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FINAL REPORT

APPENDICES TO WATER QUALITY MONITORING IN MASSACHUSETTS AND CAPE COD BAYS: AUGUST - NOVEMBER 1992

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LIST OF APPENDICES

APPENDIX A

STATION DATA TABLES AND INSTRUMENT CALIBRATION DATA

Part 1

Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Depth, Temperature (Temp), Dissolved oxygen (DO), Conductivity (Cond), Sigma-T, Fluorescence (Flu), Salinity (Sal), and Beam Attenuation (Beam) all were obtained electronically from *in situ* readings made during the upcast of vertical profiling during which water samples were taken by closing bottles. The table values represent a 20-sec time-averaged value bracketing the time of closing of a hydrocast bottle. Dissolved oxygen and fluorescence data represent post-cruise calibrated values based on wet chemistry determinations made on a subset of the bottles (Appendix A, Part 2). The other parameters rely on factory calibrations of sensors to calculate values. The dissolved inorganic nutrient data (Table A-1) and additional measurements made at a subset of stations (Table A-2) represent direct analyses of water samples from bottles.

Note that all surveys represented in this report are included in the tables. Table A-1 is a chronological listing of survey data, starting with a combined farfield/nearfield survey in late August (MFF05/MNF10), followed by a nearfield survey in September (MNF11), a combined farfield/nearfield survey in October (all were MFF06, no distinction was made between farfield and nearfield events), and a nearfield survey in November (MNF14). Table A-2 lists data for BioProductivity stations and special station F25 for both combined surveys, providing the values for analytical replicates of a given bottle. No entry indicates that samples or readings were not collected, or that data were not reported or were reported as suspect by the analytical laboratory.

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MFF05	F01P	08-25-92	0817	1.93	17.13	40.28	22.35	1.42	30.91	1.09	8.64	108	2.26	0.04	0.01	0.30	2.26
MFF05	F01P	08-25-92	0813	10.89	16.77	39.95	22.42	2.21	30.90	1.22	8.69	108	0.08	0.03	-0.03	0.32	2.58
MFF05	F01P	08-25-92	0811	15.76	12.03	36.22	23.72	5.09	31.31	1.58	9.33	105	0.62	0.02	0.01	0.51	3.81
MFF05	F01P	08-25-92	0808	19.45	10.67	35.15	24.05	3.47	31.42	1.18	9.01	99	0.15	0.04	-0.04	0.46	6.04
MFF05	F01P	08-25-92	0807	22.77	8.76	33.63	24.45	1.86	31.55	1.23	8.77	92	2.95	0.24	1.65	0.77	9.50
MFF05	F02P	08-25-92	1015	1.96	18.40	41.46	22.06	0.88	30.93	1.17	8.48	109	0.17	0.02	-0.02	0.15	1.67
MFF05	F02P	08-25-92	1013	6.00	17.52	40.71	22.31	1.82	30.98	1.25	8.88	112	0.33	0.03	0.02	0.36	2.20
MFF05	F02P	08-25-92	1010	13.95	12.02	36.25	23.75	4.02	31.34	1.39	8.84	100	1.05	0.16	0.69	0.53	4.06
MFF05	F02P	08-25-92	1008	22.39	8.31	33.28	24.55	2.34	31.58	0.93	9.94	104	0.12	0.09	-0.04	0.39	4.36
MFF05	F02P	08-25-92	1006	27.13	7.43	32.59	24.71	1.99	31.64	1.54	9.25	95	0.61	0.06	-0.02	0.46	8.21
MFF05	F02P	08-25-92	1114	2.01	18.46	41.51	22.05	0.69	30.94	0.99	8.56	110	0.77	0.06	0.25	0.26	1.89
MFF05	F02P	08-25-92	1113	6.62	17.65	40.80	22.26	2.19	30.95	1.34	8.76	111	0.14	0.03	-0.03	0.27	2.29
MFF05	F02P	08-25-92	1111	13.65	12.69	36.76	23.57	4.04	31.27	1.45	8.94	102	0.17	0.02	-0.02	0.41	3.49
MFF05	F02P	08-25-92	1109	22.78	8.63	33.55	24.50	2.22	31.58	0.93	9.93	104	1.09	0.22	1.18	0.56	4.56
MFF05	F02P	08-25-92	1107	28.95	7.37	32.55	24.74	1.85	31.65	1.49	9.31	95	0.14	0.26	1.17	0.50	7.92
MFF05	F03	08-25-92	0718	2.22	18.10	41.04	22.04	1.36	30.81	1.27	8.73	111	0.26	0.02	0.03	0.19	1.94
MFF05	F03	08-25-92	0716	7.24	15.82	39.25	22.73	2.13	31.02	1.23	9	110	0.20	0.01	0.03	0.35	2.27
MFF05	F03	08-25-92	0714	12.13	10.70	35.25	24.10	2.91	31.50	1.33	8.5	93	0.82	0.01	0.37	0.54	5.79
MFF05	F03	08-25-92	0710	14.02	13.03	37.07	23.51	3.88	31.28	1.45	8.64	100	0.23	0.01	0.05	0.34	3.23
MFF05	F04	08-25-92	1243	2.18	19.08	42.03	21.87	0.90	30.90	0.98	8.54	111	0.17	0.00	0.06	0.24	1.62
MFF05	F04	08-25-92	1242	8.33	17.65	40.70	22.20	1.42	30.87	1.07	8.82	112	0.18	0.01	0.09	0.20	1.65
MFF05	F04	08-25-92	1240	15.96	11.18	35.67	24.01	3.58	31.49	1.25	9.55	106	0.24	0.03	0.02	0.50	3.70
MFF05	F04	08-25-92	1237	38.23	5.64	31.18	25.03	0.96	31.75	0.78	9.7	95	2.84	0.37	4.47	0.88	6.19
MFF05	F04	08-25-92	1234	55.73	5.32	30.94	25.08	1.11	31.77	1.33	9.42	92	0.49	0.24	4.82	0.68	9.35
MFF05	F05	08-25-92	1659	1.78	19.28	42.00	21.70	1.37	30.73	1.16	8.74	114	0.18	0.02	0.05	0.19	2.28
MFF05	F05	08-25-92	1659	5.37	15.59	38.96	22.73	3.69	30.95	1.63	8.96	109	0.18	0.01	0.05	0.32	3.27
MFF05	F05	08-25-92	1657	9.24	12.97	36.88	23.43	4.18	31.16	1.56	8.34	96	0.30	0.02	0.05	0.36	5.62
MFF05	F05	08-25-92	1656	14.89	10.86	35.29	23.99	2.20	31.39	1.19	8.44	93	1.17	0.02	0.06	0.58	6.98
MFF05	F06	08-25-92	1629	1.95	18.27	41.50	22.20	0.93	31.06	0.89	8.62	110	0.17	0.00	0.06	0.13	1.37
MFF05	F06	08-25-92	1628	6.98	17.45	40.78	22.41	1.20	31.08	0.92	8.74	110	0.17	0.01	0.04	0.11	1.45
MFF05	F06	08-25-92	1626	12.07	16.25	39.69	22.67	1.47	31.07	1.01	9.15	113	0.18	0.00	0.06	0.18	1.88
MFF05	F06	08-25-92	1624	18.12	13.05	37.08	23.50	3.73	31.27	1.43	9.53	110	0.21	0.02	0.05	0.30	3.52
MFF05	F06	08-25-92	1622	25.02	8.77	33.65	24.45	2.05	31.55	0.91	9.53	100	1.11	0.01	0.12	0.46	5.63
MFF05	F07	08-25-92	1549	1.91	17.92	41.22	22.31	0.96	31.10	0.95	8.86	113	0.75	0.01	0.11	0.12	1.35
MFF05	F07	08-25-92	1548	8.54	13.54	37.62	23.48	1.49	31.37	1.02	10.1	118	0.19	0.00	0.06	0.22	1.44
MFF05	F07	08-25-92	1547	15.68	11.58	35.99	23.93	2.42	31.47	1.13	10.28	115	0.18	0.00	0.06	0.27	1.88
MFF05	F07	08-25-92	1545	32.34	6.78	32.02	24.78	1.18	31.61	0.79	9.61	97	0.75	0.07	1.09	0.45	6.21
MFF05	F07	08-25-92	1543	48.37	5.09	30.80	25.15	1.05	31.83	0.99	9.31	90	1.19	0.24	7.18	0.86	9.08
MFF05	F08	08-25-92	1502	1.77	17.24	40.28	22.25	1.07	30.82	1.04	9.42	118	0.29	0.01	0.09	0.16	1.54
MFF05	F08	08-25-92	1501	7.75	12.80	37.00	23.66	1.59	31.42	1.11	10.19	117	0.18	0.02	0.09	0.22	1.42
MFF05	F08	08-25-92	1459	14.97	8.48	33.53	24.61	4.11	31.69	1.22	10.24	107	0.20	0.01	0.29	0.37	2.31
MFF05	F08	08-25-92	1457	30.28	5.27	30.94	25.13	0.94	31.83	0.74	9.45	92	0.63	0.26	6.71	0.83	5.52
MFF05	F08	08-25-92	1453	77.81	4.37	30.33	25.33	1.24	31.96	1.31	8.62	82	0.22	0.34	1.77	0.47	13.73

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MFF05	F09	08-25-92	1730	1.92	19.81	42.90	21.81	1.23	31.07	0.96	8.32	110	0.15	0.02	-0.02	0.08	1.81
MFF05	F09	08-25-92	1730	9.99	15.89	39.25	22.68	2.20	30.97	1.26	9.15	112	0.16	0.03	-0.02	0.11	2.69
MFF05	F09	08-25-92	1728	14.83	12.67	36.72	23.56	3.69	31.25	1.52	8.57	98	0.38	0.02	0.00	0.32	5.51
MFF05	F09	08-25-92	1727	17.67	10.97	35.34	23.95	2.59	31.36	1.27	8.62	95	1.07	0.02	-0.01	0.44	7.48
MFF05	F10	08-25-92	1804	1.93	18.71	41.93	22.11	1.03	31.09	1.01	8.65	112	0.15	0.02	-0.01	0.05	1.64
MFF05	F10	08-25-92	1803	9.53	15.77	39.34	22.83	1.19	31.14	1.01	9.37	114	0.17	0.02	-0.01	0.00	1.81
MFF05	F10	08-25-92	1801	16.96	9.78	34.47	24.26	2.81	31.51	1.24	9.74	105	0.27	0.02	-0.02	0.31	4.82
MFF05	F10	08-25-92	1800	24.15	8.53	33.45	24.49	1.95	31.55	0.97	9.34	98	0.15	0.02	-0.02	0.32	6.78
MFF05	F10	08-25-92	1759	30.95	7.00	32.26	24.80	1.22	31.67	0.89	9.42	95	0.40	0.05	0.10	0.35	7.41
MFF05	F11	08-26-92	1337	1.59	18.98	41.90	21.87	0.91	30.86	0.98	8.53	111	0.17	0.04	0.02	0.09	1.77
MFF05	F11	08-26-92	1336	9.86	17.59	40.88	22.36	1.01	31.06	0.97	8.85	112	0.17	0.03	0.00	0.13	1.60
MFF05	F11	08-26-92	1333	23.20	9.16	34.01	24.42	2.83	31.58	1.03	10.32	110	0.16	0.03	-0.01	0.31	2.11
MFF05	F11	08-26-92	1333	30.07	6.82	32.21	24.91	1.51	31.79	0.75	9.74	98	0.17	0.31	3.76	0.58	3.91
MFF05	F11	08-26-92	1331	46.19	5.40	31.03	25.10	0.97	31.80	0.82	9.54	93	0.96	0.02	3.16	0.53	7.08
MFF05	F12	08-25-92	1416	1.85	18.68	41.80	22.06	0.83	31.01	1.48	8.58	111	0.17	0.03	0.02	0.08	1.47
MFF05	F12	08-25-92	1415	10.49	10.70	35.30	24.14	2.23	31.55	1.18	10.43	115	0.42	0.03	0.04	0.31	1.78
MFF05	F12	08-25-92	1413	16.18	8.58	33.60	24.58	2.69	31.67	1.10	10.47	110	0.17	0.04	0.01	0.30	2.13
MFF05	F12	08-25-92	1411	30.65	5.90	31.49	25.07	1.19	31.85	0.73	9.54	94	0.17	0.25	0.97	0.40	2.74
MFF05	F12	08-25-92	1407	85.01	4.29	30.28	25.35	1.19	31.97	1.44	8.58	82	0.57	0.14	9.93	1.01	14.89
MFF05	F13P	08-26-92	0849	1.60	19.24	42.37	21.95	0.79	31.05	0.89	8.08	105	0.09	0.01	-0.01	0.12	1.47
MFF05	F13P	08-26-92	0847	5.71	17.50	40.80	22.38	1.02	31.06	0.89	8.58	108	0.09	0.01	-0.01	0.15	1.51
MFF05	F13P	08-26-92	0846	10.23	15.23	38.91	22.98	1.38	31.18	0.91	9.1	110	0.09	0.01	0.00	0.17	1.67
MFF05	F13P	08-26-92	0845	16.96	11.42	35.77	23.89	2.78	31.39	1.20	9.01	101	0.10	0.02	-0.02	0.37	5.25
MFF05	F13P	08-26-92	0842	20.31	10.93	35.36	23.99	2.93	31.40	1.21	8.88	98	0.10	0.02	-0.02	0.54	5.65
MFF05	F14	08-26-92	0805	1.79	18.66	41.71	22.01	1.26	30.95	1.00	8.18	105	0.14	0.02	0.00	0.04	1.75
MFF05	F14	08-26-92	0804	8.11	16.80	40.28	22.61	1.23	31.16	0.83	8.54	106	0.14	0.01	0.00	0.04	1.38
MFF05	F14	08-26-92	0803	11.71	15.87	39.48	22.85	1.32	31.19	0.85	8.64	106	0.13	0.02	-0.02	0.09	1.67
MFF05	F14	08-26-92	0802	15.02	12.44	36.57	23.64	2.73	31.30	1.16	8.74	100	0.19	0.01	0.00	0.25	4.49
MFF05	F15	08-26-92	0936	1.78	18.75	41.73	21.95	0.96	30.90	0.98	8.36	108	0.18	0.02	-0.01	0.09	1.87
MFF05	F15	08-26-92	0935	10.74	15.28	38.91	22.95	1.61	31.15	0.96	9.18	111	0.18	0.02	0.00	0.12	1.63
MFF05	F15	08-26-92	0934	18.50	9.14	34.08	24.49	3.66	31.67	1.15	9.93	106	0.16	0.02	-0.01	0.31	2.73
MFF05	F15	08-26-92	0932	24.02	7.74	32.95	24.76	1.92	31.75	0.80	9.77	101	0.15	0.02	0.00	0.31	3.57
MFF05	F15	08-26-92	0930	34.98	6.56	31.96	24.92	1.20	31.75	0.90	9.42	94	0.64	0.36	3.14	0.59	5.51
MFF05	F16	08-26-92	1236	1.78	18.69	41.37	21.78	1.41	30.65	1.45	8.92	115	0.19	0.02	0.00	0.04	2.43
MFF05	F16	08-26-92	1235	8.93	16.63	39.87	22.48	2.20	30.93	1.12	9.05	112	0.18	0.02	-0.01	0.11	2.13
MFF05	F16	08-26-92	1233	19.70	10.27	34.82	24.13	3.47	31.44	1.09	9.47	103	0.18	0.02	-0.02	0.36	3.86
MFF05	F16	08-26-92	1231	34.51	6.33	31.81	24.98	1.16	31.80	0.73	9.73	97	1.08	0.02	0.00	0.32	4.33
MFF05	F16	08-26-92	1228	55.13	5.12	30.85	25.17	0.94	31.85	0.92	9.29	90	0.36	0.03	6.15	0.62	7.75
MFF05	F17	08-26-92	1424	1.65	18.60	41.44	21.89	1.29	30.77	1.25	9.07	117	0.19	0.02	0.00	0.08	2.37
MFF05	F17	08-26-92	1423	11.07	16.43	39.65	22.51	2.44	30.90	1.24	9.26	114	0.18	0.04	0.00	0.13	2.39
MFF05	F17	08-26-92	1422	22.95	10.81	35.34	24.07	3.33	31.48	1.13	9.9	109	0.20	0.03	-0.03	0.29	2.42
MFF05	F17	08-26-92	1420	42.29	5.71	31.30	25.07	0.99	31.81	0.89	9.22	91	0.24	0.02	5.06	0.64	6.68
MFF05	F17	08-26-92	1416	77.18	4.81	30.65	25.25	1.01	31.91	1.01	9.03	87	0.18	0.15	8.95	0.84	9.12

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MFF05	F18	08-27-92	1205	1.47	19.54	42.08	21.53	3.46	30.60	2.55	10.14	133	0.18	0.03	0.00	0.18	1.18
MFF05	F18	08-27-92	1204	5.16	16.18	39.32	22.49	8.61	30.81	2.23	9.37	115	0.18	0.02	0.00	0.26	2.28
MFF05	F18	08-27-92	1203	9.93	13.02	36.95	23.43	3.23	31.18	1.12	8.36	96	0.22	0.03	0.01	0.29	4.71
MFF05	F18	08-27-92	1202	14.92	9.77	34.43	24.24	1.71	31.47	0.96	8.61	93	0.44	0.02	0.00	0.41	7.32
MFF05	F18	08-27-92	1200	21.51	8.87	33.80	24.49	1.66	31.62	1.05	8.68	92	0.78	0.03	0.00	0.42	7.70
MFF05	F19	08-26-92	1517	1.72	18.52	41.25	21.83	1.77	30.67	1.35	9.11	117	0.21	0.03	0.02	0.23	2.48
MFF05	F19	08-26-92	1516	10.73	13.81	37.55	23.21	2.73	31.09	1.20	9.29	109	0.17	0.02	0.00	0.24	2.63
MFF05	F19	08-26-92	1515	20.41	9.68	34.33	24.23	3.00	31.45	0.99	9.38	101	0.19	0.02	0.00	0.33	4.41
MFF05	F19	08-26-92	1514	35.43	7.23	32.38	24.70	0.99	31.59	0.71	9.29	95	0.57	0.02	0.34	0.46	6.01
MFF05	F19	08-26-92	1511	76.34	5.03	30.80	25.19	1.04	31.87	0.97	9	87	2.04	0.25	1.75	0.58	8.83
MFF05	F20	08-26-92	1654	1.76	18.98	41.77	21.79	2.39	30.76	1.39	8.93	116	0.14	0.02	0.02	0.14	2.20
MFF05	F20	08-26-92	1654	5.76	15.69	39.01	22.67	6.68	30.91	1.98	8.58	104	0.18	0.03	0.01	0.33	3.45
MFF05	F20	08-26-92	1652	11.51	10.04	34.63	24.18	2.26	31.45	0.99	8.81	95	0.27	0.03	0.02	0.38	5.54
MFF05	F20	08-26-92	1651	21.21	7.91	32.96	24.61	1.49	31.59	0.84	8.89	92	0.76	0.04	0.07	0.43	6.95
MFF05	F20	08-26-92	1650	31.35	7.05	32.27	24.77	1.32	31.64	0.95	9.07	92	1.27	0.04	1.06	0.54	7.59
MFF05	F21	08-26-92	1630	1.93	18.78	41.76	21.94	1.29	30.90	1.05	8.69	112	0.17	0.03	0.00	0.10	2.35
MFF05	F21	08-26-92	1630	10.17	13.63	37.60	23.39	2.43	31.29	1.10	9.13	107	0.17	0.03	0.00	0.20	2.73
MFF05	F21	08-26-92	1629	15.17	11.32	35.67	23.90	3.10	31.38	1.14	9.15	102	0.18	0.02	0.02	0.32	3.99
MFF05	F21	08-26-92	1627	29.91	7.11	32.47	24.89	1.21	31.80	0.69	9.45	96	0.55	0.39	2.44	0.66	3.24
MFF05	F21	08-26-92	1626	49.70	5.64	31.23	25.06	1.10	31.79	0.95	8.85	87	0.96	0.31	5.59	0.73	9.00
MFF05	F22	08-26-92	1600	1.81	19.67	42.34	21.59	1.92	30.72	1.35	8.92	117	0.18	0.04	-0.03	0.14	2.44
MFF05	F22	08-26-92	1559	11.13	14.95	38.51	22.94	2.01	31.05	1.10	9.34	112	0.11	0.03	0.00	0.20	2.54
MFF05	F22	08-26-92	1557	20.41	11.12	35.56	23.97	3.11	31.43	1.10	9.23	102	0.13	0.03	-0.01	0.20	4.01
MFF05	F22	08-26-92	1556	30.13	7.75	32.83	24.65	1.21	31.61	0.75	9.29	96	0.12	0.04	1.36	0.52	5.15
MFF05	F22	08-26-92	1554	71.78	5.33	31.06	25.17	0.94	31.88	0.94	8.7	85	1.23	0.02	4.18	0.65	8.39
MFF05	F23P	08-28-92	0622	1.82	17.87	40.30	21.76	6.95	30.37	2.74	7.75	98	0.66	0.20	1.61	0.50	4.21
MFF05	F23P	08-28-92	0621	6.44	17.52	40.19	21.97	5.89	30.53	2.45	7.89	99	0.13	0.39	1.26	0.43	3.99
MFF05	F23P	08-28-92	0620	9.64	17.58	40.23	21.95	5.72	30.52	2.38	7.95	100	0.12	0.13	0.75	0.49	3.99
MFF05	F23P	08-28-92	0619	11.56	17.36	40.15	22.07	5.54	30.62	2.28	8.03	101	0.40	0.03	-0.03	0.25	4.10
MFF05	F24	08-27-92	1042	1.60	16.99	39.85	22.17	7.95	30.64	2.67	9.03	113	1.90	0.03	0.13	0.52	4.64
MFF05	F24	08-27-92	1041	3.80	16.90	39.80	22.22	9.61	30.67	2.63	8.96	111	1.01	0.03	0.00	0.42	4.06
MFF05	F24	08-27-92	1040	8.26	12.30	36.35	23.59	2.62	31.21	1.26	8.26	94	2.67	0.05	0.16	0.52	6.47
MFF05	F24	08-27-92	1037	12.39	9.78	34.38	24.19	1.69	31.42	1.11	8.54	92	1.56	0.03	0.62	0.48	8.37
MFF05	F24	08-27-92	1036	19.06	8.52	33.44	24.49	1.59	31.56	1.24	8.53	89	0.61	0.03	1.06	0.49	9.77
MFF05	F25	08-27-92	1507	1.89	17.04	40.02	22.25	6.94	30.75	2.61	8.48	106	0.29	0.03	0.36	0.39	4.15
MFF05	F25	08-27-92	1505	5.72	17.01	39.99	22.26	6.77	30.75	2.63	8.48	106	0.37	0.02	0.00	0.43	4.21
MFF05	F25	08-27-92	1504	7.92	16.99	39.98	22.26	6.86	30.75	2.66	8.48	106	0.11	0.01	0.00	0.41	4.13
MFF05	F25	08-27-92	1502	11.24	16.93	39.94	22.28	6.39	30.76	2.53	8.46	105	0.21	0.04	1.02	0.43	4.21
MFF05	N01P	08-27-92	1123	1.87	17.60	40.41	22.05	9.52	30.66	2.99	9.11	115	0.19	0.04	0.04	0.17	3.39
MFF05	N01P	08-27-92	1121	3.58	16.99	40.07	22.32	8.13	30.83	1.91	9.09	113	0.28	0.02	0.02	0.08	1.83
MFF05	N01P	08-27-92	1116	10.72	11.29	35.62	23.89	2.21	31.35	1.01	9.07	101	0.65	0.03	0.00	0.30	4.69
MFF05	N01P	08-27-92	1112	20.08	8.00	33.03	24.60	1.24	31.59	0.93	8.8	91	0.63	0.24	0.20	0.46	7.28
MFF05	N01P	08-27-92	1111	27.71	7.27	32.47	24.75	1.17	31.66	0.90	8.86	90	2.36	0.01	0.03	0.57	7.37

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MFF05	N04P	08-27-92	1257	1.54	19.31	42.42	21.93	0.88	31.05	0.99	8.16	107	0.09	0.07	0.20	0.09	1.72
MFF05	N04P	08-27-92	1255	9.36	15.62	39.21	22.87	1.68	31.15	1.01	9.17	112	0.09	0.01	0.02	0.15	1.69
MFF05	N04P	08-27-92	1252	18.34	10.16	34.81	24.21	3.60	31.52	1.13	9.65	105	0.08	0.01	0.03	0.30	3.13
MFF05	N04P	08-27-92	1251	30.40	7.36	32.55	24.74	1.16	31.66	0.75	9.46	97	1.56	0.37	2.49	0.65	5.76
MFF05	N04P	08-27-92	1249	44.90	6.04	31.53	24.99	0.96	31.76	0.83	9.29	92	0.25	0.02	3.99	0.56	7.21
MFF05	N07P	08-26-92	1021	1.68	18.19	41.05	21.98	1.37	30.75	1.23	8.68	111	0.37	0.10	0.17	0.21	2.36
MFF05	N07P	08-26-92	1019	10.94	16.31	39.59	22.56	1.74	30.94	1.06	9.03	111	0.08	0.02	0.02	0.14	2.25
MFF05	N07P	08-26-92	1016	20.73	11.16	35.53	23.93	3.24	31.37	1.21	9.45	105	0.09	0.02	0.01	0.35	3.21
MFF05	N07P	08-26-92	1014	28.21	7.36	32.68	24.84	1.59	31.79	0.75	9.67	99	0.34	0.03	0.00	0.39	4.20
MFF05	N07P	08-26-92	1012	42.93	6.15	31.64	24.99	1.05	31.78	0.74	9.34	93	1.20	0.03	0.28	0.41	5.18
MFF05	N10P	08-26-92	0722	1.62	16.77	39.64	22.21	7.45	30.63	2.44	8.25	102	0.57	0.03	0.03	0.26	4.92
MFF05	N10P	08-26-92	0721	9.09	15.48	38.73	22.66	4.95	30.83	1.81	8.22	100	1.24	0.02	0.72	0.37	5.12
MFF05	N10P	08-26-92	0719	13.86	11.39	35.68	23.85	1.98	31.32	1.27	8.46	94	0.11	0.05	0.04	0.31	6.14
MFF05	N10P	08-26-92	0717	16.11	9.13	33.95	24.40	1.51	31.55	1.18	8.7	92	1.24	0.02	0.02	0.48	7.66
MFF05	N10P	08-26-92	0712	20.08	8.85	33.70	24.43	1.54	31.53	1.25	8.77	93	1.18	0.03	0.80	0.43	7.61
MFF05	N16P	08-26-92	1123	1.61	18.62	41.55	21.95	0.88	30.85	1.02	8.48	109	0.25	0.01	0.04	0.17	2.02
MFF05	N16P	08-26-92	1121	11.82	17.41	40.66	22.36	1.35	31.01	0.94	8.6	108	0.19	0.02	0.05	0.16	1.52
MFF05	N16P	08-26-92	1120	20.81	11.76	36.12	23.87	3.16	31.44	1.22	9.87	111	0.17	0.00	0.06	0.27	2.37
MFF05	N16P	08-26-92	1117	27.18	8.34	33.35	24.58	1.94	31.63	0.80	9.71	101	0.17	0.06	1.06	0.41	3.59
MFF05	N16P	08-26-92	1116	38.79	6.57	32.00	24.94	1.12	31.78	0.71	9.69	97	1.35	0.13	0.05	0.52	4.55
MFF05	N20P	08-27-92	1400	1.54	19.79	42.70	21.71	2.41	30.92	1.50	8.78	116	0.20	0.04	0.14	0.18	1.50
MFF05	N20P	08-27-92	1359	5.36	17.14	40.38	22.41	4.41	30.99	1.57	9.47	119	0.21	0.00	0.05	0.23	1.82
MFF05	N20P	08-27-92	1356	11.20	15.22	38.65	22.82	6.22	30.96	1.59	8.77	106	0.20	0.01	0.56	0.40	3.55
MFF05	N20P	08-27-92	1354	15.82	10.62	35.17	24.10	2.19	31.48	1.08	9.06	99	0.95	0.01	0.05	0.39	5.47
MFF05	N20P	08-27-92	1352	25.53	7.87	32.96	24.65	1.30	31.64	0.91	9.38	97	0.67	0.27	2.14	0.63	5.83
MNF10	N01P	08-28-92	0821	1.65	17.61	40.45	22.06	10.92	30.68	2.84	9.31	117	0.35	0.03	-0.02	0.21	1.26
MNF10	N01P	08-28-92	0820	3.57	16.24	39.31	22.43	8.13	30.76	2.51	8.48	104	0.72	0.03	-0.03	0.40	3.78
MNF10	N01P	08-28-92	0818	8.35	13.23	37.04	23.33	3.30	31.10	1.28	8.2	95	0.88	0.21	1.14	0.49	5.38
MNF10	N01P	08-28-92	0817	16.68	9.26	34.02	24.34	1.54	31.51	0.92	8.8	94	0.54	0.02	1.07	0.52	7.14
MNF10	N01P	08-28-92	0816	26.38	7.32	32.55	24.77	1.27	31.70	0.90	9.09	93	1.82	0.38	2.87	0.78	7.73
MNF10	N02	08-28-92	0843	1.66	17.32	40.40	22.27	4.89	30.87	1.59	8.9	112	0.18	0.02	-0.02	0.18	1.85
MNF10	N02	08-28-92	0842	5.97	16.22	39.54	22.60	5.05	30.96	1.45	8.77	108	0.17	0.03	-0.03	0.21	2.65
MNF10	N02	08-28-92	0841	10.02	13.61	37.27	23.19	4.09	31.01	1.32	8.62	101	0.16	0.02	-0.01	0.36	4.79
MNF10	N02	08-28-92	0840	19.35	8.00	33.04	24.62	1.29	31.61	0.83	9.06	94	0.89	0.02	-0.01	0.43	6.68
MNF10	N02	08-28-92	0838	35.51	6.77	32.07	24.83	1.19	31.68	1.04	9	91	0.75	0.06	0.30	0.59	8.92
MNF10	N03	08-28-92	0910	1.82	18.42	41.49	22.07	3.88	30.95	1.48	8.82	113	0.16	0.02	-0.01	0.17	1.62
MNF10	N03	08-28-92	0909	5.03	17.12	40.43	22.46	3.28	31.05	1.25	8.88	111	0.14	0.01	-0.01	0.14	1.83
MNF10	N03	08-28-92	0907	15.90	9.89	34.63	24.30	2.64	31.58	0.96	9.31	101	0.15	0.01	-0.01	0.31	3.53
MNF10	N03	08-28-92	0905	30.63	7.16	32.38	24.77	1.20	31.67	0.78	9.06	92	1.21	0.08	0.02	0.54	6.67
MNF10	N03	08-28-92	0904	40.73	6.42	31.82	24.91	1.08	31.72	0.79	9.18	92	1.29	0.02	1.72	0.57	7.48
MNF10	N04P	08-28-92	0936	1.74	18.46	41.38	21.97	5.80	30.83	2.06	9.43	121	0.14	0.02	-0.01	0.16	0.99
MNF10	N04P	08-28-92	0935	6.98	16.30	39.58	22.56	1.63	30.94	0.95	8.97	110	0.37	0.03	0.00	0.26	2.38
MNF10	N04P	08-28-92	0934	13.83	12.20	36.32	23.65	2.90	31.26	1.10	9.09	103	0.45	0.07	0.26	0.39	3.42

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MNF10	N04P	08-28-92	0931	20.52	8.45	33.44	24.55	1.68	31.61	0.79	9.21	96	0.52	0.28	1.42	0.55	4.90
MNF10	N04P	08-28-92	0929	44.42	5.94	31.46	25.01	1.09	31.77	0.87	9.09	90	0.88	0.31	5.86	0.83	7.81
MNF10	N05	08-28-92	1002	1.79	18.98	41.98	21.92	2.73	30.93	1.30	8.61	112	0.00	0.02	-0.02	0.13	1.63
MNF10	N05	08-28-92	1001	7.67	18.39	41.41	22.04	1.54	30.90	1.03	8.61	110	0.01	0.03	-0.03	0.07	2.18
MNF10	N05	08-28-92	1000	15.70	13.22	37.15	23.41	2.90	31.20	1.11	9.31	108	0.04	0.03	0.07	0.33	2.89
MNF10	N05	08-28-92	0958	25.47	7.61	32.75	24.70	1.26	31.65	0.72	9.33	96	0.15	0.03	0.00	0.39	5.16
MNF10	N05	08-28-92	0954	49.50	6.08	31.56	24.98	1.02	31.76	0.78	9	89	1.12	0.37	5.56	0.81	7.17
MNF10	N06	08-28-92	1029	1.85	18.60	41.52	21.94	1.84	30.84	1.14	8.81	113	0.09	0.05	-0.02	0.22	2.31
MNF10	N06	08-28-92	1028	9.83	15.73	39.03	22.66	2.37	30.91	1.07	9.22	112	0.11	0.02	-0.02	0.26	2.33
MNF10	N06	08-28-92	1026	17.92	13.89	37.67	23.23	2.50	31.14	1.07	9.17	108	0.06	0.01	-0.01	0.31	2.79
MNF10	N06	08-28-92	1025	27.30	8.91	33.69	24.37	1.86	31.47	0.81	9.25	98	0.08	0.17	-0.05	0.45	4.95
MNF10	N06	08-28-92	1024	46.19	6.15	31.67	25.01	1.02	31.80	0.77	9.37	93	0.16	0.03	-0.03	0.42	6.02
MNF10	N07P	08-28-92	1051	1.79	18.25	41.10	21.97	1.95	30.75	1.24	8.82	113	0.26	0.06	-0.01	0.22	2.28
MNF10	N07P	08-28-92	1050	8.91	14.77	38.32	22.96	2.78	31.03	1.07	9.01	108	0.28	0.03	-0.01	0.30	2.45
MNF10	N07P	08-28-92	1049	20.27	10.16	34.72	24.14	2.77	31.43	0.96	9.22	100	0.16	0.02	-0.01	0.42	3.80
MNF10	N07P	08-28-92	1048	30.03	8.19	33.18	24.56	1.40	31.58	0.74	9.18	96	0.17	0.02	0.00	0.44	5.38
MNF10	N07P	08-28-92	1046	44.81	6.23	31.73	24.99	1.26	31.80	0.84	9.38	93	0.69	0.32	4.73	0.74	5.86
MNF10	N08	08-28-92	1116	1.54	19.20	42.08	21.80	1.66	30.85	1.11	8.56	111	0.20	0.03	-0.02	0.21	2.38
MNF10	N08	08-28-92	1115	8.73	18.24	41.16	22.01	2.17	30.81	1.19	8.82	113	0.21	0.04	-0.03	0.22	2.26
MNF10	N08	08-28-92	1114	16.80	14.87	38.49	23.00	2.86	31.10	1.18	9.26	111	0.32	0.05	-0.02	0.26	2.35
MNF10	N08	08-28-92	1113	20.37	11.22	35.63	23.95	2.75	31.42	1.05	9.45	105	0.30	0.05	0.11	0.45	3.11
MNF10	N08	08-28-92	1109	31.34	7.39	32.62	24.78	1.36	31.71	0.79	9.43	96	0.59	0.33	2.98	0.64	5.47
MNF10	N09	08-28-92	1143	1.43	19.35	42.36	21.86	0.99	30.97	0.95	8.46	111	0.23	0.03	-0.01	0.19	1.89
MNF10	N09	08-28-92	1142	6.65	16.11	39.44	22.63	1.45	30.97	0.98	9.18	113	0.21	0.03	-0.01	0.21	2.13
MNF10	N09	08-28-92	1141	10.78	12.18	36.42	23.75	3.16	31.38	1.15	9.7	110	0.26	0.04	-0.03	0.36	2.50
MNF10	N09	08-28-92	1139	16.21	8.80	33.77	24.54	2.48	31.66	0.92	9.86	104	0.40	0.06	0.01	0.35	3.45
MNF10	N09	08-28-92	1137	33.19	7.80	32.93	24.68	1.55	31.66	0.99	9.35	96	0.28	0.04	0.00	0.39	6.19
MNF10	N10P	08-28-92	0715	0.36	17.10	40.10	22.26	5.20	30.78	2.18	8.17	102	0.20	0.03	-0.01	0.33	3.99
MNF10	N10P	08-28-92	0714	7.69	14.60	38.24	23.05	3.26	31.09	1.45	8.61	103	0.13	0.02	0.00	0.33	4.19
MNF10	N10P	08-28-92	0713	12.57	14.36	38.08	23.13	2.80	31.13	1.34	8.69	103	0.14	0.02	0.01	0.33	4.21
MNF10	N10P	08-28-92	0712	17.62	9.71	34.36	24.24	2.00	31.46	1.27	8.85	95	0.88	0.01	0.02	0.51	6.98
MNF10	N10P	08-28-92	0711	21.27	8.45	33.45	24.56	1.81	31.63	1.27	9.22	97	0.62	0.02	0.02	0.62	6.83
MNF10	N11	08-28-92	0740	1.51	17.23	40.10	22.14	7.86	30.68	2.22	8.54	107	0.14	0.04	-0.02	0.33	3.08
MNF10	N11	08-28-92	0739	8.70	15.32	38.75	22.81	4.64	30.98	1.60	8.36	101	0.13	0.04	-0.01	0.34	4.19
MNF10	N11	08-28-92	0738	13.64	10.28	34.83	24.13	2.16	31.44	1.05	8.65	94	0.21	0.03	0.01	0.41	6.41
MNF10	N11	08-28-92	0737	18.50	8.93	33.76	24.42	1.47	31.53	1.10	8.66	92	0.14	0.72	0.03	0.47	7.88
MNF10	N11	08-28-92	0736	25.09	8.50	33.52	24.57	1.46	31.65	1.21	8.89	93	0.50	0.02	0.01	0.45	8.07
MNF10	N12	08-28-92	0758	1.82	17.27	40.19	22.17	8.12	30.72	2.35	8.85	111	0.15	0.05	-0.01	0.34	3.11
MNF10	N12	08-28-92	0758	5.48	16.92	40.06	22.37	5.20	30.88	1.57	8.65	108	0.20	0.05	0.06	0.25	1.71
MNF10	N12	08-28-92	0757	10.41	14.24	37.96	23.15	3.49	31.13	1.29	8.37	99	0.23	0.05	-0.02	0.40	5.08
MNF10	N12	08-28-92	0756	15.25	9.64	34.29	24.24	1.64	31.45	1.07	8.42	90	0.14	0.04	0.01	0.33	7.90
MNF10	N12	08-28-92	0755	21.63	8.20	33.17	24.54	1.60	31.56	1.39	8.81	92	1.06	0.36	2.99	0.73	9.10
MNF10	N13	08-28-92	1248	1.50	17.96	41.01	22.14	5.76	30.90	2.33	9.57	122	0.18	0.05	-0.01	0.26	1.95

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MNF10	N13	08-28-92	1247	4.95	17.36	40.47	22.28	9.41	30.89	2.23	9.29	117	0.12	0.05	-0.01	0.26	2.35
MNF10	N13	08-28-92	1246	10.33	11.69	35.91	23.77	2.60	31.30	1.01	9.06	102	0.76	0.17	0.92	0.48	4.47
MNF10	N13	08-28-92	1245	17.23	8.81	33.64	24.42	1.51	31.51	1.01	8.81	93	0.67	0.05	-0.01	0.48	7.94
MNF10	N13	08-28-92	1243	27.25	7.25	32.47	24.77	1.22	31.67	0.89	9.1	93	0.83	0.05	-0.01	0.48	7.44
MNF10	N14	08-28-92	1314	1.57	18.80	41.74	21.92	4.92	30.87	1.97	9.23	119	0.17	0.02	-0.02	0.18	1.58
MNF10	N14	08-28-92	1313	6.26	18.20	41.27	22.11	5.40	30.93	1.64	8.94	114	0.16	0.02	-0.02	0.14	1.57
MNF10	N14	08-28-92	1311	11.03	16.59	39.97	22.58	2.42	31.05	1.15	9.01	112	0.16	0.02	-0.02	0.14	1.83
MNF10	N14	08-28-92	1310	14.05	14.87	38.51	23.00	4.80	31.11	1.38	8.92	107	0.16	0.03	-0.03	0.24	3.41
MNF10	N14	08-28-92	1308	25.77	7.61	32.77	24.72	1.33	31.67	0.79	9.34	96	1.08	0.34	2.88	0.63	5.89
MNF10	N15	08-28-92	1340	1.54	19.62	42.54	21.75	1.62	30.91	1.19	8.8	116	0.17	0.16	1.39	0.37	3.69
MNF10	N15	08-28-92	1339	7.23	18.20	41.17	22.04	3.59	30.84	1.35	9	115	0.16	0.01	-0.01	0.12	1.66
MNF10	N15	08-28-92	1337	18.98	10.60	35.26	24.19	2.47	31.59	0.98	9.82	108	0.26	0.07	0.26	0.35	2.78
MNF10	N15	08-28-92	1336	25.57	8.36	33.37	24.57	1.76	31.62	0.82	9.54	100	0.67	0.26	1.64	0.54	4.38
MNF10	N15	08-28-92	1335	37.55	6.57	31.95	24.90	0.97	31.72	0.75	9.39	94	1.25	0.39	4.17	0.72	6.50
MNF10	N16P	08-28-92	1405	1.49	19.57	42.33	21.66	0.73	30.78	1.04	11.41	150	0.14	0.04	0.00	0.16	2.04
MNF10	N16P	08-28-92	1403	13.57	14.13	37.88	23.18	1.65	31.14	1.11	12.66	149	0.16	0.01	-0.01	0.25	2.53
MNF10	N16P	08-28-92	1402	23.09	9.81	34.51	24.26	1.57	31.51	0.94	12.68	137	0.17	0.02	-0.02	0.34	3.63
MNF10	N16P	08-28-92	1401	28.17	7.49	32.67	24.73	0.91	31.67	0.75	12.64	129	0.18	0.06	-0.02	0.36	5.17
MNF10	N16P	08-28-92	1400	37.34	6.80	32.15	24.87	0.77	31.73	0.75	12.54	126	0.97	0.38	3.75	0.69	5.70
MNF10	N17	08-28-92	1429	1.44	19.88	42.59	21.57	1.20	30.77	1.09	8.41	111	0.17	0.01	0.03	0.18	2.15
MNF10	N17	08-28-92	1428	10.39	15.66	38.97	22.68	2.56	30.90	1.17	9.29	113	0.17	0.01	0.02	0.23	2.28
MNF10	N17	08-28-92	1427	18.14	10.92	35.38	24.01	3.22	31.43	1.08	9.47	105	0.27	0.07	0.31	0.42	3.34
MNF10	N17	08-28-92	1426	25.87	8.87	33.75	24.45	1.96	31.57	0.86	9.47	100	0.16	0.02	0.00	0.39	4.61
MNF10	N17	08-28-92	1425	32.47	7.34	32.62	24.82	1.33	31.75	0.78	9.62	98	0.14	0.01	-0.01	0.34	5.22
MNF10	N18	08-28-92	1508	1.79	19.69	42.66	21.76	0.88	30.96	0.97	8.25	108	0.19	0.03	0.03	0.17	1.75
MNF10	N18	08-28-92	1507	8.76	15.32	38.86	22.88	1.82	31.07	1.09	9.47	114	0.17	0.03	0.02	0.21	2.12
MNF10	N18	08-28-92	1505	13.57	12.83	36.92	23.57	2.86	31.31	1.14	9.69	111	0.17	0.02	-0.01	0.28	2.48
MNF10	N18	08-28-92	1504	19.66	8.69	33.66	24.53	1.92	31.64	0.90	9.66	102	0.17	0.01	0.02	0.36	4.95
MNF10	N19	08-28-92	1205	1.62	18.99	42.13	22.01	1.12	31.05	1.00	8.64	112	0.26	0.05	0.04	0.21	1.79
MNF10	N19	08-28-92	1204	4.87	15.98	39.39	22.69	1.53	31.02	1.03	9.3	114	0.25	0.02	0.06	0.24	2.07
MNF10	N19	08-28-92	1203	10.38	13.94	37.90	23.35	2.23	31.31	1.02	9.55	112	0.20	0.00	0.04	0.22	1.80
MNF10	N19	08-28-92	1202	15.18	10.68	35.24	24.11	2.60	31.50	1.02	9.7	107	0.23	0.01	0.03	0.36	2.88
MNF10	N19	08-28-92	1201	21.97	8.80	33.69	24.47	1.92	31.57	0.95	9.22	97	0.29	0.22	1.85	0.58	5.64
MNF10	N20P	08-28-92	1226	1.47	18.97	42.01	21.95	1.95	30.97	1.14	8.66	112	0.19	0.01	0.01	0.17	1.68
MNF10	N20P	08-28-92	1225	4.70	18.21	41.29	22.11	5.18	30.94	1.53	8.96	115	0.25	0.02	0.02	0.21	1.81
MNF10	N20P	08-28-92	1223	8.39	14.28	38.21	23.29	6.44	31.33	1.63	8.85	105	0.26	0.02	0.02	0.34	3.20
MNF10	N20P	08-28-92	1223	15.29	11.11	35.50	23.94	2.55	31.39	1.05	8.89	99	0.28	0.01	0.02	0.37	5.39
MNF10	N20P	08-28-92	1221	26.87	7.77	32.89	24.68	1.52	31.65	0.86	9.26	95	0.62	0.03	0.02	0.53	5.90
MNF10	N21	08-28-92	1535	1.72	19.55	42.53	21.80	0.91	30.96	0.96	8.34	109	0.20	0.01	0.01	0.16	1.77
MNF10	N21	08-28-92	1534	7.08	15.69	39.22	22.82	4.71	31.10	1.38	9.43	115	0.21	0.02	-0.01	0.22	2.18
MNF10	N21	08-28-92	1533	13.75	13.71	37.62	23.34	5.02	31.23	1.43	8.96	105	0.22	0.15	0.81	0.43	4.04
MNF10	N21	08-28-92	1532	20.76	8.51	33.45	24.51	1.52	31.57	0.95	9.26	97	0.29	0.03	0.01	0.35	6.50
MNF10	N21	08-28-92	1531	28.92	7.58	32.74	24.72	1.28	31.67	0.82	9.57	98	1.11	0.35	2.99	0.69	6.02

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MNF11	NO1P	09-09-92	0801	1.40	15.09	38.90	23.10	2.06	31.29	1.87	9.85	119	0.19	0.05	0.03	0.04	1.00
MNF11	NO1P	09-09-92	0759	7.40	12.21	36.46	23.75	4.29	31.39	1.33	9.04	103	0.15	0.05	0.06	0.36	2.37
MNF11	NO1P	09-09-92	0756	14.30	11.14	35.57	23.97	3.49	31.42	1.20	8.63	96	1.66	0.17	1.03	0.69	4.61
MNF11	NO1P	09-09-92	0753	21.60	9.13	34.09	24.51	1.36	31.69	0.77	8.57	91	0.52	0.03	2.12	0.47	3.92
MNF11	NO1P	09-09-92	0751	28.30	8.09	33.24	24.69	1.16	31.73	0.85	8.36	87	0.14	0.33	4.89	0.65	7.21
MNF11	NO2	09-09-92	0833	1.20	14.84	38.55	23.06	5.94	31.18	3.10	10.81	129	0.19	0.05	0.03	0.29	0.63
MNF11	NO2	09-09-92	0831	9.20	12.03	36.37	23.84	3.49	31.46	1.15	8.77	99	0.36	0.07	0.20	0.48	3.01
MNF11	NO2	09-09-92	0828	17.90	9.08	34.07	24.54	1.37	31.72	0.78	8.75	93	0.32	0.34	3.48	0.64	3.86
MNF11	NO2	09-09-92	0825	26.80	7.87	33.10	24.77	1.13	31.79	0.72	8.53	88	0.39	0.38	5.06	0.74	4.70
MNF11	NO2	09-09-92	0823	35.90	7.11	32.45	24.86	1.10	31.77	0.93	8.26	84	1.14	0.34	6.10	0.84	7.92
MNF11	NO3	09-09-92	0904	1.40	15.57	39.24	22.93	1.02	31.21	1.14	9.04	110	0.16	0.03	0.03	0.22	2.58
MNF11	NO3	09-09-92	0901	7.40	14.49	38.42	23.26	2.15	31.34	1.01	9.04	108	0.16	0.03	0.04	0.12	2.00
MNF11	NO3	09-09-92	0859	14.90	12.05	36.46	23.88	3.83	31.52	1.16	8.69	98	0.20	0.03	0.10	0.30	2.55
MNF11	NO3	09-09-92	0856	30.10	7.96	33.25	24.81	1.19	31.86	0.72	8.77	91	0.99	0.04	0.78	0.42	4.12
MNF11	NO3	09-09-92	0853	41.70	6.83	32.27	24.96	0.94	31.84	0.86	8.25	83	0.99	0.32	7.02	0.88	7.43
MNF11	NO4P	09-09-92	0937	1.30	15.95	39.60	22.86	0.97	31.23	1.04	8.75	107	0.26	0.04	0.07	0.29	2.31
MNF11	NO4P	09-09-92	0935	14.20	12.29	36.61	23.79	2.98	31.46	1.13	9.3	106	0.38	0.03	0.15	0.32	2.51
MNF11	NO4P	09-09-92	0930	27.10	9.14	34.26	24.63	1.41	31.85	0.77	8.83	94	0.21	0.12	2.30	0.44	3.03
MNF11	NO4P	09-09-92	0927	35.90	6.95	32.40	24.96	0.79	31.87	0.71	8.5	86	0.24	0.34	6.58	0.77	5.05
MNF11	NO4P	09-09-92	0924	46.80	6.63	32.17	25.03	0.88	31.91	0.81	8.32	84	0.42	0.20	7.26	0.80	6.39
MNF11	NO5	09-09-92	1013	1.30	16.11	39.76	22.84	0.82	31.25	1.07	8.47	104	0.56	0.03	0.08	0.26	2.14
MNF11	NO5	09-09-92	1011	11.20	14.32	38.28	23.30	2.59	31.35	1.11	8.98	107	1.09	0.04	0.12	0.30	2.02
MNF11	NO5	09-09-92	1008	21.30	11.79	36.25	23.95	3.12	31.54	1.11	8.84	100	0.63	0.06	0.26	0.29	2.55
MNF11	NO5	09-09-92	1005	36.80	6.62	32.15	25.03	0.77	31.90	0.74	8.34	84	0.26	0.14	7.75	0.84	5.76
MNF11	NO5	09-09-92	1002	49.20	6.49	32.04	25.05	0.77	31.90	0.77	8.27	83	0.21	0.16	8.19	0.87	6.59
MNF11	NO6	09-09-92	1056	1.40	16.27	39.94	22.83	0.85	31.28	1.05	8.47	104	0.41	0.04	0.05	0.22	1.62
MNF11	NO6	09-09-92	1054	10.00	14.99	38.89	23.18	2.02	31.37	1.15	8.74	105	0.80	0.04	0.06	0.23	1.72
MNF11	NO6	09-09-92	1051	20.50	11.78	36.32	24.00	2.99	31.61	1.06	8.65	97	0.92	0.09	0.46	0.38	2.23
MNF11	NO6	09-09-92	1048	35.10	6.44	32.00	25.06	1.11	31.91	0.79	8.22	82	0.55	0.23	8.12	0.94	7.04
MNF11	NO6	09-09-92	1045	48.30	6.33	31.91	25.07	1.00	31.91	0.82	8.19	82	0.23	0.04	3.06	0.51	7.43
MNF11	NO7P	09-09-92	1124	1.30	16.55	40.11	22.72	0.85	31.22	1.10	8.58	106	0.20	0.03	0.45	0.25	2.22
MNF11	NO7P	09-09-92	1121	8.30	14.43	38.35	23.26	2.07	31.32	1.14	8.97	107	0.19	0.03	0.03	0.27	1.47
MNF11	NO7P	09-09-92	1118	15.50	12.45	36.84	23.82	3.08	31.54	1.05	8.57	98	0.31	0.06	0.23	0.39	2.06
MNF11	NO7P	09-09-92	1115	30.00	7.18	32.47	24.83	1.23	31.74	0.81	8.18	83	1.02	0.35	5.92	0.87	7.33
MNF11	NO7P	09-09-92	1112	43.10	6.54	31.99	24.96	0.97	31.80	0.81	8.17	82	0.68	0.04	4.14	0.65	7.98
MNF11	NO8	09-09-92	1200	1.40	16.73	40.26	22.66	0.85	31.20	1.11	8.38	104	0.30	0.03	0.02	0.24	1.91
MNF11	NO8	09-09-92	1157	8.20	14.80	38.58	23.12	2.86	31.24	1.49	9.12	109	0.19	0.03	0.03	0.26	2.03
MNF11	NO8	09-09-92	1155	16.90	12.52	36.86	23.78	3.69	31.51	1.16	8.74	100	0.24	0.05	0.01	0.02	2.31
MNF11	NO8	09-09-92	1153	21.60	8.79	33.74	24.52	1.82	31.64	0.87	8.51	90	0.21	0.04	0.03	0.42	5.27
MNF11	NO8	09-09-92	1150	26.50	7.70	32.87	24.71	1.20	31.68	0.91	8.51	88	0.68	0.42	4.92	0.75	7.47
MNF11	NO9	09-09-92	1232	1.40	16.06	39.61	22.78	1.39	31.16	1.38	8.8	108	0.15	0.03	0.02	0.30	2.17
MNF11	NO9	09-09-92	1230	8.20	14.44	38.24	23.18	3.37	31.22	1.72	9	107	0.13	0.02	0.04	0.35	2.36
MNF11	NO9	09-09-92	1227	15.50	10.16	34.81	24.21	4.28	31.52	1.16	8.77	95	0.14	0.02	0.05	0.47	3.85

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MNF11	N09	09-09-92	1224	24.10	8.35	33.38	24.59	1.72	31.65	0.86	8.54	89	0.85	0.33	3.77	0.77	5.73
MNF11	N09	09-09-92	1222	31.50	7.82	32.96	24.70	1.47	31.69	0.96	8.35	86	2.32	0.03	0.03	0.50	6.86
MNF11	N10P	09-09-92	0637	1.40	14.39	38.24	23.22	3.21	31.26	1.55	9.34	111	0.43	0.03	0.08	0.33	2.71
MNF11	N10P	09-09-92	0635	6.10	13.58	37.54	23.39	5.40	31.27	2.05	9.76	114	0.20	0.04	0.08	0.31	1.90
MNF11	N10P	09-09-92	0632	11.00	12.43	36.53	23.61	7.04	31.27	2.12	9.59	109	0.18	0.04	0.22	0.44	1.84
MNF11	N10P	09-09-92	0630	16.10	10.61	35.13	24.08	3.86	31.45	1.47	8.41	92	0.35	0.03	0.05	0.41	5.20
MNF11	N10P	09-09-92	0627	21.70	8.90	33.81	24.47	2.03	31.60	1.13	8.49	90	0.50	0.04	0.12	0.46	6.83
MNF11	N11	09-09-92	0707	1.20	13.47	37.16	23.21	11.95	31.01	3.13	9.84	114	0.20	0.04	0.01	0.32	1.82
MNF11	N11	09-09-92	0704	7.00	13.92	37.74	23.26	7.33	31.19	2.22	9.66	114	0.19	0.03	0.02	0.34	1.52
MNF11	N11	09-09-92	0701	14.70	11.52	35.90	23.91	3.74	31.43	1.17	8.9	100	0.22	0.04	0.05	0.49	2.75
MNF11	N11	09-09-92	0659	20.10	10.35	34.95	24.15	2.53	31.49	1.09	8.17	89	2.12	0.28	2.13	0.79	5.66
MNF11	N11	09-09-92	0656	27.60	8.38	33.38	24.56	1.98	31.61	1.42	8.25	86	1.66	0.36	4.49	0.88	8.53
MNF11	N12	09-09-92	0734	1.40	13.70	37.38	23.19	16.79	31.04	3.73	10.96	128	1.08	0.06	0.59	0.41	0.45
MNF11	N12	09-09-92	0732	5.30	12.55	36.50	23.50	10.14	31.15	2.57	9.7	111	1.52	0.12	0.46	0.64	1.99
MNF11	N12	09-09-92	0730	11.10	12.18	36.42	23.74	4.46	31.37	1.47	9.45	107	0.22	0.04	0.03	0.31	1.77
MNF11	N12	09-09-92	0727	16.60	10.31	34.94	24.18	2.11	31.52	1.00	8.41	92	0.98	0.26	1.62	0.62	5.01
MNF11	N12	09-09-92	0725	22.40	8.35	33.34	24.56	2.32	31.61	1.96	8.3	87	0.66	0.05	0.01	0.49	8.22
MNF11	N13	09-09-92	1440	1.30	15.58	39.07	22.81	11.80	31.06	4.03	11.06	134	0.28	0.05	0.00	0.41	0.85
MNF11	N13	09-09-92	1438	6.40	12.95	36.82	23.40	13.60	31.12	3.62	10.91	126	0.29	0.05	0.01	0.50	1.50
MNF11	N13	09-09-92	1436	13.50	12.12	36.38	23.77	4.16	31.39	1.38	9.28	105	0.30	0.06	0.01	0.33	1.91
MNF11	N13	09-09-92	1433	19.40	10.36	34.98	24.18	2.38	31.52	1.01	8.08	88	1.21	0.04	0.03	0.52	5.25
MNF11	N13	09-09-92	1431	26.00	7.90	33.01	24.67	1.78	31.66	1.41	8.32	86	1.55	0.38	4.89	0.83	8.41
MNF11	N14	09-09-92	1516	1.20	17.21	40.67	22.54	1.38	31.18	1.19	8.39	105	0.33	0.07	0.03	0.16	2.36
MNF11	N14	09-09-92	1514	7.10	15.50	39.22	22.98	2.06	31.25	1.17	8.72	106	0.29	0.06	0.01	0.17	1.90
MNF11	N14	09-09-92	1511	15.10	12.02	36.33	23.81	4.12	31.43	1.38	9.1	103	0.36	0.06	0.03	0.41	2.07
MNF11	N14	09-09-92	1509	21.40	9.43	34.25	24.38	1.67	31.59	0.91	8.26	88	1.41	0.06	0.04	0.47	6.13
MNF11	N14	09-09-92	1507	28.10	7.98	33.09	24.66	0.89	31.67	1.01	8.57	89	0.26	0.28	2.34	0.48	7.27
MNF11	N15	09-09-92	1544	1.30	17.18	40.67	22.57	1.64	31.21	1.14	8.65	109	0.21	0.02	-0.01	0.30	2.11
MNF11	N15	09-09-92	1542	7.20	14.54	38.47	23.26	2.04	31.35	1.12	8.92	106	0.20	0.01	0.00	0.29	1.91
MNF11	N15	09-09-92	1540	15.10	11.49	35.98	23.99	3.75	31.53	1.15	8.61	96	0.38	0.11	0.62	0.47	3.07
MNF11	N15	09-09-92	1537	24.90	8.48	33.61	24.67	1.41	31.77	0.79	8.46	89	0.50	0.30	3.94	0.69	4.62
MNF11	N15	09-09-92	1534	38.20	7.00	32.43	24.95	1.09	31.86	0.80	8.28	84	0.50	0.02	2.54	0.42	7.28
MNF11	N16P	09-09-92	1609	1.30	17.28	40.77	22.55	1.56	31.22	1.12	8.53	107	0.27	0.03	-0.01	0.28	1.97
MNF11	N16P	09-09-92	1606	7.10	14.44	38.36	23.26	2.21	31.33	1.13	8.99	107	0.29	0.02	0.00	0.32	1.90
MNF11	N16P	09-09-92	1604	14.30	11.23	35.74	24.03	4.37	31.53	1.31	8.58	95	0.22	0.11	0.41	0.45	3.72
MNF11	N16P	09-09-92	1601	25.30	7.46	32.67	24.76	1.39	31.70	0.87	8.1	83	0.26	0.04	0.01	0.43	7.85
MNF11	N16P	09-09-92	1559	35.60	6.94	32.30	24.89	1.26	31.78	0.97	8.1	82	1.82	0.33	5.97	0.88	8.53
MNF11	N17	09-09-92	1641	1.20	17.02	40.54	22.61	1.75	31.21	1.17	8.75	110	2.28	0.02	0.04	0.23	1.97
MNF11	N17	09-09-92	1639	9.20	13.87	37.97	23.46	2.92	31.43	1.14	9.08	107	0.93	0.02	0.04	0.25	1.84
MNF11	N17	09-09-92	1636	18.20	9.87	34.63	24.31	2.24	31.58	1.00	8.61	93	0.70	0.04	1.57	0.37	5.31
MNF11	N17	09-09-92	1633	27.20	7.24	32.51	24.81	1.20	31.73	0.86	8.28	84	0.50	0.35	1.21	0.52	7.83
MNF11	N17	09-09-92	1630	35.10	6.85	32.27	24.94	1.08	31.82	0.82	8.32	84	1.33	0.30	6.59	0.89	7.49
MNF11	N18	09-09-92	1707	1.20	16.69	40.25	22.69	1.74	31.22	1.16	8.8	109	0.40	0.02	0.03	0.27	2.14

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MNF11	N18	09-09-92	1705	7.20	13.72	37.87	23.51	2.58	31.46	1.13	9.03	106	0.19	0.02	-0.02	0.19	1.70
MNF11	N18	09-09-92	1702	13.70	11.82	36.23	23.90	4.20	31.49	1.30	9	101	0.15	0.01	0.00	0.39	3.10
MNF11	N18	09-09-92	1700	18.00	9.10	33.98	24.45	2.50	31.61	0.97	8.49	90	0.93	0.28	2.81	0.73	5.50
MNF11	N18	09-09-92	1658	22.70	8.54	33.53	24.56	2.04	31.64	0.91	8.51	89	0.84	0.02	-0.01	0.44	6.35
MNF11	N19	09-09-92	1307	1.40	16.12	39.67	22.77	1.23	31.16	1.28	8.75	108	0.24	0.04	0.01	0.21	2.25
MNF11	N19	09-09-92	1304	5.30	15.76	39.37	22.86	1.77	31.18	1.30	8.91	109	0.88	0.02	0.05	0.27	2.17
MNF11	N19	09-09-92	1302	10.30	13.56	37.64	23.48	2.59	31.38	1.24	9.01	105	0.21	0.02	0.03	0.35	2.07
MNF11	N19	09-09-92	1300	15.40	10.45	35.03	24.14	5.11	31.49	1.34	8.8	96	0.18	0.02	0.12	0.37	3.68
MNF11	N19	09-09-92	1257	20.30	8.82	33.74	24.49	2.45	31.60	1.00	8.74	92	0.63	0.30	3.20	0.67	6.21
MNF11	N20P	09-09-92	1417	1.30	16.92	40.41	22.60	3.82	31.18	2.17	9.64	120	0.35	0.01	0.00	0.20	1.58
MNF11	N20P	09-09-92	1415	6.50	14.62	38.42	23.16	4.02	31.24	1.85	9.54	114	0.27	0.01	0.00	0.31	2.15
MNF11	N20P	09-09-92	1413	13.60	12.03	36.29	23.77	4.54	31.37	1.60	9.49	107	0.66	0.02	0.01	0.40	1.98
MNF11	N20P	09-09-92	1411	20.10	8.85	33.78	24.50	1.87	31.62	0.93	8.41	89	0.22	0.01	0.02	0.36	5.96
MNF11	N20P	09-09-92	1408	26.50	8.19	33.25	24.62	1.65	31.65	1.02	8.3	86	0.76	0.05	0.01	0.34	7.43
MNF11	N21	09-09-92	1729	1.00	17.01	40.49	22.58	1.90	31.18	1.24	8.87	111	0.25	0.02	0.01	0.24	2.08
MNF11	N21	09-09-92	1727	7.70	14.15	38.15	23.36	2.33	31.38	1.10	9.18	109	0.22	0.01	0.00	0.26	1.99
MNF11	N21	09-09-92	1725	15.20	11.29	35.73	23.97	4.02	31.46	1.31	8.7	97	0.25	0.02	0.00	0.38	3.69
MNF11	N21	09-09-92	1723	21.20	9.19	34.03	24.41	1.80	31.57	0.95	8.4	89	0.54	0.06	0.50	0.48	6.97
MNF11	N21	09-09-92	1720	26.50	7.65	32.83	24.74	1.42	31.70	0.89	8.32	86	1.27	0.02	1.92	0.52	7.97
MFF06	F01P	10-13-92	0811	2.20	13.52	37.49	23.41	3.02	31.28	1.28	8.5	99	0.75	0.04	0.19	0.51	3.75
MFF06	F01P	10-13-92	0809	10.00	13.51	37.49	23.41	3.31	31.28	1.26	8.46	99	0.14	0.03	-0.03	0.44	3.67
MFF06	F01P	10-13-92	0807	14.60	13.31	37.38	23.50	3.27	31.35	1.25	8.35	97	0.56	0.04	0.17	0.41	3.79
MFF06	F01P	10-13-92	0806	17.60	12.39	36.63	23.72	2.29	31.40	1.23	7.37	84	1.20	0.14	0.62	0.70	8.32
MFF06	F01P	10-13-92	0802	21.30	12.26	36.53	23.76	1.96	31.41	1.20	7.23	82	2.25	0.11	0.62	0.81	8.43
MFF06	F02P	10-13-92	1138	2.20	13.02	37.23	23.64	1.77	31.44	1.27	8.91	103	0.21	0.03	0.10	0.38	2.96
MFF06	F02P	10-13-92	1136	8.20	12.89	37.11	23.66	3.04	31.45	1.31	8.89	102	0.16	0.02	-0.02	0.30	2.65
MFF06	F02P	10-13-92	1133	21.40	12.28	36.65	23.83	2.97	31.51	1.00	8.47	96	0.76	0.05	0.15	0.37	2.72
MFF06	F02P	10-13-92	1131	25.90	11.92	36.35	23.91	2.09	31.52	0.84	8.33	94	1.97	0.07	0.28	0.52	3.10
MFF06	F02P	10-13-92	1128	30.60	11.54	36.11	24.04	1.78	31.60	0.79	8.42	94	0.20	0.10	0.46	0.25	3.75
MFF06	F02P	10-13-92	1211	2.20	13.06	37.25	23.62	1.64	31.43	1.26	8.93	103	0.17	0.02	0.06	0.36	2.72
MFF06	F02P	10-13-92	1209	8.20	12.86	37.09	23.67	3.14	31.45	1.32	8.93	103	0.20	0.02	-0.02	0.35	2.68
MFF06	F02P	10-13-92	1207	19.90	12.34	36.68	23.80	3.17	31.48	1.02	8.54	97	0.68	0.04	0.20	0.51	2.64
MFF06	F02P	10-13-92	1203	26.80	11.94	36.37	23.91	2.06	31.53	0.84	8.24	93	1.11	0.08	0.29	0.46	3.16
MFF06	F02P	10-13-92	1202	31.50	10.29	35.12	24.34	1.79	31.71	0.82	8.01	87	0.77	0.11	1.25	0.40	4.36
MFF06	F03	10-13-92	0954	2.00	13.11	37.21	23.55	2.70	31.35	1.36	8.45	98	0.01	0.01	0.06	0.50	5.34
MFF06	F03	10-13-92	0953	6.90	13.08	37.18	23.55	3.69	31.35	1.35	8.46	98	0.16	0.03	0.19	0.49	5.30
MFF06	F03	10-13-92	0951	10.80	13.02	37.14	23.57	3.44	31.36	1.31	8.45	98	0.03	0.01	0.06	0.43	5.52
MFF06	F03	10-13-92	0950	13.30	11.48	35.98	24.00	1.78	31.55	0.96	7.55	84	0.08	0.02	0.96	0.50	8.97
MFF06	F04	10-13-92	1340	2.20	13.12	37.67	23.88	1.82	31.78	0.90	8.83	102	0.13	0.01	0.06	0.28	2.15
MFF06	F04	10-13-92	1338	11.60	13.02	37.57	23.88	2.45	31.76	0.94	8.82	102	0.94	0.01	0.06	0.27	2.26
MFF06	F04	10-13-92	1336	23.40	12.56	37.12	23.94	2.63	31.72	0.90	8.59	98	1.33	0.03	0.19	0.32	2.59
MFF06	F04	10-13-92	1335	34.00	9.42	34.58	24.65	1.22	31.93	0.68	7.95	85	0.90	0.19	0.04	0.32	6.54
MFF06	F04	10-13-92	1332	54.40	7.99	33.45	24.95	1.23	32.04	1.35	7.83	81	0.53	0.19	7.81	0.92	9.13

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MFF06	F05	10-13-92	1804	2.50	12.96	37.10	23.60	3.54	31.38	1.40	9.09	105	0.09	0.01	0.07	0.44	3.76
MFF06	F05	10-13-92	1802	8.60	12.89	37.06	23.62	3.64	31.39	1.40	8.97	103	0.05	0.01	0.06	0.39	3.80
MFF06	F05	10-13-92	1801	12.10	12.02	36.39	23.85	5.58	31.48	1.52	8.33	94	0.00	0.02	0.06	0.44	3.70
MFF06	F05	10-13-92	1759	13.70	11.48	35.97	23.99	1.82	31.53	0.94	7.97	89	0.29	0.02	0.03	0.32	5.45
MFF06	F06	10-13-92	1730	2.10	12.87	37.07	23.64	3.92	31.42	1.47	9	104	0.05	0.01	0.08	0.44	4.68
MFF06	F06	10-13-92	1729	6.20	12.87	37.07	23.65	3.98	31.42	1.46	8.88	102	0.06	0.00	0.03	0.40	4.81
MFF06	F06	10-13-92	1727	12.10	12.14	36.49	23.83	3.28	31.48	1.18	8.32	94	0.49	0.06	0.82	0.58	5.65
MFF06	F06	10-13-92	1726	18.40	10.48	35.16	24.21	1.34	31.59	0.72	7.67	84	0.95	0.01	0.16	0.36	7.94
MFF06	F06	10-13-92	1725	25.40	9.57	34.45	24.42	1.12	31.67	0.73	7.79	84	1.54	0.18	5.05	0.87	9.19
MFF06	F07	10-13-92	1655	2.20	12.99	37.15	23.61	3.43	31.40	1.33	8.96	103	0.08	0.02	0.06	0.43	3.53
MFF06	F07	10-13-92	1654	11.10	12.95	37.13	23.62	3.35	31.40	1.32	8.86	102	0.15	0.02	0.05	0.48	3.63
MFF06	F07	10-13-92	1653	21.10	12.75	36.96	23.66	3.15	31.41	1.16	8.46	97	0.59	0.03	0.07	0.50	3.33
MFF06	F07	10-13-92	1651	33.30	10.65	35.36	24.22	1.38	31.64	0.76	7.97	88	1.98	0.15	2.26	0.65	6.81
MFF06	F07	10-13-92	1649	45.60	6.82	32.35	25.02	0.89	31.93	0.68	8.1	82	0.34	0.12	8.80	0.86	10.08
MFF06	F08	10-13-92	1608	2.30	12.59	36.89	23.74	3.54	31.48	1.35	9.05	104	0.36	0.04	0.15	0.34	2.35
MFF06	F08	10-13-92	1607	16.30	12.15	36.67	23.96	2.67	31.64	0.97	8.63	98	1.02	0.05	0.17	0.38	2.58
MFF06	F08	10-13-92	1605	30.60	11.40	36.16	24.21	1.19	31.79	0.60	8.14	91	0.74	0.15	1.71	0.46	4.06
MFF06	F08	10-13-92	1604	57.60	7.20	32.63	24.94	0.92	31.88	0.64	7.6	77	0.04	0.13	3.96	0.60	6.72
MFF06	F08	10-13-92	1601	77.60	6.27	31.92	25.12	1.12	31.96	1.15	7.59	76	0.61	0.11	5.15	1.08	12.67
MFF06	F09	10-13-92	1847	2.20	12.89	37.05	23.62	3.86	31.39	1.41	9	104	0.21	0.02	0.05	0.38	3.86
MFF06	F09	10-13-92	1846	7.20	12.91	37.07	23.62	3.93	31.39	1.41	8.99	104	0.20	0.02	0.03	0.39	3.78
MFF06	F09	10-13-92	1845	13.30	12.73	36.94	23.66	4.09	31.41	1.39	8.54	98	0.19	0.07	0.14	0.40	4.32
MFF06	F09	10-13-92	1844	15.60	11.51	35.98	23.97	1.66	31.52	0.95	7.96	89	0.88	0.03	0.02	0.36	6.36
MFF06	F10	10-13-92	1916	2.10	12.62	36.86	23.70	3.61	31.43	1.33	9.04	104	0.19	0.03	-0.01	0.35	3.09
MFF06	F10	10-13-92	1915	8.40	12.63	36.87	23.70	3.69	31.43	1.33	9.01	103	0.14	0.03	0.05	0.35	3.07
MFF06	F10	10-13-92	1914	13.80	12.29	36.60	23.79	3.51	31.46	1.23	8.74	99	0.14	0.04	0.07	0.40	3.46
MFF06	F10	10-13-92	1912	18.10	11.10	35.66	24.08	2.25	31.56	0.90	8.25	92	0.73	0.16	2.75	0.61	6.06
MFF06	F10	10-13-92	1911	25.60	8.78	33.83	24.60	1.12	31.73	0.77	8.04	85	0.40	0.23	5.15	0.72	8.75
MFF06	F11	10-13-92	1948	1.90	12.49	36.83	23.79	3.61	31.51	1.26	9.12	104	0.16	0.02	0.06	0.40	2.27
MFF06	F11	10-13-92	1947	13.60	12.53	36.88	23.79	3.68	31.52	1.28	9.13	104	0.68	0.05	1.38	0.46	3.68
MFF06	F11	10-13-92	1945	23.60	12.45	36.82	23.81	3.69	31.53	1.25	8.93	102	0.16	0.03	0.14	0.30	2.41
MFF06	F11	10-13-92	1943	32.20	9.91	34.77	24.38	1.34	31.69	0.70	8.3	90	0.98	0.13	3.16	0.65	6.02
MFF06	F11	10-13-92	1941	47.50	7.21	32.66	24.95	1.10	31.90	0.85	8.26	84	0.14	0.14	7.80	0.86	9.92
MFF06	F12	10-13-92	1534	2.40	12.60	36.93	23.77	3.11	31.51	1.26	8.97	103	0.58	0.03	0.06	0.33	2.10
MFF06	F12	10-13-92	1533	13.80	12.51	36.85	23.79	3.51	31.51	1.22	8.83	101	0.22	0.03	0.07	0.34	2.28
MFF06	F12	10-13-92	1531	28.20	11.02	35.65	24.13	1.42	31.61	0.67	8.14	90	1.18	0.13	1.80	0.55	4.45
MFF06	F12	10-13-92	1529	59.20	7.20	32.66	24.96	0.88	31.91	0.70	7.55	77	0.47	0.09	8.68	0.93	9.56
MFF06	F12	10-13-92	1527	86.00	6.46	32.13	25.13	1.14	32.01	1.23	7.45	75	0.24	0.16	6.88	0.47	12.32
MFF06	F13P	10-14-92	0653	2.20	12.66	36.83	23.65	5.57	31.37	1.65	9.3	107	0.28	0.04	-0.04	0.42	2.87
MFF06	F13P	10-14-92	0652	4.90	12.67	36.84	23.65	5.51	31.37	1.64	9.29	107	0.14	0.03	-0.03	0.25	2.84
MFF06	F13P	10-14-92	0650	8.00	12.64	36.82	23.66	5.18	31.38	1.61	9.12	105	0.19	0.05	0.13	0.33	2.93
MFF06	F13P	10-14-92	0647	15.00	11.36	35.87	24.02	1.76	31.54	0.91	7.75	87	0.11	0.05	-0.03	0.22	6.91
MFF06	F13P	10-14-92	0646	20.90	10.56	35.27	24.22	1.46	31.62	0.91	7.76	85	0.22	0.23	0.70	0.38	7.40

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MFF06	F14	10-14-92	1028	2.20	12.65	36.73	23.58	3.01	31.28	1.48	8.89	102	1.19	0.10	1.12	0.49	4.85
MFF06	F14	10-14-92	1027	7.50	12.61	36.70	23.59	5.12	31.29	1.49	8.83	101	1.77	0.18	0.98	0.47	4.84
MFF06	F14	10-14-92	1026	12.00	12.51	36.66	23.65	4.11	31.33	1.31	8.71	100	1.01	0.03	0.04	0.34	4.96
MFF06	F14	10-14-92	1025	16.40	11.84	36.24	23.90	2.91	31.49	1.19	8.29	93	0.25	0.04	0.05	0.27	6.96
MFF06	F15	10-14-92	1205	2.50	12.60	36.87	23.73	3.06	31.46	1.42	9.09	104	0.00	0.01	-0.01	0.31	2.40
MFF06	F15	10-14-92	1203	11.40	12.51	36.80	23.75	4.03	31.46	1.39	8.95	102	0.00	0.01	-0.01	0.35	2.52
MFF06	F15	10-14-92	1202	21.50	11.18	35.73	24.07	2.08	31.56	0.90	8.13	90	0.00	0.11	1.94	0.50	5.16
MFF06	F15	10-14-92	1200	28.40	9.07	34.08	24.55	1.28	31.73	0.73	7.79	83	0.24	0.01	2.90	0.50	8.32
MFF06	F15	10-14-92	1159	36.40	6.96	32.45	24.99	1.18	31.91	1.28	7.84	79	0.15	0.02	6.23	0.71	12.02
MFF06	F16	10-14-92	1237	2.30	12.46	36.81	23.80	3.03	31.52	1.32	9	103	0.10	0.02	0.35	0.42	2.50
MFF06	F16	10-14-92	1237	12.70	12.32	36.74	23.86	3.27	31.56	1.21	8.74	100	0.25	0.01	0.04	0.40	2.42
MFF06	F16	10-14-92	1236	22.80	10.96	35.76	24.27	1.15	31.77	0.61	8.09	90	0.34	0.18	2.62	0.54	4.76
MFF06	F16	10-14-92	1234	36.80	6.97	32.45	24.99	0.90	31.91	0.78	7.68	78	0.25	0.05	5.35	0.76	7.40
MFF06	F16	10-14-92	1232	55.00	6.37	32.04	25.14	1.36	32.00	2.03	7.6	76	0.00	0.15	10.57	1.06	15.15
MFF06	F17	10-14-92	1311	2.40	12.44	36.84	23.84	3.16	31.56	1.26	9.08	104	0.44	0.01	-0.01	0.34	1.94
MFF06	F17	10-14-92	1310	12.60	12.43	36.83	23.84	3.44	31.56	1.25	9.03	103	0.19	0.01	0.12	0.40	2.03
MFF06	F17	10-14-92	1308	24.30	11.14	35.76	24.12	1.43	31.61	0.74	8.26	92	0.33	0.11	1.14	0.46	3.93
MFF06	F17	10-14-92	1306	42.60	7.04	32.54	25.01	0.74	31.94	0.77	7.63	77	0.40	0.04	9.17	0.96	10.10
MFF06	F17	10-14-92	1304	75.10	6.73	32.53	25.25	0.99	32.20	1.29	7.58	77	0.25	0.13	10.63	0.96	11.64
MFF06	F18	10-14-92	1654	2.70	11.66	36.05	23.91	3.19	31.46	1.16	8.5	95	0.31	0.01	2.58	0.57	6.65
MFF06	F18	10-14-92	1653	7.20	11.65	36.05	23.91	3.29	31.47	1.20	8.54	96	0.45	0.02	0.67	0.43	6.58
MFF06	F18	10-14-92	1652	11.10	11.56	36.01	23.95	3.23	31.50	1.18	8.33	93	0.08	0.01	1.94	0.50	6.54
MFF06	F18	10-14-92	1651	13.50	10.13	34.98	24.37	1.24	31.72	0.86	7.08	77	0.36	0.01	5.26	0.70	10.95
MFF06	F18	10-14-92	1648	20.40	8.78	33.95	24.69	1.21	31.86	1.04	7.51	79	1.13	0.40	2.40	0.61	11.68
MFF06	F19	10-14-92	1405	2.20	12.46	36.82	23.81	2.53	31.53	1.13	9.13	104	0.41	0.01	0.02	0.37	2.58
MFF06	F19	10-14-92	1404	11.50	12.43	36.80	23.82	2.93	31.53	1.12	9.08	104	0.60	0.01	-0.01	0.36	2.60
MFF06	F19	10-14-92	1402	19.00	12.12	36.52	23.87	2.72	31.52	1.02	8.63	98	0.43	0.03	0.16	0.39	2.68
MFF06	F19	10-14-92	1400	40.90	8.00	33.39	24.89	0.84	31.97	0.60	7.79	81	0.11	0.16	1.86	0.36	6.98
MFF06	F19	10-14-92	1357	75.50	6.84	32.66	25.26	0.94	32.23	1.01	7.64	77	0.00	0.05	10.02	0.96	9.86
MFF06	F20	10-14-92	1600	2.20	11.78	36.21	23.92	4.73	31.52	1.27	9.01	101	0.04	0.02	-0.02	0.23	4.29
MFF06	F20	10-14-92	1559	8.70	11.71	36.16	23.95	4.40	31.53	1.22	8.7	98	0.86	0.17	1.73	0.52	4.44
MFF06	F20	10-14-92	1558	14.20	10.78	35.48	24.21	2.08	31.66	0.87	8.06	89	0.89	0.20	3.29	0.67	5.51
MFF06	F20	10-14-92	1555	20.80	9.34	34.40	24.57	1.05	31.81	0.72	7.58	81	0.58	0.01	4.06	0.63	7.26
MFF06	F20	10-14-92	1553	29.70	7.79	33.25	24.96	0.96	32.02	0.92	7.79	81	0.83	0.02	1.79	0.57	10.29
MFF06	F21	10-14-92	1525	1.90	12.25	36.56	23.79	5.70	31.46	1.38	9.28	106	0.08	0.11	2.91	0.52	4.52
MFF06	F21	10-14-92	1524	10.80	12.26	36.57	23.79	5.51	31.46	1.37	9.09	103	0.30	0.02	-0.02	0.28	5.23
MFF06	F21	10-14-92	1523	22.30	11.05	35.70	24.15	1.41	31.64	0.69	8.17	91	0.57	0.02	0.38	0.34	4.09
MFF06	F21	10-14-92	1521	30.30	8.59	33.84	24.77	0.94	31.92	0.65	7.52	79	0.44	0.02	4.75	0.51	8.53
MFF06	F21	10-14-92	1519	50.00	7.24	32.92	25.15	0.92	32.16	0.74	7.87	80	1.14	0.01	6.72	0.79	9.18
MFF06	F22	10-14-92	1447	2.40	12.60	36.95	23.79	3.34	31.53	1.21	9.13	105	0.72	0.02	0.00	0.33	2.35
MFF06	F22	10-14-92	1446	15.80	12.56	36.91	23.79	3.21	31.53	1.18	9.01	103	0.25	0.01	0.02	0.47	2.37
MFF06	F22	10-14-92	1442	30.20	9.88	34.83	24.45	0.99	31.77	0.56	7.95	86	0.55	0.25	4.74	0.70	5.21
MFF06	F22	10-14-92	1438	75.80	6.60	32.45	25.30	1.01	32.24	1.06	7.58	76	0.92	0.12	10.49	1.02	10.79

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MFF06	F23P	10-15-92	0644	2.80	12.50	36.01	23.18	2.32	30.72	1.71	7.27	83	5.81	0.68	4.14	0.90	8.89
MFF06	F23P	10-15-92	0643	7.50	12.20	35.96	23.39	2.12	30.93	1.57	7.29	83	6.42	0.61	4.15	0.97	8.27
MFF06	F23P	10-15-92	0641	12.20	12.16	35.98	23.43	2.21	30.97	1.56	7.33	83	4.37	0.63	4.02	0.93	9.25
MFF06	F23P	10-15-92	0640	16.30	12.09	35.95	23.47	2.16	31.00	1.53	7.39	84	7.06	0.60	4.20	1.06	8.48
MFF06	F23P	10-15-92	0639	19.80	12.03	35.94	23.51	2.17	31.04	1.55	7.54	85	10.23	0.60	4.21	1.35	8.38
MFF06	F24	10-14-92	1730	2.50	12.02	36.01	23.57	2.39	31.11	1.39	7.66	86	8.68	0.45	4.05	1.21	8.08
MFF06	F24	10-14-92	1728	10.00	11.94	36.00	23.63	2.32	31.17	1.34	7.66	86	4.67	0.44	4.20	0.93	8.16
MFF06	F24	10-14-92	1726	12.90	10.27	35.01	24.28	1.62	31.63	1.31	7.21	79	0.88	0.34	5.77	0.76	9.62
MFF06	F24	10-14-92	1725	15.20	10.11	34.85	24.29	1.56	31.61	1.33	7.39	80	0.48	0.03	5.75	0.76	10.13
MFF06	F25	10-15-92	1114	2.30	12.62	36.71	23.59	5.05	31.28	1.50	8.99	103	0.91	0.01	0.13	0.44	5.05
MFF06	F25	10-15-92	1113	4.70	12.57	36.67	23.60	4.63	31.29	1.44	8.83	101	0.57	0.02	1.08	0.45	5.18
MFF06	F25	10-15-92	1111	8.30	12.27	36.44	23.69	3.15	31.32	1.19	8.39	95	0.19	0.02	1.21	0.50	4.84
MFF06	F25	10-15-92	1110	10.40	11.92	36.22	23.82	3.05	31.41	1.18	8.43	95	0.05	0.36	2.63	0.54	6.35
MFF06	F25	10-15-92	1130	2.20	12.60	36.70	23.60	5.30	31.29	1.52	8.99	103	0.52	0.23	1.55	0.45	4.99
MFF06	F25	10-15-92	1129	4.60	12.54	36.65	23.61	4.67	31.30	1.45	8.79	100	2.35	0.31	2.26	0.73	5.95
MFF06	F25	10-15-92	1127	8.30	12.36	36.52	23.67	3.51	31.32	1.23	8.38	95	1.52	0.02	0.03	0.48	5.65
MFF06	F25	10-15-92	1125	10.20	12.03	36.28	23.76	2.84	31.37	1.16	8.14	92	0.12	0.03	1.31	0.50	6.11
MFF06	N01P	10-15-92	0747	2.20	12.05	36.11	23.63	3.24	31.19	1.41	8.09	91	1.86	0.40	2.96	0.68	6.46
MFF06	N01P	10-15-92	0746	6.10	12.09	36.25	23.69	3.32	31.29	1.27	8.26	94	4.41	0.35	2.64	0.89	6.34
MFF06	N01P	10-15-92	0745	9.60	11.44	35.88	23.96	2.34	31.48	1.05	7.93	89	0.52	0.05	3.24	0.45	7.00
MFF06	N01P	10-15-92	0743	16.70	9.30	34.34	24.57	0.97	31.80	0.67	7.55	81	0.96	0.04	1.36	0.51	8.61
MFF06	N01P	10-15-92	0742	24.30	8.17	33.50	24.85	0.99	31.94	0.82	7.54	79	0.69	0.04	6.01	0.46	10.39
MFF06	N01P	10-16-92	1434	2.10	12.33	36.45	23.65	3.96	31.29	1.26	8.62	98	0.71	0.20	0.79	0.48	5.73
MFF06	N01P	10-16-92	1433	7.40	12.31	36.44	23.65	3.71	31.29	1.25	8.54	97	4.19	0.36	2.65	0.87	5.65
MFF06	N01P	10-16-92	1431	13.60	12.27	36.42	23.66	3.32	31.30	1.19	8.28	94	4.01	0.35	2.64	0.84	5.57
MFF06	N01P	10-16-92	1430	18.60	10.02	34.92	24.41	1.38	31.75	0.74	7.46	81	0.22	0.04	3.10	0.45	6.81
MFF06	N01P	10-16-92	1428	29.60	8.78	33.95	24.69	1.17	31.85	1.00	7.1	75	0.95	0.37	4.39	0.65	11.99
MFF06	N02	10-16-92	1407	2.10	12.45	36.55	23.62	4.09	31.28	1.27	8.76	100	0.06	0.10	1.96	0.51	4.96
MFF06	N02	10-16-92	1406	10.40	12.51	36.72	23.70	3.98	31.39	1.30	8.87	101	1.90	0.19	1.06	0.57	3.60
MFF06	N02	10-16-92	1404	19.40	10.01	34.92	24.42	1.06	31.76	0.78	7.56	82	1.52	0.30	5.44	0.85	7.90
MFF06	N02	10-16-92	1402	25.80	8.92	34.07	24.67	0.89	31.86	0.67	7.58	80	0.67	0.30	7.42	0.91	8.17
MFF06	N02	10-16-92	1400	35.40	7.78	33.22	24.94	1.02	31.99	1.10	7.34	76	0.52	0.03	6.23	0.73	11.97
MFF06	N03	10-16-92	1341	2.20	12.55	36.80	23.72	4.60	31.44	1.48	9.11	104	0.09	0.02	0.11	0.23	1.97
MFF06	N03	10-16-92	1340	12.60	12.46	36.74	23.74	4.09	31.44	1.38	8.66	99	0.42	0.03	-0.02	0.21	2.35
MFF06	N03	10-16-92	1339	18.90	9.83	34.77	24.45	1.12	31.76	0.68	7.74	84	0.43	0.38	3.43	0.23	6.67
MFF06	N03	10-16-92	1337	27.40	8.64	33.86	24.74	0.88	31.89	0.71	7.38	78	0.20	0.03	5.52	0.57	9.45
MFF06	N03	10-16-92	1335	38.40	7.55	33.07	25.01	0.92	32.04	0.82	7.6	78	0.34	0.05	4.06	0.57	10.90
MFF06	N04P	10-15-92	0903	2.40	12.40	36.72	23.79	4.44	31.48	1.41	9.24	105	0.33	0.04	0.08	0.31	1.91
MFF06	N04P	10-15-92	0900	9.60	12.40	36.72	23.79	4.22	31.48	1.40	9.21	105	0.31	0.03	0.01	0.34	1.81
MFF06	N04P	10-15-92	0859	17.00	12.34	36.67	23.80	3.88	31.48	1.31	8.88	101	0.14	0.02	0.02	0.22	2.02
MFF06	N04P	10-15-92	0856	27.50	8.46	33.76	24.80	0.92	31.94	0.62	7.71	81	0.13	0.21	8.06	0.83	7.93
MFF06	N04P	10-15-92	0853	46.00	7.20	32.86	25.13	0.88	32.13	0.83	7.91	81	0.10	0.33	7.60	0.72	10.14
MFF06	N04P	10-16-92	1311	2.50	12.48	36.77	23.76	4.55	31.47	1.42	9.12	104	0.03	0.02	0.08	0.21	2.03

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MFF06	N04P	10-16-92	1310	9.40	12.47	36.77	23.76	4.37	31.47	1.41	9.01	103	0.13	0.02	0.03	0.25	1.80
MFF06	N04P	10-16-92	1309	16.10	12.34	36.67	23.79	3.89	31.47	1.26	8.7	99	0.02	0.02	0.02	0.22	2.33
MFF06	N04P	10-16-92	1307	26.30	8.72	33.95	24.74	0.84	31.91	0.61	7.68	81	0.04	0.02	5.44	0.69	7.88
MFF06	N04P	10-16-92	1306	45.80	7.28	32.91	25.11	0.84	32.11	0.83	7.68	79	0.05	0.22	7.72	0.86	10.49
MFF06	N05	10-16-92	1245	1.90	12.56	36.83	23.73	4.17	31.46	1.35	8.96	103	0.64	0.01	0.09	0.41	2.65
MFF06	N05	10-16-92	1244	9.90	12.46	36.76	23.77	3.81	31.47	1.30	8.79	100	0.41	0.01	0.08	0.36	2.55
MFF06	N05	10-16-92	1243	16.80	11.92	36.32	23.88	2.47	31.49	0.96	8.26	93	0.77	0.05	0.72	0.47	3.27
MFF06	N05	10-16-92	1242	25.20	8.39	33.71	24.83	0.96	31.96	0.61	7.79	82	0.11	0.17	7.57	0.84	7.65
MFF06	N05	10-16-92	1239	50.10	7.30	32.93	25.11	0.99	32.12	0.79	7.76	79	0.25	0.19	9.28	0.96	10.15
MFF06	N06	10-16-92	1217	2.40	12.58	36.83	23.72	3.79	31.44	1.28	8.91	102	0.49	0.02	0.19	0.44	3.38
MFF06	N06	10-16-92	1215	12.00	12.43	36.76	23.79	3.58	31.50	1.25	8.68	99	0.06	0.02	0.03	0.32	3.21
MFF06	N06	10-16-92	1214	23.00	9.53	34.47	24.47	1.19	31.72	0.70	7.67	82	0.30	0.15	0.05	0.29	7.77
MFF06	N06	10-16-92	1212	35.30	7.27	32.84	25.06	0.89	32.05	0.82	7.45	76	0.47	0.22	9.14	0.97	10.91
MFF06	N06	10-16-92	1210	47.10	7.25	32.83	25.06	0.79	32.05	0.87	7.59	78	0.48	0.21	9.41	0.99	11.26
MFF06	N07P	10-14-92	0752	2.30	12.47	36.75	23.75	3.50	31.45	1.52	9.18	105	0.14	0.02	0.04	0.32	2.59
MFF06	N07P	10-14-92	0751	9.20	12.47	36.75	23.75	4.81	31.45	1.52	9.12	104	0.31	0.04	0.09	0.30	2.57
MFF06	N07P	10-14-92	0749	20.30	10.90	35.58	24.18	1.58	31.64	0.73	8.24	91	0.24	0.12	1.15	0.45	4.15
MFF06	N07P	10-14-92	0747	30.50	7.75	33.05	24.83	0.96	31.84	0.85	7.54	78	2.83	0.20	8.31	1.13	10.78
MFF06	N07P	10-14-92	0744	46.50	6.94	32.52	25.06	1.04	32.00	1.15	7.45	76	0.48	0.04	6.86	0.77	12.78
MFF06	N07P	10-16-92	1150	2.80	12.33	36.63	23.77	4.21	31.45	1.32	8.91	101	0.09	0.01	0.04	0.37	3.81
MFF06	N07P	10-16-92	1149	9.10	12.30	36.60	23.78	3.80	31.45	1.28	8.66	99	0.63	0.02	0.13	0.45	3.64
MFF06	N07P	10-16-92	1147	15.10	11.00	35.58	24.10	1.39	31.56	0.71	7.96	88	1.88	0.16	2.11	0.62	5.90
MFF06	N07P	10-16-92	1145	27.90	7.77	33.06	24.82	0.98	31.83	0.78	7.64	79	0.26	0.03	2.35	0.50	10.20
MFF06	N07P	10-16-92	1143	44.20	7.17	32.72	25.04	0.98	32.01	0.87	7.56	77	0.60	0.28	6.74	0.81	11.80
MFF06	N08	10-16-92	1121	2.00	12.33	36.63	23.77	4.11	31.45	1.28	8.84	101	0.18	0.02	0.26	0.41	3.95
MFF06	N08	10-16-92	1120	7.20	12.33	36.63	23.78	4.12	31.45	1.26	8.8	100	0.66	0.02	0.15	0.44	3.88
MFF06	N08	10-16-92	1118	11.30	12.28	36.59	23.79	3.51	31.46	1.18	8.57	98	0.07	0.03	0.31	0.41	4.05
MFF06	N08	10-16-92	1116	22.50	8.43	33.60	24.71	1.04	31.81	0.74	7.56	79	0.05	0.39	5.65	0.73	9.46
MFF06	N08	10-16-92	1115	30.40	7.60	32.99	24.90	0.92	31.91	0.83	7.77	80	0.76	0.19	8.54	1.02	11.43
MFF06	N09	10-16-92	1041	2.10	12.48	36.75	23.74	4.38	31.45	1.43	9.07	104	0.52	0.03	0.62	0.42	3.19
MFF06	N09	10-16-92	1040	8.70	12.47	36.74	23.74	4.34	31.45	1.42	8.91	102	0.37	0.02	0.45	0.45	2.85
MFF06	N09	10-16-92	1038	14.40	10.69	35.34	24.18	1.70	31.59	0.82	7.83	86	1.61	0.15	2.90	0.67	6.39
MFF06	N09	10-16-92	1036	20.60	9.19	34.17	24.52	1.12	31.72	0.79	7.58	81	1.04	0.19	6.11	0.86	9.36
MFF06	N09	10-16-92	1035	30.00	8.38	33.59	24.73	1.18	31.83	0.96	7.45	78	0.77	0.23	0.17	0.41	11.52
MFF06	N10P	10-14-92	1107	2.40	12.54	36.59	23.57	2.69	31.24	1.34	8.3	95	1.52	0.14	1.41	0.90	6.51
MFF06	N10P	10-14-92	1106	6.40	12.53	36.58	23.57	3.57	31.24	1.35	8.3	95	0.10	0.27	0.73	0.43	6.56
MFF06	N10P	10-14-92	1105	15.50	12.35	36.51	23.66	2.88	31.31	1.20	7.88	90	1.41	0.04	0.54	0.49	6.55
MFF06	N10P	10-14-92	1104	20.40	9.39	34.39	24.53	1.88	31.77	1.56	6.97	75	1.54	0.05	2.80	0.70	11.87
MFF06	N10P	10-14-92	1102	23.20	8.91	34.04	24.65	1.67	31.83	1.72	7.25	77	0.79	0.02	5.94	0.76	12.31
MFF06	N10P	10-16-92	1554	2.00	12.53	36.71	23.67	5.76	31.36	1.59	9.32	107	0.09	0.02	0.03	0.34	3.38
MFF06	N10P	10-16-92	1552	6.90	12.49	36.68	23.68	5.15	31.37	1.54	9	103	0.09	0.02	0.03	0.28	3.21
MFF06	N10P	10-16-92	1550	11.50	10.76	35.40	24.16	1.63	31.59	0.93	7.45	82	2.98	0.31	4.39	0.92	8.37
MFF06	N10P	10-16-92	1549	15.70	9.63	34.57	24.47	1.36	31.75	0.94	7.33	79	0.53	0.02	2.31	0.51	9.73

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MFF06	N10P	10-16-92	1547	20.00	8.91	34.05	24.66	1.23	31.85	1.10	7.41	79	0.28	0.02	3.09	0.50	10.78
MFF06	N11	10-16-92	1527	2.20	12.38	36.52	23.66	4.67	31.31	1.39	8.55	97	0.11	0.24	0.03	0.33	6.20
MFF06	N11	10-16-92	1526	10.90	11.93	36.15	23.76	2.55	31.33	1.12	7.74	87	0.43	0.01	0.05	0.31	6.26
MFF06	N11	10-16-92	1525	14.40	10.45	35.18	24.25	1.50	31.63	0.92	7.51	82	0.79	0.04	2.39	0.53	8.69
MFF06	N11	10-16-92	1524	18.20	10.18	34.97	24.32	1.44	31.67	0.94	7.41	81	1.36	0.01	2.96	0.63	9.19
MFF06	N11	10-16-92	1523	25.40	9.12	34.21	24.61	1.23	31.82	1.11	7.31	78	0.59	0.06	3.49	0.61	11.13
MFF06	N12	10-16-92	1501	2.00	12.39	36.53	23.65	4.54	31.31	1.37	8.83	101	2.47	0.25	2.36	0.69	4.92
MFF06	N12	10-16-92	1500	11.50	12.37	36.58	23.70	4.12	31.36	1.35	8.76	100	0.86	0.14	0.98	0.42	3.72
MFF06	N12	10-16-92	1459	15.10	11.10	35.62	24.05	1.79	31.51	0.95	7.68	85	0.39	0.02	2.50	0.49	7.24
MFF06	N12	10-16-92	1457	18.10	10.22	35.06	24.35	1.38	31.72	0.85	7.59	83	1.43	0.02	1.75	0.54	7.83
MFF06	N12	10-16-92	1454	20.20	9.49	34.54	24.56	1.16	31.83	0.82	7.87	84	1.37	0.28	5.98	0.90	8.39
MFF06	N13	10-16-92	0931	2.60	12.34	36.48	23.66	3.47	31.31	1.23	8.51	97	0.12	0.31	2.25	0.52	5.37
MFF06	N13	10-16-92	0930	11.10	12.32	36.47	23.66	3.23	31.30	1.21	8.34	95	1.35	0.24	2.15	0.53	5.30
MFF06	N13	10-16-92	0929	16.90	12.00	36.25	23.77	2.55	31.36	1.08	8.03	91	0.08	0.04	1.41	0.41	5.98
MFF06	N13	10-16-92	0927	21.00	9.86	34.77	24.43	1.31	31.74	0.92	7.48	81	1.27	0.11	2.45	0.57	8.52
MFF06	N13	10-16-92	0926	25.90	9.04	34.18	24.65	1.01	31.86	0.77	7.74	82	0.81	0.27	6.92	0.92	8.39
MFF06	N14	10-16-92	0908	2.70	12.39	36.50	23.63	3.64	31.28	1.37	8.58	98	0.91	0.36	1.91	0.52	5.60
MFF06	N14	10-16-92	0906	8.60	12.37	36.49	23.64	3.31	31.28	1.23	8.54	97	0.70	0.03	1.87	0.49	5.60
MFF06	N14	10-16-92	0903	14.00	12.30	36.46	23.67	2.98	31.32	1.16	8.39	95	1.34	0.04	1.76	0.48	5.54
MFF06	N14	10-16-92	0900	18.30	11.10	35.65	24.07	1.80	31.54	0.92	7.64	85	0.68	0.03	0.87	0.45	7.76
MFF06	N14	10-16-92	0859	27.40	8.20	33.52	24.84	0.90	31.93	0.73	7.63	80	0.52	0.02	3.75	0.53	9.06
MFF06	N15	10-16-92	0841	2.50	12.44	36.73	23.76	3.94	31.46	1.31	8.91	102	0.12	0.02	0.13	0.27	2.55
MFF06	N15	10-16-92	0840	10.60	12.43	36.73	23.77	3.69	31.46	1.29	8.82	101	0.59	0.03	0.29	0.41	2.38
MFF06	N15	10-16-92	0838	18.10	11.89	36.28	23.89	2.65	31.49	1.03	8.1	91	1.09	0.08	1.00	0.52	3.69
MFF06	N15	10-16-92	0837	25.80	9.11	34.20	24.61	0.99	31.82	0.71	7.51	80	0.84	0.26	6.81	0.91	8.49
MFF06	N15	10-16-92	0835	38.10	7.59	33.10	25.00	0.97	32.03	0.92	7.43	76	0.60	0.25	9.54	1.07	10.96
MFF06	N16P	10-14-92	0839	2.40	12.44	36.71	23.75	4.13	31.44	1.41	9.08	104	0.62	0.04	0.08	0.36	2.42
MFF06	N16P	10-14-92	0838	7.40	12.44	36.71	23.75	5.06	31.44	1.40	9.07	104	0.26	0.03	0.00	0.26	2.42
MFF06	N16P	10-14-92	0836	18.10	12.13	36.50	23.84	4.13	31.49	1.26	8.74	99	0.16	0.03	0.01	0.24	2.98
MFF06	N16P	10-14-92	0833	25.20	8.22	33.55	24.84	1.07	31.94	0.69	7.66	80	0.02	0.04	4.13	0.68	8.99
MFF06	N16P	10-14-92	0831	35.70	7.39	32.93	25.03	1.02	32.04	0.85	7.83	80	0.62	0.23	8.91	1.04	10.53
MFF06	N16P	10-14-92	0923	1.90	12.45	36.73	23.75	3.47	31.45	1.44	9.12	104	0.18	0.03	0.00	0.28	2.46
MFF06	N16P	10-14-92	0909	8.10	12.45	36.73	23.75	4.93	31.45	1.41	9.05	103	0.22	0.03	-0.01	0.27	2.50
MFF06	N16P	10-14-92	0907	21.50	9.49	34.45	24.49	1.09	31.74	0.75	7.64	82	0.97	0.07	1.16	0.45	7.30
MFF06	N16P	10-14-92	0906	25.80	7.94	33.37	24.94	0.97	32.01	0.70	7.48	78	0.48	0.04	2.89	0.48	9.09
MFF06	N16P	10-14-92	0904	35.10	7.41	32.93	25.02	0.90	32.02	0.87	7.68	79	0.38	0.02	5.48	0.62	10.58
MFF06	N16P	10-16-92	0818	2.70	12.50	36.77	23.74	3.65	31.45	1.24	8.83	101	0.89	0.02	0.08	0.45	3.05
MFF06	N16P	10-16-92	0817	10.80	12.48	36.77	23.75	3.52	31.46	1.26	8.8	101	0.19	0.03	0.06	0.44	2.94
MFF06	N16P	10-16-92	0815	16.70	12.26	36.65	23.84	3.16	31.52	1.20	8.68	99	0.26	0.02	0.15	0.28	2.16
MFF06	N16P	10-16-92	0814	22.70	9.69	34.61	24.45	1.24	31.73	0.77	7.52	81	0.89	0.23	5.49	0.81	8.38
MFF06	N16P	10-16-92	0812	34.90	7.82	33.23	24.92	0.90	31.97	0.75	7.58	78	0.46	0.24	9.83	1.04	10.54
MFF06	N17	10-16-92	0757	2.60	12.41	36.69	23.76	3.56	31.45	1.20	8.75	100	0.16	0.02	0.02	0.40	3.52
MFF06	N17	10-16-92	0756	13.60	12.20	36.57	23.84	3.06	31.51	1.11	8.64	98	0.30	0.04	0.25	0.38	2.75

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MFF06	N17	10-16-92	0753	20.60	9.17	34.20	24.56	1.15	31.76	0.74	7.46	79	1.52	0.22	5.71	1.03	8.64
MFF06	N17	10-16-92	0752	27.50	8.31	33.56	24.77	0.96	31.87	0.71	7.42	78	1.03	0.23	8.12	0.97	9.92
MFF06	N17	10-16-92	0751	36.20	7.73	33.14	24.92	0.93	31.95	0.74	7.55	78	1.24	0.04	2.93	0.61	10.96
MFF06	N18	10-16-92	0727	2.40	12.41	36.71	23.77	3.53	31.46	1.27	8.88	101	0.50	0.01	0.07	0.40	2.98
MFF06	N18	10-16-92	0725	10.50	12.40	36.70	23.77	3.59	31.46	1.27	8.74	100	0.09	0.01	0.04	0.31	3.02
MFF06	N18	10-16-92	0724	17.10	12.16	36.52	23.83	2.99	31.49	1.17	8.45	96	0.06	0.08	0.61	0.43	3.43
MFF06	N18	10-16-92	0723	20.60	9.11	34.16	24.58	1.17	31.78	0.81	7.33	78	0.51	0.28	1.81	0.49	9.84
MFF06	N18	10-16-92	0720	22.90	8.47	33.68	24.74	1.04	31.85	0.84	7.29	76	0.19	0.25	1.01	0.28	10.69
MFF06	N19	10-16-92	1017	2.70	12.45	36.70	23.73	4.15	31.42	1.36	8.87	101	1.03	0.09	0.64	0.43	3.44
MFF06	N19	10-16-92	1016	8.90	12.47	36.73	23.73	4.02	31.43	1.36	8.88	101	0.71	0.06	0.49	0.44	3.06
MFF06	N19	10-16-92	1014	14.80	12.17	36.50	23.81	3.16	31.46	1.16	8.41	95	1.05	0.06	0.63	0.48	3.37
MFF06	N19	10-16-92	1013	18.50	9.18	34.27	24.61	1.23	31.84	0.92	7.42	79	1.79	0.29	6.10	0.94	9.08
MFF06	N19	10-16-92	1012	20.70	8.71	33.92	24.73	1.17	31.89	1.01	7.79	82	1.50	0.26	7.06	1.04	9.91
MFF06	N20P	10-15-92	0955	2.20	12.47	36.56	23.61	3.97	31.28	1.35	8.5	97	3.79	0.37	2.27	0.83	6.00
MFF06	N20P	10-15-92	0954	9.10	12.41	36.52	23.63	3.16	31.28	1.21	8.32	95	0.93	0.02	1.61	0.58	6.01
MFF06	N20P	10-15-92	0953	18.30	11.12	35.73	24.11	1.80	31.61	0.97	7.48	83	0.60	0.31	2.95	0.65	7.53
MFF06	N20P	10-15-92	0951	22.60	9.01	34.11	24.63	1.15	31.82	0.88	7.34	78	0.33	0.05	3.56	0.59	9.82
MFF06	N20P	10-15-92	0949	24.80	8.63	33.84	24.73	1.12	31.88	0.87	7.6	80	0.76	0.03	1.80	0.56	10.29
MFF06	N20P	10-16-92	0956	2.50	12.49	36.76	23.74	4.14	31.45	1.37	9.01	103	0.30	0.03	0.16	0.41	2.47
MFF06	N20P	10-16-92	0955	10.30	12.47	36.75	23.75	3.93	31.45	1.35	8.91	102	0.07	0.02	-0.02	0.38	2.39
MFF06	N20P	10-16-92	0953	17.40	11.60	36.01	23.92	2.30	31.47	1.05	7.79	87	0.72	0.09	1.02	0.54	3.55
MFF06	N20P	10-16-92	0952	20.40	10.10	34.92	24.34	1.33	31.68	0.94	7.48	81	2.35	0.32	5.95	0.96	8.79
MFF06	N20P	10-16-92	0951	25.60	8.56	33.82	24.77	1.08	31.91	0.85	7.84	82	0.98	0.29	8.14	0.95	9.64
MFF06	N21	10-16-92	0655	2.50	12.42	36.73	23.78	3.57	31.48	1.28	8.91	102	0.08	0.01	0.02	0.34	2.43
MFF06	N21	10-16-92	0654	6.70	12.42	36.73	23.78	3.57	31.48	1.28	8.92	102	0.08	0.01	0.00	0.38	2.58
MFF06	N21	10-16-92	0652	10.30	12.40	36.72	23.79	3.39	31.48	1.28	8.89	101	0.16	0.03	0.05	0.34	2.48
MFF06	N21	10-16-92	0648	19.90	9.99	34.83	24.37	1.24	31.69	0.89	7.35	80	0.09	0.08	4.07	0.68	9.22
MFF06	N21	10-16-92	0646	30.50	7.90	33.33	24.93	0.99	32.00	1.01	7.63	79	1.34	0.32	5.32	0.72	11.41
MNF14	N01P	11-09-92	1711	1.80	9.19	34.06	24.44	2.20	31.61	0.81	9	96	1.31	0.18	2.30	0.68	2.10
MNF14	N01P	11-09-92	1709	5.70	9.20	34.07	24.44	2.50	31.61	0.82	9.16	98	1.63	0.23	2.32	0.61	2.16
MNF14	N01P	11-09-92	1706	10.70	9.17	34.02	24.43	2.36	31.59	0.82	9.12	97	0.11	0.03	0.65	0.30	2.15
MNF14	N01P	11-09-92	1702	17.50	9.16	34.02	24.43	2.34	31.59	0.84	9	96	0.13	0.03	0.69	0.33	2.37
MNF14	N01P	11-09-92	1659	23.20	9.03	33.89	24.44	2.36	31.58	0.82	9.09	96	1.83	0.23	2.64	0.72	2.36
MNF14	N02	11-09-92	1639	2.00	9.38	34.22	24.41	2.95	31.62	0.86	9.25	99	0.08	0.02	0.01	0.29	1.57
MNF14	N02	11-09-92	1637	7.40	9.42	34.28	24.43	2.90	31.64	0.84	9.21	99	0.08	0.02	0.00	0.29	1.48
MNF14	N02	11-09-92	1634	14.80	9.15	34.01	24.43	2.30	31.59	0.80	8.89	95	0.18	0.02	1.26	0.37	2.88
MNF14	N02	11-09-92	1630	22.10	9.11	33.98	24.44	2.07	31.59	0.79	8.64	92	0.11	0.03	1.98	0.42	3.34
MNF14	N02	11-09-92	1627	30.80	9.12	34.01	24.45	1.92	31.61	0.87	8.75	93	0.46	0.02	1.00	0.47	4.28
MNF14	N04P	11-09-92	1600	2.00	9.58	34.45	24.42	3.07	31.67	0.78	9.32	100	0.21	0.11	1.11	0.48	0.81
MNF14	N04P	11-09-92	1556	9.70	9.57	34.47	24.44	2.97	31.69	0.78	9.39	101	0.12	0.03	0.63	0.38	0.82
MNF14	N04P	11-09-92	1553	21.10	9.52	34.43	24.45	2.78	31.69	0.76	9.16	98	0.95	0.10	1.15	0.55	0.91
MNF14	N04P	11-09-92	1550	31.30	9.50	34.41	24.44	2.78	31.68	0.72	9.28	100	0.12	0.07	0.06	0.35	1.15
MNF14	N04P	11-09-92	1547	42.10	9.03	34.10	24.60	2.15	31.79	0.86	7.99	85	1.23	0.27	7.04	0.98	8.66

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MNF14	N07P	11-09-92	1514	1.90	9.62	34.47	24.41	2.75	31.66	0.80	9.16	98	0.48	0.08	0.65	0.44	0.78
MNF14	N07P	11-09-92	1511	10.70	9.59	34.46	24.42	3.17	31.67	0.81	9.21	99	0.13	0.08	0.57	0.38	0.71
MNF14	N07P	11-09-92	1508	22.70	9.57	34.44	24.41	2.75	31.66	0.76	9.19	99	0.07	0.02	0.16	0.36	0.77
MNF14	N07P	11-09-92	1504	37.60	9.53	34.42	24.42	2.54	31.66	0.74	8.91	96	0.08	0.02	0.03	0.28	1.02
MNF14	N07P	11-09-92	1500	43.50	8.60	33.81	24.72	1.79	31.86	0.81	7.44	78	1.12	0.21	5.23	0.82	7.21
MNF14	N08	11-09-92	1438	1.90	9.52	34.37	24.41	2.63	31.64	0.81	9.16	98	1.05	0.17	1.46	0.58	0.84
MNF14	N08	11-09-92	1435	6.80	9.47	34.32	24.40	2.86	31.63	0.81	9.23	99	0.42	0.14	1.39	0.47	0.84
MNF14	N08	11-09-92	1432	13.30	9.43	34.30	24.42	2.89	31.64	0.78	9.21	99	0.47	0.15	1.44	0.51	0.86
MNF14	N08	11-09-92	1429	19.20	9.43	34.30	24.42	2.87	31.64	0.78	9.14	98	1.24	0.14	1.54	0.57	0.89
MNF14	N08	11-09-92	1427	25.20	9.43	34.30	24.42	2.82	31.64	0.78	9.05	97	1.42	0.14	1.64	0.56	1.10
MNF14	N10P	11-09-92	1357	1.90	9.20	33.97	24.36	1.60	31.52	0.93	9.03	96	0.62	0.20	3.19	0.45	3.71
MNF14	N10P	11-09-92	1354	4.70	9.23	34.01	24.36	2.48	31.52	0.96	8.96	95	0.64	0.33	3.23	0.47	3.50
MNF14	N10P	11-09-92	1352	8.30	9.19	33.97	24.37	2.51	31.52	0.98	8.98	96	3.57	0.32	3.40	0.89	3.49
MNF14	N10P	11-09-92	1348	17.30	9.15	33.95	24.38	2.53	31.52	0.96	8.84	94	2.19	0.34	3.26	0.70	4.20
MNF14	N13	11-09-92	1213	2.20	9.59	34.48	24.43	2.07	31.69	0.82	9.21	99	0.08	0.02	0.00	0.25	1.09
MNF14	N13	11-09-92	1210	5.60	9.57	34.46	24.43	2.48	31.68	0.83	9.25	99	0.22	0.05	0.03	0.28	1.05
MNF14	N13	11-09-92	1207	13.80	9.56	34.45	24.43	2.79	31.68	0.80	9.25	99	0.05	0.02	0.04	0.33	1.05
MNF14	N13	11-09-92	1204	19.90	9.56	34.45	24.43	2.78	31.68	0.81	9.21	99	0.69	0.10	0.71	0.46	1.11
MNF14	N13	11-09-92	1201	25.30	9.56	34.45	24.43	2.80	31.68	0.80	9.21	99	0.67	0.08	0.69	0.44	1.08
MNF14	N14	11-09-92	1141	1.70	9.51	34.37	24.42	1.80	31.65	0.79	9.23	99	0.73	0.16	1.26	0.55	1.11
MNF14	N14	11-09-92	1138	9.60	9.48	34.35	24.43	3.01	31.66	0.79	9.23	99	0.10	0.04	0.03	0.22	1.09
MNF14	N14	11-09-92	1135	16.00	9.47	34.36	24.43	3.04	31.66	0.78	9.21	99	0.09	0.11	1.25	0.44	1.11
MNF14	N14	11-09-92	1132	26.80	9.48	34.36	24.43	2.73	31.66	0.76	9.16	98	1.09	0.14	1.28	0.51	1.24
MNF14	N14	11-09-92	1130	30.40	9.48	34.37	24.44	2.67	31.67	0.76	9.14	98	0.68	0.14	1.32	0.49	1.23
MNF14	N15	11-09-92	1104	2.00	9.49	34.39	24.44	1.88	31.68	0.72	9.28	99	0.02	0.03	-0.02	0.35	1.11
MNF14	N15	11-09-92	1101	10.30	9.49	34.39	24.44	2.77	31.68	0.72	9.39	101	0.00	0.08	0.29	0.29	1.16
MNF14	N15	11-09-92	1057	19.60	9.49	34.39	24.44	2.70	31.68	0.72	9.23	99	0.46	0.11	0.92	0.48	1.14
MNF14	N15	11-09-92	1054	28.20	9.49	34.38	24.44	2.58	31.67	0.70	9.19	99	0.91	0.11	0.94	0.46	1.14
MNF14	N15	11-09-92	1051	37.60	9.48	34.39	24.44	2.42	31.67	0.70	9.21	99	0.07	0.08	0.03	0.25	1.21
MNF14	N16P	11-09-92	1012	2.30	9.41	34.30	24.44	2.44	31.66	0.80	9.23	99	0.79	0.01	1.49	0.55	1.11
MNF14	N16P	11-09-92	1010	9.30	9.38	34.28	24.45	3.36	31.66	0.80	9.25	99	0.93	0.13	1.51	0.56	1.11
MNF14	N16P	11-09-92	1007	18.30	9.36	34.25	24.44	3.33	31.65	0.81	9.28	99	0.67	0.14	1.62	0.54	1.14
MNF14	N16P	11-09-92	1003	26.50	9.35	34.23	24.44	3.48	31.64	0.81	9.25	99	0.82	0.15	1.66	0.56	1.14
MNF14	N16P	11-09-92	1000	34.90	9.35	34.25	24.45	3.20	31.65	0.79	9.12	97	0.70	0.15	1.67	0.55	1.16
MNF14	N17	11-09-92	0935	1.10	9.47	34.31	24.41	2.40	31.63	0.80	9.28	99	1.12	0.16	1.52	0.51	0.95
MNF14	N17	11-09-92	0932	5.70	9.43	34.31	24.43	2.59	31.65	0.76	9.35	100	0.90	0.13	1.56	0.50	0.96
MNF14	N17	11-09-92	0930	11.60	9.43	34.29	24.42	2.90	31.64	0.77	9.28	99	0.07	0.02	0.00	0.19	1.09
MNF14	N17	11-09-92	0927	18.70	9.41	34.28	24.43	2.73	31.64	0.76	9.28	99	1.11	0.15	1.66	0.57	1.01
MNF14	N17	11-09-92	0924	25.80	9.39	34.27	24.42	2.97	31.64	0.77	9.32	100	1.08	0.15	1.64	0.55	0.94
MNF14	N18	11-09-92	0857	2.40	9.37	34.23	24.42	2.10	31.63	0.79	9.19	98	0.04	0.02	0.01	0.21	0.97
MNF14	N18	11-09-92	0854	8.70	9.38	34.24	24.42	2.81	31.63	0.78	9.16	98	0.05	0.11	0.00	0.20	1.07
MNF14	N18	11-09-92	0851	12.70	9.39	34.25	24.41	2.82	31.62	0.76	9.21	98	0.08	0.01	0.02	0.33	0.96
MNF14	N18	11-09-92	0849	16.10	9.39	34.25	24.42	2.82	31.63	0.76	9.19	98	0.09	0.02	0.01	0.33	0.97

Table A1. Physical and Chemical Parameters at Discrete Bottle Measurement Depths

Event	Station	Date	Time (EST)	Depth (M)	Temp (C)	Cond (mmhos/cm)	Sigma t	Flu (ug/L)	Sal (PSU)	Beam (1/M)	DO (mg/L)	Oxy Sat (%)	NH4 (uM)	NO2 (uM)	NO3 (uM)	PO4 (uM)	SIO4 (uM)
MNF14	N18	11-09-92	0846	19.80	9.39	34.26	24.42	2.84	31.63	0.76	9.21	98	0.08	0.02	0.01	0.23	0.96
MNF14	N19	11-09-92	1328	2.10	9.43	34.27	24.40	2.28	31.62	0.89	9.12	98	1.30	0.22	2.07	0.61	1.52
MNF14	N19	11-09-92	1325	6.40	9.39	34.23	24.41	3.01	31.61	0.89	9.23	99	0.12	0.04	0.95	0.31	1.39
MNF14	N19	11-09-92	1323	10.70	9.39	34.24	24.42	3.41	31.62	0.89	9.19	98	0.15	0.03	0.51	0.27	1.29
MNF14	N19	11-09-92	1319	15.40	9.40	34.26	24.42	2.87	31.63	0.83	9.19	98	1.12	0.16	1.51	0.55	1.14
MNF14	N19	11-09-92	1316	20.00	9.42	34.29	24.43	2.93	31.64	0.79	9.14	98	0.05	0.03	0.00	0.17	1.11
MNF14	N20P	11-09-92	1252	1.90	9.51	34.37	24.42	2.02	31.65	0.84	9.09	97	0.82	0.17	1.48	0.51	1.22
MNF14	N20P	11-09-92	1249	6.90	9.46	34.32	24.42	2.93	31.65	0.84	9.16	98	0.09	0.14	0.99	0.36	1.18
MNF14	N20P	11-09-92	1246	12.60	9.45	34.31	24.42	2.82	31.64	0.82	9.16	98	0.10	0.03	0.47	0.25	1.28
MNF14	N20P	11-09-92	1243	19.70	9.50	34.40	24.44	2.78	31.68	0.76	9.23	99	0.05	0.02	0.00	0.27	0.94
MNF14	N20P	11-09-92	1239	25.80	9.52	34.43	24.45	2.63	31.69	0.76	9.23	99	0.04	0.09	0.18	0.31	0.92
MNF14	N21	11-09-92	0828	1.40	9.50	34.38	24.44	2.03	31.67	0.74	9.12	98	0.60	0.09	0.99	0.44	1.15
MNF14	N21	11-09-92	0825	12.20	9.52	34.40	24.43	2.68	31.67	0.73	9.12	98	0.93	0.10	0.95	0.41	1.17
MNF14	N21	11-09-92	0822	18.00	9.52	34.40	24.43	2.47	31.67	0.73	9.07	97	0.07	0.02	0.01	0.26	1.14
MNF14	N21	11-09-92	0820	24.30	9.52	34.42	24.44	2.49	31.68	0.75	9.05	97	0.81	0.09	1.10	0.45	1.36
MNF14	N21	11-09-92	0817	29.10	9.52	34.42	24.44	2.72	31.68	0.74	9.09	98	0.34	0.09	1.04	0.33	1.15

Table A2. Chemical and Biological Parameters at Two Depths of Bioproductivity Stations and Special Station F25.

Event	Station	Date	Time (EST)	Depth (M)	Rep	Chl A (ug/L)	DOC (uM)	PHA (ug/L)	POC (uM)	PON (uM)	TDN (uM)	TDP (uM)	TSS (mg/L)
MFF05	F01P	08-25-92	0817	1.93	1	0.46	114.00	0.56					0.69
MFF05	F01P	08-25-92	0817	1.93	2	0.49	107.00	0.53					0.93
MFF05	F01P	08-25-92	0811	15.76	1	3.03		1.99					1.21
MFF05	F01P	08-25-92	0811	15.76	2	3.19		2.15	17.08	4.21			1.48
MFF05	F02P	08-25-92	1015	1.96	1	0.31	104.00	0.35					0.77
MFF05	F02P	08-25-92	1015	1.96	2	0.24	102.00	0.37	12.50	2.36			0.56
MFF05	F02P	08-25-92	1010	13.95	1	0.74	144.00	0.84					0.91
MFF05	F02P	08-25-92	1010	13.95	2	1.10	116.00	0.98	11.08	1.93			0.73
MFF05	F02R	08-25-92	1114	2.01	1	0.36	252.00	0.45					0.58
MFF05	F02R	08-25-92	1114	2.01	2	0.24	256.00	0.42					
MFF05	F02R	08-25-92	1111	13.65	1	2.13	99.00	1.29					0.16
MFF05	F02R	08-25-92	1111	13.65	2	2.35	95.00	1.45	7.92	0.71			
MFF05	F13P	08-26-92	0849	1.60	1	0.24	89.00	0.30	11.83	1.93	8.07	0.37	0.11
MFF05	F13P	08-26-92	0849	1.60	2	0.28	91.00	0.31	13.25	2.29	6.52	0.36	0.53
MFF05	F13P	08-26-92	0842	20.31	1	1.15	97.00	0.84	13.17	2.86	8.85	0.89	0.85
MFF05	F13P	08-26-92	0842	20.31	2	1.43	91.00	0.90	8.92	2.29	8.88	0.87	0.51
MFF05	F23P	08-28-92	0622	1.82	1	7.52		1.37	34.67	6.43	14.93	0.75	3.26
MFF05	F23P	08-28-92	0622	1.82	2	1.19		2.35	24.67	4.36	14.55	0.83	2.85
MFF05	F23P	08-28-92	0621	6.44	1	5.33	120.00	2.25	26.17	5.50	15.10	0.72	2.41
MFF05	F23P	08-28-92	0621	6.44	2	6.45	123.00	2.32	21.92	4.71	14.69	0.68	2.63
MFF05	F25	08-27-92	1507	1.89	1	6.60	171.00	2.08	21.50	3.86	9.07	0.58	3.95
MFF05	F25	08-27-92	1507	1.89	2	7.01	152.00	1.95	25.42	4.00	11.24	0.69	4.01
MFF05	N01P	08-27-92	1123	1.87	1	11.88	195.00	1.77	31.25	6.29	8.96	0.48	2.20
MFF05	N01P	08-27-92	1123	1.87	2	12.60	189.00	1.75	37.50	7.07	9.26	0.54	1.95
MFF05	N01P	08-27-92	1121	3.58	1	6.94	159.00	1.79	19.08	4.07	7.55	0.33	2.64
MFF05	N01P	08-27-92	1121	3.58	2	6.91	154.00	1.91	21.92	4.86	7.03	0.33	1.40
MFF05	N04P	08-27-92	1257	1.54	1	0.36	127.00	0.33	10.92	2.71	5.30	0.16	1.55
MFF05	N04P	08-27-92	1257	1.54	2	0.39	129.00	0.35	10.17	2.79	6.14	0.23	0.30
MFF05	N04P	08-27-92	1252	18.34	1	1.66		1.30	13.17	4.57	6.13	0.40	0.67
MFF05	N04P	08-27-92	1252	18.34	2	1.86		1.27	12.17	2.93	5.58	0.39	0.34
MFF05	N07P	08-26-92	1021	1.68	1	0.73		0.49	12.33	2.36	3.97	0.57	1.05
MFF05	N07P	08-26-92	1021	1.68	2	0.65		0.57	13.00	3.07		0.46	0.85
MFF05	N07P	08-26-92	1016	20.73	1	1.97	88.00	1.54	13.00	2.14	5.94	0.59	
MFF05	N07P	08-26-92	1016	20.73	2	2.07	92.00	1.71	10.08	2.14	6.90	0.60	0.40
MFF05	N10P	08-26-92	0722	1.62	1	6.04	130.00	2.06	18.58	3.29	14.63	0.52	2.84
MFF05	N10P	08-26-92	0722	1.62	2	6.13	122.00	2.17	26.58	5.07	15.84	0.98	1.77
MFF05	N10P	08-26-92	0719	13.86	1	1.40	100.00	1.22	13.67	2.43	12.40	0.74	0.74
MFF05	N10P	08-26-92	0719	13.86	2	1.44	100.00	1.27	13.42		12.66	0.60	1.23
MFF05	N16P	08-26-92	1123	1.61	1	0.45	163.00	0.36	10.00	2.14	5.39	0.43	0.36
MFF05	N16P	08-26-92	1123	1.61	2	0.42	166.00	0.39	11.92	2.79	5.01	0.47	0.32
MFF05	N16P	08-26-92	1120	20.81	1	1.67	86.00	1.13	9.92	2.29	3.43	0.46	0.24
MFF05	N16P	08-26-92	1120	20.81	2	1.76	87.00	1.35	13.92	2.50	5.97	0.47	0.25
MFF05	N20P	08-27-92	1400	1.54	1	2.34	104.00	0.67	17.50	2.86	5.37	0.25	0.33

Table A2. Chemical and Biological Parameters at Two Depths of Bioproductivity Stations and Special Station F25.

Event	Station	Date	Time (EST)	Depth (M)	Rep	Chl A (ug/L)	DOC (uM)	PHA (ug/L)	POC (uM)	PON (uM)	TDN (uM)	TDP (uM)	TSS (mg/L)
MFF05	N20P	08-27-92	1400	1.54	2	2.49	111.00	0.57	14.00	3.07	6.78	0.24	0.34
MFF05	N20P	08-27-92	1356	11.20	1	6.55	107.00	1.25	16.83	3.14	6.82	0.49	1.51
MFF05	N20P	08-27-92	1356	11.20	2	6.08	109.00	1.44	14.67	2.79	7.93	0.48	1.10
MFF06	F01P	10-13-92	0811	2.20	1	1.85	106.00	1.11	10.83		7.52	0.45	1.35
MFF06	F01P	10-13-92	0811	2.20	2	1.98	161.00	1.11	11.00	3.57	8.06	0.47	1.16
MFF06	F01P	10-13-92	0807	14.60	1	2.00	96.00	1.11			7.64	0.48	1.01
MFF06	F01P	10-13-92	0807	14.60	2	1.90	91.00	1.03	5.83		9.43	0.49	1.18
MFF06	F02P	10-13-92	1138	2.20	1	1.49	99.00	0.84	10.42		7.04	0.41	0.96
MFF06	F02P	10-13-92	1138	2.20	2	1.43	100.00	0.88	11.58		6.39	0.40	1.21
MFF06	F02P	10-13-92	1133	21.40	1	2.16	106.00	0.80	8.00		7.28	0.48	0.58
MFF06	F02P	10-13-92	1133	21.40	2	2.14	95.00	0.93	8.08		6.77	0.40	0.96
MFF06	F02P	10-13-92	1211	2.20	1	1.24	100.00	0.82	15.75		6.72	0.46	0.76
MFF06	F02P	10-13-92	1211	2.20	2	1.06	98.00	0.71	10.08		7.42	0.47	0.62
MFF06	F02P	10-13-92	1207	19.90	1	2.07	93.00	0.92	4.75		7.16	0.53	0.43
MFF06	F02P	10-13-92	1207	19.90	2	2.36	93.00	0.82	8.25		6.90	0.50	0.79
MFF06	F13P	10-14-92	0653	2.20	1	5.03	115.00	1.35	15.08		9.12	0.59	1.32
MFF06	F13P	10-14-92	0653	2.20	2	4.83	115.00	1.50	8.75		7.35	0.58	1.56
MFF06	F13P	10-14-92	0650	8.00	1	4.63	140.00	1.14	17.00		7.06	0.39	1.38
MFF06	F13P	10-14-92	0650	8.00	2	5.12	140.00	1.34	11.25		7.25	0.42	1.46
MFF06	F23P	10-15-92	0644	2.80	1	1.86	137.00	1.16	13.17		21.93	0.51	2.17
MFF06	F23P	10-15-92	0644	2.80	2	1.71	158.00	1.14	11.17		21.42	0.82	2.19
MFF06	F23P	10-15-92	0641	12.20	1	1.57	109.00	1.26	10.25		20.42	2.18	2.23
MFF06	F23P	10-15-92	0641	12.20	2	1.52	190.00	1.22	9.58		19.97	1.46	1.69
MFF06	F25	10-15-92	1114	2.30	1	5.68	102.00	1.49	13.83		10.64	0.68	1.07
MFF06	F25	10-15-92	1114	2.30	2	5.71	101.00	1.72	9.08		10.57	0.85	0.99
MFF06	F25	10-15-92	1113	4.70	1	5.11	106.00	1.41	12.08		12.37	0.68	0.64
MFF06	F25	10-15-92	1113	4.70	2	5.71	102.00	1.48	12.00		10.82	0.86	1.19
MFF06	F25	10-15-92	1130	2.20	1	5.81	127.00	1.64	15.00		10.29	0.61	1.28
MFF06	F25	10-15-92	1130	2.20	2	5.81	126.00	1.73	12.50		10.30	0.61	1.11
MFF06	F25	10-15-92	1129	4.60	1	4.62	114.00	1.31	16.75		4.47	0.70	0.99
MFF06	F25	10-15-92	1129	4.60	2	4.13	117.00	1.31	11.17		5.33	0.74	1.08
MFF06	N01P	10-15-92	0747	2.20	1	3.87	124.00	1.10	11.17		15.25	1.06	1.29
MFF06	N01P	10-15-92	0747	2.20	2	3.82	133.00	1.06	8.00		16.02	1.19	1.32
MFF06	N01P	10-15-92	0746	6.10	1	3.82	99.00	1.04	10.25		13.33	0.63	1.53
MFF06	N01P	10-15-92	0746	6.10	2	4.30	104.00	1.12	10.58		13.52	0.55	1.27
MFF06	N04P	10-15-92	0903	2.40	1	3.48	101.00	1.17	33.58	3.57	6.86	0.48	1.02
MFF06	N04P	10-15-92	0903	2.40	2	3.21	98.00	1.02	26.42	3.57	6.85	0.49	1.02
MFF06	N04P	10-15-92	0900	9.60	1	2.74	133.00	1.00	34.92	3.79	6.85	0.51	0.73
MFF06	N04P	10-15-92	0900	9.60	2	2.82	149.00	1.09	26.50	3.50	6.84	0.48	0.85
MFF06	N07P	10-14-92	0752	2.30	1	4.17	110.00	1.29	27.83	3.64	6.20	0.48	1.11
MFF06	N07P	10-14-92	0752	2.30	2	3.90	112.00	1.27	33.58	5.14	6.46	0.48	0.88
MFF06	N07P	10-14-92	0751	9.20	1	4.00	120.00	1.42	27.75	3.29	5.90	0.34	1.02
MFF06	N07P	10-14-92	0751	9.20	2	4.09	114.00	1.46	27.92	3.93	6.37	0.38	1.42

Table A2. Chemical and Biological Parameters at Two Depths of Bioproductivity Stations and Special Station F25.

Event	Station	Date	Time (EST)	Depth (M)	Rep	Chl A (ug/L)	DOC (uM)	PHA (ug/L)	POC (uM)	PON (uM)	TDN (uM)	TDP (uM)	TSS (mg/L)
MFF06	N10P	10-14-92	1107	2.40	1	3.57	128.00	1.13	25.42	3.43	14.07	1.27	0.83
MFF06	N10P	10-14-92	1107	2.40	2	3.59	114.00	1.14	25.08	3.71	14.55	1.33	3.36
MFF06	N10P	10-14-92	1106	6.40	1	4.17	127.00	1.04	26.67	3.86	14.56	1.04	1.88
MFF06	N10P	10-14-92	1106	6.40	2	3.55	123.00	1.29	25.00	3.07	14.62	1.02	1.08
MFF06	N16P	10-14-92	0923	1.90	1	4.65	110.00	1.32	27.08	3.93	6.76	0.45	0.86
MFF06	N16P	10-14-92	0923	1.90	2	4.83	108.00	1.45	27.50	4.07	6.89	0.50	0.82
MFF06	N16P	10-14-92	0909	8.10	1	4.87	108.00	1.33	28.75	3.93	8.51	0.60	0.88
MFF06	N16P	10-14-92	0909	8.10	2	4.78	110.00	1.36	27.67	3.64	8.06	0.53	0.99
MFF06	N20P	10-15-92	0955	2.20	1	3.96	111.00	1.36	38.33	5.71	12.22	0.81	1.41
MFF06	N20P	10-15-92	0955	2.20	2	4.37	110.00	1.61	24.00	3.64	12.40	0.78	1.55
MFF06	N20P	10-15-92	0954	9.10	1	4.15	125.00	1.35	32.50	3.29	12.59	0.80	1.09
MFF06	N20P	10-15-92	0954	9.10	2	4.13	117.00	1.34	26.58	3.79	12.79	0.89	1.31

APPENDIX A

STATION DATA TABLES AND INSTRUMENT CALIBRATION DATA

Part 2

Instrument Calibration Data for Fluorescence and Dissolved Oxygen

Individual analytical replicates from chlorophyll (n=2) and dissolved oxygen determinations (n=2) was used to post-calibrate *in situ* sensor readings, where the CTD value is regarded as dependent on the bottle value. All regressions were forced through zero (cf. top regression of statistics block and ANOVA table accompanying each survey and parameter). Tests of intercept significance (cf. regression statistics and ANOVA table) suggest whether the intercept model had an intercept not significantly different from zero.

All chlorophyll calibrations are given, then followed by all dissolved oxygen calibrations. The sequence of surveys, coded as follows, is:

MFF05 = late August combined survey
MFF06 = October combined survey
MNF11 = September nearfield survey
MNF14 = November nearfield survey.

Note that survey MNF10 is the nearfield portion of the late August combined survey and sensor data was calibrated for MNF10 using the relationships for DO and chlorophyll as given for MFF05.

Survey MFF05 Chlorophyll a Calibration

Mark	Statio	Bottle C	CTD C	Predicted CH
42	F01P	3.110	7.6196	5.089
46	F01P	0.475	2.1219	1.417
56	F02P	0.920	6.0166	4.018
58	F02P	0.275	1.322	0.883
68	F02P	2.240	6.0496	4.040
70	F02P	0.300	1.0358	0.692
171	N10P	1.420	2.9708	1.984
173	N10P	6.085	11.158	7.452
187	F13P	1.290	4.3892	2.931
192	F13P	0.260	1.1812	0.789
209	N07P	2.020	4.8471	3.237
211	N07P	0.690	2.0586	1.375
219	N16P	1.715	4.733	3.161
221	N16P	0.435	1.3247	0.885
322	N01P	6.925	12.177	8.132
323	N01P	12.240	14.253	9.519
351	N04P	1.760	5.385	3.596
353	N04P	0.375	1.3137	0.877
368	N20P	6.315	9.3149	6.221
370	N20P	2.415	3.6014	2.405
387	F25	6.805	10.387	6.937
408	F23P	5.890	8.8126	5.886
409	F23P	4.355	10.408	6.951
40	N01P	10.325	12.175	8.131
77	N05	1.310	4.0832	2.727

Regression Statistics

Multiple R	0.8361698
R Square	0.6991799
Adjusted R Square	0.6575133
Standard Error	2.2385601
Observations	25

Analysis of Variance

	df	*um of Squares*	*ean Square*	*F*	*ignificance F*
Regression	1	279.5315984	279.531598	55.781912	1.36577E-07
Residual	24	120.2676302	5.01115126		
Total	25	399.7992286			

	Coefficients	*tandard Error*	*t Statistic*	*P-value*	*Lower 95%*	*pper 95%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
x1	1.4973157	0.098224	15.2438887	3.641E-14	1.294591391	1.7000401

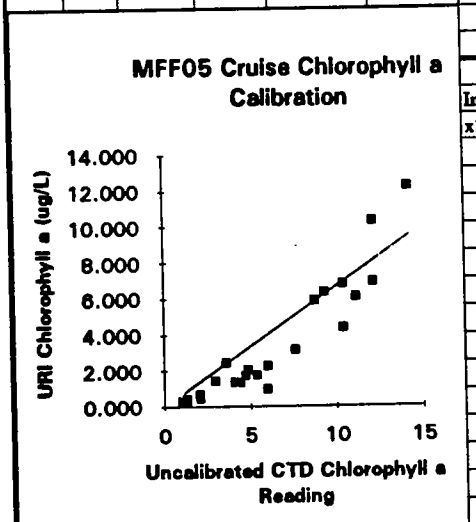
Regression Statistics

Multiple R	0.9301799
R Square	0.8652347
Adjusted R Square	0.8593753
Standard Error	1.5305451
Observations	25

Analysis of Variance

	df	*um of Squares*	*ean Square*	*F*	*ignificance F*
Regression	1	345.9201579	345.920158	147.66705	1.71898E-11
Residual	23	53.87907075	2.34256829		
Total	24	399.7992286			

	Coefficients	*tandard Error*	*t Statistic*	*P-value*	*Lower 95%*	*pper 95%*
Intercept	2.2869464	0.429591308	5.32353964	1.836E-05	1.398270237	3.1756225
x1	1.1452918	0.094248479	12.1518333	9.63E-12	0.950324241	1.3402594



Survey MFF06 Chlorophyll a Calibration

Marke	Statio	Bottle CH	CTD C	Predicted CH
14	F01P	1.950	5.49878	3.274
18	F01P	1.915	5.06517	3.016
42	F02P	2.150	4.9946	2.974
46	F02P	1.460	2.97769	1.773
60	F02P	2.215	5.33202	3.175
64	F02P	1.150	2.74976	1.637
207	F13P	4.875	8.69963	5.180
212	F13P	4.930	9.3468	5.566
225	N07P	4.045	8.07576	4.809
227	N07P	4.035	5.88527	3.504
260	N16P	4.825	8.27726	4.929
262	N16P	4.740	5.82246	3.467
293	N10P	3.860	5.9949	3.570
295	N10P	3.580	4.52219	2.693
437	F23P	1.545	3.7044	2.206
441	F23P	1.785	3.89131	2.317
455	N01P	4.060	5.57582	3.320
457	N01P	3.845	5.44464	3.242
476	N04P	2.780	7.09215	4.223
478	N04P	3.345	7.46169	4.443
494	N20P	4.140	5.31355	3.164
496	N20P	4.165	6.664	3.968
509	F25	5.410	7.76791	4.625
511	F25	5.695	8.48404	5.052
521	F25	4.375	7.8425	4.670
523	F25	5.810	8.90845	5.305
574	N17	2.675	5.13896	3.060
596	N15	0.130	1.62428	0.967
645	N20P	2.905	6.95993	4.144

Regression Statistics

Multiple R	0.7227696
R Square	0.5223959
Adjusted R Square	0.4866816
Standard Error	1.3626385
Observations	29

Analysis of Variance

	df	*um of Squares*	*ean Square*	*F*	*ignificance F*
Regression	1	56.86577731	56.8657773	30.625957	7.28096E-06
Residual	28	51.98994356	1.8567837		
Total	29	108.8557209			

	Coefficients	*tandard Error*	*t Statistic*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
x1	1.6794058	0.068554402	24.4974171	6.305E-21	1.538978293	1.8198333

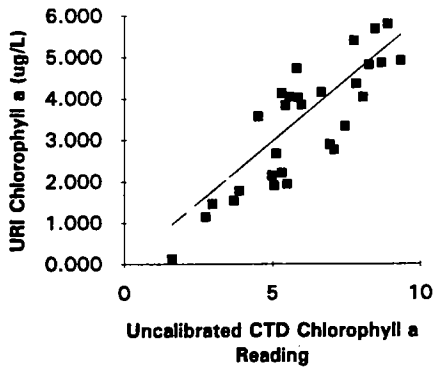
Regression Statistics

Multiple R	0.8494234
R Square	0.7215202
Adjusted R Square	0.7112061
Standard Error	1.0595967
Observations	29

Analysis of Variance

	df	*um of Squares*	*ean Square*	*F*	*ignificance F*
Regression	1	78.54160095	78.541601	69.954966	5.65219E-09
Residual	27	30.31411992	1.12274518		
Total	28	108.8557209			

	Coefficients	*tandard Error*	*t Statistic*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	2.1959626	0.499778697	4.39387001	0.000145	1.170502133	3.2214231
x1	1.1325065	0.135403979	8.36390853	4.244E-09	0.854680667	1.4103323



Survey MNF11 Chlorophyll a Calibration (09/09/92)

Marker	Station	Bottle CH	CTD CH	Predicted CH
53	N11	12.120	16.0228	11.956
79	N01P	1.550	1.55474	1.160
104	N02	5.470	7.96716	5.945
			0	0.000

Regression Statistics

Multiple R	0.996538103
R Square	0.993088191
Adjusted R Square	0.493088191
Standard Error	0.602708115
Observations	3

Analysis of Variance

	df	Sum of Squares	Mean Square	F	Significance F
Regression	1	104.3855031	104.385503	287.359865	0.037511467
Residual	2	0.726514144	0.36325707		
Total	3	105.1120172			

	Coefficients	Standard Error	t Statistic	P-value	Lower 95%	Upper 95%
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
x1	1.340191443	0.045021138	29.7680491	8.3264E-05	1.146480986	1.5339019

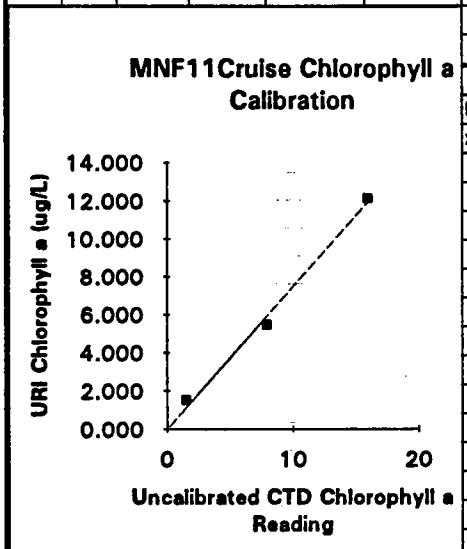
Regression Statistics

Multiple R	0.996594848
R Square	0.993201291
Adjusted R Square	0.986402582
Standard Error	0.845355561
Observations	3

Analysis of Variance

	df	Sum of Squares	Mean Square	F	Significance F
Regression	1	104.3973912	104.397391	146.086747	0.05255169
Residual	1	0.714626025	0.71462602		
Total	2	105.1120172			

	Coefficients	Standard Error	t Statistic	P-value	Lower 95%	Upper 95%
Intercept	-0.11151954	0.864636989	-0.1289784	0.90917541	-11.0977271	10.874688
x1	1.352101443	0.111867483	12.0866351	0.00677575	-0.06930361	2.7735065



Survey MNF14 Chlorophyll a Calibration (11/09/92)

Marker	Station	Bottle CH	CTD CH	Predicted CH
202	N13	2.480	3.74043	2.788
130	N18	2.875	3.77685	2.815
187	N14	2.935	3.66672	2.733
			0	0.000

Regression Statistics

Multiple R	#NUM!
R Square	-38.8030832
Adjusted R Square	-39.3030832
Standard Error	0.35397735
Observations	3

Analysis of Variance

	df	Sum of Squares	Mean Square	F	Significance F
Regression	1	-0.244303939	-0.24430394	-1.94975264	#NUM!
Residual	2	0.250599931	0.12529997		
Total	3	0.006295993			

	Coefficients	Standard Error	t Statistic	P-value	Lower 95%	Upper 95%
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
x1	1.34156199	0.07376089	18.1879854	0.00036259	1.02419428	1.65892971

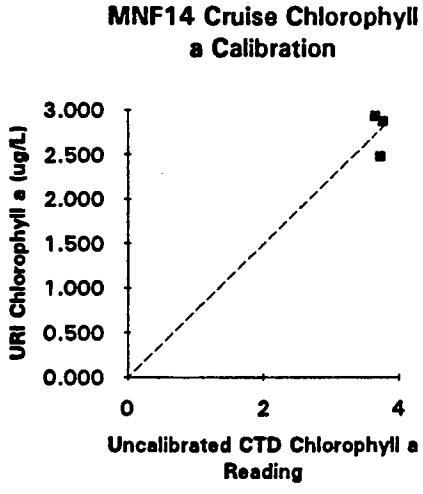
Regression Statistics

Multiple R	0.30956112
R Square	0.09582808
Adjusted R Square	-0.80834383
Standard Error	0.07544972
Observations	3

Analysis of Variance

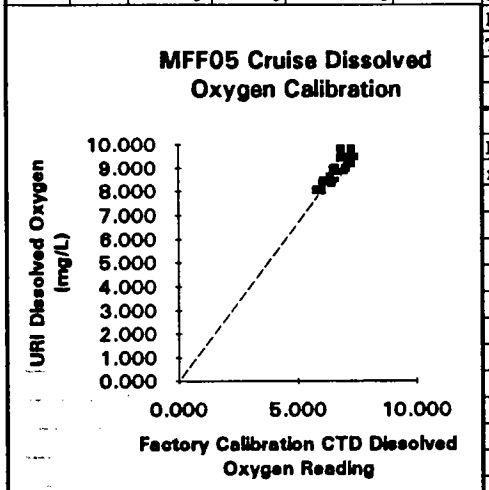
	df	Sum of Squares	Mean Square	F	Significance F
Regression	1	0.000603333	0.00060333	0.10598436	0.79963574
Residual	1	0.00569266	0.00569266		
Total	2	0.006295993			

	Coefficients	Standard Error	t Statistic	P-value	Lower 95%	Upper 95%
Intercept	3.92215111	0.597972353	6.55908436	0.02246388	-3.67577549	11.5200777
x1	-0.07026083	0.215820357	-0.3255524	0.77566692	-2.81250673	2.67198506



Survey MFF05 Dissolved Oxygen Calibration

Marker	Statio	Bottle DO	CTD D	Predicted DO
39	F01P	8.561	6.602	8.773
42	F01P	8.955	7.022	9.330
46	F01P	8.499	6.498	8.634
66	F02P	9.004	7.010	9.314
68	F02P	8.786	6.735	8.948
70	F02P	8.344	6.443	8.560
169	N10P	8.822	6.603	8.773
171	N10P	8.574	6.365	8.457
173	N10P	8.431	6.206	8.246
187	F13P	8.900	6.677	8.872
192	F13P	8.322	6.076	8.073
209	N07P	9.319	7.111	9.448
211	N07P	8.925	6.534	8.681
217	N16P	9.180	7.286	9.680
219	N16P	9.471	7.430	9.872
221	N16P	8.611	6.383	8.481
319	N01P	8.851	6.665	8.856
322	N01P	9.416	6.836	9.082
323	N01P	9.800	6.861	9.116
349	N04P	8.884	6.994	9.293
351	N04P	9.478	7.257	9.643
353	N04P	8.440	6.137	8.155
366	N20P	8.994	7.061	9.382
368	N20P	8.918	6.602	8.772
370	N20P	8.997	6.610	8.783
406	F23P	8.039	6.038	8.023
408	F23P	8.091	5.939	7.891
409	F23P	8.058	5.834	7.752
57	N03	9.460	7.00962	9.313
124	N19	9.796	7.29882	9.698
		0	0	0



Regression Statistics

Multiple R	0.87416126
R Square	0.7641579
Adjusted R Square	0.72967515
Standard Error	0.20853343
Observations	30

Analysis of Variance

	df	*um of Squares*	*Mean Square*	*F*	*ignificance F*
Regression	1	4.086120407	4.08612041	93.963629	1.90497E-10
Residual	29	1.261099567	0.04348619		
Total	30	5.347219974			

	Coefficients	*tandard Error*	*t Statistic*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
x1	0.7526338	0.004288977	175.48096	9.628E-47	0.743861855	0.7614058

Regression Statistics

Multiple R	0.87461005
R Square	0.76494274
Adjusted R Square	0.75654784
Standard Error	0.21187116
Observations	30

Analysis of Variance

	df	*um of Squares*	*Mean Square*	*F*	*ignificance F*
Regression	1	4.09031712	4.09031712	91.119913	2.65922E-10
Residual	28	1.256902855	0.04488939		
Total	29	5.347219974			

	Coefficients	*tandard Error*	*t Statistic*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-0.2210748	0.723030419	-0.30576146	0.7619704	-1.70213718	1.2599875
x1	0.77750264	0.081450776	9.54567512	1.875E-10	0.610658106	0.9443472

Survey MFF06 Dissolved Oxygen Calibration

Marke	Statio	Bottle DO	CTD D	Predicted DO
10	F01P	7.634	5.48685	7.230
14	F01P	8.667	6.34471	8.361
18	F01P	8.601	6.45067	8.500
56	F02P	8.413	6.07658	8.007
60	F02P	8.648	6.47609	8.534
64	F02P	8.985	6.77921	8.933
203	F13P	7.910	5.88937	7.761
207	F13P	9.127	6.92133	9.121
212	F13P	9.348	7.06424	9.309
220	N07P	7.330	5.64684	7.441
225	N07P	9.222	6.91692	9.115
227	N07P	9.188	6.97072	9.186
254	N16P	7.518	5.8308	7.684
260	N16P	9.029	6.87432	9.059
262	N16P	9.072	6.92311	9.123
287	N10P	7.005	5.49944	7.247
293	N10P	8.269	6.29736	8.298
295	N10P	8.300	6.30258	8.305
433	F23P	7.216	5.71956	7.537
437	F23P	7.323	5.5579	7.324
441	F23P	7.323	5.51725	7.270
449	N01P	7.410	5.72198	7.540
455	N01P	8.223	6.27116	8.264
457	N01P	8.134	6.14199	8.094
470	N04P	7.671	5.99627	7.902
476	N04P	9.172	6.99238	9.214
478	N04P	9.193	7.0065	9.233
488	N20P	7.355	5.77194	7.606
494	N20P	8.398	6.30794	8.312
496	N20P	8.459	6.45082	8.501
544	N21	8.667	6.75433	8.901
553	N18	7.374	5.52803	7.285
623	N13	7.595	5.86565	7.729
		0	0	0

Regression Statistics

Multiple R	0.9705328
R Square	0.941934
Adjusted R Square	0.910684
Standard Error	0.1286618
Observations	33

Analysis of Variance

	df	*um of Squares*	*ean Square*	*F*	*ignificance F*
Regression	1	8.593052715	8.59305271	519.09693	6.36603E-21
Residual	32	0.529723205	0.01655385		
Total	33	9.12277592			

	Coefficients	*tandard Error*	*t Statistic*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
x1	0.758869	0.002709052	280.123437	2.688E-57	0.753350876	0.7643872

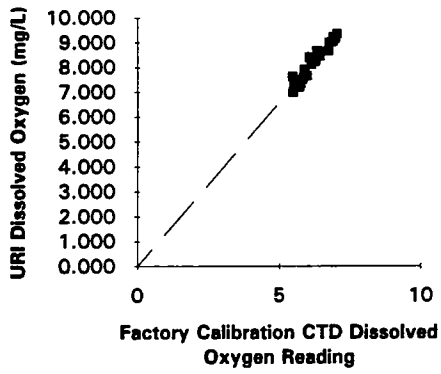
Regression Statistics

Multiple R	0.9733048
R Square	0.9473223
Adjusted R Square	0.945623
Standard Error	0.1245077
Observations	33

Analysis of Variance

	df	*um of Squares*	*ean Square*	*F*	*ignificance F*
Regression	1	8.642208975	8.64220897	557.4842	2.23355E-21
Residual	31	0.480566945	0.01550216		
Total	32	9.12277592			

	Coefficients	*tandard Error*	*t Statistic*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0.4401077	0.247152846	1.78071049	0.0844561	-0.06396417	0.9441795
x1	0.7058408	0.029894443	23.6111033	8.17E-22	0.644870619	0.7668109



Survey MNF11 Dissolved Oxygen Calibration (09/09/92)

Marker	Station	Bottle DO	CTD DO	Predicted DO
90	N01P	9.746	7.71598	9.903
144	N04P	8.824	6.77599	8.696
196	N07P	8.710	6.75037	8.663
			0	0.000

Regression Statistics

Multiple R	0.978112
R Square	0.95670308
Adjusted R Square	0.45670308
Standard Error	0.11449564
Observations	3

Analysis of Variance

	df	*Sum of Squares*	*Mean Square*	*F*	*Significance F*
Regression	1	0.579332671	0.579332671	44.1926593	0.095051937
Residual	2	0.026218502	0.013109251		
Total	3	0.605551173			

	Coefficients	*Standard Error*	*t Statistic*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
x1	0.77917873	0.007260214	107.3217269	1.7835E-06	0.74794053	0.81041693

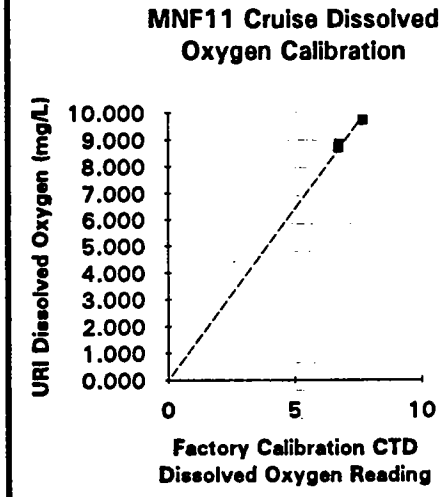
Regression Statistics

Multiple R	0.99701582
R Square	0.99404055
Adjusted R Square	0.9880811
Standard Error	0.06007289
Observations	3

Analysis of Variance

	df	*Sum of Squares*	*Mean Square*	*F*	*Significance F*
Regression	1	0.60194242	0.60194242	166.800691	0.049194387
Residual	1	0.003608753	0.003608753		
Total	2	0.605551173			

	Coefficients	*Standard Error*	*t Statistic*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	-1.704952	0.681150121	-2.50304885	0.12935475	-10.3597478	6.94984378
x1	0.96619077	0.074810742	12.9151342	0.0059418	0.01563424	1.9167473



Survey MNF14 Dissolved Oxygen Calibration (11/09/92)

Marker	Station	Bottle DO	CTD DO	Predicted DO
160	N16P	9.139	6.77291	9.232
224	N20P	9.175	6.66432	9.084
252	N10P	9.017	6.6139	9.015
			0	0.000

Regression Statistics

Multiple R	0.556503554
R Square	0.309696205
Adjusted R Square	-0.19030379
Standard Error	0.067513806
Observations	3

Analysis of Variance

	df	Sum of Squares	Mean Square	F	Significance F
Regression	1	0.004089882	0.00408988	0.89727511	0.517242806
Residual	2	0.009116228	0.00455811		
Total	3	0.01320611			

	Coefficients	Standard Error	t Statistic	P-value	Lower 95%	Upper 95%
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
x1	0.733658122	0.0042786	171.47153	4.3736E-07	0.715248778	0.75206747

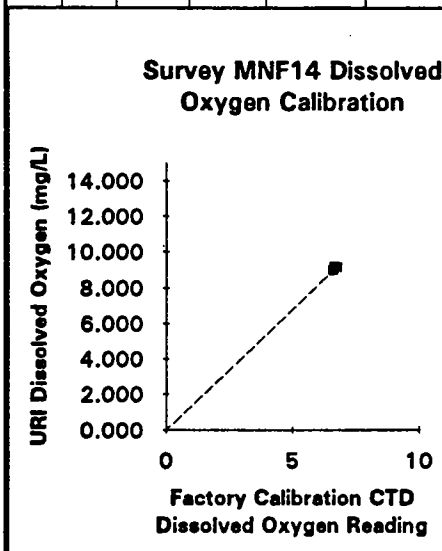
Regression Statistics

Multiple R	0.580374486
R Square	0.336834544
Adjusted R Square	-0.32633091
Standard Error	0.093583311
Observations	3

Analysis of Variance

	df	Sum of Squares	Mean Square	F	Significance F
Regression	1	0.00444827	0.00444827	0.50791932	0.605812374
Residual	1	0.008757836	0.00875784		
Total	2	0.01320611			

	Coefficients	Standard Error	t Statistic	P-value	Lower 95%	Upper 95%
Intercept	1.47773609	7.304932324	0.20229292	0.85839864	-91.339832	94.2953041
x1	0.571456668	0.801836719	0.71268458	0.54997091	-9.61680119	10.7597145



APPENDIX B

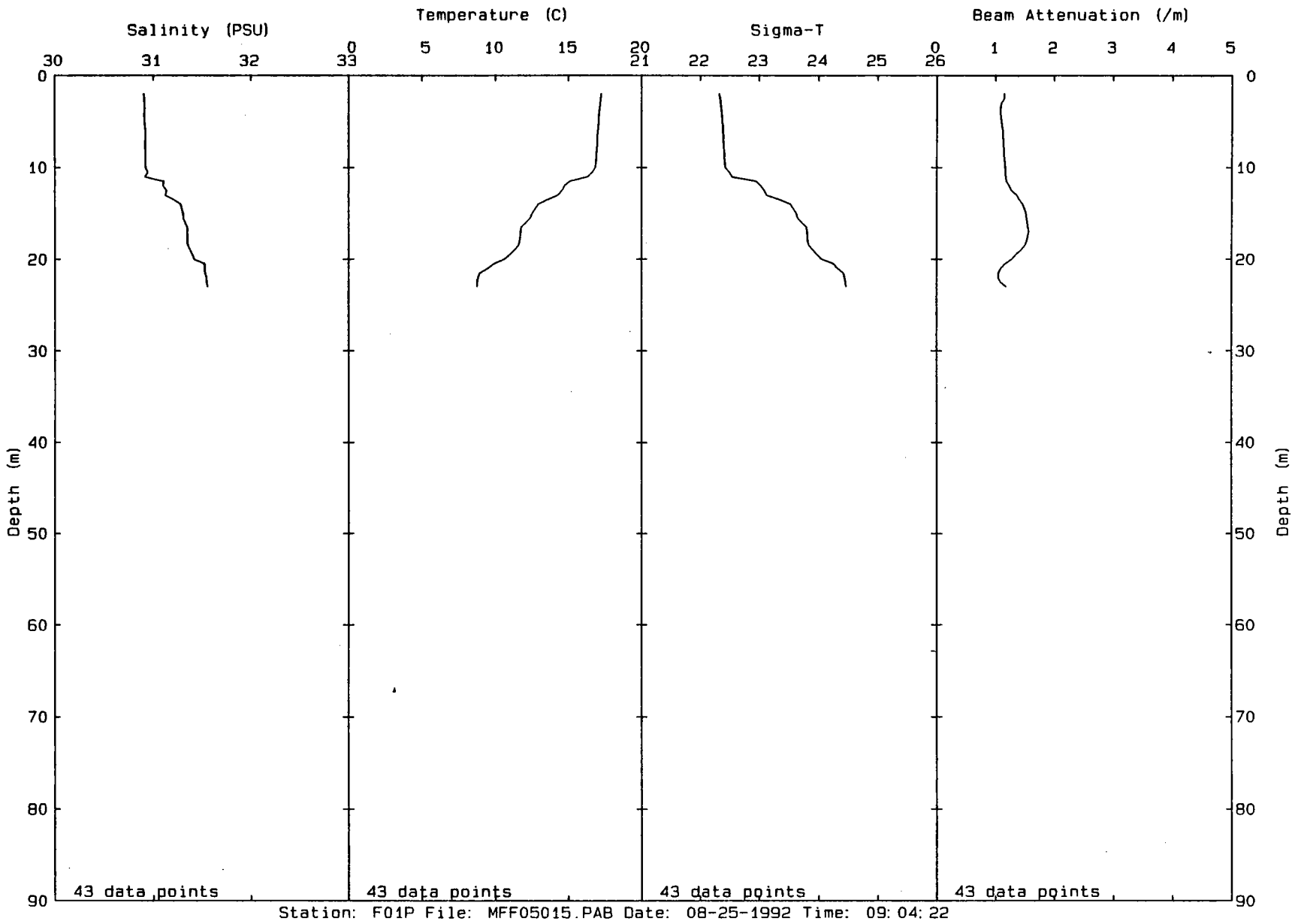
VERTICAL PROFILE DATA FROM FARFIELD AND NEARFIELD STATIONS

Only post-survey calibrated data are presented, where calibrations have been performed as given in Appendix A. The data normally are from the downcast at stations and, therefore, may not match precisely the data in Appendix A because bottles were closed on the upcast. For two stations (N03, N04P on survey MNF11 on 09-09-92), there were equipment problems during the downcast and the profiles presented are from the upcast.

For each station there is a two-page set of profiles, with station, cruise code, date and time listed across the bottom. Time on profile plots is *local* time, which may differ from EST (see Appendix A). The first page includes panels for salinity, temperature, sigma-t, and beam attenuation. The second page has panels for dissolved oxygen, chlorophyll, and a three-panel set for irradiance.

Gaps in continuous profiles indicate either data were not collected or that data spikes were removed as a part of the data processing. Note also that the time of readings at a station is given; during night hours, the underwater irradiance is spurious. Because the sensor is sensitive, it may have detected the aft ship lights.

Late August Profiles



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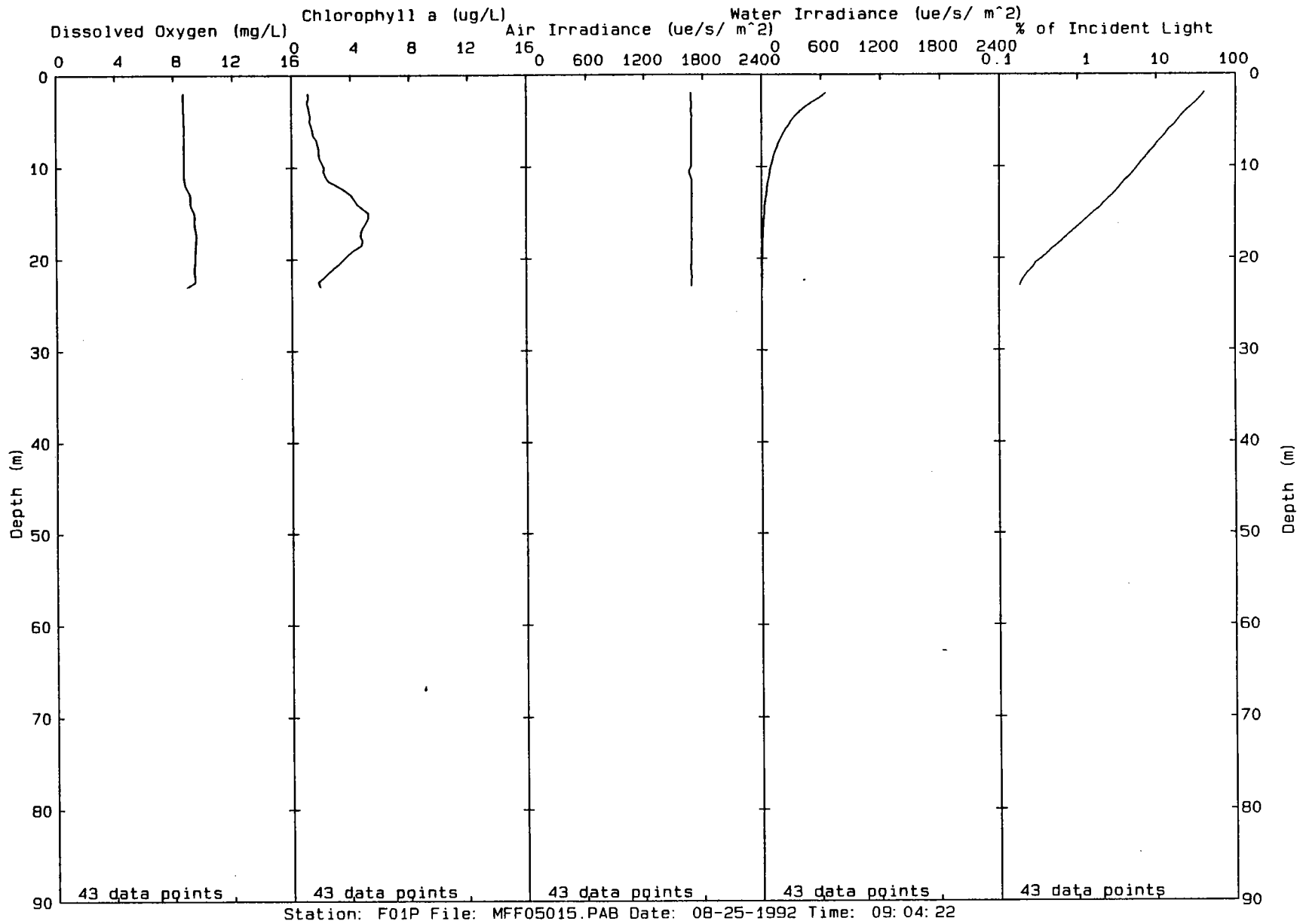

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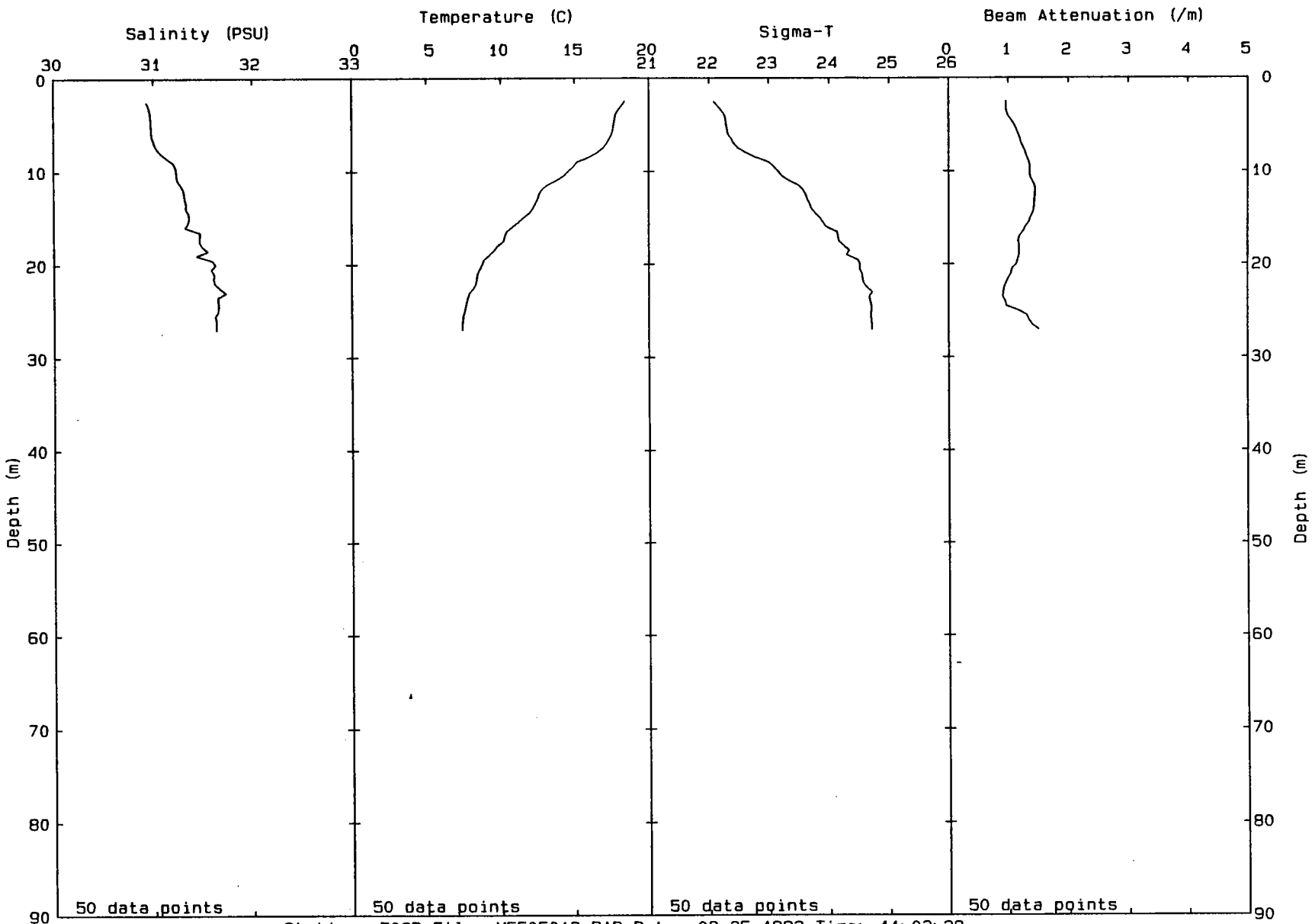
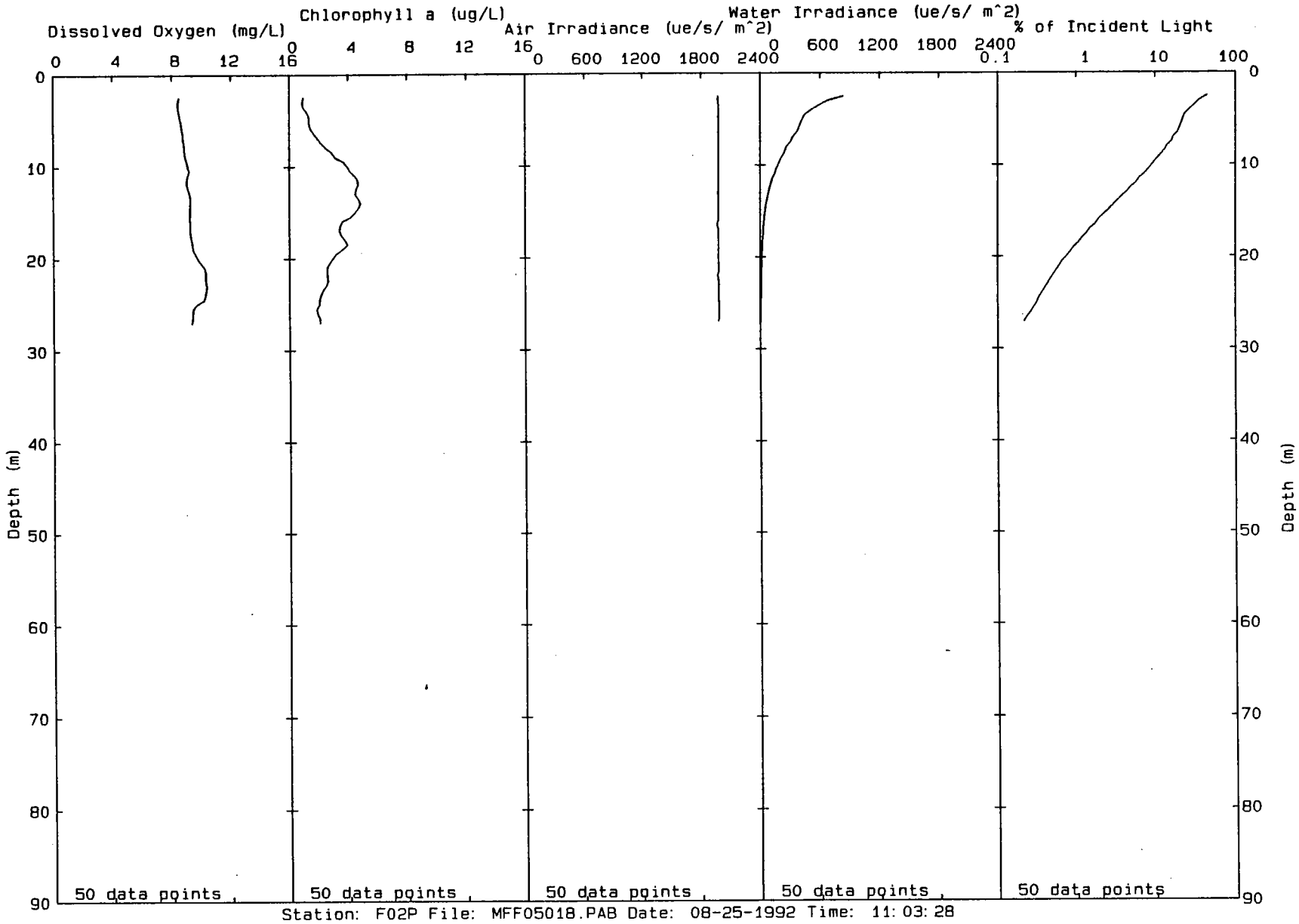

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
50 data points
50 data points
50 data points
50 data points
Station: F02P File: MFF05018.PAB Date: 08-25-1992 Time: 11:03:28



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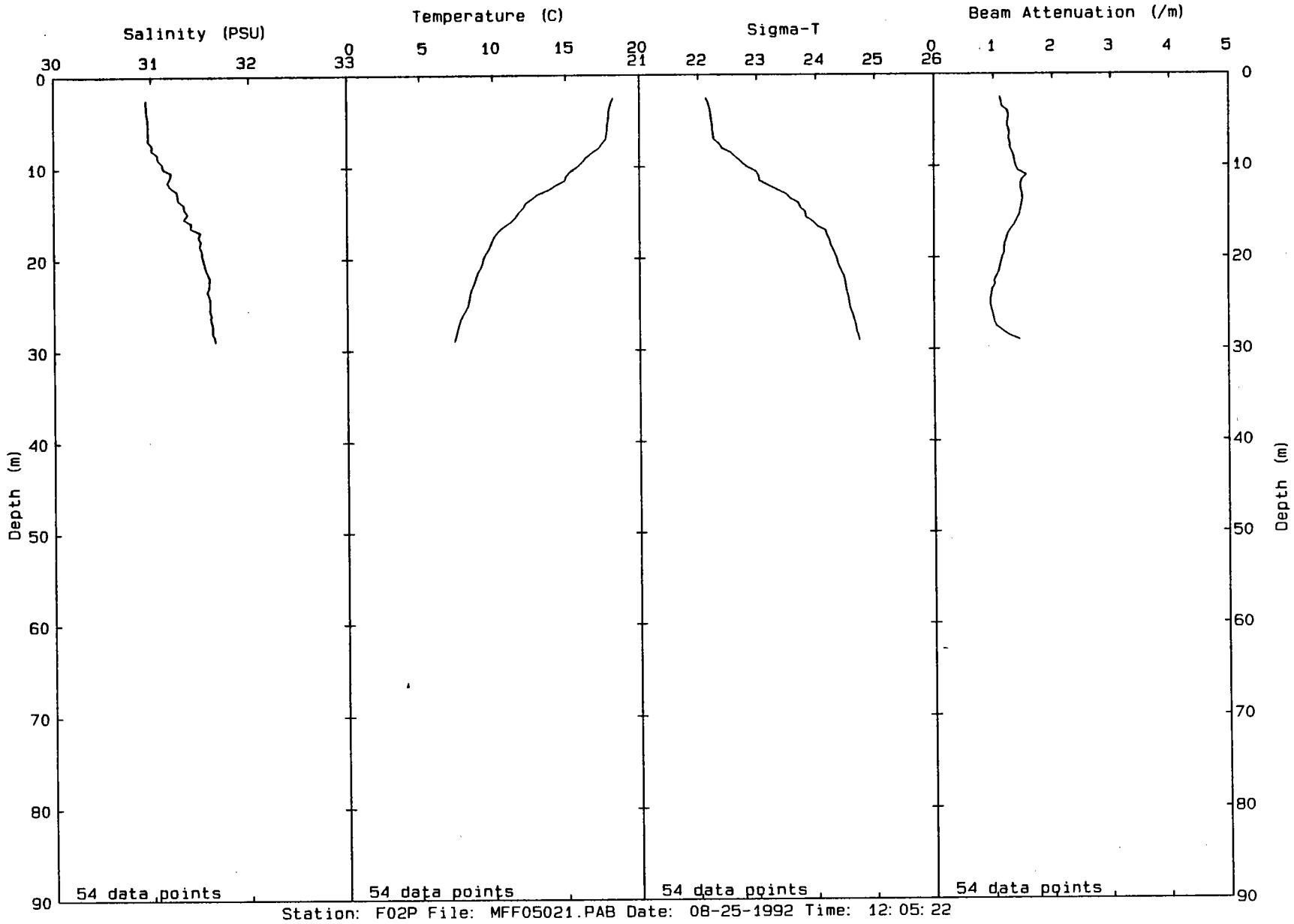

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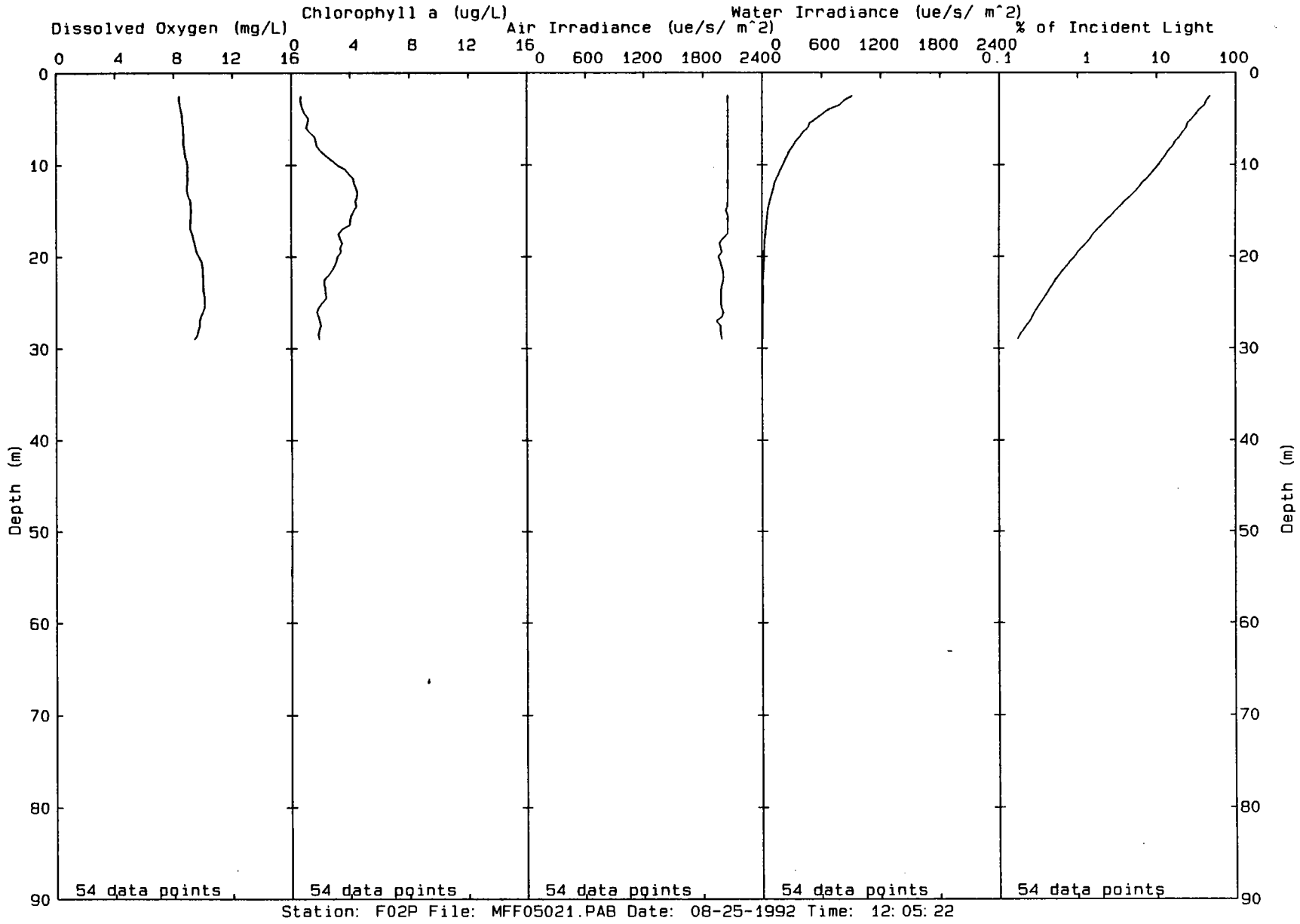
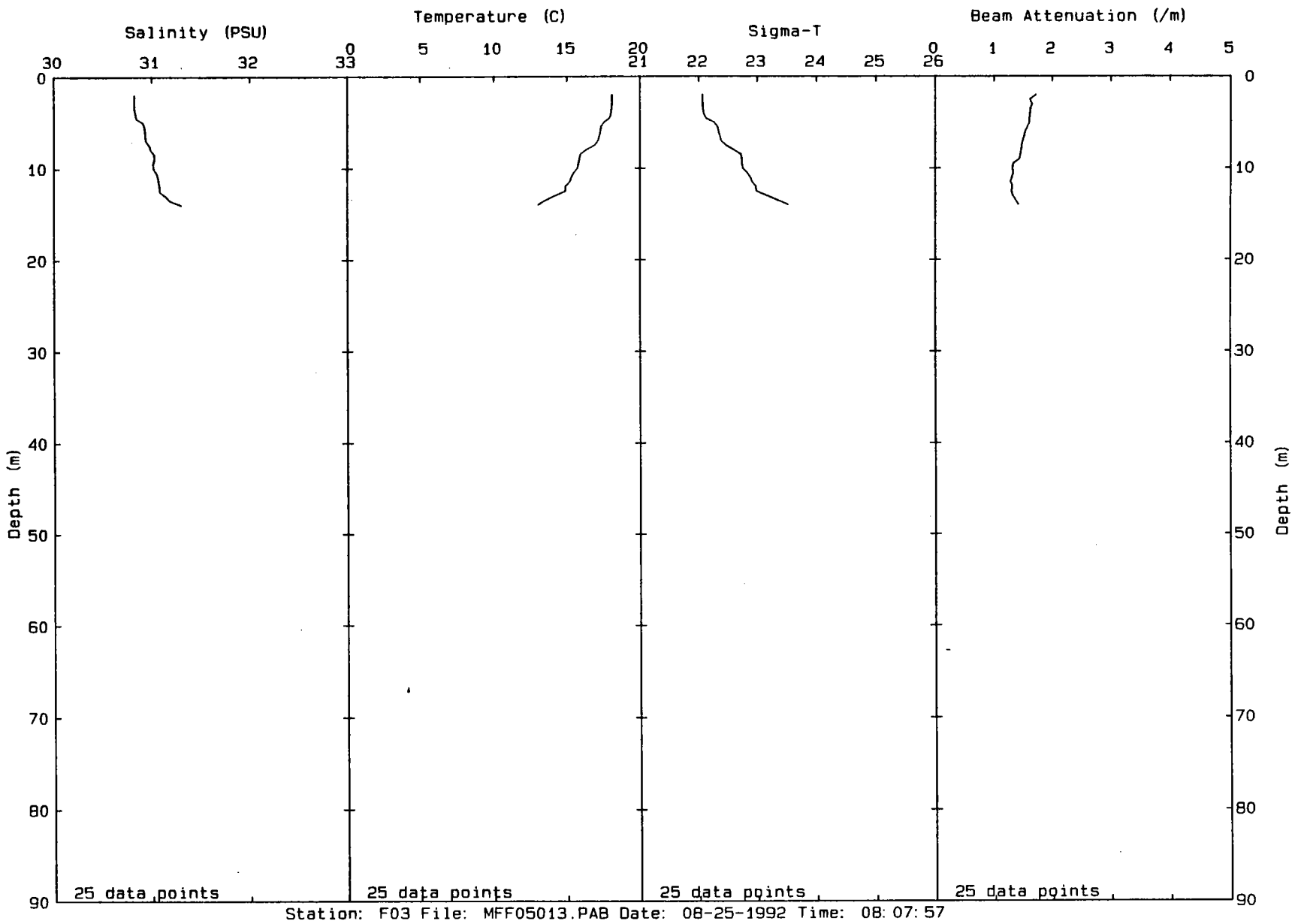

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
54 data points
54 data points
54 data points
54 data points
54 data points
Station: F02P File: MFF05021.PAB Date: 08-25-1992 Time: 12:05:22



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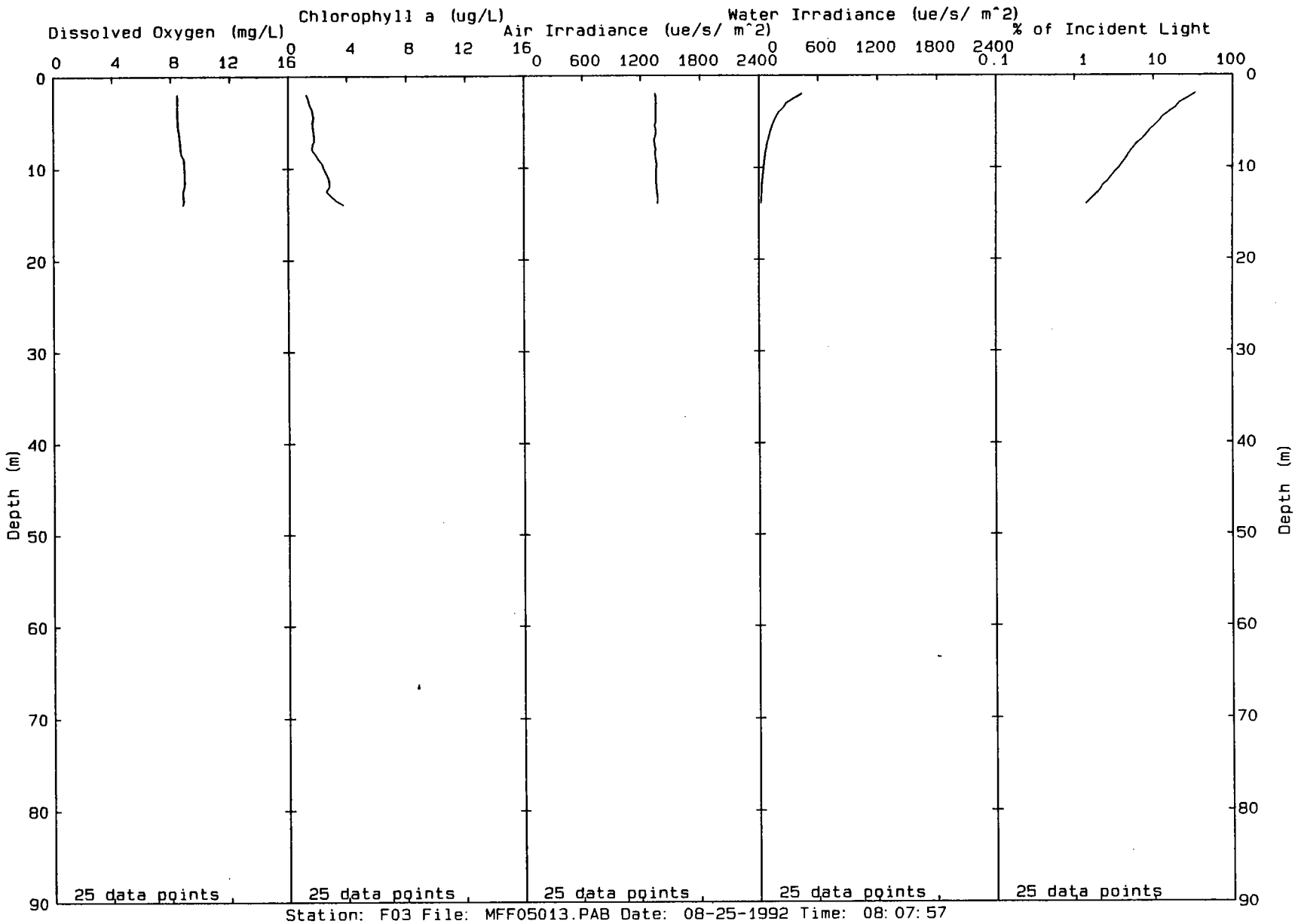

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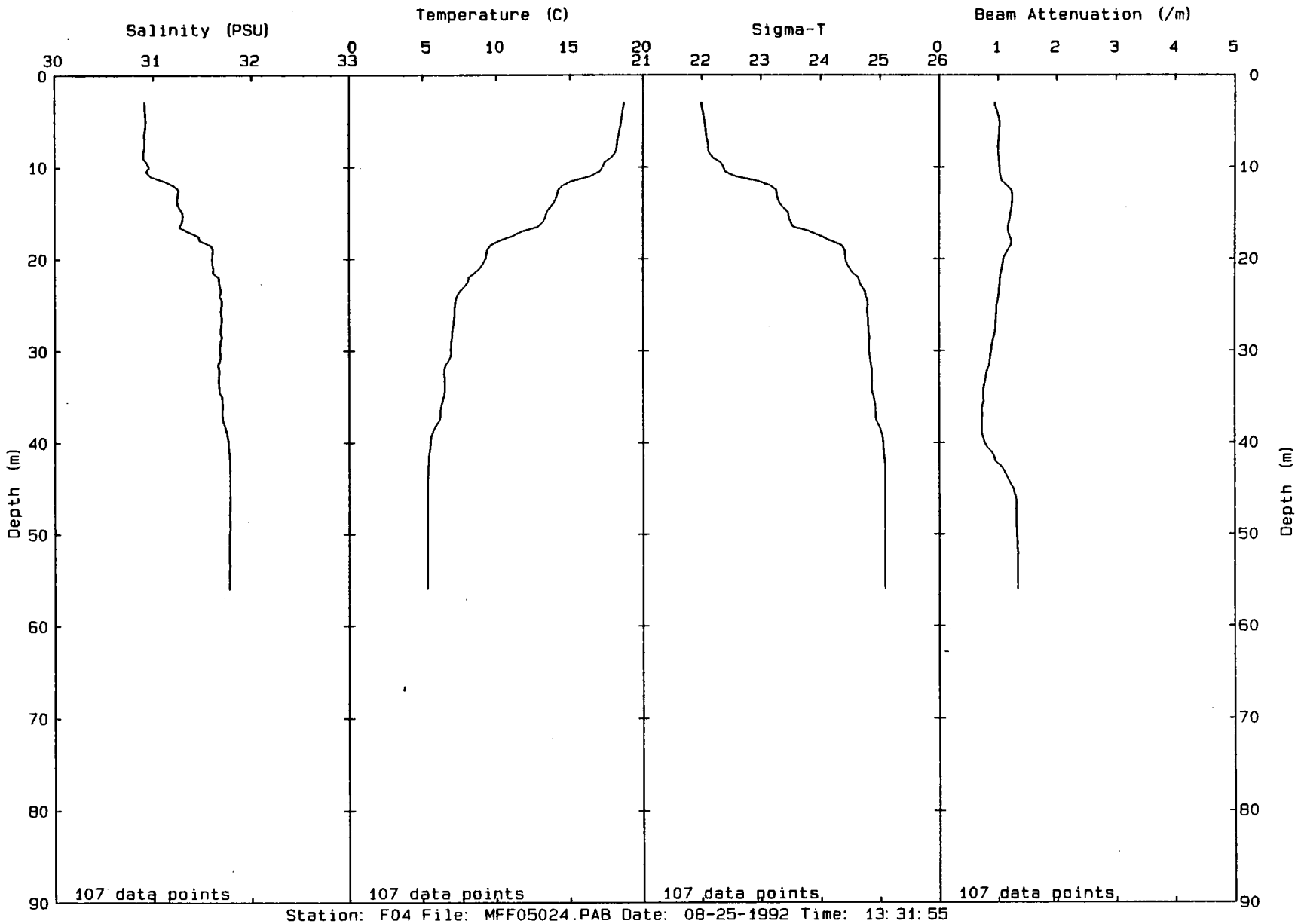

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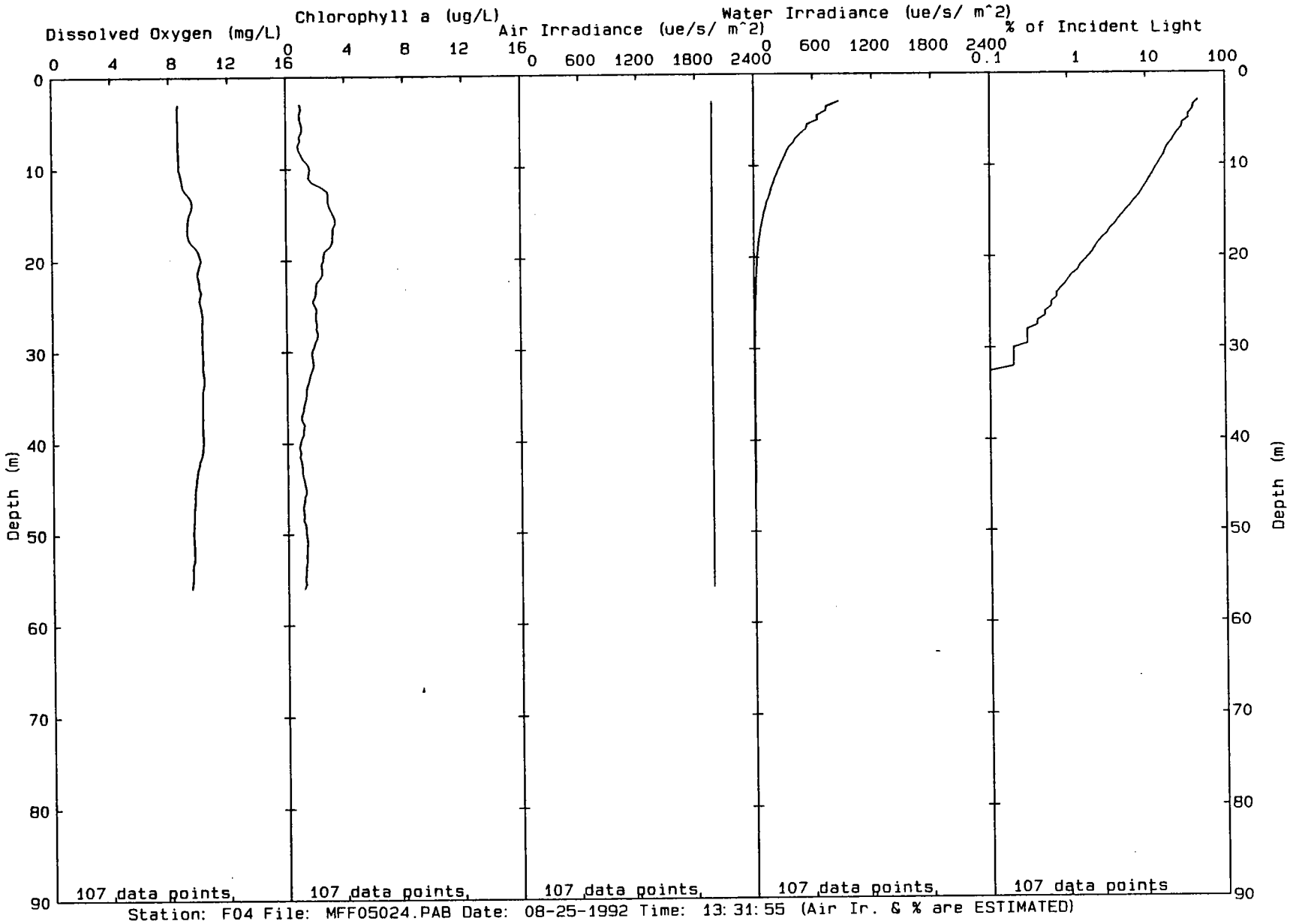

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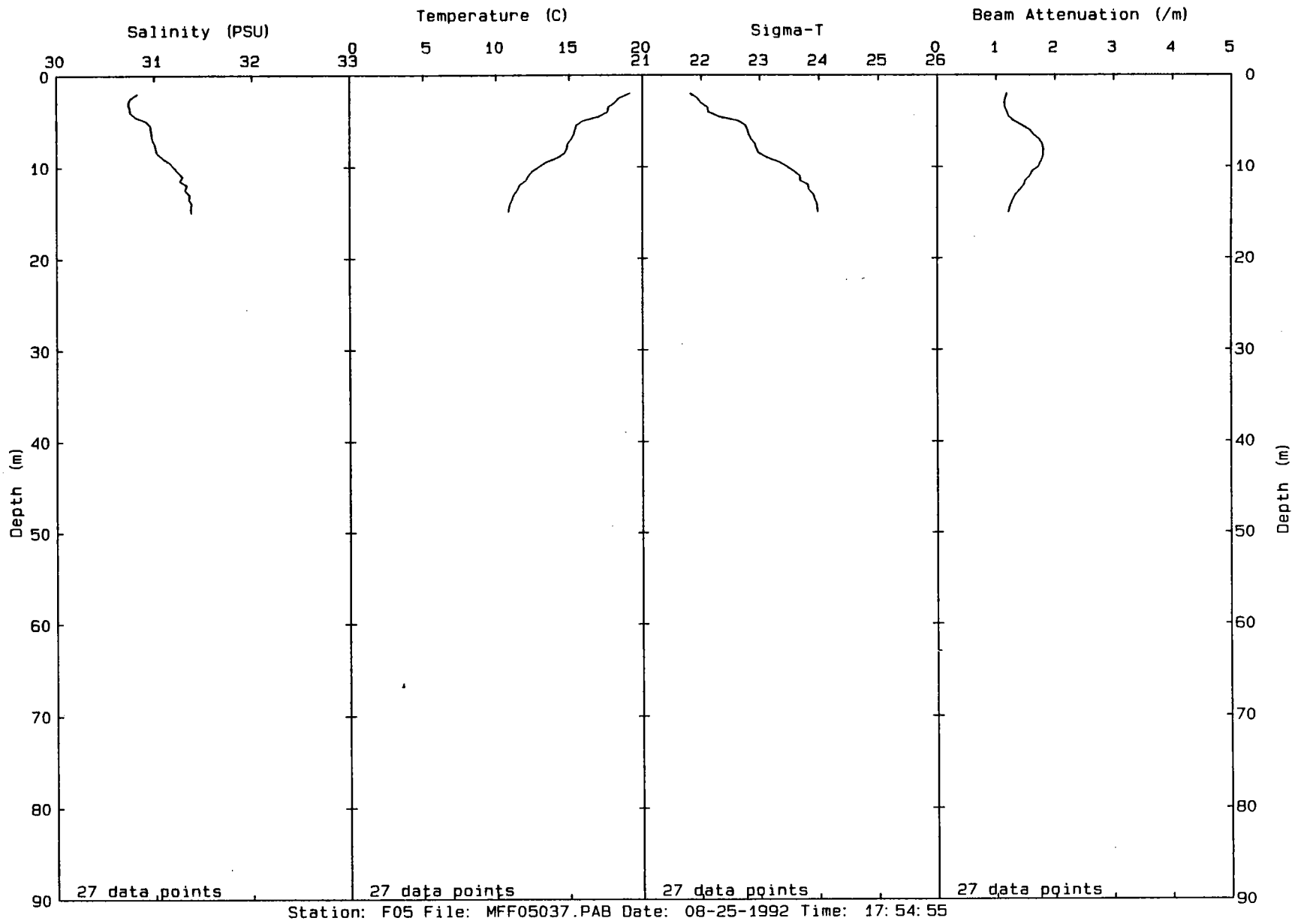

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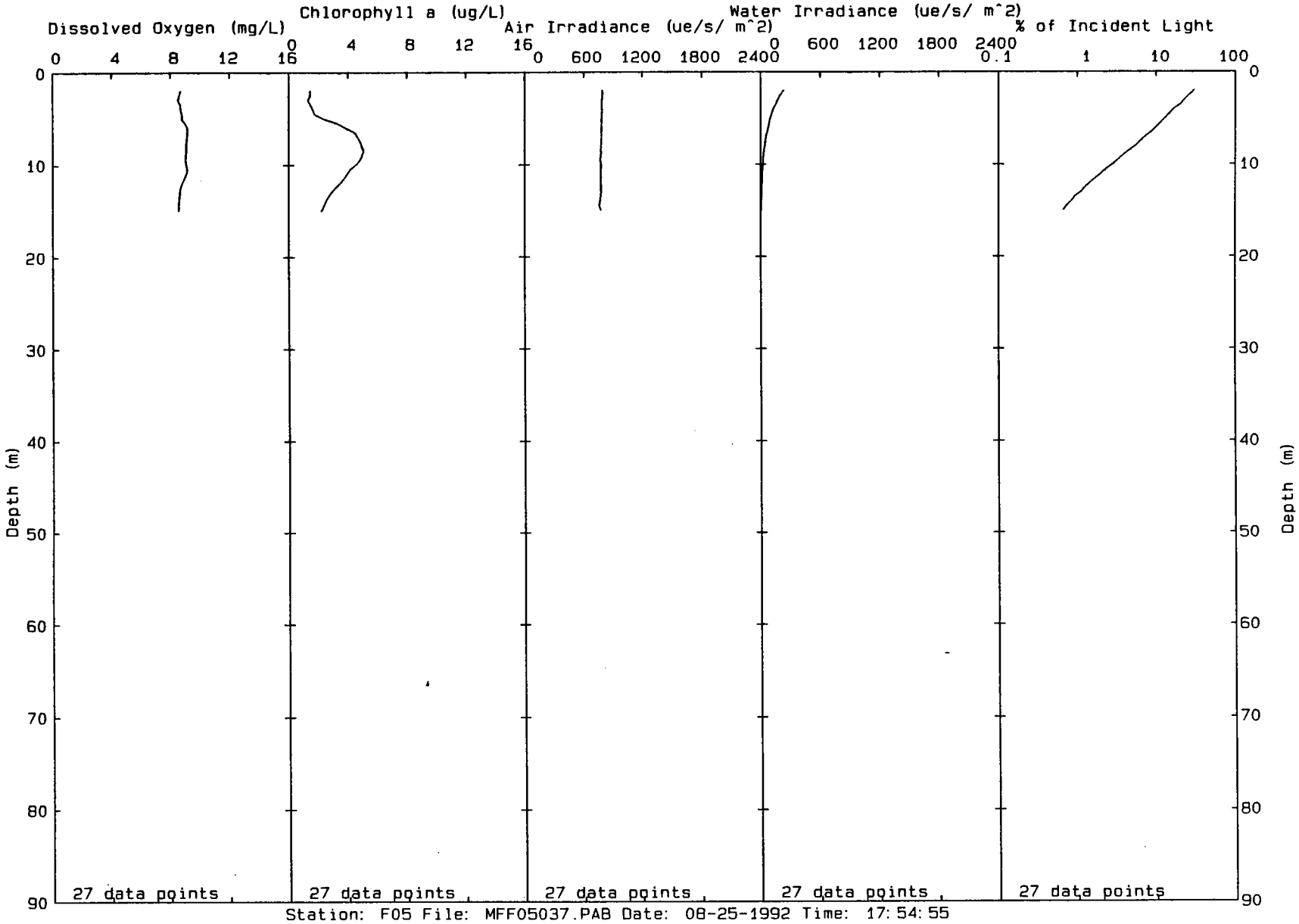

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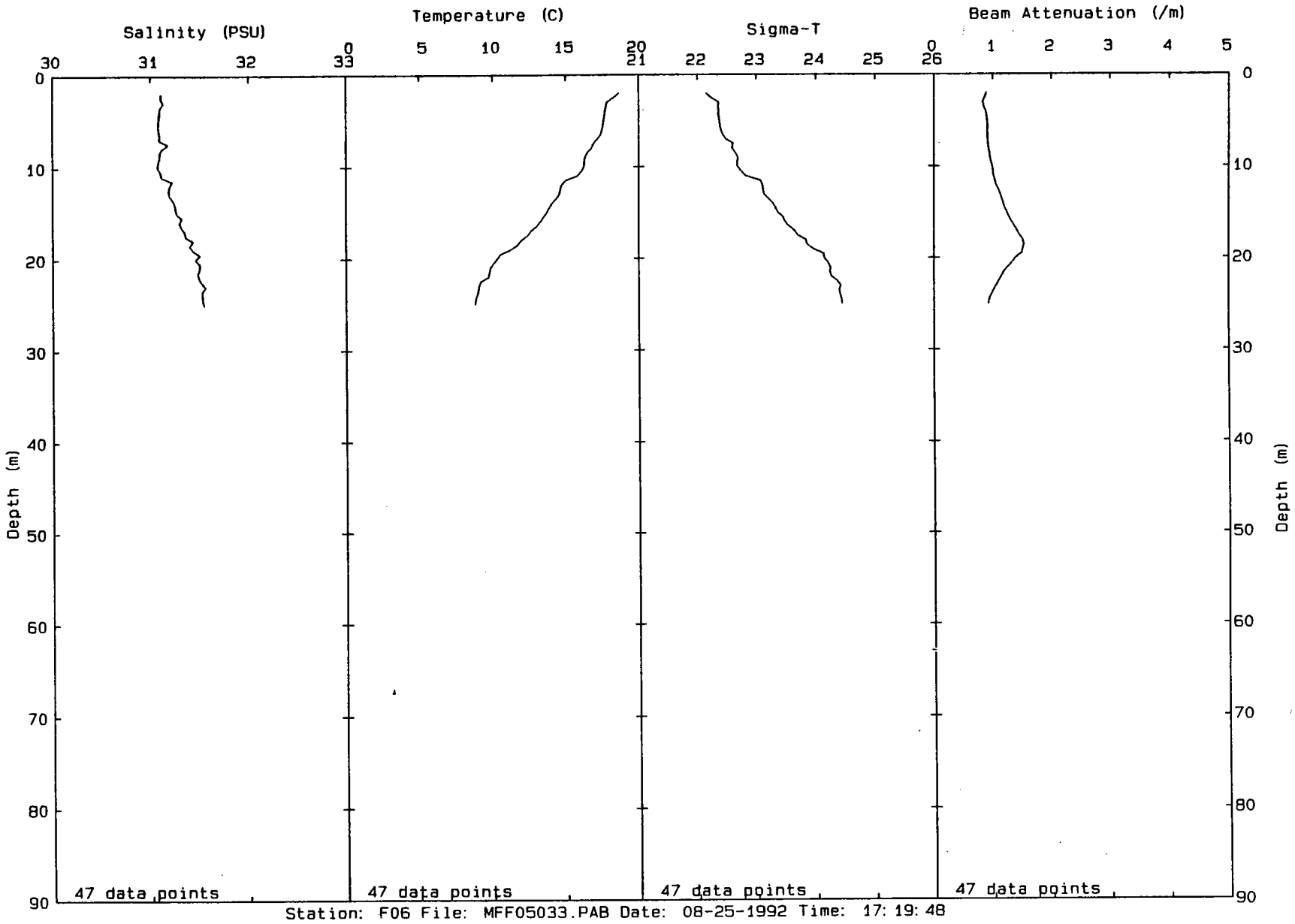

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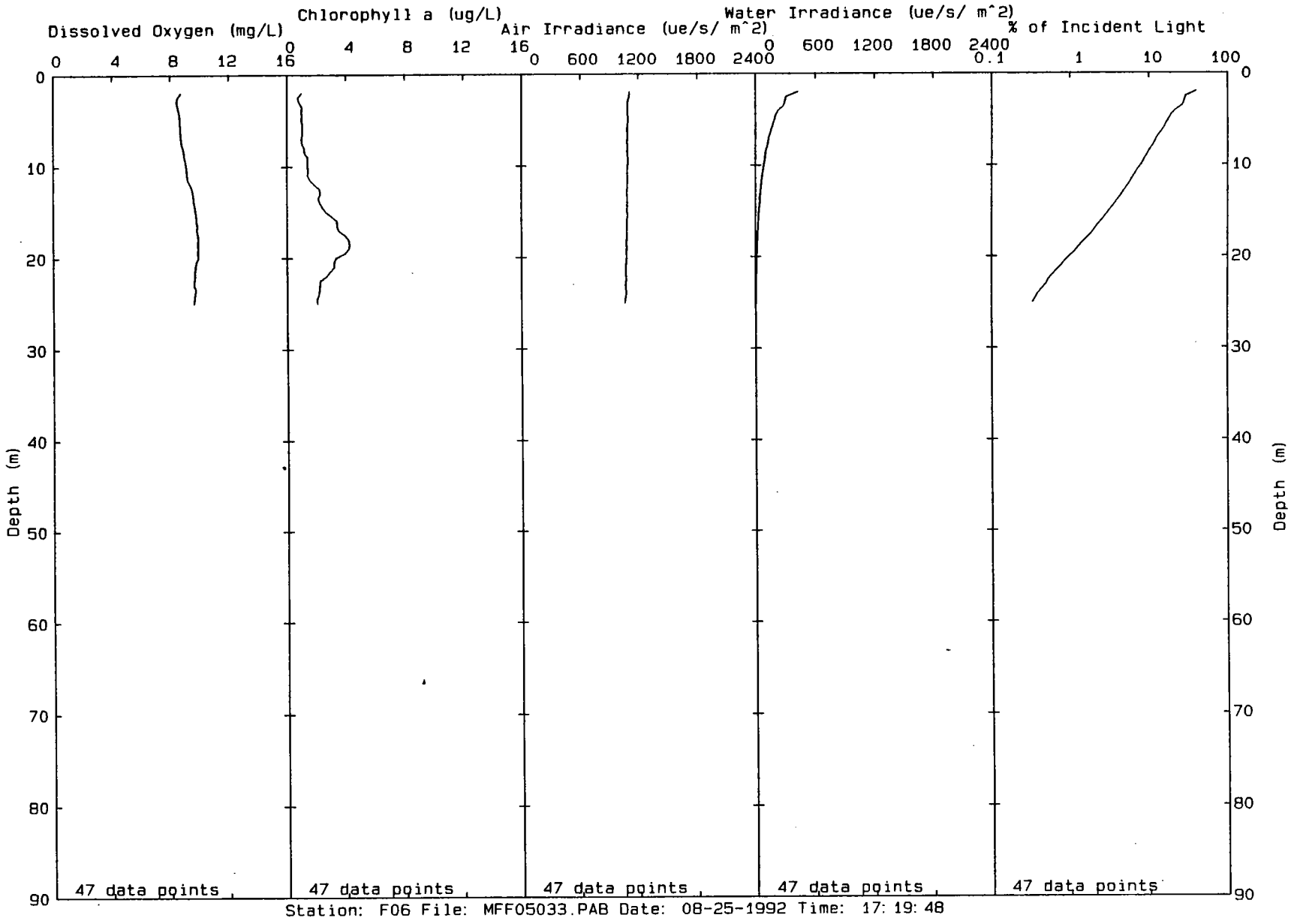

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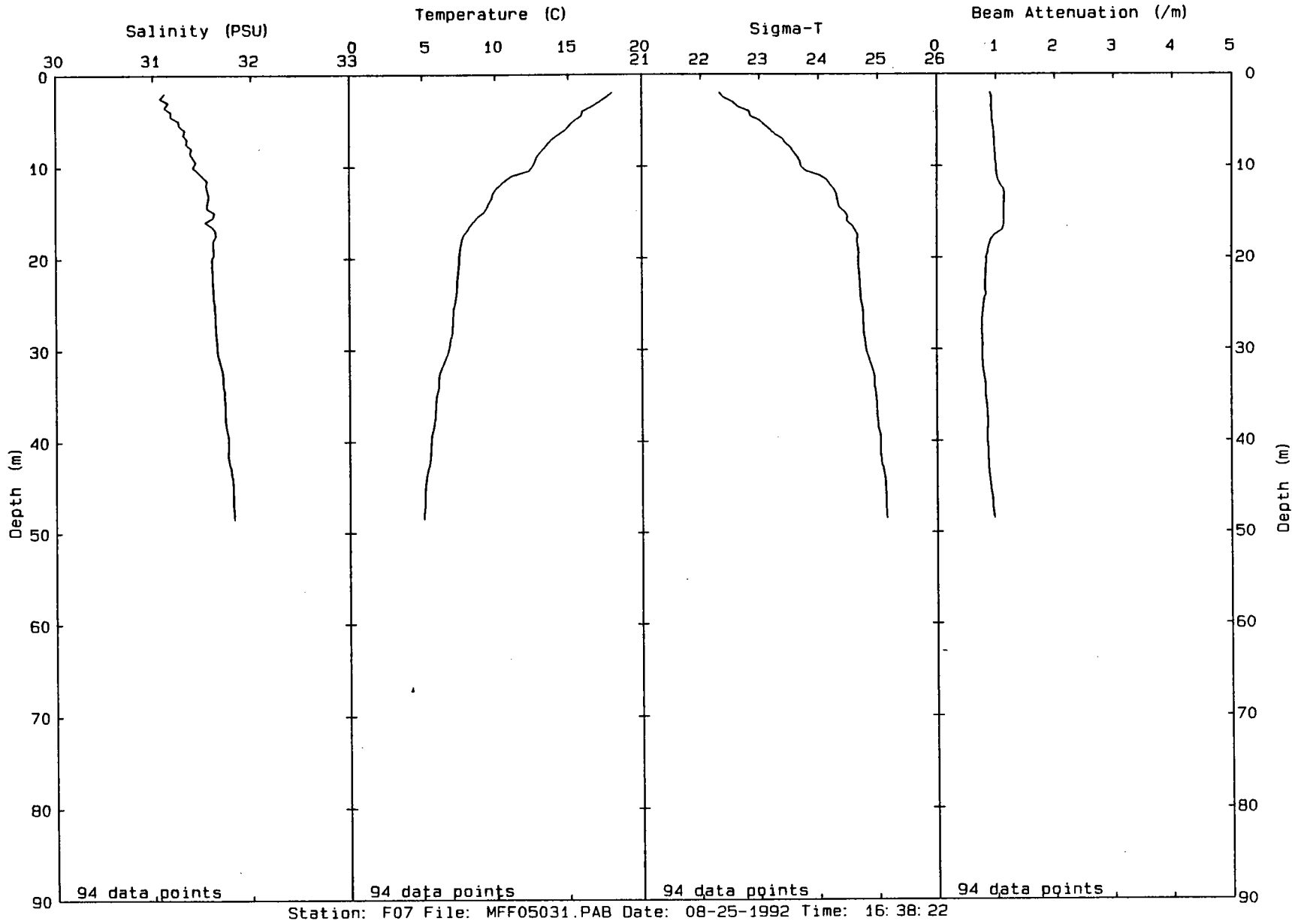

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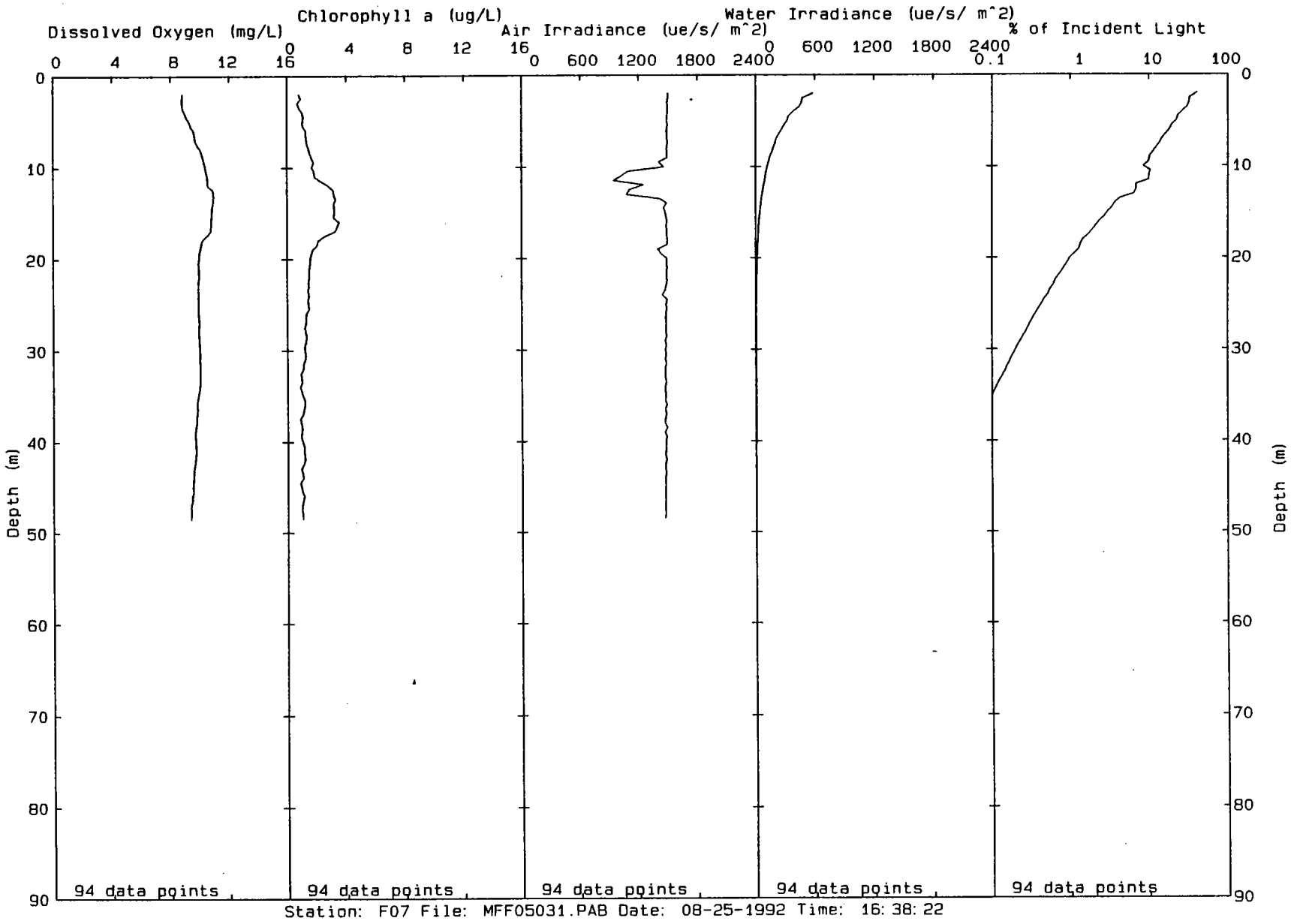

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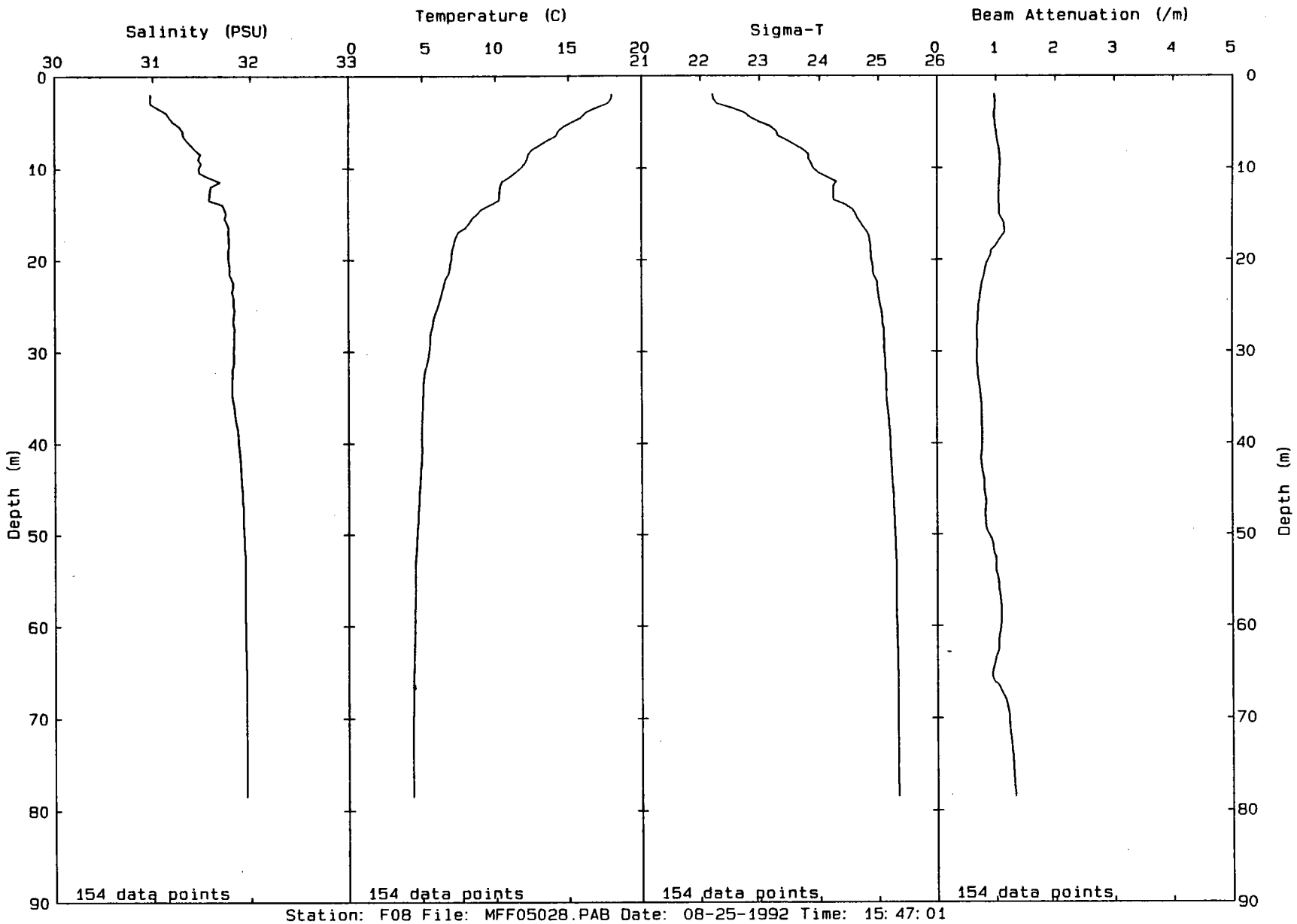

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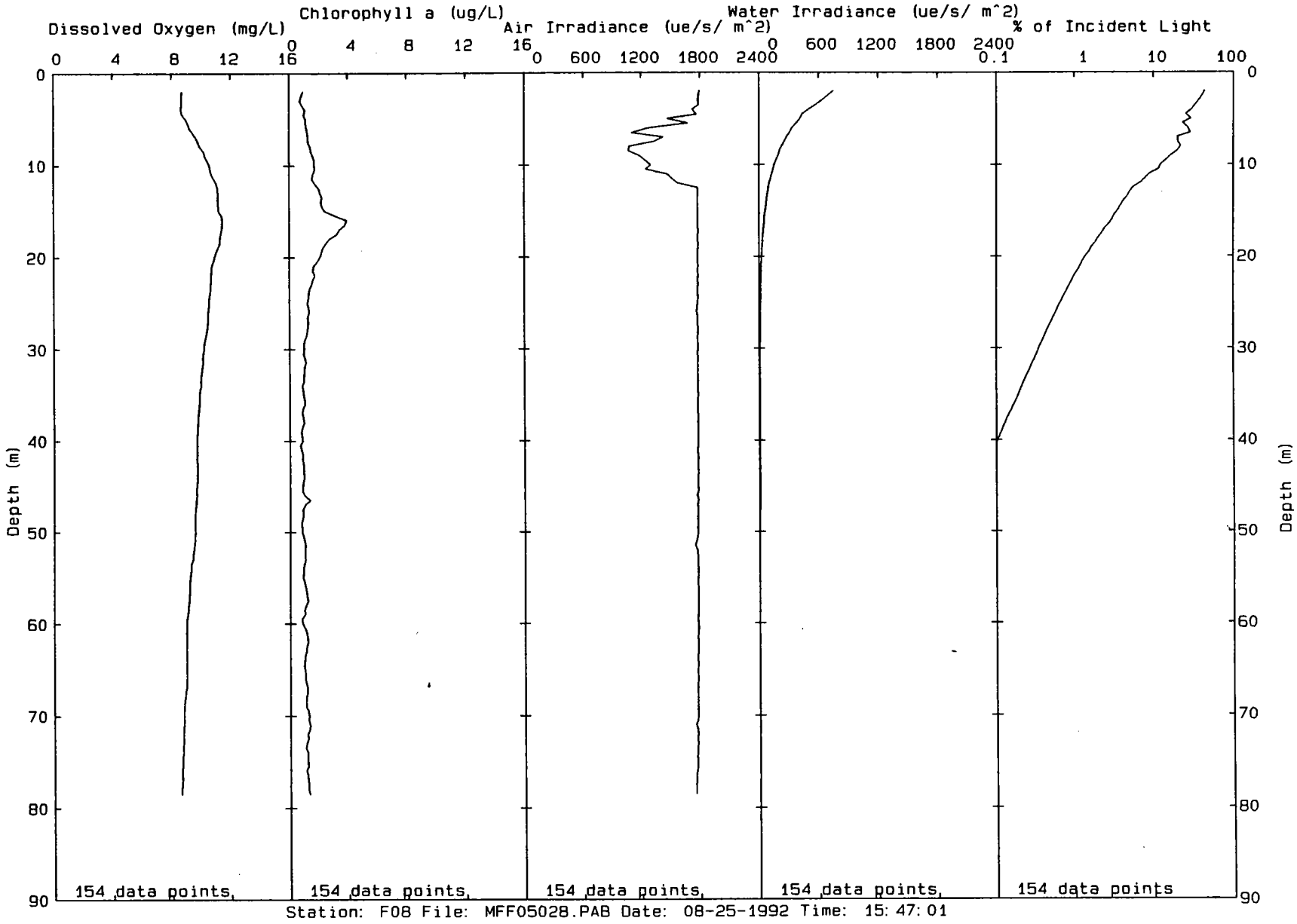

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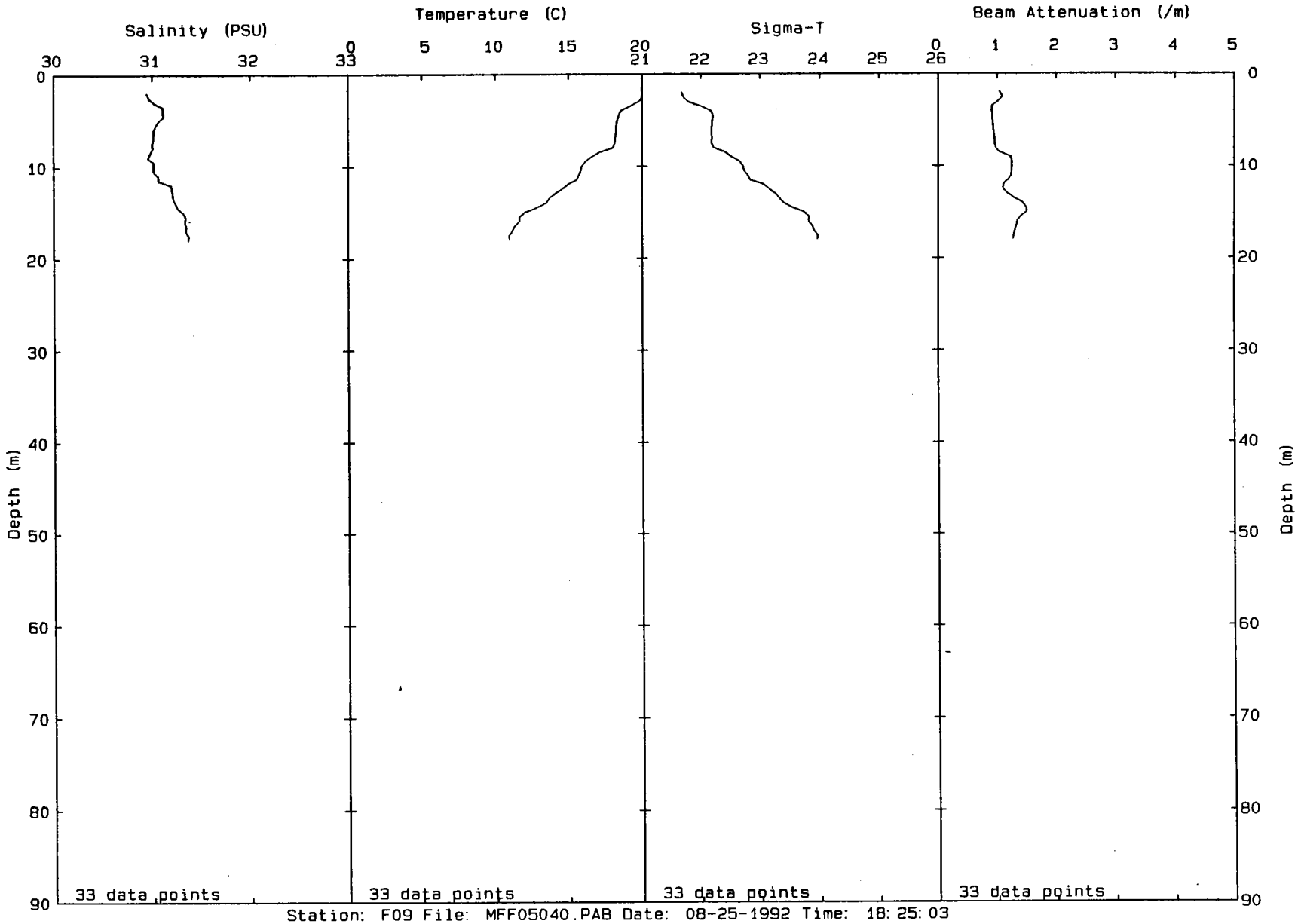

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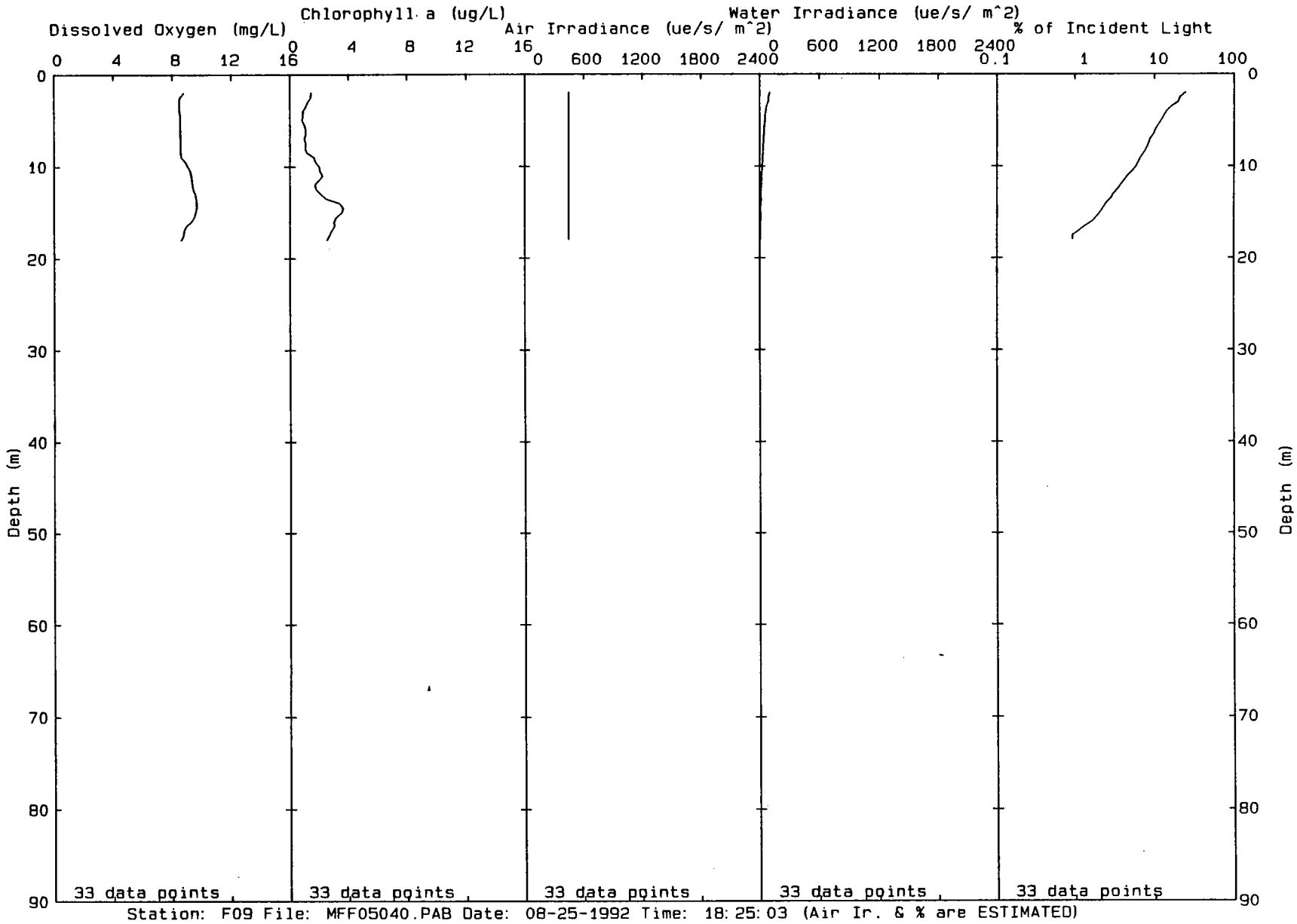

25060

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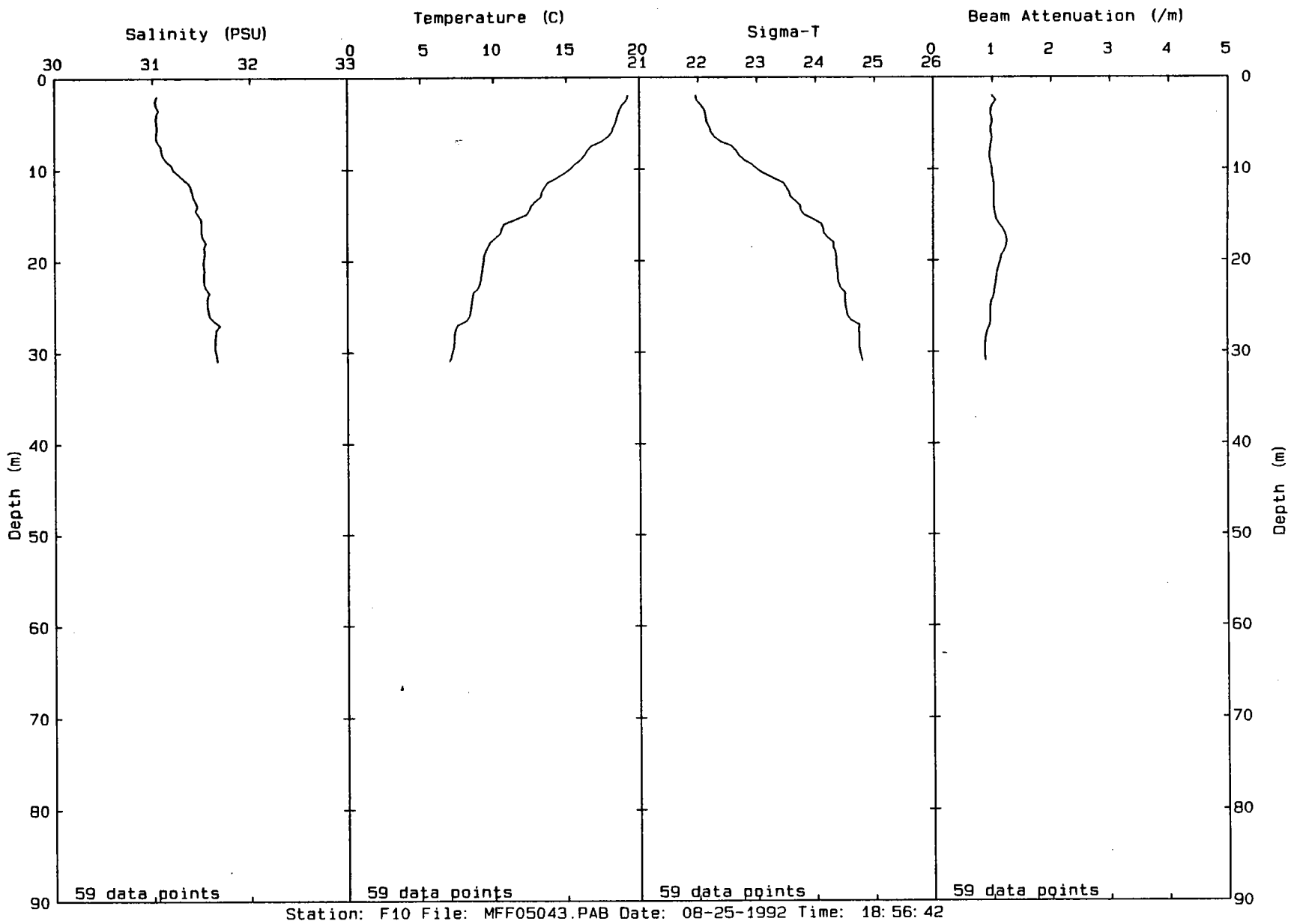

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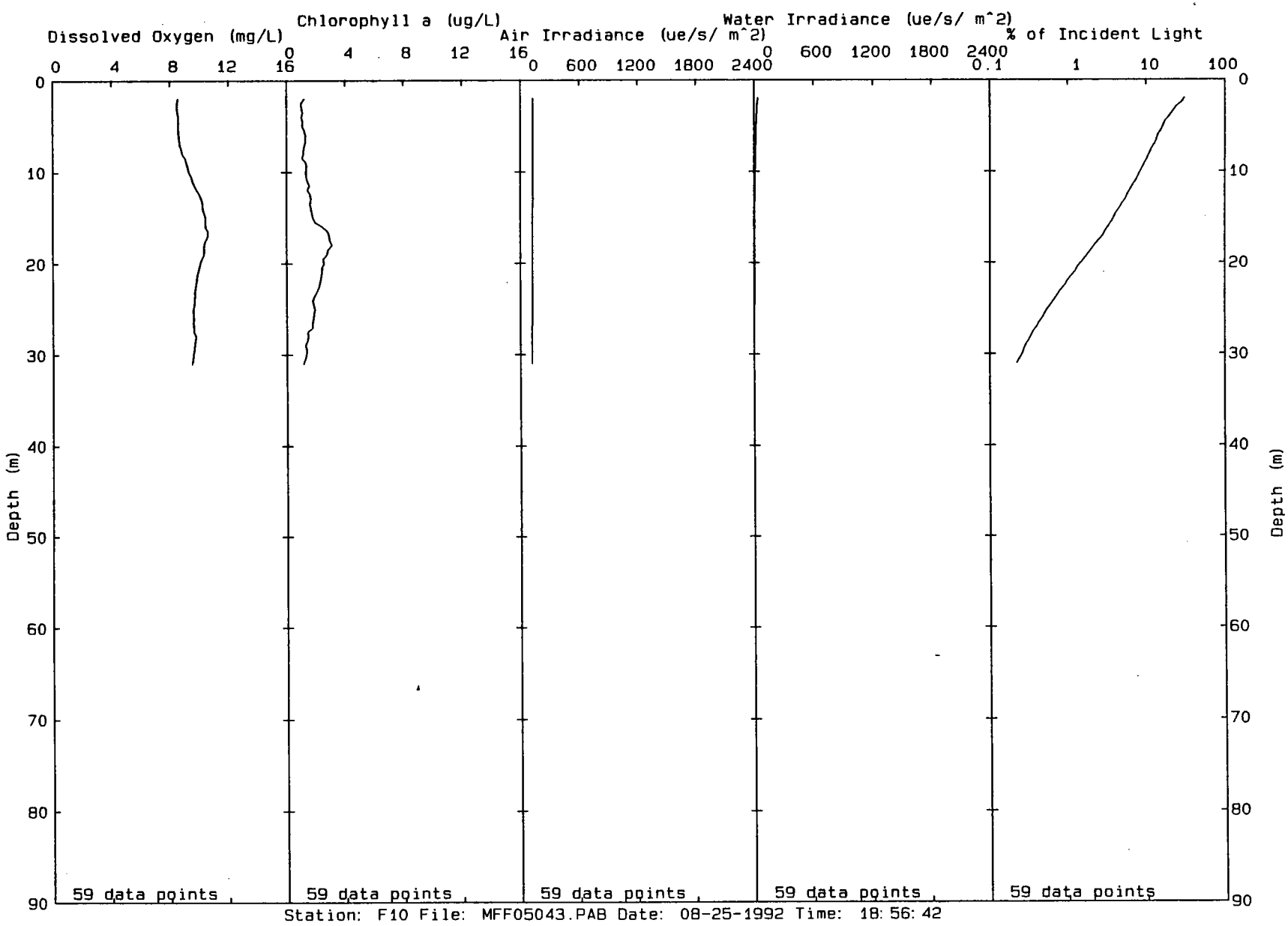

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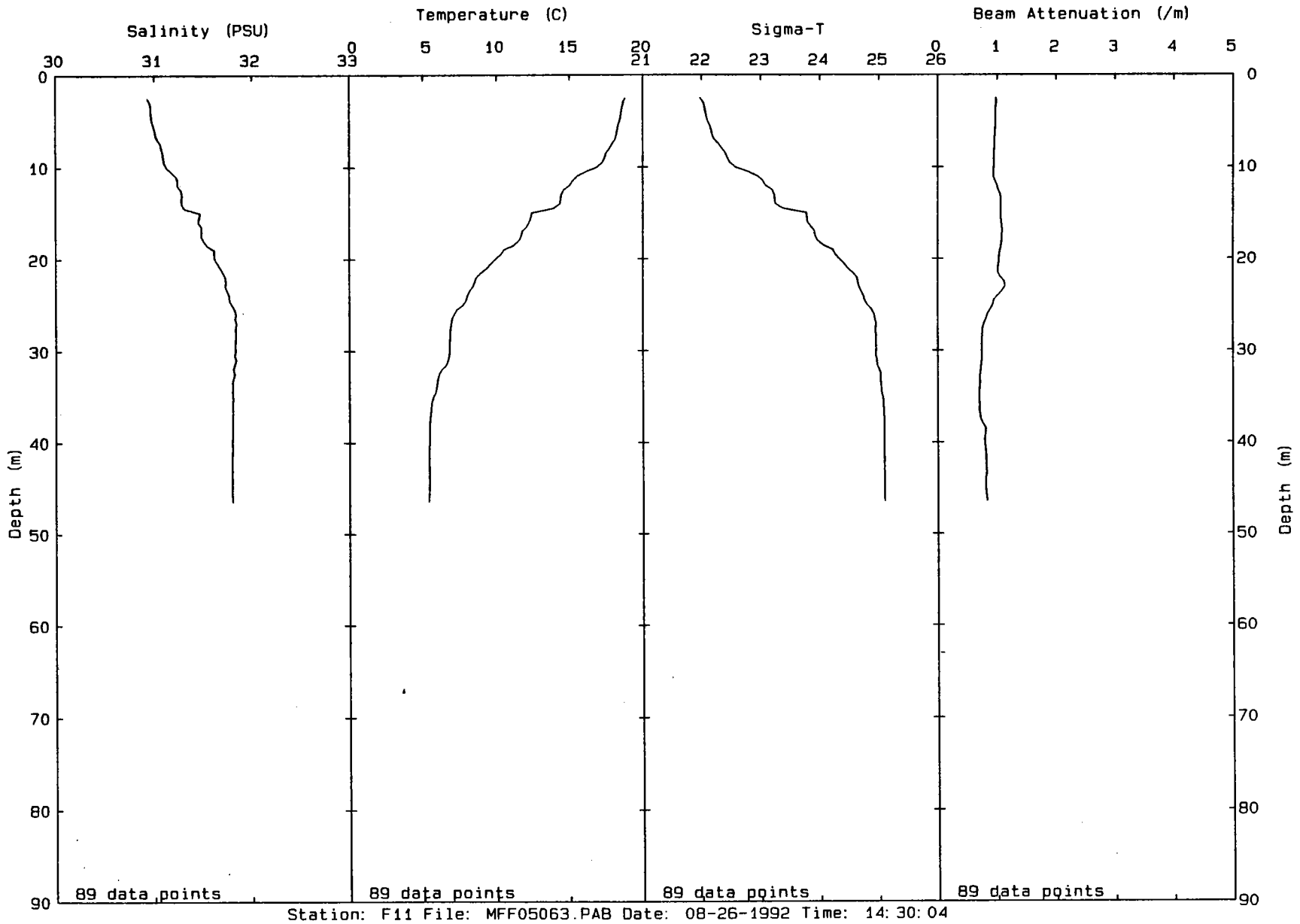

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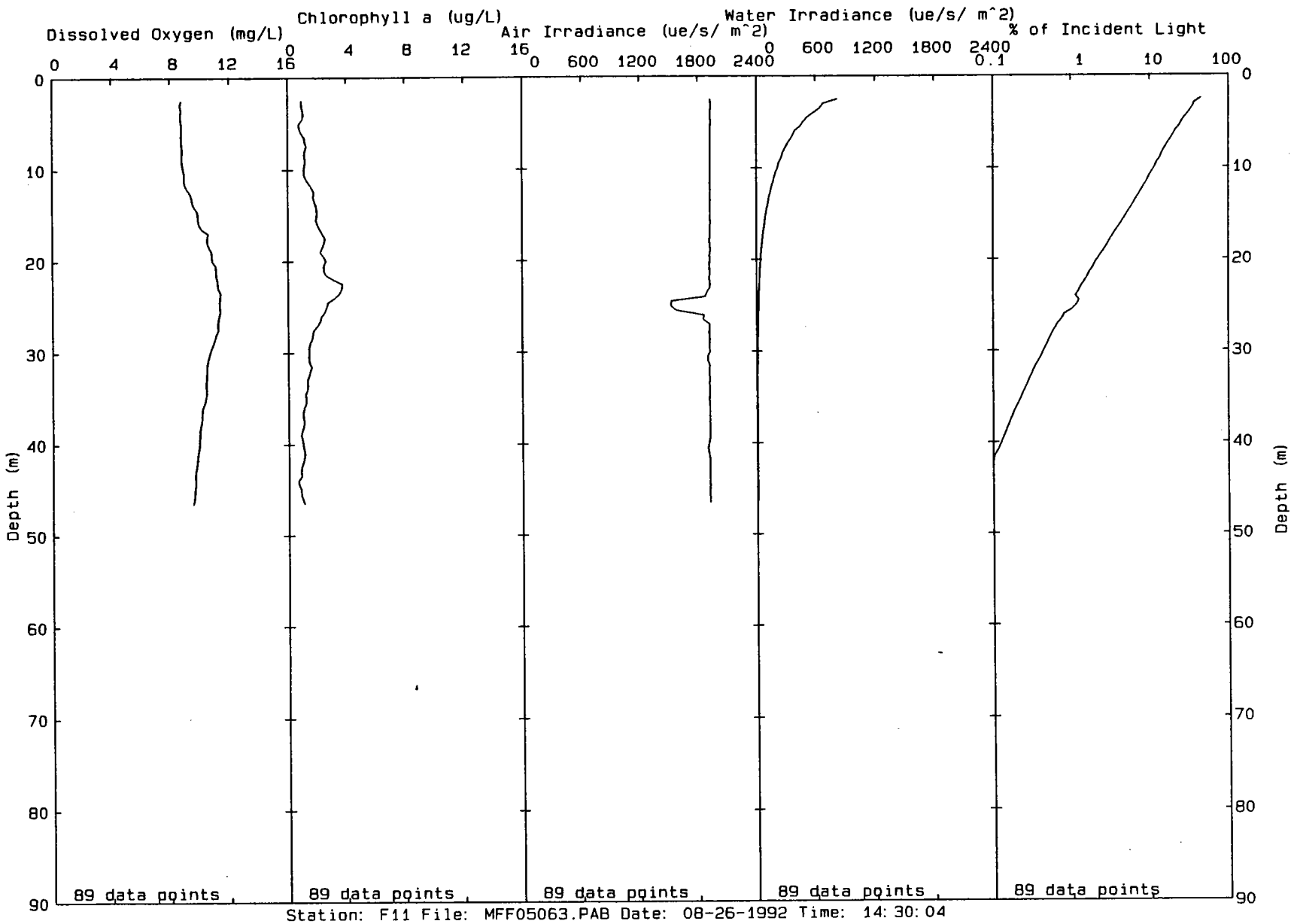

