

US EPA ARCHIVE DOCUMENT

CATALOG DOCUMENTATION

National Surface Water Survey: Eastern Lake Survey-Phase II
FASFIM01 - Fall Chemistry Survey

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1. DATA SET IDENTIFICATION

1.1 Title of Catalog Document
FASFIM1M

1.2 Authors of the Catalog Entry
U.S. EPA NHEERL Western Ecology Division
Corvallis, OR

1.3 Catalog Revision Date
March 1998

1.4 Data Set Name
fasfim01

1.5 Task Group
National Acid Precipitation Assessment Program(NAPAP)- Aquatic Effects
Research Program

1.6 Data Set Identification Code
152

1.7 Version
001

1.8 Requested Acknowledgment

This research was funded as apart of the National Acid Precipitation Assessment Program (NAPAP) by the U.S. Environmental Protection Agency (EPA). If you publish these data or use them for analyses in publications, EPA requires a standard statement for work it has supported:

"Although the data described in this article have been funded wholly or in part by the U.S. Environmental Protection Agency, it has not been subjected to Agency review, and therefore does not necessarily reflect the views of the Agency and no official endorsement of the conclusions should be inferred."

2. INVESTIGATOR INFORMATION

2.1 Principal Investigator
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U.S. Environmental Protection Agency
NHEERL Western Ecology Division
200 S.W. 35th Street
Corvallis, OR 97333

2.2 Investigation Participant - Sample Collection

John Baker, Coordinator

3. DATA SET ABSTRACT

3.1 Abstract of the Data Set

The Eastern Lake Survey-Phase II (ELS-II), conducted in the spring, summer and fall of 1986. The focus of ELS-II was on the northeastern United States. ELS-II involved the resampling of a subset of lakes in the northeastern United States sampled in ELS-I to determining chemical variability and biological status. Furthermore, within-index period variability was examined in the fall of 1986 to provide insight concerning the ability to detect chemical changes over time, and the precision of the estimates of the number of acidic lakes from Phase I.

3.2 Keywords for the Data Set

Aluminum, alkalinity, acid neutralizing capacity, calcium, dissolved inorganic carbon, dissolved organic carbon, chloride, color, specific conductance, iron, potassium, magnesium, manganese, ammonium, sodium, sulfate, nitrate, pH, total phosphorus, silica, turbidity, water chemistry,

4. OBJECTIVES AND INTRODUCTION

4.1 Program Objective

The primary objectives of ELS-II were (1) to assess the sampling error associated with the ELS-I fall index sample, (2) to estimate the number of lakes with low acid neutralizing capacity (ANC) (i.e. potentially susceptible) that are not acidic in the fall but that are acidic in other seasons, and (3) to establish seasonal water chemistry characteristics among lakes.

4.2 Data Set Objective

This data set is part of the National Surface Water Survey (NSWS) and the National Acid Precipitation Assessment Program (NAPAP). The data set contributes to the quantification of the extent, location, and characteristics of sensitive and acidic lakes and streams in the eastern United States sampled during the fall season.

4.3 Data Set Background Discussion

Efforts to assess the impact of acid deposition on aquatic resources have previously been limited to single-factor indices. Acidification of surface waters, however, depends on the acid neutralizing capacity (ANC) generated both within the lake and its watershed. Hence, the response of an aquatic ecosystem to acidic deposition is a composite of many factors. Water chemistry in lakes is analyzed to understand the chemical habitat within which biota must exist so that we can understand the biological potential of the system.

4.4 Summary of Data Set Parameters

Water chemistry parameters are reported for one sample taken at the deepest part of the lake. These include: aluminum, alkalinity, acid neutralizing capacity, calcium, carbonate, color, specific conductance, dissolved inorganic carbon, dissolved organic carbon, bicarbonate, potassium, magnesium, ammonium, sodium, nitrate, total nitrogen, pH, total phosphorus, silica, total suspended solids, and turbidity. In addition to chemical characteristics of lakes, data were collected on lake characteristics- e.g. location, elevation, depth, area, etc.

5. DATA ACQUISITION AND PROCESSING METHODS

5.1 Data Acquisition

5.1.1 Sampling Objective

To obtain a single grab sample of lake water for the purposes of chemical analysis during the fall season, just after lake turnover, from the center and deepest part of the lake.

