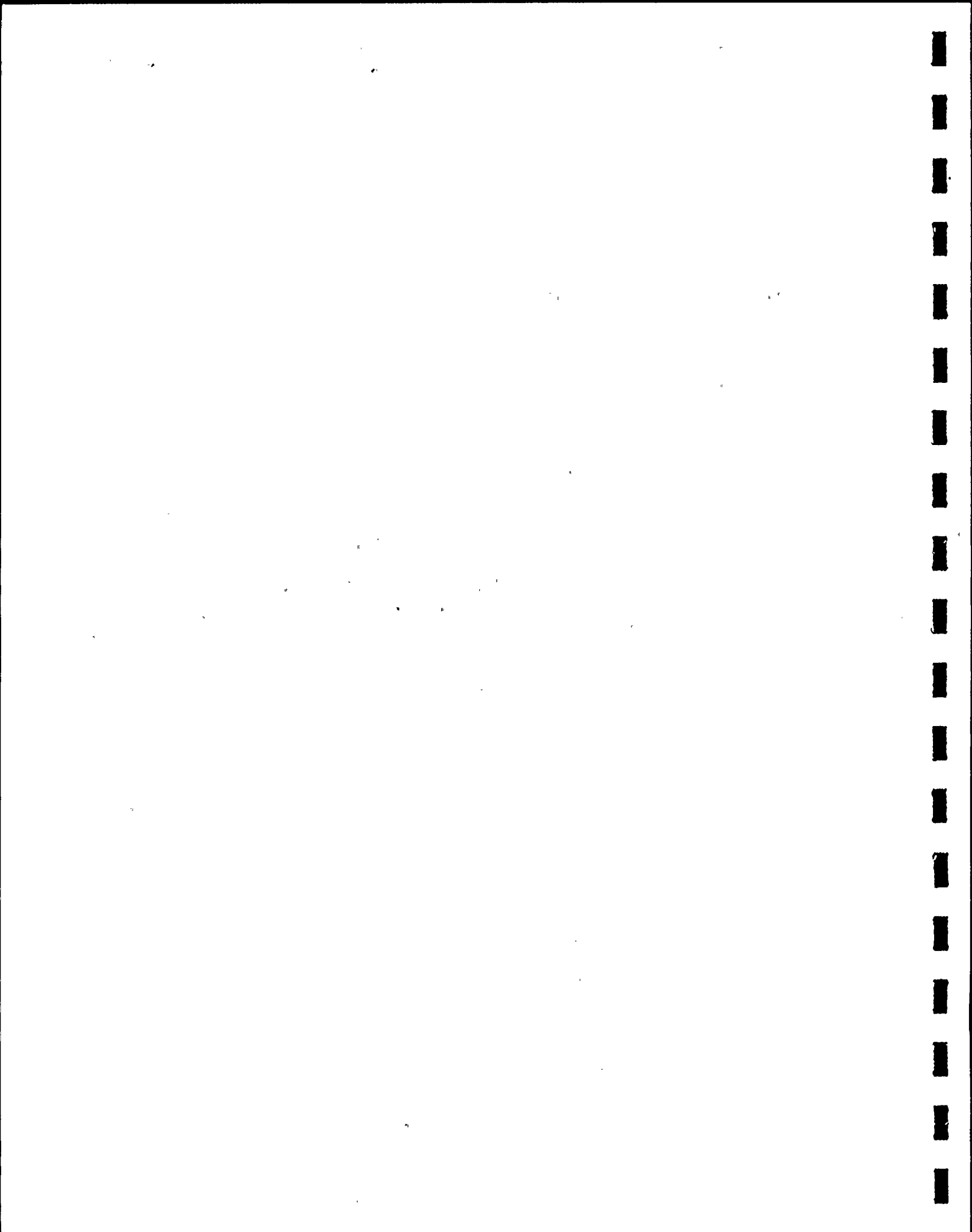
<sup>a</sup>Number of organisms/1000 m<sup>3</sup>

<sup>b</sup>April-December sampling period

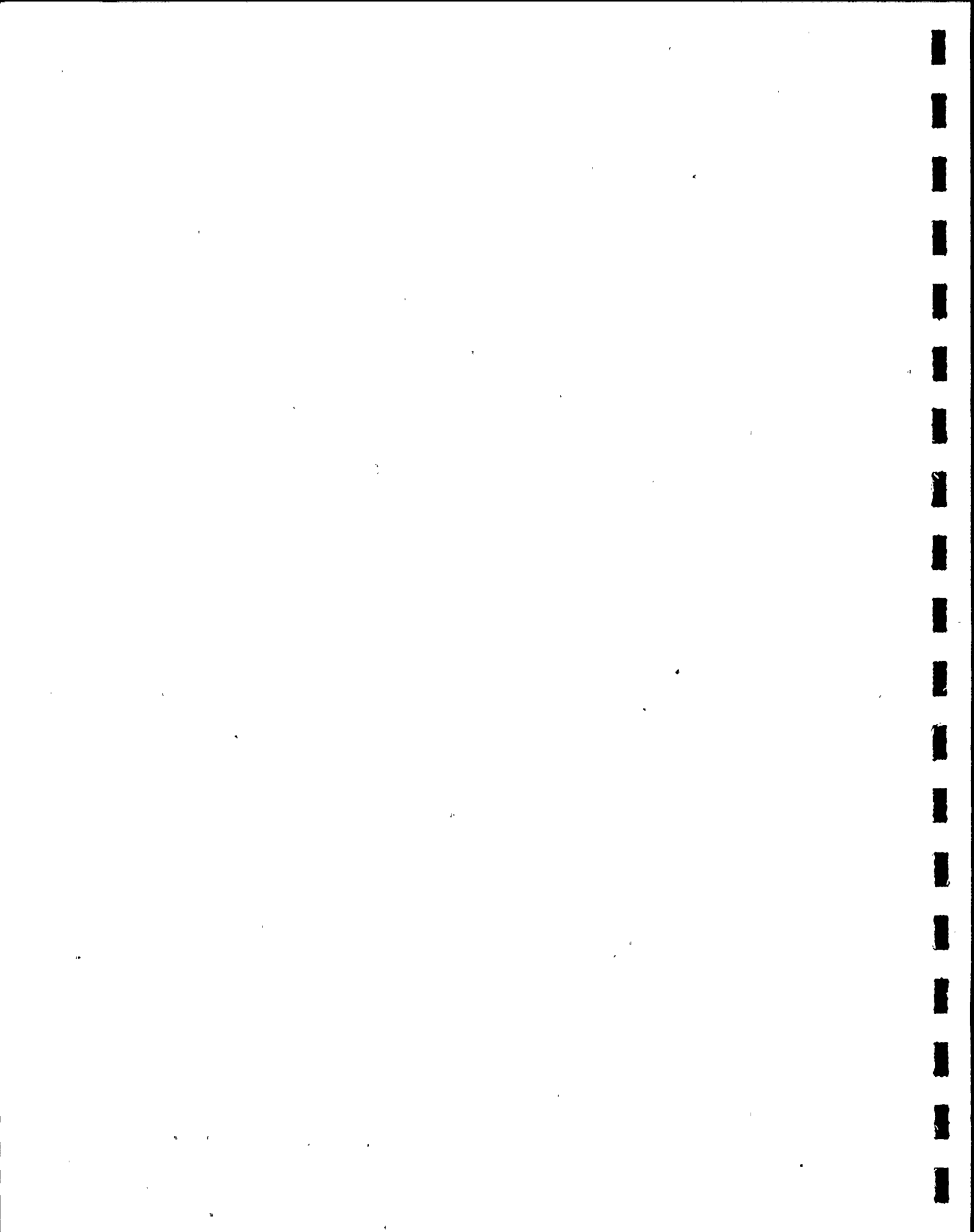
S = Surface sample

M = Mid-depth sample

B = Bottom sample



V.D.2. LARVAL ABUNDANCE OF SELECTED SPECIES OF ICHTHYOPLANKTON  
IN NIGHT COLLECTIONS



ABUNDANCE<sup>a</sup> OF ALEWIFE IN NIGHT ICHTHYOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND MEAN
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	
16 JUN	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	4	0	5	0	0	0	1.5	0	0	5	0	0	5	1.7	0	0	0	1.3
	B	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	3	0	0.2
	MEAN	1.3	0.0	1.7	0.0	0.0	0.0	0.5	0.0	0.0	1.7	0.0	0.0	1.7	0.6	0.0	1.0	0.0	0.5
23 JUN	S	10	17	0	10	11	0	8.0	7	0	0	0	5	5	2.8	5	5	5	5.3
	M	0	12	5	0	0	0	2.8	0	5	5	0	4	9	3.8	0	0	0	2.7
	B	15	5	0	0	0	26	7.7	21	5	0	0	0	14	6.7	0	0	0	5.7
	MEAN	8.3	11.3	1.7	3.3	3.7	8.7	6.2	9.3	3.3	1.7	0.0	3.0	9.3	4.4	1.7	1.7	1.7	4.6
1 JUL	S	37	6	0	6	20	16	14.2	46	0	0	6	15	40	17.8	18	5	14	15.3
	M	37	5	0	31	33	21	21.2	15	6	0	0	0	11	5.3	5	19	10	12.9
	B	12	10	5	6	55	0	14.7	11	0	0	0	12	13	6.0	6	7	0	9.1
	MEAN	28.7	7.0	1.7	14.3	36.0	12.3	16.7	24.0	2.0	0.0	2.0	9.0	21.3	9.7	9.7	10.3	8.0	12.4
7 JUL	S	118	96	102	0	15	63	65.7	407	449	285	108	61	65	229.2	99	27	61	130.4
	M	17	0	40	41	34	97	38.2	110	55	17	34	41	37	49.0	10	25	8	37.7
	B	44	32	10	37	0	78	33.5	68	52	65	50	30	20	47.5	16	14	5	34.7
	MEAN	59.7	42.7	50.7	26.0	16.3	79.3	45.8	195.0	185.3	122.3	64.0	44.0	40.7	108.6	41.7	22.0	24.7	67.6
15 JUL	S	78	46	5	120	93	20	60.3	63	109	87	82	71	85	82.8	164	82	67	78.1
	M	37	95	81	83	90	0	64.3	135	147	14	48	18	30	65.3	62	26	10	58.4
	B	107	38	36	27	58	25	48.5	60	62	10	24	28	40	37.3	44	14	0	38.2
	MEAN	74.0	59.7	40.7	76.7	80.3	15.0	57.7	86.0	106.0	37.0	51.3	39.0	51.7	61.8	90.0	40.7	25.7	58.2
21 JUL	S	5	44	10	58	98	1134	224.8	15	24	50	0	428	1071	264.7	308	201	99	236.3
	M	9	19	4	22	81	1147	213.7	5	22	19	17	19	263	57.5	40	30	22	114.6
	B	5	9	13	12	9	168	36.0	5	0	4	4	32	439	80.7	17	37	17	51.4
	MEAN	6.3	24.0	9.0	30.7	62.7	816.3	158.2	8.3	15.3	24.3	7.0	159.7	591.0	134.3	121.7	89.3	46.0	134.1
28 JUL	S	5	69	48	360	335	1605	403.7	23	83	135	232	227	1030	288.3	32	21	0	280.3
	M	19	52	73	332	98	962	256.0	18	22	224	30	156	1089	256.5	31	117	72	219.7
	B	9	106	119	162	169	688	208.8	65	115	49	79	173	436	152.8	99	44	21	155.6
	MEAN	11.0	75.7	80.0	284.7	200.7	1085.0	289.5	35.3	73.3	136.0	113.7	185.3	851.7	232.6	54.0	60.7	31.0	218.5
4 AUG	S	2005	1203	4317	2772	3064	3658	2836.5	1673	3617	2379	5502	3444	895	2918.3	2480	2656	68	2648.9
	M	1801	1698	2971	2655	5001	38	2360.7	2112	3172	1117	574	667	4500	2023.7	451	299	199	1817.0
	B	1241	613	2515	655	872	2987	1480.5	205	1708	858	369	183	2264	931.2	187	218	60	995.7
	MEAN	1682.3	1171.3	3267.7	2027.3	2979.0	2227.7	2225.9	1330.0	2832.3	1451.3	2148.3	1431.3	2553.0	1957.7	1039.3	1057.7	109.0	1820.5
11 AUG	S	441	405	205	340	239	427	342.8	552	138	496	427	67	104	297.3	209	810	261	341.4
	M	330	200	358	318	358	552	352.7	374	611	316	456	1673	691	686.8	506	23	96	457.5
	B	219	927	286	893	175	794	549.0	6	634	107	590	1595	606	589.7	858	100	387	545.1
	MEAN	330.0	510.7	283.0	517.0	257.3	591.0	414.8	310.7	461.0	306.3	491.0	1111.7	467.0	524.6	524.3	311.0	248.0	448.0
18 AUG	S	1745	1415	1832	1138	1497	2096	1620.5	2346	1044	1177	2483	1288	648	1497.7	904	385	599	1373.1
	M	22	1635	351	1426	1630	1119	1030.5	661	969	338	303	1280	797	724.7	202	238	234	747.0
	B	997	341	466	622	882	714	670.3	166	136	406	517	1371	696	548.7	67	83	144	507.2
	MEAN	921.3	1130.3	883.0	1062.0	1336.3	1309.7	1107.1	1057.7	716.3	640.3	1101.0	1313.0	713.7	923.7	391.0	235.3	325.6	875.8
25 AUG	S	411	398	88	338	2323	195	625.5	283	223	214	415	1250	187	428.7	112	246	35	447.9
	M	768	220	641	275	1985	814	783.8	62	0	117	105	81	80	74.2	55	31	0	348.9
	B	711	106	292	109	253	84	259.2	35	16	60	59	82	0	42.0	116	20	9	130.1
	MEAN	630.0	241.3	340.3	240.7	1520.3	364.3	556.2	126.7	79.7	130.3	193.0	417.0	89.0	181.6	94.3	99.0	14.7	309.0
2 SEP	S	59	50	10	5	21	111	42.7	26	47	9	0	110	114	51.0	48	61	25	46.4
	M	111	17	11	27	38	113	52.8	72	27	13	20	119	170	70.2	146	510	119	100.9
	B	185	123	47	16	114	207	115.3	212	121	34	60	312	317	176.0	77	572	72	164.6
	MEAN	118.3	63.3	22.7	16.0	57.7	143.7	70.3	103.3	65.0	18.7	26.7	180.3	200.3	99.1	90.3	381.0	72.0	104.0



ABUNDANCE<sup>a</sup> OF ALEWIFE IN NIGHT ICHTHYOPLANKTON COLLECTIONS (continued)

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	MEAN
8 SEP	S	0	0	0	6	6	16	4.7	0	0	0	0	0	0	0.0	0	0	0	1.9
	M	40	9	5	0	0	12	11.0	0	5	5	0	0	5	2.5	5	0	5	6.1
	B	13	4	0	12	9	22	10.0	5	4	4	8	32	5	9.7	4	0	8	8.7
	MEAN	17.7	4.3	1.7	6.0	5.0	16.7	8.6	1.7	3.0	3.0	2.7	10.7	3.3	4.1	3.0	0	4.3	5.5
15 SEP	S	112	38	43	0	0	0	32.2	82	41	10	76	0	5	35.7	37	4	0	29.9
	M	191	16	28	52	28	49	60.7	125	104	19	57	48	42	65.8	50	5	5	54.6
	B	81	53	65	102	116	53	78.3	126	22	31	86	4	23	48.7	4	17	12	53.0
	MEAN	128.0	35.7	45.3	51.3	48.0	34.0	57.1	111.0	55.7	20.0	73.0	17.3	23.3	50.1	30.3	8.7	5.7	45.8
GRAND MEAN <sup>b</sup>	S	314.1	236.7	416.2	322.1	482.6	583.8		345.2	360.9	302.6	583.2	435.4	265.6		276.0	281.4	77.1	
	M	211.6	248.6	285.8	328.9	586.0	307.8		230.6	321.6	138.1	102.8	256.6	483.1		97.7	82.7	48.8	
	B	227.4	147.9	240.9	165.8	169.5	365.4		61.6	179.7	101.8	115.4	240.8	304.6		93.4	70.6	45.9	
	MEAN	251.0	211.1	314.3	272.2	412.7	419.0		212.4	287.4	180.8	267.1	310.9	351.1		155.7	144.9	57.3	

None collected 2-10 Jun; night ichthyoplankton collections not required in sampling program after 15 Sep

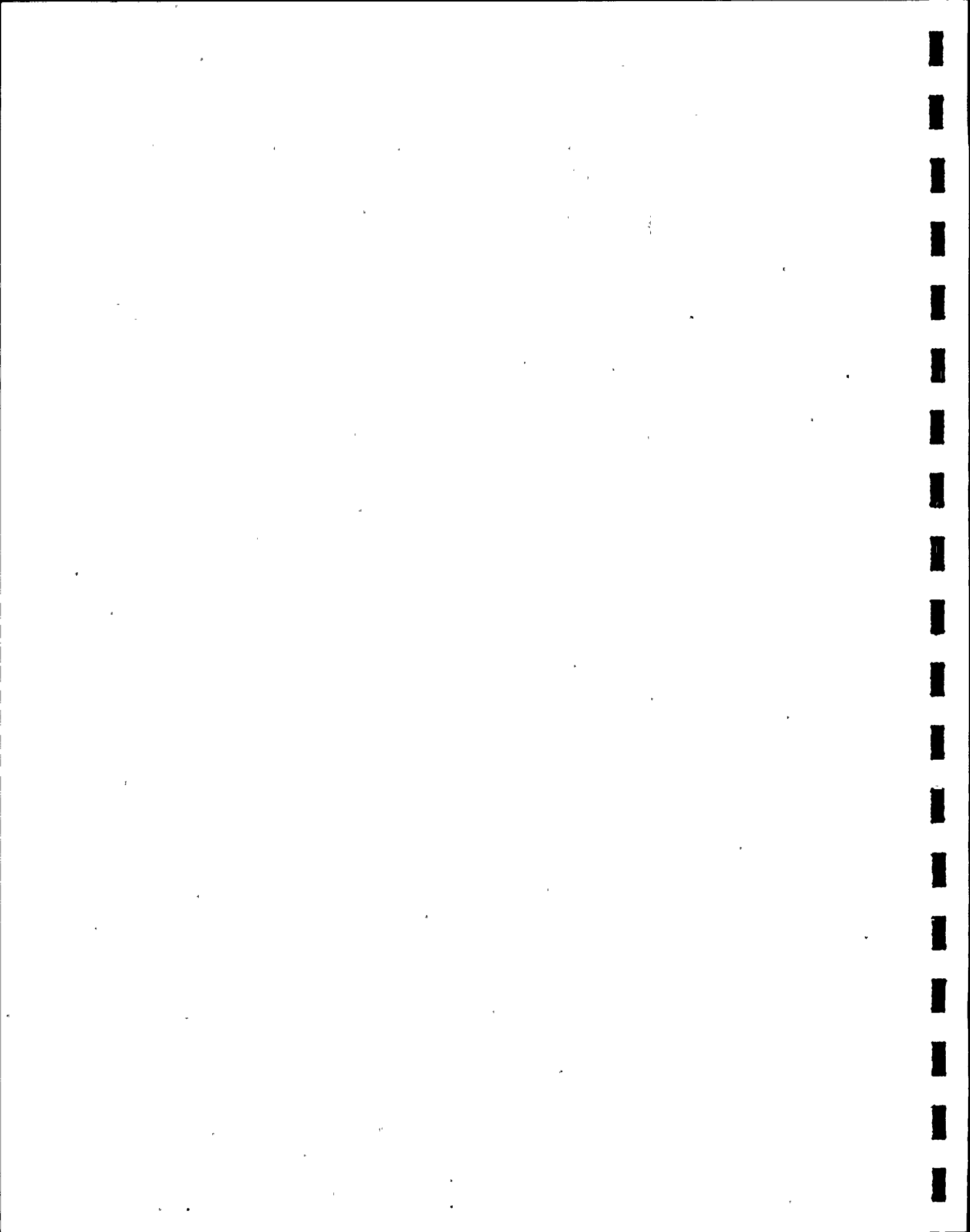
<sup>a</sup> Number of organisms/1000 m<sup>3</sup>

<sup>b</sup> June-September sampling period

S = Surface sample

M = Mid-depth sample

B = Bottom sample



ABUNDANCE<sup>a</sup> OF RAINBOW SMELT IN NIGHT ICHTHYOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	MEAN
2 JUN	S	5	0	34	5	0	31	12.5	6	28	13	20	0	10	12.8	33	35	5	15.0
	M	0	5	6	10	7	16	7.3	11	5	34	47	24	10	21.8	35	51	22	18.9
	B	0	0	11	41	6	48	17.7	0	0	25	22	76	39	27.0	6	23	34	22.1
	MEAN	1.7	1.7	17.0	18.7	4.3	31.7	12.5	5.7	11.0	24.0	29.7	33.3	19.7	20.6	24.7	36.3	20.3	18.7
9,10 JUN	S	4	0	19	10	33	3	11.5	14	9	10	14	0	31	13.0	0	0	4	10.1
	M	38	14	0	16	70	5	23.8	0	0	10	0	9	0	3.2	6	0	9	11.8
	B	10	10	5	11	56	28	20.0	5	0	5	0	14	3	4.5	30	5	0	12.1
	MEAN	17.3	8.0	8.0	12.3	53.0	12.0	18.4	6.3	3.0	8.3	4.7	7.7	11.3	6.9	12.0	1.7	4.3	11.3
16 JUN	S	11	5	5	10	0	0	5.2	15	15	5	0	0	0	5.8	15	9	9	6.6
	M	9	0	0	0	5	13	4.5	5	0	5	0	0	0	1.7	0	14	22	4.9
	B	8	19	4	0	0	4	5.8	0	4	8	10	0	9	5.2	5	0	0	4.7
	MEAN	9.3	8.0	3.0	3.3	1.7	5.7	5.2	6.7	6.3	6.0	3.3	0.0	3.0	4.2	6.7	7.7	10.3	5.4
23 JUN	S	0	0	7	0	6	10	3.8	0	0	0	0	5	5	1.7	5	5	5	3.2
	M	0	6	0	0	5	9	3.3	0	5	10	5	9	18	7.8	14	18	4	6.9
	B	5	0	0	0	14	10	4.8	16	0	0	8	9	0	5.5	5	9	10	5.7
	MEAN	1.7	2.0	2.3	0.0	8.3	9.7	4.0	5.3	1.7	3.3	4.3	7.7	7.7	5.0	8.0	10.7	6.3	5.3
1 JUL	S	0	0	0	11	0	0	1.8	0	0	0	0	5	6	1.8	0	0	0	1.5
	M	0	5	0	0	0	0	0.8	0	0	0	5	0	5	1.7	0	0	5	1.3
	B	0	0	5	0	0	0	0.8	6	0	0	0	0	0	1.0	0	0	0	0.7
	MEAN	0.0	1.7	1.7	3.7	0.0	0.0	1.1	2.0	0.0	0.0	1.7	1.7	3.7	1.5	0.0	0.0	1.7	1.2
7 JUL	S	5	5	9	0	0	10	4.8	5	10	19	0	5	5	7.3	12	0	0	5.7
	M	6	0	5	0	6	0	2.8	6	6	17	6	0	6	6.8	5	10	4	5.1
	B	6	0	10	11	0	0	4.5	0	69	22	5	0	5	16.8	11	5	9	10.2
	MEAN	5.7	1.7	8.0	3.7	2.0	3.3	4.1	3.7	28.3	19.3	3.7	1.7	5.3	10.3	9.3	5.0	4.3	7.0
15 JUL	S	0	0	0	0	5	5	1.7	0	0	4	0	9	0	2.2	5	5	9	2.8
	M	0	0	10	10	40	0	10.0	10	5	5	16	0	10	7.7	5	0	31	9.5
	B	5	0	5	0	52	0	10.3	5	0	0	12	6	5	4.7	0	0	5	6.3
	MEAN	1.7	0.0	5.0	3.3	32.3	1.7	7.3	5.0	1.7	3.0	9.3	5.0	5.0	4.8	3.3	1.7	15.0	6.2
21 JUL	S	15	20	10	0	10	0	9.2	0	5	5	0	0	0	1.7	0	0	0	4.3
	M	9	0	4	0	10	0	3.8	9	0	5	0	0	5	3.2	4	0	4	3.3
	B	0	9	4	12	5	63	15.5	10	0	4	0	0	10	4.0	0	4	8	8.6
	MEAN	8.0	9.7	6.0	4.0	8.3	21.0	9.5	6.3	1.7	4.7	0.0	0.0	5.0	2.9	1.3	1.3	4.0	5.4
28 JUL	S	0	0	0	0	0	8	1.3	4	0	0	0	0	0	0.7	0	0	0	0.8
	M	0	0	0	0	0	0	0.0	4	0	0	4	0	0	1.3	0	0	0	0.5
	B	0	0	13	0	3	45	10.2	0	0	0	0	0	5	0.8	0	0	0	4.4
	MEAN	0.0	0.0	4.3	0.0	1.0	17.0	3.8	2.7	0.0	0.0	1.3	0.0	1.7	0.9	0.0	0.0	0.0	1.9
4 AUG	S	0	6	0	0	0	0	1.0	0	0	0	6	0	0	1.0	0	0	0	0.8
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	5	0	0.3
	B	0	0	5	9	12	0	4.3	0	0	0	0	0	6	1.0	0	22	0	3.6
	MEAN	0.0	2.0	1.7	3.0	4.0	0.0	1.8	0.0	0.0	0.0	2.0	0.0	2.0	0.7	0.0	9.0	0.0	1.6



ABUNDANCE<sup>a</sup> OF RAINBOW SMELT IN NIGHT ICHTHYOPLANKTON COLLECTIONS (continued)

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	MEAN
11 AUG	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	0	0	5	5	0	0	1.7	6	0	4	0	0	0	1.7	0	0	10	2.0
	MEAN	0.0	0.0	1.7	1.7	0.0	0.0	0.6	2.0	0.0	1.3	0.0	0.0	0.0	0.6	0.0	0.0	3.3	0.7
18 AUG	S	5	0	0	0	0	0	0.8	0	0	0	0	0	0	0.0	0	0	0	0.3
	M	0	5	6	19	5	43	13.0	15	0	0	0	0	0	2.5	0	0	0	6.2
	B	0	74	0	0	33	17	20.7	0	5	0	19	5	0	4.8	0	4	0	10.5
	MEAN	1.7	26.3	2.0	6.3	12.7	20.0	11.5	5.0	1.7	0.0	6.3	1.7	0.0	2.4	0.0	1.3	0.0	5.7
25 AUG	S	0	0	0	0	0	0	0.0	5	0	0	0	0	0	0.8	0	0	0	0.3
	M	0	0	0	0	0	87	14.5	0	0	5	0	6	0	1.8	0	0	0	6.5
	B	27	25	21	0	0	151	37.3	0	0	16	5	6	0	4.5	0	0	0	16.7
	MEAN	9.0	8.3	7.0	0.0	0.0	79.3	17.3	1.7	0.0	7.0	1.7	4.0	0.0	2.4	0.0	0.0	0.0	7.8
2 SEP	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	5	0	0	0.3
	B	0	0	0	0	5	0	0.8	0	0	4	0	4	0	1.3	0	0	0	0.9
	MEAN	0.0	0.0	0.0	0.0	1.7	0.0	0.3	0.0	0.0	1.3	0.0	1.3	0.0	0.4	1.7	0.0	0.0	0.4
15 SEP	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	5	0	0	0.3
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	5	0	0.3
	B	0	0	0	0	0	4	0.7	0	0	0	0	0	8	1.3	0	4	0	1.1
	MEAN	0.0	0.0	0.0	0.0	0.0	1.3	0.2	0.0	0.0	0.0	0.0	0.0	2.7	0.4	1.7	3.0	0.0	0.6
GRAND MEAN <sup>b</sup>	S	2.8	2.2	5.2	2.2	3.4	4.2		3.1	4.2	3.5	2.5	1.5	3.6		4.7	3.4	2.0	
	M	3.9	2.2	1.9	3.4	9.2	10.8		3.8	1.3	5.6	5.2	3.0	3.4		4.6	6.4	6.3	
	B	3.8	8.6	5.5	5.6	11.6	23.1		3.0	4.9	5.5	5.1	7.5	5.6		3.6	4.8	4.8	
	MEAN	3.5	4.3	4.2	3.7	8.1	12.7		3.3	3.5	4.9	4.2	4.1	4.2		4.3	4.8	4.3	

None collected 8 Sep; night ichthyoplankton collections not required in sampling program after 15 Sep

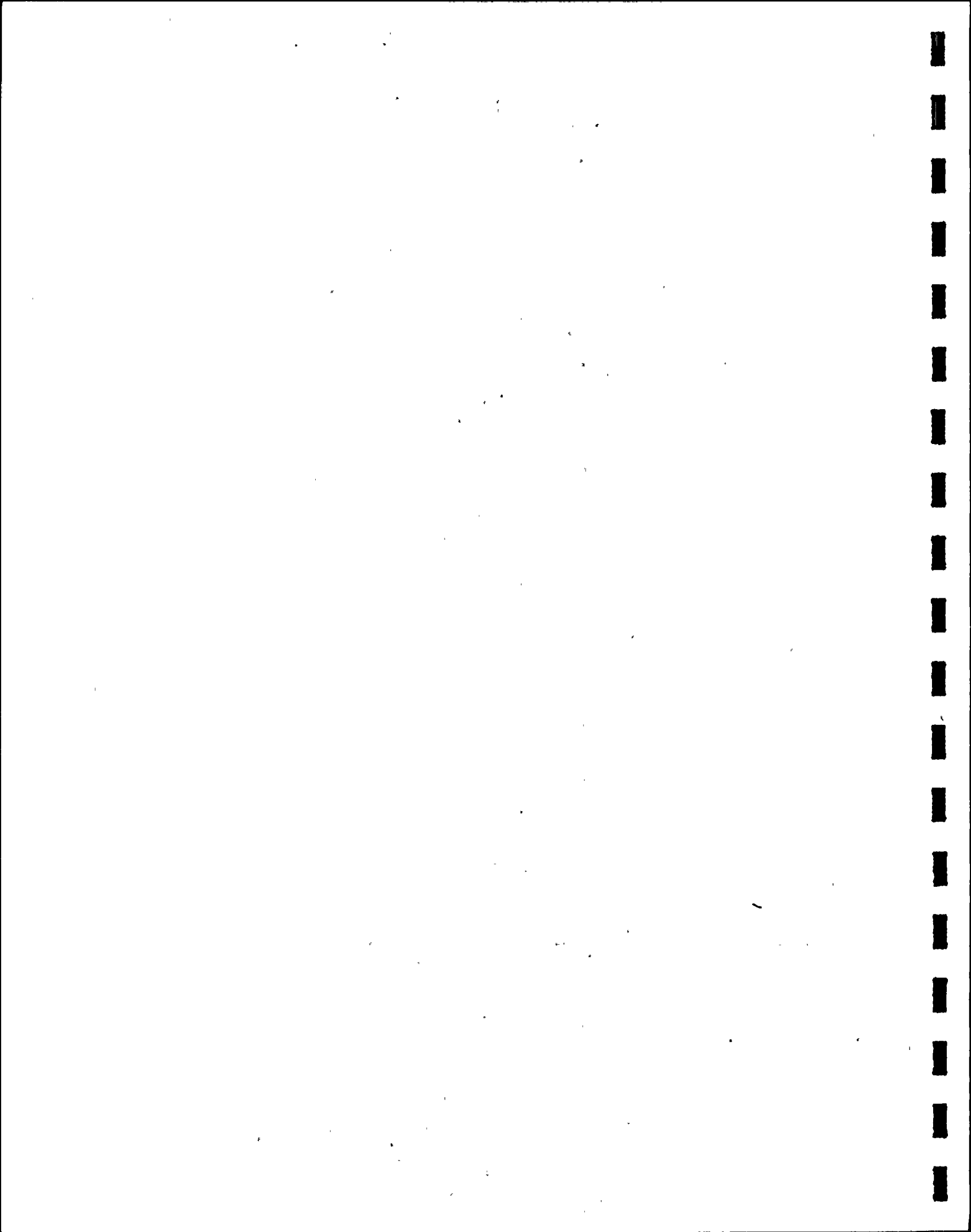
<sup>a</sup> Number of organisms/1000 m<sup>3</sup>

<sup>b</sup> June-September sampling period

S = Surface sample

M = Mid-depth sample

B = Bottom sample



ABUNDANCE<sup>a</sup> OF THREESPINE STICKLEBACK IN NIGHT ICHTHYOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND MEAN
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	
28 JUL	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	4	0	0	0	0	0	0.7	0	0	0	0	0	0	0.0	0	0	0	0.3
	MEAN	1.3	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
GRAND MEAN <sup>b</sup>	S	0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	
	M	0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	
	B	0.3	0	0	0	0	0		0	0	0	0	0	0		0	0	0	
	MEAN	0.1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	

None collected 2 Jun-21 Jul and 4 Aug-15 Sep; night ichthyoplankton collections not required in sampling after 15 Sep

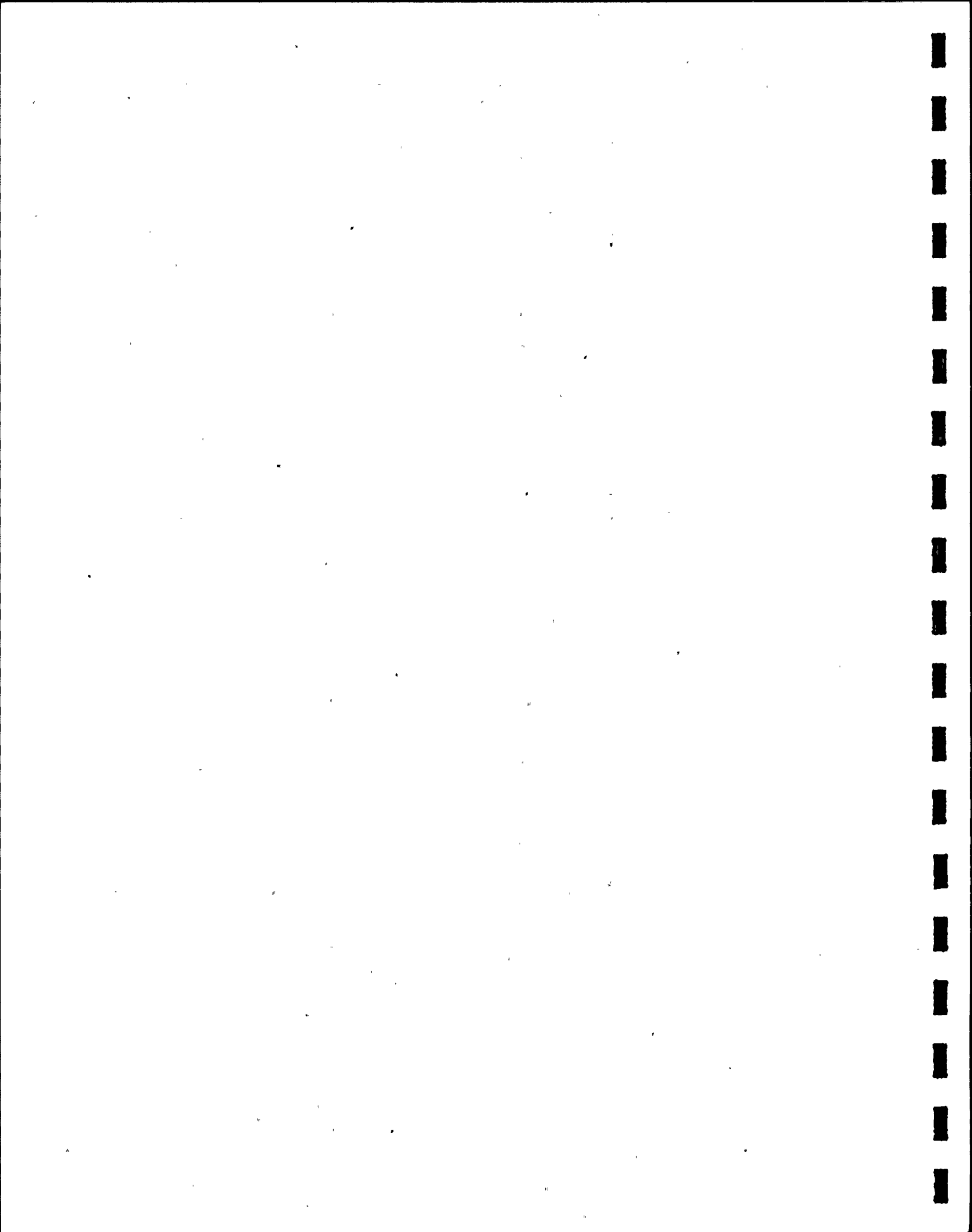
<sup>a</sup> Number of organisms/1000 m<sup>3</sup>

<sup>b</sup> June-September sampling period

S = Surface sample

M = Mid-depth sample

B = Bottom sample

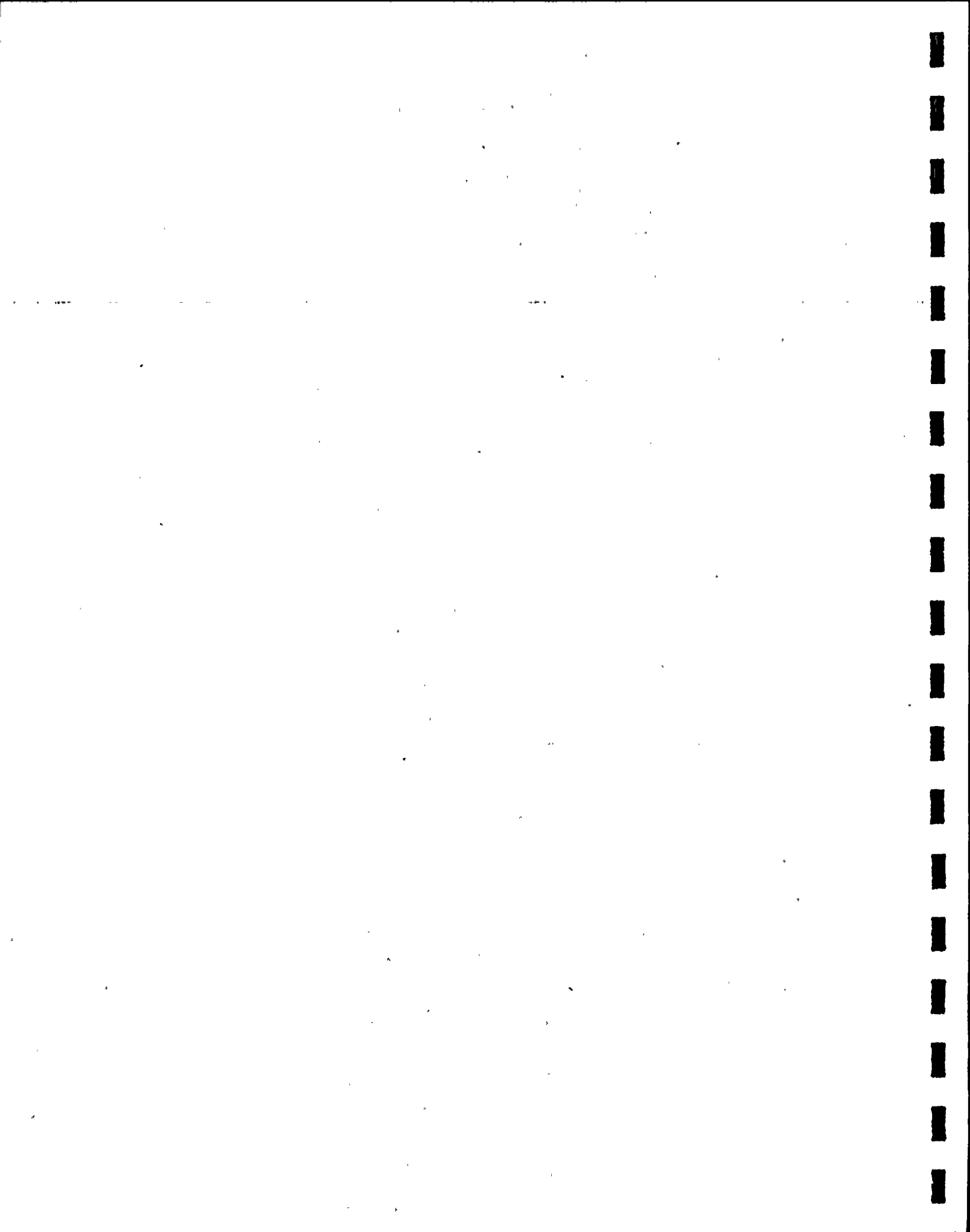




ABUNDANCE<sup>a</sup> OF WHITE PERCH IN NIGHT ICHTHYOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND MEAN
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	
2 JUN	S	0	0	0	0	0	5	0.8	0	0	0	0	0	5	0.8	0	0	0	0.7
	M	0	0	0	0	0	11	1.8	0	0	0	0	0	0	0.0	0	0	0	0.7
	B	0	11	6	0	0	11	4.7	0	0	0	0	0	0	0.0	0	0	0	1.9
	MEAN	0.0	3.7	2.0	0.0	0.0	9.0	2.4	0.0	0.0	0.0	0.0	0.0	1.7	0.3	0.0	0.0	0.0	1.1
9,10 JUN	S	0	0	0	0	0	0	0.0	0	9	0	0	0	0	1.5	0	0	0	0.6
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	6	1.0	6	0	0	0.8
	B	5	0	0	0	0	0	0.8	0	0	0	0	0	0	0.0	0	0	0	0.3
	MEAN	1.7	0.0	0.0	0.0	0.0	0.0	0.3	0.0	3.0	0.0	0.0	0.0	2.0	0.8	2.0	0.0	0.0	0.6
16 JUN	S	21	10	5	0	0	10	7.7	0	15	9	0	0	5	4.8	0	5	0	5.3
	M	13	0	5	3	5	4	5.0	10	12	5	11	0	0	6.3	0	0	0	4.5
	B	40	5	0	0	4	0	8.2	0	4	0	0	0	4	1.3	0	0	0	3.8
	MEAN	24.7	5.0	3.3	1.0	3.0	4.7	7.0	3.3	10.3	4.7	3.7	0.0	3.0	4.2	0.0	1.1	0.0	4.6
23 JUN	S	0	6	0	0	0	0	1.0	0	0	0	0	0	0	0.0	5	5	5	1.4
	M	0	6	0	0	0	0	1.0	0	10	0	5	0	0	2.5	0	0	0	1.4
	B	0	5	0	0	0	0	0.8	0	0	0	0	0	5	0.8	5	5	5	1.7
	MEAN	0.0	5.7	0.0	0.0	0.0	0.0	0.9	0.0	3.3	0.0	1.7	0.0	1.7	1.1	3.3	3.3	3.3	1.5
1 JUL	S	13	0	0	0	13	0	4.3	5	6	0	6	10	0	4.5	0	0	0	3.5
	M	0	0	0	5	0	0	0.8	0	0	0	5	6	0	1.8	5	0	0	1.4
	B	0	0	0	0	6	0	1.0	0	6	0	6	0	0	2.0	0	0	0	1.2
	MEAN	4.3	0.0	0.0	1.7	6.3	0.0	2.1	1.7	4.0	0.0	5.7	5.3	0.0	2.8	1.7	0.0	0.0	2.0
7 JUL	S	0	5	9	0	0	5	3.2	0	0	5	0	0	0	0.8	0	0	0	1.6
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	5	0	0.3
	B	0	0	0	5	0	0	0.8	5	0	0	0	0	0	0.8	0	0	0	0.7
	MEAN	0.0	1.7	3.0	1.7	0.0	1.7	1.3	1.7	0.0	1.7	0.0	0.0	0.0	0.6	0.0	1.7	0.0	0.9
15 JUL	S	0	0	5	5	0	0	1.7	5	0	4	5	0	0	2.3	0	0	0	1.6
	M	0	0	0	5	10	0	2.5	0	0	0	0	0	0	0.0	0	0	0	1.0
	B	0	6	0	0	11	0	2.8	0	0	0	0	0	0	0.0	0	0	0	1.1
	MEAN	0.0	2.0	1.7	3.3	7.0	0.0	2.3	1.7	0.0	1.3	1.7	0.0	0.0	0.8	0.0	0.0	0.0	1.2
21 JUL	S	0	0	0	0	0	0	0.0	5	0	0	0	0	0	0.8	0	0	0	0.3
	M	0	0	0	0	5	10	2.5	0	4	5	8	0	5	3.7	0	0	0	2.5
	B	0	0	0	4	0	0	0.7	0	0	0	0	0	5	0.8	0	0	0	0.6
	MEAN	0.0	0.0	0.0	1.3	1.7	3.3	1.1	1.7	1.3	1.7	2.7	0.0	3.3	1.8	0.0	0.0	0.0	1.1
28 JUL	S	10	5	0	0	0	3	3.0	0	4	4	0	0	0	2.0	0	0	0	2.0
	M	0	4	5	4	1	0	2.3	0	5	5	0	0	5	2.5	0	0	0	1.9
	B	0	0	0	8	0	4	2.0	0	0	0	3	4	0	1.2	0	0	0	1.3
	MEAN	3.3	3.0	1.7	4.0	0.3	2.3	2.4	0.0	3.0	3.0	1.0	2.7	1.7	1.9	0.0	0.0	0.0	1.7
4 AUG	S	5	11	5	0	0	15	6.0	12	5	5	0	0	0	3.7	12	23	0	6.2
	M	0	19	0	0	0	0	3.2	12	7	5	0	0	0	4.0	8	0	5	3.7
	B	15	6	9	0	0	0	5.0	0	0	0	0	0	0	0.0	0	0	0	2.0
	MEAN	6.7	12.0	4.7	0.0	0.0	5.0	4.7	8.0	4.0	3.3	0.0	0.0	0.0	2.6	6.7	7.3	1.7	4.0
11 AUG	S	5	0	0	0	13	4	3.7	11	5	0	0	0	4	3.3	5	15	5	4.5
	M	0	0	5	0	14	0	3.2	0	0	4	4	0	0	1.3	0	0	0	1.8
	B	0	0	0	0	11	0	1.8	0	0	0	0	0	0	0.0	5	0	0	1.1
	MEAN	1.7	0.0	1.7	0.0	12.7	1.3	2.9	3.7	1.7	1.3	1.3	0.0	1.3	1.5	3.3	5.0	1.7	2.4



ABUNDANCE<sup>a</sup> OF WHITE PERCH IN NIGHT ICHTHYOPLANKTON COLLECTIONS (continued)

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND MEAN
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	
18 AUG	S	5	0	0	5	6	0	2.7	0	5	0	0	0	0	0.8	5	0	5	2.1
	M	0	5	0	5	10	0	3.3	0	19	0	0	0	0	3.2	0	0	5	2.9
	B	0	0	0	0	0	0	0.0	0	0	0	0	10	0	1.7	0	0	0	0.7
	MEAN	1.7	1.7	0.0	3.3	5.3	0.0	2.0	0.0	8.0	0.0	0.0	3.3	0.0	1.9	1.7	0.0	3.3	1.9
25 AUG	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	6	0	0	1.0	0	0	0	0	0	0	0.0	0	0	0	0.4
	B	0	5	5	0	0	0	1.7	0	0	0	0	0	0	0.0	0	0	0	0.7
	MEAN	0.0	1.7	1.7	2.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
2 SEP	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	0	0	0	0	0	0	0.0	0	0	0	0	0	4	0.7	0	0	0	0.3
	MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.2	0.0	0.0	0.0	0.1
GRAND MEAN <sup>b</sup>	S	3.7	2.3	1.5	0.6	2.0	2.6		2.4	3.1	1.7	0.7	0.9	0.9		1.7	3.0	0.9	
	M	0.8	2.1	0.9	1.8	2.8	1.6		1.4	3.6	1.5	2.1	0.4	1.0		1.2	0.3	0.6	
	B	3.8	2.4	1.2	1.1	2.0	0.9		0.3	0.6	0.0	0.6	0.9	1.1		1.6	0.3	0.3	
	MEAN	2.8	2.3	1.2	1.2	2.3	1.7		1.4	2.4	1.1	1.1	0.7	1.0		1.5	1.2	0.6	

None collected 8-15 Sep; night ichthyoplankton collections not required in sampling program after 15 Sep

<sup>a</sup> Number of organisms/1000 m<sup>3</sup>

<sup>b</sup> June-September sampling period

S = Surface sample

M = Mid-depth sample

B = Bottom sample



ABUNDANCE<sup>a</sup> OF YELLOW PERCH IN NIGHT ICHTHYOPLANKTON COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	SAMPLE DEPTH	20 FT DEPTH CONTOUR							40 FT DEPTH CONTOUR							60 FT	80 FT	100 FT	GRAND MEAN
		3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	3-NMPW	1-NMPW	1/2-NMPW	1/2-NMPE	1-NMPE	3-NMPE	MEAN	NMPP	NMPP	NMPP	
21 JUL	S	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	M	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0.0	0	0	0	0.0
	B	0	0	0	0	0	3	0.5	0	0	0	0	0	0	0.0	0	0	0	0.2
	MEAN	0.0	0.0	0.0	0.0	0.0	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
GRAND MEAN	S	0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	
	M	0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	
	B	0	0	0	0	0	0.2		0	0	0	0	0	0		0	0	0	
	MEAN	0.0	0.0	0.0	0.0	0.0	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	

None collected 2 Jun-15 Jul and 28 Jul-15 Sep; night ichthyoplankton collections not required in the sampling program after 15 Sep

<sup>a</sup> Number of organisms/1000 m<sup>3</sup>

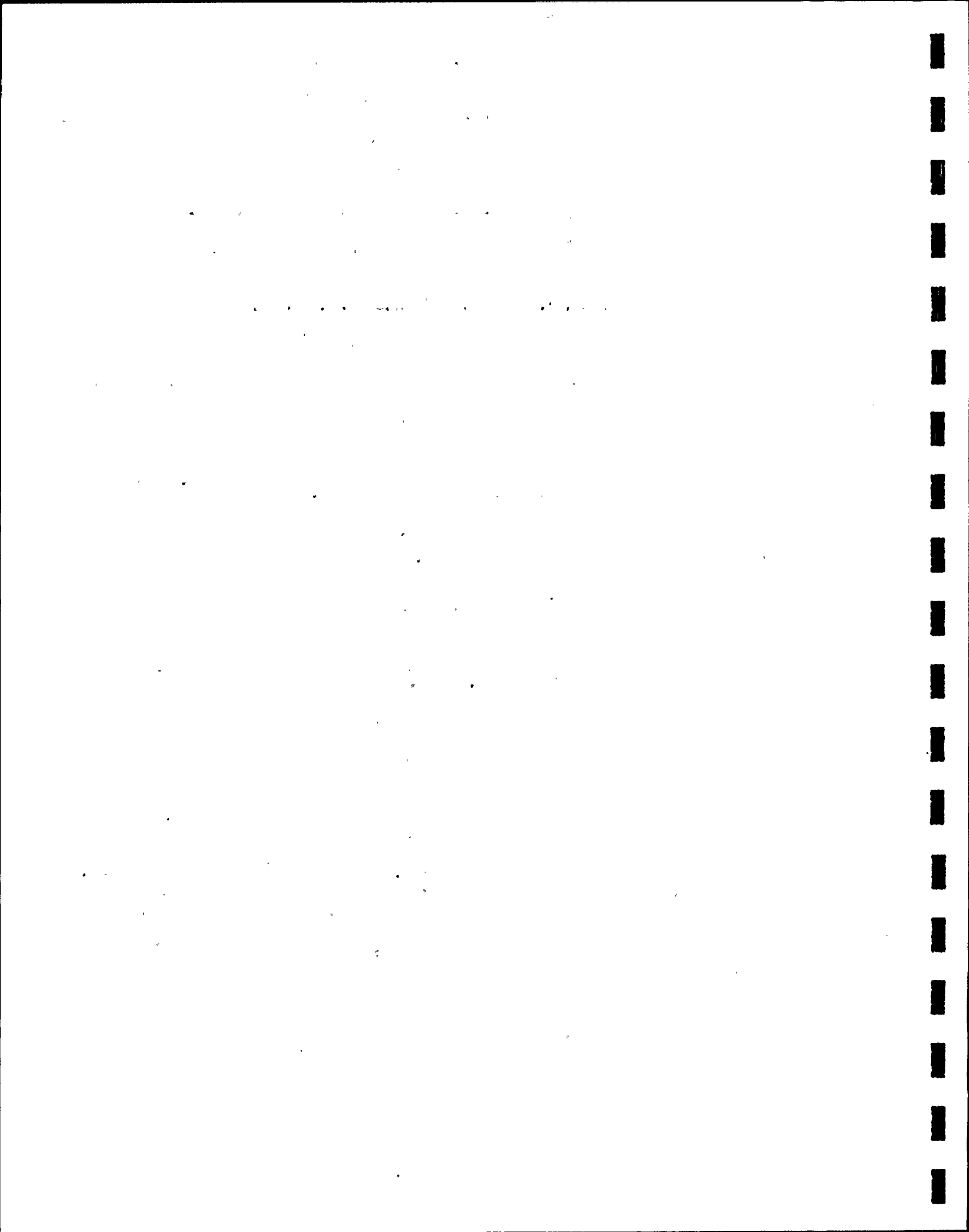
<sup>b</sup> June-September sampling period

S = Surface sample

M = Mid-depth sample

B = Bottom sample

V.D.3. STANDING CROP ESTIMATES OF SELECTED LARVAL SPECIES  
FROM NIGHT COLLECTIONS



STANDING CROP ESTIMATES<sup>f</sup> FOR ALEWIFE LARVAE  
FROM NIGHT COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	DEPTH CONTOUR					ESTIMATED TOTAL NUMBER
	0-30 ft <sup>a</sup>	30-50 ft <sup>b</sup>	50-70 ft <sup>c</sup>	70-90 ft <sup>d</sup>	90-110 ft <sup>e</sup>	
2 JUN	0.0	0.0	0.0	0.0	0.0	0.0
9,10 JUN	0.0	0.0	0.0	0.0	0.0	0.0
16 JUN	8856.5	28643.4	0.0	100503.0	0.0	138002.9
23 JUN	109820.6	210051.6	106357.1	170855.1	256283.5	853367.9
1 JUL	295807.1	463068.3	606861.1	1035180.9	1206040.0	3606957.4
7 JUL	811255.4	5184455.4	2608877.1	2211066.0	3723648.5	14539302.4
15 JUL	1022040.1	2950270.2	5630670.0	4090472.1	3874403.5	17567855.9
21 JUL	2802196.6	6411347.7	7613917.1	8974917.9	6934730.0	32737109.3
28 JUL	5127913.5	11104091.4	3378402.0	6100532.1	4673405.0	30384344.0
4 AUG	39427366.7	93458640.3	65021725.9	106302023.1	16432295.0	320642051.0
11 AUG	7347352.4	25043879.4	32801780.9	31256433.0	37387240.0	133836685.7
18 AUG	19610062.3	44096514.3	24462133.0	23648355.9	49085828.0	160902893.5
25 AUG	9851970.6	8669402.4	5899690.9	9949797.0	2216098.5	36586959.4
2,3 SEP	1245223.9	4730934.9	5649438.9	38291643.0	10854360.0	60771600.7
8 SEP	152331.8	195729.9	187689.0	0.0	648246.5	1183997.2
15 SEP	1011412.3	2391723.9	1895658.9	874376.1	859303.5	7032474.7
ANNUAL MEAN.	5551475.6	12808672.1	9741450.1	14562884.7	8634492.6	51298975.1

<sup>a</sup> Mean of surface, mid-depth, and bottom samples over  
3-NMPW, 1-NMPW, 1/2-NMPW, 1/2-NMPE, 1-NMPE, 3-NMPE

<sup>b</sup> Mean of surface, mid-depth, and bottom samples over  
3-NMPW, 1-NMPW, 1/2-NMPW, 1/2-NMPE, 1-NMPE, 3-NMPE

<sup>c</sup> Mean of surface, mid-depth and bottom samples at NMPP-60 ft

<sup>d</sup> Mean of surface, mid-depth and bottom samples at NMPP-80 ft

<sup>e</sup> Mean of surface, mid-depth and bottom samples at NMPP-100 ft

<sup>f</sup> Number/1000 cu m.



STANDING CROP ESTIMATES<sup>f</sup> FOR RAINBOW SMELT LARVAE  
FROM NIGHT COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	DEPTH CONTOUR					ESTIMATED TOTAL NUMBER
	0-30 ft <sup>a</sup>	30-50 ft <sup>b</sup>	50-70 ft <sup>c</sup>	70-90 ft <sup>d</sup>	90-110 ft <sup>e</sup>	
2 JUN	221412.5	983423.4	1545306.1	3648258.9	3060326.5	9458727.4
9,10 JUN	325919.2	329399.1	750756.0	170855.1	648246.5	2225175.9
16 JUN	92107.6	200503.8	419172.1	773873.1	1552776.5	3038433.1
23 JUN	70852.0	238695.0	500504.0	1075382.1	949756.5	2835189.6
1 JUL	19484.3	71608.5	0.0	0.0	256283.5	347376.3
7 JUL	72623.3	491711.7	581835.9	502515.0	648246.5	2296932.4
15 JUL	129304.9	229147.2	206457.9	170855.1	2261325.0	2997090.1
21 JUL	168273.5	138443.1	81331.9	130653.9	603020.0	1121722.4
28 JUL	67309.4	42965.1	0.0	0.0	0.0	110274.5
4 AUG	31883.4	33417.3	0.0	904527.0	0.0	969827.7
11 AUG	10627.8	28643.4	0.0	0.0	497491.5	536762.7
18 AUG	203699.5	114573.6	0.0	130653.9	0.0	448927.0
25 AUG	306434.9	114573.6	0.0	0.0	0.0	421008.5
2,3 SEP	5313.9	19095.6	106357.1	0.0	0.0	130766.6
8 SEP	0.0	0.0	0.0	0.0	0.0	0.0
15 SEP	3542.6	19095.6	106357.1	301509.0	0.0	430504.3
ANNUAL MEAN	108049.3	190956.0	268629.9	488067.7	654842.0	1710544.9

<sup>a</sup> Mean of surface, mid-depth, and bottom samples over  
3-NMPW, 1-NMPW, 1/2-NMPW, 1/2-NMPE, 1-NMPE, 3-NMPE

<sup>b</sup> Mean of surface, mid-depth, and bottom samples over  
3-NMPW, 1-NMPW, 1/2-NMPW, 1/2-NMPE, 1-NMPE, 3-NMPE

<sup>c</sup> Mean of surface, mid-depth and bottom samples at NMPP-60 ft

<sup>d</sup> Mean of surface, mid-depth and bottom samples at NMPP-80 ft

<sup>e</sup> Mean of surface, mid-depth and bottom samples at NMPP-100 ft

<sup>f</sup> Number/1000 cu m.

VI.A.1. ORGANIC CARBON IN BOTTOM SEDIMENTS  
AT SELECTED 40 FT BENTHIC STATIONS



ORGANIC CARBON<sup>a</sup> IN BOTTOM SEDIMENTS : BENTHOS SAMPLING PROGRAM

NINE MILE POINT VICINITY - 1976

DATE	STATIONS								
	NMPE - 40 FT			FITZ - 40 FT			NMPW - 40 FT		
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
19 APR	NR	NAn	-	NR	NAn	-	NR	NS	-
15,16 JUN	0.14 <sup>b</sup>	0.07 <sup>b</sup>	0.10	0.05 <sup>b</sup>	0.08 <sup>b</sup>	0.06	1.46 <sup>c</sup>	1.57 <sup>c</sup>	1.52
3, 7 SEP	0.06 <sup>d</sup>	0.09 <sup>d</sup>	0.08	0.08 <sup>e</sup>	0.09 <sup>e</sup>	0.08	0.78 <sup>e</sup>	0.96 <sup>e</sup>	0.87
12,13 OCT	0.14 <sup>f</sup>	0.12 <sup>f</sup>	0.13	0.04 <sup>g</sup>	0.04 <sup>g</sup>	0.04	0.15 <sup>g</sup>	0.14 <sup>g</sup>	0.14
DEC	NS	NS	-	NS	NS	-	NS	NS	-

<sup>a</sup> Percent organic carbon, chromic acid oxidation values

<sup>b</sup> 15 June

<sup>c</sup> 16 June

<sup>d</sup> 3 September; represents August collection

<sup>e</sup> 7 September; represents August collection

<sup>f</sup> 12 October

<sup>g</sup> 13 October

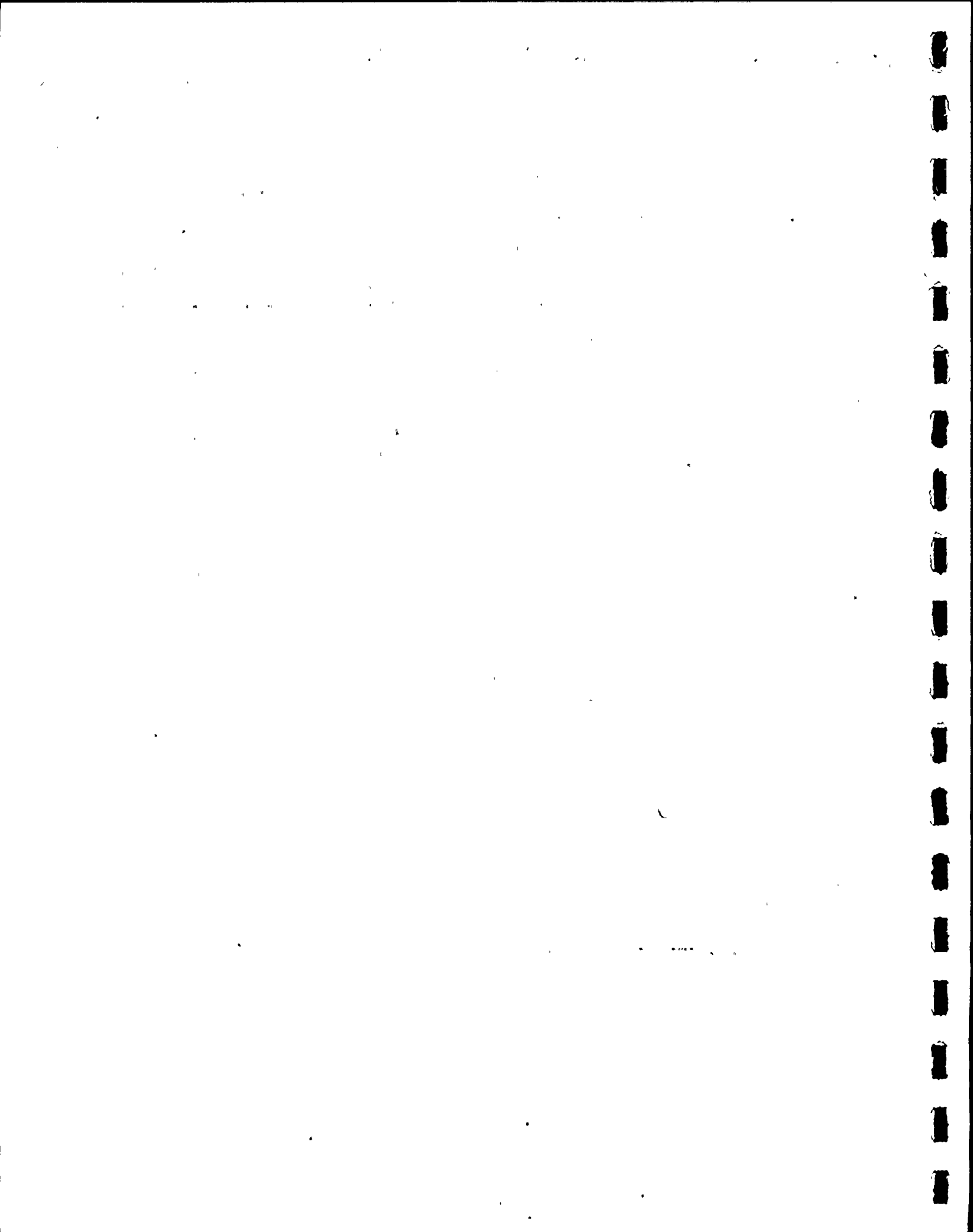
NAn = Not analyzed

NR = Not required in sampling program

NS = No December benthic collection



VI.A.2. GRAIN SIZE ANALYSIS AT SELECTED 40 FT BENTHIC STATIONS



GRAIN SIZE ANALYSIS\* AT 40 FT BENTHIC STATIONS

NINE MILE POINT VICINITY - 1976

DATE	NMPW		NMPP		FITZ		NMPE	
	% Sand	% Silt	% Sand	% Silt	% Sand	% Silt	% Sand	% Silt
15, 16, 17 JUN	NA <sup>a</sup>	NA <sup>a</sup>	NA <sup>b</sup>	NA <sup>b</sup>	92 <sup>c</sup>	8 <sup>c</sup>	94 <sup>c</sup>	6 <sup>c</sup>
12, 13 OCT	90 <sup>d</sup>	10 <sup>d</sup>	NA <sup>d</sup>	NA <sup>d</sup>	94 <sup>d</sup>	6 <sup>d</sup>	90 <sup>e</sup>	10 <sup>e</sup>

\*Analysis required with June and October benthos collections only

<sup>a</sup> 16 June

<sup>b</sup> 17 June

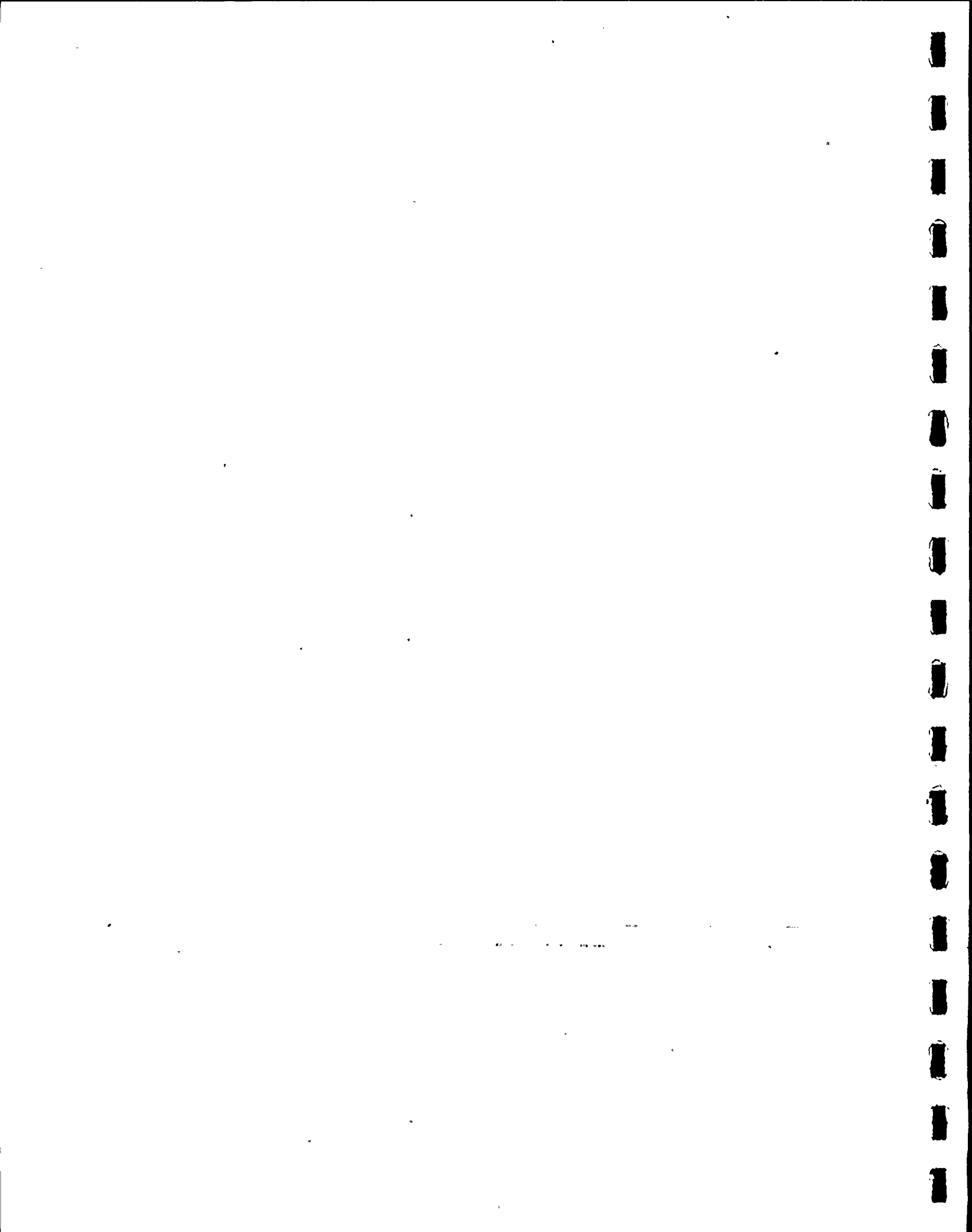
<sup>c</sup> 15 June

<sup>d</sup> 13 October

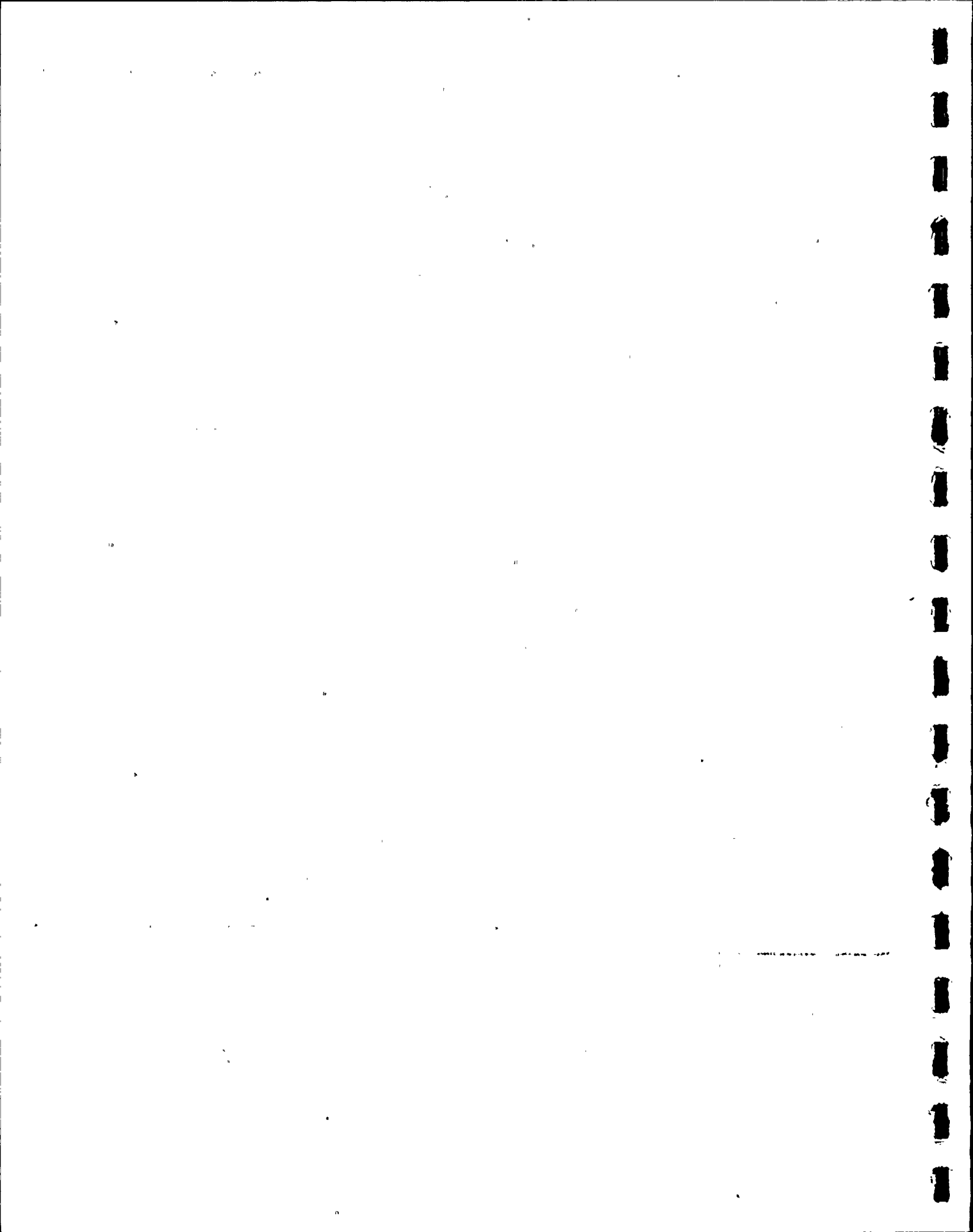
<sup>e</sup> 12 October

NA = Not analyzed, sample size insufficient for analysis





VI.A.3. DIVER OBSERVATION OF SEDIMENT ACCUMULATION  
NEAR BUOY PERIPHYTON ANCHORS



DIVER OBSERVATION OF SEDIMENT ACCUMULATION<sup>a</sup>  
NEAR BUOY PERIPHYTON ANCHORS

NINE MILE POINT VICINITY - 1976

DATE	40 FT STATION		
	NMPW	NMPP/ FITZ	NMPE
11 MAY	<0.1	NS <sup>b</sup>	0.2-1.2
2 JUN	0.2	<0.1	0.3-1.8
1 JUL	0.5	0.5	2.0
AUG	NS <sup>c</sup>	NS <sup>c</sup>	NS <sup>c</sup>
7 SEP	<0.1	NS <sup>b</sup>	0-0.8
8 OCT	<0.1	NS <sup>b</sup>	0.1-4.5
2 NOV	<0.1	NS <sup>b</sup>	<0.1-6.0
10 DEC	NS <sup>b</sup>	0 <sup>d</sup>	16.0

<sup>a</sup>Recorded in cm

<sup>b</sup>Structure missing

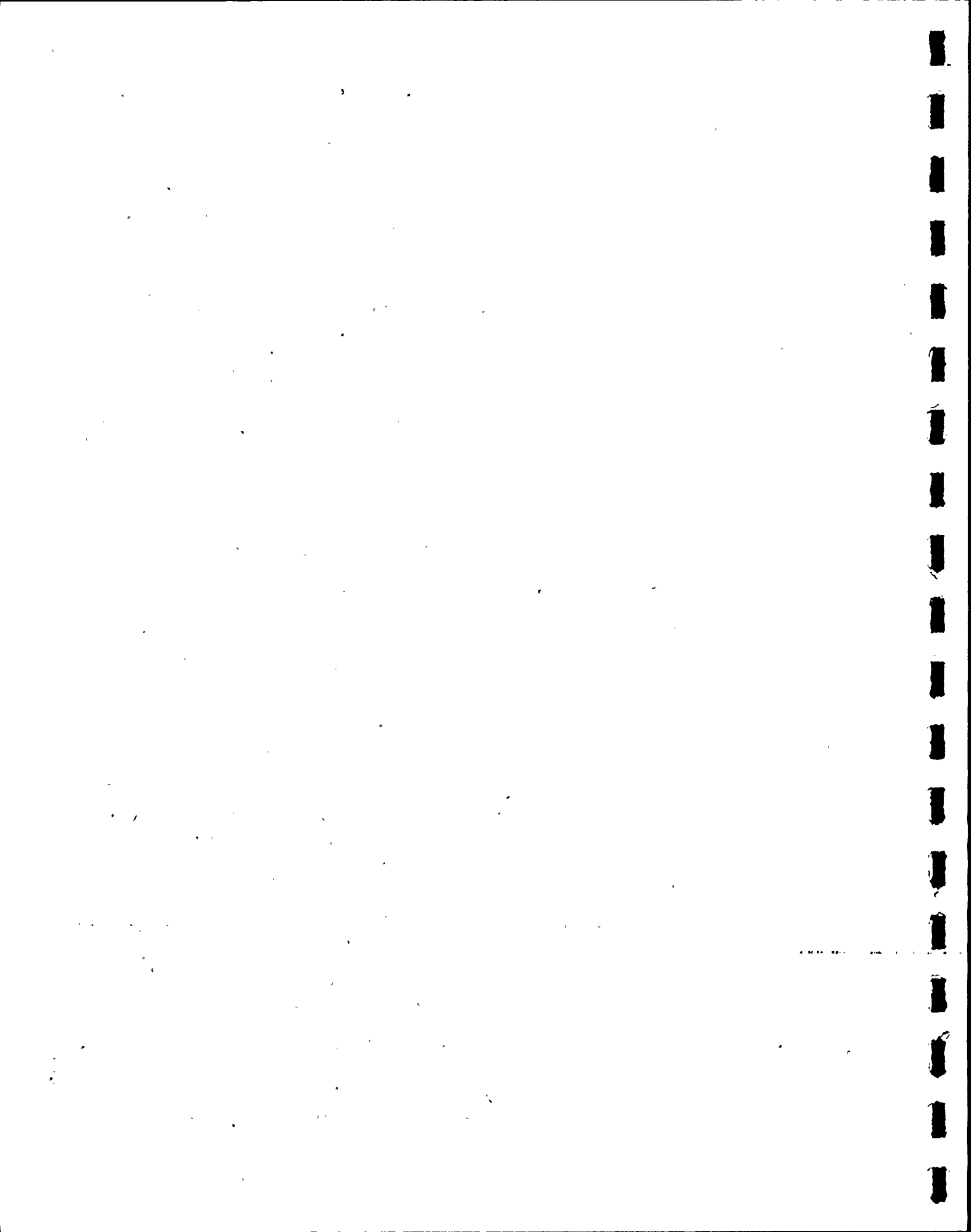
<sup>c</sup>No collection; diver's regulation

<sup>d</sup>Structure replaced 6 Dec

NS = No sample



VI.A.4. ABUNDANCE AND BIOMASS OF SELECTED TAXA



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF ACARI (ARTHROPODA: ARACHNIDA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
10 NMPW	79	2.3	0.024	0.19	69	1.4	0.021	0.22	38	0.2	0.011	0.02
10 NMPP	38	1.6	0.011	0.75	349	5.9	0.105	5.37	23	0.5	0.007	0.26
10 FITZ	41	1.4	0.012	0.14	25	2.4	0.008	0.66	122	0.6	0.037	0.17
10 NMPE	23	0.6	0.007	0.04	43	0.9	0.013	0.12	115	2.0	0.034	0.84
CONTOUR MEAN	45		0.014		122		0.037		74		0.022	
20 NMPW	56	1.1	0.017	0.84	84	1.5	0.025	0.28	153	6.4	0.046	3.77
20 NMPP	92	1.8	0.027	0.08	125	3.0	0.037	3.77	120	1.6	0.036	1.05
20 FITZ	43	2.2	0.013	0.14	61	3.1	0.018	3.61	109	1.5	0.033	0.90
20 NMPE	56	1.0	0.017	0.16	150	4.1	0.045	1.51	122	2.0	0.037	0.32
CONTOUR MEAN	62		0.019		105		0.031		126		0.038	
30 NMPW	524	14.4	0.157	12.11	275	14.7	0.082	6.78	277	12.9	0.083	2.76
30 NMPP	112	9.5	0.034	2.29	351	7.0	0.105	0.94	247	5.4	0.074	1.51
30 FITZ	3	1.7	0.001	0.11	8	1.1	0.002	0.17	10	0.6	0.003	0.18
30 NMPE	8	0.4	0.002	0.04	8	0.2	0.002	0.03	25	0.3	0.008	0.04
CONTOUR MEAN	162		0.049		160		0.048		140		0.042	
40 NMPW	321	13.2	0.096	3.86	173	52.3	0.052	36.36	1000	31.6	0.300	25.53
40 NMPP	137	27.9	0.041	4.75	313	13.6	0.094	9.69	255	7.4	0.076	1.65
40 FITZ	0	-	-	-	249	5.3	0.075	1.41	36	0.9	0.011	0.22
40 NMPE	41	1.6	0.012	0.20	20	0.2	0.006	0.04	196	1.5	0.059	0.28
CONTOUR MEAN	125		0.050		189		0.057		372		0.112	
60 NMPW	51	0.2	0.015	0.04	31	0.2	0.009	0.05	13	0.2	0.004	0.03
60 NMPP	420	18.9	0.126	6.86	349	20.7	0.105	5.51	84	1.4	0.025	0.50
60 FITZ	0	-	-	-	38	0.3	0.011	0.06	31	0.3	0.009	0.08
60 NMPE	31	0.4	0.009	0.05	64	0.6	0.019	0.10	69	0.4	0.021	0.06
CONTOUR MEAN	126		0.050		120		0.036		49		0.015	

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight

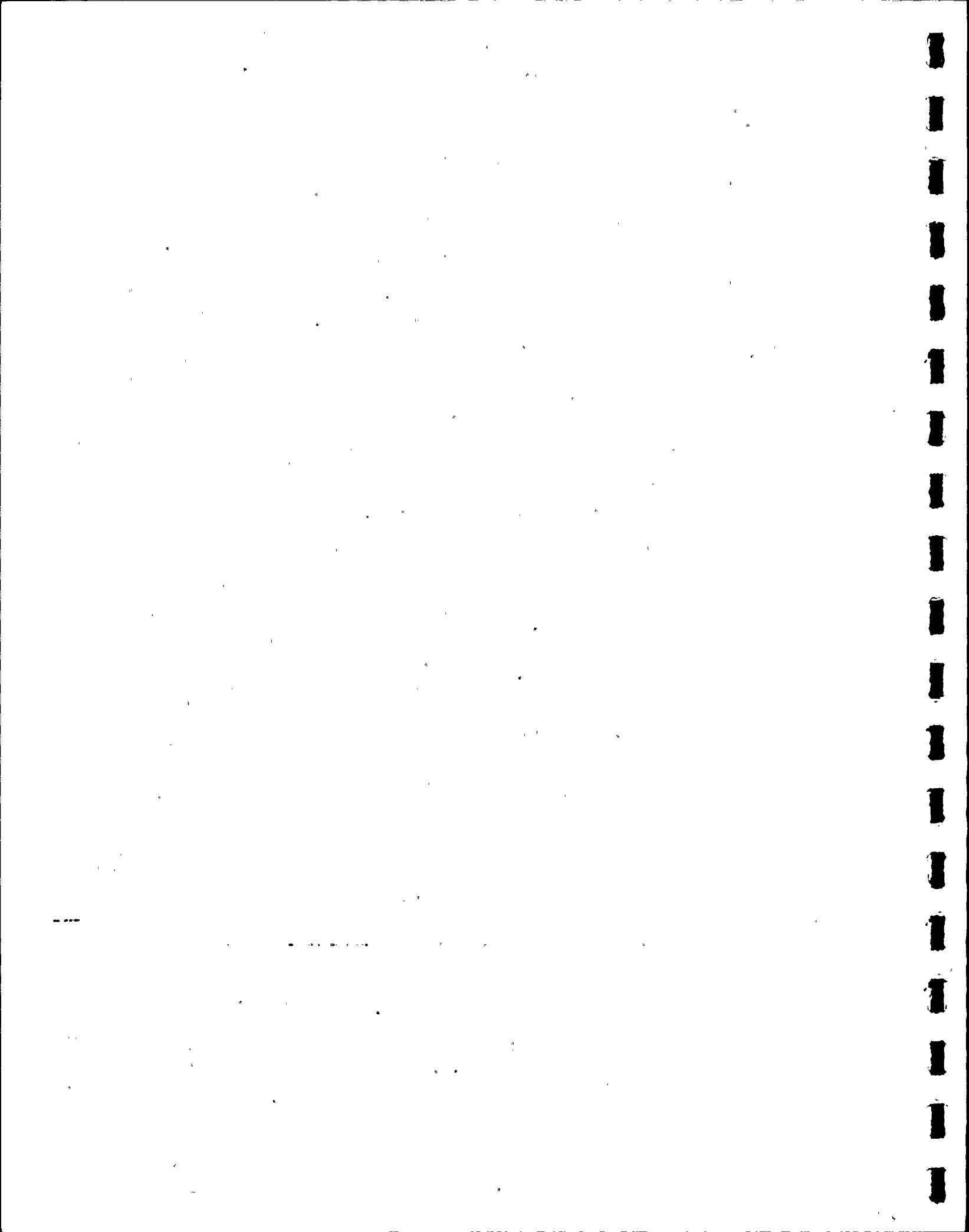
<sup>c</sup>Original sample only

NA = Not available

NS = No sample

- = Not applicable





ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF ACARI (ARTHROPODA: ARACHNIDA) IN BENTHIC COLLECTIONS (CONTINUED)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
10	NMPW	0	-	-	-	-	NS	-	47	0.8	0.014	0.07
	NMPP	38	0.2	0.011	0.06	-	NS	-	112	1.4	0.034	0.58
	FITZ	56	0.8	0.017	0.22	-	NS	-	61	0.8	0.019	0.19
	NMPE	8	2.0	0.002	0.62	-	NS	-	47	1.3	0.014	0.18
	CONTOUR MEAN	26	-	0.010	-	-	-	-	-	-	-	-
20	NMPW	148	9.7	0.044	1.41	-	NS	-	110	3.0	0.033	0.87
	NMPP	64	13.5	0.019	4.20	-	NS	-	100	2.3	0.030	0.31
	FITZ	25	0.9	0.008	0.19	-	NS	-	60	1.7	0.018	0.40
	NMPE	188	1.1	0.057	0.18	15 <sup>c</sup>	6.0 <sup>c</sup>	0.005 <sup>c</sup>	129	1.6	0.039	0.28
	CONTOUR MEAN	106	-	0.032	-	-	-	-	-	-	-	-
30	NMPW	420	39.0	0.126	8.32	-	NS	-	374	17.1	0.112	6.36
	NMPP	458	25.4	0.137	0.26	-	NS	-	292	9.3	0.088	0.50
	FITZ	0	-	-	-	-	NS	-	5	0.6	0.002	0.17
	NMPE	20	0.3	0.006	0.03	5	0.9	0.002	13	NA	0.004	NA
	CONTOUR MEAN	224	-	0.090	-	-	-	-	-	-	-	-
40	NMPW	214	84.6	0.064	47.76	-	NS	-	427	27.6	0.128	12.99
	NMPP	361	9.6	0.108	1.74	-	NS	-	267	10.7	0.080	2.53
	FITZ	3	0.2	0.001	0.03	-	NS	-	72	2.4	0.022	0.53
	NMPE	51	0.7	0.015	0.08	-	NS	-	77	1.0	0.023	0.15
	CONTOUR MEAN	157	-	0.047	-	-	-	-	-	-	-	-
60	NMPW	410	39.7	0.123	6.44	-	NS	-	126	1.0	0.038	0.21
	NMPP	598	32.6	0.179	7.95	-	NS	-	363	12.3	0.109	3.97
	FITZ	10	0.2	0.003	0.03	-	NS	-	20	0.3	0.006	0.05
	NMPE	25	0.2	0.008	0.04	-	NS	-	47	0.4	0.014	0.06
	CONTOUR MEAN	261	-	0.078	-	-	-	-	-	-	-	-

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

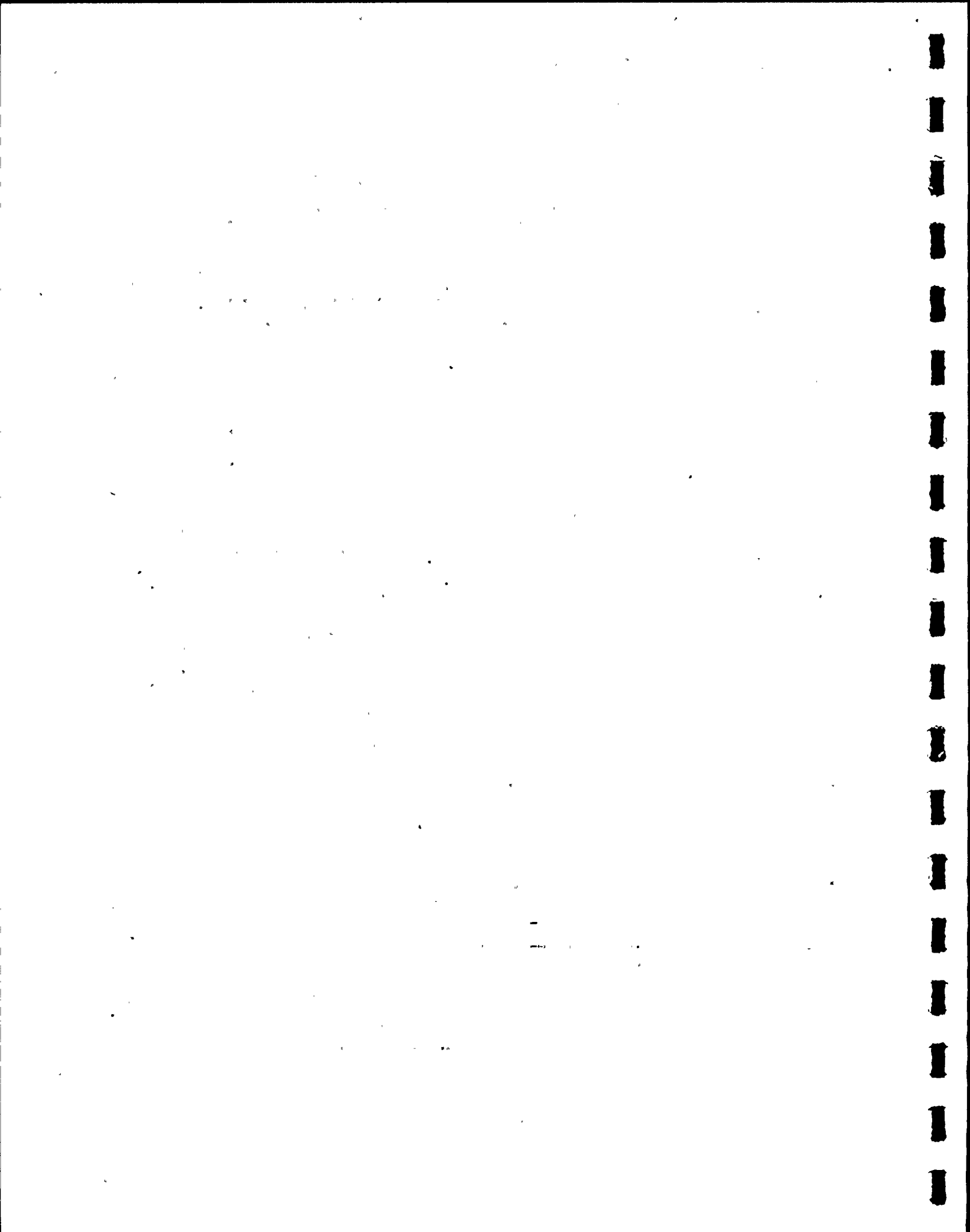
<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NA = Not available

NS = No sample

- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF AMPHIPODA (ARTHROPODA: CRUSTACEA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
10 NMPW	1079	32.0	3.765	29.97	1377	27.6	0.974	10.16	11707	73.6	8.737	14.35
NMPP	372	15.6	0.378	25.73	4092	69.5	1.013	51.82	4316	84.2	2.255	83.09
FITZ	201	6.9	0.413	4.76	163	15.3	0.104	8.55	16654	76.9	14.668	68.36
NMPE	870	20.8	4.912	31.39	1486	32.6	0.443	4.17	4591	78.8	3.439	85.19
CONTOUR MEAN	630		2.367		1780		0.633		9317		7.275	
20 NMPW	153	2.9	0.440	21.63	705	12.5	0.335	3.77	524	22.0	0.328	26.91
NMPP	967	19.2	5.183	15.09	2362	56.5	0.721	73.42	4581	61.9	2.946	85.79
FITZ	1415	72.7	8.006	85.52	1290	64.8	0.277	55.62	5090	71.7	2.034	55.62
NMPE	3400	60.5	7.092	68.81	794	21.9	0.142	4.75	1853	29.6	1.340	11.60
CONTOUR MEAN	1484		5.180		1288		0.369		3012		1.662	
30 NMPW	15	0.4	0.065	5.02	107	5.7	0.005	0.41	585	27.2	0.363	12.06
NMPP	252	21.4	1.030	69.41	741	14.7	0.052	0.47	1547	33.9	0.753	15.37
FITZ	117	67.6	0.803	92.09	570	75.6	0.343	28.78	1369	83.2	1.285	75.77
NMPE	277	14.7	0.182	3.39	392	7.2	0.145	1.91	1201	14.4	2.432	13.52
CONTOUR MEAN	165		0.520		452		0.136		1176		1.208	
40 NMPW	59	2.4	0.222	8.92	25	7.6	0.007	4.90	176	5.6	0.309	26.30
NMPP	18	3.7	0.055	6.37	349	15.2	0.016	1.65	130	3.8	0.054	1.17
FITZ	481	32.0	0.471	14.89	1960	41.4	1.136	21.41	1924	47.4	2.291	45.84
NMPE	186	7.3	0.427	7.20	1573	18.0	0.908	6.10	1746	12.9	2.889	13.47
CONTOUR MEAN	186		0.294		977		0.517		994		1.386	
60 NMPW	929	4.1	0.285	0.74	2901	14.8	0.724	4.06	715	8.6	1.104	7.07
NMPP	36	1.6	0.211	11.49	145	8.6	0.106	5.56	69	1.2	0.074	1.49
FITZ	369	11.9	1.004	10.23	2922	26.1	1.253	7.21	1537	15.7	2.163	19.92
NMPE	557	7.6	2.198	13.10	3970	35.2	1.796	9.28	2866	17.1	4.231	11.46
CONTOUR MEAN	473		0.924		2484		0.970		1297		1.893	

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

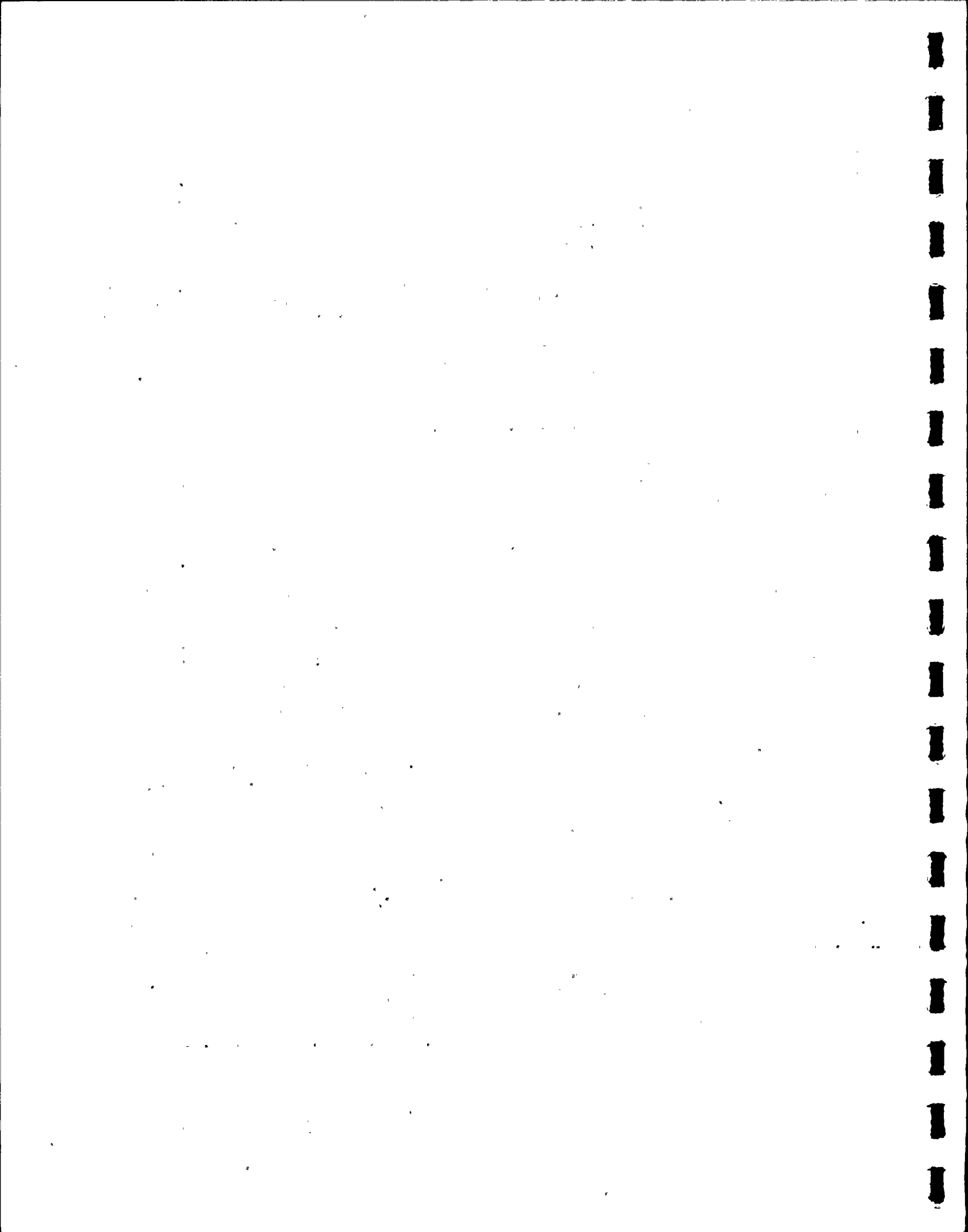
<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NA = Not available

NS = No sample

- = Not available



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF AMPHIPODA (ARTHROPODA: CRUSTACEA) IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
10 NMPW	509	88.7	0.296	40.16	NS		NS		3668	59.0	3.443	16.44
NMPP	14252	79.8	11.562	66.11	NS		NS		5758	73.7	3.802	64.35
FITZ	6719	94.8	6.674	84.81	NS		NS		5934	72.6	5.465	55.74
NMPE	384	94.1	0.303	93.52	NS		NS		1833	48.9	2.274	29.70
CONTOUR MEAN	5466		4.709		-		-					
20 NMPW	331	21.7	0.104	3.34	NS		NS		428	11.5	0.302	7.92
NMPP	109	23.0	0.029	6.42	NS		NS		2005	46.9	2.220	22.63
FITZ	1715	58.1	1.370	32.14	NS		NS		2378	67.9	2.922	65.71
NMPE	14221	82.9	10.932	34.40	41 <sup>c</sup>	16.4 <sup>c</sup>	0.267 <sup>c</sup>	NA	5067	62.1	4.877	34.44
CONTOUR MEAN	4094		3.109		-		-					
30 NMPW	400	37.1	0.224	14.80	NS		NS		277	12.7	0.164	9.32
NMPP	687	38.1	1.382	2.59	NS		NS		807	25.6	0.804	4.54
FITZ	453	78.4	0.750	80.04	NS		NS		627	79.4	0.795	67.60
NMPE	410	5.6	0.712	3.79	51	8.9	0.277	14.66	466	NA	0.750	NA
CONTOUR MEAN	488		.767		-		-					
40 NMPW	8	3.2	0.007	5.22	NS		NS		67	4.3	0.136	13.81
NMPP	1105	29.5	1.100	17.75	NS		NS		401	16.1	0.306	9.69
FITZ	662	39.3	0.992	32.79	NS		NS		1257	42.0	1.223	29.64
NMPE	1629	22.6	2.369	13.40	NS		NS		1284	16.0	1.648	11.00
CONTOUR MEAN	851		1.117		-		-					
60 NMPW	43	4.2	0.011	0.58	NS		NS		1147	8.9	0.531	2.88
NMPP	160	8.7	0.171	7.60	NS		NS		103	3.5	0.141	5.13
FITZ	2138	42.2	3.769	38.70	NS		NS		1742	23.9	2.047	17.13
NMPE	4174	32.1	8.129	36.51	NS		NS		2892	23.9	4.089	17.16
CONTOUR MEAN	1629		3.020		-		-					

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NA = Not available

NS = No sample

- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF BIVALVIA (MOLLUSCA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	8	0.2	0.360	2.87	79	1.6	0.244	2.55	48	0.3	0.021	0.03
NMPP	8	0.3	0.019	1.29	5	0.1	0.036	1.84	20	0.4	0.030	1.11
10 FITZ	0	-	-	-	10	0.9	0.006	0.49	43	0.2	0.028	0.13
NMPE	13	0.3	0.030	0.19	33	0.7	3.246	30.59	5	0.1	0.004	0.10
CONTOUR MEAN	7		0.136		32		0.883		29		0.021	
NMPW	0	-	-	-	0	-	-	-	10	0.4	0.018	1.48
NMPP	8	0.2	0.069	0.20	0	-	-	-	5	0.1	0.002	0.06
20 FITZ	13	0.7	0.019	0.20	0	-	-	-	10	0.1	0.038	1.04
NMPE	148	2.6	0.210	2.04	38	1.1	0.088	2.94	392	6.3	0.247	2.14
CONTOUR MEAN	42		0.099		9		-		104		0.075	
NMPW	3	0.1	<0.001	<0.01	3	0.2	<0.001	<0.01	71	3.3	0.073	2.43
NMPP	3	0.3	0.008	0.54	0	-	-	-	150	3.3	0.079	1.61
30 FITZ	25	14.5	0.014	1.61	0	-	-	-	46	2.8	0.025	1.47
NMPE	606	32.2	1.005	18.73	1099	20.2	1.989	26.20	2830	33.9	3.656	20.32
CONTOUR MEAN	159		<0.257		275		<0.995		774		0.958	
NMPW	3	0.1	0.006	0.24	0	-	-	-	8	0.3	0.009	0.77
NMPP	0	-	-	-	3	0.1	0.004	0.41	135	3.9	0.111	2.41
40 FITZ	97	6.5	0.112	3.54	69	1.5	0.127	2.39	774	19.1	0.624	12.48
NMPE	865	34.0	1.313	22.13	1308	15.0	2.606	17.51	3197	23.7	3.804	17.74
CONTOUR MEAN	241		0.477		345		0.912		1028		1.137	
NMPW	715	3.2	1.167	3.04	517	2.6	0.807	4.52	2087	25.0	1.154	7.39
NMPP	15	0.7	0.011	0.60	0	-	-	-	31	0.5	0.018	0.36
60 FITZ	366	11.8	0.575	5.86	534	4.8	1.539	8.85	1644	16.8	1.568	14.44
NMPE	1827	24.9	1.564	9.32	1575	14.0	3.102	16.03	4067	24.3	2.966	8.03
CONTOUR MEAN	731		0.829		656		1.816		1957		1.426	

<sup>a</sup>Number organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight





ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF BIVALVIA (MOLLUSCA) IN BENTHIC COLLECTIONS (CONTINUED)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
10 NMPW NMPP FITZ NMPE CONTOUR MEAN	10	1.7	0.026	3.53	NS	-	NS	-	36	0.6	0.163	0.78
	15	0.1	0.134	0.77	NS	-	NS	-	12	0.2	0.055	0.93
	71	1.0	0.045	0.57	NS	-	NS	-	31	0.4	0.020	0.20
	0	-	-	-	NS	-	NS	-	13	0.4	0.820	10.71
	24		0.068		-		-					
20 NMPW NMPP FITZ NMPE CONTOUR MEAN	15	1.0	0.130	4.17	NS	-	NS	-	6	0.2	0.037	0.97
	18	3.8	0.052	11.50	NS	-	NS	-	8	0.2	0.031	0.32
	8	0.3	0.017	0.40	NS	-	NS	-	8	0.2	0.019	0.43
	316	1.8	9.086	28.59	127 <sup>c</sup>	50.9 <sup>c</sup>	0.050 <sup>c</sup>	NA	224	2.7	2.408	17.01
	89		2.321		-		-					
30 NMPW NMPP FITZ NMPE CONTOUR MEAN	0	-	-	-	NS	-	NS	-	19	0.9	0.018	1.02
	28	1.6	50.566	94.83	NS	-	NS	-	45	1.4	12.663	71.51
	33	5.7	0.066	7.04	NS	-	NS	-	26	3.3	0.026	2.21
	3085	42.4	6.237	33.16	229	39.8	0.642	33.99	1570	NA	2.706	NA
	786		18.956		-		-					
40 NMPW NMPP FITZ NMPE CONTOUR MEAN	0	-	-	-	NS	-	NS	-	3	0.2	0.004	0.41
	94	2.5	0.286	4.61	NS	-	NS	-	58	2.3	0.100	3.17
	336	20.0	0.410	13.55	NS	-	NS	-	319	10.7	0.318	7.71
	2418	33.6	4.431	25.06	NS	-	NS	-	1947	24.3	3.039	20.28
	712		1.709		-		-					
60 NMPW NMPP FITZ NMPE CONTOUR MEAN	15	1.5	0.017	0.89	NS	-	NS	-	834	6.5	0.786	4.26
	23	1.3	0.135	6.00	NS	-	NS	-	17	0.6	0.041	1.49
	883	17.4	1.508	15.48	NS	-	NS	-	857	11.7	1.298	10.86
	3451	26.6	2.925	13.14	NS	-	NS	-	2730	22.6	2.639	11.07
	1093		1.146		-		-					

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NA = Not available

NS = No sample

- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF BRYOZOA IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	66	2.0	0.002	0.02	509	10.2	0.015	0.16	15	0.1	0.001	<0.01
NMPP	89	3.7	0.003	0.20	46	0.8	0.001	0.05	0	-	-	-
10 FITZ	23	0.8	0.001	0.01	15	1.4	0.001	0.08	3	<0.1	<0.001	<0.01
NMPE	0	-	-	-	33	0.7	0.001	0.01	0	-	-	-
CONTOUR MEAN	44		0.002		151		0.005		4		<0.001	
NMPW	33	0.6	0.001	0.05	38	0.7	0.001	0.01	387	16.2	0.014	1.15
NMPP	104	2.1	0.003	0.01	143	3.4	0.003	0.31	224	3.0	0.006	0.17
20 FITZ	0	-	-	-	76	3.8	0.002	0.40	0	-	-	-
NMPE	0	-	-	-	356	9.8	0.011	0.37	10	0.2	<0.001	<0.01
CONTOUR MEAN	34		0.002		153		0.004		155		<0.007	
NMPW	135	3.7	0.004	0.31	417	22.4	0.012	0.99	41	1.9	0.001	0.03
NMPP	3	0.3	<0.001	<0.01	450	9.0	0.014	0.13	46	1.0	0.001	0.02
30 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	5	-	<0.001	<0.01
CONTOUR MEAN	34		<0.002		217		0.013		23		<0.001	
NMPW	3	0.1	<0.001	<0.01	51	15.4	0.002	1.40	41	1.3	0.001	0.09
NMPP	20	4.1	0.001	0.12	33	1.4	0.001	0.10	0	-	-	-
40 FITZ	0	-	-	-	397	8.4	0.012	0.23	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	6		<0.001		120		0.005		10		-	
NMPW	0	-	-	-	0	-	-	-	0	-	-	-
NMPP	0	-	-	-	15	0.9	0.001	0.05	25	0.4	0.001	0.02
60 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	0		-		4		-		6		-	

<sup>a</sup> Number organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup> Grams/m<sup>2</sup>; wet weight



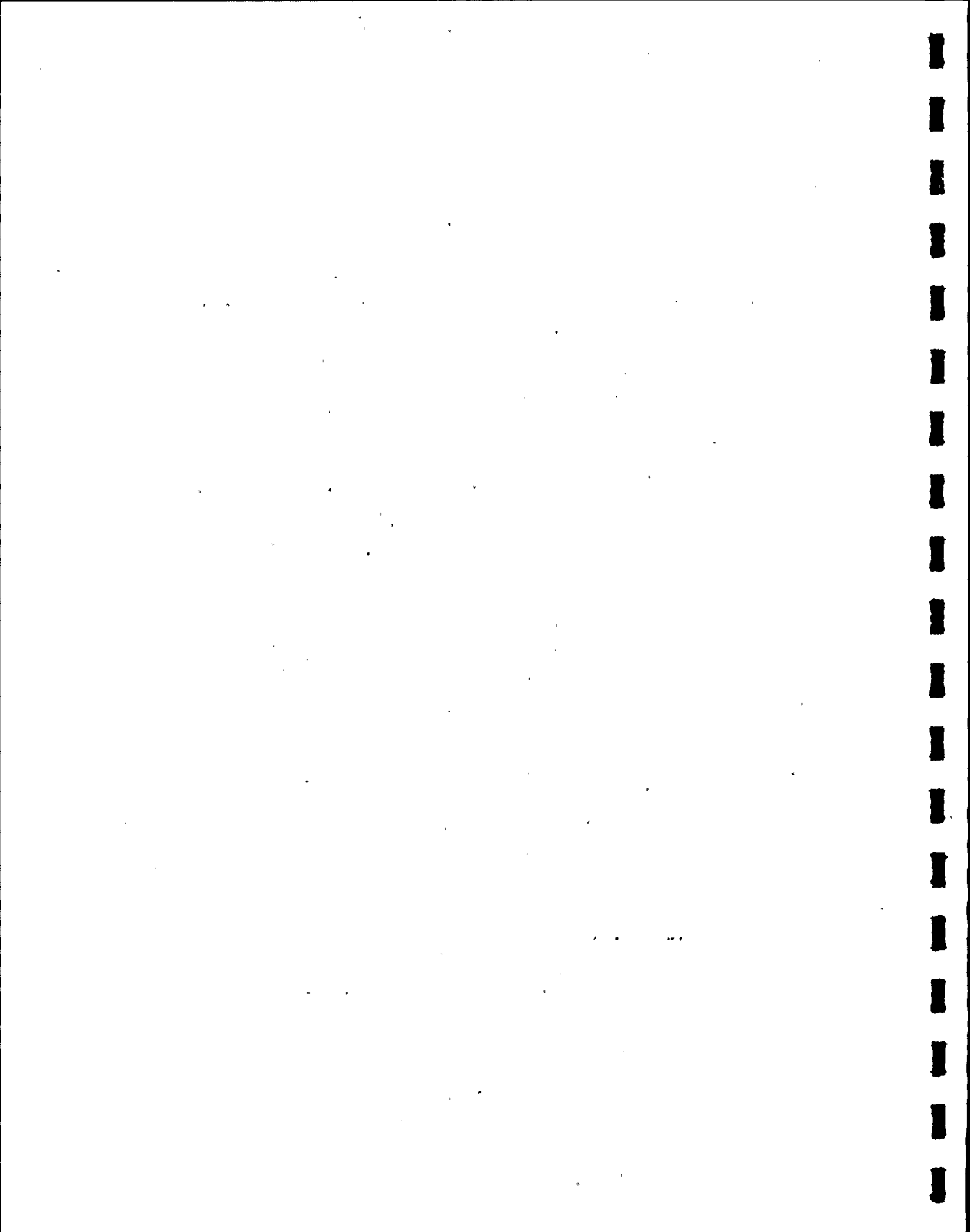
ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF BRYOZOA IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND : MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
10	NMPW	0	-	-	-	-	NS	-	148	2.4	0.005	0.02
	NMPP	5	<0.1	<0.001	<0.01	-	NS	-	35	0.5	0.001	0.02
	FITZ	3	<0.1	0.001	0.01	-	NS	-	11	0.1	0.001	0.01
	NMPE	0	-	-	-	-	NS	-	8	0.2	<0.001	<0.01
	CONTOUR MEAN	2	-	<0.001	-	-	-	-	-	-	-	-
20	NMPW	94	6.2	0.003	0.10	-	NS	-	138	3.7	0.005	0.13
	NMPP	0	-	-	-	-	NS	-	118	2.8	0.003	0.03
	FITZ	41	1.4	0.001	0.02	-	NS	-	29	0.8	0.001	0.02
	NMPE	0	-	-	-	0 <sup>c</sup>	-	-	92	1.1	0.003	0.02
	CONTOUR MEAN	34	-	0.002	-	-	-	-	-	-	-	-
30	NMPW	150	13.9	0.005	0.33	-	NS	-	186	8.5	0.006	0.34
	NMPP	102	5.7	0.003	0.01	-	NS	-	150	4.8	0.005	0.03
	FITZ	0	-	-	-	-	NS	-	0	-	-	-
	NMPE	0	-	-	-	0	-	-	1	NA	<0.001	NA
	CONTOUR MEAN	63	-	0.004	-	-	-	-	-	-	-	-
40	NMPW	0	-	-	-	-	NS	-	24	1.6	0.001	0.10
	NMPP	140	3.7	0.004	0.06	-	NS	-	48	1.9	0.002	0.06
	FITZ	0	-	-	-	-	NS	-	99	3.3	0.003	0.07
	NMPE	0	-	-	-	-	NS	-	0	-	-	-
	CONTOUR MEAN	35	-	-	-	-	-	-	-	-	-	-
60	NMPW	0	-	-	-	-	NS	-	0	-	-	-
	NMPP	71	3.9	0.002	0.09	-	NS	-	28	1.0	0.001	0.04
	FITZ	0	-	-	-	-	NS	-	0	-	-	-
	NMPE	0	-	-	-	-	NS	-	0	-	-	-
	CONTOUR MEAN	18	-	-	-	-	-	-	-	-	-	-

<sup>a</sup> No. organisms/m<sup>2</sup>; exact date of benthic collection  
indicated on computer print-outs  
<sup>b</sup> Grams/m<sup>2</sup>; wet weight  
<sup>c</sup> Original sample only

NA = Not available  
NS = No sample  
- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF DECAPODA (ARTHROPODA: CRUSTACEA) IN BENTHIC COLLECTIONS<sup>d</sup>

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	0	-	-	-	5	0.1	6.301	70.95	0	-	-	-
NMPP	3	0.1	23.614	68.74	0	-	-	-	0	-	-	-
20 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	1	-	-	-	1	-	-	-	0	-	-	-
NMPW	0	-	-	-	0	-	-	-	0	-	-	-
NMPP	0	-	-	-	3	0.1	9.738	87.59	3	0.1	2.771	56.57
30 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	0	-	-	-	1	-	-	-	1	-	-	-
NMPW	0	-	-	-	0	-	-	-	0	-	-	-
NMPP	0	-	-	-	0	-	-	-	5	0.2	0.352	7.65
40 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	0	-	-	-	0	-	-	-	1	-	-	-

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAM <sup>d</sup> MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	0	-	-	-	NS	-	NS	-	1	<0.1	1.575	41.31
NMPP	0	-	-	-	NS	-	NS	-	1	<0.1	5.904	60.20
20 FITZ	0	-	-	-	NS	-	NS	-	0	-	-	-
NMPE	3	<0.1	1.509	4.75	0 <sup>c</sup>	-	-	-	1	<0.1	0.377	2.66
CONTOUR MEAN	1	-	-	-	-	-	-	-	-	-	-	-
NMPW	0	-	-	-	NS	-	NS	-	0	-	-	-
NMPP	3	0.2	0.232	0.44	NS	-	NS	-	2	0.1	3.185	17.99
30 FITZ	0	-	-	-	NS	-	NS	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	1	-	-	-	-	-	-	-	-	-	-	-
NMPW	0	-	-	-	NS	-	NS	-	0	-	-	-
NMPP	0	-	-	-	NS	-	NS	-	1	<0.1	0.088	2.79
40 FITZ	0	-	-	-	NS	-	NS	-	0	-	-	-
NMPE	0	-	-	-	NS	-	NS	-	0	-	-	-
CONTOUR MEAN	0	-	-	-	-	-	-	-	0	-	-	-

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

<sup>d</sup>No organisms of this taxon collected at the 10 and 60 ft stations during 1976

NS = No sample

- = Not applicable





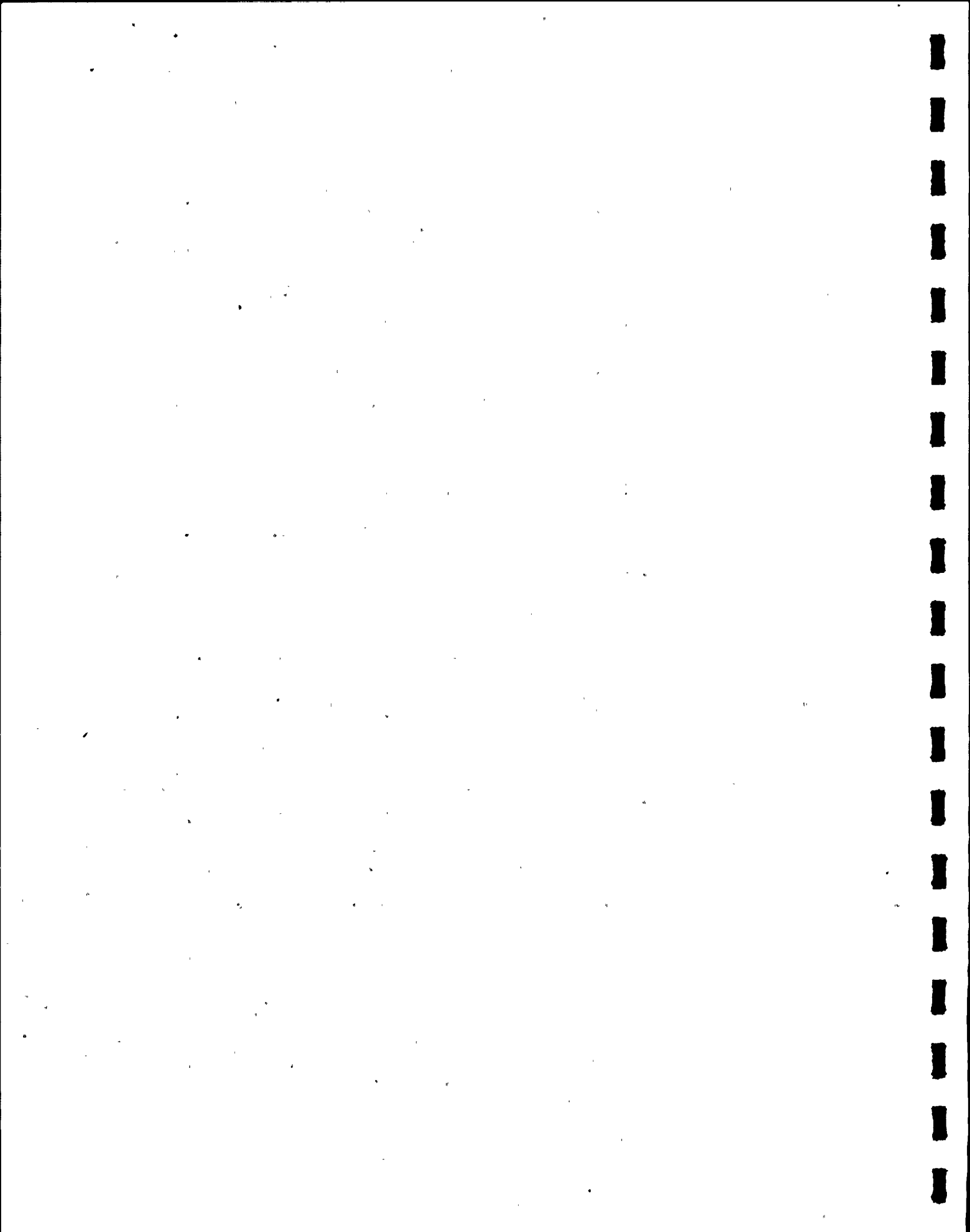
ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF DIPTERA (ARTHROPODA: INSECTA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]		APR				JUN				AUG			
		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
		MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
10	NMPW	199	5.9	0.061	0.49	99	2.0	0.117	1.22	165	1.0	0.036	0.06
	NMPP	186	7.8	0.039	2.65	155	2.6	0.105	5.37	178	3.5	0.125	4.61
	FITZ	2441	84.1	1.338	15.43	20	1.9	0.009	0.74	667	3.1	0.173	0.81
	NMPE	2586	61.9	2.057	13.14	183	4.0	0.179	1.69	858	14.7	0.271	6.71
	CONTOUR MEAN	1353		0.874		114		0.102		467		0.151	
20	NMPW	20	0.4	0.022	1.08	25	0.4	0.062	0.70	15	0.6	0.006	0.49
	NMPP	46	0.9	0.038	0.11	242	5.8	0.027	2.75	76	1.0	0.066	1.92
	FITZ	244	12.5	0.074	0.79	43	2.2	0.024	4.82	48	0.7	0.045	1.23
	NMPE	606	10.8	0.208	2.02	48	1.3	0.314	10.50	178	2.8	0.078	0.68
	CONTOUR MEAN	229		0.086		90		0.107		79		0.049	
30	NMPW	15	0.4	0.004	0.31	18	1.0	0.009	0.74	87	4.0	0.049	1.63
	NMPP	8	0.7	0.002	0.13	53	1.1	0.025	0.22	178	3.9	0.109	2.23
	FITZ	5	2.9	0.006	0.69	64	8.5	0.090	7.55	38	2.3	0.052	3.07
	NMPE	178	9.5	0.194	3.61	501	9.2	0.259	3.41	252	3.0	0.184	1.02
	CONTOUR MEAN	52		0.052		159		0.096		139		0.098	
40	NMPW	13	0.5	0.013	0.52	8	2.4	0.001	0.70	23	0.7	0.020	1.70
	NMPP	23	4.7	0.006	0.70	71	3.1	0.077	7.94	463	13.5	0.330	7.18
	FITZ	109	7.3	0.234	7.40	87	1.8	0.112	2.11	31	1.8	0.050	1.00
	NMPE	137	5.4	0.172	2.90	171	2.0	0.127	0.85	1133	8.4	0.738	3.44
	CONTOUR MEAN	70		0.106		84		0.080		412		0.284	
60	NMPW	255	1.1	0.906	2.36	379	1.9	0.874	4.90	481	5.8	0.657	4.21
	NMPP	28	1.3	0.005	0.27	79	4.7	0.049	2.57	2059	34.3	3.261	65.47
	FITZ	69	2.2	0.157	1.60	102	0.9	0.243	1.40	354	3.6	0.453	4.17
	NMPE	176	2.4	0.220	1.31	46	0.4	0.105	0.54	262	1.6	0.270	0.73
	CONTOUR MEAN	132		0.322		152		0.318		789		1.160	

<sup>a</sup> Number organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup> Grams/m<sup>2</sup>; wet weight



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF DIPTERA (ARTHROPODA: INSECTA IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
NMPW	0	-	-	-	NS	1	NS	1	116	1.9	0.054	0.26
NMPP	13	0.1	0.015	0.09	NS	1	NS	1	133	1.7	0.071	1.20
10 FITZ	8	0.1	0.009	0.11	NS	1	NS	1	784	9.6	0.382	3.90
NMPE	8	2.0	0.012	3.70	NS	1	NS	1	909	24.3	0.630	8.23
CONTOUR MEAN	7		0.012		-		-					
NMPW	0	-	-	-	NS	1	NS	1	15	0.4	0.023	0.60
NMPP	0	-	-	-	NS	1	NS	1	91	2.1	0.033	0.34
20 FITZ	3	0.1	0.001	0.02	NS	1	NS	1	85	2.4	0.036	0.81
NMPE	87	0.5	0.060	0.19	25 <sup>c</sup>	10.0 <sup>c</sup>	0.007 <sup>c</sup>	NA	230	2.8	0.165	1.17
CONTOUR MEAN	22		0.030		-		-					
NMPW	0	-	-	-	NS	1	NS	1	30	1.4	0.016	0.91
NMPP	31	1.7	0.049	0.09	NS	1	NS	1	68	2.2	0.046	0.26
30 FITZ	3	0.5	0.002	0.21	NS	1	NS	1	28	3.5	0.038	3.23
NMPE	318	4.4	0.173	0.92	48	8.4	0.032	1.69	259	NA	0.130	NA
CONTOUR MEAN	88		0.075		-		-					
NMPW	0	-	-	-	NS	1	NS	1	11	0.7	0.009	0.91
NMPP	173	4.6	0.364	5.87	NS	1	NS	1	183	7.3	0.194	6.14
40 FITZ	31	1.8	0.036	1.19	NS	1	NS	1	65	2.2	0.108	2.62
NMPE	155	2.2	0.143	0.81	NS	1	NS	1	399	5.0	0.295	1.97
CONTOUR MEAN	90		0.181		-		-					
NMPW	0	-	-	-	NS	1	NS	1	279	2.2	0.609	3.30
NMPP	36	2.0	0.083	3.69	NS	1	NS	1	551	18.7	0.850	30.93
60 FITZ	252	5.0	0.557	5.72	NS	1	NS	1	194	2.7	0.353	2.95
NMPE	316	2.4	0.430	1.93	NS	1	NS	1	200	1.7	0.256	1.07
CONTOUR MEAN	151		0.357		-		-					

<sup>a</sup> No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup> Grams/m<sup>2</sup>; wet weight

<sup>c</sup> Original sample only

NA = Not available

NS = No sample

- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF EPHEMEROPTERA (ARTHROPODA: INSECTA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	5	0.1	0.001	0.05	0	-	-	-	0	-	-	-
NMPP	5	0.1	0.003	0.01	0	-	-	-	0	-	-	-
20 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	2	-	0.002	-	0	-	-	-	0	-	-	-
NMPW	0	-	-	-	0	-	-	-	0	-	-	-
NMPP	18	1.5	0.062	4.18	0	-	-	-	0	-	-	-
30 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	4	-	-	-	0	-	-	-	0	-	-	-
NMPW	15	0.6	0.013	0.52	3	0.9	0.002	1.40	0	-	-	-
NMPP	0	-	-	-	0	-	-	-	0	-	-	-
40 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	4	-	-	-	1	-	-	-	0	-	-	-
NMPW	0	-	-	-	0	-	-	-	0	-	-	-
NMPP	5	0.2	0.015	0.82	0	-	-	-	0	-	-	-
60 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	1	-	-	-	0	-	-	-	0	-	-	-

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection  
indicated on computer print-outs

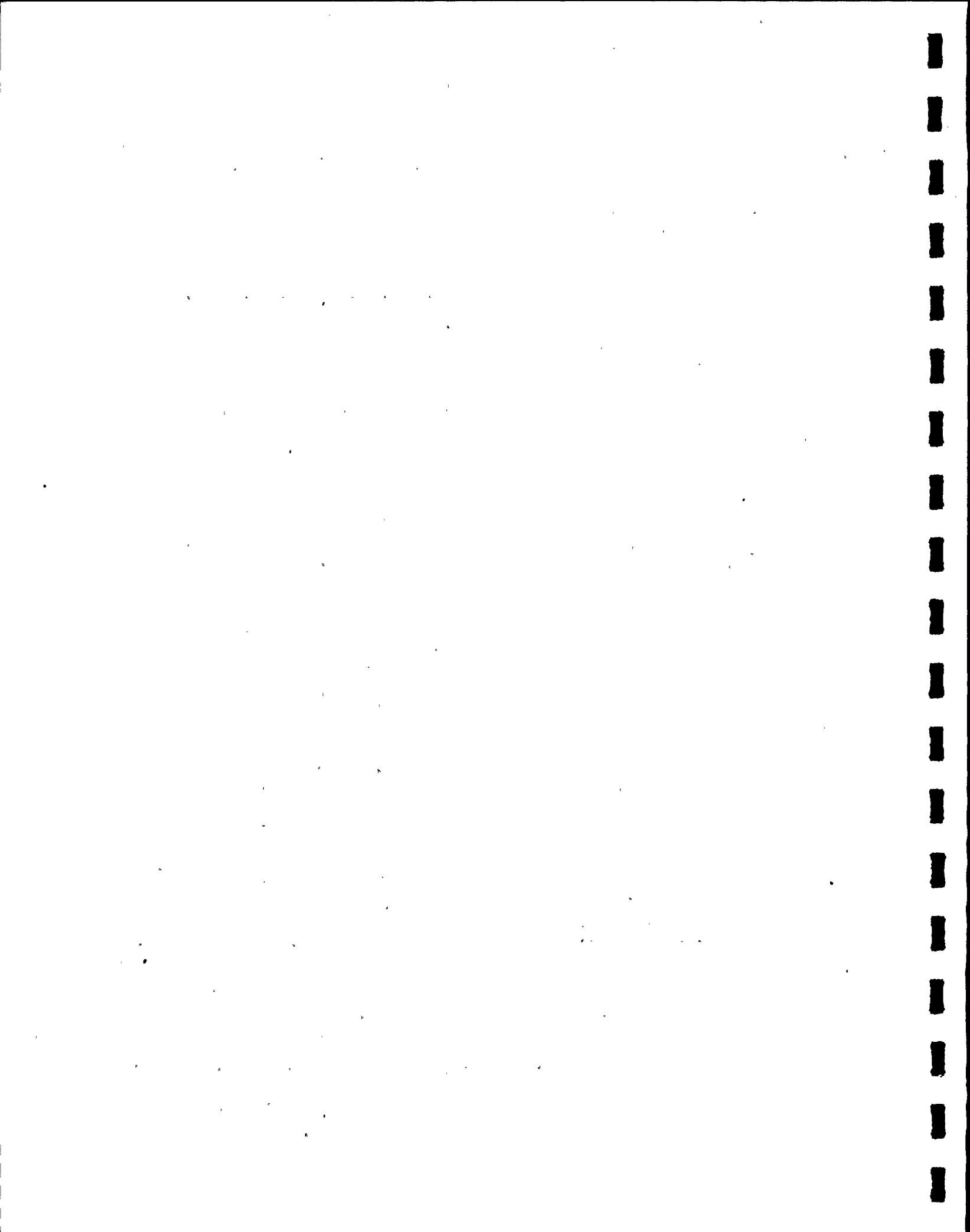
<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NA = Not available

NS = No sample

- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF EPHEMEROPTERA (ARTHROPODA: INSECTA) IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	0	-	-	-	NS	-	NS	-	1	<0.1	<0.001	<0.01
NMPP	0	-	-	-	NS	-	NS	-	1	<0.1	0.001	0.01
20 FITZ	0	-	-	-	NS	-	NS	-	0	-	-	-
NMPE	10	0.1	0.011	0.03	0 <sup>c</sup>	-	-	-	3	<0.1	0.003	0.02
CONTOUR MEAN	2	-	-	-	-	-	-	-	-	-	-	-
NMPW	0	-	-	-	NS	-	NS	-	0	-	-	-
NMPP	0	-	-	-	NS	-	NS	-	5	0.2	0.016	0.09
30 FITZ	0	-	-	-	NS	-	NS	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	0	-	-	-	-	-	-	-	-	-	-	-
NMPW	0	-	-	-	NS	-	NS	-	5	0.3	0.004	0.41
NMPP	0	-	-	-	NS	-	NS	-	0	-	-	-
40 FITZ	0	-	-	-	NS	-	NS	-	0	-	-	-
NMPE	0	-	-	-	NS	-	NS	-	0	-	-	-
CONTOUR MEAN	0	-	-	-	-	-	-	-	-	-	-	-
NMPW	0	-	-	-	NS	-	NS	-	0	-	-	-
NMPP	0	-	-	-	NS	-	NS	-	1	<0.1	0.004	0.15
60 FITZ	0	-	-	-	NS	-	NS	-	0	-	-	-
NMPE	0	-	-	-	NS	-	NS	-	0	-	-	-
CONTOUR MEAN	0	-	-	-	-	-	-	-	-	-	-	-

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NS = No sample

- = Not applicable





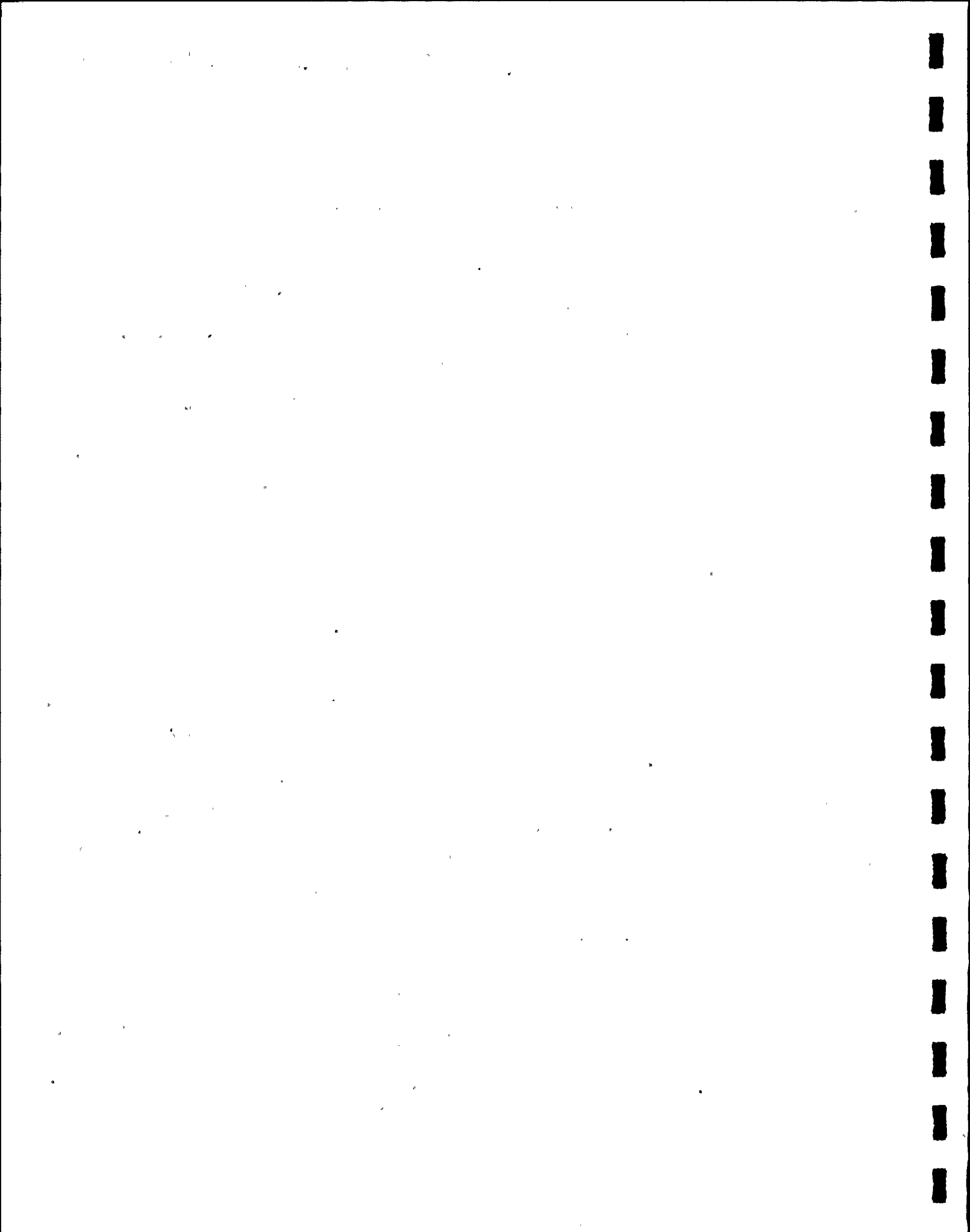
ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF GASTROPODA (MOLLUSCA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]		APR				JUN				AUG			
		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
		MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
10	NMPW	122	3.6	7.972	63.46	942	18.9	7.320	76.36	2291	14.4	51.832	85.14
	NMPP	15	0.6	0.498	33.90	5	0.1	0.076	3.89	92	1.8	0.186	6.85
	FITZ	53	1.8	6.889	79.47	71	6.7	0.923	75.90	282	1.3	6.093	28.40
	NMPE	102	2.4	8.486	54.22	183	4.0	6.117	57.64	23	0.4	0.229	5.67
	CONTOUR MEAN	73		5.961		300		3.609		672		14.585	
20	NMPW	56	1.1	0.953	46.85	130	2.3	1.617	18.21	333	14.0	0.666	54.63
	NMPP	92	1.8	4.674	13.61	0		-		61	0.8	0.073	2.13
	FITZ	25	1.3	1.160	12.39	8	0.4	0.046	9.24	51	0.7	1.228	33.58
	NMPE	501	8.9	2.497	24.23	489	13.5	1.970	65.89	2708	43.3	9.693	83.89
	CONTOUR MEAN	168		2.321		157		1.211		788		2.915	
30	NMPW	89	2.4	0.588	45.37	53	2.8	0.991	81.90	316	14.7	2.288	76.01
	NMPP	10	0.9	0.138	9.30	41	0.8	0.718	6.46	206	4.5	0.615	12.56
	FITZ	0	-	-	-	28	3.7	0.615	51.59	53	3.2	0.158	9.32
	NMPE	501	26.6	3.661	68.21	636	11.7	3.814	50.23	1448	17.4	7.476	41.55
	CONTOUR MEAN	150		1.462		189		1.534		506		2.634	
40	NMPW	41	1.7	1.446	58.12	5	1.5	0.055	38.46	20	0.6	0.124	10.55
	NMPP	15	3.1	0.695	80.53	183	8.0	0.517	53.30	547	15.9	2.806	61.01
	FITZ	66	4.4	1.063	33.60	64	1.4	1.002	18.88	438	10.8	1.157	23.15
	NMPE	695	27.3	2.705	45.58	1644	18.8	7.480	50.25	2204	16.3	7.505	34.99
	CONTOUR MEAN	204		1.477		474		2.263		802		2.898	
60	NMPW	13	0.1	0.153	0.40	15	0.1	0.136	0.76	36	0.4	0.025	0.16
	NMPP	46	2.1	0.690	37.58	127	7.5	1.277	66.96	33	0.6	0.457	9.17
	FITZ	603	19.5	3.295	33.58	417	3.7	4.947	28.46	2036	20.7	4.151	38.23
	NMPE	1094	14.9	6.096	36.33	1364	12.1	10.661	55.08	6363	38.0	26.510	71.81
	CONTOUR MEAN	439		2.558		481		4.255		2117		7.786	

<sup>a</sup>Number organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF GASTROPODA (MOLLUSCA) IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND		MEAN	
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE	BIOMASS	ABUNDANCE	BIOMASS
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
NMPW	25	4.4	0.223	30.26	NS	-	NS	-	845	13.6	16.837	80.39
NMPP	326	1.8	5.539	31.67	NS	-	NS	-	110	1.4	1.575	26.66
10 FITZ	107	1.5	1.089	13.84	NS	-	NS	-	128	1.6	3.749	38.24
NMPE	0	-	-	-	NS	-	NS	-	77	2.1	3.708	48.43
CONTOUR MEAN	114		2.284		-		-					
NMPW	392	25.7	2.632	84.44	NS	-	NS	-	228	6.1	1.467	38.47
NMPP	28	5.9	0.249	55.09	NS	-	NS	-	45	1.1	1.249	12.73
20 FITZ	288	9.8	2.819	66.13	NS	-	NS	-	93	2.7	1.313	29.53
NMPE	1150	6.7	7.266	22.87	31 <sup>c</sup>	12.4 <sup>c</sup>	0.113 <sup>c</sup>	NA	1212	14.8	5.357	37.83
CONTOUR MEAN	464		3.241		-		-					
NMPW	36	3.3	1.105	72.99	NS	-	NS	-	124	5.7	1.243	70.63
NMPP	137	7.6	0.448	0.84	NS	-	NS	-	99	3.1	0.480	2.71
30 FITZ	53	9.2	0.093	9.93	NS	-	NS	-	34	4.3	0.217	18.45
NMPE	1384	19.0	8.114	43.14	115	20.0	0.772	40.87	817	NA	4.767	NA
CONTOUR MEAN	402		2.440		-		-					
NMPW	28	11.1	0.063	47.01	NS	-	NS	-	24	1.6	0.422	42.84
NMPP	389	10.4	1.283	20.70	NS	-	NS	-	284	11.4	1.325	41.94
40 FITZ	168	10.0	0.972	32.13	NS	-	NS	-	184	6.1	1.049	25.42
NMPE	1899	26.4	9.603	54.32	NS	-	NS	-	1611	20.1	6.823	45.53
CONTOUR MEAN	621		2.980		-		-					
NMPW	76	7.4	1.163	60.92	NS	-	NS	-	35	0.3	0.369	2.00
NMPP	107	5.8	0.510	22.66	NS	-	NS	-	78	2.7	0.734	26.71
60 FITZ	346	6.8	1.441	14.80	NS	-	NS	-	851	11.7	3.459	28.94
NMPE	2041	15.7	4.941	22.19	NS	-	NS	-	2716	22.5	12.052	50.57
CONTOUR MEAN	642		2.014		-		-					

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection

<sup>b</sup>indicated on computer print-outs

<sup>c</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NA = Not available

NS = No sample

- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF HYDROZOA (COELENTERATA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (Ft)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	199	5.9	0.006	0.05	102	2.0	0.003	0.03	8	0.1	<0.001	<0.01
NMPP	97	4.1	0.003	0.20	112	1.9	0.003	0.15	341	6.7	0.079	2.91
10 FITZ	0	-	-	-	10	0.9	<0.001	<0.01	450	2.1	0.006	0.03
NMPE	3	0.1	<0.001	<0.01	0	-	-	-	13	0.2	0.001	0.02
CONTOUR MEAN	75		<0.003		56		<0.002		203		<0.022	
NMPW	76	1.4	0.002	0.10	3	0.1	<0.001	<0.01	10	0.4	<0.001	<0.01
NMPP	28	0.6	0.001	<0.01	148	3.5	0.004	0.41	69	0.9	0.002	0.06
20 FITZ	0	-	-	-	0	-	-	-	36	0.5	0.001	0.03
NMPE	0	-	-	-	13	0.4	<0.001	<0.01	0	-	-	-
CONTOUR MEAN	26		0.002		41		<0.002		29		<0.001	
NMPW	46	1.3	0.002	0.15	13	0.7	<0.001	<0.01	160	7.4	0.005	0.17
NMPP	15	1.3	0.001	0.07	10	0.2	<0.001	<0.01	0	-	-	-
30 FITZ	0	-	-	-	25	3.3	0.001	0.08	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	15		0.002		12		<0.001		40		-	
NMPW	18	0.7	0.001	0.04	3	0.9	<0.001	<0.01	112	3.5	0.004	0.34
NMPP	5	1.0	<0.001	<0.01	0	-	-	-	0	-	-	-
40 FITZ	15	1.0	0.001	0.03	8	0.2	<0.001	<0.01	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	3	<0.1	<0.001	<0.01
CONTOUR MEAN	10		<0.001		3		<0.001		29		<0.003	
NMPW	5	<0.1	<0.001	<0.01	0	-	-	-	0	-	-	-
NMPP	0	-	-	-	0	-	-	-	0	-	-	-
60 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	143	0.9	0.004	0.01
CONTOUR MEAN	1		-		0		-		36		-	

<sup>a</sup> Number organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup> Grams/m<sup>2</sup>; wet weight



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF HYDROZOA (COELENTERATA) IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]		OCT				DEC				GRAND MEAN			
		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
		MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
10	NMPW	0	-	-	-	NS	-	NS	-	77	1.2	0.002	0.01
	NMPP	2196	12.3	0.066	0.38	NS	-	NS	-	687	8.8	0.038	0.64
	FITZ	10	0.1	0.001	0.01	NS	-	NS	-	118	1.4	0.002	0.02
	NMPE	0	-	-	-	NS	-	NS	-	4	0.1	<0.001	<0.01
	CONTOUR MEAN	552		0.034									
20	NMPW	15	1.0	0.001	0.03	NS	-	NS	-	26	0.7	0.001	0.03
	NMPP	18	3.8	0.001	0.22	NS	-	NS	-	66	1.5	0.002	0.02
	FITZ	865	29.3	0.026	0.61	NS	-	NS	-	225	6.4	0.007	0.16
	NMPE	0	-	-	-	0 <sup>c</sup>	-	-	-	3	<0.1	<0.001	<0.01
	CONTOUR MEAN	224		0.009		-		-					
30	NMPW	0	-	-	-	NS	-	NS	-	55	2.5	0.002	0.11
	NMPP	18	1.0	0.001	<0.01	NS	-	NS	-	11	0.4	0.001	0.01
	FITZ	20	3.5	0.001	0.11	NS	-	NS	-	11	1.4	0.001	0.09
	NMPE	38	0.5	0.001	0.01	53	9.2	0.002	0.11	18	NA	0.001	NA
	CONTOUR MEAN	19		0.001		-		-					
40	NMPW	0	-	-	-	NS	-	NS	-	33	2.1	0.001	0.10
	NMPP	0	-	-	-	NS	-	NS	-	1	<0.1	<0.001	<0.01
	FITZ	171	10.2	0.005	0.17	NS	-	NS	-	49	1.6	0.002	0.05
	NMPE	270	3.8	0.008	0.05	NS	-	NS	-	68	0.9	0.002	0.01
	CONTOUR MEAN	110		0.007		-		-					
60	NMPW	8	0.8	<0.001	<0.01	NS	-	NS	-	3	<0.1	<0.001	<0.01
	NMPP	3	0.2	0.001	0.04	NS	-	NS	-	1	<0.1	<0.001	<0.01
	FITZ	211	4.2	0.006	0.06	NS	-	NS	-	53	0.7	0.002	0.02
	NMPE	0	-	-	-	NS	-	NS	-	36	0.3	0.001	<0.01
	CONTOUR MEAN	56		<0.003		-		-					

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection  
indicated on computer print-outs  
<sup>b</sup>Grams/m<sup>2</sup>; wet weight  
<sup>c</sup>Original sample only

NA = Not available  
NS = No sample  
- = Not applicable





ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF ISOPODA (ARTHROPODA: CRUSTACEA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	0	-	-	-	10	0.2	0.012	0.13	0	-	-	-
NMPP	0	-	-	-	3	0.1	0.445	22.76	0	-	-	-
10 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	0	-	-	-	3	-	0.229	-	0	-	-	-
NMPW	0	-	-	-	0	-	-	-	0	-	-	-
NMPP	5	0.1	0.012	0.03	0	-	-	-	0	-	-	-
20 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	1	-	-	-	0	-	-	-	0	-	-	-
NMPW	0	-	-	-	0	-	-	-	5	0.2	0.012	0.40
NMPP	18	1.5	0.044	2.96	0	-	-	-	13	0.3	0.025	0.51
30 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	4	-	-	-	0	-	-	-	4	-	0.019	-
NMPW	25	1.0	0.080	3.22	3	0.9	0.008	5.59	46	1.5	0.030	2.55
NMPP	3	0.6	0.006	0.70	0	-	-	-	20	0.6	0.023	0.50
40 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	7	-	0.043	-	1	-	-	-	16	-	0.027	-
NMPW	0	-	-	-	0	-	-	-	0	-	-	-
NMPP	10	0.5	0.016	0.87	0	-	-	-	3	0.1	0.005	0.10
60 FITZ	0	-	-	-	0	-	-	-	3	<0.1	0.001	0.01
NMPE	0	-	-	-	0	-	-	-	3	<0.1	0.009	0.02
CONTOUR MEAN	2	-	-	-	0	-	-	-	2	-	0.005	-

<sup>a</sup>Number organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight

ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF ISOPODA (ARTHROPODA: CRUSTACEA) IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
NMPW	0	-	-	-	NS		NS		3	0.1	0.003	0.01
NMPP	0	-	-	-	NS		NS		1	<0.1	0.111	1.88
10 FITZ	0	-	-	-	NS		NS		0	-	-	-
NMPE	0	-	-	-	NS		NS		0	-	-	-
CONTOUR MEAN	0		-		-		-					
NMPW	0	-	-	-	NS		NS		0	-	-	-
NMPP	3	0.6	0.001	0.22	NS		NS		2	0.1	0.003	0.03
20 FITZ	0	-	-	-	NS		NS		0	-	-	-
NMPE	0	-	-	-	0 <sup>c</sup>	-	-	-	0	-	-	-
CONTOUR MEAN	1		-		-		-					
NMPW	0	-	-	-	NS		NS		1	0.1	0.003	0.17
NMPP	5	0.3	0.012	0.02	NS		NS		9	0.3	0.020	0.11
30 FITZ	0	-	-	-	NS		NS		0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	1		-		-		-					
NMPW	0	-	-	-	NS		NS		19	1.2	0.030	3.05
NMPP	28	0.8	0.022	0.35	NS		NS		13	0.5	0.013	0.41
40 FITZ	0	-	-	-	NS		NS		0	-	-	-
NMPE	0	-	-	-	NS		NS		0	-	-	-
CONTOUR MEAN	7		-		-		-					
NMPW	3	0.3	0.003	0.16	NS		NS		1	<0.1	0.001	0.01
NMPP	43	2.3	0.073	3.24	NS		NS		14	0.5	0.024	0.87
60 FITZ	0	-	-	-	NS		NS		1	<0.1	<0.001	<0.01
NMPE	0	-	-	-	NS		NS		1	<0.1	0.002	0.01
CONTOUR MEAN	12		0.038		-		-					

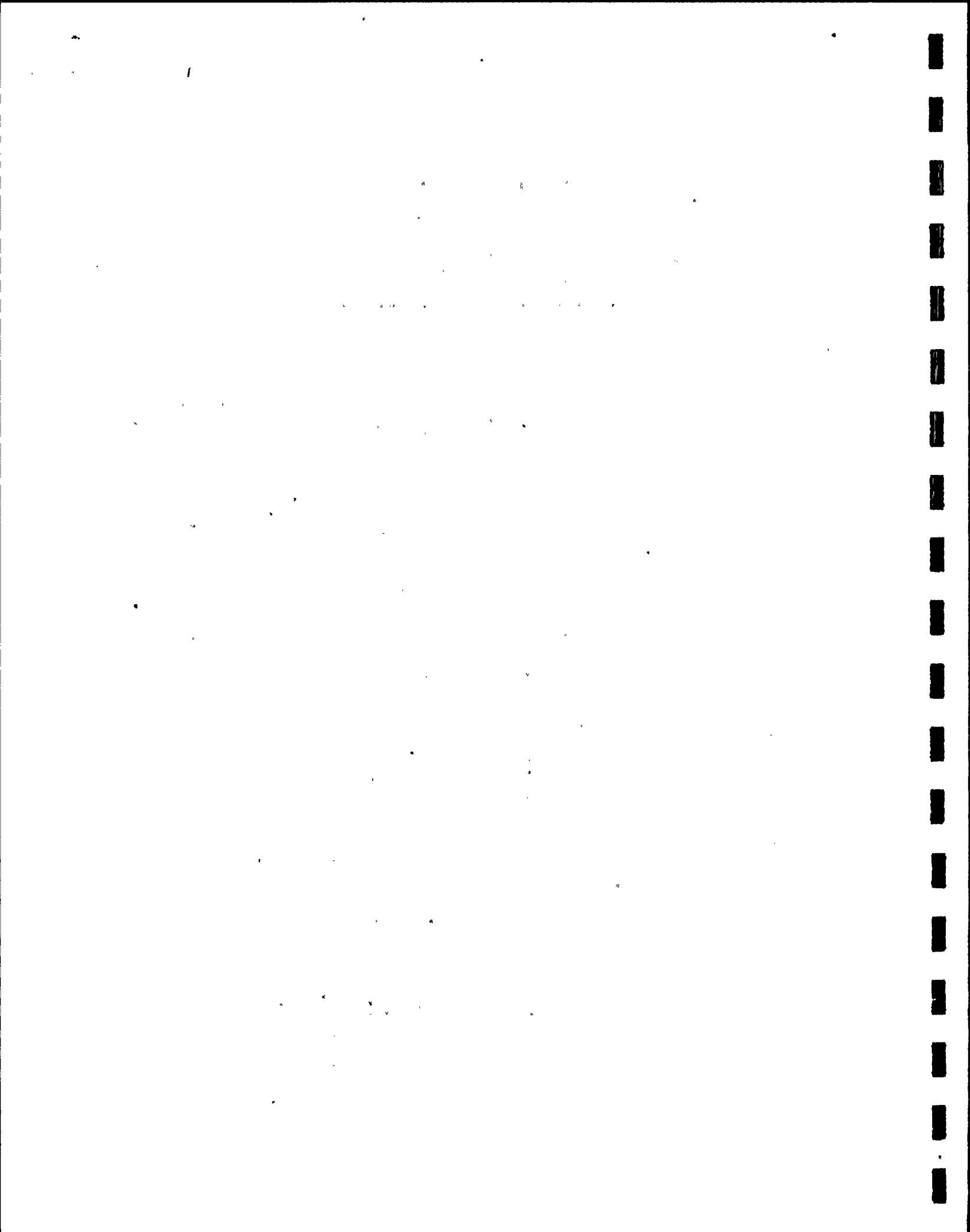
<sup>a</sup>No. organisms/m<sup>2</sup> exact date of benthic collection  
indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NS = No sample

- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF MYSIDACEA (ARTHROPODA: CRUSTACEA) IN BENTHIC COLLECTIONS<sup>c</sup>

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	0	-	-	-	0	-	-	-	0	-	-	-
NMPP	3	0.1	0.006	0.33	0	-	-	-	0	-	-	-
60 FITZ	5	0.2	0.035	0.36	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	2	-	0.020	-	0	-	-	-	0	-	0.015	-

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	0	-	-	-	NS	-	NS	-	0	-	-	-
NMPP	0	-	-	-	NS	-	NS	-	1	<0.1	0.002	0.07
60 FITZ	0	-	-	-	NS	-	NS	-	1	<0.1	0.009	0.08
NMPE	0	-	-	-	NS	-	NS	-	0	-	-	-
CONTOUR MEAN	0	-	-	-	-	-	-	-	-	-	-	-

<sup>a</sup> No. organisms/m<sup>2</sup>; exact date of benthic collection

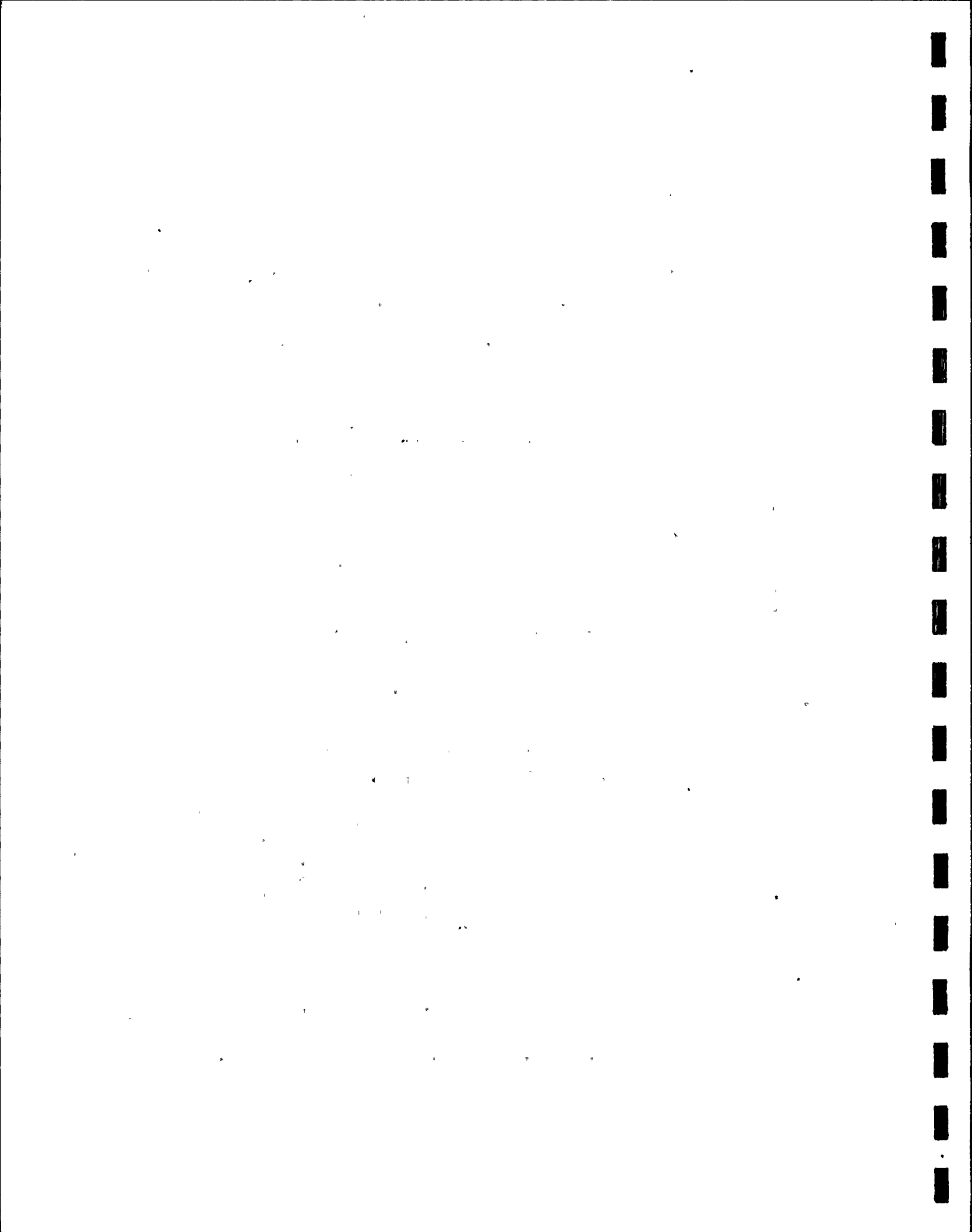
indicated on computer print-outs

<sup>b</sup> Grams/m<sup>2</sup>; wet weight

<sup>c</sup> No organisms of this taxon collected at the 10, 20, 30, and 40 ft stations during 1976