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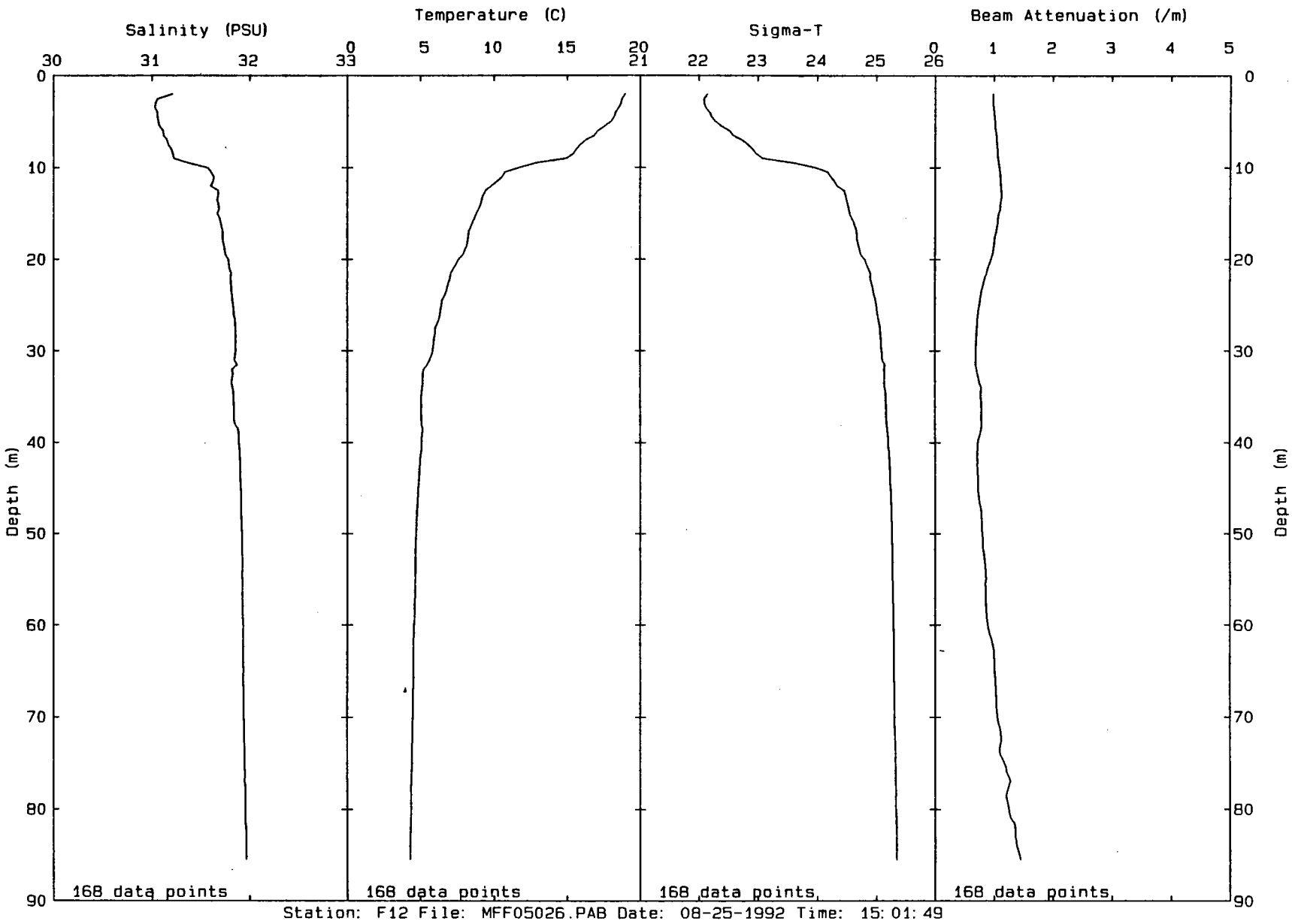

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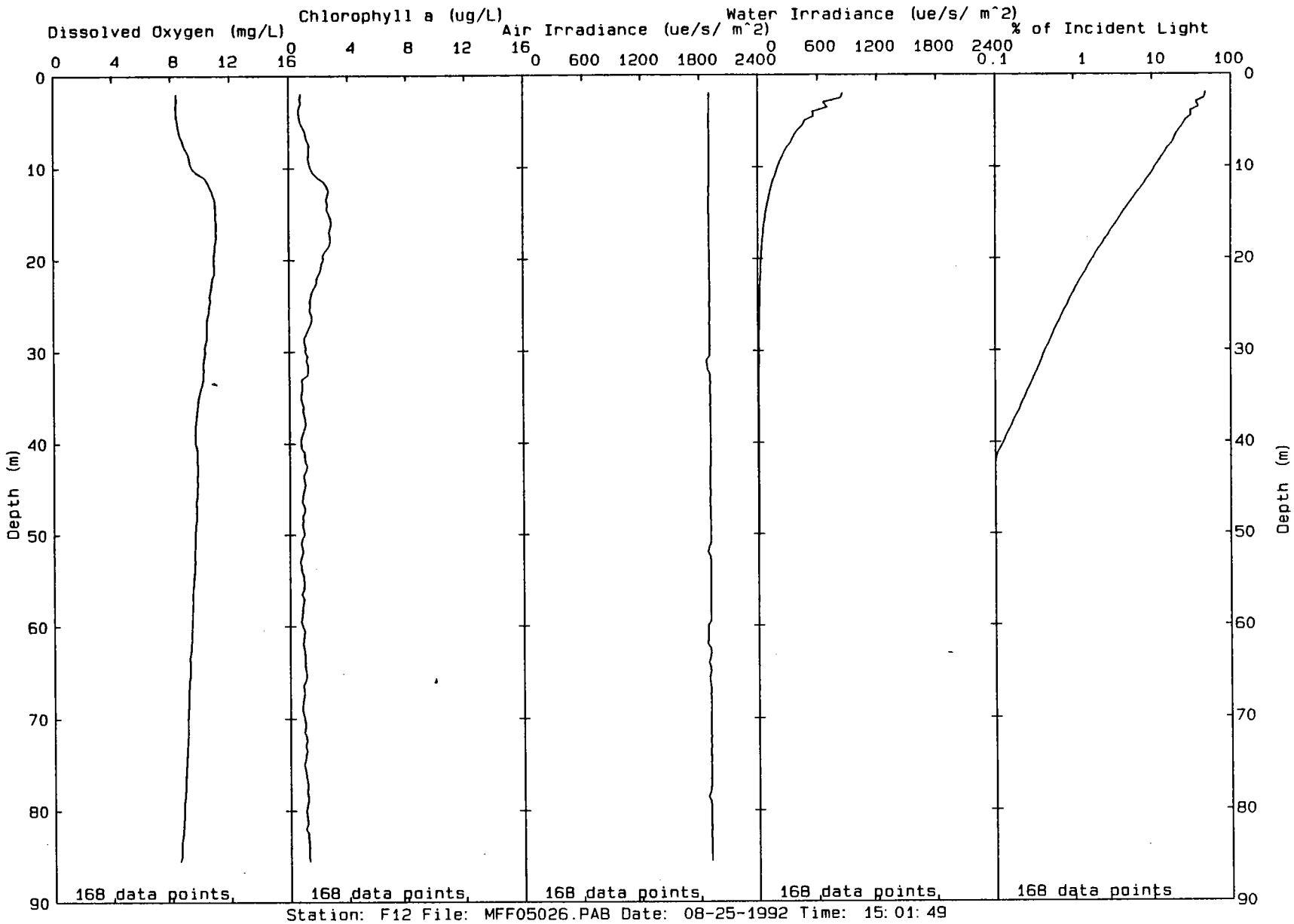
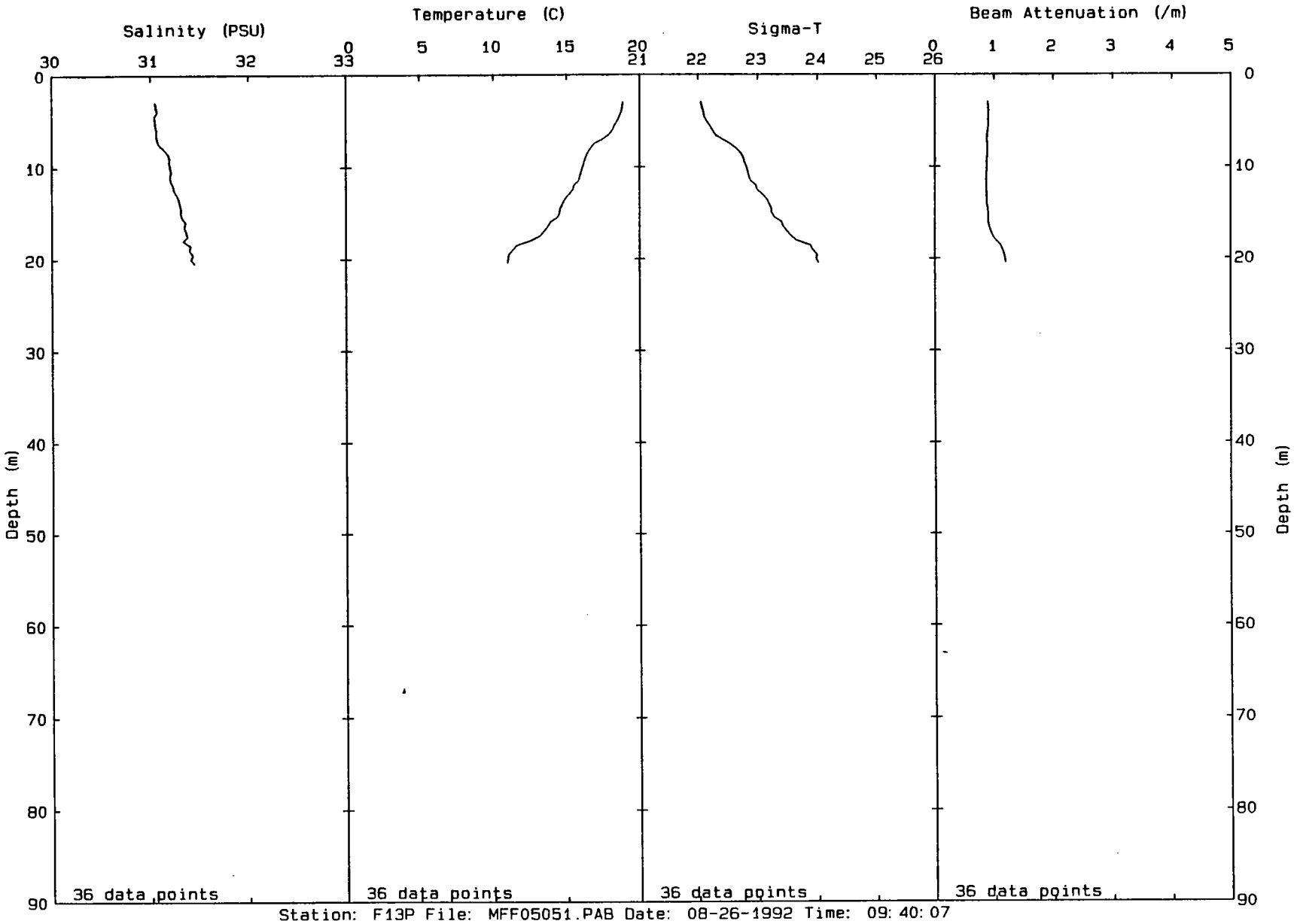
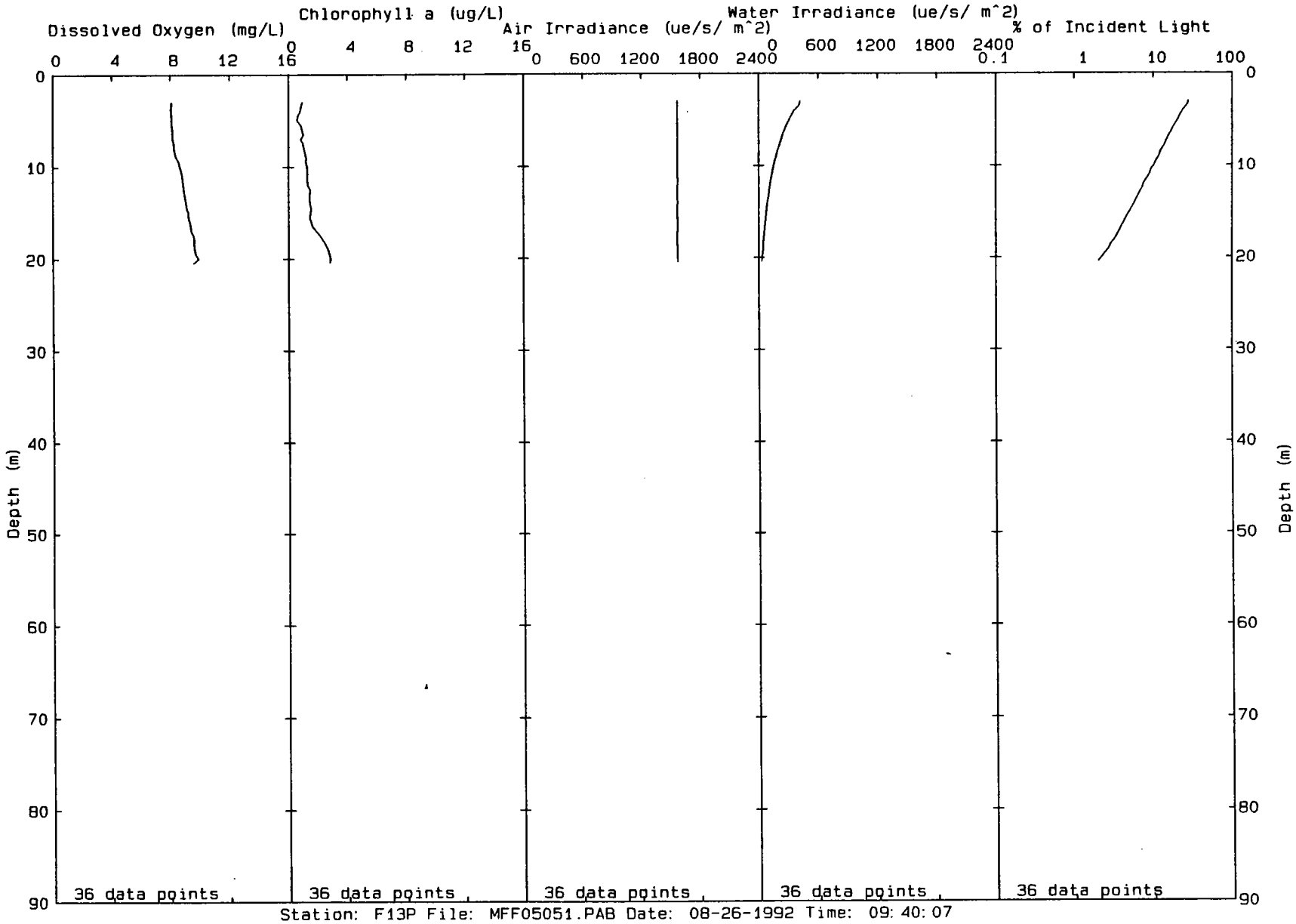
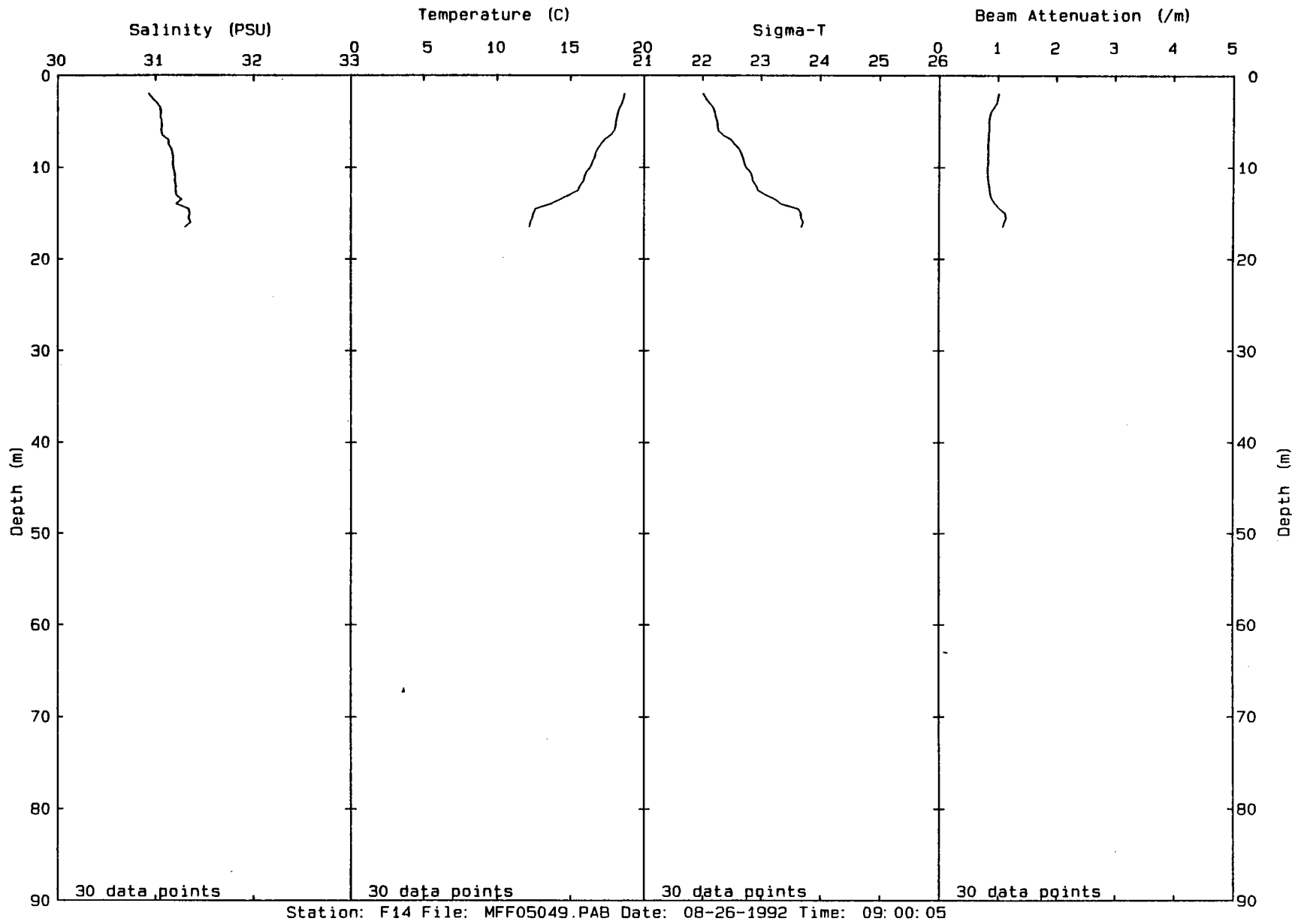
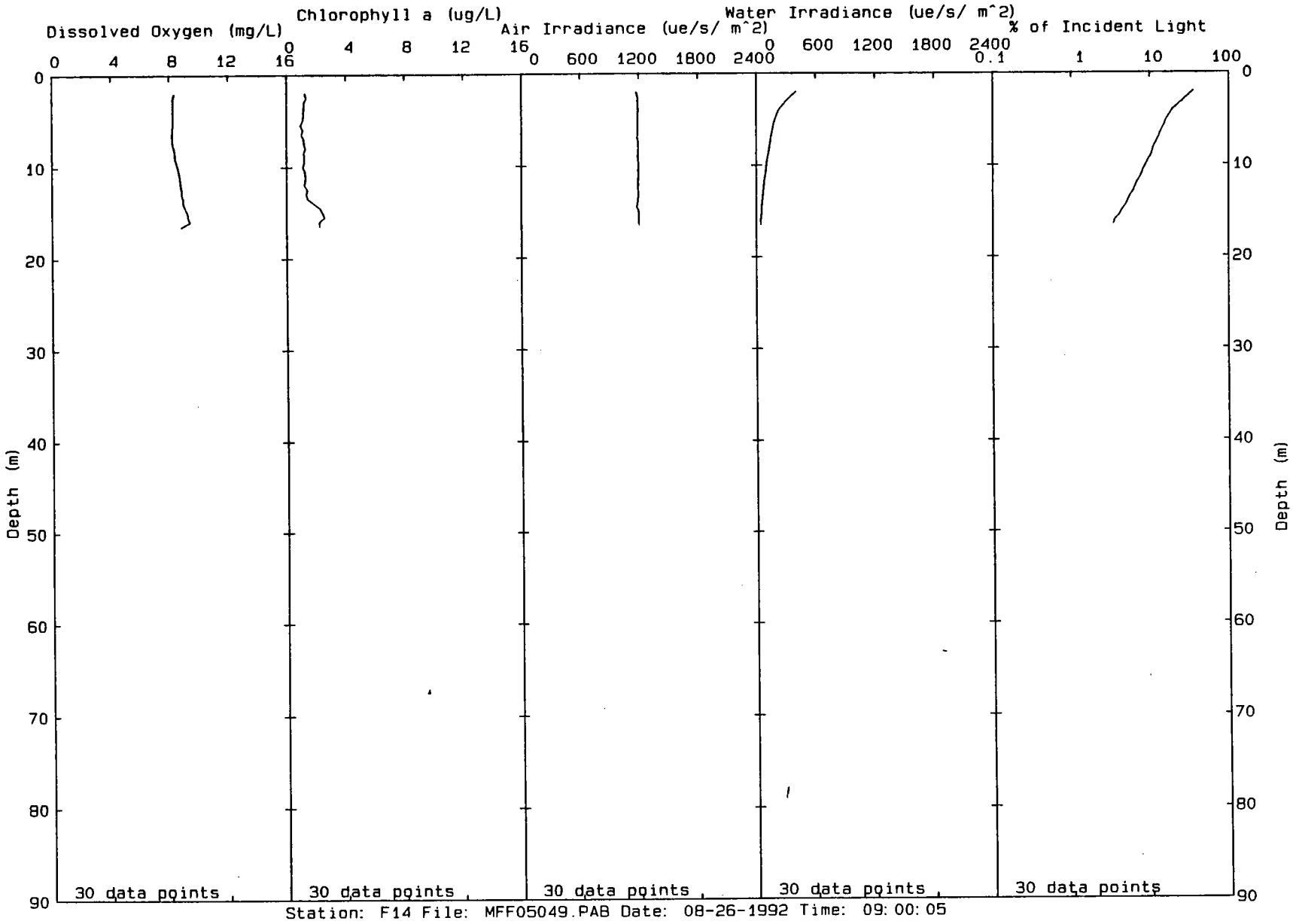

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
168 data points,
168 data points,
168 data points,
168 data points,
168 data points
Station: F12 File: MFF05026.PAB Date: 08-25-1992 Time: 15:01:49


Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
36 data points
36 data points
36 data points
36 data points
Station: F13P File: MFF05051.PAB Date: 08-26-1992 Time: 09:40:07


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
36 data points
36 data points
36 data points
36 data points
36 data points
Station: F13P File: MFF05051.PAB Date: 08-26-1992 Time: 09:40:07

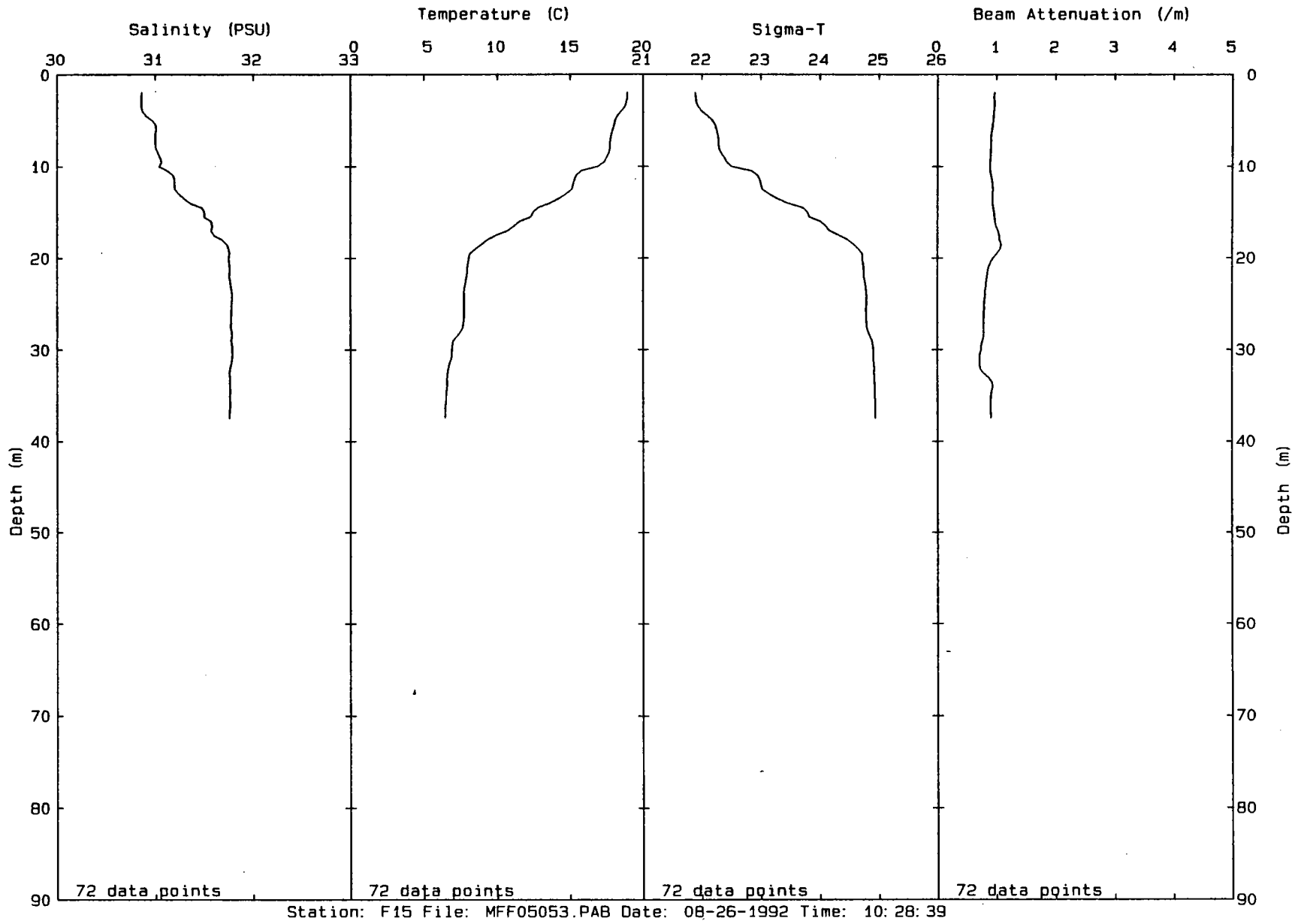
09060

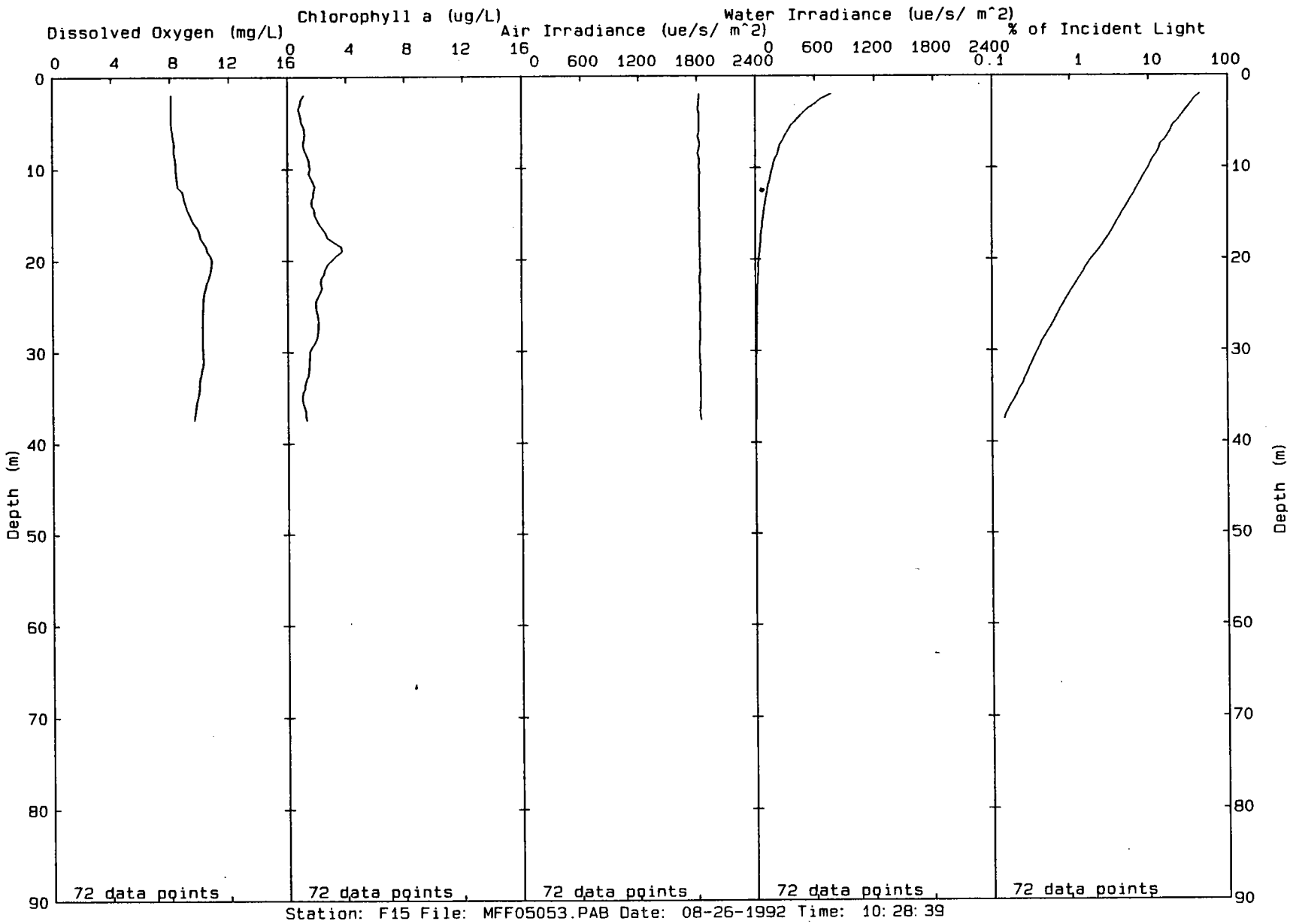

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
30 data points
30 data points
30 data points
30 data points
Station: F14 File: MFF05049.PAB Date: 08-26-1992 Time: 09:00:05



29000

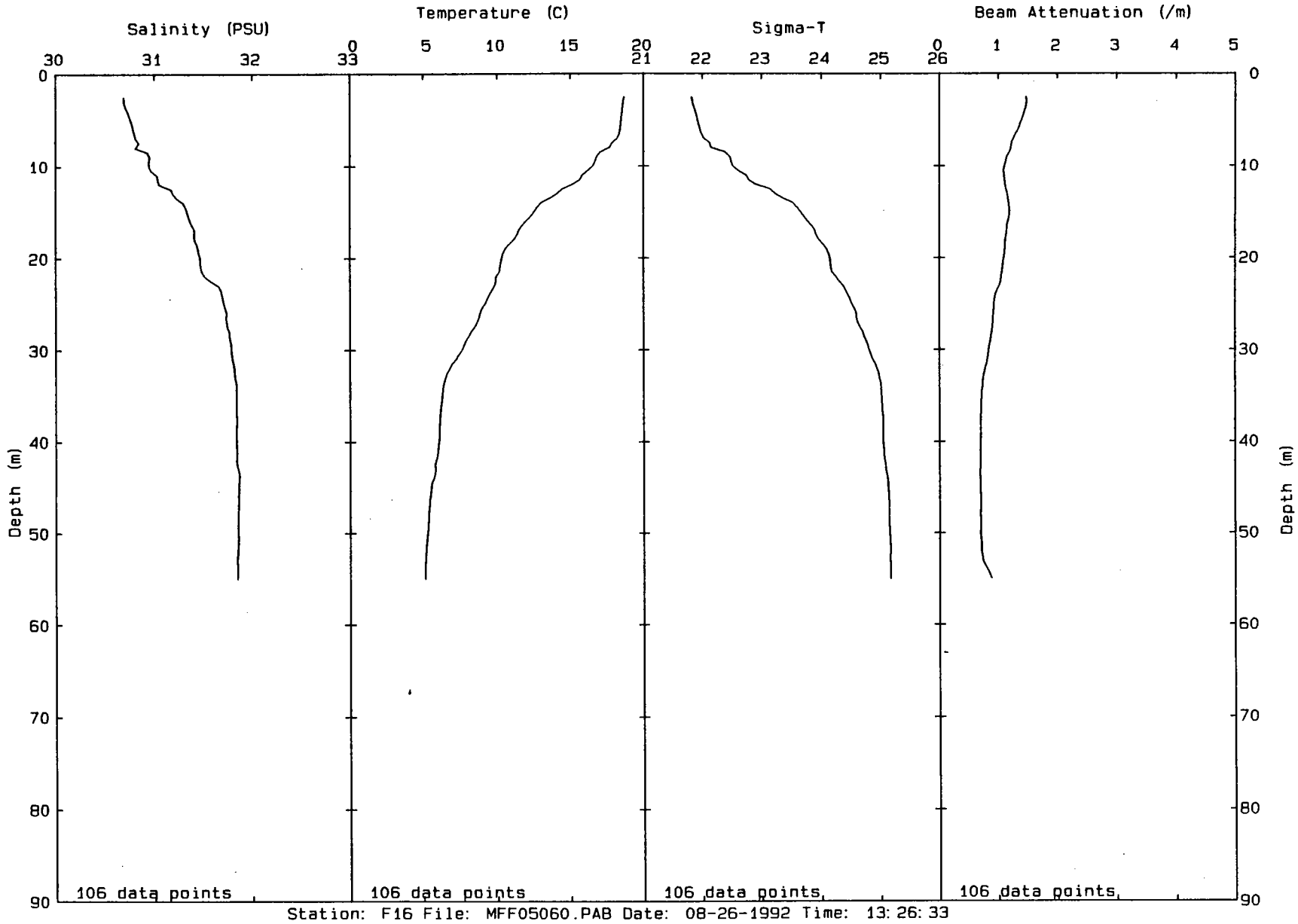
01-07-1993 20:23:18 Battelle

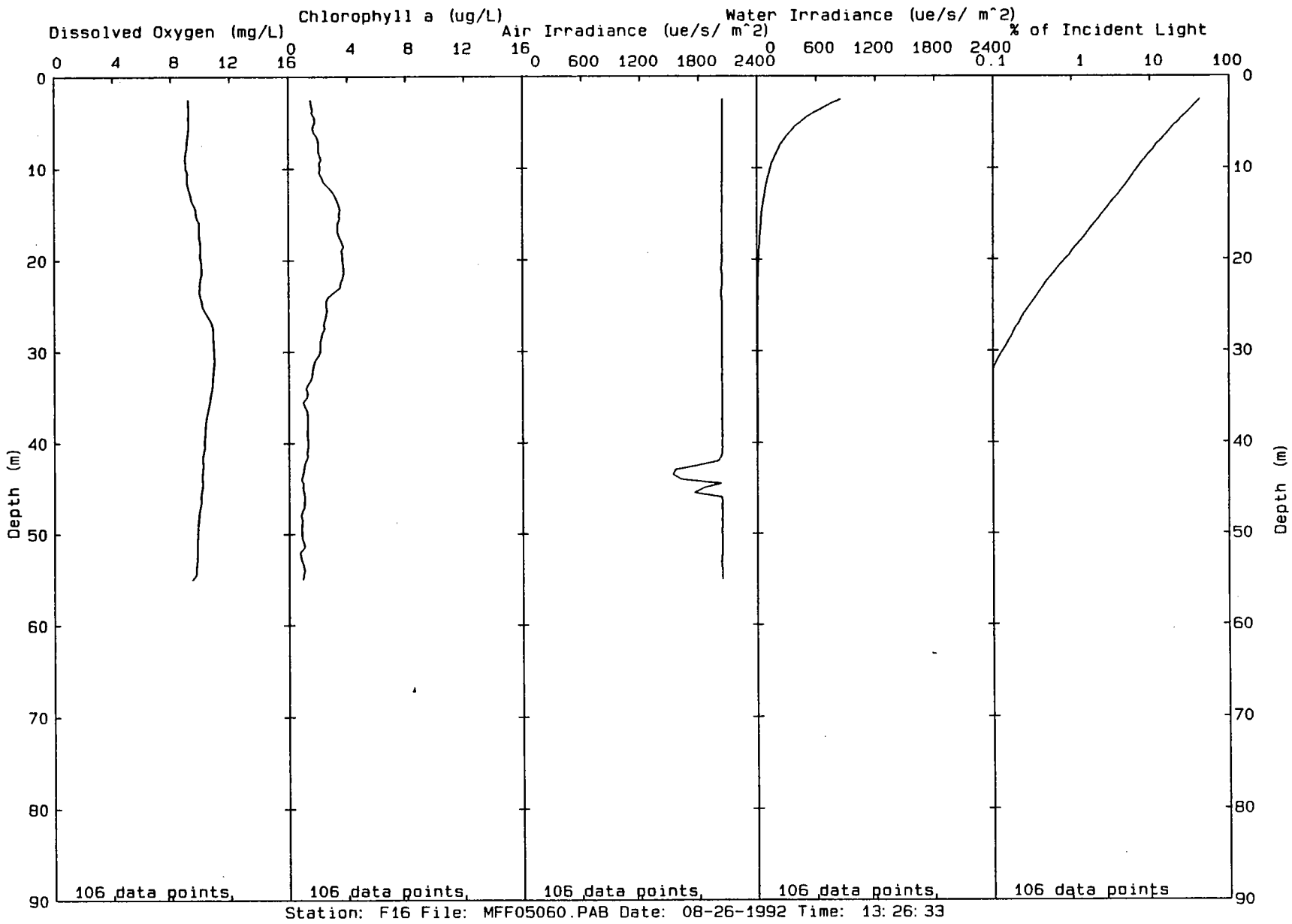

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
72 data points
72 data points
72 data points
72 data points
Station: F15 File: MFF05053.PAB Date: 08-26-1992 Time: 10:28:39



00084

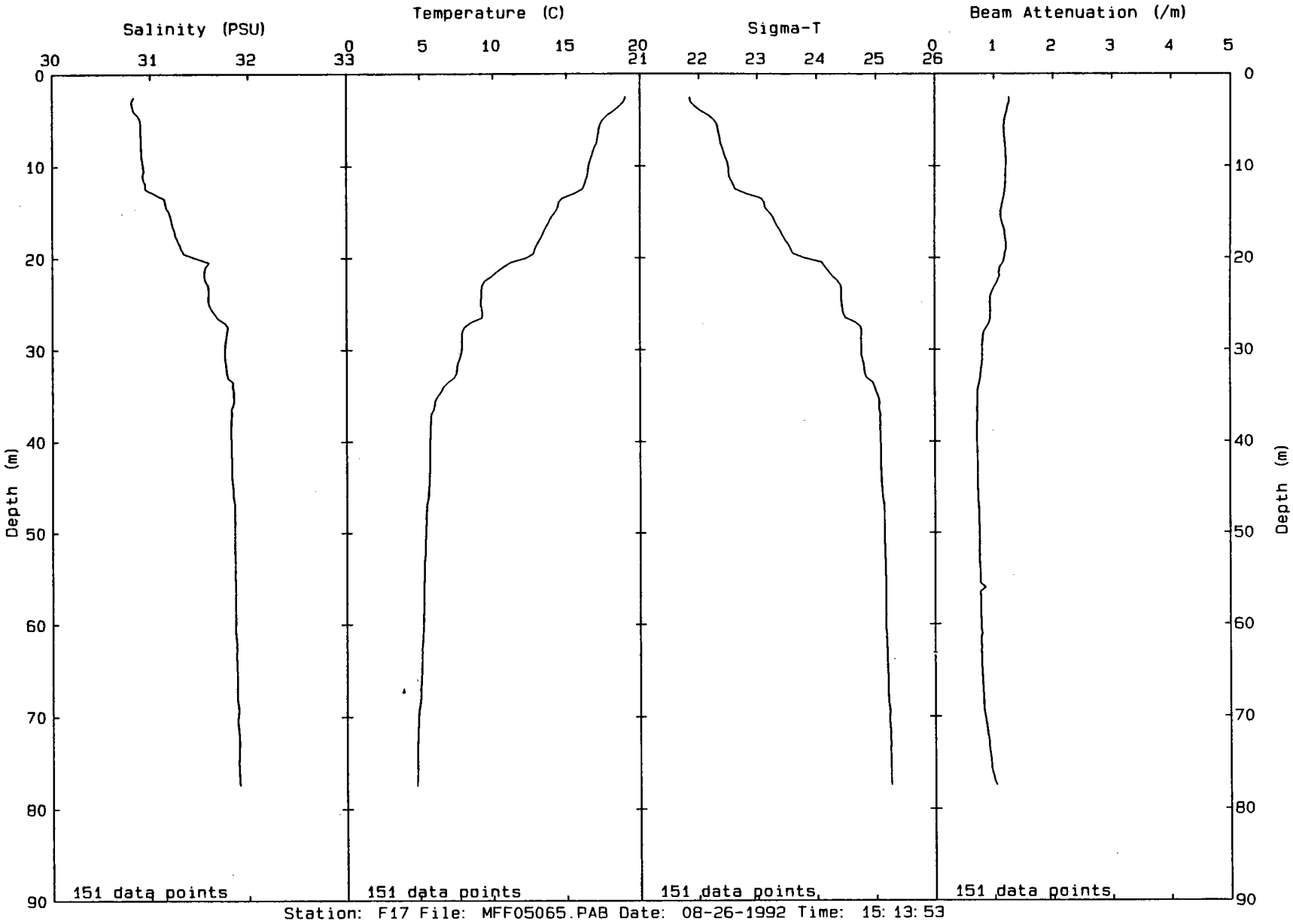
01-07-1993 20:23:26 Battelle


Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
106 data points
106 data points
106 data points
106 data points
Station: F16 File: MFF05060.PAB Date: 08-26-1992 Time: 13:26:33



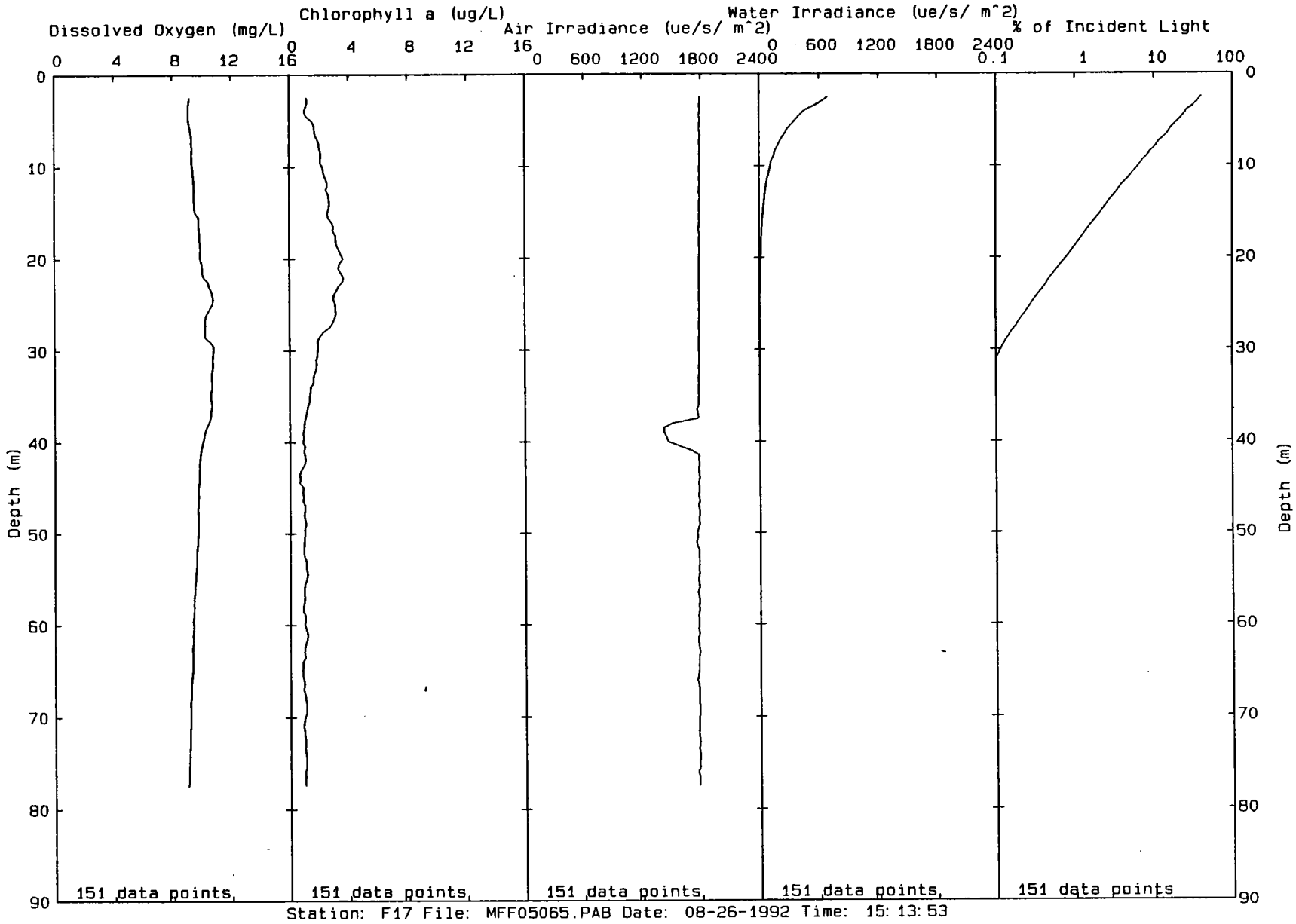
99060

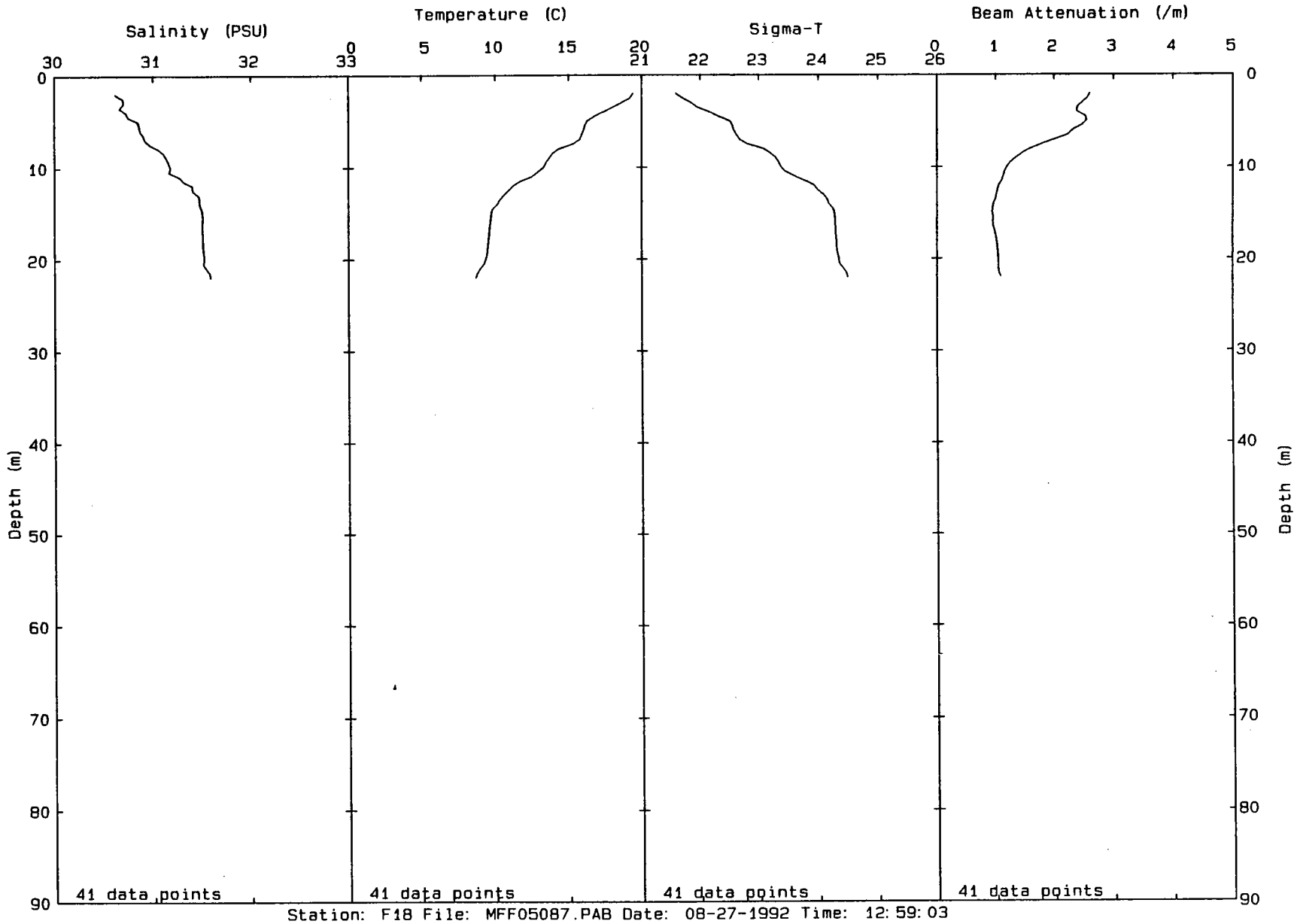
01-07-1993 20:23:39 Battelle



09067

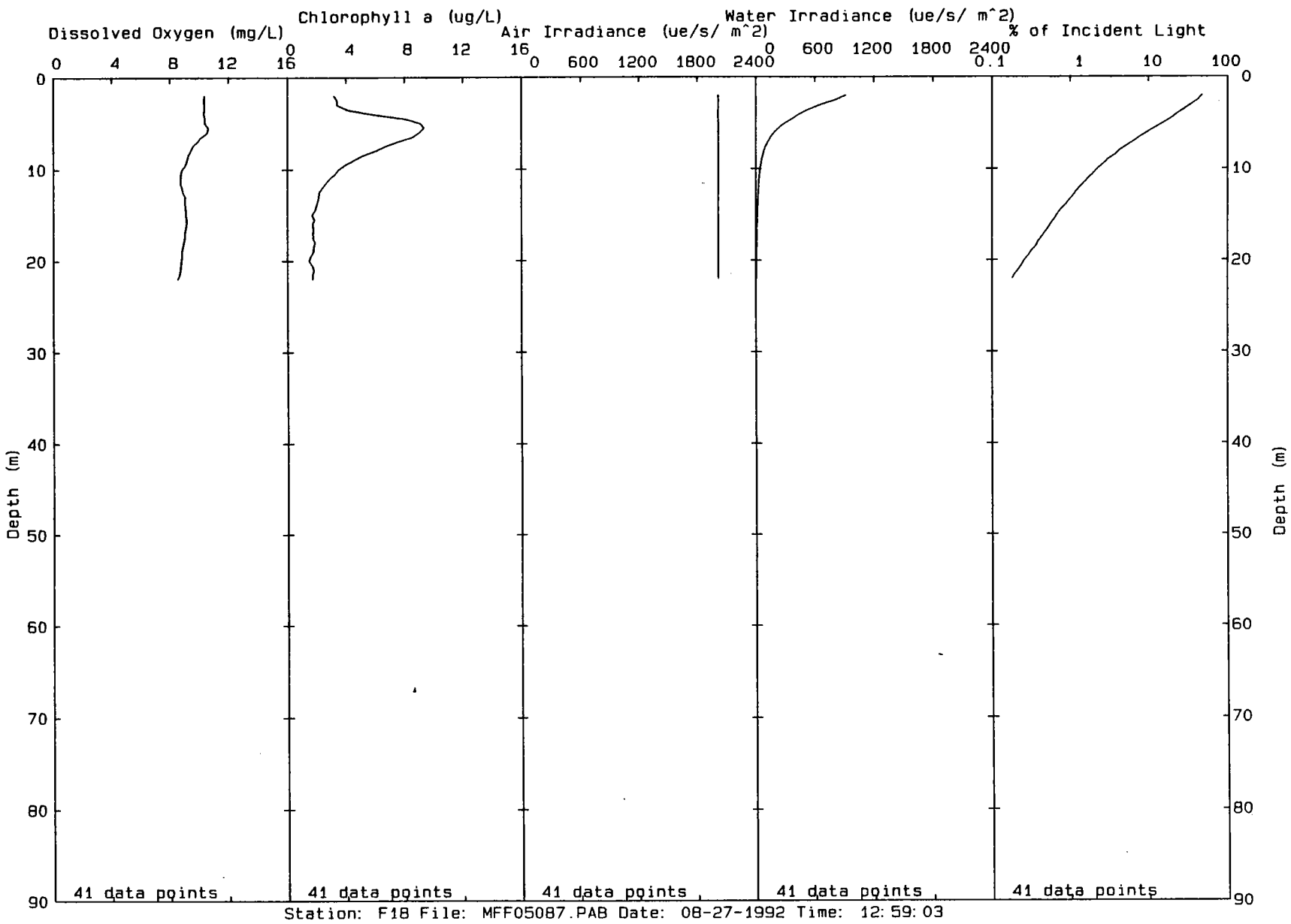
01-07-1993 21:33:46 Battelle

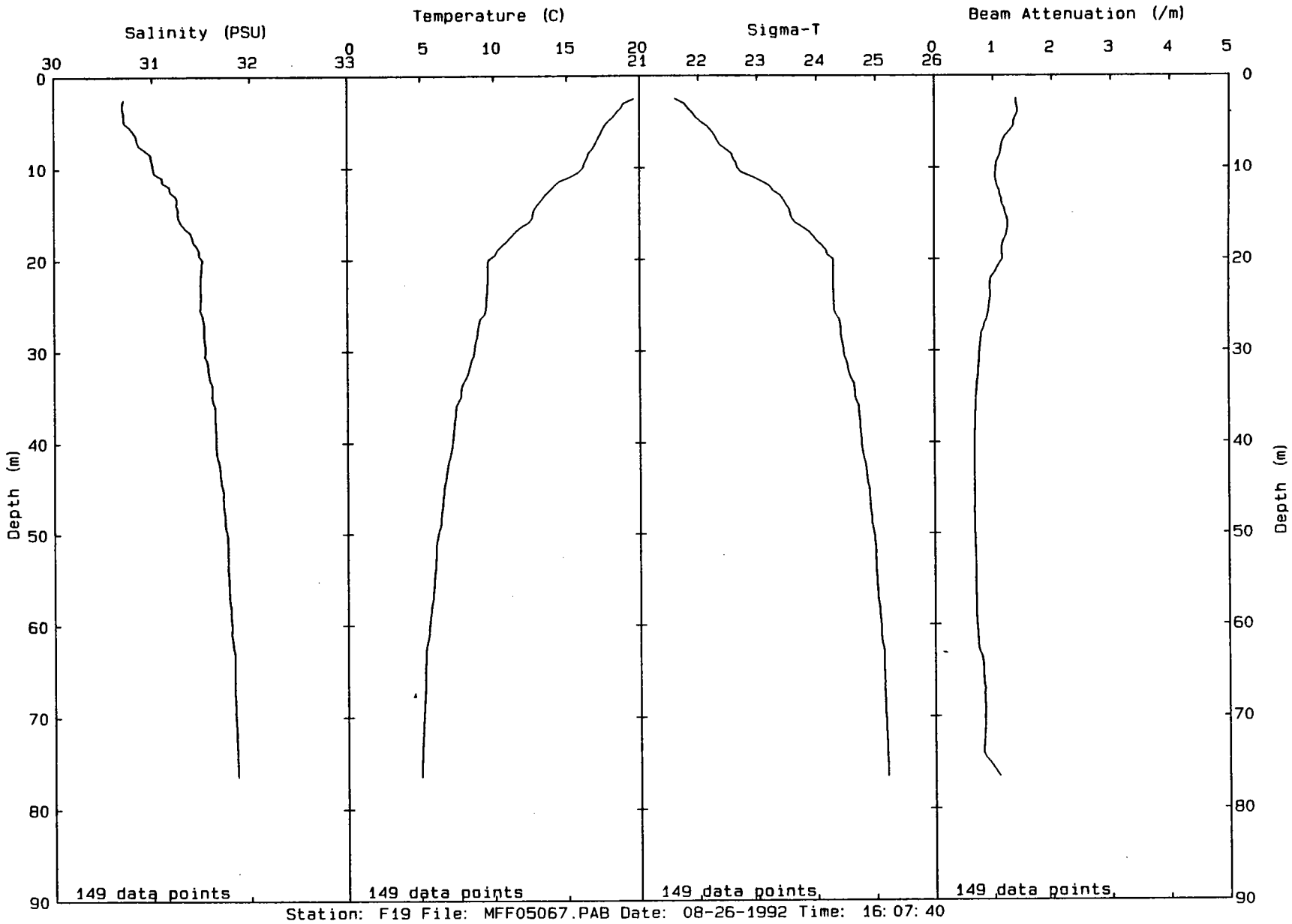

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
151 data points,
151 data points,
151 data points,
151 data points,
151 data points
Station: F17 File: MFF05065.PAB Date: 08-26-1992 Time: 15:13:53



69000

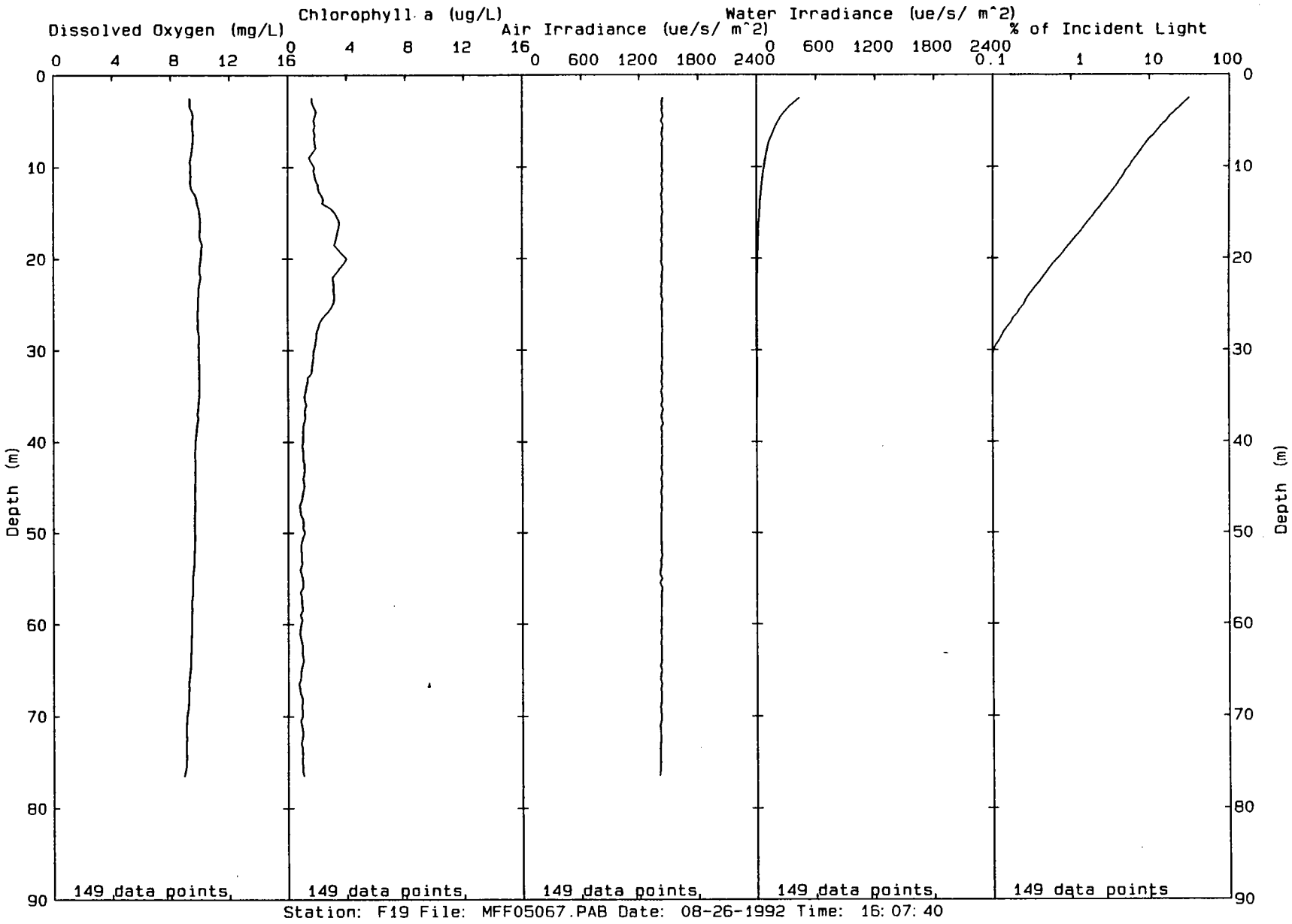
01-07-1993 21:34:13 Battelle


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
41 data points
41 data points
41 data points
41 data points
41 data points
Station: F18 File: MFF05087.PAB Date: 08-27-1992 Time: 12:59:03



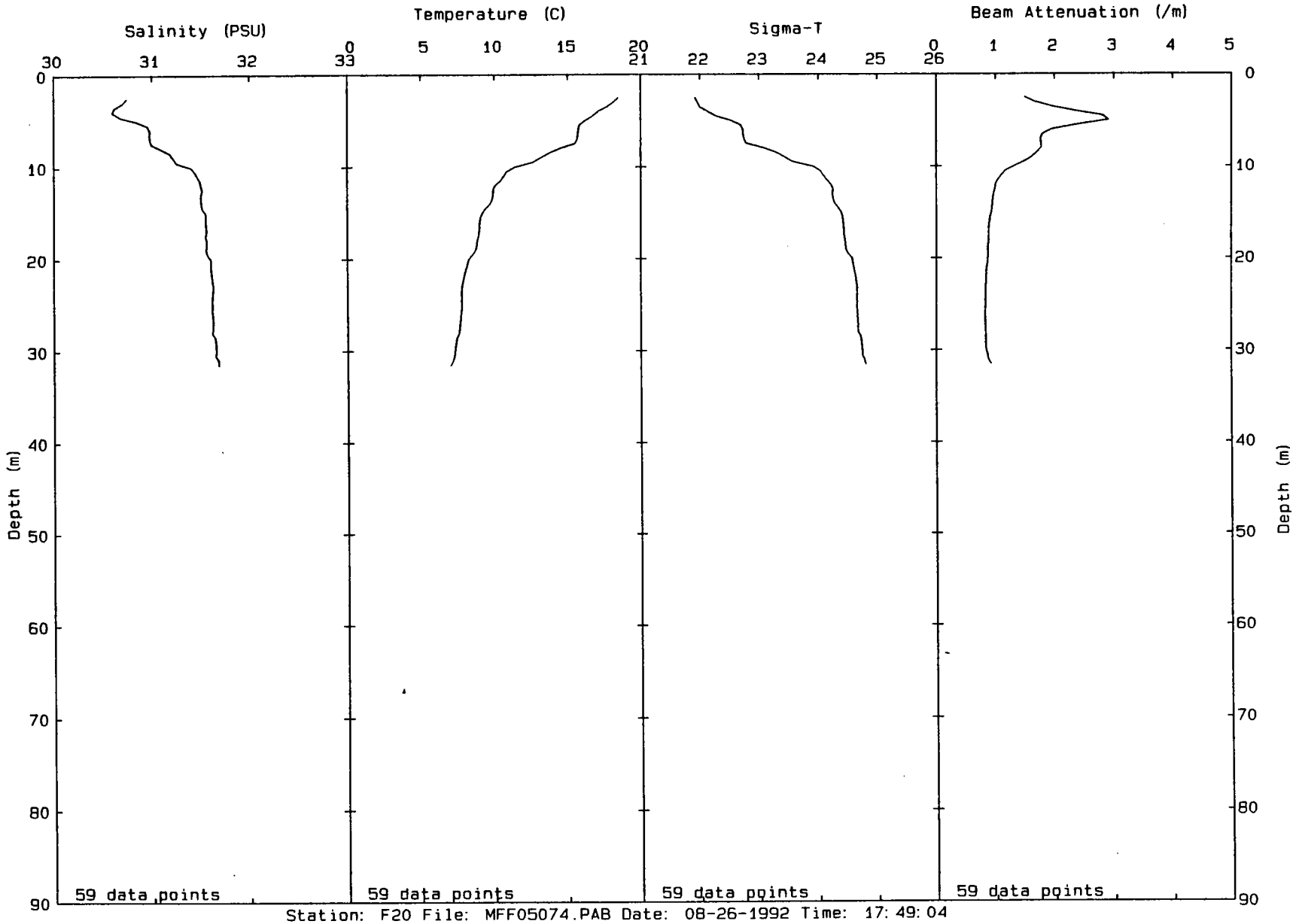
T:000

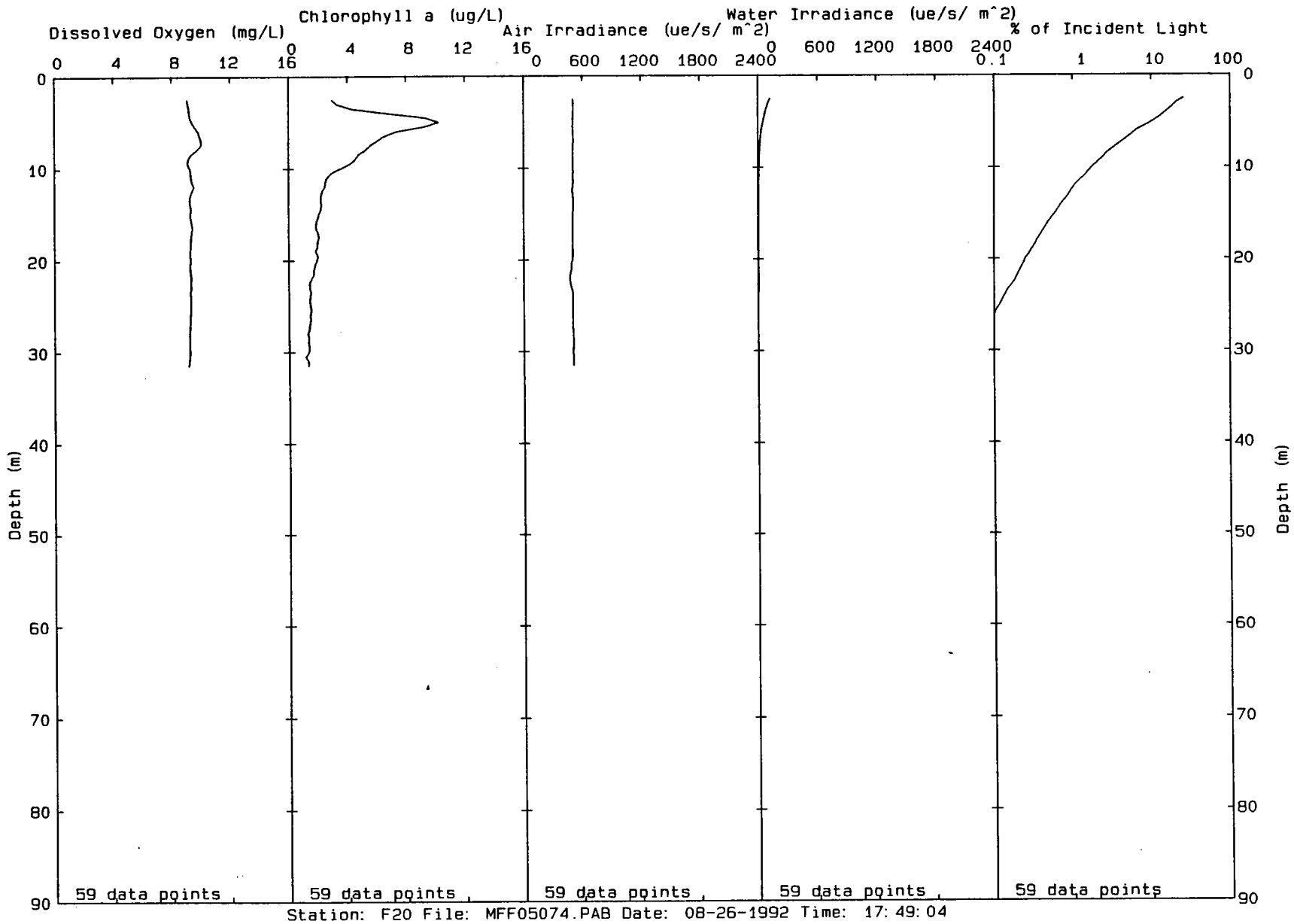
01-07-1993 21:33:52 Battelle



00012

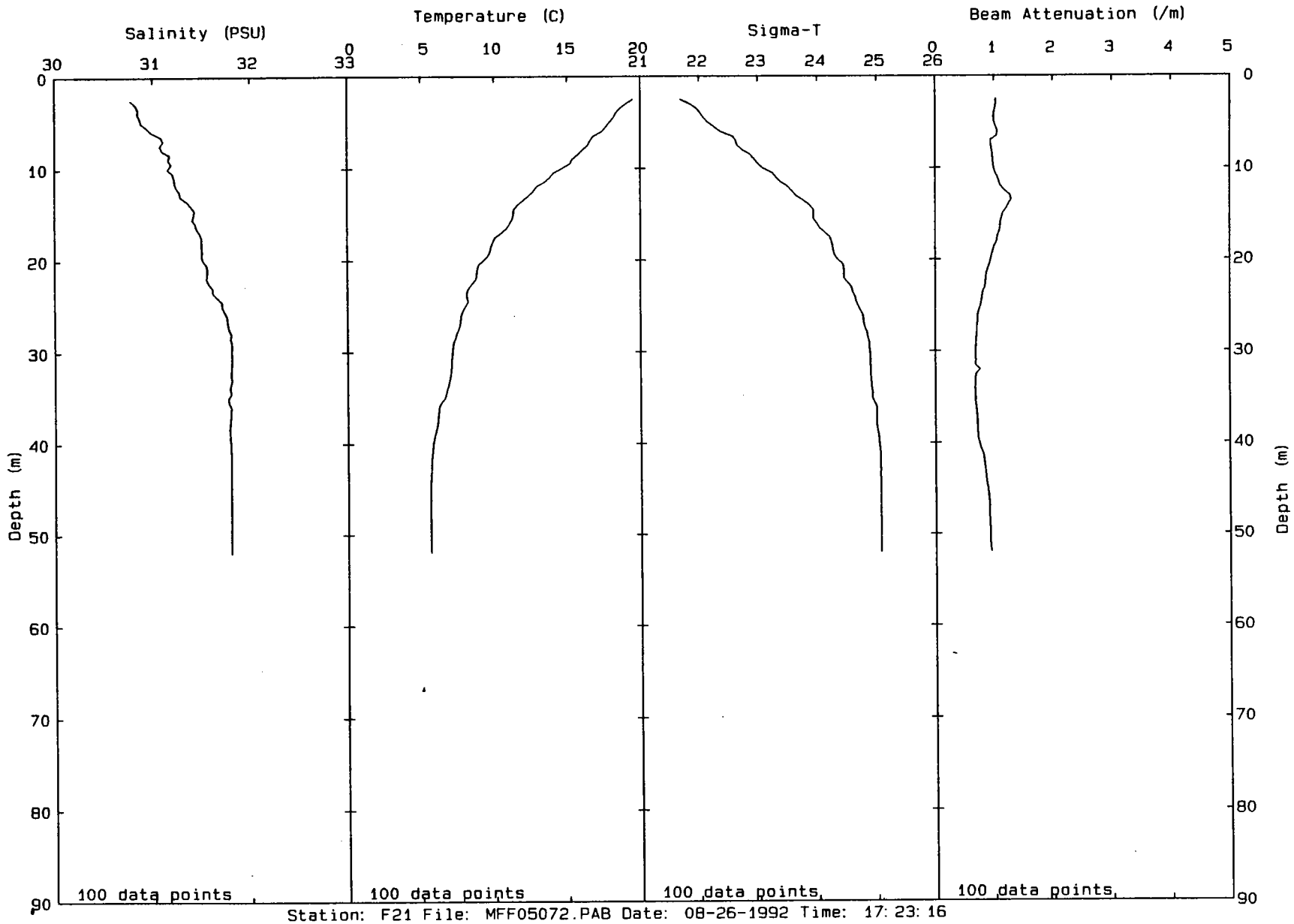
01-07-1993 20:23:58 Battelle


Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
59 data points
59 data points
59 data points
59 data points
Station: F20 File: MFF05074.PAB Date: 08-26-1992 Time: 17:49:04



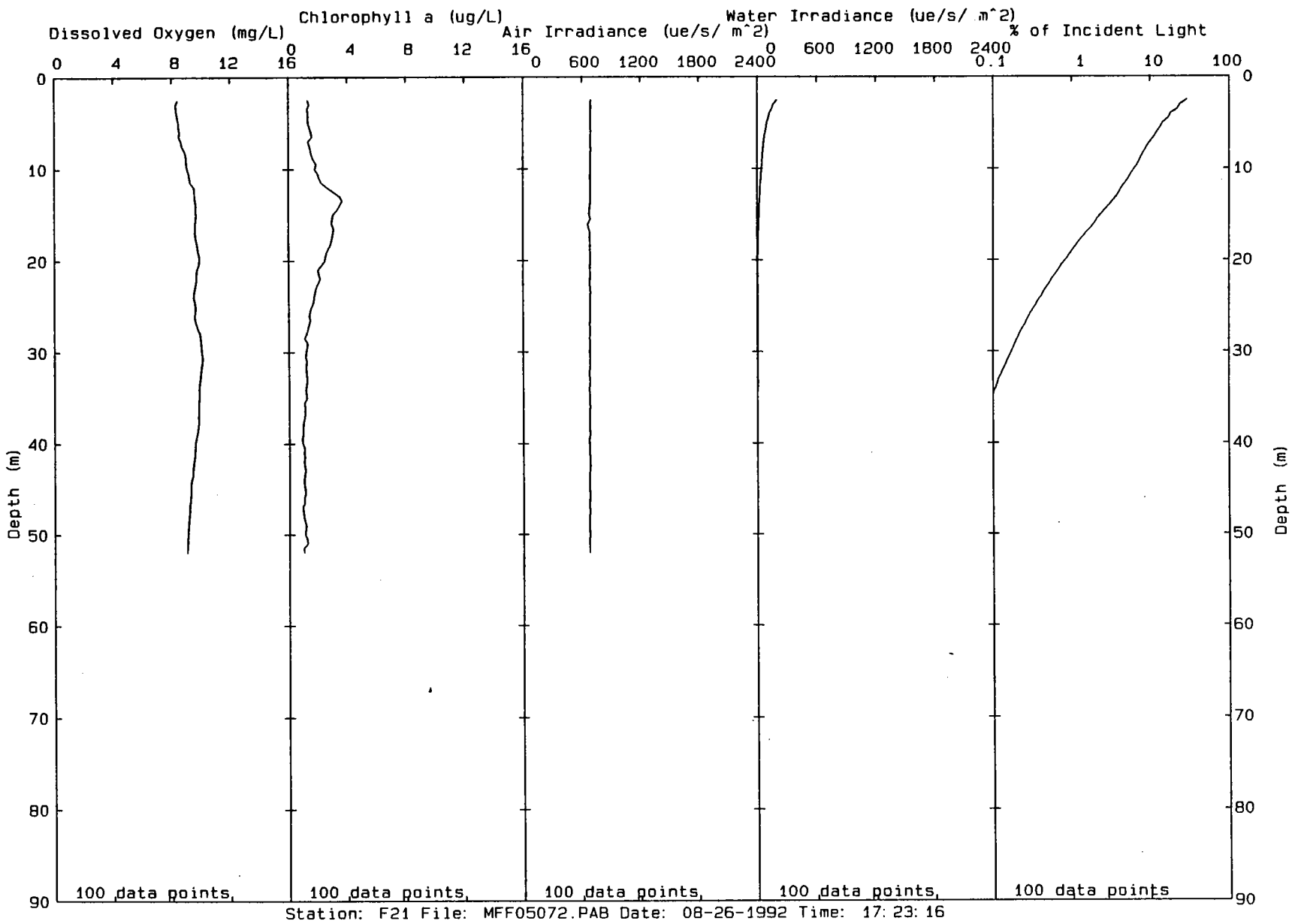
00074

01-07-1993 20:24:13 Battelle



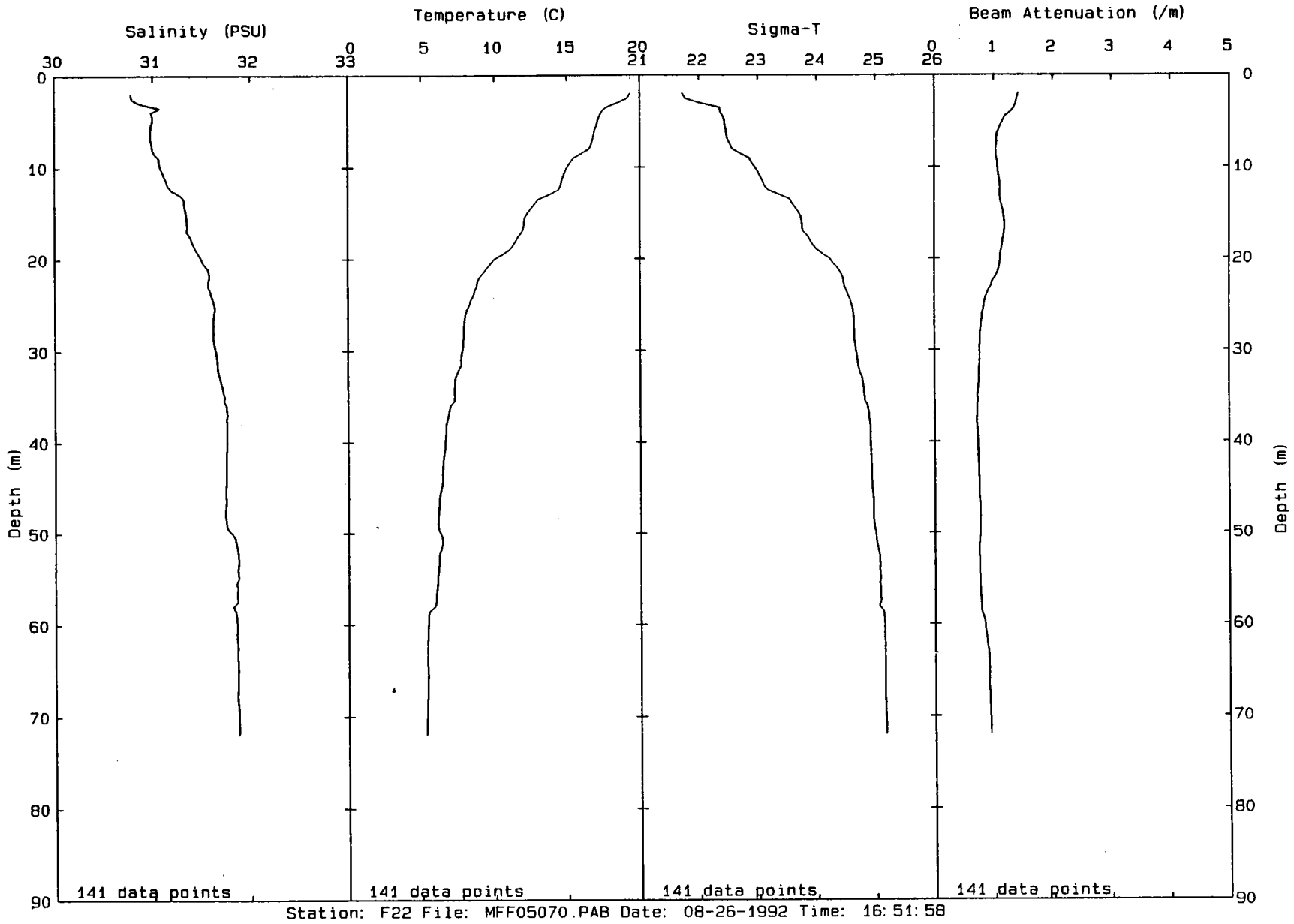
00075

01-07-1993 21:34:02 Battelle



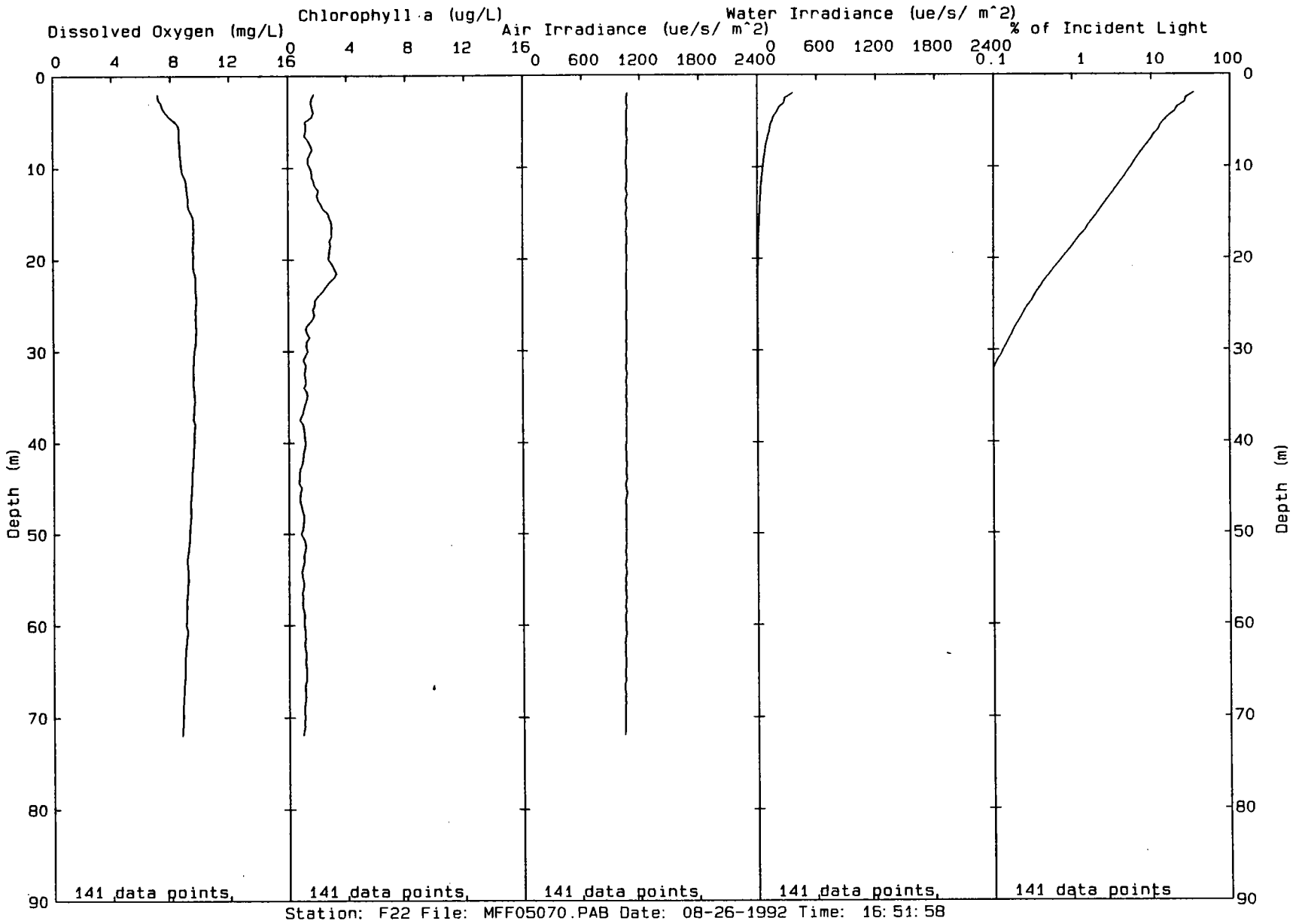
00076

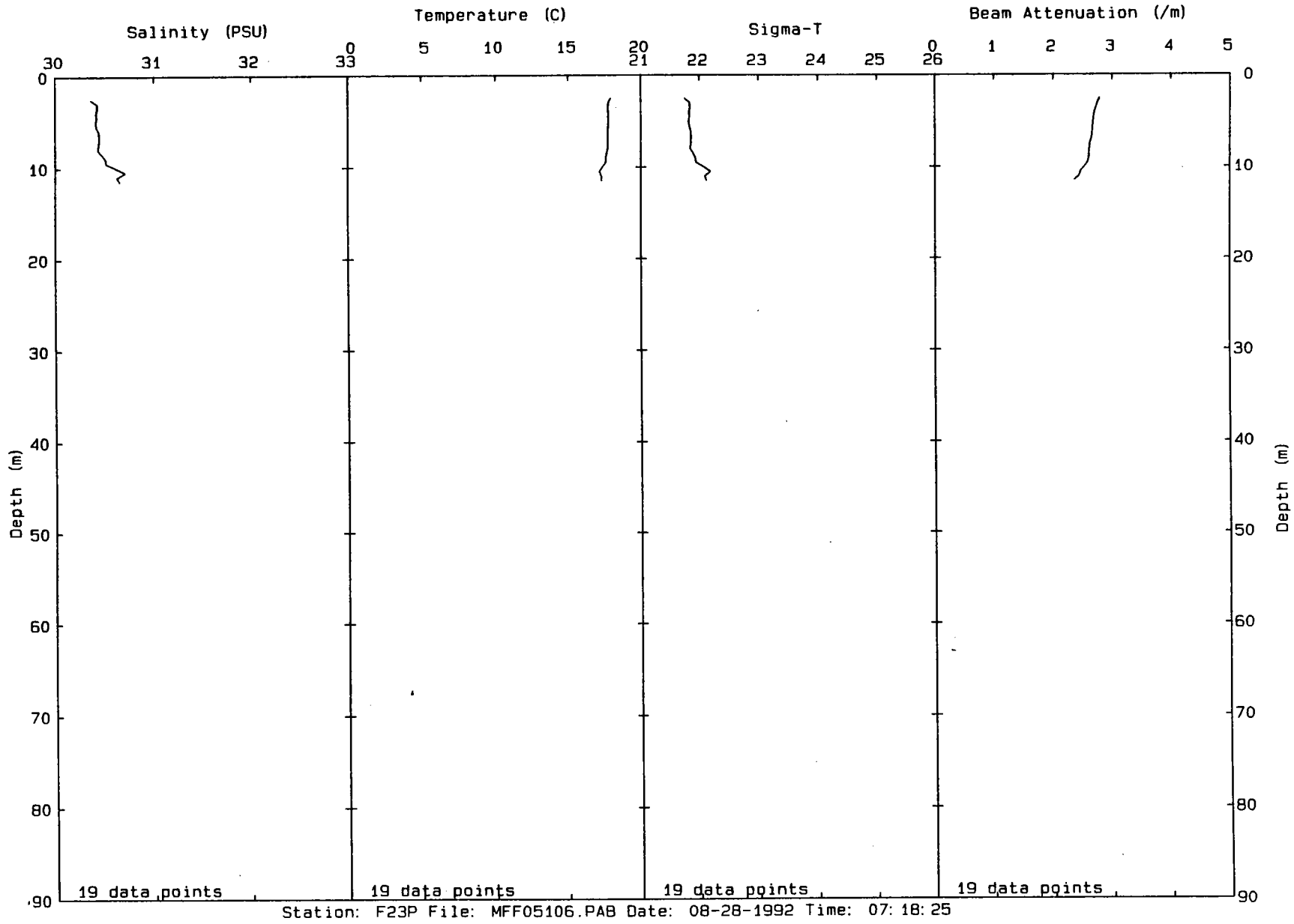
01-07-1993 20:24:09 Battelle



00077

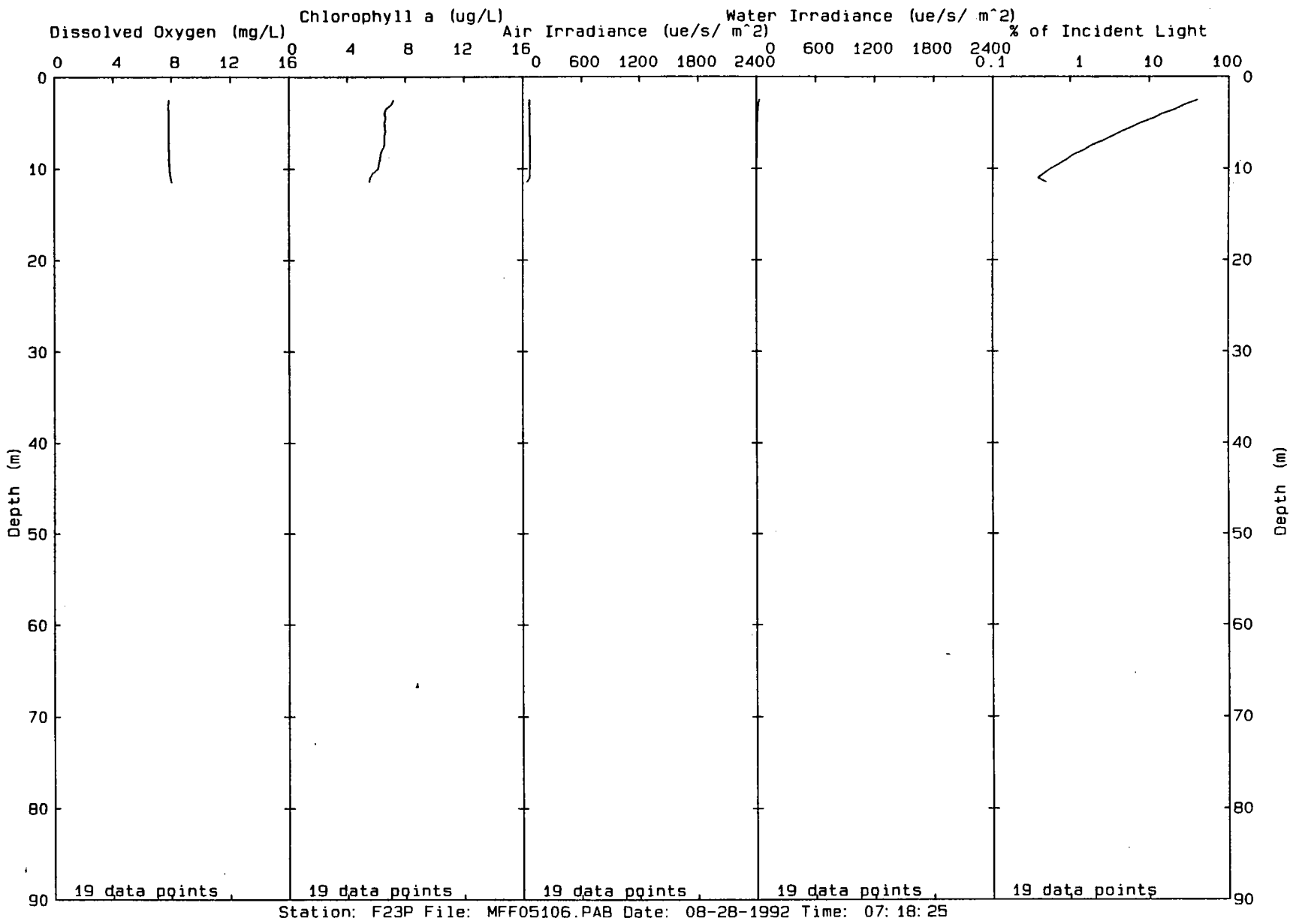
01-07-1993 21:33:58 Battelle


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
141 data points,
141 data points,
141 data points,
141 data points,
141 data points
Station: F22 File: MFF05070.PAB Date: 08-26-1992 Time: 16:51:58

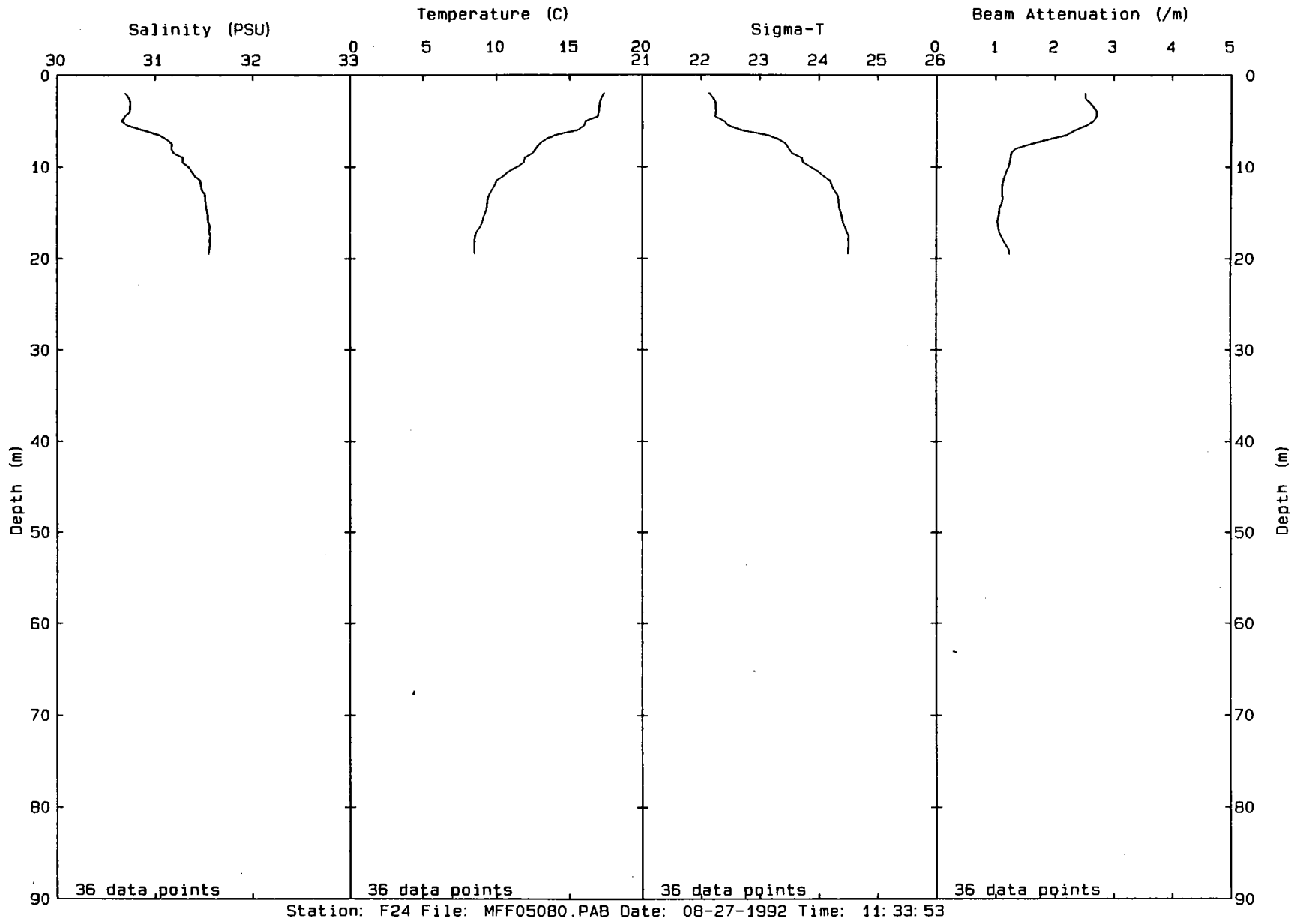


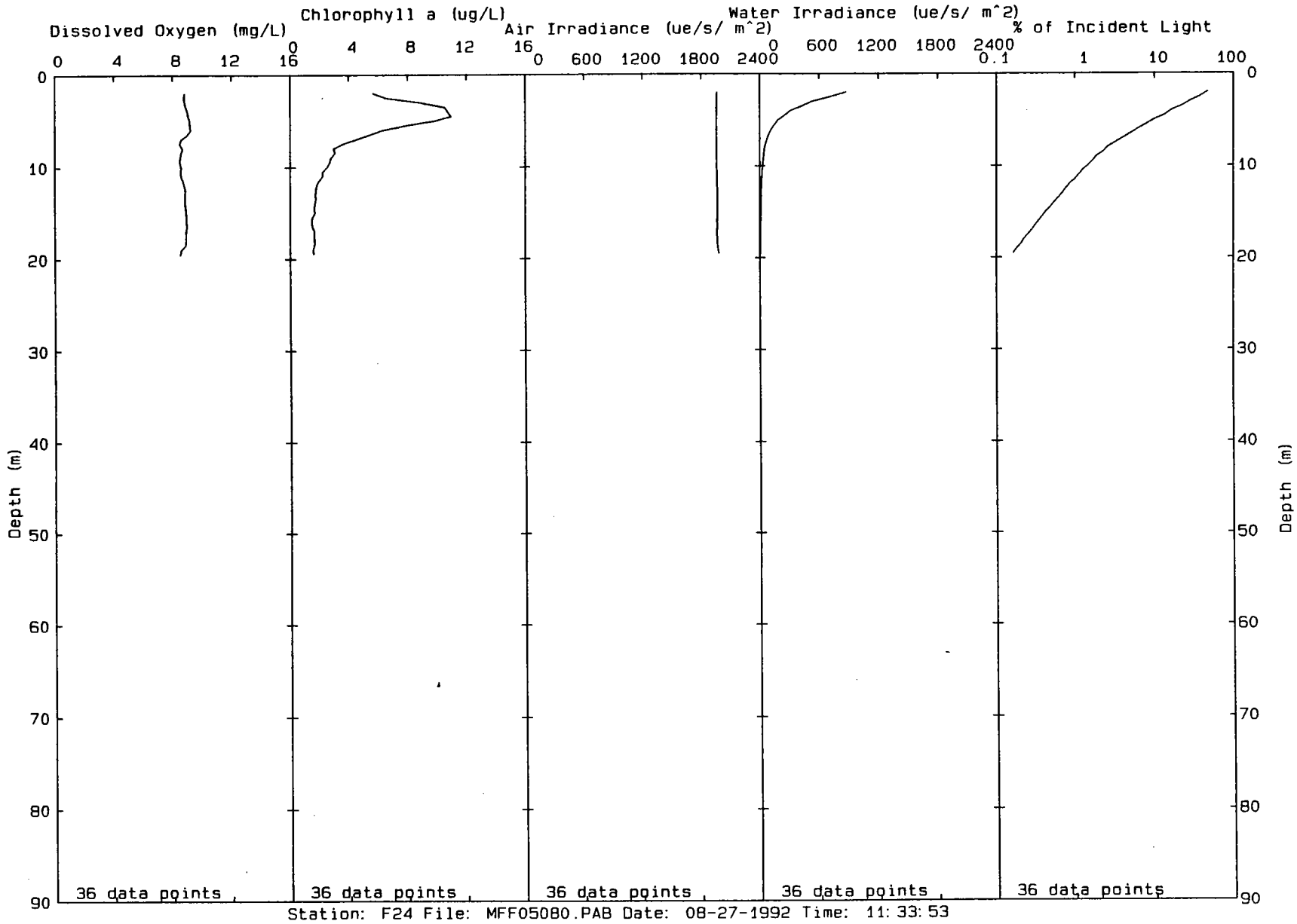
000079

01-07-1993 21:34:25 Battelle


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
19 data points
19 data points
19 data points
19 data points
19 data points
Station: F23P File: MFF05106.PAB Date: 08-28-1992 Time: 07:18:25

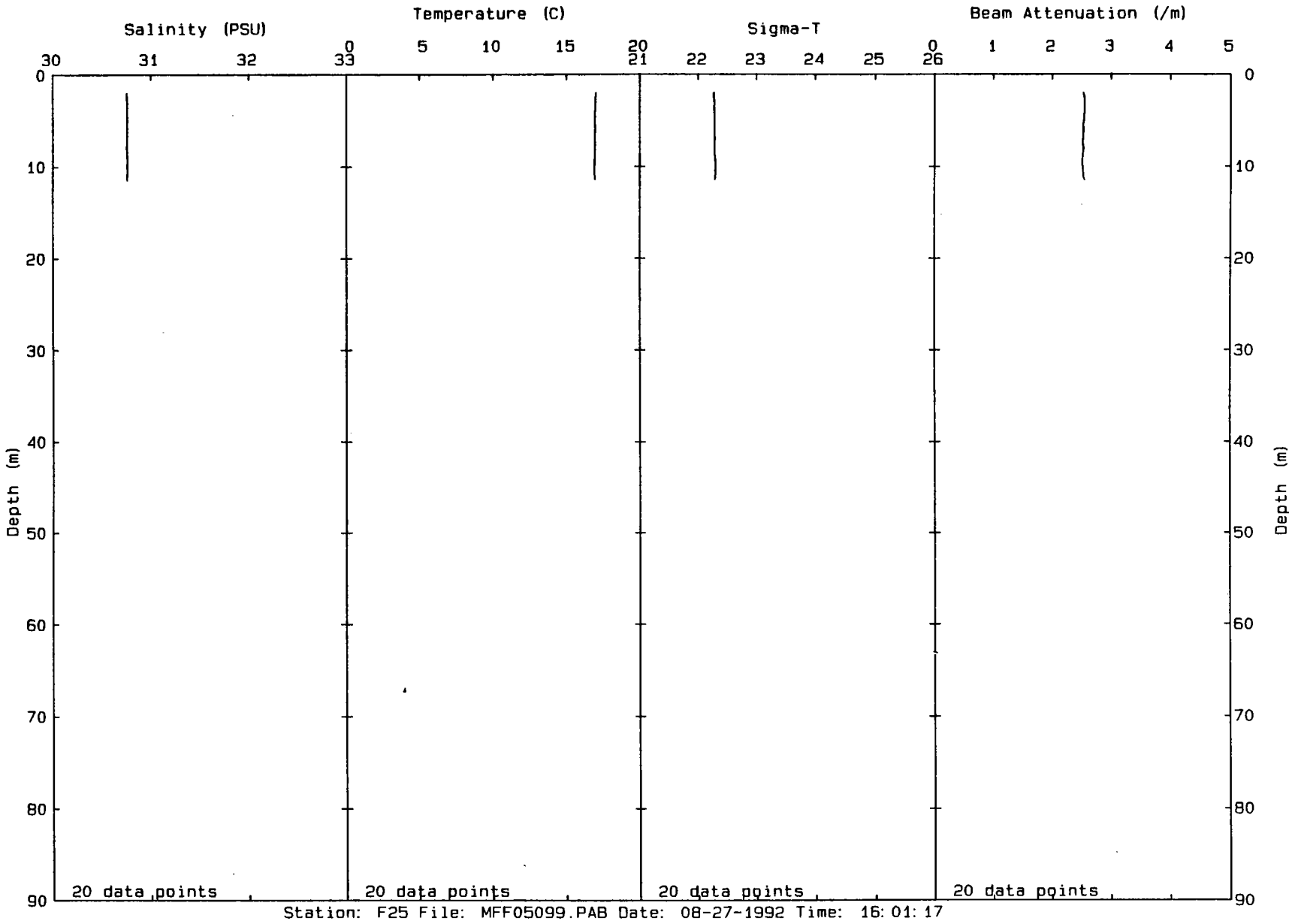
00800


Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
Beam Attenuation (/m)
0
1
2
3
4
5
26
Depth (m)
0
10
20
30
40
50
60
70
80
90
36 data points
36 data points
36 data points
36 data points
Station: F24 File: MFF05080.PAB Date: 08-27-1992 Time: 11:33:53



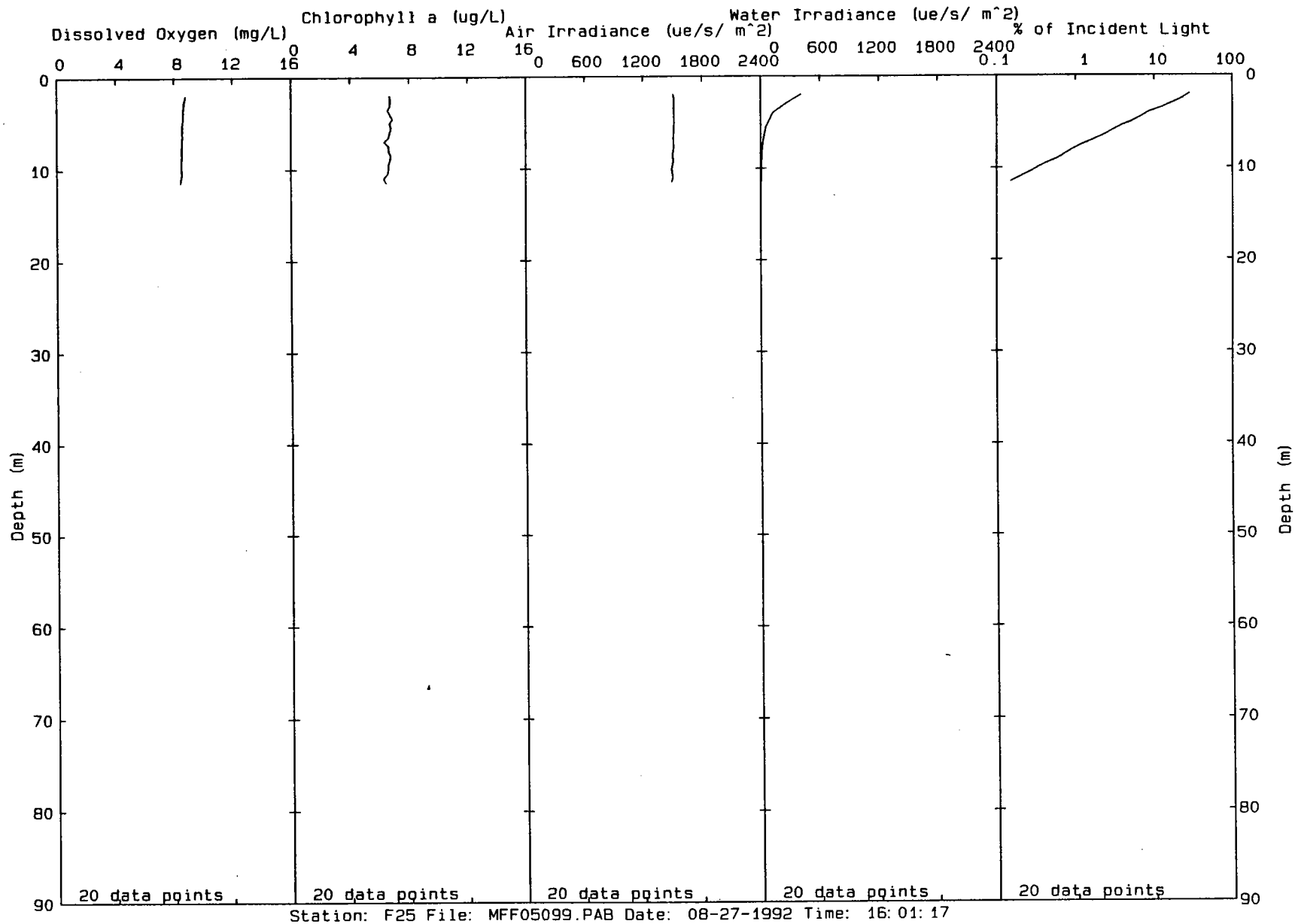
28000

01-07-1993 20:24:16 Battelle



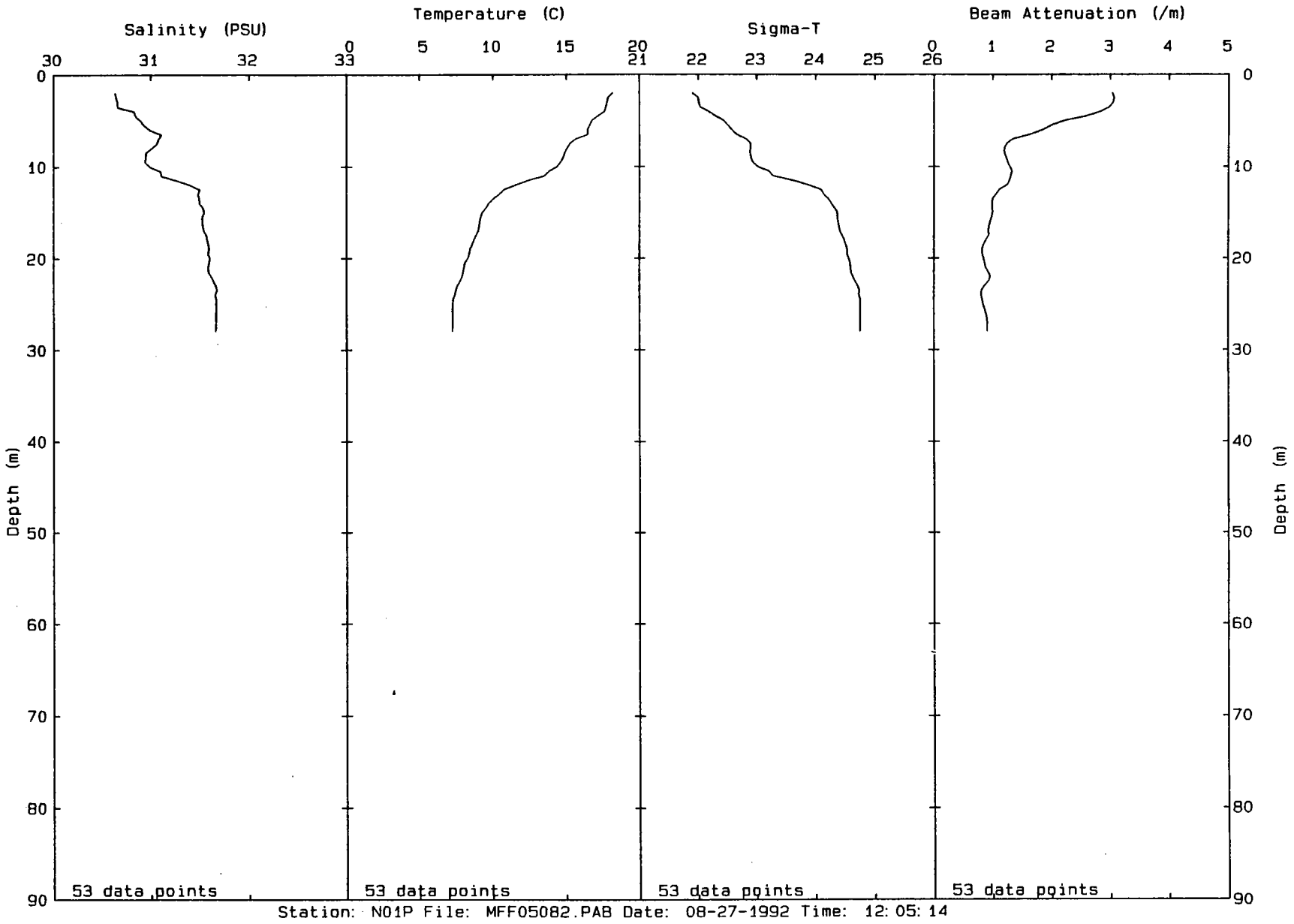
00083

01-07-1993 21:34:23 Battelle



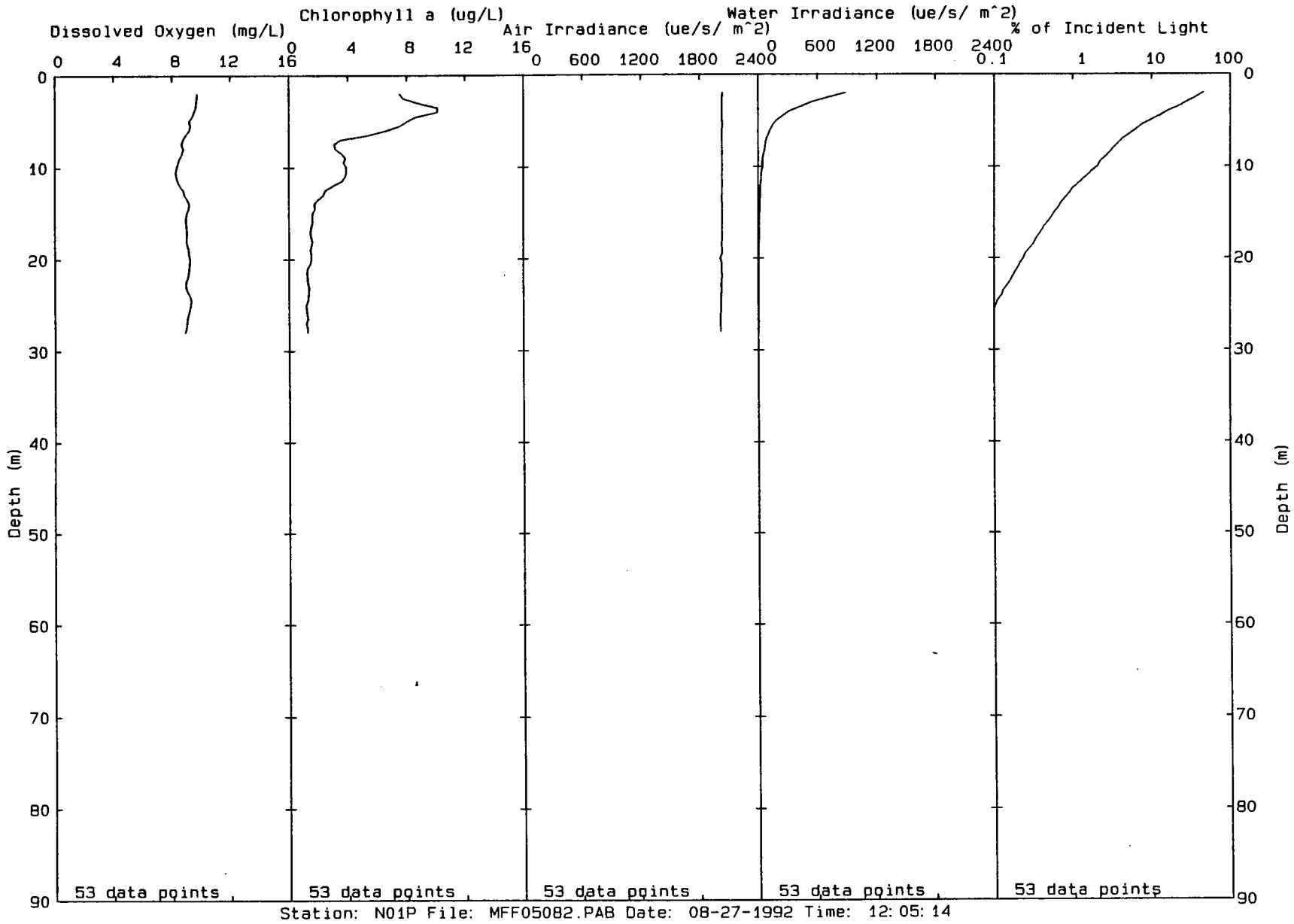
00084

01-07-1993 20:24:32 Battelle



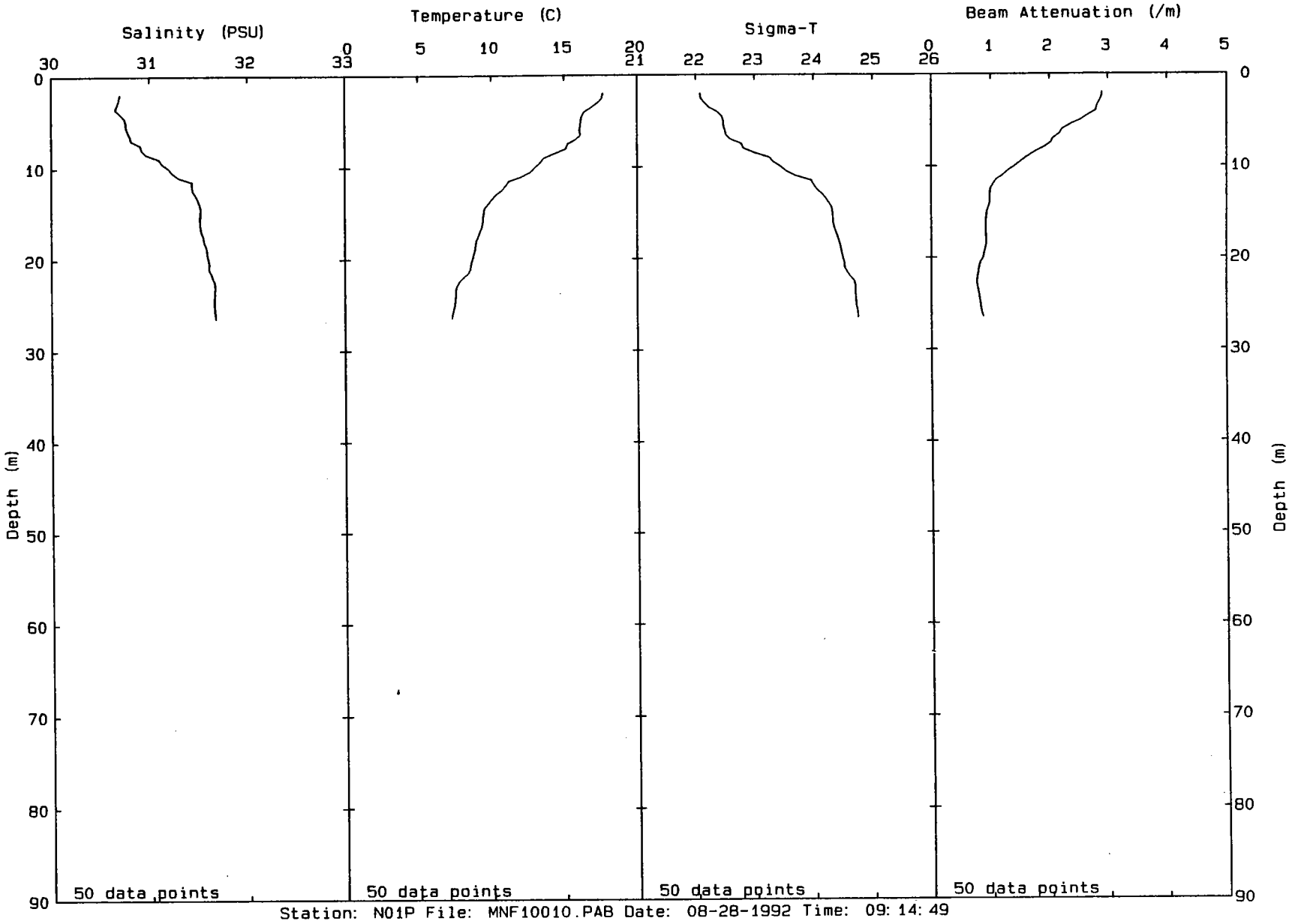
S8000

01-07-1993 21:34:11 Battelle



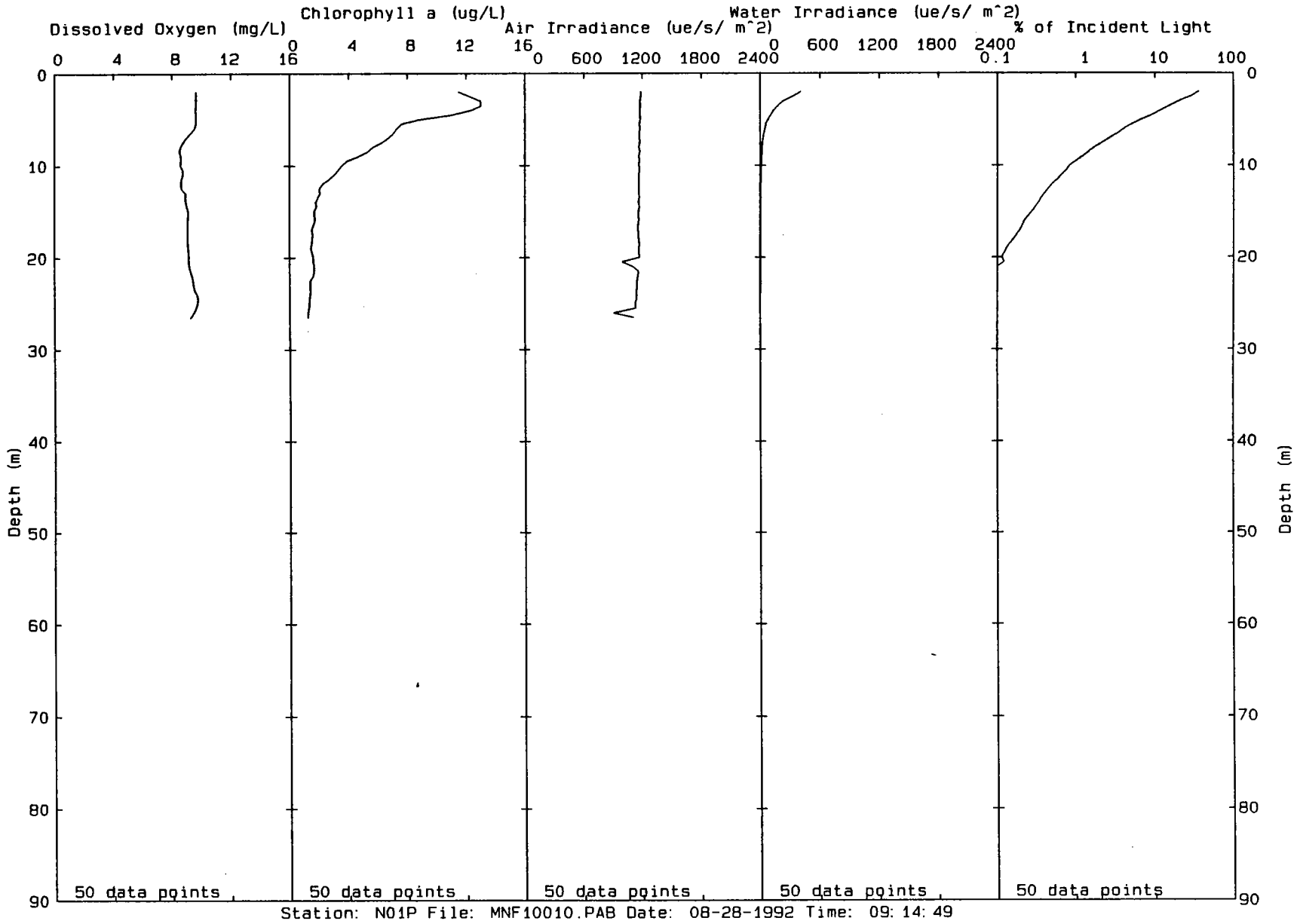
98000

01-07-1993 20:24:19 Battelle



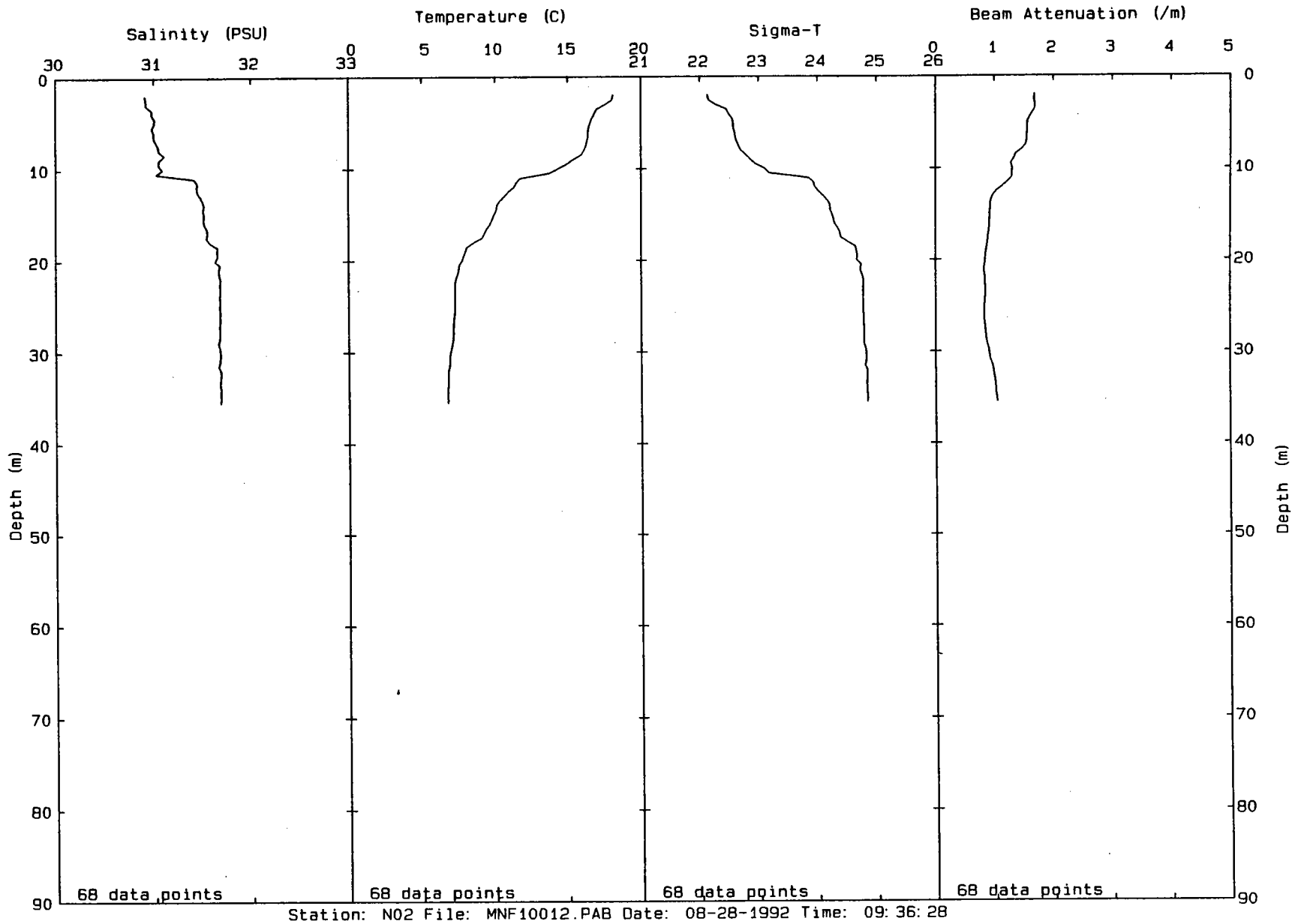
000087

01-07-1993 21:37:53 Battelle



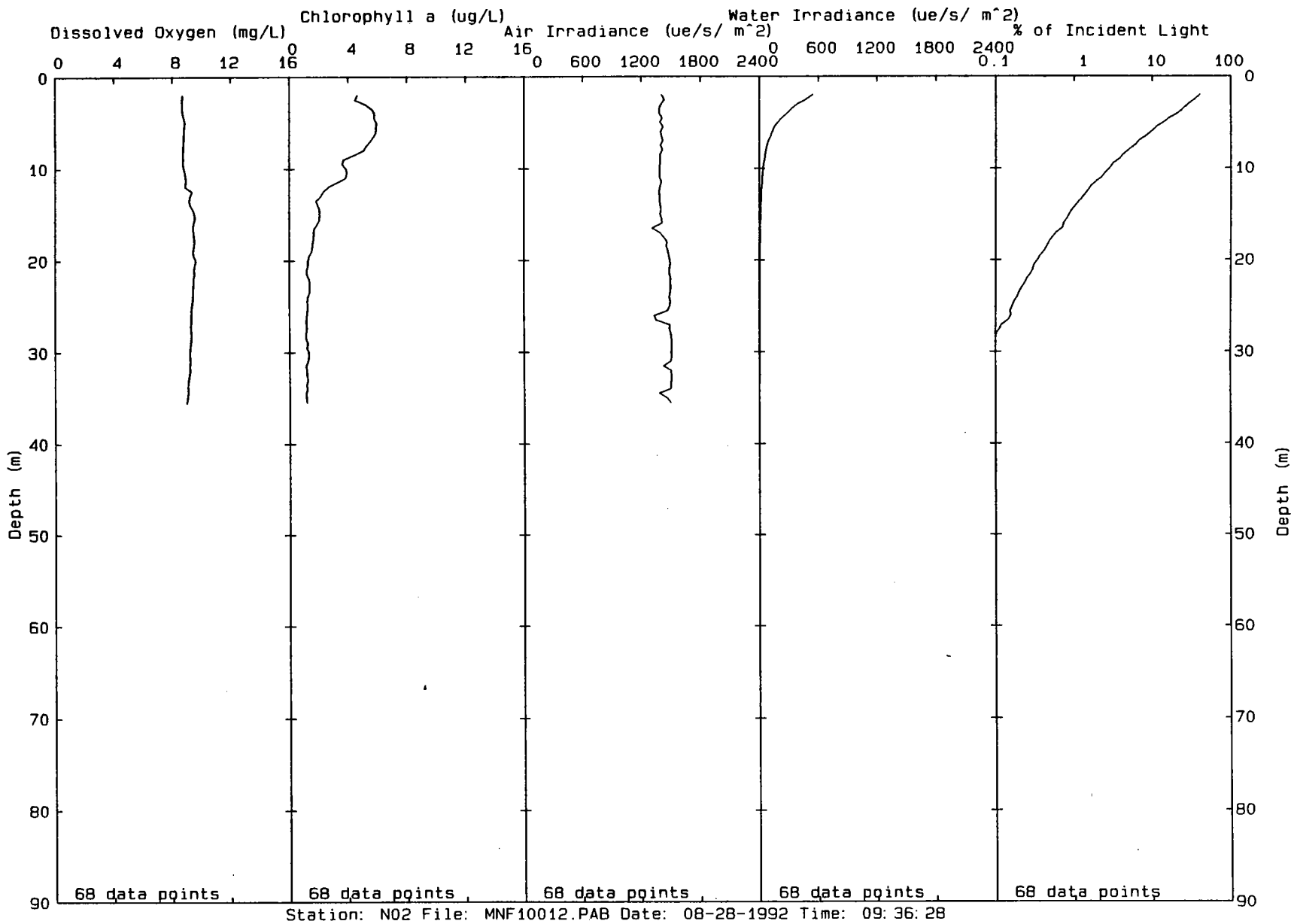
88060

01-07-1993 20:26:33 Battelle



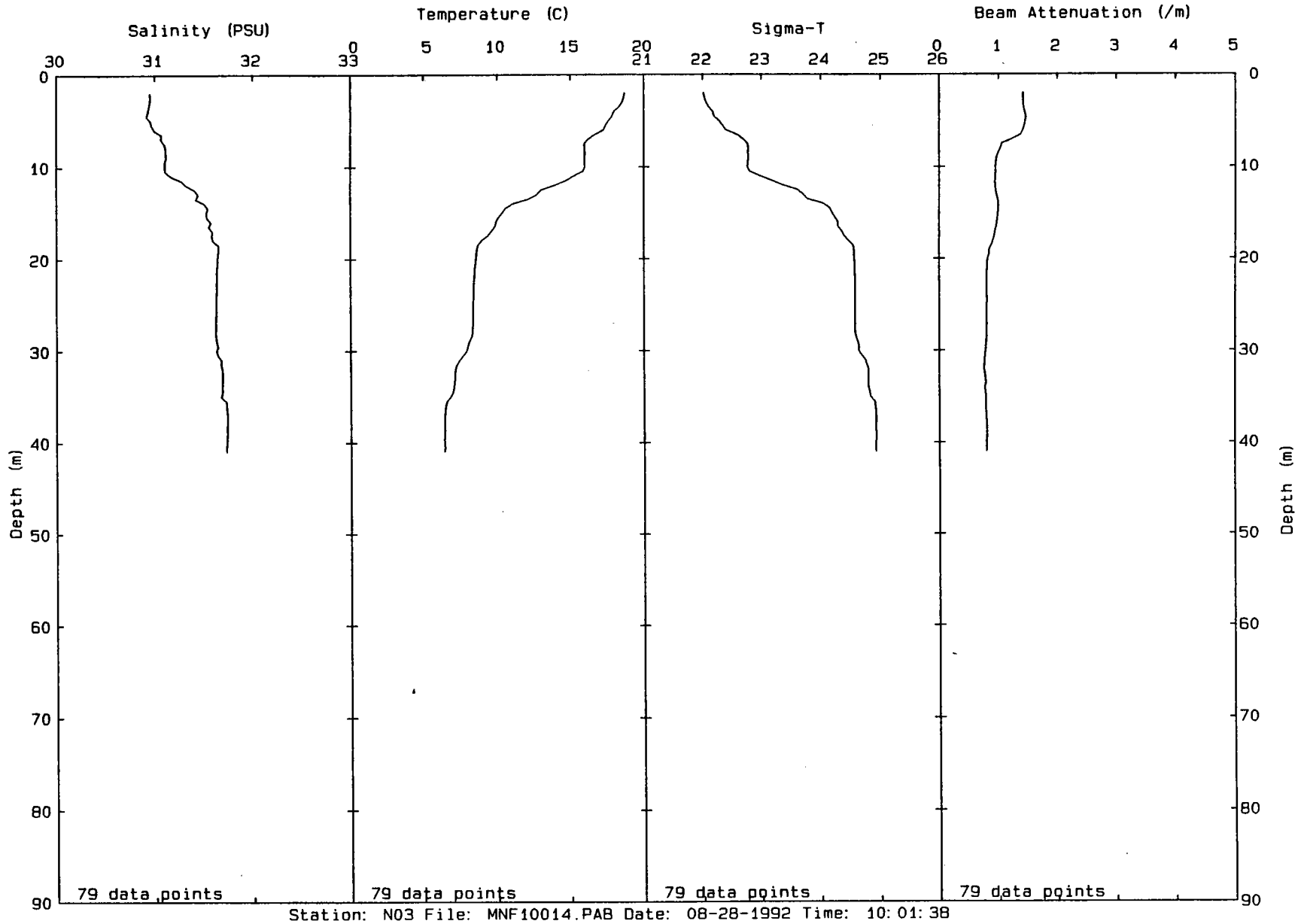
68000

01-07-1993 21:37:57 Battelle



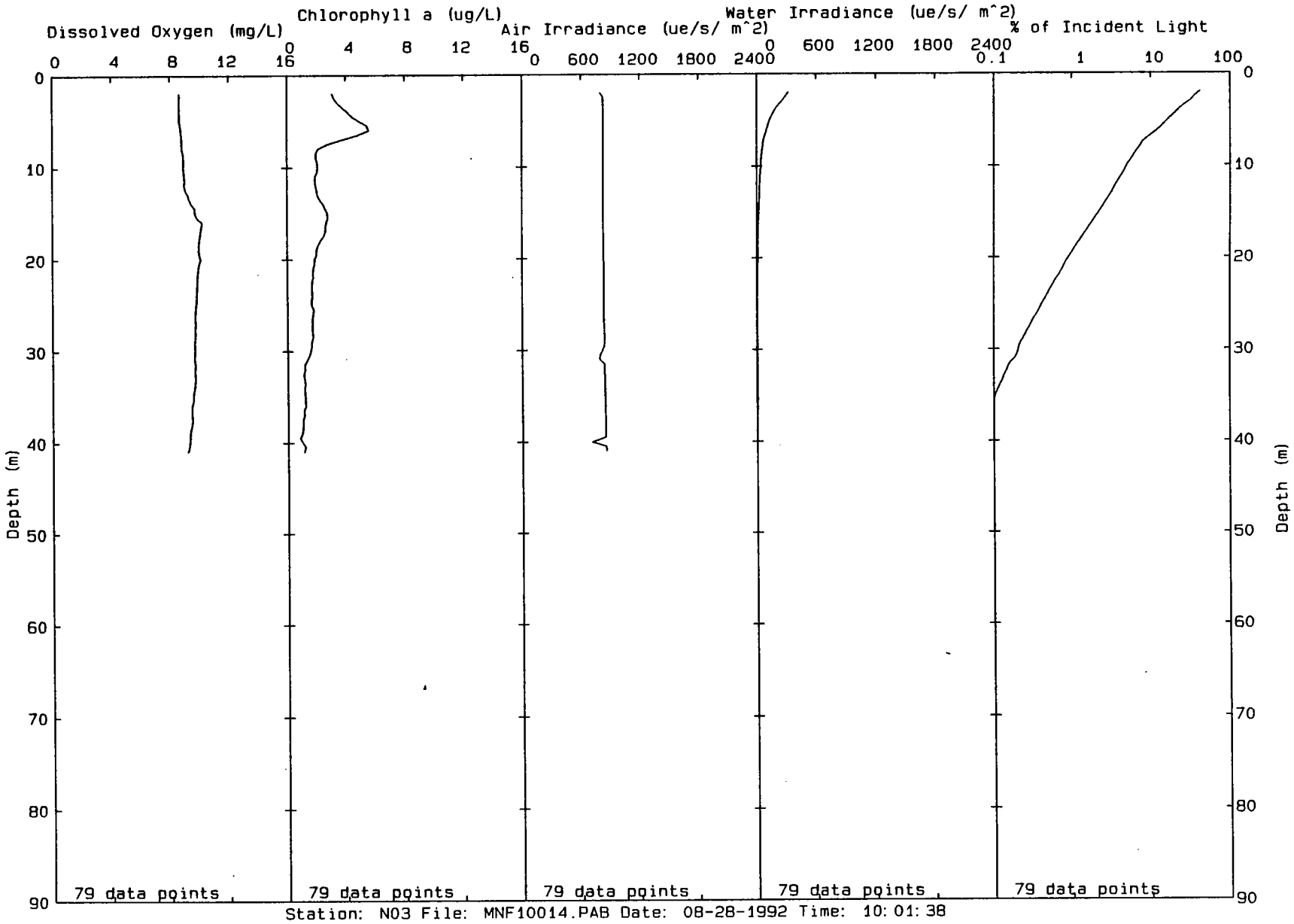
06000

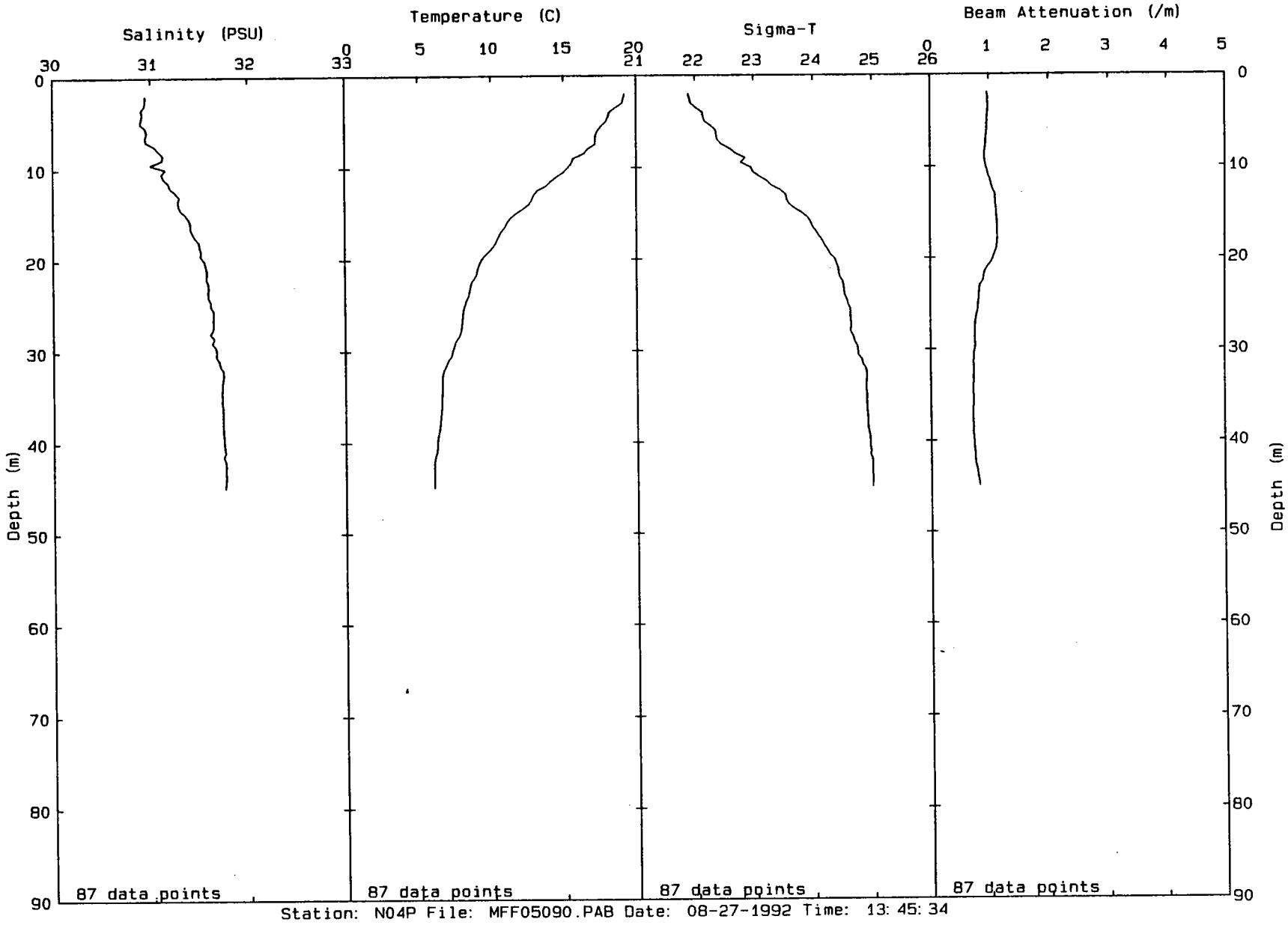
01-07-1993 20:28:37 Battelle



00091

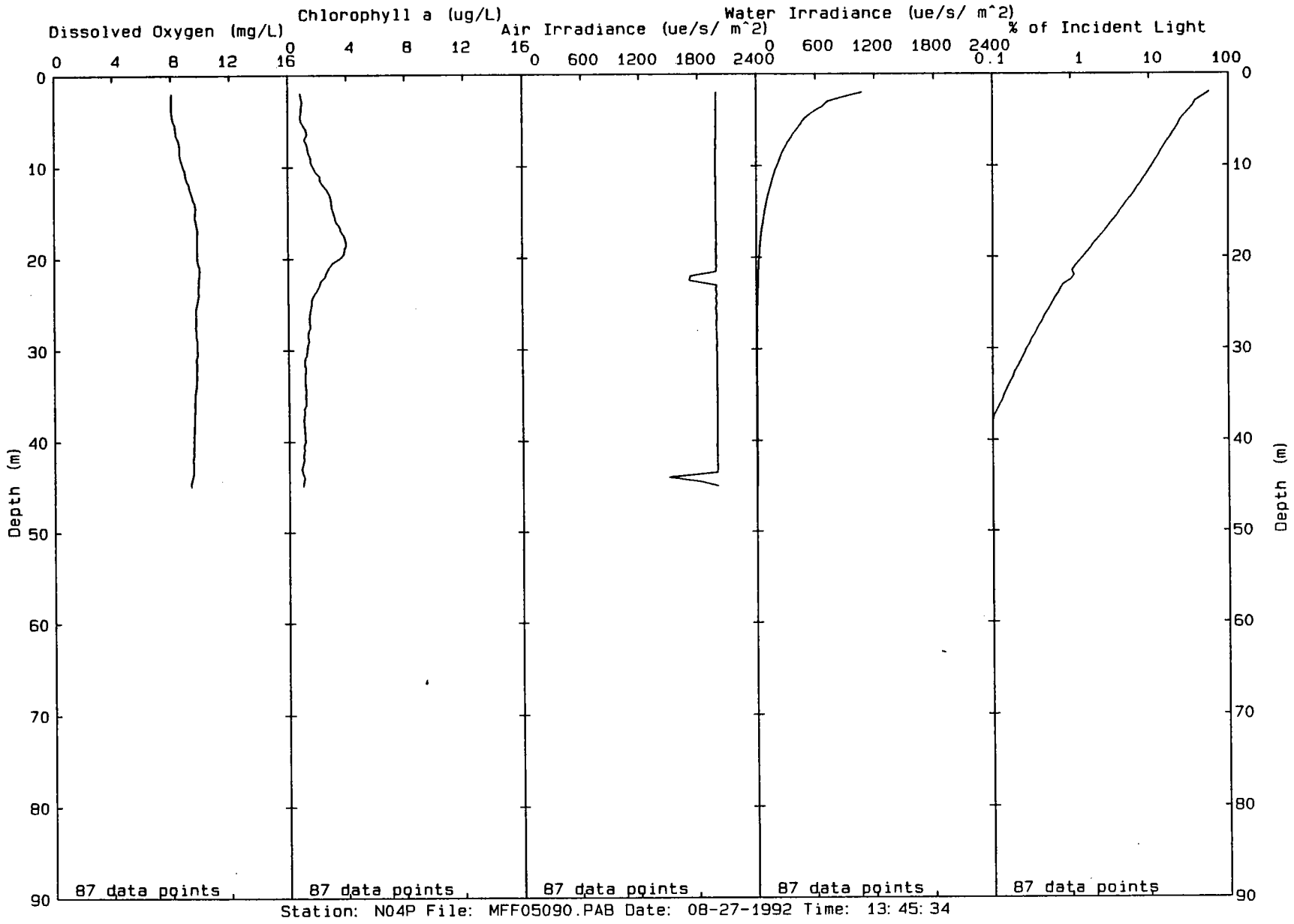
01-07-1993 21:38:01 Battelle

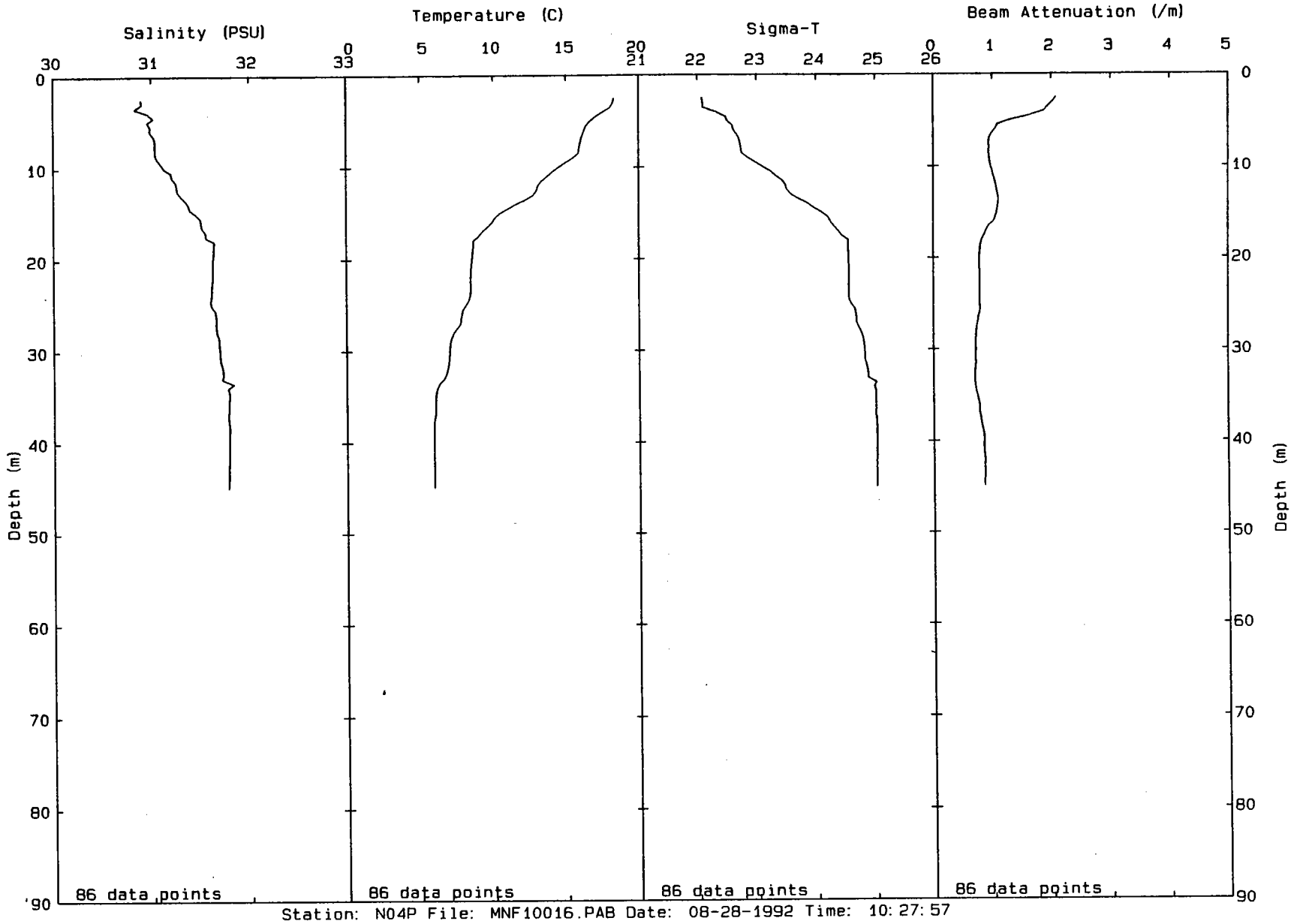

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
79 data points
79 data points
79 data points
79 data points
79 data points
Station: N03 File: MNF10014.PAB Date: 08-28-1992 Time: 10:01:38

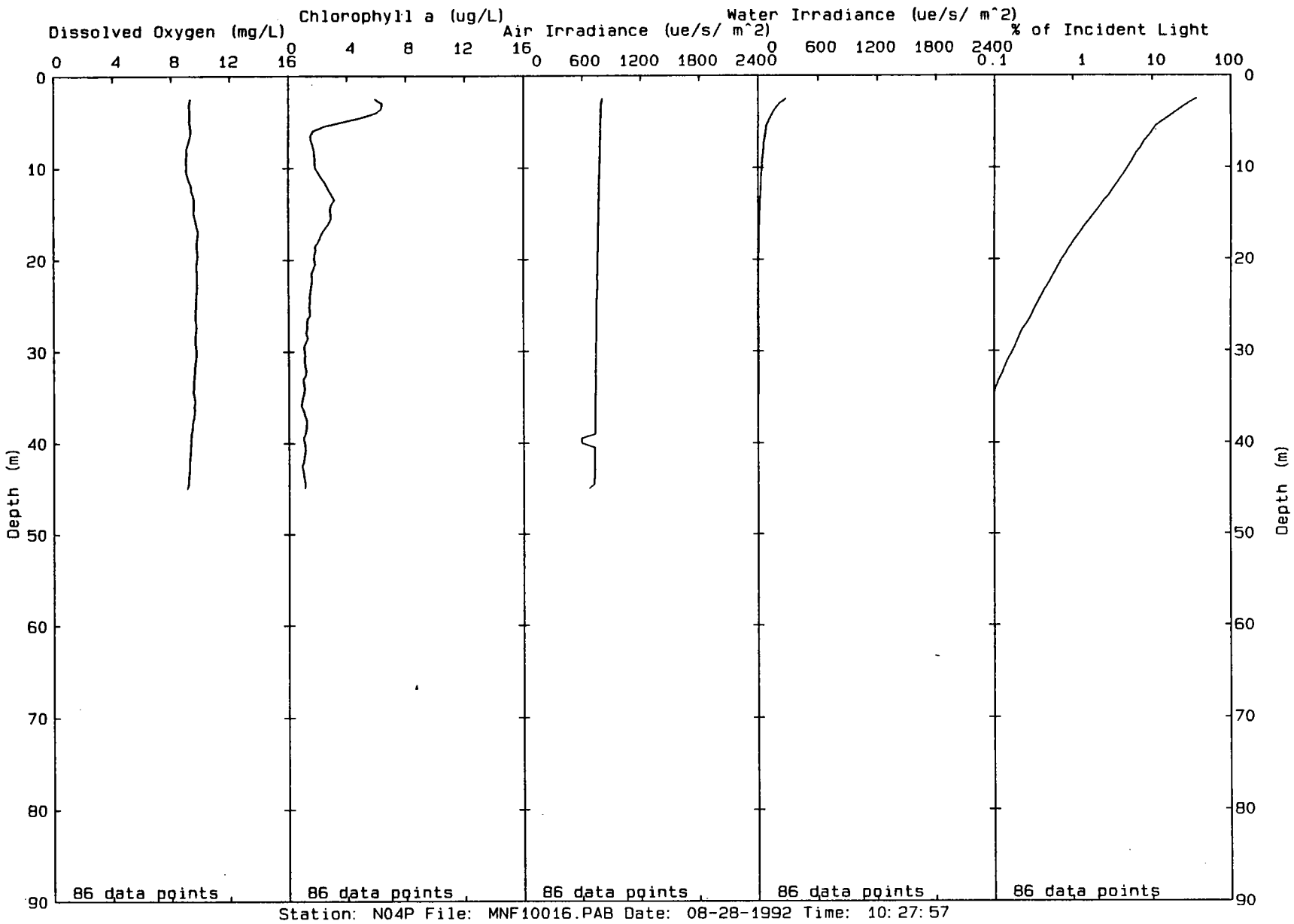


00093

01-07-1993 21:34:18 Battelle

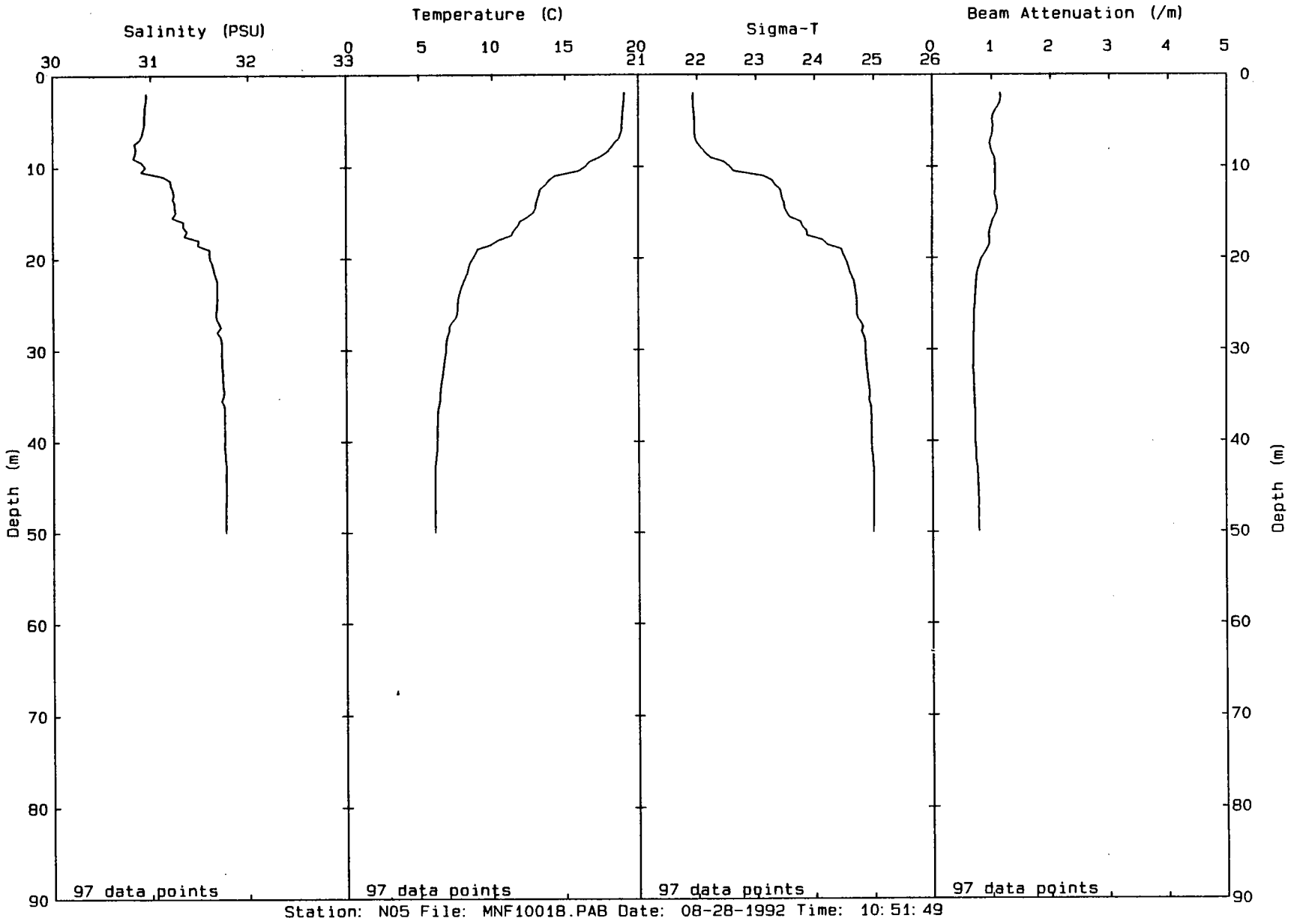

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
87 data points
87 data points
87 data points
87 data points
87 data points
Station: N04P File: MFF05090.PAB Date: 08-27-1992 Time: 13:45:34


Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
86 data points
86 data points
86 data points
86 data points
Station: N04P File: MNF10016.PAB Date: 08-28-1992 Time: 10:27:57



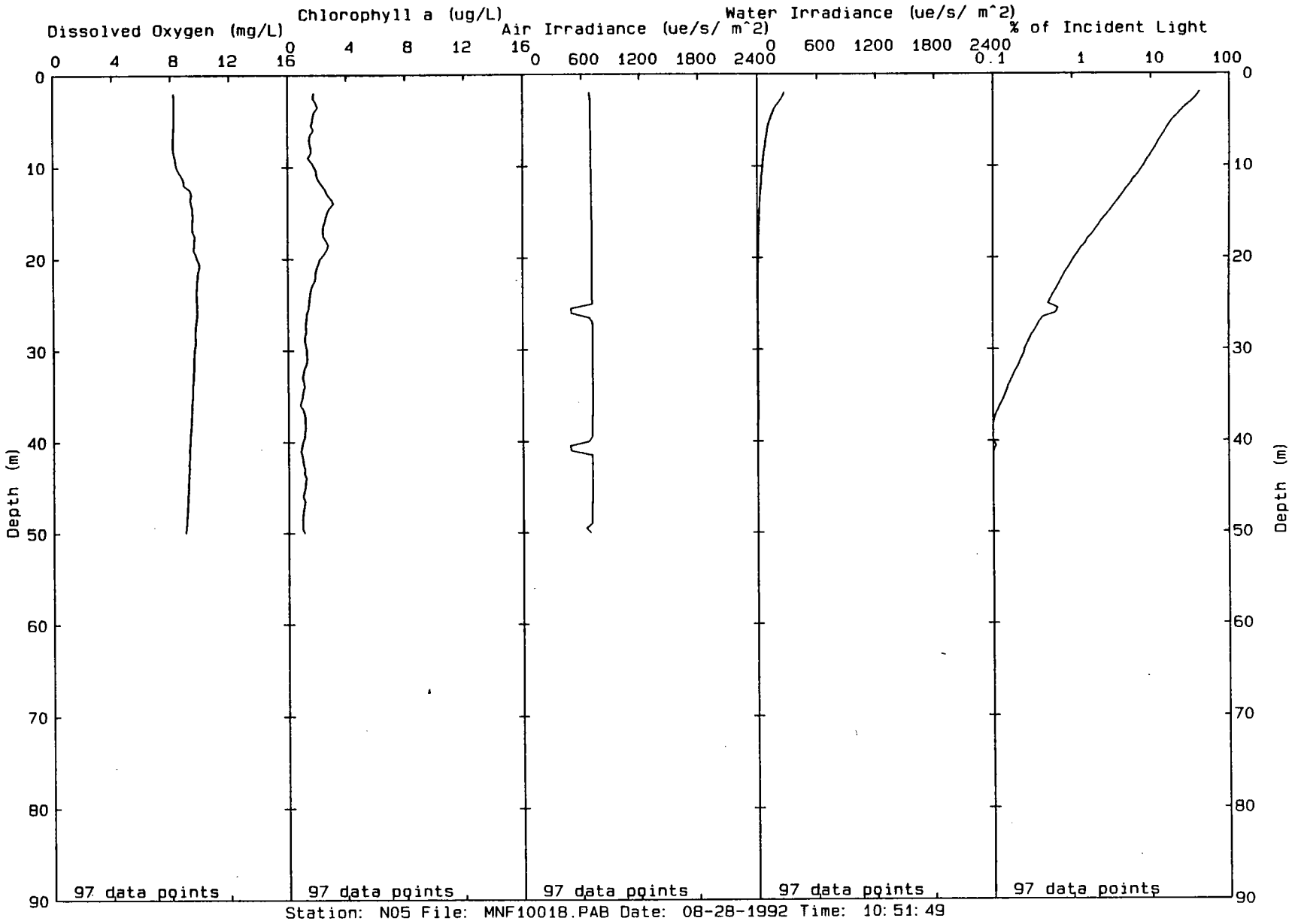
96000

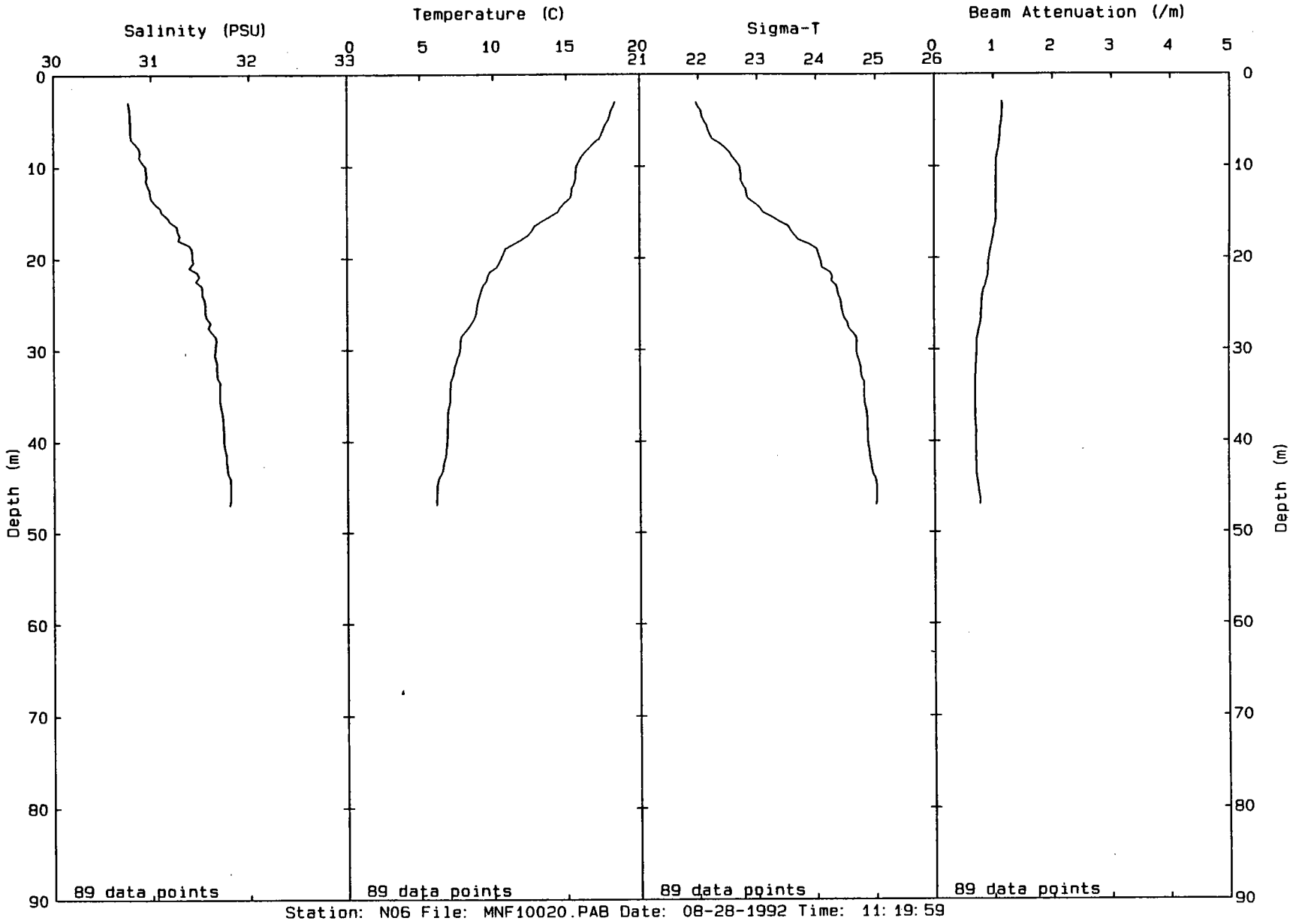
01-07-1993 20:28:47 Battelle



00097

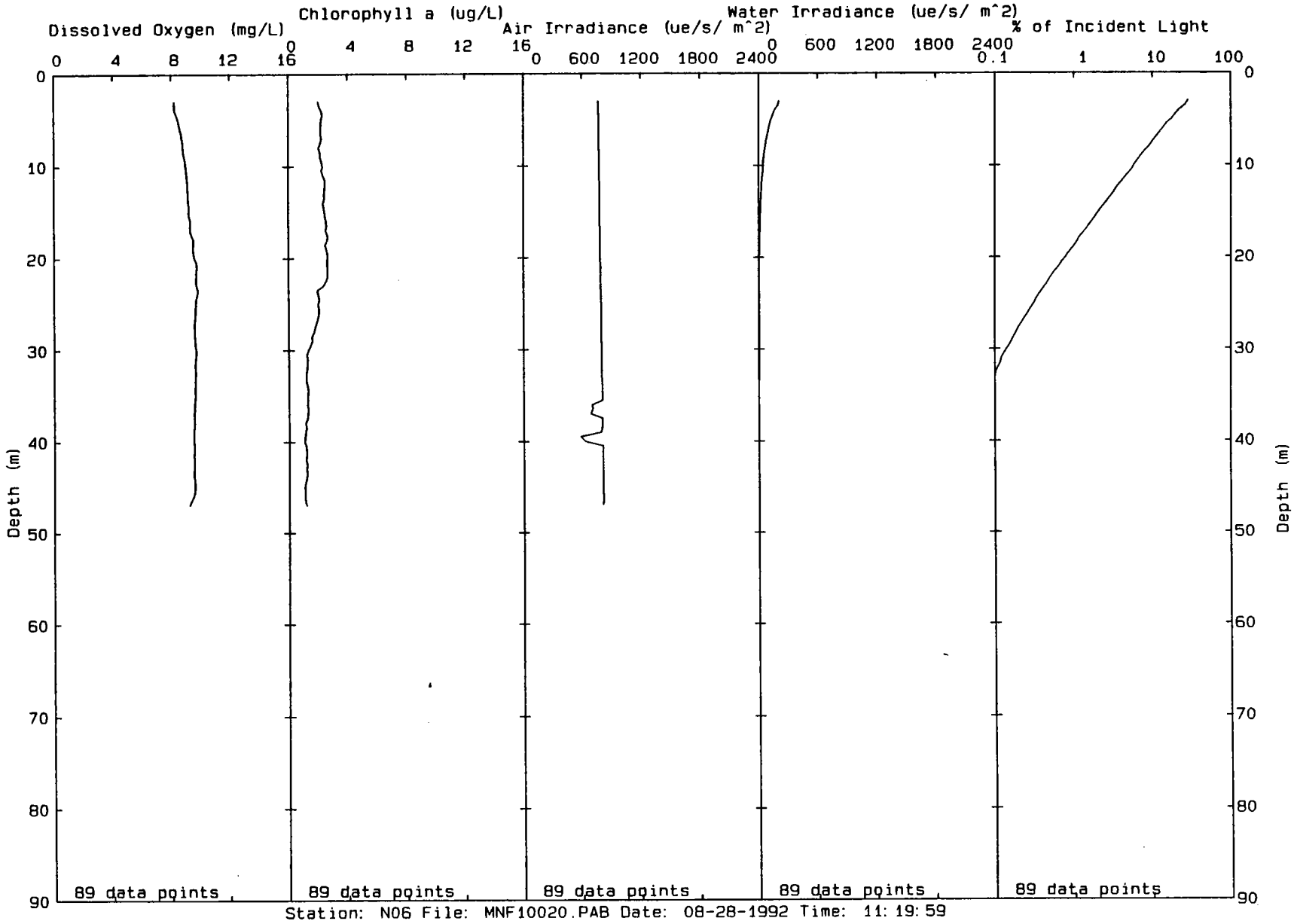
01-07-1993 21:38:11 Battelle


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
97 data points
97 data points
97 data points
97 data points
97 data points
Station: N05 File: MNF10018.PAB Date: 08-28-1992 Time: 10:51:49



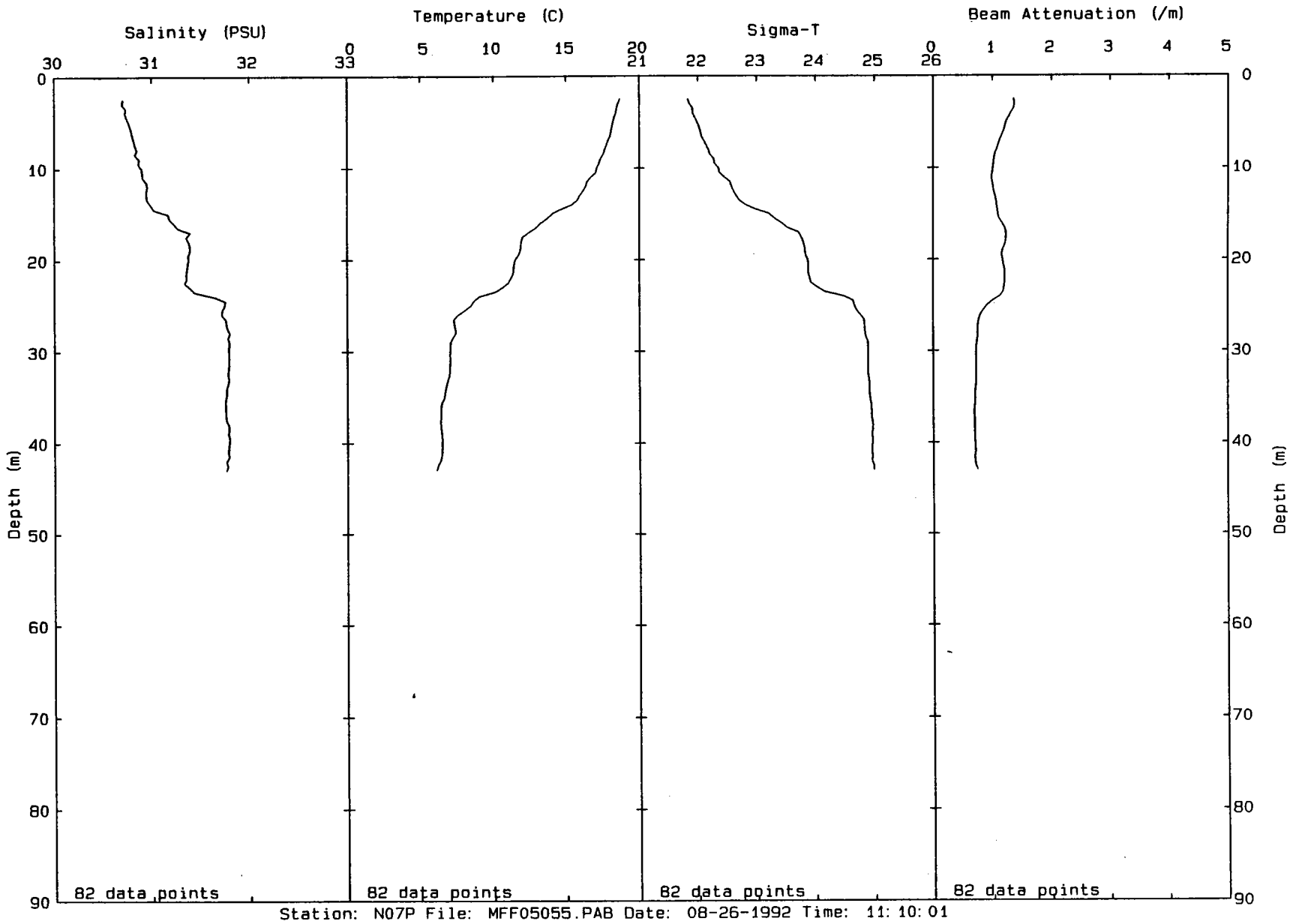
66000

01-07-1993 21:38:15 Battelle



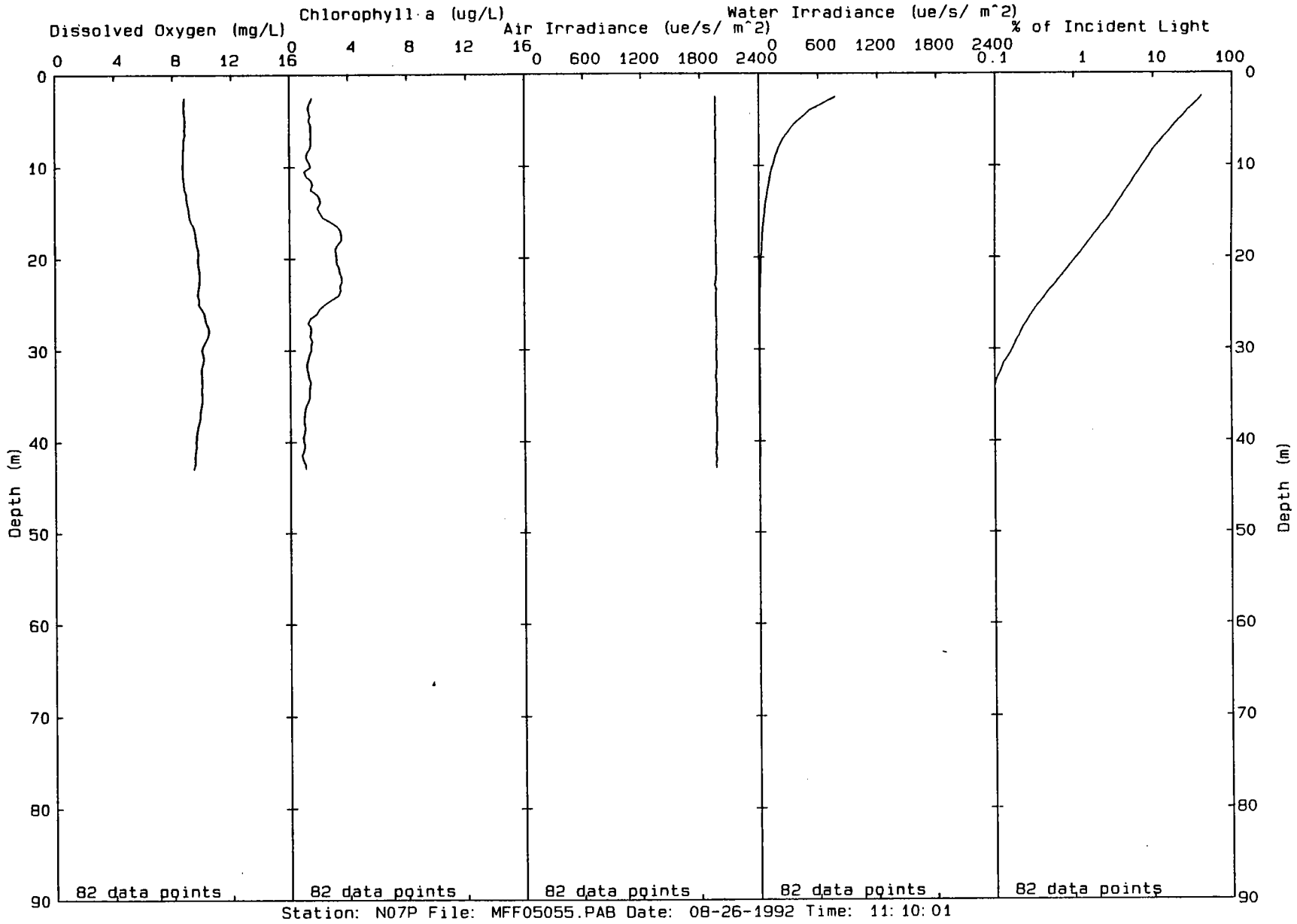
00100

01-07-1993 20:28:58 Battelle



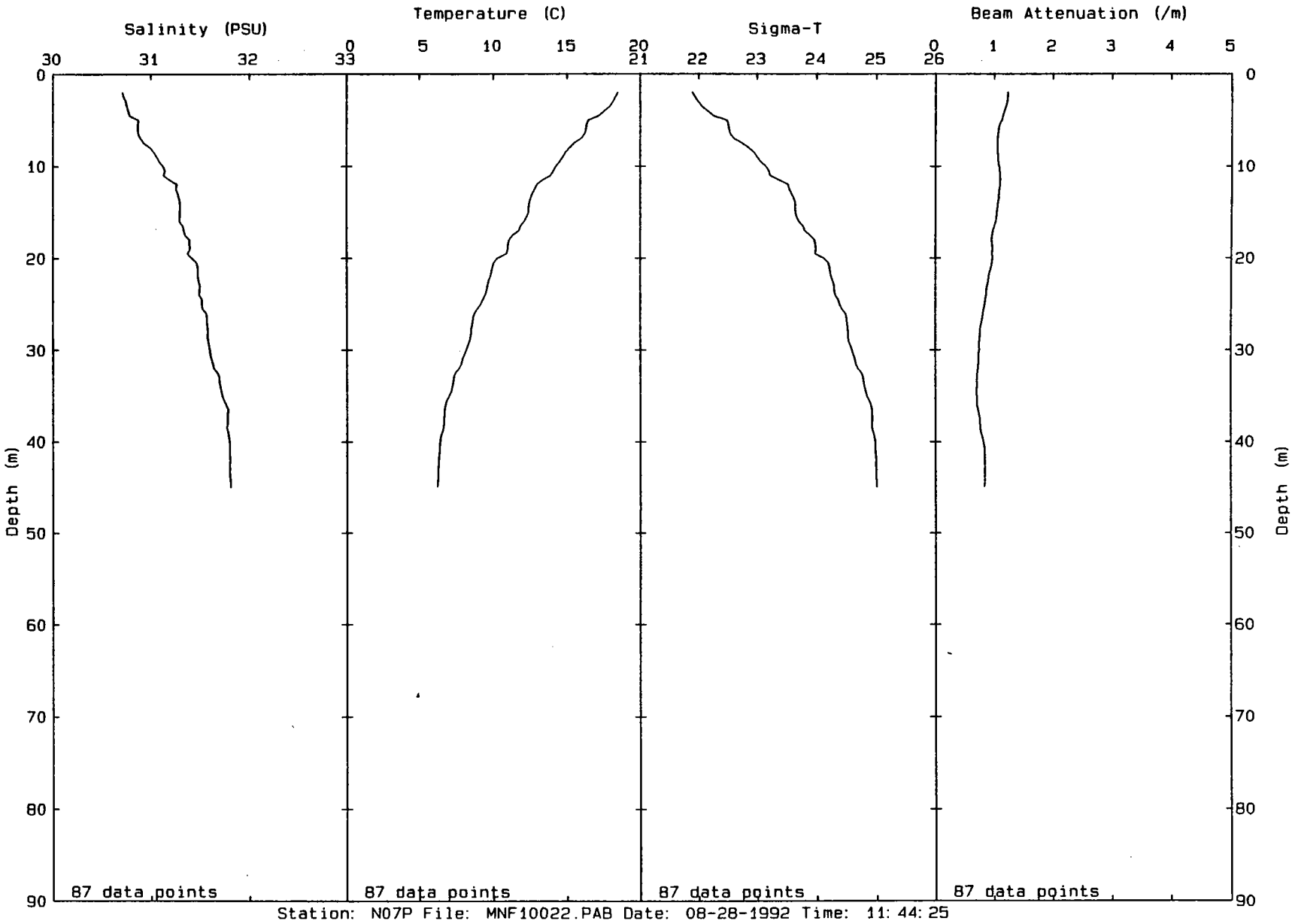
00101

01-07-1993 21:33:27 Battelle



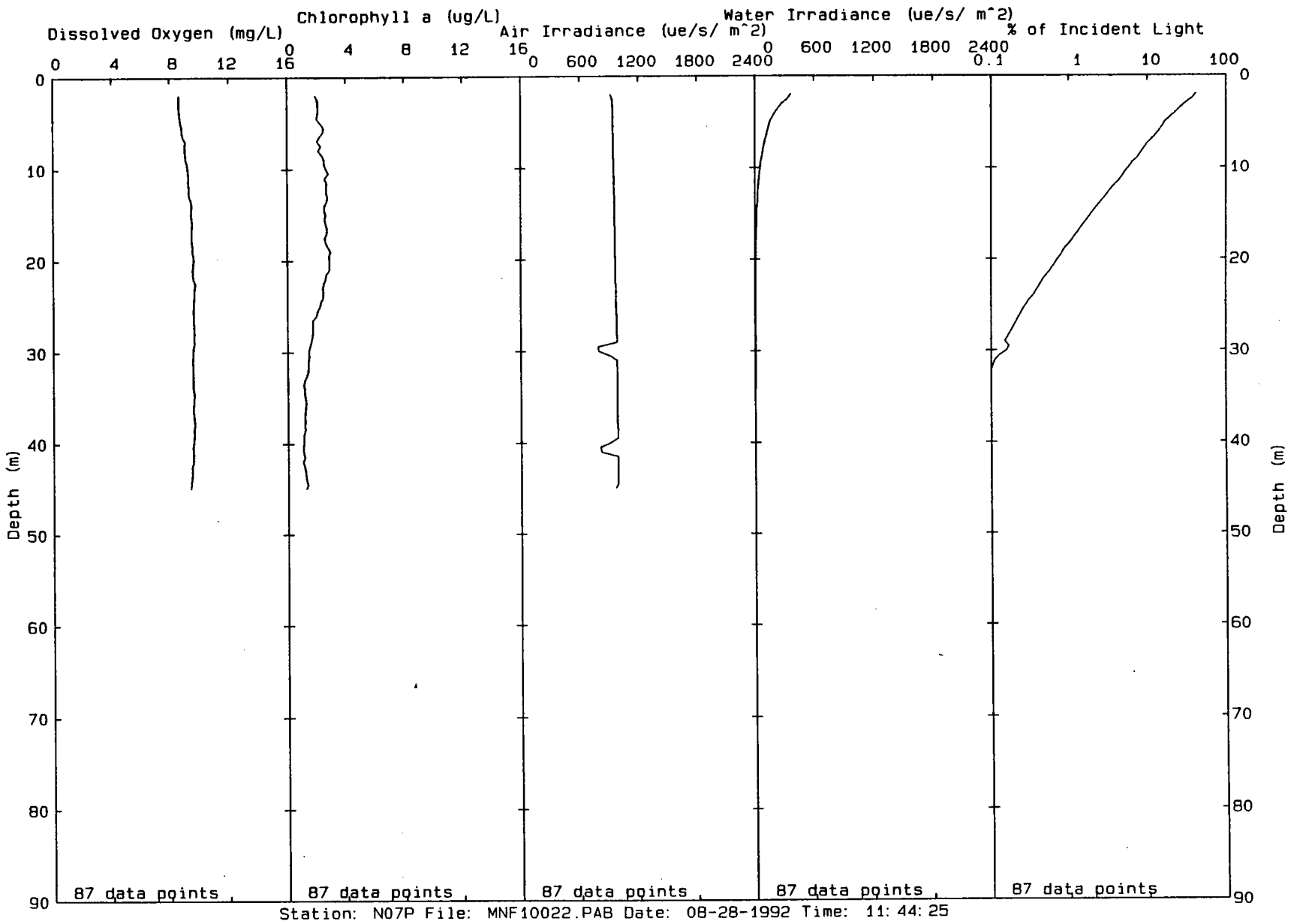
00102

01-07-1993 20:23:30 Battelle



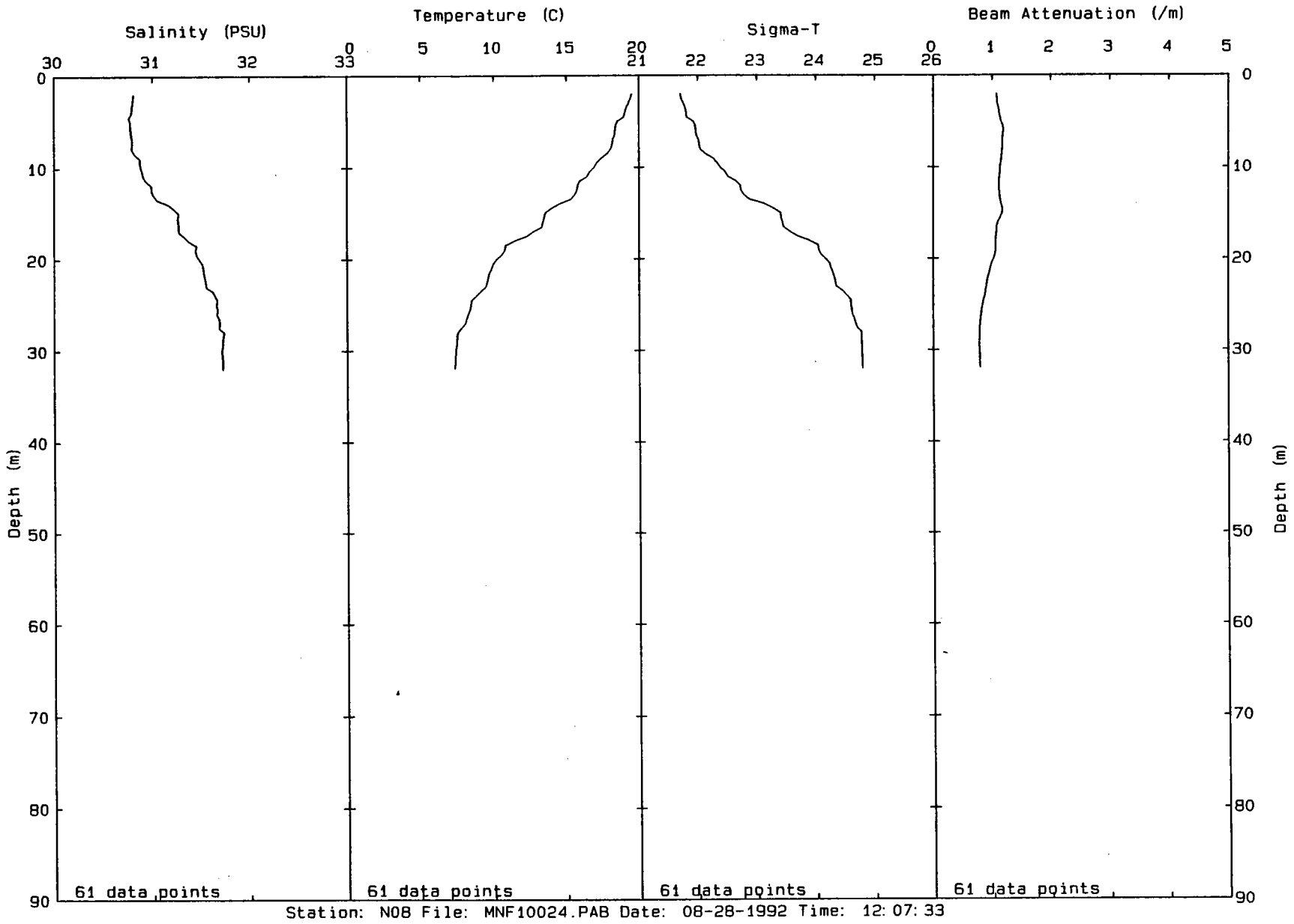
00103

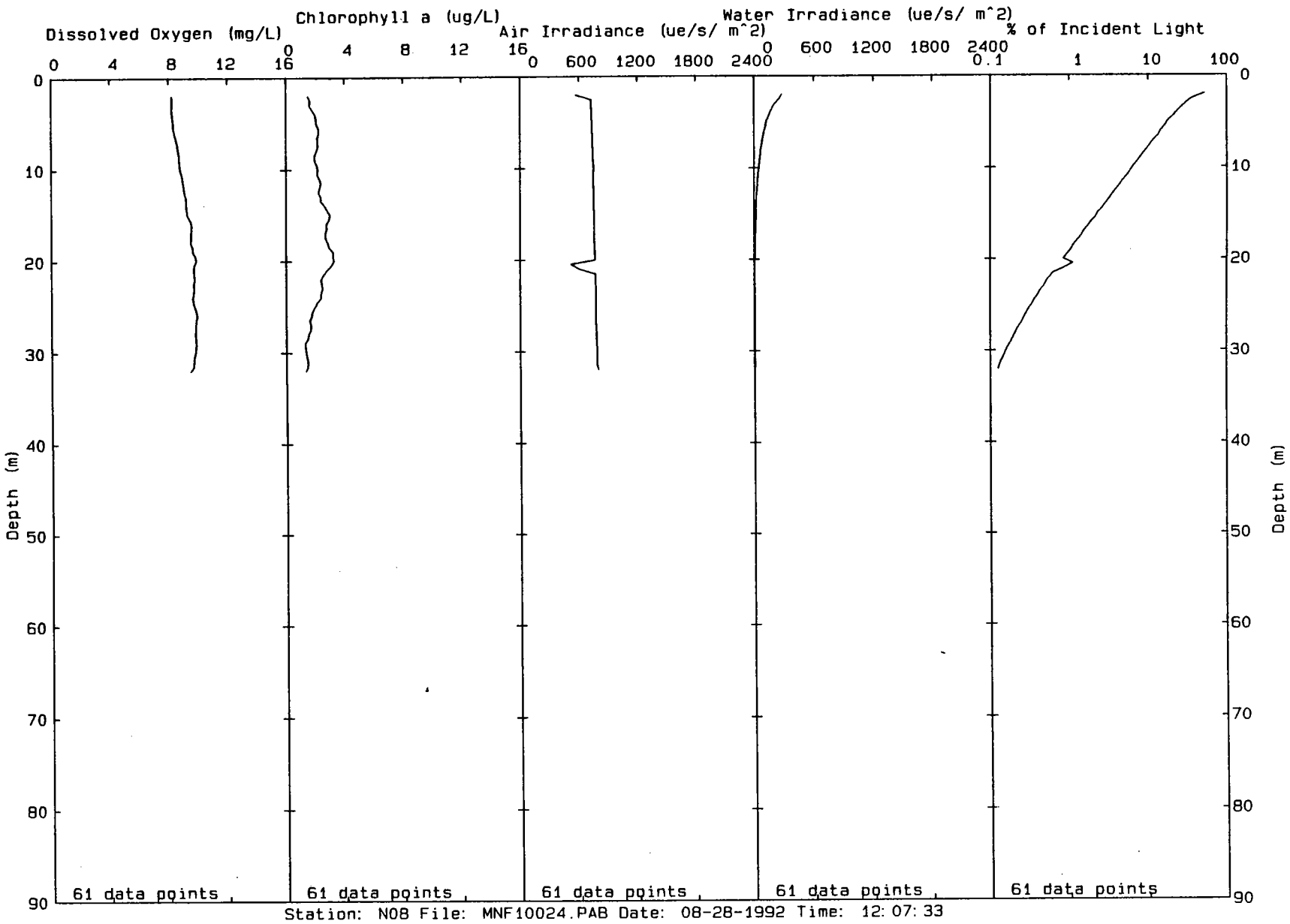
01-07-1993 21:38:19 Battelle



00104

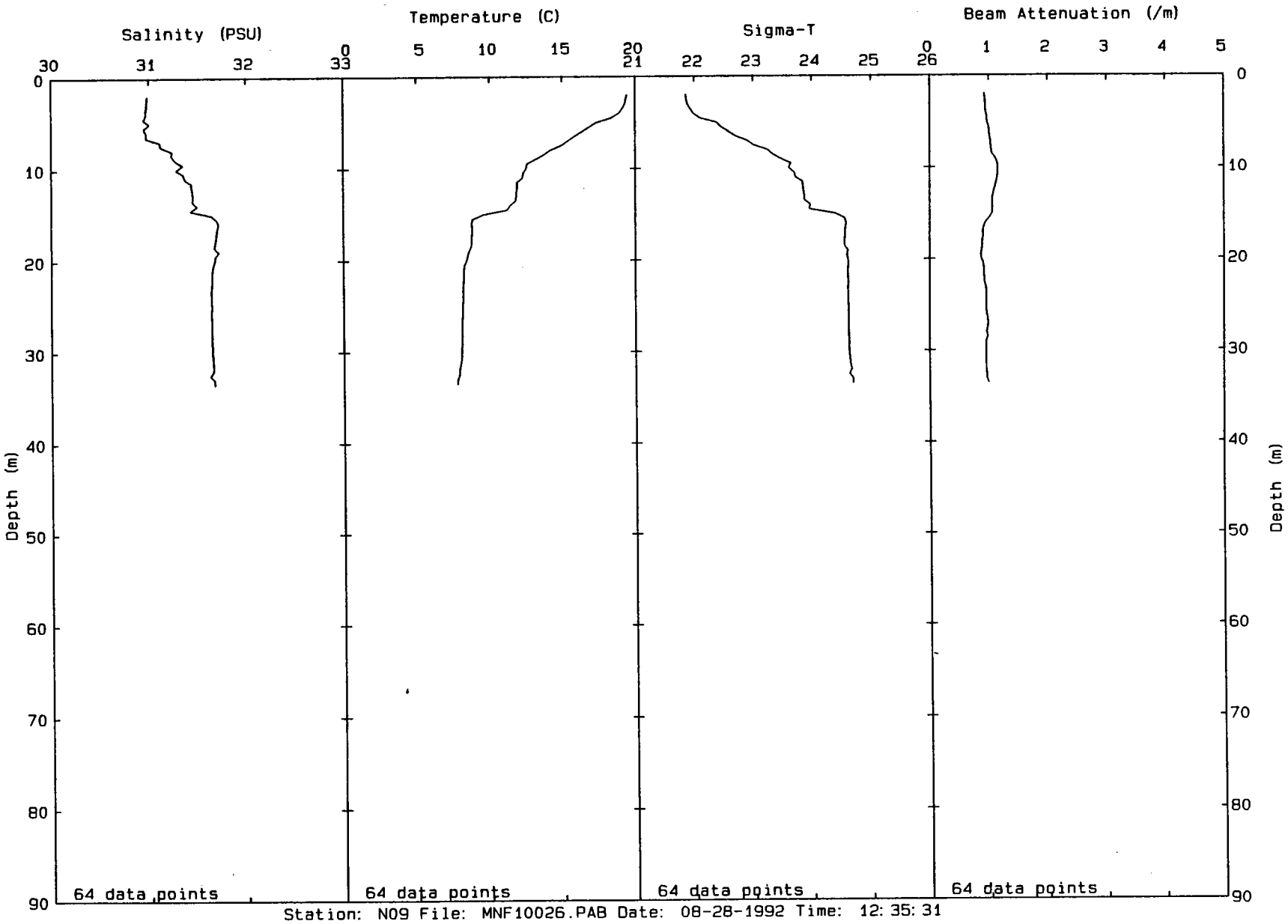
01-07-1993 20:29:03 Battelle


Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
61 data points
61 data points
61 data points
61 data points
Station: N08 File: MNF10024.PAB Date: 08-28-1992 Time: 12:07:33



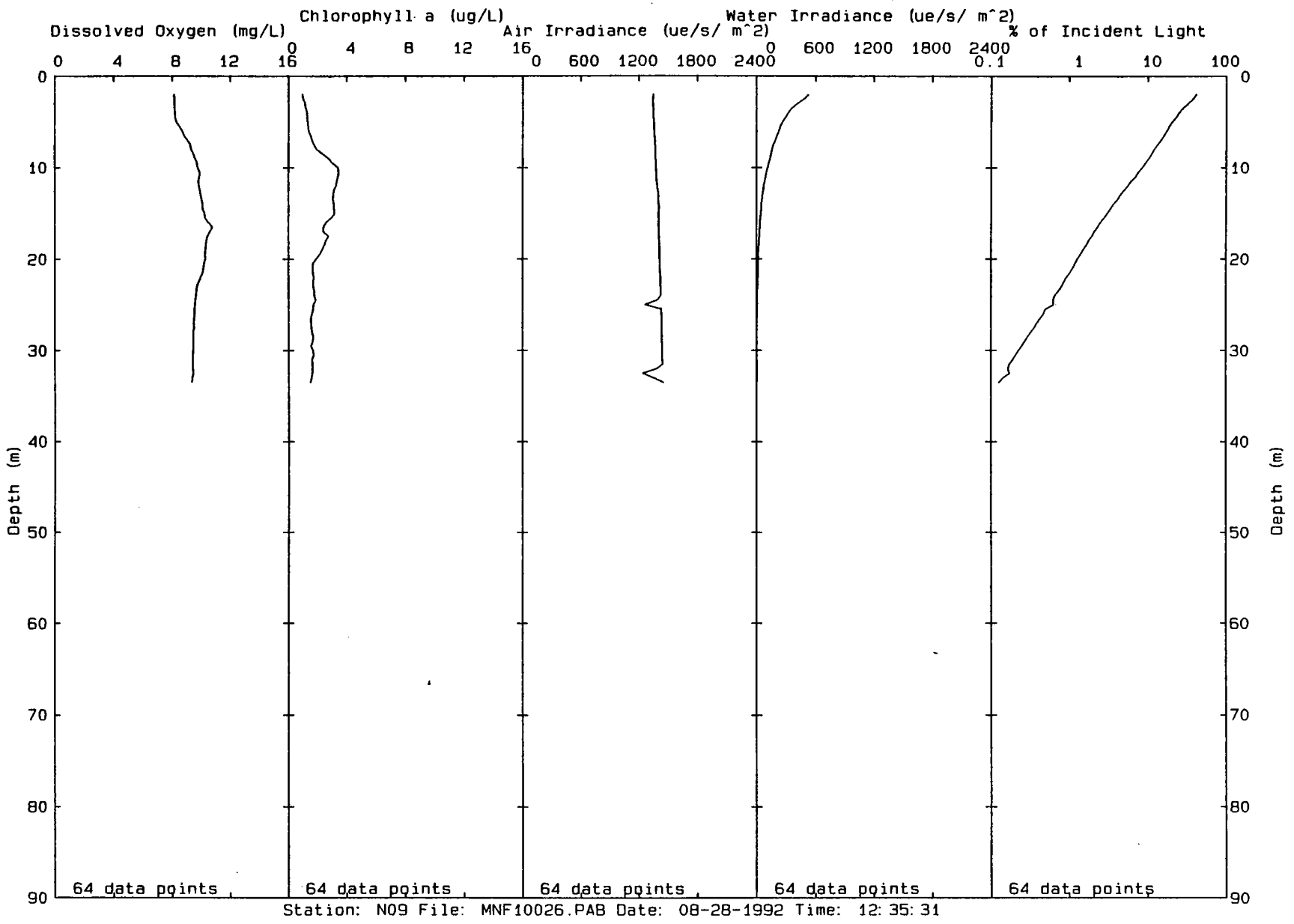
00106

01-07-1993 20:29:07 Battelle



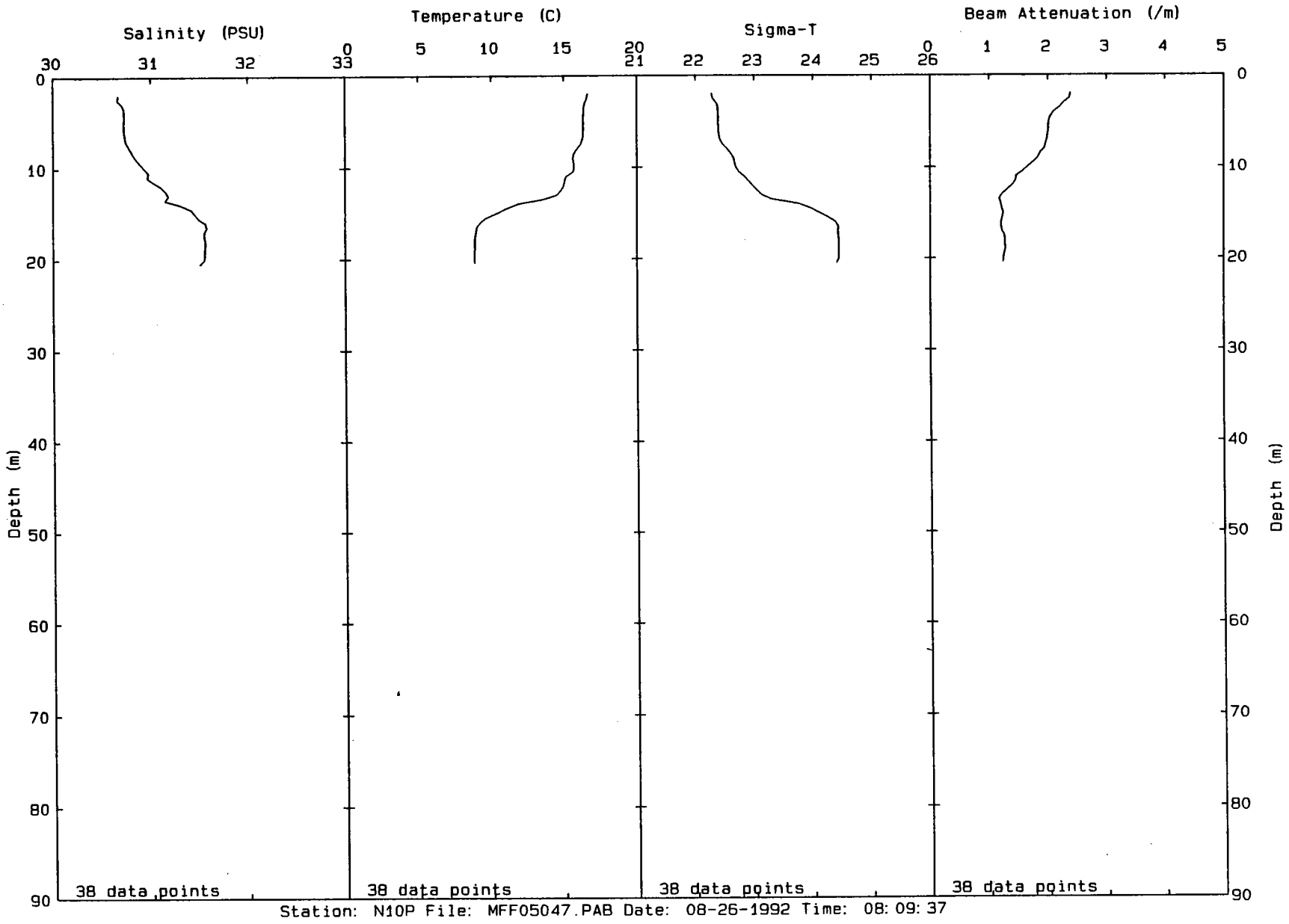
00107

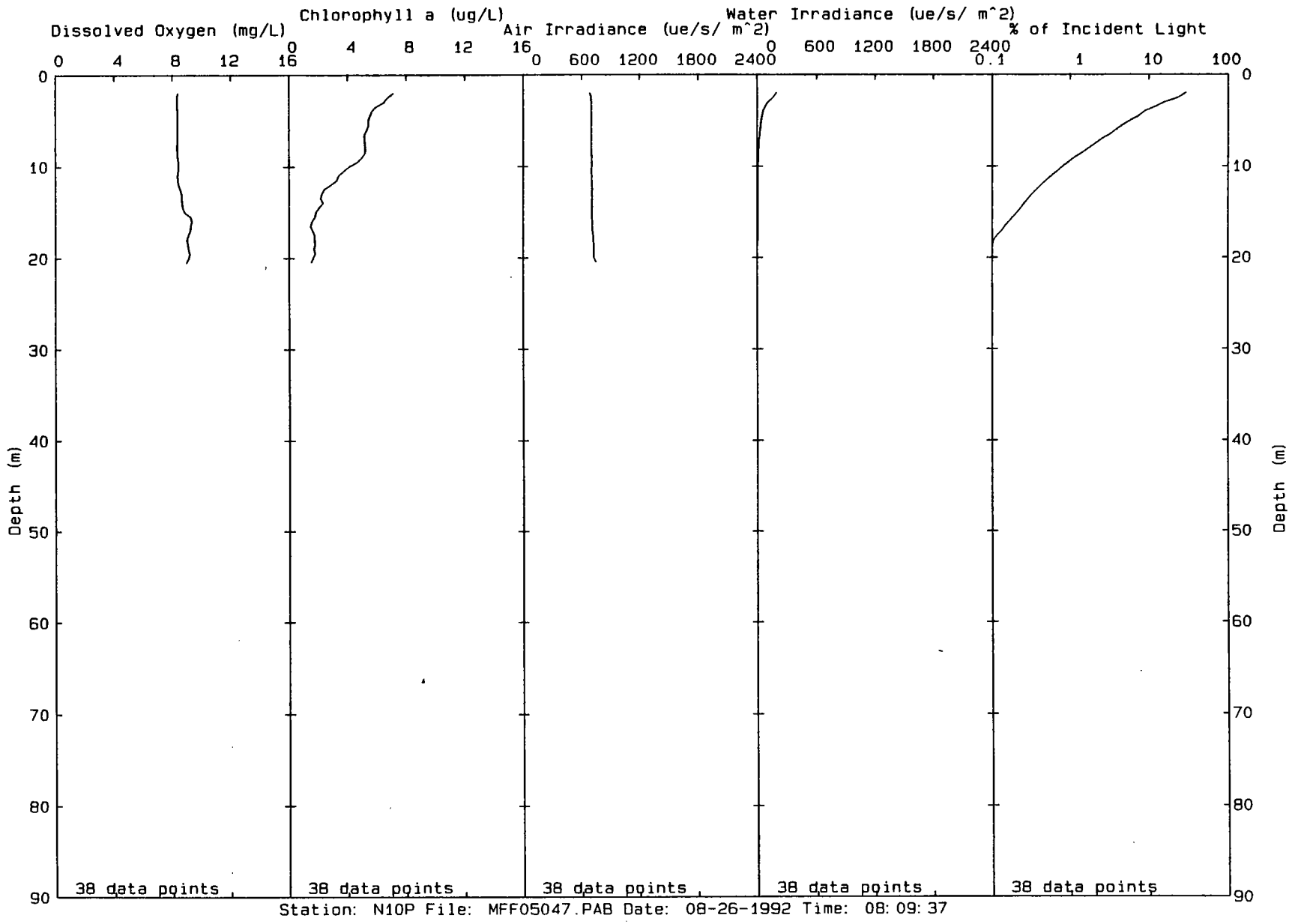
01-07-1993 21:38:27 Battelle



00108

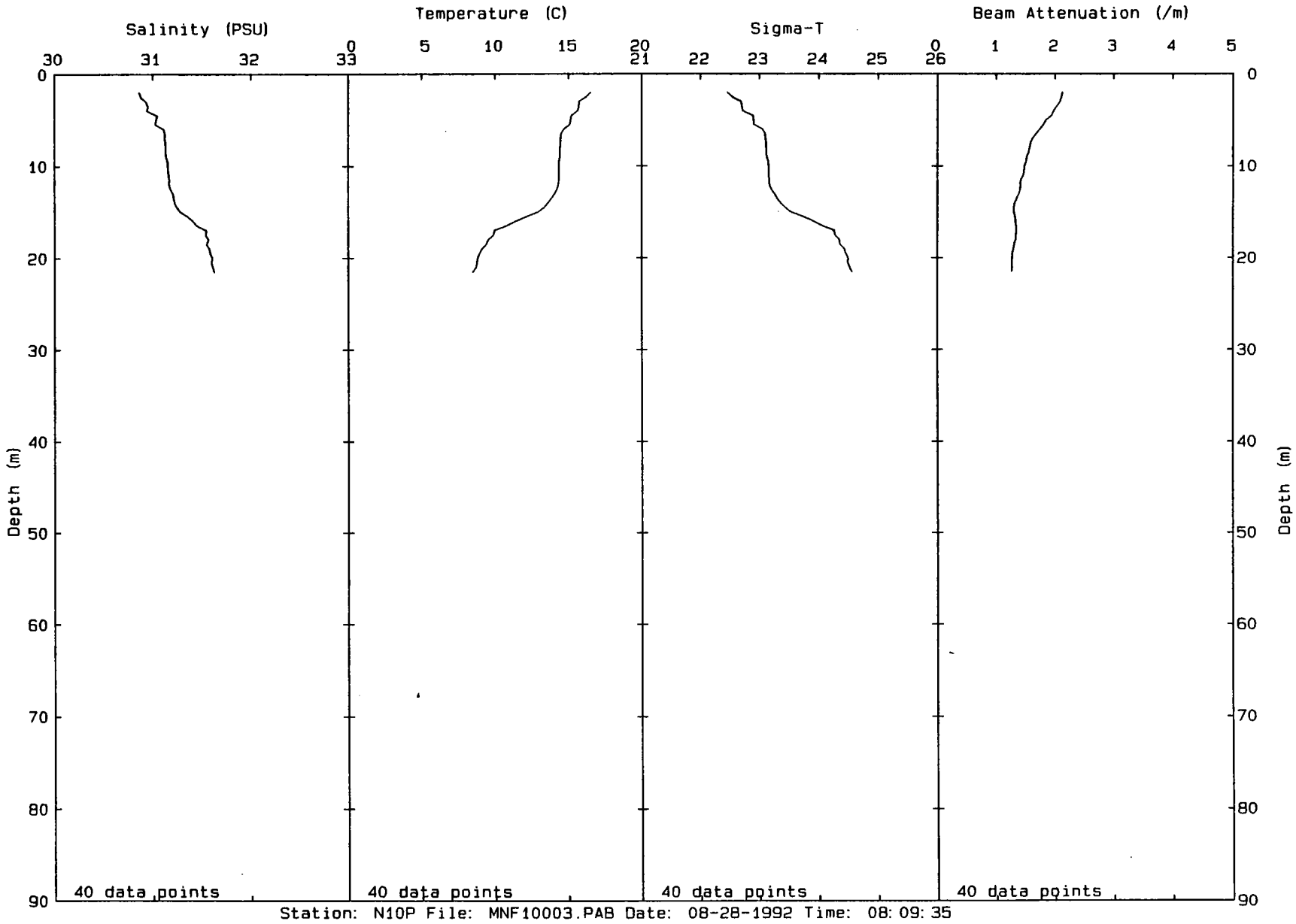
01-07-1993 20:29:11 Battelle


Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
38 data points
38 data points
38 data points
38 data points
Station: N10P File: MFF05047.PAB Date: 08-26-1992 Time: 08:09:37



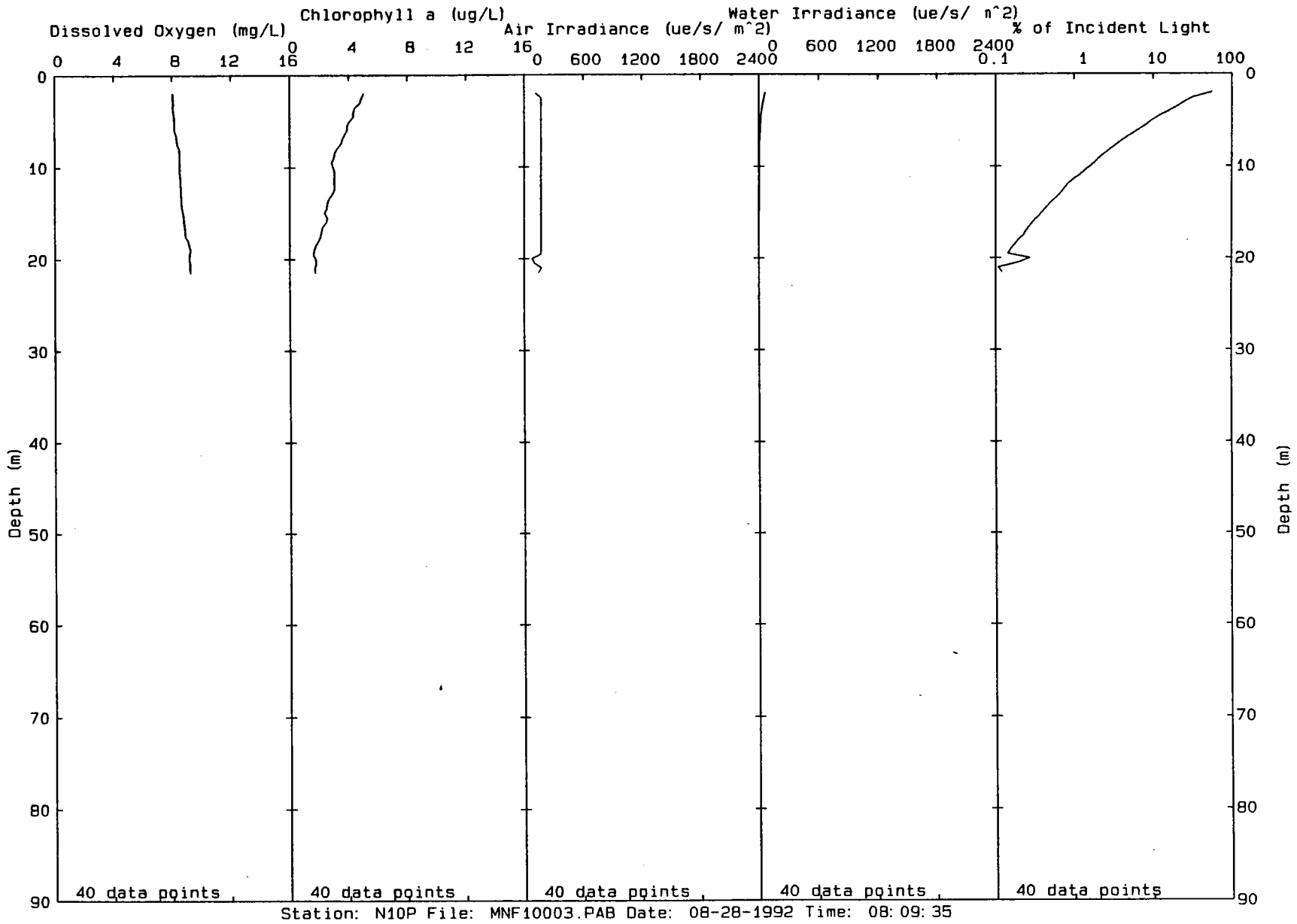
00110

01-07-1993 20:23:16 Battelle



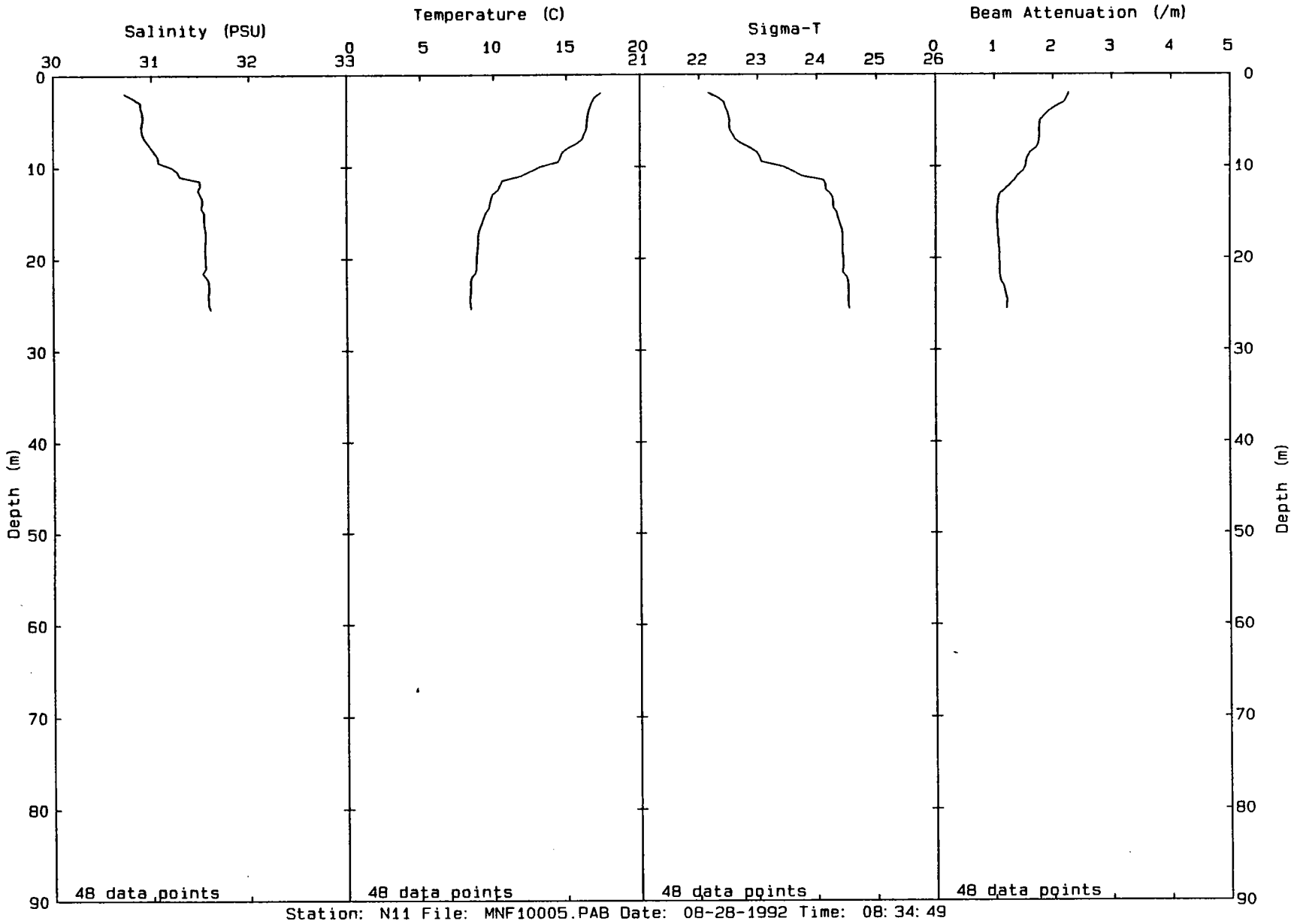
00111

01-07-1993 21:37:43 Battelle



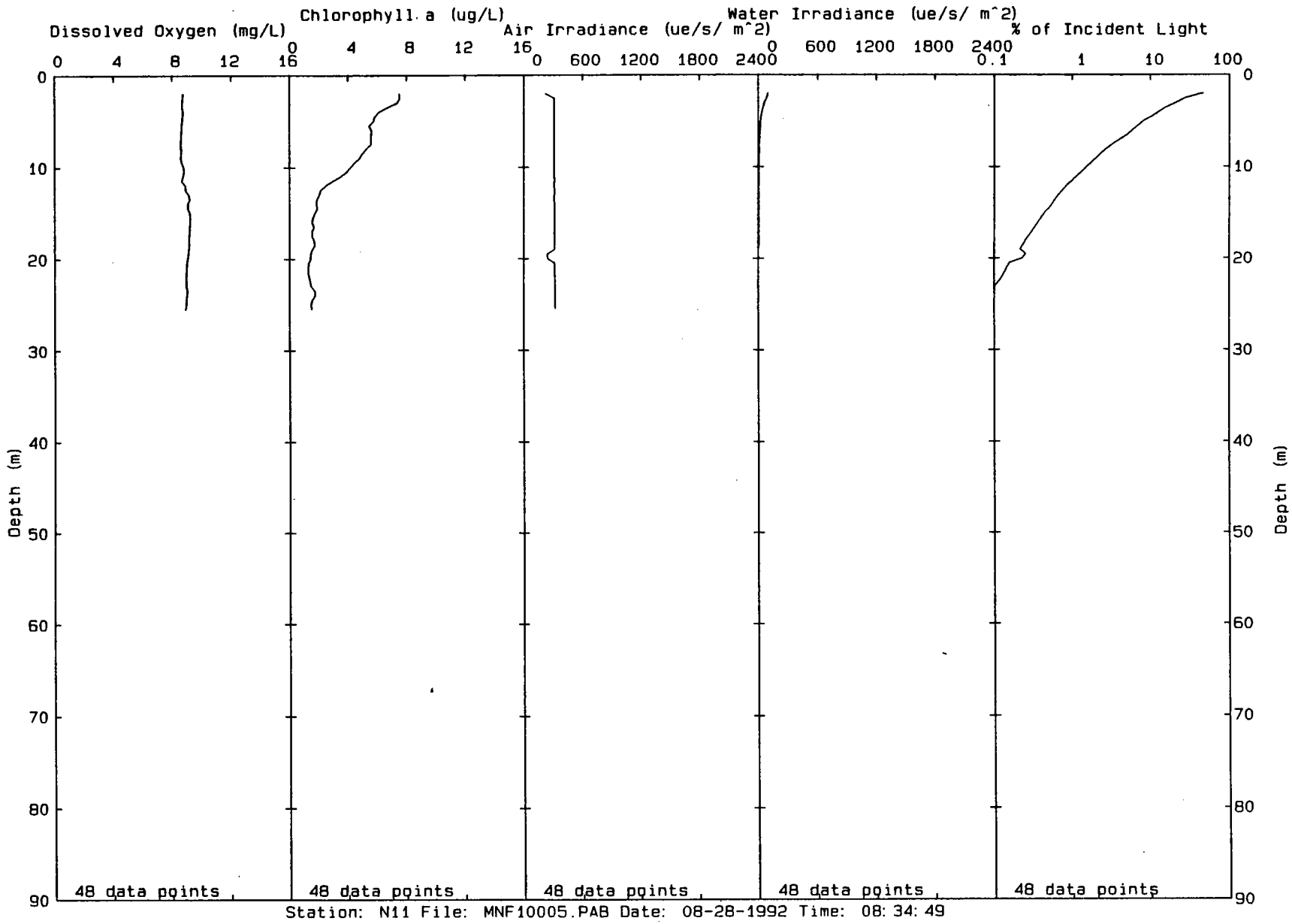
00112

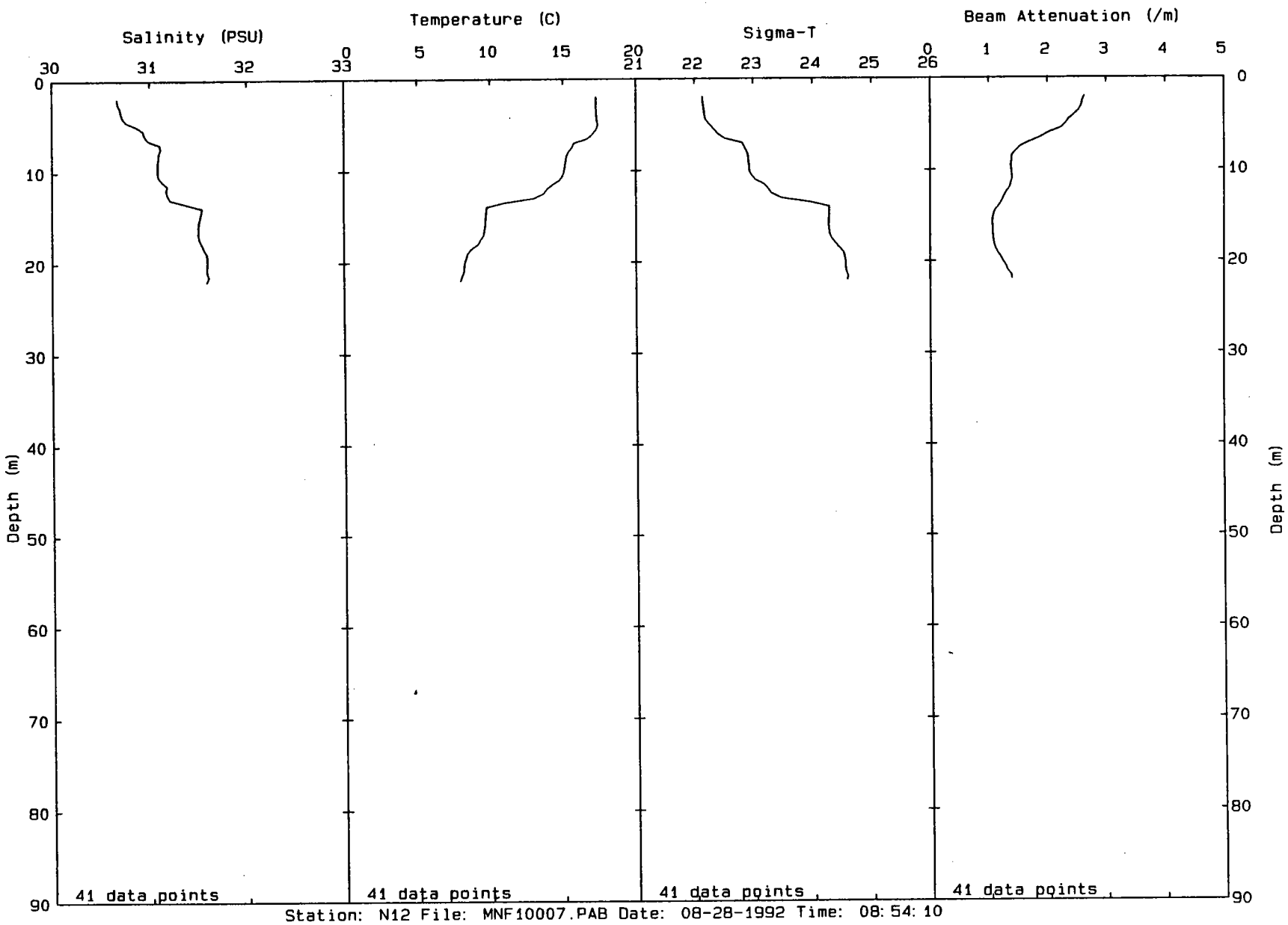
01-07-1993 20:28:22 Battelle



00113

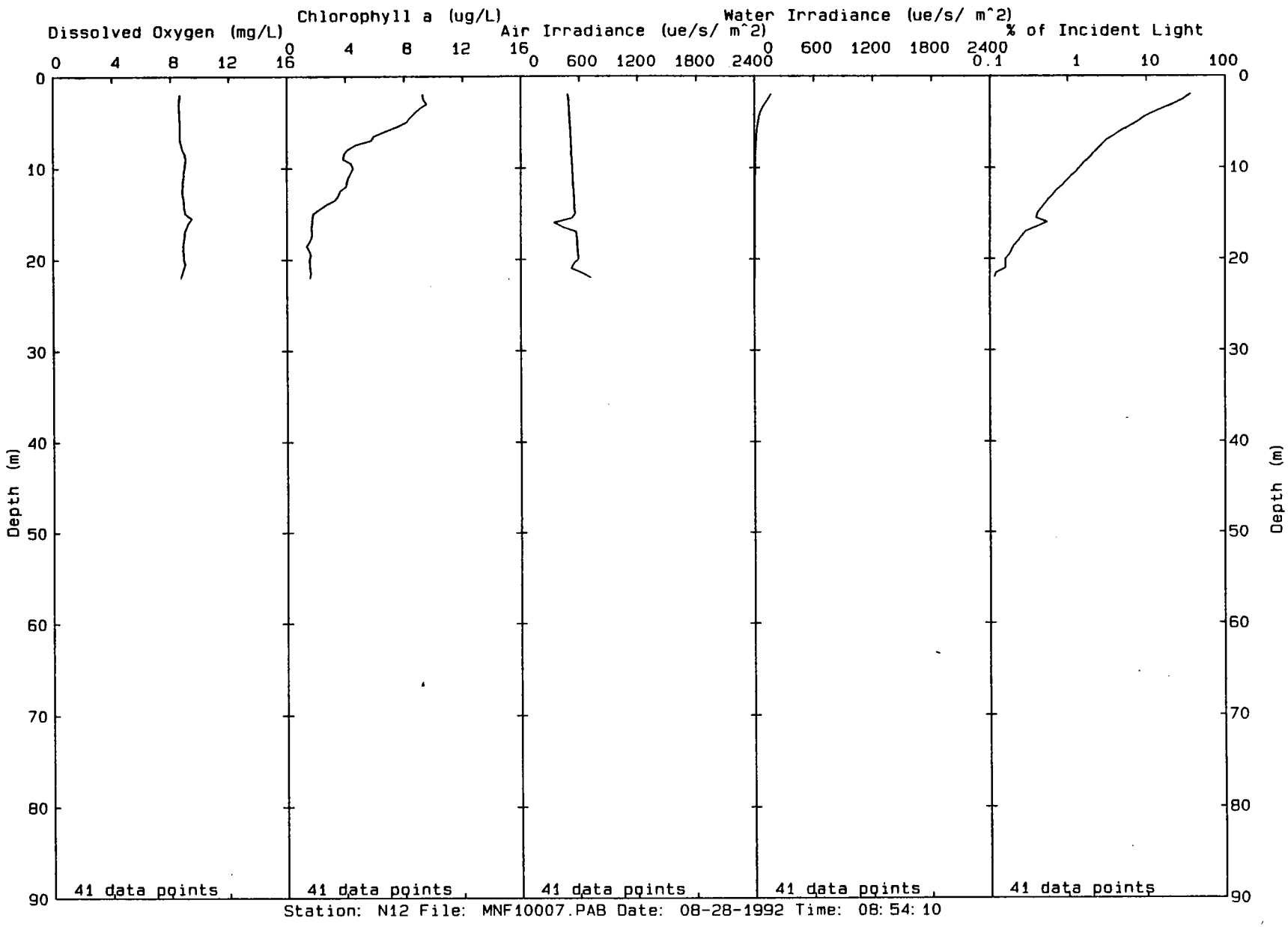
01-07-1993 21:37:47 Battelle


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
48 data points
48 data points
48 data points
48 data points
48 data points
Station: N11 File: MNF10005.PAB Date: 08-28-1992 Time: 08:34:49



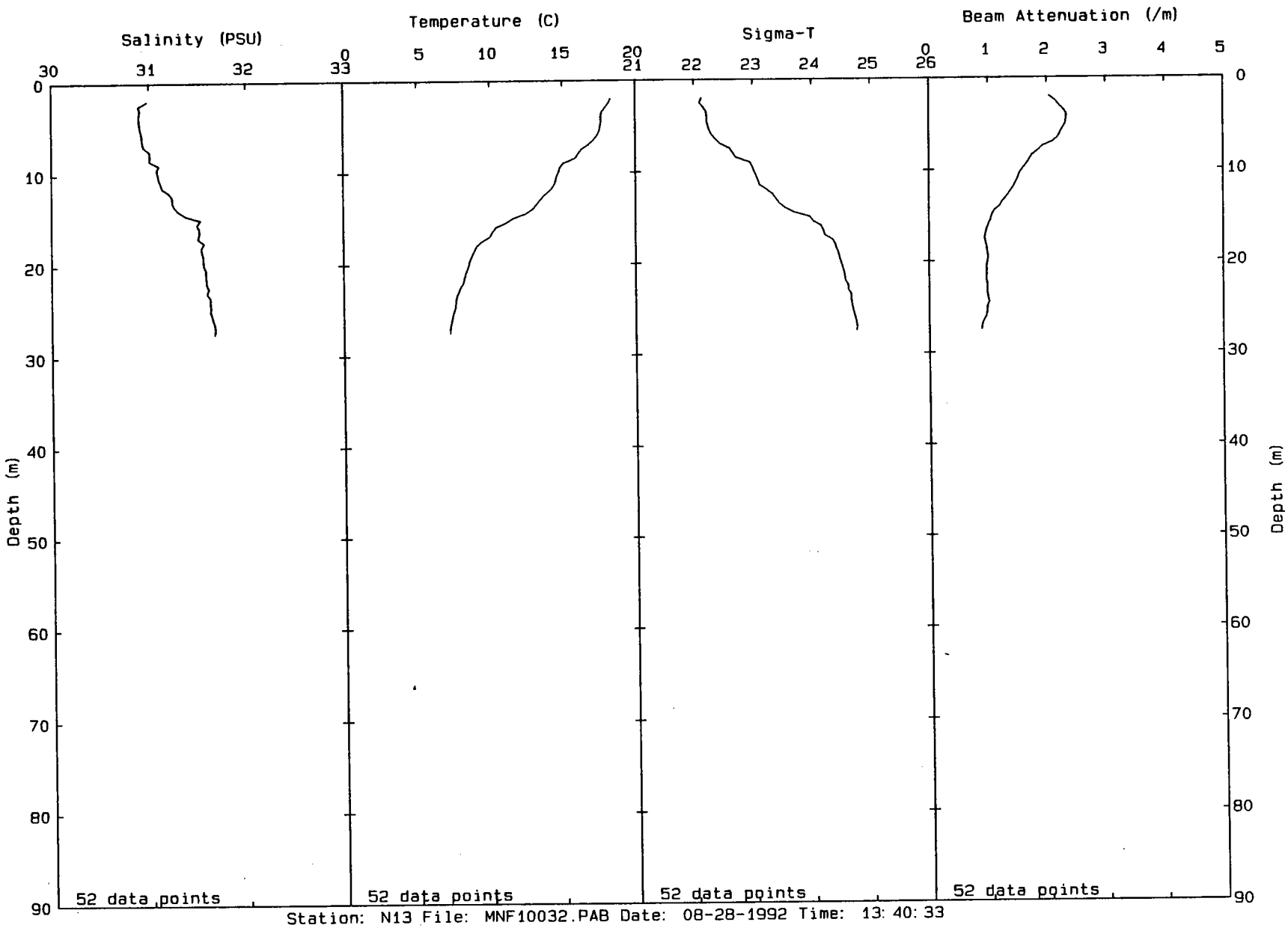
0115

01-07-1993 21:37:50 Battelle



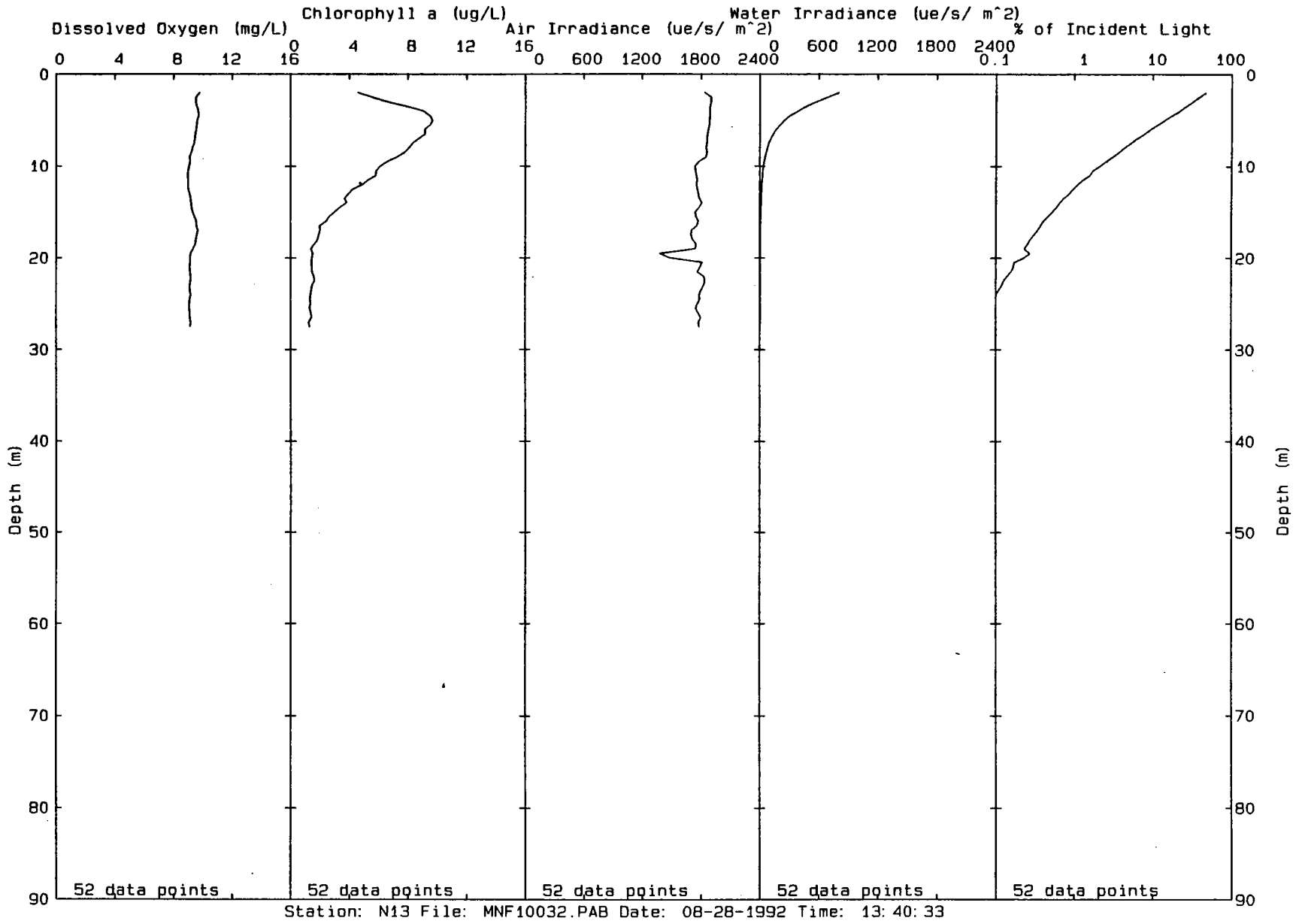
00116

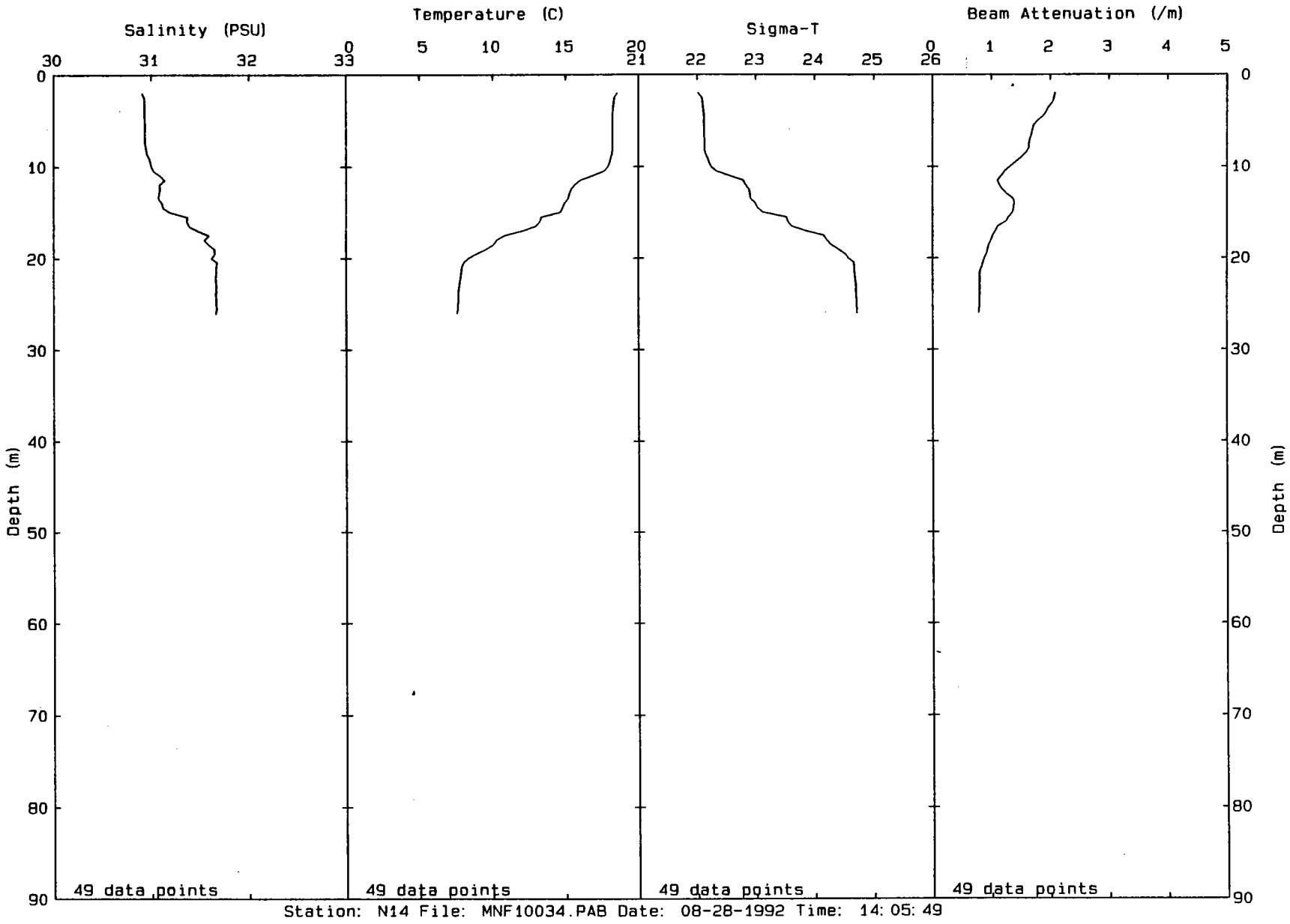
01-07-1993 20:28:29 Battelle

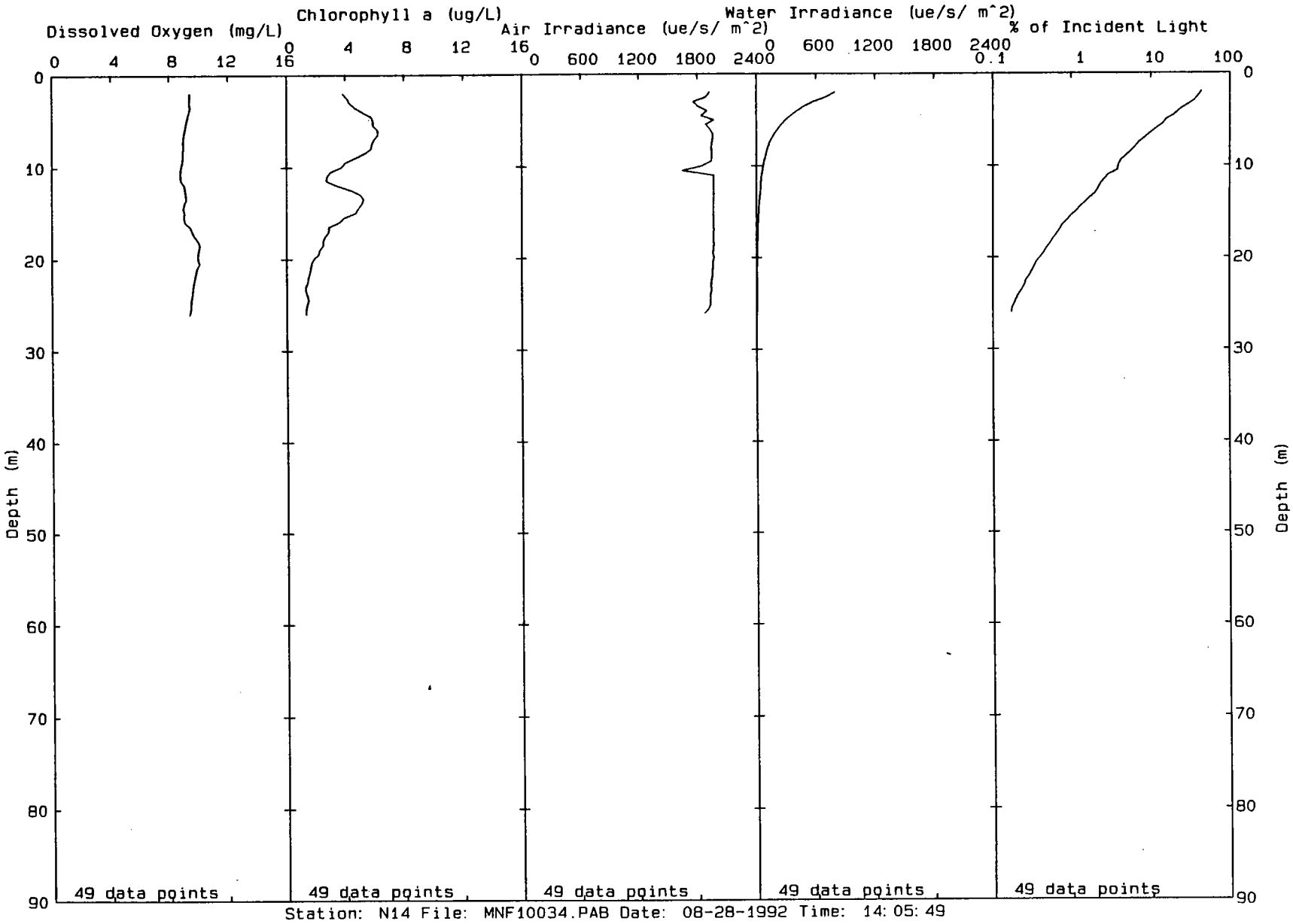


00117

01-07-1993 21:38:37 Battelle

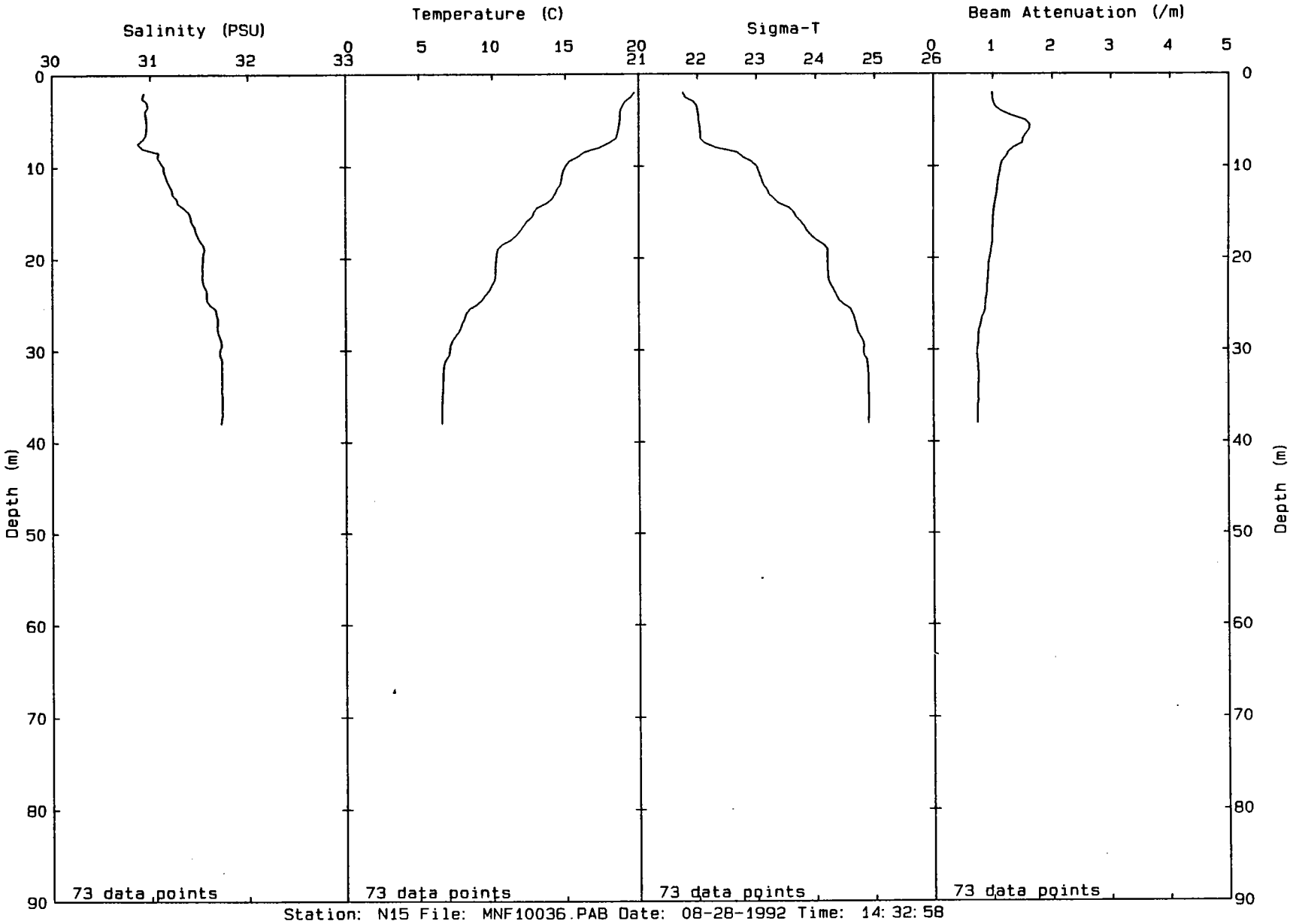

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
52 data points
52 data points
52 data points
52 data points
52 data points
Station: N13 File: MNF10032.PAB Date: 08-28-1992 Time: 13:40:33


Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
49 data points
49 data points
49 data points
49 data points
Station: N14 File: MNF10034.PAB Date: 08-28-1992 Time: 14:05:49