5.1.2 Sample Collection Methods Summary

A 6.2-L Van Dorn acrylic plastic sample bottle was filled from a depth of 1.5 m. Two 60-ml syringes and one 4-L polyethylene Cubitainer were filled from the Van Dorn bottle.

5.1.3 Sampling Start Date

October 8, 1986

5.1.4 Sampling End Date

November 14, 1986

5.1.5 Platform

Helicopter/boat

5.1.6 Sampling Gear

Merrit, G.D., and V.A. Sheppe. 1988. Eastern Lake Survey- Phase II, Field Operations Report. EPA/600/4-89/029. U.S. Environmental Protection Agency, Las Vegas, Nevada.

5.1.7 Manufacturer of Instruments

NA

5.1.8 Key Variables

NA

5.1.9 Sampling Method Calibration

NA

5.1.10 Sample Collection Quality Control

Mitchell-Hall, T.E., A.C. Neale, S.G. Paulsen, and J.E. Pollard. 1989. Eastern Lake Survey- Phase II: Quality Assurance Report. EPA/600/4-85-017. U.S. Environmental Protection Agency, Las Vegas, Nevada.

5.1.11 Sample Collection Method Reference

5.1.12 Sample Collection Method Deviations

NA

5.2 Data Preparation and Sample Processing

5.2.1 Sample Processing Objective

5.2.2 Sample Processing Methods Summary

5.2.3 Sample Processing Method Calibration

5.2.4 Sample Processing Quality Control

5.2.5 Sample Processing Method Reference

6. DATA MANIPULATIONS

6.1 Name of New or Modified Values

None.