NS = No sample

- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF NEMATODA (ASCHELMINTHES) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
10 NMPW	74	2.2	0.002	0.02	33	0.7	0.001	0.01	5	<0.1	<0.001	<0.01
NMPP	18	0.8	0.002	0.14	15	0.3	0.002	0.10	3	0.1	<0.001	<0.01
FITZ	31	1.1	0.001	0.01	0	-	-	-	3	<0.1	<0.001	<0.01
NMPE	305	7.3	0.004	0.03	87	1.9	0.007	0.07	5	0.1	0.001	0.02
CONTOUR MEAN	107		0.002		34		0.003		4		<0.001	
20 NMPW	20	0.4	0.002	0.10	61	1.1	0.006	0.07	5	0.2	0.001	0.08
NMPP	10	0.2	0.001	<0.01	3	0.1	<0.001	<0.01	0	-	-	
FITZ	3	0.2	<0.001	<0.01	3	0.2	<0.001	<0.01	0	-	-	
NMPE	33	0.6	0.003	0.03	104	2.9	0.010	0.33	48	0.8	0.005	0.04
CONTOUR MEAN	16		<0.002		43		<0.004		13		0.003	
30 NMPW	0	-	-		5	0.3	<0.001	<0.01	3	0.1	<0.001	<0.01
NMPP	15	1.3	0.002	0.13	0	-	-		10	0.2	0.001	0.02
FITZ	3	1.7	<0.001	<0.01	0	-	-		3	0.2	<0.001	<0.01
NMPE	102	5.4	0.010	0.19	171	3.1	0.017	0.22	349	4.2	0.035	0.19
CONTOUR MEAN	30		<0.004		44		<0.009		91		<0.010	
40 NMPW	3	0.1	<0.004	<0.01	3	0.9	<0.001	<0.01	15	0.5	0.001	0.09
NMPP	41	8.4	0.001	0.12	3	0.1	<0.001	<0.01	15	0.4	0.002	0.04
FITZ	196	13.0	0.020	0.63	214	4.5	0.021	0.40	81	2.0	0.008	0.16
NMPE	61	2.4	0.006	0.10	440	5.0	0.044	0.30	443	3.3	0.044	0.21
CONTOUR MEAN	75		<0.007		165		<0.017		138		0.014	
60 NMPW	33	0.2	0.003	0.01	41	0.2	0.004	0.02	8	0.1	0.001	0.01
NMPP	10	0.5	0.001	0.05	15	0.9	0.001	0.05	99	1.7	0.010	0.20
FITZ	125	4.0	0.012	0.12	756	6.8	0.076	0.44	237	2.4	0.024	0.22
NMPE	519	7.1	0.052	0.31	349	3.1	0.035	0.18	122	0.7	0.012	0.03
CONTOUR MEAN	172		0.017		290		0.029		116		0.012	

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NS = No sample

NA = Not available

- = Not applicable





ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF NEMATODA (ASCHELMINTHES) IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
10 NMPW	0	-	-	-	NS		NS		28	0.5	0.001	<0.01
NMPP	0	-	-	-	NS		NS		9	0.1	0.001	0.02
FITZ	0	-	-	-	NS		NS		9	0.1	<0.001	<0.01
NMPE	0	-	-	-	NS		NS		99	2.6	0.003	0.04
CONTOUR MEAN	0		-	-	-		-					
20 NMPW	0	-	-	-	NS		NS		22	0.6	0.002	0.05
NMPP	3	0.6	<0.001	<0.01	NS		NS		4	0.1	<0.001	<0.01
FITZ	0	-	-	-	NS		NS		2	0.1	<0.001	<0.01
NMPE	23	0.1	0.002	0.01	0 <sup>c</sup>	-	-	-	52	0.6	0.005	0.04
CONTOUR MEAN	6		<0.002		-		-					
30 NMPW	0	-	-	-	NS		NS		2	0.1	<0.001	<0.01
NMPP	53	2.9	0.005	0.01	NS		NS		20	0.6	0.002	0.01
FITZ	0	-	-	-	NS		NS		2	0.3	<0.001	<0.01
NMPE	173	2.4	0.017	0.09	15	2.6	0.002	0.11	162	NA	0.016	NA
CONTOUR MEAN	56		0.011		-		-					
40 NMPW	0	-	-	-	NS		NS		5	0.3	<0.001	<0.01
NMPP	25	0.7	0.001	0.02	NS		NS		21	0.8	0.001	0.03
FITZ	66	3.9	0.007	0.23	NS		NS		139	4.6	0.014	0.34
NMPE	74	1.0	0.007	0.04	NS		NS		255	3.2	0.025	0.17
CONTOUR MEAN	41		0.005		-		-					
60 NMPW	0	-	-	-	NS		NS		21	0.2	0.002	0.01
NMPP	31	1.7	0.002	0.09	NS		NS		39	1.3	0.004	0.15
FITZ	104	2.1	0.010	0.10	NS		NS		306	4.2	0.031	0.26
NMPE	99	0.8	0.010	0.04	NS		NS		272	2.3	0.027	0.11
CONTOUR MEAN	58		0.007		-		-					

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NA = Not available

NS = No sample

- = Not applicable



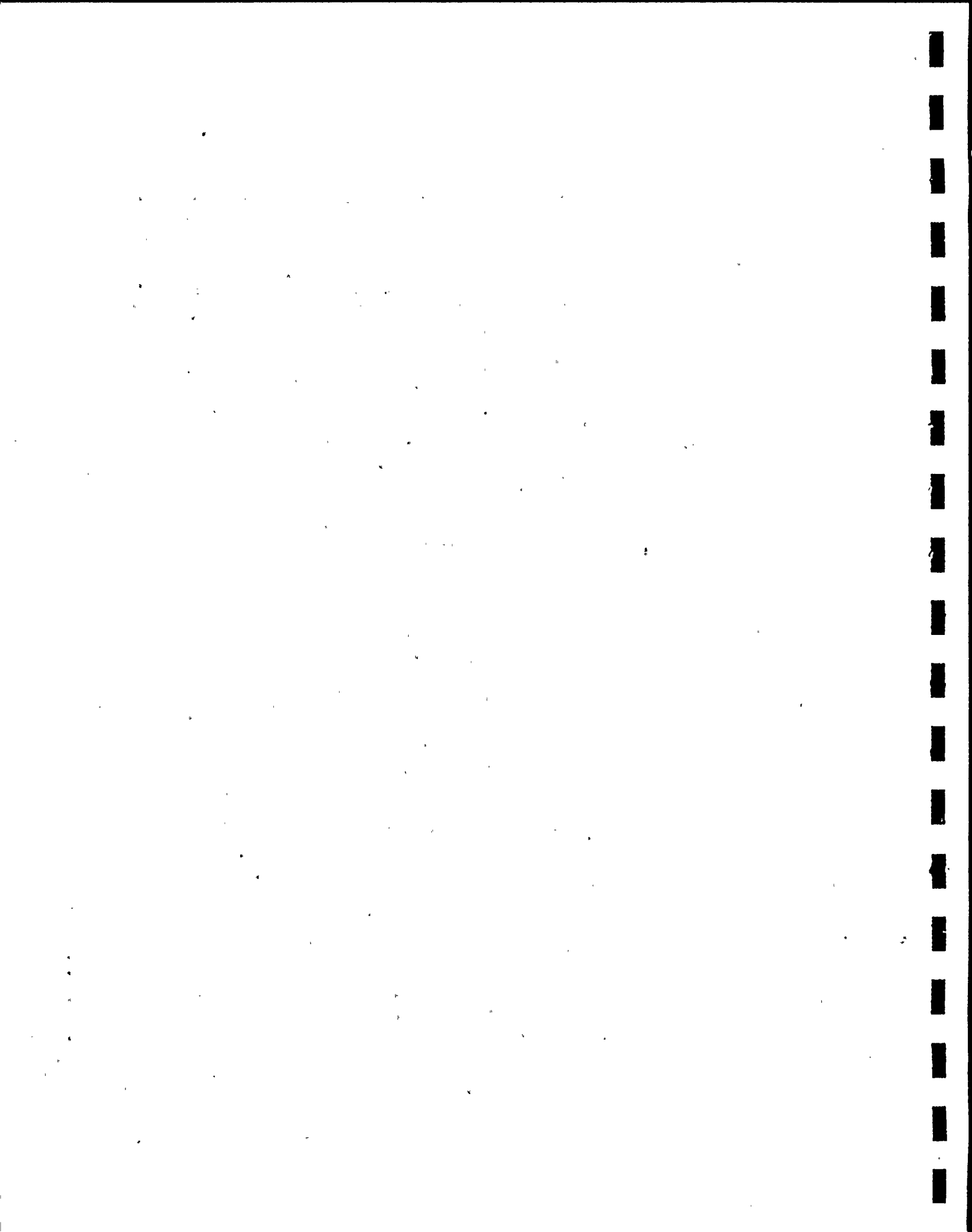
ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF OLIGOCHAETE (ANNELIDA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	115	3.4	0.011	0.09	265	5.3	0.325	3.39	76	0.5	0.030	0.05
NMPP	568	23.9	0.412	28.05	753	12.8	0.073	3.73	8	0.2	0.001	0.04
10 FITZ	15	0.5	0.002	0.02	89	8.4	0.009	0.74	61	0.3	0.006	0.03
NMPE	99	2.4	0.061	0.39	143	3.1	0.095	0.90	3	0.1	<0.001	<0.01
CONTOUR MEAN	199		0.122		312		0.126		37		<0.001	
NMPW	10	0.2	0.001	0.05	15	0.3	0.002	0.02	0		-	
NMPP	51	1.0	0.120	0.35	25	0.6	0.008	0.81	0		-	
20 FITZ	13	0.7	0.041	0.44	10	0.5	0.001	0.20	0		-	
NMPE	61	1.1	0.144	1.40	8	0.2	0.004	0.13	3	0.1	<0.001	<0.01
CONTOUR MEAN	34		0.076		14		0.004		1		-	
NMPW	10	0.3	0.024	1.85	0		-		15	0.7	0.036	1.20
NMPP	0		-		10	0.2	0.024	0.22	71	1.6	0.168	3.43
30 FITZ	20	11.6	0.048	5.50	0		-		33	2.0	0.107	6.31
NMPE	137	7.3	0.295	5.50	471	8.7	0.897	11.81	1512	18.1	4.041	22.46
CONTOUR MEAN	42		0.122		120		0.460		408		1.088	
NMPW	13	0.5	0.001	0.04	3	0.9	0.006	4.20	8	0.3	0.018	1.53
NMPP	5	1.0	0.006	0.70	3	0.1	<0.001	<0.01	178	5.2	0.409	8.89
40 FITZ	529	35.2	1.261	39.85	1130	23.9	2.644	49.82	305	7.5	0.755	15.11
NMPE	425	16.7	1.273	21.45	1059	12.1	3.211	21.57	2016	14.9	5.835	27.21
CONTOUR MEAN	243		0.635		549		<1.466		627		1.754	
NMPW	11279	50.0	33.969	88.56	4764	24.2	13.103	73.39	4469	53.6	12.567	80.48
NMPP	153	6.9	0.296	16.12	137	8.1	0.117	6.14	216	3.6	0.436	8.75
60 FITZ	1507	48.7	4.532	46.19	2626	23.4	8.518	49.01	652	6.6	1.802	16.59
NMPE	2525	34.4	6.509	38.79	1038	9.2	3.071	15.87	1015	6.1	2.551	6.91
CONTOUR MEAN	3866		11.326		2141		6.202		1588		4.339	

<sup>a</sup> Number organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup> Grams/m<sup>2</sup>; wet weight



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF OLIGOCHAETE (ANNELIDA) IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
NMPW	15	2.6	0.013	1.76	NS	-	NS	-	118	1.9	0.095	0.45
NMPP	20	0.1	0.014	0.08	NS	-	NS	-	337	4.3	0.125	2.12
10 FITZ	13	0.2	0.007	0.09	NS	-	NS	-	45	0.6	0.006	0.06
NMPE	5	1.2	0.006	1.85	NS	-	NS	-	63	1.7	0.041	0.54
CONTOUR MEAN	13		0.01		-		-					
NMPW	3	0.2	0.006	0.19	NS	-	NS	-	7	0.2	0.002	0.05
NMPP	10	2.1	0.047	10.40	NS	-	NS	-	22	0.5	0.044	0.45
20 FITZ	0		-		NS	-	NS	-	6	0.2	0.011	0.25
NMPE	1003	5.9	2.768	8.71	5 <sup>c</sup>	2.0 <sup>c</sup>	0.122 <sup>c</sup>	NA	269	3.3	0.729	5.15
CONTOUR MEAN	254		0.940		-		-					
NMPW	3	0.3	0.006	0.40	NS	-	NS	-	7	0.3	0.017	0.97
NMPP	38	2.1	0.090	0.17	NS	-	NS	-	30	1.0	0.071	0.40
30 FITZ	13	2.3	0.024	2.56	NS	-	NS	-	17	2.2	0.045	3.83
NMPE	1522	20.9	3.453	18.36	56	9.7	0.144	7.62	740	NA	0.766	NA
CONTOUR MEAN	394		0.893		-		-					
NMPW	0		-		NS	-	NS	-	6	0.4	0.006	0.61
NMPP	1232	32.8	2.780	44.85	NS	-	NS	-	355	14.2	0.799	25.29
40 FITZ	239	14.2	0.599	19.80	NS	-	NS	-	551	18.4	1.315	31.87
NMPE	400	5.6	1.006	5.69	NS	-	NS	-	975	12.2	2.831	18.89
CONTOUR MEAN	468		1.462		-		-					
NMPW	120	11.6	0.282	14.77	NS	-	NS	-	5158	40.0	14.980	81.26
NMPP	247	13.5	0.577	25.63	NS	-	NS	-	188	6.4	0.357	12.99
60 FITZ	965	19.0	2.363	24.26	NS	-	NS	-	1438	19.7	4.304	36.01
NMPE	2280	17.5	5.703	25.61	NS	-	NS	-	1715	14.2	4.459	18.71
CONTOUR MEAN	903		2.231		-		-					

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

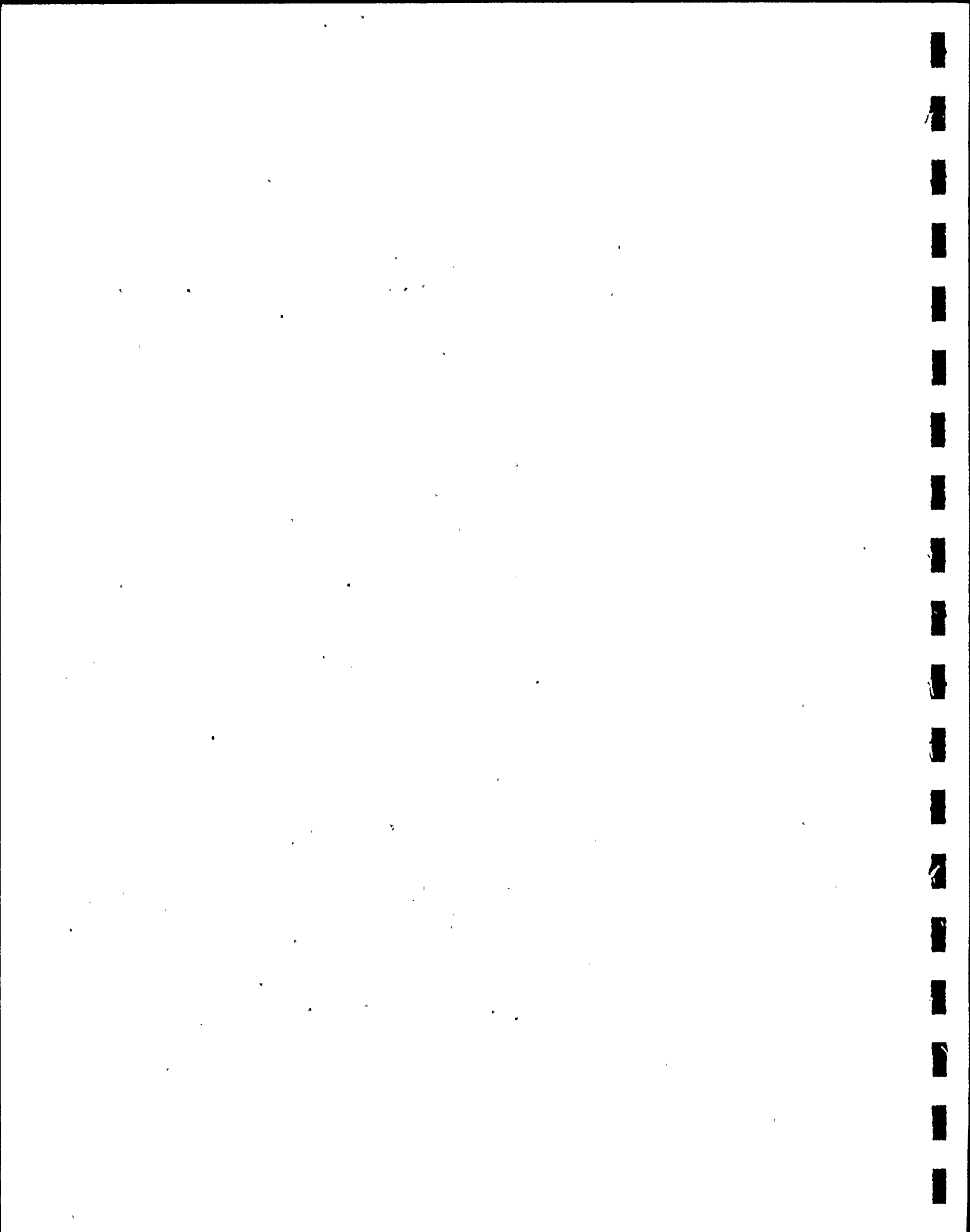
<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NA = Not available

NS = No sample

- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF OSTRACODA (ARTHROPODA: CRUSTACEA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	562	16.7	0.112	0.89	529	10.6	0.106	1.11	0	-	-	-
NMPP	377	15.8	0.075	5.11	326	5.5	0.065	3.32	127	2.5	0.025	0.92
10 FITZ	10	0.3	0.002	0.02	649	60.9	0.130	10.69	0	-	-	-
NMPE	53	1.3	0.011	0.07	338	7.4	0.068	0.64	3	0.1	0.001	0.02
CONTOUR MEAN	250		0.050		460		0.092		32		0.013	
NMPW	817	15.4	0.163	8.01	165	2.9	0.033	0.37	43	1.8	0.009	0.74
NMPP	1550	30.7	0.310	0.90	293	7.0	0.059	6.01	389	5.3	0.078	2.27
20 FITZ	5	0.3	0.001	0.01	229	11.5	0.046	9.24	145	2.0	0.029	0.79
NMPE	20	0.4	0.004	0.04	720	19.9	0.144	4.82	260	4.2	0.052	0.45
CONTOUR MEAN	598		0.120		352		0.070		209		0.042	
NMPW	1624	44.5	0.325	25.08	112	6.0	0.022	1.82	336	15.6	0.067	2.23
NMPP	641	54.4	0.128	8.63	392	7.8	0.078	0.70	616	13.5	0.123	2.51
30 FITZ	0	-	-	-	13	1.7	0.003	0.25	87	5.3	0.017	1.00
NMPE	64	3.4	0.013	0.24	2151	39.5	0.430	5.66	646	7.7	0.129	0.72
CONTOUR MEAN	582		0.155		667		0.133		421		0.084	
NMPW	1792	73.8	0.358	14.39	51	15.4	0.010	6.99	1677	53.0	0.335	28.51
NMPP	214	43.6	0.043	4.98	756	32.9	0.151	15.57	1680	48.9	0.336	7.31
40 FITZ	10	0.7	0.002	0.06	534	11.3	0.107	2.02	461	11.4	0.092	1.84
NMPE	125	4.9	0.025	0.42	2514	28.7	0.503	3.38	2311	17.1	0.462	2.15
CONTOUR MEAN	535		0.107		964		0.193		1532		0.306	
NMPW	9294	41.2	1.859	4.85	10903	55.5	2.181	12.22	512	6.1	0.102	0.65
NMPP	1392	62.5	0.278	15.14	781	46.4	0.156	8.18	3375	56.1	0.675	13.55
60 FITZ	46	1.5	0.009	0.09	3802	33.9	0.760	4.37	3298	33.6	0.660	6.08
NMPE	506	6.9	0.101	0.60	2797	24.8	0.559	2.89	1527	9.1	0.305	0.83
CONTOUR MEAN	2810		0.562		4571		0.914		2178		0.436	

<sup>a</sup> Number organisms/m<sup>2</sup> ; exact date of benthic collection  
Indicated on computer print-outs

<sup>b</sup> Grams/m<sup>2</sup>; wet weight





ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF OSTRACODA (ARTHROPODA: CRUSTACEA) IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
NMPW	0	-	-	-	NS	-	NS	-	273	4.4	0.055	0.26
NMPP	3	<0.1	0.001	0.01	NS	-	NS	-	208	2.7	0.042	0.71
10 FITZ	5	<0.1	0.001	0.01	NS	-	NS	-	166	2.0	0.033	0.34
NMPE	3	0.7	0.001	0.31	NS	-	NS	-	99	2.6	0.020	0.26
CONTOUR MEAN	3		0.001		-		-					
NMPW	8	0.5	0.002	0.06	NS	-	NS	-	258	6.9	0.052	1.36
NMPP	3	0.6	0.001	0.22	NS	-	NS	-	559	13.1	0.112	1.14
20 FITZ	5	0.2	0.001	0.02	NS	-	NS	-	96	2.7	0.019	0.43
NMPE	15	0.1	0.003	0.01	5 <sup>c</sup>	2.0 <sup>c</sup>	0.001 <sup>c</sup>	NA	254	3.1	0.051	0.36
CONTOUR MEAN	8		0.002		-		-					
NMPW	0	-	-	-	NS	-	NS	-	518	23.7	0.104	5.91
NMPP	8	0.4	0.002	<0.01	NS	-	NS	-	414	13.2	0.083	0.47
30 FITZ	3	0.5	0.001	0.11	NS	-	NS	-	26	3.3	0.005	0.43
NMPE	199	2.7	0.040	0.21	0	-	-	-	612	NA	0.122	NA
CONTOUR MEAN	52		0.014		-		-					
NMPW	0	-	-	-	NS	-	NS	-	880	57.0	0.176	17.87
NMPP	59	1.6	0.012	0.19	NS	-	NS	-	677	27.1	0.136	4.31
40 FITZ	5	0.3	0.001	0.03	NS	-	NS	-	253	8.4	0.051	1.24
NMPE	168	2.3	0.034	0.19	NS	-	NS	-	1280	16.0	0.256	1.71
CONTOUR MEAN	58		0.016		-		-					
NMPW	107	10.4	0.021	1.10	NS	-	NS	-	5204	40.3	1.041	5.65
NMPP	255	13.9	0.051	2.27	NS	-	NS	-	1451	49.3	0.290	10.55
60 FITZ	140	2.8	0.028	0.29	NS	-	NS	-	1822	25.0	0.364	3.05
NMPE	422	3.3	0.084	0.38	NS	-	NS	-	1313	10.9	0.262	1.10
CONTOUR MEAN	231		0.046		-		-					

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

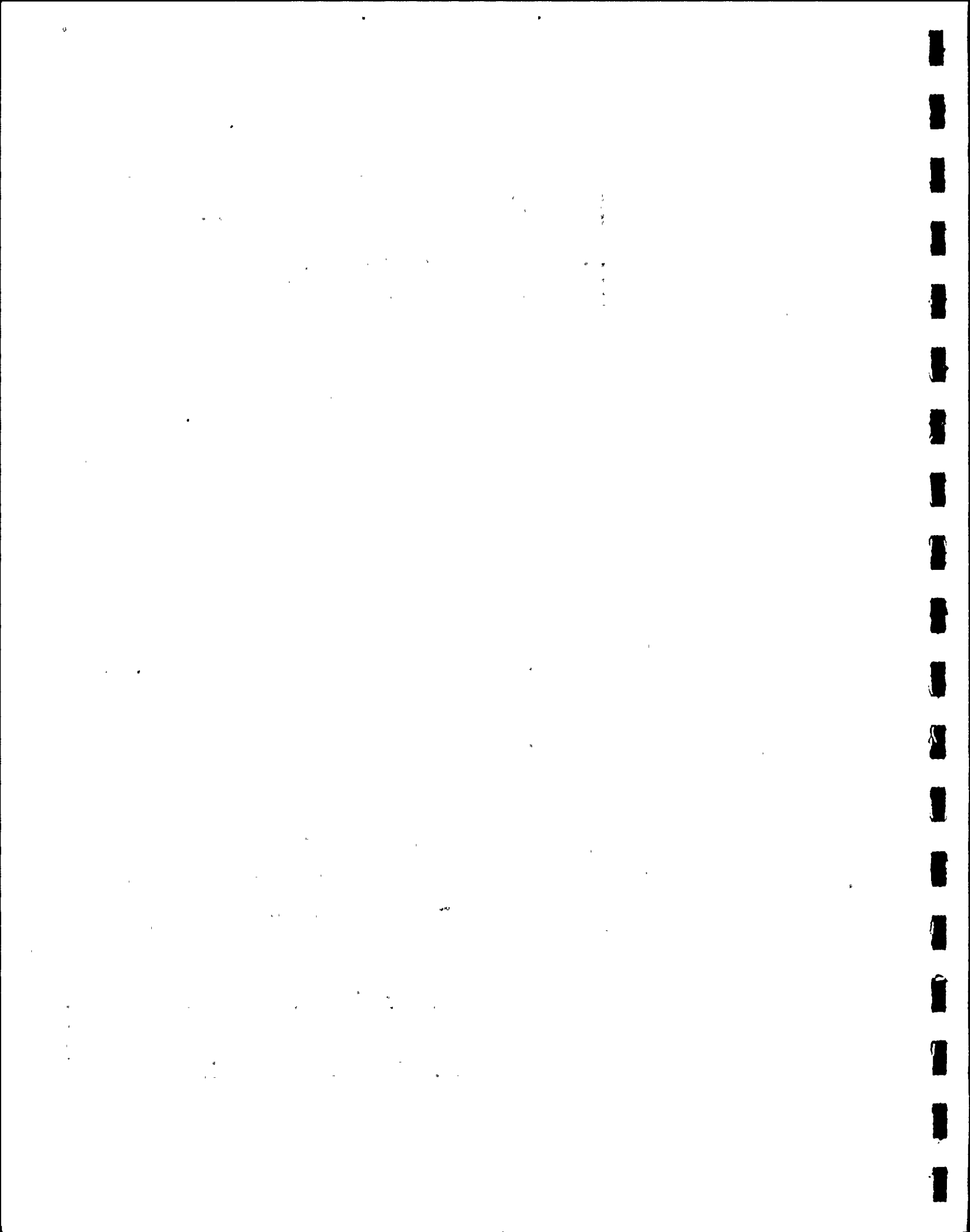
<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NA = Not available

NS = No sample

- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF POLYCHAETA (ANNELIDA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	728	21.6	0.120	0.96	819	16.4	0.080	0.83	1489	9.4	0.145	0.24
NMPP	565	23.7	0.009	0.61	5	0.1	0.001	0.05	8	0.2	0.001	0.04
10 FITZ	61	2.1	0.006	0.07	3	0.3	<0.001	<0.01	3222	14.9	0.313	1.46
NMPE	84	2.0	0.008	0.05	1944	42.6	0.188	1.77	117	2.0	0.011	0.27
CONTOUR MEAN	360		0.036		693		<0.068		1209		0.118	
NMPW	4011	75.5	0.390	19.17	4342	76.9	0.421	4.74	878	36.8	0.085	6.97
NMPP	1975	39.1	0.193	0.56	837	20.0	0.123	12.53	1792	24.2	0.174	5.07
20 FITZ	168	8.6	0.016	0.17	257	12.9	0.025	5.02	1586	22.3	0.153	4.18
NMPE	766	13.6	0.074	0.72	832	23.0	0.081	2.71	624	10.0	0.060	0.52
CONTOUR MEAN	1730		0.168		1567		0.162		1220		0.118	
NMPW	1166	32.0	0.114	8.80	853	45.7	0.083	6.86	244	11.3	0.024	0.80
NMPP	0	-	-	-	2942	58.5	0.285	2.56	1468	32.1	0.143	2.92
30 FITZ	0	-	-	-	0	-	-	-	3	0.2	<0.001	<0.01
NMPE	5	0.3	0.001	0.02	5	0.1	0.001	0.01	76	0.9	0.008	0.04
CONTOUR MEAN	293		0.058		950		0.123		448		<0.044	
NMPW	3	0.1	<0.001	<0.01	3	0.9	<0.001	<0.01	8	0.3	0.001	0.09
NMPP	5	1.0	0.001	0.12	570	24.8	0.055	5.67	0	-	-	-
40 FITZ	0	-	-	-	10	0.2	0.001	0.02	0	-	-	-
NMPE	10	0.4	0.001	0.02	20	0.2	-	-	255	1.9	0.024	0.11
CONTOUR MEAN	4		<0.001		151		0.019		66		0.012	
NMPW	0	-	-	-	51	0.3	0.005	0.03	20	0.2	0.002	0.01
NMPP	0	-	-	-	3	0.2	<0.001	<0.01	5	0.1	0.001	0.02
60 FITZ	0	-	-	-	0	-	-	0	20	0.2	0.002	0.02
NMPE	97	1.3	0.010	0.06	61	0.5	0.006	0.03	285	1.7	0.027	0.07
CONTOUR MEAN	24		-		29		<0.004		82		0.008	

<sup>a</sup> Number organisms/m<sup>2</sup>; exact date of benthic collection  
indicated on computer print-outs

<sup>b</sup> Grams/m<sup>2</sup>; wet weight



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF POLYCHAETA (ANNELIDA) IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
10 NMPW	10	1.7	0.001	0.14	NS	-	NS	-	762	12.3	0.087	0.42
10 NMPP	881	4.9	0.086	0.49	NS	-	NS	-	365	4.7	0.024	0.41
10 FITZ	33	0.5	0.003	0.04	NS	-	NS	-	830	10.2	0.081	0.83
10 NMPE	0		-		NS	-	NS	-	536	14.3	0.052	0.68
CONTOUR MEAN	231		0.03		-		-					
20 NMPW	384	25.2	0.037	1.19	NS	-	NS	-	2404	64.7	0.233	6.11
20 NMPP	163	34.5	0.016	3.54	NS	-	NS	-	1192	27.9	0.127	1.29
20 FITZ	0		-		NS	-	NS	-	503	14.4	0.049	1.10
20 NMPE	31	0.2	0.003	0.01	0 <sup>c</sup>	-	-	-	563	6.9	0.055	0.39
CONTOUR MEAN	144		0.019		-		-					
30 NMPW	53	4.9	0.005	0.33	NS	-	NS	-	579	26.5	0.057	3.24
30 NMPP	0		-		NS	-	NS	-	1103	35.0	0.107	0.60
30 FITZ	0		-		NS	-	NS	-	1	0.1	<0.001	<0.01
30 NMPE	46	0.6	0.005	0.03	0	-	NS	-	26	NA	0.003	NA
CONTOUR MEAN	25		0.005		-		-					
40 NMPW	3	1.2	<0.001	<0.01	NS	-	NS	-	4	0.3	<0.001	<0.01
40 NMPP	15	0.4	0.002	0.03	NS	-	NS	-	148	5.9	0.015	0.47
40 FITZ	0		-		NS	-	NS	-	3	0.1	<0.001	<0.01
40 NMPE	94	1.3	0.009	0.05	NS	-	NS	-	95	1.2	0.009	0.06
CONTOUR MEAN	28		0.004		-		-					
60 NMPW	0		-		NS	-	NS	-	18	0.1	0.002	0.01
60 NMPP	0		-		NS	-	NS	-	2	0.1	<0.001	<0.01
60 FITZ	0		-		NS	-	NS	-	5	0.1	0.001	0.01
60 NMPE	122	0.9	0.011	0.05	NS	-	NS	-	141	1.2	0.014	0.06
CONTOUR MEAN	30		-		-		-					

<sup>a</sup> No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup> Grams/m<sup>2</sup>; wet weight  
<sup>c</sup> Original sample only

NA = Not available  
NS = No sample  
- = Not applicable

WINDY PLEASANT

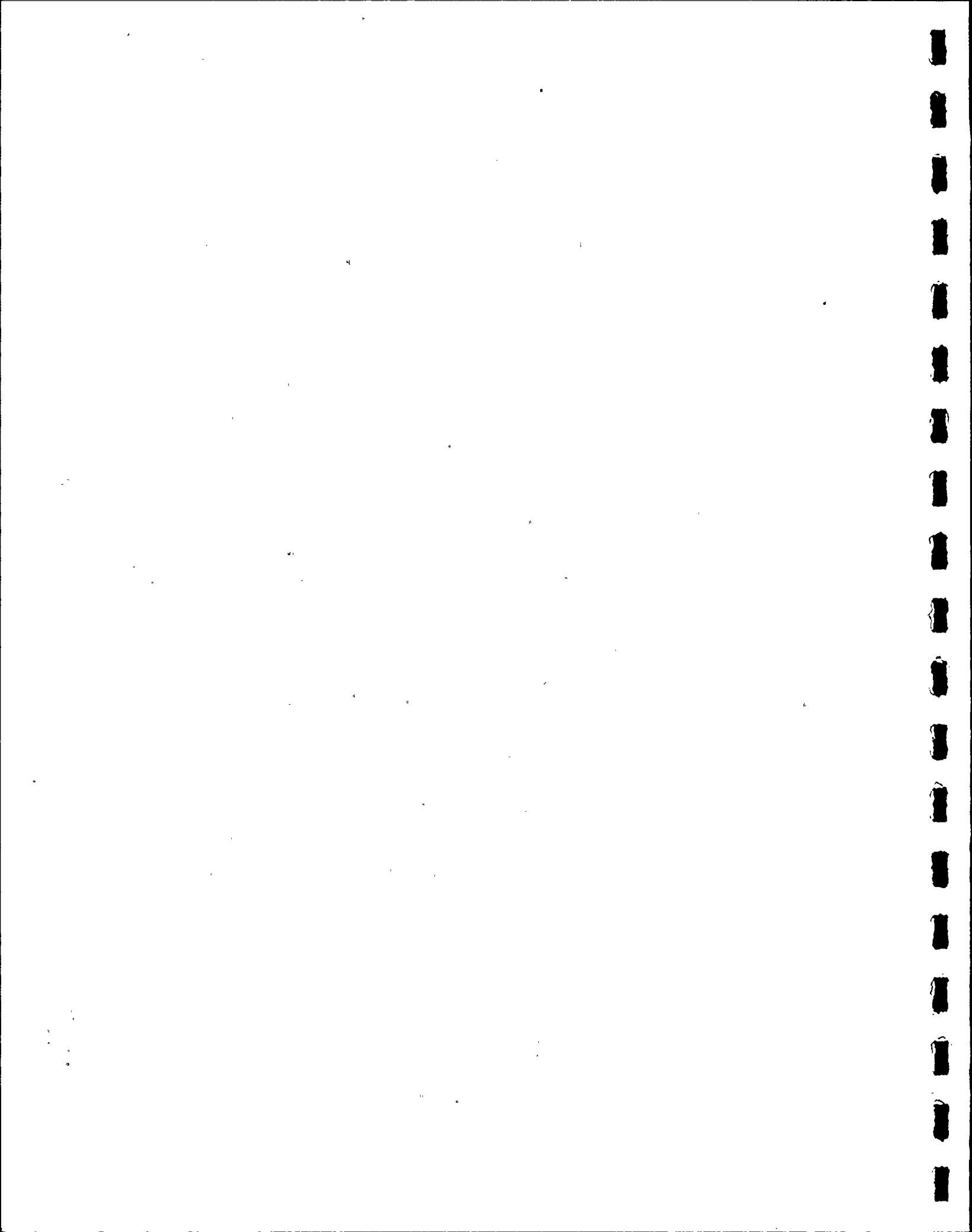
ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF RHYNCHOCOELA IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	10	0.3	0.003	0.02	8	0.2	0.002	0.02	0	-	-	-
NMPP	3	0.1	0.001	0.07	0	-	-	-	3	0.1	<0.001	<0.01
10 FITZ	3	0.1	0.001	0.01	0	-	-	-	3	<0.1	0.001	<0.01
NMPE	23	0.6	0.007	0.04	0	-	-	-	0	-	-	-
CONTOUR MEAN	10	-	0.003	-	2	-	-	-	2	-	<0.001	-
NMPW	8	0.2	0.002	0.10	0	-	-	-	0	-	-	-
NMPP	10	0.2	0.003	0.01	0	-	-	-	36	0.5	0.011	0.32
20 FITZ	3	0.2	0.001	0.01	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	5	-	0.002	-	0	-	-	-	9	-	-	-
NMPW	0	-	-	-	0	-	-	-	0	-	-	-
NMPP	0	-	-	-	3	0.1	0.001	0.01	0	-	-	-
30 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	0	-	-	-	1	-	-	-	0	-	-	-
NMPW	3	0.1	0.001	0.04	0	-	-	-	0	-	-	-
NMPP	0	-	-	-	0	-	-	-	0	-	-	-
40 FITZ	0	-	-	-	0	-	-	-	5	0.1	0.002	0.04
NMPE	0	-	-	-	0	-	-	-	3	<0.1	0.001	<0.01
CONTOUR MEAN	1	-	-	-	0	-	-	-	2	-	0.002	-
NMPW	0	-	-	-	3	<0.1	0.001	0.01	0	-	-	-
NMPP	8	0.4	0.002	0.11	0	-	-	-	0	-	-	-
60 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	3	<0.1	0.001	0.01	3	<0.1	0.001	0.01	0	-	-	-
CONTOUR MEAN	3	-	0.002	-	2	-	0.001	-	0	-	-	-

<sup>a</sup> Number organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup> Grams/m<sup>2</sup>; wet weight





ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF RHYNCHOCOELA IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE	BIOMASS	ABUNDANCE	BIOMASS
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
10 NMPW	0	-	-	-	NS		NS		5	0.1	0.001	<0.01
NMPP	48	0.3	0.015	0.09	NS		NS		14	0.2	0.004	0.07
FITZ	56	0.8	0.017	0.22	NS		NS		16	0.2	0.005	0.05
NMPE	0	-	-	-	NS		NS		6	0.2	0.002	0.03
CONTOUR MEAN	26		0.016		-		-					
20 NMPW	43	2.8	0.013	0.42	NS		NS		13	0.4	0.004	0.10
NMPP	31	6.6	0.009	1.99	NS		NS		19	0.4	0.006	0.06
FITZ	0	-	-	-	NS		NS		1	<0.1	<0.001	<0.01
NMPE	8	0.1	0.002	0.01	0 <sup>c</sup>	-	-	-	2	<0.1	0.001	0.01
CONTOUR MEAN	20		0.008		-		-					
30 NMPW	0	-	-	-	NS		NS		0		-	
NMPP	3	0.2	0.001	<0.01	NS		NS		2	0.1	0.001	0.01
FITZ	0	-	-	-	NS		NS		0		-	
NMPE	0	-	-	-	0	-	-	-	0	-	-	
CONTOUR MEAN	1		-									
40 NMPW	0	-	-	-	NS		NS		1	0.1	<0.001	<0.01
NMPP	0	-	-	-	NS		NS		0		-	
FITZ	0	-	-	-	NS		NS		1	<0.1	0.001	0.02
NMPE	0	-	-	-	NS		NS		1	<0.1	<0.001	<0.01
CONTOUR MEAN	0		-		-		-					
60 NMPW	0	-	-	-	NS		NS		1	<0.1	<0.001	<0.01
NMPP	0	-	-	-	NS		NS		2	0.1	0.001	0.04
FITZ	0	-	-	-	NS		NS		0		-	
NMPE	0	-	-	-	NS		NS		2	<0.1	0.001	<0.01
CONTOUR MEAN	0		-		-		-					

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NS = No sample

- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF TRICHOPTERA (ARTHROPODA: INSECTA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR				JUN				AUG			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
NMPW	59	1.8	0.027	0.21	79	1.6	0.242	2.52	3	<0.1	0.017	0.03
NMPP	5	0.2	0.002	0.14	23	0.4	0.028	1.43	0	-	-	-
10 FITZ	0	-	-	-	0	-	-	-	5	<0.1	0.020	0.09
NMPE	0	-	-	-	38	0.8	0.192	1.81	87	1.5	0.034	0.84
CONTOUR MEAN	16		0.014		35		0.154		24		0.024	
NMPW	23	0.4	0.017	0.84	56	1.0	0.067	0.75	0	-	-	-
NMPP	15	0.3	0.014	0.04	3	0.1	<0.001	<0.01	0	-	-	-
20 FITZ	0	-	-	-	5	0.3	0.054	10.84	0	-	-	-
NMPE	5	0.1	0.006	0.06	61	1.7	0.164	5.48	33	0.5	0.005	0.04
CONTOUR MEAN	11		0.012		31		<0.072		8		-	
NMPW	0	-	-	-	5	0.3	0.002	0.17	0	-	-	-
NMPP	0	-	-	-	31	0.6	0.078	0.70	5	0.1	0.014	0.29
30 FITZ	0	-	-	-	46	6.1	0.138	11.58	0	-	-	-
NMPE	3	0.2	0.002	0.04	0	-	-	-	3	<0.1	0.025	0.14
CONTOUR MEAN	1		-		20		0.073		2		0.020	
NMPW	0	-	-	-	0	-	-	-	5	0.2	0.005	0.43
NMPP	0	-	-	-	5	0.2	0.004	0.41	3	0.1	0.064	1.39
40 FITZ	0	-	-	-	5	0.1	0.011	0.21	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	8	0.1	0.086	0.40
CONTOUR MEAN	0		-		2		0.008		4		0.052	
NMPW	0	-	-	-	0	-	-	-	0	-	-	-
NMPP	0	-	-	-	3	0.2	0.028	1.47	0	-	-	-
60 FITZ	0	-	-	-	0	-	-	-	0	-	-	-
NMPE	0	-	-	-	0	-	-	-	0	-	-	-
CONTOUR MEAN	0		-		1		-		0		-	

<sup>a</sup> Number organisms/m<sup>2</sup>; exact date of benthic collection  
indicated on computer print-outs

<sup>b</sup> Grams/m<sup>2</sup>; wet weight



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF TRICHOPTERA (ARTHROPODA: INSECTA) IN BENTHIC COLLECTIONS (CONTINUED)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
10	NMPW	0	-	-	-	-	NS	-	35	0.6	0.072	0.34
	NMPP	0	-	-	-	-	NS	-	7	0.1	0.008	0.14
	FITZ	0	-	-	-	-	NS	-	1	<0.1	0.005	0.05
	NMPE	0	-	-	-	-	NS	-	31	0.8	0.057	0.74
	CONTOUR MEAN	0	-	-	-	-	-	-				
20	NMPW	0	-	-	-	-	NS	-	20	0.5	0.021	0.55
	NMPP	0	-	-	-	-	NS	-	5	0.1	0.004	0.04
	FITZ	0	-	-	-	-	NS	-	1	<0.1	0.014	0.31
	NMPE	13	0.1	0.006	0.02	0 <sup>c</sup>	-	-	28	0.3	0.045	0.32
	CONTOUR MEAN	3	-	-	-	-	-	-				
30	NMPW	0	-	-	-	-	NS	-	1	0.1	0.001	0.06
	NMPP	0	-	-	-	-	NS	-	9	0.3	0.023	0.13
	FITZ	0	-	-	-	-	NS	-	12	1.5	0.035	2.98
	NMPE	3	<0.1	0.012	0.06	3	0.5	0.016	2	NA	0.011	NA
	CONTOUR MEAN	1	-	-	-	-	-	-				
40	NMPW	0	-	-	-	-	NS	-	1	0.1	0.001	0.10
	NMPP	5	0.1	0.012	0.19	-	NS	-	3	0.1	0.020	0.63
	FITZ	0	-	-	-	-	NS	-	1	<0.1	0.003	0.07
	NMPE	13	0.2	0.017	0.10	-	NS	-	5	0.1	0.026	0.17
	CONTOUR MEAN	4	-	0.013	-	-	-	-				
60	NMPW	3	0.3	0.003	0.16	-	NS	-	1	<0.1	0.001	0.01
	NMPP	8	0.4	0.012	0.53	-	NS	-	3	0.1	0.010	0.36
	FITZ	0	-	-	-	-	NS	-	0			
	NMPE	0	-	-	-	-	NS	-	0			
	CONTOUR MEAN	3	-	0.008	-	-	-	-				

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection

indicated on computer print-outs

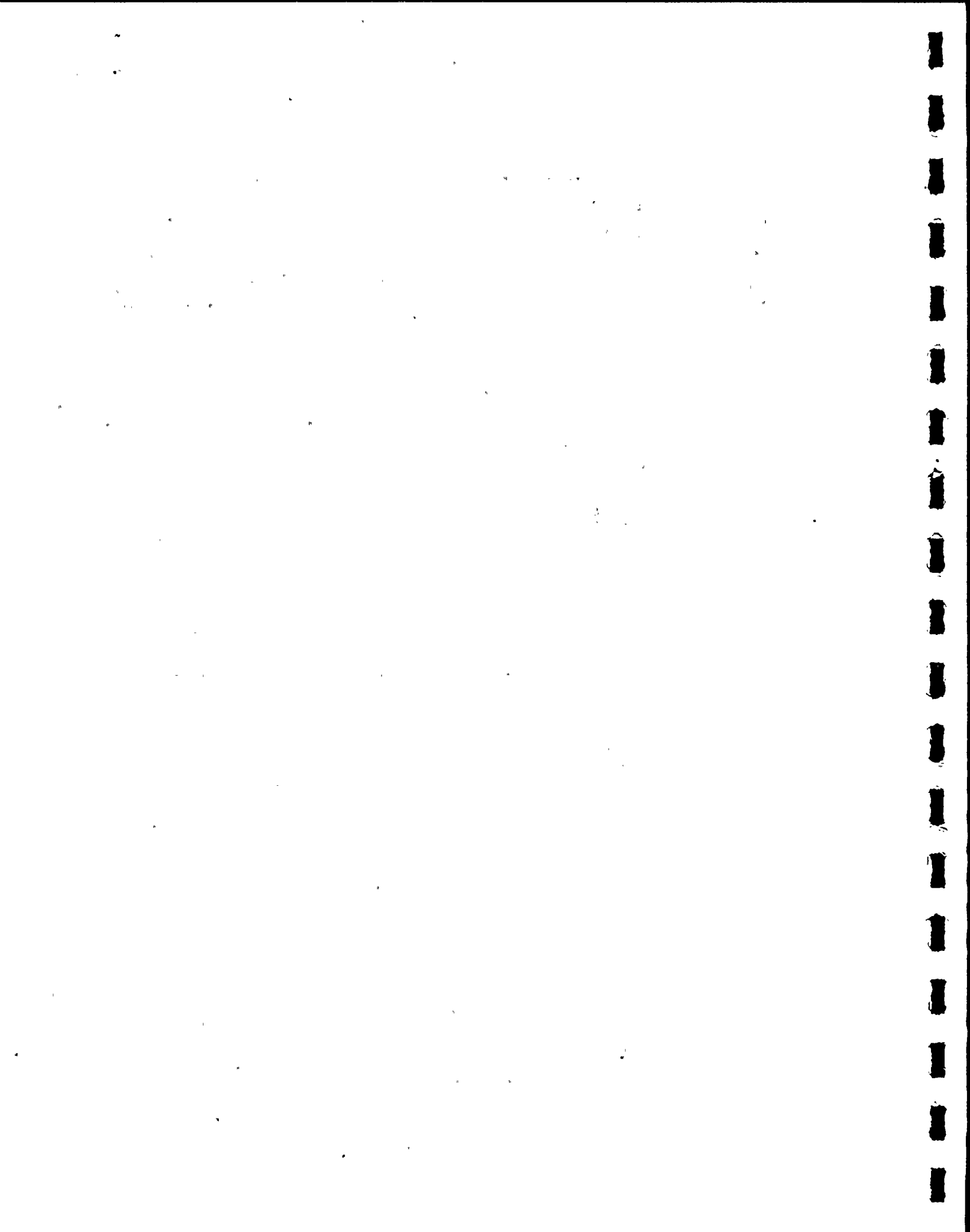
<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NA = Not available

NS = No sample

- = Not applicable



ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF TURBELLARIA (PLATYHELMINTHES) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]		APR				JUN				AUG			
		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
		MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT
10	NMPW	76	2.3	0.097	0.77	76	1.5	0.124	1.29	66	0.4	0.046	0.08
	NMPP	41	1.7	0.017	1.16	3	0.1	0.002	0.10	3	0.1	0.005	0.18
	FITZ	23	0.8	0.004	0.05	10	0.9	0.026	2.14	140	0.7	0.111	0.52
	NMPE	20	0.5	0.067	0.43	53	1.2	0.064	0.60	10	0.2	0.012	0.30
	CONTOUR MEAN	40		0.046		35		0.054		55		0.044	
20	NMPW	23	0.4	0.023	1.13	15	0.3	0.011	0.12	25	1.1	0.046	3.77
	NMPP	89	1.8	0.087	0.25	0	-	-	-	51	0.7	0.040	1.16
	FITZ	15	0.8	0.031	0.33	8	0.4	0.005	1.00	28	0.4	0.096	2.63
	NMPE	25	0.4	0.052	0.50	8	0.2	0.017	0.57	28	0.5	0.037	0.32
	CONTOUR MEAN	38		0.048		8		0.011		33		0.055	
30	NMPW	20	0.6	0.013	1.00	5	0.3	0.004	0.33	15	0.7	0.009	0.30
	NMPP	84	7.1	0.035	2.36	0	-	-	-	8	0.2	0.022	0.45
	FITZ	0	-	-	-	0	-	-	-	3	0.2	0.049	2.89
	NMPE	3	0.2	0.002	0.04	13	0.2	0.039	0.51	0	-	-	-
	CONTOUR MEAN	27		0.017		4		0.022		6		0.027	
40	NMPW	117	4.8	0.251	10.09	0	-	-	-	23	0.7	0.018	1.53
	NMPP	5	1.0	0.008	0.93	8	0.4	0.051	5.26	5	0.2	0.036	0.78
	FITZ	0	-	-	-	3	0.1	0.059	1.11	5	0.1	0.008	0.16
	NMPE	0	-	-	-	0	-	-	-	0	-	-	-
	CONTOUR MEAN	30		0.130		3		0.055		8		0.021	
60	NMPW	0	-	-	-	56	0.3	0.010	0.06	0	-	-	-
	NMPP	102	4.6	0.179	9.75	31	1.8	0.067	3.51	13	0.2	0.018	0.36
	FITZ	3	0.1	0.193	1.97	5	<0.1	0.034	0.20	3	<0.1	0.026	0.24
	NMPE	15	0.2	0.019	0.11	0	-	-	-	5	<0.1	0.011	0.03
	CONTOUR MEAN	30		0.130		23		0.037		5		0.018	

<sup>a</sup> Number/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup> Grams/m<sup>2</sup>; wet weight





ABUNDANCE<sup>a</sup> AND BIOMASS<sup>b</sup> OF TURBELLARIA (PLATYHELMINTHES) IN BENTHIC COLLECTIONS (Continued)

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	OCT				DEC				GRAND MEAN.			
	ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS		ABUNDANCE		BIOMASS	
	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT	MEAN	PERCENT				
10 NMPW	5	0.9	0.178	24.15	NS	-	NS	-	56	0.9	0.111	0.53
NMPP	64	0.4	0.045	0.26	NS	-	NS	-	28	0.4	0.017	0.29
FITZ	8	0.1	0.005	0.06	NS	-	NS	-	45	0.6	0.037	0.38
NMPE	0	-	-	-	NS	-	NS	-	21	0.6	0.036	0.47
CONTOUR MEAN	19		0.076		-		-					
20 NMPW	92	6.0	0.145	4.65	NS	-	NS	-	39	1.1	0.056	1.47
NMPP	23	4.9	0.028	6.19	NS	-	NS	-	41	1.0	0.039	0.40
FITZ	3	0.1	0.020	0.47	NS	-	NS	-	14	0.4	0.038	0.85
NMPE	84	0.5	0.072	0.23	0 <sup>c</sup>	-	-	-	36	0.4	0.045	0.32
CONTOUR MEAN	50		0.066		-		-					
30 NMPW	15	1.4	0.043	2.84	NS	-	NS	-	14	0.6	0.017	0.97
NMPP	234	13.0	0.392	0.74	NS	-	NS	-	82	2.6	0.112	0.63
FITZ	0		-	-	NS	-	NS	-	1	0.1	0.012	1.02
NMPE	71	1.0	0.039	0.21	0	-	-	-	17	NA	0.016	NA
CONTOUR MEAN	80		0.158		-		-					
40 NMPW	0	-	-	-	NS	-	NS	-	35	2.3	0.067	6.80
NMPP	125	3.3	0.224	3.61	NS	-	NS	-	36	1.4	0.080	2.53
FITZ	3	0.2	0.002	0.07	NS	-	NS	-	3	0.1	0.017	0.41
NMPE	33	0.5	0.037	0.21	NS	-	NS	-	8	0.1	0.009	0.06
CONTOUR MEAN	40		0.088		-		-					
60 NMPW	247	23.9	0.286	14.98	NS	-	NS	-	76	0.6	0.074	0.40
NMPP	255	13.9	0.455	20.21	NS	-	NS	-	100	3.4	0.180	6.55
FITZ	18	0.4	0.054	0.55	NS	-	NS	-	7	0.1	0.077	0.64
NMPE	64	0.5	0.027	0.12	NS	-	NS	-	21	0.2	0.014	0.06
CONTOUR MEAN	146		0.206		-		-					

<sup>a</sup>No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

<sup>b</sup>Grams/m<sup>2</sup>; wet weight

<sup>c</sup>Original sample only

NA = Not available

NS = No sample

- = Not applicable



VI.A.5. ABUNDANCE OF SELECTED SPECIES



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ABUNDANCE\* OF AMNICOLA LIMNOSA (MOLLUSCA: GASTROPODA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR			JUN			AUG			OCT			DEC			ANNUAL MEAN
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	
10 NMPW	5	0	3	0	0	0	41	0	20	0	0	0	NS	NS	-	6
NMPP	10	0	5	0	0	0	0	0	0	10	15	13	NS	NS	-	5
FITZ	5	0	3	0	0	0	31	10	20	25	25	25	NS	NS	-	12
NMPE	5	0	3	0	15	8	0	0	0	0	0	0	NS	NS	-	3
CONTOUR MEAN	6	0	3	0	4	2	18	2	10	9	10	9	-	-	-	
20 NMPW	5	0	3	0	0	0	351	122	237	56	0	28	NS	NS	-	67
NMPP	20	5	13	0	0	0	0	15	8	10	15	13	NS	NS	-	9
FITZ	15	0	8	5	0	3	0	0	0	0	20	10	NS	NS	-	5
NMPE	0	0	0	321	0	160	631	0	316	81	407	244	0	NS	-	160
CONTOUR MEAN	10	1	6	82	0	41	246	34	140	37	110	74	-	-	-	
30 NMPW	20	25	23	5	0	3	15	494	255	5	15	10	NS	NS	-	73
NMPP	5	0	3	15	0	8	36	117	76	5	76	41	NS	NS	-	32
FITZ	0	0	0	0	0	0	5	5	5	5	0	3	NS	NS	-	2
NMPE	41	20	31	71	66	69	204	41	122	204	92	148	5	31	18	78
CONTOUR MEAN	16	11	14	23	16	20	65	164	115	55	46	50	-	-	-	
40 NMPW	31	0	15	0	0	0	5	0	3	15	0	8	NS	NS	-	7
NMPP	15	0	8	51	0	25	0	422	211	173	25	99	NS	NS	-	86
FITZ	20	31	25	0	10	5	0	5	3	5	31	18	NS	NS	-	13
NMPE	36	255	145	31	244	137	652	41	346	153	244	199	NS	NS	-	207
CONTOUR MEAN	26	72	48	20	64	42	164	117	141	86	75	81	-	-	-	
60 NMPW	5	0	3	0	0	0	5	0	3	0	31	15	NS	NS	-	5
NMPP	5	20	13	25	56	41	0	10	5	46	0	23	NS	NS	-	21
FITZ	66	31	48	20	15	18	0	326	163	10	10	10	NS	NS	-	60
NMPE	346	173	260	51	41	46	1384	41	713	0	20	10	NS	NS	-	257
CONTOUR MEAN	106	56	81	24	28	26	347	94	221	14	15	15	-	-	-	

\*No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-out

NS = No sample

- = Not applicable



ABUNDANCE\* OF CORDYLOPHORA LACUSTRIS (COELENTERATA: HYDROZOA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR			JUN			AUG			OCT			DEC			ANNUAL MEAN
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	
10 NMPW	10	10	10	41	61	51	0	0	0	0	0	0	NS	NS	-	15
NMPP	0	102	51	178	15	97	0	514	257	3319	1074	2196	NS	NS	-	650
FITZ	0	0	0	20	0	10	779	122	450	10	10	10	NS	NS	-	118
NMPE	0	0	0	0	0	0	5	0	3	0	0	0	NS	NS	-	1
CONTOUR MEAN	2	28	15	60	19	39	196	159	178	832	271	552	-	-	-	
20 NMPW	0	36	18	5	0	3	20	0	10	15	15	15	NS	NS	-	12
NMPP	0	0	0	20	0	10	71	36	53	5	25	15	NS	NS	-	20
FITZ	0	0	0	0	0	0	41	31	36	0	1675	837	NS	NS	-	218
NMPE	0	0	0	0	0	0	0	0	0	0	0	0	0	NS	-	0
CONTOUR MEAN	0	9	4	6	0	3	33	17	25	5	429	217	-	-	-	
30 NMPW	0	0	0	5	10	8	321	0	160	0	0	0	NS	NS	-	42
NMPP	0	0	0	0	10	5	0	0	0	25	10	18	NS	NS	-	6
FITZ	0	0	0	0	0	0	0	0	0	41	0	20	NS	NS	-	5
NMPE	0	0	0	0	0	0	0	0	0	20	46	33	0	0	-	7
CONTOUR MEAN	0	0	0	1	4	6	80	0	40	22	14	16	-	-	-	
40 NMPW	0	0	0	5	0	3	25	199	112	0	0	0	NS	NS	-	29
NMPP	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
FITZ	0	0	0	0	5	3	0	0	0	143	199	171	NS	NS	-	44
NMPE	0	0	0	0	0	0	0	5	3	92	382	237	NS	NS	-	60
CONTOUR MEAN	0	0	0	1	1	1	6	51	29	59	145	102	-	-	-	
60 NMPW	0	0	0	0	0	0	0	0	0	15	0	8	NS	NS	-	2
NMPP	0	0	0	0	0	0	0	0	0	0	5	3	NS	NS	-	1
FITZ	0	0	0	0	0	0	0	0	0	295	107	201	NS	NS	-	50
NMPE	0	0	0	0	0	0	102	36	69	0	0	0	NS	NS	-	17
CONTOUR MEAN	0	0	0	0	0	0	26	9	17	78	28	53	-	-	-	

\*No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

NS = No sample

- = Not applicable

ABUNDANCE\* OF GAMMARUS FASCIATUS (ARTHROPODA: AMPHIPODA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

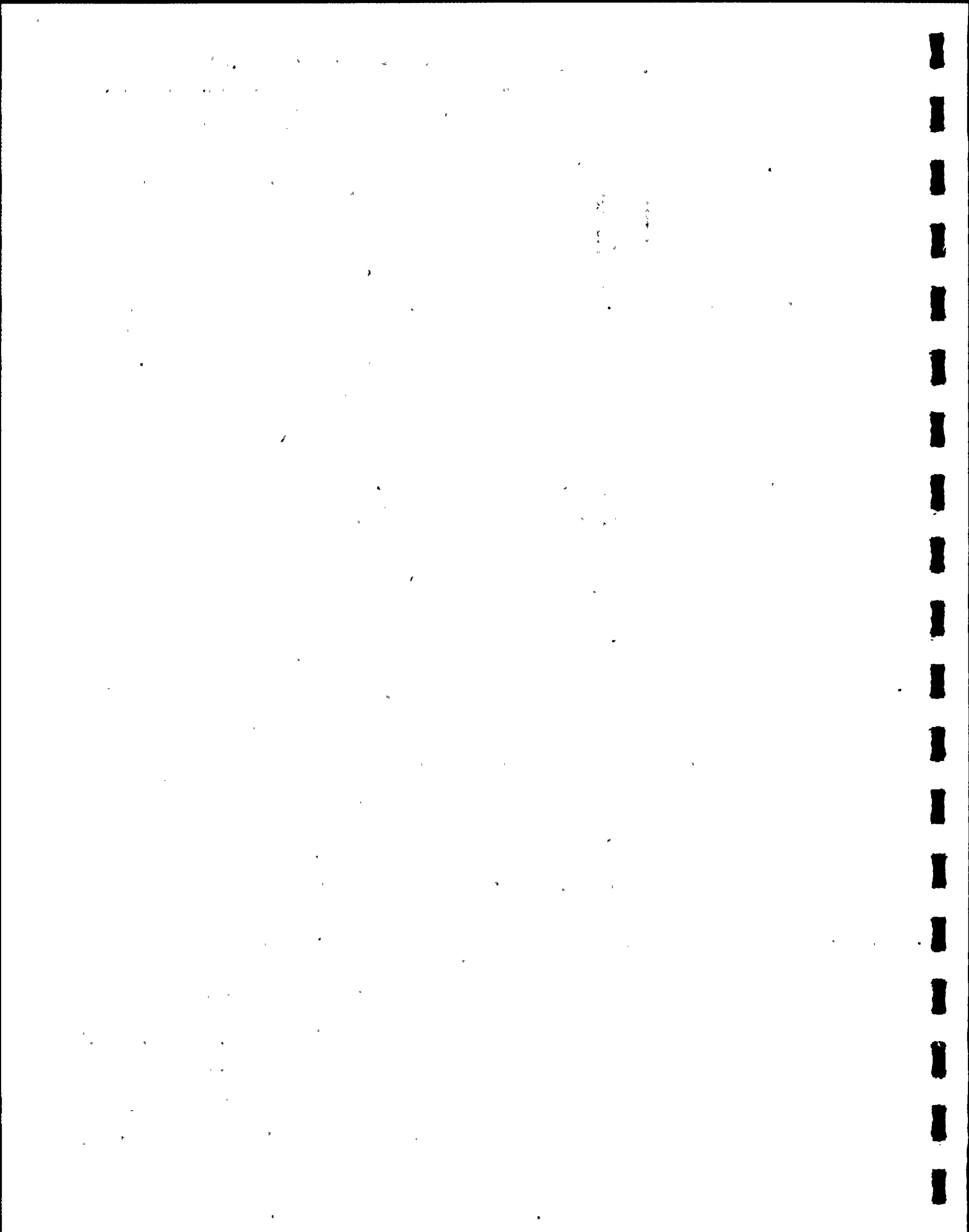
STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR			JUN			AUG			OCT			DEC			ANNUAL MEAN
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	
10 NC NMPW	1720	428	1074	840	1893	1367	11442	11727	11585	468	499	484	NS	NS	-	3628
NMPP	407	127	267	2362	5823	4092	5619	3013	4316	10424	18080	14252	NS	NS	-	5732
FITZ	270	132	201	5	300	153	11972	21337	16654	3746	9691	6719	NS	NS	-	5932
NMPE	728	1013	870	1354	1608	1481	5701	3400	4550	672	97	384	NS	NS	-	1821
CONTOUR MEAN	781	425	603	1140	2406	1773	8683	9869	9276	3828	7092	5460	-	-	-	
20 NMPW	143	163	153	596	814	705	310	723	517	392	265	328	NS	NS	-	426
NMPP	478	1456	967	2179	2545	2362	1415	7737	4576	117	97	107	NS	NS	-	2003
FITZ	1323	1496	1410	468	2097	1283	6719	3380	5049	204	3217	1710	NS	NS	-	2363
NMPE	3644	3135	3390	1069	519	794	1425	2280	1853	3156	25165	14160	0	NS	-	4488
CONTOUR MEAN	1397	1562	1480	1078	1494	1286	2467	3530	2999	967	7186	4077	-	-	-	
30 NMPW	20	10	15	127	87	107	1089	66	578	36	764	400	NS	NS	-	275
NMPP	402	92	247	998	484	741	550	2525	1537	519	855	687	NS	NS	-	803
FITZ	56	132	94	845	295	570	957	682	819	122	209	165	NS	NS	-	412
NMPE	10	0	5	97	46	71	336	570	453	188	255	221	0	0	-	150
CONTOUR MEAN	122	58	90	517	228	372	733	961	847	216	521	368	-	-	-	
40 NMPW	92	10	51	36	15	25	158	183	171	0	15	8	NS	NS	-	64
NMPP	25	5	15	290	0	145	153	81	117	1140	1028	1084	NS	NS	-	340
FITZ	20	565	293	713	1049	881	1222	692	957	316	285	300	NS	NS	-	608
NMPE	0	20	10	1079	1568	1323	611	1161	886	1150	1435	1293	NS	NS	-	878
CONTOUR MEAN	34	150	92	530	658	594	536	529	533	652	691	671	-	-	-	
60 NMPW	51	20	36	448	81	265	178	158	168	20	61	41	NS	NS	-	128
NMPP	25	46	36	173	81	127	15	66	41	122	173	148	NS	NS	-	88
FITZ	0	20	10	183	3278	1731	265	122	193	1374	1415	1395	NS	NS	-	832
NMPE	163	137	150	41	81	61	1507	316	911	1262	1792	1527	NS	NS	-	662
CONTOUR MEAN	60	56	58	211	880	546	491	166	328	695	860	777	-	-	-	

\*No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

NS = No sample

- = Not applicable





ABUNDANCE\* OF HYDRA AMERICANA (COELENTERATA: HYDROZOA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR			JUN			AUG			OCT			DEC			ANNUAL MEAN
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	
10 NMPW	280	97	188	20	81	51	15	0	8	0	0	0	NS	NS	-	62
NMPP	31	61	46	5	25	15	168	0	84	0	0	0	NS	NS	-	36
FITZ	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
NMPE	0	5	3	0	0	0	20	0	10	0	0	0	NS	NS	-	3
CONTOUR MEAN	78	41	59	1	26	16	51	0	25	0	0	0	-	-	-	
20 NMPW	46	71	59	0	0	0	0	0	0	0	0	0	NS	NS	-	15
NMPP	31	25	28	168	107	137	31	0	15	5	0	3	NS	NS	-	46
FITZ	0	0	0	0	0	0	0	0	0	0	56	28	NS	NS	-	7
NMPE	0	0	0	20	5	13	0	0	0	0	0	0	0	NS	-	3
CONTOUR MEAN	19	24	22	47	28	38	8	0	4	1	14	8	-	-	-	
30 NMPW	15	76	46	0	10	5	0	0	0	0	0	0	NS	NS	-	13
NMPP	25	5	15	0	10	5	0	0	0	0	0	0	NS	NS	-	5
FITZ	0	0	0	0	51	25	0	0	0	0	0	0	NS	NS	-	6
NMPE	0	0	0	0	0	0	0	0	0	10	0	5	107	0	53	12
CONTOUR MEAN	10	20	15	0	18	9	0	0	0	2	0	1	-	-	-	
40 NMPW	25	10	18	0	0	0	0	0	0	0	0	0	NS	NS	-	5
NMPP	10	0	5	0	0	0	0	0	0	0	0	0	NS	NS	-	1
FITZ	0	31	15	5	5	5	0	0	0	0	0	0	NS	NS	-	5
NMPE	0	0	0	0	0	0	0	0	0	20	46	33	NS	NS	-	8
CONTOUR MEAN	9	10	10	1	1	1	0	0	0	5	12	8	-	-	-	
60 NMPW	10	0	5	0	0	0	0	0	0	0	0	0	NS	NS	-	1
NMPP	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
FITZ	0	0	0	0	0	0	0	0	0	20	0	10	NS	NS	-	3
NMPE	0	0	0	0	0	0	0	148	74	0	0	0	NS	NS	-	19
CONTOUR MEAN	2	0	1	0	0	0	0	37	18	5	0	2	-	-	-	

\*No organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

NS = No sample

- = Not applicable

ABUNDANCE\* OF MANUYUNKIA SPECIOSA (ANNELIDA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR			JUN			AUG			OCT			DEC			ANNUAL MEAN
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	
10 NMPW	1344	112	728	489	1150	819	2240	738	1489	20	0	10	NS	NS	-	762
NMPP	1049	81	565	10	0	5	15	0	8	1741	20	881	NS	NS	-	365
FITZ	112	10	61	0	5	3	784	5660	3222	10	56	33	NS	NS	-	830
NMPE	5	163	84	1446	2443	1944	229	5	117	0	0	0	NS	NS	-	536
CONTOUR MEAN	628	92	360	486	900	693	817	1601	1209	443	19	231	-	-	-	
20 NMPW	3706	4316	4011	4897	3787	4342	1303	453	878	484	285	384	NS	NS	-	2404
NMPP	1649	2301	1975	1588	87	837	2647	937	1792	168	158	163	NS	NS	-	1192
FITZ	122	214	168	102	412	257	2484	687	1586	0	0	0	NS	NS	-	503
NMPE	840	692	766	937	728	832	453	794	624	0	61	31	0	NS	-	501
CONTOUR MEAN	1579	1881	1730	1881	1254	1567	1722	718	1220	163	126	144	-	-	-	
30 NMPW	1507	825	1166	677	1028	853	316	173	244	15	92	53	NS	NS	-	579
NMPP	0	0	0	2545	3339	2942	188	2749	1468	0	0	0	NS	NS	-	1103
FITZ	0	0	0	0	0	0	5	0	3	0	0	0	NS	NS	-	1
NMPE	10	0	5	10	0	5	71	81	76	81	10	46	0	0	-	26
CONTOUR MEAN	379	206	293	808	1092	950	145	751	448	24	26	25	-	-	-	
40 NMPW	0	5	3	0	5	3	5	10	8	0	5	3	NS	NS	-	4
NMPP	10	0	5	616	524	570	0	0	0	31	0	15	NS	NS	-	148
FITZ	0	0	0	0	20	10	0	0	0	0	0	0	NS	NS	-	3
NMPE	15	5	10	0	41	20	81	428	255	97	92	94	NS	NS	-	95
CONTOUR MEAN	6	2	4	154	148	151	22	110	66	32	24	28	-	-	-	
0 NMPW	0	0	0	81	5	43	41	0	20	0	0	0	NS	NS	-	16
NMPP	0	0	0	0	5	3	5	5	5	0	0	0	NS	NS	-	2
FITZ	0	0	0	0	0	0	41	0	20	0	0	0	NS	NS	-	5
NMPE	143	51	97	31	92	61	468	102	285	143	102	122	NS	NS	-	141
CONTOUR MEAN	36	13	24	28	26	27	139	27	83	36	26	31	-	-	-	

\*No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

NS = No sample

- = Not applicable

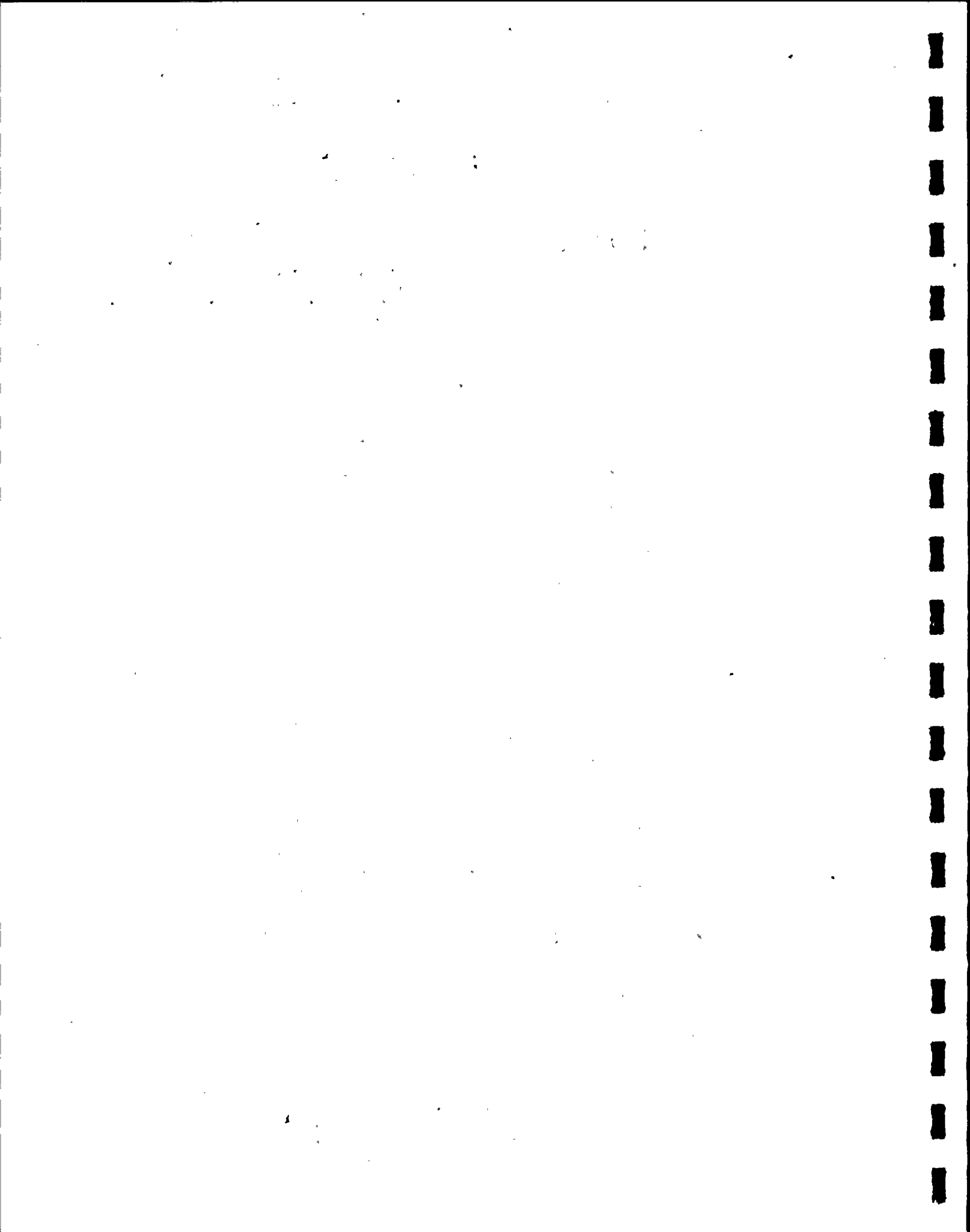


ABUNDANCE\* OF NAIS BRETSCHERI (ANNELIDA : OLIGOCHAETA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR			JUN			AUG			OCT			DEC			ANNUAL MEAN
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	
10 NMPW	0	0	0	20	41	31	0	0	0	20	0	10	NS	NS	-	10
NMPP	540	229	384	947	534	741	5	5	5	0	20	10	NS	NS	-	285
FITZ	10	0	5	20	97	59	0	0	0	10	10	10	NS	NS	-	19
NMPE	0	5	3	0	0	0	5	0	3	0	0	0	NS	NS	-	2
CONTOUR MEAN	138	58	98	247	168	207	2	1	2	8	8	8	-	-	-	
20 NMPW	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
NMPP	0	0	0	20	25	23	0	0	0	0	0	0	NS	NS	-	6
FITZ	0	0	0	0	15	8	0	0	0	0	0	0	NS	NS	-	2
NMPE	0	0	0	0	0	0	0	0	0	0	5	3	0	NS	-	1
CONTOUR MEAN	0	0	0	5	10	8	0	0	0	0	1	1	-	-	-	
40 NMPW	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
NMPP	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
FITZ	0	0	0	0	20	10	0	0	0	0	0	0	NS	NS	-	3
NMPE	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
CONTOUR MEAN	0	0	0	0	5	2	0	0	0	0	0	0	-	-	-	
60 NMPW	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
NMPP	0	0	0	0	5	3	0	0	0	0	0	0	NS	NS	-	1
FITZ	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
NMPE	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
CONTOUR MEAN	0	0	0	0	1	1	0	0	0	0	0	0	-	-	-	

\*No organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs; none collected at the 30 ft. stations Apr - Dec  
 NS = No sample  
 - = Not applicable



ABUNDANCE\* OF PONTOPOREIA AFFINIS (ARTHROPODA: AMPHIPODA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR			JUN			AUG			OCT			DEC			ANNUAL MEAN
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	
10 NMPW	0	5	3	0	0	0	0	0	0	0	0	0	NS	NS	-	1
NMPP	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
FITZ	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
NMPE	0	0	0	10	0	5	0	0	0	0	0	0	NS	NS	-	1
CONTOUR MEAN	0	1	1	2	0	1	0	0	0	0	0	0	-	-	-	
20 NMPW	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
NMPP	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
FITZ	10	0	5	0	10	5	0	0	0	0	0	0	NS	NS	-	3
NMPE	0	0	-	0	0	-	0	0	-	0	0	-	8	NS	-	1
CONTOUR MEAN	2	0	1	0	2	1	0	0	0	0	0	0	-	-	-	
30 NMPW	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
NMPP	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
FITZ	15	31	23	0	0	0	509	570	540	178	377	277	NS	NS	-	210
NMPE	484	46	265	224	417	321	702	794	748	234	127	181	5	87	46	312
CONTOUR MEAN	125	19	72	56	104	80	303	341	322	103	126	114	-	-	-	
40 NMPW	15	0	8	0	0	0	0	0	0	0	0	0	NS	NS	-	2
NMPP	0	0	0	0	0	0	0	0	0	0	10	5	NS	NS	-	1
FITZ	377	0	188	1507	652	1079	896	1038	967	321	397	359	NS	NS	-	648
NMPE	71	178	125	458	41	249	1079	641	860	214	458	336	NS	NS	-	393
CONTOUR MEAN	116	44	80	491	173	332	494	420	457	134	216	175	-	-	-	
60 NMPW	601	1099	850	3868	1405	2637	621	463	542	0	0	0	NS	NS	-	1007
NMPP	0	0	0	10	0	5	31	25	28	5	5	5	NS	NS	-	10
FITZ	255	372	313	2301	81	1191	1191	1496	1344	784	702	743	NS	NS	-	898
NMPE	407	346	377	3380	4438	3909	3054	845	1949	2973	2321	2647	NS	NS	-	2221
CONTOUR MEAN	316	454	385	2390	1481	1935	1224	707	966	940	757	849	-	-	-	

\*No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

NS = No sample

- = Not applicable





ABUNDANCE\* OF VALVATA PERDEPRESSA (MOLLUSCA: GASTROPODA) IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR			JUN			AUG			OCT			DEC			ANNUAL MEAN
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	
10 NMPW	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
NMPP	0	0	0	0	0	0	10	10	10	5	0	3	NS	NS	-	3
FITZ	0	0	0	0	5	3	25	0	13	15	0	8	NS	NS	-	6
NMPE	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
CONTOUR MEAN	0	0	0	0	1	1	9	2	6	5	0	2	-	-	-	
20 NMPW	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
NMPP	0	0	0	0	0	0	0	5	3	0	0	0	NS	NS	-	1
FITZ	0	0	0	0	0	0	10	0	5	0	0	0	NS	NS	-	1
NMPE	0	0	0	0	0	0	0	20	10	0	0	0	5	NS	-	3
CONTOUR MEAN	0	0	0	0	0	0	2	6	4	0	0	0	-	-	-	
30 NMPW	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
NMPP	0	0	0	0	0	0	0	0	0	0	5	3	NS	NS	-	1
FITZ	0	0	0	0	0	0	25	46	36	41	25	33	NS	NS	-	17
NMPE	433	224	328	545	127	336	234	977	606	448	397	422	15	76	46	348
CONTOUR MEAN	108	56	82	136	32	84	65	256	160	122	107	114	-	-	-	
40 NMPW	0	0	0	0	0	0	0	0	0	0	0	0	NS	NS	-	0
NMPP	0	0	0	0	0	0	0	10	5	0	0	0	NS	NS	-	1
FITZ	0	25	13	46	41	43	249	229	239	102	132	117	NS	NS	-	103
NMPE	270	494	382	723	875	799	723	1120	921	682	753	718	NS	NS	-	705
CONTOUR MEAN	68	130	99	192	229	211	243	340	291	196	221	209	-	-	-	
60 NMPW	15	5	10	20	0	10	5	25	15	0	0	0	NS	NS	-	9
NMPP	0	0	0	0	0	0	5	5	5	15	0	8	NS	NS	-	3
FITZ	540	402	471	550	97	323	845	2117	1481	239	219	229	NS	NS	-	626
NMPE	1089	275	682	743	1008	875	6963	1995	4479	1568	845	1206	NS	NS	-	1811
CONTOUR MEAN	411	170	291	328	276	302	1954	1036	1495	456	266	361	-	-	-	

\*No. organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

NS = No sample

- = Not applicable

ABUNDANCE\* OF TOTAL MACROINVERTEBRATES IN BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR			JUN			AUG			OCT			DEC			ANNUAL MEAN
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	
10 NC NMPW	5200	1547	3376	3955	6037	4996	16613	15211	15911	569	580	574	NS	NS	-	6217
NMPP	2964	1797	2382	4275	7508	5892	6280	3964	5125	16205	19513	17861	NS	NS	-	7817
FITZ	2236	3567	2902	146	1985	1065	14732	28579	21655	3909	10265	7089	NS	NS	-	8179
NMPE	3227	5137	4181	3527	5604	4564	7873	3781	5830	707	107	408	NS	NS	-	3746
CONTOUR MEAN	3407	3012	3209	2976	5283	4130	11374	12884	12129	5348	7616	6482	-	-	-	
20 NMPW	5481	5141	5311	6007	5282	5644	3242	1528	2383	1888	1160	1525	NS	NS	-	3716
NMPP	3802	6296	5050	4520	3839	4181	5600	9209	7404	525	417	473	NS	NS	-	4279
FITZ	1821	2070	1947	1007	2972	1990	10002	4203	7103	269	5635	2953	NS	NS	-	3501
NMPE	6096	5147	5621	4424	2820	3261	5039	7476	6259	5945	28356	17152	477	NS	-	7309
CONTOUR MEAN	5153	4664	4482	3990	3728	3859	5971	5604	5787	2157	8892	5524	-	-	-	
30 NMPW	3247	4047	3647	2030	1699	1866	2565	1746	2155	300	1853	1077	NS	NS	-	2187
NMPP	1871	483	1179	4607	5445	5027	1043	8093	4568	1043	2565	1805	NS	NS	-	3148
FITZ	153	193	173	1078	427	754	1787	1501	1645	438	718	578	NS	NS	-	790
NMPE	2803	963	1884	7356	3537	5447	5766	10929	8347	8373	6164	7269	193	958	576	4704
CONTOUR MEAN	2018	1422	1720	3768	2777	3273	2790	5567	4179	2538	2825	2682	-	-	-	
40 NMPW	3559	1491	2429	330	326	331	3760	2561	3162	61	443	253	NS	NS	-	1545
NMPP	620	361	491	2681	1909	2297	2091	4780	3436	3615	3889	3751	NS	NS	-	2496
FITZ	1389	1618	1503	4610	4844	4730	4215	3904	4060	1715	1649	1684	NS	NS	-	2996
NMPE	2426	2662	2545	8057	9441	8749	12756	14267	13515	6423	7982	7204	NS	NS	-	8005
CONTOUR MEAN	2453	1533	1741	3920	4130	4025	5706	6378	6042	2954	3491	3222	-	-	-	
60 NMPW	23959	21188	22574	30503	8814	19661	13229	3451	8341	844	1216	1032	NS	NS	-	12904
NMPP	1668	2785	2228	1374	1995	1685	6892	5132	6012	2006	1664	1837	NS	NS	-	2942
FITZ	2536	3650	3093	11387	11019	11202	9489	10140	9815	5263	4871	5067	NS	NS	-	7297
NMPE	9810	4892	7350	8250	14284	11267	25120	8332	16727	15571	10426	12997	NS	NS	-	12087
CONTOUR MEAN	9483	8129	8811	12878	9028	8763	13682	6764	10223	3893	4544	5233	-	-	-	

\*No organisms/m<sup>2</sup>; exact date of benthic collection indicated on computer print-outs

NS = No sample

- = Not applicable

VI.A.6. BIOMASS OF CLADOPHORA COLLECTED WITH BENTHOS SAMPLES



BIOMASS\* OF CLADOPHORA COLLECTED WITH BENTHOS SAMPLES

NINE MILE POINT VICINITY - 1976

STATION [TRANSECT/DEPTH CONTOUR (FT)]	APR <sup>a</sup>			JUN <sup>b</sup>			AUG <sup>c</sup>			OCT <sup>d</sup>			14 DEC		
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
NMPW 10C	NR	NR	-	NS	NS	-	NR	NR	-	NR	NR	-	NR	NR	-
10 NC	71.82	5.04	38.43	46.88	43.88	45.38	36.04	16.70	26.37	0.00	0.00	0.00	NS	NS	-
20	4.02	24.48	14.25	101.95	55.18	78.56	2.49	6.21	4.35	15.58	7.23	11.41	NS	NS	-
30	0.00	2.85	1.42	5.80	0.00	2.90	2.90	0.00	1.45	0.15	3.21	1.68	NS	NS	-
40	0.81	0.10	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	-
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01	NS	NS	-
NMPP 10C	NR	NR	-	NS	NS	-	NR	NR	-	NR	NR	-	NR	NR	-
10 NC	59.96	5.90	32.93	6.26	15.27	10.76	6.72	2.60	4.66	51.97	23.72	37.84	NS	NS	-
20	6.31	9.31	7.81	0.61	0.41	0.51	0.00	0.00	0.00	7.74	9.98	8.86	NS	NS	-
30	0.00	0.00	0.00	10.38	7.53	8.96	1.48	0.92	1.20	0.00	0.00	0.00	NS	NS	-
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	-
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	-
FITZ 10 NC	15.27	7.43	11.35	0.46	7.53	4.00	21.28	38.73	30.00	0.00	11.35	5.68	NS	NS	-
20	2.19	3.51	2.85	0.36	1.32	0.84	0.00	1.27	0.64	0.00	0.00	0.00	NS	NS	-
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	-
40	0.00	0.00	0.00	0.00	3.51	1.76	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	-
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	-
NMPE 10 NC	23.52	36.44	29.98	31.15	97.83	64.49	16.24	2.39	9.32	0.00	0.00	0.00	NS	NS	-
20	14.61	0.97	7.79	18.48	14.00	16.24	17.92	52.32	35.12	0.00	0.00	0.00	0.12	NS	-
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.26
40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	-
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NS	NS	-

\*g/m<sup>2</sup>; wet weight

NS = No sample

C = Cladophora sample

NC = Non-Cladophora sample

NR = Not required in work scope

- = Not applicable

<sup>a</sup> 19 April: FITZ and NMPE Stations;

<sup>b</sup> 14 May: NMPW and NMPP Stations

<sup>c</sup> 15 June: FITZ and NMPE Stations;

16 June: NMPW Stations; NMPP 10 ft and NMPP 20 ft R-1;

17 June: NMPP 20 ft R-2, NMPP 30 ft, NMPP 40 ft, and NMPP 60 ft

<sup>d</sup> 3 September: NMPE Stations

4 September: NMPW Stations; NMPP 10 ft, NMPP 20 ft

7 September: FITZ Stations; NMPP 30 ft, NMPP 40 ft; NMPP 60 ft

12 October: NMPE Stations; FITZ 10 ft, FITZ 20 ft

13 October: NMPW and NMPP Stations; FITZ 30 ft, FITZ 40 ft, FITZ 60 ft

VI.A.7. STANDING CROP ESTIMATES FOR GAMMARUS FASCIATUS



STANDING CROP ESTIMATES FOR GAMMARUS FASCIATUS  
FROM BENTHIC COLLECTIONS

NINE MILE POINT VICINITY - 1976

MONTH	DEPTH CONTOUR*					ESTIMATED TOTAL NUMBER
	0-15 ft	15-25 ft	25-35 ft	35-45 ft	45-65 ft	
APR	844803.0	1524400.0	118710.0	90988.0	119538.0	539687.8
JUN	2483973.0	1324580.0	490668.0	587466.0	1125306.0	1202398.6
AUG	12995676.0	3088970.0	1117193.0	527137.0	676008.0	3680996.8
OCT	7649460.0	4199310.0	485392.0	663619.0	1601397.0	2919835.6
DEC	NS	-	-	NS	NS	
ANNUAL MEAN	5993478.0	2534315.0	552990.8	467302.5	880562.2	

\* mean of replicates (NMPW, NMPP, FITZ, NMPE) per depth contour

NS = No sample

- = Not applicable; NMPE-20 ft original sample.

NMPE-30 ft original and replicate  
no Gammarus fasciatus collected





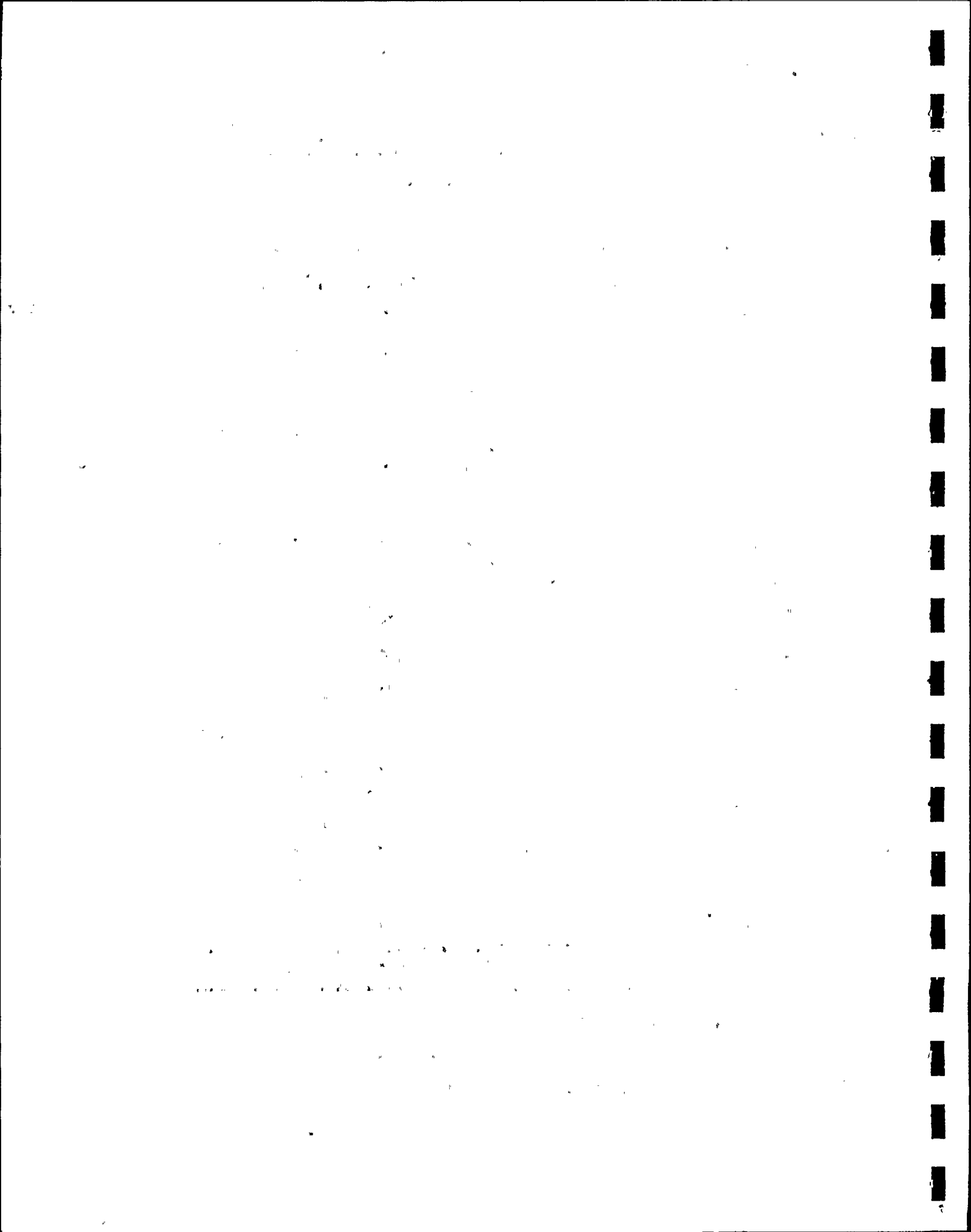
1976 NEKTON COLLECTIONS

The following selected species were not collected:

SEINES:	SMALLMOUTH BASS
GILL NETS:	THREESPINE STICKLEBACK*
TRAWLS:	COHO SALMON

\* Selected gill net stations.

VII.A. SEINE COLLECTIONS



ABUNDANCE OF ALEWIFE IN SEINE COLLECTIONS<sup>a</sup>

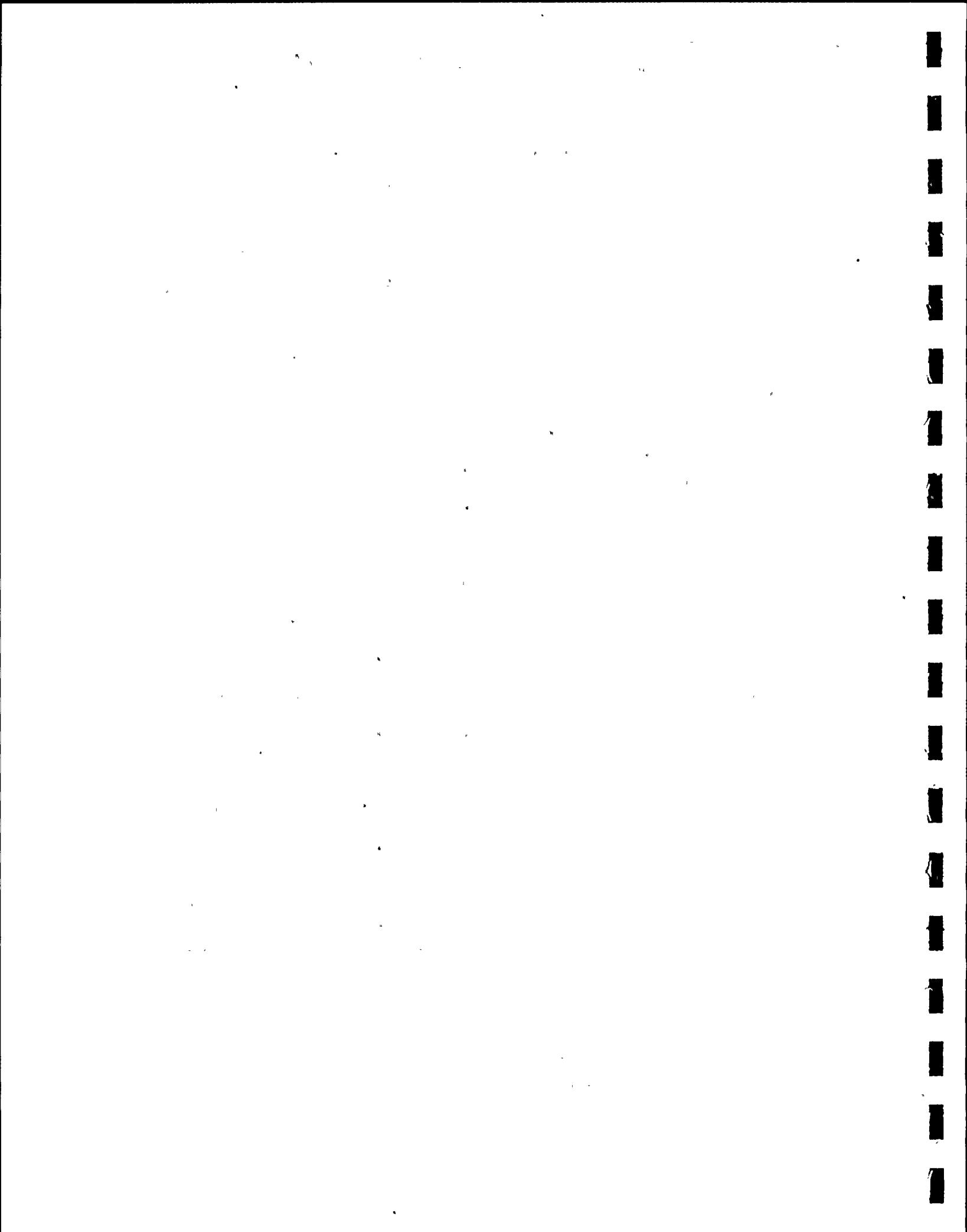
NINE MILE POINT VICINITY - 1976

DATE	START TIME <sup>b</sup>	NMPW	NMPP	FITZ	NMPE	DAILY MEAN
14 APR	0915	0	0	0	0	0
30 APR	1800	0	23	8	0	7.8
14 MAY	0910	1	58	0	1	15.0
24 MAY	1420	143	1304	305	1	438.2
4 JUN	1030	0	78	0	0	19.5
18 JUN	0910	183	21	0	0	51.0
6 JUL	1145	168	7	124	0	74.8
15 JUL	1155	6	6	10	0	5.5
3 AUG	1435	45	2	31	24	25.5
20 AUG	0930	2554	2153	280	44	1257.8
9 SEP	1120	1031	12	698	1711	863.0
30 SEP	0945	3	29	30	0	15.5
12 OCT	1025	0	0	510	1055	391.2
2 NOV <sup>c</sup>	1110	0	0	0	0	0
12 NOV	1100	0	0	0	0	0
27 NOV	1050	0	0	0	0	0
6 DEC	0920	0	0	0	0	0
ANNUAL MEAN		243.2	217.2	117.4	166.8	

<sup>a</sup> Successful haul

<sup>b</sup> Earliest time period for that sampling date

<sup>c</sup> October sample; rough lake conditions



ABUNDANCE OF BROWN TROUT IN SEINE COLLECTIONS<sup>a</sup>

NINE MILE POINT VICINITY - 1976

DATE	START TIME <sup>b</sup>	NMPW	NMPP	FITZ	NMPE	DAILY MEAN
14 APR	0915	0	0	0	0	0
30 APR	1800	0	0	3	0	0.8
14 MAY	0910	0	0	0	0	0
24 MAY	1420	0	0	0	0	0
4 JUN	1030	0	0	0	0	0
18 JUN	0910	0	0	0	0	0
6 JUL	1145	0	0	0	2	0.5
15 JUL	1155	0	0	0	0	0
3 AUG	1435	0	0	0	0	0
20 AUG	0930	0	0	0	0	0
9 SEP	1120	0	0	0	0	0
30 SEP	0945	0	0	0	0	0
12 OCT	1025	0	0	0	0	0
2 NOV <sup>c</sup>	1110	0	0	0	0	0
12 NOV	1100	0	0	0	0	0
27 NOV	1050	0	0	0	0	0
6 DEC	0920	0	0	0	0	0
ANNUAL MEAN		0	0	0.2	0.1	

<sup>a</sup>Successful haul

<sup>b</sup>Earliest time period for that sampling date

<sup>c</sup>October sample; rough lake conditions





ABUNDANCE OF COHO SALMON IN SEINE COLLECTIONS<sup>a</sup>

NINE MILE POINT VICINITY - 1976

DATE	START TIME <sup>b</sup>	NMPW	NMPP	FITZ	NMPE	DAILY MEAN
14 APR	0915	0	0	0	0	0
30 APR	1800	0	0	0	0	0
14 MAY	0910	0	0	0	0	0
24 MAY	1420	0	0	1	0	0.2
4 JUN	1030	0	0	0	0	0
18 JUN	0910	3	1	11	2	4.2
6 JUL	1145	0	0	0	0	0
15 JUL	1155	0	0	2	0	0.5
3 AUG	1435	0	0	0	0	0
20 AUG	0930	0	0	0	0	0
9 SEP	1120	0	0	0	0	0
30 SEP	0945	0	0	0	0	0
12 OCT	1025	0	0	0	0	0
2 NOV <sup>c</sup>	1110	0	0	0	0	0
12 NOV	1100	0	0	0	0	0
27 NOV	1050	0	0	0	0	0
6 DEC	0920	0	0	0	0	0
ANNUAL MEAN		0.2	0.1	0.8	0.1	

<sup>a</sup>Successful haul

<sup>b</sup>Earliest time period for that sampling date

<sup>c</sup>October sample; rough lake conditions



ABUNDANCE OF RAINBOW SMELT IN SEINE COLLECTIONS<sup>a</sup>

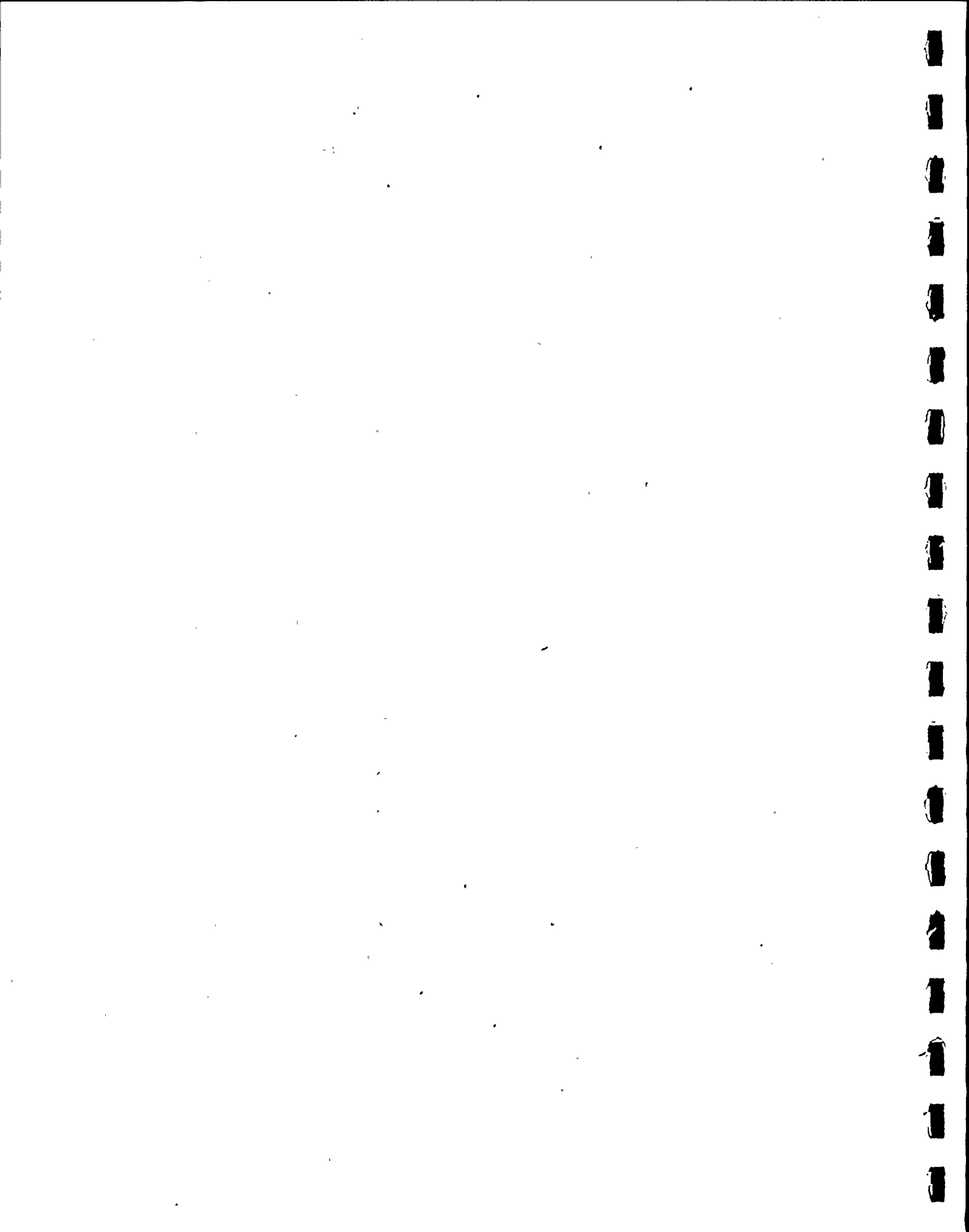
NINE MILE POINT VICINITY - 1976

DATE	START TIME <sup>b</sup>	NMPW	NMPP	FITZ	NMPE	DAILY MEAN
14 APR	0915	4	2	0	0	1.5
30 APR	1800	0	0	0	0	0
14 MAY	0910	0	0	0	0	0
24 MAY	1420	4	1	2	2	2.2
4 JUN	1030	0	0	0	0	0
18 JUN	0910	0	0	0	0	0
6 JUL	1145	0	0	0	0	0
15 JUL	1155	0	0	0	0	0
3 AUG	1435	0	0	0	0	0
20 AUG	0930	0	0	0	0	0
9 SEP	1120	0	0	0	0	0
30 SEP	0945	0	0	0	0	0
12 OCT	1025	0	0	0	0	0
2 NOV <sup>c</sup>	1110	0	0	0	0	0
12 NOV	1100	0	0	0	0	0
27 NOV	1050	0	0	0	0	0
6 DEC	0920	0	0	0	0	0
ANNUAL MEAN		0.5	0.2	0.1	0.1	

<sup>a</sup>Successful haul

<sup>b</sup>Earliest time period for that sampling date

<sup>c</sup>October sample; rough lake conditions



ABUNDANCE OF SPOTTAIL SHINER IN SEINE COLLECTIONS<sup>a</sup>

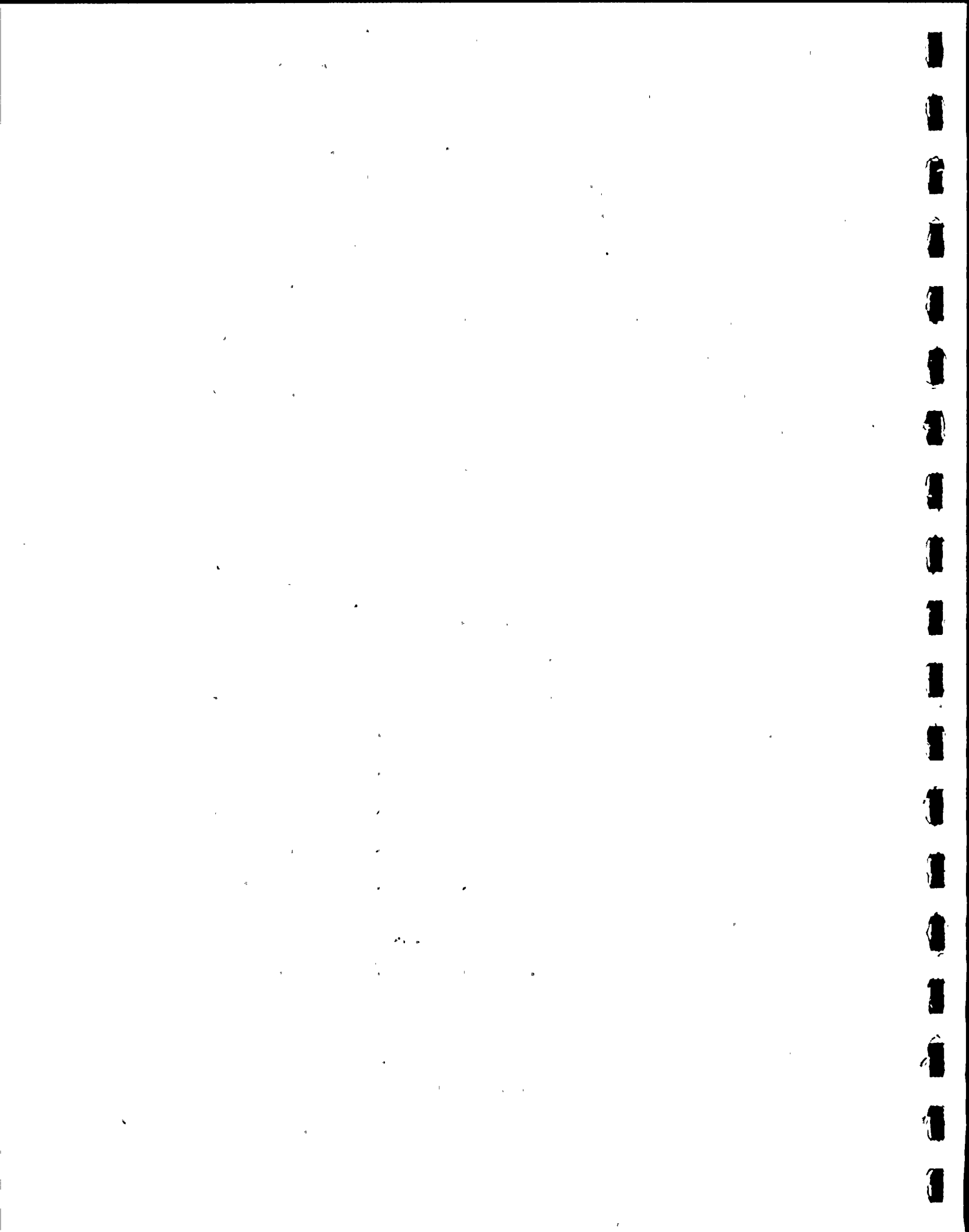
NINE MILE POINT VICINITY - 1976

DATE	START TIME <sup>b</sup>	NMPW	NMPP	FITZ	NMPE	DAILY MEAN
14 APR	0915	0	0	0	0	0
30 APR	1800	0	0	0	0	0
14 MAY	0910	0	0	0	0	0
24 MAY	1420	0	1	0	0	0.2
4 JUN	1030	0	19	0	1	5.0
18 JUN	0910	1	0	0	3	1.0
6 JUL	1145	0	0	0	0	0
15 JUL	1155	0	0	0	0	0
3 AUG	1435	0	2	0	0	0.5
20 AUG	0930	0	0	0	0	0
9 SEP	1120	0	0	0	0	0
30 SEP	0945	0	0	0	3	0.8
12 OCT	1025	0	0	0	0	0
2 NOV <sup>c</sup>	1110	0	0	0	0	0
12 NOV	1100	0	0	0	0	0
27 NOV	1050	0	0	0	0	0
6 DEC	0920	0	0	0	0	0
ANNUAL MEAN		0.1	1.3	0	0.4	

<sup>a</sup> Successful haul

<sup>b</sup> Earliest time period for that sampling date

<sup>c</sup> October sample; rough lake conditions



ABUNDANCE OF THREESPINE STICKLEBACK IN SEINE COLLECTIONS<sup>a</sup>

NINE MILE POINT VICINITY - 1976

DATE	START TIME <sup>b</sup>	NMPW	NMPP	FITZ	NMPE	DAILY MEAN
14 APR	0915	0	0	0	0	0
30 APR	1800	0	0	0	0	0
14 MAY	0910	0	0	43	185	57.0
24 MAY	1420	9	8	45	7	17.2
4 JUN	1030	0	2	5	9	4.0
18 JUN	0910	0	1	1	126	32.0
6 JUL	1145	0	0	0	0	0
15 JUL	1155	0	0	0	5	1.2
3 AUG	1435	0	0	0	0	0
20 AUG	0930	0	0	0	0	0
9 SEP	1120	0	0	0	0	0
30 SEP	0945	0	0	0	0	0
12 OCT	1025	0	0	0	0	0
2 NOV <sup>c</sup>	1110	0	0	0	0	0
12 NOV	1100	0	0	0	0	0
27 NOV	1050	0	0	0	0	0
6 DEC	0920	0	0	0	0	0
ANNUAL MEAN		0.5	0.6	5.5	19.5	

<sup>a</sup> Successful haul

<sup>b</sup> Earliest time period for that sampling date

<sup>c</sup> October sample; rough lake conditions





ABUNDANCE OF WHITE PERCH IN SEINE COLLECTIONS<sup>a</sup>

NINE MILE POINT VICINITY - 1976

DATE	START TIME <sup>b</sup>	NMPW	NMPP	FITZ	NMPE	DAILY MEAN
14 APR	0915	0	0	0	0	0
30 APR	1800	0	3	0	0	0.8
14 MAY	0910	0	2	0	0	0.5
24 MAY	1420	0	6	1	0	1.8
4 JUN	1030	0	1	0	0	0.2
18 JUN	0910	0	44	0	0	11.0
6 JUL	1145	1	2	1	0	1.0
15 JUL	1155	0	0	0	0	0
3 AUG	1435	0	0	0	0	0
20 AUG	0930	0	2	0	0	0.5
9 SEP	1120	0	0	0	0	0
30 SEP	0945	0	0	0	0	0
12 OCT	1025	0	1	0	0	0.2
2 NOV <sup>c</sup>	1110	0	0	0	0	0
12 NOV	1100	1	0	0	0	0.2
27 NOV	1050	0	0	0	0	0
6 DEC	0920	0	0	0	0	0
ANNUAL MEAN		0.1	3.6	0.1	0	

<sup>a</sup> Successful haul

<sup>b</sup> Earliest time period for that sampling date

<sup>c</sup> October sample; rough lake conditions



# ABUNDANCE OF YELLOW PERCH IN SEINE COLLECTIONS<sup>a</sup>

NINE MILE POINT VICINITY - 1976

DATE	START TIME <sup>b</sup>	NMPW	NMPP	FITZ	NMPE	DAILY MEAN
14 APR	0915	0	0	0	0	0
30 APR	1800	0	0	0	0	0
14 MAY	0910	0	0	0	0	0
24 MAY	1420	0	0	0	0	0
4 JUN	1030	0	12	0	0	3.0
18 JUN	0910	0	3	0	13	4.0
6 JUL	1145	0	0	0	0	0
15 JUL	1155	0	0	0	0	0
3 AUG	1435	0	0	0	0	0
20 AUG	0930	0	0	0	0	0
9 SEP	1120	0	0	0	0	0
30 SEP	0945	0	0	0	0	0
12 OCT	1025	0	0	0	0	0
2 NOV <sup>c</sup>	1110	0	0	0	0	0
12 NOV	1100	0	0	0	0	0
27 NOV	1050	0	0	0	0	0
2 DEC	0920	0	0	0	0	0
ANNUAL MEAN		0	0.9	0	0.8	

<sup>a</sup> Successful haul

<sup>b</sup> Earliest time period for that sampling date

<sup>c</sup> October sample; rough lake conditions



VII.B. BOTTOM TRAWL COLLECTIONS



ABUNDANCE<sup>a</sup> OF BROWN TROUT IN BOTTOM TRAWL COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	DAY <sup>c</sup> NIGHT	20 FT DEPTH CONTOUR				40 FT DEPTH CONTOUR				60 FT DEPTH CONTOUR				DAILY MEAN
		NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE <sup>b</sup>	MEAN	NMPW	NMPP/ FITZ	NMPE <sup>b</sup>	MEAN	
16 JUL	1004 <sup>D</sup>	0	0	0	0	0	0	0	0	0	0	1	0.3	0.1
	0040 <sup>N</sup>	0	0	0	0	0	0	0	0	0	0	0	0	
GRAND MEAN <sup>d</sup>	DAY NIGHT	0 0	0 0	0 0		0 0	0 0	0 0		0 0	0 0	0.1 0		

None collected in 9 April-30 June and 27 Jul-15 Dec bottom trawl collections

<sup>a</sup> Catch/15 minute effort; flat otter trawl

<sup>b</sup> Standard Yankee Trawl

<sup>c</sup> Earliest time period recorded for that sampling date

<sup>d</sup> April-December sampling period





ABUNDANCE<sup>a</sup> OF SMALLMOUTH BASS IN BOTTOM TRAWL COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	DAY <sup>c</sup> NIGHT	20 FT DEPTH CONTOUR				40 FT DEPTH CONTOUR				60 FT DEPTH CONTOUR				DAILY MEAN
		NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE <sup>b</sup>	MEAN	NMPW	NMPP/ FITZ	NMPE <sup>b</sup>	MEAN	
23 SEP	0930 <sup>D</sup>	0 <sup>d</sup>	0 <sup>d</sup>	0	0	0 <sup>d</sup>	0 <sup>d</sup>	0	0	0 <sup>d</sup>	0 <sup>d</sup>	0	0	
24 SEP	2105 <sup>N</sup>	0	0	0	0	0	0 <sup>e</sup>	0	0	0	0	1	0.3	0.1
20 DEC	1000 <sup>D</sup>	0	0	0	0	0	0	0	0	0	0	0	0	
15 DEC	1850 <sup>N</sup>	0	0	0	0	0	0	1	0.3	0	0	0		0.1
GRAND MEAN <sup>f</sup>	DAY NIGHT	0 0	0 0	0 0		0 0	0 0	0 0.1		0 0	0 0	0 0.1		

None collected in 9 Apr-7 Sep and 12 Oct-26 Nov bottom trawl collections

<sup>a</sup> Catch/15 minute effort; flat otter trawl

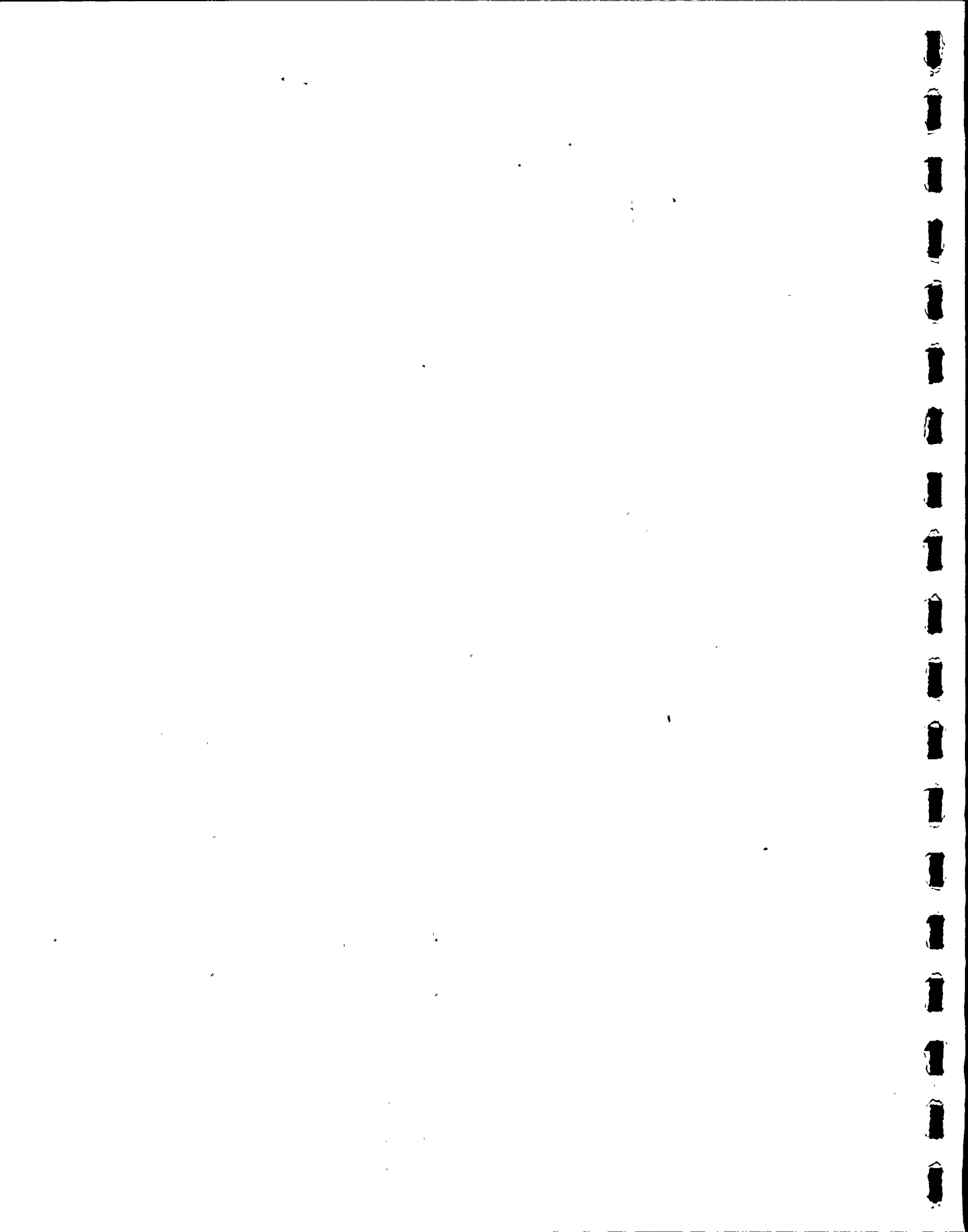
<sup>b</sup> Standard Yankee Trawl

<sup>c</sup> Earliest time period recorded for that sampling date

<sup>d</sup> Sample taken 25 Sep

<sup>e</sup> 10 minute trawl

<sup>f</sup> April-December sampling period



ABUNDANCE<sup>a</sup> OF ALEWIFE IN BOTTOM TRAWL COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	DAY <sup>c</sup> NIGHT	20 FT DEPTH CONTOUR				40 FT DEPTH CONTOUR				60 FT DEPTH CONTOUR				DAILY MEAN
		NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE	MEAN	
9 APR	1045 <sup>D</sup>	0	0	0	0	0	0	0	0	0	0	0	0	
	2100 <sup>N</sup>	92	38	2	44.0	29	69	3	33.7	0	78	32	36.7	19.1
22 APR	0955 <sup>D</sup>	0	0	0	0	0	55	0	18.3	9	17	22	16.0	
29 APR	2150 <sup>N</sup>	NS	NS	NS	-	134	33	125	97.3	40	142	134	105.3	47.4
13 MAY	1010 <sup>D</sup>	18	27	1	15.3	5	30	0	11.7	3	13	0	5.3	
	2245 <sup>N</sup>	23	14	7	14.7	22	4	7	11.0	10	2	1	4.3	10.4
25 MAY	0940 <sup>D</sup>	45	32	21	32.7	4	24	4	10.7	4	231	0	78.3	
	2130 <sup>N</sup>	10	87	25	40.7	5	28	16	16.3	4	13	12	9.7	31.4
8 JUN	0930 <sup>D</sup>	0	2	0	0.7	87	0	0	29.0	0	0	0	0	
	2305 <sup>N</sup>	0	2	4	2.0	1	0	0	0.3	1	1	2	1.3	5.6
24 JUN	0830 <sup>D</sup>	1	0	0	0.3	0	1	770	257.0	0	0	478	159.3	
29 JUN	2355 <sup>N</sup>	0	0	0	0	0	0	45 <sup>b</sup>	15.0	0	0	121 <sup>b</sup>	40.3	78.7
16 JUL	1004 <sup>D</sup>	0	0	0	0	2	1	79 <sup>b</sup>	27.3	2	1	121 <sup>b</sup>	41.3	
	0040 <sup>N</sup>	4	5	1	3.3	9	7	3 <sup>b</sup>	6.3	6	11	3 <sup>b</sup>	6.7	14.2
27 JUL	0935 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	
28 JUL	2235 <sup>N</sup>	1	0	0	0.3	0	0	0 <sup>b</sup>	0	2	8	42 <sup>b</sup>	17.3	2.9
12 AUG	1015 <sup>D</sup>	0	0	0	0	0	0	9 <sup>b</sup>	3.0	0	0	3 <sup>b</sup>	1.0	
10 AUG	2327 <sup>N</sup>	0	2	0	0.7	0	0	1 <sup>b</sup>	0.3	0	1	0 <sup>b</sup>	0.3	0.9
26 AUG	0900 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	
	2230 <sup>N</sup>	0	0	1	0.3	0	0	0 <sup>b</sup>	0	2	0	0 <sup>b</sup>	0.7	0.2
7 SEP	1000 <sup>D</sup>	0 <sup>f</sup>	0	0	0	0 <sup>f</sup>	0	0 <sup>b</sup>	0	0 <sup>f</sup>	0	12 <sup>b</sup>	4.0	
	2130 <sup>N</sup>	5	3	1	3.0	6	0	0	2.0	0	0 <sup>f</sup>	1	0.3	1.6
23 SEP	0930 <sup>D</sup>	0 <sup>d</sup>	0 <sup>d</sup>	5	1.7	0 <sup>d</sup>	0 <sup>d</sup>	0 <sup>b</sup>	0	0 <sup>d</sup>	0 <sup>d</sup>	7 <sup>b</sup>	2.3	
24 SEP	2105 <sup>N</sup>	0	0	0	0	14	0 <sup>e</sup>	0 <sup>b</sup>	4.7	45	35	448	176.0	30.8
12 OCT	0940 <sup>D</sup>	0	0	0	0	0	0	1798 <sup>b</sup>	599.3	0 <sup>g</sup>	0	270 <sup>b</sup>	90.0	
19 OCT	2030 <sup>N</sup>	13	0	0 <sup>h</sup>	4.3	22	5	0 <sup>b</sup>	9.0	12	1	383 <sup>h</sup>	132.0	139.1
27 OCT	1340 <sup>D</sup>	0	0 <sup>i</sup>	0 <sup>i</sup>	0	0	1 <sup>i</sup>	1245 <sup>bi</sup>	415.3	0	0 <sup>i</sup>	0 <sup>b</sup>	0	
3 NOV	1910 <sup>N</sup>	10	2	9	7.0	8	6	137 <sup>b</sup>	50.3	27	8	92 <sup>bj</sup>	42.3	85.8
12 NOV	1035 <sup>D</sup>	0	0	0	0	0	0	1 <sup>b</sup>	0.3	0	0	2 <sup>b</sup>	0.7	
9 NOV	2010 <sup>N</sup>	4	0	0	1.3	2	3	10 <sup>b</sup>	5.0	2	0	0 <sup>b</sup>	0.7	1.3
26 NOV	0955 <sup>D</sup>	0	0	0	0	0	0	5 <sup>b</sup>	1.7	0	0	582 <sup>b</sup>	194.0	
	1935 <sup>N</sup>	2	7	38	15.7	1	23	58 <sup>b</sup>	27.3	1	4	156 <sup>b</sup>	53.7	48.7
20 DEC	1000 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	1 <sup>b</sup>	0.3	
15 DEC	1850 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	0.1
GRAND MEAN <sup>k</sup>	DAY NIGHT	3.8 10.2	3.6 10.0	1.6 5.5		5.8 14.9	6.6 10.5	230.1 23.8		1.1 8.9	15.4 17.9	88.1 83.9		

<sup>a</sup> Catch/15 minute effort; flat otter trawl  
<sup>b</sup> Standard Yankee Trawl  
<sup>c</sup> Earliest time period recorded for that  
<sup>d</sup> sampling date  
<sup>e</sup> Sample taken 25 Sep

<sup>f</sup> 10 minute trawl  
<sup>g</sup> Sample taken 8 Sep  
<sup>h</sup> 17 minute trawl  
<sup>i</sup> Sample taken 12 Oct

<sup>j</sup> Sample taken 30 Oct  
<sup>k</sup> Sample taken 27 Oct  
<sup>l</sup> April-December Sampling period  
 NS= no sample  
 - = not applicable



ABUNDANCE<sup>a</sup> OF RAINBOW SMELT IN BOTTOM TRAWL COLLECTIONS

NINE MILE POINT VICINITY - 1976

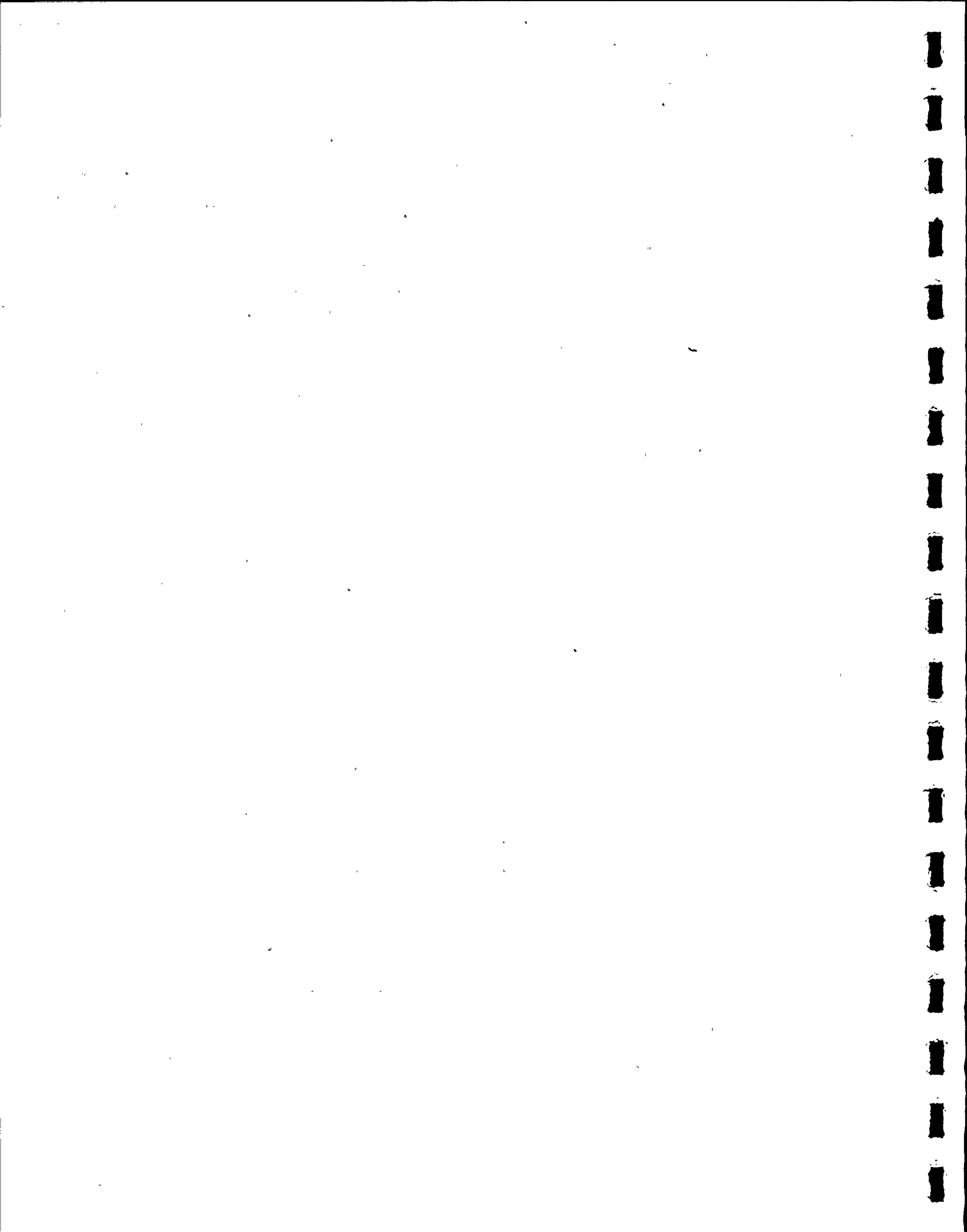
DATE	DAY <sup>c</sup> NIGHT	20 FT DEPTH CONTOUR				40 FT DEPTH CONTOUR				60 FT DEPTH CONTOUR				DAILY MEAN
		NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE	MEAN	
9 APR	1045 <sup>D</sup>	0	0	0	0	0	0	0	0	0	0	0	0	1.0
	2100 <sup>N</sup>	5	5	0	3.3	3	4	1	2.7	0	0	0	0	
22 APR	0955 <sup>D</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0.7
29 APR	2150 <sup>N</sup>	NS	NS	NS	-	5	2	0	2.3	2	1	0	1.0	
13 MAY	1010 <sup>D</sup>	1	0	0	0.3	0	0	0	0	0	0	0	0	0.1
	2245 <sup>N</sup>	0	0	0	0	0	0	0	0	0	0	0	0	
25 MAY	0940 <sup>D</sup>	0	1	0	0.3	1	1	0	0.7	1	0	0	0.3	1.7
	2130 <sup>N</sup>	10	3	3	5.3	4	3	3	3.3	0	0	0	0	
8 JUN	0930 <sup>D</sup>	0	0	0	0	0	0	2	0.7	0	0	0	0	0.3
	2305 <sup>N</sup>	1	0	2	1.0	0	0	0	0	1	0	0	0.3	
24 JUN	0830 <sup>D</sup>	0	0	0	0	0	2	99	33.7	1	0	216	72.3	19.8
30 JUN	2355 <sup>N</sup>	0	0	0	0	0	0	15 <sup>b</sup>	5.0	0	0	24 <sup>b</sup>	8.0	
16 JUL	1004 <sup>D</sup>	0	0	0	0	0	0	2 <sup>b</sup>	0.7	0	0	5 <sup>b</sup>	1.7	1.3
	0040 <sup>N</sup>	1	0	0	0.3	0	1	0 <sup>b</sup>	0.3	1	6	8 <sup>b</sup>	5.0	
27 JUL	0935 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	0.1
28 JUL	2235 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	1	1 <sup>b</sup>	0.7	
12 AUG	1015 <sup>D</sup>	0	0	0	0	0	0	10 <sup>b</sup>	3.3	0	0	92 <sup>b</sup>	30.7	7.9
10 AUG	2327 <sup>N</sup>	2	1	0	1.0	1	0	26 <sup>b</sup>	9.0	4	0	6 <sup>b</sup>	3.3	
26 AUG	0900 <sup>D</sup>	0	0	0	0	0	0	76 <sup>b</sup>	25.3	0	0	0 <sup>b</sup>	0	19.9
	2230 <sup>N</sup>	0	0	0	0	0	0	5 <sup>b</sup>	1.7	0	0	277 <sup>b</sup>	92.3	
7 SEP	1000 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	105 <sup>b</sup>	35.0	6.2
	2130 <sup>N</sup>	0 <sup>f</sup>	0	1	0.3	0 <sup>f</sup>	0	0 <sup>b</sup>	0	0 <sup>f</sup>	0 <sup>f</sup>	5 <sup>b</sup>	1.7	
23 SEP	0930 <sup>D</sup>	0 <sup>d</sup>	0 <sup>d</sup>	17	5.7	0 <sup>d</sup>	0 <sup>d</sup>	0 <sup>b</sup>	0	0 <sup>d</sup>	0 <sup>d</sup>	75 <sup>b</sup>	25.0	6.9
24 SEP	2105 <sup>N</sup>	0	0	0	0	0	0 <sup>e</sup>	0 <sup>b</sup>	0	0	2	30 <sup>b</sup>	10.7	
12 OCT	0940 <sup>D</sup>	0	0	0	0	0	0	478 <sup>b</sup>	159.3	0 <sup>g</sup>	0	449 <sup>b</sup>	149.7	54.8
19 OCT	2030 <sup>N</sup>	2	0	0 <sup>h</sup>	0.7	0	0	0 <sup>b</sup>	0	4	1	53 <sup>bh</sup>	19.3	
27 OCT	1340 <sup>D</sup>	0	0 <sup>i</sup>	0 <sup>i</sup>	0	0	0 <sup>i</sup>	87 <sup>bi</sup>	29.0	0	0 <sup>i</sup>	0 <sup>b</sup>	0	18.8
3 NOV	1910 <sup>N</sup>	0	0	0	0	0	0	165 <sup>b</sup>	55.0	0	0	87 <sup>bj</sup>	29.0	
12 NOV	1035 <sup>D</sup>	0	0	0	0	0	0	2 <sup>b</sup>	0.7	0	0	263 <sup>b</sup>	87.7	14.8
9 NOV	2010 <sup>N</sup>	0	0	0	0	0	0	2 <sup>b</sup>	0.7	0	0	0 <sup>b</sup>	0	
26 NOV	0955 <sup>D</sup>	0	0	0	0	0	0	4 <sup>b</sup>	1.3	0	0	2666 <sup>b</sup>	888.7	191.8
	NOV 1935 <sup>N</sup>	1	0	0	0.3	0	0	65 <sup>b</sup>	21.7	0	0	716 <sup>b</sup>	238.7	
20 DEC	1000 <sup>D</sup>	3	0	0	1.0	0	1	236 <sup>b</sup>	79.0	2	0	973 <sup>b</sup>	325.0	98.2
15 DEC	1850 <sup>N</sup>	0	8	8	5.3	10	164	72 <sup>b</sup>	82.0	4	35	251 <sup>b</sup>	96.7	
GRAND MEAN <sup>k</sup>	DAY NIGHT	0.2 1.4	0.1 1.1	1.0 0.9		0.1 1.4	0.2 10.2	58.6 20.8		0.2 0.9	0 2.7	284.9 85.8		

<sup>a</sup> Catch/15 minute effort; flat otter trawl  
<sup>b</sup> Standard Yankee Trawl  
<sup>c</sup> Earliest time period recorded for that sampling date

<sup>d</sup> Sample taken 25 Sep  
<sup>e</sup> 10 minute trawl  
<sup>f</sup> Sample taken 8 Sep

<sup>g</sup> 17 minute trawl  
<sup>h</sup> Sample taken 12 Oct  
<sup>i</sup> Sample taken 30 Oct  
<sup>j</sup> Sample taken 27 Oct  
<sup>k</sup> April-December sampling period

NS = no sample  
 - = not applicable



ABUNDANCE<sup>a</sup> OF SPOTTAIL SHINER IN BOTTOM TRAWL COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	DAY <sup>c</sup> NIGHT	20 FT DEPTH CONTOUR				40 FT DEPTH CONTOUR				60 FT DEPTH CONTOUR				DAILY MEAN
		NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE	MEAN	
9 APR	1045 <sup>D</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0.1
	2100 <sup>N</sup>	0	0	0	0	0	0	0	0	0	0	1	0.3	
22 APR	0955 <sup>D</sup>	0	0	0	0	0	1	0	0.3	0	0	0	0	0.1
29 APR	2150 <sup>N</sup>	NS	NS	NS	-	1	0	0	0.3	0	0	0	0	
25 MAY	0940 <sup>D</sup>	0	0	1	0.3	0	0	0	0	0	0	0	0	0.3
	2130 <sup>N</sup>	1	1	1	1.0	0	1	0	0.3	0	0	0	0	
24 JUN	0830 <sup>D</sup>	0	0	0	0	0	14	165	59.7	0	1	36	12.3	12.0
29 JUN	2355 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	
16 JUL	1004 <sup>D</sup>	0	0	0	0	0	0	171 <sup>b</sup>	57.0	0	0	10 <sup>b</sup>	3.3	10.2
	0040 <sup>N</sup>	0	0	0	0	0	1	0 <sup>b</sup>	0.3	0	1	0 <sup>b</sup>	0.3	
26 AUG	0900 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	1	0	0 <sup>b</sup>	0.3	0.1
	2230 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	
7 SEP	1000 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	62 <sup>b</sup>	20.7	3.8
	2130 <sup>N</sup>	0 <sup>f</sup>	1	4	1.7	0 <sup>f</sup>	0	0 <sup>b</sup>	0	0 <sup>f</sup>	0 <sup>f</sup>	1 <sup>b</sup>	0.3	
23 SEP	0930 <sup>D</sup>	0 <sup>d</sup>	0 <sup>d</sup>	67	22.3	0 <sup>d</sup>	0 <sup>d</sup>	0 <sup>b</sup>	0	0 <sup>d</sup>	0 <sup>d</sup>	124 <sup>b</sup>	41.3	12.1
24 SEP	2105 <sup>N</sup>	0	0	0	0	0	0 <sup>e</sup>	0 <sup>b</sup>	0	0	0	26 <sup>b</sup>	8.7	
12 OCT	0940 <sup>D</sup>	0	0	0	0	0	0	46 <sup>b</sup>	15.3	0 <sup>g</sup>	0	139 <sup>b</sup>	46.3	10.6
19 OCT	2030 <sup>N</sup>	0	0	0 <sup>h</sup>	0	0	0	0 <sup>b</sup>	0	0	0	6 <sup>bh</sup>	2.0	
27 OCT	1340 <sup>D</sup>	0	0 <sup>i</sup>	0 <sup>i</sup>	0	0	0 <sup>i</sup>	0 <sup>bi</sup>	0	0	0 <sup>i</sup>	0 <sup>b</sup>	0	21.8
3 NOV	1910 <sup>N</sup>	0	0	0	0	0	0	54 <sup>b</sup>	18.0	1	0	338 <sup>bj</sup>	113.0	
12 NOV	1035 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	0.2
9 NOV	2010 <sup>N</sup>	0	0	0	0	0	0	3 <sup>b</sup>	1.0	0	0	0 <sup>b</sup>	0	
26 NOV	0955 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	3.1
	1935 <sup>N</sup>	0	0	0	0	0	0	1 <sup>b</sup>	0.3	0	0	54 <sup>b</sup>	18.0	
20 DEC	1000 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	1 <sup>b</sup>	0.3	1.7
15 DEC	1850 <sup>N</sup>	0	0	0	0	0	0	4 <sup>b</sup>	1.3	0	0	25 <sup>b</sup>	8.3	
GRAND MEAN <sup>k</sup>	DAY NIGHT	0 0.1	0 0.1	4.0 0.3		0 0.1	0.9 0.1	22.5 3.6		0.1 0.1	0.1 0.1	21.9 26.5		

None collected in 13 May, 8 Jun, and 27 Jul-12 Aug bottom trawl collections

<sup>a</sup>Catch/15 minute effort; flat otter trawl

<sup>b</sup>Standard Yankee Trawl

<sup>c</sup>Earliest time period recorded for that sampling date

<sup>d</sup>Sample taken 25 Sep

<sup>e</sup>10 minute trawl

<sup>f</sup>Sample taken 8 Sep

<sup>g</sup>17 minute trawl

<sup>h</sup>Sample taken 12 Oct

<sup>i</sup>Sample taken 30 Oct

<sup>j</sup>Sample taken 27 Oct

<sup>k</sup>April-December Sampling Period

NS = no sample

- = not applicable





ABUNDANCE<sup>a</sup> OF THREESPINE STICKLEBACK IN BOTTOM TRAWL COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	DAY <sup>c</sup> NIGHT	20 FT DEPTH CONTOUR				40 FT DEPTH CONTOUR				60 FT DEPTH CONTOUR				DAILY MEAN
		NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE	MEAN	
22 APR	0955 <sup>D</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0.4
29 APR	2150 <sup>N</sup>	NS	NS	NS	-	5	0	1	2.0	0	0	0	0	
13 MAY	1010 <sup>D</sup>	0	0	149	49.7	0	0	7	2.3	0	0	3	1.0	8.8
	2245 <sup>N</sup>	0	0	0	0	0	0	0	0	0	0	0	0	
25 MAY	0940 <sup>D</sup>	3	0	0	1.0	0	0	0	0	0	0	0	0	0.3
	2130 <sup>N</sup>	0	1	0	0.3	0	1	0	0.3	0	0	0	0	
24 JUN	0830 <sup>D</sup>	0	0	0	0	0	9	24	11.0	0	0	4	1.3	2.2
29 JUN	2355 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	3 <sup>b</sup>	1.0	
16 JUL	1004 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	0.2
	0040 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	3 <sup>b</sup>	1.0	
GRAND <sup>d</sup> MEAN	DAY NIGHT	0.2 0	0 0.1	8.8 0		0 0.3	0.5 0.1	1.8 0.1		0 0	0 0	0.4 0.4		

None collected in 9 Apr, 8 Jun, and 27 Jul-20 Dec bottom trawl collections

<sup>a</sup> Catch/15 minute effort; flat otter trawl

<sup>b</sup> Standard Yankee trawl

<sup>c</sup> Earliest time period recorded for that sampling date

<sup>d</sup> April-December sampling period

NS = No Sample

- = Not applicable



ABUNDANCE<sup>a</sup> OF WHITE PERCH IN BOTTOM TRAWL COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	DAY <sup>c</sup> NIGHT	20 FT DEPTH CONTOUR				40 FT DEPTH CONTOUR				60 FT DEPTH CONTOUR				DAILY MEAN
		NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE	MEAN	
13 MAY	1010 <sup>D</sup> 2245 <sup>N</sup>	0	0	1	0.3	0	0	0	0	0	0	0	0	0.1
		0	0	0	0	0	0	0	0	0	0	0	0	
24 JUN	0830 <sup>D</sup>	0	0	0	0	0	0	1	0.3	0	0	0	0	0.1
30 JUN	2355 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	
16 JUL	1004 <sup>D</sup> 0040 <sup>N</sup>	0	0	0	0	0	0	1 <sup>b</sup>	0.3	0	0	0 <sup>b</sup>	0	0.1
		0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	
26 AUG	0900 <sup>D</sup> 2230 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	0.1
		0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	2 <sup>b</sup>	0.7	
7 SEP	1000 <sup>D</sup> 2130 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	4 <sup>b</sup>	1.3	0.3
		0 <sup>f</sup>	0	2	0.7	0	0	0 <sup>b</sup>	0	0 <sup>f</sup>	0 <sup>f</sup>	0 <sup>b</sup>	0	
23 SEP	0930 <sup>D</sup>	0 <sup>d</sup>	0 <sup>d</sup>	14	4.7	0 <sup>d</sup>	0 <sup>d</sup>	0 <sup>b</sup>	0	0 <sup>d</sup>	0 <sup>d</sup>	1 <sup>b</sup>	0.3	1.9
24 SEP	2105 <sup>N</sup>	0	0	0	0	0	0 <sup>e</sup>	0 <sup>b</sup>	0	0	0	19 <sup>b</sup>	6.3	
12 OCT	0940 <sup>D</sup>	0	0	0	0	0	0	12 <sup>b</sup>	4.0	0 <sup>g</sup>	0	5 <sup>b</sup>	1.7	1.0
19 OCT	2030 <sup>N</sup>	0	0	0 <sup>h</sup>	0	0	0	1 <sup>b</sup>	0.3	0	0	0 <sup>bh</sup>	0	
27 OCT	1340 <sup>D</sup>	0	0 <sup>i</sup>	0 <sup>i</sup>	0	0	0 <sup>i</sup>	0 <sup>bi</sup>	0	0	0 <sup>i</sup>	0 <sup>b</sup>	0	5.1
3 NOV	1910 <sup>N</sup>	0	0	0	0	0	0	54 <sup>b</sup>	18.0	0	0	37 <sup>bj</sup>	12.3	
12 NOV	1035 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	0.1
9 NOV	2010 <sup>N</sup>	0	0	0	0	0	0	2 <sup>b</sup>	0.7	0	0	0 <sup>b</sup>	0	
26 NOV	0955 <sup>D</sup> 1935 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	2.6
		0	0	0	0	0	0	2 <sup>b</sup>	0.7	0	0	45 <sup>b</sup>	15.0	
20 DEC	1000 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	0.4
15 DEC	1850 <sup>N</sup>	0	0	0	0	0	0	1 <sup>b</sup>	0.3	0	0	6 <sup>b</sup>	2.0	
GRAND MEAN <sup>k</sup>	DAY NIGHT	0	0	0.9		0	0	0.8		0	0	0.6		
		0	0	0.1		0	0	3.5		0	0	6.4		

None collected: 9-29 Apr, 25 May-8 Jun, and 27 Jul-12 Aug

<sup>a</sup> Catch/15 minute effort; flat otter trawl

<sup>b</sup> Standard Yankee Trawl

<sup>c</sup> Earliest time period recorded for that sampling date

<sup>d</sup> Sample taken 25 Sep

<sup>e</sup> 10 minute trawl

<sup>f</sup> Sample taken 8 Sep

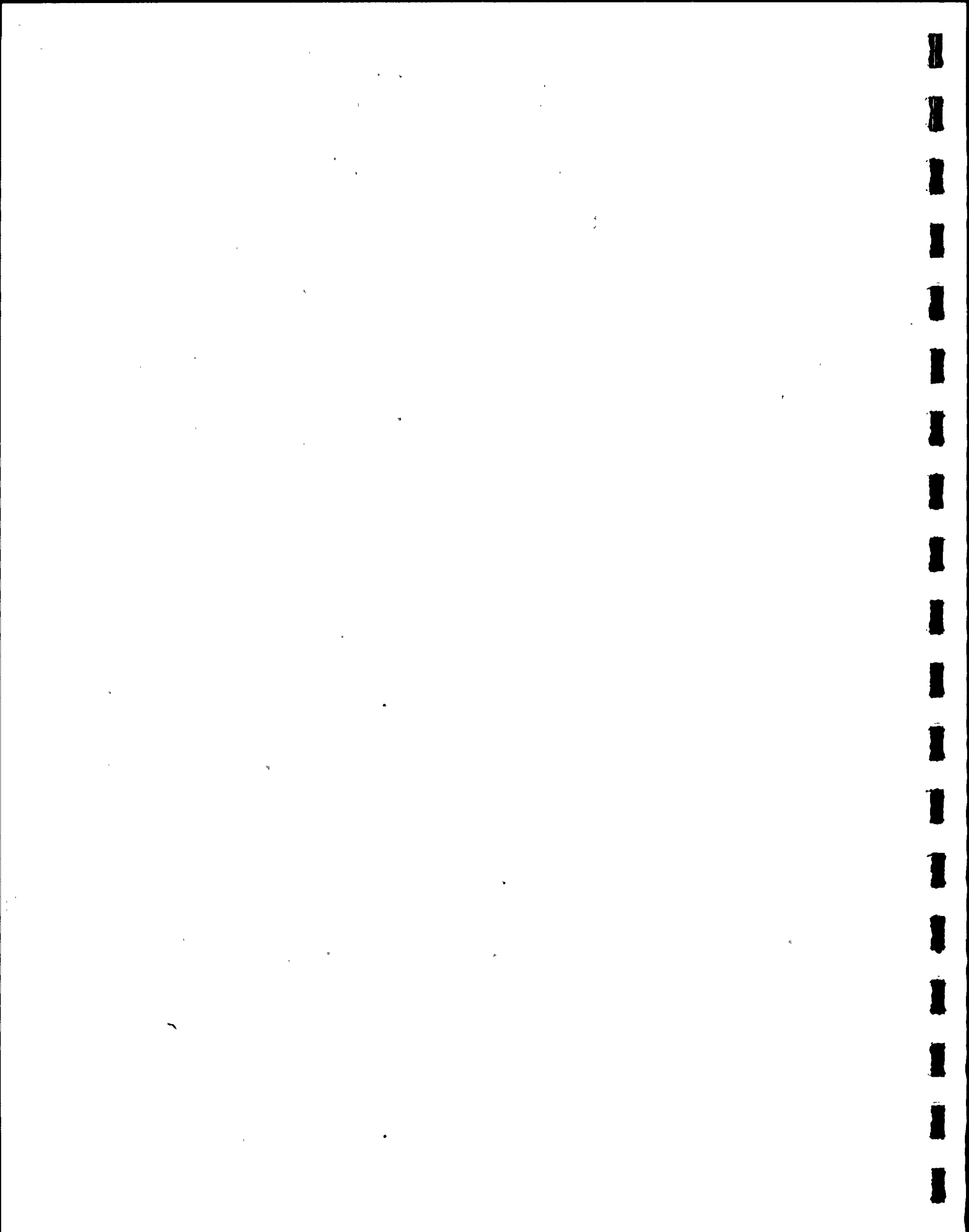
<sup>g</sup> 17 minute trawl

<sup>h</sup> Sample taken 12 Oct

<sup>i</sup> Sample taken 30 Oct

<sup>j</sup> Sample taken 27 Oct

<sup>k</sup> April-December sampling period



ABUNDANCE OF YELLOW PERCH IN BOTTOM TRAWL COLLECTIONS

NINE MILE POINT VICINITY - 1976

DATE	DAY <sup>c</sup> NIGHT	20 FT DEPTH CONTOUR				40 FT DEPTH CONTOUR				60 FT DEPTH CONTOUR				DAILY MEAN
		NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE	MEAN	NMPW	NMPP/ FITZ	NMPE	MEAN	
8 JUN	0930 <sup>D</sup> 2305 <sup>N</sup>	0	1	0	0.3	0	0	0	0	0	0	0	0	0.1
		0	0	0	0	0	0	0	0	0	0	0	0	
24 JUN	0830 <sup>D</sup>	0	0	0	0	0	0	3	1.0	0	0	0	0	0.2
30 JUN	2355 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	
16 JUL	1004 <sup>D</sup> 0040 <sup>N</sup>	0	0	0	0	0	0	1 <sup>b</sup>	0.3	0	0	0 <sup>b</sup>	0	0.1
		0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	
23 SEP	0930 <sup>D</sup>	0 <sup>d</sup>	0 <sup>d</sup>	0	0	0 <sup>d</sup>	0 <sup>d</sup>	0 <sup>b</sup>	0	0 <sup>d</sup>	0 <sup>d</sup>	2 <sup>b</sup>	0.7	1.1
24 SEP	2105 <sup>N</sup>	0	0	0	0	0	0 <sup>e</sup>	0 <sup>b</sup>	0	0	0	17 <sup>b</sup>	5.7	
12 OCT	0940 <sup>D</sup>	0	0	0	0	0	0	8 <sup>b</sup>	2.7	0 <sup>f</sup>	0	5 <sup>b</sup>	1.7	0.7
19 OCT	2030 <sup>N</sup>	0	0	0 <sup>g</sup>	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>bg</sup>	0	
27 OCT	1340 <sup>D</sup>	0	0 <sup>h</sup>	0 <sup>h</sup>	0	0	0 <sup>h</sup>	0 <sup>bh</sup>	0	0	0 <sup>h</sup>	0 <sup>b</sup>	0	0.7
3 NOV	1910 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	13 <sup>bi</sup>	4.3	
12 NOV	1035 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	1 <sup>b</sup>	0.3	0.1
9 NOV	2010 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	
26 NOV	0955 <sup>D</sup> 1935 <sup>N</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	1 <sup>b</sup>	0.3	0.4
		0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	6 <sup>b</sup>	2.0	
20 DEC	1000 <sup>D</sup>	0	0	0	0	0	0	0 <sup>b</sup>	0	0	0	0 <sup>b</sup>	0	0.1
15 DEC	1850 <sup>N</sup>	0	0	0	0	0	0	1 <sup>b</sup>	0.3	0	0	1 <sup>b</sup>	0.3	
GRAND MEAN <sup>j</sup>	DAY NIGHT	0	0.1	0		0	0	0.7		0	0	0.5		
		0	0	0		0	0	0.1		0	0	2.2		

None collected: 9 Apr-25 May and 27 Jul-7 Sep.