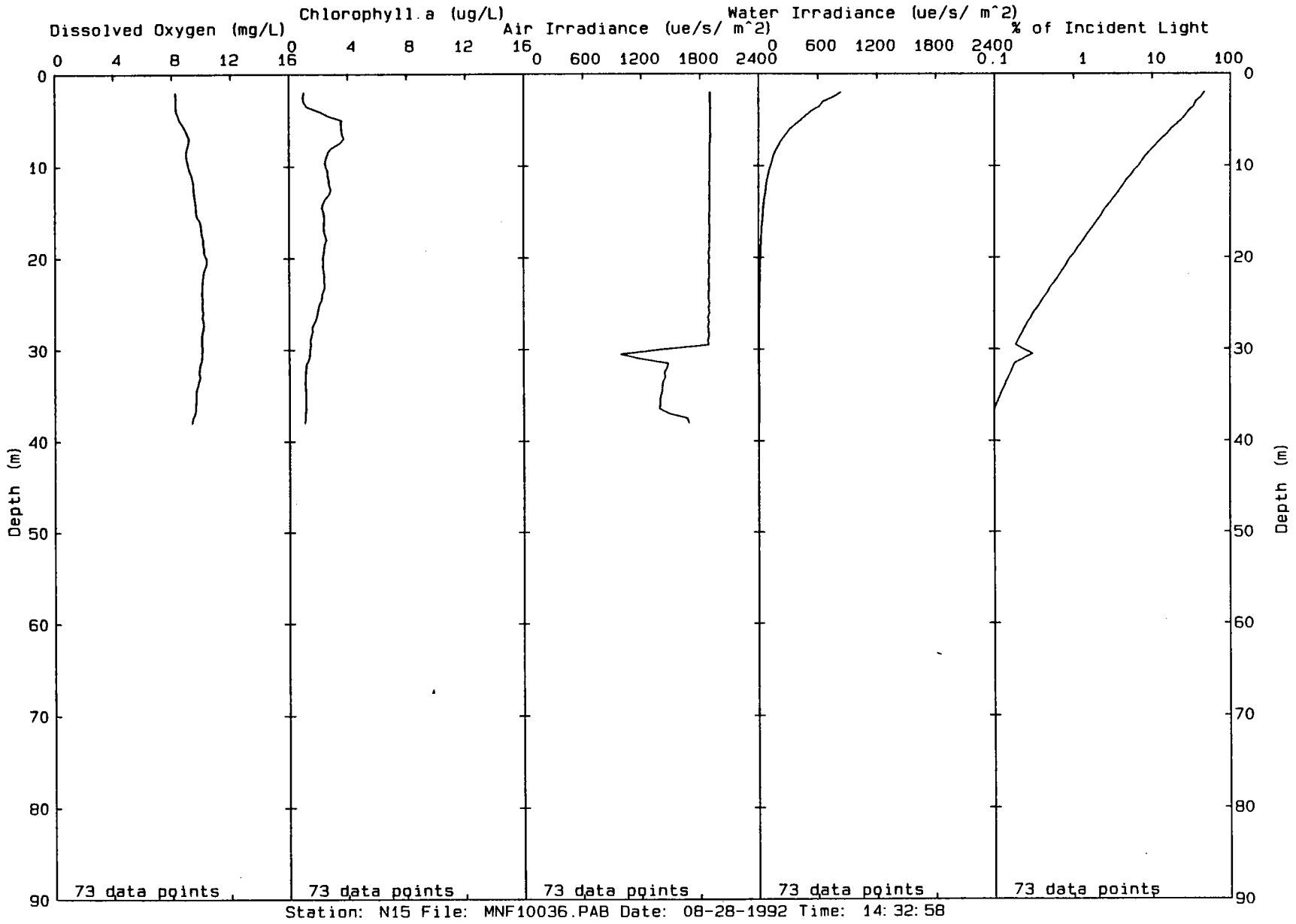
00120

01-07-1993 20:29:26 Battelle



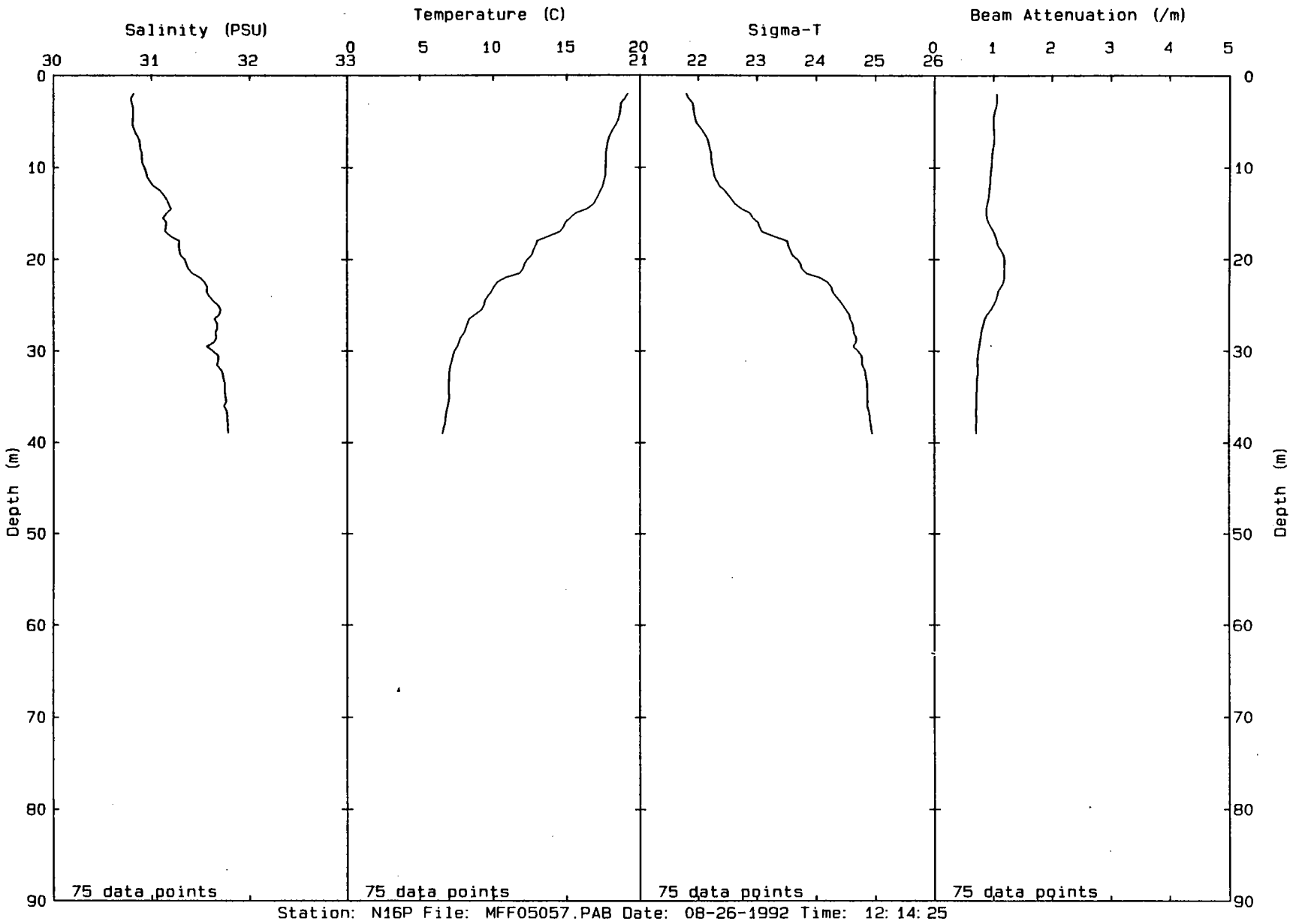
00121

01-07-1993 21:38:44 Battelle



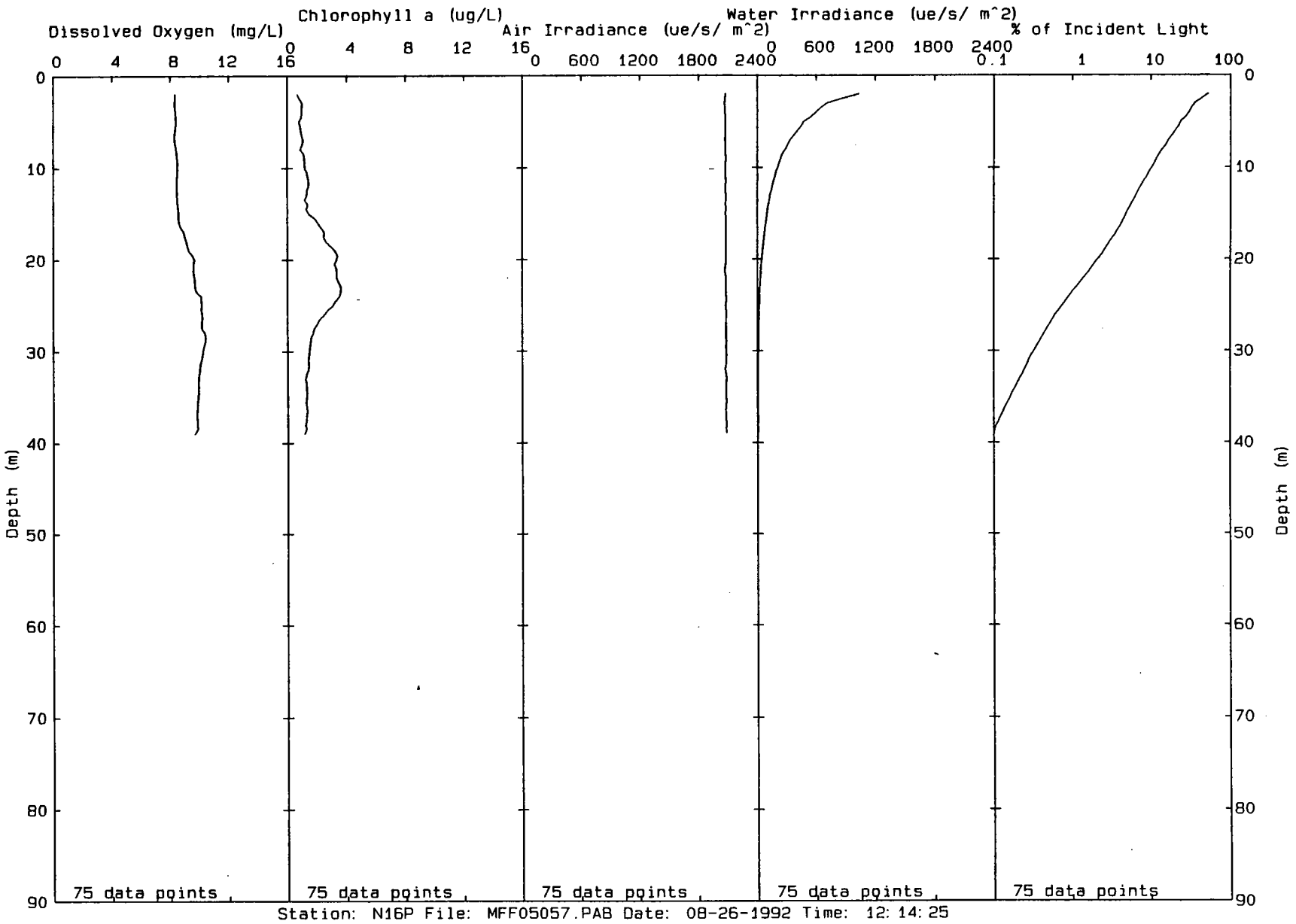
00122

01-07-1993 20:29:31 Battelle



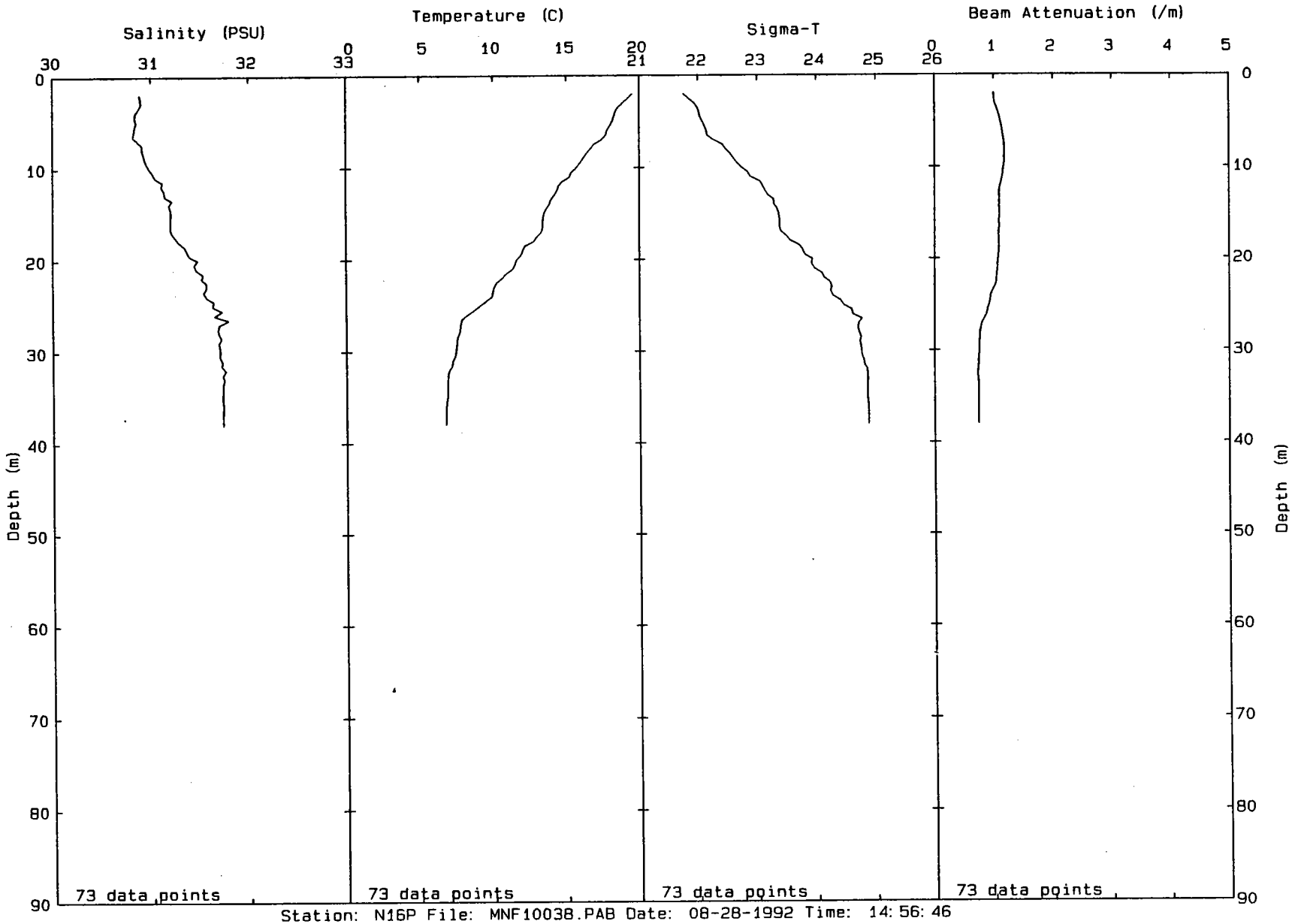
00123

01-07-1993 21:33:31 Battelle



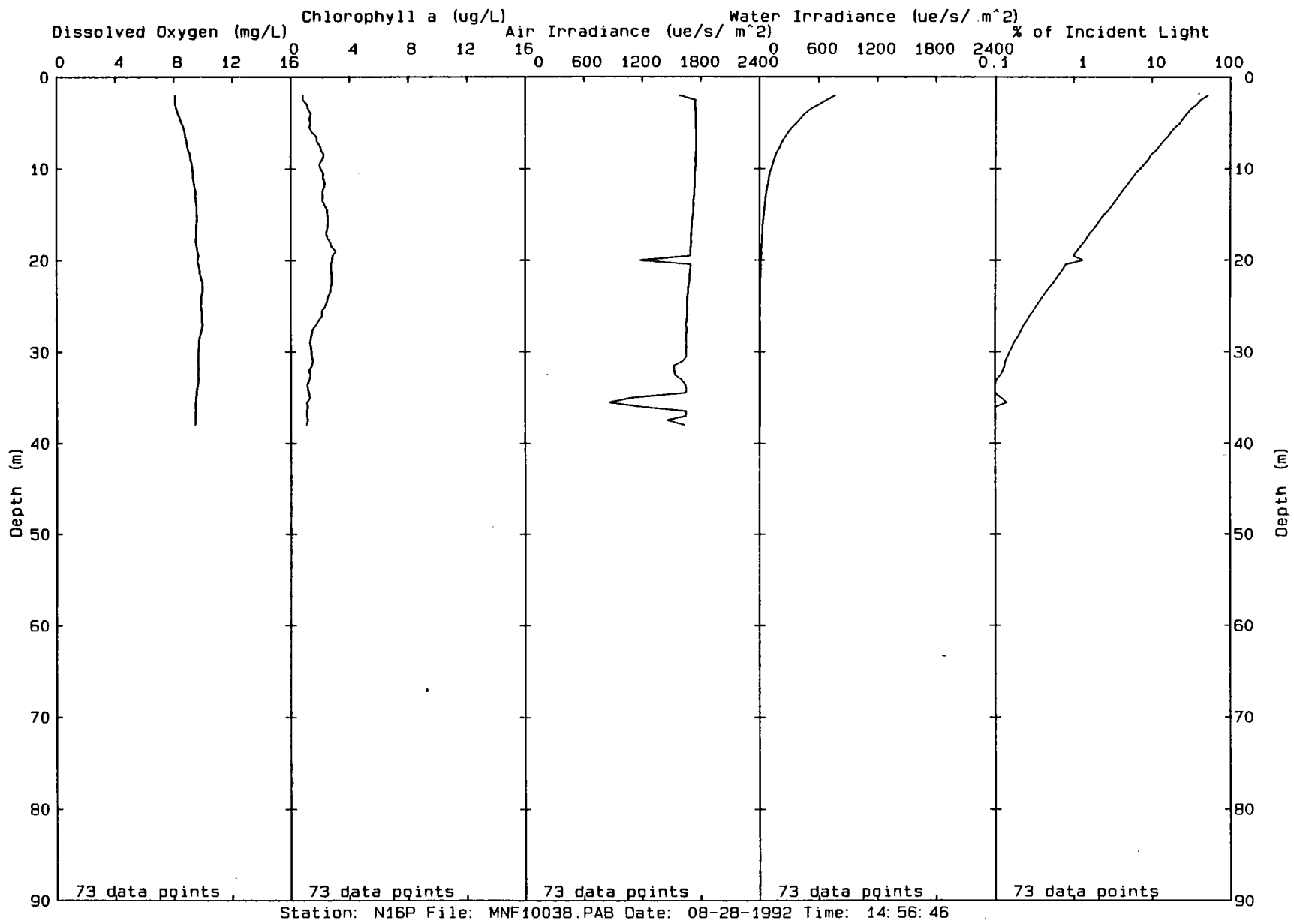
00124

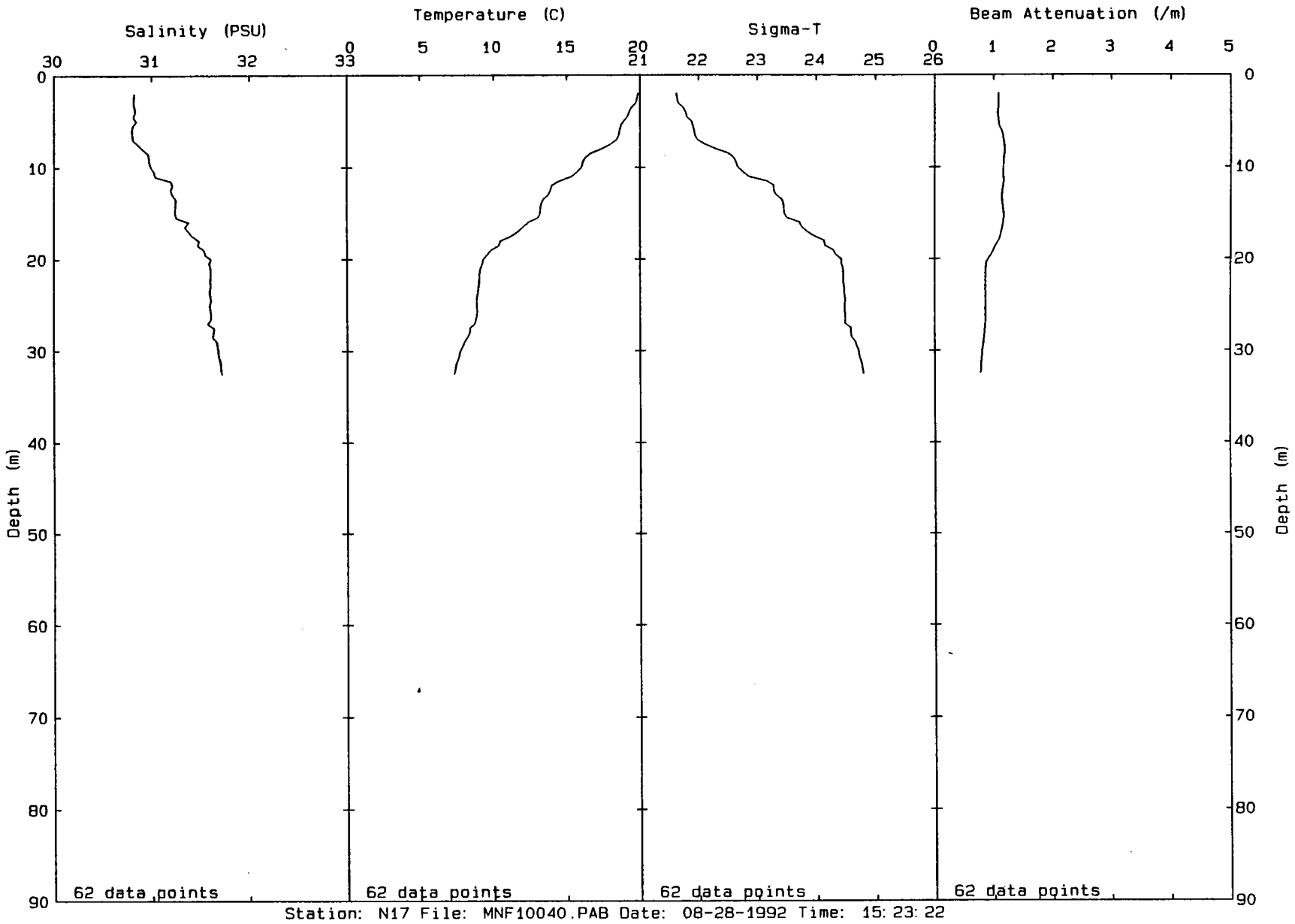
01-07-1993 20:23:34 Battelle



00125

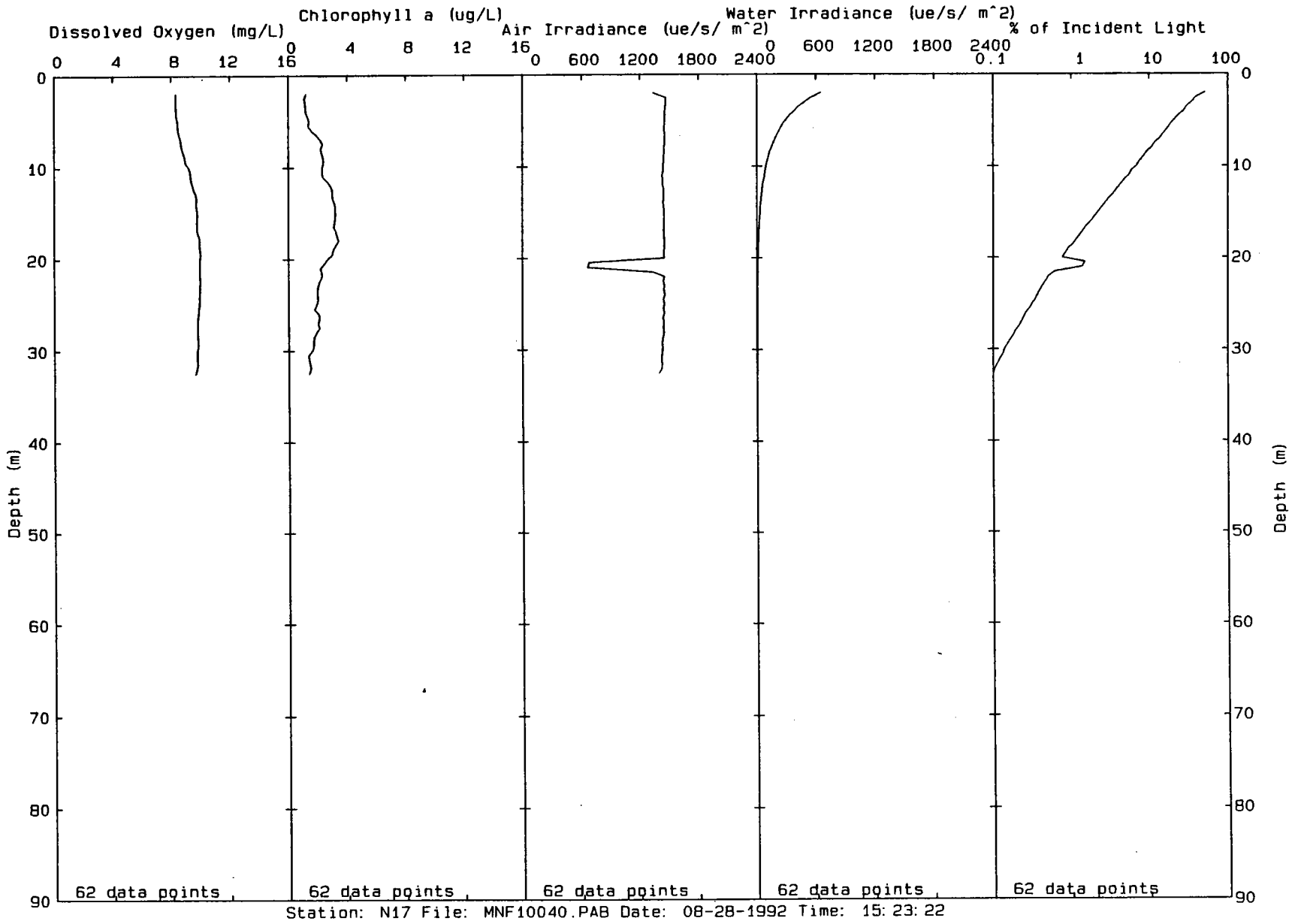
01-07-1993 21:38:48 Battelle


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
73 data points
73 data points
73 data points
73 data points
73 data points
Station: N16P File: MNF10038.PAB Date: 08-28-1992 Time: 14:56:46



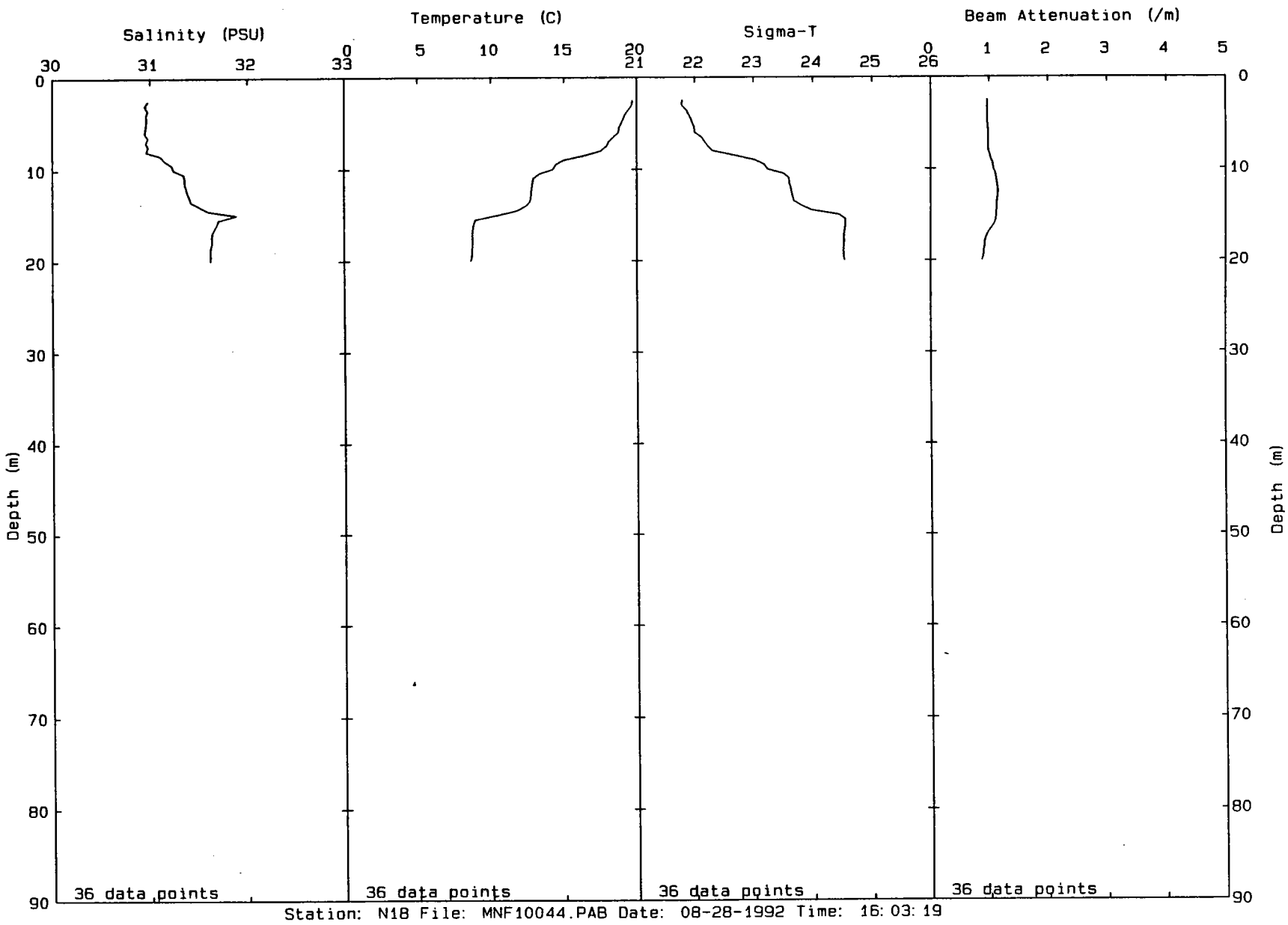
00127

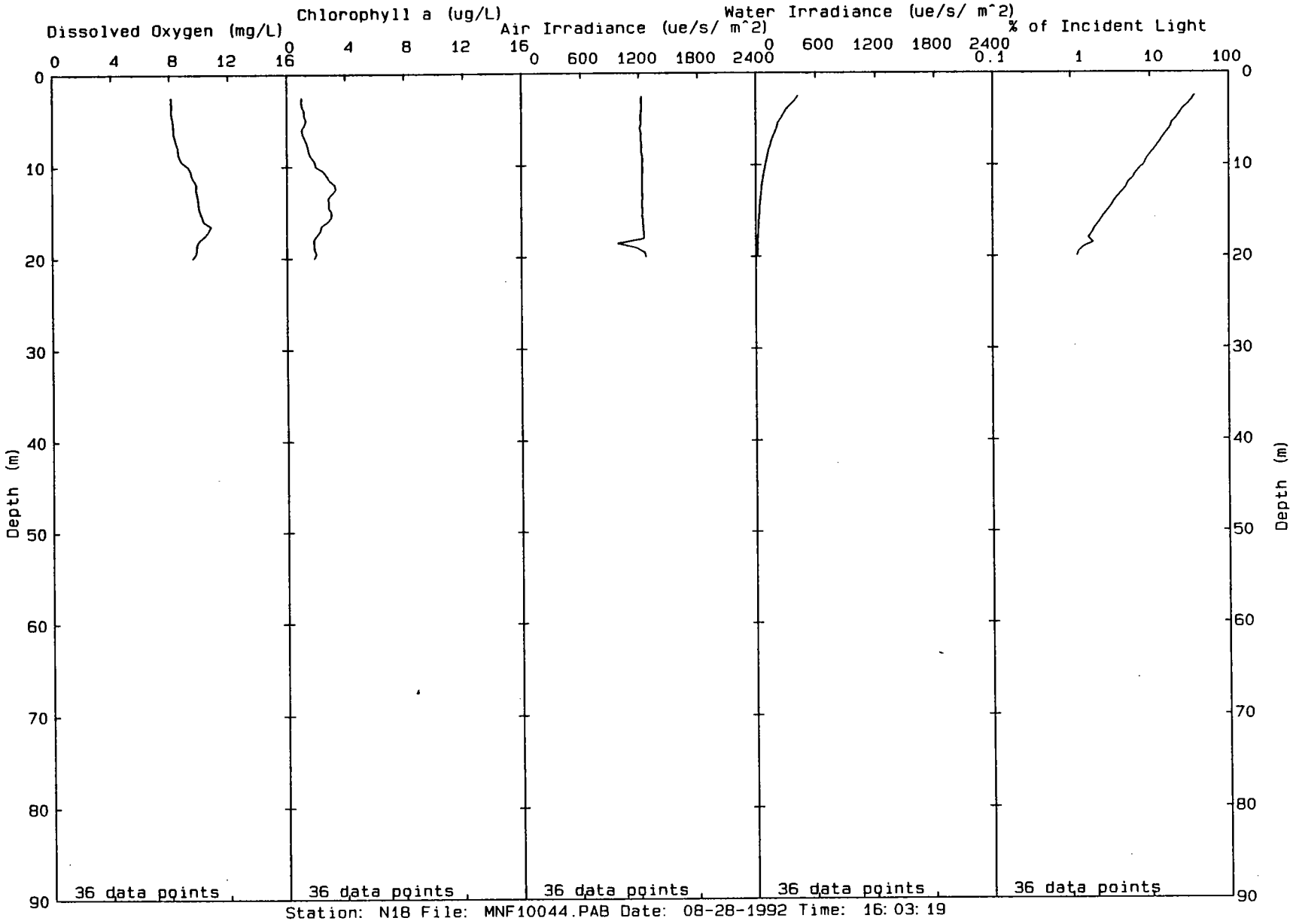
01-07-1993 21:38:52 Battelle



00128

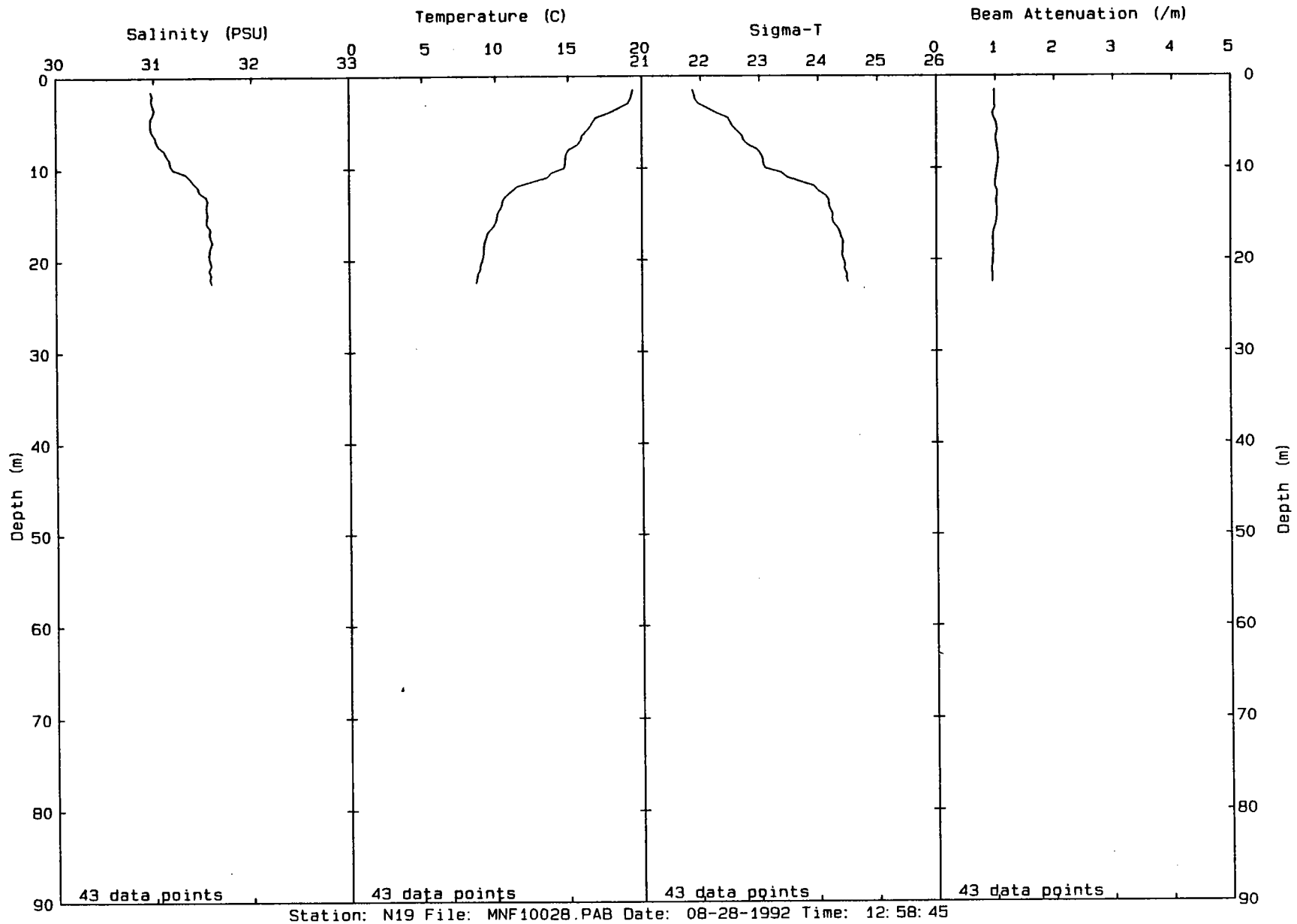
01-07-1993 20:29:40 Battelle

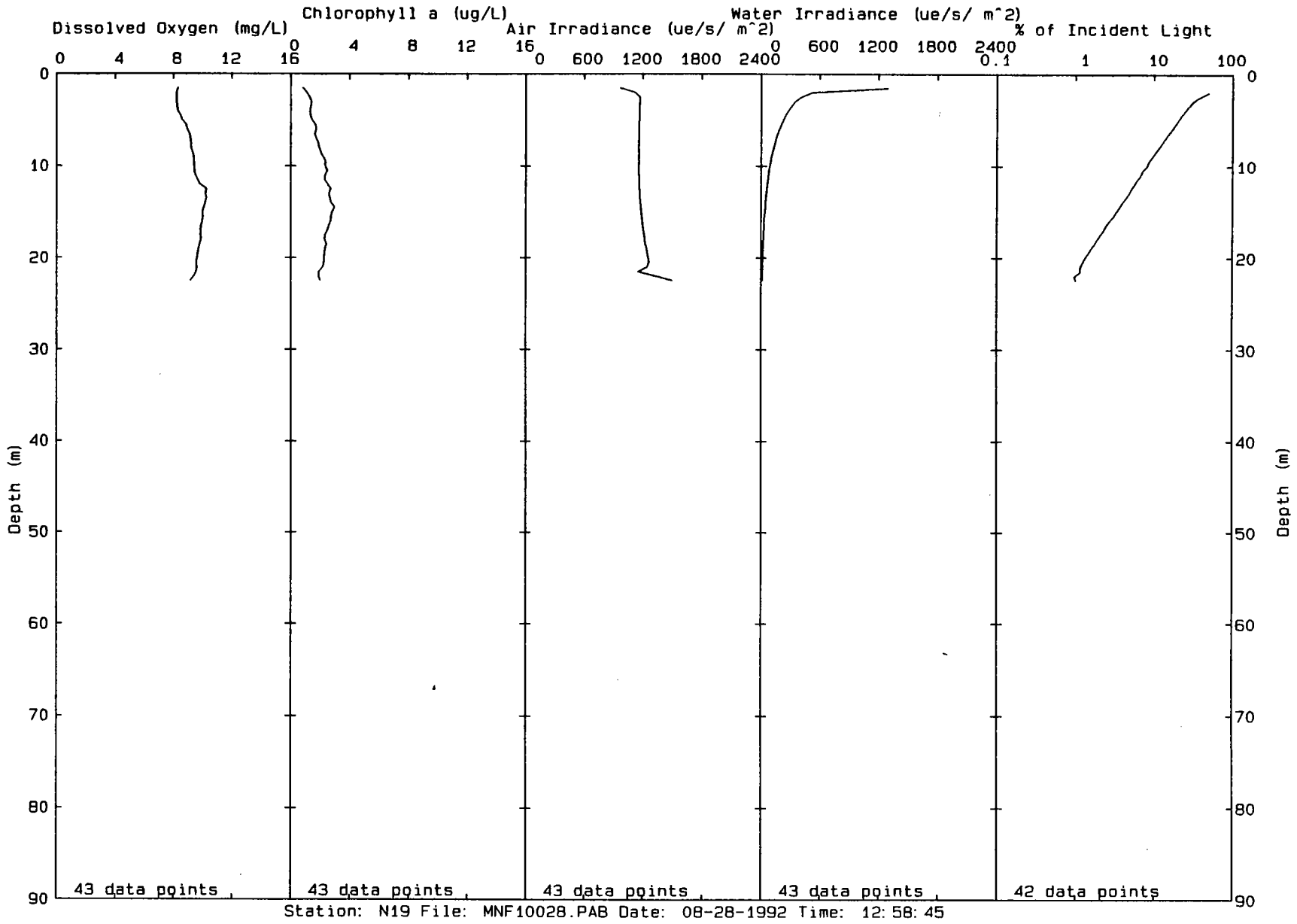

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
36 data points
36 data points
36 data points
36 data points
Station: N18 File: MNF10044.PAB Date: 08-28-1992 Time: 16:03:19



00130

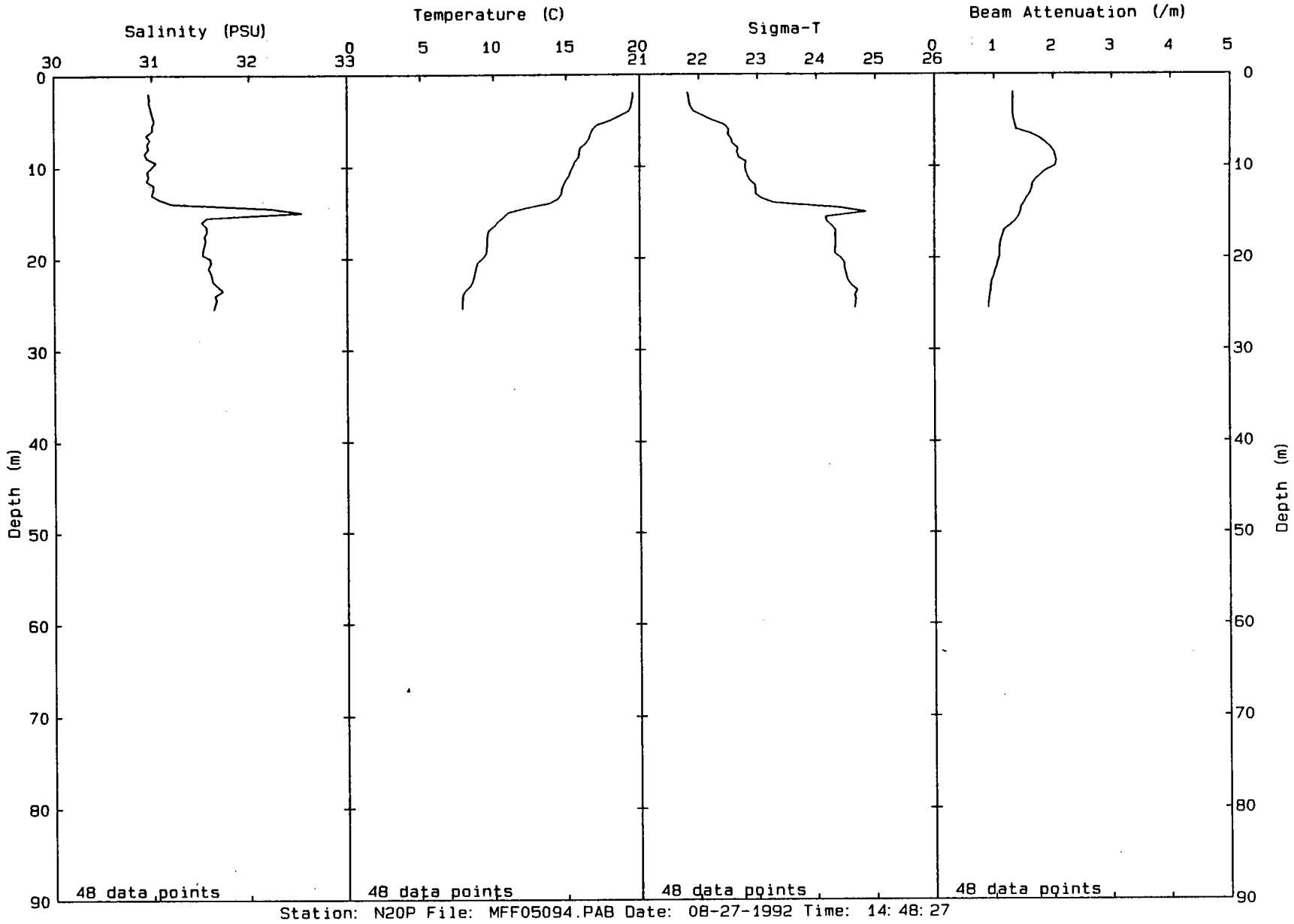
01-07-1993 20:29:44 Battelle


Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
43 data points
43 data points
43 data points
43 data points
Station: N19 File: MNF10028.PAB Date: 08-28-1992 Time: 12:58:45



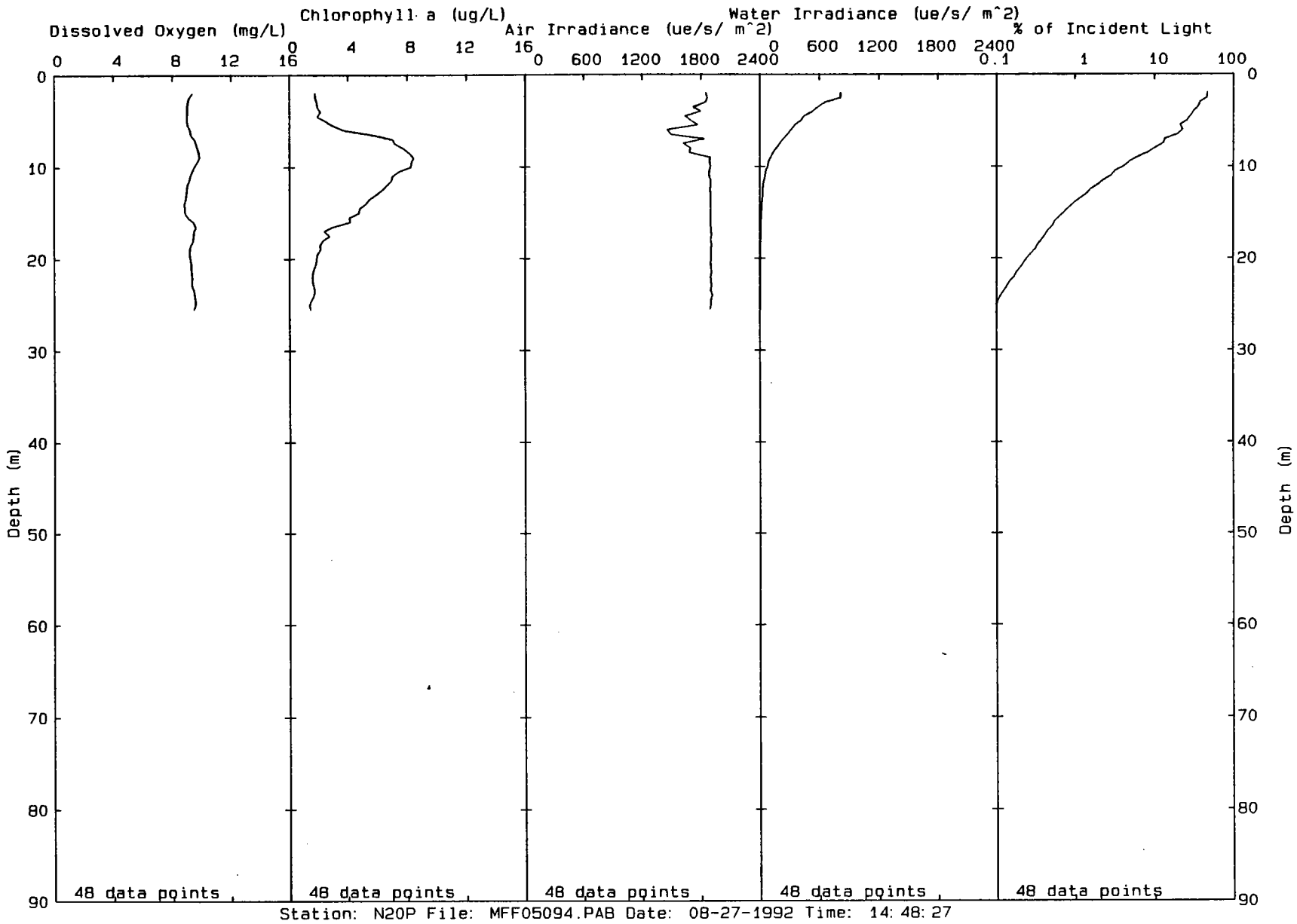
00132

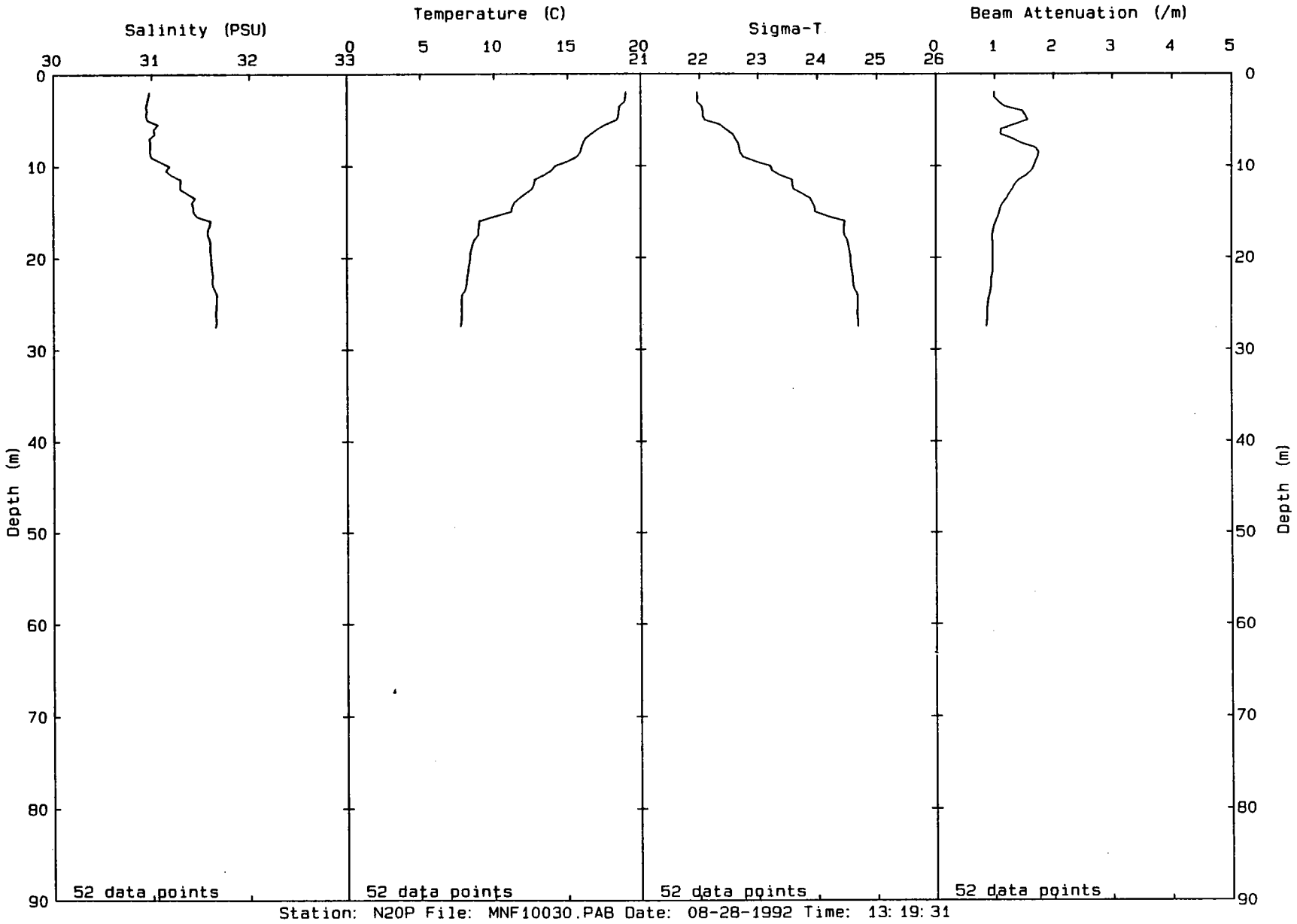
01-07-1993 20:29:15 Battelle

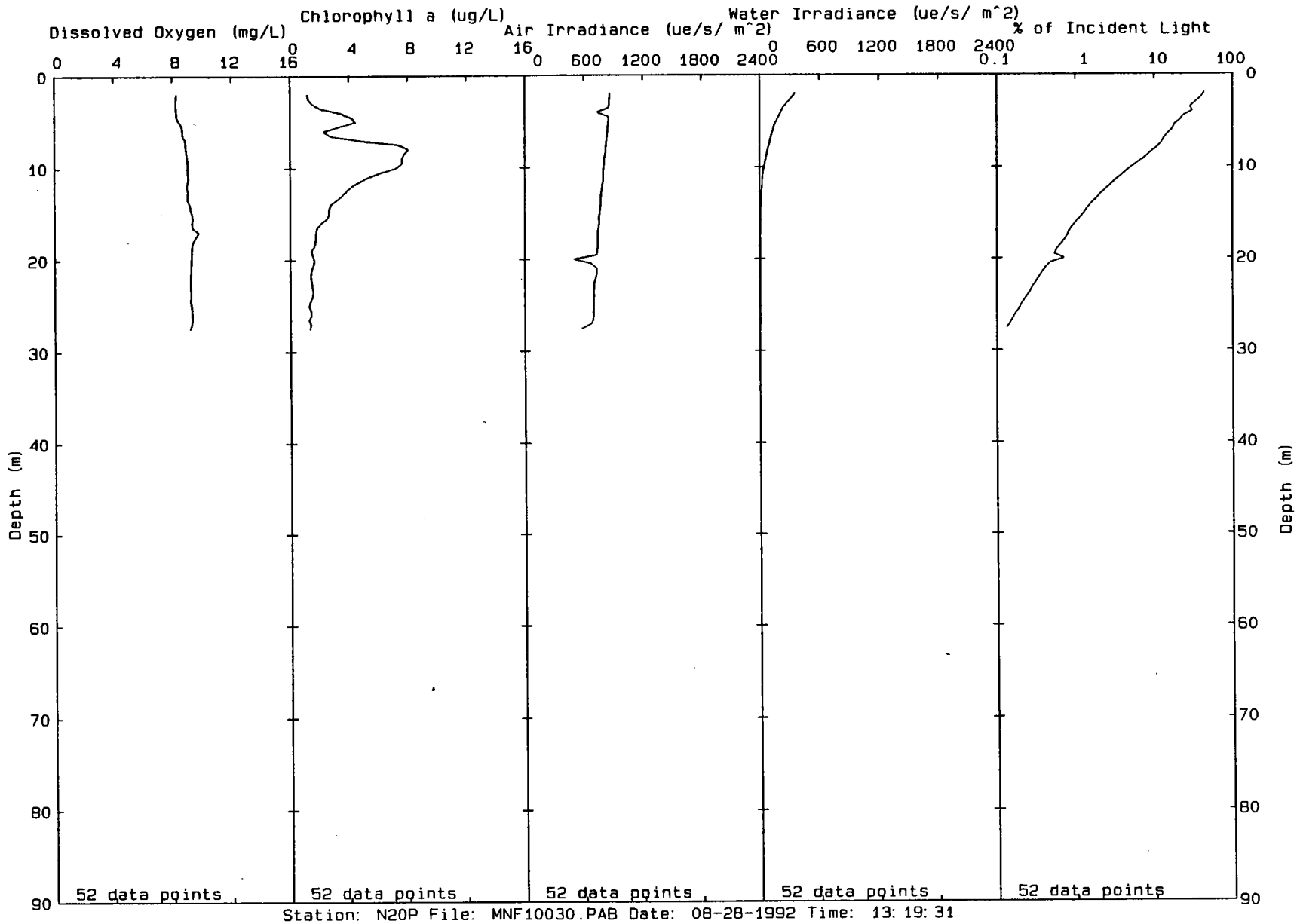


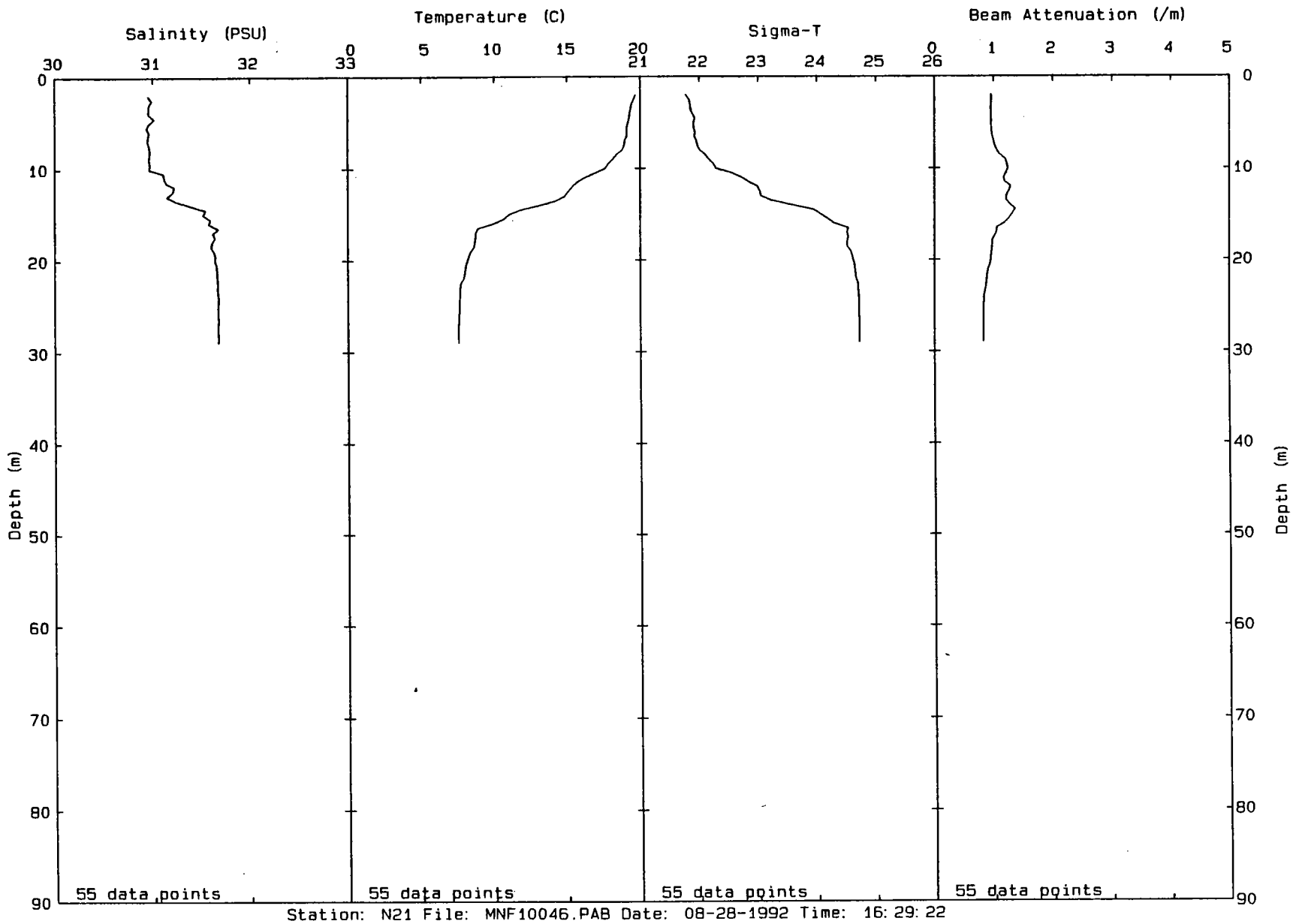
00133

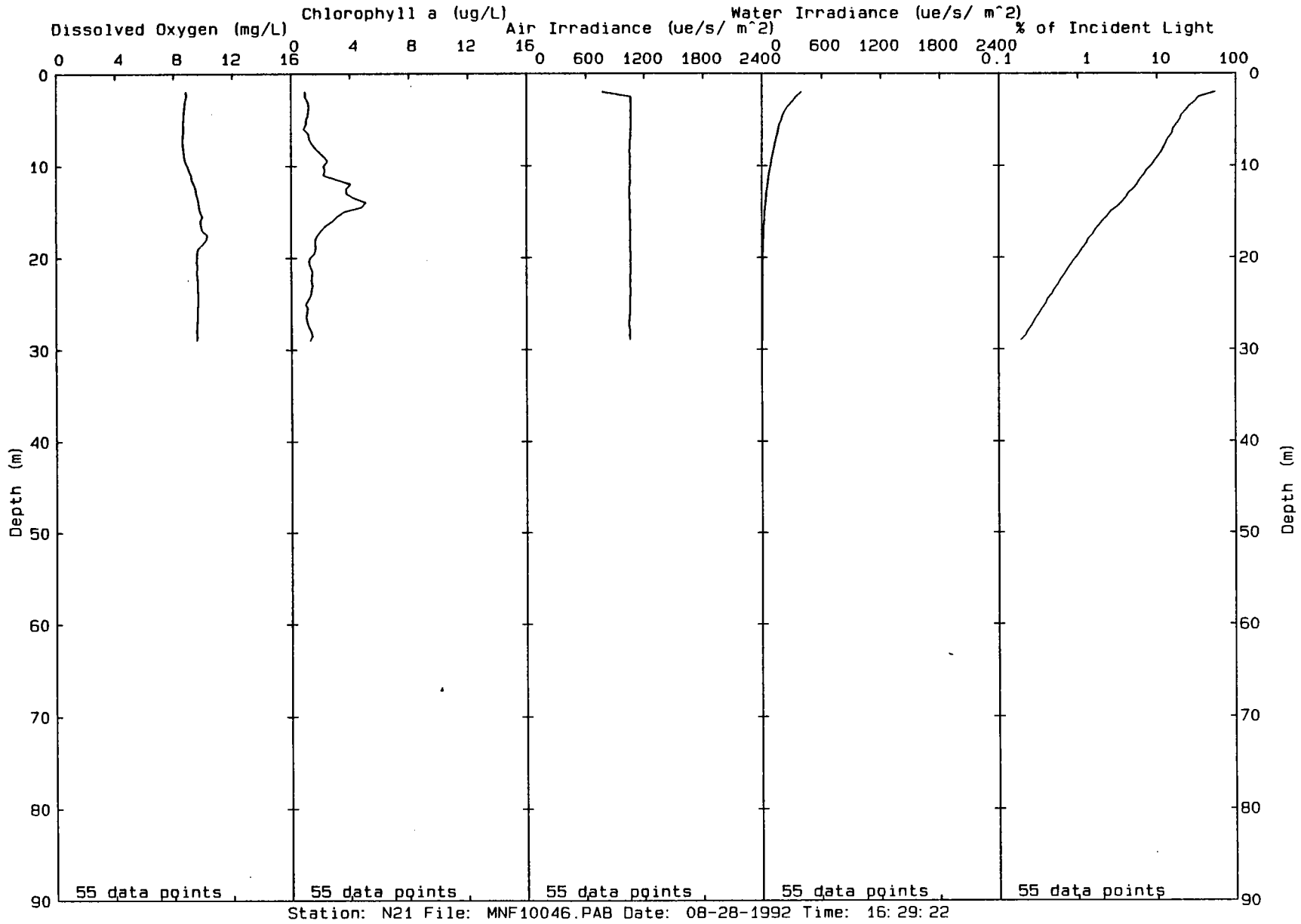
01-07-1993 21:34:21 Battelle


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
48 data points
48 data points
48 data points
48 data points
48 data points
Station: N20P File: MFF05094.PAB Date: 08-27-1992 Time: 14:48:27

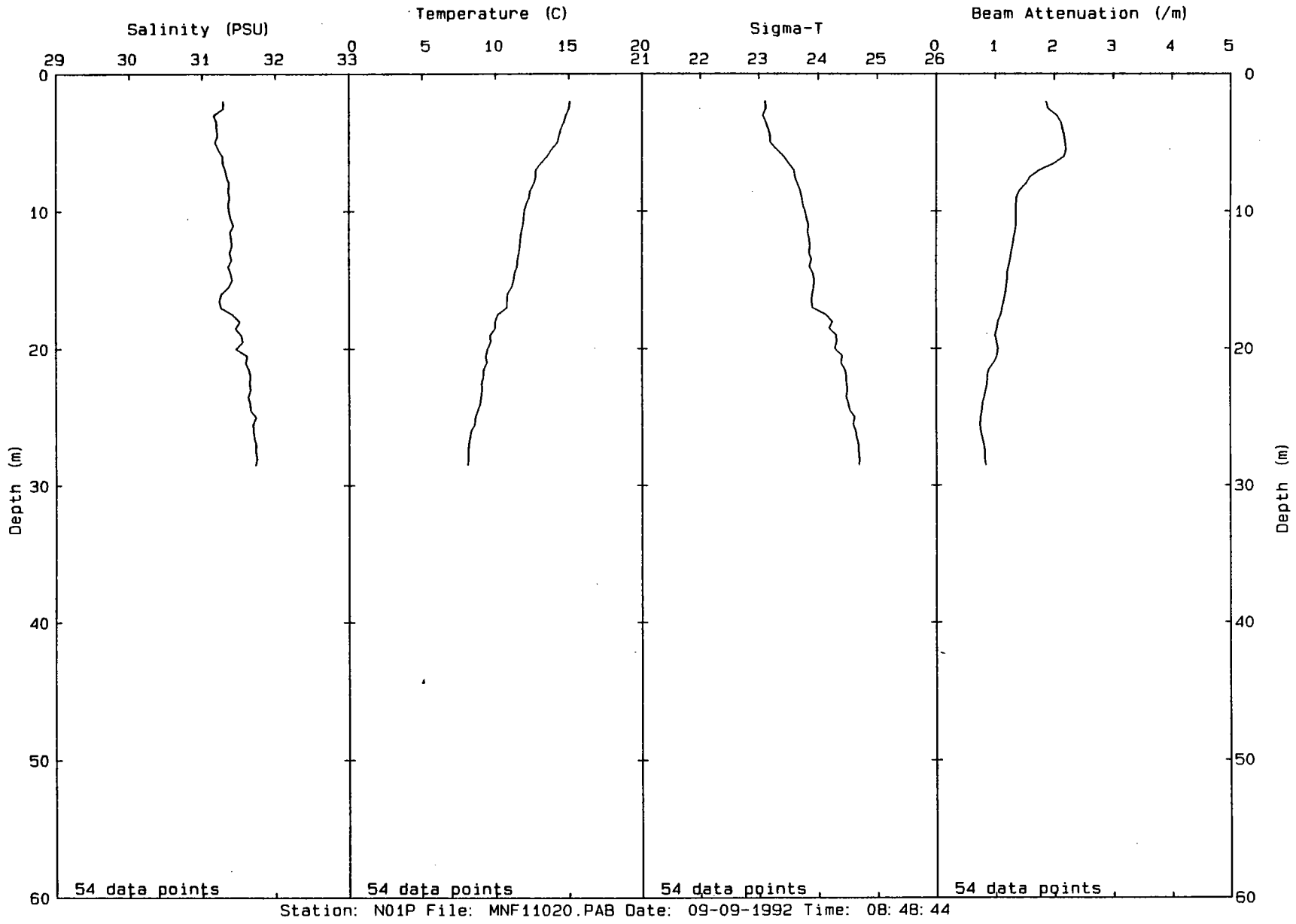

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
52 data points
52 data points
52 data points
52 data points
Station: N20P File: MNF10030.PAB Date: 08-28-1992 Time: 13:19:31


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
52 data points
52 data points
52 data points
52 data points
52 data points
Station: N20P File: MNF10030.PAB Date: 08-28-1992 Time: 13:19:31


Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
55 data points
55 data points
55 data points
55 data points
Station: N21 File: MNF10046.PAB Date: 08-28-1992 Time: 16:29:22

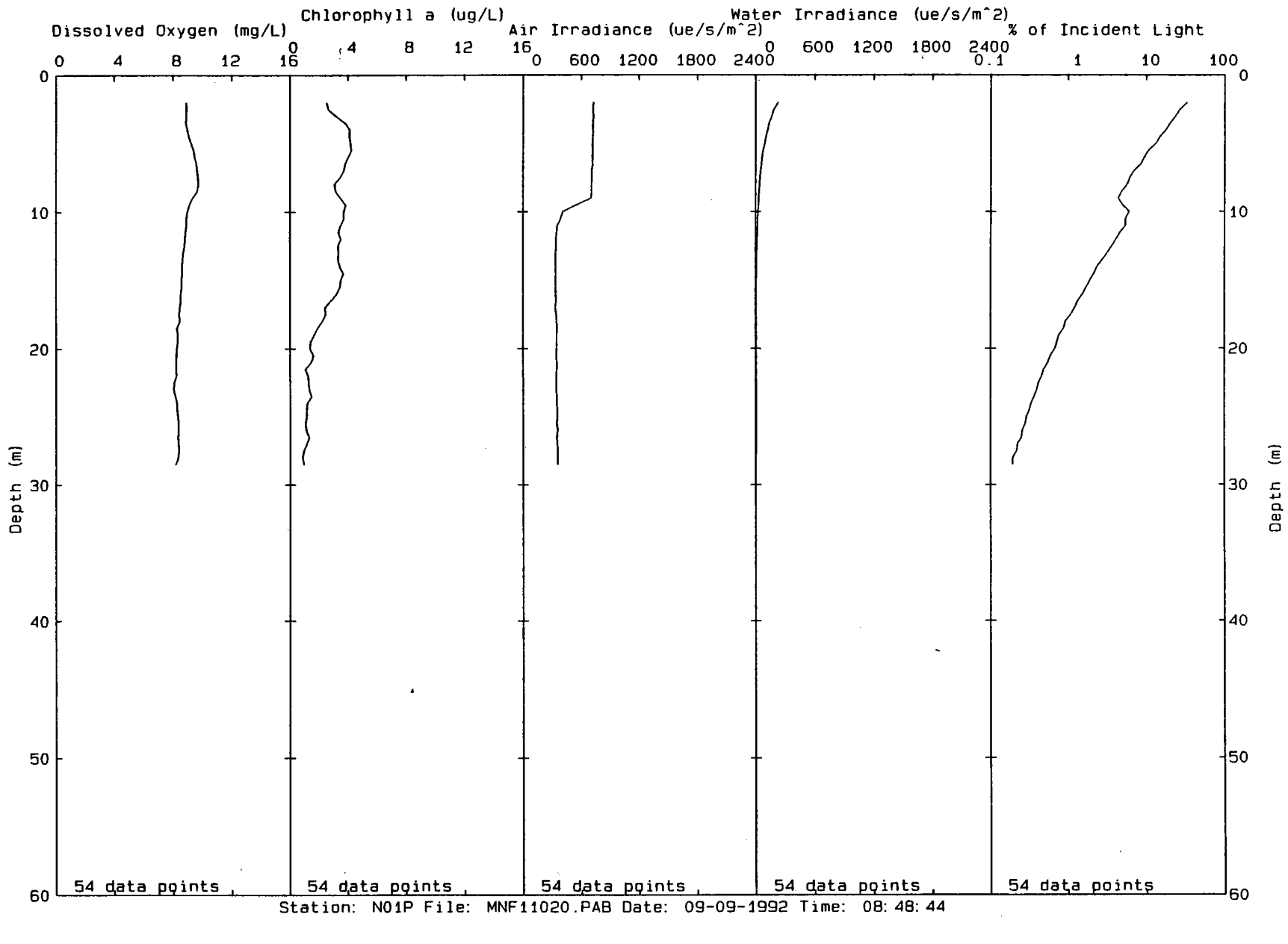

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
55 data points
55 data points
55 data points
55 data points
55 data points
Station: N21 File: MNF10046.PAB Date: 08-28-1992 Time: 16:29:22

September Profiles



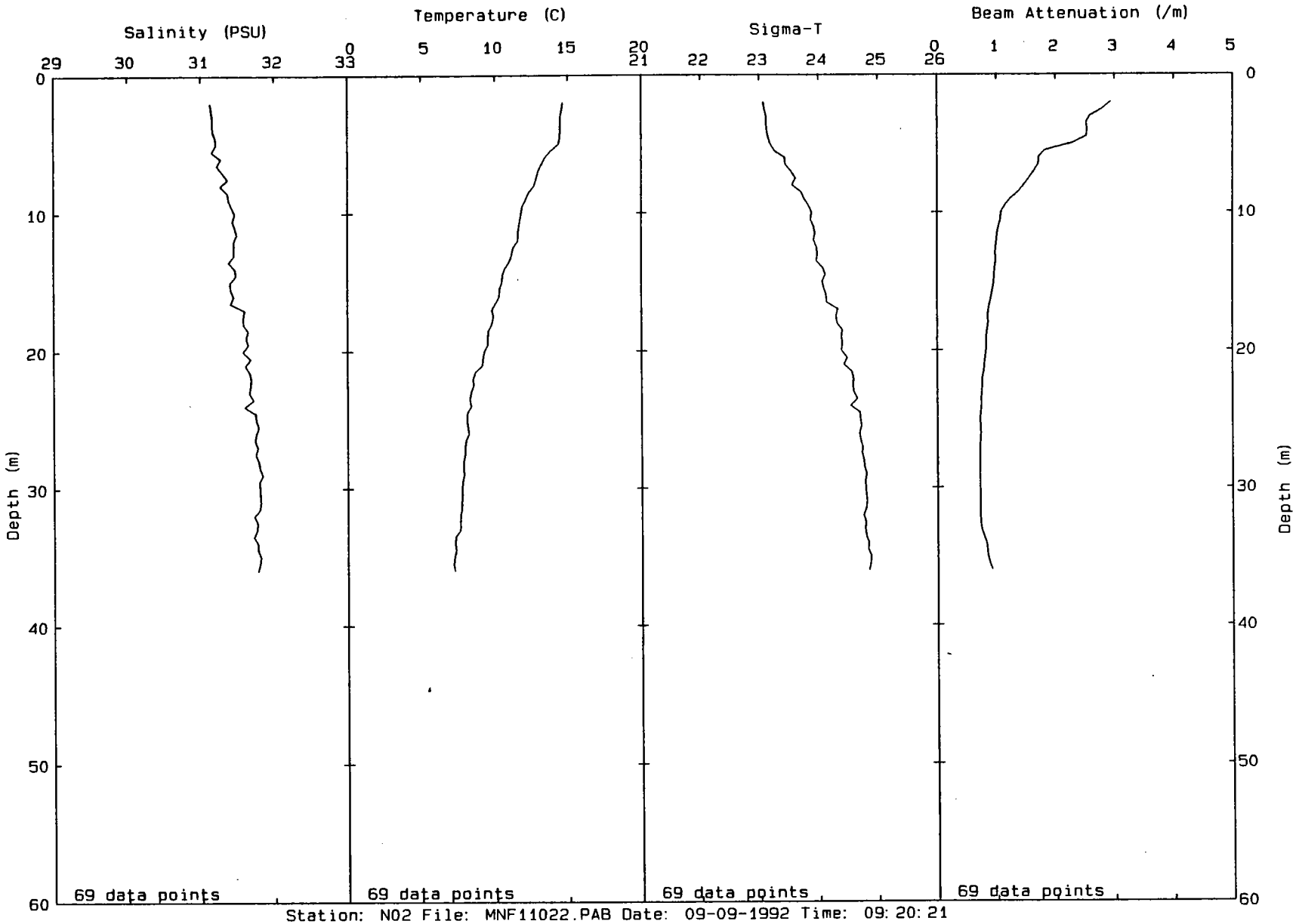
00140

03-29-1993 14:51:57 Battelle



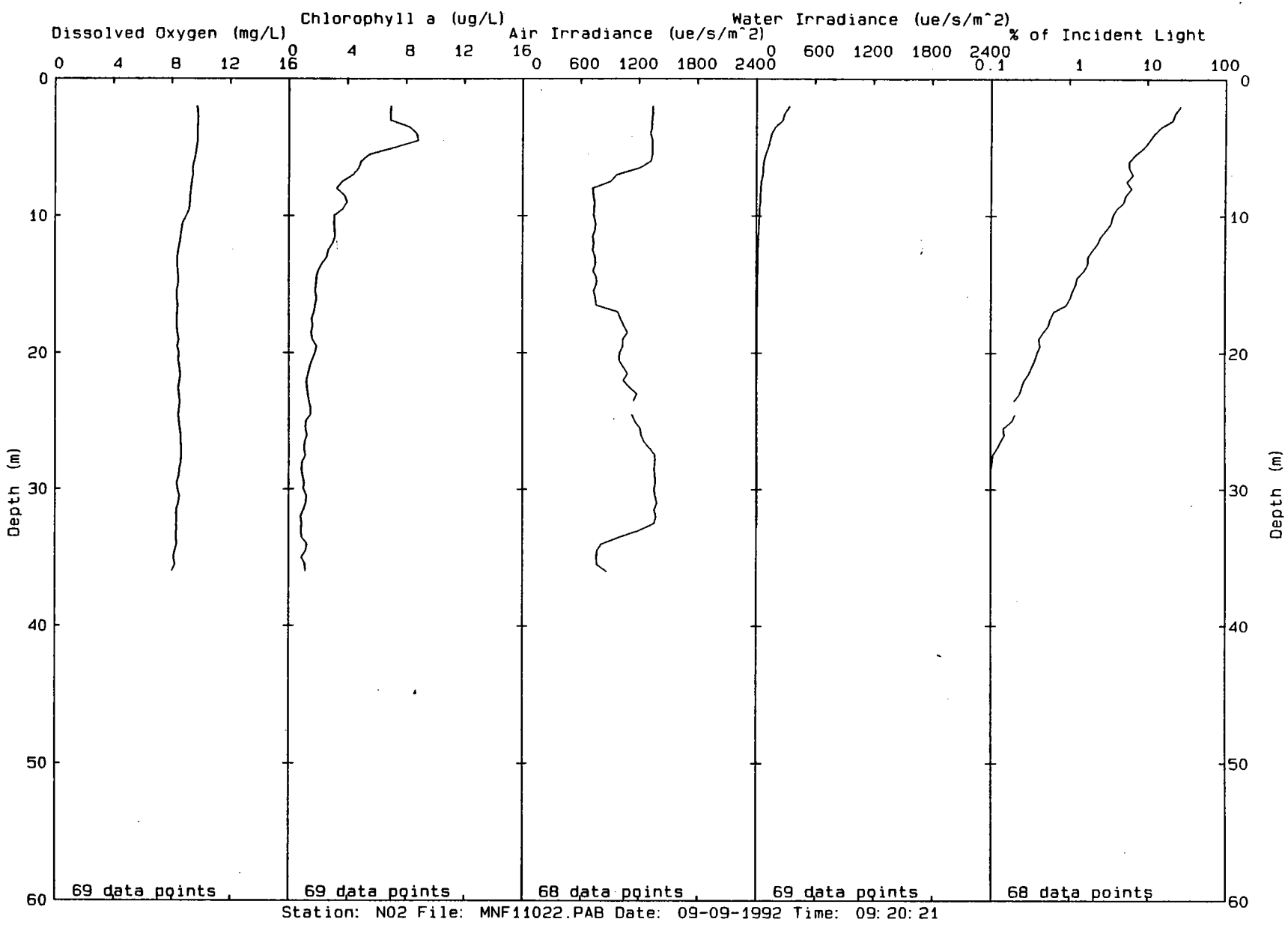
00141

03-29-1993 14:53:49 Battelle



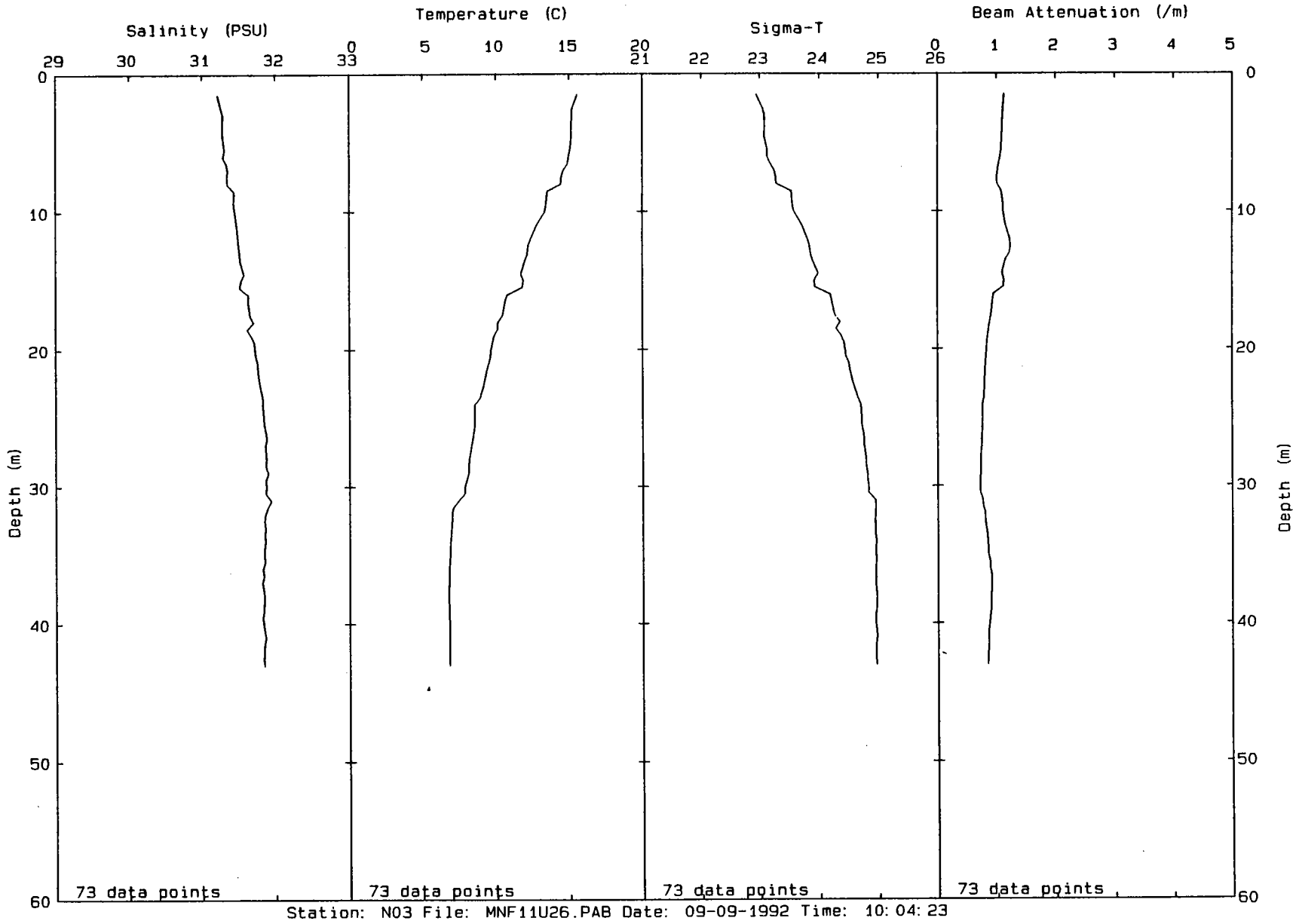
00142

03-29-1993 14:52:00 Battelle



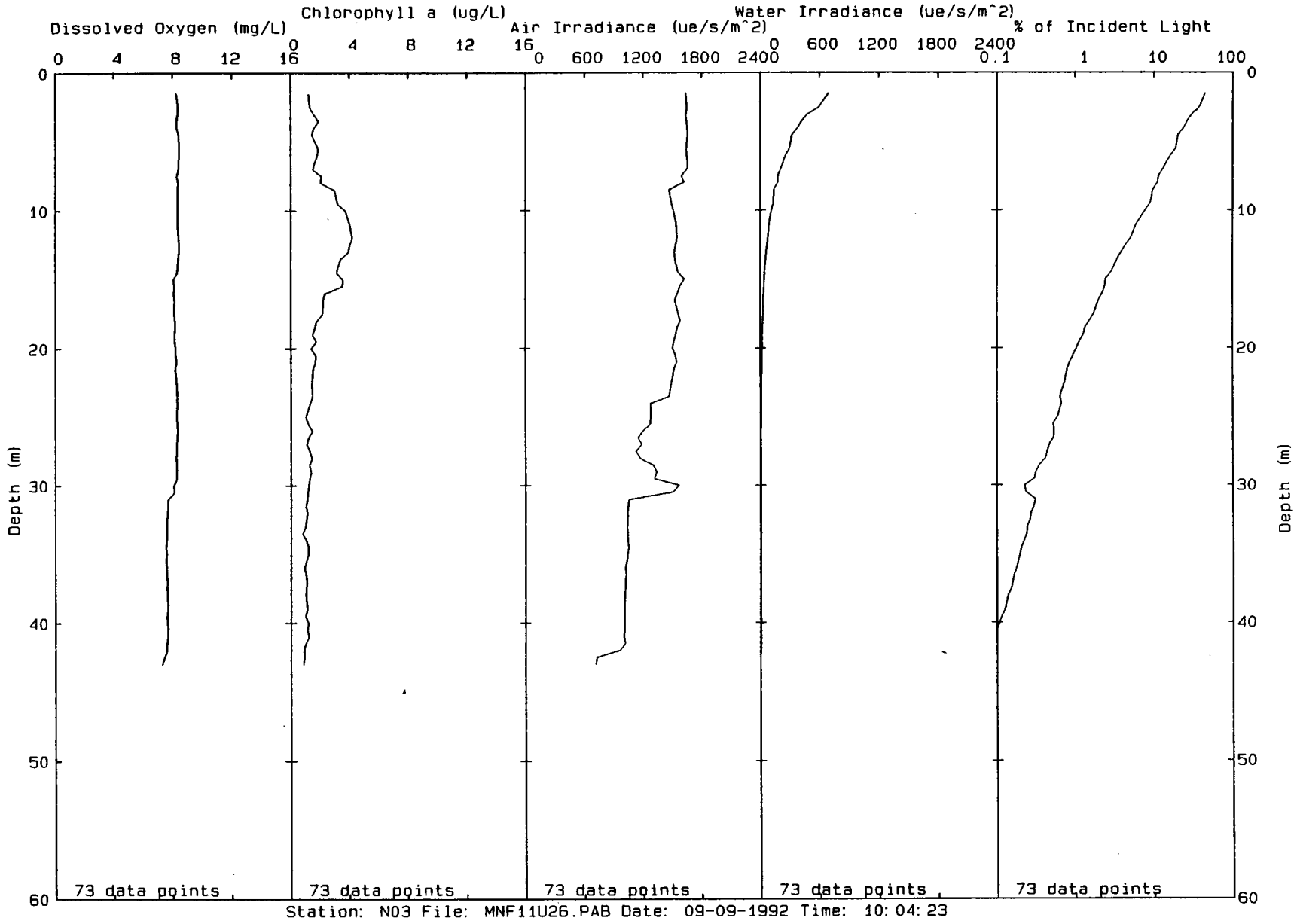
00143

03-29-1993 14:53:52 Battelle



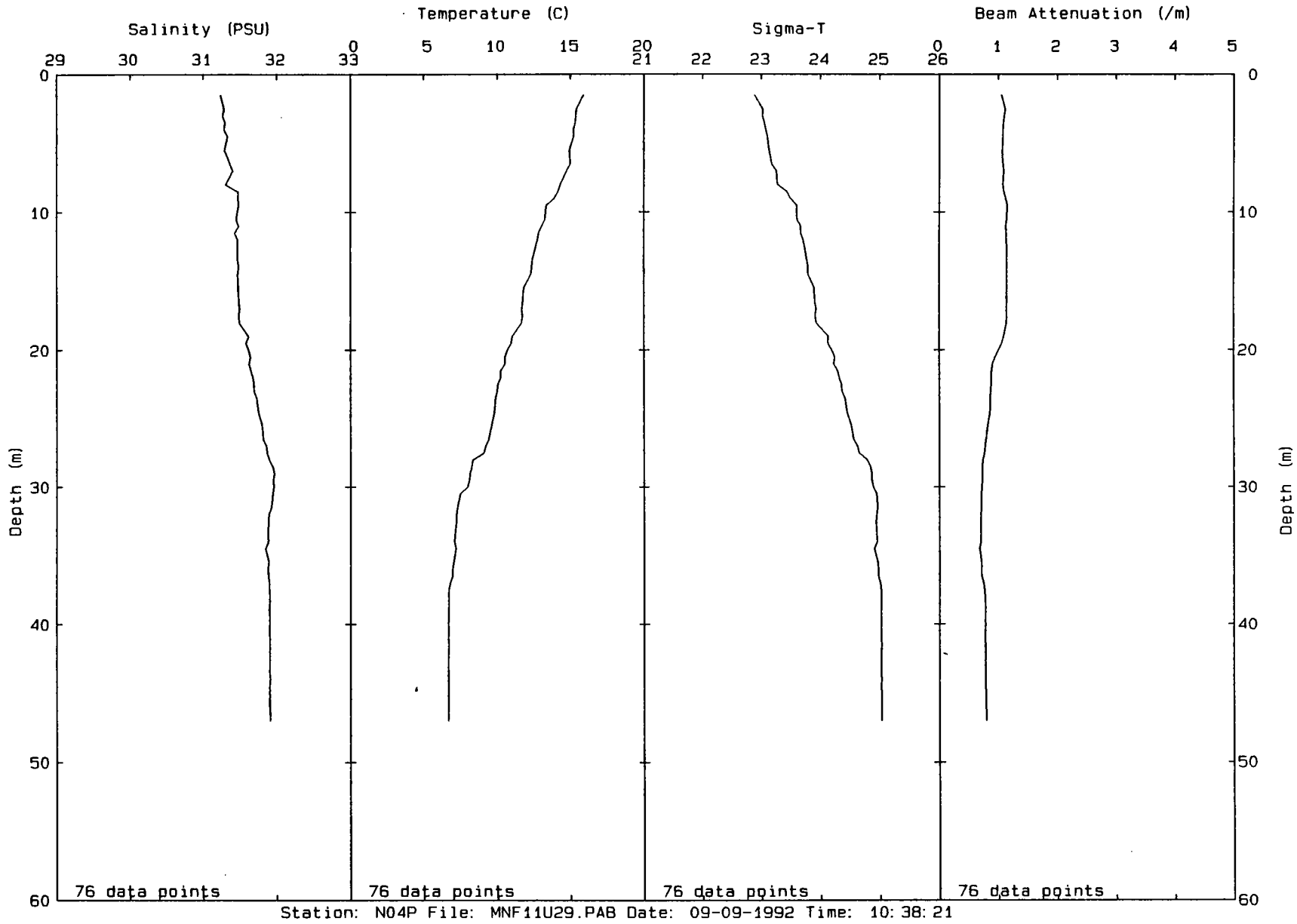
00144

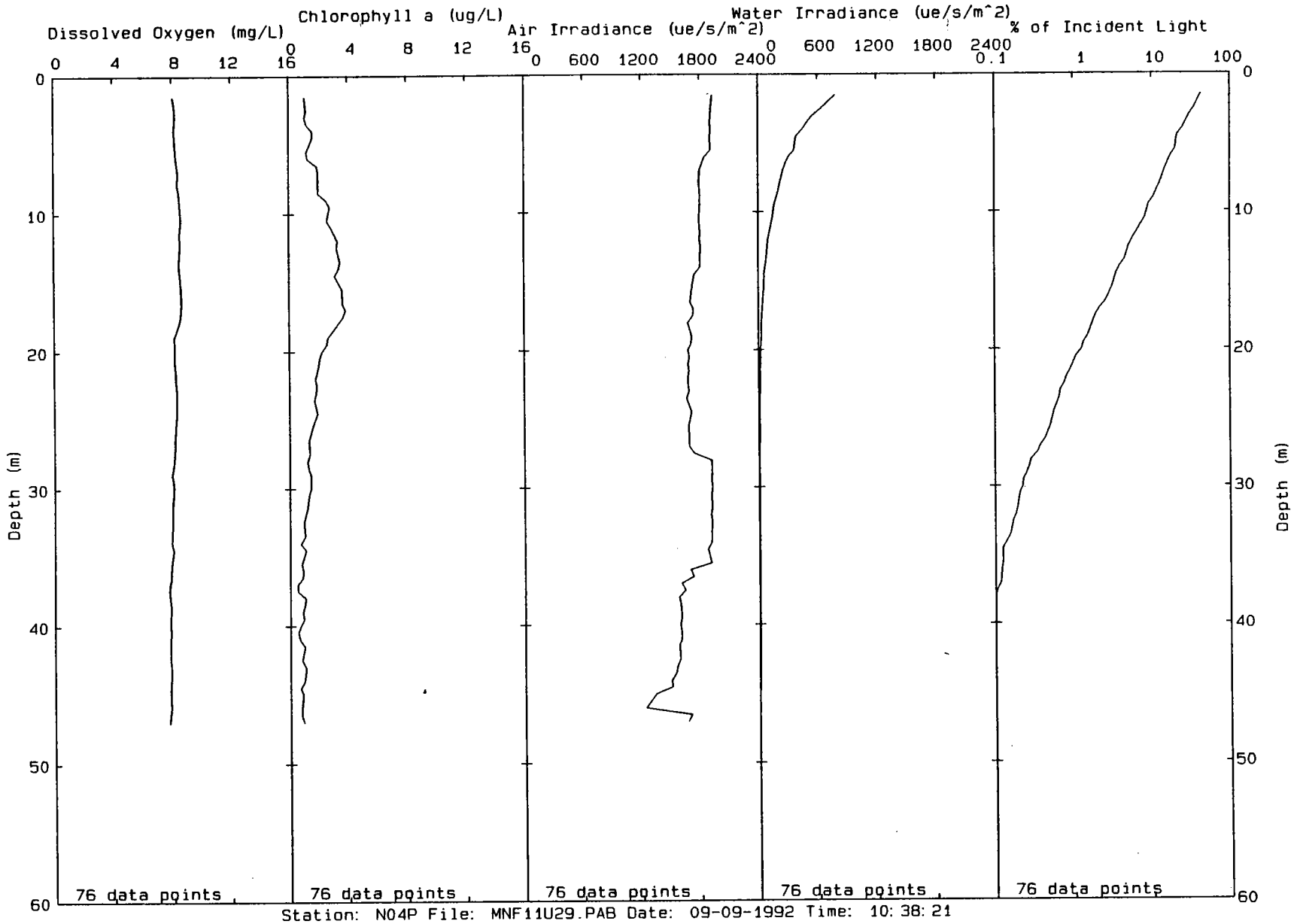
03-29-1993 14:52:41 Battelle

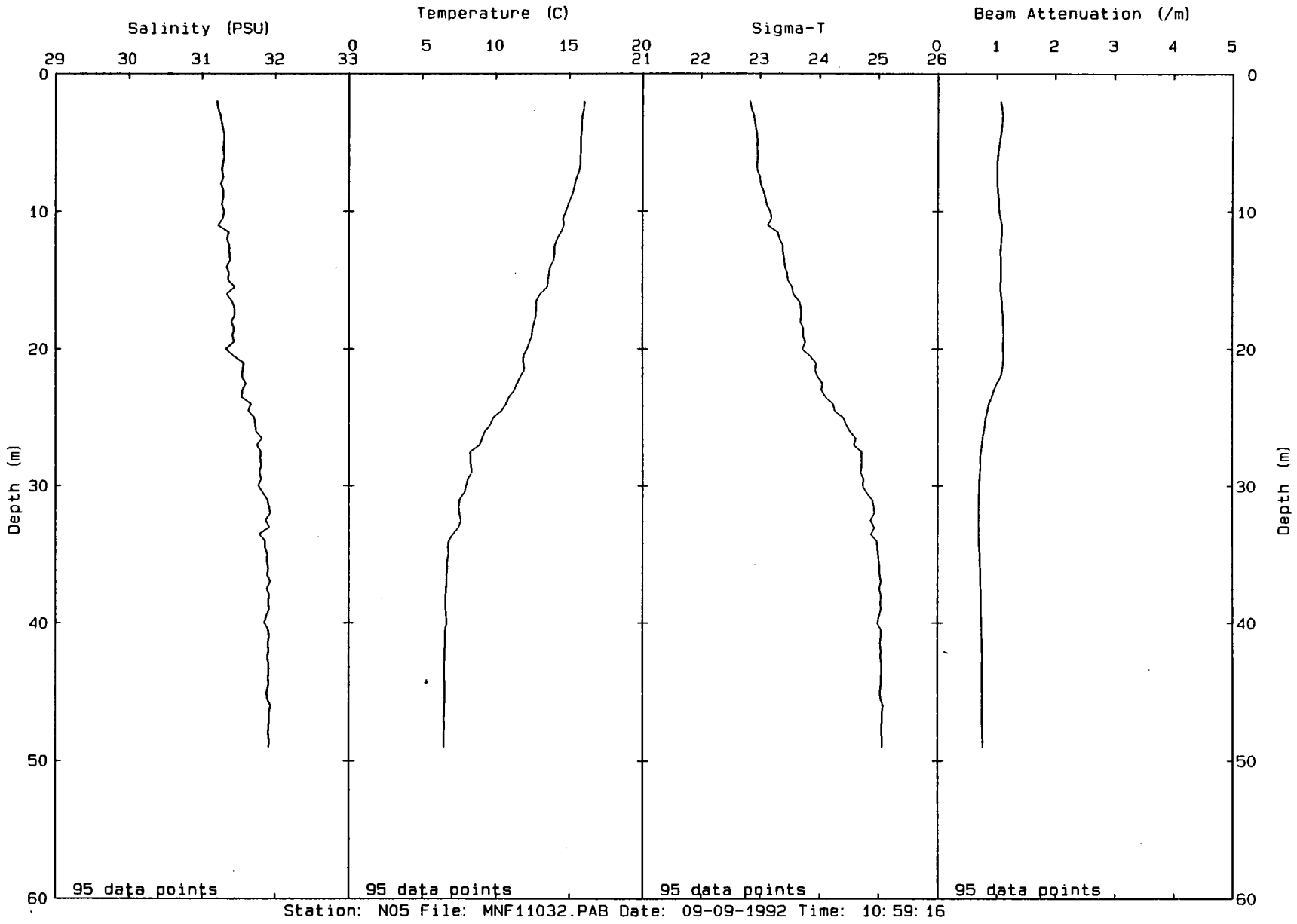


00145

03-29-1993 14:54:39 Battelle

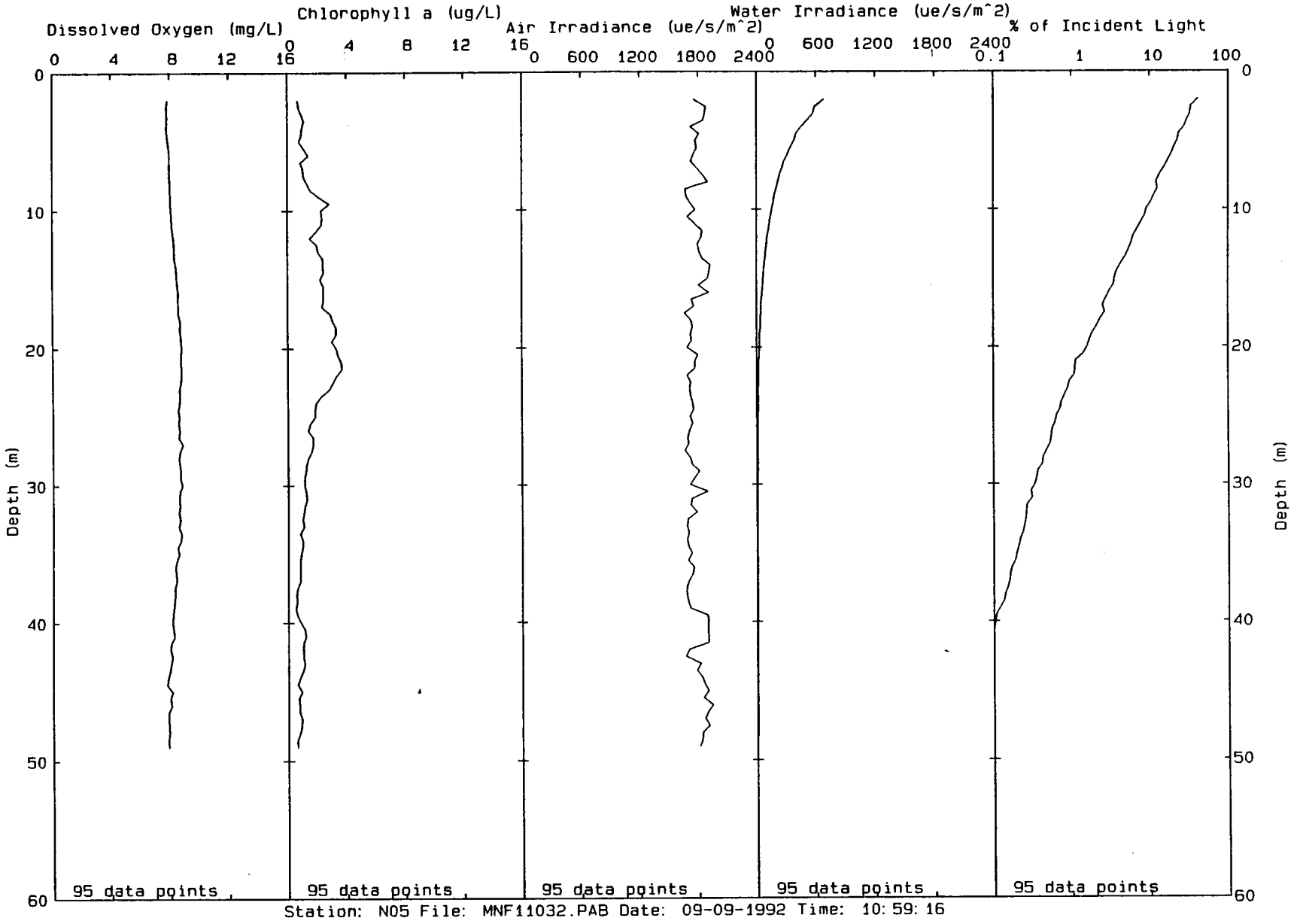


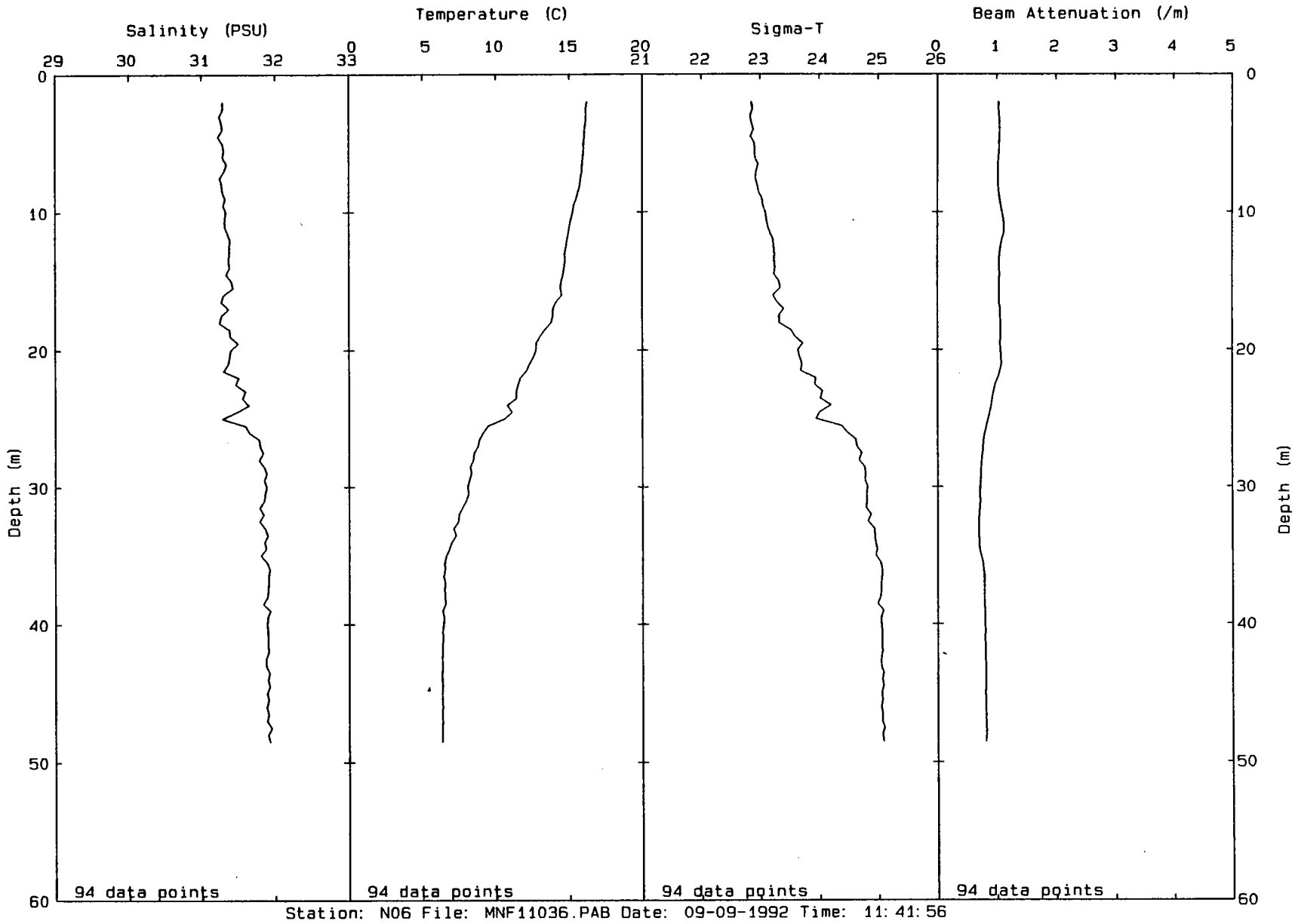

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
76 data points
76 data points
76 data points
76 data points
76 data points
Station: N04P File: MNF11U29.PAB Date: 09-09-1992 Time: 10:38:21

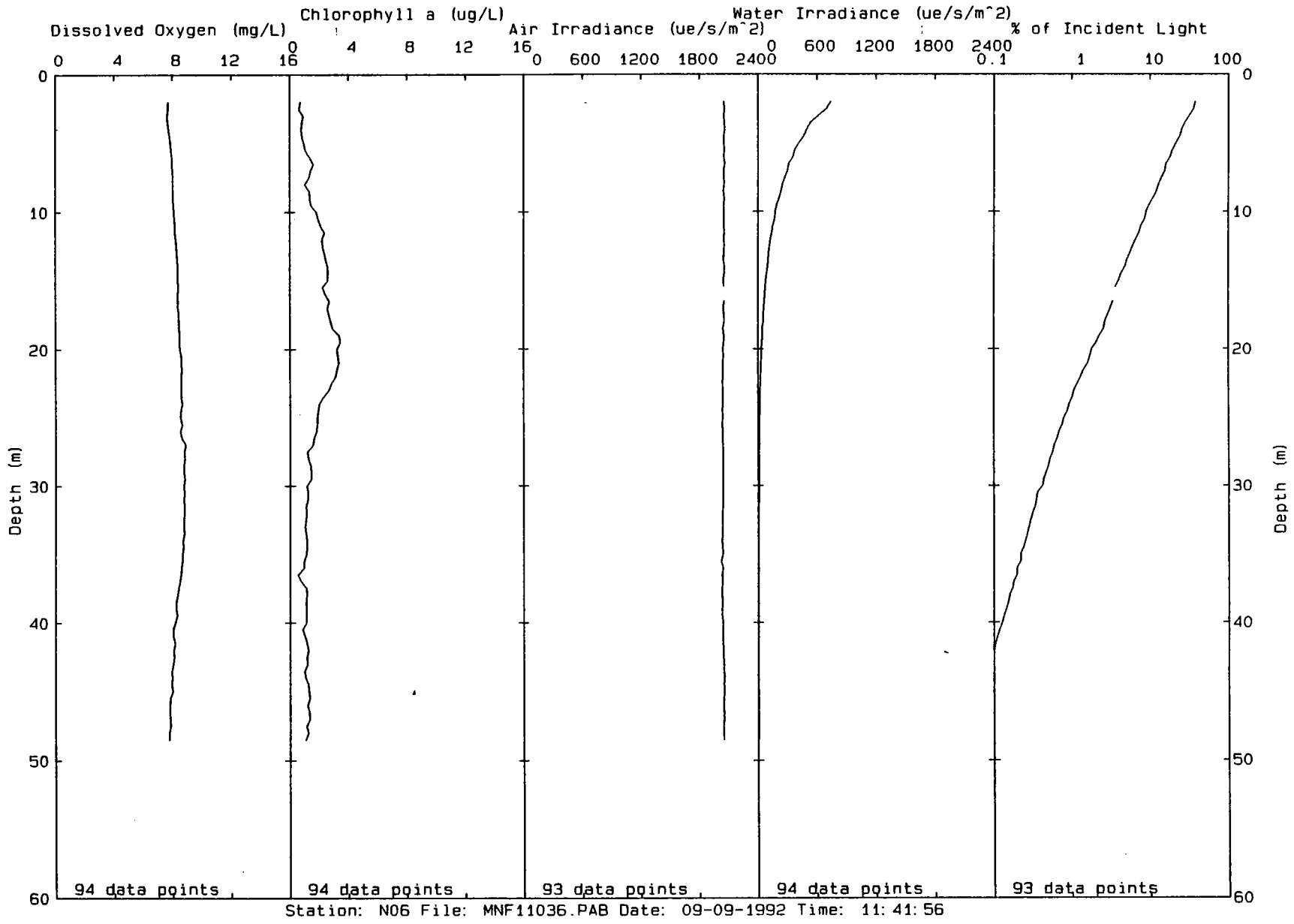


00148

03-29-1993 14:52:04 Battelle

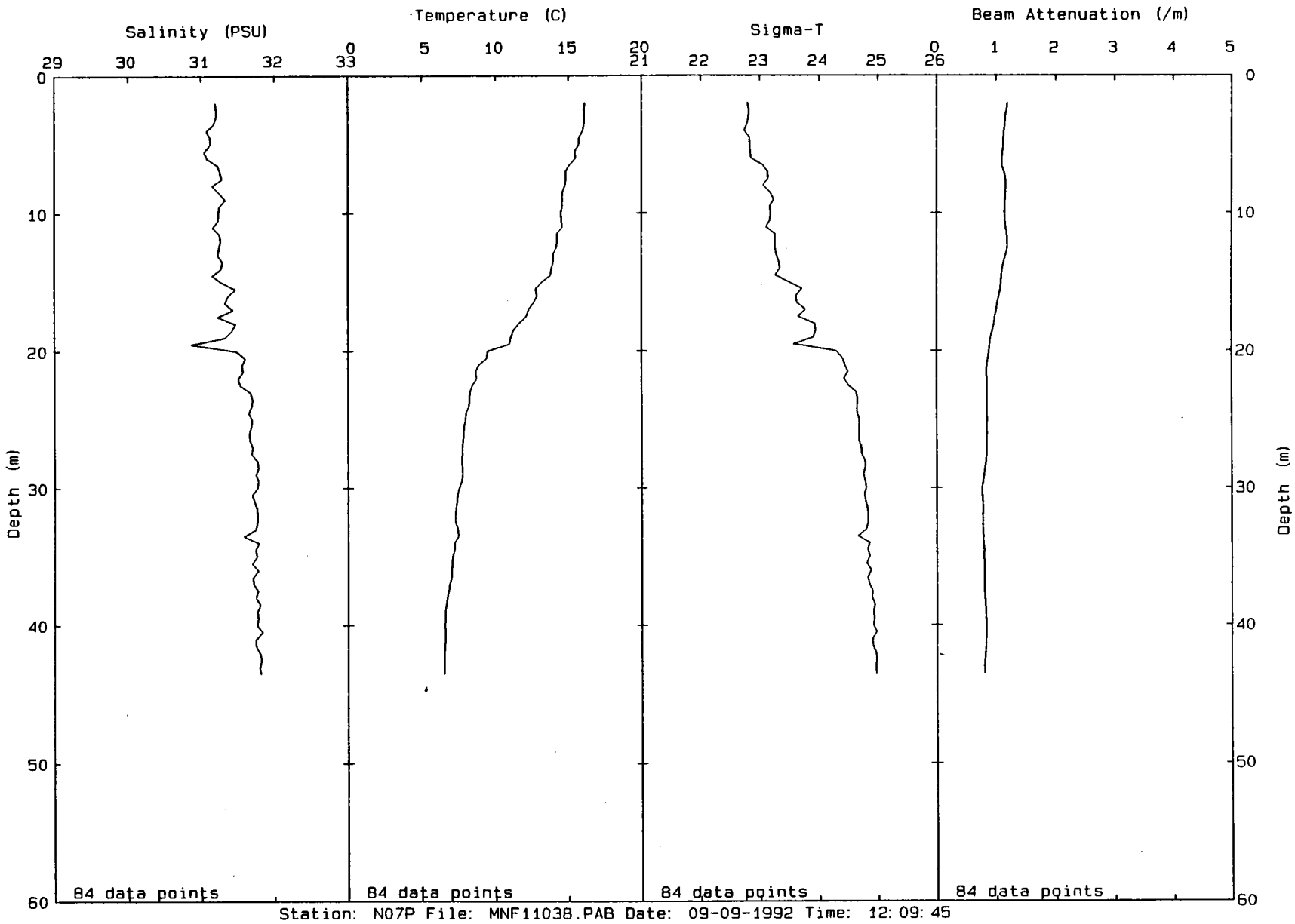

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
95 data points
95 data points
95 data points
95 data points
95 data points
Station: N05 File: MNF11032.PAB Date: 09-09-1992 Time: 10:59:16

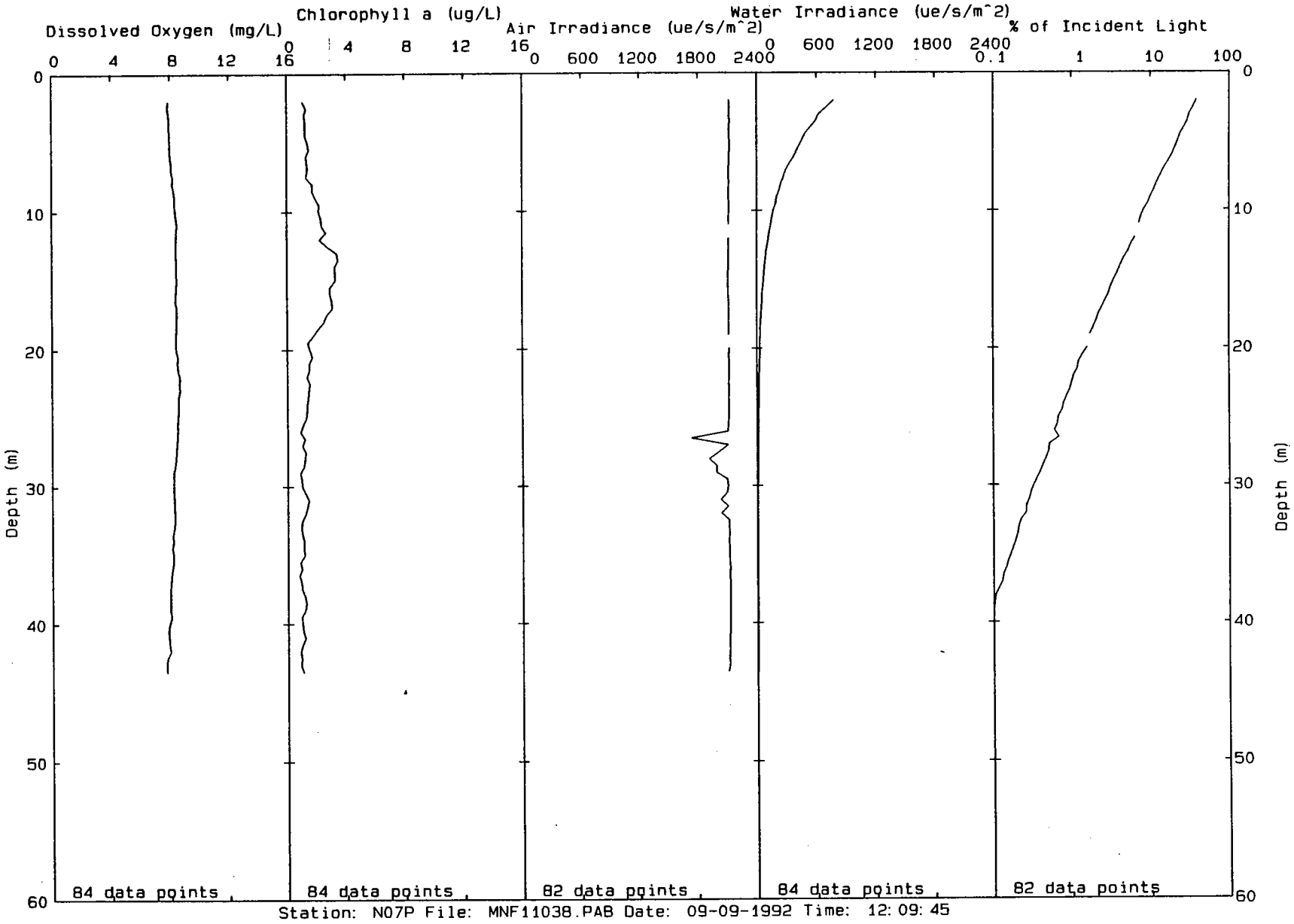


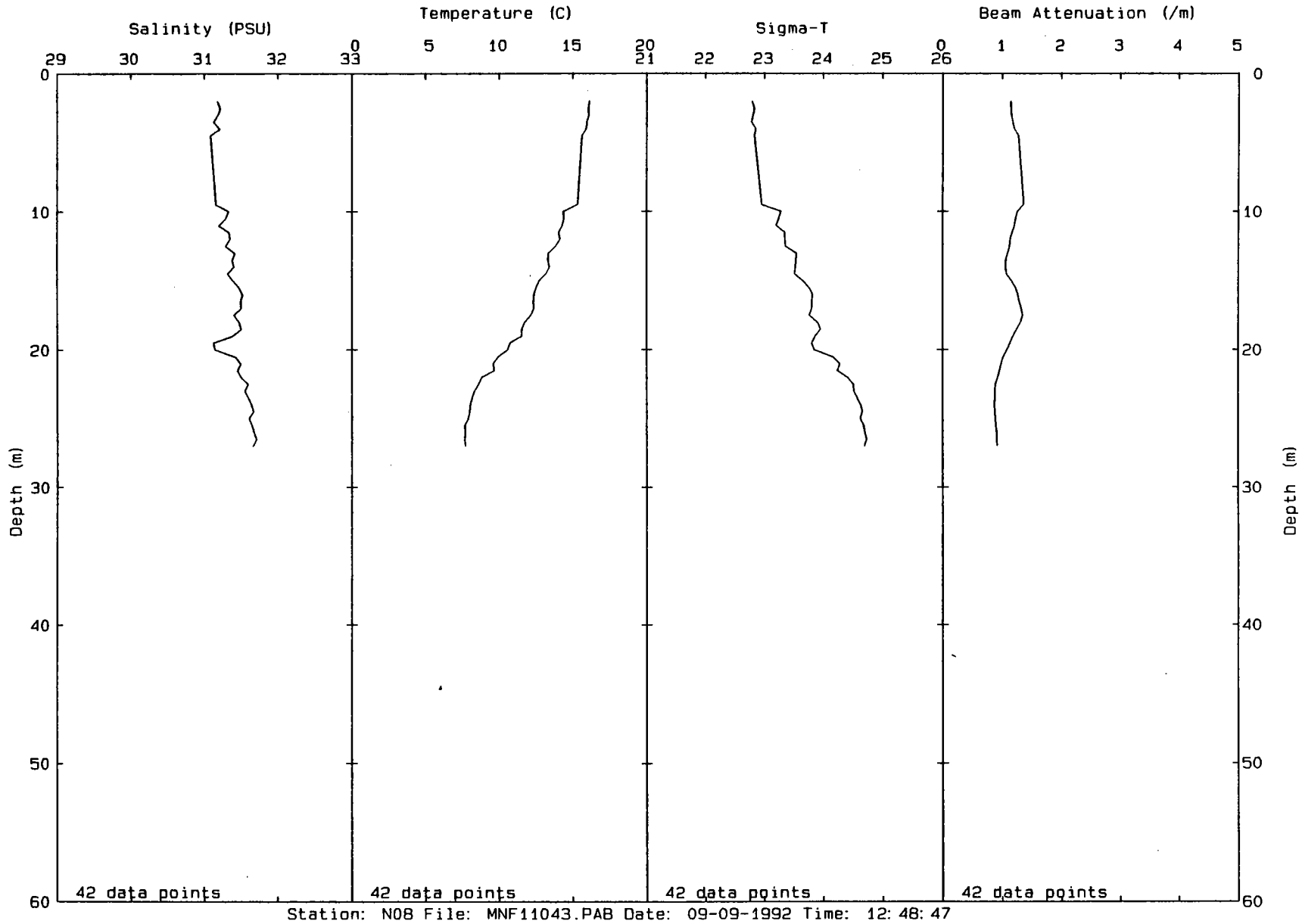


00151

03-29-1993 14:54:01 Battelle

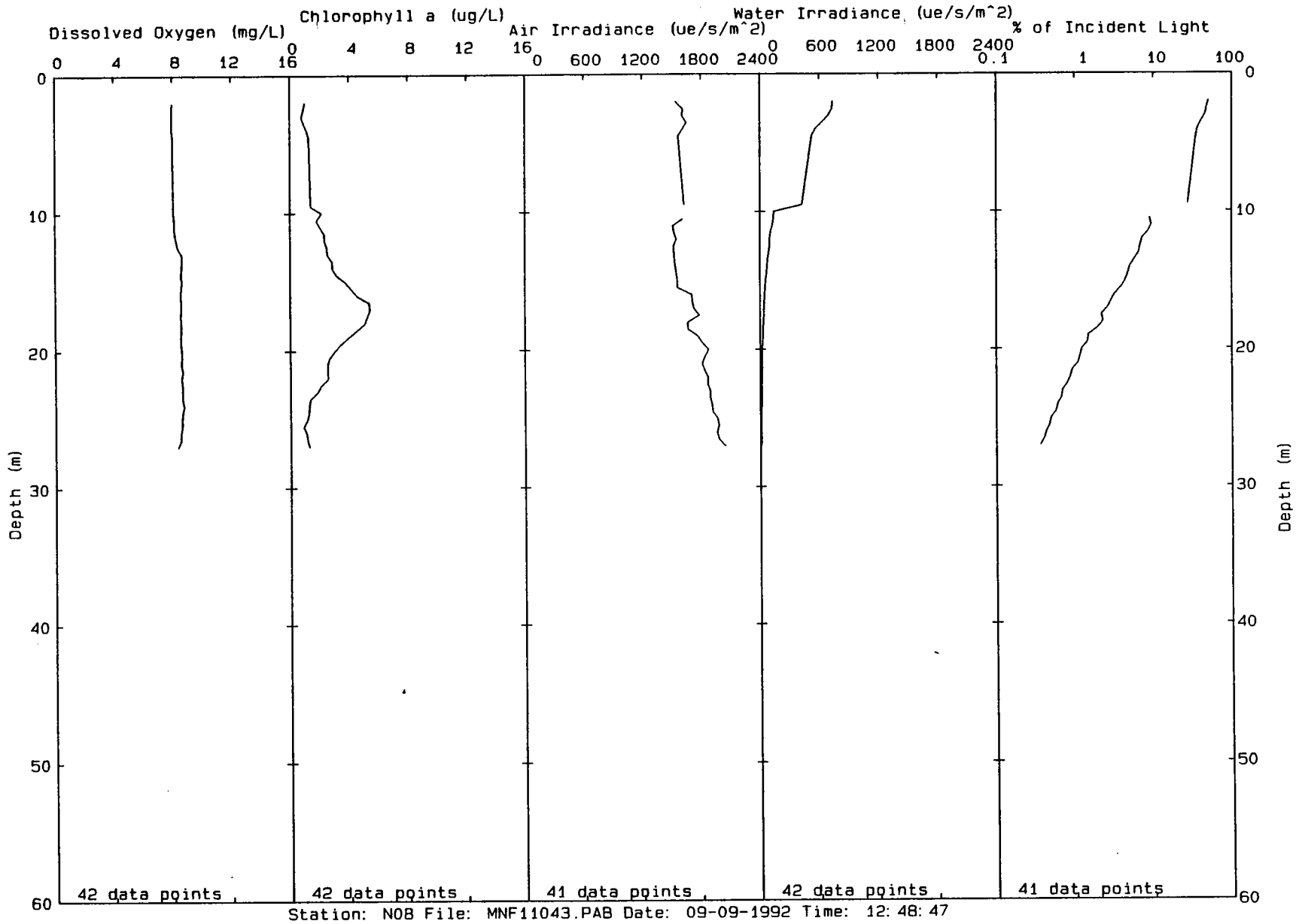

Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
84 data points
84 data points
84 data points
84 data points
Station: N07P File: MNF11038.PAB Date: 09-09-1992 Time: 12:09:45


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
84 data points
84 data points
82 data points
84 data points
82 data points
Station: N07P File: MNF11038.PAB Date: 09-09-1992 Time: 12:09:45



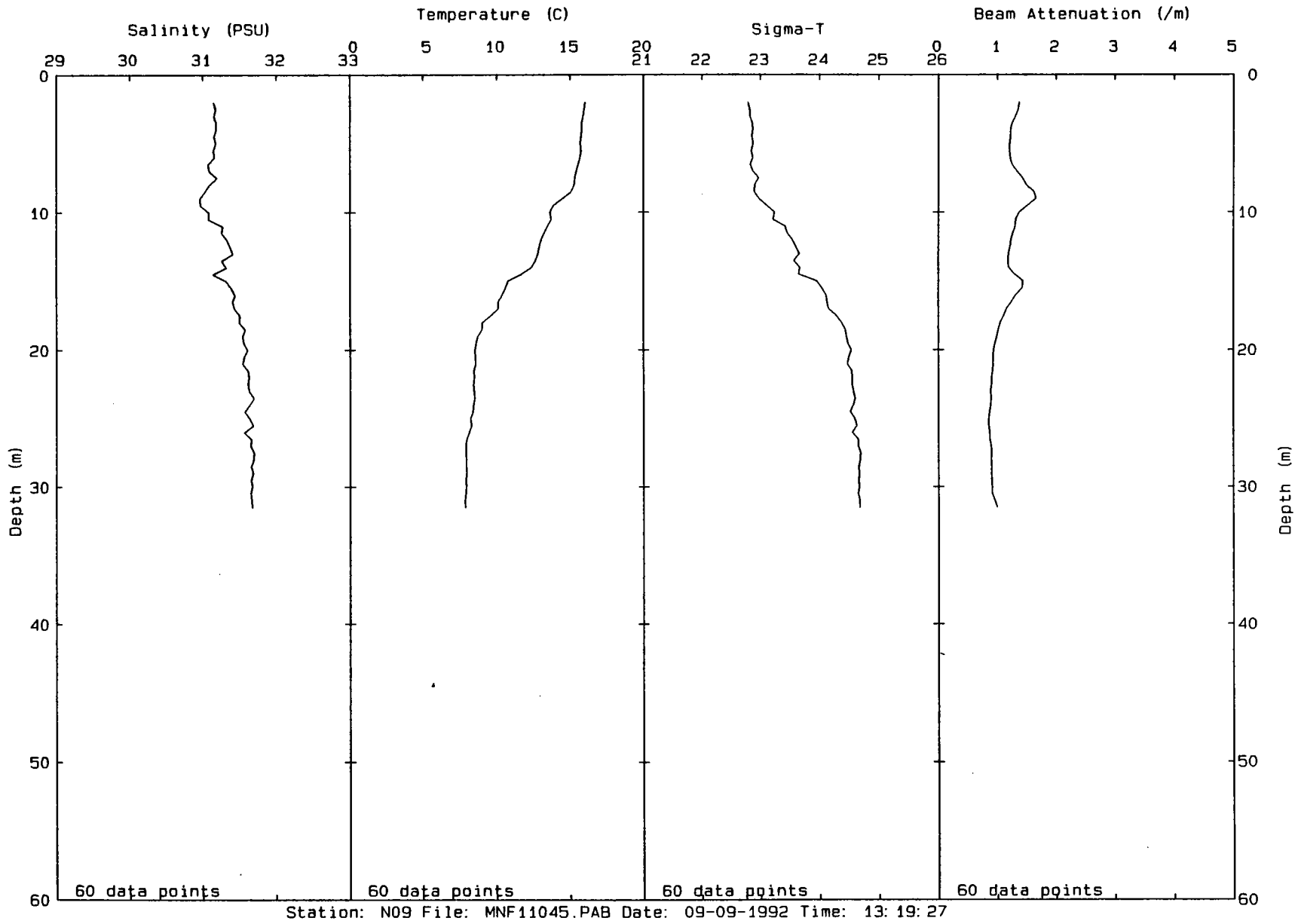
00154

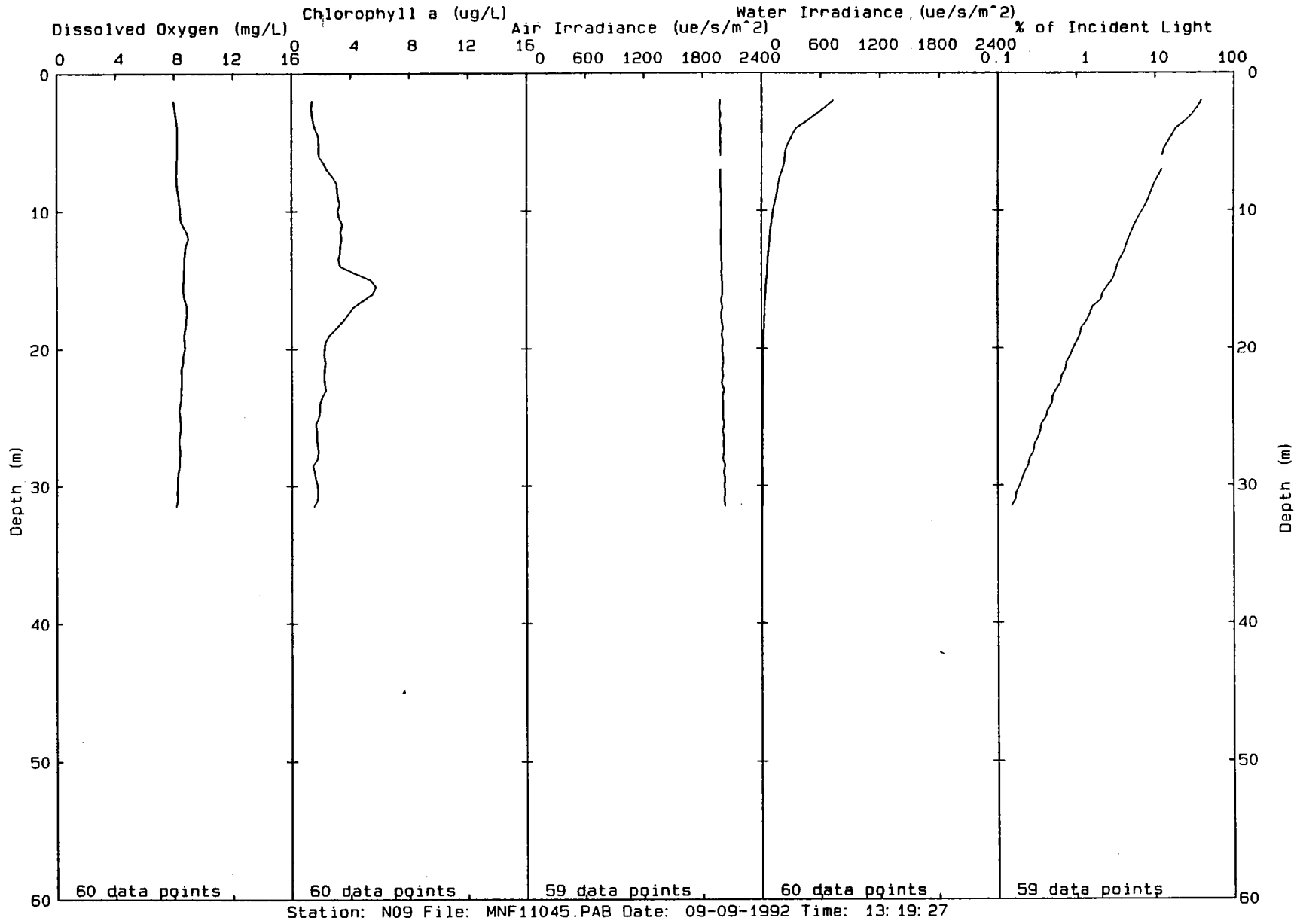
03-29-1993 14:52:13 Battelle

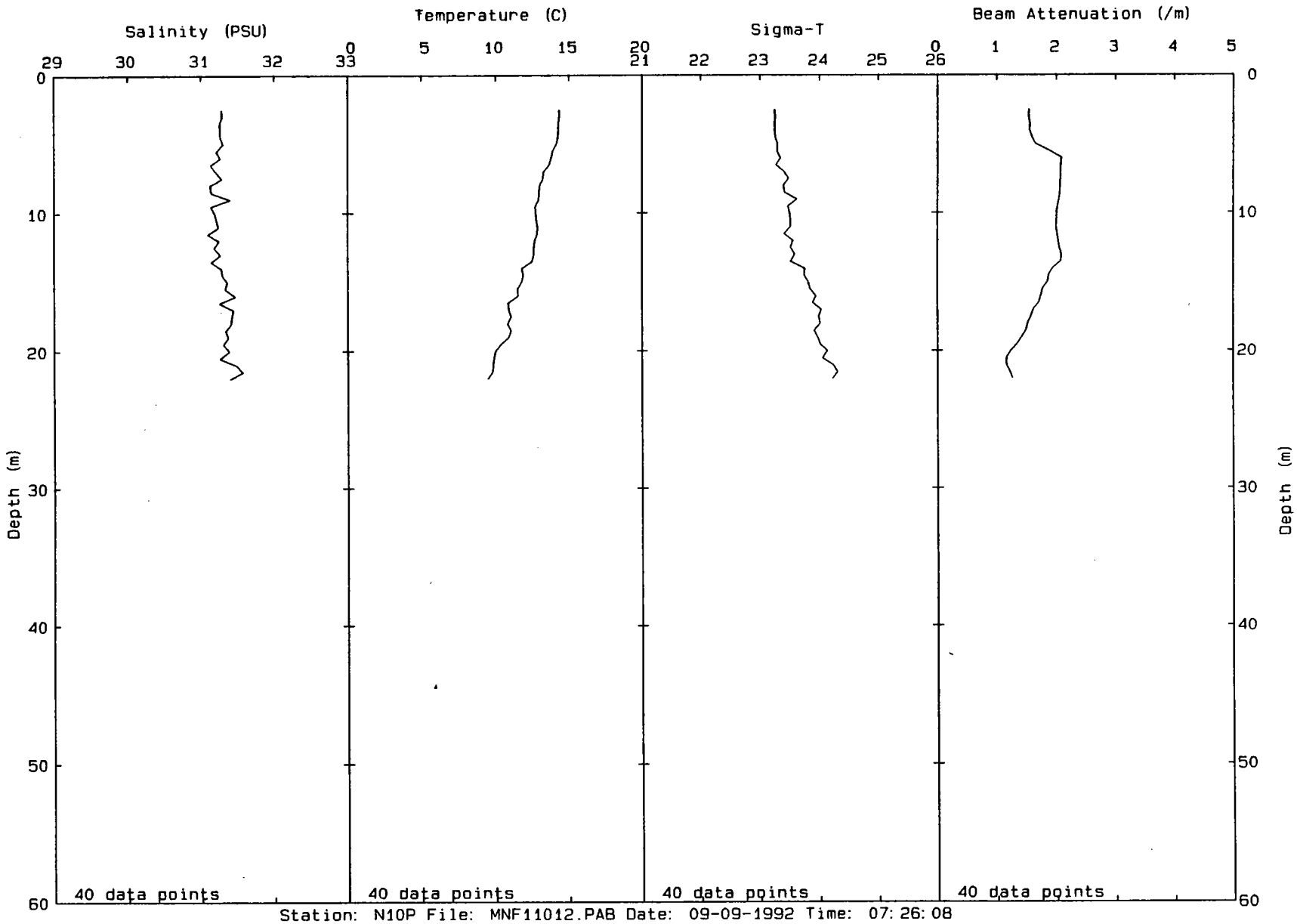


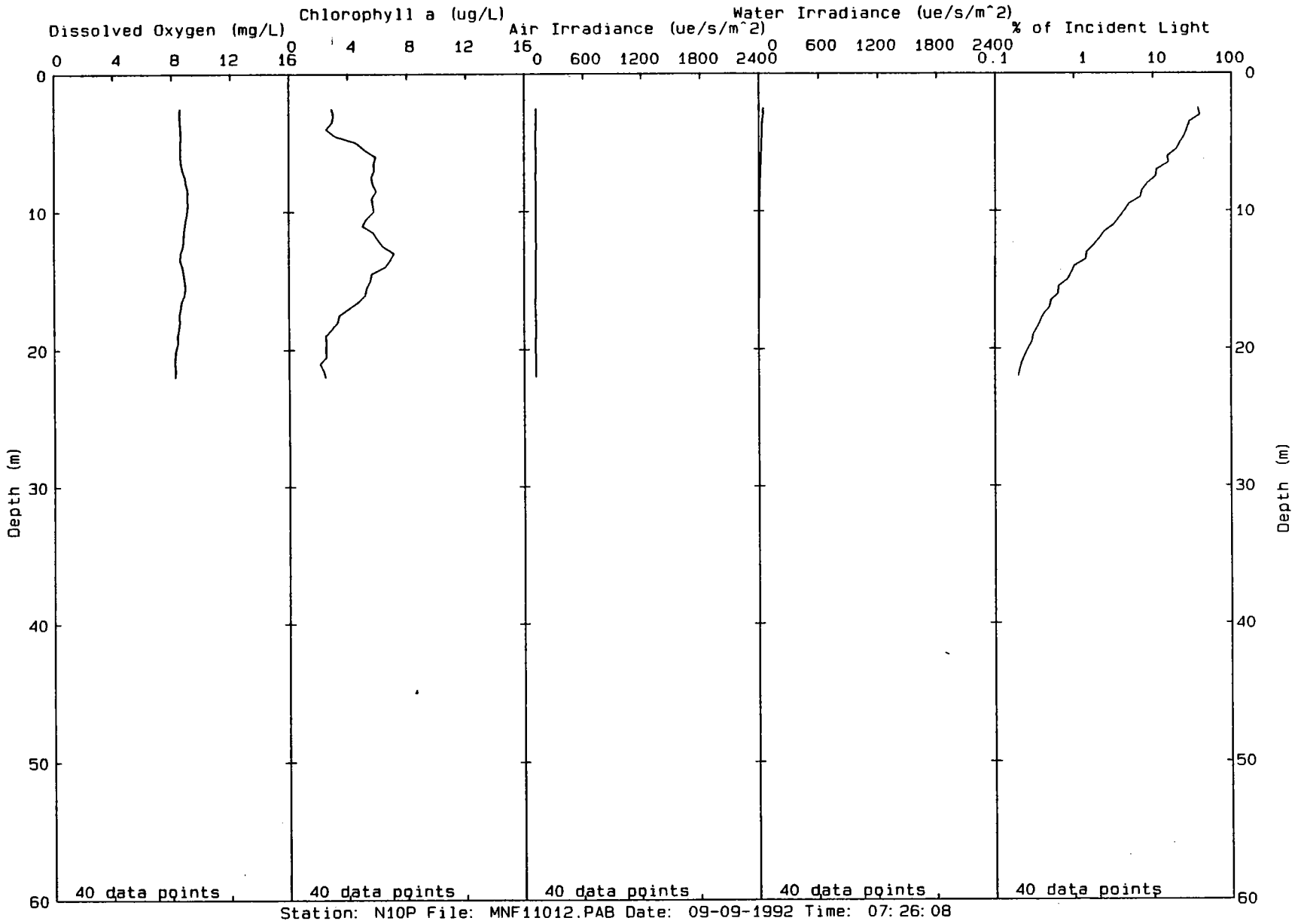
00155

03-29-1993 14:54:07 Battelle


Salinity (PSU)
29 30 31 32 33
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25 26
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
60 data points
60 data points
60 data points
60 data points
Station: N09 File: MNF11045.PAB Date: 09-09-1992 Time: 13:19:27

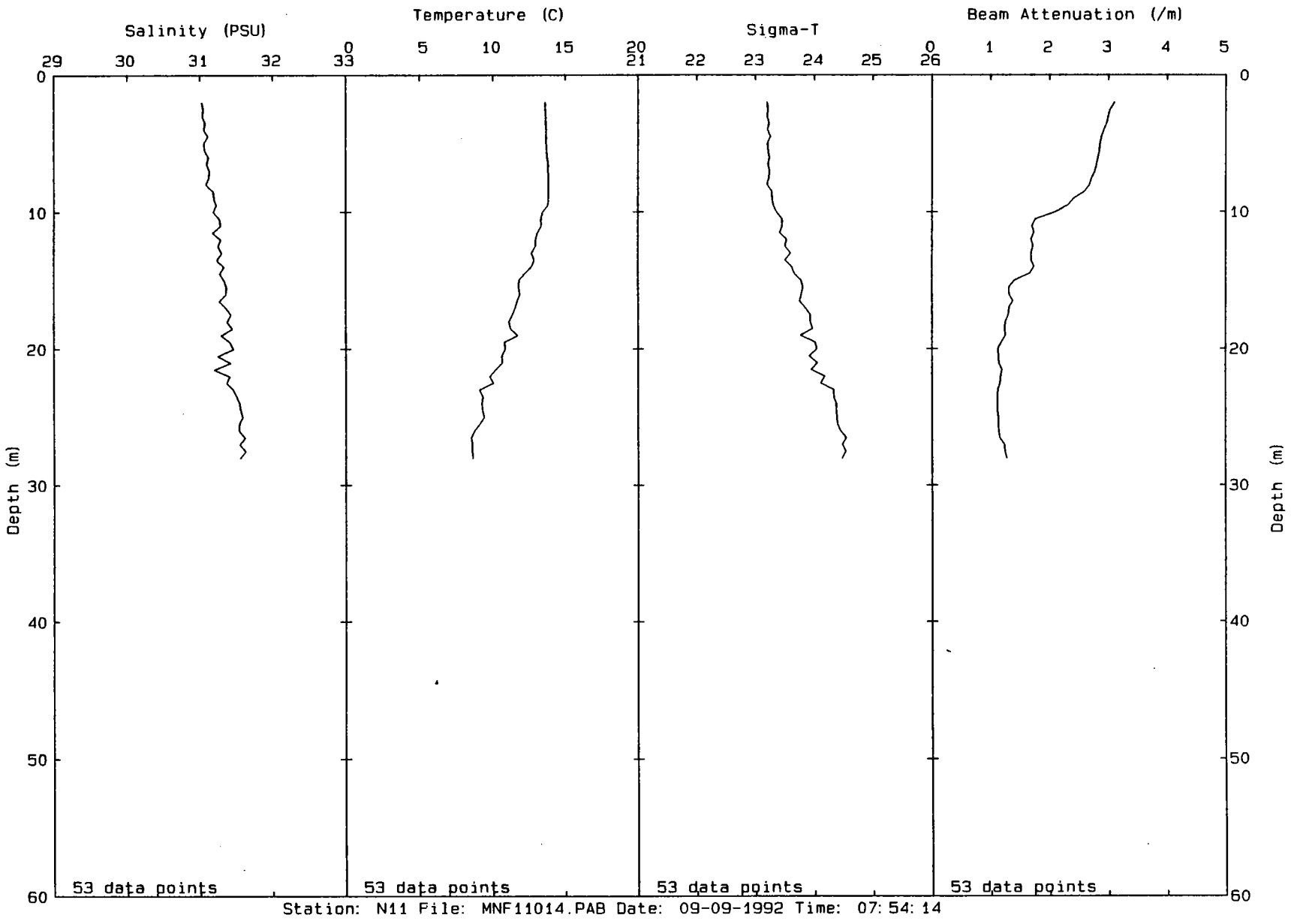

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
60 data points
60 data points
59 data points
60 data points
59 data points
Station: N09 File: MNF11045.PAB Date: 09-09-1992 Time: 13:19:27

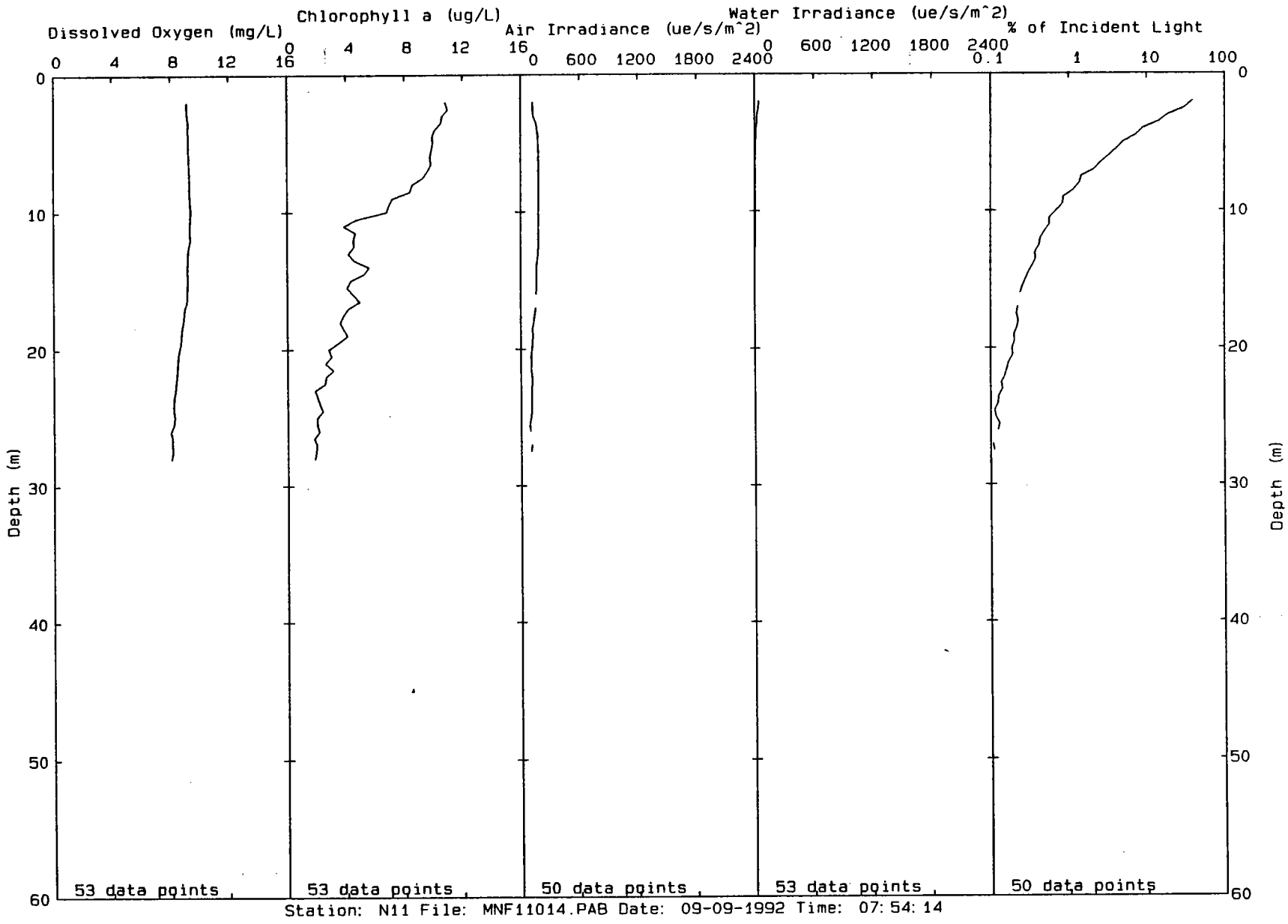

Salinity (PSU)
29 30 31 32 33
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25 26
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
40 data points
40 data points
40 data points
40 data points
Station: N10P File: MNF11012.PAB Date: 09-09-1992 Time: 07:26:08

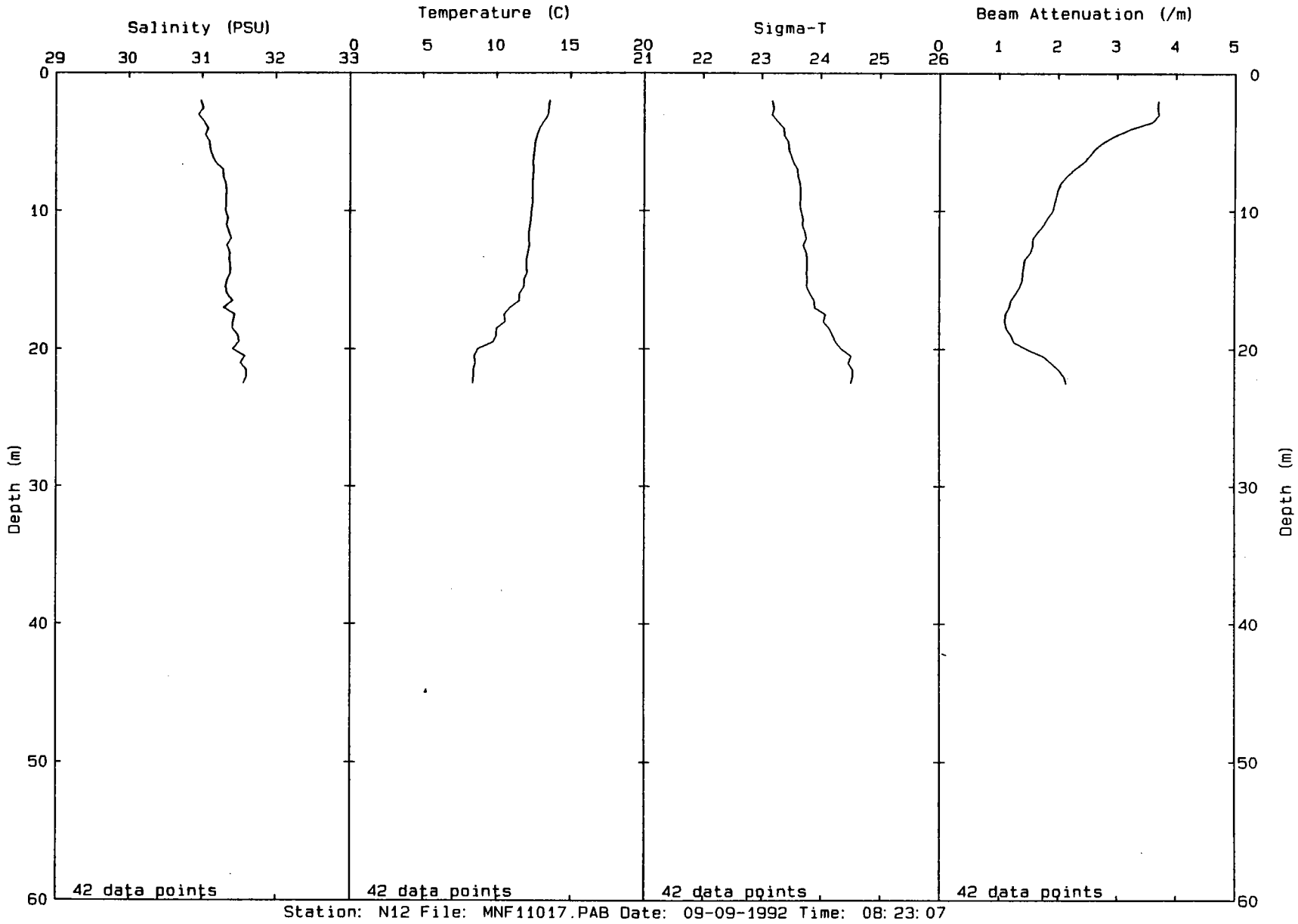


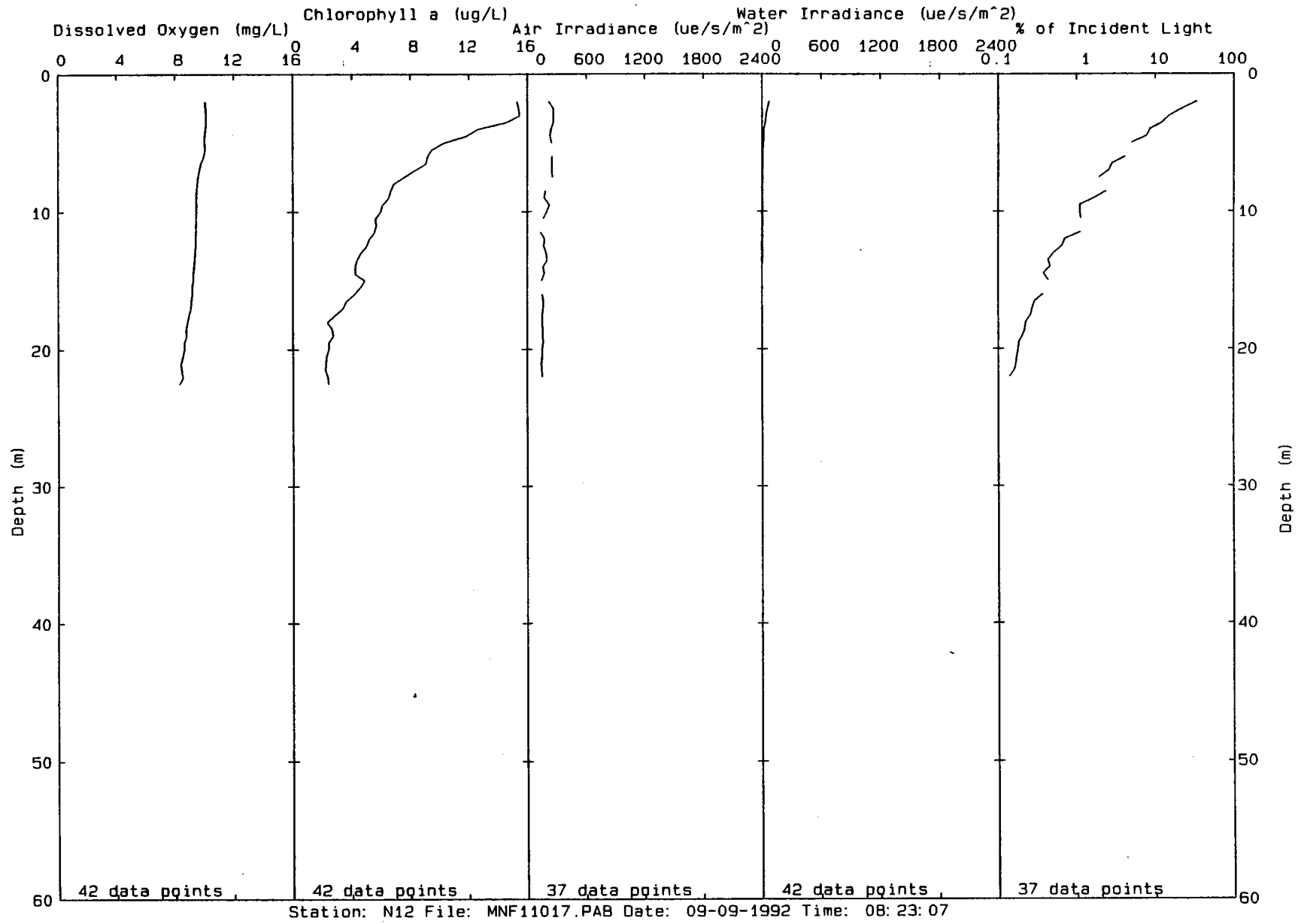
00159

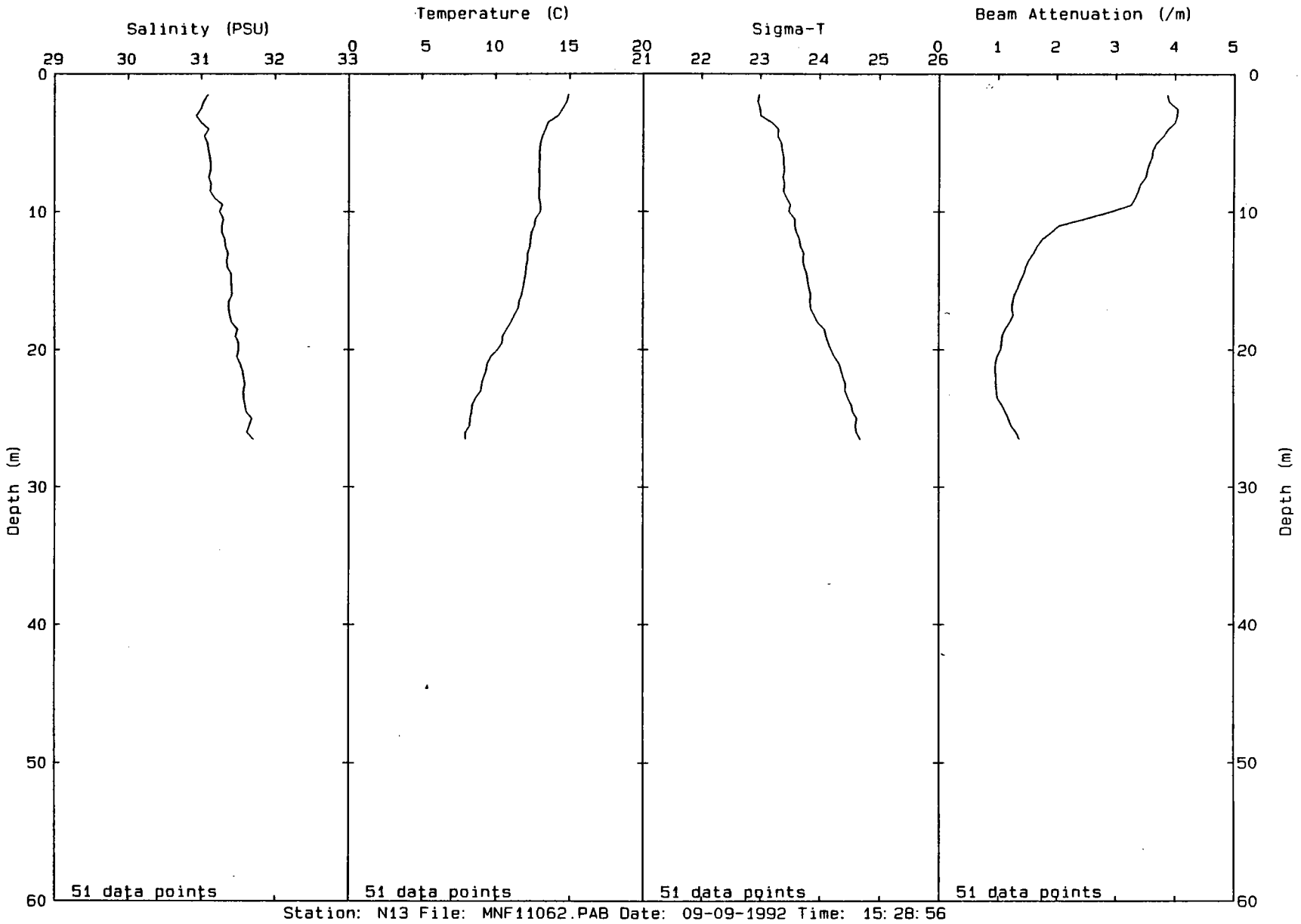
03-28-1993 14:53:42 Battelle

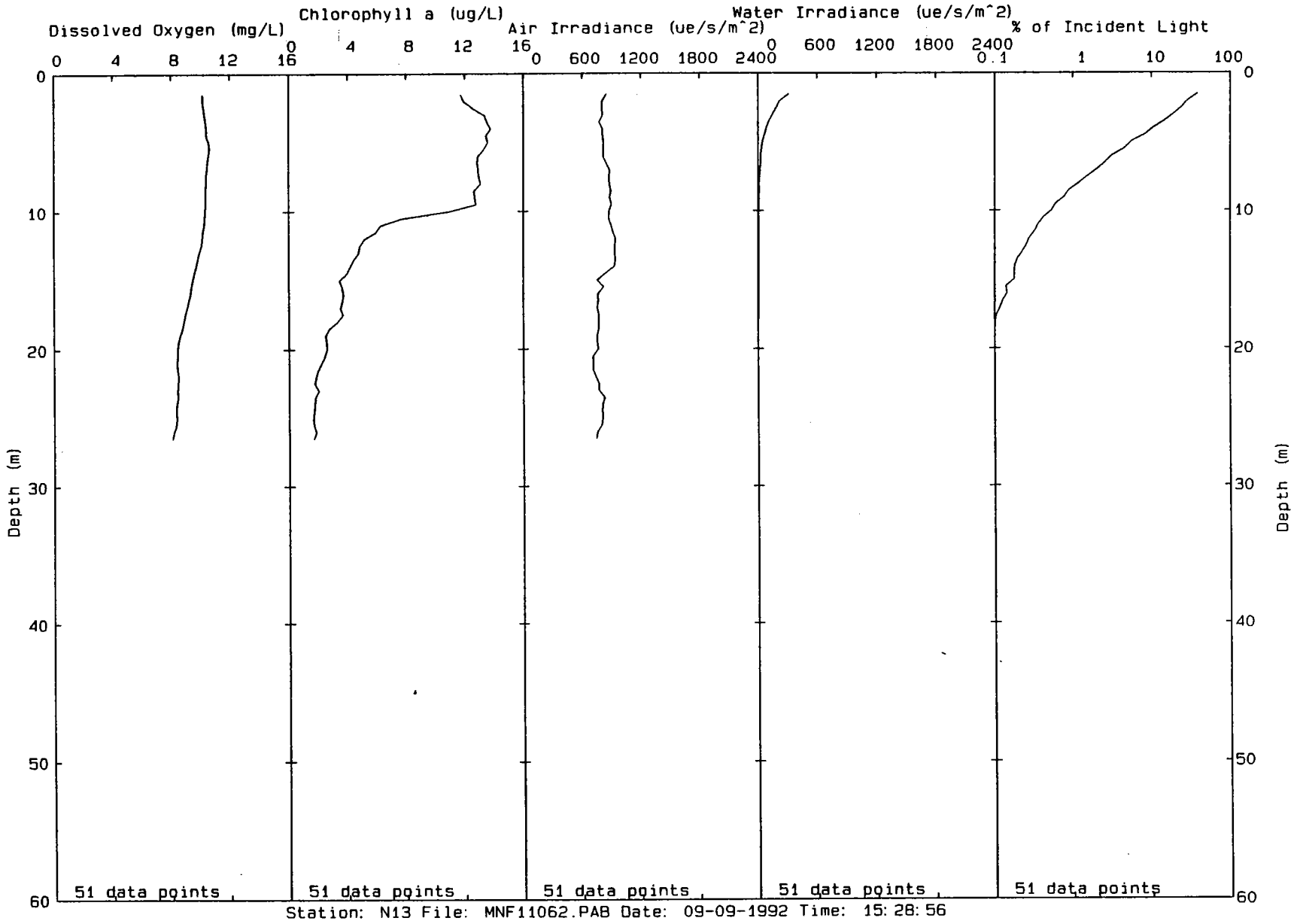

Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25 26
Beam Attenuation (/m)
0 1 2 3 4 5
0 10 20 30 40 50 60
Depth (m)
53 data points
53 data points
53 data points
53 data points
Station: N11 File: MNF11014.PAB Date: 09-09-1992 Time: 07:54:14

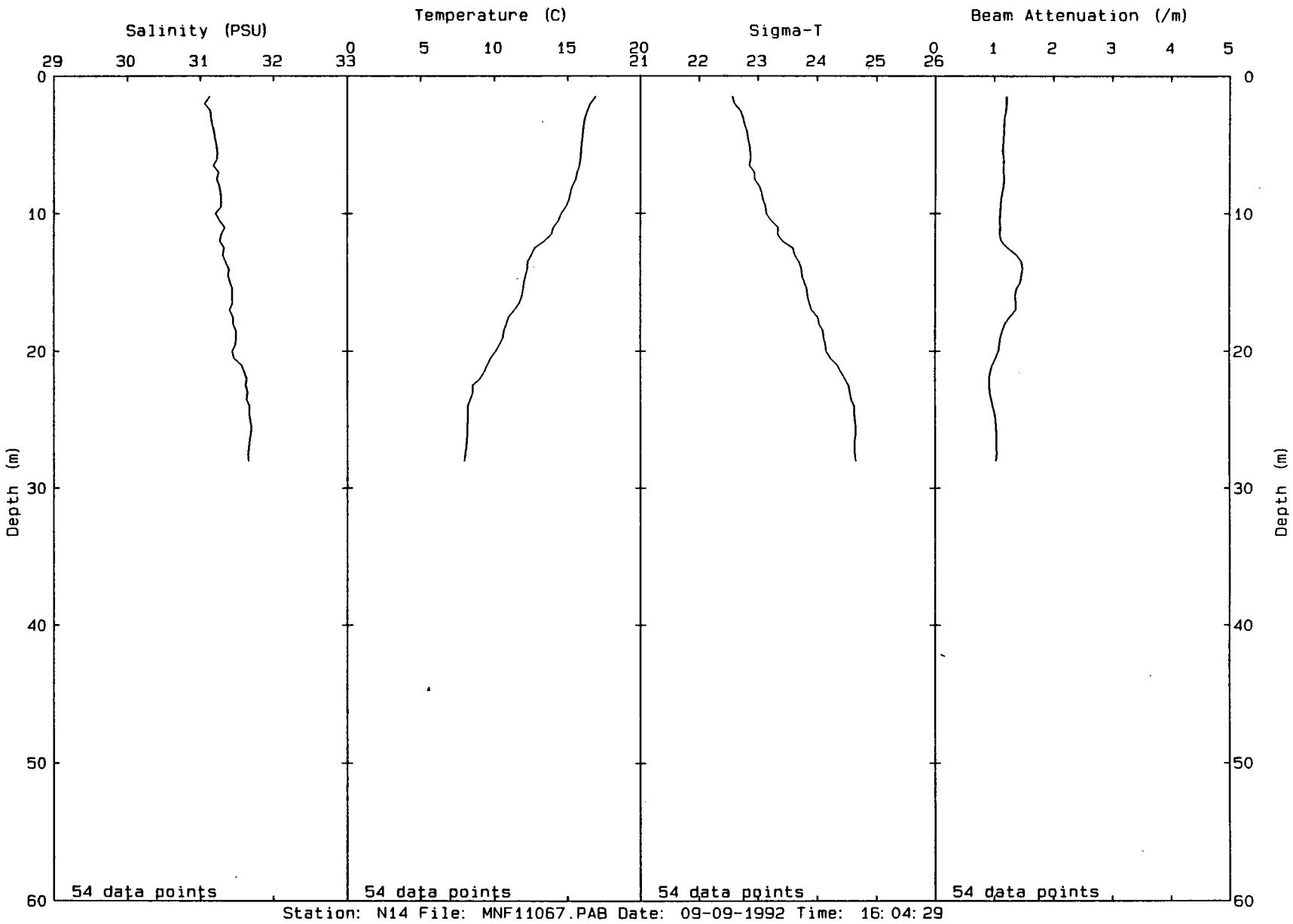

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
53 data points
53 data points
50 data points
53 data points
50 data points
Station: N11 File: MNF11014.PAB Date: 09-09-1992 Time: 07:54:14

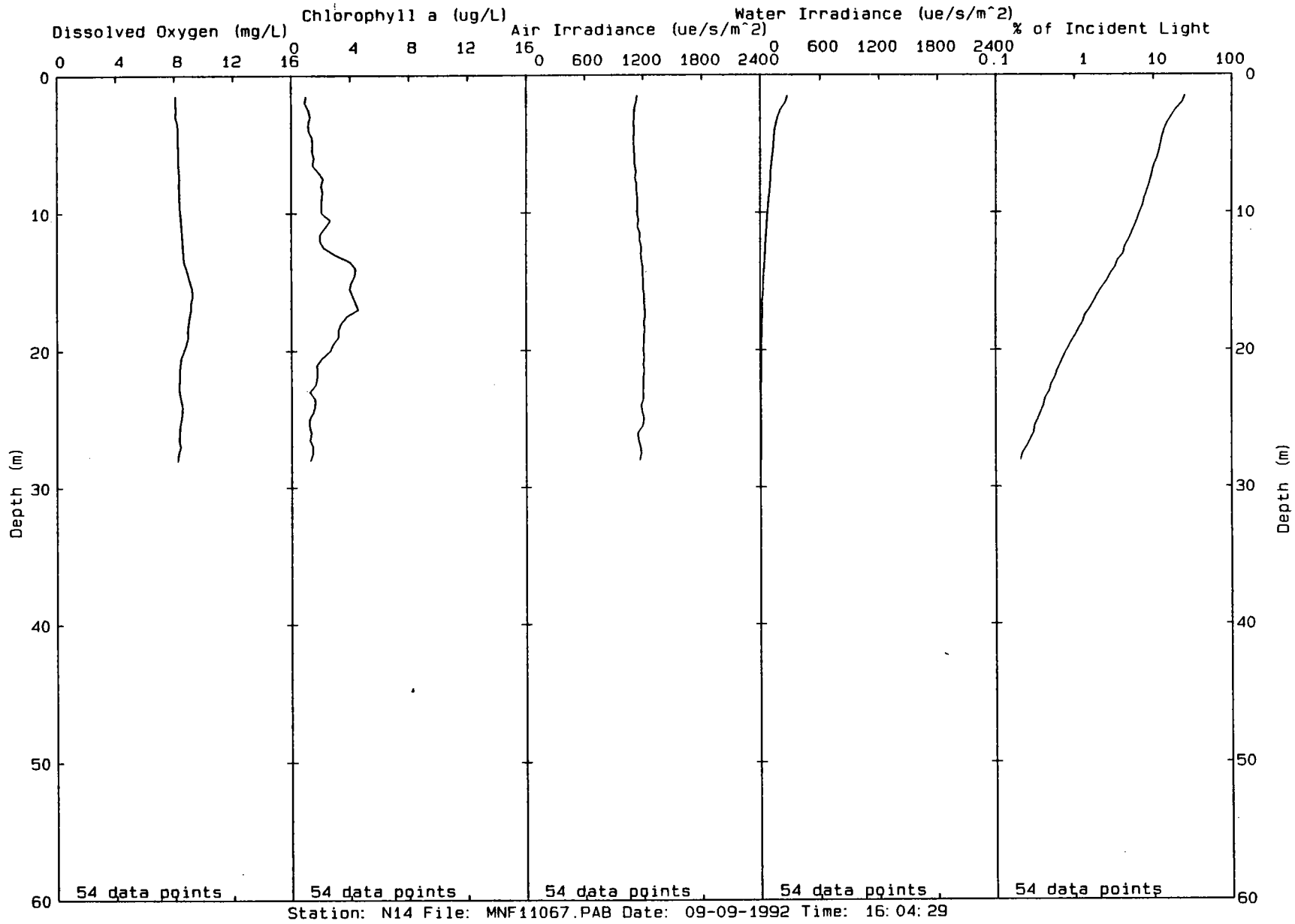



Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
42 data points
42 data points
37 data points
42 data points
37 data points
Station: N12 File: MNF11017.PAB Date: 09-09-1992 Time: 08:23:07


Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
51 data points
51 data points
51 data points
51 data points
Station: N13 File: MNF11062.PAB Date: 09-09-1992 Time: 15:28:56

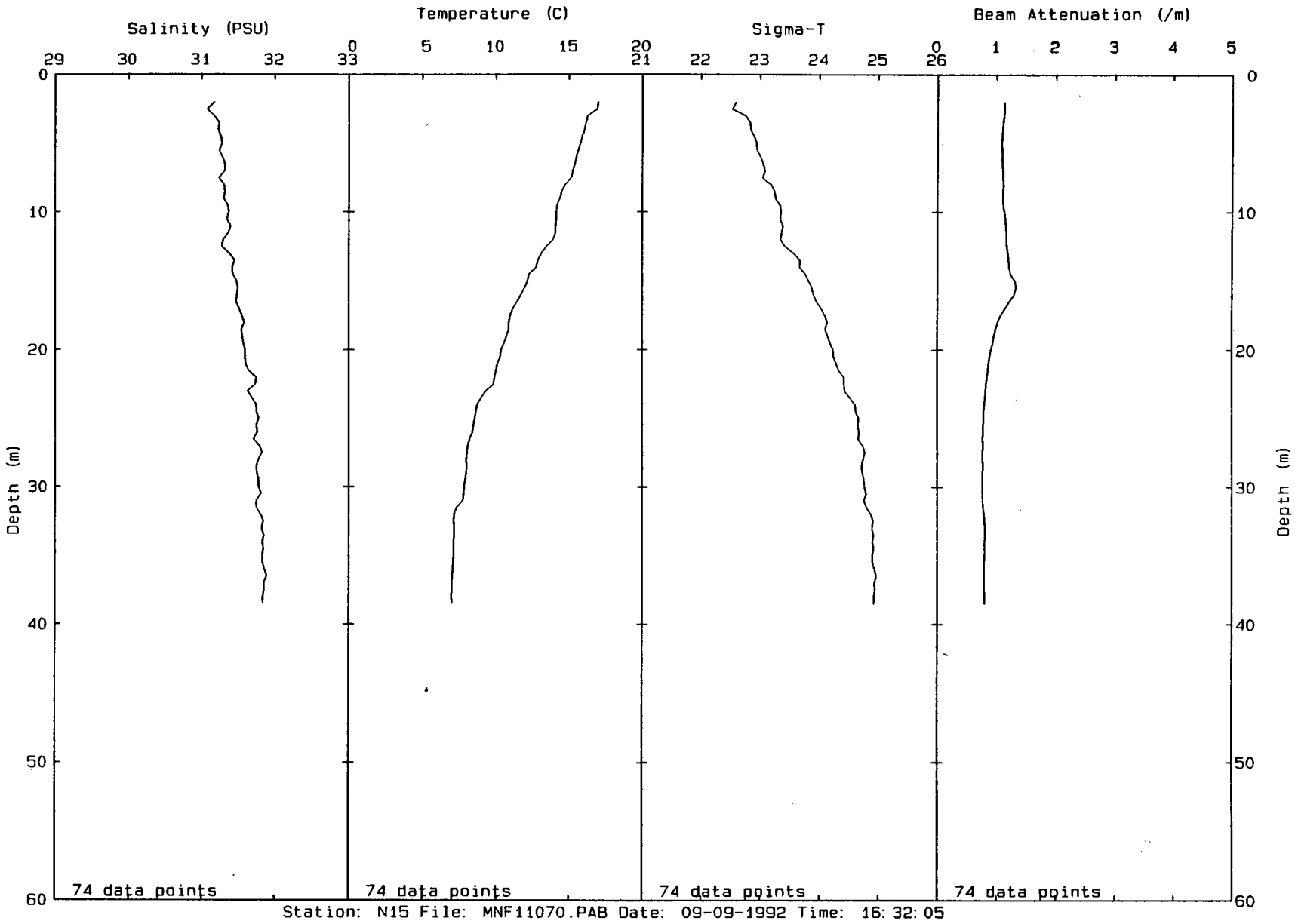

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
51 data points
51 data points
51 data points
51 data points
51 data points
Station: N13 File: MNF11062.PAB Date: 09-09-1992 Time: 15:28:56

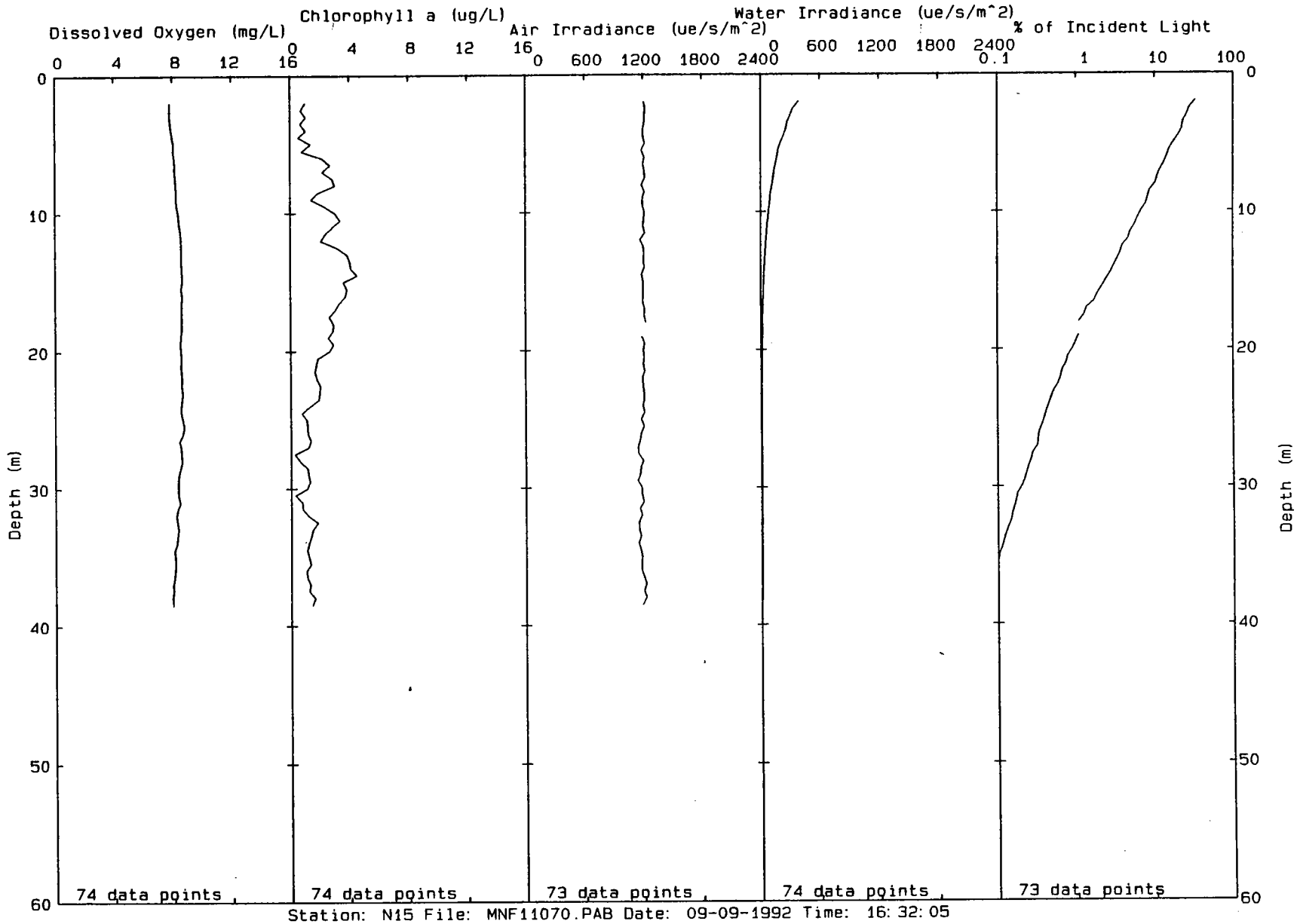

Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
54 data points
54 data points
54 data points
54 data points
Station: N14 File: MNF11067.PAB Date: 09-09-1992 Time: 16:04:29

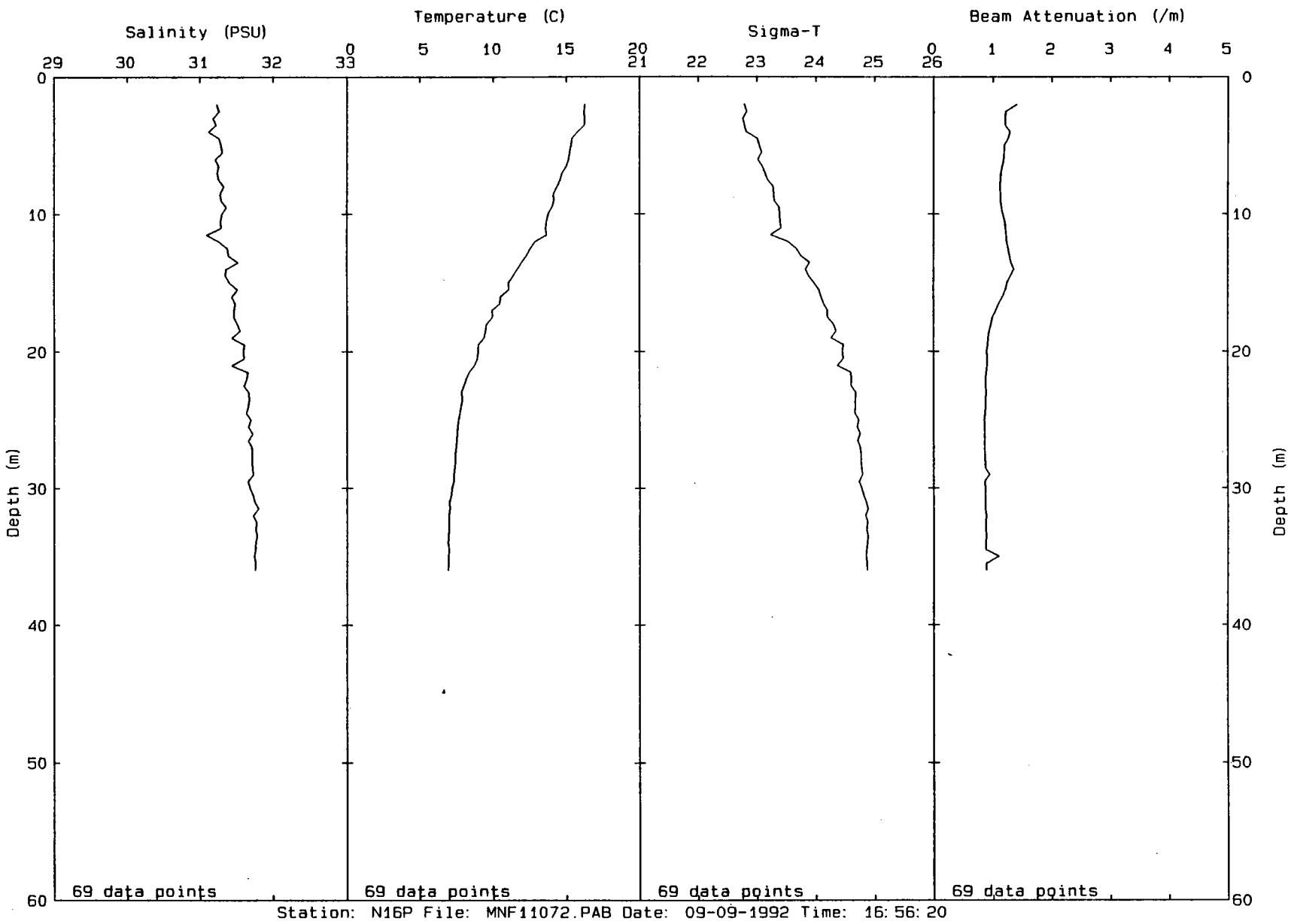


00167

03-29-1993 14:54:20 Battelle

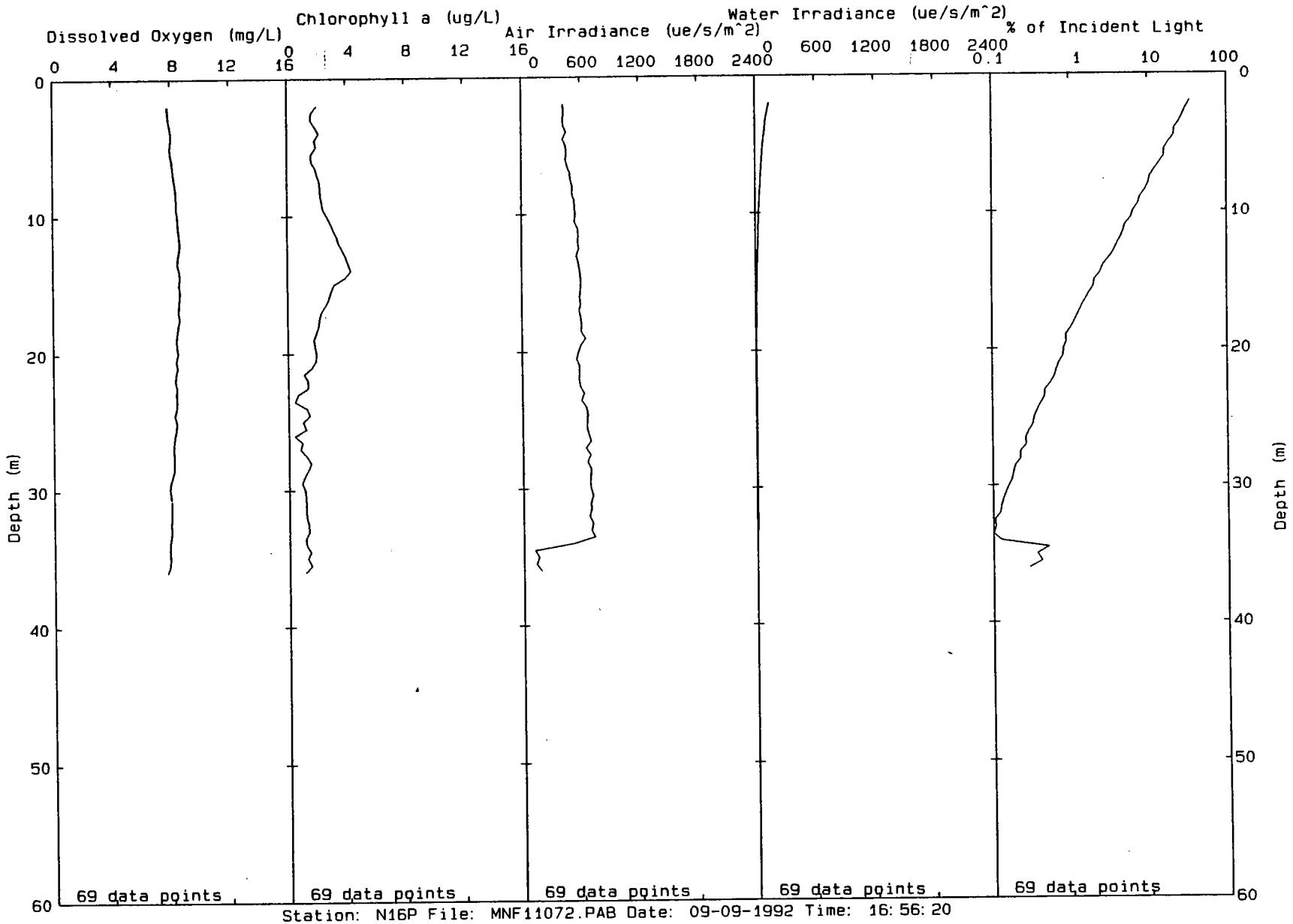

Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
74 data points
74 data points
74 data points
74 data points
Station: N15 File: MNF11070.PAB Date: 09-09-1992 Time: 16:32:05


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
74 data points
74 data points
73 data points
74 data points
73 data points
Station: N15 File: MNF11070.PAB Date: 09-09-1992 Time: 16:32:05



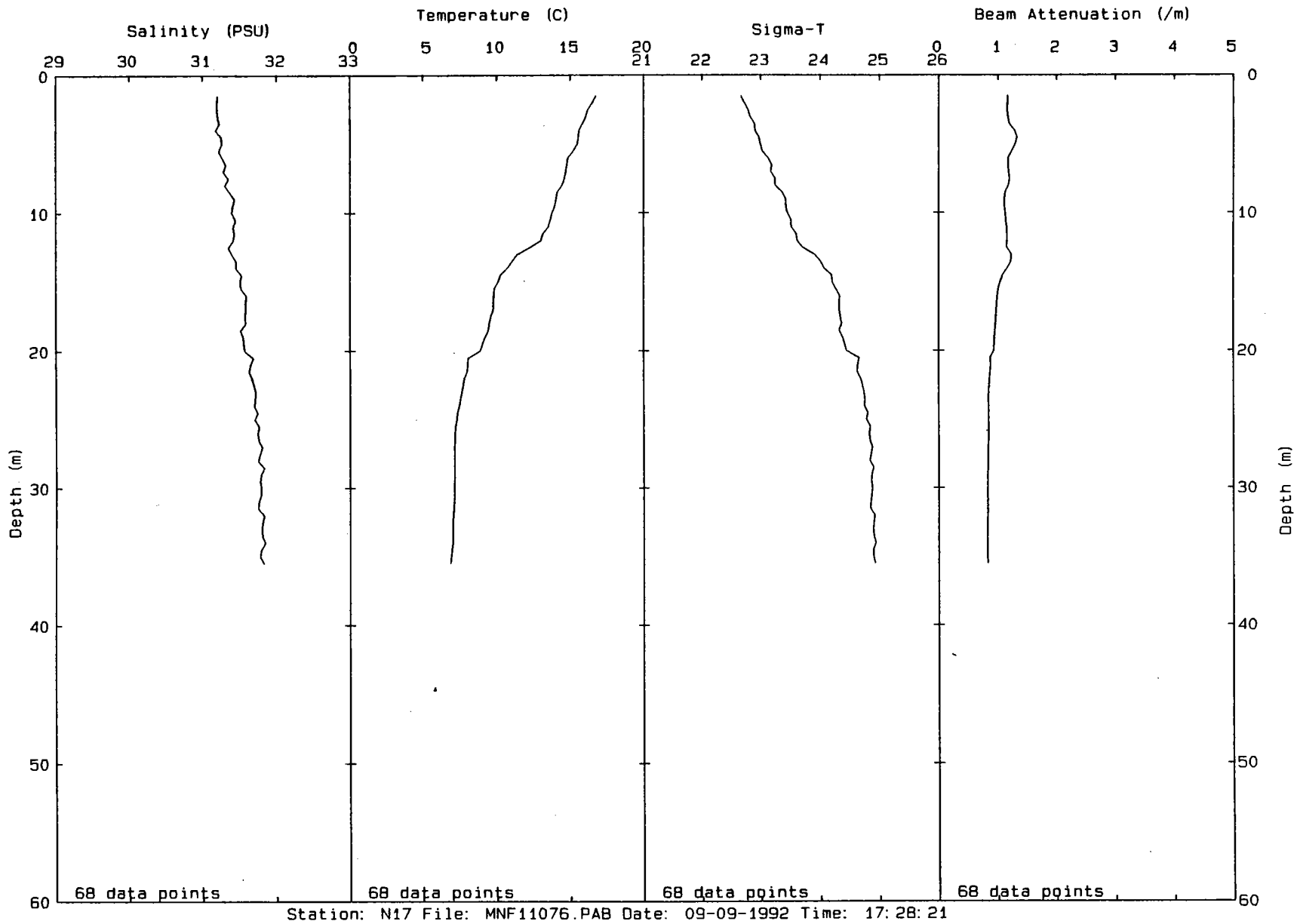
00170

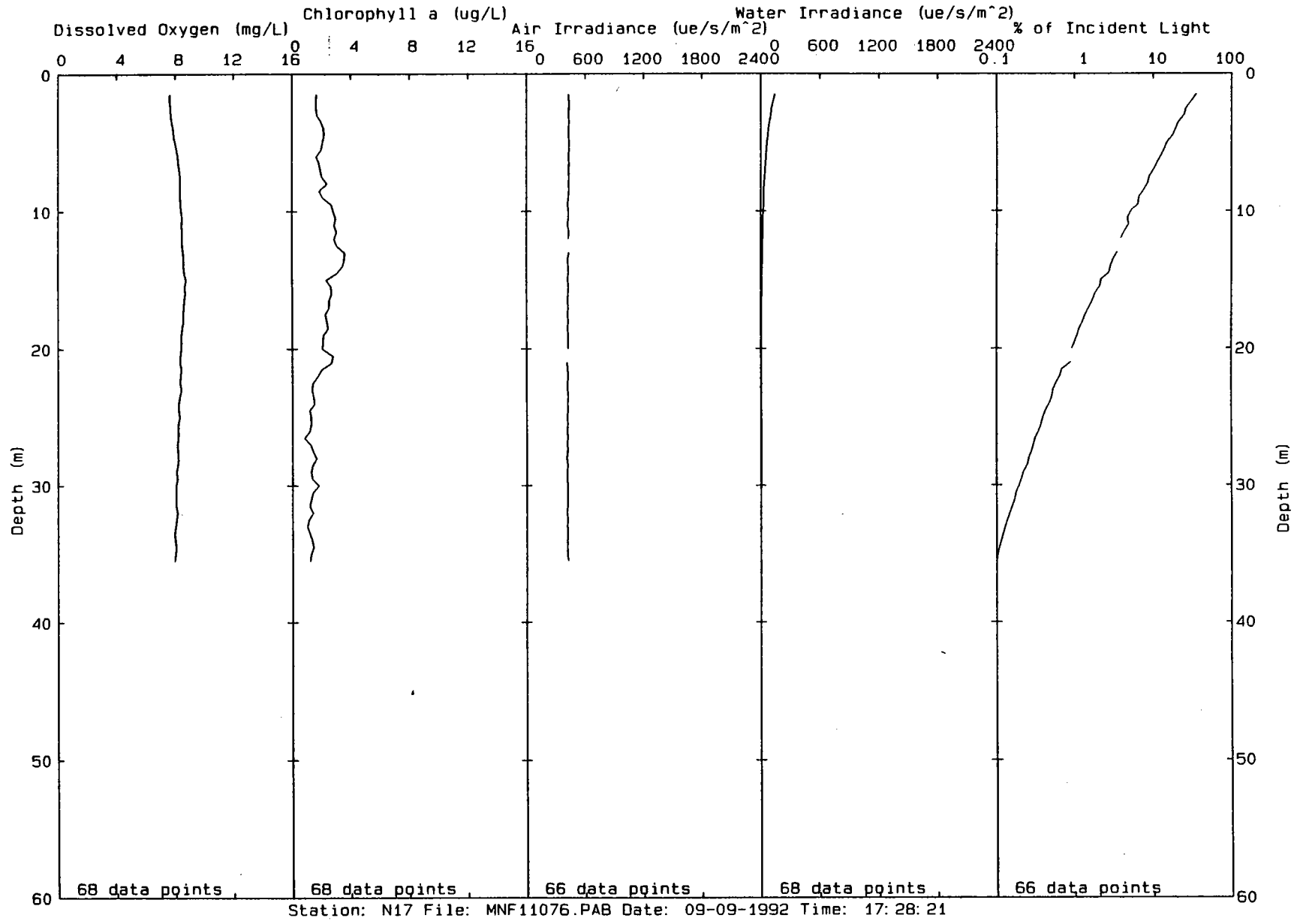
03-29-1993 14:52:30 Battelle

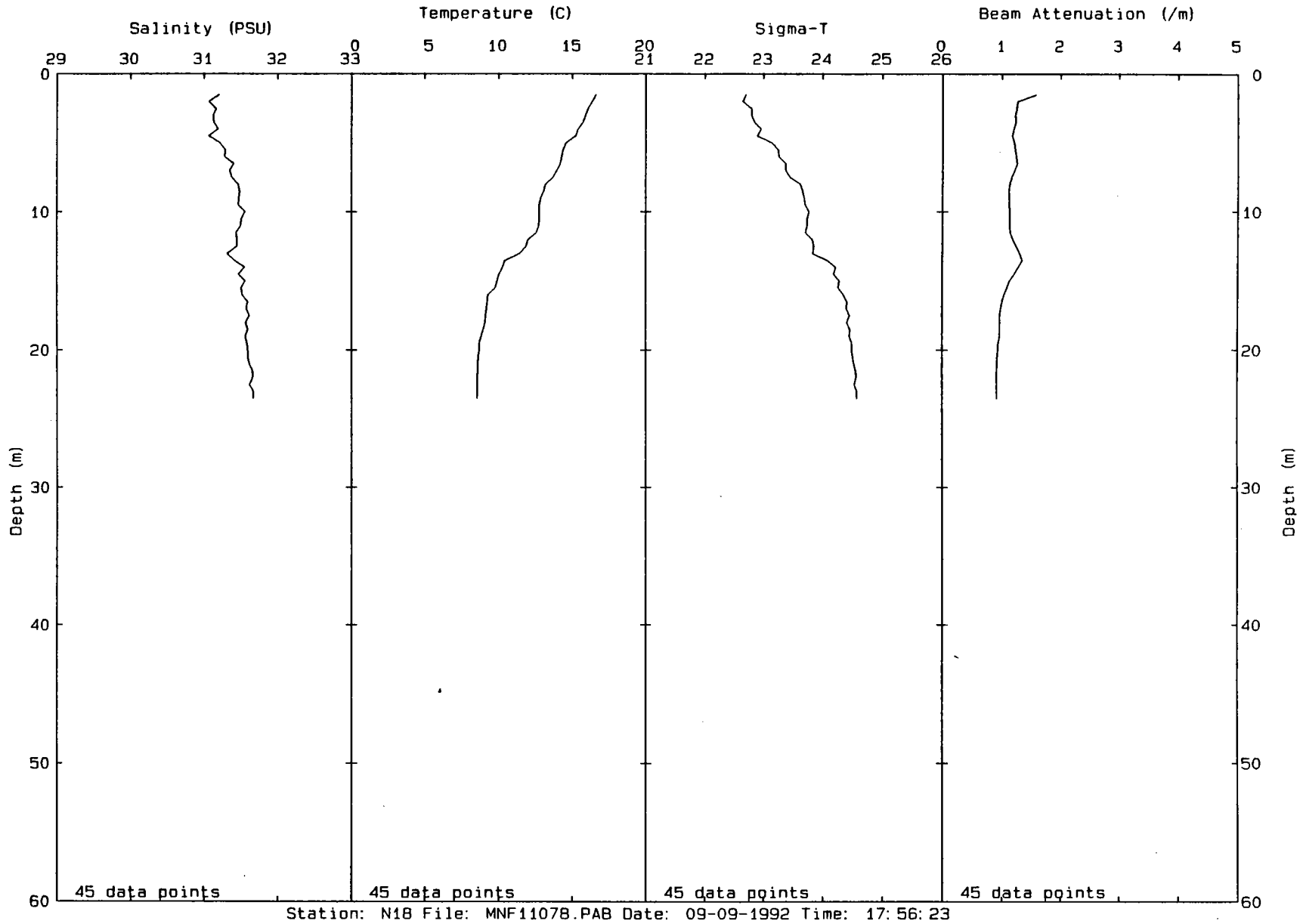


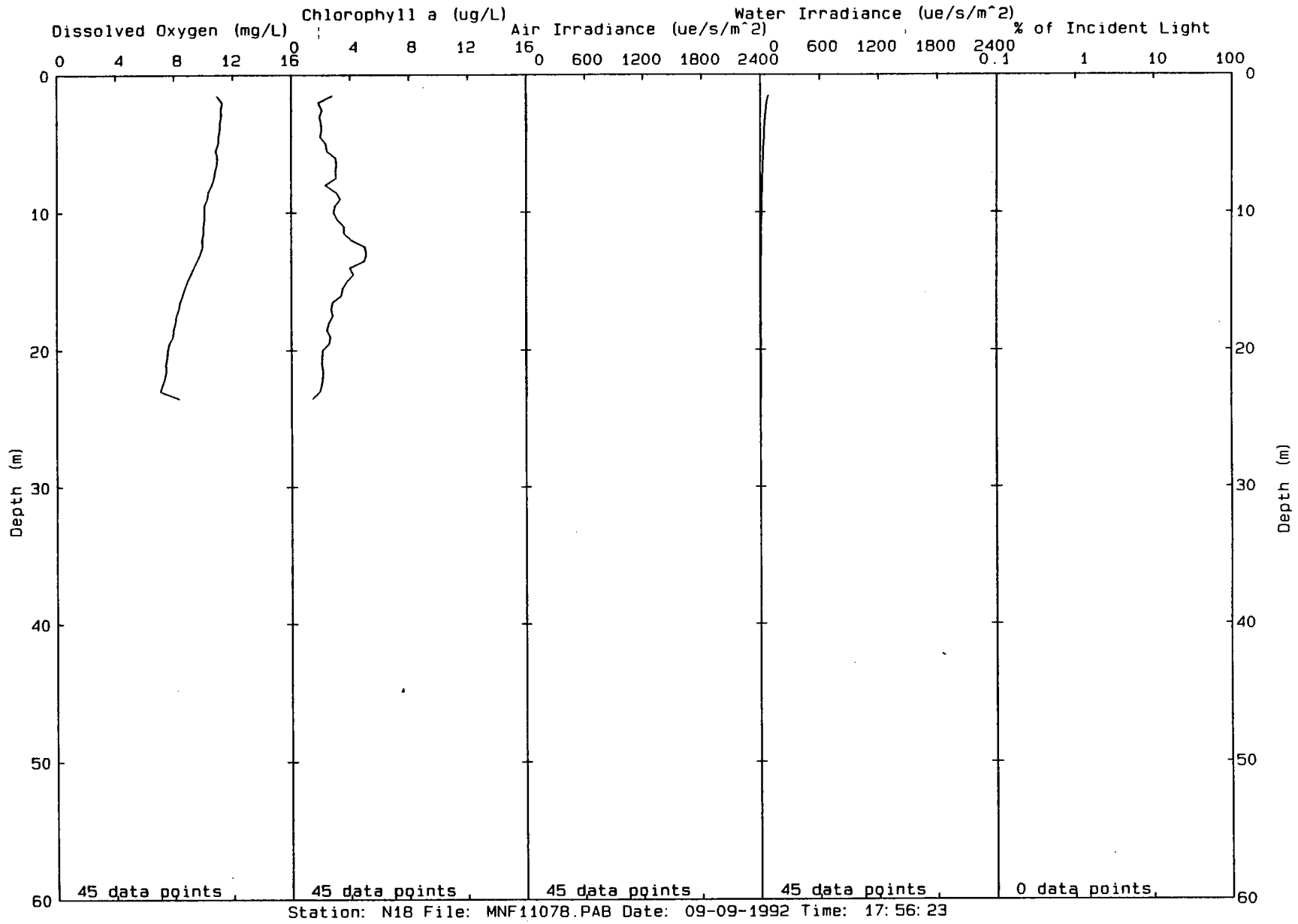
09171

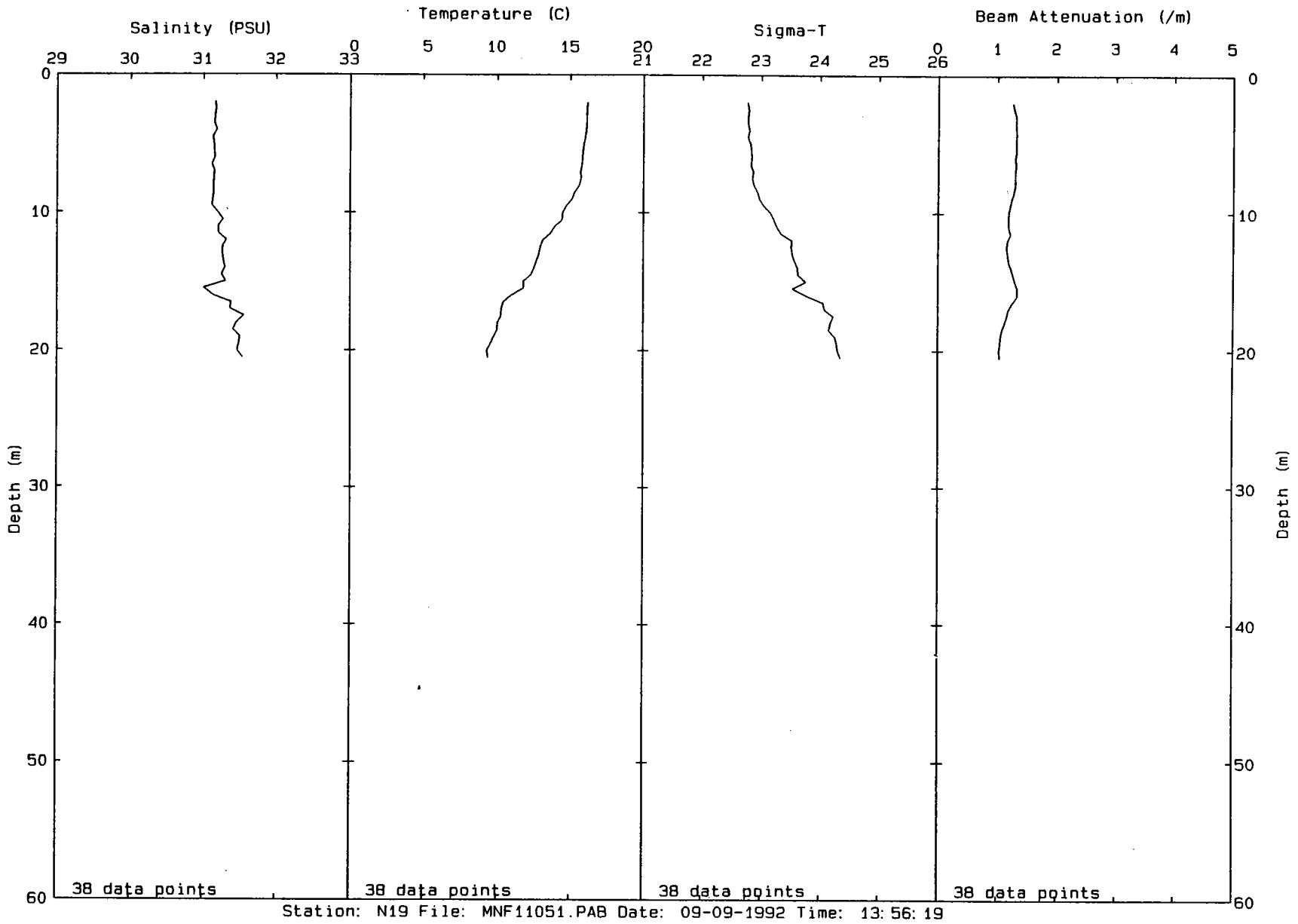
03-29-1993 14:54:27 Battelle

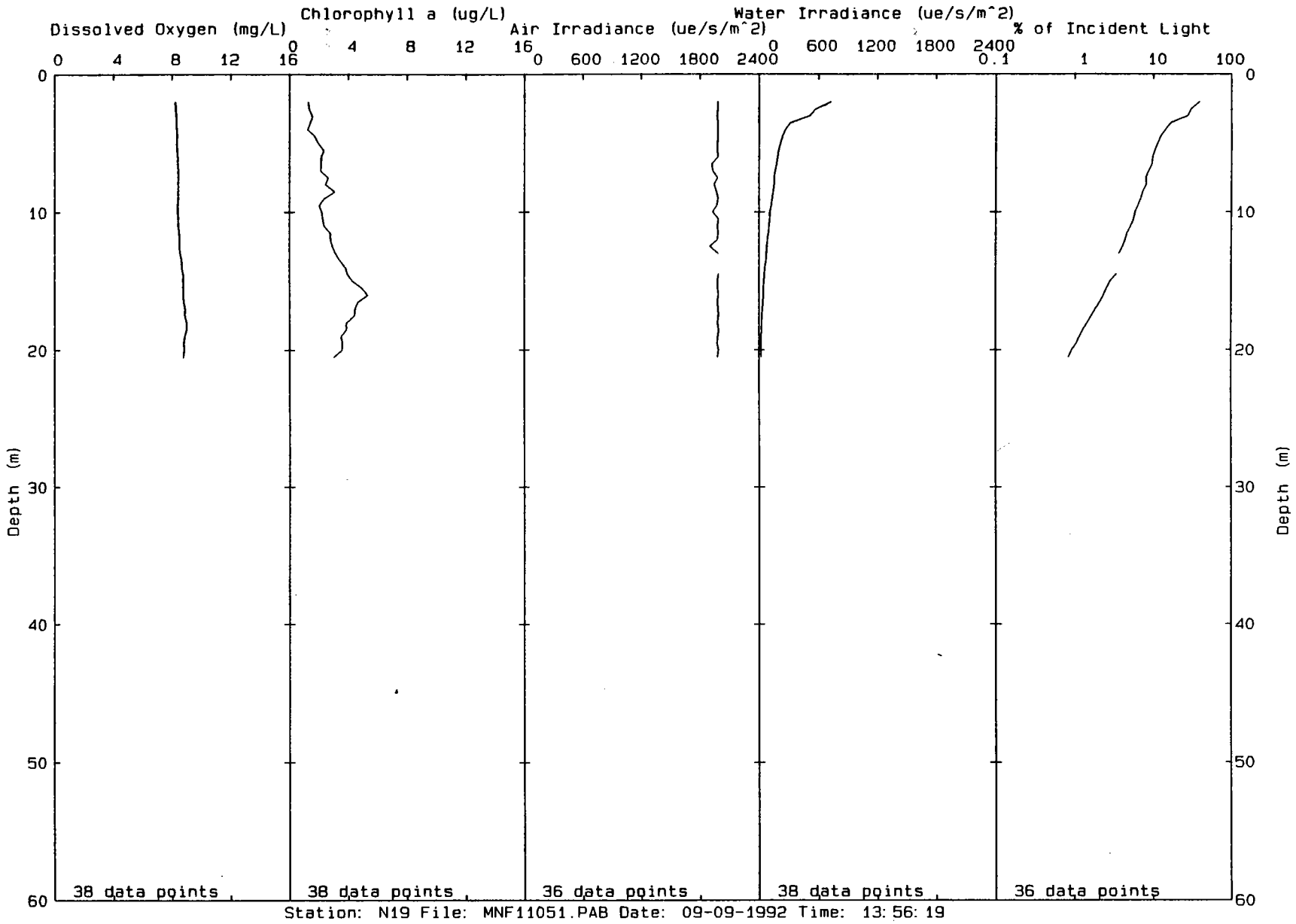

Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
68 data points
68 data points
68 data points
68 data points
Station: N17 File: MNF11076.PAB Date: 09-09-1992 Time: 17:28:21


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
68 data points
68 data points
66 data points
68 data points
66 data points
Station: N17 File: MNF11076.PAB Date: 09-09-1992 Time: 17:28:21

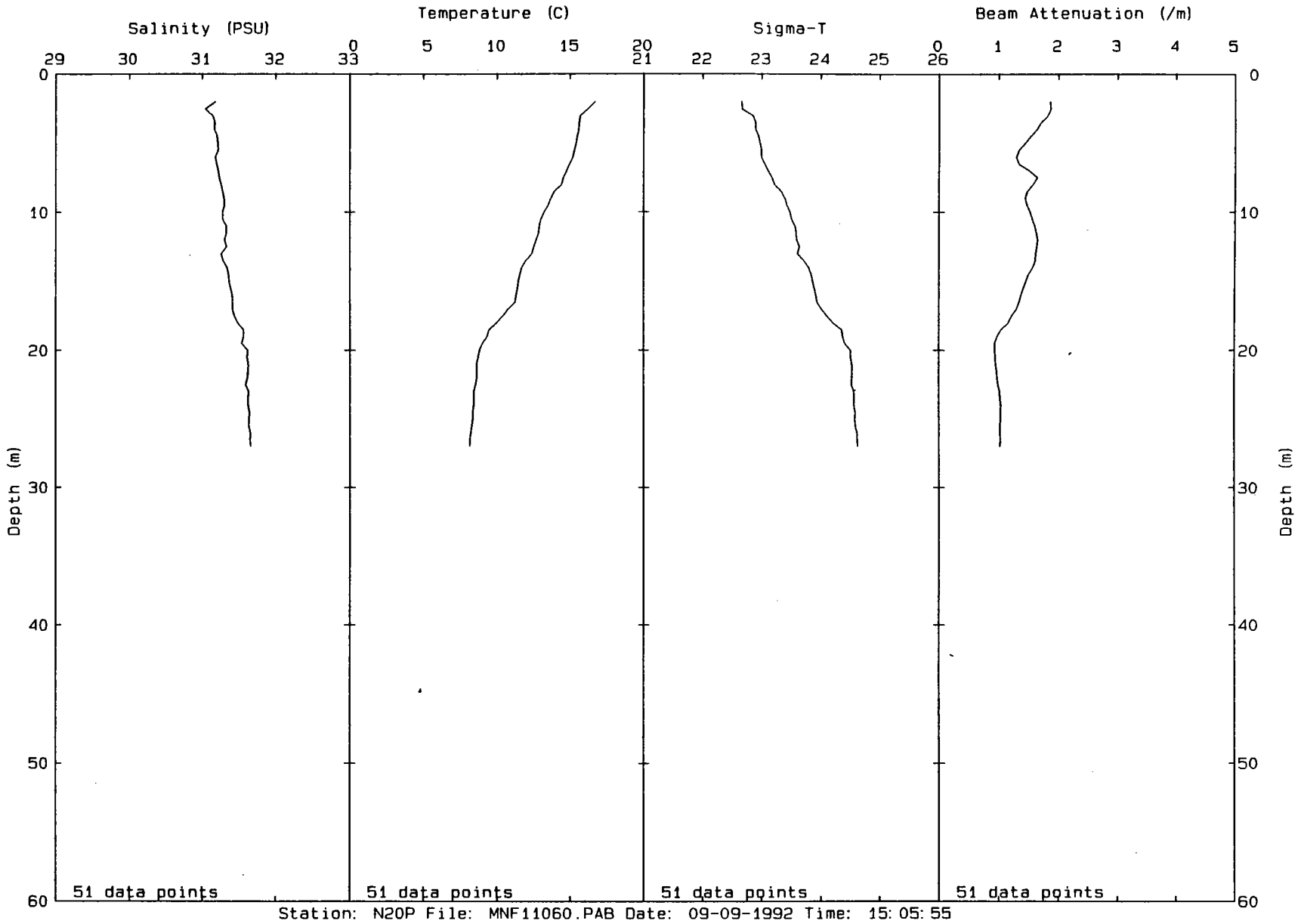


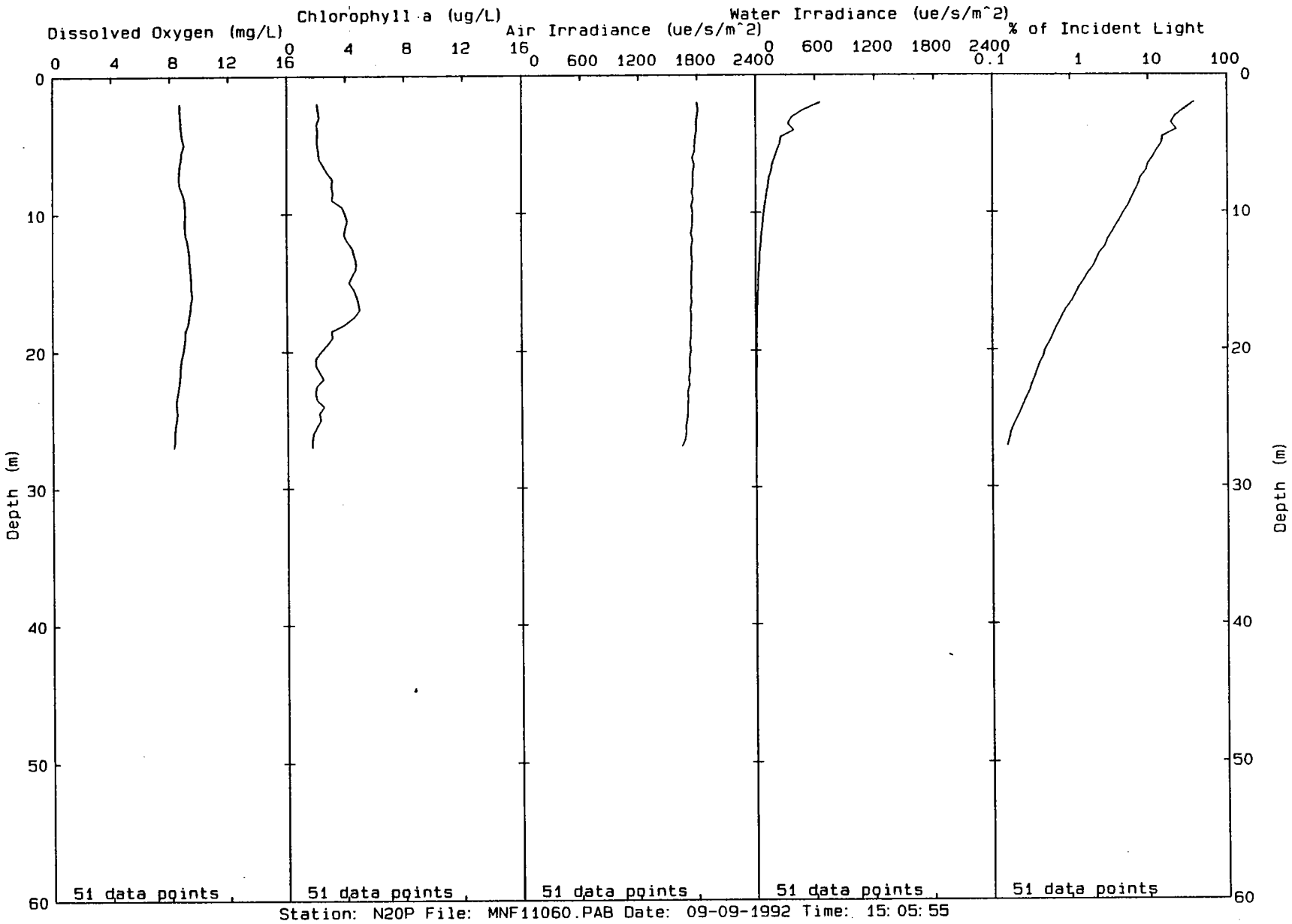

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
45 data points
45 data points
45 data points
45 data points
0 data points
Station: N18 File: MNF11078.PAB Date: 09-09-1992 Time: 17:56:23

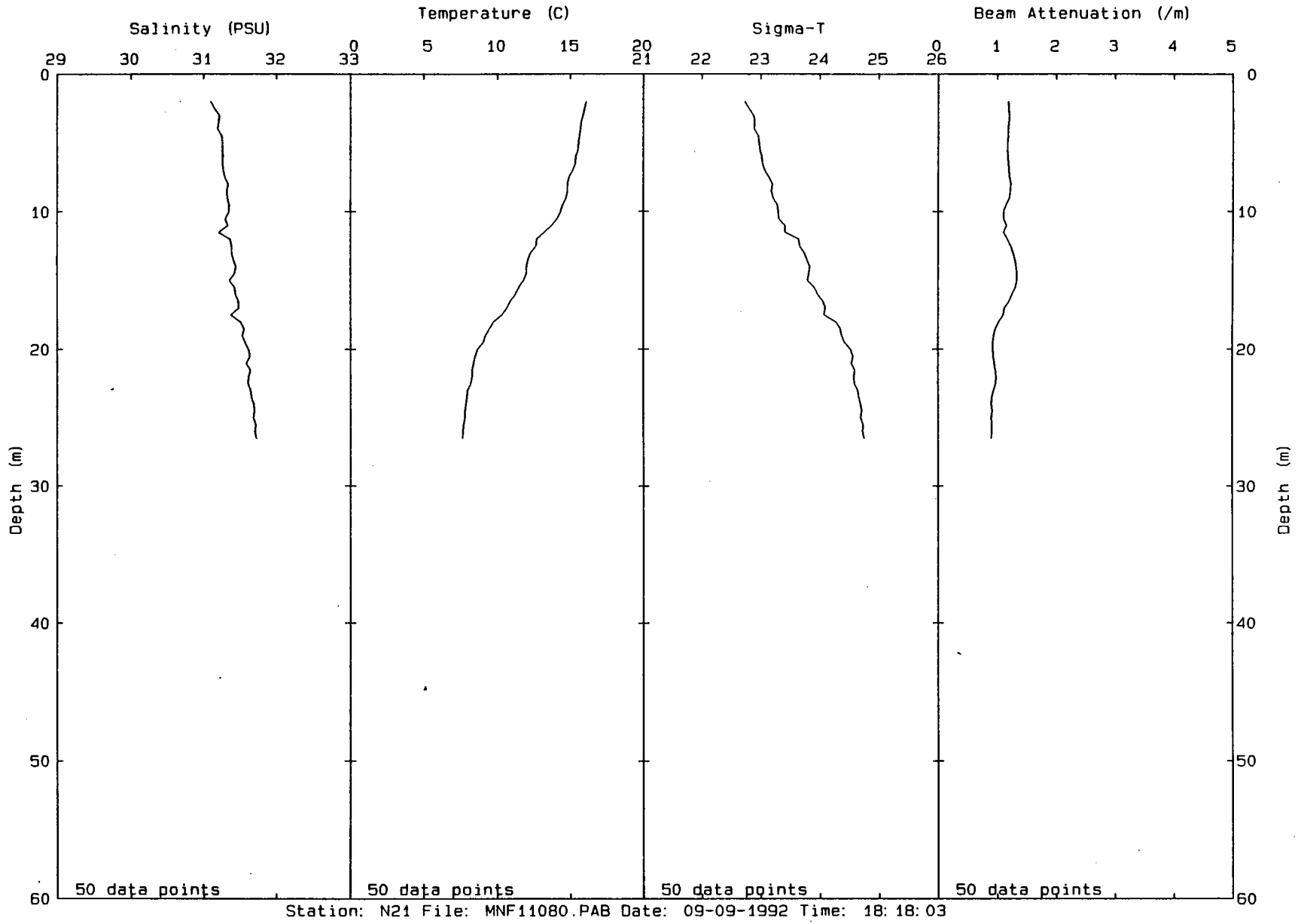

Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
38 data points
38 data points
38 data points
38 data points
Station: N19 File: MNF11051.PAB Date: 09-09-1992 Time: 13:56:19

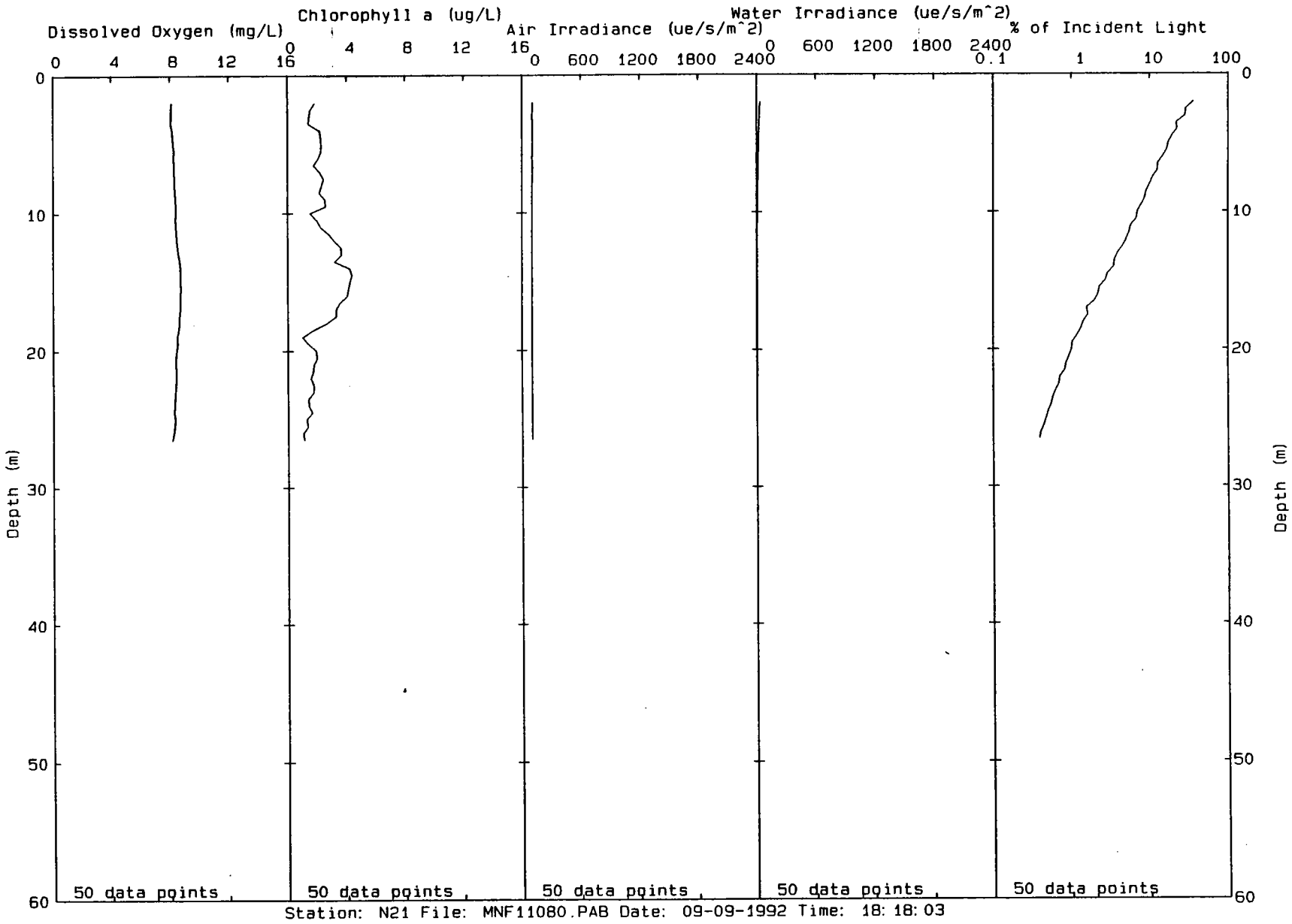

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
38 data points
38 data points
36 data points
38 data points
36 data points
Station: N19 File: MNF11051.PAB Date: 09-09-1992 Time: 13:56:19

00177

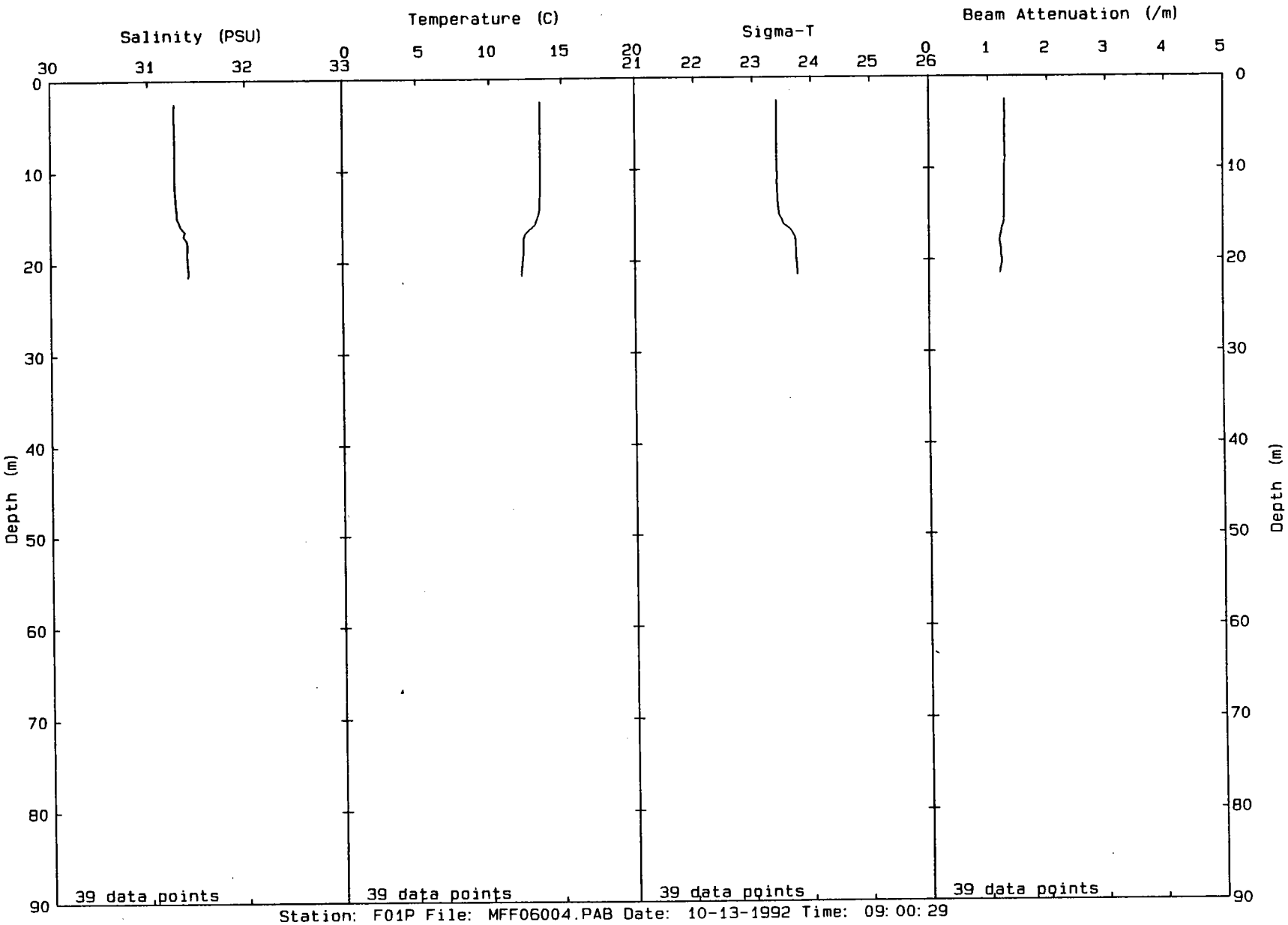

Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
51 data points
51 data points
51 data points
51 data points
Station: N20P File: MNF11060.PAB Date: 09-09-1992 Time: 15:05:55

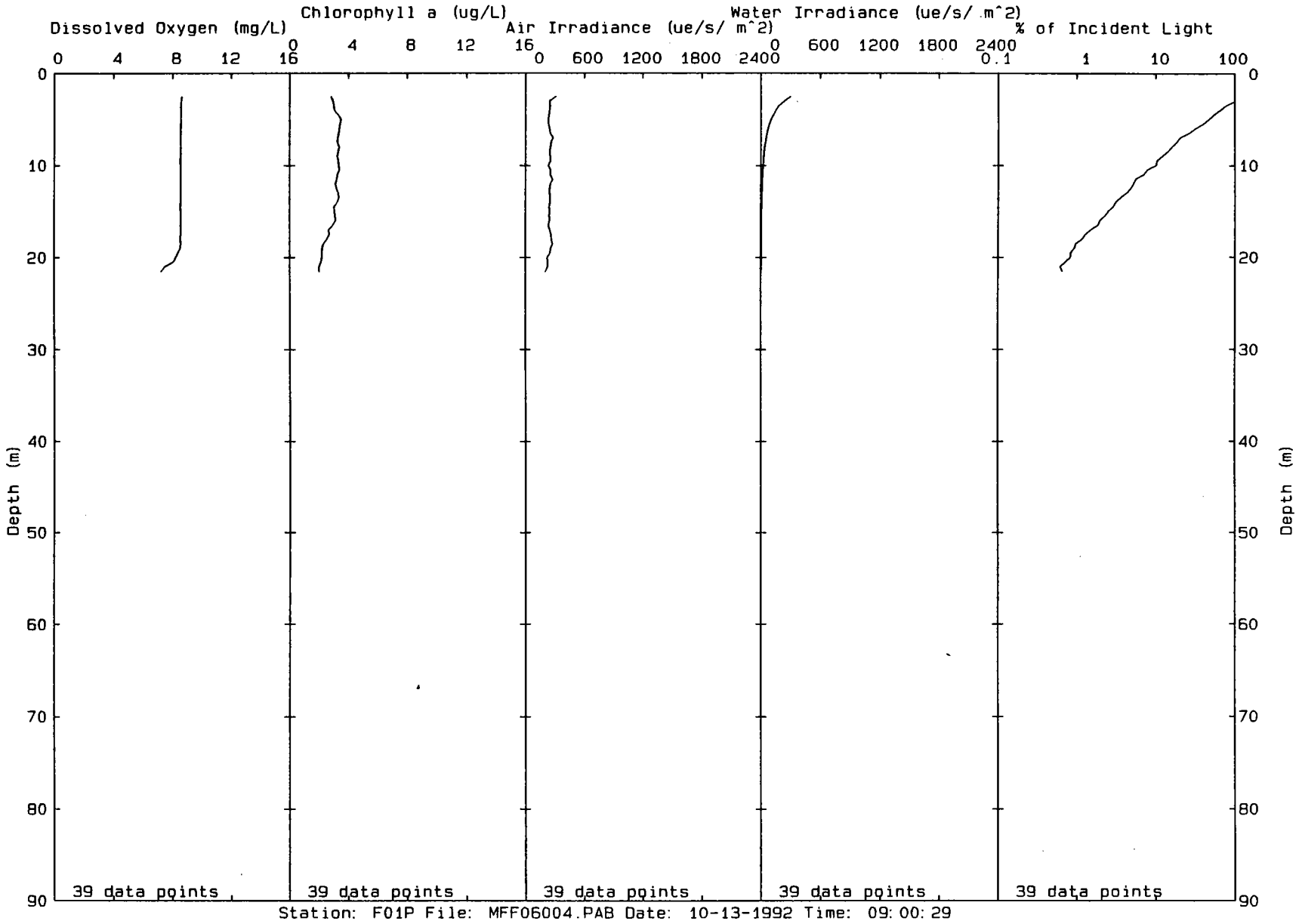

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
51 data points
51 data points
51 data points
51 data points
51 data points
Station: N20P File: MNF11060.PAB Date: 09-09-1992 Time: 15:05:55

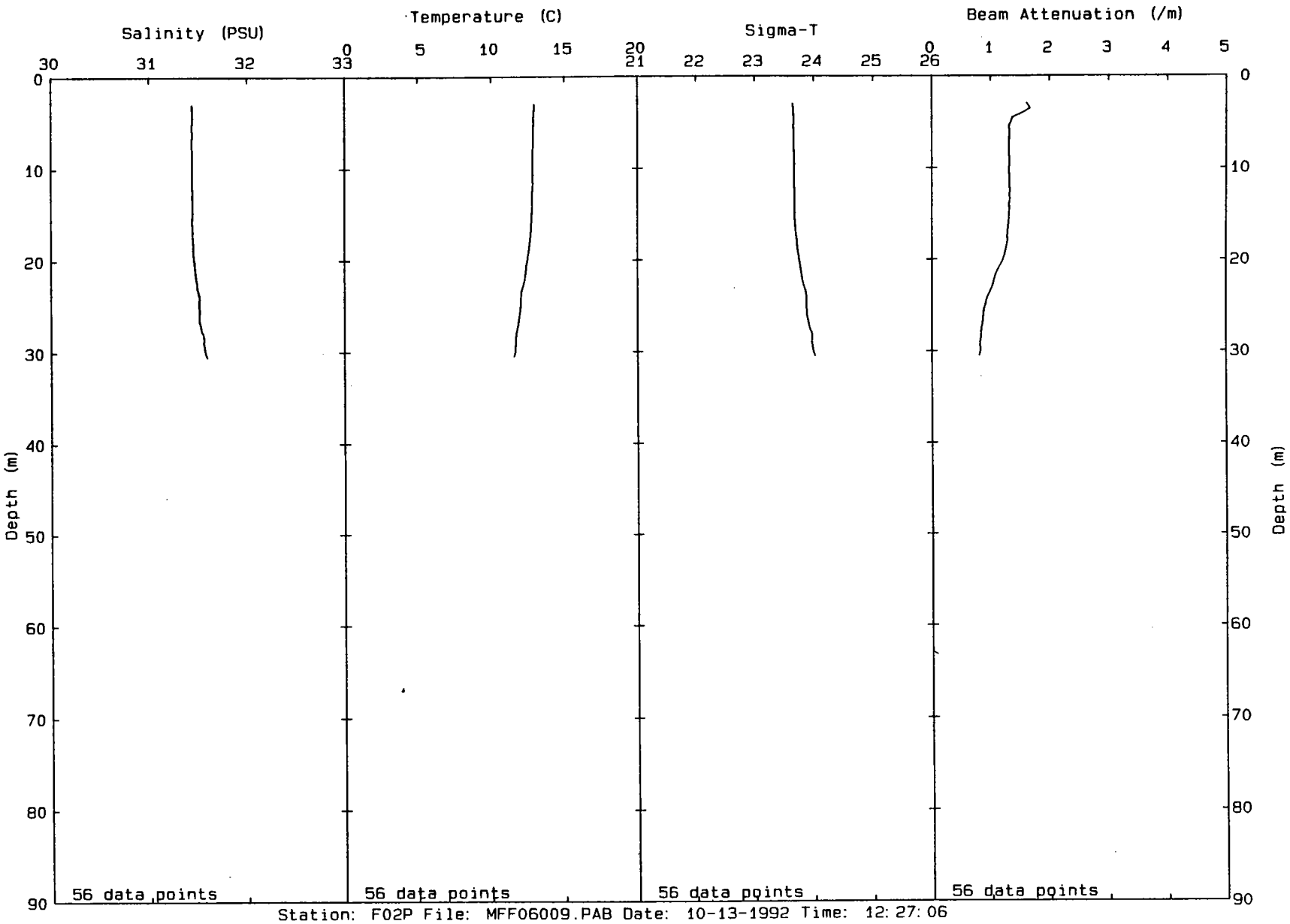

Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
50 data points
50 data points
50 data points
50 data points
Station: N21 File: MNF11080.PAB Date: 09-09-1992 Time: 18:18:03

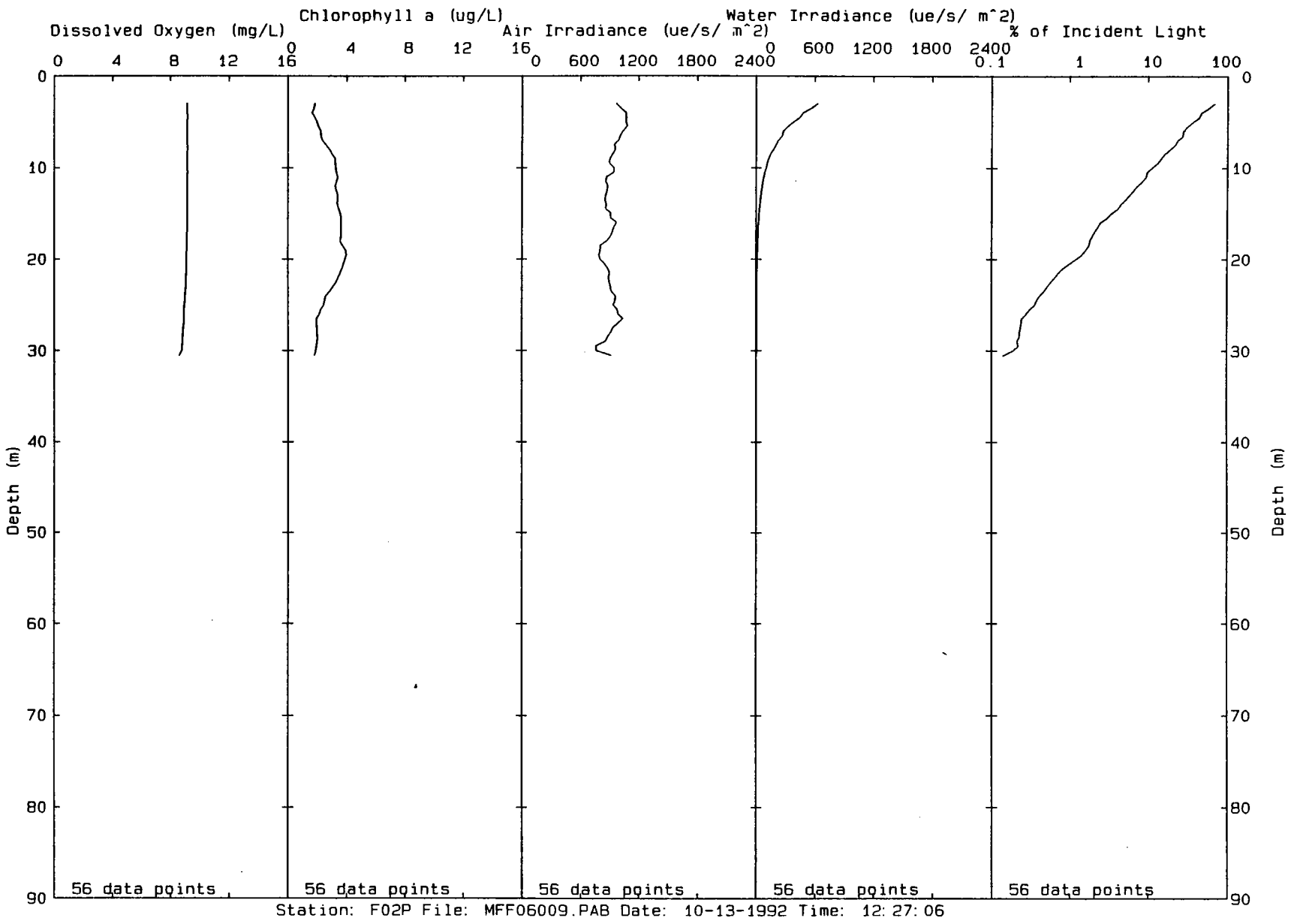

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
50 data points
50 data points
50 data points
50 data points
50 data points
Station: N21 File: MNF11080.PAB Date: 09-09-1992 Time: 18:18:03

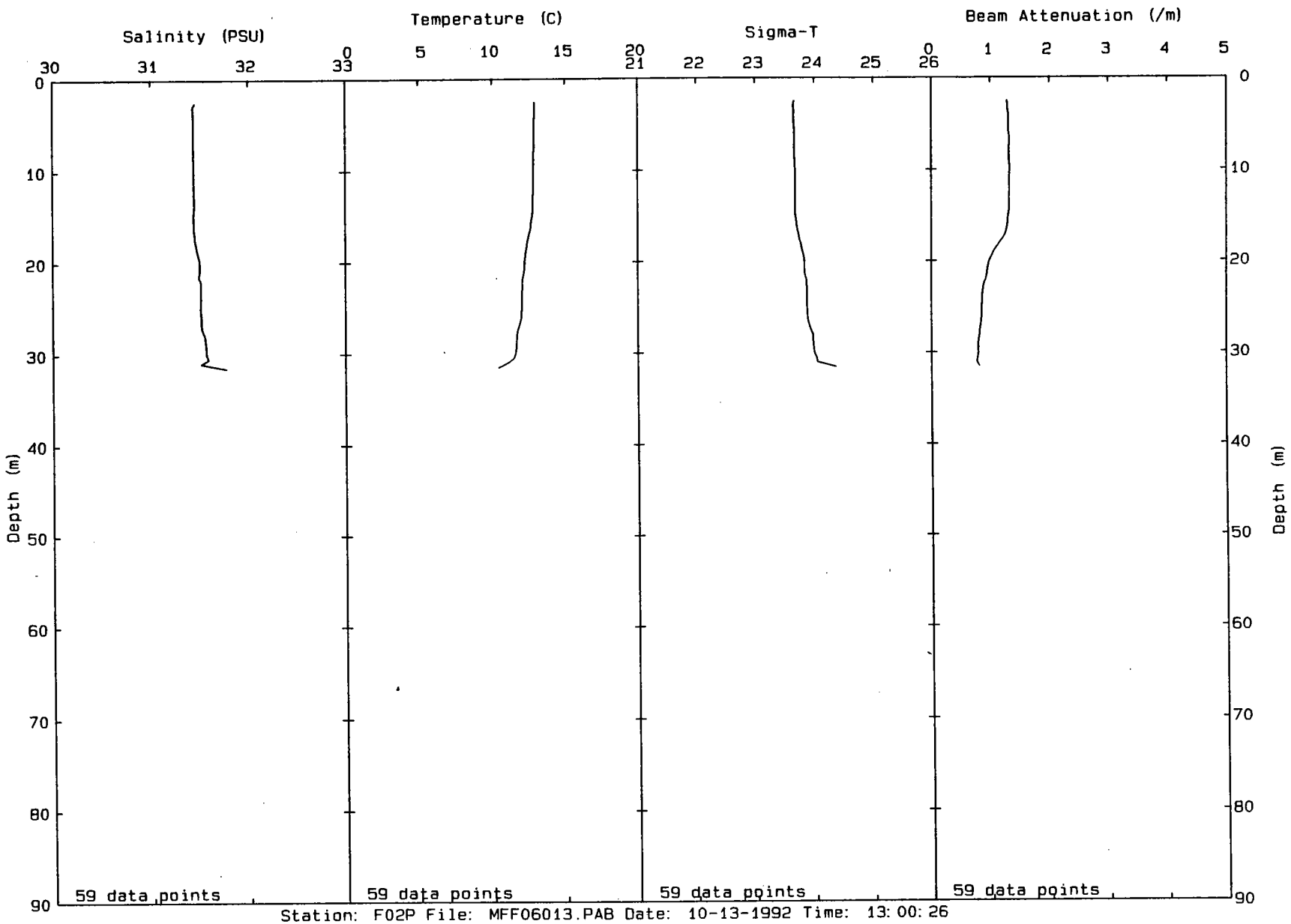
October Profiles

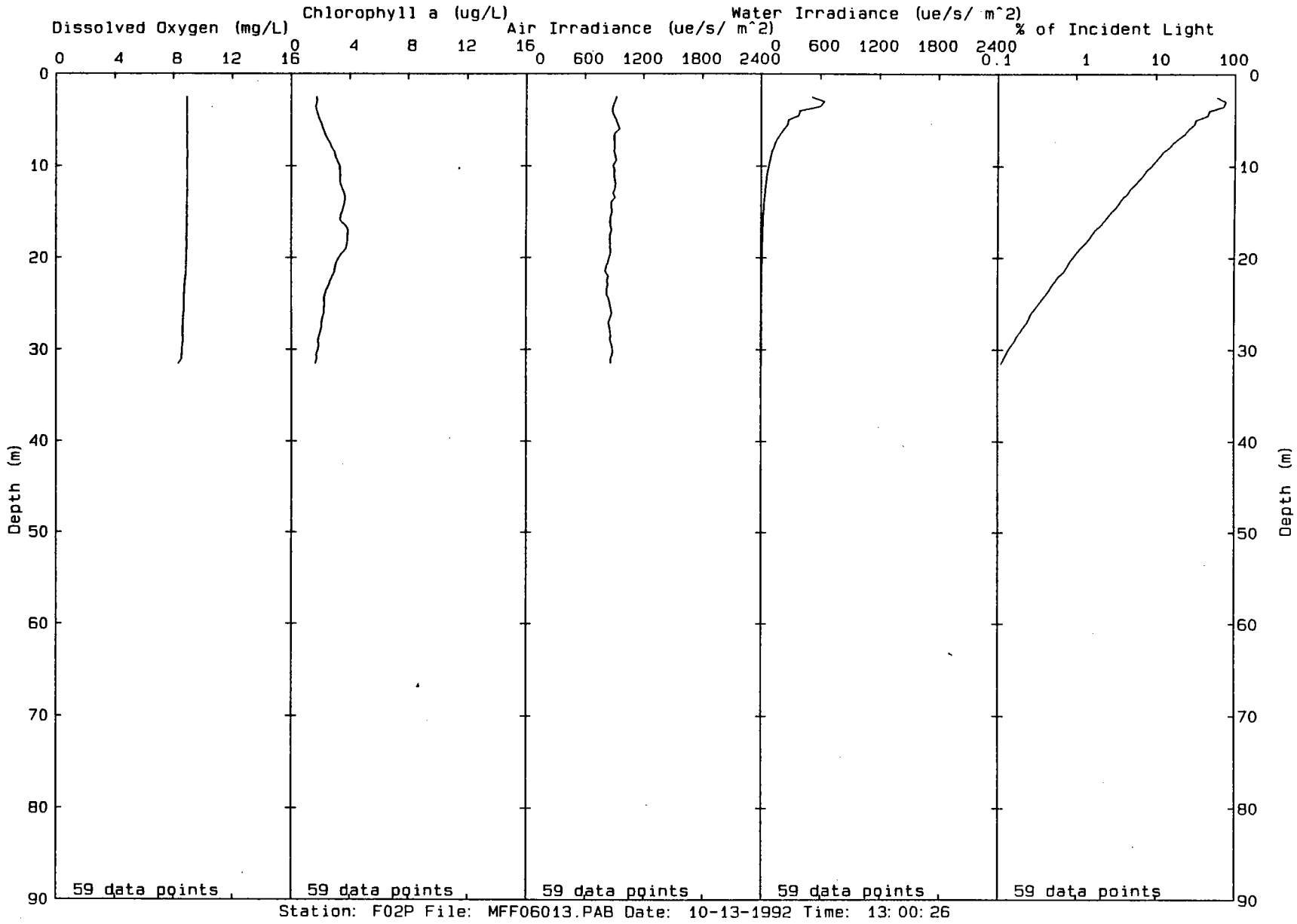

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
39 data points
39 data points
39 data points
39 data points
Station: F01P File: MFF06004.PAB Date: 10-13-1992 Time: 09:00:29

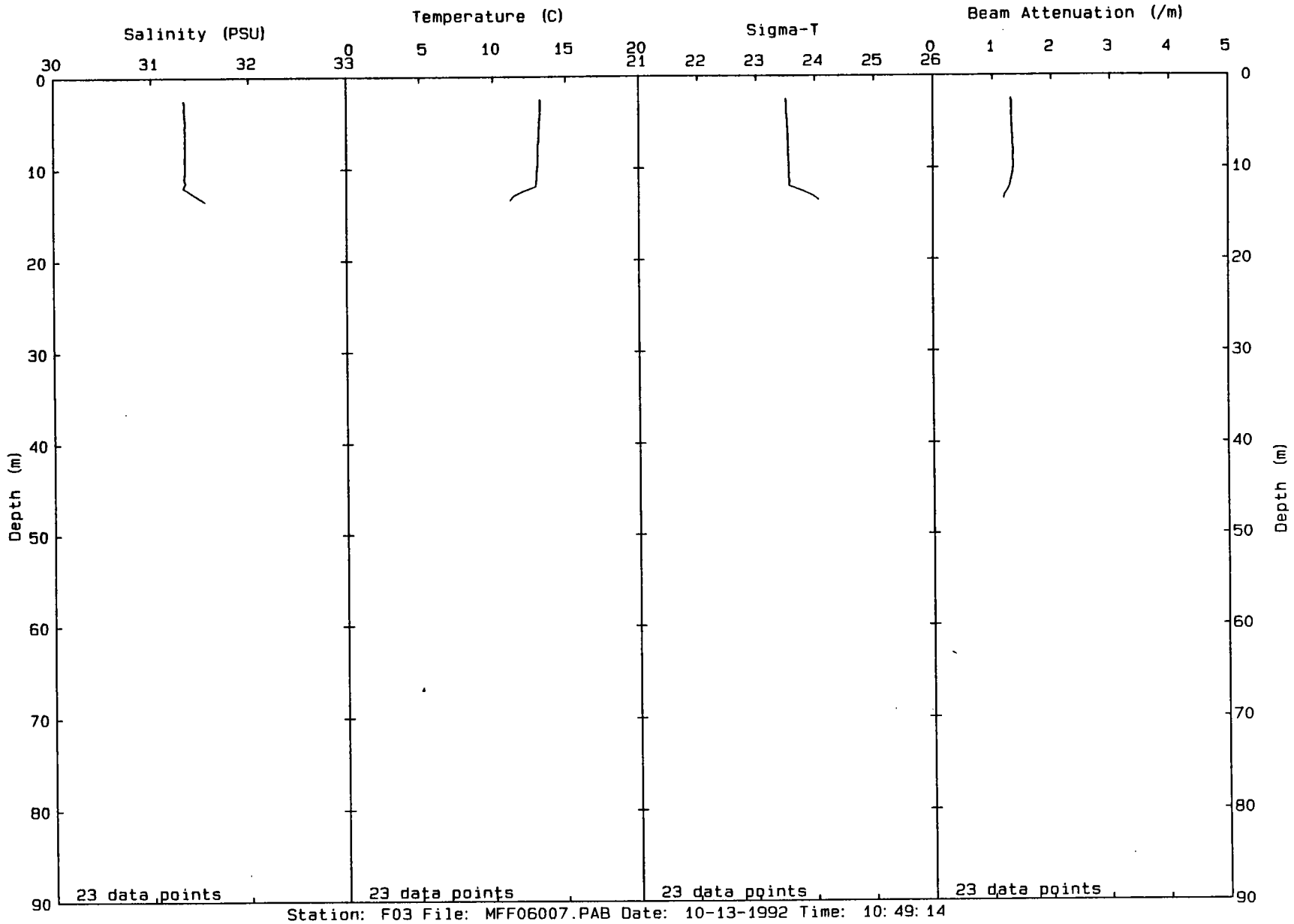

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
39 data points
39 data points
39 data points
39 data points
39 data points
Station: F01P File: MFF06004.PAB Date: 10-13-1992 Time: 09:00:29