6.2 Data Manipulation Description

7. DATA DESCRIPTION

7.1 Description of Parameters

#	Parameter SAS Name	Data Type	Len	Format	Parameter Label
10	ACCES1D	Char	3		ACCESS FORM 1D
90	ACC011	Num	8	F	CO2-ACIDITY (UEQ/L) FORM 11
71	ALD02	Num	8	F	PCV ALUMINUM DISSOLVED (UG/L) FORM 2
115	ALDI98	Num	8		LABILE MONOMERIC AL (UG/L)
79	ALEX11	Num	8	F	ALUMINUM-EXTRACTABLE (UG/L) FORM 11
91	ALKA11	Num	8	F	ALKALINITY (UEQ/L) FORM 11
72	ALO_02	Num	8	F	PCV ALUMINUM ORGANIC (UG/L) FORM 2
96	ALT11	Num	8	F	TOTAL ALUMINUM (UG/L) FORM 11
99	ANCAT98	Num	8	F	CATIONS/ANIONS RATIO
102	ANDEF98	Num	8	F	CATSUM - ANSUM (UEQ/L)
97	ANSUM98	Num	8	F	SUM OF ANIONS (UEQ/L)
118	BNSTR99	Num	8	F	POPULATION SIZE BY STRATA
26	C0151D	Num	8	F	CONDUCTIVITY (US/CM) AT 1.5M FORM 1D
42	C04051D	Num	8	F	CONDUCTIVITY AT 4 OR 5 M (US/CM) FORM 1D
44	C06101D	Num	8	F	CONDUCTIVITY AT 6 OR 10M (US/CM) FORM 1D
46	C08151D	Num	8	F	CONDUCTIVITY AT 8 OR 15M (US/CM) FORM 1D
48	C10201D	Num	8	F	CONDUCTIVITY AT 10 OR 20M(US/CM) FORM 1D
50	C12251D	Num	8	F	CONDUCTIVITY AT 12 OR 25M(US/CM) FORM 1D
52	C14301D	Num	8	F	CONDUCTIVITY AT 14 OR 30M(US/CM) FORM 1D
54	C16351D	Num	8	F	CONDUCTIVITY AT 16 OR 35M(US/CM) FORM 1D
56	C18401D	Num	8	F	CONDUCTIVITY AT 18 OR 40M(US/CM) FORM 1D
58	C20451D	Num	8	F	CONDUCTIVITY AT 20 OR 45M(US/CM) FORM 1D
73	CA11	Num	8	F	CALCIUM (MG/L) FORM 11
104	CA98	Num	8	F	CALCIUM (UEQ/L)
98	CATSU98	Num	8	F	SUM OF CATIONS (UEQ/L)
80	CL11	Num	8	F	CHLORIDE ION (MG/L) FORM 11
106	CL98	Num	8	F	CHLORIDE (UEQ/L)
148	CLSTR99	Num	8		PHASE II CLUSTER (1,2 or 3)
119	CNTY99	Char	5		FIPS CODE(ST,COUNTY)
105	C0398	Num	8	F	CARBONATE ALKALINITY (UEQ/L)
70	COLOR02	Num	8	F	COLOR (PCU) FORM 2
63	COMNTA1D	Char	150		FIRST PART OF COMMENTS FORM 1D
64	COMNTB1D	Char	150		SECOND PART OF COMMENTS FORM 1D
37	CON601D	Num	8	F	CONDUCTIVITY AT 0.6*DEPTH(US/CM) FORM 1D
92	COND11	Num	8	F	CONDUCTIVITY (US/CM) FORM 11
31	CON_B1D	Num	8	F	CONDUCT AT BOTTOM-1.5M (US/CM) FORM 1D
60	CXX501D	Num	8	F	CONDUCTIVITY AT 50 M (US/CM) FORM 1D
8	DATSMP	Num	8	DATE	DATE SAMPLED
67	DIC02	Num	8	F	DIC (MG/L) FORM 2
93	DICE11	Num	8	F	DIC-EQUIL (MG/L) FORM 11
94	DIC11	Num	8	F	DIC-INIT (MG/L) FORM 11
120	DISM99	Num	8	F	DISTANCE FROM COAST (MILES)
85	DOC11	Num	8	F	DOC (MG/L) FORM 11
25	DO_151D	Num	8	F	DISSOLVED OXYGEN (MG/L) 1.5M FORM 1D
36	DO_601D	Num	8	F	DISSOLVED OXYGEN AT 0.6*DEPTH FORM 1D
30	DO_B1D	Num	8	F	DIS OXYGEN (MG/L) BOTTOM-1.5M FORM 1D
40	DPCAT1D	Num	8	F	DEPTH CATEGORY 4=<20M 5=>20M FORM 1D
19	DPSIT1D	Num	8	F	SITE DEPTH (M) FORM 1D
2	DPSITX1D	Num	8		MAXIMUM LAKE DEPTH (M) - ALSC
34	DP_601D	Num	8	F	DEPTH 0.6*BOTTOM (M) FORM 1D
28	DP_B1D	Num	8	F	DEPTH AT BOTTOM-1.5M (M) FORM 1D
156	DRPCDE	Num	8		Drop code for population estimates
121	ELEV99	Num	8	F	LAKE ELEVATION (M)
153	ELEVX99	Num	8		LAKE ELEVATION (M) - ALSC
78	FE11	Num	8	F	IRON (UG/L) FORM 11
84	FTL11	Num	8	F	FLUORIDE (MG/L) FORM 11
112	FTL98	Num	8	F	FLUORIDE (UEQ/L)