<sup>a</sup>Catch/15 minute effort; flat otter trawl

<sup>b</sup>Standard Yankee Trawl

<sup>c</sup>Earliest time period recorded for that sampling date

<sup>d</sup>Sample taken 25 Sep

<sup>e</sup>10 minute trawl

<sup>f</sup>Sample taken Oct 19 night

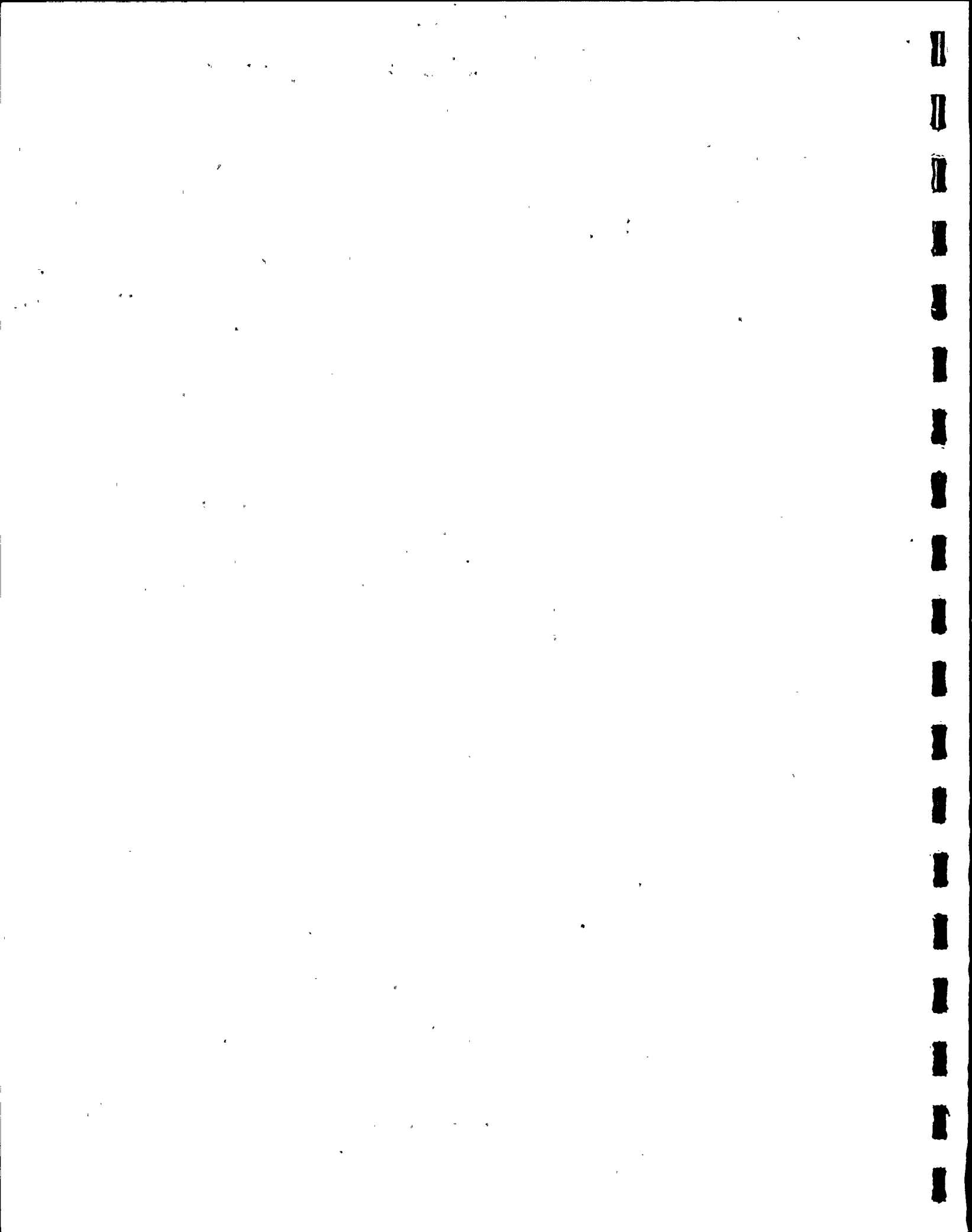
<sup>g</sup>Sample taken 30 Oct day

<sup>h</sup>Sample taken 27 Oct night

<sup>i</sup>Sample taken 27 Oct

<sup>j</sup>April-December sampling period

VII.C.1. 15 FT DEPTH CONTOUR: GILL NETS



ABUNDANCE\* OF ALEWIFE IN DAY/NIGHT GILL NET COLLECTIONS

15 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
14-16 APR	MEAN RANGE	77.12 54.10 - 100.14	NAP	NAP	32.80 8.14 - 57.47	10.52 3.86 - 17.17	5.59 2.27 - 8.91	1.62 1.16 - 2.09	2.00 0 - 4.01
29 APR- 1 MAY	MEAN RANGE	NAP	NAP	NAP	118.20 86.05 - 150.34	26.29 1.58 - 51.00	58.12 51.79 - 64.46	49.18 11.08 - 87.27	1.80 1.11 - 2.48
11-13 MAY	MEAN RANGE	NS	NS	NS	NS	- 2.41 - NS	- 2.11 - NS	- 4.27 - NS	- 10.02 - NS
23-25 MAY	MEAN RANGE	78.69 64.20 - 93.18	- NAP - 21.53	NAP	56.60 42.59 - 70.61	13.96 13.61 - 14.30	17.02 7.63 - 26.41	31.18 12.41 - 49.94	0.56 0 - 1.13
8-10 JUN	MEAN RANGE	9.22 7.94 - 10.51	- 3.79 - NAP	NAP	6.75 5.03 - 8.47	0.48 0 - 0.95	1.14 0 - 2.29	0.55 0 - 1.10	0.52 0 - 1.03
21-23 JUN	MEAN RANGE	- NAP - NS	- 37.89 - NS	- NAP - NS	- NAP - NS	- 0 - NS	- 4.77 - NS	- 0 - NS	- 2.17 - NS
6-8 JUL	MEAN RANGE	69.87 40.36 - 99.38	- NAP - 129.39	NAP	NAP	9.16 8.17 - 10.15	59.62 36.74 - 82.49	3.34 1.08 - 5.60	- 1.11 - NAP
19-21 JUL	MEAN RANGE	NAP	30.37 29.19 - 31.55	NAP	- 45.87 - NAP	3.50 1.09 - 5.90	10.71 2.88 - 18.54	24.63 21.78 - 27.48	21.53 5.54 - 37.52
2-4 AUG	MEAN RANGE	NAP	- NAP - 28.24	NAP	NAP	11.04 0 - 22.07	0	0	0
17-19 AUG	MEAN RANGE	NAP	- NAP - 22.15	- 11.29 - NAP	- NAP - 30.32	0.86 0 - 1.72	0	0.66 0 - 1.33	0
13-15 SEP	MEAN RANGE	25.04 23.28 - 26.79	NAP	NAP	23.56 18.82 - 28.30	0	0	0	0
4-6 OCT	MEAN RANGE	44.38 30.80 - 57.95	7.98 4.75 - 11.20	21.02 10.29 - 31.75	15.44 14.15 - 16.72	0.60 0 - 1.19	0	1.49 0 - 2.98	0
19-24 OCT	MEAN RANGE	- 13.13 - NS	- 10.16 - NS	- 18.19 - NS	- 5.48 - NS	0	0	0	0
2-4 NOV	MEAN RANGE	7.74 6.59 - 8.88	6.81 0.71 - 12.91	5.92 2.17 - 9.67	NAP	0	0	0	0

NAP = Not applicable, time interval inappropriate for designated  
day or night period  
NS = No day/night sample  
- = Not applicable

\*Catch/12 hr effort, no fish of this species collected  
in the remaining gill net collections





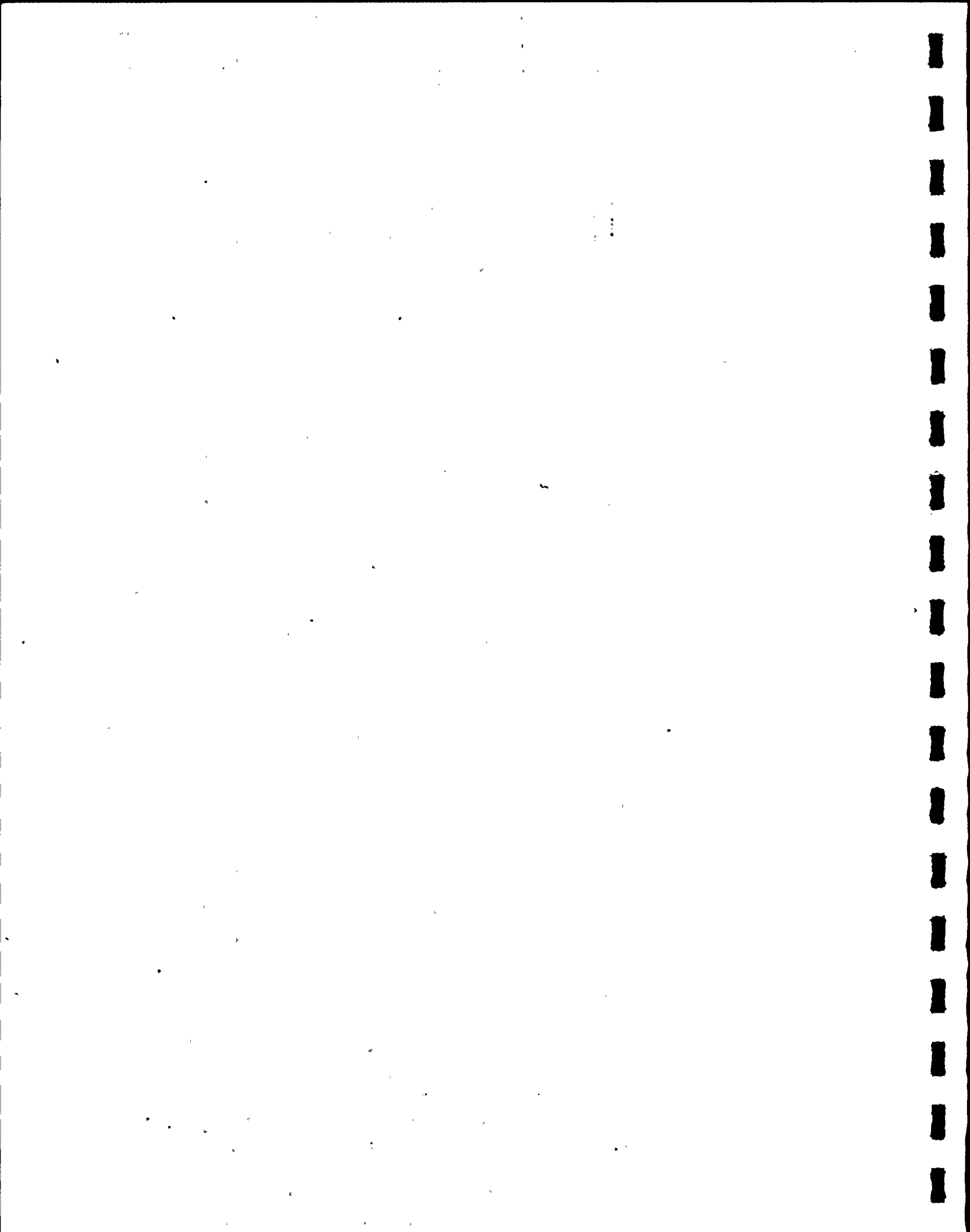
ABUNDANCE\* OF BROWN TROUT IN DAY/NIGHT GILL NET COLLECTIONS

15 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
14-16 APR	MEAN RANGE	0	NAp	NAp	1.64 1.63 - 1.64	0	0	0	0
29 APR- 1 MAY	MEAN RANGE	NAp	NAp	NAp	0	0	0	0.62 0 - 1.23	0
11-13 MAY	MEAN RANGE	NS	NS	NS	NS	- 0 - NS	- 0 - NS	- 0 - NS	- 1.25 - NS
23-25 MAY	MEAN RANGE	0	- NAp - 0	NAp	0.97 0.93 - 1.01	0	0	0	0
8-10 JUN	MEAN RANGE	0.56 0 - 1.13	- 1.89 - NAp	NAp	0	0	0	0	0
21-23 JUN	MEAN RANGE	- NAp - NS	- 3.25 - NS	- NAp - NS	- NAp - NS	- 0 - NS	- 0 - NS	- 0 - NS	- 0 - NS
6-8 JUL	MEAN RANGE	0.50 0 - 1.01	- NAp - 0	NAp	NAp	0	0	0	- 0 - NAp
19-21 JUL	MEAN RANGE	NAp	0 0	NAp	- 1.07 - NAp	0	0	0.55 0 - 1.10	0
2-4 NOV	MEAN RANGE	0	0	0.34 0 - 0.69	NAp	0	0.89 0 - 1.78	0	0

NAp = Not applicable, time interval inappropriate for designated  
day or night period  
NS = No day/night sample  
- = Not applicable

\*Catch/12 hr effort, no fish of this species collected  
in the remaining gill net collections



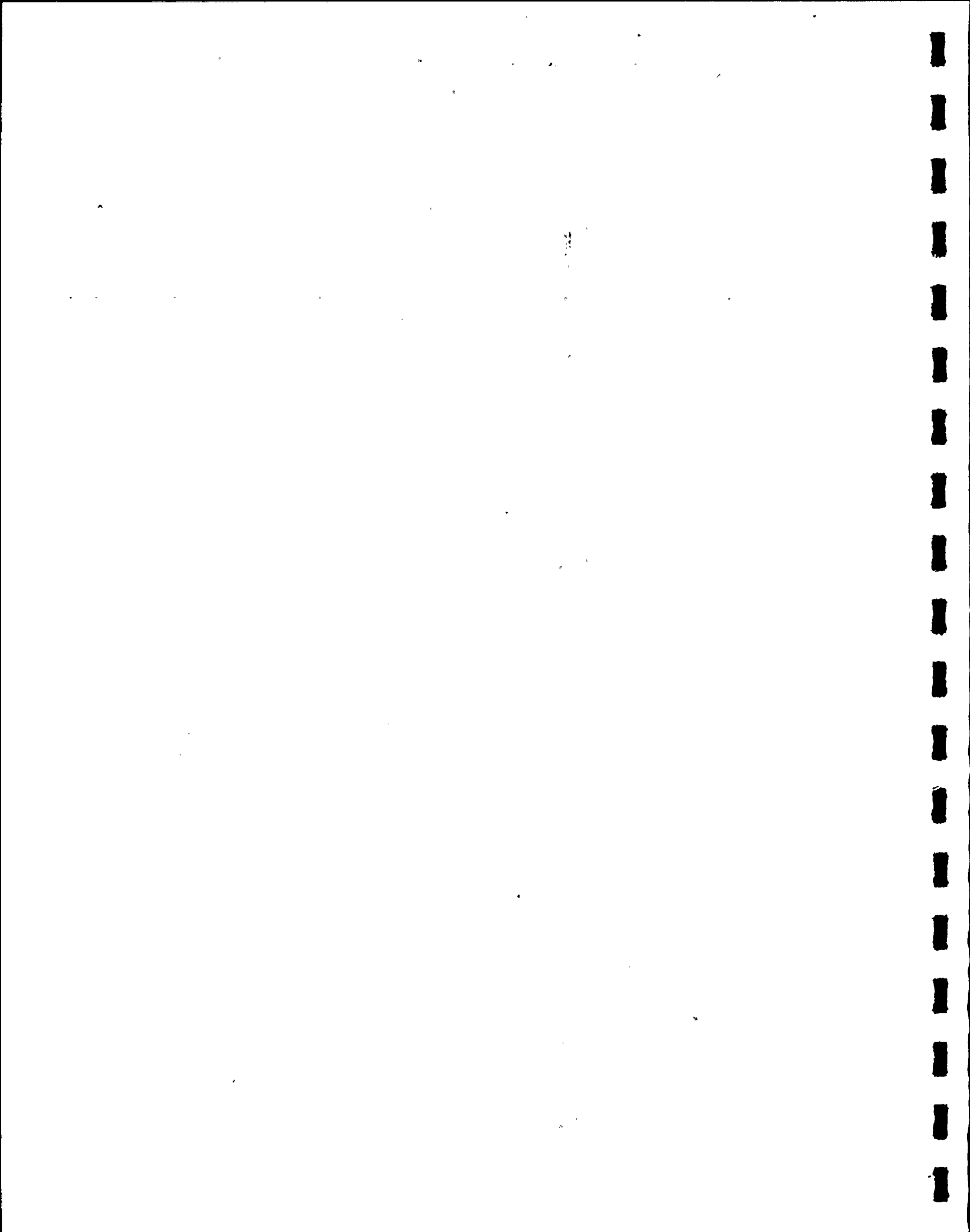
ABUNDANCE\* OF RAINBOW SMELT IN DAY/NIGHT GILL NET COLLECTIONS

15 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
14-16 APR	MEAN RANGE	4.00 0.83 - 7.16	NAP	NAP	1.64 1.63 - 1.64	0	0	0	0.67 0 - 1.34
29 APR- 1 MAY	MEAN RANGE	NAP	NAP	NAP	2.68 2.63 - 2.72	0.75 0 - 1.50	0 0	0.62 0 - 1.23	0.62 0 - 1.24
11-13 MAY	MEAN RANGE	NS	NS	NS	NS	- 0 - NS	- 0 - NS	- 2.13 - NS	- 0 - NS
23-25 MAY	MEAN RANGE	0	- NAP - 2.81	NAP	0	1.14 0 - 2.27	1.27 0 - 2.54	0	0.56 0 - 1.13
8-10 JUN	MEAN RANGE	0	- 0 - NAP	NAP	2.02 0 - 4.03	0	0.48 0 - 0.97	0	0
4-6 OCT	MEAN RANGE	1.30 0.83 - 1.76	0	1.65 1.59 - 1.71	7.91 0 - 15.82	0	0	0	0
19-24 OCT	MEAN RANGE	- 2.32 - NS	- 0 - NS	- 7.58 - NS	- 0.78 - NS	0	0	0	0
2-4 NOV	MEAN RANGE	1.1 0 - 2.20	7.35 5.43 - 9.27	1.72 0 - 3.45	NAP	0	0	0	0
15-17 NOV	MEAN RANGE	- NAP - NS	- 2.15 - NS	- NAP - NS	- NAP - NS	- 0 - NS	- 0 - NS	- 0 - NS	- 0 - NS

NAP = Not applicable, time interval inappropriate for designated  
day or night period  
NS = No day/night sample  
- = Not applicable

\*Catch/12 hr effort, no fish of this species collected  
in the remaining gill net collections



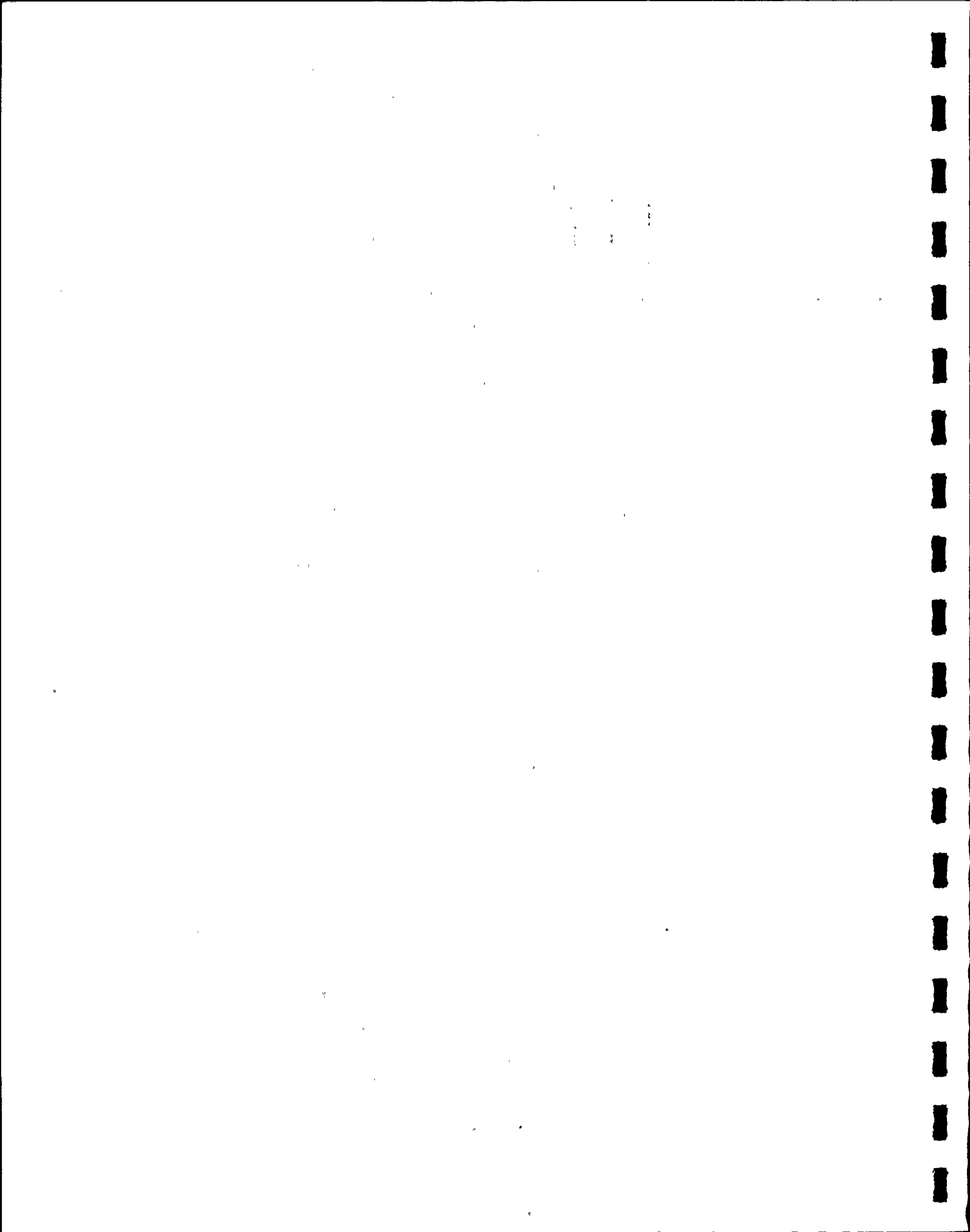
ABUNDANCE\* OF SMALLMOUTH BASS IN DAY/NIGHT GILL NET COLLECTIONS

15 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
29 APR- 1 MAY	MEAN RANGE	Nap	Nap	Nap	2.65 0.91 - 4.39	0	0.68 0 - 1.37	0.62 0 - 1.23	1.11 0 - 2.22
23-25 MAY	MEAN RANGE	0	- Nap - 0	Nap	0	0	1.06 0.85 - 1.27	0.42 0 - 0.83	0
8-10 JUN	MEAN RANGE	0	- 0 - Nap	Nap	1.48 0.94 - 2.01	0	0	0	0.50 0 - 1.01
6-8 JUL	MEAN RANGE	0	- Nap - 0	Nap	Nap	0	3.08 1.18 - 4.97	0	- 2.22 - Nap
19-21 JUL	MEAN RANGE	Nap	0.98 0 - 1.95	Nap	- 0 - Nap	0.54 0 - 1.09	0	0.60 0 - 1.21	0.50 0 - 1.01
2-4 AUG	MEAN RANGE	Nap	- Nap - 0.94	Nap	Nap	0	0	0	0.55 0 - 1.10
17-19 AUG	MEAN RANGE	Nap	- Nap - 0	- 0 - Nap	- Nap - 0	0	1.50 0 - 3.00	0.76 0 - 1.52	0.53 0 - 1.06
13-15 SEP	MEAN RANGE	0	Nap	Nap	0	0	1.94 1.14 - 2.74	0.69 0 - 1.38	0
4-6 OCT	MEAN RANGE	0	0.40 0 - 0.80	0.43 0 - 0.86	0	1.19 0 - 2.38	3.43 0 - 6.86	0.50 0 - 0.99	0
19-24 OCT	MEAN RANGE	- 0.77 - NS	- 0 - NS	- 0 - NS	- 0 - NS	0	0	0	0

Nap = Not applicable, time interval inappropriate for designated day or night period  
 NS = No day/night sample  
 - = Not applicable

\*Catch/12 hr effort, no fish of this species collected in the remaining gill net collections



ABUNDANCE\* OF SPOTTAIL SHINER IN DAY/NIGHT GILL NET COLLECTIONS

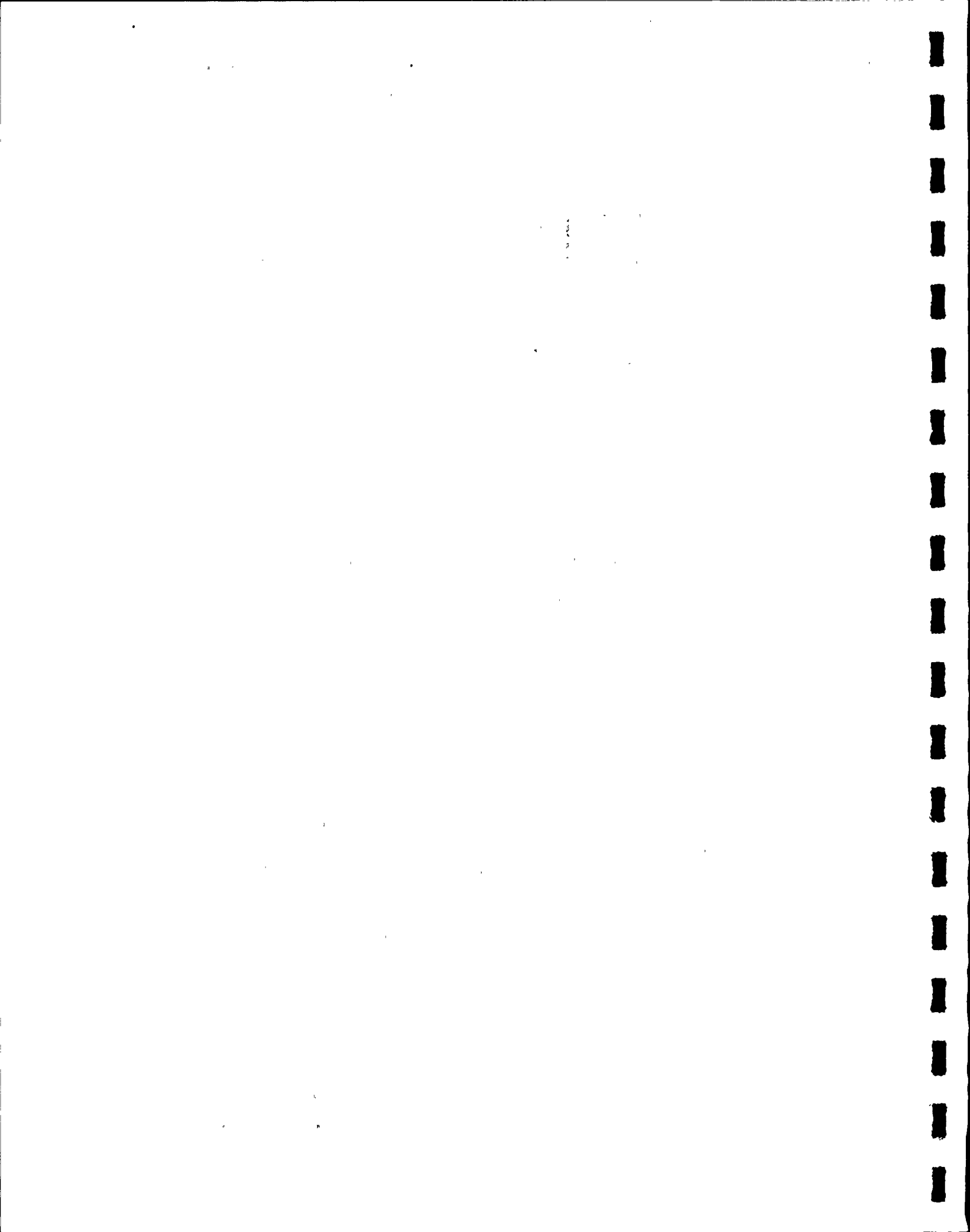
15 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
14-16 APR	MEAN RANGE	14.94 11.59 - 18.30	NAP	NAP	0.82 0 - 1.63	0	0	0	0
29 APR- 1 MAY	MEAN RANGE	NAP	NAP	NAP	64.40 22.83 - 105.96	2.25 0 - 4.50	1.32 1.26 - 1.37	6.66 0 - 13.33	0
11-13 MAY	MEAN RANGE	NS	NS	NS	NS	4.82 - NS	1.05 - NS	0 - NS	0 - NS
23-25 MAY	MEAN RANGE	9.18 0.94 - 17.43	- NAP - 40.26	NAP	40.76 19.27 - 62.25	1.64 1.02 - 2.27	21.47 19.08 - 23.86	10.68 8.13 - 13.24	1.14 0 - 2.27
8-10 JUN	MEAN RANGE	9.83 9.46 - 10.20	- 8.53 - NAP	NAP	56.78 38.27 - 75.29	0.44 0 - 0.87	0	0.44 0 - 0.88	0
21-23 JUN	MEAN RANGE	- NAP - NS	- 27.07 - NS	- NAP - NS	- NAP - NS	- 0 - NS	- 0 - NS	- 0 - NS	- 0 - NS
6-8 JUL	MEAN RANGE	21.28 14.20 - 28.36	- NAP - 20.87	NAP	NAP	0	0	0	- 0 - NAP
19-21 JUL	MEAN RANGE	NAP	4.78 3.71 - 5.84	NAP	- 29.87 - NAP	1.18 0 - 2.36	0.48 0 - 0.96	1.65 0 - 3.30	0
2-4 AUG	MEAN RANGE	NAP	- NAP - 12.24	NAP	NAP	0	0	0	0
17-19 AUG	MEAN RANGE	NAP	- NAP - 6.65	- 4.94 - NAP	- NAP - 4.74	0.86 0 - 1.72	0	0.76 0 - 1.52	0.53 0 - 1.06
13-15 SEP	MEAN RANGE	9.70 5.17 - 14.23	NAP	NAP	34.18 26.64 - 41.73	0	0	0	0
4-6 OCT	MEAN RANGE	33.32 17.48 - 49.17	2.00 0.79 - 3.20	2.11 0.79 - 3.43	37.54 33.45 - 41.62	0	0	0	0
19-24 OCT	MEAN RANGE	- 9.27 - NS	- 1.56 - NS	- 12.13 - NS	- 9.39 - NS	0	0	0	0
2-4 NOV	MEAN RANGE	0	0.36 0 - 0.71	2.18 0 - 4.35	NAP	0	0	0	0
15-17 NOV	MEAN RANGE	- NAP - NS	- 0.72 - NS	- NAP - NS	- NAP - NS	- 0 - NS	- 0 - NS	- 0 - NS	- 0 - NS

NAP = Not applicable, time interval inappropriate for designated  
day or night period  
NS = No day/night sample  
- = Not applicable

\*Catch/12 hr effort, no fish of this species collected  
in the remaining gill net collections





ABUNDANCE\* OF WHITE PERCH IN DAY/NIGHT GILL NET COLLECTIONS

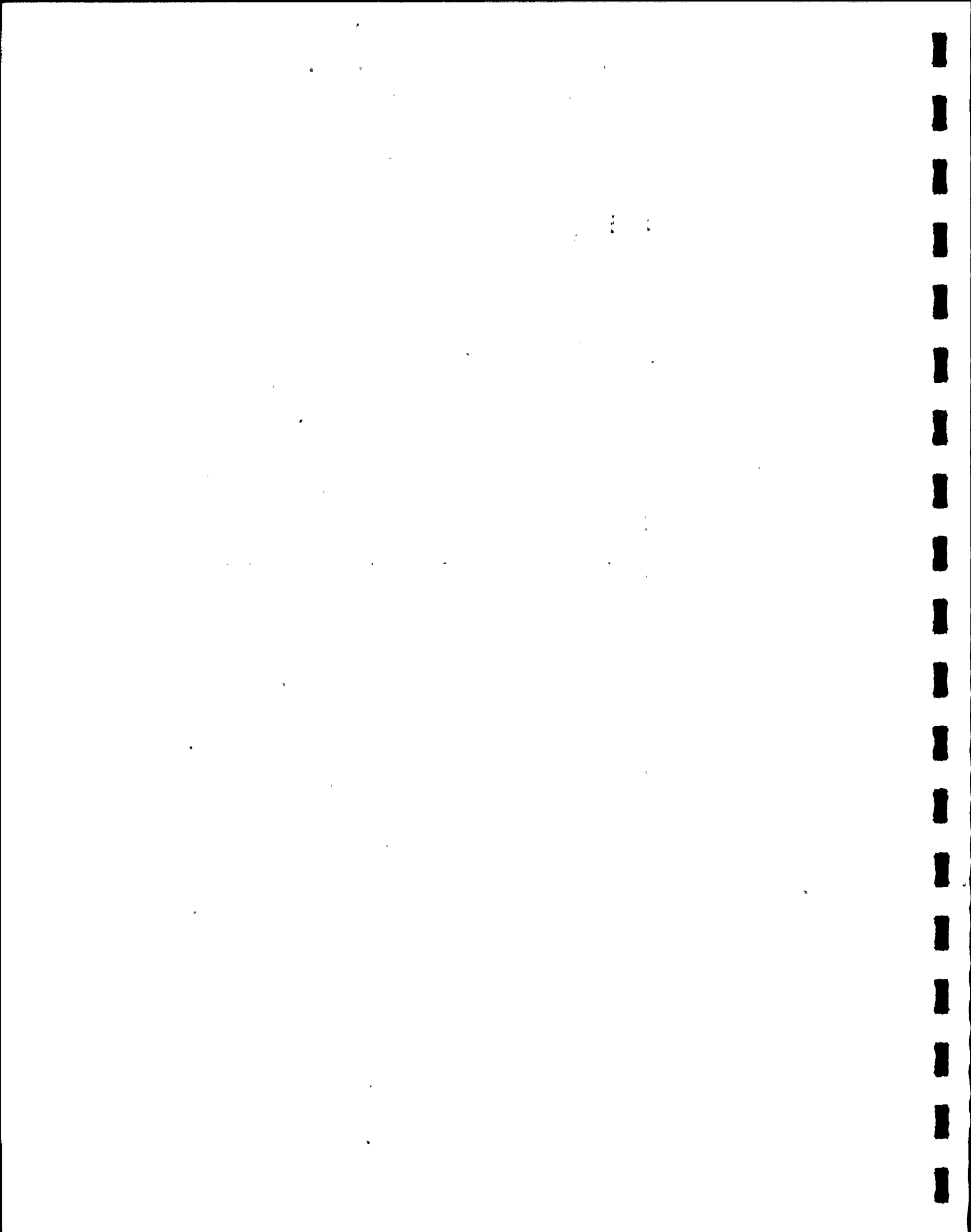
15 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
14-16 APR	MEAN RANGE	0.40 0 - 0.80	NAP	NAP	0	0	0.56 0 - 1.13	1.16 0 - 2.32	1.34 0 - 2.68
29 APR- 1 MAY	MEAN RANGE	NAP	NAP	NAP	4.00 2.72 - 5.27	0	0	1.21 0 - 2.42	1.11 0 - 2.22
11-13 MAY	MEAN RANGE	NS	NS	NS	NS	10.85 - NS	20.00 - NS	2.13 - NS	0 - NS
23-25 MAY	MEAN RANGE	3.26 2.75 - 3.76	- NAP - 11.24	NAP	1.94 1.86 - 2.03	0.51 0 - 1.02	14.44 11.08 - 17.81	2.65 1.16 - 4.14	1.53 1.13 - 1.93
8-10 JUN	MEAN RANGE	9.92 7.36 - 12.47	- 7.58 - NAP	NAP	4.90 3.76 - 6.04	4.58 3.49 - 5.68	3.74 2.90 - 4.57	1.98 1.76 - 2.20	2.57 0 - 5.14
21-23 JUN	MEAN RANGE	- NAP - NS	- 34.36 - NS	- NAP - NS	- NAP - NS	5.15 - NS	9.54 - NS	12.68 - NS	11.91 - NS
6-8 JUL	MEAN RANGE	15.66 4.06 - 27.27	- NAP - 16.70	NAP	NAP	5.38 4.62 - 6.13	11.82 5.96 - 17.68	6.12 4.67 - 7.57	- 3.32 - NAP
19-21 JUL	MEAN RANGE	NAP	29.84 26.27 - 33.40	NAP	- 18.13 - NAP	2.81 2.36 - 3.26	5.46 5.15 - 5.76	5.17 4.84 - 5.50	21.86 18.25 - 25.48
2-4 AUG	MEAN RANGE	NAP	- NAP - 41.41	NAP	NAP	2.10 0 - 4.20	3.47 3.43 - 3.51	0.64 0 - 1.27	2.75 0 - 5.50
17-19 AUG	MEAN RANGE	NAP	- NAP - 14.40	- 18.35 - NAP	- NAP - 39.79	0	1.74 1.00 - 2.48	0	3.75 1.14 - 6.35
13-15 SEP	MEAN RANGE	9.02 1.67 - 16.38	NAP	NAP	16.95 13.09 - 20.81	0	0	0	0
4-6 OCT	MEAN RANGE	2.58 1.66 - 3.51	9.15 8.70 - 9.60	4.16 3.18 - 5.14	1.26 0 - 2.51	0	0	0	0
19-24 OCT	MEAN RANGE	- 0.77 - NS	- 3.91 - NS	- 2.27 - NS	- 1.57 - NS	0	0	0	0.86 0 - 1.73
2-4 NOV	MEAN RANGE	0	0.68 0 - 1.36	0.70 0.69 - 0.72	NAP	0	0	0	0
15-17 NOV	MEAN RANGE	- NAP - NS	- 2.87 - NS	- NAP - NS	- NAP - NS	0 - NS	0 - NS	0 - NS	0 - NS
6-8 DEC	MEAN RANGE	- 0 - NS	- 1.35 - NS	- 0 - NS	- 0 - NS	0 - NS	0 - NS	0 - NS	0 - NS

NAP = Not applicable, time interval inappropriate for designated day or night period  
 NS = No day/night sample  
 - = Not applicable

\*Catch/12 hr effort, no fish of this species collected in the remaining gill net collections

Revised/final



ABUNDANCE\* OF YELLOW PERCH IN DAY/NIGHT GILL NET COLLECTIONS

15 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

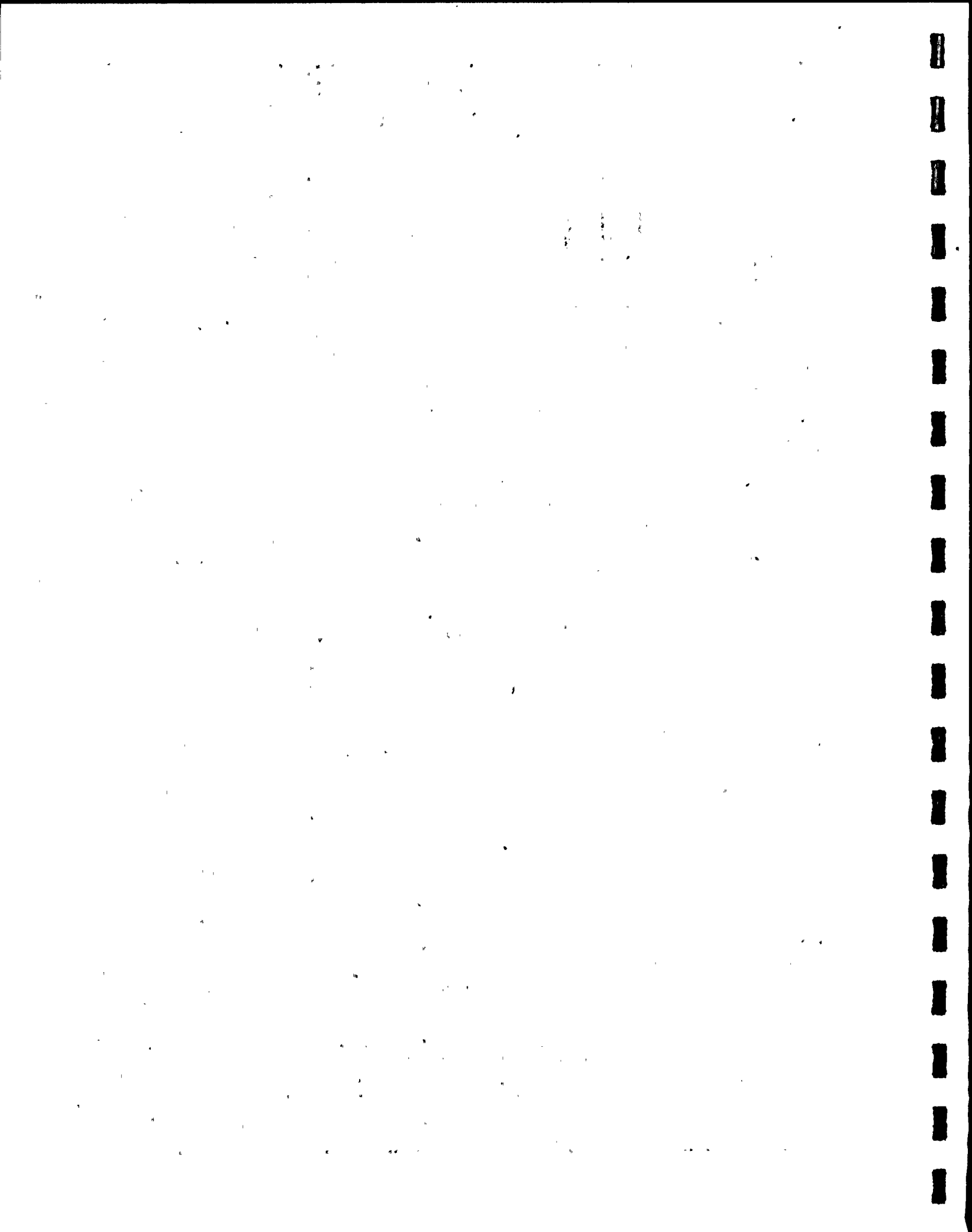
DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
29 APR- 1 MAY	MEAN RANGE	NAP	NAP	NAP	3.56 2.72 - 4.39	0	2.68 1.26 - 4.11	3.04 1.23 - 4.85	0
11-13 MAY	MEAN RANGE	NS	NS	NS	NS	- 0 - NS	- 6.32 - NS	- 2.13 - NS	- 0 - NS
23-25 MAY	MEAN RANGE	0	- NAP - 5.62	NAP	1.90 1.01 - 2.79	0.51 0 - 1.02	4.46 2.56 - 6.36	5.06 0.83 - 9.29	4.94 1.93 - 7.94
8-10 JUN	MEAN RANGE	0.56 0 - 1.13	- 2.84 - NAP	NAP	5.94 2.82 - 9.06	3.79 0 - 7.58	3.96 1.14 - 6.77	6.26 1.10 - 11.41	3.60 0 - 7.20
21-23 JUN	MEAN RANGE	- NAP - NS	- 2.17 - NS	- NAP - NS	- NAP - NS	- 5.15 - NS	- 1.91 - NS	- 2.72 - NS	- 0 - NS
6-8 JUL	MEAN RANGE	0	- NAP - 1.04	NAP	NAP	3.69 0 - 7.38	3.84 2.98 - 4.71	2.02 1.87 - 2.16	- 0 - NAP
19-21 JUL	MEAN RANGE	NAP	2.39 1.86 - 2.92	NAP	- 4.27 - NAP	2.81 2.36 - 3.26	4.42 3.09 - 5.76	16.00 1.21 - 30.78	2.08 1.11 - 3.04
2-4 AUG	MEAN RANGE	NAP	- NAP - 3.76	NAP	NAP	1.05 0 - 2.10	1.16 1.14 - 1.17	0.64 0 - 1.29	0
17-19 AUG	MEAN RANGE	NAP	- NAP - 0	- 2.12 - NAP	- NAP - 4.74	0	0.62 0 - 1.24	0	0
13-15 SEP	MEAN RANGE	1.28 0.84 - 1.72	NAP	NAP	5.33 1.66 - 9.00	0	0	0	0
4-6 OCT	MEAN RANGE	3.46 1.66 - 5.27	3.18 2.40 - 3.96	2.44 1.71 - 3.18	2.50 1.67 - 3.33	0.60 0 - 1.19	0	0.99 0 - 1.98	0
19-24 OCT	MEAN RANGE	- 0.77 - NS	- 0 - NS	- 2.27 - NS	- 5.48 - NS	0	0	0	0
2-4 NOV	MEAN RANGE	0	0.34 0 - 0.68	0.69 0 - 1.38	NAP	0	0	0	0

NAP = Not applicable, time interval inappropriate for designated day or night period  
 NS = No day/night sample  
 - = Not applicable

\*Catch/12 hr effort, no fish of this species collected in the remaining gill net collections



VII.C.2. 40 FT DEPTH CONTOUR: GILL NETS



ABUNDANCE\* OF ALEWIFE IN DAY/NIGHT GILL NET COLLECTIONS

40 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
14-16 APR	MEAN RANGE	Nap	Nap	Nap	- Nap - 22.09	41.81 20.21 - 63.40	42.10 38.72 - 45.47	33.98 31.35 - 36.61	14.06 2.85 - 25.26
29 APR- 1 MAY	MEAN RANGE	209.92 148.19 - 271.64	- Nap - 363.68	- 121.19 - NL	- Nap - 67.37	55.65 108.63 - 2.67	140.58 100.0 - 181.16	43.30 28.8 - 57.79	28.22 22.99 - 33.45
11-13 MAY	MEAN RANGE	NS	NS	NS	NS	- 9.01 - NSt	- 8.74 - NSt	- 22.47 - NSt	- 13.42 - NSt
23-25 MAY	MEAN RANGE	- Nap - 117.06	Nap	Nap	- Nap - 155.08	42.38 36.12 - 48.65	37.26 26.83 - 47.69	52.86 40.82 - 64.89	24.45 11.61 - 37.29
8-10 JUN	MEAN RANGE	17.38 10.14 - 24.63	- 26.55 - Nap	- Nap - NL	Nap	2.36 0 - 4.72	1.06 0 - 2.12	0.43 0 - 0.86	0.54 0 - 1.09
21-23 JUN	MEAN RANGE	- Nap - NSt	NSt	- Nap - NSt	- Nap - NSt	- 21.94 - NS	NS	- 0 - NS	- 6.26 - NS
6-8 JUL	MEAN RANGE	- 24.86 - Nap	Nap	- Nap - NL	Nap	8.19 4.56 - 11.82	8.24 5.28 - 11.21	43.55 36.06 - 51.04	6.44 3.21 - 9.66
19-21 JUL	MEAN RANGE	Nap	Nap	Nap	- 314.94 - Nap	2.28 1.13 - 3.43	3.84 3.69 - 3.98	22.22 5.49 - 38.95	4.72 1.93 - 7.51
2-4 AUG	MEAN RANGE	- Nap - 26.94	- Nap - 110.55	Nap	- NL - 34.29	2.25 2.25 - 2.25	11.79 6.05 - 17.53	10.79 5.90 - 15.68	4.62 0 - 9.25
17-19 AUG	MEAN RANGE	Nap	- Nap - 194.86	Nap	- Nap - 93.91	5.25 0 - 10.50	1.83 1.18 - 2.48	20.42 15.09 - 25.76	27.24 16.80 - 37.69
1-3 SEP	MEAN RANGE	NS	NS	NS	NS	NS	NS	NS	NS
13-15 SEP	MEAN RANGE	50.86 32.91 - 68.80	Nap	Nap	- 28.00 - Nap	1.30 1.24 - 1.37	31.63 14.85 - 48.41	10.16 7.50 - 12.83	4.82 1.29 - 8.34
4-6 OCT	MEAN RANGE	11.46 8.00 - 14.93	Nap	Nap	6.78 4.77 - 8.78	0	5.46 0 - 10.91	0	19.57 3.47 - 35.67
19-24 OCT	MEAN RANGE	- 47.75 - NS	- Nap - NS	- Nap - NS	- 23.25 - NS	- 0 - NS	- 27.43 - NS	- 0 - NS	- 0 - NS
2-4 NOV	MEAN RANGE	28.86 12.09 - 45.63	33.72 4.28 - 63.17	29.44 28.94 - 29.94	8.26 4.89 - 11.64	0	0	0	0
15-17 NOV	MEAN RANGE	- Nap - NSt	- 77.69 - NSt	- Nap - NSt	- Nap - NSt	- 0 - NSt	- 0 - NS	- 0 - NS	- 0 - NS
6-8 DEC	MEAN RANGE	- 0 - NSt	- 0 - NSt	- 0 - NSt	- 0 - NSt	- 0 - NS	- 0 - NS	- 0 - NS	- 0 - NS

Nap = Not applicable, time interval inappropriate for designated day or night period

NL = Net lost

NS = No day/night sample

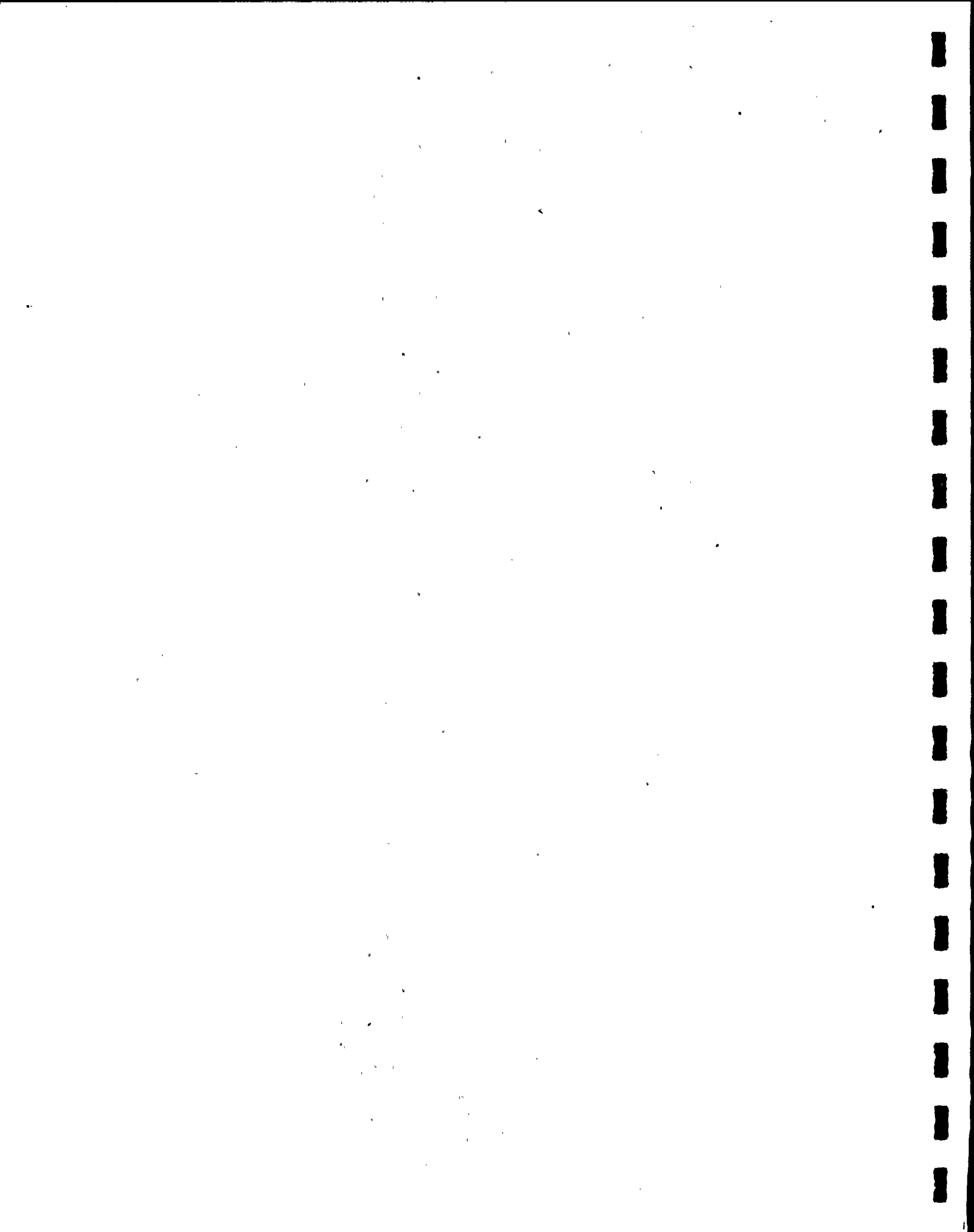
NSt = Net not set

- = Not applicable

\*Catch/12 hr effort

Revised/final





ABUNDANCE\* OF BROWN TROUT IN DAY/NIGHT GILL NET COLLECTIONS

40 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
14-16 APR	MEAN RANGE	Nap	Nap	Nap	- Nap - 0	0	0	0.58 0 - 1.16	0
8-10 JUN	MEAN RANGE	1.96 1.89 - 2.03	- 0 - Nap	- Nap - NL	Nap	0	0	0	0
19-21 JUL	MEAN RANGE	Nap	Nap	Nap	- 0 - Nap	0	0	0.52 0 - 1.05	0

Nap = Not applicable, time interval inappropriate for designated day or night period  
 NS = No day/night sample  
 - = Not applicable  
 NL = Net lost

\*Catch/12 hr effort, no fish of this species collected in the remaining gill net collections



ABUNDANCE\* OF COHO SALMON IN DAY/NIGHT GILL NET COLLECTIONS

40 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

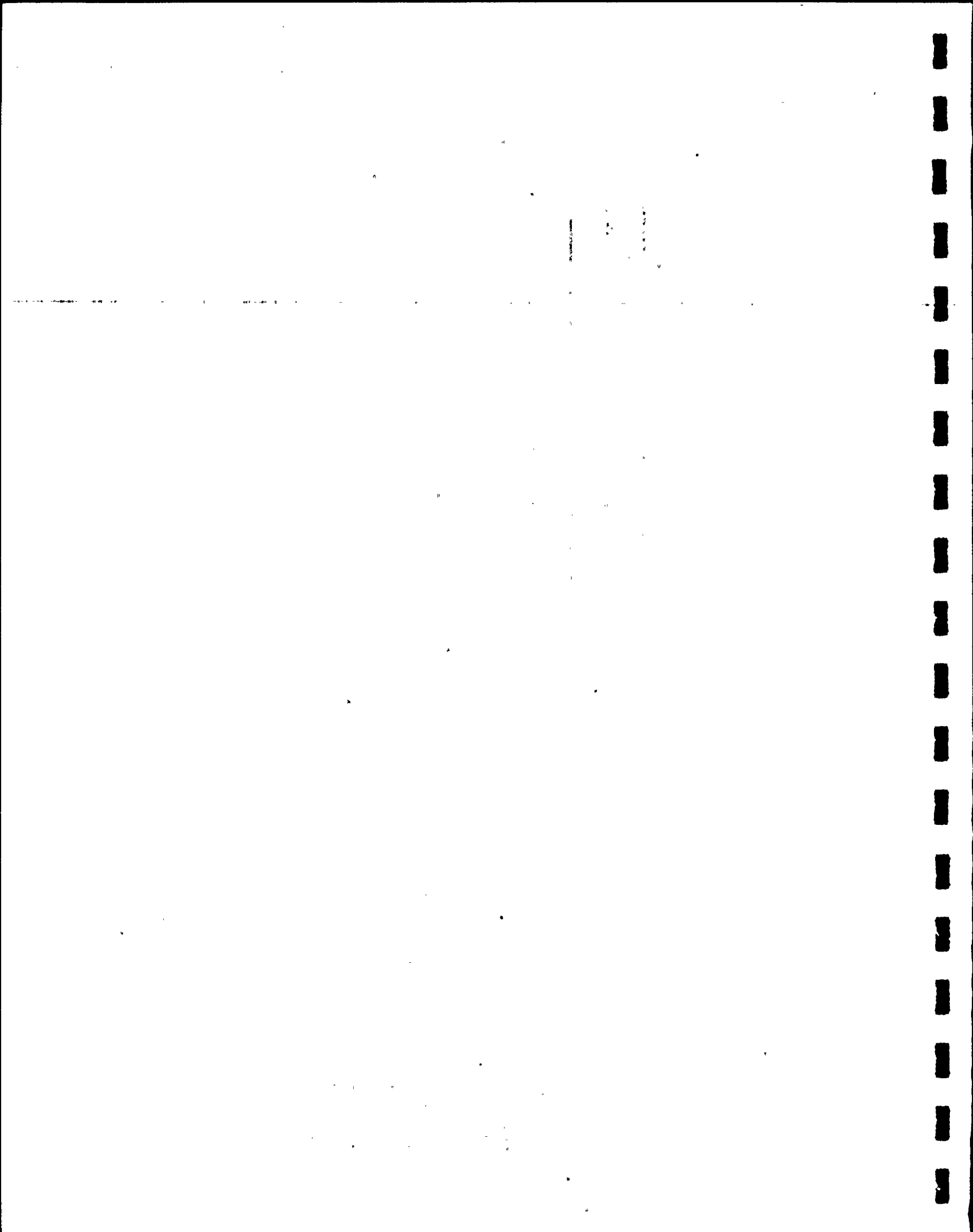
DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
29 APR-	MEAN	0	-	-	-	0	0	0	0
1 MAY	RANGE		NAP - 1.05	0 - NL	NAP - 0				

NAP = Not applicable, time interval inappropriate for designated  
day or night period

NL = Net lost

- = Not applicable

\*Catch/12 hr effort, no fish of this species collected  
in the remaining gill net collections



ABUNDANCE\* OF RAINBOW SMELT IN DAY/NIGHT GILL NET COLLECTIONS

40 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
14-16 APR	MEAN RANGE	Nap	Nap	Nap	- Nap - 22.91	9.0 0 - 18.11	10.2 9.47 - 10.89	11.5 9.29 - 13.73	0.6 0 - 1.26
29 APR- 1 MAY	MEAN RANGE	7.5 3.27 - 11.72	- Nap - 6.31	- 7.13 - NL	- Nap - 6.74	2.53 5.05 - 0	47.8 9.0 - 86.71	48.4 21.05 - 75.85	5.0 1.21 - 8.73
11-13 MAY	MEAN RANGE	NS	NS	NS	NS	- 1.13 - NSt	- 0 - NSt	- 5.11 - NSt	- 1.22 - NSt
23-25 MAY	MEAN RANGE	- Nap - 0.93	Nap	Nap	- Nap - 7.38	18.38 15.57 - 21.18	20.75 2.98 - 38.52	18.40 18.14 - 18.67	10.03 3.48 - 16.58
8-10 JUN	MEAN RANGE	0	- 0 - Nap	- Nap - NL	Nap	0	0.46 0 - 0.92	1.30 0 - 2.59	0
4-6 OCT	MEAN RANGE	1.64 0.80 - 2.49	Nap	Nap	0	0	0.54 0 - 1.09	0	0
19-24 OCT	MEAN RANGE	- 0.76 - NS	- Nap - NS	- Nap - NS	- 0 - NS	- 0 - NS	- 0 - NS	- 0 - NS	- 0 - NS
2-4 NOV	MEAN RANGE	0.36 0 - 0.72	1.04 0.71 - 1.36	2.50 0.67 - 4.34	0.72 0.70 - 0.73	0	0	0	0
6-8 DEC	MEAN RANGE	- 0 - NSt	- 0 - NSt	- 0.71 - NSt	- 0 - NSt	- 0 - NS	- 0 - NS	- 0 - NS	- 0 - NS

Nap = Not applicable, time interval inappropriate for designated day or night period

NL = Net lost

NS = No day/night sample

NSt = Net not set

- = Not applicable

\*Catch/12 hr effort, no fish of this species collected in the remaining gill net collections

Revised/final



ABUNDANCE\* OF SMALLMOUTH BASS IN DAY/NIGHT GILL NET COLLECTIONS

40 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
14-16 APR	MEAN RANGE	NAP	NAP	NAP	- NAP - 0	0.6 0 - 1.26	2.8 1.89 - 3.63	2.3 0 - 4.58	0
29 APR- 1 MAY	MEAN RANGE	0	- NAP - 0	- 0 - NL	- NAP - 0	0	0.8 0 - 1.55	0	0
11-13 MAY	MEAN RANGE	NS	NS	NS	NS	- 0 - NSt	- 0.97 - NSt	- 0 - NSt	- 0 - NSt
17-19 AUG	MEAN RANGE	NAP	- NAP - 0	NAP	- NAP - 0	0	0.62 0 - 1.24	0	0
13-15 SEP	MEAN RANGE	0	NAP	NAP	- 0 - NAP	2.61 2.48 - 2.74	0	0	3.87 0 - 7.74
4-6 OCT	MEAN RANGE	0	NAP	NAP	0	1.23 0 - 2.46	0	0	0
15-17 NOV	MEAN RANGE	- NAP - NSt	- 0 - NSt	- NAP - NSt	- NAP - NSt	- 0 - NSt	- 3.84 - NS	- 0 - NS	- 0 - NS

NAP = Not applicable, time interval inappropriate for designated  
day or night period  
NS = No day/night sample  
NSt = Net not set  
- = Not applicable  
NL = Net lost

\*Catch/12 hr effort, no fish of this species collected  
in the remaining gill net collections





ABUNDANCE\* OF SPOTTAIL SHINER IN DAY/NIGHT GILL NET COLLECTIONS

40 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT.				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
14-16 APR	MEAN RANGE	NAP	NAP	NAP	- NAP - 0	1.4 1.26 - 1.51	3.1 2.42 - 3.79	5.4 0 - 10.68	0
29 APR- 1 MAY	MEAN RANGE	0	- NAP - 0	- 0 - NL	- NAP - 0	- 11.37 - 0	36.9 32.0 - 41.81	22.7 17.72 - 27.69	4.2 1.21 - 7.27
11-13 MAY	MEAN RANGE	NS	NS	NS	NS	- 4.51 - NSt	- 0.97 - NSt	- 25.53 - NSt	- 8.54 - NSt
23-25 MAY	MEAN RANGE	- NAP - 0	NAP	NAP	- NAP - 0	0 2.98 - 8.25	5.62 13.33 - 86.17	49.75 6.97 - 38.33	22.65 0.99 - 7.64
8-10 JUN	MEAN RANGE	0	- 0 - NAP	- NAP - NL	NAP	0.5 0 - 1.0	0 0.86 - 1.12	0.99 2.65 - NS	4.32 11.48 - NS
21-23 JUN	MEAN RANGE	- NAP - NSt	NSt	- NAP - NSt	- NAP - NSt	- 1.99 - NS	NS	- 2.65 - NS	- 11.48 - NS
6-8 JUL	MEAN RANGE	- 0 - NAP	NAP	- NAP - NL	NAP	1.61 0 - 3.22	0 65.91 - 83.85	74.88 5.37 - 13.93	9.65
19-21 JUL	MEAN RANGE	NAP	NAP	NAP	- 0 - NAP	6.80 1.14 - 12.47	16.61 12.0 - 21.22	160.53 126.32 - 194.74	4.92 4.83 - 5.01
2-4 AUG	MEAN RANGE	- NAP - 0	- NAP - 0	NAP	- NL - NAP	0.56 0 - 1.13	0 0 - 5.70	2.85 0 - 5.70	0
17-19 AUG	MEAN RANGE	NAP	- NAP - 194.86	NAP	- NAP - 93.91	0	0	2.05 1.36 - 2.74	0
4-6 OCT	MEAN RANGE	0	NAP	NAP	0	0	0	1.24 1.03 - 1.45	0

NAP = Not applicable, time interval inappropriate for designated day or night period

NL = Net lost

NS = No day/night sample

NSt = Net not set

- = Not applicable

\*Catch/12 hr effort, no fish of this species collected in the remaining gill net collections



ABUNDANCE\* OF WHITE PERCH IN DAY/NIGHT GILL NET COLLECTIONS

40 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
14-16 APR	MEAN RANGE	NAP	NAP	NAP	- NAP - 0	0	0.58 0 - 1.16	0.60 0 - 1.21	0
29 APR- 1 MAY	MEAN RANGE	0	- NAP - 0	- 0 - NL	- NAP - 0	0	1.5 0 - 3.0	1.2 0 - 2.41	0
11-13 MAY	MEAN RANGE	NS	NS	NS	NS	- 2.25 - NSt	- 0.97 - NSt	- 3.06 - NSt	- 0 - NSt
23-25 MAY	MEAN RANGE	- NAP - 0	NAP	NAP	- NAP - 0.92	0	0.46 0 - 0.92	0.56 0 - 1.13	0
8-10 JUN	MEAN RANGE	0.50 0 - 1.01	- 0 - NAP	- NAP - NL	NAP	0.47 0 - 0.94	0	0	0
21-23 JUN	MEAN RANGE	- NAP - NSt	NSt	- NAP - NSt	- NAP - NSt	- 3.99 - NS	NS	- 2.65 - NS	- 1.04 - NS
6-8 JUL	MEAN RANGE	- 0 - NAP	NAP	- NAP - NL	NAP	1.08 0 - 2.15	1.98 0 - 3.96	1.86 0 - 3.73	1.60 1.07 - 2.14
19-21 JUL	MEAN RANGE	NAP	NAP	NAP	- 0 - NAP	0.57 0 - 1.14	4.24 1.85 - 6.63	1.37 0 - 2.74	0.62 0 - 1.25
2-4 AUG	MEAN RANGE	- NAP - 0	- NAP - 0	NAP	- NL - 0	0	0.60 0 - 1.21	0	0
17-19 AUG	MEAN RANGE	NAP	- NAP - 0	NAP	- NAP - 0	0	1.21 1.18 - 1.24	0	7.78 7.76 - 7.80
13-15 SEP	MEAN RANGE	0	NAP	NAP	- 0.80 - NAP	0	0	0	0.64 0 - 1.29

Nap = Not applicable, time interval inappropriate for designated day or night period

NL = Net lost

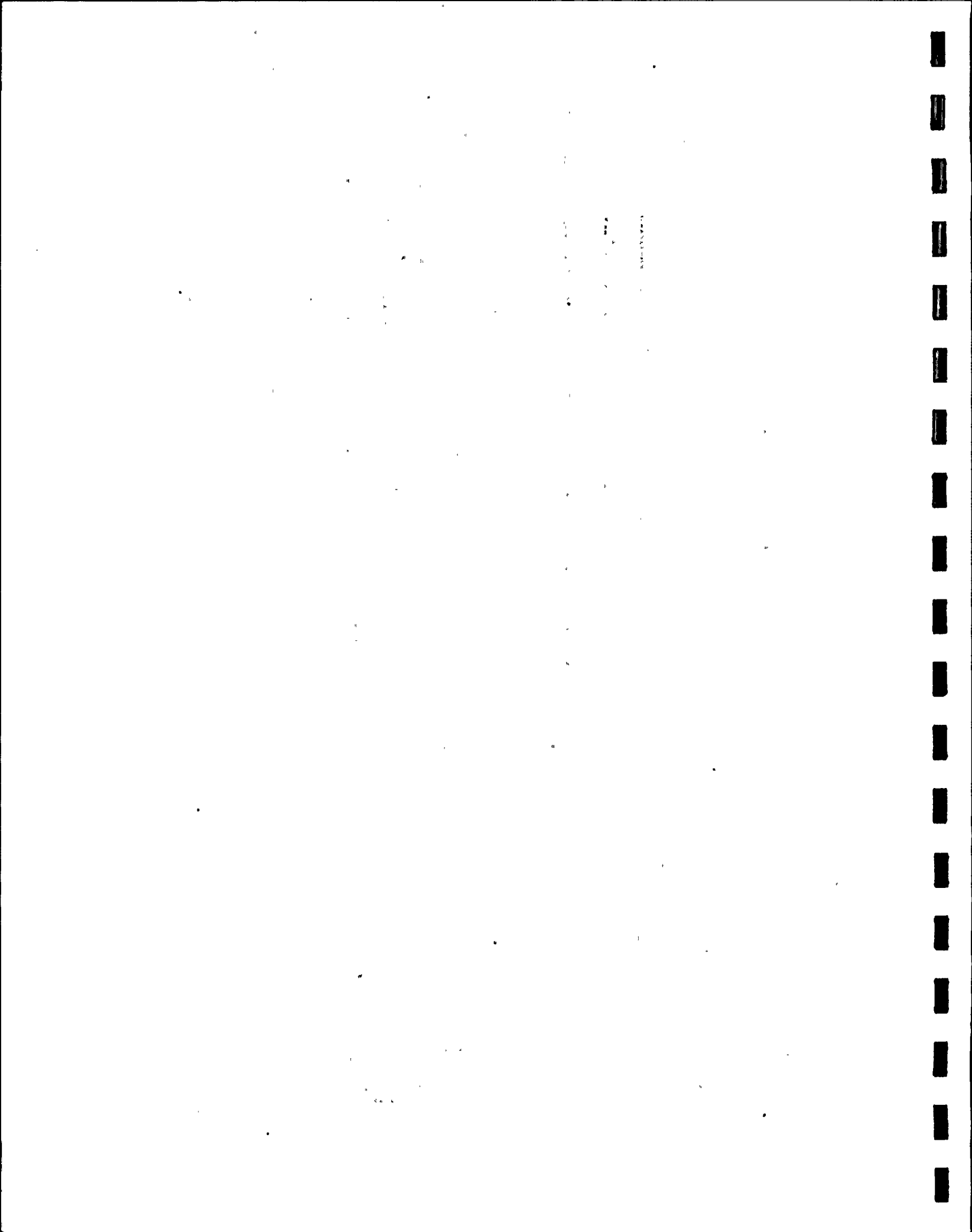
NS = No day/night sample

NSt = Net not set

- = Not applicable

\*Catch/12 hr effort, no fish of this species collected in the remaining gill net collections

Revised/final



ABUNDANCE\* OF YELLOW PERCH IN DAY/NIGHT GILL NET COLLECTIONS

40 FT DEPTH CONTOUR, NINE MILE POINT VICINITY - 1976

DATE	MEAN RANGE	NIGHT				DAY			
		NMPW	NMPP	FITZ	NMPE	NMPW	NMPP	FITZ	NMPE
29 APR- 1 MAY	MEAN RANGE	0	- NAp - 0	- 0 - NL	- NAp - 0	0	0	0.6 0 - 1.11	1.4 0 - 2.91
11-13 MAY	MEAN RANGE	NS	NS	NS	NS	- 0 - NS <sub>t</sub>	- 0 - NS <sub>t</sub>	- 0 - NS <sub>t</sub>	- 1.22 - NS <sub>t</sub>
23-25 MAY	MEAN RANGE	- NAp - 0	NAp	NAp	- NAp - 0	0	0.74 0 - 1.49	0	0
8-10 JUN	MEAN RANGE	0	- 0 - NAp	- NAp - NL	NAp	0	1.59 0 - 3.18	0.56 0 - 1.12	2.63 1.99 - 3.27
21-23 JUN	MEAN RANGE	- NAp - NS <sub>t</sub>	NS <sub>t</sub>	- NAp - NS <sub>t</sub>	- NAp - NS <sub>t</sub>	- 1.00 - NS	NS	- 2.65 - NS	- 4.17 - NS
6-8 JUL	MEAN RANGE	- 0 - NAp	NAp	- NAp - NL	NAp	3.06 1.82 - 4.30	1.22 1.12 - 1.32	10.73 8.70 - 12.76	3.76 2.14 - 5.37
19-21 JUL	MEAN RANGE	NAp	NAp	NAp	- 0 - NAp	1.71 1.13 - 2.29	7.87 6.46 - 9.28	45.50 21.05 - 69.94	6.32 3.87 - 8.77
2-4 AUG	MEAN RANGE	- NAp - 0	- NAp - 0	NAp	- NL - 0	3.38 3.38 - 3.38	0	1.42 0 - 2.85	3.30 0 - 6.61
17-19 AUG	MEAN RANGE	NAp	- NAp - 0	NAp	- NAp - 0	2.14 1.29 - 3.00	1.80 1.24 - 2.36	6.82 5.42 - 8.23	0.64 0 - 1.29
13-15 SEP	MEAN RANGE	0	NAp	NAp	- 0 - NAp	0	0	0	0.64 0 - 1.29
4-6 OCT	MEAN RANGE	0	NAp	NAp	0	7.23 2.46 - 12.00	1.55 0 - 3.10	0	0
19-24 OCT	MEAN RANGE	- 0 - NS	- NAp - NS	- NAp - NS	- 0 - NS	- 0 - NS	- 1.37 - NS	- 1.31 - NS	- 0 - NS
2-4 NOV	MEAN RANGE	0	0	0	0	0	0	0	0.92 0 - 1.84

NAp = Not applicable, time interval inappropriate for designated day or night period

NL = Net lost

NS = No day/night sample

NS<sub>t</sub> = Net not set

- = Not applicable

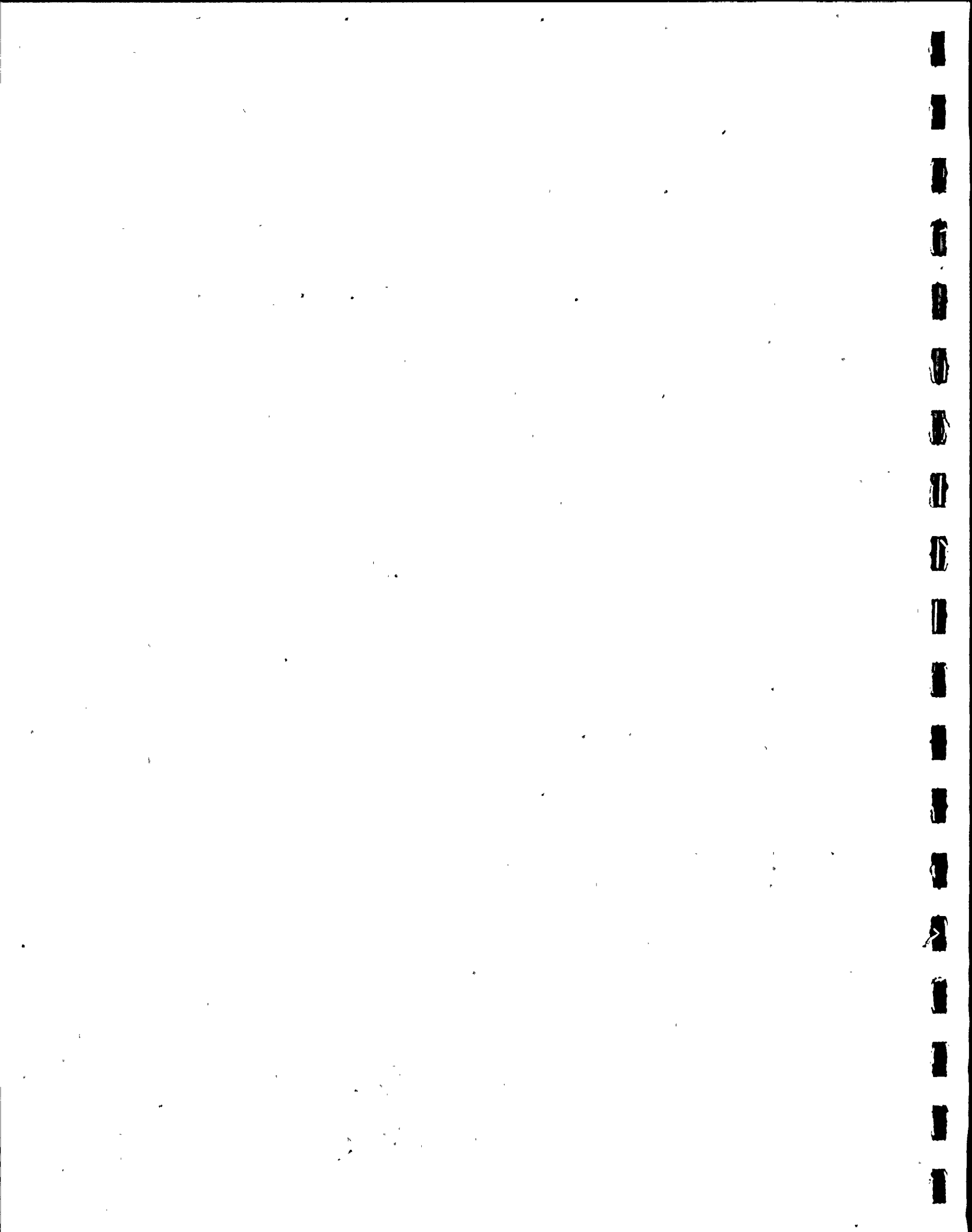
\*Catch/12 hr effort, no fish of this species collected in the remaining gill net collections



JAMES A. FITZPATRICK NUCLEAR POWER PLANT

VIII.A.1.a. OCCURRENCE OF PHYTOPLANKTON BY DATE





# OCCURRENCE OF PHYTOPLANKTON BY DATE IN SURFACE WHOLE WATER COLLECTIONS AT THE DISCHARGE APTBAY\*

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

TAXON	DATE									
	28 APR	26 MAY	23 JUN	29 JUL	25 AUG	22 SEP	20 OCT	17 NOV	20 DEC	
MIXOPHYCEAE										
ANACYSTIS AERUGINOSA						C				
CHROOCOCCUS LIMNETICUS					X		X			
CHROOCOCCUS DISPERSUS		A			X					
CHROOCOCCUS DISPERSUS VAR. MIN	X	A	A	A	A	A	A	A	A	
COELOSPHAERIUM KUETZINGIA					X	A		X		
COELOSPHAERIUM KAEGLIANU					A	A				
GOMPHOSPHAERIA LACUSTRIS						X	X			
UNIDENTIFIED OSCILLATORIALES									A	
OSCILLATORIA AGARDHII								A	A	
OSCILLATORIA LIMNETICA	A	A	X	X		A	A	A	A	
PHORMIDIUM SP.							X			
ANABAENA SP.							X			
ANABAENA FLOS-AQUAE					X					
ANABAENA SPIROIDES					X					
ANABAENA PLANKTONICA					X					
APHANIZOYENON FLOS-AQUAE				X	A		X			
CHLOROPHYCEAE										
CHLAMYDOMONAS SP.	X	X	X	X	X	B	X	X		
EUDORINA ELEGANS	X				B					
PANDORINA MORUM		X			X					
POLYTOMA SP.							X	X	X	
POLYTOMA GRANULIFERUM								X		
GLOEOCYSTIS GIGAS				X						
SPHAEROCYSTIS SCHROETERI				A	A		X	X		
ULOTERIX SP.								X	X	
OEDOGONIUM SP.		X				B	X	X		
NOUGEOTIA SP.	X		X				X			
CLOSTERIUM SP.						X	X			
CLOSTERIUM ACICULARE						X	X			
STAUROASTRUM SP.					X	X	B	B		
ACTINASTRUM HANTZSCHII	X									
ANKISTRODESNIUS FALCATUS	X	A	A	X	X	X	X	X	X	
ANKISTRODESNIUS SPIROTAENIA	X		X					X		
ANKISTRODESNIUS HANNOSELENE	X	X			X			X		
CHODATELLA CILIATA					X		X			
CHODATELLA CITRIFORMIS							X			
CHODATELLA QUADRISETA		X	X							
CHLORELLA SP.				X	X	X	X	X	X	
COELASTRUM MICROPORUM			X		X	C	X			
COELASTRUM RETICULATUM				X	X		C			
DICTYOSPHAERIUM PULCHELLUM					X	X				







DATE									
28 APR	26 MAY	23 JUN	29 JUL	25 AUG	22 SEP	20 OCT	17 NOV	20 DEC	

	X	A	A	C	X	B	X	A	A
COSCINODISCUS ROTHII									
CYCLOTELLA ATOMUS	X								
CYCLOTELLA GLOMERATA		X	X				X		
CYCLOTELLA MENEZGHINIANA		X	X	B	X		X	X	
MELOSIRA BINDERANA	C	C							
MELOSIRA DISTANS		X	X						
MELOSIRA GRANULATA			B						B
MELOSIRA ISLANDICA	X								
MELOSIRA ITALICA						B			
MELOSIRA ITALICA VAR. SUBARCTI	X	X	X			X			
STEPHANODISCUS ASTREA						B			
STEPHANODISCUS HANTZSCHII	C	X	B			X	X	X	B
STEPHANODISCUS NIAGARAE							B		B
STEPHANODISCUS ASTREA VAR. MIN	X		X	X		X	X	X	B
ASTERIONELLA FORMOSA	X	C					X	X	B
DIATOMA ELONGATUM		B	X			X		X	X
DIATOMA VULGARE	X								
DIATOMA ELONGATUM VAR. TENUE	X	X							
FRAGILARIA CAPUCINA								X	
FRAGILARIA CROTONENSIS		X			B	X		X	
NAVICULA SP.	X								
NAVICULA CRYPTOCEPHALA	X								
NITZSCHIA SP.			X			X			X
NITZSCHIA DISSIPATA			X						
NITZSCHIA GRACILIS	X	X							
SURIPELLA SP.									B
SYMPTRA ULNA		B							X
SYNEDRA ACUS VAR. RADIANUS			X					X	X
TAPELLARIA FENESTRATA							B	B	B

CRYPTOMONAS SP.				B				
CRYPTOMONAS EROSA	X	X		R	B	B	B	X
CRYPTOMONAS OVATA				B		X		
CRYPTOMONAS EROSA VAR. REFLExA						X	X	
CRYPTO'IONAS MARSSONII				X		X	X	
CRYPTOMONAS PYRENOIDFERA				B	X		X	
CRYPTOMONAS ROSTRATIFORMIS							X	
KATABLEPHARIS OVALIS	X	A	A	A	X	X	X	X
RHODOMONAS MINUTA	X	X			X	X	X	X
RHODOYONAS MINUTA VAR. NANNOPL	X	A	X		X	C	C	X
CRYPTAULAX SP.							X	



TAXON (CONTINUED)

DATE  
28 APR 26 MAY 23 JUN 29 JUL 25 AUG 22 SEP 20 OCT 17 NOV 20 DEC

DINOPHYCEAE

GYMNODINIUM SP.		X				X						
GYMNODINIUM HELVETICUM									X			
GYMNODINIUM VARIANS									X			
GLENODINIUM SP.			X					X			X	
PERIDINIUM SP.					X						X	
PERIDINIUM CINCTUM			B			B						

\* ORIGINAL SAMPLE

X PRESENT IN SAMPLE

A 5 PCT. OR MORE OF TOTAL ABUNDANCE PER DATE

B 5 PCT. OR MORE OF TOTAL BIOVOLUME PER DATE

C 5 PCT. OR MORE OF BOTH TOTAL ABUNDANCE AND TOTAL BIOVOLUME PER DATE





JAMES A. FITZPATRICK NUCLEAR POWER PLANT

VIII.A.1.b. ABUNDANCE AND BIOVOLUME OF MAJOR TAXA  
OF PHYTOPLANKTON



ABUNDANCE AND BIOVOLUME OF MAJOR TAXA OF PHYTOPLANKTON IN SURFACE WHOLE WATER COLLECTIONS\*  
AT THE DISCHARGE AFTBAY

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

TAXON	28 APR	26 MAY	23 JUN	DATE 29 JUL	25 AUG	22 SEP	20 OCT	17 NOV
<b>MIXOPHYCEAE</b>								
ABUNDANCE (CELLS/ML)	728	989	4299	1317	4450	7556	3500	806
PERC'T	15.70	25.18	38.36	44.40	59.81	56.66	52.18	41.61
BIOVOLUME (MG/CU.M)	9	11	6	4	205	220	50	11
PERC'T	0.32	0.83	0.47	0.72	10.07	10.25	3.85	1.27
<b>CHLOROPHYCEAE</b>								
ABUNDANCE (CELLS/ML)	967	1196	3021	738	2428	4531	1320	321
PERC'T	20.85	30.45	26.95	24.88	32.63	33.98	19.68	16.57
BIOVOLUME (MG/CU.M)	103	85	242	61	501	922	372	179
PERC'T	3.56	6.33	19.52	12.21	24.58	42.91	28.41	20.09
<b>EUGLENOPHYCEAE</b>								
ABUNDANCE (CELLS/ML)	312	13	0	0	0	0	0	0
PERC'T	6.73	0.33	0.00	0.00	0.00	0.00	0.00	0.00
BIOVOLUME (MG/CU.M)	1105	45	0	0	0	0	0	0
PERC'T	38.25	3.33	0.00	0.00	0.00	0.00	0.00	0.00
<b>CHRISOPHYCEAE</b>								
ABUNDANCE (CELLS/ML)	354	65	1103	119	136	167	369	114
PERC'T	7.63	1.65	9.84	4.01	1.83	1.25	5.50	5.89
BIOVOLUME (MG/CU.M)	52	10	123	8	8	13	32	23
PERC'T	1.81	0.76	9.95	1.68	0.38	0.60	2.46	2.61
<b>BACILLARIOPHYCEAE</b>								
ABUNDANCE (CELLS/ML)	2039	1132	2139	356	374	644	203	304
PERC'T	43.96	28.82	19.08	12.00	5.03	4.83	3.03	15.69
BIOVOLUME (MG/CU.M)	1444	717	823	83	158	681	373	394
PERC'T	50.01	53.65	66.47	16.67	7.73	31.67	28.49	44.36

\* ORIGINAL SAMPLE



ABUNDANCE AND BIOVOLUME OF MAJOR TAXA OF PHYTOPLANKTON IN SURFACE WHOLE WATER COLLECTIONS AT THE DISCHARGE AFTBAY (continued)  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

TAXON (CONTINUED)	28 APR	26 MAY	23 JUN	DATE 29 JUL	25 AUG	22 SEP	20 OCT	17 NOV
<b>CRYPTOPHYCEAE</b>								
ABUNDANCE (CELLS/ML)	228	507	646	429	0	416	1291	384
PERC'T	4.92	12.91	5.76	14.46	0.00	3.12	19.25	19.82
BIOVOLUME (MG/CU.M)	105	111	45	319	0	223	419	247
PERC'T	3.64	8.32	3.60	63.87	0.00	10.38	32.05	27.82
<b>DINOPHYCEAE</b>								
ABUNDANCE (CELLS/ML)	10	26	0	7	52	21	24	8
PERC'T	0.22	0.66	0.00	0.24	0.70	0.16	0.36	0.41
BIOVOLUME (MG/CU.M)	70	358	0	24	1166	90	62	34
PERC'T	2.41	26.77	0.00	4.85	57.23	4.18	4.75	3.85
<b>TOTAL PHYTOPLANKTON</b>								
ABUNDANCE (CELLS/ML)	4638	3928	11208	2966	7440	13335	6707	1937
BIOVOLUME (MG/CU.M)	2887.81	1336.93	1238.58	498.71	2037.53	2149.44	1309.01	888.42

\* ORIGINAL SAMPLE



ABUNDANCE AND BIOVOLUME OF MAJOR TAXA OF PHYTOPLANKTON IN SURFACE WHOLE WATER COLLECTIONS\*  
AT THE DISCHARGE AFTBAY (CONTINUED)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

TAXON	DATE 20 DEC	ANNUAL MEAN
<b>HIXOPHYCEAE</b>		
ABUNDANCE (CELLS/ML)	1378	2780
PERC'T	54.29	45.75
BIOVOLUME (MG/CU.M)	52	63
PERC'T	4.95	4.25
<b>CHLOROPHYCEAE</b>		
ABUNDANCE (CELLS/ML)	177	1633
PERC'T	6.97	26.87
BIOVOLUME (MG/CU.M)	10	275
PERC'T	0.97	18.47
<b>EUGLENOPHYCEAE</b>		
ABUNDANCE (CELLS/ML)	0	36
PERC'T	0.00	0.59
BIOVOLUME (MG/CU.M)	0	128
PERC'T	0.00	8.58
<b>CHRISOPHYCEAE</b>		
ABUNDANCE (CELLS/ML)	303	303
PERC'T	11.94	4.99
BIOVOLUME (MG/CU.M)	33	34
PERC'T	3.18	2.26
<b>BACILLARIOPHYCEAE</b>		
ABUNDANCE (CELLS/ML)	539	859
PERC'T	21.24	14.13
BIOVOLUME (MG/CU.M)	883	617
PERC'T	84.35	41.48

TAXON (CONTINUED)	DATE 20 DEC	ANNUAL MEAN
<b>CRYPTOPHYCEAE</b>		
ABUNDANCE (CELLS/ML)	141	449
PERC'T	5.56	7.39
BIOVOLUME (MG/CU.M)	69	171
PERC'T	6.55	11.48
<b>DINOPHYCEAE</b>		
ABUNDANCE (CELLS/ML)	0	16
PERC'T	0.00	0.27
BIOVOLUME (MG/CU.M)	0	200
PERC'T	0.00	13.47
<b>TOTAL PHYTOPLANKTON</b>		
ABUNDANCE (CELLS/ML)	2538	6077
BIOVOLUME (MG/CU.M)	1046.74	1488.13

\* ORIGINAL SAMPLE





JAMES A. FITZPATRICK NUCLEAR POWER PLANT

VIII.A.1.c. ABUNDANCE AND BIOVOLUME OF SELECTED SPECIES  
OF PHYTOPLANKTON



ABUNDANCE\* AND BIOVOLUME\*\* OF SELECTED SPECIES OF PHYTOPLANKTON IN SURFACE WHOLE WATER COLLECTIONS  
AT THE DISCHARGE AFTBAY

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - APRIL - JULY 1976

SPECIES	28 APR		26 MAY		23 JUN		29 JUL	
	ABUNDANCE	BIOVOLUME	ABUNDANCE	BIOVOLUME	ABUNDANCE	BIOVOLUME	ABUNDANCE	BIOVOLUME
<i>ABACISTIS AERUGINOSA</i>								
NO. A	0	0.00	0	0.00	0	0.00	0	0.00
PERC'T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>CHROOCOCCUS DISPERSUS</i> VAR. MIN								
NO. A	83	0.02	208	0.15	3997	2.09	1180	0.62
PERC'T	1.79	0.00	5.30	0.01	35.66	0.17	39.78	0.12
<i>COELOSPHAERIUM KUETZINGIA</i>								
NO. A	0	0.00	0	0.00	0	0.00	0	0.00
PERC'T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>COELOSPHAERIUM NAEGELIANU</i>								
NO. A	0	0.00	0	0.00	0	0.00	0	0.00
PERC'T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>OSCILLATORIA LINNETICA</i>								
NO. A	645	9.23	573	7.37	302	3.70	124	2.08
PERC'T	13.91	0.32	14.59	0.55	2.69	0.30	4.18	0.42
<i>EUDORINA ELEGANS</i>								
NO. B	187	50.23	0	0.00	0	0.00	0	0.00
PERC'T	4.03	1.74	0.00	0.00	0.00	0.00	0.00	0.00
<i>ANKISTRODESMUS FALCATUS</i>								
NO. A	42	0.51	338	4.38	604	3.16	26	0.16
PERC'T	0.91	0.02	8.60	0.33	5.39	0.25	0.88	0.03
<i>COELASTRUM MICROPORUM</i>								
NO. A	0	0.00	0	0.00	42	1.73	0	0.00
PERC'T	0.00	0.00	0.00	0.00	0.37	0.14	0.00	0.00
<i>EUGLENA GASTEROSTEUS</i>								
NO. B	281	1016.33	13	44.56	0	0.00	0	0.00
PERC'T	6.06	35.19	0.33	3.33	0.00	0.00	0.00	0.00



SPECIES (CONTINUED)	28 APR		26 MAY		23 JUN		29 JUL	
	ABUNDANCE	BIOVOLUME	ABUNDANCE	BIOVOLUME	ABUNDANCE	BIOVOLUME	ABUNDANCE	BIOVOLUME
<i>CYCLOTELLA ATOMUS</i>								
NO. A	31	2.68	208	15.92	625	42.92	304	26.44
PERC'T	0.67	0.09	5.30	1.19	5.58	3.47	10.25	5.30
<i>NELOSIRA BINDERANA</i>								
NO. B	791	814.55	221	252.51	0	0.00	0	0.00
PERC'T	17.05	28.21	5.63	18.89	0.00	0.00	0.00	0.00
<i>STEPHANODISCUS HANTZSCHII</i>								
NO. B	489	277.44	26	16.68	458	451.25	0	0.00
PERC'T	10.54	9.61	0.66	1.25	4.09	36.43	0.00	0.00
<i>STEPHANODISCUS NIAGARAE</i>								
NO. B	0	0.00	0	0.00	0	0.00	0	0.00
PERC'T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>STEPHANODISCUS ASTREA</i> VAR. <i>MIN</i>								
NO. B	31	28.74	0	0.00	21	60.78	9	24.36
PERC'T	0.67	1.00	0.00	0.00	0.19	4.91	0.30	4.89
<i>ASTERIONELLA FORMOSA</i>								
NO. B	167	76.71	234	144.10	0	0.00	0	0.00
PERC'T	3.60	2.66	5.96	10.78	0.00	0.00	0.00	0.00
<i>TABELLARIA PENETRATA</i>								
NO. B	0	0.00	0	0.00	0	0.00	0	0.00
PERC'T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>CRIPDOMONAS EROSA</i>								
NO. B	52	84.24	13	35.49	0	0.00	35	60.65
PERC'T	1.12	2.92	0.33	2.65	0.00	0.00	1.18	12.16
<i>KATABLEPHARIS OVALIS</i>								
NO. A	135	10.95	247	25.80	625	42.42	278	22.80
PERC'T	2.91	0.38	6.29	1.93	5.58	3.42	9.37	4.57
<i>REODONONAS MINUTA</i> VAR. <i>NANNOPL</i>								
NO. A	31	5.90	221	38.01	21	2.11	0	0.00
PERC'T	0.67	0.20	5.63	2.84	0.19	0.17	0.00	0.00
<i>PERIDINIUM CINCTUM</i>								
NO. B	0	0.00	13	333.85	0	0.00	0	0.00
PERC'T	0.00	0.00	0.33	24.97	0.00	0.00	0.00	0.00

\* NUMBER OF CELLS/ML; ORIGINAL SAMPLE

\*\* MG/CU.M; ORIGINAL SAMPLE

A SPECIES OCCURRING IN TOP 10 OF PHYTOPLANKTON  
BY ABUNDANCE OVER THE ENTIRE SAMPLING PERIOD

B SPECIES OCCURRING IN TOP 10 OF PHYTOPLANKTON  
BY BIOVOLUME OVER THE ENTIRE SAMPLING PERIOD

C SPECIES OCCURRING IN TOP 10 OF PHYTOPLANKTON  
BY ABUNDANCE AND BIOVOLUME OVER THE ENTIRE  
SAMPLING PERIOD



**JAMES A. FITZPATRICK NUCLEAR POWER PLANT - AUGUST - NOVEMBER 1976**

[illegible]





SPECIES (CONTINUED)	25 AUG		22 SEP		20 OCT		17 NOV	
	ABUNDANCE	BIOVOLUME	ABUNDANCE	BIOVOLUME	ABUNDANCE	BIOVOLUME	ABUNDANCE	BIOVOLUME
<i>CYCLOTELLA ATOMUS</i>								
NO. A	83	7.52	83	6.33	94	6.23	185	16.48
PERC'T	1.12	0.37	0.62	0.29	1.40	0.48	9.55	1.86
<i>MELOSIRA BINDERANA</i>								
NO. B	0	0.00	0	0.00	0	0.00	0	0.00
PERC'T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>STEPHANODISCUS HANTZSCHII</i>								
NO. B	0	0.00	83	49.36	31	19.65	10	8.87
PERC'T	0.00	0.00	0.62	2.30	0.46	1.50	0.52	1.00
<i>STEPHANODISCUS NIAGARAE</i>								
NO. B	0	0.00	0	0.00	3	155.29	0	0.00
PERC'T	0.00	0.00	0.00	0.00	0.04	11.86	0.00	0.00
<i>STEPHANODISCUS ASTREA VAR. MIN</i>								
NO. B	0	0.00	21	33.00	3	6.36	10	29.38
PERC'T	0.00	0.00	0.16	1.54	0.04	0.49	0.52	3.31
<i>ASTERIONELLA FORMOSA</i>								
NO. B	0	0.00	0	0.00	5	3.85	5	3.24
PERC'T	0.00	0.00	0.00	0.00	0.07	0.29	0.26	0.36
<i>TABELLARIA FENESTRATA</i>								
NO. B	0	0.00	0	0.00	36	153.83	75	310.82
PERC'T	0.00	0.00	0.00	0.00	0.54	11.75	3.87	34.99
<i>CRYPTOMONAS EROSA</i>								
NO. B	0	0.00	104	175.03	42	117.70	34	119.73
PERC'T	0.00	0.00	0.78	8.14	0.63	8.99	1.76	13.48
<i>KATABLEPHARIS OVALIS</i>								
NO. A	0	0.00	187	13.11	104	9.82	16	1.19
PERC'T	0.00	0.00	1.40	0.61	1.55	0.75	0.83	0.13
<i>RHODOMONAS MINUTA VAR. NANNOPL</i>								
NO. A	0	0.00	83	10.55	916	142.19	221	54.32
PERC'T	0.00	0.00	0.62	0.49	13.66	10.86	11.41	6.11
<i>PERIDINIUM CINCTUM</i>								
NO. B	42	1105.20	0	0.00	0	0.00	0	0.00
PERC'T	0.56	54.24	0.00	0.00	0.00	0.00	0.00	0.00

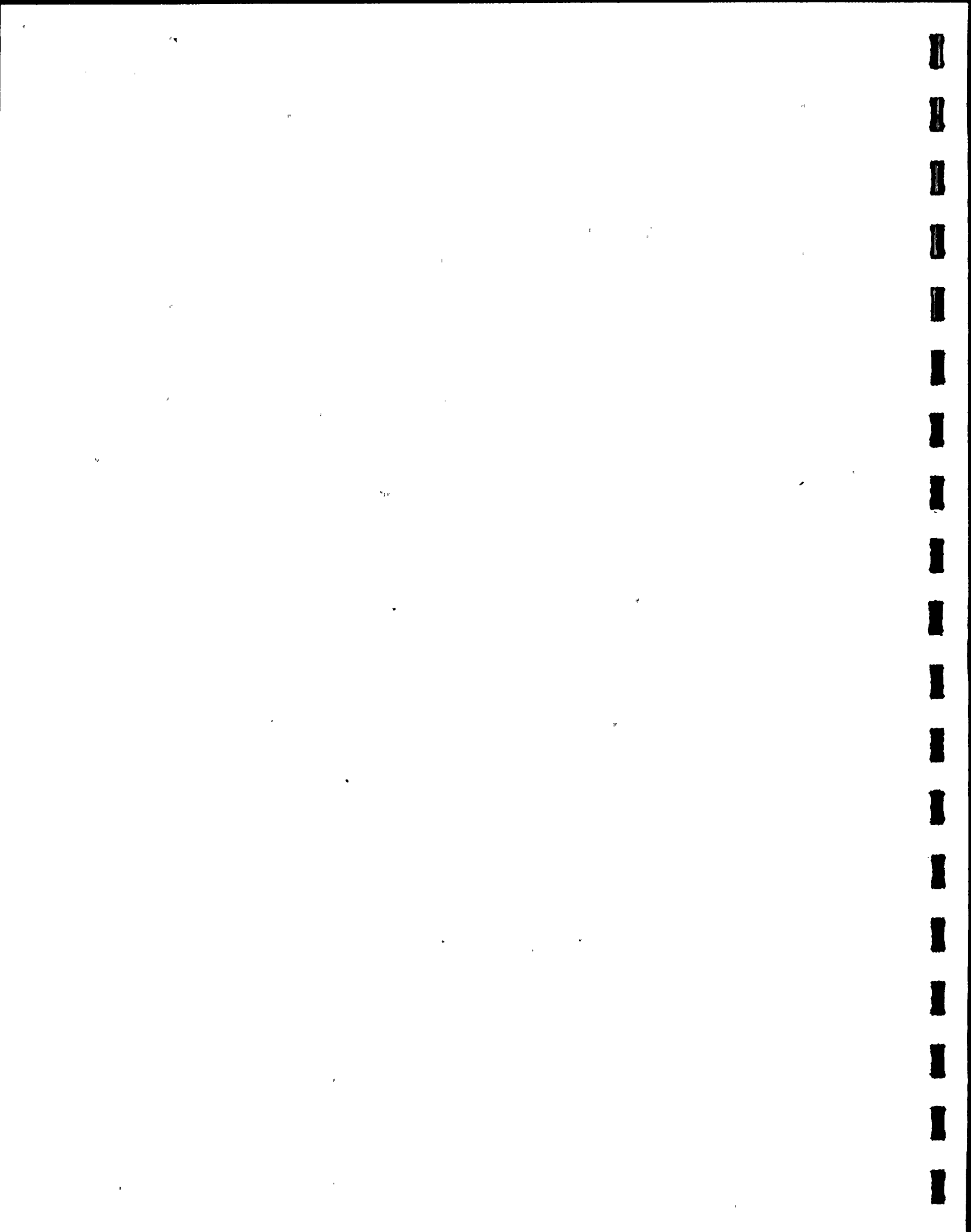
\* NUMBER OF CELLS/ML; ORIGINAL SAMPLE

\*\* MG/CU.M; ORIGINAL SAMPLE

A SPECIES OCCURRING IN TOP 10 OF PHYTOPLANKTON  
BY ABUNDANCE OVER THE ENTIRE SAMPLING PERIOD

B SPECIES OCCURRING IN TOP 10 OF PHYTOPLANKTON  
BY BIOVOLUME OVER THE ENTIRE SAMPLING PERIOD

C SPECIES OCCURRING IN TOP 10 OF PHYTOPLANKTON  
BY ABUNDANCE AND BIOVOLUME OVER THE ENTIRE  
SAMPLING PERIOD



ABUNDANCE\* AND BIOVOLUME\*\* OF SELECTED SPECIES OF PHYTOPLANKTON IN SURFACE WHOLE WATER COLLECTIONS  
AT THE DISCHARGE AFTBAY (CONTINUED)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - DECEMBER 1976

SPECIES	20 DEC	
	ABUNDANCE	BIOVOLUME
ANACYSTIS AERUGINOSA		
NO. A	0	0.00
PERC'T	0.00	0.00
CHROOCOCCUS DISPERSUS VAR. MIN		
NO. A	200	0.43
PERC'T	7.88	0.04
COELOSPHAERIUM KUETZINGIA		
NO. A	0	0.00
PERC'T	0.00	0.00
COELOSPHAERIUM NAEGELIANU		
NO. A	0	0.00
PERC'T	0.00	0.00
OSCILLATORIA LIMNETICA		
NO. A	260	4.44
PERC'T	10.24	0.42
EUDORINA ELEGANS		
NO. B	0	0.00
PERC'T	0.00	0.00
ANKISTRODESMUS FALCATUS		
NO. A	54	0.85
PERC'T	2.13	0.08
CONLASTRUM MICROPORUM		
NO. A	0	0.00
PERC'T	0.00	0.00
EUGLENA GASTEROSTEUS		
NO. B	0	0.00
PERC'T	0.00	0.00



SPECIES (CONTINUED)	20 DEC ABUNDANCE	BIOVOLUME
CYCLOTELLA ATOMUS		
NO. A	208	18.57
PERC'T	8.20	1.77
MELOSIRA BINDERANA		
NO. B	0	0.00
PERC'T	0.00	0.00
STEPHANODISCUS HANTZSCHII		
NO. B	96	81.64
PERC'T	3.78	7.80
STEPHANODISCUS NIAGARAE		
NO. B	6	323.06
PERC'T	0.24	30.86
STEPHANODISCUS ASTREA VAR. MIN		
NO. B	62	176.29
PERC'T	2.44	16.84
ASTERROPELLA FORMOSA		
NO. B	90	55.68
PERC'T	3.55	5.32
TABELLARIA PERESTRATA		
NO. B	19	77.17
PERC'T	0.75	7.37
CRYPTOMONAS EROSA		
NO. B	8	29.47
PERC'T	0.32	2.82
KATABLEPHARIS OVALIS		
NO. A	29	2.22
PERC'T	1.14	0.21
RHODOMONAS MINUTA VAR. NANNOPL		
NO. A	46	11.25
PERC'T	1.81	1.07
PERIDINIUM CINCTUM		
NO. B	0	0.00
PERC'T	0.00	0.00

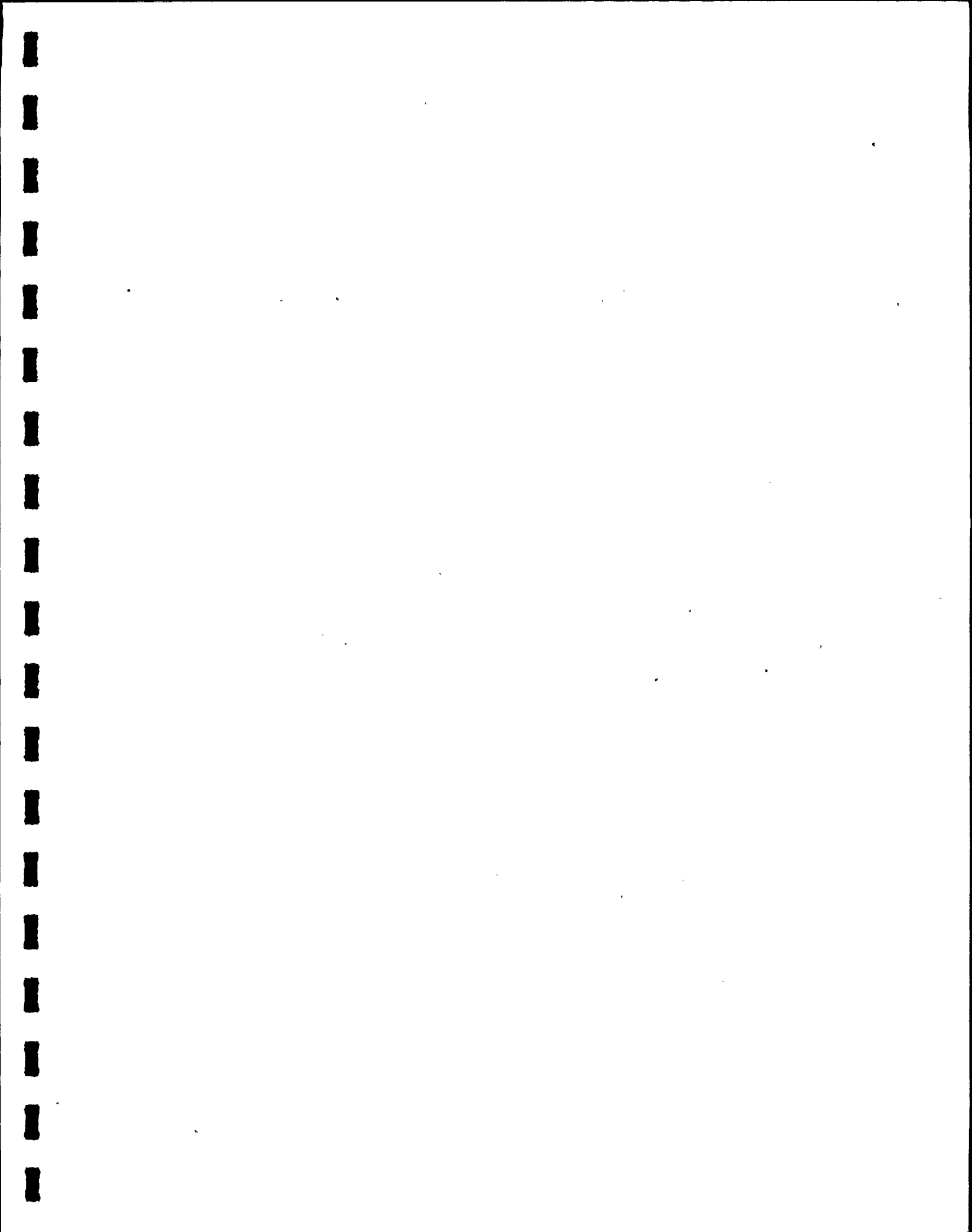
\* NUMBER OF CELLS/ML; ORIGINAL SAMPLE

\*\* NG/CU.M; ORIGINAL SAMPLE

A SPECIES OCCURRING IN TOP 10 OF PHYTOPLANKTON  
BY ABUNDANCE OVER THE ENTIRE SAMPLING PERIOD

B SPECIES OCCURRING IN TOP 10 OF PHYTOPLANKTON  
BY BIOVOLUME, OVER THE ENTIRE SAMPLING PERIOD

C SPECIES OCCURRING IN TOP 10 OF PHYTOPLANKTON  
BY ABUNDANCE AND BIOVOLUME OVER THE ENTIRE  
SAMPLING PERIOD



JAMES A. FITZPATRICK NUCLEAR POWER PLANT

VIII.A.2. CHLOROPHYLL A CONCENTRATIONS:  
IMMEDIATE ANALYSIS AND AFTER  
7, 24, 48, and 72 HR INCUBATION PERIODS:  
INTAKE AND DISCHARGE BAYS





CHLOROPHYLL A CONCENTRATION<sup>c</sup> IN WHOLE WATER COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C)	ΔT <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
				R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
14	<sup>a</sup> 1202	5.5 <sup>f</sup>	13.5	19.7	19.0	19.4	19.0	16.7	17.8	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
APR	<sup>b</sup> 2254	5.8 <sup>f</sup>	13.6	17.7	18.3	18.0	18.0	18.0	18.0	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
28	<sup>a</sup> 1311	8.9 <sup>f</sup>	14.6	13.0	14.2	13.6	15.2	14.8	15.0	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
APR	<sup>b</sup> 0132	8.6 <sup>f</sup>	13.4	4.9	4.9	4.9	8.1	6.1	7.1	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
12	<sup>a</sup> 0958	10.4 <sup>c</sup>	14.4	11.2	8.7	10.0	11.2	12.0	11.6	12.0	11.5	11.8	11.5	9.6	10.6	NOT REQUIRED			NOT REQUIRED		
MAY	<sup>b</sup> 2225	10.3 <sup>c</sup>	14.6	9.3	9.6	9.4	10.9	10.6	10.8	11.7	10.9	11.3	9.3	9.3	9.3	NOT REQUIRED			NOT REQUIRED		
26	<sup>a</sup> 1012	9.9 <sup>c</sup>	15.5	4.9	4.9	4.9	4.2	4.7	4.4	NOT REQUIRED			NOT REQUIRED			4.7	4.0	4.4	4.9	4.7	4.8
MAY	<sup>b</sup> 2144	11.0 <sup>c</sup>	15.2	5.1	5.8	5.4	4.9	4.7	4.8	5.8	4.9	5.4	4.7	5.1	4.9	NOT REQUIRED			NOT REQUIRED		
9	<sup>a</sup> 1021	11.4 <sup>c</sup>	12.9	8.2	8.2	8.2	NAn	7.2	-	7.7	8.6	8.2	7.5	7.2	7.4	NOT REQUIRED			NOT REQUIRED		
JUN	<sup>b</sup> 2145	13.3 <sup>c</sup>	14.3	9.3	7.7	8.5	9.1	8.6	8.8	9.3	9.1	9.2	8.9	8.2	8.6	NOT REQUIRED			NOT REQUIRED		
23, 28	<sup>a</sup> 1018	17.3 <sup>c</sup>	15.8	7.7	NAn	-	4.9	4.7	4.8	NOT REQUIRED			NOT REQUIRED			4.7	4.9	4.8	8.9	9.8	9.4
JUN	<sup>b</sup> 2143	NA	NA	5.1	6.1	5.6	5.4	4.9	5.2	5.8	5.1	5.4	5.4	5.1	5.2	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1019	19.7 <sup>c</sup>	14.2	8.6	7.2	7.9	5.4	4.9	5.2	7.5	7.5	7.5	7.5	6.3	6.9	NOT REQUIRED			NOT REQUIRED		
JUL	<sup>b</sup> 2149	20.3 <sup>c</sup>	14.8	12.8	13.5	13.2	8.9	9.1	9.0	14.2	13.1	13.6	16.3	13.8	15.0	NOT REQUIRED			NOT REQUIRED		
29	<sup>a</sup> 1016	20.0 <sup>c</sup>	13.6	1.6	1.6	1.6	1.6	1.6	1.6	NOT REQUIRED			NOT REQUIRED			1.9 <sup>g</sup>	1.6 <sup>g</sup>	1.8	2.1 <sup>g</sup>	2.1 <sup>g</sup>	2.1
JUL	<sup>b</sup> 2142	19.6 <sup>c</sup>	12.0	0.9	1.2	1.0	0.5	1.9	1.2	0.9	0.7	0.8	1.9	1.6	1.8	NOT REQUIRED			NOT REQUIRED		
11	<sup>a</sup> 0951	19.4 <sup>c</sup>	15.1	3.9	2.5	3.2	2.5	3.1	2.8	4.2	3.9	4.0	3.4	4.8	4.1	NOT REQUIRED			NOT REQUIRED		
AUG	<sup>b</sup> 2112	20.3 <sup>c</sup>	14.7	3.1	4.5	3.8	3.4	4.5	4.0	0.6	2.5	1.6	4.2	4.2	4.2	NOT REQUIRED			NOT REQUIRED		
25	<sup>a</sup> 0950	21.7 <sup>c</sup>	15.0	4.2	4.0	4.1	2.6	4.4	3.5	NOT REQUIRED			NOT REQUIRED			3.7	3.0	3.4	4.0	4.2	4.1
AUG	<sup>b</sup> 2116	21.8 <sup>c</sup>	15.8	7.7	7.5	7.6	6.5	6.8	6.6	7.5	6.3	6.9	7.0	6.8	6.9	NOT REQUIRED			NOT REQUIRED		
8	<sup>a</sup> 1000	19.6 <sup>c</sup>	15.8	6.1	6.1	6.1	5.5	5.4	5.4	7.0	6.1	6.6	6.5	6.8	6.6	NOT REQUIRED			NOT REQUIRED		
SEP	<sup>b</sup> 2109	21.5 <sup>c</sup>	15.8	6.3	6.5	6.4	5.8	5.1	5.4	6.3	4.7	5.5	4.9	6.3	5.6	NOT REQUIRED			NOT REQUIRED		

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CHLOROPHYLL A CONCENTRATION<sup>e</sup> IN WHOLE WATER COLLECTIONS (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C)	$\Delta T$ <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
				R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
22	a <sub>1038</sub>	18.7 <sup>c</sup>	14.4	6.1	6.1	6.1	4.9	4.4	4.6	4.9	4.7	4.8	4.7	5.8	5.2	NO SAMPLE			NO SAMPLE		
SEP	b <sub>2116</sub>	18.0 <sup>c</sup>	14.8	6.1	8.9	7.5	7.5	5.6	6.6	8.8	7.6	8.2	8.8	9.9	9.4	NOT REQUIRED			NOT REQUIRED		
6	a <sub>1023</sub>	15.8 <sup>c</sup>	14.3	6.8	5.6	6.2	4.7	5.6	5.2	6.1	4.9	5.5	6.2	4.2	5.2	NOT REQUIRED			NOT REQUIRED		
OCT	b <sub>2126</sub>	16.3 <sup>c</sup>	13.9	5.6	5.1	5.4	4.7	4.4	4.6	4.7	4.4	4.6	4.7	4.9	4.8	NOT REQUIRED			NOT REQUIRED		
20	a <sub>1004</sub>	12.4 <sup>c</sup>	12.9	3.7	4.0	3.8	3.5	3.7	3.6	NOT REQUIRED			NOT REQUIRED			4.0	4.7	4.4	3.5	3.7	3.6
OCT	b <sub>2121</sub>	12.2 <sup>c</sup>	13.0	2.3	1.4	1.8	2.8	2.6	2.7	3.3	3.0	3.2	3.5	1.2	2.4	NOT REQUIRED			NOT REQUIRED		
3	a <sub>1030</sub>	10.6 <sup>c</sup>	15.0	<0.1	1.2	<0.6	2.1	2.3	2.2	2.1	1.2	1.6	1.4	1.9	1.6	NOT REQUIRED			NOT REQUIRED		
NOV	b <sub>2104</sub>	10.6 <sup>c</sup>	15.1	2.6	1.9	2.2	1.9	2.6	2.2	2.3	1.9	2.1	1.6	2.6	2.1	NOT REQUIRED			NOT REQUIRED		
17	a <sub>1030</sub>	7.8 <sup>c</sup>	12.9	0.2	1.9	1.0	2.1	2.3	2.2	2.1	1.9	2.0	2.1	1.4	1.8	NO SAMPLE			NO SAMPLE		
NOV	b <sub>2247</sub>	8.0 <sup>c</sup>	14.1	1.6	2.8	2.2	2.8	2.6	2.7	2.8	2.3	2.6	2.6	2.1	2.4	NOT REQUIRED			NOT REQUIRED		
1	a <sub>1105</sub>	3.8 <sup>c</sup>	14.5	8.6	7.9	8.2	8.6	8.9	8.8	9.3	7.9	8.6	7.5	8.4	8.0	NOT REQUIRED			NOT REQUIRED		
DEC	b <sub>2232</sub>	3.8 <sup>c</sup>	14.6	9.3	8.4	8.8	6.1	7.9	7.0	8.9	7.0	8.0	7.9	7.9	7.9	NOT REQUIRED			NOT REQUIRED		
15, 19	a <sub>1106</sub>	1.4 <sup>c</sup>	15.3	5.4	5.6	5.5	5.9	5.0	5.4	0.9	3.1	2.0	4.0	4.7	4.4	NO SAMPLE			NO SAMPLE		
DEC	b <sub>2130</sub>	2.6 <sup>c</sup>	13.1	2.6	2.6	2.6	2.6	2.3	2.4	2.1	2.6	2.4	2.6	2.3	2.4	NOT REQUIRED			NOT REQUIRED		

<sup>a/b</sup> Time in 2400 hrs. of Intake Sample

<sup>c</sup> Intake temperature before tempering

NA = Not available

<sup>d</sup> Discharge - Intake Temperature

<sup>e</sup> µg/l

NAN = Not analyzed, sample lost

<sup>f</sup> Intake temperature after tempering

<sup>g</sup> Collections at sites 2° and 3° F lower than boil temperature (samples were not collected in boil)

- = Not applicable

Revised/Final



CHLOROPHYLL A CONCENTRATION<sup>e</sup> IN WHOLE WATER COLLECTIONS AFTER SEVEN-HOUR INCUBATION PERIOD

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T$ <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>			R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
22	<sup>a</sup> 1038	18.7	14.4	4.4	4.7	4.6	3.0	3.3	3.2	4.7	5.1	4.9	4.4	4.7	4.6	NO SAMPLE			NO SAMPLE		
SEP	<sup>b</sup> 2116	18.0	14.8	5.2	4.7	5.0	4.1	5.2	4.6	4.7	5.2	5.0	9.8	2.9	6.4	NOT REQUIRED			NOT REQUIRED		
6	<sup>a</sup> 1023	15.8	14.3	5.1	5.4	5.2	4.4	5.1	4.8	6.3	4.2	5.2	3.5	4.2	3.8	NOT REQUIRED			NOT REQUIRED		
OCT	<sup>b</sup> 2126	16.3	13.9	6.3	3.5	4.9	4.4	5.8	5.1	6.5	6.5	6.5	5.6	7.0	6.3	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1004	12.4	12.9	2.6	3.7	3.2	4.4	4.7	4.6	NOT REQUIRED			NOT REQUIRED			4.7	4.7	4.7	4.7	3.7	4.2
OCT	<sup>b</sup> 2121	12.2	13.0	2.8	2.1	2.4	3.3	4.0	3.6	2.8	3.7	3.2	3.0	2.8	2.9	NOT REQUIRED			NOT REQUIRED		
3	<sup>a</sup> 1030	10.6	15.0	3.0	1.9	2.4	1.2	2.1	1.6	3.3	3.0	3.2	3.0	1.9	2.4	NOT REQUIRED			NOT REQUIRED		
NOV	<sup>b</sup> 2104	10.6	15.1	1.9	2.1	2.0	1.6	1.4	1.5	1.9	1.6	1.8	1.2	1.2	1.2	NOT REQUIRED			NOT REQUIRED		
17	<sup>a</sup> 1030	7.8	12.9	0.7	1.4	1.0	1.4	1.4	1.4	2.1	1.4	1.8	1.6	1.6	1.6	NO SAMPLE			NO SAMPLE		
NOV	<sup>b</sup> 2247	8.0	14.1	3.7	2.6	3.2	2.3	3.0	2.6	2.3	2.8	2.6	2.6	3.0	2.8	NOT REQUIRED			NOT REQUIRED		
1	<sup>a</sup> 1105	3.8	14.5	9.1	9.3	9.2	9.8	8.9	9.4	8.9	7.5	8.2	8.9	9.3	9.1	NOT REQUIRED			NOT REQUIRED		
DEC	<sup>b</sup> 2232	3.8	14.6	8.4	6.5	7.4	7.2	7.5	7.4	7.2	7.9	7.6	8.4	7.0	7.7	NOT REQUIRED			NOT REQUIRED		
15,	<sup>a</sup> 15 DEC 1106	1.4	15.3	3.1	3.1	3.1	3.1	3.1	3.1	5.0	4.4	4.7	3.7	4.4	4.0	NO SAMPLE			NO SAMPLE		
19	<sup>b</sup> 19 DEC 2130	2.6	13.1	1.9	1.6	1.8	1.6	1.9	1.8	1.6	1.9	1.8	2.1	1.4	1.8	NOT REQUIRED			NOT REQUIRED		

<sup>a/b</sup> Time in 2400 hrs. of Intake Sample  
<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake Temperature  
<sup>e</sup>  $\mu\text{g/l}$

\* Not required in sampling program prior to 22 Sep



CHLOROPHYLL A CONCENTRATION<sup>c</sup> IN WHOLE WATER COLLECTIONS AFTER TWENTY-FOUR HOUR INCUBATION PERIOD

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>			R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
22	<sup>a</sup> 1038	18.7	14.4	4.4	4.7	4.6	4.0	3.5	3.8	4.7	6.1	5.4	4.9	5.4	5.2	NO SAMPLE			NO SAMPLE		
SEP	<sup>b</sup> 2116	18.0	14.8	2.9	7.0	5.0	6.4	8.2	7.3	7.0	8.8	7.9	8.8	11.1	10.0	NOT REQUIRED			NOT REQUIRED		
6	<sup>a</sup> 1023	15.8	14.3	4.9	5.6	5.2	4.4	4.7	4.6	5.6	4.7	5.2	4.2	5.1	4.6	NOT REQUIRED			NOT REQUIRED		
OCT	<sup>b</sup> 2126	16.3	13.9	3.5	5.4	4.4	4.4	5.1	4.8	3.5	5.1	4.3	5.1	4.7	4.9	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1004	12.4	12.9	2.8	2.1	2.4	2.1	1.9	2.0	NOT REQUIRED			NOT REQUIRED			3.0	2.6	2.8	3.0	2.1	2.6
OCT	<sup>b</sup> 2121	12.2	13.0	4.2	4.9	4.6	4.2	2.3	3.2	2.6	3.3	3.0	2.3	2.1	2.2	NOT REQUIRED			NOT REQUIRED		
3	<sup>a</sup> 1030	10.6	15.0	1.9	2.1	2.0	1.9	2.3	2.1	2.1	1.6	1.8	2.6	2.6	2.6	NOT REQUIRED			NOT REQUIRED		
NOV	<sup>b</sup> 2104	10.6	15.1	2.1	2.6	2.4	1.9	2.1	2.0	1.9	2.1	2.0	2.6	2.6	2.6	NOT REQUIRED			NOT REQUIRED		
17	<sup>a</sup> 1030	7.8	12.9	1.6	2.1	1.8	1.9	2.1	2.0	2.6	2.1	2.4	1.9	2.1	2.0	NO SAMPLE			NO SAMPLE		
NOV	<sup>b</sup> 2247	8.0	14.1	2.8	2.1	2.4	1.9	2.6	2.2	2.3	2.8	2.6	2.3	2.1	2.2	NOT REQUIRED			NOT REQUIRED		
1	<sup>a</sup> 1105	3.8	14.5	10.3	9.8	10.0	9.6	11.7	10.6	9.1	9.6	9.4	9.1	9.1	9.1	NOT REQUIRED			NOT REQUIRED		
DEC	<sup>b</sup> 2232	3.8	14.6	8.9	7.2	8.0	8.4	7.9	8.2	8.6	8.9	8.8	9.1	8.2	8.6	NOT REQUIRED			NOT REQUIRED		
15,	<sup>a</sup> 1106	1.4	15.3	5.0	5.3	5.2	4.7	5.6	5.2	4.4	4.0	4.2	4.0	5.3	4.6	NO SAMPLE			NO SAMPLE		
19	<sup>b</sup> 2130	2.6	13.1	2.6	2.6	2.6	2.6	3.0	2.8	2.8	2.3	2.6	3.3	3.0	3.2	NOT REQUIRED			NOT REQUIRED		

<sup>a/b</sup> Time in 2400 hrs. of Intake Sample  
<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake Temperature  
<sup>e</sup> μg/l

\* Not required in sampling program prior to 22 Sep





CHLOROPHYLL A CONCENTRATION<sup>e</sup> IN WHOLE WATER COLLECTIONS AFTER FORTY-EIGHT HOUR INCUBATION PERIOD

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP.	$\Delta T^d$	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>	(°C) <sup>c</sup>		R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
22	a <sub>1038</sub>	18.7	14.4	4.7	4.0	4.4	3.3	3.7	3.5	5.4	6.5	6.0	7.2	6.3	6.8	NO SAMPLE			NO SAMPLE		
SEP	b <sub>2116</sub>	18.0	14.8	22.2	22.8	22.5	19.2	14.6	16.9	23.3	17.5	20.4	16.9	21.6	19.2	NOT REQUIRED			NOT REQUIRED		
6	a <sub>1023</sub>	15.8	14.3	4.2	4.7	4.4	2.8	3.7	3.2	4.0	4.0	4.0	3.0	4.0	3.5	NOT REQUIRED			NOT REQUIRED		
OCT	b <sub>2126</sub>	16.3	13.9	5.6	4.9	5.2	4.0	3.5	3.8	4.7	4.2	4.4	4.2	4.4	4.3	NOT REQUIRED			NOT REQUIRED		
20	a <sub>1004</sub>	12.4	12.9	4.4	2.3	3.4	2.3	2.3	2.3	NOT REQUIRED			NOT REQUIRED			2.6	2.6	2.6	4.9	2.1	3.5
OCT	b <sub>2121</sub>	12.2	13.0	4.4	4.9	4.6	3.5	3.5	3.5	3.3	4.2	3.8	3.3	3.5	3.4	NOT REQUIRED			NOT REQUIRED		
3	a <sub>1030</sub>	10.6	15.0	3.5	1.6	2.6	1.9	2.3	2.1	1.9	1.6	1.8	1.4	1.6	1.5	NOT REQUIRED			NOT REQUIRED		
NOV	b <sub>2104</sub>	10.6	15.1	1.9	2.3	2.1	1.9	1.4	1.6	1.4	1.6	1.5	1.6	1.6	1.6	NOT REQUIRED			NOT REQUIRED		
17	a <sub>1030</sub>	7.8	12.9	3.3	6.3	4.8	0.5	1.4	1.0	2.8	1.2	2.0	2.6	2.6	2.6	NO SAMPLE			NO SAMPLE		
NOV	b <sub>2247</sub>	8.0	14.1	0.8	3.0	1.9	1.2	2.6	1.9	1.6	2.8	2.2	2.1	2.3	2.2	NOT REQUIRED			NOT REQUIRED		
1	a <sub>1105</sub>	3.8	14.5	10.7	9.8	10.2	9.8	9.3	9.6	9.3	10.3	9.8	8.9	9.3	9.1	NOT REQUIRED			NOT REQUIRED		
DEC	b <sub>2232</sub>	3.8	14.6	2.8	3.3	3.0	0.5	<0.1	-	1.4	0.9	1.2	1.4	5.6	3.5	NOT REQUIRED			NOT REQUIRED		
15,	a <sub>1106</sub>	1.4	15.3	6.5	7.5	7.0	3.3	2.3	2.8	2.8	4.9	3.8	5.6	4.9	5.2	NO SAMPLE			NO SAMPLE		
19	b <sub>2130</sub>	2.6	13.1	3.3	3.3	3.3	3.0	1.4	2.2	3.5	3.0	3.2	6.8	2.6	4.7	NOT REQUIRED			NOT REQUIRED		

<sup>a/b</sup> Time in 2400 hrs. of Intake Sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake Temperature

<sup>e</sup>  $\mu\text{g/l}$

- = Not applicable

\* Not required in sampling program prior to 22 Sep



CHLOROPHYLL A CONCENTRATION<sup>c</sup> IN WHOLE WATER COLLECTIONS AFTER SEVENTY-TWO HOUR INCUBATION PERIOD

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE <sup>a</sup>	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
				R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
22	<sup>a</sup> 1038	18.7	14.4	4.9	5.4	5.2	3.7	5.1	4.4	6.3	6.8	6.6	6.5	6.8	6.6	NO SAMPLE			NO SAMPLE		
SEP	<sup>b</sup> 2116	18.0	14.8	10.3	8.2	9.2	8.6	7.2	7.9	6.8	9.6	8.2	7.5	9.6	8.6	NOT REQUIRED			NOT REQUIRED		
6	<sup>a</sup> 1023	15.8	14.3	4.2	3.0	3.6	2.8	3.3	3.0	5.6	5.8	5.7	5.1	3.5	4.3	NOT REQUIRED			NOT REQUIRED		
OCT	<sup>b</sup> 2126	16.3	13.9	2.6	1.2	1.9	1.4	1.4	1.4	3.0	1.4	2.2	2.8	2.8	2.8	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1004	12.4	12.9	3.3	3.3	3.3	2.6	1.9	2.2	NOT REQUIRED			NOT REQUIRED			3.5	1.6	2.6	3.5	3.3	3.4
OCT	<sup>b</sup> 2121	12.2	13.0	2.1	2.8	2.4	2.3	3.5	2.9	1.9	5.1	3.5	3.5	3.9	3.7	NOT REQUIRED			NOT REQUIRED		
3	<sup>a</sup> 1030	10.6	15.0	1.9	1.4	1.6	1.2	1.2	1.2	1.6	2.1	1.8	1.6	1.6	1.6	NOT REQUIRED			NOT REQUIRED		
NOV	<sup>b</sup> 2104	10.6	15.1	NA	1.6	-	4.0	1.9	3.0	2.3	2.3	2.3	1.9	1.6	1.8	NOT REQUIRED			NOT REQUIRED		
17	<sup>a</sup> 1030	7.8	12.9	3.0	2.1	2.6	2.6	2.8	2.7	2.1	2.8	2.4	3.3	1.4	2.4	NO SAMPLE			NO SAMPLE		
NOV	<sup>b</sup> 2247	8.0	14.1	NAn	NAn	-	NAn	NAn	-	NAn	NAn	-	NAn	NAn	-	NOT REQUIRED			NOT REQUIRED		
1	<sup>a</sup> 1105	3.8	14.5	9.0	10.1	9.6	8.9	9.5	9.2	11.2	11.8	11.5	9.2	10.9	10.0	NOT REQUIRED			NOT REQUIRED		
DEC	<sup>b</sup> 2232	3.8	14.6	13.1	13.5	13.3	9.6	7.7	8.6	6.5	8.4	7.4	10.0	8.2	9.1	NOT REQUIRED			NOT REQUIRED		
15,	<sup>a</sup> 1106	1.4	15.3	14.7	16.3	15.5	8.4	8.2	8.3	4.2	4.0	4.1	4.4	4.7	4.6	NO SAMPLE			NO SAMPLE		
19	<sup>a</sup> 1106	1.4	15.3	14.7	16.3	15.5	8.4	8.2	8.3	4.2	4.0	4.1	4.4	4.7	4.6	NO SAMPLE			NO SAMPLE		
DEC	<sup>b</sup> 2130	2.6	13.1	5.8	5.5	5.6	4.1	4.4	4.2	3.8	4.7	4.2	6.1	4.7	5.4	NOT REQUIRED			NOT REQUIRED		

<sup>a/b</sup> Time in 2400 hrs. of Intake Sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake Temperature

<sup>e</sup> μg/l

NA = Not available

NAn = Not analyzed

- = Not applicable

\* No required in sampling program prior to 22 Sep



JAMES A. FITZPATRICK NUCLEAR POWER PLANT

VIII.A.3. PHAEOPIGMENT CONCENTRATIONS:  
IMMEDIATE ANALYSIS:  
INTAKE AND DISCHARGE BAYS



PHAEOPIGMENT CONCENTRATION<sup>c</sup> IN WHOLE WATER COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C)	ΔT <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>			R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
14	<sup>a</sup> 1202	5.5 <sup>f</sup>	13.5	<0.1	<0.1	-	0.9	2.5	1.7	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
APR	<sup>b</sup> 2254	5.8 <sup>f</sup>	13.6	1.8	<0.1	-	<0.1	<0.1	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
28	<sup>a</sup> 1311	8.9 <sup>f</sup>	14.6	2.9	2.4	2.6	2.2	2.8	2.5	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
APR	<sup>b</sup> 0132	8.6 <sup>f</sup>	13.4	2.2	1.7	2.0	0.3	0.9	0.6	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
12	<sup>a</sup> 0958	10.4 <sup>c</sup>	14.4	3.4	7.0	5.2	3.4	2.3	2.8	3.0	3.4	3.2	3.0	4.3	3.6	NOT REQUIRED			NOT REQUIRED		
MAY	<sup>b</sup> 2225	10.3 <sup>c</sup>	14.6	3.6	4.3	4.0	3.0	3.7	3.4	3.9	3.9	3.9	4.6	3.6	4.1	NOT REQUIRED			NOT REQUIRED		
26	<sup>a</sup> 1012	9.9 <sup>c</sup>	15.5	1.5	1.4	1.4	1.3	1.7	1.5	NOT REQUIRED			NOT REQUIRED			1.9	0.6	1.2	<0.1	1.0	0.5
MAY	<sup>b</sup> 2144	11.0 <sup>c</sup>	15.2	2.5	1.3	1.9	2.6	3.0	2.8	2.2	1.7	2.0	3.0	2.1	2.6	NOT REQUIRED			NOT REQUIRED		
9	<sup>a</sup> 1021	11.4 <sup>c</sup>	12.9	1.1	0.9	1.0	NA <sup>n</sup>	2.2	2.2	1.3	0.9	1.1	0.5	<0.1	0.2	NOT REQUIRED			NOT REQUIRED		
JUN	<sup>b</sup> 2145	13.3 <sup>c</sup>	14.3	0.4	2.4	1.4	1.1	1.1	1.1	0.7	1.7	1.2	1.8	2.0	1.9	NOT REQUIRED			NOT REQUIRED		
23, 28	<sup>a</sup> 1018	17.3 <sup>c</sup>	15.8	2.4	NA <sup>n</sup>	2.4	3.7	4.5	4.1	NOT REQUIRED			NOT REQUIRED			4.5	2.1	3.3	4.1	3.0	3.6
JUN	<sup>b</sup> 2143	NA	NA	1.3	0.6	1.0	<1.0	0.6	-	1.1	1.8	1.4	1.8	1.5	1.6	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1019	19.7 <sup>c</sup>	14.2	1.4	1.5	1.4	1.7	2.6	2.2	2.0	2.6	2.3	2.9	3.3	3.1	NOT REQUIRED			NOT REQUIRED		
JUL	<sup>b</sup> 2149	20.3 <sup>c</sup>	14.8	1.3	1.7	1.5	2.8	2.3	2.6	0.1	<0.1	-	<0.1	<0.1	-	NOT REQUIRED			NOT REQUIRED		
29	<sup>a</sup> 1016	20.0 <sup>c</sup>	13.6	1.7	1.7	1.7	1.7	1.4	1.6	NOT REQUIRED			NOT REQUIRED			1.2 <sup>g</sup>	2.1 <sup>g</sup>	1.6	2.3 <sup>g</sup>	2.6 <sup>g</sup>	2.4
JUL	<sup>b</sup> 2142	19.6 <sup>c</sup>	12.0	1.7	1.2	1.4	2.5	0.4	1.4	1.6	1.9	1.8	<0.1	0.2	-	NOT REQUIRED			NOT REQUIRED		
11	<sup>a</sup> 0951	19.4 <sup>c</sup>	15.1	3.3	4.8	4.0	3.1	2.6	2.8	NOT REQUIRED			NOT REQUIRED			3.4	0.7	2.0	3.8	0.9	2.4
AUG	<sup>b</sup> 2112	20.3 <sup>c</sup>	14.7	5.7	1.9	3.8	0	1.9	1.0	6.3	4.6	5.4	3.6	1.4	2.5	NOT REQUIRED			NOT REQUIRED		
25	<sup>a</sup> 0950	21.7 <sup>c</sup>	15.0	3.4	1.2	2.3	1.6	1.2	1.4	NOT REQUIRED			NOT REQUIRED			0.9	0.8	0.8	1.3	0.2	0.8
AUG	<sup>b</sup> 2116	21.8 <sup>c</sup>	15.8	2.0	2.0	2.0	1.5	2.7	2.1	2.2	2.0	2.1	2.2	2.1	2.2	NOT REQUIRED			NOT REQUIRED		
8	<sup>a</sup> 1000	19.6 <sup>c</sup>	15.8	0.4	0.7	0.6	2.3	2.5	2.4	1.2	1.2	1.2	1.5	1.1	1.3	NOT REQUIRED			NOT REQUIRED		
SEP	<sup>b</sup> 2109	21.5 <sup>c</sup>	15.8	2.0	1.7	1.8	0.8	1.3	1.0	1.6	1.0	1.3	1.5	1.4	1.4	NOT REQUIRED			NOT REQUIRED		





PHAEOPIGMENT CONCENTRATION<sup>e</sup> IN WHOLE WATER COLLECTIONS (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C)	ΔT <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>			R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
22	<sup>a</sup> 1038	18.7 <sup>c</sup>	14.4	1.8	1.3	1.6	1.1	2.4	1.8	2.4	2.0	2.2	2.4	1.9	2.2	NO SAMPLE			NO SAMPLE		
SEP	<sup>b</sup> 2116	18.0 <sup>c</sup>	14.8	6.2	6.0	6.1	2.2	5.1	3.6	6.3	5.5	5.9	4.4	2.9	3.6	NOT REQUIRED			NOT REQUIRED		
6	<sup>a</sup> 1023	15.8 <sup>c</sup>	14.3	1.1	2.1	1.6	1.6	1.5	1.6	0.3	1.7	1.0	1.3	1.6	1.4	NOT REQUIRED			NOT REQUIRED		
OCT	<sup>b</sup> 2126	16.3 <sup>c</sup>	13.9	0.9	1.3	1.1	0.5	0.9	0.7	0.8	0.7	0.8	1.3	1.8	1.6	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1004	12.4 <sup>c</sup>	12.9	0.3	0.1	0.2	0.5	0.2	0.4	NOT REQUIRED			NOT REQUIRED			0.1	<0.1	-	0.8	0.3	0.6
OCT	<sup>b</sup> 2121	12.2 <sup>c</sup>	13.0	1.9	2.5	2.2	1.0	1.7	1.4	0.9	1.3	1.1	0.1	2.4	1.2	NOT REQUIRED			NOT REQUIRED		
3	<sup>a</sup> 1030	10.6 <sup>c</sup>	15.0	3.6	1.5	2.6	0.3	0.1	0.2	<0.1	0.6	-	0.2	<0.1	-	NOT REQUIRED			NOT REQUIRED		
NOV	<sup>b</sup> 2104	10.6 <sup>c</sup>	15.1	0.5	0.8	0.6	0.8	0.2	0.5	0.9	0.8	0.8	1.2	0.3	0.8	NOT REQUIRED			NOT REQUIRED		
17	<sup>a</sup> 1030	7.8 <sup>c</sup>	12.9	2.7	1.3	2.0	1.1	0.7	0.9	1.4	1.2	1.3	1.7	1.9	1.8	NO SAMPLE			NO SAMPLE		
NOV	<sup>b</sup> 2247	8.0 <sup>c</sup>	14.1	1.4	<0.1	-	0.1	0.5	0.3	0.1	0.6	0.4	0.3	0.9	0.6	NOT REQUIRED			NOT REQUIRED		
1	<sup>a</sup> 1105	3.8 <sup>c</sup>	14.5	2.2	4.3	3.2	2.4	2.7	2.6	2.2	2.6	2.4	3.7	2.5	3.1	NOT REQUIRED			NOT REQUIRED		
DEC	<sup>b</sup> 2232	3.8 <sup>c</sup>	14.6	3.2	1.6	2.4	4.1	3.3	3.7	1.8	2.6	2.2	0.5	2.0	1.2	NOT REQUIRED			NOT REQUIRED		
15, 19	<sup>a</sup> 1106	1.4 <sup>c</sup>	15.3	0.8	0.4	0.6	0.6	1.8	1.2	6.2	1.0	3.6	1.1	0.9	1.0	NO SAMPLE			NO SAMPLE		
DEC	<sup>b</sup> 2130	2.6 <sup>c</sup>	13.1	0.3	0.3	0.3	1.0	0.9	1.0	0.9	0.2	0.6	0.7	0.4	0.6	NOT REQUIRED			NOT REQUIRED		

a/b Time in 2400 hrs. of Intake Sample  
<sup>c</sup> Intake temperature before tempering  
 NAN = Not analyzed, sample lost  
 - = Not applicable

<sup>d</sup> Discharge - Intake Temperature  
<sup>e</sup> μg/l  
<sup>f</sup> Intake temperature after tempering  
 NA = Not available

<sup>g</sup> Collections at sites 2° and 3°F lower than the boil temperature (samples were not collected in boil)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

VIII.A.4. PRIMARY PRODUCTION AFTER 4, 7, 24, 48, AND 72 HR  
INCUBATION PERIODS:  
INTAKE AND DISCHARGE BAYS



PRIMARY PRODUCTION<sup>b</sup> AFTER FOUR-HOUR INCUBATION PERIOD

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C)		$\Delta T^d$	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
					R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
14 APR	1202	5.5 <sup>f</sup>	13.5		44.63	NR	-	44.01	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
28 APR	1311	8.9 <sup>f</sup>	14.6		27.24	NR	-	36.68	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
12 MAY	0958	10.4 <sup>c</sup>	14.4		13.46	39.13	26.30	41.07	47.34	44.21	88.86	76.34	82.60	58.93	51.32	55.12	NOT REQUIRED			NOT REQUIRED		
26 MAY	1012	9.9 <sup>c</sup>	15.5		8.80	9.73	9.26	10.62	12.68	11.65	NOT REQUIRED			NOT REQUIRED			15.12	13.49	14.30	14.54	12.52	13.53
9 JUN	1021	11.4 <sup>c</sup>	12.9		17.62	16.55	17.08	11.96	14.86	13.41	21.62	20.78	21.20	21.82	19.32	20.57	NOT REQUIRED			NOT REQUIRED		
23 JUN	1018	17.3 <sup>c</sup>	15.8		23.54	23.06	23.30	14.91	14.04	14.48	NOT REQUIRED			NOT REQUIRED			28.50	16.70	22.60	50.48	43.85	47.16
20 JUL	1019	19.7 <sup>c</sup>	NA		20.19	20.38	20.28	9.30	11.11	10.20	20.72	36.53	28.62	37.04	31.68	34.36	NOT REQUIRED			NOT REQUIRED		
29 JUL	1016	20.0 <sup>c</sup>	NA		8.59	8.20	8.40	6.66	5.44	6.05	NOT REQUIRED			NOT REQUIRED			29.97 <sup>e</sup>	24.02 <sup>e</sup>	27.00	20.92 <sup>e</sup>	19.14 <sup>e</sup>	20.03
11 AUG	0951	19.4 <sup>c</sup>	15.1		16.11	18.92	17.52	12.63	14.66	13.64	20.88	20.39	20.64	21.42	19.31	20.36	NOT REQUIRED			NOT REQUIRED		
25 AUG	0950	21.7 <sup>c</sup>	15.0		26.85	30.15	28.50	19.54	19.93	19.74	NOT REQUIRED			NOT REQUIRED			31.58	38.40	34.99	38.04	37.64	37.84
8 SEP	1000	19.6 <sup>c</sup>	15.8		21.90	23.86	22.88	20.12	20.08	20.10	33.44	33.10	33.27	35.29	33.08	34.18	NOT REQUIRED			NOT REQUIRED		
22 SEP	1038	18.7 <sup>c</sup>	14.4		14.87	14.54	14.70	9.50	12.24	10.87	17.24	23.19	20.22	21.20	20.68	20.94	NO SAMPLE			NO SAMPLE		
6 OCT	1023	15.8 <sup>c</sup>	14.3		13.15	10.56	11.86	12.30	13.18	12.74	20.40	22.16	21.28	23.22	21.35	22.28	NOT REQUIRED			NOT REQUIRED		
20 OCT	1004	12.4 <sup>c</sup>	12.9		6.98	8.69	7.84	7.76	8.13	7.94	NOT REQUIRED			NOT REQUIRED			9.64	9.05	9.34	13.18	12.22	12.70
3 NOV	1030	10.6 <sup>c</sup>	15.0		5.80	6.24	6.02	4.94	6.21	5.58	7.02	7.33	7.18	8.54	7.99	8.26	NOT REQUIRED			NOT REQUIRED		
17 NOV	1030	7.8 <sup>c</sup>	12.9		2.65	4.69	3.67	3.42	4.70	4.06	5.94	5.38	5.66	4.12	5.88	5.00	NO SAMPLE			NO SAMPLE		
1 DEC	1105	3.8 <sup>c</sup>	14.5		27.98	28.70	28.34	33.58	33.69	33.64	39.50	45.02	42.26	38.56	43.50	41.03	NOT REQUIRED			NOT REQUIRED		
15 DEC	1106	1.4 <sup>c</sup>	15.3		6.40	6.46	6.43	7.86	10.30	9.08	8.70	11.51	10.10	9.42	10.36	9.89	NO SAMPLE			NO SAMPLE		

<sup>a</sup>Time in 2400 hrs. of Intake Sample

<sup>b</sup>C-14, 2 light and 1 dark bottle, mg C/m<sup>3</sup>/hr

- = Not applicable

<sup>c</sup>Intake temperature before tempering

<sup>d</sup>Discharge - Intake temperature

NA = Not available

<sup>e</sup>Collections at sites 2° and 3°F lower than boil temperature (samples were not collected in boil)

<sup>f</sup>Intake temperature after tempering

NR = Not required in work scope



PRIMARY PRODUCTION AFTER SEVEN-HOUR INCUBATION PERIOD

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C)	$\Delta T^d$	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>			R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
14	<sup>a</sup> 1202	5.5 <sup>g</sup>	13.5	12.84	NR	-	23.52	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
APR <sup>f</sup>	<sup>b</sup> 2254	5.8 <sup>g</sup>	13.6	1.96	NR	-	25.63	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
28	<sup>a</sup> 1311	8.9 <sup>g</sup>	14.6	32.01	NR	-	26.08	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
APR <sup>f</sup>	<sup>b</sup> 0132	8.6 <sup>g</sup>	13.4	22.28	NR	-	19.20	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
12	<sup>a</sup> 0958	10.4 <sup>c</sup>	14.4	28.14	7.62	17.88	28.20	28.89	28.54	38.25	45.52	41.88	37.01	31.37	34.19	NOT REQUIRED			NOT REQUIRED		
MAY <sup>e</sup>	<sup>b</sup> 2225	10.3 <sup>c</sup>	14.6	17.83	25.20	21.52	34.57	42.60	38.58	41.36	45.62	43.49	39.60	37.32	38.46	NOT REQUIRED			NOT REQUIRED		
26	<sup>a</sup> 1012	9.9 <sup>c</sup>	15.5	11.22	11.97	11.60	11.80	13.19	12.50	NOT REQUIRED			NOT REQUIRED			17.84	18.20	18.02	19.40	18.70	19.05
MAY <sup>e</sup>	<sup>b</sup> 2144	11.0 <sup>c</sup>	15.2	5.45	6.63	6.04	8.27	9.35	8.81	10.33	10.50	10.42	11.10	11.94	11.52	NOT REQUIRED			NOT REQUIRED		
9	<sup>a</sup> 1021	11.4 <sup>c</sup>	12.9	15.24	15.59	15.42	10.28	10.56	10.42	16.92	16.76	16.84	15.58	15.63	15.60	NOT REQUIRED			NOT REQUIRED		
JUN <sup>e</sup>	<sup>b</sup> 2145	13.3 <sup>c</sup>	14.3	11.75	17.54	14.64	8.15	10.19	9.17	10.44	10.11	10.28	10.45	9.68	10.06	NOT REQUIRED			NOT REQUIRED		
23, 28	<sup>a</sup> 1018	17.3 <sup>c</sup>	15.8	21.39	28.09	24.74	13.94	15.33	14.64	NOT REQUIRED			NOT REQUIRED			18.23	12.95	15.59	32.33	30.20	31.26
JUN <sup>e</sup>	<sup>b</sup> 2143	NA	NA	9.04	11.62	10.33	6.32	5.34	5.83	7.32	7.68	7.50	9.10	11.56	10.33	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1019	19.7 <sup>c</sup>	14.2	20.45	21.93	21.19	7.08	7.76	7.42	31.29	21.24	26.26	36.62	22.94	29.78	NOT REQUIRED			NOT REQUIRED		
JUL <sup>e</sup>	<sup>b</sup> 2149	20.3 <sup>c</sup>	14.8	11.18	11.83	11.50	11.50	11.61	11.56	7.28	10.93	9.10	23.41	11.29	17.35	NOT REQUIRED			NOT REQUIRED		
29	<sup>a</sup> 1016	20.0 <sup>c</sup>	13.6	8.64	7.52	8.08	5.87	4.30	5.08	NOT REQUIRED			NOT REQUIRED			17.88 <sup>h</sup>	20.43 <sup>h</sup>	19.16	11.07 <sup>h</sup>	18.45 <sup>h</sup>	14.76
JUL <sup>e</sup>	<sup>b</sup> 2142	19.6 <sup>c</sup>	12.0	3.87	5.39	4.63	2.17	3.67	2.92	3.37	1.98	2.68	2.39	3.98	3.18	NOT REQUIRED			NOT REQUIRED		
11	<sup>a</sup> 0951	19.4 <sup>c</sup>	15.1	17.34	16.22	16.78	12.98	13.85	13.42	20.76	23.00	21.88	20.26	19.49	19.88	NOT REQUIRED			NOT REQUIRED		
AUG <sup>e</sup>	<sup>b</sup> 2112	20.3 <sup>c</sup>	14.7	12.63	15.09	13.86	8.72	12.47	10.60	11.58	14.48	13.03	17.03	15.54	16.28	NOT REQUIRED			NOT REQUIRED		
25	<sup>a</sup> 0950	21.7 <sup>c</sup>	15.0	25.23	34.25	29.74	20.32	21.07	20.70	NOT REQUIRED			NOT REQUIRED			31.56	38.01	34.78	41.21	36.92	39.06
AUG <sup>e</sup>	<sup>b</sup> 2116	21.8 <sup>c</sup>	15.8	24.49	29.31	26.90	21.10	19.84	20.47	23.23	27.62	25.42	24.15	20.73	22.44	NOT REQUIRED			NOT REQUIRED		
8	<sup>a</sup> 1000	19.6 <sup>c</sup>	15.8	22.89	25.81	24.35	20.51	22.95	21.73	30.95	36.28	33.62	35.14	35.19	35.16	NOT REQUIRED			NOT REQUIRED		
SEP <sup>e</sup>	<sup>b</sup> 2109	21.5 <sup>c</sup>	15.8	29.12	28.71	28.92	16.79	18.56	17.68	16.43	16.16	16.30	15.36	14.44	14.90	NOT REQUIRED			NOT REQUIRED		





PRIMARY PRODUCTION AFTER SEVEN-HOUR INCUBATION PERIOD (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C)	$\Delta T^d$	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>			R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
22	<sup>a</sup> 1038	18.7 <sup>c</sup>	14.4	10.25	10.77	10.51	7.66	10.16	8.91	12.20	15.49	13.84	15.16	14.87	15.02	NO SAMPLE			NO SAMPLE		
SEP <sup>e</sup>	<sup>b</sup> 2116	18.0 <sup>c</sup>	14.8	11.80	15.77	13.78	27.18	27.18	27.18	21.27	17.42	19.34	26.73	16.51	21.62	NOT REQUIRED			NOT REQUIRED		
6	<sup>a</sup> 1023	15.8 <sup>c</sup>	14.3	12.70	13.63	13.16	9.00	10.09	9.54	12.56	17.13	14.84	17.18	14.59	15.88	NOT REQUIRED			NOT REQUIRED		
OCT <sup>e</sup>	<sup>b</sup> 2126	16.3 <sup>c</sup>	13.9	9.00	9.05	9.02	9.10	11.31	10.20	12.35	11.07	11.71	15.00	10.14	12.57	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1004	12.4 <sup>c</sup>	12.9	6.42	6.37	6.40	5.74	4.05	4.90	NOT REQUIRED			NOT REQUIRED			7.27	8.01	7.64	7.88	7.53	7.70
OCT <sup>e</sup>	<sup>b</sup> 2121	12.2 <sup>c</sup>	13.0	5.03	4.85	4.94	5.83	5.69	5.76	NA <sup>v</sup>	6.21	-	6.77	7.28	7.02	NOT REQUIRED			NOT REQUIRED		
3	<sup>a</sup> 1030	10.6 <sup>c</sup>	15.0	3.46	5.02	4.24	3.41	3.49	3.45	3.83	4.79	4.31	4.28	3.47	3.88	NOT REQUIRED			NOT REQUIRED		
NOV <sup>e</sup>	<sup>b</sup> 2104	10.6 <sup>c</sup>	15.1	NA <sup>v</sup>	4.86	-	3.02	3.60	3.31	4.19	4.00	4.10	4.39	3.21	3.80	NOT REQUIRED			NOT REQUIRED		
17	<sup>a</sup> 1030	7.8 <sup>c</sup>	12.9	1.93	1.69	1.81	2.17	1.68	1.92	2.29	3.45	2.87	2.68	2.85	2.76	NO SAMPLE			NO SAMPLE		
NOV <sup>e</sup>	<sup>b</sup> 2247	8.0 <sup>c</sup>	14.1	2.39	2.96	2.68	2.07	3.16	2.62	1.84	3.09	2.46	2.40	3.56	2.98	NOT REQUIRED			NOT REQUIRED		
1	<sup>a</sup> 1105	3.8 <sup>c</sup>	14.5	19.79	20.21	20.00	19.59	19.29	19.44	22.73	24.94	23.84	22.46	23.71	23.08	NOT REQUIRED			NOT REQUIRED		
DEC <sup>e</sup>	<sup>b</sup> 2232	3.8 <sup>c</sup>	14.6	19.11	18.26	18.68	17.27	28.37	22.82	34.83	15.63	25.23	25.30	21.75	23.52	NOT REQUIRED			NOT REQUIRED		
15,	<sup>a</sup> 15 DEC 1106	1.4 <sup>c</sup>	15.3	5.71	7.24	6.48	5.15	5.01	5.08	5.20	6.57	5.88	6.47	5.37	5.92	NO SAMPLE			NO SAMPLE		
19	<sup>a</sup> 19 DEC 2130	2.6 <sup>c</sup>	13.1	6.67	6.62	6.64	4.94	4.46	4.70	3.11	4.12	3.62	3.63	3.02	3.32	NOT REQUIRED			NOT REQUIRED		