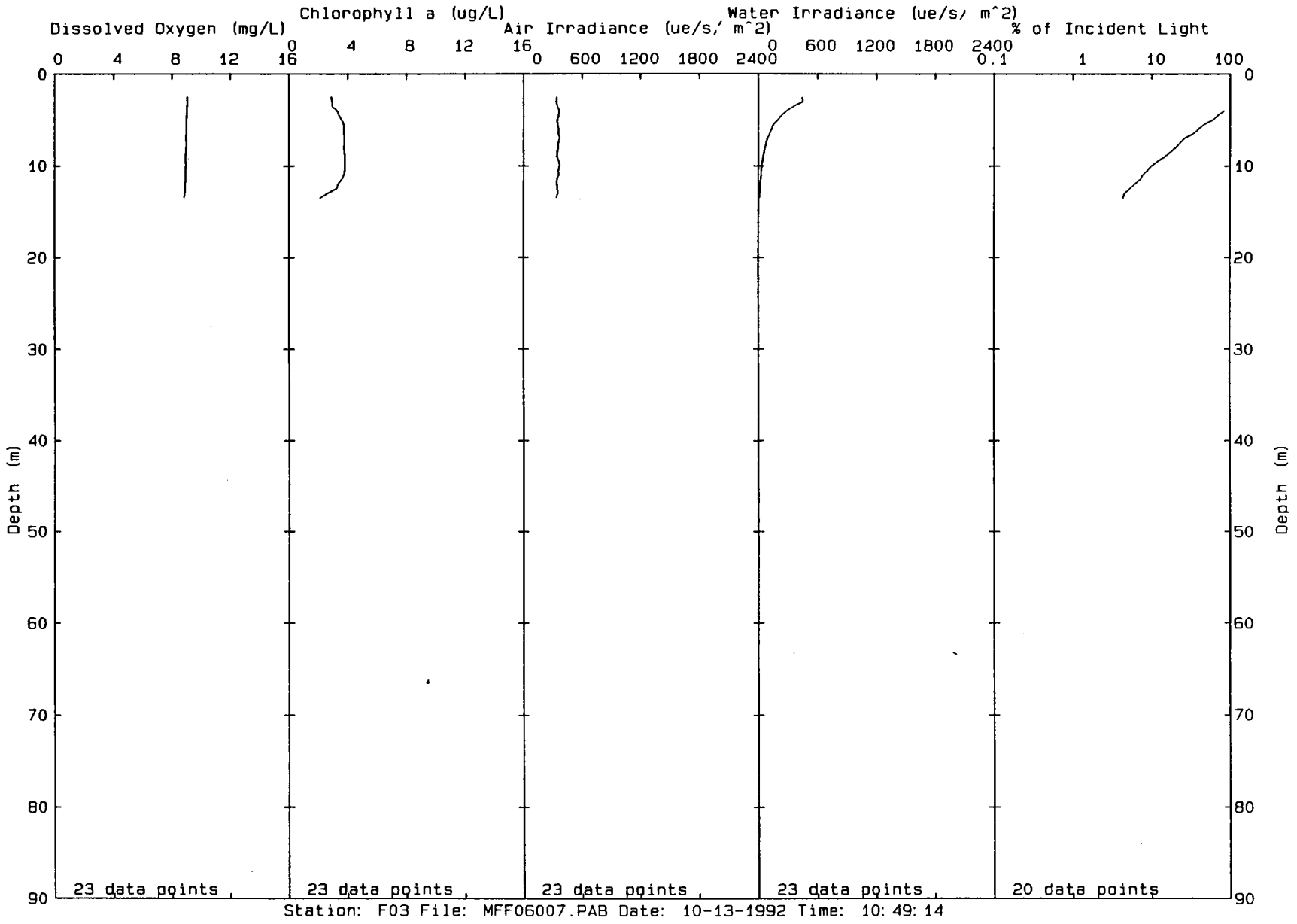

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
56 data points
56 data points
56 data points
56 data points
Station: F02P File: MFF06009.PAB Date: 10-13-1992 Time: 12:27:06

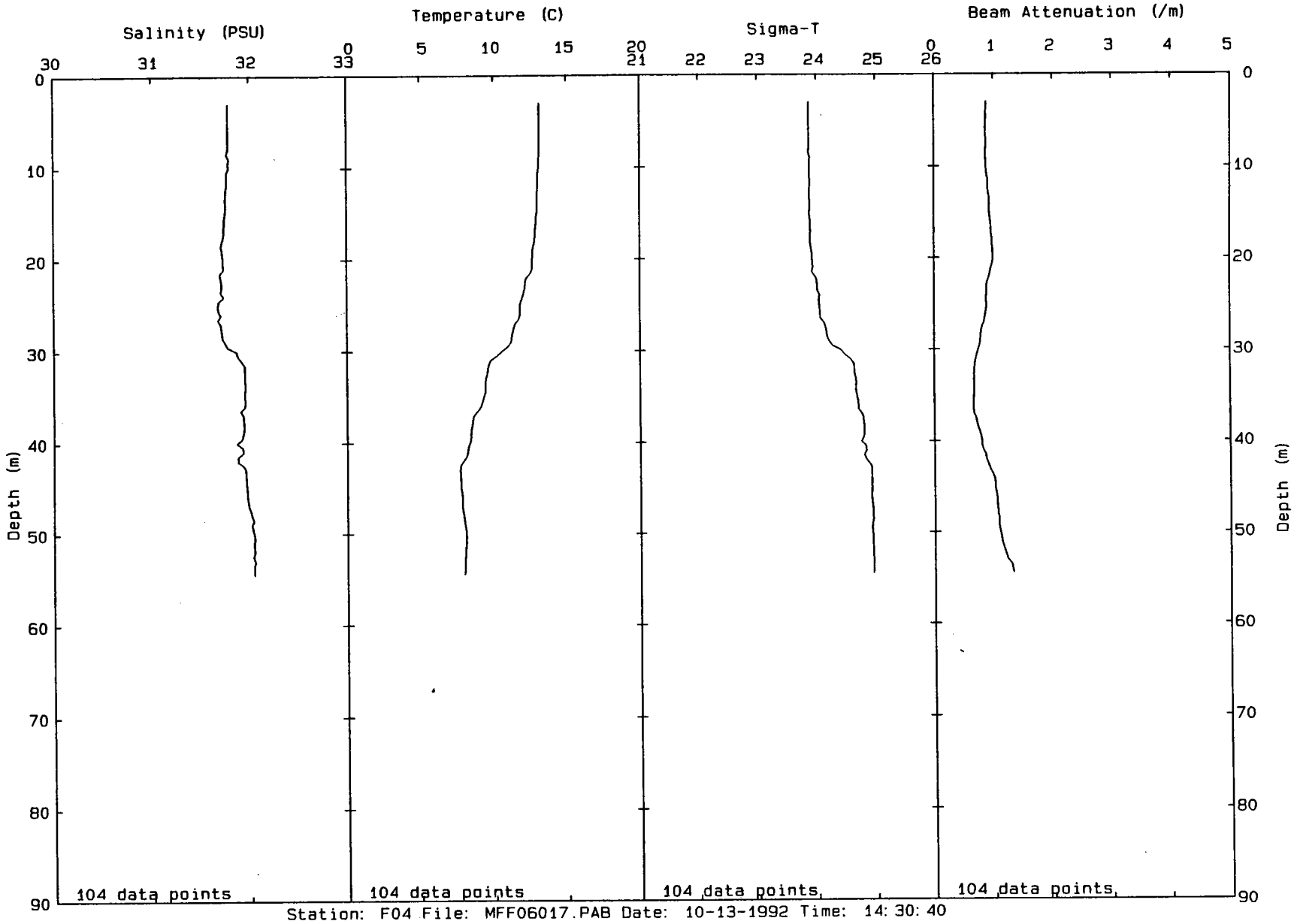

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
56 data points
56 data points
56 data points
56 data points
56 data points
Station: F02P File: MFF06009.PAB Date: 10-13-1992 Time: 12:27:06

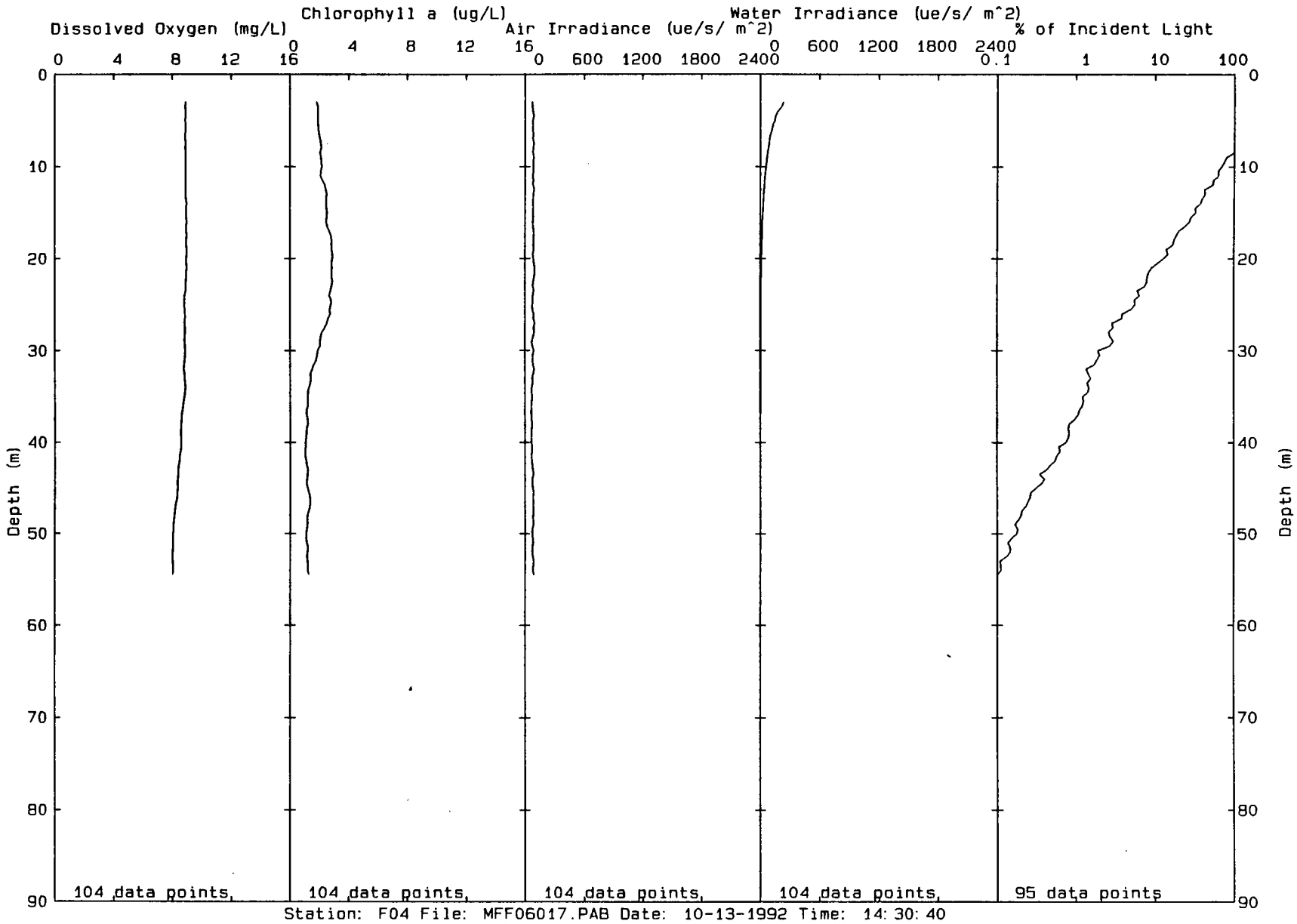

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
59 data points
59 data points
59 data points
59 data points
Station: F02P File: MFF06013.PAB Date: 10-13-1992 Time: 13:00:26

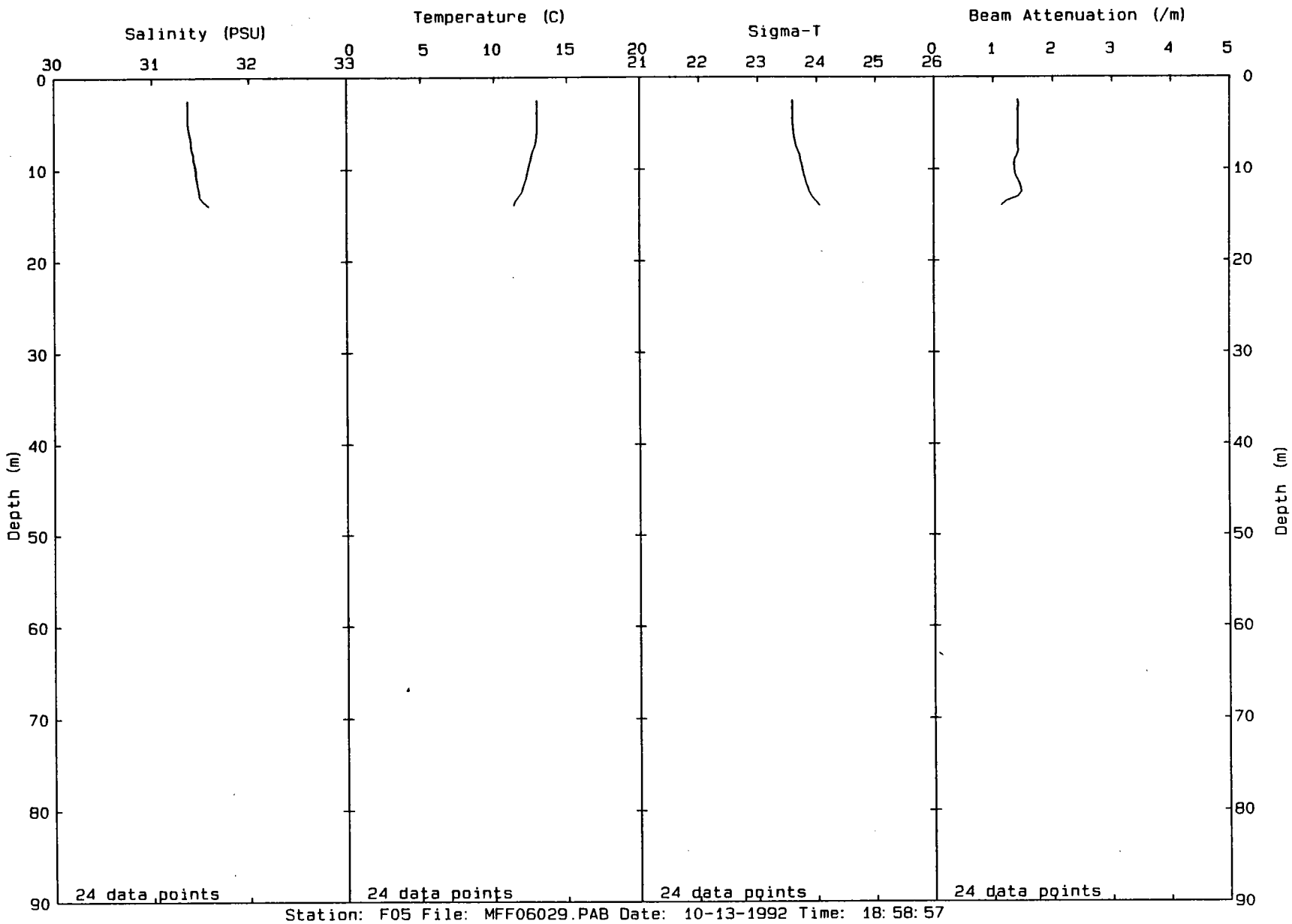

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
59 data points
59 data points
59 data points
59 data points
59 data points
Station: F02P File: MFF06013.PAB Date: 10-13-1992 Time: 13:00:26

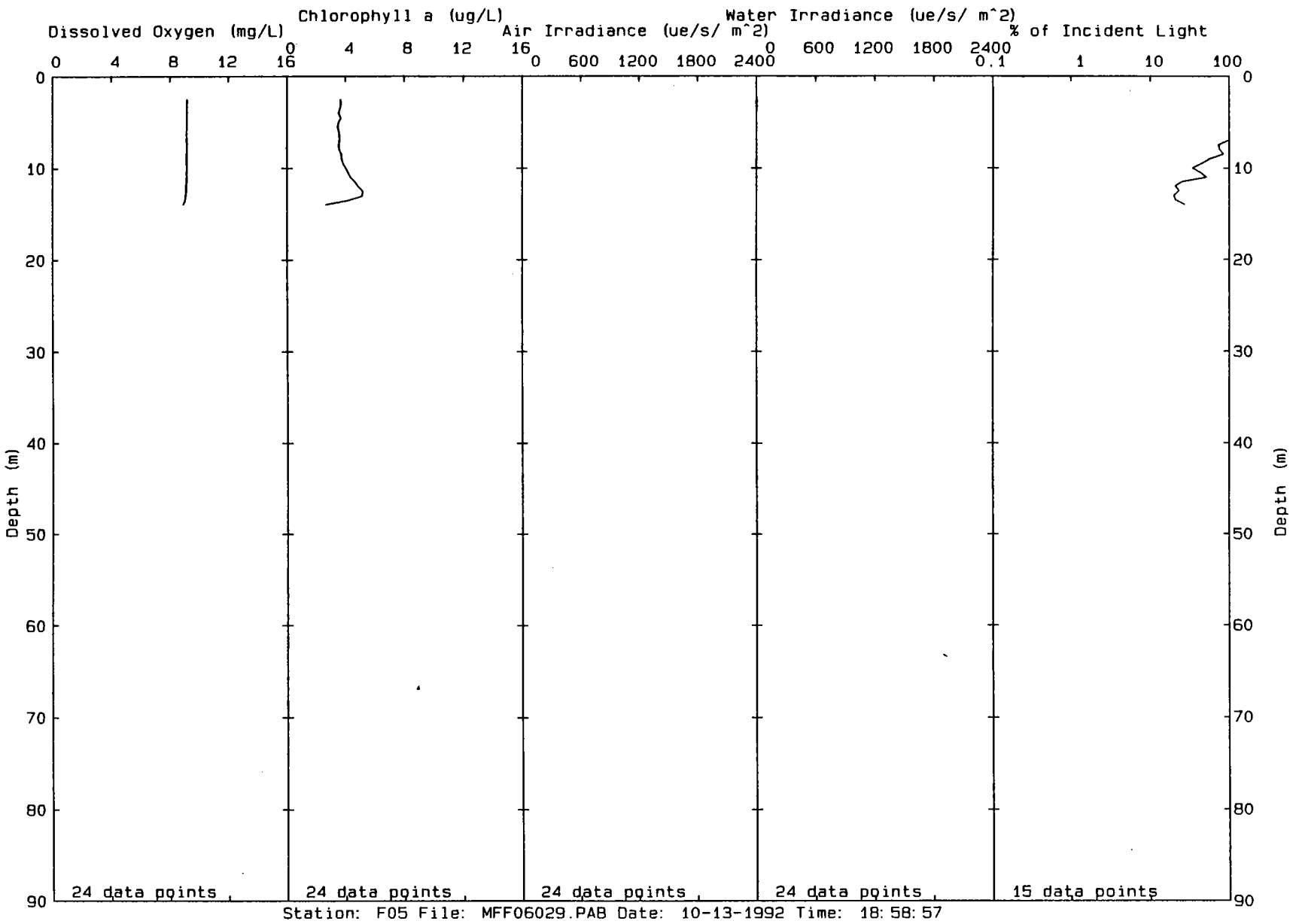

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
23 data points
23 data points
23 data points
23 data points
Station: F03 File: MFF06007.PAB Date: 10-13-1992 Time: 10:49:14

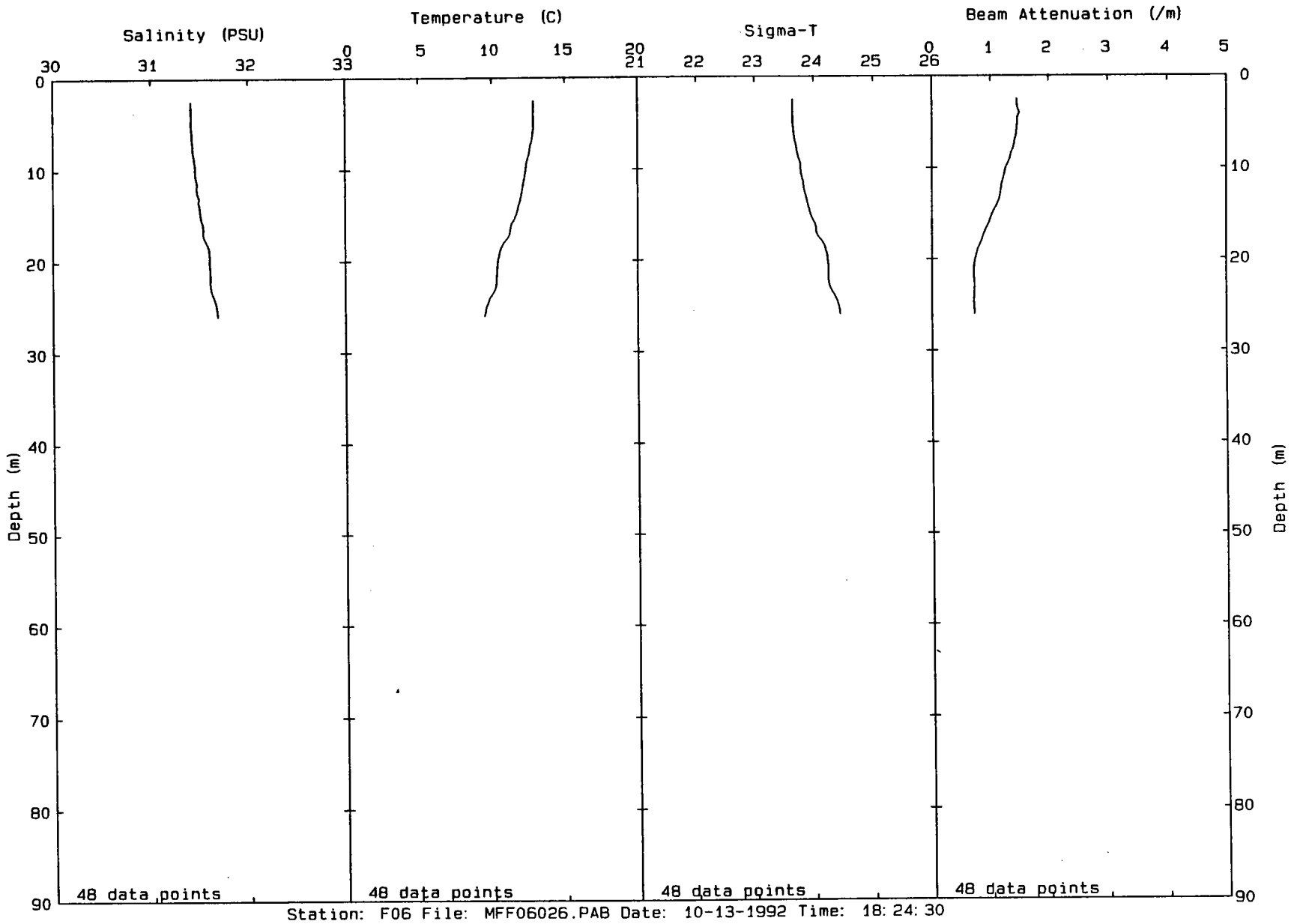

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s, m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s, m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
23 data points
23 data points
23 data points
23 data points
20 data points
Station: F03 File: MFF06007.PAB Date: 10-13-1992 Time: 10:49:14

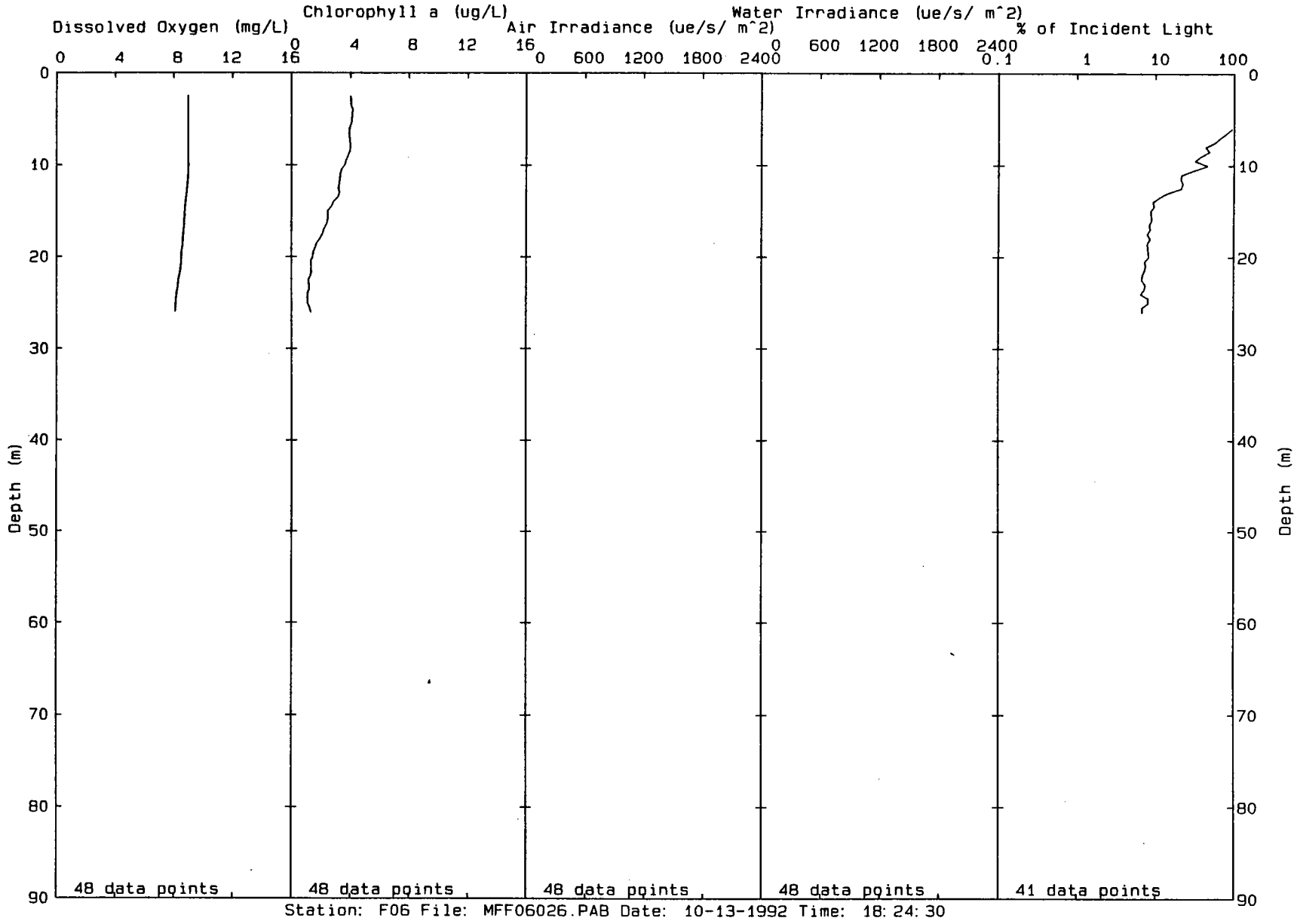

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
Beam Attenuation (/m)
0
1
2
3
4
5
26
Depth (m)
0
10
20
30
40
50
60
70
80
90
104 data points
104 data points
104 data points
104 data points
Station: F04 File: MFF06017.PAB Date: 10-13-1992 Time: 14:30:40

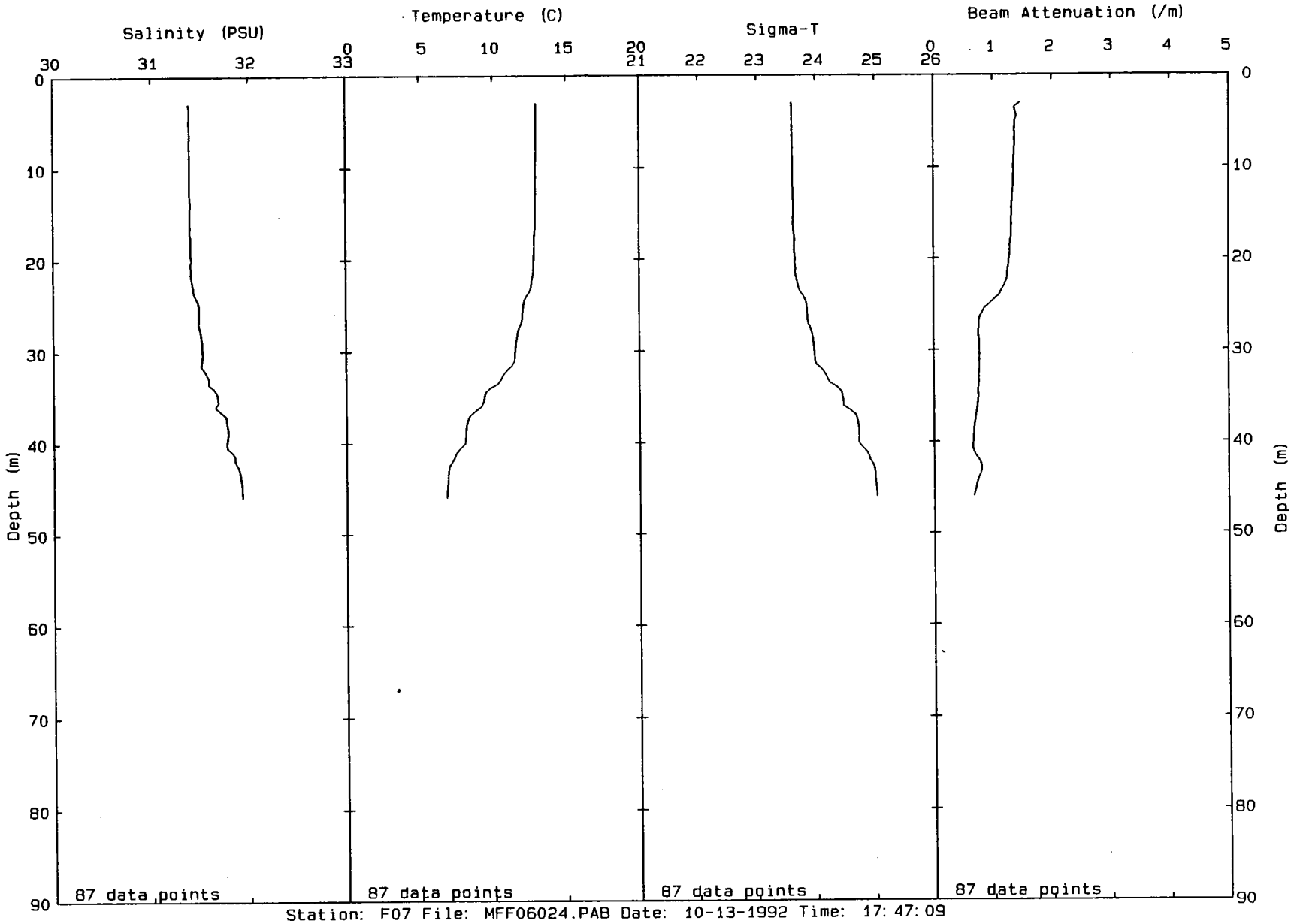

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
104 data points,
104 data points,
104 data points,
104 data points,
95 data points
Station: F04 File: MFF06017.PAB Date: 10-13-1992 Time: 14:30:40

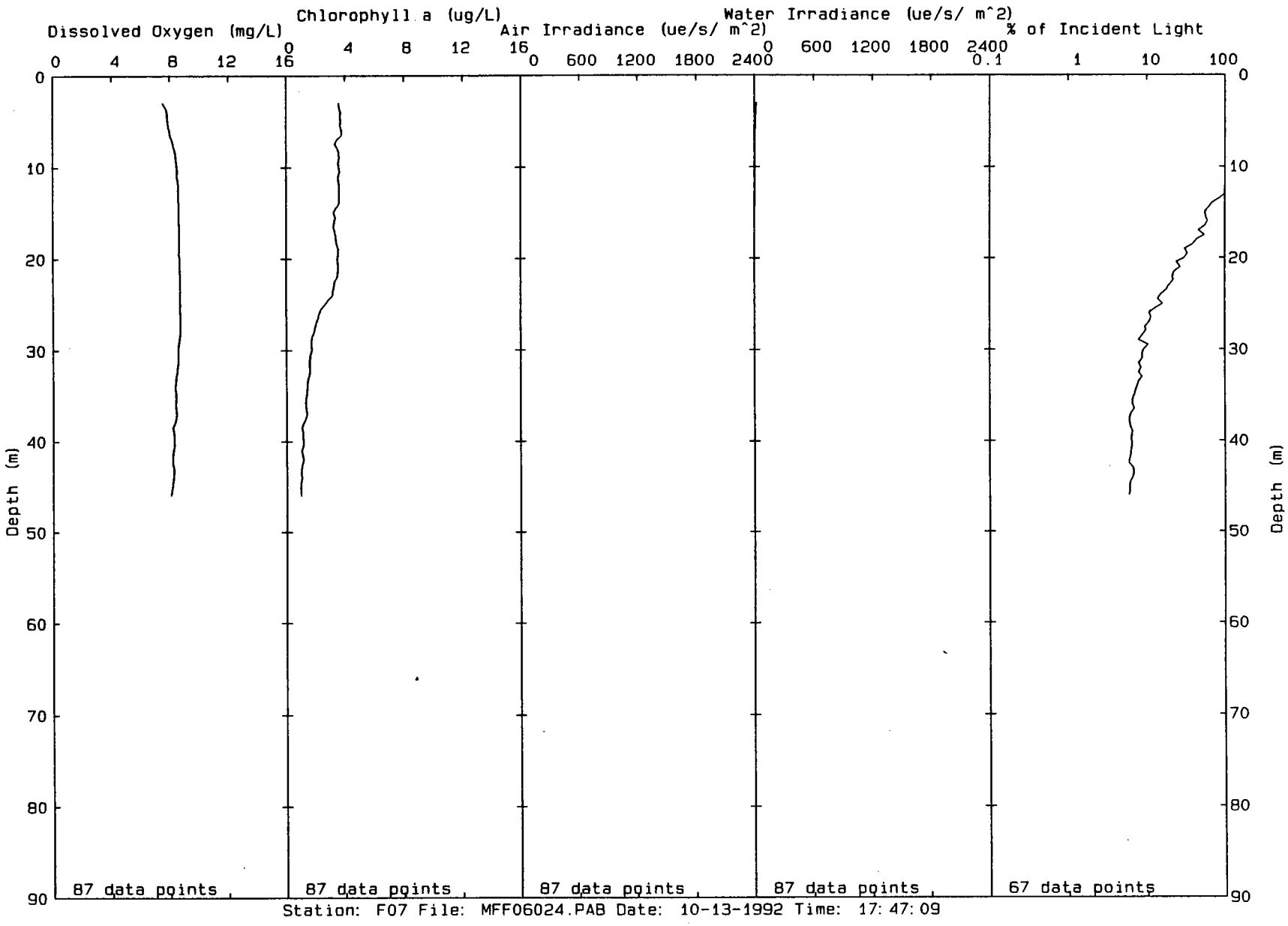

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
24 data points
24 data points
24 data points
24 data points
Station: F05 File: MFF06029.PAB Date: 10-13-1992 Time: 18:58:57

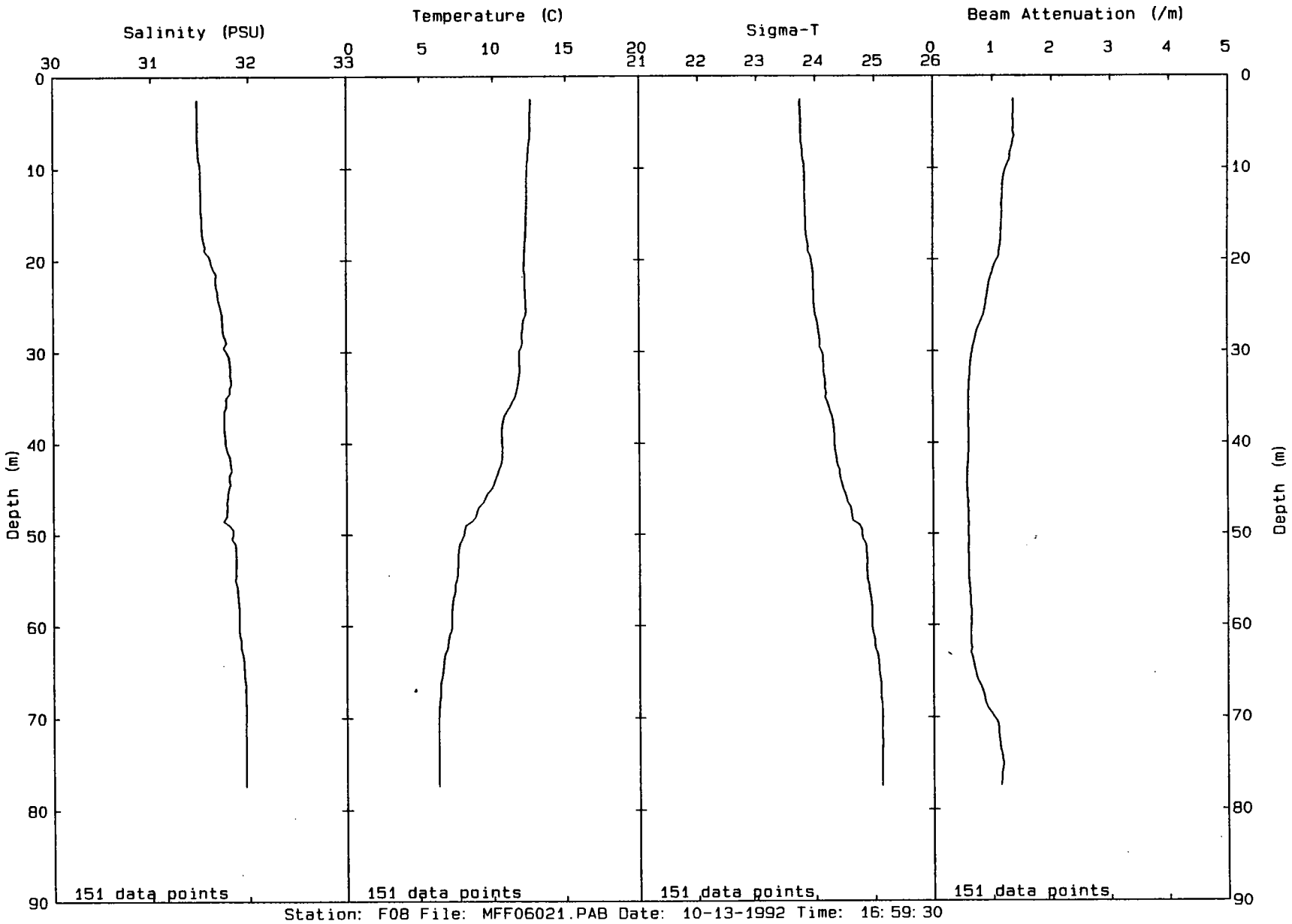

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
24 data points
24 data points
24 data points
24 data points
15 data points
Station: F05 File: MFF06029.PAB Date: 10-13-1992 Time: 18:58:57

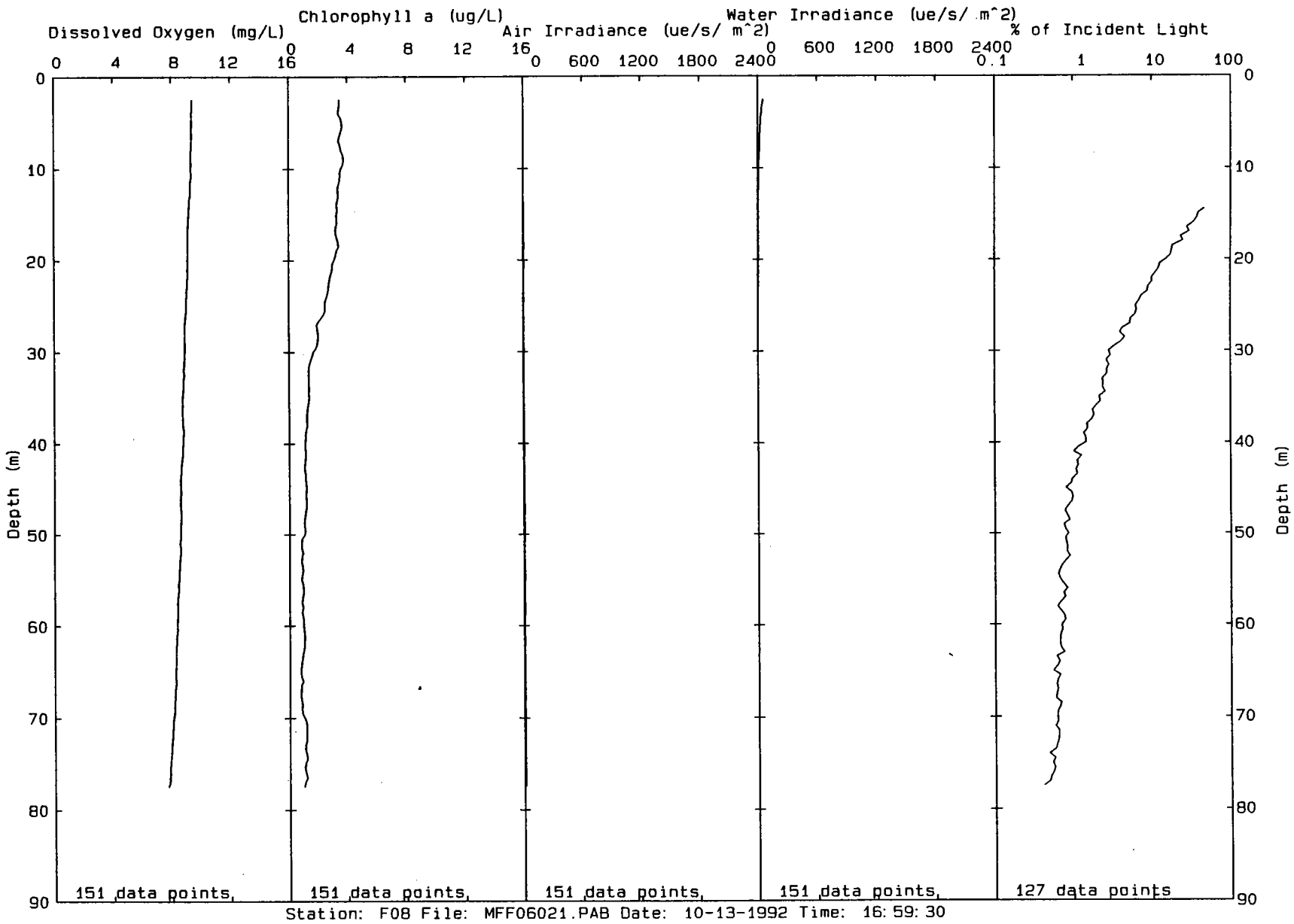

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
48 data points
48 data points
48 data points
48 data points
Station: F06 File: MFF06026.PAB Date: 10-13-1992 Time: 18:24:30


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
48 data points
48 data points
48 data points
48 data points
41 data points
Station: F06 File: MFF06026.PAB Date: 10-13-1992 Time: 18:24:30


Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
87 data points
87 data points
87 data points
87 data points
Station: F07 File: MFF06024.PAB Date: 10-13-1992 Time: 17:47:09

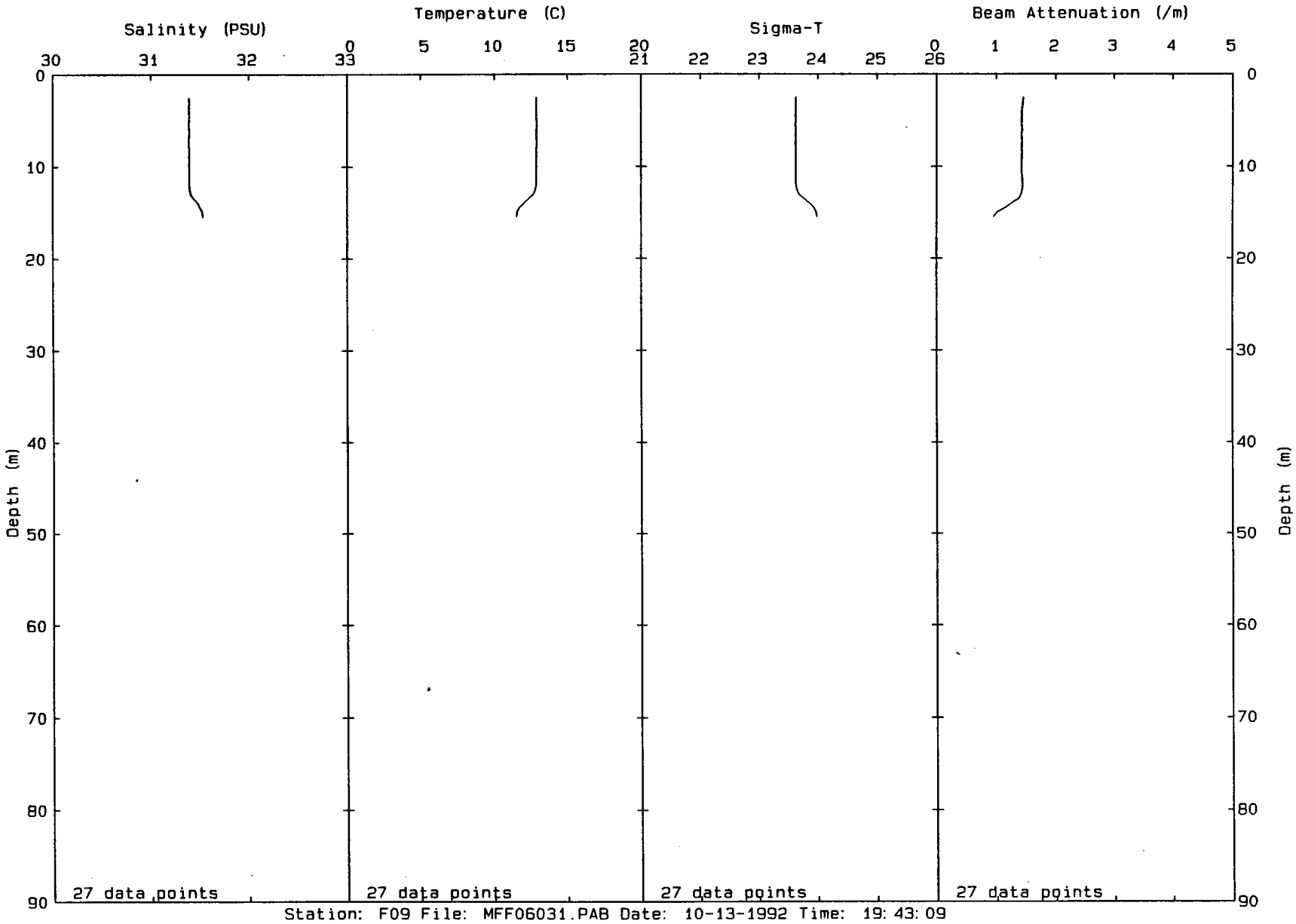

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
87 data points
87 data points
87 data points
87 data points
67 data points
Station: F07 File: MFF06024.PAB Date: 10-13-1992 Time: 17:47:09


Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
151 data points
151 data points
151 data points
151 data points
Station: F08 File: MFF06021.PAB Date: 10-13-1992 Time: 16:59:30

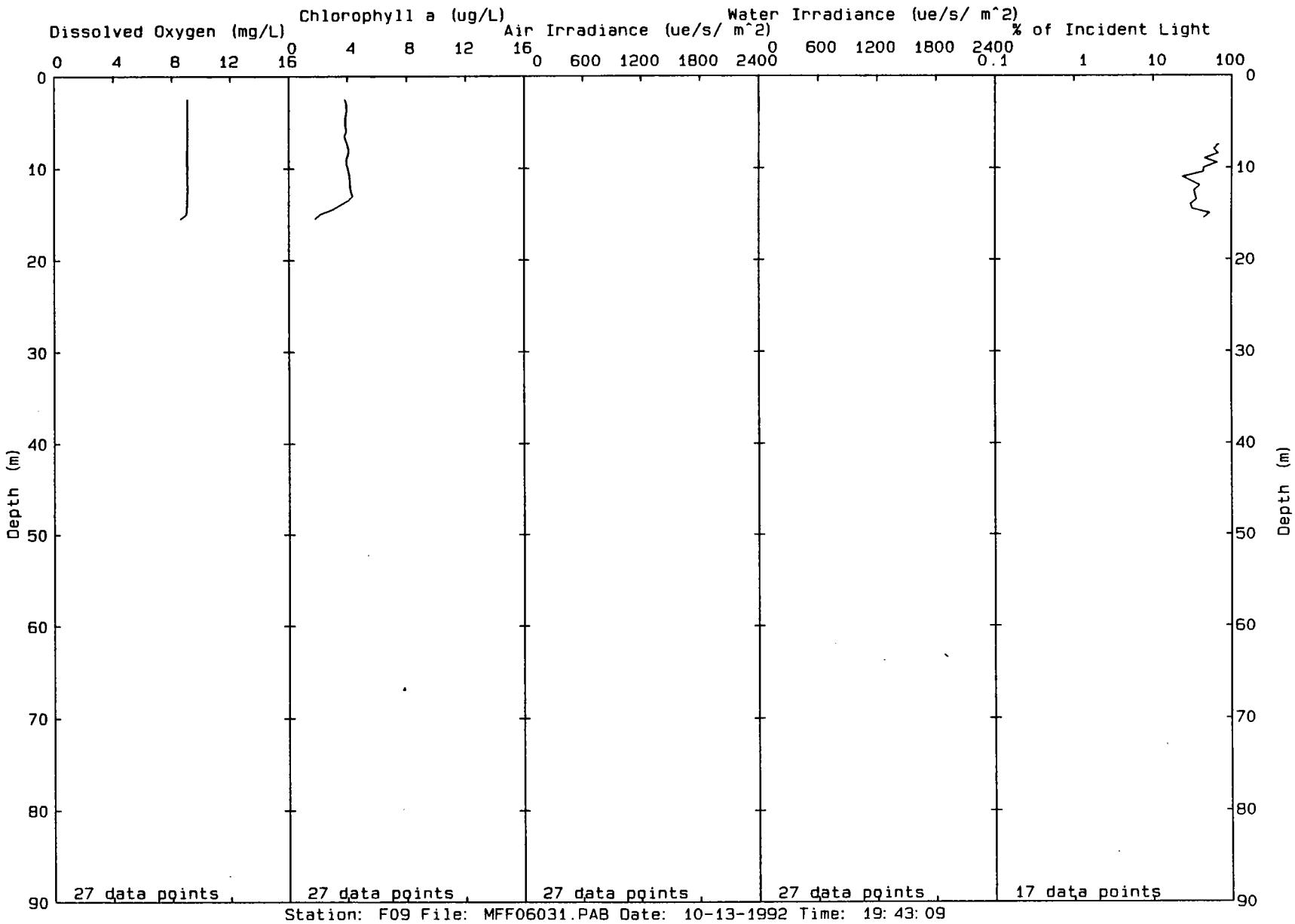


01200

01-07-1993 20:25:06 Battelle

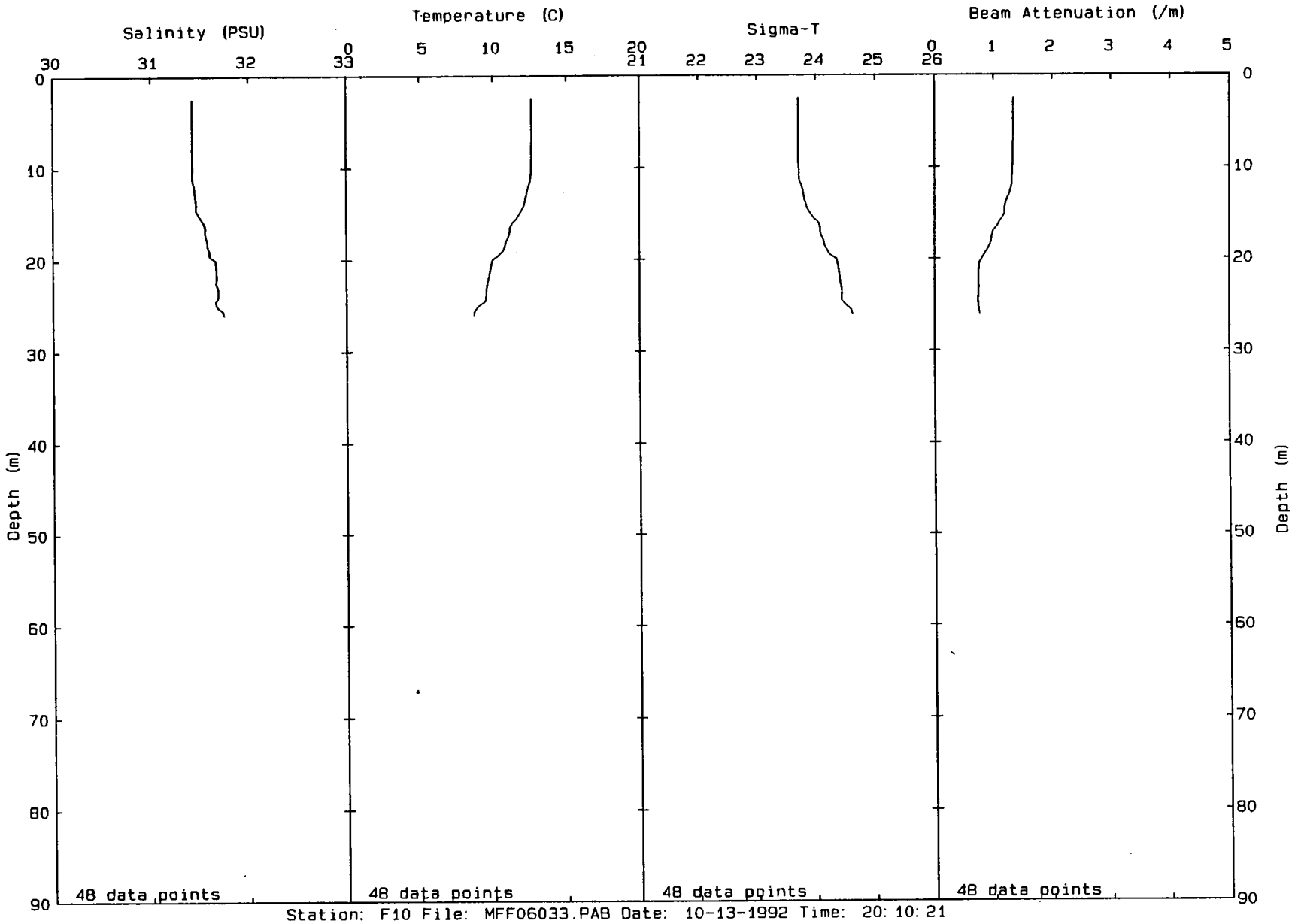


01-07-1993 21:35:05 Battelle



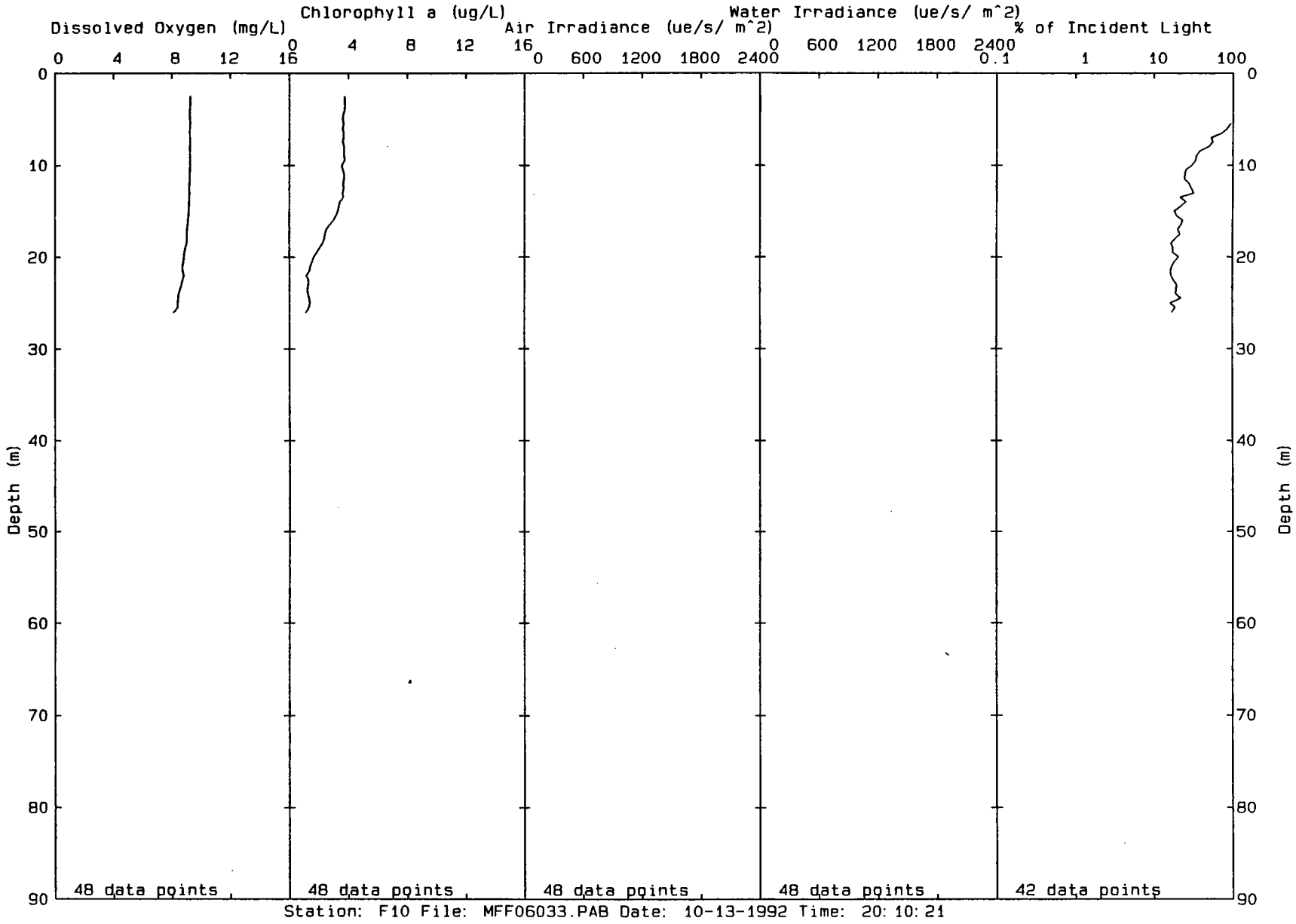
00202

01-07-1993 20:25:19 Battelle



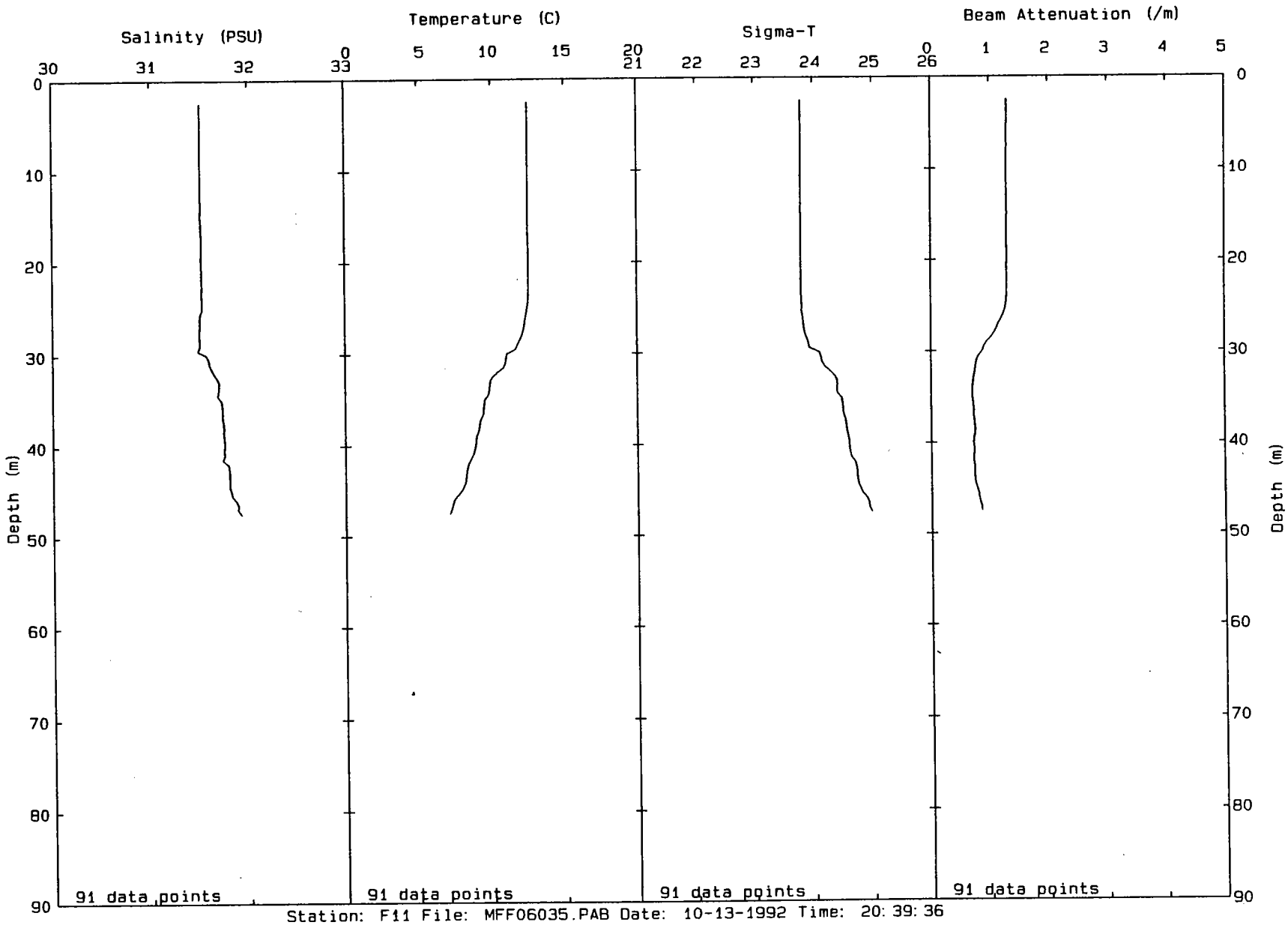
00203

01-07-1993 21:35:08 Battelle



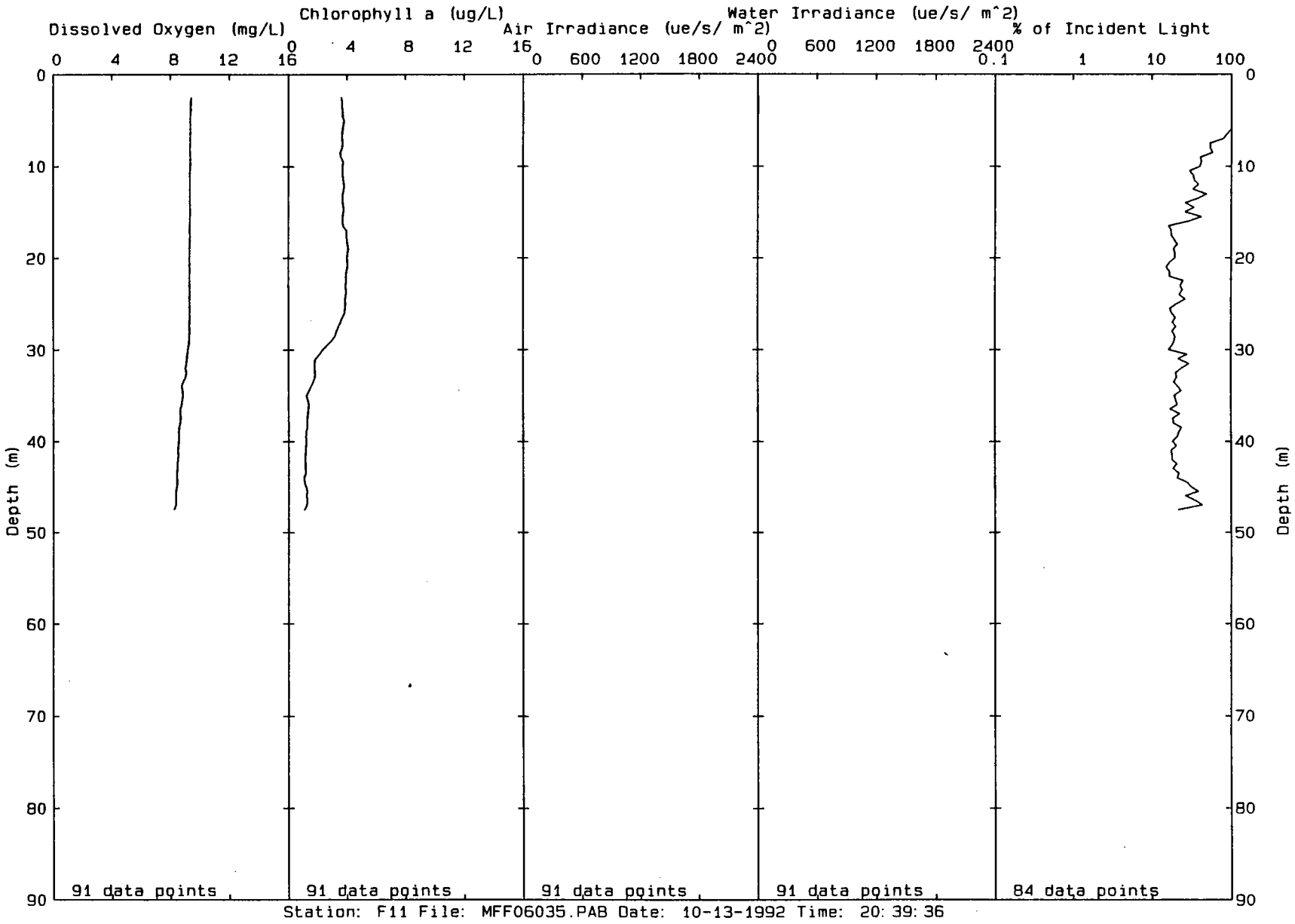
00204

01-07-1993 20:25:22 Battelle



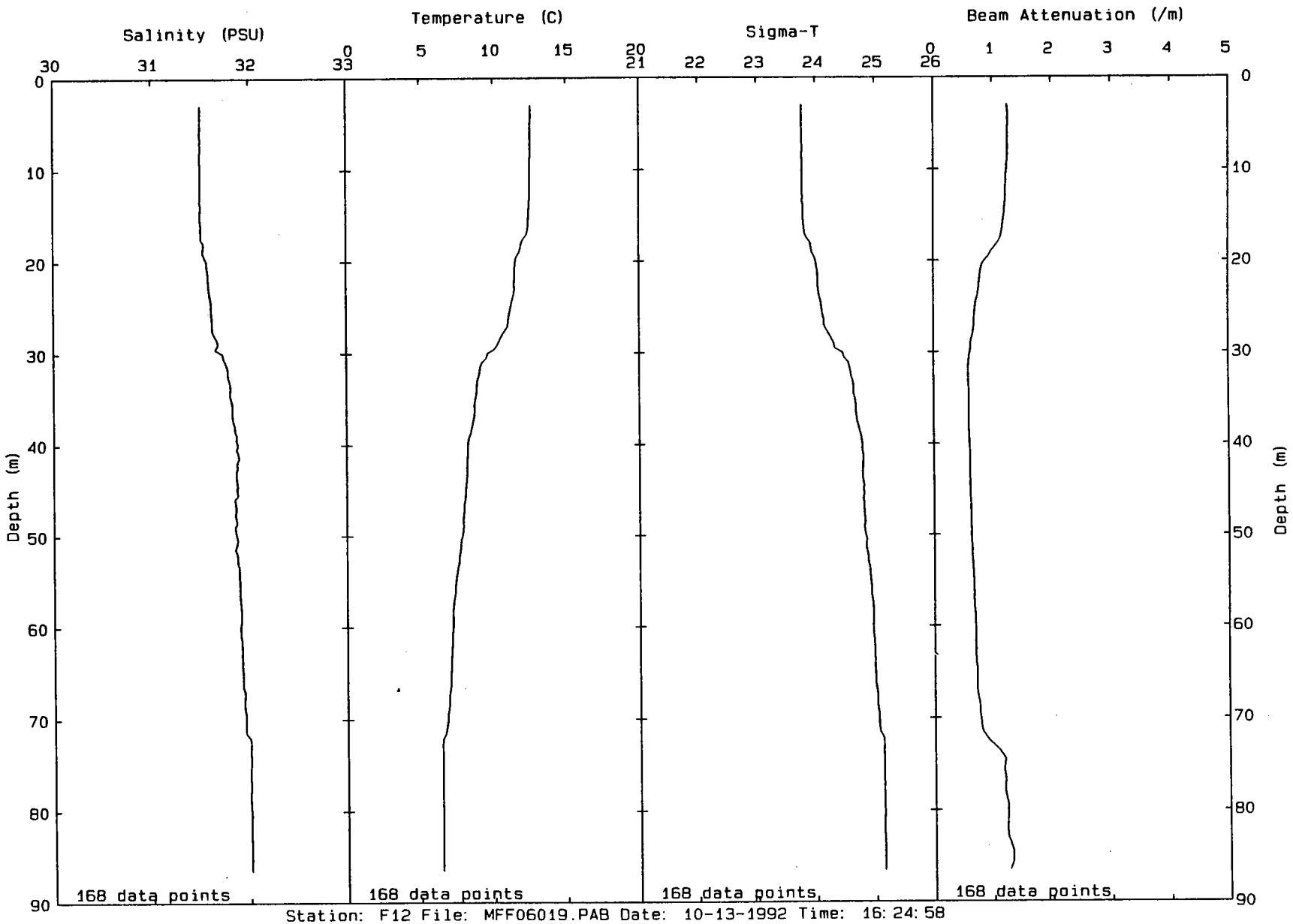
00205

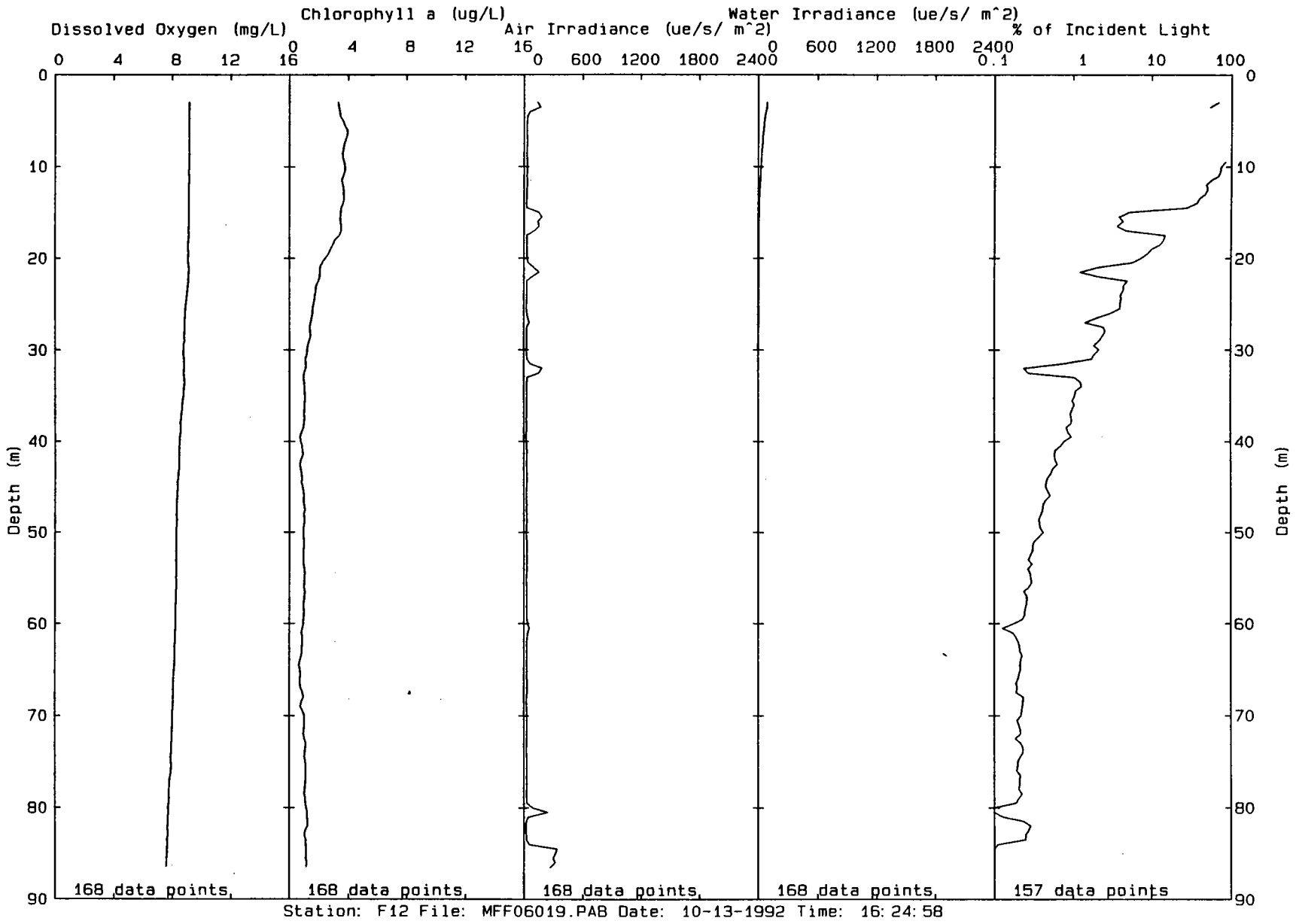
01-07-1993 21:35:12 Battelle



00206

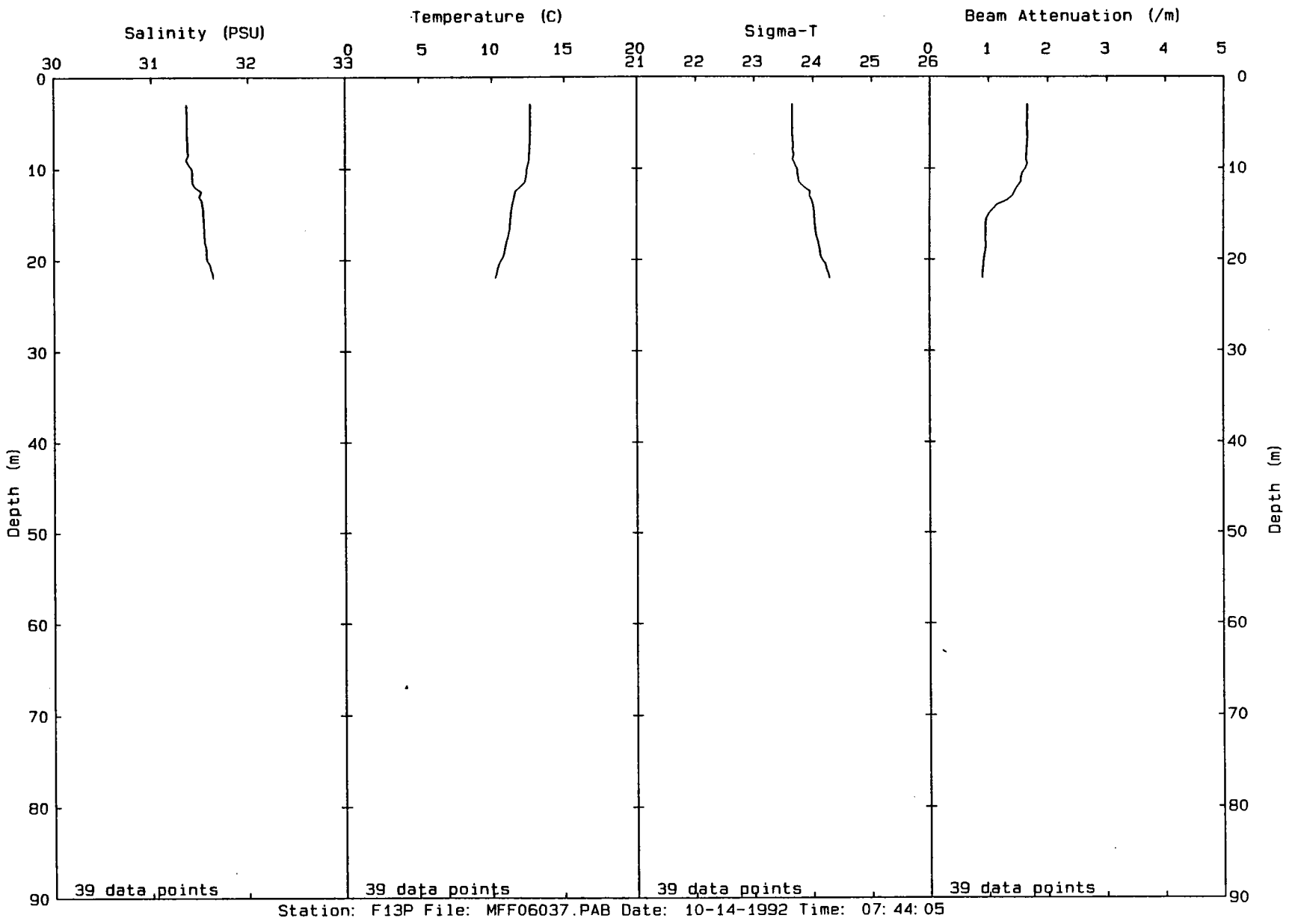
01-07-1993 20:25:27 Battelle

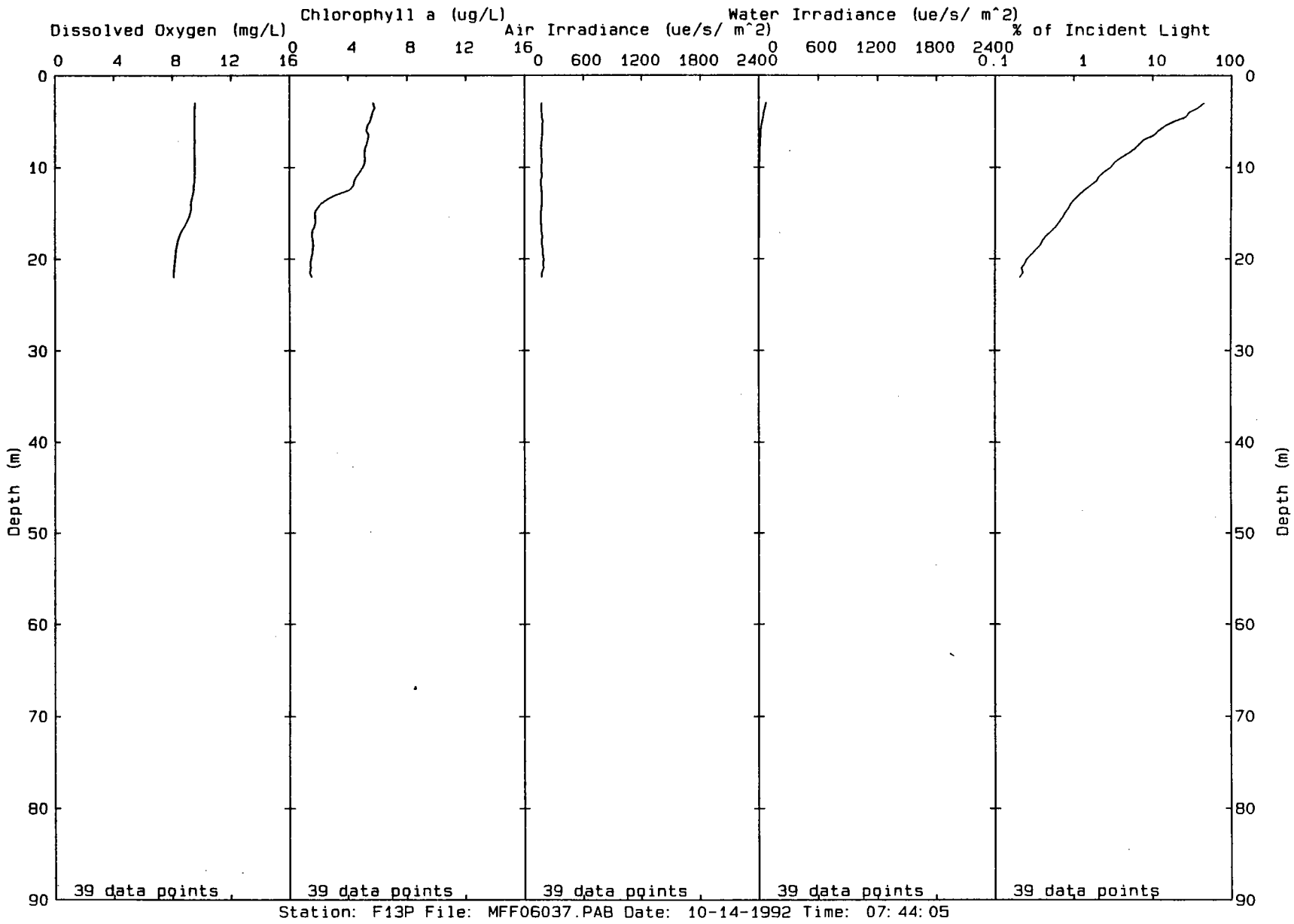

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
168 data points
168 data points
168 data points,
168 data points,
Station: F12 File: MFF06019.PAB Date: 10-13-1992 Time: 16:24:58



80208

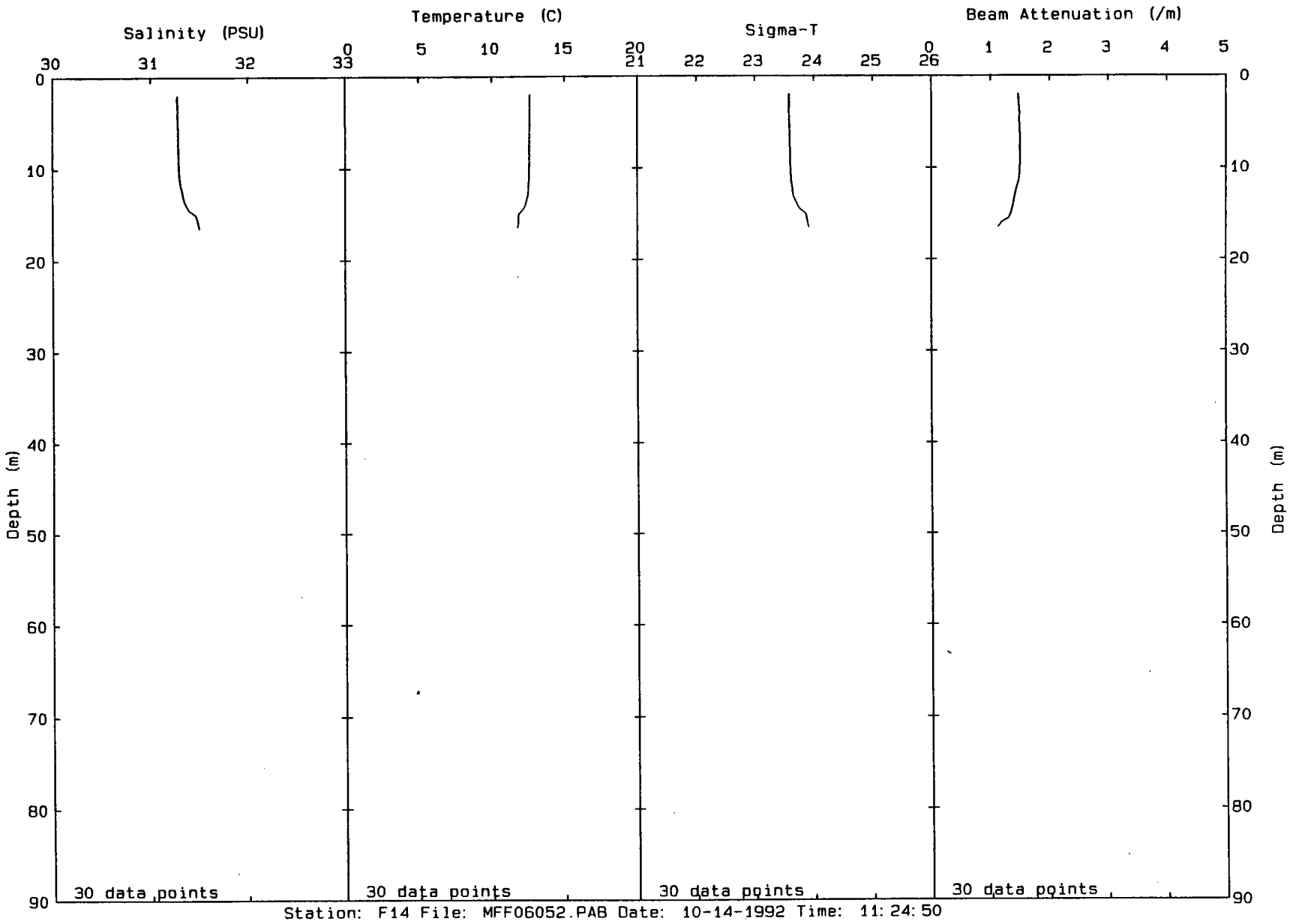
01-07-1993 20:24:59 Battelle

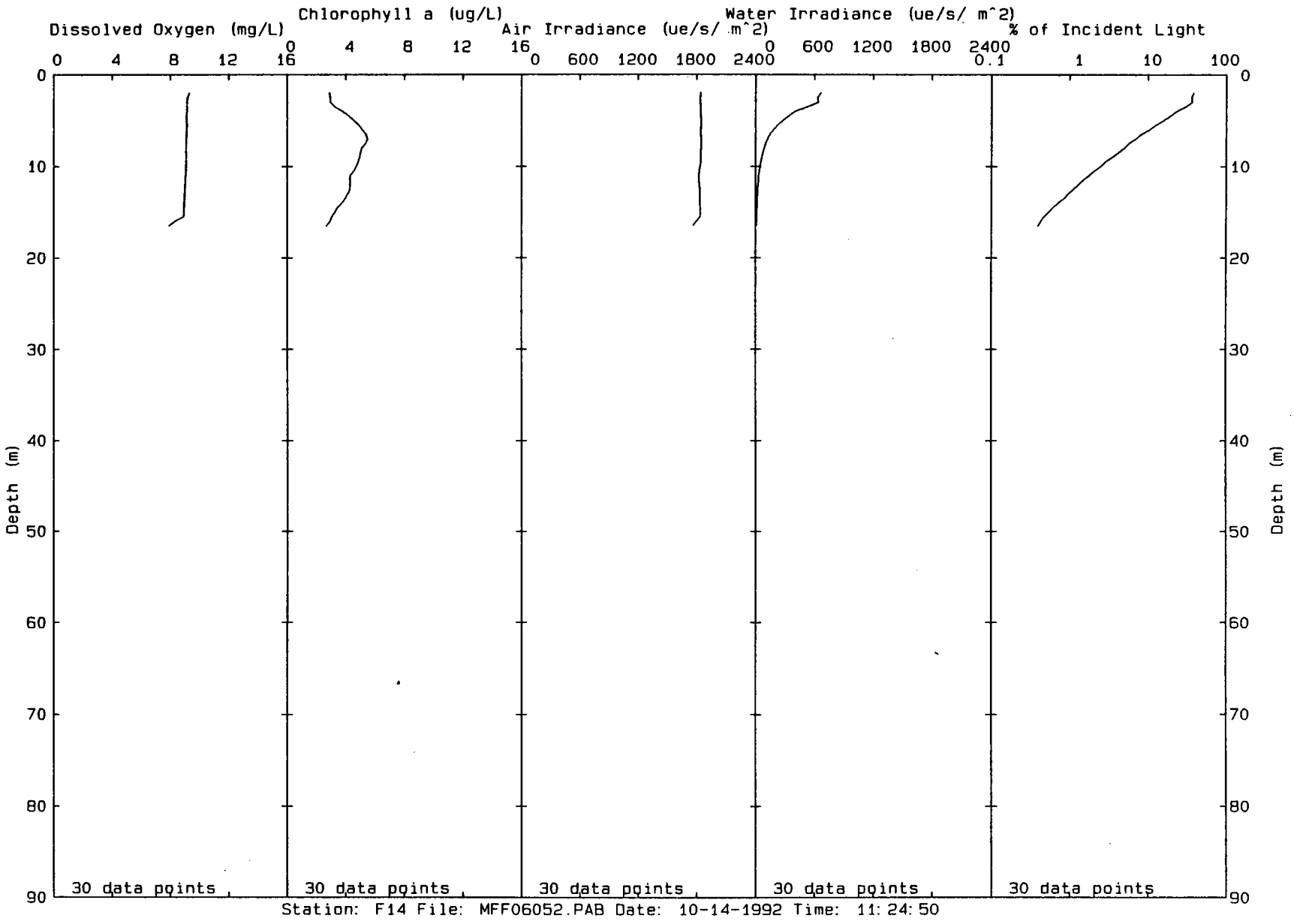

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
39 data points
39 data points
39 data points
39 data points
Station: F13P File: MFF06037.PAB Date: 10-14-1992 Time: 07:44:05



00210

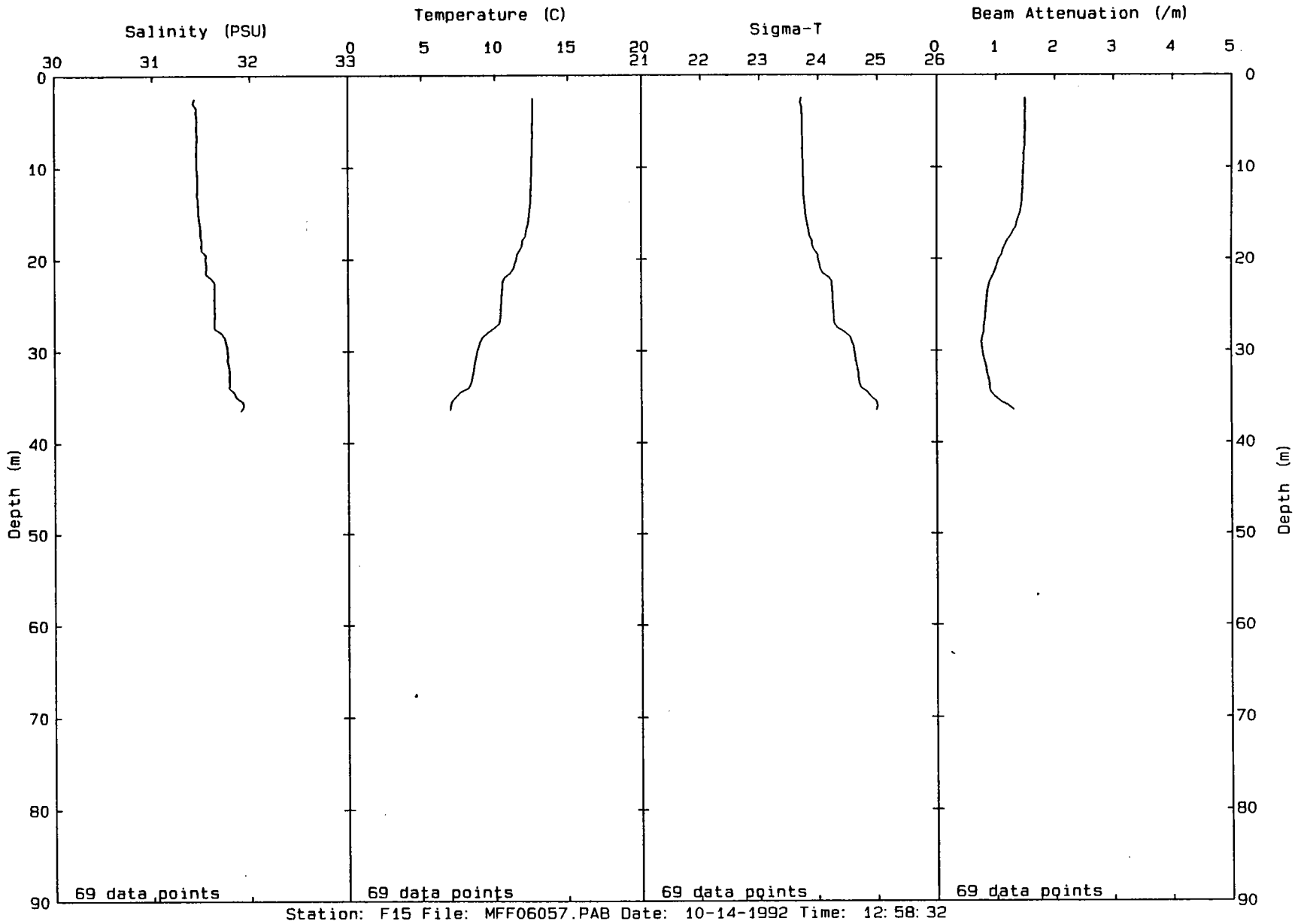
01-07-1993 20:25:29 Battelle


Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
30 data points
30 data points
30 data points
30 data points
Station: F14 File: MFF06052.PAB Date: 10-14-1992 Time: 11:24:50



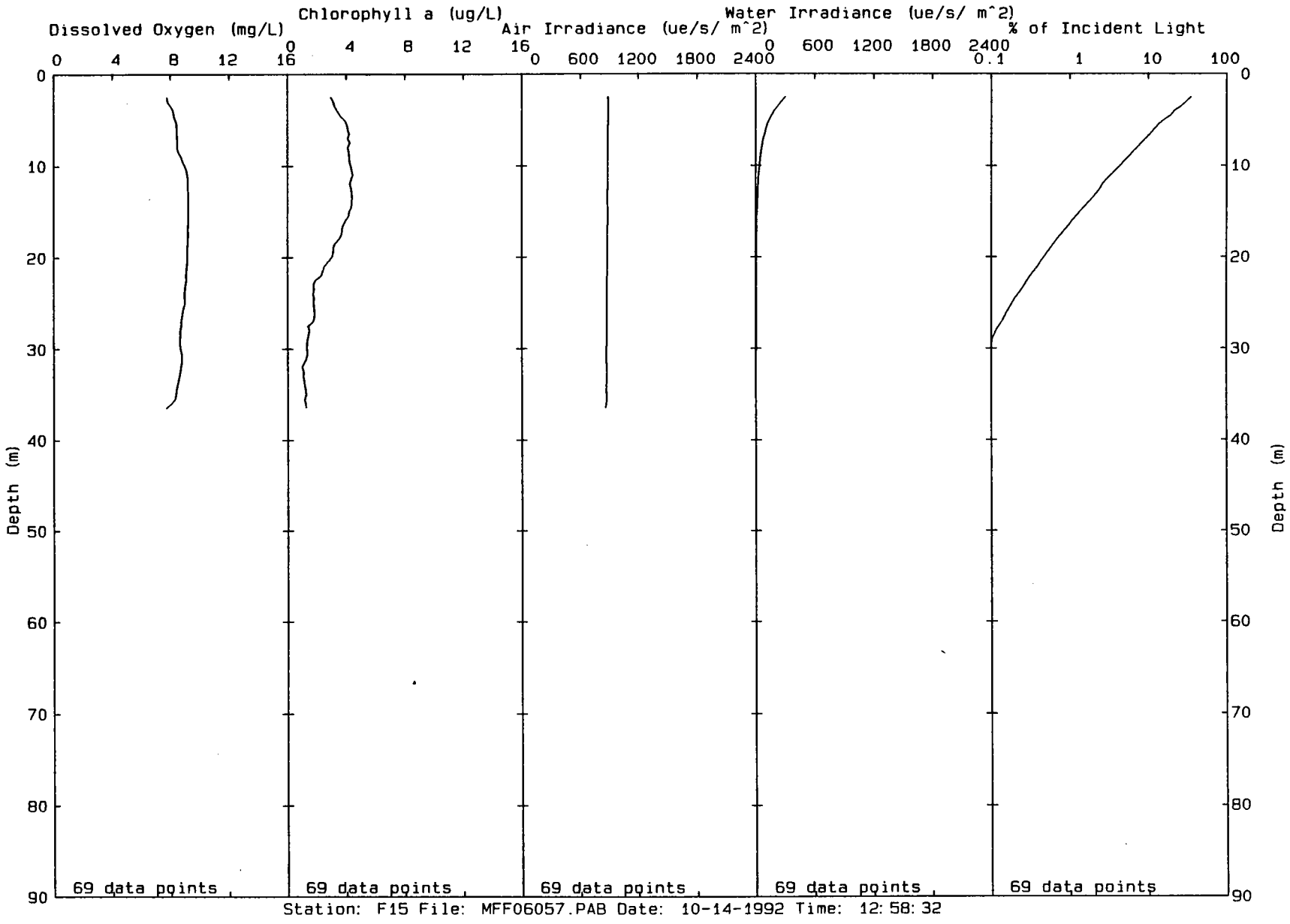
00212

01-07-1993 20:25:45 Battelle



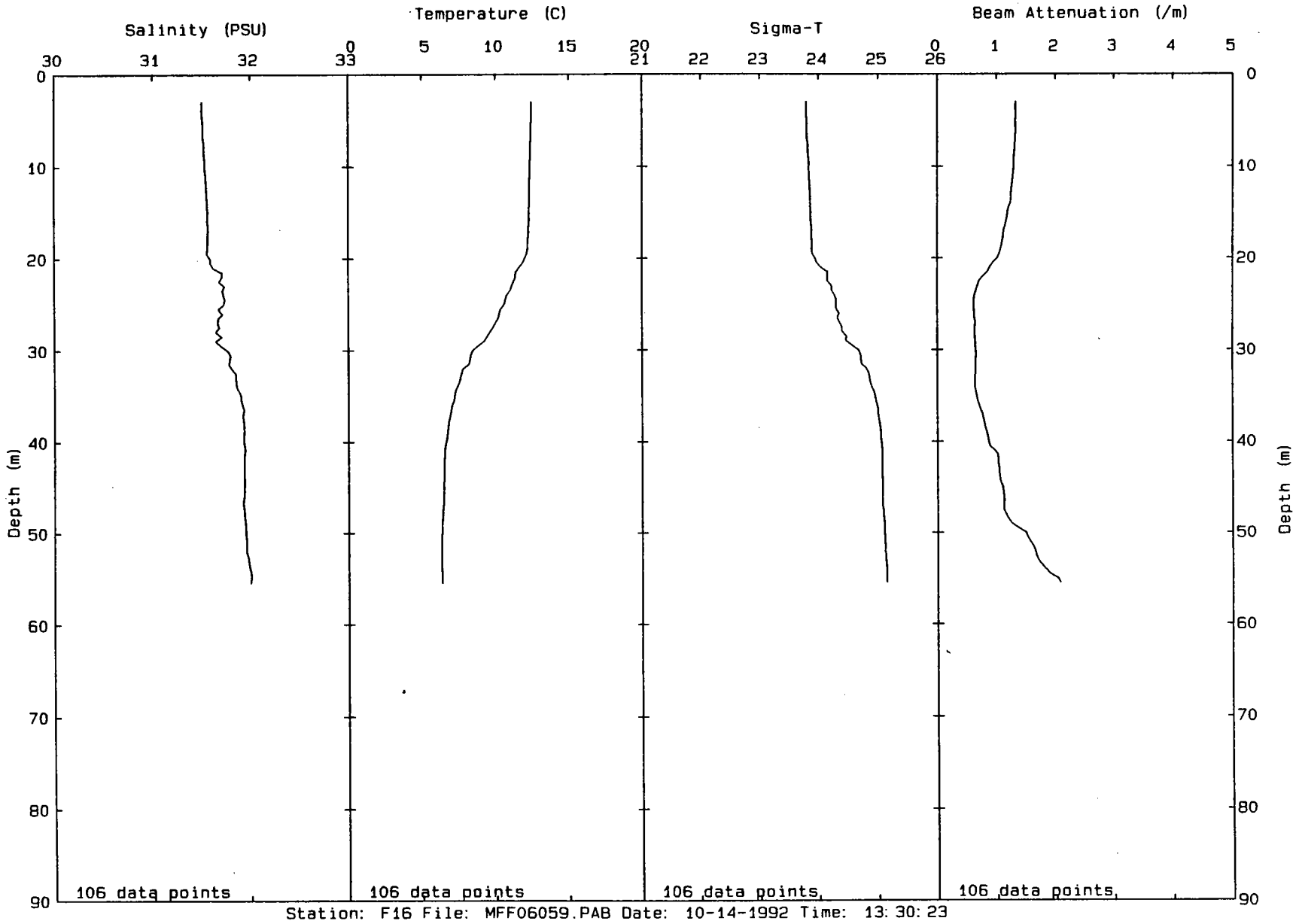
0213

01-07-1993 21:35:34 Battelle



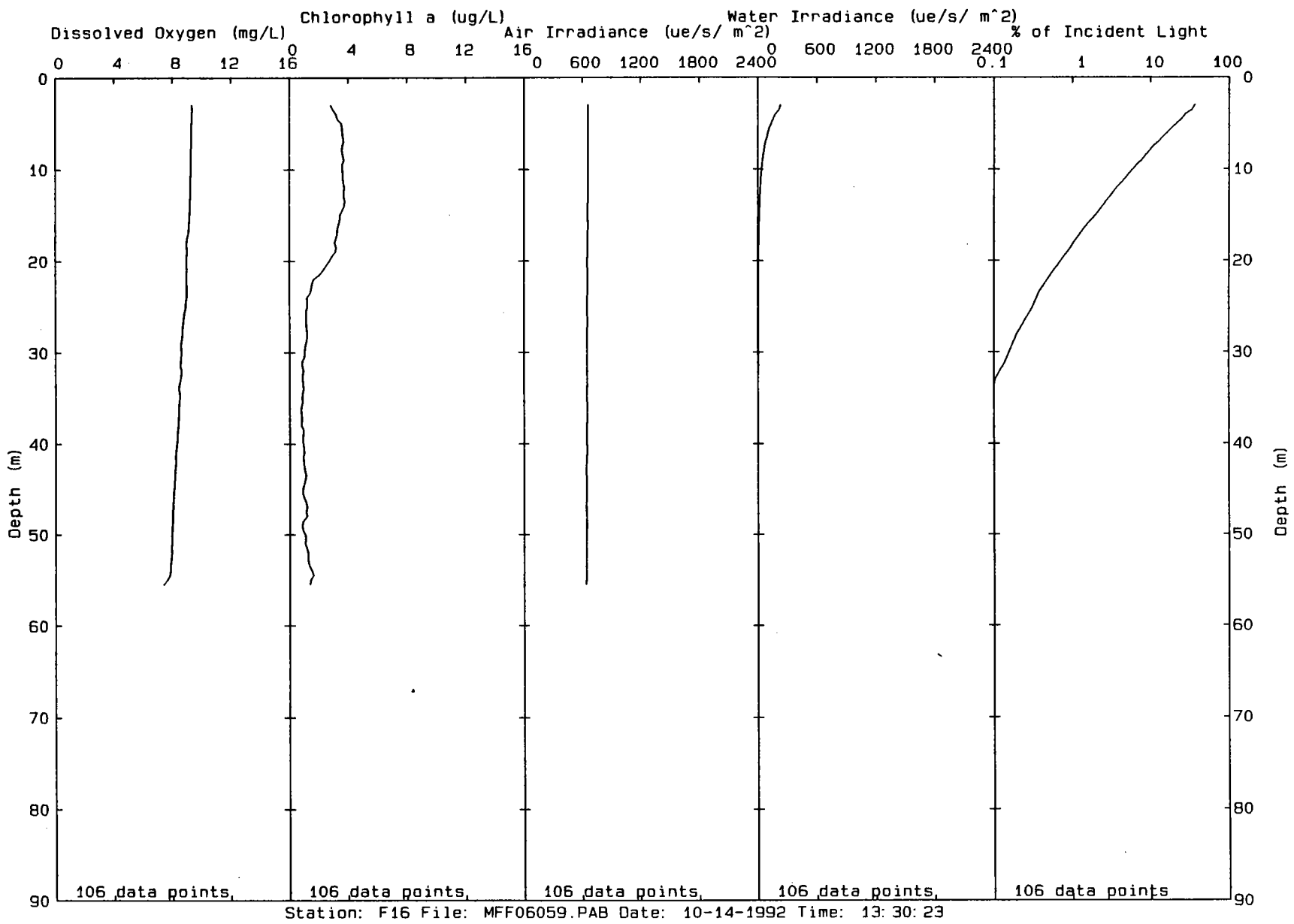
00214

01-07-1993 20:25:51 Battelle



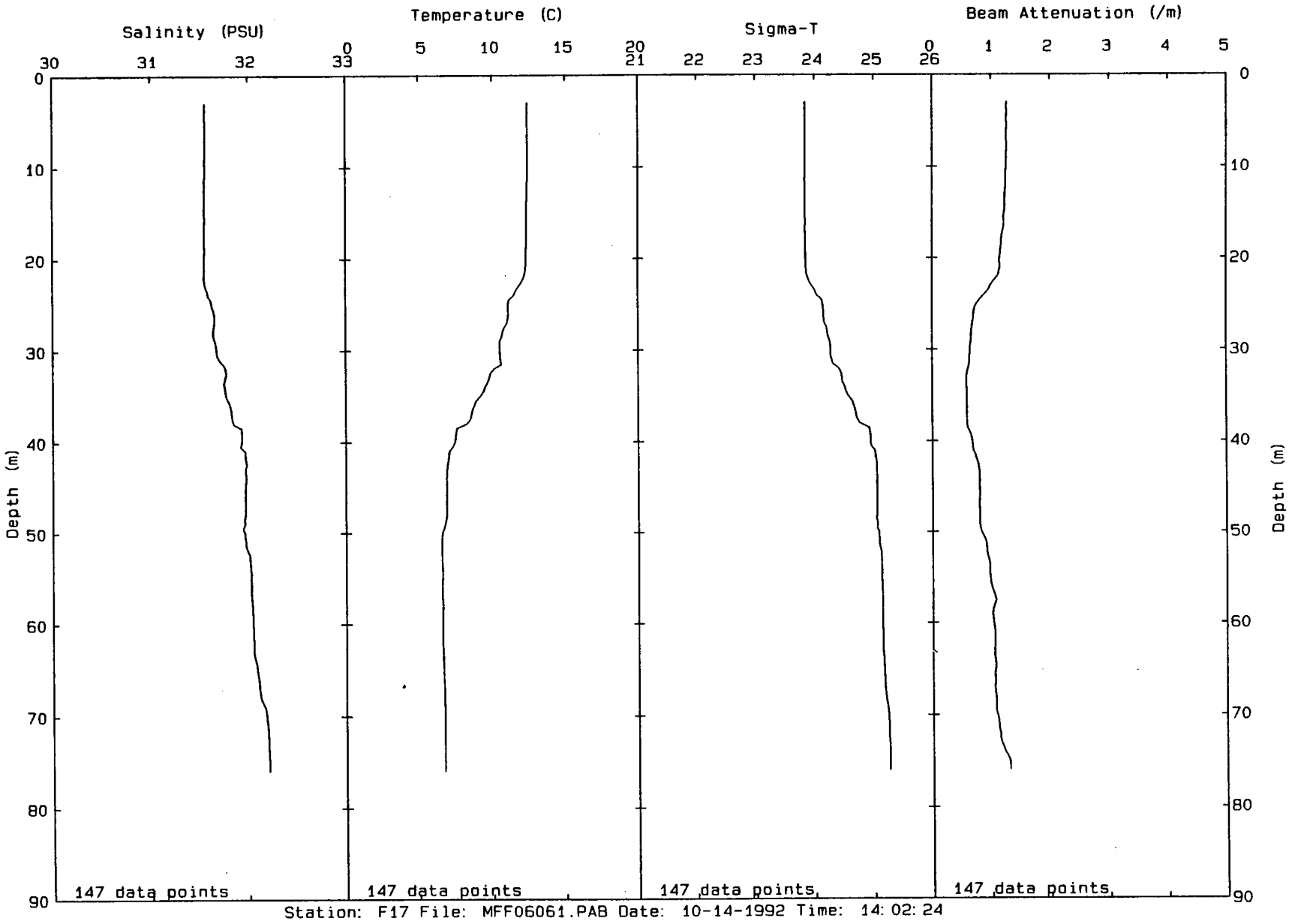
00215

01-07-1993 21:35:38 Battelle



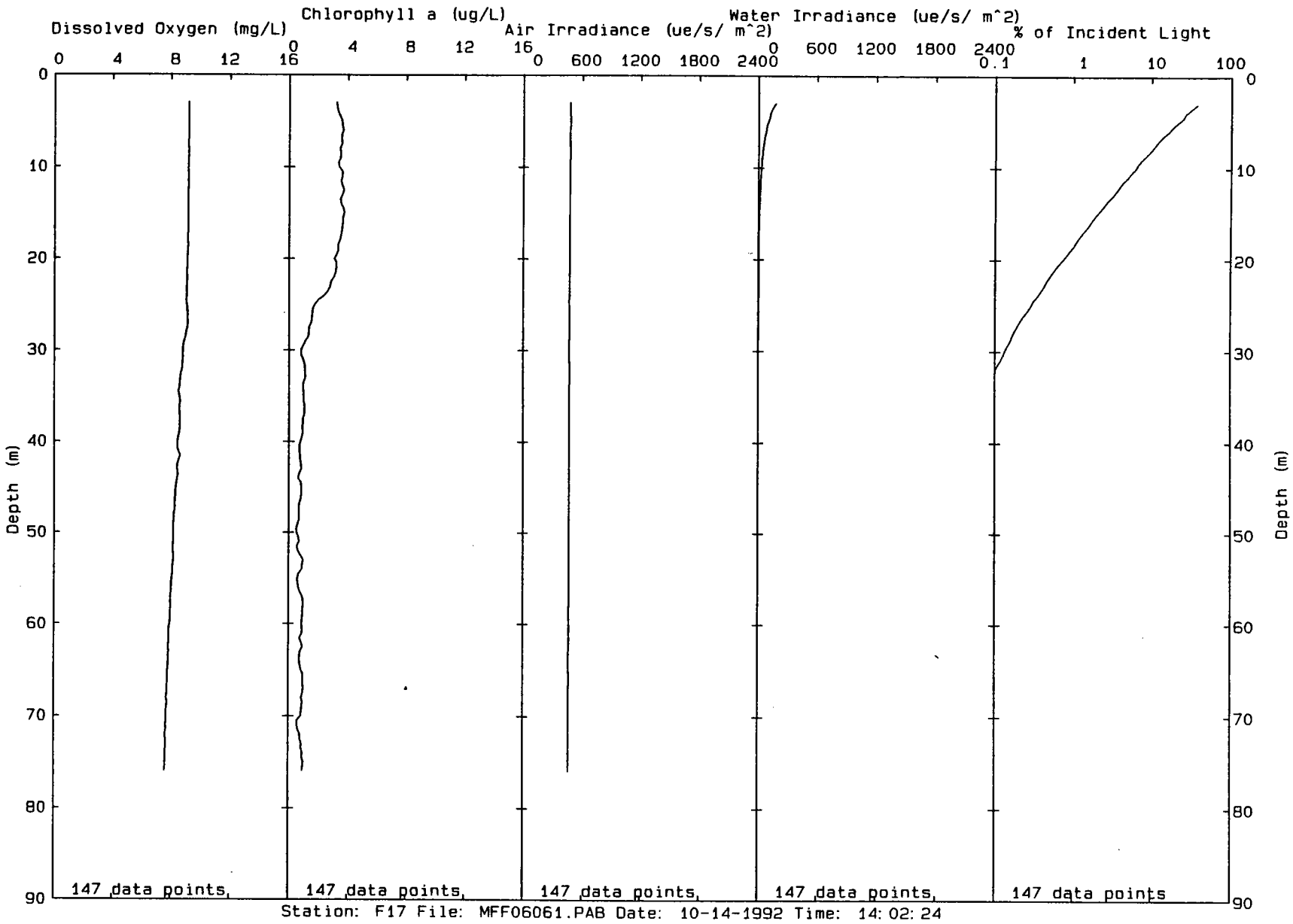
00216

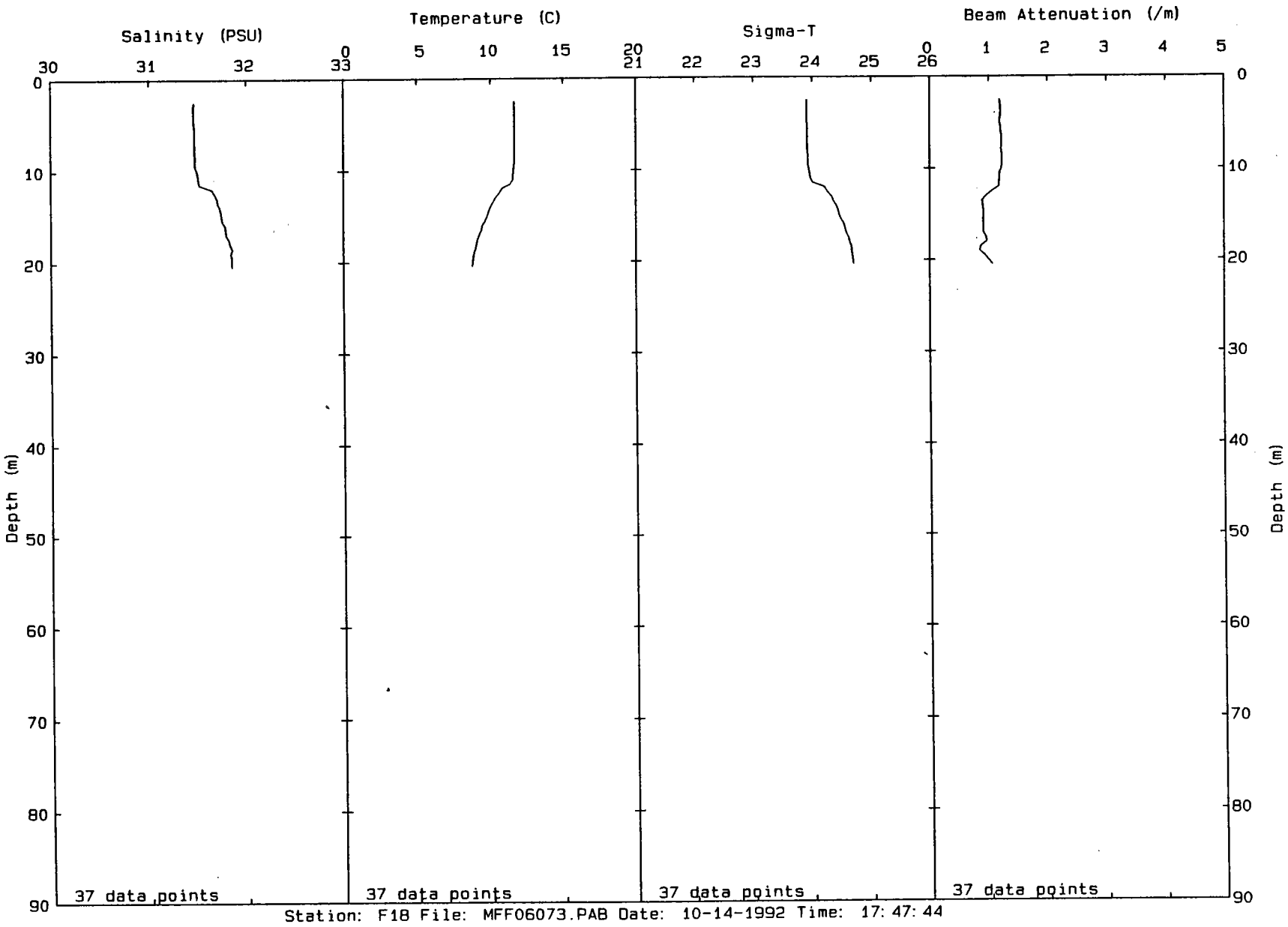
01-07-1993 20:25:57 Battelle

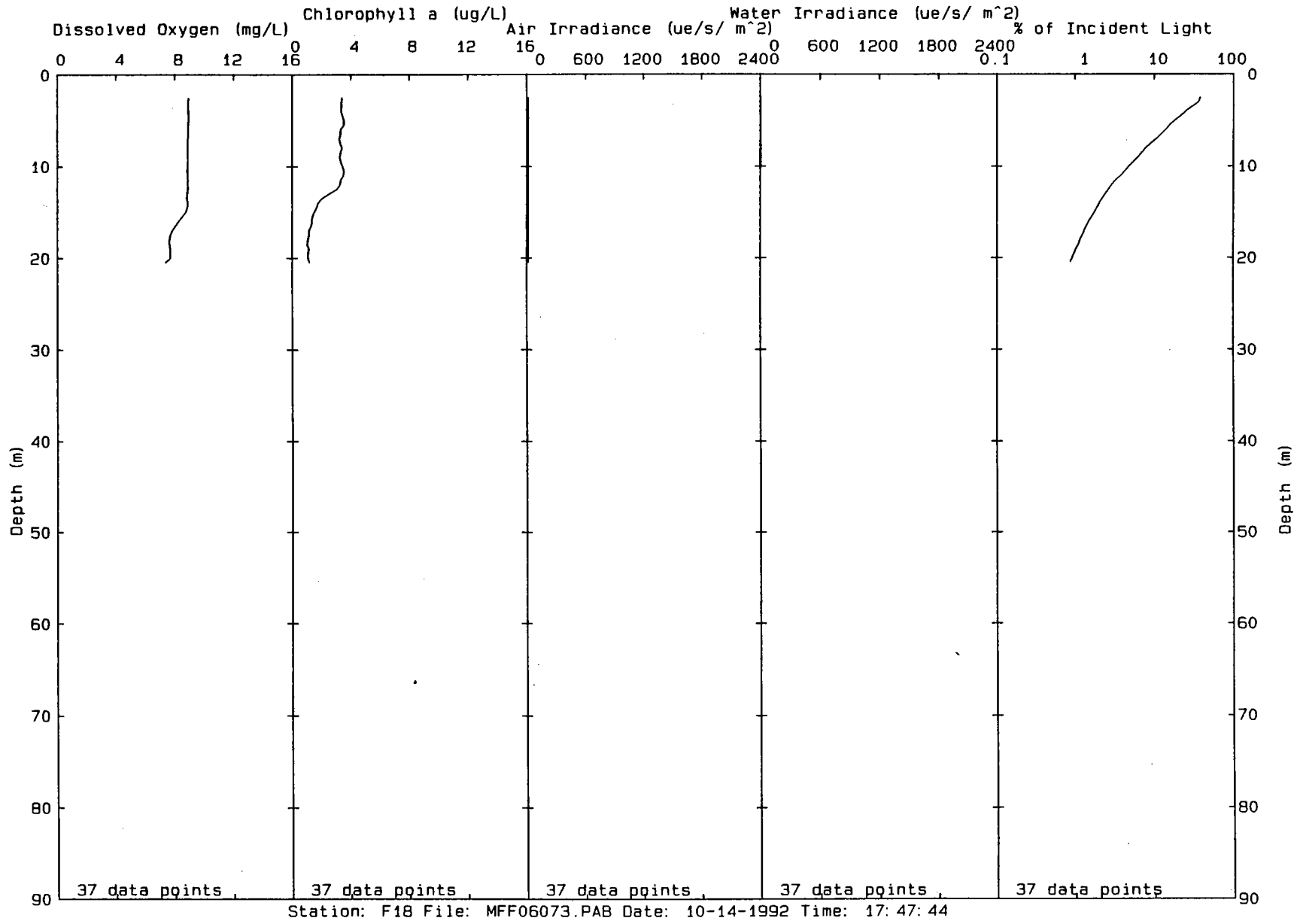


0217

01-07-1993 21:35:45 Battelle

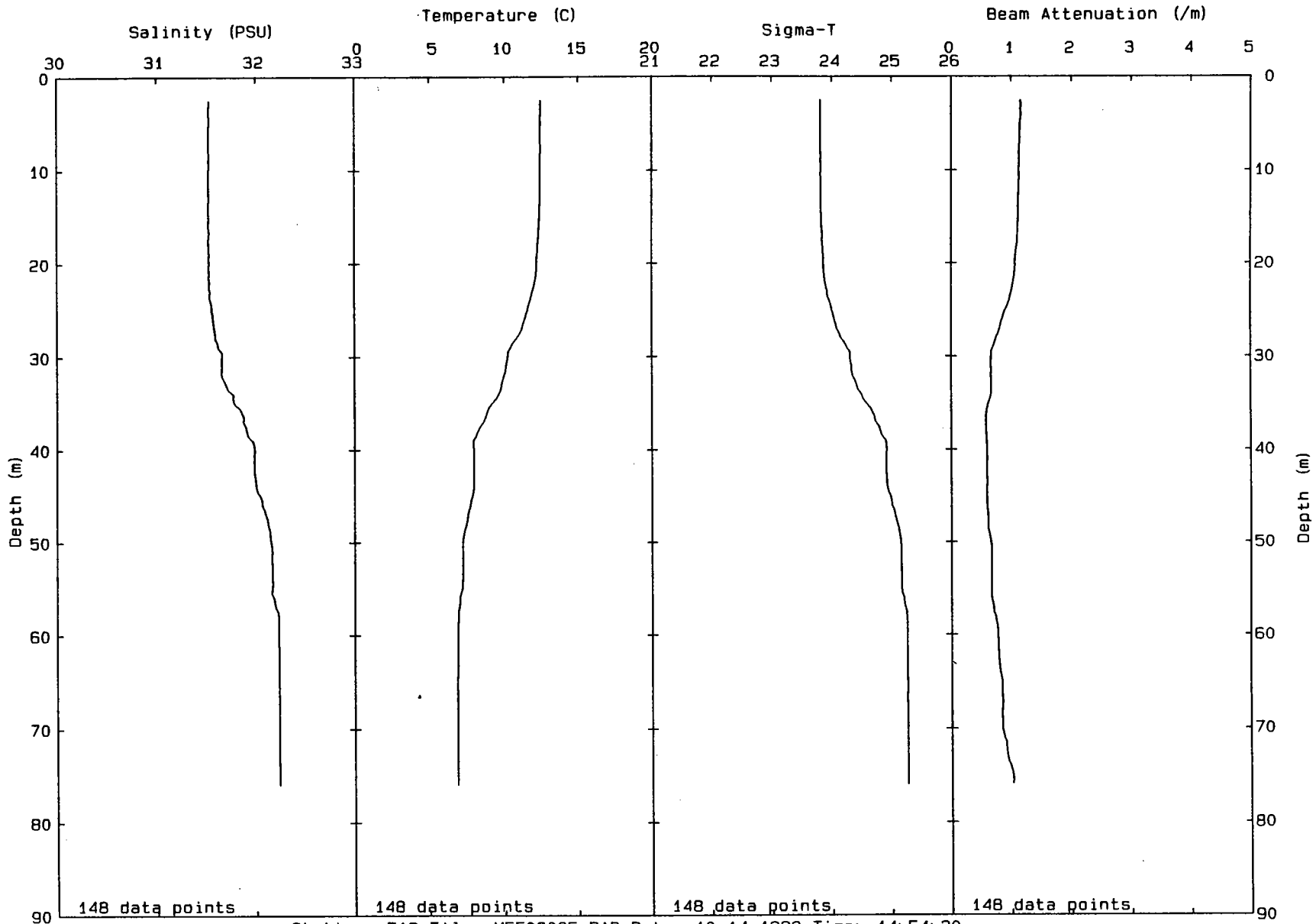

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
147 data points,
147 data points,
147 data points,
147 data points,
147 data points
Station: F17 File: MFF06061.PAB Date: 10-14-1992 Time: 14:02:24

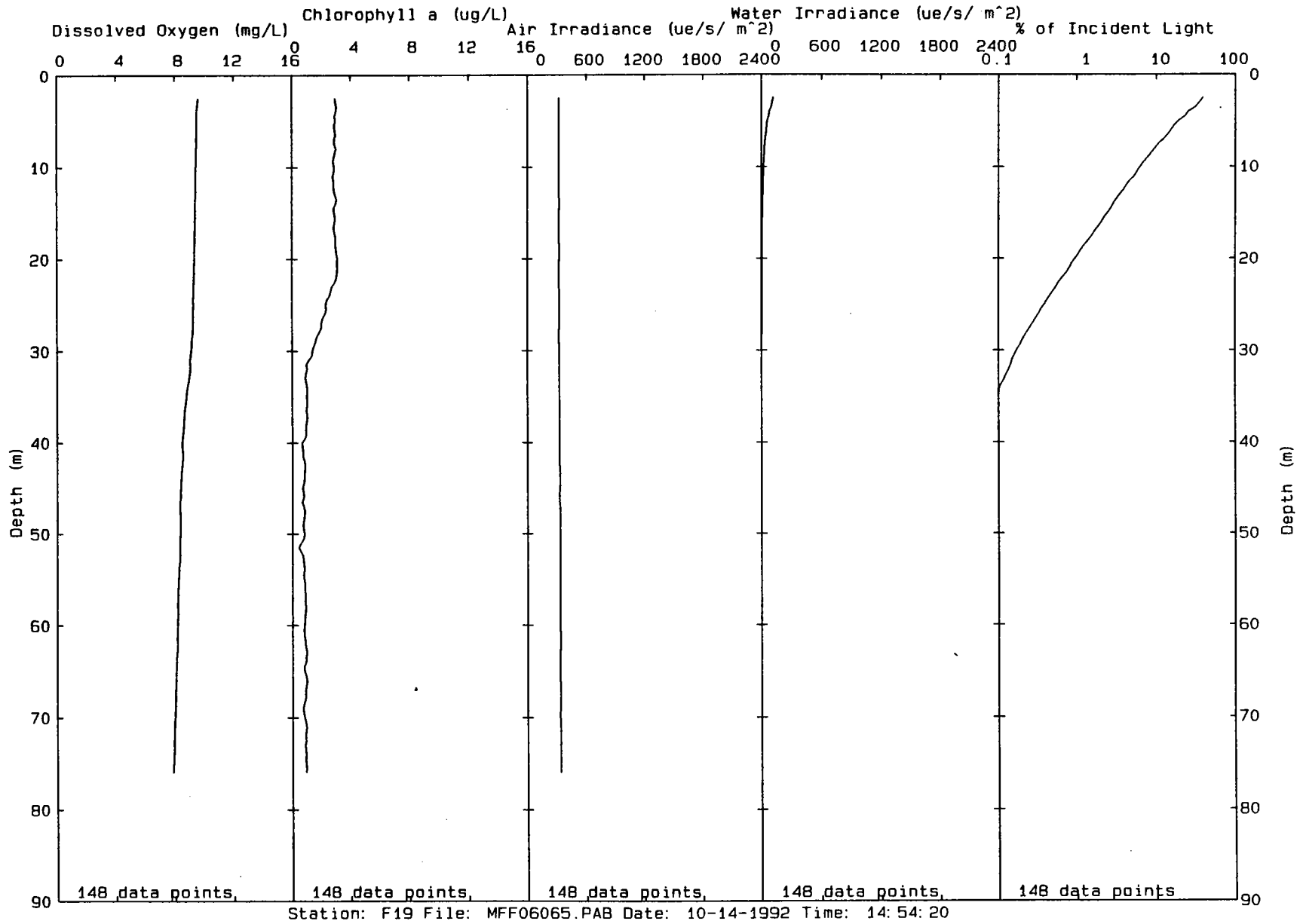

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
37 data points
37 data points
37 data points
37 data points
Station: F18 File: MFF06073.PAB Date: 10-14-1992 Time: 17:47:44



00220

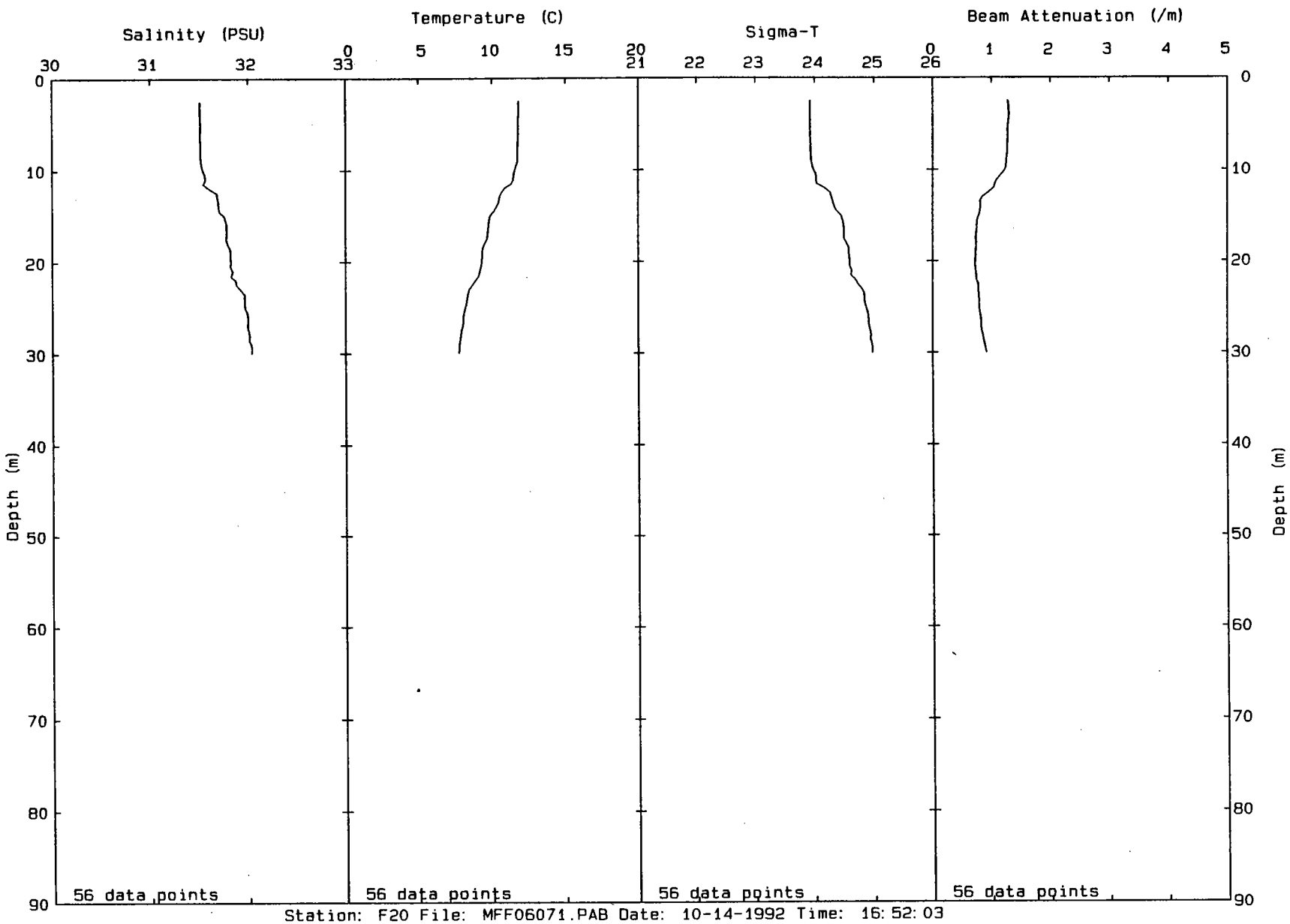
01-07-1993 20:26:31 Battelle

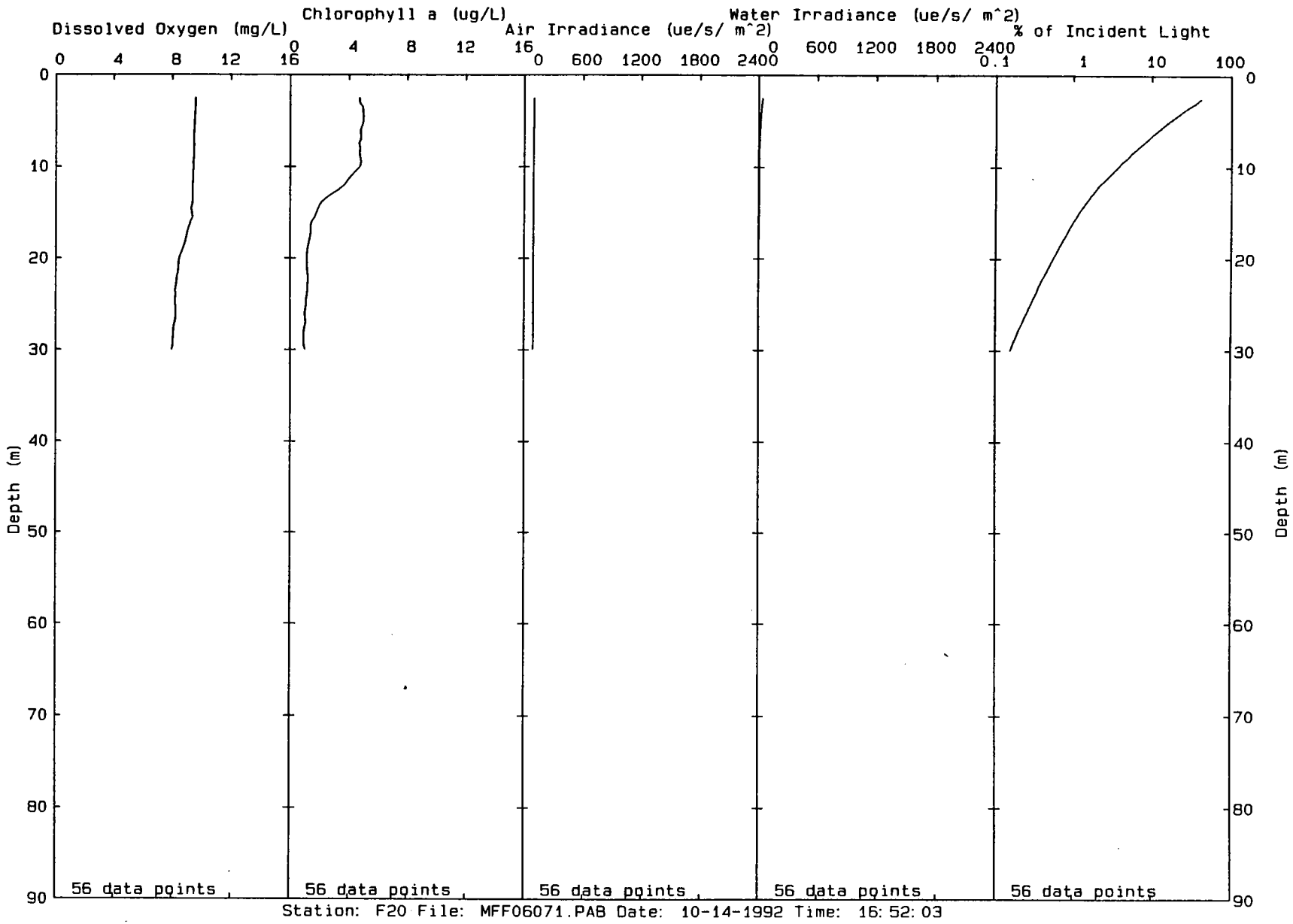

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
148 data points
148 data points
148 data points
148 data points
Station: F19 File: MFF06065.PAB Date: 10-14-1992 Time: 14:54:20

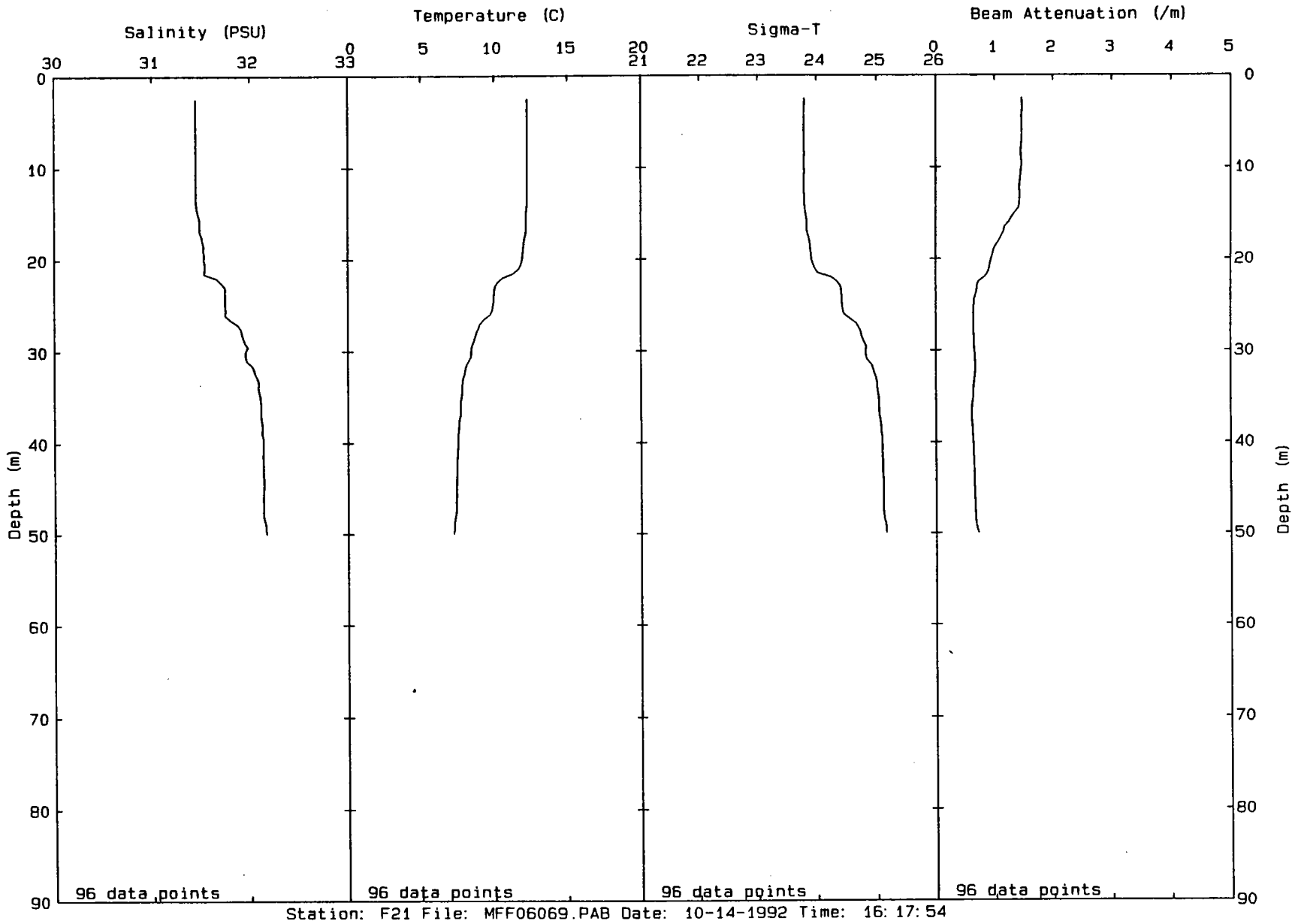


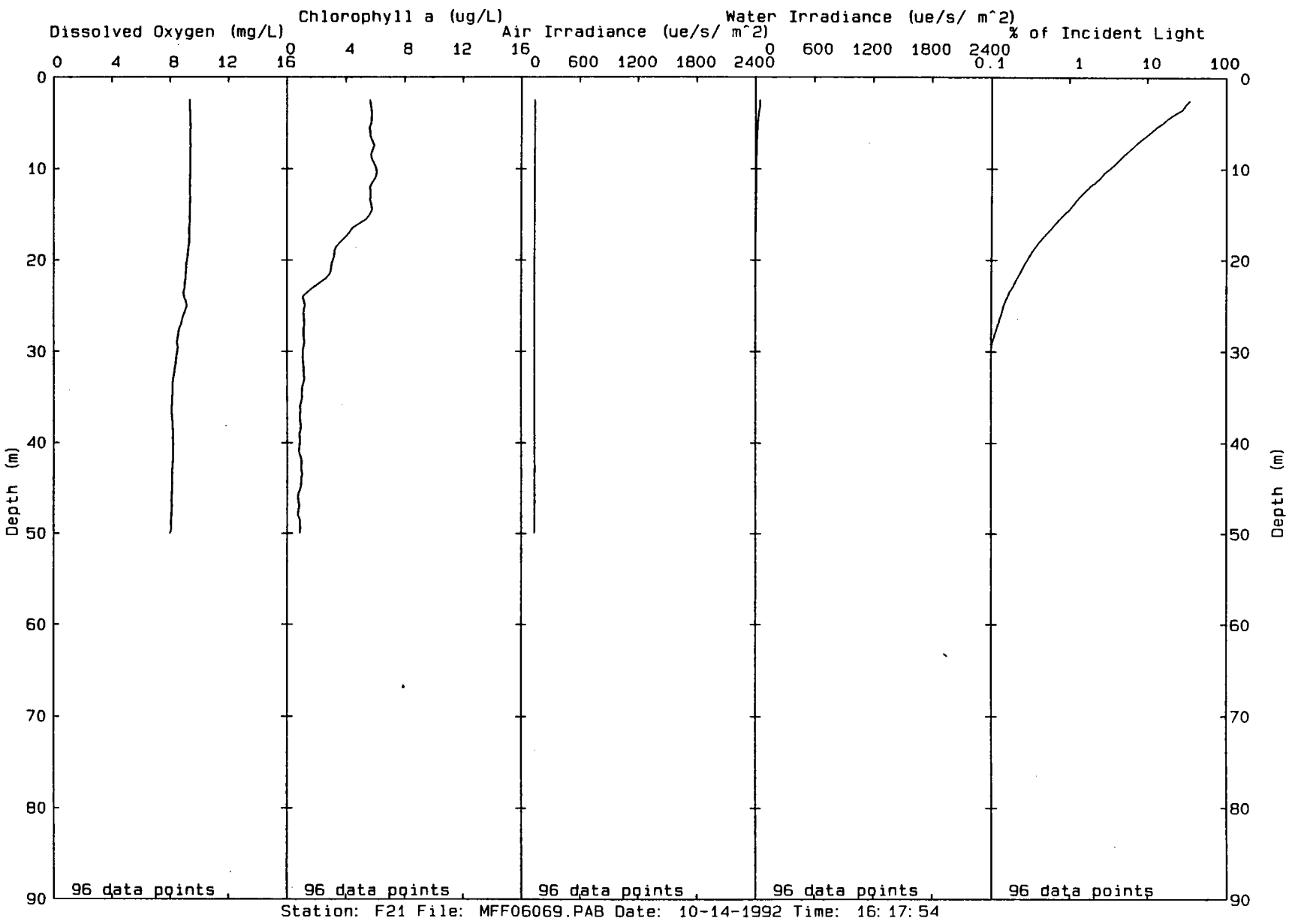
00222

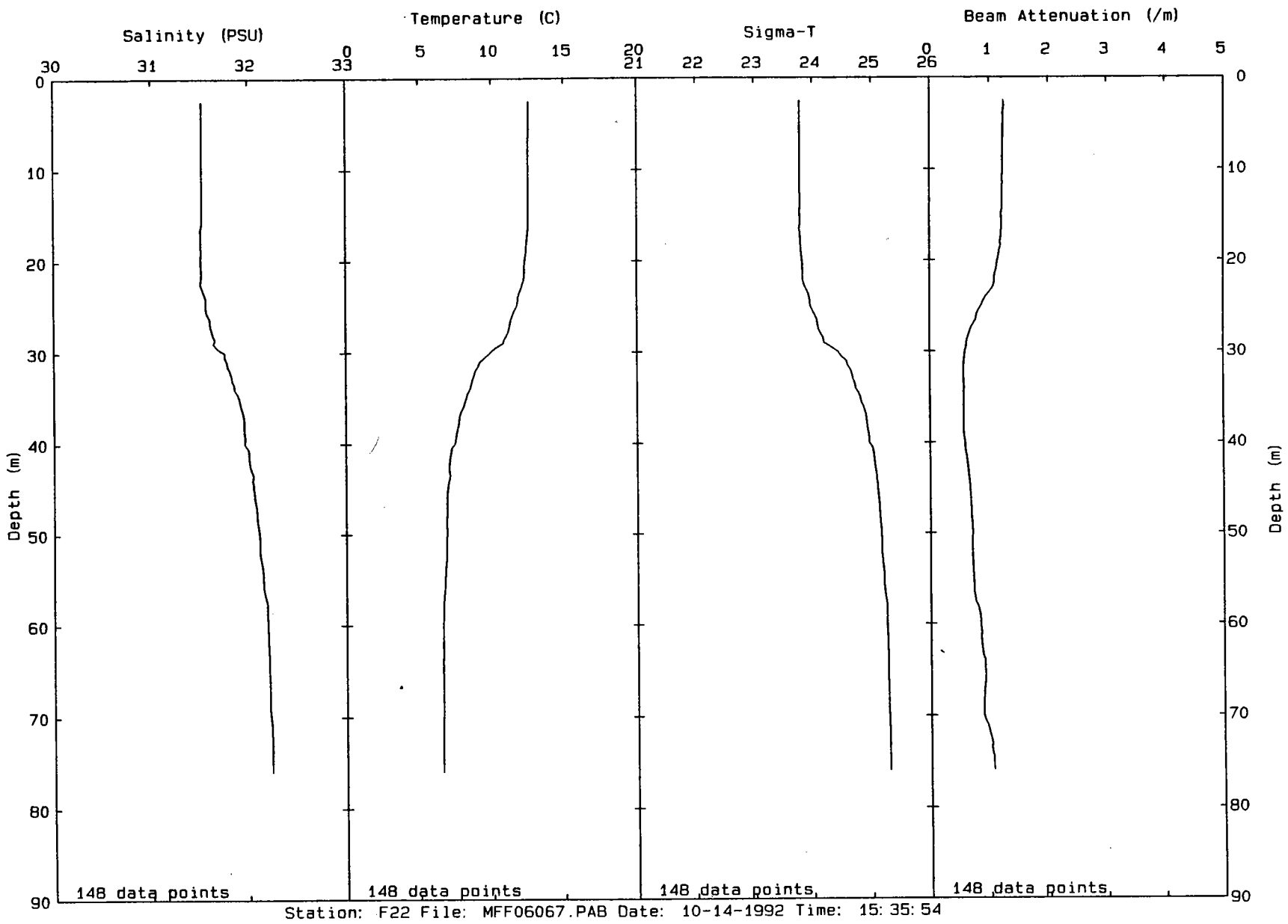
01-07-1993 20:26:11 Battelle


Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
56 data points
56 data points
56 data points
56 data points
Station: F20 File: MFF06071.PAB Date: 10-14-1992 Time: 16:52:03


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
56 data points
56 data points
56 data points
56 data points
56 data points
Station: F20 File: MFF06071.PAB Date: 10-14-1992 Time: 16:52:03

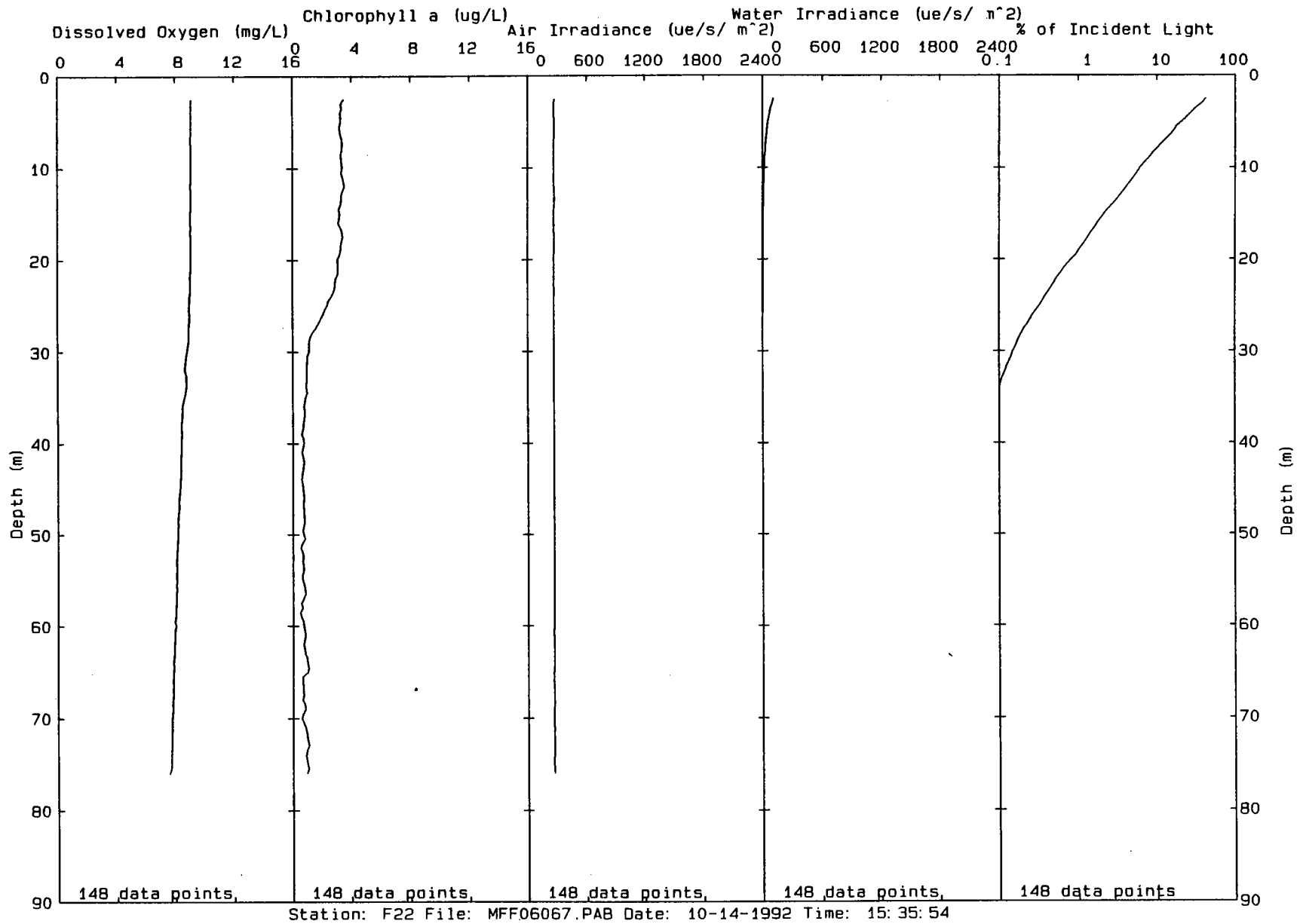

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
96 data points
96 data points
96 data points
96 data points
Station: F21 File: MFF06069.PAB Date: 10-14-1992 Time: 16: 17: 54

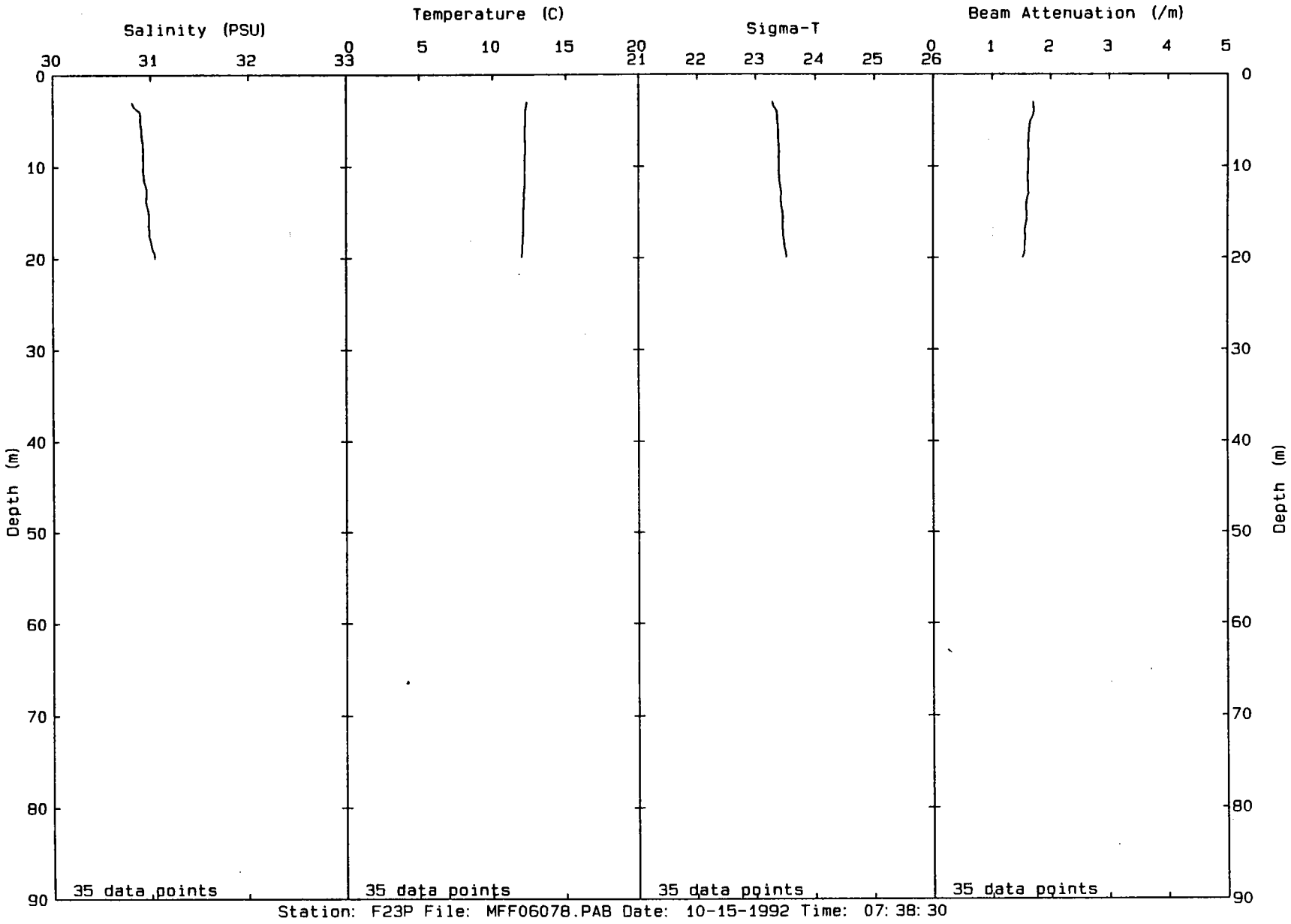

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
96 data points
96 data points
96 data points
96 data points
96 data points
Station: F21 File: MFF06069.PAB Date: 10-14-1992 Time: 16:17:54

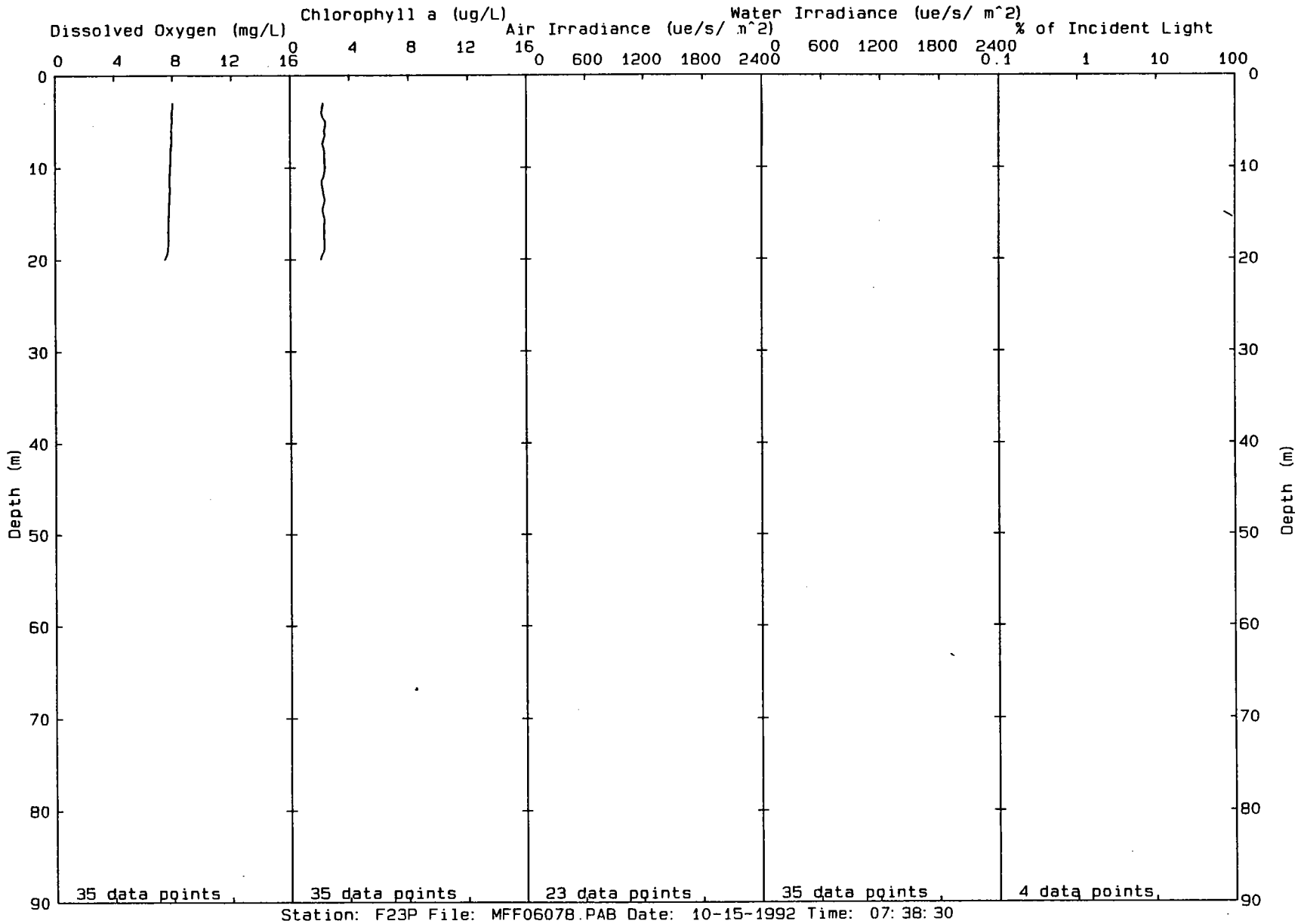


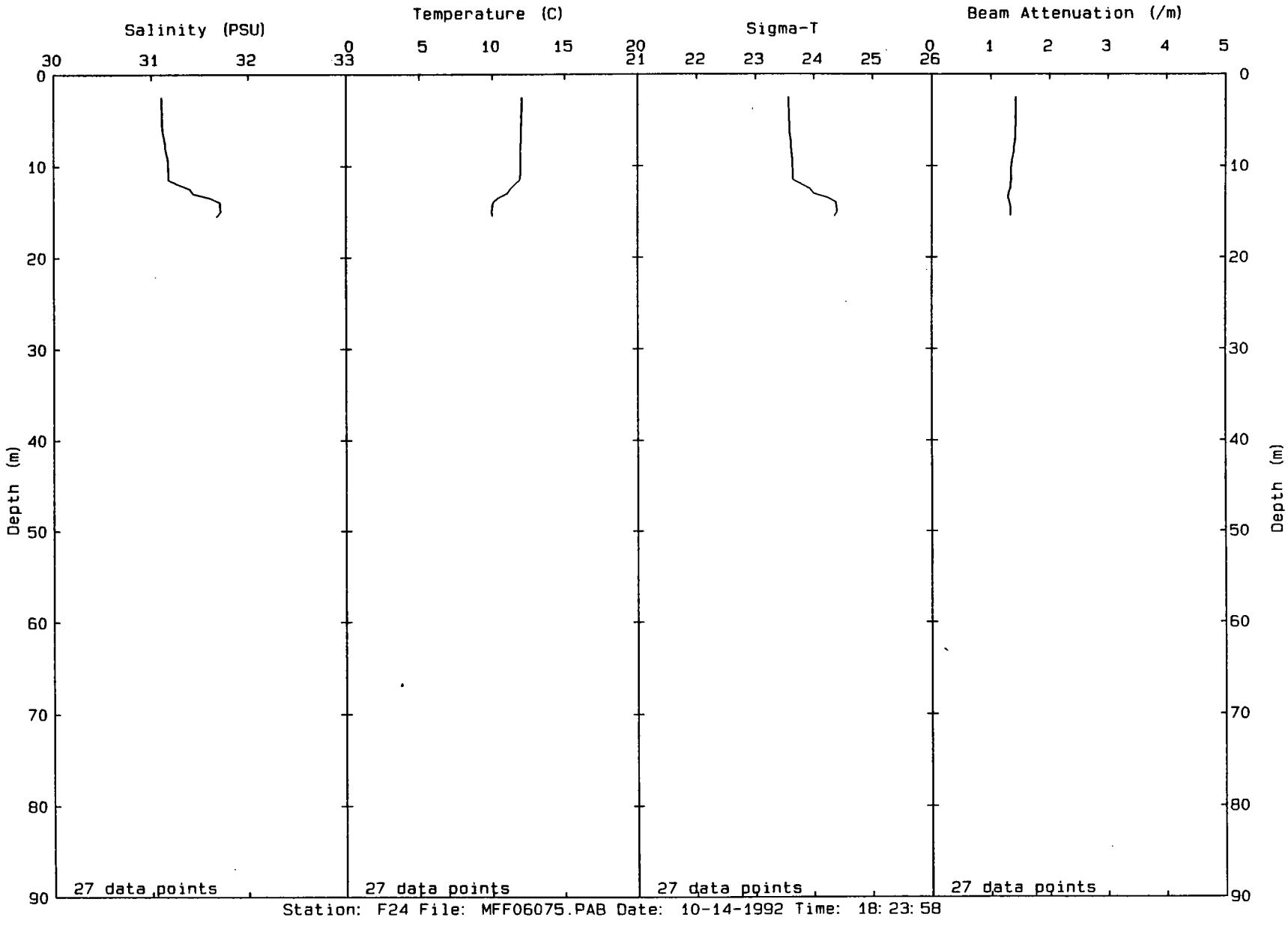
02227

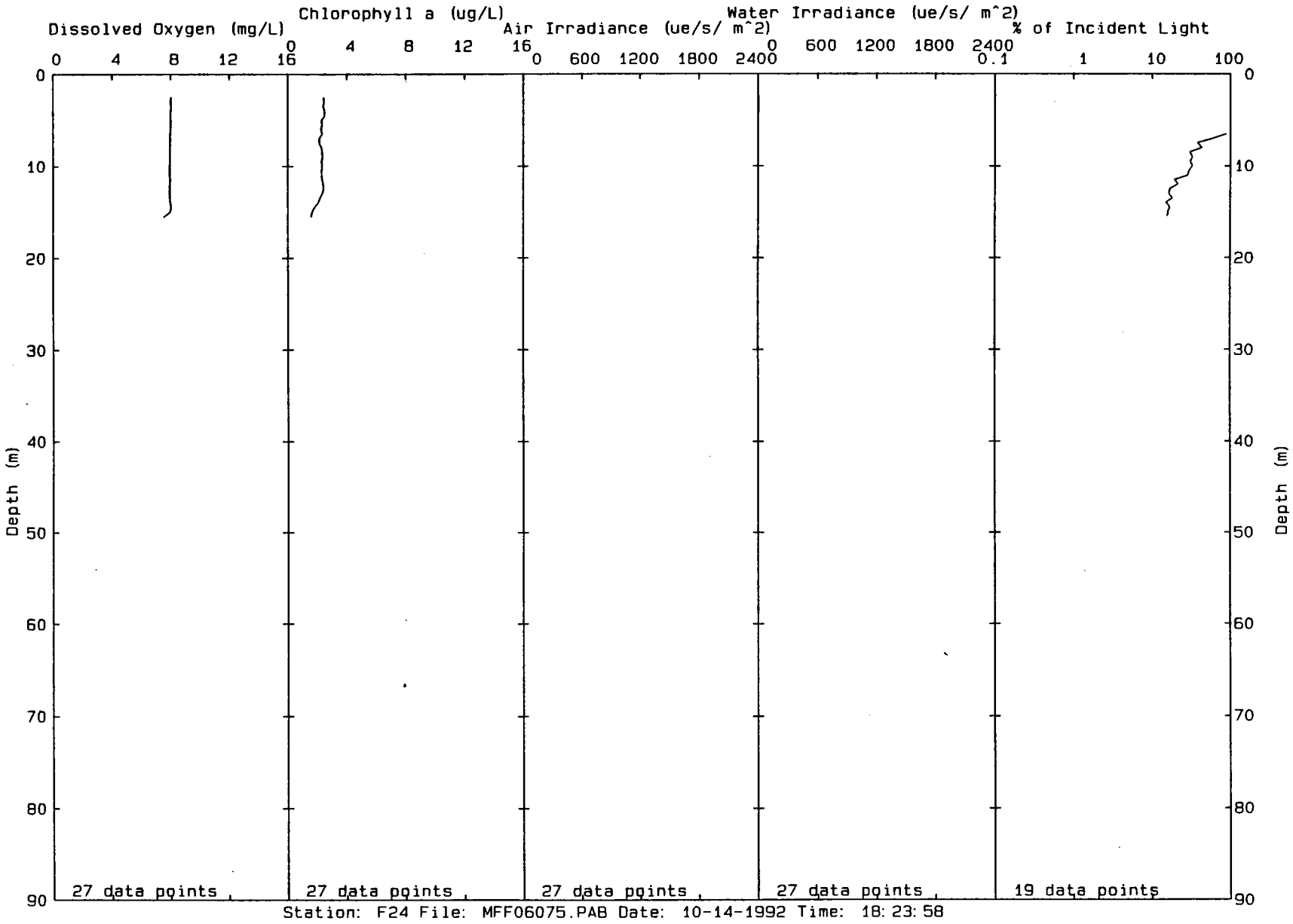
01-07-1993 21:35:57 Battelle


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
148 data points,
148 data points,
148 data points,
148 data points,
148 data points
Station: F22 File: MFF06067.PAB Date: 10-14-1992 Time: 15:35:54


Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
35 data points
35 data points
35 data points
35 data points
Station: F23P File: MFF06078.PAB Date: 10-15-1992 Time: 07:38:30

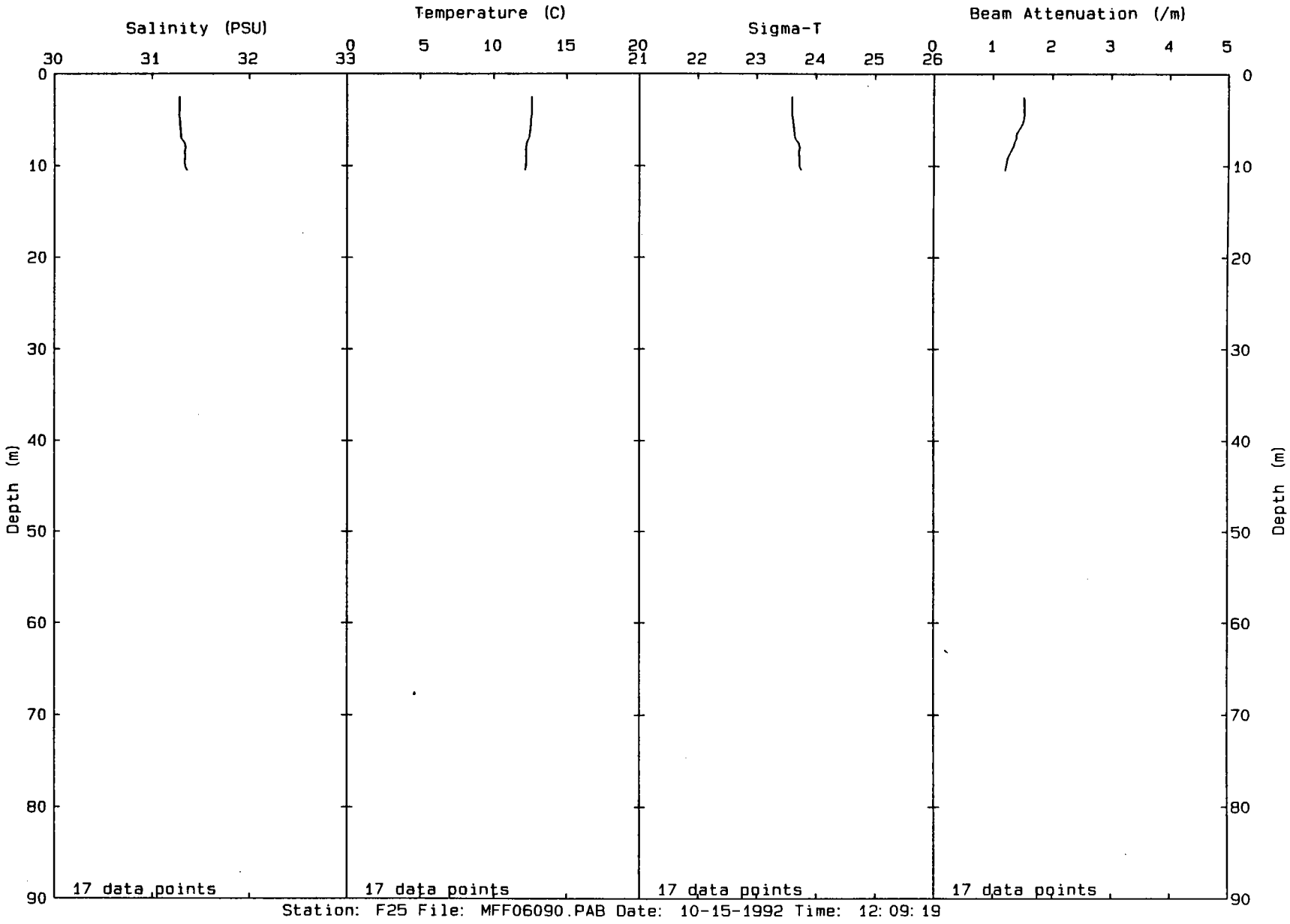

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
35 data points
35 data points
23 data points
35 data points
4 data points
Station: F23P File: MFF06078.PAB Date: 10-15-1992 Time: 07:38:30

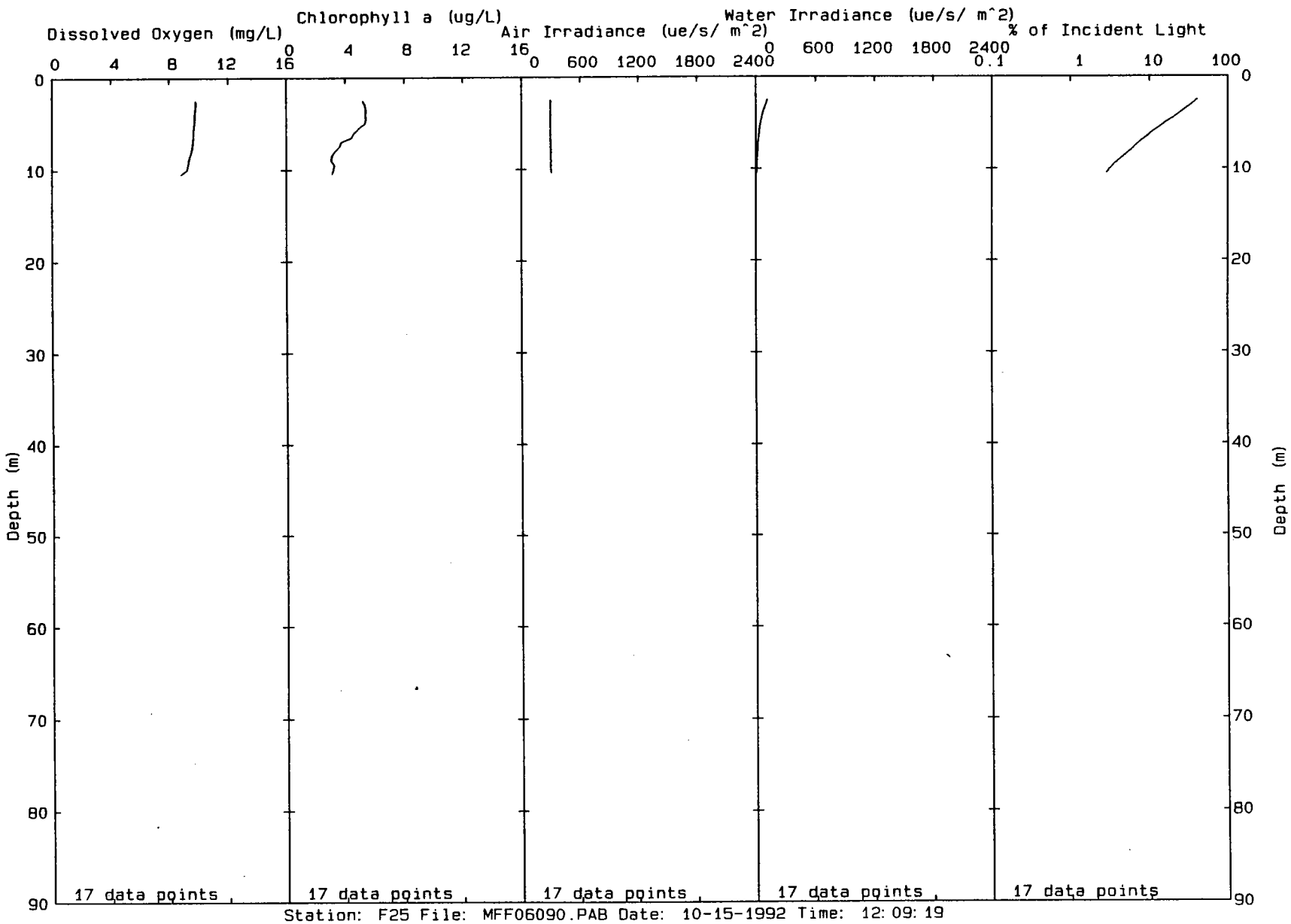

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
Beam Attenuation (/m)
0
1
2
3
4
5
26
Depth (m)
0
10
20
30
40
50
60
70
80
90
27 data points
27 data points
27 data points
27 data points
Station: F24 File: MFF06075.PAB Date: 10-14-1992 Time: 18:23:58

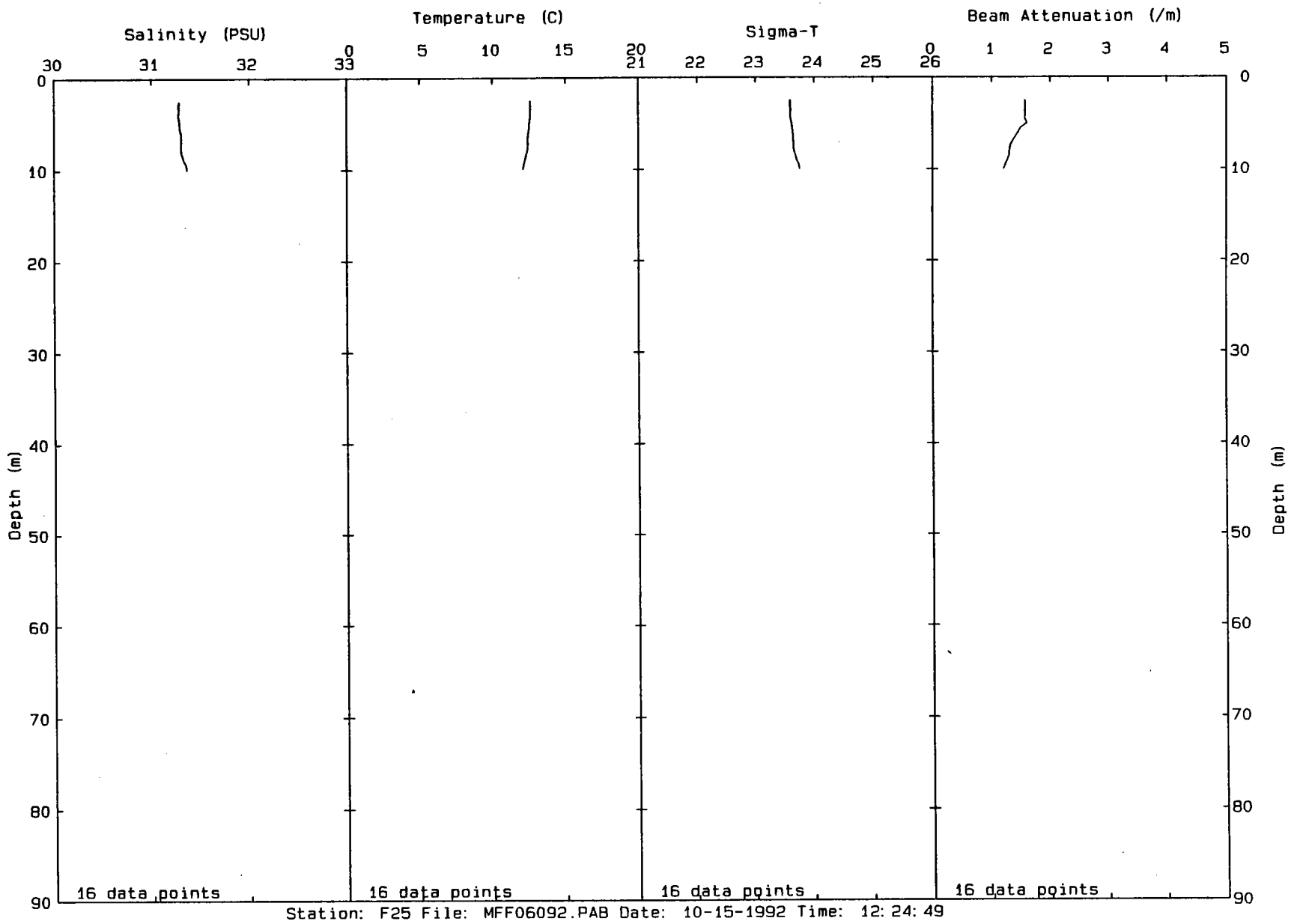


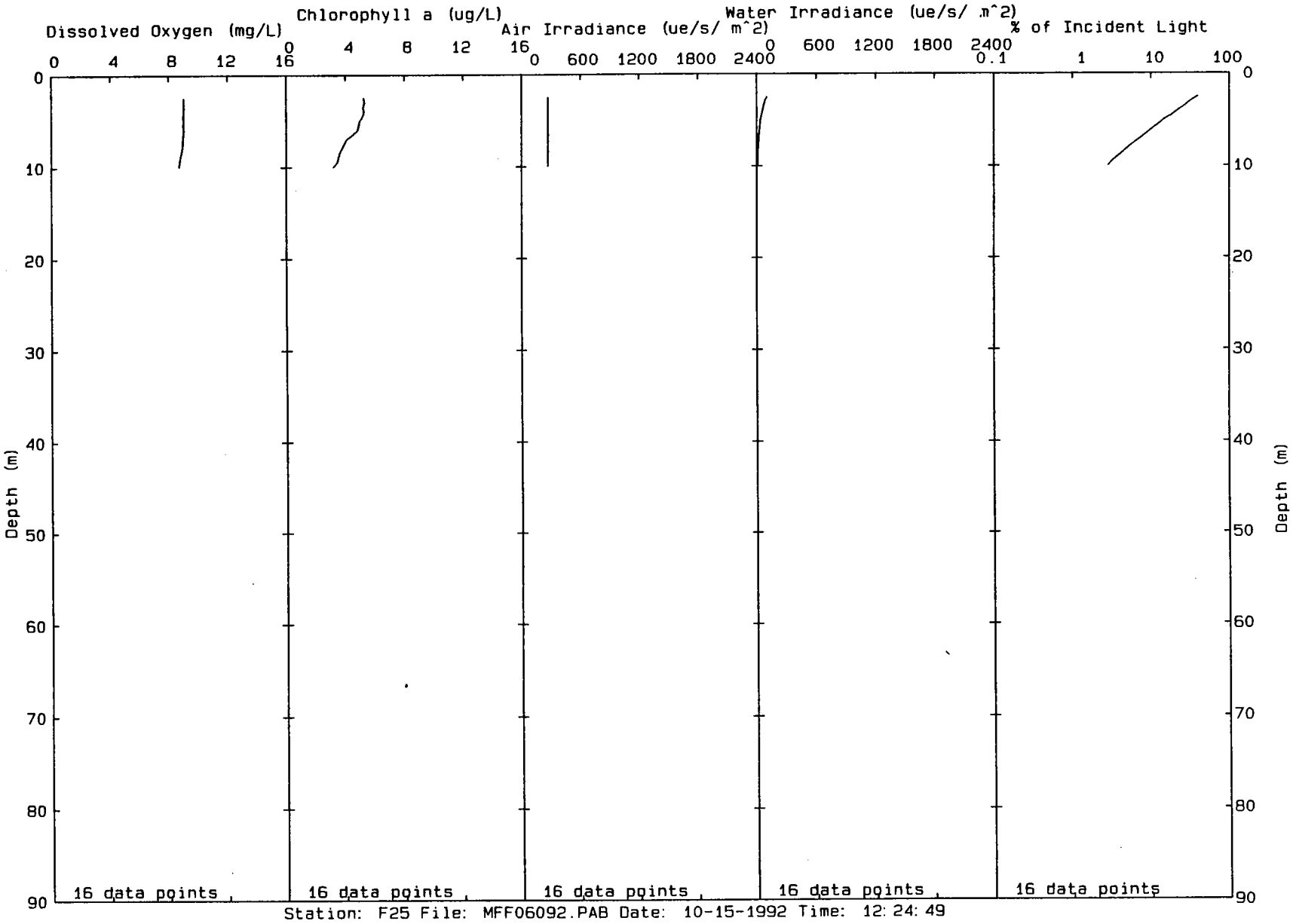
00232

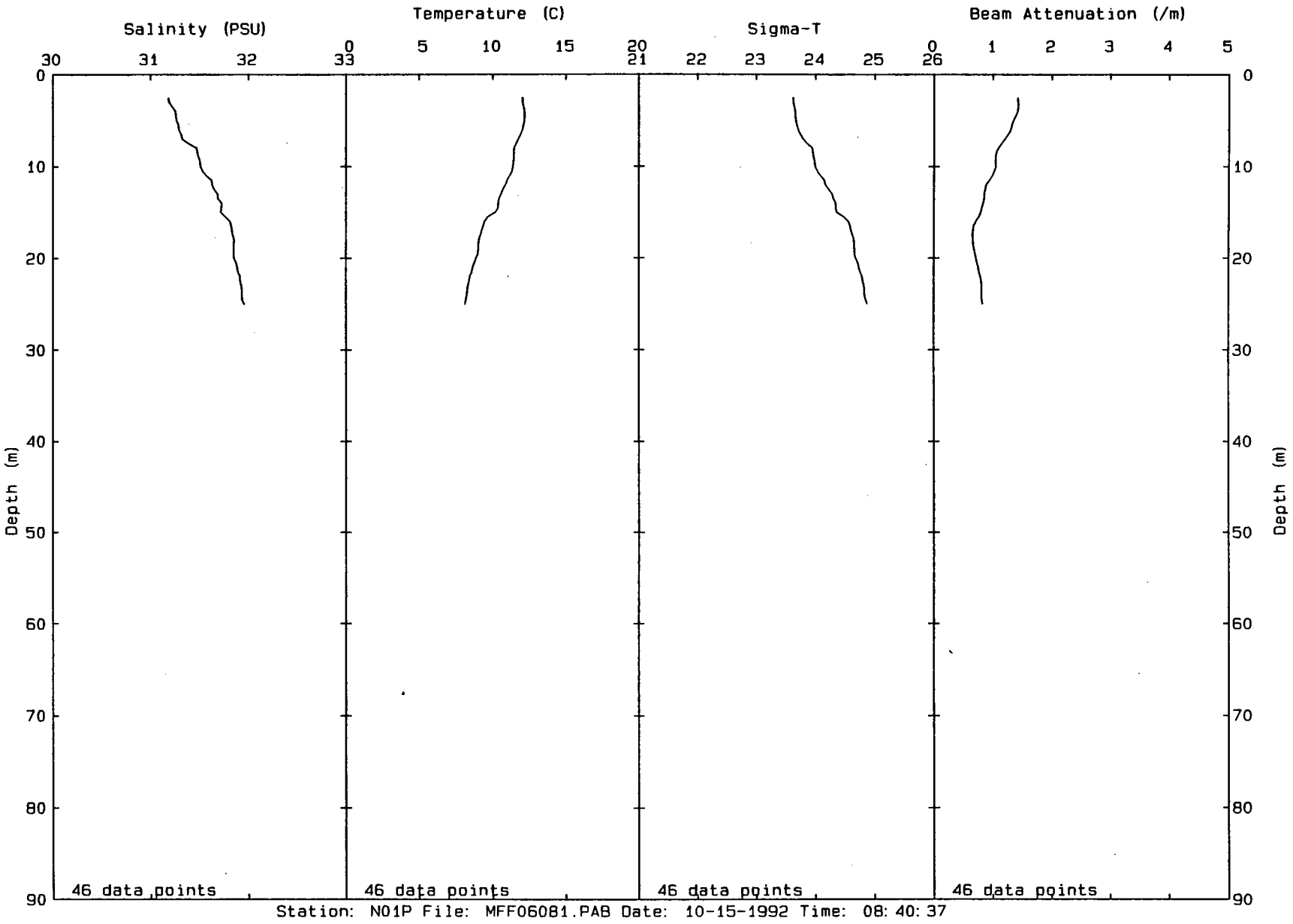
01-07-1993 20:26:33 Battelle

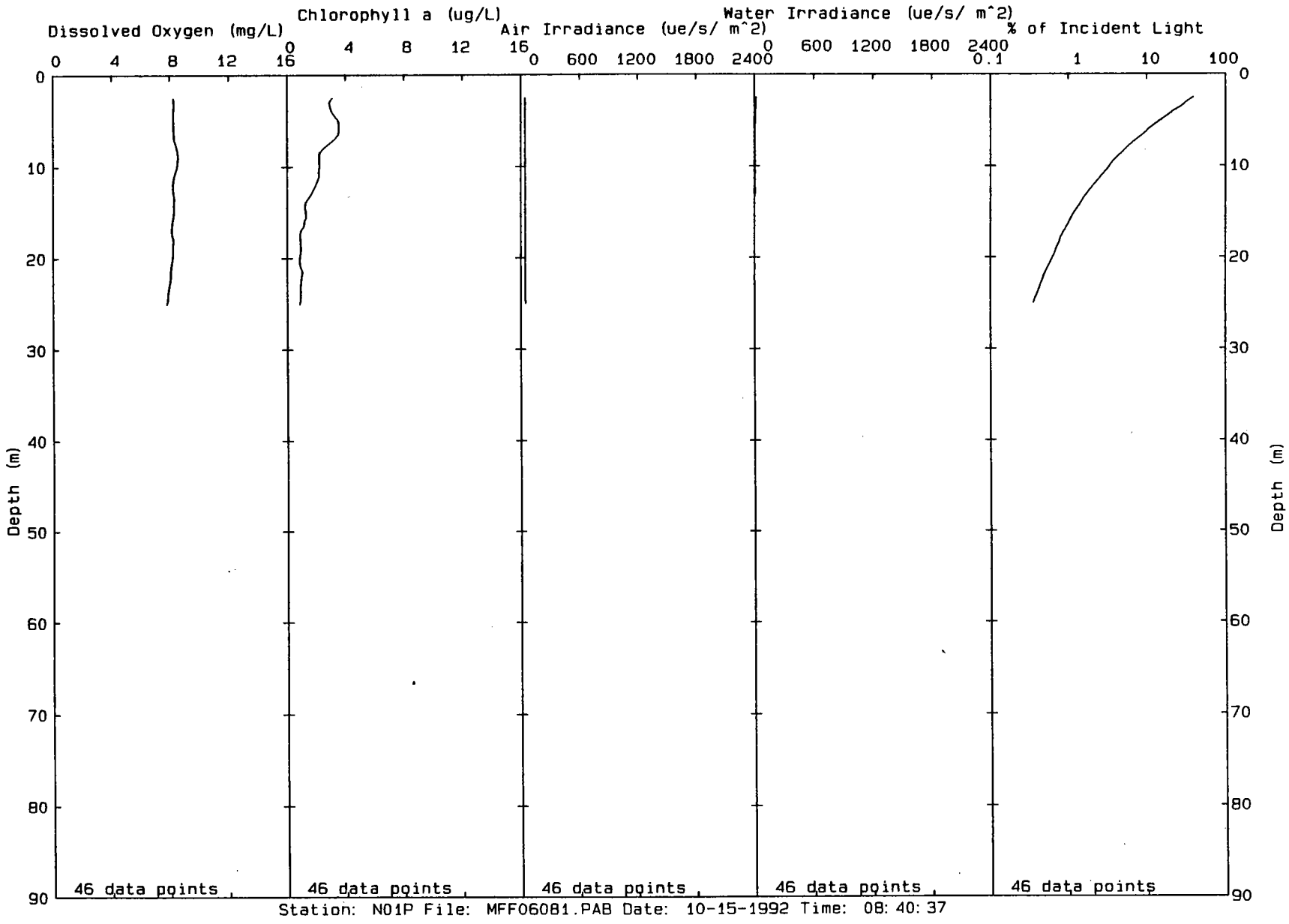

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
17 data points
17 data points
17 data points
17 data points
Station: F25 File: MFF06090.PAB Date: 10-15-1992 Time: 12:09:19


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
17 data points
17 data points
17 data points
17 data points
17 data points
Station: F25 File: MFF06090.PAB Date: 10-15-1992 Time: 12:09:19


Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
16 data points
16 data points
16 data points
16 data points
Station: F25 File: MFF06092.PAB Date: 10-15-1992 Time: 12:24:49

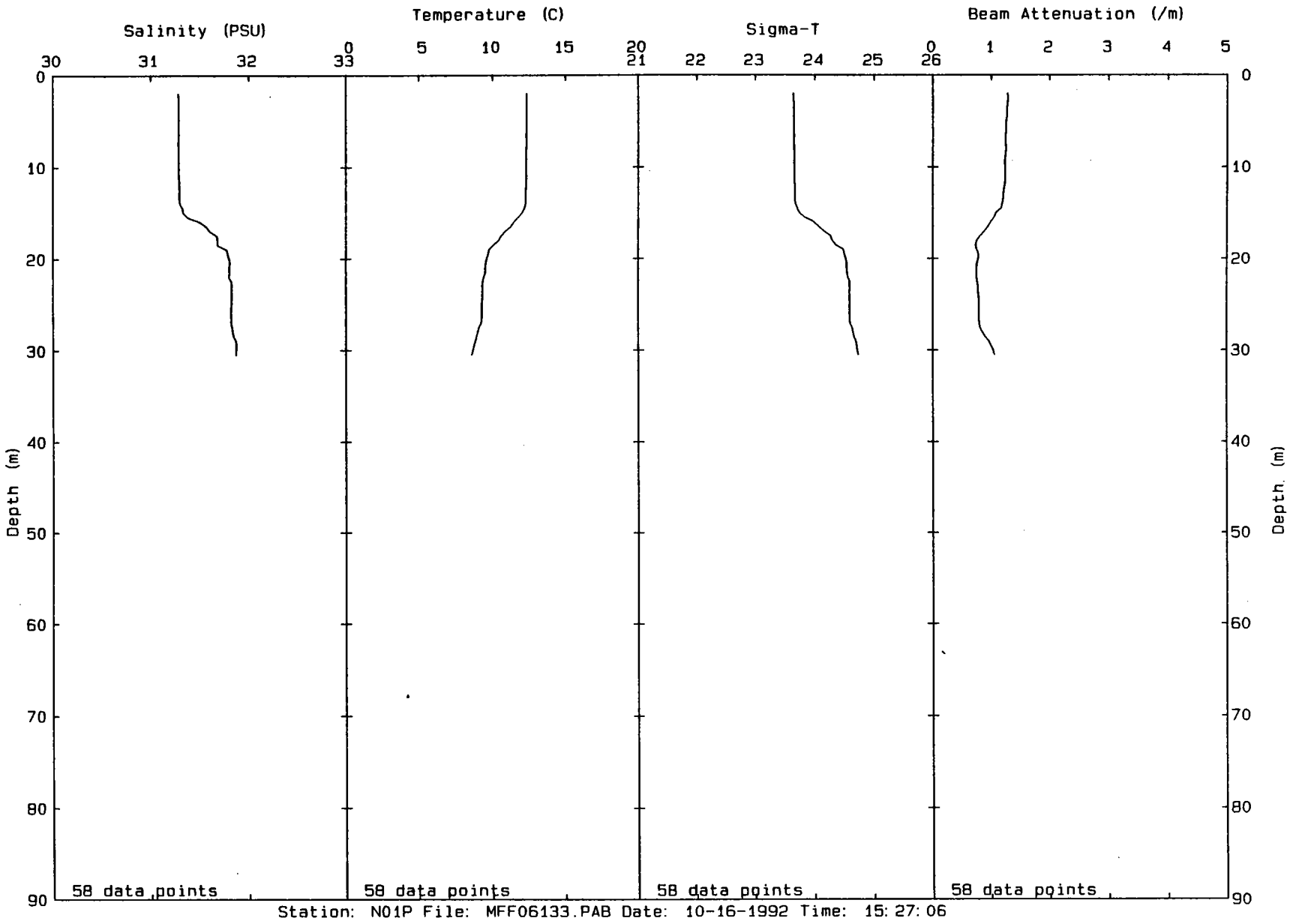

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
16 data points
16 data points
16 data points
16 data points
16 data points
Station: F25 File: MFF06092.PAB Date: 10-15-1992 Time: 12:24:49

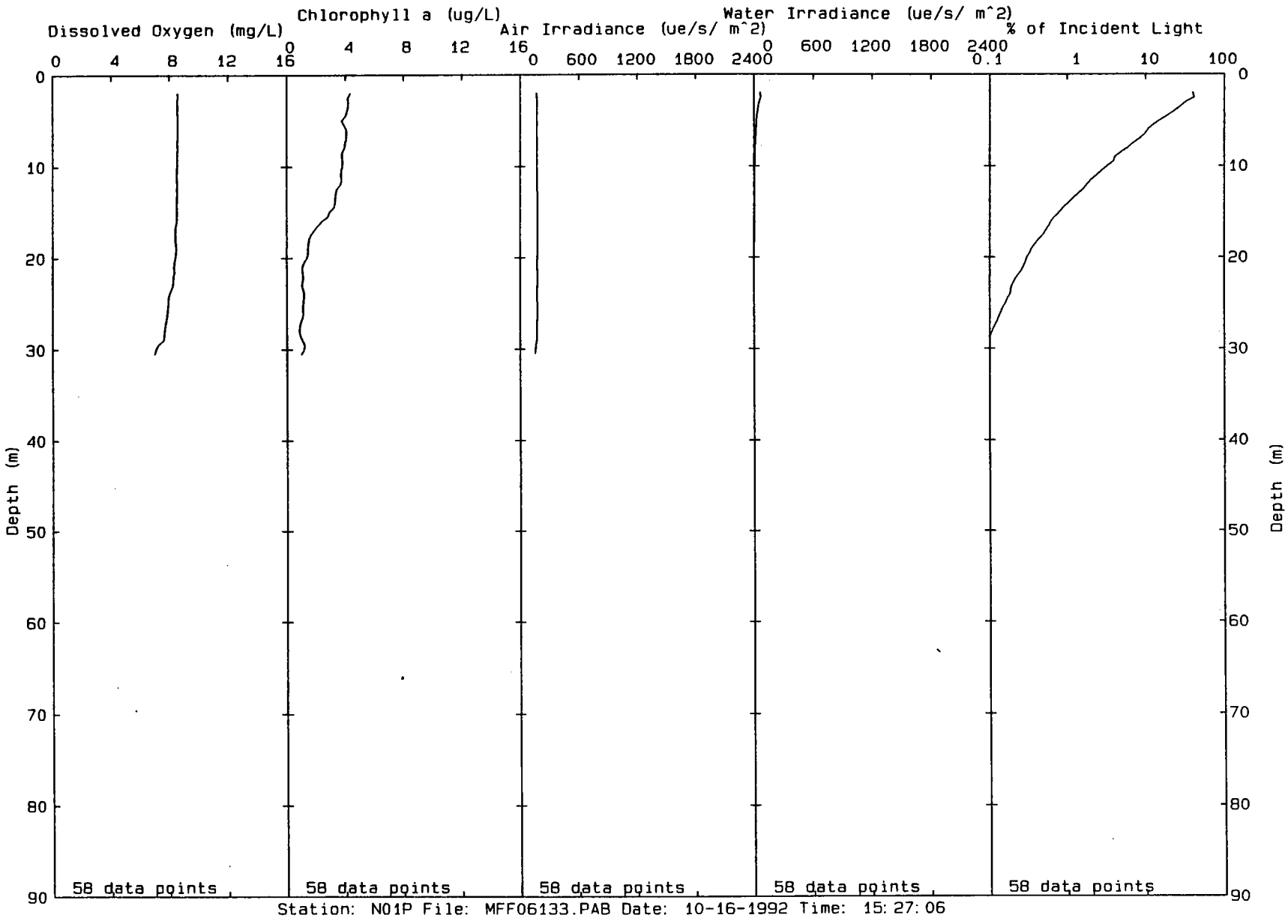

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
46 data points
46 data points
46 data points
46 data points
Station: N01P File: MFF06081.PAB Date: 10-15-1992 Time: 08:40:37



00238

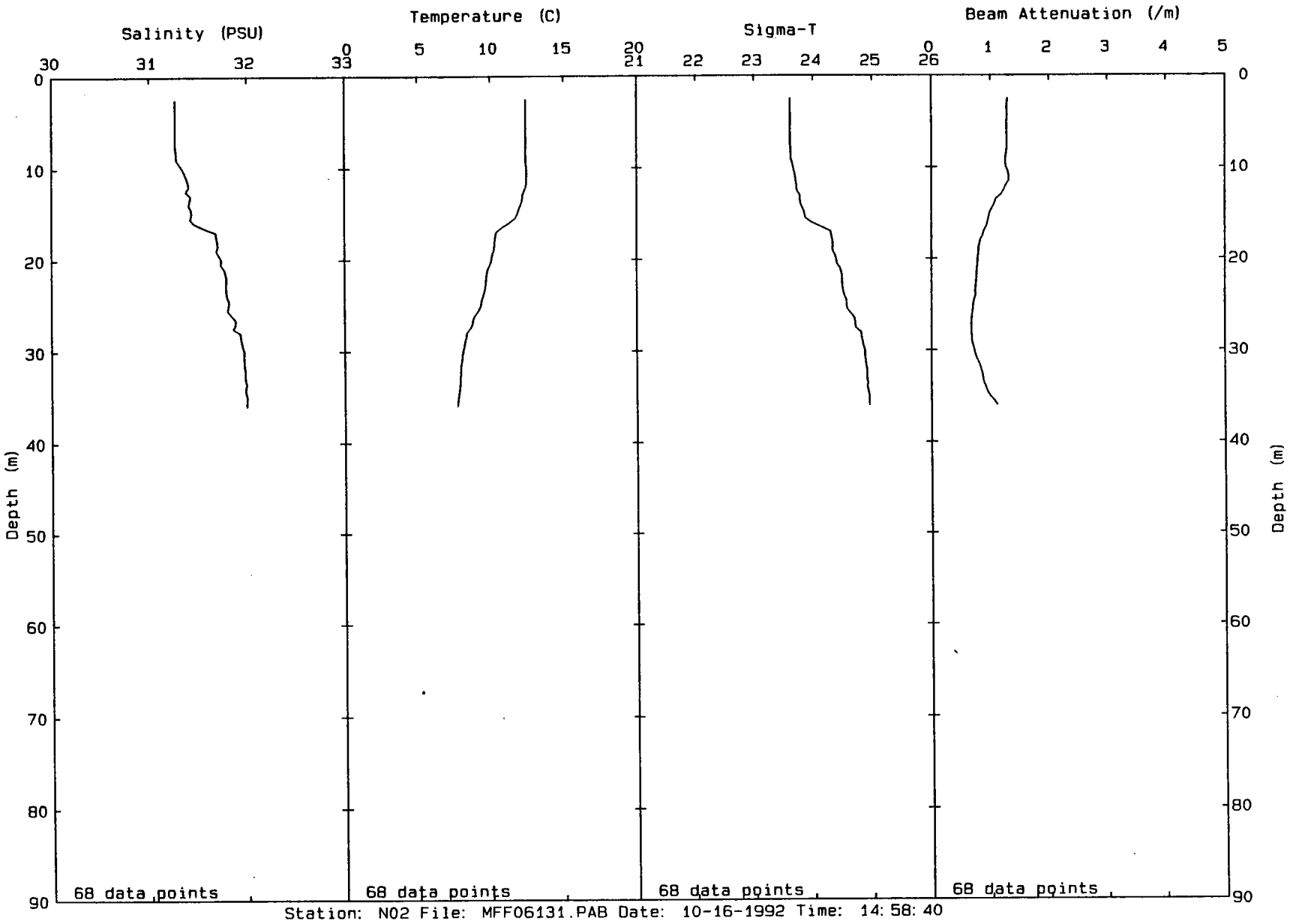
01-07-1993 20:26:40 Battelle

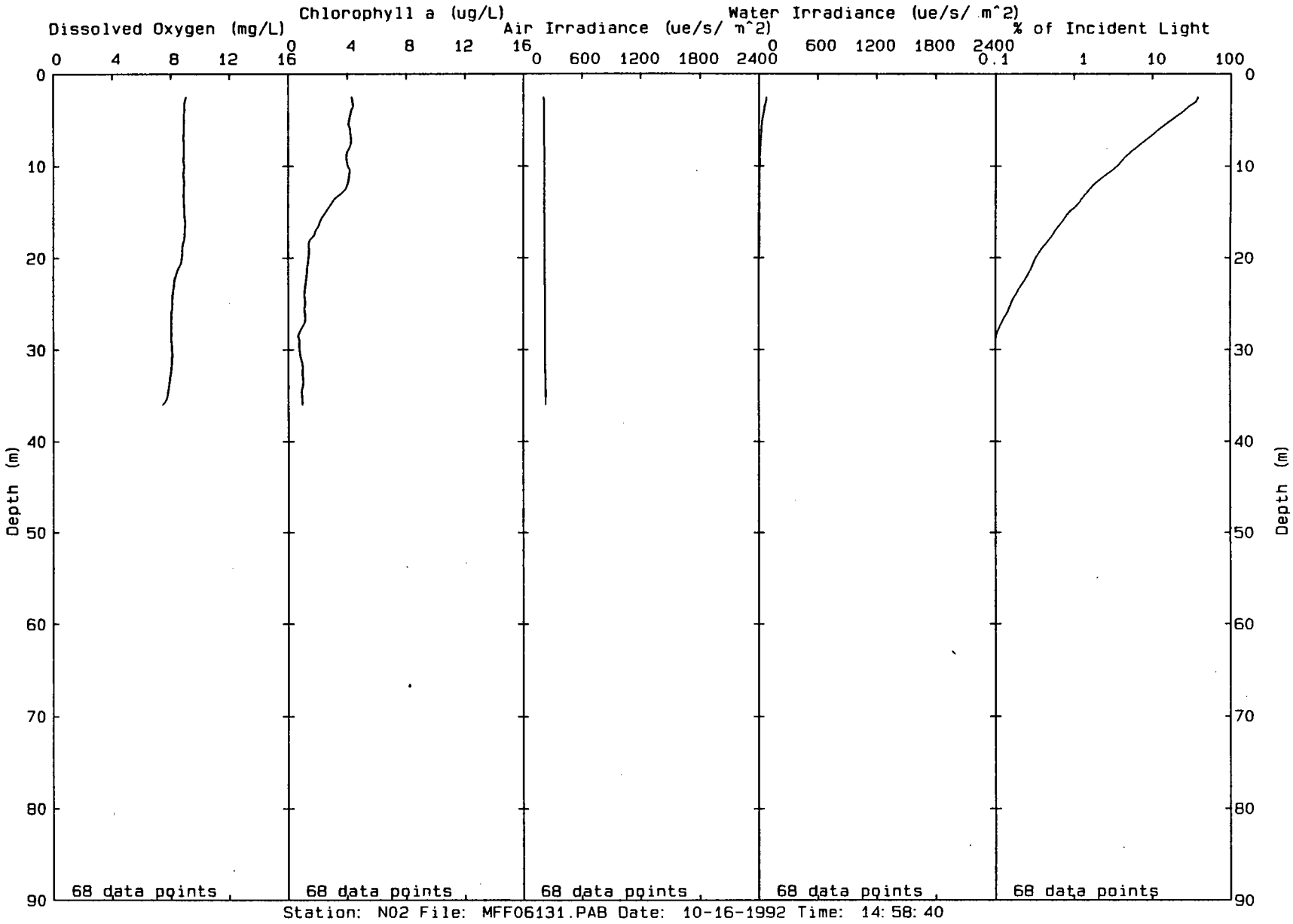

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
58 data points
58 data points
58 data points
58 data points
Station: N01P File: MFF06133.PAB Date: 10-16-1992 Time: 15:27:06

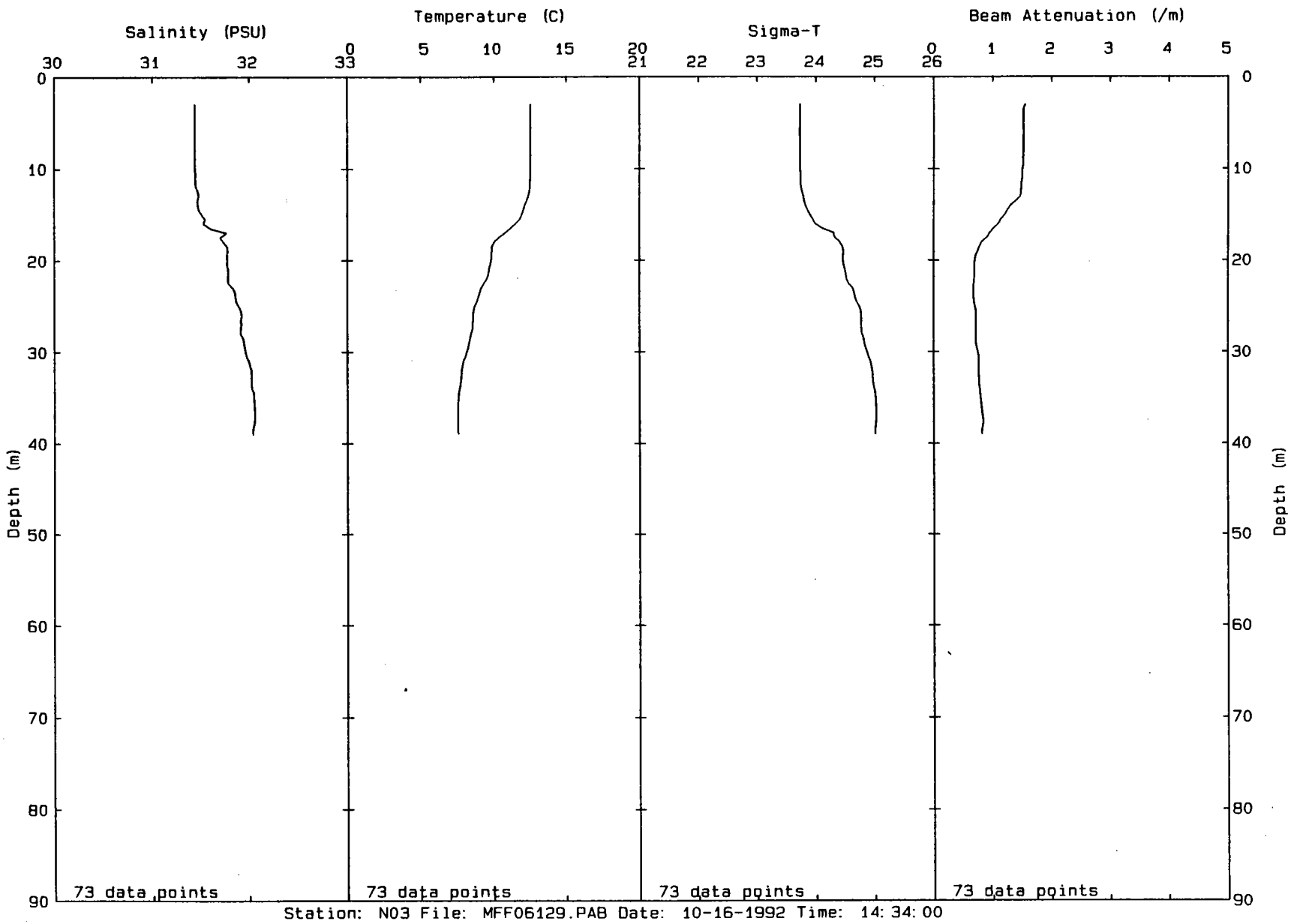


02240

01-07-1993 20:28:09 Battelle

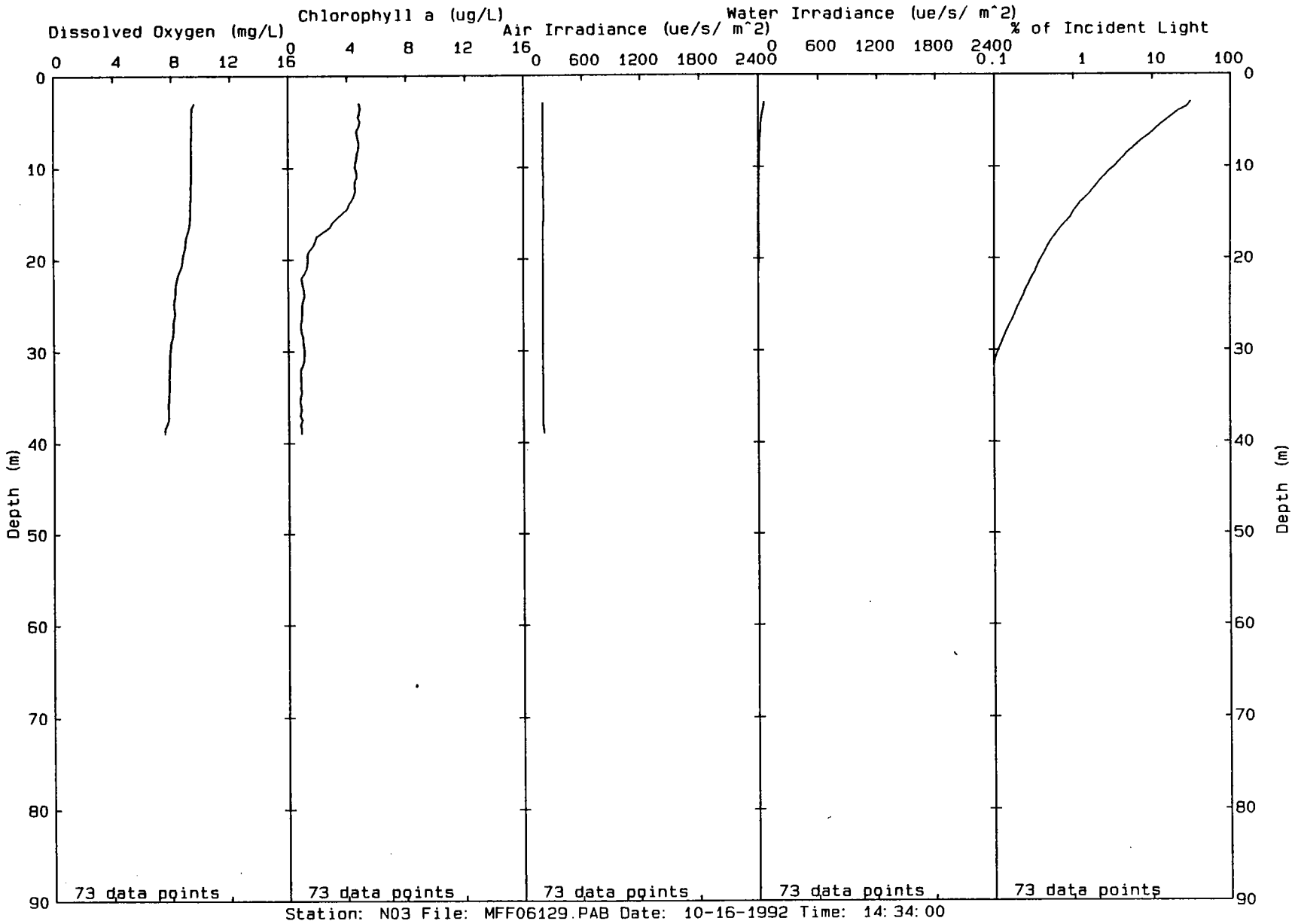

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
68 data points
68 data points
68 data points
68 data points
Station: N02 File: MFF06131.PAB Date: 10-16-1992 Time: 14:58:40


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
68 data points
68 data points
68 data points
68 data points
68 data points
Station: N02 File: MFF06131.PAB Date: 10-16-1992 Time: 14:58:40



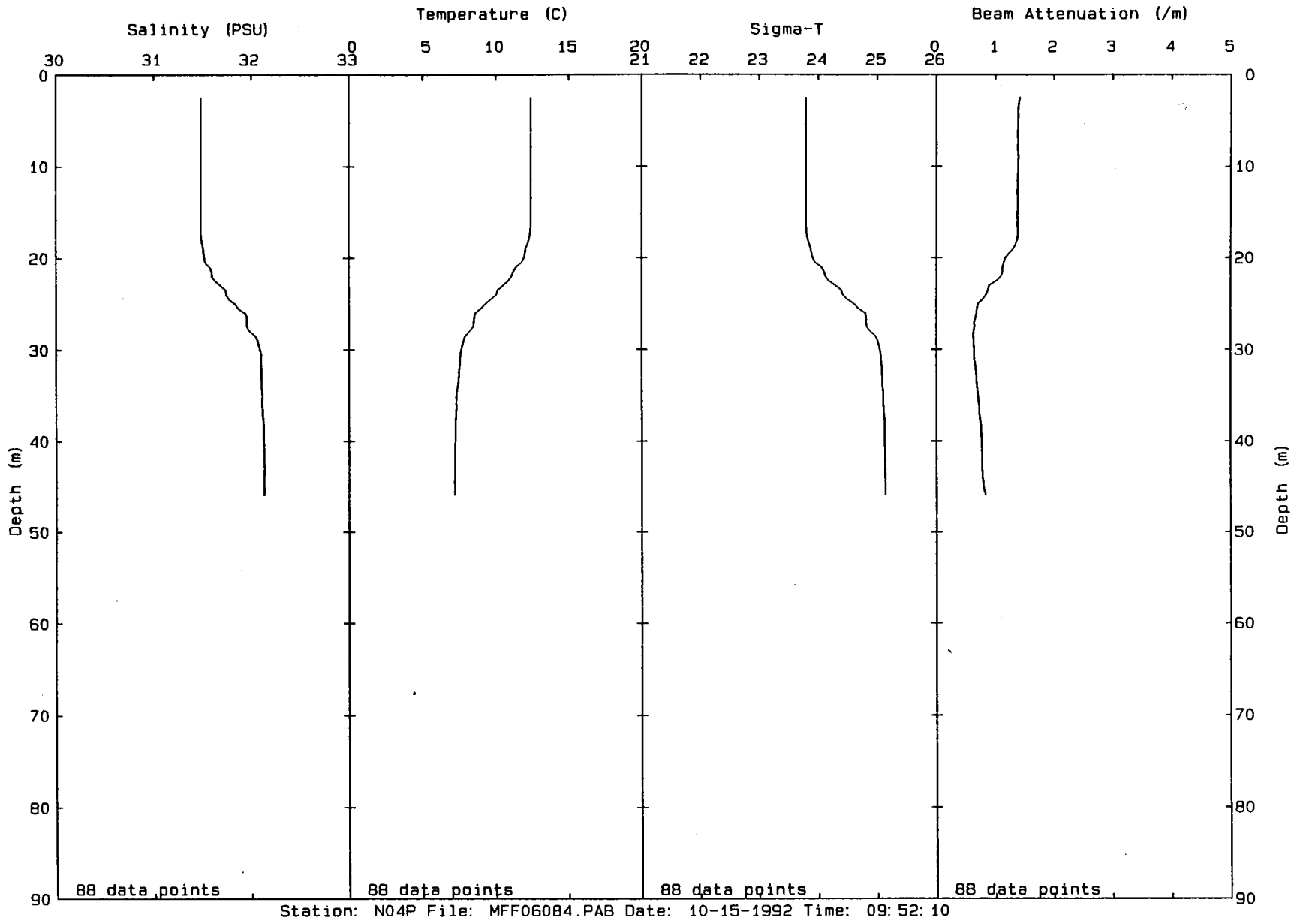
00243

01-07-1993 21:37:24 Battelle



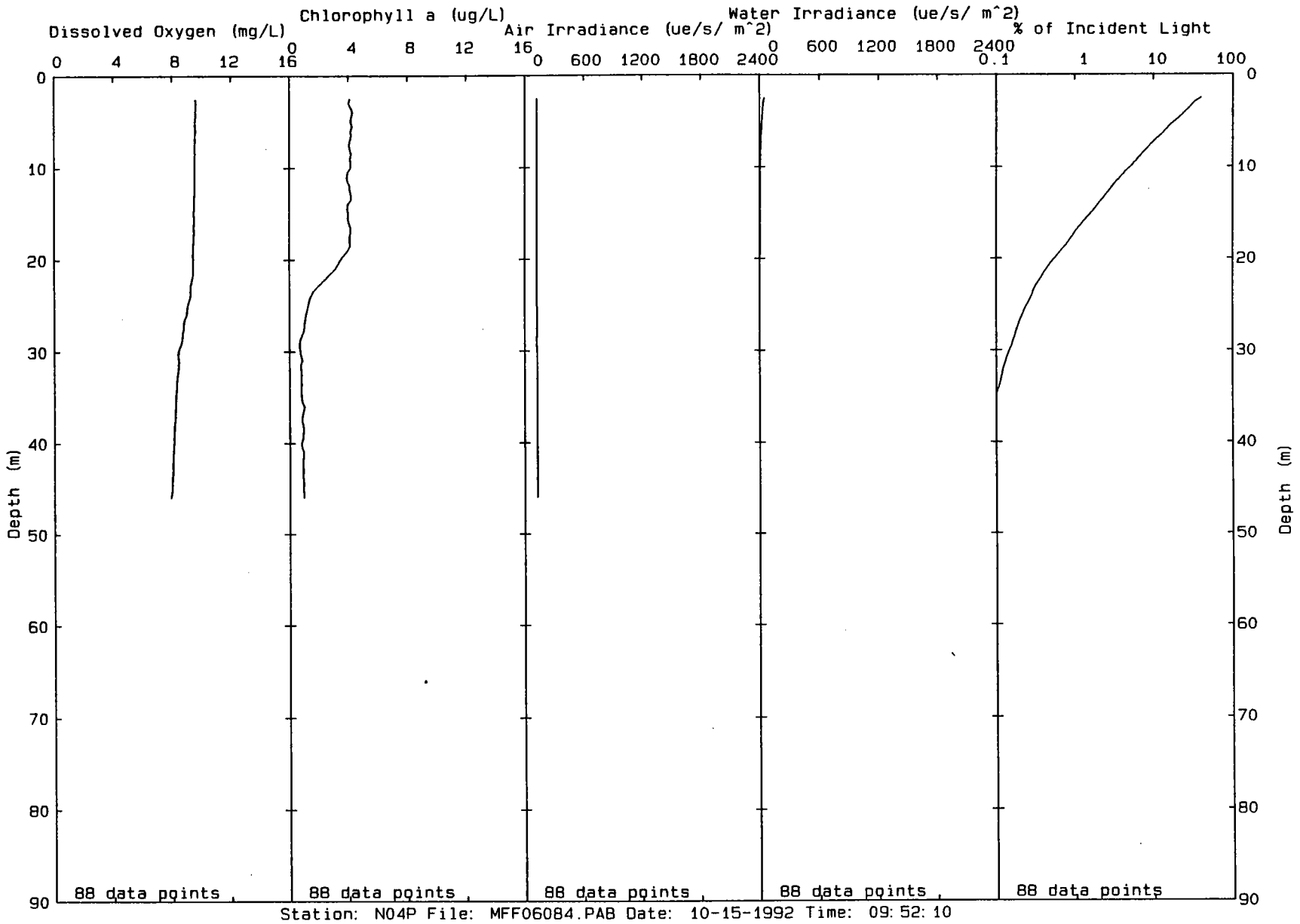
00244

01-07-1993 20:28:01 Battelle



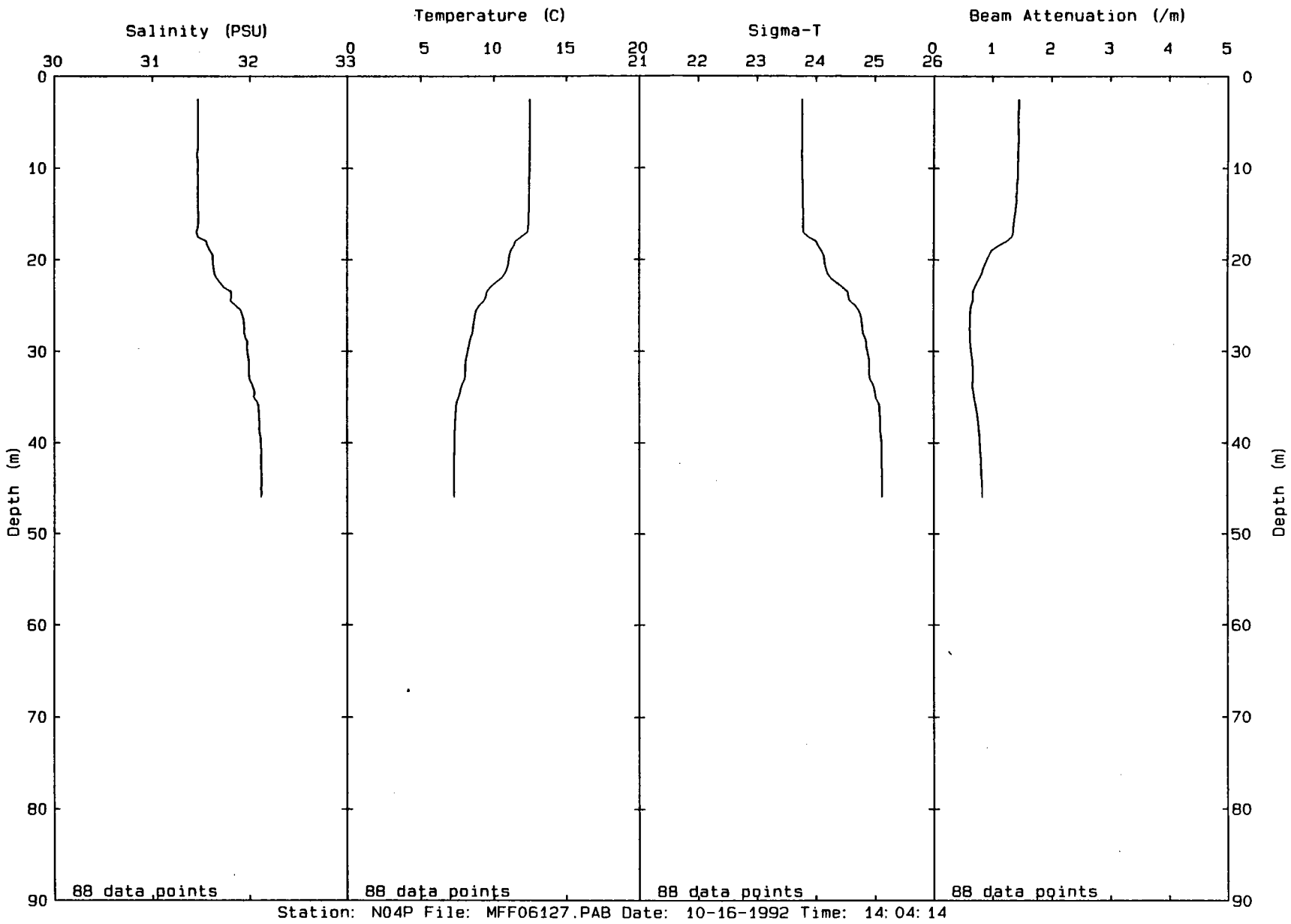
00245

01-07-1993 21:36:19 Battelle



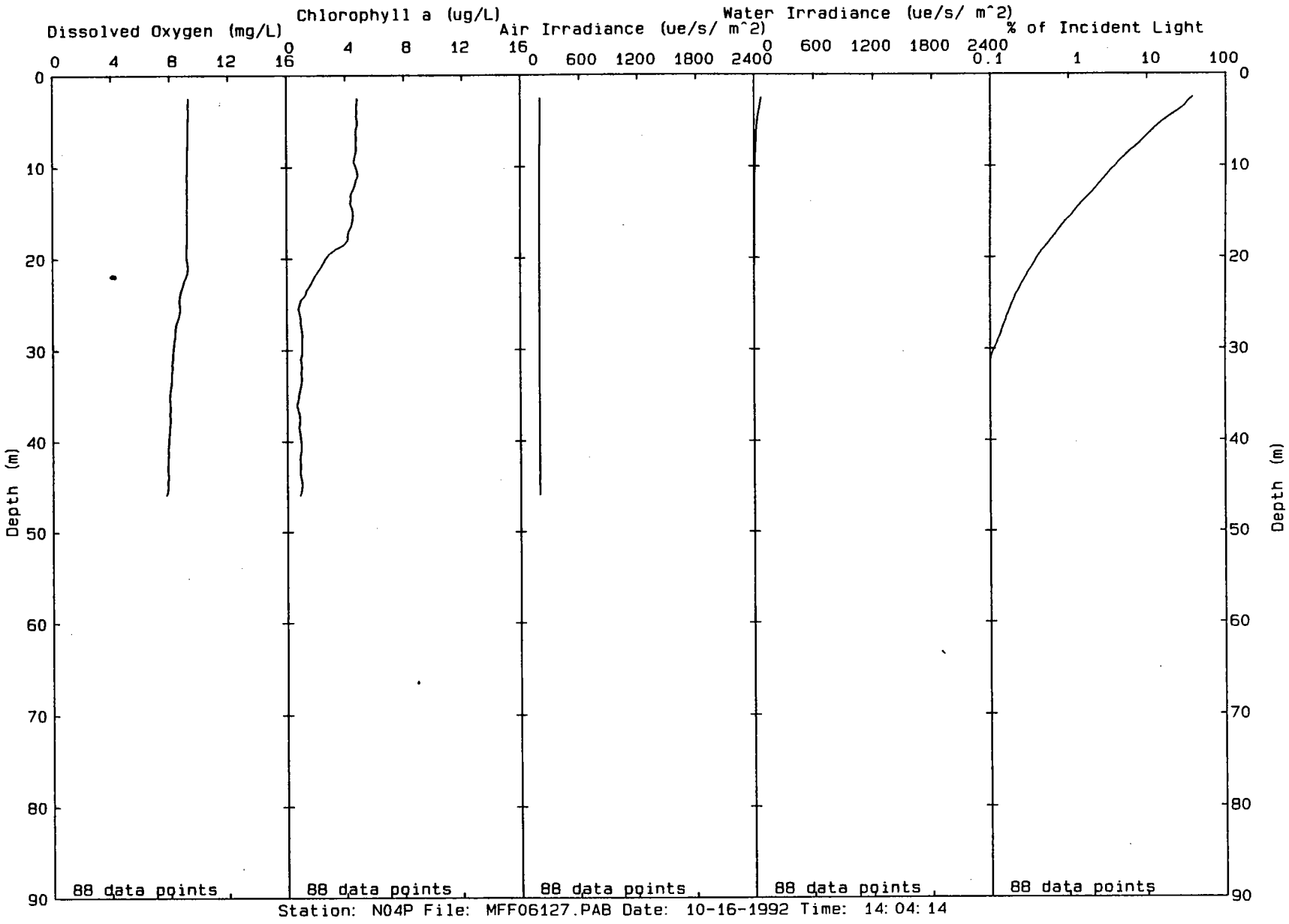
00246

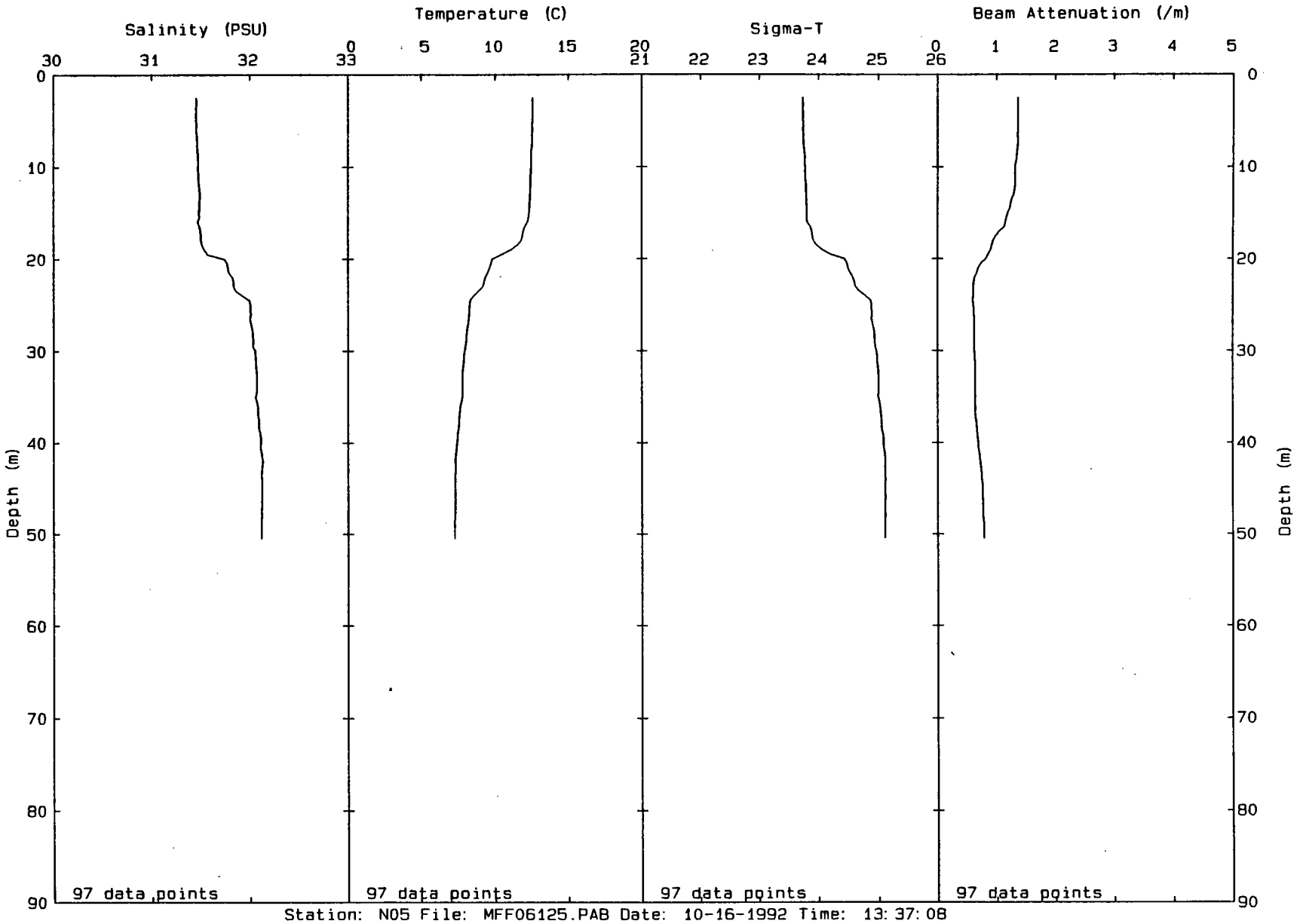
01-07-1993 20:26:45 Battelle

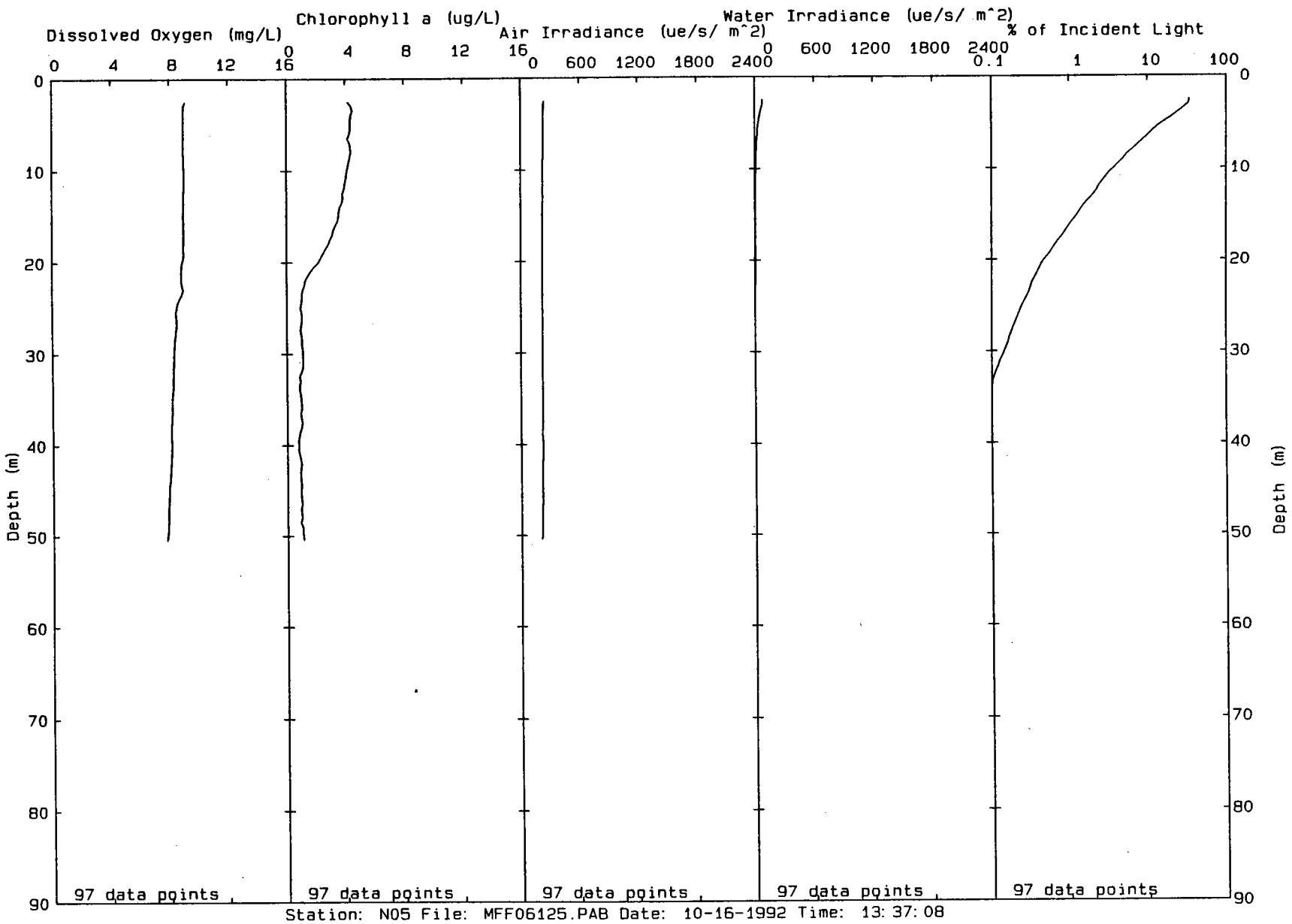


0247

01-07-1993 21:37:20 Battelle

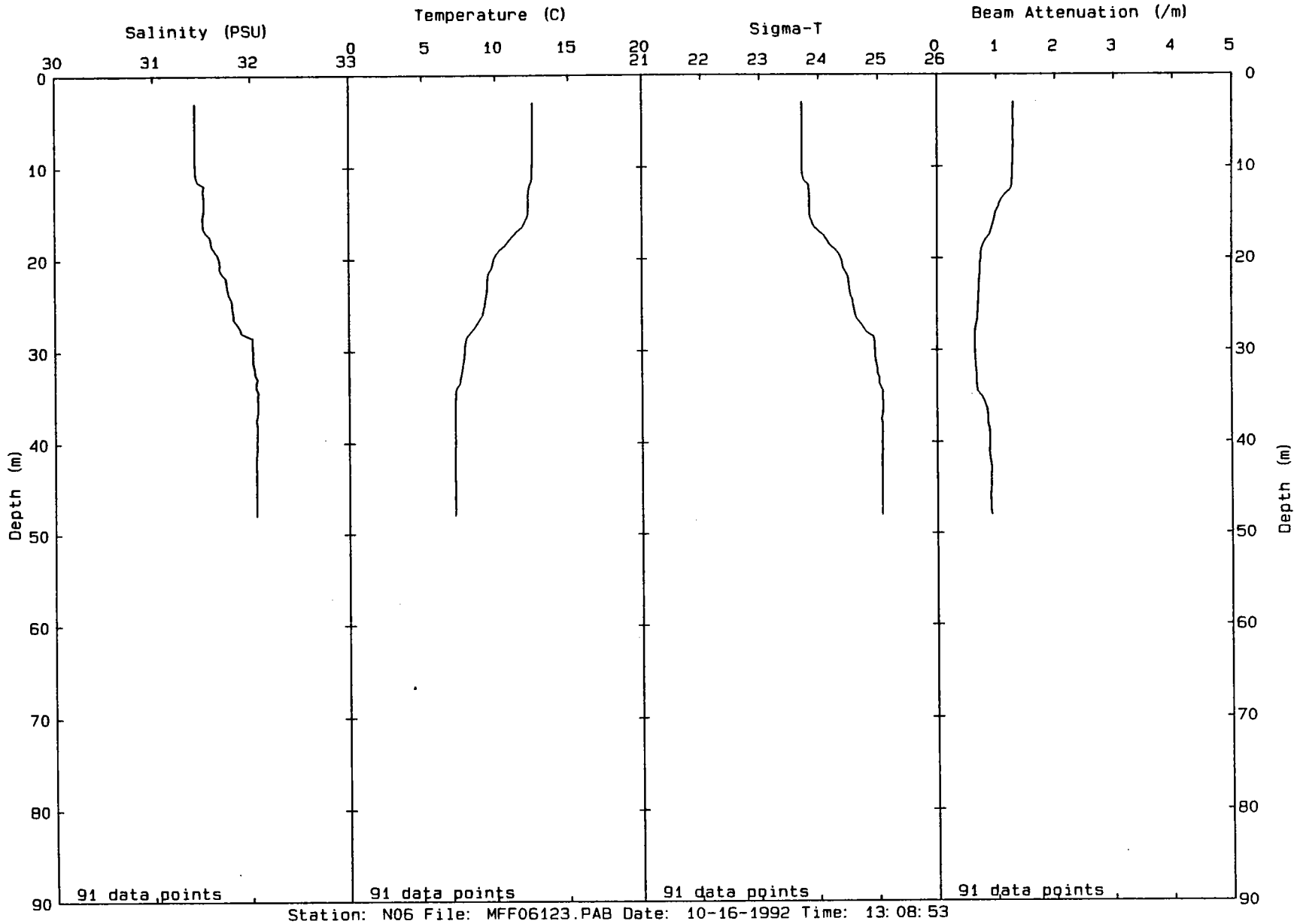

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
88 data points
88 data points
88 data points
88 data points
88 data points
Station: N04P File: MFF06127.PAB Date: 10-16-1992 Time: 14:04:14

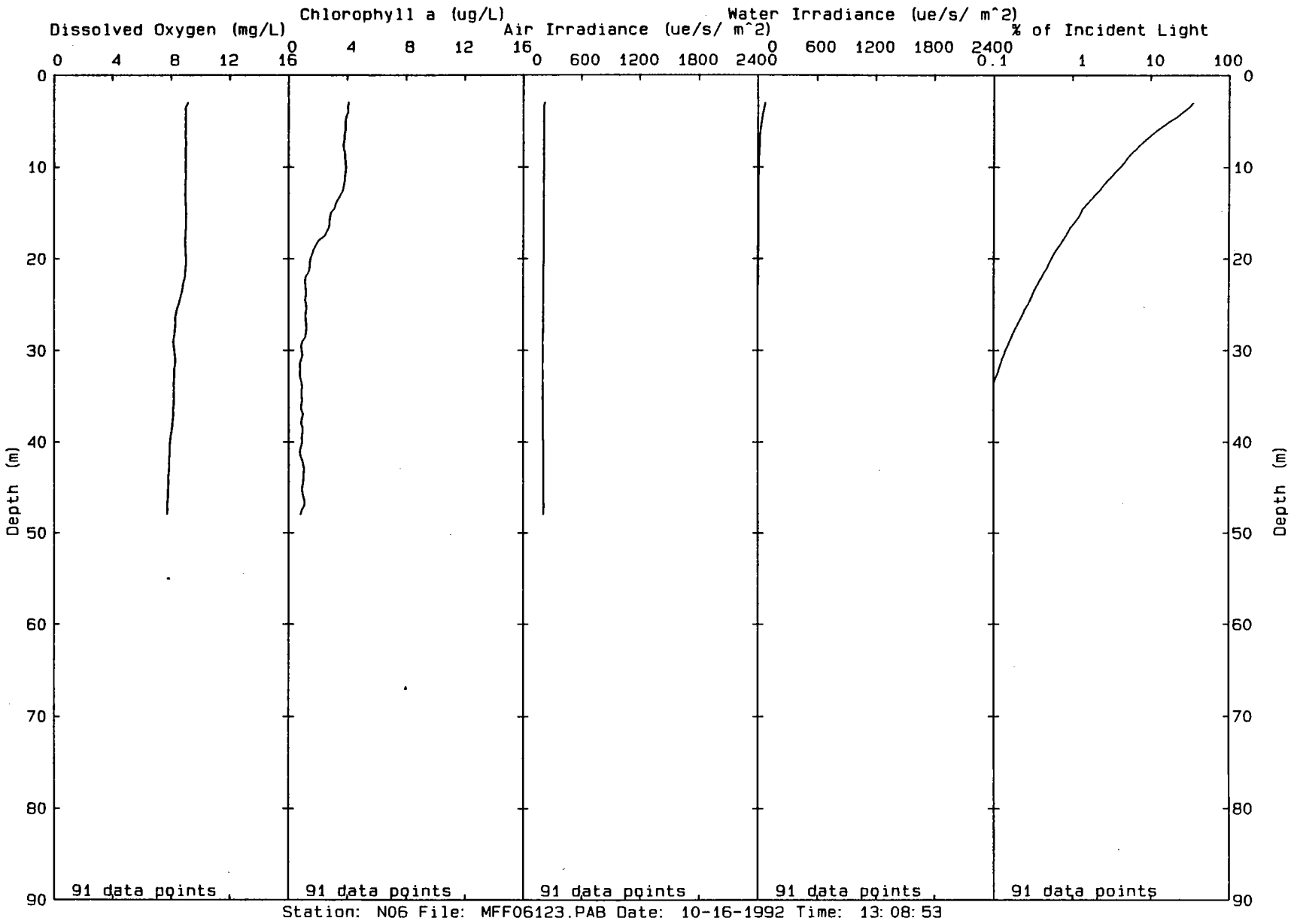

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
97 data points
97 data points
97 data points
97 data points
Station: N05 File: MFF06125.PAB Date: 10-16-1992 Time: 13:37:08



00250

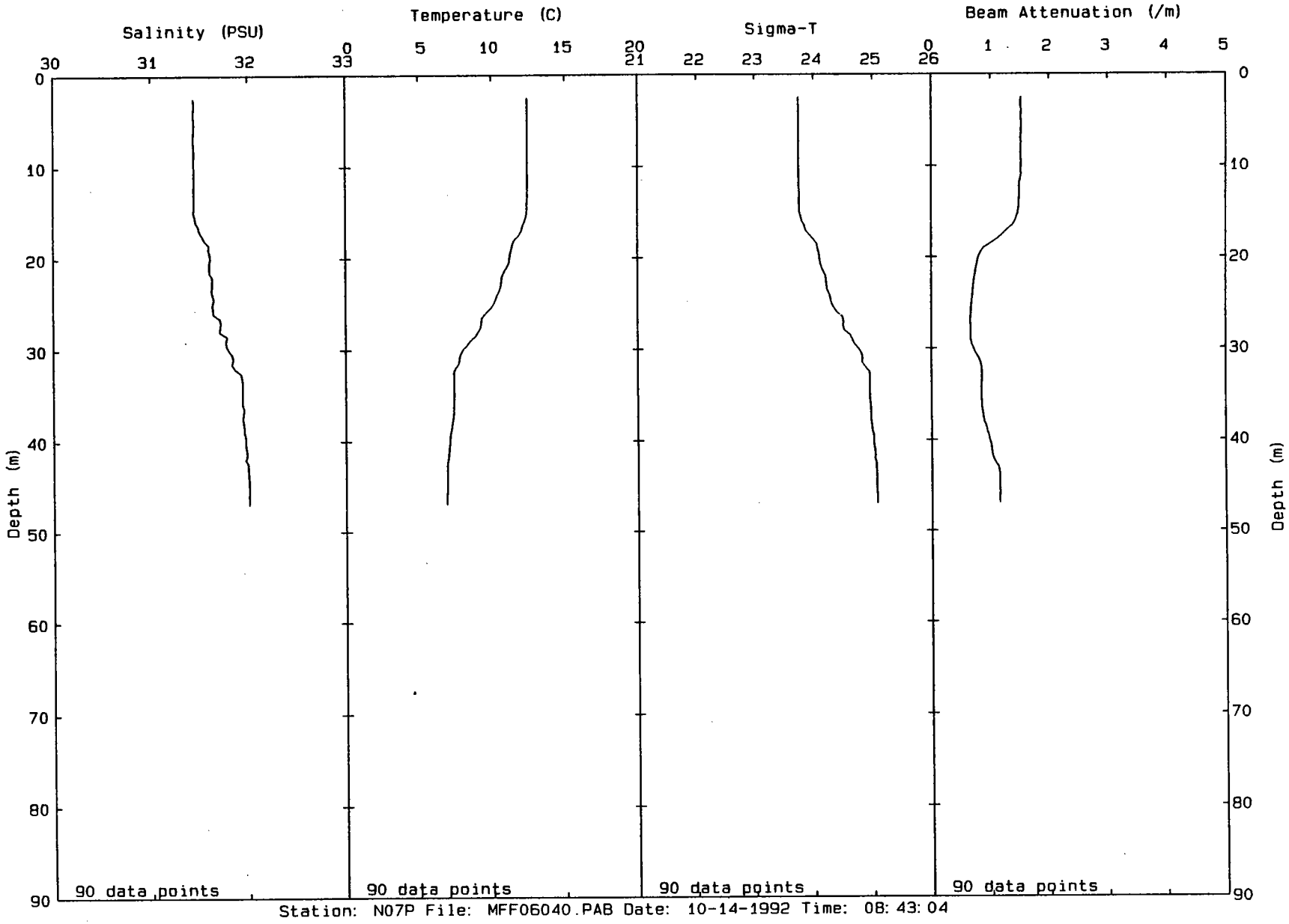
01-07-1993 20:27:51 Battelle


Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
91 data points
91 data points
91 data points
91 data points
Station: N06 File: MFF06123.PAB Date: 10-16-1992 Time: 13:08:53