7.1 Description of Parameters, continued

#	Parameter SAS Name	Data Type	Len	Format	Parameter Label
114	H98	Num	8	F	HYDROGEN FROM PHAC11 (UEQ/L)
103	HCO398	Num	8	F	HCO3 (UEQ/L)
122	HDEP99	Num	8	F	HYDROGEN ION DEPOSITION (G/M**2/YR)
23	HYDID1D	Char	4		HYDROLAB METER IDENTIFIER CODE FORM 1D
123	HYTYP99	Char	9		HYDROLOGIC TYPE
124	INOUT99	Char	6		PRESENCE/ABSENCE OF INLETS/OUTLETS
75	K11	Num	8	F	POTASSIUM (MG/L) FORM 11
109	K98	Num	8	F	POTASSIUM (UEQ/L)
66	LABNA02	Char	30		LABORATORY FOR ANALYSIS FORM 2
1	LAKE_ID	Char	10		LAKE ID
128	LAT99	Char	10		LATITUDE
129	LATDD99	Num	8	F	LATITUDE (DECIMAL DEGREES)
127	LKID99	Char	7		ERLD-UMD ID/ALSC WSHED-POND ID
117	LKNAM99	Char	30		LAKE NAME
125	LKSIZ99	Num	8	F	LAKE SURFACE AREA (HA)
3	LKSIZX99	Num	8		LAKE SURFACE AREA (HA) - ALSC
126	LKVOL99	Num	8	F	CALC LAKE VOL (10**6 CU M)
4	LKVOLX99	Num	8		DIG. LAKE VOL (10**6 CU M) -ALSC
131	LNGDD99	Num	8	F	LONGITUDE (DECIMAL DEGREES)
130	LONG99	Char	11		LONGITUDE
132	MAPBG99	Char	25		MAP SHEET NAME (1:250,000 SCALE)
133	MAPSM99	Char	40		MAP SHEET NAME, 15 OR 7.5 QUAD
74	MG11	Num	8	F	MAGNESIUM (MG/L) FORM 11
107	MG98	Num	8	F	MAGNESIUM (UEQ/L)
77	MN11	Num	8	F	MANGANESE (UG/L) FORM 11
76	NA11	Num	8	F	SODIUM (MG/L) FORM 11
110	NA98	Num	8	F	SODIUM (UEQ/L)
86	NH411	Num	8	F	AMMONIUM ION (MG/L) FORM 11
113	NH498	Num	8	F	AMMONIUM (UEQ/L)
82	N0311	Num	8	F	NITRATE ION (MG/L) FORM 11
108	N0398	Num	8	F	NITRATE (UEQ/L)
134	N03DP99	Num	8	F	NITRATE DEPOSITION (G/M**2/YR)
17	NVLAK1D	Char	1		NON-VARIABILITY LAKE (Y OR N) FORM 1D
61	OBSID1D	Char	6		OBSERVER ID NUMBER FORM 1D
101	ORGI098	Num	8	F	ORGANIC ANION (UEQ/L)
27	PH0151D	Num	8	F	PH AT 1.5M FORM 1D
68	PH02	Num	8	F	STATION PH FORM 2
89	PHAC11	Num	8	F	ACIDITY INITIAL PH FORM 11
88	PHAL11	Num	8	F	ALKALINITY INITIAL PH FORM 11
87	PHEQ11	Num	8	F	AIR-EQUILIBRATED PH FORM 11
38	PH_601D	Num	8	F	PH AT 0.6*DEPTH FORM 1D
32	PH_B1D	Num	8	F	PH AT BOTTOM-1.5M FORM 1D
135	PRCIP99	Num	8	F	PRECIPITATION (M/YR)
15	PREC1D	Char	5		PRECIPITATION FORM 1D
14	PREC01D	Char	7		PRECIPITATION OBS (PREV/CURRENT) FORM 1D
95	PTL11	Num	8	F	TOTAL PHOSPHORUS (UG/L) FORM 11
136	RGSPC99	Char	16		REG SPEC LTM NRC DEW DER SAMPLE CLASS
16	RPREC1D	Char	8		RATE OF PRECIPITATION FORM 1D
137	RT99	Num	8	F	RESIDENCE TIME (YR)
154	RTX99	Num	8		RESIDENCE TIME (YR) - ALSC
138	RUNIN99	Num	8	F	ANNUAL RUNOFF INCHES FROM DIGIT MAP
139	RUNOF99	Num	8	F	SURFACE WATER RUNOFF (M/YR)
155	RUNOFX99	Num	8		SURFACE WATER RUNOFF (M/YR) - ALSC
7	SAMRT1D	Num	8	F	SAMPLE ID ROUTINE FORM 1D
143	SBRGN99	Char	1		NSWS SUBREGION
21	SECDI1D	Num	8	F	SECCHI DEPTH: DISAPPEAR (M) FORM 1D
20	SECDV1D	Char	1		SECCHI DEPTH Y=VISIBLE TO BOTTOM FORM 1D
116	SECME98	Num	8		MEAN: SECHI DISK DISAPPEAR ,REAPPEAR (M)
22	SECRE1D	Num	8	F	SECCHI DEPTH: REAPPEAR (M) FORM 1D