<sup>a/b</sup> Time in 2400 hrs. of Intake Sample  
<sup>c</sup> Intake temperature before tempering  
<sup>d</sup> Discharge - Intake Temperature  
<sup>v</sup> NAV = Light bottle reading not available

<sup>e</sup> C-14, 1 light and 1 dark bottle, mg C/m<sup>3</sup>/hr  
<sup>f</sup> C-14, 2 light and 1 dark bottle, mg C/m<sup>3</sup>/hr  
<sup>g</sup> Intake temperature after tempering  
<sup>h</sup> NA = Not available

<sup>h</sup> Collection at sites 2° and 3°F lower than boil temperature (samples were not collected in boil)  
<sup>i</sup> NR = Not required in work scope  
<sup>j</sup> - = Not applicable



PRIMARY PRODUCTION AFTER TWENTY-FOUR-HOUR INCUBATION PERIOD

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C)	$\Delta T^d$	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>			R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
14	<sup>a</sup> 1202	5.5 <sup>g</sup>	13.5	32.56	NR	-	33.17	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
APR <sup>f</sup>	<sup>b</sup> 2254	5.8 <sup>g</sup>	13.6	0.32	NR	-	13.27	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
28	<sup>a</sup> 1311	8.9 <sup>g</sup>	14.6	15.35	NR	-	20.74	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
APR <sup>f</sup>	<sup>b</sup> 0132	8.6 <sup>g</sup>	13.4	3.98	NR	-	2.22	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
12	<sup>a</sup> 0958	10.4 <sup>c</sup>	14.4	36.05	38.90	37.48	27.66	36.59	32.12	41.20	42.15	41.68	38.91	42.31	40.61	NOT REQUIRED			NOT REQUIRED		
MAY <sup>e</sup>	<sup>b</sup> 2225	10.3 <sup>c</sup>	14.6	19.53	32.77	26.15	29.87	44.43	37.15	20.32	30.99	25.66	32.00	24.46	28.23	NOT REQUIRED			NOT REQUIRED		
26	<sup>a</sup> 1012	9.9 <sup>c</sup>	15.5	8.43	9.59	9.01	7.26	7.99	7.62	NOT REQUIRED			NOT REQUIRED			8.55	9.92	9.24	11.13	10.34	10.74
MAY <sup>e</sup>	<sup>b</sup> 2144	11.0 <sup>c</sup>	15.2	6.52	7.35	6.94	5.90	9.59	7.74	8.73	9.74	9.24	12.54	8.32	10.43	NOT REQUIRED			NOT REQUIRED		
9	<sup>a</sup> 1021	11.4 <sup>c</sup>	12.9	7.29	9.68	8.48	5.07	6.13	5.60	6.56	8.62	7.59	8.74	7.51	8.12	NOT REQUIRED			NOT REQUIRED		
JUN <sup>e</sup>	<sup>b</sup> 2145	13.3 <sup>c</sup>	14.3	10.28	14.23	12.26	8.13	8.20	8.16	5.99	7.81	6.90	2.10	0.27	1.18	NOT REQUIRED			NOT REQUIRED		
23, 28	<sup>a</sup> 1018	17.3 <sup>c</sup>	15.8	14.11	13.54	13.82	9.48	10.54	10.01	NOT REQUIRED			NOT REQUIRED			13.28	8.28	10.78	18.63	16.78	17.70
JUN <sup>e</sup>	<sup>b</sup> 2143	NA	NA	5.48	11.66	8.57	4.09	6.27	5.18	4.65	3.06	3.86	4.56	4.83	4.70	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1019	19.7 <sup>c</sup>	14.2	10.48	16.08	13.28	4.97	5.14	5.06	9.52	8.92	9.22	9.90	12.30	11.10	NOT REQUIRED			NOT REQUIRED		
JUL <sup>e</sup>	<sup>b</sup> 2149	20.3 <sup>c</sup>	14.8	18.74	10.99	14.86	7.69	6.95	7.32	9.62	6.92	8.27	8.99	20.76	14.88	NOT REQUIRED			NOT REQUIRED		
29	<sup>a</sup> 1016	20.0 <sup>c</sup>	13.6	4.14	3.43	3.78	1.96	2.18	2.07	NOT REQUIRED			NOT REQUIRED			10.08 <sup>h</sup>	8.75 <sup>h</sup>	9.42	8.13 <sup>h</sup>	7.90 <sup>h</sup>	8.02
JUL <sup>e</sup>	<sup>b</sup> 2142	19.6 <sup>c</sup>	12.0	4.22	3.39	3.80	2.04	1.77	1.90	1.61	3.11	2.36	2.20	2.74	2.47	NOT REQUIRED			NOT REQUIRED		
11	<sup>a</sup> 0951	19.4 <sup>c</sup>	15.1	11.56	11.21	11.38	5.65	8.91	7.28	10.83	13.75	12.29	14.05	11.44	12.74	NOT REQUIRED			NOT REQUIRED		
AUG <sup>e</sup>	<sup>b</sup> 2112	20.3 <sup>c</sup>	14.7	16.63	13.13	14.88	10.42	10.04	10.23	9.83	11.59	10.71	12.62	12.55	12.58	NOT REQUIRED			NOT REQUIRED		
25	<sup>a</sup> 0950	21.7 <sup>c</sup>	15.0	16.59	29.99	23.29	15.68	18.48	17.08	NOT REQUIRED			NOT REQUIRED			27.23	32.12	29.68	29.10	26.80	27.95
AUG <sup>e</sup>	<sup>b</sup> 2116	21.8 <sup>c</sup>	15.8	16.07	20.24	18.16	15.57	17.91	16.74	12.90	18.06	15.48	26.29	21.25	23.77	NOT REQUIRED			NOT REQUIRED		
8	<sup>a</sup> 1000	19.6 <sup>c</sup>	15.8	20.23	14.02	17.12	14.35	13.68	14.02	19.94	21.82	20.88	21.78	20.37	21.08	NOT REQUIRED			NOT REQUIRED		
SEP <sup>e</sup>	<sup>b</sup> 2109	21.5 <sup>c</sup>	15.8	18.98	26.86	22.92	15.24	15.03	15.14	11.44	12.45	11.94	13.79	10.43	12.11	NOT REQUIRED			NOT REQUIRED		
22	<sup>a</sup> 1038	18.7 <sup>c</sup>	14.4	7.74	5.93	6.84	5.21	5.59	5.40	6.46	9.09	7.78	7.20	8.00	7.60	NO SAMPLE			NO SAMPLE		
SEP <sup>e</sup>	<sup>b</sup> 2116	18.0 <sup>c</sup>	14.8	8.24	21.28	14.76	11.35	22.99	17.17	15.20	15.36	15.28	16.07	16.25	16.16	NOT REQUIRED			NOT REQUIRED		



PRIMARY PRODUCTION AFTER TWENTY-FOUR-HOUR INCUBATION PERIOD (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C)	$\Delta T^d$	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>			R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
6	<sup>a</sup> 1023	15.8 <sup>c</sup>	14.3	9.06	7.83	8.44	7.29	7.05	7.17	9.45	9.16	9.30	9.99	9.08	9.54	NOT REQUIRED			NOT REQUIRED		
OCT <sup>e</sup>	<sup>b</sup> 2126	16.3 <sup>c</sup>	13.9	6.04	7.52	6.78	8.08	8.11	8.10	8.22	8.36	8.29	8.27	8.77	8.52	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1004	12.4 <sup>c</sup>	12.9	3.65	4.86	4.26	3.13	3.26	3.20	NOT REQUIRED			NOT REQUIRED			4.22	4.34	4.28	3.68	4.61	4.14
OCT <sup>e</sup>	<sup>b</sup> 2121	12.2 <sup>c</sup>	13.0	3.24	4.32	3.78	3.09	3.88	3.48	NA <sup>v</sup>	3.21	-	3.39	3.26	3.32	NOT REQUIRED			NOT REQUIRED		
3	<sup>a</sup> 1030	10.6 <sup>c</sup>	15.0	2.04	1.60	1.82	1.29	1.48	1.38	1.96	1.88	1.92	0.82	1.69	1.26	NOT REQUIRED			NOT REQUIRED		
NOV <sup>e</sup>	<sup>b</sup> 2104	10.6 <sup>c</sup>	15.1	NA <sup>v</sup>	1.90	-	1.92	1.65	1.78	2.01	2.00	2.00	1.35	2.76	2.06	NOT REQUIRED			NOT REQUIRED		
17	<sup>a</sup> 1030	7.8 <sup>c</sup>	12.9	1.31	1.30	1.30	1.37	0.63	1.00	1.53	1.76	1.64	1.22	1.20	1.21	NO SAMPLE			NO SAMPLE		
NOV <sup>e</sup>	<sup>b</sup> 2247	8.0 <sup>c</sup>	14.1	1.12	1.22	1.17	0.99	1.27	1.13	0.73	0.76	0.74	1.26	0.88	1.07	NOT REQUIRED			NOT REQUIRED		
1	<sup>a</sup> 1105	3.8 <sup>c</sup>	14.5	11.27	10.75	11.01	4.59	4.67	4.63	6.25	8.59	7.42	6.98	5.17	6.08	NOT REQUIRED			NOT REQUIRED		
DEC <sup>e</sup>	<sup>b</sup> 2232	3.8 <sup>c</sup>	14.6	9.31	11.20	10.26	12.48	11.42	11.95	5.88	4.07	4.98	4.11	12.00	8.06	NOT REQUIRED			NOT REQUIRED		
15, 19	<sup>a</sup> 1106	1.4 <sup>c</sup>	15.3	1.59	5.30	3.44	3.61	2.65	3.13	2.55	2.65	2.60	2.29	3.07	2.68	NO SAMPLE			NO SAMPLE		
DEC <sup>e</sup>	<sup>b</sup> 2130	2.6 <sup>c</sup>	13.1	1.43	5.71	3.57	3.09	1.53	2.31	2.04	2.80	2.42	1.67	1.36	1.52	NOT REQUIRED			NOT REQUIRED		

<sup>a/b</sup> Time in 2400 hrs. of Intake Sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake Temperature

<sup>e</sup> C-14, 1 light and 1 dark bottle, mg C/m<sup>3</sup>/hr

<sup>f</sup> C-14, 2 light and 1 dark bottle, mg C/m<sup>3</sup>/hr

<sup>g</sup> Intake temperature after tempering

<sup>h</sup> Collections at sites 2° and 3°F lower than boil temperature (samples were not collected in boil)

NA = Not available

NA<sup>v</sup> = Light bottle reading not available

NR = Not required in work scope

- = Not applicable



PRIMARY PRODUCTION AFTER FORTY-EIGHT-HOUR INCUBATION PERIOD

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C)	$\Delta T^d$	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>			R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
14	<sup>a</sup> 1202	5.5 <sup>g</sup>	13.5	22.70	NR	-	33.42	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
APR <sup>f</sup>	<sup>b</sup> 2254	5.8 <sup>g</sup>	13.6	26.50	NR	-	16.34	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
28	<sup>a</sup> 1311	8.9 <sup>g</sup>	14.6	10.08	NR	-	16.35	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
APR <sup>f</sup>	<sup>b</sup> 0132	8.6 <sup>g</sup>	13.4	11.47	NR	-	8.16	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
12	<sup>a</sup> 0958	10.4 <sup>c</sup>	14.4	34.01	36.06	35.04	20.73	21.57	21.15	23.66	41.37	32.52	19.56	19.49	19.52	NOT REQUIRED			NOT REQUIRED		
MAY <sup>e</sup>	<sup>b</sup> 2225	10.3 <sup>c</sup>	14.6	15.29	17.28	16.28	36.41	34.91	35.66	19.64	11.03	15.34	37.44	27.32	32.38	NOT REQUIRED			NOT REQUIRED		
26	<sup>a</sup> 1012	9.9 <sup>c</sup>	15.5	7.01	4.79	5.90	4.09	5.13	4.61	NOT REQUIRED			NOT REQUIRED			9.95	7.87	8.91	5.82	7.69	6.76
MAY <sup>e</sup>	<sup>b</sup> 2144	11.0 <sup>c</sup>	15.2	8.43	7.74	8.08	5.61	8.89	7.25	5.28	7.77	6.52	7.06	6.00	6.53	NOT REQUIRED			NOT REQUIRED		
9	<sup>a</sup> 1021	11.4 <sup>c</sup>	12.9	6.74	5.94	6.34	4.08	4.31	4.20	5.96	6.61	6.28	8.41	4.56	6.48	NOT REQUIRED			NOT REQUIRED		
JUN <sup>e</sup>	<sup>b</sup> 2145	13.3 <sup>c</sup>	14.3	10.07	9.41	9.74	5.72	5.20	5.46	3.46	2.77	3.12	3.25	6.68	4.96	NOT REQUIRED			NOT REQUIRED		
23, 28 JUN <sup>e</sup>	<sup>a</sup> 1018 <sup>b</sup> 2143	17.3 <sup>c</sup> NA	15.8 NA	11.53	11.18	11.36	7.81	8.42	8.12	NOT REQUIRED			NOT REQUIRED			8.85	7.43	8.14	19.03	21.43	20.23
20	<sup>a</sup> 1019	19.7 <sup>c</sup>	14.2	11.79	8.72	10.26	4.01	5.25	4.63	4.45	4.93	4.69	8.67	7.61	8.14	NOT REQUIRED			NOT REQUIRED		
JUL <sup>e</sup>	<sup>b</sup> 2149	20.3 <sup>c</sup>	14.8	11.47	15.94	13.70	11.17	9.27	10.22	4.31	5.88	5.10	8.88	8.06	8.47	NOT REQUIRED			NOT REQUIRED		
29	<sup>a</sup> 1016	20.0 <sup>c</sup>	13.6	5.32	4.32	4.82	3.03	3.20	3.12	NOT REQUIRED			NOT REQUIRED			14.53 <sup>h</sup>	10.03 <sup>h</sup>	12.28	5.63 <sup>h</sup>	10.02 <sup>h</sup>	7.82
JUL <sup>e</sup>	<sup>b</sup> 2142	19.6 <sup>c</sup>	12.0	4.11	2.17	3.14	2.19	1.76	1.98	1.36	0.92	1.14	1.31	1.84	1.58	NOT REQUIRED			NOT REQUIRED		
11	<sup>a</sup> 0951	19.4 <sup>c</sup>	15.1	10.31	7.58	8.94	4.94	6.23	5.58	8.15	8.75	8.45	6.79	7.96	7.38	NOT REQUIRED			NOT REQUIRED		
AUG <sup>e</sup>	<sup>b</sup> 2112	20.3 <sup>c</sup>	14.7	11.37	15.23	13.30	11.14	11.01	11.08	19.65	9.59	14.62	16.09	10.50	13.30	NOT REQUIRED			NOT REQUIRED		
25	<sup>a</sup> 0950	21.7 <sup>c</sup>	15.0	13.97	17.68	15.82	12.05	11.49	11.77	NOT REQUIRED			NOT REQUIRED			15.54	19.44	17.49	21.18	20.16	20.67
AUG <sup>e</sup>	<sup>b</sup> 2116	21.8 <sup>c</sup>	15.8	5.91	6.60	6.26	4.90	14.85	9.88	12.49	10.30	11.40	15.20	16.31	15.76	NOT REQUIRED			NOT REQUIRED		
8	<sup>a</sup> 1000	19.6 <sup>c</sup>	15.8	13.81	10.99	12.40	11.35	11.72	11.54	13.82	15.35	14.58	14.31	14.05	14.18	NOT REQUIRED			NOT REQUIRED		
SEP <sup>e</sup>	<sup>b</sup> 2109	21.5 <sup>c</sup>	15.8	12.61	20.31	16.46	19.11	12.28	15.70	11.54	16.56	14.05	19.47	14.19	16.83	NOT REQUIRED			NOT REQUIRED		
22	1038	18.7 <sup>c</sup>	14.4	4.52	6.53	5.52	4.52	4.88	4.70	5.71	6.04	5.88	6.71	6.79	6.75	NO SAMPLE			NO SAMPLE		
SEP <sup>e</sup>	<sup>b</sup> 2116	18.0 <sup>c</sup>	14.8	15.99	16.56	16.28	19.06	22.78	20.92	15.04	12.14	13.59	9.93	8.88	9.40	NOT REQUIRED			NOT REQUIRED		





PRIMARY PRODUCTION AFTER FORTY-EIGHT-HOUR INCUBATION PERIOD (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C)	ΔT <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>			R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
6	<sup>a</sup> 1023	15.8 <sup>c</sup>	14.3	6.66	6.98	6.82	5.06	6.44	5.75	6.80	7.23	7.02	7.41	7.64	7.52	NOT REQUIRED			NOT REQUIRED		
OCT <sup>e</sup>	<sup>b</sup> 2126	16.3 <sup>c</sup>	13.9	5.62	6.87	6.24	6.03	6.52	6.28	9.06	6.02	7.54	7.49	7.30	7.40	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1004	21.4 <sup>c</sup>	12.9	2.13	3.29	2.71	2.22	2.78	2.50	NOT REQUIRED			NOT REQUIRED			3.64	2.99	3.32	2.57	2.83	2.70
OCT <sup>e</sup>	<sup>b</sup> 2121	12.2 <sup>c</sup>	13.0	2.15	3.44	2.80	1.81	1.82	1.82	NAV	2.00	-	2.01	2.79	2.40	NOT REQUIRED			NOT REQUIRED		
3	<sup>a</sup> 1030	10.6 <sup>c</sup>	15.0	1.77	1.30	1.54	1.12	0.86	0.99	0.84	1.29	1.06	1.49	0.54	1.02	NOT REQUIRED			NOT REQUIRED		
NOV <sup>e</sup>	<sup>b</sup> 2104	10.6 <sup>c</sup>	15.1	NAV	2.31	-	1.11	1.38	1.24	0.86	0.96	0.91	1.21	1.30	1.26	NOT REQUIRED			NOT REQUIRED		
17	<sup>a</sup> 1030	7.8 <sup>c</sup>	12.9	0.71	0.60	0.66	0.45	0.53	0.49	0.80	0.89	0.84	0.65	0.72	0.68	NO SAMPLE			NO SAMPLE		
NOV <sup>e</sup>	<sup>b</sup> 2247	8.0 <sup>c</sup>	14.1	0.48	0.70	0.59	0.45	0.58	0.52	0.45	0.52	0.48	0.54	0.38	0.46	NOT REQUIRED			NOT REQUIRED		
1	<sup>a</sup> 1105	3.8 <sup>c</sup>	14.5	-	3.94	-	3.26	2.06	2.66	2.03	2.89	2.46	1.78	3.15	2.46	NOT REQUIRED			NOT REQUIRED		
DEC <sup>e</sup>	<sup>b</sup> 2232	3.8 <sup>c</sup>	14.6	-	-	-	3.92	3.50	3.71	2.80	4.88	3.84	5.75	2.22	3.98	NOT REQUIRED			NOT REQUIRED		
9,	<sup>a</sup> 10 DEC 0925	3.0 <sup>c</sup>	16.5	1.70	-	-	-	-	-	-	-	-	-	-	-	-			-		
10	<sup>a</sup> 9 DEC 2109	5.3 <sup>c</sup>	16.3	0.38	2.00	1.19	-	-	-	-	-	-	-	-	-	-			-		
DEC <sup>e</sup>	<sup>b</sup> 15 DEC 1106	1.4 <sup>c</sup>	15.3	2.41	1.84	2.12	1.11	3.50	2.30	1.83	1.01	1.42	1.33	1.60	1.46	NO SAMPLE			NO SAMPLE		
15,	<sup>a</sup> 19 DEC 2130	2.6 <sup>c</sup>	13.1	0.72	0.92	0.82	2.13	1.20	1.66	0.64	0.68	0.66	0.79	1.03	0.91	NOT REQUIRED			NOT REQUIRED		

<sup>a/b</sup> Time in 2400 hrs. of Intake Sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake Temperature

<sup>e</sup> C-14, 1 light and 1 dark bottle, mg C/m<sup>3</sup>/hr

<sup>f</sup> C-14, 2 light and 1 dark bottle, mg C/m<sup>3</sup>/hr

<sup>g</sup> Intake temperature after tempering

<sup>h</sup> Collections at sites 2° and 3°F lower than boil temperature (samples were not collected in boil)

<sup>i</sup> Same collection as 1 Dec

NA = Not available

NAV = Light bottle reading not available

NR = Not required in work scope

- = Not applicable



PRIMARY PRODUCTION AFTER SEVENTY-TWO-HOUR INCUBATION PERIOD

JAMES A. FITZPATRICK, NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C)	ΔT <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>			R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
14	<sup>a</sup> 1202	5.5 <sup>g</sup>	13.5	20.60	NR	-	16.00	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
APR <sup>f</sup>	<sup>b</sup> 2254	5.8 <sup>g</sup>	13.6	24.95	NR	-	4.43	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
28	<sup>a</sup> 1311	8.9 <sup>g</sup>	14.6	14.08	NR	-	14.74	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
APR <sup>f</sup>	<sup>b</sup> 0132	8.6 <sup>g</sup>	13.4	9.03	NR	-	5.21	NR	-	NOT REQUIRED			NOT REQUIRED			NOT REQUIRED			NOT REQUIRED		
12	<sup>a</sup> 0958	10.4 <sup>c</sup>	14.4	33.33	38.72	36.02	15.44	24.84	20.14	18.05	36.49	27.27	18.76	13.92	16.34	NOT REQUIRED			NOT REQUIRED		
MAY <sup>e</sup>	<sup>b</sup> 2225	10.3 <sup>c</sup>	14.6	18.62	13.82	16.22	19.70	30.06	24.88	30.69	5.85	18.27	15.19	13.19	14.19	NOT REQUIRED			NOT REQUIRED		
26	<sup>a</sup> 1012	9.9 <sup>c</sup>	15.5	6.77	5.03	5.90	2.53	4.78	3.66	NOT REQUIRED			NOT REQUIRED			4.69	4.17	4.43	6.94	4.06	5.50
MAY <sup>e</sup>	<sup>b</sup> 2144	11.0 <sup>c</sup>	15.2	5.43	8.95	7.19	7.72	5.93	6.82	5.07	2.96	4.02	5.27	5.12	5.20	NOT REQUIRED			NOT REQUIRED		
9	<sup>a</sup> 1021 <sup>h</sup>	11.4 <sup>c</sup>	12.9	3.28	4.77	4.02	2.19	2.42	2.30	3.46	2.91	3.18	3.24	2.54	2.89	NOT REQUIRED			NOT REQUIRED		
JUN <sup>e</sup>	<sup>b</sup> 2145	13.3 <sup>c</sup>	14.3	5.89	7.63	6.76	4.49	4.83	4.66	2.06	2.58	2.32	3.17	2.68	2.92	NOT REQUIRED			NOT REQUIRED		
23, 28	<sup>a</sup> 1018	17.3 <sup>c</sup>	15.8	10.90	9.94	10.42	6.93	5.85	6.39	NOT REQUIRED			NOT REQUIRED			7.02	6.65	6.84	13.92	13.75	13.84
JUN <sup>e</sup>	<sup>b</sup> 28JUN 2143	NA	NA	8.10	7.73	7.92	5.34	6.24	5.79	2.88	2.41	2.64	4.64	5.90	5.27	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1019	19.7 <sup>c</sup>	14.2	12.17	12.92	12.54	6.64	6.67	6.66	8.19	6.71	7.45	12.89	7.15	10.02	NOT REQUIRED			NOT REQUIRED		
JUL <sup>e</sup>	<sup>b</sup> 2149	20.3 <sup>c</sup>	14.8	18.66	17.55	18.10	19.65	20.53	20.09	5.12	4.51	4.82	13.00	16.09	14.54	NOT REQUIRED			NOT REQUIRED		
29	<sup>a</sup> 1016	20.0 <sup>c</sup>	13.6	7.78	7.25	7.52	7.36	5.27	6.32	NOT REQUIRED			NOT REQUIRED			16.33 <sup>i</sup>	15.14 <sup>i</sup>	15.74	9.89 <sup>i</sup>	10.62 <sup>i</sup>	10.26
JUL <sup>e</sup>	<sup>b</sup> 2142	19.6 <sup>c</sup>	12.0	6.08	5.77	5.92	3.50	2.51	3.00	2.10	1.94	2.02	1.66	2.93	2.30	NOT REQUIRED			NOT REQUIRED		
15	<sup>a</sup> 0951	19.4 <sup>c</sup>	15.1	6.77	8.45	7.61	6.65	5.63	6.14	7.25	7.68	7.46	9.19	9.41	9.30	NOT REQUIRED			NOT REQUIRED		
AUG <sup>e</sup>	<sup>b</sup> 2112	20.3 <sup>c</sup>	14.7	10.02	10.47	10.24	10.64	9.59	10.12	6.73	10.94	8.84	11.32	12.90	12.11	NOT REQUIRED			NOT REQUIRED		
25	<sup>a</sup> 0950	21.7 <sup>c</sup>	15.0	12.94	15.77	14.36	11.77	17.39	14.58	NOT REQUIRED			NOT REQUIRED			16.85	19.08	17.96	13.98	14.21	14.10
AUG <sup>e</sup>	<sup>b</sup> 2116	21.8 <sup>c</sup>	15.8	4.04	19.73	11.88	13.80	18.00	15.90	13.37	9.30	11.34	14.67	15.47	15.07	NOT REQUIRED			NOT REQUIRED		
8	<sup>a</sup> 1000	19.6 <sup>c</sup>	15.8	22.15	6.80	14.48	16.18	11.99	14.08	13.97	13.30	13.64	15.83	14.31	15.07	NOT REQUIRED			NOT REQUIRED		
SEP <sup>e</sup>	<sup>b</sup> 2109	21.5 <sup>c</sup>	15.8	11.89	16.47	14.18	16.46	14.46	15.46	14.35	12.91	13.63	20.49	14.93	17.71	NOT REQUIRED			NOT REQUIRED		
22	<sup>a</sup> 1038	18.7 <sup>c</sup>	14.4	3.26	4.77	4.02	3.53	3.29	3.41	4.80	5.70	5.25	4.88	5.44	5.16	NO SAMPLE			NO SAMPLE		
SEP <sup>e</sup>	<sup>b</sup> 2116	18.0 <sup>c</sup>	14.8	2.29	3.49	2.89	2.01	3.29	2.65	1.83	3.68	2.76	3.54	5.44	4.49	NOT REQUIRED			NOT REQUIRED		



PRIMARY PRODUCTION AFTER SEVENTY-TWO-HOUR INCUBATION PERIOD (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT AND VICINITY - 1976

DATE	DAY <sup>a</sup>	INTAKE TEMP. (°C)	ΔT <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION			2°SIMULATION			3°LAKE			2°LAKE		
	NIGHT <sup>b</sup>			R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
6	<sup>a</sup> 1023	15.8 <sup>c</sup>	14.3	4.97	5.54	5.26	5.25	5.11	5.18	7.06	6.75	6.90	5.99	5.88	5.94	NOT REQUIRED			NOT REQUIRED		
OCT <sup>e</sup>	<sup>b</sup> 2126	16.3 <sup>c</sup>	13.9	4.72	5.75	5.24	5.41	5.44	5.42	0.13	5.57	2.85	4.91	6.01	5.46	NOT REQUIRED			NOT REQUIRED		
20	<sup>a</sup> 1004	12.4 <sup>c</sup>	12.9	1.72	2.60	2.16	1.82	2.13	1.98	NOT REQUIRED			NOT REQUIRED			1.81	2.96	2.38	2.20	1.91	2.06
OCT <sup>e</sup>	<sup>b</sup> 2121	12.2 <sup>c</sup>	13.0	1.51	5.61	3.56	1.52	1.70	1.61	NA <sup>v</sup>	1.05	-	1.51	1.77	1.64	NOT REQUIRED			NOT REQUIRED		
3	<sup>a</sup> 1030	10.6 <sup>c</sup>	15.0	0.66	0.86	0.76	0.97	0.85	0.91	0.90	1.16	1.03	0.94	0.85	0.90	NOT REQUIRED			NOT REQUIRED		
NOV <sup>e</sup>	<sup>b</sup> 2104	10.6 <sup>c</sup>	15.1	NA <sup>v</sup>	0.89	-	1.07	1.12	1.10	1.15	0.75	0.95	0.90	0.99	0.94	NOT REQUIRED			NOT REQUIRED		
17	<sup>a</sup> 1030	7.8 <sup>c</sup>	12.9	0.48	0.94	0.71	0.62	0.48	0.55	0.70	0.52	0.61	0.56	0.58	0.57	NO SAMPLE			NO SAMPLE		
NOV <sup>e</sup>	<sup>b</sup> 2247	8.0 <sup>c</sup>	14.1	0.48	0.63	0.56	0.54	0.32	0.43	0.28	0.28	0.28	0.33	0.33	0.33	NOT REQUIRED			NOT REQUIRED		
1	<sup>a</sup> 1105	3.8 <sup>c</sup>	14.5	-	-	-	-	2.14	-	1.74	2.61	2.18	2.52	2.84	2.68	NOT REQUIRED			NOT REQUIRED		
DEC <sup>e</sup>	<sup>a</sup> 2232	3.8 <sup>c</sup>	14.6	-	-	-	-	-	-	-	-	-	4.57	1.43	3.00	NOT REQUIRED			NOT REQUIRED		
9, 10	<sup>a</sup> 10 DEC 0925	3.0 <sup>c</sup>	16.5	0.90	1.51	1.20	1.31	-	-	-	-	-	-	-	-	-			-		
DEC <sup>e</sup>	<sup>b</sup> 2109	5.3 <sup>c</sup>	16.3	1.05	1.51	1.28	1.40	1.37	1.38	0.94	0.98	0.96	-	-	-	-			-		
15, 19	<sup>a</sup> 15 DEC 1106	1.4 <sup>c</sup>	15.3	6.40	1.30	3.85	2.19	2.11	2.15	1.20	1.75	1.48	2.04	1.76	1.90	NO SAMPLE			NO SAMPLE		
DEC <sup>e</sup>	<sup>a</sup> 2130	2.6 <sup>c</sup>	13.1	0.52	0.76	0.64	0.48	0.53	0.50	0.61	0.41	0.51	0.61	0.53	0.57	NOT REQUIRED			NOT REQUIRED		

<sup>a/b</sup> Time in 2400 hrs. of Intake Sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake Temperature

<sup>e</sup> C-14; 1 light and 1 dark bottle, mg C/m<sup>3</sup>/hr

<sup>f</sup> C-14, 2 light and 1 dark bottle, mg C/m<sup>3</sup>/hr

<sup>g</sup> Intake temperature after tempering

<sup>h</sup> 96 hr incubation period

<sup>i</sup> Collections at sites 2° and 3°F lower than boil temperature (samples were not collected in boil)

<sup>j</sup> Same collection as 1 Dec

NA = Not available

NA<sup>v</sup> = Light bottle reading not available

NR = Not required in work scope

- = Not applicable



JAMES A. FITZPATRICK NUCLEAR POWER PLANT

VIII.B.1. ABUNDANCE OF ZOOPLANKTON: DISCHARGE AFTBAY





ABUNDANCE\* OF ZOOPLANKTON AT THE DISCHARGE AFTBAY

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - APRIL - JUNE 1976

SPECIES	28 APR			26 MAY			23 JUN		
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
PROTOZOA									
SARCODINA									
<u>Diffugia</u> sp.									
SUCTORIA									
<u>Acineta</u> sp.							194	0	97.0
<u>Paracineta</u> sp.				0	1064	532.0			
<u>Staurophrya elegans</u>									
<u>Thecacineta</u> sp.	654	2790	1722.0				194	5148	2671.0
<u>Tokophrya</u> sp.									
CILIATA									
<u>Codonella cratera</u>				1512	2128	1820.0			
<u>Epistylidae</u>	0	279	139.5						
<u>Vorticellidae</u>	9810	6696	8253.0	126	0	63.0	0	2106	1053.0
ROTIFERA									
<u>Ascomorpha eucaudis</u>							194	468	331.0
<u>Asplanchna priodonta</u>		1116	1103.0	252	266	259.0	4656	4446	4551.0
<u>Bdelloidea</u> (order)	1526	837	1181.5				194	234	214.0
<u>Brachionus angularis</u>	1526	3069	2297.5	630	798	714.0	388	0	194.0
<u>B. caudatus</u>							0	234	117.0
<u>B. calyciflorus</u>	5886	6696	6291.0	1386	1862	1624.0			
<u>B. havanaensis</u>									
<u>B. quadridentatus</u>	436	558	497.0						
<u>B. urceolaris</u>									
<u>Cephalodella</u> sp.	218	279	248.5				0	234	117.0
<u>Chromogaster ovalis</u>									
<u>Collotheca mutabilis</u>				126	0	63.0	0	468	234.0
<u>Colurella</u> sp.									
<u>Conochilus unicornis</u>							388	936	662.0
<u>Conochiloides</u> sp.									
<u>Euchlanis dilatata</u>									
<u>Euchlanis</u> sp.				252	0	126.0			
<u>Filinia longiseta</u>	654	0	327.0	126	0	63.0			
<u>Hexarthra</u> sp.									
<u>Kellicottia longispina</u>	0	279	139.5	1764	532	1148.0	46560	80496	63528.0
<u>Keratella crassa</u>							2716	5148	3932.0
<u>K. hiemalis</u>	436	837	636.5	126	0	63.0			
<u>K. cochlearis</u>				126	0	63.0	388	0	194.0
<u>K. earlinae</u>	0	279	139.5	126	0	63.0	9700	7956	8828.0
<u>K. quadrata</u>	2834	4743	3788.5	10584	29526	20055.0	8924	12870	10897.0
<u>K. valga</u>									
<u>Lecane</u> sp.									
<u>Notholca acuminata</u>	3270	5022	4146.0	882	266	574.0			
<u>N. foliacea</u>									
<u>N. squamula</u>	0	837	418.5	504	532	518.0			
<u>N. striata</u>									

\*Number of organisms/m<sup>3</sup>; day collections



ABUNDANCE\* OF ZOOPLANKTON AT THE DISCHARGE AFTBAY (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - APRIL - JUNE 1976

SPECIES (continued)	28 APR			26 MAY			23 JUN		
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
<b>ROTIFERA (continued)</b>									
<u>Ploesoma lenticulare</u>									
<u>P. hudsoni</u>							0	468	234.0
<u>P. truncatum</u>							388	702	545.0
<u>Ploesoma sp.</u>									
<u>Polyarthra vulgaris</u>	0	2511	1255.5	0	266	133.0	2134	1404	1769.0
<u>P. dolichoptera</u>	872	1395	1133.5	3024	2128	2576.0	11834	14274	13054.0
<u>P. euryptera</u>									
<u>P. major</u>				126	0	63.0			
<u>P. remata</u>				126	0	63.0	0	234	117.0
<u>Polyarthra sp.</u>									
<u>Synchaeta lackowitzi</u>	6104	6417	6260.5	8316	3458	5887.0	0	234	117.0
<u>S. pectinata</u>	11554	4185	7869.5	11214	5586	8400.0			
<u>S. tremula</u>				0	266	133.0			
<u>S. stylata</u>							101656	90090	95873.0
<u>Trichocerca multicrotus</u>							0	234	117.0
<u>T. cylindrica</u>									
<u>Trichotria sp.</u>									
<b>COPEPODA (ARTHROPODA)</b>									
Copepod nauplii	4360	3906	4133.0	6426	7448	6937.0	4850	7488	6169.0
<b>CALANOIDA</b>									
<u>Diaptomus spp.</u>									
<u>Eurytemora affinis</u>									
Calanoid - juvenile	218	279	248.5	252	0	126.0	194	468	331.0
<b>CYCLOPOIDA</b>									
<u>Acanthocyclops vernalis</u>									
<u>Diacyclops bicuspidatus</u>									
<u>thomasi</u>	1090	558	824.0	0	266	133.0			
<u>Tropocyclops prasinus</u>									
<u>mexicanus</u>									
Cyclopoid - juvenile	3488	3627	3557.5	6426	5320	5873.0	1552	3510	2531.0
<b>HARPACTICOIDA</b>									
Harpacticoid - juvenile									
<b>CLADOCERA (ARTHROPODA)</b>									
<u>Alona affinis</u>									
<u>Alona guttata</u>									
<u>Bosmina longirostris</u>				378	532	455.0	6402	5850	6126.0
<u>Ceriodaphnia lacustris</u>									
<u>Chydorus sphaericus</u>	2834	1116	1975.0				0	702	351.0
<u>Daphnia longiremis</u>									
<u>Daphnia retrocurva</u>	0	279	139.5						
<u>Daphnia sp.</u>									
<u>Eubosmina coregoni</u>									
<u>Leydigia quadrangularis</u>	0	279	139.5						

\*Number of organisms/m<sup>3</sup>; day collections



ABUNDANCE\* OF ZOOPLANKTON AT THE DISCHARGE AFTBAY (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - JULY - SEPTEMBER 1976

SPECIES	29 JUL			25 AUG			22 SEP		
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
PROTOZOA									
SARCODINA									
<u>Diffugia</u> sp.				29200	42320	35760.0	2460	7875	5167.5
SUCTORIA									
<u>Acineta</u> sp.	1580	1875	1727.5	0	1840	920.0			
<u>Paracineta</u> sp.									
<u>Staurophrya elegans</u>									
<u>Thecacineta</u> sp.				1460	0	730.0			
<u>Tokophrya</u> sp.									
CILIATA									
<u>Codonella cratera</u>	9480	12500	10990.0	2920	5520	4220.0	7995	19950	13972.5
<u>Epistylidae</u>	0	10000	5000.0						
<u>Vorticellidae</u>				11680	0	5840.0			
ROTIFERA									
<u>Ascomorpha eucaudis</u>									
<u>Asplanchna priodonta</u>	2370	3750	3060.0	0	1840	920.0			
<u>Bdelloidea</u> (order)				1460	0	730.0	0	525	262.5
<u>Brachionus angularis</u>				2920	0	1460.0			
<u>B. caudatus</u>									
<u>B. calyciflorus</u>									
<u>B. havanaensis</u>									
<u>B. quadridentatus</u>									
<u>B. urceolaris</u>									
<u>Cephalodella</u> sp.									
<u>Chromogaster ovalis</u>									
<u>Collotheca mutabilis</u>				0	1840	920.0			
<u>Colurella</u> sp.									
<u>Conochilus unicornis</u>	0	625	312.5	1460	5520	3490.0			
<u>Conochiloides</u> sp.				0	3680	1840.0			
<u>Euchlanis dilatata</u>									
<u>Euchlanis</u> sp.				0	1840	920.0			
<u>Filinia longiseta</u>	0	1250	625.0	43800	40480	42140.0	2460	1575	2017.5
<u>Hexarthra</u> sp.				4380	5520	4950.0			
<u>Kellicottia longispina</u>	790	1875	1332.5						
<u>Keratella crassa</u>	14220	25000	19610.0	73000	69920	71460.0	9840	13125	11482.5
<u>K. hiemalis</u>									
<u>K. cochlearis</u>				0	1840	920.0	615	525	570.0
<u>K. earlinae</u>	1580	0	790.0	0	1840	920.0	0	525	262.5
<u>K. quadrata</u>	2370	2500	2435.0	2920	0	1460.0	0	525	262.5
<u>K. valga</u>									
<u>Lecane</u> sp.									
<u>Notholca acuminata</u>									
<u>N. foliacea</u>									
<u>N. squamula</u>									
<u>N. striata</u>									

\*Number of organisms/m<sup>3</sup>; day collections



ABUNDANCE\* OF ZOOPLANKTON AT THE DISCHARGE AFTBAY (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - JULY - SEPTEMBER 1976

SPECIES (continued)	29 JUL			25 AUG			22 SEP		
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
ROTIFERA (continued)									
<u>Ploesoma lenticulare</u>				13140	0	6570.0	615	525	570.0
<u>P. hudsoni</u>	0	625	312.5						
<u>P. truncatum</u>	21330	29375	25352.5	5840	5520	5680.0	2460	9450	5955.0
<u>Ploesoma sp.</u>									
<u>Polyarthra vulgaris</u>	3950	4375	4162.5	11680	18400	15040.0	12915	18900	15907.5
<u>P. dolichoptera</u>	3160	9375	6267.5				0	1050	525.0
<u>P. euryptera</u>				0	47840	23920.0	1230	1050	1140.0
<u>P. major</u>				46720	14720	30720.0	6150	3150	4650.0
<u>P. remata</u>				0	3680	1840.0	1230	0	615.0
<u>Polyarthra sp.</u>									
<u>Synchaeta lackowitzianna</u>							0	525	262.5
<u>S. pectinata</u>									
<u>S. tremula</u>									
<u>S. stylata</u>	0	625	312.5	7300	5520	6410.0	615	1050	832.5
<u>Trichocerca multicrotus</u>	3950	3125	3537.5	24820	18400	21610.0	3690	7350	5520.0
<u>T. cylindrica</u>				1460	1840	1650.0			
<u>Trichotria sp.</u>									
COPEPODA (ARTHROPODA)									
Copepod nauplii	14220	29375	21797.5	14600	12880	13740.0	8610	7350	7980.0
CALANOIDA									
<u>Diaptomus spp.</u>									
<u>Eurytemora affinis</u>									
Calanoid - juvenile	0	625	312.5	0	1840	920.0	0	525	626.5
CYCLOPOIDA									
<u>Acanthocyclops vernalis</u>									
<u>Diacyclops bicuspidatus</u>									
<u>thomasi</u>	0	625	312.5	1460	0	730.0	0	525	262.5
<u>Tropocyclops prasinus</u>									
<u>mexicanus</u>				2920	0	1460.0	0	4725	2362.5
Cyclopoid - juvenile	18170	26250	22210.0	4380	14720	9550.0	24600	23100	23850.0
HARPACTICOIDA									
Harpacticoid - juvenile									
CLADOCERA (ARTHROPODA)									
<u>Alona affinis</u>							0	1050	525.0
<u>Alona guttata</u>									
<u>Bosmina longirostris</u>	86110	148125	117117.5	166440	167440	166940.0	1845	6825	4335.0
<u>Ceriodaphnia lacustris</u>				24820	12880	18850.0	1230	1050	1140.0
<u>Chydorus sphaericus</u>				2920	0	1460.0	0	525	262.5
<u>Daphnia longiremis</u>									
<u>Daphnia retrocurva</u>	790	1250	1020.0	0	3680	1840.0	4305	4200	4252.5
<u>Daphnia sp.</u>				0	1840	920.0			
<u>Eubosmina coregoni</u>									
<u>Leydigia quadrangularis</u>									

\*Number of organisms/m<sup>3</sup>; day collections





ABUNDANCE\* OF ZOOPLANKTON AT THE DISCHARGE AFTBAY (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - OCTOBER - DECEMBER 1976

SPECIES	20 OCT			17 NOV			19 DEC		
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
PROTOZOA									
SARCODINA									
<u>Diffugia</u> sp.							71	0	35.5
SUCTORIA									
<u>Acineta</u> sp.				328	0	164.0	71	0	35.5
<u>Paracineta</u> sp.									
<u>Staurophrya elegans</u>									
<u>Thecacineta</u> sp.				1312	0	656.0	0	238	119.0
<u>Tokophrya</u> sp.									
CILIATA									
<u>Codonella cratera</u>	540	896	718.0	656	484	570.0	0	119	59.5
<u>Epistylidae</u>									
<u>Vorticellidae</u>									
ROTIFERA									
<u>Ascomorpha eucaudis</u>									
<u>Asplanchna priodonta</u>	540	448	494.0	5248	4356	4802.0	71	476	273.5
<u>Bdelloidea</u> (order)									
<u>Brachionus angularis</u>							0	119	59.5
<u>B. caudatus</u>									
<u>B. calyciflorus</u>									
<u>B. havanaensis</u>									
<u>B. quadridentatus</u>									
<u>B. urceolaris</u>									
<u>Cephalodella</u> sp.									
<u>Chromogaster ovalis</u>									
<u>Collotheca mutabilis</u>	270	0	135.0	328	968	648.0	0	238	119.0
<u>Colurella</u> sp.									
<u>Conochilus unicornis</u>									
<u>Conochiloides</u> sp.									
<u>Euchlanis dilatata</u>									
<u>Euchlanis</u> sp.									
<u>Filinia longiseta</u>							0	119	59.5
<u>Hexarthra</u> sp.									
<u>Kellicottia longispina</u>	0	448	224.0	656	968	812.0	143	357	250.0
<u>Keratella crassa</u>	540	2688	1614.0	2952	3388	3170.0			
<u>K. hiemalis</u>									
<u>K. cochlearis</u>	270	0	135.0						
<u>K. earlinae</u>				0	484	242.0			
<u>K. quadrata</u>							0	119	59.5
<u>K. valga</u>									
<u>Lecane</u> sp.									
<u>Notholca acuminata</u>							0	119	59.5
<u>N. foliacea</u>							0	119	59.5
<u>N. squamula</u>									
<u>N. striata</u>									

\*Number of organisms/m<sup>3</sup>; day collections

ABUNDANCE\* OF ZOOPLANKTON AT THE DISCHARGE AFTBAY (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - OCTOBER - DECEMBER 1976

SPECIES (continued)	20 OCT			17 NOV			19 DEC		
	R-1	R-2	MEAN	R-1	R-2	MEAN	R-1	R-2	MEAN
ROTIFERA (continued)									
<u>Ploesoma lenticulare</u>									
<u>P. hudsoni</u>									
<u>P. truncatum</u>									
<u>Ploesoma sp.</u>									
<u>Polyarthra vulgaris</u>	1350	1344	1347.0	984	484	734.0	143	238	190.5
<u>P. dolichoptera</u>	0	448	224.0	328	968	648.0	143	357	250.0
<u>P. euryptera</u>	0	896	448.0						
<u>P. major</u>	810	1792	1301.0	0	484	242.0	143	0	71.5
<u>P. remata</u>									
<u>Polyarthra sp.</u>									
<u>Synchaeta lackowitziana</u>									
<u>S. pectinata</u>				656	484	570.0	0	119	59.5
<u>S. tremula</u>									
<u>S. stylata</u>	0	896	448.0						
<u>Trichocerca multicrotus</u>	1080	1344	1212.0	656	968	812.0			
<u>T. cylindrica</u>									
<u>Trichotria sp.</u>									
COPEPODA (ARTHROPODA)									
Copepod nauplii	2160	10752	6456.0	16728	16456	16592.0	1286	1904	1595.0
CALANOIDA									
<u>Diaptomus spp.</u>				328	0	164.0			
<u>Eurytemora affinis</u>				328	0	164.0	71	0	35.5
Calanoid - juvenile	270	448	359.0	1640	0	820.0	0	119	59.5
CYCLOPOIDA									
<u>Acanthocyclops vernalis</u>									
<u>Diacyclops bicuspidatus</u>									
<u>thomasi</u>	0	448	224.0	1312	2904	2108.0	71	119	95.0
<u>Tropocyclops prasinus</u>									
<u>-mexicanus</u>	1620	2688	2154.0	7544	7260	7402.0	71	119	95.0
Cyclopoid - juvenile	7020	29120	18070.0	42312	62436	52374.0	1000	4167	2583.5
HARPACTICOIDA									
Harpacticoid - juvenile									
CLADOCERA (ARTHROPODA)									
<u>Alona affinis</u>									
<u>Alona guttata</u>									
<u>Bosmina longirostris</u>	1890	8512	5201.0	14760	17908	16334.0	71	0	35.5
<u>Ceriodaphnia lacustris</u>	0	448	224.0	328	0	164.0			
<u>Chydorus sphaericus</u>									
<u>Daphnia longiremis</u>									
<u>Daphnia retrocurva</u>	2970	9408	6189.0	7544	4840	6192.0	71	0	35.5
<u>Daphnia sp.</u>									
<u>Eubosmina coregoni</u>	270	1344	807.0						
<u>Leydigia quadrangularis</u>									

\*Number of organisms/m<sup>3</sup>; day collections



JAMES A. FITZPATRICK NUCLEAR POWER PLANT

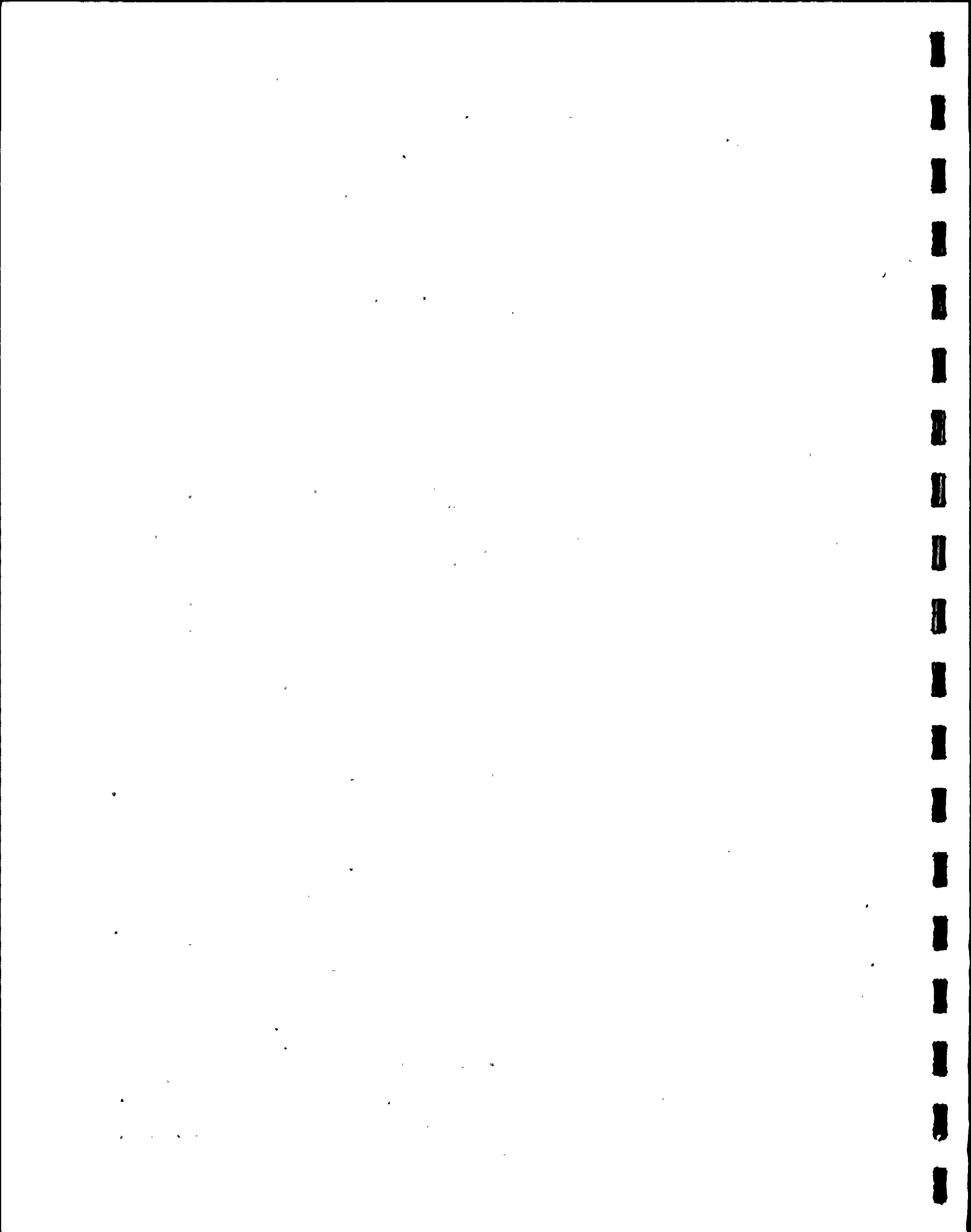
VIII.B.2. MORTALITY OF SELECTED TAXA  
OBSERVED IN INPLANT VIABILITY STUDIES



NUMBER OF CALANOIDA (ARTHROPODA-COPEPODA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP <sup>c</sup> (°C)	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2		MEAN <sup>g</sup>	R-1	R-2	R-1		R-2	MEAN <sup>g</sup>	R-1	R-2		R-1	R-2	MEAN <sup>g</sup>	R-1		R-2
14 APR	<sup>a</sup>	1130	5.1	14.0	5	2	13	5	61	3	7	4	15	47	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2200	5.8	13.7	2	3	8	9	71	3	3	8	5	54	NOT REQUIRED					NOT REQUIRED				
28-29 APR	<sup>a</sup> 28 APR 1200	8.9	14.6	0	1	1	1	50	1	1	1	1	0	NOT REQUIRED					NOT REQUIRED					
	<sup>b</sup> 29 APR 0045	8.6	13.4	-	1	0	1	0	-	2	0	2	100	NOT REQUIRED					NOT REQUIRED					
12 MAY	<sup>a</sup>	1120	10.4	14.4	0	3	3	4	57	1	5	2	8	40	1	-	5	0	80	3	1	5	2	43
	<sup>b</sup>	2400	9.2	14.5	0	-	3	0	100	2	-	2	0	0	0	0	2	4	100	0	0	1	3	100
26 MAY	<sup>a</sup>	1000	10.9	14.4	-	-	0	0	-	2	-	2	0	0	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2400	11.1	14.4	-	-	0	0	-	-	-	0	0	-	-	1	0	2	50	1	-	1	0	0
9 JUN	<sup>a</sup>	1130	11.7	12.4	-	0	0	1	100	-	0	0	1	100	-	-	0	0	-	-	-	0	0	-
	<sup>b</sup>	2300	14.1	14.3	-	-	0	0	-	-	1	0	1	0	-	-	0	0	-	-	0	0	1	100
23,28 JUN	<sup>a</sup> 23 JUN 1100	17.4	15.5	-	-	0	0	-	1	1	1	2	33	NOT REQUIRED					NOT REQUIRED					
	<sup>b</sup> 28 JUN 2245	15.9	15.6	0	0	3	4	100	2	0	2	3	60	-	-	0	0	-	-	3	0	3	0	
20 JUL	<sup>a</sup>	1200	19.9	14.2	3	4	5	4	22	-	1	0	1	0	1	0	6	15	95	4	2	12	14	77
	<sup>b</sup>	2305	20.3	15.1	-	0	0	3	100	-	2	0	3	33	3	-	4	0	25	2	1	2	1	0
29 JUL	<sup>a</sup>	1200	19.8	14.0	-	-	0	0	-	-	0	0	1	100	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2320	19.6	12.2	0	-	1	0	100	0	1	2	1	67	53	-	65	0	18	-	1	0	1	0
11 AUG	<sup>a</sup>	1140	19.2	15.6	6	1	6	2	12	1	0	3	1	75	1	1	1	1	0	-	3	0	3	0
	<sup>b</sup>	2315	19.9	14.5	1	0	2	4	83	0	4	4	6	60	-	-	0	0	-	2	-	2	0	0
25 AUG	<sup>a</sup>	1145	21.8	15.7	3	0	3	1	25	-	0	0	1	100	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2350	21.9	17.7	-	2	0	2	0	-	1	0	2	50	1	2	1	2	0	-	3	0	3	0



NUMBER OF CALANOIDA (ARTHROPODA-COPEPODA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
8 SEP	a	1130	19.7	15.9	-	-	0	1	100	-	-	0	1	100	-	44	0	55	20	-	2	0	2	0
	b	2305	21.1	16.0	-	2	0	2	0	0	-	2	0	100	-	-	0	0	-	5	-	6	-	17
22,27 SEP	a 22 SEP 1205	18.4	14.8	-	-	0	0	-	-	0	0	1	100	-	-	0	0	-	-	1	0	1	0	
	b 27 SEP 2318	16.2	14.7	1	3	1	3	0	-	1	0	1	0	-	-	0	0	-	-	1	0	1	0	
6 OCT	a	1027	15.7	14.7	3	2	3	4	29	1	-	1	0	0	1	0	1	1	50	-	-	0	0	-
	b	2142	16.0	14.4	-	1	0	3	67	2	-	2	0	0	0	-	1	0	100	2	1	3	5	63
20 OCT	a	1110	12.1	13.6	-	1	0	1	0	0	0	1	1	100	NOT REQUIRED					NOT REQUIRED				
	b	2358	12.0	13.5	1	0	1	1	50	2	-	2	0	0	1	0	1	1	50	2	1	2	2	25
20 OCT <sup>h</sup>	a	1425	NA	NA	1	1	1	1	0	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	15.5	1	-	2	0	50	-	0	0	1	100	1	0	3	2	80	1	0	2	3	80
	b	2345	10.4	15.4	-	2	0	3	33	1	1	3	1	50	1	1	2	3	60	1	3	2	5	43
17 NOV	a	1210	8.2	13.6	0	2	5	2	71	5	-	7	0	29	2	3	3	4	29	1	0	1	4	80
	b	2254	7.8	15.0	0	5	4	6	50	2	0	2	2	50	0	-	1	0	100	2	-	2	0	0
1 DEC	a	1230	3.2	14.8	3	-	4	0	25	-	-	0	0	-	-	-	0	0	-	-	0	0	1	100
	b	2308	3.5	14.9	-	-	0	0	-	-	0	0	1	100	1	-	1	0	0	-	0	0	1	100
19 DEC	a	1155	2.2	12.8	-	2	0	2	0	1	1	1	1	0	-	-	0	0	-	0	-	2	0	100
	b	2321	2.5	13.8	3	-	3	0	0	-	3	0	3	0	3	1	3	1	0	1	-	1	0	0

<sup>a/b</sup> Time in 2400 hrs of Intake Sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake Temperature

<sup>e</sup> Number of live organisms observed

<sup>f</sup> Total number of organisms observed

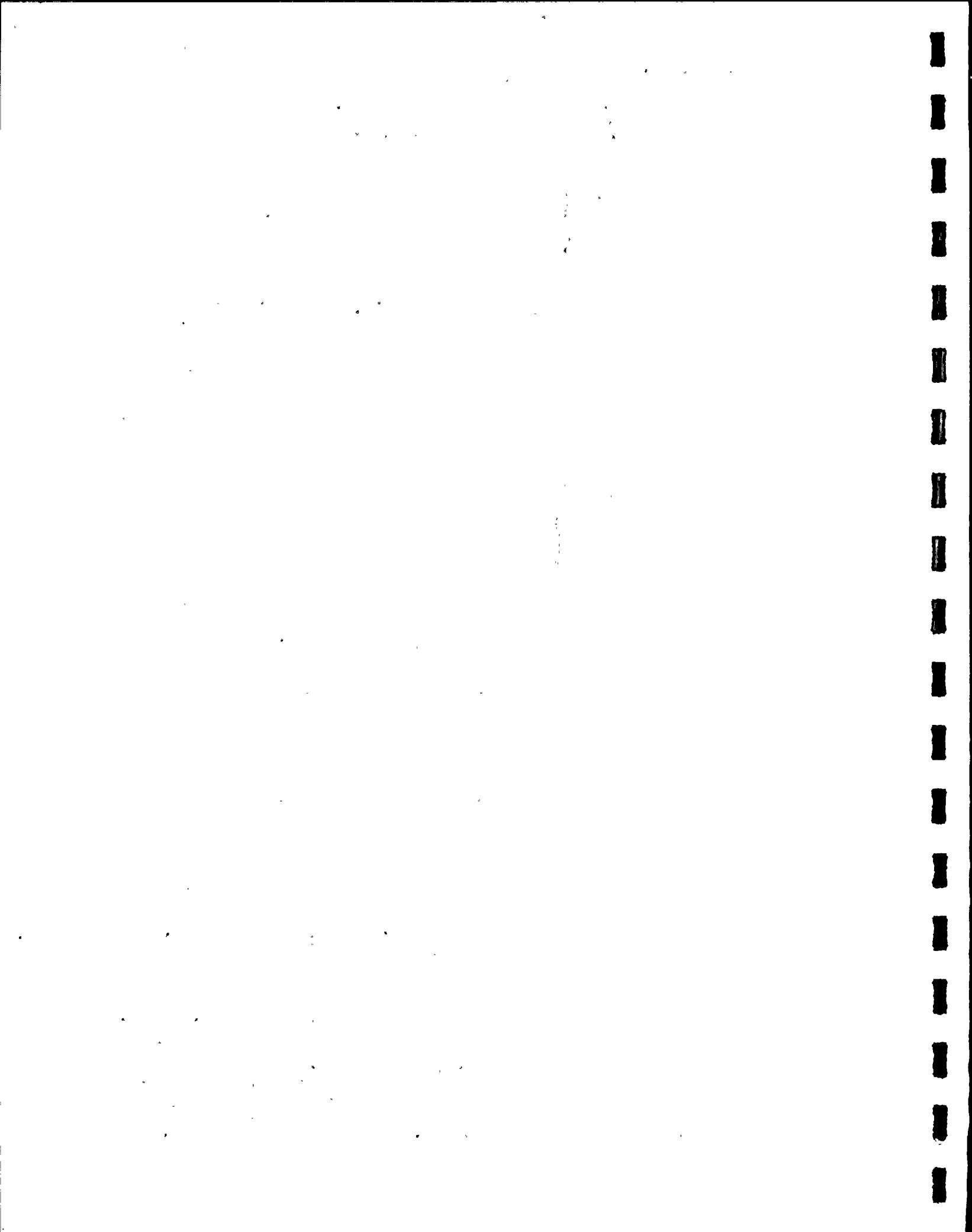
NA = Not available

<sup>g</sup> Mean % dead equal to total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

<sup>h</sup> Sample taken from lake in the vicinity of FitzPatrick Intake

- = Not applicable





NUMBER OF CYCLOPOIDA (ARTHROPODA-COPEPODA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
14 APR	<sup>a</sup> 1130	5.1	14.0	25	21	34	40	38	9	26	16	41	39	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2200	5.8	13.7	32	32	61	74	53	28	24	57	62	56	NOT REQUIRED					NOT REQUIRED				
28-29 APR	<sup>a</sup> 28 APR 1200	8.9	14.6	8	8	12	15	41	19	12	21	15	14	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 29 APR 0045	8.6	13.4	5	0	5	9	64	7	11	15	20	49	NOT REQUIRED					NOT REQUIRED				
12 MAY	<sup>a</sup> 1120	10.4	14.4	10	21	23	30	28	8	7	13	32	67	6	5	9	7	31	3	2	10	11	76
	<sup>b</sup> 2400	9.2	14.5	12	5	24	11	51	2	7	3	14	47	3	11	13	13	46	1	3	10	9	79
26 MAY	<sup>a</sup> 1000	10.9	14.4	10	15	36	25	59	13	3	51	21	78	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2400	11.1	14.4	52	50	74	78	33	10	21	25	69	67	21	13	54	116	80	14	5	46	42	80
9 JUN	<sup>a</sup> 1130	11.7	12.4	5	14	8	14	14	9	3	10	5	20	7	4	14	6	45	4	3	6	9	53
	<sup>b</sup> 2300	14.1	14.3	23	16	29	20	20	1	9	1	12	23	6	8	19	26	69	8	13	22	28	58
23,28 JUN	<sup>a</sup> 23 JUN 1100	17.4	15.5	7	9	7	13	20	3	10	8	15	43	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 28 JUN 2245	15.9	15.6	14	15	27	20	38	4	6	6	16	55	10	19	22	39	52	16	32	32	49	41
20 JUL	<sup>a</sup> 1200	19.9	14.2	27	15	43	22	35	2	7	12	21	73	10	19	27	26	45	18	46	30	89	46
	<sup>b</sup> 2305	20.3	15.1	14	25	25	35	35	12	13	20	45	62	13	9	31	19	56	10	18	21	34	49
29 JUL	<sup>a</sup> 1200	19.8	14.0	28	41	37	44	15	7	21	23	42	57	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2320	19.6	12.2	125	88	161	128	26	38	91	56	156	39	4	97	4	117	17	99	135	142	172	26
11 AUG	<sup>a</sup> 1140	19.2	15.6	17	41	24	51	23	10	18	16	40	50	25	15	31	24	27	19	22	28	33	33
	<sup>b</sup> 2315	19.9	14.5	30	25	52	37	38	5	10	25	47	79	39	9	49	14	24	18	11	25	17	31
25 AUG	<sup>a</sup> 1145	21.8	15.7	7	0	8	2	30	1	0	6	8	93	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2350	21.9	17.7	11	10	12	12	12	0	3	15	12	48	15	16	20	23	28	19	3	20	11	29



NUMBER OF CYCLOPOIDA (ARTHROPODA-COPEPODA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
8 SEP	a	1130	19.7	15.9	87	88	115	129	28	6	22	42	144	85	79	11	91	11	12	76	77	92	90	16
	b	2305	21.1	16.0	15	29	57	57	53	81	4	145	69	60	28	30	38	53	36	37	29	62	49	41
22,27 SEP	a 22 SEP 1205	18.4	14.8	37	33	49	40	21	0	25	40	54	73	49	38	50	44	7	44	19	55	30	26	
	b 27 SEP 2318	16.2	14.7	35	150	72	188	29	7	111	67	151	46	161	156	191	186	16	160	191	209	228	204	
6 OCT	a	1027	15.7	14.7	95	102	119	119	17	21	58	37	92	39	54	104	71	118	16	105	147	121	172	14
	b	2142	16.0	14.4	45	89	64	124	29	22	30	43	45	41	32	63	44	87	27	44	80	54	111	25
20 OCT	a	1110	12.1	13.6	57	84	85	112	28	4	49	32	72	49	NOT REQUIRED					NOT REQUIRED				
	b	2358	12.0	13.5	60	40	95	84	44	35	66	78	109	46	58	59	76	99	33	74	95	147	137	40
20 OCT <sup>h</sup>	a	1425	NA	NA	162	101	181	168	25	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	15.5	258	123	296	172	19	32	144	86	211	41	148	78	215	121	33	190	194	255	294	30
	b	2345	10.4	15.4	79	75	116	111	32	30	59	52	102	42	83	49	128	81	37	91	94	140	130	32
17 NOV	a	1210	8.2	13.6	121	95	166	152	32	67	116	156	150	40	89	133	142	234	41	122	226	205	283	29
	b	2254	7.8	15.0	57	49	129	79	49	8	10	34	39	75	52	16	108	49	57	25	16	57	57	64
1 DEC	a	1230	3.2	14.8	59	29	64	38	14	23	45	33	52	20	27	12	33	18	24	34	17	45	43	42
	b	2308	3.5	14.9	24	24	41	37	38	9	17	17	29	43	37	16	61	39	47	23	30	45	56	48
19 DEC	a	1155	2.2	12.8	13	23	18	33	29	9	22	16	37	42	11	14	16	18	26	13	24	28	37	43
	b	2321	2.5	13.8	97	53	132	65	24	10	52	35	95	52	18	43	35	63	38	46	17	94	38	52

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

f Total number of organisms observed

NA = Not available

g Mean % dead equal to total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

h Sample taken from lake in the vicinity of FitzPatrick Intake



NUMBER OF COPEPODA<sup>1</sup> (ARTHROPODA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
14 APR	a	1130	5.1	14.0	34	27	60	49	44	12	34	26	64	49	NOT REQUIRED					NOT REQUIRED				
	b	2200	5.8	13.7	39	46	84	105	55	31	39	82	100	61	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a 28 APR	1200	8.9	14.6	16	15	41	36	60	31	13	42	30	39	NOT REQUIRED					NOT REQUIRED				
	b 29 APR	0045	8.6	13.4	12	3	22	27	69	7	13	36	41	74	NOT REQUIRED					NOT REQUIRED				
12 MAY	a	1120	10.4	14.4	30	44	85	116	63	36	35	76	125	65	19	10	46	34	64	14	3	42	34	78
	b	2400	9.2	14.5	33	19	70	38	52	18	23	33	52	52	3	31	54	59	70	11	13	46	44	73
26 MAY	a	1000	10.9	14.4	2	26	88	5	68	22	9	104	49	80	NOT REQUIRED					NOT REQUIRED				
	b	2400	11.1	14.4	86	64	150	137	48	13	26	44	157	81	38	21	115	227	83	18	6	84	99	87
9 JUN	a	1130	11.7	12.4	7	19	15	27	38	13	4	18	15	48	7	9	24	22	65	8	3	18	15	67
	b	2300	14.1	14.3	50	27	71	44	33	1	13	2	36	63	6	18	41	62	77	15	20	58	58	70
23,28 JUN	a 23 JUN	1100	17.4	15.5	13	16	26	35	52	22	15	34	49	55	NOT REQUIRED					NOT REQUIRED				
	b 28 JUN	2245	15.9	15.6	21	19	47	37	52	6	11	12	32	61	15	36	38	61	59	20	47	50	91	52
20 JUL	a	1200	19.9	14.2	37	26	63	34	35	5	12	18	33	67	11	19	33	41	59	22	48	42	103	52
	b	2305	20.3	15.1	16	27	37	45	48	12	17	25	68	33	20	12	55	28	61	15	37	31	57	52
29 JUL	a	1200	19.8	14.0	48	73	65	80	17	13	25	41	91	71	NOT REQUIRED					NOT REQUIRED				
	b	2320	19.6	12.2	129	103	179	170	33	46	94	73	189	47	60	117	79	146	21	128	136	184	183	28
11 AUG	a	1140	19.2	15.6	27	50	38	66	26	14	19	29	49	58	38	18	52	31	33	23	30	31	51	35
	b	2315	19.9	14.5	39	26	79	51	50	10	29	60	92	74	46	10	67	31	43	29	19	41	43	43
25 AUG	a	1145	21.8	15.7	26	14	32	38	43	3	2	16	16	84	NOT REQUIRED					NOT REQUIRED				
	b	2350	21.9	17.7	21	14	42	31	52	0	5	28	24	90	24	21	40	43	46	32	9	48	26	45



NUMBER OF COPEPODA<sup>1</sup>(ARTHROPODA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION								
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	MEAN <sup>g</sup>
				R-1	R-2	R-1	R-2			R-1	R-2	R-1	R-2			R-1	R-2	R-1	R-2			R-1	R-2	R-1	R-2		
8 SEP	a	1130	19.7	15.9	90	100	123	152	31	11	28	54	176	83	91	59	107	72	16	76	95	97	113	19			
	b	2305	21.1	16.0	25	42	76	85	58	88	6	166	88	63	28	38	43	63	38	52	29	83	56	42			
22,27 SEP	a	22 SEP 1205	18.4	14.8	41	37	70	46	33	2	25	54	69	78	55	45	57	54	10	47	28	64	43	30			
	b	27 SEP 2318	16.2	14.7	36	165	89	208	32	15	118	86	171	48	178	161	214	204	19	168	197	230	247	23			
6 OCT	a	1027	15.7	14.7	103	105	134	129	21	23	59	45	103	45	60	104	80	124	20	105	153	126	192	19			
	b	2142	16.0	14.4	52	97	82	138	32	24	36	50	56	43	34	65	49	105	36	46	85	62	135	34			
20 OCT	a	1110	12.1	13.6	62	87	99	131	35	4	58	41	97	55	NOT REQUIRED					NOT REQUIRED							
	b	2358	12.0	13.5	65	48	107	99	45	37	75	94	130	50	66	59	90	115	39	76	97	182	154	49			
20 OCT <sup>h</sup>	a	1425	NA	NA	179	109	211	184	27	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED							
3 NOV	a	1210	10.4	15.5	291	124	341	203	24	41	148	109	232	45	149	79	243	146	41	217	194	305	329	35			
	b	2345	10.4	15.4	85	78	142	141	42	31	64	67	131	52	89	50	157	108	48	94	100	169	175	44			
17 NOV	a	1210	8.2	13.6	147	108	215	184	36	75	126	214	184	49	104	136	175	284	48	132	264	240	347	33			
	b	2254	7.8	15.0	62	69	175	114	55	14	11	49	71	79	56	22	176	77	69	39	22	101	96	69			
1 DEC	a	1230	3.2	14.8	65	32	75	51	23	23	63	43	77	28	35	17	49	33	37	51	19	75	61	49			
	b	2308	3.5	14.9	31	24	59	55	52	14	18	29	52	60	46	16	81	62	57	23	36	63	89	61			
19 DEC	a	1155	2.2	12.8	18	27	38	51	49	13	28	35	54	54	13	16	23	31	46	16	27	50	61	61			
	b	2321	2.5	13.8	123	55	200	94	39	15	67	67	131	59	31	66	65	124	49	60	17	140	81	65			

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

f Total number of organisms observed

NA = Not available

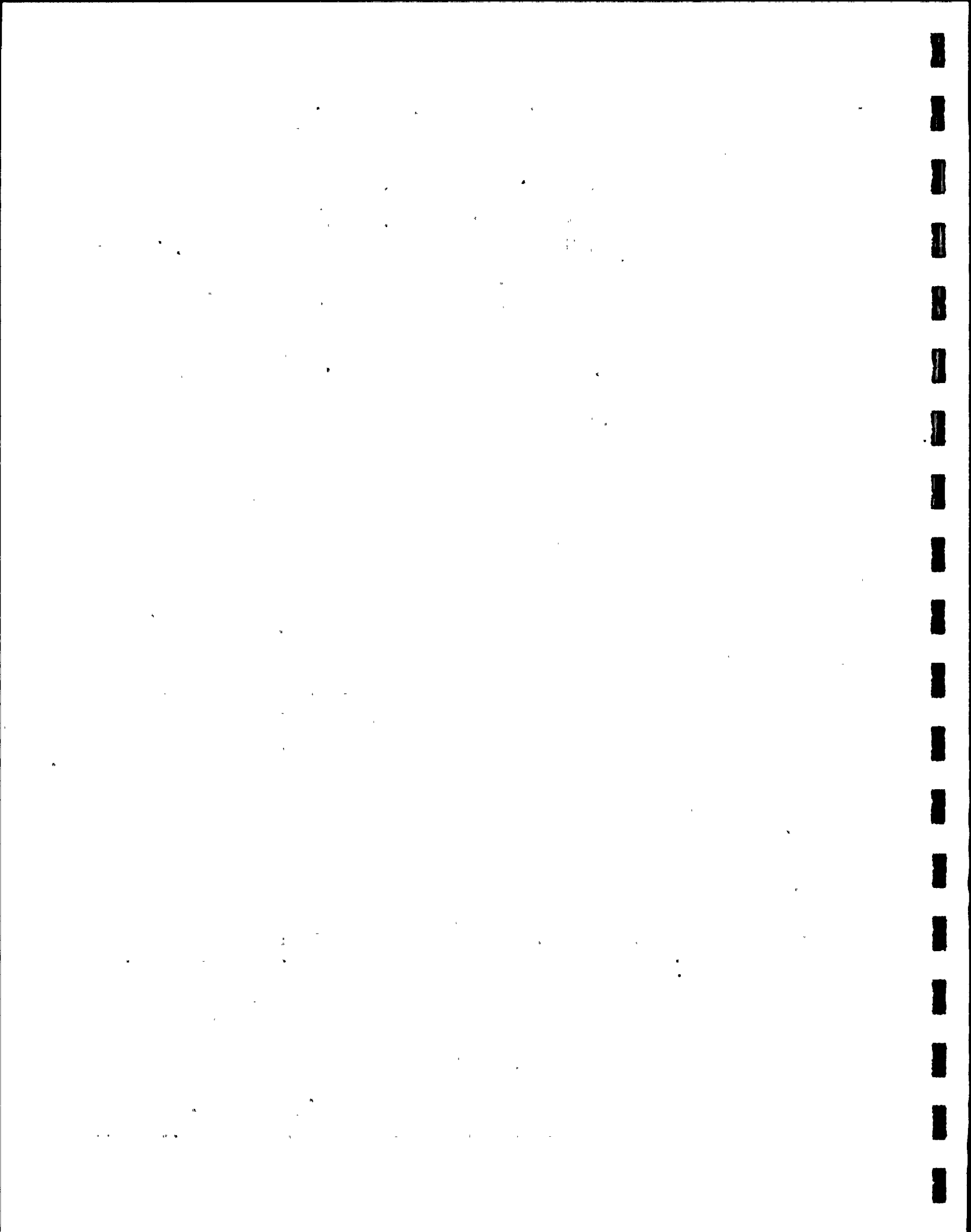
- = Not applicable

g Mean % dead equal to total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

h Sample taken from lake in the vicinity of FitzPatrick Intake

<sup>1</sup>Adults, juveniles, and nauplii





NUMBER OF CLADOCERA (ARTHROPODA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1975

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
14 APR	<sup>a</sup>	1130	5.1	14.0	-	-	0	0	-	-	3	0	3	0	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2200	5.8	13.7	-	3	0	3	0	1	0	1	1	50	NOT REQUIRED					NOT REQUIRED				
28-29 APR	<sup>a</sup>	28 APR 1200	8.9	14.6	13	7	17	8	20	11	6	13	6	10	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	29 APR 0045	8.6	13.4	-	-	0	0	-	1	2	1	2	0	NOT REQUIRED					NOT REQUIRED				
12 MAY	<sup>a</sup>	1120	10.4	14.4	4	2	7	2	33	-	4	0	5	20	2	0	3	1	50	-	1	0	1	0
	<sup>b</sup>	2400	9.2	14.5	3	-	3	0	0	1	8	2	10	25	2	4	2	4	0	1	1	1	1	0
26 MAY	<sup>a</sup>	1000	10.9	14.4	3	1	3	1	0	2	1	3	2	40	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2400	11.1	14.4	0	3	1	3	25	4	1	5	1	17	4	4	4	4	0	-	3	0	3	0
9 JUN	<sup>a</sup>	1130	11.7	12.4	8	20	8	21	3	6	9	6	13	21	4	14	7	16	22	4	7	5	8	15
	<sup>b</sup>	2300	14.1	14.3	13	5	13	7	10	3	4	5	7	42	3	4	6	10	56	4	0	8	5	69
23,28 JUN	<sup>a</sup>	23 JUN 1100	17.4	15.5	12	24	13	29	14	33	20	33	28	13	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	28 JUN 2245	15.9	15.6	53	23	58	34	17	9	36	22	44	32	35	79	46	98	21	11	48	26	73	40
20 JUL	<sup>a</sup>	1200	19.9	14.2	373	172	443	212	17	36	25	73	61	55	64	144	75	171	15	286	345	343	448	20
	<sup>b</sup>	2305	20.3	15.1	120	154	139	179	14	94	37	107	155	50	135	75	168	86	17	84	201	97	255	19
29 JUL	<sup>a</sup>	1200	19.8	14.0	79	126	93	140	12	74	165	110	239	31	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2320	19.6	12.2	139	207	177	278	24	28	215	41	270	22	44	234	62	216	19	135	159	175	152	18
11 AUG	<sup>a</sup>	1140	19.2	15.6	45	91	56	112	19	20	33	46	59	49	41	17	50	39	35	34	33	66	49	42
	<sup>b</sup>	2315	19.9	14.5	136	68	168	89	21	12	53	39	101	54	83	66	92	88	17	28	77	39	105	27
25 AUG	<sup>a</sup>	1145	21.8	15.7	178	142	185	206	18	10	26	133	101	85	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2350	21.9	17.7	57	89	83	135	33	2	8	58	75	92	123	97	164	174	35	34	69	74	87	36



NUMBER OF CLADOCERA (ARTHROPODA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T$ <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	<sup>a</sup> 1130	19.7	15.9	9	29	15	39	30	1	11	4	28	63	16	8	20	10	20	13	17	19	23	29
	<sup>b</sup> 2305	21.1	16.0	28	31	33	42	21	15	9	38	36	68	15	17	22	26	33	25	5	40	12	42
22,27 SEP	<sup>a</sup> 22 SEP 1205	18.4	14.8	18	13	20	17	16	4	11	12	26	61	10	18	10	20	7	18	17	23	27	30
	<sup>b</sup> 27 SEP 2318	16.2	14.7	39	79	52	94	19	10	40	24	46	29	58	40	68	45	13	117	75	136	88	14
6 OCT	<sup>a</sup> 1027	15.7	14.7	44	27	45	34	10	3	24	6	31	27	12	28	16	37	25	25	30	29	43	24
	<sup>b</sup> 2142	16.0	14.4	8	16	9	23	25	2	3	4	3	29	9	13	10	17	19	12	18	12	22	12
20 OCT	<sup>a</sup> 1110	12.1	13.6	30	65	33	71	9	13	34	19	44	25	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2358	12.0	13.5	45	33	55	38	16	21	19	40	33	45	36	79	41	91	13	83	102	101	132	21
20 OCT <sup>h</sup>	<sup>a</sup> 1425	NA	NA	58	63	61	84	15	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	<sup>a</sup> 1210	10.4	15.5	23	58	27	64	11	9	19	14	23	24	22	29	29	31	15	40	44	46	50	12
	<sup>b</sup> 2345	10.4	15.4	8	21	12	30	31	5	4	7	14	57	57	31	60	35	7	15	39	20	46	18
17 NOV	<sup>a</sup> 1210	8.2	13.6	117	42	126	48	9	57	31	69	47	24	36	42	45	47	15	51	70	57	77	10
	<sup>b</sup> 2254	7.8	15.0	56	81	78	93	20	25	47	36	62	27	43	21	53	27	20	25	38	29	50	20
1 DEC	<sup>a</sup> 1230	3.2	14.8	10	7	10	8	6	5	10	5	11	6	9	10	9	10	0	18	26	20	38	24
	<sup>b</sup> 2308	3.5	14.9	6	5	6	7	15	3	1	3	2	20	5	15	6	17	13	7	13	11	14	20
19 DEC	<sup>a</sup> 1155	2.2	12.8	2	-	3	0	33	2	-	2	0	0	1	2	1	2	0	-	4	0	6	33
	<sup>b</sup> 2321	2.5	13.8	12	4	13	4	6	1	7	1	11	33	3	13	6	13	16	7	14	8	14	5

<sup>a/b</sup> Time in 2400 hrs of Intake Sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake Temperature

<sup>e</sup> Number of live organisms observed

<sup>f</sup> Total number of organisms observed

NA = Not available

<sup>g</sup> Mean % dead equal to total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

<sup>h</sup> Sample taken from lake in the vicinity of FitzPatrick Intake

- = Not applicable



NUMBER OF CILIATA (PROTOZOA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
14 APR	a	1130	5.1	14.0	11	-	12	0	8	-	0	0	2	100	NOT REQUIRED					NOT REQUIRED				
	b	2200	5.8	13.7	-	-	0	0	-	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a 28 APR 1200	8.9	14.6	10	60	83	64	52	3	5	45	25	89	NOT REQUIRED					NOT REQUIRED					
	b 29 APR 0045	8.6	13.4	55	0	56	1	3	6	4	9	10	47	NOT REQUIRED					NOT REQUIRED					
12 MAY	a	1120	10.4	14.4	38	1	38	1	0	19	6	19	6	0	1	1	7	1	75	0	15	2	15	12
	b	2400	9.2	14.5	3	11	7	26	58	1	7	1	26	70	0	6	1	17	67	3	3	3	3	0
26 MAY	a	1000	10.9	14.4	6	3	15	3	50	7	5	13	13	54	NOT REQUIRED					NOT REQUIRED				
	b	2400	11.1	14.4	9	0	10	1	18	2	3	8	14	77	1	1	12	6	89	8	2	8	6	29
9 JUN	a	1130	11.7	12.4	4	0	6	1	43	-	3	0	6	50	0	1	1	3	75	1	4	3	12	23
	b	2300	14.1	14.3	0	0	2	3	100	0	1	2	2	75	0	-	2	0	100	4	-	7	0	57
23,28 JUN	a 23 JUN 1100	17.4	15.5	-	1	0	1	0	-	8	0	9	11	NOT REQUIRED					NOT REQUIRED					
	b 28 JUN 2245	15.9	15.6	0	0	13	1	100	0	1	7	1	88	1	2	1	2	0	1	2	26	2	89	
20 JUL	a	1200	19.9	14.2	-	-	0	0	-	12	5	22	8	43	9	13	23	44	51	11	0	17	5	50
	b	2305	20.3	15.1	9	4	24	8	59	8	1	17	13	70	4	0	14	11	84	7	2	39	5	80
29 JUL	a	1200	19.8	14.0	4	10	10	17	48	0	21	12	36	56	NOT REQUIRED					NOT REQUIRED				
	b	2320	19.6	12.2	9	15	16	33	51	20	0	72	2	73	17	6	33	16	53	0	4	4	12	75
11 AUG	a	1140	19.2	15.6	3	8	8	9	35	-	7	0	7	0	1	4	3	8	55	3	-	5	0	40
	b	2315	19.9	14.5	1	1	1	4	60	0	1	2	1	67	0	0	3	4	100	1	3	2	3	20
25 AUG	a	1145	21.8	15.7	46	1	50	4	13	8	2	10	3	23	NOT REQUIRED					NOT REQUIRED				
	b	2350	21.9	17.7	0	-	4	0	100	-	2	0	3	33	2	2	2	2	0	41	-	45	0	8



NUMBER OF CILIATA (PROTOZOA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP <sup>c</sup> (°C)	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3° SIMULATION					2° SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	a 1130	19.7	15.9	1	0	2	1	67	0	1	2	2	75	-	0	0	1	100	1	0	1	1	50
	b 2305	21.1	16.0	2	2	7	2	56	8	1	11	7	50	0	0	2	5	100	1	0	2	3	80
22, 27 SEP	a 22 SEP 1205	18.4	14.8	0	2	16	23	95	5	3	13	38	84	6	10	55	33	82	0	8	49	21	89
	b 27 SEP 2318	16.2	14.7	0	0	15	12	100	24	0	49	8	58	3	5	7	10	53	1	1	4	3	71
6 OCT	a 1027	15.7	14.7	10	10	31	16	57	1	20	11	35	54	1	14	6	17	35	14	24	29	33	39
	b 2142	16.0	14.4	10	14	34	17	53	5	17	10	26	39	10	11	21	16	43	0	8	47	14	87
20 OCT	a 1110	12.1	13.6	0	4	3	7	60	1	2	2	2	25	NOT REQUIRED					NOT REQUIRED				
	b 2358	12.0	13.5	0	2	4	3	71	0	0	3	4	100	3	0	8	10	83	0	0	9	2	100
20 OCT	h a 1425	NA	NA	1	3	2	5	43	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	a 1210	10.4	15.5	0	-	1	0	100	2	-	7	0	71	3	2	8	4	58	2	0	6	1	71
	b 2345	10.4	15.4	8	0	9	9	56	1	3	5	6	64	5	-	5	0	0	1	0	1	3	75
17 NOV	a 1210	8.2	13.6	0	0	1	1	100	1	0	2	1	67	0	0	1	1	100	47	-	48	0	2
	b 2254	7.8	15.0	0	5	10	9	74	2	4	8	12	70	0	0	13	9	100	2	0	10	10	90
1 DEC	a 1230	3.2	14.8	0	0	2	12	100	2	1	9	10	84	7	7	7	8	7	0	-	3	0	100
	b 2308	3.5	14.9	-	0	0	4	100	2	1	3	1	25	0	2	1	2	33	5	1	16	3	68
19 DEC	a 1155	2.2	12.8	-	0	0	2	100	-	1	0	1	0	1	-	1	0	0	0	2	1	2	33
	b 2321	2.5	13.8	0	0	2	1	100	-	-	0	0	-	-	4	0	4	0	0	0	1	1	100

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

f Total number of organisms observed

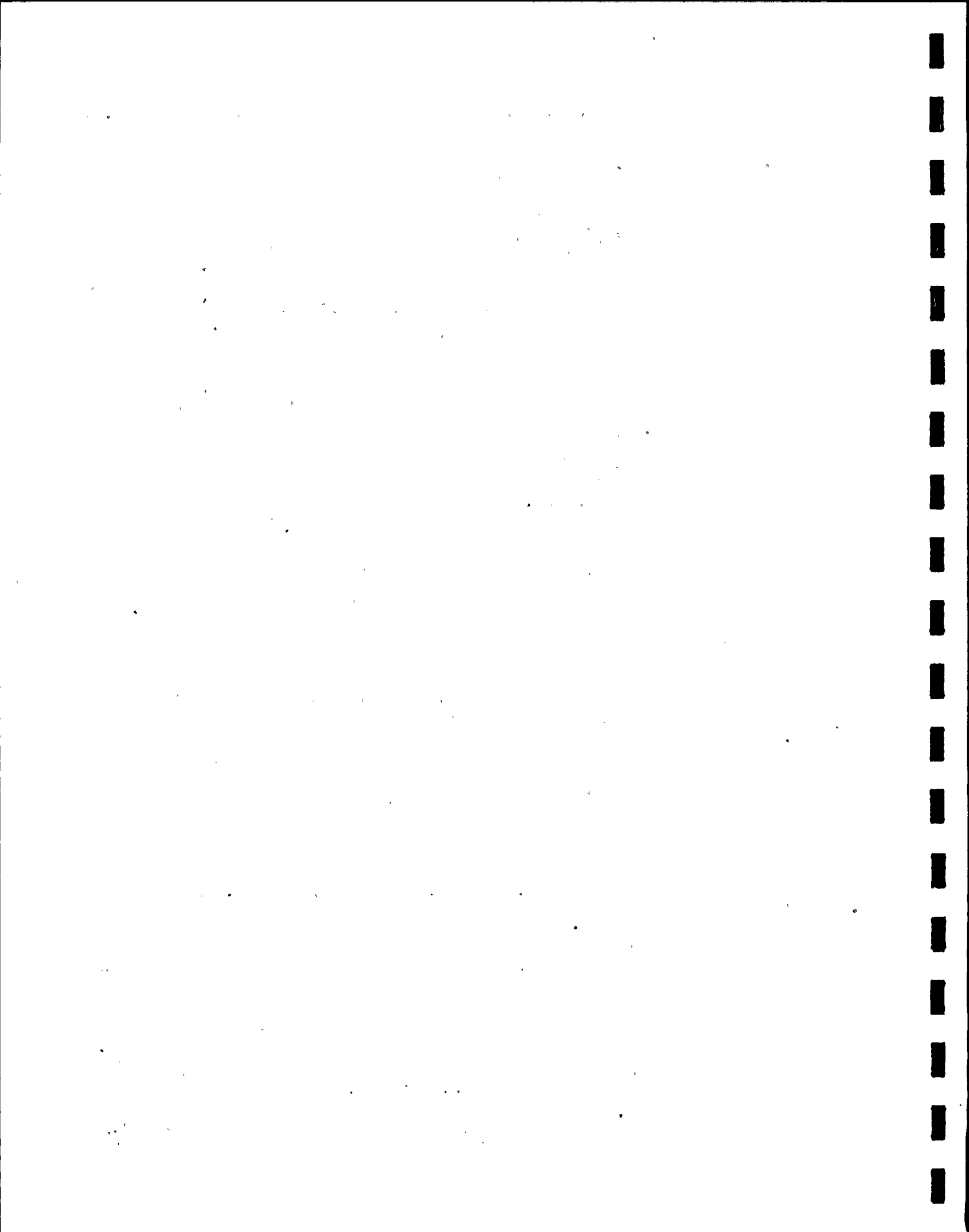
NA = Not available

g Mean % dead equal to total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

h Sample taken from lake in the vicinity of FitzPatrick Intake

- = Not applicable





NUMBER OF SUCTORIA (PROTOZOA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	INTAKE					DISCHARGE					3 <sup>rd</sup> SIMULATION					2 <sup>nd</sup> SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>	% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>	% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>	% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>	% DEAD				
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
14 APR	<sup>a</sup> 1130	5.1	14.0	-	0	0	1	100	-	1	0	2	50	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2200	5.8	13.7	1	0	2	3	80	1	0	1	2	67	NOT REQUIRED					NOT REQUIRED				
28-29 APR	<sup>a</sup> 28 APR 1200	8.9	14.6	2	4	15	8	74	0	1	3	10	92	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 29 APR 0045	8.6	13.4	0	0	1	7	100	0	0	4	4	100	NOT REQUIRED					NOT REQUIRED				
12 MAY	<sup>a</sup> 1120	10.4	14.4	1	1	1	2	33	0	1	2	1	67	-	0	0	2	100	1	-	2	0	50
	<sup>b</sup> 2400	9.2	14.5	1	0	2	3	80	1	3	1	6	43	1	2	4	3	57	1	0	5	3	88
26 MAY	<sup>a</sup> 1000	10.9	14.4	0	0	2	1	100	-	1	0	4	75	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2400	11.1	14.4	0	-	2	0	100	0	0	1	1	100	0	2	1	2	33	0	3	3	3	50
9 JUN	<sup>a</sup> 1130	11.7	12.4	2	8	13	8	52	0	0	1	12	100	2	2	3	2	20	0	1	4	5	89
	<sup>b</sup> 2300	14.1	14.3	0	4	9	4	69	-	3	0	5	40	1	1	4	4	75	2	0	8	2	80
23,28 JUN	<sup>a</sup> 23 JUN 1100	17.4	15.5	1	5	4	16	70	1	6	2	22	71	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 28 JUN 2245	15.9	15.6	3	1	4	7	64	0	1	1	11	92	0	0	7	4	100	1	3	5	5	60
20 JUL	<sup>a</sup> 1200	19.9	14.2	-	-	0	0	-	-	0	0	1	100	-	0	0	1	100	-	-	0	0	-
	<sup>b</sup> 2305	20.3	15.1	-	-	0	0	-	-	-	0	0	-	1	-	1	0	0	-	-	0	0	-
29 JUL	<sup>a</sup> 1200	19.8	14.0	0	13	3	14	23	2	0	2	3	60	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2320	19.6	12.2	-	1	0	1	0	-	-	0	0	-	0	-	3	0	100	-	-	0	0	-
11 AUG	<sup>a</sup> 1140	19.2	15.6	0	-	1	0	100	1	-	1	0	0	-	0	0	2	100	-	-	0	0	-
	<sup>b</sup> 2315	19.9	14.5	6	1	6	2	12	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
25 AUG	<sup>a</sup> 1145	21.8	15.7	-	-	0	0	-	1	0	1	1	50	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2350	21.9	17.7	-	-	0	0	-	-	0	0	1	100	-	-	0	0	-	-	-	0	0	-



NUMBER OF SUCTORIA (PROTOZOA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION						
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD <sup>g</sup>		
				R-1	R-2	R-1	R-2		MEAN <sup>h</sup>	R-1	R-2	R-1		R-2	MEAN <sup>h</sup>	R-1	R-2		R-1	R-2	MEAN <sup>h</sup>	R-1		R-2	R-1
8 SEP	a	1130	19.7	15.9	-	-	0	0	-	0	-	1	0	100	-	-	0	0	-	-	0	0	1	100	
	b	2305	21.1	16.0	-	-	0	0	-	0	-	1	0	100	-	-	0	0	-	-	-	0	0	-	
22,27 SEP	a	22 SEP 1205	18.4	14.8	-	2	0	2	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
	b	27 SEP 2318	16.2	14.7	-	-	0	0	-	3	-	6	0	50	-	-	0	0	-	-	-	0	0	-	
6 OCT	a	1027	15.7	14.7	-	-	0	0	-	0	2	4	6	80	-	0	0	1	100	-	0	0	1	100	
	b	2142	16.0	14.4	1	-	1	0	0	-	-	-	0	0	-	-	2	0	2	0	0	1	1	75	
20 OCT	a	1110	12.1	13.6	0	-	2	0	100	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED					
	b	2358	12.0	13.5	0	0	1	1	100	1	0	1	3	75	-	1	0	1	0	1	0	1	0	1	50
20 OCT h	a	1425	NA	NA	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED					
3 NOV	a	1210	10.4	15.5	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	
	b	2345	10.4	15.4	-	0	0	11	100	-	-	0	0	-	-	1	0	1	0	1	-	1	0	0	
17 NOV	a	1210	8.2	13.6	-	0	0	1	100	2	-	5	0	60	-	-	0	0	-	-	-	0	0	-	
	b	2254	7.8	15.0	0	3	3	3	50	1	-	1	0	0	0	-	2	0	100	0	-	1	0	100	
1 DEC	a	1230	3.2	14.8	0	1	1	2	67	-	0	0	2	100	2	1	3	2	40	0	-	1	0	100	
	b	2308	3.5	14.9	0	0	1	4	100	-	0	0	1	100	-	-	0	0	-	0	-	2	0	100	
19 DEC	a	1155	2.2	12.8	0	-	1	0	100	0	0	1	2	100	2	-	4	0	50	-	0	0	3	100	
	b	2321	2.5	13.8	-	-	0	0	-	0	2	2	3	60	0	1	2	1	67	0	1	2	3	80	

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

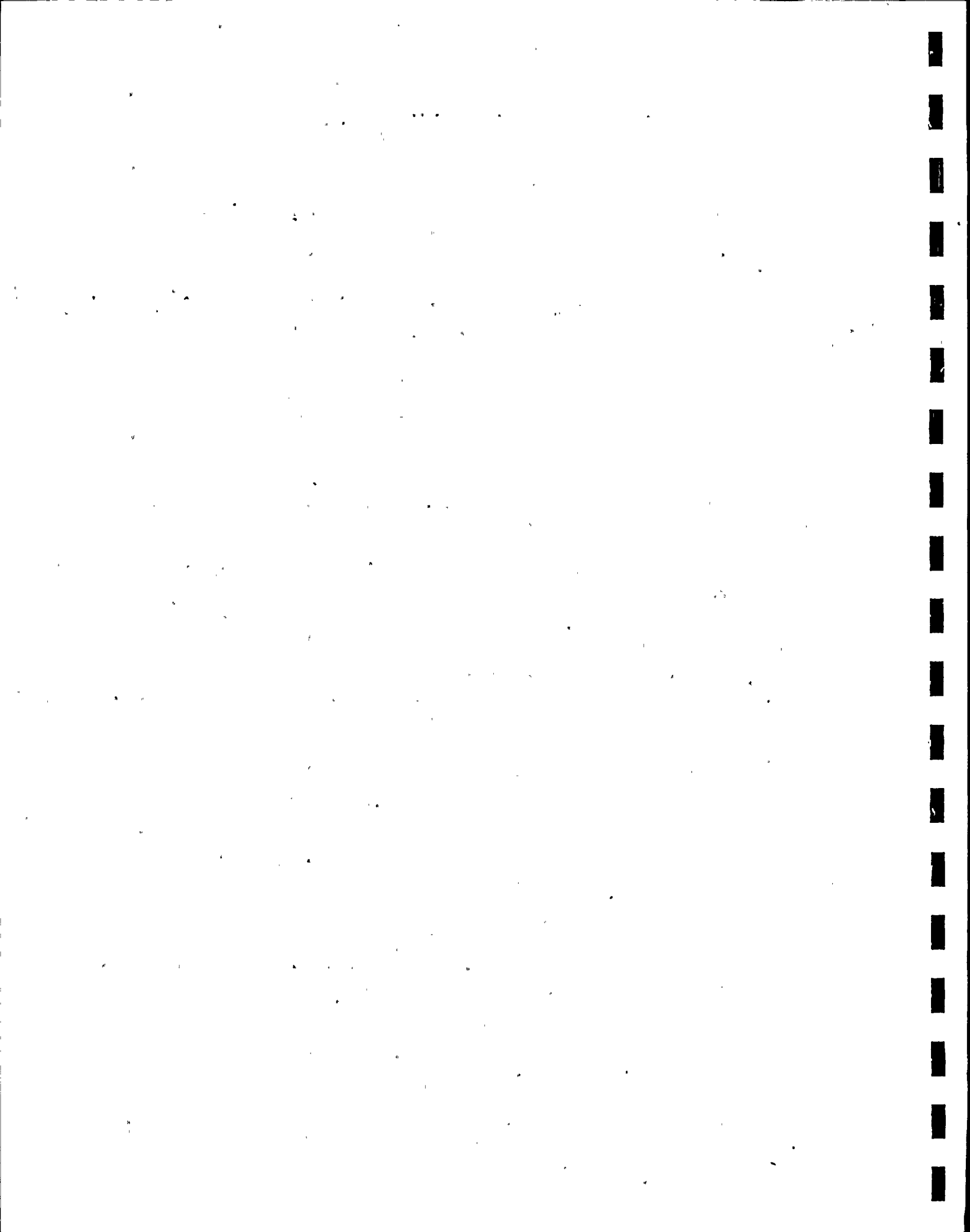
f Total number of organisms observed

NA = Not available

g Mean % dead equal to total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

h Sample taken from lake in the vicinity of FitzPatrick Intake

- = Not applicable



NUMBER OF TOTAL PROTOZOA OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP <sup>c</sup> (°C)	Δ T <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
14 APR	a	1130	5.1	14.0	11	0	12	1	15	-	1	0	4	75	NOT REQUIRED					NOT REQUIRED				
	b	2200	5.8	13.7	1	0	2	3	80	1	0	1	2	67	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a 28 APR	1200	8.9	14.6	12	64	98	72	55	3	6	48	35	89	NOT REQUIRED					NOT REQUIRED				
	b 29 APR	0045	8.6	13.4	55	0	57	8	15	6	4	13	14	63	NOT REQUIRED					NOT REQUIRED				
12 MAY	a	1120	10.4	14.4	39	2	39	3	2	19	7	21	7	7	1	1	7	3	80	1	15	4	15	16
	b	2400	9.2	14.5	4	11	9	29	60	2	10	2	32	65	1	8	5	20	64	4	3	8	6	50
26 MAY	a	1000	10.9	14.4	6	3	17	4	57	7	6	13	17	57	NOT REQUIRED					NOT REQUIRED				
	b	2400	11.1	14.4	9	0	12	1	31	2	3	9	15	79	1	3	13	8	89	8	5	11	9	35
9 JUN	a	1130	11.7	12.4	6	8	19	9	50	0	3	1	18	84	2	3	4	5	44	1	4	7	8	67
	b	2300	14.1	14.3	0	4	11	7	78	0	4	2	7	56	1	1	3	4	71	6	0	15	2	71
23,28 JUN	a 23 JUN	1100	17.4	15.5	1	6	4	17	67	1	14	2	31	55	NOT REQUIRED					NOT REQUIRED				
	b 28 JUN	2245	15.9	15.6	3	1	17	8	84	0	2	8	12	90	1	2	8	6	79	2	5	31	7	82
20 JUL	a	1200	19.9	14.2	1	2	6	5	73	12	5	22	9	45	9	13	23	22	51	11	0	17	5	50
	b	2305	20.3	15.1	9	4	24	8	59	8	1	17	13	70	5	0	15	9	81	7	2	39	5	80
29, JUL	a	1200	19.8	14.0	4	23	13	31	39	2	21	14	39	57	NOT REQUIRED					NOT REQUIRED				
	b	2320	19.6	12.2	9	16	16	33	49	20	0	72	2	73	17	6	36	16	56	0	4	4	12	75
11 AUG	a	1140	19.2	15.6	14	19	32	40	54	6	26	21	45	52	12	6	25	28	66	16	7	33	9	45
	b	2315	19.9	14.5	12	4	13	13	38	5	14	22	39	69	4	0	22	24	91	6	22	27	43	60
25 AUG	a	1145	21.8	15.7	52	22	59	55	35	10	8	31	27	60	NOT REQUIRED					NOT REQUIRED				
	b	2350	21.9	17.7	2	2	34	2	89	3	5	16	17	76	3	2	4	11	67	42	1	53	6	27



NUMBER OF TOTAL PROTOZOA OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	<sup>a</sup> 1130	19.7	15.9	1	0	3	1	75	0	2	3	4	71	-	2	0	3	33	2	0	2	2	50
	<sup>b</sup> 2305	21.1	16.0	3	3	9	3	50	9	4	14	12	50	0	0	2	6	100	1	0	4	4	88
22,27 SEP	<sup>a</sup> 22 SEP 1205	18.4	14.8	0	6	28	38	91	6	4	17	53	86	10	14	70	43	79	0	23	59	58	80
	<sup>b</sup> 27 SEP 2318	16.2	14.7	0	0	15	13	100	28	0	56	9	57	3	5	7	10	53	1	1	4	3	71
6 OCT	<sup>a</sup> 1027	15.7	14.7	10	10	31	16	57	1	23	15	42	58	1	14	6	18	38	14	25	29	35	39
	<sup>b</sup> 2142	16.0	14.4	11	14	35	17	52	5	17	11	26	41	10	13	21	18	41	0	9	48	17	86
20 OCT	<sup>a</sup> 1110	12.1	13.6	0	4	5	7	67	1	2	2	2	25	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2358	12.0	13.5	0	2	5	4	78	1	0	4	8	92	3	2	8	12	75	1	0	10	3	92
20 OCT h	<sup>a</sup> 1425	NA	NA	1	3	2	6	50	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	<sup>a</sup> 1210	10.4	15.5	0	-	1	0	100	2	-	7	0	71	3	2	8	4	58	2	0	6	1	71
	<sup>b</sup> 2345	10.4	15.4	8	0	9	21	73	3	3	7	6	54	5	1	5	1	0	2	0	2	3	60
17 NOV	<sup>a</sup> 1210	8.2	13.6	0	0	1	3	100	3	0	7	1	62	0	0	1	1	100	48	-	49	0	2
	<sup>b</sup> 2254	7.8	15.0	0	8	13	12	68	4	4	10	12	64	0	0	15	9	100	2	0	11	10	90
1 DEC	<sup>a</sup> 1230	3.2	14.8	2	1	6	14	85	2	4	9	21	80	9	8	14	10	29	0	1	9	1	90
	<sup>b</sup> 2308	3.5	14.9	0	1	1	9	90	2	2	3	3	33	0	3	1	3	25	7	1	20	3	65
19 DEC	<sup>a</sup> 1155	2.2	12.8	0	0	1	2	100	1	1	2	3	60	3	-	5	0	40	0	2	1	5	67
	<sup>b</sup> 2321	2.5	13.8	0	0	2	1	100	0	2	2	3	60	0	5	2	5	29	0	0	3	3	100

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

f Total number of organisms observed

NA = Not available

g Mean % dead equal to total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

h Sample taken from lake in the vicinity of FitzPatrick Intake





NUMBER OF ROTIFERA OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T$ <sup>d</sup>	INTAKE					DISCHARGE					3° SIMULATION					2° SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
14 APR	a 1130	5.1	14.0	3	6	22	35	84	4	7	21	39	82	NOT REQUIRED					NOT REQUIRED				
	b 2200	5.8	13.7	16	30	92	78	73	8	11	94	119	91	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a 28 APR 1200	8.9	14.6	97	56	275	169	65	78	46	167	140	60	NOT REQUIRED					NOT REQUIRED				
	b 29 APR 0045	8.6	13.4	112	16	155	101	50	29	34	116	187	89	NOT REQUIRED					NOT REQUIRED				
12 MAY	a 1120	10.4	14.4	290	386	418	663	37	187	201	341	513	55	69	52	133	125	53	31	38	75	103	61
	b 2400	9.2	14.5	245	109	456	260	51	118	142	317	298	58	38	108	134	287	65	48	70	127	266	70
26 MAY	a 1000	10.9	14.4	158	160	329	297	43	164	90	315	171	48	NOT REQUIRED					NOT REQUIRED				
	b 2400	11.1	14.4	181	114	373	294	56	59	125	154	303	60	153	95	271	277	55	61	108	154	380	61
9 JUN	a 1130	11.7	12.4	99	205	213	347	46	75	104	181	224	56	51	86	154	258	67	63	134	220	238	57
	b 2300	14.1	14.3	154	96	383	198	57	23	96	124	250	68	46	85	136	289	69	59	129	167	260	56
23, 28 JUN	a 23 JUN 1100	17.4	15.5	234	377	539	826	55	456	133	980	945	69	NOT REQUIRED					NOT REQUIRED				
	b 28 JUN 2245	15.9	15.6	149	84	386	306	66	28	75	151	325	78	124	445	209	292	63	50	260	242	579	62
20 JUL	a 1200	19.9	14.2	98	89	143	138	33	44	76	83	112	38	76	132	94	182	25	89	103	137	177	39
	b 2305	20.3	15.1	109	70	171	114	37	43	72	101	159	56	107	47	204	80	46	95	120	137	208	38
29 JUL	a 1200	19.8	14.0	50	107	108	139	36	41	73	68	132	43	NOT REQUIRED					NOT REQUIRED				
	b 2320	19.6	12.2	9	35	45	116	73	14	28	28	99	67	22	13	51	49	61	33	22	95	35	58
11 AUG	a 1140	19.2	15.6	34	48	82	145	64	35	34	94	126	69	26	52	74	102	56	22	27	81	64	66
	b 2315	19.9	14.5	118	67	297	228	65	49	97	185	275	68	62	52	176	153	66	27	40	102	203	78
25 AUG	a 1145	21.8	15.7	81	59	186	178	61	26	44	165	136	77	NOT REQUIRED					NOT REQUIRED				
	b 2350	21.9	17.7	33	93	189	224	69	17	34	120	190	84	80	192	263	332	54	56	73	280	175	72



NUMBER OF ROTIFERA OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
8 SEP	<sup>a</sup>	1130	19.7	15.9	74	138	125	226	40	22	71	58	235	68	40	38	93	79	55	39	63	71	147	53
	<sup>b</sup>	2305	21.1	16.0	91	153	241	280	53	135	68	287	273	64	59	55	117	151	57	88	72	245	168	61
22,27 SEP	<sup>a</sup> 22 SEP 1205	18.4	14.8	18	30	62	58	60	17	36	68	114	71	22	20	45	49	55	17	29	65	56	62	
	<sup>b</sup> 27 SEP 2318	16.2	14.7	31	75	103	153	59	16	41	102	120	74	28	28	97	89	70	42	36	124	130	69	
6 OCT	<sup>a</sup>	1027	15.7	14.7	28	11	61	46	64	10	47	55	84	59	28	12	44	30	46	25	31	53	54	48
	<sup>b</sup>	2142	16.0	14.4	35	21	82	71	63	10	16	42	72	77	14	10	44	48	74	21	21	50	85	69
20 OCT	<sup>a</sup>	1110	12.1	13.6	4	19	22	31	57	2	4	18	23	85	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2358	12.0	13.5	16	11	32	28	55	12	7	26	22	60	6	5	27	19	76	14	9	47	33	71
20. OCT <sup>h</sup>	<sup>a</sup>	1425	NA	NA	23	24	32	52	44	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	<sup>a</sup>	1210	10.4	15.5	17	20	23	32	33	11	18	21	30	43	4	13	21	21	60	41	26	53	46	32
	<sup>b</sup>	2345	10.4	15.4	9	7	14	25	59	7	22	11	36	38	23	9	35	14	35	18	8	27	19	43
17 NOV	<sup>a</sup>	1210	8.2	13.6	22	12	33	27	43	19	17	36	28	44	14	11	25	19	43	19	18	29	29	36
	<sup>b</sup>	2254	7.8	15.0	55	63	113	87	41	12	19	24	44	54	53	36	82	71	42	26	32	63	69	56
1 DEC	<sup>a</sup>	1230	3.2	14.8	17	26	37	50	51	9	17	21	44	60	48	12	76	44	51	35	19	54	69	56
	<sup>b</sup>	2308	3.5	14.9	39	14	62	60	57	12	14	19	35	52	28	23	51	68	57	27	24	81	61	64
19 DEC	<sup>a</sup>	1155	2.2	12.8	13	5	46	22	74	6	9	9	20	48	5	5	19	11	67	8	14	24	25	55
	<sup>b</sup>	2321	2.5	13.8	28	7	78	59	74	14	23	26	40	44	18	62	36	108	44	22	20	58	73	68

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

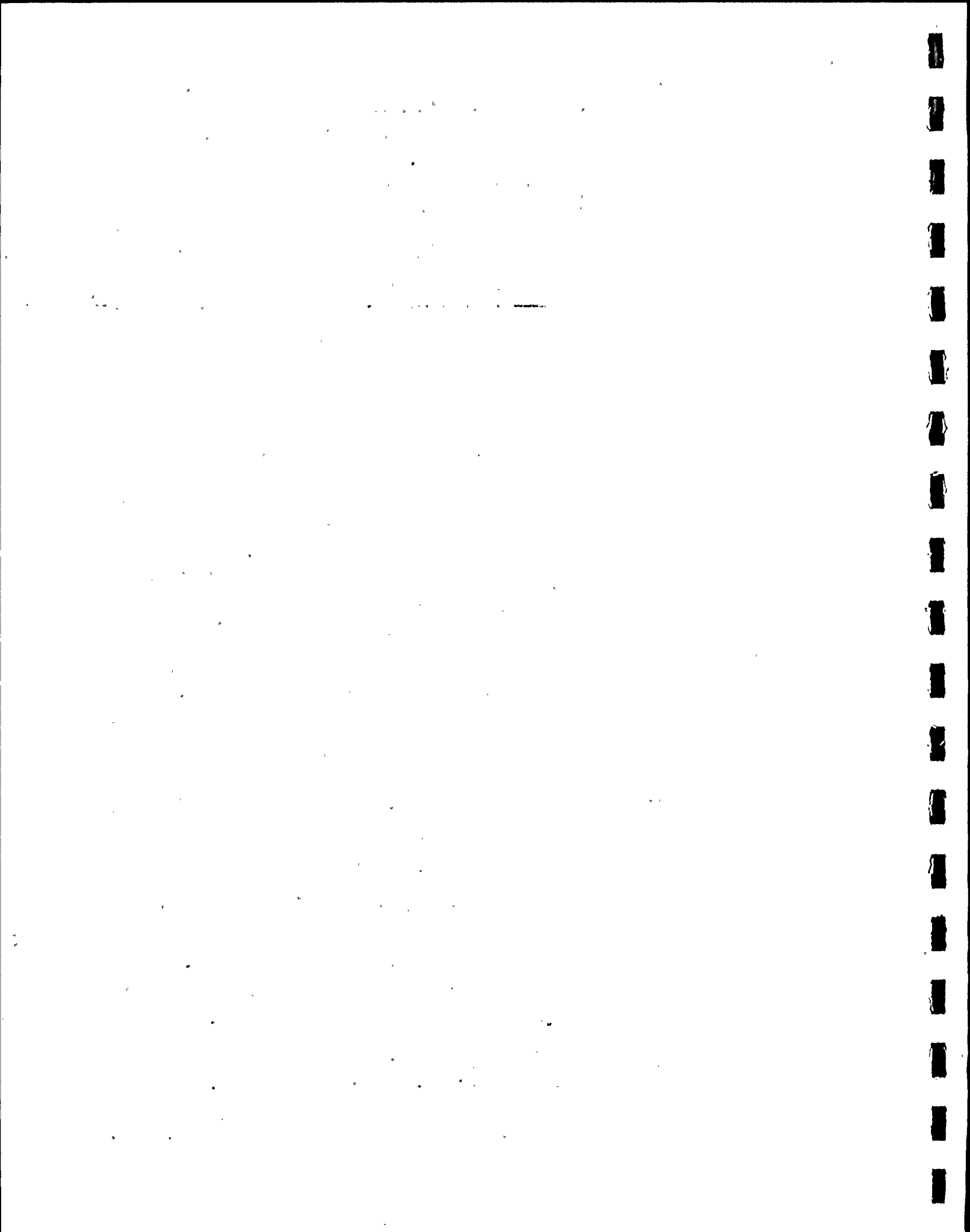
e Number of live organisms observed

f Total number of organisms observed

NA = Not available

g Mean % dead equal to total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

h Sample taken from lake in the vicinity of FitzPatrick Intake



NUMBER OF TOTAL ZOOPLANKTON OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
14 APR	<sup>a</sup>	1130	5.1	14.0	48	33	94	85	55	16	45	47	157	61	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2200	5.8	13.7	56	79	178	189	63	41	50	178	400	77	NOT REQUIRED					NOT REQUIRED				
28-29 APR	<sup>a</sup>	28 APR 1200	8.9	14.6	138	142	431	285	61	123	71	270	211	60	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	29 APR 0045	8.6	13.4	179	19	234	136	46	43	53	166	244	77	NOT REQUIRED					NOT REQUIRED				
12 MAY	<sup>a</sup>	1120	10.4	14.4	363	434	549	784	40	242	247	438	1088	55	91	63	189	163	56	46	57	121	153	62
	<sup>b</sup>	2400	9.2	14.5	285	139	538	327	51	139	183	354	746	57	44	151	195	370	65	64	151	182	499	70
26 MAY	<sup>a</sup>	1000	10.9	14.4	189	190	437	361	53	195	106	435	674	55	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2400	11.1	14.4	276	181	536	435	53	78	155	212	476	67	196	123	403	516	65	87	122	249	391	67
9 JUN	<sup>a</sup>	1130	11.7	12.4	120	252	255	404	43	94	214	206	207	55	64	112	189	301	64	76	148	250	269	57
	<sup>b</sup>	2300	14.1	14.3	217	132	478	256	52	27	144	133	300	67	56	108	186	365	70	84	147	248	325	60
23,28 JUN	<sup>a</sup>	23 JUN 1100	17.4	15.5	260	423	582	907	54	521	703	1049	1053	67	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	28 JUN 2245	15.9	15.6	226	127	508	385	60	43	124	193	413	72	175	562	301	457	56	83	360	349	750	60
20 JUL	<sup>a</sup>	1200	19.9	14.2	509	289	655	389	24	97	118	196	215	48	160	308	225	416	27	408	496	539	733	29
	<sup>b</sup>	2305	20.3	15.1	254	255	371	346	29	157	127	250	395	56	267	134	442	203	38	201	360	304	525	34
29 JUL	<sup>a</sup>	1200	19.8	14.0	181	329	279	390	24	130	284	233	501	44	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2320	19.6	12.2	286	361	417	597	36	108	337	214	560	42	143	370	228	427	29	296	321	458	382	29
11 AUG	<sup>a</sup>	1140	19.2	15.6	120	208	208	363	43	75	112	190	279	60	117	93	201	200	48	95	97	211	173	50
	<sup>b</sup>	2315	19.9	14.5	305	165	557	381	50	76	193	306	507	67	195	128	357	296	52	90	158	209	394	51
25 AUG	<sup>a</sup>	1145	21.8	15.7	337	237	462	477	39	49	80	345	280	79	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2350	21.9	17.7	113	198	348	392	58	22	52	222	306	86	230	312	471	560	47	164	152	455	294	58



NUMBER OF TOTAL ZOOPLANKTON OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2	
8 SEP	a	1130	19.7	174	267	266	418	36	34	112	119	443	74	147	107	220	164	34	130	175	189	285	36
	b	2305	21.1	147	229	359	410	51	247	87	505	409	63	102	110	184	246	51	166	106	372	240	56
22,27 SEP	a	22 SEP	18.4	36	86	139	159	59	29	76	151	262	75	97	97	182	166	44	82	97	211	184	55
	b	27 SEP	16.2	106	319	259	468	42	69	199	268	346	56	267	234	386	348	32	328	309	494	468	34
6 OCT	a	1027	15.7	185	153	271	225	32	37	153	121	260	50	101	158	146	209	27	169	239	237	324	27
	b	2142	16.0	106	148	208	249	44	41	72	107	157	57	67	101	124	188	46	79	133	172	259	51
20 OCT	a	1110	12.1	96	175	159	240	32	20	98	80	166	52	NOT REQUIRED					NOT REQUIRED				
	b	2358	12.0	126	94	199	169	40	71	101	164	193	52	111	145	166	237	36	174	208	340	322	42
20 OCT h	a	1425	NA	261	201	306	326	27	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	331	202	392	299	23	63	185	151	285	43	178	123	301	202	40	300	264	410	426	33
	b	2345	10.4	110	106	177	217	45	46	93	92	187	50	174	91	257	158	36	129	147	218	243	40
17 NOV	a	1210	8.2	286	162	375	262	30	154	174	326	260	44	154	189	245	351	43	250	352	375	453	27
	b	2254	7.8	173	221	379	306	42	55	81	119	189	56	152	79	326	184	55	92	92	204	225	57
1 DEC	a	1230	3.2	94	66	128	123	36	39	94	78	153	42	101	47	148	97	40	104	65	158	169	48
	b	2308	3.5	76	44	128	131	54	31	35	54	92	55	79	57	139	150	53	64	74	175	167	60
19 DEC	a	1155	2.2	33	32	88	75	60	22	38	48	77	52	22	23	48	44	51	24	47	75	97	59
	b	2321	2.5	160	66	293	158	49	30	99	96	185	54	52	146	109	250	45	89	51	209	171	63

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

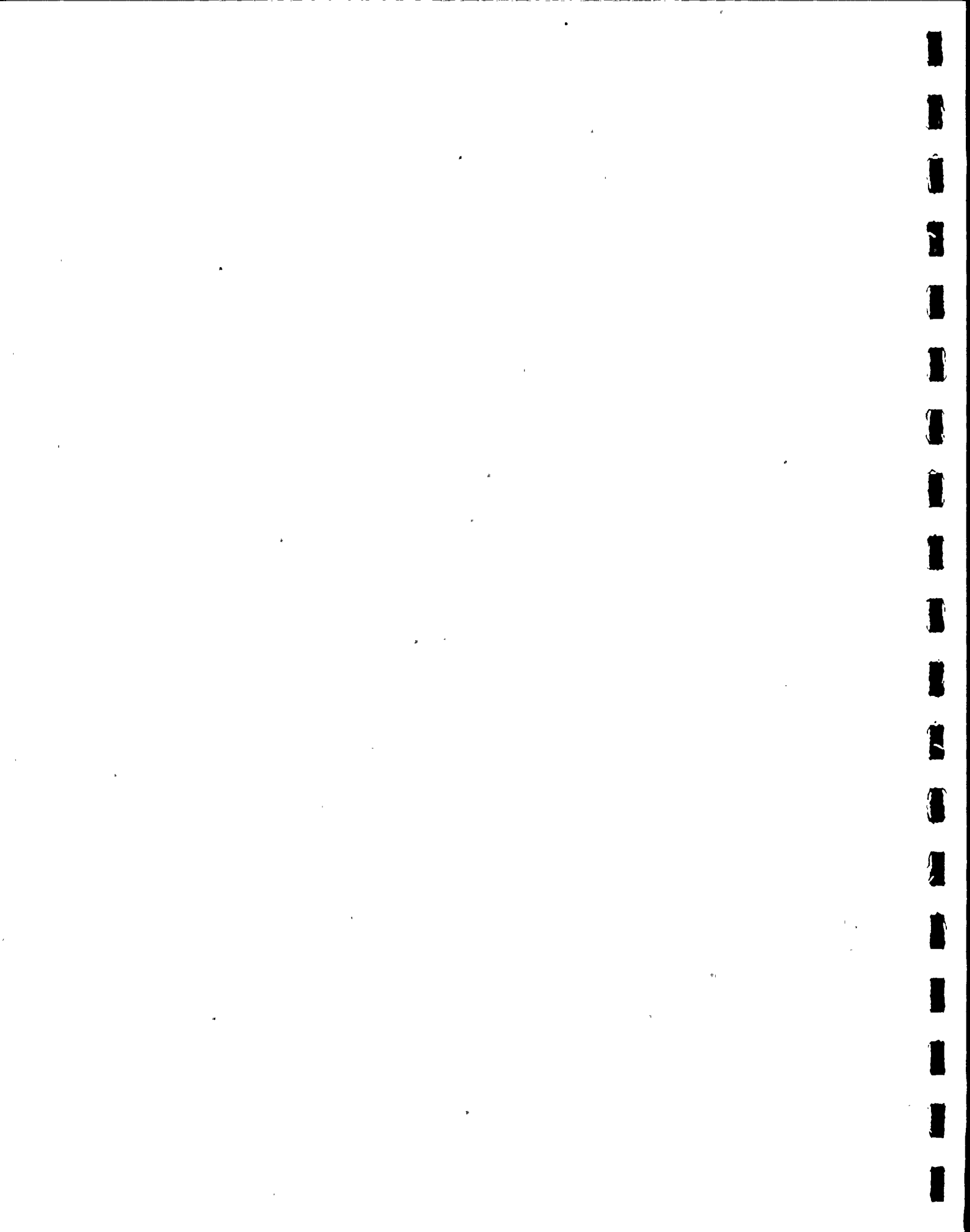
f Total number of organisms observed

NA = Not available

g Mean % dead equal to total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

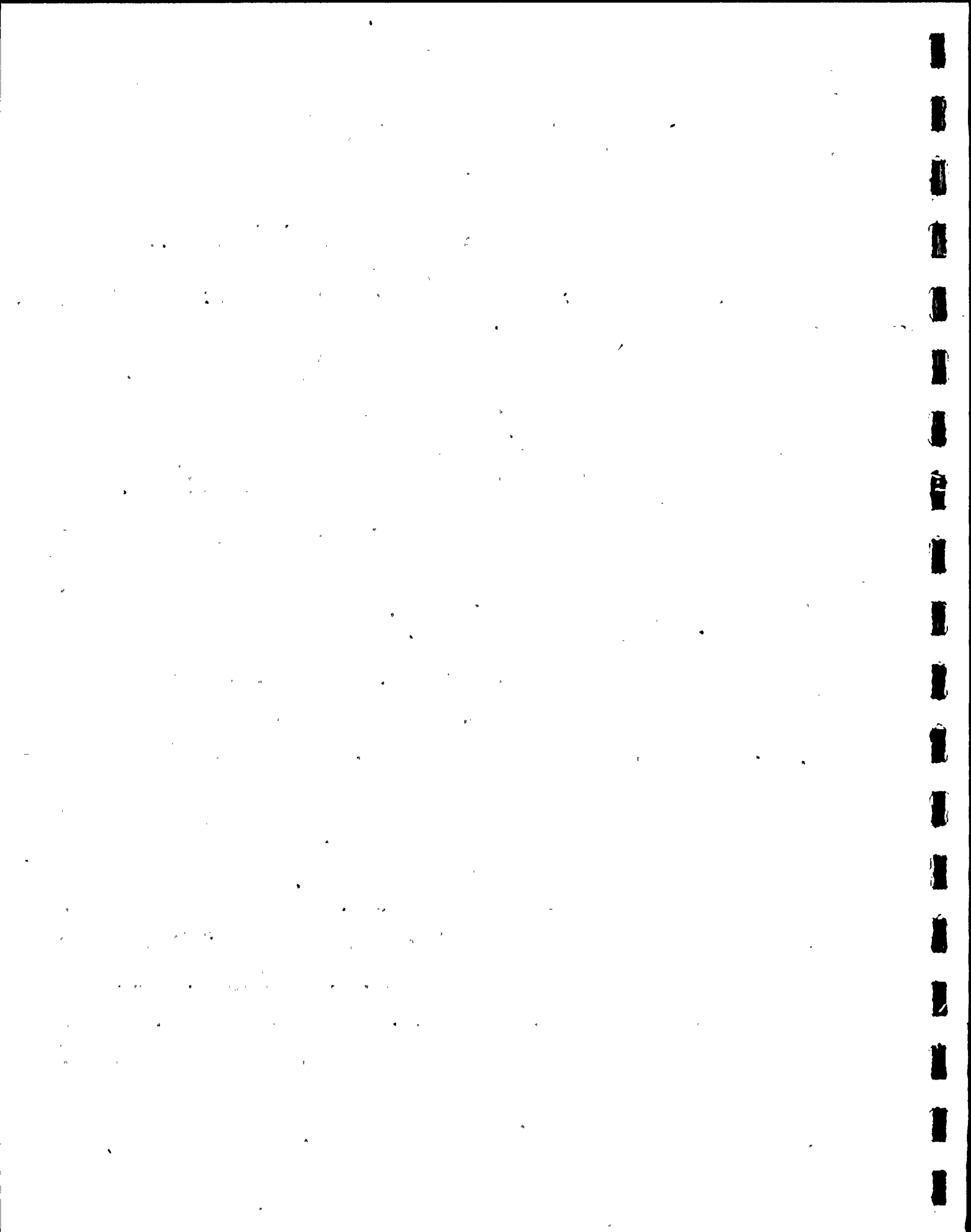
h Sample taken from lake in the vicinity of FitzPatrick Intake





JAMES A. FITZPATRICK NUCLEAR POWER PLANT

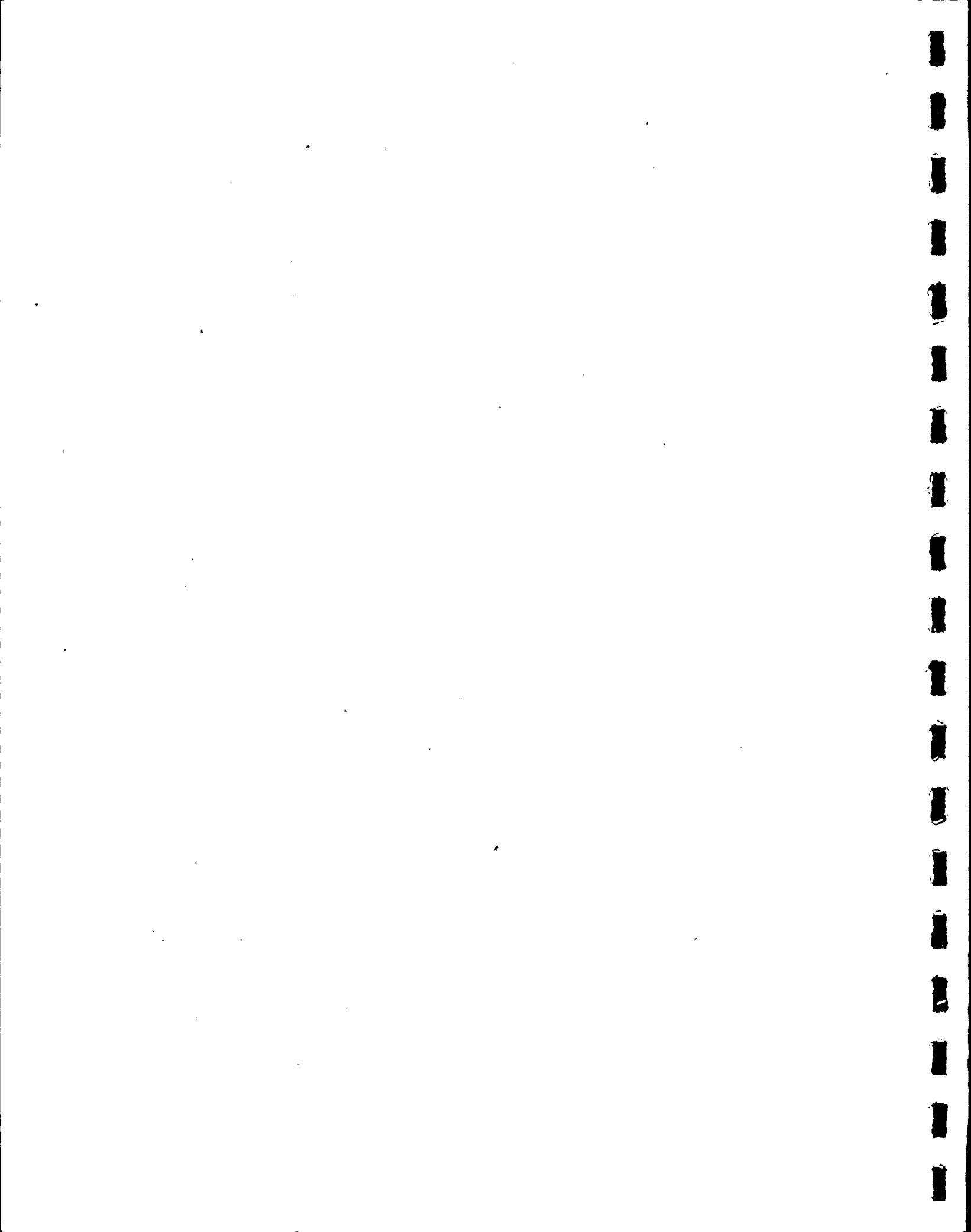
VIII.B.3. MORTALITY OF SELECTED TAXA  
OBSERVED IN LAKE VIABILITY STUDIES



NUMBER OF CALANOIDA (ARTHROPODA-COPEPODA)  
OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
14 APR	a	1130	5.1	NOT REQUIRED					NOT REQUIRED				
	b	2200	5.8	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a	28 APR 1200	8.9	NOT REQUIRED					NOT REQUIRED				
	b	29 APR 0045	8.6	NOT REQUIRED					NOT REQUIRED				
12 MAY	a	1120	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2400	9.2	NOT REQUIRED					NOT REQUIRED				
26 MAY	a	1000	10.9	0	0	2	2	100	0	0	1	2	100
	b	2400	11.1	NOT REQUIRED					NOT REQUIRED				
9 JUN	a	1130	11.7	NOT REQUIRED					NOT REQUIRED				
	b	2300	14.1	NOT REQUIRED					NOT REQUIRED				
23, 28 JUN	a	23 JUN 1100	17.4	-	1	0	2	50	1	1	1	1	0
	b	28 JUN 2245	15.9	NOT REQUIRED					NOT REQUIRED				
20 JUL	a	1200	19.9	NOT REQUIRED					NOT REQUIRED				
	b	2305	20.3	NOT REQUIRED					NOT REQUIRED				
29 JUL	a	1200	19.8	1	-	1 <sup>h</sup>	0 <sup>h</sup>	0	-	-	0 <sup>h</sup>	0 <sup>h</sup>	-
	b	2320	19.6	NOT REQUIRED					NOT REQUIRED				
11 AUG	a	1140	19.2	NOT REQUIRED					NOT REQUIRED				
	b	2315	19.9	NOT REQUIRED					NOT REQUIRED				
25 AUG	a	1145	21.8	-	-	0	0	-	-	-	0	0	-
	b	2350	21.9	NOT REQUIRED					NOT REQUIRED				



NUMBER OF CALANOIDA (ARTHROPODA-COPEPODA)  
OBSERVED IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP (°C) <sup>c</sup>	Δ T <sup>d</sup>	3° LAKE					2° LAKE					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2			R-1	R-2	R-1	R-2	
8 SEP	a	1130	19.7	15.9	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	16.0	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a	22 SEP 1205	18.4	14.8	NO SAMPLE					NO SAMPLE				
	b	27 SEP 2318	16.2	14.7	NOT REQUIRED					NOT REQUIRED				
6 OCT	a	1027	15.7	14.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	14.4	NOT REQUIRED					NOT REQUIRED				
20 OCT	a	1110	12.1	13.6	0	0	1	1	100	0	-	1	0	100
	b	2358	12.0	13.5	NOT REQUIRED					NOT REQUIRED				
20 OCT <sup>i</sup>	a	1425	NA	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	15.5	NOT REQUIRED					NOT REQUIRED				
	b	2345	10.4	15.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a	1210	8.2	13.6	NO SAMPLE					NO SAMPLE				
	b	2254	7.8	15.0	NOT REQUIRED					NOT REQUIRED				
1 DEC	a	1230	3.2	14.8	NOT REQUIRED					NOT REQUIRED				
	b	2308	3.5	14.9	NOT REQUIRED					NOT REQUIRED				
19 DEC	a	1155	2.2	12.8	NO SAMPLE					NO SAMPLE				
	b	2321	2.5	13.8	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

f Total number of organisms observed

g Mean % dead equal to total number of dead organisms observed in R-1 and R-2 divided by the total number of organisms observed in R-1 and R-2

h Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)

i Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII, B, 2)

- = Not applicable

NA = Not available



NUMBER OF CYCLOPOIDA (ARTHROPODA-COPEPODA)  
OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2	
14 APR	a	1130	5.1	14.0					NOT REQUIRED				
	b	2200	5.8	13.7					NOT REQUIRED				
28-29 APR	a	28 APR 1200	8.9	14.6					NOT REQUIRED				
	b	29 APR 0045	8.6	13.4					NOT REQUIRED				
12 MAY	a	1120	10.4	14.4					NOT REQUIRED				
	b	2400	9.2	14.5					NOT REQUIRED				
26 MAY	a	1000	10.9	28	45	35	54	18	19	9	20	24	36
	b	2400	11.1	14.4					NOT REQUIRED				
9 JUN	a	1130	11.7	12.4					NOT REQUIRED				
	b	2300	14.1	14.3					NOT REQUIRED				
23, 28 JUN	a	23 JUN 1100	17.4	10	16	10	20	13	5	13	6	14	10
	b	28 JUN 2245	15.9	15.6					NOT REQUIRED				
20 JUL	a	1200	19.9	14.2					NOT REQUIRED				
	b	2305	20.3	15.1					NOT REQUIRED				
29 JUL	a	1200	19.8	21	41	22 <sup>h</sup>	44 <sup>h</sup>	6	36	46	47 <sup>h</sup>	46 <sup>h</sup>	12
	b	2320	19.6	12.2					NOT REQUIRED				
11 AUG	a	1140	19.2	15.6					NOT REQUIRED				
	b	2315	19.9	14.5					NOT REQUIRED				
25 AUG	a	1145	21.8	2	1	2	1	0	-	-	0	0	-
	b	2350	21.9	17.7					NOT REQUIRED				





NUMBER OF CYCLOPOIDA (ARTHROPODA-COPEPODA)  
OBSERVED IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T$ <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	a	1130	19.7	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a	22 SEP 1205	18.4	NO SAMPLE					NO SAMPLE				
	b	27 SEP 2318	16.2	NOT REQUIRED					NOT REQUIRED				
6 OCT	a	1027	15.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	NOT REQUIRED					NOT REQUIRED				
20 OCT	a	1110	12.1	15	118	184	143	17	124	72	133	74	5
	b	2358	12.0	NOT REQUIRED					NOT REQUIRED				
20 OCT <sup>i</sup>	a	1425	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2345	10.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a	1210	8.2	NO SAMPLE					NO SAMPLE				
	b	2254	7.8	NOT REQUIRED					NOT REQUIRED				
1 DEC	a	1230	3.2	NOT REQUIRED					NOT REQUIRED				
	b	2308	3.5	NOT REQUIRED					NOT REQUIRED				
19 DEC	a	1155	2.2	NO SAMPLE					NO SAMPLE				
	b	2321	2.5	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

f Total number of organisms observed

g Mean % dead = total number of dead organisms observed in R-1 and R-2 divided by the total number of organisms observed in R-1 and R-2

h Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)

i Sample taken from lake in the vicinity of FitzPatrick Intake (see sect. VIII.B.2)

- = Not applicable

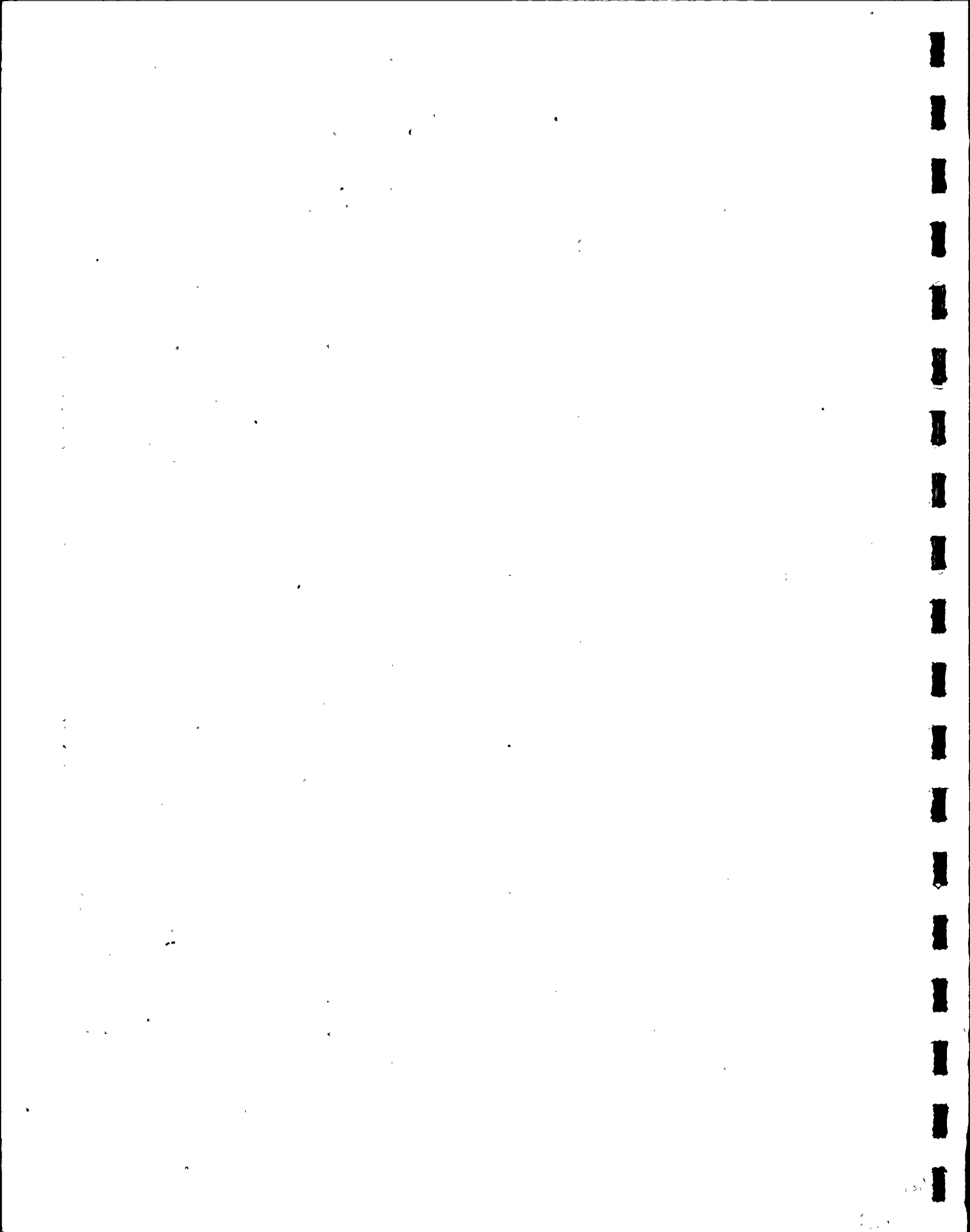
NA = Not available



NUMBER OF COPEPODA<sup>j</sup> (ARTHROPODA) OBSERVED IN  
LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
14 APR	a	1130	5.1	14.0					NOT REQUIRED				
	b	2200	5.8	13.7					NOT REQUIRED				
28-29 APR	a	28 APR 1200	8.9	14.6					NOT REQUIRED				
	b	29 APR 0045	8.6	13.4					NOT REQUIRED				
12 MAY	a	1120	10.4	14.4					NOT REQUIRED				
	b	2400	9.2	14.5					NOT REQUIRED				
26 MAY	a	1000	10.9	57	66	84	92	30	51	24	66	70	45
	b	2400	11.1	14.4					NOT REQUIRED				
9 JUN	a	1130	11.7	12.4					NOT REQUIRED				
	b	2300	14.1	14.3					NOT REQUIRED				
23, 28 JUN	a	23 JUN 1100	17.4	16	35	20	43	19	19	19	30	65	60
	b	28 JUN 2245	15.9	15.6					NOT REQUIRED				
20 JUL	a	1200	19.9	14.2					NOT REQUIRED				
	b	2305	20.3	15.1					NOT REQUIRED				
29 JUL	a	1200	19.8	34	45	51 <sup>h</sup>	49 <sup>h</sup>	34	63	70	41 <sup>h</sup>	86 <sup>h</sup>	25
	b	2320	19.6	12.2					NOT REQUIRED				
11 AUG	a	1140	19.2	15.6					NOT REQUIRED				
	b	2315	19.9	14.5					NOT REQUIRED				
25 AUG	a	1145	21.8	6	1	7	4	36	-	1	0	1	0
	b	2350	21.9	17.7					NOT REQUIRED				



NUMBER OF COPEPODA<sup>1</sup> (ARTHROPODA) OBSERVED IN  
LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	a	1130	19.7	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a	22 SEP 1205	18.4	NO SAMPLE					NO SAMPLE				
	b	27 SEP 2318	16.2	NOT REQUIRED					NOT REQUIRED				
6 OCT	a	1027	15.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	NOT REQUIRED					NOT REQUIRED				
20 OCT	a	1110	12.1	165	137	207	182	22	142	108	158	117	9
	b	2358	12.0	NOT REQUIRED					NOT REQUIRED				
20 OCT <sup>i</sup>	a	1425	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2345	10.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a	1210	8.2	NO SAMPLE					NO SAMPLE				
	b	2254	7.8	NOT REQUIRED					NOT REQUIRED				
1 DEC	a	1230	3.2	NOT REQUIRED					NOT REQUIRED				
	b	2308	3.5	NOT REQUIRED					NOT REQUIRED				
19 DEC	a	1155	2.2	NO SAMPLE					NO SAMPLE				
	b	2321	2.5	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

f Total number of organisms observed

g Mean % dead = total number of dead organisms observed in R-1 and R-2 divided by the total number of organisms observed in R-1 and R-2

h Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)

i Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII.B.2)

j Adults, juvenile, nauplii

NA = Not available

- = Not applicable



NUMBER OF CLADOCERA (ARTHROPODA) OBSERVED  
IN LAKE VIABILITY STUDIES  
 JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2	
14 APR	a 1130	5.1	14.0	NOT REQUIRED					NOT REQUIRED				
	b 2200	5.8	13.7	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a 28 APR 1200	8.9	14.6	NOT REQUIRED					NOT REQUIRED				
	b 29 APR 0045	8.6	13.4	NOT REQUIRED					NOT REQUIRED				
12 MAY	a 1120	10.4	14.4	NOT REQUIRED					NOT REQUIRED				
	b 2400	9.2	14.5	NOT REQUIRED					NOT REQUIRED				
26 MAY	a 1000	10.9	14.4	2	2	2	2	0	2	4	2	4	0
	b 2400	11.1	14.4	NOT REQUIRED					NOT REQUIRED				
9 JUN	a 1130	11.7	12.4	NOT REQUIRED					NOT REQUIRED				
	b 2300	14.1	14.3	NOT REQUIRED					NOT REQUIRED				
23, 28 JUN	a 23 JUN 1100	17.4	15.5	14	24	15	37	10	37	23	68	26	36
	b 28 JUN 2245	15.9	15.6	NOT REQUIRED					NOT REQUIRED				
20 JUL	a 1200	19.9	14.2	NOT REQUIRED					NOT REQUIRED				
	b 2305	20.3	15.1	NOT REQUIRED					NOT REQUIRED				
29 JUL	a 1200	19.8	14.0	80	201	90 <sup>h</sup>	225 <sup>h</sup>	11	113	73	151 <sup>h</sup>	88 <sup>h</sup>	22
	b 2320	19.6	12.2	NOT REQUIRED					NOT REQUIRED				
11 AUG	a 1140	19.2	15.6	NOT REQUIRED					NOT REQUIRED				
	b 2315	19.9	14.5	NOT REQUIRED					NOT REQUIRED				
25 AUG	a 1145	21.8	15.7	22	16	33	24	33	4	3	6	3	22
	b 2350	21.9	17.7	NOT REQUIRED					NOT REQUIRED				





NUMBER OF CLADOCERA (ARTHROPODA) OBSERVED  
IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	a	1130	19.7	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a	22 SEP 1205	18.4	NO SAMPLE					NO SAMPLE				
	b	27 SEP 2318	16.2	NOT REQUIRED					NOT REQUIRED				
6 OCT	a	1027	15.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	NOT REQUIRED					NOT REQUIRED				
20 OCT	a	1110	12.1	102	150	106	157	4	32	43	38	45	10
	b	2358	12.0	NOT REQUIRED					NOT REQUIRED				
20 <sup>i</sup> OCT	a	1425	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2345	10.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a	1210	8.2	NO SAMPLE					NO SAMPLE				
	b	2254	7.8	NOT REQUIRED					NOT REQUIRED				
1 DEC	a	1230	3.2	NOT REQUIRED					NOT REQUIRED				
	b	2308	3.5	NOT REQUIRED					NOT REQUIRED				
19 DEC	a	1155	2.2	NO SAMPLE					NO SAMPLE				
	b	2321	2.5	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample  
c Intake temperature before tempering  
d Discharge - Intake Temperature  
e Number of live organisms observed  
f Total number of organisms observed  
g Mean % dead = total number of dead organisms observed in R-1 and R-2 divided by the total number of organisms observed in R-1 and R-2

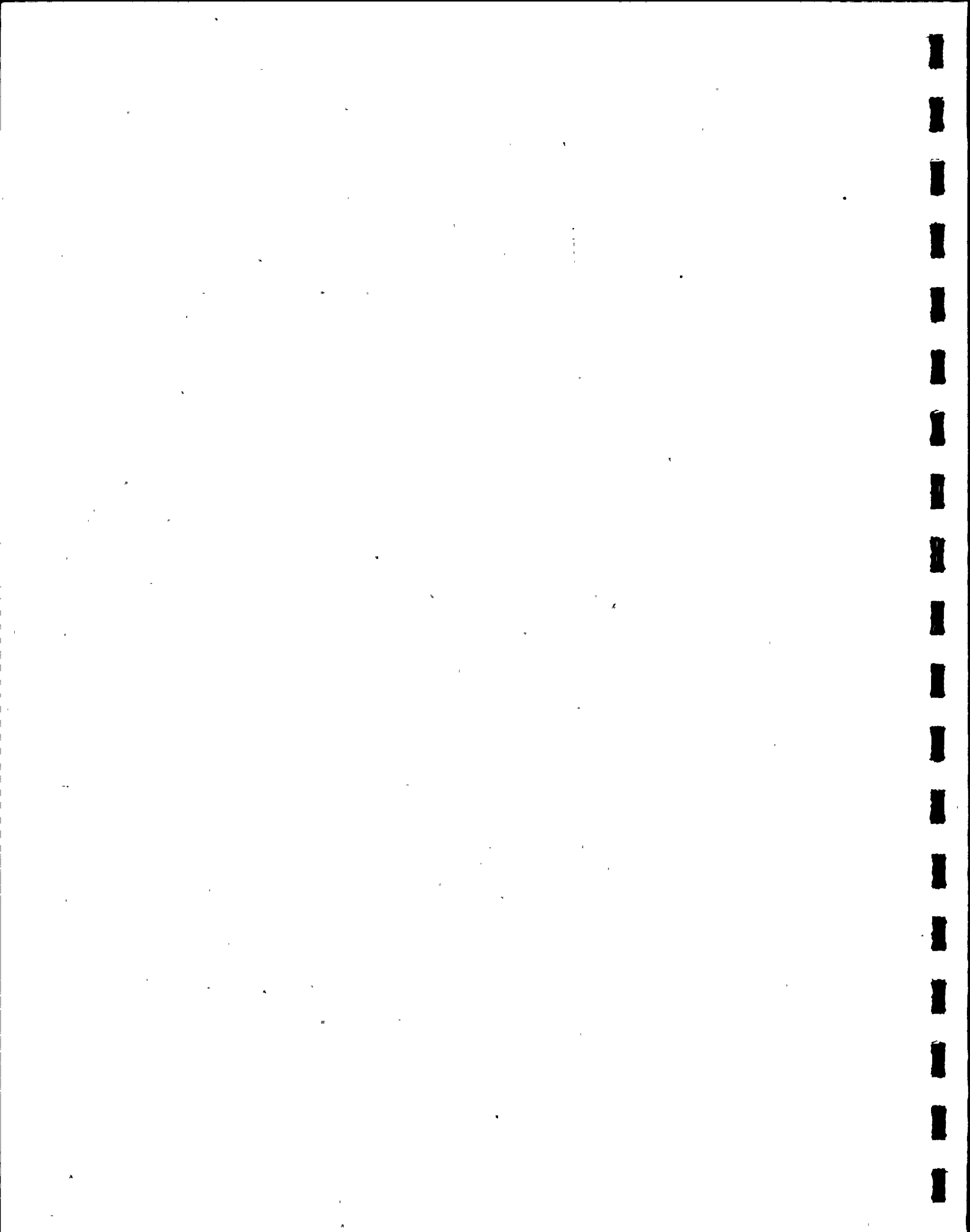
h Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)  
i Sample taken from lake in the vicinity of FitzPatrick Intake (See Sect. VIIIB.2)  
- = Not applicable  
NA = Not available



# NUMBER OF CILIATA (PROTOZOA) OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP <sup>c</sup> (°C)	ΔT <sup>d</sup>	3°LAKE					2°LAKE					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2			R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
14 APR	a	1130	5.1	NOT REQUIRED					NOT REQUIRED					
	b	2200	5.8	NOT REQUIRED					NOT REQUIRED					
28-29 APR	a	28 APR 1200	8.9	NOT REQUIRED					NOT REQUIRED					
	b	29 APR 0045	8.6	NOT REQUIRED					NOT REQUIRED					
12 MAY	a	1120	10.4	NOT REQUIRED					NOT REQUIRED					
	b	2400	9.2	NOT REQUIRED					NOT REQUIRED					
26 MAY	a	1000	10.9	0	3	14	5	84	4	3	4	9	46	
	b	2400	11.1	NOT REQUIRED					NOT REQUIRED					
9 JUN	a	1130	11.7	NOT REQUIRED					NOT REQUIRED					
	b	2300	14.1	NOT REQUIRED					NOT REQUIRED					
23, 28 JUN	a	23 JUN 1100	17.4	-	-	0	0	-	-	-	0	0	-	
	b	28 JUN 2245	15.9	NOT REQUIRED					NOT REQUIRED					
20 JUL	a	1200	19.9	NOT REQUIRED					NOT REQUIRED					
	b	2305	20.3	NOT REQUIRED					NOT REQUIRED					
29 JUL	a	1200	19.8	0	16	14 <sup>h</sup>	29 <sup>h</sup>	63	16	4	26 <sup>h</sup>	20 <sup>h</sup>	57	
	b	2320	19.6	NOT REQUIRED					NOT REQUIRED					
11 AUG	a	1140	19.2	NOT REQUIRED					NOT REQUIRED					
	b	2315	19.9	NOT REQUIRED					NOT REQUIRED					
25 AUG	a	1145	21.8	5	24	5	24	0	19	23	26	23	14	
	b	2350	21.9	NOT REQUIRED					NOT REQUIRED					



# NUMBER OF CILIATA (PROTOZOA) OBSERVED IN LAKE VIABILITY STUDIES (Continued)

## JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	a	1130	19.7	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a	22 SEP 1205	18.4	NO SAMPLE					NO SAMPLE				
	b	27 SEP 2318	16.2	NOT REQUIRED					NOT REQUIRED				
6 OCT	a	1027	15.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	NOT REQUIRED					NOT REQUIRED				
20 OCT	a	1110	12.1	0	4	2	4	33	0	15	1	24	40
	b	2358	12.0	NOT REQUIRED					NOT REQUIRED				
20 <sup>i</sup> OCT	a	1425	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2345	10.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a	1210	8.2	NO SAMPLE					NO SAMPLE				
	b	2254	7.8	NOT REQUIRED					NOT REQUIRED				
1 DEC	a	1230	3.2	NOT REQUIRED					NOT REQUIRED				
	b	2308	3.5	NOT REQUIRED					NOT REQUIRED				
19 DEC	a	1155	2.2	NO SAMPLE					NO SAMPLE				
	b	2321	2.5	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

f Total number of organisms observed

g Mean % dead = total number of dead organisms observed in R-1 and R-2 divided by the total number of organisms observed in R-1 and R-2

h Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)

i Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII.B.2)