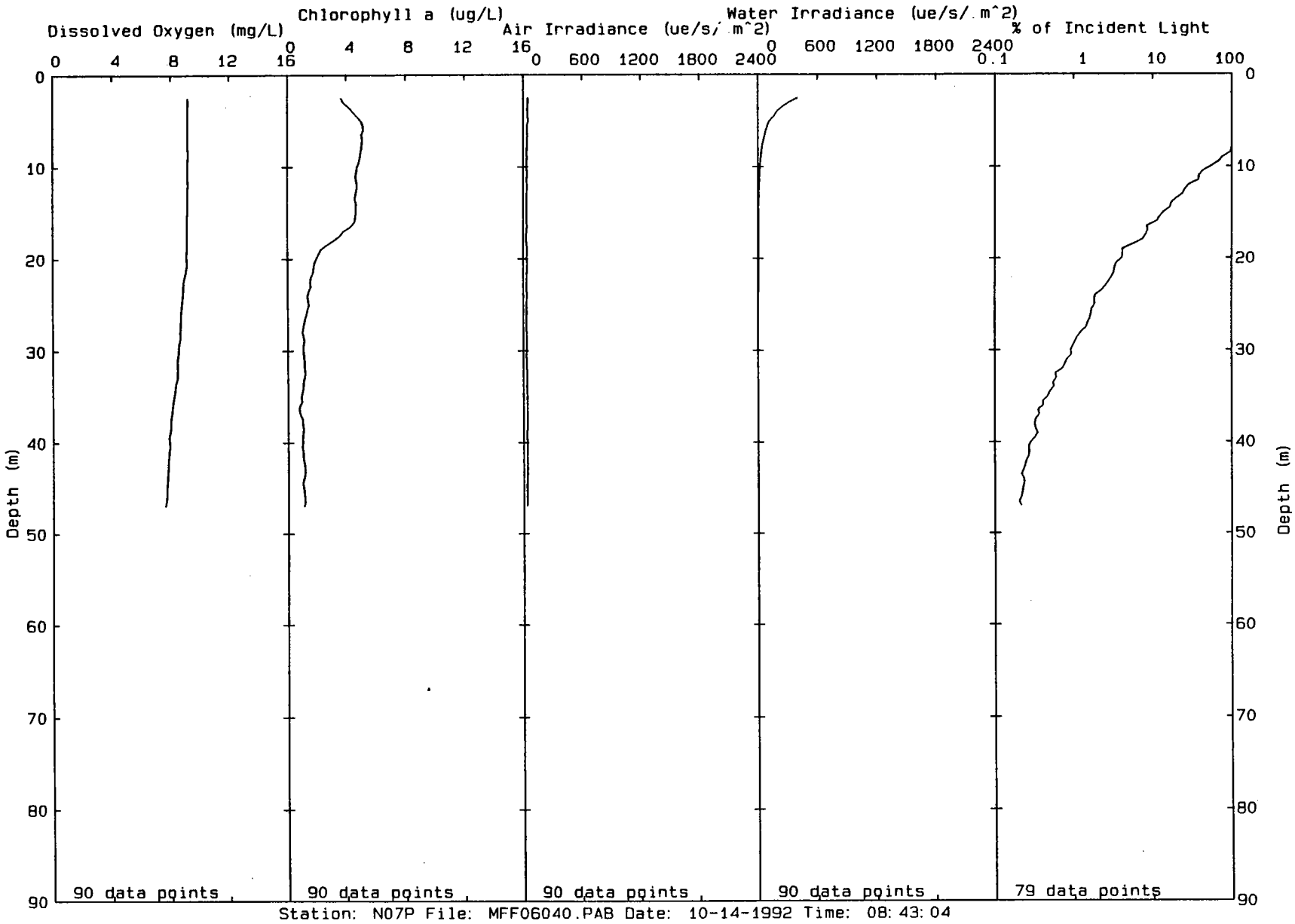
00252

01-07-1993 20:27:46 Battelle



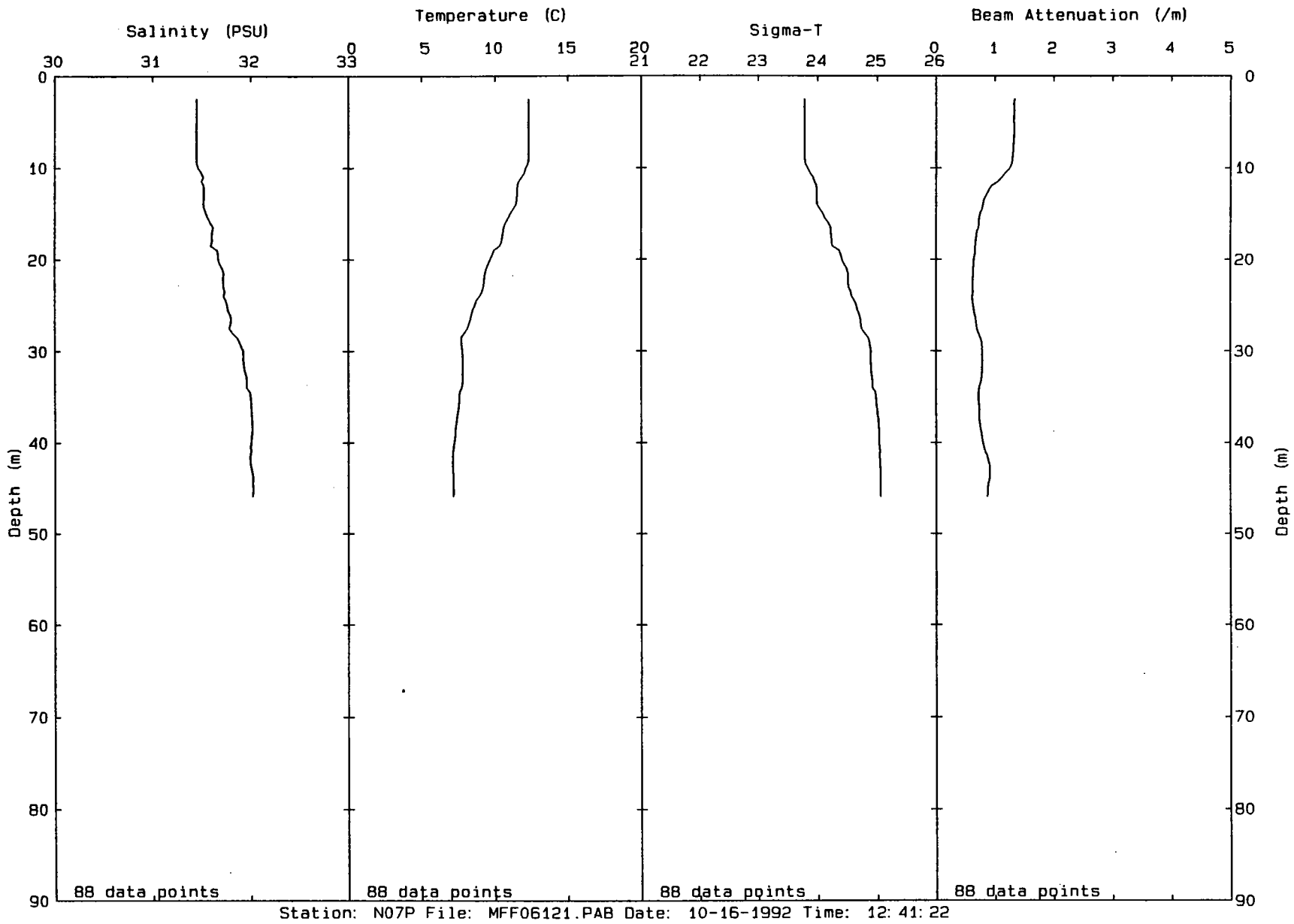
00253

01-07-1993 21:35:19 Battelle



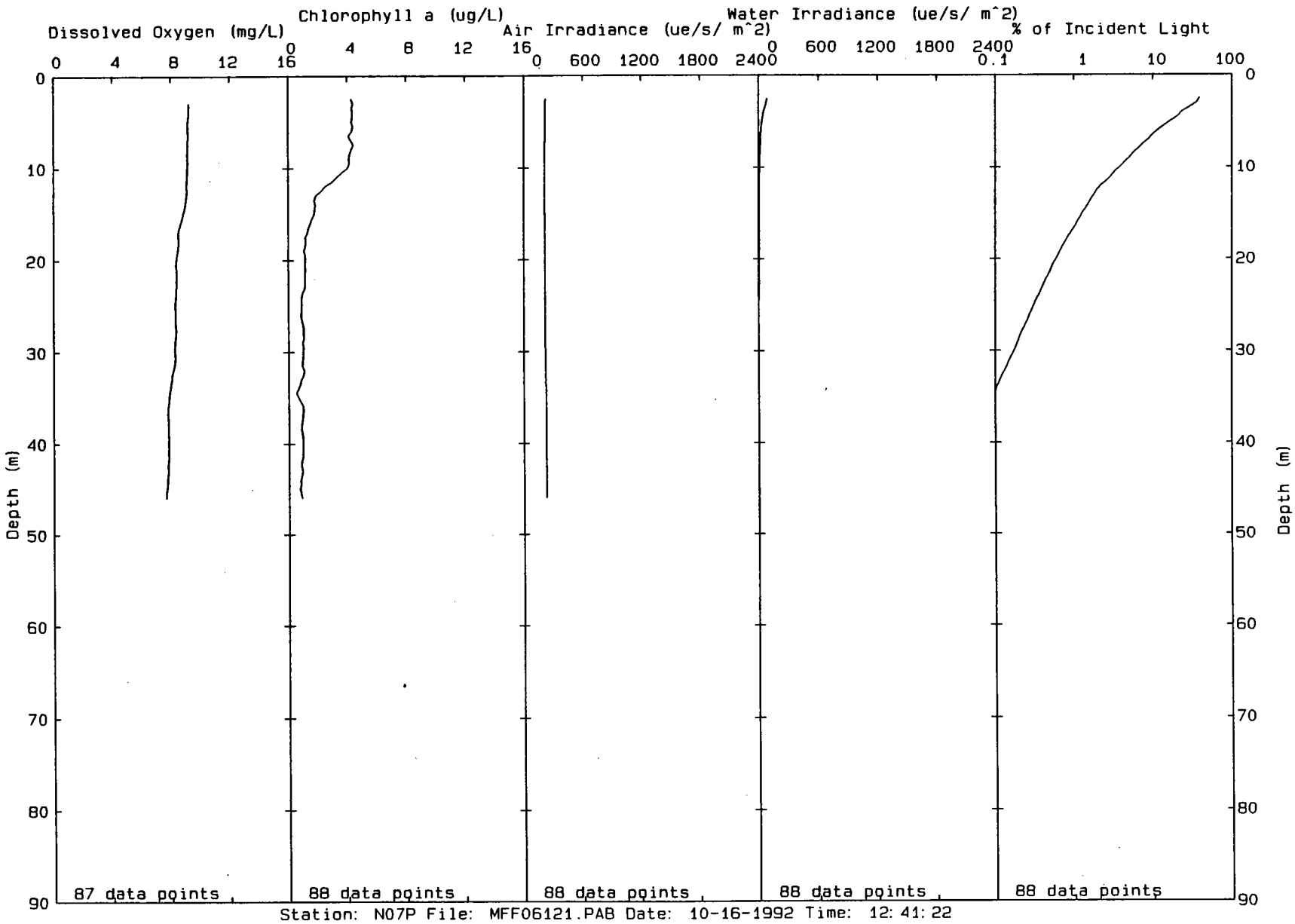
00254

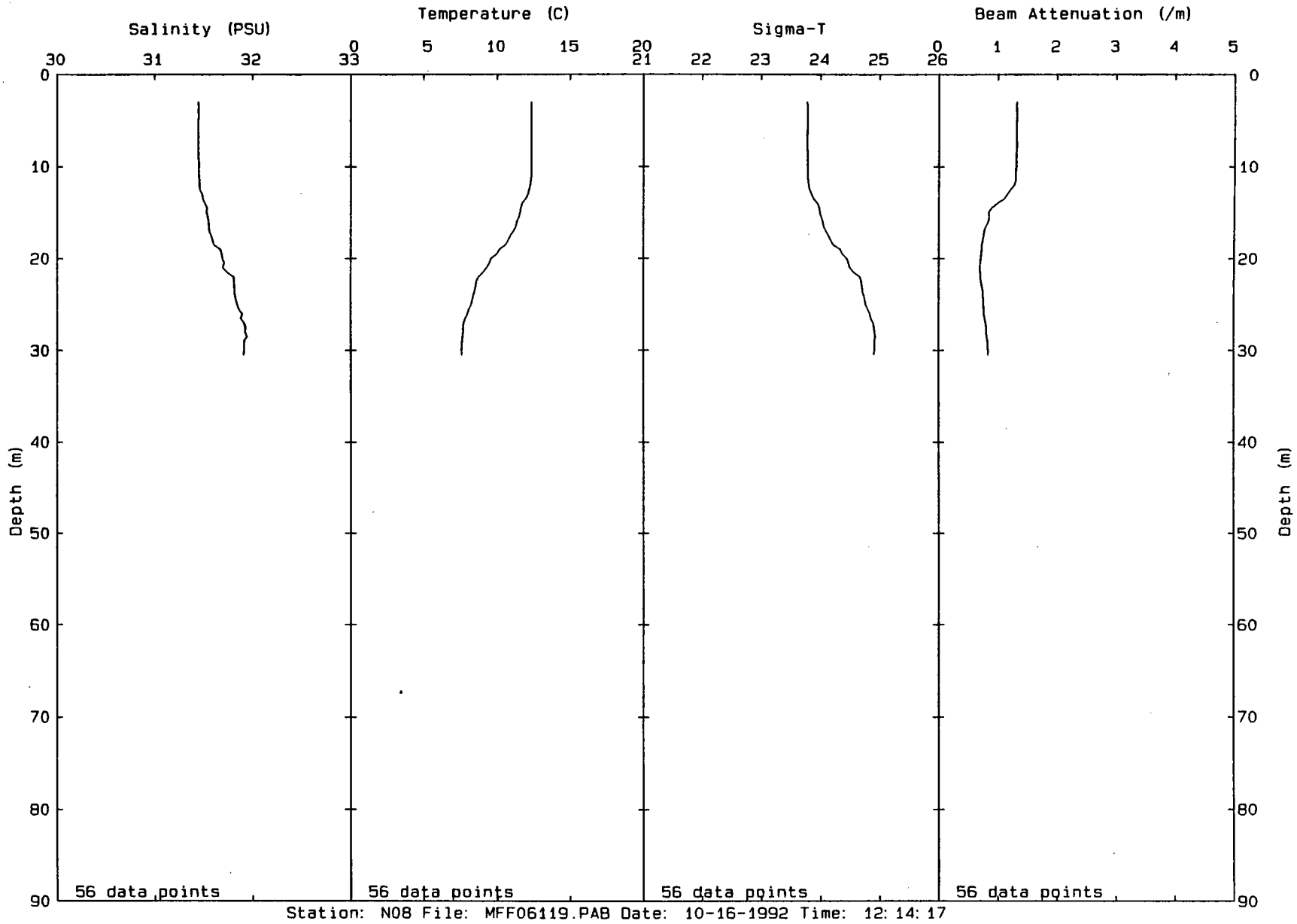
01-07-1993 20:25:34 Battelle

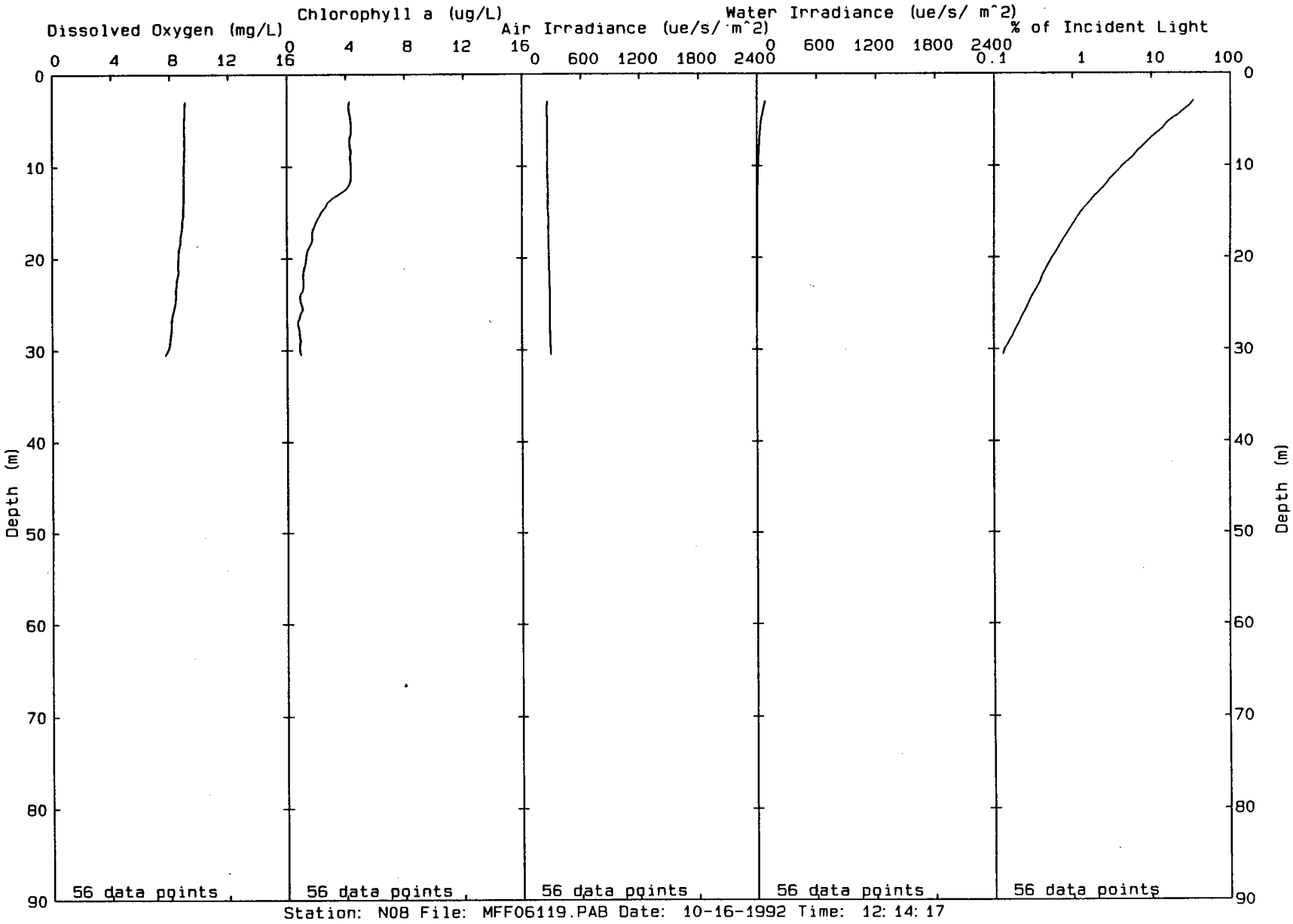


00255

01-07-1993 21:37:06 Battelle

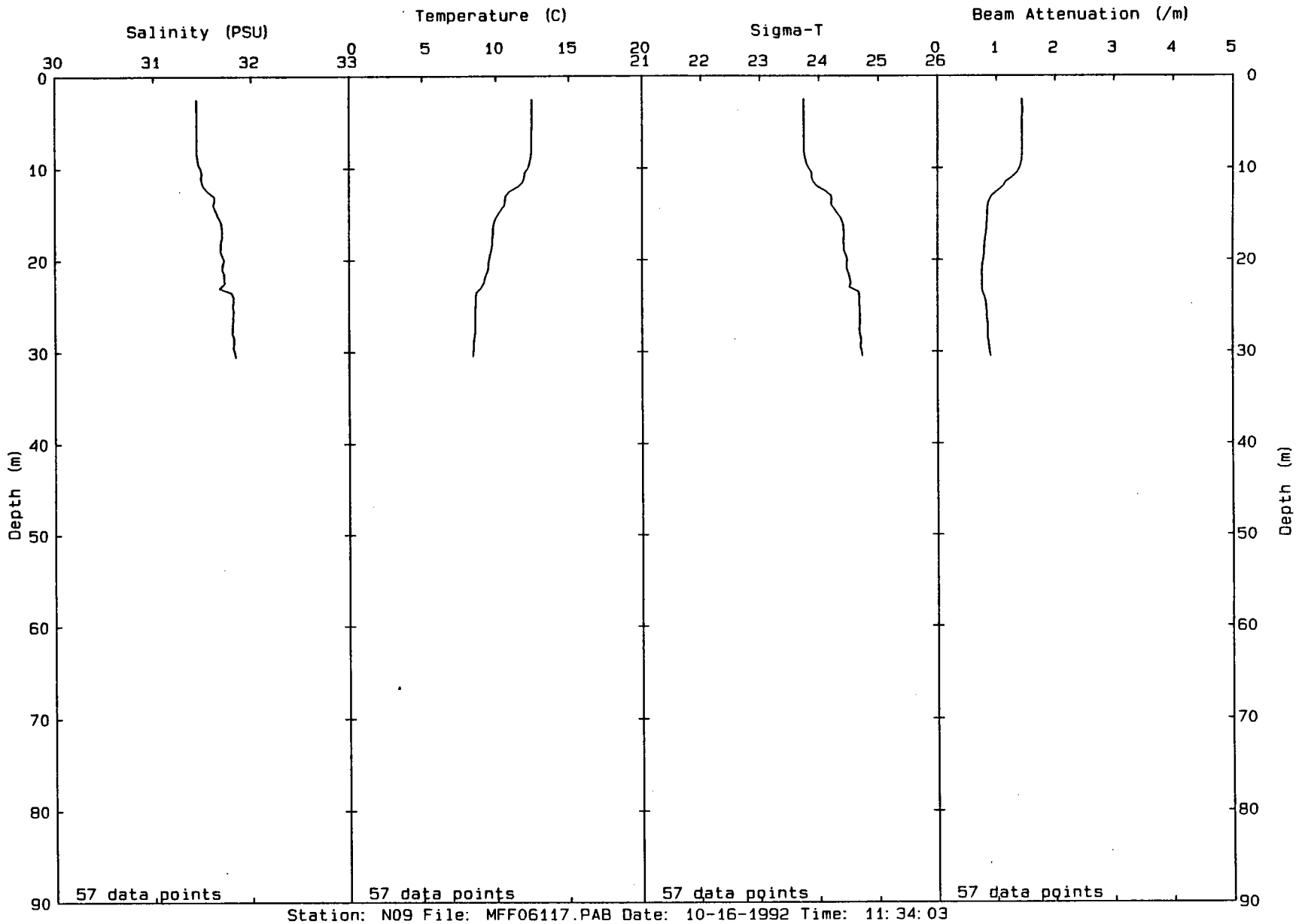

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
87 data points
88 data points
88 data points
88 data points
88 data points
Station: N07P File: MFF06121.PAB Date: 10-16-1992 Time: 12:41:22

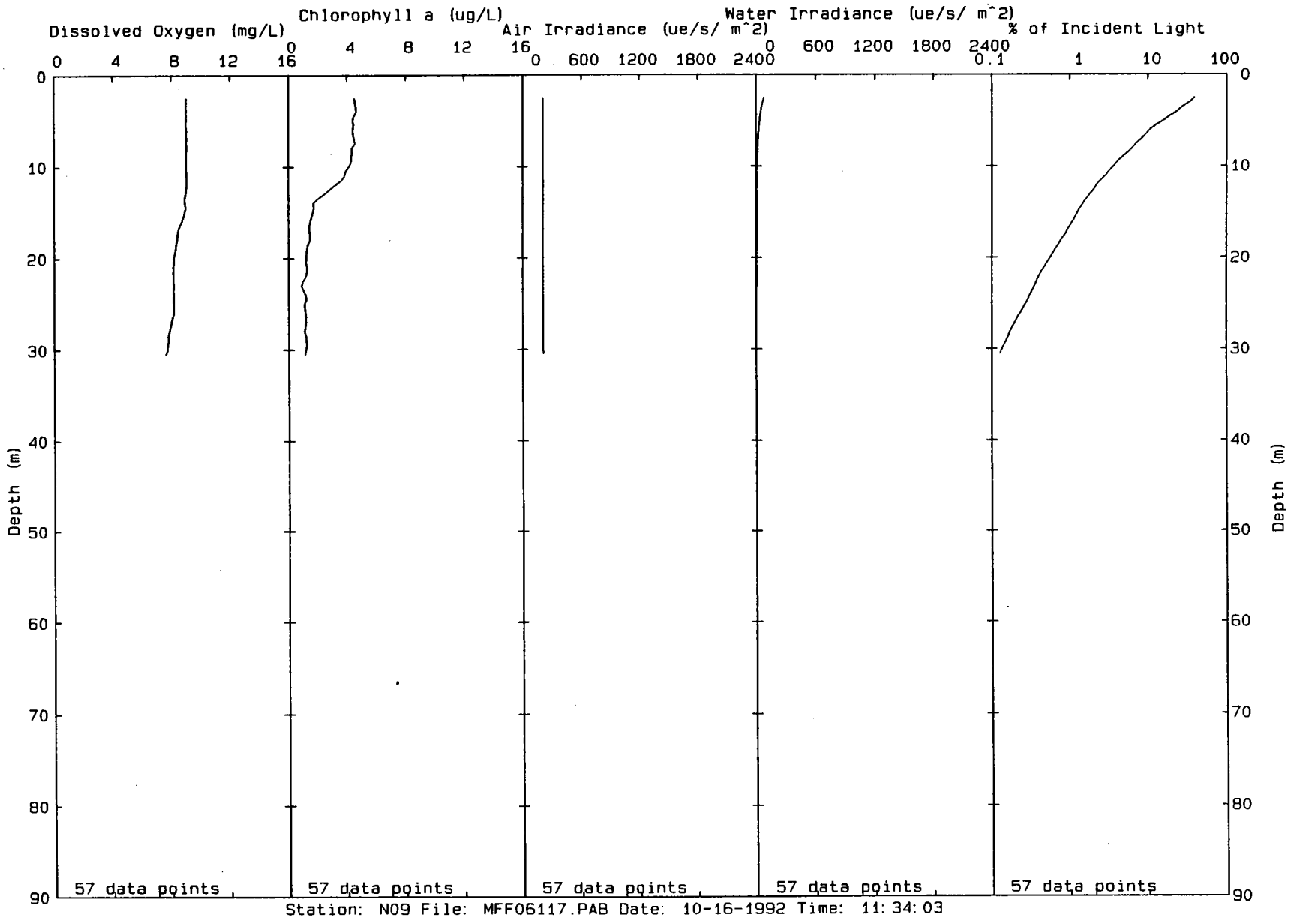

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
56 data points
56 data points
56 data points
56 data points
Station: N08 File: MFF06119.PAB Date: 10-16-1992 Time: 12:14:17



00258

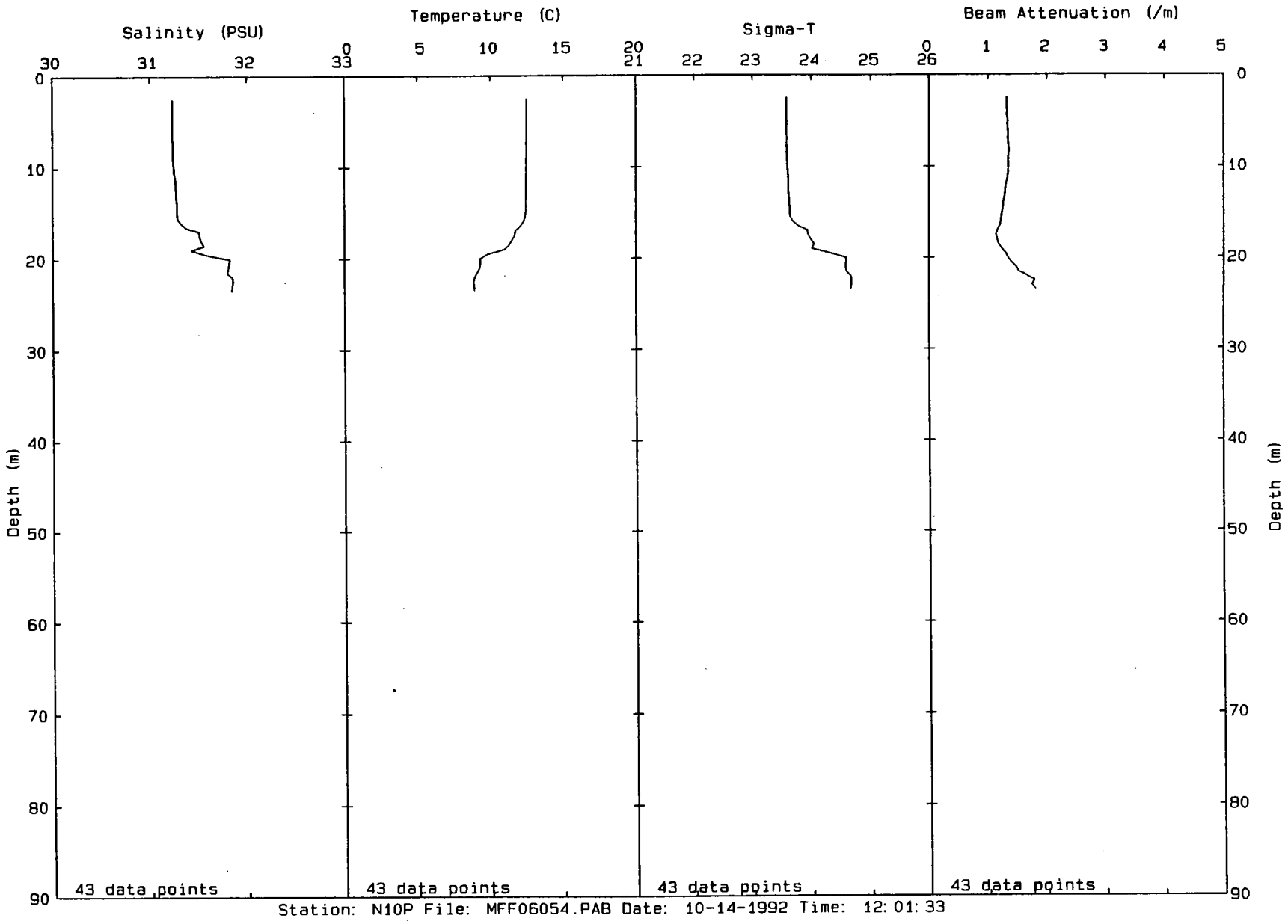
01-07-1993 20:27:36 Battelle

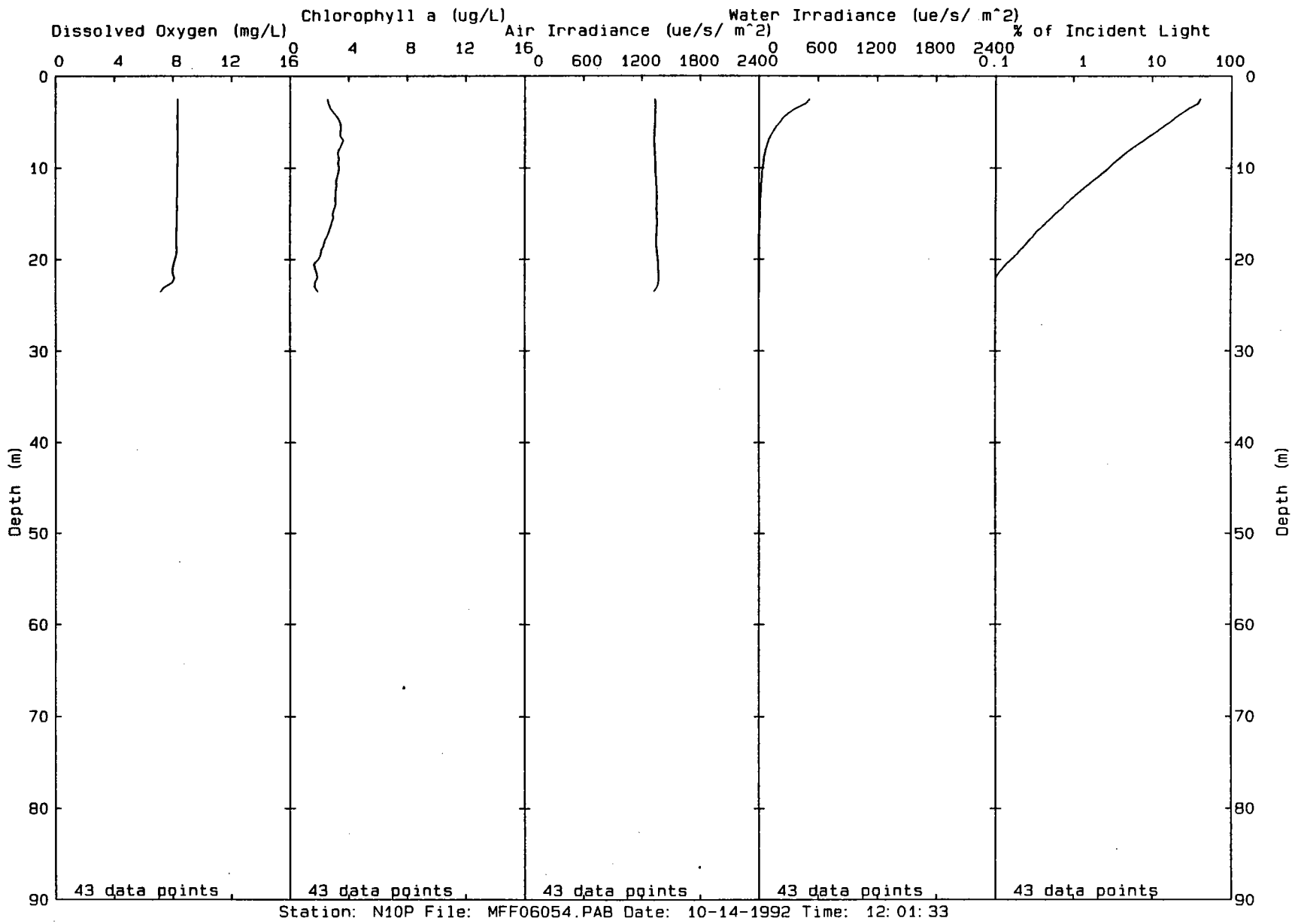

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
57 data points
57 data points
57 data points
57 data points
Station: N09 File: MFF06117.PAB Date: 10-16-1992 Time: 11:34:03



00260

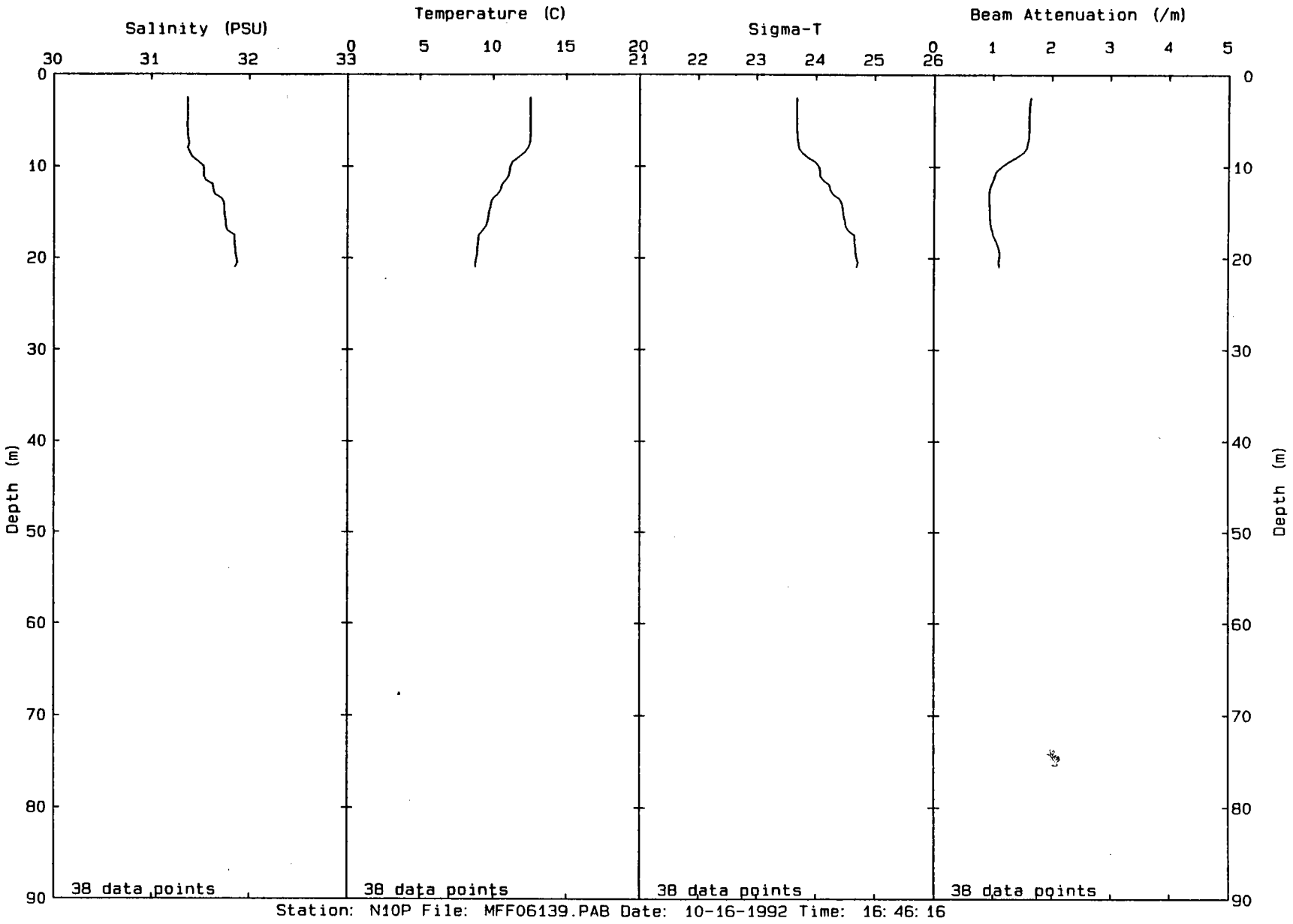
01-07-1993 20:27:32 Battelle


Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
43 data points
43 data points
43 data points
43 data points
Station: N10P File: MFF06054.PAB Date: 10-14-1992 Time: 12:01:33



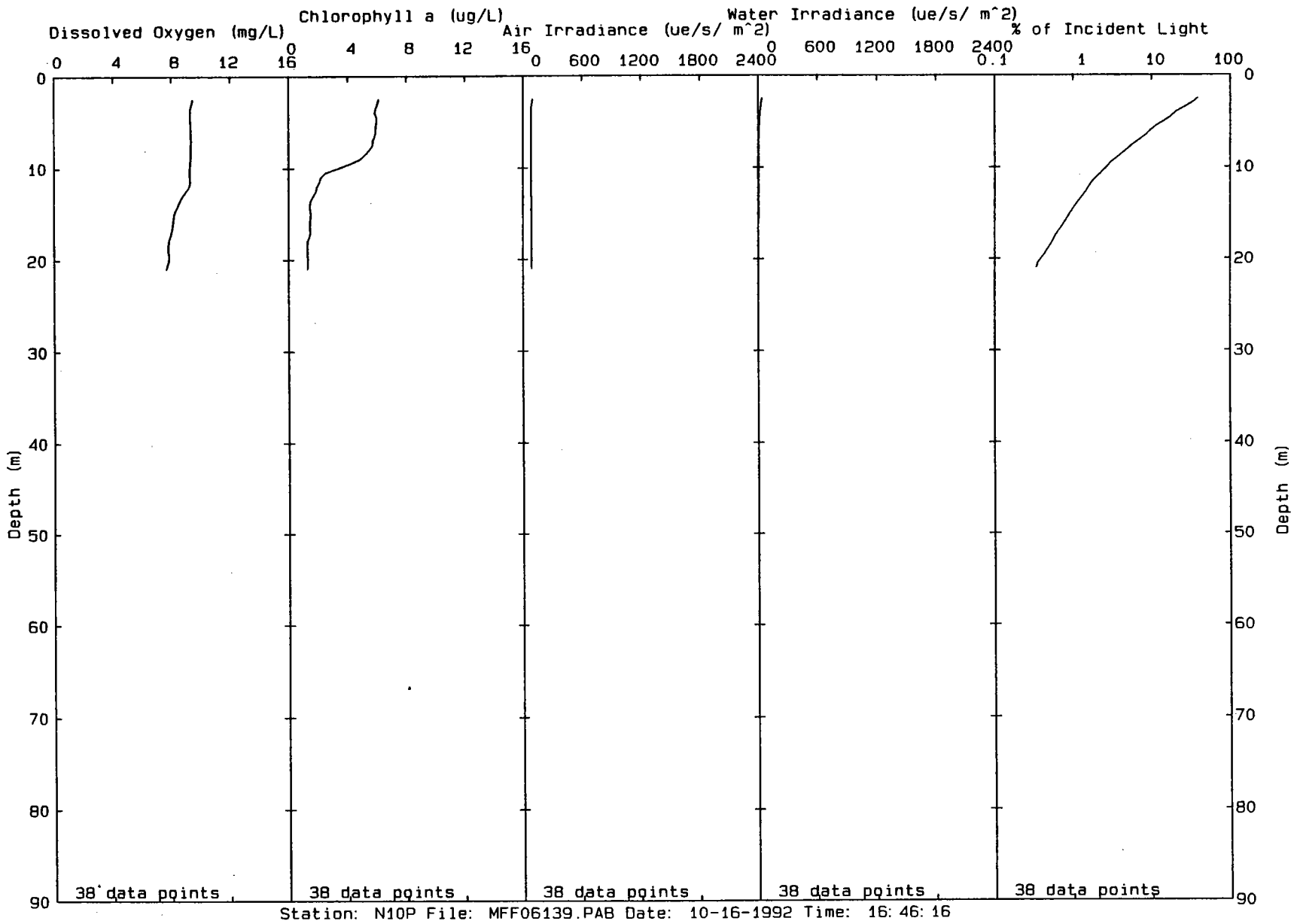
29200

01-07-1993 20:25:48 Battelle



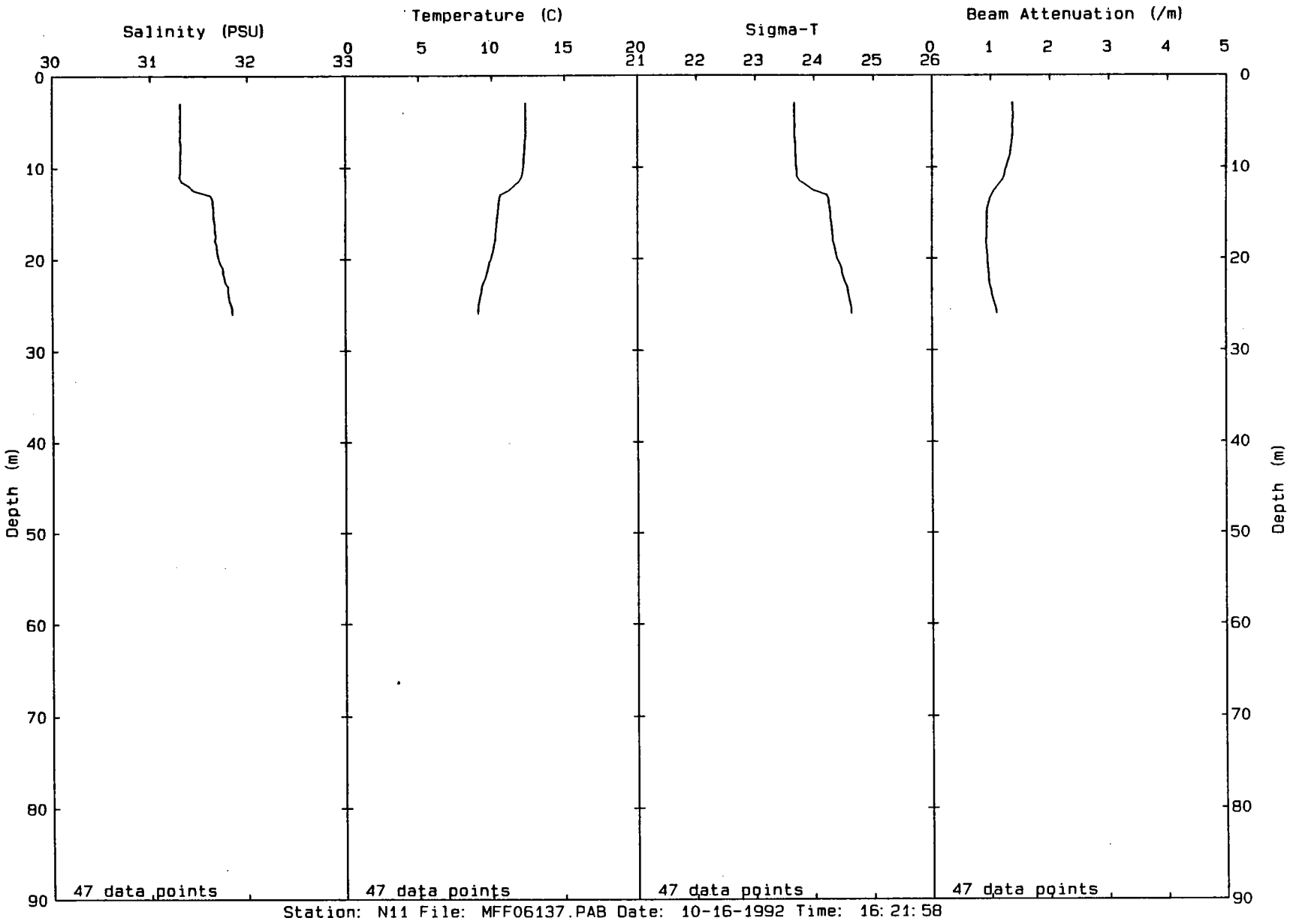
00263

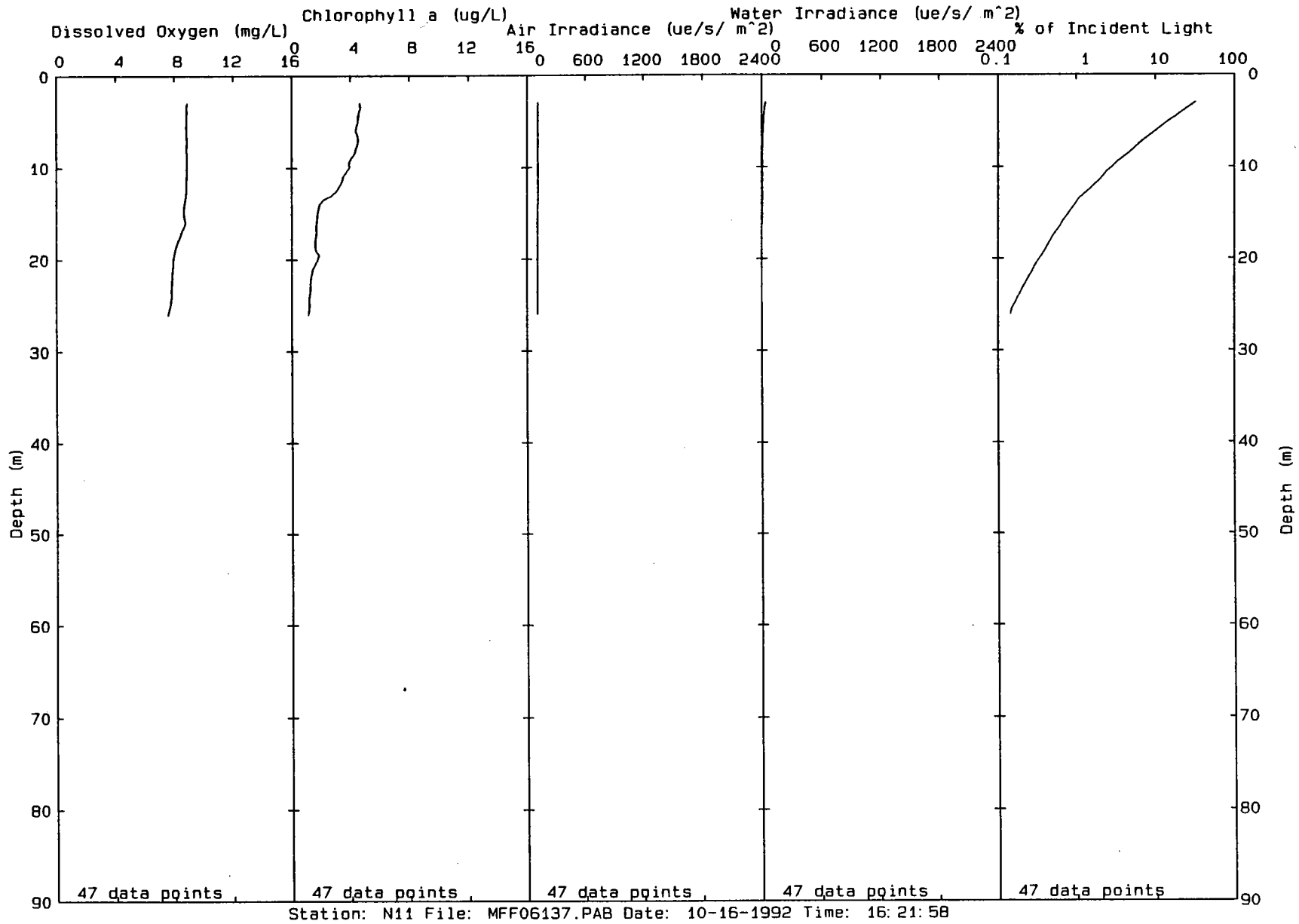
01-07-1993 21:37:40 Battelle



00264

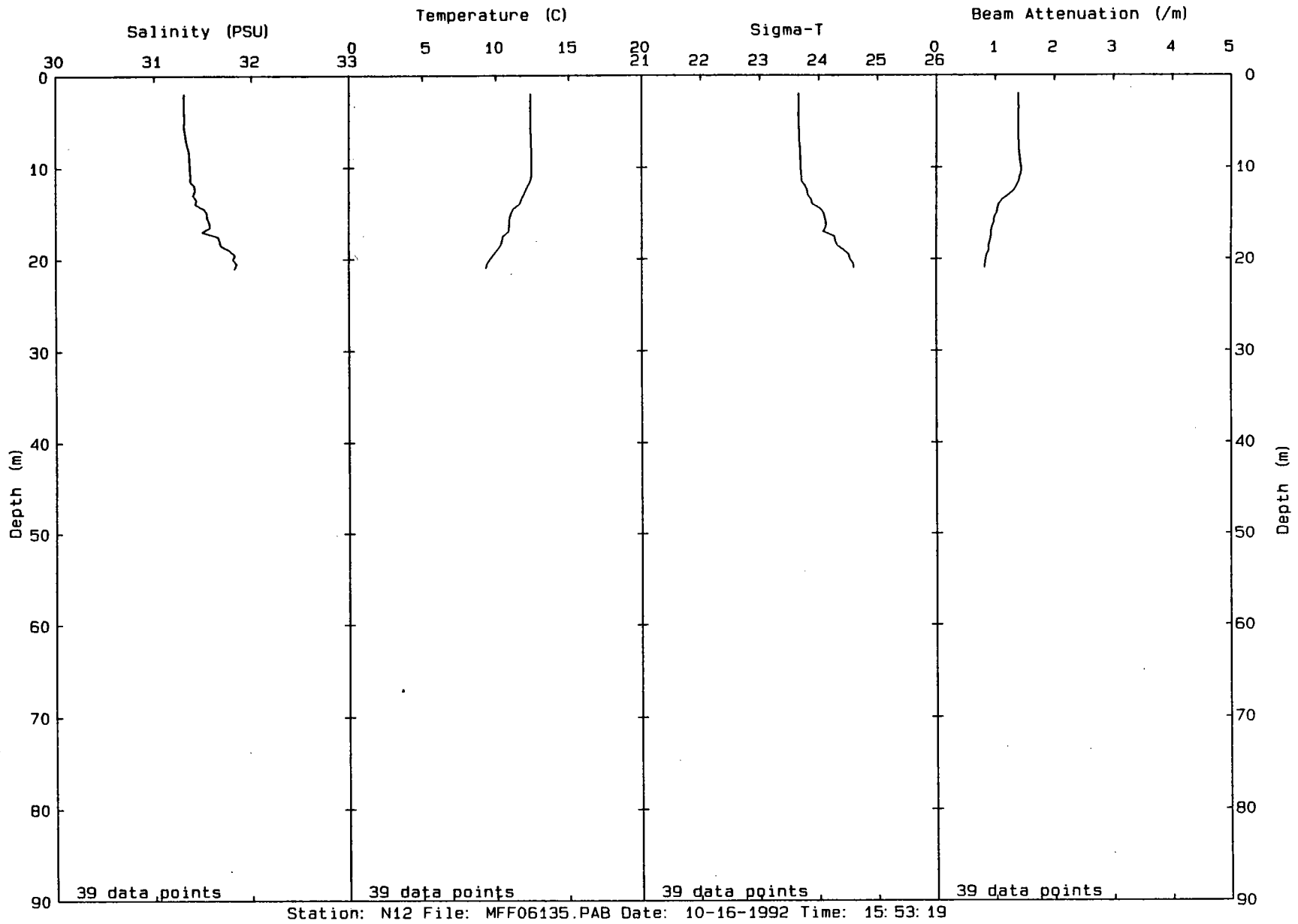
01-07-1993 20:28:19 Battelle

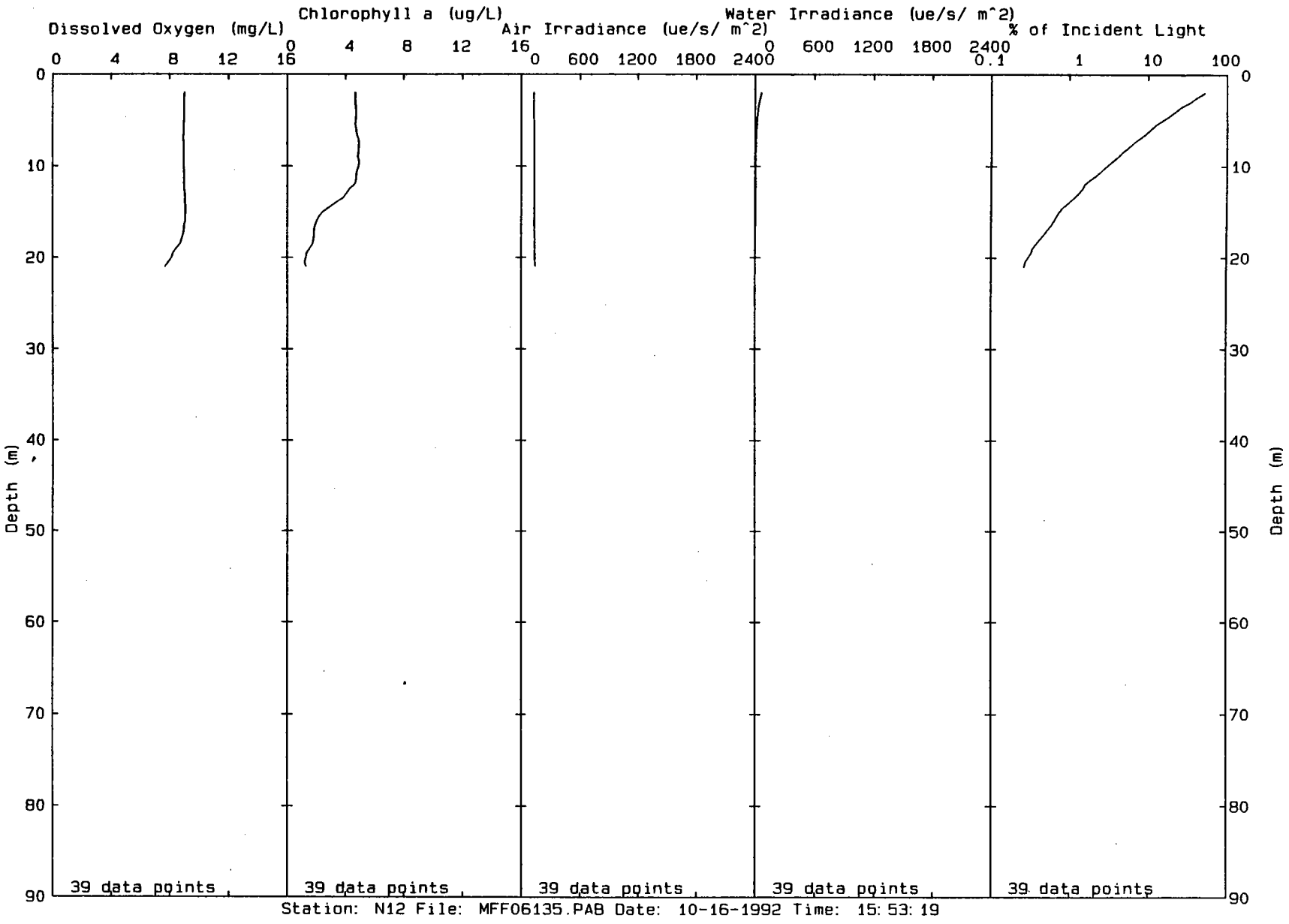

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
47 data points
47 data points
47 data points
47 data points
Station: N11 File: MFF06137.PAB Date: 10-16-1992 Time: 16:21:58

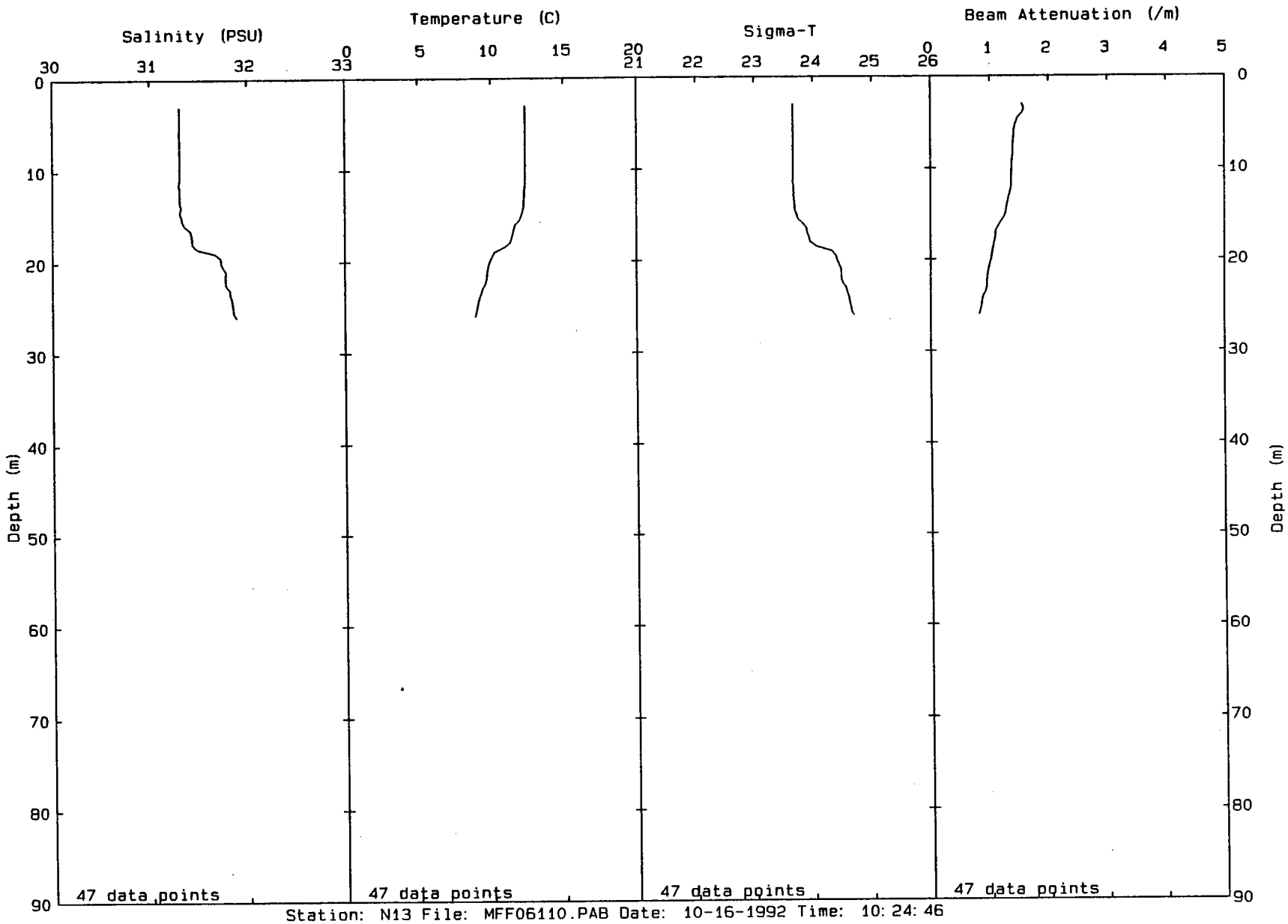


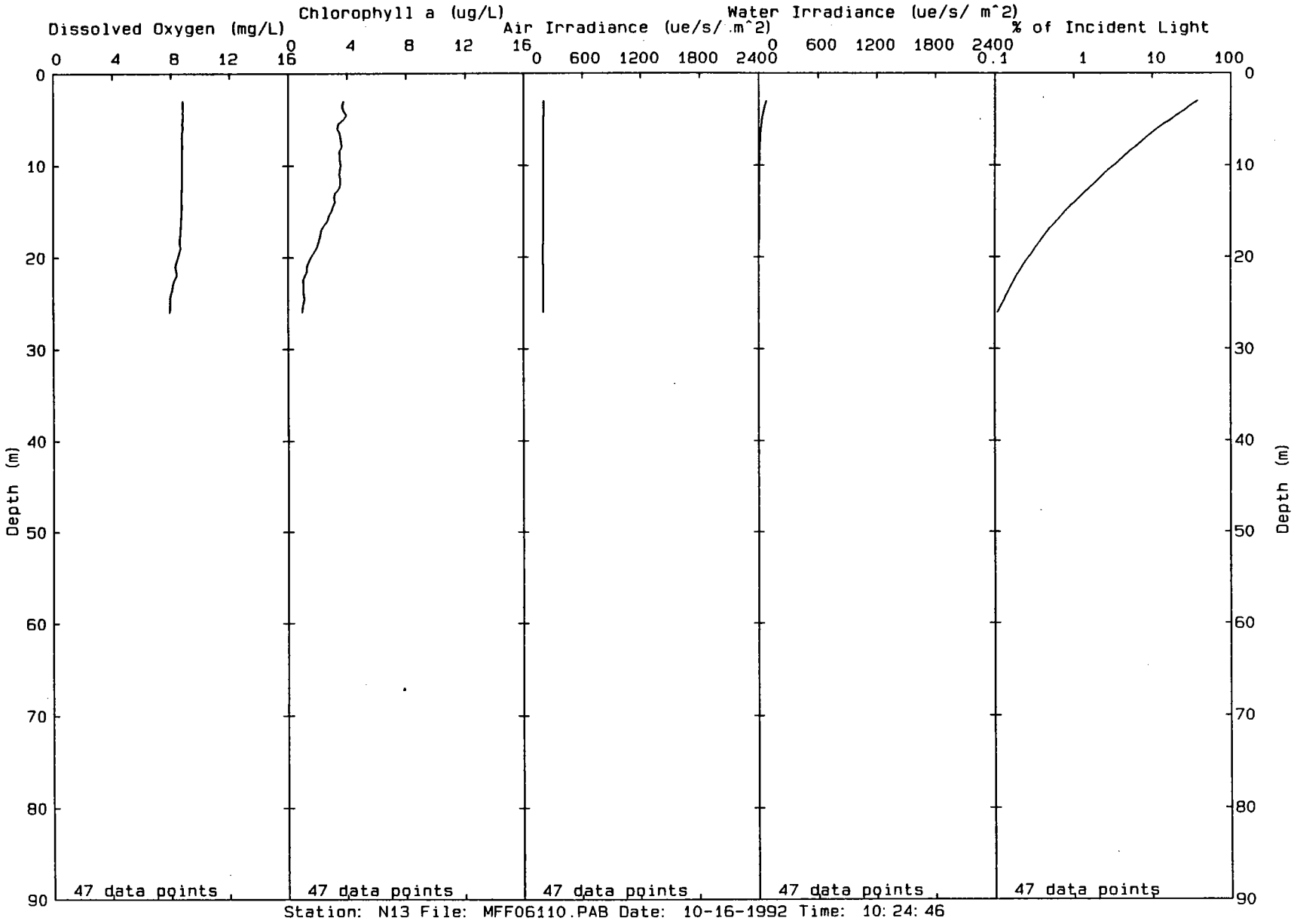
00266

01-07-1993 20:28:16 Battelle


Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
39 data points
39 data points
39 data points
39 data points
Station: N12 File: MFF06135.PAB Date: 10-16-1992 Time: 15:53:19

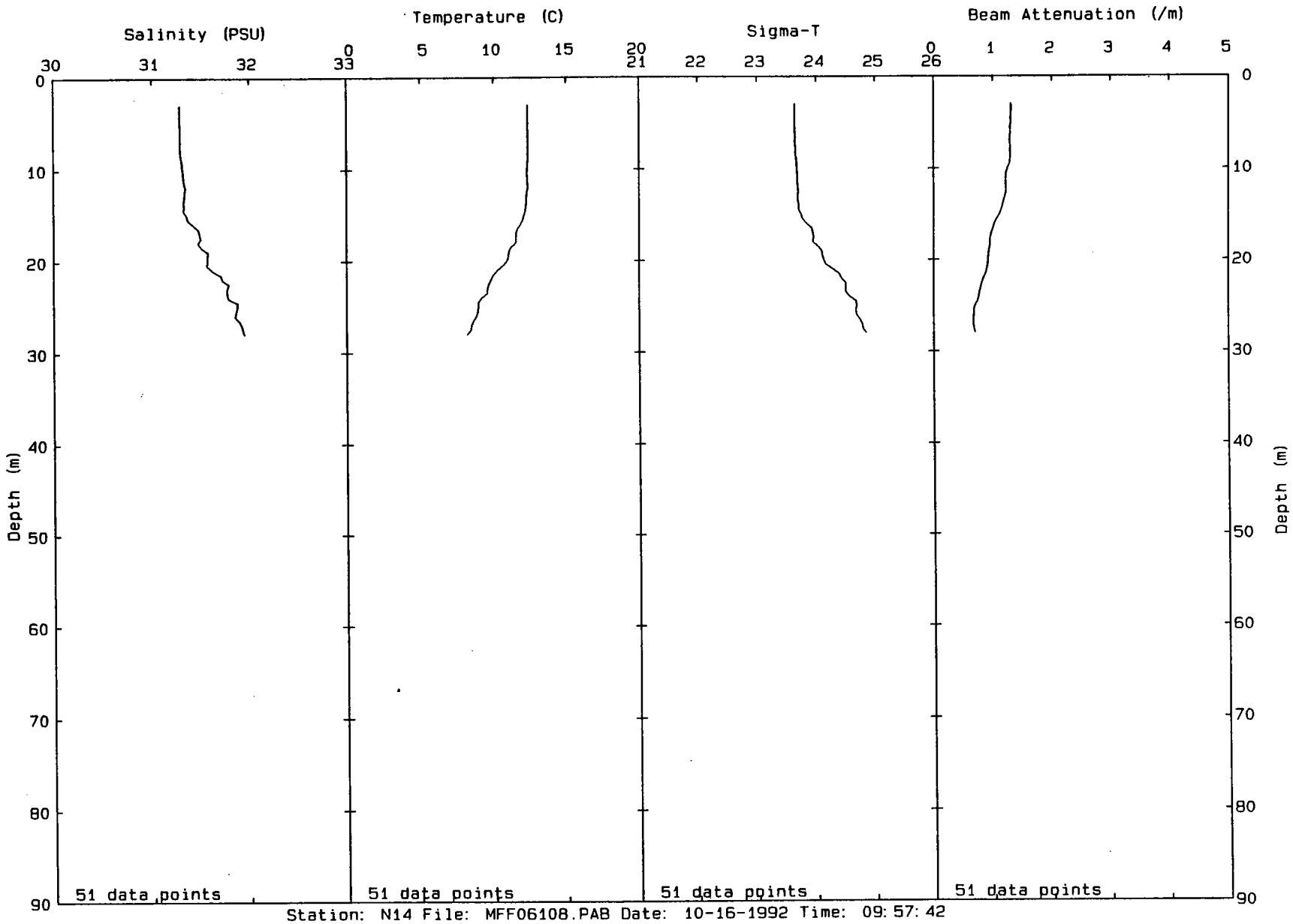

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
39 data points
39 data points
39 data points
39 data points
39 data points
Station: N12 File: MFF06135.PAB Date: 10-16-1992 Time: 15:53:19

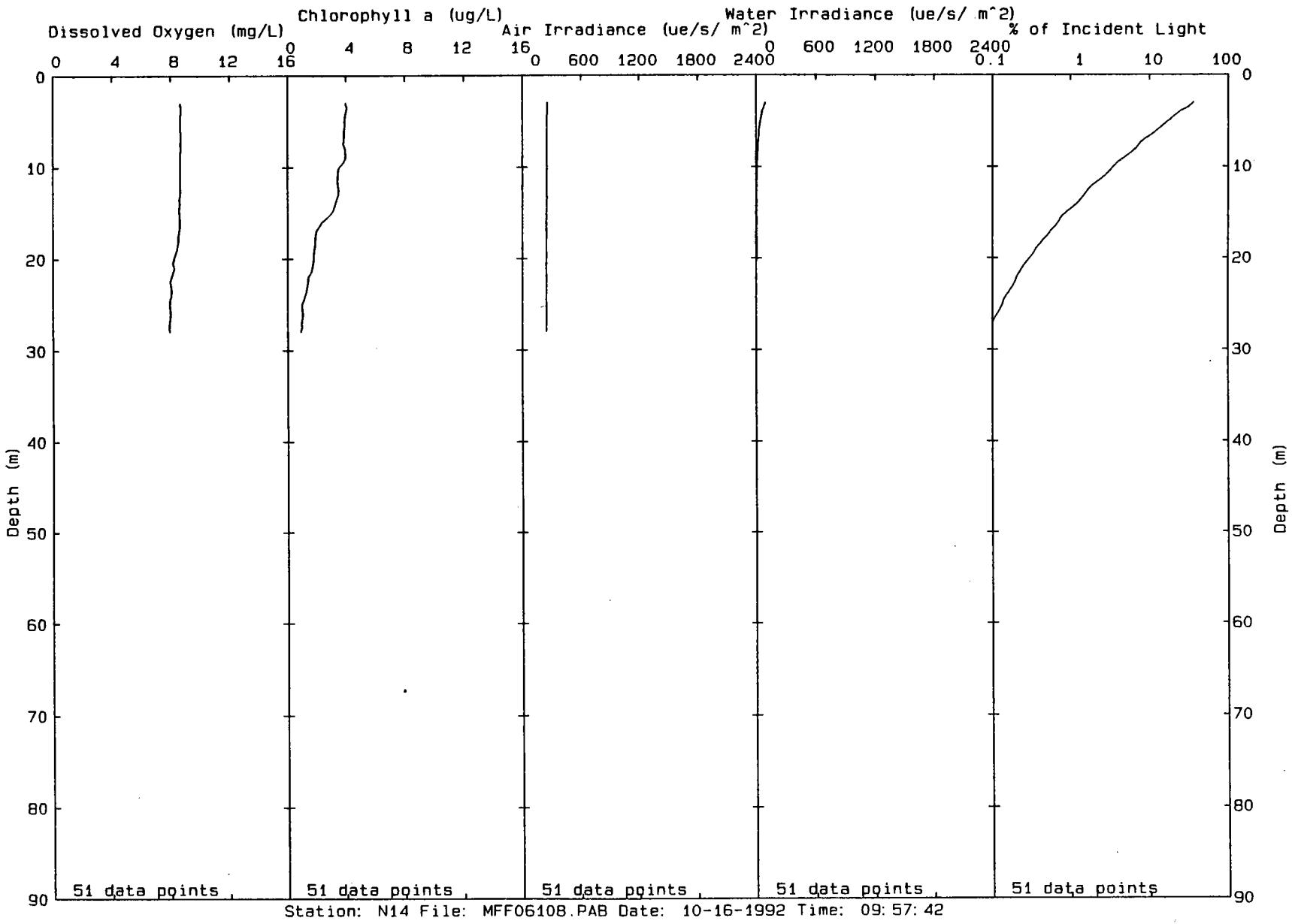

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
47 data points
47 data points
47 data points
47 data points
Station: N13 File: MFF06110.PAB Date: 10-16-1992 Time: 10:24:46



0200

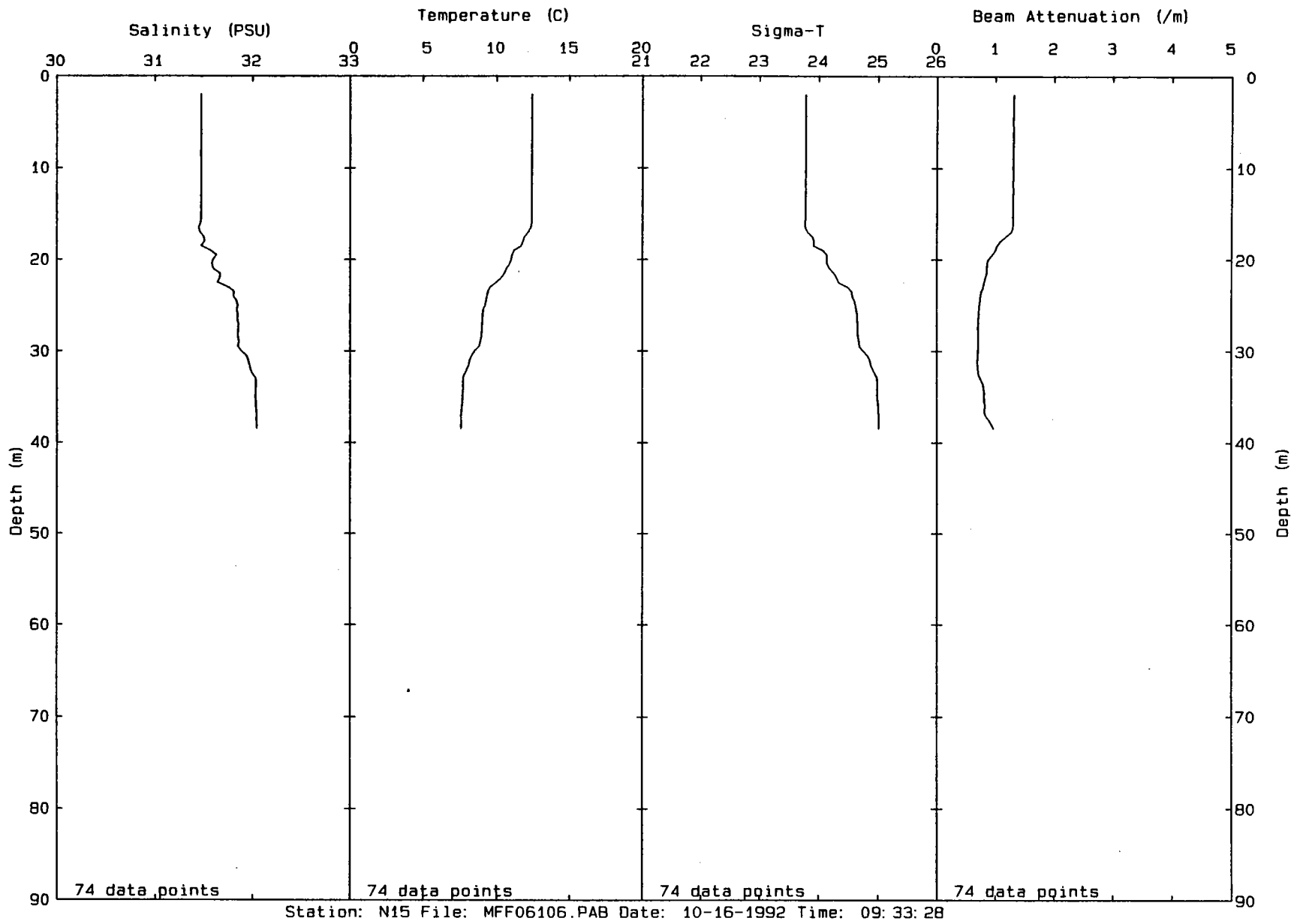
01-07-1993 20:27:21 Battelle


Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
51 data points
51 data points
51 data points
51 data points
Station: N14 File: MFF06108.PAB Date: 10-16-1992 Time: 09:57:42



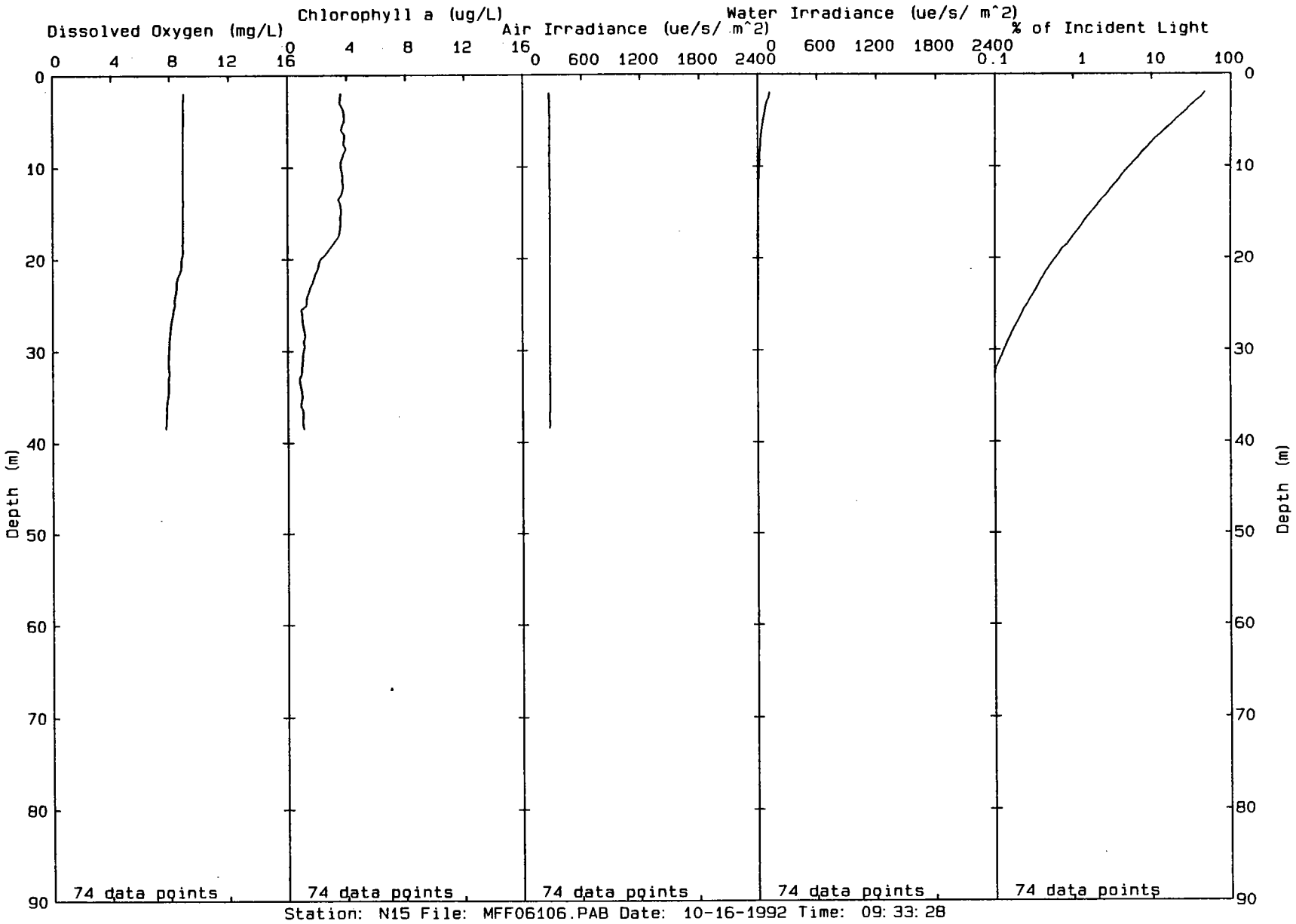
00272

01-07-1993 20:27:17 Battelle



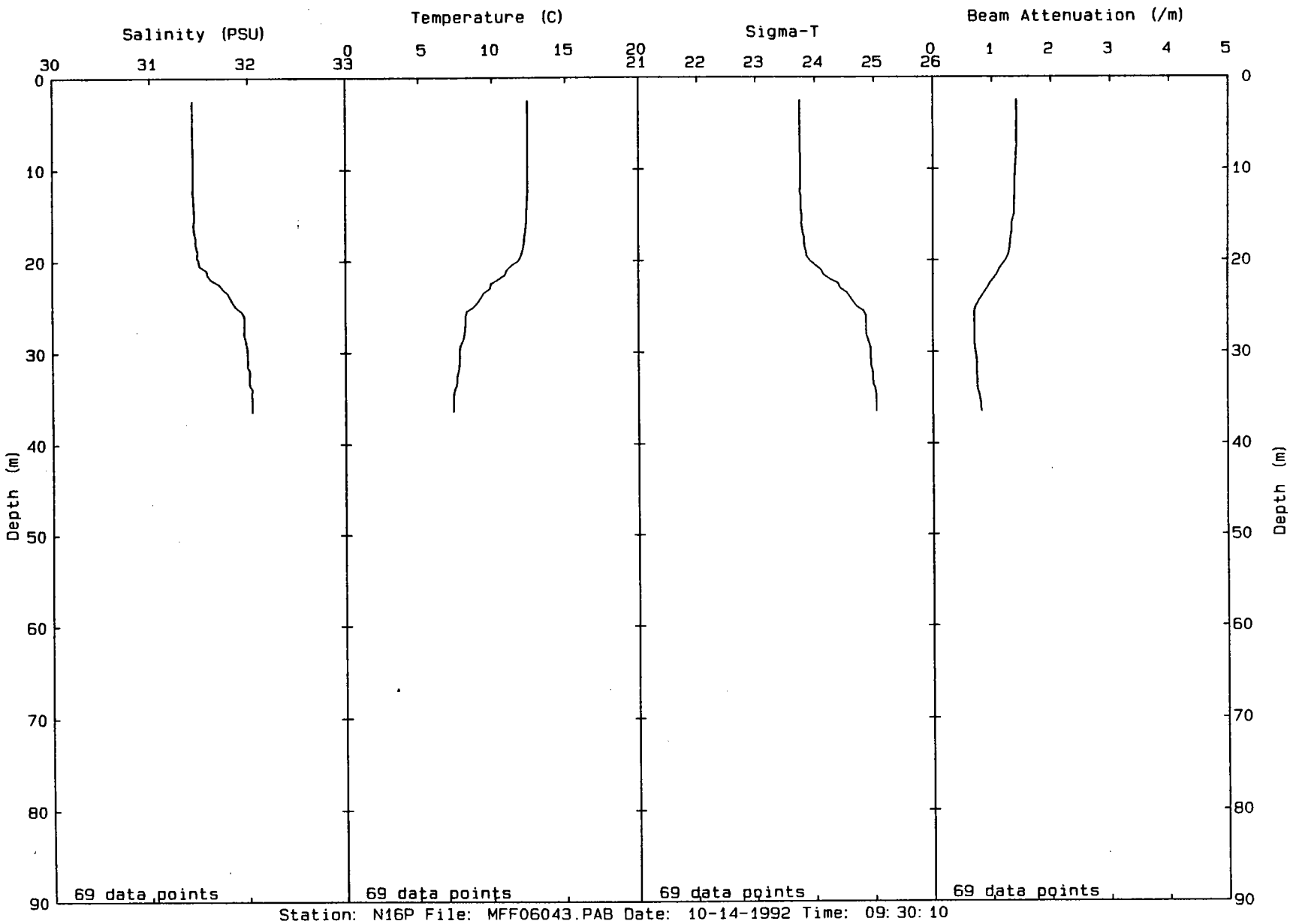
00273

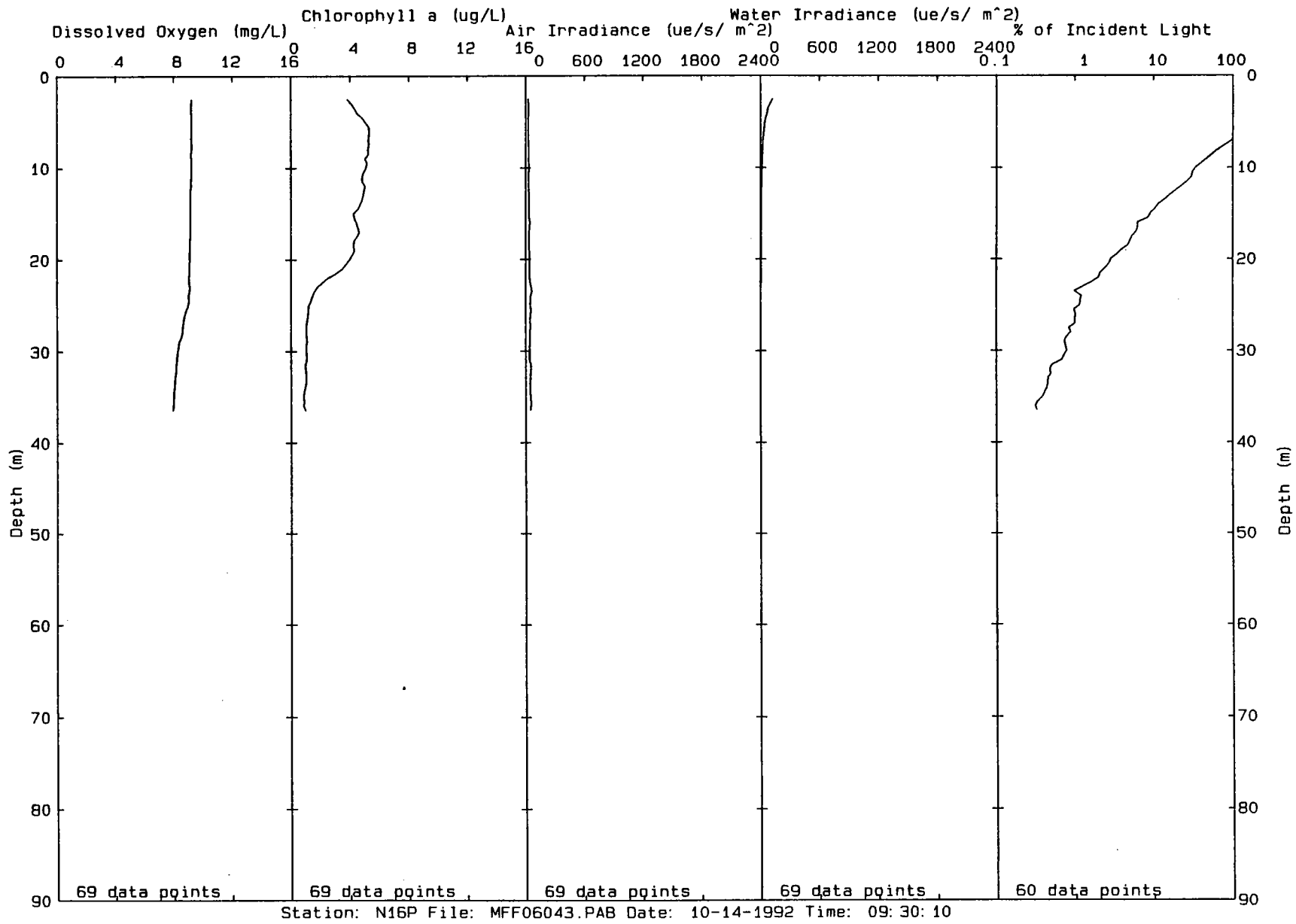
01-07-1993 21:36:43 Battelle

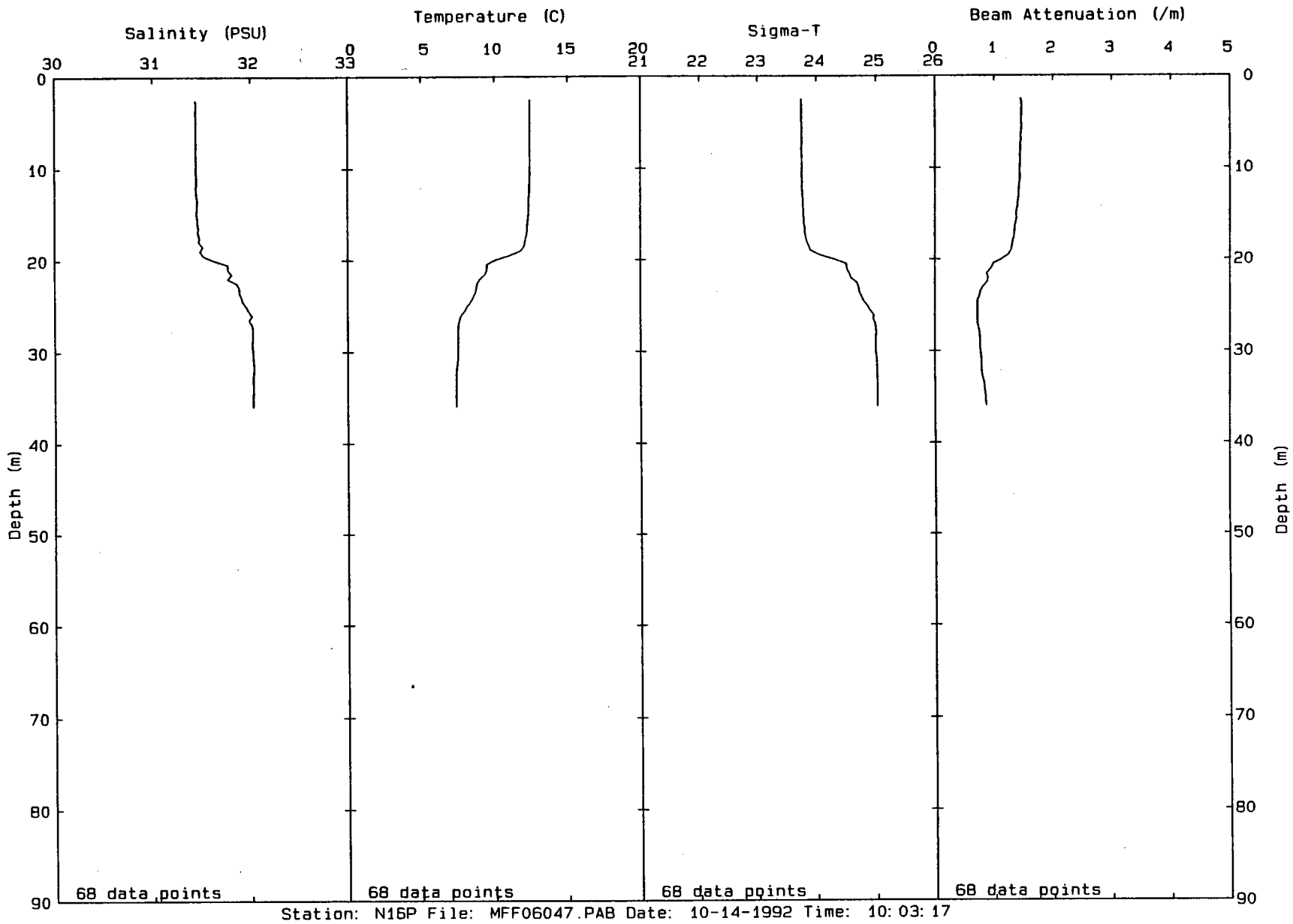


00274

01-07-1993 20:27:14 Battelle

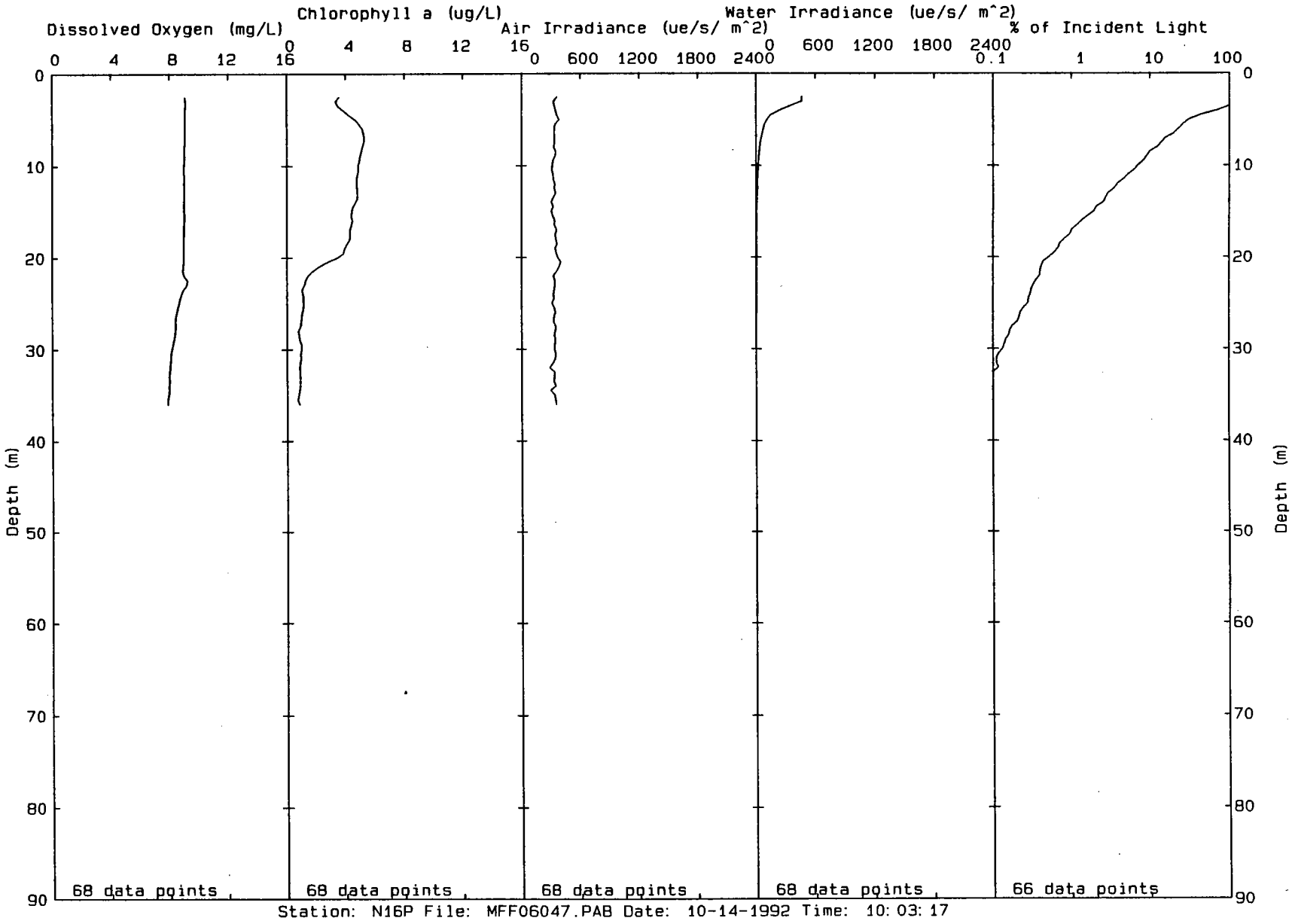

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
69 data points
69 data points
69 data points
69 data points
Station: N16P File: MFF06043.PAB Date: 10-14-1992 Time: 09:30:10


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
69 data points
69 data points
69 data points
69 data points
60 data points
Station: N16P File: MFF06043.PAB Date: 10-14-1992 Time: 09:30:10



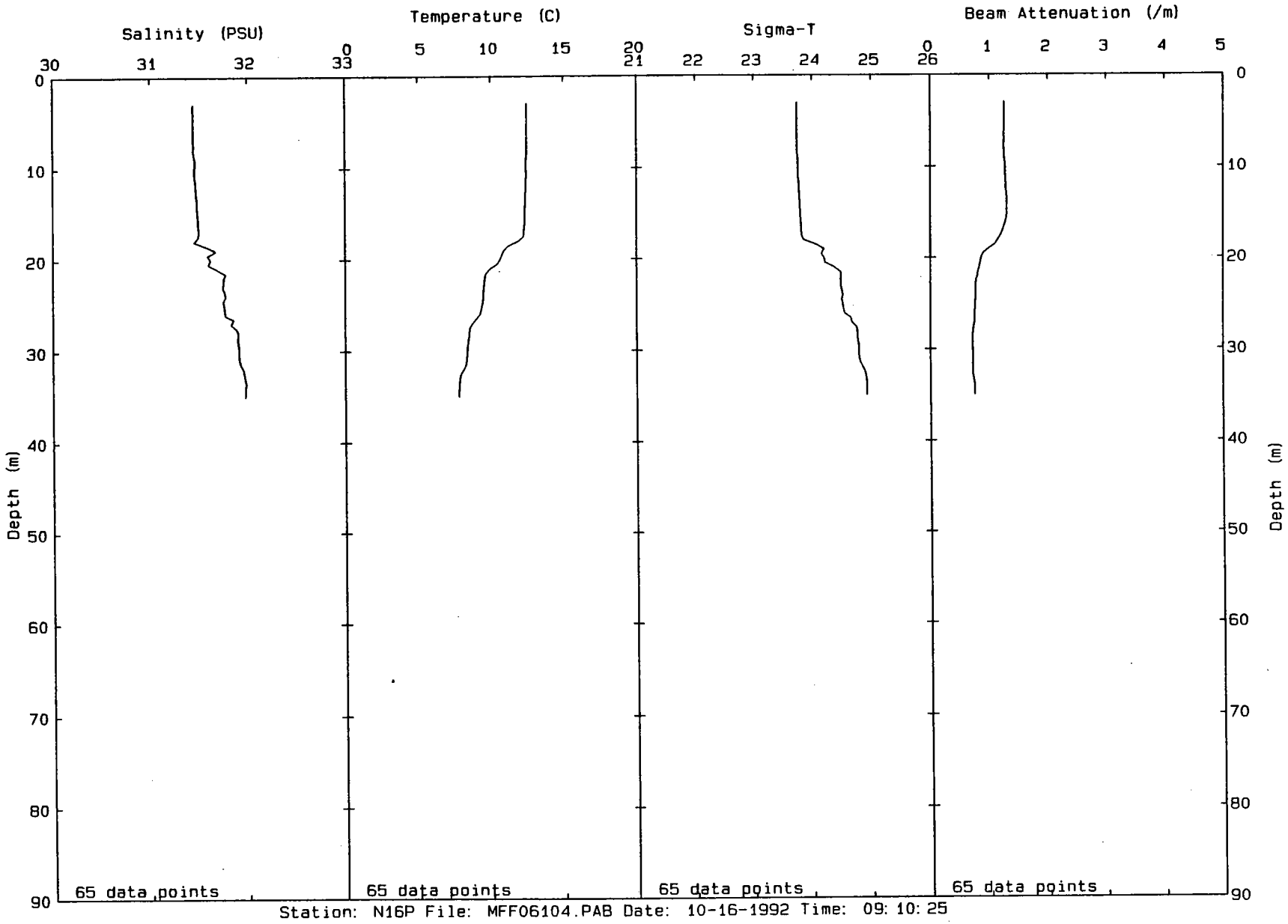
00277

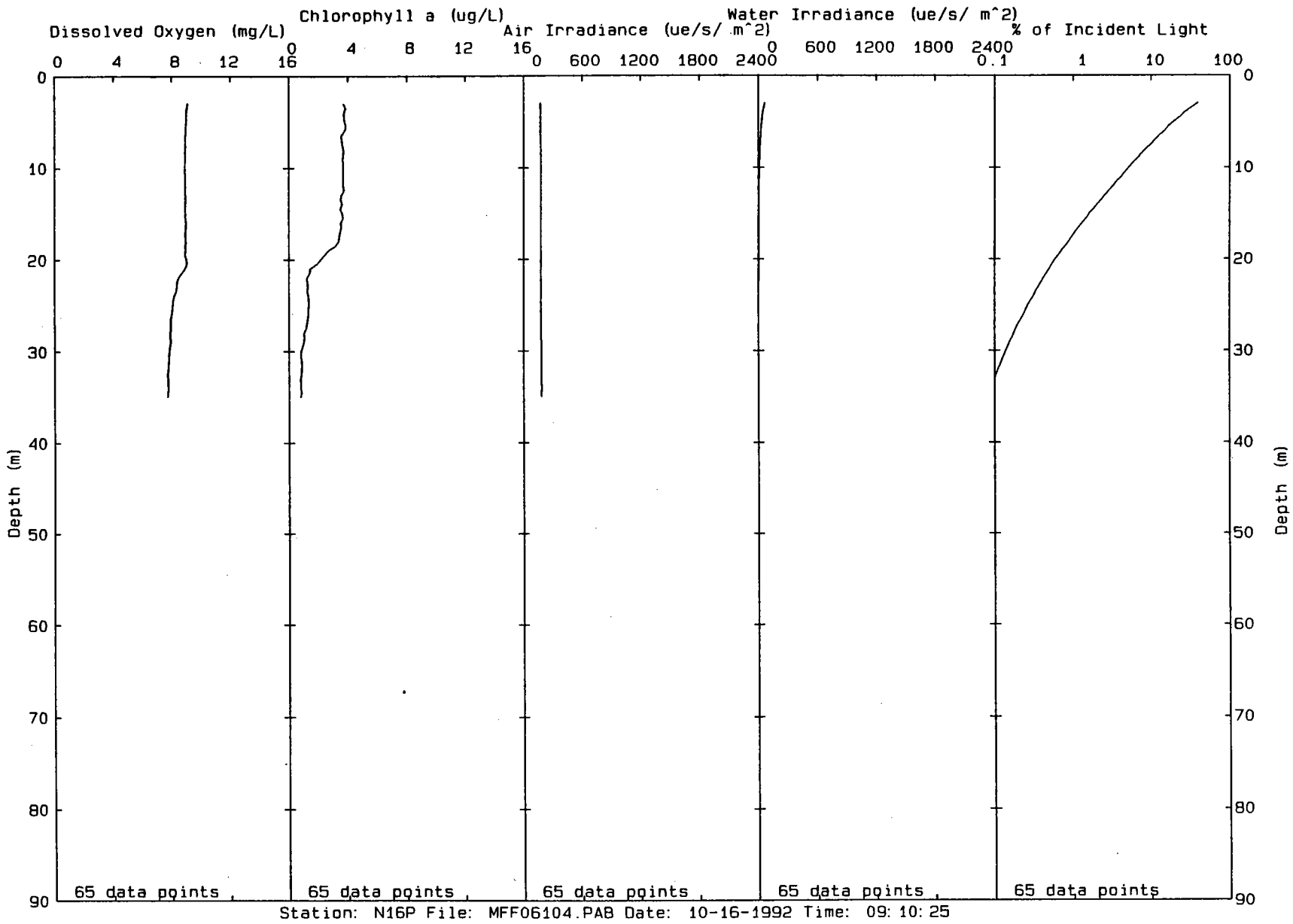
01-07-1993 21:35:26 Battelle



00278

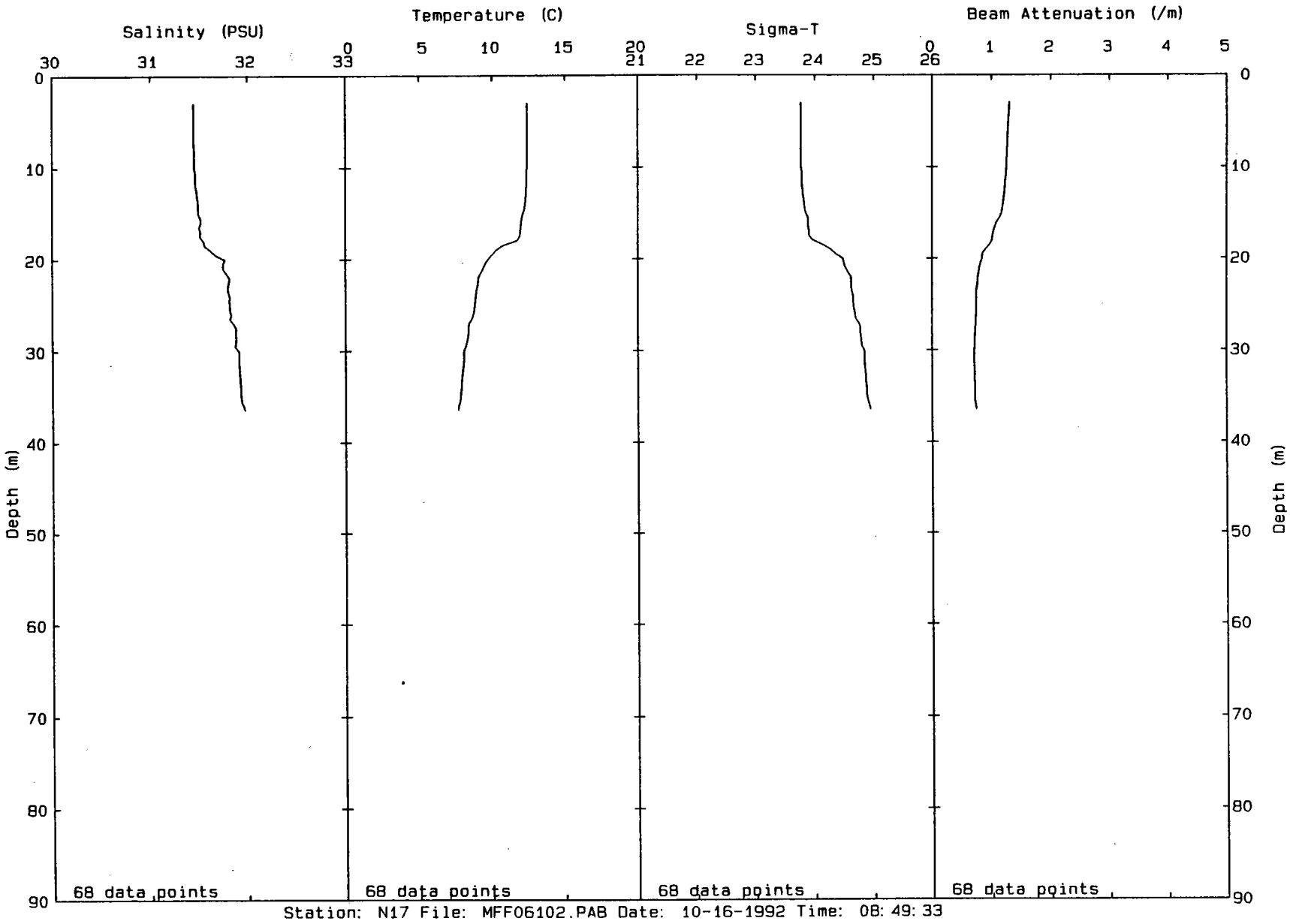
01-07-1993 20:25:42 Battelle

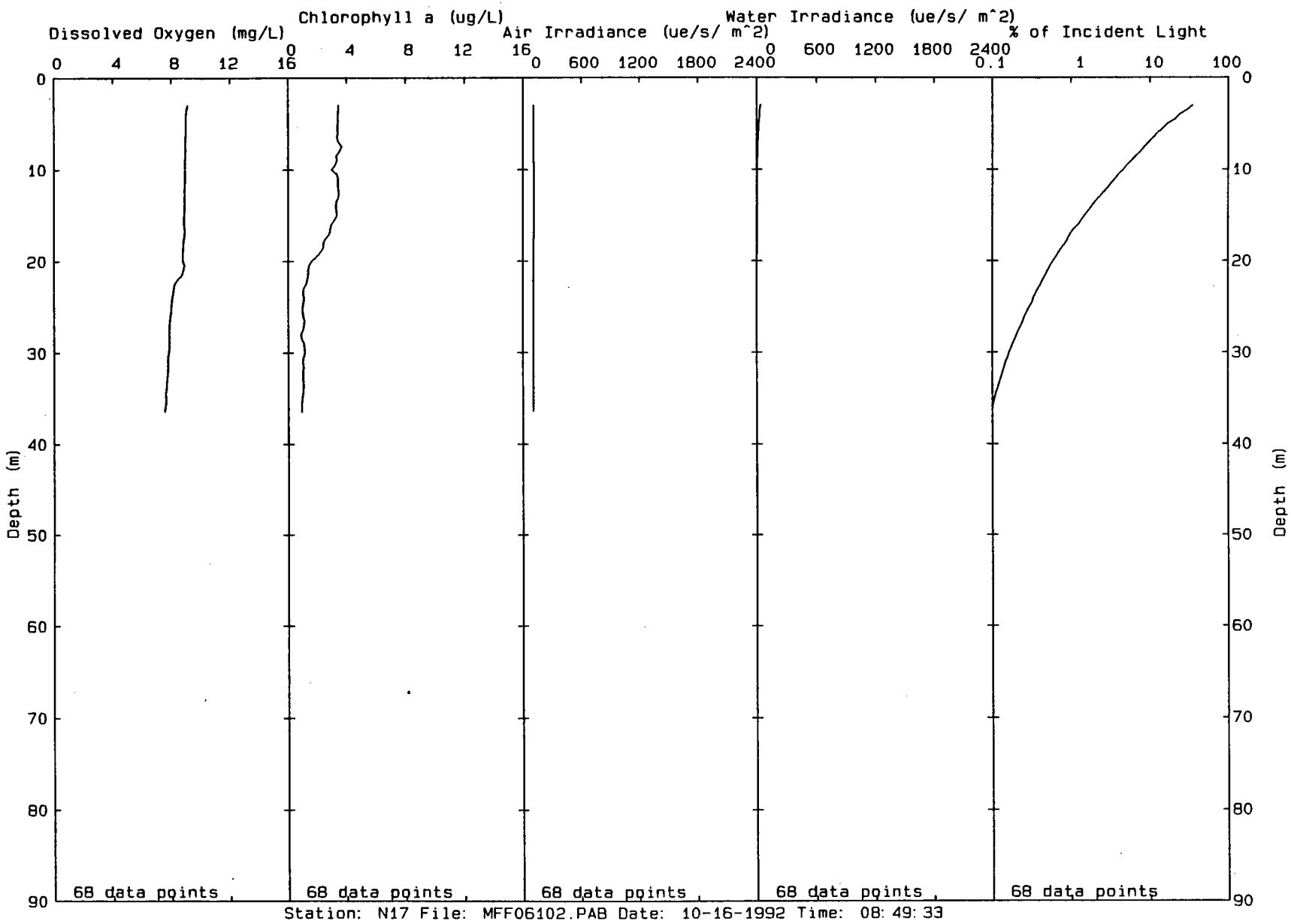

Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
65 data points
65 data points
65 data points
65 data points
Station: N16P File: MFF06104.PAB Date: 10-16-1992 Time: 09:10:25



00280

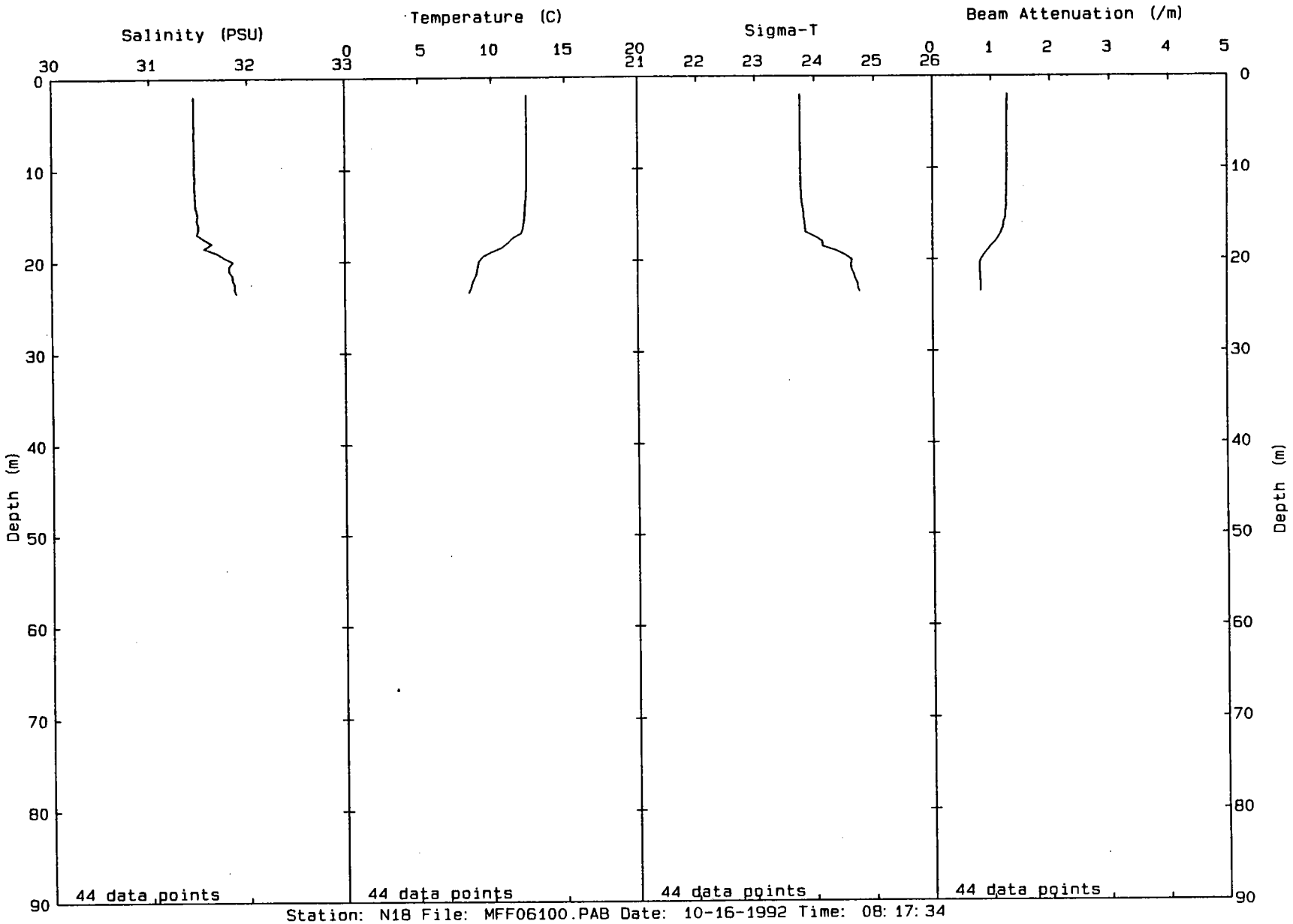
01-07-1993 20:27:09 Battelle


Salinity (PSU)
30
31
32
33
Temperature (C)
0
5
10
15
20
21
Sigma-T
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
68 data points
68 data points
68 data points
68 data points
Station: N17 File: MFF06102.PAB Date: 10-16-1992 Time: 08:49:33



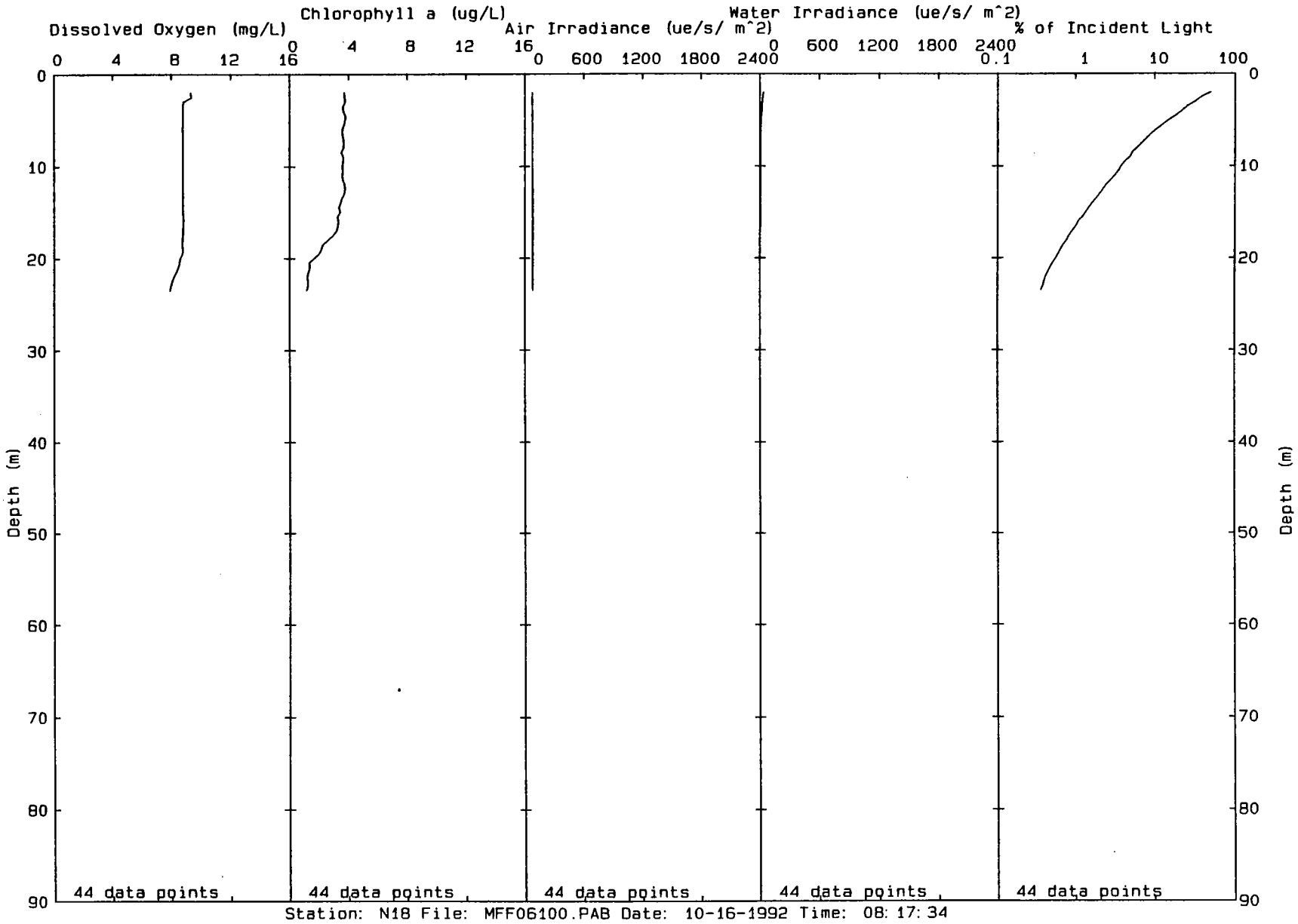
00282

01-07-1993 20:27:05 Battelle



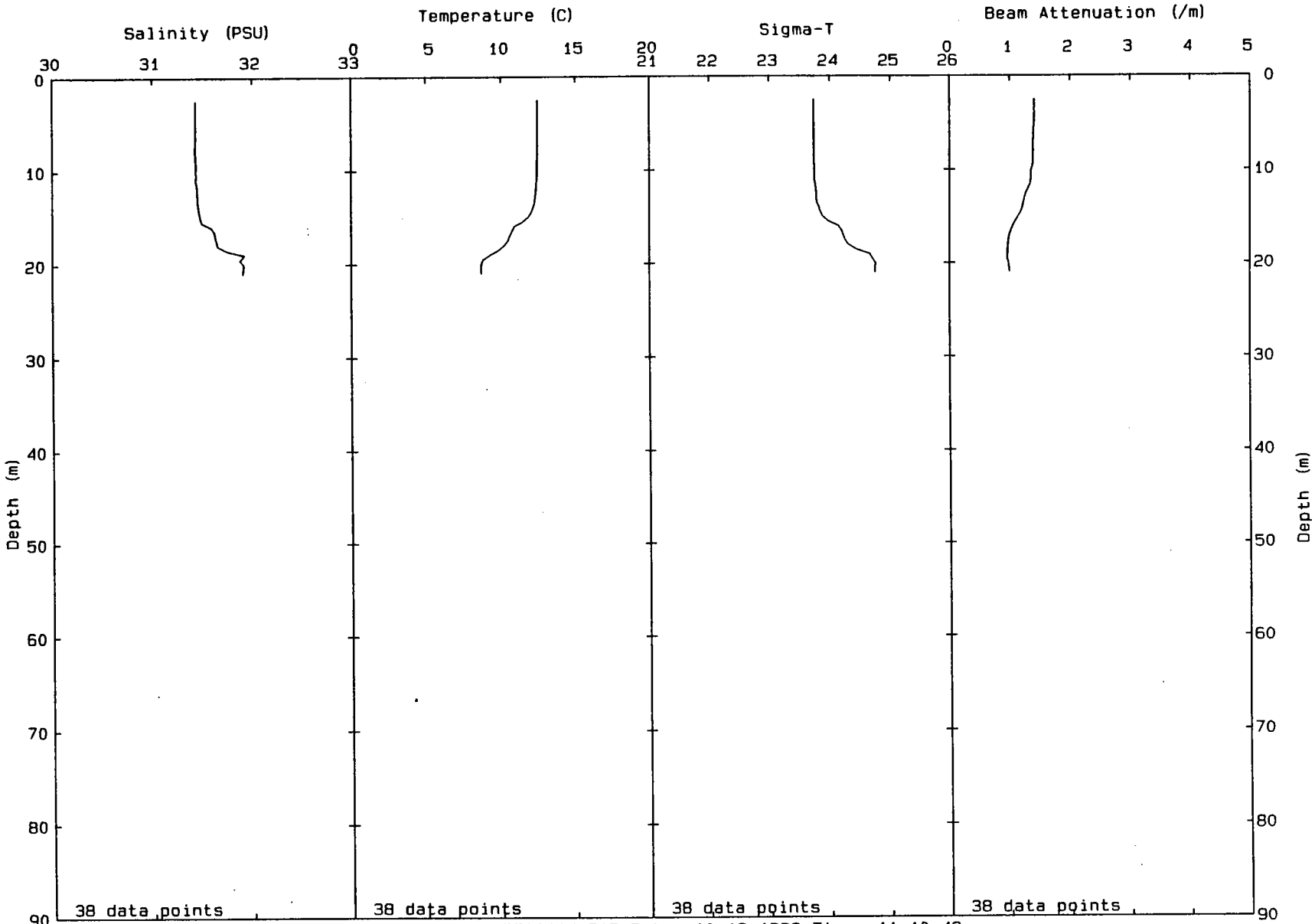
00283

01-07-1993 21:36:32 Battelle



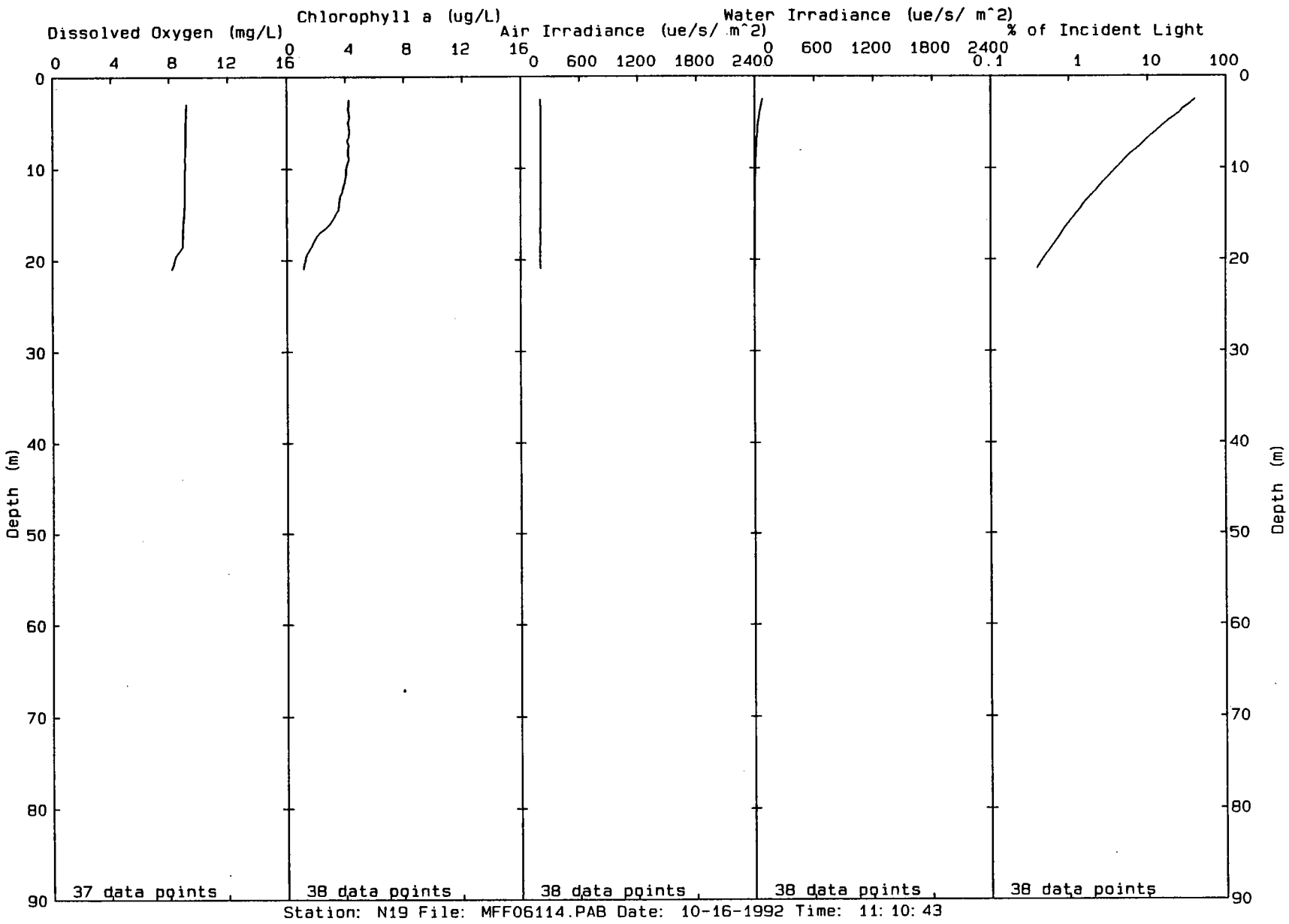
00284

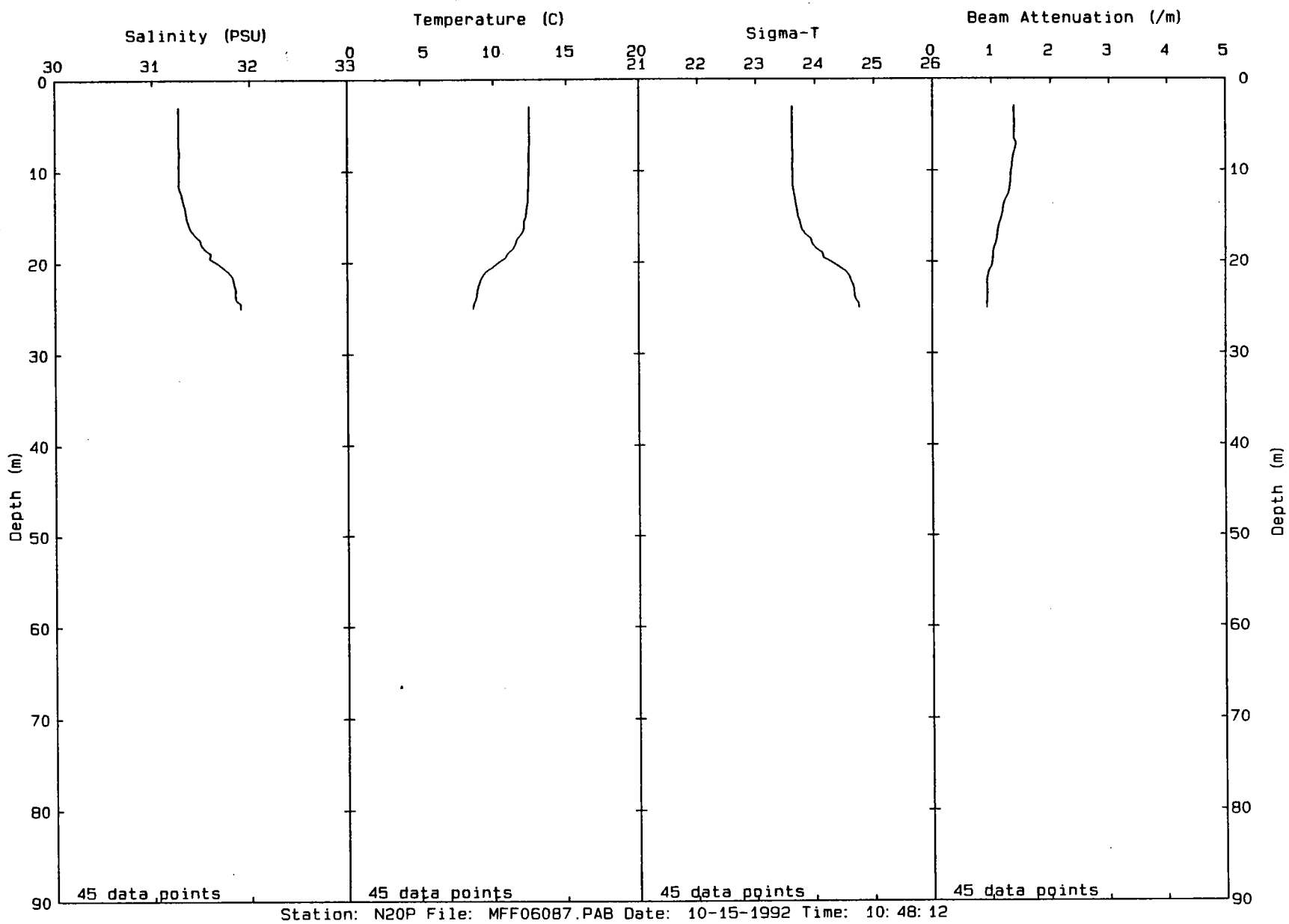
01-07-1993 20:27:00 Battelle



00285

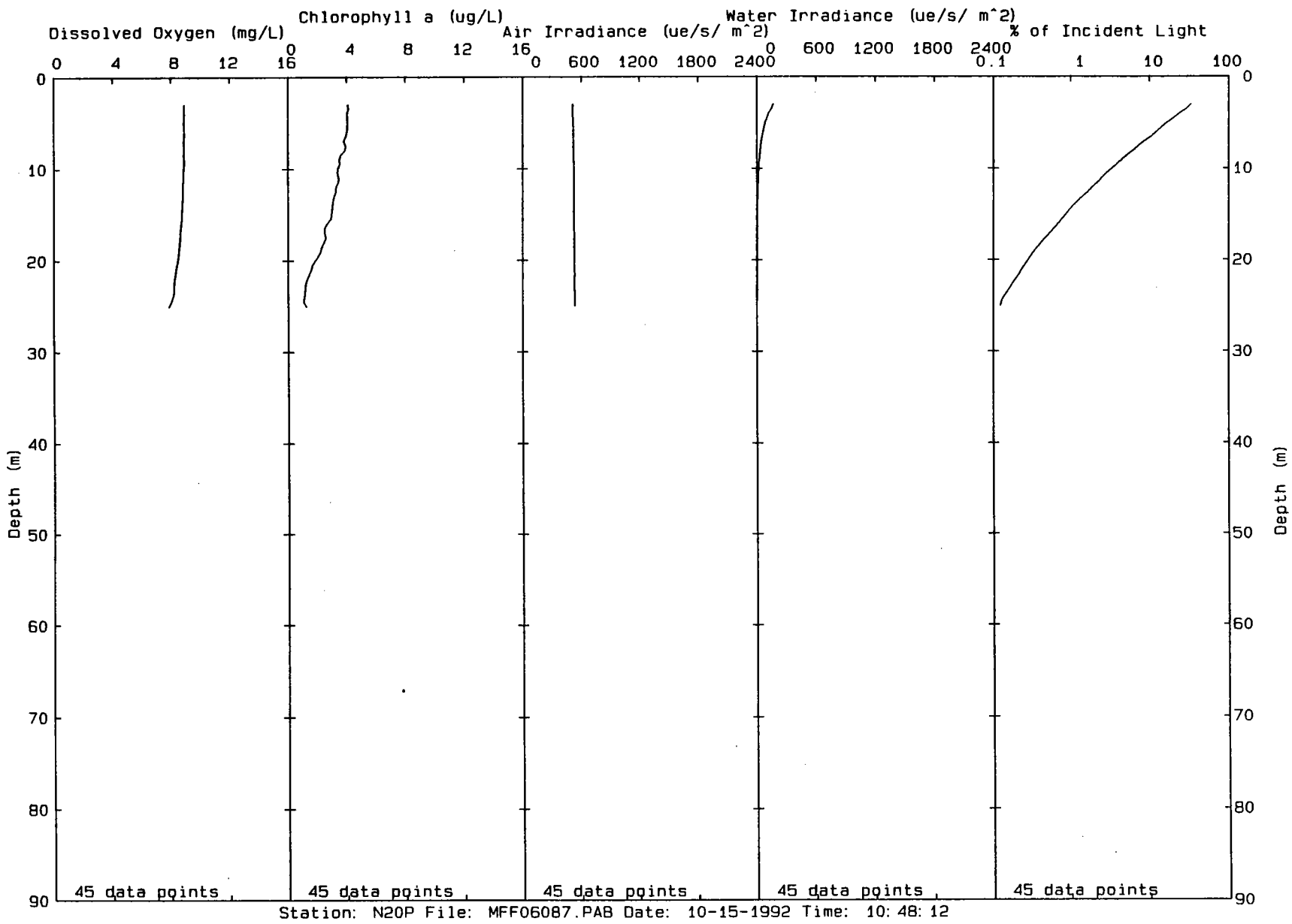
01-07-1993 21:36:55 Battelle


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
37 data points
38 data points
38 data points
38 data points
38 data points
Station: N19 File: MFF06114.PAB Date: 10-16-1992 Time: 11:10:43



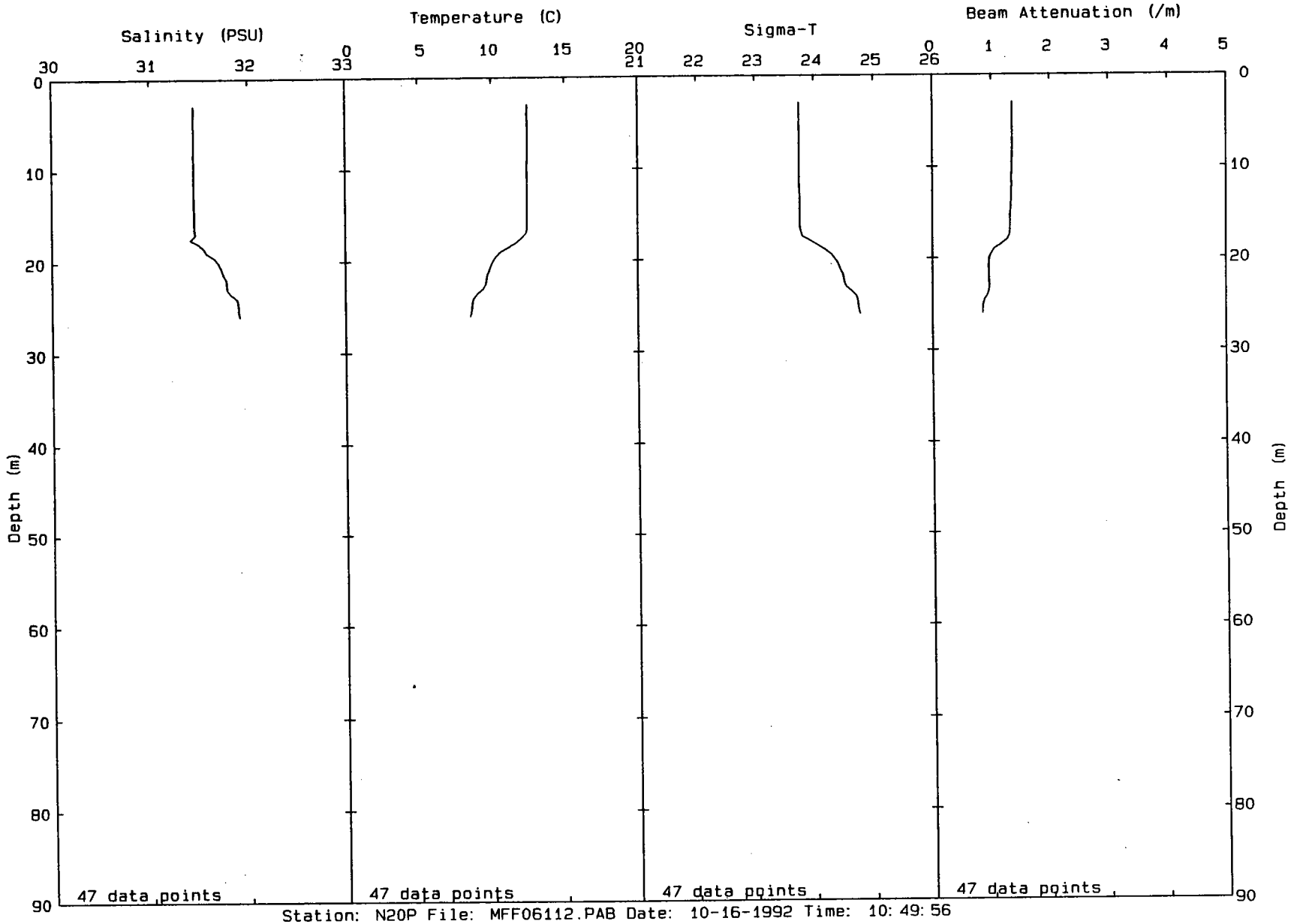
00287

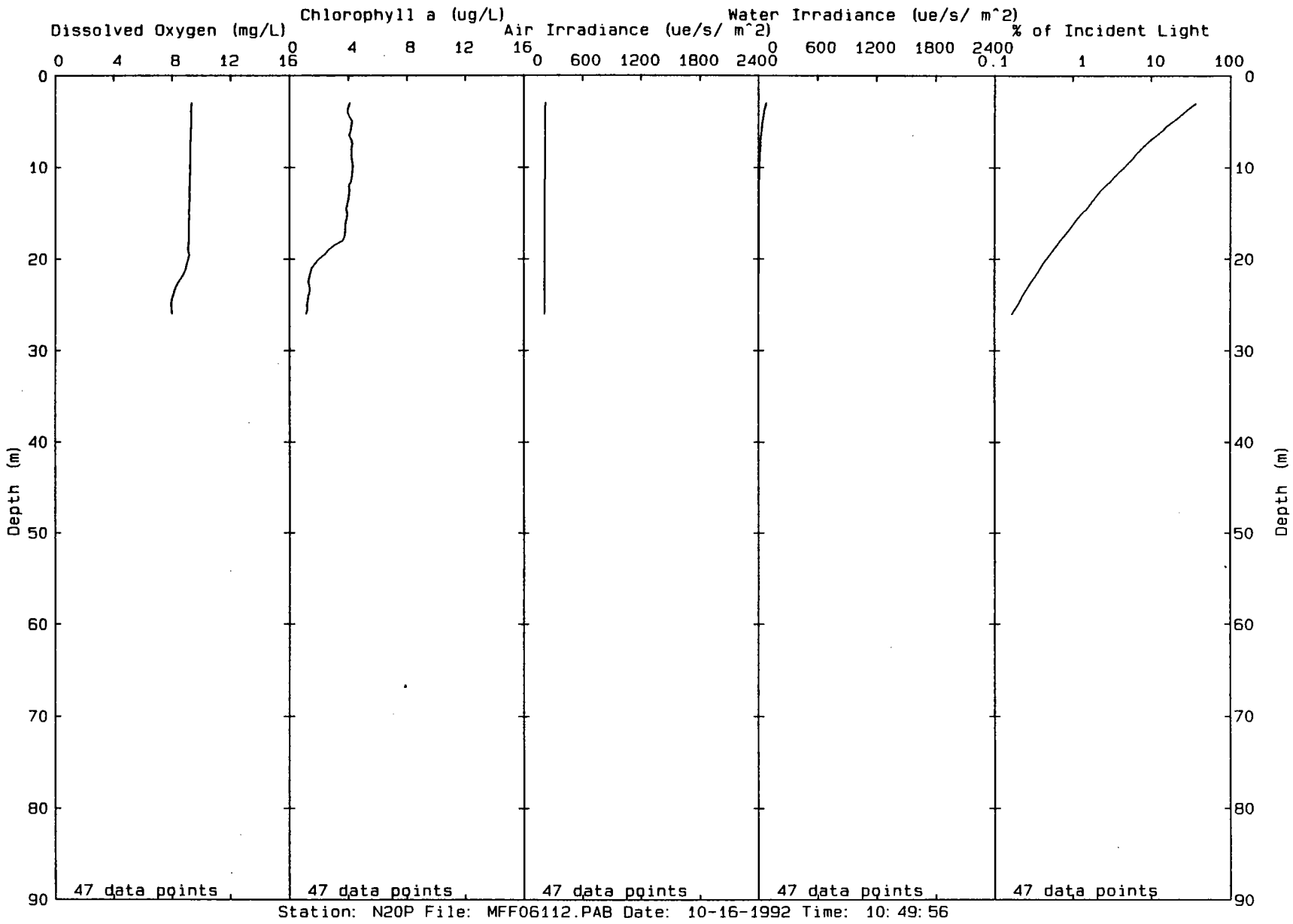
01-07-1993 21:36:22 Battelle

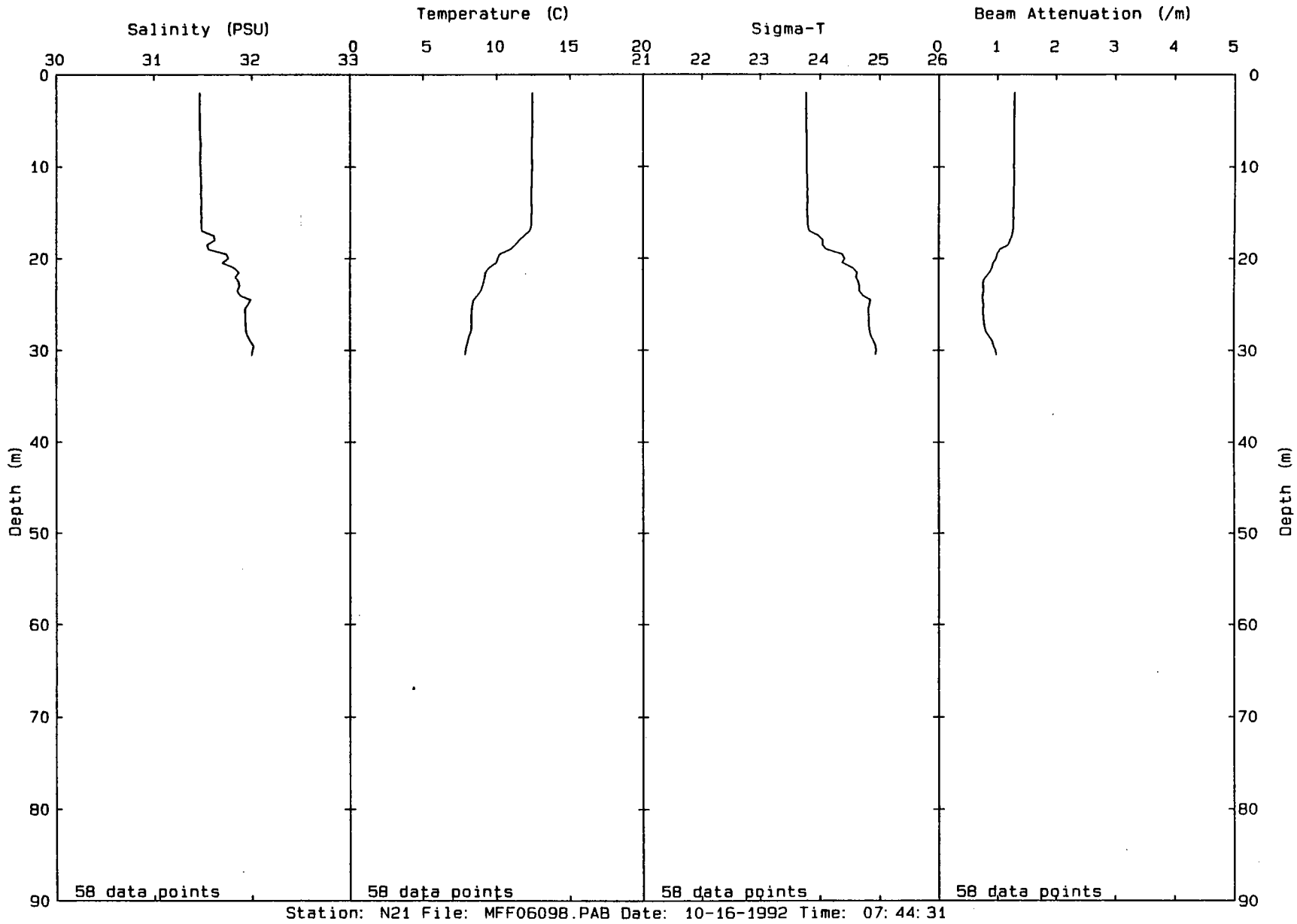


00288

01-07-1993 20:26:48 Battelle

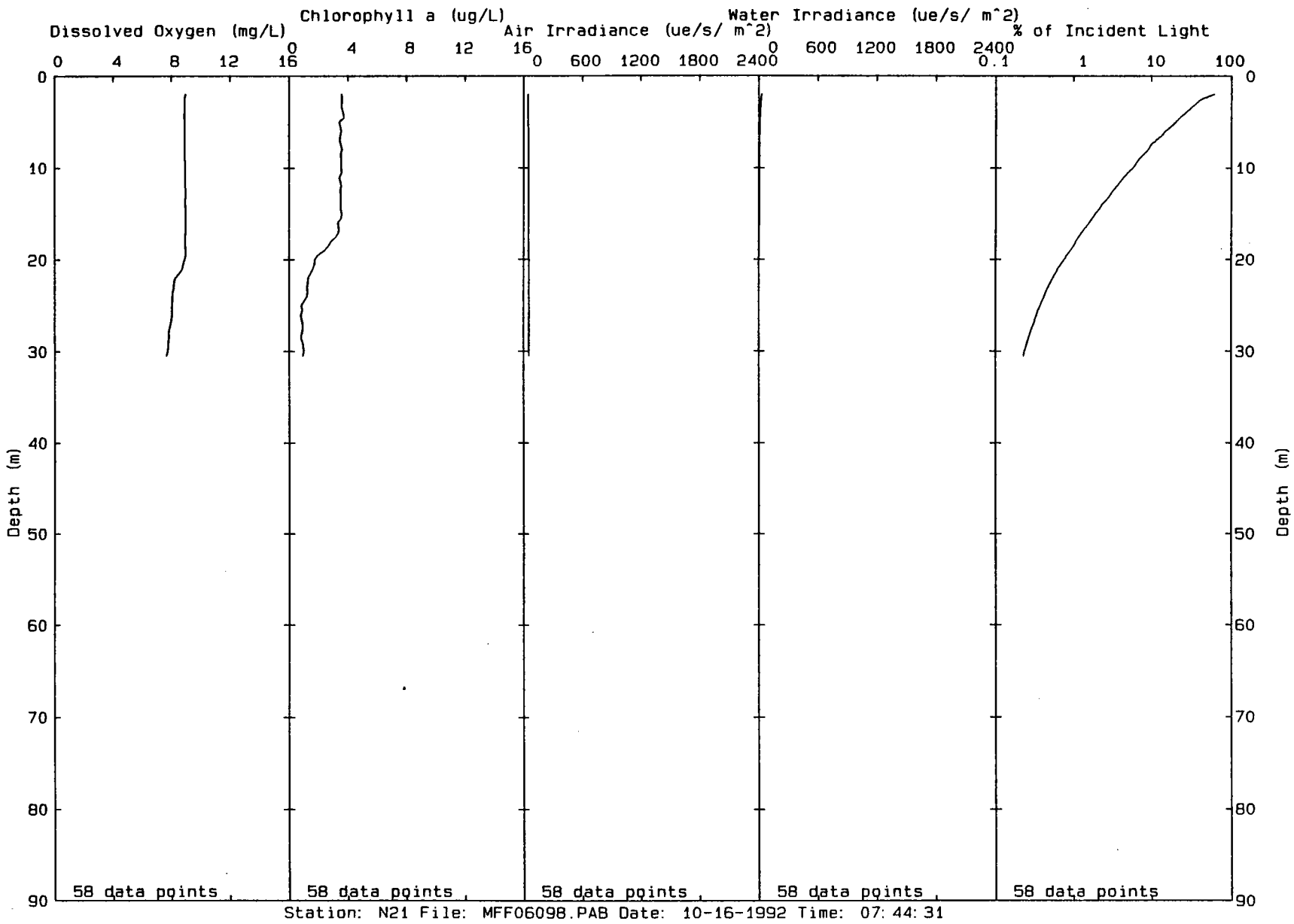

Salinity (PSU)
30
31
32
Temperature (C)
0
5
10
15
20
Sigma-T
21
22
23
24
25
26
Beam Attenuation (/m)
0
1
2
3
4
5
Depth (m)
0
10
20
30
40
50
60
70
80
90
47 data points
47 data points
47 data points
47 data points
Station: N20P File: MFF06112.PAB Date: 10-16-1992 Time: 10:49:56


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/ m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60 70 80 90
47 data points
47 data points
47 data points
47 data points
47 data points
Station: N20P File: MFF06112.PAB Date: 10-16-1992 Time: 10:49:56



00231

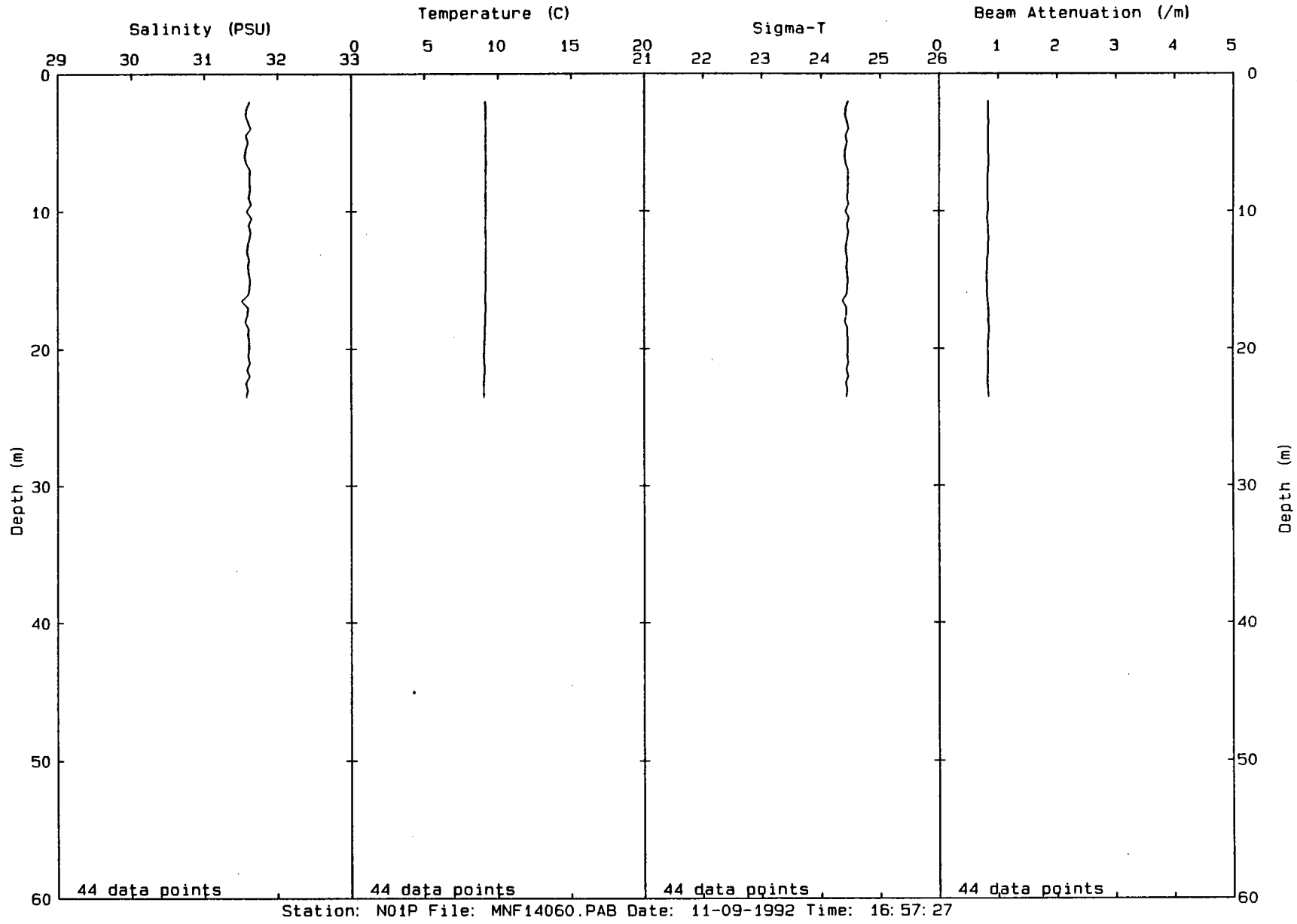
01-07-1993 21:36:29 Battelle



00232

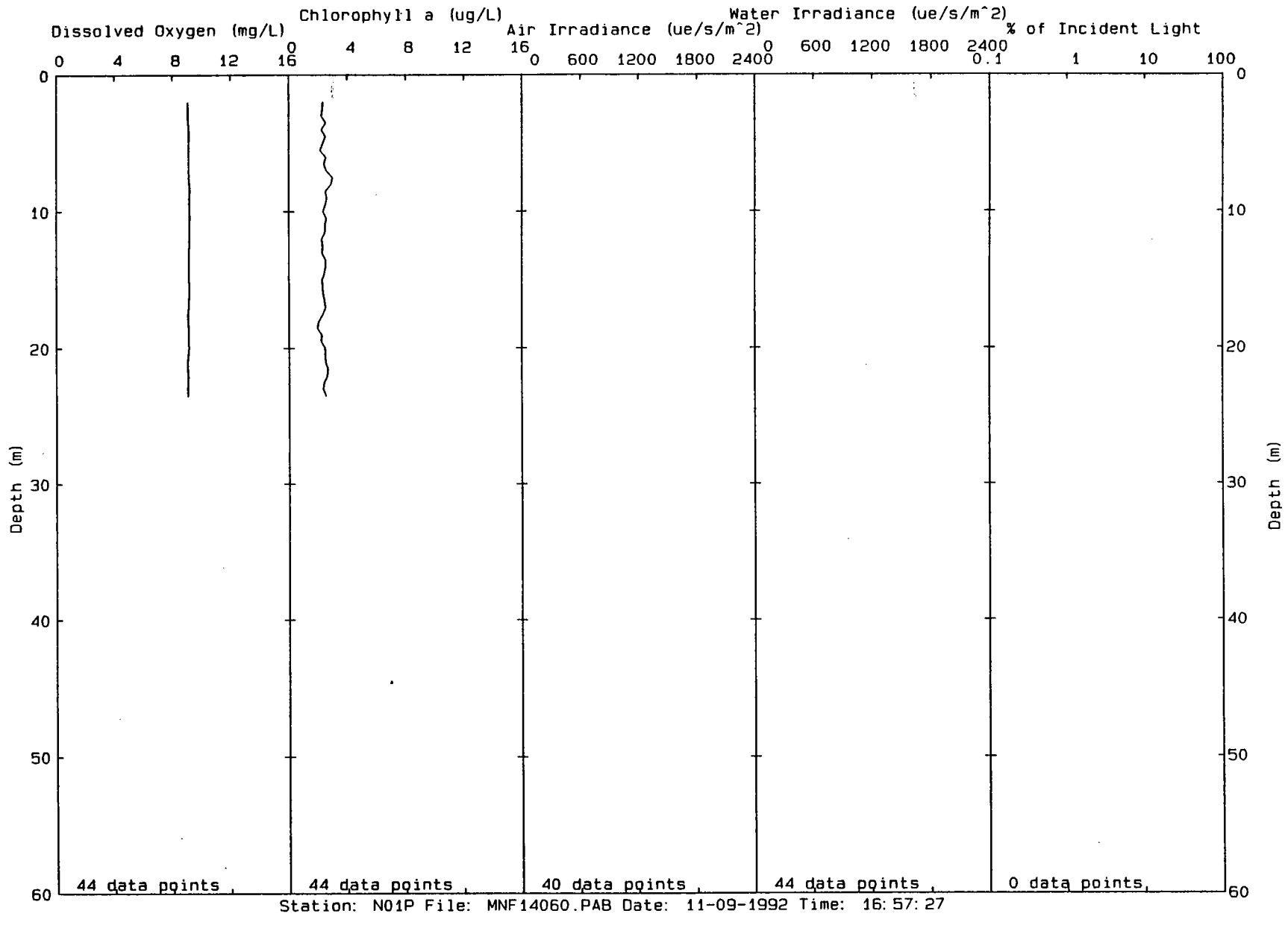
01-07-1993 20:26:57 Battelle

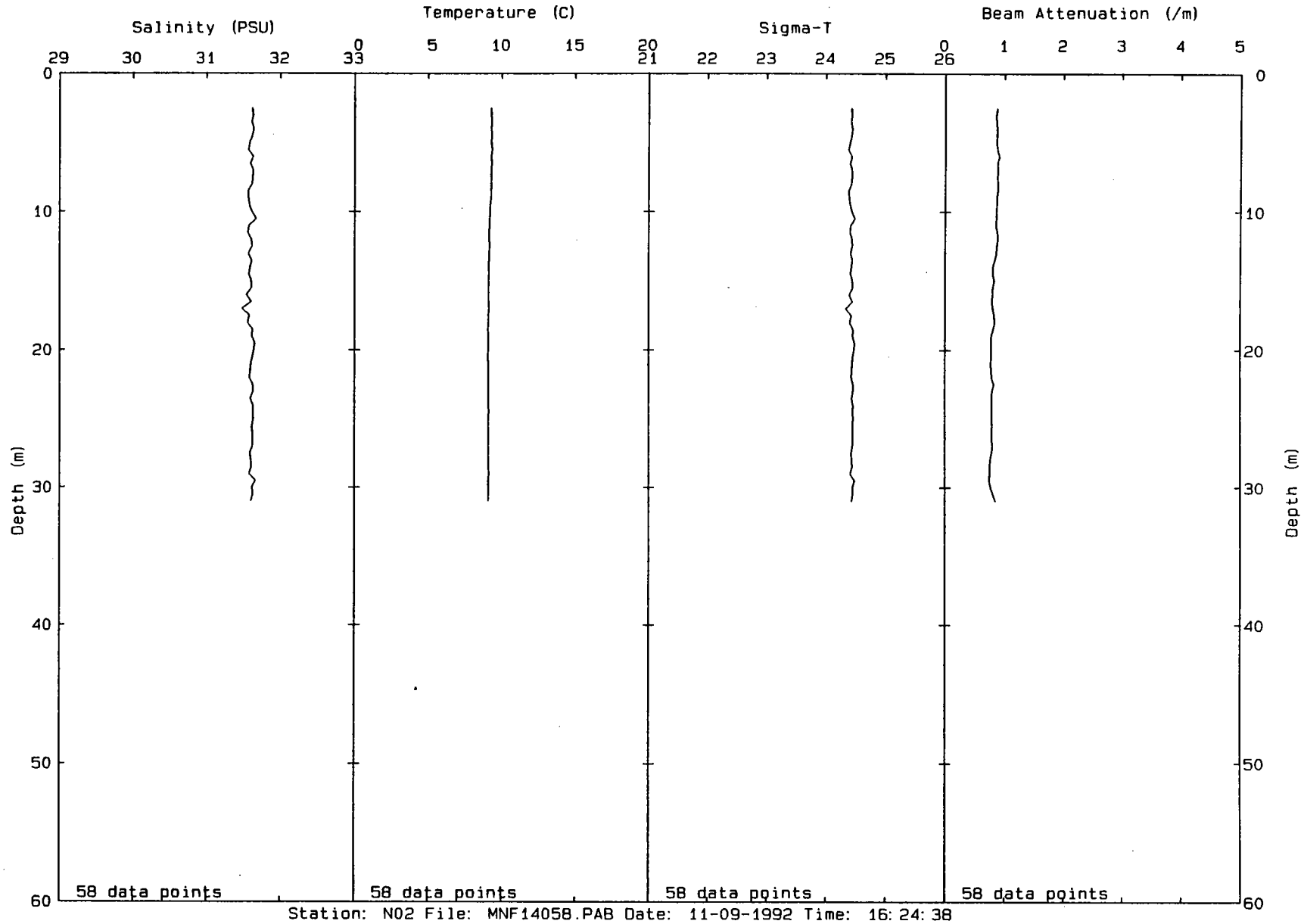
November Profiles

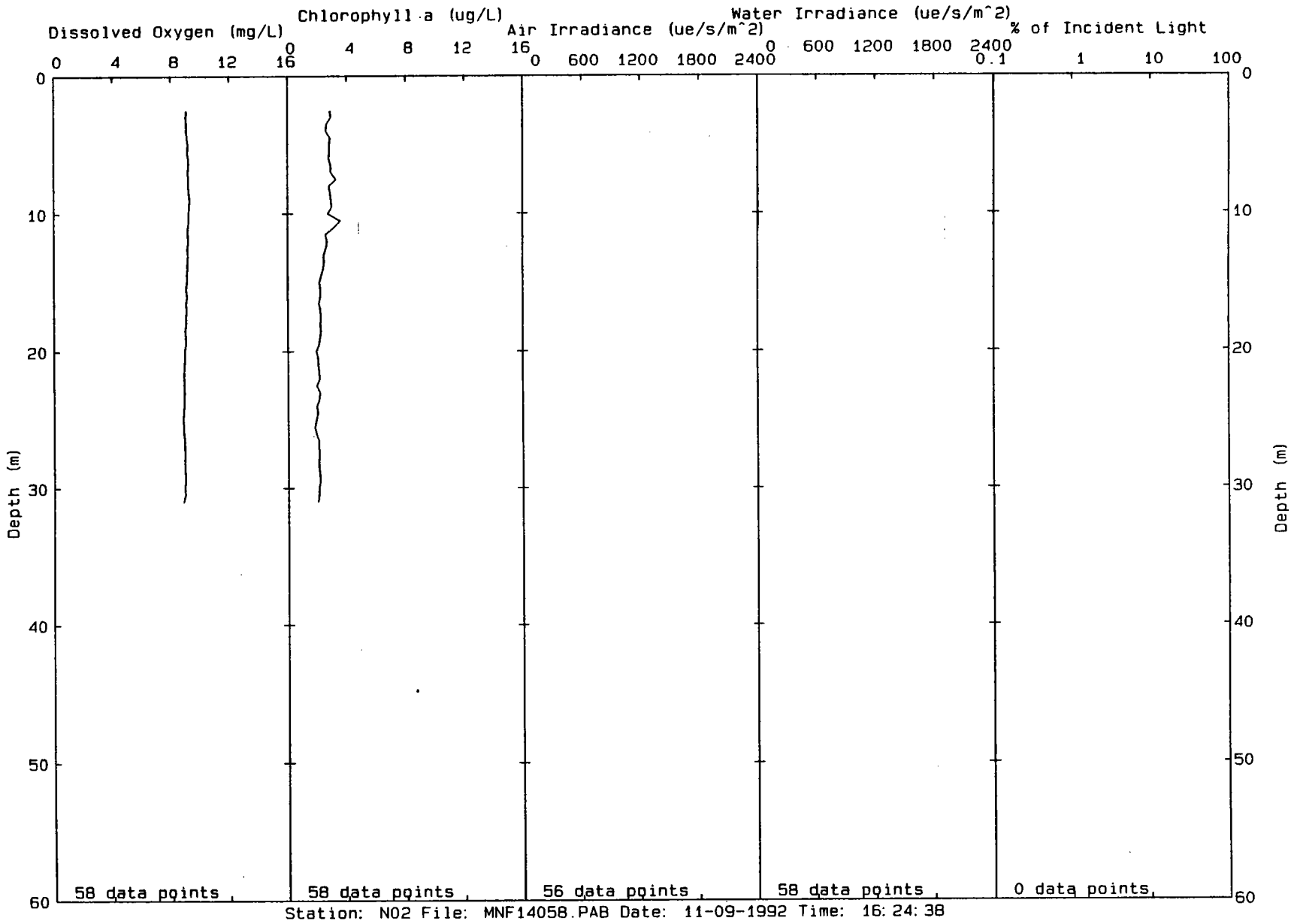


00234

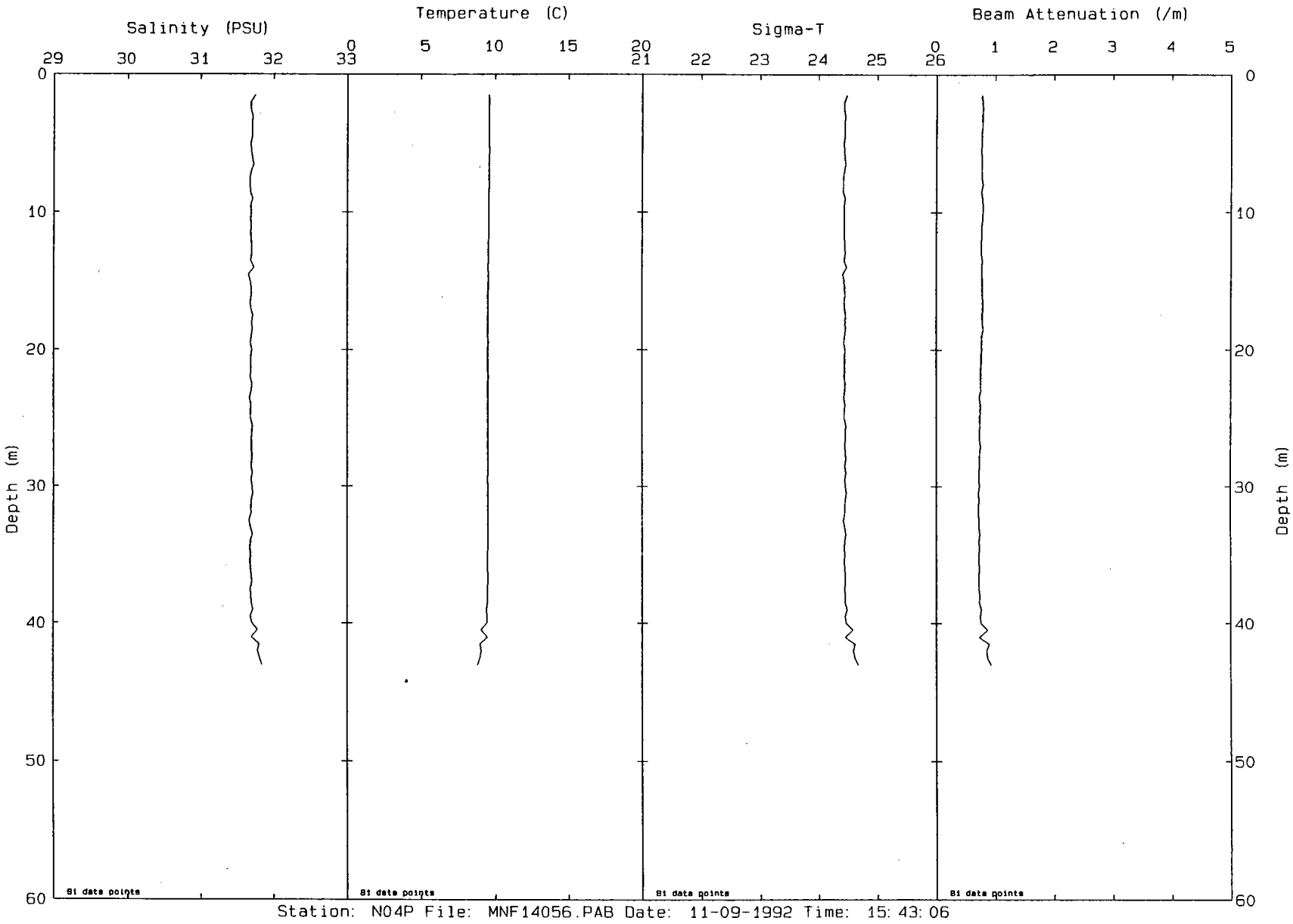
03-29-1993 14:53:16 Battelle


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
44 data points
44 data points
40 data points
44 data points
0 data points
Station: N01P File: MNF14060.PAB Date: 11-09-1992 Time: 16:57:27


Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
58 data points
58 data points
58 data points
58 data points
Station: N02 File: MNF14058.PAB Date: 11-09-1992 Time: 16:24:38

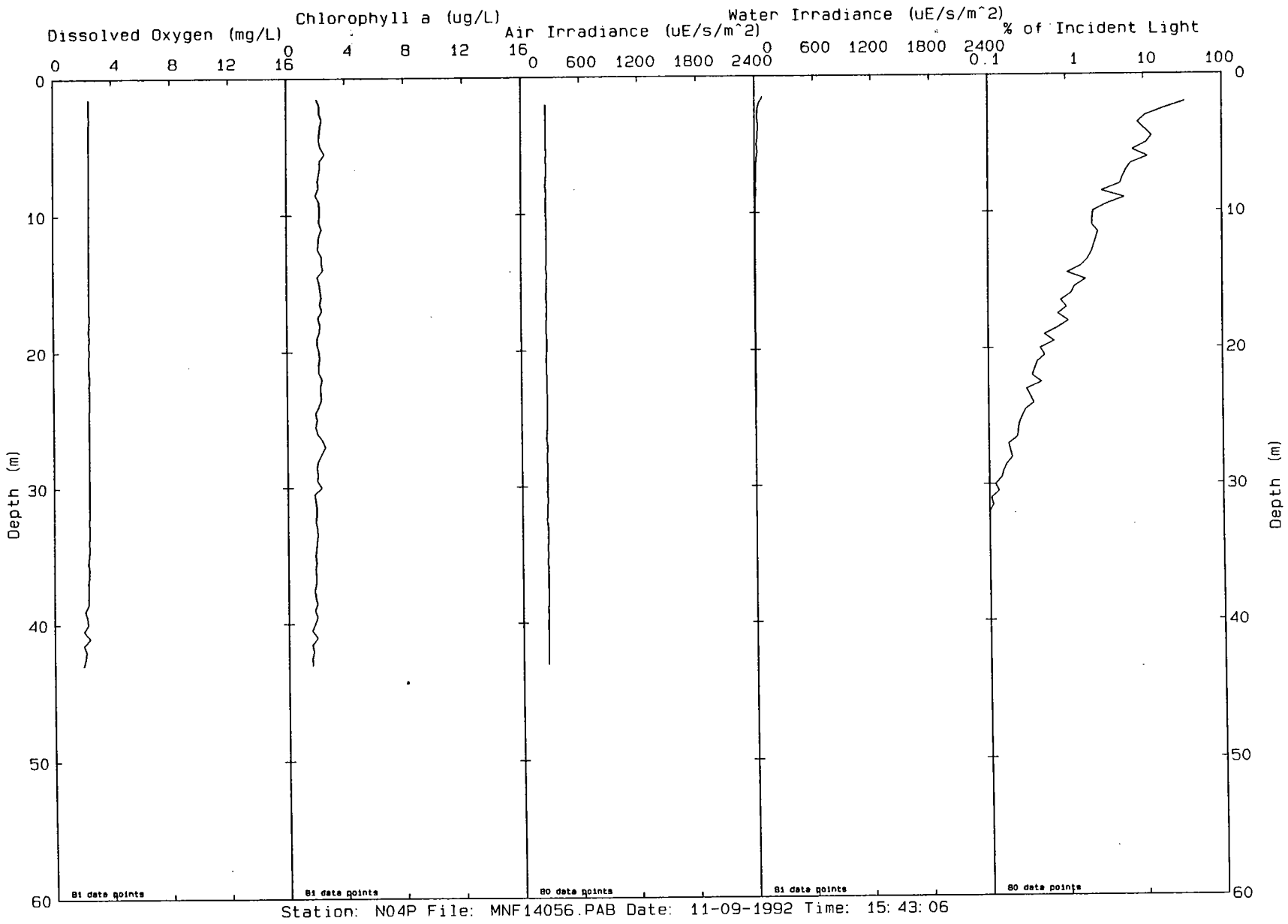

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
58 data points
58 data points
56 data points
58 data points
0 data points
Station: N02 File: MNF14058.PAB Date: 11-09-1992 Time: 16:24:38

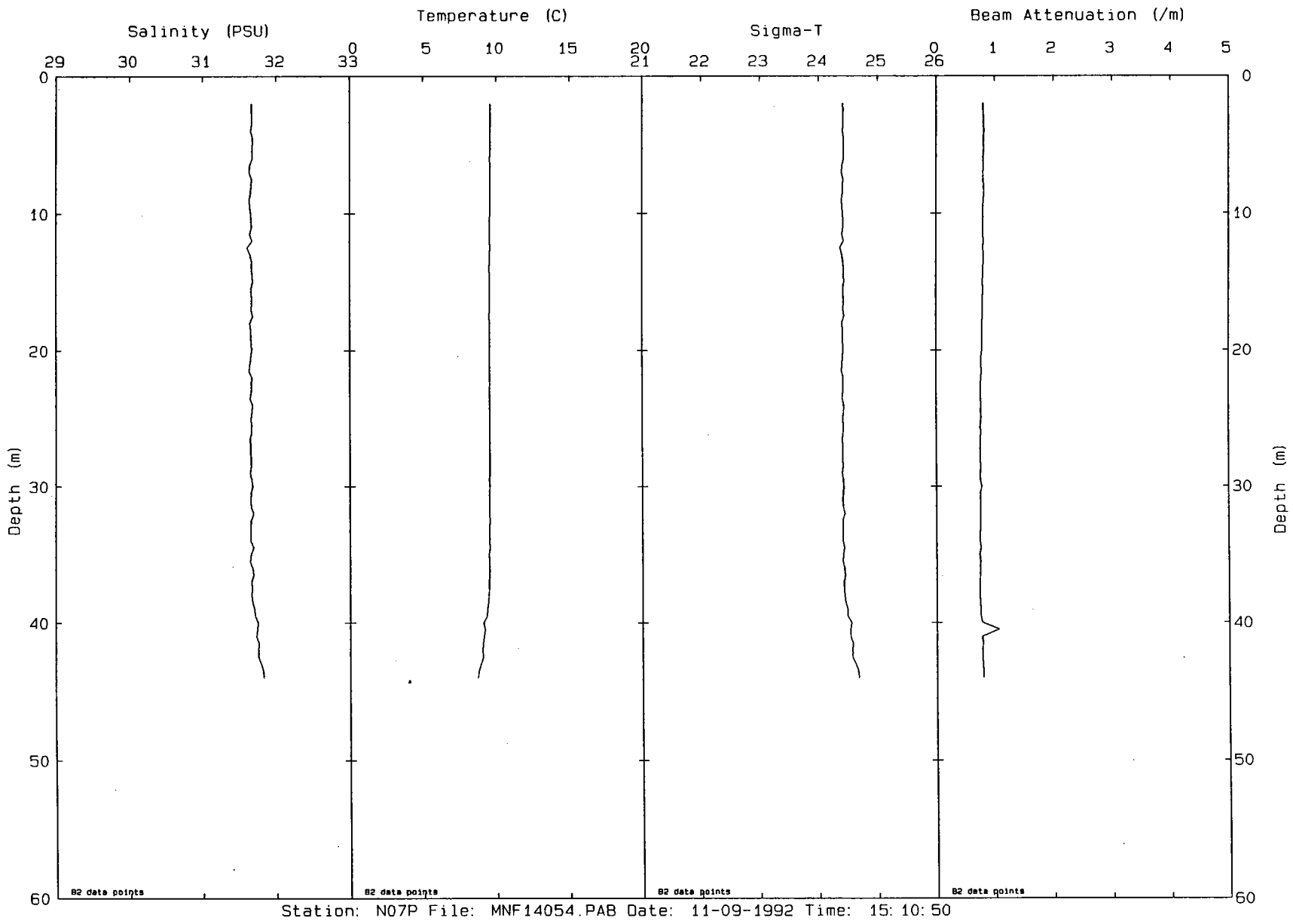
00297



00208

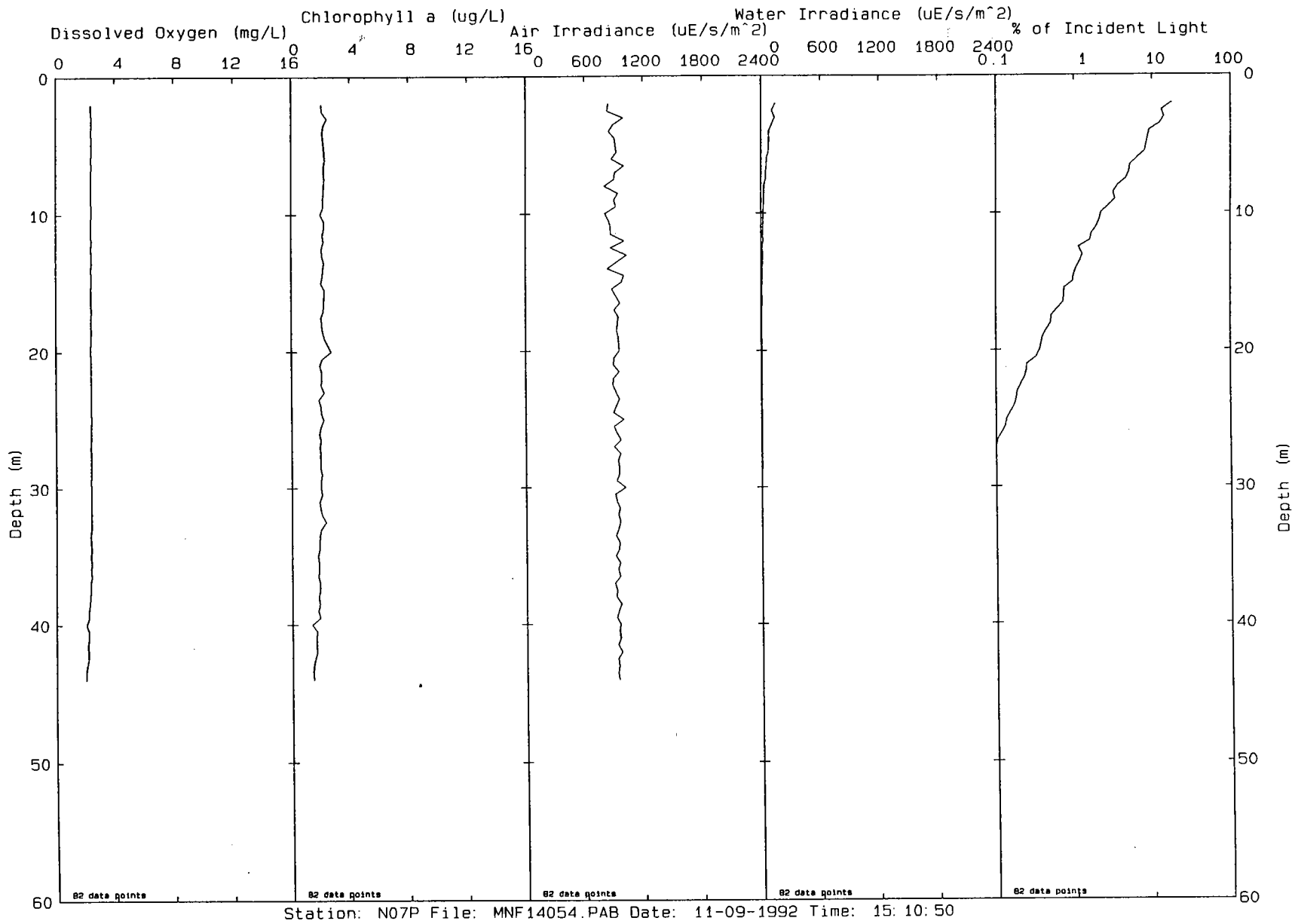
06-18-1993 10:44:06 Battelle


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (uE/s/m^2)
0 600 1200 1800 2400
Water Irradiance (uE/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
81 data points
81 data points
80 data points
81 data points
80 data points
Station: N04P File: MNF14056.PAB Date: 11-09-1992 Time: 15:43:06



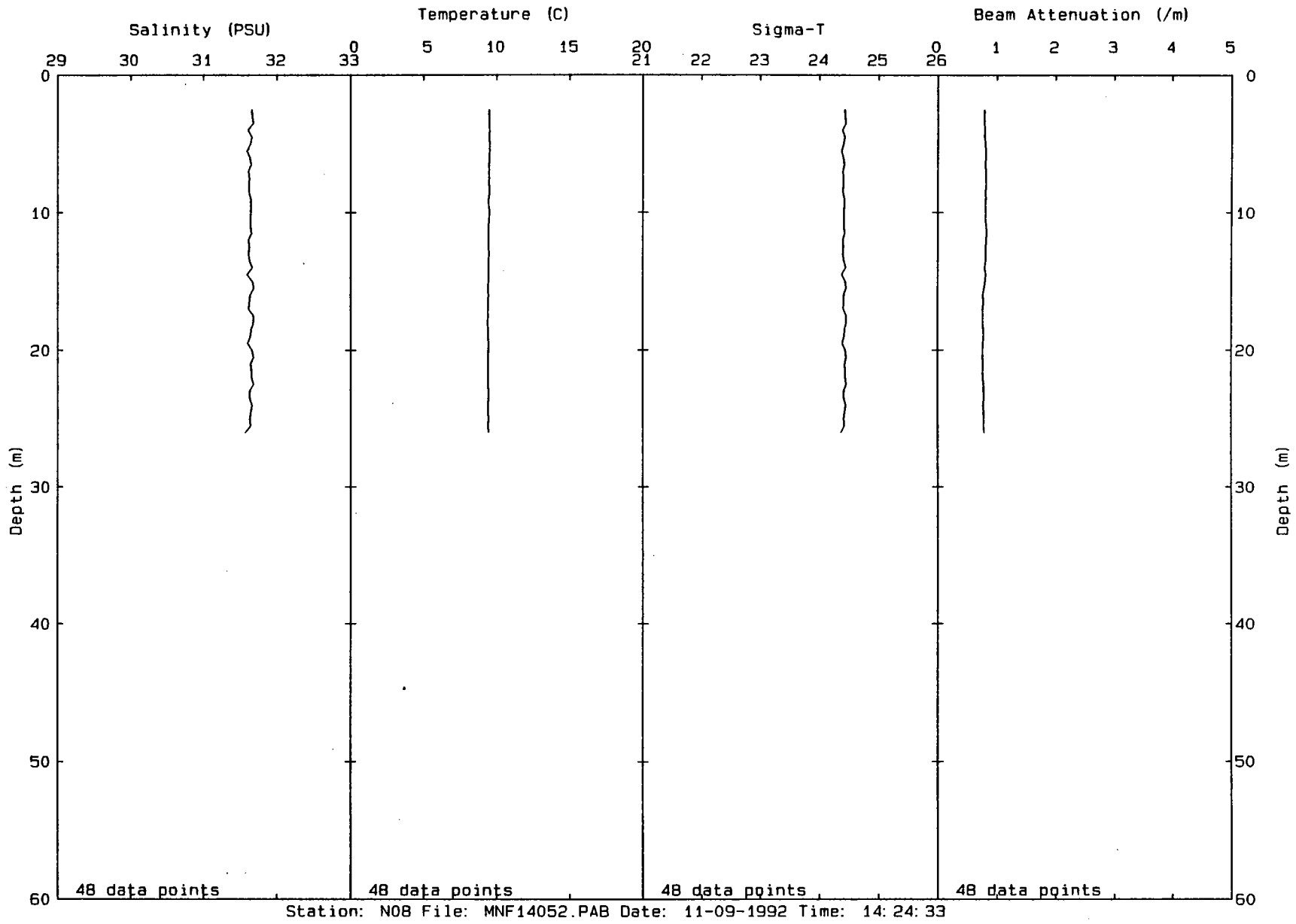
00300

06-18-1993 10:44:03 Battelle



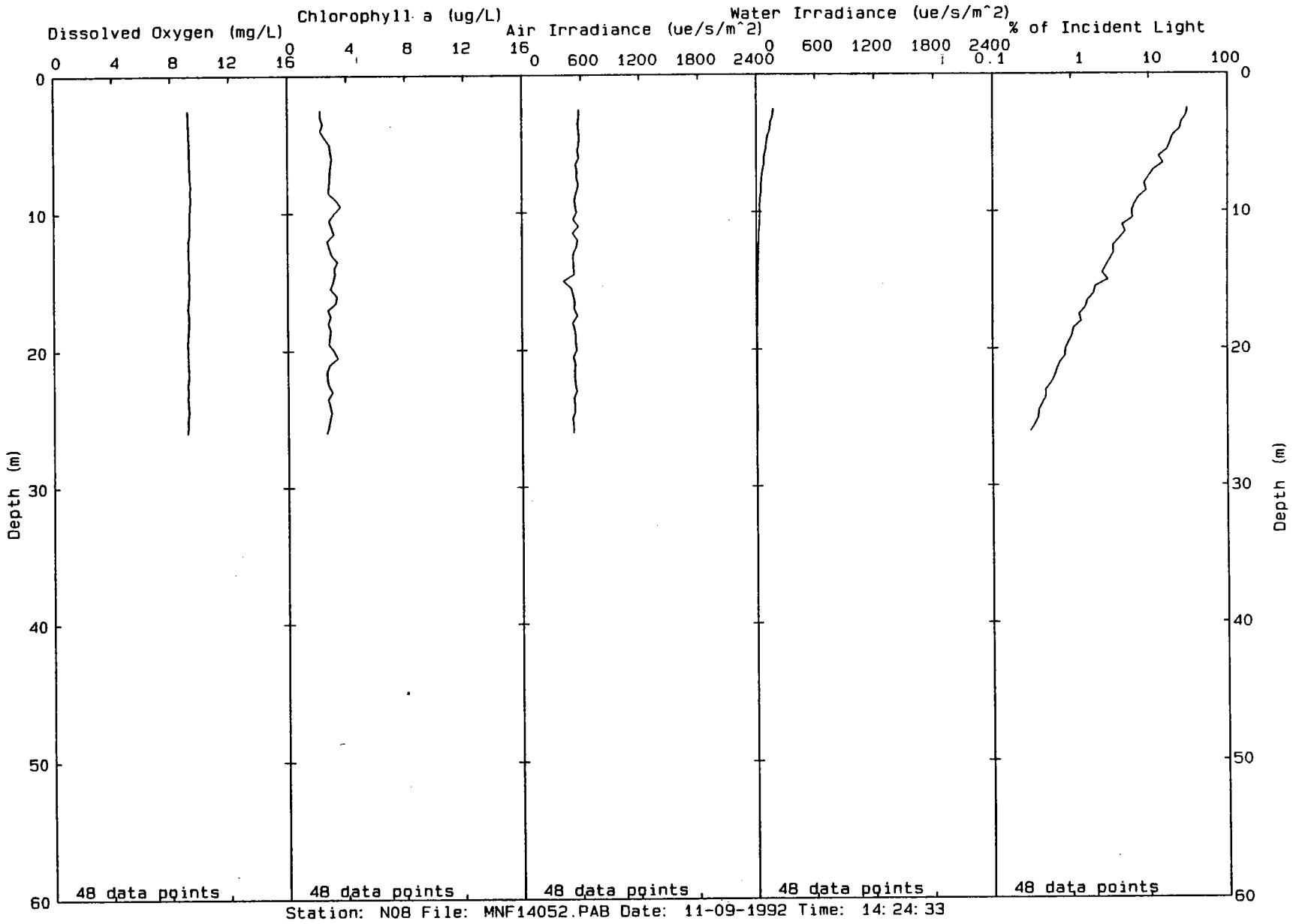
00301

06-18-1993 10:43:39 Battelle



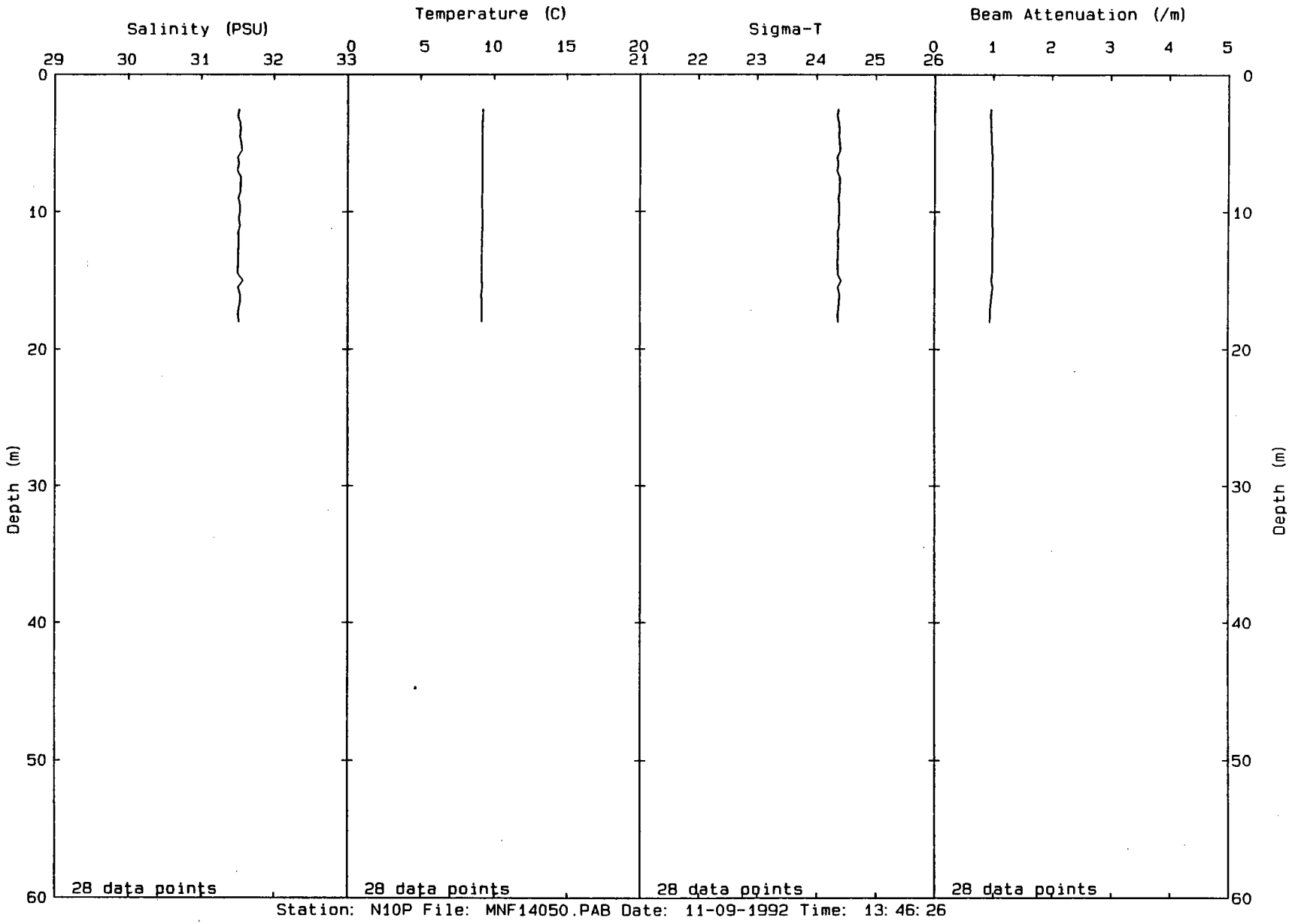
00302

03-29-1993 14:53:07 Battelle



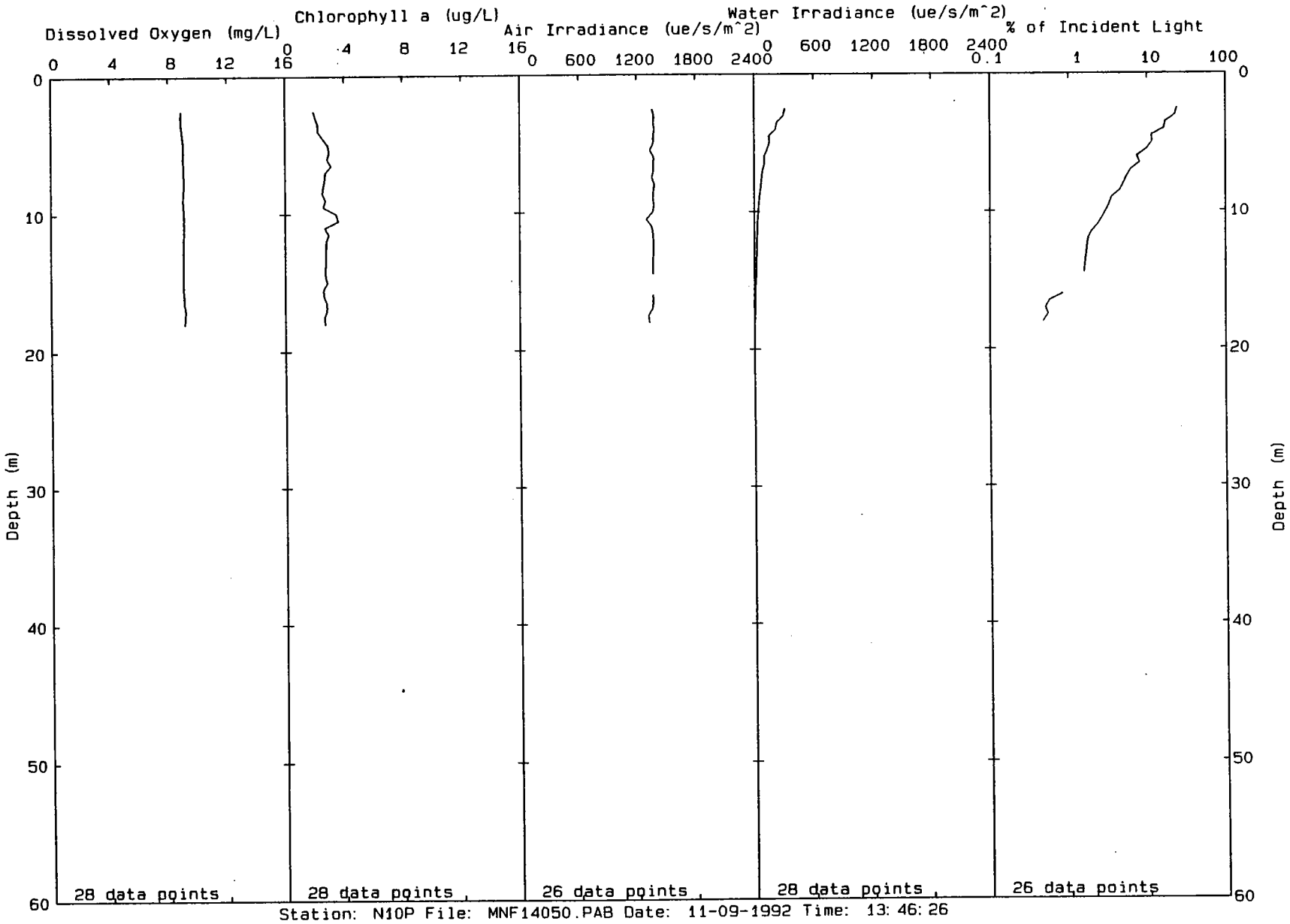
00303

03-28-1993 16:29:17 Battelle

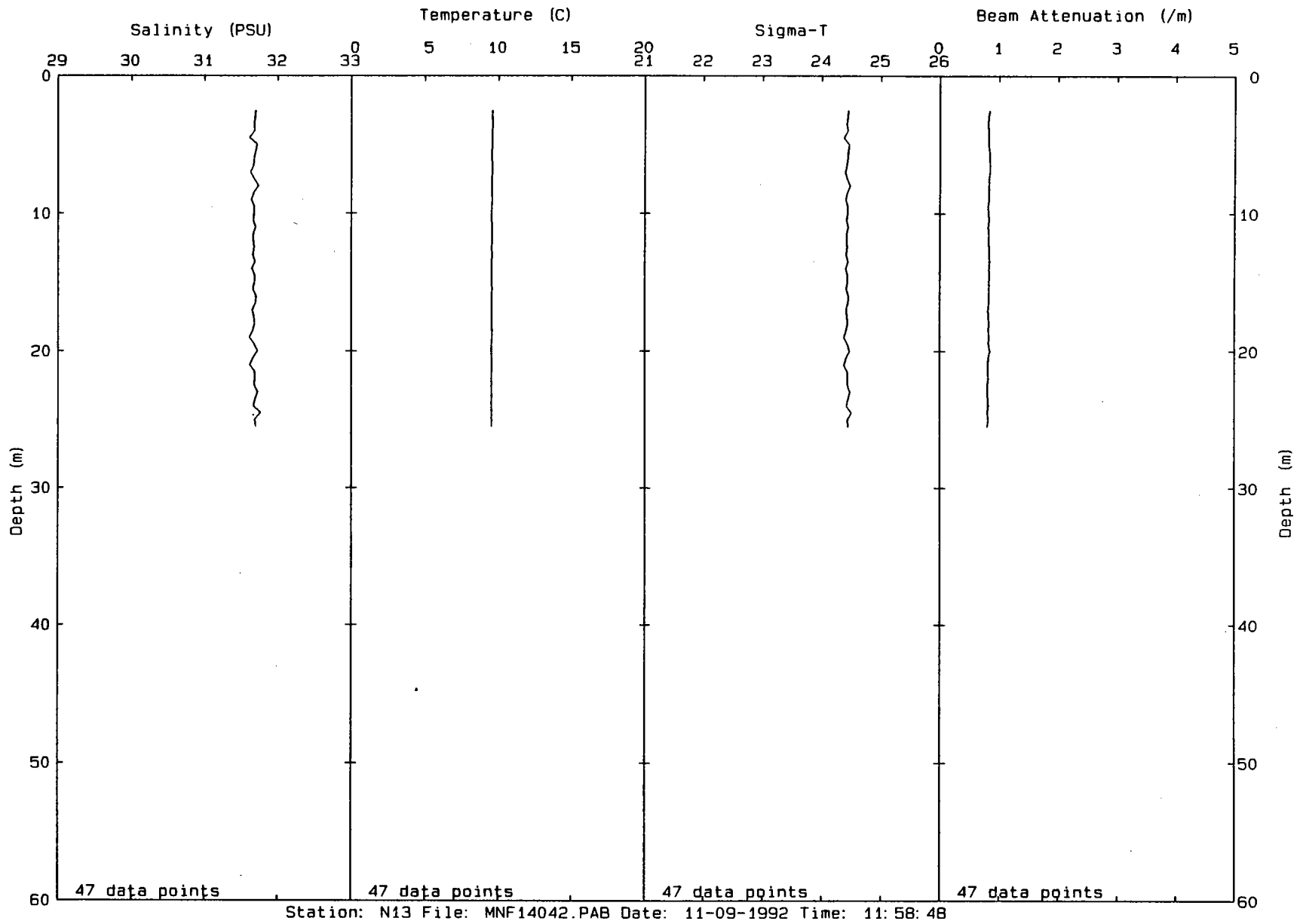


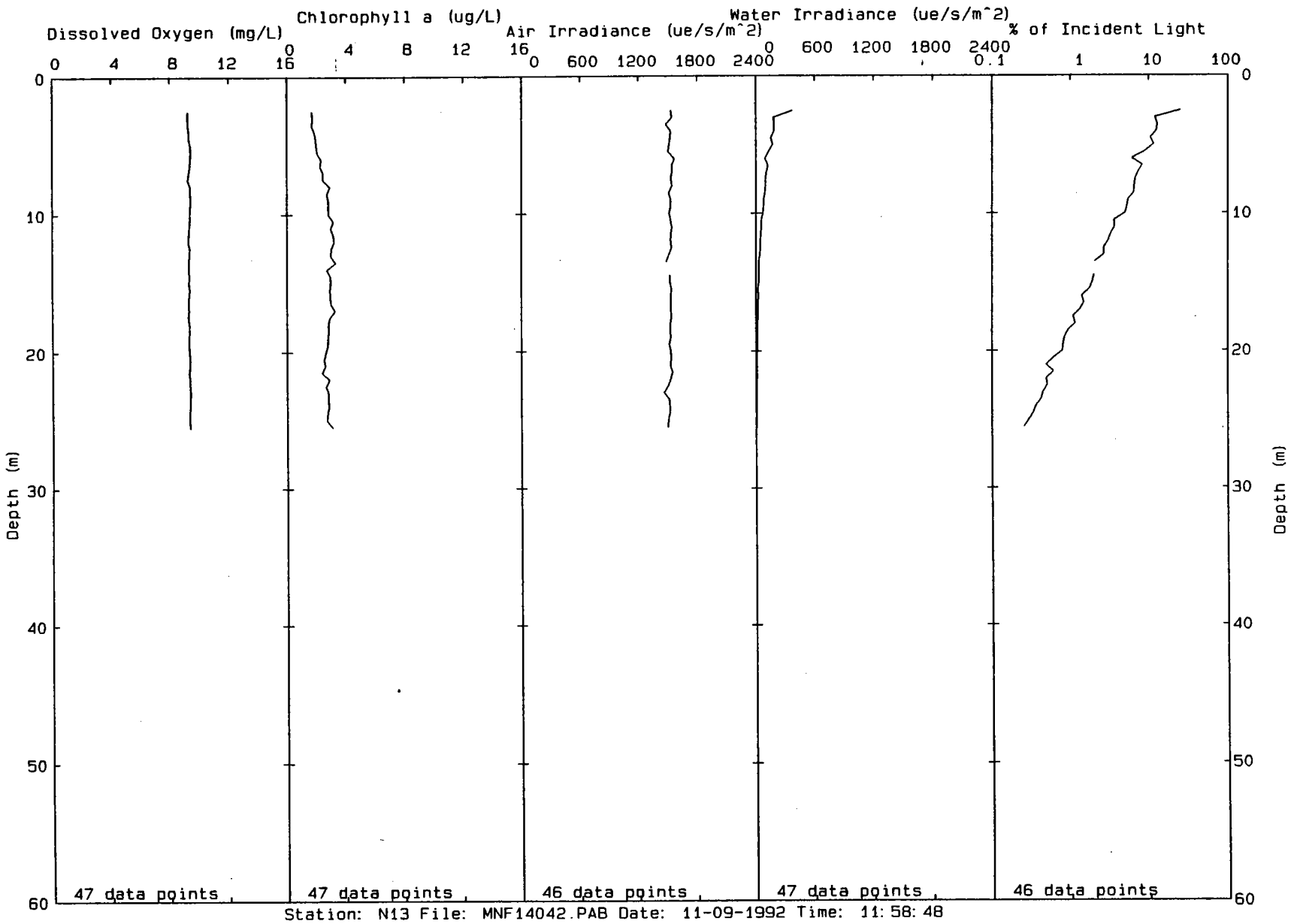
00304

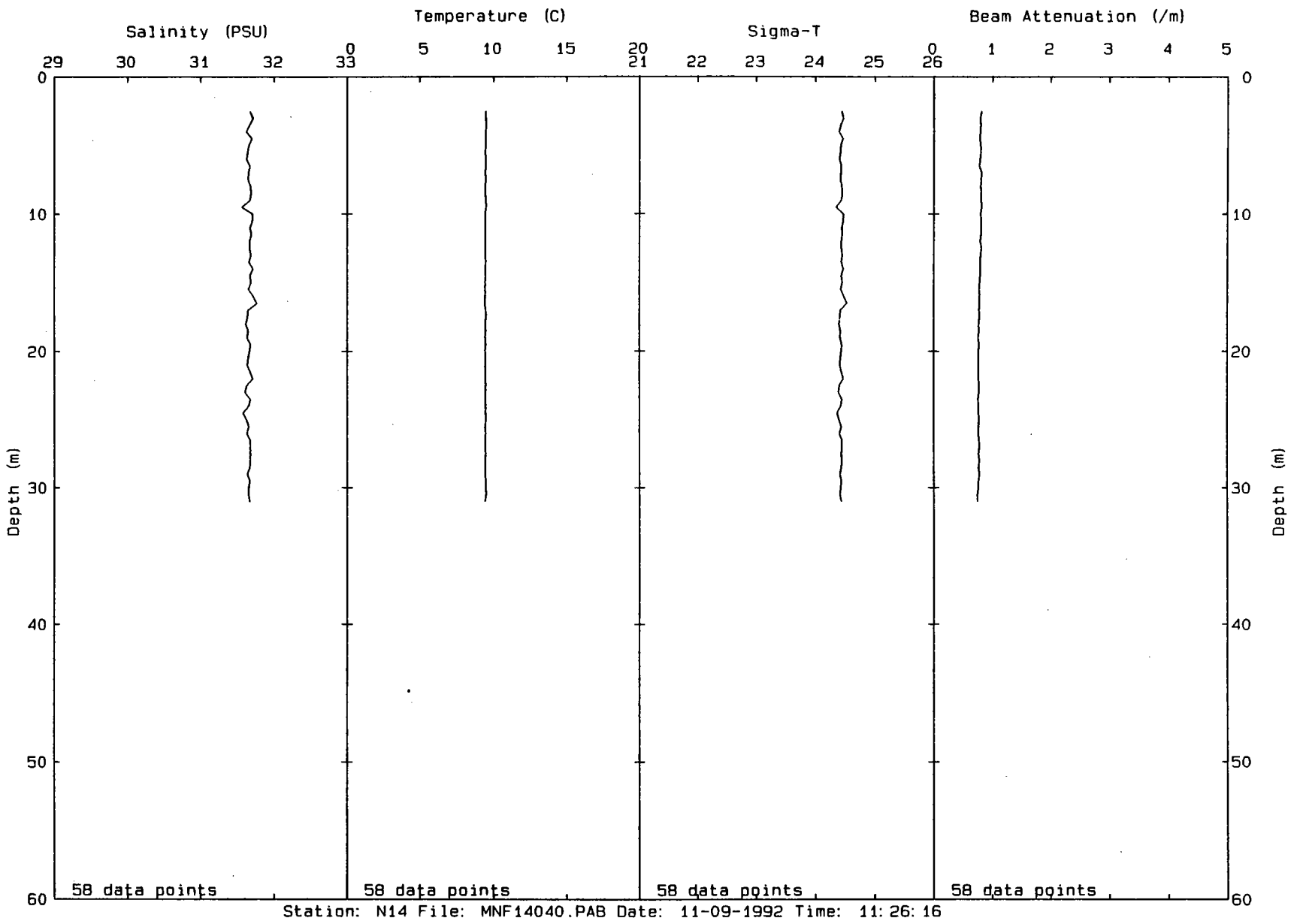
03-29-1993 14:53:05 Battelle

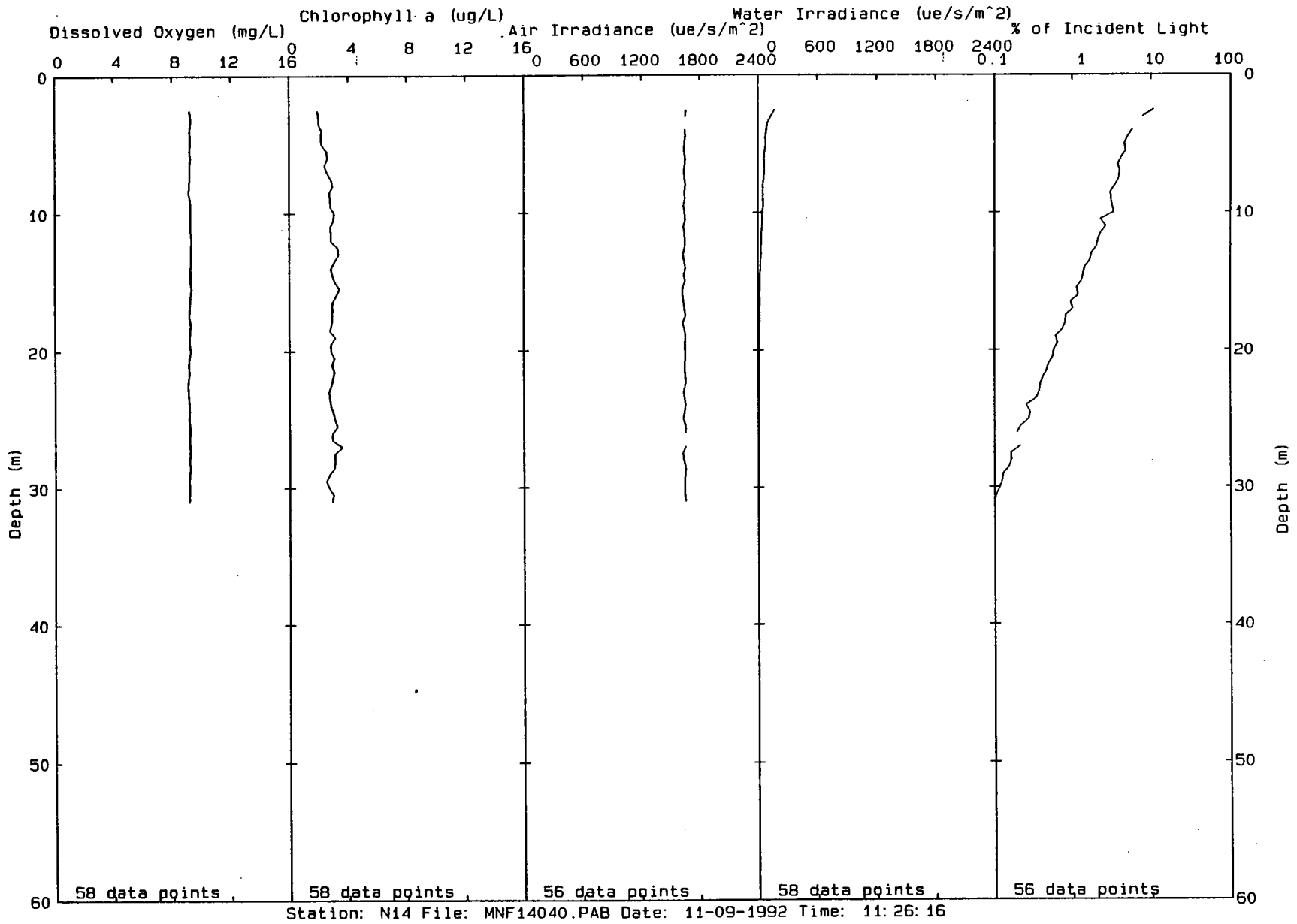

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
28 data points
28 data points
26 data points
28 data points
26 data points
Station: N10P File: MNF14050.PAB Date: 11-09-1992 Time: 13:46:26

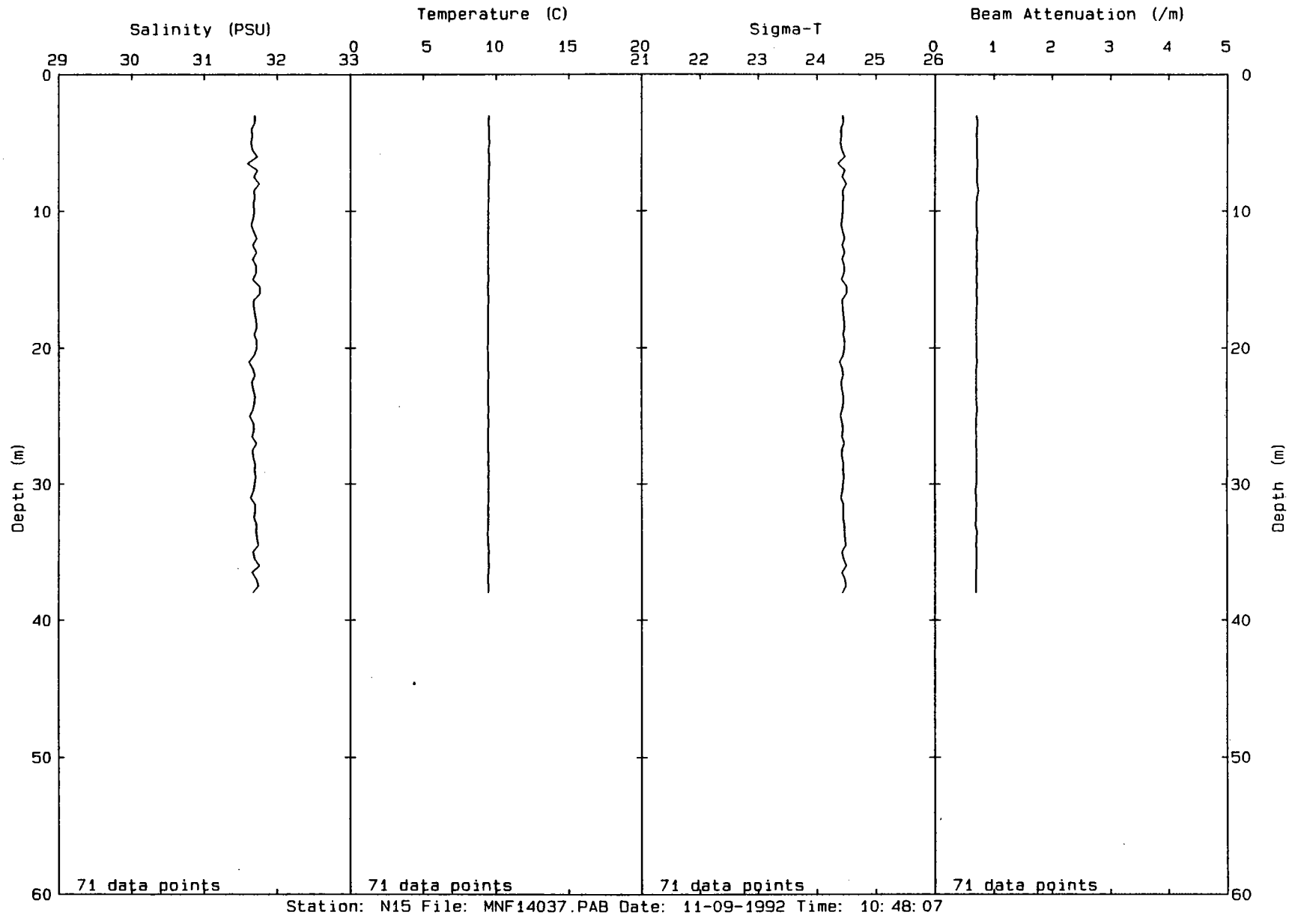
00305

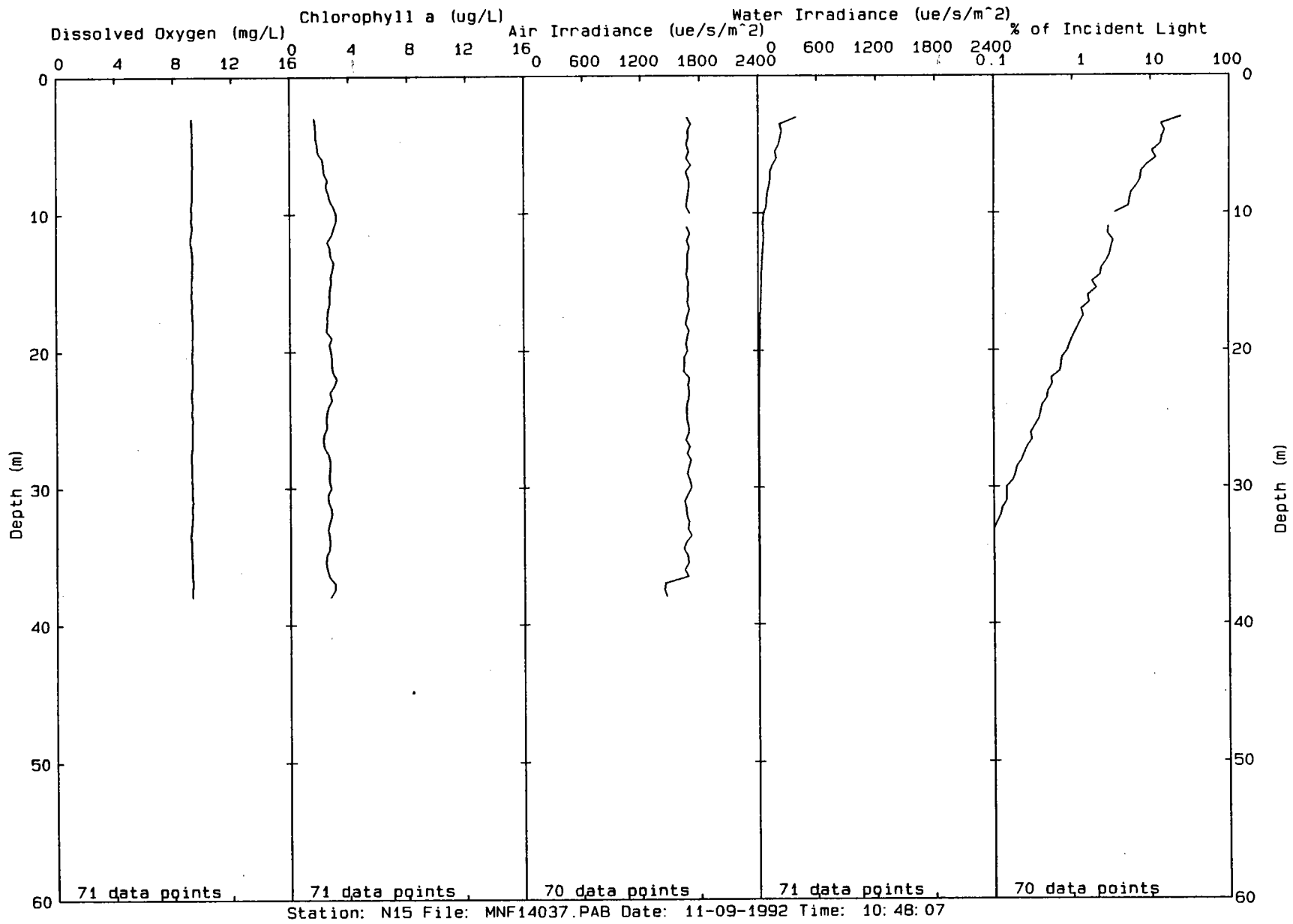

Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15
Sigma-T
20 21 22 23 24 25
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
47 data points
47 data points
47 data points
47 data points
Station: N13 File: MNF14042.PAB Date: 11-09-1992 Time: 11:58:48

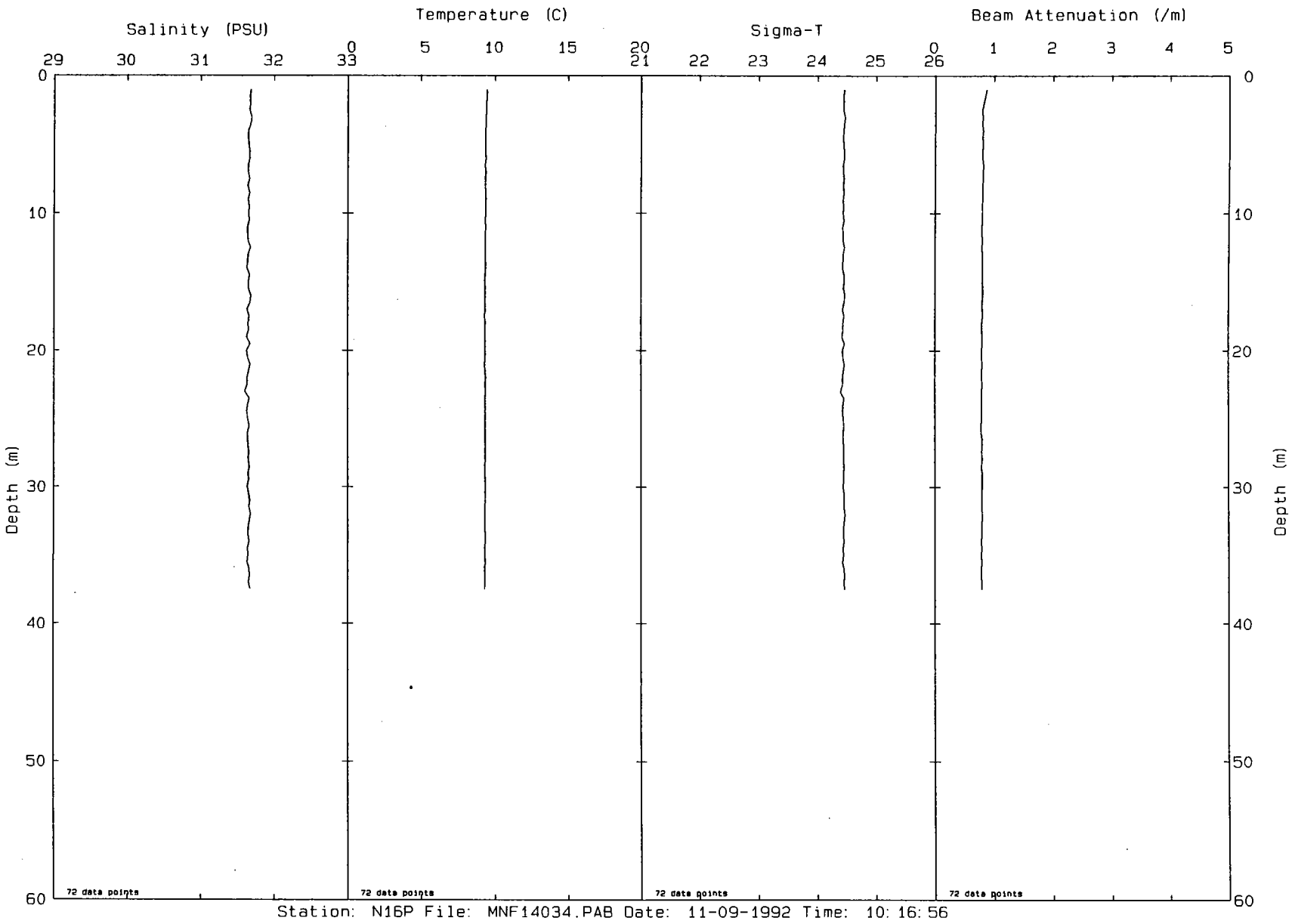

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
47 data points
47 data points
46 data points
47 data points
46 data points
Station: N13 File: MNF14042.PAB Date: 11-09-1992 Time: 11:58:48

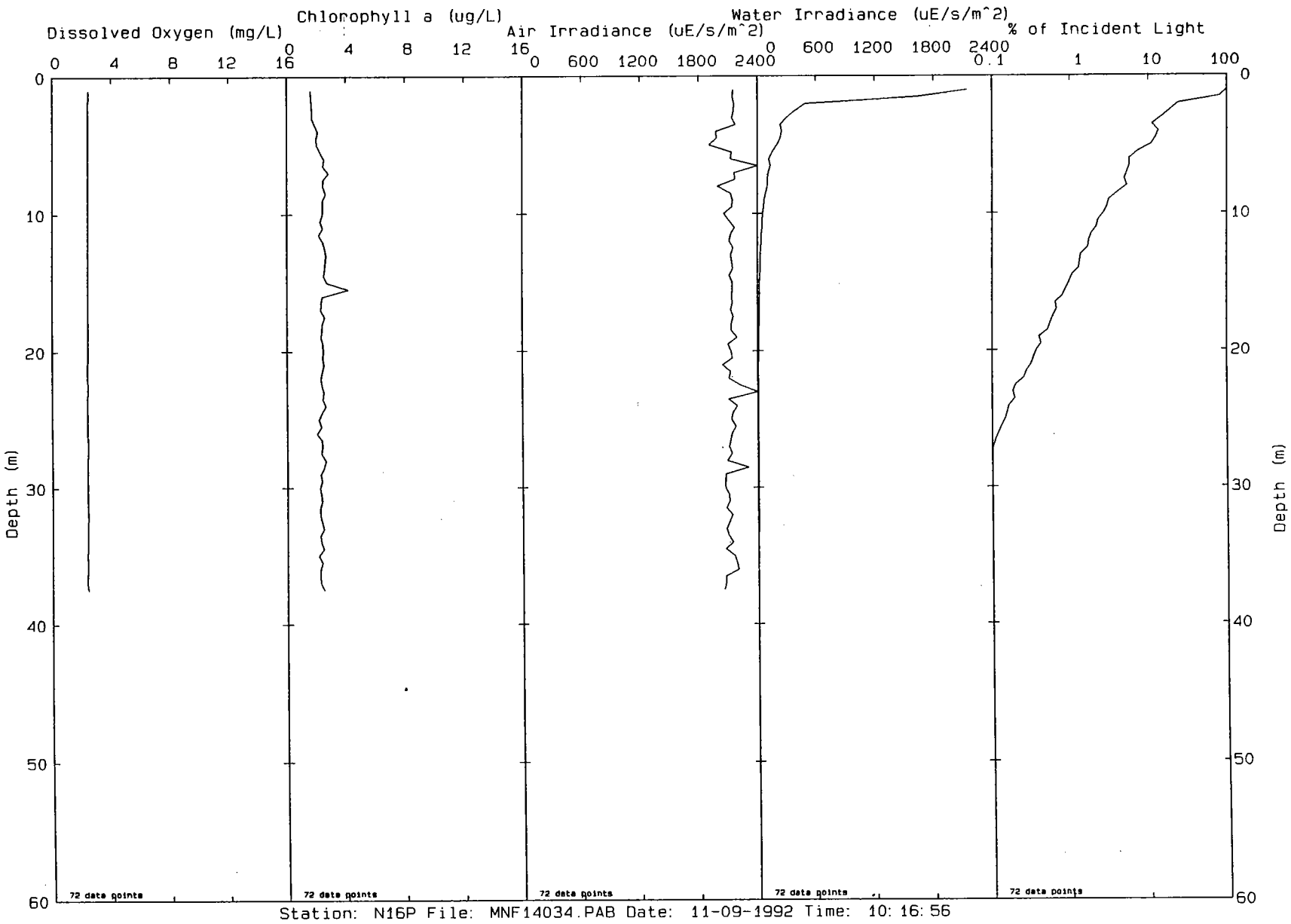

Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15
Sigma-T
20 21 22 23 24 25
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
58 data points
58 data points
58 data points
58 data points
Station: N14 File: MNF14040.PAB Date: 11-09-1992 Time: 11:26:16

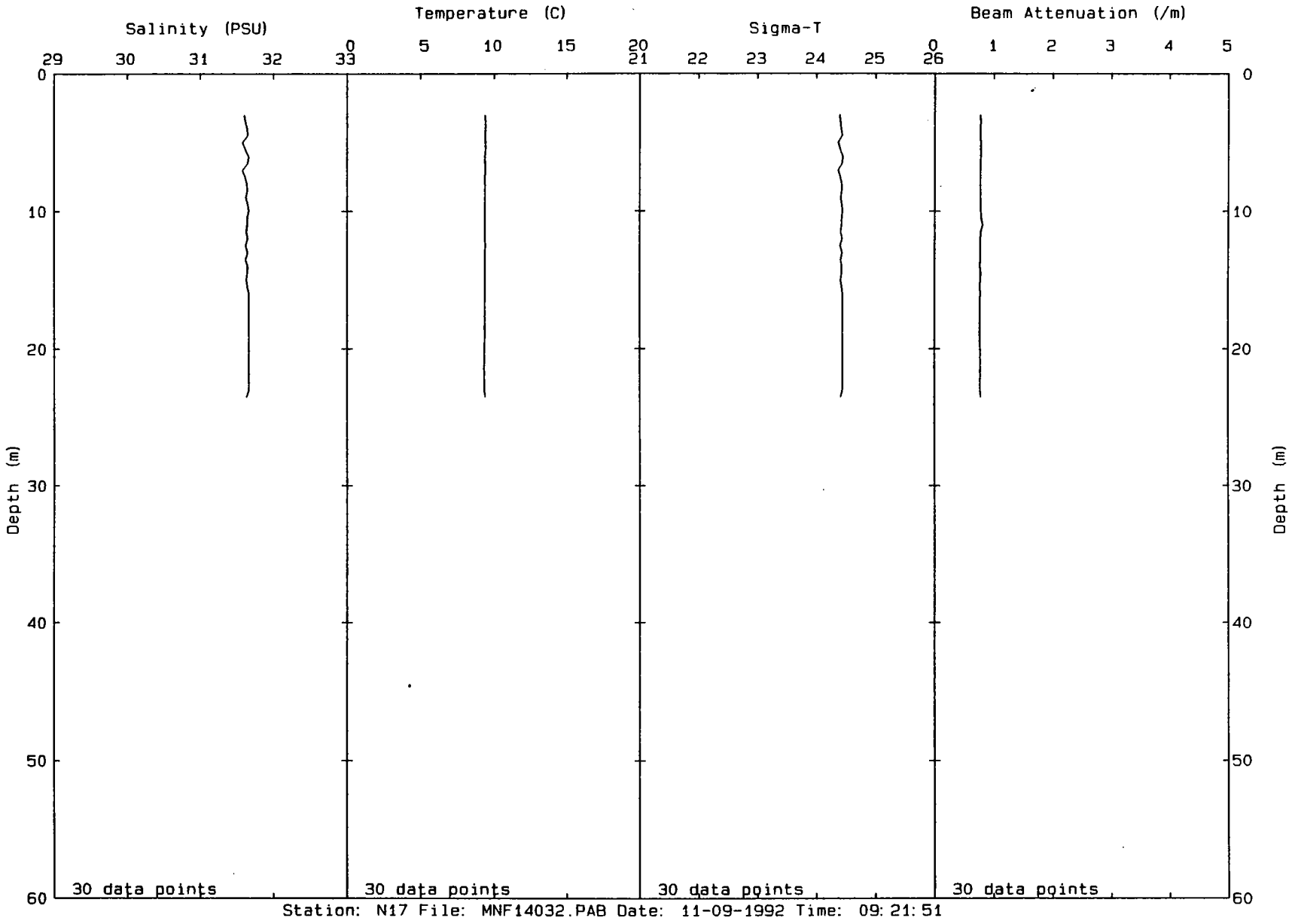

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
58 data points
58 data points
56 data points
58 data points
56 data points
Station: N14 File: MNF14040.PAB Date: 11-09-1992 Time: 11:26:16

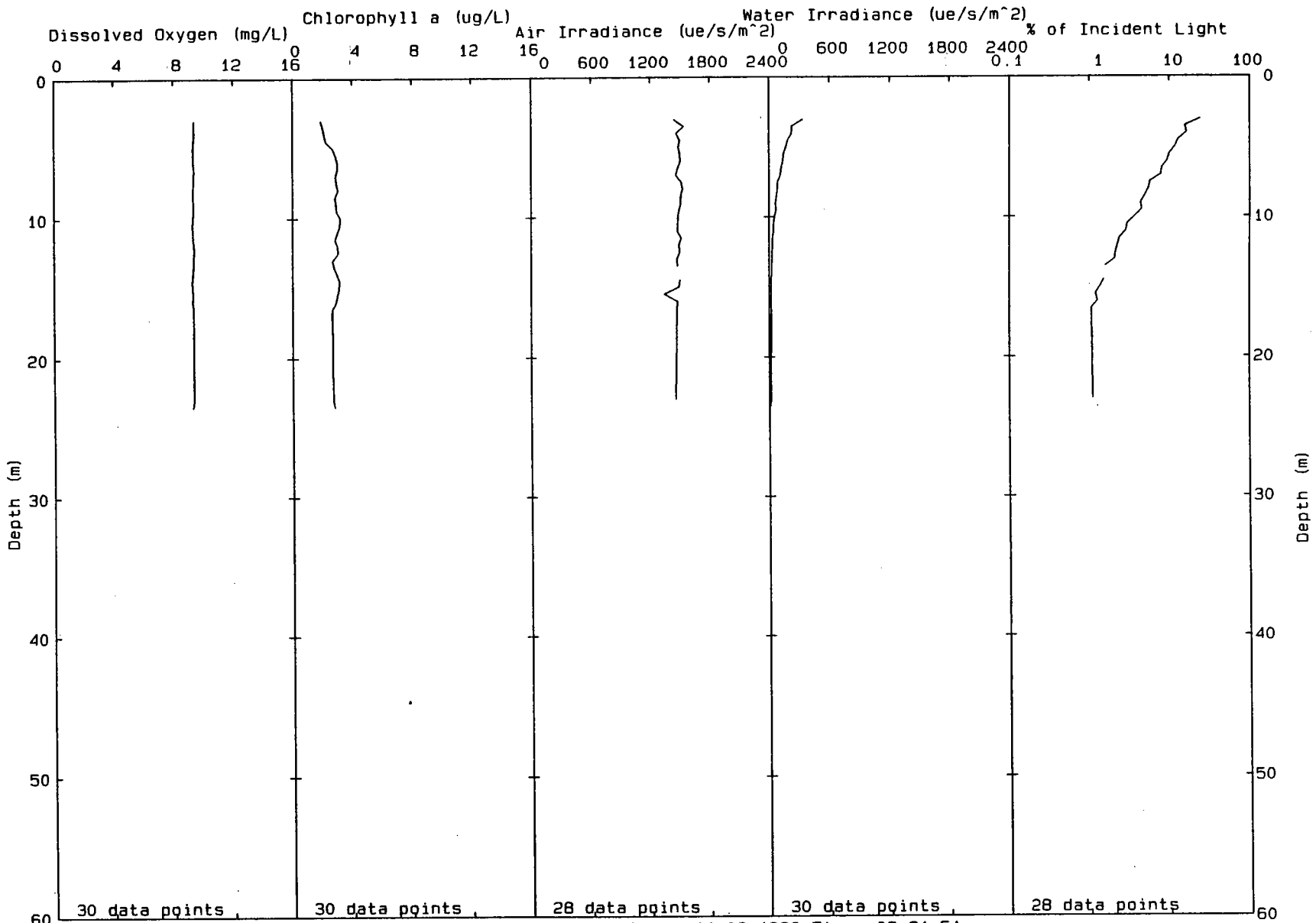

Salinity (PSU)
29 30 31 32
Temperature (C)
0 5 10 15
Sigma-T
20 21 22 23 24 25
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
71 data points
71 data points
71 data points
71 data points
Station: N15 File: MNF14037.PAB Date: 11-09-1992 Time: 10:48:07


Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
71 data points
71 data points
70 data points
71 data points
70 data points
Station: N15 File: MNF14037.PAB Date: 11-09-1992 Time: 10:48:07

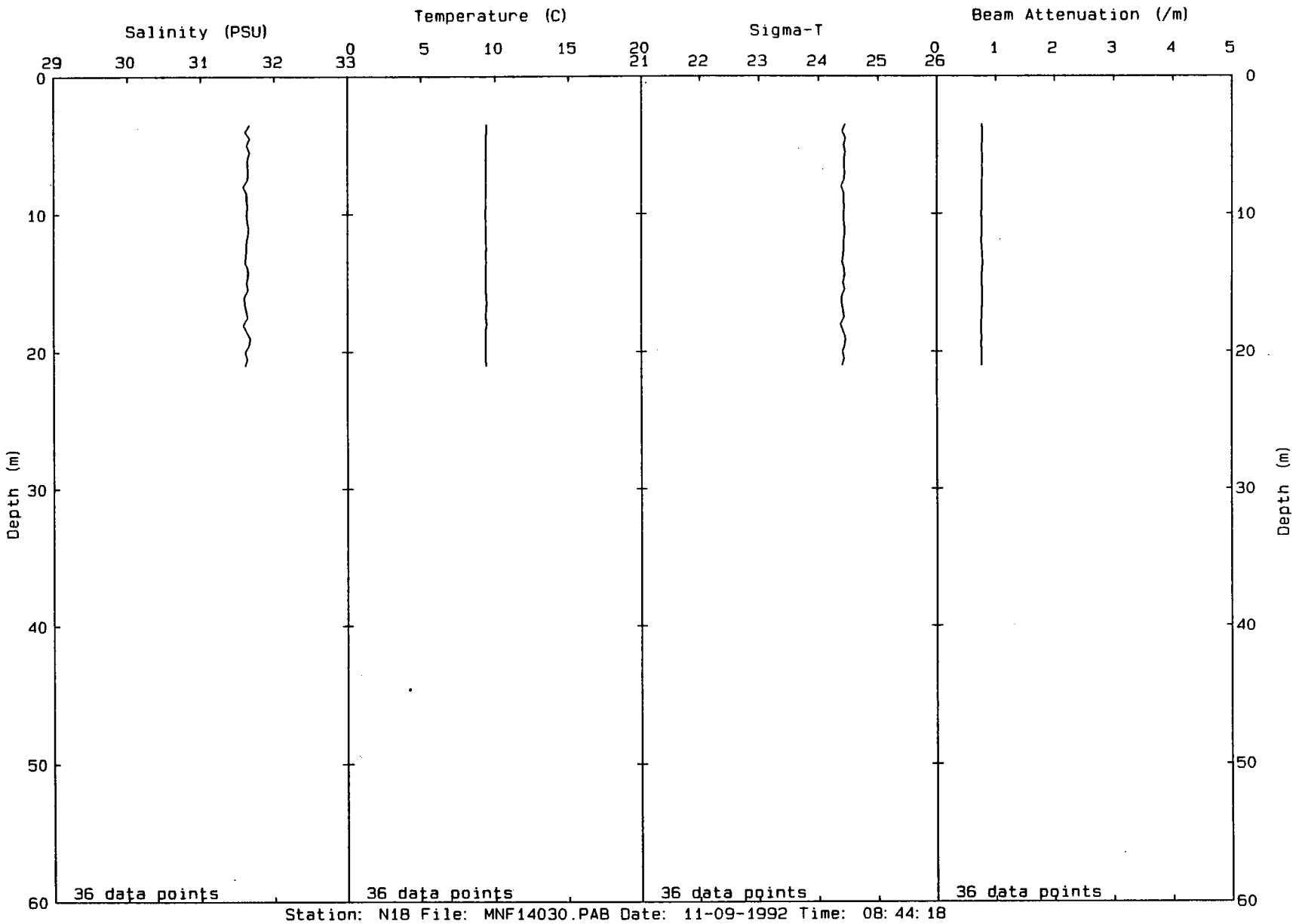

Salinity (PSU)
29 30 31 32 33
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25 26
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
72 data points
72 data points
72 data points
72 data points
Station: N16P File: MNF14034.PAB Date: 11-09-1992 Time: 10:16:56

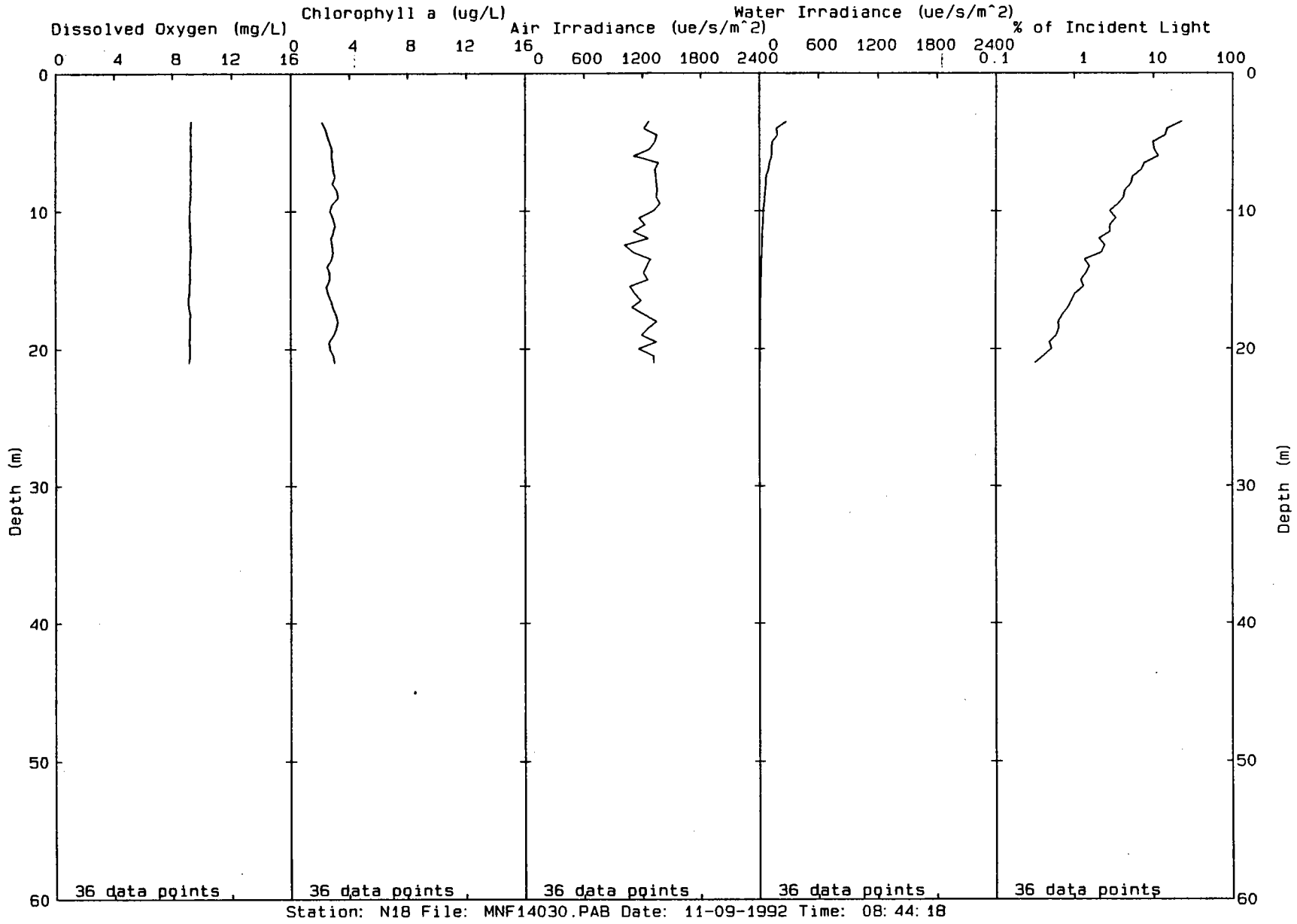

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (uE/s/m^2)
0 600 1200 1800 2400
Water Irradiance (uE/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
72 data points
72 data points
72 data points
72 data points
72 data points
Station: N16P File: MNF14034.PAB Date: 11-09-1992 Time: 10:16:56

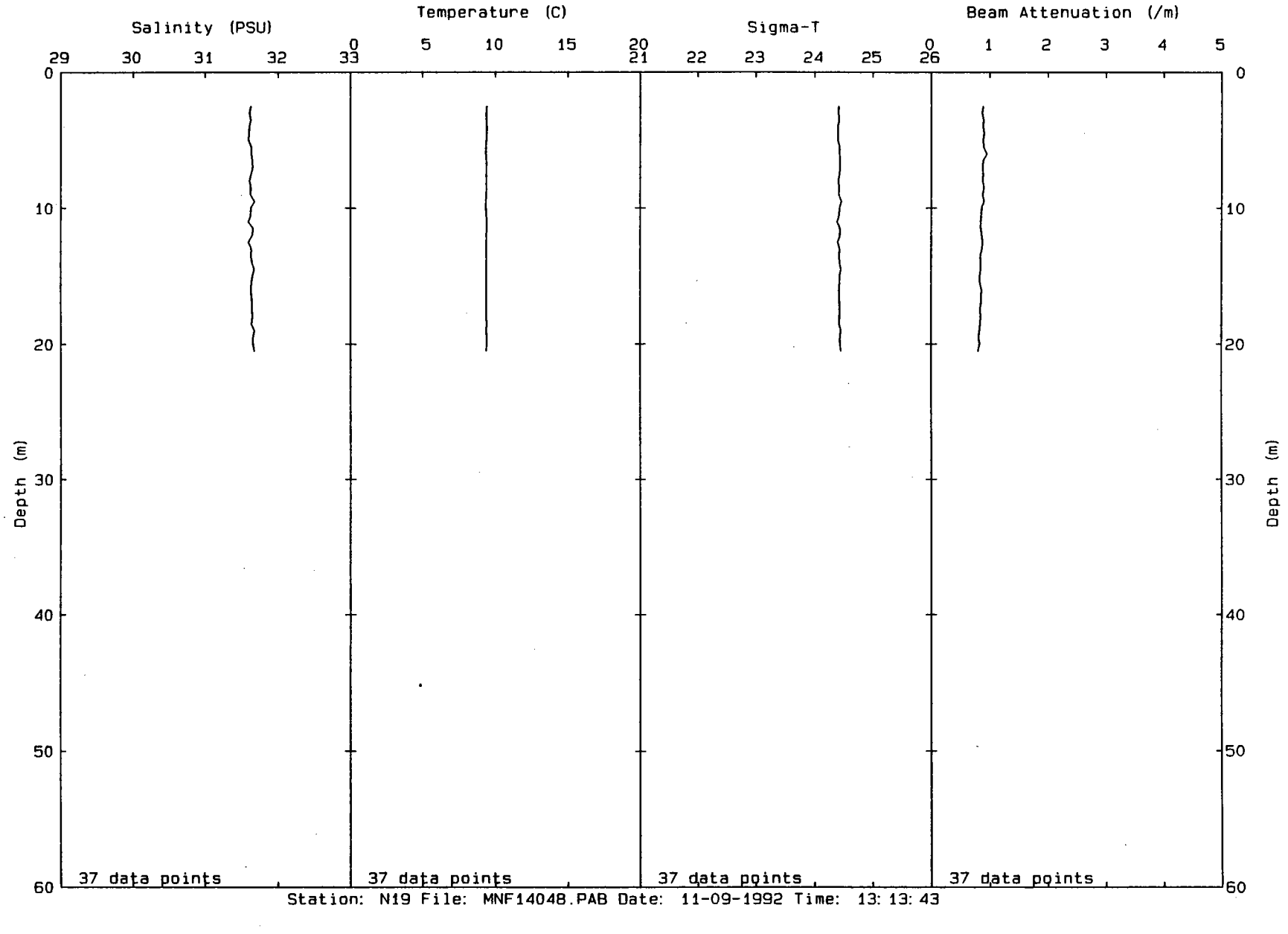

Salinity (PSU)
29 30 31 32 33
Temperature (C)
0 5 10 15 20
Sigma-T
21 22 23 24 25 26
Beam Attenuation (/m)
0 1 2 3 4 5
Depth (m)
0 10 20 30 40 50 60
30 data points
30 data points
30 data points
30 data points
Station: N17 File: MNF14032.PAB Date: 11-09-1992 Time: 09:21:51

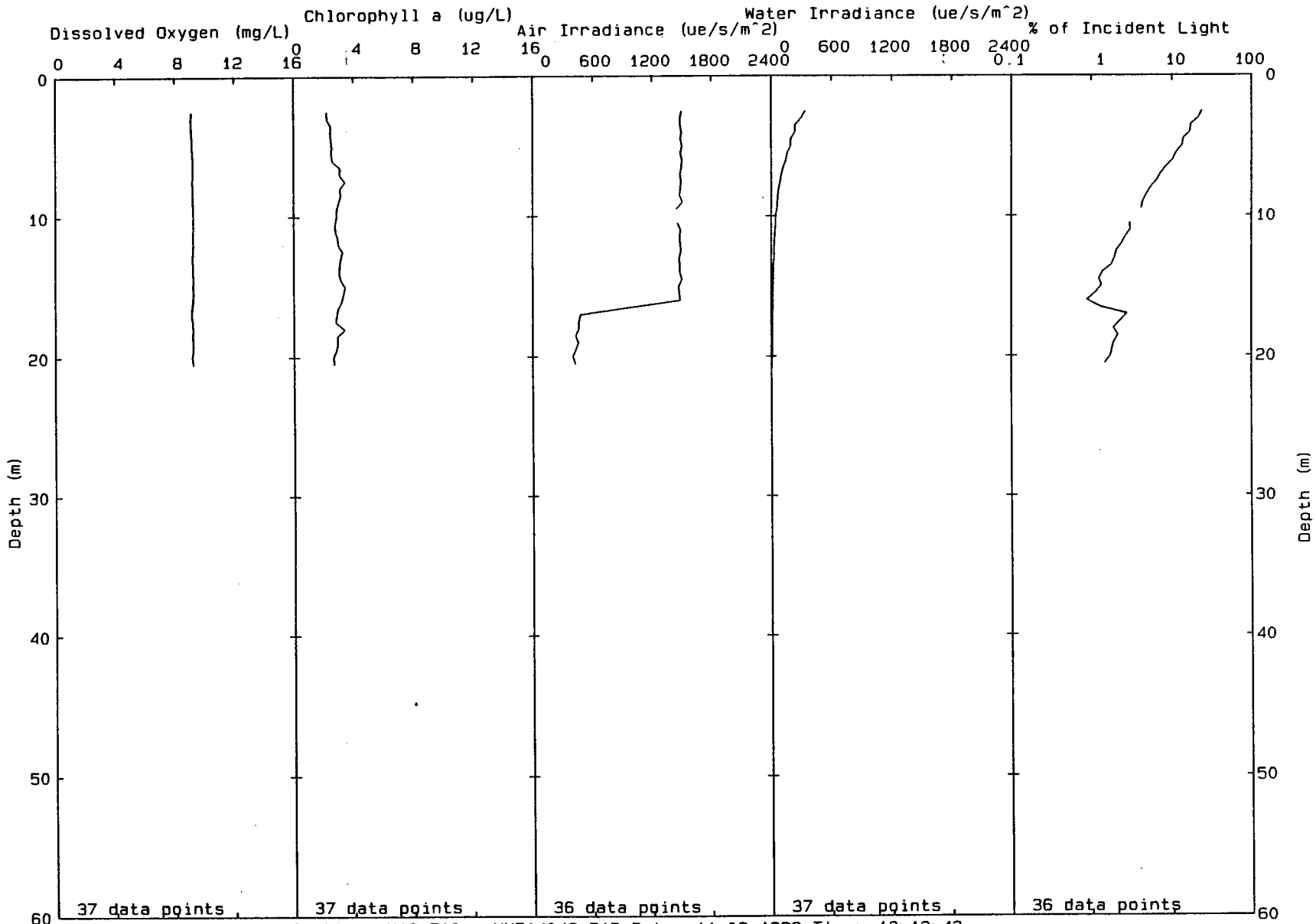

Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
30 data points
30 data points
28 data points
30 data points
28 data points
Station: N17 File: MNF14032.PAB Date: 11-09-1992 Time: 09:21:51

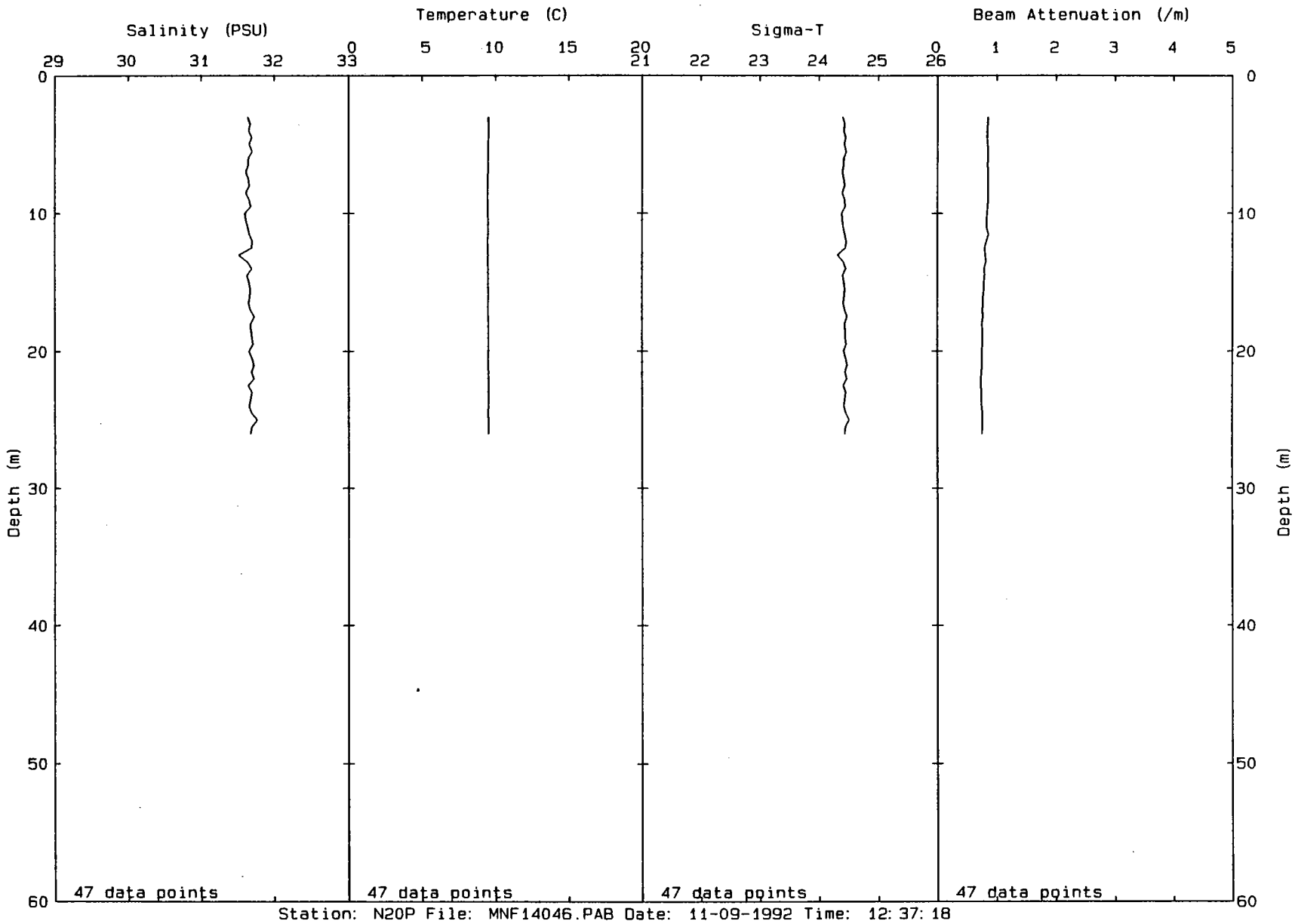
0315

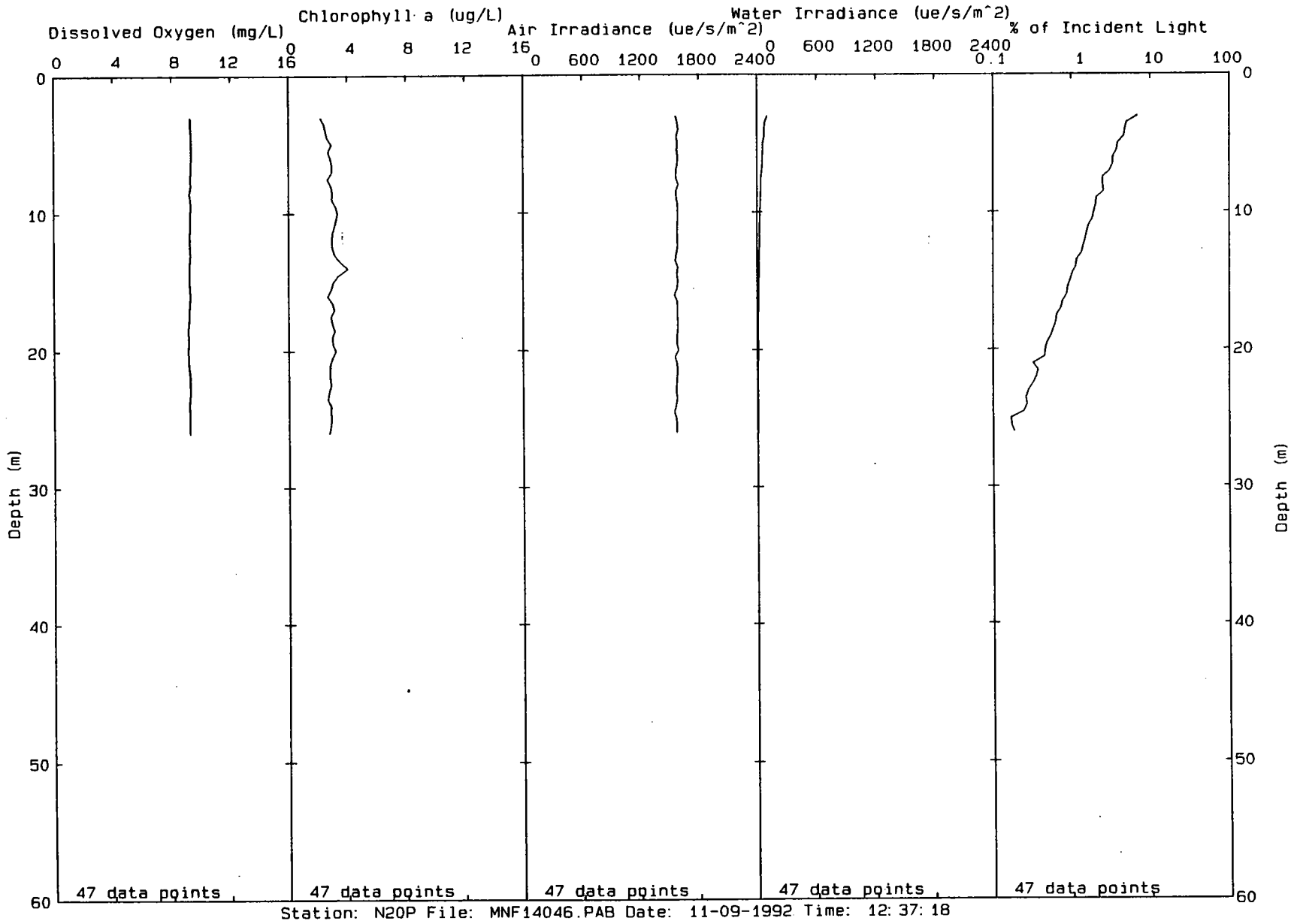



Dissolved Oxygen (mg/L)
0 4 8 12 16
Chlorophyll a (ug/L)
0 4 8 12 16
Air Irradiance (ue/s/m^2)
0 600 1200 1800 2400
Water Irradiance (ue/s/m^2)
0 600 1200 1800 2400
% of Incident Light
0.1 1 10 100
Depth (m)
0 10 20 30 40 50 60
36 data points
36 data points
36 data points
36 data points
36 data points
Station: N18 File: MNF14030.PAB Date: 11-09-1992 Time: 08:44:18



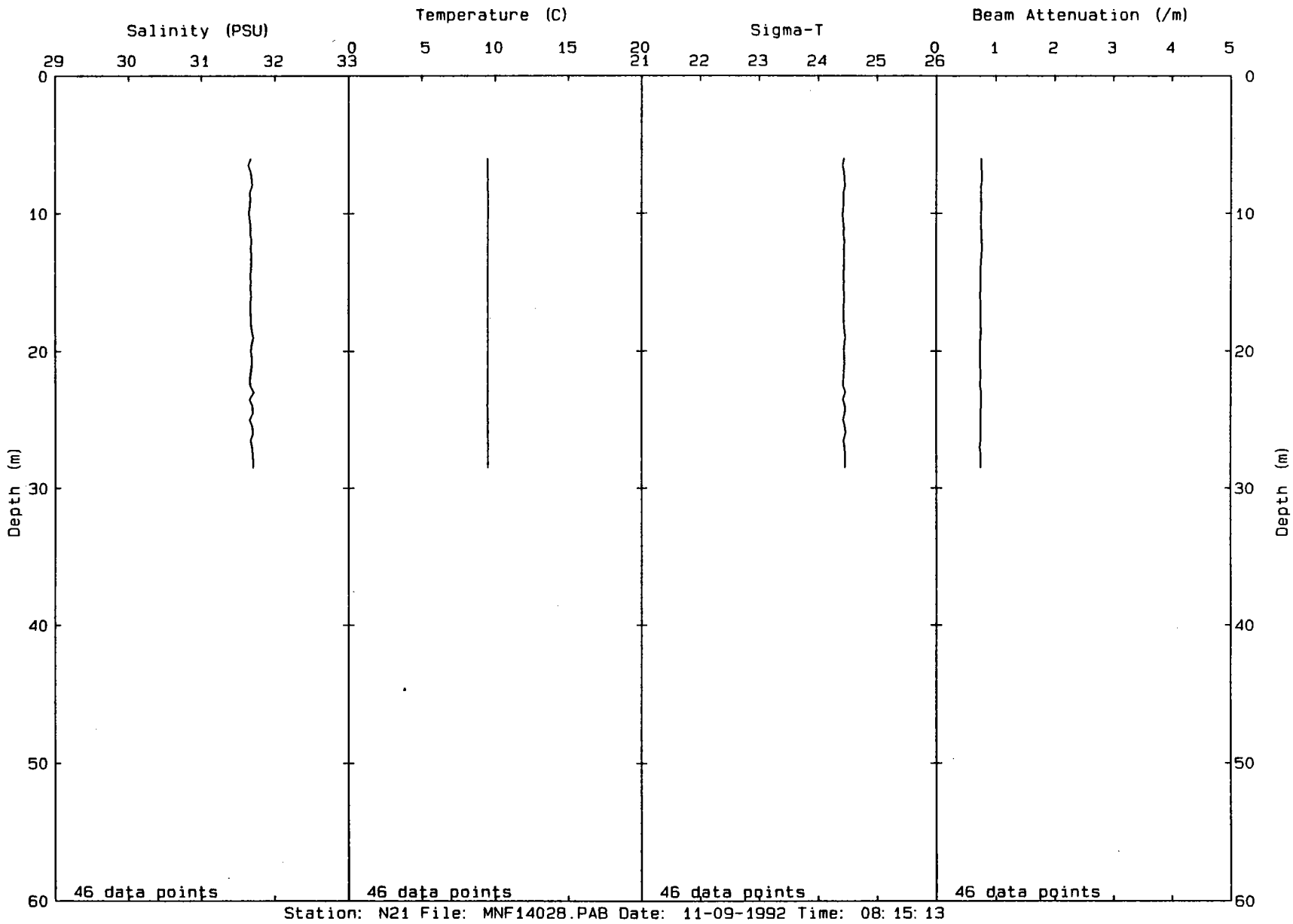


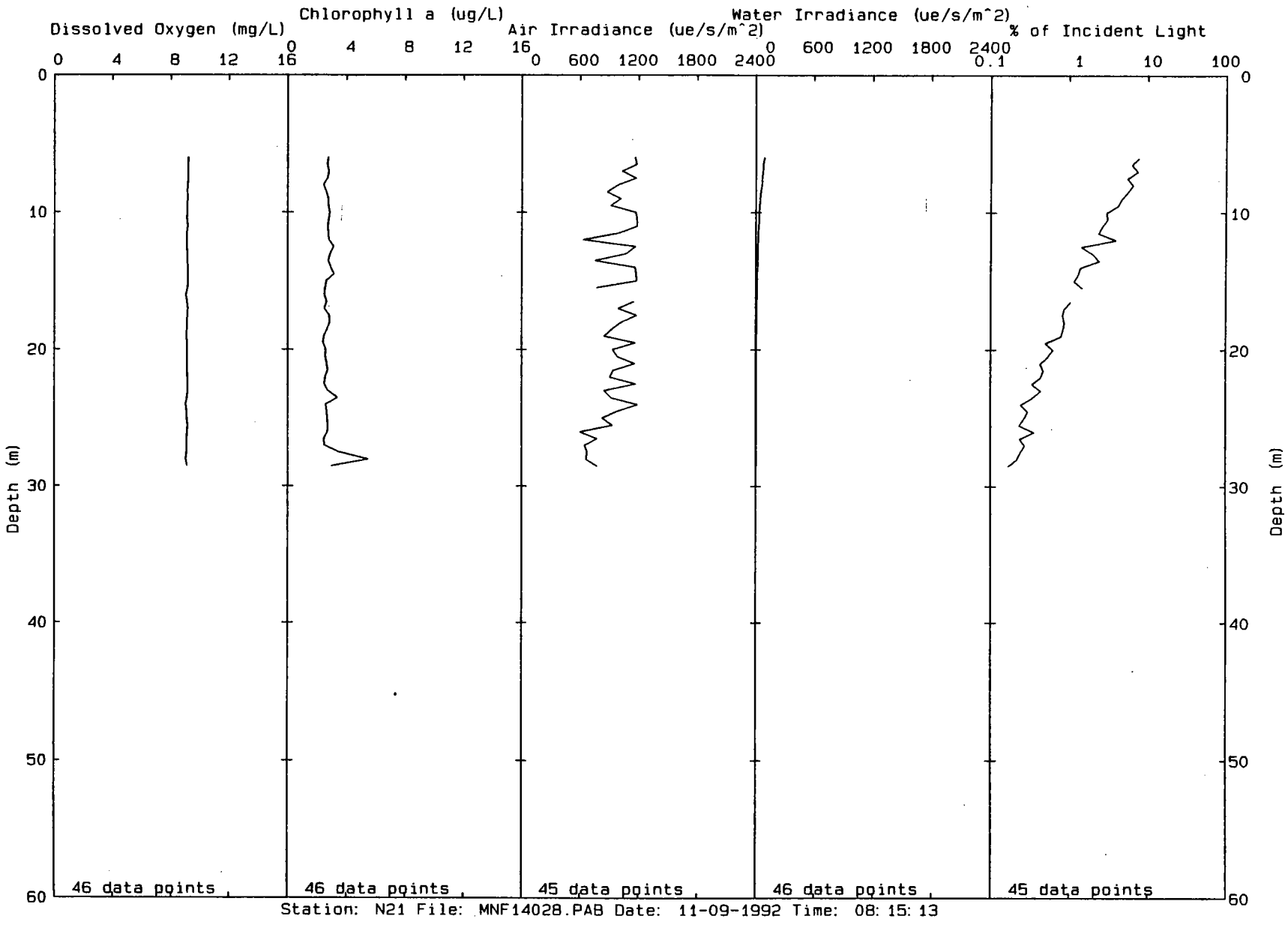




00321

03-29-1993 16:29:10 Battelle





APPENDIX C

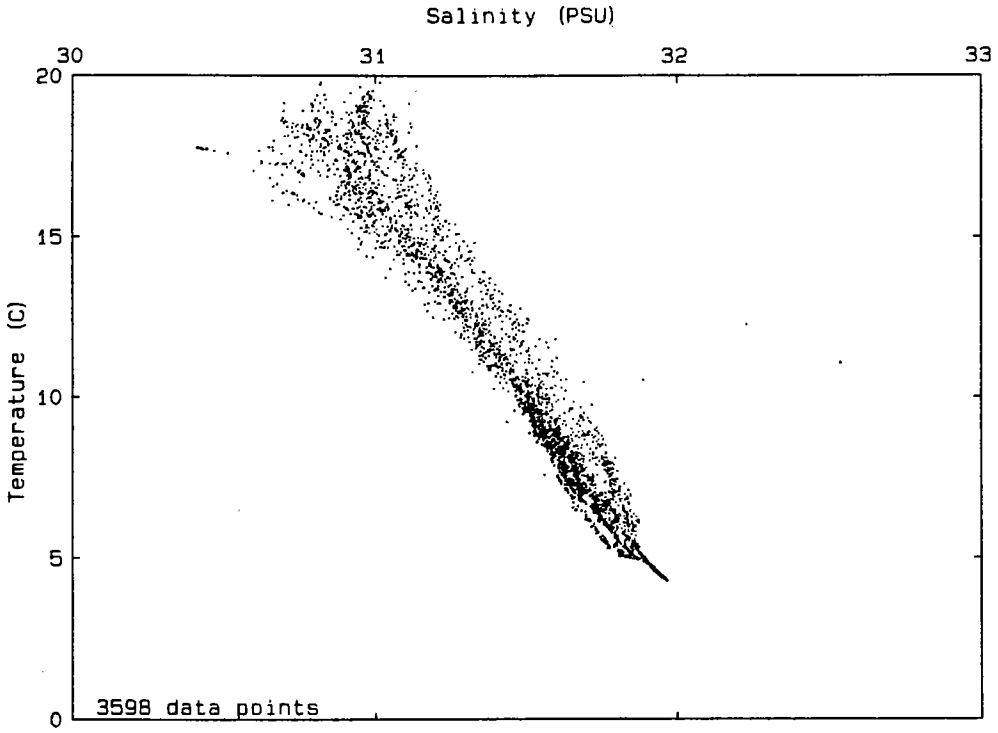
COMPARISON OF VERTICAL PROFILE DATA: SCATTER PLOTS AND TRANSECTS

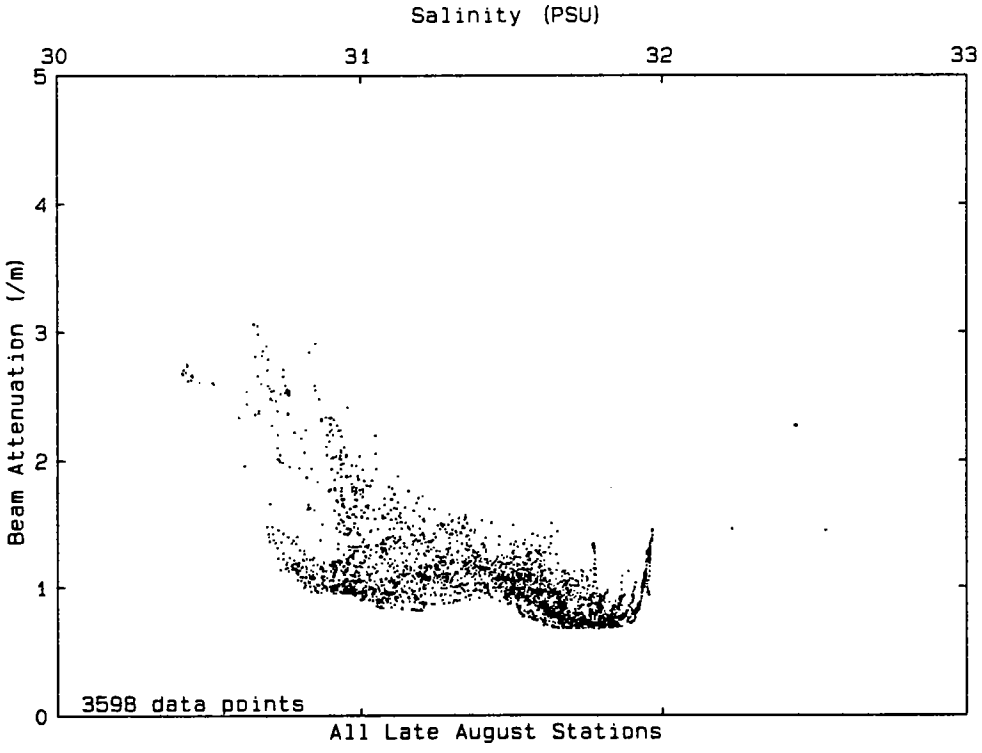
Part 1

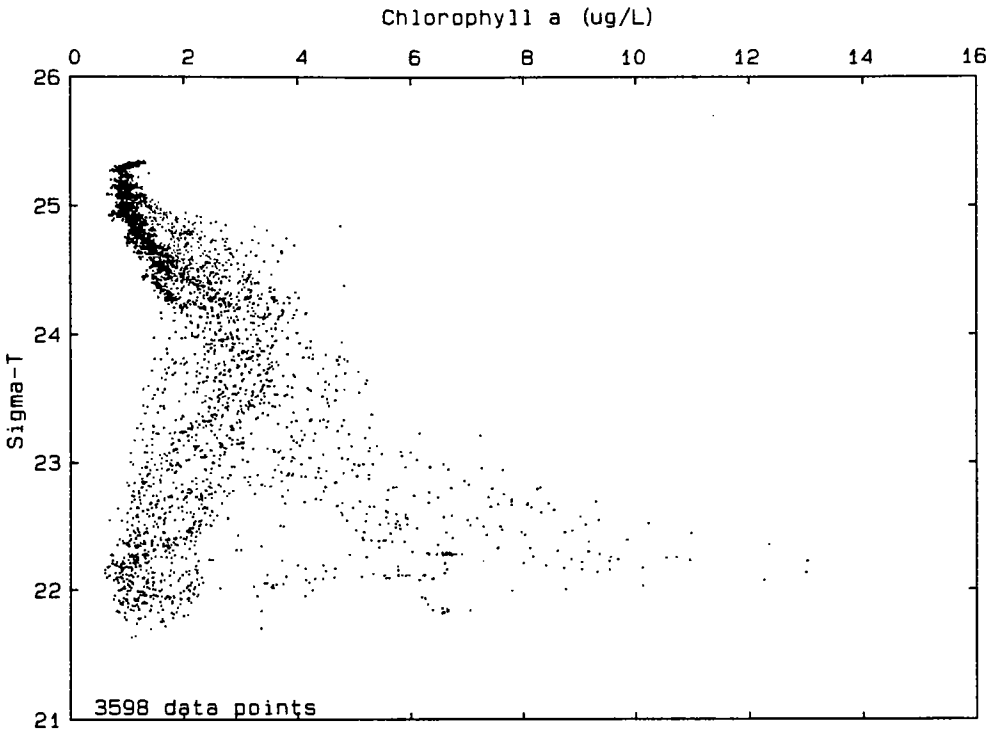
Parameter-Parameter Plots of Vertical Profile Data, Late August through November Surveys

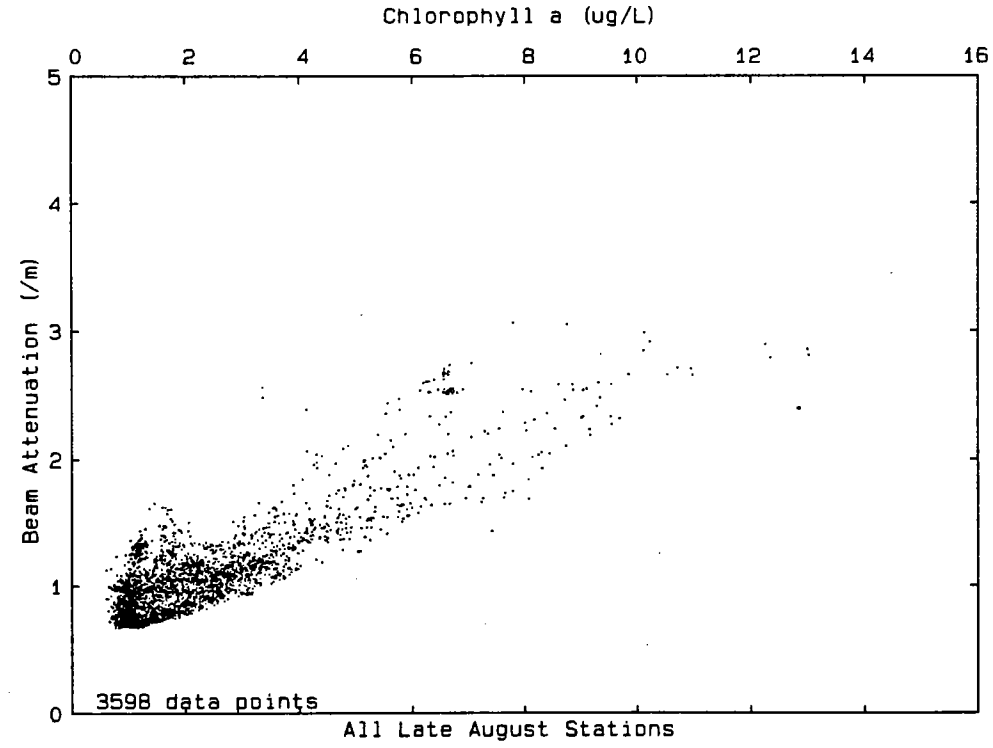
Data are as described in Appendix B and include the entire profile at each station. Plots separate stations by station groups as defined in the text report, which itself gives composite plots for all stations.