7.1 Description of Parameters, continued

#	Parameter SAS Name	Data Type	Len	Format	Parameter Label
83	SI0211	Num	8	F	SILICA (MG/L) FORM 11
65	SITETYP	Char	9		SAMPLING SITE OR TYPE CODE
81	S0411	Num	8	F	SULFATE ION (MG/L) FORM 11
111	S0498	Num	8	F	SULFATE (UEQ/L)
140	S04DP99	Num	8	F	SULFATE DEPOSITION (G/M**2/YR)
100	S0BC98	Num	8	F	SUM OF BASE CATIONS (UEQ/L)
62	SPRID1D	Char	6		SAMPLER ID NUMBER FORM 1D
141	ST99	Char	2		STATE (TWO-LETTER ABBREV)
142	STRAT99	Char	3		NSWS STRATA
41	T04051D	Num	8	F	TEMPERATURE AT 4 OR 5 M (DEG C) FORM 1D
43	T06101D	Num	8	F	TEMPERATURE AT 6 OR 10 M (DEG C) FORM 1D
45	T08151D	Num	8	F	TEMPERATURE AT 8 OR 15 M (DEG C) FORM 1D
47	T10201D	Num	8	F	TEMPERATURE AT 10 OR 20M (DEG C) FORM 1D
49	T12251D	Num	8	F	TEMPERATURE AT 12 OR 25M (DEG C) FORM 1D
51	T14301D	Num	8	F	TEMPERATURE AT 14 OR 30M (DEG C) FORM 1D
53	T16351D	Num	8	F	TEMPERATURE AT 16 OR 35M (DEG C) FORM 1D
55	T18401D	Num	8	F	TEMPERATURE AT 18 OR 40M (DEG C) FORM 1D
57	T20451D	Num	8	F	TEMPERATURE AT 20 OR 45M (DEG C) FORM 1D
9	TIMSM1D	Num	8	TIME	TIME SAMPLED (24 H) HH:MM FORM 1D
24	TM0151D	Num	8	F	TEMPERATURE (DEG C) AT 1.5M FORM 1D
35	TMP601D	Num	8	F	TEMPERATURE AT 0.6*DEPTH (DEG C) FORM 1D
11	TMPA1D	Num	8	F	AIR TEMPERATURE (DEG C) FORM 1D
33	TMPD11D	Num	8	F	TEMP DIF 1.5M-BOTTOM (DEG C) FORM 1D
39	TMPD21D	Num	8	F	TEMP DIF 1.5M-0.6*DEPTH (DEG C) FORM 1D
29	TMP_B1D	Num	8	F	TEMP AT BOTTOM-1.5M (DEG C) FORM 1D
69	TUR02	Num	8	F	TURBIDITY (NTU) FORM 2
59	TXX501D	Num	8	F	TEMPERATURE AT 50 M (DEG C) FORM 1D
18	VISIT1D	Num	8	F	VISIT FORM 1D
144	WALA99	Num	8	F	WATERSHED AREA/LAKE AREA
5	WALAX99	Num	8		WATERSHED AREA/LAKE AREA - ALSC
13	WDIR1D	Char	3		ESTIMATED WIND DIRECTION FORM 1D
145	WSDIS99	Char	8		D)WELL I)ND L)OG M)INE R)OAD S)TOCK
147	WSHED99	Num	8	F	WATERSHED AREA (HA)
6	WSHEDX99	Num	8		WATERSHED AREA (HA) - ALSC
146	WSOTH99	Char	25		DISTURB W/I 100M - OTHER
12	WSPD1D	Char	8		ESTIMATED WIND SPEED FORM 1D
150	WT1M99	Num	8		MODIFIED PHASE I WEIGHT
149	WT10_99	Num	8		ORIGINAL PHASE I WEIGHT
151	WT2C99	Num	8		CONDITIONAL PHASE II WEIGHT
152	WT2T99	Num	8		TOTAL PHASE II WEIGHT

7.1.6 Precision to which values are reported

7.1.7 Minimum Value in Data Set

Name	Min
ACC011	2.7
ALD02	5.2
ALDI98	0
ALEX11	-2.939E-39
ALKA11	-54.3
ALO_02	-2.939E-39
ALTL11	6.4
ANCAT98	0.7858
ANDEF98	-126.3316
ANSUM98	47.39
BNSTR99	96
C0151D	-1