- = Not applicable

NA = Not available



NUMBER OF SUCTORIA (PROTOZOA) OBSERVED  
IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	3° LAKE					2° LAKE					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2			R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
14 APR	a	1130	5.1	14.0	NOT REQUIRED					NOT REQUIRED				
	b	2200	5.8	13.7	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a	28 APR 1200	8.9	14.6	NOT REQUIRED					NOT REQUIRED				
	b	29 APR 0045	8.6	13.4	NOT REQUIRED					NOT REQUIRED				
12 MAY	a	1120	10.4	14.4	NOT REQUIRED					NOT REQUIRED				
	b	2400	9.2	14.5	NOT REQUIRED					NOT REQUIRED				
26 MAY	a	1000	10.9	14.4	-	1	0	1	0	-	0	0	1	100
	b	2400	11.1	14.4	NOT REQUIRED					NOT REQUIRED				
9 JUN	a	1130	11.7	12.4	NOT REQUIRED					NOT REQUIRED				
	b	2300	14.1	14.3	NOT REQUIRED					NOT REQUIRED				
23, 28 JUN	a	23 JUN 1100	17.4	15.5	-	-	0	0	-	-	-	0	0	-
	b	28 JUN 2245	15.9	15.6	NOT REQUIRED					NOT REQUIRED				
20 JUL	a	1200	19.9	14.2	NOT REQUIRED					NOT REQUIRED				
	b	2305	20.3	15.1	NOT REQUIRED					NOT REQUIRED				
29 JUL	a	1200	19.8	14.0	-	-	0 <sup>h</sup>	0 <sup>h</sup>	-	-	-	0 <sup>h</sup>	0 <sup>h</sup>	-
	b	2320	19.6	12.2	NOT REQUIRED					NOT REQUIRED				
11 AUG	a	1140	19.2	15.6	NOT REQUIRED					NOT REQUIRED				
	b	2315	19.9	14.5	NOT REQUIRED					NOT REQUIRED				
25 AUG	a	1145	21.8	15.7	-	-	0	0	-	1	-	1	0	0
	b	2350	21.9	17.7	NOT REQUIRED					NOT REQUIRED				





NUMBER OF SUCTORIA (PROTOZOA) OBSERVED  
IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	a	1130	19.7	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a 22 SEP	1205	18.4	NO SAMPLE					NO SAMPLE				
	b 27 SEP	2318	16.2	NOT REQUIRED					NOT REQUIRED				
6 OCT	a	1027	15.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	NOT REQUIRED					NOT REQUIRED				
20 OCT	a	1110	12.1	-	-	0	0	-	-	-	0	0	-
	b	2358	12.0	NOT REQUIRED					NOT REQUIRED				
20 <sup>i</sup> OCT	a	1425	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2345	10.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a	1210	8.2	NO SAMPLE					NO SAMPLE				
	b	2254	7.8	NOT REQUIRED					NOT REQUIRED				
1 DEC	a	1230	3.2	NOT REQUIRED					NOT REQUIRED				
	b	2308	3.5	NOT REQUIRED					NOT REQUIRED				
19 DEC	a	1155	2.2	NO SAMPLE					NO SAMPLE				
	b	2321	2.5	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample  
c Intake temperature before tempering  
d Discharge - Intake Temperature  
e Number of live organisms observed  
f Total number of organisms observed  
g Mean % dead = total number of dead organisms observed in R-1 and R-2 divided by the total number of organisms observed in R-1 and R-2

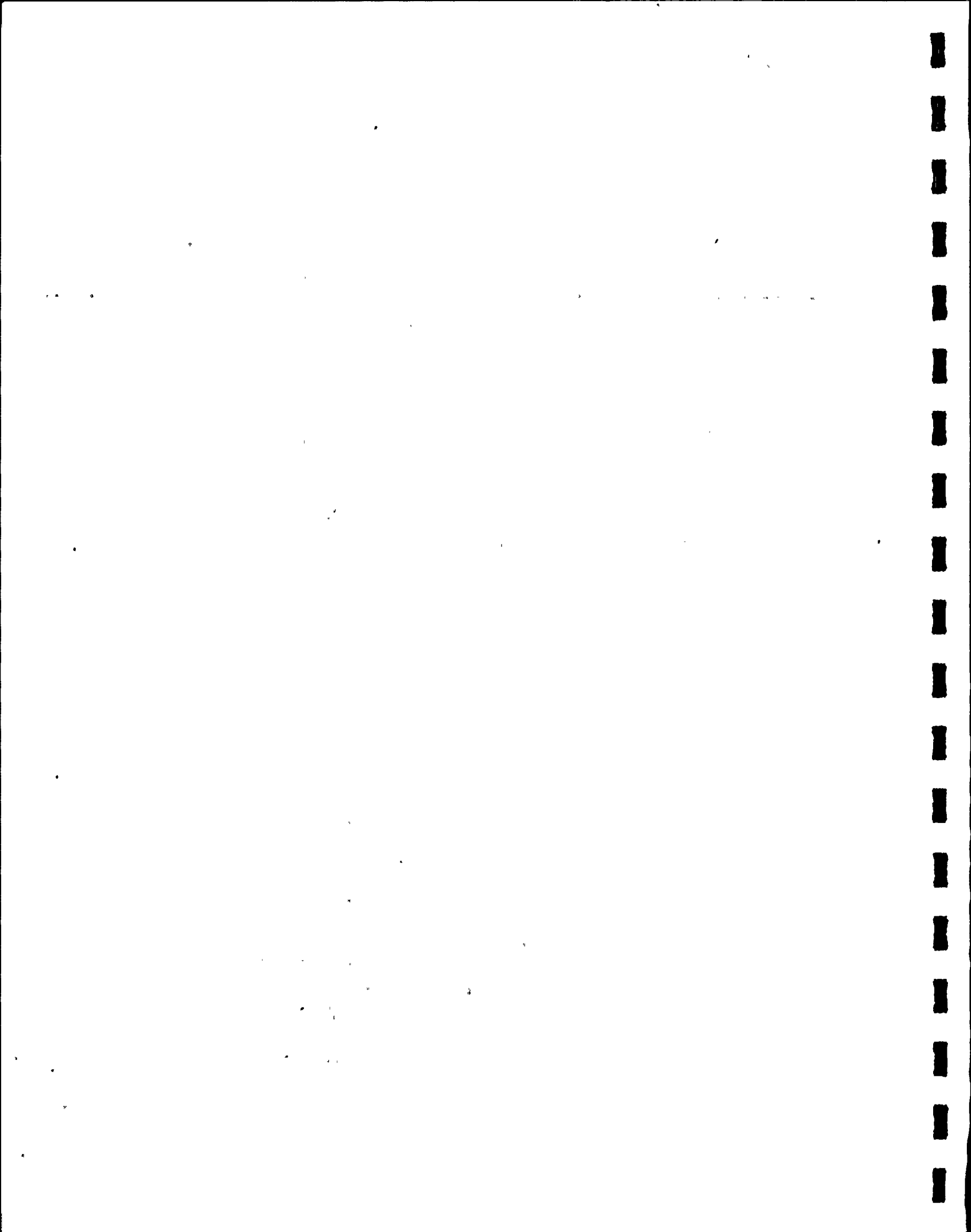
h Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)  
i Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII.B.2)  
- = Not applicable  
NA = Not available



NUMBER OF TOTAL PROTOZOA OBSERVED IN  
LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
14 APR	a 1130	5.1	14.0	NOT REQUIRED					NOT REQUIRED				
	b 2200	5.8	13.7	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a 28 APR 1200	8.9	14.6	NOT REQUIRED					NOT REQUIRED				
	b 29 APR 0045	8.6	13.4	NOT REQUIRED					NOT REQUIRED				
12 MAY	a 1120	10.4	14.4	NOT REQUIRED					NOT REQUIRED				
	b 2400	9.2	14.5	NOT REQUIRED					NOT REQUIRED				
26 MAY	a 1000	10.9	14.4	0	4	14	6	80	4	3	6	10	56
	b 2400	11.1	14.4	NOT REQUIRED					NOT REQUIRED				
9 JUN	a 1130	11.7	12.4	NOT REQUIRED					NOT REQUIRED				
	b 2300	14.1	14.3	NOT REQUIRED					NOT REQUIRED				
23, 28 JUN	a 23 JUN 1100	17.4	15.5	-	-	0	0	-	-	-	0	0	-
	b 28 JUN 2245	15.9	15.6	NOT REQUIRED					NOT REQUIRED				
20 JUL	a 1200	19.9	14.2	NOT REQUIRED					NOT REQUIRED				
	b 2305	20.3	15.1	NOT REQUIRED					NOT REQUIRED				
29 JUL	a 1200	19.8	14.0	0	16	14 <sup>h</sup>	29 <sup>h</sup>	63	16	4	26 <sup>h</sup>	20 <sup>h</sup>	57
	b 2320	19.6	12.2	NOT REQUIRED					NOT REQUIRED				
11 AUG	a 1140	19.2	15.6	NOT REQUIRED					NOT REQUIRED				
	b 2315	19.9	14.5	NOT REQUIRED					NOT REQUIRED				
25 AUG	a 1145	21.8	15.7	5	25	6	27	9	21	25	28	25	13
	b 2350	21.9	17.7	NOT REQUIRED					NOT REQUIRED				



NUMBER OF TOTAL PROTOZOA OBSERVED IN  
LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	a	1130	19.7	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a	22 SEP 1205	18.4	NO SAMPLE					NO SAMPLE				
	b	27 SEP 2318	16.2	NOT REQUIRED					NOT REQUIRED				
6 OCT	a	1027	15.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	NOT REQUIRED					NOT REQUIRED				
20 OCT	a	1110	12.1	0	4	2	4	33	0	16	1	25	38
	b	2358	12.0	NOT REQUIRED					NOT REQUIRED				
20 <sup>i</sup> OCT	a	1425	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2345	10.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a	1210	8.2	NO SAMPLE					NO SAMPLE				
	b	2254	7.8	NOT REQUIRED					NOT REQUIRED				
1 DEC	a	1230	3.2	NOT REQUIRED					NOT REQUIRED				
	b	2308	3.5	NOT REQUIRED					NOT REQUIRED				
19 DEC	a	1155	2.2	NO SAMPLE					NO SAMPLE				
	b	2321	2.5	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample  
<sup>c</sup> Intake temperature before tempering  
<sup>d</sup> Discharge - Intake Temperature  
<sup>e</sup> Number of live organisms observed  
<sup>f</sup> Total number of organisms observed  
<sup>g</sup> Mean % dead = total number of dead organisms observed in R-1 and R-2 divided by the total number of organisms observed in R-1 and R-2

<sup>h</sup> Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)  
<sup>i</sup> Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII.B.2)  
 - = Not applicable  
 NA = Not available

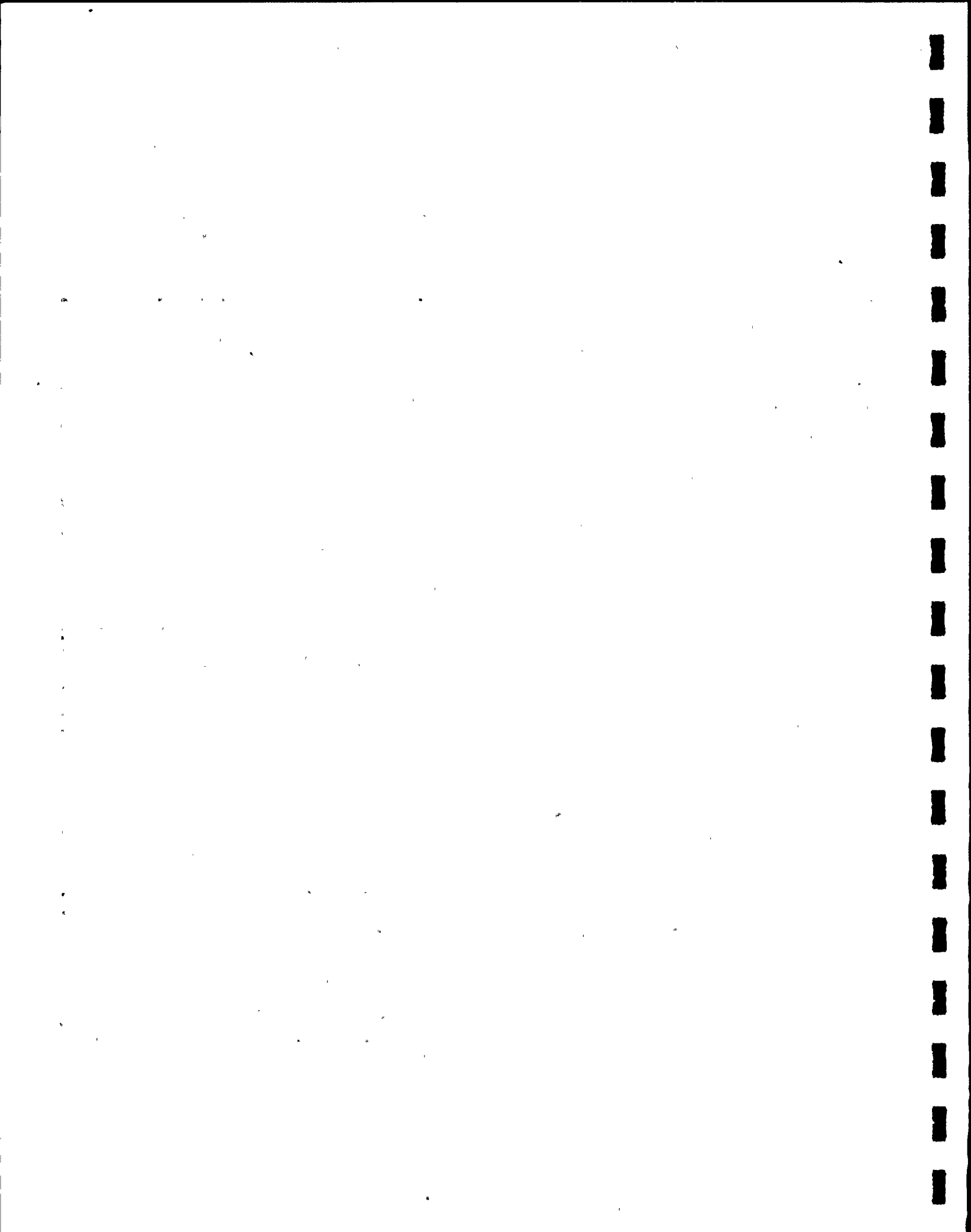


NUMBER OF ROTIFERA OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP (°C) <sup>c</sup>	ΔT <sup>d</sup>	3°LAKE					2°LAKE					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
14 APR	a	1130	5.1	14.0	NOT REQUIRED					NOT REQUIRED				
	b	2200	5.8	13.7	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a	28 APR 1200	8.9	14.6	NOT REQUIRED					NOT REQUIRED				
	b	29 APR 0045	8.6	13.4	NOT REQUIRED					NOT REQUIRED				
12 MAY	a	1120	10.4	14.4	NOT REQUIRED					NOT REQUIRED				
	b	2400	9.2	14.5	NOT REQUIRED					NOT REQUIRED				
26 MAY	a	1000	10.9	14.4	81	149	372	290	50	161	103	257	262	49
	b	2400	11.1	14.4	NOT REQUIRED					NOT REQUIRED				
9 JUN	a	1130	11.7	12.4	NOT REQUIRED					NOT REQUIRED				
	b	2300	14.1	14.3	NOT REQUIRED					NOT REQUIRED				
23, 28 JUN	a	23 JUN 1100	17.4	15.5	233	296	605	720	60	300	494	919	1258	63
	b	28 JUN 2245	15.9	15.6	NOT REQUIRED					NOT REQUIRED				
20 JUL	a	1200	19.9	14.2	NOT REQUIRED					NOT REQUIRED				
	b	2305	20.3	15.1	NOT REQUIRED					NOT REQUIRED				
29 JUL	a	1200	19.8	14.0	20	37	38 <sup>h</sup>	73 <sup>h</sup>	49	21	23	47 <sup>h</sup>	47 <sup>h</sup>	53
	b	2320	19.6	12.2	NOT REQUIRED					NOT REQUIRED				
11 AUG	a	1140	19.2	15.6	NOT REQUIRED					NOT REQUIRED				
	b	2315	19.9	14.5	NOT REQUIRED					NOT REQUIRED				
25 AUG	a	1145	21.8	15.7	92	33	114	56	26	21	49	39	61	30
	b	2350	21.9	17.7	NOT REQUIRED					NOT REQUIRED				





NUMBER OF ROTIFERA OBSERVED IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP (°C) <sup>c</sup>	ΔT <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2	
8 SEP	a	1130	19.7	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a	22 SEP 1205	18.4	NO SAMPLE					NO SAMPLE				
	b	27 SEP 2318	16.2	NOT REQUIRED					NOT REQUIRED				
6 OCT	a	1027	15.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	NOT REQUIRED					NOT REQUIRED				
20 OCT	a	1110	12.1	7	29	17	44	41	4	23	14	35	45
	b	2358	12.0	NOT REQUIRED					NOT REQUIRED				
20 OCT <sup>i</sup>	a	1425	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2345	10.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a	1210	8.2	NO SAMPLE					NO SAMPLE				
	b	2254	7.8	NOT REQUIRED					NOT REQUIRED				
1 DEC	a	1230	3.2	NOT REQUIRED					NOT REQUIRED				
	b	2308	3.5	NOT REQUIRED					NOT REQUIRED				
19 DEC	a	1155	2.2	NO SAMPLE					NO SAMPLE				
	b	2321	2.5	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

f Total number of organisms observed

g Mean % dead = total number of dead organisms observed in R-1 and R-2 divided by the total number of organisms observed in R-1 and R-2

h Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)

i Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII.B.2)

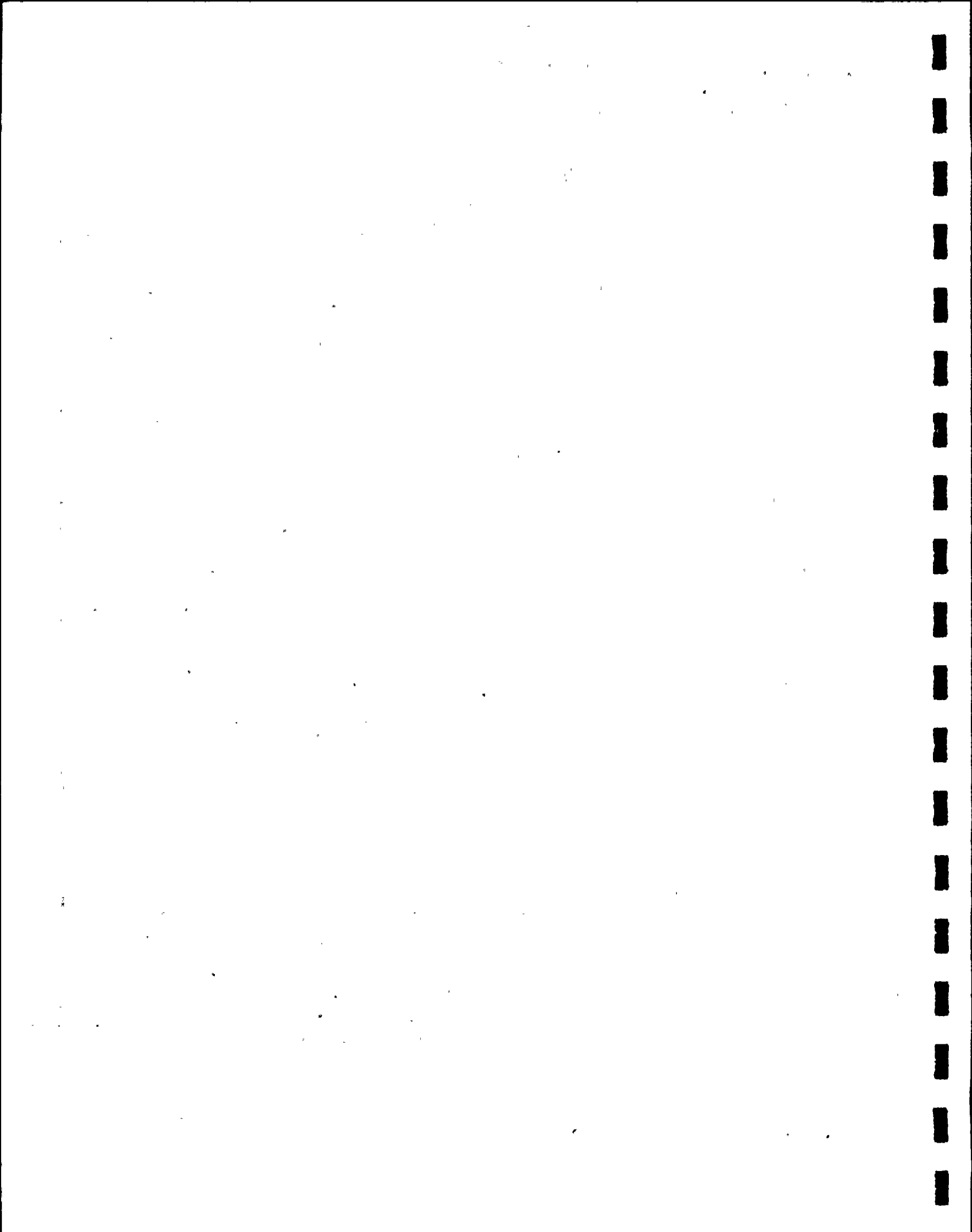
- = Not applicable

NA = Not available

# NUMBER OF TOTAL ZOOPLANKTON OBSERVED IN LAKE VIABILITY STUDIES

## JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	3° LAKE					2° LAKE									
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>					
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2						
14 APR	a	1130	5.1	14.0					NOT REQUIRED									
	b	2200	5.8	13.7					NOT REQUIRED									
28-29 APR	a	28 APR 1200	8.9	14.6					NOT REQUIRED									
	b	29 APR 0045	8.6	13.4					NOT REQUIRED									
12 MAY	a	1120	10.4	14.4					NOT REQUIRED									
	b	2400	9.2	14.5					NOT REQUIRED									
26 MAY	a	1000	10.9	14.4	140	321	472	390	46	218	134	331	346	48				
	b	2400	11.1	14.4					NOT REQUIRED									
9 JUN	a	1130	11.7	12.4					NOT REQUIRED									
	b	2300	14.1	14.3					NOT REQUIRED									
23, 28 JUN	a	23 JUN 1100	17.4	15.5					263	355	640	790	57	356	536	1017	1349	62
	b	28 JUN 2245	15.9	15.6					NOT REQUIRED									
20 JUL	a	1200	19.9	14.2					NOT REQUIRED									
	b	2305	20.3	15.1					NOT REQUIRED									
29 JUL	a	1200	19.8	14.0	134	299	193 <sup>h</sup>	376 <sup>h</sup>	26	213	170	315 <sup>h</sup>	241 <sup>h</sup>	31				
	b	2320	19.6	12.2					NOT REQUIRED									
11 AUG	a	1140	19.2	15.6					NOT REQUIRED									
	b	2315	19.9	14.5					NOT REQUIRED									
25 AUG	a	1145	21.8	15.7	125	75	160	111	26	46	78	73	90	24				
	b	2350	21.9	17.7					NOT REQUIRED									



NUMBER OF TOTAL ZOOPLANKTON OBSERVED IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY

1976 DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	a	1130	19.7	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a	22 SEP 1205	18.4	NO SAMPLE					NO SAMPLE				
	b	27 SEP 2318	16.2	NOT REQUIRED					NOT REQUIRED				
6 OCT	a	1027	15.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	NOT REQUIRED					NOT REQUIRED				
20 OCT	a	1110	12.1	274	320	332	387	17	178	190	211	222	15
	b	2358	12.0	NOT REQUIRED					NOT REQUIRED				
20 OCT <sup>i</sup>	a	1425	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2345	10.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a	1210	8.2	NO SAMPLE					NO SAMPLE				
	b	2254	7.8	NOT REQUIRED					NOT REQUIRED				
1 DEC	a	1230	3.2	NOT REQUIRED					NOT REQUIRED				
	b	2308	3.5	NOT REQUIRED					NOT REQUIRED				
19 DEC	a	1155	2.2	NO SAMPLE					NO SAMPLE				
	b	2321	2.5	NOT REQUIRED					NOT REQUIRED				

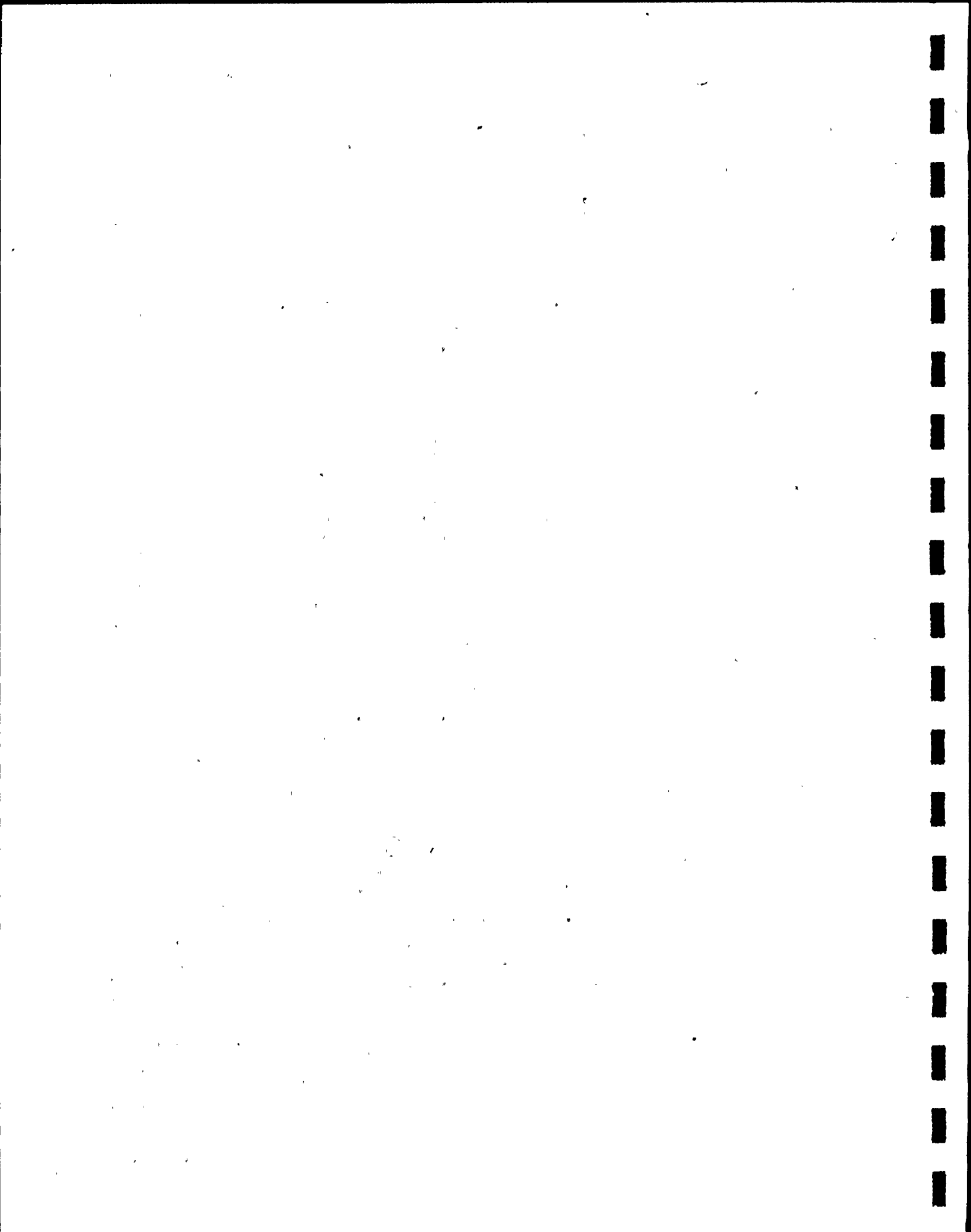
a/b Time in 2400 hrs of Intake Sample  
c Intake temperature before tempering  
d Discharge - Intake Temperature  
e Number of live organisms observed  
f Total number of organisms observed  
g Mean % dead = total number of dead organisms observed in R-1 and R-2 divided by the total number of organisms observed in R-1 and R-2

h Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)  
i Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII.B.2)  
- = Not applicable  
NA = Not available



JAMES A. FITZPATRICK NUCLEAR POWER PLANT

VIII.B.4 MORTALITY OF SELECTED SPECIES  
OBSERVED IN INPLANT VIABILITY STUDIES

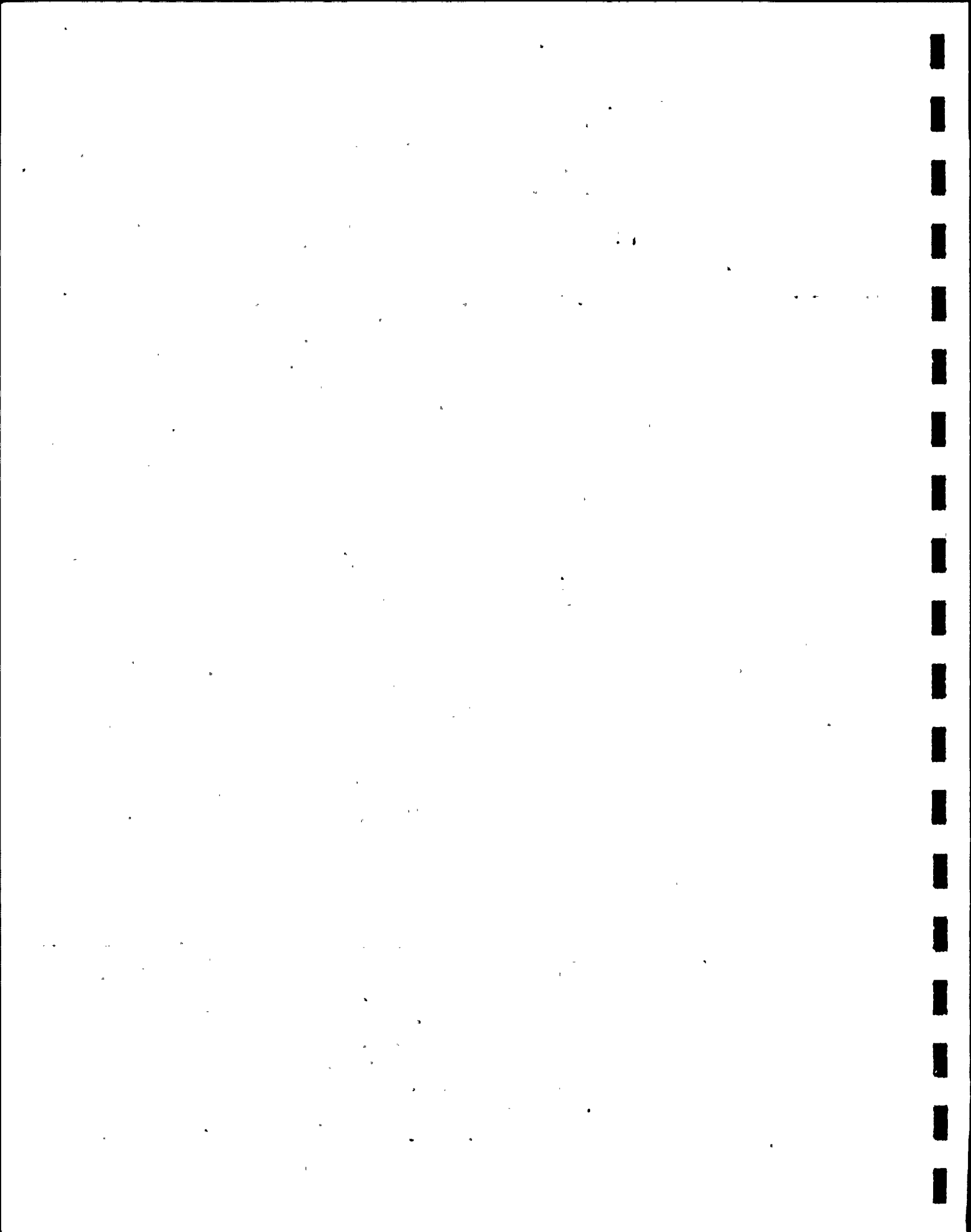




NUMBER OF BOSMINA LONGIROSTRIS (CLADOCERA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD <sup>g</sup>
				R-1	R-2	R-1	R-2		MEAN <sup>h</sup>	R-1	R-2	R-1		R-2	MEAN <sup>h</sup>	R-1	R-2		R-1	R-2	MEAN <sup>h</sup>	R-1	
14 APR	<sup>a</sup> 1130	5.1	14.0	-	-	0	0	-	-	3	0	3	0	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2200	5.8	13.7	-	2	0	2	0	1	0	1	1	50	NOT REQUIRED					NOT REQUIRED				
28-29 APR	<sup>a</sup> 28 APR 1200	8.9	14.6	1	2	1	2	100	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 29 APR 0045	8.6	13.4	-	-	0	0	-	1	-	1	0	0	NOT REQUIRED					NOT REQUIRED				
12 MAY	<sup>a</sup> 1120	10.4	14.4	0	2	3	2	60	-	2	0	3	33	1	0	2	1	67	-	1	0	1	0
	<sup>b</sup> 2400	9.2	14.5	3	-	3	0	0	1	5	1	6	14	2	4	2	4	0	-	-	0	0	-
26 MAY	<sup>a</sup> 1000	10.9	14.4	3	1	3	1	0	2	1	3	2	40	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2400	11.1	14.4	0	3	1	3	25	0	1	1	1	50	4	4	4	4	0	-	2	0	2	0
9 JUN	<sup>a</sup> 1130	11.7	12.4	4	13	4	14	6	5	4	5	8	31	3	9	6	10	25	4	7	5	7	8
	<sup>b</sup> 2300	14.1	14.3	10	4	10	6	12	3	4	5	7	42	3	4	6	10	56	2	0	6	4	80
23,28 JUN	<sup>a</sup> 23 JUN 1100	17.4	15.5	11	20	12	24	14	33	17	33	25	14	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 28 JUN 2245	15.9	15.6	53	19	58	30	18	9	35	22	43	32	34	75	43	94	20	11	47	26	71	40
20 JUL	<sup>a</sup> 1200	19.9	14.2	369	172	439	212	17	35	25	72	61	55	63	144	74	170	15	285	344	341	446	20
	<sup>b</sup> 2305	20.3	15.1	120	154	139	179	14	94	35	107	153	50	133	74	166	85	18	84	200	97	254	19
29 JUL	<sup>a</sup> 1200	19.8	14.0	76	126	90	140	12	73	164	109	237	32	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2320	19.6	12.2	139	205	176	276	24	28	212	41	267	22	42	177	60	212	20	134	157	174	179	18
11 AUG	<sup>a</sup> 1140	19.2	15.6	24	52	29	71	24	12	18	35	38	59	16	10	23	28	49	26	14	51	27	49
	<sup>b</sup> 2315	19.9	14.5	95	41	119	54	21	9	23	28	55	61	42	46	50	65	23	25	64	35	89	28
25 AUG	<sup>a</sup> 1145	21.8	15.7	160	130	167	190	19	3	25	114	91	86	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2350	21.9	17.7	53	74	75	116	34	1	7	49	67	93	101	80	138	149	37	23	61	55	76	36



NUMBER OF BOSMINA LONGIROSTRIS (CLADOCERA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
8 SEP	a	1130	19.7	15.9	2	7	5	9	36	-	1	0	1	0	9	1	11	2	23	2	3	5	5	50
	b	2305	21.1	16.0	6	8	8	12	30	2	0	5	6	82	2	2	4	3	43	8	1	11	1	25
22,27 SEP	a	22 SEP 1205	18.4	14.8	6	9	6	11	12	0	5	3	13	69	7	10	7	11	6	12	5	16	10	35
	b	27 SEP 2318	16.2	14.7	18	49	21	62	19	6	25	12	29	24	26	30	32	33	14	71	43	82	53	16
6 OCT	a	1027	15.7	14.7	39	21	40	26	9	3	17	4	21	20	9	15	12	22	29	20	23	21	35	23
	b	2142	16.0	14.4	7	11	8	15	22	2	2	4	2	33	7	8	7	10	12	9	14	9	17	12
20 OCT	a	1110	12.1	13.6	15	53	16	57	7	3	11	7	19	46	NOT REQUIRED					NOT REQUIRED				
	b	2358	12.0	13.5	18	16	24	18	19	9	5	14	14	50	14	49	15	54	23	54	71	66	86	18
20 OCT <sup>h</sup>	a	1425	NA	NA	30	26	33	34	16	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	15.5	19	53	21	56	6	9	14	13	17	23	20	21	25	22	13	34	34	40	37	12
	b	2345	10.4	15.4	7	19	11	28	33	4	0	6	10	75	53	28	54	32	6	15	34	19	40	17
17 NOV	a	1210	8.2	13.6	83	30	88	31	5	35	28	45	37	23	26	31	31	35	14	30	52	33	54	6
	b	2254	7.8	15.0	40	60	51	69	17	13	46	20	55	21	39	19	41	24	11	20	35	22	43	15
1 DEC	a	1230	3.2	14.8	4	6	4	7	9	1	7	1	8	11	5	8	5	8	0	6	11	6	20	35
	b	2308	3.5	14.9	4	1	4	3	29	-	1	0	2	50	4	11	4	12	6	5	7	7	8	20
19 DEC	a	1155	2.2	12.8	2	-	2	0	0	1	-	1	0	0	1	1	1	1	0	-	2	0	3	33
	b	2321	2.5	13.8	10	4	11	4	7	1	7	1	9	20	2	9	5	9	21	7	14	8	14	5

<sup>a/b</sup> Time in 2400 hrs of Intake Sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake Temperature

<sup>e</sup> Number of live organisms observed

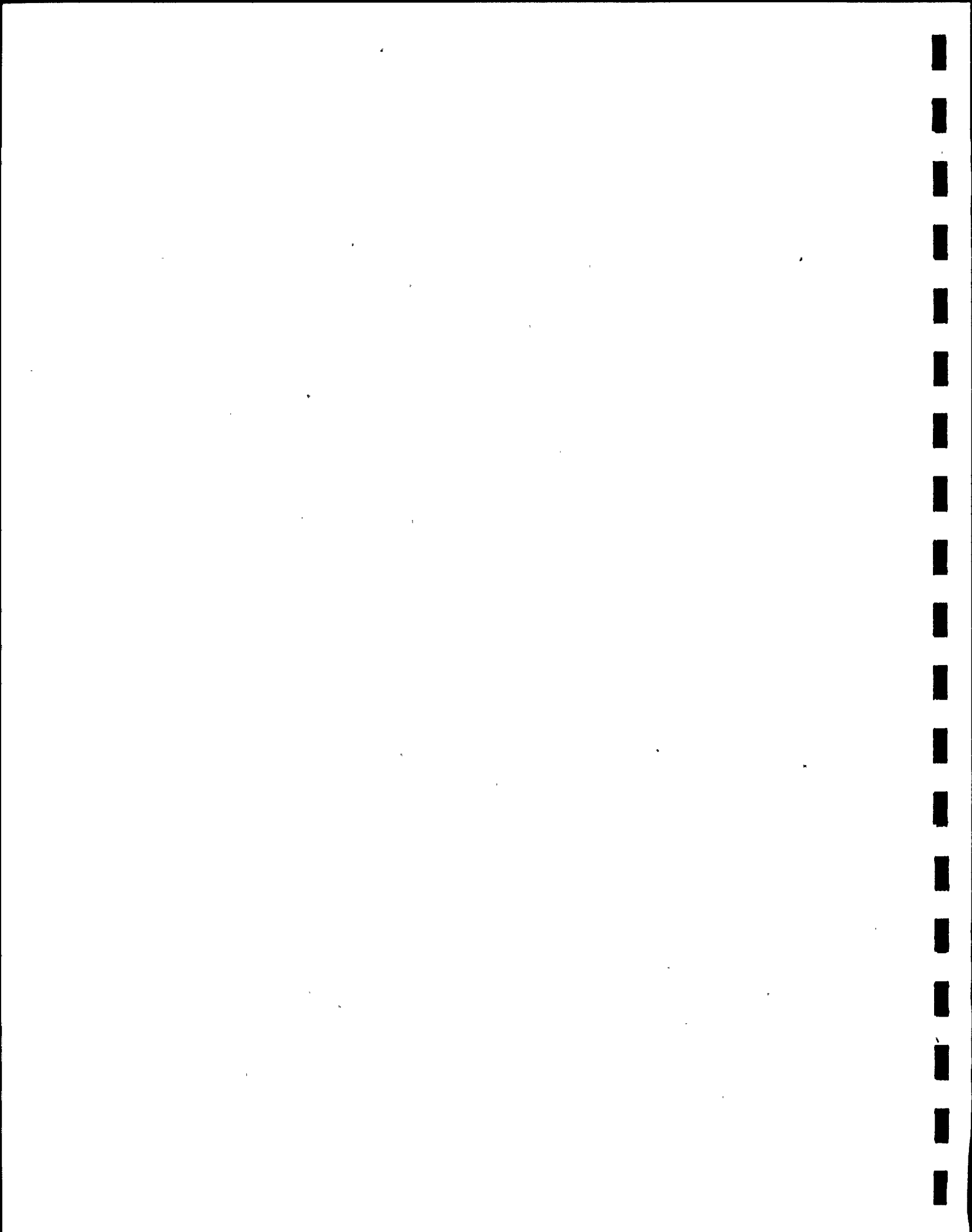
<sup>f</sup> Total number of organisms observed

<sup>g</sup> Total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

<sup>h</sup> Sample taken from lake in vicinity of FitzPatrick Intake

- = Not applicable

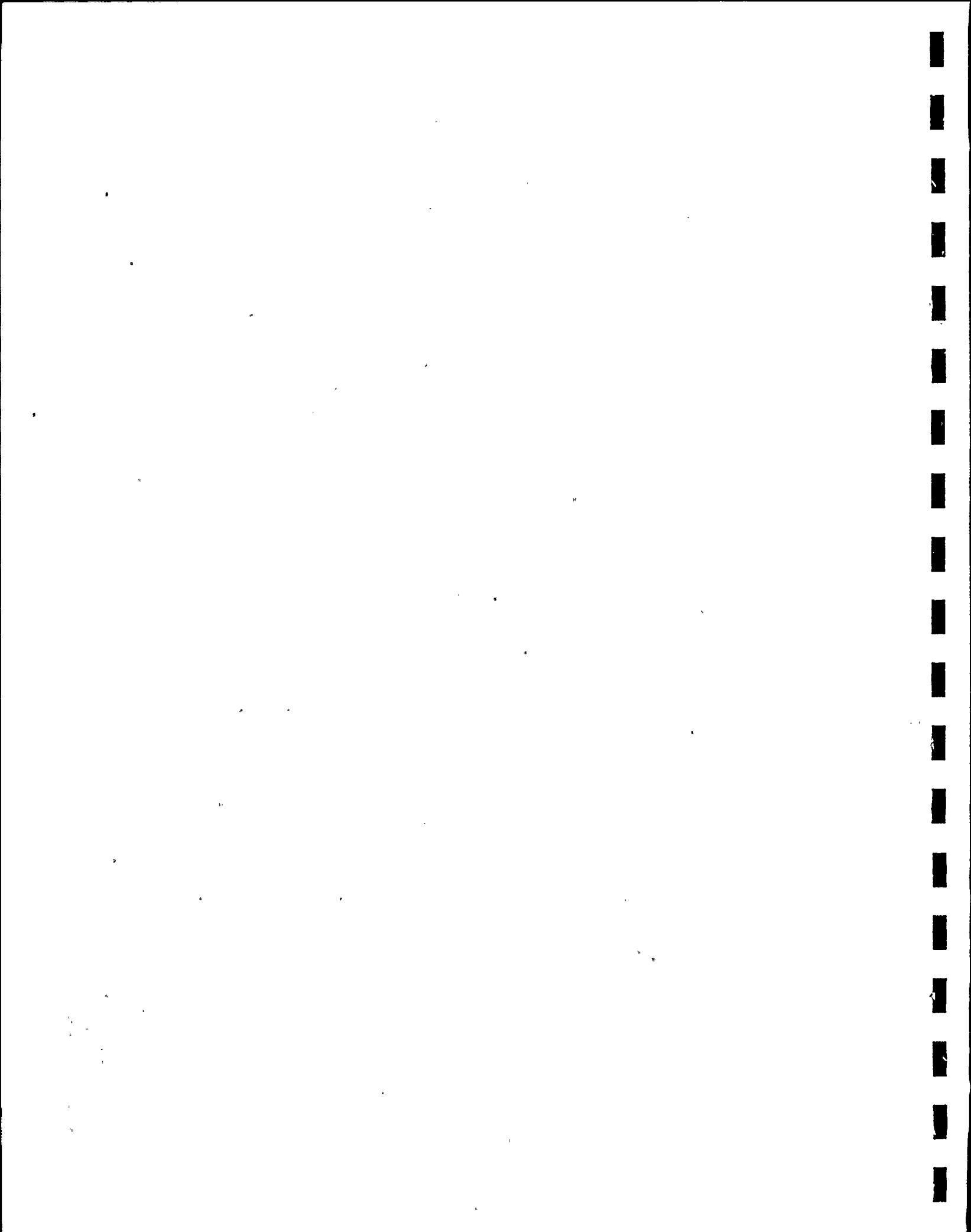
NA = Not available



NUMBER OF KERATELLA CRASSA (ROTIFERA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	I T <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	MEAN <sup>g</sup>		
				R-1	R-2	R-1	R-2			R-1	R-2	R-1	R-2			R-1	R-2	R-1	R-2			R-1	R-2
14 APR	<sup>a</sup> 1130	5.1	14.0	1	2	1	6	57	0	0	2	4	100	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2200	5.8	13.7	-	-	0	0	-	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
28-29 APR	<sup>a</sup> 28 APR 1200	8.9	14.6	-	0	0	1	100	-	0	0	1	100	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 29 APR 0045	8.6	13.4	-	-	0	0	-	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
12 MAY	<sup>a</sup> 1120	10.4	14.4	1	-	1	0	0	1	1	2	1	33	1	-	1	0	0	-	-	0	0	-
	<sup>b</sup> 2400	9.2	14.5	-	0	0	2	100	0	-	1	0	100	-	-	0	0	-	-	-	0	0	-
26 MAY	<sup>a</sup> 1000	10.9	14.4	2	-	2	0	0	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2400	11.1	14.4	-	-	0	0	-	1	2	1	3	25	-	5	0	6	17	-	2	0	3	33
9 JUN	<sup>a</sup> 1130	11.7	12.4	3	1	4	1	20	3	1	3	1	0	1	3	4	4	50	0	0	1	3	100
	<sup>b</sup> 2300	14.1	14.3	5	-	5	0	0	-	3	0	7	57	3	1	4	4	50	1	-	5	0	80
23,28 JUN	<sup>a</sup> 23 JUN 1100	17.4	15.5	19	20	27	22	20	9	21	14	22	17	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 28 JUN 2245	15.9	15.6	11	2	21	7	54	0	4	1	6	43	7	9	9	15	33	7	15	10	19	24
20 JUL	<sup>a</sup> 1200	19.9	14.2	6	2	12	11	65	2	6	8	8	50	4	7	4	13	35	2	7	11	14	64
	<sup>b</sup> 2305	20.3	15.1	0	3	8	6	79	1	1	5	4	78	4	1	8	6	64	3	9	3	13	25
29 JUL	<sup>a</sup> 1200	19.8	14.0	7	38	18	45	29	14	31	18	40	22	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2320	19.6	12.2	1	6	2	9	36	8	18	9	19	7	3	1	5	2	43	0	1	11	4	93
11 AUG	<sup>a</sup> 1140	19.2	15.6	13	28	17	35	21	25	8	26	46	54	11	18	13	23	19	5	16	20	18	45
	<sup>b</sup> 2315	19.9	14.5	54	22	73	24	22	24	49	28	65	22	36	23	38	35	19	13	6	17	44	69
25 AUG	<sup>a</sup> 1145	21.8	15.7	31	45	37	56	18	3	8	50	38	88	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2350	21.9	17.7	2	32	56	47	67	1	17	29	61	80	47	133	81	161	26	26	39	99	99	67



NUMBER OF KERATELLA CRASSA (ROTIFERA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	<sup>a</sup> 1130	19.7	15.9	52	84	66	123	28	18	51	34	138	60	32	30	58	45	40	24	50	36	91	42
	<sup>b</sup> 2305	21.1	16.0	60	44	85	66	31	91	45	114	89	33	21	21	40	40	48	25	25	83	58	.65
22,27 SEP	<sup>a</sup> 22 SEP 1205	18.4	14.8	11	11	22	18	45	9	17	16	25	37	5	10	8	17	40	4	9	15	18	61
	<sup>b</sup> 27 SEP 2318 .	16.2	14.7	15	34	20	43	22	7	19	8	22	13	15	4	29	14	56	15	7	20	43	65
6 OCT	<sup>a</sup> 1027	15.7	14.7	2	2	3	3	33	0	11	3	11	21	4	2	6	3	33	6	7	6	9	13
	<sup>b</sup> 2142	16.0	14.4	1	6	3	9	42	4	-	4	0	0	2	4	4	7	45	1	8	1	12	31
20 OCT	<sup>a</sup> 1110	12.1	13.6	1	2	2	3	40	1	2	2	6	62	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2358	12.0	13.5	2	2	2	4	33	3	1	4	1	20	3	3	3	3	0	5	3	5	5	20
20 OCT <sup>h</sup>	<sup>a</sup> 1425	NA	NA	6	8	8	11	26	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	<sup>a</sup> 1210	10.4	15.5	5	4	5	4	0	2	4	2	4	0	3	1	4	1	20	8	6	10	9	26
	<sup>b</sup> 2345	10.4	15.4	1	2	2	2	25	1	8	2	8	10	7	2	9	2	18	7	-	7	0	.0
17 NOV	<sup>a</sup> 1210	8.2	13.6	1	6	1	6	0	3	7	9	7	38	6	-	6	0	0	2	0	4	3	71
	<sup>b</sup> 2254	7.8	15.0	9	7	12	7	16	3	4	3	7	30	12	10	12	10	0	8	5	9	6	13
1 DEC	<sup>a</sup> 1230	3.2	14.8	-	2	0	2	0	1	2	1	2	0	3	0	3	3	50	4	1	5	4	44
	<sup>b</sup> 2308	3.5	14.9	9	3	9	3	0	-	2	0	4	50	6	3	6	8	36	2	7	2	7	0
19 DEC	<sup>a</sup> 1155	2.2	12.8	3	1	5	1	33	-	-	0	0	-	-	-	0	0	-	0	5	2	6	38
	<sup>b</sup> 2321	2.5	13.8	0	4	1	6	43	1	11	1	12	8	4	6	5	11	38	9	11	11	16	26

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

f Total number of organisms observed

g Total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

h Samples taken in lake in vicinity of FitzPatrick Intake

- = Not applicable

NA = Not available



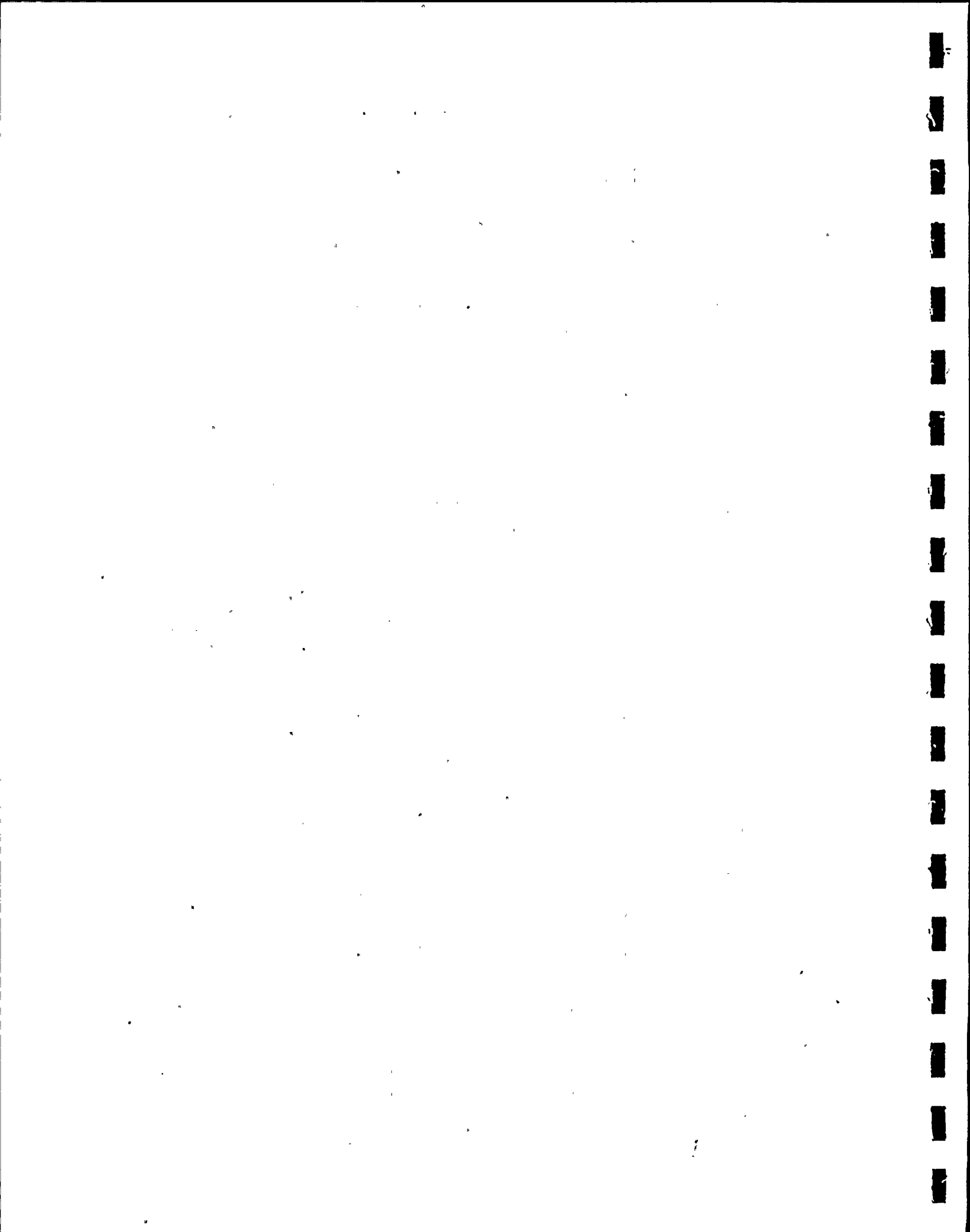


NUMBER OF KERATELLA QUADRATA (ROTIFERA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT    1976

DATE *	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	A T <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD <sup>g</sup>	
				R-1	R-2	R-1	R-2		MEAN <sup>g</sup>	R-1	R-2	R-1		R-2	MEAN <sup>g</sup>	R-1	R-2		R-1	R-2	MEAN <sup>g</sup>	R-1		R-2
14 APR	a	1130	5.1	14.0	1	3	4	8	67	0	4	4	9	69	NOT REQUIRED					NOT REQUIRED				
	b	2200	5.8	13.7	2	3	9	13	77	0	0	2	15	100	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a 28 APR	1200	8.9	14.6	5	11	47	22	77	2	5	13	17	77	NOT REQUIRED					NOT REQUIRED				
	b 29 APR	0045	8.6	13.4	15	0	20	16	58	8	3	31	39	84	NOT REQUIRED					NOT REQUIRED				
12 MAY	a	1120	10.4	14.4	125	137	164	232	34	50	57	103	226	67	24	19	43	45	51	4	4	24	33	86
	b	2400	9.2	14.5	92	47	135	82	36	31	56	110	128	63	20	36	67	74	60	12	19	35	66	69
26 MAY	a	1000	10.9	14.4	42	48	134	115	64	20	45	84	111	67	NOT REQUIRED					NOT REQUIRED				
	b	2400	11.1	14.4	6	44	88	107	74	2	30	22	94	72	28	10	56	106	76	4	30	36	102	75
9 JUN	a	1130	11.7	12.4	21	36	48	75	54	12	22	39	57	65	5	6	36	53	88	3	12	39	32	79
	b	2300	14.1	14.3	35	29	116	77	67	9	2	67	67	92	7	5	35	84	90	12	32	63	98	73
23,28 JUN	a 23 JUN	1100	17.4	15.5	7	12	21	32	64	37	4	46	55	59	NOT REQUIRED					NOT REQUIRED				
	b 28 JUN	2245	15.9	15.6	4	0	34	34	94	1	1	13	38	96	0	7	21	32	87	1	18	26	49	75
20 JUL	a	1200	19.9	14.2	6	4	8	11	47	2	0	4	1	60	2	3	4	7	54	3	0	10	4	79
	b	2305	20.3	15.1	1	0	5	3	88	0	0	1	5	100	0	0	3	3	100	2	0	3	2	60
29 JUL	a	1200	19.8	14.0	1	0	2	5	86	1	0	3	4	86	NOT REQUIRED					NOT REQUIRED				
	b	2320	19.6	12.2	0	0	4	13	100	0	0	3	19	100	4	1	7	5	58	5	2	16	4	65
11 AUG	a	1140	19.2	15.6	1	-	1	0	0	-	2	0	3	33	1	0	2	1	67	0	-	1	0	100
	b	2315	19.9	14.5	1	-	3	0	67	-	1	0	1	0	-	-	0	0	-	-	-	0	0	-
25 AUG	a	1145	21.8	15.7	-	-	0	0	-	2	-	2	0	0	NOT REQUIRED					NOT REQUIRED				
	b	2350	21.9	17.7	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-

\* This species was not collected on the following date: 8 Sep



NUMBER OF KERATELLA QUADRATA (ROTIFERA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3 <sup>rd</sup> SIMULATION					2 <sup>nd</sup> SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
22, 27 SEP	a 22 SEP 1205	18.4	14.8	-	-	0	0	-	-	1	0	1	0	-	-	0	0	-	-	-	0	0	-
	b 27 SEP 2318	16.2	14.7	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
6 OCT	a 1027	15.7	14.7	-	-	0	0	-	-	0	0	2	100	-	-	0	0	-	-	-	0	0	-
	b 2142	16.0	14.4	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
20 OCT	a 1110	12.1	13.6	-	-	0	0	-	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
	b 2358	12.0	13.5	-	-	0	0	-	2	-	2	0	-	-	-	0	0	-	-	-	0	0	-
20 OCT <sup>h</sup>	a 1425	NA	NA	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	a 1210	10.4	15.5	-	1	0	1	0	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
	b 2345	10.4	15.4	1	-	1	0	0	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
17 NOV	a 1210	8.2	13.6	1	0	1	1	50	-	-	0	0	-	-	-	0	0	-	-	1	0	1	0
	b 2254	7.8	15.0	-	1	0	1	0	-	-	0	0	-	-	0	0	1	100	-	-	0	0	-
1 DEC	a 1230	3.2	14.8	-	-	0	0	-	-	1	0	1	0	-	-	0	0	-	-	1	0	1	0
	b 2308	3.5	14.9	-	0	0	1	100	1	0	1	1	50	2	-	3	0	33	2	-	2	0	0
19 DEC	a 1155	2.2	12.8	2	2	4	2	33	-	0	0	1	100	1	1	2	2	50	0	-	1	0	100
	b 2321	2.5	13.8	3	0	4	1	40	-	1	0	2	50	2	5	3	7	30	0	1	3	2	80

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

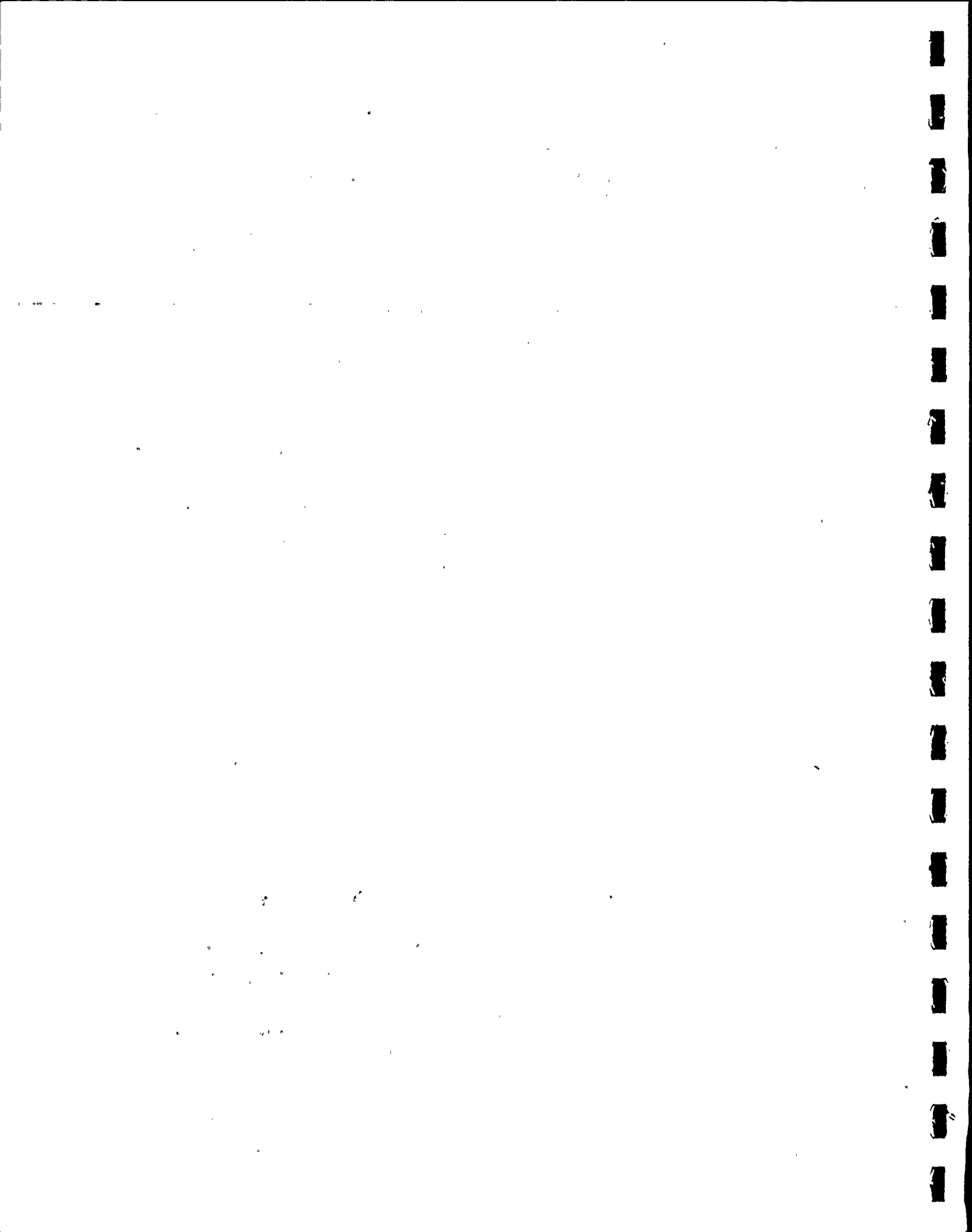
f Total number of organisms observed

g Total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

h Sample taken from lake in vicinity of FitzPatrick Intake

- = Not applicable

NA = Not available



NUMBER OF POLYARTHRA DOLICHOPTERA (ROTIFERA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	MEAN <sup>g</sup>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
				R-1	R-2	R-1	R-2	R-1		R-2	R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2	R-1		R-2	R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2	R-1	R-2



NUMBER OF POLYARTHRA DOLICHOPTERA (ROTIFERA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD MEAN <sup>g</sup>	
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		
8 SEP	a	1130	19.7	15.9	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	0	0	1	100
	b	2305	21.1	16.0	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
22,27 SEP	a 22 SEP 1205	18.4	14.8	-	-	0	0	-	-	1	0	2	50	-	-	0	0	-	-	-	0	0	-	-
	b 27 SEP 2318	16.2	14.7	-	-	0	0	-	0	-	1	0	100	-	-	0	0	-	-	-	0	0	-	-
6 OCT	a	1027	15.7	14.7	1	1	1	1	0	0	-	3	0	100	2	-	2	0	0	-	-	0	0	-
	b	2142	16.0	14.4	-	0	0	1	100	0	-	1	0	100	0	-	1	0	100	-	-	0	0	-
20 OCT	a	1110	12.1	13.6	-	-	0	0	-	-	0	0	1	100	NOT REQUIRED					NOT REQUIRED				
	b	2358	12.0	13.5	-	-	0	0	-	2	-	2	0	0	-	0	0	1	100	0	-	2	0	100
20 OCT <sup>h</sup>	a	1425	NA	NA	0	-	1	0	100	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	15.5	0	0	1	1	100	0	-	1	0	100	-	-	0	0	-	1	1	1	1	0
	b	2345	10.4	15.4	-	0	0	1	100	1	-	1	0	0	0	-	1	0	100	-	0	0	2	100
17 NOV	a	1210	8.2	13.6	1	0	1	2	67	0	0	1	2	100	0	0	2	2	100	1	0	3	1	75
	b	2254	7.8	15.0	0	0	11	5	100	0	0	1	3	100	0	3	4	6	70	0	2	8	7	87
1 DEC	a	1230	3.2	14.8	0	3	4	14	83	0	1	5	8	92	6	0	17	16	82	4	10	9	17	46
	b	2308	3.5	14.9	10	0	22	20	76	0	0	4	7	100	0	0	8	20	100	0	0	27	19	100
19 DEC	a	1155	2.2	12.8	1	0	11	3	93	1	1	2	3	60	2	1	3	1	25	0	1	3	3	83
	b	2321	2.5	13.8	0	0	18	9	100	1	0	1	3	75	0	11	4	21	56	1	0	2	9	91

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

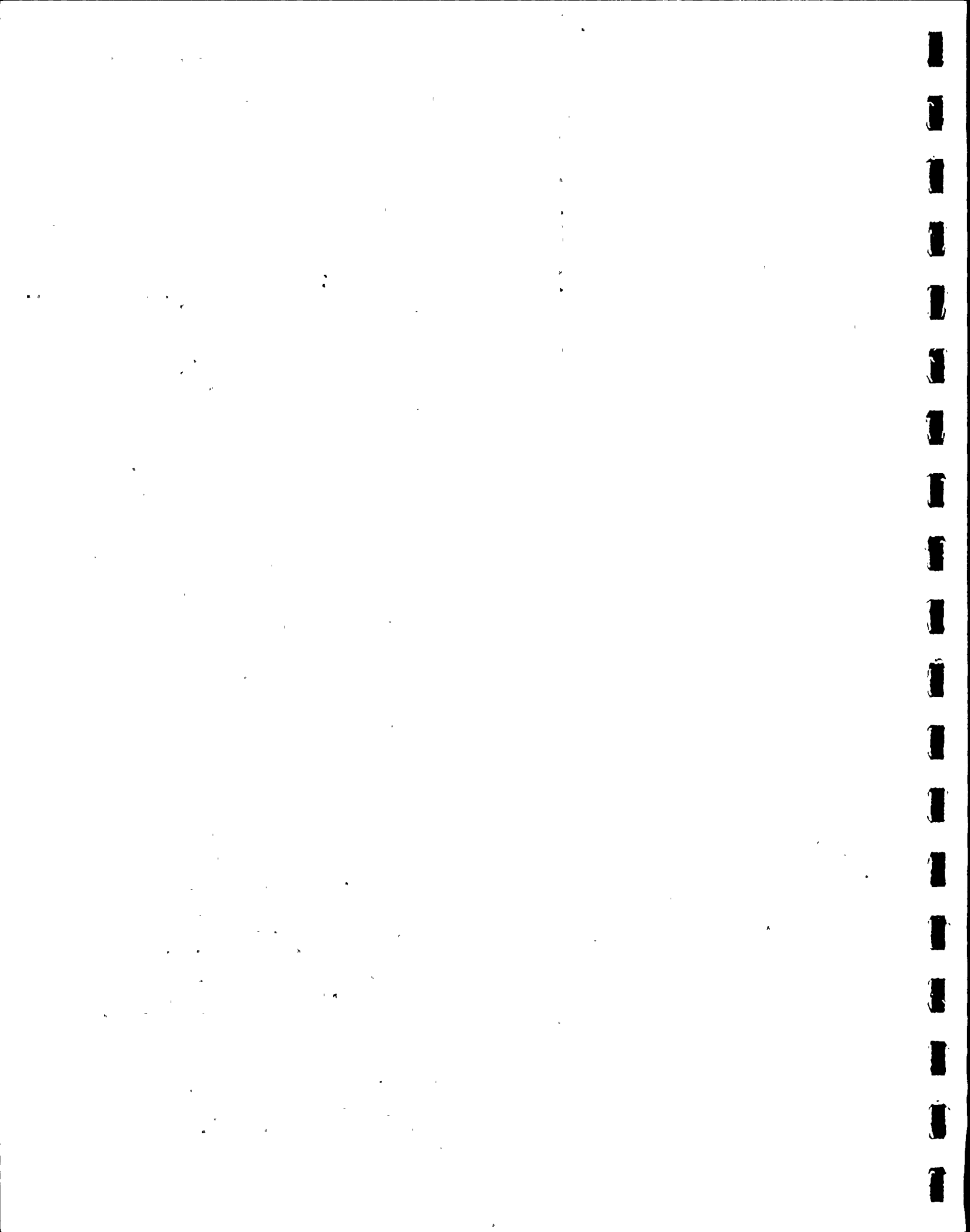
f Total number of organisms observed

g Total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

h Samples taken from lake in vicinity of FitzPatrick Intake

- = Not applicable

NA = Not available



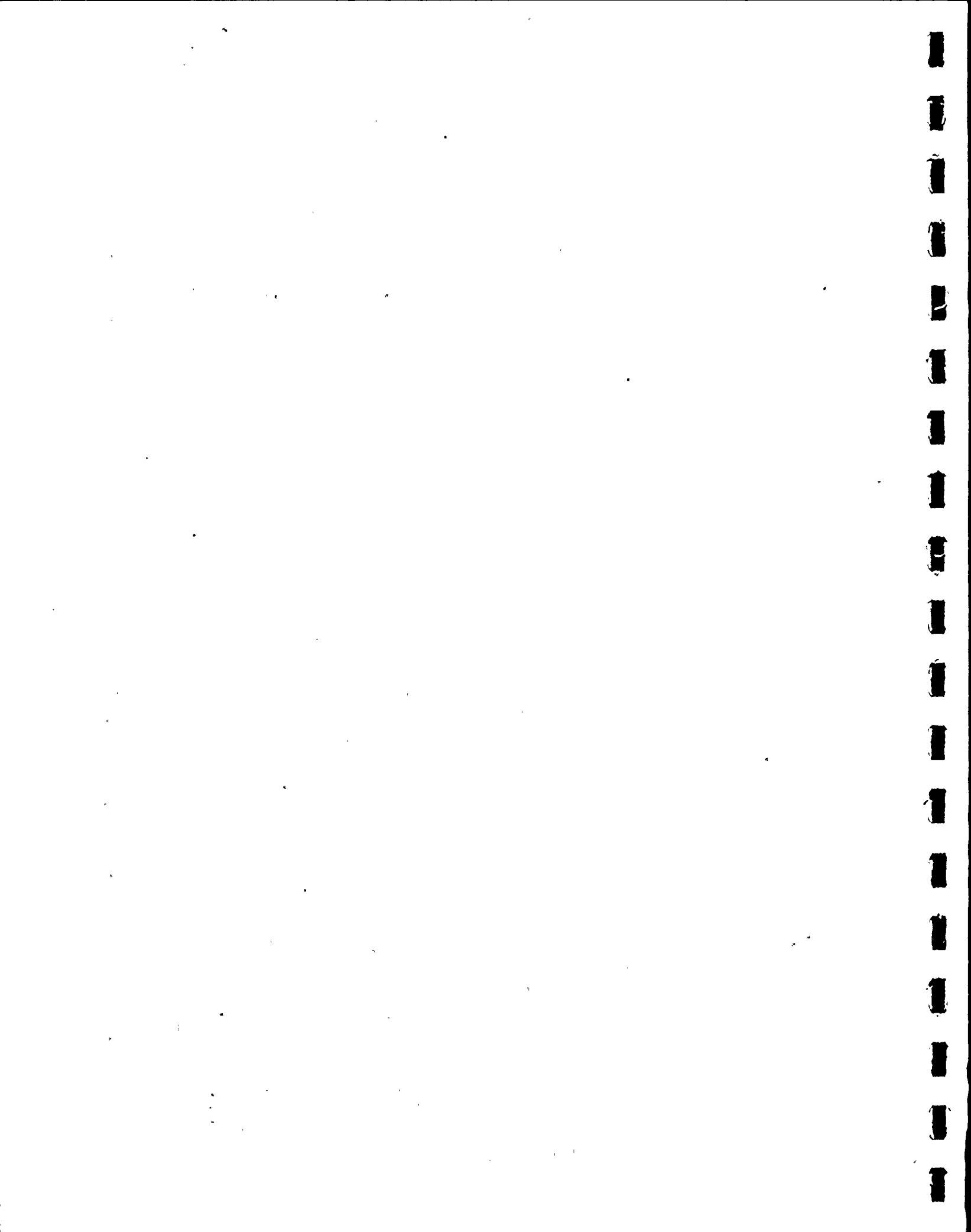


NUMBER OF POLYARTHRA MAJOR (ROTIFERA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE*	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. <sup>c</sup> (°C)	Δ T <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
26 MAY	a	1000	10.9	14.4	-	-	0	0	-	0	-	1	0	100	NOT REQUIRED					NOT REQUIRED				
	b	2400	11.1	14.4	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
9 JUN	a	1130	11.7	12.4	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
	b	2300	14.1	14.3	-	-	0	0	-	-	-	0	0	-	-	0	0	1	0	-	-	-	0	0
23,28 JUN	a 23 JUN	1100	17.4	15.5	-	-	0	0	-	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
	b 28 JUN	2245	15.9	15.6	-	-	0	0	-	1	0	3	2	80	-	-	0	0	-	0	0	1	2	100
20 JUL	a	1200	19.9	14.2	-	-	0	0	-	-	-	0	0	-	1	-	1	0	0	1	-	2	0	50
	b	2305	20.3	15.1	-	-	0	0	-	-	-	0	0	-	0	-	1	0	100	-	-	0	0	-
29 JUL	a	1200	19.8	14.0	-	0	0	1	100	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
	b	2320	19.6	12.2	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
11 AUG	a	1140	19.2	15.6	6	8	30	70	86	1	9	23	45	85	7	22	39	40	63	10	6	41	23	75
	b	2315	19.9	14.5	11	26	106	131	84	6	16	67	100	87	5	7	85	52	91	5	18	57	100	85
25 AUG	a	1145	21.8	15.7	4	0	36	51	95	0	1	32	8	98	NOT REQUIRED					NOT REQUIRED				
	b	2350	21.9	17.7	1	7	51	54	92	1	1	10	32	95	4	6	55	39	89	6	0	63	3	91
8 SEP	a	1130	19.7	15.9	0	2	7	6	85	1	3	3	9	67	-	2	0	2	0	0	2	1	3	50
	b	2305	21.1	16.0	0	0	21	11	100	7	0	27	11	82	3	0	6	6	75	3	1	10	5	73
22,27 SEP	a 22 SEP	1205	18.4	14.8	0	3	4	7	73	0	0	10	6	100	0	0	5	5	100	2	0	7	5	83
	b 27 SEP	2318	16.2	14.7	0	4	30	26	93	0	2	10	9	89	1	0	12	19	97	5	8	37	22	78

\* This species was not collected on the following dates: 14 Apr, 28-29 Apr, 12 May



NUMBER OF POLYARTHRA MAJOR (ROTIFERA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	
				R-1	R-2	R-1	R-2		MEAN <sup>g</sup>	R-1	R-2	R-1		R-2	MEAN <sup>g</sup>	R-1	R-2		R-1	R-2	MEAN <sup>g</sup>	R-1		R-2
6 OCT	<sup>a</sup>	1027	15.7	14.7	2	4	12	9	71	0	0	4	5	100	2	2	3	7	60	1	2	4	5	67
	<sup>b</sup>	2142	16.0	14.4	0	0	15	16	100	0	0	5	4	100	1	1	5	17	91	0	0	7	14	100
20 OCT	<sup>a</sup>	1110	12.1	13.6	0	2	4	7	82	0	0	3	4	100	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2358	12.0	13.5	0	0	6	5	100	0	0	7	2	100	0	0	10	7	100	2	0	12	8	90
20 OCT <sup>h</sup>	<sup>a</sup>	1425	NA	NA	2	5	2	9	36	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	1210	10.4	15.5	-	2	0	4	50	0	1	1	2	67	-	-	0	0	-	1	1	2	5	71
3. NOV	<sup>a</sup>	1210	8.2	13.6	0	0	2	1	100	-	1	0	1	0	0	-	3	0	100	0	-	2	0	100
	<sup>b</sup>	2345	10.4	15.4	-	0	0	6	100	1	2	1	3	25	1	-	1	0	0	0	0	2	1	100
17 NOV	<sup>a</sup>	1210	7.8	15.0	0	0	8	6	100	3	0	4	3	57	3	0	5	9	79	0	0	5	8	100
	<sup>b</sup>	2254	3.2	14.8	0	0	1	1	100	0	0	3	3	100	0	1	3	4	86	-	0	0	3	100
1 DEC	<sup>a</sup>	1230	3.5	14.9	0	0	5	12	100	-	1	0	2	50	0	0	1	5	100	0	0	4	1	100
	<sup>b</sup>	2308	2.2	12.8	0	-	7	0	100	1	-	2	0	50	0	-	4	0	100	2	0	5	1	67
19 DEC	<sup>a</sup>	1155	2.5	13.8	4	1	13	10	78	0	-	1	0	100	0	2	5	6	82	0	0	3	11	100
	<sup>b</sup>	2321																						

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

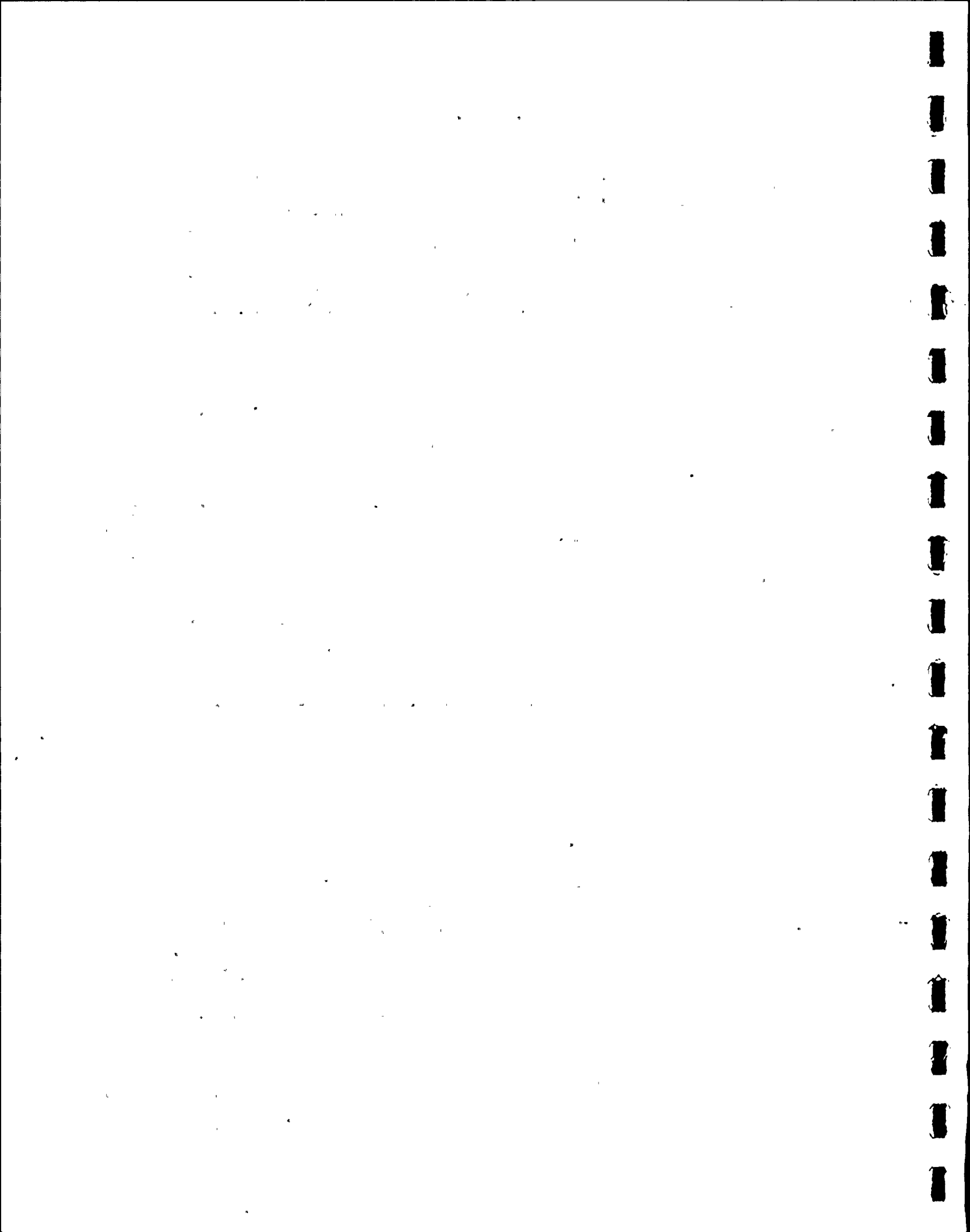
f Total number of organisms observed

g Total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

h Samples taken from lake in the vicinity of FitzPatrick Intake

- = Not applicable

NA = Not available

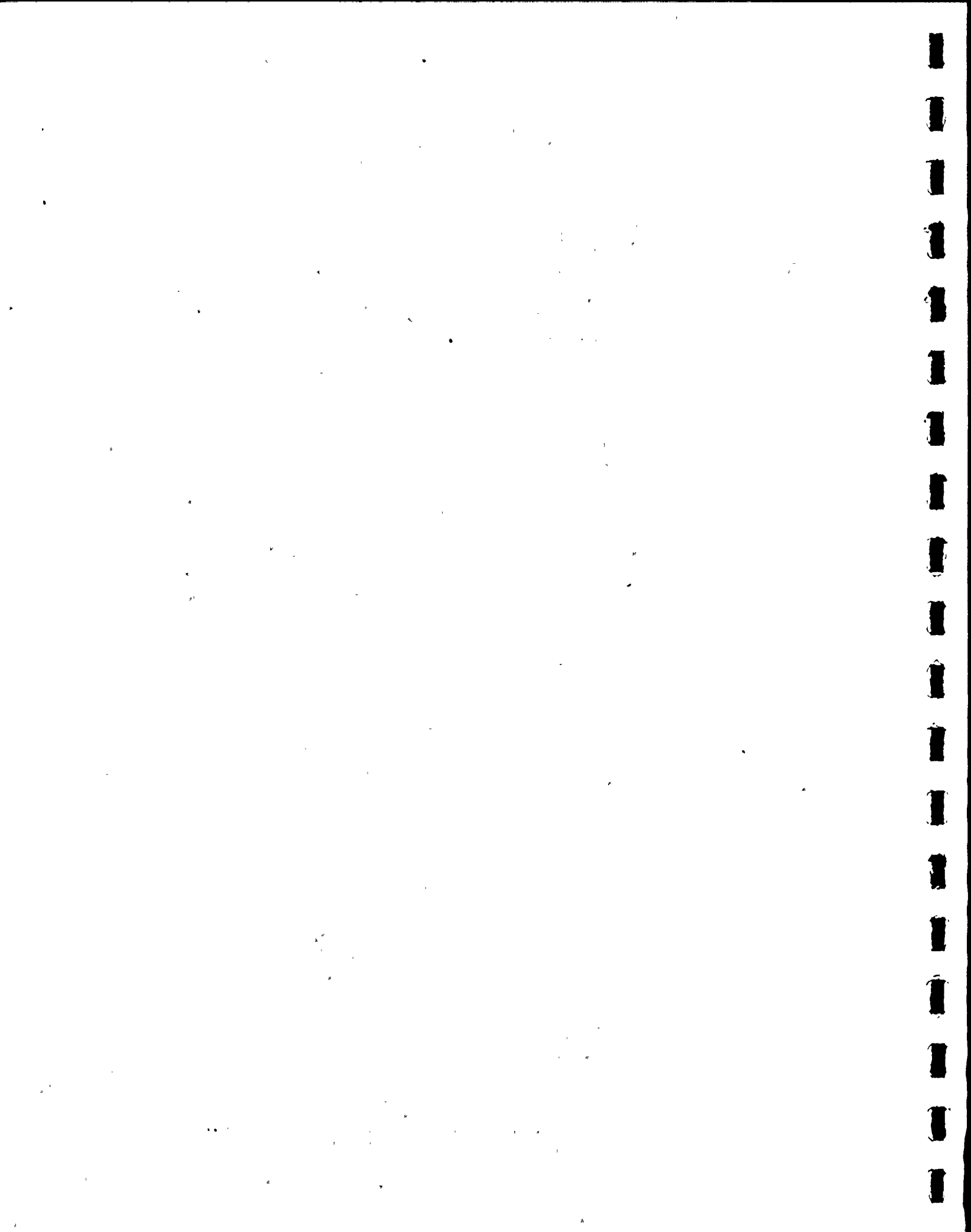


NUMBER OF SYNCHAETA LACKOWITZIANA (ROTIFERA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE *	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Σ DEAD <sup>g</sup>	
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1
14 APR	a	1130	5.1	14.0	1	0	5	7	92	0	0	5	6	100	NOT REQUIRED					NOT REQUIRED				
	b	2200	5.8	13.7	6	8	30	23	74	0	5	28	31	92	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a 28 APR 1200	8.9	14.6	12	4	22	18	60	21	7	28	23	45	NOT REQUIRED					NOT REQUIRED					
	b 29 APR 0045	8.6	13.4	11	3	21	27	71	3	10	10	39	73	NOT REQUIRED					NOT REQUIRED					
12 MAY	a	1120	10.4	14.4	15	20	22	47	49	19	10	31	25	48	14	8	18	14	31	1	0	1	5	83
	b	2400	9.2	14.5	34	8	41	18	29	7	12	13	29	55	7	6	13	23	64	10	16	16	27	40
26 MAY	a	1000	10.9	14.4	5	28	20	40	45	49	11	66	13	24	NOT REQUIRED					NOT REQUIRED				
	b	2400	11.1	14.4	64	28	83	41	26	2	45	14	64	40	41	4	64	13	42	15	27	31	59	53
9 JUN	a	1130	11.7	12.4	14	71	34	81	26	21	18	28	25	26	18	37	27	72	44	32	33	60	43	37
	b	2300	14.1	14.3	26	31	29	32	7	4	33	5	37	12	6	60	16	75	28	22	48	24	50	5
23,28 JUN	a 23 JUN 1100	17.4	15.5	0	-	3	0	100	-	0	0	1	100	NOT REQUIRED					NOT REQUIRED					
	b 28 JUN 2245	15.9	15.6	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	
20 JUL	a	1200	19.9	14.2	-	-	0	0	-	-	-	0	0	-	-	1	0	1	0	1	-	1	0	0
	b	2305	20.3	15.1	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	2	0	2	0
29 JUL	a	1200	19.8	14.0	-	-	0	0	-	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
	b	2320	19.6	12.2	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
11 AUG	a	1140	19.2	15.6	0	-	1	0	100	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
	b	2315	19.9	14.5	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
25 AUG	a	1145	21.8	15.7	1	-	1	0	0	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
	b	2350	21.9	17.7	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-

\* This species was not collected on the following dates: 8 Sep, 20 Oct, 3 Nov



NUMBER OF SYNCHAETA LACKOWITZIANA (ROTIFERA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2	
22, 27 SEP	a 22 SEP	18.4	14.8	-	-	0	0	-	-	0	0	1	100	-	-	0	0	-	-	-	0	0	-
	b 27 SEP	16.2	14.7	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
6 OCT	a 1027	15.7	14.7	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
	b 2142	16.0	14.4	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	1	0	1	0
17 NOV	a 1210	8.2	13.6	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
	b 2254	7.8	15.0	-	3	0	3	0	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
1 DEC	a 1230	3.2	14.8	-	-	0	0	-	1	-	1	0	0	0	-	1	0	100	-	0	0	4	100
	b 2308	3.5	14.9	-	0	0	1	100	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
19 DEC	a 1155	2.2	12.8	1	0	1	2	67	-	-	0	0	-	1	1	2	2	50	-	1	0	1	0
	b 2321	2.5	13.8	0	0	1	6	100	2	1	4	2	50	2	-	2	0	0	0	0	1	10	100

<sup>a/b</sup> Time in 2400 hrs of Intake Sample

<sup>c</sup> Intake temperature before tempering

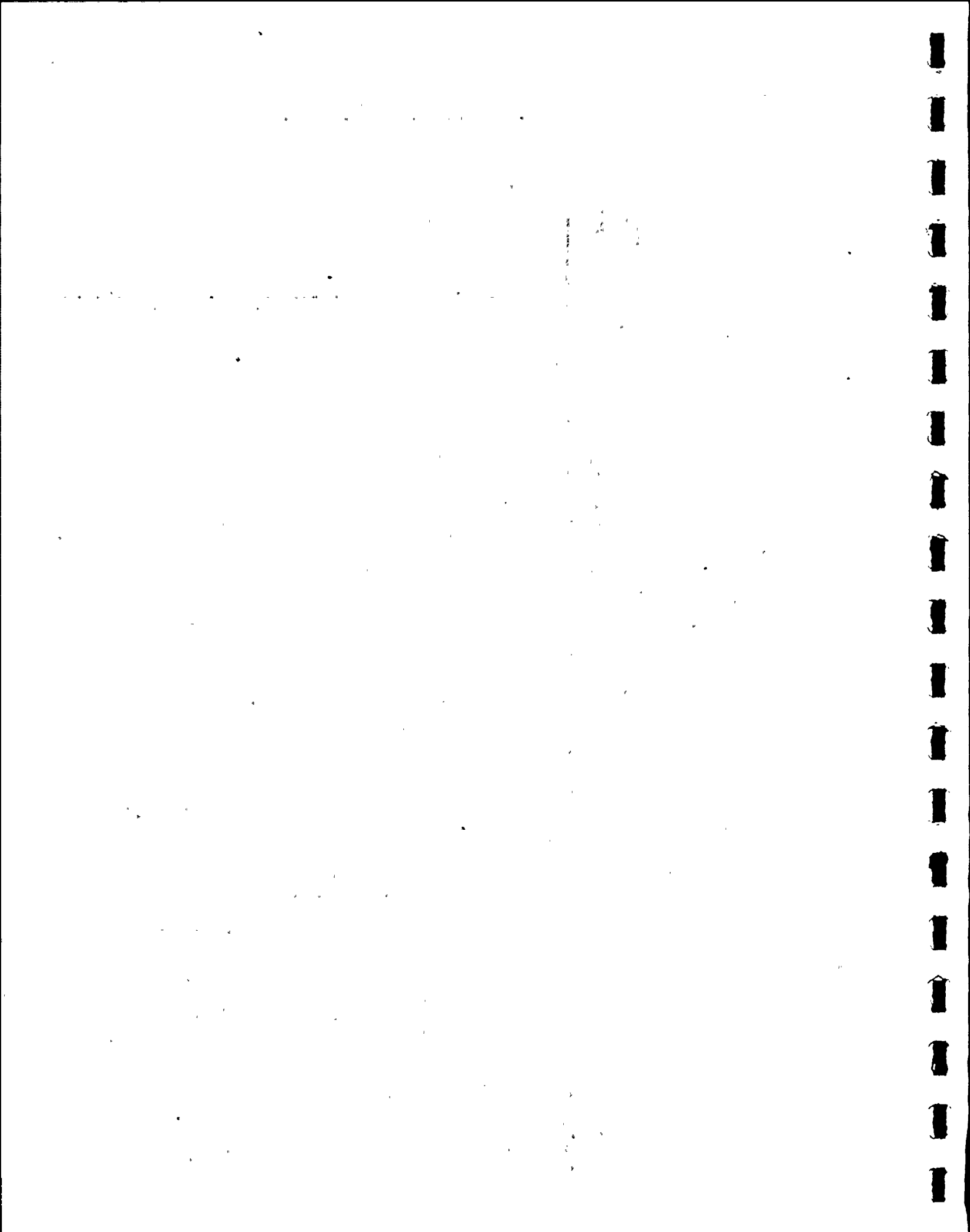
<sup>d</sup> Discharge - Intake Temperature

<sup>e</sup> Number of live organisms observed

<sup>f</sup> Total number of organisms observed

<sup>g</sup> Total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

- = Not applicable





NUMBER OF SYNCHAETA PECTINATA (ROTIFERA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE <sup>a</sup>	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION						
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD		
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>		
14 APR	a	1130	5.1	14.0	0	0	2	1	100	4	1	6	2	38	NOT REQUIRED					NOT REQUIRED					
	b	2200	5.8	13.7	0	4	7	8	73	2	0	8	9	88	NOT REQUIRED					NOT REQUIRED					
28-29 APR	a 28 APR	1200	8.9	14.6	10	0	31	19	80	29	5	53	15	50	NOT REQUIRED					NOT REQUIRED					
	b 29 APR	0045	8.6	13.4	37	2	44	20	39	6	0	12	13	76	NOT REQUIRED					NOT REQUIRED					
12 MAY	a	1120	10.4	14.4	32	52	41	76	28	21	28	25	53	37	4	3	16	4	65	9	6	13	13	42	
	b	2400	9.2	14.5	49	24	64	26	19	27	12	38	22	35	2	6	11	15	69	10	8	18	16	47	
26 MAY	a	1000	10.9	14.4	72	55	86	69	18	62	19	89	21	26	NOT REQUIRED					NOT REQUIRED					
	b	2400	11.1	14.4	83	16	110	50	38	41	33	75	78	52	58	60	87	86	32	24	17	38	43	49	
9 JUN	a	1130	11.7	12.4	18	14	23	15	16	3	14	7	16	26	1	0	9	5	93	4	27	7	37	30	
	b	2300	14.1	14.3	8	2	10	4	29	2	4	2	4	0	3	0	3	1	25	-	0	0	1	100	
20 JUL	a	1200	19.9	14.2	-	1	0	1	0	-	-	0	0	-	-	-	0	0	-	-	1	0	1	0	
	b	2305	20.3	15.1	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	1	-	1	0	0	
11 AUG	a	1140	19.2	15.6	-	-	0	0	-	-	-	0	0	-	-	0	0	1	100	-	-	0	0	-	
	b	2315	19.9	14.5	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	
22,27 SEP	a 22 SEP	1205	18.4	14.8	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	
	b 27 SEP	2318	16.2	14.7	-	3	0	3	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
6 OCT	a	1027	15.7	14.7	-	-	0	0	-	-	1	0	1	0	-	-	-	0	0	-	-	-	0	0	-
	b	2142	16.0	14.4	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	

\* This species was not collected on the following dates: 23,28 Jun, 29 Jul, 25 Aug, 8 Sep



NUMBER OF SYNCHAETA PECTINATA (ROTIFERA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
20 OCT	<sup>a</sup>	1110	12.1	13.6	-	2	0	3	33	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2358	12.0	13.5	2	3	6	3	44	3	1	3	1	0	-	-	0	0	-	-	0	0	3	100
20 OCT <sup>h</sup>	<sup>a</sup>	1425	NA	NA	2	4	3	4	14	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	<sup>a</sup>	1210	10.4	15.5	-	-	0	0	-	-	-	0	0	-	-	0	0	3	100	6	-	6	0	0
	<sup>b</sup>	2345	10.4	15.4	-	0	0	1	100	-	0	0	2	100	-	-	0	0	-	-	-	0	0	-
17 NOV	<sup>a</sup>	1210	8.2	13.6	-	-	0	0	-	0	1	2	1	67	-	1	0	1	0	-	-	0	0	-
	<sup>b</sup>	2254	7.8	15.0	2	6	6	8	43	-	0	0	3	100	-	2	0	2	0	2	1	3	3	50
1 DEC	<sup>a</sup>	1230	3.2	14.8	-	3	0	5	40	1	3	3	3	33	-	4	0	4	0	2	1	2	3	40
	<sup>b</sup>	2308	3.5	14.9	-	0	0	3	100	2	2	2	3	20	0	0	1	3	100	0	0	3	2	100
19 DEC	<sup>a</sup>	1155	2.2	12.8	2	0	2	3	60	-	0	0	1	100	-	-	0	0	-	2	4	2	5	14
	<sup>b</sup>	2321	2.5	13.8	2	0	3	5	75	4	0	4	1	20	1	6	2	10	42	-	1	0	5	80

<sup>a/b</sup> Time in 2400 hrs of Intake Sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake Temperature

<sup>e</sup> Number of live organisms observed

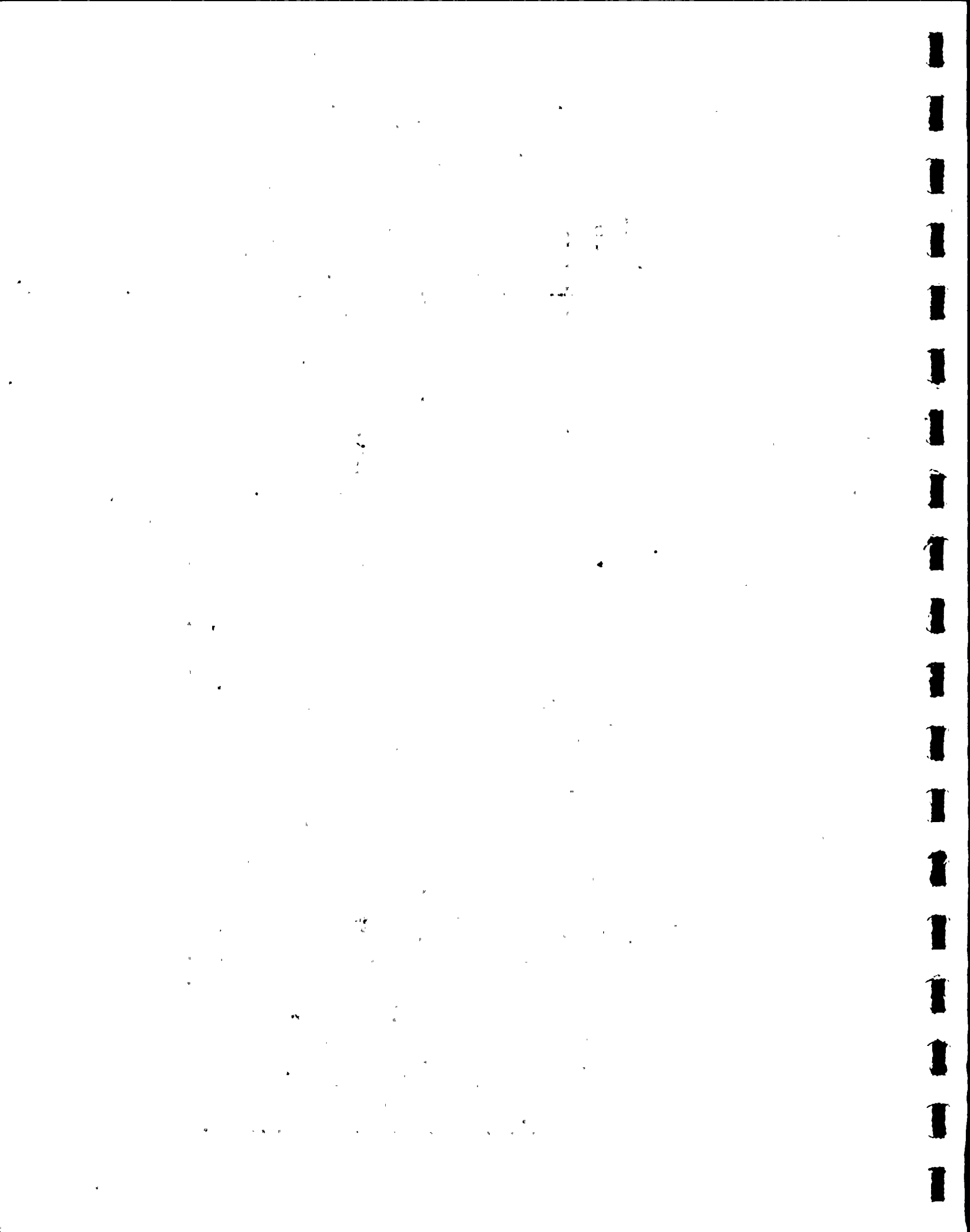
<sup>f</sup> Total number of organisms observed

<sup>g</sup> Total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

<sup>h</sup> Sample taken from lake in vicinity of FitzPatrick Intake

- = Not applicable

NA = Not available

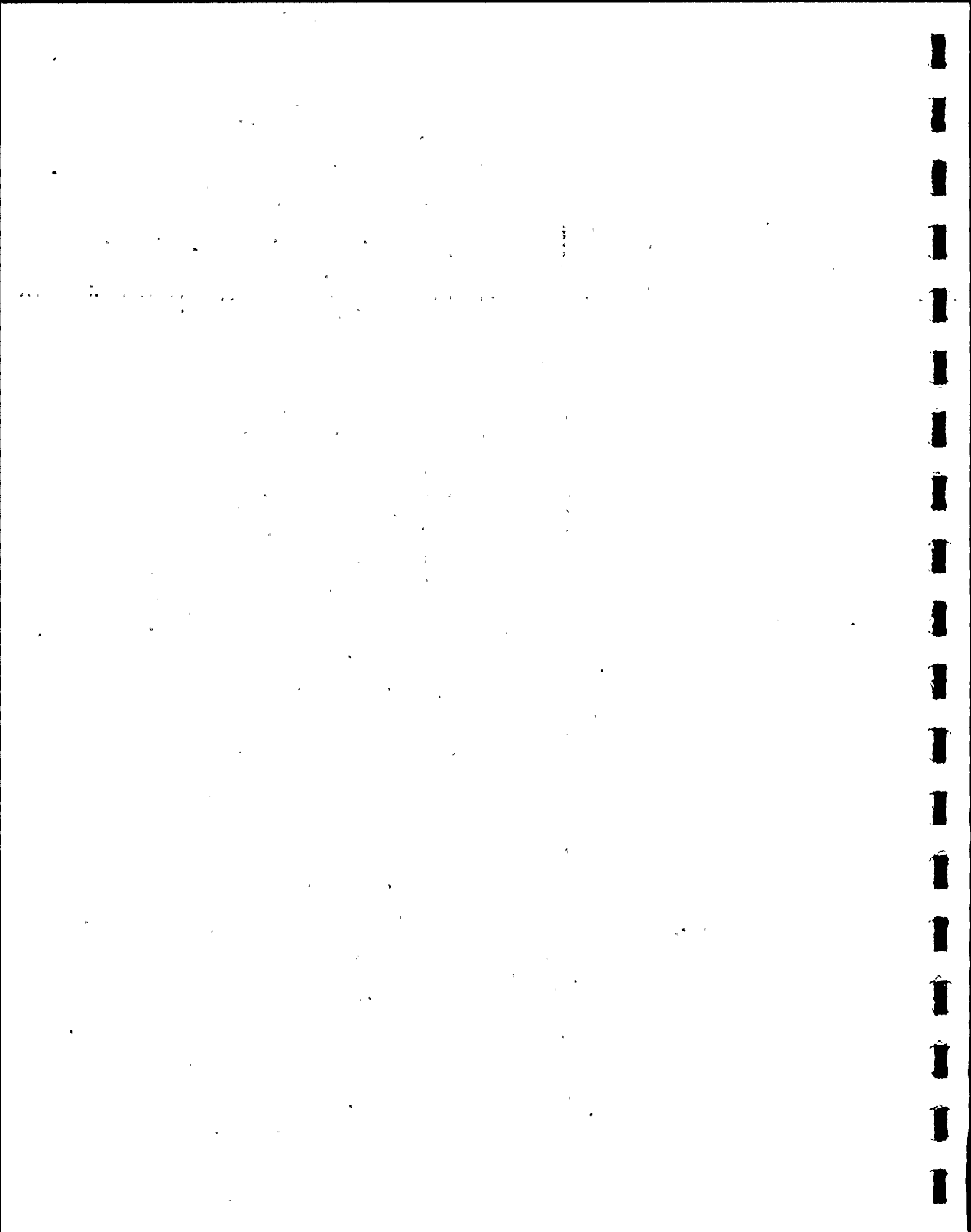


NUMBER OF TRICHOCECA MULTICRINUS (ROTIFERA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE *	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2	
12 MAY	<sup>a</sup> 1120	10.4	14.4	-	-	0	0	-	0	-	2	0	100	-	-	0	0	-	-	-	0	0	-
	<sup>b</sup> 2400	9.2	14.5	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	0	0	1	100
26 MAY	<sup>a</sup> 1000	10.9	14.4	-	-	0	0	-	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2400	11.1	14.4	0	-	1	0	100	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
9 JUN	<sup>a</sup> 1130	11.7	12.4	-	0	0	1	100	1	-	1	0	0	-	-	0	0	-	-	-	0	0	-
	<sup>b</sup> 2300	14.1	14.3	-	-	0	0	-	-	-	0	0	-	-	1	0	1	0	0	-	2	0	100
23,28 JUN	<sup>a</sup> 23 JUN 1100	17.4	15.5	0	-	1	0	100	-	0	0	1	100	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 28 JUN 2245	15.9	15.6	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
20 JUL	<sup>a</sup> 1200	19.9	14.2	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
	<sup>b</sup> 2305	20.3	15.1	-	-	0	0	-	-	0	0	1	100	-	-	0	0	-	-	-	0	0	-
29 JUL	<sup>a</sup> 1200	19.8	14.0	0	3	8	4	75	1	0	5	5	90	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2320	19.6	12.2	1	1	2	5	71	-	6	0	9	33	-	0	0	1	100	4	0	7	1	50
11 AUG	<sup>a</sup> 1140	19.2	15.6	0	6	4	15	68	0	5	6	10	69	1	0	7	9	94	3	1	9	8	76
	<sup>b</sup> 2315	19.9	14.5	38	10	57	31	45	4	1	13	17	83	11	11	24	30	59	5	3	15	30	82
25 AUG	<sup>a</sup> 1145	21.8	15.7	9	4	15	22	65	0	1	17	10	96	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2350	21.9	17.7	3	4	16	14	77	1	0	7	10	94	6	3	19	25	80	3	2	16	11	81
8 SEP	<sup>a</sup> 1130	19.7	15.9	11	24	25	37	44	1	2	3	11	79	5	0	14	10	79	4	4	8	16	67
	<sup>b</sup> 2305	21.1	16.0	3	44	41	72	58	13	5	50	59	83	12	5	26	39	74	21	9	51	44	68

\* This species was not collected on the following dates; 14 Apr, 28-29 Apr



NUMBER OF TRICHCERCA MULTICRINUS (ROTIFERA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3°SIMULATION					2°SIMULATION				
				NUMBER LIVE <sup>e</sup>	TOTAL COLL'D <sup>f</sup>	% DEAD		MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>	TOTAL COLL'D <sup>f</sup>	% DEAD		MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>	TOTAL COLL'D <sup>f</sup>	% DEAD		MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>	TOTAL COLL'D <sup>f</sup>	% DEAD		MEAN <sup>g</sup>
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2	
22, 27 SEP	a 22 SEP 1205	18.4	14.8	4	7	21	13	68	1	0	6	14	95	3	2	9	5	64	3	4	12	8	65
	b 27 SEP 2318	16.2	14.7	6	19	24	46	64	0	6	16	27	86	5	17	28	30	62	12	6	40	28	74
6 OCT	a 1027	15.7	14.7	4	2	9	12	71	0	0	6	9	100	3	5	6	11	53	4	5	10	8	50
	b 2142	16.0	14.4	8	7	17	15	53	2	2	5	6	64	0	0	10	7	100	0	7	6	18	71
20 OCT	a 1110	12.1	13.6	1	4	3	4	29	0	1	4	3	86	NOT REQUIRED					NOT REQUIRED				
	b 2358	12.0	13.5	3	-	3	0	0	0	2	1	2	33	0	0	1	1	100	0	0	5	4	100
20 OCT <sup>h</sup>	a 1425	NA	NA	0	1	2	6	88	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	a 1210	10.4	15.5	1	1	1	1	0	-	0	0	1	100	0	-	1	0	100	0	0	2	2	100
	b 2345	10.4	15.4	0	-	2	0	100	-	-	0	0	-	0	-	1	0	100	1	0	1	1	50
17 NOV	a 1210	8.2	13.6	2	1	2	1	0	0	0	2	2	100	1	1	3	2	60	1	-	1	0	0
	b 2254	7.8	15.0	2	4	5	5	40	0	2	1	7	75	2	2	6	2	50	0	0	1	2	100
1 DEC	a 1230	3.2	14.8	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	1	0	1	1	50
	b 2308	3.5	14.9	-	0	0	1	100	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
19 DEC	a 1155	2.2	12.8	0	-	1	0	100	-	-	0	0	-	-	-	0	0	-	-	1	0	1	0
	b 2321	2.5	13.8	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

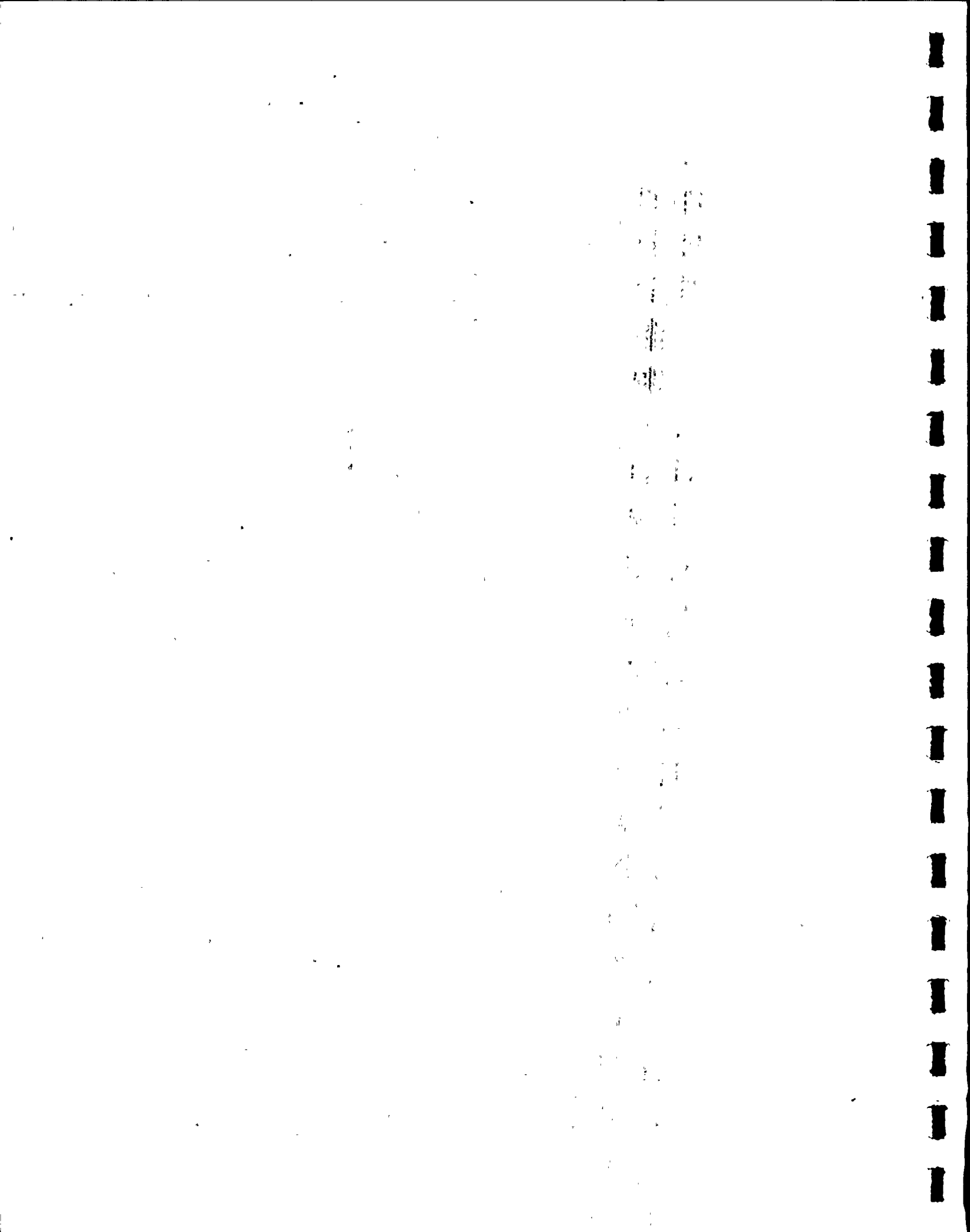
f Total number of organisms observed

g Total of dead observed in R-1 and R-2 divided by total organisms observed in R-1 and R-2

h Sample taken from lake in vicinity of FitzPatrick Intake

- = Not applicable

NA = Not available





NUMBER OF TROPOCYCLOPS PRASINUS MEXICANUS (COPEPODA : CYCLOPOIDA) OBSERVED IN VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE *	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3 <sup>rd</sup> SIMULATION					2 <sup>nd</sup> SIMULATION					
				NUMBER <sup>e</sup> LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	NUMBER <sup>e</sup> LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	NUMBER <sup>e</sup> LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	NUMBER <sup>e</sup> LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		Z DEAD	
				R-1	R-2	R-1	R-2		MEAN <sup>g</sup>	R-1	R-2	R-1		R-2	MEAN <sup>g</sup>	R-1	R-2		R-1	R-2	MEAN <sup>g</sup>	R-1		R-2
14 APR	<sup>a</sup>	1130	5.1	14.0	-	-	0	0	-	-	1	0	1	0	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2200	5.8	13.7	-	-	0	0	-	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
12 MAY	<sup>a</sup>	1120	10.4	14.4	-	-	0	0	-	-	1	0	1	0	-	-	0	0	-	-	-	0	0	-
	<sup>b</sup>	2400	9.2	14.5	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	1	1	1	1	0
9 JUN	<sup>a</sup>	1130	11.7	12.4	1	-	1	0	0	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
	<sup>b</sup>	2300	14.1	14.3	0	-	1	0	100	-	1	0	1	0	-	-	0	0	-	-	-	0	0	-
23,28 JUN	<sup>a</sup> 23 JUN 1100	17.4	15.5	-	-	0	0	-	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED					
	<sup>b</sup> 28 JUN 2245	15.9	15.6	-	-	0	0	-	-	-	0	0	-	-	1	0	1	0	-	-	-	0	0	-
20 JUL	<sup>a</sup>	1200	19.9	14.2	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-
	<sup>b</sup>	2305	20.3	15.1	-	-	0	0	-	-	-	0	0	-	-	-	0	0	-	-	1	0	1	0
29 JUL	<sup>a</sup>	1200	19.8	14.0	-	-	0	0	-	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2320	19.6	12.2	-	0	0	1	100	-	1	0	1	0	-	-	0	0	-	-	-	0	0	-
11 AUG	<sup>a</sup>	1140	19.2	15.6	-	10	0	12	17	1	-	1	0	0	2	-	2	0	0	4	2	4	2	0
	<sup>b</sup>	2315	19.9	14.5	2	-	2	0	0	-	4	0	8	50	2	2	2	2	0	-	-	0	0	-
25 AUG	<sup>a</sup>	1145	21.8	15.7	-	-	0	0	-	-	-	0	0	-	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup>	2350	21.9	17.7	-	1	0	1	0	0	-	1	0	100	-	0	0	1	100	-	-	0	0	-
8 SEP	<sup>a</sup>	1130	19.7	15.9	5	7	5	9	14	-	-	0	0	-	3	3	3	3	0	4	12	4	12	0
	<sup>b</sup>	2305	21.1	16.0	-	-	0	0	-	4	-	5	0	20	0	2	1	2	33	3	-	4	0	25

\* This species was not collected on the following dates: 28-29 Apr, 26 May



NUMBER OF TROPOCYCLOPS PRASINUS MEXICANUS (COPEPODA : CYCLOPOIDA) OBSERVED IN VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE					DISCHARGE					3 <sup>rd</sup> SIMULATION					2 <sup>nd</sup> SIMULATION				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
22, 27 SEP	a 22 SEP 1205	18.4	14.8	4	3	4	3	0	-	5	0	9	44	5	-	5	0	0	3	4	4	4	12
	b 27 SEP 2318	16.2	14.7	22	29	27	29	9	2	18	10	27	46	-	-	0	0	-	35	45	40	48	9
6 OCT	a 1027	15.7	14.7	27	30	31	32	10	4	16	13	24	46	19	41	22	44	9	38	47	45	55	15
	b 2142	16.0	14.4	17	35	19	45	19	12	9	17	15	34	20	31	26	40	23	22	34	25	49	24
20 OCT	a 1110	12.1	13.6	1	9	1	12	23	0	0	6	6	100	NOT REQUIRED					NOT REQUIRED				
	b 2358	12.0	13.5	10	14	19	25	45	10	11	17	14	32	14	16	16	35	41	12	16	26	21	40
20 OCT <sup>h</sup>	a 1425	NA	NA	34	19	36	31	21	NOT REQUIRED					NOT REQUIRED					NOT REQUIRED				
3 NOV	a 1210	10.4	15.5	18	14	18	18	11	1	10	3	20	52	10	11	19	11	30	18	14	18	26	27
	b 2345	10.4	15.4	3	2	6	6	58	0	3	5	3	63	14	3	15	8	26	10	5	15	9	38
17 NOV	a 1210	8.2	13.6	11	11	13	16	24	15	10	23	15	34	12	3	20	10	50	12	28	17	29	13
	b 2254	7.8	15.0	5	6	15	6	48	0	1	6	4	90	0	3	5	3	62	2	3	6	13	74
1 DEC	a 1230	3.2	14.8	-	2	0	2	0	1	-	1	0	0	-	0	0	4	100	-	1	0	1	0
	b 2308	3.5	14.9	0	3	2	3	40	-	-	0	0	-	-	0	0	2	100	0	2	3	2	60
19 DEC	a 1155	2.2	12.8	2	0	3	2	60	1	1	1	1	0	2	-	2	0	0	0	2	1	3	50
	b 2321	2.5	13.8	0	2	3	2	60	1	0	1	1	50	-	1	0	2	50	0	0	1	1	100

a/b Time in 2400 hrs of Intake Sample  
<sup>c</sup> Intake temperature before tempering  
<sup>d</sup> Discharge - Intake Temperature  
<sup>e</sup> Number of live organisms observed  
<sup>f</sup> Total number of organisms observed

<sup>g</sup> Total of dead observed in R-1 and R-2 divided by total organisms  
observed in R-1 and R-2  
<sup>h</sup> Sample taken from lake in vicinity of FitzPatrick Intake

- = Not applicable  
NA = Not available



JAMES A. FITZPATRICK NUCLEAR POWER PLANT,

VIII.B.5 MORTALITY OF SELECTED SPECIES  
OBSERVED IN LAKE VIABILITY STUDIES



NUMBER OF BOSMINA LONGIROSTRIS (CLADOCERA)  
OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
14 APR	a	1130	5.1	NOT REQUIRED					NOT REQUIRED				
	b	2200	5.8	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a 28 APR	1200	8.9	NOT REQUIRED					NOT REQUIRED				
	b 29 APR	0045	8.6	NOT REQUIRED					NOT REQUIRED				
12 MAY	a	1120	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2400	9.2	NOT REQUIRED					NOT REQUIRED				
26 MAY	a	1000	10.9	2	2	2	2	0	2	4	2	4	0
	b	2400	11.1	NOT REQUIRED					NOT REQUIRED				
9 JUN	a	1130	11.7	NOT REQUIRED					NOT REQUIRED				
	b	2300	14.1	NOT REQUIRED					NOT REQUIRED				
23, 28 JUN	a 23 JUN	1100	17.4	13	20	14	23	11	37	22	68	25	37
	b 28 JUN	2245	15.9	NOT REQUIRED					NOT REQUIRED				
20 JUL	a	1200	19.9	NOT REQUIRED					NOT REQUIRED				
	b	2305	20.3	NOT REQUIRED					NOT REQUIRED				
29 JUL	a	1200	19.8	80	201	90 <sup>h</sup>	225 <sup>h</sup>	11	112	73	150 <sup>h</sup>	88 <sup>h</sup>	22
	b	2320	19.6	NOT REQUIRED					NOT REQUIRED				
11 AUG	a	1140	19.2	NOT REQUIRED					NOT REQUIRED				
	b	2315	19.9	NOT REQUIRED					NOT REQUIRED				
25 AUG	a	1145	21.8	22	15	33	23	34	3	3	5	3	25
	b	2350	21.9	NOT REQUIRED					NOT REQUIRED				





NUMBER OF BOSMINA LONGIROSTRIS (CLADOCERA)  
OBSERVED IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP (°C) <sup>c</sup>	Δ T <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	a 1130	19.7	15.9	NOT REQUIRED					NOT REQUIRED				
	b 2305	21.1	16.0	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a 22 SEP 1205	18.4	14.8	NO SAMPLE					NO SAMPLE				
	b 27 SEP 2318	16.2	14.7	NOT REQUIRED					NOT REQUIRED				
6 OCT	a 1027	15.7	14.7	NOT REQUIRED					NOT REQUIRED				
	b 2142	16.0	14.4	NOT REQUIRED					NOT REQUIRED				
20 OCT	a 1110	12.1	13.6	47	66	47	67	1	19	31	23	32	9
	b 2358	12.0	13.5	NOT REQUIRED					NOT REQUIRED				
20 OCT <sup>i</sup>	a 1425	NA	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a 1210	10.4	15.5	NOT REQUIRED					NOT REQUIRED				
	b 2345	10.4	15.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a 1210	8.2	13.6	NO SAMPLE					NO SAMPLE				
	b 2254	7.8	15.0	NOT REQUIRED					NOT REQUIRED				
1 DEC	a 1230	3.2	14.8	NOT REQUIRED					NOT REQUIRED				
	b 2308	3.5	14.9	NOT REQUIRED					NOT REQUIRED				
19 DEC	a 1155	2.2	12.8	NO SAMPLE					NO SAMPLE				
	b 2321	2.5	13.8	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample  
<sup>c</sup> Intake temperature before tempering  
<sup>d</sup> Discharge - Intake Temperature  
<sup>e</sup> Number of live organisms observed  
<sup>f</sup> Total number of organisms observed  
<sup>g</sup> Total of dead observed in R-1 and R-2 divided by total organisms in R-1 and R-2.

<sup>h</sup> Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)  
<sup>i</sup> Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII.B.4)

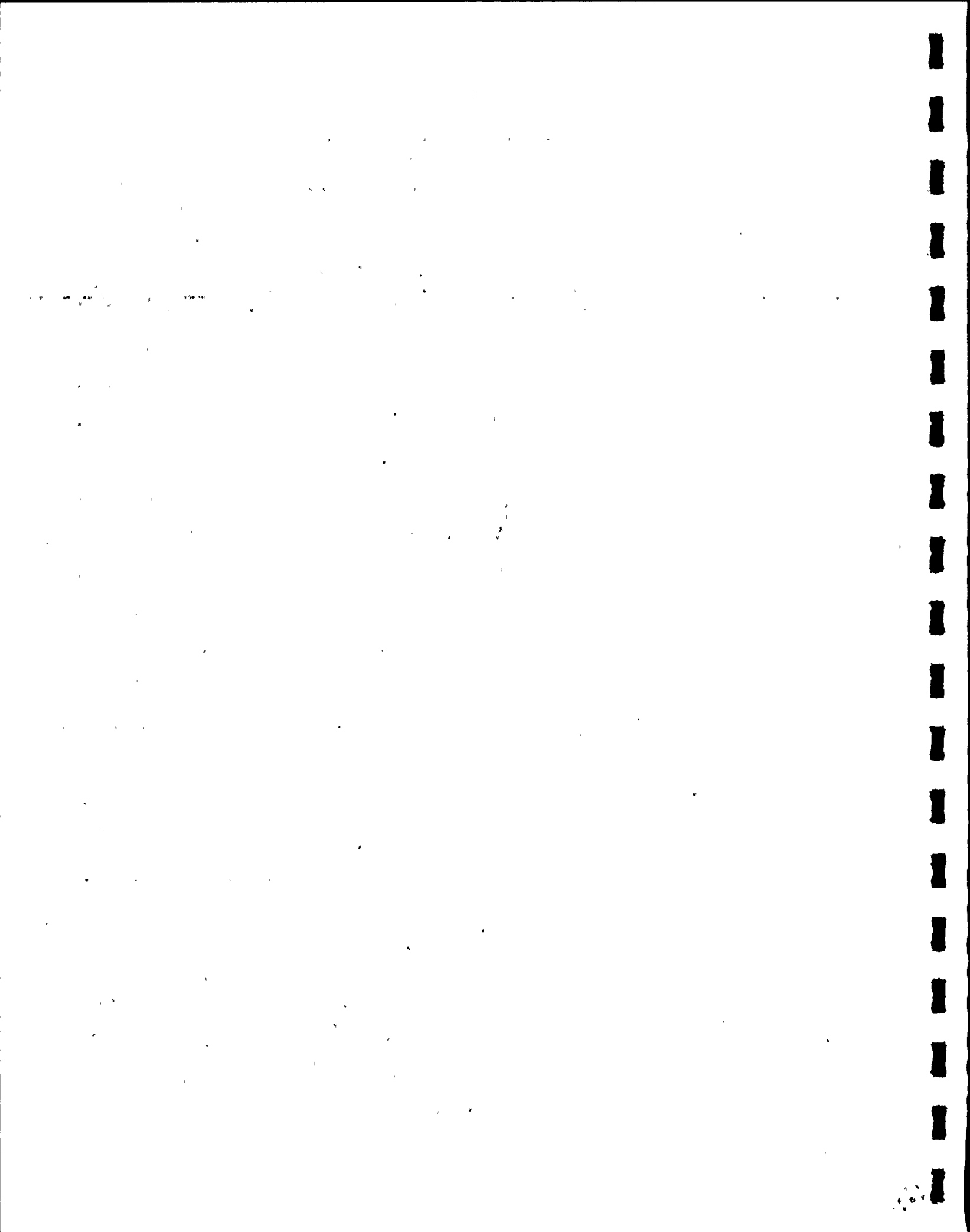
NA = Not available



NUMBER OF KERATELLA CRASSA (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	3°LAKE					2°LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
14 APR	a	1130	5.1	14.0					NOT REQUIRED				
	b	2200	5.8	13.7					NOT REQUIRED				
28-29 APR	a	28 APR 1200	8.9	14.6					NOT REQUIRED				
	b	29 APR 0045	8.6	13.4					NOT REQUIRED				
12 MAY	a	1120	10.4	14.4					NOT REQUIRED				
	b	2400	9.2	14.5					NOT REQUIRED				
26 MAY	a	1000	10.9	-	-	0	0	-	2	0	2	4	67
	b	2400	11.1	14.4					NOT REQUIRED				
9 JUN	a	1130	11.7	12.4					NOT REQUIRED				
	b	2300	14.1	14.3					NOT REQUIRED				
23,28 JUN	a	23 JUN 1100	17.4	12	1	14	3	24	1	32	25	40	49
	b	28 JUN 2245	15.9	15.6					NOT REQUIRED				
20 JUL	a	1200	19.9	14.2					NOT REQUIRED				
	b	2305	20.3	15.1					NOT REQUIRED				
29 JUL	a	1200	19.8	0	6	3 <sup>h</sup>	8 <sup>h</sup>	46	5	3	14 <sup>h</sup>	11 <sup>h</sup>	68
	b	2320	19.6	12.2					NOT REQUIRED				
11 AUG	a	1140	19.2	15.6					NOT REQUIRED				
	b	2315	19.9	14.5					NOT REQUIRED				
25 AUG	a	1145	21.8	10	4	16	8	42	5	1	10	5	60
	b	2350	21.9	17.7					NOT REQUIRED				



NUMBER OF KERATELLA CRASSA (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	a	1130	19.7	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a 22 SEP	1205	18.4	NO SAMPLE					NO SAMPLE				
	b 27 SEP	2318	16.2	NOT REQUIRED					NOT REQUIRED				
6 OCT	a	1027	15.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	NOT REQUIRED					NOT REQUIRED				
20 OCT	a	1110	12.1	2	2	4	3	43	3	4	6	5	36
	b	2358	12.0	NOT REQUIRED					NOT REQUIRED				
20 OCT <sup>i</sup>	a	1425	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2345	10.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a	1210	8.2	NO SAMPLE					NO SAMPLE				
	b	2254	7.8	NOT REQUIRED					NOT REQUIRED				
1 DEC	a	1230	3.2	NOT REQUIRED					NOT REQUIRED				
	b	2308	3.5	NOT REQUIRED					NOT REQUIRED				
19 DEC	a	1155	2.2	NO SAMPLE					NO SAMPLE				
	b	2321	2.5	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample  
c Intake temperature before tempering  
d Discharge - Intake Temperature  
e Number of live organisms observed  
f Total number of organisms observed  
g Total of dead observed in R-1 and R-2 divided by total organisms in R-1 and R-2

h Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)  
i Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII.B.4)  
- = Not applicable  
NA = Not available



NUMBER OF KERATELLA QUADRATA (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE *	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
14 APR	a	1130	5.1	14.0					NOT REQUIRED				
	b	2200	5.8	13.7					NOT REQUIRED				
28-29 APR	a 28 APR	1200	8.9	14.6					NOT REQUIRED				
	b 29 APR	0045	8.6	13.4					NOT REQUIRED				
12 MAY	a	1120	10.4	14.4					NOT REQUIRED				
	b	2400	9.2	14.5					NOT REQUIRED				
26 MAY	a	1000	10.9	38	40	126	99	65	52	42	93	135	59
	b	2400	11.1	14.4					NOT REQUIRED				
9 JUN	a	1130	11.7	12.4					NOT REQUIRED				
	b	2300	14.1	14.3					NOT REQUIRED				
23, 28 JUN	a 23 JUN	1100	17.4	26	33	58	55	48	0	3	10	7	82
	b 28 JUN	2245	15.9	15.6					NOT REQUIRED				
20 JUL	a	1200	19.9	14.2					NOT REQUIRED				
	b	2305	20.3	15.1					NOT REQUIRED				
29 JUL	a	1200	19.8	14.0					0	0	3h	3h	100
	b	2320	19.6	12.2					NOT REQUIRED				
11 AUG	a	1140	19.2	15.6					NOT REQUIRED				
	b	2315	19.9	14.5					NOT REQUIRED				
25 AUG	a	1145	21.8	15.7					-	1	0	2	50
	b	2350	21.9	17.7					NOT REQUIRED				

\* This species was not collected on the following date: 8 Sep





NUMBER OF KERATELLA QUADRATA (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T$ <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
22, 27 SEP	a 22 SEP 1205	18.4	14.8	NO SAMPLE					NO SAMPLE				
	b 27 SEP 2318	16.2	14.7	NOT REQUIRED					NOT REQUIRED				
6 OCT	a 1027	15.7	14.7	NOT REQUIRED					NOT REQUIRED				
	b 2142	16.0	14.4	NOT REQUIRED					NOT REQUIRED				
20 OCT	a 1110	12.1	13.6	-	-	0	0	-	-	-	0	0	-
	b 2358	12.0	13.5	NOT REQUIRED					NOT REQUIRED				
20 <sup>i</sup> OCT	a 1425	NA	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a 1210	10.4	15.5	NOT REQUIRED					NOT REQUIRED				
	b 2345	10.4	15.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a 1210	8.2	13.6	NO SAMPLE					NO SAMPLE				
	b 2254	7.8	15.0	NOT REQUIRED					NOT REQUIRED				
1 DEC	a 1230	3.2	14.8	NOT REQUIRED					NOT REQUIRED				
	b 2308	3.5	14.9	NOT REQUIRED					NOT REQUIRED				
19 DEC	a 1155	2.2	12.8	NO SAMPLE					NO SAMPLE				
	b 2321	2.5	13.8	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

f Total number of organisms observed

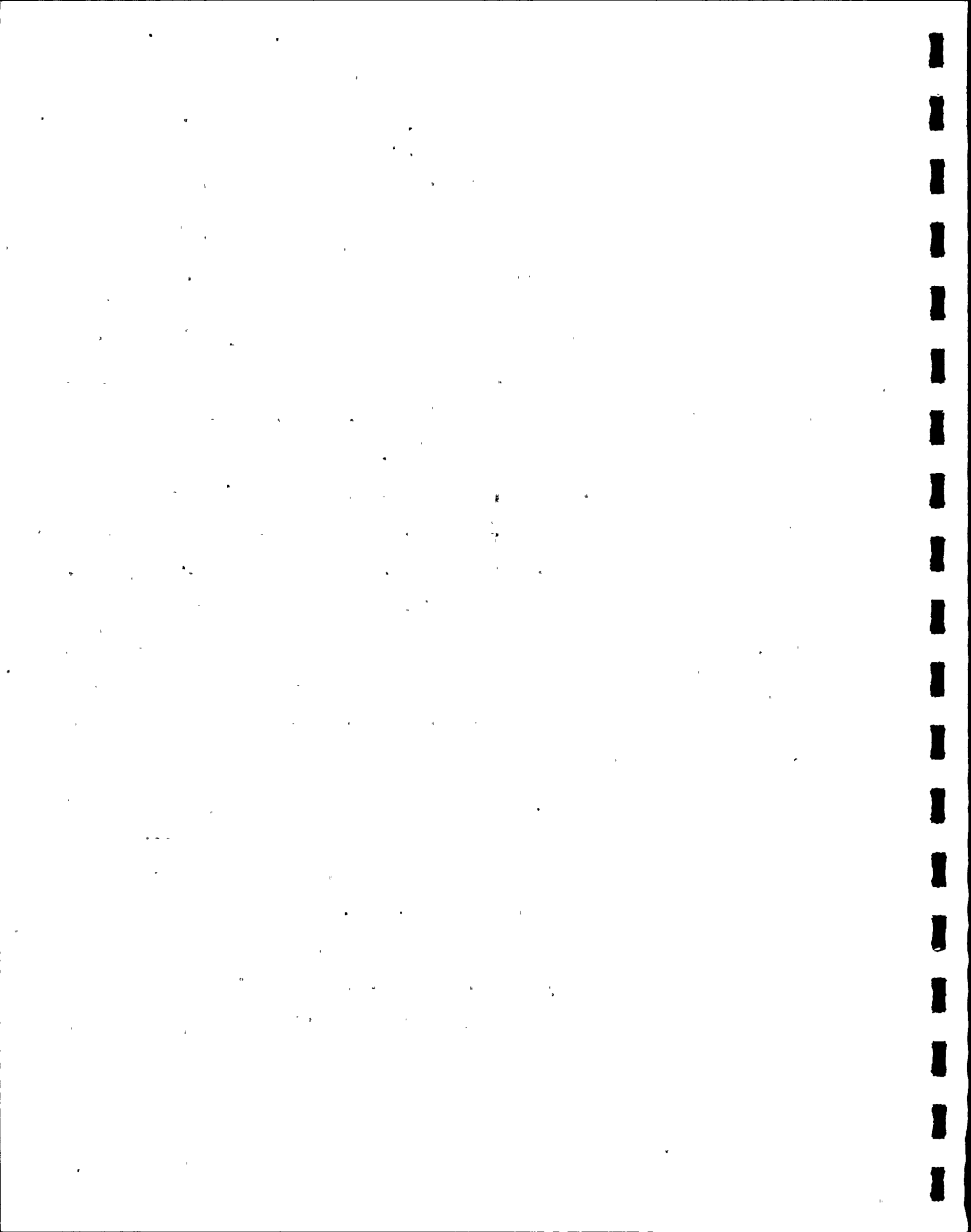
g Total of dead observed in R-1 and R-2 divided by total organisms in R-1 and R-2

h Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)

i Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII.B.4)

- = Not applicable

NA = Not available



NUMBER OF POLYARTHRA DOLICHOPTERA (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP (°C) <sup>c</sup>	ΔT <sup>d</sup>	3°LAKE					2°LAKE					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2			R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
14 APR	a	1130	5.1	14.0	NOT REQUIRED					NOT REQUIRED				
	b	2200	5.8	13.7	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a	28 APR 1200	8.9	14.6	NOT REQUIRED					NOT REQUIRED				
	b	29 APR 0045	8.6	13.4	NOT REQUIRED					NOT REQUIRED				
12 MAY	a	1120	10.4	14.4	NOT REQUIRED					NOT REQUIRED				
	b	2400	9.2	14.5	NOT REQUIRED					NOT REQUIRED				
26 MAY	a	1000	10.9	14.4	19	14	68	46	71	0	2	18	20	95
	b	2400	11.1	14.4	NOT REQUIRED					NOT REQUIRED				
9 JUN	a	1130	11.7	12.4	NOT REQUIRED					NOT REQUIRED				
	b	2300	14.1	14.3	NOT REQUIRED					NOT REQUIRED				
23,28 JUN	a	23 JUN 1100	17.4	15.5	4	23	33	40	63	1	21	27	92	82
	b	28 JUN 2245	15.9	15.6	NOT REQUIRED					NOT REQUIRED				
20 JUL	a	1200	19.9	14.2	NOT REQUIRED					NOT REQUIRED				
	b	2305	20.3	15.1	NOT REQUIRED					NOT REQUIRED				
29 JUL	a	1200	19.8	14.0	2	0	3 <sup>h</sup>	9 <sup>h</sup>	83	1	2	1 <sup>h</sup>	2 <sup>h</sup>	0
	b	2320	19.6	12.2	NOT REQUIRED					NOT REQUIRED				
11 AUG	a	1140	19.2	15.6	NOT REQUIRED					NOT REQUIRED				
	b	2315	19.9	14.5	NOT REQUIRED					NOT REQUIRED				
25 AUG	a	1145	21.8	15.7	-	-	0	0	-	-	-	0	0	-
	b	2350	21.9	17.7	NOT REQUIRED					NOT REQUIRED				



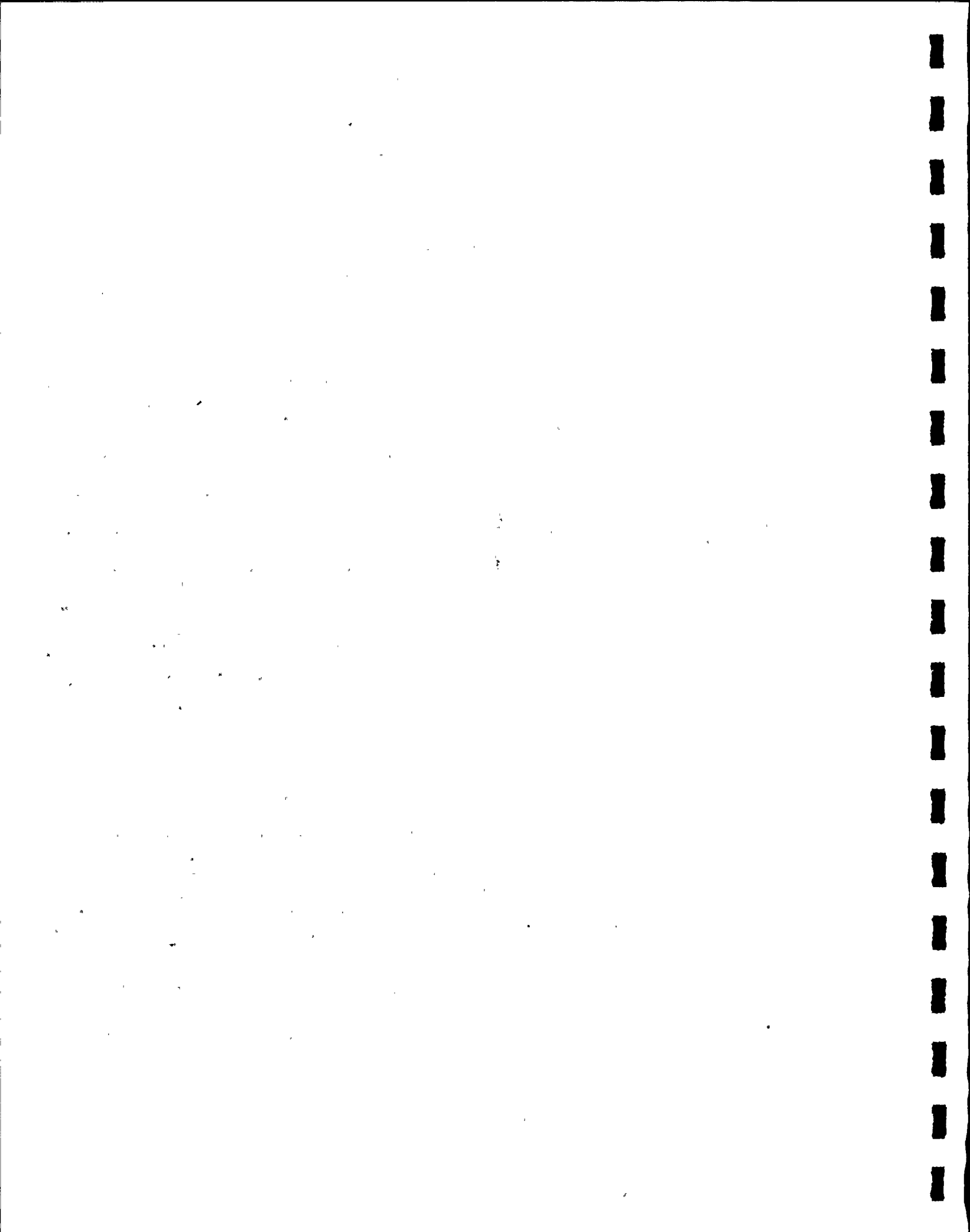
NUMBER OF POLYARTHRA DOLICHOPTERA (ROTIFERA)  
OBSERVED, IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T$ <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
8 SEP	a	1130	19.7	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a	22 SEP 1205	18.4	NO SAMPLE					NO SAMPLE				
	b	27 SEP 2318	16.2	NOT REQUIRED					NOT REQUIRED				
6 OCT	a	1027	15.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	NOT REQUIRED					NOT REQUIRED				
20 OCT	a	1110	12.1	-	-	0	0	-	-	-	0	0	-
	b	2358	12.0	NOT REQUIRED					NOT REQUIRED				
20 OCT <sup>i</sup>	a	1425	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2345	10.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a	1210	8.2	NO SAMPLE					NO SAMPLE				
	b	2254	7.8	NOT REQUIRED					NOT REQUIRED				
1 DEC	a	1230	3.2	NOT REQUIRED					NOT REQUIRED				
	b	2308	3.5	NOT REQUIRED					NOT REQUIRED				
19 DEC	a	1155	2.2	NO SAMPLE					NO SAMPLE				
	b	2321	2.5	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample  
<sup>c</sup> Intake temperature before tempering  
<sup>d</sup> Discharge - Intake Temperature  
<sup>e</sup> Number of live organisms observed  
<sup>f</sup> Total number of organisms observed  
<sup>g</sup> Total of dead observed in R-1 and  
R-2 divided by total organisms in R-1  
and R-2

<sup>h</sup> Collections at sites 2° and 3°F lower  
than the boil temperature (samples  
were not taken in boil)  
<sup>i</sup> Sample taken from lake in the vicinity  
of FitzPatrick Intake (see Sect. VIII.B.4)  
- = Not applicable  
NA = Not available

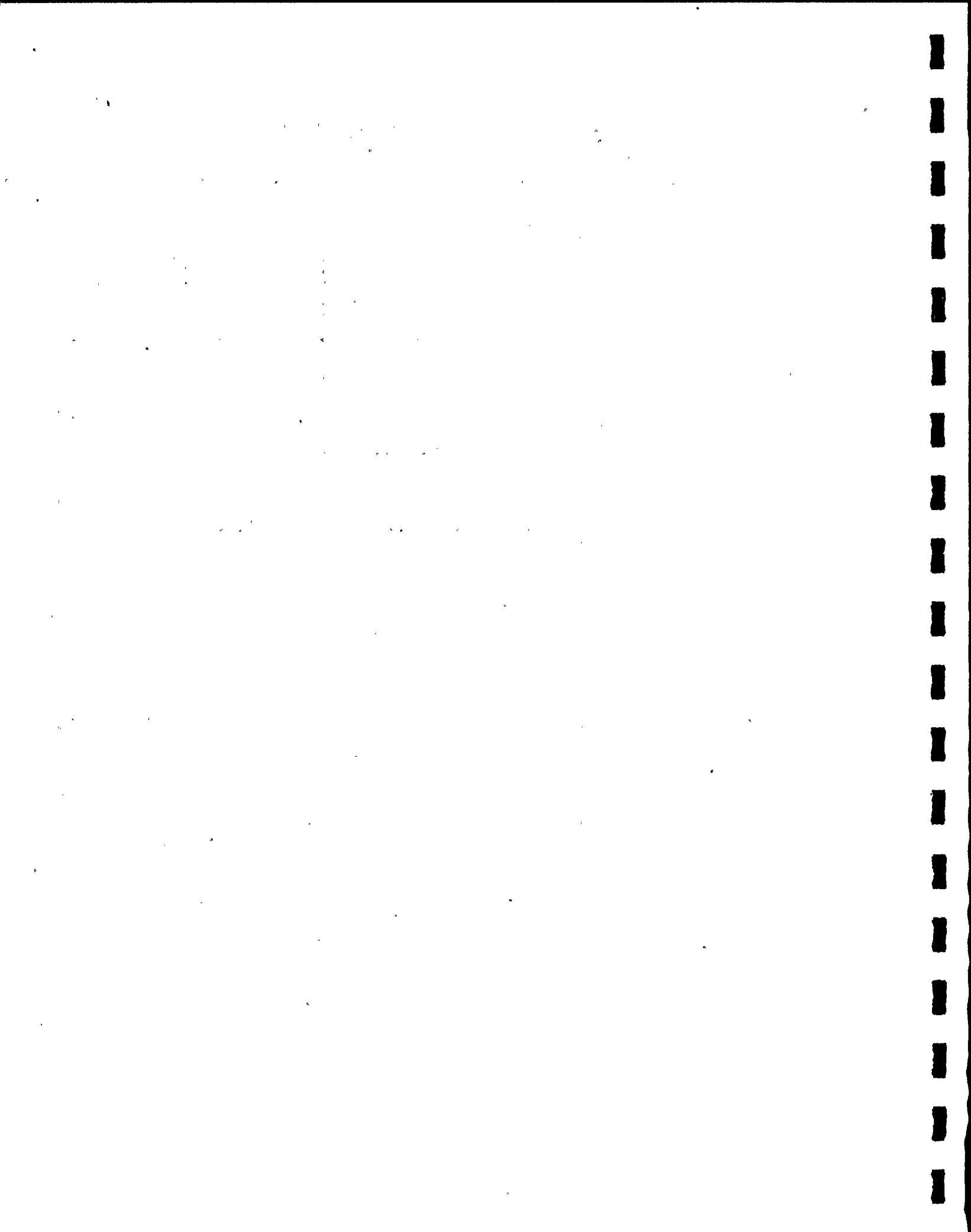


NUMBER OF POLYARTHRA MAJOR (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE *	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2	
26 MAY	a	1000	10.9	-	-	0	0	-	-	-	0	0	-
	b	2400	11.1	NOT REQUIRED					NOT REQUIRED				
9 JUN	a	1130	11.7	NOT REQUIRED					NOT REQUIRED				
	b	2300	14.1	NOT REQUIRED					NOT REQUIRED				
23, 28 JUN	a	23 JUN 1100	17.4	-	-	0	0	-	-	-	0	0	-
	b	28 JUN 2245	15.9	NOT REQUIRED					NOT REQUIRED				
20 JUL	a	1200	19.9	NOT REQUIRED					NOT REQUIRED				
	b	2305	20.3	NOT REQUIRED					NOT REQUIRED				
29 JUL	a	1200	19.8	0	0	2 <sup>h</sup>	1 <sup>h</sup>	100	-	-	0 <sup>h</sup>	0 <sup>h</sup>	-
	b	2320	19.6	NOT REQUIRED					NOT REQUIRED				
11 AUG	a	1140	19.2	NOT REQUIRED					NOT REQUIRED				
	b	2315	19.9	NOT REQUIRED					NOT REQUIRED				
25 AUG	a	1145	21.8	7	0	19	10	76	0	1	11	5	94
	b	2350	21.9	NOT REQUIRED					NOT REQUIRED				
8 SEP	a	1130	19.7	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	NOT REQUIRED					NOT REQUIRED				
22, 27 SEP	a	22 SEP 1205	18.4	NO SAMPLE					NO SAMPLE				
	b	27 SEP 2318	16.2	NOT REQUIRED					NOT REQUIRED				

\* This species was not collected on the following dates: 14 Apr, 28-29 Apr, 12 May





NUMBER OF POLYARTHRA MAJOR (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
6 OCT	a	1027	15.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	NOT REQUIRED					NOT REQUIRED				
20 OCT	a	1110	12.1	0	1	1	9	90	-	0	0	4	100
	b	2358	12.0	NOT REQUIRED					NOT REQUIRED				
20 OCT <sup>i</sup>	a	1425	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a	1210	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2345	10.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a	1210	8.2	NO SAMPLE					NO SAMPLE				
	b	2254	7.8	NOT REQUIRED					NOT REQUIRED				
1 DEC	a	1230	3.2	NOT REQUIRED					NOT REQUIRED				
	b	2308	3.5	NOT REQUIRED					NOT REQUIRED				
19 DEC	a	1155	2.2	NO SAMPLE					NO SAMPLE				
	b	2321	2.5	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample  
<sup>c</sup> Intake temperature before tempering  
<sup>d</sup> Discharge - Intake Temperature  
<sup>e</sup> Number of live organisms observed  
<sup>f</sup> Total number of organisms observed  
<sup>g</sup> Total of dead observed in R-1 and R-2 divided by total organisms in R-1 and R-2

<sup>h</sup> Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)  
<sup>i</sup> Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII.B.4)  
 - = Not applicable  
 NA = Not available



NUMBER OF SYNCHAETA LACKOWITZIANA (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE *	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP (°C) <sup>c</sup>	Δ T <sup>d</sup>	3° LAKE					2° LAKE					
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>	
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2		
14 APR	a	1130	5.1	14.0	NOT REQUIRED					NOT REQUIRED				
	b	2200	5.8	13.7	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a 28 APR	1200	8.9	14.6	NOT REQUIRED					NOT REQUIRED				
	b 29 APR	0045	8.6	13.4	NOT REQUIRED					NOT REQUIRED				
12 MAY	a	1120	10.4	14.4	NOT REQUIRED					NOT REQUIRED				
	b	2400	9.2	14.5	NOT REQUIRED					NOT REQUIRED				
26 MAY	a	1000	10.9	14.4	20	25	33	30	29	27	5	38	10	33
	b	2400	11.1	14.4	NOT REQUIRED					NOT REQUIRED				
9 JUN	a	1130	11.7	12.4	NOT REQUIRED					NOT REQUIRED				
	b	2300	14.1	14.3	NOT REQUIRED					NOT REQUIRED				
23,28 JUN	a 23 JUN	1100	17.4	15.5	-	-	0	0	-	-	-	0	0	-
	b 28 JUN	2245	15.9	15.6	NOT REQUIRED					NOT REQUIRED				
20 JUL	a	1200	19.9	14.2	NOT REQUIRED					NOT REQUIRED				
	b	2305	20.3	15.1	NOT REQUIRED					NOT REQUIRED				
29 JUL	a	1200	19.8	14.0	-	1	0 <sup>h</sup>	1 <sup>h</sup>	0	-	-	0 <sup>h</sup>	0 <sup>h</sup>	-
	b	2320	19.6	12.2	NOT REQUIRED					NOT REQUIRED				
11 AUG	a	1140	19.2	15.6	NOT REQUIRED					NOT REQUIRED				
	b	2315	19.9	14.5	NOT REQUIRED					NOT REQUIRED				
25 AUG	a	1145	21.8	15.7	-	-	0	0	-	-	1	0	1	0
	b	2350	21.9	17.7	NOT REQUIRED					NOT REQUIRED				

\* This species was not collected on the following dates: 8 Sep, 20 Oct, 3 Nov



NUMBER OF SYNCHAETA LACKOWITZIANA (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD <sup>g</sup>
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2	
22, 27 SEP	a 22 SEP 1205	18.4	14.8	NO SAMPLE					NO SAMPLE				
	b 27 SEP 2318	16.2	14.7	NOT REQUIRED					NOT REQUIRED				
6 OCT	a 1027	15.7	14.7	NOT REQUIRED					NOT REQUIRED				
	b 2142	16.0	14.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a 1210	8.2	13.6	NO SAMPLE					NO SAMPLE				
	b 2254	7.8	15.0	NOT REQUIRED					NOT REQUIRED				
1 DEC	a 1230	3.2	14.8	NOT REQUIRED					NOT REQUIRED				
	b 2308	3.5	14.9	NOT REQUIRED					NOT REQUIRED				
19 DEC	a 1155	2.2	12.8	NO SAMPLE					NO SAMPLE				
	b 2321	2.5	13.8	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample  
c Intake temperature before tempering  
d Discharge - Intake Temperature  
e Number of live organisms observed  
f Total number of organisms observed  
g Total of dead observed in R-1 and  
R-2 divided by total organisms in R-1  
and R-2

h Collections at sites 2° and 3°F lower  
than the boil temperature (samples  
were not taken in boil)



NUMBER OF SYNCHAETA PECTINATA (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE *	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	3° LAKE					2° LAKE					
				NUMBER <sup>e</sup> LIVE		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER <sup>e</sup> LIVE		TOTAL COLL'D <sup>f</sup>		% DEAD	
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	
14 APR	a	1130	5.1	14.0	NOT REQUIRED					NOT REQUIRED				
	b	2200	5.8	13.7	NOT REQUIRED					NOT REQUIRED				
28-29 APR	a 28 APR	1200	8.9	14.6	NOT REQUIRED					NOT REQUIRED				
	b 29 APR	0045	8.6	13.4	NOT REQUIRED					NOT REQUIRED				
12 MAY	a	1120	10.4	14.4	NOT REQUIRED					NOT REQUIRED				
	b	2400	9.2	14.5	NOT REQUIRED					NOT REQUIRED				
26 MAY	a	1000	10.9	14.4	67	46	83	56	19	38	23	54	41	36
	b	2400	11.1	14.4	NOT REQUIRED					NOT REQUIRED				
9 JUN	a	1130	11.7	12.4	NOT REQUIRED					NOT REQUIRED				
	b	2300	14.1	14.3	NOT REQUIRED					NOT REQUIRED				
20 JUL	a	1200	19.9	14.2	NOT REQUIRED					NOT REQUIRED				
	b	2305	20.3	15.1	NOT REQUIRED					NOT REQUIRED				
11 AUG	a	1140	19.2	15.6	NOT REQUIRED					NOT REQUIRED				
	b	2315	19.9	14.5	NOT REQUIRED					NOT REQUIRED				
22,27 SEP	a 22 SEP	1205	18.4	14.8	NO SAMPLE					NO SAMPLE				
	b 27 SEP	2318	16.2	14.7	NOT REQUIRED					NOT REQUIRED				
6 OCT	a	1027	15.7	14.7	NOT REQUIRED					NOT REQUIRED				
	b	2142	16.0	14.4	NOT REQUIRED					NOT REQUIRED				