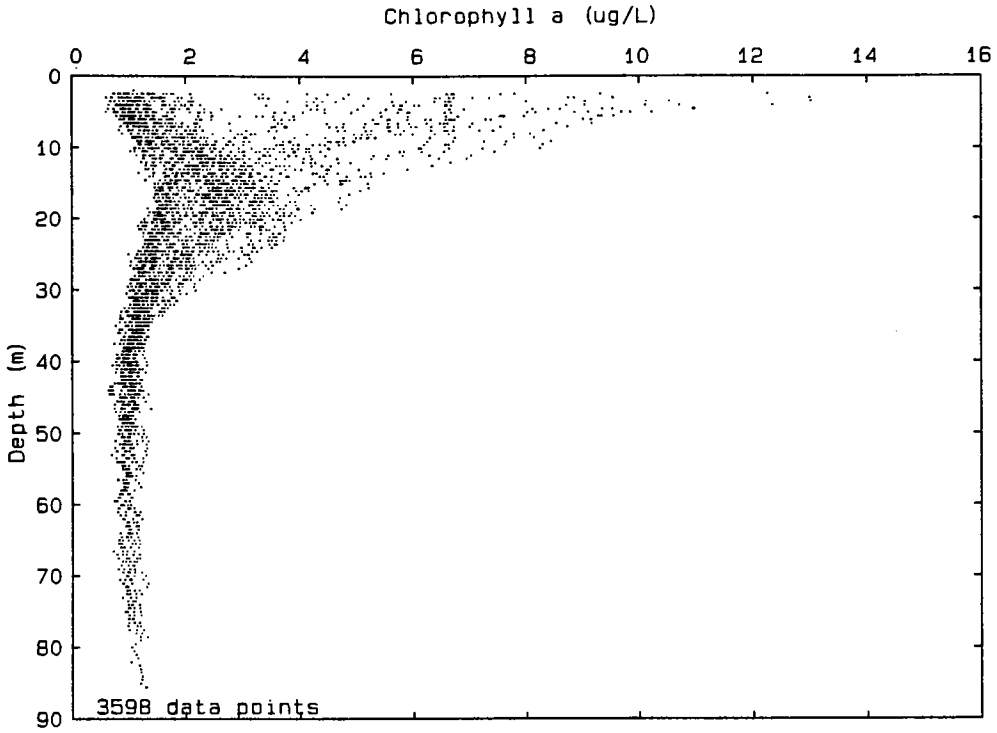
The sequence of presentation is late August, September, October, and November surveys.

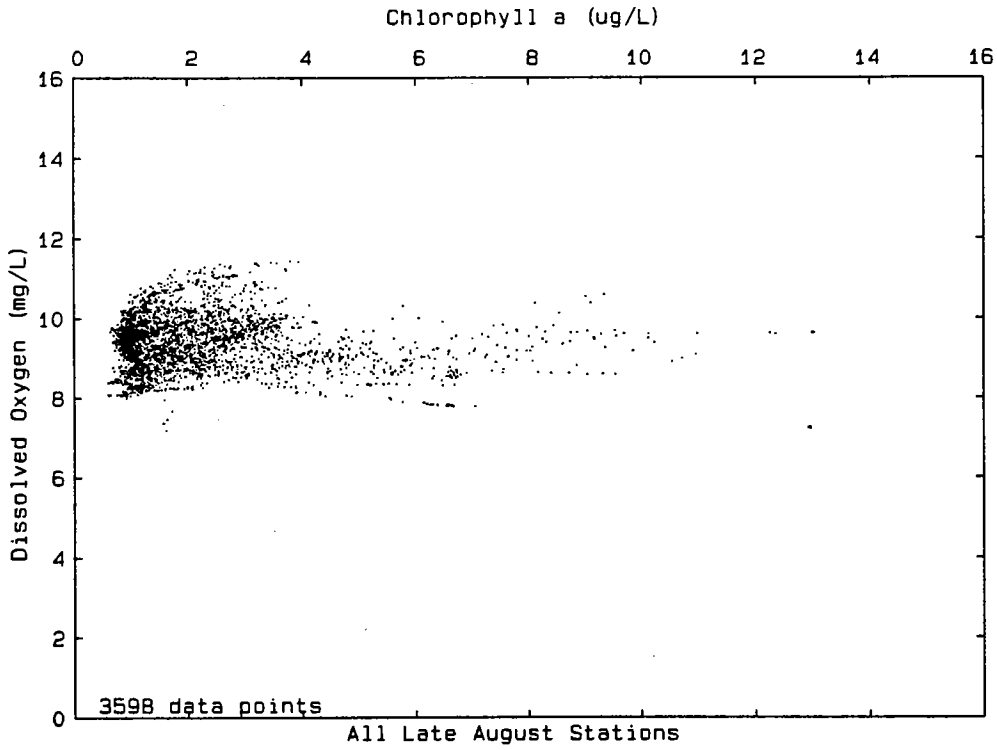

Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
3598 data points

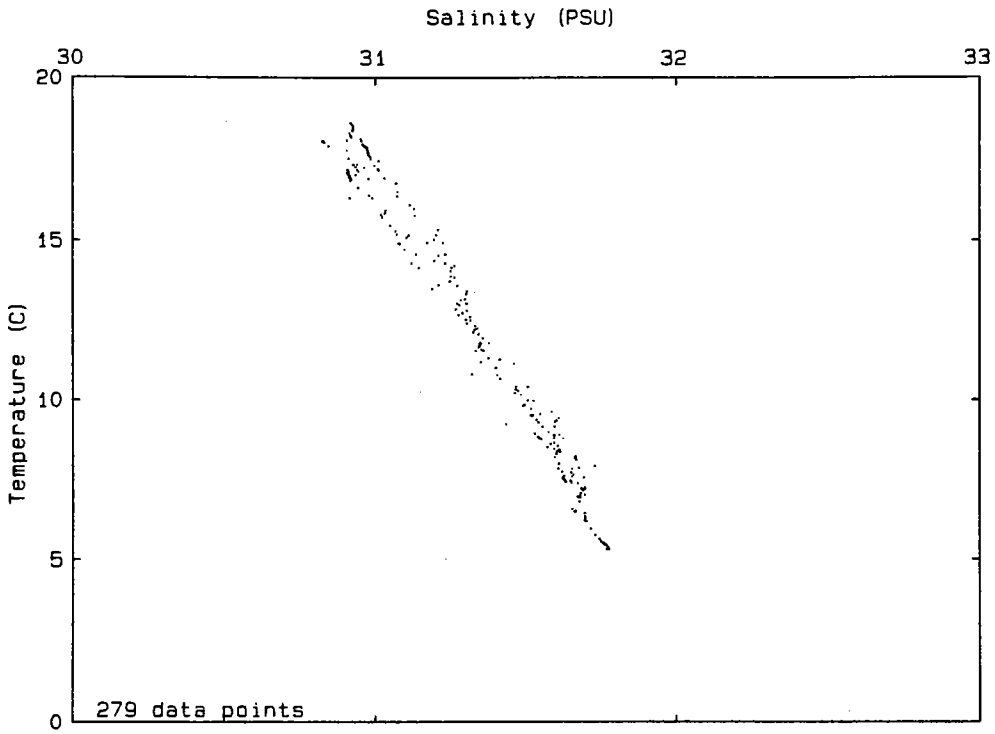

Salinity (PSU)
30
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
3598 data points
All Late August Stations

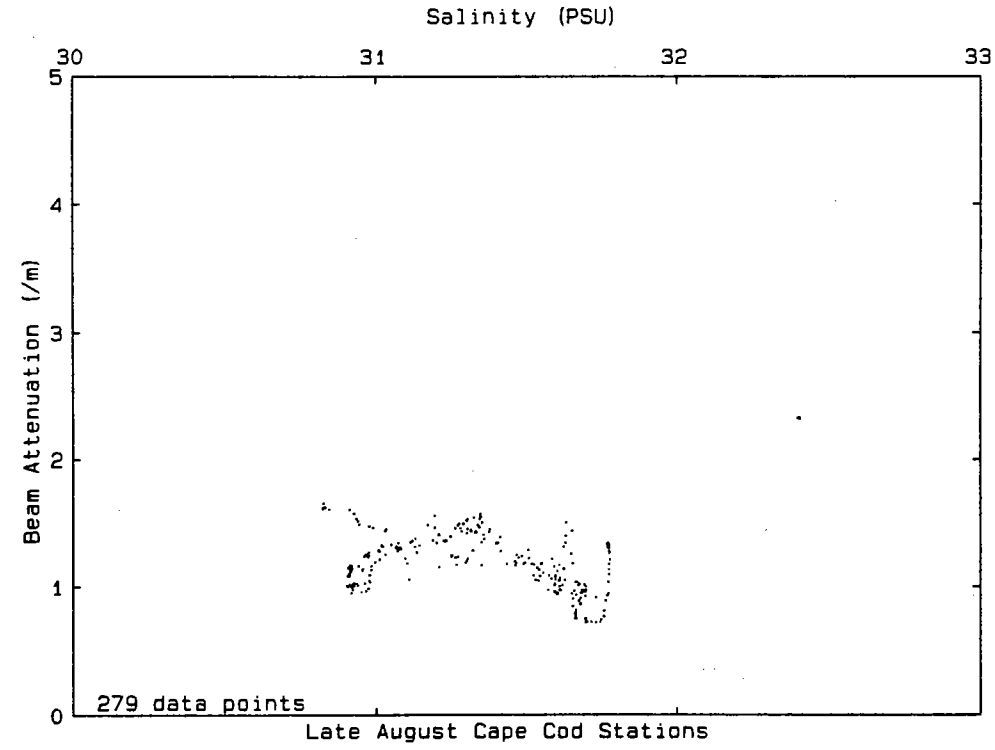

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
3598 data points


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
3598 data points
All Late August Stations


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
3598 data points


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
0
2
4
6
8
10
12
14
16
3598 data points
All Late August Stations


Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
279 data points


Salinity (PSU)
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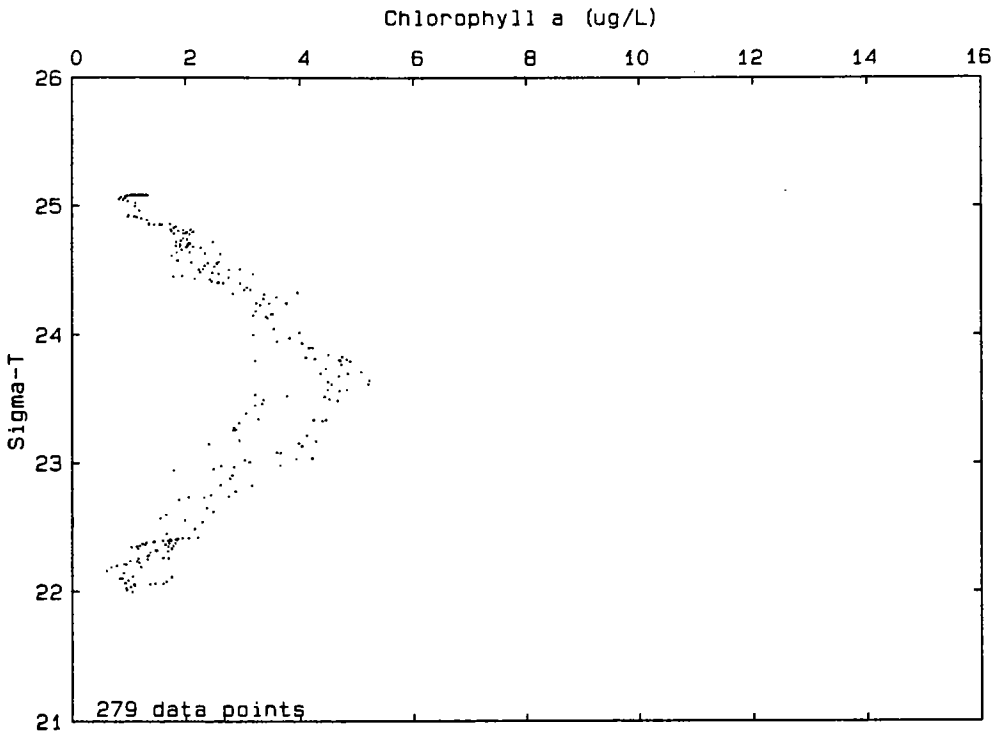
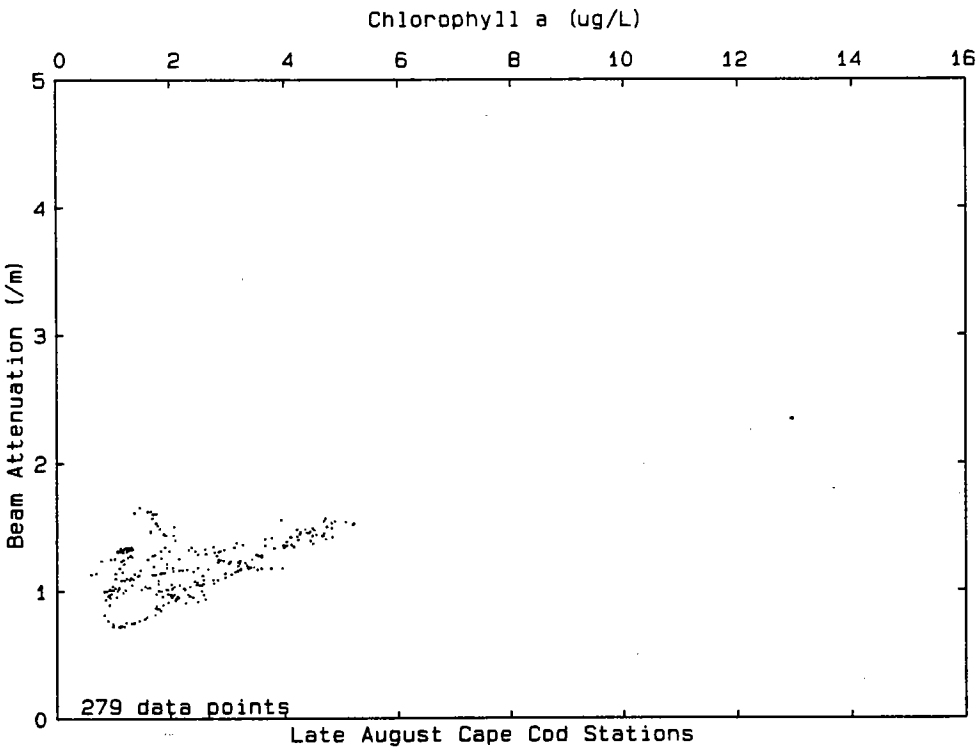
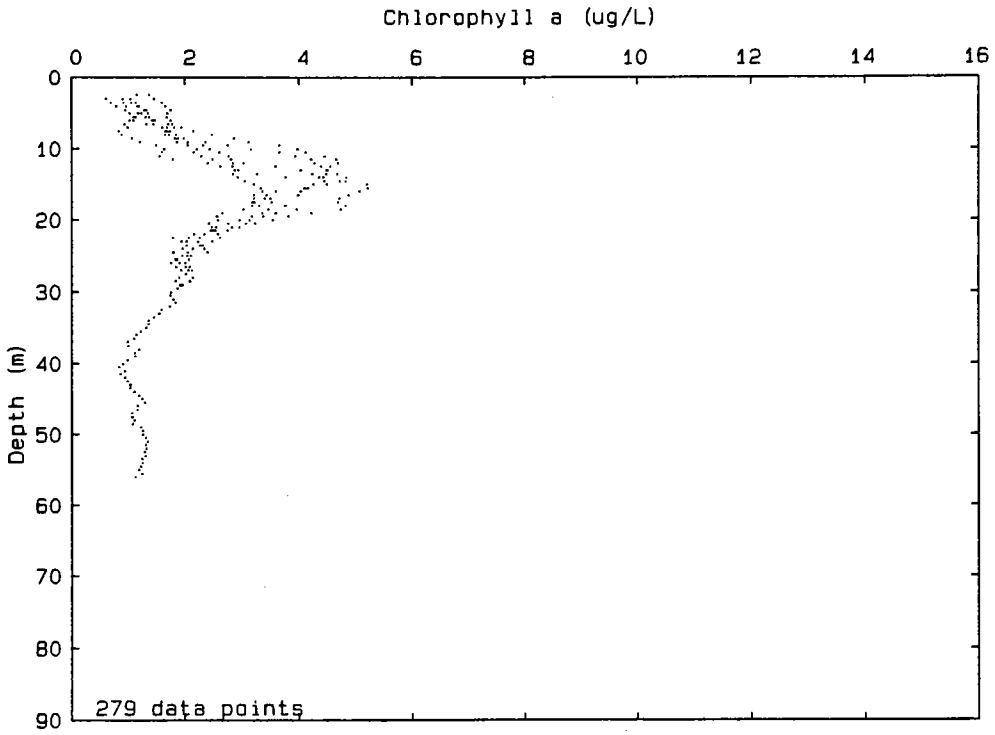
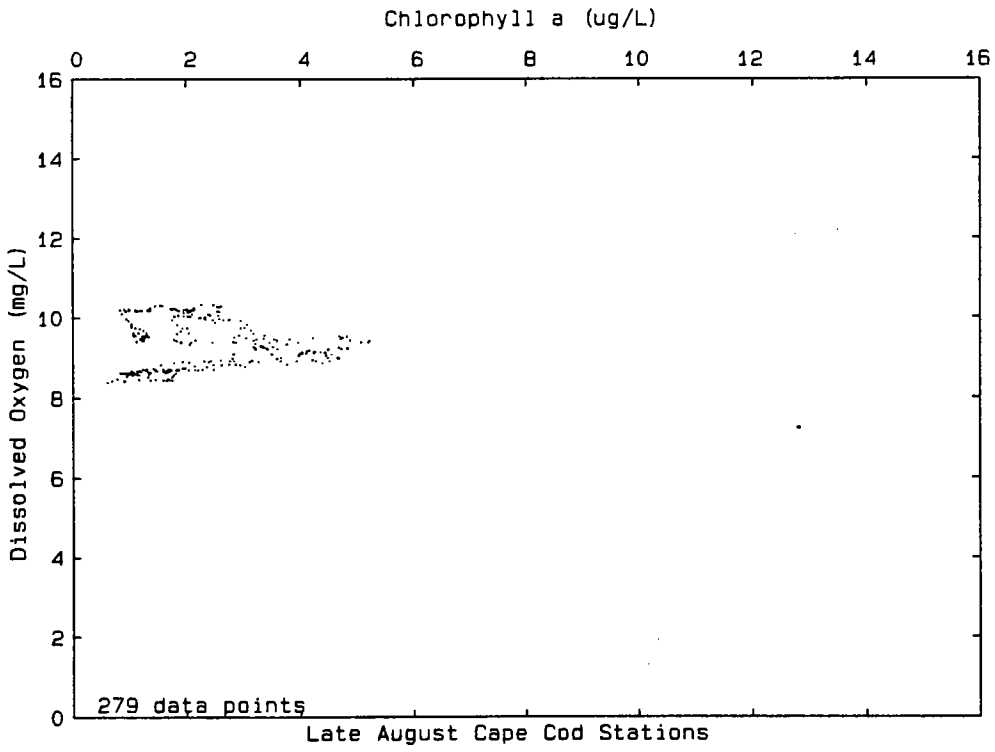
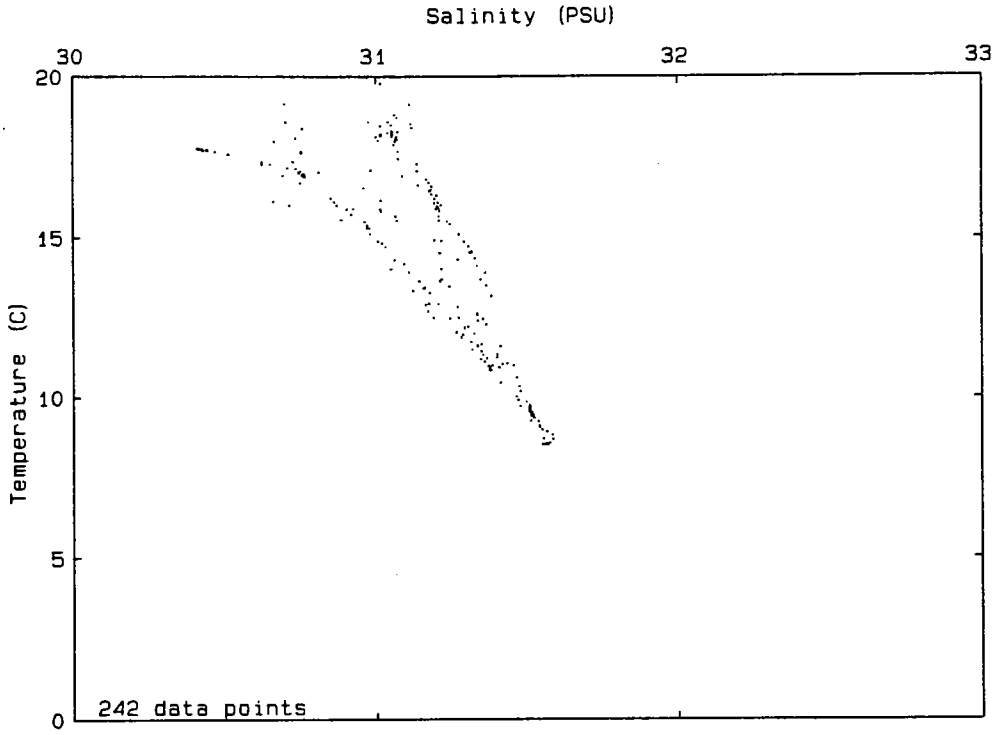
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
279 data points
Late August Cape Cod Stations


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
279 data points


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
279 data points
Late August Cape Cod Stations


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
279 data points


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
16
14
12
10
8
6
4
2
0
279 data points
Late August Cape Cod Stations


Salinity (PSU)
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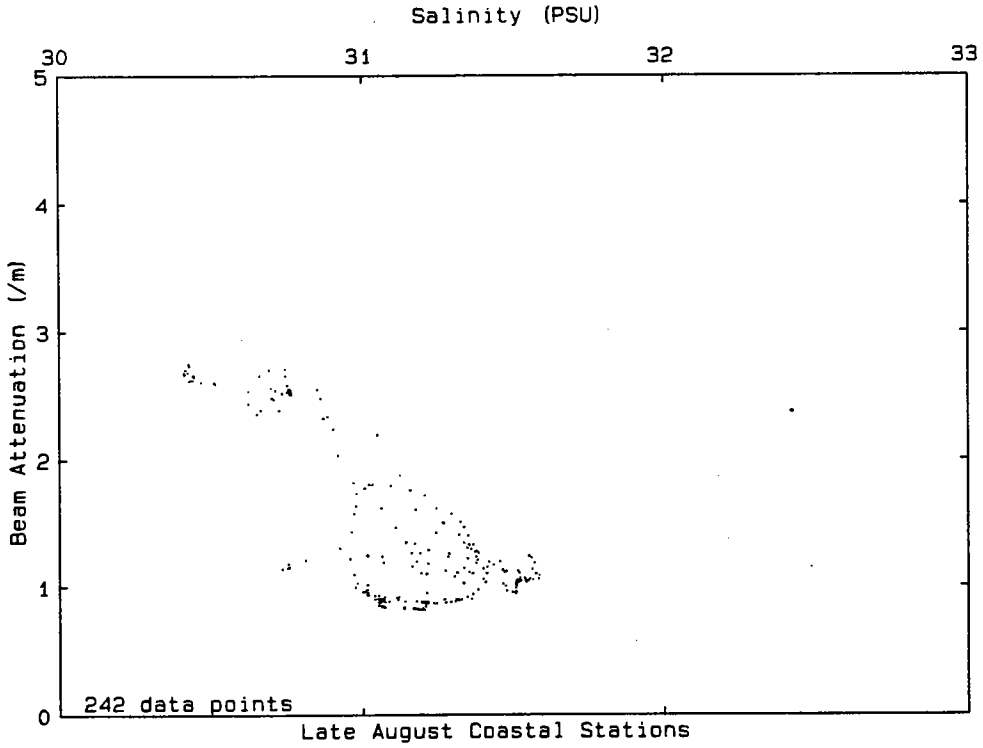
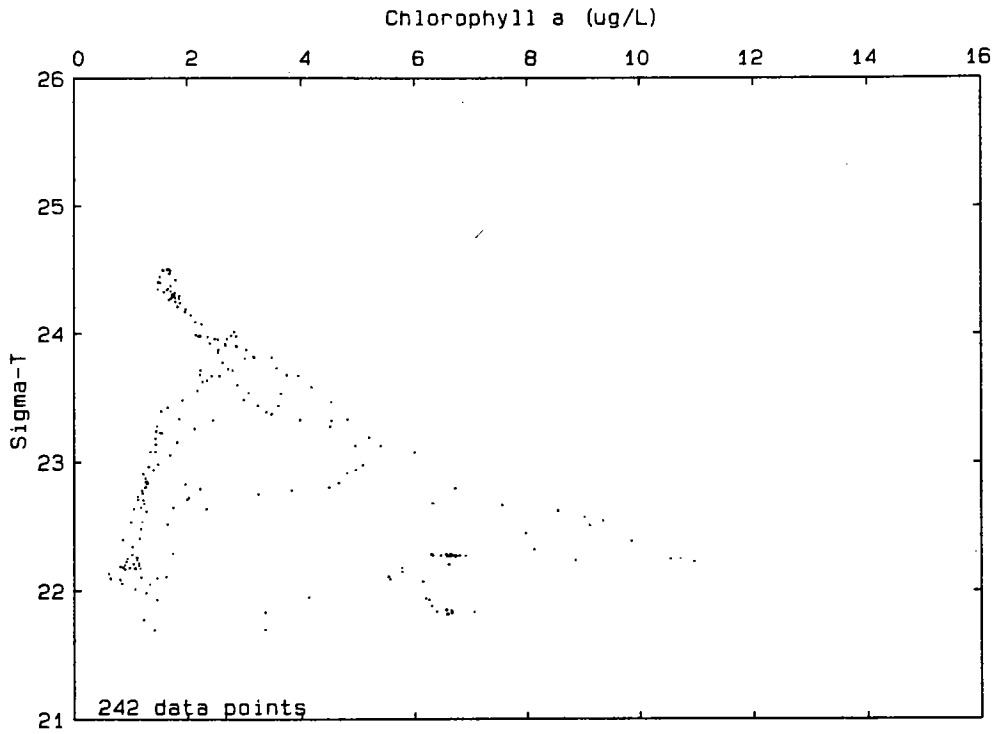
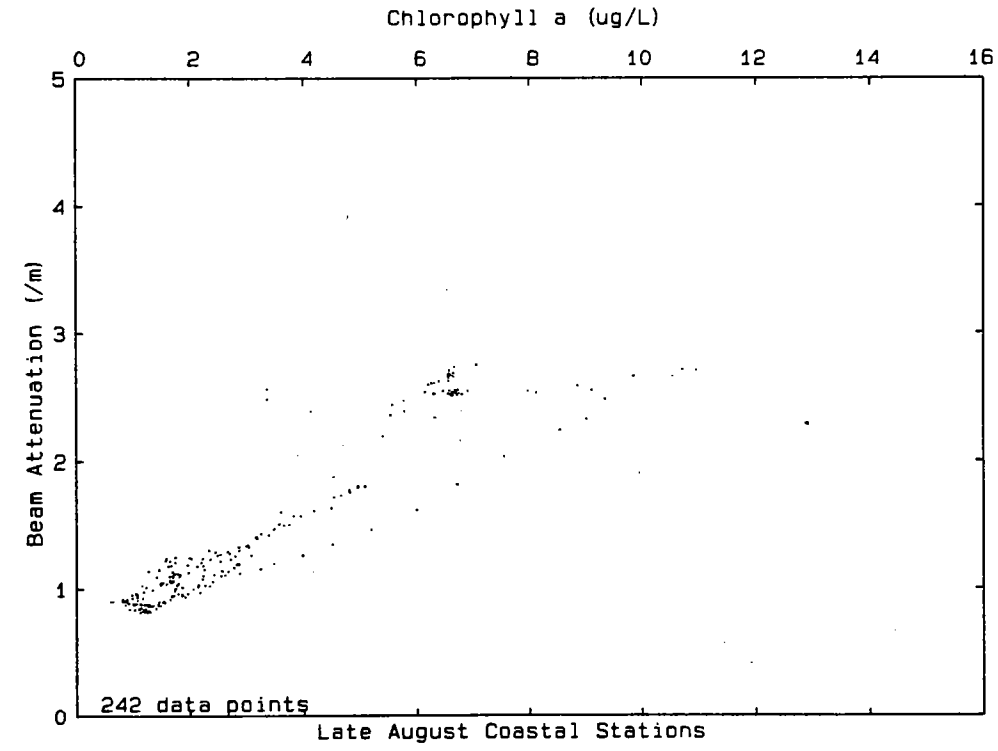
31
32
33
20
15
10
5
0
Temperature (C)
242 data points


Salinity (PSU)
30
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
242 data points
Late August Coastal Stations


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
242 data points


Chlorophyll a (ug/L)
0
2
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8
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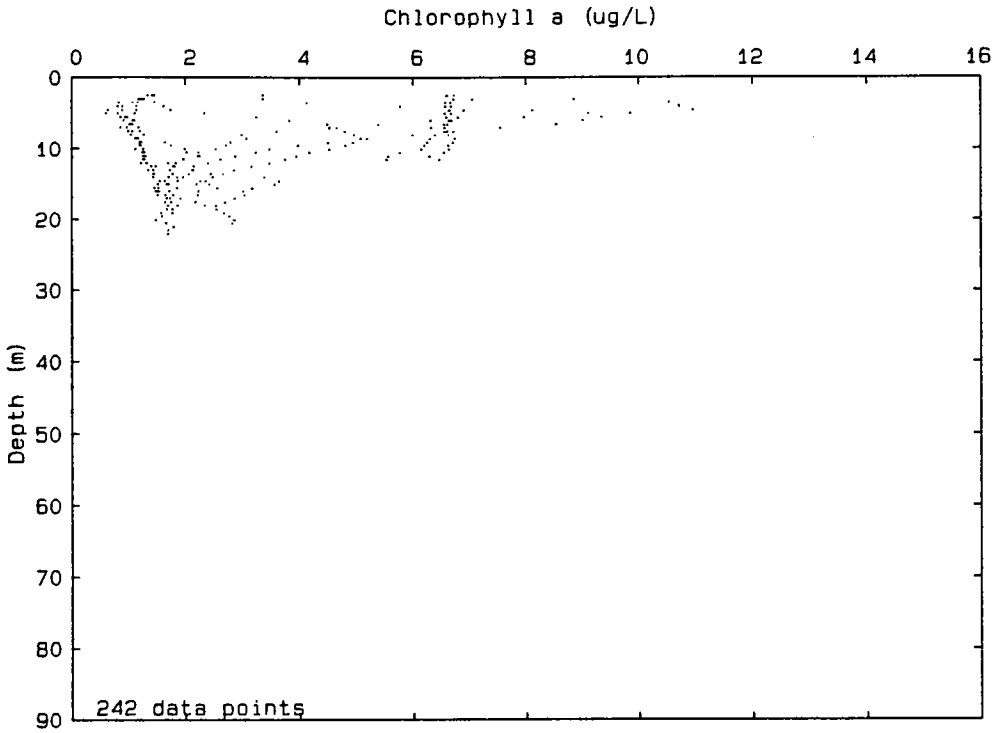
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
242 data points
Late August Coastal Stations


Chlorophyll a (ug/L)
0
2
4
6
8
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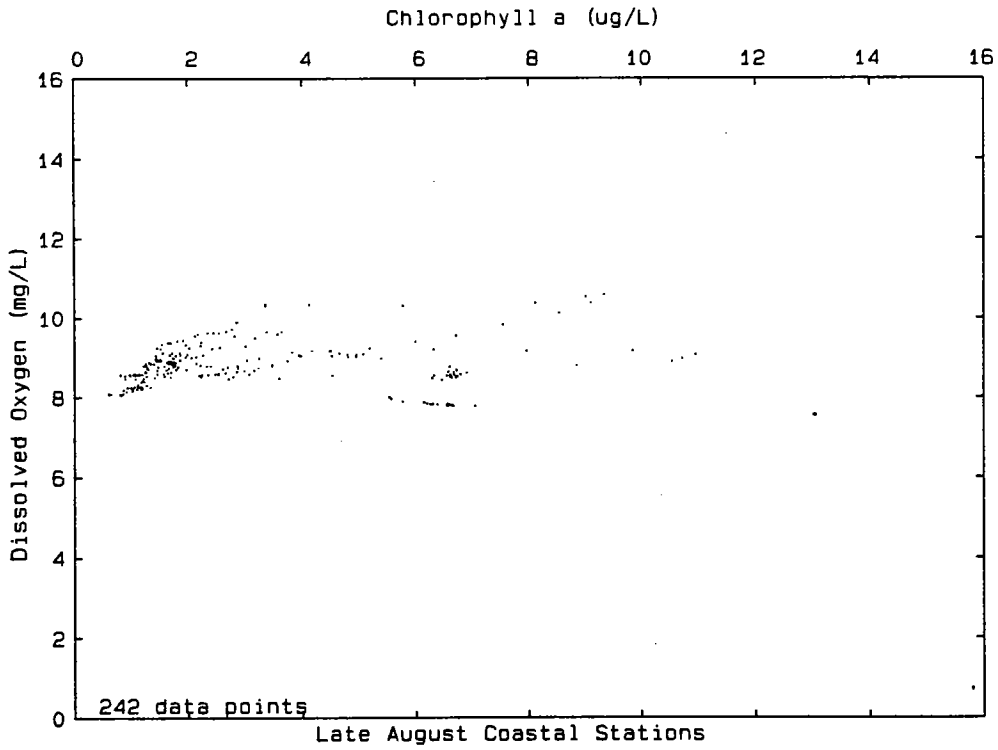
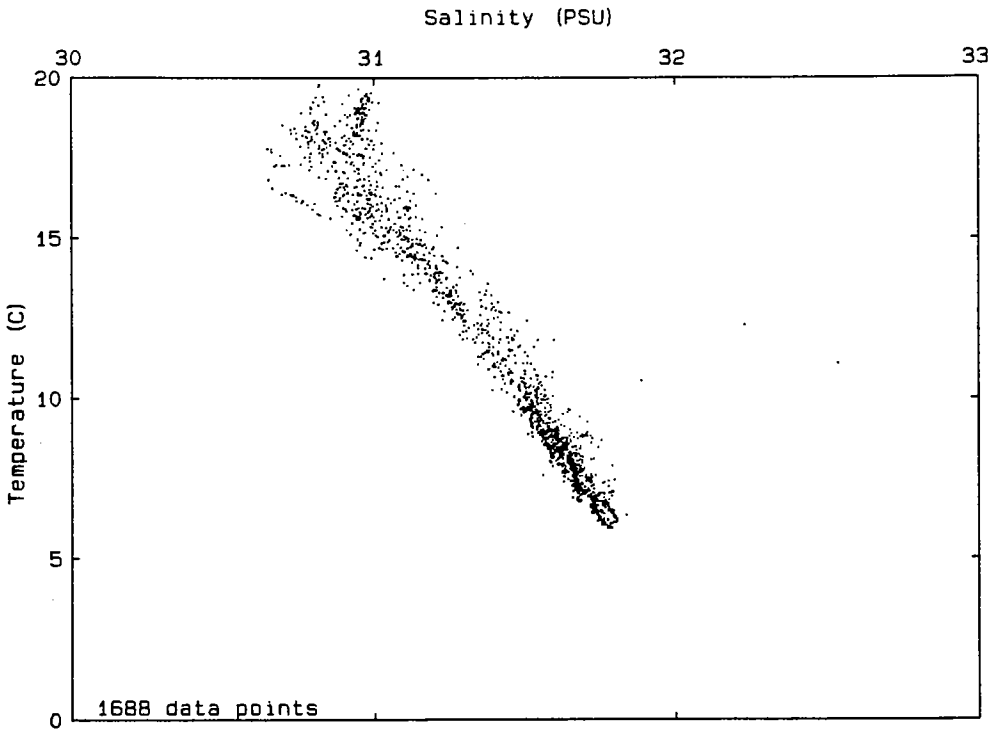
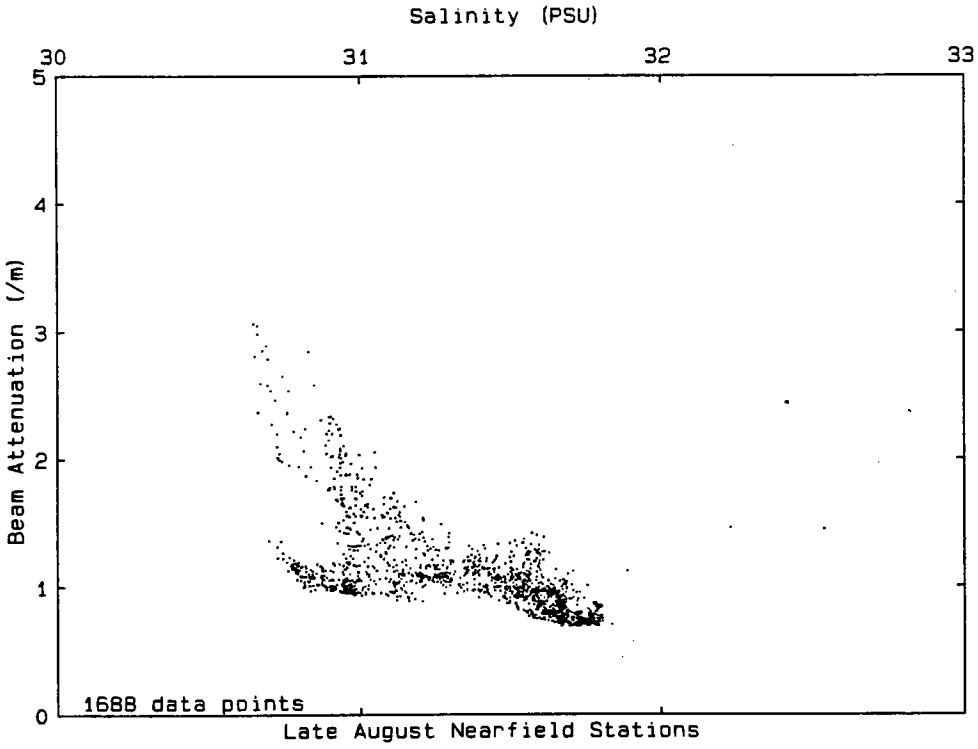
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
242 data points


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
16
14
12
10
8
6
4
2
0
242 data points
Late August Coastal Stations


Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
1688 data points


Salinity (PSU)
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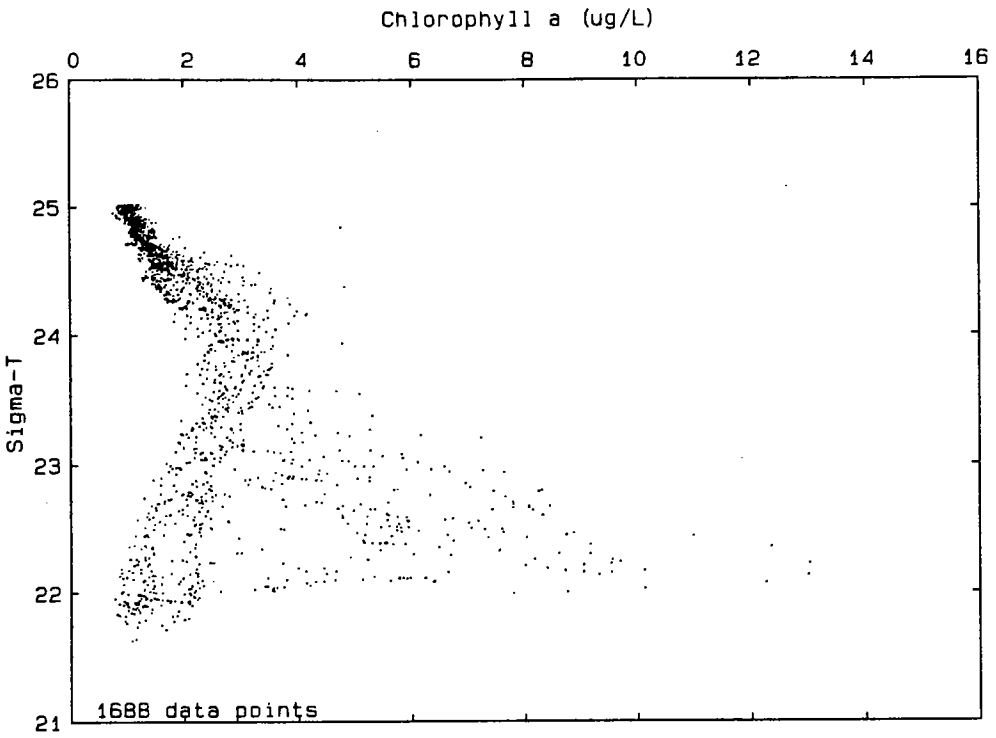
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
1688 data points
Late August Nearfield Stations


Chlorophyll a (ug/L)
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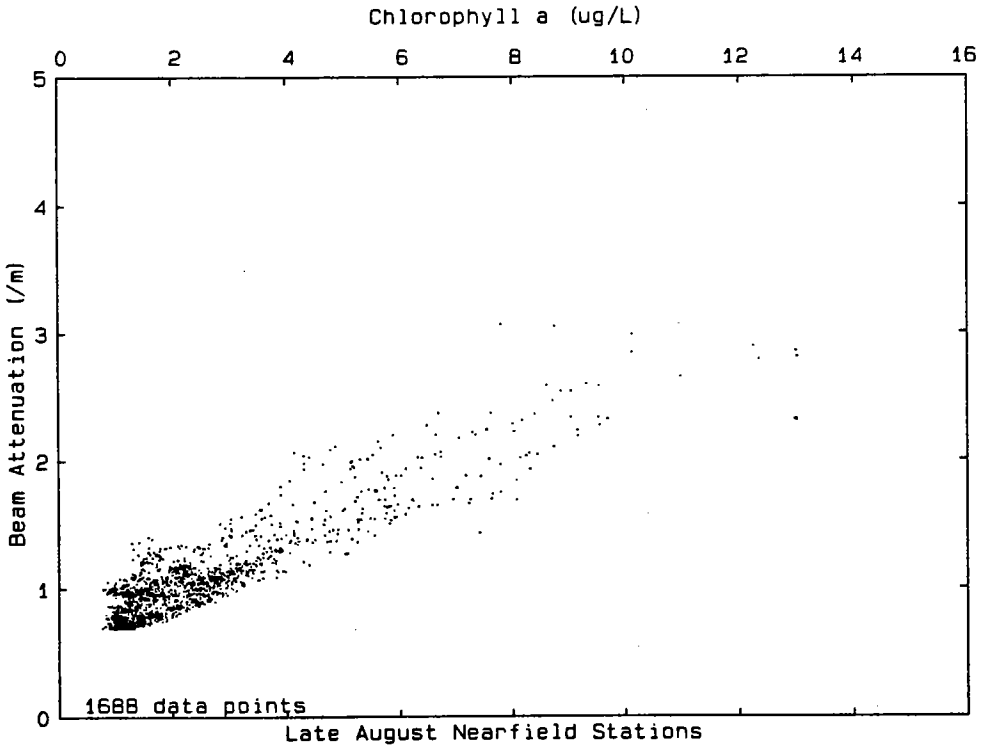
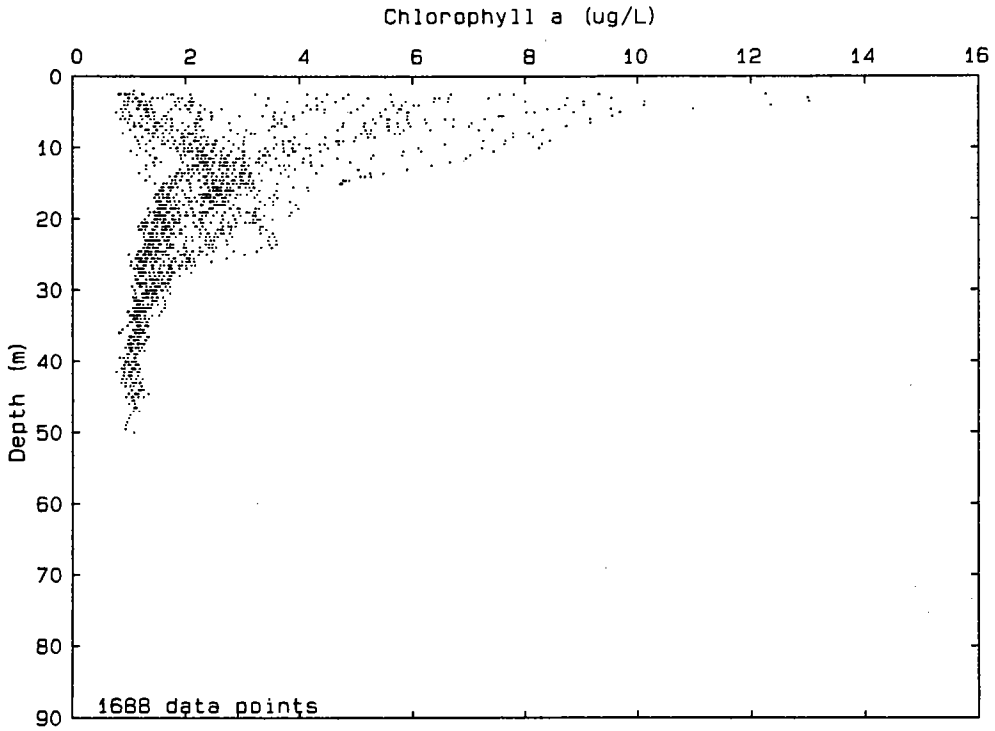
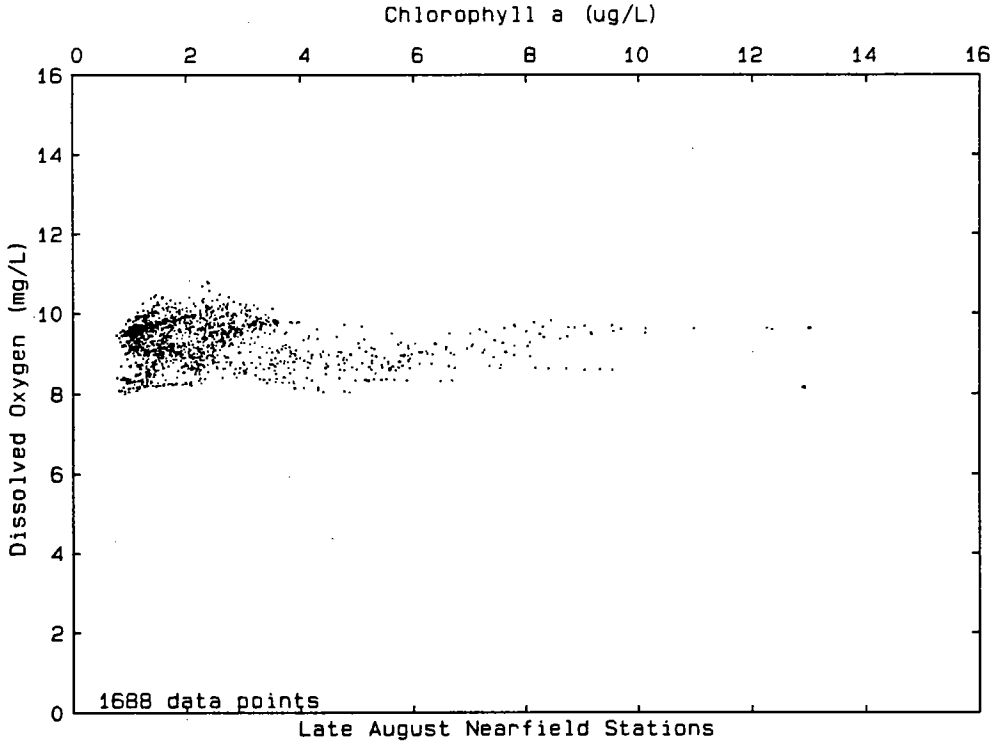
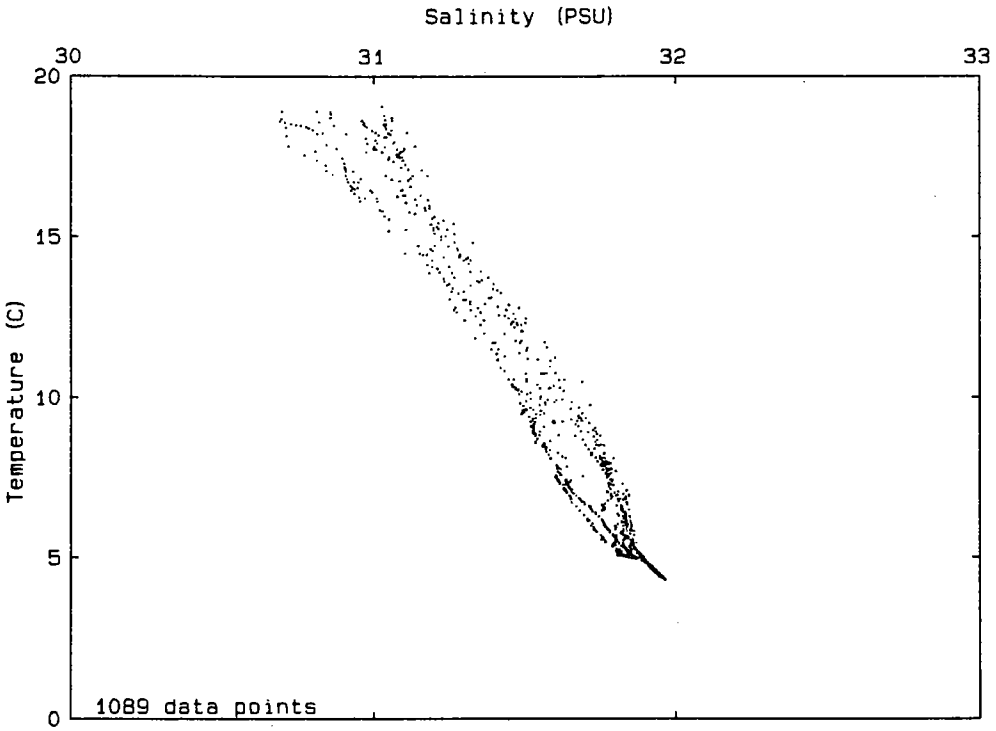
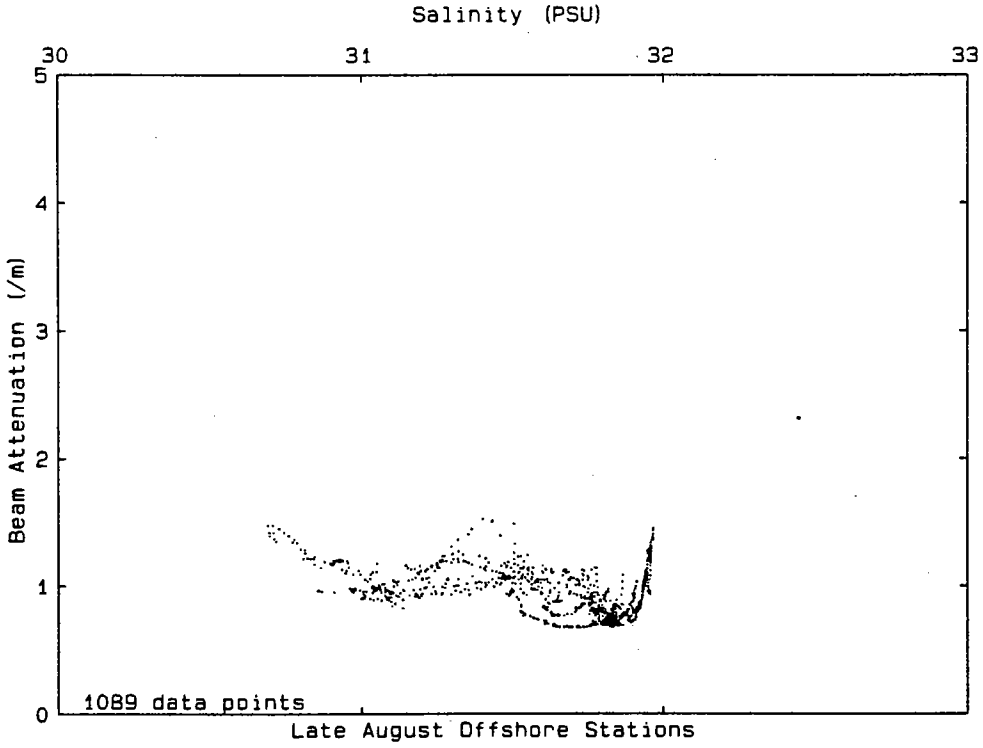
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
1688 data points


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
1688 data points
Late August Nearfield Stations


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
1688 data points


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
16
14
12
10
8
6
4
2
0
1688 data points
Late August Nearfield Stations


Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
1089 data points


Salinity (PSU)
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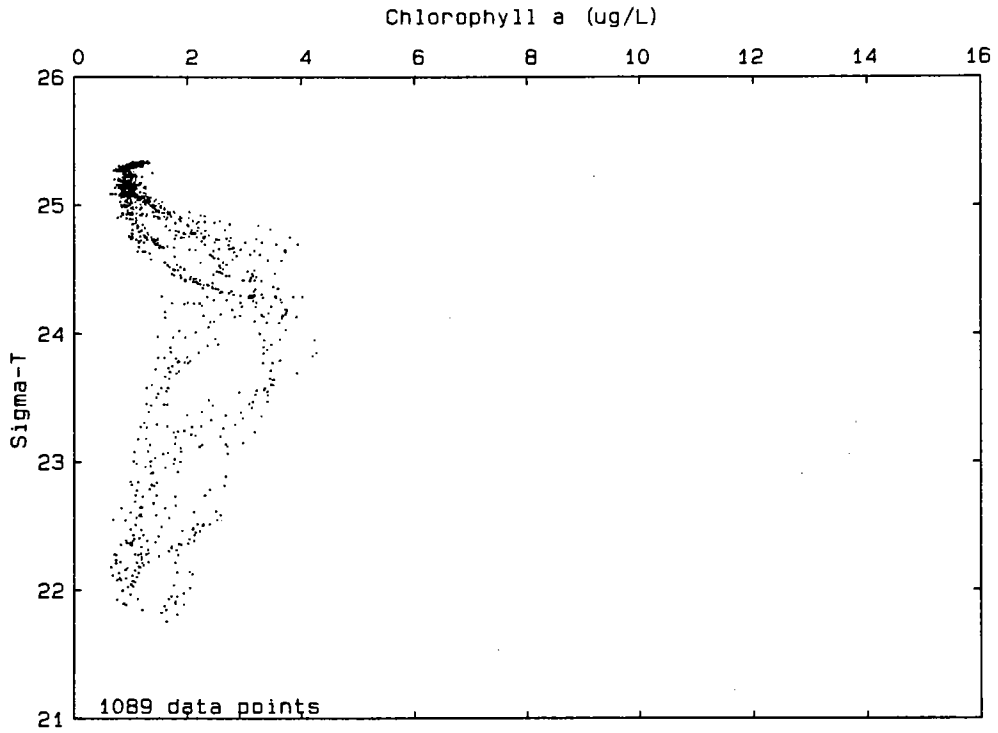
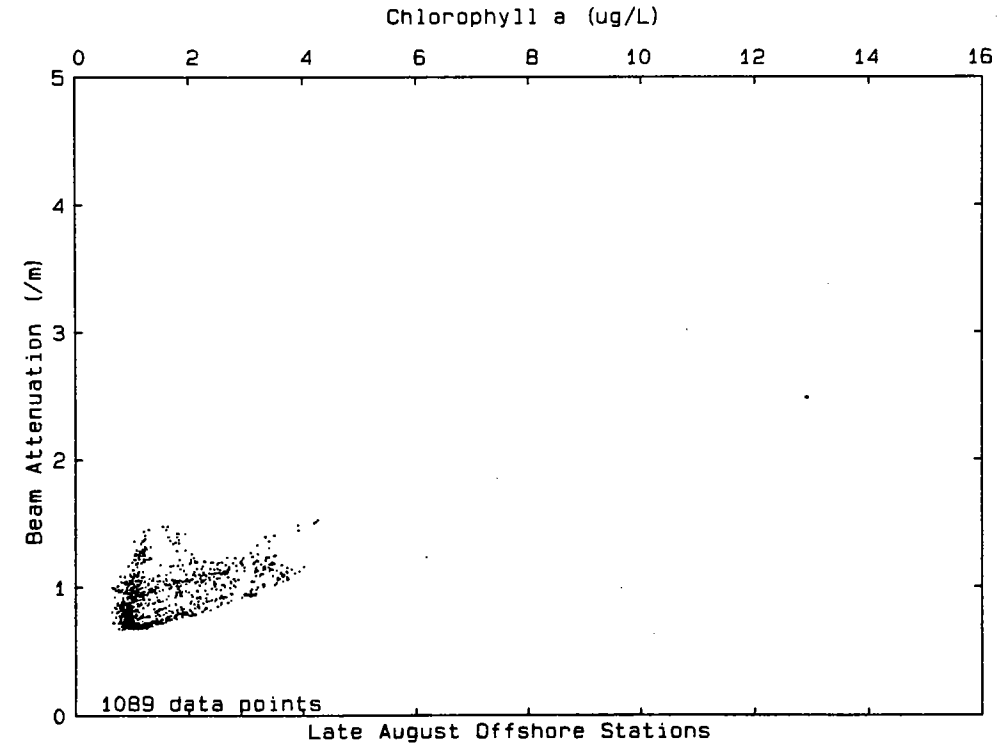
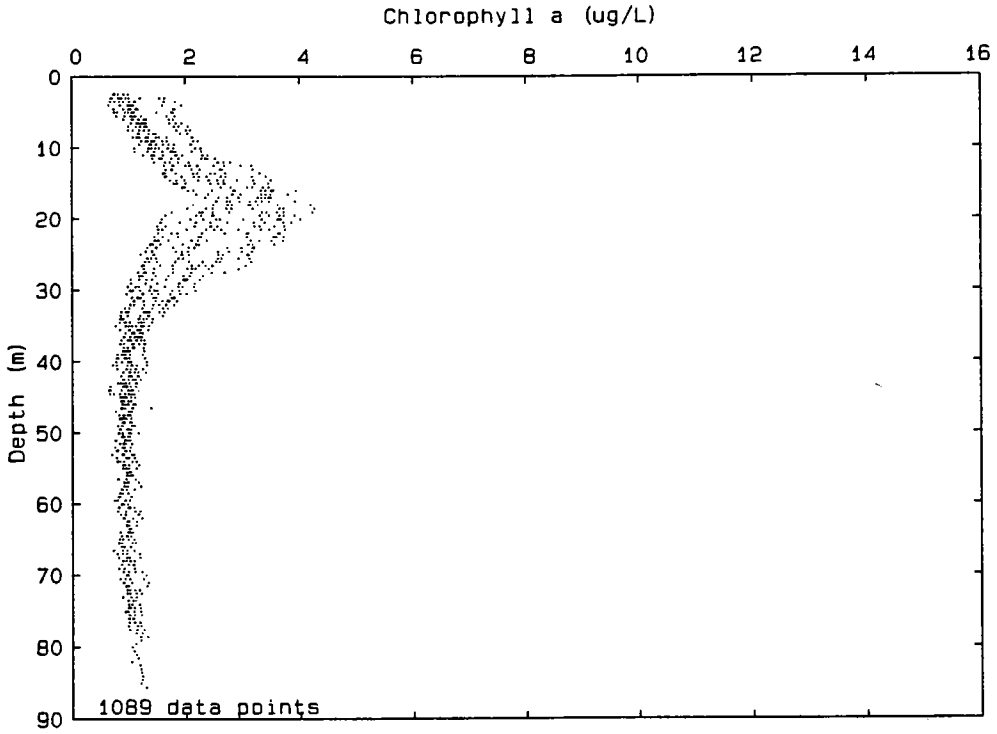
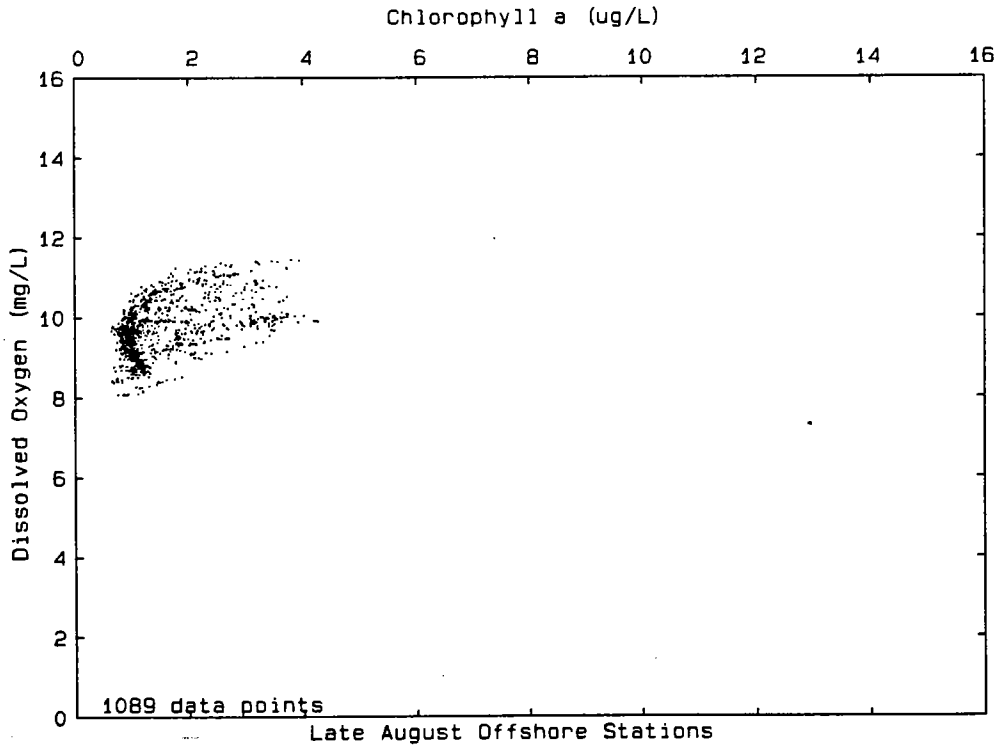
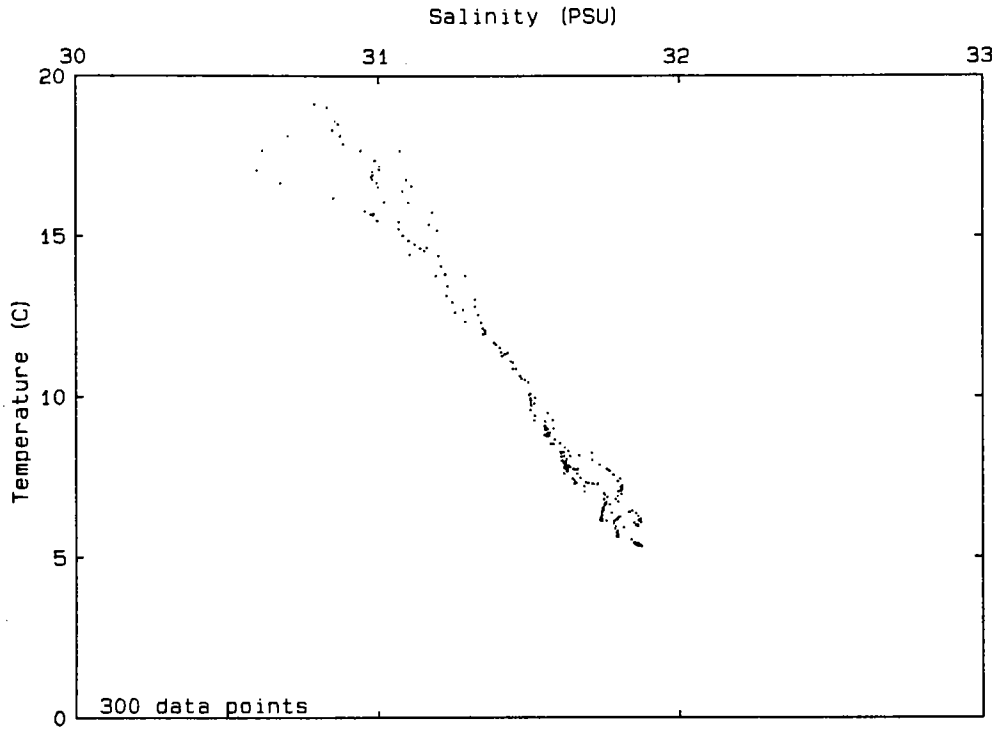
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
1089 data points
Late August Offshore Stations

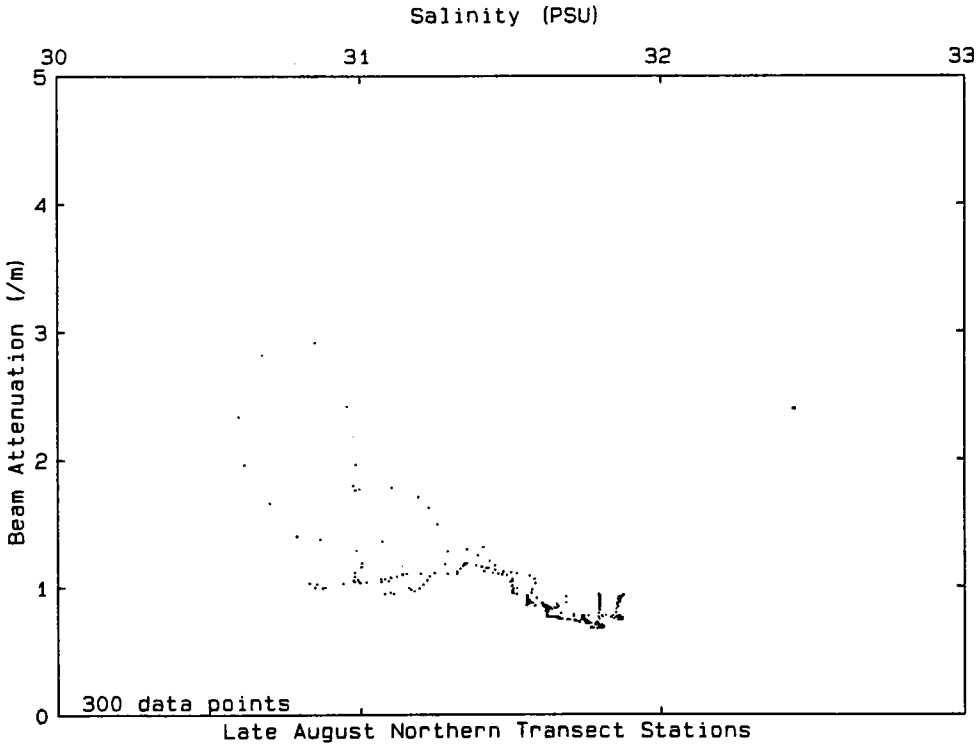

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
1089 data points

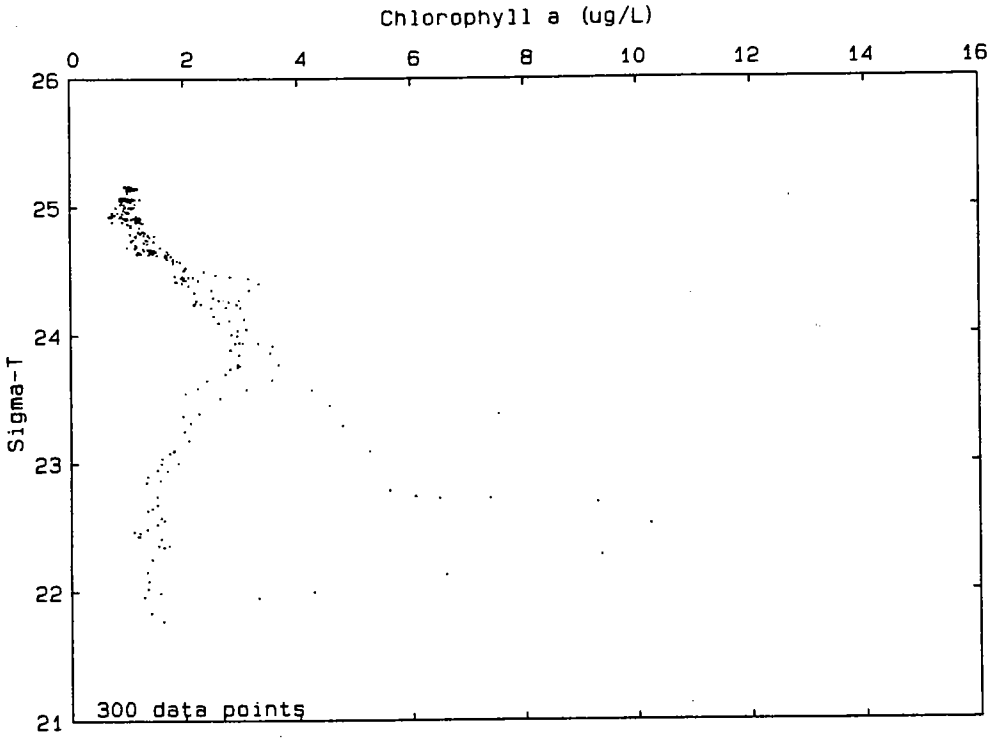

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
1089 data points
Late August Offshore Stations

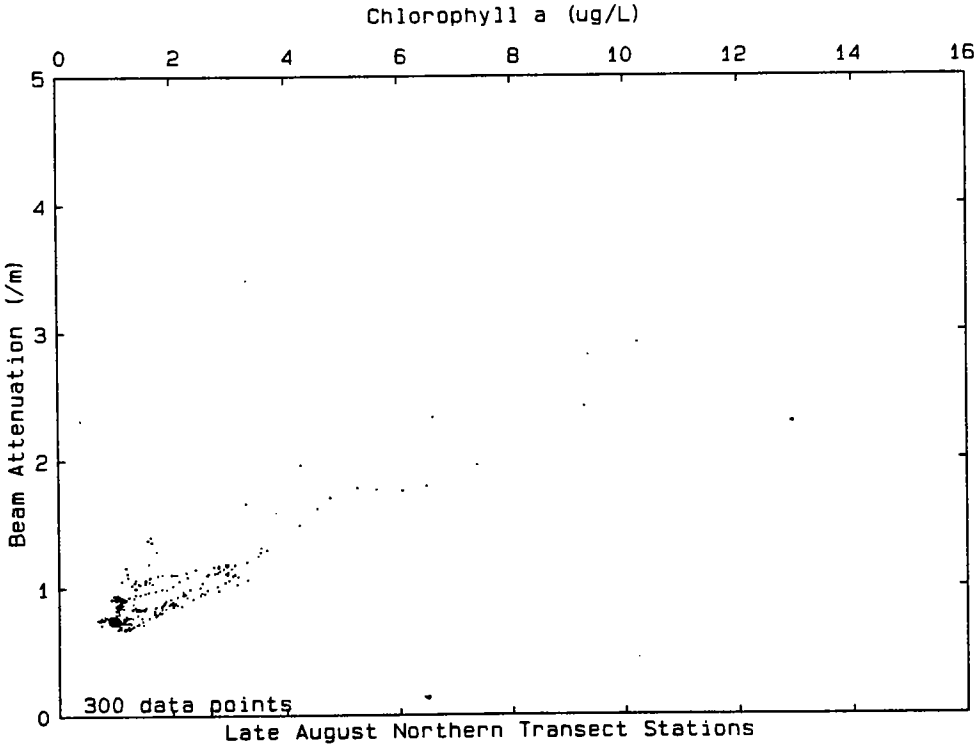

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
1089 data points

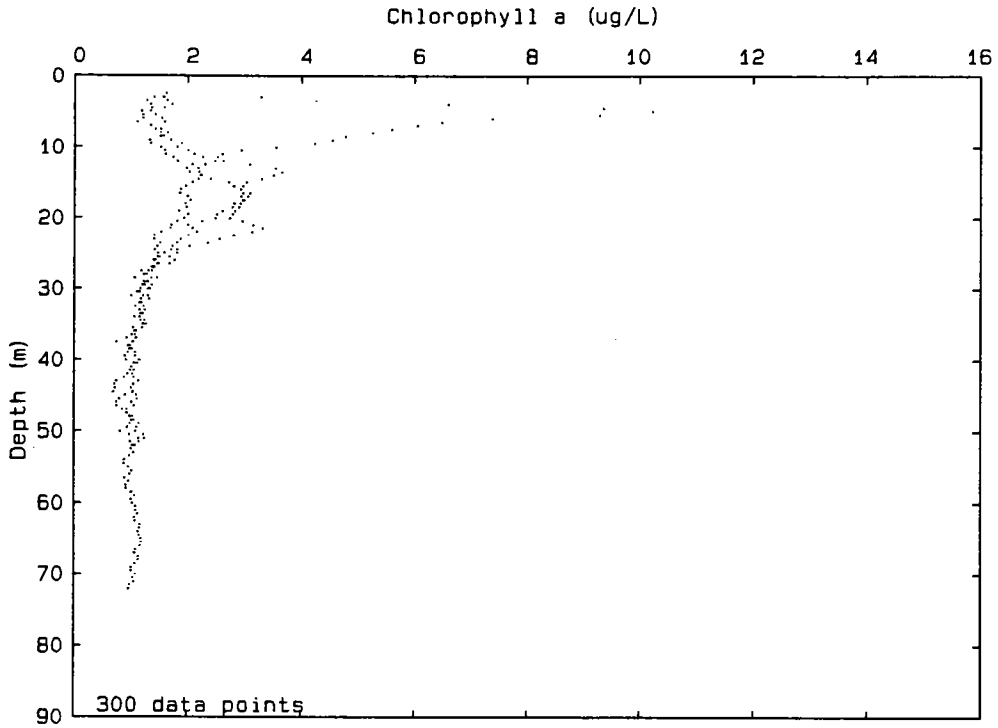

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
16
14
12
10
8
6
4
2
0
1089 data points
Late August Offshore Stations


Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
300 data points


Salinity (PSU)
30
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
300 data points
Late August Northern Transect Stations


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
300 data points


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
300 data points
Late August Northern Transect Stations


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
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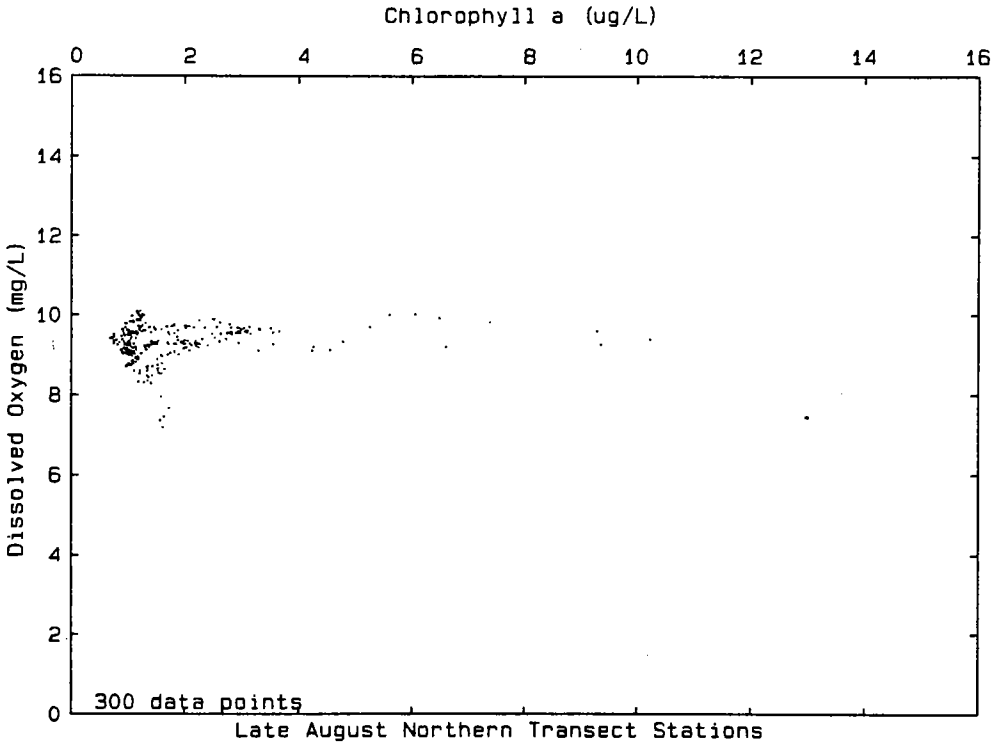
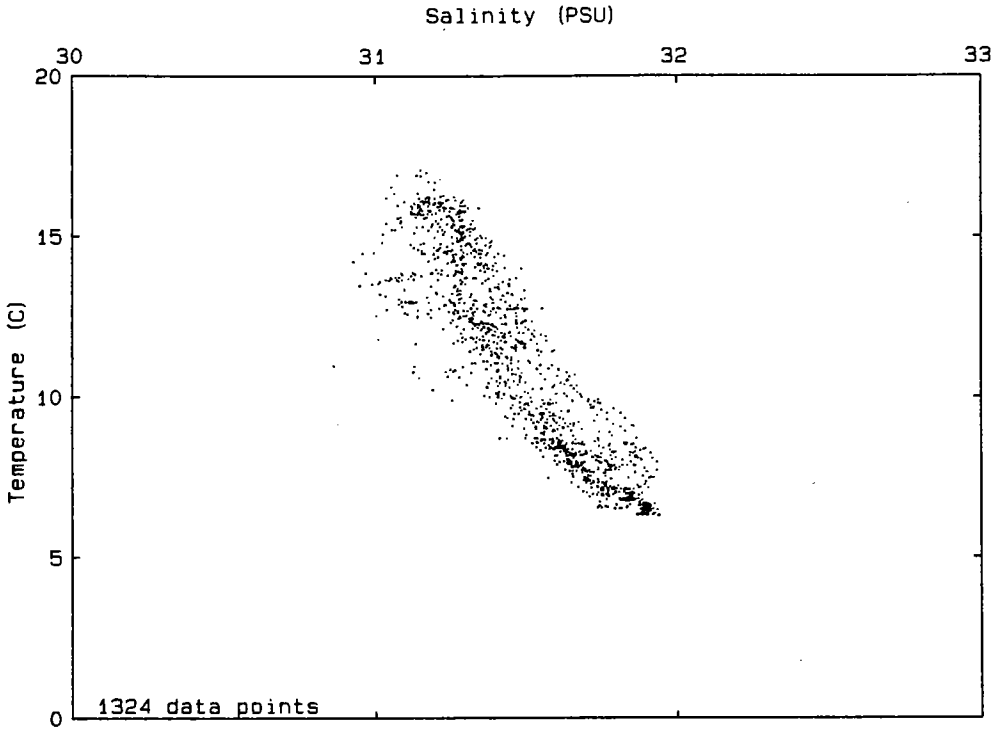
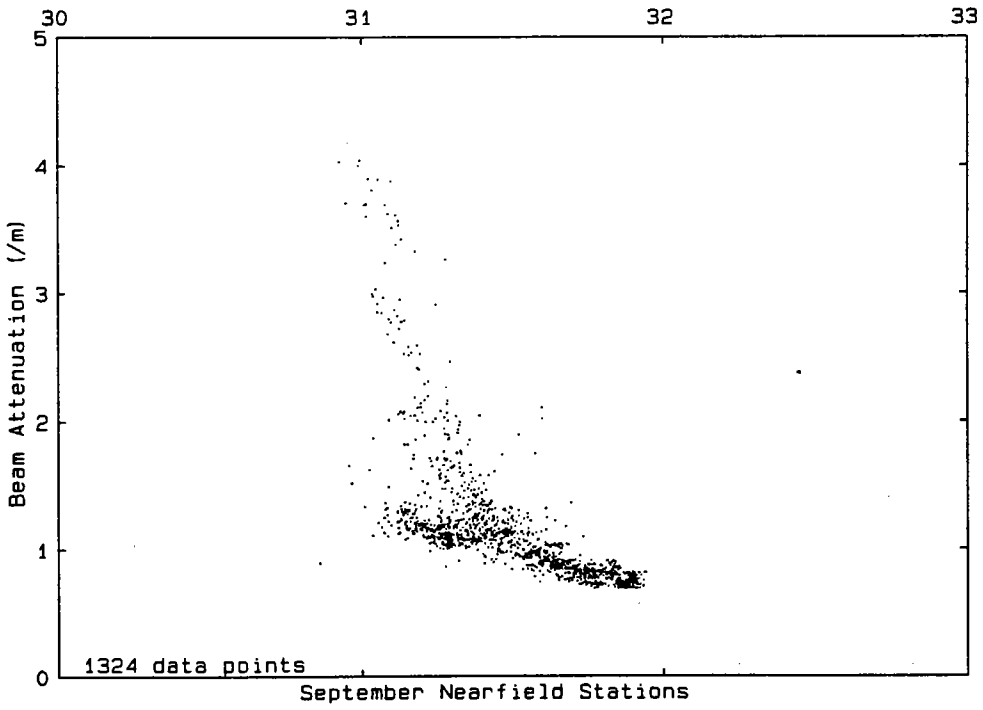
50
60
70
80
90
300 data points


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
0
2
4
6
8
10
12
14
16
300 data points
Late August Northern Transect Stations


Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
1324 data points


Salinity (PSU)
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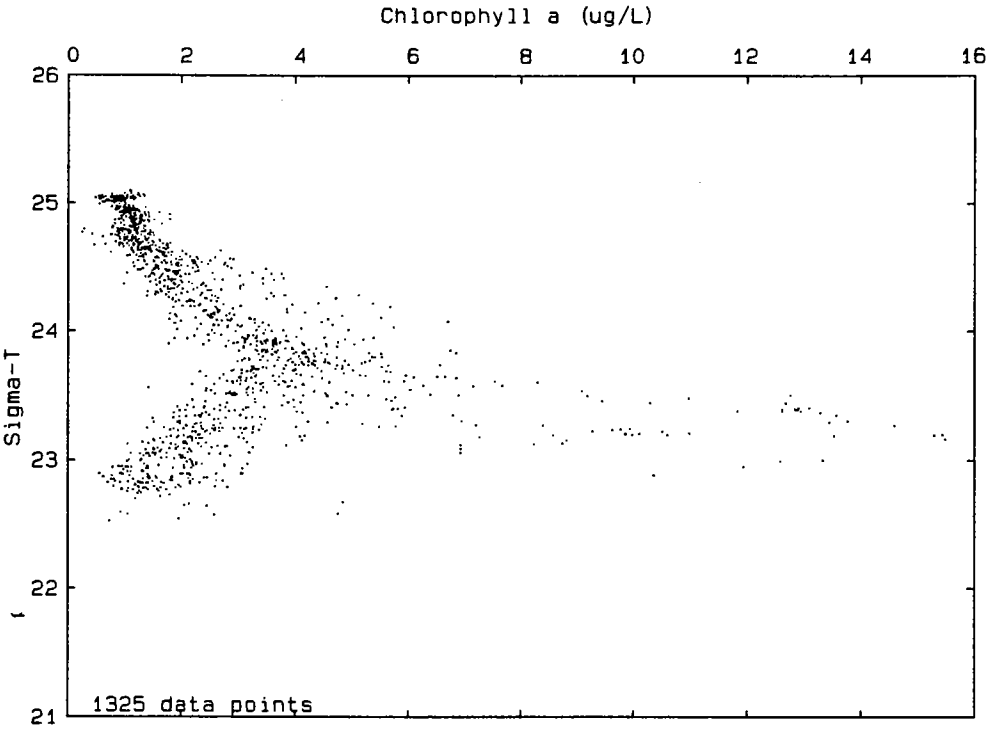
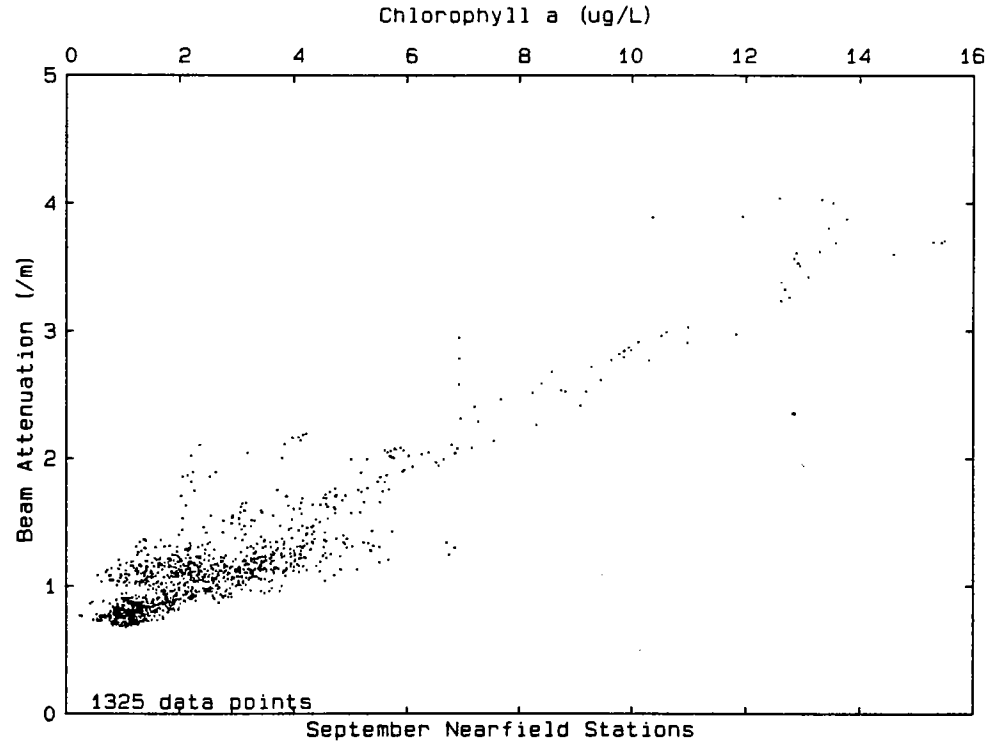
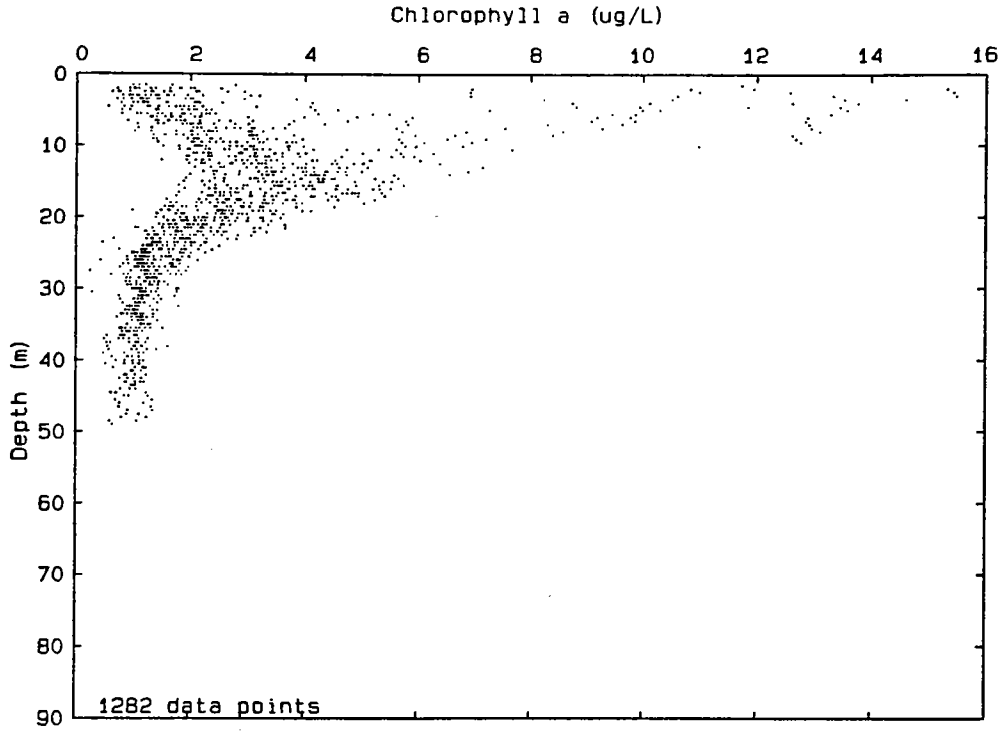
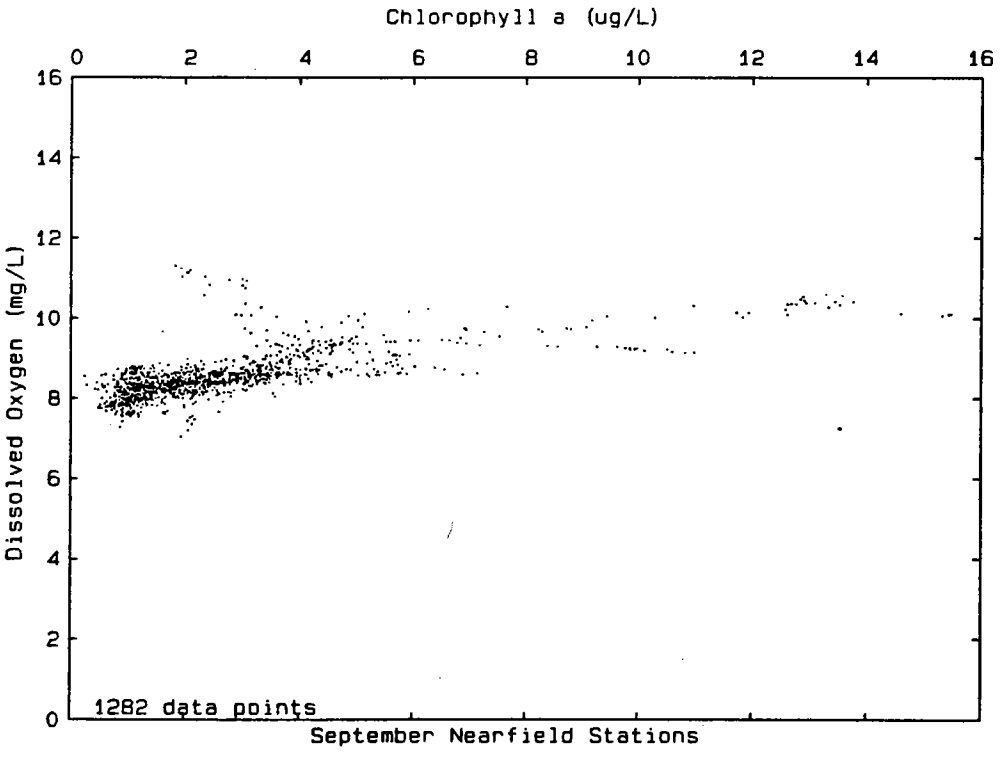
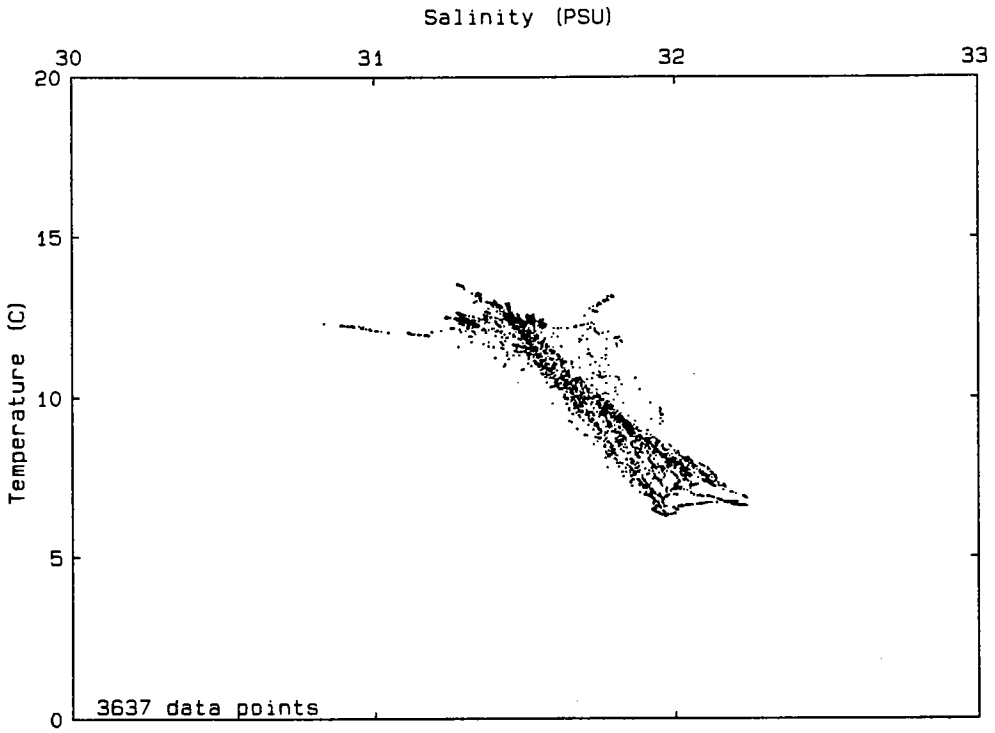
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
1324 data points
September Nearfield Stations

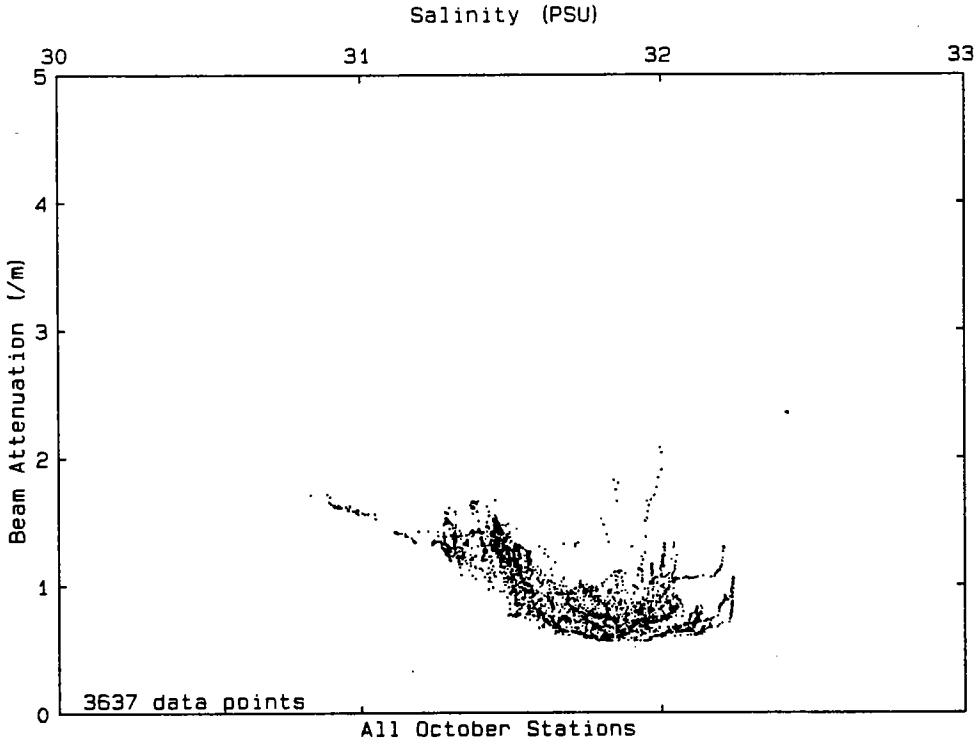

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
1325 data points

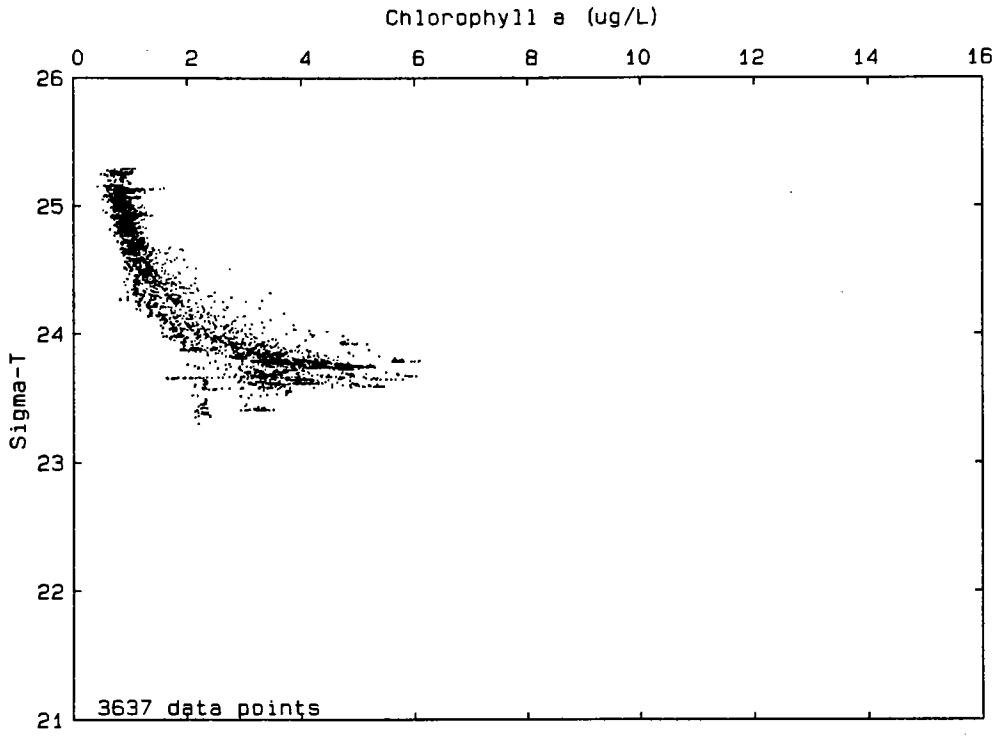

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
1325 data points
September Nearfield Stations

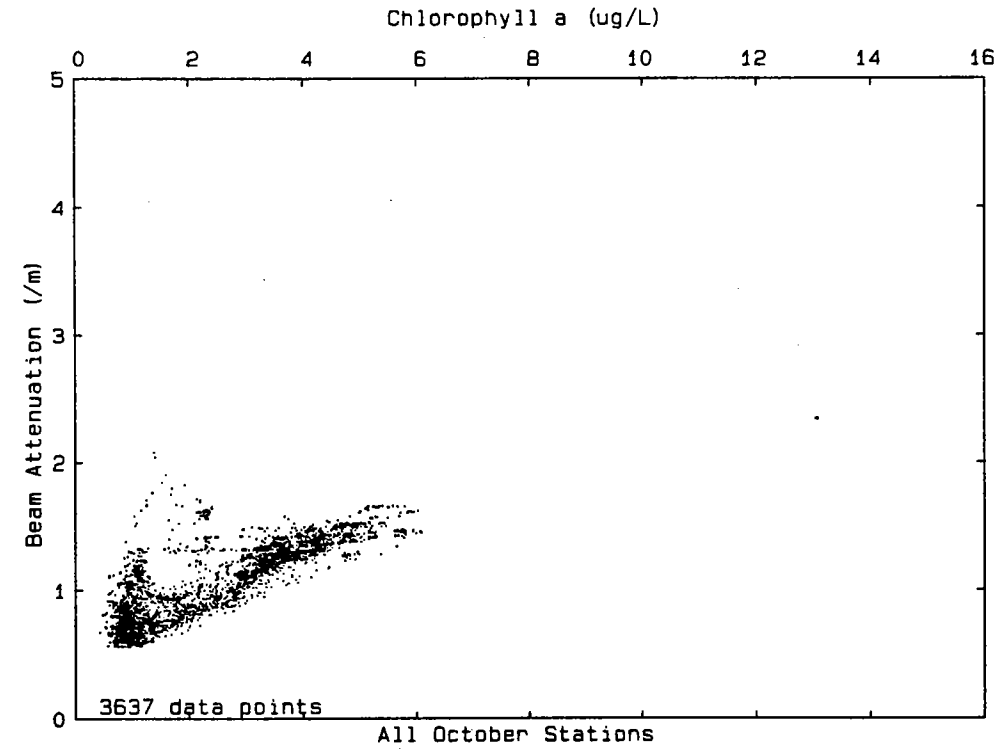

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
1282 data points

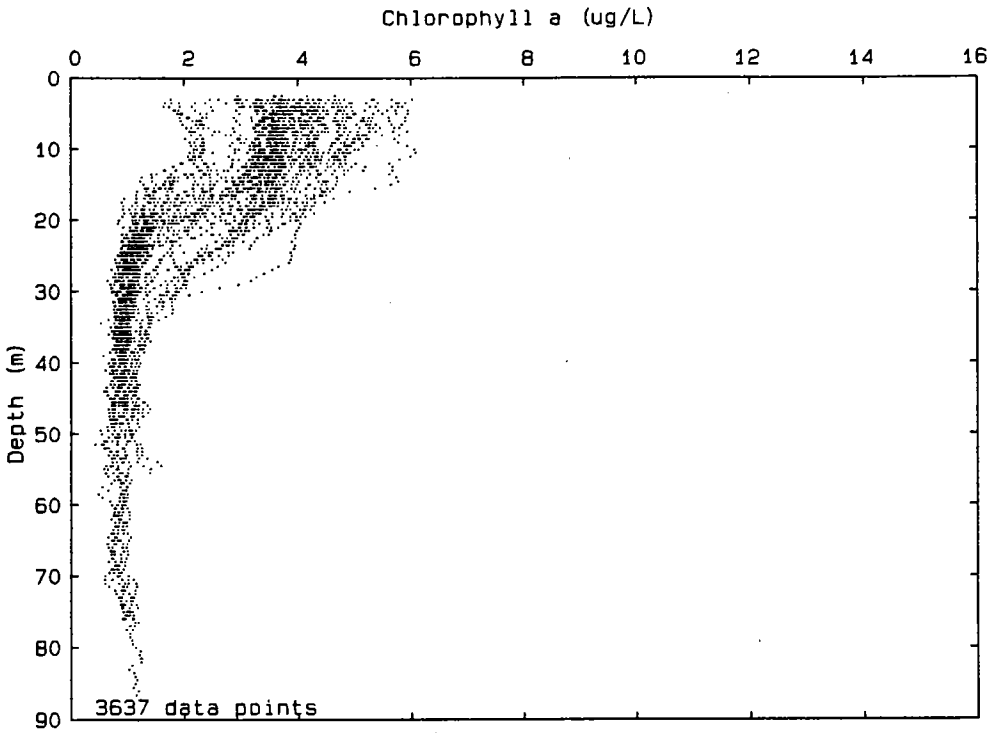

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
16
14
12
10
8
6
4
2
0
1282 data points
September Nearfield Stations

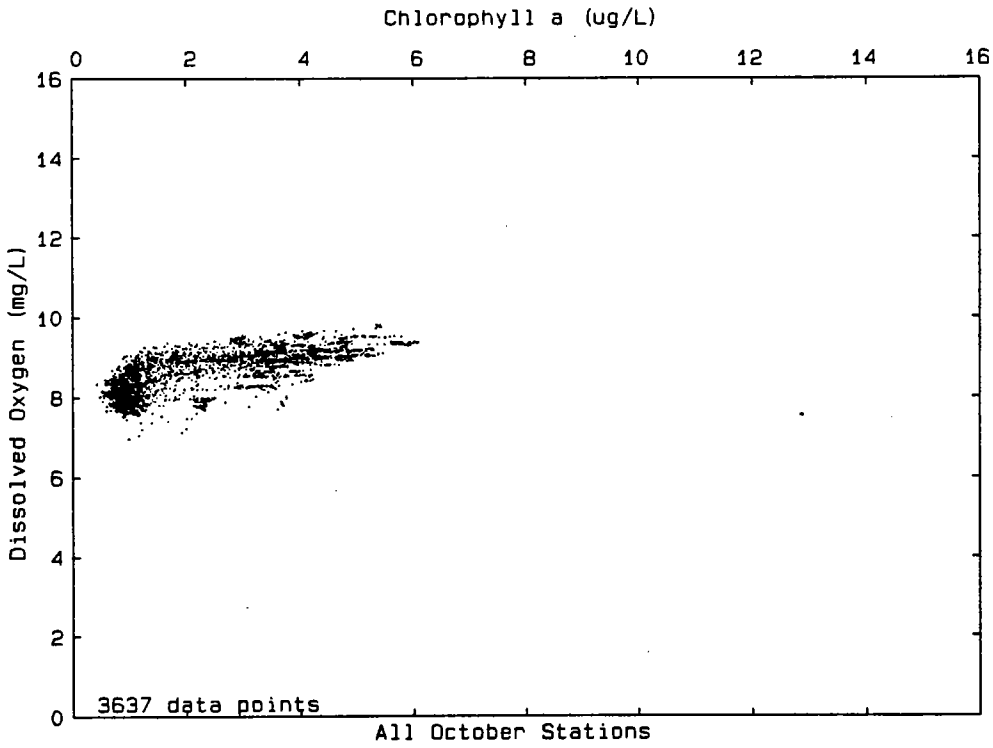

Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
3637 data points

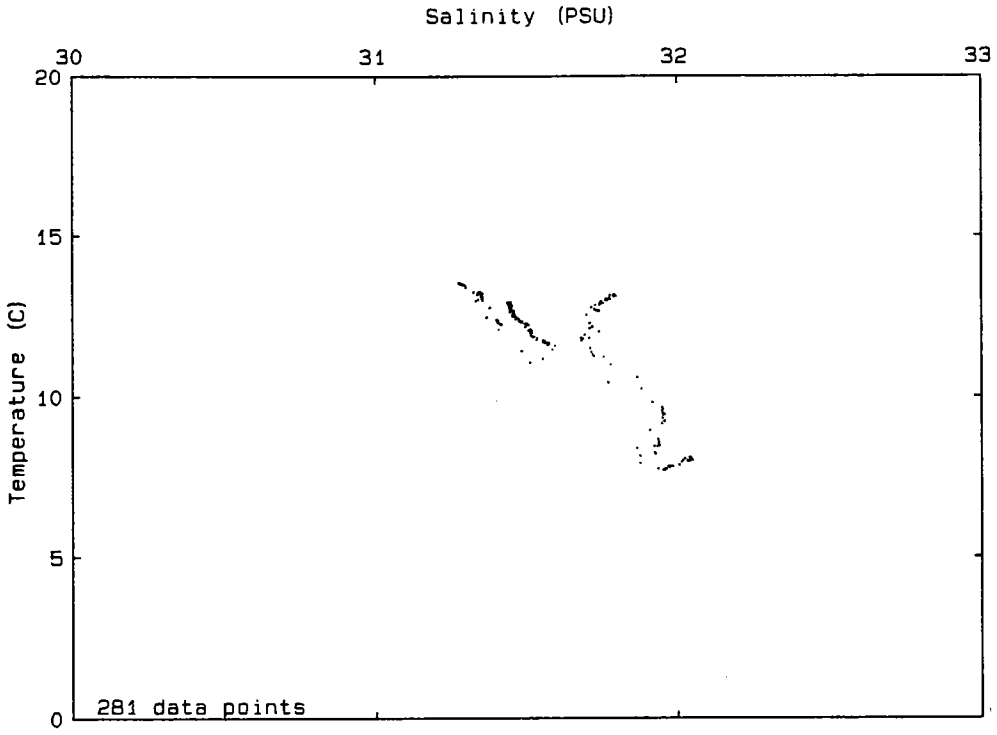

Salinity (PSU)
30
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
3637 data points
All October Stations

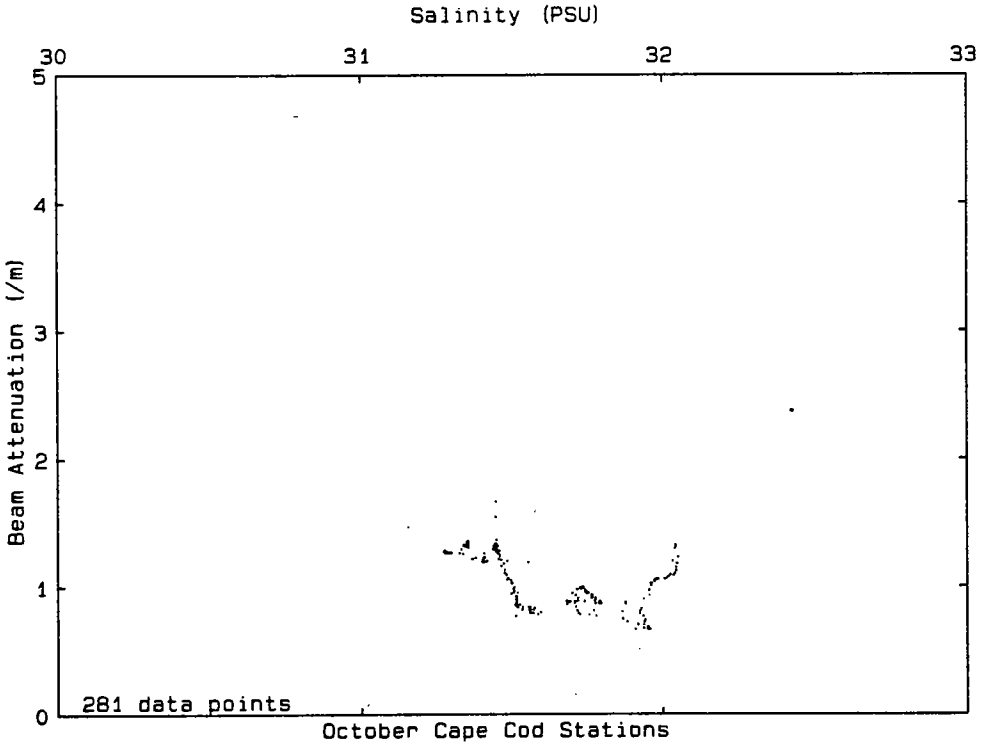

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
3637 data points

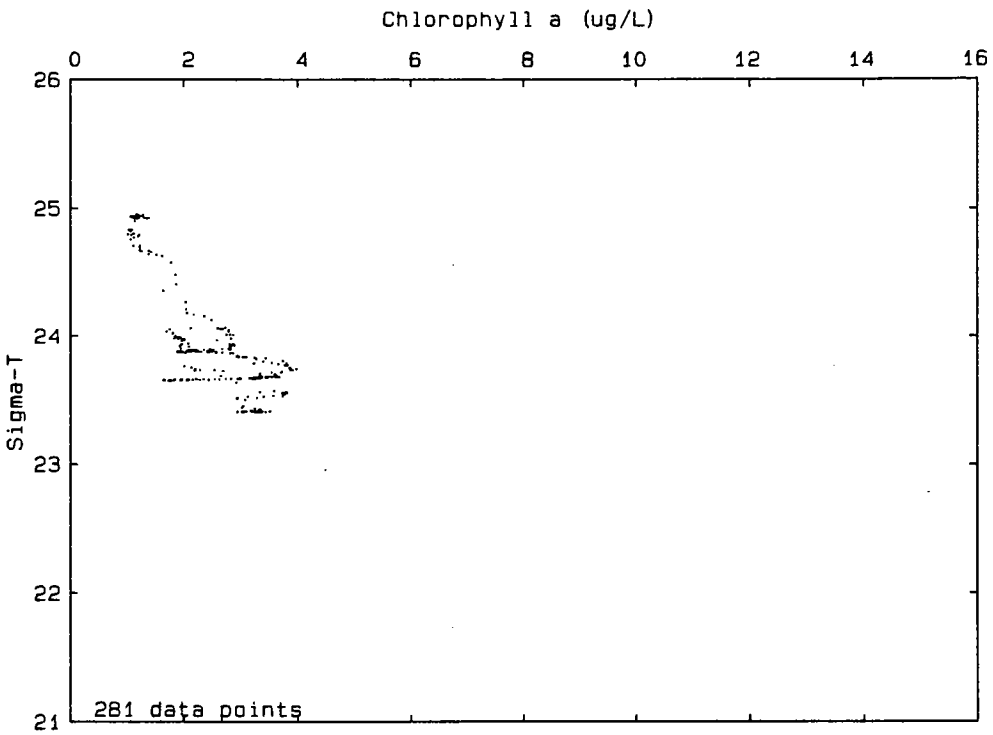

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
3637 data points
All October Stations

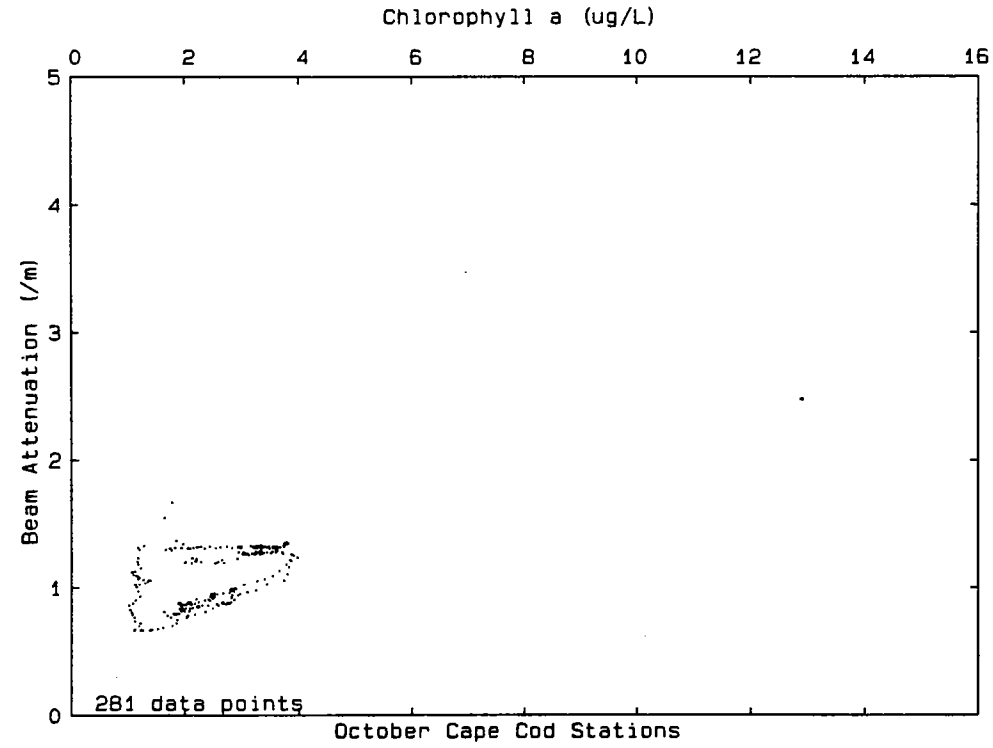

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
3637 data points

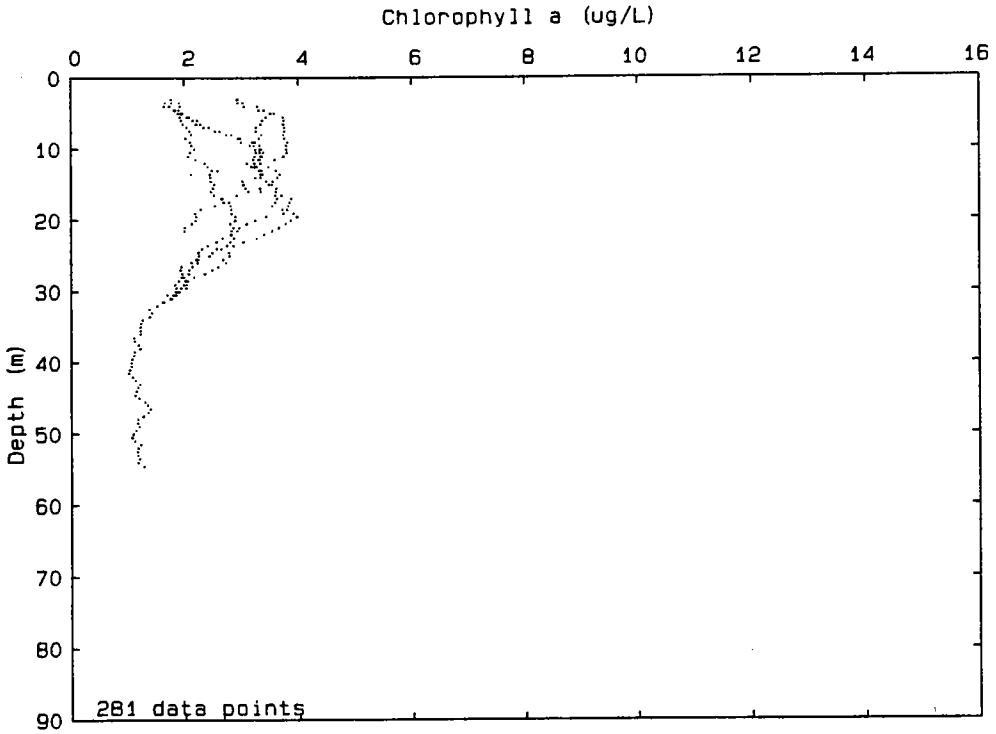

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
0
2
4
6
8
10
12
14
16
3637 data points
All October Stations

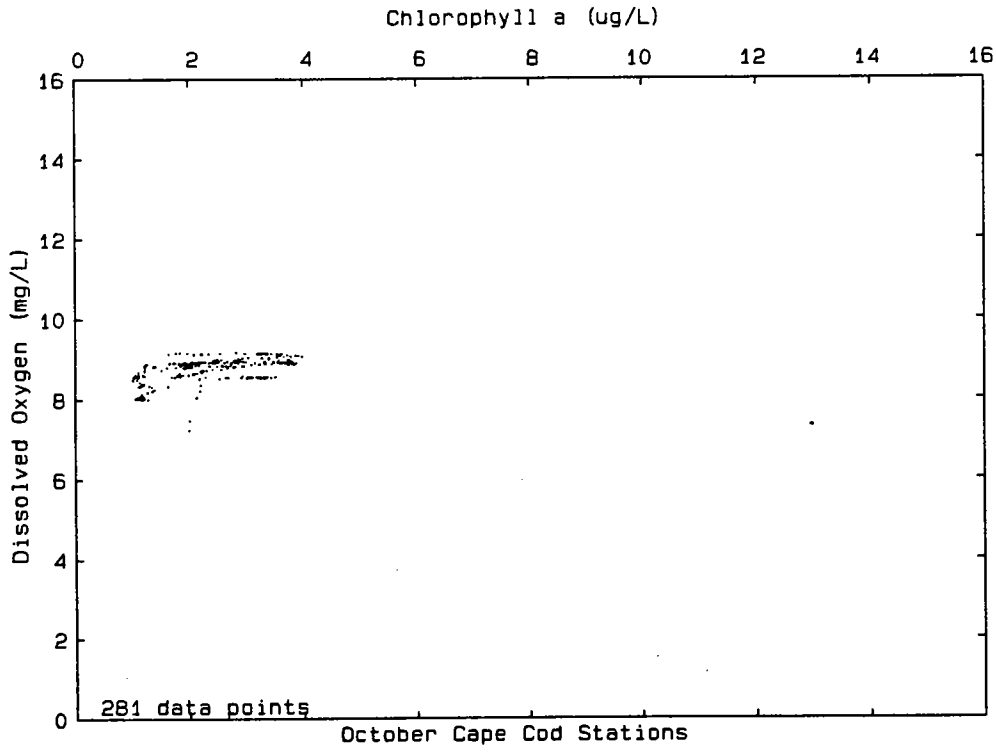

Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
281 data points

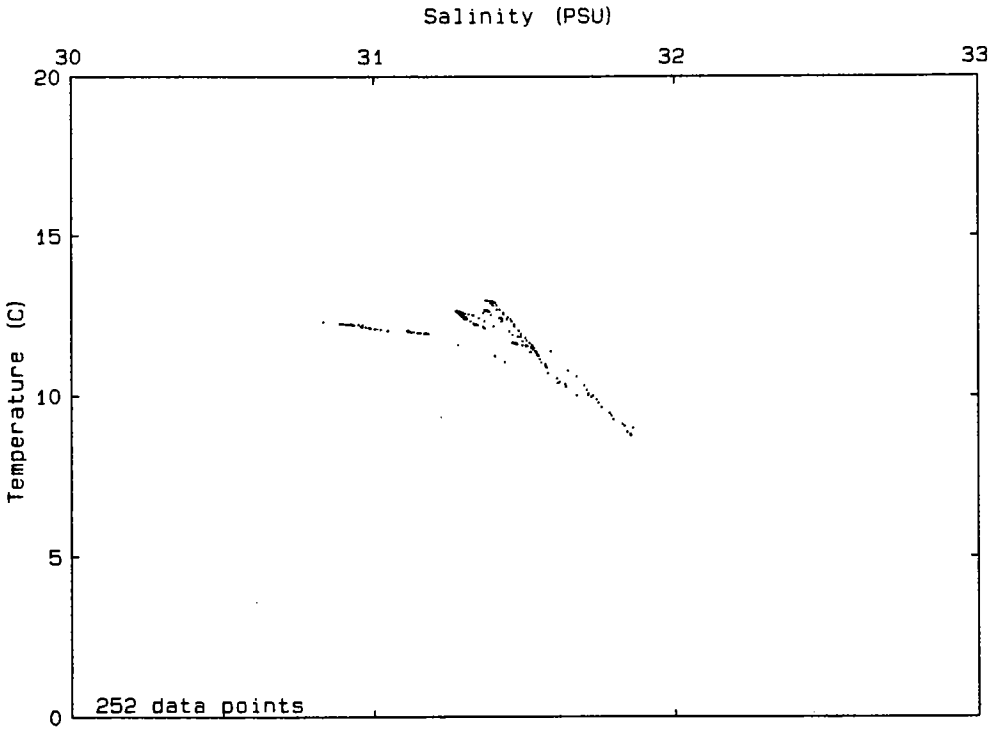

Salinity (PSU)
30
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
281 data points
October Cape Cod Stations

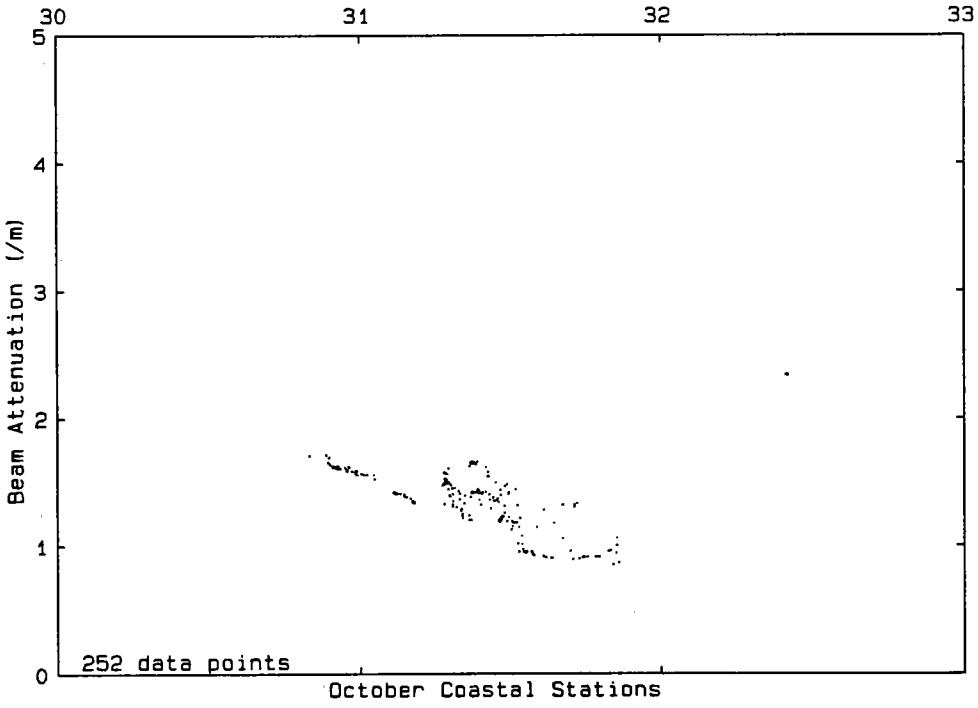

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
281 data points

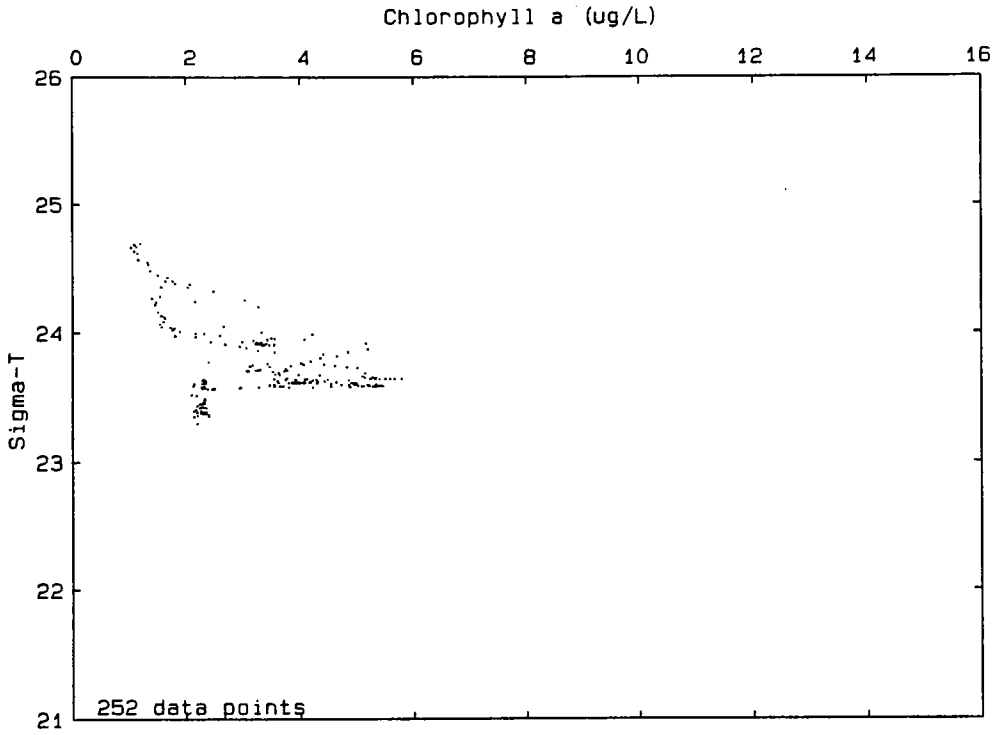

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
281 data points
October Cape Cod Stations

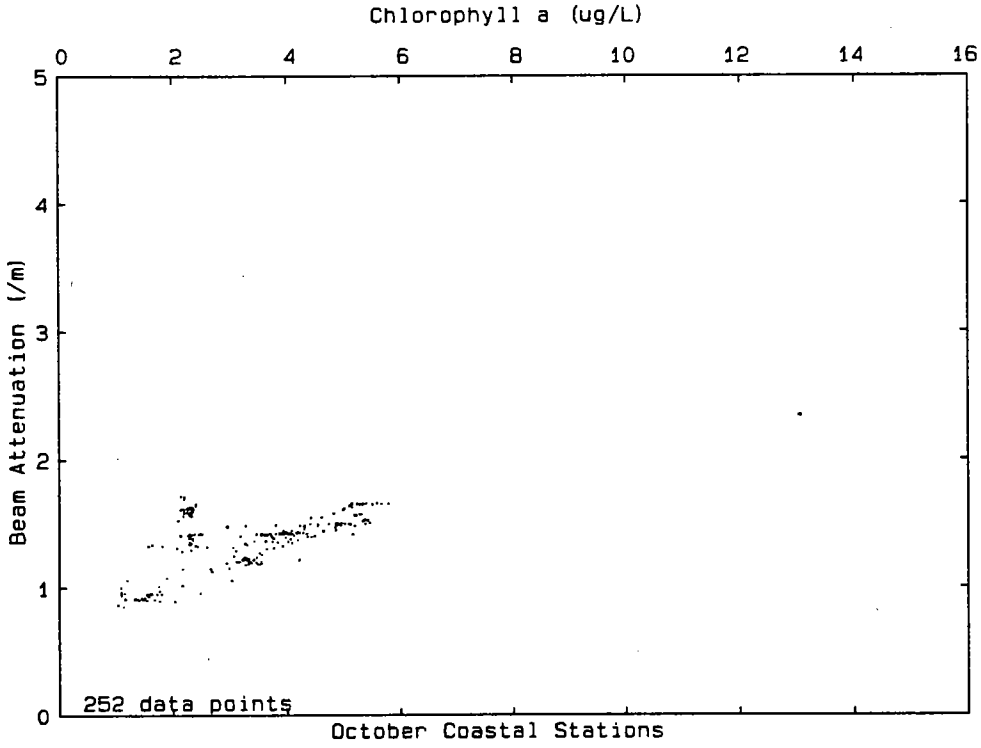

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
281 data points

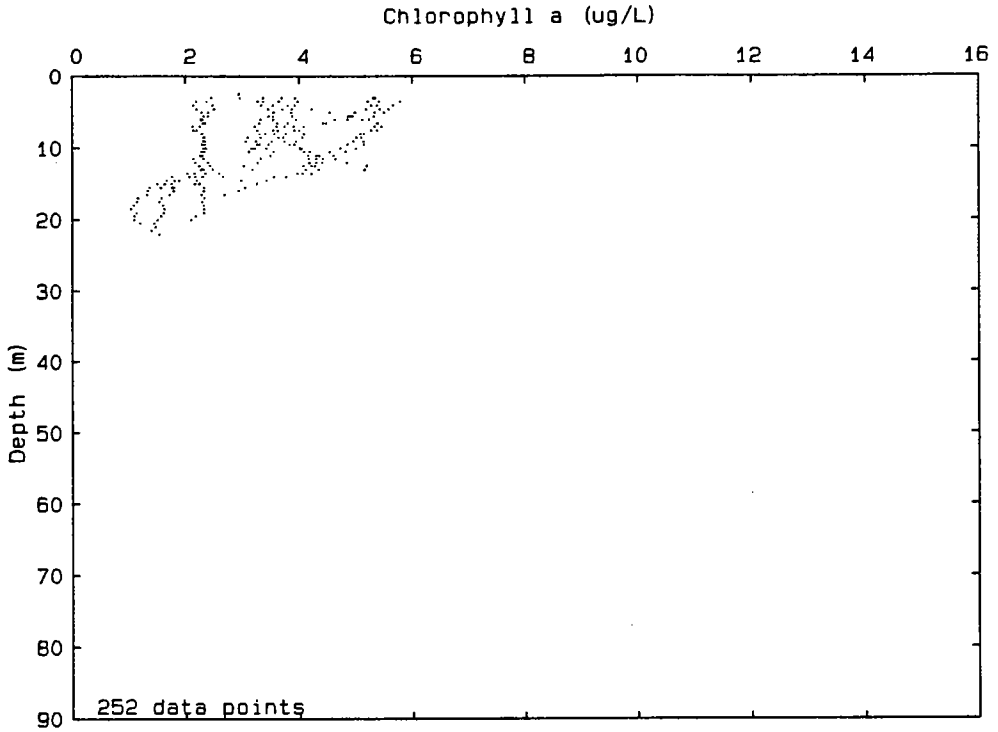

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
0
2
4
6
8
10
12
14
16
281 data points
October Cape Cod Stations

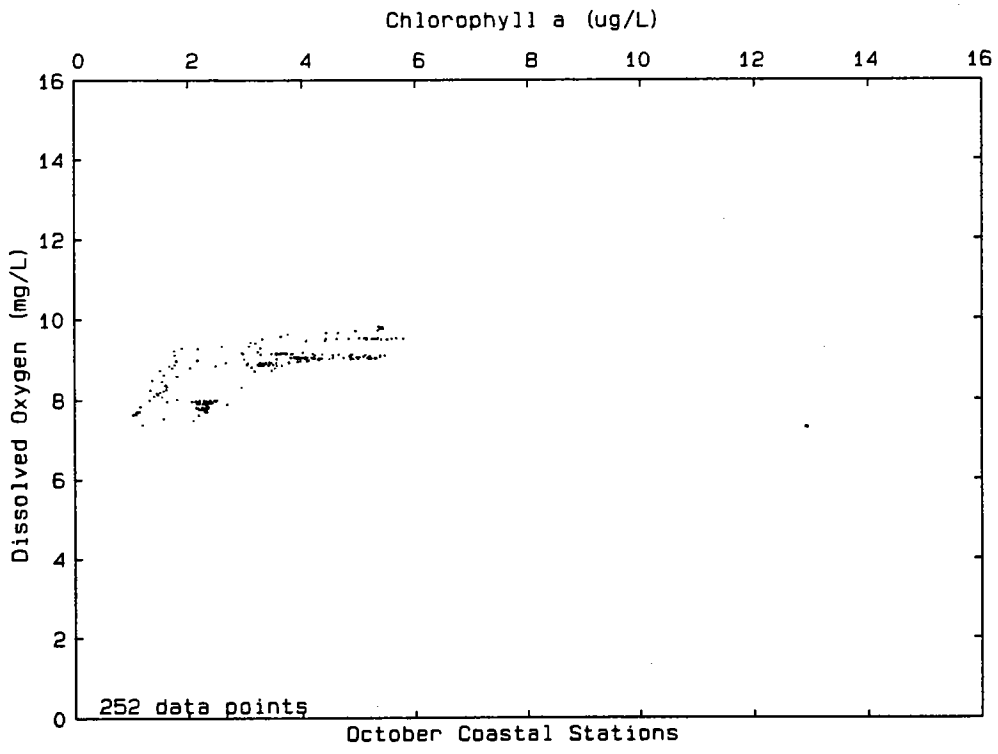

Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
252 data points

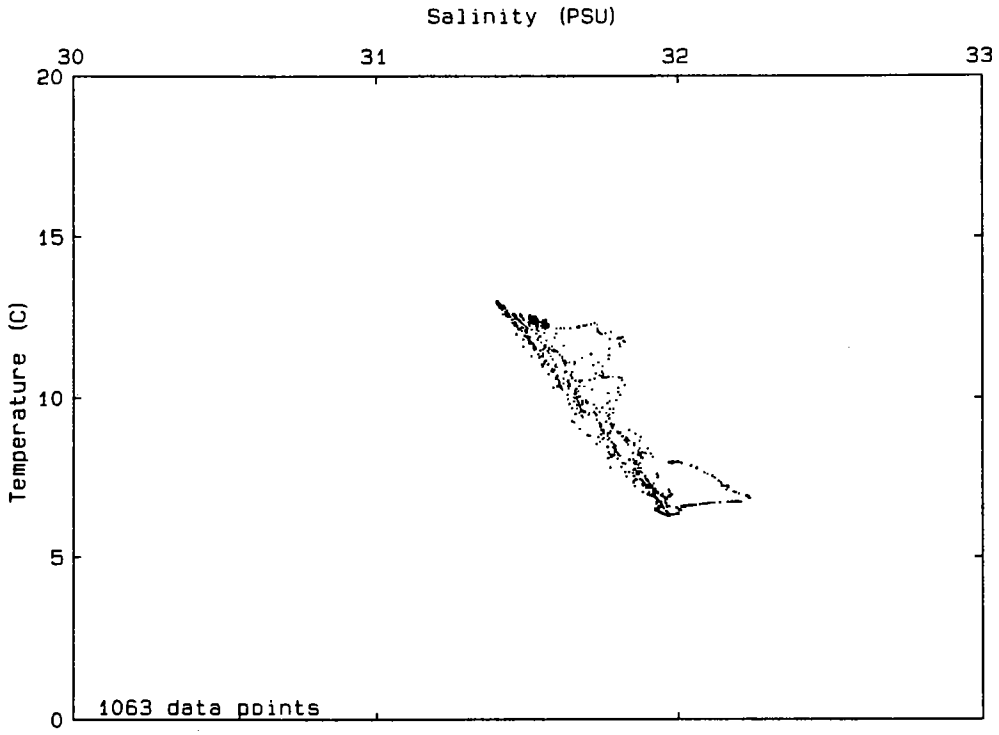

Salinity (PSU)
30
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
252 data points
October Coastal Stations

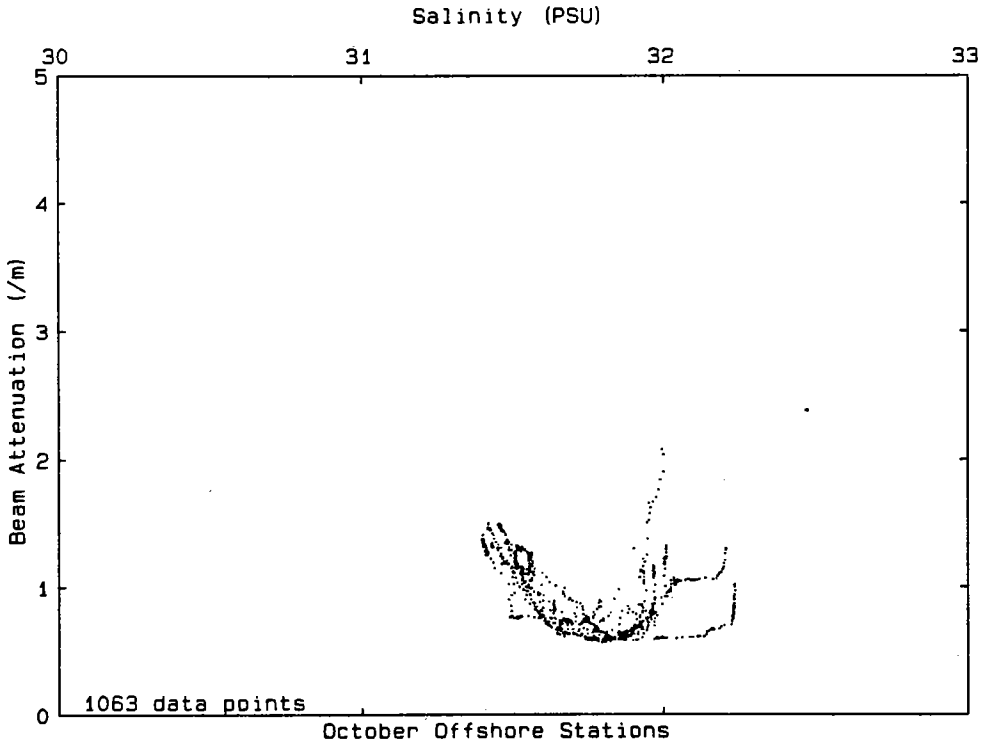

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
252 data points

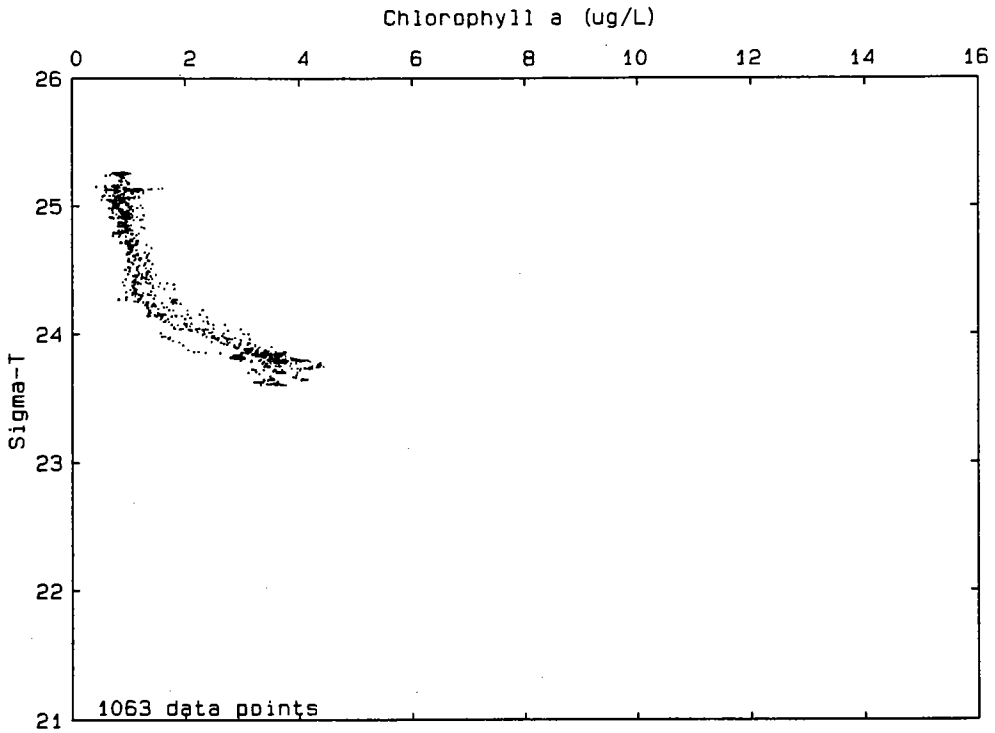

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
252 data points
October Coastal Stations

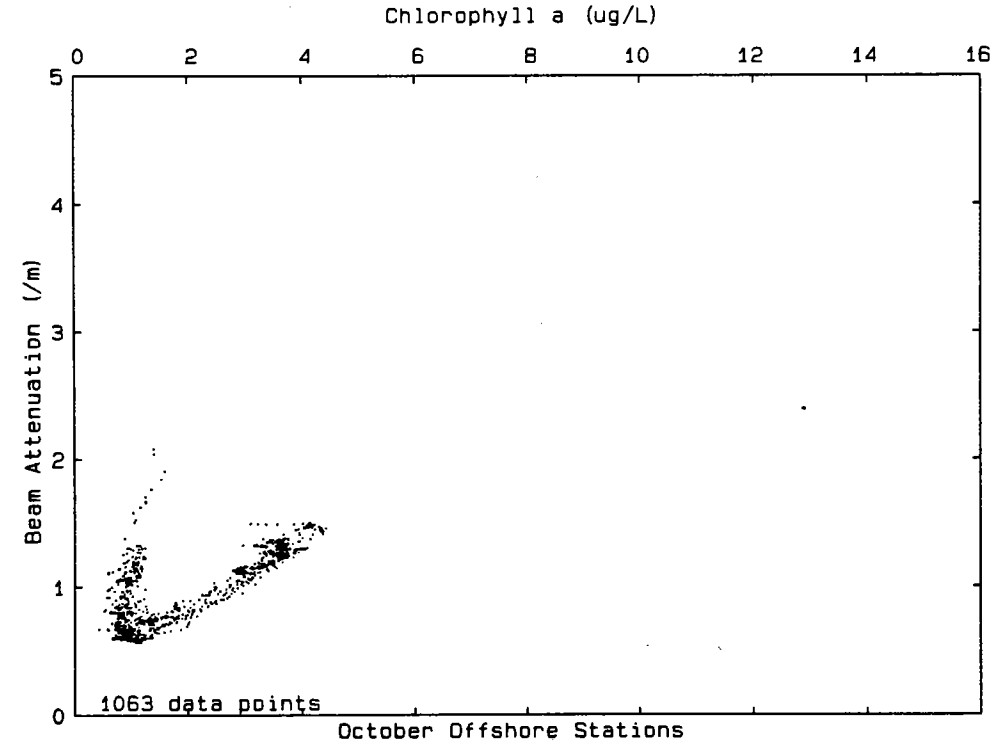

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
252 data points

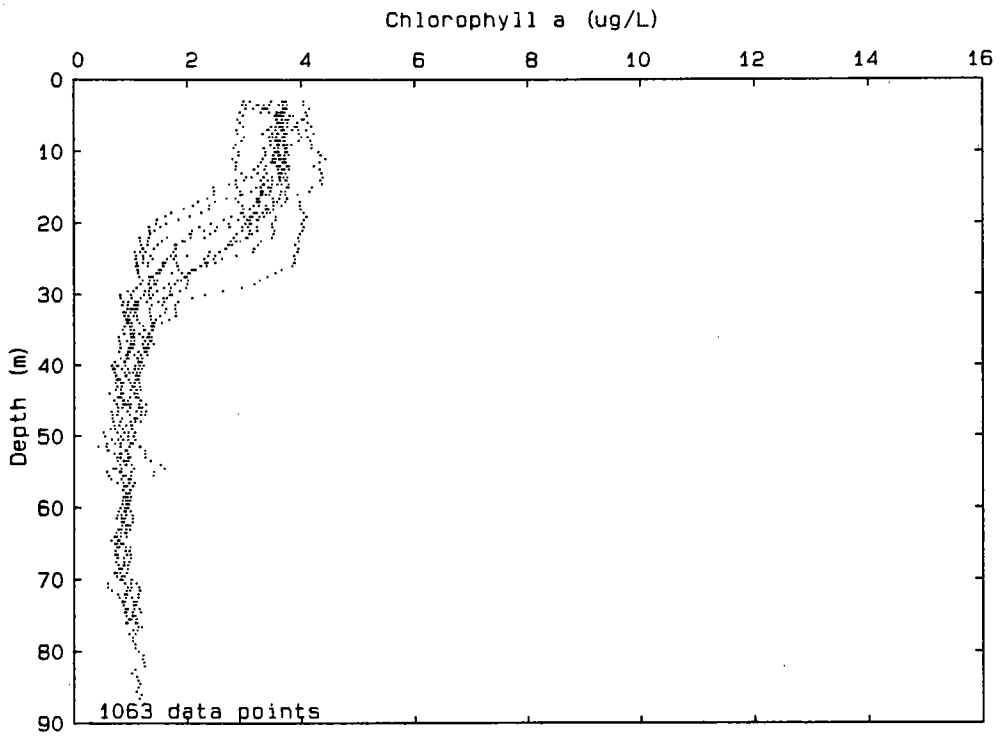

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
0
2
4
6
8
10
12
14
16
252 data points
October Coastal Stations

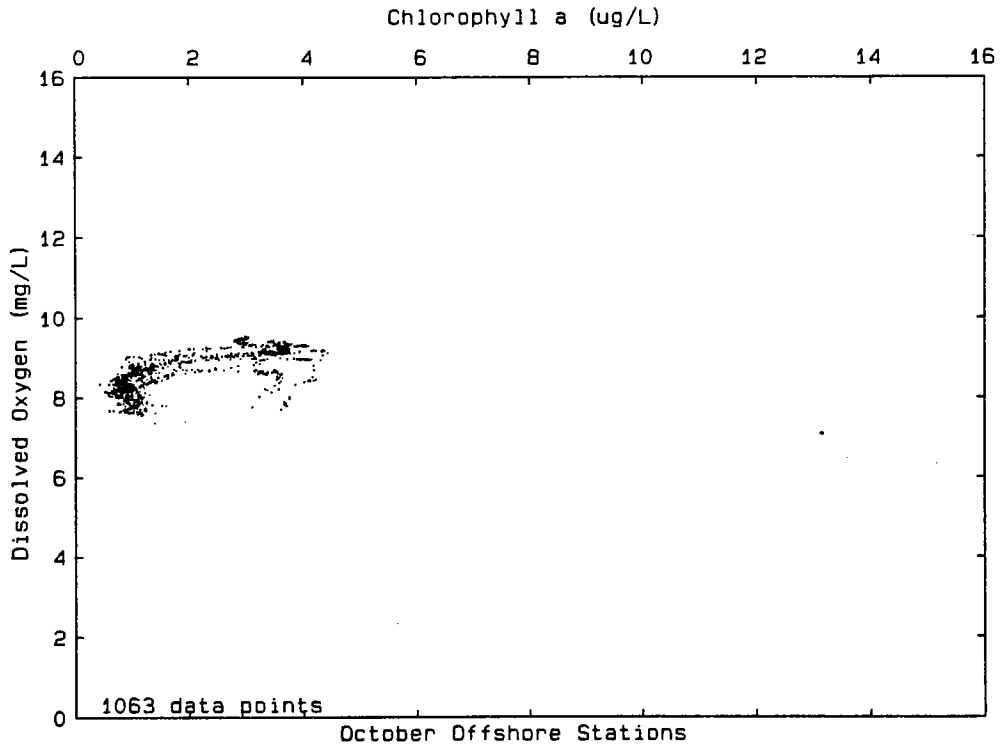

Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
1063 data points

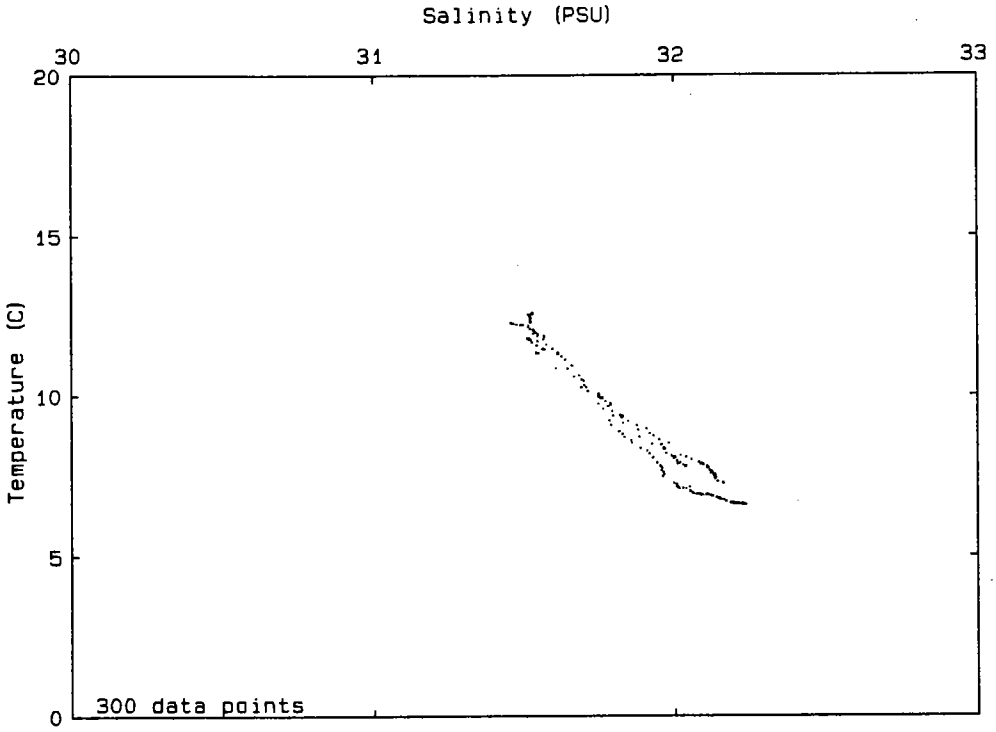

Salinity (PSU)
30
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
1063 data points
October Offshore Stations

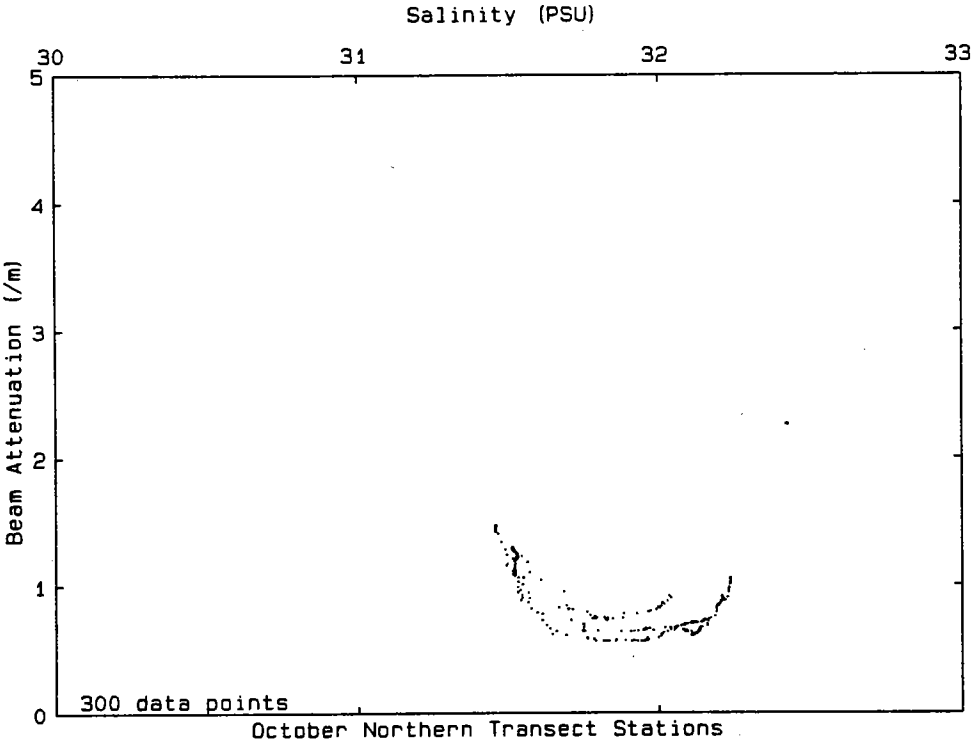

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
1063 data points

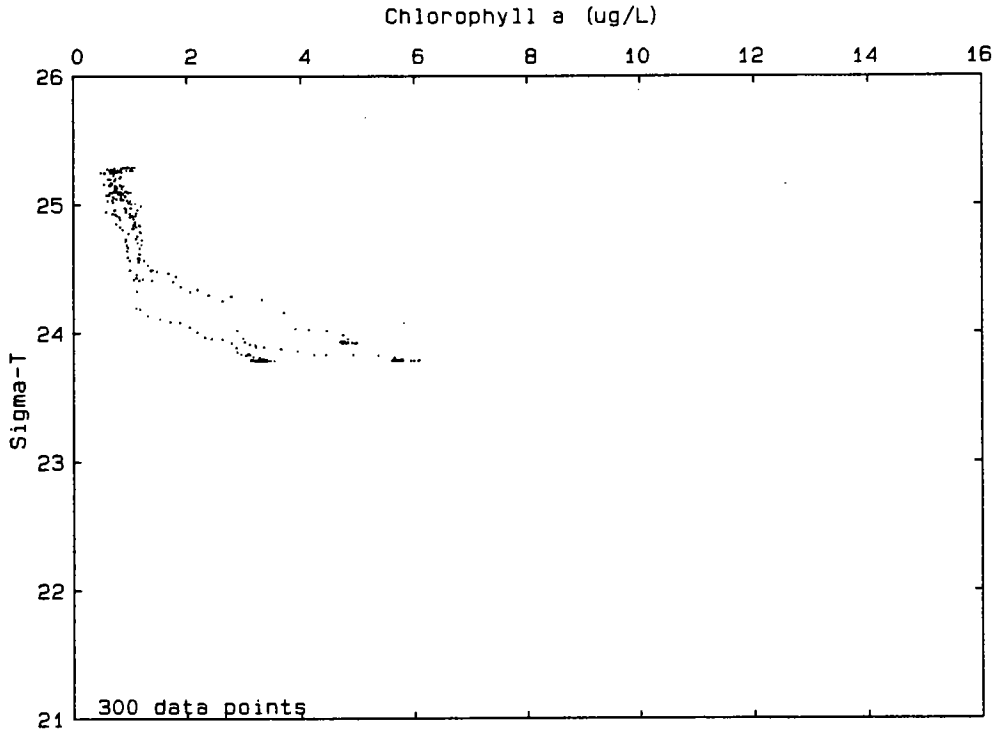

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
1063 data points
October Offshore Stations

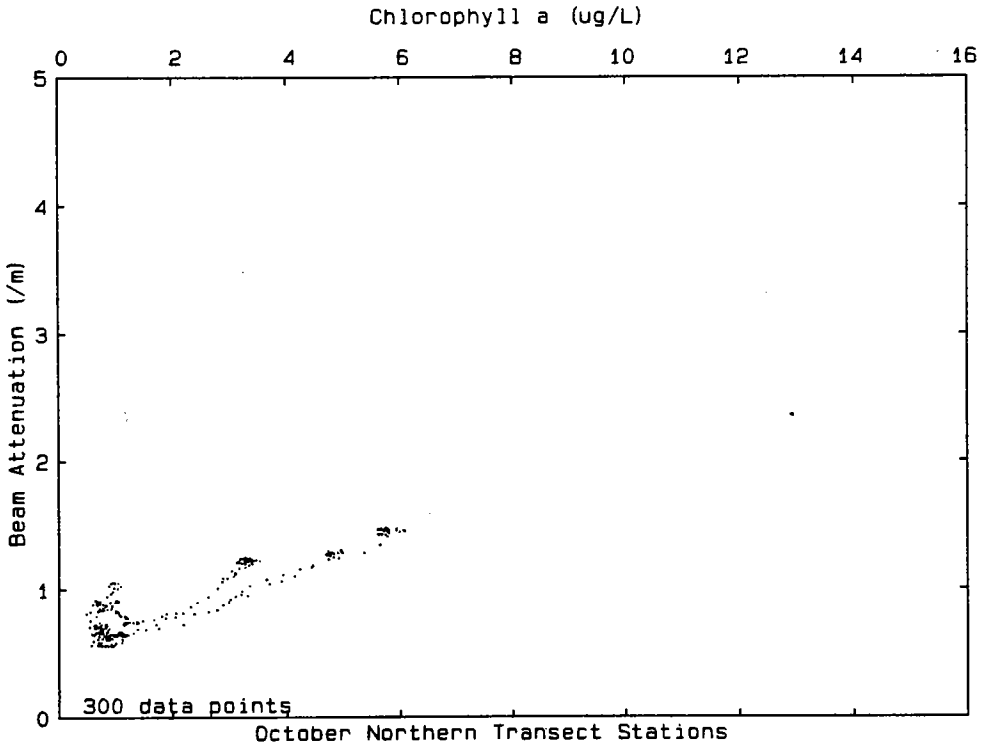

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
1063 data points

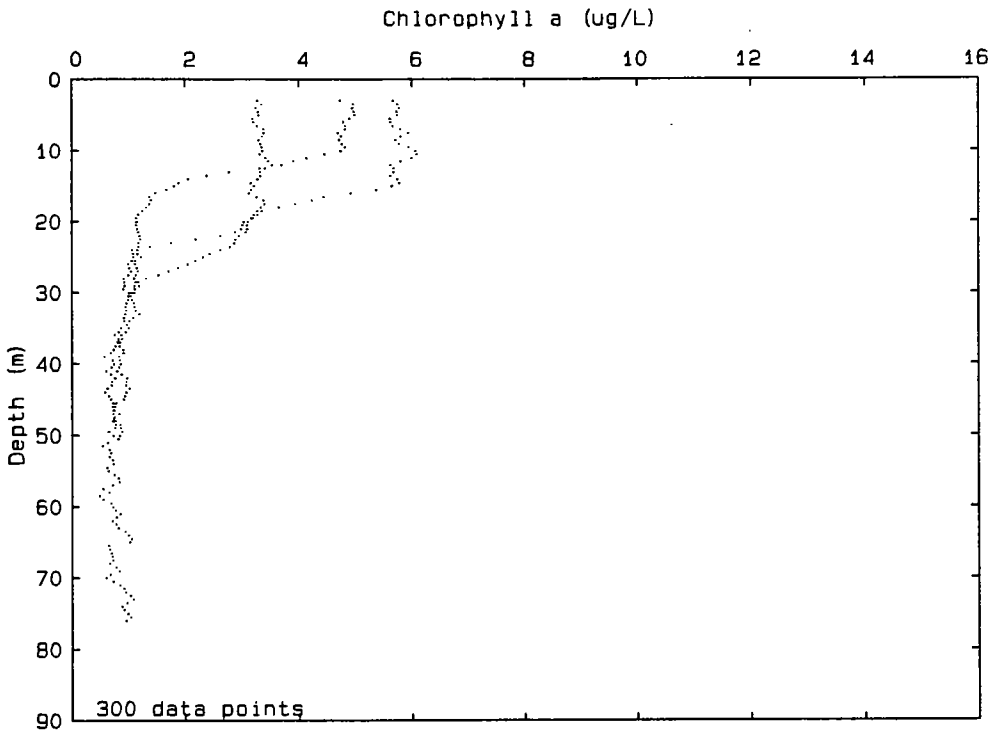

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
0
2
4
6
8
10
12
14
16
1063 data points
October Offshore Stations

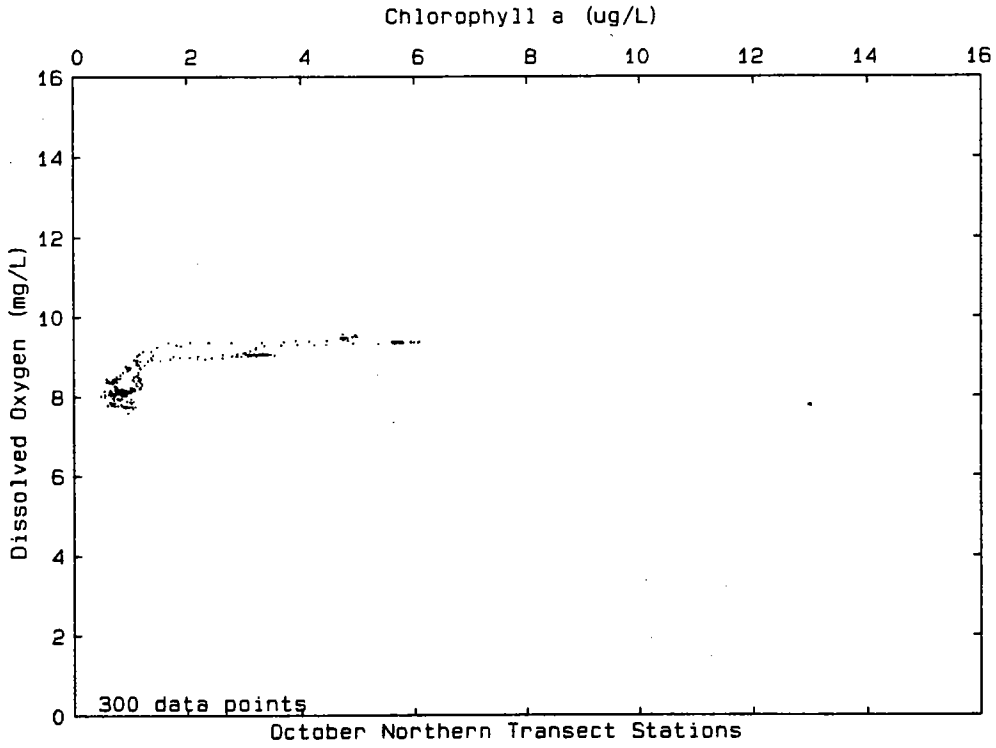

Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
300 data points

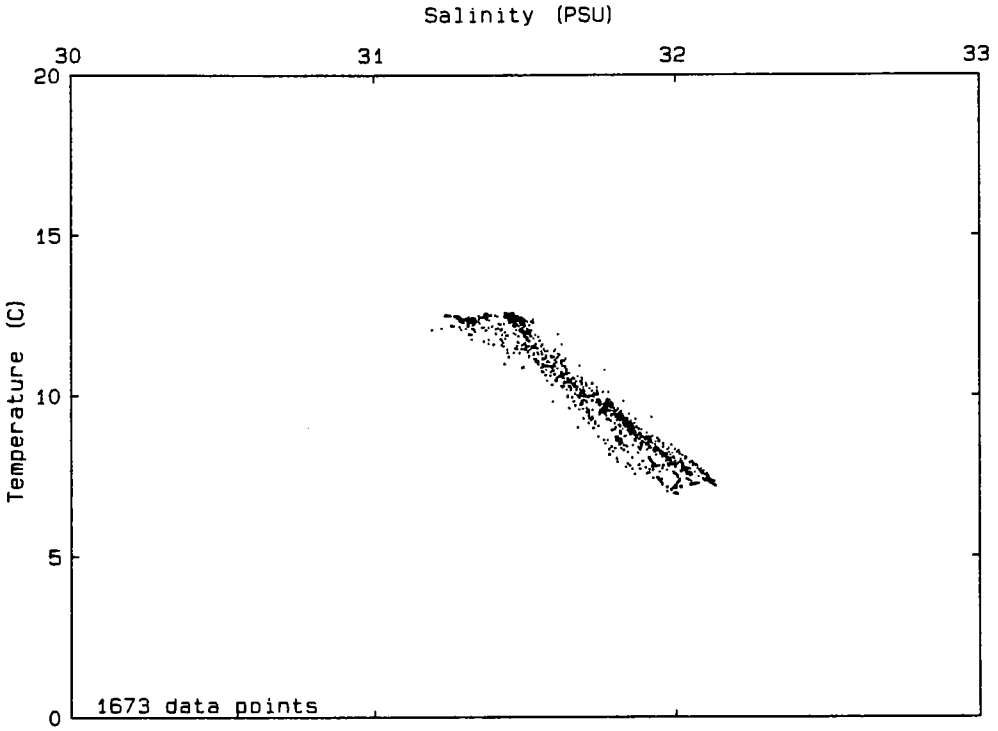

Salinity (PSU)
30
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
300 data points
October Northern Transect Stations

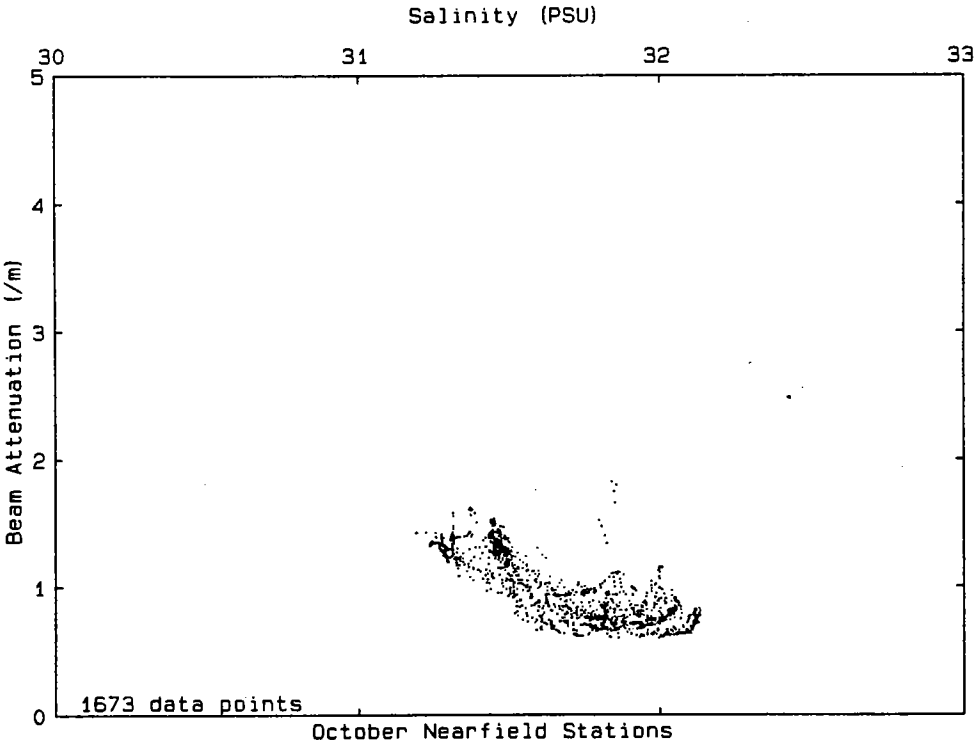

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
300 data points

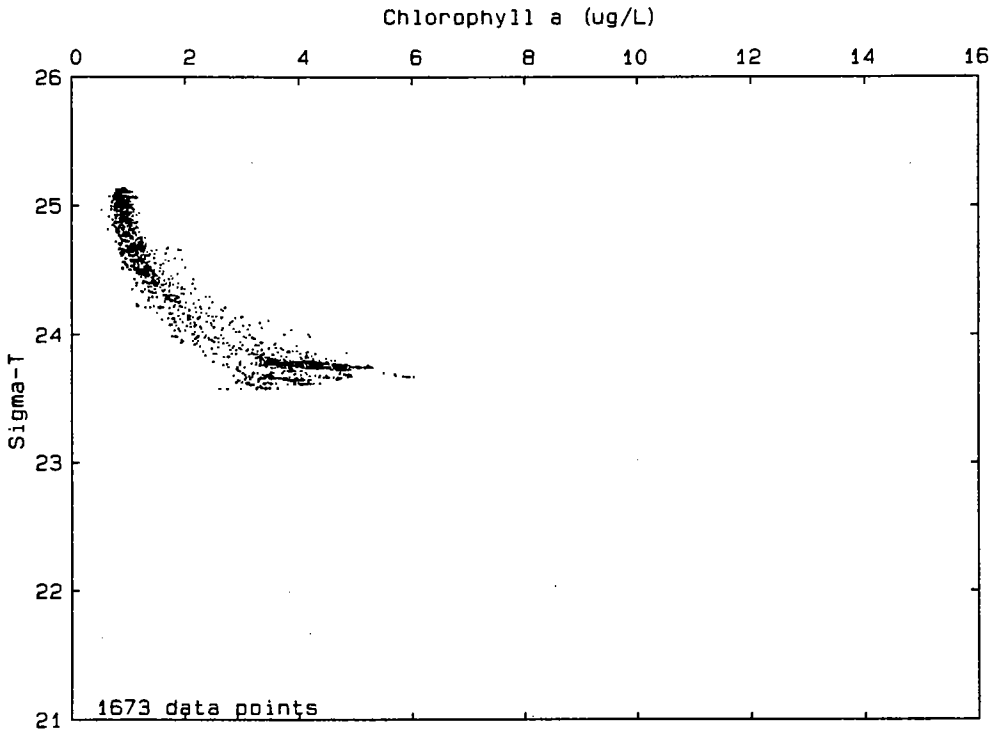

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
300 data points
October Northern Transect Stations

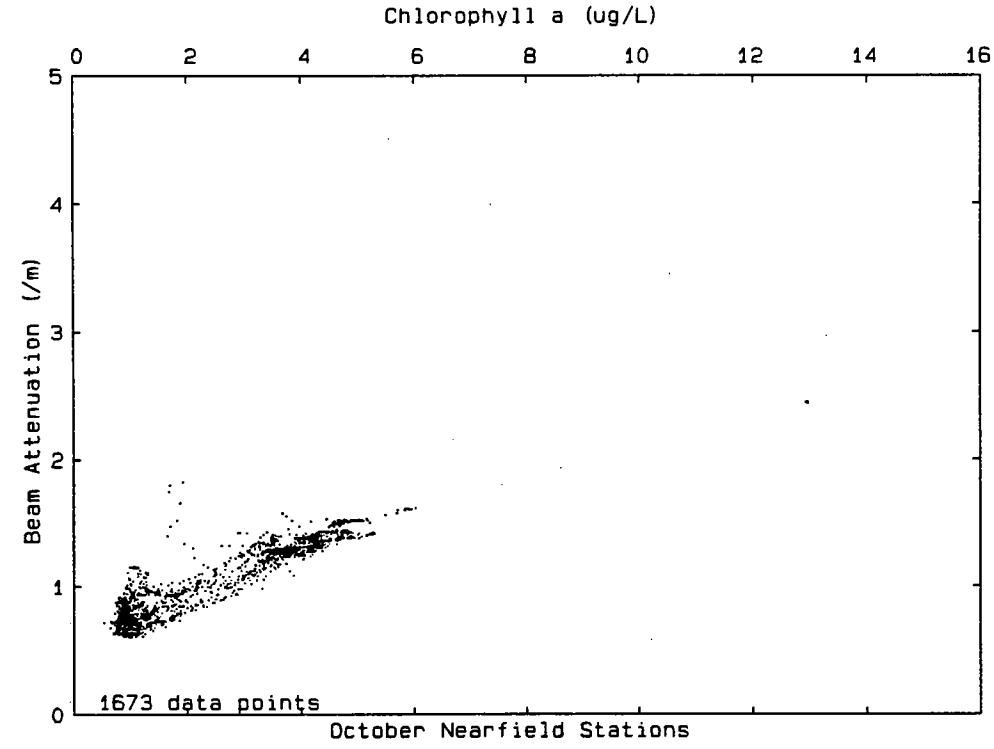

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
300 data points

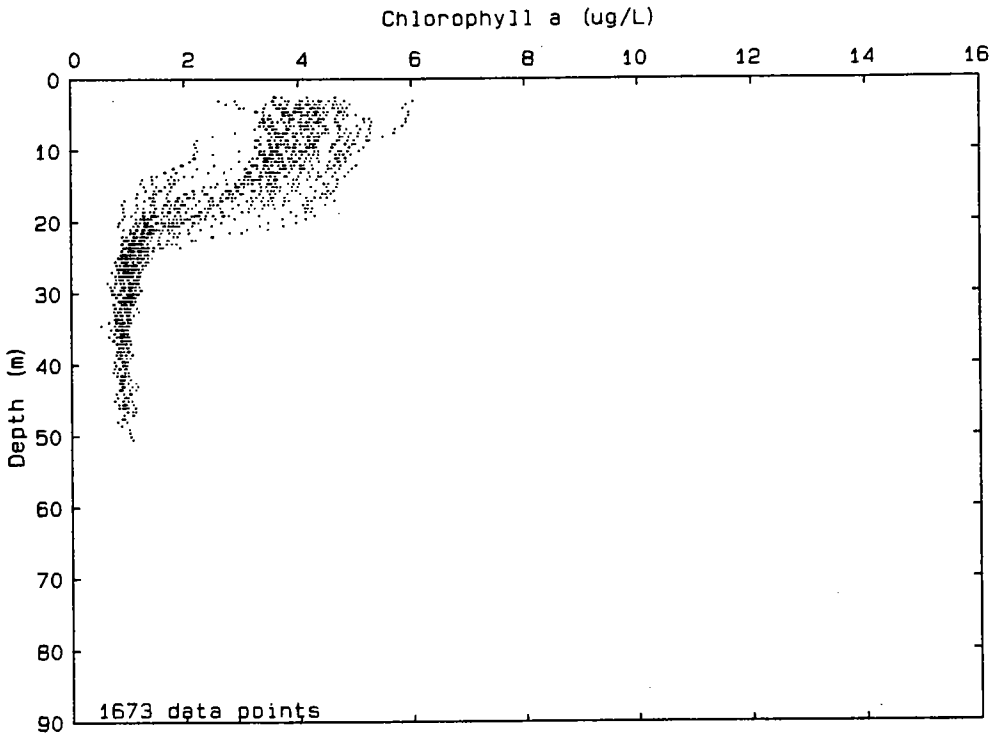

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
16
14
12
10
8
6
4
2
0
300 data points
October Northern Transect Stations

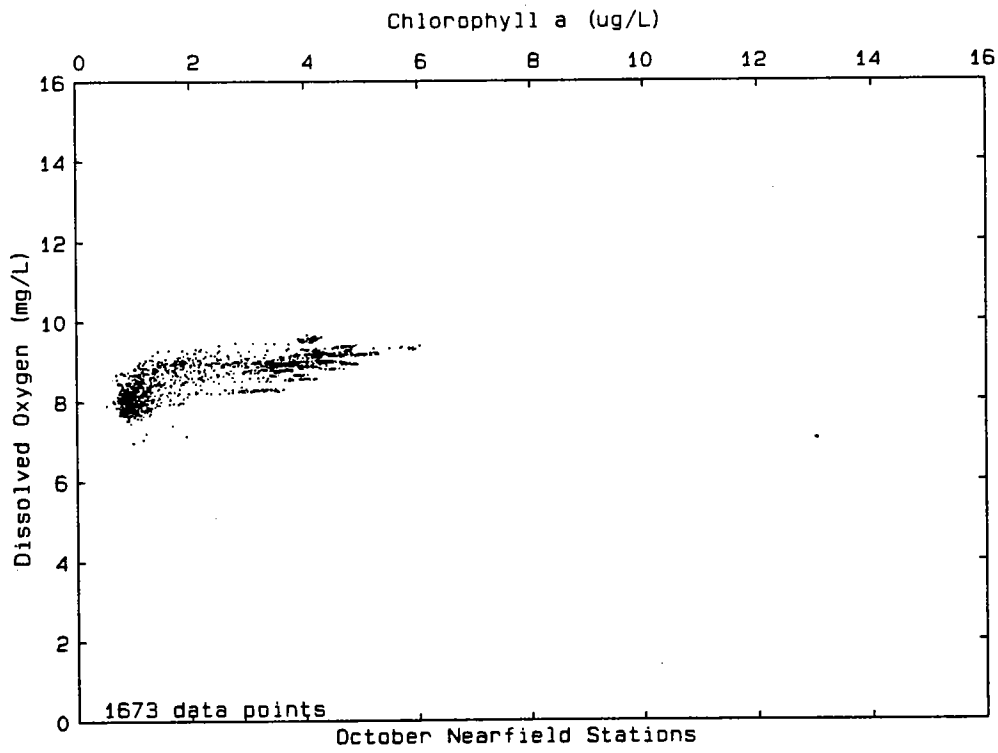

Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
1673 data points

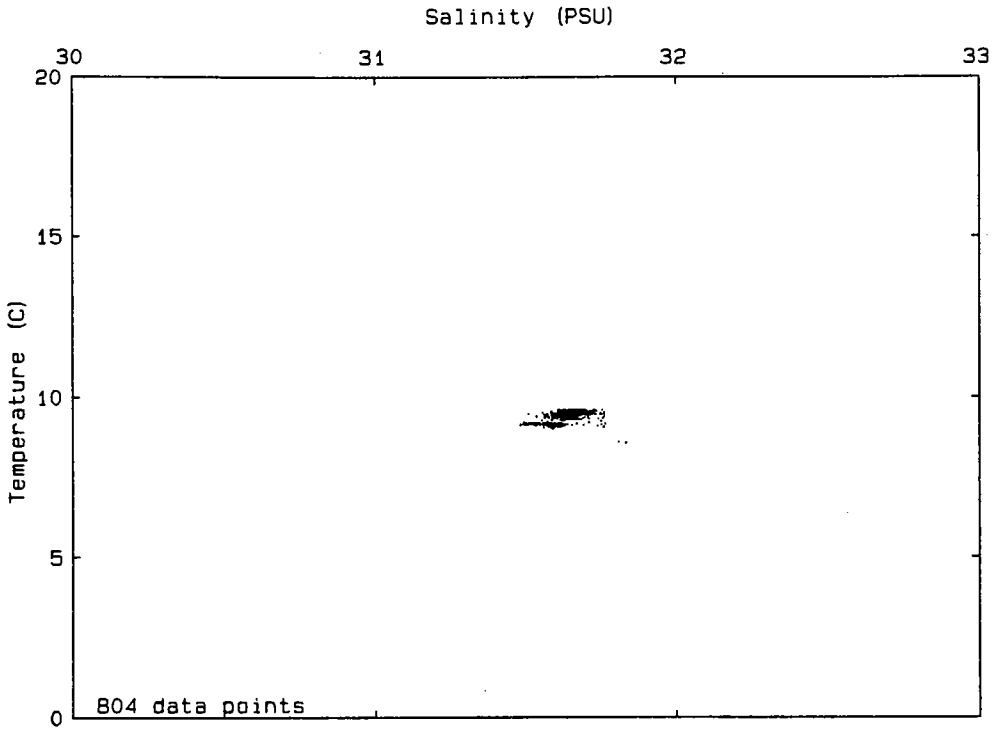

Salinity (PSU)
30
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
1673 data points
October Nearfield Stations

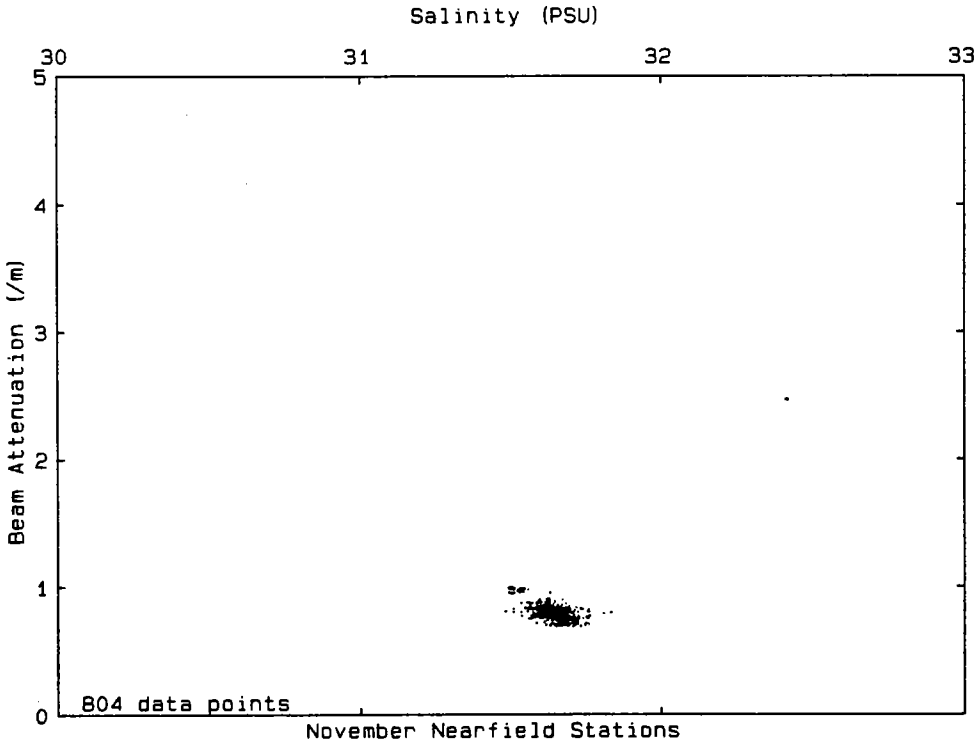

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
1673 data points

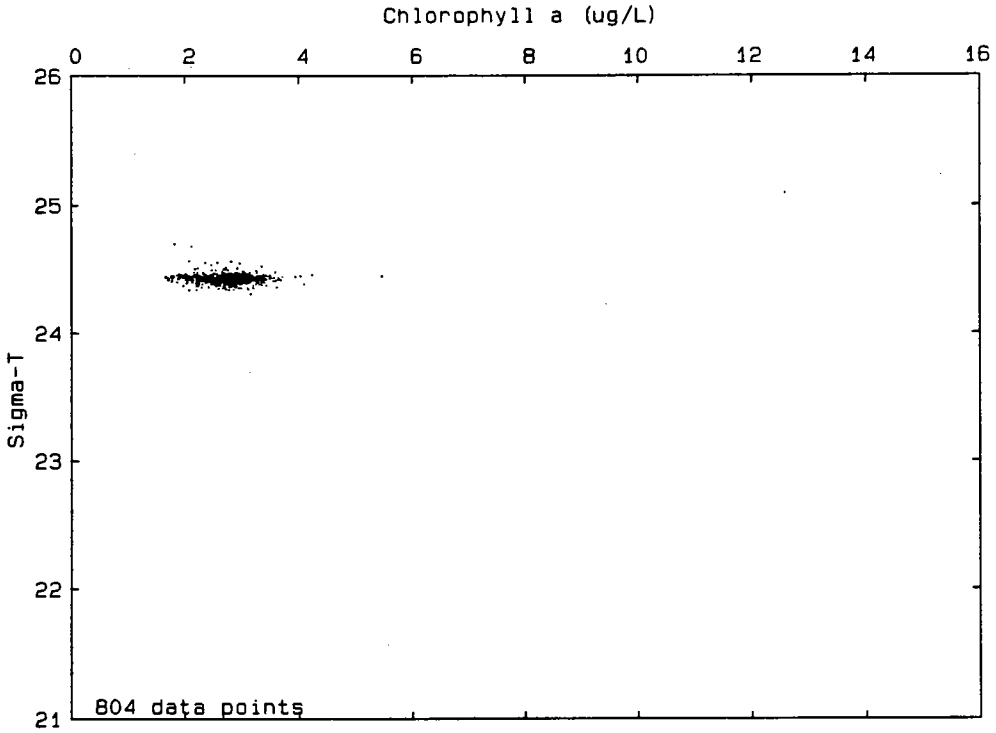

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
1673 data points
October Nearfield Stations

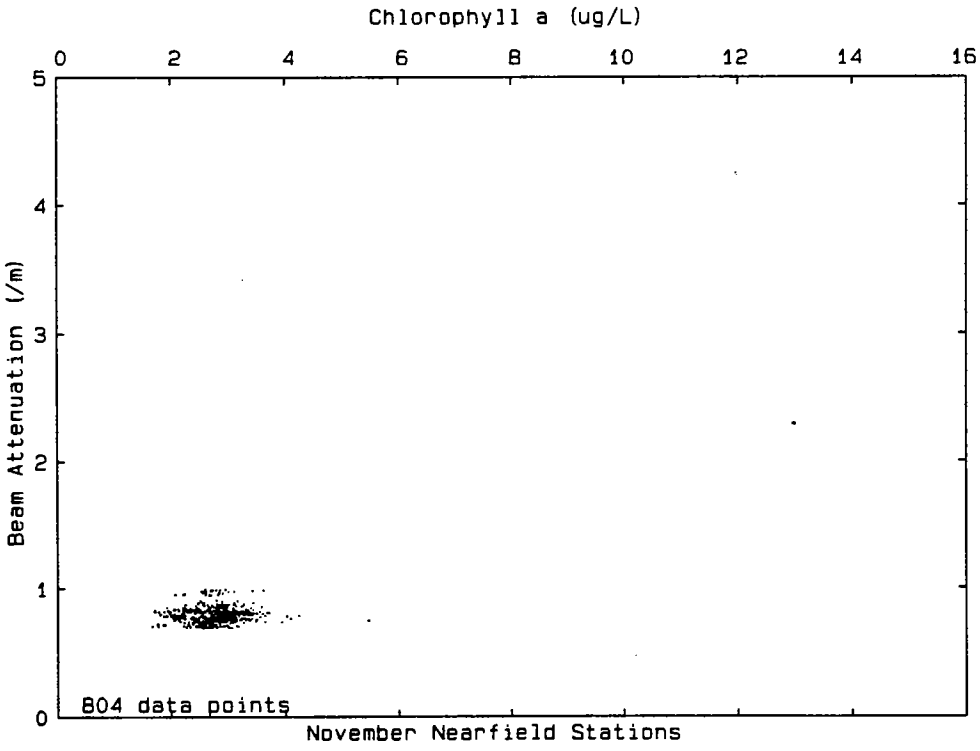

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
1673 data points

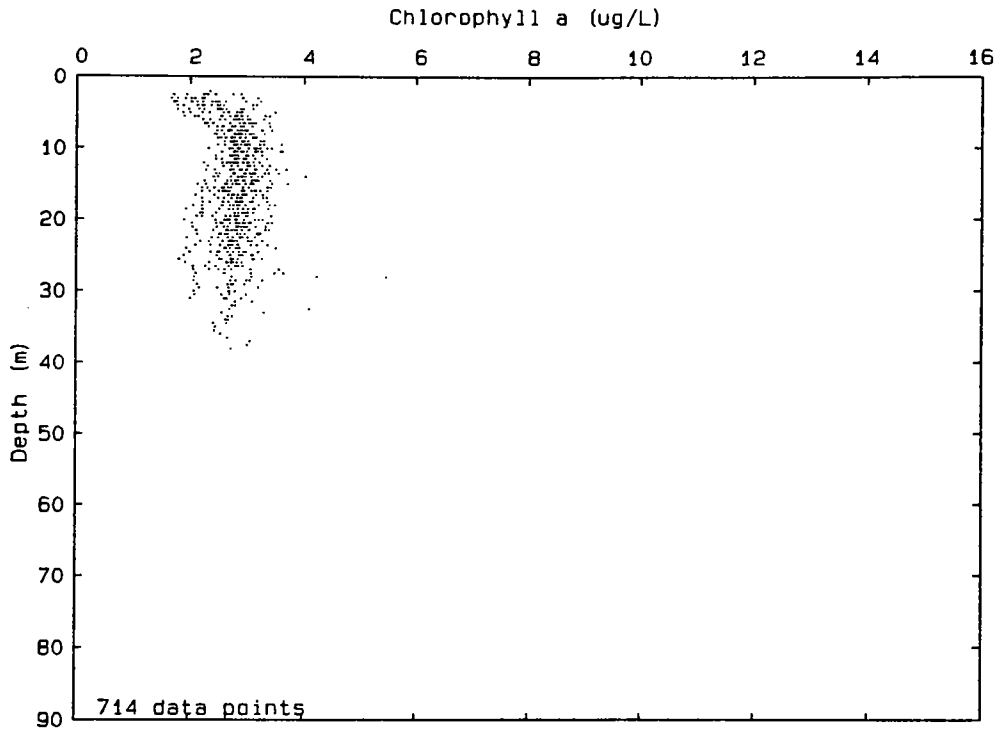

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
0
2
4
6
8
10
12
14
16
1673 data points
October Nearfield Stations

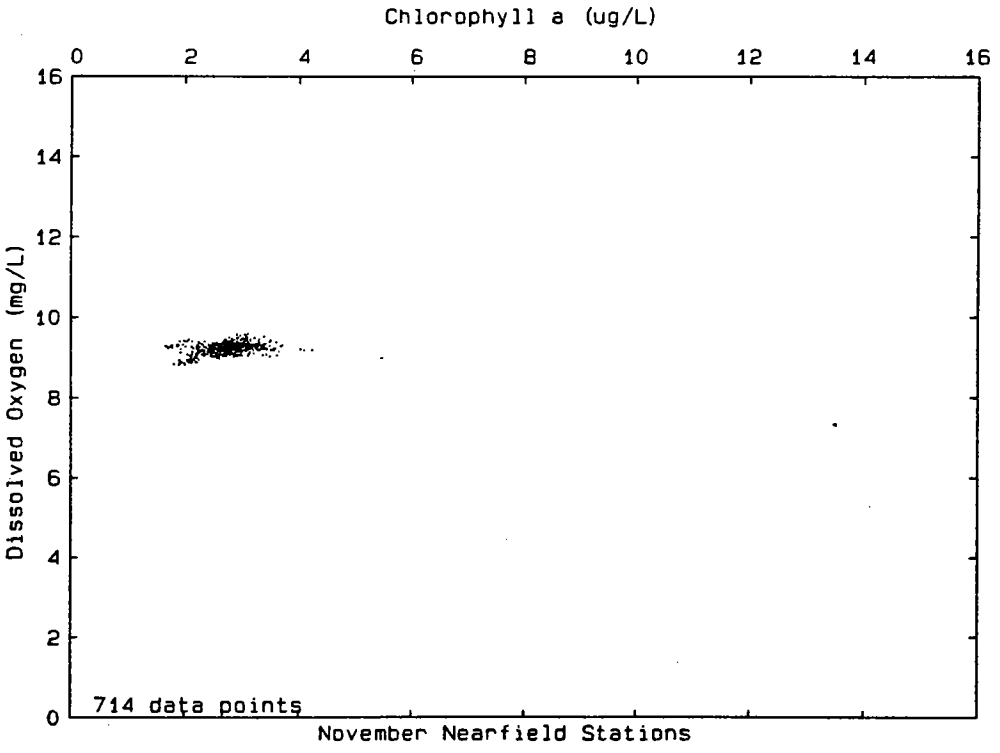

Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
804 data points

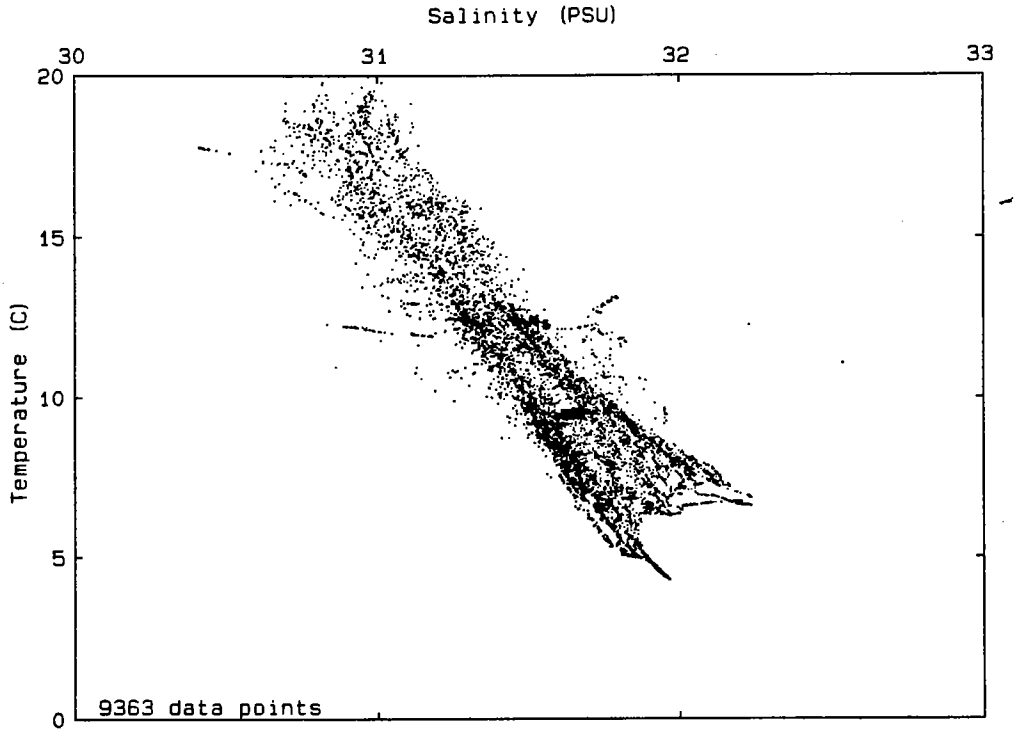

Salinity (PSU)
30
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
804 data points
November Nearfield Stations

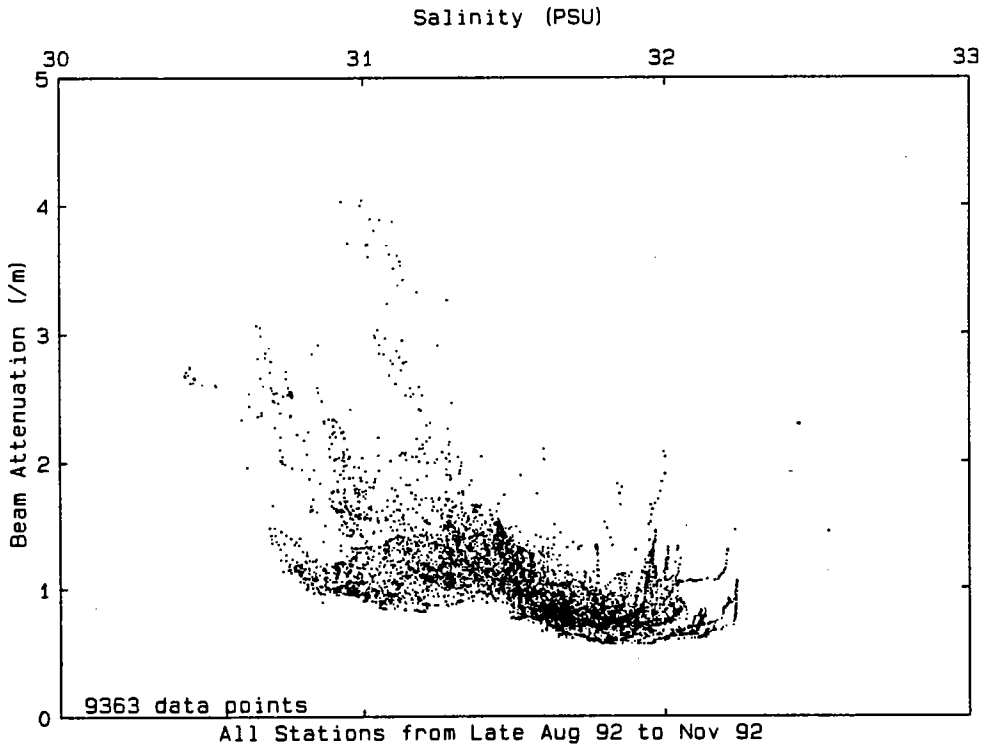

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
804 data points

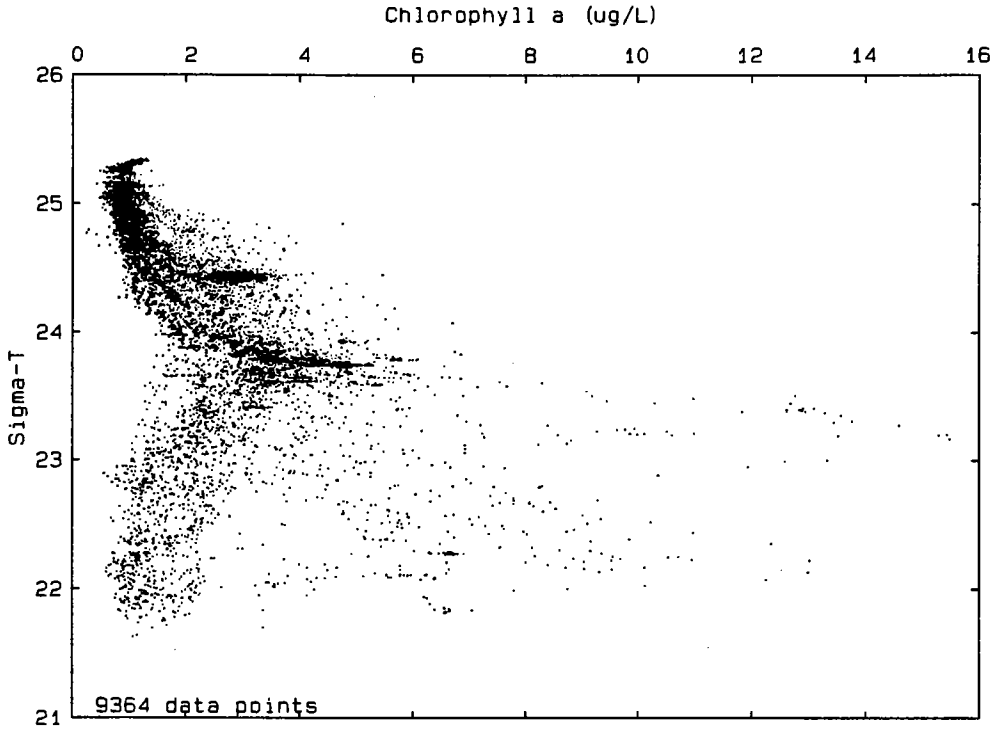

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
804 data points
November Nearfield Stations

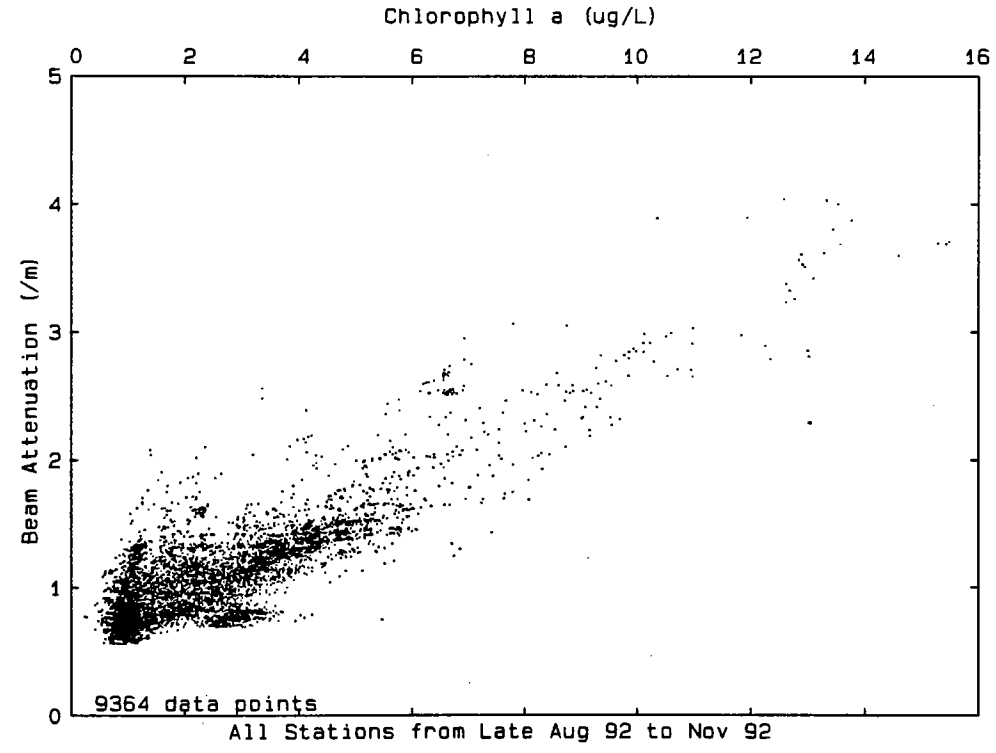

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
714 data points

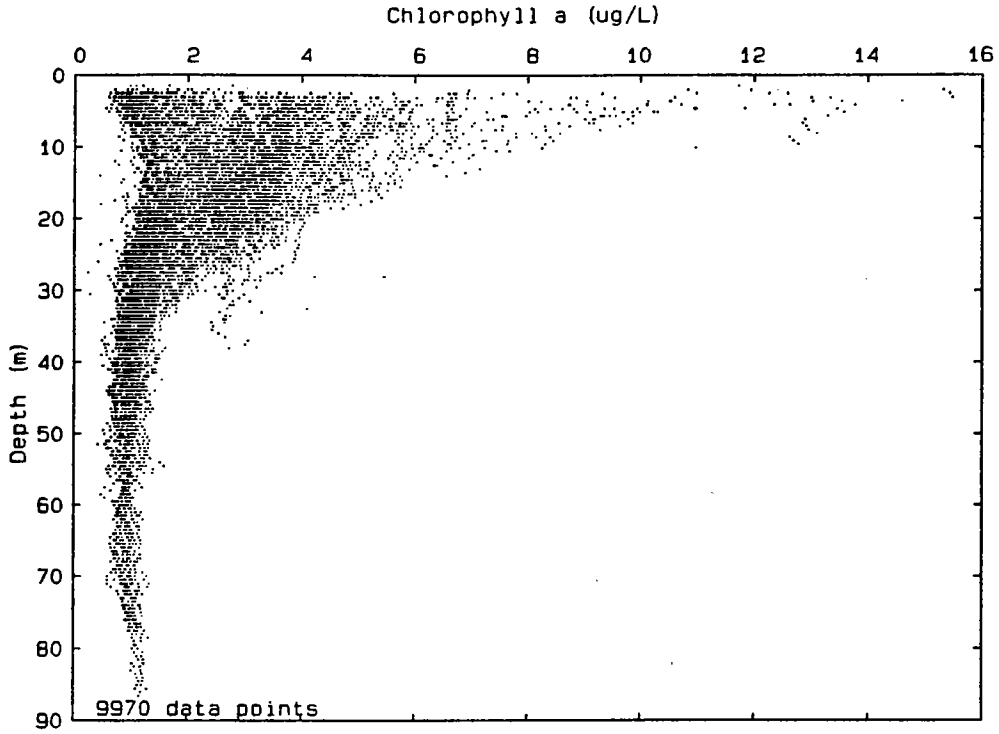

Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
0
2
4
6
8
10
12
14
16
714 data points
November Nearfield Stations

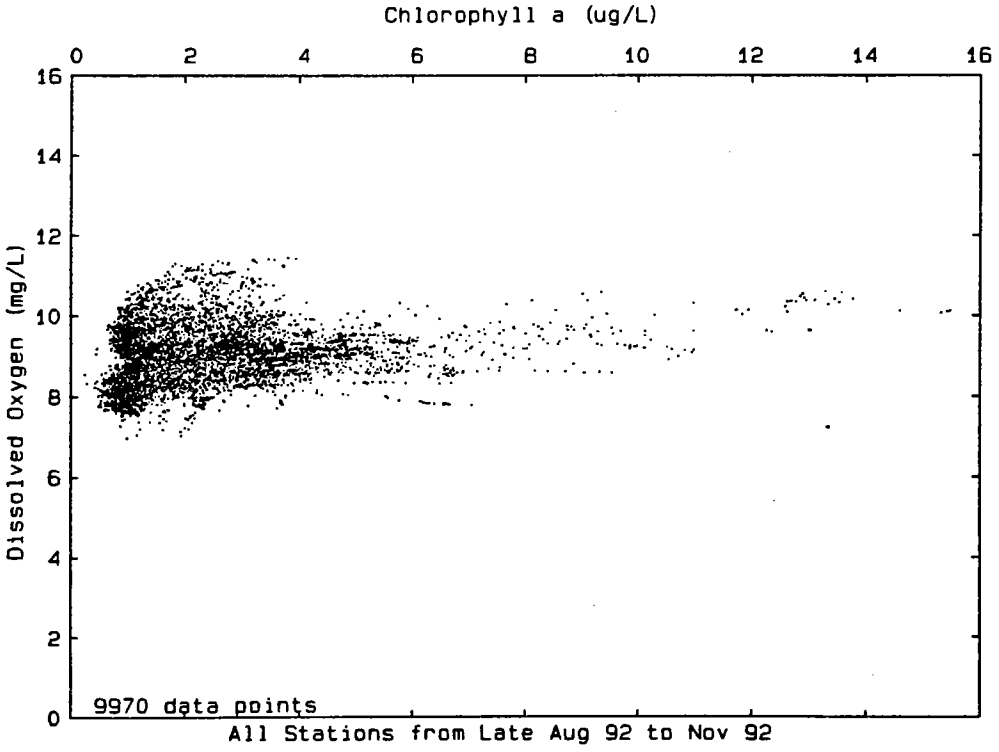

Salinity (PSU)
30
31
32
33
20
15
10
5
0
Temperature (C)
9363 data points


Salinity (PSU)
30
31
32
33
5
4
3
2
1
0
Beam Attenuation (/m)
9363 data points
All Stations from Late Aug 92 to Nov 92


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
26
25
24
23
22
21
Sigma-T
9364 data points


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
5
4
3
2
1
0
Beam Attenuation (/m)
9364 data points
All Stations from Late Aug 92 to Nov 92


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Depth (m)
0
10
20
30
40
50
60
70
80
90
9970 data points


Chlorophyll a (ug/L)
0
2
4
6
8
10
12
14
16
Dissolved Oxygen (mg/L)
0
2
4
6
8
10
12
14
16
9970 data points
All Stations from Late Aug 92 to Nov 92

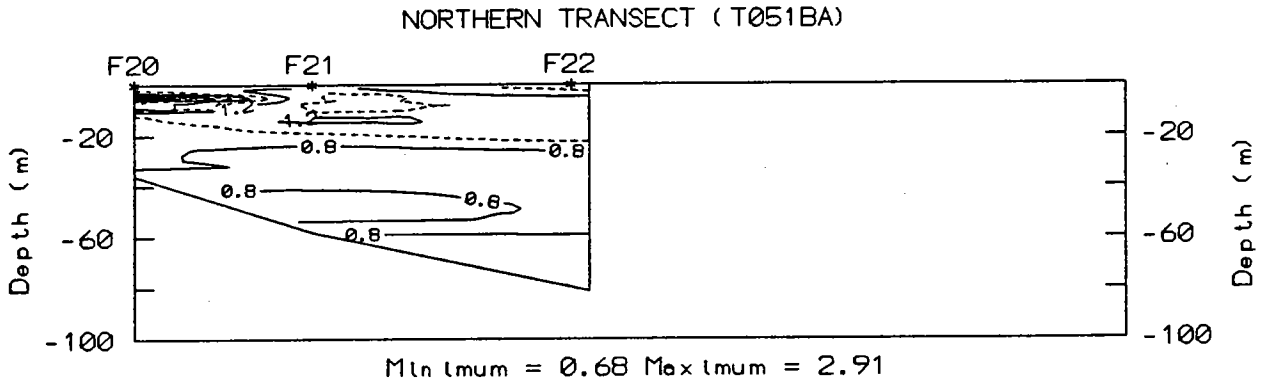
APPENDIX C

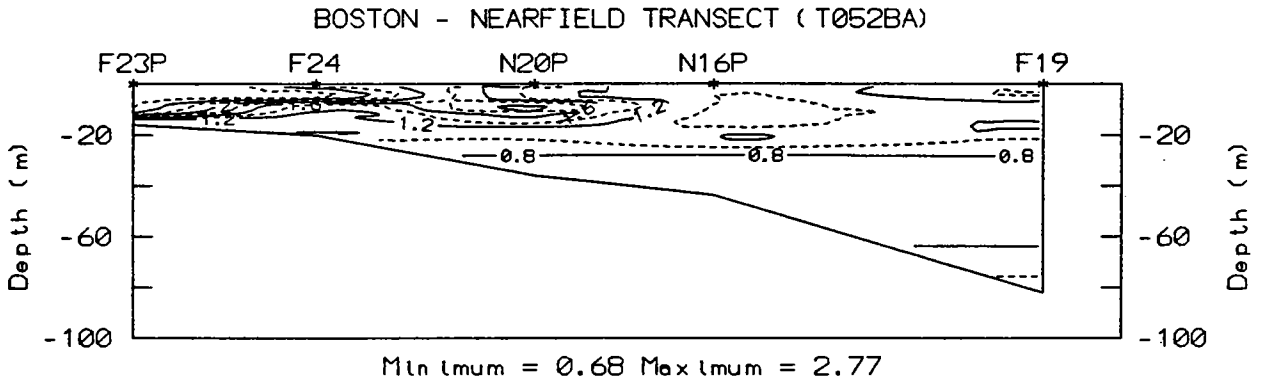
COMPARISON OF VERTICAL PROFILE DATA: SCATTER PLOTS AND TRANSECTS

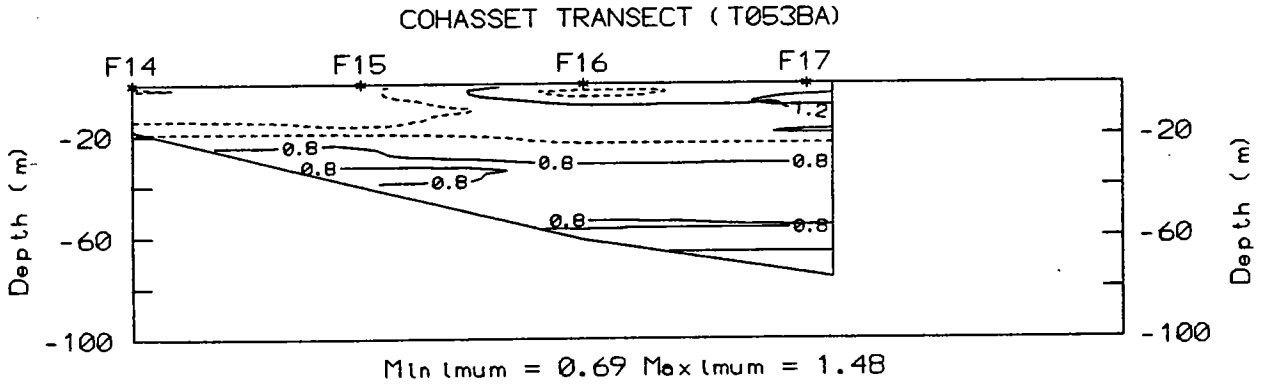
Part 2

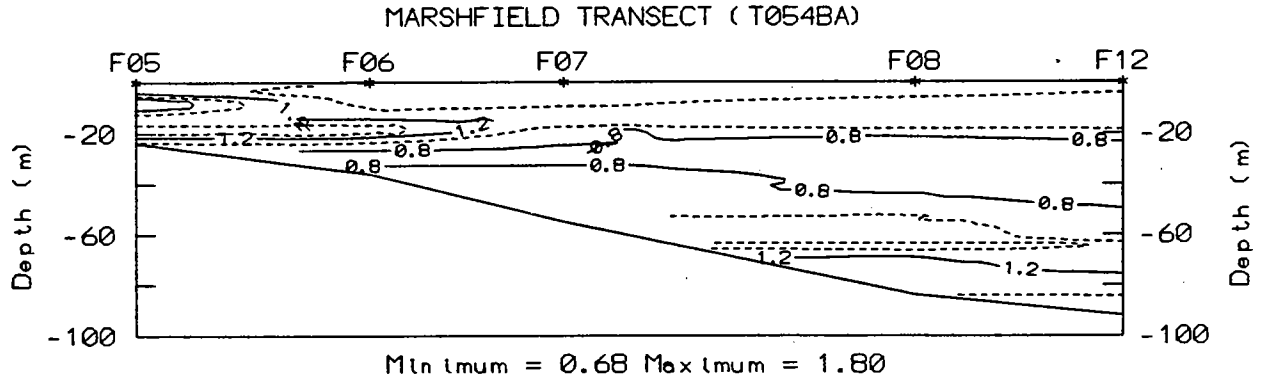
Additional Parameter Vertical Sections for Standard Transects, Late August and October Surveys

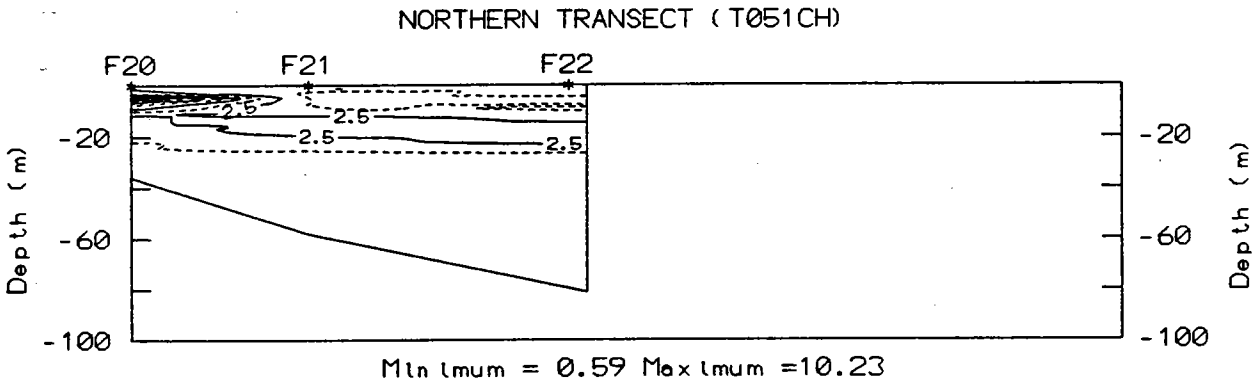
In the text report, sections are displayed for temperature (TE), salinity (SA), chlorophyll fluorescence (CH), and nutrients. Sigma-T (SI) and beam attenuation (BA) sections were also contoured and are presented by each transect in this Appendix. The coding in each figure is a six character code: starting with three characters for the survey, followed by a one-digit designation number for the transect, followed by the two character code for the parameter. Note that the designation T05 is for late August and T06 is for October. The designation, x, in the example coding T05xSI stands for the transect, as described verbally in the figure heading. Contours were generated by the kriging method for these plots as well as parameters displayed in text figures. The data for contouring are as described in Appendix B and include the entire profile at each station.