7.1.7 Minimum Value in Data Set, continued

Name	Min
C04051D	23
C06101D	25
C08151D	24
C10201D	23
C12251D	23
C14301D	37
C16351D	41
C18401D	.
C20451D	.
CA11	0.599
CA98	29.89
CATSU98	62.15
CL11	0.178
CL98	5.021
CLSTR99	1
C0398	0
COLOR02	-2.939E-39
CON601D	24
COND11	8.4
CON_B1D	-1
CXX501D	.
DATSMP	9777
DIC02	0.21
DICE11	0.012
DICI11	0.218
DISM99	1
DOC11	0.29
DO_151D	5.22
DO_601D	0.06
DO_B1D	0.12
DPCAT1D	4
DPSIT1D	1
DPSITX1D	1.2
DP_601D	8.2
DP_B1D	1.5
DRPCDE	0
ELEV99	2.4
ELEVX99	249
FE11	-2.939E-39
FTL11	-2.939E-39
FTL98	-2.939E-39
H98	0.017
HC0398	0.308
HDEP99	0.027
K11	0.035
K98	0.895
LATDD99	41.0042
LKSIZ99	4
LKSIZX99	1.2
LKVOL99	0.043
LKVOLX99	0.029454
LNGDD99	-67.2667
MG11	0.138
MG98	11.311
MN11	-2.939E-39
NA11	0.058
NA98	2.523
NH411	-2.939E-39
NH498	-2.939E-39
N0311	0.0002

7.1.7 Minimum Value in Data Set, continued

Name	Min
N0398	0.003
N03DP99	0.71
ORGI098	2.0021
PH0151D	4.12
PH02	4.38
PHAC11	4.36
PHAL11	4.38
PHEQ11	4.31
PH_601D	4.58
PH_B1D	4.16
PRCIP99	0.697
PTL11	-2.939E-39
RT99	0.001
RTX99	0.3
RUNIN99	10
RUNOF99	0.254
RUNOFX99	0.508
SAMRT1D	1
SECDI1D	0.6
SECME98	0.55
SECRE1D	0.5
SI0211	0.011
S0411	1.39
S0498	28.94
S04DP99	1.18
SOBC98	55.0666
T04051D	10.5
T06101D	6
T08151D	4.5
T10201D	4.1
T12251D	4.6
T14301D	4.5
T16351D	4.4
T18401D	.
T20451D	.
TIMSM1D	2700
TM0151D	3
TMP601D	4.7
TMPA1D	-10
TMPD11D	-2.939E-39
TMPD21D	0.2
TMP_B1D	3.7
TUR02	0.1
TXX501D	.
VISIT1D	1
WALA99	2.18
WALAX99	2.2
WSHED99	13
WSHEDX99	13
WT1M99	1.477
WT10_99	1.449
WT2C99	1
WT2T99	12.054

7.1.7 Maximum Value in Data Set

Name	Max
ACC011	222.2
ALD02	626.5

7.1.7 Maximum Value in Data Set, continued

Name	Max
ALDI98	471.8
ALEX11	467.2
ALKA11	461.2
ALO_02	154.7
ALTL11	719.5
ANCAT98	2.2955
ANDEF98	194.3358
ANSUM98	1400.93
BNSTR99	1682
C0151D	142
C04051D	48
C06101D	48
C08151D	50
C10201D	66
C12251D	40
C14301D	41
C16351D	41
C18401D	.
C20451D	.
CA11	9.624
CA98	480.238
CATSU98	1274.6
CL11	25.3
CL98	713.713
CLSTR99	3
C0398	1.247
COLOR02	200
CON601D	62
COND11	138.8
CON_B1D	142
CXX501D	.
DATSMP	9814
DIC02	6.177
DICE11	4.553
DICI11	5.214
DISM99	94
DOC11	15.6
DO_151D	13.86
DO_601D	9.65
DO_B1D	12.16
DPCAT1D	5
DPSIT1D	32.1
DPSITX1D	37.5
DP_601D	21.6
DP_B1D	30.6
DRPCDE	3
ELEV99	791
ELEVX99	792
FE11	616
FTL11	0.3787
FTL98	19.935
H98	43.652
HC0398	386.71
HDEP99	0.065
K11	2.263
K98	57.865
LATDD99	46.9339
LKSIZ99	1619.2
LKSIZX99	1626.9
LKVOL99	84.214