\* This species was not collected on the following dates: 23,28 Jun, 29 Jul, 25 Aug, 8 Sep





NUMBER OF SYNCHAETA PECTINATA (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	3°LAKE					2°LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
20 OCT	<sup>a</sup> 1110	12.1	13.6	-	3	0	3	0	-	4	0	4	0
	<sup>b</sup> 2358	12.0	13.5	NOT REQUIRED					NOT REQUIRED				
20 OCT <sup>i</sup>	<sup>a</sup> 1425	NA	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	<sup>a</sup> 1210	10.4	15.5	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2345	10.4	15.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	<sup>a</sup> 1210	8.2	13.6	NO SAMPLE					NO SAMPLE				
	<sup>b</sup> 2254	7.8	15.0	NOT REQUIRED					NOT REQUIRED				
1 DEC	<sup>a</sup> 1230	3.2	14.8	NOT REQUIRED					NOT REQUIRED				
	<sup>b</sup> 2308	3.5	14.9	NOT REQUIRED					NOT REQUIRED				
19 DEC	<sup>a</sup> 1155	2.2	12.8	NO SAMPLE					NO SAMPLE				
	<sup>b</sup> 2321	2.5	13.8	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

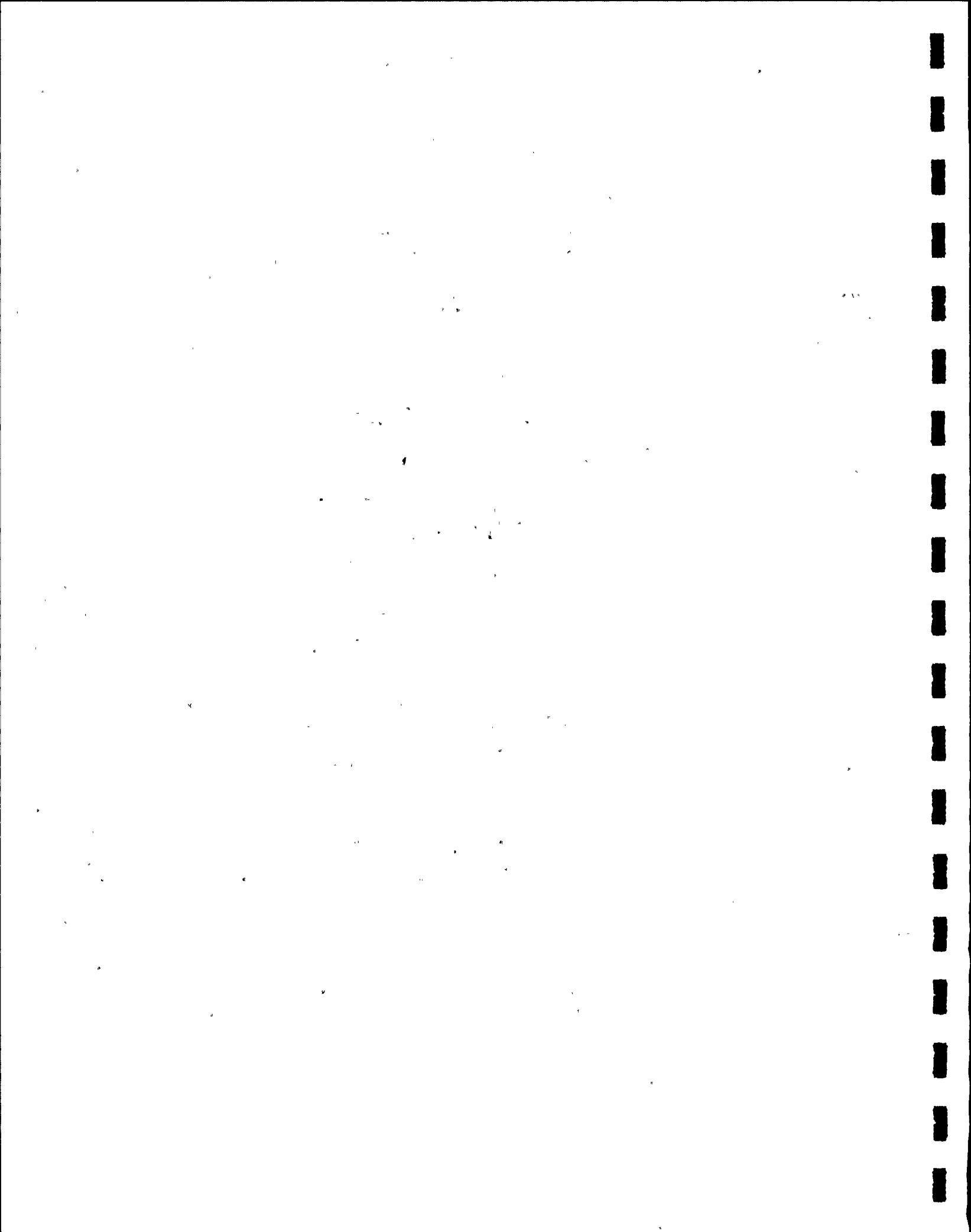
f Total number of organisms observed

g Total of dead observed in R-1 and R-2 divided by total organisms in R-1 and R-2

i Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII.B.4)

- = Not applicable

NA = Not available

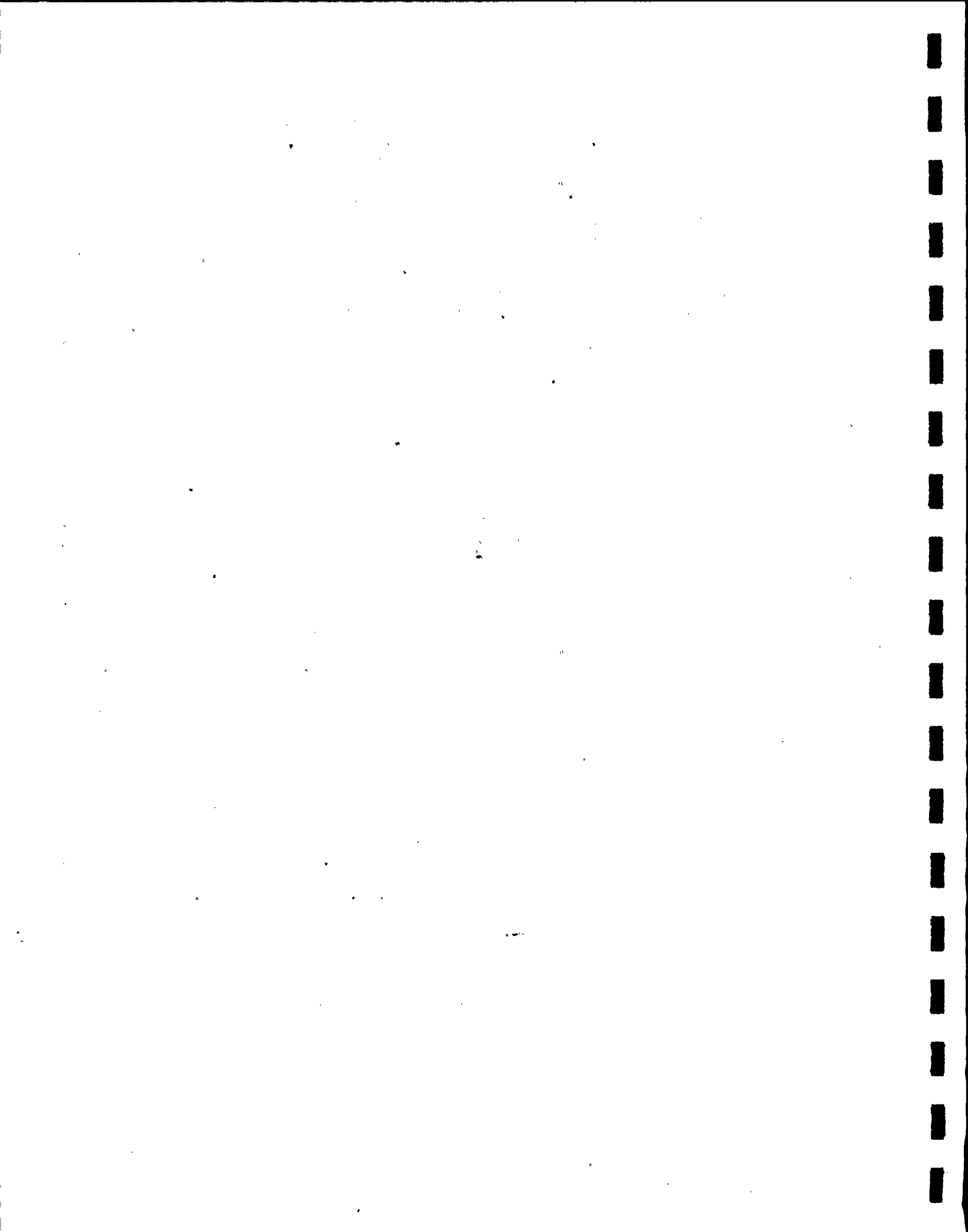


NUMBER OF TRICHOCERCA MULTICRINUS (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE *	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	$\Delta T^d$	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
12 MAY	a	1120	10.4	NOT REQUIRED					NOT REQUIRED				
	b	2400	9.2	NOT REQUIRED					NOT REQUIRED				
26 MAY	a	1000	10.9	-	-	0	0	-	-	-	0	0	-
	b	2400	11.1	NOT REQUIRED					NOT REQUIRED				
9 JUN	a	1130	11.7	NOT REQUIRED					NOT REQUIRED				
	b	2300	14.1	NOT REQUIRED					NOT REQUIRED				
23, 28 JUN	a 23 JUN	1100	17.4	-	1	0	1	0	-	-	0	0	-
	b 28 JUN	2245	15.9	NOT REQUIRED					NOT REQUIRED				
20 JUL	a	1200	19.9	NOT REQUIRED					NOT REQUIRED				
	b	2305	20.3	NOT REQUIRED					NOT REQUIRED				
29 JUL	a	1200	19.8	-	0	0 <sup>h</sup>	4 <sup>h</sup>	100	0	-	1 <sup>h</sup>	0 <sup>h</sup>	100
	b	2320	19.6	NOT REQUIRED					NOT REQUIRED				
11 AUG	a	1140	19.2	NOT REQUIRED					NOT REQUIRED				
	b	2315	19.9	NOT REQUIRED					NOT REQUIRED				
25 AUG	a	1145	21.8	2	-	3	0	33	2	3	2	3	0
	b	2350	21.9	NOT REQUIRED					NOT REQUIRED				
8 SEP	a	1130	19.7	NOT REQUIRED					NOT REQUIRED				
	b	2305	21.1	NOT REQUIRED					NOT REQUIRED				

\* This species was not collected on the following dates: 14 Apr, 28-29 Apr



NUMBER OF TRICHOCERCA MULTICRINUS (ROTIFERA)  
OBSERVED IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
22, 27 SEP	a 22 SEP 1205	18.4	14.8	NO SAMPLE					NO SAMPLE				
	b 27 SEP 2318	16.2	14.7	NOT REQUIRED					NOT REQUIRED				
6 OCT	a 1027	15.7	14.7	NOT REQUIRED					NOT REQUIRED				
	b 2142	16.0	14.4	NOT REQUIRED					NOT REQUIRED				
20 OCT	a 1110	12.1	13.6	1	2	1	3	25	0	1	4	3	86
	b 2358	12.0	13.5	NOT REQUIRED					NOT REQUIRED				
20 OCT <sup>i</sup>	a 1425	NA	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a 1210	10.4	15.5	NOT REQUIRED					NOT REQUIRED				
	b 2345	10.4	15.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a 1210	8.2	13.6	NO SAMPLE					NO SAMPLE				
	b 2254	7.8	15.0	NOT REQUIRED					NOT REQUIRED				
1 DEC	a 1230	3.2	14.8	NOT REQUIRED					NOT REQUIRED				
	b 2308	3.5	14.9	NOT REQUIRED					NOT REQUIRED				
19 DEC	a 1155	2.2	12.8	NO SAMPLE					NO SAMPLE				
	b 2321	2.5	13.8	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample  
<sup>c</sup> Intake temperature before tempering  
<sup>d</sup> Discharge - Intake Temperature  
<sup>e</sup> Number of live organisms observed  
<sup>f</sup> Total number of organisms observed  
<sup>g</sup> Total of dead observed in R-1 and R-2 divided by total organisms in R-1 and R-2

<sup>h</sup> Collections at sites 2° and 3°F lower than the boil temperature (samples were not taken in boil)  
<sup>i</sup> Sample taken from lake in the vicinity of FitzPatrick Intake (see Sect. VIII.B.4)  
 - = Not applicable  
 NA = Not available



NUMBER OF TROPOCYCLOPS PRASINUS MEXICANUS  
(COPEPODA : CYCLOPOIDA) OBSERVED IN LAKE VIABILITY STUDIES

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE*	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD MEAN <sup>g</sup>
				R-1	R-2	R-1	R-2		R-1	R-2	R-1	R-2	
14 APR	a 1130	5.1	14.0	NOT REQUIRED					NOT REQUIRED				
	b 2200	5.8	13.7	NOT REQUIRED					NOT REQUIRED				
12 MAY	a 1120	10.4	14.4	NOT REQUIRED					NOT REQUIRED				
	b 2400	9.2	14.5	NOT REQUIRED					NOT REQUIRED				
9 JUN	a 1130	11.7	12.4	NOT REQUIRED					NOT REQUIRED				
	b 2300	14.1	14.3	NOT REQUIRED					NOT REQUIRED				
23, 28 JUN	a 23 JUN 1100	17.4	15.5	1	1	1	1	0	-	1	0	1	0
	b 28 JUN 2245	15.9	15.6	NOT REQUIRED					NOT REQUIRED				
20 JUL	a 1200	19.9	14.2	NOT REQUIRED					NOT REQUIRED				
	b 2305	20.3	15.1	NOT REQUIRED					NOT REQUIRED				
29 JUL	a 1200	19.8	14.0	-	-	0 <sup>h</sup>	0 <sup>h</sup>	-	-	-	0 <sup>h</sup>	0 <sup>h</sup>	-
	b 2320	19.6	12.2	NOT REQUIRED					NOT REQUIRED				
11 AUG.	a 1140	19.2	15.6	NOT REQUIRED					NOT REQUIRED				
	b 2315	19.9	14.5	NOT REQUIRED					NOT REQUIRED				
25 AUG	a 1145	21.8	15.7	-	-	0	0	-	-	-	0	0	-
	b 2350	21.9	17.7	NOT REQUIRED					NOT REQUIRED				
8 SEP	a 1130	19.7	15.9	NOT REQUIRED					NOT REQUIRED				
	b 2305	21.1	16.0	NOT REQUIRED					NOT REQUIRED				

\* This species was not collected on the following dates: 28-29 Apr, 26 May





NUMBER OF TROPOCYCLOPS PRASINUS MEXICANUS (COPEPODA : CYCLOPOIDA)  
OBSERVED IN LAKE VIABILITY STUDIES (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT VICINITY - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	3° LAKE					2° LAKE				
				NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD	NUMBER LIVE <sup>e</sup>		TOTAL COLL'D <sup>f</sup>		% DEAD
				R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>
22, 27 SEP	a 22 SEP 1205	18.4	14.8	NO SAMPLE					NO SAMPLE				
	b 27 SEP 2318	16.2	14.7	NOT REQUIRED					NOT REQUIRED				
6 OCT	a 1027	15.7	14.7	NOT REQUIRED					NOT REQUIRED				
	b 2142	16.0	14.4	NOT REQUIRED					NOT REQUIRED				
20 OCT	a 1110	12.1	13.6	23	16	27	18	13	-	11	0	12	8
	b 2358	12.0	13.5	NOT REQUIRED					NOT REQUIRED				
20 <sup>i</sup> OCT	a 1425	NA	NA	NOT REQUIRED					NOT REQUIRED				
3 NOV	a 1210	10.4	15.5	NOT REQUIRED					NOT REQUIRED				
	b 2345	10.4	15.4	NOT REQUIRED					NOT REQUIRED				
17 NOV	a 1210	8.2	13.6	NO SAMPLE					NO SAMPLE				
	b 2254	7.8	15.0	NOT REQUIRED					NOT REQUIRED				
1 DEC	a 1230	3.2	14.8	NOT REQUIRED					NOT REQUIRED				
	b 2308	3.5	14.9	NOT REQUIRED					NOT REQUIRED				
19 DEC	a 1155	2.2	12.8	NO SAMPLE					NO SAMPLE				
	b 2321	2.5	13.8	NOT REQUIRED					NOT REQUIRED				

a/b Time in 2400 hrs of Intake Sample

c Intake temperature before tempering

d Discharge - Intake Temperature

e Number of live organisms observed

f Total number of organisms observed

g Total of dead observed in R-1 and  
R-2 divided by total organisms in R-1  
and R-2

h Collections at sites 2° and 3°F lower  
than the boil temperature (samples  
were not taken in boil)

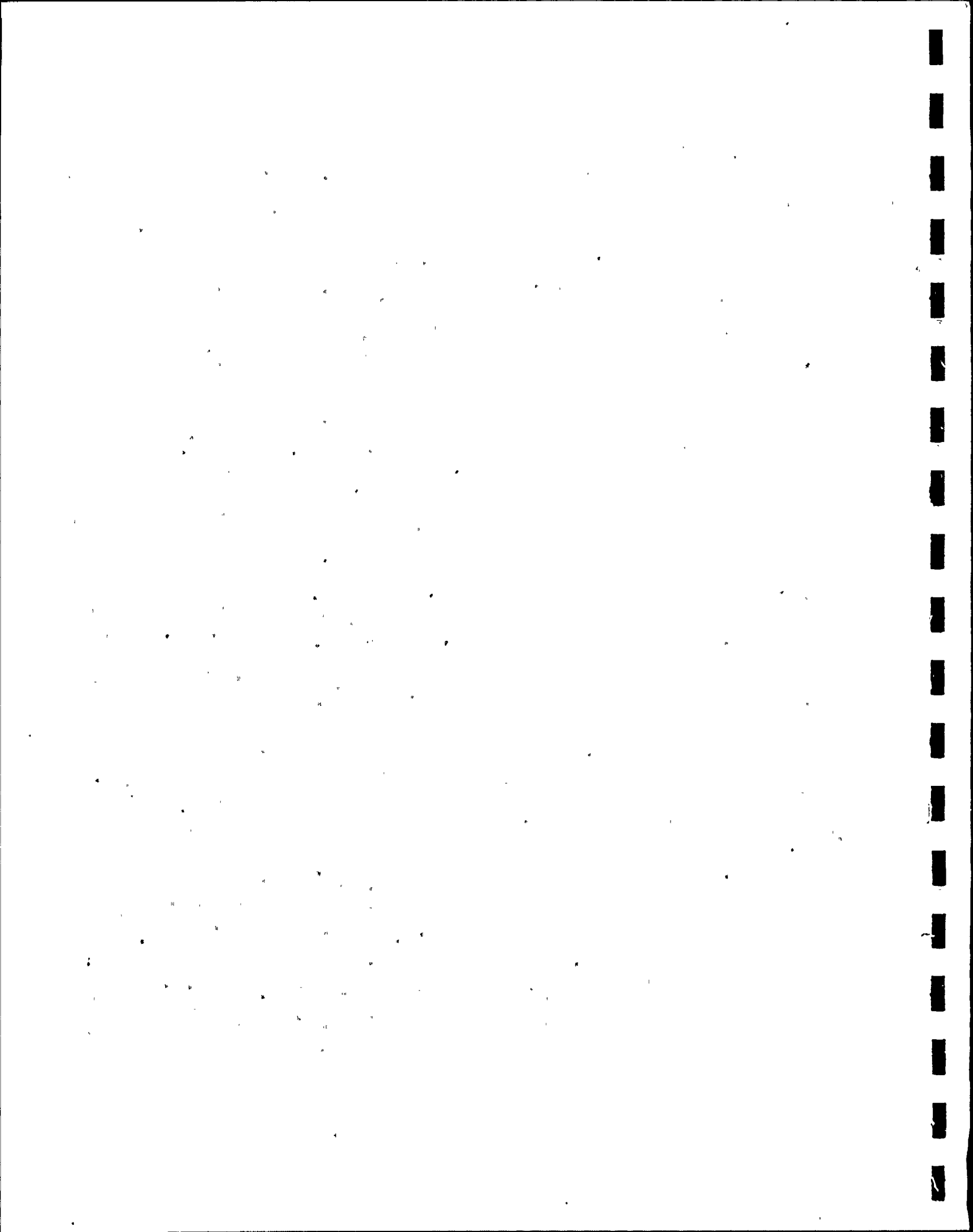
i Sample taken from lake in the vicinity  
of FitzPatrick Intake (see Sect. VIII.B.4)

- = Not applicable

NA = Not available

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

VIII.C.1. ABUNDANCE OF GAMMARUS FASCIATUS:  
INTAKE FOREBAY



ABUNDANCE\* OF GAMMARUS FASCIATUS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	SAMPLE DEPTH	1100 hr	1700 hr	2300 hr	0500 hr	MEAN
14 JAN	SURFACE	6309	9936	11750	11128	9780.8
	MID-DEPTH	5428	6985	18661	7207	9570.3
	MEAN	5868.5	8460.5	15205.5	9167.5	9675.5
18 FEB	SURFACE	333	374	736	518	490.3
	MID-DEPTH	290	760	926	394	592.5
	MEAN	311.5	567.0	831.0	456.0	541.4
17 MAR	SURFACE	144	183	396	165	222.0
	MID-DEPTH	316	81	598	234	307.3
	MEAN	230.0	132.0	497.0	199.5	264.6
14 APR	SURFACE	532	373	381	404	422.5
	MID-DEPTH	444	299	189	237	292.3
	MEAN	488.0	336.0	285.0	320.5	357.4
12 MAY	SURFACE	58	109	83	195	111.3
	MID-DEPTH	161	179	313	126	194.8
	MEAN	109.5	144.0	198.0	160.5	153.0
16 JUN	SURFACE	326	177	636	289	342.0
	MID-DEPTH	157	142	638	274	302.8
	MEAN	241.5	159.5	637.0	281.5	329.9
14 JUL	SURFACE	77	39	340	0	114.0
	MID-DEPTH	87	79	1118	230	378.5
	MEAN	82.0	59.0	729.0	115.0	246.2
18 AUG	SURFACE	104	166	925	344	384.8
	MID-DEPTH	163	143	930	243	369.8
	MEAN	133.5	154.5	927.5	293.5	377.2
8 SEP	SURFACE	90	170	243	9	128.0
	MID-DEPTH	114	138	288	127	166.8
	MEAN	102.0	154.0	265.5	68.0	147.4
6 OCT	SURFACE	291	NR	329	NR	310.0
	MID-DEPTH	199	NR	327	NR	263.0
	MEAN	245.0		328.0		286.5
3 NOV	SURFACE	345	NR	287	NR	316.0
	MID-DEPTH	269	NR	302	NR	285.5
	MEAN	307.0		294.5		300.8
15 DEC	SURFACE	253	NR	166	NR	209.5
	MID-DEPTH	515	NR	75	NR	295.0
	MEAN	384		120.5		252.2
ANNUAL MEAN	SURFACE	738.5	1280.8	1356.0	1450.2	
	MID-DEPTH	678.6	978.4	2030.4	1008.0	
	MEAN	708.6	1129.6	1693.2	1229.1	

\*Number/1000 cu m.



VIII.C.2. MORTALITY OF GAMMARUS FASCIATUS FROM DAY/NIGHT  
COLLECTIONS\*

\* Data are presented for only those sampling dates when Gammarus  
was collected



MORTALITY OF GAMMARUS FASCIATUS FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE <sup>k</sup>	DAY NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE			DISCHARGE			3° SIMULATION <sup>i</sup>			2° SIMULATION <sup>i</sup>		
				Σ DEAD			TOTAL COLL'D <sup>h</sup>			Σ DEAD <sup>j</sup>			Σ DEAD <sup>j</sup>		
				R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>
28 APR	1400 <sup>a</sup>	9.1	14.5	0	27	25	3	52	19	-	19	94	NS	NOT REQUIRED <sup>1</sup>	
	2300 <sup>b</sup>	8.2	13.9	0	3	2	3	38	38	-	38	134	NS	NO SAMPLE	
12 MAY	1038 <sup>a</sup>	10.2	14.0	100	0	22	2	7	9	16	12	34	25	34	12
	2325 <sup>b</sup>	9.2	14.4	11	5	7	9	21	20	35	27	20	17	-10	32
26 MAY	1100 <sup>a</sup>	9.6	15.8	-	13	12	0	8	14	33	20	14	6	NOT REQUIRED <sup>1</sup>	
	2300 <sup>b</sup>	9.8	15.6	0	0	0	2	19	33	22	27	.6	9	31	10
9 JUN	1100 <sup>a</sup>	11.4	13.1	0	9	8	1	11	23	50	32	13	6	NOT REQUIRED <sup>1</sup>	
	2300 <sup>b</sup>	12.8	15.0	-	12	12	0	25	36	20	30	22	15	NOT REQUIRED <sup>1</sup>	
23,28 JUN	1100 <sup>a</sup>	16.8	16.1	10	29	18	10	7	14	20	17	7	5	NOT REQUIRED <sup>1</sup>	
	2300 <sup>b</sup>	16.0	15.5	0	0	0	26	28	0	27	16	8	11	NOT REQUIRED <sup>1</sup>	
20 JUL	2245 <sup>b</sup>	20.7	15.0	-	5	5	0	39	100	-	100	3	0	-5	-5
29 JUL	2245 <sup>b</sup>	19.7	11.9	0	0	0	26	108	46	80	57	56	25	6	0
11 AUG	2245 <sup>b</sup>	20.3	15.0	0	1	.5	42	159	70	17	61	27	6	-5	-5
25 AUG	2245 <sup>b</sup>	21.5	16.2	1	0	.4	113	120	19	83	44	47	30	-4	-4
8 SEP	2247 <sup>b</sup>	21.7	14.9	-	0	0	0	12	67	67	67	9	3	0	0
27 SEP	2250 <sup>b</sup>	16.2	14.8	0	0	0	23	16	40	27	33	10	11	0	0
20 OCT	2230 <sup>b</sup>	12.3	13.2	63	0	43	32	14	60	18	31	5	11	45	-55
17 NOV	2218 <sup>b</sup>	8.6	12.8	0	0	0	13	10	-	-	-	0	0	0	0
19 DEC	2255 <sup>b</sup>	2.4	13.8	0	0	0	18	18	0	25	9	7	4	0	0

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean Σ dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

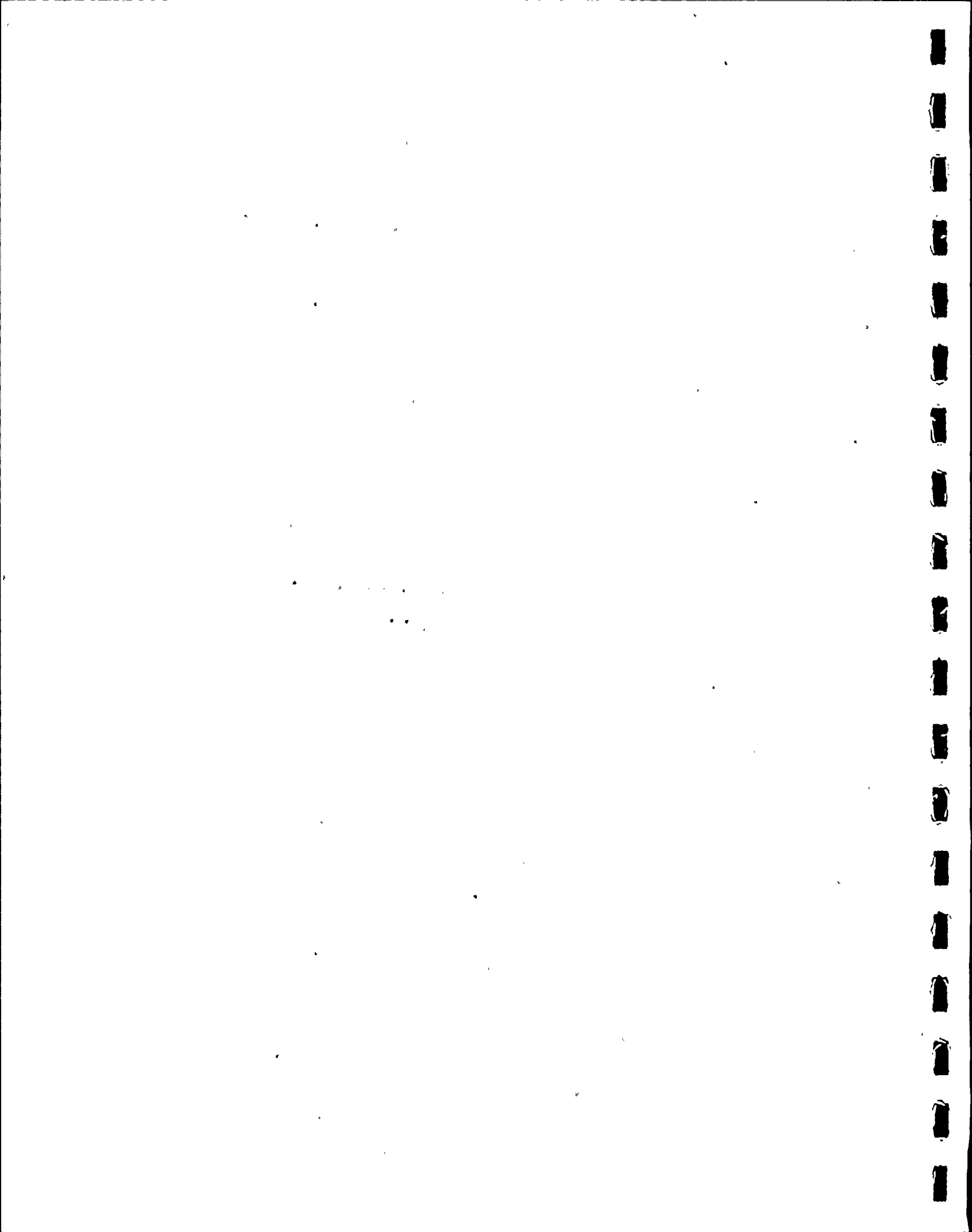
<sup>j</sup> Estimated mortality of initial collection prior to simulation removed in calculation of mortality due to simulation

<sup>k</sup> As of 20 July, only night collections required in the sampling program

<sup>1</sup> Lake collections required in the original workscope

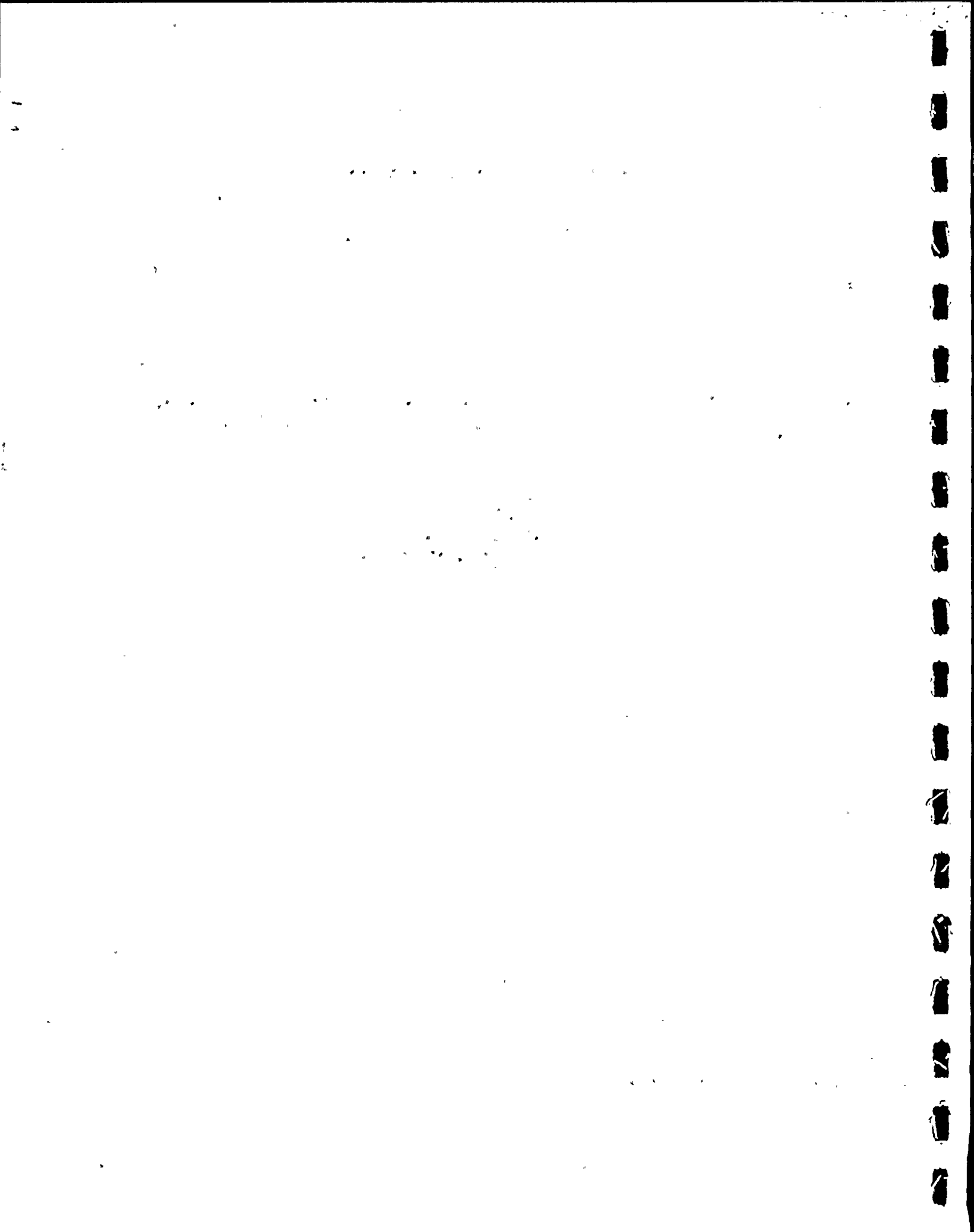
- = Not applicable, no organisms collected





JAMES A. FITZPATRICK NUCLEAR POWER PLANT

VIII.D.1.a. LARVAE .



JAMES A. FITZPATRICK NUCLEAR POWER PLANT

Larvae of the following select species were not collected in the 30-minute entrainment sampling program\* (Jan-Dec, 1976, surface and mid-depth sites; 2-4 collections/date):

Brown trout  
Coho salmon  
Smallmouth bass  
Threespine stickleback

\* Collection time  $\pm$  2 hrs.



ABUNDANCE<sup>a</sup> OF ALEWIFE LARVAE

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
12 MAY	SURFACE	0	0	149	22	42.8
	MID-DEPTH	4	0	4	0	2.0
	MEAN	2.0	0	76.5	11.0	22.4
19 MAY	SURFACE	0	48	0	4	13.0
	MID-DEPTH	0	0	5	0	1.3
	MEAN	0	24.0	2.5	2.0	7.2
26 MAY	SURFACE	0	16	0	0	4.0
	MID-DEPTH	8	9	8	18	10.8
	MEAN	4.0	12.5	4.0	9.0	7.4
23 JUN	SURFACE	0	0	0	0	0
	MID-DEPTH	13	0	10	26	12.3
	MEAN	6.5	0	5.0	13.0	6.2
30 JUN	SURFACE	194	0	295	0	122.3
	MID-DEPTH	0	8	56	16	20.0
	MEAN	97.0	4.0	175.5	8.0	71.1
7 JUL	SURFACE	0	0	10	12	5.5
	MID-DEPTH	0	4	0	93	24.3
	MEAN	0	2.0	5.0	52.5	14.9
14 JUL	SURFACE	77	20	136	80	78.3
	MID-DEPTH	91	339	137	215	195.5
	MEAN	84.0	179.5	136.5	147.5	136.9
21 JUL	SURFACE	30	15	23	11	19.8
	MID-DEPTH	36	0	20	21	19.3
	MEAN	33.0	7.5	21.5	16.0	19.5
28 JUL	SURFACE	191	0	537	241	242.3
	MID-DEPTH	253	34	687	453	356.8
	MEAN	222.0	17.0	612.0	347.0	299.5
4 AUG	SURFACE	1245	2374	5138	837	2398.5
	MID-DEPTH	1287	2909	5084	1316	2649.0
	MEAN	1266.0	2641.5	5111.0	1076.5	2523.8

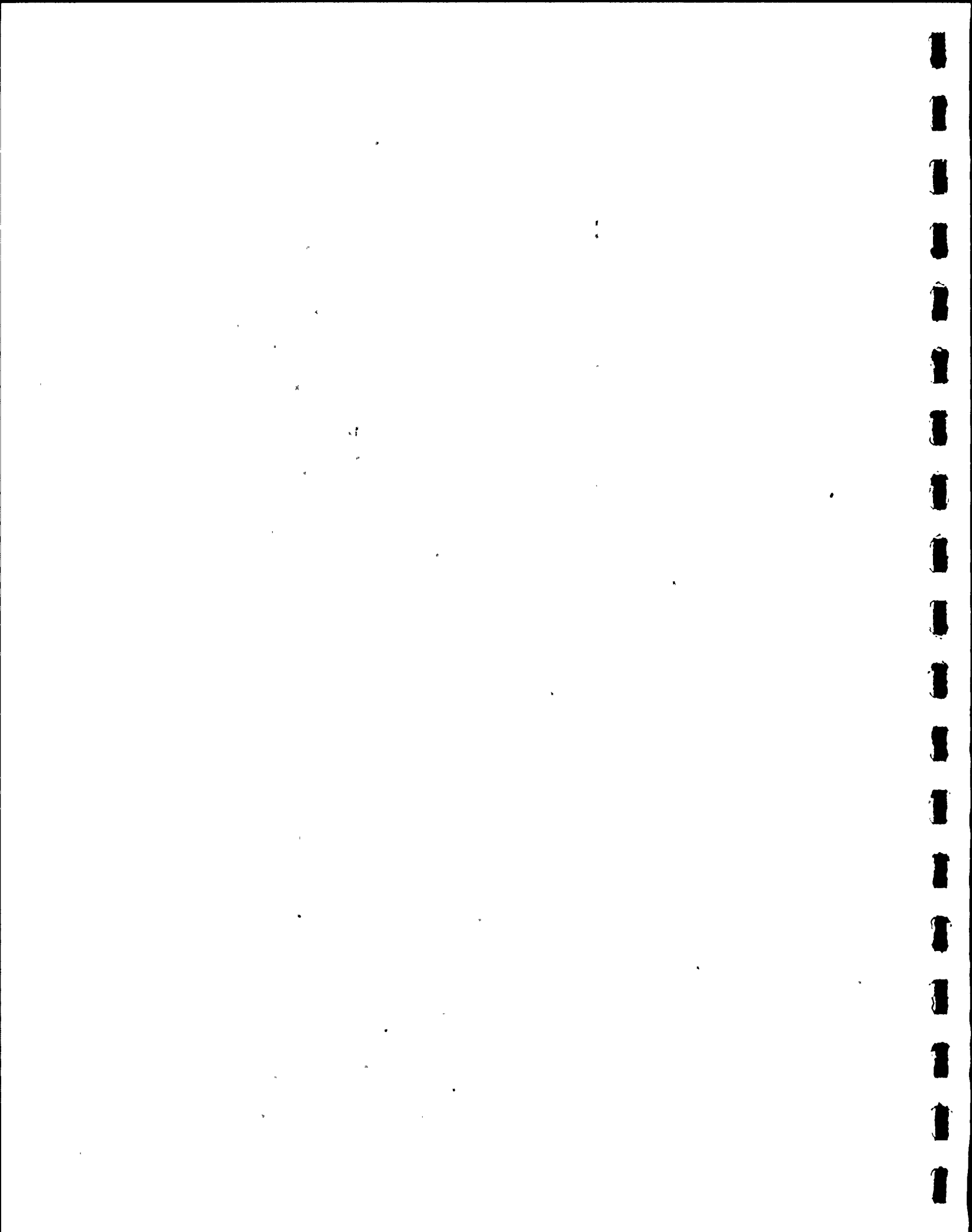
DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
11 AUG	SURFACE	339	29	583	428	344.8
	MID-DEPTH	734	194	1258	647	708.3
	MEAN	536.5	111.5	920.5	537.5	526.5
18 AUG	SURFACE	156	1564	405	383	627.0
	MID-DEPTH	115	1224	609	442	597.5
	MEAN	135.5	1394.0	507.0	412.5	612.2
25 AUG	SURFACE	36	30	525	829	355.0
	MID-DEPTH	35	42	718	1288	520.8
	MEAN	35.5	36.0	621.5	1058.5	437.9
1 SEP	SURFACE	3	4	26	40	18.3
	MID-DEPTH	9	0	95	77	45.3
	MEAN	6.0	2.0	60.5	58.5	31.8
8 SEP	SURFACE	0	0	0	9	2.3
	MID-DEPTH	0	0	5	5	2.5
	MEAN	0	0	2.5	7.0	2.4
22 SEP	SURFACE	0	-	12	-	6.0
	MID-DEPTH	0	-	24	-	12.0
	MEAN	0	-	18.0	-	9.0
6 OCT	SURFACE	0	-	0	-	0
	MID-DEPTH	5	-	5	-	5
	MEAN	2.5	-	2.5	-	2.5
20 OCT	SURFACE	0	-	0	-	0
	MID-DEPTH	0	-	6	-	3.0
	MEAN	0	-	3.0	-	1.5
3 NOV	SURFACE	0	-	0	-	0
	MID-DEPTH	0	-	5	-	2.5
	MEAN	0	-	2.5	-	1.2
17 NOV	SURFACE	0	-	11	-	5.5
	MID-DEPTH	0	-	54	-	27.0
	MEAN	0	-	32.5	-	16.2
ANNUAL MEAN	SURFACE	66.8	151.9	230.9	107.3	
	MID-DEPTH	76.2	176.4	258.5	171.0	
	MEAN	71.5	164.2	244.7	139.2	

None collected, 7 Jan - 5 May, 2-16 Jun, and 1-15 Dec

<sup>a</sup>Number/1000 m

<sup>b</sup>Not required in sampling program as of 22 Sep

- = Not applicable



ABUNDANCE<sup>a</sup> OF RAINBOW SMELT LARVAE

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
14 APR	SURFACE	0	0	12	0	3.0
	MID-DEPTH	0	0	0	0	0
	MEAN	0	0	6.0	0	1.5
12 MAY	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	8	0	2.0
	MEAN	0	0	4.0	0	1.0
19 MAY	SURFACE	0	48	0	0	12.0
	MID-DEPTH	0	0	0	0	0
	MEAN	0	24	0	0	6.0
26 MAY	SURFACE	0	16	0	0	4.0
	MID-DEPTH	4	0	8	0	3.0
	MEAN	2.0	8.0	4.0	0	3.5
2 JUN	SURFACE	0	0	10	32	10.5
	MID-DEPTH	0	4	4	0	2.0
	MEAN	0	2.0	7.0	16.0	6.2
9 JUN	SURFACE	0	0	0	106	26.5
	MID-DEPTH	24	21	8	12	16.3
	MEAN	12.0	10.5	4.0	59.0	21.4
16 JUN	SURFACE	0	0	27	0	6.8
	MID-DEPTH	0	0	0	10	2.5
	MEAN	0	0	13.5	5	4.6
7 JUL	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	9	0	2.3
	MEAN	0	0	4.5	0	1.1

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
14 JUL	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	31	26	14.3
	MEAN	0	0	15.5	13.0	7.1
21 JUL	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	10	5	3.8
	MEAN	0	0	5.0	2.5	1.9
11 AUG	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	4	4	2.0
	MEAN	0	0	2	2	1.0
18 AUG	SURFACE	0	0	5	0	1.3
	MID-DEPTH	0	0	0	4	1.0
	MEAN	0	0	2.5	2	1.1
1 SEP	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	9	0	2.3
	MEAN	0	0	4.5	0	1.1
22 SEP	SURFACE	0	-	0	-	0
	MID-DEPTH	0	-	5	-	2.5
	MEAN	0	-	2.5	-	1.2
1 DEC	SURFACE	8	-	42	-	25.0
	MID-DEPTH	28	-	61	-	44.5
	MEAN	18.0	-	51.5	-	34.8
15 DEC	SURFACE	9	-	0	-	4.5
	MID-DEPTH	0	-	6	-	3.0
	MEAN	4.5	-	3.0	-	3.8
ANNUAL MEAN	SURFACE	0.5	2.4	2.8	5.1	
	MID-DEPTH	1.6	0.9	4.8	2.3	
	MEAN	1.0	1.6	3.8	3.7	

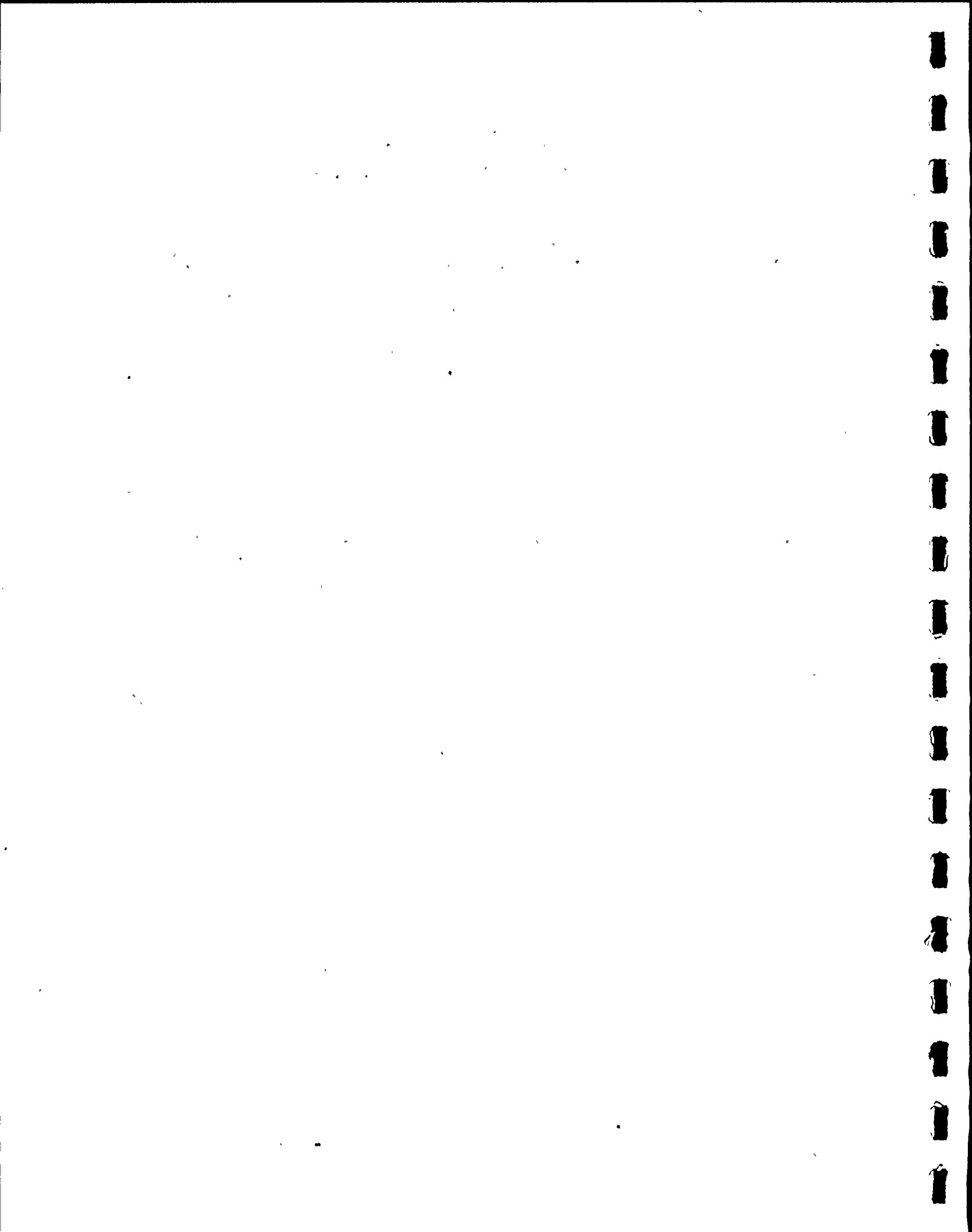
None collected 7 Jan - 17 Mar, 28 Apr - 5 May, 23 - 30 Jun,  
28 Jul - 4 Aug, 25 Aug, 8 Sep, and 6 Oct - 17 Nov

<sup>a</sup>Number/1000 m

<sup>b</sup>Not required in sampling program as of 22 Sep

- = Not applicable





ABUNDANCE<sup>a</sup> OF YELLOW PERCH LARVAE

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
28 APR	SURFACE	0	0	0	31	7.8
	MID-DEPTH	0	0	0	0	0
	MEAN	0	0	0	15.5	3.9
12 MAY	SURFACE	0	0	0	0	0
	MID-DEPTH	4	0	0	0	1.0
	MEAN	2.0	0	0	0	0.5
19 MAY	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	0	4	1.0
	MEAN	0	0	0	2.0	0.5
ANNUAL MEAN	SURFACE	0.0	0.0	0.0	1.1	
	MID-DEPTH	0.1	0.0	0.0	0.1	
	MEAN	0.1	0.0	0.0	0.6	

None collected, 7 Jan - 14 Apr, 5 May, 26 May - 15 Dec

<sup>a</sup>Number/1000 m<sup>3</sup>

<sup>b</sup>Not required in sampling program as of 22 Sep



ABUNDANCE<sup>a</sup> OF ALEWIFE LARVAE

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
12 MAY	SURFACE	0	0	149	22	42.8
	MID-DEPTH	4	0	4	0	2.0
	MEAN	2.0	0	76.5	11.0	22.4
19 MAY	SURFACE	0	48	0	4	13.0
	MID-DEPTH	0	0	5	0	1.3
	MEAN	0	24.0	2.5	2.0	7.2
26 MAY	SURFACE	0	16	0	0	4.0
	MID-DEPTH	8	9	8	18	10.8
	MEAN	4.0	12.5	4.0	9.0	7.4
23 JUN	SURFACE	0	0	0	0	0
	MID-DEPTH	13	0	10	26	12.3
	MEAN	6.5	0	5.0	13.0	6.2
30 JUN	SURFACE	194	0	295	0	122.3
	MID-DEPTH	0	8	56	16	20.0
	MEAN	97.0	4.0	175.5	8.0	71.1
7 JUL	SURFACE	0	0	10	12	5.5
	MID-DEPTH	0	4	0	93	24.3
	MEAN	0	2.0	5.0	52.5	14.9
14 JUL	SURFACE	77	20	136	80	78.3
	MID-DEPTH	91	339	137	215	195.5
	MEAN	84.0	179.5	136.5	147.5	136.9
21 JUL	SURFACE	30	15	23	11	19.8
	MID-DEPTH	36	0	20	21	19.3
	MEAN	33.0	7.5	21.5	16.0	19.5
28 JUL	SURFACE	191	0	537	241	242.3
	MID-DEPTH	253	34	687	453	356.8
	MEAN	222.0	17.0	612.0	347.0	299.5
4 AUG	SURFACE	1245	2374	5138	837	2398.5
	MID-DEPTH	1287	2909	5084	1316	2649.0
	MEAN	1266.0	2641.5	5111.0	1076.5	2523.8

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
11 AUG	SURFACE	339	29	583	428	344.8
	MID-DEPTH	734	194	1258	647	708.3
	MEAN	536.5	111.5	920.5	537.5	526.5
18 AUG	SURFACE	156	1564	405	383	627.0
	MID-DEPTH	115	1224	609	442	597.5
	MEAN	135.5	1394.0	507.0	412.5	612.2
25 AUG	SURFACE	36	30	525	829	355.0
	MID-DEPTH	35	42	718	1288	520.8
	MEAN	35.5	36.0	621.5	1058.5	437.9
1 SEP	SURFACE	3	4	26	40	18.3
	MID-DEPTH	9	0	95	77	45.3
	MEAN	6.0	2.0	60.5	58.5	31.8
8 SEP	SURFACE	0	0	0	9	2.3
	MID-DEPTH	0	0	5	5	2.5
	MEAN	0	0	2.5	7.0	2.4
22 SEP	SURFACE	0	-	12	-	6.0
	MID-DEPTH	0	-	24	-	12.0
	MEAN	0	-	18.0	-	9.0
6 OCT	SURFACE	0	-	0	-	0
	MID-DEPTH	5	-	5	-	5
	MEAN	2.5	-	2.5	-	2.5
20 OCT	SURFACE	0	-	0	-	0
	MID-DEPTH	0	-	6	-	3.0
	MEAN	0	-	3.0	-	1.5
3 NOV	SURFACE	0	-	0	-	0
	MID-DEPTH	0	-	5	-	2.5
	MEAN	0	-	2.5	-	1.2
17 NOV	SURFACE	0	-	11	-	5.5
	MID-DEPTH	0	-	54	-	27.0
	MEAN	0	-	32.5	-	16.2
ANNUAL MEAN	SURFACE	66.8	151.9	230.9	107.3	
	MID-DEPTH	76.2	176.4	258.5	171.0	
	MEAN	71.5	164.2	244.7	139.2	

None collected, 7 Jan - 5 May, 2-16 Jun, and 1-15 Dec

<sup>a</sup> Number/1000 m<sup>3</sup>

<sup>b</sup> Not required in sampling program as of 22 Sep

- = Not applicable



# ABUNDANCE<sup>a</sup> OF RAINBOW SMELT LARVAE

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
14 APR	SURFACE	0	0	12	0	3.0
	MID-DEPTH	0	0	0	0	0
	MEAN	0	0	6.0	0	1.5
12 MAY	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	8	0	2.0
	MEAN	0	0	4.0	0	1.0
19 MAY	SURFACE	0	48	0	0	12.0
	MID-DEPTH	0	0	0	0	0
	MEAN	0	24	0	0	6.0
26 MAY	SURFACE	0	16	0	0	4.0
	MID-DEPTH	4	0	8	0	3.0
	MEAN	2.0	8.0	4.0	0	3.5
2 JUN	SURFACE	0	0	10	32	10.5
	MID-DEPTH	0	4	4	0	2.0
	MEAN	0	2.0	7.0	16.0	6.2
9 JUN	SURFACE	0	0	0	106	26.5
	MID-DEPTH	24	21	8	12	16.3
	MEAN	12.0	10.5	4.0	59.0	21.4
16 JUN	SURFACE	0	0	27	0	6.8
	MID-DEPTH	0	0	0	10	2.5
	MEAN	0	0	13.5	5	4.6
7 JUL	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	9	0	2.3
	MEAN	0	0	4.5	0	1.1

None collected 7 Jan - 17 Mar, 28 Apr - 5 May, 23 - 30 Jun,  
28 Jul - 4 Aug, 25 Aug, 8 Sep, and 6 Oct - 17 Nov

<sup>a</sup> Number/1000 m<sup>3</sup>

<sup>b</sup> Not required in sampling program as of 22 Sep

- = Not applicable

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
14 JUL	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	31	26	14.3
	MEAN	0	0	15.5	13.0	7.1
21 JUL	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	10	5	3.8
	MEAN	0	0	5.0	2.5	1.9
11 AUG	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	4	4	2.0
	MEAN	0	0	2	2	1.0
18 AUG	SURFACE	0	0	5	0	1.3
	MID-DEPTH	0	0	0	4	1.0
	MEAN	0	0	2.5	2	1.1
1 SEP	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	9	0	2.3
	MEAN	0	0	4.5	0	1.1
22 SEP	SURFACE	0	-	0	-	0
	MID-DEPTH	0	-	5	-	2.5
	MEAN	0	-	2.5	-	1.2
1 DEC	SURFACE	8	-	42	-	25.0
	MID-DEPTH	28	-	61	-	44.5
	MEAN	18.0	-	51.5	-	34.8
15 DEC	SURFACE	9	-	0	-	4.5
	MID-DEPTH	0	-	6	-	3.0
	MEAN	4.5	-	3.0	-	3.8
ANNUAL MEAN	SURFACE	0.5	2.4	2.8	5.1	
	MID-DEPTH	1.6	0.9	4.8	2.3	
	MEAN	1.0	1.6	3.8	3.7	



ABUNDANCE<sup>a</sup> OF ALEWIFE LARVAE

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
12 MAY	SURFACE	0	0	149	22	42.8
	MID-DEPTH	4	0	4	0	2.0
	MEAN	2.0	0	76.5	11.0	22.4
19 MAY	SURFACE	0	48	0	4	13.0
	MID-DEPTH	0	0	5	0	1.3
	MEAN	0	24.0	2.5	2.0	7.2
26 MAY	SURFACE	0	16	0	0	4.0
	MID-DEPTH	8	9	8	18	10.8
	MEAN	4.0	12.5	4.0	9.0	7.4
23 JUN	SURFACE	0	0	0	0	0
	MID-DEPTH	13	0	10	26	12.3
	MEAN	6.5	0	5.0	13.0	6.2
30 JUN	SURFACE	194	0	295	0	122.3
	MID-DEPTH	0	8	56	16	20.0
	MEAN	97.0	4.0	175.5	8.0	71.1
7 JUL	SURFACE	0	0	10	12	5.5
	MID-DEPTH	0	4	0	93	24.3
	MEAN	0	2.0	5.0	52.5	14.9
14 JUL	SURFACE	77	20	136	80	78.3
	MID-DEPTH	91	339	137	215	195.5
	MEAN	84.0	179.5	136.5	147.5	136.9
21 JUL	SURFACE	30	15	23	11	19.8
	MID-DEPTH	36	0	20	21	19.3
	MEAN	33.0	7.5	21.5	16.0	19.5
28 JUL	SURFACE	191	0	537	241	242.3
	MID-DEPTH	253	34	687	453	356.8
	MEAN	222.0	17.0	612.0	347.0	299.5
4 AUG	SURFACE	1245	2374	5138	837	2398.5
	MID-DEPTH	1287	2909	5084	1316	2649.0
	MEAN	1266.0	2641.5	5111.0	1076.5	2523.8

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
11 AUG	SURFACE	339	29	583	428	344.8
	MID-DEPTH	734	194	1258	647	708.3
	MEAN	536.5	111.5	920.5	537.5	526.5
18 AUG	SURFACE	156	1564	405	383	627.0
	MID-DEPTH	115	1224	609	442	597.5
	MEAN	135.5	1394.0	507.0	412.5	612.2
25 AUG	SURFACE	36	30	525	829	355.0
	MID-DEPTH	35	42	718	1288	520.8
	MEAN	35.5	36.0	621.5	1058.5	437.9
1 SEP	SURFACE	3	4	26	40	18.3
	MID-DEPTH	9	0	95	77	45.3
	MEAN	6.0	2.0	60.5	58.5	31.8
8 SEP	SURFACE	0	0	0	9	2.3
	MID-DEPTH	0	0	5	5	2.5
	MEAN	0	0	2.5	7.0	2.4
22 SEP	SURFACE	0	-	12	-	6.0
	MID-DEPTH	0	-	24	-	12.0
	MEAN	0	-	18.0	-	9.0
6 OCT	SURFACE	0	-	0	-	0
	MID-DEPTH	5	-	5	-	5
	MEAN	2.5	-	2.5	-	2.5
20 OCT	SURFACE	0	-	0	-	0
	MID-DEPTH	0	-	6	-	3.0
	MEAN	0	-	3.0	-	1.5
3 NOV	SURFACE	0	-	0	-	0
	MID-DEPTH	0	-	5	-	2.5
	MEAN	0	-	2.5	-	1.2
17 NOV	SURFACE	0	-	11	-	5.5
	MID-DEPTH	0	-	54	-	27.0
	MEAN	0	-	32.5	-	16.2
ANNUAL MEAN	SURFACE	66.8	151.9	230.9	107.3	
	MID-DEPTH	76.2	176.4	258.5	171.0	
	MEAN	71.5	164.2	244.7	139.2	

None collected, 7 Jan - 5 May, 2-16 Jun, and 1-15 Dec

<sup>a</sup>Number/1000 m<sup>3</sup>

<sup>b</sup>Not required in sampling program as of 22 Sep

- = Not applicable





ABUNDANCE<sup>a</sup> OF RAINBOW SMELT LARVAE

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
14 APR	SURFACE	0	0	12	0	3.0
	MID-DEPTH	0	0	0	0	0
	MEAN	0	0	6.0	0	1.5
12 MAY	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	8	0	2.0
	MEAN	0	0	4.0	0	1.0
19 MAY	SURFACE	0	48	0	0	12.0
	MID-DEPTH	0	0	0	0	0
	MEAN	0	24	0	0	6.0
26 MAY	SURFACE	0	16	0	0	4.0
	MID-DEPTH	4	0	8	0	3.0
	MEAN	2.0	8.0	4.0	0	3.5
2 JUN	SURFACE	0	0	10	32	10.5
	MID-DEPTH	0	4	4	0	2.0
	MEAN	0	2.0	7.0	16.0	6.2
9 JUN	SURFACE	0	0	0	106	26.5
	MID-DEPTH	24	21	8	12	16.3
	MEAN	12.0	10.5	4.0	59.0	21.4
16 JUN	SURFACE	0	0	27	0	6.8
	MID-DEPTH	0	0	0	10	2.5
	MEAN	0	0	13.5	5	4.6
7 JUL	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	9	0	2.3
	MEAN	0	0	4.5	0	1.1

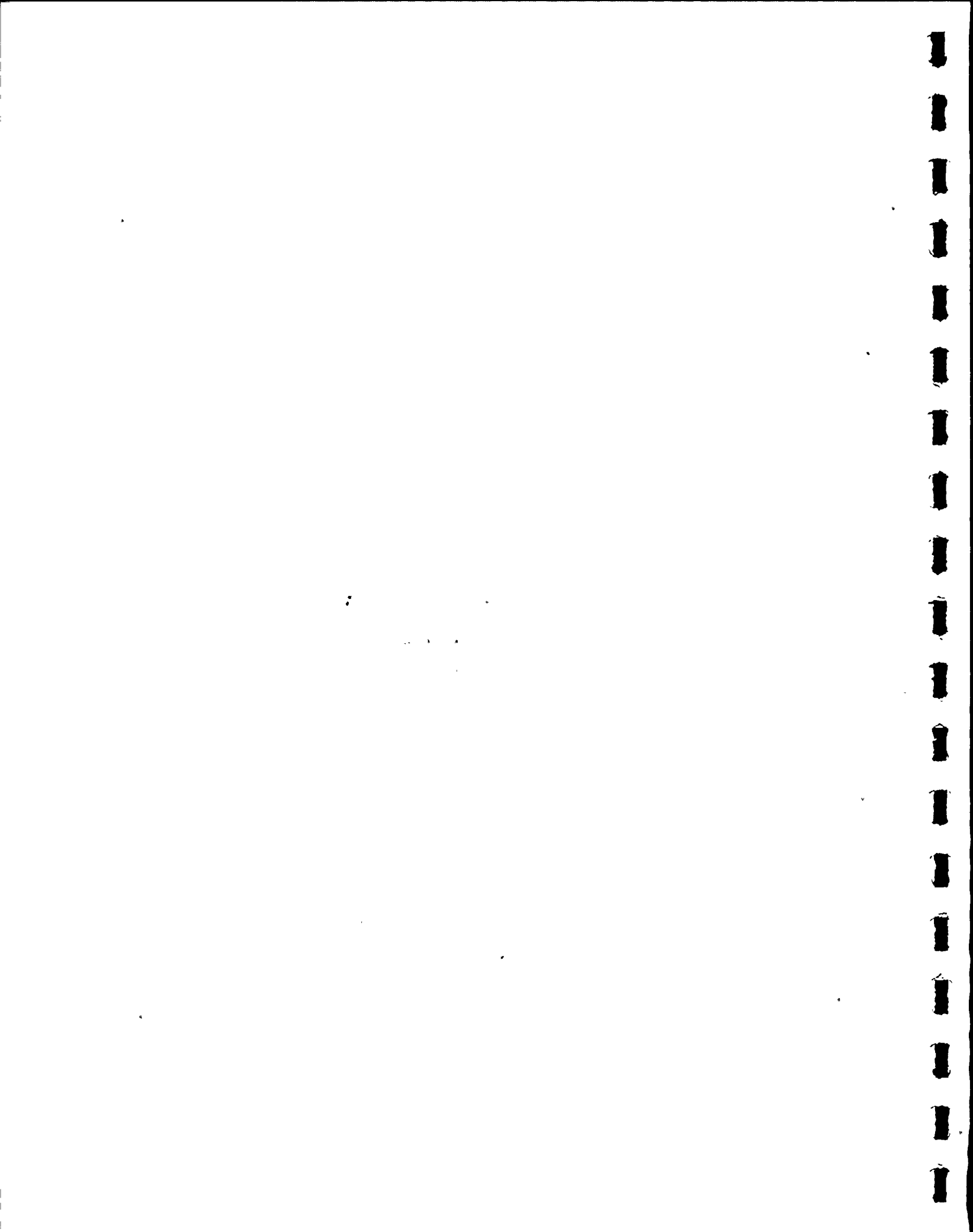
DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
14 JUL	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	31	26	14.3
	MEAN	0	0	15.5	13.0	7.1
21 JUL	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	10	5	3.8
	MEAN	0	0	5.0	2.5	1.9
11 AUG	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	4	4	2.0
	MEAN	0	0	2	2	1.0
18 AUG	SURFACE	0	0	5	0	1.3
	MID-DEPTH	0	0	0	4	1.0
	MEAN	0	0	2.5	2	1.1
1 SEP	SURFACE	0	0	0	0	0
	MID-DEPTH	0	0	9	0	2.3
	MEAN	0	0	4.5	0	1.1
22 SEP	SURFACE	0	-	0	-	0
	MID-DEPTH	0	-	5	-	2.5
	MEAN	0	-	2.5	-	1.2
1 DEC	SURFACE	8	-	42	-	25.0
	MID-DEPTH	28	-	61	-	44.5
	MEAN	18.0	-	51.5	-	34.8
15 DEC	SURFACE	9	-	0	-	4.5
	MID-DEPTH	0	-	6	-	3.0
	MEAN	4.5	-	3.0	-	3.8
ANNUAL MEAN	SURFACE	0.5	2.4	2.8	5.1	
	MID-DEPTH	1.6	0.9	4.8	2.3	
	MEAN	1.0	1.6	3.8	3.7	

None collected 7 Jan - 17 Mar, 28 Apr - 5 May, 23 - 30 Jun,  
28 Jul - 4 Aug, 25 Aug, 8 Sep, and 6 Oct - 17 Nov

<sup>a</sup>Number/1000 m<sup>3</sup>

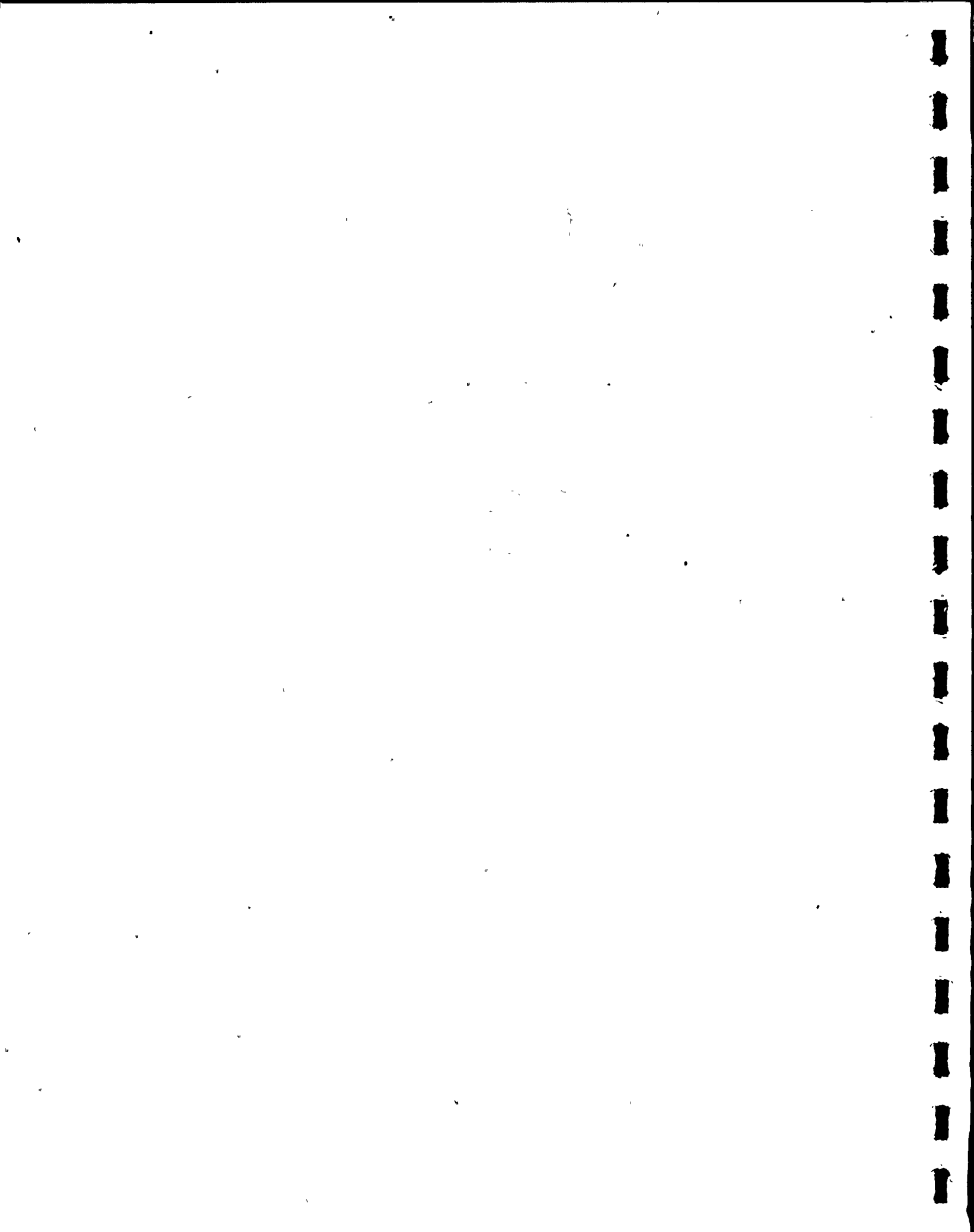
<sup>b</sup>Not required in sampling program as of 22 Sep

- = Not applicable



JAMES A. FITZPATRICK NUCLEAR POWER PLANT

VIII.D.1.b. FISH EGGS



JAMES A. FITZPATRICK NUCLEAR POWER PLANT

Eggs of the following select species were not collected in the 30-minute entrainment sampling program\* (Jan-Dec, 1976, surface and mid-depth sites; 2-4 collections/date):

Brown trout  
Coho salmon  
Smallmouth bass  
Threespine stickleback  
Yellow perch

\* Collection time  $\pm$  2 hrs.



# ABUNDANCE<sup>a</sup> OF ALEWIFE EGGS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
16 JUN	SURFACE	0	14	0	15	7.3
	MID-DEPTH	13	7	0	20	10.0
	MEAN	6.5	10.5	0.0	17.5	8.6
23 JUN	SURFACE	445	533	4372	1975	1831.2
	MID-DEPTH	632	1299	3228	2310	1867.3
	MEAN	538.5	916.0	3800.0	2142.5	1849.2
30 JUN	SURFACE	12515	1494	5167	11515	7672.8
	MID-DEPTH	5411	1532	3777	2409	3282.3
	MEAN	8963.0	1513.0	4472.0	6962.0	5477.5
7 JUL	SURFACE	2098	620	3696	4129	2635.8
	MID-DEPTH	662	814	2054	1118	1162.0
	MEAN	1380.0	717.0	2875.0	2623.5	1898.9
14 JUL	SURFACE	2197	1229	679	11545	3912.5
	MID-DEPTH	283	141	1533	1135	773.0
	MEAN	1240.0	685.0	1106.0	6340.0	2342.8
21 JUL	SURFACE	1064	280	1007	1329	920.0
	MID-DEPTH	3072	2294	446	1988	1950.0
	MEAN	2068.0	1287.0	726.5	1658.5	1435.0
28 JUL	SURFACE	64	25	46	186	80.3
	MID-DEPTH	34	17	32	237	80.0
	MEAN	49.0	21.0	39.0	211.5	80.1
4 AUG	SURFACE	365	92	714	2404	893.8
	MID-DEPTH	336	157	568	2302	840.8
	MEAN	350.5	124.5	641	2353.0	867.3
11 AUG	SURFACE	5	5	9	2112	532.8
	MID-DEPTH	4	0	0	2363	591.8
	MEAN	4.5	2.5	4.5	2237.5	562.2
ANNUAL MEAN	SURFACE	551.6	159.0	461.5	1304.1	
	MID-DEPTH	307.3	231.9	342.3	514.1	
	MEAN	429.4	195.4	401.9	909.1	

None collected<sub>3</sub> 7 Jan - 9 Jun, and 18 Aug - 15 Dec

<sup>a</sup>Number/1000 m<sup>3</sup>

<sup>b</sup>Not required in sampling program as of 22 Sep





ABUNDANCE<sup>a</sup> OF RAINBOW SMELT EGGS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	SAMPLE DEPTH	1100 HR	1700 HR <sup>b</sup>	2300 HR	0500 HR <sup>b</sup>	MEAN
28 APR	SURFACE	37	261	6171	185	1663.5
	MID-DEPTH	13	0	8	0	5.3
	MEAN	25.0	130.5	3089.5	92.5	834.4
5 MAY	SURFACE	873	168	28	43	278.0
	MID-DEPTH	221	37	33	16	76.8
	MEAN	547.0	102.5	30.5	29.5	177.4
12 MAY	SURFACE	0	144	17	130	72.8
	MID-DEPTH	4	12	0	17	8.3
	MEAN	2.0	78.0	8.5	73.5	40.5
26 MAY	SURFACE	0	16	35	0	12.8
	MID-DEPTH	0	0	0	18	4.5
	MEAN	0	8.0	17.5	9.0	8.6
2 JUN	SURFACE	0	0	0	0	0
	MID-DEPTH	8	4	0	0	3.0
	MEAN	4.0	2.0	0.0	0.0	1.5
ANNUAL MEAN	SURFACE	26.8	21.8	183.9	13.3	
	MID-DEPTH	7.2	2.0	1.2	1.9	
	MEAN	17.0	11.9	92.6	7.6	

None collected<sub>3</sub> 7 Jan - 14 Apr, 19 May, and 9 Jun - 15 Dec

<sup>a</sup>Number/1000 m<sup>3</sup>

<sup>b</sup>Not required in sampling program as of 22 Sep



VIII.D.2. MORTALITY OF LARVAL FISH FROM DAY/NIGHT COLLECTIONS\*  
(PRO-LARVA STAGE)

\* Data are presented for only those sampling dates when pro-larvae were collected



MORTALITY OF ALEWIFE (PRO-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP <sup>c</sup> (°C)	$\Delta T$ <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION <sup>1</sup>		2°SIMULATION <sup>1</sup>		3°/2° LAKE	
				% DEAD			% DEAD			% DEAD		% DEAD		% DEAD	
				R-1 <sup>e</sup>	R-2 <sup>f</sup>	MEAN <sup>g</sup>	R-1 <sup>e</sup>	R-2 <sup>f</sup>	MEAN <sup>g</sup>	R-1 <sup>e</sup>	R-2 <sup>f</sup>	R-1 <sup>e</sup>	R-2 <sup>f</sup>	R-1 <sup>e</sup>	R-2 <sup>f</sup>
23, 28 JUN	23 JUN 1100 <sup>a</sup>	16.8	16.1	-	-	-	0	0	-	0	NOT REQUIRED	NOT REQUIRED	100	-	100
	28 JUN 2300 <sup>b</sup>	16.0	15.5	33	-	33	3	0	-	0	NOT REQUIRED	NOT REQUIRED	-	100	100
20 JUL	1045 <sup>a</sup>	20.0	14.6	-	100	100	0	1	-	0	NOT REQUIRED	NOT REQUIRED	100	-	100
	2245 <sup>b</sup>	20.7	15.0	-	-	-	0	0	-	0	NOT REQUIRED	NOT REQUIRED	-	-	-
29 JUL	1045 <sup>a</sup>	20.0	13.8	-	67	67	0	3	-	0	NOT REQUIRED	NOT REQUIRED	100	-	100
	2245 <sup>b</sup>	19.7	11.9	-	50	50	0	4	-	0	- 100 100	0 <sup>j</sup> 3 <sup>j</sup>	- 0 0	91	- 91
11 AUG	1045 <sup>a</sup>	19.4	15.2	-	100	100	0	1	-	0	NOT REQUIRED	NOT REQUIRED	-	100	100
	2245 <sup>b</sup>	20.3	15.0	-	-	-	0	0	-	0	NOT REQUIRED	NOT REQUIRED	100	-	100

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge for intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

<sup>j</sup> Larvae collected in conjunction with gammarus viability study

Not Required = Not required in sampling program

- = Not applicable, no organisms collected



# MORTALITY OF CARP (PRO-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION <sup>1</sup>			2°SIMULATION <sup>1</sup>			3°/2° LAKE									
				Z DEAD			TOTAL COLL'D <sup>h</sup>	Z DEAD			TOTAL COLL'D <sup>h</sup>	Z DEAD			TOTAL COLL'D <sup>h</sup>	Z DEAD			TOTAL COLL'D <sup>h</sup>						
				R-1 <sup>e</sup>	R-2 <sup>f</sup>	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2		
29 JUL	1045 <sup>a</sup>	20.0	13.8	-	-	-	0	0	-	-	-	0	0	NOT REQUIRED			NOT REQUIRED			-	-	-	0	0	
	2245 <sup>b</sup>	19.7	11.9	-	0	0	0	1	-	-	-	0	0	NOT REQUIRED			-	0	0	0 <sup>j</sup>	1	-	-	-	0

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean Z dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

<sup>j</sup> Larvae collected in conjunction with Gammarus viability study

Not. Required = Not required in sampling program

- = Not applicable, no organisms collected





MORTALITY OF JOHNNY DARTER (PRO-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	ΔT <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION <sup>i</sup>			2°SIMULATION <sup>i</sup>			3°/2° LAKE		
				Σ DEAD			Σ DEAD			Σ DEAD			Σ DEAD			Σ DEAD		
				R-1 <sup>e</sup>	R-2 <sup>f</sup>	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>
23,28 JUN	23 JUN 1100 <sup>a</sup>	16.8	16.1	-	-	-	0	0	-	0	0	NOT REQUIRED	NOT REQUIRED	-	-	0	0	
	28 JUN 2300 <sup>b</sup>	16.0	15.5	-	0	0	0	2	-	0	0	NOT REQUIRED	NOT REQUIRED	50	100	67	2	1

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean Σ dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

Not Required = Not required in sampling program

- = Not applicable, no organisms collected

MORTALITY OF RAINBOW SMELT (PRO-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	A T <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION <sup>i</sup>			2°SIMULATION <sup>i</sup>			3°/2° LAKE		
				% DEAD			% DEAD			% DEAD			% DEAD			% DEAD		
				R-1 <sup>e</sup>	R-2 <sup>f</sup>	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>
9 JUN	1100 <sup>a</sup>	11.4	13.1	-	0	0	0	1	-	-	-	0	0	NOT REQUIRED	NOT REQUIRED	-	-	-
	2300 <sup>b</sup>	12.8	15.0	-	-	-	0	0	-	-	-	0	0	NOT REQUIRED	NOT REQUIRED	-	-	-

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

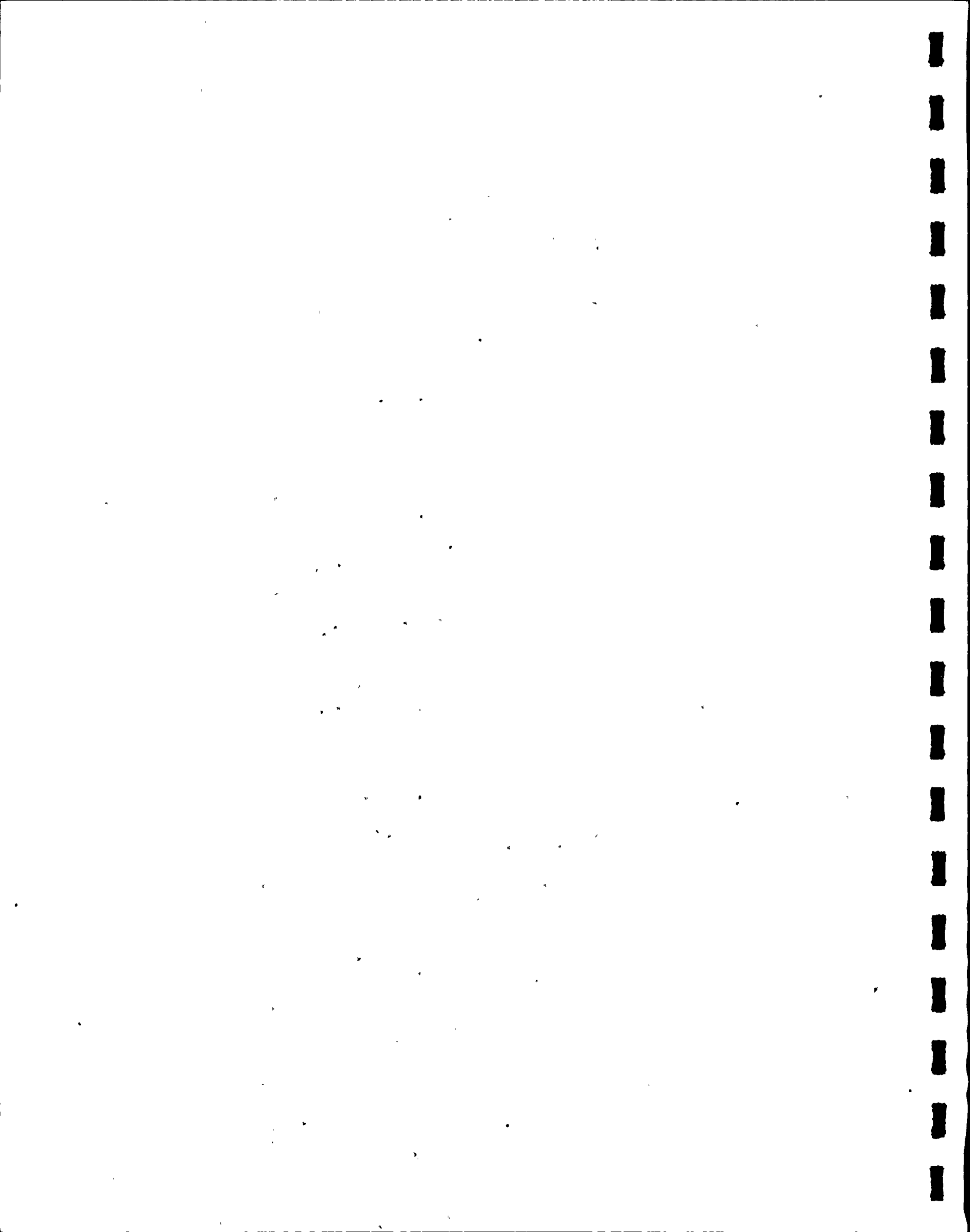
<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

Not Required = Not required in sampling program

- = Not applicable, no organisms collected



MORTALITY OF WHITE PERCH (PRO-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP <sup>c</sup> (°C)	$\Delta T$ <sup>d</sup>	INTAKE			DISCHARGE			3° SIMULATION <sup>i</sup>			2° SIMULATION <sup>i</sup>			3°/2° LAKE		
				Z DEAD			Z DEAD			Z DEAD			Z DEAD			Z DEAD		
				R-1 <sup>e</sup>	R-2 <sup>f</sup>	MEAN <sup>g</sup>	R-1 <sup>e</sup>	R-2 <sup>f</sup>	MEAN <sup>g</sup>	R-1 <sup>e</sup>	R-2 <sup>f</sup>	MEAN <sup>g</sup>	R-1 <sup>e</sup>	R-2 <sup>f</sup>	MEAN <sup>g</sup>	R-1 <sup>e</sup>	R-2 <sup>f</sup>	MEAN <sup>g</sup>
26 MAY	1100 <sup>a</sup>	9.6	15.8	-	-	-	0	0	-	-	-	0	0	NOT REQUIRED	NOT REQUIRED	-	0	0
	2300 <sup>b</sup>	9.8	15.6	-	-	-	0	0	-	-	-	0	0	-	-	NOT. REQUIRED	-	-
9 JUN	1100 <sup>a</sup>	11.4	13.1	-	0	0	0	1	-	-	-	0	0	NOT REQUIRED	NOT REQUIRED	-	0	0
	2300 <sup>b</sup>	12.8	15.0	-	-	-	0	0	-	-	-	0	0	NOT REQUIRED	NOT REQUIRED	-	-	0
23,28 JUN	23 JUN 1100 <sup>a</sup>	16.8	16.1	-	-	-	0	0	-	-	-	0	0	NOT REQUIRED	NOT REQUIRED	50	100	60
	28 JUN 2300 <sup>b</sup>	16.0	15.5	-	-	-	0	0	-	-	-	0	0	NOT REQUIRED	NOT REQUIRED	0	-	0

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

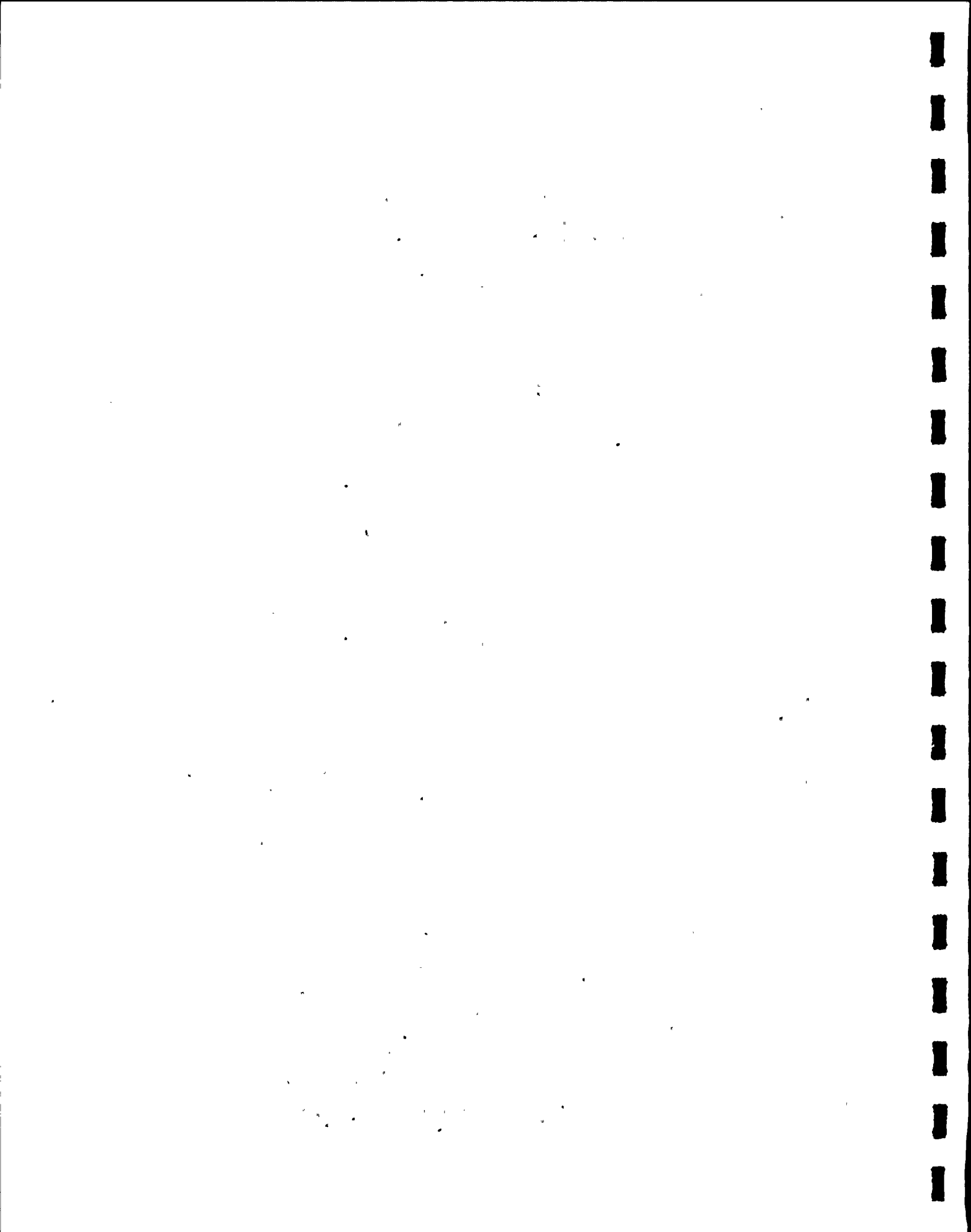
<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

Not Required = Not required in sampling program

- = Not applicable, no organisms collected



MORTALITY OF TOTAL ICHTHYOPLANKTON (PRO-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP. (°C) <sup>c</sup>	Δ T <sup>d</sup>	INTAKE			DISCHARGE			3°SIMULATION <sup>i</sup>				2°SIMULATION <sup>i</sup>				3°/2° LAKE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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				COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>	COLL'D <sup>h</sup>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
R-1 <sup>e</sup>	R-2 <sup>f</sup>	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

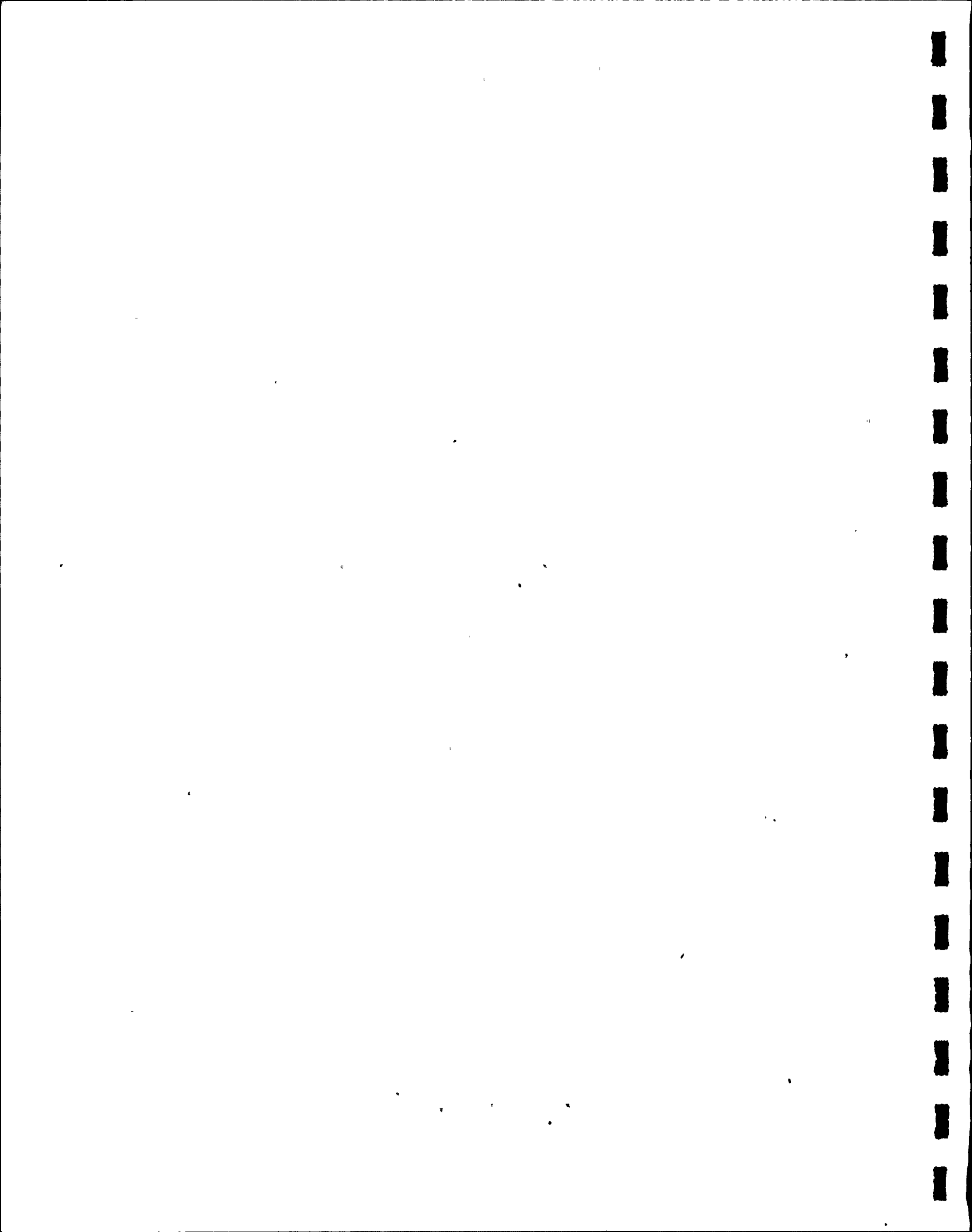
<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

<sup>j</sup> Larvae collected in conjunction with Gammarus viability study

Not Required = Not required in sampling program

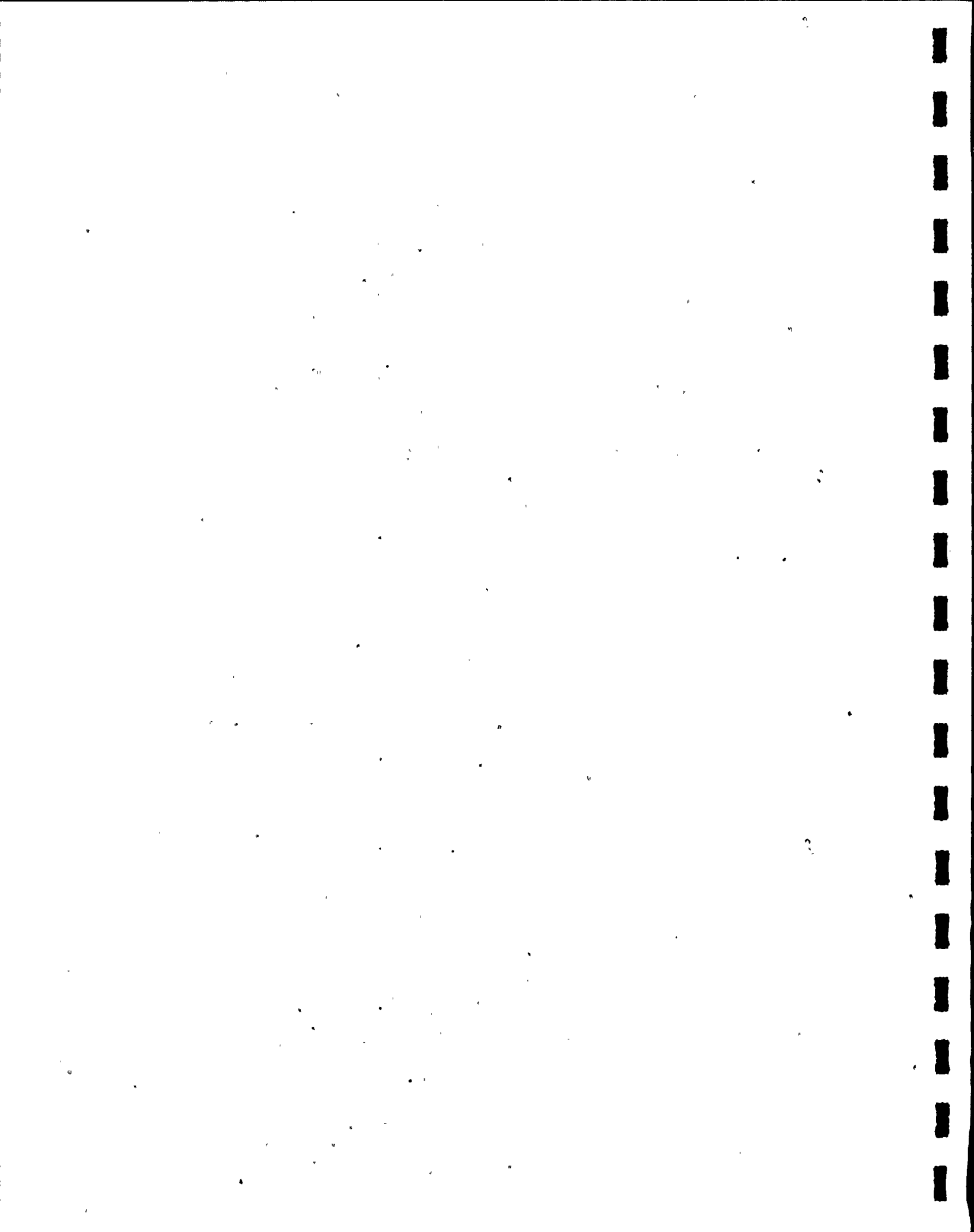
- = Not applicable, no organisms collected





VIII.D.2. MORTALITY OF LARVAL FISH FROM DAY/NIGHT COLLECTIONS \*  
(POST-LARVAL STAGE)

\* Data are presented for only those sampling dates when  
post-larvae were collected



MORTALITY OF ALEWIFE (POST-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP <sup>c</sup> (°C)	Δ T <sup>d</sup>	INTAKE			DISCHARGE			3° SIMULATION <sup>i</sup>			2° SIMULATION <sup>i</sup>			3°/2° LAKE		
				% DEAD			% DEAD			% DEAD			% DEAD			% DEAD		
				R-1	R-2	MEAN <sup>e</sup>	R-1	R-2	MEAN <sup>e</sup>	R-1	R-2	MEAN <sup>e</sup>	R-1	R-2	MEAN <sup>e</sup>	R-1	R-2	MEAN <sup>e</sup>
23,28 JUN	23 JUN 1100 <sup>a</sup>	16.8	16.1	-	-	-	0	0	-	-	-	0	0	NOT REQUIRED	NOT REQUIRED	100	-	100
	28 JUN 2300 <sup>b</sup>	16.0	15.5	100	-	100	1	0	-	-	-	0	0	NOT REQUIRED	NOT REQUIRED	-	-	-
20 JUL	1045 <sup>a</sup>	20.0	14.6	-	100	100	0	1	-	-	-	0	0	NOT REQUIRED	NOT REQUIRED	-	100	100
	2245 <sup>b</sup>	20.7	15.0	100	100	100	1	3	-	-	-	0	0	- 100 100	0 <sup>j</sup> 4 <sup>j</sup>	-	0	0
29 JUL	1045 <sup>a</sup>	20.0	13.8	100	100	100	1	2	-	-	-	0	0	NOT REQUIRED	NOT REQUIRED	100	100	100
	2245 <sup>b</sup>	19.7	11.9	50	100	88	2	6	-	-	-	0	0	100 67 70	1 <sup>j</sup> 9 <sup>j</sup>	-	0	0
11 AUG	1045 <sup>a</sup>	19.4	15.2	88	97	94	17	30	-	100	100	0	1	NOT REQUIRED	NOT REQUIRED	77	100	84
	2245 <sup>b</sup>	20.3	15.0	100	89	91	9	47	80	-	80	5	0	100 100 100	16 <sup>j</sup> 35 <sup>j</sup>	100	100	100
25 AUG	1045 <sup>a</sup>	21.8	15.4	-	100	100	0	1	-	-	-	0	0	NOT REQUIRED	NOT REQUIRED	100	-	100
	2245 <sup>b</sup>	21.5	16.2	100	100	100	23	31	100	100	100	1	1	100 100 100	60 <sup>j</sup> 94 <sup>j</sup>	100	100	100
8 SEP	1030 <sup>a</sup>	19.9	15.5	-	-	-	0	0	-	-	-	0	0	-	-	0	0	NOT REQUIRED
	2247 <sup>b</sup>	21.7	14.9	-	100	100	0	1	-	-	-	0	0	- 100 100	0	1	-	0
22,27 SEP	1045 <sup>a</sup>	18.7	14.3	-	-	-	0	0	-	-	-	0	0	-	-	0	0	NO SAMPLE
	2250 <sup>b</sup>	16.2	14.8	-	0	0	0	1	-	-	-	0	0	-	-	0	1	NO SAMPLE

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

<sup>j</sup> Larvae collected in conjunction with Gammarus viability study  
Not Required = Not required in sampling program

- = Not applicable, no organisms collected



MORTALITY OF BROWN TROUT (POST-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

DATE	DAY <sup>a</sup> NIGHT <sup>b</sup>	INTAKE TEMP <sup>c</sup> (°C)	$\Delta T$ <sup>d</sup>	INTAKE			DISCHARGE			3° SIMULATION <sup>k</sup>			2° SIMULATION <sup>k</sup>			3°/2° LAKE		
				% DEAD			% DEAD			% DEAD			% DEAD			% DEAD		
				R-1 <sup>e</sup>	R-2 <sup>f</sup>	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>	R-1	R-2	MEAN <sup>g</sup>
28 APR	1400 <sup>a</sup>	9.1	14.5	-	0	0	0	5	-	-	-	0 NS	NOT REQUIRED			NOT REQUIRED		
	2300 <sup>b</sup>	8.2	13.9	-	-	-	0	0	-	-	-	0 NS	NO SAMPLE			NO SAMPLE		

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

Not Required = Not required in sampling program

NS = No sample

- = Not applicable, no organisms collected

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

MORTALITY OF JOHNNY DARTER (POST-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

| DATE      | DAY <sup>a</sup><br>NIGHT <sup>b</sup> | INTAKE<br>TEMP <sup>c</sup><br>(°C) | $\Delta T^d$ | INTAKE           |                  |                   | DISCHARGE        |                  |                   | 3° SIMULATION <sup>e</sup> |                  |                   | 2° SIMULATION <sup>e</sup> |                  |                   | 3°/2° LAKE       |                  |                   |
|-----------|--|-------------------------------------|--------------|------------------|------------------|-------------------|------------------|------------------|-------------------|----------------------------|------------------|-------------------|----------------------------|------------------|-------------------|------------------|------------------|-------------------|
|           |  |                                     |              | % DEAD           |                  |                   | % DEAD           |                  |                   | % DEAD                     |                  |                   | % DEAD                     |                  |                   | % DEAD           |                  |                   |
|           |  |                                     |              | R-1 <sup>e</sup> | R-2 <sup>e</sup> | MEAN <sup>f</sup> | R-1 <sup>e</sup> | R-2 <sup>e</sup> | MEAN <sup>f</sup> | R-1 <sup>e</sup>           | R-2 <sup>e</sup> | MEAN <sup>f</sup> | R-1 <sup>e</sup>           | R-2 <sup>e</sup> | MEAN <sup>f</sup> | R-1 <sup>e</sup> | R-2 <sup>e</sup> | MEAN <sup>f</sup> |
| 20<br>JUL | 1045 <sup>a</sup>                      | 20.0                                | 14.6         | -                | -                | -                 | 0                | 0                | -                 | 0                          | NOT REQUIRED     |                   |                            | NOT REQUIRED     |                   |                  | -                | 0                 |
|           | 2245 <sup>b</sup>                      | 20.7                                | 15.0         | -                | -                | -                 | 0                | 0                | -                 | 0                          | - 100            | 100               | 0 <sup>j</sup>             | NOT REQUIRED     |                   |                  | 100              | 1                 |
| 29<br>JUL | 1045 <sup>a</sup>                      | 20.0                                | 13.8         | -                | -                | -                 | 0                | 0                | -                 | 0                          | NOT REQUIRED     |                   |                            | NOT REQUIRED     |                   |                  | -                | 0                 |
|           | 2245 <sup>b</sup>                      | 19.7                                | 11.9         | -                | -                | -                 | 0                | 0                | -                 | 0                          | NOT REQUIRED     |                   |                            | NOT REQUIRED     |                   |                  | 0                | 1                 |

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

<sup>j</sup> Larvae collected in conjunction with Gammarus viability study

Not Required = Not required in sampling program

- = Not applicable, no organisms collected





MORTALITY OF MOTTLED SCULPIN (POST-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

| DATE       | DAY <sup>a</sup><br>NIGHT <sup>b</sup> | INTAKE<br>TEMP.<br>(°C) <sup>c</sup> | Δ T <sup>d</sup> | INTAKE           |                  |                   | DISCHARGE        |                  |                   | 3° SIMULATION <sup>i</sup> |                  |                   | 2° SIMULATION <sup>i</sup> |                  |                   | 3°/2° LAKE       |                  |                   |
|------------|--|--------------------------------------|------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|----------------------------|------------------|-------------------|----------------------------|------------------|-------------------|------------------|------------------|-------------------|
|            |  |                                      |                  | % DEAD           |                  |                   | % DEAD           |                  |                   | % DEAD                     |                  |                   | % DEAD                     |                  |                   | % DEAD           |                  |                   |
|            |  |                                      |                  | R-1 <sup>e</sup> | R-2 <sup>f</sup> | MEAN <sup>g</sup> | R-1 <sup>e</sup> | R-2 <sup>f</sup> | MEAN <sup>g</sup> | R-1 <sup>e</sup>           | R-2 <sup>f</sup> | MEAN <sup>g</sup> | R-1 <sup>e</sup>           | R-2 <sup>f</sup> | MEAN <sup>g</sup> | R-1 <sup>e</sup> | R-2 <sup>f</sup> | MEAN <sup>g</sup> |
| 9 JUN      | 1100 <sup>a</sup>                      | 11.4                                 | 13.1             | -                | -                | -                 | 0                | 0                | -                 | -                          | -                | 0                 | 0                          | NOT REQUIRED     | NOT REQUIRED      | -                | -                | -                 |
|            | 2300 <sup>b</sup>                      | 12.8                                 | 15.0             | -                | 0                | 0                 | 0                | 1                | -                 | -                          | -                | 0                 | 0                          | NOT REQUIRED     | NOT REQUIRED      | -                | -                | -                 |
| 23, 28 JUN | 23 JUN 1100 <sup>a</sup>               | 16.8                                 | 16.1             | -                | -                | -                 | 0                | 0                | -                 | -                          | -                | 0                 | 0                          | NOT REQUIRED     | NOT REQUIRED      | -                | -                | -                 |
|            | 28 JUN 2300 <sup>b</sup>               | 16.0                                 | 15.5             | -                | -                | -                 | 0                | 0                | 100               | -                          | 100              | 1                 | 0                          | NOT REQUIRED     | NOT REQUIRED      | -                | -                | -                 |

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

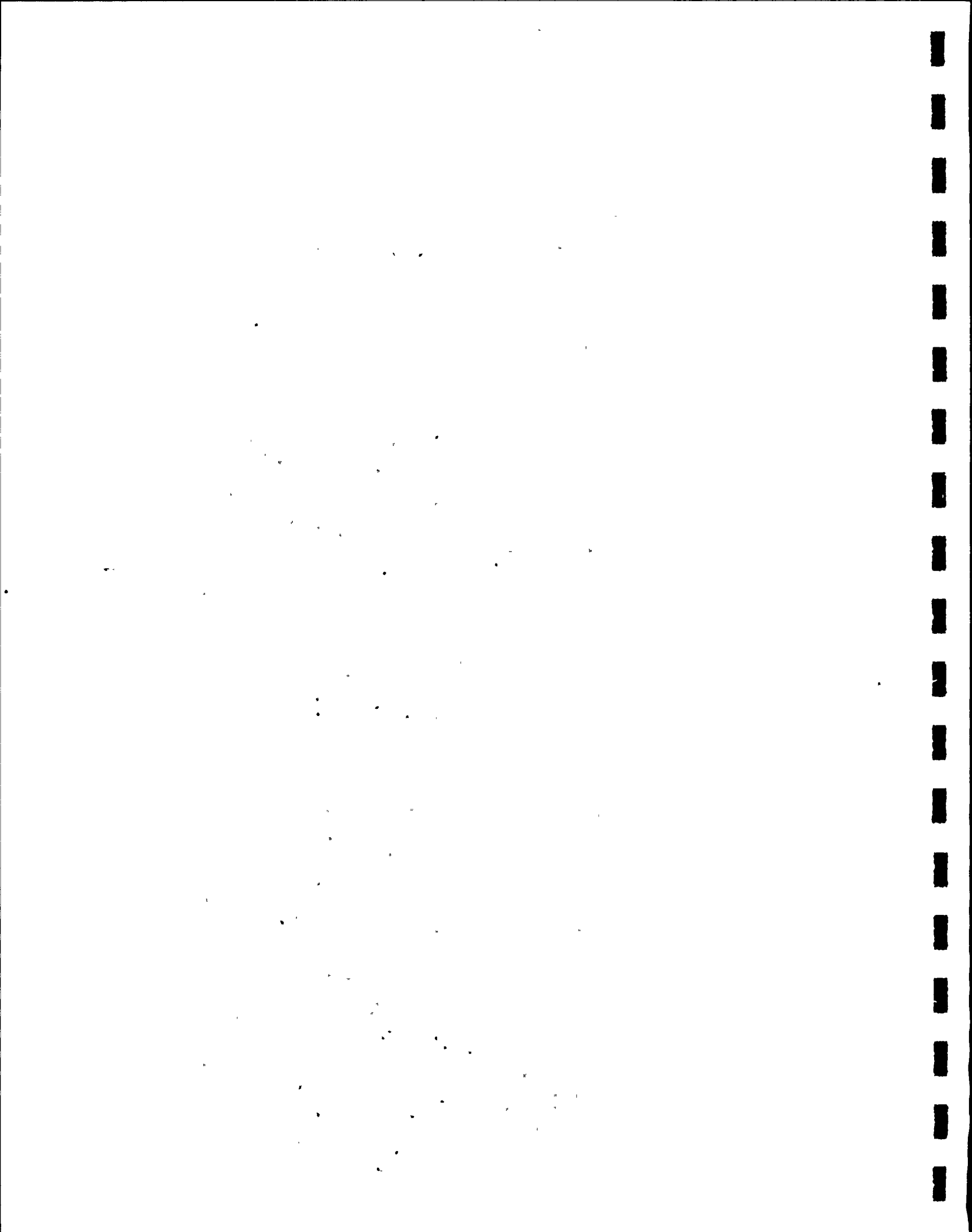
<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

Not Required = Not required in sampling program

- = Not applicable, no organisms collected



MORTALITY OF RAINBOW SMELT (POST-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

| DATE   | DAY <sup>a</sup><br>NIGHT <sup>b</sup> | INTAKE<br>TEMP.<br>(°C) <sup>c</sup> | $\Delta T$ <sup>d</sup> | INTAKE           |                  |                   | DISCHARGE |     |                   | 3°SIMULATION <sup>i</sup> |     |                   | 2°SIMULATION <sup>i</sup> |              |                   | 3°/2° LAKE     |                |                   |
|--------|--|--------------------------------------|-------------------------|------------------|------------------|-------------------|-----------|-----|-------------------|---------------------------|-----|-------------------|---------------------------|--------------|-------------------|----------------|----------------|-------------------|
|        |  |                                      |                         | % DEAD           |                  |                   | % DEAD    |     |                   | % DEAD                    |     |                   | % DEAD                    |              |                   | % DEAD         |                |                   |
|        |  |                                      |                         | R-1 <sup>e</sup> | R-2 <sup>f</sup> | MEAN <sup>g</sup> | R-1       | R-2 | MEAN <sup>g</sup> | R-1                       | R-2 | MEAN <sup>g</sup> | R-1                       | R-2          | MEAN <sup>g</sup> | R-1            | R-2            | MEAN <sup>g</sup> |
| 9 JUN  | 1100 <sup>a</sup>                      | 11.4                                 | 13.1                    | -                | -                | -                 | 0         | 0   | -                 | -                         | -   | 0                 | 0                         | NOT REQUIRED | NOT REQUIRED      | 100            | 100            | 100               |
|        | 2300 <sup>b</sup>                      | 12.8                                 | 15.0                    | -                | 100              | 100               | 0         | 1   | -                 | -                         | -   | 0                 | 0                         | NOT REQUIRED | NOT REQUIRED      | -              | 100            | 100               |
| 20 JUL | 1045 <sup>a</sup>                      | 20.0                                 | 14.6                    | -                | -                | -                 | 0         | 0   | -                 | -                         | -   | 0                 | 0                         | NOT REQUIRED | NOT REQUIRED      | -              | -              | -                 |
|        | 2245 <sup>b</sup>                      | 20.7                                 | 15.0                    | -                | 0                | 0                 | 0         | 1   | -                 | -                         | -   | 0                 | 0                         | NOT REQUIRED | NOT REQUIRED      | -              | -              | -                 |
| 11 AUG | 1045 <sup>a</sup>                      | 19.4                                 | 15.2                    | -                | -                | -                 | 0         | 0   | -                 | -                         | -   | 0                 | 0                         | NOT REQUIRED | NOT REQUIRED      | -              | -              | -                 |
|        | 2245 <sup>b</sup>                      | 20.3                                 | 15.0                    | -                | 0                | 0                 | 0         | 2   | -                 | -                         | -   | 0                 | 0                         | NOT REQUIRED | NOT REQUIRED      | -              | -              | -                 |
| 25 AUG | 1045 <sup>a</sup>                      | 21.8                                 | 15.4                    | -                | -                | -                 | 0         | 0   | -                 | -                         | -   | 0                 | 0                         | NOT REQUIRED | NOT REQUIRED      | -              | -              | -                 |
|        | 2245 <sup>b</sup>                      | 21.5                                 | 16.2                    | 100              | -                | 100               | 1         | 0   | -                 | -                         | -   | 0                 | 0                         | NOT REQUIRED | 0 100 50          | 1 <sup>j</sup> | 1 <sup>j</sup> | -                 |

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

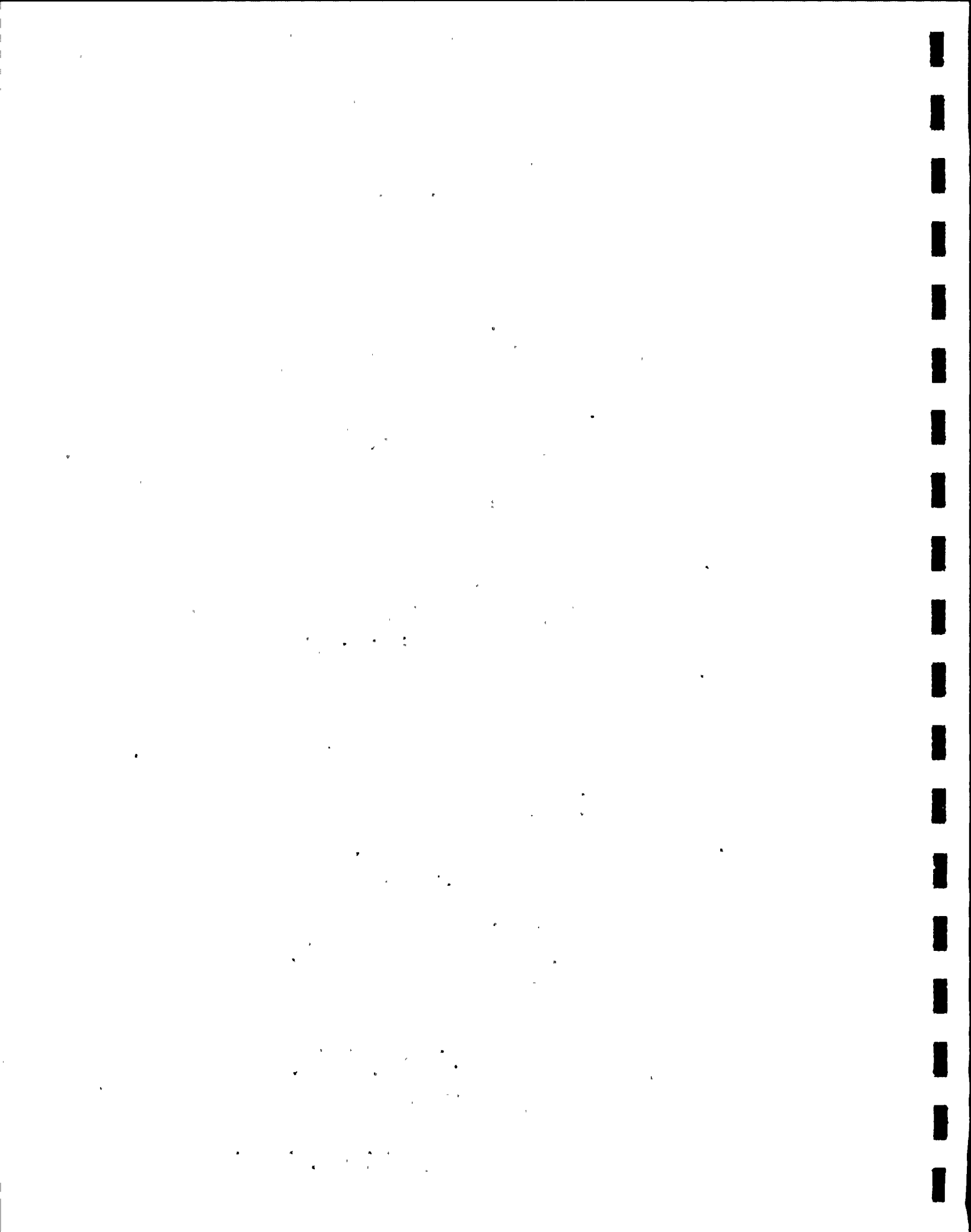
<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

<sup>j</sup> Larvae collected in conjunction with Gammarus viability study

Not Required = Not required in sampling program

- = Not applicable, no organisms collected



MORTALITY OF WHITE PERCH (POST-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

| DATE   | DAY <sup>a</sup><br>NIGHT <sup>b</sup> | INTAKE<br>TEMP.<br>(°C) <sup>c</sup> | ΔT <sup>d</sup> | INTAKE           |                  |                   | DISCHARGE |     |                   | 3° SIMULATION <sup>1</sup> |     |                   | 2° SIMULATION <sup>2</sup> |              |                   | 3°/2° LAKE     |                |                   |
|--------|--|--------------------------------------|-----------------|------------------|------------------|-------------------|-----------|-----|-------------------|----------------------------|-----|-------------------|----------------------------|--------------|-------------------|----------------|----------------|-------------------|
|        |  |                                      |                 | % DEAD           |                  |                   | % DEAD    |     |                   | % DEAD                     |     |                   | % DEAD                     |              |                   | % DEAD         |                |                   |
|        |  |                                      |                 | R-1 <sup>e</sup> | R-2 <sup>f</sup> | MEAN <sup>g</sup> | R-1       | R-2 | MEAN <sup>g</sup> | R-1                        | R-2 | MEAN <sup>g</sup> | R-1                        | R-2          | MEAN <sup>g</sup> | R-1            | R-2            | MEAN <sup>g</sup> |
| 9 JUN  | 1100 <sup>a</sup>                      | 11.4                                 | 13.1            | -                | 0                | 0                 | 0         | 1   | -                 | -                          | -   | 0                 | 0                          | NOT REQUIRED | NOT REQUIRED      | -              | -              | -                 |
|        | 2300 <sup>b</sup>                      | 12.8                                 | 15.0            | -                | -                | -                 | 0         | 0   | -                 | -                          | -   | 0                 | 0                          | NOT REQUIRED | NOT REQUIRED      | -              | -              | -                 |
| 29 JUL | 1045 <sup>a</sup>                      | 20.0                                 | 13.8            | 0                | -                | 0                 | 1         | 0   | -                 | -                          | -   | 0                 | 0                          | NOT REQUIRED | NOT REQUIRED      | -              | -              | -                 |
|        | 2245 <sup>b</sup>                      | 19.7                                 | 11.9            | -                | 0                | 0                 | 0         | 1   | -                 | -                          | -   | 0                 | 0                          | NOT REQUIRED | NOT REQUIRED      | -              | -              | -                 |
| 11 AUG | 1045 <sup>a</sup>                      | 19.4                                 | 15.2            | -                | 100              | 100               | 0         | 1   | -                 | -                          | -   | 0                 | 0                          | NOT REQUIRED | NOT REQUIRED      | -              | -              | -                 |
|        | 2245 <sup>b</sup>                      | 20.3                                 | 15.0            | -                | -                | -                 | 0         | 0   | -                 | -                          | -   | 0                 | 0                          | NOT REQUIRED | - 100 100         | 0 <sup>j</sup> | 1 <sup>j</sup> | -                 |

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

<sup>j</sup> Larvae collected in conjunction with Gammarus viability study

Not Required = Not required in sampling program.

- = Not applicable, no organisms collected



MORTALITY OF TOTAL ICHTHYOPLANKTON (POST-LARVA STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

| DATE         | DAY <sup>a</sup><br>NIGHT <sup>b</sup> | INTAKE<br>TEMP.<br>(°C) <sup>c</sup> | Δ T <sup>d</sup> | INTAKE           |                  |                   | DISCHARGE                    |        |                   | 3° SIMULATION <sup>1</sup> |                              |                   | 2° SIMULATION <sup>1</sup> |              |                              | 3°/2° LAKE |                 |                   |                              |              |                   |                 |                 |              |     |    |    |
|--------------|--|--------------------------------------|------------------|------------------|------------------|-------------------|------------------------------|--------|-------------------|----------------------------|------------------------------|-------------------|----------------------------|--------------|------------------------------|------------|-----------------|-------------------|------------------------------|--------------|-------------------|-----------------|-----------------|--------------|-----|----|----|
|              |  |                                      |                  | Z DEAD           |                  |                   | TOTAL<br>COLL'D <sup>h</sup> | Z DEAD |                   |                            | TOTAL<br>COLL'D <sup>h</sup> | Z DEAD            |                            |              | TOTAL<br>COLL'D <sup>h</sup> | Z DEAD     |                 |                   | TOTAL<br>COLL'D <sup>h</sup> |              |                   |                 |                 |              |     |    |    |
|              |  |                                      |                  | R-1 <sup>e</sup> | R-2 <sup>f</sup> | MEAN <sup>g</sup> | R-1                          | R-2    | MEAN <sup>g</sup> | R-1                        | R-2                          | MEAN <sup>g</sup> | R-1                        | R-2          | MEAN <sup>g</sup>            | R-1        | R-2             | MEAN <sup>g</sup> | R-1                          | R-2          | MEAN <sup>g</sup> | R-1             | R-2             |              |     |    |    |
| 28<br>APR    | 1400 <sup>a</sup>                      | 9.1                                  | 14.5             | -                | 0                | 0                 | 0                            | 5      | -                 | -                          | -                            | 0                 | NS                         | NOT REQUIRED |                              |            | NOT REQUIRED    |                   |                              | NO SAMPLE    |                   |                 |                 |              |     |    |    |
|              | 2300 <sup>b</sup>                      | 8.2                                  | 13.9             | -                | -                | -                 | 0                            | 0      | -                 | -                          | -                            | 0                 | NS                         | NO SAMPLE    |                              |            | NO SAMPLE       |                   |                              | NOT REQUIRED |                   |                 |                 |              |     |    |    |
| 9<br>JUN     | 1100 <sup>a</sup>                      | 11.4                                 | 13.1             | -                | 0                | 0                 | 0                            | 1      | -                 | -                          | -                            | 0                 | 0                          | NOT REQUIRED |                              |            | NOT REQUIRED    |                   |                              | 100          | 100               | 100             | 2               | 2            |     |    |    |
|              | 2300 <sup>b</sup>                      | 12.8                                 | 15.0             | -                | 50               | 50                | 0                            | 2      | -                 | -                          | -                            | 0                 | 0                          | NOT REQUIRED |                              |            | NOT REQUIRED    |                   |                              | -            | 100               | 100             | 0               | 1            |     |    |    |
| 23,28<br>JUN | 23 JUN 1100 <sup>a</sup>               | 16.8                                 | 16.1             | -                | -                | -                 | 0                            | 0      | -                 | -                          | -                            | 0                 | 0                          | NOT REQUIRED |                              |            | NOT REQUIRED    |                   |                              | 100          | -                 | 100             | 2               | 0            |     |    |    |
|              | 28 JUN 2300 <sup>b</sup>               | 16.0                                 | 15.5             | 100              | -                | 100               | 1                            | 0      | 100               | -                          | 100                          | 1                 | 0                          | NOT REQUIRED |                              |            | NOT REQUIRED    |                   |                              | -            | -                 | -               | 0               | 0            |     |    |    |
| 20<br>JUL    | 1045 <sup>a</sup>                      | 20.0                                 | 14.6             | -                | 100              | 100               | 0                            | 1      | -                 | -                          | -                            | 0                 | 0                          | NOT REQUIRED |                              |            | NOT REQUIRED    |                   |                              | -            | 100               | 100             | 0               | 1            |     |    |    |
|              | 2245 <sup>b</sup>                      | 20.7                                 | 15.0             | 100              | 75               | 80                | 1                            | 4      | -                 | -                          | -                            | 0                 | 0                          | -            | 100                          | 100        | 0 <sup>j</sup>  | 5 <sup>j</sup>    | -                            | 0            | 0                 | 0 <sup>j</sup>  | 1 <sup>j</sup>  | 70           | 100 | 79 | 10 |
| 29<br>JUL    | 1045 <sup>a</sup>                      | 20.0                                 | 13.8             | 50               | 100              | 75                | 2                            | 2      | -                 | -                          | -                            | 0                 | 0                          | NOT REQUIRED |                              |            | NOT REQUIRED    |                   |                              | 100          | 100               | 100             | 2               | 1            |     |    |    |
|              | 2245 <sup>b</sup>                      | 19.7                                 | 11.9             | 50               | 86               | 78                | 2                            | 7      | -                 | -                          | -                            | 0                 | 0                          | 100          | 67                           | 70         | 1 <sup>j</sup>  | 9 <sup>j</sup>    | -                            | 0            | 0                 | 0 <sup>j</sup>  | 7 <sup>j</sup>  | 0            | 100 | 67 | 1  |
| 11<br>AUG    | 1045 <sup>a</sup>                      | 19.4                                 | 15.2             | 88               | 97               | 94                | 17                           | 31     | -                 | 100                        | 100                          | 0                 | 1                          | NOT REQUIRED |                              |            | NOT REQUIRED    |                   |                              | 77           | 100               | 84              | 18              | 7            |     |    |    |
|              | 2245 <sup>b</sup>                      | 20.3                                 | 15.0             | 100              | 86               | 88                | 9                            | 49     | 80                | -                          | 80                           | 5                 | 0                          | 100          | 100                          | 100        | 16 <sup>j</sup> | 35 <sup>j</sup>   | 100                          | 100          | 100               | 9 <sup>j</sup>  | 35 <sup>j</sup> | 95           | 97  | 96 | 86 |
| 25<br>AUG    | 1045 <sup>a</sup>                      | 21.8                                 | 15.4             | -                | 100              | 100               | 0                            | 1      | -                 | -                          | -                            | 0                 | 0                          | NOT REQUIRED |                              |            | NOT REQUIRED    |                   |                              | 100          | -                 | 100             | 1               | 0            |     |    |    |
|              | 2245 <sup>b</sup>                      | 21.5                                 | 16.2             | 100              | 100              | 100               | 24                           | 31     | 100               | 100                        | 100                          | 1                 | 1                          | 100          | 100                          | 100        | 60 <sup>j</sup> | 94 <sup>j</sup>   | 97                           | 100          | 99                | 38 <sup>j</sup> | 90 <sup>j</sup> | 55           | 86  | 72 | 11 |
| 8<br>SEP     | 1030 <sup>a</sup>                      | 19.9                                 | 15.5             | -                | -                | -                 | 0                            | 0      | -                 | -                          | -                            | 0                 | 0                          | -            | -                            | -          | 0               | 0                 | -                            | -            | -                 | 0               | 0               | NOT REQUIRED |     |    |    |
|              | 2247 <sup>b</sup>                      | 21.7                                 | 14.9             | -                | 100              | 100               | 0                            | 1      | -                 | -                          | -                            | 0                 | 0                          | -            | 100                          | 100        | 0               | 1                 | -                            | -            | -                 | 0               | 0               | NOT REQUIRED |     |    |    |
| 22,27<br>SEP | 1045 <sup>a</sup>                      | 18.7                                 | 14.3             | -                | -                | -                 | 0                            | 0      | -                 | -                          | -                            | 0                 | 0                          | -            | -                            | -          | 0               | 0                 | -                            | -            | -                 | 0               | 0               | NO SAMPLE    |     |    |    |
|              | 2250 <sup>b</sup>                      | 16.2                                 | 14.8             | -                | 0                | 0                 | 0                            | 1      | -                 | -                          | -                            | 0                 | 0                          | -            | -                            | -          | 0               | 0                 | -                            | 100          | 100               | 0               | 1               | NO SAMPLE    |     |    |    |

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

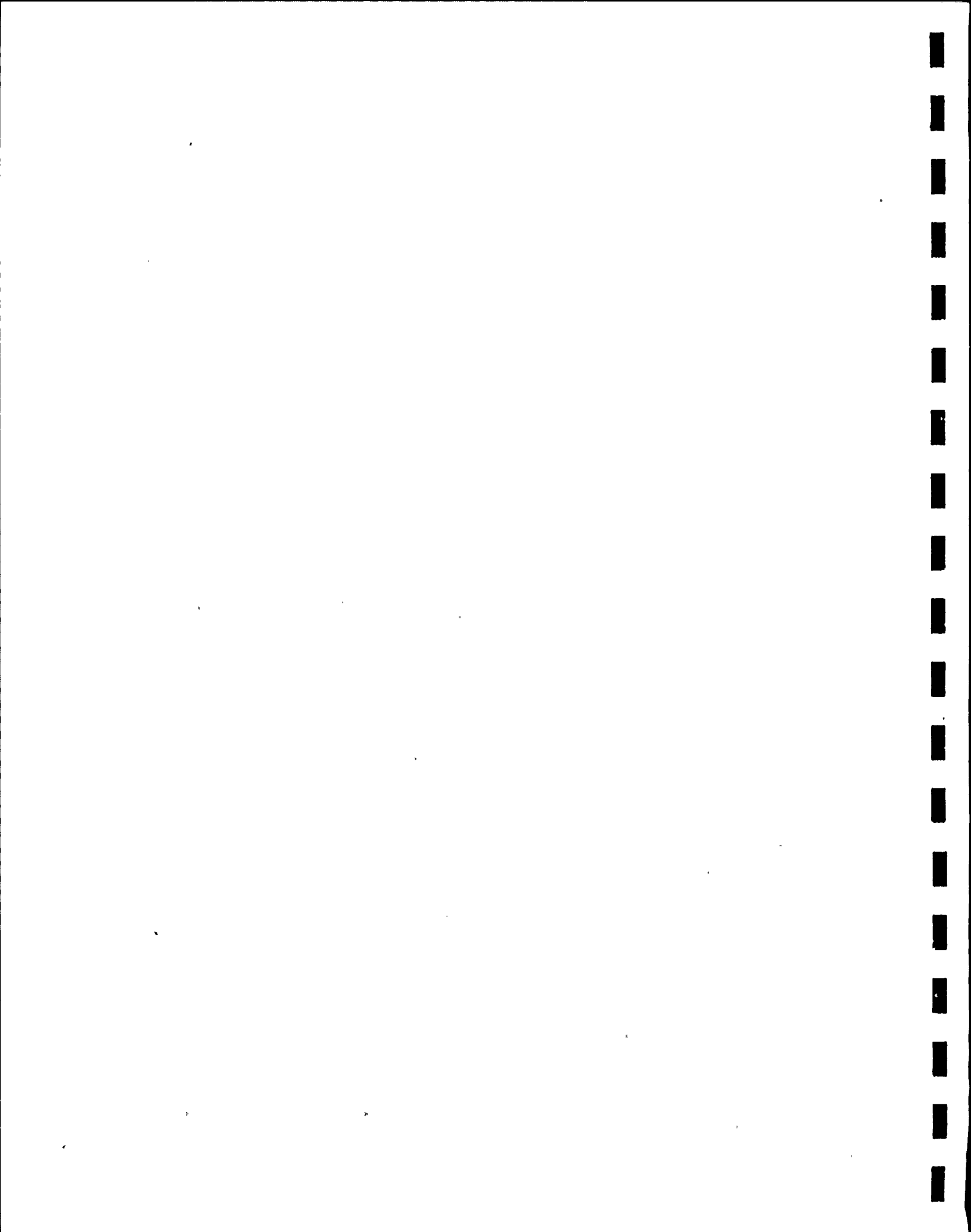
<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

<sup>j</sup> Larvae collected in conjunction with *Gammarus* viability study

Not Required = Not required in sampling program

NS = No sample

- = Not applicable, no organisms collected





VIII. D.2. MORTALITY OF LARVAL FISH FROM DAY/NIGHT COLLECTIONS\*  
(JUVENILE STAGE)

\* Data are presented for only those sampling dates when juvenile larvae were collected



**MORTALITY OF ALEWIFE (JUVENILE STAGE) FROM DAY/NIGHT COLLECTIONS**

**JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976**

| DATE      | DAY <sup>a</sup><br>NIGHT <sup>b</sup> | INTAKE<br>TEMP.<br>(°C) <sup>c</sup> | T <sup>d</sup> | INTAKE           |                  |                   | DISCHARGE                 |                |              | 3°SIMULATION <sup>1</sup> |     |                   | 2°SIMULATION <sup>2</sup> |              |                | 3°/2° LAKE <sup>3</sup> |              |                   |                           |              |   |   |
|-----------|--|--------------------------------------|----------------|------------------|------------------|-------------------|---------------------------|----------------|--------------|---------------------------|-----|-------------------|---------------------------|--------------|----------------|-------------------------|--------------|-------------------|---------------------------|--------------|---|---|
|           |  |                                      |                | Z DEAD           |                  |                   | TOTAL COLL'D <sup>h</sup> |                |              | Z DEAD                    |     |                   | TOTAL COLL'D <sup>h</sup> |              |                | Z DEAD                  |              |                   | TOTAL COLL'D <sup>h</sup> |              |   |   |
|           |  |                                      |                | R-1 <sup>e</sup> | R-2 <sup>f</sup> | MEAN <sup>g</sup> | R-1                       | R-2            |              | R-1                       | R-2 | MEAN <sup>g</sup> | R-1                       | R-2          |                | R-1                     | R-2          | MEAN <sup>g</sup> | R-1                       | R-2          |   |   |
| 12<br>MAY | 1038 <sup>a</sup>                      | 10.2                                 | 14.0           | -                | -                | 0                 | 0                         | 0              | -            | -                         | -   | 0                 | 0                         | -            | -              | -                       | 0            | 0                 | NO SAMPLE                 |              |   |   |
|           | 2325 <sup>b</sup>                      | 9.2                                  | 14.4           | 0                | -                | 0                 | 1                         | 0              | -            | -                         | -   | 0                 | 0                         | -            | -              | -                       | 0            | 0                 | NOT REQUIRED              |              |   |   |
| 26<br>MAY | 1100 <sup>a</sup>                      | 9.6                                  | 15.8           | -                | -                | -                 | 0                         | 0              | -            | -                         | -   | 0                 | 0                         | NOT REQUIRED |                |                         | NOT REQUIRED |                   |                           | -            | 0 | 0 |
|           | 2300 <sup>b</sup>                      | 9.8                                  | 15.6           | -                | 0                | 0                 | 0                         | 1              | -            | -                         | -   | 0                 | 0                         | -            | -              | -                       | 0            | 0                 | -                         | -            | - | 0 |
| 17<br>NOV | 2218 <sup>a</sup>                      | 8.6                                  | 12.8           | 0                | 33               | 29                | 1 <sup>j</sup>            | 6 <sup>j</sup> | NOT REQUIRED |                           |     | 0                 | 0                         | 0            | 1 <sup>j</sup> | 1 <sup>j</sup>          | NOT REQUIRED |                   |                           | NOT REQUIRED |   |   |

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean Z dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

<sup>j</sup> Larvae collected in conjunction with Gammarus viability study

Not Required = Not required in sampling program

- = Not applicable, no organisms collected



MORTALITY OF RAINBOW SMELT (JUVENILE STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

| DATE      | DAY <sup>a</sup><br>NIGHT <sup>b</sup> | INTAKE<br>TEMP.<br>(°C) <sup>c</sup> | Δ T <sup>d</sup> | INTAKE |     |                   | DISCHARGE |     |                   | 3 <sup>o</sup> SIMULATION <sup>i</sup> |     |                   | 2 <sup>o</sup> SIMULATION <sup>i</sup> |              |                   | 3 <sup>o</sup> /2 <sup>o</sup> LAKE |     |                   |
|-----------|--|--------------------------------------|------------------|--------|-----|-------------------|-----------|-----|-------------------|--|-----|-------------------|--|--------------|-------------------|-------------------------------------|-----|-------------------|
|           |  |                                      |                  | % DEAD |     |                   | % DEAD    |     |                   | % DEAD                                 |     |                   | % DEAD                                 |              |                   | % DEAD                              |     |                   |
|           |  |                                      |                  | R-1    | R-2 | MEAN <sup>e</sup> | R-1       | R-2 | MEAN <sup>e</sup> | R-1                                    | R-2 | MEAN <sup>e</sup> | R-1                                    | R-2          | MEAN <sup>e</sup> | R-1                                 | R-2 | MEAN <sup>e</sup> |
| 20<br>JUL | 1045 <sup>a</sup>                      | 20.0                                 | 14.6             | -      | -   | -                 | 0         | 0   | -                 | 0                                      | 0   | NOT REQUIRED      | NOT REQUIRED                           | -            | -                 | 0                                   | 0   |                   |
|           | 2245 <sup>b</sup>                      | 20.7                                 | 15.0             | -      | -   | -                 | 0         | 0   | -                 | 0                                      | 0   | - 100 100         | 0 <sup>j</sup> 1 <sup>j</sup>          | NOT REQUIRED | -                 | -                                   | 0   | 0                 |

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>i</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

<sup>j</sup> Larvae collected in conjunction with Gammarus viability study

Not Required = Not required in sampling program

- = Not applicable, no organisms collected



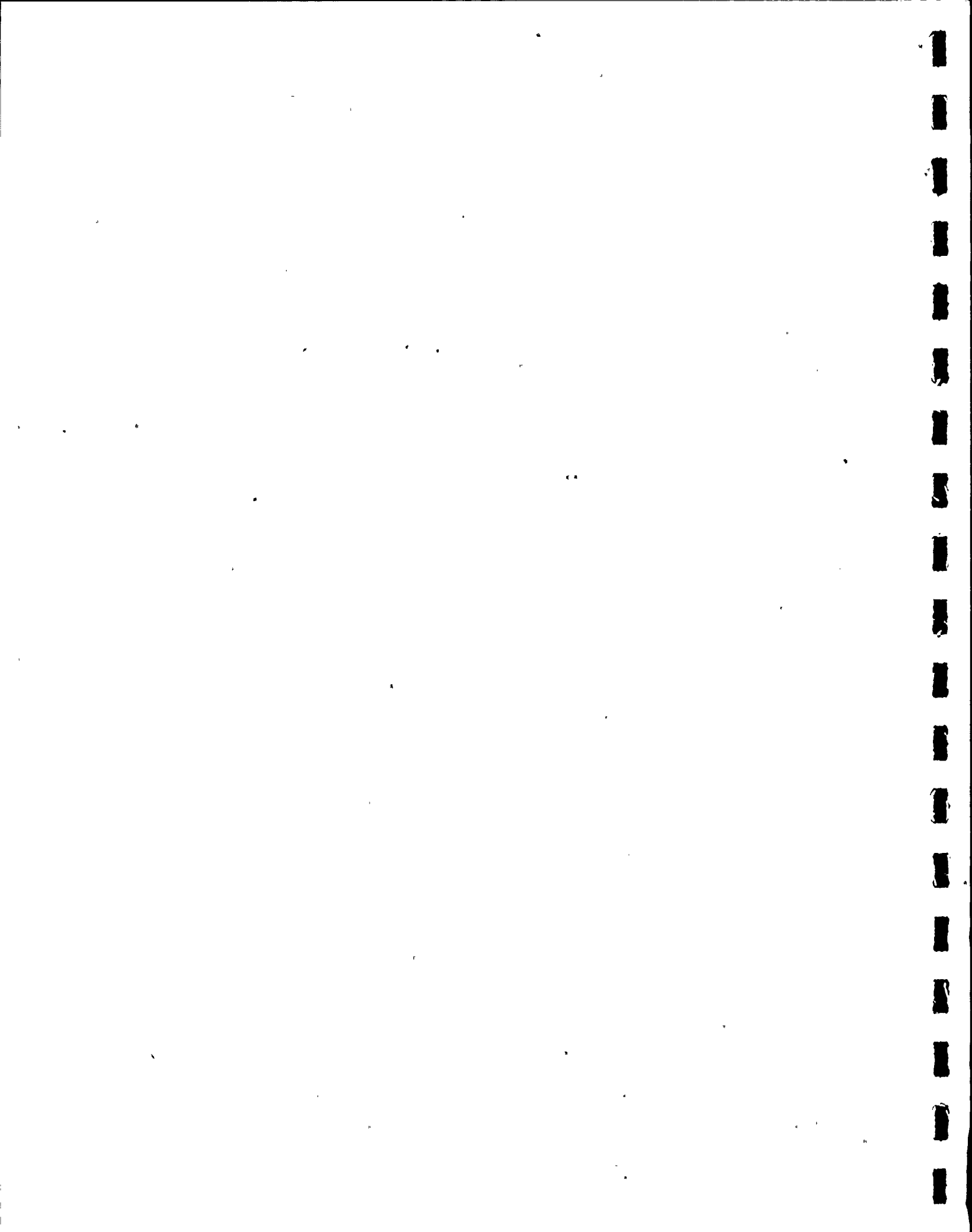
NINE MILE POINT NUCLEAR STATION UNIT 1





NINE MILE POINT NUCLEAR STATION UNIT 1

VIII.A.1.a. LARVAE

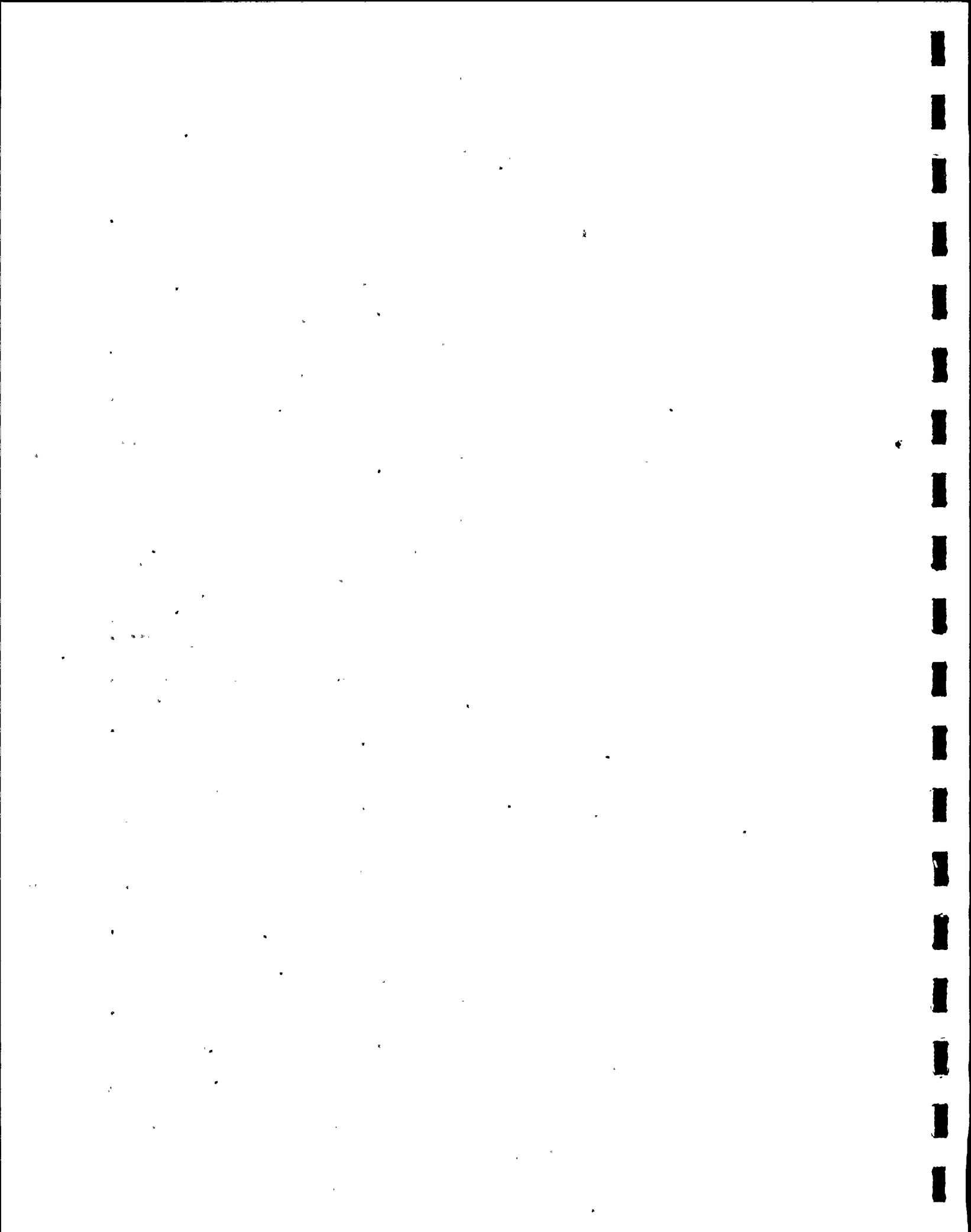


NINE MILE POINT NUCLEAR STATION UNIT 1

Larvae of the following select species were not collected in the 30-minute entrainment sampling program\*(Apr-Oct, 1976, surface and mid-depth sites; 4 collections/date):

Brown trout  
Coho salmon  
Smallmouth bass  
Threespine stickleback

\* Collection time  $\pm$  2 hrs.