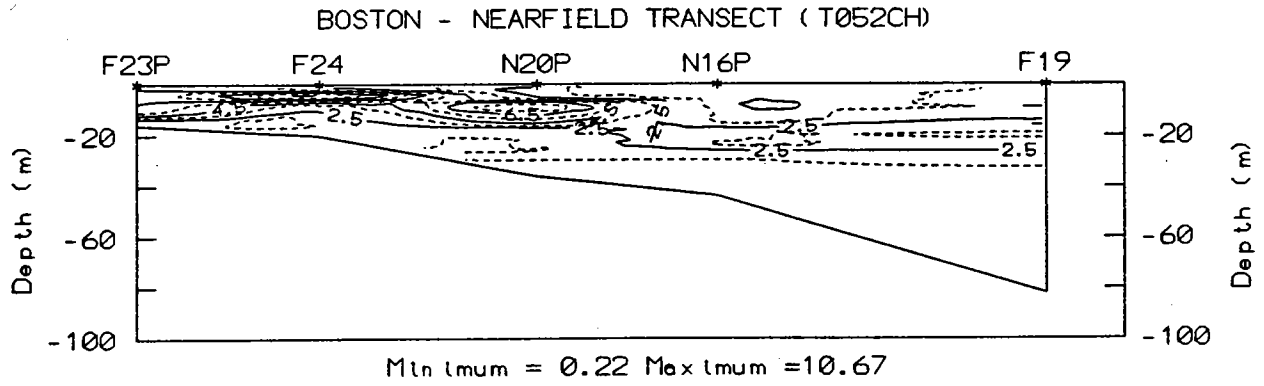

NORTHERN TRANSECT (T051BA)
F20
F21
F22
-20
-60
-100
Depth (m)
0.8
Minimum = 0.68 Maximum = 2.91

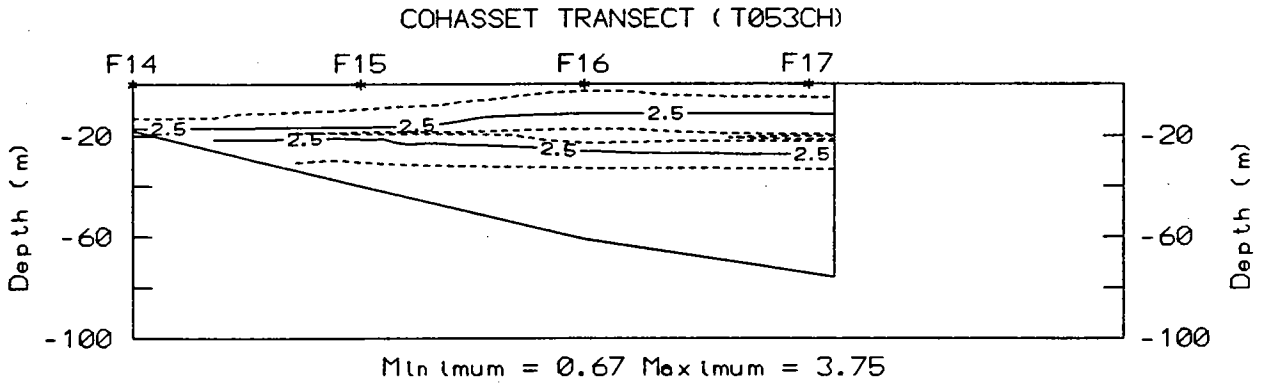

BOSTON - NEARFIELD TRANSECT (T052BA)
F23P
F24
N20P
N16P
F19
-20
-60
-100
Depth (m)
1.2
0.8
Minimum = 0.68 Maximum = 2.77

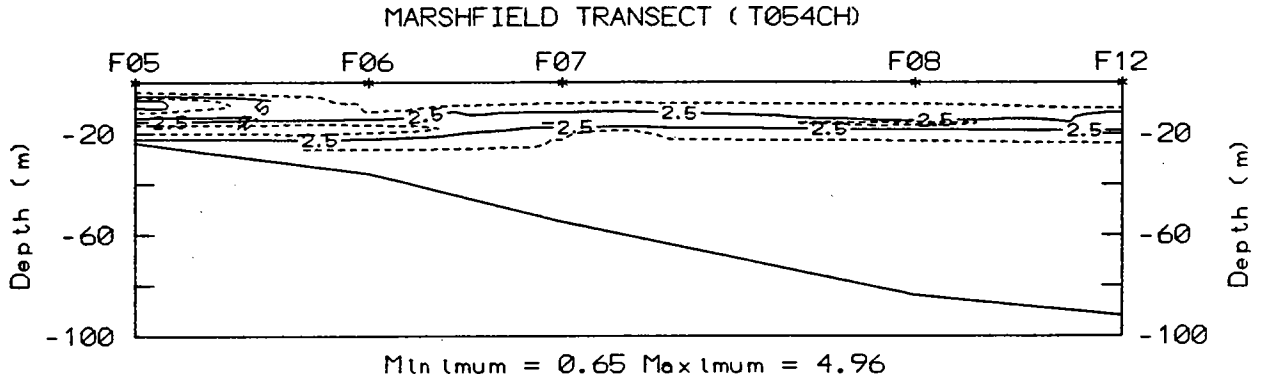

COHASSET TRANSECT (T053BA)
F14
F15
F16
F17
-20
-60
-100
Depth (m)
1.2
0.8
0.8
0.8
0.8
0.8
0.8
Minimum = 0.69 Maximum = 1.48

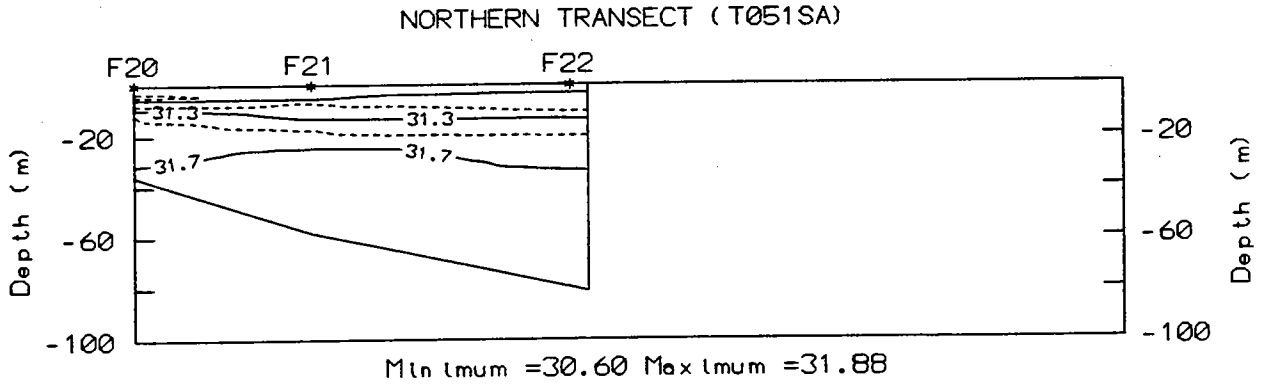

MARSHFIELD TRANSECT (T054BA)
F05
F06
F07
F08
F12
-20
-60
-100
Depth (m)
1.2
0.8
Minimum = 0.68 Maximum = 1.80

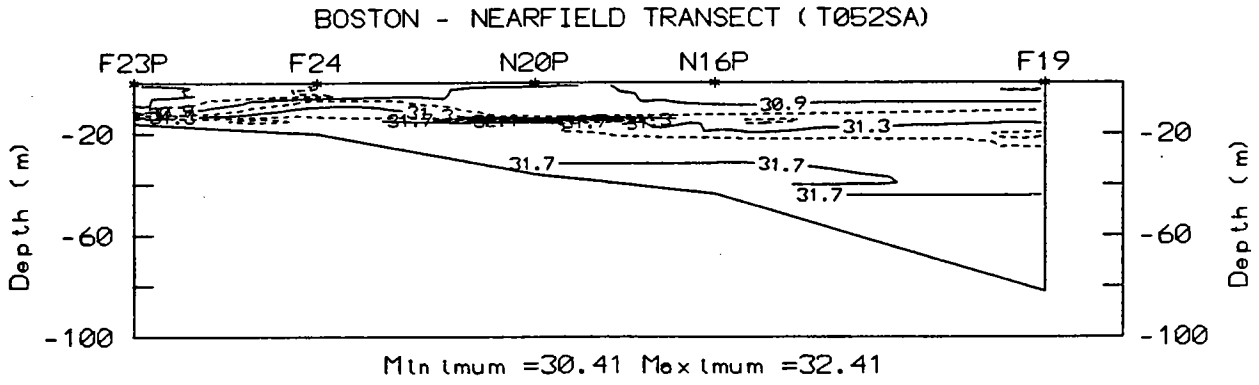

NORTHERN TRANSECT (T051CH)
F20
F21
F22
2.5
2.5
2.5
2.5
-20
-60
-100
Depth (m)
-20
-60
-100
Depth (m)
Mln lmum = 0.59 Max lmum =10.23

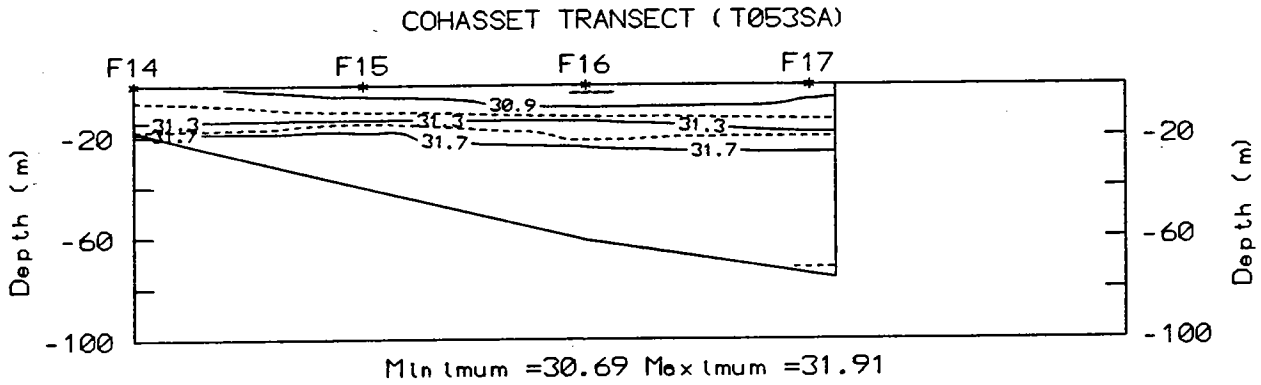

BOSTON - NEARFIELD TRANSECT (T052CH)
F23P
F24
N20P
N16P
F19
-20
-60
-100
Depth (m)
2.5
Minimum = 0.22 Maximum =10.67

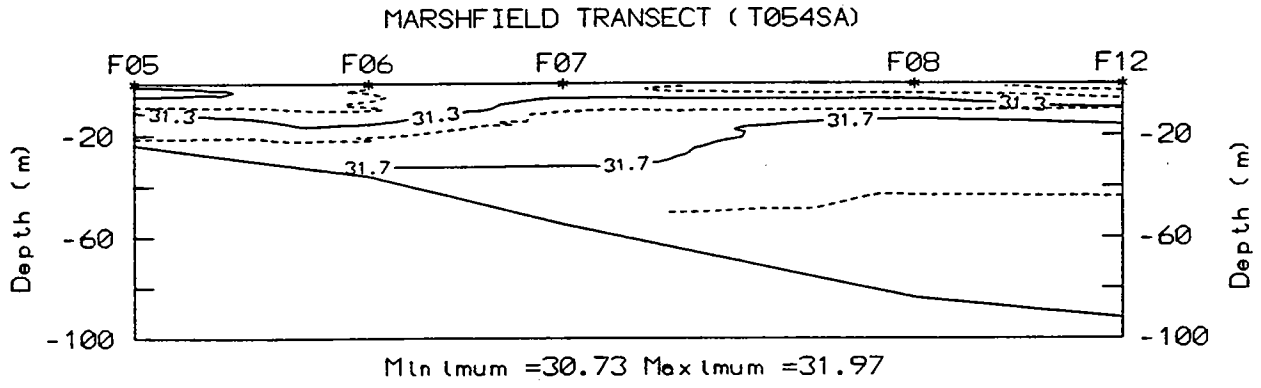

COHASSET TRANSECT (T053CH)
F14
F15
F16
F17
2.5
2.5
2.5
2.5
2.5
2.5
-20
-60
-100
Depth (m)
Minimum = 0.67 Maximum = 3.75

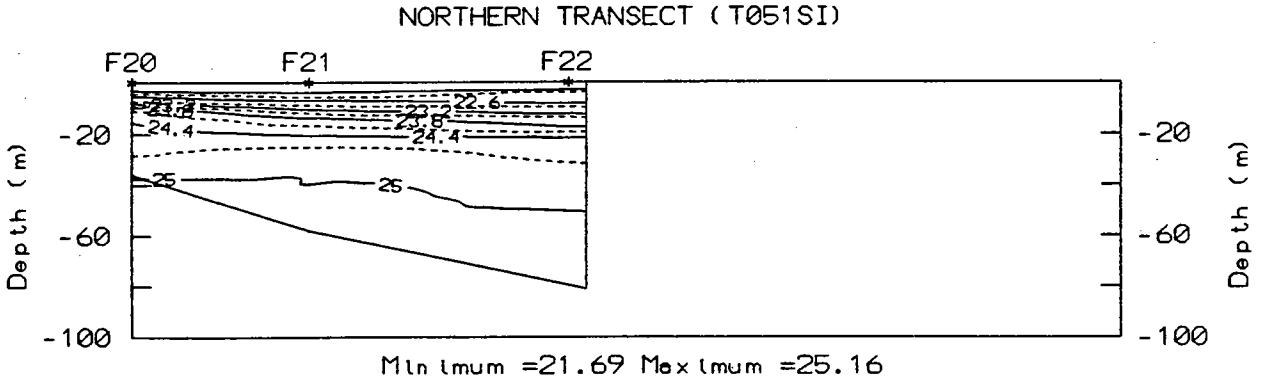

MARSHFIELD TRANSECT (T054CH)
F05
F06
F07
F08
F12
-20
-60
-100
Depth (m)
2.5
Minimum = 0.65 Maximum = 4.96

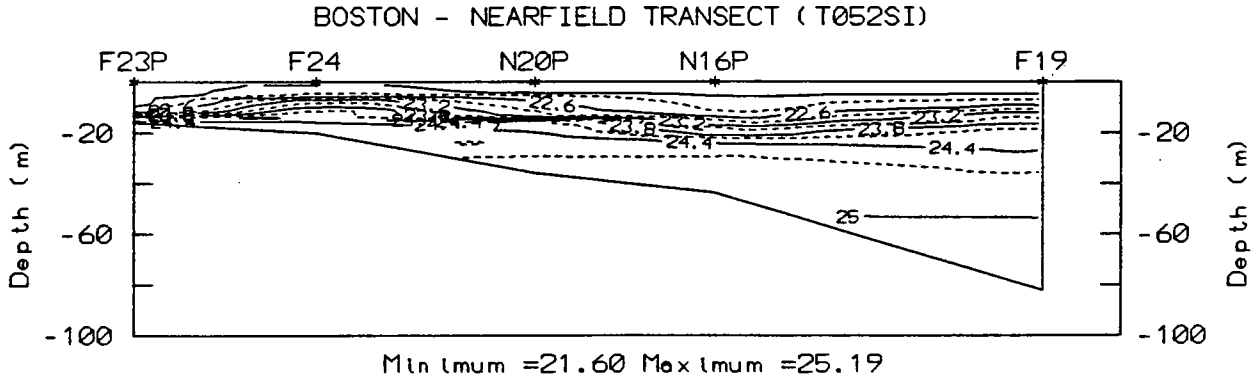

NORTHERN TRANSECT (T051SA)
F20
F21
F22
31.3
31.3
31.7
31.7
-20
-60
-100
Depth (m)
-20
-60
-100
Depth (m)
Minimum =30.60 Maximum =31.88

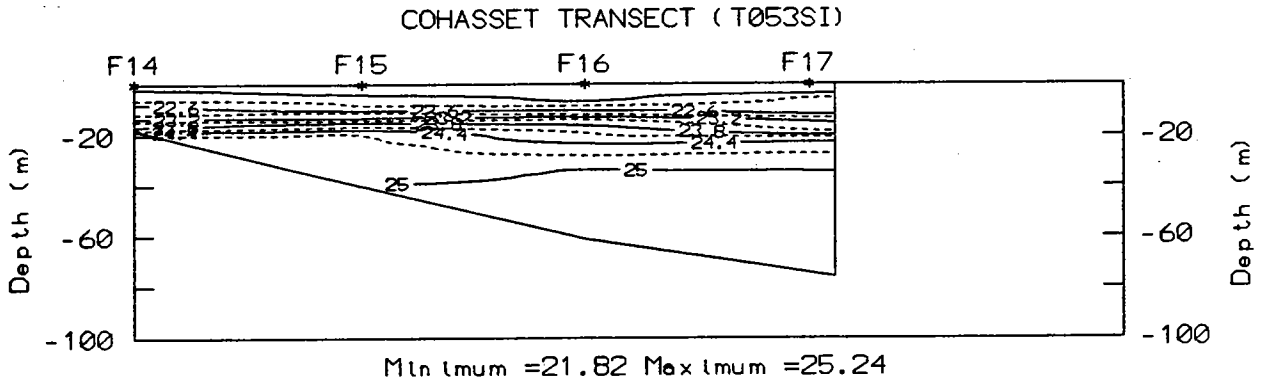

BOSTON - NEARFIELD TRANSECT (T052SA)
F23P
F24
N20P
N16P
F19
30.9
31.3
31.7
31.7
31.7
-20
-60
-100
Depth (m)
Mln lmum =30.41 Max lmum =32.41

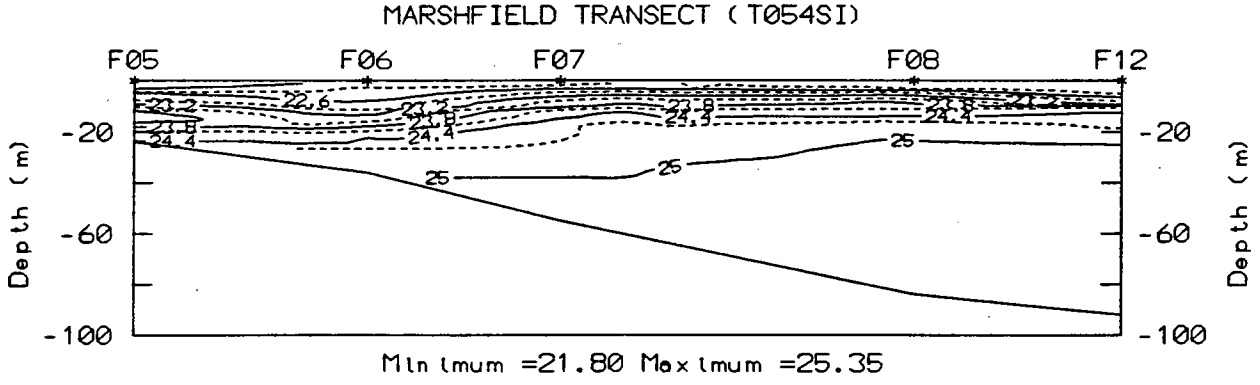

COHASSET TRANSECT (T053SA)
F14
F15
F16
F17
30.9
31.3
31.7
-20
-60
-100
Depth (m)
Minimum =30.69 Maximum =31.91

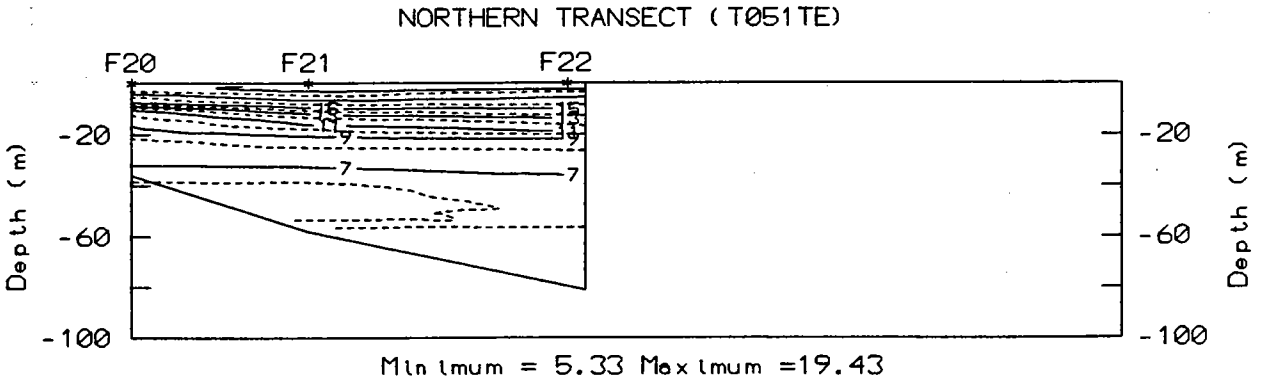

MARSHFIELD TRANSECT (T054SA)
F05
F06
F07
F08
F12
31.3
31.3
31.7
31.3
31.7
31.7
-20
-60
-100
Depth (m)
Minimum =30.73 Maximum =31.97

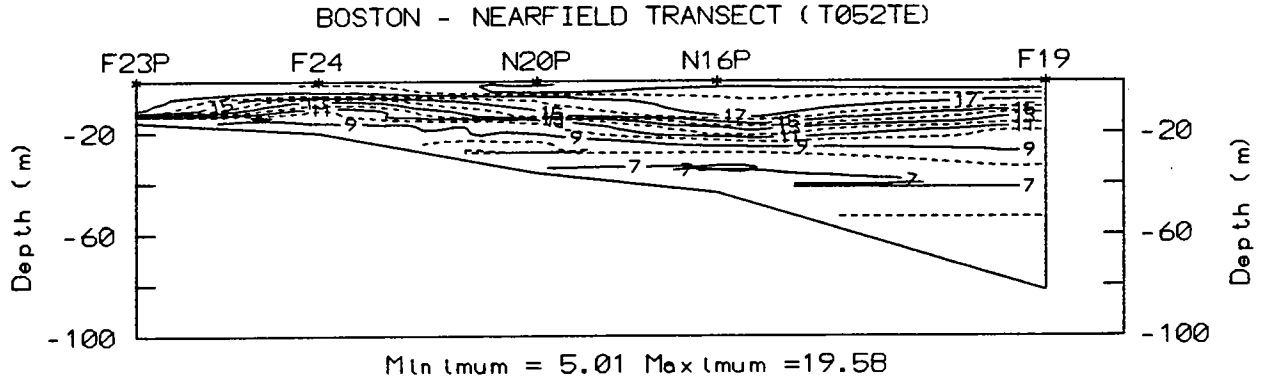

NORTHERN TRANSECT (T051SI)
F20
F21
F22
22.6
24.4
24.4
25
25
-20
-60
-100
Depth (m)
-20
-60
-100
Depth (m)
Minimum =21.69 Maximum =25.16

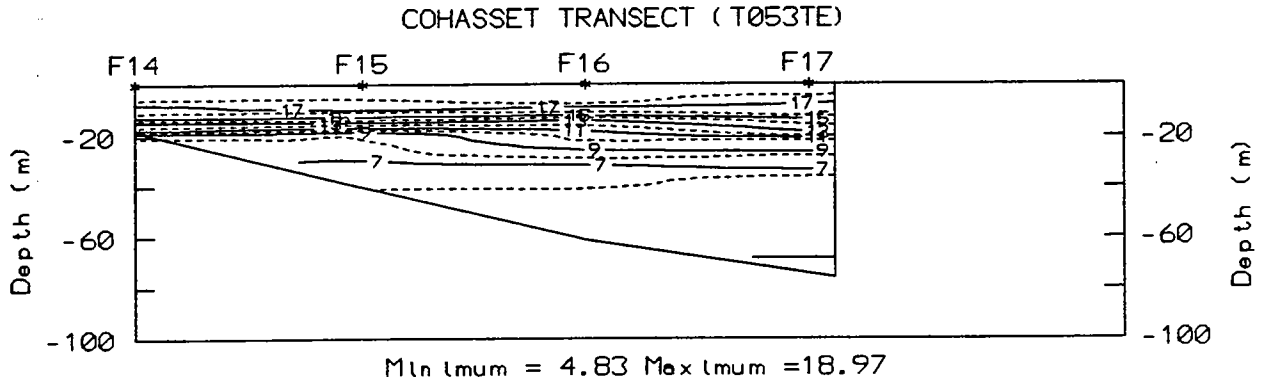

BOSTON - NEARFIELD TRANSECT (T052SI)
F23P
F24
N20P
N16P
F19
-20
-60
-100
Depth (m)
22.6
23.8
24.4
25
Minimum =21.60 Maximum =25.19

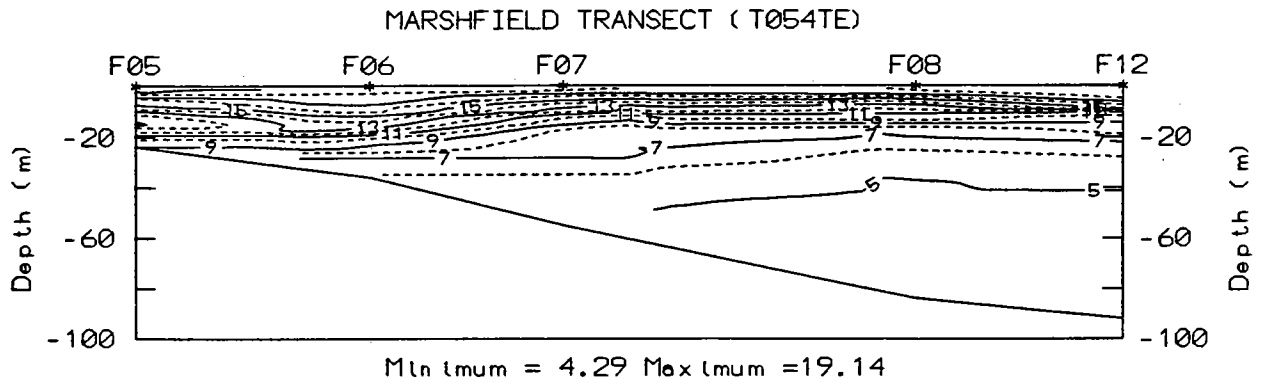

COHASSET TRANSECT (T053SI)
F14
F15
F16
F17
-20
-60
-100
Depth (m)
24.4
25
Minimum =21.82 Maximum =25.24

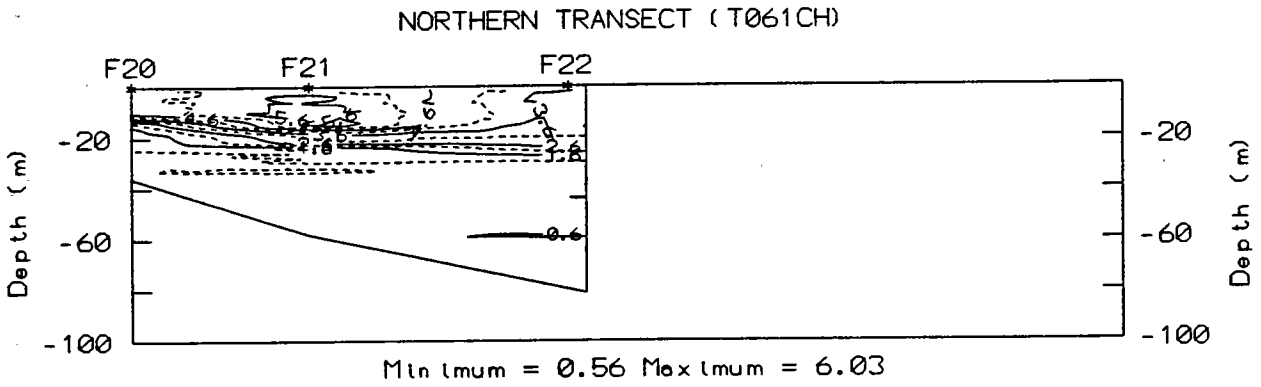

MARSHFIELD TRANSECT (T054SI)
F05
F06
F07
F08
F12
-20
-60
-100
Depth (m)
22.6
23.2
23.8
24.4
25
Minimum =21.80 Maximum =25.35

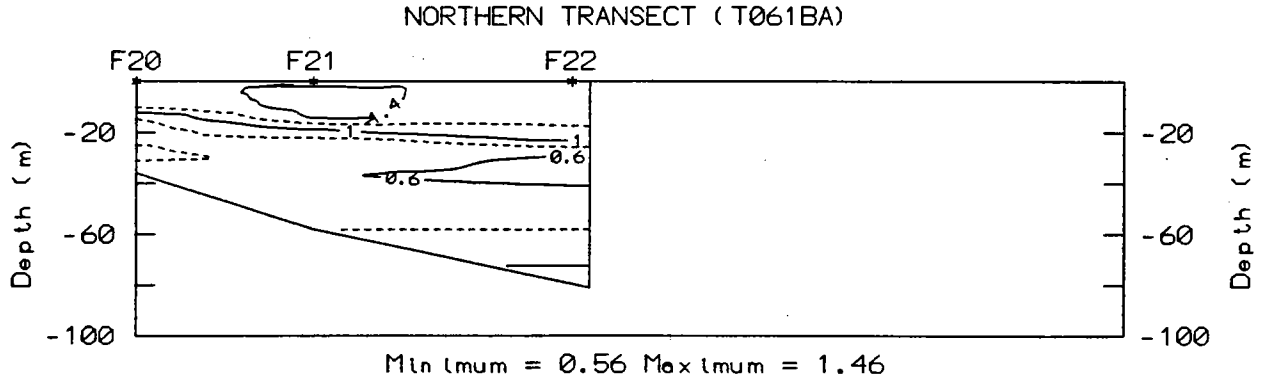

NORTHERN TRANSECT (T051TE)
F20
F21
F22
-20
-60
-100
Depth (m)
Minimum = 5.33 Maximum =19.43

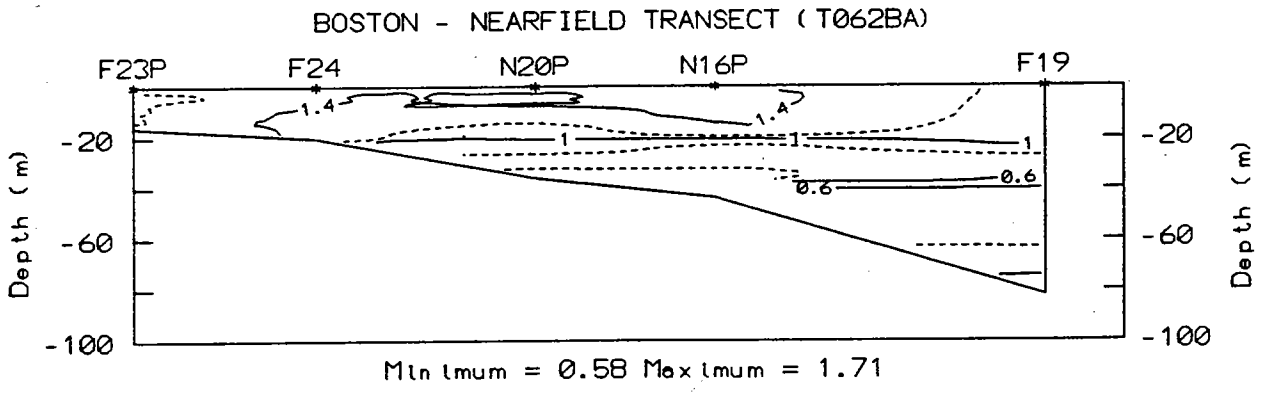

BOSTON - NEARFIELD TRANSECT (T052TE)
F23P
F24
N20P
N16P
F19
-20
-60
-100
Depth (m)
Minimum = 5.01 Maximum =19.58

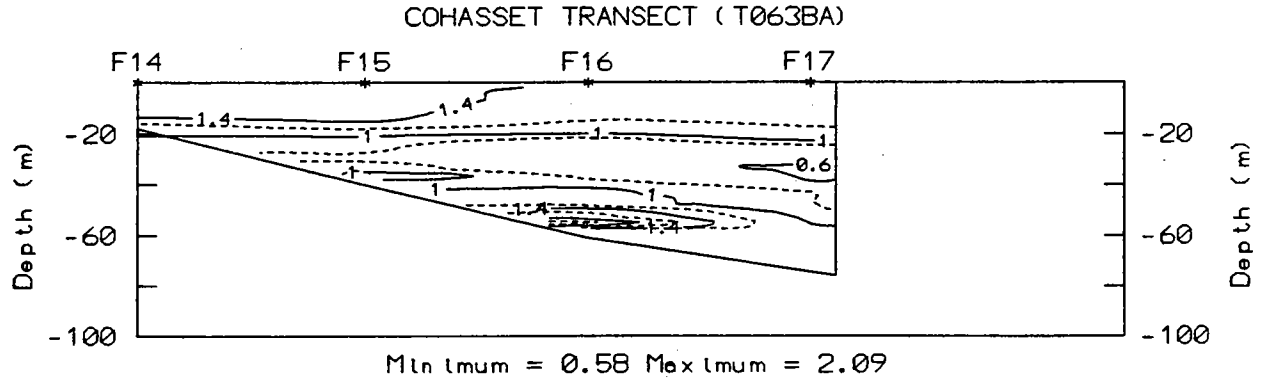

COHASSET TRANSECT (T053TE)
F14
F15
F16
F17
-20
-60
-100
Depth (m)
Mln lmum = 4.83 Max lmum =18.97

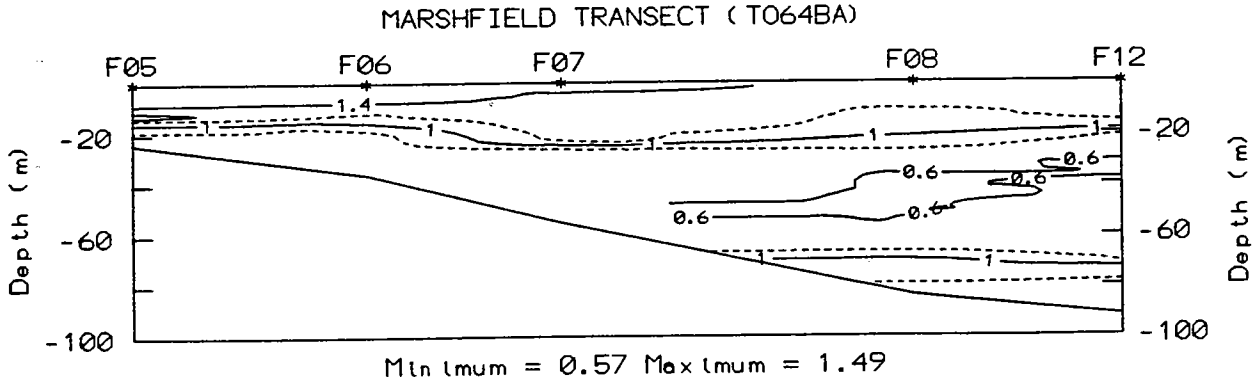

MARSHFIELD TRANSECT (T054TE)
F05
F06
F07
F08
F12
-20
-60
-100
Depth (m)
Mln lmum = 4.29 Max lmum =19.14

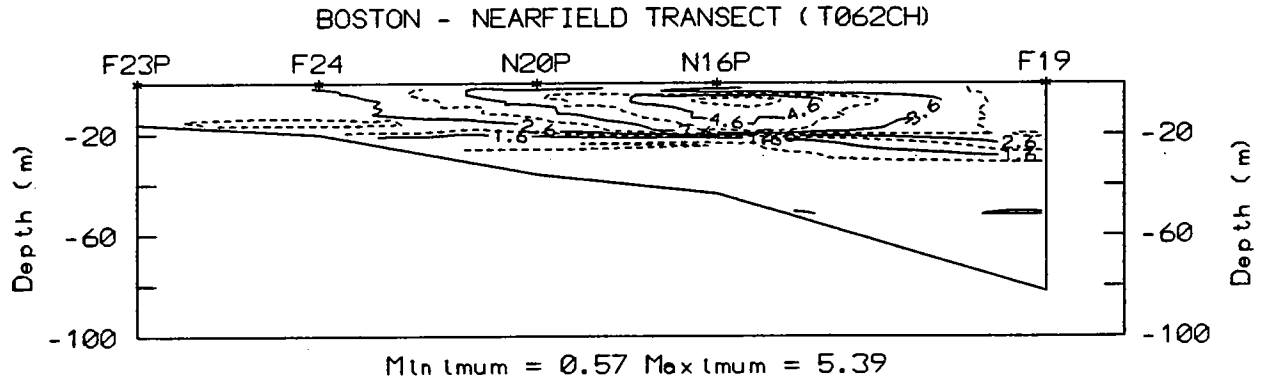

NORTHERN TRANSECT (T061CH)
F20
F21
F22
-20
-60
-100
Depth (m)
Minimum = 0.56 Maximum = 6.03

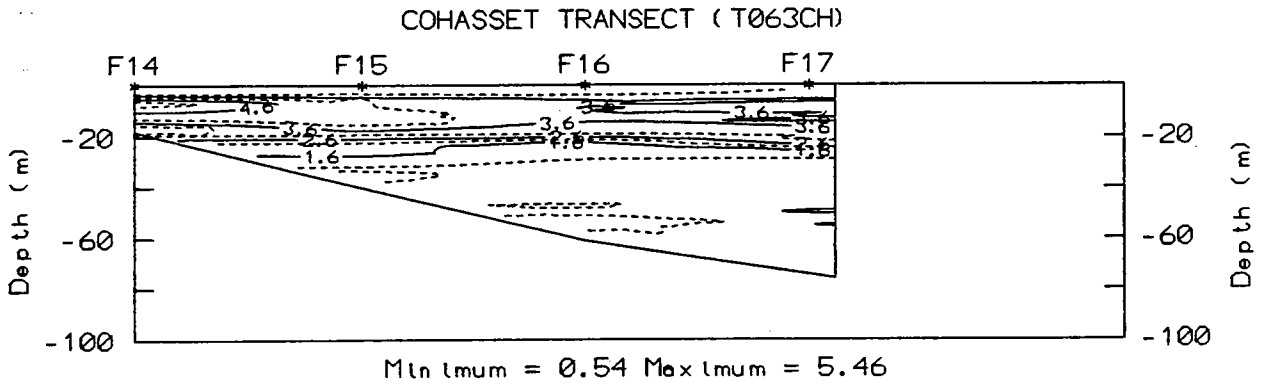

NORTHERN TRANSECT (T061BA)
F20
F21
F22
-20
-60
-100
Depth (m)
1
0.6
Minimum = 0.56 Maximum = 1.46

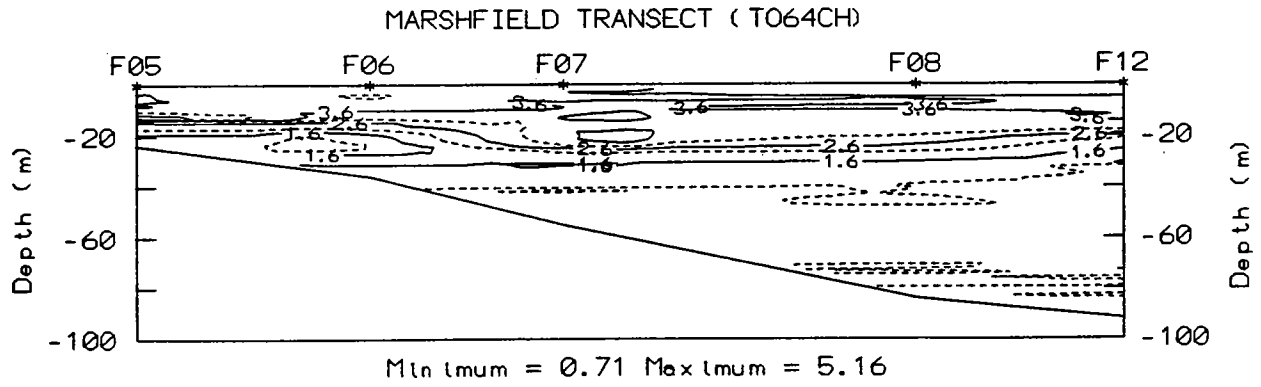

BOSTON - NEARFIELD TRANSECT (T062BA)
F23P
F24
N20P
N16P
F19
1.4
1.4
1
1
1
0.6
0.6
-20
-60
-100
Depth (m)
-20
-60
-100
Depth (m)
Minimum = 0.58 Maximum = 1.71

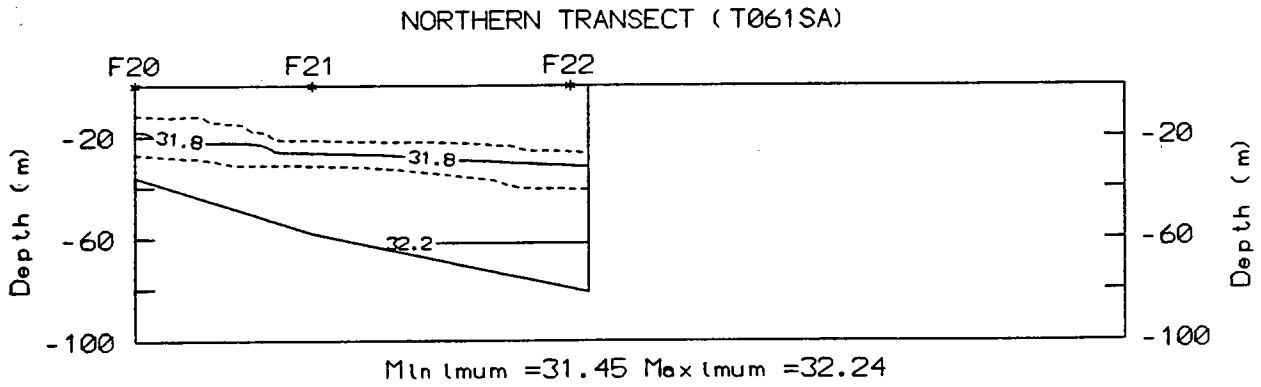

COHASSET TRANSECT (T063BA)
F14
F15
F16
F17
-20
-60
-100
Depth (m)
1.4
1
0.6
Minimum = 0.58 Maximum = 2.09

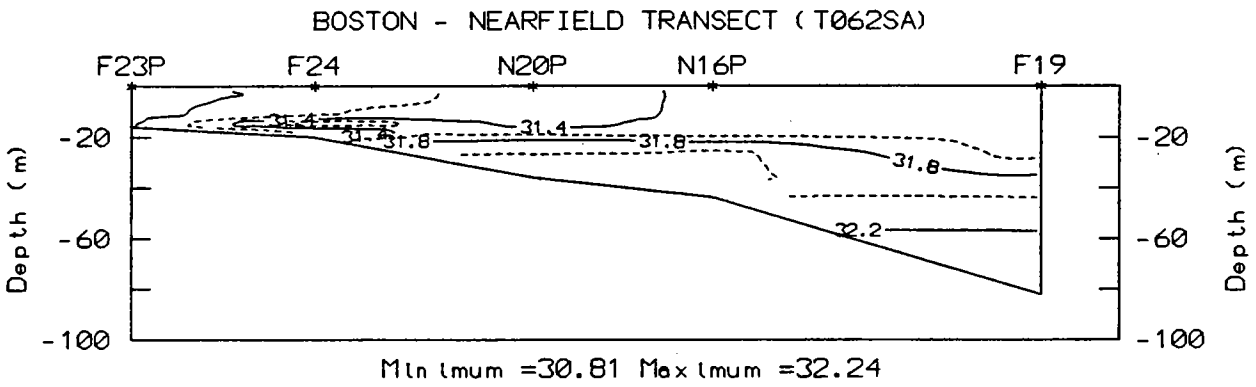

MARSHFIELD TRANSECT (T064BA)
F05
F06
F07
F08
F12
1.4
1
0.6
-20
-60
-100
Depth (m)
Minimum = 0.57 Maximum = 1.49

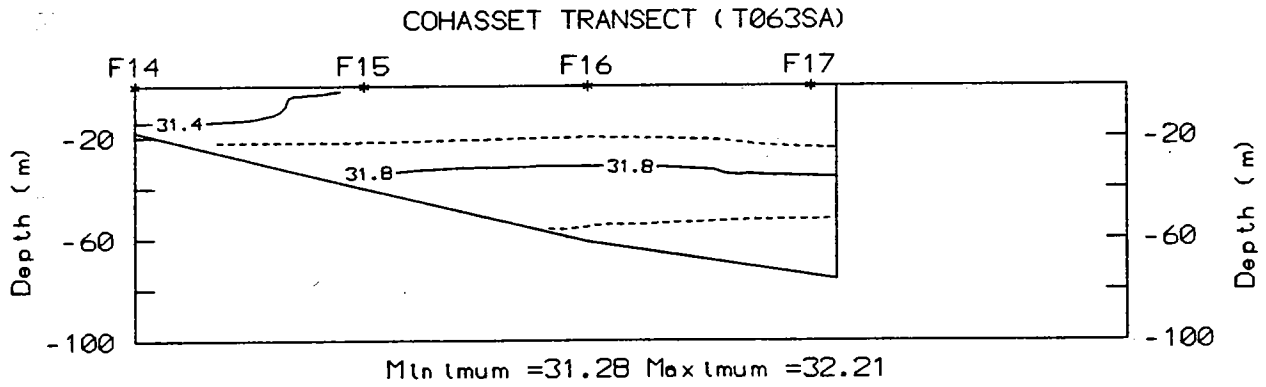

BOSTON - NEARFIELD TRANSECT (T062CH)
F23P
F24
N20P
N16P
F19
-20
-60
-100
Depth (m)
Minimum = 0.57 Maximum = 5.39

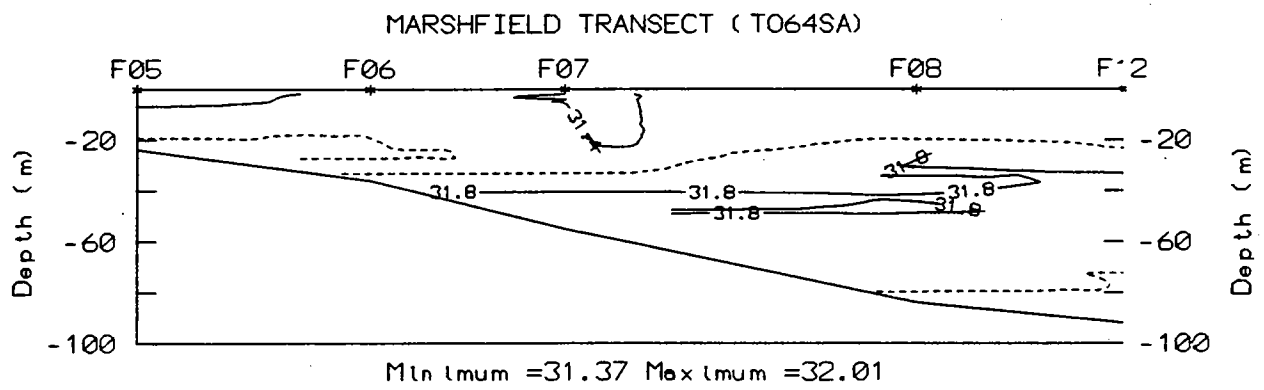

COHASSET TRANSECT (T063CH)
F14
F15
F16
F17
4.6
3.6
3.6
3.6
2.6
1.6
-20
-60
-100
Depth (m)
Minimum = 0.54 Maximum = 5.46

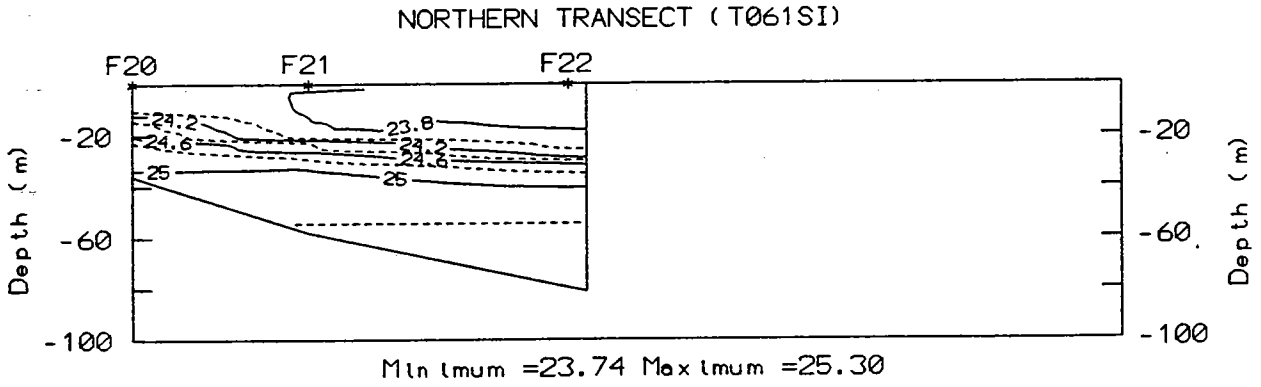

MARSHFIELD TRANSECT (TO64CH)
F05
F06
F07
F08
F12
-20
-60
-100
Depth (m)
Minimum = 0.71 Maximum = 5.16

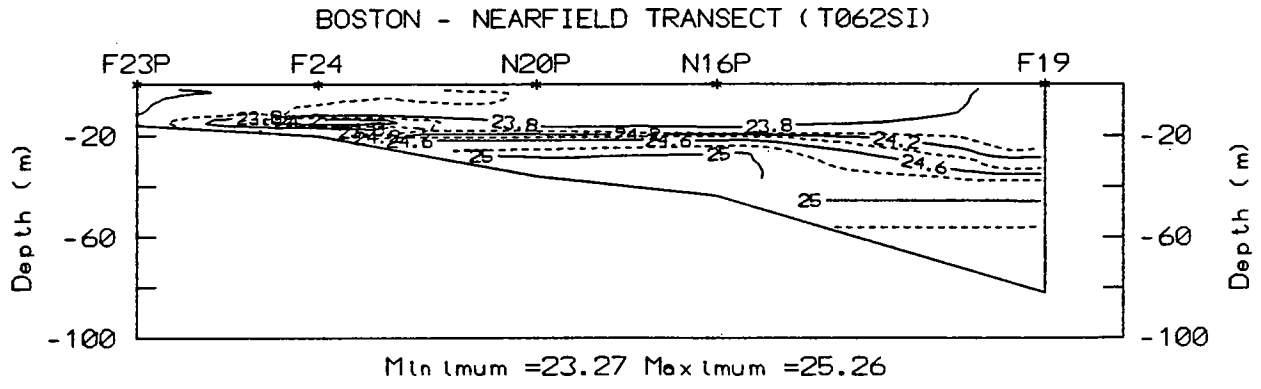

NORTHERN TRANSECT (T061SA)
F20
F21
F22
-20
-60
-100
31.8
31.8
32.2
Depth (m)
Depth (m)
Minimum =31.45 Maximum =32.24

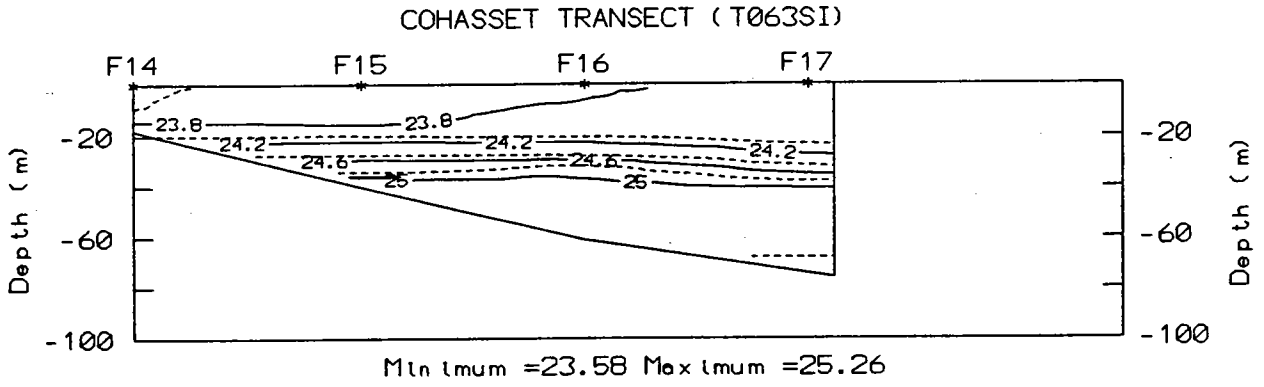

BOSTON - NEARFIELD TRANSECT (T062SA)
F23P
F24
N20P
N16P
F19
-20
-60
-100
Depth (m)
31.4
31.6
32.2
Minimum =30.81 Maximum =32.24

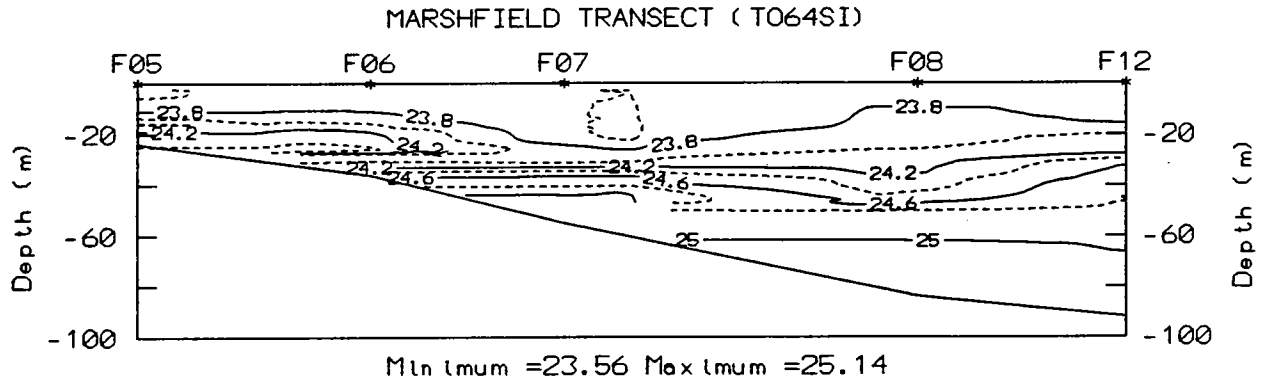

COHASSET TRANSECT (T063SA)
F14
F15
F16
F17
31.4
31.8
31.8
-20
-60
-100
Depth (m)
Minimum =31.28 Maximum =32.21

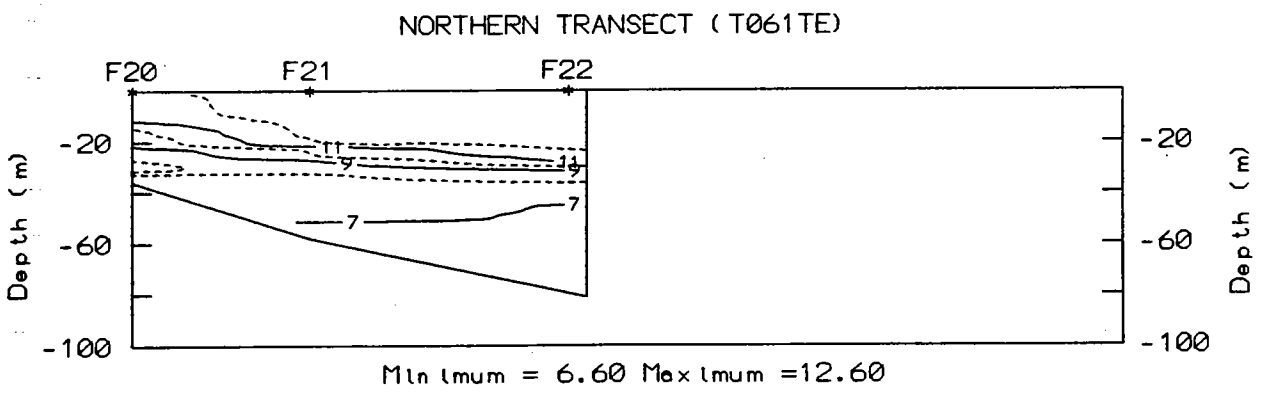

MARSHFIELD TRANSECT (TO64SA)
F05
F06
F07
F08
F12
-20
-60
-100
Depth (m)
31.8
Minimum =31.37 Maximum =32.01

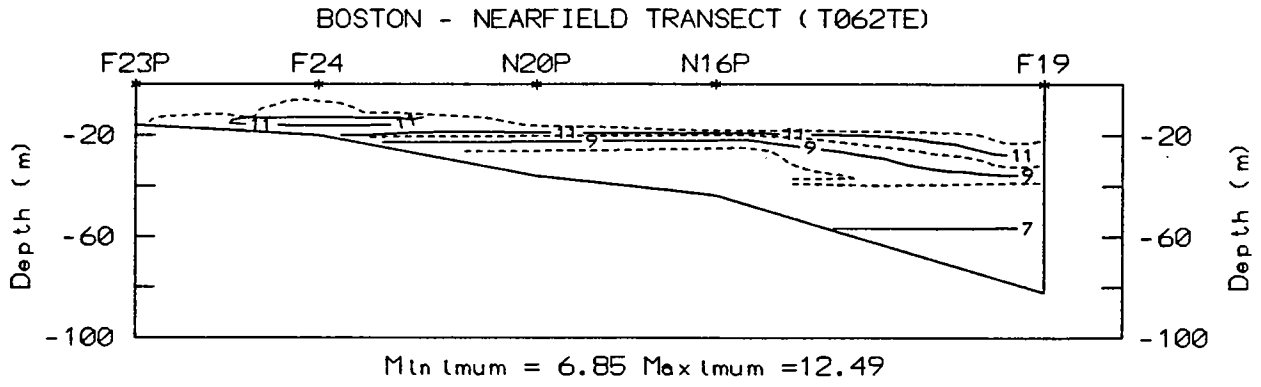

NORTHERN TRANSECT (T061SI)
F20
F21
F22
-20
-60
-100
Depth (m)
24.2
24.6
25
23.8
Minimum =23.74 Maximum =25.30

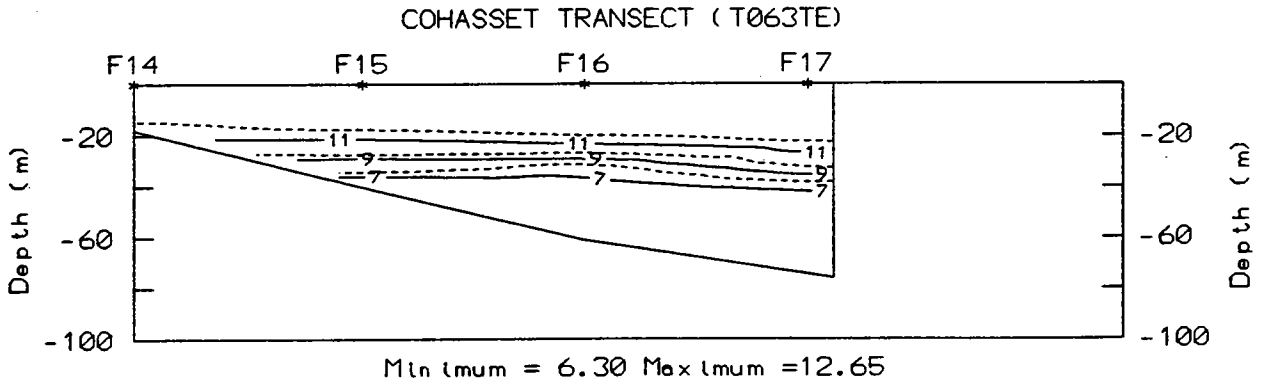

BOSTON - NEARFIELD TRANSECT (T062SI)
F23P
F24
N20P
N16P
F19
-20
-60
-100
Depth (m)
23.8
24.2
24.6
25
Minimum =23.27 Maximum =25.26

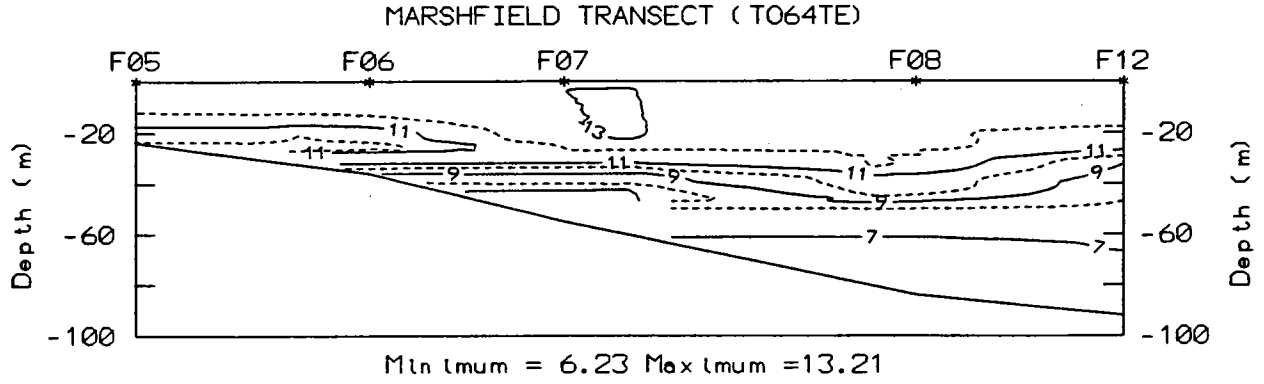

COHASSET TRANSECT (T063SI)
F14
F15
F16
F17
23.8
23.8
24.2
24.2
24.6
24.6
25
26
-20
-60
-100
Depth (m)
Minimum =23.58 Maximum =25.26


MARSHFIELD TRANSECT (TO64SI)
F05
F06
F07
F08
F12
-20
-60
-100
Depth (m)
23.8
24.2
24.6
25
Mln lmum =23.56 Max lmum =25.14


NORTHERN TRANSECT (T061TE)
F20
F21
F22
-20
-60
-100
Depth (m)
11
9
7
Minimum = 6.60 Maximum =12.60


BOSTON - NEARFIELD TRANSECT (T062TE)
F23P
F24
N20P
N16P
F19
-20
-60
-100
Depth (m)
11
9
7
Minimum = 6.85 Maximum =12.49


COHASSET TRANSECT (T063TE)
F14
F15
F16
F17
-20
-60
-100
Depth (m)
11
9
7
Minimum = 6.30 Maximum =12.65


MARSHFIELD TRANSECT (T064TE)
F05
F06
F07
F08
F12
-20
-60
-100
Depth (m)
11
13
9
7
Minimum = 6.23 Maximum =13.21

APPENDIX D

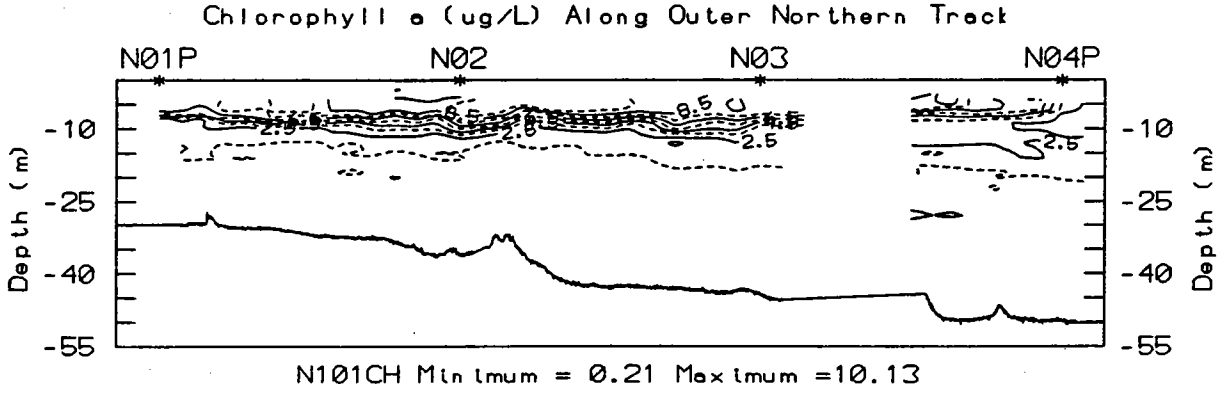
TOWING PROFILE DATA FROM NEARFIELD STATIONS

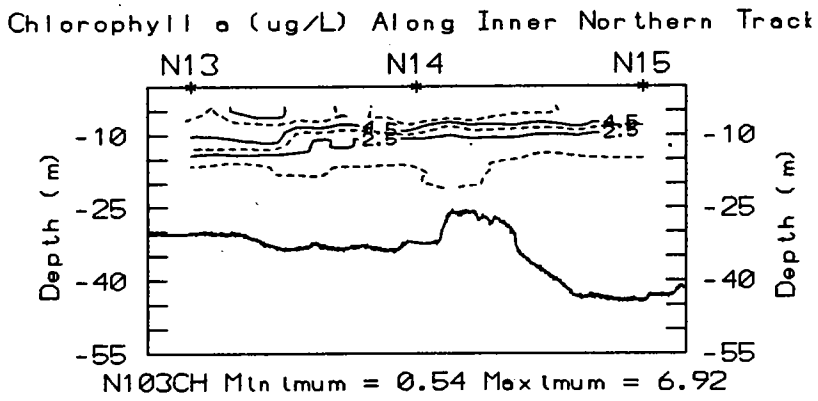
Sigma-T and chlorophyll (fluorescence) from sections are contoured and compiled in figures in the accompanying text report. Temperature contours for each towing leg of the nearfield track were also prepared and are presented in this Appendix.

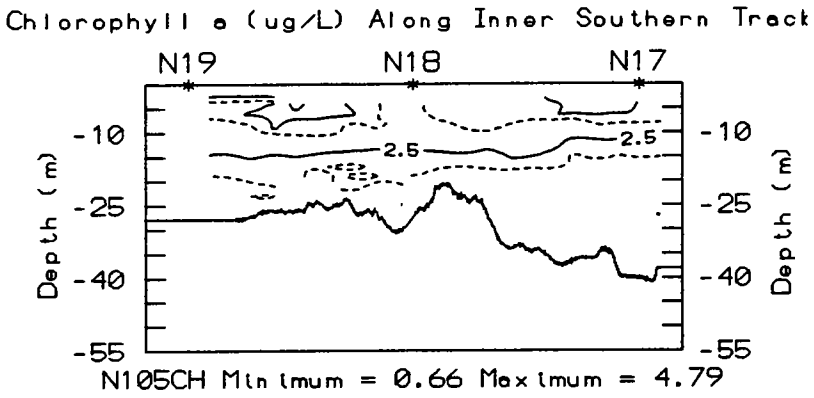
Data are from oscillating tow-yos from near surface to near bottom with a number of tow-yos between each station. The method for contouring was inverse distance to the second power; if no data were encountered horizontally for 500 m or vertically for 3 m, then the section is blanked out and not contoured. The actual bathymetry was recorded continuously and is displayed in the figures; if a flat bathymetry line is shown for a section, data from the echosounder were not collected.

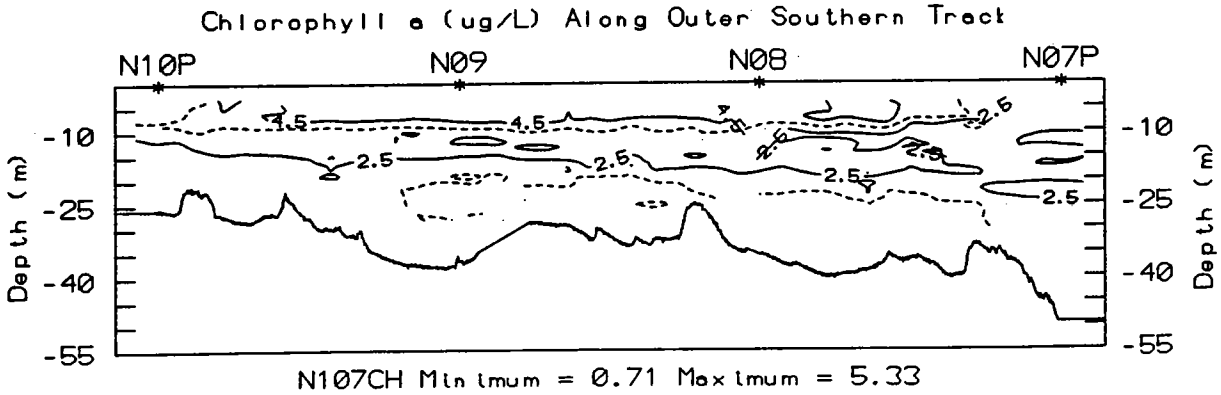
Note that the tracks are given in headings, with stations also listed for each section. The surveys are designated below the figure using the following codes:

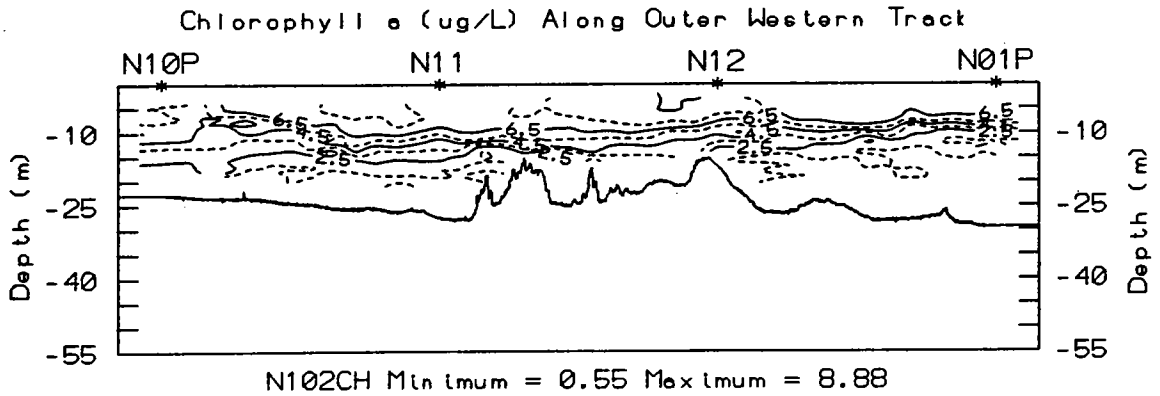
F05 = late August
F06 = October
N11 = September
N14 = November

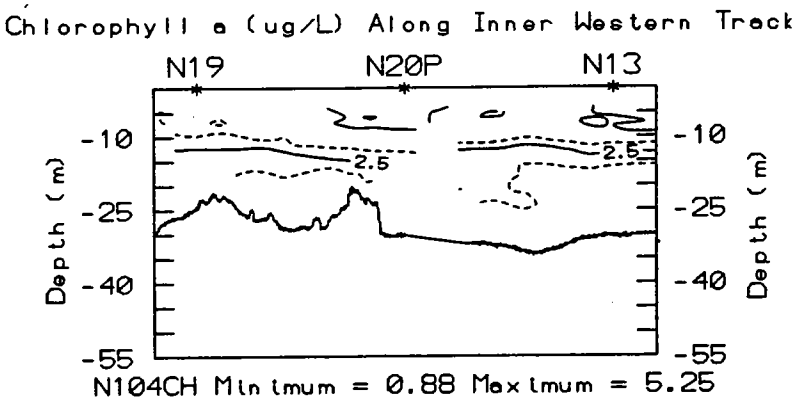

Chlorophyll a (ug/L) Along Outer Northern Track
N01P
N02
N03
N04P
-10
-25
-40
-55
Depth (m)
8.5
2.8
2.5
N101CH Minimum = 0.21 Maximum =10.13

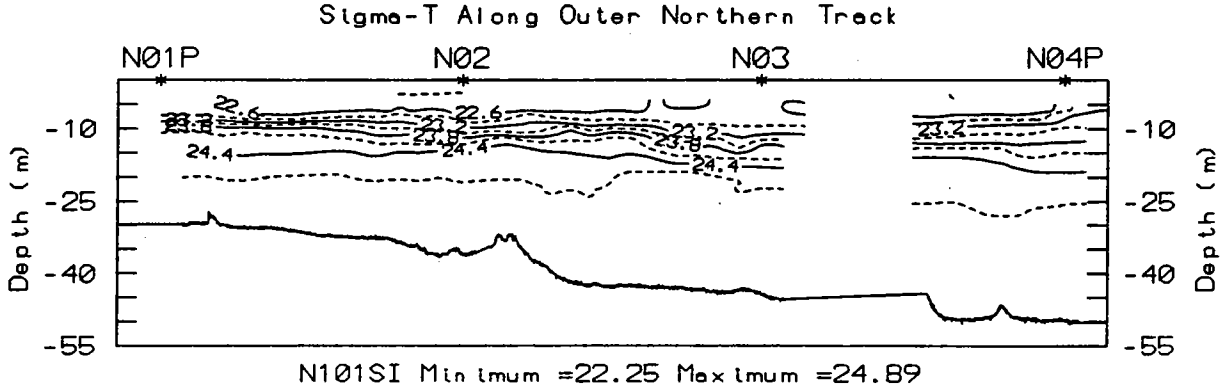

Chlorophyll a (ug/L) Along Inner Northern Track
N13
N14
N15
-10
-25
-40
-55
Depth (m)
4.5
2.5
N103CH Minimum = 0.54 Maximum = 6.92

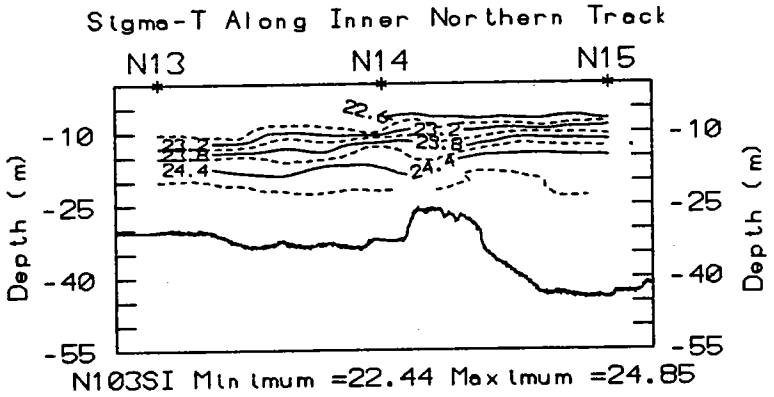

Chlorophyll a (ug/L) Along Inner Southern Track
N19
N18
N17
-10
-25
-40
-55
Depth (m)
2.5
2.5
N105CH Minimum = 0.66 Maximum = 4.79

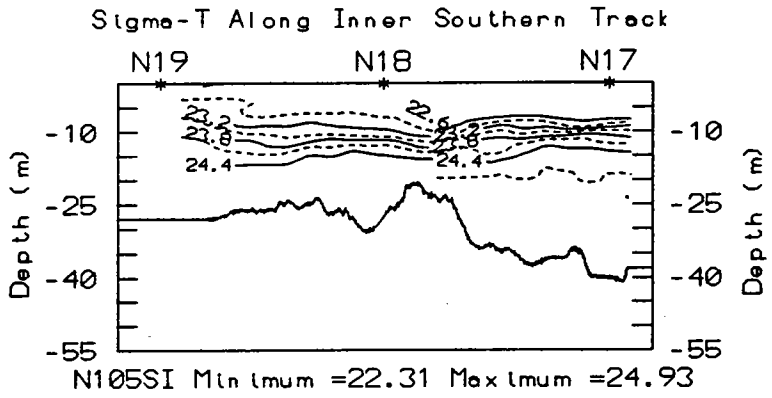

Chlorophyll a (ug/L) Along Outer Southern Tract
N10P
N09
N08
N07P
-10
-25
-40
-55
Depth (m)
4.5
2.5
N107CH Minimum = 0.71 Maximum = 5.33

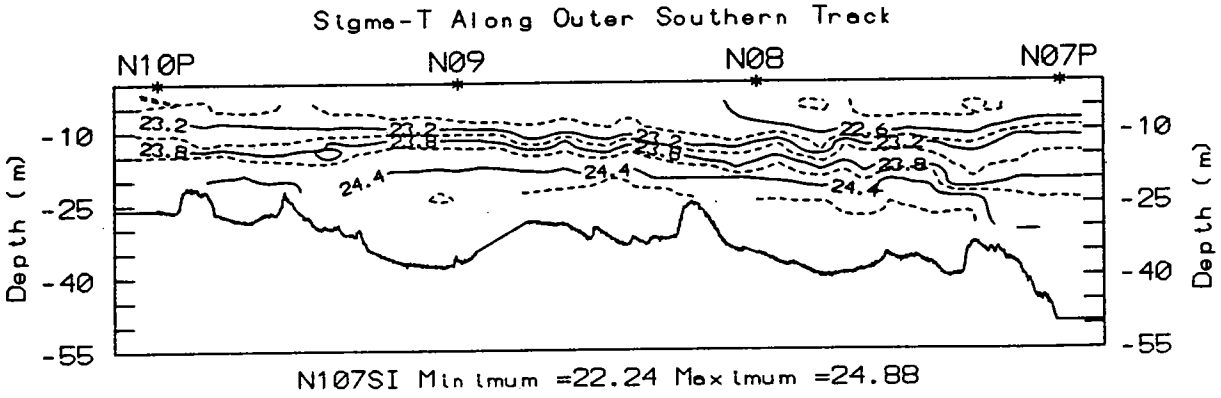

Chlorophyll a (ug/L) Along Outer Western Tract
N10P
N11
N12
N01P
-10
-25
-40
-55
Depth (m)
N102CH Minimum = 0.55 Maximum = 8.88

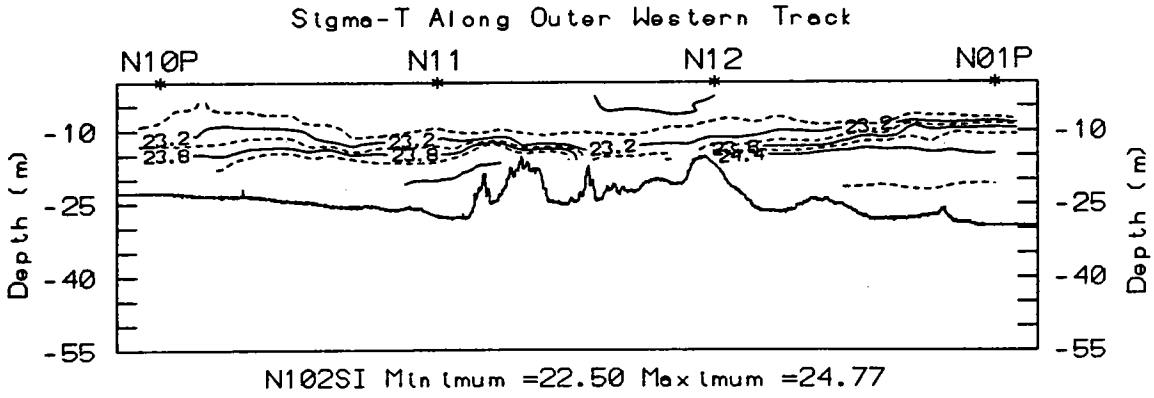

Chlorophyll a (ug/L) Along Inner Western Track
N19
N20P
N13
-10
-25
-40
-55
Depth (m)
2.5
N104CH Minimum = 0.88 Maximum = 5.25

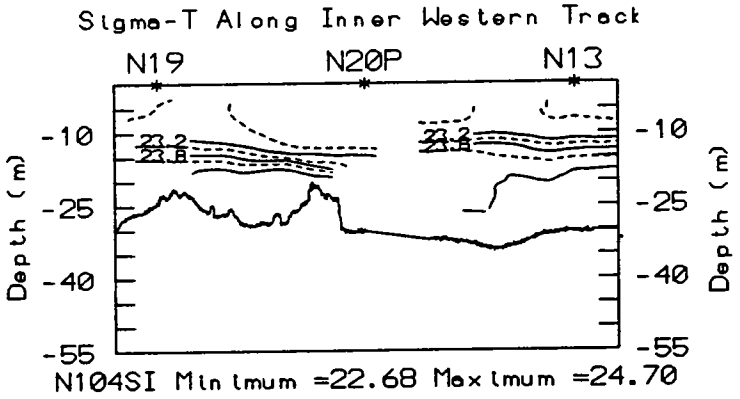

Sigma-T Along Outer Northern Track
N01P
N02
N03
N04P
-10
-25
-40
-55
Depth (m)
22.6
23.2
23.8
24.4
N101SI Minimum =22.25 Maximum =24.89

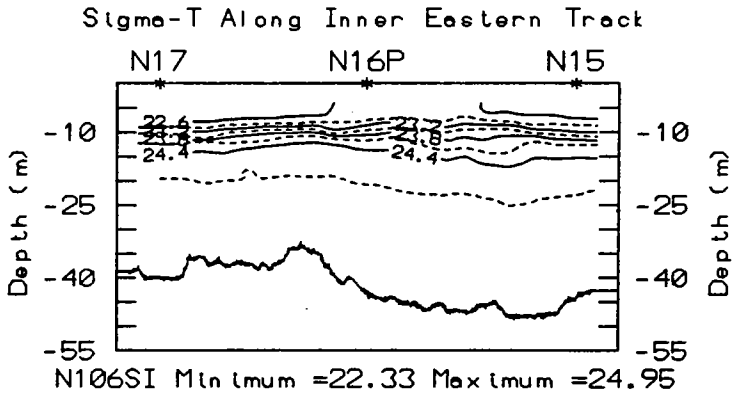

Sigma-T Along Inner Northern Track
N13
N14
N15
22.6
23.2
23.8
24.4
-10
-25
-40
-55
Depth (m)
N103SI Minimum =22.44 Maximum =24.85

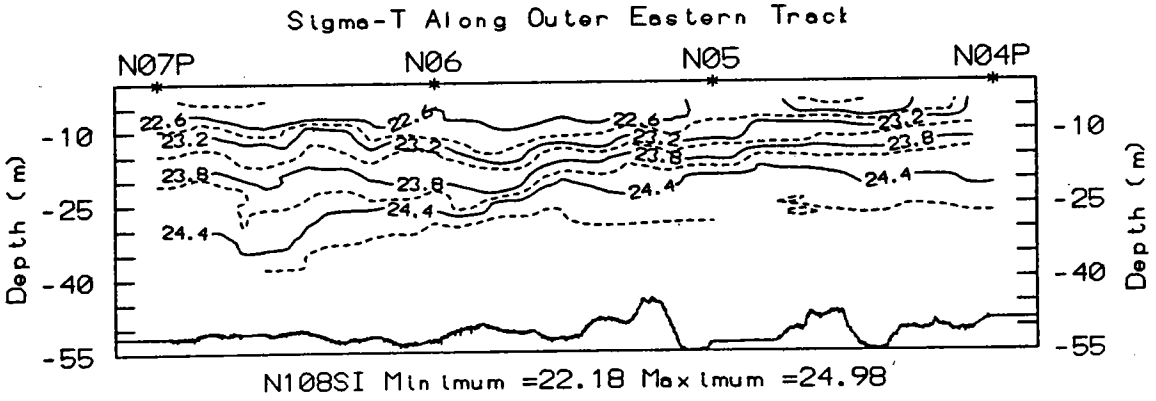

Sigma-T Along Inner Southern Track
N19
N18
N17
-10
-25
-40
-55
Depth (m)
22.2
22.6
23.0
23.4
23.8
24.4
N105SI Minimum =22.31 Maximum =24.93

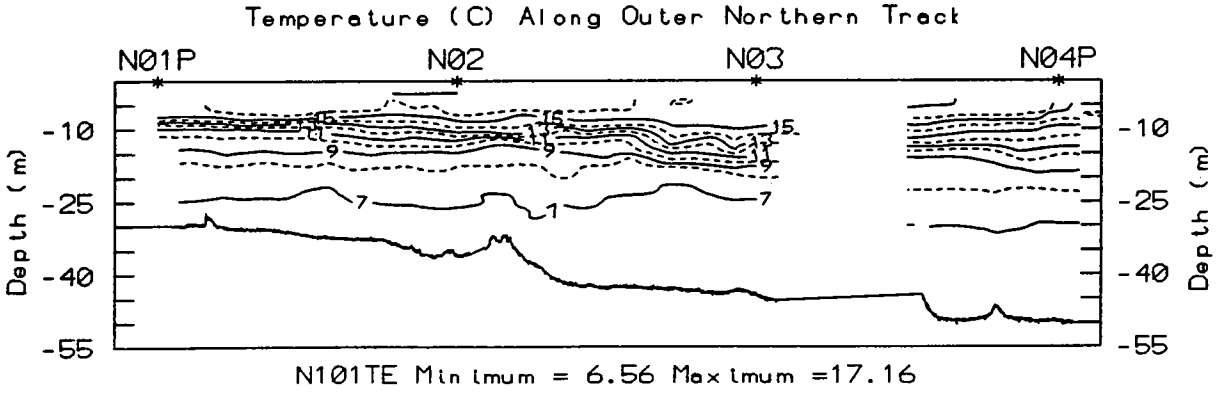

Sigma-T Along Outer Southern Track
N10P
N09
N08
N07P
-10
-25
-40
-55
Depth (m)
23.2
23.8
24.4
22.6
N107SI Minimum =22.24 Maximum =24.88

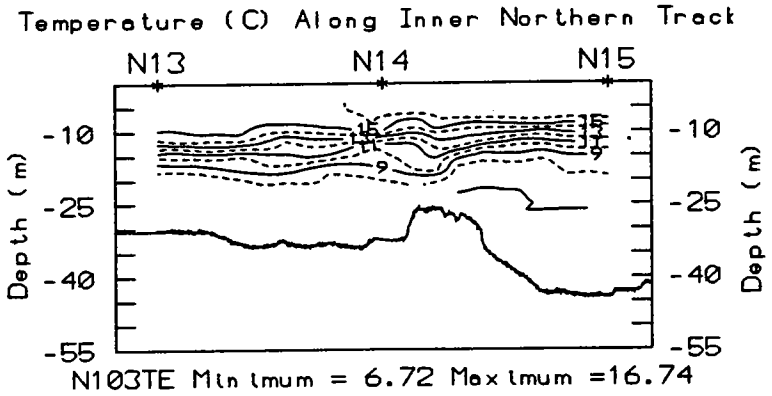

Sigma-T Along Outer Western Track
N10P
N11
N12
N01P
-10
-25
-40
-55
Depth (m)
23.2
23.8
N102SI Minimum =22.50 Maximum =24.77

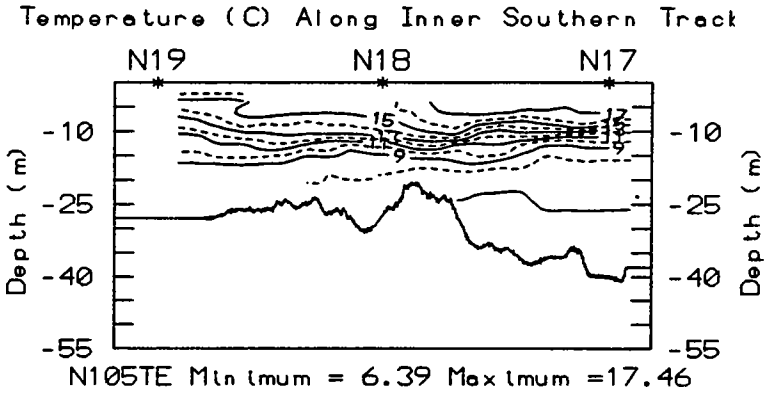

Sigma-T Along Inner Western Track
N19
N20P
N13
-10
-25
-40
-55
Depth (m)
23.2
23.6
N104SI Minimum =22.68 Maximum =24.70

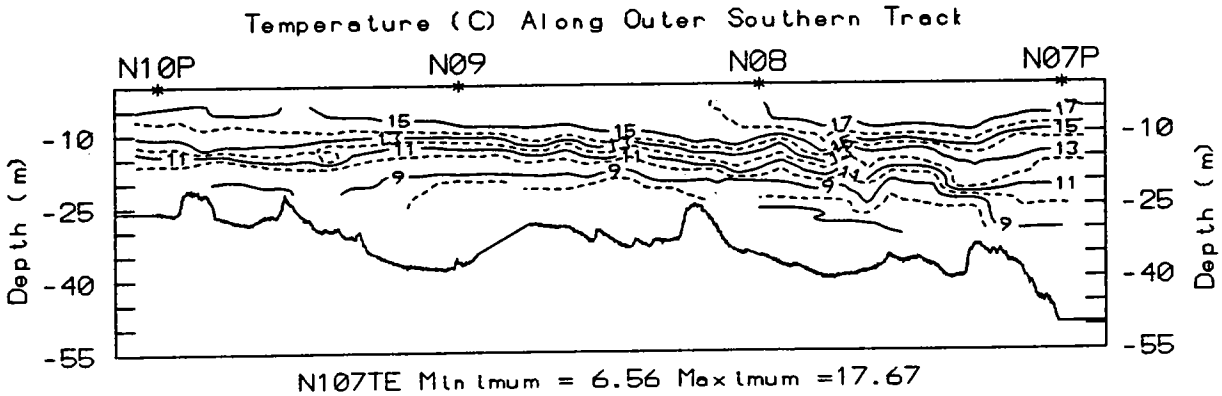

Sigma-T Along Inner Eastern Track
N17
N16P
N15
-10
-25
-40
-55
Depth (m)
22.6
24.4
N106SI Minimum =22.33 Maximum =24.95

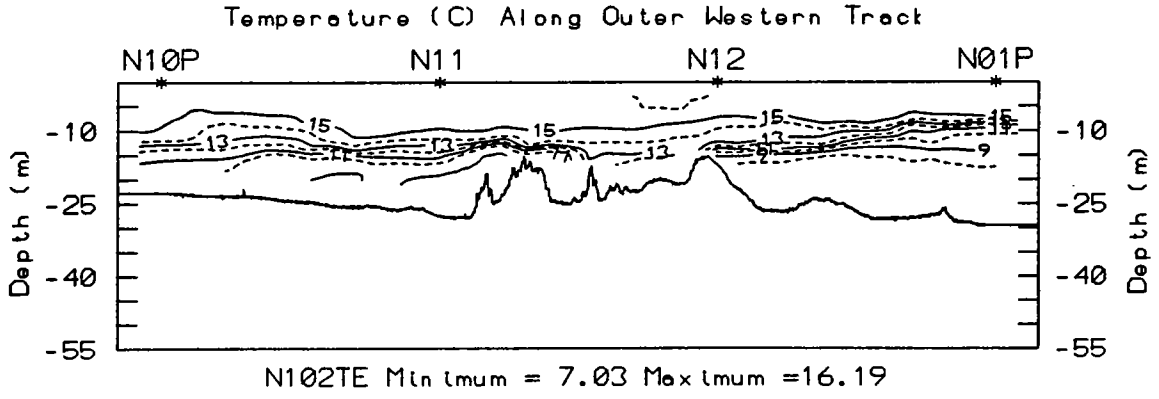

Sigma-T Along Outer Eastern Tract
N07P
N06
N05
N04P
-10
-25
-40
-55
Depth (m)
22.6
23.2
23.8
24.4
N108SI Minimum =22.18 Maximum =24.98

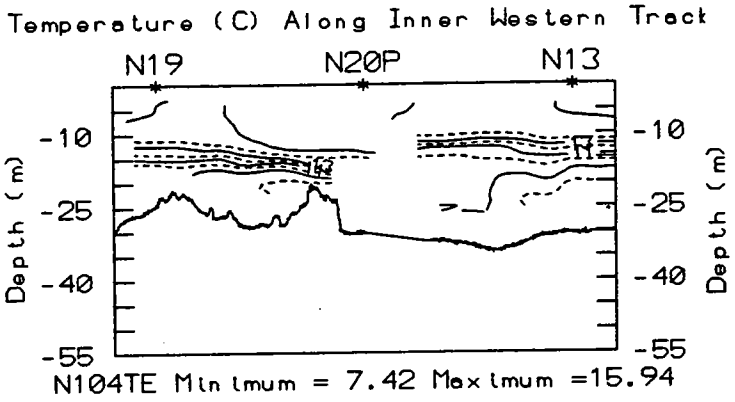

Temperature (C) Along Outer Northern Track
N01P
N02
N03
N04P
-10
-25
-40
-55
Depth (m)
N101TE Minimum = 6.56 Maximum =17.16

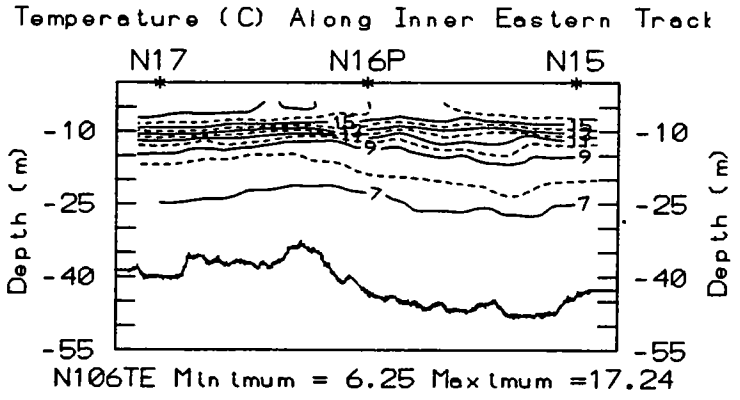

Temperature (C) Along Inner Northern Track
N13
N14
N15
-10
-25
-40
-55
Depth (m)
15
11
9
N103TE Minimum = 6.72 Maximum =16.74

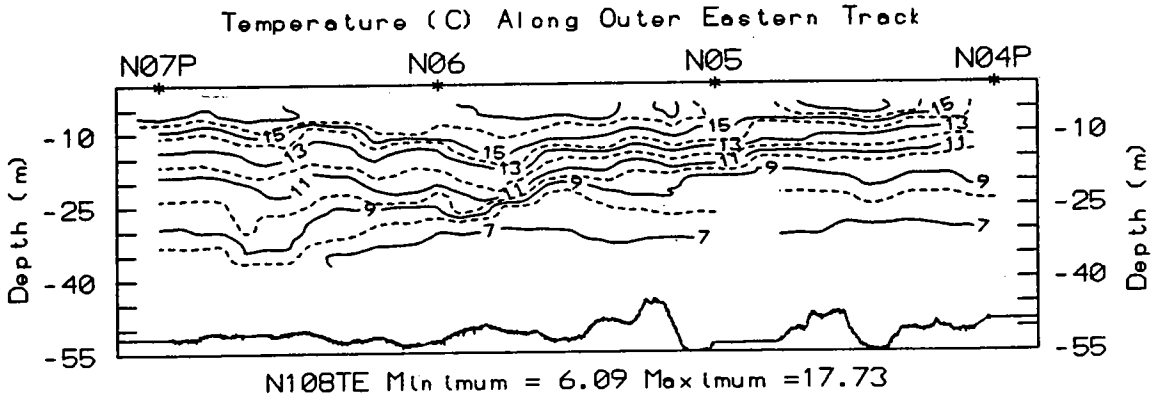

Temperature (C) Along Inner Southern Tract
N19
N18
N17
-10
-25
-40
-55
Depth (m)
15
12
11
9
N105TE Minimum = 6.39 Maximum =17.46

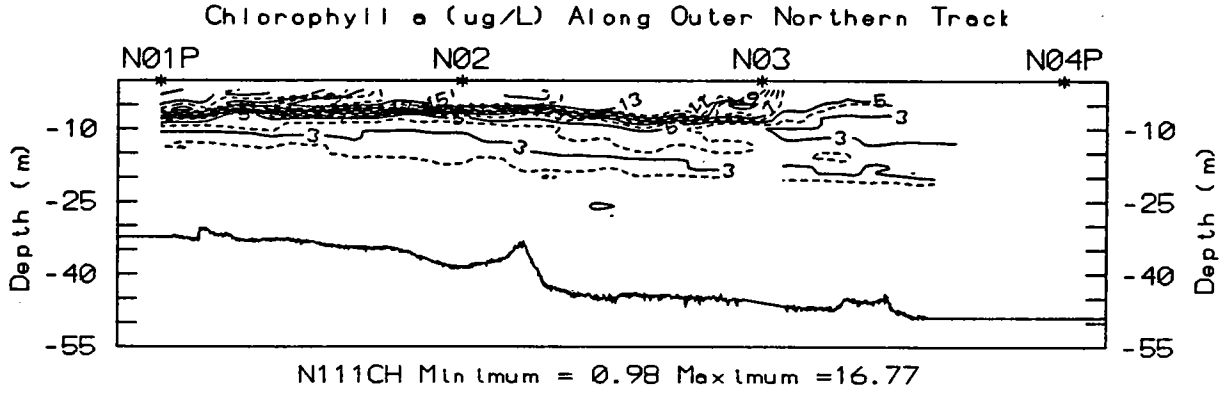

Temperature (C) Along Outer Southern Track
N10P
N09
N08
N07P
-10
-25
-40
-55
Depth (m)
15
11
9
17
13
N107TE Minimum = 6.56 Maximum =17.67

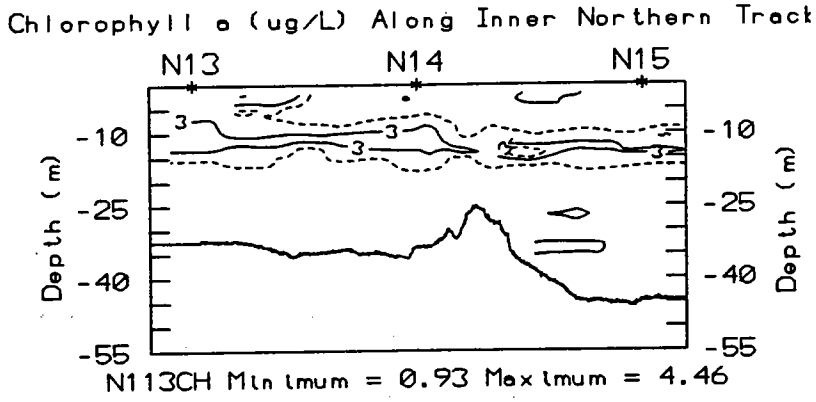

Temperature (C) Along Outer Western Track
N10P
N11
N12
N01P
-10
-25
-40
-55
Depth (m)
15
13
9
N102TE Minimum = 7.03 Maximum =16.19

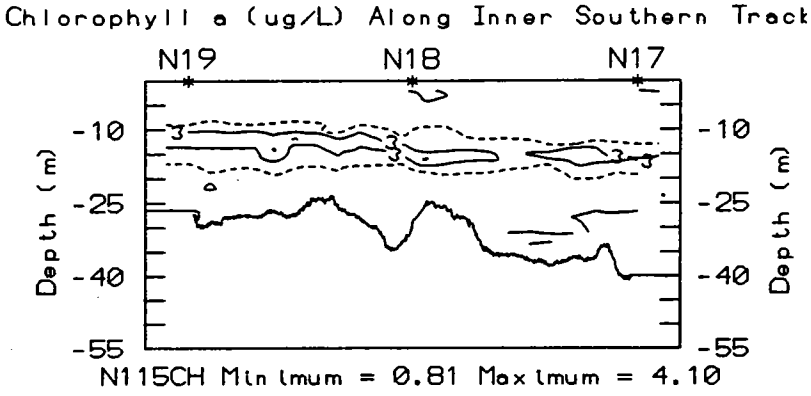

Temperature (C) Along Inner Western Tract
N19
N20P
N13
-10
-25
-40
-55
Depth (m)
N104TE Minimum = 7.42 Maximum =15.94

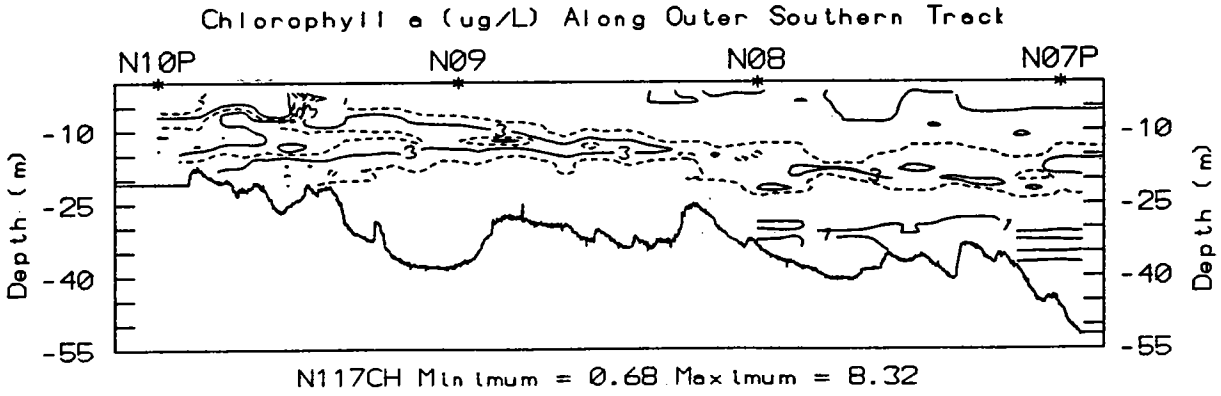

Temperature (C) Along Inner Eastern Tract
N17
N16P
N15
-10
-25
-40
-55
Depth (m)
15
13
11
9
7
N106TE Minimum = 6.25 Maximum =17.24

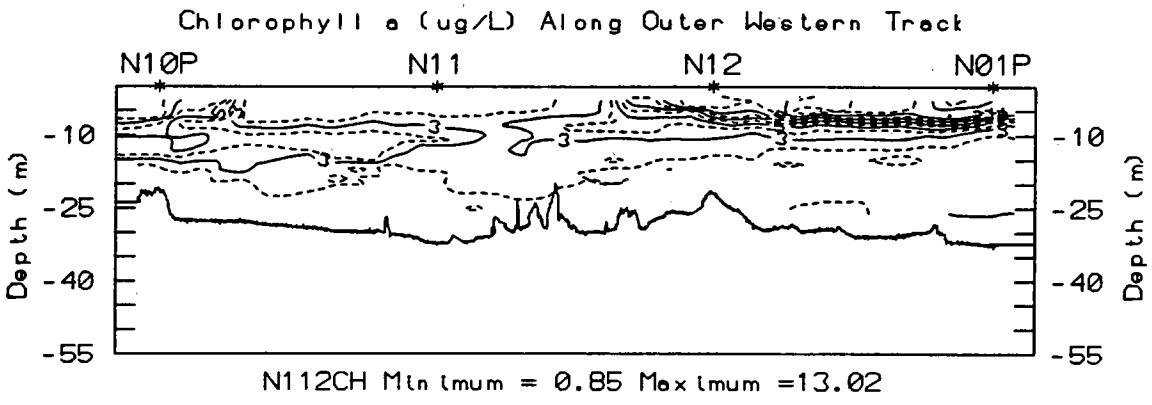

Temperature (C) Along Outer Eastern Track
N07P
N06
N05
N04P
-10
-25
-40
-55
Depth (m)
15
13
11
9
7
N108TE Minimum = 6.09 Maximum =17.73

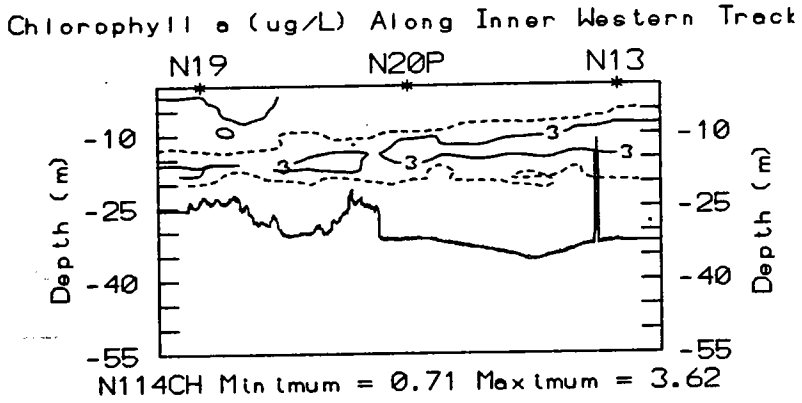

Chlorophyll a (ug/L) Along Outer Northern Tract
N01P
N02
N03
N04P
-10
-25
-40
-55
Depth (m)
N111CH Minimum = 0.98 Maximum =16.77


Chlorophyll a (ug/L) Along Inner Northern Tract
N13
N14
N15
-10
-25
-40
-55
Depth (m)
3
N113CH Minimum = 0.93 Maximum = 4.46

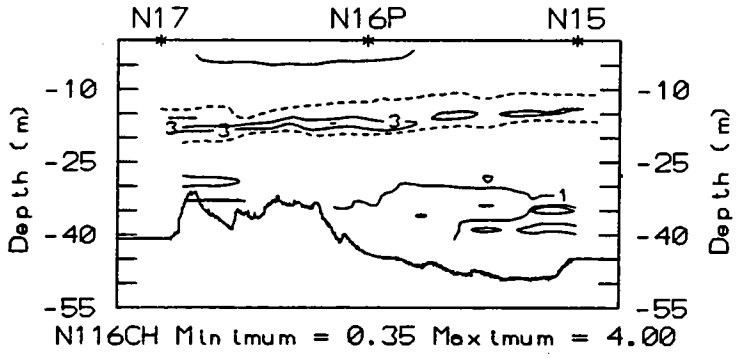

Chlorophyll a (ug/L) Along Inner Southern Track
N19
N18
N17
-10
-25
-40
-55
Depth (m)
N115CH Minimum = 0.81 Maximum = 4.10

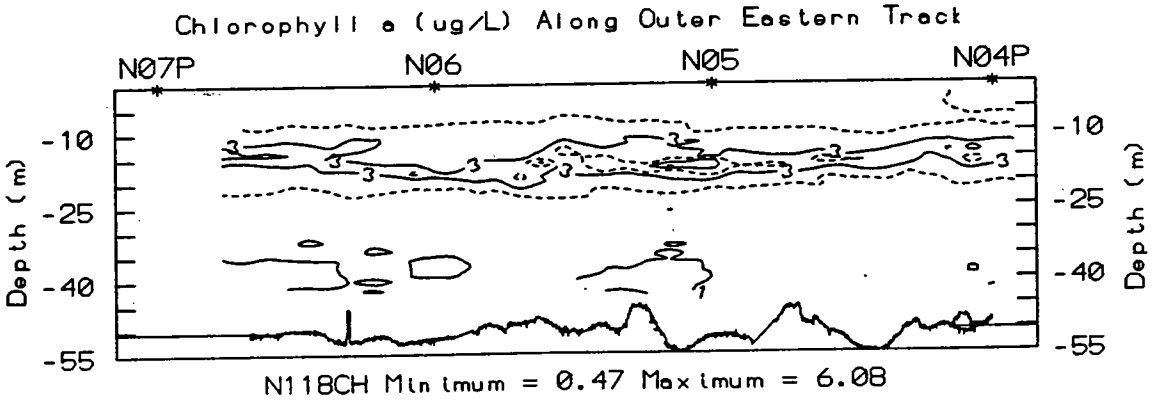

Chlorophyll a (ug/L) Along Outer Southern Tract
N10P
N09
N08
N07P
-10
-25
-40
-55
Depth (m)
N117CH Minimum = 0.68 Maximum = 8.32

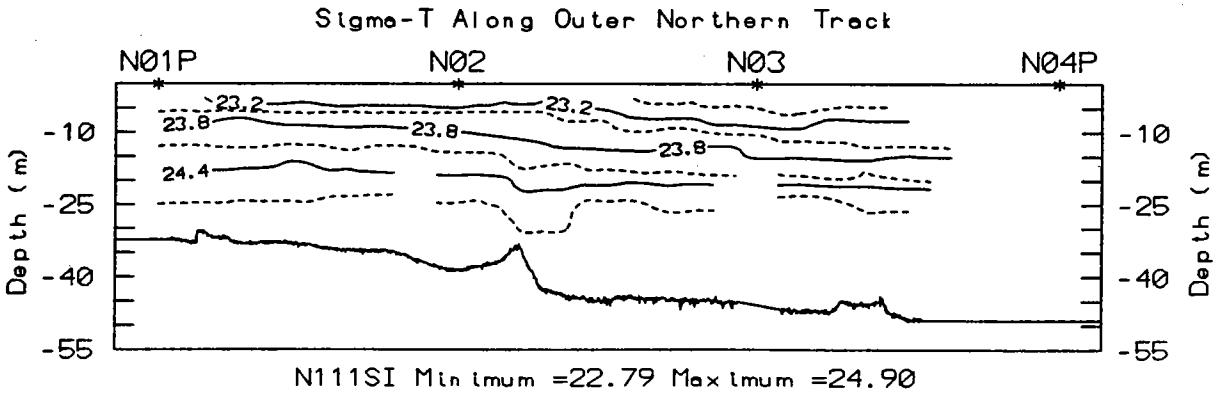

Chlorophyll a (ug/L) Along Outer Western Track
N10P
N11
N12
N01P
-10
-25
-40
-55
Depth (m)
3
5
N112CH Minimum = 0.85 Maximum =13.02

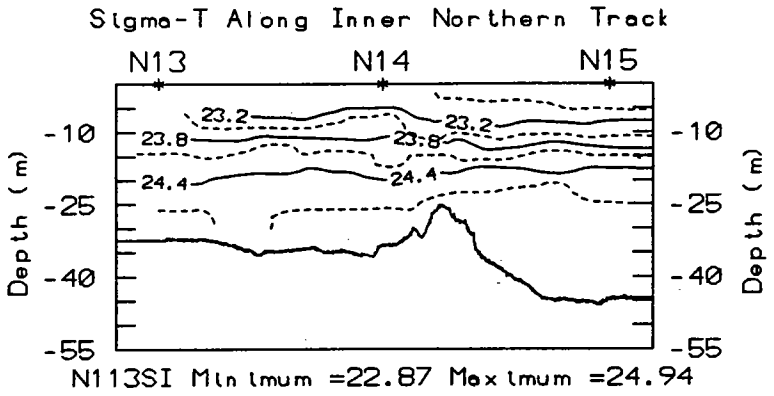

Chlorophyll a (ug/L) Along Inner Western Track
N19
N20P
N13
-10
-25
-40
-55
Depth (m)
0
3
3
3
3
N114CH Minimum = 0.71 Maximum = 3.62

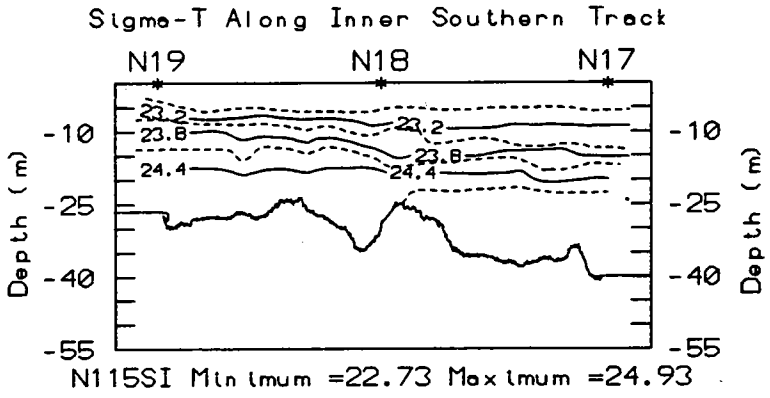
Chlorophyll a (ug/L) Along Inner Eastern Track

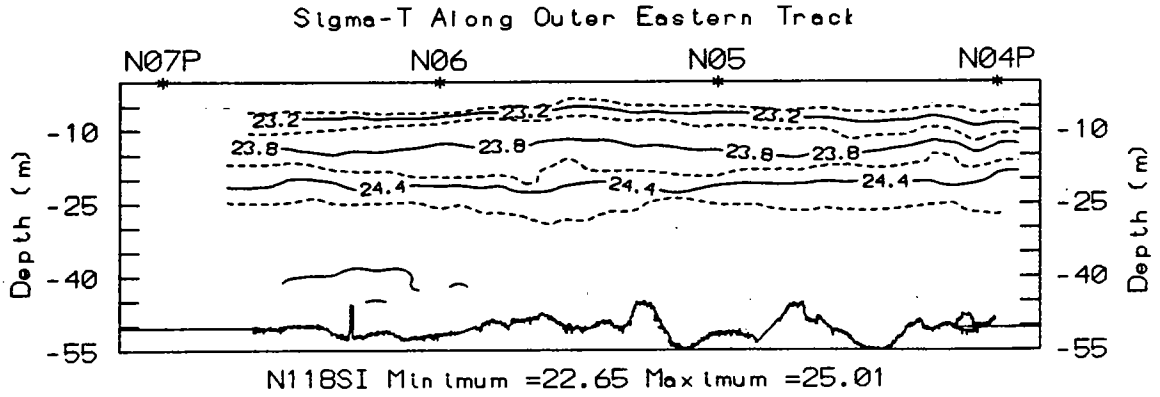


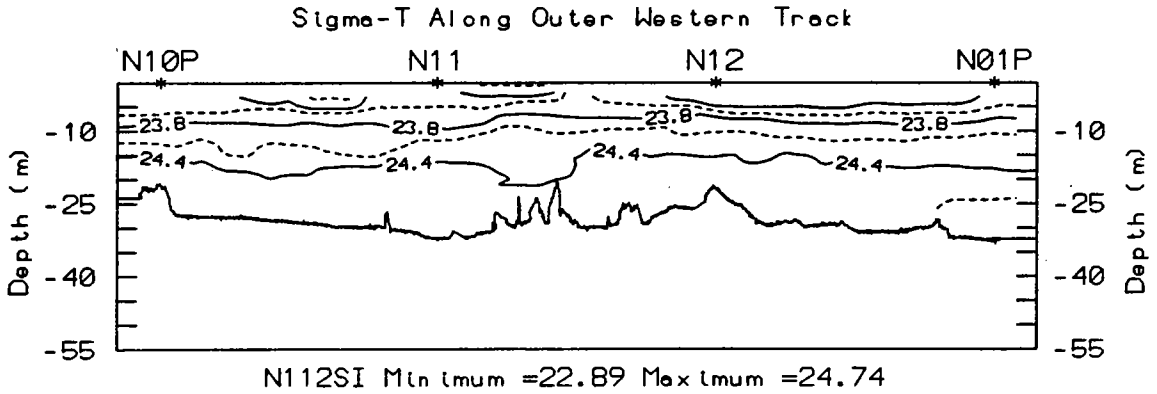

Chlorophyll a (ug/L) Along Outer Eastern Tract
N07P
N06
N05
N04P
-10
-25
-40
-55
Depth (m)
N118CH Minimum = 0.47 Maximum = 6.08

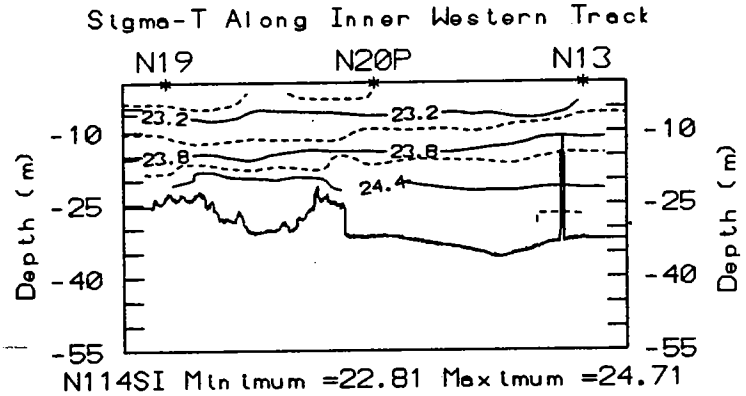

Sigma-T Along Outer Northern Track
N01P
N02
N03
N04P
23.2
23.8
24.4
-10
-25
-40
-55
Depth (m)
N111SI Minimum =22.79 Maximum =24.90

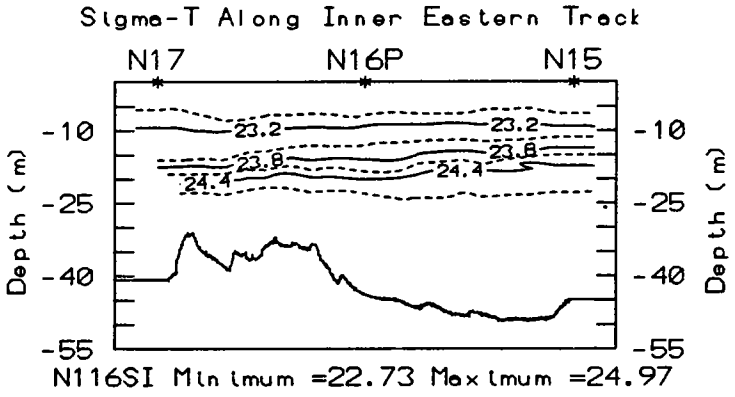

Sigma-T Along Inner Northern Track
N13
N14
N15
23.2
23.8
24.4
-10
-25
-40
-55
Depth (m)
N113SI Minimum =22.87 Maximum =24.94

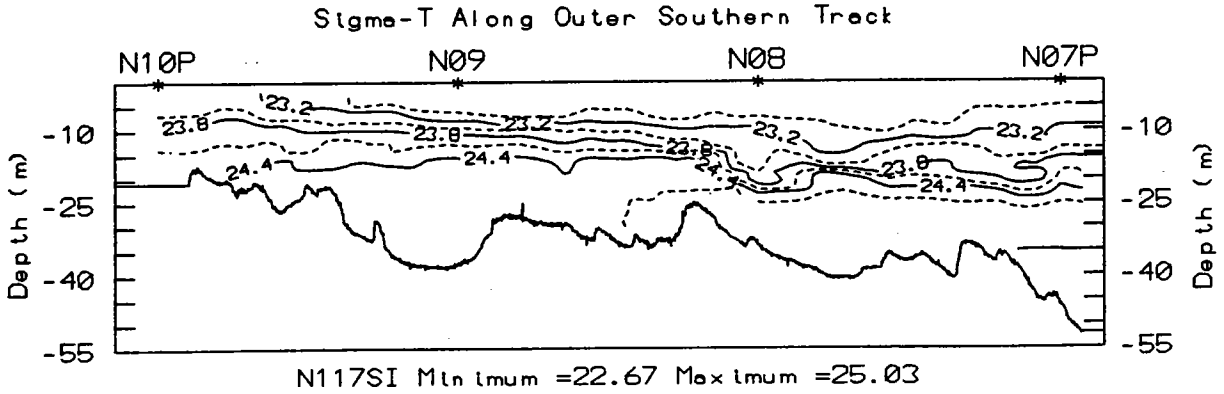

Sigma-T Along Inner Southern Track
N19
N18
N17
23.2
23.8
24.4
-10
-25
-40
-55
Depth (m)
N115SI Minimum =22.73 Maximum =24.93

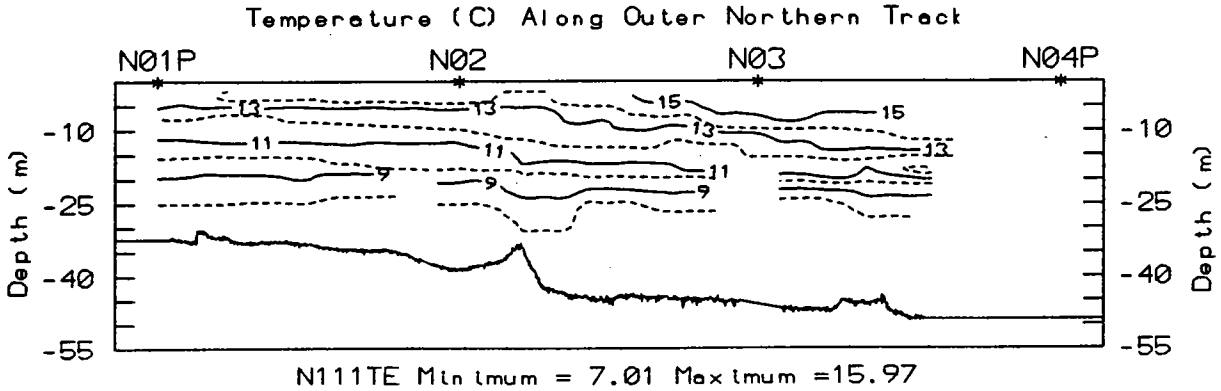

Sigma-T Along Outer Eastern Track
N07P
N06
N05
N04P
23.2
23.8
24.4
-10
-25
-40
-55
Depth (m)
N118SI Minimum =22.65 Maximum =25.01

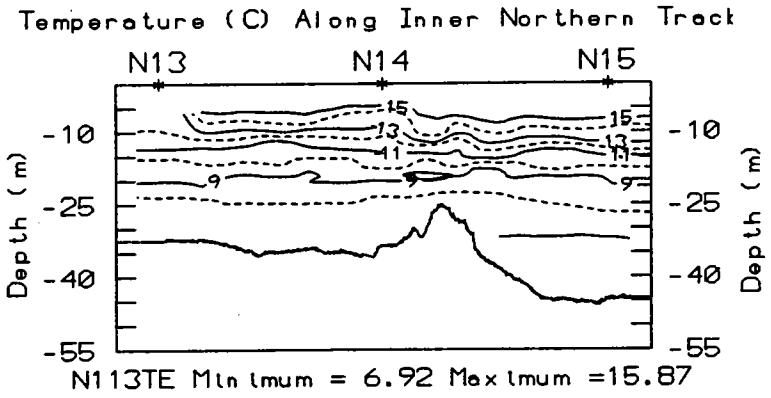

Sigma-T Along Outer Western Track
N10P
N11
N12
N01P
-10
-25
-40
-55
Depth (m)
23.8
24.4
N112SI Minimum =22.89 Maximum =24.74

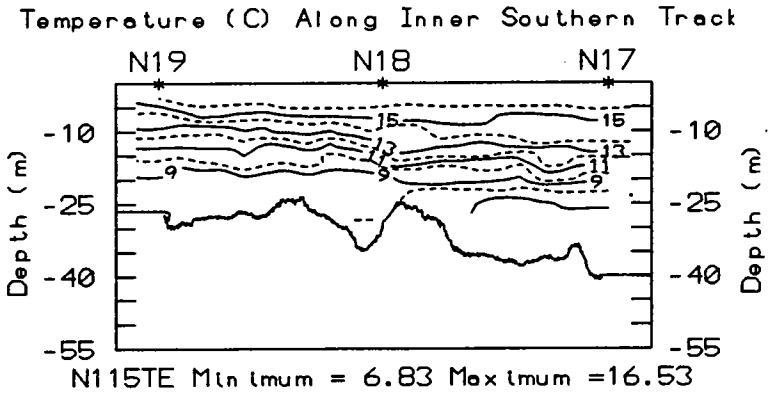

Sigma-T Along Inner Western Track
N19
N20P
N13
23.2
23.2
23.8
23.8
24.4
-10
-25
-40
-55
Depth (m)
N114SI Minimum =22.81 Maximum =24.71

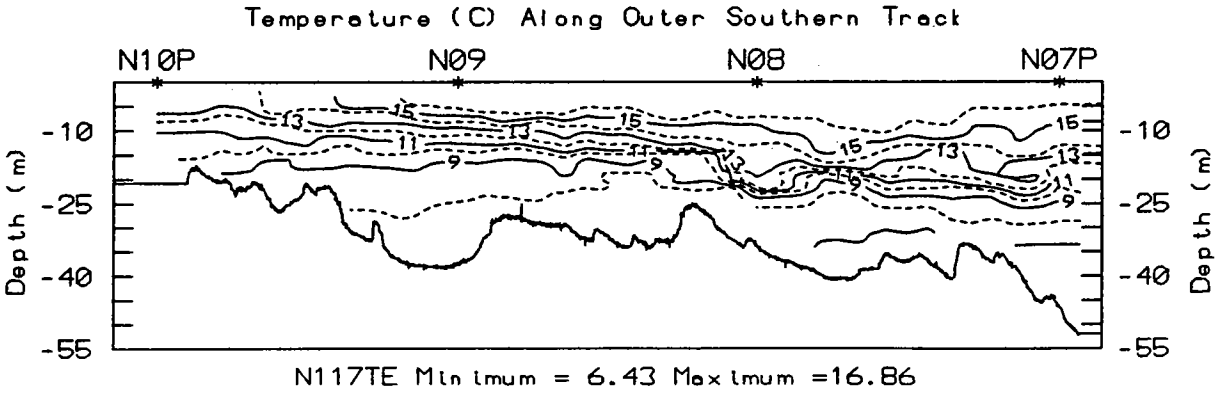

Sigma-T Along Inner Eastern Track
N17
N16P
N15
-10
-25
-40
-55
Depth (m)
23.2
23.8
24.4
N116SI Minimum =22.73 Maximum =24.97

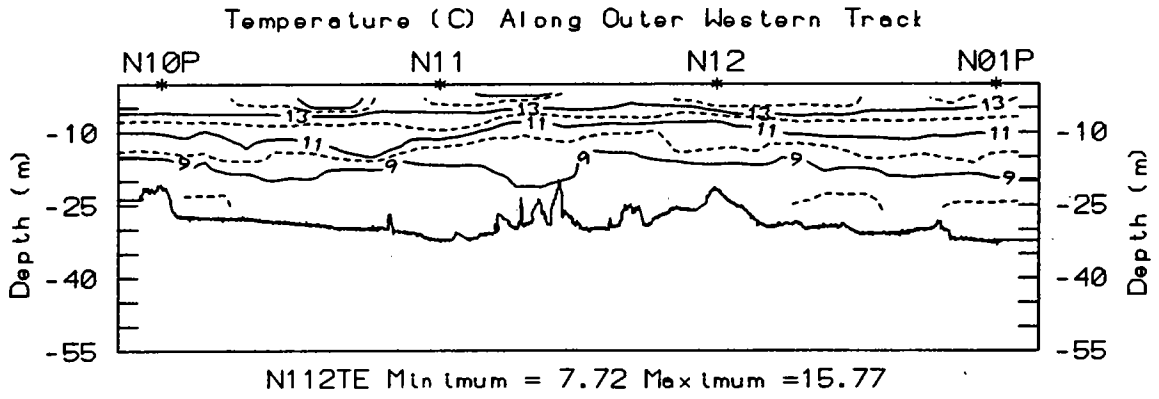

Sigma-T Along Outer Southern Track
N10P
N09
N08
N07P
23.2
23.8
24.4
-10
-25
-40
-55
Depth (m)
N117SI Minimum =22.67 Maximum =25.03

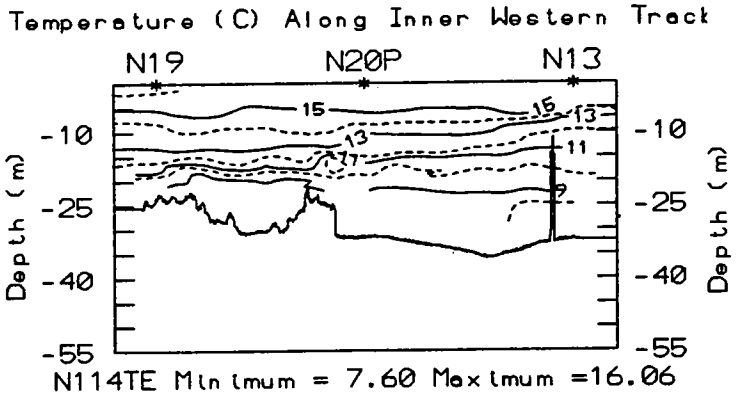

Temperature (C) Along Outer Northern Track
N01P
N02
N03
N04P
-10
-25
-40
-55
Depth (m)
15
13
11
9
N111TE Minimum = 7.01 Maximum =15.97

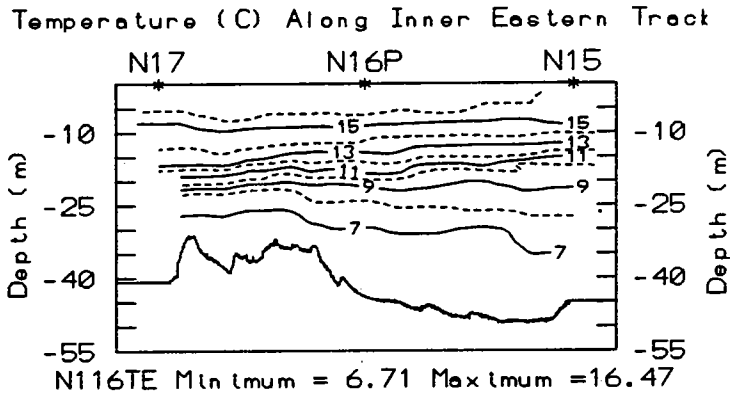

Temperature (C) Along Inner Northern Tract
N13
N14
N15
-10
-25
-40
-55
Depth (m)
15
13
11
9
N113TE Minimum = 6.92 Maximum =15.87

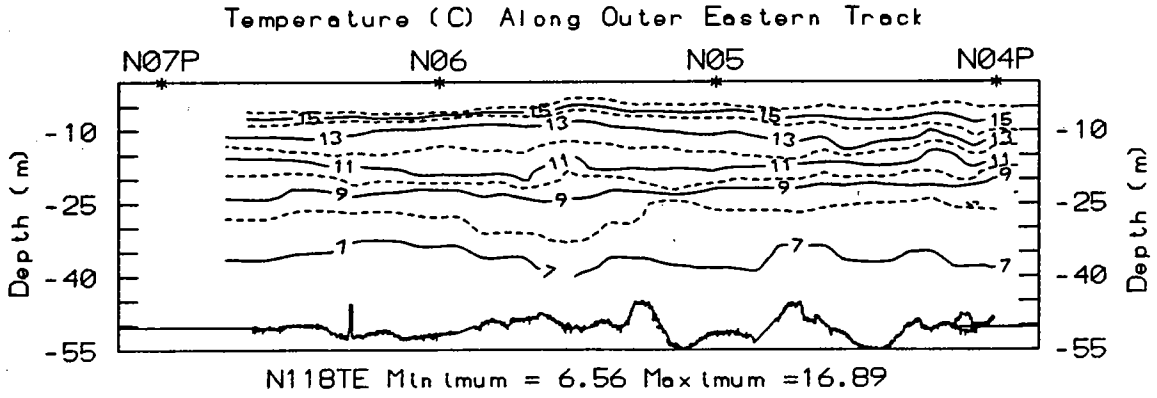

Temperature (C) Along Inner Southern Track
N19
N18
N17
-10
-25
-40
-55
Depth (m)
15
13
11
9
N115TE Minimum = 6.83 Maximum =16.53

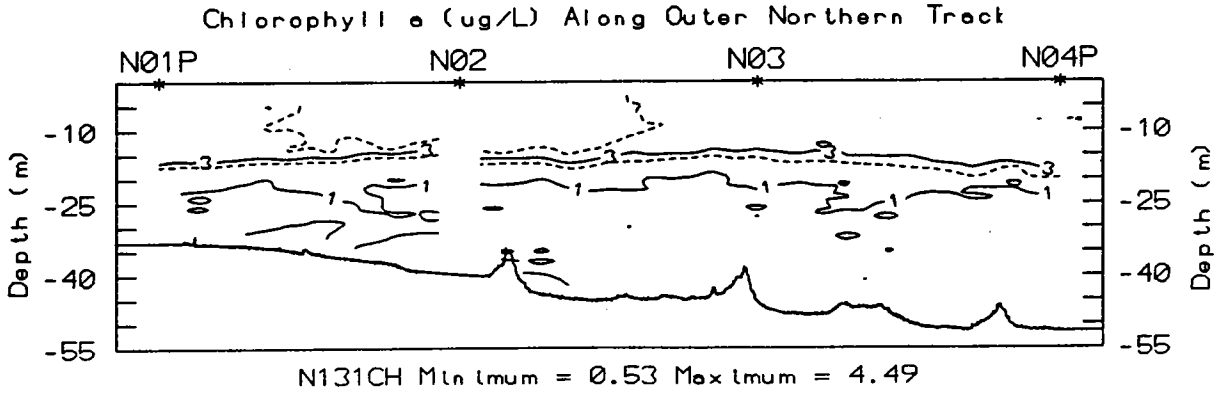

Temperature (C) Along Outer Southern Tract
N10P
N09
N08
N07P
-10
-25
-40
-55
Depth (m)
N117TE Minimum = 6.43 Maximum =16.86

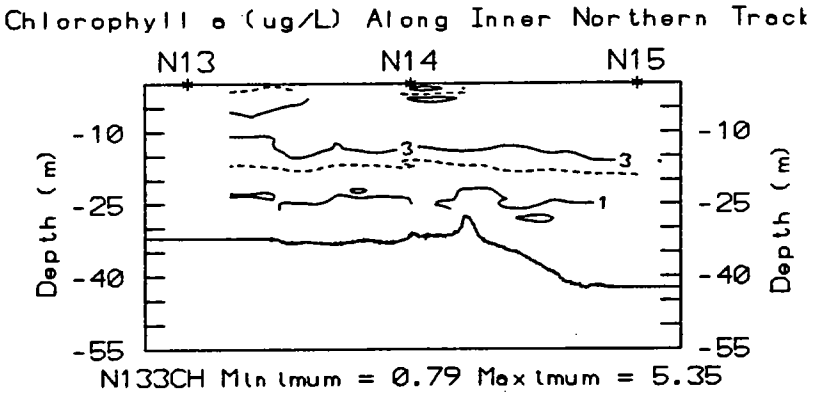

Temperature (C) Along Outer Western Tract
N10P
N11
N12
N01P
-10
-25
-40
-55
Depth (m)
13
11
9
N112TE Minimum = 7.72 Maximum =15.77

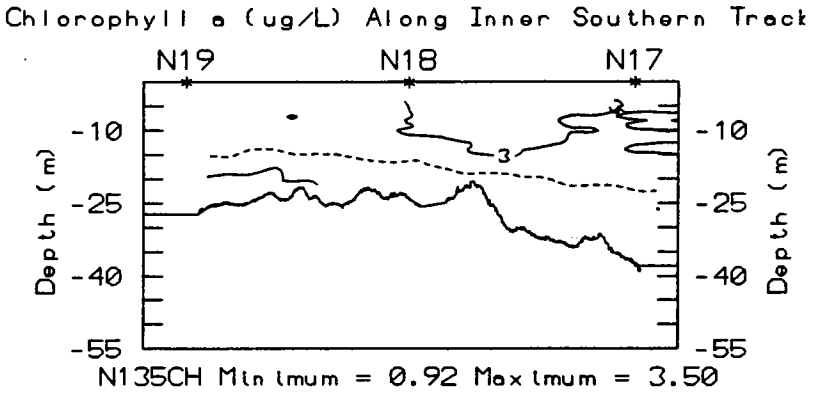

Temperature (C) Along Inner Western Track
N19
N20P
N13
15
13
11
9
-10
-25
-40
-55
Depth (m)
N114TE Minimum = 7.60 Maximum =16.06

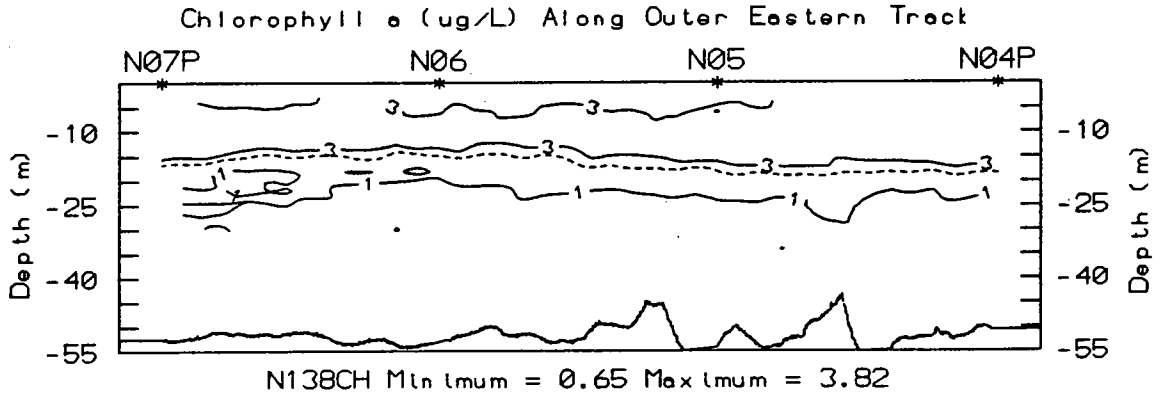

Temperature (C) Along Inner Eastern Tract
N17
N16P
N15
-10
-25
-40
-55
Depth (m)
15
13
11
9
7
N116TE Minimum = 6.71 Maximum =16.47

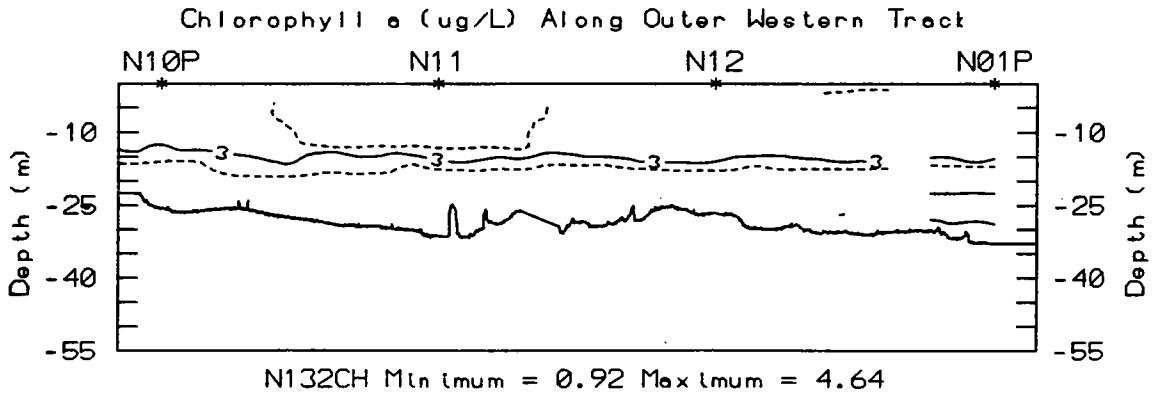

Temperature (C) Along Outer Eastern Track
N07P
N06
N05
N04P
-10
-25
-40
-55
Depth (m)
15
13
11
9
7
N118TE Minimum = 6.56 Maximum =16.89

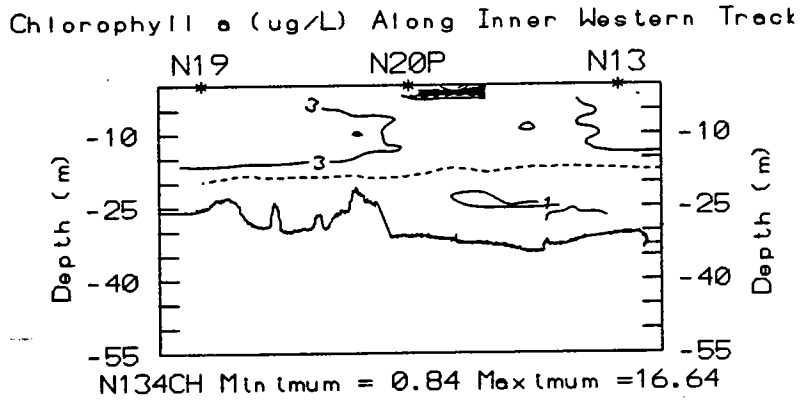

Chlorophyll a (ug/L) Along Outer Northern Tract
N01P
N02
N03
N04P
-10
-25
-40
-55
Depth (m)
N131CH Minimum = 0.53 Maximum = 4.49

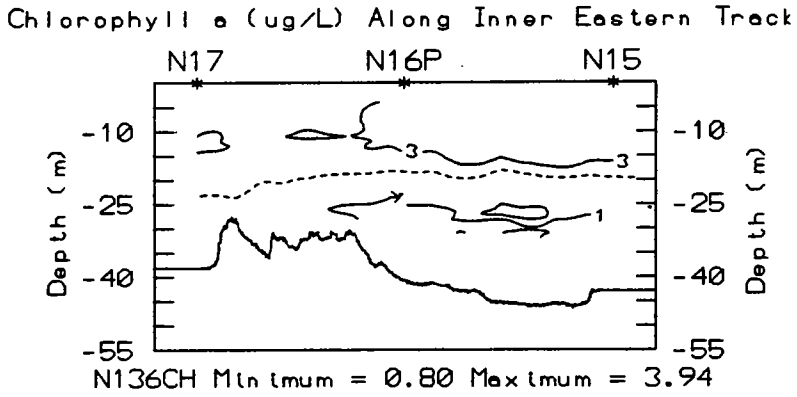

Chlorophyll a (ug/L) Along Inner Northern Track
N13
N14
N15
-10
-25
-40
-55
Depth (m)
3
3
1
N133CH Minimum = 0.79 Maximum = 5.35

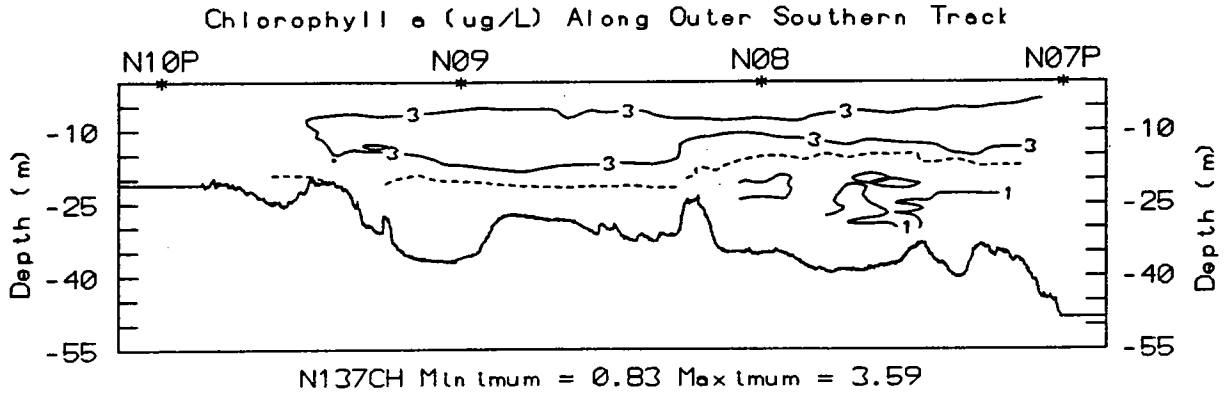

Chlorophyll a (ug/L) Along Inner Southern Track
N19
N18
N17
-10
-25
-40
-55
Depth (m)
3
1
N135CH Minimum = 0.92 Maximum = 3.50

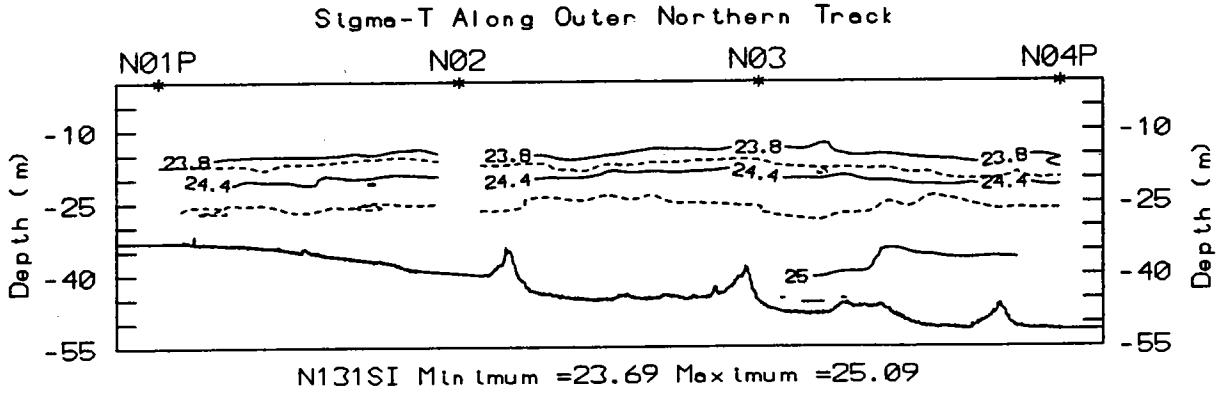

Chlorophyll a (ug/L) Along Outer Eastern Tract
N07P
N06
N05
N04P
-10
-25
-40
-55
Depth (m)
3
1
N138CH Minimum = 0.65 Maximum = 3.82

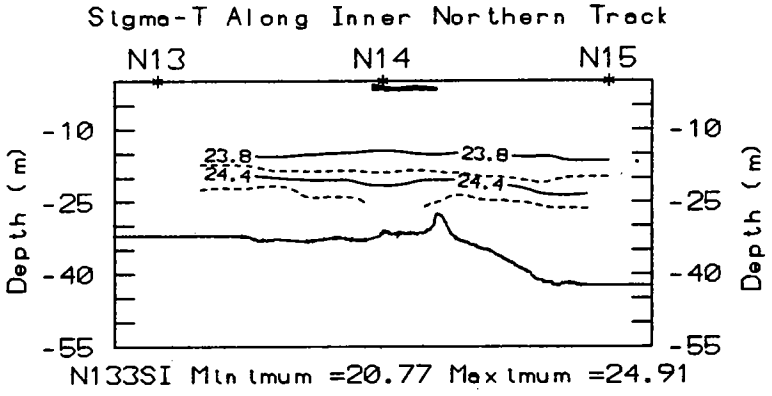

Chlorophyll a (ug/L) Along Outer Western Tract
N10P
N11
N12
N01P
-10
-25
-40
-55
Depth (m)
3
N132CH Minimum = 0.92 Maximum = 4.64

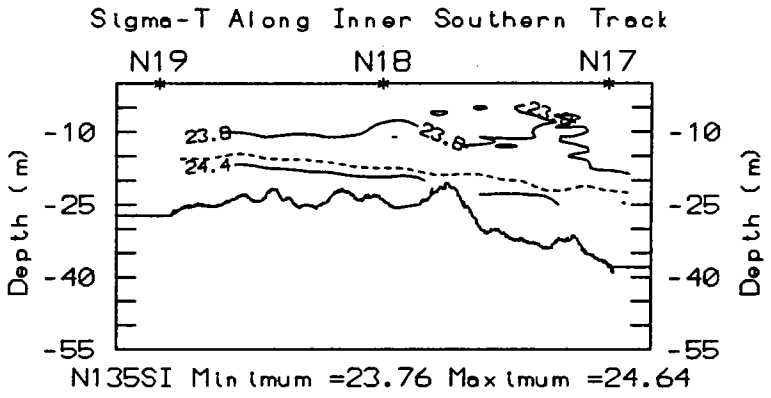

Chlorophyll a (ug/L) Along Inner Western Track
N19
N20P
N13
-10
-25
-40
-55
Depth (m)
3
3
1
N134CH Minimum = 0.84 Maximum =16.64

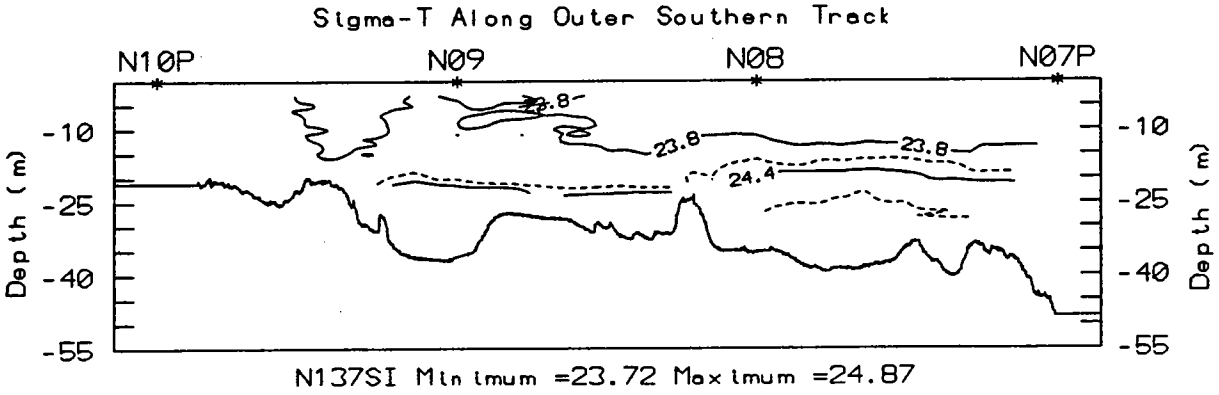

Chlorophyll a (ug/L) Along Inner Eastern Track
N17
N16P
N15
-10
-25
-40
-55
Depth (m)
3
3
1
N136CH Minimum = 0.80 Maximum = 3.94

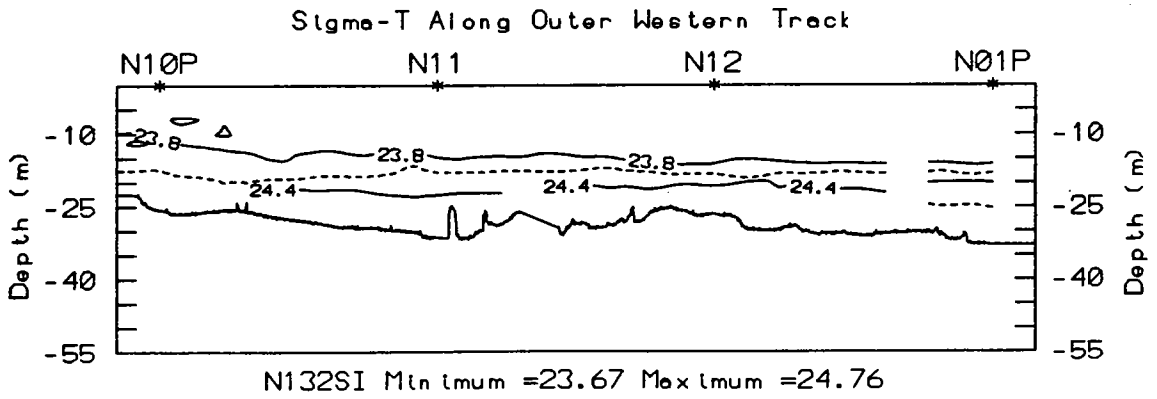

Chlorophyll a (ug/L) Along Outer Southern Track
N10P
N09
N08
N07P
-10
-25
-40
-55
Depth (m)
3
1
N137CH Minimum = 0.83 Maximum = 3.59

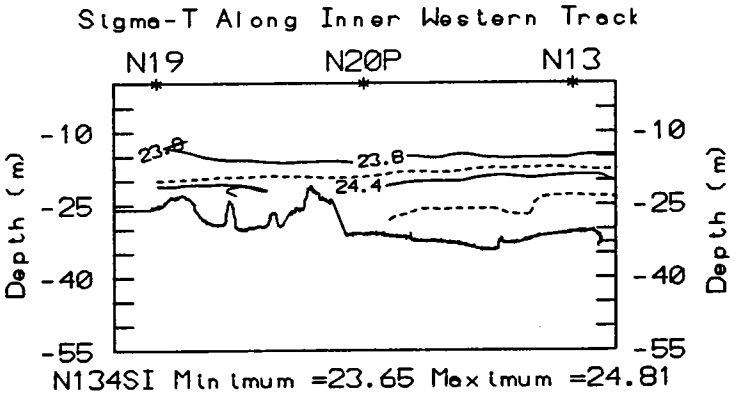

Sigma-T Along Outer Northern Track
N01P
N02
N03
N04P
-10
-25
-40
-55
Depth (m)
23.8
24.4
25
N131SI Minimum =23.69 Maximum =25.09

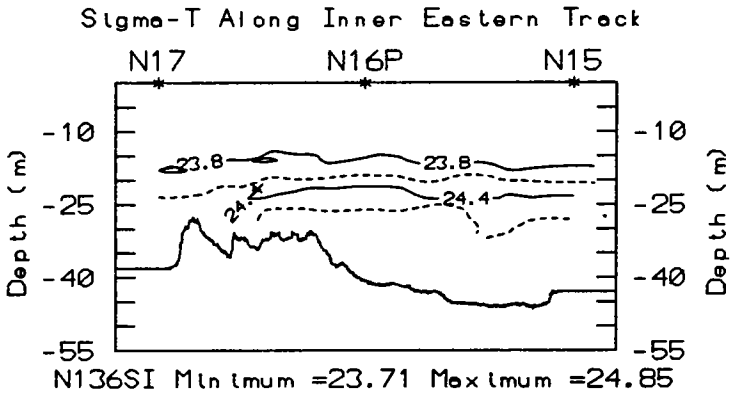

Sigma-T Along Inner Northern Track
N13
N14
N15
-10
-25
-40
-55
Depth (m)
23.8
24.4
N133SI Minimum =20.77 Maximum =24.91

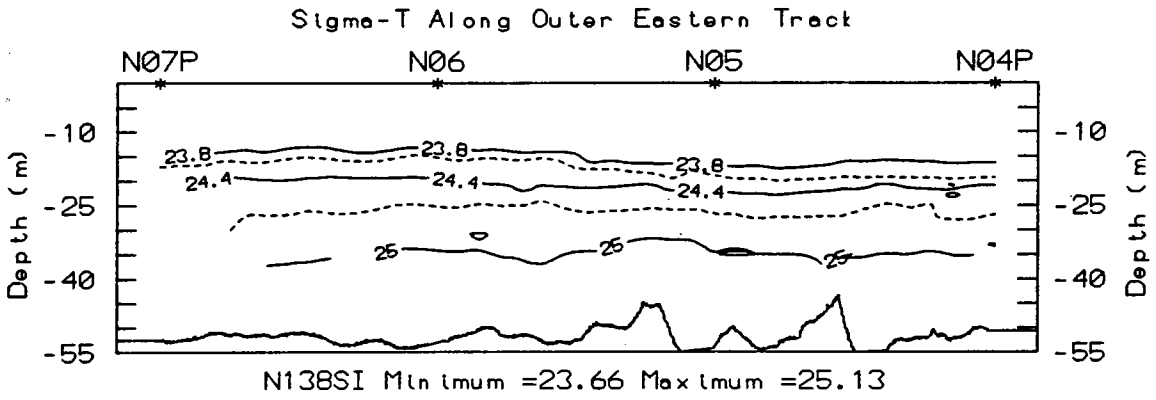

Sigma-T Along Inner Southern Track
N19
N18
N17
-10
-25
-40
-55
Depth (m)
23.8
24.4
N135SI Minimum =23.76 Maximum =24.64

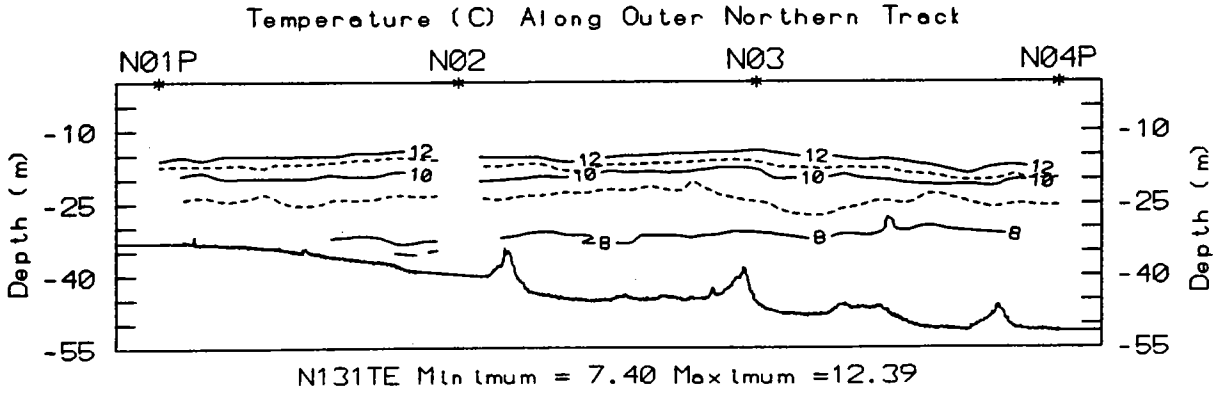

Sigma-T Along Outer Southern Track
N10P
N09
N08
N07P
-10
-25
-40
-55
Depth (m)
23.8
23.8
23.8
24.4
N137SI Minimum =23.72 Maximum =24.87

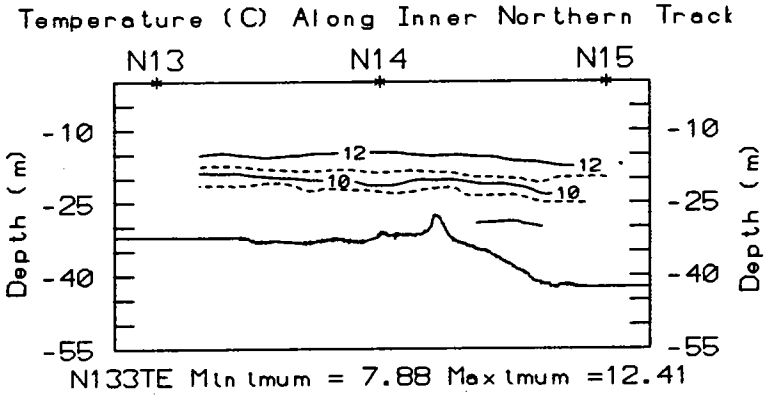

Sigma-T Along Outer Western Track
N10P
N11
N12
N01P
-10
-25
-40
-55
Depth (m)
23.8
24.4
N132SI Minimum =23.67 Maximum =24.76

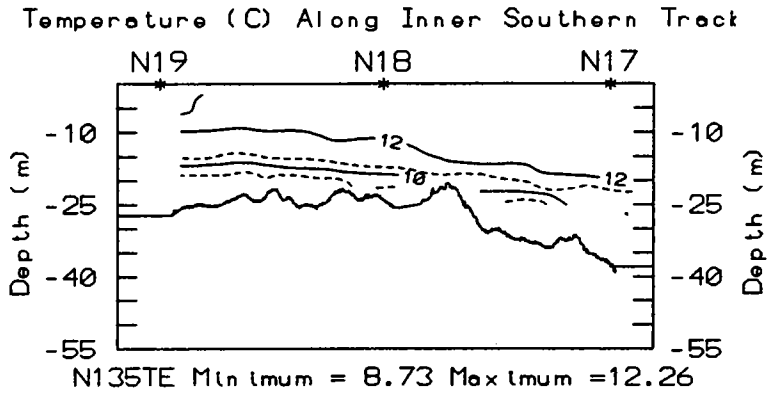

Sigma-T Along Inner Western Track
N19
N20P
N13
-10
-25
-40
-55
Depth (m)
23.8
24.4
N134SI Minimum =23.65 Maximum =24.81

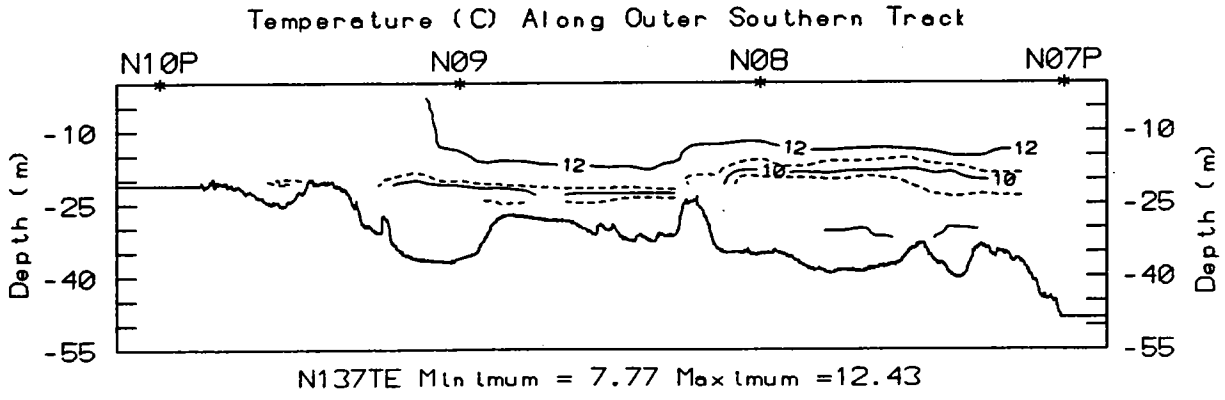

Sigma-T Along Inner Eastern Track
N17
N16P
N15
-10
-25
-40
-55
Depth (m)
23.8
23.8
24.4
24
N136SI Minimum =23.71 Maximum =24.85

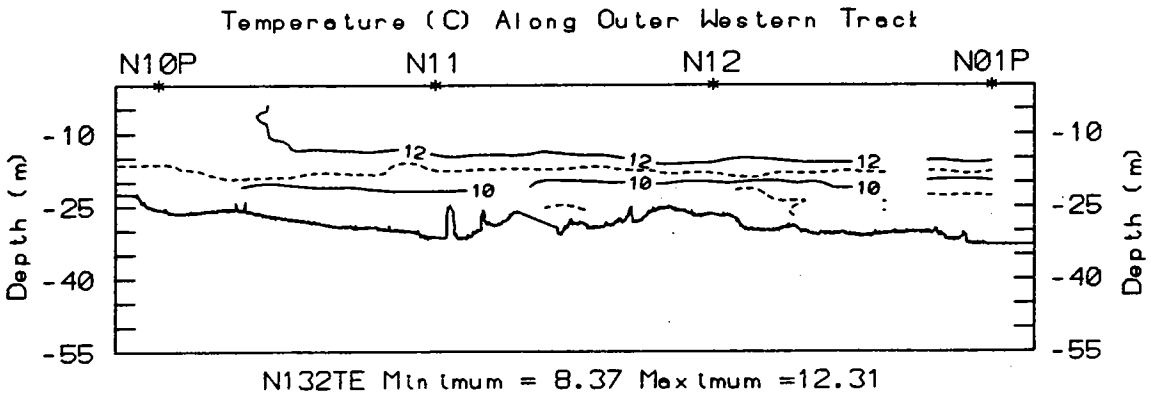

Sigma-T Along Outer Eastern Tract
N07P
N06
N05
N04P
-10
-25
-40
-55
Depth (m)
23.8
24.4
25
N138SI Minimum =23.66 Maximum =25.13

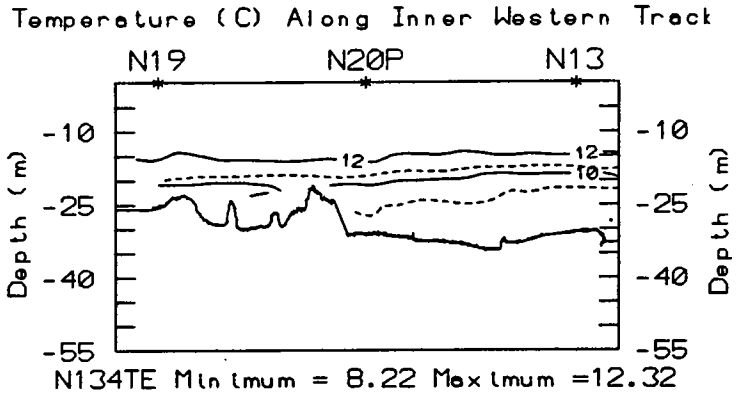

Temperature (C) Along Outer Northern Tract
N01P
N02
N03
N04P
-10
-25
-40
-55
Depth (m)
12
10
8
N131TE Minimum = 7.40 Maximum =12.39

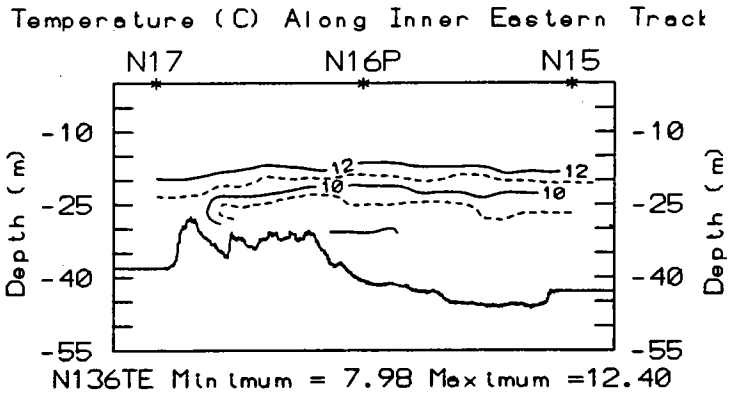

Temperature (C) Along Inner Northern Tract
N13
N14
N15
-10
-25
-40
-55
Depth (m)
12
12
10
10
N133TE Minimum = 7.88 Maximum =12.41

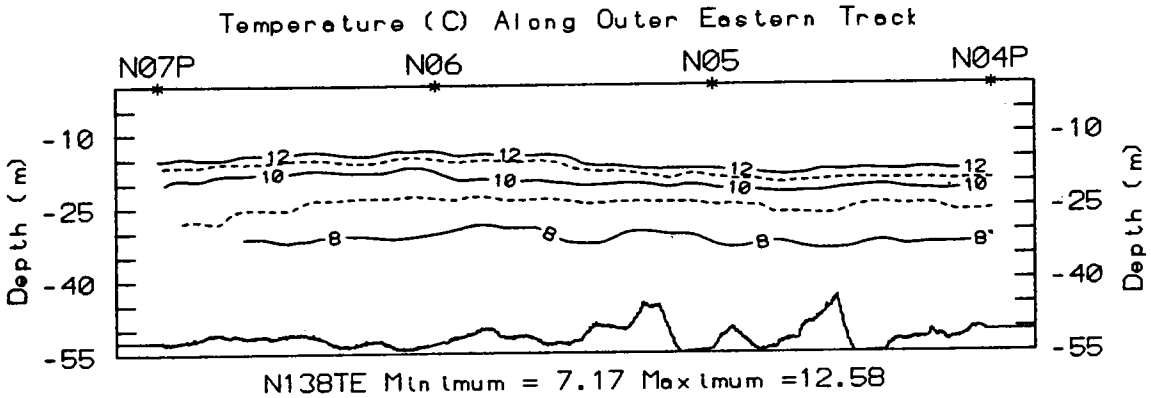

Temperature (C) Along Inner Southern Tract
N19
N18
N17
-10
-25
-40
-55
Depth (m)
12
10
12
N135TE Minimum = 8.73 Maximum =12.26

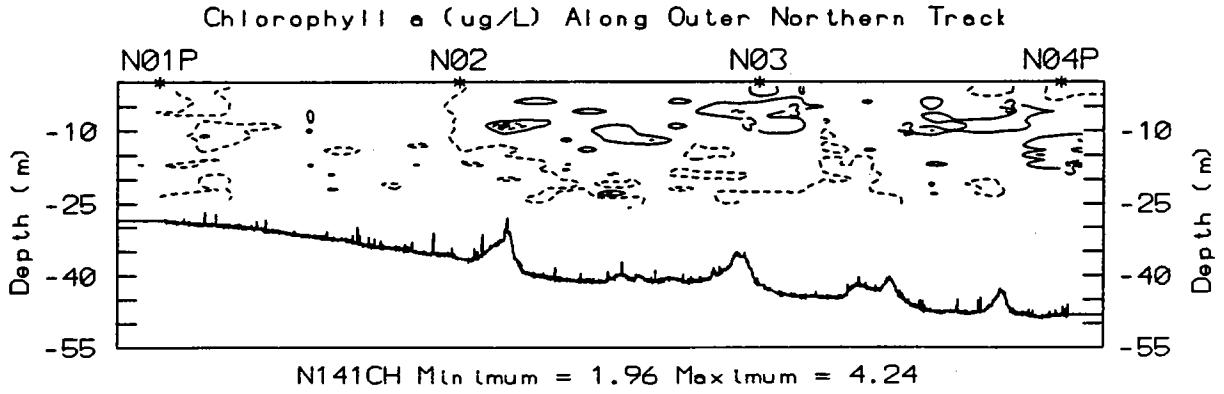

Temperature (C) Along Outer Southern Track
N10P
N09
N08
N07P
-10
-25
-40
-55
Depth (m)
12
10
N137TE Minimum = 7.77 Maximum =12.43

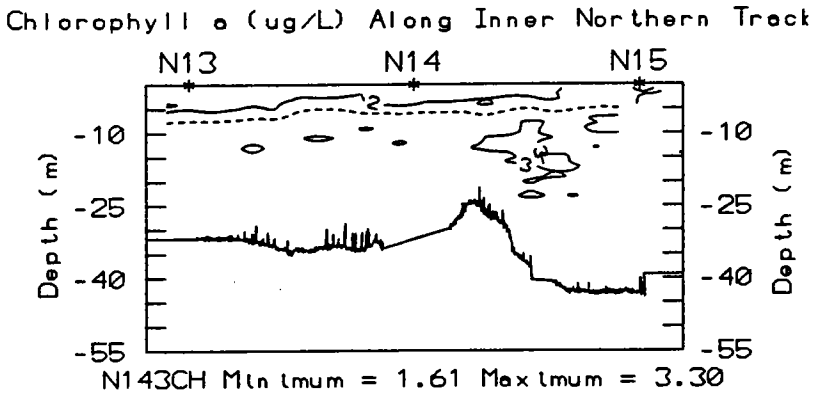

Temperature (C) Along Outer Western Tract
N10P
N11
N12
N01P
-10
-25
-40
-55
Depth (m)
12
12
12
10
10
10
N132TE Minimum = 8.37 Maximum =12.31

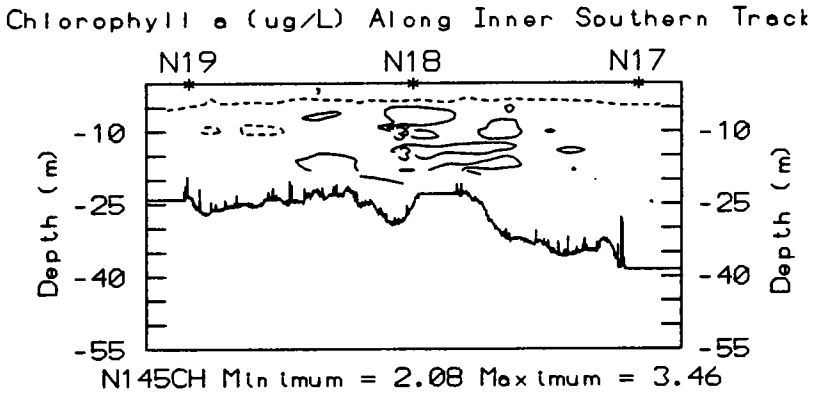

Temperature (C) Along Inner Western Tract
N19
N20P
N13
-10
-25
-40
-55
Depth (m)
12
12
10
N134TE Minimum = 8.22 Maximum =12.32

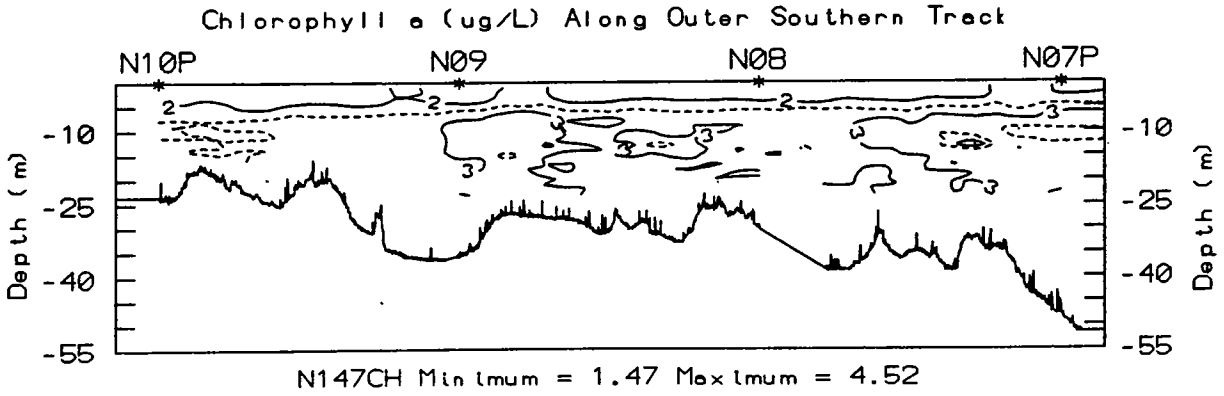

Temperature (C) Along Inner Eastern Track
N17
N16P
N15
-10
-25
-40
-55
Depth (m)
12
10
N136TE Minimum = 7.98 Maximum =12.40

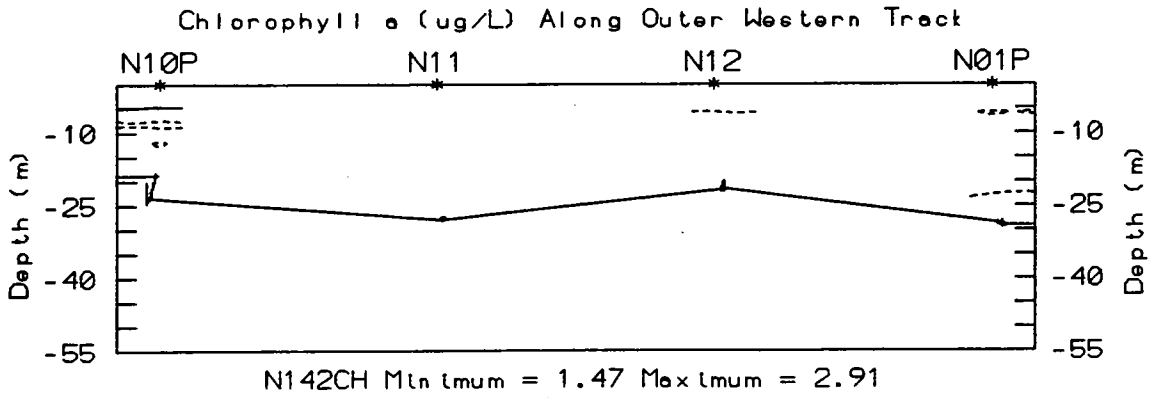

Temperature (C) Along Outer Eastern Track
N07P
N06
N05
N04P
-10
-25
-40
-55
Depth (m)
12
10
8
N138TE Minimum = 7.17 Maximum =12.58


Chlorophyll a (ug/L) Along Outer Northern Track
N01P
N02
N03
N04P
-10
-25
-40
-55
Depth (m)
N141CH Minimum = 1.96 Maximum = 4.24

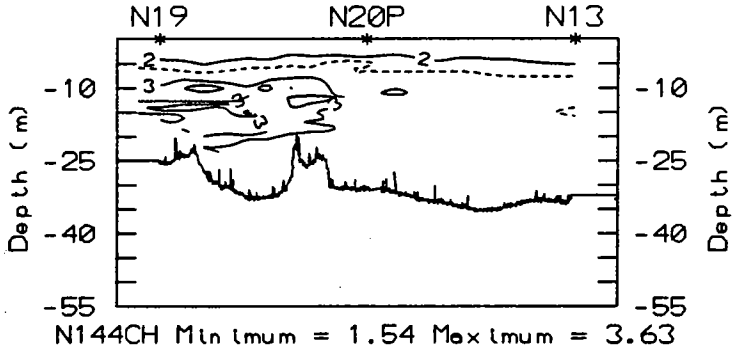

Chlorophyll a (ug/L) Along Inner Northern Track
N13
N14
N15
-10
-25
-40
-55
Depth (m)
2
3
N143CH Minimum = 1.61 Maximum = 3.30


Chlorophyll a (ug/L) Along Inner Southern Track
N19
N18
N17
-10
-25
-40
-55
Depth (m)
N145CH Minimum = 2.08 Maximum = 3.46


Chlorophyll a (ug/L) Along Outer Southern Track
N10P
N09
N08
N07P
-10
-25
-40
-55
Depth (m)
N147CH Minimum = 1.47 Maximum = 4.52

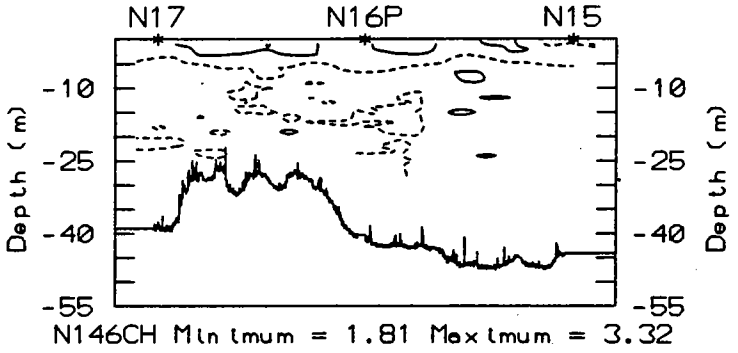

Chlorophyll a (ug/L) Along Outer Western Tract
N10P
N11
N12
N01P
-10
-25
-40
-55
Depth (m)
N142CH Minimum = 1.47 Maximum = 2.91

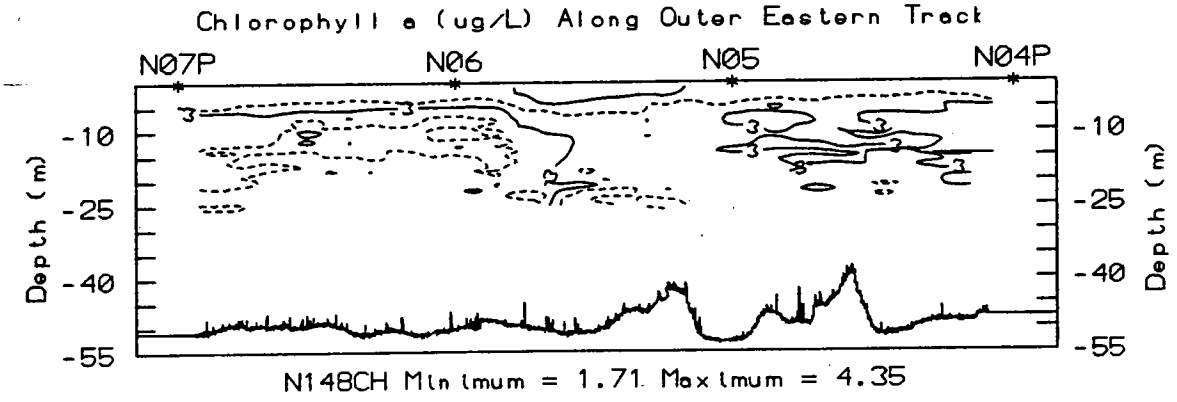
Chlorophyll a (ug/L) Along Inner Western Track

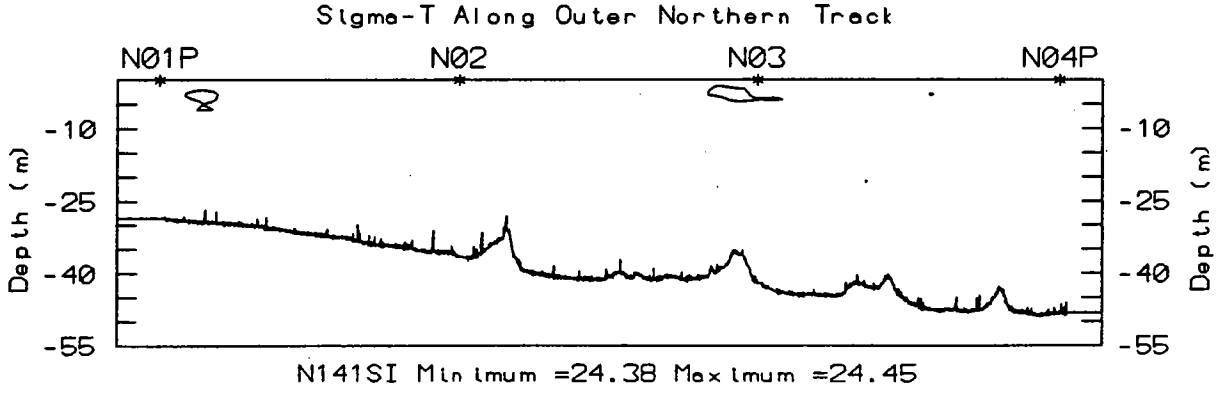


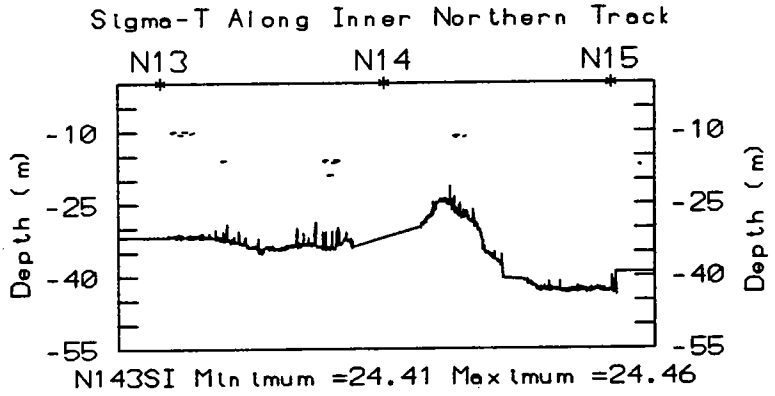
N144CH Minimum = 1.54 Maximum = 3.63

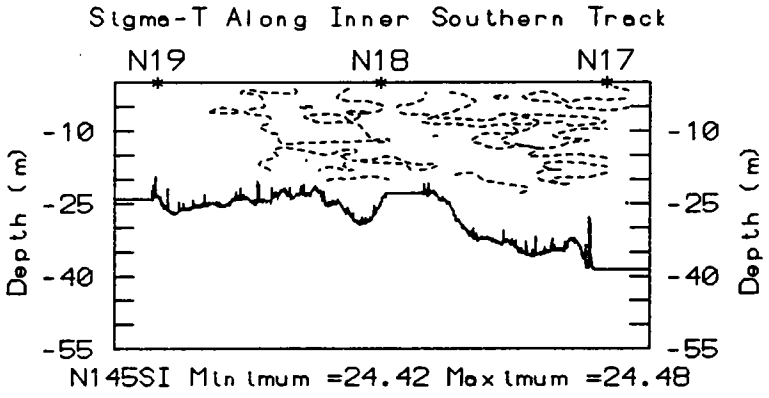
Chlorophyll a (ug/L) Along Inner Eastern Track

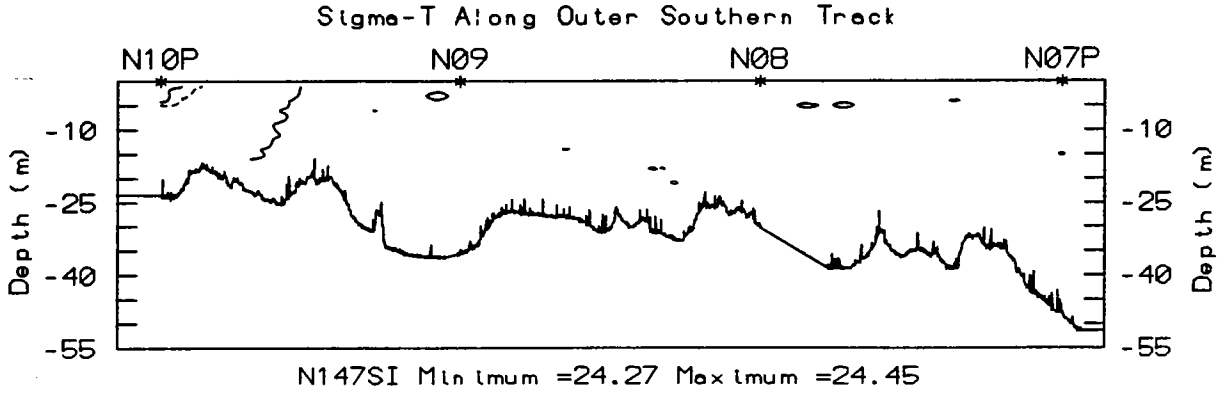


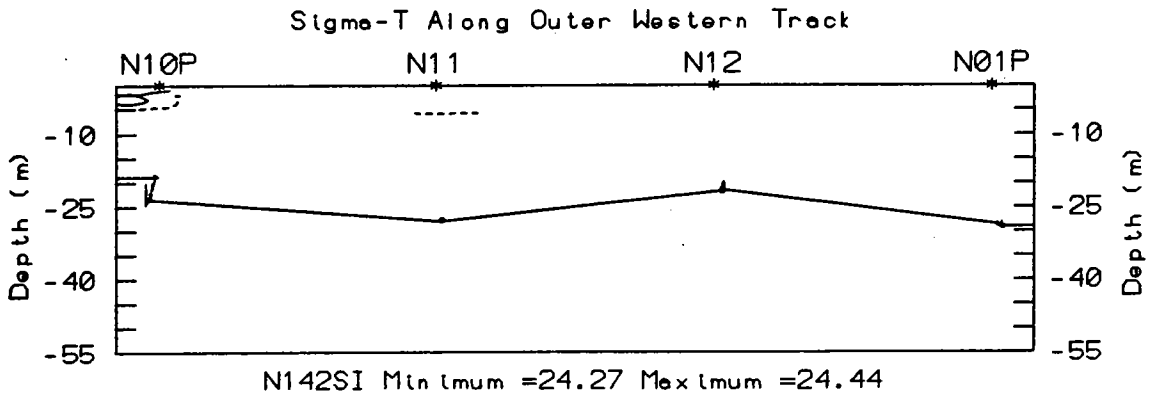

Chlorophyll a (ug/L) Along Outer Eastern Track
N07P
N06
N05
N04P
-10
-25
-40
-55
Depth (m)
N148CH Minimum = 1.71 Maximum = 4.35

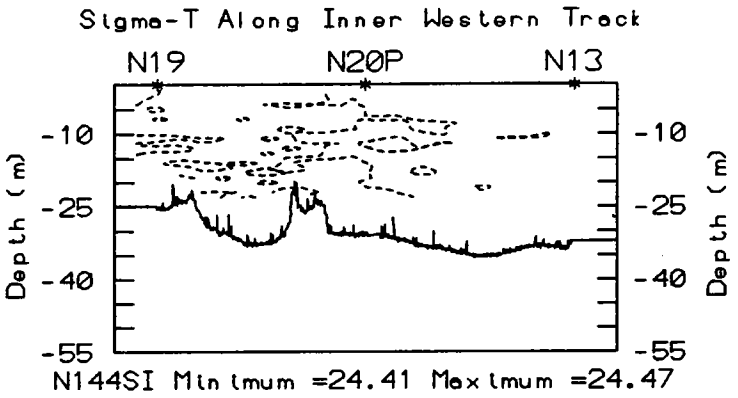

Sigma-T Along Outer Northern Track
N01P
N02
N03
N04P
-10
-25
-40
-55
Depth (m)
N141SI Minimum =24.38 Maximum =24.45

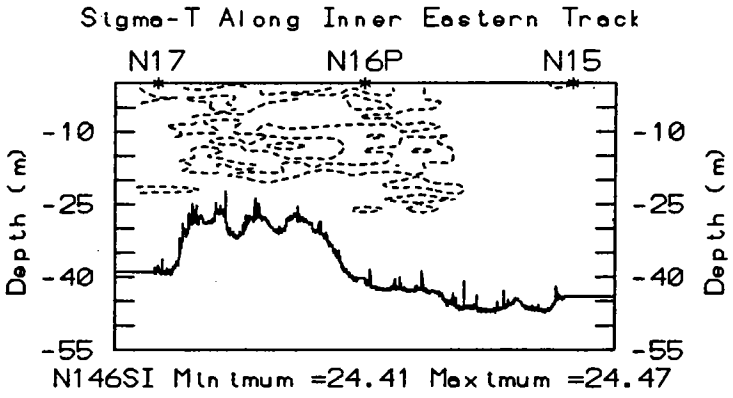

Sigma-T Along Inner Northern Track
N13
N14
N15
-10
-25
-40
-55
Depth (m)
N143SI Minimum =24.41 Maximum =24.46

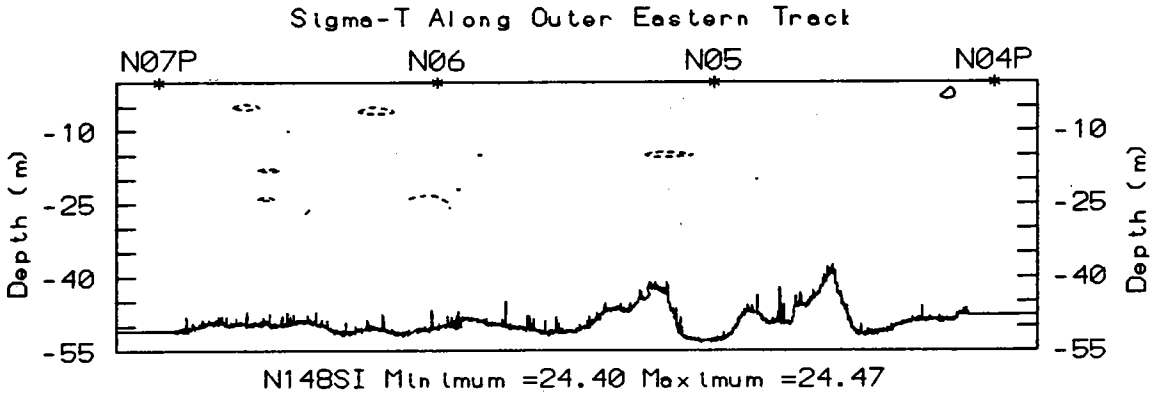

Sigma-T Along Inner Southern Track
N19
N18
N17
-10
-25
-40
-55
Depth (m)
N145SI Minimum =24.42 Maximum =24.48

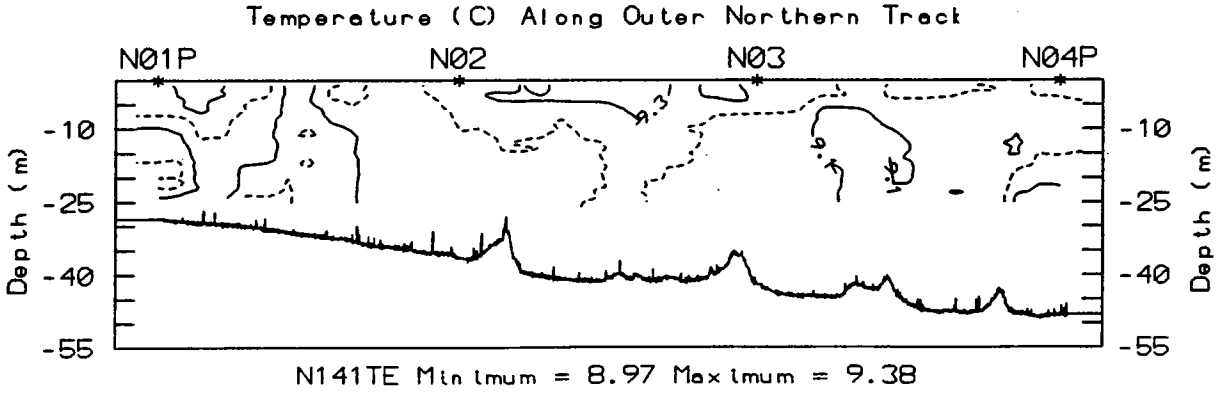

Sigma-T Along Outer Southern Track
N10P
N09
N08
N07P
-10
-25
-40
-55
Depth (m)
N147SI Minimum =24.27 Maximum =24.45

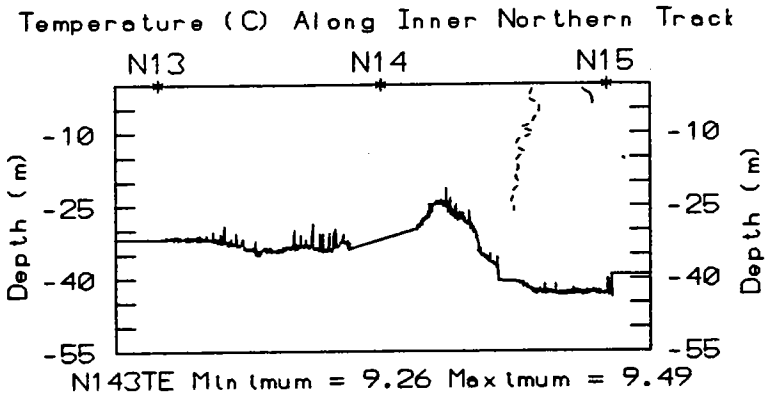

Sigma-T Along Outer Western Track
N10P
N11
N12
N01P
-10
-25
-40
-55
Depth (m)
N142SI Minimum =24.27 Maximum =24.44

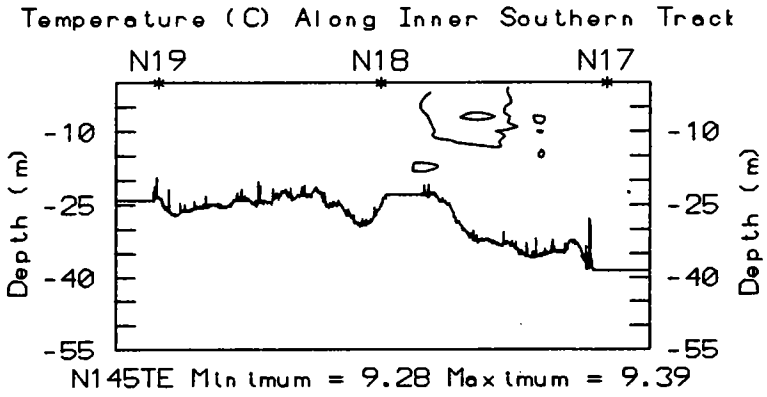

Sigma-T Along Inner Western Track
N19
N20P
N13
-10
-25
-40
-55
Depth (m)
N144SI Minimum =24.41 Maximum =24.47

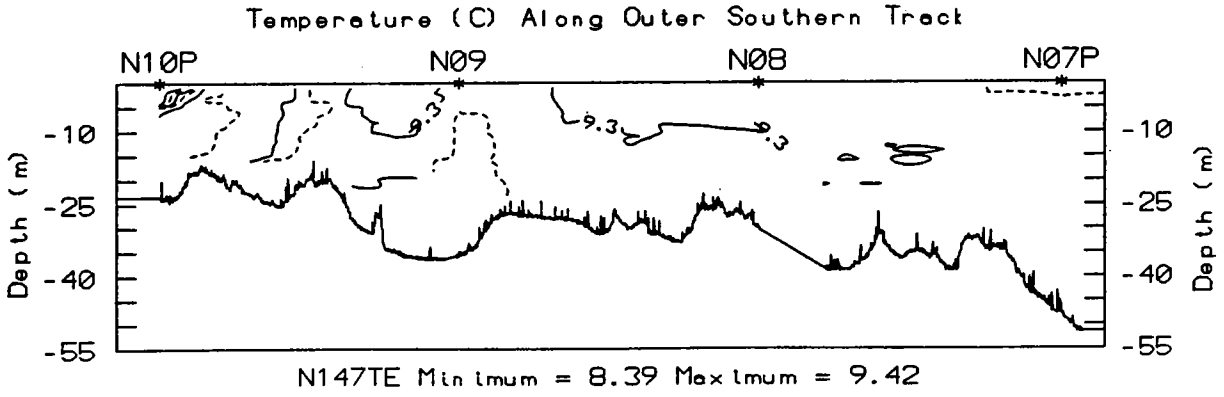

Sigma-T Along Inner Eastern Track
N17
N16P
N15
-10
-25
-40
-55
Depth (m)
N146SI Minimum =24.41 Maximum =24.47

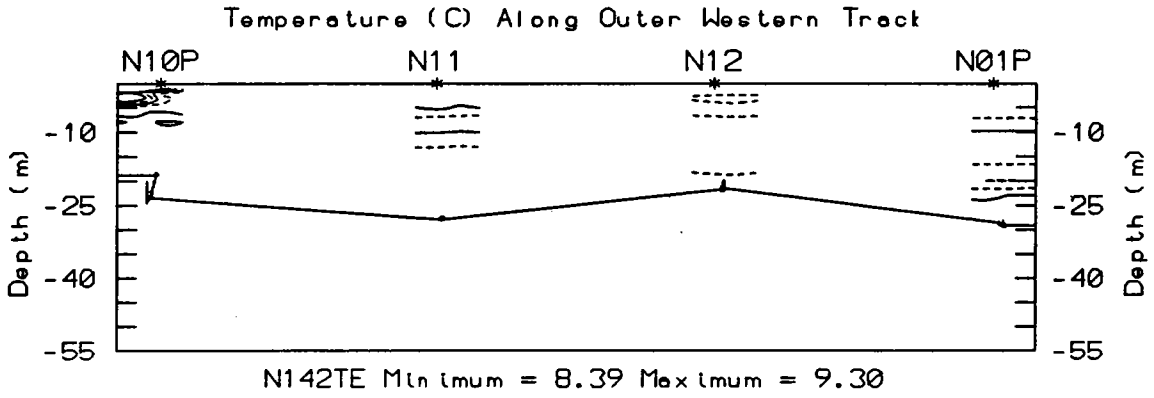

Sigma-T Along Outer Eastern Track
N07P
N06
N05
N04P
-10
-25
-40
-55
Depth (m)
N148SI Minimum =24.40 Maximum =24.47

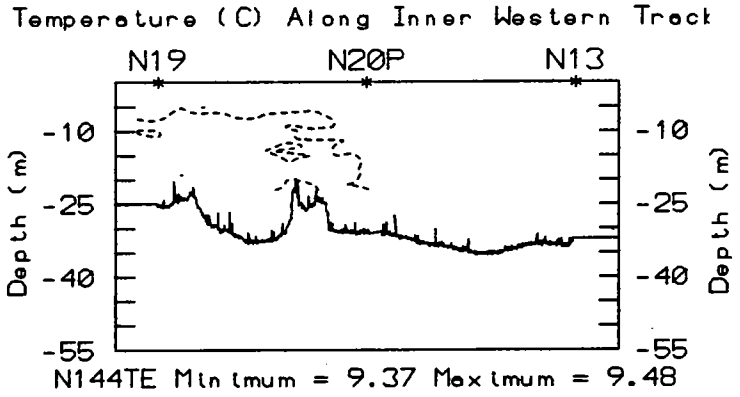

Temperature (C) Along Outer Northern Track
N01P
N02
N03
N04P
-10
-25
-40
-55
Depth (m)
N141TE Minimum = 8.97 Maximum = 9.38

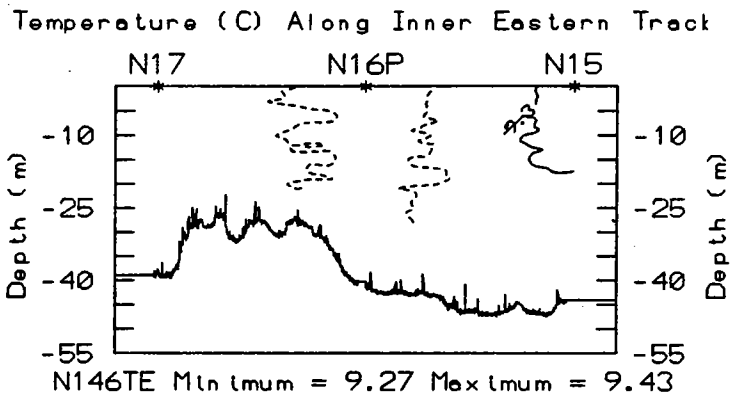

Temperature (C) Along Inner Northern Track
N13
N14
N15
-10
-25
-40
-55
Depth (m)
N143TE Minimum = 9.26 Maximum = 9.49

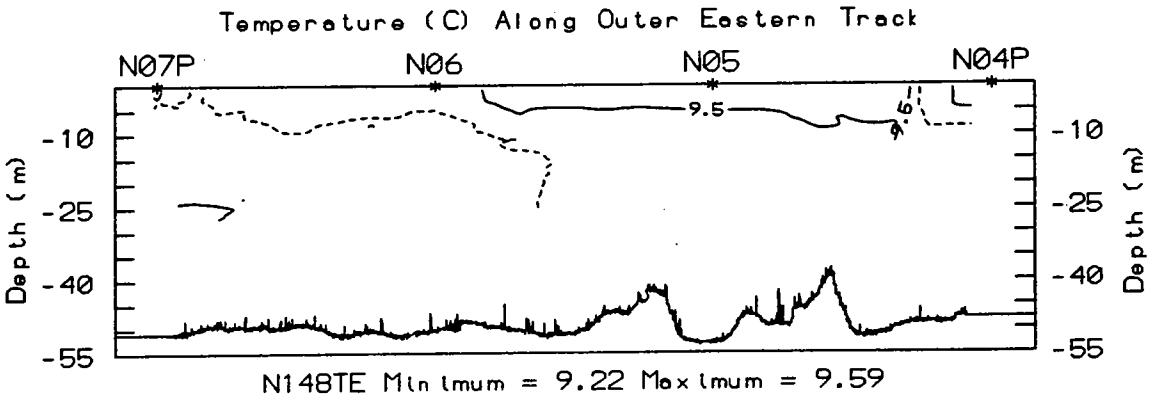

Temperature (C) Along Inner Southern Tract
N19
N18
N17
-10
-25
-40
-55
Depth (m)
N145TE Minimum = 9.28 Maximum = 9.39


Temperature (C) Along Outer Southern Tract
N10P
N09
N08
N07P
-10
-25
-40
-55
Depth (m)
9.3
N147TE Minimum = 8.39 Maximum = 9.42

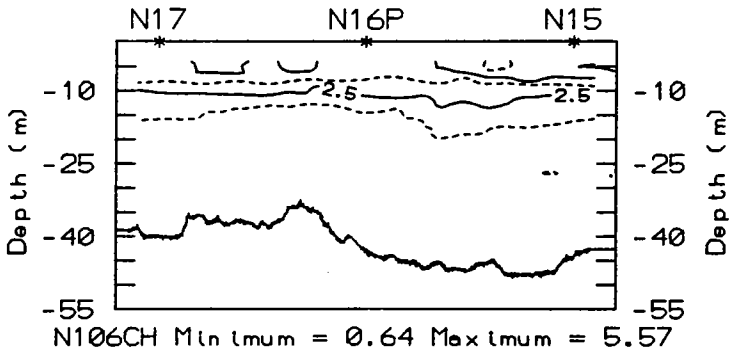

Temperature (C) Along Outer Western Tract
N10P
N11
N12
N01P
-10
-25
-40
-55
Depth (m)
N142TE Minimum = 8.39 Maximum = 9.30


Temperature (C) Along Inner Western Track
N19
N20P
N13
-10
-25
-40
-55
Depth (m)
N144TE Minimum = 9.37 Maximum = 9.48

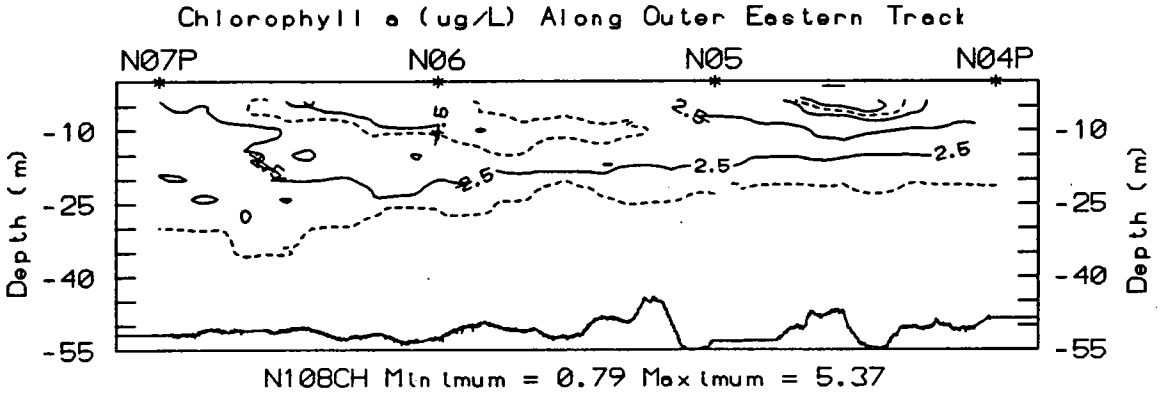

Temperature (C) Along Inner Eastern Track
N17
N16P
N15
-10
-25
-40
-55
Depth (m)
N146TE Minimum = 9.27 Maximum = 9.43


Temperature (C) Along Outer Eastern Track
N07P
N06
N05
N04P
9.5
9.6
-10
-25
-40
-55
Depth (m)
N148TE Minimum = 9.22 Maximum = 9.59

Chlorophyll a (ug/L) Along Inner Eastern Track



N106CH Minimum = 0.64 Maximum = 5.57


Chlorophyll a (ug/L) Along Outer Eastern Track
N07P
N06
N05
N04P
-10
-25
-40
-55
Depth (m)
2.5
0
N108CH Minimum = 0.79 Maximum = 5.37

APPENDIX E

METABOLISM DATA AND PRODUCTIVITY—IRRADIANCE MODELING

Part 1

Initial Dissolved Oxygen Concentrations and Results of Light-Dark Incubations

Table E1-1 includes data from the late August (MFF05) and October (MFF06) surveys. The initial dissolved oxygen (DO) concentrations were determined in triplicate from samples fixed immediately after being taken from the hydrocast bottles. Final DO concentrations were determined by fixing samples after incubating (time indicated) bottles in the light (irradiance given) or dark. The table includes data for samples from the BioProductivity stations that were incubated from surface and chlorophyll maximum depths (dark and light bottles), as well as an intermediate bottom water sample incubated for respiration only (dark). Net respiration (NETR) or net production (NPR) was calculated for each individual bottle, as the final DO concentration minus the initial (average of n=3) concentration, divided by the incubation time.

TABLE E1-1. DISSOLVED OXYGEN AND METABOLISM AT TWO DEPTHS OF BIOPRODUCTIVITY STATIONS FROM LATE AUGUST AND OCTOBER 1992.

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	F01P	25-AUG-92 0817	1.93	13X	DARK	0.000	8.447		-0.013	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	3X	DARK	0.000	8.529		0.008	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	4X	DARK	0.000	8.482		-0.004	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	13	INIT	0.000	8.471				
MFF05	F01P	25-AUG-92 0817	1.93	20	INIT	0.000	8.528				
MFF05	F01P	25-AUG-92 0817	1.93	97	INIT	0.000	8.499				
MFF05	F01P	25-AUG-92 0817	1.93	63		5.280	8.578		0.020	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	7		8.800	8.559		0.015	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	35		56.640	8.512		0.003	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	24		58.400	8.620		0.030	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	21		116.800	8.616		0.029	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	40		180.480	8.546		0.012	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	27		295.520	8.710		0.053	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	23		350.400	8.442		-0.014	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	82		518.000	8.657		0.039	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	69		1020.000	8.755		0.064	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	65		1520.000	8.722		0.056	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93	99		1992.000	8.608		0.027	AMBIENT	4.000
MFF05	F01P	25-AUG-92 0817	1.93					-0.003		AMBIENT	4.000
MFF05	F01P	25-AUG-92 0811	15.76	18X	DARK	0.000	8.874		-0.013	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	2X	DARK	0.000	8.846		-0.018	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	8X	DARK	0.000	8.799		-0.026	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	29C	INIT	0.000	8.993				
MFF05	F01P	25-AUG-92 0811	15.76	32C	INIT	0.000	8.887				
MFF05	F01P	25-AUG-92 0811	15.76	37C	INIT	0.000	8.984				
MFF05	F01P	25-AUG-92 0811	15.76	43C		4.960	8.682		-0.045	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	35C		6.240	8.807		-0.025	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	46C		38.880	8.889		-0.011	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	38C		45.200	8.960		0.001	18.000	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L		NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	F01P	25-AUG-92 0811	15.76	40C		123.040	9.025			0.012	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	39C		168.240	9.095			0.023	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	30C		193.360	9.214			0.043	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	26C		257.440	9.196			0.040	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	36C		752.000	8.912			-0.007	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	28C		1016.000	9.123			0.028	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	41C		1068.000	8.886			-0.011	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76	34C		1468.000	8.709			-0.041	18.000	6.000
MFF05	F01P	25-AUG-92 0811	15.76						-0.019		18.000	6.000
MFF05	F02P	25-AUG-92 1114	2.01	14X	DARK	0.000	8.442			0.025	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	16X	DARK	0.000		e			AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	1X	DARK	0.000	8.552			0.052	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	37	INIT	0.000	8.285					
MFF05	F02P	25-AUG-92 1114	2.01	70	INIT	0.000	8.404					
MFF05	F02P	25-AUG-92 1114	2.01	88	INIT	0.000	8.343					
MFF05	F02P	25-AUG-92 1114	2.01	44		5.280	8.435			0.023	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	9		5.280	8.449			0.026	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	87		49.520	8.489			0.036	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	41		54.800	8.487			0.036	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	18		175.200	8.459			0.029	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	64		228.320	8.529			0.046	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	17		373.440	8.595			0.063	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	68		421.200	8.534			0.048	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	58		864.000	8.548			0.051	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	66		1320.000	8.524			0.045	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	86		1436.000	8.516			0.043	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01	74		2156.000	8.550			0.052	AMBIENT	4.000
MFF05	F02P	25-AUG-92 1114	2.01						0.038		AMBIENT	4.000
MFF05	F02P	25-AUG-92 1111	13.65	11X	DARK	0.000	8.501			-0.048	15.600	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	F02P	25-AUG-92 1111	13.65	20X	DARK	0.000	8.487		-0.050	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	9X	DARK	0.000	8.622		-0.027	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	20C	INIT	0.000	8.791				
MFF05	F02P	25-AUG-92 1111	13.65	6C	INIT	0.000	8.788				
MFF05	F02P	25-AUG-92 1111	13.65	9C	INIT	0.000	8.779				
MFF05	F02P	25-AUG-92 1111	13.65	3C		4.960	8.592		-0.032	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	45C		7.520	8.710		-0.013	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	11C		37.680	8.768		-0.003	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	25C		46.400	8.683		-0.017	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	44C		101.680	8.755		-0.005	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	33C		129.360	8.861		0.013	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	31C		261.200	8.698		-0.015	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	24C		286.320	8.809		0.004	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	27C		384.000	8.916		0.022	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	12C		672.000	8.624		-0.027	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	8C		1016.000	8.945		0.027	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65	5C		1572.000	8.781		-0.001	15.600	6.000
MFF05	F02P	25-AUG-92 1111	13.65					-0.042		15.600	6.000
MFF05	F13P	26-AUG-92 0849	1.6	15X	DARK	0.000	8.419		0.024	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	29X	DARK	0.000	8.212		-0.027	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	7X	DARK	0.000	8.384		0.016	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	15	INIT	0.000	8.273				
MFF05	F13P	26-AUG-92 0849	1.6	48	INIT	0.000	8.311				
MFF05	F13P	26-AUG-92 0849	1.6	50	INIT	0.000	8.382				
MFF05	F13P	26-AUG-92 0849	1.6	30		4.640	8.570		0.062	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	51		4.640	8.473		0.038	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	54		43.600	8.461		0.035	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	8		48.240	8.601		0.070	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	5		154.080	8.584		0.066	AMBIENT	4.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	F13P	26-AUG-92 0849	1.6	32		200.800	8.578		0.064	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	77		328.480	8.481		0.040	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	53		370.560	8.608		0.071	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	59		692.000	8.651		0.082	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	6		1156.000	8.643		0.080	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	43		1240.000	8.478		0.039	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6	25		1900.000	8.605		0.071	AMBIENT	4.000
MFF05	F13P	26-AUG-92 0849	1.6					0.004		AMBIENT	4.000
MFF05	F13P	26-AUG-92 0842	20.31	37X	DARK	0.000	8.726		-0.033	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	38X	DARK	0.000	8.818		-0.017	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	40X	DARK	0.000	8.922		-0.001	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	14	INIT	0.000	8.879				
MFF05	F13P	26-AUG-92 0842	20.31	71	INIT	0.000	8.936				
MFF05	F13P	26-AUG-92 0842	20.31	76	INIT	0.000	8.959				
MFF05	F13P	26-AUG-92 0842	20.31	163		4.160	8.944		0.003	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	196		6.320	8.850		-0.012	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	116		31.680	8.887		-0.006	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	75		39.040	8.850		-0.012	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	67		85.520	8.944		0.003	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	36		108.720	8.935		0.002	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	202		219.600	8.984		0.010	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	207		240.720	9.006		0.013	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	12		324.000	9.139		0.035	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	56		588.000	9.040		0.019	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	216		840.000	9.004		0.013	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	46		1320.000	9.104		0.029	11.000	6.080
MFF05	F13P	26-AUG-92 0842	20.31	LIGHT				-0.017		11.000	6.080
MFF05	F23P	28-AUG-92 0622	1.82	21X	DARK	0.000	8.025		-0.008	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	23V	DARK	0.000	7.992		-0.017	AMBIENT	4.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	F23P	28-AUG-92 0622	1.82	43V	DARK	0.000	8.008		-0.013	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	145	INIT	0.000	8.057				
MFF05	F23P	28-AUG-92 0622	1.82	159	INIT	0.000	8.093				
MFF05	F23P	28-AUG-92 0622	1.82	45	INIT	0.000	8.024				
MFF05	F23P	28-AUG-92 0622	1.82	92		4.720	7.970		-0.022	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	16		7.920	7.928		-0.033	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	19		50.960	7.981		-0.019	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	81		52.560	8.021		-0.009	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	29		105.120	8.277		0.055	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	89		162.480	8.325		0.067	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	79		266.000	8.681		0.156	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	203		315.360	8.767		0.177	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	73		430.000	8.979		0.230	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	11		864.000	9.141		0.271	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	60		1308.000	9.280		0.305	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82	93		1940.000	9.212		0.289	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0622	1.82					-0.012		AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	21V	DARK	0.000	8.027		-0.016	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	29V	DARK	0.000	8.020		-0.018	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	31X	DARK	0.000	8.004		-0.022	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	85	INIT	0.000	8.088				
MFF05	F23P	28-AUG-92 0621	6.44	90	INIT	0.000	8.133				
MFF05	F23P	28-AUG-92 0621	6.44	98	INIT	0.000	8.052				
MFF05	F23P	28-AUG-92 0621	6.44	160		4.720	8.082		-0.002	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	47		4.720	8.042		-0.012	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	197		44.560	8.072		-0.005	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	101		49.360	8.110		0.005	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	113		157.680	8.362		0.068	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	103		205.440	8.546		0.114	AMBIENT	4.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L		NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	F23P	28-AUG-92 0621	6.44	106		336.080	8.747			0.164	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	201		379.120	8.723			0.158	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	158		700.000	8.969			0.220	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	120		1180.000	9.018			0.232	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	209		1224.000	9.138			0.262	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44	55		1900.000	9.092			0.250	AMBIENT	4.000
MFF05	F23P	28-AUG-92 0621	6.44						-0.019		AMBIENT	4.000
MFF05	N01P	27-AUG-92 1123	1.87	22V	DARK	0.000	9.239			-0.144	AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	30V	DARK	0.000	9.374			-0.109	AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	39V	DARK	0.000	9.320			-0.123	AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	18	INIT	0.000	9.861					
MFF05	N01P	27-AUG-92 1123	1.87	194	INIT	0.000	9.703					
MFF05	N01P	27-AUG-92 1123	1.87	215	INIT	0.000	9.835					
MFF05	N01P	27-AUG-92 1123	1.87	205		4.880	9.527			-0.070	AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	157		8.080	9.468			-0.085	AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	70		51.760	9.555			-0.063	AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	9		53.360	9.565			-0.060	AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	148		106.800	9.950			0.038	AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	74		165.120	9.956			0.040	AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	206		270.320	10.438			0.163	AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	111		320.560	10.346			0.140	AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	104		444.000		e			AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	198		964.000	11.014			0.311	AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	41		1420.000		e			AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87	58		1812.000		e			AMBIENT	3.910
MFF05	N01P	27-AUG-92 1123	1.87						-0.125		AMBIENT	3.910
MFF05	N01P	27-AUG-92 1121	3.58	31V	DARK	0.000	9.320			-0.024		4.000
MFF05	N01P	27-AUG-92 1121	3.58	36V	DARK	0.000	9.270			-0.037		4.000
MFF05	N01P	27-AUG-92 1121	3.58	40V	DARK	0.000	9.267			-0.037		4.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L		NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	N01P	27-AUG-92 1121	3.58	109	INIT	0.000	9.419					
MFF05	N01P	27-AUG-92 1121	3.58	210	INIT	0.000	9.435					
MFF05	N01P	27-AUG-92 1121	3.58	212	INIT	0.000	9.394					
MFF05	N01P	27-AUG-92 1121	3.58	153		4.800	9.360			-0.014		4.000
MFF05	N01P	27-AUG-92 1121	3.58	195		4.800	9.412			-0.001		4.000
MFF05	N01P	27-AUG-92 1121	3.58	156		45.280	9.519			0.026		4.000
MFF05	N01P	27-AUG-92 1121	3.58	107		50.160	9.475			0.015		4.000
MFF05	N01P	27-AUG-92 1121	3.58	165		160.240	9.835			0.105		4.000
MFF05	N01P	27-AUG-92 1121	3.58	117		208.800	10.099			0.171		4.000
MFF05	N01P	27-AUG-92 1121	3.58	211		341.600	10.326			0.227		4.000
MFF05	N01P	27-AUG-92 1121	3.58	199		385.280	10.123			0.177		4.000
MFF05	N01P	27-AUG-92 1121	3.58	193		788.000	10.688			0.318		4.000
MFF05	N01P	27-AUG-92 1121	3.58	204		1180.000	10.372			0.239		4.000
MFF05	N01P	27-AUG-92 1121	3.58	214		1304.000	10.472			0.264		4.000
MFF05	N01P	27-AUG-92 1121	3.58	114		1940.000	10.345			0.232		4.000
MFF05	N01P	27-AUG-92 1121	3.58						-0.033			4.000
MFF05	N04P	27-AUG-92 1257	1.54	13V	DARK	0.000	8.399			-0.010	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	34V	DARK	0.000	8.401			-0.010	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	35V	DARK	0.000	8.456			0.004	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	150C	INIT	0.000	8.397					
MFF05	N04P	27-AUG-92 1257	1.54	21C	INIT	0.000	8.482					
MFF05	N04P	27-AUG-92 1257	1.54	22C	INIT	0.000		e				
MFF05	N04P	27-AUG-92 1257	1.54	148C		4.480	8.394			-0.011	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	147C		6.000	8.364			-0.019	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	165C		39.280	8.341			-0.025	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	154C		40.800	8.338			-0.025	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	168C		69.600	8.253			-0.047	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	13C		114.960	8.458			0.004	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	162C		229.920	8.407			-0.008	AMBIENT	4.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	N04P	27-AUG-92 1257	1.54	153C		269.280	8.278		-0.040	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	161C		638.000	8.411		-0.007	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	155C		1092.000	8.497		0.014	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	15C		1480.000	8.496		0.014	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54	160C		1500.000	8.518		0.020	AMBIENT	4.000
MFF05	N04P	27-AUG-92 1257	1.54					-0.005		AMBIENT	4.000
MFF05	N04P	27-AUG-92 1252	18.34	24V	DARK	0.000	9.395		-0.014	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	37V	DARK	0.000	9.420		-0.010	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	38V	DARK	0.000	9.347		-0.022	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	151C	INIT	0.000	9.484				
MFF05	N04P	27-AUG-92 1252	18.34	156C	INIT	0.000	9.488				
MFF05	N04P	27-AUG-92 1252	18.34	1C	INIT	0.000	9.461				
MFF05	N04P	27-AUG-92 1252	18.34	47C		3.200	9.427		-0.009	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	164C		4.000	9.500		0.004	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	146C		25.040	9.466		-0.002	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	2C		29.120	9.454		-0.004	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	152C		79.280	9.493		0.003	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	149C		108.400	9.409		-0.012	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	167C		124.640	9.590		0.019	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	145C		165.920	9.469		-0.001	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	158C		484.000	9.623		0.024	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	163C		640.000	9.550		0.012	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	157C		674.000	9.548		0.012	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34	159C		936.000	9.574		0.016	11.250	6.000
MFF05	N04P	27-AUG-92 1252	18.34					-0.015		11.250	6.000
MFF05	N07P	26-AUG-92 1021	1.68	12X	DARK	0.000	8.930		0.001	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	5X	DARK	0.000	8.932		0.002	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	6X	DARK	0.000	8.898		-0.007	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	161	INIT	0.000	8.863				

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L		NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	N07P	26-AUG-92 1021	1.68	52	INIT	0.000	8.959					
MFF05	N07P	26-AUG-92 1021	1.68	78	INIT	0.000	8.953					
MFF05	N07P	26-AUG-92 1021	1.68	151		4.320	8.680			-0.061	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	147		5.760	8.795			-0.032	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	34		37.840	8.901			-0.006	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	61		39.280	8.811			-0.028	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	42		110.720	8.957			0.008	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	4		148.560	8.858			-0.017	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	38		221.440	8.912			-0.003	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	62		259.280	8.734			-0.048	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	80		664.000	8.977			0.013	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	168		1000.000	8.994			0.017	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	155		1388.000	8.993			0.017	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68	200		1520.000	9.015			0.023	AMBIENT	4.000
MFF05	N07P	26-AUG-92 1021	1.68						-0.001		AMBIENT	4.000
MFF05	N07P	26-AUG-92 1016	20.73	10X	DARK	0.000	9.231			-0.015	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	17X	DARK	0.000	9.289			-0.005	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	19X	DARK	0.000	9.213			-0.018	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	102	INIT	0.000	9.229					
MFF05	N07P	26-AUG-92 1016	20.73	31	INIT	0.000	9.402					
MFF05	N07P	26-AUG-92 1016	20.73	57	INIT	0.000	9.326					
MFF05	N07P	26-AUG-92 1016	20.73	108		2.480		e			10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	33		2.480	9.239			-0.013	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	149		19.680	9.300			-0.003	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	91		21.360	9.240			-0.013	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	154		35.360	9.336			0.003	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	39		67.440	9.406			0.014	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	167		83.920	9.376			0.009	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	118		102.800	9.399			0.013	10.750	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	N07P	26-AUG-92 1016	20.73	115		356.000	9.365		0.008	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	164		504.000	9.395		0.013	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	166		728.000	9.351		0.005	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73	162		900.000	9.270		-0.008	10.750	6.000
MFF05	N07P	26-AUG-92 1016	20.73					-0.012		10.750	6.000
MFF05	N10P	26-AUG-92 0722	1.62	24X	DARK	0.000	8.306		-0.031	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	32X	DARK	0.000	8.284		-0.037	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	36X	DARK	0.000	8.274		-0.039	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	160D	INIT	0.000	8.415				
MFF05	N10P	26-AUG-92 0722	1.62	163D	INIT	0.000	8.493				
MFF05	N10P	26-AUG-92 0722	1.62	167D	INIT	0.000	8.386				
MFF05	N10P	26-AUG-92 0722	1.62	145B		4.640	8.415		-0.004	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	150D		7.760	8.367		-0.016	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	165D		49.760	8.579		0.037	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	146D		51.360	8.514		0.021	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	164D		102.720	8.620		0.047	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	145D		158.800	8.649		0.054	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	158D		260.000	9.060		0.157	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	159D		308.240	8.900		0.117	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	154D		410.000	9.216		0.196	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	148D		1080.000	9.358		0.232	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	161D		1320.000	9.417		0.246	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	151D		1768.000	9.488		0.264	AMBIENT	4.000
MFF05	N10P	26-AUG-92 0722	1.62	·				-0.036		AMBIENT	4.000
MFF05	N10P	26-AUG-92 0719	13.86	12V	DARK	0.000	8.496		-0.013	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	27X	DARK	0.000	8.604		0.005	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	28V	DARK	0.000	8.436		-0.023	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	155D	INIT	0.000	8.560				
MFF05	N10P	26-AUG-92 0719	13.86	156D	INIT	0.000	8.538				

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	N10P	26-AUG-92 0719	13.86	163B	INIT	0.000	8.625				
MFF05	N10P	26-AUG-92 0719	13.86	153A		4.240	8.572		-0.000	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	146A		5.280	8.575		0.000	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	165A		32.720	8.448		-0.021	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	163A		38.000	8.561		-0.002	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	150B		103.440	8.530		-0.007	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	148A		143.040	8.731		0.026	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	152A		162.560	8.570		-0.001	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	165B		216.480	8.652		0.013	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	164B		612.000	8.742		0.028	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	148B		812.000	8.653		0.013	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	159B		960.000	8.675		0.017	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86	154B		1252.000	8.523		-0.009	12.000	6.000
MFF05	N10P	26-AUG-92 0719	13.86					-0.010		12.000	6.000
MFF05	N16P	26-AUG-92 1123	1.61	30X	DARK	0.000	8.621		0.003	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	33X	DARK	0.000	8.626		0.004	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	35X	DARK	0.000	8.476		-0.034	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	155E	INIT	0.000	8.625				
MFF05	N16P	26-AUG-92 1123	1.61	157E	INIT	0.000	8.633				
MFF05	N16P	26-AUG-92 1123	1.61	163E	INIT	0.000	8.575				
MFF05	N16P	26-AUG-92 1123	1.61	166C		4.320	8.623		0.003	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	161E		5.760	8.588		-0.006	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	146E		33.440	8.573		-0.009	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	160E		36.400	8.692		0.020	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	154E		66.960	8.682		0.018	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	156E		104.880	8.765		0.038	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	149D		243.280	8.651		0.010	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	151E		270.960	8.649		0.010	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	153E		304.000	8.777		0.041	AMBIENT	4.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	N16P	26-AUG-92 1123	1.61	149E		1056.000	8.718		0.027	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	153D		1440.000	8.736		0.031	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61	147E		1480.000	8.593		-0.005	AMBIENT	4.000
MFF05	N16P	26-AUG-92 1123	1.61					-0.009		AMBIENT	4.000
MFF05	N16P	26-AUG-92 1120	20.81	26X	DARK	0.000	9.487		0.003	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	34X	DARK	0.000	9.529		0.010	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	39X	DARK	0.000	9.472		0.000	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	150E	INIT	0.000	9.517				
MFF05	N16P	26-AUG-92 1120	20.81	161A	INIT	0.000	9.480				
MFF05	N16P	26-AUG-92 1120	20.81	167E	INIT	0.000	9.417				
MFF05	N16P	26-AUG-92 1120	20.81	152D		3.280	9.401		-0.012	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	166D		3.280	9.411		-0.010	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	148E		18.880	9.470		-0.000	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	166E		25.440	9.492		0.003	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	162D		38.640	9.599		0.021	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	164E		42.800	9.524		0.009	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	145E		86.400	9.489		0.003	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	162E		112.720	9.574		0.017	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	165E		192.000	9.536		0.011	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	159E		596.000	9.573		0.017	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	152E		784.000	9.453		-0.003	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81	168E		880.000	9.500		0.005	10.750	6.000
MFF05	N16P	26-AUG-92 1120	20.81					0.004		10.750	6.000
MFF05	N20P	27-AUG-92 1400	1.54	27V	DARK	0.000	8.915		-0.021	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	3V	DARK	0.000	8.798		-0.050	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	7V	DARK	0.000	8.908		-0.022	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	66	INIT	0.000	8.987				
MFF05	N20P	27-AUG-92 1400	1.54	86	INIT	0.000	8.993				
MFF05	N20P	27-AUG-92 1400	1.54	87	INIT	0.000	9.012				

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	N20P	27-AUG-92 1400	1.54	4C		4.480	9.033		0.009	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	161B		6.000	9.090		0.023	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	64		34.800	8.992		-0.001	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	42C		37.760	8.953		-0.011	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	48C		69.600	9.186		0.047	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	88		108.880	9.212		0.054	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	17C		252.640	9.403		0.102	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	167A		281.360	9.646		0.162	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	68		296.000	9.382		0.096	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	44		1020.000	9.637		0.160	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	37		1520.000	9.499		0.125	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54	17		1552.000	9.644		0.162	AMBIENT	4.000
MFF05	N20P	27-AUG-92 1400	1.54					-0.031		AMBIENT	4.000
MFF05	N20P	27-AUG-92 1356	11.2	25V	DARK	0.000	8.754		-0.027	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	44V	DARK	0.000	8.761		-0.026	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	9V	DARK	0.000	8.659		-0.043	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	149A	INIT	0.000	8.877				
MFF05	N20P	27-AUG-92 1356	11.2	156B	INIT	0.000	9.026				
MFF05	N20P	27-AUG-92 1356	11.2	7C	INIT	0.000	8.850				
MFF05	N20P	27-AUG-92 1356	11.2	16C		3.200	8.830		-0.015	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	10C		4.800	8.805		-0.019	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	149B		24.240	8.710		-0.035	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	147A		29.920	8.810		-0.018	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	23C		65.520	8.945		0.005	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	19C		83.360	9.016		0.016	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	160B		168.320	9.126		0.035	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	155B		184.560	9.078		0.027	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	159A		260.000	9.301		0.064	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	146B		420.000	9.443		0.088	10.500	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L		NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF05	N20P	27-AUG-92 1356	11.2	14C		688.000	9.417			0.083	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2	157A		940.000	9.412			0.082	10.500	6.000
MFF05	N20P	27-AUG-92 1356	11.2						-0.032		10.500	6.000
MFF06	F01P	13-OCT-92 0811	2.2	24V	DARK	0.000	8.400			0.033	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	44V	DARK	0.000	8.652			0.009	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	85V	DARK	0.000	8.661			0.010	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	101	INIT	0.000	8.559					
MFF06	F01P	13-OCT-92 0811	2.2	147	INIT	0.000	8.536					
MFF06	F01P	13-OCT-92 0811	2.2	210	INIT	0.000	8.707					
MFF06	F01P	13-OCT-92 0811	2.2	111		5.000	8.635			0.006	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	206		8.300	8.674			0.012	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	148		48.200	8.801			0.033	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	214		48.200	8.566			0.006	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	199		134.400	8.591			0.002	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	168		149.400	8.738			0.023	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	201		298.700	8.851			0.042	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	195		356.800	8.789			0.031	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	165		760.000	8.908			0.051	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	215		1230.000	8.930			0.055	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	103		1356.000		e			AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2	197		1940.000	8.886			0.048	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0811	2.2						-0.005			6.000
MFF06	F01P	13-OCT-92 0807	14.6	25V	DARK	0.000	8.463			0.034	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0807	14.6	34V	DARK	0.000	8.661			0.001	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0807	14.6	35V	DARK	0.000	8.458			0.035	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0807	14.6	33	INIT	0.000	8.654					
MFF06	F01P	13-OCT-92 0807	14.6	36	INIT	0.000	8.698					
MFF06	F01P	13-OCT-92 0807	14.6	39	INIT	0.000	8.648					
MFF06	F01P	13-OCT-92 0807	14.6	82		6.600	8.758			0.015	AMBIENT	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L		NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	F01P	13-OCT-92 0802	14.6	75		9.900	8.643			0.004	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0802	14.6	54		43.100	8.732			0.011	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0802	14.6	76		51.400	8.631			0.006	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0802	14.6	53		157.700		e			AMBIENT	6.000
MFF06	F01P	13-OCT-92 0802	14.6	26		247.300	8.876			0.035	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0802	14.6	24		368.400	8.915			0.041	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0802	14.6	63		414.000	8.639			0.005	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0802	14.6	37		459.700		e			AMBIENT	6.000
MFF06	F01P	13-OCT-92 0802	14.6	44		990.000	8.924			0.043	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0802	14.6	46		1436.000	8.941			0.046	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0802	14.6	59		1906.000	8.808			0.024	AMBIENT	6.000
MFF06	F01P	13-OCT-92 0802	14.6						-0.023		AMBIENT	6.000
MFF06	F02P	13-OCT-92 1211	2.2	13V	DARK	0.000	9.097			0.019	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	21V	DARK	0.000	9.031			0.008	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	42V	DARK	0.000	9.072			0.015	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	10	INIT	0.000	8.892					
MFF06	F02P	13-OCT-92 1211	2.2	11	INIT	0.000	9.042					
MFF06	F02P	13-OCT-92 1211	2.2	13	INIT	0.000	9.022					
MFF06	F02P	13-OCT-92 1211	2.2	12		3.000	9.104			0.020	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	98		4.500	9.081			0.016	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	8		22.500	8.948			0.006	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	21		40.400	9.092			0.018	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	74		83.800	8.963			0.004	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	67		94.200	9.145			0.027	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	23		236.400	9.160			0.029	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	9		264.000	9.232			0.041	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	15		290.200	9.244			0.043	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	20		1024.000	9.274			0.048	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2	84		1420.000	9.115			0.022	AMBIENT	

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	F02P	13-OCT-92 1211	2.2	35		1550.000	9.279		0.049	AMBIENT	
MFF06	F02P	13-OCT-92 1211	2.2					0.014		AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	22V	DARK	0.000	8.578		0.012	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	2V	DARK	0.000	8.530		0.020	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	33V	DARK	0.000	8.551		0.016	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	146C	INIT	0.000	8.622				
MFF06	F02P	13-OCT-92 1211	19.9	153C	INIT	0.000	8.666				
MFF06	F02P	13-OCT-92 1211	19.9	2C	INIT	0.000	8.657				
MFF06	F02P	13-OCT-92 1211	19.9	16C		3.000	8.726		0.013	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	151C		6.000	8.706		0.010	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	162C		37.400	8.750		0.017	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	148C		50.900	8.750		0.017	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	152C		64.300	8.778		0.022	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	161C		194.500	8.715		0.011	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	164C		218.400	8.876		0.038	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	19C		297.700	8.881		0.039	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	167C		600.000	8.886		0.040	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	163C		990.000	8.829		0.030	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	14C		1414.000	8.821		0.029	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9	10C		1600.000	8.793		0.024	AMBIENT	
MFF06	F02P	13-OCT-92 1211	19.9					-0.016		AMBIENT	
MFF06	F13P	14-OCT-92 0644	2.2	37V	DARK	0.000	9.246		0.017	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0644	2.2	38V	DARK	0.000	9.209		0.023	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0644	2.2	40V	DARK	0.000	9.262		0.014	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0644	2.2	113	INIT	0.000	9.340				
MFF06	F13P	14-OCT-92 0644	2.2	159	INIT	0.000	9.369				
MFF06	F13P	14-OCT-92 0644	2.2	209	INIT	0.000	9.334				
MFF06	F13P	14-OCT-92 0644	2.2	102		6.800	9.287		0.010	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0644	2.2	194		10.200	9.203		0.024	AMBIENT	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	F13P	14-OCT-92 0653	2.2	109		49.500	9.289		0.010	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0653	2.2	114		49.500	9.405		0.010	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0653	2.2	204		138.300	9.611		0.044	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0653	2.2	104		162.200	9.588		0.040	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0653	2.2	151		307.400	9.775		0.071	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0653	2.2	117		414.000	9.878		0.088	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0653	2.2	211		473.000	9.964		0.103	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0653	2.2	156		970.000	9.912		0.094	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0653	2.2	193		1482.000	9.905		0.093	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0653	2.2	158		1900.000	9.891		0.091	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0653	2.2					-0.018		AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	1V	DARK	0.000	9.072		0.009	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	36V	DARK	0.000	9.126		0.000	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	39V	DARK	0.000	9.127		0.000	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	155C	INIT	0.000	9.167				
MFF06	F13P	14-OCT-92 0650	8	166C	INIT	0.000	9.079				
MFF06	F13P	14-OCT-92 0650	8	20C	INIT	0.000	9.136				
MFF06	F13P	14-OCT-92 0650	8	159C		5.100	9.109		0.003	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	157C		8.600	9.164		0.006	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	149C		44.400	9.278		0.025	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	156C		53.000	9.352		0.037	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	145C		153.700	9.511		0.064	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	41C		254.400	9.593		0.078	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	158C		367.100	9.575		0.075	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	6C		379.000	9.717		0.098	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	47C		760.000	9.738		0.102	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	168C		1250.000	9.692		0.094	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	1C		1404.000	9.741		0.102	AMBIENT	6.000
MFF06	F13P	14-OCT-92 0650	8	154C		2044.000	9.650		0.087	AMBIENT	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L		NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	F13P	14-OCT-92 0650	8						-0.003		AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	14V	DARK	0.000	7.124			0.033	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	28X	DARK	0.000	7.209			0.019	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	40V	DARK	0.000	7.250			0.012	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	156C	INIT	0.000	7.226					
MFF06	F23P	15-OCT-92 0644	2.8	1C	INIT	0.000	7.368					
MFF06	F23P	15-OCT-92 0644	2.8	47C	INIT	0.000	7.376					
MFF06	F23P	15-OCT-92 0644	2.8	165C		5.000	7.171			0.025	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	18C		5.000	7.084			0.040	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	168C		30.300	7.095			0.038	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	3C		37.000	7.033			0.048	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	159C		93.400	7.319			0.001	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	12C		144.800	7.365			0.007	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	41C		156.600	7.373			0.008	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	5C		181.000	7.308			0.003	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	147C		484.000	7.367			0.007	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	24C		632.000	7.699			0.063	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	8C		696.000	7.748			0.071	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8	27C		956.000	7.528			0.034	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0644	2.8						-0.022		AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	24X	DARK	0.000	7.238			0.014	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	37V	DARK	0.000	7.237			0.014	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	39V	DARK	0.000	7.221			0.017	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	114	INIT	0.000	7.261					
MFF06	F23P	15-OCT-92 0641	12.2	151	INIT	0.000	7.365					
MFF06	F23P	15-OCT-92 0641	12.2	158	INIT	0.000	7.344					
MFF06	F23P	15-OCT-92 0641	12.2	210		5.000	7.076			0.041	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	1654		5.900		e			AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	204		26.100	7.204			0.020	AMBIENT	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L		NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	F23P	15-OCT-92 0641	12.2	104		32.800	7.203			0.020	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	193		63.100	7.287			0.006	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	109		111.100	7.248			0.012	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	117		196.200	7.161			0.027	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	156		196.200	7.324			0.000	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	167		244.000	7.381			0.010	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	168		406.000		e			AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	206		712.000	7.432			0.018	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2	147		1004.000	7.462			0.023	AMBIENT	6.000
MFF06	F23P	15-OCT-92 0641	12.2						-0.015		AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	13V	DARK	0.000	7.937			0.033	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	21V	DARK	0.000	8.006			0.021	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	31V	DARK	0.000		e			AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	17	INIT	0.000	8.082					
MFF06	N01P	15-OCT-92 0747	2.2	32	INIT	0.000	8.300					
MFF06	N01P	15-OCT-92 0747	2.2	40	INIT	0.000	8.019					
MFF06	N01P	15-OCT-92 0747	2.2	7		3.000	8.079			0.009	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	6		4.600	8.469			0.056	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	28		31.400	8.091			0.007	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	14		42.200	8.103			0.005	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	43		58.200	8.007			0.021	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	30		62.100	8.178			0.007	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	50		130.200	8.322			0.031	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	5		156.000	8.456			0.054	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	47		169.300	8.334			0.033	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	73		526.000	8.695			0.094	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	25		716.000	8.662			0.088	AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2	27		800.000		e			AMBIENT	6.000
MFF06	N01P	15-OCT-92 0747	2.2						-0.027		AMBIENT	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	NO1P	15-OCT-92 0746	6.1	13X	DARK	0.000	8.010		0.035	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	26X	DARK	0.000	8.181		0.007	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	40X	DARK	0.000	8.127		0.016	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	146C	INIT	0.000	8.202				
MFF06	NO1P	15-OCT-92 0746	6.1	162C	INIT	0.000	8.255				
MFF06	NO1P	15-OCT-92 0746	6.1	167C	INIT	0.000	8.211				
MFF06	NO1P	15-OCT-92 0746	6.1	154C		3.000	8.211		0.002	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	158C		3.800	8.071		0.025	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	16C		36.000	8.212		0.002	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	163C		36.800	8.232		0.002	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	23C		55.100	8.307		0.014	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	157C		91.900	8.273		0.008	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	31C		120.200	8.463		0.040	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	161C		137.100	8.236		0.002	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	151C		308.000	8.710		0.081	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	164C		460.000	8.784		0.094	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	148C		684.000	8.779		0.093	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1	10C		864.000	8.820		0.100	AMBIENT	6.000
MFF06	NO1P	15-OCT-92 0746	6.1					-0.019		AMBIENT	6.000
MFF06	NO4P	15-OCT-92 0903	2.4	1V	DARK	0.000	9.080		0.019	AMBIENT	6.000
MFF06	NO4P	15-OCT-92 0903	2.4	2X	DARK	0.000	8.872		0.053	AMBIENT	6.000
MFF06	NO4P	15-OCT-92 0903	2.4	33X	DARK	0.000	8.939		0.042	AMBIENT	6.000
MFF06	NO4P	15-OCT-92 0903	2.4	10	INIT	0.000	9.142				
MFF06	NO4P	15-OCT-92 0903	2.4	11	INIT	0.000	9.174				
MFF06	NO4P	15-OCT-92 0903	2.4	21	INIT	0.000	9.263				
MFF06	NO4P	15-OCT-92 0903	2.4	53		5.000	9.104		0.015	AMBIENT	6.000
MFF06	NO4P	15-OCT-92 0903	2.4	86		8.400	9.040		0.026	AMBIENT	6.000
MFF06	NO4P	15-OCT-92 0903	2.4	75		43.400	9.182		0.002	AMBIENT	6.000
MFF06	NO4P	15-OCT-92 0903	2.4	77		51.800	9.178		0.002	AMBIENT	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	N04P	15-OCT-92 0903	2.4	59		150.500	9.271		0.013	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0903	2.4	13		249.100	9.166		0.005	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0903	2.4	24		359.500	9.496		0.050	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0903	2.4	15		371.200	9.468		0.046	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0903	2.4	82		760.000	9.273		0.013	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0903	2.4	54		1220.000	9.374		0.030	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0903	2.4	36		1360.000	9.419		0.038	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0903	2.4	26		2016.000	9.454		0.044	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0903	2.4					-0.038		AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	23V	DARK	0.000	9.129		0.007	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	32X	DARK	0.000	9.157		0.003	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	42V	DARK	0.000	9.040		0.022	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	2C	INIT	0.000	9.197				
MFF06	N04P	15-OCT-92 0900	9.6	6C	INIT	0.000	9.173				
MFF06	N04P	15-OCT-92 0900	9.6	9C	INIT	0.000	9.147				
MFF06	N04P	15-OCT-92 0900	9.6	33C		6.700	9.156		0.003	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	14C		10.000	8.930		0.040	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	160C		48.500	9.112		0.010	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	20C		48.500	8.987		0.031	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	145C		135.400	9.206		0.006	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	19C		158.900	9.237		0.011	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	153C		301.000	9.389		0.036	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	166C		412.000	9.293		0.020	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	152C		463.100	9.246		0.012	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	150C		940.000	9.331		0.026	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	155C		1428.000	9.143		0.005	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6	25C		1884.000	9.324		0.025	AMBIENT	6.000
MFF06	N04P	15-OCT-92 0900	9.6					-0.011		AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	21X	DARK	0.000	9.152		0.006	AMBIENT	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	N07P	14-OCT-92 0752	2.3	35V	DARK	0.000	9.097		0.015	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	85V	DARK	0.000	9.133		0.009	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	111	INIT	0.000	9.169				
MFF06	N07P	14-OCT-92 0752	2.3	197	INIT	0.000	9.209				
MFF06	N07P	14-OCT-92 0752	2.3	215	INIT	0.000	9.187				
MFF06	N07P	14-OCT-92 0752	2.3	205		3.000	8.960		0.038	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	201		6.000	9.156		0.005	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	210		37.500	9.191		0.000	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	147		51.000	9.172		0.003	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	167		64.500	9.386		0.033	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	118		195.000	9.406		0.036	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	168		219.000	9.536		0.058	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	103		298.500	9.559		0.062	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	212		612.000	9.459		0.045	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	165		1000.000	9.678		0.082	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	206		1460.000	9.555		0.061	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3	214		1580.000	9.649		0.077	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0752	2.3					-0.010		AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	24X	DARK	0.000	9.127		0.016	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	34V	DARK	0.000	9.208		0.002	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	44V	DARK	0.000	9.173		0.008	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	14C	INIT	0.000	9.205				
MFF06	N07P	14-OCT-92 0751	9.2	152C	INIT	0.000	9.289				
MFF06	N07P	14-OCT-92 0751	9.2	19C	INIT	0.000	9.171				
MFF06	N07P	14-OCT-92 0751	9.2	148C		3.000	9.161		0.010	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	161C		4.500	9.101		0.020	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	167C		22.500	9.204		0.003	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	31C		40.500	9.177		0.007	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	162C		84.000	9.156		0.011	AMBIENT	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	N07P	14-OCT-92 0751	9.2	146C		94.500	9.358		0.023	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	164C		237.000	9.548		0.054	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	10C		262.000	9.523		0.050	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	23C		291.000	9.554		0.055	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	16C		1060.000	9.639		0.070	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	151C		1420.000	9.575		0.059	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2	163C		1540.000	9.526		0.051	AMBIENT	6.000
MFF06	N07P	14-OCT-92 0751	9.2					-0.009		AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	18X	DARK	0.000	8.298		0.000	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	23X	DARK	0.000	8.282		0.003	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	26X	DARK	0.000	8.264		0.006	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	10	INIT	0.000	8.189				
MFF06	N10P	14-OCT-92 1107	2.4	77	INIT	0.000	8.391				
MFF06	N10P	14-OCT-92 1107	2.4	86	INIT	0.000	8.319				
MFF06	N10P	14-OCT-92 1107	2.4	67		5.300	8.156		0.024	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	84		6.200	8.316		0.003	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	46		27.100	8.370		0.012	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	51		34.100	8.228		0.012	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	21		65.600	8.267		0.006	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	15		115.400	8.324		0.004	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	13		203.800	8.395		0.016	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	39		203.800	8.600		0.050	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	36		248.000	8.705		0.068	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	75		424.000	8.720		0.070	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	8		732.000	8.774		0.079	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4	33		1040.000	8.693		0.066	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1107	2.4					-0.003		AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	13V	DARK	0.000	8.140		0.022	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	13X	DARK	0.000	8.351		0.014	AMBIENT	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	N10P	14-OCT-92 1106	6.4	21V	DARK	0.000	8.336		0.011	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	145E	INIT	0.000	8.238				
MFF06	N10P	14-OCT-92 1106	6.4	146E	INIT	0.000	8.372				
MFF06	N10P	14-OCT-92 1106	6.4	157E	INIT	0.000	8.198				
MFF06	N10P	14-OCT-92 1106	6.4	150E		5.300	8.204		0.011	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	160E		5.300	8.340		0.012	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	164E		27.100	8.356		0.014	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	162E		38.500	8.374		0.017	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	154E		97.000	8.371		0.017	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	161E		150.400	8.429		0.027	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	151E		162.600	8.390		0.020	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	149E		188.000	8.604		0.056	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	152E		494.000	8.811		0.090	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	166E		656.000	8.944		0.112	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	159E		726.000	8.895		0.104	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4	147E		1000.000	8.953		0.114	AMBIENT	6.000
MFF06	N10P	14-OCT-92 1106	6.4					0.001		AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	22V	DARK	0.000	9.107		0.006	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	2V	DARK	0.000	9.037		0.006	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	33V	DARK	0.000	9.045		0.004	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	24	INIT	0.000	9.167				
MFF06	N16P	14-OCT-92 0923	1.9	54	INIT	0.000	8.996				
MFF06	N16P	14-OCT-92 0923	1.9	59	INIT	0.000	9.052				
MFF06	N16P	14-OCT-92 0923	1.9	35		3.300	8.876		0.033	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	9		4.900	9.043		0.005	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	63		33.200	9.008		0.011	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	11		44.600	9.019		0.009	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	98		61.600	9.134		0.010	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	12		65.700	9.269		0.033	AMBIENT	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L		NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	N16P	14-OCT-92 0923	1.9	23		137.800	9.225			0.026	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	44		158.000	9.375			0.051	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	20		179.100	9.401			0.055	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	76		558.000	9.666			0.099	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	74		734.000	9.719			0.108	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9	37		896.000	9.698			0.104	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0923	1.9						-0.001		AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	24V	DARK	0.000	9.051			0.004	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	25V	DARK	0.000		e			AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	35X	DARK	0.000	9.074			0.008	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	157A	INIT	0.000	9.046					
MFF06	N16P	14-OCT-92 0909	8.1	161A	INIT	0.000	9.092					
MFF06	N16P	14-OCT-92 0909	8.1	163A	INIT	0.000	8.948					
MFF06	N16P	14-OCT-92 0909	8.1	155A		3.300	8.972			0.010	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	146A		4.100	9.052			0.004	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	153A		38.100	9.150			0.020	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	159A		38.900	9.180			0.025	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	145A		58.300	9.218			0.032	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	156A		97.200	9.301			0.045	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	160A		127.300	9.406			0.063	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	165A		145.000	9.385			0.059	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	148A		318.000	9.598			0.095	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	164A		468.000	9.645			0.103	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	168A		708.000	9.704			0.113	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1	167A		904.000	9.518			0.082	AMBIENT	6.000
MFF06	N16P	14-OCT-92 0909	8.1						0.006		AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	11X	DARK	0.000	8.061			0.066	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	18X	DARK	0.000	6.956			0.250	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	23X	DARK	0.000	7.988			0.079	AMBIENT	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	N20P	15-OCT-92 0955	2.2	12	INIT	0.000	8.478				
MFF06	N20P	15-OCT-92 0955	2.2	23	INIT	0.000	8.509				
MFF06	N20P	15-OCT-92 0955	2.2	9	INIT	0.000	8.390				
MFF06	N20P	15-OCT-92 0955	2.2	74		3.000	8.415		0.007	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	20		5.800	8.344		0.019	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	201		36.600	8.204		0.042	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	118		49.800	8.319		0.023	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	214		62.900	8.276		0.031	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	212		190.200	8.733		0.046	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	103		213.600	7.925		0.089	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	205		291.100	8.704		0.041	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	63		596.000	8.617		0.026	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	44		960.000	7.017		0.240	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	98		1420.000	8.571		0.019	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2	37		1500.000	8.876		0.070	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0955	2.2					-0.132		AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	35V	DARK	0.000	7.803		0.099	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	44V	DARK	0.000	8.155		0.040	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	85V	DARK	0.000	7.792		0.101	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	154A	INIT	0.000	8.396				
MFF06	N20P	15-OCT-92 0954	9.1	158A	INIT	0.000	8.382				
MFF06	N20P	15-OCT-92 0954	9.1	168A	INIT	0.000	8.417				
MFF06	N20P	15-OCT-92 0954	9.1	150A		3.000	7.954		0.074	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	149A		4.400	7.482		0.153	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	163A		21.900	8.291		0.018	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	146A		39.500	8.231		0.028	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	165A		81.900	8.065		0.056	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	147A		92.200	8.017		0.064	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	164A		231.200	8.511		0.019	AMBIENT	6.000

TABLE E1-1. (CONTINUED.)

EVENT	STATION	DATE TIME	DEPTH	LAB ID	LEVEL	LIGHT uEm-2sec-1	DO mg/L	NETR mg O2/l/hr	NPR mg O2/l/hr	TEMPERATURE C	INCUBATION TIME hours
MFF06	N20P	15-OCT-92 0954	9.1	152A		278.000	8.571		0.029	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	161A		283.800	8.349		0.008	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	157A		1032.000	8.540		0.024	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	160A		1460.000	8.522		0.021	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1	162A		1472.000	8.448		0.008	AMBIENT	6.000
MFF06	N20P	15-OCT-92 0954	9.1					-0.080		AMBIENT	6.000

e = Data not reported

NETR = INDIVIDUAL DARK - X initial / TIME

NPR = INDIVIDUAL LIGHT - X initial / TIME

APPENDIX E

METABOLISM DATA AND PRODUCTIVITY—IRRADIANCE MODELING

Part 2

Summary of P-I Modeling

The modeling effort is described in Section 2 of the accompanying text report. All parameters were estimated using SAS (1985). For each survey, late August and October, P-I incubations were performed using water from two depths (surface and subsurface chlorophyll maximum) at ten Bioproductivity stations. Volumetric net production rates for these are given in Table E1-1 which also gives the depth of the sample. The rates were normalized for each sample by dividing the volumetric rate by the average chlorophyll value for that sample (Appendix A), to yield an estimate of net production as $\mu g\ O_2\ (\mu g\ Chl)^{-1}\ hr^{-1}$; rates thus expressed were used in the modeling and graphics that follow.

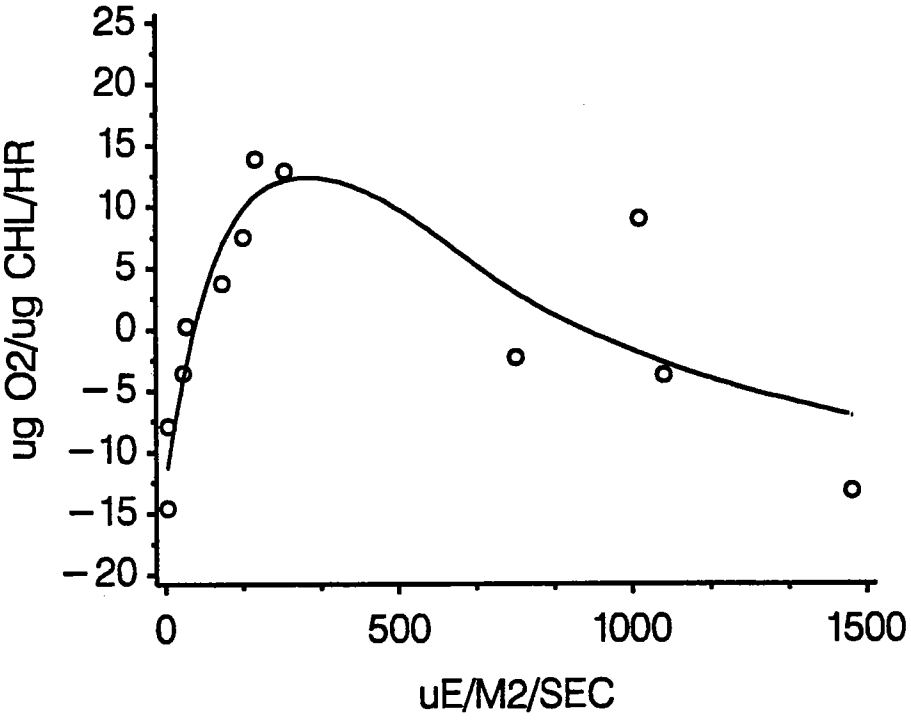
This appendix provides the following sequence for late August data: modeled parameters for a 4-parameter model of Platt *et al.* (1980) (Table E2-1), followed by graphs of situations which were fit by this model; modeled parameters for a 3-parameter model of Platt and Jassby (1976) (Table E2-2), followed by graphs of situations which were fit by this model; ending with graphs of situations not fit by either model. A similar sequence is presented, with Tables E2-3 and E2-4, for October data.

Table E2-1. P vs. I Curve Parameters for the Platt *et al.* (1980) Model: Late August.
Numbers in parentheses are standard errors of the estimates.
The R^2 is significant at $p \leq 0.05$ in every case.

P VS I CURVE PARAMETERS AUGUST 1992
MODEL PLATT ET AL, 1980

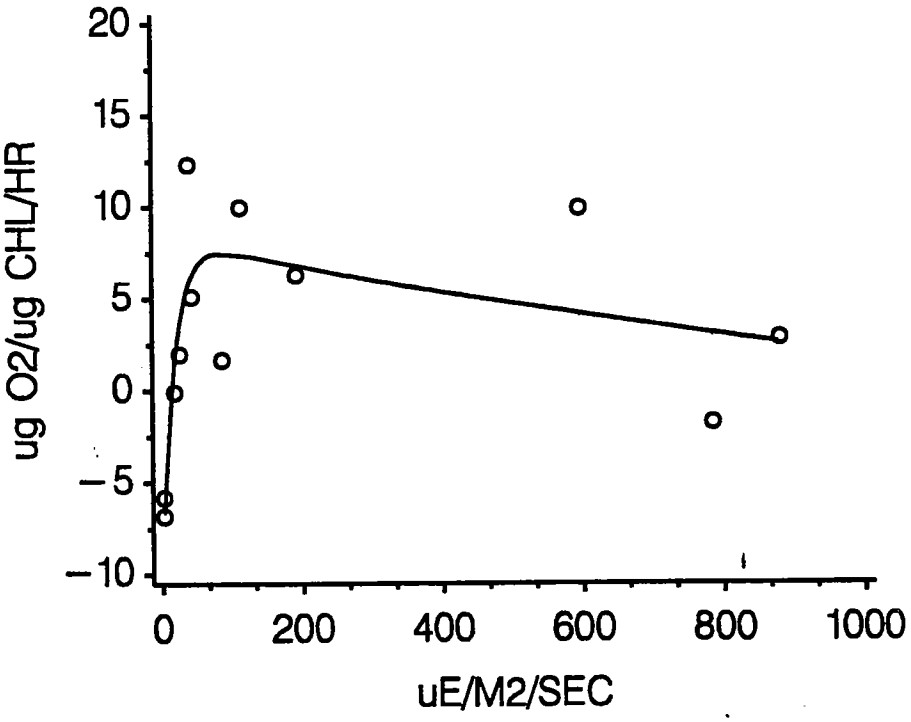
STA	DEPTH	P_SB	ALPHA	BETA	RESP	R_2
F13P	CHL	. .	. .	. .	. .	.
	SUR	. .	. .	. .	. .	.
F1P	CHL	48.65(54.68)	0.258(0.152)	0.072(0.148)	12.51(4.22)	0.75
	SUR	. .	. .	. .	. .	.
F23P	CHL	. .	. .	. .	. .	.
	SUR	. .	. .	. .	. .	.
F2P	CHL	. .	. .	. .	. .	.
	SUR	. .	. .	. .	. .	.
N10P	CHL	. .	. .	. .	. .	.
	SUR	. .	. .	. .	. .	.
N16P	CHL	17.80(4.09)	0.971(0.497)	0.008(0.007)	9.54(3.92)	0.63
	SUR	76.88(41.25)	1.600(2.250)	0.020(0.044)	15.52(34.02)	0.32
N1P	CHL	63.48(25.20)	0.156(0.033)	0.019(0.023)	2.76(2.45)	0.95
	SUR	. .	. .	. .	. .	.
N20P	CHL	59.33(5.19)	0.077(0.011)	0.056(0.001)	4.32(0.89)	0.95
	SUR	. .	. .	. .	. .	.
N4P	CHL	. .	. .	. .	. .	.
	SUR	. .	. .	. .	. .	.
N7P	CHL	22.68(5.29)	0.337(0.129)	0.028(0.021)	8.54(2.65)	0.80
	SUR	. .	. .	. .	. .	.