ABUNDANCE<sup>a</sup> OF ALEWIFE LARVAE

NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

| DATE                       | SAMPLE DEPTH | 1100 HR | 1700 HR | 2300 HR | 0500 HR | MEAN  |
|----------------------------|--------------|---------|---------|---------|---------|-------|
| 30 JUN,<br>3 JUL           | SURFACE      | 15      | 9       | 9       | 0       | 8.2   |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0   |
|                            | MEAN         | 7.5     | 4.5     | 4.5     | 0.0     | 4.1   |
| 7 JUL                      | SURFACE      | 0       | 0       | 50      | 10      | 15.0  |
|                            | MID-DEPTH    | 0       | 0       | 22      | 21      | 10.8  |
|                            | MEAN         | 0.0     | 0.0     | 36.0    | 15.5    | 12.9  |
| 14 JUL                     | SURFACE      | 21      | 15      | 31      | 124     | 47.8  |
|                            | MID-DEPTH    | 10      | 35      | 21      | 171     | 59.3  |
|                            | MEAN         | 15.5    | 25.0    | 26.0    | 147.5   | 53.5  |
| 21 JUL                     | SURFACE      | 8       | 13      | 0       | 7       | 7.0   |
|                            | MID-DEPTH    | 11      | 10      | 0       | 19      | 10.0  |
|                            | MEAN         | 9.5     | 11.5    | 0.0     | 13.0    | 8.5   |
| 28 JUL                     | SURFACE      | 30      | 7       | 0       | 14      | 12.8  |
|                            | MID-DEPTH    | 17      | 0       | 0       | 47      | 16.0  |
|                            | MEAN         | 23.5    | 3.5     | 0.0     | 30.5    | 14.4  |
| 4 AUG                      | SURFACE      | 86      | 257     | 808     | 376     | 381.8 |
|                            | MID-DEPTH    | 64      | 324     | 1225    | 707     | 580.8 |
|                            | MEAN         | 75.0    | 290.5   | 1016.5  | 541.5   | 480.9 |
| 11 AUG                     | SURFACE      | 30      | 27      | 161     | 261     | 119.8 |
|                            | MID-DEPTH    | 0       | 9       | 180     | 249     | 109.5 |
|                            | MEAN         | 15.0    | 18.0    | 170.5   | 255.0   | 114.6 |
| 18 AUG                     | SURFACE      | 320     | 310     | 361     | 281     | 318.0 |
|                            | MID-DEPTH    | 506     | 225     | 578     | 394     | 425.8 |
|                            | MEAN         | 413.0   | 267.5   | 469.5   | 337.5   | 371.9 |
| 25 AUG                     | SURFACE      | 28      | 0       | 96      | 301     | 106.3 |
|                            | MID-DEPTH    | 68      | 22      | 341     | 225     | 164.0 |
|                            | MEAN         | 48.0    | 11.0    | 218.5   | 263.0   | 135.1 |
| 1 SEP                      | SURFACE      | 0       | 0       | 28      | 305     | 83.3  |
|                            | MID-DEPTH    | 0       | 0       | 86      | 509     | 148.8 |
|                            | MEAN         | 0.0     | 0.0     | 57.0    | 407.0   | 116.0 |
| 8 SEP                      | SURFACE      | 0       | 0       | 0       | 11      | 2.8   |
|                            | MID-DEPTH    | 0       | 0       | 8       | 13      | 5.3   |
|                            | MEAN         | 0.0     | 0.0     | 4.0     | 12.0    | 4.0   |
| 22 SEP                     | SURFACE      | 0       | 0       | 0       | 7       | 1.8   |
|                            | MID-DEPTH    | 0       | 0       | 0       | 89      | 22.3  |
|                            | MEAN         | 0.0     | 0.0     | 0.0     | 48.0    | 12.0  |
| 6 OCT                      | SURFACE      | 8       | 0       | 0       | 0       | 2.0   |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0   |
|                            | MEAN         | 4.0     | 0.0     | 0.0     | 0.0     | 1.0   |
| 20 OCT                     | SURFACE      | 0       | 0       | 0       | 0       | 0.0   |
|                            | MID-DEPTH    | 0       | 0       | 0       | 8       | 2.0   |
|                            | MEAN         | 0.0     | 0.0     | 0.0     | 4.0     | 1.0   |
| GRAND<br>MEAN <sup>b</sup> | SURFACE      | 22.8    | 26.6    | 64.3    | 70.7    |       |
|                            | MID-DEPTH    | 28.2    | 26.0    | 102.5   | 102.2   |       |
|                            | MEAN         | 25.5    | 26.3    | 83.4    | 86.4    |       |

None collected 14 Apr - 23 Jun

<sup>a</sup>Number/1000 m<sup>3</sup>

<sup>b</sup>April - October sampling period

ABUNDANCE<sup>a</sup> OF RAINBOW SMELT LARVAE

NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

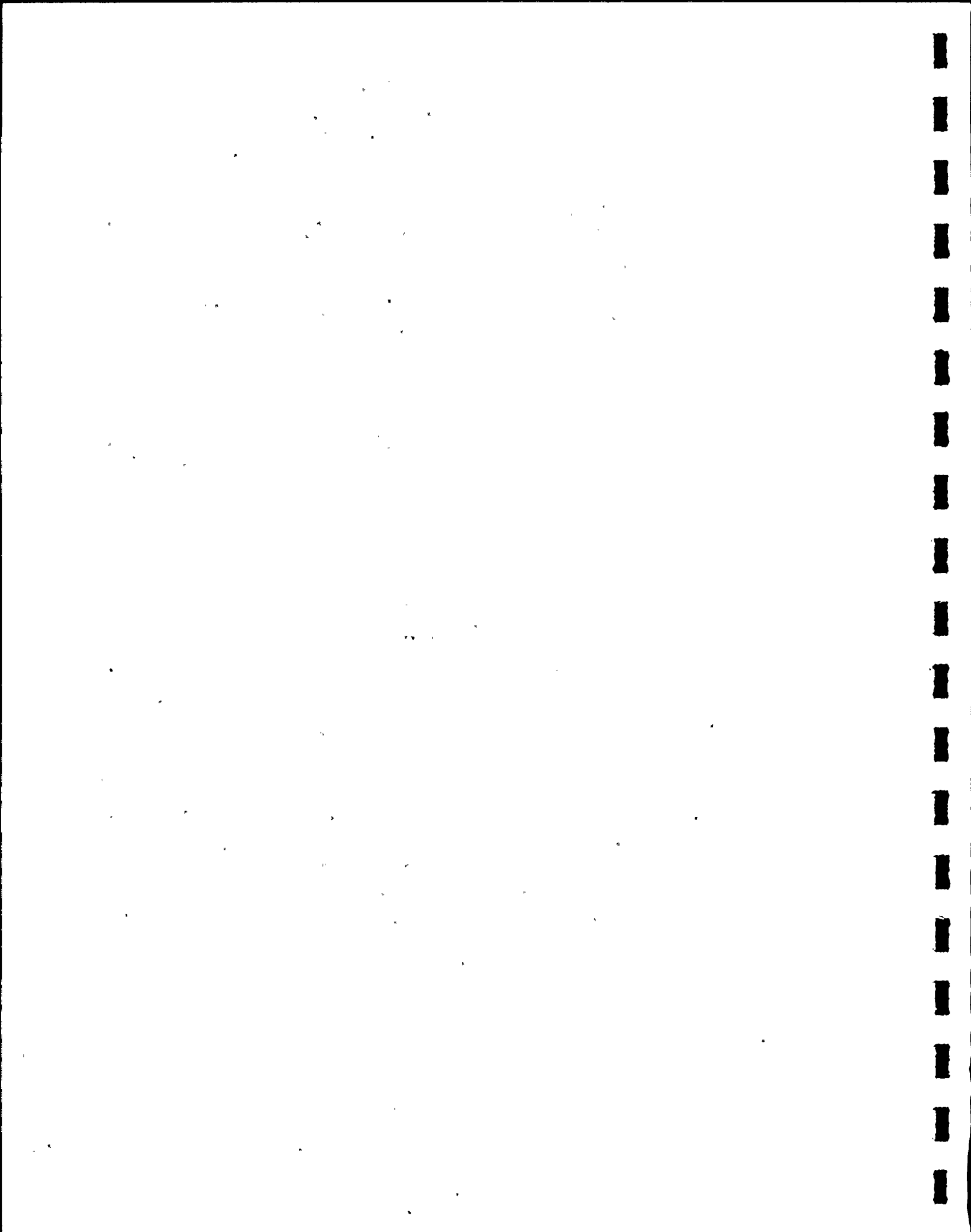
| DATE                       | SAMPLE DEPTH | 1100 HR | 1700 HR | 2300 HR | 0500 HR | MEAN |
|----------------------------|--------------|---------|---------|---------|---------|------|
| 5 MAY                      | SURFACE      | 0       | 0       | 20      | 0       | 5.0  |
|                            | MID-DEPTH    | 7       | 0       | 11      | 11      | 7.3  |
|                            | MEAN         | 3.5     | 0.0     | 15.5    | 5.5     | 6.1  |
| 19 MAY                     | SURFACE      | 0       | 0       | 17      | 16      | 8.3  |
|                            | MID-DEPTH    | 0       | 9       | 9       | 11      | 7.3  |
|                            | MEAN         | 0.0     | 4.5     | 13.0    | 13.5    | 7.8  |
| 2 JUN                      | SURFACE      | 11      | 0       | 8       | 0       | 4.8  |
|                            | MID-DEPTH    | 19      | 0       | 0       | 10      | 7.3  |
|                            | MEAN         | 15.0    | 0.0     | 4.0     | 5.0     | 6.0  |
| 9 JUN                      | SURFACE      | 0       | 0       | 8       | 0       | 2.0  |
|                            | MID-DEPTH    | 8       | 0       | 8       | 0       | 4.0  |
|                            | MEAN         | 4.0     | 0.0     | 8.0     | 0.0     | 3.0  |
| 16 JUN                     | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 0       | 9       | 0       | 0       | 2.3  |
|                            | MEAN         | 0.0     | 4.5     | 0.0     | 0.0     | 1.1  |
| 7 JUL                      | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 0       | 0       | 11      | 0       | 2.8  |
|                            | MEAN         | 0.0     | 0.0     | 5.5     | 0.0     | 1.4  |
| 14 JUL                     | SURFACE      | 0       | 0       | 8       | 0       | 2.0  |
|                            | MID-DEPTH    | 0       | 17      | 7       | 0       | 6.0  |
|                            | MEAN         | 0.0     | 8.5     | 7.5     | 0.0     | 4.0  |
| 4 AUG                      | SURFACE      | 0       | 0       | 0       | 7       | 1.8  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0  |
|                            | MEAN         | 0.0     | 0.0     | 0.0     | 3.5     | 0.9  |
| 11 AUG                     | SURFACE      | 0       | 0       | 7       | 7       | 3.5  |
|                            | MID-DEPTH    | 0       | 0       | 9       | 0       | 2.3  |
|                            | MEAN         | 0.0     | 0.0     | 8.0     | 3.5     | 2.9  |
| 18 AUG                     | SURFACE      | 0       | 0       | 7       | 0       | 1.8  |
|                            | MID-DEPTH    | 0       | 0       | 19      | 10      | 7.3  |
|                            | MEAN         | 0.0     | 0.0     | 13.0    | 5.0     | 4.5  |
| 25 AUG                     | SURFACE      | 0       | 0       | 22      | 0       | 5.5  |
|                            | MID-DEPTH    | 0       | 0       | 141     | 0       | 35.3 |
|                            | MEAN         | 0.0     | 0.0     | 81.5    | 0.0     | 20.4 |
| GRAND<br>MEAN <sup>b</sup> | SURFACE      | 0.5     | 0.0     | 4.0     | 1.2     |      |
|                            | MID-DEPTH    | 1.4     | 1.5     | 9.0     | 1.8     |      |
|                            | MEAN         | 0.9     | 0.8     | 6.5     | 1.5     |      |

None collected 14-28 Apr, 12 May, 26 May, 23-30 Jun, 21-28 Jul, and  
1 Sep-20 Oct

<sup>a</sup> Number/1000 m<sup>3</sup>

<sup>b</sup> April - October sampling period

Revised/final



ABUNDANCE<sup>a</sup> OF WHITE PERCH LARVAE

NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

| DATE                       | SAMPLE DEPTH | 1100 HR | 1700 HR | 2300 HR | 0500 HR | MEAN |
|----------------------------|--------------|---------|---------|---------|---------|------|
| 28 APR                     | SURFACE      | 7       | 0       | 0       | 0       | 1.8  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0  |
|                            | MEAN         | 3.5     | 0.0     | 0.0     | 0.0     | 0.9  |
| 2 JUN                      | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 19      | 0       | 0       | 0       | 4.8  |
|                            | MEAN         | 9.5     | 0.0     | 0.0     | 0.0     | 2.4  |
| 16 JUN                     | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 0       | 9       | 0       | 0       | 2.3  |
|                            | MEAN         | 0.0     | 4.5     | 0.0     | 0.0     | 1.1  |
| 23 JUN                     | SURFACE      | 8       | 0       | 0       | 0       | 2.0  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0  |
|                            | MEAN         | 4.0     | 0.0     | 0.0     | 0.0     | 1.0  |
| 30 JUN,<br>3 JUL           | SURFACE      | 8       | 0       | 0       | 0       | 2.0  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0  |
|                            | MEAN         | 4.0     | 0.0     | 0.0     | 0.0     | 1.0  |
| 14 JUL                     | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 0       | 0       | 7       | 0       | 1.8  |
|                            | MEAN         | 0.0     | 0.0     | 3.5     | 0.0     | 0.9  |
| 28 JUL                     | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 0       | 0       | 8       | 0       | 2.0  |
|                            | MEAN         | 0.0     | 0.0     | 4.0     | 0.0     | 1.0  |
| 4 AUG                      | SURFACE      | 7       | 0       | 7       | 7       | 5.3  |
|                            | MID-DEPTH    | 0       | 0       | 19      | 0       | 4.8  |
|                            | MEAN         | 3.5     | 0.0     | 13.0    | 3.5     | 5.0  |
| 11 AUG                     | SURFACE      | 0       | 7       | 20      | 0       | 6.8  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0  |
|                            | MEAN         | 0.0     | 3.5     | 10.0    | 0.0     | 3.4  |
| 18 AUG                     | SURFACE      | 0       | 0       | 7       | 0       | 1.8  |
|                            | MID-DEPTH    | 0       | 0       | 19      | 0       | 4.8  |
|                            | MEAN         | 0.0     | 0.0     | 13.0    | 0.0     | 3.2  |
| GRAND<br>MEAN <sup>b</sup> | SURFACE      | 1.2     | 0.3     | 1.4     | 0.3     |      |
|                            | MID-DEPTH    | 0.8     | 0.4     | 2.2     | 0.0     |      |
|                            | MEAN         | 1.0     | 0.4     | 1.8     | 0.2     |      |

None collected 14 Apr, 5-26 May, 9 Jun, 7 Jul, 21 Jul, and 25 Aug-20 Oct

<sup>a</sup> Number/1000 m<sup>3</sup>

<sup>b</sup> April - October sampling period





ABUNDANCE<sup>a</sup> OF YELLOW PERCH LARVAE

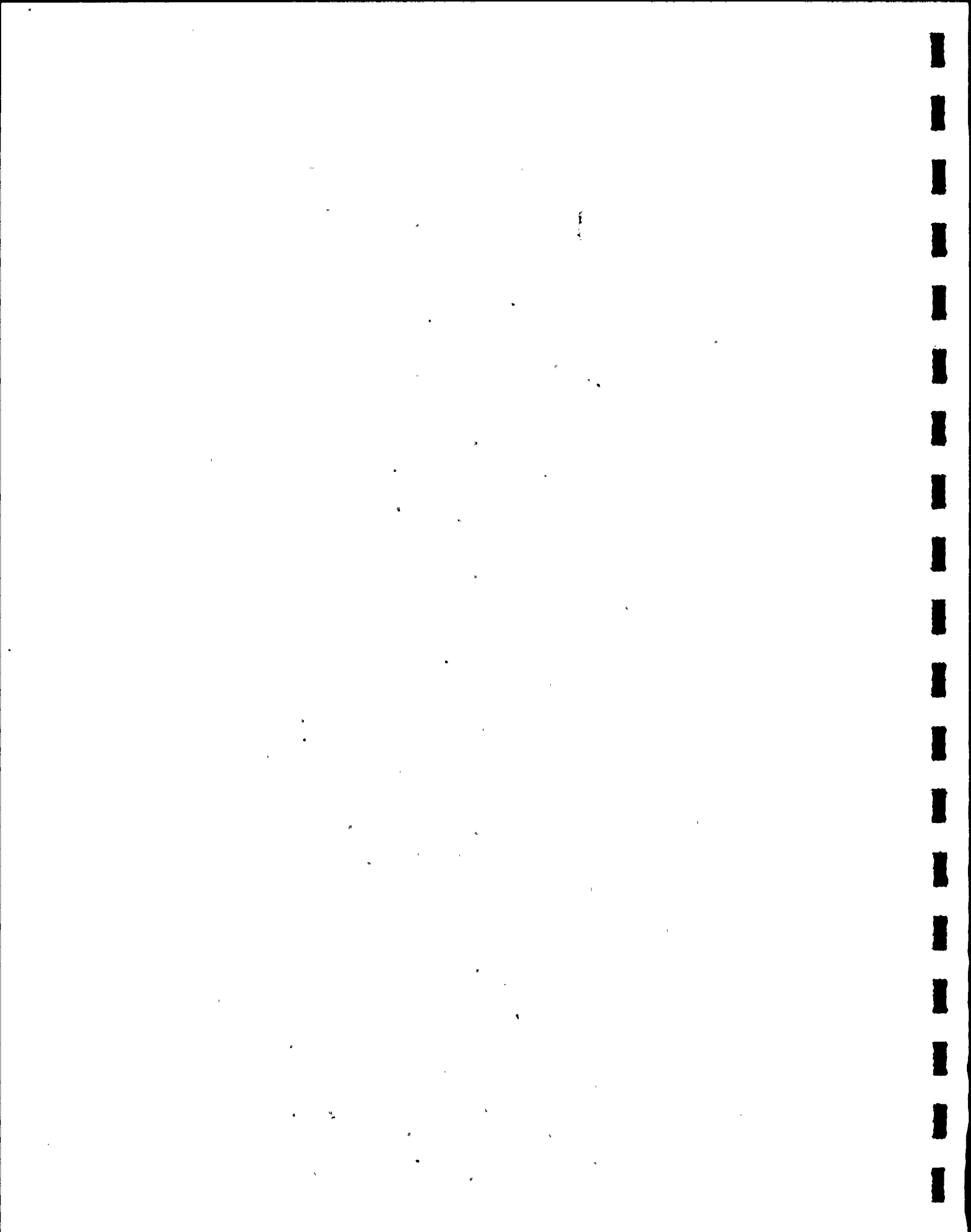
NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

| DATE                       | SAMPLE DEPTH | 1100 HR | 1700 HR | 2300 HR | 0500 HR | MEAN |
|----------------------------|--------------|---------|---------|---------|---------|------|
| 28 APR                     | SURFACE      | 7       | 0       | 0       | 12      | 4.8  |
|                            | MID-DEPTH    | 0       | 0       | 21      | 0       | 5.3  |
|                            | MEAN         | 3.5     | 0.0     | 10.5    | 6.0     | 5.0  |
| 5 MAY                      | SURFACE      | 0       | 6       | 0       | 0       | 1.5  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0  |
|                            | MEAN         | 0.0     | 3.0     | 0.0     | 0.0     | 0.8  |
| 19 MAY                     | SURFACE      | 0       | 0       | 0       | 16      | 4.0  |
|                            | MID-DEPTH    | 0       | 0       | 26      | 0       | 6.5  |
|                            | MEAN         | 0.0     | 0.0     | 13.0    | 8.0     | 5.2  |
| GRAND<br>MEAN <sup>b</sup> | SURFACE      | 0.3     | 0.2     | 0.0     | 1.2     |      |
|                            | MID-DEPTH    | 0.0     | 0.0     | 2.0     | 0.0     |      |
|                            | MEAN         | 0.2     | 0.1     | 1.0     | 0.6     |      |

None collected 14 Apr, 12 May, and 26 May - 20 Oct

<sup>a</sup>Number/1000 m<sup>3</sup>

<sup>b</sup>April - October sampling period



MORTALITY OF TOTAL ICHTHYOPLANKTON (JUVENILE STAGE) FROM DAY/NIGHT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

| DATE      | DAY <sup>a</sup><br>NIGHT <sup>b</sup> | INTAKE<br>TEMP.<br>(°C) <sup>c</sup> | ΔT <sup>d</sup> | INTAKE           |                  |                   | DISCHARGE                    |                |              | 3°SIMULATION <sup>1</sup> |                              |     | 2°SIMULATION <sup>2</sup> |              |                              | 3°/2° LAKE        |              |     |                              |              |                   |     |     |   |   |
|-----------|--|--------------------------------------|-----------------|------------------|------------------|-------------------|------------------------------|----------------|--------------|---------------------------|------------------------------|-----|---------------------------|--------------|------------------------------|-------------------|--------------|-----|------------------------------|--------------|-------------------|-----|-----|---|---|
|           |  |                                      |                 | %                |                  |                   | TOTAL<br>COLL'D <sup>h</sup> | %              |              |                           | TOTAL<br>COLL'D <sup>h</sup> | %   |                           |              | TOTAL<br>COLL'D <sup>h</sup> | %                 |              |     | TOTAL<br>COLL'D <sup>h</sup> |              |                   |     |     |   |   |
|           |  |                                      |                 | R-1 <sup>e</sup> | R-2 <sup>f</sup> | MEAN <sup>g</sup> | R-1                          | R-2            | R-1          | R-2                       | MEAN <sup>g</sup>            | R-1 | R-2                       | R-1          | R-2                          | MEAN <sup>g</sup> | R-1          | R-2 | R-1                          | R-2          | MEAN <sup>g</sup> | R-1 | R-2 |   |   |
| 12<br>MAY | 1038 <sup>a</sup>                      | 10.2                                 | 14.0            | -                | -                | -                 | 0                            | 0              | -            | -                         | -                            | 0   | 0                         | -            | -                            | -                 | 0            | 0   | NO SAMPLE                    |              |                   |     |     |   |   |
|           | 2325 <sup>b</sup>                      | 9.2                                  | 14.4            | 0                | -                | 0                 | 1                            | 0              | -            | -                         | -                            | 0   | 0                         | -            | -                            | -                 | 0            | 0   | NOT REQUIRED                 |              |                   |     |     |   |   |
| 26<br>MAY | 1100 <sup>a</sup>                      | 9.6                                  | 15.8            | -                | -                | -                 | 0                            | 0              | -            | -                         | -                            | 0   | 0                         | NOT REQUIRED |                              |                   | NOT REQUIRED |     |                              | -            | -                 | -   | 0   | 0 |   |
|           | 2300 <sup>b</sup>                      | 9.8                                  | 15.6            | -                | 0                | 0                 | 0                            | 1              | -            | -                         | -                            | 0   | 0                         | -            | -                            | -                 | 0            | 0   | NOT REQUIRED                 |              |                   |     |     |   |   |
| 20<br>JUL | 1045 <sup>a</sup>                      | 20.0                                 | 14.6            | -                | -                | -                 | 0                            | 0              | -            | -                         | -                            | 0   | 0                         | NOT REQUIRED |                              |                   | NOT REQUIRED |     |                              | -            | -                 | -   | 0   | 0 |   |
|           | 2245 <sup>b</sup>                      | 20.7                                 | 15.0            | -                | -                | -                 | 0                            | 0              | -            | -                         | -                            | 0   | 0                         | -            | 100                          | 100               | 0            | 1   | NOT REQUIRED                 |              |                   | -   | -   | - | 0 |
| 17<br>NOV | 2218 <sup>a</sup>                      | 8.6                                  | 12.8            | 0                | 33               | 29                | 1 <sup>j</sup>               | 6 <sup>j</sup> | NOT REQUIRED |                           |                              | 0   | 0                         | 0            | 1 <sup>j</sup>               | 1 <sup>j</sup>    | NOT REQUIRED |     |                              | NOT REQUIRED |                   |     |     |   |   |

<sup>a/b</sup> Time in 2400 hrs of Intake sample

<sup>c</sup> Intake temperature before tempering

<sup>d</sup> Discharge - Intake temperature

<sup>e</sup> Intake forebay - 14 ft

<sup>f</sup> Intake forebay - 20 ft

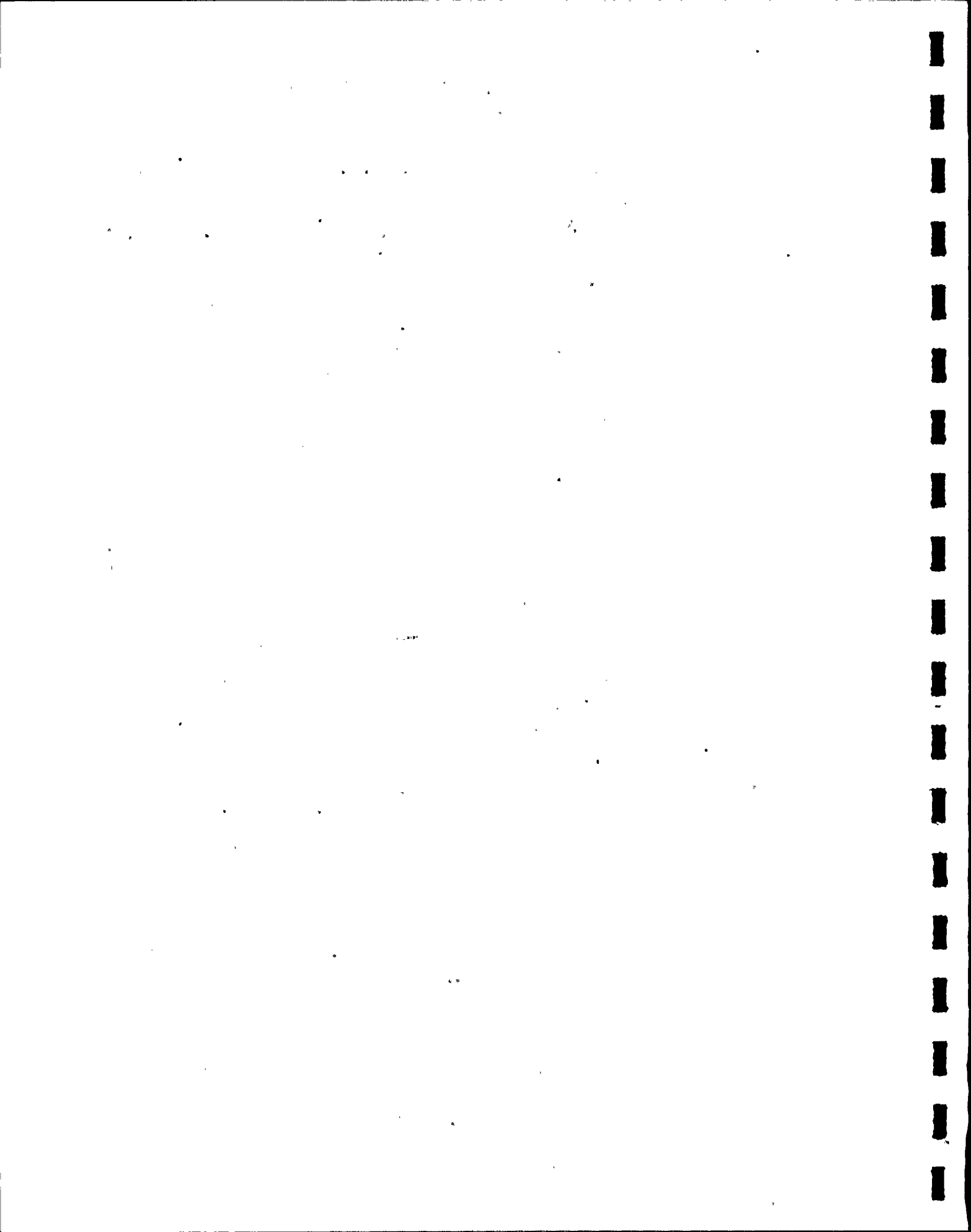
<sup>g</sup> Mean % dead equal to the sum of dead in R-1 and R-2 divided by the sum of totals in R-1 and R-2

<sup>h</sup> Actual number of organisms observed

<sup>1</sup> Organisms collected for simulation experiments from discharge or intake canal (28 Apr-28 Jun and 20 Jul-25 Aug, respectively)

<sup>j</sup> Larvae collected in conjunction with *Gammarus* viability study  
Not Required = Not required in sampling program

- = Not applicable, no organisms collected



ABUNDANCE<sup>a</sup> OF RAINBOW SMELT LARVAE

NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

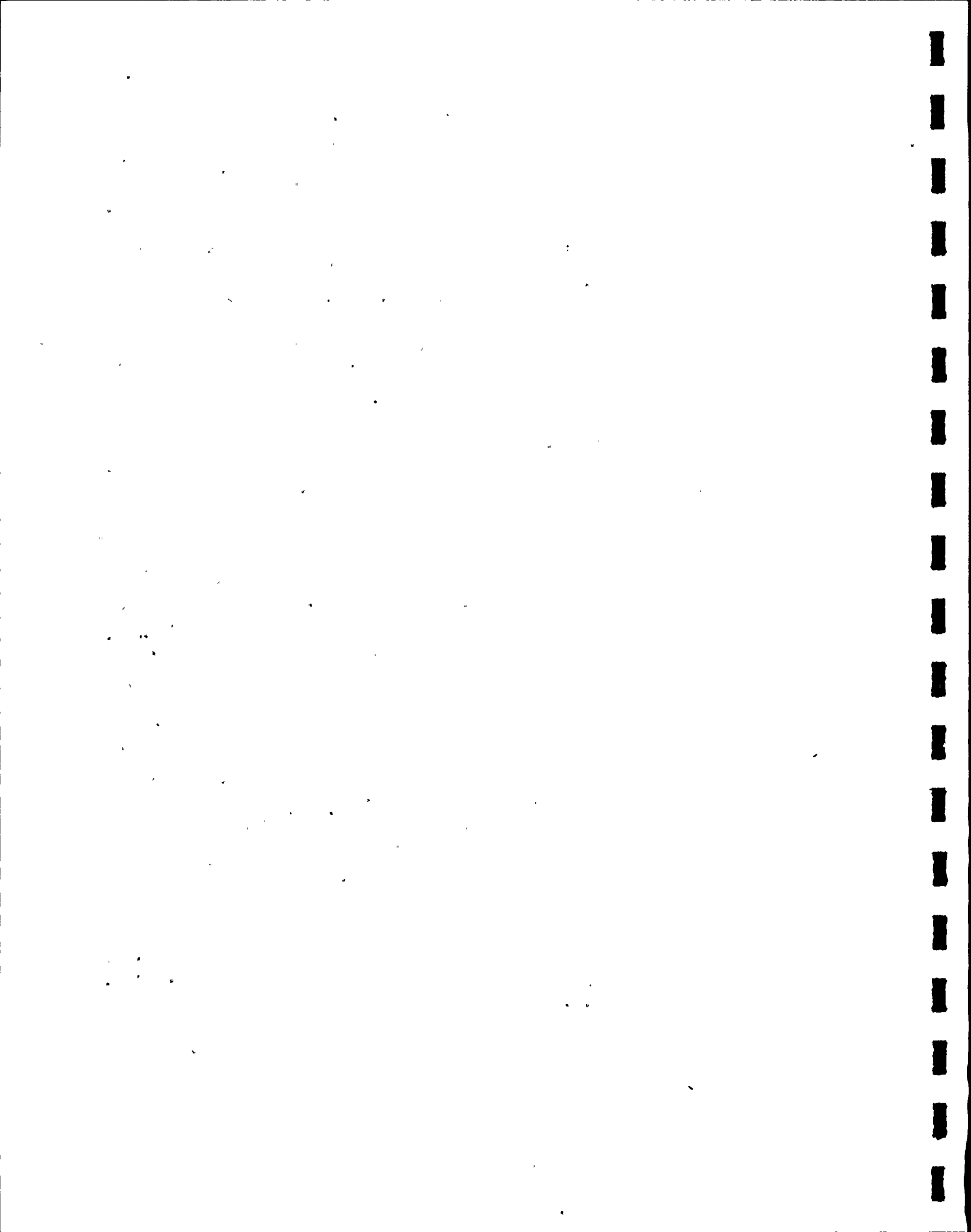
| DATE                       | SAMPLE DEPTH | 1100 HR | 1700 HR | 2300 HR | 0500 HR | MEAN |
|----------------------------|--------------|---------|---------|---------|---------|------|
| 5 MAY                      | SURFACE      | 0       | 0       | 20      | 0       | 5.0  |
|                            | MID-DEPTH    | 7       | 0       | 11      | 11      | 7.3  |
|                            | MEAN         | 3.5     | 0.0     | 15.5    | 5.5     | 6.1  |
| 19 MAY                     | SURFACE      | 0       | 0       | 17      | 16      | 8.3  |
|                            | MID-DEPTH    | 0       | 9       | 9       | 11      | 7.3  |
|                            | MEAN         | 0.0     | 4.5     | 13.0    | 13.5    | 7.8  |
| 2 JUN                      | SURFACE      | 11      | 0       | 8       | 0       | 4.8  |
|                            | MID-DEPTH    | 19      | 0       | 0       | 10      | 7.3  |
|                            | MEAN         | 15.0    | 0.0     | 4.0     | 5.0     | 6.0  |
| 9 JUN                      | SURFACE      | 0       | 0       | 8       | 0       | 2.0  |
|                            | MID-DEPTH    | 8       | 0       | 8       | 0       | 4.0  |
|                            | MEAN         | 4.0     | 0.0     | 8.0     | 0.0     | 3.0  |
| 16 JUN                     | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 0       | 9       | 0       | 0       | 2.3  |
|                            | MEAN         | 0.0     | 4.5     | 0.0     | 0.0     | 1.1  |
| 7 JUL                      | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 0       | 0       | 11      | 0       | 2.8  |
|                            | MEAN         | 0.0     | 0.0     | 5.5     | 0.0     | 1.4  |
| 14 JUL                     | SURFACE      | 0       | 0       | 8       | 0       | 2.0  |
|                            | MID-DEPTH    | 0       | 17      | 7       | 0       | 6.0  |
|                            | MEAN         | 0.0     | 8.5     | 7.5     | 0.0     | 4.0  |
| 4 AUG                      | SURFACE      | 0       | 0       | 0       | 7       | 1.8  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0  |
|                            | MEAN         | 0.0     | 0.0     | 0.0     | 3.5     | 0.9  |
| 11 AUG                     | SURFACE      | 0       | 0       | 7       | 7       | 3.5  |
|                            | MID-DEPTH    | 0       | 0       | 9       | 0       | 2.3  |
|                            | MEAN         | 0.0     | 0.0     | 8.0     | 3.5     | 2.9  |
| 18 AUG                     | SURFACE      | 0       | 0       | 7       | 0       | 1.8  |
|                            | MID-DEPTH    | 0       | 0       | 19      | 10      | 7.3  |
|                            | MEAN         | 0.0     | 0.0     | 13.0    | 5.0     | 4.5  |
| 25 AUG                     | SURFACE      | 0       | 0       | 22      | 0       | 5.5  |
|                            | MID-DEPTH    | 0       | 0       | 141     | 0       | 35.3 |
|                            | MEAN         | 0.0     | 0.0     | 81.5    | 0.0     | 20.4 |
| GRAND<br>MEAN <sup>b</sup> | SURFACE      | 0.5     | 0.0     | 4.0     | 1.2     |      |
|                            | MID-DEPTH    | 1.4     | 1.5     | 9.0     | 1.8     |      |
|                            | MEAN         | 0.9     | 0.8     | 6.5     | 1.5     |      |

None collected 14-28 Apr, 12 May, 26 May, 23-30 Jun, 21-28 Jul, and  
1 Sep-20 Oct

<sup>a</sup> Number/1000 m<sup>3</sup>

<sup>b</sup> April - October sampling period

Revised/final



ABUNDANCE<sup>a</sup> OF ALEWIFE LARVAE

NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

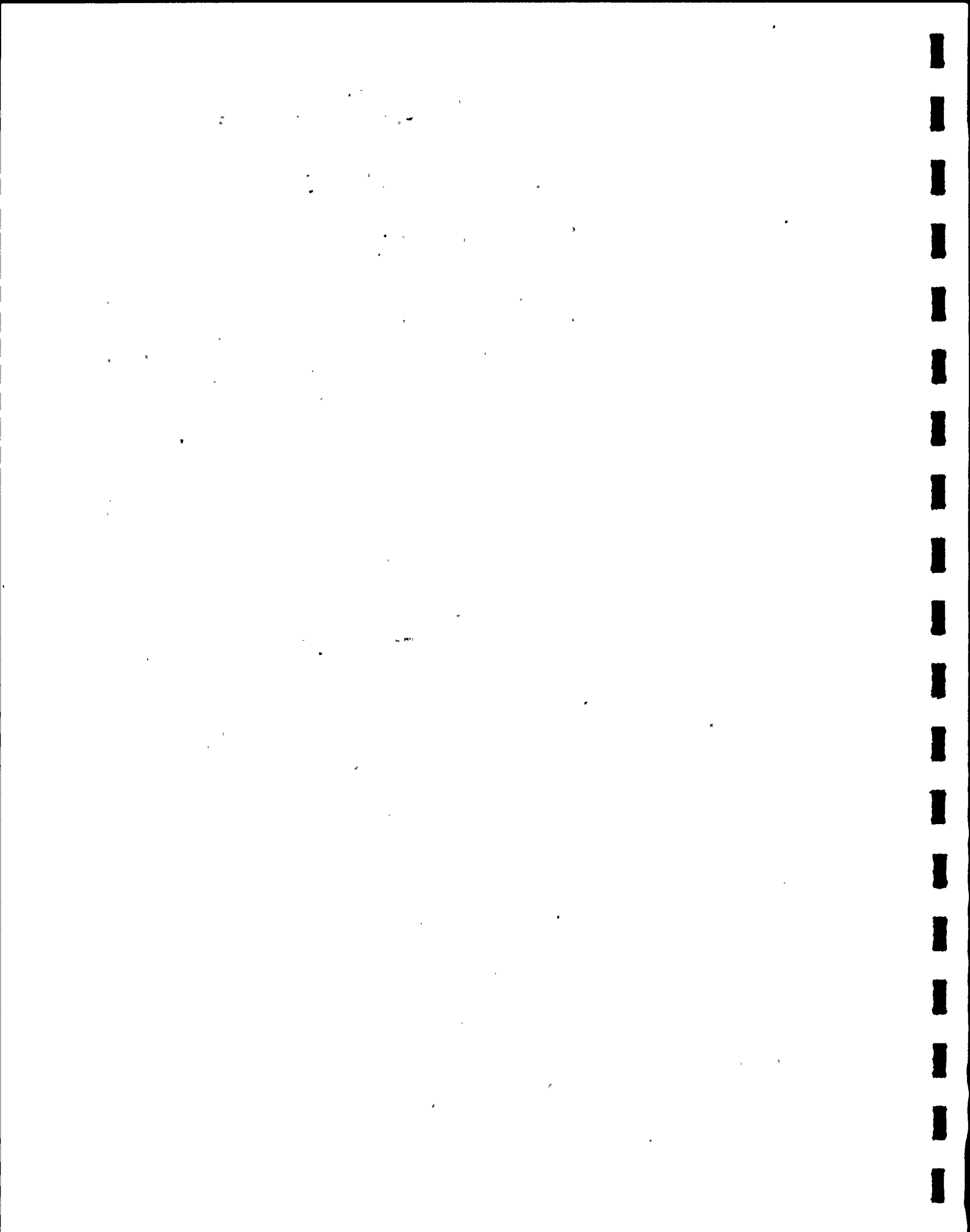
| DATE                       | SAMPLE DEPTH | 1100 HR | 1700 HR | 2300 HR | 0500 HR | MEAN  |
|----------------------------|--------------|---------|---------|---------|---------|-------|
| 30 JUN,<br>3 JUL           | SURFACE      | 15      | 9       | 9       | 0       | 8.2   |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0   |
|                            | MEAN         | 7.5     | 4.5     | 4.5     | 0.0     | 4.1   |
| 7 JUL                      | SURFACE      | 0       | 0       | 50      | 10      | 15.0  |
|                            | MID-DEPTH    | 0       | 0       | 22      | 21      | 10.8  |
|                            | MEAN         | 0.0     | 0.0     | 36.0    | 15.5    | 12.9  |
| 14 JUL                     | SURFACE      | 21      | 15      | 31      | 124     | 47.8  |
|                            | MID-DEPTH    | 10      | 35      | 21      | 171     | 59.3  |
|                            | MEAN         | 15.5    | 25.0    | 26.0    | 147.5   | 53.5  |
| 21 JUL                     | SURFACE      | 8       | 13      | 0       | 7       | 7.0   |
|                            | MID-DEPTH    | 11      | 10      | 0       | 19      | 10.0  |
|                            | MEAN         | 9.5     | 11.5    | 0.0     | 13.0    | 8.5   |
| 28 JUL                     | SURFACE      | 30      | 7       | 0       | 14      | 12.8  |
|                            | MID-DEPTH    | 17      | 0       | 0       | 47      | 16.0  |
|                            | MEAN         | 23.5    | 3.5     | 0.0     | 30.5    | 14.4  |
| 4 AUG                      | SURFACE      | 86      | 257     | 808     | 376     | 381.8 |
|                            | MID-DEPTH    | 64      | 324     | 1225    | 707     | 580.8 |
|                            | MEAN         | 75.0    | 290.5   | 1016.5  | 541.5   | 480.9 |
| 11 AUG                     | SURFACE      | 30      | 27      | 161     | 261     | 119.8 |
|                            | MID-DEPTH    | 0       | 9       | 180     | 249     | 109.5 |
|                            | MEAN         | 15.0    | 18.0    | 170.5   | 255.0   | 114.6 |
| 18 AUG                     | SURFACE      | 320     | 310     | 361     | 281     | 318.0 |
|                            | MID-DEPTH    | 506     | 225     | 578     | 394     | 425.8 |
|                            | MEAN         | 413.0   | 267.5   | 469.5   | 337.5   | 371.9 |
| 25 AUG                     | SURFACE      | 28      | 0       | 96      | 301     | 106.3 |
|                            | MID-DEPTH    | 68      | 22      | 341     | 225     | 164.0 |
|                            | MEAN         | 48.0    | 11.0    | 218.5   | 263.0   | 135.1 |
| 1 SEP                      | SURFACE      | 0       | 0       | 28      | 305     | 83.3  |
|                            | MID-DEPTH    | 0       | 0       | 86      | 509     | 148.8 |
|                            | MEAN         | 0.0     | 0.0     | 57.0    | 407.0   | 116.0 |
| 8 SEP                      | SURFACE      | 0       | 0       | 0       | 11      | 2.8   |
|                            | MID-DEPTH    | 0       | 0       | 8       | 13      | 5.3   |
|                            | MEAN         | 0.0     | 0.0     | 4.0     | 12.0    | 4.0   |
| 22 SEP                     | SURFACE      | 0       | 0       | 0       | 7       | 1.8   |
|                            | MID-DEPTH    | 0       | 0       | 0       | 89      | 22.3  |
|                            | MEAN         | 0.0     | 0.0     | 0.0     | 48.0    | 12.0  |
| 6 OCT                      | SURFACE      | 8       | 0       | 0       | 0       | 2.0   |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0   |
|                            | MEAN         | 4.0     | 0.0     | 0.0     | 0.0     | 1.0   |
| 20 OCT                     | SURFACE      | 0       | 0       | 0       | 0       | 0.0   |
|                            | MID-DEPTH    | 0       | 0       | 0       | 8       | 2.0   |
|                            | MEAN         | 0.0     | 0.0     | 0.0     | 4.0     | 1.0   |
| GRAND<br>MEAN <sup>b</sup> | SURFACE      | 22.8    | 26.6    | 64.3    | 70.7    |       |
|                            | MID-DEPTH    | 28.2    | 26.0    | 102.5   | 102.2   |       |
|                            | MEAN         | 25.5    | 26.3    | 83.4    | 86.4    |       |

None collected 14 Apr - 23 Jun

<sup>a</sup>Number/1000 m<sup>3</sup>

<sup>b</sup>April - October sampling period





ABUNDANCE<sup>a</sup> OF WHITE PERCH LARVAE

NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

| DATE                       | SAMPLE DEPTH | 1100 HR | 1700 HR | 2300 HR | 0500 HR | MEAN |
|----------------------------|--------------|---------|---------|---------|---------|------|
| 28 APR                     | SURFACE      | 7       | 0       | 0       | 0       | 1.8  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0  |
|                            | MEAN         | 3.5     | 0.0     | 0.0     | 0.0     | 0.9  |
| 2 JUN                      | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 19      | 0       | 0       | 0       | 4.8  |
|                            | MEAN         | 9.5     | 0.0     | 0.0     | 0.0     | 2.4  |
| 16 JUN                     | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 0       | 9       | 0       | 0       | 2.3  |
|                            | MEAN         | 0.0     | 4.5     | 0.0     | 0.0     | 1.1  |
| 23 JUN                     | SURFACE      | 8       | 0       | 0       | 0       | 2.0  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0  |
|                            | MEAN         | 4.0     | 0.0     | 0.0     | 0.0     | 1.0  |
| 30 JUN,<br>3 JUL           | SURFACE      | 8       | 0       | 0       | 0       | 2.0  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0  |
|                            | MEAN         | 4.0     | 0.0     | 0.0     | 0.0     | 1.0  |
| 14 JUL                     | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 0       | 0       | 7       | 0       | 1.8  |
|                            | MEAN         | 0.0     | 0.0     | 3.5     | 0.0     | 0.9  |
| 28 JUL                     | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 0       | 0       | 8       | 0       | 2.0  |
|                            | MEAN         | 0.0     | 0.0     | 4.0     | 0.0     | 1.0  |
| 4 AUG                      | SURFACE      | 7       | 0       | 7       | 7       | 5.3  |
|                            | MID-DEPTH    | 0       | 0       | 19      | 0       | 4.8  |
|                            | MEAN         | 3.5     | 0.0     | 13.0    | 3.5     | 5.0  |
| 11 AUG                     | SURFACE      | 0       | 7       | 20      | 0       | 6.8  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0  |
|                            | MEAN         | 0.0     | 3.5     | 10.0    | 0.0     | 3.4  |
| 18 AUG                     | SURFACE      | 0       | 0       | 7       | 0       | 1.8  |
|                            | MID-DEPTH    | 0       | 0       | 19      | 0       | 4.8  |
|                            | MEAN         | 0.0     | 0.0     | 13.0    | 0.0     | 3.2  |
| GRAND<br>MEAN <sup>b</sup> | SURFACE      | 1.2     | 0.3     | 1.4     | 0.3     |      |
|                            | MID-DEPTH    | 0.8     | 0.4     | 2.2     | 0.0     |      |
|                            | MEAN         | 1.0     | 0.4     | 1.8     | 0.2     |      |

None collected 14 Apr, 5-26 May, 9 Jun, 7 Jul, 21 Jul, and 25 Aug-20 Oct

<sup>a</sup> Number/1000 m<sup>3</sup>

<sup>b</sup> April - October sampling period



NINE MILE POINT NUCLEAR STATION UNIT 1

VIII.A.1.b. FISH EGGS



NINE MILE POINT NUCLEAR STATION UNIT 1

Eggs of the following select species were not collected in the 30-minute entrainment sampling program\* (Apr-Oct, 1976, surface and mid-depth sites; 4 collections/date):

Brown trout  
Coho salmon  
Smallmouth bass  
Threespine stickleback

\* Collection time  $\pm$  2 hrs.



ABUNDANCE<sup>a</sup> OF ALEWIFE EGGS

NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

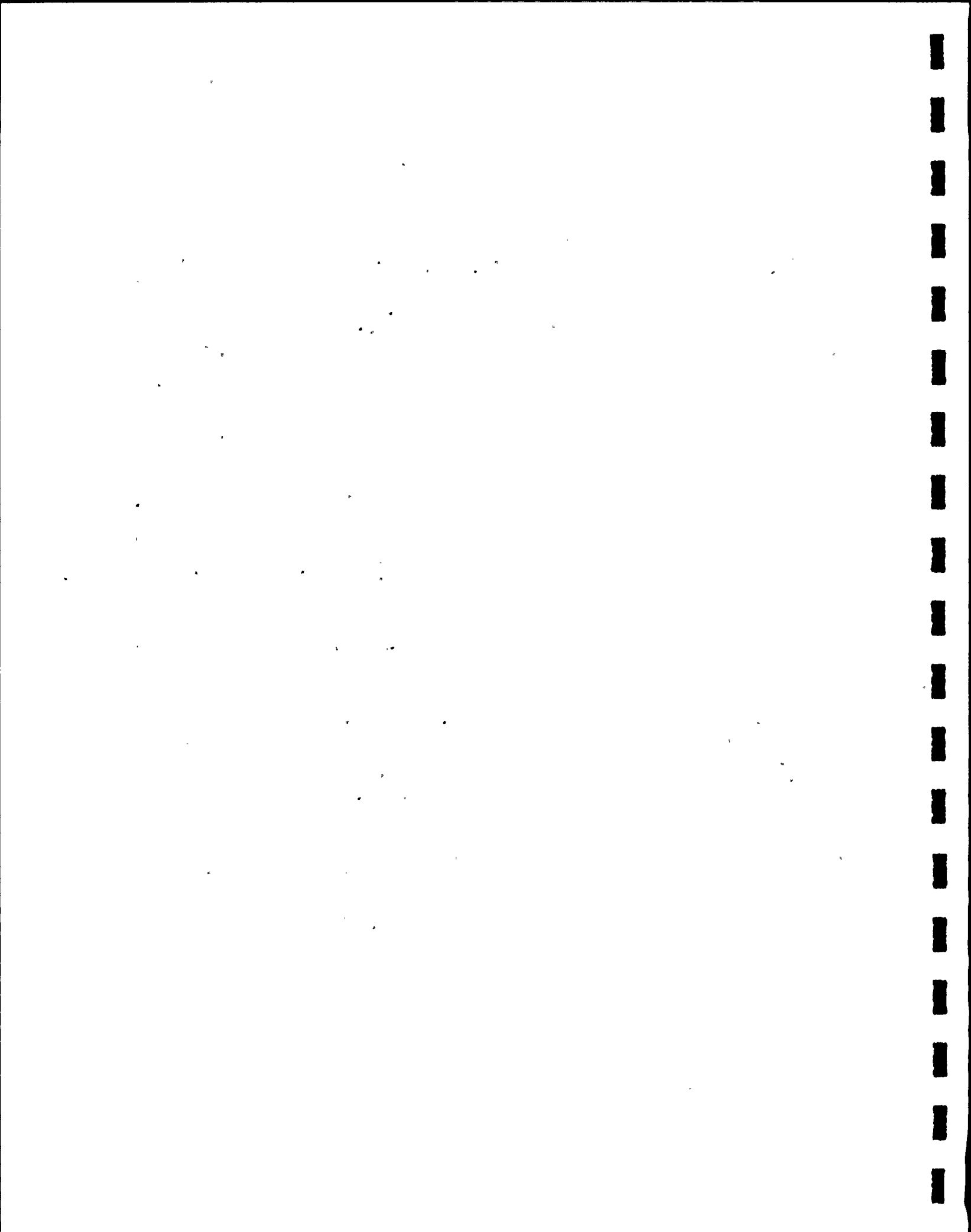
| DATE                       | SAMPLE DEPTH | 1100 HR | 1700 HR | 2300 HR | 0500 HR  | MEAN    |
|----------------------------|--------------|---------|---------|---------|----------|---------|
| 2 JUN                      | SURFACE      | 0       | 0       | 17      | 0        | 4.3     |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0        | 0.0     |
|                            | MEAN         | 0.0     | 0.0     | 8.5     | 0.0      | 2.1     |
| 9 JUN                      | SURFACE      | 24      | 0       | 0       | 0        | 6.0     |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0        | 0.0     |
|                            | MEAN         | 12.0    | 0.0     | 0.0     | 0.0      | 3.0     |
| 16 JUN                     | SURFACE      | 26      | 15      | 63      | 16       | 30.0    |
|                            | MID-DEPTH    | 0       | 0       | 0       | 20       | 5.0     |
|                            | MEAN         | 13.0    | 7.5     | 31.5    | 18.0     | 17.5    |
| 23 JUN                     | SURFACE      | 522     | 622     | 3291    | 73       | 1127.0  |
|                            | MID-DEPTH    | 315     | 1102    | 2039    | 247      | 925.8   |
|                            | MEAN         | 418.5   | 862.0   | 2665.0  | 160.0    | 1026.4  |
| 30 JUN,<br>3 JUL           | SURFACE      | 402     | 2465    | 2693    | 5139     | 2674.8  |
|                            | MID-DEPTH    | 4383    | 2363    | 3185    | 254669   | 66150.0 |
|                            | MEAN         | 2392.5  | 2414.0  | 2939.0  | 129904.0 | 34412.4 |
| 7 JUL                      | SURFACE      | 462     | 883     | 13912   | 2225     | 4370.5  |
|                            | MID-DEPTH    | 232     | 796     | 10673   | 6187     | 4472.0  |
|                            | MEAN         | 347.0   | 839.5   | 12292.5 | 4206.0   | 4421.2  |
| 14 JUL                     | SURFACE      | 334     | 93      | 1963    | 973      | 840.8   |
|                            | MID-DEPTH    | 514     | 35      | 1557    | 861      | 741.8   |
|                            | MEAN         | 424.0   | 64.0    | 1760.0  | 917.0    | 791.2   |
| 21 JUL                     | SURFACE      | 164     | 171     | 1937    | 1415     | 921.8   |
|                            | MID-DEPTH    | 321     | 96      | 2275    | 4763     | 1863.8  |
|                            | MEAN         | 242.5   | 133.5   | 2106.0  | 3089.0   | 1392.8  |
| 28 JUL                     | SURFACE      | 8       | 14      | 14      | 995      | 257.8   |
|                            | MID-DEPTH    | 17      | 16      | 0       | 2785     | 704.5   |
|                            | MEAN         | 12.5    | 15.0    | 7.0     | 1890.0   | 481.1   |
| 4 AUG                      | SURFACE      | 201     | 34      | 34      | 724      | 248.3   |
|                            | MID-DEPTH    | 82      | 9       | 19      | 1056     | 291.5   |
|                            | MEAN         | 141.5   | 21.5    | 26.5    | 890.0    | 269.9   |
| 11 AUG                     | SURFACE      | 30      | 7       | 0       | 254      | 72.8    |
|                            | MID-DEPTH    | 0       | 0       | 0       | 249      | 62.3    |
|                            | MEAN         | 15.0    | 3.5     | 0.0     | 251.5    | 67.5    |
| GRAND<br>MEAN <sup>b</sup> | SURFACE      | 90.5    | 179.3   | 996.8   | 492.2    |         |
|                            | MID-DEPTH    | 244.3   | 184.0   | 822.8   | 11284.9  |         |
|                            | MEAN         | 167.4   | 181.6   | 909.8   | 5888.6   |         |

None collected 14 Apr-26 May, and 18 Aug-20 Oct

<sup>a</sup> Number/1000 m<sup>3</sup>

<sup>b</sup> April - October sampling period





ABUNDANCE<sup>a</sup> OF RAINBOW SMELT EGGS

NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

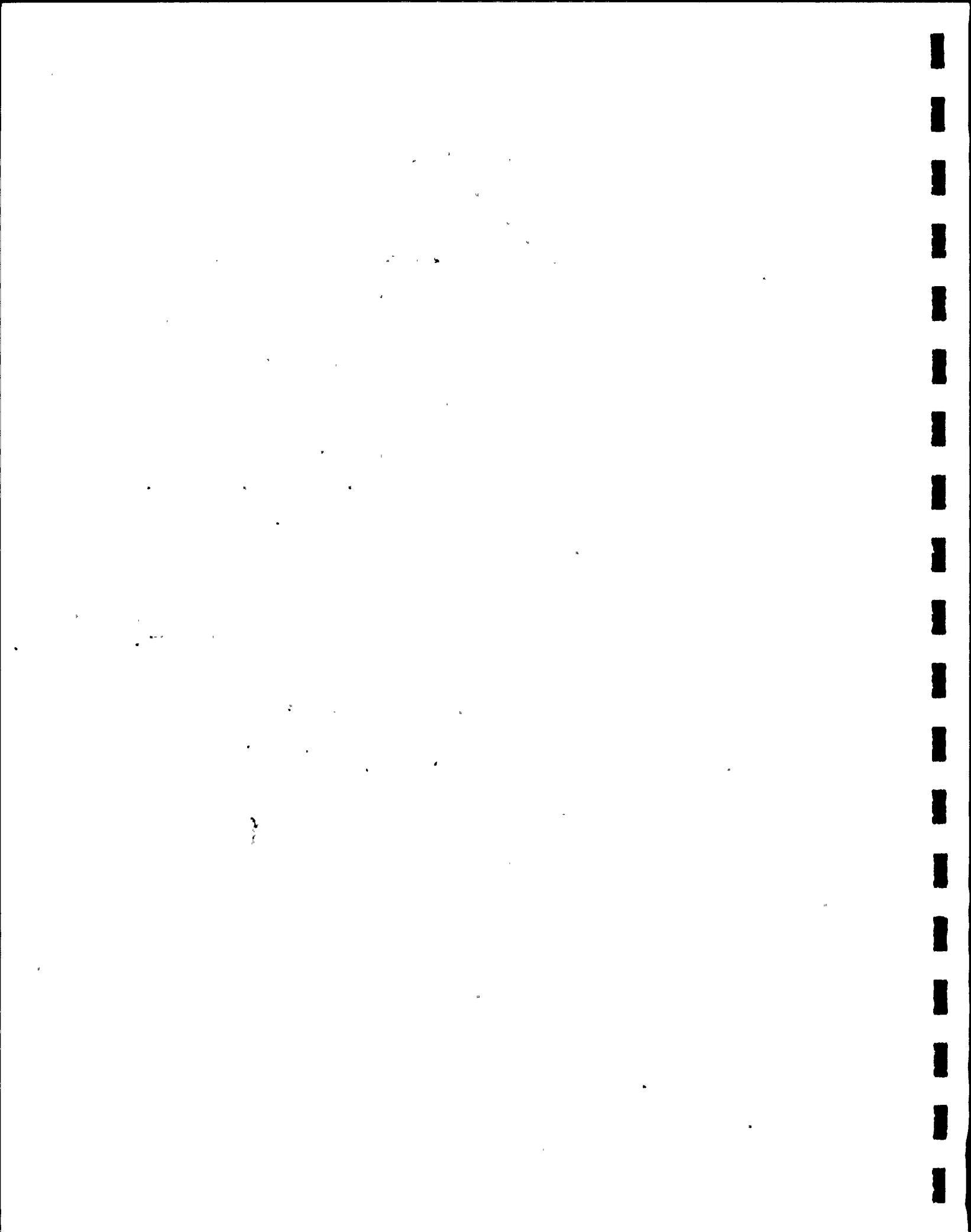
| DATE                       | SAMPLE DEPTH | 1100 HR | 1700 HR | 2300 HR | 0500 HR | MEAN  |
|----------------------------|--------------|---------|---------|---------|---------|-------|
| 28 APR                     | SURFACE      | 14      | 38      | 0       | 56      | 27.0  |
|                            | MID-DEPTH    | 827     | 0       | 31      | 195     | 263.3 |
|                            | MEAN         | 420.5   | 19.0    | 15.5    | 125.5   | 145.1 |
| 5 MAY                      | SURFACE      | 25      | 19      | 52      | 65      | 40.3  |
|                            | MID-DEPTH    | 30      | 25      | 54      | 129     | 59.5  |
|                            | MEAN         | 27.5    | 22.0    | 53.0    | 97.0    | 49.9  |
| 12 MAY                     | SURFACE      | 76      | 51      | 14      | 20      | 40.3  |
|                            | MID-DEPTH    | 20      | 0       | 11      | 10      | 10.3  |
|                            | MEAN         | 48.0    | 25.5    | 12.5    | 15.0    | 25.3  |
| 19 MAY                     | SURFACE      | 0       | 7       | 0       | 0       | 1.8   |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0   |
|                            | MEAN         | 0.0     | 3.5     | 0.0     | 0.0     | 0.9   |
| 26 MAY                     | SURFACE      | 14      | 7       | 0       | 15      | 9.0   |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0   |
|                            | MEAN         | 7.0     | 3.5     | 0.0     | 7.5     | 4.5   |
| 2 JUN                      | SURFACE      | 11      | 8       | 8       | 0       | 6.8   |
|                            | MID-DEPTH    | 19      | 11      | 0       | 0       | 7.5   |
|                            | MEAN         | 15.0    | 9.5     | 4.0     | 0.0     | 7.1   |
| 9 JUN                      | SURFACE      | 0       | 47      | 101     | 0       | 37.0  |
|                            | MID-DEPTH    | 64      | 8       | 84      | 0       | 39.0  |
|                            | MEAN         | 32.0    | 27.5    | 92.5    | 0.0     | 38.0  |
| GRAND<br>MEAN <sup>b</sup> | SURFACE      | 5.8     | 7.4     | 7.3     | 6.5     |       |
|                            | MID-DEPTH    | 40.0    | 1.8     | 7.5     | 13.9    |       |
|                            | MEAN         | 22.9    | 4.6     | 7.4     | 10.2    |       |

None collected 14 Apr, and 16 Jun-20 Oct

<sup>a</sup>Number/1000 m<sup>3</sup>

<sup>b</sup>April - October sampling period

Revised/final



ABUNDANCE<sup>a</sup> OF WHITE PERCH EGGS

NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

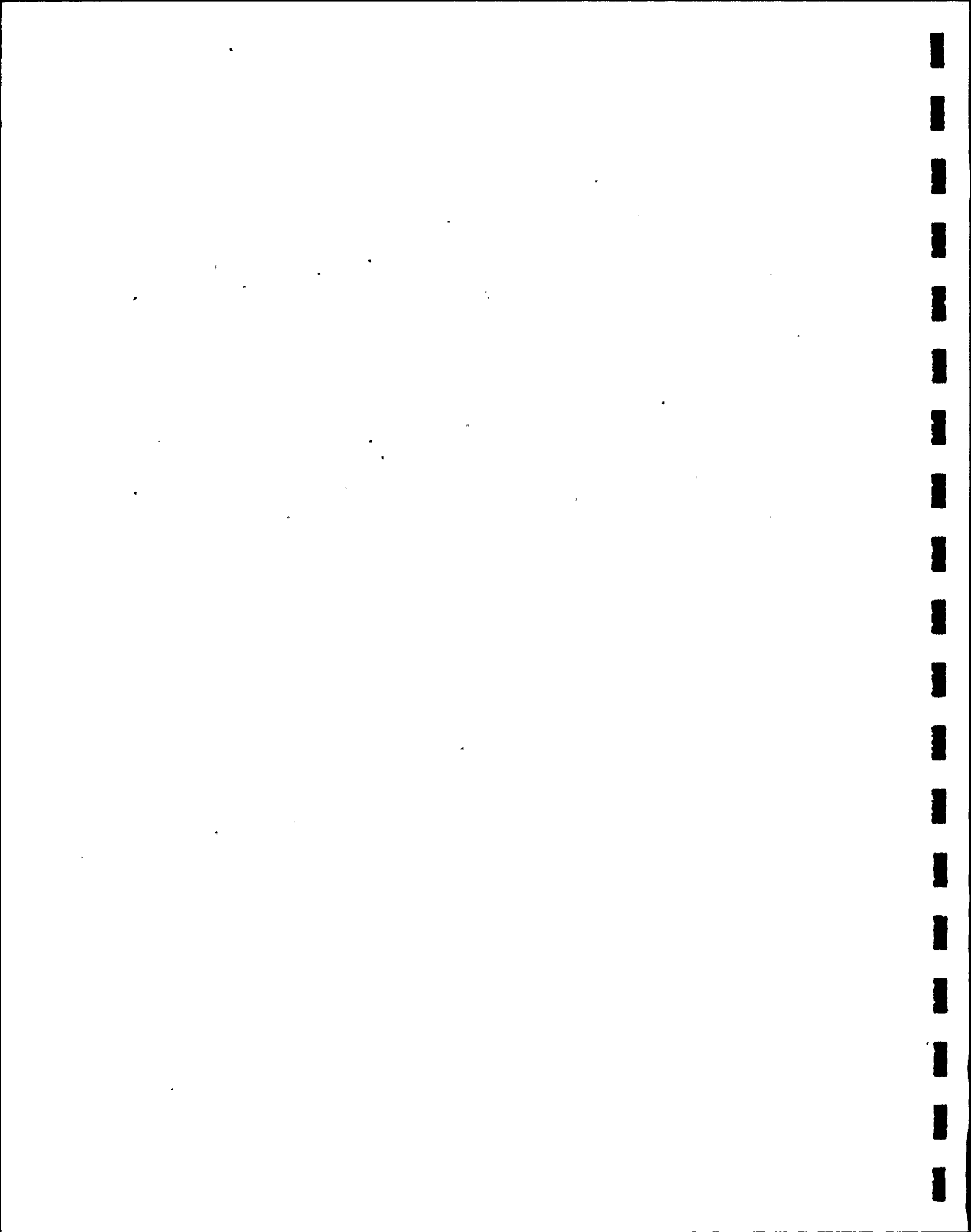
| DATE                       | SAMPLE DEPTH | 1100 HR | 1700 HR | 2300 HR | 0500 HR | MEAN  |
|----------------------------|--------------|---------|---------|---------|---------|-------|
| 5 MAY                      | SURFACE      | 0       | 0       | 0       | 6       | 1.5   |
|                            | MID-DEPTH    | 0       | 0       | 0       | 11      | 2.8   |
|                            | MEAN         | 0.0     | 0.0     | 0.0     | 8.5     | 2.1   |
| 12 MAY                     | SURFACE      | 0       | 41      | 35      | 0       | 19.0  |
|                            | MID-DEPTH    | 5       | 17      | 53      | 10      | 21.3  |
|                            | MEAN         | 2.5     | 29.0    | 44.0    | 5.0     | 20.1  |
| 19 MAY                     | SURFACE      | 34      | 1228    | 93      | 23      | 344.5 |
|                            | MID-DEPTH    | 51      | 1015    | 225     | 0       | 322.8 |
|                            | MEAN         | 42.5    | 1121.5  | 159.0   | 11.5    | 333.6 |
| 26 MAY                     | SURFACE      | 7       | 0       | 0       | 59      | 16.5  |
|                            | MID-DEPTH    | 0       | 8       | 0       | 73      | 20.3  |
|                            | MEAN         | 3.5     | 4.0     | 0.0     | 66.0    | 18.4  |
| 2 JUN                      | SURFACE      | 0       | 0       | 0       | 0       | 0.0   |
|                            | MID-DEPTH    | 134     | 22      | 0       | 10      | 41.5  |
|                            | MEAN         | 67.0    | 11.0    | 0.0     | 5.0     | 20.8  |
| 9 JUN                      | SURFACE      | 142     | 55      | 0       | 0       | 49.3  |
|                            | MID-DEPTH    | 8       | 8       | 0       | 0       | 22.0  |
|                            | MEAN         | 111.0   | 31.5    | 0.0     | 0.0     | 35.6  |
| GRAND<br>MEAN <sup>b</sup> | SURFACE      | 7.6     | 55.2    | 5.3     | 3.7     |       |
|                            | MID-DEPTH    | 11.2    | 44.6    | 11.6    | 4.3     |       |
|                            | MEAN         | 9.4     | 49.9    | 8.4     | 4.0     |       |

None collected 14-28 Apr, and 16 Jun-20 Oct

<sup>a</sup>Number/1000 m<sup>3</sup>

<sup>b</sup>April - October sampling period

Revised/final



ABUNDANCE<sup>a</sup> OF YELLOW PERCH EGGS

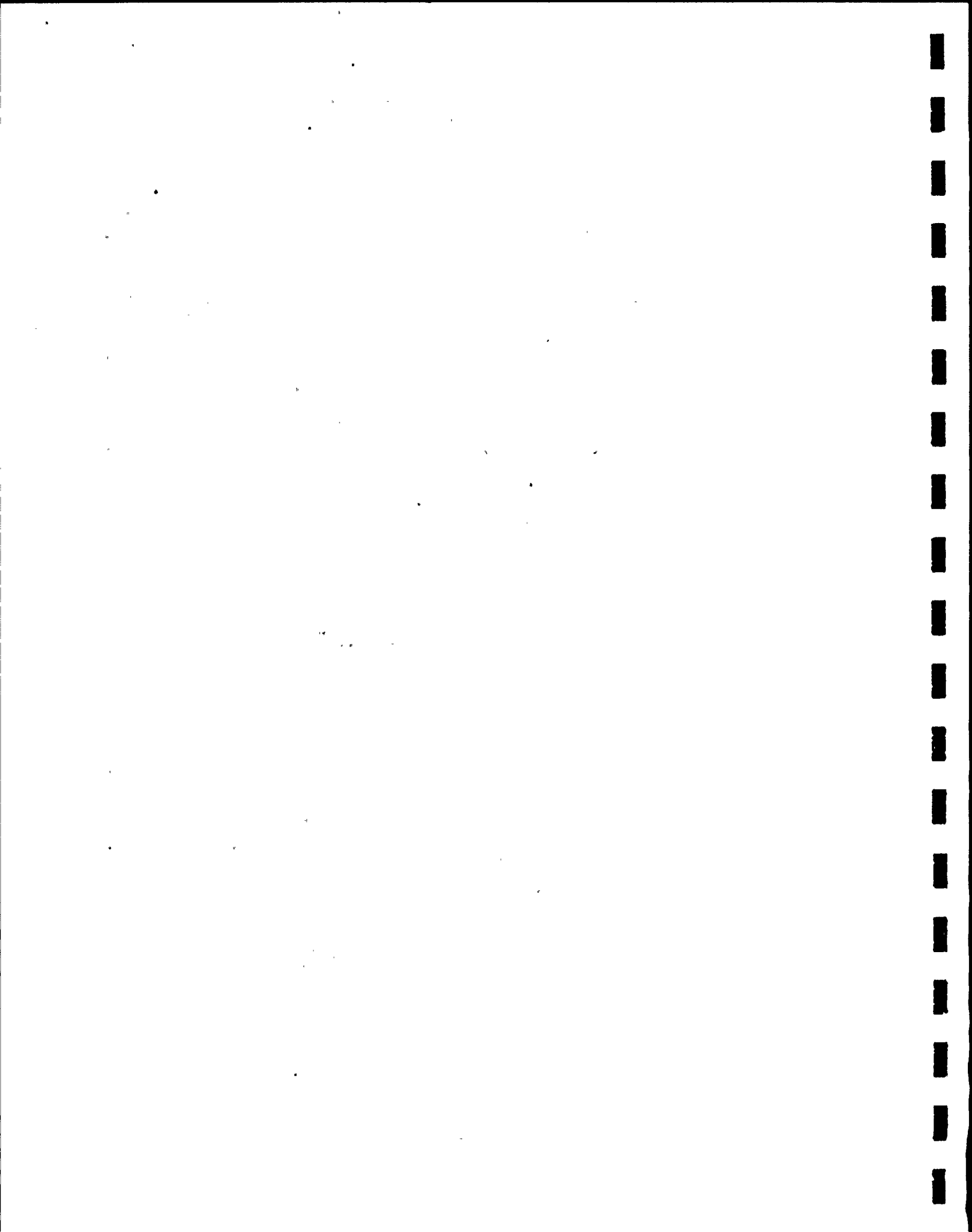
NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

| DATE                       | SAMPLE DEPTH | 1100 HR | 1700 HR | 2300 HR | 0500 HR | MEAN |
|----------------------------|--------------|---------|---------|---------|---------|------|
| 12 MAY                     | SURFACE      | 0       | 0       | 0       | 10      | 2.5  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0       | 0.0  |
|                            | MEAN         | 0.0     | 0.0     | 0.0     | 5.0     | 1.2  |
| 2 JUN                      | SURFACE      | 0       | 0       | 0       | 0       | 0.0  |
|                            | MID-DEPTH    | 0       | 0       | 0       | 10      | 2.5  |
|                            | MEAN         | 0.0     | 0.0     | 0.0     | 5.0     | 1.2  |
| GRAND<br>MEAN <sup>b</sup> | SURFACE      | 0.0     | 0.0     | 0.0     | 0.4     |      |
|                            | MID-DEPTH    | 0.0     | 0.0     | 0.0     | 0.4     |      |
|                            | MEAN         | 0.0     | 0.0     | 0.0     | 0.4     |      |

None collected .14 Apr - 5 May, 19-26 May, and 9 Jun - 20 Oct

<sup>a</sup>Number/1000 m<sup>3</sup>

<sup>b</sup>April - October sampling period



ABUNDANCE<sup>a</sup> OF ALEWIFE EGGS

NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

| DATE                       | SAMPLE DEPTH | 1100 HR | 1700 HR | 2300 HR | 0500 HR  | MEAN    |
|----------------------------|--------------|---------|---------|---------|----------|---------|
| 2 JUN                      | SURFACE      | 0       | 0       | 17      | 0        | 4.3     |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0        | 0.0     |
|                            | MEAN         | 0.0     | 0.0     | 8.5     | 0.0      | 2.1     |
| 9 JUN                      | SURFACE      | 24      | 0       | 0       | 0        | 6.0     |
|                            | MID-DEPTH    | 0       | 0       | 0       | 0        | 0.0     |
|                            | MEAN         | 12.0    | 0.0     | 0.0     | 0.0      | 3.0     |
| 16 JUN                     | SURFACE      | 26      | 15      | 63      | 16       | 30.0    |
|                            | MID-DEPTH    | 0       | 0       | 0       | 20       | 5.0     |
|                            | MEAN         | 13.0    | 7.5     | 31.5    | 18.0     | 17.5    |
| 23 JUN                     | SURFACE      | 522     | 622     | 3291    | 73       | 1127.0  |
|                            | MID-DEPTH    | 315     | 1102    | 2039    | 247      | 925.8   |
|                            | MEAN         | 418.5   | 862.0   | 2665.0  | 160.0    | 1026.4  |
| 30 JUN,<br>3 JUL           | SURFACE      | 402     | 2465    | 2693    | 5139     | 2674.8  |
|                            | MID-DEPTH    | 4383    | 2363    | 3185    | 254669   | 66150.0 |
|                            | MEAN         | 2392.5  | 2414.0  | 2939.0  | 129904.0 | 34412.4 |
| 7 JUL                      | SURFACE      | 462     | 883     | 13912   | 2225     | 4370.5  |
|                            | MID-DEPTH    | 232     | 796     | 10673   | 6187     | 4472.0  |
|                            | MEAN         | 347.0   | 839.5   | 12292.5 | 4206.0   | 4421.2  |
| 14 JUL                     | SURFACE      | 334     | 93      | 1963    | 973      | 840.8   |
|                            | MID-DEPTH    | 514     | 35      | 1557    | 861      | 741.8   |
|                            | MEAN         | 424.0   | 64.0    | 1760.0  | 917.0    | 791.2   |
| 21 JUL                     | SURFACE      | 164     | 171     | 1937    | 1415     | 921.8   |
|                            | MID-DEPTH    | 321     | 96      | 2275    | 4763     | 1863.8  |
|                            | MEAN         | 242.5   | 133.5   | 2106.0  | 3089.0   | 1392.8  |
| 28 JUL                     | SURFACE      | 8       | 14      | 14      | 995      | 257.8   |
|                            | MID-DEPTH    | 17      | 16      | 0       | 2785     | 704.5   |
|                            | MEAN         | 12.5    | 15.0    | 7.0     | 1890.0   | 481.1   |
| 4 AUG                      | SURFACE      | 201     | 34      | 34      | 724      | 248.3   |
|                            | MID-DEPTH    | 82      | 9       | 19      | 1056     | 291.5   |
|                            | MEAN         | 141.5   | 21.5    | 26.5    | 890.0    | 269.9   |
| 11 AUG                     | SURFACE      | 30      | 7       | 0       | 254      | 72.8    |
|                            | MID-DEPTH    | 0       | 0       | 0       | 249      | 62.3    |
|                            | MEAN         | 15.0    | 3.5     | 0.0     | 251.5    | 67.5    |
| GRAND<br>MEAN <sup>b</sup> | SURFACE      | 90.5    | 179.3   | 996.8   | 492.2    |         |
|                            | MID-DEPTH    | 244.3   | 184.0   | 822.8   | 11284.9  |         |
|                            | MEAN         | 167.4   | 181.6   | 909.8   | 5888.6   |         |

None collected 14 Apr-26 May, and 18 Aug-20 Oct

<sup>a</sup>Number/1000 m<sup>3</sup>

<sup>b</sup>April - October sampling period



IX.A. MONTHLY ABUNDANCE AND PERCENT COMPOSITION:  
FIELD COUNTS AND IDENTIFICATION

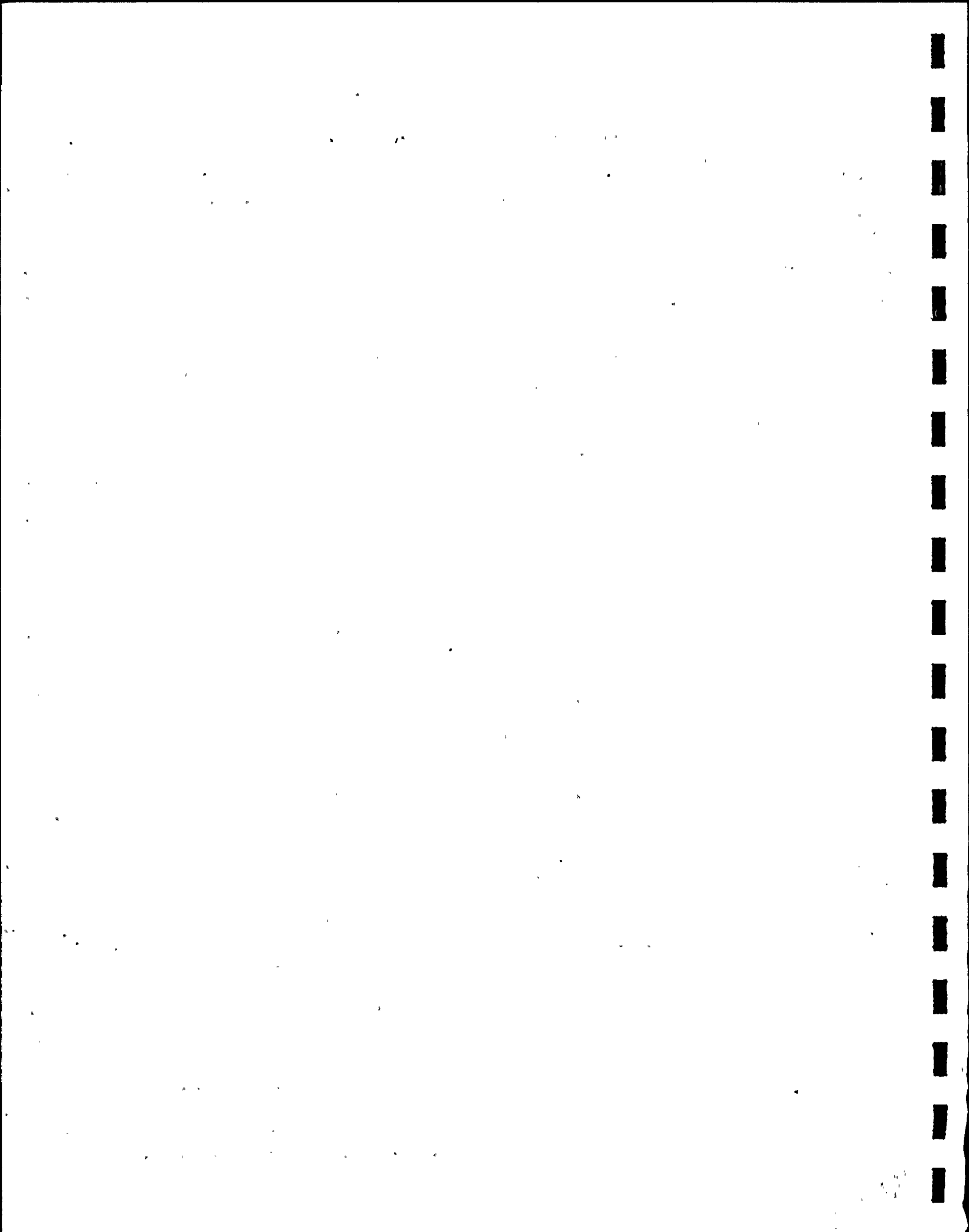


## MONTHLY ABUNDANCE\* AND PERCENT COMPOSITION OF IMPINGEMENT COLLECTIONS

## NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

| SPECIES                    | JAN  |       | FEB  |       | MAR   |       | APR    |       | MAY     |       | JUN   |       |
|----------------------------|------|-------|------|-------|-------|-------|--------|-------|---------|-------|-------|-------|
|                            | NO.  | %     | NO.  | %     | NO.   | %     | NO.    | %     | NO.     | %     | NO.   | %     |
| Alewife                    | 1357 | 13.71 | 31   | 0.49  | 27071 | 54.99 | 554432 | 93.90 | 1317574 | 91.48 | 6674  | 56.90 |
| American eel               | 8    | 0.19  | 2    | 0.03  | 1     | <0.01 | 3      | <0.01 | 3       | <0.01 | 5     | 0.04  |
| Black crappie              | 3    | 0.07  |      |       |       |       |        |       | 1       | <0.01 |       |       |
| Bluegill sunfish           | 5    | 0.12  |      |       |       |       | 4      | <0.01 | 16      | <0.01 |       |       |
| Bluntnose minnow           |      |       |      |       |       |       | 2      | <0.01 |         |       |       |       |
| Brook stickleback          |      |       |      |       | 30    | 0.06  | 24     | <0.01 | 1       | <0.01 |       |       |
| Brook trout                |      |       |      |       |       |       |        |       |         |       |       |       |
| Brown bullhead             | 1    | 0.02  |      |       | 5     | 0.01  | 12     | <0.01 | 3       | <0.01 |       |       |
| Brown trout                | 1    | 0.02  |      |       |       |       |        |       | 1       | <0.01 | 5     | 0.04  |
| Burbot                     | 1    | 0.02  | 15   | 0.24  | 1     | <0.01 | 1      | <0.01 |         |       |       |       |
| Carp                       |      |       |      |       | 1     | <0.01 |        |       |         |       | 1     | 0.01  |
| Channel catfish            | 19   | 0.44  | 6    | 0.09  | 6     | 0.01  | 2      | <0.01 |         |       |       |       |
| Cisco or Lake herring      |      |       |      |       |       |       |        |       | 1       | <0.01 |       |       |
| Coho salmon                |      |       |      |       |       |       |        |       | 1       | <0.01 |       |       |
| Creek chub                 |      |       | 1    | 0.02  | 31    | 0.06  | 13     | <0.01 |         |       |       |       |
| Emerald shiner             | 44   | 1.03  | 138  | 2.17  | 244   | 0.50  | 106    | 0.02  | 34      | <0.01 |       |       |
| Fathead minnow             |      |       |      |       |       |       | 15     | <0.01 | 1       | <0.01 |       |       |
| Freshwater drum            | 17   | 0.40  | 19   | 0.30  | 9     | 0.02  | 1      | <0.01 | 2       | <0.01 |       |       |
| Gizzard shad               | 632  | 14.77 | 1903 | 29.88 | 6607  | 13.42 | 465    | 0.08  | 163     | 0.01  |       |       |
| Goldfish                   |      |       |      |       | 1     | <0.01 | 4      | <0.01 |         |       |       |       |
| Golden shiner              |      |       |      |       | 4     | 0.01  | 7      | <0.01 | 1       | <0.01 |       |       |
| Johnny darter              |      |       | 1    | 0.02  |       |       | 88     | 0.01  | 1205    | 0.08  | 35    | 0.30  |
| Lake chub                  | 1    | 0.02  | 4    | 0.06  | 8     | 0.02  | 79     | 0.01  | 115     | 0.01  | 5     | 0.04  |
| Lake trout                 | 2    | 0.05  |      |       | 1     | <0.01 | 15     | <0.01 | 12      | <0.01 |       |       |
| Lake whitefish             |      |       |      |       |       |       |        |       |         |       |       |       |
| Largemouth bass            |      |       | 1    | 0.02  |       |       |        |       |         |       |       |       |
| Lepomis sp.                |      |       |      |       |       |       |        |       |         |       |       |       |
| Logperch                   |      |       |      |       | 1     | <0.01 | 3      | <0.01 |         |       |       |       |
| Longnose dace              | 2    | 0.05  | 8    | 0.13  | 11    | 0.02  | 1      | <0.01 | 6       | <0.01 | 1     | 0.01  |
| Mottled sculpin            | 311  | 7.27  | 449  | 7.05  | 228   | 0.46  | 1124   | 0.19  | 1667    | 0.12  | 57    | 0.49  |
| Mudminnow                  | 2    | 0.05  | 1    | 0.02  | 23    | 0.05  | 12     | <0.01 | 2       | <0.01 | 1     | 0.01  |
| Mudpuppy                   |      |       |      |       |       |       |        |       |         |       |       |       |
| Northern pike              | 1    | 0.02  |      |       |       |       |        |       |         |       |       |       |
| Notropis sp.               |      |       |      |       |       |       |        |       |         |       |       |       |
| Pearl dace                 |      |       |      |       | 3     | 0.01  | 15     | <0.01 |         |       |       |       |
| Pimephales sp.             | 1    | 0.02  |      |       |       |       |        |       | 1       | <0.01 |       |       |
| Pugnose minnow             |      |       |      |       |       |       |        |       |         |       |       |       |
| Pumpkinseed                | 4    | 0.09  |      |       | 2     | <0.01 | 5      | <0.01 | 1       | <0.01 | 2     | 0.02  |
| Rainbow smelt              | 1162 | 27.15 | 1612 | 25.31 | 6300  | 12.80 | 19397  | 3.28  | 36404   | 2.53  | 350   | 3.00  |
| Rainbow trout              |      |       |      |       |       |       |        |       |         |       |       |       |
| Rock bass                  | 58   | 1.36  | 74   | 1.16  | 27    | 0.05  | 25     | <0.01 | 67      | <0.01 | 43    | 0.37  |
| Salvelinus sp.             |      |       |      |       |       |       | 20     | <0.01 | 3       | <0.01 |       |       |
| Sea lamprey                | 8    | 0.19  | 3    | 0.05  | 3     | 0.01  | 1      | <0.01 | 1       | <0.01 | 6     | 0.05  |
| Smallmouth bass            | 9    | 0.21  | 23   | 0.36  | 5     | 0.01  | 4      | <0.01 | 32      | <0.01 | 14    | 0.12  |
| Splake (hybrid lake trout) | 1    | 0.02  | 5    | 0.08  | 5     | 0.01  | 1      | <0.01 |         |       |       |       |
| Spottail shiner            | 29   | 0.68  | 81   | 1.27  | 136   | 0.28  | 481    | 0.08  | 6366    | 0.44  | 388   | 3.31  |
| Stonecat                   | 10   | 0.23  | 15   | 0.24  | 2     | <0.01 | 28     | <0.01 | 6       | <0.01 | 26    | 0.22  |
| Threespine stickleback     | 86   | 2.01  | 505  | 7.93  | 3580  | 7.27  | 10177  | 1.72  | 72587   | 5.04  | 3853  | 32.85 |
| Trout-perch                | 4    | 0.09  | 13   | 0.20  | 76    | 0.15  | 2247   | 0.38  | 2523    | 0.18  | 36    | 0.31  |
| Walleye                    | 3    | 0.07  |      |       | 2     | <0.01 |        |       | 16      | <0.01 |       |       |
| White bass                 | 269  | 6.29  | 1230 | 19.32 | 3827  | 7.77  | 831    | 0.14  | 393     | 0.03  | 13    | 0.11  |
| White perch                | 103  | 2.41  | 171  | 2.69  | 921   | 1.87  | 564    | 0.10  | 708     | 0.05  | 109   | 0.93  |
| White sucker               | 3    | 0.07  | 10   | 0.16  | 5     | 0.01  | 5      | <0.01 | 19      | <0.01 | 57    | 0.49  |
| Yellow perch               | 123  | 2.87  | 46   | 0.72  | 49    | 0.10  | 264    | 0.04  | 405     | 0.03  | 42    | 0.36  |
| UID                        |      |       |      |       | 1     | <0.01 | 2      | <0.01 | 5       | <0.01 |       |       |
| UID Chub                   |      |       |      |       |       |       |        |       |         |       | 3     | 0.03  |
| UID Salmonidae             |      |       |      |       |       |       |        |       | 3       | <0.01 | 4     | 0.03  |
| TOTAL                      | 4280 |       | 6367 |       | 49227 |       | 590480 |       | 1440349 |       | 11730 |       |

\*Traveling screen and trash rack collections; numbers not adjusted for number of traveling screens operating; field counts and identification

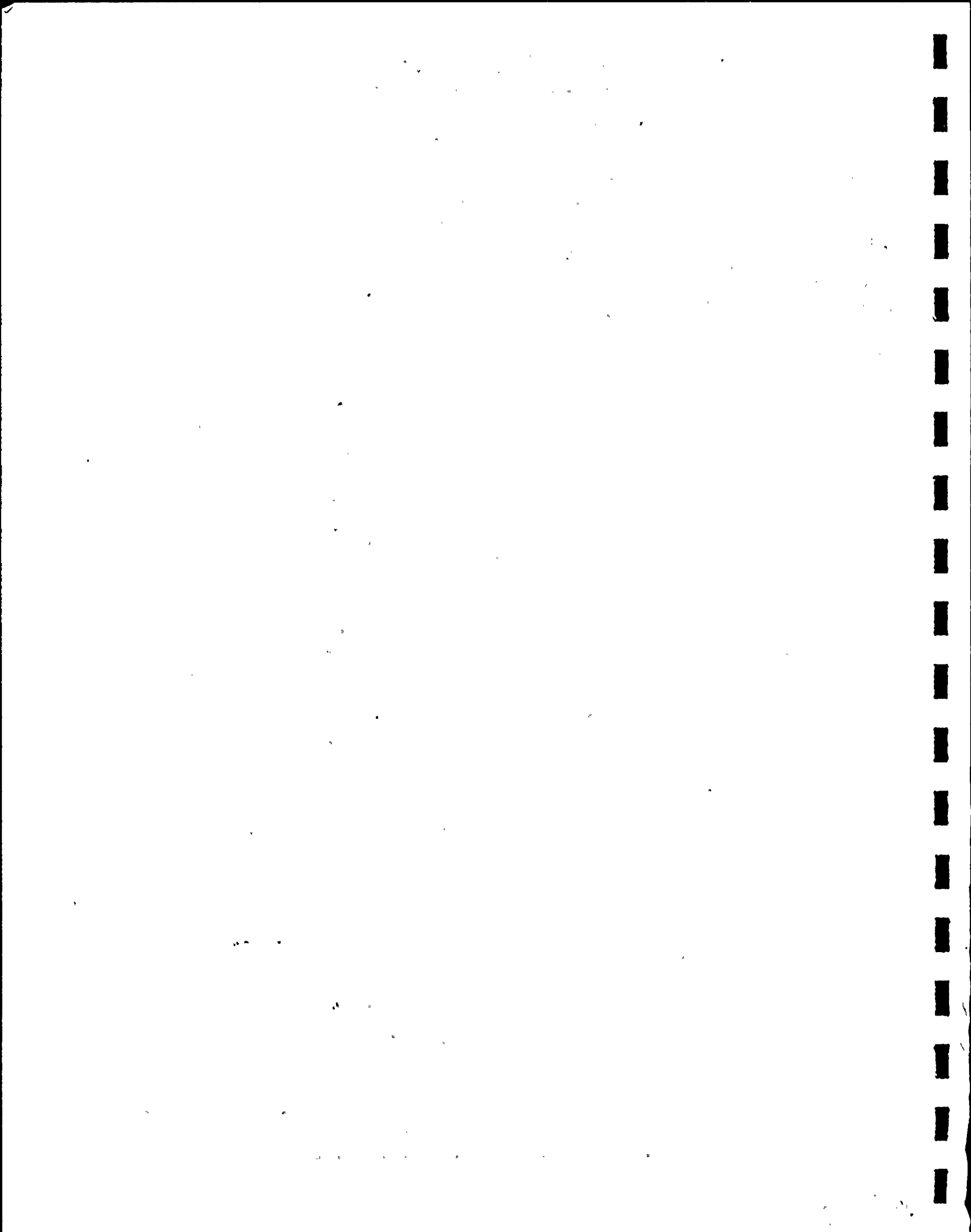


MONTHLY ABUNDANCE\* AND PERCENT COMPOSITION OF IMPINGED FISH (Continued)

NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

| SPECIES                    | JUL   |       | AUG |       | SEP |       | OCT |       | NOV   |       | DEC   |       | TOTAL   |       |
|----------------------------|-------|-------|-----|-------|-----|-------|-----|-------|-------|-------|-------|-------|---------|-------|
|                            | NO.   | %     | NO. | %     | NO. | %     | NO. | %     | NO.   | %     | NO.   | %     | NO.     | %     |
| Alewife                    | 13947 | 82.33 | 298 | 55.70 | 67  | 25.38 | 249 | 35.67 | 12307 | 65.33 | 1161  | 10.70 | 1935168 | 89.98 |
| American eel               | 11    | 0.06  | 5   | 0.93  | 16  | 6.06  |     |       | 4     | 0.02  | 8     | 0.07  | 66      | <0.01 |
| Black crappie              |       |       |     |       |     |       |     |       |       |       |       |       | 4       | <0.01 |
| Bluegill sunfish           | 1     | 0.01  |     |       |     |       | 2   | 0.29  |       |       |       |       | 28      | <0.01 |
| Bluntnose minnow           |       |       |     |       |     |       |     |       |       |       |       |       | 2       | <0.01 |
| Brook stickleback          |       |       |     |       |     |       |     |       |       |       |       |       | 55      | <0.01 |
| Brook trout                |       |       |     |       |     |       |     |       | 2     | 0.01  |       |       | 2       | <0.01 |
| Brown bullhead             | 2     | 0.01  | 3   | 0.56  | 2   | 0.76  | 13  | 1.86  | 6     | 0.03  | 2     | 0.02  | 49      | <0.01 |
| Brown trout                | 2     | 0.01  | 1   | 0.19  |     |       |     |       |       |       |       |       | 10      | <0.01 |
| Burbot                     | 1     | 0.01  |     |       | 2   | 0.76  | 2   | 0.29  | 2     | 0.01  | 6     | 0.06  | 31      | <0.01 |
| Carp                       |       |       |     |       |     |       |     |       |       |       |       |       | 2       | <0.01 |
| Channel catfish            |       |       | 1   | 0.19  |     |       |     |       | 7     | 0.04  | 2     | 0.02  | 43      | <0.01 |
| Cisco or Lake herring      |       |       |     |       |     |       |     |       |       |       |       |       | 1       | <0.01 |
| Coho salmon                |       |       |     |       |     |       |     |       |       |       |       |       | 1       | <0.01 |
| Creek chub                 |       |       |     |       |     |       |     |       |       |       |       |       | 45      | <0.01 |
| Emerald shiner             | 1     | 0.01  | 1   | 0.19  | 1   | 0.38  | 16  | 2.29  | 20    | 0.11  | 85    | 0.78  | 690     | 0.03  |
| Fathead minnow             |       |       |     |       |     |       |     |       |       |       |       |       | 16      | <0.01 |
| Freshwater drum            |       |       |     |       |     |       | 1   | 0.14  |       |       | 2     | 0.02  | 51      | <0.01 |
| Gizzard shad               |       |       | 1   | 0.19  |     |       | 126 | 18.05 | 1335  | 7.09  | 388   | 3.57  | 11620   | 0.54  |
| Goldfish                   |       |       |     |       |     |       | 1   | 0.14  | 1     | 0.01  | 1     | >0.01 | 8       | <0.01 |
| Golden shiner              |       |       |     |       |     |       |     |       |       |       | 1     | >0.01 | 13      | <0.01 |
| Johnny darter              | 49    | 0.29  | 8   | 1.50  | 15  | 5.68  |     |       |       |       |       |       | 1401    | 0.07  |
| Lake chub                  | 1     | 0.01  |     |       |     |       |     |       |       |       | 1     | <0.01 | 214     | 0.01  |
| Lake trout                 |       |       |     |       |     |       |     |       | 1     | 0.01  | 1     | <0.01 | 32      | <0.01 |
| Lake whitefish             |       |       |     |       |     |       |     |       |       |       | 1     | <0.01 | 1       | <0.01 |
| Largemouth bass            |       |       |     |       |     |       |     |       |       |       |       |       | 1       | <0.01 |
| Lepomis sp.                | 7     | 0.04  |     |       |     |       |     |       |       |       |       |       | 1       | <0.01 |
| Logperch                   |       |       |     |       |     |       |     |       |       |       |       |       | 4       | <0.01 |
| Longnose dace              |       |       |     |       |     |       |     |       |       |       |       |       | 29      | <0.01 |
| Mottled sculpin            | 46    | 0.27  | 10  | 1.87  | 9   | 3.41  | 9   | 1.29  | 41    | 0.22  | 192   | 1.77  | 4143    | 0.19  |
| Mudminnow                  |       |       |     |       |     |       |     |       |       |       | 1     | <0.01 | 42      | <0.01 |
| Mudpuppy                   |       |       |     |       |     |       |     |       | 1     | 0.01  |       |       | 1       | <0.01 |
| Northern pike              | 1     | 0.01  |     |       |     |       |     |       |       |       | 1     | <0.01 | 3       | <0.01 |
| Notropis sp.               |       |       |     |       |     |       |     |       |       |       | 1     | <0.01 | 1       | <0.01 |
| Pearl dace                 |       |       |     |       |     |       |     |       |       |       |       |       | 18      | <0.01 |
| Pimephales sp.             |       |       |     |       |     |       |     |       |       |       |       |       | 2       | <0.01 |
| Pugnose minnow             |       |       |     |       |     |       |     |       | 1     | <0.01 |       |       | 1       | <0.01 |
| Pumpkinseed                | 2     | 0.01  | 1   | 0.19  | 8   | 3.03  | 4   | 0.57  | 2     | 0.01  | 14    | 0.13  | 45      | <0.01 |
| Rainbow smelt              | 37    | 0.22  | 15  | 2.80  | 5   | 1.89  | 79  | 11.32 | 3955  | 21.00 | 8241  | 75.92 | 77557   | 3.61  |
| Rainbow trout              |       |       |     |       |     |       |     |       |       |       | 1     | <0.01 | 1       | <0.01 |
| Rock bass                  | 50    | 0.30  | 45  | 8.41  | 21  | 7.95  | 28  | 4.01  | 13    | 0.07  | 49    | 0.45  | 500     | 0.02  |
| Salvelinus sp.             |       |       |     |       |     |       |     |       |       |       |       |       | 23      | <0.01 |
| Sea lamprey                | 24    | 0.14  | 3   | 0.56  | 1   | 0.38  | 2   | 0.29  | 1     | 0.01  | 13    | 0.12  | 66      | <0.01 |
| Smallmouth bass            | 11    | 0.06  | 22  | 4.11  | 5   | 1.89  | 4   | 0.57  | 3     | 0.02  | 4     | 0.04  | 136     | <0.01 |
| Splake (hybrid lake trout) |       |       |     |       |     |       |     |       | 9     | 0.05  | 5     | 0.05  | 26      | <0.01 |
| Spottail shiner            | 104   | 0.61  | 12  | 2.24  | 9   | 3.41  | 6   | 0.86  | 11    | 0.06  | 26    | 0.24  | 7649    | 0.36  |
| Stonecat                   | 21    | 0.12  | 7   | 1.31  |     |       | 1   | 0.14  | 6     | 0.03  | 1     | <0.01 | 123     | <0.01 |
| Threespine stickleback     | 2302  | 13.59 | 3   | 0.56  |     |       | 3   | 0.43  | 41    | 0.22  | 129   | 1.19  | 93266   | 4.34  |
| Trout-perch                | 20    | 0.12  | 2   | 0.37  |     |       |     |       | 7     | 0.04  | 6     | 0.06  | 4934    | 0.23  |
| Walleye                    |       |       |     |       |     |       |     |       |       |       |       |       | 21      | <0.01 |
| White bass                 | 4     | 0.02  | 2   | 0.37  |     |       | 2   | 0.29  | 846   | 4.49  | 252   | 2.32  | 7669    | 0.36  |
| White perch                | 68    | 0.40  | 30  | 5.61  | 14  | 5.30  | 36  | 5.16  | 39    | 0.21  | 71    | 0.65  | 2834    | 0.13  |
| White sucker               | 77    | 0.45  | 9   | 1.68  | 16  | 6.06  | 7   | 1.00  | 5     | 0.03  | 5     | 0.05  | 218     | 0.01  |
| Yellow perch               | 148   | 0.87  | 56  | 10.47 | 72  | 27.27 | 107 | 15.33 | 170   | 0.90  | 184   | 1.70  | 1666    | 0.08  |
| UID                        | 1     | 0.01  |     |       |     |       |     |       |       |       |       |       | 9       | <0.01 |
| UID Chub                   |       |       |     |       |     |       |     |       |       |       |       |       | 3       | <0.01 |
| UID Salmonidae             | 2     | 0.01  |     |       | 1   | 0.38  |     |       | 1     | 0.01  |       |       | 11      | <0.01 |
| TOTAL                      | 16940 |       | 535 |       | 264 |       | 698 |       | 18837 |       | 10855 |       | 2150562 |       |

\*Traveling screen and trash rack collections; numbers not adjusted for number of traveling screens operating; field counts and identification

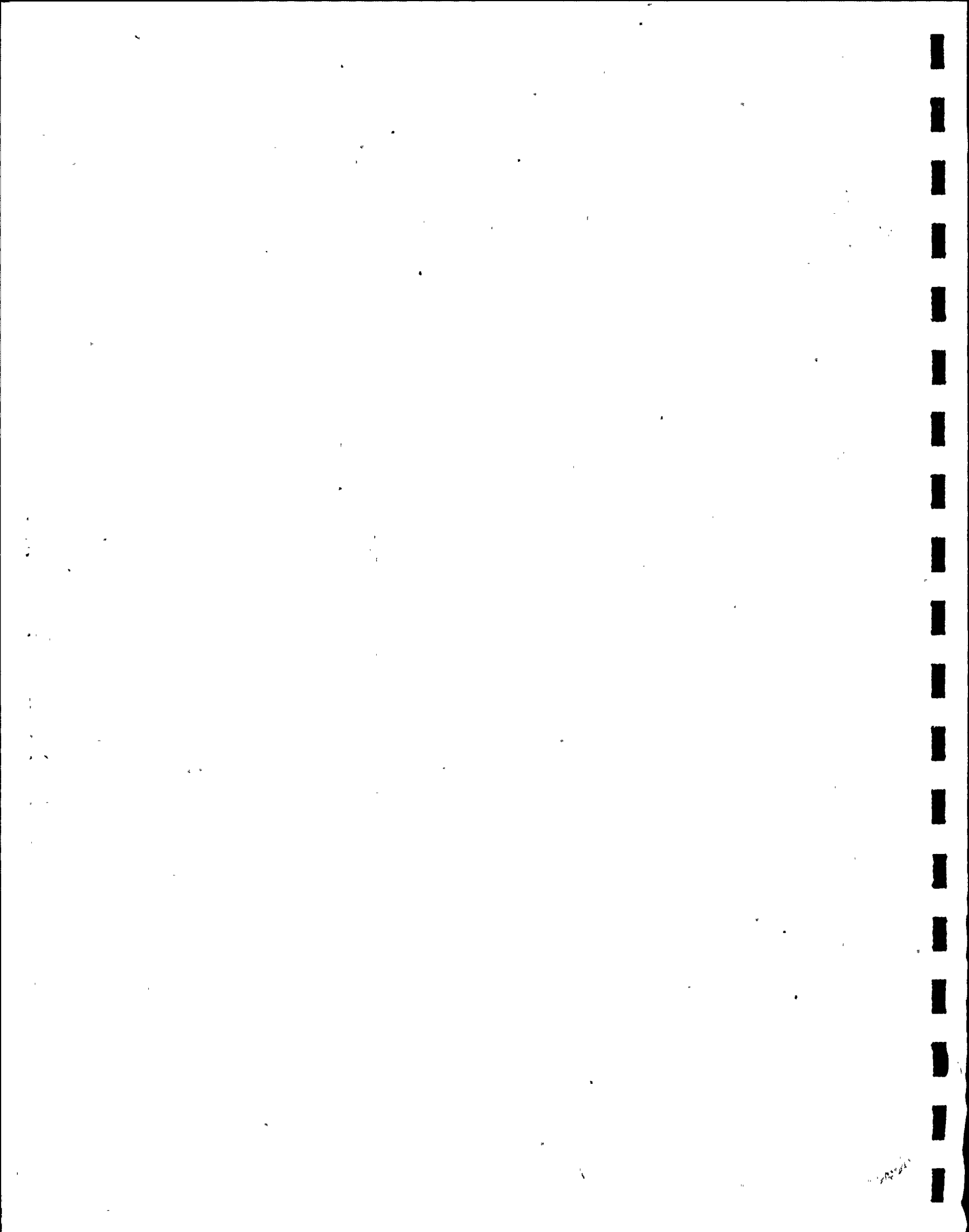


ABUNDANCE\* AND PERCENT COMPOSITION OF FISH IN IMPINGEMENT COLLECTIONS

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

| SPECIES                    | JAN  |       | FEB |       | MAR   |       | APR    |       | MAY     |       | JUN    |       |
|----------------------------|------|-------|-----|-------|-------|-------|--------|-------|---------|-------|--------|-------|
|                            | NO.  | %     | NO. | %     | NO.   | %     | NO.    | %     | NO.     | %     | NO.    | %     |
| Alewife                    | 2849 | 55.62 | 2   | 0.37  | 4743  | 20.99 | 382944 | 92.53 | 1634284 | 93.38 | 112425 | 85.32 |
| American eel               |      |       |     |       |       |       | 2      | <0.01 | 22      | <0.01 | 2      | <0.01 |
| Black crappie              | 1    | 0.02  |     |       | 1     | <0.01 | 1      | <0.01 | 1       | <0.01 |        |       |
| Bluegill sunfish           | 1    | 0.02  |     |       | 1     | <0.01 | 5      | <0.01 | 9       | <0.01 | 1      | <0.01 |
| Bluntnose minnow           |      |       |     |       |       |       | 3      | <0.01 |         |       |        |       |
| Bowfin                     |      |       |     |       |       |       |        |       |         |       |        |       |
| Brook stickleback          |      |       |     |       | 76    | 0.34  | 36     | 0.01  | 18      | <0.01 | 1      | <0.01 |
| Brown bullhead             | 6    | 0.12  |     |       | 5     | 0.02  | 6      | <0.01 | 1       | <0.01 |        |       |
| Brown trout                |      |       |     |       | 1     | <0.01 | 1      | <0.01 |         |       | 2      | <0.01 |
| Burbot                     |      |       |     |       |       |       |        |       |         |       |        |       |
| Carp                       |      |       |     |       |       |       |        |       |         |       |        |       |
| Channel catfish            | 20   | 0.39  | 3   | 0.56  | 8     | 0.04  | 1      | <0.01 |         |       |        |       |
| Cisco or Lake herring      |      |       |     |       |       |       |        |       |         |       |        |       |
| Coho salmon                |      |       |     |       |       |       |        |       |         |       | 1      | <0.01 |
| Creek chub                 | 2    | 0.04  |     |       |       |       | 2      | <0.01 |         |       |        |       |
| Cyprinidae                 |      |       |     |       |       |       | 2      | <0.01 |         |       |        |       |
| Emerald shiner             | 49   | 0.96  | 14  | 2.60  | 107   | 0.47  | 63     | 0.02  | 60      | <0.01 | 7      | 0.01  |
| Esox sp.                   |      |       |     |       |       |       |        |       |         |       |        |       |
| Fathead minnow             |      |       |     |       | 2     | 0.01  | 4      | <0.01 |         |       |        |       |
| Freshwater drum            | 25   | 0.49  | 2   | 0.37  | 6     | 0.03  | 2      | <0.01 |         |       | 1      | <0.01 |
| Gizzard shad               | 356  | 6.95  | 189 | 35.13 | 4963  | 21.97 | 941    | 0.23  | 87      | <0.01 | 3      | <0.01 |
| Golden shiner              | 5    | 0.10  | 1   | 0.19  | 3     | 0.01  | 3      | <0.01 | 23      | <0.01 |        |       |
| Goldfish                   | 1    | 0.02  |     |       | 1     | <0.01 |        |       |         |       |        |       |
| Johnny darter              | 5    | 0.10  | 2   | 0.37  | 4     | 0.02  | 62     | 0.02  | 2241    | 0.13  | 338    | 0.27  |
| Lake chub                  | 1    | 0.02  |     |       | 5     | 0.02  | 4      | <0.01 | 18      | <0.01 | 6      | <0.01 |
| Lake trout                 | 2    | 0.04  |     |       | 2     | 0.01  |        |       | 1       | <0.01 | 1      | <0.01 |
| Largemouth bass            |      |       |     |       |       |       |        |       |         |       |        |       |
| Lepomis sp.                |      |       |     |       |       |       |        |       |         |       | 1      | <0.01 |
| Loggerhead                 |      |       |     |       |       |       | 1      | <0.01 |         |       |        |       |
| Longnose dace              | 6    | 0.12  | 4   | 0.74  | 22    | 0.10  | 1      | <0.01 |         |       |        |       |
| Longnose gar               | 1    | 0.02  |     |       |       |       |        |       |         |       |        |       |
| Mottled sculpin            | 88   | 1.72  | 21  | 3.90  | 100   | 0.44  | 1072   | 0.26  | 1803    | 0.10  | 349    | 0.26  |
| Mudminnow                  | 2    | 0.04  | 2   | 0.37  | 60    | 0.27  | 33     | 0.01  | 28      | <0.01 | 3      | <0.01 |
| Northern hogsucker         |      |       |     |       |       |       |        |       |         |       |        |       |
| Northern pike              |      |       |     |       | 1     | <0.01 |        |       | 1       | <0.01 |        |       |
| Pearl dace                 | 1    | 0.02  |     |       |       |       |        |       |         |       |        |       |
| Pimephales sp.             |      |       |     |       |       |       |        |       | 14      | <0.01 |        |       |
| Pugnose minnow             |      |       |     |       |       |       | 4      | <0.01 |         |       |        |       |
| Pumpkinseed                | 6    | 0.12  |     |       | 1     | <0.01 | 9      | <0.01 | 36      | <0.01 | 3      | <0.01 |
| Rainbow smelt              | 1047 | 20.44 | 179 | 33.27 | 9090  | 40.23 | 20417  | 4.93  | 78033   | 4.46  | 1772   | 1.34  |
| Rainbow trout              |      |       |     |       |       |       |        |       |         |       |        |       |
| Rock bass                  | 52   | 1.02  | 9   | 1.67  | 49    | 0.22  | 41     | 0.01  | 100     | 0.01  | 7      | 0.01  |
| Salmonidae                 |      |       |     |       |       |       | 1      | <0.01 | 5       | <0.01 | 1      | <0.01 |
| Salvelinus sp.             |      |       |     |       |       |       |        |       | 7       | <0.01 | 6      | <0.01 |
| Sea lamprey                | 2    | 0.04  |     |       | 1     | <0.01 | 6      | <0.01 | 1       | <0.01 |        |       |
| Silvery minnow             |      |       |     |       | 1     | <0.01 |        |       |         |       |        |       |
| Smallmouth bass            | 92   | 1.80  | 5   | 0.93  | 18    | 0.08  | 11     | <0.01 | 65      | <0.01 | 5      | <0.01 |
| Splake (hybrid lake trout) |      |       |     |       |       |       | 3      | <0.01 |         |       |        |       |
| Spottail shiner            | 207  | 4.04  | 28  | 5.20  | 161   | 0.71  | 333    | 0.08  | 1586    | 0.09  | 1014   | 0.77  |
| Stonecat                   | 1    | 0.02  |     |       | 2     | 0.01  | 7      | <0.01 | 12      | <0.01 | 7      | 0.01  |
| Tadpole madtom             |      |       |     |       |       |       |        |       |         |       |        |       |
| Threespine stickleback     | 9    | 0.18  | 9   | 1.67  | 1112  | 4.92  | 3763   | 0.91  | 24643   | 1.41  | 14876  | 11.29 |
| Trout-perch                | 3    | 0.06  | 1   | 0.19  | 37    | 0.16  | 1569   | 0.38  | 3996    | 0.23  | 721    | 0.55  |
| Walleye                    | 1    | 0.02  |     |       |       |       | 1      | <0.01 |         |       |        |       |
| White bass                 | 87   | 1.70  | 58  | 10.78 | 1558  | 6.90  | 876    | 0.21  | 875     | 0.05  | 73     | 0.06  |
| White fish                 |      |       |     |       |       |       |        |       | 1       | <0.01 |        |       |
| White perch                | 109  | 2.13  | 7   | 1.30  | 407   | 1.80  | 1430   | 0.35  | 1479    | 0.08  | 71     | 0.05  |
| White sucker               | 4    | 0.08  |     |       | 1     | <0.01 | 4      | <0.01 | 25      | <0.01 | 15     | 0.01  |
| Yellow perch               | 81   | 1.58  | 2   | 0.37  | 46    | 0.20  | 179    | 0.04  | 679     | 0.04  | 57     | 0.04  |
| UID                        |      |       |     |       |       |       | 11     | <0.01 | 8       | <0.01 |        |       |
| UID chub                   |      |       |     |       |       |       |        |       |         |       |        |       |
| UID sucker                 |      |       |     |       |       |       |        |       |         |       |        |       |
| TOTAL                      | 5122 |       | 538 |       | 22595 |       | 413854 |       | 1750162 |       | 131769 |       |

\*Traveling screen collections ; field counts and identification





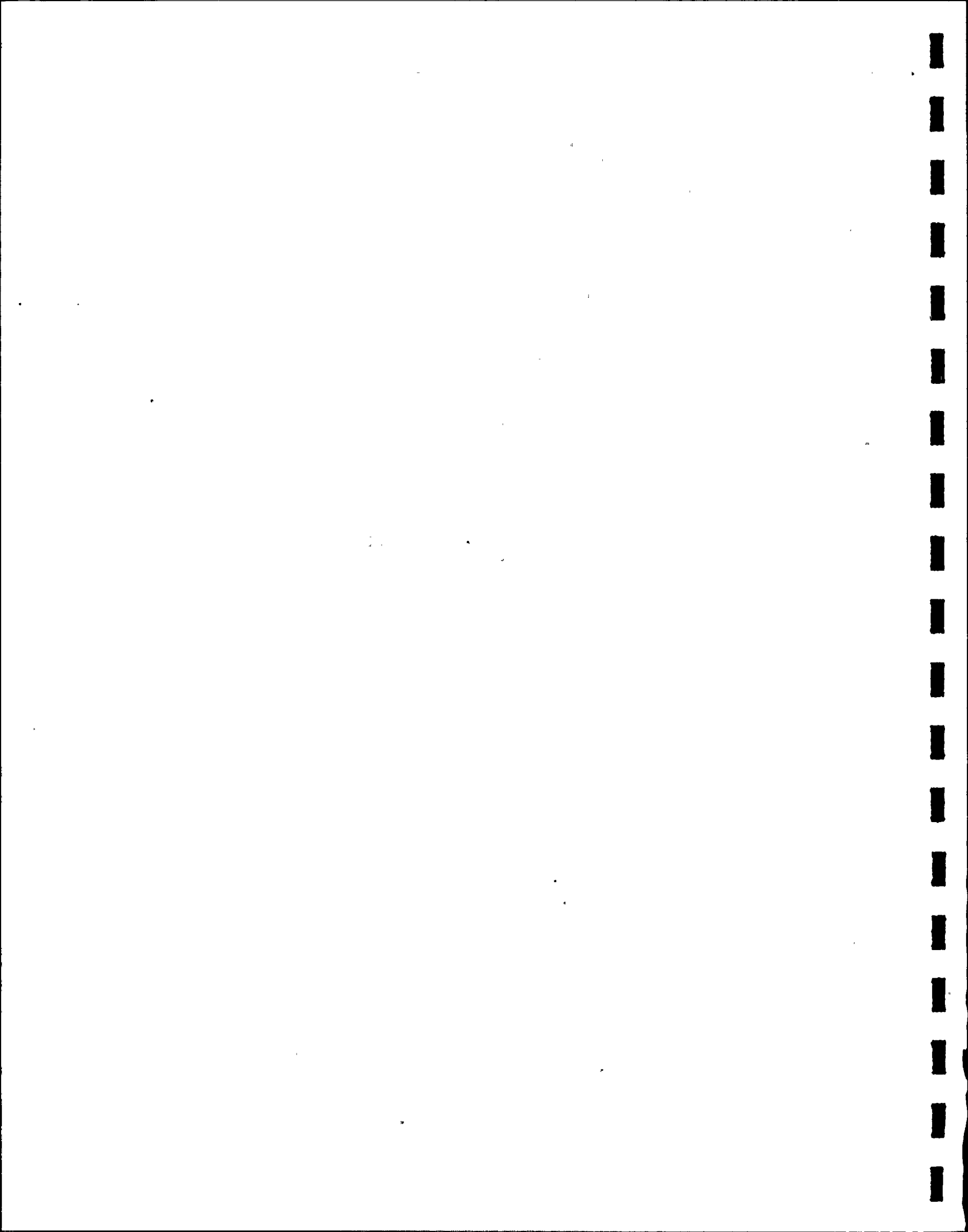
ABUNDANCE\* AND PERCENT COMPOSITION OF FISH IN IMPINGEMENT COLLECTIONS (Continued)

JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

| SPECIES                    | JUL   |       | AUG  |       | SEP  |       | OCT  |       | NOV    |       | DEC   |       | TOTAL   |       |
|----------------------------|-------|-------|------|-------|------|-------|------|-------|--------|-------|-------|-------|---------|-------|
|                            | NO.   | %     | NO.  | %     | NO.  | %     | NO.  | %     | NO.    | %     | NO.   | %     | NO.     | %     |
| Alewife                    | 58477 | 86.96 | 1438 | 66.64 | 2032 | 71.88 | 1681 | 49.12 | 68070* | 77.42 | 1329  | 8.11  | 2270274 | 90.67 |
| American eel               | 6     | 0.01  | 4    | 0.19  | 8    | 0.28  | 4    | 0.12  | 2      | <0.01 | 1     | <0.01 | 51      | <0.01 |
| Black crappie              |       |       |      |       | 1    | 0.04  |      |       | 1      | <0.01 | 1     | <0.01 | 6       | <0.01 |
| Bluegill sunfish           |       |       |      |       | 1    | 0.04  | 3    | 0.09  | 1      | <0.01 |       |       | 22      | <0.01 |
| Bluntnose minnow           |       |       |      |       |      |       |      |       |        |       |       |       | 3       | <0.01 |
| Bowfin                     |       |       |      |       | 1    | 0.04  | 1    | 0.03  | 3      | <0.01 |       |       | 5       | <0.01 |
| Brook stickleback          |       |       |      |       |      |       |      |       |        |       |       |       | 131     | <0.01 |
| Brown bullhead             |       |       | 2    | 0.09  | 5    | 0.18  | 38   | 1.11  | 22     | 0.02  | 17    | 0.10  | 102     | <0.01 |
| Brown trout                |       |       | 1    | 0.05  |      |       | 1    | 0.03  |        |       | 2     | 0.01  | 8       | <0.01 |
| Burbot                     | 1     | <0.01 | 2    | 0.09  |      |       | 2    | 0.06  |        |       | 10    | 0.06  | 15      | <0.01 |
| Carp                       |       |       |      |       |      |       |      |       | 3      | <0.01 | 1     | <0.01 | 4       | <0.01 |
| Channel catfish            |       |       |      |       |      |       |      |       | 23     | 0.03  | 3     | 0.02  | 58      | <0.01 |
| Cisco or Lake herring      |       |       |      |       |      |       |      |       |        |       | 1     | <0.01 | 1       | <0.01 |
| Coho salmon                | 1     | <0.01 |      |       |      |       |      |       |        |       |       |       | 2       | <0.01 |
| Creek chub                 |       |       |      |       |      |       |      |       |        |       |       |       | 4       | <0.01 |
| Cyprinidae                 |       |       |      |       |      |       |      |       | 1      | <0.01 |       |       | 3       | <0.01 |
| Emerald shiner             | 1     | <0.01 | 5    | 0.23  | 4    | 0.14  | 47   | 1.37  | 5      | 0.01  | 90    | 0.55  | 452     | 0.02  |
| Esox sp.                   | 3     | <0.01 |      |       |      |       |      |       |        |       |       |       | 3       | <0.01 |
| Fathead minnow             |       |       |      |       |      |       |      |       |        |       |       |       | 6       | <0.01 |
| Freshwater drum            |       |       |      |       |      |       |      |       | 2      | <0.01 | 1     | <0.01 | 39      | <0.01 |
| Gizzard shad               | 2     | <0.01 | 2    | 0.09  | 1    | 0.04  | 247  | 7.22  | 580    | 0.66  | 392   | 2.39  | 7763    | 0.31  |
| Golden shiner              |       |       | 1    | 0.05  | 1    | 0.04  | 1    | 0.03  | 1      | <0.01 | 1     | <0.01 | 40      | <0.01 |
| Goldfish                   |       |       |      |       |      |       |      |       |        |       | 1     | <0.01 | 3       | <0.01 |
| Johnny darter              | 664   | 0.99  | 119  | 5.51  | 100  | 3.54  | 9    | 0.26  | 2      | <0.01 | 6     | 0.04  | 3552    | 0.14  |
| Lake chub                  | 7     | 0.01  | 5    | 0.23  | 2    | 0.07  | 1    | 0.03  | 1      | <0.01 |       |       | 50      | <0.01 |
| Lake trout                 |       |       |      |       |      |       | 1    | 0.03  | 1      | <0.01 |       |       | 8       | <0.01 |
| Largemouth bass            |       |       |      |       | 1    | 0.04  |      |       |        |       |       |       | 1       | <0.01 |
| Lepomis sp.                | 4     | 0.01  |      |       |      |       |      |       |        |       |       |       | 5       | <0.01 |
| Logperch                   | 1     | <0.01 |      |       |      |       |      |       |        |       |       |       | 2       | <0.01 |
| Longnose dace              | 2     | <0.01 |      |       |      |       |      |       |        |       | 1     | <0.01 | 36      | <0.01 |
| Longnose gar               |       |       |      |       |      |       |      |       |        |       |       |       | 1       | <0.01 |
| Mottled sculpin            | 154   | 0.23  | 30   | 1.39  | 87   | 3.08  | 33   | 0.96  | 89     | 0.10  | 167   | 1.02  | 3993    | 0.16  |
| Mudminnow                  | 1     | <0.01 |      |       |      |       |      |       | 3      | <0.01 |       |       | 132     | 0.01  |
| Northern hogsucker         | 1     | <0.01 | 1    | 0.05  |      |       |      |       |        |       |       |       | 2       | <0.01 |
| Northern pike              |       |       | 2    | 0.09  |      |       |      |       |        |       | 3     | 0.02  | 7       | <0.01 |
| Pearl dace                 |       |       |      |       |      |       |      |       |        |       |       |       | 1       | <0.01 |
| Pimephales sp.             |       |       |      |       |      |       |      |       |        |       |       |       | 14      | <0.01 |
| Pugnose minnow             |       |       |      |       |      |       |      |       |        |       |       |       | 4       | <0.01 |
| Pumpkinseed                | 1     | <0.01 | 4    | 0.19  | 5    | 0.18  | 6    | 0.18  | 11     | 0.01  | 8     | 0.05  | 90      | <0.01 |
| Rainbow smelt              | 226   | 0.34  | 170  | 7.88  | 82   | 2.90  | 1032 | 30.16 | 17797  | 20.24 | 13394 | 81.78 | 143239  | 5.72  |
| Rainbow trout              |       |       |      |       | 1    | 0.04  |      |       |        |       |       |       | 1       | <0.01 |
| Rock bass                  | 19    | 0.03  | 27   | 1.25  | 41   | 1.45  | 30   | 0.88  | 36     | 0.04  | 94    | 0.57  | 505     | 0.02  |
| Salmonidae                 | 6     | 0.01  | 6    | 0.23  |      |       |      |       |        |       |       |       | 19      | <0.01 |
| Salvelinus sp.             | 10    | 0.01  | 2    | 0.09  |      |       |      |       | 1      | <0.01 |       |       | 26      | <0.01 |
| Sea lamprey                | 1     | <0.01 |      |       |      |       |      |       | 1      | <0.01 | 7     | 0.04  | 19      | <0.01 |
| Silvery minnow             |       |       |      |       |      |       |      |       |        |       |       |       | 1       | <0.01 |
| Smallmouth bass            | 5     | 0.01  | 1    | 0.05  | 9    | 0.32  | 4    | 0.12  | 6      | 0.01  | 19    | 0.12  | 240     | 0.01  |
| Splake (hybrid lake trout) |       |       | 1    | 0.05  |      |       |      |       | 6      | 0.01  | 10    | 0.06  | 20      | <0.01 |
| Spottail shiner            | 1901  | 2.83  | 168  | 7.73  | 73   | 2.58  | 24   | 0.70  | 18     | 0.02  | 30    | 0.18  | 5543    | 0.22  |
| Stonecat                   | 15    | 0.02  | 2    | 0.09  | 5    | 0.18  | 9    | 0.26  | 3      | <0.01 | 15    | 0.09  | 78      | <0.01 |
| Tadpole madtom             |       |       |      |       |      |       | 1    | 0.03  |        |       |       |       | 1       | <0.01 |
| Threespine stickleback     | 5004  | 7.44  | 2    | 0.09  |      |       | 7    | 0.20  | 47     | 0.05  | 210   | 1.28  | 49682   | 1.98  |
| Trout-perch                | 489   | 0.73  | 36   | 1.67  | 7    | 0.25  | 6    | 0.18  | 4      | <0.01 | 2     | 0.01  | 6871    | 0.27  |
| Walleye                    |       |       |      |       |      |       |      |       |        |       |       |       | 2       | <0.01 |
| White bass                 | 10    | 0.01  |      |       | 1    | 0.04  | 13   | 0.38  | 928    | 1.06  | 276   | 1.69  | 4755    | 0.19  |
| White fish                 |       |       |      |       |      |       |      |       |        |       |       |       | 1       | <0.01 |
| White perch                | 65    | 0.10  | 20   | 0.93  | 160  | 5.66  | 106  | 3.10  | 97     | 0.11  | 73    | 0.45  | 4024    | 0.16  |
| White sucker               | 40    | 0.06  | 20   | 0.93  | 41   | 1.45  | 20   | 0.58  | 3      | <0.01 | 2     | 0.01  | 175     | 0.01  |
| Yellow perch               | 105   | 0.16  | 84   | 3.89  | 158  | 5.59  | 95   | 2.78  | 160    | 0.18  | 212   | 1.29  | 1859    | 0.07  |
| UID                        | 2     | <0.01 |      |       |      |       |      |       |        |       |       |       | 21      | <0.01 |
| UID chub                   | 24    | 0.04  | 2    | 0.09  |      |       |      |       |        |       |       |       | 26      | <0.01 |
| UID sucker                 | 1     | <0.01 | 1    | 0.05  |      |       |      |       |        |       |       |       | 2       | <0.01 |
| TOTAL                      | 67249 |       | 2158 |       | 2827 |       | 3422 |       | 87928  |       | 16378 |       | 2504002 |       |

\*Traveling screen collections; field counts and identification

Revised - final



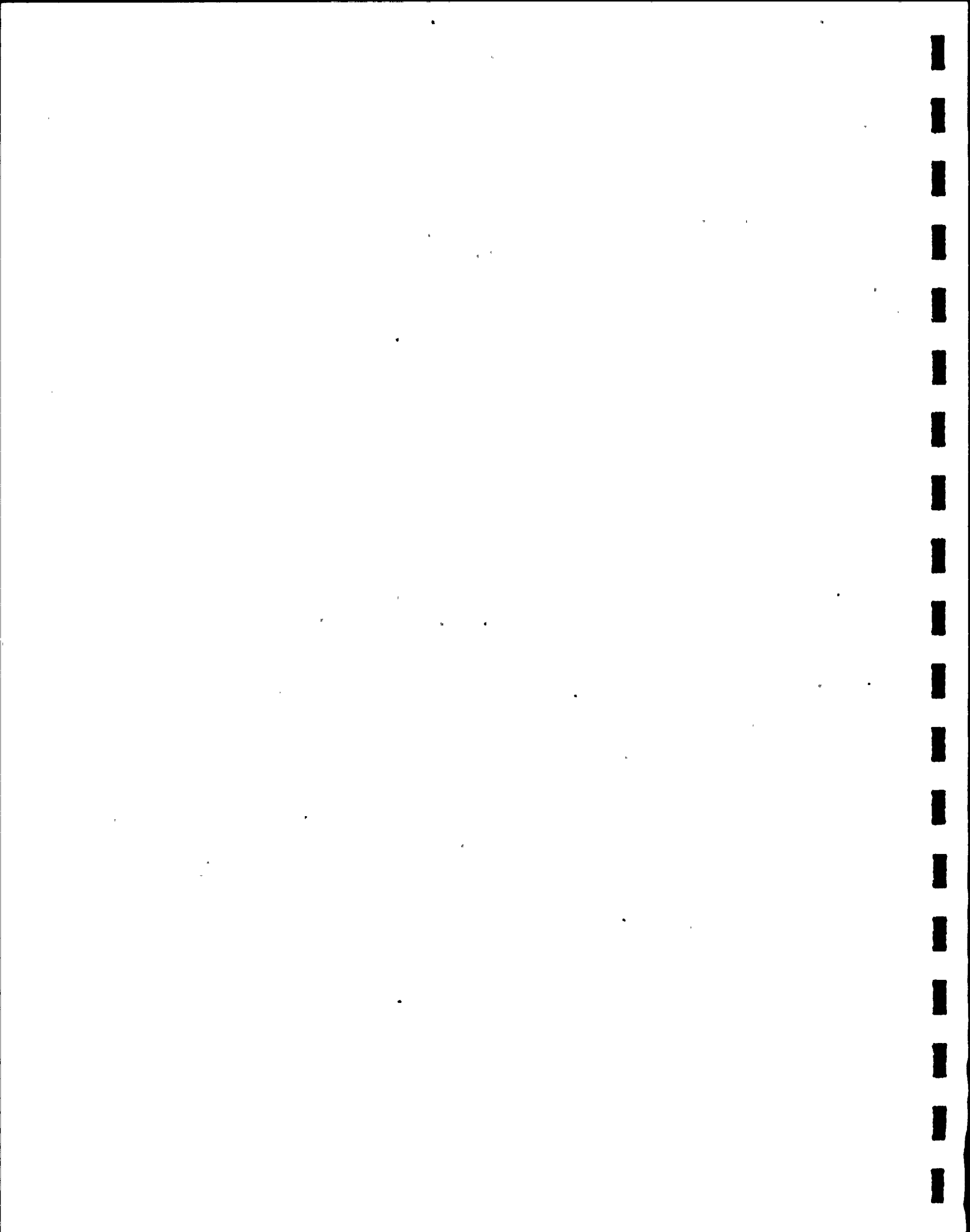
IX.B. ESTIMATED MONTHLY ABUNDANCE AND PERCENT COMPOSITION:  
TRAVELING SCREEN COLLECTION



ABUNDANCE AND PERCENT COMPOSITION OF IMPINGEMENT COLLECTIONS  
NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

| SPECIES                         | JAN    |      | FEB    |      | MAR    |       | APR    |      |
|---------------------------------|--------|------|--------|------|--------|-------|--------|------|
|                                 | NO.    | PCNT | NO.    | PCNT | NO.    | PCNT  | NO.    | PCNT |
| ALEWIFE                         | 3234   | 32.0 | 75     | 0.5  | 59961  | 55.0  | 875307 | 93.9 |
| AMERICAN EEL                    | 17     | 0.2  | 5      | *    | 2      | *     | 5      | *    |
| BLACK CRAPPIE                   | 5      | *    | 2      | *    | 0      | 0.0   | 0      | 0.0  |
| BLUEGILL (SUNFISH)              | 12     | 0.1  | 0      | 0.0  | 0      | 0.0   | 6      | *    |
| BLUNTNOST MINNOW                | 0      | 0.0  | 0      | 0.0  | 0      | 0.0   | 2      | *    |
| BROOK STICKLEBACK               | 0      | 0.0  | 0      | 0.0  | 66     | 0.1   | 38     | *    |
| BROWN HULLHEAD                  | 2      | *    | 0      | 0.0  | 11     | *     | 17     | *    |
| BROWN TROUT                     | 2      | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  |
| BURBOT                          | 2      | *    | 17     | 0.1  | 2      | *     | 2      | *    |
| CARP                            | 0      | 0.0  | 0      | 0.0  | 2      | *     | 0      | 0.0  |
| CENTRAL MUDMINNOW (MUDMINNOW)   | 5      | *    | 2      | *    | 51     | *     | 19     | *    |
| CHANNEL CATFISH                 | 45     | 0.4  | 14     | 0.1  | 13     | *     | 3      | *    |
| COHO SALMON                     | 0      | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  |
| CREEK CHUB                      | 0      | 0.0  | 2      | *    | 69     | 0.1   | 21     | *    |
| EMERALD SHINER                  | 103    | 1.0  | 314    | 2.1  | 540    | 0.5   | 145    | *    |
| FATHEAD MINNOW                  | 0      | 0.0  | 0      | 0.0  | 0      | 0.0   | 30     | *    |
| FRESHWATER DRUM                 | 38     | 0.4  | 46     | 0.3  | 20     | *     | 2      | *    |
| GIZZARD SHAD                    | 1500   | 14.8 | 4569   | 30.7 | 14634  | 13.4  | 736    | 0.1  |
| GOLDEN SHINER                   | 0      | 0.0  | 0      | 0.0  | 9      | *     | 13     | *    |
| GOLDFISH                        | 0      | 0.0  | 0      | 0.0  | 2      | *     | 2      | *    |
| JOHNNY DARTER                   | 0      | 0.0  | 2      | *    | 0      | 0.0   | 142    | *    |
| LAKE CHUB                       | 2      | *    | 10     | 0.1  | 18     | *     | 150    | *    |
| LAKE TROUT                      | 5      | *    | 0      | 0.0  | 2      | *     | 11     | *    |
| LAKE WHITEFISH                  | 0      | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  |
| LARGEMOUTH BASS                 | 0      | 0.0  | 2      | *    | 0      | 0.0   | 0      | 0.0  |
| LOGPERCH                        | 0      | 0.0  | 0      | 0.0  | 2      | *     | 2      | *    |
| LONGNOSE DACE                   | 5      | *    | 19     | 0.1  | 24     | *     | 2      | *    |
| MOTTLED SCULPIN                 | 718    | 7.1  | 979    | 6.6  | 505    | 0.5   | 1776   | 0.2  |
| NORTHERN PIKE                   | 2      | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  |
| NOTROPIS SP (CYPRINIDAE)        | 0      | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  |
| PEARL PACE                      | 0      | 0.0  | 0      | 0.0  | 7      | *     | 24     | *    |
| PENNYFARL SP.                   | 2      | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  |
| PUGNOSE MINNOW                  | 0      | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  |
| PUMPKINSEED                     | 10     | 0.1  | 0      | 0.0  | 4      | *     | 8      | *    |
| RAINBOW SMELT                   | 2741   | 27.1 | 3750   | 25.2 | 13952  | 12.8  | 30644  | 3.3  |
| RUCK BASS                       | 136    | 1.3  | 121    | 0.8  | 60     | 0.1   | 39     | *    |
| SALVELINUS SP (SALMONIDAE)      | 0      | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  |
| SEA LAMPREY                     | 17     | 0.2  | 7      | *    | 7      | *     | 2      | *    |
| SMALLMOUTH BASS                 | 21     | 0.2  | 36     | 0.2  | 11     | *     | 8      | *    |
| SPLAKE TROUT                    | 2      | *    | 12     | 0.1  | 11     | *     | 46     | *    |
| SPOTTAIL SHINER                 | 67     | 0.7  | 196    | 1.3  | 301    | 0.3   | 761    | 0.1  |
| STONECAT                        | 21     | 0.2  | 7      | *    | 4      | *     | 47     | *    |
| THREESPINE STICKLEBACK          | 205    | 2.0  | 1220   | 8.2  | 7929   | 7.3   | 16077  | 1.7  |
| TROUT PERCH                     | 10     | 0.1  | 31     | 0.2  | 168    | 0.2   | 3546   | 0.4  |
| TROUTS (SALMONIDAE)             | 0      | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  |
| UNIDENTIFIED                    | 0      | 0.0  | 0      | 0.0  | 2      | *     | 3      | *    |
| WALLEYE                         | 7      | 0.1  | 0      | 0.0  | 4      | *     | 0      | 0.0  |
| WHITE BASS                      | 639    | 6.3  | 2923   | 19.6 | 8477   | 7.8   | 1309   | 0.1  |
| WHITE PERCH                     | 243    | 2.4  | 413    | 2.8  | 2040   | 1.9   | 894    | 0.1  |
| WHITE SUCKER                    | 7      | 0.1  | 14     | 0.1  | 11     | *     | 8      | *    |
| YELLOW PERCH                    | 293    | 2.9  | 101    | 0.7  | 109    | 0.1   | 417    | *    |
| TOTAL                           | 10118  | 99.7 | 14889  | 99.8 | 109030 | 100.1 | 932264 | 99.9 |
| TOTAL MONTHLY FLOW SAMPLED (MG) | 4679   |      | 4307   |      | 4950   |       | 6709   |      |
| TOTAL HOURS SAMPLED             | 311.93 |      | 288.07 |      | 335.90 |       | 456.05 |      |

\* LESS THAN 0.1 PERCENT  
(MG) MILLION GALLONS

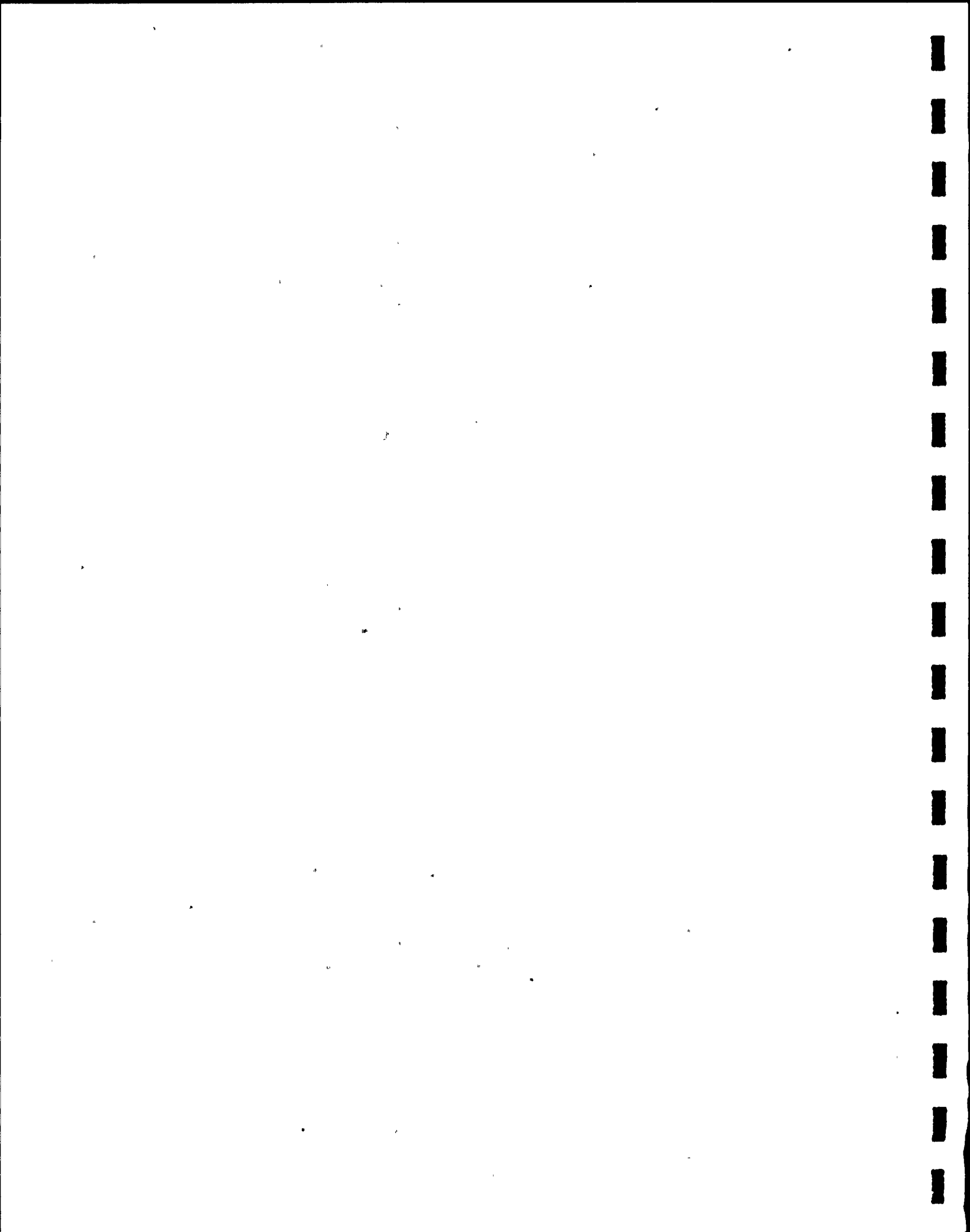


ABUNDANCE AND PERCENT COMPOSITION OF IMPINGEMENT COLLECTIONS  
NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

| SPECIES                         | MAY     |      | JUN    |      | JUL    |       | AUG    |       |
|---------------------------------|---------|------|--------|------|--------|-------|--------|-------|
|                                 | NO.     | PCNT | NO.    | PCNT | NO.    | PCNT  | NO.    | PCNT  |
| ALEWIFE                         | 2040879 | 91.5 | 15448  | 57.0 | 33253  | 82.3  | 711    | 57.0  |
| AMERICAN EEL                    | 5       | *    | 12     | *    | 26     | 0.1   | 12     | 1.0   |
| BLACK CRAPPIE                   | 2       | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| BLUEGILL (SUNFISH)              | 25      | *    | 0      | 0.0  | 2      | *     | 0      | 0.0   |
| BLUNTNOSE MINNOW                | 0       | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| BROOK STICKLEBACK               | 2       | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| BROWN CULLHEAD                  | 3       | *    | 0      | 0.0  | 2      | *     | 7      | 0.6   |
| BROWN TROUT                     | 2       | *    | 12     | *    | 10     | *     | 2      | 0.2   |
| BURBOT                          | 0       | 0.0  | 0      | 0.0  | 2      | *     | 0      | 0.0   |
| CARP                            | 0       | 0.0  | 2      | *    | 0      | 0.0   | 0      | 0.0   |
| CENTRAL MUDMINNOW (MUDMINNOW)   | 3       | *    | 2      | *    | 0      | 0.0   | 7      | 0.0   |
| CHANNEL CATFISH                 | 0       | 0.0  | 0      | 0.0  | 0      | 0.0   | 2      | 0.2   |
| COHO SALMON                     | 2       | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| CREEK CHUB                      | 0       | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| EMERALD SHINER                  | 54      | *    | 0      | 0.0  | 2      | *     | 2      | 0.2   |
| FATHEAD MINNOW                  | 3       | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| FRESHWATER CRUM                 | 3       | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| GIZZARD SHAD                    | 252     | *    | 0      | 0.0  | 0      | 0.0   | 2      | 0.2   |
| GOLDEN SHINER                   | 2       | *    | 0      | 0.0  | 2      | *     | 0      | 0.0   |
| GOLDFISH                        | 0       | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| JOHNNY DARTER                   | 1896    | 0.1  | 85     | 0.3  | 114    | 0.3   | 19     | 1.5   |
| LAKE CHUB                       | 201     | *    | 18     | 0.1  | 2      | *     | 0      | 0.0   |
| LAKE TROUT                      | 9       | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| LAKE WHITEFISH                  | 2       | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| LARGEMOUTH BASS                 | 0       | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| LOGPERCH                        | 0       | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| LONGNOSE DACE                   | 2       | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| MOTTLED SCULPIN                 | 2584    | 0.1  | 132    | 0.5  | 110    | 0.3   | 24     | 1.9   |
| NORTHERN PIKE                   | 0       | 0.0  | 0      | 0.0  | 2      | *     | 0      | 0.0   |
| NOTROPIS SP (CYPRINIDAE)        | 0       | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| PEARL DACE                      | 0       | 0.0  | 2      | *    | 0      | 0.0   | 0      | 0.0   |
| <u>PISCIDAE</u>                 | 0       | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| PUGNOSE MINNOW                  | 0       | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| PUMPKINSEED                     | 2       | *    | 5      | *    | 7      | *     | 2      | 0.2   |
| RAINBOW SMELT                   | 56550   | 2.5  | 808    | 3.0  | 93     | 0.2   | 39     | 3.0   |
| ROCK BASS                       | 102     | *    | 92     | 0.3  | 131    | 0.3   | 93     | 7.5   |
| SALVELINUS SP (SALMONIDAE)      | 5       | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| SEA LAMPREY                     | 2       | *    | 12     | *    | 57     | 0.1   | 7      | 0.6   |
| SMALLMOUTH BASS                 | 50      | *    | 32     | 0.1  | 26     | 0.1   | 50     | 4.0   |
| SPLAKE TROUT                    | 5       | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| SPOTTAIL SHINER                 | 9870    | 0.4  | 900    | 3.3  | 265    | 0.7   | 29     | 2.3   |
| STONECAT                        | 12      | *    | 60     | 0.2  | 52     | 0.1   | 17     | 1.4   |
| THREESPIKE STICKLEBACK          | 112411  | 5.0  | 8892   | 32.8 | 5499   | 13.6  | 7      | 0.6   |
| TROUT PERCH                     | 3924    | 0.2  | 83     | 0.3  | 48     | 0.1   | 5      | 0.4   |
| TROUTS (SALMONIDAE)             | 2       | *    | 5      | *    | 0      | 0.0   | 0      | 0.0   |
| UNIDENTIFIED                    | 0       | 0.0  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| WALLEYE                         | 25      | *    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0   |
| WHITE BASS                      | 607     | *    | 30     | 0.1  | 12     | *     | 5      | 0.4   |
| WHITE PERCH                     | 1101    | *    | 242    | 0.9  | 160    | 0.4   | 64     | 5.1   |
| WHITE SUCKER                    | 26      | *    | 132    | 0.5  | 184    | 0.5   | 21     | 1.7   |
| YELLOW PERCH                    | 627     | *    | 97     | 0.4  | 353    | 0.9   | 129    | 10.3  |
| TOTAL                           | 2231252 | 99.8 | 27103  | 99.8 | 40414  | 100.0 | 1248   | 100.3 |
| TOTAL MONTHLY FLOW SAMPLED (MG) | 7205    |      | 4680   |      | 4680   |       | 4678   |       |
| TOTAL HOURS SAMPLED             | 480.32  |      | 312.00 |      | 311.98 |       | 311.85 |       |

\* LESS THAN 0.1 PERCENT  
(MG) MILLION GALLONS.

REVISED/FINAL





ABUNDANCE AND PERCENT COMPOSITION OF IMPINGEMENT COLLECTIONS  
NINE MILE POINT NUCLEAR STATION UNIT 1 - 1976

| SPECIES                       | SEP |      | OCT |      | NOV   |      | DEC   |      | TOTAL   |      |
|-------------------------------|-----|------|-----|------|-------|------|-------|------|---------|------|
|                               | NO. | PCNT | NO. | PCNT | NO.   | PCNT | NO.   | PCNT | NO.     | PCNT |
| ALEWIFE                       | 155 | 25.6 | 594 | 35.7 | 28401 | 65.3 | 2571  | 10.7 | 3060589 | 89.1 |
| AMERICAN EEL                  | 37  | 6.1  | 0   | 0.0  | 9     | *    | 15    | 0.1  | 145     | *    |
| BLACK CRAPPIE                 | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 9       | *    |
| BLUEGILL (SUNFISH)            | 0   | 0.0  | 5   | 0.3  | 0     | 0.0  | 0     | 0.0  | 50      | *    |
| BLUNTHOSE MINNOW              | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 2       | *    |
| BROOK STICKLEBACK             | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 106     | *    |
| BROWN BULLHEAD                | 5   | 0.8  | 31  | 1.9  | 14    | *    | 4     | *    | 96      | *    |
| BROWN TROUT                   | 0   | 0.0  | 0   | 0.0  | 5     | *    | 0     | 0.0  | 33      | *    |
| BURBOT                        | 5   | 0.8  | 5   | 0.3  | 5     | *    | 13    | 0.1  | 53      | *    |
| CARP                          | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 4       | *    |
| CENTRAL MUDMINNOW (MUDMINNOW) | 0   | 0.0  | 0   | 0.0  | 2     | *    | 2     | *    | 86      | *    |
| CHANNEL CATFISH               | 0   | 0.0  | 0   | 0.0  | 16    | *    | 4     | *    | 97      | *    |
| COLD SALMON                   | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 2       | *    |
| CREEK CHUB                    | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 92      | *    |
| EMERALD SHINER                | 2   | 0.3  | 38  | 2.3  | 46    | 0.1  | 188   | 0.8  | 1434    | *    |
| FATHEAD MINNOW                | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 33      | *    |
| FRESHWATER DRUM               | 0   | 0.0  | 2   | 0.1  | 0     | 0.0  | 4     | *    | 115     | *    |
| GIZZARD SHAD                  | 0   | 0.0  | 300 | 18.0 | 3081  | 7.1  | 859   | 3.6  | 25933   | 0.7  |
| GOLDEN SHINER                 | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 2     | *    | 28      | *    |
| GOLDFISH                      | 0   | 0.0  | 2   | 0.1  | 2     | *    | 2     | *    | 10      | *    |
| JOHNNY DARTER                 | 35  | 5.8  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 2293    | 0.1  |
| LAKE CHUB                     | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 2     | *    | 403     | *    |
| LAKE TROUT                    | 0   | 0.0  | 0   | 0.0  | 2     | *    | 2     | *    | 31      | *    |
| LAKE WHITEFISH                | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 2     | *    | 4       | *    |
| LARGEMOUTH BASS               | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 2       | *    |
| LOGPERCH                      | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 4       | *    |
| LUMINOSE DACE                 | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 52      | *    |
| MOTTLED SCULPIN               | 21  | 3.5  | 21  | 1.3  | 95    | 0.2  | 425   | 1.8  | 7390    | 0.2  |
| NORTHERN PIKE                 | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 2     | *    | 6       | *    |
| NOTROPIS SP (CYPRINIDAE)      | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 2     | *    | 2       | *    |
| PEARL DACE                    | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 33      | *    |
| PUMPWHALES                    | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 2       | *    |
| PUGNOSE MINNOW                | 0   | 0.0  | 0   | 0.0  | 2     | *    | 0     | 0.0  | 2       | *    |
| PUMPKINSEED                   | 18  | 3.0  | 10  | 0.6  | 5     | *    | 31    | 0.1  | 102     | *    |
| RAINBOW SMELT                 | 12  | 2.0  | 188 | 11.3 | 9127  | 21.0 | 18248 | 75.9 | 136151  | 4.0  |
| RUCK BASS                     | 46  | 7.6  | 67  | 4.0  | 30    | 0.1  | 108   | 0.4  | 1025    | *    |
| SALVELINUS SP (SALMONIDAE)    | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 5       | *    |
| SEA LAMPREY                   | 2   | 0.3  | 5   | 0.3  | 2     | *    | 29    | 0.1  | 49      | *    |
| SMALLMOUTH BASS               | 12  | 2.0  | 10  | 0.6  | 7     | *    | 9     | *    | 272     | *    |
| SPLAKE TROUT                  | 0   | 0.0  | 0   | 0.0  | 21    | *    | 11    | *    | 108     | *    |
| SPOTTAIL SHINER               | 21  | 3.5  | 14  | 0.8  | 25    | 0.1  | 58    | 0.2  | 12507   | 0.4  |
| STONECAT                      | 0   | 0.0  | 2   | 0.1  | 14    | *    | 2     | *    | 238     | *    |
| THREESPINE STICKLEBACK        | 0   | 0.0  | 7   | 0.4  | 95    | 0.2  | 286   | 1.2  | 152628  | 4.4  |
| TROUT PERCH                   | 0   | 0.0  | 0   | 0.0  | 16    | *    | 13    | 0.1  | 7844    | 0.2  |
| TROUTS (SALMONIDAE)           | 0   | 0.0  | 0   | 0.0  | 2     | *    | 0     | 0.0  | 9       | *    |
| UNIDENTIFIED                  | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 5       | *    |
| WALLEYS                       | 0   | 0.0  | 0   | 0.0  | 0     | 0.0  | 0     | 0.0  | 36      | *    |
| WHITE BASS                    | 0   | 0.0  | 5   | 0.3  | 1952  | 4.5  | 558   | 2.3  | 16517   | 0.5  |
| WHITE PERCH                   | 32  | 5.3  | 86  | 5.2  | 90    | 0.2  | 157   | 0.7  | 5322    | 0.2  |
| WHITE SUCKER                  | 37  | 6.1  | 17  | 1.0  | 12    | *    | 11    | *    | 480     | *    |
| YELLOW PERCH                  | 166 | 27.4 | 255 | 15.3 | 392   | 0.9  | 407   | 1.7  | 3348    | 0.1  |

|       |     |       |      |      |       |      |       |      |         |      |
|-------|-----|-------|------|------|-------|------|-------|------|---------|------|
| TOTAL | 606 | 100.1 | 1664 | 99.9 | 43470 | 99.7 | 24027 | 99.8 | 3436037 | 99.9 |
|-------|-----|-------|------|------|-------|------|-------|------|---------|------|

TOTAL MONTHLY FLOW SAMPLED (MG) 4680

TOTAL HOURS SAMPLED 312.00

4680

312.00

4680

312.00

5040

336.00

51610

4080.10

\* LESS THAN 0.1 PERCENT  
(MG) MILLION GALLONS

REVISED/FINAL



ABUNDANCE AND PERCENT COMPOSITION OF IMPINGEMENT COLLECTIONS  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

| SPECIES                         | JAN    |      | FEB    |       | MAR    |      | APR    |      |
|---------------------------------|--------|------|--------|-------|--------|------|--------|------|
|                                 | NO.    | PCNT | NO.    | PCNT  | NO.    | PCNT | NO.    | PCNT |
| ALEWIFE                         | 6792   | 55.6 | 5      | 0.4   | 10504  | 21.0 | 637897 | 92.5 |
| AMERICAN EEL                    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 3      | *    |
| BANDED KILLIFISH                | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| BLACK CRAPPIE                   | 2      | *    | 0      | 0.0   | 2      | *    | 3      | *    |
| BLUEGILL Sunfish                | 2      | *    | 0      | 0.0   | 2      | *    | 8      | *    |
| BLUNTNOSE MINNOW                | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 5      | *    |
| BOWFIN                          | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| BROOK STICKLEBACK               | 0      | 0.0  | 0      | 0.0   | 168    | 0.3  | 60     | *    |
| BROWN BULLHEAD                  | 14     | 0.1  | 0      | 0.0   | 11     | *    | 7      | *    |
| BROWN TROUT                     | 0      | 0.0  | 0      | 0.0   | 2      | *    | 2      | *    |
| BURBOT                          | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| CARP                            | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| CENTRAL MUDMINNOW (MUDMINNOW)   | 5      | *    | 5      | 0.4   | 133    | 0.3  | 52     | *    |
| CHANNEL CATFISH                 | 48     | 0.4  | 7      | 0.5   | 18     | *    | 2      | *    |
| COLD SALMON                     | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| CHUB - VID                      | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| CREEK CHUB                      | 5      | *    | 0      | 0.0   | 0      | 0.0  | 2      | *    |
| EMERALD SHINER                  | 117    | 1.0  | 34     | 2.6   | 237    | 0.5  | 112    | *    |
| FATHA'N MINNOW                  | 0      | 0.0  | 0      | 0.0   | 4      | *    | 22     | *    |
| FRESHWATER DRUM                 | 60     | 0.5  | 5      | 0.4   | 13     | *    | 3      | *    |
| GIZZARD SHAD                    | 849    | 7.0  | 456    | 35.1  | 10991  | 22.0 | 1571   | 0.2  |
| GOLDEN SHINER                   | 12     | 0.1  | 2      | 0.2   | 7      | *    | 8      | *    |
| GOLDFISH                        | 2      | *    | 0      | 0.0   | 2      | *    | 2      | *    |
| JOHNNY DARTER                   | 12     | 0.1  | 5      | 0.4   | 9      | *    | 103    | *    |
| LAKE CHUB                       | 2      | *    | 0      | 0.0   | 11     | *    | 10     | *    |
| LAKE HERRING                    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| LAKE TROUT                      | 5      | *    | 0      | 0.0   | 4      | *    | 0      | 0.0  |
| LOGPERCH                        | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 2      | *    |
| LONGNOSE DACE                   | 14     | 0.1  | 10     | 0.8   | 49     | 0.1  | 2      | *    |
| LONGNOSE GAR                    | 2      | *    | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| MINNOWS & CARPS                 | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 2      | *    |
| MOTTLED SCULPIN                 | 210    | 1.7  | 51     | 3.9   | 221    | 0.4  | 1792   | 0.3  |
| NORTHERN HOGSUCKER              | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| NORTHERN PIKE                   | 0      | 0.0  | 0      | 0.0   | 2      | *    | 0      | 0.0  |
| ONCORHYNCHUS SP (SALMONIDAE)    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 2      | *    |
| PEARL DACE                      | 2      | *    | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| PUGNOSE MINNOW                  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 8      | *    |
| PUMPKINSEED                     | 14     | 0.1  | 0      | 0.0   | 2      | *    | 15     | *    |
| RAINBOW SMELT                   | 2496   | 20.4 | 432    | 33.2  | 20131  | 40.2 | 34045  | 4.9  |
| RAINBOW TROUT                   | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| REDFIN PICKEREL                 | 0      | 0.0  | 0      | 0.0   | 2      | *    | 0      | 0.0  |
| ROCK BASS                       | 124    | 1.0  | 22     | 1.7   | 109    | 0.2  | 68     | *    |
| SALVELINUS SP (SALMONIDAE)      | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| SEA LAMPREY                     | 5      | *    | 0      | 0.0   | 2      | *    | 10     | *    |
| SEMOTILUS SP (CYPRINIDAE)       | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| SILVERY MINNOW                  | 0      | 0.0  | 0      | 0.0   | 2      | *    | 0      | 0.0  |
| SMALLMOUTH BASS                 | 219    | 1.8  | 12     | 0.9   | 40     | 0.1  | 18     | *    |
| SPLAKE TROUT                    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 5      | *    |
| SPOTTAIL SHINER                 | 493    | 4.0  | 68     | 5.2   | 357    | 0.7  | 551    | 0.1  |
| STONECAT                        | 2      | *    | 0      | 0.0   | 4      | *    | 20     | *    |
| TADPOLE MADTOM                  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| THREESPINE STICKLEBACK          | 21     | 0.2  | 22     | 1.7   | 2463   | 4.9  | 6287   | 0.9  |
| TROUT PERCH                     | 7      | 0.1  | 2      | 0.2   | 82     | 0.2  | 2615   | 0.4  |
| TROUTS (SALMONIDAE)             | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| UNIDENTIFIED                    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| WALLEYE                         | 2      | *    | 0      | 0.0   | 0      | 0.0  | 2      | *    |
| WHITE BASS                      | 207    | 1.7  | 140    | 10.8  | 3450   | 6.9  | 1458   | 0.2  |
| WHITE CRAPPIE                   | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| WHITE PERCH                     | 260    | 2.1  | 17     | 1.3   | 901    | 1.8  | 2387   | 0.3  |
| WHITE SUCKER                    | 10     | 0.1  | 0      | 0.0   | 0      | 0.0  | 7      | *    |
| YELLOW PERCH                    | 193    | 1.6  | 5      | 0.4   | 102    | 0.2  | 298    | *    |
| TOTAL                           | 12208  | 99.7 | 1300   | 100.1 | 50037  | 99.8 | 689466 | 99.8 |
| TOTAL MONTHLY FLOW SAMPLED (MG) | 4147   |      | 2070   |       | 3982   |      | 9349   |      |
| TOTAL HOURS SAMPLED             | 312.08 |      | 288.40 |       | 335.95 |      | 432.23 |      |

\* LESS THAN 0.1 PERCENT  
(MG) MILLION GALLONS, ALL UNITS COMBINED



ABUNDANCE AND PERCENT COMPOSITION OF IMPINGEMENT COLLECTIONS (CONTINUED)  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

| SPECIES                         | MAY     |      | JUN    |       | JUL    |      | AUG    |      |
|---------------------------------|---------|------|--------|-------|--------|------|--------|------|
|                                 | NO.     | PCNT | NO.    | PCNT  | NO.    | PCNT | NO.    | PCNT |
| ALEWIFE                         | 2662084 | 93.4 | 259442 | 85.3  | 139445 | 86.9 | 3429   | 66.6 |
| AMERICAN EEL                    | 36      | *    | 5      | *     | 14     | *    | 10     | 0.2  |
| BANDED KILLIFISH                | 2       | *    | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| BLACK CRAPPIE                   | 2       | *    | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| BLUEGILL                        | 11      | *    | 2      | *     | 12     | *    | 0      | 0.0  |
| BLUNTNOSE MINNOW                | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| BOWFIN                          | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| BROOK STICKLEBACK               | 31      | *    | 2      | *     | 0      | 0.0  | 0      | 0.0  |
| BROWN HULLHEAD                  | 2       | *    | 0      | 0.0   | 0      | 0.0  | 5      | 0.1  |
| BROWN TROUT                     | 0       | 0.0  | 5      | *     | 0      | 0.0  | 5      | 0.1  |
| BURBOT                          | 0       | 0.0  | 0      | 0.0   | 2      | *    | 7      | 0.1  |
| CARP                            | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| CENTRAL MUDMINNOW               | 46      | *    | 7      | *     | 2      | *    | 0      | 0.0  |
| CHANNEL CATFISH                 | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| COHO SALMON                     | 0       | 0.0  | 2      | *     | 0      | 0.0  | 0      | 0.0  |
| CHUB - UID                      | 0       | 0.0  | 0      | 0.0   | 5      | *    | 0      | 0.0  |
| CREEK CHUB                      | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| EMERALD SHINER                  | 108     | *    | 16     | *     | 2      | *    | 12     | 0.2  |
| FATHEAD MINNOW                  | 24      | *    | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| FRESHWATER DRUM                 | 0       | 0.0  | 2      | *     | 0      | 0.0  | 0      | 0.0  |
| GIZZARD SHAD                    | 143     | *    | 7      | *     | 5      | *    | 5      | 0.1  |
| GOLDEN SHINER                   | 41      | *    | 0      | 0.0   | 0      | 0.0  | 2      | *    |
| GOLDFISH                        | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| JOHNNY DARTER                   | 3657    | 0.1  | 782    | 0.3   | 1586   | 1.0  | 284    | 5.5  |
| LAKE CHUB                       | 29      | *    | 14     | *     | 64     | *    | 17     | 0.3  |
| LAKE HERRING                    | 2       | *    | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| LAKE TROUT                      | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| LOGPERCH                        | 2       | *    | 0      | 0.0   | 2      | *    | 0      | 0.0  |
| LONGNOSE DACE                   | 0       | 0.0  | 0      | 0.0   | 5      | *    | 0      | 0.0  |
| LONGNOSE GAR                    | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| MINNOWS & CARPS                 | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 2      | *    |
| MOTTLED SCULPIN                 | 2942    | 0.1  | 805    | 0.3   | 367    | 0.2  | 72     | 1.4  |
| NORTHERN HOGSUCKER              | 0       | 0.0  | 2      | *     | 0      | 0.0  | 2      | *    |
| NORTHERN PIKE                   | 2       | *    | 0      | 0.0   | 7      | *    | 5      | 0.1  |
| ONCIRRHYNCHUS SP (SALMONIDAE)   | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| PEARL DACE                      | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| PUGNOSE MINNOW                  | 0       | 0.0  | 2      | *     | 0      | 0.0  | 0      | 0.0  |
| PUMPKINSEED                     | 67      | *    | 9      | *     | 5      | *    | 10     | 0.2  |
| RAINBOW SMELT                   | 127127  | 4.5  | 4098   | 1.3   | 544    | 0.3  | 405    | 7.9  |
| RAINBOW TROUT                   | 8       | *    | 0      | 0.0   | 2      | *    | 0      | 0.0  |
| ROOFIN PICKEREL                 | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| ROCK BASS                       | 165     | *    | 16     | *     | 50     | *    | 64     | 1.2  |
| SALVELINUS SP (SALMONIDAE)      | 3       | *    | 5      | *     | 0      | 0.0  | 0      | 0.0  |
| SEA LAMPREY                     | 2       | *    | 0      | 0.0   | 2      | *    | 0      | 0.0  |
| SEMOTILUS SP (CYPRINIDAE)       | 0       | 0.0  | 0      | 0.0   | 2      | *    | 0      | 0.0  |
| SILVER MINNOW                   | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| SMALLMOUTH BASS                 | 108     | *    | 12     | *     | 12     | *    | 2      | *    |
| SPLAKE TROUT                    | 10      | *    | 12     | *     | 38     | *    | 12     | 0.2  |
| SPOTTAIL SHINER                 | 2603    | 0.1  | 2365   | 0.8   | 4531   | 2.8  | 398    | 7.7  |
| STONECAT                        | 20      | *    | 16     | *     | 36     | *    | 5      | 0.1  |
| TADPOLE MADTOM                  | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| THREESPIN STICKLEBACK           | 40157   | 1.4  | 34408  | 11.3  | 11937  | 7.4  | 5      | 0.1  |
| TROUT PERCH                     | 6511    | 0.2  | 1666   | 0.5   | 1171   | 0.7  | 86     | 1.7  |
| TROUTS                          | 0       | 0.0  | 2      | *     | 0      | 0.0  | 0      | 0.0  |
| UNIDENTIFIED                    | 0       | 0.0  | 0      | 0.0   | 2      | *    | 2      | *    |
| WALLEYE                         | 0       | 0.0  | 0      | 0.0   | 0      | 0.0  | 5      | 0.1  |
| WHITE BASS                      | 1422    | *    | 171    | 0.1   | 24     | *    | 0      | 0.0  |
| WHITE CRAPPIE                   | 2       | *    | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  |
| WHITE PERCH                     | 2417    | 0.1  | 162    | 0.1   | 155    | 0.1  | 48     | 0.9  |
| WHITE SUCKER                    | 41      | *    | 37     | *     | 100    | 0.1  | 48     | 0.9  |
| YELLOW PERCH                    | 1108    | *    | 132    | *     | 250    | 0.2  | 200    | 3.9  |
| TOTAL                           | 2850935 | 99.9 | 304206 | 100.0 | 160379 | 99.7 | 5147   | 99.6 |
| TOTAL MONTHLY FLOW SAMPLED (MG) | 9584    |      | 5955   |       | 5770   |      | 6637   |      |
| TOTAL HOURS SAMPLED             | 456.75  |      | 312.00 |       | 312.00 |      | 312.00 |      |

\* LESS THAN 0.1 PERCENT  
(MG) MILLION GALLONS, ALL UNITS COMBINED

ABUNDANCE AND PERCENT COMPOSITION OF IMPINGEMENT COLLECTIONS (CONTINUED)  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT - 1976

| SPECIES                         | SEP    |      | OCT    |       | NOV    |      | DEC    |      | TOTAL    |       |
|---------------------------------|--------|------|--------|-------|--------|------|--------|------|----------|-------|
|                                 | NO.    | PCNT | NO.    | PCNT  | NO.    | PCNT | NO.    | PCNT | NO.      | PCNT  |
| ALEWIFE                         | 4687   | 71.8 | 4018   | 49.1  | 146305 | 77.4 | 2942   | 8.1  | 3877550  | 89.9  |
| AMERICAN EEL                    | 21     | 0.3  | 10     | 0.1   | 4      | *    | 2      | *    | 105      | *     |
| BANDED KILLIFISH                | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 2        | *     |
| BLACK CRAPPIE                   | 2      | *    | 0      | 0.0   | 2      | *    | 0      | 0.0  | 13       | *     |
| BLUEGILL                        | 2      | *    | 7      | 0.1   | 2      | *    | 0      | 0.0  | 48       | *     |
| BLUNTNOSE MINNOW                | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 5        | *     |
| BOWFIN                          | 2      | *    | 2      | *     | 6      | *    | 0      | 0.0  | 10       | *     |
| BROOK STICKLEBACK               | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 261      | *     |
| BROWN BULLHEAD                  | 12     | 0.2  | 91     | 1.1   | 49     | *    | 38     | 0.1  | 229      | *     |
| BROWN TROUT                     | 0      | 0.0  | 2      | *     | 0      | 0.0  | 4      | *    | 20       | *     |
| BURBOT                          | 0      | 0.0  | 5      | 0.1   | 6      | *    | 22     | 0.1  | 42       | *     |
| CARP                            | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 2      | *    | 2        | *     |
| CENTRAL MUDMINNOW               | 0      | 0.0  | 0      | 0.0   | 6      | *    | 0      | 0.0  | 256      | *     |
| CHANNEL CATFISH                 | 0      | 0.0  | 0      | 0.0   | 49     | *    | 7      | *    | 131      | *     |
| COLD SALMON                     | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 2        | *     |
| CHUB - UID                      | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 5        | *     |
| CREEK CHUB                      | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 7        | *     |
| EMERALD SHINER                  | 23     | 0.4  | 112    | 1.4   | 11     | *    | 194    | 0.5  | 983      | *     |
| FATHEAD MINNOW                  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 50       | *     |
| FRESHWATER DRUM                 | 0      | 0.0  | 0      | 0.0   | 4      | *    | 2      | *    | 89       | *     |
| GIZZARD SHAD                    | 2      | *    | 590    | 7.2   | 1245   | 0.7  | 868    | 2.4  | 16732    | 0.4   |
| GOLDEN SHINER                   | 2      | *    | 2      | *     | 2      | *    | 2      | *    | 80       | *     |
| GULDFISH                        | 2      | *    | 0      | 0.0   | 0      | 0.0  | 2      | *    | 10       | *     |
| JOHNNY DARTER                   | 231    | 3.5  | 22     | 0.3   | 4      | *    | 13     | *    | 6708     | 0.2   |
| LAKE CHUB                       | 5      | 0.1  | 2      | *     | 2      | *    | 0      | 0.0  | 156      | *     |
| LAKE HERRING                    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 2      | *    | 4        | *     |
| LAKE TROUT                      | 0      | 0.0  | 2      | *     | 2      | *    | 0      | 0.0  | 13       | *     |
| LOGPERCH                        | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 6        | *     |
| LONGNOSE DACE                   | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 2      | *    | 82       | *     |
| LONGNOSE GAR                    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 2        | *     |
| MINNOWS & CARPS                 | 0      | 0.0  | 0      | 0.0   | 2      | *    | 0      | 0.0  | 6        | *     |
| MOTTLED SCULPIN                 | 201    | 3.1  | 79     | 1.0   | 191    | 0.1  | 379    | 1.0  | 7301     | 0.2   |
| NORTHERN BROSUCKER              | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 4        | *     |
| NORTHERN PIKE                   | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 7      | *    | 23       | *     |
| ONCORHYNCHUS SP (SALMONIDAE)    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 2        | *     |
| PEARL DACE                      | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 2        | *     |
| PUGNOSE MINNOW                  | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 10       | *     |
| PUMPKINSEED                     | 12     | 0.2  | 14     | 0.2   | 24     | *    | 18     | *    | 190      | *     |
| RAINBOW SMELT                   | 189    | 2.9  | 2467   | 30.2  | 38198  | 20.2 | 29651  | 81.8 | 259783   | 6.0   |
| RAINBOW TROUT                   | 2      | *    | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 12       | *     |
| ROCK BAS                        | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 2        | *     |
| ROCK BASS                       | 95     | 1.5  | 72     | 0.9   | 77     | *    | 208    | 0.6  | 1070     | *     |
| SALVELINUS SP (SALMONIDAE)      | 0      | 0.0  | 0      | 0.0   | 2      | *    | 0      | 0.0  | 10       | *     |
| SEA LAMPREY                     | 0      | 0.0  | 0      | 0.0   | 2      | *    | 15     | *    | 38       | *     |
| SEMOTILUS SP (CYPRINIDAE)       | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 2        | *     |
| SILVER MINNOW                   | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 2        | *     |
| SMALLMOUTH BASS                 | 23     | 0.4  | 10     | 0.1   | 13     | *    | 42     | 0.1  | 511      | *     |
| SPLAKE TROUT                    | 0      | 0.0  | 0      | 0.0   | 13     | *    | 22     | 0.1  | 112      | *     |
| SPOTTAIL SHINER                 | 155    | 2.4  | 57     | 0.7   | 39     | *    | 66     | 0.2  | 11683    | 0.3   |
| STONECAT                        | 9      | 0.1  | 22     | 0.3   | 6      | *    | 33     | 0.1  | 173      | *     |
| TADPOLE MADTOM                  | 0      | 0.0  | 2      | *     | 0      | 0.0  | 0      | 0.0  | 2        | *     |
| THREE SPINE STICKLEBACK         | 0      | 0.0  | 17     | 0.2   | 101    | 0.1  | 465    | 1.3  | 95883    | 2.2   |
| TROUT PERCH                     | 16     | 0.2  | 14     | 0.2   | 9      | *    | 4      | *    | 12183    | 0.3   |
| TROUTS                          | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 2        | *     |
| UNIDENTIFIED                    | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 4        | *     |
| WALLEYE                         | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 9        | *     |
| WHITE BASS                      | 2      | *    | 31     | 0.4   | 1992   | 1.1  | 611    | 1.7  | 9508     | 0.2   |
| WHITE CRAPPIE                   | 0      | 0.0  | 0      | 0.0   | 0      | 0.0  | 0      | 0.0  | 2        | *     |
| WHITE PERCH                     | 369    | 5.7  | 253    | 3.1   | 208    | 0.1  | 162    | 0.4  | 7334     | 0.2   |
| WHITE SUCKER                    | 95     | 1.5  | 48     | 0.6   | 6      | *    | 4      | *    | 396      | *     |
| YELLOW PERCH                    | 365    | 5.6  | 227    | 2.8   | 346    | 0.2  | 469    | 1.3  | 3695     | 0.1   |
| TOTAL                           | 6524   | 99.9 | 8178   | 100.1 | 188928 | 99.9 | 36254  | 99.8 | 4313562  | 100.0 |
| TOTAL MONTHLY FLOW SAMPLED (MG) | 6739   |      | 5604   |       | 6170   |      | 6979   |      | 72986    |       |
| TOTAL HOURS SAMPLED             | 312.00 |      | 311.27 |       | 335.50 |      | 336.08 |      | 4056.260 |       |

\* LESS THAN 0.1 PERCENT  
(MG) MILLION GALLONS, ALL UNITS COMBINED

NINE MILE POINT/FITZPATRICK GENERATING STATION

WATER MONITORING PROGRAM

SAMPLES FROM LAKE ONTARIO

SUMMARY REPORT

April 1976 - December 1976

Prepared for

Lawler, Matusky & Skelly, Engineers  
415 Route 313  
Tappan, New York 10983

Prepared by

Teledyne Isotopes  
50 Van Buren Avenue  
Westwood, New Jersey 07675

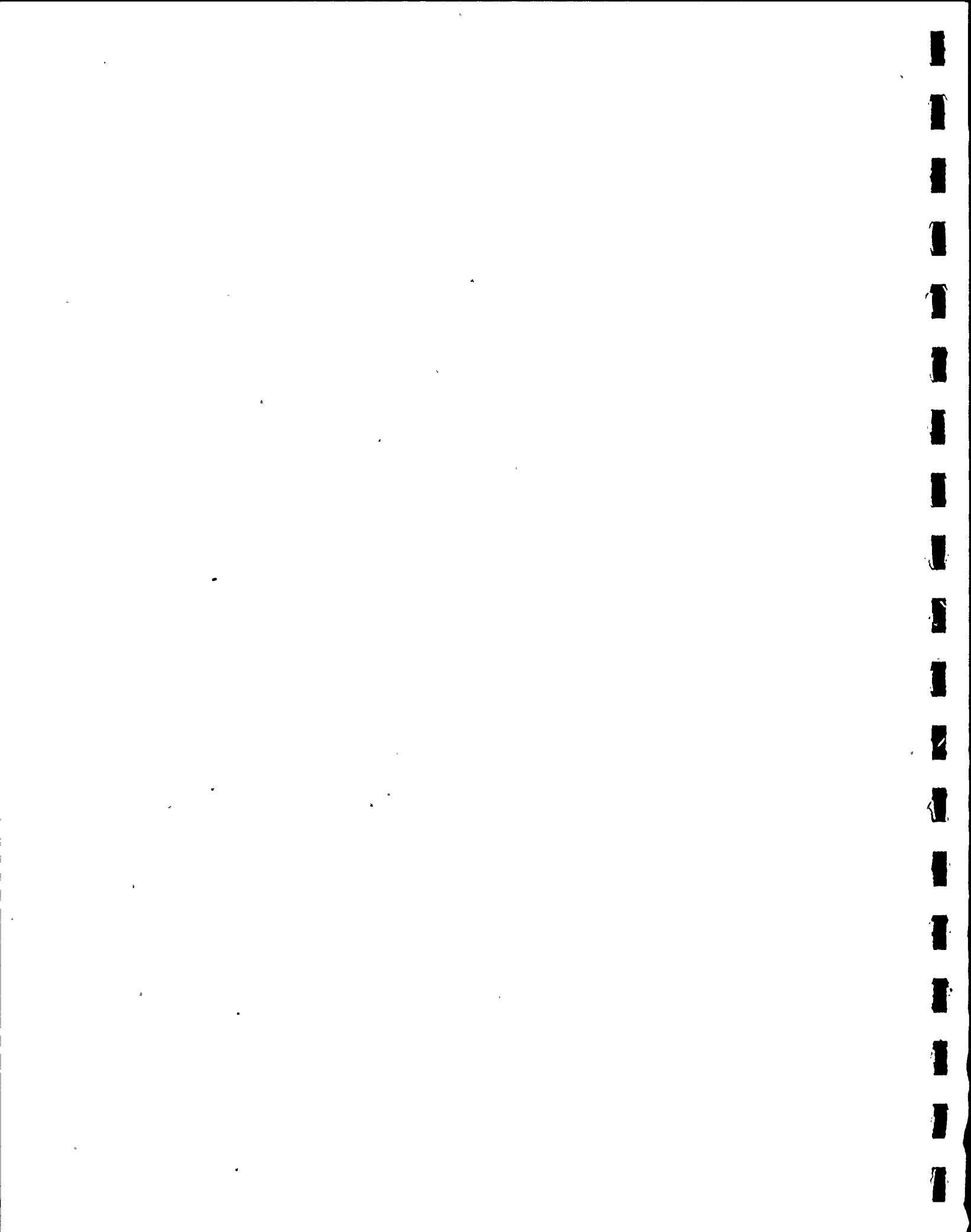




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## I. INTRODUCTION

This report presents the results of the radioanalysis of water samples collected from Lake Ontario in the vicinity of the Power Authority of the State of New York and the Niagara Mohawk Power Corporation (Nine Mile Point/Fitzpatrick) Generating Stations.

Samples were collected monthly from April 1976 or June 1976 through December 1976 from ten locations and analyzed at Teledyne Isotopes, Westwood, New Jersey for:

- . Gross alpha and gross beta activity
- . Tritium activity by gas counting
- . Gamma emitting nuclides by Ge(Li) gamma spectrometry

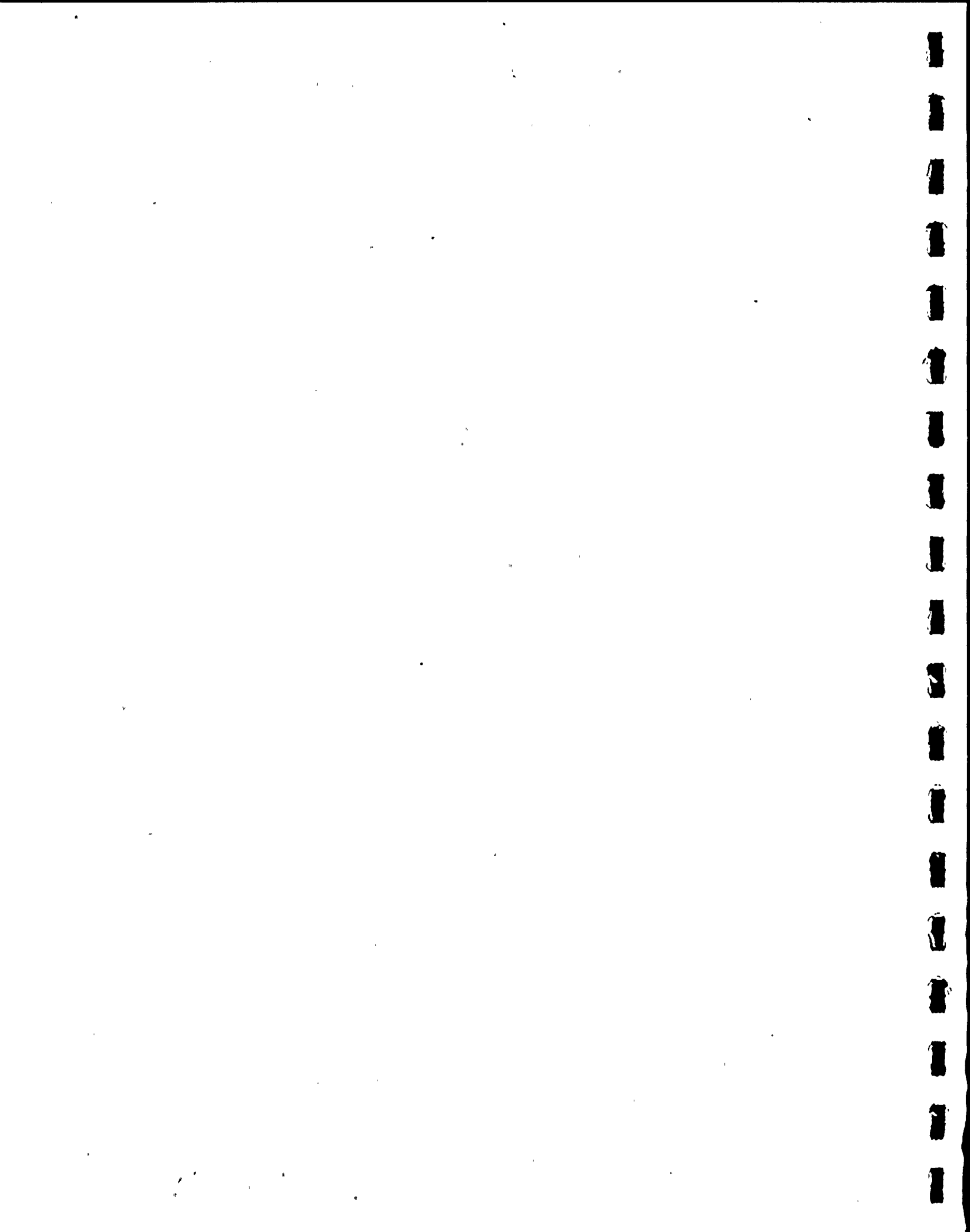


II.

RADIOLOGICAL SAMPLING STATIONS AND FREQUENCY OF COLLECTION  
NINE MILE POINT VICINITY, LAKE ONTARIO - 1976

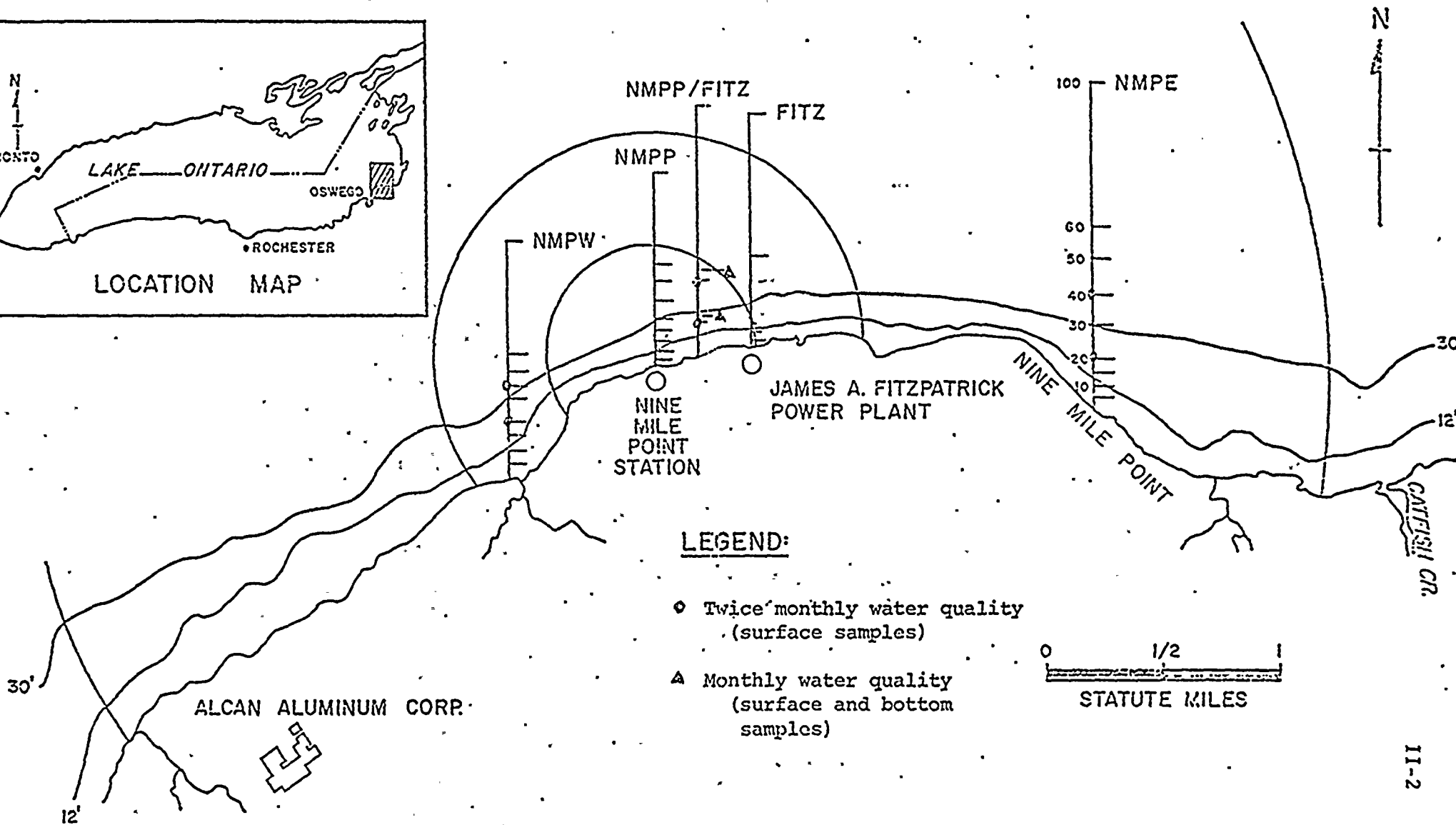
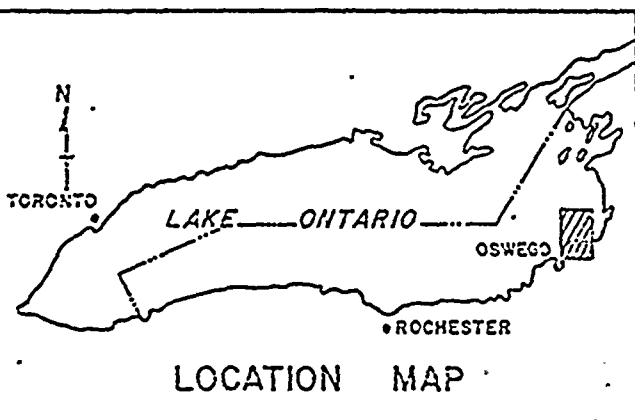
| <u>TRANSECT</u>                            | <u>DEPTH CONTOUR(ft)</u> | <u>SAMPLE DEPTH</u> | <u>COLLECTION DATE</u> |
|--|--------------------------|---------------------|------------------------|
| <u>TWICE MONTHLY WATER QUALITY PROGRAM</u> |                          |                     |                        |
| NMPE                                       | 20                       | Surface             | 29 APR                 |
| NMPE                                       | 40                       | Surface             | 10 MAY                 |
| NMPP/FITZ                                  | 20                       | Surface             | 8 JUN                  |
| NMPP/FITZ                                  | 40                       | Surface             | 6 JUL                  |
| NMPW                                       | 20                       | Surface             | 2 AUG                  |
| NMPW                                       | 40                       | Surface             | 7 SEP                  |
|  |                          |                     | 4 OCT                  |
|  |                          |                     | 2 NOV                  |
|  |                          |                     | 6 DEC                  |
| <u>MONTHLY WATER QUALITY PROGRAM</u>       |                          |                     |                        |
| NMPP/FITZ                                  | 25                       | Surface             | 18 JUN                 |
| NMPP/FITZ                                  | 25                       | Bottom              | 19 JUL                 |
| NMPP/FITZ                                  | 45                       | Surface             | 9 AUG                  |
| NMPP/FITZ                                  | 45                       | Bottom              | 13 SEP                 |
|  |                          |                     | 11 OCT                 |
|  |                          |                     | 9 NOV                  |
|  |                          |                     | 8 DEC                  |

On the map the dot (•) closest to the shore at the three LMS transects is at the 20 ft. water depth. The dot farthest from shore is at the 40 ft. water depth.



RADIOLOGICAL SAMPLING STATIONS

NINE MILE POINT VICINITY - 1976







### III. SAMPLE RESULTS

Included in this section are summary tables of the radioanalysis performed at each station for:

- . gross beta activity
- . gross alpha activity
- . tritium
- . gamma emitters (the 16 gamma emitters routinely monitored in the environs of a nuclear generating station).

The mean  $\pm$  standard deviation and the range are determined for analysis showing more than two detected measurements. Gross beta and tritium radioanalysis are in this category.

The less than (L.T.) values are tabulated for each of the radionuclides monitored but not detected. If no activity above three times the standard deviation of the background was detected, the results are tabulated as L.T. values. Gamma spectra and most of the gross alpha radioanalysis are in this category.



NINE MILE POINT/FITZPATRICK GENERATING STATION

ENVIRONMENTAL MONITORING 1976

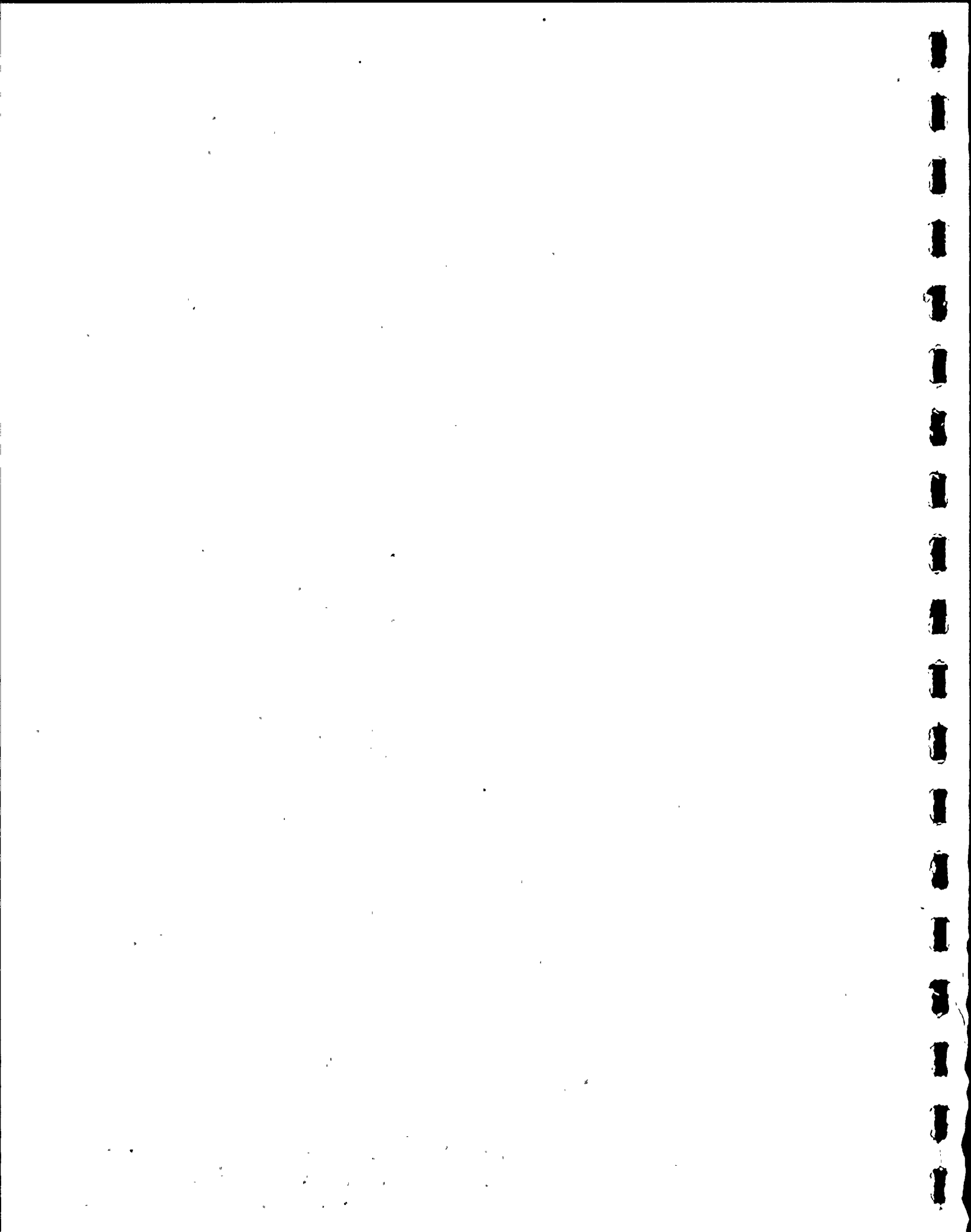
STATION NMP 1

EAST 20' SURFACE

WATER (picocuries/liter)

| COLLECTION<br>DATE   | GROSS ALPHA | GROSS BETA     | TRITIUM        | Be-7       | K-40       | Mn-54      | Co-58      | Co-60      | Zr-95      |
|----------------------|-------------|----------------|----------------|------------|------------|------------|------------|------------|------------|
| 04/29/76             | L.T.3 E 00  | 3.6+-1.1 E 00  | 3.1+-0.7 E 02  | L.T.1 E 02 | L.T.1 E 02 | L.T.7 E 00 | L.T.1 E 01 | L.T.7 E 00 | L.T.2 E 01 |
| 05/10/76             | L.T.2 E 00  | 3.6+-1.0 E 00  | 3.3+-0.7 E 02  | L.T.8 E 01 | L.T.9 E 01 | L.T.7 E 00 | L.T.9 E 00 | L.T.7 E 00 | L.T.2 E 01 |
| 06/08/76             | L.T.3 E 00  | 3.9+-1.0 E 00  | 2.3+-0.7 E 02  | L.T.8 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.7 E 00 | L.T.7 E 00 | L.T.1 E 01 |
| 07/06/76             | L.T.2 E 00  | 4.2+-1.0 E 00  | 3.7+-0.7 E 02  | L.T.8 E 01 | L.T.1 E 02 | L.T.7 E 00 | L.T.7 E 00 | L.T.7 E 00 | L.T.2 E 01 |
| 08/02/76             | L.T.2 E 00  | 3.8+-0.9 E 00  | 3.7+-0.7 E 02  | L.T.9 E 01 | L.T.2 E 02 | L.T.8 E 00 | L.T.9 E 00 | L.T.1 E 01 | L.T.2 E 01 |
| 09/07/76             | L.T.4 E 00  | 3.3+-1.2 E 00  | 3.7+-0.7 E 02  | L.T.5 E 02 | L.T.2 E 02 | L.T.1 E 01 | L.T.3 E 01 | L.T.1 E 01 | L.T.6 E 01 |
| 10/04/76             | L.T.2 E 00  | 3.3+-0.9 E 00  | 3.6+-0.8 E 02  | L.T.8 E 01 | L.T.1 E 02 | L.T.9 E 00 | L.T.9 E 00 | L.T.8 E 00 | L.T.2 E 01 |
| 11/02/76             | L.T.2 E 00  | 3.5+-1.0 E 00  | 3.9+-0.8 E 02  | L.T.6 E 01 | L.T.1 E 02 | L.T.5 E 00 | L.T.6 E 00 | L.T.5 E 00 | L.T.1 E 01 |
| 12/06/76             | L.T.3 E 00  | 3.9+-1.3 E 00  | 4.1+-0.8 E 02  | L.T.7 E 01 | L.T.1 E 02 | L.T.5 E 00 | L.T.6 E 00 | L.T.5 E 00 | L.T.1 E 01 |
| mean +-<br>std. dev. | -           | 3.7+-0.3 E 00  | 3.5+-0.5 E 02  | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/9         | 9/9            | 9/9            | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        |
| range                | -           | (3.3-4.2) E 00 | (2.3-4.1) E 02 | -          | -          | -          | -          | -          | -          |

| COLLECTION<br>DATE   | Ru-103     | Ru-106     | I-131      | Cs-134     | Cs-137     | Ba-140     | Ce-141     | Ce-144     | Ra-226     | Th-228     |
|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 04/29/76             | L.T.1 E 01 | L.T.7 E 01 | -          | L.T.7 E 00 | L.T.8 E 00 | L.T.1 E 02 | L.T.3 E 01 | L.T.8 E 01 | L.T.2 E 02 | L.T.2 E 01 |
| 05/10/76             | L.T.1 E 01 | L.T.7 E 01 | L.T.7 E 01 | L.T.8 E 00 | L.T.8 E 00 | L.T.7 E 01 | L.T.3 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.2 E 01 |
| 06/08/76             | L.T.1 E 01 | L.T.6 E 01 | L.T.5 E 01 | L.T.7 E 00 | L.T.7 E 00 | L.T.5 E 01 | L.T.2 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 07/06/76             | L.T.1 E 01 | L.T.7 E 01 | L.T.5 E 01 | L.T.7 E 00 | L.T.8 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 08/02/76             | L.T.1 E 01 | L.T.8 E 01 | L.T.3 E 01 | L.T.9 E 00 | L.T.9 E 00 | L.T.4 E 01 | L.T.2 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 09/07/76             | L.T.9 E 01 | L.T.1 E 02 | -          | L.T.1 E 01 | L.T.1 E 01 | L.T.2 E 04 | L.T.2 E 02 | L.T.1 E 02 | L.T.2 E 02 | L.T.2 E 01 |
| 10/04/76             | L.T.1 E 01 | L.T.7 E 01 | L.T.8 E 01 | L.T.8 E 00 | L.T.9 E 00 | L.T.8 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 11/02/76             | L.T.9 E 00 | L.T.5 E 01 | L.T.5 E 01 | L.T.6 E 00 | L.T.6 E 00 | L.T.5 E 01 | L.T.2 E 01 | L.T.6 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 12/06/76             | L.T.9 E 00 | L.T.5 E 01 | -          | L.T.5 E 00 | L.T.5 E 00 | L.T.8 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| mean +-<br>std. dev. | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/9        | 0/9        | 0/6        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        |
| range                | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



NINE MILE POINT/FITZPATRICK GENERATING STATION

ENVIRONMENTAL MONITORING 1976

STATION NMP 2

EAST 40' SURFACE

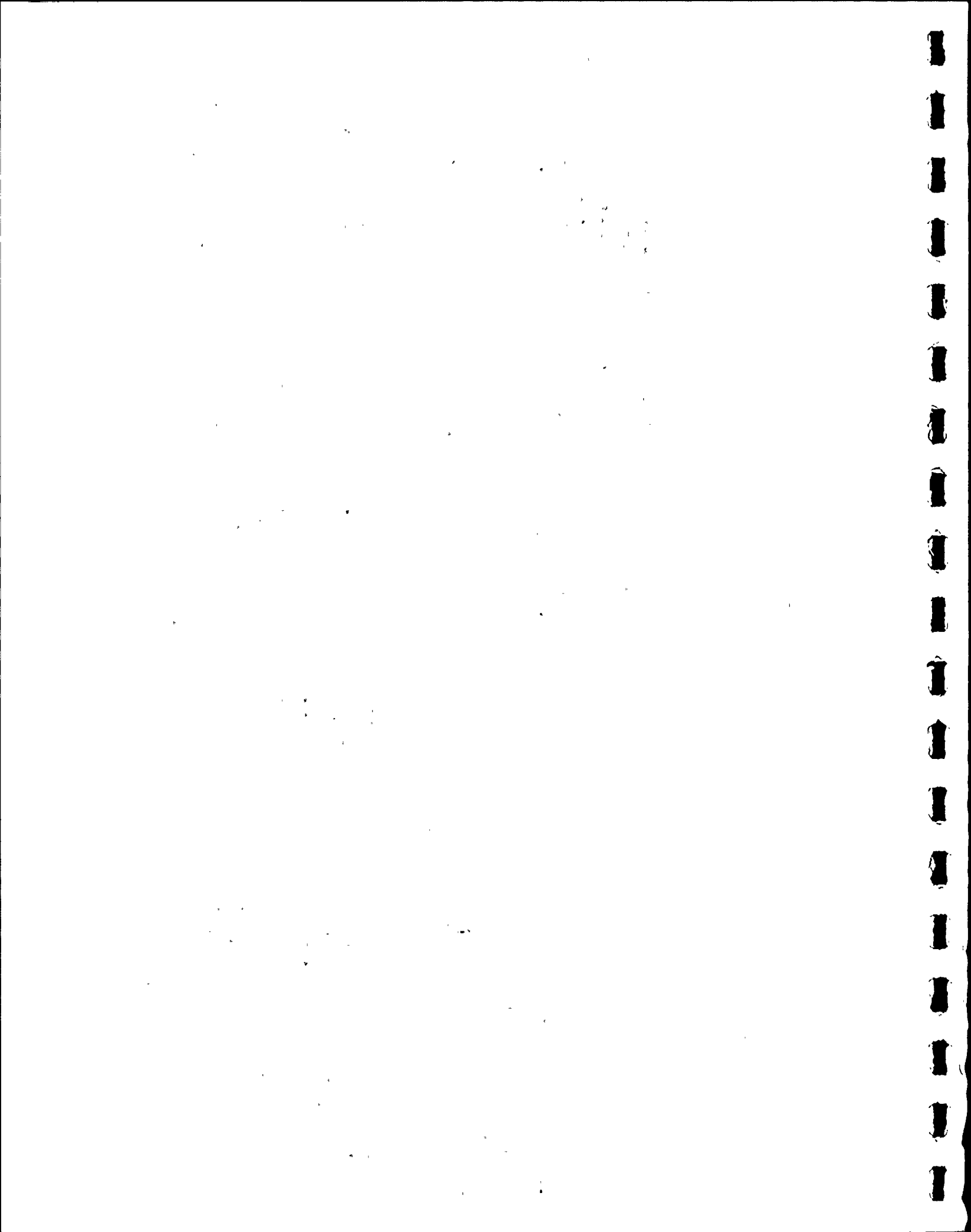
WATER (picocuries/liter)

| COLLECTION<br>DATE | GROSS ALPHA | GROSS BETA    | TRITIUM       | Be-7       | K-40       | Mn-54      | Co-58      | Co-60      | Zr-95      |
|--------------------|-------------|---------------|---------------|------------|------------|------------|------------|------------|------------|
| 04/29/76           | L.T.3 E 00  | 3.4+-1.0 E 00 | 3.3+-0.7 E 02 | L.T.1 E 02 | L.T.2 E 02 | L.T.1 E 01 | L.T.1 E 01 | L.T.9 E 00 | L.T.2 E 01 |
| 05/10/76           | L.T.2 E 00  | 2.8+-0.9 E 00 | 3.1+-0.7 E 02 | L.T.1 E 02 | L.T.2 E 02 | L.T.9 E 00 | L.T.1 E 01 | L.T.9 E 00 | L.T.2 E 01 |
| 06/08/76           | L.T.3 E 00  | 4.3+-1.0 E 00 | 3.3+-0.7 E 02 | L.T.1 E 02 | L.T.2 E 02 | L.T.7 E 00 | L.T.1 E 01 | L.T.8 E 00 | L.T.2 E 01 |
| 07/06/76           | L.T.2 E 00  | 4.5+-1.0 E 00 | 3.5+-0.7 E 02 | L.T.9 E 01 | L.T.2 E 02 | L.T.9 E 00 | L.T.9 E 00 | L.T.1 E 01 | L.T.2 E 01 |
| 08/02/76           | L.T.2 E 00  | 3.4+-0.9 E 00 | 4.5+-0.8 E 02 | L.T.6 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.6 E 00 | L.T.7 E 00 | L.T.1 E 01 |
| 09/07/76           | L.T.3 E 00  | 4.3+-1.2 E 00 | 3.3+-0.7 E 02 | L.T.3 E 02 | L.T.1 E 02 | L.T.7 E 00 | L.T.2 E 01 | L.T.7 E 00 | L.T.4 E 01 |
| 10/04/76           | L.T.2 E 00  | 4.7+-1.0 E 00 | 3.8+-0.8 E 02 | L.T.4 E 02 | L.T.8 E 02 | L.T.3 E 01 | L.T.4 E 01 | L.T.4 E 01 | L.T.8 E 01 |
| 11/02/76           | L.T.2 E 00  | 2.9+-1.0 E 00 | 4.1+-0.8 E 02 | L.T.7 E 01 | L.T.7 E 01 | L.T.6 E 00 | L.T.8 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 12/06/76           | L.T.3 E 00  | 3.6+-1.3 E 00 | 3.1+-0.8 E 02 | L.T.7 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.7 E 00 | L.T.7 E 00 | L.T.1 E 01 |

|                      |     |                |                |     |     |     |     |     |     |
|----------------------|-----|----------------|----------------|-----|-----|-----|-----|-----|-----|
| mean +-<br>std. dev. | -   | 3.8+-0.7 E 00  | 3.6+-0.5 E 02  | -   | -   | -   | -   | -   | -   |
| detected<br>measured | 0/9 | 9/9            | 9/9            | 0/9 | 0/9 | 0/9 | 0/9 | 0/9 | 0/9 |
| range                | -   | (2.8-4.7) E 00 | (3.1-4.5) E 02 | -   | -   | -   | -   | -   | -   |

| COLLECTION<br>DATE | Ru-103     | Ru-106     | I-131      | Cs-134     | Cs-137     | Ba-140     | Ce-141     | Ce-144     | Ra-226     | Th-228     |
|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 04/29/76           | L.T.2 E 01 | L.T.9 E 01 | -          | L.T.9 E 00 | L.T.1 E 01 | L.T.1 E 02 | L.T.3 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 05/10/76           | L.T.1 E 01 | L.T.7 E 01 | L.T.7 E 01 | L.T.1 E 01 | L.T.9 E 00 | L.T.8 E 01 | L.T.2 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 06/08/76           | L.T.1 E 01 | L.T.8 E 01 | L.T.6 E 01 | L.T.9 E 00 | L.T.9 E 00 | L.T.7 E 01 | L.T.2 E 01 | L.T.7 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 07/06/76           | L.T.1 E 01 | L.T.8 E 01 | L.T.5 E 01 | L.T.9 E 00 | L.T.9 E 00 | L.T.7 E 01 | L.T.2 E 01 | L.T.7 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 08/02/76           | L.T.7 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.7 E 00 | L.T.6 E 00 | L.T.3 E 01 | L.T.1 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.9 E 00 |
| 09/07/76           | L.T.6 E 01 | L.T.7 E 01 | -          | L.T.8 E 00 | L.T.7 E 00 | L.T.2 E 04 | L.T.2 E 02 | L.T.9 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 10/04/76           | L.T.5 E 01 | L.T.3 E 02 | L.T.4 E 02 | L.T.4 E 01 | L.T.4 E 01 | L.T.4 E 02 | L.T.1 E 02 | L.T.3 E 02 | L.T.7 E 02 | L.T.6 E 01 |
| 11/02/76           | L.T.9 E 00 | L.T.6 E 01 | L.T.6 E 01 | L.T.7 E 00 | L.T.7 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.9 E 00 |
| 12/06/76           | L.T.1 E 01 | L.T.5 E 01 | -          | L.T.6 E 00 | L.T.6 E 00 | L.T.9 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.9 E 00 |

|                      |     |     |     |     |     |     |     |     |     |     |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| mean +-<br>std. dev. | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| detected<br>measured | 0/9 | 0/9 | 0/6 | 0/9 | 0/9 | 0/9 | 0/9 | 0/9 | 0/9 | 0/9 |
| range                | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |



NINE MILE POINT/FITZPATRICK GENERATING STATION

ENVIRONMENTAL MONITORING 1976

STATION NMP 3

FITZ 20' SURFACE

WATER (picocuries/liter)

| COLLECTION<br>DATE   | GROSS ALPHA | GROSS BETA     | TRITIUM        | Ba-7       | K-40       | Mn-54      | Co-58      | Co-60      | Zr-95      |
|----------------------|-------------|----------------|----------------|------------|------------|------------|------------|------------|------------|
| 04/29/76             | L.T.3 E 00  | 3.7+-1.0 E 00  | 4.6+-0.8 E 02  | L.T.9 E 01 | L.T.2 E 02 | L.T.6 E 00 | L.T.8 E 00 | L.T.7 E 00 | L.T.1 E 01 |
| 05/10/76             | L.T.2 E 00  | 3.3+-0.9 E 00  | 2.6+-0.7 E 02  | L.T.7 E 01 | L.T.2 E 02 | L.T.6 E 00 | L.T.7 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 06/08/76             | L.T.3 E 00  | 3.8+-1.0 E 00  | 2.5+-0.7 E 02  | L.T.6 E 01 | L.T.2 E 02 | L.T.6 E 00 | L.T.6 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 07/06/76             | L.T.2 E 00  | 3.2+-0.9 E 00  | 3.5+-0.7 E 02  | L.T.6 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.7 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 08/02/76             | L.T.2 E 00  | 4.2+-0.4 E 00  | 5.4+-0.8 E 02  | L.T.8 E 01 | L.T.1 E 02 | L.T.8 E 00 | L.T.1 E 01 | L.T.1 E 01 | L.T.2 E 01 |
| 09/07/76             | L.T.3 E 00  | 4.1+-1.1 E 00  | 3.7+-0.9 E 02  | L.T.3 E 02 | L.T.2 E 02 | L.T.1 E 01 | L.T.2 E 01 | L.T.8 E 00 | L.T.5 E 01 |
| 10/04/76             | L.T.2 E 00  | 3.6+-0.9 E 00  | 4.1+-0.8 E 02  | L.T.6 E 01 | L.T.7 E 01 | L.T.6 E 00 | L.T.8 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 11/02/76             | L.T.2 E 00  | 3.3+-1.0 E 00  | 4.4+-0.8 E 02  | L.T.5 E 01 | L.T.1 E 02 | L.T.4 E 00 | L.T.5 E 00 | L.T.5 E 00 | L.T.9 E 00 |
| 12/06/76             | L.T.3 E 00  | 3.7+-1.3 E 00  | 3.7+-0.7 E 02  | L.T.8 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.7 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| mean+-<br>std. dev.  | -           | 3.7+-0.4 E 00  | 3.8+-0.9 E 02  | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/9         | 9/9            | 9/9            | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        |
| range                | -           | (3.3-4.2) E 00 | (2.5-5.4) E 02 | -          | -          | -          | -          | -          | -          |

| COLLECTION<br>DATE   | Ru-103     | Ru-106     | I-131      | Cs-134     | Cs-137     | Ba-140     | Ce-141     | Ce-144     | Ra-226     | Th-228     |
|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 4/29/76              | L.T.1 E 01 | L.T.6 E 01 | -          | L.T.7 E 00 | L.T.7 E 00 | L.T.1 E 02 | L.T.2 E 01 | L.T.6 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 05/10/76             | L.T.1 E 01 | L.T.6 E 01 | L.T.5 E 01 | L.T.7 E 00 | L.T.6 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.9 E 00 |
| 06/08/76             | L.T.8 E 00 | L.T.5 E 01 | L.T.4 E 01 | L.T.6 E 00 | L.T.6 E 00 | L.T.4 E 01 | L.T.1 E 01 | L.T.4 E 01 | L.T.8 E 01 | L.T.7 E 00 |
| 07/06/76             | L.T.8 E 00 | L.T.6 E 01 | L.T.4 E 01 | L.T.7 E 00 | L.T.6 E 00 | L.T.5 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.9 E 00 |
| 08/02/76             | L.T.1 E 01 | L.T.7 E 01 | L.T.2 E 01 | L.T.8 E 00 | L.T.1 E 01 | L.T.4 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 09/07/76             | L.T.7 E 01 | L.T.9 E 01 | -          | L.T.9 E 00 | L.T.9 E 00 | L.T.2 E 04 | L.T.2 E 02 | L.T.9 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 10/04/76             | L.T.9 E 00 | L.T.5 E 01 | L.T.7 E 01 | L.T.6 E 00 | L.T.8 E 00 | L.T.7 E 01 | L.T.1 E 01 | L.T.3 E 01 | L.T.7 E 01 | L.T.7 E 00 |
| 11/02/76             | L.T.7 E 00 | L.T.4 E 01 | L.T.4 E 01 | L.T.5 E 00 | L.T.5 E 00 | L.T.5 E 01 | L.T.1 E 01 | L.T.4 E 01 | L.T.8 E 01 | L.T.7 E 00 |
| 12/06/76             | L.T.1 E 01 | L.T.6 E 01 | -          | L.T.6 E 00 | L.T.7 E 00 | L.T.9 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| mean +-<br>std. dev. | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/9        | 0/9        | 0/6        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        |
| range                | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |





NINE MILE POINT/FITZPATRICK GENERATING STATION

ENVIRONMENTAL MONITORING 1976

STATION NMP 4

FITZ 40' SURFACE

WATER (picocuries/liter)

| COLLECTION<br>DATE   | GROSS ALPHA | GROSS BETA      | TRITIUM        | Be-7       | K-40       | Mn-54      | Co-58      | Co-60      | Zr-95      |
|----------------------|-------------|-----------------|----------------|------------|------------|------------|------------|------------|------------|
| 04/29/76             | L.T.3 E 00  | 2.3+-0.9 E 00   | 4.0+-0.7 E 02  | L.T.1 E 02 | L.T.1 E 02 | L.T.9 E 00 | L.T.1 E 01 | L.T.4 E 01 | L.T.2 E 01 |
| 05/10/76             | L.T.2 E 00  | 3.4+-1.0 E 00   | 3.3+-0.7 E 02  | L.T.8 E 01 | L.T.9 E 01 | L.T.7 E 00 | L.T.7 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 06/08/76             | L.T.3 E 00  | 3.8+-1.0 E 00   | 3.6+-0.7 E 02  | L.T.8 E 01 | L.T.1 E 02 | L.T.8 E 00 | L.T.8 E 00 | L.T.1 E 01 | L.T.1 E 01 |
| 07/06/76             | L.T.2 E 00  | 3.8+-1.0 E 00   | 3.5+-0.7 E 02  | L.T.9 E 01 | L.T.1 E 02 | L.T.7 E 00 | L.T.8 E 00 | L.T.7 E 00 | L.T.1 E 01 |
| 08/02/76             | L.T.2 E 00  | 3.8+-1.0 E 00   | 3.7+-0.7 E 02  | L.T.6 E 01 | L.T.9 E 01 | L.T.6 E 00 | L.T.7 E 00 | L.T.8 E 00 | L.T.1 E 01 |
| 09/07/76             | L.T.3 E 00  | 4.4+-1.2 E 00   | 3.7+-0.8 E 02  | L.T.3 E 02 | L.T.1 E 02 | L.T.7 E 00 | L.T.2 E 01 | L.T.6 E 00 | L.T.4 E 01 |
| 10/04/76             | L.T.2 E 00  | 3.8+-0.9 E 00   | 3.5+-0.8 E 02  | L.T.6 E 01 | L.T.1 E 02 | L.T.5 E 00 | L.T.7 E 00 | L.T.5 E 00 | L.T.1 E 01 |
| 11/02/76             | L.T.2 E 00  | 3.3+-1.0 E 00   | 4.0+-0.8 E 02  | L.T.6 E 01 | L.T.8 E 01 | L.T.6 E 00 | L.T.7 E 00 | L.T.7 E 00 | L.T.1 E 01 |
| 12/06/76             | L.T.3 E 00  | 3.3+-1.3 E 00   | 2.9+-0.7 E 02  | L.T.7 E 01 | L.T.1 E 02 | L.T.5 E 00 | L.T.6 E 00 | L.T.5 E 00 | L.T.1 E 01 |
| mean +-<br>std. dev. | -           | 3.5+-0.6 E 00   | 3.6+-0.3 E 02  | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/9         | 9/9             | 9/9            | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        |
| range                | -           | (2.3+-4.4) E 00 | (2.9-4.0) E 02 | -          | -          | -          | -          | -          | -          |

| COLLECTION<br>DATE   | Ru-103     | Ru-106     | I-131      | Cs-134     | Cs-137     | Ba-140     | Ce-141     | Ce-144     | Ra-226     | Th-228     |
|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 04/29/76             | L.T.1 E 01 | L.T.8 E 01 | -          | L.T.9 E 00 | L.T.9 E 00 | L.T.1 E 02 | L.T.2 E 01 | L.T.6 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 05/10/76             | L.T.1 E 01 | L.T.6 E 01 | L.T.4 E 01 | L.T.7 E 00 | L.T.8 E 00 | L.T.5 E 01 | L.T.2 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 06/08/76             | L.T.1 E 01 | L.T.7 E 01 | L.T.5 E 01 | L.T.8 E 00 | L.T.9 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 07/06/76             | L.T.1 E 01 | L.T.7 E 01 | L.T.5 E 01 | L.T.8 E 00 | L.T.8 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.8 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 08/02/76             | L.T.8 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.7 E 00 | L.T.8 E 00 | L.T.3 E 01 | L.T.9 E 00 | L.T.3 E 01 | L.T.8 E 01 | L.T.7 E 00 |
| 09/07/76             | L.T.5 E 01 | L.T.7 E 01 | -          | L.T.7 E 00 | L.T.6 E 00 | L.T.1 E 04 | L.T.1 E 02 | L.T.6 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 10/04/76             | L.T.9 E 00 | L.T.5 E 01 | L.T.6 E 01 | L.T.6 E 00 | L.T.6 E 00 | L.T.7 E 01 | L.T.2 E 01 | L.T.6 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 11/02/76             | L.T.9 E 00 | L.T.6 E 01 | L.T.5 E 01 | L.T.6 E 00 | L.T.7 E 00 | L.T.5 E 01 | L.T.1 E 01 | L.T.4 E 01 | L.T.9 E 01 | L.T.8 E 00 |
| 12/06/76             | L.T.9 E 00 | L.T.5 E 01 | -          | L.T.5 E 00 | L.T.5 E 00 | L.T.8 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| mean +-<br>std. dev. | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/9        | 0/9        | 0/6        | 0/9        | 0/9        |            | 0/9        | 0/9        | 0/9        | 0/9        |
| range                | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



NINE MILE POINT/FITZPATRICK GENERATING STATION

ENVIRONMENTAL MONITORING 1976

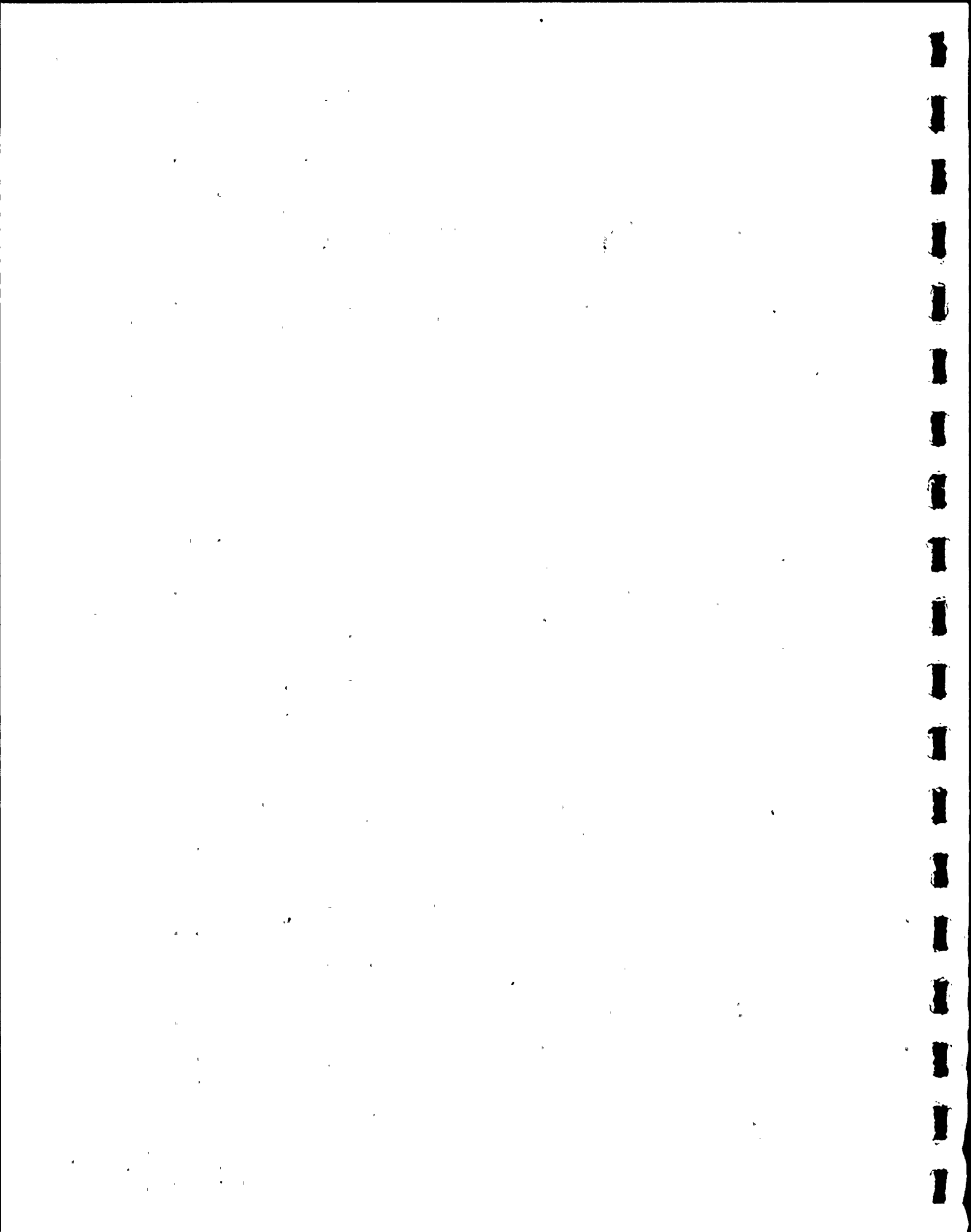
STATION NMP 5

WEST 20' SURFACE

WATER (piccuries/liter)

| COLLECTION<br>DATE   | GROSS ALPHA | GROSS BETA     | TRITIUM        | Be-7       | K-40       | Mn-54      | Co-58      | Co-60      | Zr-95      |
|----------------------|-------------|----------------|----------------|------------|------------|------------|------------|------------|------------|
| 04/29/76             | L.T.3 E 00  | 3.4+-1.0 E 00  | 2.6+-0.7 E 02  | L.T.8 E 01 | L.T.9 E 01 | L.T.8 E 00 | L.T.8 E 00 | L.T.7 E 00 | L.T.2 E 01 |
| 05/10/76             | L.T.3 E 00  | 3.5+-1.0 E 00  | 2.7+-0.7 E 02  | L.T.9 E 01 | L.T.2 E 02 | L.T.9 E 00 | L.T.1 E 01 | L.T.8 E 00 | L.T.2 E 01 |
| 06/08/76             | L.T.3 E 00  | 2.9+-1.0 E 00  | 2.7+-0.7 E 02  | L.T.7 E 01 | L.T.8 E 01 | L.T.6 E 00 | L.T.7 E 00 | L.T.8 E 00 | L.T.1 E 01 |
| 07/06/76             | L.T.2 E 00  | 4.1+-1.0 E 00  | 3.8+-0.7 E 02  | L.T.9 E 01 | L.T.2 E 02 | L.T.9 E 00 | L.T.1 E 01 | L.T.8 E 00 | L.T.2 E 01 |
| 08/02/76             | L.T.2 E 00  | 3.2+-0.9 E 00  | 4.5+-0.7 E 02  | L.T.6 E 01 | L.T.5 E 01 | L.T.6 E 00 | L.T.6 E 00 | L.T.5 E 00 | L.T.1 E 01 |
| 09/07/76             | L.T.3 E 00  | 5.0+-1.2 E 00  | 5.8+-0.7 E 02  | L.T.3 E 02 | L.T.1 E 02 | L.T.9 E 00 | L.T.2 E 01 | L.T.9 E 00 | L.T.5 E 01 |
| 10/04/76             | L.T.2 E 00  | 4.1+-0.9 E 00  | 3.6+-0.8 E 02  | L.T.1 E 02 | L.T.2 E 02 | L.T.8 E 00 | L.T.9 E 00 | L.T.3 E 00 | L.T.2 E 01 |
| 11/02/76             | L.T.2 E 00  | 3.8+-1.0 E 00  | 3.7+-0.8 E 02  | L.T.5 E 01 | L.T.4 E 01 | L.T.5 E 00 | L.T.6 E 00 | L.T.5 E 00 | L.T.1 E 01 |
| 12/06/76             | L.T.4 E 00  | 4.3+-1.4 E 00  | 2.4+-0.7 E 02  | L.T.8 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.7 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| mean +-<br>std. dev. | -           | 3.8+-0.6 E 00  | 3.5+-1.1 E 02  | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/9         | 9/9            | 9/9            | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        |
| range                | -           | (2.9-5.0) E 00 | (2.4-5.8) E 02 | -          | -          | -          | -          | -          | -          |

| COLLECTION<br>DATE   | Ru-103     | Ru-106     | I-131      | Cs-134     | Cs-137     | Ba-140     | Ce-141     | Ce-144     | Ra-226     | Th-228     |
|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 04/29/76             | L.T.1 E 01 | L.T.7 E 01 | -          | L.T.7 E 00 | L.T.7 E 00 | L.T.1 E 02 | L.T.1 E 01 | L.T.3 E 01 | L.T.8 E 01 | L.T.7 E 00 |
| 05/10/76             | L.T.1 E 01 | L.T.8 E 01 | L.T.7 E 01 | L.T.8 E 00 | L.T.8 E 00 | L.T.7 E 01 | L.T.2 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 06/08/76             | L.T.8 E 00 | L.T.6 E 01 | L.T.4 E 01 | L.T.7 E 00 | L.T.7 E 00 | L.T.5 E 00 | L.T.1 E 01 | L.T.3 E 01 | L.T.7 E 01 | L.T.7 E 00 |
| 07/06/76             | L.T.1 E 01 | L.T.8 E 01 | L.T.6 E 01 | L.T.1 E 01 | L.T.1 E 01 | L.T.7 E 01 | L.T.2 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 08/02/76             | L.T.8 E 00 | L.T.1 E 02 | L.T.2 E 01 | L.T.6 E 00 | L.T.6 E 00 | L.T.3 E 01 | L.T.2 E 01 | L.T.6 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 09/07/76             | L.T.6 E 01 | L.T.8 E 01 | -          | L.T.7 E 00 | L.T.9 E 00 | L.T.2 E 04 | L.T.1 E 02 | L.T.6 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 10/04/76             | L.T.1 E 01 | L.T.8 E 01 | L.T.9 E 01 | L.T.8 E 00 | L.T.8 E 00 | L.T.1 E 02 | L.T.2 E 01 | L.T.7 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 11/02/76             | L.T.6 E 00 | L.T.4 E 01 | L.T.4 E 01 | L.T.5 E 00 | L.T.5 E 00 | L.T.4 E 01 | L.T.8 E 00 | L.T.2 E 01 | L.T.6 E 01 | L.T.5 E 00 |
| 12/06/76             | L.T.1 E 01 | L.T.6 E 01 | -          | L.T.6 E 00 | L.T.6 E 00 | L.T.1 E 02 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.9 E 00 |
| mean+-<br>std. dev.  | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/9        | 0/9        | 0/6        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        |
| range                | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



NINE MILE POINT/FITZPATRICK GENERATING STATION

ENVIRONMENTAL MONITORING 1976

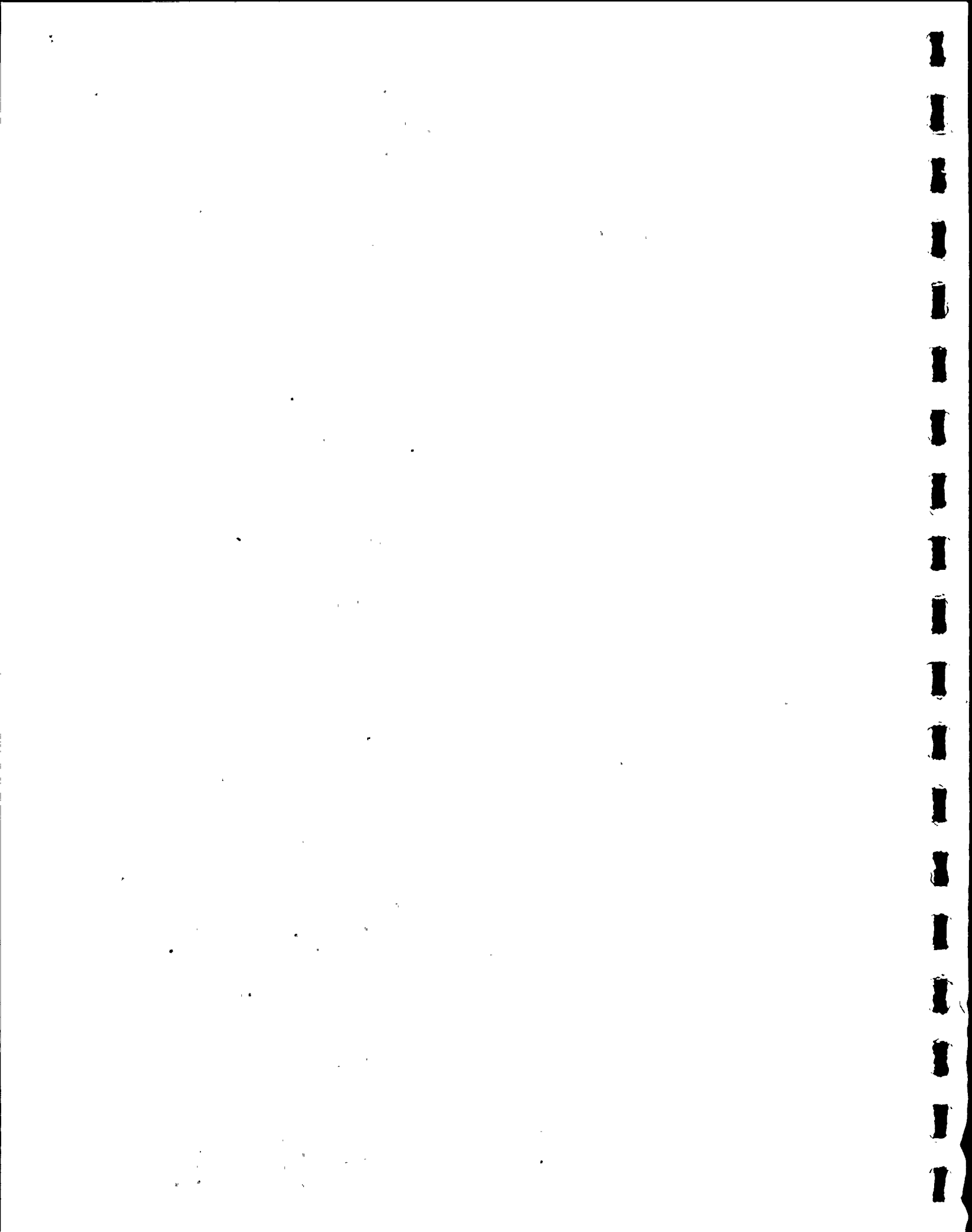
STATION NMP 6

WEST 40' SURFACE

WATER (picocuries/liter)

| COLLECTION<br>DATE   | GROSS ALPHA | GROSS BETA     | TRITIUM        | Be-7       | K-40       | Mn-54      | Co-58      | Co-60      | Zr-95      |
|----------------------|-------------|----------------|----------------|------------|------------|------------|------------|------------|------------|
| 04/29/76             | L.T.2 E 00  | 3.1+-0.9 E 00  | 4.1+-0.7 E 02  | L.T.1 E 02 | L.T.9 E 01 | L.T.6 E 00 | L.T.9 E 00 | L.T.6 E 00 | L.T.2 E 01 |
| 05/10/76             | L.T.2 E 00  | 2.5+-0.9 E 00  | 2.4+-0.7 E 02  | L.T.7 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.7 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 06/08/76             | L.T.3 E 00  | 3.8+-1.0 E 00  | 3.4+-0.7 E 02  | L.T.6 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.6 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 07/06/76             | L.T.2 E 00  | 3.5+-1.0 E 00  | 3.8+-0.7 E 02  | L.T.7 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.7 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 08/02/76             | L.T.3 E 00  | 4.5+-1.0 E 00  | 4.1+-0.7 E 02  | L.T.7 E 01 | L.T.2 E 02 | L.T.7 E 00 | L.T.8 E 00 | L.T.7 E 00 | L.T.1 E 01 |
| 09/07/76             | L.T.3 E 00  | 5.1+-1.2 E 00  | 3.5+-0.7 E 02  | L.T.2 E 02 | L.T.8 E 01 | L.T.7 E 00 | L.T.2 E 01 | L.T.6 E 00 | L.T.4 E 01 |
| 10/04/76             | L.T.2 E 00  | 3.8+-0.9 E 00  | 4.4+-0.8 E 02  | L.T.9 E 01 | L.T.1 E 02 | L.T.7 E 00 | L.T.8 E 00 | L.T.7 E 00 | L.T.2 E 01 |
| 11/02/76             | L.T.2 E 00  | 3.0+-1.0 E 00  | 4.1+-0.8 E 02  | L.T.5 E 01 | L.T.8 E 01 | L.T.4 E 00 | L.T.5 E 00 | L.T.4 E 00 | L.T.1 E 01 |
| 12/06/76             | L.T.3 E 00  | 3.8+-1.3 E 00  | 2.7+-0.7 E 02  | L.T.5 E 01 | L.T.1 E 02 | L.T.4 E 00 | L.T.5 E 00 | L.T.4 E 00 | L.T.1 E 01 |
| mean +-<br>std. dev. | -           | 3.7+-0.8 E 00  | 3.6+-0.7 E 02  | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/9         | 9/9            | 9/9            | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        |
| range                | -           | (2.5-5.1) E 00 | (2.4-4.4) E 02 | -          | -          | -          | -          | -          | -          |

| COLLECTION<br>DATE   | Ru-103     | Ru-106     | I-131      | Cs-134     | Cs-137     | Ba-140     | Ce-141     | Ce-144     | Ra-226     | Th-228     |
|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 04/29/76             | L.T.1 E 01 | L.T.7 E 01 | -          | L.T.7 E 00 | L.T.7 E 00 | L.T.1 E 02 | L.T.3 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 05/10/76             | L.T.9 E 00 | L.T.6 E 01 | L.T.5 E 01 | L.T.7 E 00 | L.T.6 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.9 E 00 |
| 06/08/76             | L.T.7 E 00 | L.T.5 E 01 | L.T.4 E 01 | L.T.6 E 00 | L.T.6 E 00 | L.T.4 E 01 | L.T.2 E 01 | L.T.6 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 07/06/76             | L.T.9 E 00 | L.T.6 E 01 | L.T.4 E 01 | L.T.7 E 00 | L.T.7 E 00 | L.T.5 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 08/02/76             | L.T.8 E 00 | L.T.7 E 01 | L.T.2 E 01 | L.T.8 E 00 | L.T.1 E 01 | L.T.4 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 09/07/76             | L.T.5 E 01 | L.T.7 E 01 | -          | L.T.7 E 00 | L.T.7 E 00 | L.T.1 E 04 | L.T.9 E 01 | L.T.4 E 01 | L.T.7 E 01 | L.T.7 E 00 |
| 10/04/76             | L.T.1 E 01 | L.T.6 E 01 | L.T.1 E 02 | L.T.7 E 00 | L.T.7 E 00 | L.T.8 E 01 | L.T.3 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 11/02/76             | L.T.7 E 00 | L.T.4 E 01 | L.T.4 E 01 | L.T.5 E 00 | L.T.5 E 00 | L.T.4 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.8 E 00 |
| 12/06/76             | L.T.7 E 00 | L.T.4 E 01 | -          | L.T.5 E 00 | L.T.5 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.4 E 01 | L.T.1 E 02 | L.T.8 E 00 |
| mean +-<br>std. dev. | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/9        | 0/9        | 0/6        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        | 0/9        |
| range                | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



NINE MILE POINT/FITZPATRICK GENERATING STATION

ENVIRONMENTAL MONITORING 1976

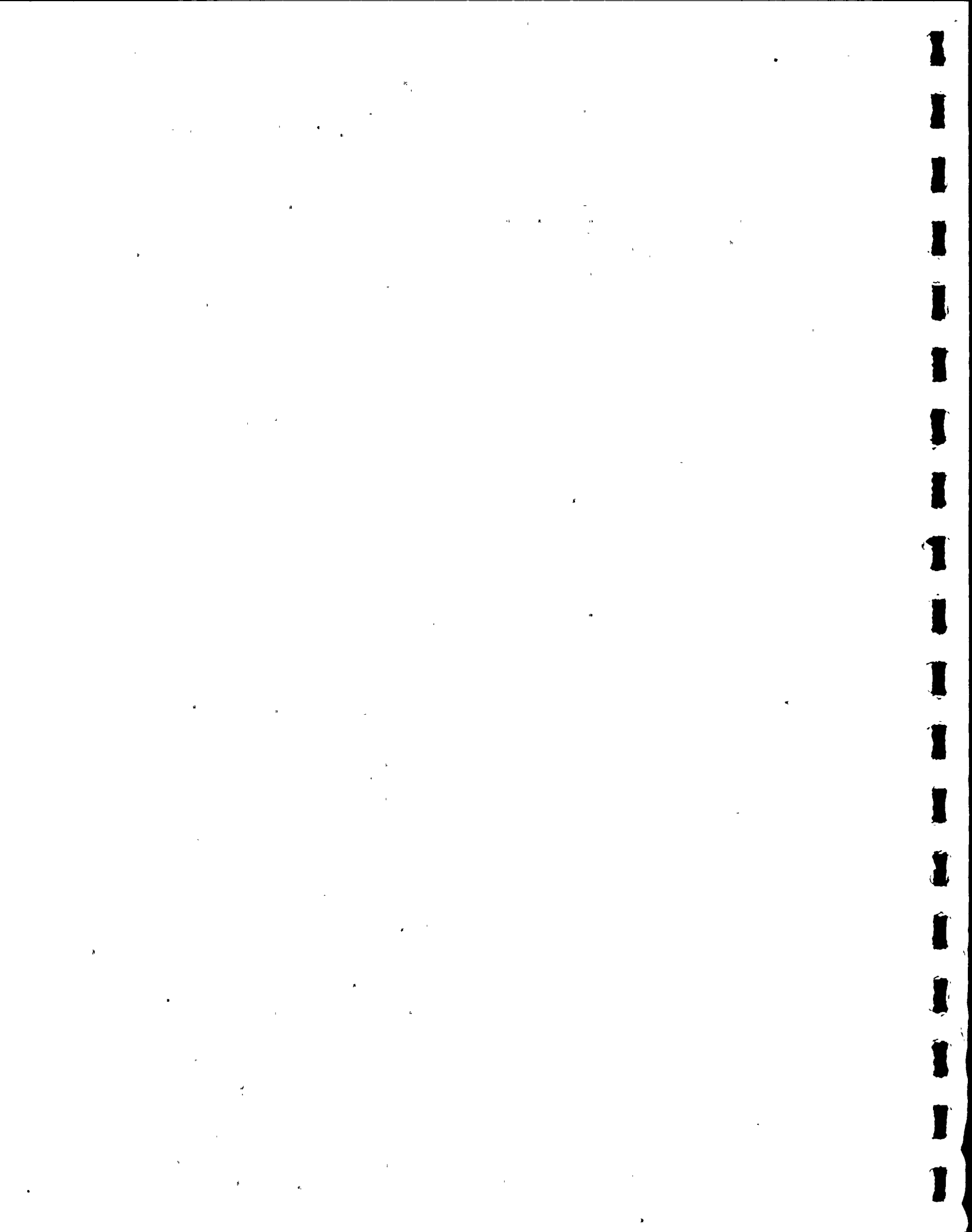
STATION NMP A

FITZ 25' SURFACE

WATER (picocuries/liter)

| COLLECTION<br>DATE   | GROSS ALPHA | GROSS BETA     | TRITIUM        | Be-7       | K-40       | Mn-54      | Co-58      | Co-60      | Zr-95      |
|----------------------|-------------|----------------|----------------|------------|------------|------------|------------|------------|------------|
| 06/18/76             | L.T.3 E 00  | 3.1+-0.7 E 00  | 3.9+-0.7 E 02  | L.T.8 E 01 | L.T.1 E 02 | L.T.7 E 00 | L.T.8 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 07/19/76             | L.T.2 E 00  | 4.2+-1.1 E 00  | 4.0+-0.7 E 02  | L.T.8 E 01 | L.T.8 E 01 | L.T.7 E 00 | L.T.8 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 08/09/76             | L.T.2 E 00  | 4.2+-1.0 E 00  | 3.2+-0.7 E 02  | L.T.8 E 01 | L.T.2 E 02 | L.T.9 E 00 | L.T.9 E 00 | L.T.1 E 01 | L.T.2 E 01 |
| 09/13/76             | L.T.2 E 00  | 4.5+-1.2 E 00  | 3.8+-0.8 E 02  | L.T.3 E 02 | L.T.1 E 02 | L.T.8 E 00 | L.T.3 E 01 | L.T.1 E 01 | L.T.5 E 01 |
| 10/11/76             | L.T.2 E 00  | 4.2+-1.0 E 00  | 3.8+-0.8 E 02  | L.T.7 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.8 E 00 | L.T.5 E 00 | L.T.1 E 01 |
| 11/09/76             | L.T.4 E 00  | 4.3+-1.2 E 00  | 3.3+-0.7 E 02  | L.T.7 E 01 | L.T.1 E 02 | L.T.5 E 00 | L.T.6 E 00 | L.T.5 E 00 | L.T.1 E 01 |
| 12/08/76             | L.T.3 E 00  | 3.5+-1.3 E 00  | 3.3+-0.7 E 02  | L.T.8 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.7 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| mean +-<br>std. dev. | -           | 4.0+-0.5 E 00  | 3.6+-0.3 E 02  | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/7         | 7/7            | 7/7            | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        |
| range                | -           | (3.1-4.5) E 00 | (3.2-4.0) E 02 | -          | -          | -          | -          | -          | -          |

| COLLECTION<br>DATE   | Ru-103     | Ru-106     | I-131      | Cs-134     | Cs-137     | Ba-140     | Ce-141     | Ce-144     | Ra-226     | Th-228     |
|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 06/18/76             | L.T.1 E 01 | L.T.6 E 01 | L.T.7 E 01 | L.T.7 E 00 | L.T.7 E 00 | L.T.7 E 01 | L.T.3 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 07/19/76             | L.T.1 E 01 | L.T.7 E 01 | L.T.5 E 01 | L.T.8 E 00 | L.T.8 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 08/09/76             | L.T.9 E 00 | L.T.8 E 01 | L.T.2 E 01 | L.T.1 E 01 | L.T.9 E 00 | L.T.3 E 01 | L.T.2 E 01 | L.T.6 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 09/13/76             | L.T.7 E 01 | L.T.8 E 01 | -          | L.T.9 E 00 | L.T.1 E 01 | L.T.1 E 04 | L.T.1 E 02 | L.T.7 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 10/11/76             | L.T.1 E 01 | L.T.6 E 01 | L.T.7 E 01 | L.T.6 E 00 | L.T.6 E 00 | L.T.8 E 01 | L.T.2 E 01 | L.T.6 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 11/09/76             | L.T.9 E 00 | L.T.5 E 01 | L.T.5 E 01 | L.T.6 E 00 | L.T.6 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.6 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 12/08/76             | L.T.1 E 01 | L.T.6 E 01 | -          | L.T.6 E 00 | L.T.7 E 00 | L.T.8 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| mean+-<br>std. dev.  | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/7        | 0/7        | 0/5        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        |
| range                | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



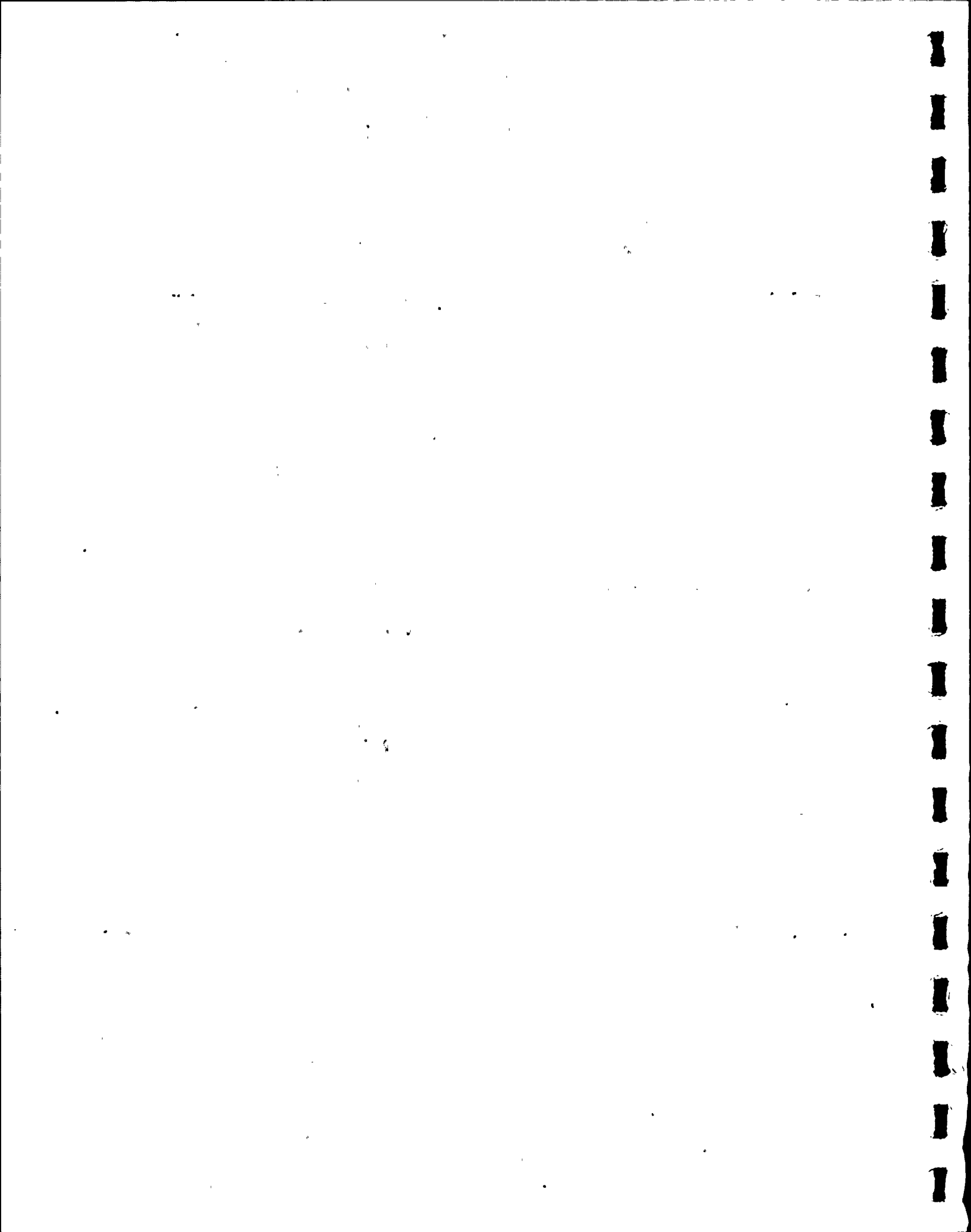


NINE MILE POINT/FITZPATRICK GENERATING STATION  
ENVIRONMENTAL MONITORING 1976

STATION NMP B  
FITZ 25' BOTTOM  
WATER (picocuries/liter)

| COLLECTION<br>DATE   | GROSS ALPHA | GROSS BETA     | TRITIUM        | Be-7       | K-40       | Mn-54      | Co-58      | Co-60      | Zr-95      |
|----------------------|-------------|----------------|----------------|------------|------------|------------|------------|------------|------------|
| 06/18/76             | L.T.3 E 00  | 2.7+-0.9 E 00  | 4.2+-0.7 E 02  | L.T.1 E 02 | L.T.2 E 02 | L.T.8 E 00 | L.T.1 E 01 | L.T.9 E 00 | L.T.2 E 01 |
| 07/19/76             | L.T.2 E 00  | 3.6+-1.0 E 00  | 3.2+-0.7 E 02  | L.T.7 E 01 | L.T.2 E 02 | L.T.6 E 00 | L.T.6 E 00 | L.T.7 E 00 | L.T.1 E 01 |
| 08/09/76             | L.T.2 E 00  | 4.4+-1.0 E 00  | 4.5+-0.8 E 02  | L.T.6 E 01 | L.T.2 E 02 | L.T.6 E 00 | L.T.5 E 00 | L.T.5 E 00 | L.T.1 E 01 |
| 09/13/76             | L.T.3 E 00  | 4.5+-1.4 E 00  | 3.4+-0.7 E 02  | L.T.3 E 02 | L.T.9 E 01 | L.T.7 E 00 | L.T.2 E 01 | L.T.8 E 00 | L.T.4 E 01 |
| 10/11/76             | L.T.2 E 00  | 5.9+-1.1 E 00  | 3.7+-0.8 E 02  | L.T.1 E 02 | L.T.2 E 02 | L.T.9 E 00 | L.T.1 E 01 | L.T.9 E 00 | L.T.2 E 01 |
| 11/09/76             | L.T.4 E 00  | 4.9+-1.2 E 00  | 2.8+-0.8 E 02  | L.T.8 E 01 | L.T.2 E 02 | L.T.6 E 00 | L.T.8 E 00 | L.T.7 E 00 | L.T.1 E 01 |
| 12/08/76             | L.T.4 E 00  | 5.0+-1.4 E 00  | 2.2+-0.7 E 02  | L.T.1 E 02 | L.T.2 E 02 | L.T.8 E 00 | L.T.9 E 00 | L.T.7 E 00 | L.T.2 E 01 |
| mean +-<br>std. dev. |             | 4.4+-1.0 E 00  | 3.4+-0.8 E 02  | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/7         | 7/7            | 7/7            | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        |
| range                |             | (2.7-5.9) E 00 | (2.2-4.5) E 02 | -          | -          | -          | -          | -          | -          |

| COLLECTION<br>DATE   | Ru-103     | Ru-106     | I-131      | Cs-134     | Cs-137     | Ba-140     | Ce-141     | Ce-144     | Ra-226     | Th-228     |
|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 06/18/76             | L.T.1 E 01 | L.T.8 E 01 | L.T.8 E 01 | L.T.9 E 00 | L.T.9 E 00 | L.T.8 E 01 | L.T.2 E 01 | L.T.7 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 07/19/76             | L.T.9 E 00 | L.T.5 E 01 | L.T.4 E 01 | L.T.7 E 00 | L.T.7 E 00 | L.T.5 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.9 E 00 |
| 08/09/76             | L.T.6 E 00 | L.T.5 E 01 | L.T.1 E 01 | L.T.6 E 00 | L.T.6 E 00 | L.T.2 E 01 | L.T.1 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.9 E 00 |
| 09/13/76             | L.T.5 E 01 | L.T.7 E 01 | -          | L.T.7 E 00 | L.T.8 E 00 | L.T.1 E 04 | L.T.8 E 01 | L.T.4 E 01 | L.T.8 E 01 | L.T.8 E 00 |
| 10/11/76             | L.T.1 E 01 | L.T.9 E 01 | L.T.1 E 02 | L.T.9 E 00 | L.T.1 E 01 | L.T.1 E 02 | L.T.3 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 11/09/76             | L.T.1 E 01 | L.T.6 E 01 | L.T.6 E 01 | L.T.8 E 00 | L.T.7 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 12/08/76             | L.T.1 E 01 | L.T.7 E 01 | -          | L.T.8 E 00 | L.T.8 E 00 | L.T.1 E 02 | L.T.3 E 01 | L.T.8 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| mean +-<br>std. dev. | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/7        | 0/7        | 0/5        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        |
| range                | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



NINE MILE POINT/FITZPATRICK GENERATING STATION

ENVIRONMENTAL MONITORING 1976

STATION NMP C

FITZ 45' SURFACE

WATER (picocuries/liter)

| COLLECTION<br>DATE   | GROSS ALPHA | GROSS BETA     | TRITIUM        | Be-7       | K-40       | Mn-54      | Co-58      | Co-60      | Zr-95      |
|----------------------|-------------|----------------|----------------|------------|------------|------------|------------|------------|------------|
| 06/18/76             | L.T.3 E 00  | 2.5+-0.9 E 00  | 4.1+-0.7 E 02  | L.T.7 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.7 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 07/19/76             | L.T.2 E 00  | 4.2+-1.0 E 00  | 3.1+-0.7 E 02  | L.T.8 E 01 | L.T.1 E 02 | L.T.8 E 00 | L.T.9 E 00 | L.T.1 E 01 | L.T.2 E 01 |
| 08/09/76             | L.T.2 E 00  | 3.4+-1.0 E 00  | 3.6+-0.7 E 02  | L.T.7 E 01 | L.T.1 E 02 | L.T.7 E 00 | L.T.9 E 00 | L.T.1 E 01 | L.T.2 E 01 |
| 09/13/76             | L.T.3 E 00  | 3.9+-1.2 E 00  | 3.3+-0.7 E 02  | L.T.3 E 02 | L.T.2 E 02 | L.T.9 E 00 | L.T.2 E 01 | L.T.7 E 00 | L.T.4 E 01 |
| 10/11/76             | L.T.2 E 00  | 3.8+-0.9 E 00  | 2.9+-0.7 E 02  | L.T.7 E 01 | L.T.1 E 02 | L.T.6 E 00 | L.T.7 E 00 | L.T.5 E 00 | L.T.1 E 01 |
| 11/09/76             | L.T.4 E 00  | 4.8+-1.2 E 00  | 5.6+-0.8 E 02  | L.T.6 E 01 | L.T.1 E 02 | L.T.4 E 00 | L.T.5 E 00 | L.T.4 E 00 | L.T.1 E 01 |
| 12/08/76             | L.T.3 E 00  | 3.0+-1.3 E 00  | 2.7+-0.8 E 02  | L.T.1 E 02 | L.T.2 E 02 | L.T.9 E 00 | L.T.1 E 01 | L.T.1 E 01 | L.T.2 E 01 |
| mean+-<br>std. dev.  | -           | 3.6+-0.8 E 00  | 3.6+-1.0 E 02  | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/7         | 7/7            | 7/7            | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        |
| range                | -           | (2.3-4.8) E 00 | (2.7-5.6) E 02 | -          | -          | -          | -          | -          | -          |

| COLLECTION<br>DATE   | Ru-103     | Ru-106     | I-131      | Cs-134     | Cs-137     | Ba-140     | Ce-141     | Ce-144     | Ra-226     | Th-228     |
|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 06/18/76             | L.T.9 E 00 | L.T.6 E 01 | L.T.6 E 01 | L.T.6 E 00 | L.T.6 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.9 E 00 |
| 07/19/76             | L.T.1 E 01 | L.T.6 E 01 | L.T.5 E 01 | L.T.8 E 00 | L.T.9 E 00 | L.T.6 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 08/09/76             | L.T.8 E 00 | L.T.8 E 01 | L.T.1 E 01 | L.T.8 E 00 | L.T.9 E 00 | L.T.3 E 01 | L.T.1 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 09/13/76             | L.T.5 E 01 | L.T.8 E 01 | -          | L.T.8 E 00 | L.T.7 E 00 | L.T.1 E 04 | L.T.2 E 02 | L.T.9 E 01 | L.T.2 E 02 | L.T.2 E 01 |
| 10/11/76             | L.T.9 E 00 | L.T.5 E 01 | L.T.7 E 01 | L.T.6 E 00 | L.T.6 E 00 | L.T.7 E 01 | L.T.2 E 01 | L.T.6 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 11/09/76             | L.T.7 E 00 | L.T.4 E 01 | L.T.5 E 01 | L.T.5 E 00 | L.T.5 E 00 | L.T.4 E 01 | L.T.1 E 01 | L.T.4 E 01 | L.T.8 E 01 | L.T.7 E 00 |
| 12/18/76             | L.T.2 E 01 | L.T.8 E 01 | -          | L.T.9 E 00 | L.T.1 E 01 | L.T.1 E 02 | L.T.3 E 01 | L.T.8 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| mean +-<br>std. dev. | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/7        | 0/7        | 0/5        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        |
| range                | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



NINE MILE POINT/FITZPATRICK GENERATING STATION

ENVIRONMENTAL MONITORING 1976

STATION NMP D

FITZ 45' BOTTOM

WATER (picocuries/liter)

| COLLECTION<br>DATE   | GROSS ALPHA | GROSS BETA     | TRITIUM        | Be-7       | K-40       | Mn-54      | Co-58      | Co-60      | Zr-95      |
|----------------------|-------------|----------------|----------------|------------|------------|------------|------------|------------|------------|
| 06/18/76             | L.T.2 E 00  | 2.7+-0.9 E 00  | 4.4+-0.7 E 02  | L.T.8 E 01 | L.T.1 E 02 | L.T.8 E 00 | L.T.9 E 00 | L.T.7 E 00 | L.T.2 E 01 |
| 07/19/76             | L.T.2 E 00  | 8.3+-1.3 E 00  | 3.3+-0.7 E 02  | L.T.7 E 01 | L.T.1 E 02 | L.T.7 E 00 | L.T.8 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 08/09/76             | L.T.2 E 00  | 4.5+-1.0 E 00  | 2.9+-0.7 E 02  | L.T.5 E 01 | L.T.8 E 01 | L.T.7 E 00 | L.T.7 E 00 | L.T.8 E 00 | L.T.1 E 01 |
| 09/13/76             | L.T.1 E 00  | L.T.2 E 00     | 3.3+-0.7 E 02  | L.T.5 E 01 | L.T.8 E 01 | L.T.2 E 00 | L.T.4 E 00 | L.T.1 E 00 | L.T.8 E 00 |
| 10/11/76             | L.T.3 E 00  | 4.8+-1.0 E 00  | 3.1+-0.7 E 02  | L.T.1 E 02 | L.T.2 E 02 | L.T.7 E 00 | L.T.1 E 01 | L.T.8 E 00 | L.T.2 E 01 |
| 11/09/76             | L.T.4 E 00  | 3.8+-1.1 E 00  | 4.1+-0.8 E 02  | L.T.6 E 01 | L.T.8 E 01 | L.T.6 E 00 | L.T.7 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| 12/08/76             | L.T.5 E 00  | 4.6+-1.5 E 00  | 2.2+-0.8 E 02  | L.T.8 E 01 | L.T.2 E 02 | L.T.6 E 00 | L.T.8 E 00 | L.T.6 E 00 | L.T.1 E 01 |
| mean +-<br>std. dev. | -           | 4.8+-1.9 E 00  | 3.3+-0.7 E 02  | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/7         | 6/7            | 7/7            | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        |
| range                | -           | (2.7-8.3) E 00 | (2.2-4.4) E 02 | -          | -          | -          | -          | -          | -          |

| COLLECTION<br>DATE   | Ru-103     | Ru-106     | I-131      | Cs-134     | Cs-137     | Ba-140     | Ce-141     | Ce-144     | Ra-226     | Th-228     |
|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 06/18/76             | L.T.1 E 01 | L.T.7 E 01 | L.T.7 E 01 | L.T.8 E 00 | L.T.9 E 00 | L.T.7 E 01 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| 07/19/76             | L.T.9 E 00 | L.T.5 E 01 | L.T.3 E 01 | L.T.7 E 00 | L.T.7 E 00 | L.T.4 E 01 | L.T.1 E 01 | L.T.3 E 01 | L.T.7 E 01 | L.T.7 E 00 |
| 08/09/76             | L.T.7 E 00 | L.T.5 E 01 | L.T.1 E 01 | L.T.6 E 00 | L.T.8 E 00 | L.T.2 E 01 | L.T.8 E 00 | L.T.3 E 01 | L.T.8 E 01 | L.T.7 E 00 |
| 09/13/76             | L.T.1 E 01 | L.T.2 E 01 | -          | L.T.2 E 00 | L.T.1 E 00 | L.T.2 E 03 | L.T.2 E 01 | L.T.9 E 00 | L.T.2 E 01 | L.T.2 E 00 |
| 10/11/76             | L.T.1 E 01 | L.T.9 E 01 | L.T.1 E 02 | L.T.9 E 00 | L.T.8 E 00 | L.T.1 E 02 | L.T.2 E 01 | L.T.7 E 01 | L.T.2 E 02 | L.T.1 E 01 |
| 11/09/76             | L.T.9 E 00 | L.T.5 E 01 | L.T.5 E 01 | L.T.6 E 00 | L.T.7 E 00 | L.T.6 E 01 | L.T.1 E 01 | L.T.4 E 01 | L.T.9 E 01 | L.T.8 E 00 |
| 12/08/76             | L.T.1 E 01 | L.T.6 E 01 | -          | L.T.7 E 00 | L.T.7 E 00 | L.T.1 E 02 | L.T.2 E 01 | L.T.5 E 01 | L.T.1 E 02 | L.T.1 E 01 |
| mean +-<br>std. dev. | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| detected<br>measured | 0/7        | 0/7        | 0/5        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        | 0/7        |
| range                | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



## IV. DISCUSSION OF RESULTS

The results of the radioanalysis of the water samples from the ten locations on Lake Ontario are presented in Section III of this report. Gross beta and tritium activity were detected for all of the stations monitored except the September 13, 1976 collection at FITZ-45 ft. station, bottom sample, and the mean  $\pm$  standard deviation of the monthly collections are entered on the accompanying Trends Plots.

A. Gross Beta

Average gross beta activity at the Nine Mile Point - Lake Ontario monitoring stations continued in the range monitored since 1973. The mean range during 1976 varied from  $3.5 \pm 0.6$  to  $4.8 \pm 1.9$  picocuries/liter of water. In 1975 the mean range varied from 3.4 to 5.0 picocuries/liter indicating no change in the content of beta emitters over the years.

These results compare to the published measurements of 3 to 5 picocuries/liter issued in the 1975 quarterly Environmental Radiation Bulletins, Numbers 75-1 through 75-4 for the Oswega City Hall Tap (Lake Ontario). Copies of this report were obtained from the New York State Department of Environmental Conservation.

B. Gross Alpha

Measurements of gross alpha activity were below the limits of detection of the monitoring procedure. The highest limit of detection was L.T. 5 picocuries/liter. The majority of the measurements of limits of detection were L.T. 2 or L.T. 3 picocuries/liter, a function of the weight of dissolved and/or suspended material in the water sample. Normally we expect to detect alpha emitters in the sediment/silt of the lake with negligible dissolved salts of the heavy metals in the water.





C. Tritium

During 1976 the mean tritium levels at each monitoring station varied from  $330 \pm 70$  to  $380 \pm 90$  picocuries/liter. The range of each monthly measurement varied from a minimum of 220 to a maximum of 580 picocuries/liter. During 1975 the minimum was 240 and the maximum 750 picocuries/liter. No significant change in tritium activity has been measured since 1974 in the water samples monitored for this program. Published data for the July - September 1976 quarter list the tritium activity at Oswego-Lake Ontario as  $300 \pm 200$  picocuries/liter (a range of 100 to 500 picocuries/liter). This data was taken from Report 7 (January 1977) published in Environmental Radiation Data and issued by the US EPA Office of Radiation Programs.

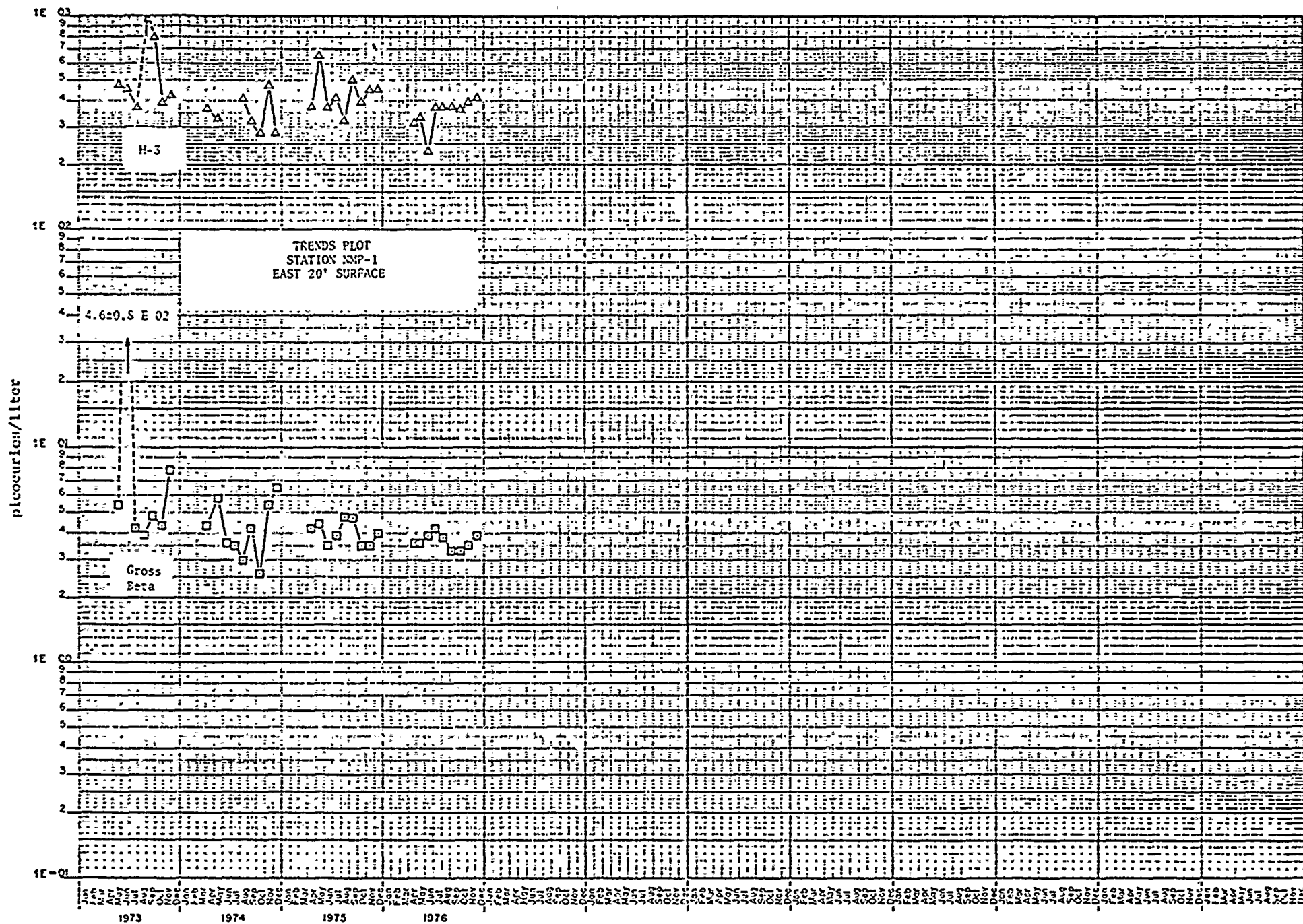
D. Gamma Emitters

No gamma emitters above the limits of detection were found in the water samples analyzed by Ge(Li) gamma spectrometry. A computer controlled search was made to detect the nuclides listed in Section III. The L.T. designation indicates that no measureable activity was found above the background and background error of the detection system. The L.T. values tabulated in Section III were determined by a computer controlled search and calculation program for each analysis. Nominal values of detection limits are listed in Appendix "B" and are usually higher than the actual values calculated in Section III.

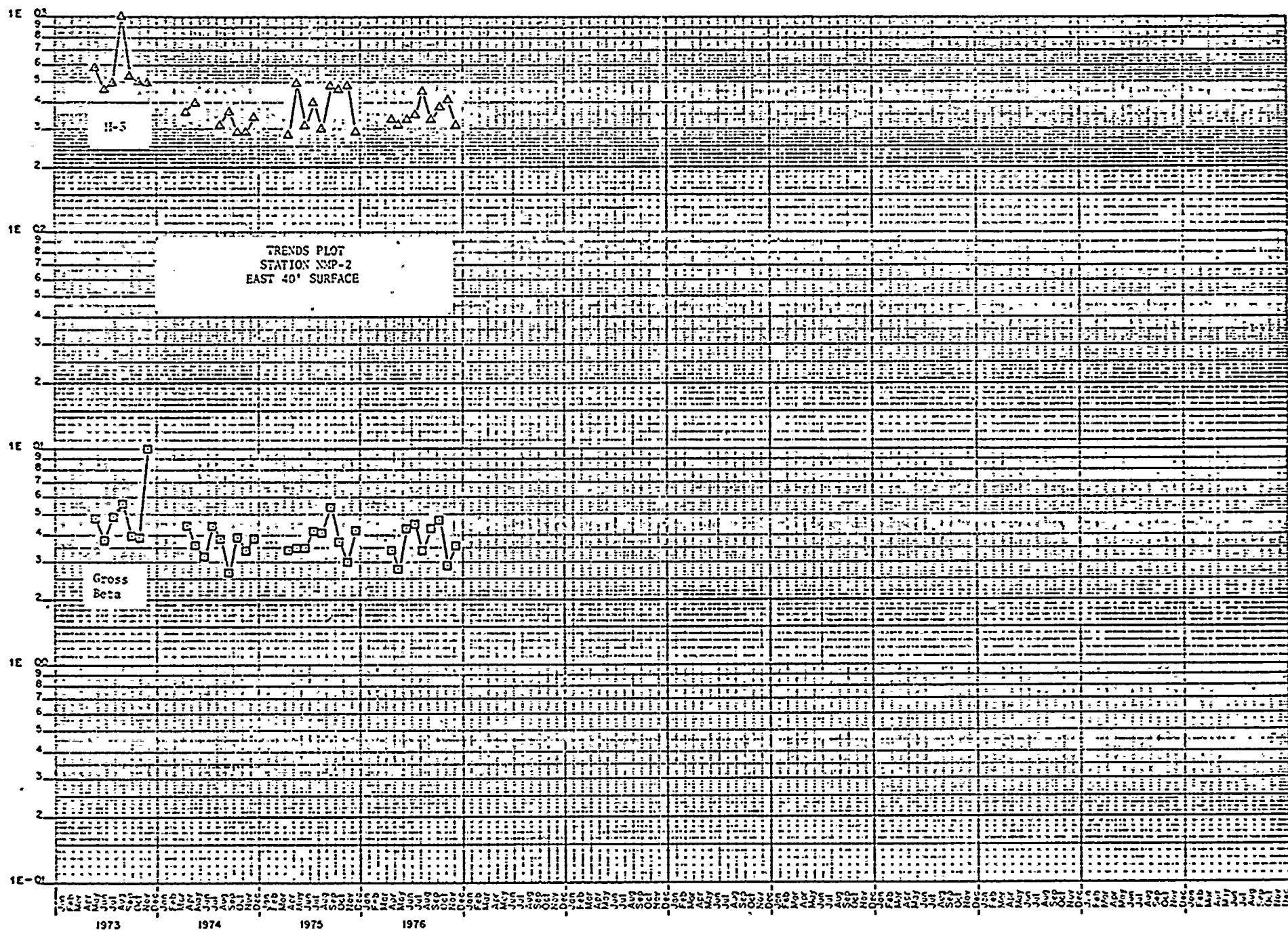
CONCLUSION

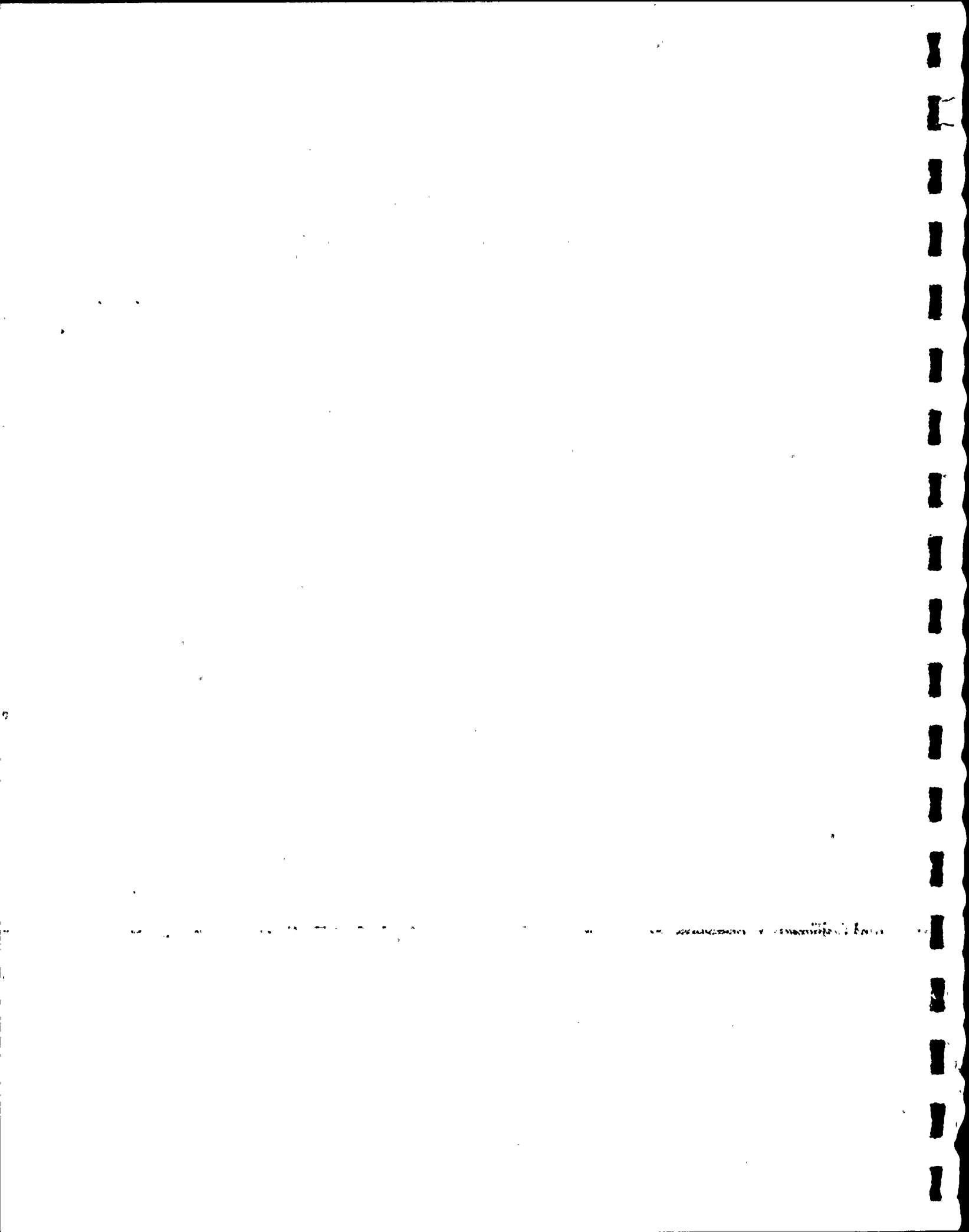
From the radioanalysis for gross beta, gross alpha, tritium and gamma emitters in the water samples from Lake Ontario in the vicinity of the Nine Mile Point/Fitzpatrick Power Generating Station, we conclude that no detectable levels above the natural background of the nuclides listed in Section III (Summary of Data) were found.

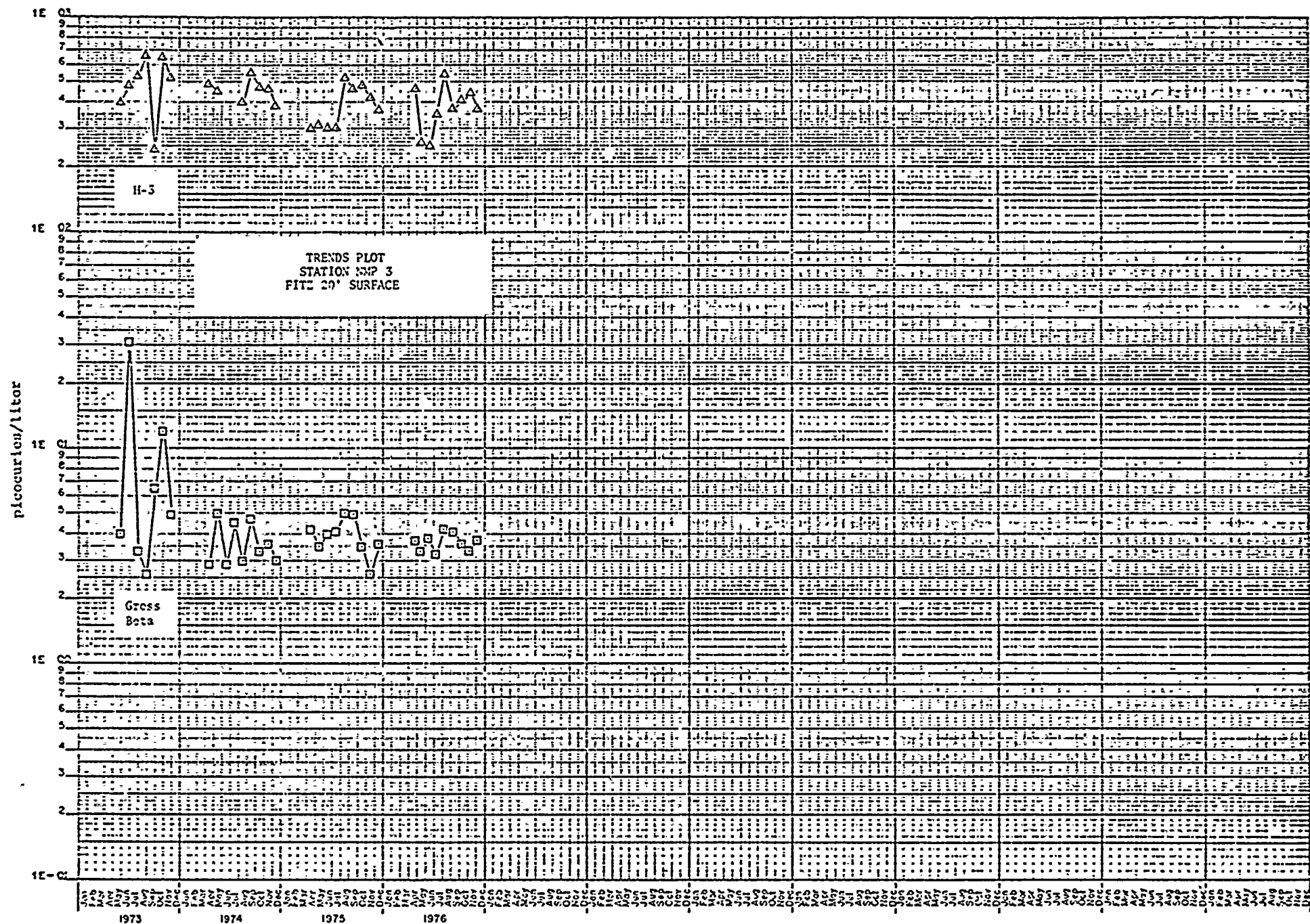






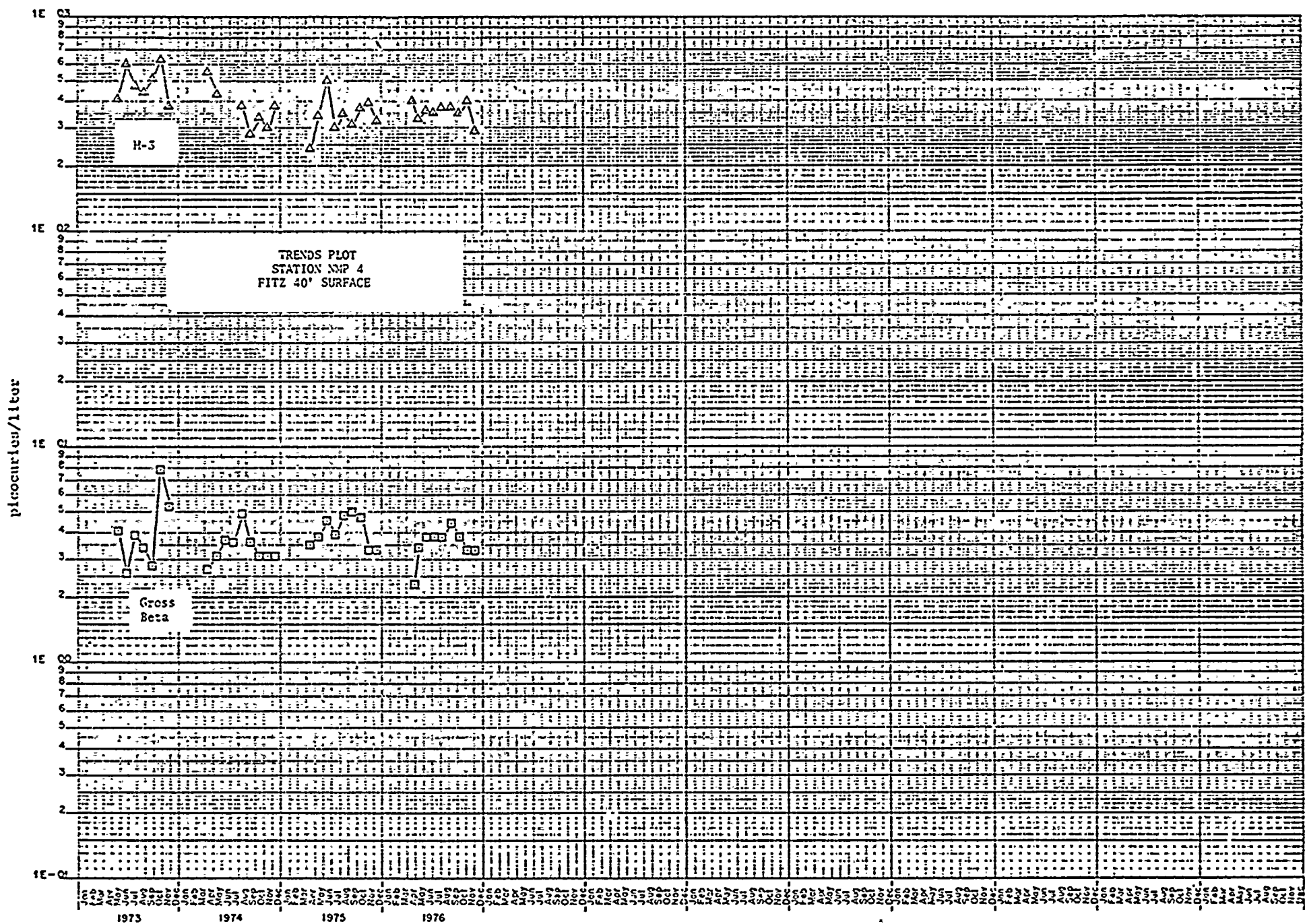






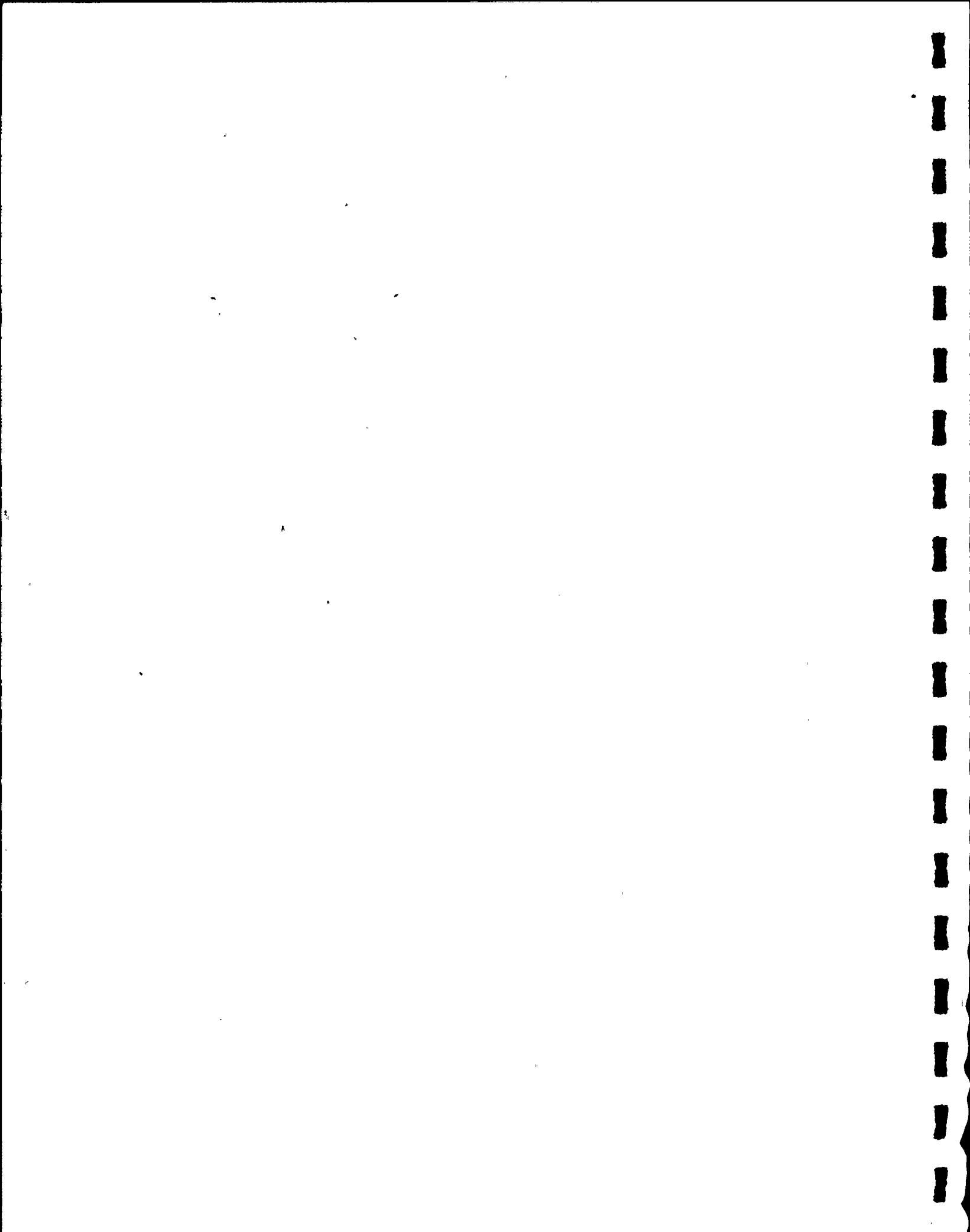




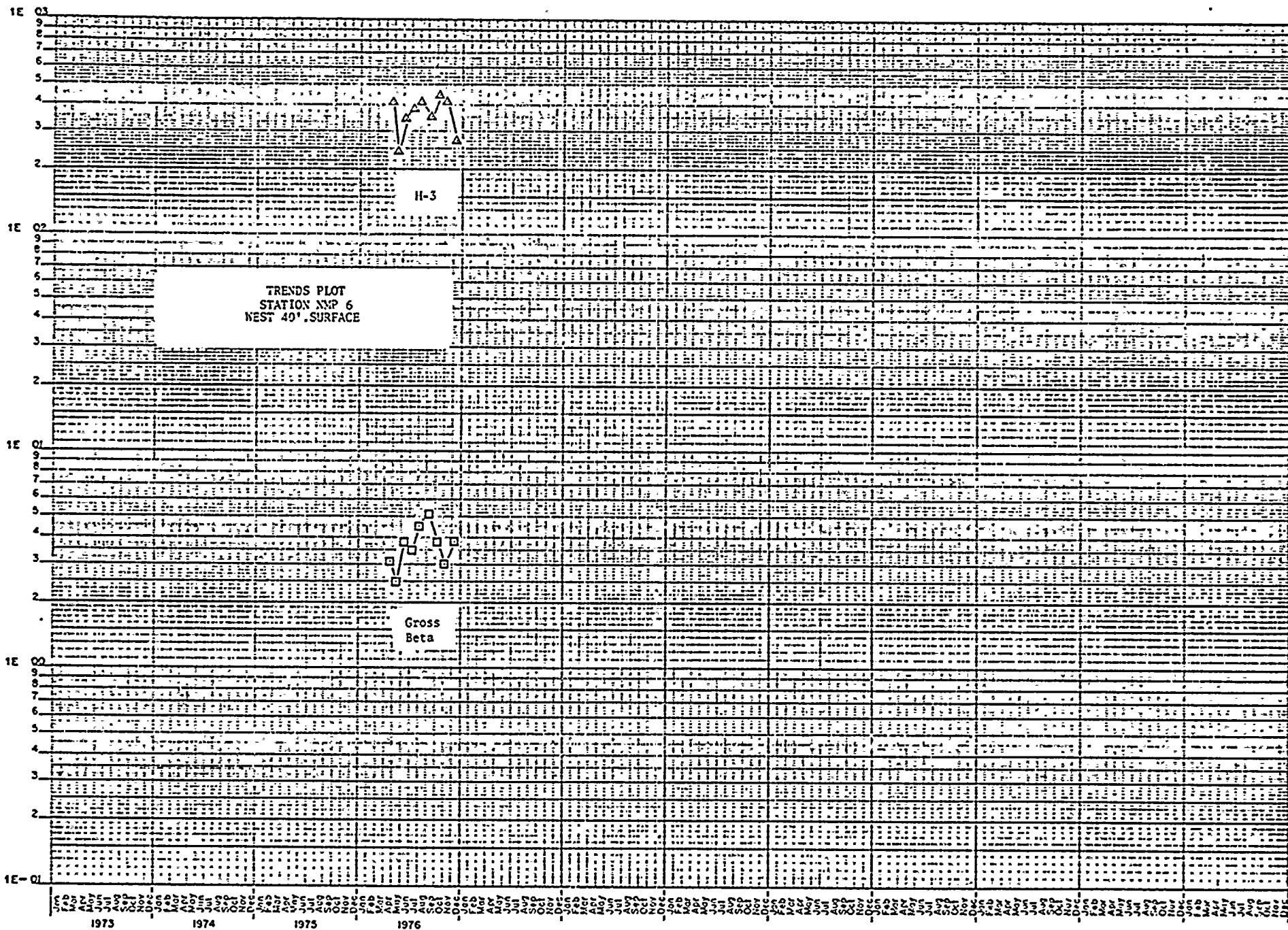




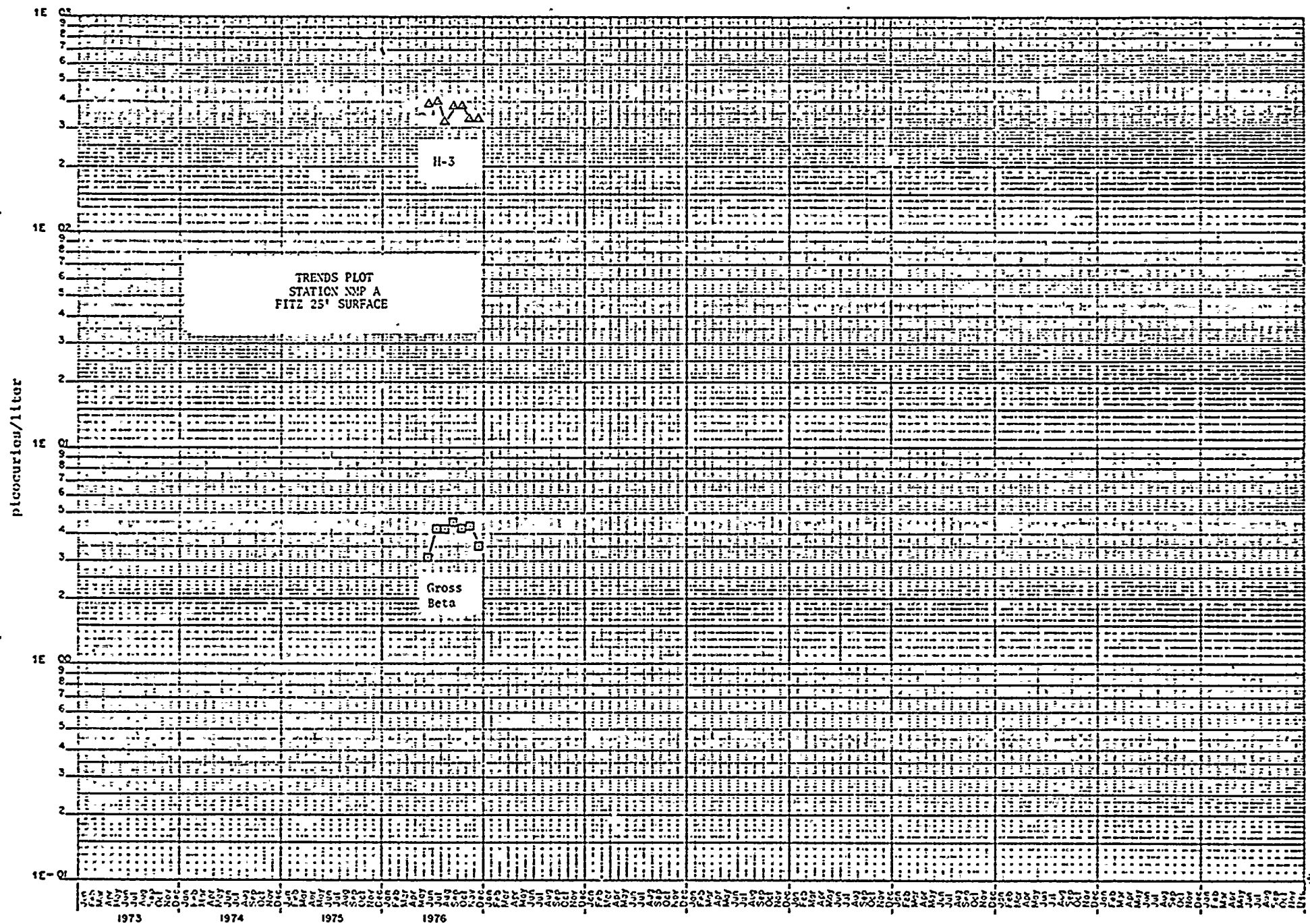




picocuries/liter



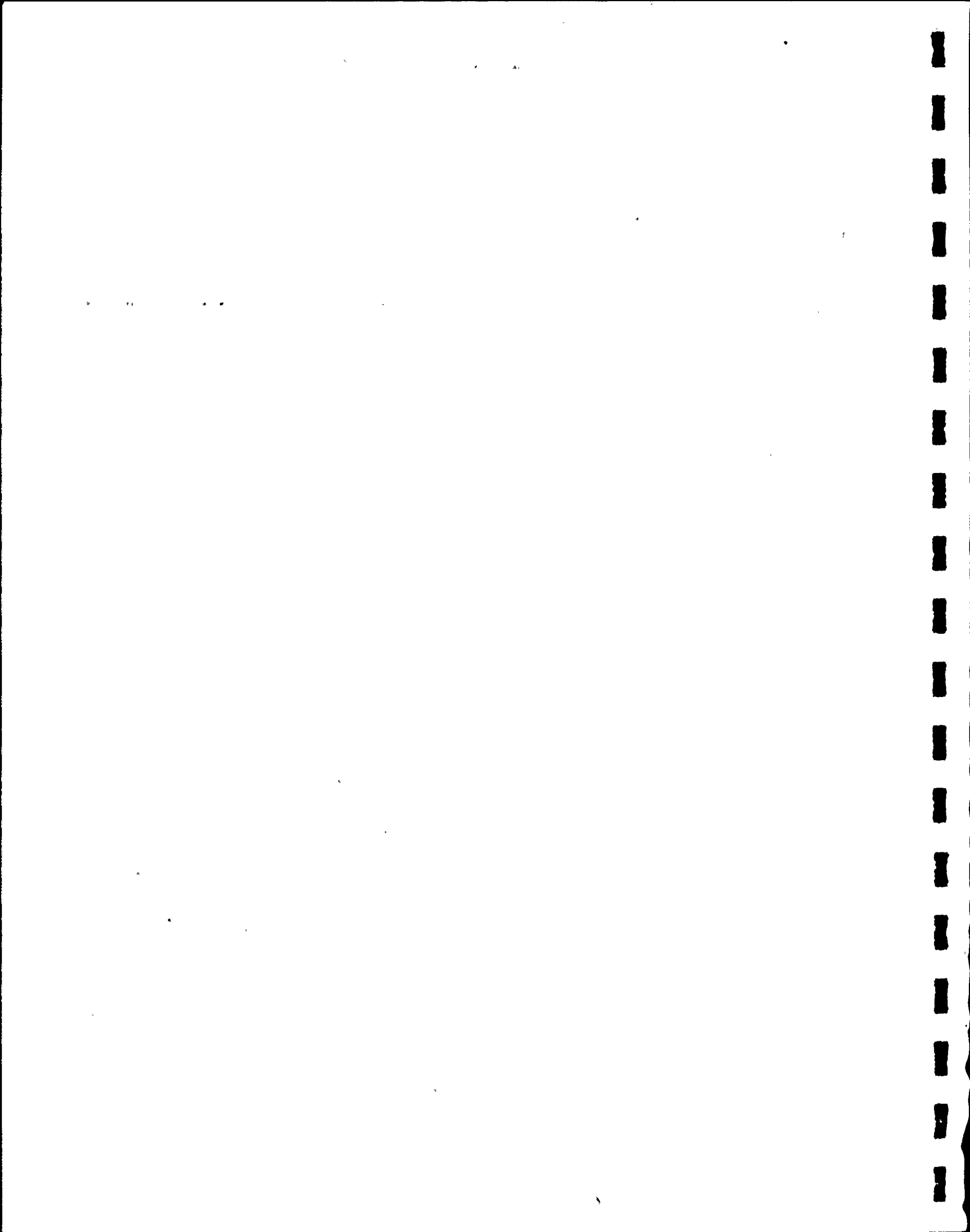


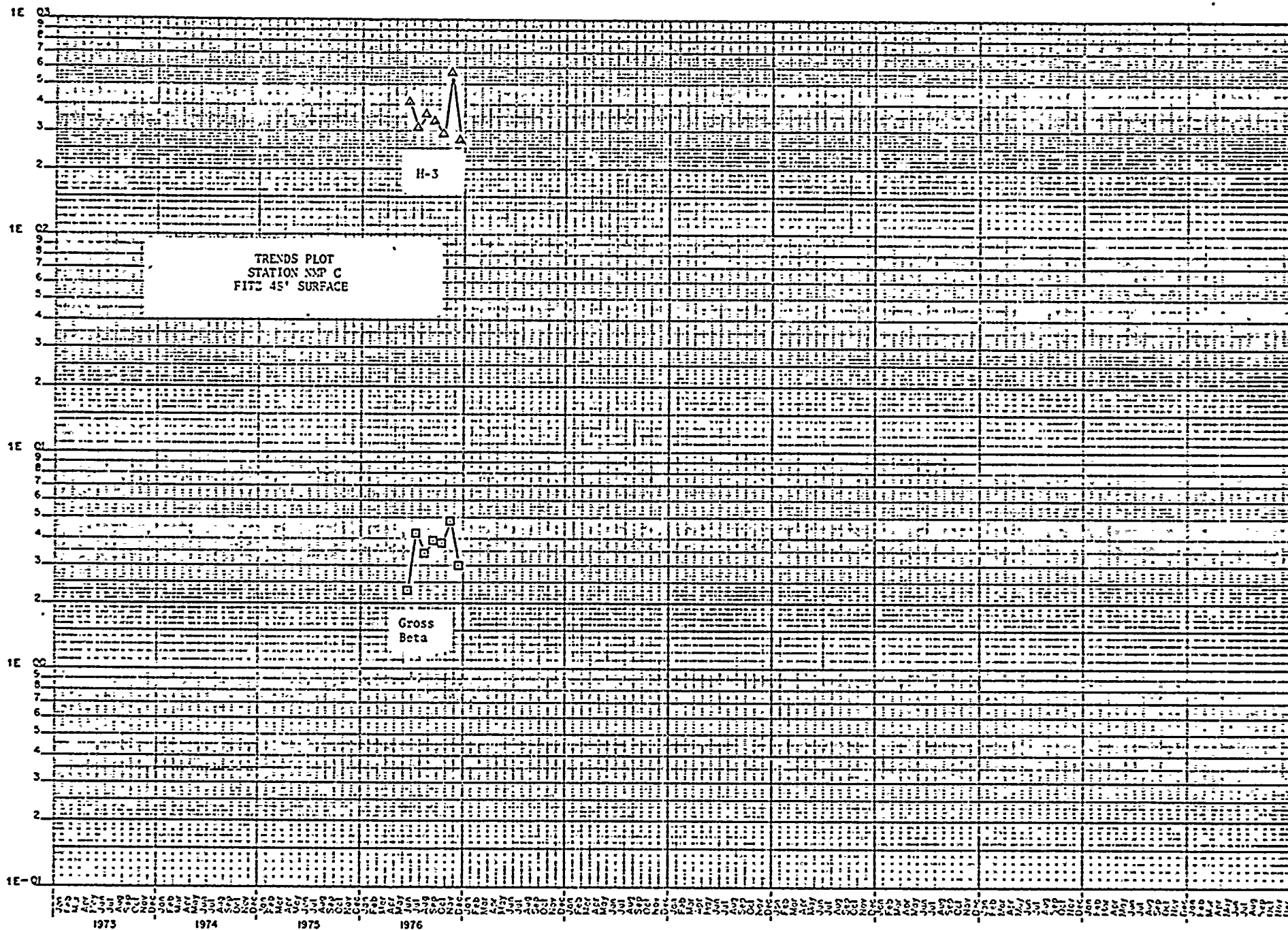






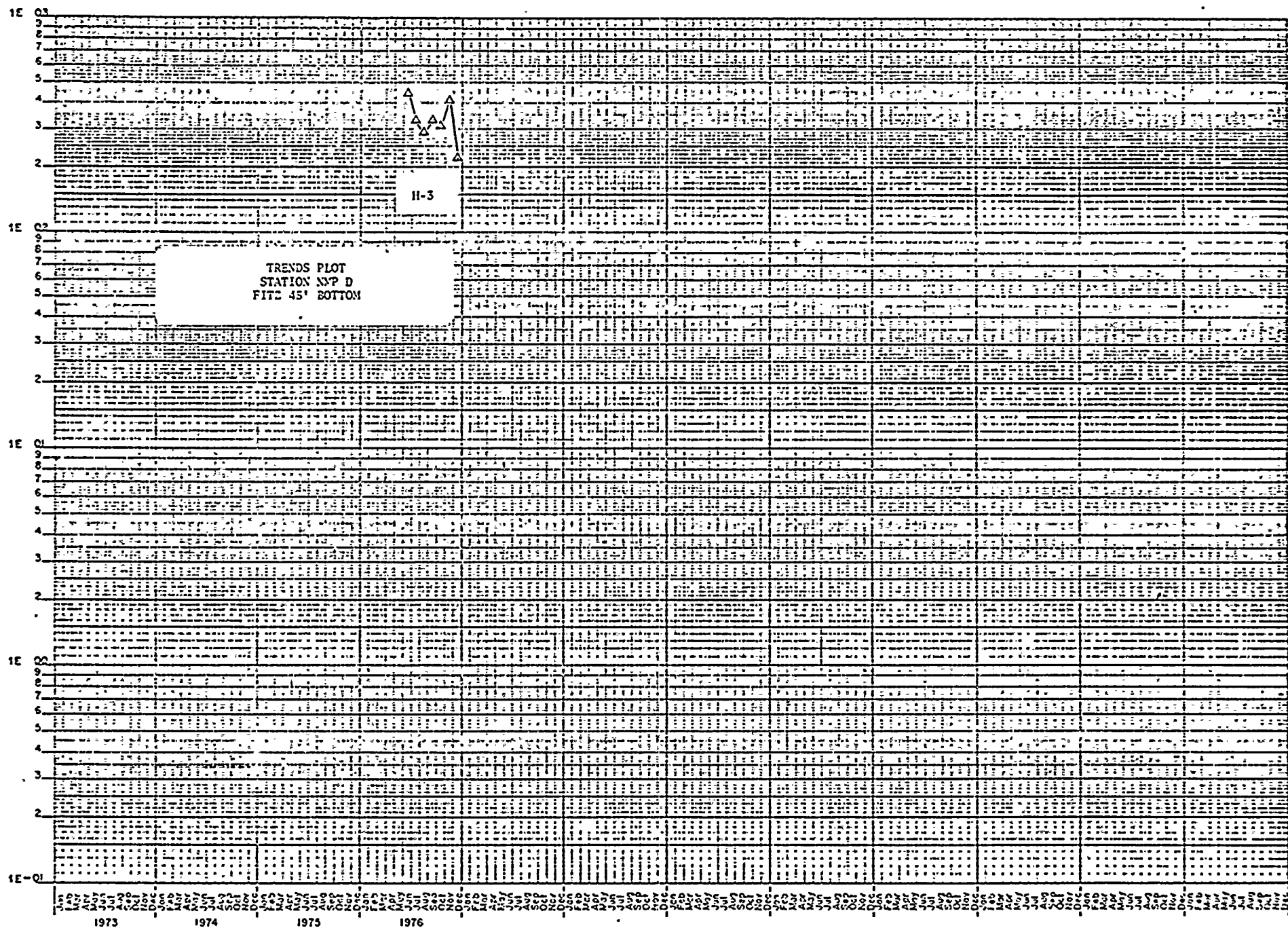








picocurion/litor



APPENDIX A

ANALYTICAL PROCEDURES

RIVER OR LAKE WATER

Gross Beta/Gross Alpha

1. To 1 liter of sample, add 1 ml of nitric acid and evaporate to 1 - 2 mls volume.
2. Transfer to a 2 inch diameter stainless steel planchet and evaporate to dryness under an infrared heating lamp. Determine the weight of residue and submit for radioassay.
3. Count for 50 minutes in a Beckman-Sharp Wide Beta II counter for gross beta, then for gross alpha.

Tritium

An aliquot of sample is converted to hydrogen gas by reduction in a hot zinc furnace, mixed with methane counting gas, and radioassayed utilizing an internal low-level gas proportional counter. Very low levels of activity can be detected due to the sophistication of the counting equipment, the electronics, and the shielding.

Gamma Isotopic Analysis

One liter of sample is transferred to a 1 liter Marinelli wraparound counting beaker and counted for 8 hours on a high resolution gamma spectrometer. Specific gamma isotopes are indicated by peaks at discrete energies. The activity of each isotope is determined by computer-aided integration of the area under each peak.



# APPENDIX B

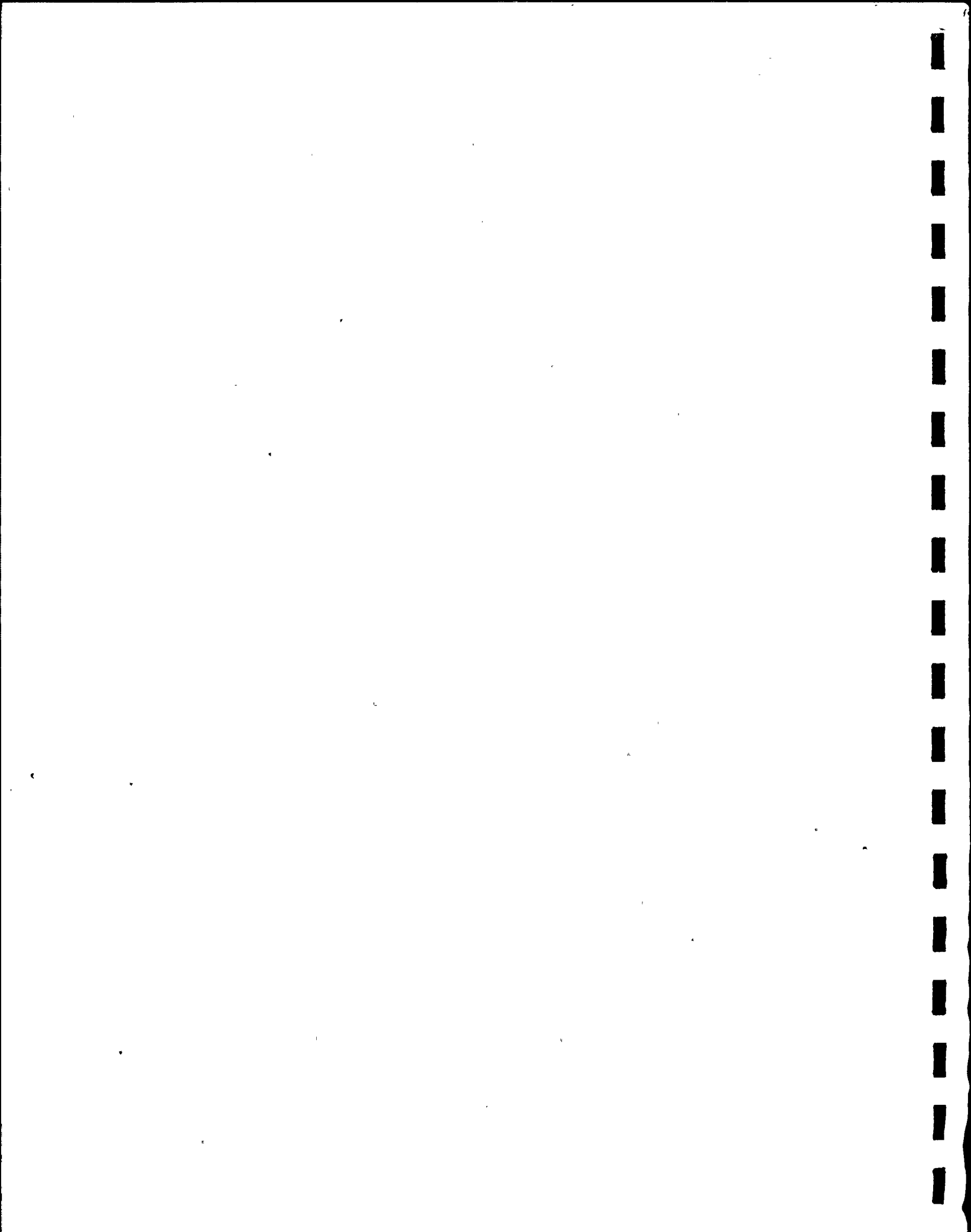
## DETECTION CAPABILITIES FOR ENVIRONMENTAL SAMPLE ANALYSIS

| ANALYSIS             | HALF-LIFE | LOWER LIMIT OF DETECTION (LLD) a.. by Radiochemical Methods |   |  |                 |                             |                       |
|----------------------|-----------|---|---|--|-----------------|-----------------------------|-----------------------|
|                      |           | Water<br>(pCi/l)  | Airborne Particulate<br>or Gas<br>(pCi/m <sup>3</sup> ) | Fish, Meat or Poultry<br>(pCi/kg, wet) | Milk<br>(pCi/l) | Vegetation<br>(pCi/kg, wet) | Soil<br>(pCi/kg, dry) |
| SAMPLE REQUIRED      |           | 1 liter   | 300 Cu. M   | 400 Gm Wet                             | 1 liter         | 400 Gm Wet                  | 50 Gm Dry             |
| Gross $\beta$        | N.A.      | 0.9   | 0.004   | 50                                     | 2               | 60                          | 1300                  |
| Gross $\alpha$       | N.A.      | 0.3   | 0.002   | -                                      | -               | -                           | -                     |
|                      |           |   |   |  |                 |                             |                       |
| SAMPLE REQUIRED      |           | 1 liter   | 1200 Cu. M  | 400 Gm Wet.                            | 1 liter         | 400 Gm Wet                  | 50 Gm Dry             |
| Sr <sup>89</sup> (b) | 53 d      | 4   | 0.004   | 30 (g)                                 | 4               | 30                          | 400                   |
| Sr <sup>90</sup>     | (h) 28 y  | 0.8   | 0.0007  | 5 (g)                                  | 0.8             | 5                           | 80                    |
| Cs <sup>137</sup>    | 30 y      | 2   | 0.001   | -                                      | 2               | -                           | 20                    |
|                      |           |   |   |  |                 |                             |                       |
| SAMPLE REQUIRED      |           | 2 to 3 l  | 300 Cu. M   | 400 Gm Wet                             | 2 to 3 l        | 400 Gm Wet                  | -                     |
| I <sup>131</sup> (i) | 81 d      | 0.4<br>0.5 (c)  | 0.003   | -                                      | 0.4<br>0.5 (c)  | 80                          | -                     |
|                      |           |   |   |  |                 |                             |                       |
| SAMPLE REQUIRED      |           | 0.3 liter   | -   | 400 Gm Wet                             | 0.3 liter       | 400 Gm Wet                  | 50 Gm Dry             |
| elem Ca              | N.A.      | 0.02 gm/l   | -   | 40 gm/kg wet                           | 0.02 gm/l       | 40 gm/kg wet                | -                     |
| elem K               | N.A.      | 2 mg/l  | -   | 100 mg/kg wet                          | 2 mg            | 100 mg/kg wet               | -                     |
| H <sup>3</sup>       | 12.5 Y    | 90  | -   | -                                      | 90              | -                           | -                     |



# DETECTION CAPABILITIES FOR ENVIRONMENTAL SAMPLE ANALYSIS

| ANALYSIS             | HALF-LIFE   | LOWER LIMIT OF DETECTION (LLD) <sup>a,b,d</sup> Ge(Li) Gamma Spectrometry Analysis |   |  |                 |                             |                       |
|----------------------|-------------|--|---|--|-----------------|-----------------------------|-----------------------|
|                      |             | Water<br>(pCi/l)   | Airborne Particulate<br>or Gas<br>(pCi/m <sup>3</sup> ) | Fish, Meat or Poultry<br>(pCi/kg, wet) | Milk<br>(pCi/l) | Vegetation<br>(pCi/kg, wet) | Soil<br>(pCi/kg, dry) |
| SAMPLE REQUIRED      |             | 1 liter  | 1200 Cu. M.   | 400 Gm                                 | 1 liter         | 400 Gm                      | 400 Gm                |
| Be <sup>7</sup>      | 53 d        | 80   | 0.02  | 200                                    | 80              | 200                         | 200                   |
| K <sup>40</sup>      | 1.3 E 09 y  | 200  | 0.04  | 500                                    | 200             | 500                         | 500                   |
| Cr <sup>51</sup>     | 27.8 d      | 80   | 0.07  | 200                                    | 80              | 200                         | 200                   |
| Mn <sup>54</sup>     | 290 d       | 8  | 0.002   | 20                                     | 8               | 20                          | 20                    |
| Co <sup>58</sup>     | 71 d        | 8  | 0.002   | 20                                     | 8               | 20                          | 20                    |
| Fe <sup>59</sup>     | 45 d        | 10   | 0.003   | 40                                     | 10              | 40                          | 40                    |
| Co <sup>60</sup>     | 5.3 y       | 8  | 0.002   | 20                                     | 8               | 20                          | 20                    |
| Zn <sup>65</sup>     | 245 d       | 20   | 0.005   | 30                                     | 20              | 30                          | 30                    |
| Zr <sup>95</sup>     | 65 d        | 10   | 0.003   | 40                                     | 10              | 40                          | 40                    |
| Ru <sup>103</sup>    | 40 d        | 8  | 0.002   | 20                                     | 8               | 20                          | 20                    |
| Ru <sup>106</sup>    | 368 d       | 80   | 0.02  | 200                                    | 80              | 200                         | 200                   |
| I <sup>131</sup>     | 8.1 d       | 10   | 0.002   | 30                                     | 10              | 30                          | 30                    |
| Cs <sup>134</sup>    | 2.1 y       | 9  | 0.002   | 20                                     | 9               | 20                          | 20                    |
| Cs <sup>137</sup>    | 30 y        | 9  | 0.002   | 20                                     | 9               | 20                          | 20                    |
| Bs-La <sup>140</sup> | 12.8d/40 hr | 15   | 0.005   | 80/40                                  | 15              | 80/40                       | 40                    |
| Ce <sup>141</sup>    | 33 d        | 20   | 0.003   | 40                                     | 20              | 40                          | 40                    |
| Ce <sup>144</sup>    | 284 d       | 80   | 0.02  | 200                                    | 80              | 200                         | 200                   |
| Ra <sup>226</sup>    | 1602 y      | 60   | 0.009   | 100                                    | 60              | 100                         | 100                   |
| Th <sup>228</sup>    | 1.9 y       | 10   | 0.009   | 20                                     | 10              | 20                          | 20                    |



Notes:

- (a) The nominal lower limit of detection (LLD) is defined in HASL 300, pp D-08-01, -02, -03 at the 95% confidence level.
- (b) The nominal LLD is at the counting time and must be corrected to the midcollection time.
- (c) The LLD levels for I-131 in milk and water are decay corrected to the midcollection time. The midcollection to counting time must be <8 days to insure conformity to L.T. 0.5 pCi/liter ( $\sigma_m = 4$ ) at the 97.7% confidence level or L.T. 0.4 pCi/liter ( $\sigma_m = 3.3$ ) at the 95% confidence level. See (a) above for 95% confidence level referral.
- (d) The LLD for radionuclides analyzed by Ge(Li) gamma spectrometry will vary according to the number of nuclides in the environmental sample and consequently the background continuum and Compton scattering.
- (e) Not applicable - indicated by (N.A.) Activities calculated as of the counting date.
- (f) This is the LLD for a weightless mount. Dissolved or suspended materials in the sample increase the self-absorption in the mount resulting in an increase of the LLD.
- (g) Flesh only required for analysis. The ash weight percent of fish is ~3%.
- (h) Sample required is for analysis of bracketed nuclides.
- (i) The midcollection to counting time of short-lived nuclides must be less than one half-life for the LLD to apply.