STATION F1P CHLA MAXIMUM



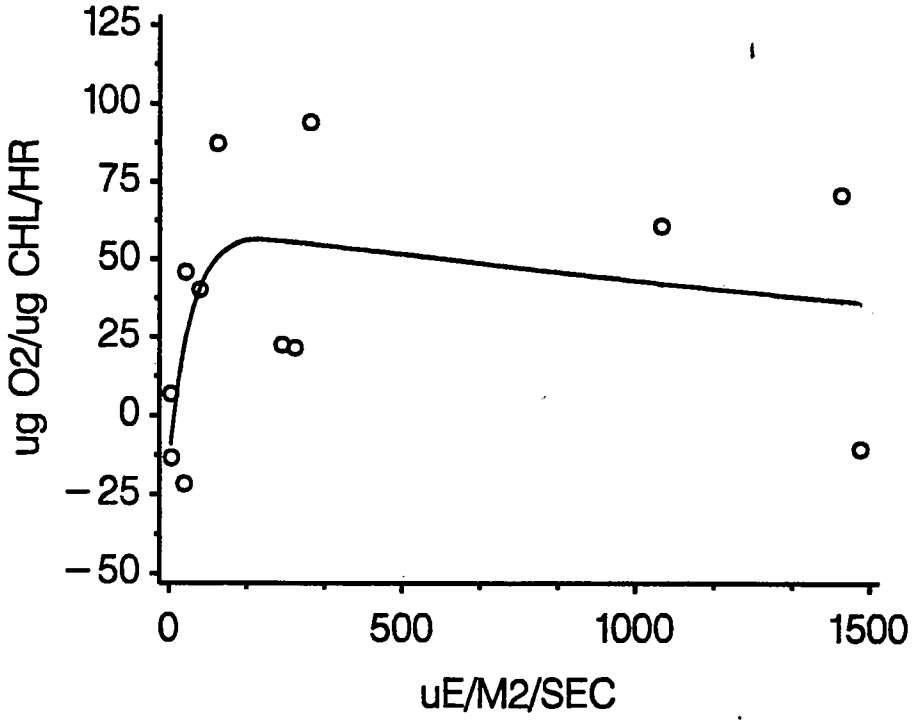
MODEL FROM PLATT ET AL, 1980
CRUISE NUMBER 10, AUG 1992

STATION N16P CHLA MAXIMUM



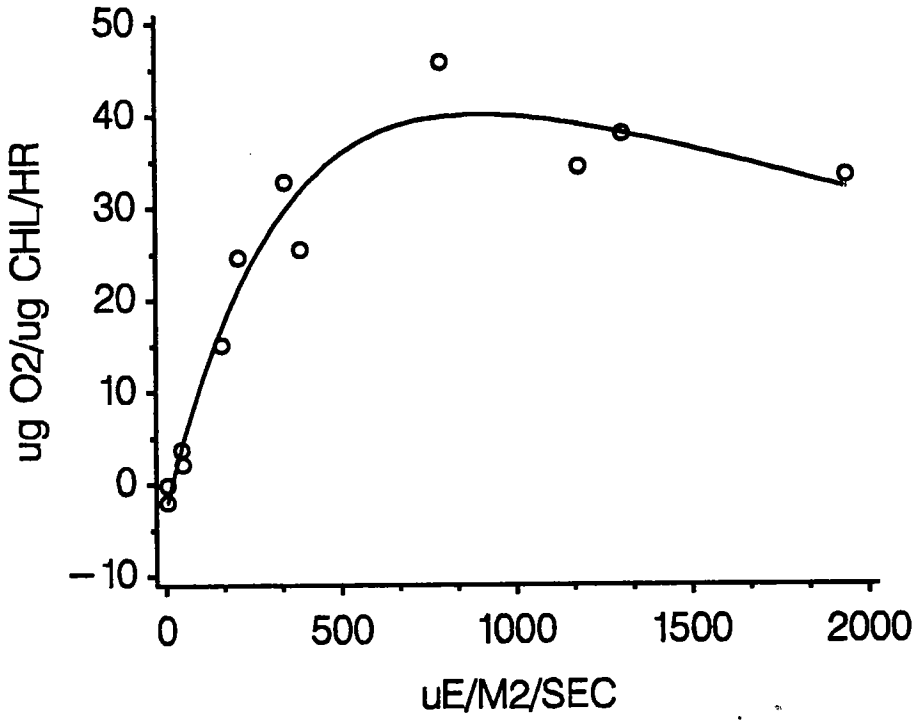
MODEL FROM PLATT ET AL, 1980
CRUISE NUMBER 10, AUG 1992

STATION N16P SURFACE



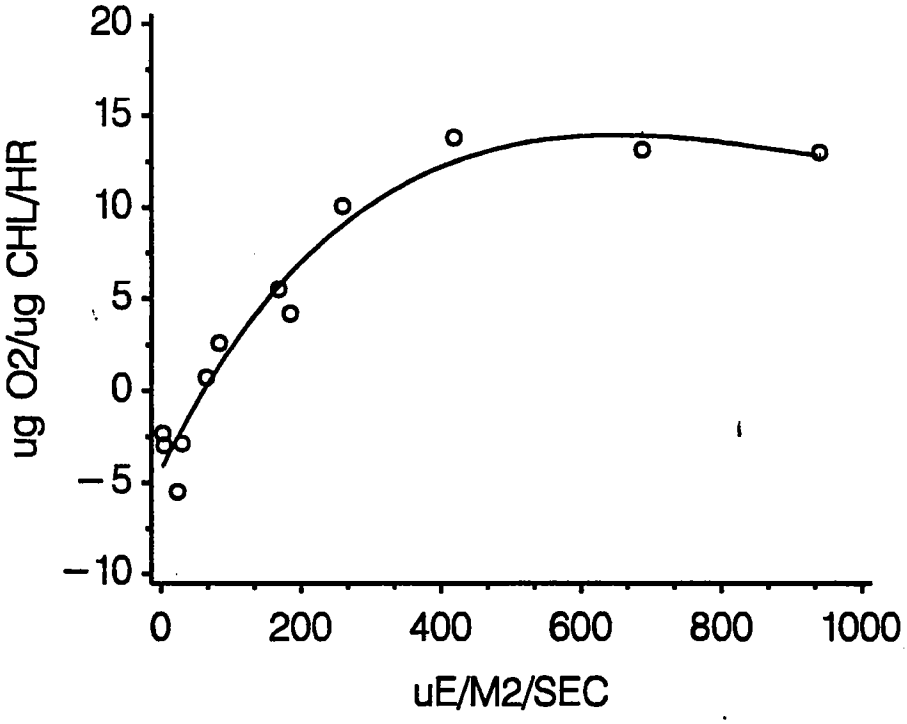
MODEL FROM PLATT ET AL, 1980
CRUISE NUMBER 10, AUG 1992

STATION N1P CHLA MAXIMUM



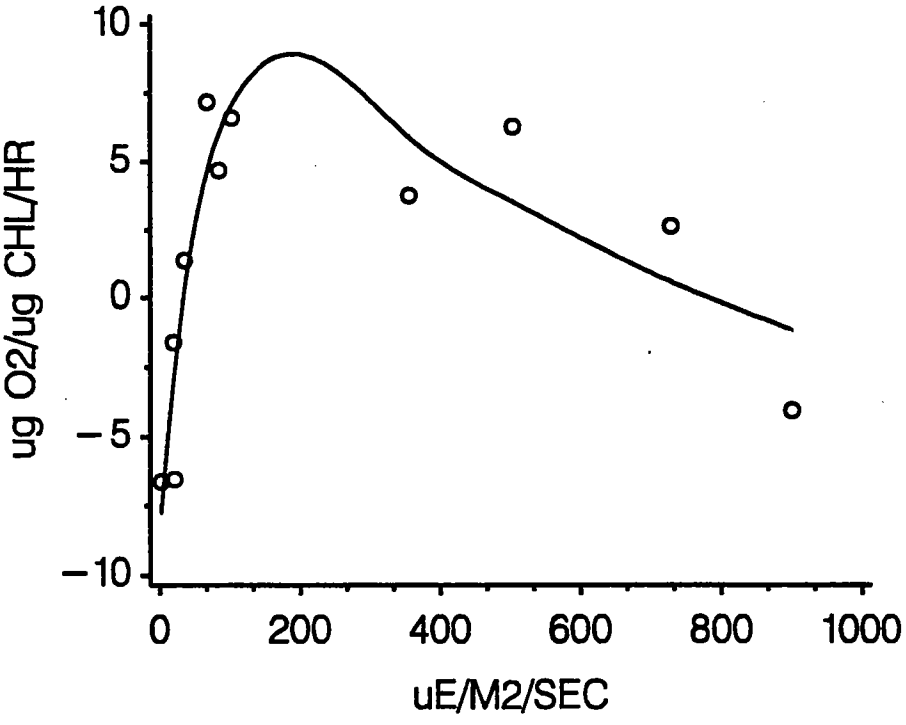
MODEL FROM PLATT ET AL, 1980
, CRUISE NUMBER 10, AUG 1992

STATION N20P CHLA MAXIMUM



MODEL FROM PLATT ET AL, 1980
CRUISE NUMBER 10, AUG 1992

STATION N7P CHLA MAXIMUM



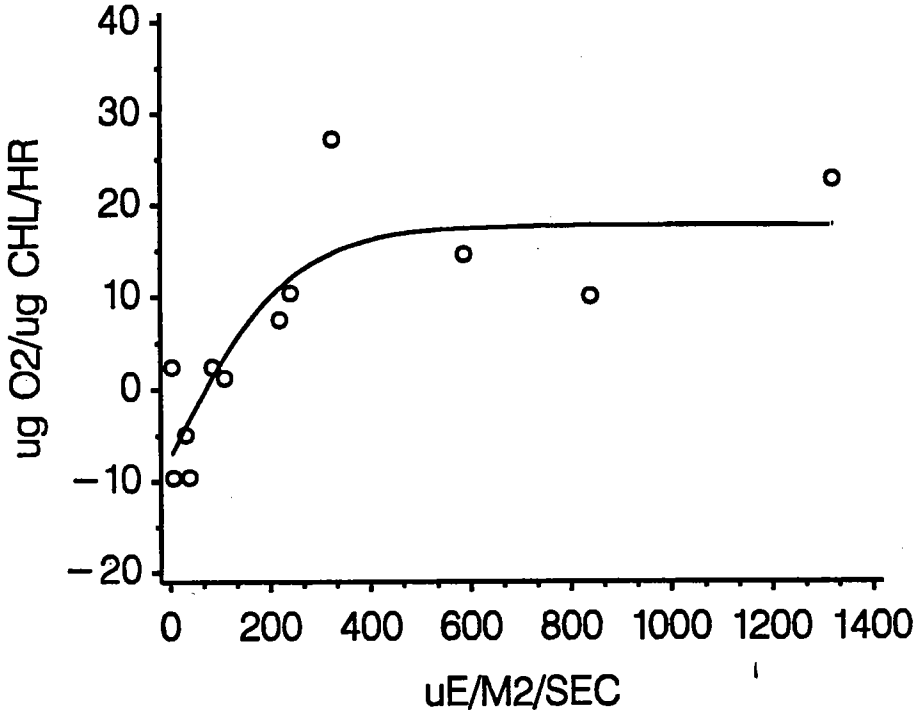
MODEL FROM PLATT ET AL, 1980
CRUISE NUMBER 10, AUG 1992

Table E2-2. P vs. I Curve Parameters for the Platt and Jassby (1976) Model: Late August.
Numbers in parentheses are standard errors of the estimates.
The R^2 is significant at $p \leq 0.05$ if it exceeds 0.36.

P VS I CURVE PARAMETERS AUGUST 1992
MODEL PLATT AND JASSBY, 1976

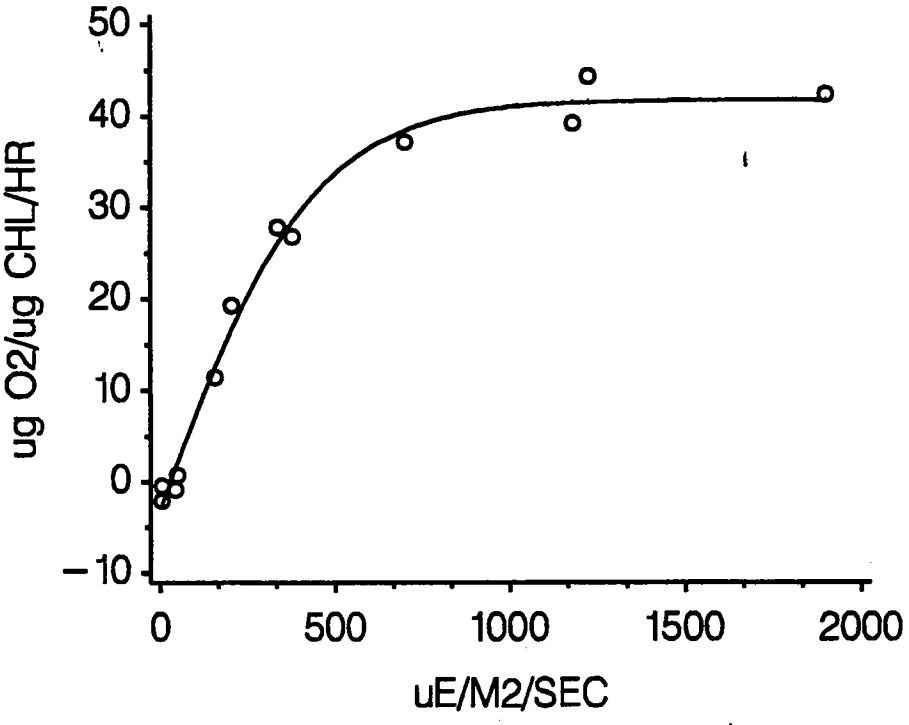
STATION	DEPTH	PMAX	ALPHA	RESP	R_2
F13P	CHL	25.24(1.63)	0.105(0.042)	7.33(2.57)	0.72
	SUR	. .	. .	. .	.
F1P	CHL	. .	. .	. .	.
	SUR	. .	. .	. .	.
F23P	CHL	45.05(1.59)	0.102(0.008)	2.98(1.17)	0.98
	SUR	44.76(1.43)	0.109(0.008)	5.69(0.86)	0.99
F2P	CHL	12.29(6.91)	0.185(0.277)	11.19(6.54)	0.29
	SUR	. .	. .	. .	.
N10P	CHL	14.38(7.37)	0.080(0.090)	5.29(5.96)	0.29
	SUR	42.86(1.49)	0.096(0.012)	1.70(0.87)	0.96
N16P	CHL	. .	. .	. .	.
	SUR	. .	. .	. .	.
N1P	CHL	. .	. .	. .	.
	SUR	33.54(0.77)	0.075(0.009)	7.42(1.15)	0.97
N20P	CHL	. .	. .	. .	.
	SUR	63.54(7.68)	0.241(0.070)	1.49(5.68)	0.88
N4P	CHL	11.45(3.63)	0.036(0.023)	2.32(2.65)	0.51
	SUR	. .	. .	. .	.
N7P	CHL	. .	. .	. .	.
	SUR	76.66(27.24)	0.106(0.093)	43.95(14.75)	0.54

STATION F13P CHLA MAXIMUM



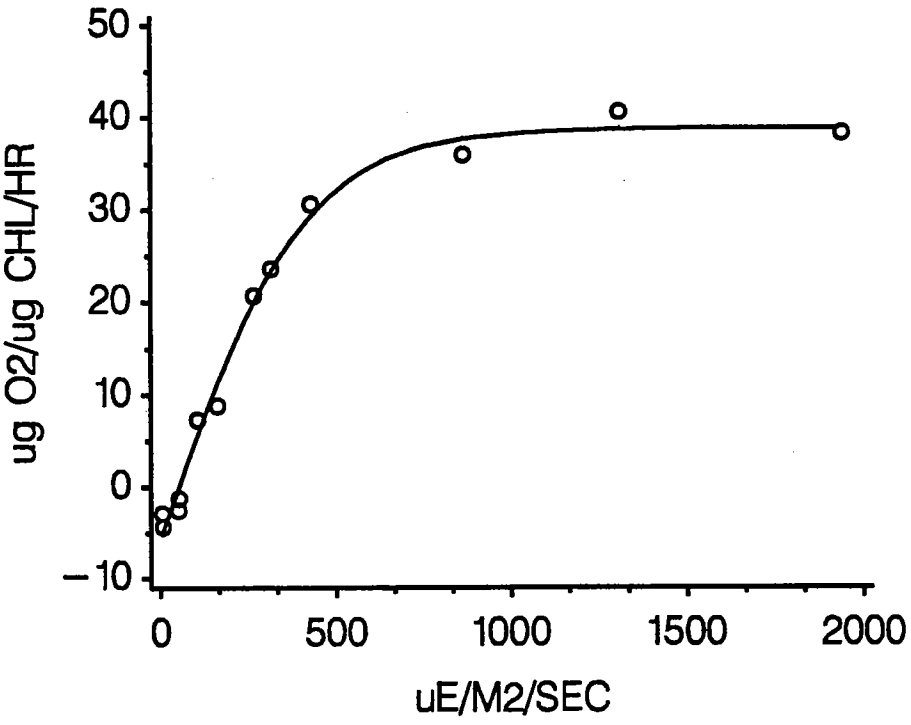
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 10, AUG 1992

STATION F23P CHLA MAXIMUM



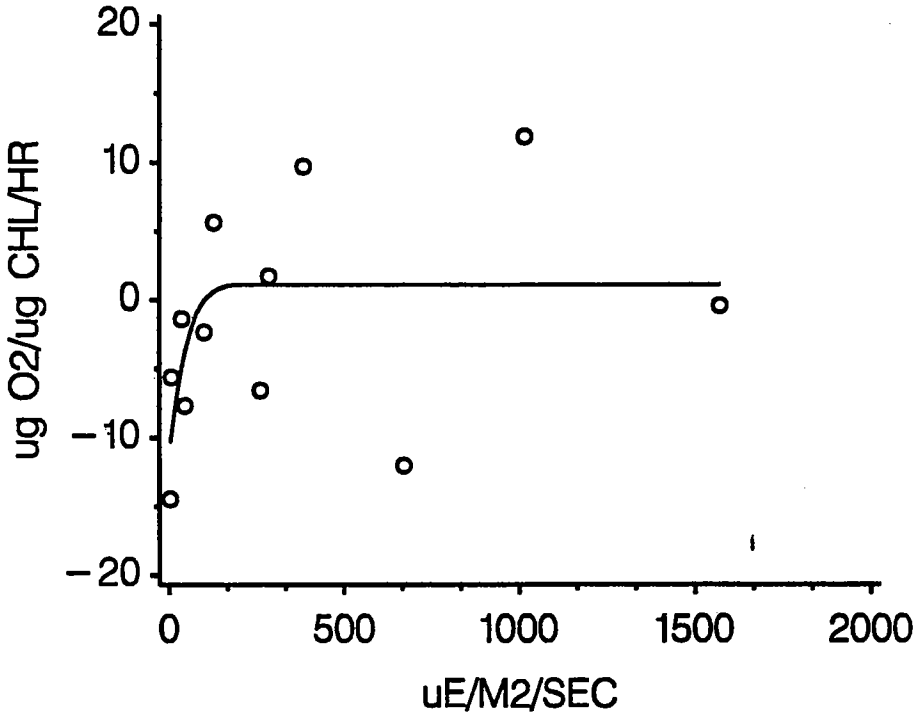
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 10, AUG 1992

STATION F23P SURFACE



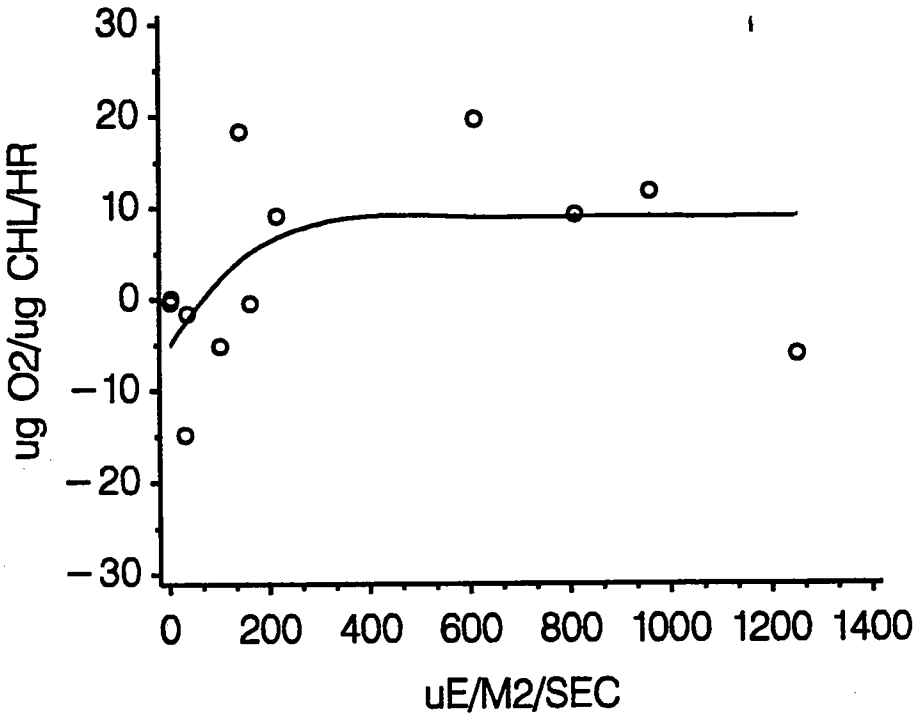
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 10, AUG 1992

STATION F2P CHLA MAXIMUM



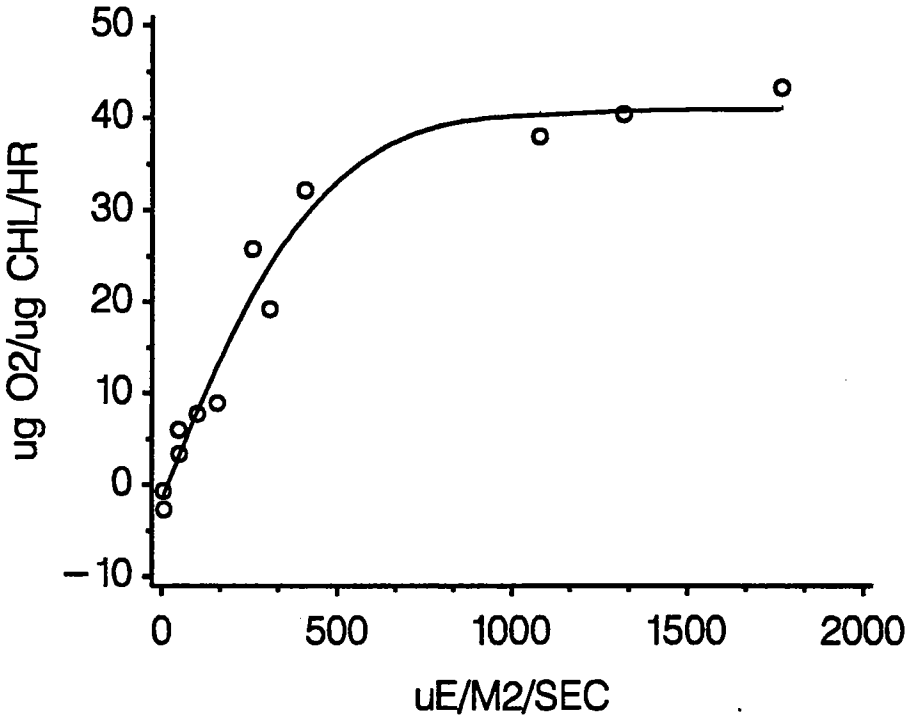
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 10, AUG 1992

STATION N10P CHLA MAXIMUM



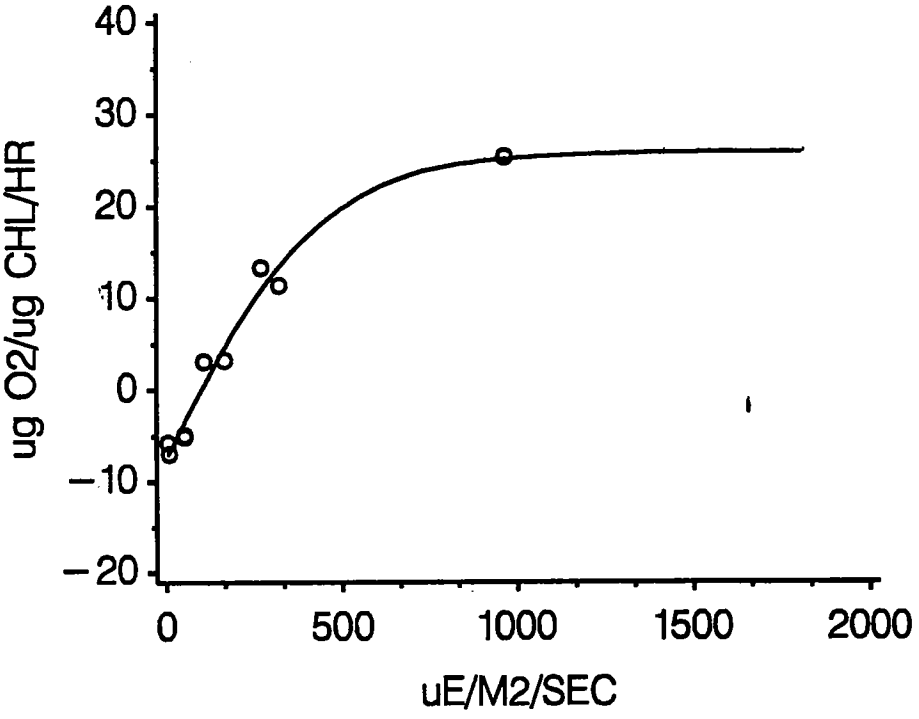
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 10, AUG 1992

STATION N10P SURFACE



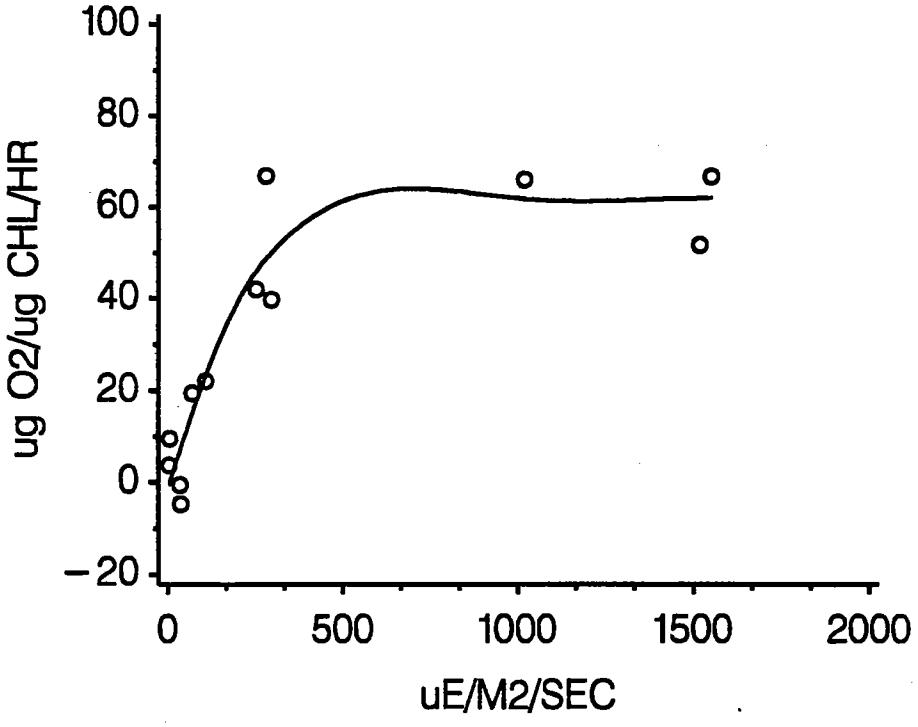
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 10, AUG 1992

STATION N1P SURFACE



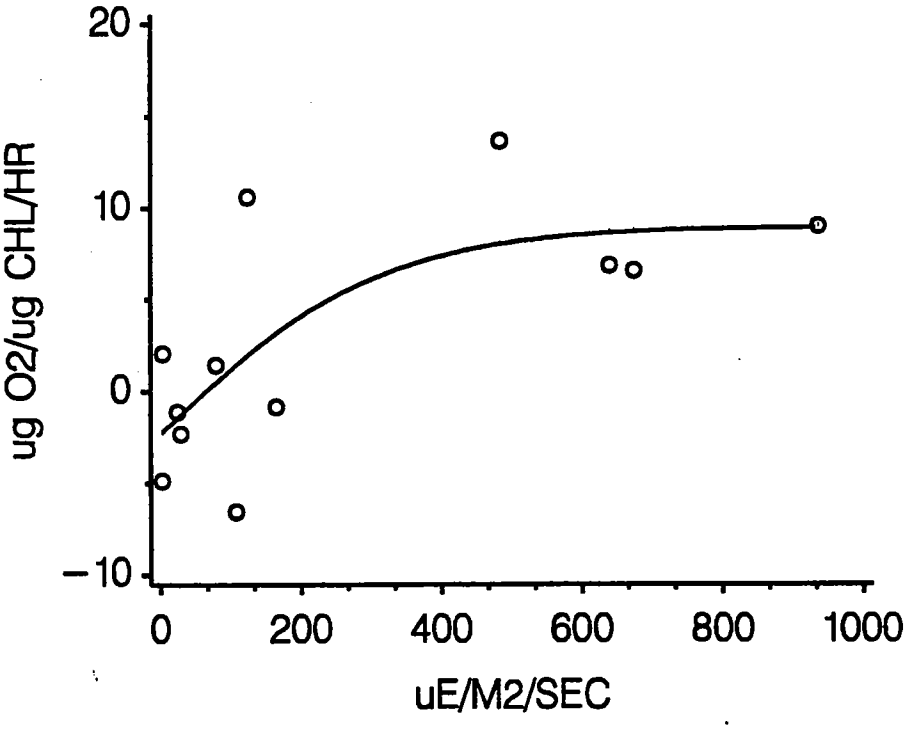
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 10, AUG 1992

STATION N20P SURFACE



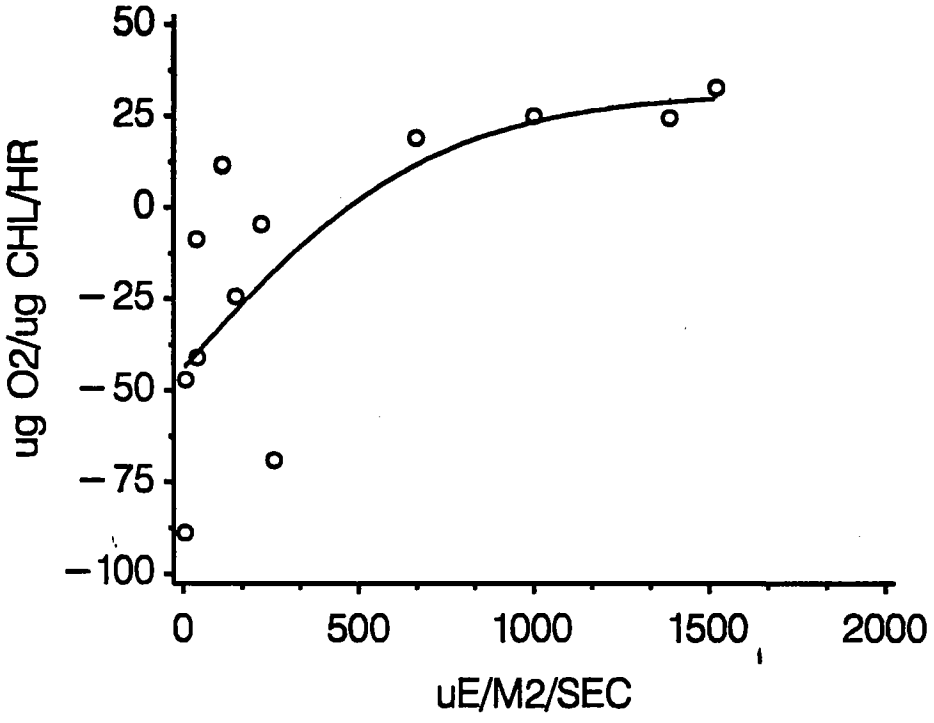
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 10, AUG 1992

STATION N4P CHLA MAXIMUM



MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 10, AUG 1992

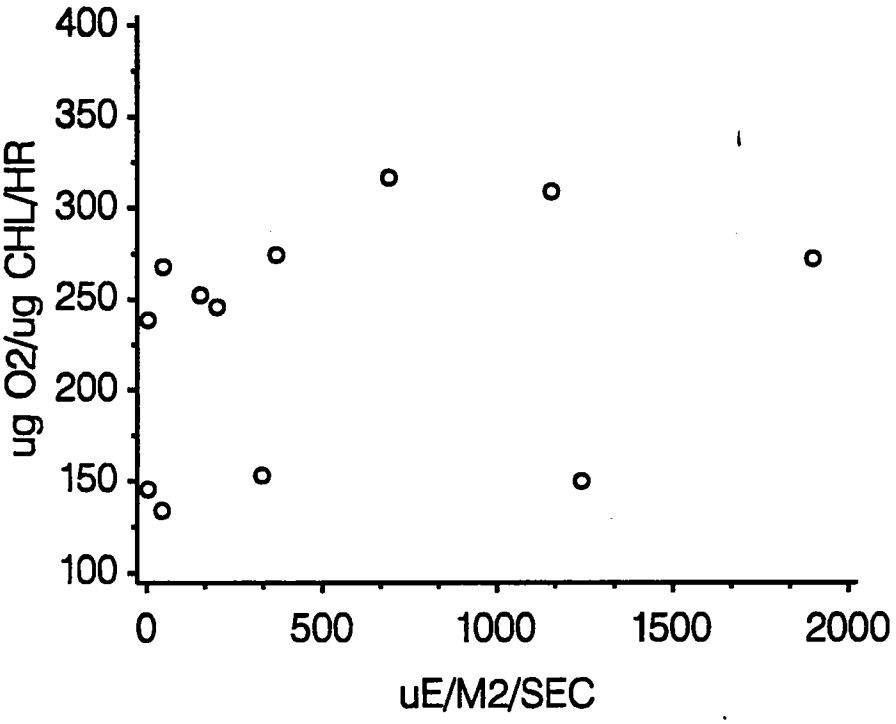
STATION N7P SURFACE



MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 10, AUG 1992

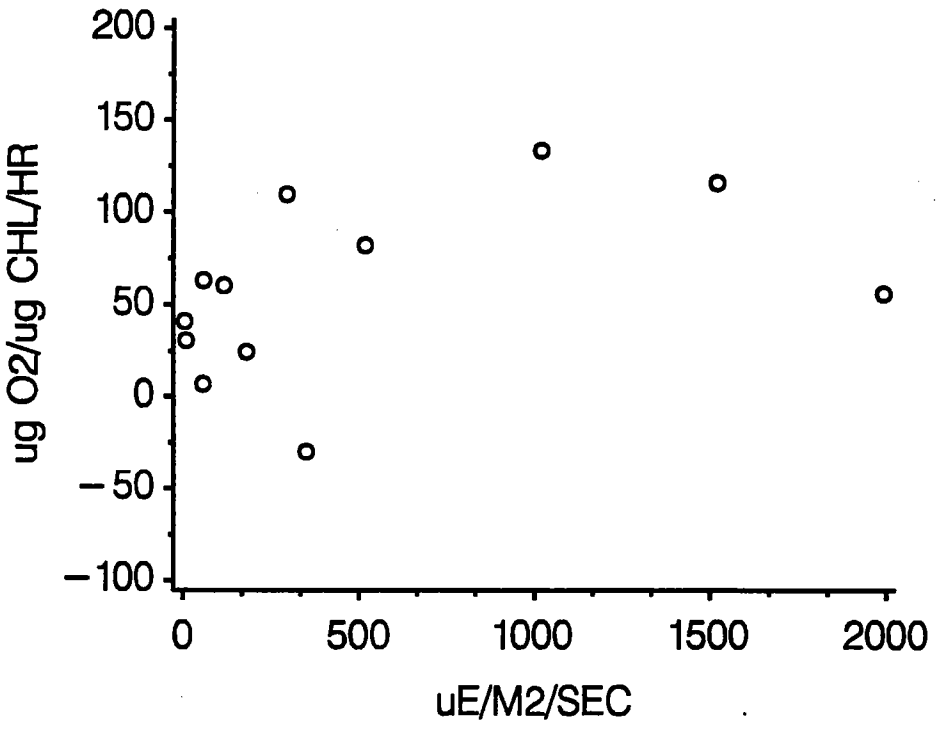
Stations Not Fit by P-I Modeling: Late August

STATION F13P SURFACE



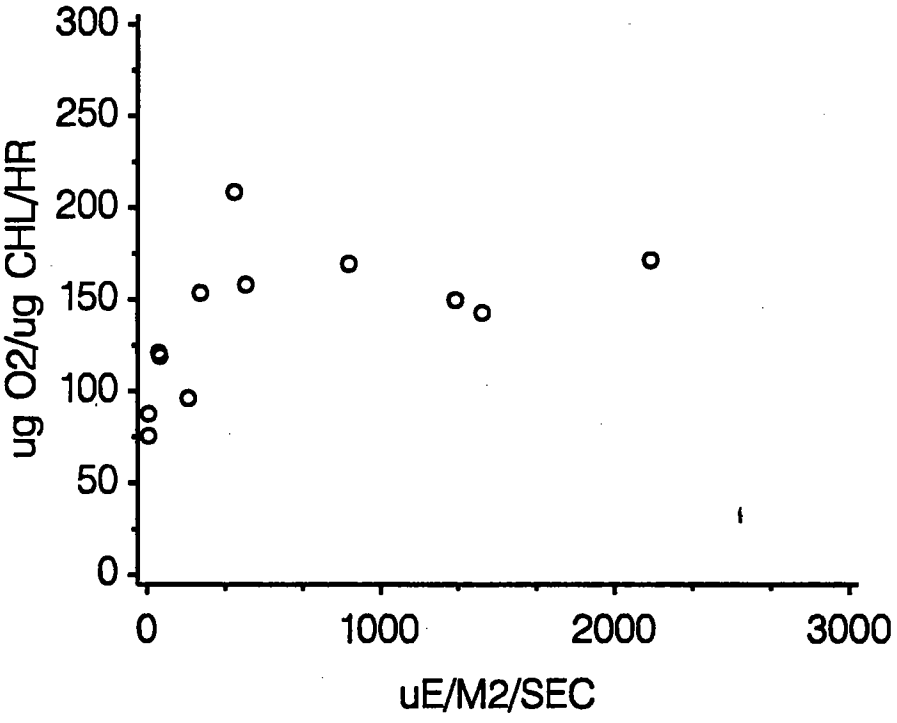
MODEL DID NOT FIT
CRUISE NUMBER 10, AUG 1992

STATION F1P SURFACE



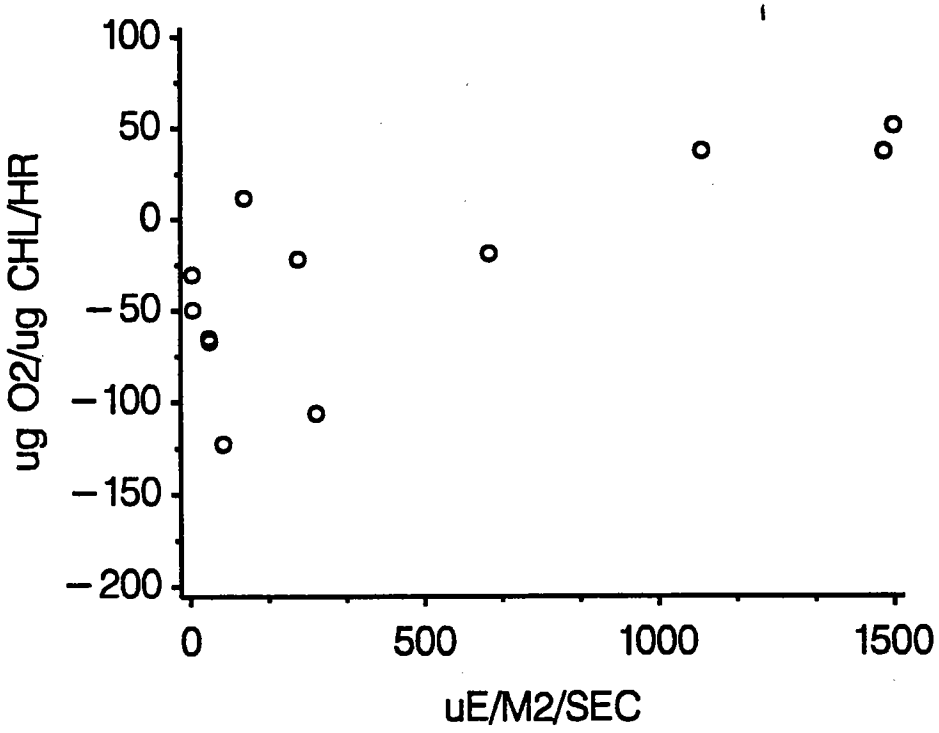
MODEL DID NOT FIT
CRUISE NUMBER 10, AUG 1992

STATION F2P SURFACE



MODEL DID NOT FIT
CRUISE NUMBER 10, AUG 1992

STATION N4P SURFACE



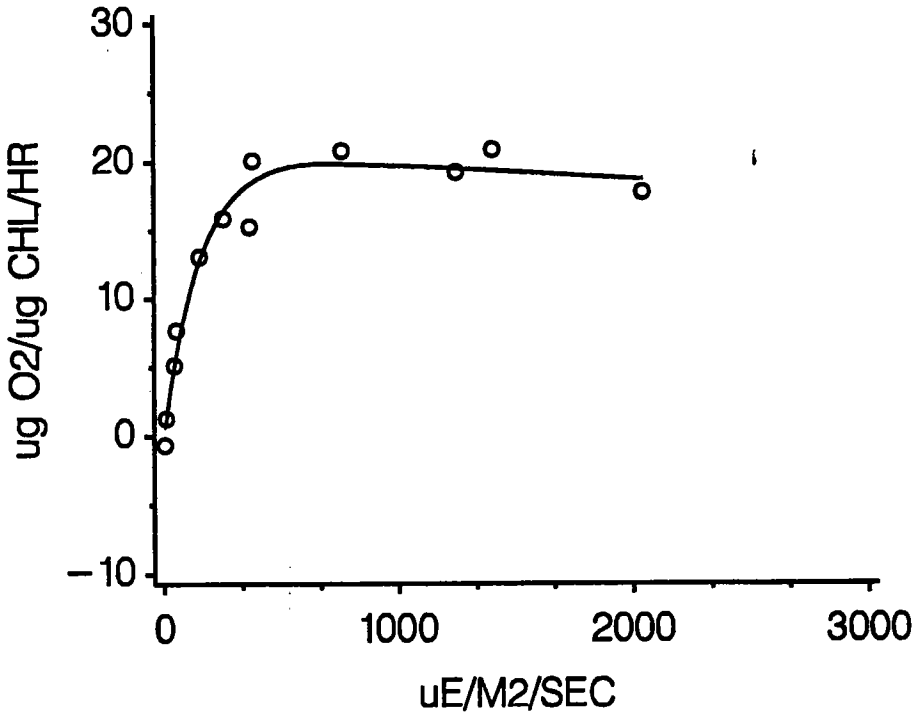
MODEL DID NOT FIT
CRUISE NUMBER 10, AUG 1992

Table E2-3. P vs. I Curve Parameters for the Platt *et al.* (1980) Model: October.
Numbers in parentheses are standard errors of the estimates.
The R^2 is significant at the ≤ 0.05 if it exceeds 0.40.

P VS I CURVE PARAMETERS OCTOBER 1992
MODEL PLATT ET AL, 1980

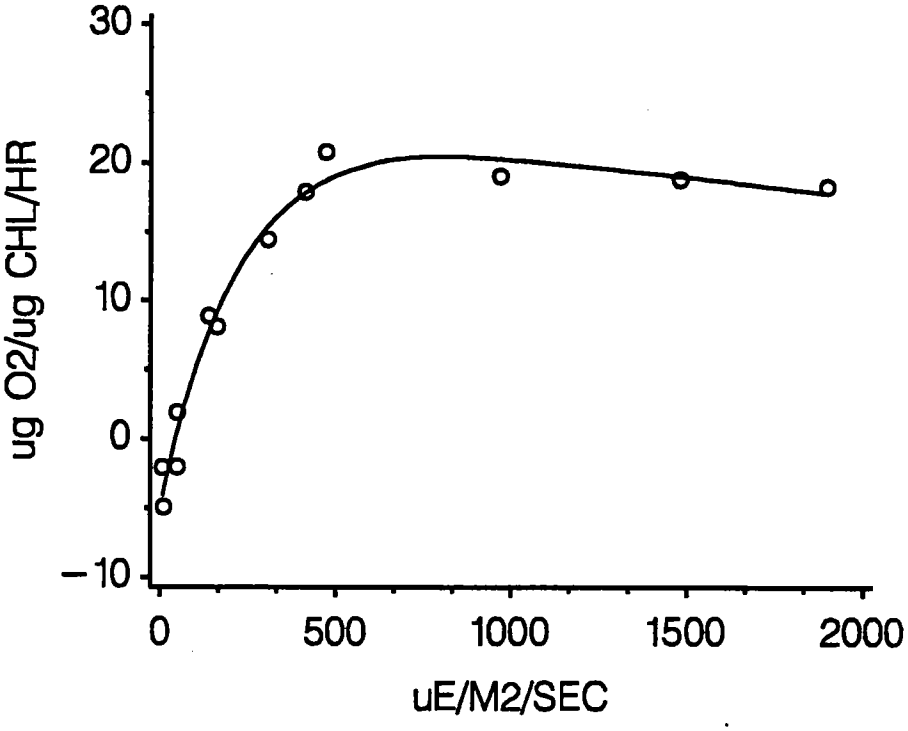
STA	DEPTH	P_SB	ALPHA	BETA	RESP	R_2
F13P	CHL	20.90(2.35)	0.130(0.020)	0.001(0.001)	0.00(0.00)	0.96
	SUR	29.19(5.36)	0.121(0.022)	0.004(0.004)	4.87(1.17)	0.97
F1P	CHL	. .	. .	. .	. .	.
	SUR	. .	. .	. .	. .	.
F23P	CHL	. .	. .	. .	. .	.
	SUR	. .	. .	. .	. .	.
F2P	CHL	16.57(4.80)	0.190(0.092)	0.003(0.005)	0.00(0.00)	0.56
	SUR	. .	. .	. .	. .	.
N10P	CHL	. .	. .	. .	. .	.
	SUR	. .	. .	. .	. .	.
N16P	CHL	. .	. .	. .	. .	.
	SUR	. .	. .	. .	. .	.
N1P	CHL	. .	. .	. .	. .	.
	SUR	. .	. .	. .	. .	.
N20P	CHL	. .	. .	. .	. .	.
	SUR	. .	. .	. .	. .	.
N4P	CHL	. .	. .	. .	. .	.
	SUR	. .	. .	. .	. .	.
N7P	CHL	76.70(154.9)	0.096(0.021)	0.067(0.203)	4.52(1.33)	0.94
	SUR	. .	. .	. .	. .	.

STATION F13P CHLA MAXIMUM



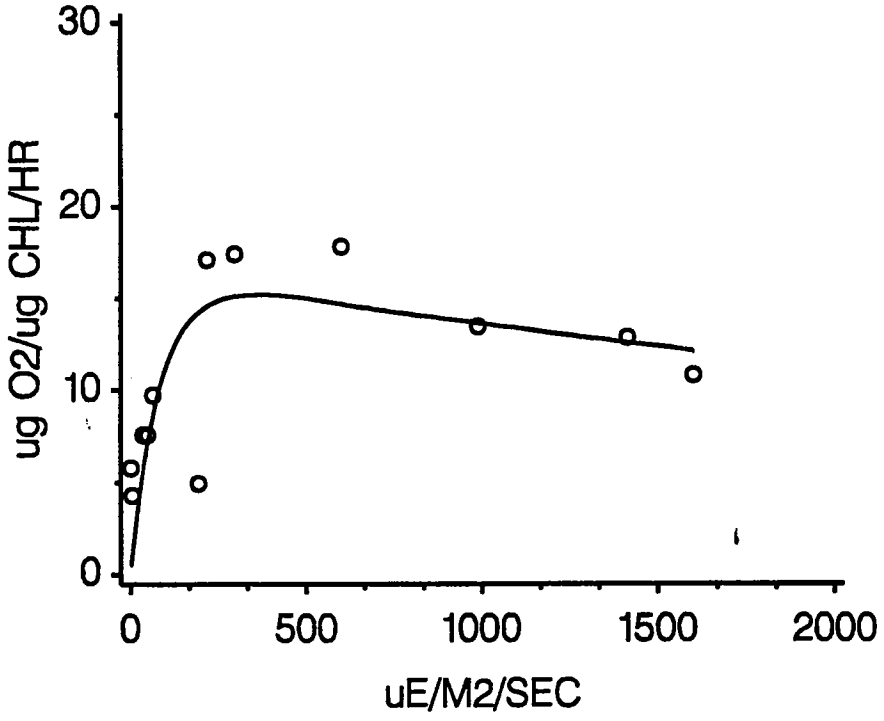
MODEL FROM PLATT ET AL, 1980
CRUISE NUMBER 12, OCT 1992

STATION F13P SURFACE



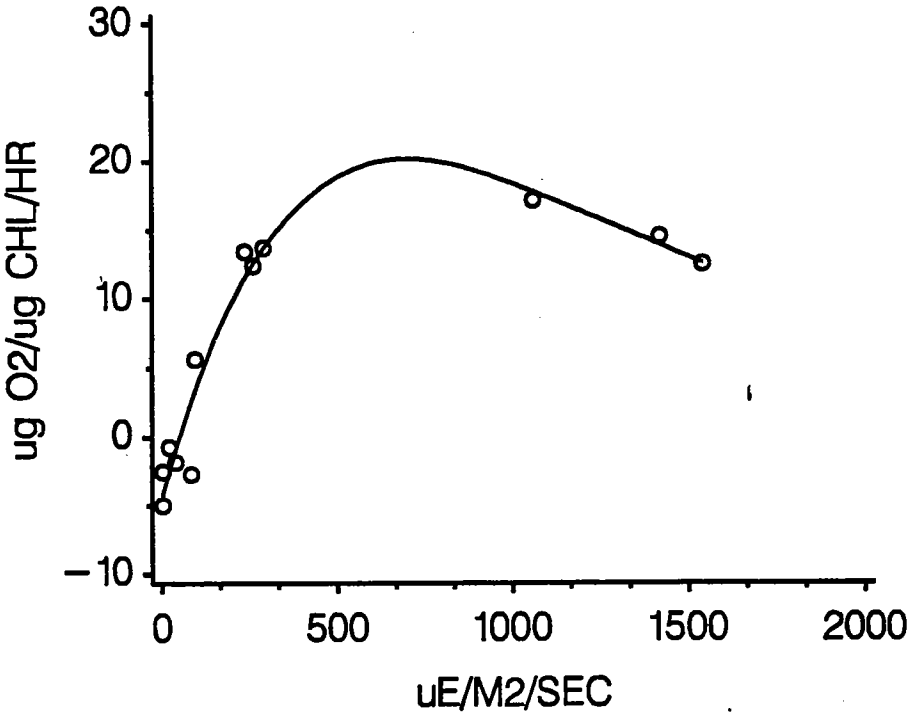
MODEL FROM PLATT ET AL, 1980
CRUISE NUMBER 12, OCT 1992

STATION F2P CHLA MAXIMUM



MODEL FROM PLATT ET AL, 1980
CRUISE NUMBER 12, OCT 1992

STATION N7P CHLA MAXIMUM



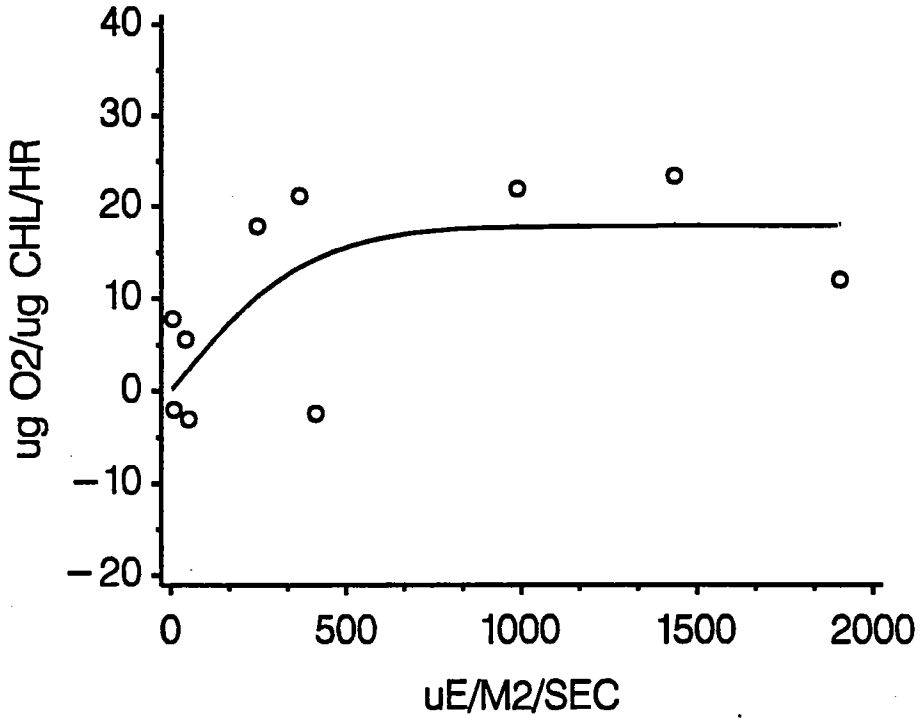
MODEL FROM PLATT ET AL, 1980
CRUISE NUMBER 12, OCT 1992

Table E2-4. P vs. I Curve Parameters for the Platt and Jassby (1976) Model: October.
Numbers in parentheses are standard errors of the estimates.
The R^2 is significant at the $p \leq 0.05$ level if it exceeds 0.36.

P VS I CURVE PARAMETERS OCTOBER 1992
MODEL PLATT AND JASSBY, 1976

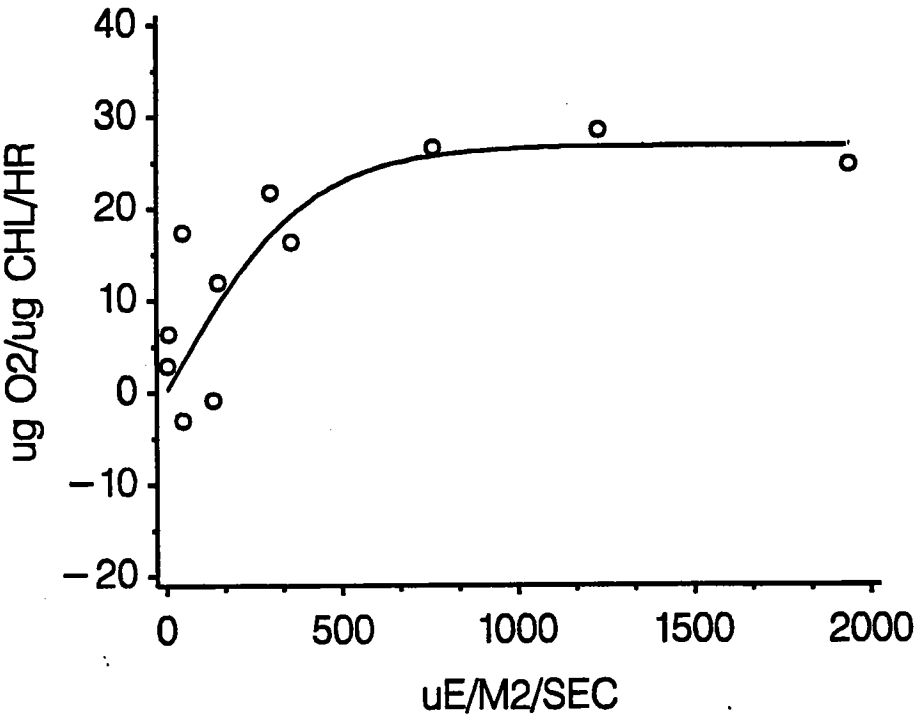
STATION	DEPTH	PMAX	ALPHA	RESP	R_2
F13P	CHL	. .	. .	. .	.
	SUR	. .	. .	. .	.
F1P	CHL	18.15(4.45)	0.046(0.032)	0.00(0.00)	0.42
	SUR	26.99(4.60)	0.670(0.023)	0.00(0.00)	0.69
F23P	CHL	32.15(5.23)	0.080(0.041)	17.65(4.74)	0.72
	SUR	49.23(7.27)	0.150(0.066)	21.78(4.91)	0.80
F2P	CHL	. .	. .	. .	.
	SUR	35.76(6.83)	0.175(0.080)	0.00(0.00)	0.54
N10P	CHL	31.80(3.30)	0.059(0.008)	0.00(0.00)	0.95
	SUR	25.21(3.74)	0.083(0.025)	4.09(2.39)	0.84
N16P	CHL	21.04(1.44)	0.117(0.019)	0.51(1.14)	0.95
	SUR	26.52(1.99)	0.099(0.018)	4.27(1.41)	0.95
N1P	CHL	28.68(2.85)	0.086(0.021)	3.57(1.78)	0.92
	SUR	26.65(8.37)	0.061(0.041)	0.31(3.29)	0.66
N20P	CHL	25.59(6.29)	0.149(0.103)	21.09(5.23)	0.64
	SUR	. .	. .	. .	.
N4P	CHL	17.01(3.77)	0.110(0.072)	10.12(3.96)	0.63
	SUR	15.80(3.33)	0.066(0.027)	5.45(2.85)	0.70
N7P	CHL	. .	. .	. .	.
	SUR	21.45(2.85)	0.143(0.058)	5.46(2.57)	0.86

STATION F1P CHLA MAXIMUM



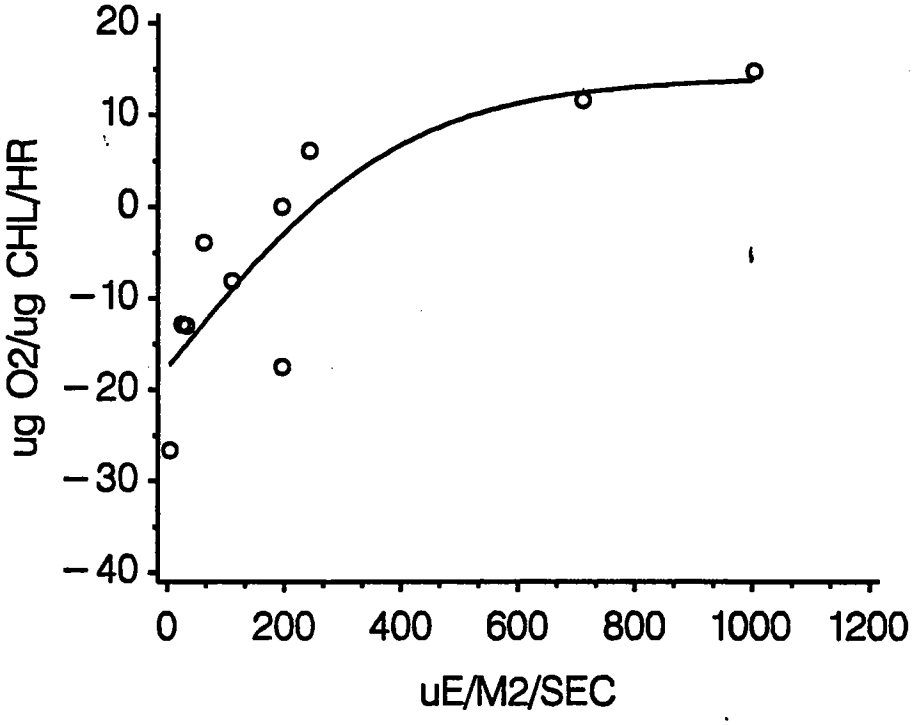
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

STATION F1P SURFACE



MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

STATION F23P CHLA MAXIMUM



MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

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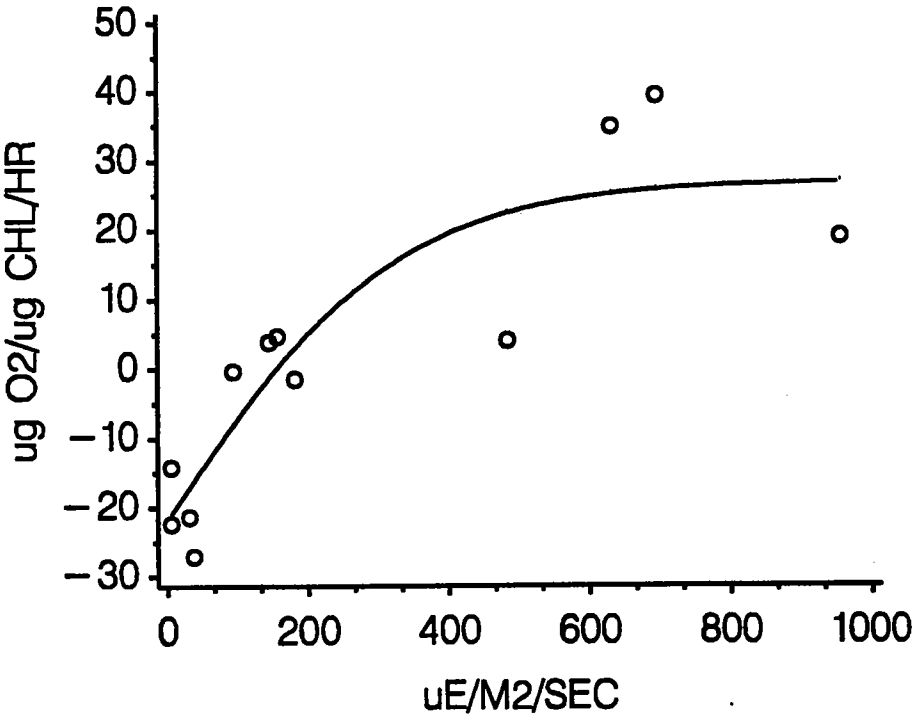
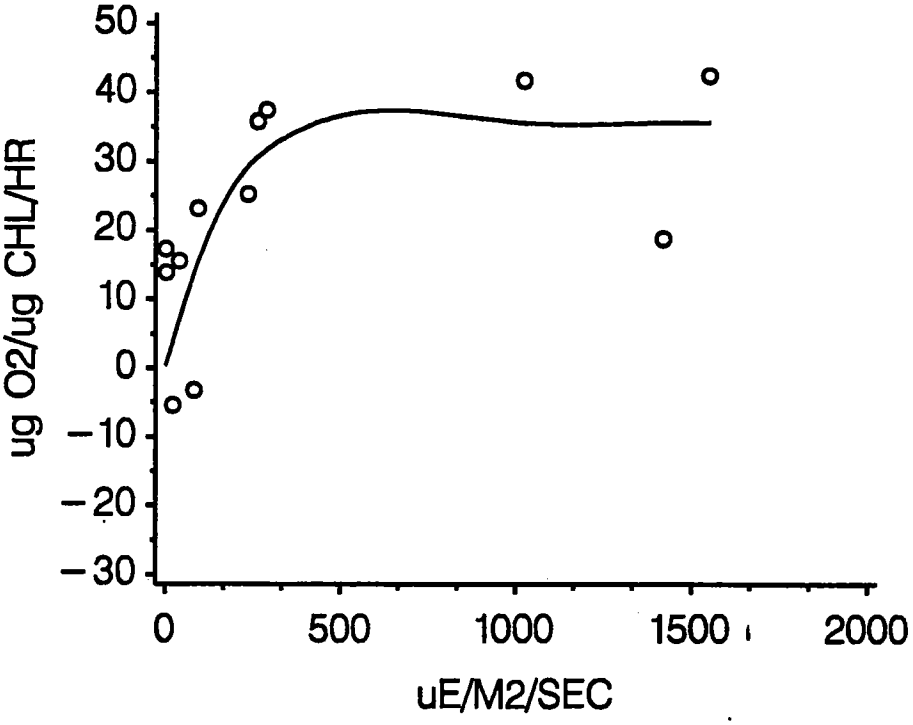


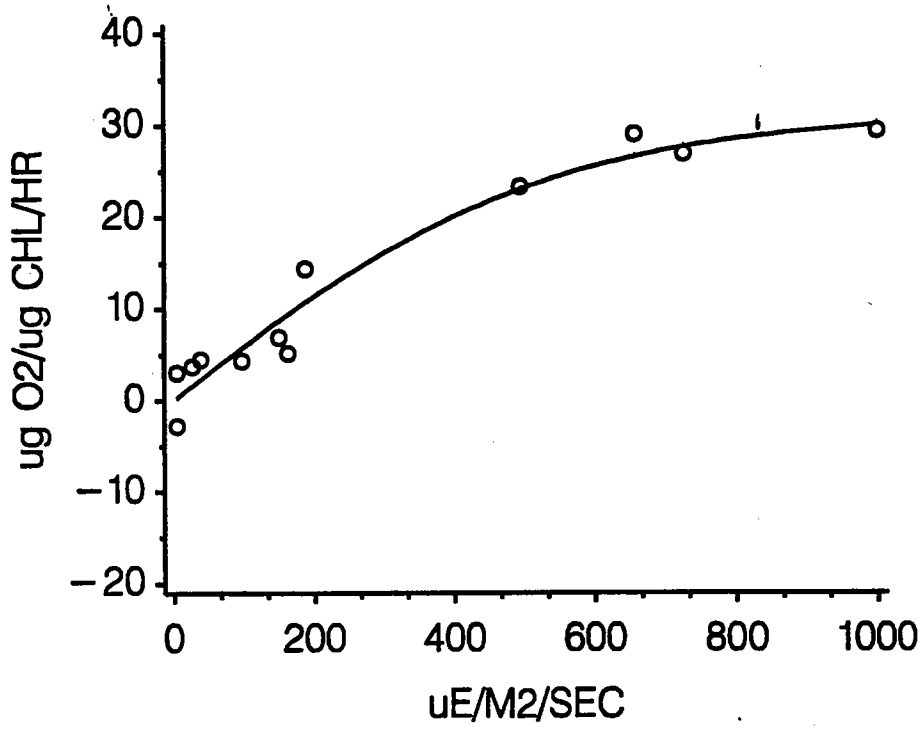
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

STATION F2P SURFACE



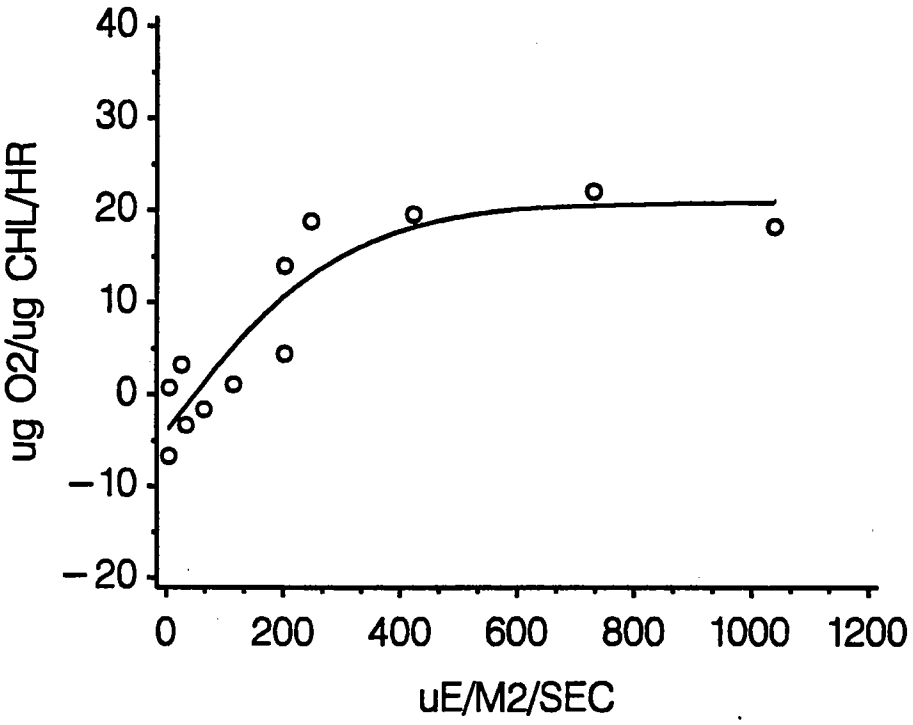
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

STATION N10P CHLA MAXIMUM



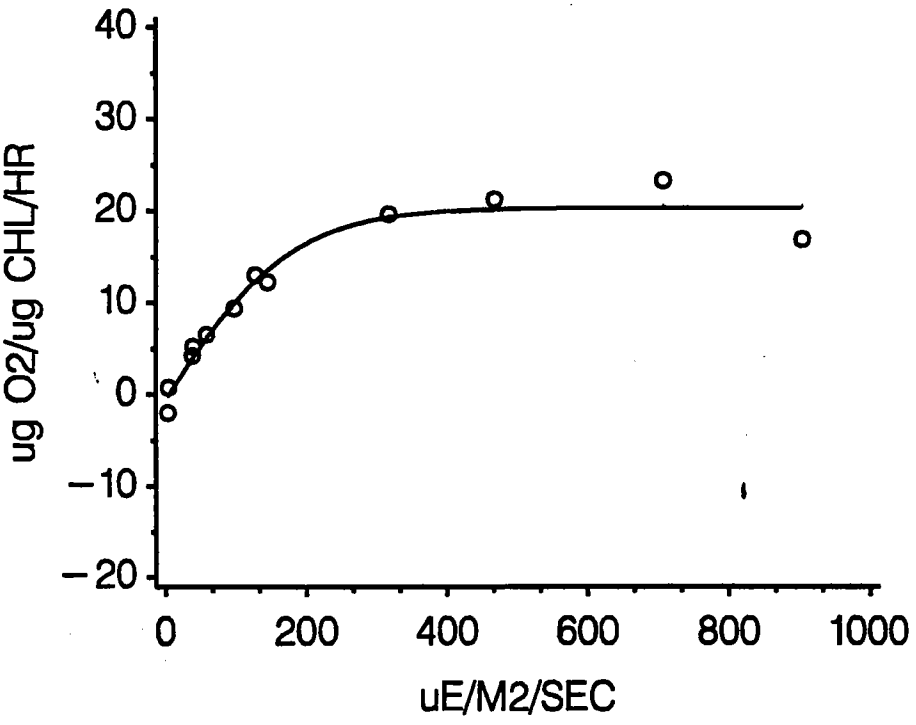
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

STATION N10P SURFACE



MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

STATION N16P CHLA MAXIMUM



MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

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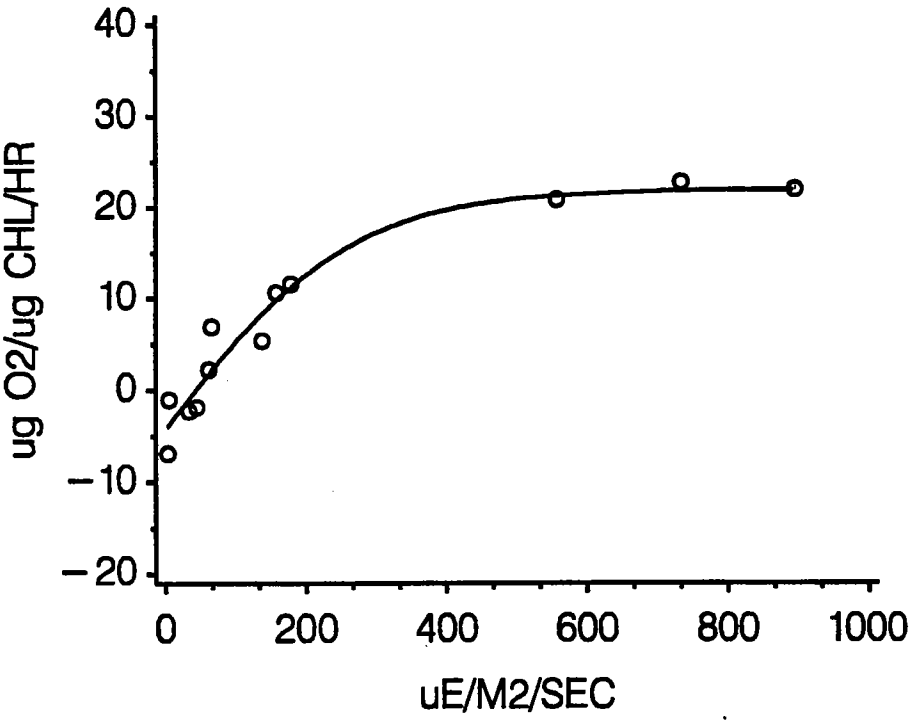
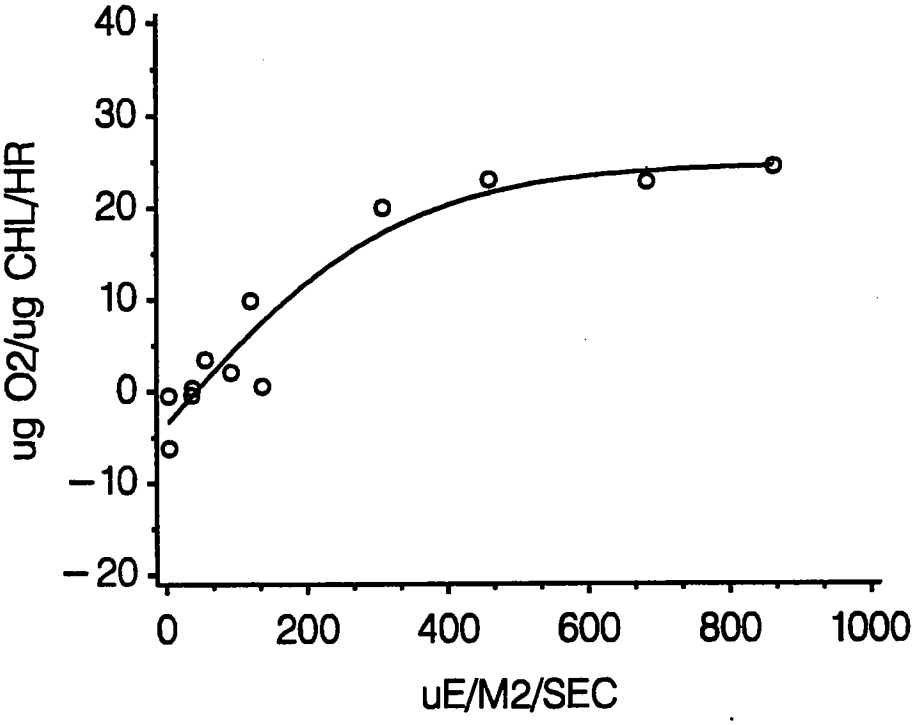


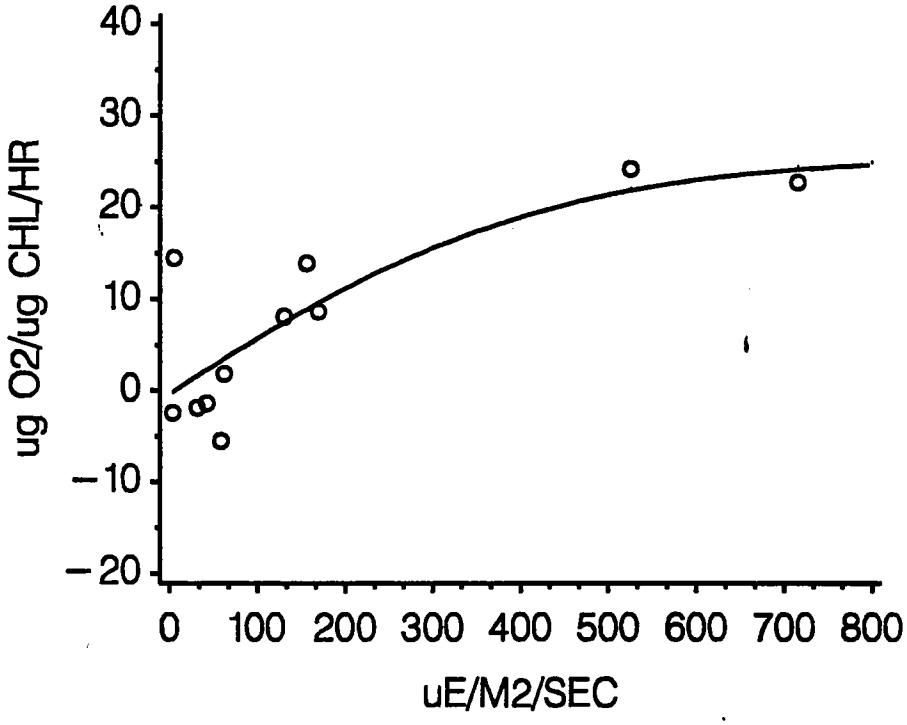
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

STATION N1P CHLA MAXIMUM



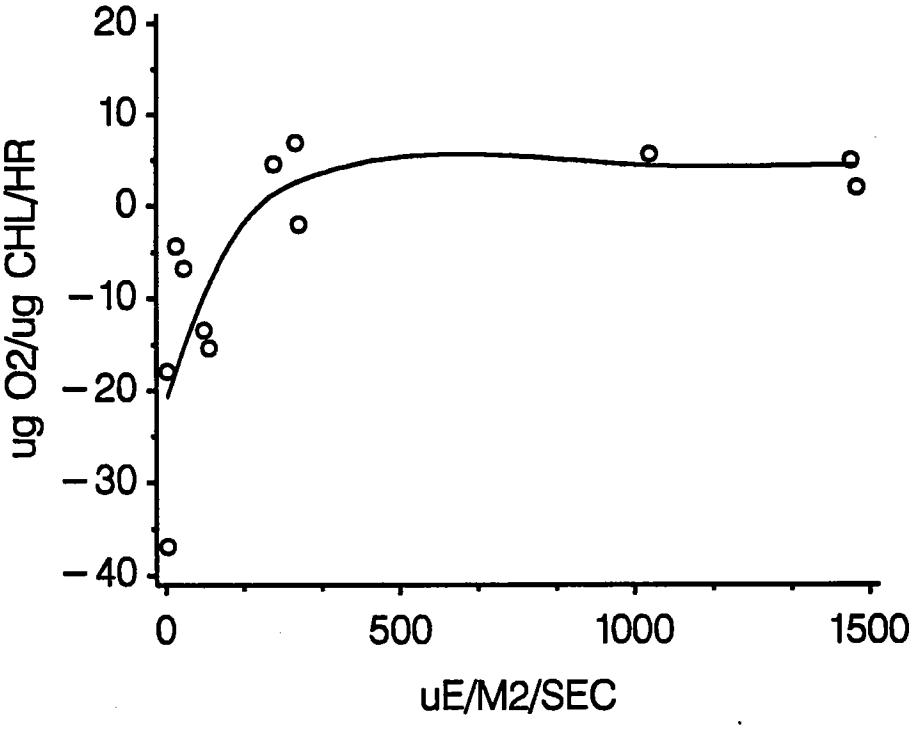
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

STATION N1P SURFACE



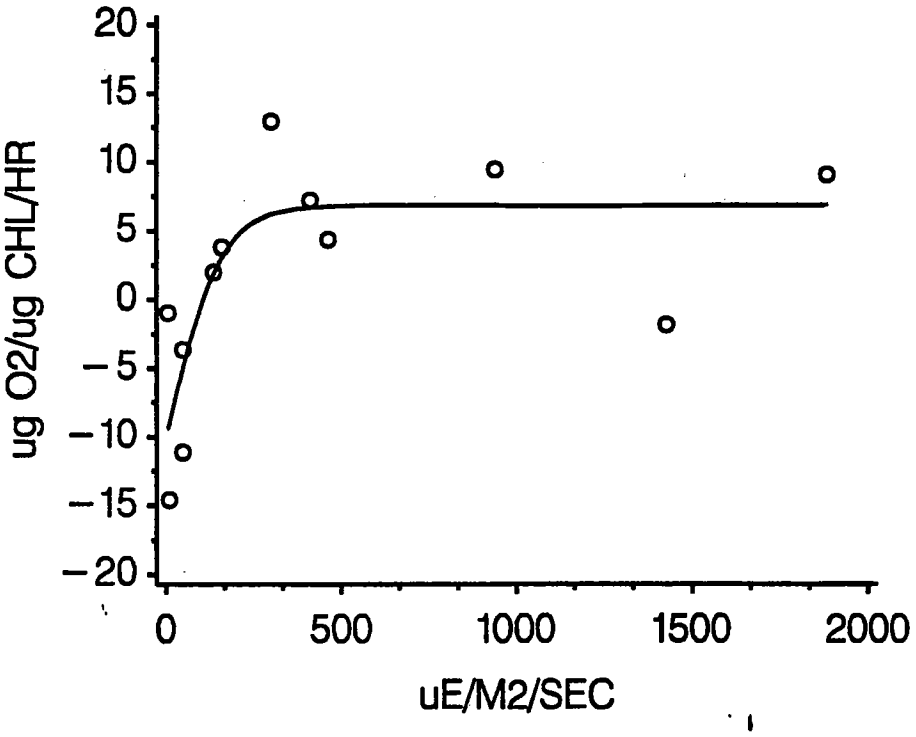
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

STATION N20P CHLA MAXIMUM



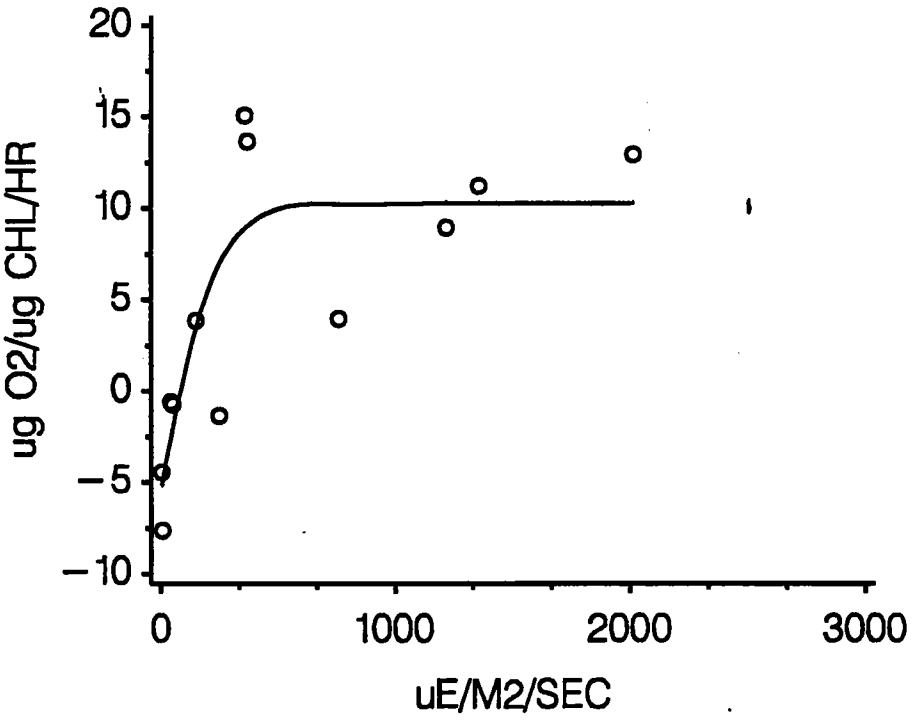
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

STATION N4P CHLA MAXIMUM



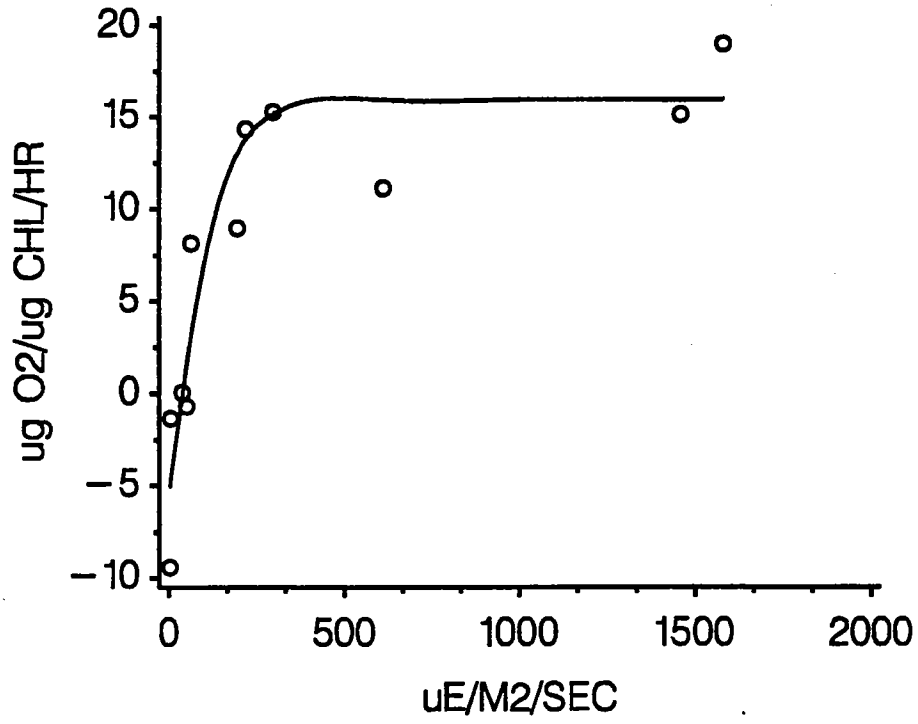
MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

STATION N4P SURFACE



MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

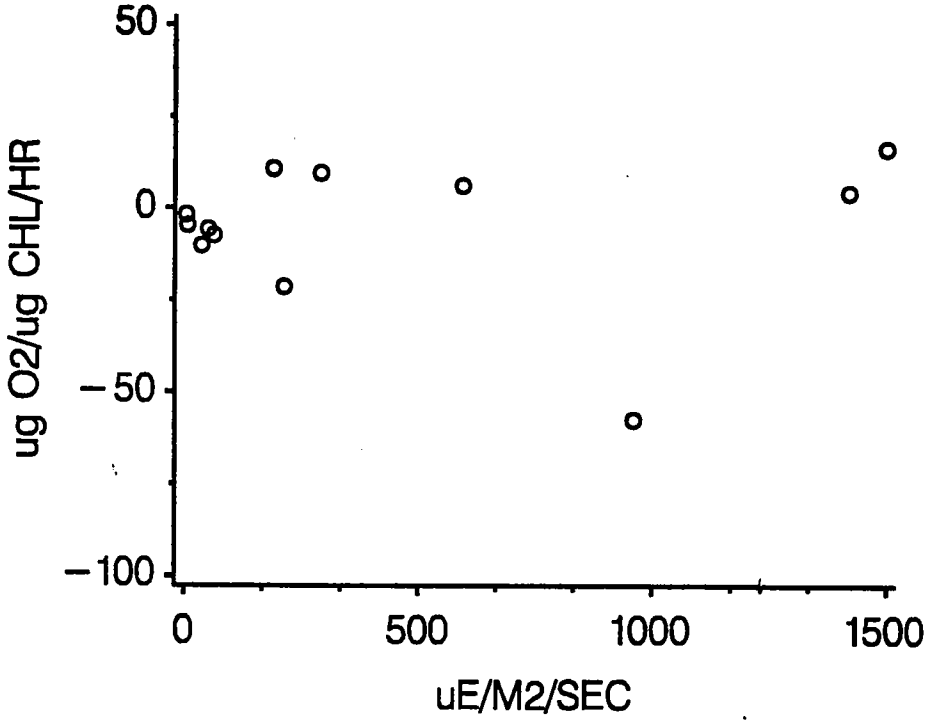
STATION N7P SURFACE



MODEL FROM PLATT AND JASSBY, 1976
CRUISE NUMBER 12, OCT 1992

Stations Not Fit by P-I Modeling: October

STATION N20P SURFACE



MODEL DID NOT FIT
CRUISE NUMBER 12, OCT 1992

APPENDIX E

METABOLISM DATA AND PRODUCTIVITY—IRRADIANCE MODELING

Part 3

Respiration Data

Tables E3-1 and E3-2 for late August and October give mean dissolved concentrations (mg O_2 L^{-1}) for initial samples and those incubated in the dark for about 6 h. The numbers in parentheses are standard deviations (n= 3 in most cases) for initial and final concentrations. p = the probability, from t-test for statistical significance, that one can reject the null hypothesis that the initial concentration is equal to the final concentration. Routinely, $p \leq 0.05$ is used to imply significance (i.e. "the 95% confidence level").

Table E3-1. Late August Respiration Data.

RESPIRATION CRUISE 10

STATION	DEPTH	INITIAL	DARK	p
F13P	BOT	8.874(0.020)	8.850(0.033)	0.35
	CHL	8.924(0.041)	8.822(0.097)	0.20
	SUR	8.321(0.055)	8.338(0.110)	0.83
F1P	BOT	8.561(0.051)	8.546(0.066)	0.77
	CHL	8.954(0.058)	8.839(0.037)	0.05
	SUR	8.499(0.028)	8.486(0.041)	0.67
F23P	BOT	8.039(0.002)	7.897(0.064)	0.02
	CHL	8.090(0.040)	8.016(0.011)	0.03
	SUR	8.057(0.034)	8.008(0.016)	0.09
F2P	BOT	9.004(0.067)	8.948(0.026)	0.25
	CHL	8.785(0.006)	8.536(0.074)	0.03
	SUR	8.343(0.059)	8.497(0.078)	0.08
N10P	BOT	8.822(0.098)	8.712(0.119)	0.28
	CHL	8.574(0.045)	8.512(0.084)	0.34
	SUR	8.431(0.055)	8.288(0.016)	0.02
N16P	BOT	9.179(0.017)	9.141(0.039)	0.23
	CHL	9.471(0.050)	9.495(0.029)	0.51
	SUR	8.611(0.031)	8.574(0.085)	0.52
N1P	BOT	8.851(0.028)	8.786(0.013)	0.02
	CHL	9.416(0.020)	9.285(0.030)	0.01
	SUR	9.799(0.084)	9.310(0.068)	0.01
N20P	BOT	8.993(0.015)	8.885(0.022)	0.01
	CHL	8.917(0.094)	8.724(0.057)	0.04
	SUR	8.997(0.013)	8.873(0.065)	0.03
N4P	BOT	8.883(0.052)	8.852(0.035)	0.43
	CHL	9.477(0.014)	9.387(0.037)	0.02
	SUR	8.439(0.060)	8.418(0.032)	0.63
N7P	BOT	9.119(0.031)	9.272(0.071)	0.03
	CHL	9.319(0.086)	9.244(0.039)	0.24
	SUR	8.924(0.053)	8.920(0.019)	0.89

Table E3-2. October Respiration Data.

RESPIRATION CRUISE 12

STATION	DEPTH	INITIAL	DARK	p
F13P	BOT	7.909(0.105)	7.888(0.064)	0.78
	CHL	9.127(0.044)	9.108(0.031)	0.58
	SUR	9.347(0.018)	9.238(0.027)	0.01
F1P	BOT	7.633(0.069)	7.589(0.029)	0.39
	CHL	8.666(0.027)	8.527(0.115)	0.17
	SUR	8.600(0.092)	8.571(0.140)	0.78
F23P	BOT	7.215(0.083)	7.243(0.041)	0.64
	CHL	7.323(0.055)	7.232(0.009)	0.04
	SUR	7.323(0.084)	7.194(0.063)	0.1
F2P	BOT	7.413(0.031)	7.440(0.013)	0.27
	CHL	8.648(0.023)	8.552(0.024)	0.01
	SUR	8.985(0.081)	9.066(0.033)	0.18
N10P	BOT	7.005(0.137)	7.041(0.078)	0.71
	CHL	8.269(0.091)	8.275(0.117)	0.94
	SUR	8.299(0.102)	8.281(0.017)	0.79
N16P	BOT	7.517(0.071)	7.686(0.137)	0.13
	CHL	9.028(0.073)	9.062(0.016)	0.51
	SUR	9.071(0.087)	9.063(0.038)	0.88
N1P	BOT	7.409(0.081)	7.371(0.024)	0.51
	CHL	8.222(0.028)	8.105(0.087)	0.14
	SUR	8.133(0.147)	7.970(0.048)	0.24
N20P	BOT	7.355(0.061)	7.269(0.122)	0.34
	CHL	8.398(0.017)	7.916(0.206)	0.02
	SUR	8.458(0.061)	7.668(0.617)	0.15
N4P	BOT	7.671(0.018)	7.692(0.008)	0.22
	CHL	9.172(0.025)	9.108(0.060)	0.16
	SUR	9.193(0.062)	8.963(0.106)	0.03
N7P	BOT	7.329(0.055)	7.338(0.096)	0.91
	CHL	9.221(0.060)	9.169(0.040)	0.29
	SUR	9.188(0.020)	9.127(0.027)	0.03

APPENDIX F

PHYTOPLANKTON SPECIES DATA TABLES

Data are for late August (MFF05) and October (MFF06 1992). In coding taxa, an alphabetic character prefix was used to denote groups, where D=diatoms, F= dinoflagellates, U=microflagellates, and O= other.

Table F-1. Phytoplankton species data tables from whole-water samples collected in August and October 1992.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF05	F01P	08-25-92	08:17	1.93	CERATAULINA PELAGICA	D10	.028
MFF05	F01P	08-25-92	08:17	1.93	UNID. CENTRALES	D100	.006
MFF05	F01P	08-25-92	08:17	1.93	UNID. PENNALES	D101	.011
MFF05	F01P	08-25-92	08:17	1.93	CHAETOCEROS (CF) PERUVIANUS	D105	.006
MFF05	F01P	08-25-92	08:17	1.93	CHAETOCEROS DEBILIS	D18	.022
MFF05	F01P	08-25-92	08:17	1.93	CHAETOCEROS SPP.(<10UM)	D30	.034
MFF05	F01P	08-25-92	08:17	1.93	COCCONEIS SCUTELLUM	D32	.011
MFF05	F01P	08-25-92	08:17	1.93	COSCINODISCUS SPP.	D40	.006
MFF05	F01P	08-25-92	08:17	1.93	DITYLUM BRIGHTWELLII	D45	.006
MFF05	F01P	08-25-92	08:17	1.93	GRAMMATOPHORA MARINA	D47	.017
MFF05	F01P	08-25-92	08:17	1.93	LICMOPHORA SPP.	D55	.006
MFF05	F01P	08-25-92	08:17	1.93	NAVICULOID DIATOMS	D59	.006
MFF05	F01P	08-25-92	08:17	1.93	NITZSCHIA SPP.	D67	.006
MFF05	F01P	08-25-92	08:17	1.93	RHIZOSELENIA ALATA	D74	.028
MFF05	F01P	08-25-92	08:17	1.93	DINOPHYSIS NORVEGICA	F14	.006
MFF05	F01P	08-25-92	08:17	1.93	UNID. NAKED DINOFLAGELLATE	F50	.017
MFF05	F01P	08-25-92	08:17	1.93	CERATIUM LONGIPES	F51	.011
MFF05	F01P	08-25-92	08:17	1.93	CRYPTOMONADS	O1	.196
MFF05	F01P	08-25-92	08:17	1.93	EUTREPTIA SPP.	O12	.011
MFF05	F01P	08-25-92	08:17	1.93	EBRIA TRIPARTITIA	O5	.006
MFF05	F01P	08-25-92	08:17	1.93	MICROFLAGELLATES	U1	1.912
MFF05	F01P	08-25-92	08:11	15.76	CHAETOCEROS DECIPIENS	D19	.015
MFF05	F01P	08-25-92	08:11	15.76	CHAETOCEROS SOCIALIS	D27	.196
MFF05	F01P	08-25-92	08:11	15.76	CHAETOCEROS SPP.(>10UM)	D31	.007
MFF05	F01P	08-25-92	08:11	15.76	COCCONEIS SCUTELLUM	D32	.007
MFF05	F01P	08-25-92	08:11	15.76	COSCINODISCUS SPP.	D40	.007
MFF05	F01P	08-25-92	08:11	15.76	CYLINDROTHECA CLOSTERIUM	D42	.007
MFF05	F01P	08-25-92	08:11	15.76	GRAMMATOPHORA MARINA	D47	.007
MFF05	F01P	08-25-92	08:11	15.76	LICMOPHORA SPP.	D55	.007
MFF05	F01P	08-25-92	08:11	15.76	NITZSCHIA SPP.	D67	.007
MFF05	F01P	08-25-92	08:11	15.76	RHIZOSELENIA ALATA	D74	.015
MFF05	F01P	08-25-92	08:11	15.76	RHIZOSELENIA DELICATULA	D76	.065
MFF05	F01P	08-25-92	08:11	15.76	PROROCENTRUM MICANS	F31	.007
MFF05	F01P	08-25-92	08:11	15.76	UNID. DINOFLAGELLATES	F49	.007
MFF05	F01P	08-25-92	08:11	15.76	UNID. NAKED DINOFLAGELLATE	F50	.051
MFF05	F01P	08-25-92	08:11	15.76	CERATIUM LONGIPES	F51	.015
MFF05	F01P	08-25-92	08:11	15.76	CERATIUM FUSUS	F6	.007
MFF05	F01P	08-25-92	08:11	15.76	CRYPTOMONADS	O1	.61
MFF05	F01P	08-25-92	08:11	15.76	EBRIA TRIPARTITIA	O5	.051
MFF05	F01P	08-25-92	08:11	15.76	MICROFLAGELLATES	U1	2.259
MFF05	F02P	08-25-92	10:15	1.96	CERATAULINA PELAGICA	D10	.012
MFF05	F02P	08-25-92	10:15	1.96	UNID. PENNALES	D101	.004
MFF05	F02P	08-25-92	10:15	1.96	COSCINODISCUS (CF) WAILESII	D107	.008
MFF05	F02P	08-25-92	10:15	1.96	CHAETOCEROS COMPRESSUS	D13	.019
MFF05	F02P	08-25-92	10:15	1.96	CHAETOCEROS SPP.(<10UM)	D30	.008
MFF05	F02P	08-25-92	10:15	1.96	COSCINODISCUS OCULUS-IRIDIS	D38	.004
MFF05	F02P	08-25-92	10:15	1.96	COSCINODISCUS SPP.	D40	.008
MFF05	F02P	08-25-92	10:15	1.96	CYLINDROTHECA CLOSTERIUM	D42	.004
MFF05	F02P	08-25-92	10:15	1.96	NITZSCHIA SPP.	D67	.004
MFF05	F02P	08-25-92	10:15	1.96	RHIZOSELENIA ALATA	D74	.054
MFF05	F02P	08-25-92	10:15	1.96	PROROCENTRUM MICANS	F31	.008
MFF05	F02P	08-25-92	10:15	1.96	UNID. NAKED DINOFLAGELLATE	F50	.016
MFF05	F02P	08-25-92	10:15	1.96	CRYPTOMONADS	O1	.147
MFF05	F02P	08-25-92	10:15	1.96	MICROFLAGELLATES	U1	1.311
MFF05	F02P	08-25-92	10:10	13.95	COSCINODISCUS (CF) WAILESII	D107	.005
MFF05	F02P	08-25-92	10:10	13.95	CHAETOCEROS COMPRESSUS	D13	.014
MFF05	F02P	08-25-92	10:10	13.95	CHAETOCEROS SPP.(<10UM)	D30	.005
MFF05	F02P	08-25-92	10:10	13.95	CYLINDROTHECA CLOSTERIUM	D42	.01
MFF05	F02P	08-25-92	10:10	13.95	LICMOPHORA SPP.	D55	.005
MFF05	F02P	08-25-92	10:10	13.95	NAVICULOID DIATOMS	D59	.005
MFF05	F02P	08-25-92	10:10	13.95	RHIZOSELENIA ALATA	D74	.029
MFF05	F02P	08-25-92	10:10	13.95	SKELETONEMA COSTATUM	D84	.024

Table F-1. Continued.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF05	F02P	08-25-92	10:10	13.95	UNID. NAKED DINOFLAGELLATE	F50	.024
MFF05	F02P	08-25-92	10:10	13.95	CERATIUM LONGIPES	F51	.01
MFF05	F02P	08-25-92	10:10	13.95	CRYPTOMONADS	01	.299
MFF05	F02P	08-25-92	10:10	13.95	EBRIA TRIPARTITIA	05	.005
MFF05	F02P	08-25-92	10:10	13.95	MICROFLAGELLATES	U1	1.558
MFF05	F02P	08-25-92	11:14	2.01	UNID. CENTRALES	D100	.004
MFF05	F02P	08-25-92	11:14	2.01	UNID. PENNALES	D101	.004
MFF05	F02P	08-25-92	11:14	2.01	COSCINODISCUS (CF) WAILESII	D107	.004
MFF05	F02P	08-25-92	11:14	2.01	RHIZOSELENIA ALATA	D74	.043
MFF05	F02P	08-25-92	11:14	2.01	PROROCENTRUM MICANS	F31	.008
MFF05	F02P	08-25-92	11:14	2.01	UNID. NAKED DINOFLAGELLATE	F50	.016
MFF05	F02P	08-25-92	11:14	2.01	CRYPTOMONADS	01	.191
MFF05	F02P	08-25-92	11:14	2.01	CYANOPHYCEAE	02	.012
MFF05	F02P	08-25-92	11:14	2.01	EBRIA TRIPARTITIA	05	.004
MFF05	F02P	08-25-92	11:14	2.01	MICROFLAGELLATES	U1	1.367
MFF05	F02P	08-25-92	11:11	13.65	UNID. CENTRALES	D100	.005
MFF05	F02P	08-25-92	11:11	13.65	COSCINODISCUS (CF) WAILESII	D107	.015
MFF05	F02P	08-25-92	11:11	13.65	CHAETOCEROS SPP.(<10UM)	D30	.005
MFF05	F02P	08-25-92	11:11	13.65	COCCONEIS SCUTELLUM	D32	.005
MFF05	F02P	08-25-92	11:11	13.65	COSCINODISCUS OCULUS-IRIDIS	D38	.01
MFF05	F02P	08-25-92	11:11	13.65	COSCINODISCUS SPP.	D40	.01
MFF05	F02P	08-25-92	11:11	13.65	LICMOPHORA SPP.	D55	.005
MFF05	F02P	08-25-92	11:11	13.65	RHIZOSELENIA ALATA	D74	.01
MFF05	F02P	08-25-92	11:11	13.65	SKELETONEMA COSTATUM	D84	.015
MFF05	F02P	08-25-92	11:11	13.65	UNID. NAKED DINOFLAGELLATE	F50	.04
MFF05	F02P	08-25-92	11:11	13.65	CERATIUM LONGIPES	F51	.005
MFF05	F02P	08-25-92	11:11	13.65	CRYPTOMONADS	01	.439
MFF05	F02P	08-25-92	11:11	13.65	CYANOPHYCEAE	02	.08
MFF05	F02P	08-25-92	11:11	13.65	EBRIA TRIPARTITIA	05	.005
MFF05	F02P	08-25-92	11:11	13.65	EUGLENOIDS	06	.005
MFF05	F02P	08-25-92	11:11	13.65	MICROFLAGELLATES	U1	1.452
MFF05	F13P	08-26-92	08:49	1.6	CHAETOCEROS SPP.(<10UM)	D30	.016
MFF05	F13P	08-26-92	08:49	1.6	LEPTOCYLINDRUS MINIMUS	D53	.006
MFF05	F13P	08-26-92	08:49	1.6	LICMOPHORA SPP.	D55	.003
MFF05	F13P	08-26-92	08:49	1.6	RHIZOSELENIA ALATA	D74	.006
MFF05	F13P	08-26-92	08:49	1.6	PROROCENTRUM MICANS	F31	.006
MFF05	F13P	08-26-92	08:49	1.6	UNID. NAKED DINOFLAGELLATE	F50	.012
MFF05	F13P	08-26-92	08:49	1.6	CERATIUM LONGIPES	F51	.003
MFF05	F13P	08-26-92	08:49	1.6	CRYPTOMONADS	01	.109
MFF05	F13P	08-26-92	08:49	1.6	MICROFLAGELLATES	U1	1.101
MFF05	F13P	08-26-92	08:42	20.31	CYLINDROTHECA CLOSTERIUM	D42	.004
MFF05	F13P	08-26-92	08:42	20.31	LICMOPHORA SPP.	D55	.004
MFF05	F13P	08-26-92	08:42	20.31	NAVICULOID DIATOMS	D59	.004
MFF05	F13P	08-26-92	08:42	20.31	NITZSCHIA LONGISSIMA	D63	.004
MFF05	F13P	08-26-92	08:42	20.31	RHIZOSELENIA DELICATULA	D76	.009
MFF05	F13P	08-26-92	08:42	20.31	THALASSIONEMA NITZSCHOIDES	D91	.004
MFF05	F13P	08-26-92	08:42	20.31	GYRODINIUM SPIRALE	F23	.004
MFF05	F13P	08-26-92	08:42	20.31	UNID. NAKED DINOFLAGELLATE	F50	.026
MFF05	F13P	08-26-92	08:42	20.31	CERATIUM FUSUS	F6	.004
MFF05	F13P	08-26-92	08:42	20.31	CRYPTOMONADS	01	.224
MFF05	F13P	08-26-92	08:42	20.31	MICROFLAGELLATES	U1	1.468
MFF05	F23P	08-28-92	06:22	1.82	UNID. CENTRALES	D100	.167
MFF05	F23P	08-28-92	06:22	1.82	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.007
MFF05	F23P	08-28-92	06:22	1.82	LITHODESMIUM SPP.	D109	.015
MFF05	F23P	08-28-92	06:22	1.82	LITHODESMIUM UNDULATUM	D110	.116
MFF05	F23P	08-28-92	06:22	1.82	CHAETOCEROS SPP.(<10UM)	D30	.175
MFF05	F23P	08-28-92	06:22	1.82	CYLINDROTHECA CLOSTERIUM	D42	.102
MFF05	F23P	08-28-92	06:22	1.82	GRAMMATOPHORA MARINA	D47	.007
MFF05	F23P	08-28-92	06:22	1.82	LEPTOCYLINDRUS DANICUS	D52	.298
MFF05	F23P	08-28-92	06:22	1.82	LEPTOCYLINDRUS MINIMUS	D53	.036
MFF05	F23P	08-28-92	06:22	1.82	LICMOPHORA SPP.	D55	.007
MFF05	F23P	08-28-92	06:22	1.82	NAVICULOID DIATOMS	D59	.015

Table F-1. Continued.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF05	F23P	08-28-92	06:22	1.82	NITZSCHIA LONGISSIMA	D63	.015
MFF05	F23P	08-28-92	06:22	1.82	RHIZOSELENIA DELICATULA	D76	.517
MFF05	F23P	08-28-92	06:22	1.82	THALASSIONEMA NITZSCHOIDES	D91	.015
MFF05	F23P	08-28-92	06:22	1.82	UNID. NAKED DINOFLAGELLATE	F50	.015
MFF05	F23P	08-28-92	06:22	1.82	GYMNODINIUM SPP.	F56	.007
MFF05	F23P	08-28-92	06:22	1.82	PROROCENTRUM TRIESTINUM	F60	.007
MFF05	F23P	08-28-92	06:22	1.82	CRYPTOMONADS	O1	.298
MFF05	F23P	08-28-92	06:22	1.82	EUTREPTIA SPP.	O12	.029
MFF05	F23P	08-28-92	06:22	1.82	MICROFLAGELLATES	U1	1.208
MFF05	F23P	08-28-92	06:21	6.44	CERATAULINA PELAGICA	D10	.014
MFF05	F23P	08-28-92	06:21	6.44	UNID. CENTRALES	D100	.19
MFF05	F23P	08-28-92	06:21	6.44	LITHODESMIUM UNDULATUM	D110	.135
MFF05	F23P	08-28-92	06:21	6.44	CHAETOCEROS SPP.(<10UM)	D30	.115
MFF05	F23P	08-28-92	06:21	6.44	COCCONEIS SCUTELLUM	D32	.007
MFF05	F23P	08-28-92	06:21	6.44	CYLINDROTHECA CLOSTERIUM	D42	.122
MFF05	F23P	08-28-92	06:21	6.44	DITYLUM BRIGHTWELLII	D45	.007
MFF05	F23P	08-28-92	06:21	6.44	LEPTOCYLINDRUS DANICUS	D52	.237
MFF05	F23P	08-28-92	06:21	6.44	LEPTOCYLINDRUS MINIMUS	D53	.068
MFF05	F23P	08-28-92	06:21	6.44	LICMOPHORA SPP.	D55	.007
MFF05	F23P	08-28-92	06:21	6.44	NAVICULOID DIATOMS	D59	.034
MFF05	F23P	08-28-92	06:21	6.44	RHIZOSELENIA DELICATULA	D76	.372
MFF05	F23P	08-28-92	06:21	6.44	PROROCENTRUM MINIMUM	F32	.014
MFF05	F23P	08-28-92	06:21	6.44	PROTOPERIDINIUM SPP.	F45	.007
MFF05	F23P	08-28-92	06:21	6.44	UNID. NAKED DINOFLAGELLATE	F50	.027
MFF05	F23P	08-28-92	06:21	6.44	SCRIPPSIELLA TROCHOIDEA	F58	.014
MFF05	F23P	08-28-92	06:21	6.44	PROROCENTRUM TRIESTINUM	F60	.014
MFF05	F23P	08-28-92	06:21	6.44	CRYPTOMONADS	O1	.23
MFF05	F23P	08-28-92	06:21	6.44	EUTREPTIA SPP.	O12	.047
MFF05	F23P	08-28-92	06:21	6.44	EBRIA TRIPARTITIA	O5	.014
MFF05	F23P	08-28-92	06:21	6.44	MICROFLAGELLATES	U1	1.09
MFF05	NO1P	08-27-92	11:23	1.87	CERATAULINA PELAGICA	D10	.076
MFF05	NO1P	08-27-92	11:23	1.87	UNID. CENTRALES	D100	.076
MFF05	NO1P	08-27-92	11:23	1.87	UNID. PENNALES	D101	.013
MFF05	NO1P	08-27-92	11:23	1.87	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.038
MFF05	NO1P	08-27-92	11:23	1.87	LITHODESMIUM SPP.	D109	.089
MFF05	NO1P	08-27-92	11:23	1.87	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.013
MFF05	NO1P	08-27-92	11:23	1.87	CHAETOCEROS SPP.(<10UM)	D30	.342
MFF05	NO1P	08-27-92	11:23	1.87	CYLINDROTHECA CLOSTERIUM	D42	.405
MFF05	NO1P	08-27-92	11:23	1.87	DITYLUM BRIGHTWELLII	D45	.013
MFF05	NO1P	08-27-92	11:23	1.87	LEPTOCYLINDRUS MINIMUS	D53	.127
MFF05	NO1P	08-27-92	11:23	1.87	NAVICULOID DIATOMS	D59	.013
MFF05	NO1P	08-27-92	11:23	1.87	NITZSCHIA LONGISSIMA	D63	.063
MFF05	NO1P	08-27-92	11:23	1.87	RHIZOSELENIA DELICATULA	D76	1.304
MFF05	NO1P	08-27-92	11:23	1.87	SKELETONEMA COSTATUM	D84	.165
MFF05	NO1P	08-27-92	11:23	1.87	THALASSIOSIRA GRAVIDA	D92	.051
MFF05	NO1P	08-27-92	11:23	1.87	THALASSIOSIRA SPP.	D95	.089
MFF05	NO1P	08-27-92	11:23	1.87	PROROCENTRUM MICANS	F31	.038
MFF05	NO1P	08-27-92	11:23	1.87	PROROCENTRUM MINIMUM	F32	.038
MFF05	NO1P	08-27-92	11:23	1.87	UNID. NAKED DINOFLAGELLATE	F50	.025
MFF05	NO1P	08-27-92	11:23	1.87	CRYPTOMONADS	O1	.798
MFF05	NO1P	08-27-92	11:23	1.87	EUTREPTIA SPP.	O12	.114
MFF05	NO1P	08-27-92	11:23	1.87	MICROFLAGELLATES	U1	1.9
MFF05	NO1P	08-27-92	11:21	3.58	CERATAULINA PELAGICA	D10	.156
MFF05	NO1P	08-27-92	11:21	3.58	UNID. CENTRALES	D100	.029
MFF05	NO1P	08-27-92	11:21	3.58	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.068
MFF05	NO1P	08-27-92	11:21	3.58	LITHODESMIUM SPP.	D109	.059
MFF05	NO1P	08-27-92	11:21	3.58	NITZSCHIA (CF) PUNGENS	D111	.02
MFF05	NO1P	08-27-92	11:21	3.58	CHAETOCEROS SPP.(<10UM)	D30	.098
MFF05	NO1P	08-27-92	11:21	3.58	COSCINODISCUS OCULUS-IRIDIS	D38	.01
MFF05	NO1P	08-27-92	11:21	3.58	CYLINDROTHECA CLOSTERIUM	D42	.196
MFF05	NO1P	08-27-92	11:21	3.58	DITYLUM BRIGHTWELLII	D45	.029
MFF05	NO1P	08-27-92	11:21	3.58	LEPTOCYLINDRUS MINIMUS	D53	.117

Table F-1. Continued.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF05	N01P	08-27-92	11:21	3.58	NITZSCHIA LONGISSIMA	D63	.02
MFF05	N01P	08-27-92	11:21	3.58	RHIZOSELENIA DELICATULA	D76	2.161
MFF05	N01P	08-27-92	11:21	3.58	SKELETONEMA COSTATUM	D84	.147
MFF05	N01P	08-27-92	11:21	3.58	PROROCENTRUM MICANS	F31	.01
MFF05	N01P	08-27-92	11:21	3.58	UNID. NAKED DINOFLAGELLATE	F50	.029
MFF05	N01P	08-27-92	11:21	3.58	KATODINIUM SPP.	F59	.01
MFF05	N01P	08-27-92	11:21	3.58	CRYPTOMONADS	O1	.186
MFF05	N01P	08-27-92	11:21	3.58	EUGLENOIDS	O6	.01
MFF05	N01P	08-27-92	11:21	3.58	MICROFLAGELLATES	U1	.909
MFF05	N04P	08-27-92	12:57	1.54	UNID. CENTRALES	D100	.007
MFF05	N04P	08-27-92	12:57	1.54	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.007
MFF05	N04P	08-27-92	12:57	1.54	CHAETOCEROS SPP.(<10UM)	D30	.029
MFF05	N04P	08-27-92	12:57	1.54	LICMOPHORA SPP.	D55	.003
MFF05	N04P	08-27-92	12:57	1.54	NITZSCHIA SPP.	D67	.003
MFF05	N04P	08-27-92	12:57	1.54	RHIZOSELENIA SPP	D81	.003
MFF05	N04P	08-27-92	12:57	1.54	GYRODINIUM SPP.	F24	.003
MFF05	N04P	08-27-92	12:57	1.54	PROROCENTRUM MICANS	F31	.007
MFF05	N04P	08-27-92	12:57	1.54	UNID. DINOFLAGELLATES	F49	.007
MFF05	N04P	08-27-92	12:57	1.54	CRYPTOMONADS	O1	.216
MFF05	N04P	08-27-92	12:57	1.54	HETEROSIGMA AKASHIWO	O17	.01
MFF05	N04P	08-27-92	12:57	1.54	EBRIA TRIPARTITIA	O5	.023
MFF05	N04P	08-27-92	12:57	1.54	MICROFLAGELLATES	U1	1
MFF05	N04P	08-27-92	12:52	18.34	UNID. CENTRALES	D100	.003
MFF05	N04P	08-27-92	12:52	18.34	NAVICULOID DIATOMS	D59	.003
MFF05	N04P	08-27-92	12:52	18.34	RHIZOSELENIA DELICATULA	D76	.006
MFF05	N04P	08-27-92	12:52	18.34	GYRODINIUM SPIRALE	F23	.003
MFF05	N04P	08-27-92	12:52	18.34	PROROCENTRUM MICANS	F31	.006
MFF05	N04P	08-27-92	12:52	18.34	UNID. DINOFLAGELLATES	F49	.003
MFF05	N04P	08-27-92	12:52	18.34	UNID. NAKED DINOFLAGELLATE	F50	.006
MFF05	N04P	08-27-92	12:52	18.34	CERATIUM LONGIPES	F51	.006
MFF05	N04P	08-27-92	12:52	18.34	CERATIUM LINEATUM	F7	.003
MFF05	N04P	08-27-92	12:52	18.34	CRYPTOMONADS	O1	.167
MFF05	N04P	08-27-92	12:52	18.34	EBRIA TRIPARTITIA	O5	.028
MFF05	N04P	08-27-92	12:52	18.34	EUGLENOIDS	O6	.003
MFF05	N04P	08-27-92	12:52	18.34	MICROFLAGELLATES	U1	1.052
MFF05	N07P	08-26-92	10:21	1.68	CERATAULINA PELAGICA	D10	.012
MFF05	N07P	08-26-92	10:21	1.68	UNID. CENTRALES	D100	.03
MFF05	N07P	08-26-92	10:21	1.68	UNID. PENNALES	D101	.006
MFF05	N07P	08-26-92	10:21	1.68	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.012
MFF05	N07P	08-26-92	10:21	1.68	CHAETOCEROS DECIPIENS	D19	.018
MFF05	N07P	08-26-92	10:21	1.68	COSCINODISCUS SPP.	D40	.006
MFF05	N07P	08-26-92	10:21	1.68	CYLINDROTHECA CLOSTERIUM	D42	.024
MFF05	N07P	08-26-92	10:21	1.68	DITYLUM BRIGHTWELLII	D45	.006
MFF05	N07P	08-26-92	10:21	1.68	LEPTOCYLINDRUS MINIMUS	D53	.048
MFF05	N07P	08-26-92	10:21	1.68	LICMOPHORA SPP.	D55	.006
MFF05	N07P	08-26-92	10:21	1.68	RHIZOSELENIA DELICATULA	D76	.482
MFF05	N07P	08-26-92	10:21	1.68	RHIZOSELENIA FRAGILISSIMA	D77	.036
MFF05	N07P	08-26-92	10:21	1.68	PROROCENTRUM MICANS	F31	.006
MFF05	N07P	08-26-92	10:21	1.68	UNID. NAKED DINOFLAGELLATE	F50	.018
MFF05	N07P	08-26-92	10:21	1.68	CRYPTOMONADS	O1	.107
MFF05	N07P	08-26-92	10:21	1.68	EBRIA TRIPARTITIA	O5	.024
MFF05	N07P	08-26-92	10:21	1.68	MICROFLAGELLATES	U1	1.649
MFF05	N07P	08-26-92	10:16	20.73	COSCINODISCUS OCULUS-IRIDIS	D38	.005
MFF05	N07P	08-26-92	10:16	20.73	NITZSCHIA LONGISSIMA	D63	.011
MFF05	N07P	08-26-92	10:16	20.73	AMPHIDINIUM SPP.	F4	.005
MFF05	N07P	08-26-92	10:16	20.73	UNID. DINOFLAGELLATES	F49	.005
MFF05	N07P	08-26-92	10:16	20.73	UNID. NAKED DINOFLAGELLATE	F50	.011
MFF05	N07P	08-26-92	10:16	20.73	CERATIUM LONGIPES	F51	.005
MFF05	N07P	08-26-92	10:16	20.73	CRYPTOMONADS	O1	.26
MFF05	N07P	08-26-92	10:16	20.73	DISTEPHANUS SPECULUM	O4	.005
MFF05	N07P	08-26-92	10:16	20.73	EBRIA TRIPARTITIA	O5	.011
MFF05	N07P	08-26-92	10:16	20.73	MICROFLAGELLATES	U1	1.857

Table F-1. Continued.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF05	N10P	08-26-92	07:22	1.62	CERATAULINA PELAGICA	D10	.08
MFF05	N10P	08-26-92	07:22	1.62	UNID. CENTRALES	D100	.04
MFF05	N10P	08-26-92	07:22	1.62	UNID. PENNALES	D101	.008
MFF05	N10P	08-26-92	07:22	1.62	LITHODESMIUM SPP.	D109	.032
MFF05	N10P	08-26-92	07:22	1.62	CHAETOCEROS DIDYMUS	D20	.056
MFF05	N10P	08-26-92	07:22	1.62	CHAETOCEROS SPP.(<10UM)	D30	.016
MFF05	N10P	08-26-92	07:22	1.62	CYLINDROTHECA CLOSTERIUM	D42	.201
MFF05	N10P	08-26-92	07:22	1.62	LEPTOCYLINDRUS DANICUS	D52	.184
MFF05	N10P	08-26-92	07:22	1.62	NAVICULOID DIATOMS	D59	.016
MFF05	N10P	08-26-92	07:22	1.62	NITZSCHIA LONGISSIMA	D63	.024
MFF05	N10P	08-26-92	07:22	1.62	RHIZOSELENIA DELICATULA	D76	.77
MFF05	N10P	08-26-92	07:22	1.62	SKELETONEMA COSTATUM	D84	.136
MFF05	N10P	08-26-92	07:22	1.62	THALASSIOSIRA SPP.	D95	.04
MFF05	N10P	08-26-92	07:22	1.62	PROROCENTRUM MICANS	F31	.016
MFF05	N10P	08-26-92	07:22	1.62	UNID. NAKED DINOFLAGELLATE	F50	.048
MFF05	N10P	08-26-92	07:22	1.62	CRYPTOMONADS	O1	.393
MFF05	N10P	08-26-92	07:22	1.62	EUTREPTIA SPP.	O12	.04
MFF05	N10P	08-26-92	07:22	1.62	CYANOPHYCEAE	O2	.008
MFF05	N10P	08-26-92	07:22	1.62	MICROFLAGELLATES	U1	1.412
MFF05	N10P	08-26-92	07:17	16.11	CERATAULINA PELAGICA	D10	.029
MFF05	N10P	08-26-92	07:17	16.11	UNID. CENTRALES	D100	.004
MFF05	N10P	08-26-92	07:17	16.11	UNID. PENNALES	D101	.004
MFF05	N10P	08-26-92	07:17	16.11	CHAETOCEROS SPP.(<10UM)	D30	.008
MFF05	N10P	08-26-92	07:17	16.11	COCCONEIS SCUTELLUM	D32	.004
MFF05	N10P	08-26-92	07:17	16.11	CYLINDROTHECA CLOSTERIUM	D42	.038
MFF05	N10P	08-26-92	07:17	16.11	RHIZOSELENIA ALATA	D74	.004
MFF05	N10P	08-26-92	07:17	16.11	RHIZOSELENIA DELICATULA	D76	.071
MFF05	N10P	08-26-92	07:17	16.11	SKELETONEMA COSTATUM	D84	.042
MFF05	N10P	08-26-92	07:17	16.11	UNID. NAKED DINOFLAGELLATE	F50	.004
MFF05	N10P	08-26-92	07:17	16.11	CERATIUM LONGIPES	F51	.004
MFF05	N10P	08-26-92	07:17	16.11	SINOPHYSIS (CF) EBRIOLUM	F61	.004
MFF05	N10P	08-26-92	07:17	16.11	CRYPTOMONADS	O1	.13
MFF05	N10P	08-26-92	07:17	16.11	EBRIA TRIPARTITIA	O5	.004
MFF05	N10P	08-26-92	07:17	16.11	EUGLENOIDS	O6	.004
MFF05	N10P	08-26-92	07:17	16.11	MICROFLAGELLATES	U1	1.353
MFF05	N16P	08-26-92	11:23	1.61	NITZSCHIA (CF) PUNGENS	D111	.009
MFF05	N16P	08-26-92	11:23	1.61	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.009
MFF05	N16P	08-26-92	11:23	1.61	CHAETOCEROS SPP.(<10UM)	D30	.032
MFF05	N16P	08-26-92	11:23	1.61	CYLINDROTHECA CLOSTERIUM	D42	.009
MFF05	N16P	08-26-92	11:23	1.61	LEPTOCYLINDRUS MINIMUS	D53	.014
MFF05	N16P	08-26-92	11:23	1.61	LICMOPHORA SPP.	D55	.005
MFF05	N16P	08-26-92	11:23	1.61	RHIZOSELENIA DELICATULA	D76	.156
MFF05	N16P	08-26-92	11:23	1.61	RHIZOSELENIA FRAGILISSIMA	D77	.009
MFF05	N16P	08-26-92	11:23	1.61	KATODINIUM ROTUNDATUM	F27	.005
MFF05	N16P	08-26-92	11:23	1.61	UNID. NAKED DINOFLAGELLATE	F50	.014
MFF05	N16P	08-26-92	11:23	1.61	CRYPTOMONADS	O1	.11
MFF05	N16P	08-26-92	11:23	1.61	EBRIA TRIPARTITIA	O5	.009
MFF05	N16P	08-26-92	11:23	1.61	MICROFLAGELLATES	U1	1.461
MFF05	N16P	08-26-92	11:20	20.81	UNID. CENTRALES	D100	.005
MFF05	N16P	08-26-92	11:20	20.81	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.014
MFF05	N16P	08-26-92	11:20	20.81	LICMOPHORA SPP.	D55	.005
MFF05	N16P	08-26-92	11:20	20.81	GYRODINIUM SPIRALE	F23	.005
MFF05	N16P	08-26-92	11:20	20.81	UNID. NAKED DINOFLAGELLATE	F50	.028
MFF05	N16P	08-26-92	11:20	20.81	CERATIUM LONGIPES	F51	.009
MFF05	N16P	08-26-92	11:20	20.81	CRYPTOMONADS	O1	.291
MFF05	N16P	08-26-92	11:20	20.81	EBRIA TRIPARTITIA	O5	.019
MFF05	N16P	08-26-92	11:20	20.81	MICROFLAGELLATES	U1	1.582
MFF05	N20P	08-27-92	14:00	1.54	CERATAULINA PELAGICA	D10	.141
MFF05	N20P	08-27-92	14:00	1.54	UNID. CENTRALES	D100	.023
MFF05	N20P	08-27-92	14:00	1.54	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.033
MFF05	N20P	08-27-92	14:00	1.54	LITHODESMIUM SPP.	D109	.009
MFF05	N20P	08-27-92	14:00	1.54	CHAETOCEROS SPP.(<10UM)	D30	.019

Table F-1. Continued.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF05	N20P	08-27-92	14:00	1.54	CHAETOCEROS SPP.(>10UM)	D31	.009
MFF05	N20P	08-27-92	14:00	1.54	CYLINDROTHECA CLOSTERIUM	D42	.108
MFF05	N20P	08-27-92	14:00	1.54	LEPTOCYLINDRUS DANICUS	D52	.286
MFF05	N20P	08-27-92	14:00	1.54	LEPTOCYLINDRUS MINIMUS	D53	.207
MFF05	N20P	08-27-92	14:00	1.54	LICMOPHORA SPP.	D55	.005
MFF05	N20P	08-27-92	14:00	1.54	NAVICULOID DIATOMS	D59	.014
MFF05	N20P	08-27-92	14:00	1.54	RHIZOSELENIA DELICATULA	D76	.338
MFF05	N20P	08-27-92	14:00	1.54	SKELETONEMA COSTATUM	D84	.019
MFF05	N20P	08-27-92	14:00	1.54	HETEROCAPSA TRIQUETRA	F26	.009
MFF05	N20P	08-27-92	14:00	1.54	PROROCENTRUM MICANS	F31	.009
MFF05	N20P	08-27-92	14:00	1.54	PROROCENTRUM MINIMUM	F32	.009
MFF05	N20P	08-27-92	14:00	1.54	PROTOPERIDINIUM SPP.	F45	.005
MFF05	N20P	08-27-92	14:00	1.54	UNID. NAKED DINOFLAGELLATE	F50	.005
MFF05	N20P	08-27-92	14:00	1.54	GYMNODINIUM SPP.	F56	.005
MFF05	N20P	08-27-92	14:00	1.54	CRYPTOMONADS	O1	.197
MFF05	N20P	08-27-92	14:00	1.54	EUTREPTIA SPP.	O12	.005
MFF05	N20P	08-27-92	14:00	1.54	EBRIA TRIPARTITIA	O5	.014
MFF05	N20P	08-27-92	14:00	1.54	MICROFLAGELLATES	U1	.446
MFF05	N20P	08-27-92	13:56	11.2	CERATAULINA PELAGICA	D10	.029
MFF05	N20P	08-27-92	13:56	11.2	UNID. CENTRALES	D100	.036
MFF05	N20P	08-27-92	13:56	11.2	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.029
MFF05	N20P	08-27-92	13:56	11.2	LITHODESMIUM SPP.	D109	.014
MFF05	N20P	08-27-92	13:56	11.2	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.007
MFF05	N20P	08-27-92	13:56	11.2	CHAETOCEROS SPP.(<10UM)	D30	.129
MFF05	N20P	08-27-92	13:56	11.2	CYLINDROTHECA CLOSTERIUM	D42	.201
MFF05	N20P	08-27-92	13:56	11.2	GRAMMATOPHORA MARINA	D47	.007
MFF05	N20P	08-27-92	13:56	11.2	LEPTOCYLINDRUS DANICUS	D52	.539
MFF05	N20P	08-27-92	13:56	11.2	LEPTOCYLINDRUS MINIMUS	D53	.144
MFF05	N20P	08-27-92	13:56	11.2	LICMOPHORA SPP.	D55	.014
MFF05	N20P	08-27-92	13:56	11.2	NAVICULOID DIATOMS	D59	.014
MFF05	N20P	08-27-92	13:56	11.2	RHIZOSELENIA DELICATULA	D76	.711
MFF05	N20P	08-27-92	13:56	11.2	SKELETONEMA COSTATUM	D84	.014
MFF05	N20P	08-27-92	13:56	11.2	GYRODINIUM SPIRALE	F23	.007
MFF05	N20P	08-27-92	13:56	11.2	UNID. NAKED DINOFLAGELLATE	F50	.007
MFF05	N20P	08-27-92	13:56	11.2	CRYPTOMONADS	O1	.187
MFF05	N20P	08-27-92	13:56	11.2	EBRIA TRIPARTITIA	O5	.014
MFF05	N20P	08-27-92	13:56	11.2	EUGLENOIDS	O6	.007
MFF05	N20P	08-27-92	13:56	11.2	MICROFLAGELLATES	U1	.89
MFF06	F01P	10-13-92	08:11	2.2	CERATAULINA PELAGICA	D10	.013
MFF06	F01P	10-13-92	08:11	2.2	UNID. CENTRALES	D100	.026
MFF06	F01P	10-13-92	08:11	2.2	UNID. PENNALES	D101	.004
MFF06	F01P	10-13-92	08:11	2.2	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.026
MFF06	F01P	10-13-92	08:11	2.2	CORETHRON CRIOPHILUM	D33	.017
MFF06	F01P	10-13-92	08:11	2.2	COSCINODISCUS SPP.	D40	.004
MFF06	F01P	10-13-92	08:11	2.2	CYLINDROTHECA CLOSTERIUM	D42	.013
MFF06	F01P	10-13-92	08:11	2.2	GUINARDIA FLACCIDA	D48	.017
MFF06	F01P	10-13-92	08:11	2.2	NITZSCHIA SPP.	D67	.004
MFF06	F01P	10-13-92	08:11	2.2	RHIZOSELENIA DELICATULA	D76	.36
MFF06	F01P	10-13-92	08:11	2.2	RHIZOSELENIA FRAGILISSIMA	D77	.021
MFF06	F01P	10-13-92	08:11	2.2	RHIZOSELENIA HEBETATA F. SEMISPINA	D78	.013
MFF06	F01P	10-13-92	08:11	2.2	THALASSIONEMA NITZSCHOIDES	D91	.009
MFF06	F01P	10-13-92	08:11	2.2	GYRODINIUM SPP.	F24	.021
MFF06	F01P	10-13-92	08:11	2.2	UNID. NAKED DINOFLAGELLATE	F50	.004
MFF06	F01P	10-13-92	08:11	2.2	SCRIPPSIELLA TROCHOIDEA	F58	.004
MFF06	F01P	10-13-92	08:11	2.2	CRYPTOMONADS	O1	.274
MFF06	F01P	10-13-92	08:11	2.2	EUTREPTIA SPP.	O12	.004
MFF06	F01P	10-13-92	08:11	2.2	DISTEPHANUS SPECULUM	O4	.004
MFF06	F01P	10-13-92	08:11	2.2	EBRIA TRIPARTITIA	O5	.004
MFF06	F01P	10-13-92	08:11	2.2	MICROFLAGELLATES	U1	.887
MFF06	F01P	10-13-92	08:07	14.6	CERATAULINA PELAGICA	D10	.004
MFF06	F01P	10-13-92	08:07	14.6	UNID. CENTRALES	D100	.042
MFF06	F01P	10-13-92	08:07	14.6	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.017

Table F-1. Continued.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF06	F01P	10-13-92	08:07	14.6	CORETHRON CRIOPHILUM	D33	.008
MFF06	F01P	10-13-92	08:07	14.6	COSCINODISCUS SPP.	D40	.013
MFF06	F01P	10-13-92	08:07	14.6	CYLINDROTHECA CLOSTERIUM	D42	.004
MFF06	F01P	10-13-92	08:07	14.6	DETONULA CONFERVACEA	D43	.029
MFF06	F01P	10-13-92	08:07	14.6	LEPTOCYLINDRUS MINIMUS	D53	.004
MFF06	F01P	10-13-92	08:07	14.6	NAVICULOID DIATOMS	D59	.008
MFF06	F01P	10-13-92	08:07	14.6	RHIZOSELENIA DELICATULA	D76	.539
MFF06	F01P	10-13-92	08:07	14.6	RHIZOSELENIA FRAGILISSIMA	D77	.088
MFF06	F01P	10-13-92	08:07	14.6	SKELETONEMA COSTATUM	D84	.008
MFF06	F01P	10-13-92	08:07	14.6	GYRODINIUM SPP.	F24	.025
MFF06	F01P	10-13-92	08:07	14.6	UNID. NAKED DINOFLAGELLATE	F50	.025
MFF06	F01P	10-13-92	08:07	14.6	CRYPTOMONADS	01	.301
MFF06	F01P	10-13-92	08:07	14.6	UNID. CHOANOFLAGELLATE	019	.004
MFF06	F01P	10-13-92	08:07	14.6	EBRIA TRIPARTITIA	05	.013
MFF06	F01P	10-13-92	08:07	14.6	MICROFLAGELLATES	U1	.606
MFF06	F02P	10-13-92	11:38	2.2	CERATAULINA PELAGICA	D10	.027
MFF06	F02P	10-13-92	11:38	2.2	UNID. CENTRALES	D100	.027
MFF06	F02P	10-13-92	11:38	2.2	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.016
MFF06	F02P	10-13-92	11:38	2.2	CHAETOCEROS SPP.(<10UM)	D30	.039
MFF06	F02P	10-13-92	11:38	2.2	CORETHRON CRIOPHILUM	D33	.004
MFF06	F02P	10-13-92	11:38	2.2	NITZSCHIA LONGISSIMA	D63	.004
MFF06	F02P	10-13-92	11:38	2.2	NITZSCHIA SPP.	D67	.008
MFF06	F02P	10-13-92	11:38	2.2	RHIZOSELENIA DELICATULA	D76	.398
MFF06	F02P	10-13-92	11:38	2.2	RHIZOSELENIA FRAGILISSIMA	D77	.074
MFF06	F02P	10-13-92	11:38	2.2	THALASSIOSIRA SPP.	D95	.008
MFF06	F02P	10-13-92	11:38	2.2	HETEROCAPSA TRIQUETRA	F26	.008
MFF06	F02P	10-13-92	11:38	2.2	UNID. NAKED DINOFLAGELLATE	F50	.016
MFF06	F02P	10-13-92	11:38	2.2	GYMNODINIUM SPP.	F56	.004
MFF06	F02P	10-13-92	11:38	2.2	CRYPTOMONADS	01	.179
MFF06	F02P	10-13-92	11:38	2.2	UNID. CHRYSOPHYTE	020	.004
MFF06	F02P	10-13-92	11:38	2.2	MICROFLAGELLATES	U1	.784
MFF06	F02P	10-13-92	11:33	21.4	CERATAULINA PELAGICA	D10	.021
MFF06	F02P	10-13-92	11:33	21.4	UNID. CENTRALES	D100	.024
MFF06	F02P	10-13-92	11:33	21.4	NITZSCHIA (CF) PUNGENS	D111	.007
MFF06	F02P	10-13-92	11:33	21.4	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.045
MFF06	F02P	10-13-92	11:33	21.4	CHAETOCEROS SPP.(<10UM)	D30	.01
MFF06	F02P	10-13-92	11:33	21.4	CORETHRON CRIOPHILUM	D33	.014
MFF06	F02P	10-13-92	11:33	21.4	COSCINODISCUS SPP.	D40	.007
MFF06	F02P	10-13-92	11:33	21.4	LEPTOCYLINDRUS MINIMUS	D53	.014
MFF06	F02P	10-13-92	11:33	21.4	NAVICULOID DIATOMS	D59	.01
MFF06	F02P	10-13-92	11:33	21.4	NITZSCHIA SPP.	D67	.01
MFF06	F02P	10-13-92	11:33	21.4	RHIZOSELENIA DELICATULA	D76	.598
MFF06	F02P	10-13-92	11:33	21.4	RHIZOSELENIA FRAGILISSIMA	D77	.076
MFF06	F02P	10-13-92	11:33	21.4	SKELETONEMA COSTATUM	D84	.031
MFF06	F02P	10-13-92	11:33	21.4	THALASSIOSIRA NORDENSKIOLDII	D93	.003
MFF06	F02P	10-13-92	11:33	21.4	THALASSIOSIRA SPP.	D95	.003
MFF06	F02P	10-13-92	11:33	21.4	GYRODINIUM SPIRALE	F23	.007
MFF06	F02P	10-13-92	11:33	21.4	AMPHIDINIUM SPP.	F4	.003
MFF06	F02P	10-13-92	11:33	21.4	PROTOPERIDINIUM SPP.	F45	.003
MFF06	F02P	10-13-92	11:33	21.4	UNID. NAKED DINOFLAGELLATE	F50	.017
MFF06	F02P	10-13-92	11:33	21.4	CRYPTOMONADS	01	.069
MFF06	F02P	10-13-92	11:33	21.4	HETEROSIGMA AKASHIWO	017	.003
MFF06	F02P	10-13-92	11:33	21.4	EBRIA TRIPARTITIA	05	.021
MFF06	F02P	10-13-92	11:33	21.4	MICROFLAGELLATES	U1	.442
MFF06	F02P	10-13-92	12:11	2.2	CERATAULINA PELAGICA	D10	.034
MFF06	F02P	10-13-92	12:11	2.2	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.019
MFF06	F02P	10-13-92	12:11	2.2	CORETHRON CRIOPHILUM	D33	.004
MFF06	F02P	10-13-92	12:11	2.2	LEPTOCYLINDRUS MINIMUS	D53	.072
MFF06	F02P	10-13-92	12:11	2.2	ASTERIONELLOPSIS GLACIALIS	D6	.004
MFF06	F02P	10-13-92	12:11	2.2	RHIZOSELENIA DELICATULA	D76	.496
MFF06	F02P	10-13-92	12:11	2.2	RHIZOSELENIA FRAGILISSIMA	D77	.008
MFF06	F02P	10-13-92	12:11	2.2	THALASSIOSIRA SPP.	D95	.004

Table F-1. Continued.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF06	F02P	10-13-92	12:11	2.2	GYRODINIUM SPIRALE	F23	.004
MFF06	F02P	10-13-92	12:11	2.2	HETEROCAPSA TRIQUETRA	F26	.019
MFF06	F02P	10-13-92	12:11	2.2	UNID. DINOFLAGELLATES	F49	.004
MFF06	F02P	10-13-92	12:11	2.2	UNID. NAKED DINOFLAGELLATE	F50	.011
MFF06	F02P	10-13-92	12:11	2.2	CRYPTOMONADS	01	.258
MFF06	F02P	10-13-92	12:11	2.2	CYANOPHYCEAE	02	.038
MFF06	F02P	10-13-92	12:11	2.2	MICROFLAGELLATES	U1	.553
MFF06	F02P	10-13-92	12:07	19.9	UNID. CENTRALES	D100	.01
MFF06	F02P	10-13-92	12:07	19.9	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.026
MFF06	F02P	10-13-92	12:07	19.9	CHAETOCEROS SPP.(<10UM)	D30	.022
MFF06	F02P	10-13-92	12:07	19.9	CORETHRON CRIOPHILUM	D33	.006
MFF06	F02P	10-13-92	12:07	19.9	CYLINDROTHECA CLOSTERIUM	D42	.006
MFF06	F02P	10-13-92	12:07	19.9	LEPTOCYLINDRUS MINIMUS	D53	.07
MFF06	F02P	10-13-92	12:07	19.9	NITZSCHIA SPP.	D67	.01
MFF06	F02P	10-13-92	12:07	19.9	RHIZOSELENIA DELICATULA	D76	.581
MFF06	F02P	10-13-92	12:07	19.9	RHIZOSELENIA FRAGILISSIMA	D77	.042
MFF06	F02P	10-13-92	12:07	19.9	THALASSIOSIRA SPP.	D95	.019
MFF06	F02P	10-13-92	12:07	19.9	GYRODINIUM SPIRALE	F23	.006
MFF06	F02P	10-13-92	12:07	19.9	HETEROCAPSA TRIQUETRA	F26	.006
MFF06	F02P	10-13-92	12:07	19.9	UNID. NAKED DINOFLAGELLATE	F50	.003
MFF06	F02P	10-13-92	12:07	19.9	CERATIUM FUSUS	F6	.003
MFF06	F02P	10-13-92	12:07	19.9	CERATIUM TRIPOS	F9	.006
MFF06	F02P	10-13-92	12:07	19.9	CRYPTOMONADS	01	.093
MFF06	F02P	10-13-92	12:07	19.9	COCCOLITHOPHORID	014	.003
MFF06	F02P	10-13-92	12:07	19.9	EBRIA TRIPARTITIA	05	.003
MFF06	F02P	10-13-92	12:07	19.9	MICROFLAGELLATES	U1	.374
MFF06	F13P	10-14-92	06:53	2.2	CERATAULINA PELAGICA	D10	.02
MFF06	F13P	10-14-92	06:53	2.2	UNID. CENTRALES	D100	.051
MFF06	F13P	10-14-92	06:53	2.2	CHAETOCEROS SPP.(<10UM)	D30	.015
MFF06	F13P	10-14-92	06:53	2.2	CYLINDROTHECA CLOSTERIUM	D42	.005
MFF06	F13P	10-14-92	06:53	2.2	LEPTOCYLINDRUS MINIMUS	D53	.046
MFF06	F13P	10-14-92	06:53	2.2	NITZSCHIA SPP.	D67	.005
MFF06	F13P	10-14-92	06:53	2.2	RHIZOSELENIA DELICATULA	D76	.797
MFF06	F13P	10-14-92	06:53	2.2	RHIZOSELENIA FRAGILISSIMA	D77	.005
MFF06	F13P	10-14-92	06:53	2.2	SKELETONEMA COSTATUM	D84	.02
MFF06	F13P	10-14-92	06:53	2.2	THALASSIONEMA NITZSCHOIDES	D91	.026
MFF06	F13P	10-14-92	06:53	2.2	THALASSIOSIRA SPP.	D95	.041
MFF06	F13P	10-14-92	06:53	2.2	HETEROCAPSA TRIQUETRA	F26	.01
MFF06	F13P	10-14-92	06:53	2.2	PROROCENTRUM MINIMUM	F32	.005
MFF06	F13P	10-14-92	06:53	2.2	UNID. DINOFLAGELLATES	F49	.005
MFF06	F13P	10-14-92	06:53	2.2	UNID. NAKED DINOFLAGELLATE	F50	.026
MFF06	F13P	10-14-92	06:53	2.2	CRYPTOMONADS	01	.363
MFF06	F13P	10-14-92	06:53	2.2	EUTREPTIA/EUTREPTIELLA SPP.	015	.005
MFF06	F13P	10-14-92	06:53	2.2	EBRIA TRIPARTITIA	05	.01
MFF06	F13P	10-14-92	06:53	2.2	MICROFLAGELLATES	U1	.623
MFF06	F13P	10-14-92	06:50	8	UNID. CENTRALES	D100	.058
MFF06	F13P	10-14-92	06:50	8	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.012
MFF06	F13P	10-14-92	06:50	8	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.006
MFF06	F13P	10-14-92	06:50	8	CHAETOCEROS SPP.(<10UM)	D30	.023
MFF06	F13P	10-14-92	06:50	8	CORETHRON CRIOPHILUM	D33	.006
MFF06	F13P	10-14-92	06:50	8	CYLINDROTHECA CLOSTERIUM	D42	.006
MFF06	F13P	10-14-92	06:50	8	LEPTOCYLINDRUS MINIMUS	D53	.04
MFF06	F13P	10-14-92	06:50	8	LICMOPHORA SPP.	D55	.006
MFF06	F13P	10-14-92	06:50	8	NITZSCHIA SPP.	D67	.006
MFF06	F13P	10-14-92	06:50	8	RHIZOSELENIA DELICATULA	D76	.832
MFF06	F13P	10-14-92	06:50	8	THALASSIONEMA NITZSCHOIDES	D91	.012
MFF06	F13P	10-14-92	06:50	8	THALASSIOSIRA SPP.	D95	.023
MFF06	F13P	10-14-92	06:50	8	PROROCENTRUM MINIMUM	F32	.04
MFF06	F13P	10-14-92	06:50	8	UNID. NAKED DINOFLAGELLATE	F50	.029
MFF06	F13P	10-14-92	06:50	8	CRYPTOMONADS	01	.381
MFF06	F13P	10-14-92	06:50	8	CYANOPHYCEAE	02	.035
MFF06	F13P	10-14-92	06:50	8	EBRIA TRIPARTITIA	05	.023

Table F-1. Continued.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF06	F13P	10-14-92	06:50	8	MICROFLAGELLATES	U1	.855
MFF06	F23P	10-15-92	06:44	2.8	UNID. CENTRALES	D100	.015
MFF06	F23P	10-15-92	06:44	2.8	LITHODESMIUM SPP.	D109	.002
MFF06	F23P	10-15-92	06:44	2.8	CHAETOCEROS SPP.(<10UM)	D30	.01
MFF06	F23P	10-15-92	06:44	2.8	CYLINDROTHECA CLOSTERIUM	D42	.005
MFF06	F23P	10-15-92	06:44	2.8	LEPTOCYLINDRUS MINIMUS	D53	.02
MFF06	F23P	10-15-92	06:44	2.8	NAVICULOID DIATOMS	D59	.01
MFF06	F23P	10-15-92	06:44	2.8	NITZSCHIA SPP.	D67	.002
MFF06	F23P	10-15-92	06:44	2.8	RHIZOSELENIA DELICATULA	D76	.199
MFF06	F23P	10-15-92	06:44	2.8	THALASSIONEMA NITZSCHOIDES	D91	.025
MFF06	F23P	10-15-92	06:44	2.8	THALASSIOSIRA SPP.	D95	.022
MFF06	F23P	10-15-92	06:44	2.8	HETEROCAPSA TRIQUETRA	F26	.005
MFF06	F23P	10-15-92	06:44	2.8	PROROCENTRUM MINIMUM	F32	.005
MFF06	F23P	10-15-92	06:44	2.8	GYMNODINIUM SPP.	F56	.005
MFF06	F23P	10-15-92	06:44	2.8	CRYPTOMONADS	O1	.206
MFF06	F23P	10-15-92	06:44	2.8	EUTREPTIA/EUTREPTIELLA SPP.	O15	.002
MFF06	F23P	10-15-92	06:44	2.8	CYANOPHYCEAE	O2	.025
MFF06	F23P	10-15-92	06:44	2.8	EBRIA TRIPARTITIA	O5	.01
MFF06	F23P	10-15-92	06:44	2.8	MICROFLAGELLATES	U1	.442
MFF06	F23P	10-15-92	06:41	12.2	UNID. CENTRALES	D100	.019
MFF06	F23P	10-15-92	06:41	12.2	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.01
MFF06	F23P	10-15-92	06:41	12.2	CHAETOCEROS SPP.(<10UM)	D30	.002
MFF06	F23P	10-15-92	06:41	12.2	CYLINDROTHECA CLOSTERIUM	D42	.002
MFF06	F23P	10-15-92	06:41	12.2	LEPTOCYLINDRUS MINIMUS	D53	.024
MFF06	F23P	10-15-92	06:41	12.2	LICMOPHORA SPP.	D55	.01
MFF06	F23P	10-15-92	06:41	12.2	NAVICULOID DIATOMS	D59	.002
MFF06	F23P	10-15-92	06:41	12.2	NITZSCHIA SPP.	D67	.002
MFF06	F23P	10-15-92	06:41	12.2	RHIZOSELENIA DELICATULA	D76	.19
MFF06	F23P	10-15-92	06:41	12.2	THALASSIONEMA NITZSCHOIDES	D91	.014
MFF06	F23P	10-15-92	06:41	12.2	THALASSIOSIRA SPP.	D95	.041
MFF06	F23P	10-15-92	06:41	12.2	PROROCENTRUM MINIMUM	F32	.01
MFF06	F23P	10-15-92	06:41	12.2	GYMNODINIUM SPP.	F56	.005
MFF06	F23P	10-15-92	06:41	12.2	CRYPTOMONADS	O1	.168
MFF06	F23P	10-15-92	06:41	12.2	EUTREPTIA/EUTREPTIELLA SPP.	O15	.002
MFF06	F23P	10-15-92	06:41	12.2	CYANOPHYCEAE	O2	.01
MFF06	F23P	10-15-92	06:41	12.2	UNID. CHRYSOPHYTE	O20	.005
MFF06	F23P	10-15-92	06:41	12.2	EBRIA TRIPARTITIA	O5	.01
MFF06	F23P	10-15-92	06:41	12.2	MICROFLAGELLATES	U1	.467
MFF06	NO1P	10-15-92	07:47	2.2	UNID. CENTRALES	D100	.02
MFF06	NO1P	10-15-92	07:47	2.2	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.01
MFF06	NO1P	10-15-92	07:47	2.2	CHAETOCEROS SPP.(<10UM)	D30	.003
MFF06	NO1P	10-15-92	07:47	2.2	LEPTOCYLINDRUS MINIMUS	D53	.041
MFF06	NO1P	10-15-92	07:47	2.2	NAVICULOID DIATOMS	D59	.007
MFF06	NO1P	10-15-92	07:47	2.2	NITZSCHIA SPP.	D67	.003
MFF06	NO1P	10-15-92	07:47	2.2	RHIZOSELENIA DELICATULA	D76	.383
MFF06	NO1P	10-15-92	07:47	2.2	THALASSIONEMA NITZSCHOIDES	D91	.007
MFF06	NO1P	10-15-92	07:47	2.2	THALASSIOSIRA SPP.	D95	.061
MFF06	NO1P	10-15-92	07:47	2.2	PROROCENTRUM MINIMUM	F32	.007
MFF06	NO1P	10-15-92	07:47	2.2	UNID. NAKED DINOFLAGELLATE	F50	.014
MFF06	NO1P	10-15-92	07:47	2.2	GYMNODINIUM SPP.	F56	.01
MFF06	NO1P	10-15-92	07:47	2.2	CRYPTOMONADS	O1	.149
MFF06	NO1P	10-15-92	07:47	2.2	MERISMOPEDIA SPP.	O18	.054
MFF06	NO1P	10-15-92	07:47	2.2	UNID. CHRYSOPHYTE	O20	.007
MFF06	NO1P	10-15-92	07:47	2.2	EBRIA TRIPARTITIA	O5	.02
MFF06	NO1P	10-15-92	07:47	2.2	MICROFLAGELLATES	U1	.586
MFF06	NO1P	10-15-92	07:46	6.1	CERATAULINA PELAGICA	D10	.024
MFF06	NO1P	10-15-92	07:46	6.1	UNID. CENTRALES	D100	.021
MFF06	NO1P	10-15-92	07:46	6.1	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.014
MFF06	NO1P	10-15-92	07:46	6.1	CHAETOCEROS DIDYMUS	D20	.007
MFF06	NO1P	10-15-92	07:46	6.1	CHAETOCEROS SPP.(<10UM)	D30	.017
MFF06	NO1P	10-15-92	07:46	6.1	CORETHRON CRIOPHILUM	D33	.007
MFF06	NO1P	10-15-92	07:46	6.1	CYLINDROTHECA CLOSTERIUM	D42	.014

Table F-1. Continued.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF06	N01P	10-15-92	07:46	6.1	LEPTOCYLINDRUS MINIMUS	D53	.055
MFF06	N01P	10-15-92	07:46	6.1	NITZSCHIA SPP.	D67	.007
MFF06	N01P	10-15-92	07:46	6.1	RHIZOSELENIA DELICATULA	D76	.421
MFF06	N01P	10-15-92	07:46	6.1	THALASSIONEMA NITZSCHOIDES	D91	.024
MFF06	N01P	10-15-92	07:46	6.1	THALASSIOSIRA SPP.	D95	.079
MFF06	N01P	10-15-92	07:46	6.1	GYRODINIUM SPP.	F24	.003
MFF06	N01P	10-15-92	07:46	6.1	PROROCENTRUM MINIMUM	F32	.003
MFF06	N01P	10-15-92	07:46	6.1	PROTOPERIDINIUM SPP.	F45	.003
MFF06	N01P	10-15-92	07:46	6.1	UNID. NAKED DINOFLAGELLATE	F50	.014
MFF06	N01P	10-15-92	07:46	6.1	GYMNODINIUM SPP.	F56	.021
MFF06	N01P	10-15-92	07:46	6.1	SCRIPPSIELLA TROCHOIDEA	F58	.003
MFF06	N01P	10-15-92	07:46	6.1	PROROCENTRUM TRIESTINUM	F60	.003
MFF06	N01P	10-15-92	07:46	6.1	CRYPTOMONADS	01	.106
MFF06	N01P	10-15-92	07:46	6.1	DICTYOCHA SPECULUM	016	.003
MFF06	N01P	10-15-92	07:46	6.1	EBRIA TRIPARTITIA	05	.014
MFF06	N01P	10-15-92	07:46	6.1	MICROFLAGELLATES	U1	.53
MFF06	N04P	10-15-92	09:03	2.4	CERATAULINA PELAGICA	D10	.006
MFF06	N04P	10-15-92	09:03	2.4	UNID. CENTRALES	D100	.013
MFF06	N04P	10-15-92	09:03	2.4	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.003
MFF06	N04P	10-15-92	09:03	2.4	LITHODESMIUM (CF) UNDULATUM	D108	.006
MFF06	N04P	10-15-92	09:03	2.4	THALASSIOSIRA (CF) ECCENTRICA	D114	.003
MFF06	N04P	10-15-92	09:03	2.4	CHAETOCEROS SPORE	D28	.003
MFF06	N04P	10-15-92	09:03	2.4	CHAETOCEROS SPP.(<10UM)	D30	.01
MFF06	N04P	10-15-92	09:03	2.4	CHAETOCEROS SPP.(>10UM)	D31	.006
MFF06	N04P	10-15-92	09:03	2.4	CORETHRON CRIOPHILUM	D33	.003
MFF06	N04P	10-15-92	09:03	2.4	CYLINDROTHECA CLOSTERIUM	D42	.016
MFF06	N04P	10-15-92	09:03	2.4	LEPTOCYLINDRUS MINIMUS	D53	.055
MFF06	N04P	10-15-92	09:03	2.4	RHIZOSELENIA DELICATULA	D76	.234
MFF06	N04P	10-15-92	09:03	2.4	THALASSIONEMA NITZSCHOIDES	D91	.019
MFF06	N04P	10-15-92	09:03	2.4	THALASSIOSIRA SPP.	D95	.038
MFF06	N04P	10-15-92	09:03	2.4	GYRODINIUM SPIRALE	F23	.016
MFF06	N04P	10-15-92	09:03	2.4	PROROCENTRUM MINIMUM	F32	.003
MFF06	N04P	10-15-92	09:03	2.4	AMPHIDINIUM SPP.	F4	.006
MFF06	N04P	10-15-92	09:03	2.4	UNID. NAKED DINOFLAGELLATE	F50	.013
MFF06	N04P	10-15-92	09:03	2.4	GYMNODINIUM SPP.	F56	.016
MFF06	N04P	10-15-92	09:03	2.4	SCRIPPSIELLA TROCHOIDEA	F58	.003
MFF06	N04P	10-15-92	09:03	2.4	CRYPTOMONADS	01	.205
MFF06	N04P	10-15-92	09:03	2.4	EUTREPTIA/EUTREPTIELLA SPP.	015	.003
MFF06	N04P	10-15-92	09:03	2.4	EBRIA TRIPARTITIA	05	.01
MFF06	N04P	10-15-92	09:03	2.4	MICROFLAGELLATES	U1	.609
MFF06	N04P	10-15-92	09:00	9.6	CERATAULINA PELAGICA	D10	.037
MFF06	N04P	10-15-92	09:00	9.6	UNID. CENTRALES	D100	.011
MFF06	N04P	10-15-92	09:00	9.6	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.004
MFF06	N04P	10-15-92	09:00	9.6	CHAETOCEROS SPP.(<10UM)	D30	.018
MFF06	N04P	10-15-92	09:00	9.6	CHAETOCEROS SPP.(>10UM)	D31	.007
MFF06	N04P	10-15-92	09:00	9.6	CORETHRON CRIOPHILUM	D33	.004
MFF06	N04P	10-15-92	09:00	9.6	CYLINDROTHECA CLOSTERIUM	D42	.011
MFF06	N04P	10-15-92	09:00	9.6	LEPTOCYLINDRUS MINIMUS	D53	.022
MFF06	N04P	10-15-92	09:00	9.6	LICMOPHORA SPP.	D55	.004
MFF06	N04P	10-15-92	09:00	9.6	NAVICULOID DIATOMS	D59	.007
MFF06	N04P	10-15-92	09:00	9.6	NITZSCHIA SPP.	D67	.004
MFF06	N04P	10-15-92	09:00	9.6	RHIZOSELENIA DELICATULA	D76	.278
MFF06	N04P	10-15-92	09:00	9.6	RHIZOSELENIA HEBETATA F. SEMISPINA	D78	.007
MFF06	N04P	10-15-92	09:00	9.6	SKELETONEMA COSTATUM	D84	.015
MFF06	N04P	10-15-92	09:00	9.6	THALASSIOSIRA SPP.	D95	.022
MFF06	N04P	10-15-92	09:00	9.6	GYRODINIUM SPIRALE	F23	.004
MFF06	N04P	10-15-92	09:00	9.6	PROROCENTRUM MINIMUM	F32	.011
MFF06	N04P	10-15-92	09:00	9.6	AMPHIDINIUM SPP.	F4	.015
MFF06	N04P	10-15-92	09:00	9.6	UNID. NAKED DINOFLAGELLATE	F50	.029
MFF06	N04P	10-15-92	09:00	9.6	GYMNODINIUM SPP.	F56	.004
MFF06	N04P	10-15-92	09:00	9.6	CRYPTOMONADS	01	.212
MFF06	N04P	10-15-92	09:00	9.6	UNID. CHRYSOPHYTE	020	.004

Table F-1. Continued.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF06	N04P	10-15-92	09:00	9.6	EBRIA TRIPARTITIA	O5	.011
MFF06	N04P	10-15-92	09:00	9.6	MICROFLAGELLATES	U1	.744
MFF06	N07P	10-14-92	07:52	2.3	CERATAULINA PELAGICA	D10	.013
MFF06	N07P	10-14-92	07:52	2.3	UNID. CENTRALES	D100	.027
MFF06	N07P	10-14-92	07:52	2.3	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.009
MFF06	N07P	10-14-92	07:52	2.3	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.004
MFF06	N07P	10-14-92	07:52	2.3	RHIZOSELENIA SETIGERA	D113	.009
MFF06	N07P	10-14-92	07:52	2.3	CHAETOCEROS SPP.(<10UM)	D30	.018
MFF06	N07P	10-14-92	07:52	2.3	CYLINDROTHECA CLOSTERIUM	D42	.022
MFF06	N07P	10-14-92	07:52	2.3	LEPTOCYLINDRUS MINIMUS	D53	.062
MFF06	N07P	10-14-92	07:52	2.3	NAVICULOID DIATOMS	D59	.004
MFF06	N07P	10-14-92	07:52	2.3	NITZSCHIA SPP.	D67	.004
MFF06	N07P	10-14-92	07:52	2.3	RHIZOSELENIA DELICATULA	D76	.837
MFF06	N07P	10-14-92	07:52	2.3	RHIZOSELENIA FRAGILISSIMA	D77	.018
MFF06	N07P	10-14-92	07:52	2.3	THALASSIOSIRA SPP.	D95	.044
MFF06	N07P	10-14-92	07:52	2.3	GYRODINIUM SPIRALE	F23	.009
MFF06	N07P	10-14-92	07:52	2.3	HETEROCAPSA TRIQUETRA	F26	.009
MFF06	N07P	10-14-92	07:52	2.3	UNID. NAKED DINOFLAGELLATE	F50	.027
MFF06	N07P	10-14-92	07:52	2.3	CRYPTOMONADS	O1	.146
MFF06	N07P	10-14-92	07:52	2.3	COCCOLITHOPHORID	O14	.018
MFF06	N07P	10-14-92	07:52	2.3	HETEROSIGMA AKASHIWO	O17	.004
MFF06	N07P	10-14-92	07:52	2.3	MICROFLAGELLATES	U1	.549
MFF06	N07P	10-14-92	07:51	9.2	UNID. CENTRALES	D100	.027
MFF06	N07P	10-14-92	07:51	9.2	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.009
MFF06	N07P	10-14-92	07:51	9.2	RHIZOSELENIA SETIGERA	D113	.009
MFF06	N07P	10-14-92	07:51	9.2	CHAETOCEROS SPP.(<10UM)	D30	.032
MFF06	N07P	10-14-92	07:51	9.2	CYLINDROTHECA CLOSTERIUM	D42	.005
MFF06	N07P	10-14-92	07:51	9.2	LEPTOCYLINDRUS MINIMUS	D53	.073
MFF06	N07P	10-14-92	07:51	9.2	RHIZOSELENIA DELICATULA	D76	.59
MFF06	N07P	10-14-92	07:51	9.2	THALASSIONEMA NITZSCHOIDES	D91	.005
MFF06	N07P	10-14-92	07:51	9.2	THALASSIOSIRA SPP.	D95	.05
MFF06	N07P	10-14-92	07:51	9.2	GYRODINIUM SPIRALE	F23	.005
MFF06	N07P	10-14-92	07:51	9.2	HETEROCAPSA TRIQUETRA	F26	.023
MFF06	N07P	10-14-92	07:51	9.2	UNID. NAKED DINOFLAGELLATE	F50	.027
MFF06	N07P	10-14-92	07:51	9.2	GYMNODINIUM SPP.	F56	.005
MFF06	N07P	10-14-92	07:51	9.2	CRYPTOMONADS	O1	.197
MFF06	N07P	10-14-92	07:51	9.2	COCCOLITHOPHORID	O14	.018
MFF06	N07P	10-14-92	07:51	9.2	EBRIA TRIPARTITIA	O5	.005
MFF06	N07P	10-14-92	07:51	9.2	MICROFLAGELLATES	U1	.787
MFF06	N10P	10-14-92	11:07	2.4	CERATAULINA PELAGICA	D10	.015
MFF06	N10P	10-14-92	11:07	2.4	UNID. CENTRALES	D100	.03
MFF06	N10P	10-14-92	11:07	2.4	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.004
MFF06	N10P	10-14-92	11:07	2.4	RHIZOSELENIA SETIGERA	D113	.004
MFF06	N10P	10-14-92	11:07	2.4	CHAETOCEROS SPP.(<10UM)	D30	.008
MFF06	N10P	10-14-92	11:07	2.4	CYLINDROTHECA CLOSTERIUM	D42	.008
MFF06	N10P	10-14-92	11:07	2.4	LEPTOCYLINDRUS MINIMUS	D53	.087
MFF06	N10P	10-14-92	11:07	2.4	NAVICULOID DIATOMS	D59	.008
MFF06	N10P	10-14-92	11:07	2.4	RHIZOSELENIA DELICATULA	D76	.616
MFF06	N10P	10-14-92	11:07	2.4	THALASSIONEMA NITZSCHOIDES	D91	.015
MFF06	N10P	10-14-92	11:07	2.4	THALASSIOSIRA SPP.	D95	.023
MFF06	N10P	10-14-92	11:07	2.4	PROROCENTRUM MINIMUM	F32	.015
MFF06	N10P	10-14-92	11:07	2.4	UNID. NAKED DINOFLAGELLATE	F50	.011
MFF06	N10P	10-14-92	11:07	2.4	GYMNODINIUM SPP.	F56	.011
MFF06	N10P	10-14-92	11:07	2.4	CRYPTOMONADS	O1	.253
MFF06	N10P	10-14-92	11:07	2.4	EBRIA TRIPARTITIA	O5	.004
MFF06	N10P	10-14-92	11:07	2.4	MICROFLAGELLATES	U1	.435
MFF06	N10P	10-14-92	11:06	6.4	CERATAULINA PELAGICA	D10	.011
MFF06	N10P	10-14-92	11:06	6.4	UNID. CENTRALES	D100	.019
MFF06	N10P	10-14-92	11:06	6.4	CHAETOCEROS SPP.(<10UM)	D30	.023
MFF06	N10P	10-14-92	11:06	6.4	LEPTOCYLINDRUS MINIMUS	D53	.045
MFF06	N10P	10-14-92	11:06	6.4	LICMOPHORA SPP.	D55	.004
MFF06	N10P	10-14-92	11:06	6.4	NAVICULOID DIATOMS	D59	.004

Table F-1. Continued.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF06	N10P	10-14-92	11:06	6.4	RHIZOSELENIA DELICATULA	D76	.544
MFF06	N10P	10-14-92	11:06	6.4	THALASSIONEMA NITZSCHOIDES	D91	.011
MFF06	N10P	10-14-92	11:06	6.4	THALASSIOSIRA SPP.	D95	.019
MFF06	N10P	10-14-92	11:06	6.4	HETEROCAPSA TRIQUETRA	F26	.008
MFF06	N10P	10-14-92	11:06	6.4	PROROCENTRUM MINIMUM	F32	.011
MFF06	N10P	10-14-92	11:06	6.4	UNID. NAKED DINOFLAGELLATE	F50	.015
MFF06	N10P	10-14-92	11:06	6.4	CRYPTOMONADS	01	.268
MFF06	N10P	10-14-92	11:06	6.4	COCCOLITHOPHORID	014	.008
MFF06	N10P	10-14-92	11:06	6.4	DICTYOCHA SPECULUM	016	.004
MFF06	N10P	10-14-92	11:06	6.4	CYANOPHYCEAE	02	.023
MFF06	N10P	10-14-92	11:06	6.4	MICROFLAGELLATES	U1	.518
MFF06	N16P	10-14-92	08:39	2.4	UNID. CENTRALES	D100	.036
MFF06	N16P	10-14-92	08:39	2.4	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.013
MFF06	N16P	10-14-92	08:39	2.4	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.009
MFF06	N16P	10-14-92	08:39	2.4	THALASSIOSIRA (CF) ECCENTRICA	D114	.004
MFF06	N16P	10-14-92	08:39	2.4	CORETHRON CRIOPHILUM	D33	.004
MFF06	N16P	10-14-92	08:39	2.4	CYLINDROTHECA CLOSTERIUM	D42	.013
MFF06	N16P	10-14-92	08:39	2.4	LEPTOCYLINDRUS MINIMUS	D53	.112
MFF06	N16P	10-14-92	08:39	2.4	NITZSCHIA SPP.	D67	.004
MFF06	N16P	10-14-92	08:39	2.4	RHIZOSELENIA DELICATULA	D76	.567
MFF06	N16P	10-14-92	08:39	2.4	SKELETONEMA COSTATUM	D84	.045
MFF06	N16P	10-14-92	08:39	2.4	THALASSIONEMA NITZSCHOIDES	D91	.018
MFF06	N16P	10-14-92	08:39	2.4	THALASSIOSIRA SPP.	D95	.076
MFF06	N16P	10-14-92	08:39	2.4	GYRODINIUM SPIRALE	F23	.004
MFF06	N16P	10-14-92	08:39	2.4	HETEROCAPSA TRIQUETRA	F26	.004
MFF06	N16P	10-14-92	08:39	2.4	UNID. NAKED DINOFLAGELLATE	F50	.031
MFF06	N16P	10-14-92	08:39	2.4	CRYPTOMONADS	01	.25
MFF06	N16P	10-14-92	08:39	2.4	EBRIA TRIPARTITIA	05	.013
MFF06	N16P	10-14-92	08:39	2.4	MICROFLAGELLATES	U1	.629
MFF06	N16P	10-14-92	08:38	7.4	CERATAULINA PELAGICA	D10	.009
MFF06	N16P	10-14-92	08:38	7.4	UNID. CENTRALES	D100	.031
MFF06	N16P	10-14-92	08:38	7.4	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.027
MFF06	N16P	10-14-92	08:38	7.4	RHIZOSELENIA (=PROBOSCIA) ALATA	D112	.004
MFF06	N16P	10-14-92	08:38	7.4	RHIZOSELENIA SETIGERA	D113	.013
MFF06	N16P	10-14-92	08:38	7.4	CHAETOCEROS SPP.(<10UM)	D30	.022
MFF06	N16P	10-14-92	08:38	7.4	CORETHRON CRIOPHILUM	D33	.004
MFF06	N16P	10-14-92	08:38	7.4	CYLINDROTHECA CLOSTERIUM	D42	.022
MFF06	N16P	10-14-92	08:38	7.4	LEPTOCYLINDRUS MINIMUS	D53	.049
MFF06	N16P	10-14-92	08:38	7.4	NITZSCHIA SPP.	D67	.004
MFF06	N16P	10-14-92	08:38	7.4	RHIZOSELENIA DELICATULA	D76	.844
MFF06	N16P	10-14-92	08:38	7.4	RHIZOSELENIA FRAGILISSIMA	D77	.004
MFF06	N16P	10-14-92	08:38	7.4	SKELETONEMA COSTATUM	D84	.027
MFF06	N16P	10-14-92	08:38	7.4	THALASSIONEMA NITZSCHOIDES	D91	.049
MFF06	N16P	10-14-92	08:38	7.4	THALASSIOSIRA SPP.	D95	.053
MFF06	N16P	10-14-92	08:38	7.4	HETEROCAPSA TRIQUETRA	F26	.004
MFF06	N16P	10-14-92	08:38	7.4	PROROCENTRUM MICANS	F31	.004
MFF06	N16P	10-14-92	08:38	7.4	PROROCENTRUM MINIMUM	F32	.004
MFF06	N16P	10-14-92	08:38	7.4	UNID. NAKED DINOFLAGELLATE	F50	.013
MFF06	N16P	10-14-92	08:38	7.4	CRYPTOMONADS	01	.08
MFF06	N16P	10-14-92	08:38	7.4	COCCOLITHOPHORID	014	.004
MFF06	N16P	10-14-92	08:38	7.4	EUTREPTIA/EUTREPTIELLA SPP.	015	.009
MFF06	N16P	10-14-92	08:38	7.4	EBRIA TRIPARTITIA	05	.009
MFF06	N16P	10-14-92	08:38	7.4	MICROFLAGELLATES	U1	.548
MFF06	N20P	10-15-92	09:55	2.2	UNID. CENTRALES	D100	.015
MFF06	N20P	10-15-92	09:55	2.2	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.011
MFF06	N20P	10-15-92	09:55	2.2	CYLINDROTHECA CLOSTERIUM	D42	.011
MFF06	N20P	10-15-92	09:55	2.2	LEPTOCYLINDRUS MINIMUS	D53	.034
MFF06	N20P	10-15-92	09:55	2.2	NAVICULOID DIATOMS	D59	.004
MFF06	N20P	10-15-92	09:55	2.2	NITZSCHIA SPP.	D67	.004
MFF06	N20P	10-15-92	09:55	2.2	RHIZOSELENIA DELICATULA	D76	.518
MFF06	N20P	10-15-92	09:55	2.2	THALASSIONEMA NITZSCHOIDES	D91	.008
MFF06	N20P	10-15-92	09:55	2.2	THALASSIOSIRA SPP.	D95	.064

Table F-1. Continued.

Event	Station	Date	Time (EST)	Depth (M)	Taxon	Code	Millions of Cells per Liter
MFF06	N20P	10-15-92	09:55	2.2	PROROCENTRUM MINIMUM	F32	.015
MFF06	N20P	10-15-92	09:55	2.2	UNID. NAKED DINOFLAGELLATE	F50	.011
MFF06	N20P	10-15-92	09:55	2.2	GYMNODINIUM SPP.	F56	.008
MFF06	N20P	10-15-92	09:55	2.2	SCRIPPSIELLA TROCHOIDEA	F58	.004
MFF06	N20P	10-15-92	09:55	2.2	CRYPTOMONADS	O1	.351
MFF06	N20P	10-15-92	09:55	2.2	EUTREPTIA/EUTREPTIELLA SPP.	O15	.004
MFF06	N20P	10-15-92	09:55	2.2	UNID. CHRYSOPHYTE	O20	.004
MFF06	N20P	10-15-92	09:55	2.2	EBRIA TRIPARTITIA	O5	.004
MFF06	N20P	10-15-92	09:55	2.2	MESODINIUM RUBRUM	O9	.004
MFF06	N20P	10-15-92	09:55	2.2	MICROFLAGELLATES	U1	.533
MFF06	N20P	10-15-92	09:54	9.1	UNID. CENTRALES	D100	.025
MFF06	N20P	10-15-92	09:54	9.1	CHAETOCEROS DIDYMUS (UNICELL FORM)	D106	.021
MFF06	N20P	10-15-92	09:54	9.1	CHAETOCEROS SPP.(<10UM)	D30	.008
MFF06	N20P	10-15-92	09:54	9.1	CYLINDROTHECA CLOSTERIUM	D42	.004
MFF06	N20P	10-15-92	09:54	9.1	LEPTOCYLINDRUS MINIMUS	D53	.059
MFF06	N20P	10-15-92	09:54	9.1	NAVICULOID DIATOMS	D59	.008
MFF06	N20P	10-15-92	09:54	9.1	RHIZOSELENIA DELICATULA	D76	.59
MFF06	N20P	10-15-92	09:54	9.1	THALASSIONEMA NITZSCHOIDES	D91	.021
MFF06	N20P	10-15-92	09:54	9.1	THALASSIOSIRA SPP.	D95	.046
MFF06	N20P	10-15-92	09:54	9.1	PROROCENTRUM MINIMUM	F32	.004
MFF06	N20P	10-15-92	09:54	9.1	UNID. NAKED DINOFLAGELLATE	F50	.004
MFF06	N20P	10-15-92	09:54	9.1	GYMNODINIUM SPP.	F56	.017
MFF06	N20P	10-15-92	09:54	9.1	CRYPTOMONADS	O1	.347
MFF06	N20P	10-15-92	09:54	9.1	DICTYOCHA SPECULUM	O16	.004
MFF06	N20P	10-15-92	09:54	9.1	EBRIA TRIPARTITIA	O5	.017
MFF06	N20P	10-15-92	09:54	9.1	MICROFLAGELLATES	U1	.531

APPENDIX G

ZOOPLANKTON SPECIES DATA TABLES

Data are for late August (MFF05) and October (MFF06 1992).

Table G-1. Zooplankton species data tables for August and October 1992.

Event	Station	Date	Time	Taxon	Qual[1]	Individuals Per M3
MFF05	F01P	08-25-92	0841	COPEPOD NAUPLII	N	31833
MFF05	F01P	08-25-92	0841	CALANUS FINMARCHICUS	M	111
MFF05	F01P	08-25-92	0841	CALANUS FINMARCHICUS	F	445
MFF05	F01P	08-25-92	0841	CALANUS FINMARCHICUS	C	3450
MFF05	F01P	08-25-92	0841	PARACALANUS PARVUS	C	12132
MFF05	F01P	08-25-92	0841	PARACALANUS PARVUS	F	5454
MFF05	F01P	08-25-92	0841	PARACALANUS PARVUS	M	111
MFF05	F01P	08-25-92	0841	PSEUDOCALANUS NEWMANI	C	1113
MFF05	F01P	08-25-92	0841	PSEUDOCALANUS NEWMANI	M	445
MFF05	F01P	08-25-92	0841	PSEUDOCALANUS NEWMANI	F	2115
MFF05	F01P	08-25-92	0841	CENTROPAGES TYPICUS	F	111
MFF05	F01P	08-25-92	0841	CENTROPAGES TYPICUS	M	111
MFF05	F01P	08-25-92	0841	CENTROPAGES SPP.	C	7012
MFF05	F01P	08-25-92	0841	TEMORA LONGICORNIS	C	111
MFF05	F01P	08-25-92	0841	ACARTIA TONSA	M	223
MFF05	F01P	08-25-92	0841	ACARTIA TONSA	C	7791
MFF05	F01P	08-25-92	0841	TORTANUS DISCAUDATUS	C	111
MFF05	F01P	08-25-92	0841	MICROSETELLA NORVEGICA		223
MFF05	F01P	08-25-92	0841	OITHONA SIMILIS	M	334
MFF05	F01P	08-25-92	0841	OITHONA SIMILIS	F	9127
MFF05	F01P	08-25-92	0841	OITHONA SIMILIS	C	35617
MFF05	F01P	08-25-92	0841	TOTAL ZOOPLANKTON		117983
MFF05	F02P	08-25-92	1040	COPEPOD NAUPLII	N	32784
MFF05	F02P	08-25-92	1040	CALANUS FINMARCHICUS	F	522
MFF05	F02P	08-25-92	1040	CALANUS FINMARCHICUS	C	1829
MFF05	F02P	08-25-92	1040	PARACALANUS PARVUS	C	14759
MFF05	F02P	08-25-92	1040	PARACALANUS PARVUS	M	522
MFF05	F02P	08-25-92	1040	PARACALANUS PARVUS	F	5224
MFF05	F02P	08-25-92	1040	PSEUDOCALANUS NEWMANI	C	1829
MFF05	F02P	08-25-92	1040	PSEUDOCALANUS NEWMANI	F	3396
MFF05	F02P	08-25-92	1040	PSEUDOCALANUS NEWMANI	M	653
MFF05	F02P	08-25-92	1040	CENTROPAGES HAMATUS	F	131
MFF05	F02P	08-25-92	1040	CENTROPAGES TYPICUS	F	392
MFF05	F02P	08-25-92	1040	CENTROPAGES TYPICUS	M	522
MFF05	F02P	08-25-92	1040	CENTROPAGES SPP.	C	653
MFF05	F02P	08-25-92	1040	TEMORA LONGICORNIS	C	131
MFF05	F02P	08-25-92	1040	ACARTIA TONSA	F	392
MFF05	F02P	08-25-92	1040	ACARTIA TONSA	M	261
MFF05	F02P	08-25-92	1040	ACARTIA TONSA	C	131
MFF05	F02P	08-25-92	1040	TORTANUS DISCAUDATUS	M	131
MFF05	F02P	08-25-92	1040	MICROSETELLA NORVEGICA		1176
MFF05	F02P	08-25-92	1040	OITHONA SIMILIS	F	6531
MFF05	F02P	08-25-92	1040	OITHONA SIMILIS	M	261
MFF05	F02P	08-25-92	1040	OITHONA SIMILIS	C	78629
MFF05	F02P	08-25-92	1040	OITHONA ATLANTICA	C	131
MFF05	F02P	08-25-92	1040	OITHONA ATLANTICA	F	784
MFF05	F02P	08-25-92	1040	TOTAL ZOOPLANKTON		151771
MFF05	F02P	08-25-92	1127	COPEPOD NAUPLII	N	16996
MFF05	F02P	08-25-92	1127	CALANUS FINMARCHICUS	M	850
MFF05	F02P	08-25-92	1127	CALANUS FINMARCHICUS	F	637
MFF05	F02P	08-25-92	1127	CALANUS FINMARCHICUS	C	1275
MFF05	F02P	08-25-92	1127	PARACALANUS PARVUS	C	6373
MFF05	F02P	08-25-92	1127	PARACALANUS PARVUS	F	1062
MFF05	F02P	08-25-92	1127	PARACALANUS PARVUS	M	637
MFF05	F02P	08-25-92	1127	PSEUDOCALANUS NEWMANI	F	3187
MFF05	F02P	08-25-92	1127	PSEUDOCALANUS NEWMANI	C	850
MFF05	F02P	08-25-92	1127	PSEUDOCALANUS NEWMANI	M	637
MFF05	F02P	08-25-92	1127	CENTROPAGES TYPICUS	F	637
MFF05	F02P	08-25-92	1127	CENTROPAGES TYPICUS	M	1062
MFF05	F02P	08-25-92	1127	CENTROPAGES SPP.	C	1487
MFF05	F02P	08-25-92	1127	ACARTIA TONSA	M	425
MFF05	F02P	08-25-92	1127	ACARTIA TONSA	C	1062
MFF05	F02P	08-25-92	1127	MICROSETELLA NORVEGICA		212

[1]C = COPEPIDITES, F = FEMALE, M = MALE, N = NAUPLII

Table G-1. Continued.

Event	Station	Date	Time	Taxon	Qual[1]	Individuals Per M3
MFF05	F02P	08-25-92	1127	OITHONA SIMILIS	F	7861
MFF05	F02P	08-25-92	1127	OITHONA SIMILIS	M	850
MFF05	F02P	08-25-92	1127	OITHONA SIMILIS	C	48863
MFF05	F02P	08-25-92	1127	OITHONA ATLANTICA	F	212
MFF05	F02P	08-25-92	1127	TOTAL ZOOPLANKTON		95177
MFF05	F13P	08-26-92	0855	GASTROPOD VELIGER		117
MFF05	F13P	08-26-92	0855	COPEPOD NAUPLII	N	29123
MFF05	F13P	08-26-92	0855	PARACALANUS PARVUS	C	7398
MFF05	F13P	08-26-92	0855	PARACALANUS PARVUS	M	235
MFF05	F13P	08-26-92	0855	PARACALANUS PARVUS	F	1996
MFF05	F13P	08-26-92	0855	PSEUDOCALANUS NEWMANI	F	1292
MFF05	F13P	08-26-92	0855	PSEUDOCALANUS NEWMANI	M	117
MFF05	F13P	08-26-92	0855	PSEUDOCALANUS NEWMANI	C	117
MFF05	F13P	08-26-92	0855	CENTROPAGES TYPICUS	F	1409
MFF05	F13P	08-26-92	0855	CENTROPAGES TYPICUS	M	705
MFF05	F13P	08-26-92	0855	CENTROPAGES SPP.	C	8220
MFF05	F13P	08-26-92	0855	MICROSETELLA NORVEGICA		587
MFF05	F13P	08-26-92	0855	OITHONA SIMILIS	F	9982
MFF05	F13P	08-26-92	0855	OITHONA SIMILIS	C	40044
MFF05	F13P	08-26-92	0855	OITHONA SIMILIS	M	470
MFF05	F13P	08-26-92	0855	TOTAL ZOOPLANKTON		101813
MFF05	F23P	08-28-92	0629	POLYCHAETE LARVAE		531
MFF05	F23P	08-28-92	0629	GASTROPOD VELIGER		199
MFF05	F23P	08-28-92	0629	COPEPOD NAUPLII	N	27921
MFF05	F23P	08-28-92	0629	PARACALANUS PARVUS	C	4775
MFF05	F23P	08-28-92	0629	PARACALANUS PARVUS	M	199
MFF05	F23P	08-28-92	0629	PARACALANUS PARVUS	F	597
MFF05	F23P	08-28-92	0629	PSEUDOCALANUS NEWMANI	C	265
MFF05	F23P	08-28-92	0629	PSEUDOCALANUS NEWMANI	M	265
MFF05	F23P	08-28-92	0629	PSEUDOCALANUS NEWMANI	F	3051
MFF05	F23P	08-28-92	0629	CENTROPAGES HAMATUS	F	66
MFF05	F23P	08-28-92	0629	CENTROPAGES TYPICUS	F	265
MFF05	F23P	08-28-92	0629	CENTROPAGES TYPICUS	M	66
MFF05	F23P	08-28-92	0629	CENTROPAGES SPP.	C	332
MFF05	F23P	08-28-92	0629	EURYTEMORA HERDMANI	M	66
MFF05	F23P	08-28-92	0629	EURYTEMORA HERDMANI	F	199
MFF05	F23P	08-28-92	0629	EURYTEMORA HERDMANI	C	66
MFF05	F23P	08-28-92	0629	TEMORA LONGICORNIS	F	66
MFF05	F23P	08-28-92	0629	TEMORA LONGICORNIS	M	66
MFF05	F23P	08-28-92	0629	ACARTIA TONSA	F	1923
MFF05	F23P	08-28-92	0629	ACARTIA TONSA	C	1724
MFF05	F23P	08-28-92	0629	ACARTIA TONSA	M	2454
MFF05	F23P	08-28-92	0629	MICROSETELLA NORVEGICA		464
MFF05	F23P	08-28-92	0629	SAPHIRELLA SP.		66
MFF05	F23P	08-28-92	0629	OITHONA SIMILIS	C	17641
MFF05	F23P	08-28-92	0629	OITHONA SIMILIS	F	3250
MFF05	F23P	08-28-92	0629	OITHONA SIMILIS	M	730
MFF05	F23P	08-28-92	0629	OITHONA ATLANTICA	F	66
MFF05	F23P	08-28-92	0629	TOTAL ZOOPLANKTON		67316
MFF05	N01P	08-27-92	1132	BIVALVE VELIGER		677
MFF05	N01P	08-27-92	1132	COPEPOD NAUPLII	N	100483
MFF05	N01P	08-27-92	1132	CALANUS FINMARCHICUS	M	226
MFF05	N01P	08-27-92	1132	CALANUS FINMARCHICUS	C	451
MFF05	N01P	08-27-92	1132	CALANUS FINMARCHICUS	F	338
MFF05	N01P	08-27-92	1132	PARACALANUS PARVUS	F	7218
MFF05	N01P	08-27-92	1132	PARACALANUS PARVUS	M	1692
MFF05	N01P	08-27-92	1132	PARACALANUS PARVUS	C	37103
MFF05	N01P	08-27-92	1132	PSEUDOCALANUS NEWMANI	C	2368
MFF05	N01P	08-27-92	1132	PSEUDOCALANUS NEWMANI	F	10263
MFF05	N01P	08-27-92	1132	PSEUDOCALANUS NEWMANI	M	2594
MFF05	N01P	08-27-92	1132	CENTROPAGES TYPICUS	F	226
MFF05	N01P	08-27-92	1132	CENTROPAGES TYPICUS	M	338
MFF05	N01P	08-27-92	1132	CENTROPAGES SPP.	C	1015

[1]C = COPEPIDITES, F = FEMALE, M = MALE, N = NAUPLII

Table G-1. Continued.

Event	Station	Date	Time	Taxon	Qual[1]	Individuals Per M3
MFF05	N01P	08-27-92	1132	TEMORA LONGICORNIS	C	789
MFF05	N01P	08-27-92	1132	ACARTIA TONSA	F	338
MFF05	N01P	08-27-92	1132	ACARTIA TONSA	M	677
MFF05	N01P	08-27-92	1132	ACARTIA TONSA	C	338
MFF05	N01P	08-27-92	1132	MICROSETELLA NORVEGICA		902
MFF05	N01P	08-27-92	1132	OITHONA SIMILIS	F	17706
MFF05	N01P	08-27-92	1132	OITHONA SIMILIS	M	2256
MFF05	N01P	08-27-92	1132	OITHONA SIMILIS	C	72740
MFF05	N01P	08-27-92	1132	OITHONA ATLANTICA	F	226
MFF05	N01P	08-27-92	1132	DECAPOD LARVAE		113
MFF05	N01P	08-27-92	1132	TOTAL ZOOPLANKTON		261075
MFF05	N04P	08-27-92	1307	BIVALVE VELIGER		277
MFF05	N04P	08-27-92	1307	COPEPOD NAUPLII	N	24907
MFF05	N04P	08-27-92	1307	CALANUS FINMARCHICUS	C	46
MFF05	N04P	08-27-92	1307	PARACALANUS PARVUS	C	1802
MFF05	N04P	08-27-92	1307	PARACALANUS PARVUS	F	92
MFF05	N04P	08-27-92	1307	PSEUDOCALANUS NEWMANI	C	46
MFF05	N04P	08-27-92	1307	PSEUDOCALANUS NEWMANI	M	92
MFF05	N04P	08-27-92	1307	PSEUDOCALANUS NEWMANI	F	231
MFF05	N04P	08-27-92	1307	CENTROPAGES TYPICUS	M	139
MFF05	N04P	08-27-92	1307	CENTROPAGES SPP.	C	462
MFF05	N04P	08-27-92	1307	OITHONA SIMILIS	M	277
MFF05	N04P	08-27-92	1307	OITHONA SIMILIS	F	14048
MFF05	N04P	08-27-92	1307	OITHONA SIMILIS	C	62198
MFF05	N04P	08-27-92	1307	OITHONA ATLANTICA	F	46
MFF05	N04P	08-27-92	1307	TOTAL ZOOPLANKTON		104710
MFF05	N04P	08-27-92	1307	HYPERIID AMPHIPOD		46
MFF05	N07P	08-26-92	1031	COPEPOD NAUPLII	N	82519
MFF05	N07P	08-26-92	1031	CALANUS FINMARCHICUS	C	182
MFF05	N07P	08-26-92	1031	CALANUS FINMARCHICUS	F	635
MFF05	N07P	08-26-92	1031	PARACALANUS PARVUS	C	13799
MFF05	N07P	08-26-92	1031	PARACALANUS PARVUS	F	2360
MFF05	N07P	08-26-92	1031	PARACALANUS PARVUS	M	182
MFF05	N07P	08-26-92	1031	PSEUDOCALANUS NEWMANI	C	454
MFF05	N07P	08-26-92	1031	PSEUDOCALANUS NEWMANI	M	545
MFF05	N07P	08-26-92	1031	PSEUDOCALANUS NEWMANI	F	2905
MFF05	N07P	08-26-92	1031	CENTROPAGES TYPICUS	M	363
MFF05	N07P	08-26-92	1031	CENTROPAGES TYPICUS	F	908
MFF05	N07P	08-26-92	1031	CENTROPAGES SPP.	C	2088
MFF05	N07P	08-26-92	1031	MICROSETELLA NORVEGICA		908
MFF05	N07P	08-26-92	1031	OITHONA SIMILIS	F	16794
MFF05	N07P	08-26-92	1031	OITHONA SIMILIS	M	635
MFF05	N07P	08-26-92	1031	OITHONA SIMILIS	C	65634
MFF05	N07P	08-26-92	1031	TOTAL ZOOPLANKTON		191001
MFF05	N07P	08-26-92	1031	HYPERIID AMPHIPOD		91
MFF05	N10P	08-26-92	0727	GASTROPOD VELIGER		1045
MFF05	N10P	08-26-92	0727	COPEPOD NAUPLII	N	29388
MFF05	N10P	08-26-92	0727	CALANUS FINMARCHICUS	C	131
MFF05	N10P	08-26-92	0727	CALANUS FINMARCHICUS	F	131
MFF05	N10P	08-26-92	0727	PARACALANUS PARVUS	C	10057
MFF05	N10P	08-26-92	0727	PARACALANUS PARVUS	M	131
MFF05	N10P	08-26-92	0727	PARACALANUS PARVUS	F	1959
MFF05	N10P	08-26-92	0727	PSEUDOCALANUS NEWMANI	M	914
MFF05	N10P	08-26-92	0727	PSEUDOCALANUS NEWMANI	F	3918
MFF05	N10P	08-26-92	0727	CENTROPAGES HAMATUS	F	522
MFF05	N10P	08-26-92	0727	CENTROPAGES TYPICUS	M	392
MFF05	N10P	08-26-92	0727	CENTROPAGES TYPICUS	F	914
MFF05	N10P	08-26-92	0727	CENTROPAGES SPP.	C	4310
MFF05	N10P	08-26-92	0727	EURYTEMORA HERDMANI	C	131
MFF05	N10P	08-26-92	0727	TEMORA LONGICORNIS	M	131
MFF05	N10P	08-26-92	0727	TEMORA LONGICORNIS	C	261
MFF05	N10P	08-26-92	0727	TEMORA LONGICORNIS	F	522
MFF05	N10P	08-26-92	0727	ACARTIA TONSA	F	2743

[1]C = COPEPIDITES, F = FEMALE, M = MALE, N = NAUPLII G-3

Table G-1. Continued.

Event	Station	Date	Time	Taxon	Qual[1]	Individuals Per M3
MFF05	N10P	08-26-92	0727	ACARTIA TONSA	M	2351
MFF05	N10P	08-26-92	0727	ACARTIA TONSA	C	3527
MFF05	N10P	08-26-92	0727	MICROSETELLA NORVEGICA		522
MFF05	N10P	08-26-92	0727	OITHONA SIMILIS	F	6661
MFF05	N10P	08-26-92	0727	OITHONA SIMILIS	M	522
MFF05	N10P	08-26-92	0727	OITHONA SIMILIS	C	15412
MFF05	N10P	08-26-92	0727	DECAPOD LARVAE		261
MFF05	N10P	08-26-92	0727	SAGITTA ELEGANS		131
MFF05	N10P	08-26-92	0727	BARNACLE NAUPLII	N	131
MFF05	N10P	08-26-92	0727	TOTAL ZOOPLANKTON		87118
MFF05	N16P	08-26-92	1128	COPEPOD NAUPLII	N	38655
MFF05	N16P	08-26-92	1128	CALANUS FINMARCHICUS	F	102
MFF05	N16P	08-26-92	1128	PARACALANUS PARVUS	C	9485
MFF05	N16P	08-26-92	1128	PARACALANUS PARVUS	F	510
MFF05	N16P	08-26-92	1128	PSEUDOCALANUS NEWMANI	C	102
MFF05	N16P	08-26-92	1128	PSEUDOCALANUS NEWMANI	M	306
MFF05	N16P	08-26-92	1128	PSEUDOCALANUS NEWMANI	F	816
MFF05	N16P	08-26-92	1128	CENTROPAGES TYPICUS	F	306
MFF05	N16P	08-26-92	1128	CENTROPAGES TYPICUS	M	306
MFF05	N16P	08-26-92	1128	CENTROPAGES SPP.	C	2142
MFF05	N16P	08-26-92	1128	ACARTIA TONSA	M	102
MFF05	N16P	08-26-92	1128	ACARTIA TONSA	C	714
MFF05	N16P	08-26-92	1128	ACARTIA TONSA	F	102
MFF05	N16P	08-26-92	1128	OITHONA SIMILIS	F	5508
MFF05	N16P	08-26-92	1128	OITHONA SIMILIS	C	58747
MFF05	N16P	08-26-92	1128	OITHONA SIMILIS	M	714
MFF05	N16P	08-26-92	1128	TOTAL ZOOPLANKTON		118617
MFF05	N20P	08-27-92	1409	POLYCHAETE LARVAE		119
MFF05	N20P	08-27-92	1409	GASTROPOD VELIGER		59
MFF05	N20P	08-27-92	1409	COPEPOD NAUPLII	N	27022
MFF05	N20P	08-27-92	1409	CALANUS FINMARCHICUS	C	237
MFF05	N20P	08-27-92	1409	PARACALANUS PARVUS	F	3022
MFF05	N20P	08-27-92	1409	PARACALANUS PARVUS	C	10133
MFF05	N20P	08-27-92	1409	PARACALANUS PARVUS	M	1659
MFF05	N20P	08-27-92	1409	PSEUDOCALANUS NEWMANI	C	770
MFF05	N20P	08-27-92	1409	PSEUDOCALANUS NEWMANI	F	2726
MFF05	N20P	08-27-92	1409	CENTROPAGES HAMATUS	F	59
MFF05	N20P	08-27-92	1409	CENTROPAGES TYPICUS	F	593
MFF05	N20P	08-27-92	1409	CENTROPAGES TYPICUS	M	356
MFF05	N20P	08-27-92	1409	CENTROPAGES SPP.	C	1007
MFF05	N20P	08-27-92	1409	TEMORA LONGICORNIS	F	178
MFF05	N20P	08-27-92	1409	TEMORA LONGICORNIS	C	356
MFF05	N20P	08-27-92	1409	TEMORA LONGICORNIS	M	178
MFF05	N20P	08-27-92	1409	ACARTIA TONSA	F	296
MFF05	N20P	08-27-92	1409	ACARTIA TONSA	C	1007
MFF05	N20P	08-27-92	1409	ACARTIA TONSA	M	652
MFF05	N20P	08-27-92	1409	TORTANUS DISCAUDATUS	C	178
MFF05	N20P	08-27-92	1409	MICROSETELLA NORVEGICA		119
MFF05	N20P	08-27-92	1409	OITHONA SIMILIS	C	42074
MFF05	N20P	08-27-92	1409	OITHONA SIMILIS	F	12030
MFF05	N20P	08-27-92	1409	OITHONA SIMILIS	M	533
MFF05	N20P	08-27-92	1409	OITHONA ATLANTICA	F	178
MFF05	N20P	08-27-92	1409	DECAPOD LARVAE		59
MFF05	N20P	08-27-92	1409	CRAB ZOEA		59
MFF05	N20P	08-27-92	1409	TOTAL ZOOPLANKTON		105659
MFF06	F01P	10-13-92	0829	GASTROPOD VELIGER		417
MFF06	F01P	10-13-92	0829	BIVALVE VELIGER		3339
MFF06	F01P	10-13-92	0829	COPEPOD NAUPLII	N	3130
MFF06	F01P	10-13-92	0829	CALANUS FINMARCHICUS	F	70
MFF06	F01P	10-13-92	0829	CALANUS FINMARCHICUS	M	70
MFF06	F01P	10-13-92	0829	CALANUS FINMARCHICUS	C	70
MFF06	F01P	10-13-92	0829	PARACALANUS PARVUS	C	2017
MFF06	F01P	10-13-92	0829	PARACALANUS PARVUS	F	417

[1]C = COPEPIDITES, F = FEMALE, M = MALE, N = NAUPLII

Table G-1. Continued.

Event	Station	Date	Time	Taxon	Qual[1]	Individuals Per M3
MFF06	F01P	10-13-92	0829	PARACALANUS PARVUS	M	70
MFF06	F01P	10-13-92	0829	PSEUDOCALANUS NEWMANI	C	278
MFF06	F01P	10-13-92	0829	PSEUDOCALANUS NEWMANI	F	139
MFF06	F01P	10-13-92	0829	CENTROPAGES HAMATUS	F	70
MFF06	F01P	10-13-92	0829	CENTROPAGES HAMATUS	M	209
MFF06	F01P	10-13-92	0829	CENTROPAGES TYPICUS	F	1600
MFF06	F01P	10-13-92	0829	CENTROPAGES TYPICUS	M	1113
MFF06	F01P	10-13-92	0829	CENTROPAGES SPP.	C	2852
MFF06	F01P	10-13-92	0829	ACARTIA TONSA	F	139
MFF06	F01P	10-13-92	0829	ACARTIA TONSA	M	70
MFF06	F01P	10-13-92	0829	ACARTIA TONSA	C	209
MFF06	F01P	10-13-92	0829	MICROSETELLA NORVEGICA		139
MFF06	F01P	10-13-92	0829	OITHONA SIMILIS	F	5913
MFF06	F01P	10-13-92	0829	OITHONA SIMILIS	C	11896
MFF06	F01P	10-13-92	0829	OITHONA SIMILIS	M	209
MFF06	F01P	10-13-92	0829	OITHONA ATLANTICA	F	70
MFF06	F01P	10-13-92	0829	DECAPOD LARVAE		70
MFF06	F01P	10-13-92	0829	TOTAL ZOOPLANKTON		34574
MFF06	F02P	10-13-92	1215	GASTROPOD VELIGER		431
MFF06	F02P	10-13-92	1215	BIVALVE VELIGER		345
MFF06	F02P	10-13-92	1215	COPEPOD NAUPLII	N	11378
MFF06	F02P	10-13-92	1215	CALANUS FINMARCHICUS	C	86
MFF06	F02P	10-13-92	1215	CALANUS FINMARCHICUS	F	86
MFF06	F02P	10-13-92	1215	PARACALANUS PARVUS	F	431
MFF06	F02P	10-13-92	1215	PARACALANUS PARVUS	C	690
MFF06	F02P	10-13-92	1215	PSEUDOCALANUS NEWMANI	M	86
MFF06	F02P	10-13-92	1215	PSEUDOCALANUS NEWMANI	F	86
MFF06	F02P	10-13-92	1215	CENTROPAGES TYPICUS	F	3017
MFF06	F02P	10-13-92	1215	CENTROPAGES TYPICUS	M	2500
MFF06	F02P	10-13-92	1215	CENTROPAGES SPP.	C	948
MFF06	F02P	10-13-92	1215	EURYTEMORA HERDMANI	C	86
MFF06	F02P	10-13-92	1215	ACARTIA TONSA	C	259
MFF06	F02P	10-13-92	1215	OITHONA SIMILIS	F	17067
MFF06	F02P	10-13-92	1215	OITHONA SIMILIS	M	345
MFF06	F02P	10-13-92	1215	OITHONA SIMILIS	C	29996
MFF06	F02P	10-13-92	1215	PTEROPOD		345
MFF06	F02P	10-13-92	1215	TOTAL ZOOPLANKTON		68267
MFF06	F02P	10-13-92	1215	FISH EGG		86
MFF06	F02P	10-13-92	1221	BIVALVE VELIGER		502
MFF06	F02P	10-13-92	1221	COPEPOD NAUPLII	N	9681
MFF06	F02P	10-13-92	1221	CALANUS FINMARCHICUS	M	143
MFF06	F02P	10-13-92	1221	CALANUS FINMARCHICUS	F	143
MFF06	F02P	10-13-92	1221	PARACALANUS PARVUS	F	861
MFF06	F02P	10-13-92	1221	PARACALANUS PARVUS	C	1004
MFF06	F02P	10-13-92	1221	PARACALANUS PARVUS	M	72
MFF06	F02P	10-13-92	1221	PSEUDOCALANUS NEWMANI	C	717
MFF06	F02P	10-13-92	1221	PSEUDOCALANUS NEWMANI	F	359
MFF06	F02P	10-13-92	1221	PSEUDOCALANUS NEWMANI	M	72
MFF06	F02P	10-13-92	1221	CENTROPAGES TYPICUS	F	1936
MFF06	F02P	10-13-92	1221	CENTROPAGES TYPICUS	M	3370
MFF06	F02P	10-13-92	1221	CENTROPAGES SPP.	C	1506
MFF06	F02P	10-13-92	1221	ACARTIA TONSA	F	72
MFF06	F02P	10-13-92	1221	MICROSETELLA NORVEGICA		574
MFF06	F02P	10-13-92	1221	OITHONA SIMILIS	F	17927
MFF06	F02P	10-13-92	1221	OITHONA SIMILIS	C	25815
MFF06	F02P	10-13-92	1221	OITHONA SIMILIS	M	861
MFF06	F02P	10-13-92	1221	OITHONA ATLANTICA	F	359
MFF06	F02P	10-13-92	1221	OITHONA ATLANTICA	C	72
MFF06	F02P	10-13-92	1221	SAGITTA ELEGANS		72
MFF06	F02P	10-13-92	1221	PTEROPOD		1004
MFF06	F02P	10-13-92	1221	TOTAL ZOOPLANKTON		67119
MFF06	F13P	10-14-92	0702	GASTROPOD VELIGER		573
MFF06	F13P	10-14-92	0702	BIVALVE VELIGER		1337

[1]C = COPEPIDITES, F = FEMALE, M = MALE, N = NAUPLII

Table G-1. Continued.

Event	Station	Date	Time	Taxon	Qual[1]	Individuals Per M3
MFF06	F13P	10-14-92	0702	COPEPOD NAUPLII	N	16907
MFF06	F13P	10-14-92	0702	PARACALANUS PARVUS	F	478
MFF06	F13P	10-14-92	0702	PARACALANUS PARVUS	C	1337
MFF06	F13P	10-14-92	0702	PSEUDOCALANUS NEWMANI	F	478
MFF06	F13P	10-14-92	0702	CENTROPAGES HAMATUS	F	191
MFF06	F13P	10-14-92	0702	CENTROPAGES HAMATUS	M	382
MFF06	F13P	10-14-92	0702	CENTROPAGES TYPICUS	F	382
MFF06	F13P	10-14-92	0702	CENTROPAGES TYPICUS	M	669
MFF06	F13P	10-14-92	0702	CENTROPAGES SPP.	C	1815
MFF06	F13P	10-14-92	0702	EURYTEMORA HERDMANI	C	96
MFF06	F13P	10-14-92	0702	ACARTIA TONSA	F	287
MFF06	F13P	10-14-92	0702	ACARTIA TONSA	C	1624
MFF06	F13P	10-14-92	0702	ACARTIA TONSA	M	191
MFF06	F13P	10-14-92	0702	TORTANUS DISCAUDATUS	F	96
MFF06	F13P	10-14-92	0702	MICROSETELLA NORVEGICA		287
MFF06	F13P	10-14-92	0702	OITHONA SIMILIS	F	13373
MFF06	F13P	10-14-92	0702	OITHONA SIMILIS	M	287
MFF06	F13P	10-14-92	0702	OITHONA SIMILIS	C	21301
MFF06	F13P	10-14-92	0702	OITHONA ATLANTICA	F	96
MFF06	F13P	10-14-92	0702	DECAPOD LARVAE		96
MFF06	F13P	10-14-92	0702	TOTAL ZOOPLANKTON		62281
MFF06	F23P	10-15-92	0648	POLYCHAETE LARVAE		5818
MFF06	F23P	10-15-92	0648	GASTROPOD VELIGER		740
MFF06	F23P	10-15-92	0648	BIVALVE VELIGER		635
MFF06	F23P	10-15-92	0648	COPEPOD NAUPLII	N	18512
MFF06	F23P	10-15-92	0648	PARACALANUS PARVUS	C	529
MFF06	F23P	10-15-92	0648	PSEUDOCALANUS NEWMANI	C	106
MFF06	F23P	10-15-92	0648	PSEUDOCALANUS NEWMANI	M	106
MFF06	F23P	10-15-92	0648	CENTROPAGES HAMATUS	F	106
MFF06	F23P	10-15-92	0648	CENTROPAGES HAMATUS	M	106
MFF06	F23P	10-15-92	0648	CENTROPAGES TYPICUS	F	106
MFF06	F23P	10-15-92	0648	CENTROPAGES SPP.	C	1904
MFF06	F23P	10-15-92	0648	EURYTEMORA HERDMANI	M	106
MFF06	F23P	10-15-92	0648	EURYTEMORA HERDMANI	C	2750
MFF06	F23P	10-15-92	0648	ACARTIA TONSA	F	1058
MFF06	F23P	10-15-92	0648	ACARTIA TONSA	M	1587
MFF06	F23P	10-15-92	0648	ACARTIA TONSA	C	15974
MFF06	F23P	10-15-92	0648	OITHONA SIMILIS	F	2010
MFF06	F23P	10-15-92	0648	OITHONA SIMILIS	C	1693
MFF06	F23P	10-15-92	0648	OITHONA SIMILIS	M	212
MFF06	F23P	10-15-92	0648	OIKIOPLEURA DIOICA		106
MFF06	F23P	10-15-92	0648	TOTAL ZOOPLANKTON		54479
MFF06	F23P	10-15-92	0648	ASCIDIAN LARVA		317
MFF06	N01P	10-15-92	0810	GASTROPOD VELIGER		322
MFF06	N01P	10-15-92	0810	BIVALVE VELIGER		644
MFF06	N01P	10-15-92	0810	COPEPOD NAUPLII	N	22621
MFF06	N01P	10-15-92	0810	PARACALANUS PARVUS	F	644
MFF06	N01P	10-15-92	0810	PARACALANUS PARVUS	C	4991
MFF06	N01P	10-15-92	0810	PARACALANUS PARVUS	M	161
MFF06	N01P	10-15-92	0810	PSEUDOCALANUS NEWMANI	C	242
MFF06	N01P	10-15-92	0810	PSEUDOCALANUS NEWMANI	F	242
MFF06	N01P	10-15-92	0810	PSEUDOCALANUS NEWMANI	M	483
MFF06	N01P	10-15-92	0810	CENTROPAGES HAMATUS	M	81
MFF06	N01P	10-15-92	0810	CENTROPAGES HAMATUS	F	81
MFF06	N01P	10-15-92	0810	CENTROPAGES SPP.	C	2335
MFF06	N01P	10-15-92	0810	EURYTEMORA HERDMANI	M	81
MFF06	N01P	10-15-92	0810	EURYTEMORA HERDMANI	C	403
MFF06	N01P	10-15-92	0810	TEMORA LONGICORNIS	C	161
MFF06	N01P	10-15-92	0810	ACARTIA TONSA	F	403
MFF06	N01P	10-15-92	0810	ACARTIA TONSA	C	4025
MFF06	N01P	10-15-92	0810	ACARTIA TONSA	M	805
MFF06	N01P	10-15-92	0810	TORTANUS DISCAUDATUS	C	1047
MFF06	N01P	10-15-92	0810	MICROSETELLA NORVEGICA		403

[1]C = COPEPIDITES, F = FEMALE, M = MALE, N = NAUPLII

Table G-1. Continued.

Event	Station	Date	Time	Taxon	Qual[1]	Individuals Per M3
MFF06	N01P	10-15-92	0810	OITHONA SIMILIS	F	3542
MFF06	N01P	10-15-92	0810	OITHONA SIMILIS	C	14330
MFF06	N01P	10-15-92	0810	OITHONA SIMILIS	M	644
MFF06	N01P	10-15-92	0810	OITHONA ATLANTICA	F	81
MFF06	N01P	10-15-92	0810	OIKIOPLEURA DIOICA		483
MFF06	N01P	10-15-92	0810	TOTAL ZOOPLANKTON		59250
MFF06	N04P	10-15-92	0916	GASTROPOD VELIGER		204
MFF06	N04P	10-15-92	0916	COPEPOD NAUPLII	N	16501
MFF06	N04P	10-15-92	0916	PARACALANUS PARVUS	C	3056
MFF06	N04P	10-15-92	0916	PARACALANUS PARVUS	F	340
MFF06	N04P	10-15-92	0916	PARACALANUS PARVUS	M	68
MFF06	N04P	10-15-92	0916	PSEUDOCALANUS NEWMANI	C	68
MFF06	N04P	10-15-92	0916	PSEUDOCALANUS NEWMANI	M	136
MFF06	N04P	10-15-92	0916	PSEUDOCALANUS NEWMANI	F	407
MFF06	N04P	10-15-92	0916	CENTROPAGES TYPICUS	F	951
MFF06	N04P	10-15-92	0916	CENTROPAGES TYPICUS	M	747
MFF06	N04P	10-15-92	0916	CENTROPAGES SPP.	C	815
MFF06	N04P	10-15-92	0916	ACARTIA TONSA	F	68
MFF06	N04P	10-15-92	0916	MICROSETELLA NORVEGICA		136
MFF06	N04P	10-15-92	0916	OITHONA SIMILIS	F	12359
MFF06	N04P	10-15-92	0916	OITHONA SIMILIS	C	37212
MFF06	N04P	10-15-92	0916	OITHONA SIMILIS	M	883
MFF06	N04P	10-15-92	0916	OITHONA ATLANTICA	F	136
MFF06	N04P	10-15-92	0916	CRAB ZOEA		68
MFF06	N04P	10-15-92	0916	OIKIOPLEURA DIOICA		68
MFF06	N04P	10-15-92	0916	TOTAL ZOOPLANKTON		74220
MFF06	N07P	10-14-92	0800	GASTROPOD VELIGER		391
MFF06	N07P	10-14-92	0800	COPEPOD NAUPLII	N	22962
MFF06	N07P	10-14-92	0800	CALANUS FINMARCHICUS	M	98
MFF06	N07P	10-14-92	0800	PARACALANUS PARVUS	F	195
MFF06	N07P	10-14-92	0800	PARACALANUS PARVUS	M	98
MFF06	N07P	10-14-92	0800	PARACALANUS PARVUS	C	2247
MFF06	N07P	10-14-92	0800	PSEUDOCALANUS NEWMANI	M	98
MFF06	N07P	10-14-92	0800	PSEUDOCALANUS NEWMANI	F	293
MFF06	N07P	10-14-92	0800	CENTROPAGES TYPICUS	F	1075
MFF06	N07P	10-14-92	0800	CENTROPAGES TYPICUS	M	1368
MFF06	N07P	10-14-92	0800	CENTROPAGES SPP.	C	782
MFF06	N07P	10-14-92	0800	ACARTIA TONSA	C	98
MFF06	N07P	10-14-92	0800	ACARTIA TONSA	F	98
MFF06	N07P	10-14-92	0800	OITHONA SIMILIS	M	782
MFF06	N07P	10-14-92	0800	OITHONA SIMILIS	F	7621
MFF06	N07P	10-14-92	0800	OITHONA SIMILIS	C	34589
MFF06	N07P	10-14-92	0800	OITHONA ATLANTICA	F	98
MFF06	N07P	10-14-92	0800	TOTAL ZOOPLANKTON		72892
MFF06	N10P	10-14-92	1118	POLYCHAETE LARVAE		431
MFF06	N10P	10-14-92	1118	GASTROPOD VELIGER		431
MFF06	N10P	10-14-92	1118	BIVALVE VELIGER		6034
MFF06	N10P	10-14-92	1118	COPEPOD NAUPLII	N	29393
MFF06	N10P	10-14-92	1118	PARACALANUS PARVUS	M	86
MFF06	N10P	10-14-92	1118	PARACALANUS PARVUS	C	3189
MFF06	N10P	10-14-92	1118	PARACALANUS PARVUS	F	690
MFF06	N10P	10-14-92	1118	PSEUDOCALANUS NEWMANI	C	690
MFF06	N10P	10-14-92	1118	PSEUDOCALANUS NEWMANI	M	172
MFF06	N10P	10-14-92	1118	PSEUDOCALANUS NEWMANI	F	1034
MFF06	N10P	10-14-92	1118	CENTROPAGES HAMATUS	M	431
MFF06	N10P	10-14-92	1118	CENTROPAGES HAMATUS	F	86
MFF06	N10P	10-14-92	1118	CENTROPAGES TYPICUS	M	431
MFF06	N10P	10-14-92	1118	CENTROPAGES TYPICUS	F	431
MFF06	N10P	10-14-92	1118	CENTROPAGES SPP.	C	3189
MFF06	N10P	10-14-92	1118	EURYTEMORA HERDMANI	F	603
MFF06	N10P	10-14-92	1118	EURYTEMORA HERDMANI	M	603
MFF06	N10P	10-14-92	1118	EURYTEMORA HERDMANI	C	1207
MFF06	N10P	10-14-92	1118	TEMORA LONGICORNIS	F	259

[1]C = COPEPIDITES, F = FEMALE, M = MALE, N = NAUPLII

Table G-1. Continued.

Event	Station	Date	Time	Taxon	Qual[1]	Individuals Per M3
MFF06	N10P	10-14-92	1118	TEMORA LONGICORNIS	M	86
MFF06	N10P	10-14-92	1118	ACARTIA TONSA	C	9481
MFF06	N10P	10-14-92	1118	ACARTIA TONSA	F	2327
MFF06	N10P	10-14-92	1118	ACARTIA TONSA	M	1638
MFF06	N10P	10-14-92	1118	TORTANUS DISCAUDATUS	F	86
MFF06	N10P	10-14-92	1118	TORTANUS DISCAUDATUS	C	776
MFF06	N10P	10-14-92	1118	MICROSETELLA NORVEGICA		172
MFF06	N10P	10-14-92	1118	SAPHIRELLA SP.		86
MFF06	N10P	10-14-92	1118	OITHONA SIMILIS	M	603
MFF06	N10P	10-14-92	1118	OITHONA SIMILIS	F	6292
MFF06	N10P	10-14-92	1118	OITHONA SIMILIS	C	13964
MFF06	N10P	10-14-92	1118	DECAPOD LARVAE		259
MFF06	N10P	10-14-92	1118	TOTAL ZOOPLANKTON		85161
MFF06	N16P	10-14-92	0928	GASTROPOD VELIGER		566
MFF06	N16P	10-14-92	0928	BIVALVE VELIGER		212
MFF06	N16P	10-14-92	0928	COPEPOD NAUPLII	N	25388
MFF06	N16P	10-14-92	0928	CALANUS FINMARCHICUS	M	71
MFF06	N16P	10-14-92	0928	PARACALANUS PARVUS	M	71
MFF06	N16P	10-14-92	0928	PARACALANUS PARVUS	F	71
MFF06	N16P	10-14-92	0928	PARACALANUS PARVUS	C	1768
MFF06	N16P	10-14-92	0928	PSEUDOCALANUS NEWMANI	C	71
MFF06	N16P	10-14-92	0928	PSEUDOCALANUS NEWMANI	M	71
MFF06	N16P	10-14-92	0928	PSEUDOCALANUS NEWMANI	F	283
MFF06	N16P	10-14-92	0928	CENTROPAGES HAMATUS	F	71
MFF06	N16P	10-14-92	0928	CENTROPAGES HAMATUS	M	212
MFF06	N16P	10-14-92	0928	CENTROPAGES TYPICUS	M	495
MFF06	N16P	10-14-92	0928	CENTROPAGES TYPICUS	F	495
MFF06	N16P	10-14-92	0928	CENTROPAGES SPP.	C	2122
MFF06	N16P	10-14-92	0928	ACARTIA TONSA	F	71
MFF06	N16P	10-14-92	0928	ACARTIA TONSA	C	141
MFF06	N16P	10-14-92	0928	OITHONA SIMILIS	F	10183
MFF06	N16P	10-14-92	0928	OITHONA SIMILIS	M	495
MFF06	N16P	10-14-92	0928	OITHONA SIMILIS	C	29843
MFF06	N16P	10-14-92	0928	OITHONA ATLANTICA	F	71
MFF06	N16P	10-14-92	0928	OIKIOPLEURA DIOICA		212
MFF06	N16P	10-14-92	0928	TOTAL ZOOPLANKTON		72981
MFF06	N20P	10-15-92	1006	POLYCHAETE LARVAE		156
MFF06	N20P	10-15-92	1006	GASTROPOD VELIGER		389
MFF06	N20P	10-15-92	1006	BIVALVE VELIGER		3190
MFF06	N20P	10-15-92	1006	COPEPOD NAUPLII	N	16963
MFF06	N20P	10-15-92	1006	PARACALANUS PARVUS	F	778
MFF06	N20P	10-15-92	1006	PARACALANUS PARVUS	M	156
MFF06	N20P	10-15-92	1006	PARACALANUS PARVUS	C	4513
MFF06	N20P	10-15-92	1006	PSEUDOCALANUS NEWMANI	C	545
MFF06	N20P	10-15-92	1006	PSEUDOCALANUS NEWMANI	M	389
MFF06	N20P	10-15-92	1006	PSEUDOCALANUS NEWMANI	F	1167
MFF06	N20P	10-15-92	1006	CENTROPAGES HAMATUS	F	389
MFF06	N20P	10-15-92	1006	CENTROPAGES HAMATUS	M	389
MFF06	N20P	10-15-92	1006	CENTROPAGES TYPICUS	F	233
MFF06	N20P	10-15-92	1006	CENTROPAGES TYPICUS	M	311
MFF06	N20P	10-15-92	1006	CENTROPAGES SPP.	C	1867
MFF06	N20P	10-15-92	1006	EURYTEMORA HERDMANI	F	233
MFF06	N20P	10-15-92	1006	EURYTEMORA HERDMANI	M	233
MFF06	N20P	10-15-92	1006	EURYTEMORA HERDMANI	C	778
MFF06	N20P	10-15-92	1006	TEMORA LONGICORNIS	C	78
MFF06	N20P	10-15-92	1006	TEMORA LONGICORNIS	M	78
MFF06	N20P	10-15-92	1006	ACARTIA TONSA	M	545
MFF06	N20P	10-15-92	1006	ACARTIA TONSA	F	545
MFF06	N20P	10-15-92	1006	ACARTIA TONSA	C	1012
MFF06	N20P	10-15-92	1006	TORTANUS DISCAUDATUS	C	856
MFF06	N20P	10-15-92	1006	OITHONA SIMILIS	F	4980
MFF06	N20P	10-15-92	1006	OITHONA SIMILIS	C	11127
MFF06	N20P	10-15-92	1006	OITHONA SIMILIS	M	233

[1]C = COPEPIDITES, F = FEMALE, M = MALE, N = NAUPLII

Table G-1. Continued.

Event	Station	Date	Time	Taxon	Qual[1]	Individuals Per M3
MFF06	N20P	10-15-92	1006	OITHONA ATLANTICA	F	78
MFF06	N20P	10-15-92	1006	DECAPOD LARVAE		78
MFF06	N20P	10-15-92	1006	TOTAL ZOOPLANKTON		52289

[1]C = COPEPIDITES, F = FEMALE, M = MALE, N = NAUPLII

APPENDIX H

COMPARISON OF ^{14}C AND O_2 TECHNIQUES FOR MEASURING PRIMARY PRODUCTION

This Appendix is a report describing the methods and results of a study conducted in October 1992. Both ^{14}C and O_2 methods of measuring primary production were used to compare primary production rate estimates at a selection of BioProductivity stations. The report was prepared by Dr. Peter Doering of the University of Rhode Island.

Comparison of ^{14}C and O_2 techniques for measuring primary productivity

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Veronica Berounsky
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Introduction

Primary production in aquatic ecosystems has been routinely quantified either by measuring the amount of oxygen produced during photosynthesis or estimating the amount of CO_2 taken up using ^{14}C as a tracer. Whether phytoplankton physiology or ecosystem ecology is the focus of an investigation it is important to understand just what each technique measures and the relationship of one to the other. For example while carbon is often the "currency" of ecosystem energy flow, oxygen concentration and hence metabolism is often a regulatory or managerial endpoint.

The oxygen technique involves incubation of phytoplankton in light and dark bottles. Changes in oxygen in the light bottle represent the summation of production and respiration. Changes in the dark bottle measure respiration. Thus the light bottle measures net production (P-R). Gross production is calculated as P+R. This technique assumes that respiration measured in the dark is equivalent to that occurring in the light. Because of photorespiration this equivalence may not hold (Davies and Williams, 1984). The C-14 technique is operationally similar in that both light and dark bottles are incubated. The bottles however are inoculated with C-14 labelled bicarbonate and the dark bottle serves as a correction for "non-photosynthetic" uptake of CO_2. It is generally agreed that the ^{14}C technique measures something between net and gross oxygen production (Davies and Williams, 1984; Oviatt et al, 1986; Bender et al., 1987).

The photosynthetic quotient or PQ is defined as oxygen produced divided by CO_2 consumed during photosynthesis. This quantity is used to convert on a molar basis oxygen production to carbon assimilation or vice versa. The PQ generally lies in the range of 1.1 to 1.3 (Ryther, 1965 cited in Oviatt et al., 1986) but may approach 2.0 or more if nitrate is the sole source of nitrogen (Davies and Williams, 1984).

The purpose of this report is to present results of a comparison of the light-dark bottle oxygen and 14-C incubation techniques conducted in Massachusetts Bay. Such a comparison might attach a level of certainty to conversions between the two methods.

Methods

The study was conducted in Massachusetts and Cape Cod Bays during a cruise on the OSV Anderson (Oct. 13-15, 1992). Primary productivity was determined by producing Production versus Irradiance curves in an incubator artificially illuminated by metal halide lamps. Samples (300 ml BOD bottles) were exposed to light levels ranging from 0$\mu E/m^2/sec$ (dark bottles) to 2000 $\mu E/m^2/sec$. Exposure was determined by position in the incubator and by "dressing" bottles in socks of neutral density screening. Incubation length was 6 hours and ambient temperature was maintained by circulating surface seawater through the incubator.

Water samples were obtained from two depths at each of 10 stations. For oxygen productivity 12 light bottles, 3 dark bottles and 3 initial 300 ml BOD bottles were filled with water from each depth. The initial bottles were fixed immediately, the others at the end of the incubation. Oxygen concentration was determined using the Winkler titration with a potentiometric endpoint determination (Oudot et al., 1988). Net production at each light level was calculated from the difference between concentration in initial bottles and light bottles.

At selected stations and depths C-14 primary productivity was measured following Strickland and Parsons (1972). Light and dark BOD bottles (300 ml) were inoculated with 2.5 μCi of ^{14}C labelled sodium bicarbonate and incubated for 6 hours. Samples were filtered through 47 mm Gelman AE glass fiber filters. Filters were placed in 20 ml vials along with 15 mls of scintillation fluor (Aquasol II). Radioactivity retained on the filter was determined on a Beckman LS3801 Scintillation Counter calibrated by the external channels ratio method. Total CO_2 in water samples was measured on a OI Corp Model 700 Total Carbon Analyzer.

At two stations (F1P and F2P) full P vs I curves (12 light and 3 dark bottles) were produced using the 14-C technique. At other selected stations 4 light and 2 dark bottles were incubated. The 4 light bottles were incubated at light levels between 400 and 600 $\mu E/m^2/sec$ where maximal production rates were expected.

The two methods were compared by expressing rates in molar units. If rates calculated by each method coincide, a PQ of 1.0 obtains. If oxygen values are higher, then a PQ>1 is implied. Carbon values greater than oxygen estimates indicate a PQ<1.0. PQ's were calculated either by averaging the 4 C-14 productivity measurements taken over a comparable range of light intensity or by the ratio of Pmax's obtained from P vs I

curves. Parameters of the P vs I curve were estimated using the models of Platt et al (1980) and Platt and Jassby (1976).

Results

Examination of Figures 1-11 show that the two techniques are related to each other in two ways. In 5 of 11 comparisons the two methods agree: values from both the oxygen and ^{14}C method fall on the same curve indicating a PQ of 1.0. In 6 of 11 comparisons 14-C productivities are less than net oxygen productivity by up too a factor of 2 or more.

These relationships are stated more formally in Tables 1 and 2 where PQ's are estimated either by averaging over comparable ranges of light intensity or from the P vs I curve. As suggested by the figures a wide range in PQ was found (0.73-2.72).

Discussion

In general ^{14}C measures something between net and gross production of oxygen (Davies and Williams, 1984; Oviatt et al., 1986; Bender et al., 1987). Since we measured net oxygen production, 14-C productivity should have exceeded oxygen productivity in our comparison. Judging from the figures and calculated PQ's (Tables 1 and 2), ^{14}C productivity was either very nearly equivalent to or substantially less than net oxygen production.

There are at least two explanations of our observations: one is physiological and the other is methodological. Davies and Williams (1984) also observed ^{14}C productivities close to or less than net oxygen production and suggested that this relationship obtained because 1) respiration was low relative to photosynthesis and mostly algal or 2) the major source of nitrogen was nitrate.

Another reason for the observed relationship may be that the ^{14}C productivity was filtered and included only particulate production whereas the oxygen productivity included both particulate and soluble. Several authors have noted that particulate and soluble ^{14}C productivity significantly exceeds particulate (Gieskes and van Bennekom, 1973; Davies and Williams, 1984; Riemann and Jensen, 1991). Estimates usually suggest a 10-20% difference but Riemann and Jensen (1991) have found estimates to differ by as much as a factor of 1.8.

The high PQ's implied by our data are on the order of 2-3. If nitrate were the sole source of nitrogen a PQ of about 2 could be expected. High soluble production could increase the apparent PQ by nearly as much. Thus although the differences between the ^{14}C and oxygen techniques that we observed were often large they are possible.

From a practical standpoint the data unequivocally demonstrate that the relationship between the two techniques is not fixed but variable. This result agrees with those of Bender et al (1987) who found ^{14}C productivity to represent anywhere from 60-100% of gross production. The variable nature of the relationship between the 14-C and oxygen techniques renders interconversion of individual measurements suspect. Oviatt et al (1986) found that while daily PQ's varied greatly (0-5), temporally integrated data (months) gave PQ's which agreed more closely with theoretical predication. Both the variability observed in this study and observations such as those of Oviatt et al (1986) should be kept in mind when predicting the behavior of oxygen from 14-C measurements (or vice versa).

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Table 1. Comparison of P vs I curve parameters derived by the oxygen and C-14 methods. R=respiration. PQ=photosynthetic quotient.

Station	Depth	Method	Alpha	P-max	R
F1P	Sur	O_2	0.004	1.619	0.0
		C-14	0.0039	0.595	-
		PQ		2.72	
F2P	Chl	O_2	0.05	1.00	0.0
		C-14	0.034	0.495	-
		PQ		2.02	

Table 2. Photosynthetic quotients at various stations in Massachusetts Bay estimated by averaging oxygen and C-14 data over comparable light ranges. Sur=surface, Chl=Chlorophyll max.

Station	Depth	µmol O_2/l/hr	µmol C/l/hr	PQ
F13	Sur	2.98	1.59	1.86
	Chl	3.12	1.17	2.67
F23	Sur	1.08	0.72	1.50
	Chl	0.57	0.65	0.87
N16P	Sur	2.40	1.64	1.46
	Chl	3.20	1.65	1.93
N4P	Sur	0.41	0.567	0.73
	Chl	0.71	0.79	0.89
N20	Sur	1.17	0.98	1.19

P VS I CURVE DATA OCTOBER 1992
14 C PRODUCTIVITY UMOLES/L/HR
LIGHT MICROEINSTEINS PER METER SQUARE PER SECOND

SAMPLE	STATION	DEPTH	LIGHT	PRODUCTION
MFF060207	F13P	CHL	540	1.260
			430	0.907
			550	1.302
			415	1.242
MFF060211	F13P	SUR	520	1.776
			390	1.442
			540	1.703
			390	1.461
MFF06018	F1P	SUR	1710	0.663
			1300	0.781
			800	0.691
			500	0.541
			200	0.513
			240	0.560
			145	0.475
			155	0.424
			350	0.599
			190	0.553
			39	0.124
			38	0.078
MFF060437	F23P	CHL	520	0.801
			390	0.579
			390	0.553
			540	0.674
MFF060441	F23P	SUR	540	0.919
			415	0.631
			550	0.738
			430	0.593
MFF06042	F2P	CHL	660	0.485
			780	0.547
			1780	0.393
			1300	0.532
			250	0.465
			135	0.354
			130	0.370
			277	0.534
			155	0.378
			234	0.419
			33	0.112
			45	0.136

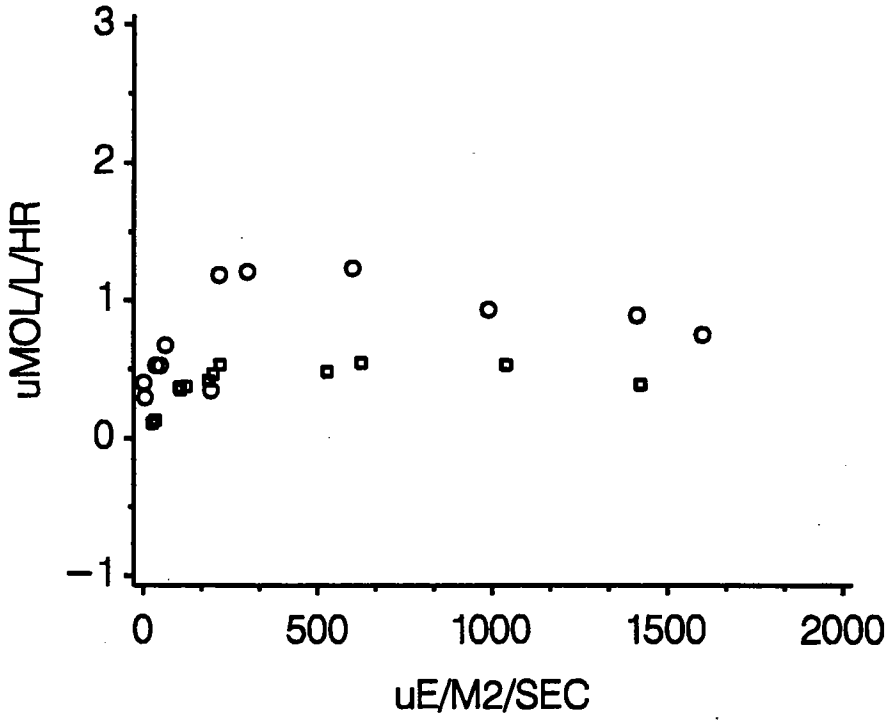
P VS I CURVE DATA OCTOBER 1992
14 C PRODUCTIVITY UMOLES/L/HR
LIGHT MICROEINSTEINS PER METER SQUARE PER SECOND

SAMPLE	STATION	DEPTH	LIGHT	PRODUCTION
MFF060260	N16P	CHL	540	1.649
			570	1.846
			460	1.453
			410	1.655
MFF060262	N16P	SUR	580	1.941
			430	1.650
			560	1.498
			400	1.480
MFF060262	N20P	SUR	645	1.126
			580	1.144
			650	0.851
			390	0.820
MFF060476	N4P	CHL	540	0.793
			570	0.760
			410	0.833
			460	0.796
MFF060478	N4P	SUR	580	0.583
			560	0.615
			430	0.504
			400	0.569

Figures

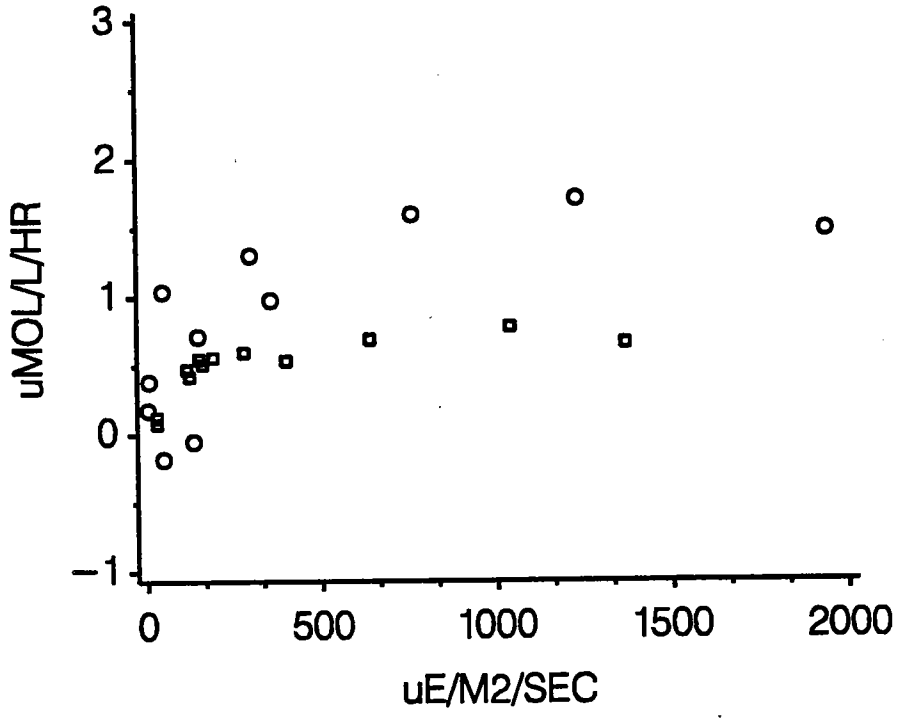
The following 11 figures compare results of the oxygen and ^{14}C techniques for measuring primary productivity. Both are presented as a function of irradiance. Oxygen (open circles) is net oxygen production in µmoles O_2/l/hr. ^{14}C results (open squares) are in units of µmoles C/l/hr.

STATION F2P CHLA MAXIMUM



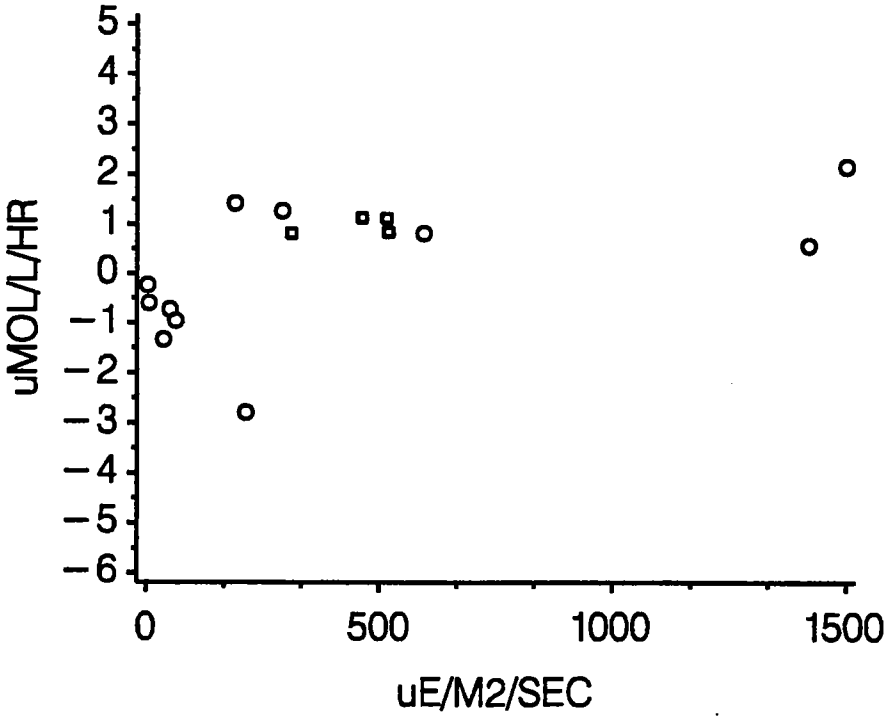
COMPARISON OF OXYGEN AND C14
CRUISE NUMBER 12, OCT 1992

STATION F1P SURFACE



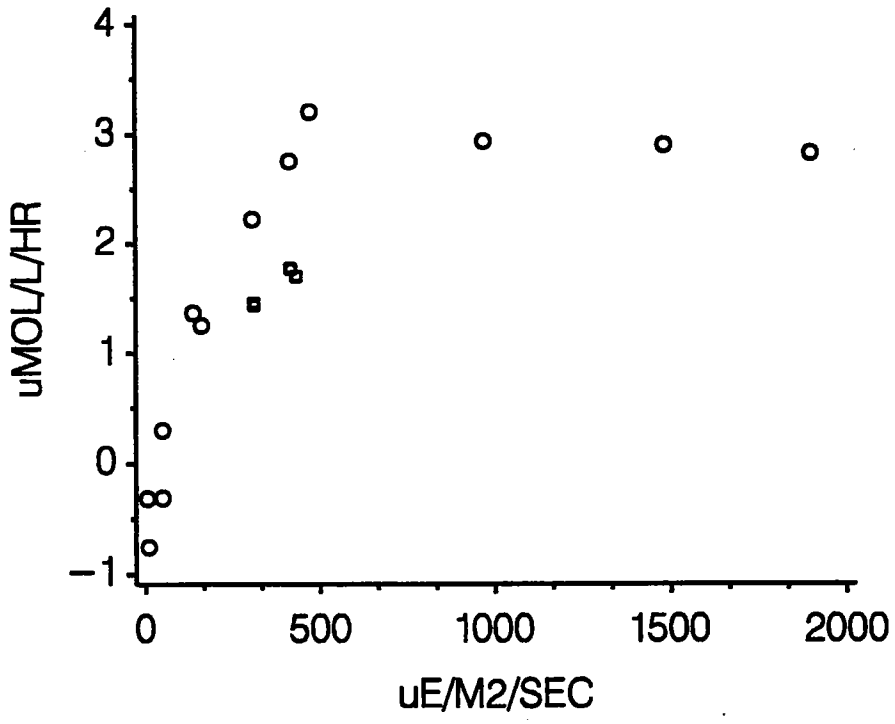
COMPARISON OF OXYGEN AND C14
CRUISE NUMBER 12, OCT 1992

STATION N20P SURFACE



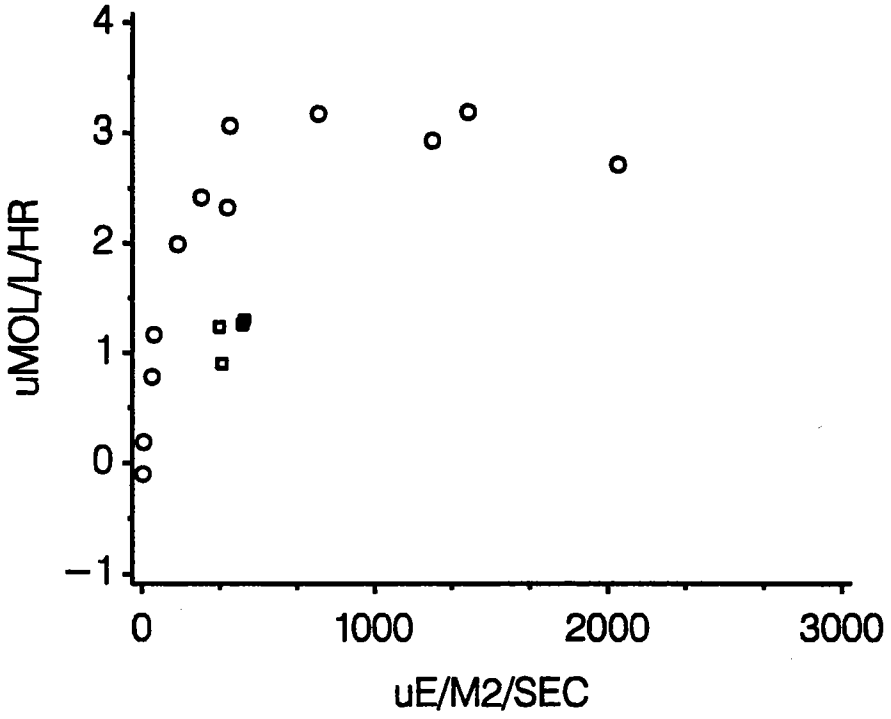
COMPARISON OF OXYGEN AND C14
CRUISE NUMBER 12, OCT 1992

STATION F13P SURFACE



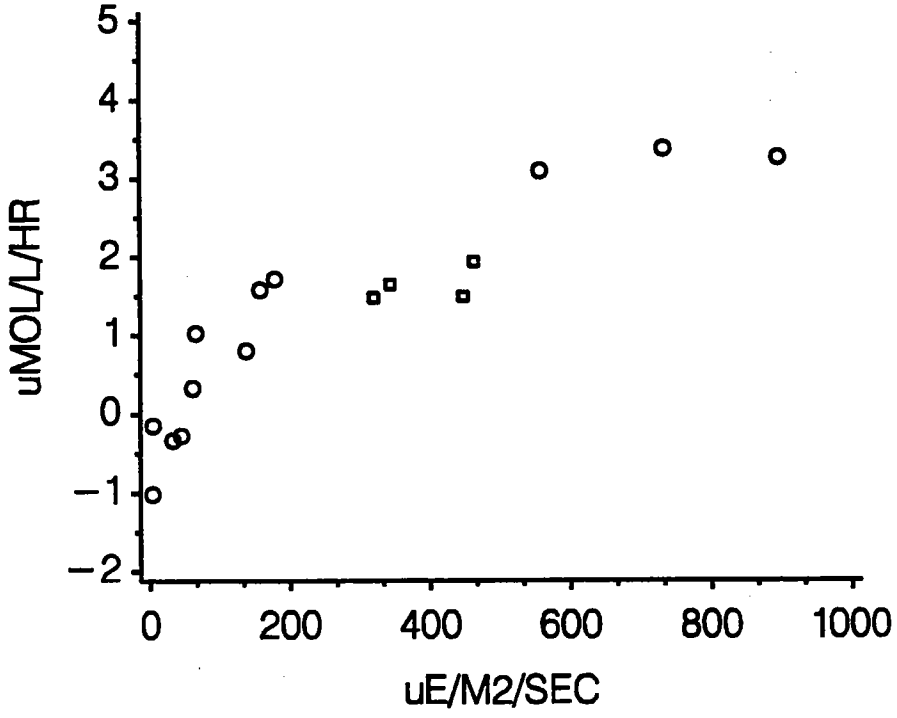
COMPARISON OF OXYGEN AND C14
CRUISE NUMBER 12, OCT 1992

STATION F13P CHLA MAXIMUM



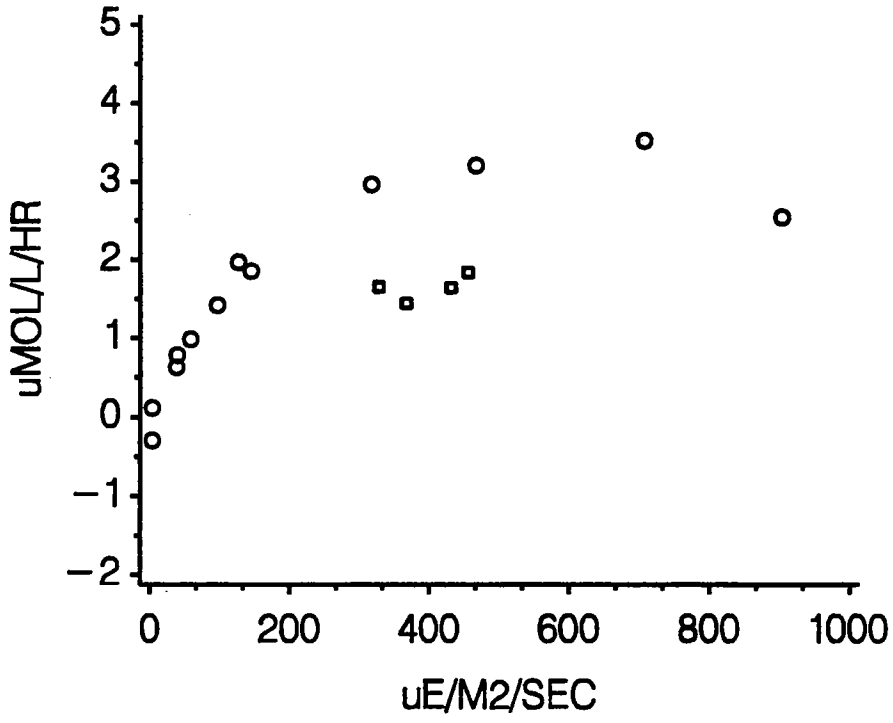
COMPARISON OF OXYGEN AND C14
CRUISE NUMBER 12, OCT 1992

STATION N16P SURFACE



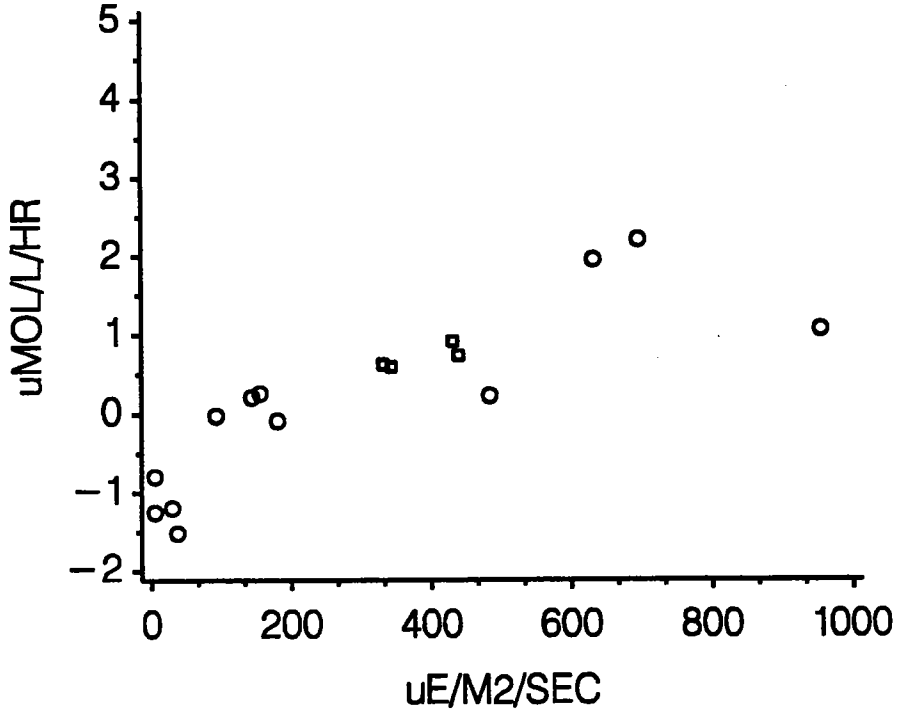
COMPARISON OF OXYGEN AND C14
CRUISE NUMBER 12, OCT 1992

STATION N16P CHLA MAXIMUM



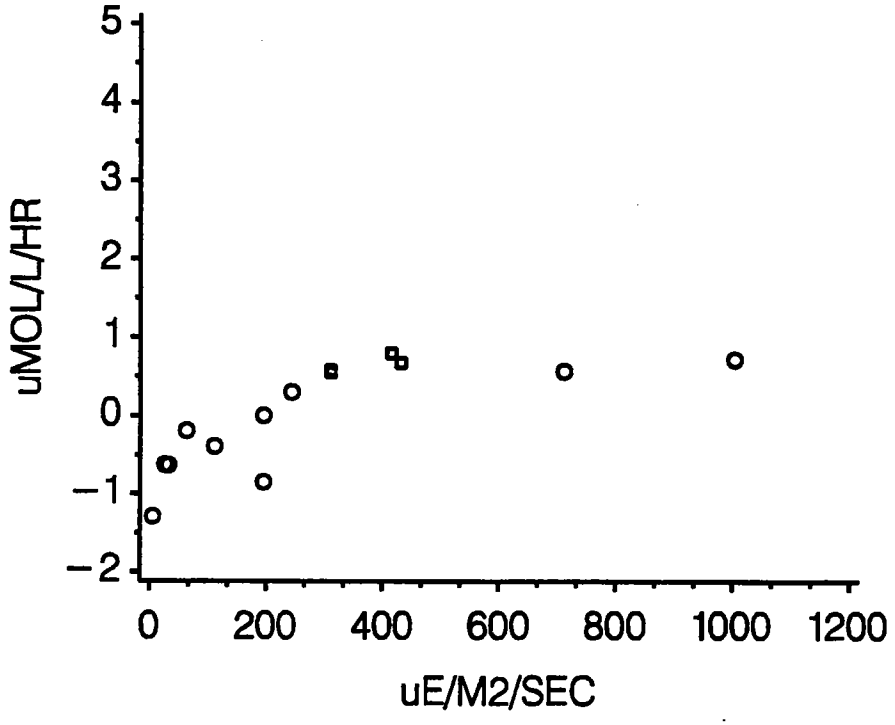
COMPARISON OF OXYGEN AND C14
CRUISE NUMBER 12, OCT 1992

STATION F23P SURFACE



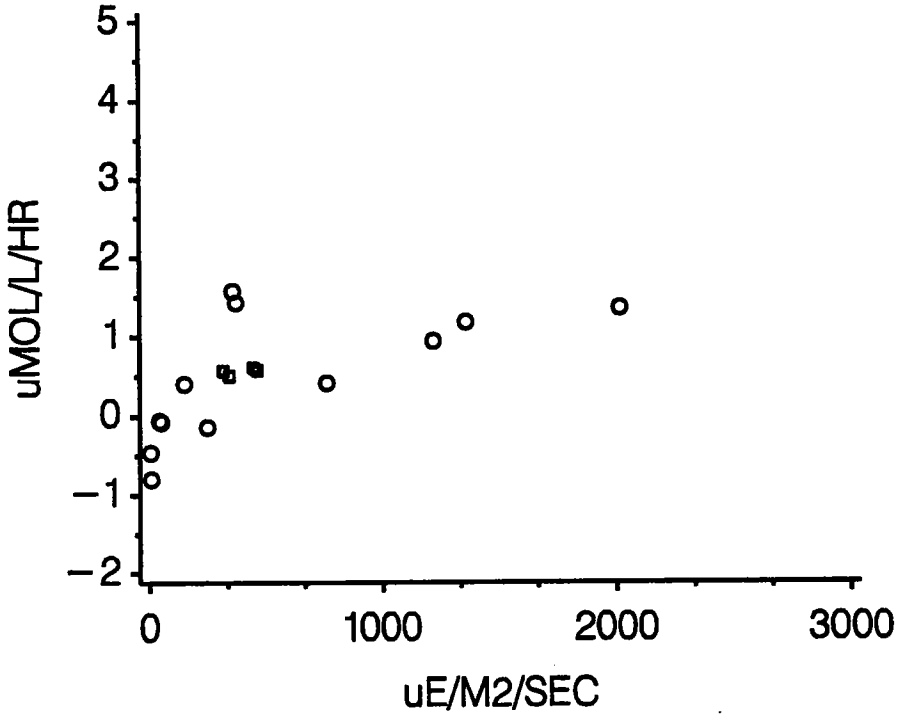
COMPARISON OF OXYGEN AND C14
CRUISE NUMBER 12, OCT 1992

STATION F23P CHLA MAXIMUM



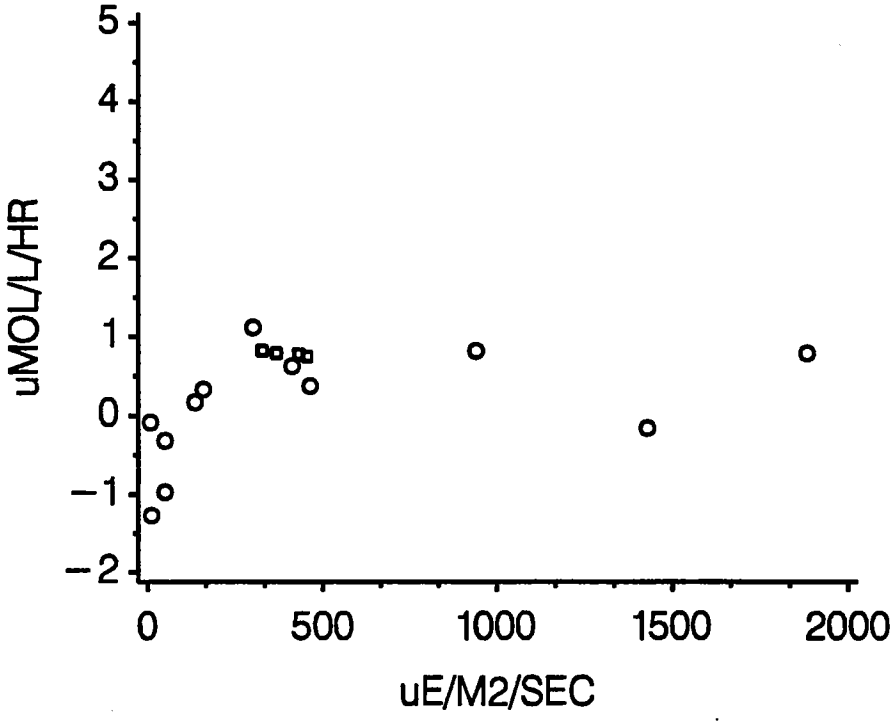
COMPARISON OF OXYGEN AND C14
CRUISE NUMBER 12, OCT 1992

STATION N4P SURFACE



COMPARISON OF OXYGEN AND C14
CRUISE NUMBER 12, OCT 1992

STATION N4P CHLA MAXIMUM



COMPARISON OF OXYGEN AND C14
CRUISE NUMBER 12, OCT 1992