7.1.7 Maximum Value in Data Set, continued

Name	Max
LKV0LX99	110.696
LNGDD99	-76.3208
MG11	3.378
MG98	277.874
MN11	406
NA11	17.944
NA98	780.564
NH411	0.464
NH498	25.696
N0311	1.697
N0398	27.373
N03DP99	1.82
ORGIO98	125.1821
PH0151D	7.44
PH02	7.33
PHAC11	7.78
PHAL11	7.53
PHEQ11	7.72
PH_601D	6.45
PH_B1D	7.26
PRCIP99	1.344
PTL11	54.3
RT99	10.042
RTX99	1319.1
RUNIN99	30
RUNOF99	0.762
RUNOFX99	0.889
SAMRT1D	26
SECDI1D	11
SECME98	10.9
SECRE1D	10.8
SI0211	7.862
S0411	21.05
S0498	438.261
S04DP99	3
S0BC98	1272.7628
T04051D	11.5
T06101D	11.4
T08151D	11.3
T10201D	7
T12251D	5.2
T14301D	5.1
T16351D	4.4
T18401D	.
T20451D	.
TIMSM1D	62100
TM0151D	14.4
TMP601D	11.4
TMPA1D	20
TMPD11D	7.5
TMPD21D	6.6
TMP_B1D	13.8
TUR02	4.2
TXX501D	.
VISIT1D	3
WALA99	2932.39
WALAX99	2192.5769231
WSHED99	81424
WSHEDX99	81424
WT1M99	27.209

7.1.7 Maximum Value in Data Set, continued

WT10_99 27.209
WT2C99 15.5245
WT2T99 50.082

7.2 Data Record Example

7.2.1 Column Names for Example Records

ACCES1D ACC011 ALD02 ALDI98 ALEX11 ALKA11 ALO_02 ALTL11 ANCAT98 ANDEF98 ANSUM98
BNSTR99 C0151D C04051D C06101D C08151D C10201D C12251D C14301D C16351D C18401D
C20451D CA11 CA98 CATSU98 CL11 CL98 CLSTR99 CNTY99 C0398 COLOR02 COMNTA1D COMNTB1D
CON601D COND11 CON_B1D CXX501D DATSMP DICO2 DICE11 DICI11 DISM99 DOC11 DO_151D
DO_601D DO_B1D DPCAT1D DPSIT1D DPSITX1D DP_601D DP_B1D DRPCDE ELEV99 ELEVX99 FE11
FTL11 FTL98 H98 HC0398 HDEP99 HYDID1D HYTYP99 INOUT99 K11 K98 LABNA02 LAKE_ID
LAT99 LATDD99 LKID99 LKNAM99 LKSIZ99 LKSIZX99 LKVOL99 LKVOLX99 LNGDD99 LONG99
MAPBG99 MAPSM99 MG11 MG98 MN11 NA11 NA98 NH411 NH498 NO311 NO398 NO3DP99 NVLAK1D
OBSID1D ORGI098 PH0151D PH02 PHAC11 PHAL11 PHEQ11 PH_601D PH_B1D PRCIP99 PREC1D
PRECO1D PTL11 RGSPC99 RPREC1D RT99 RTX99 RUNIN99 RUNOF99 RUNOFX99 SAMRT1D SBRGN99
SECDI1D SECDV1D SECME98 SECRE1D SIO211 SITETYP S0411 S0498 S04DP99 SOBC98 SPRID1D
ST99 STRAT99 T04051D T06101D T08151D T10201D T12251D T14301D T16351D T18401D
T20451D TIMSM1D TM0151D TMP601D TMPA1D TMPD11D TMPD21D TMP_B1D TUR02 TXX501D
VISIT1D WALA99 WALAX99 WDIR1D WSDIS99 WSHED99 WSHEDX99 WSO_99 WSPD1D WT1M99
WT10_99 WT2C99 WT2T99

7.2.2 Example Data Records

"H",119.8,354.3000,303.0000,278.9000,-17.7,51.3000,465.3000,0.8181,-27.7545,
152.5700,711.14,1.235,61.6270,124.8100,0.300,8.4630,1,"36043",
0.0000,15,"'FALL INDEX SITE' MARKED ON 1984 DATA SHEET (., ABOVE) LESS THAN
5 METERS DEEP; WE SAMPLED AT X",",,,27.8,13,,200CT86,0.476,0.013,0.441,,
2.99,10.20,,10.05,,10.5,11.6,,9.0,0.645,3.645,0.40,0.000,0.0582,3.0640,19.9530,
0.7750,0.043,"BBB","DRAINAGE","NI/0",0.222,5.6770,"VERSAR","1A1-003","43-57'25'N",
43.9569,"04-504","HAWK POND",12.80,13.5,0.434,0.61728,74.9583,"74-57'30'W",
"UTICA","15' BIG MOOSE",0.197,16.2050,34.000,0.473,20.5760,0.014,0.7760,0.8791,
14.1800,1.25,"Y","90",20.9810,4.38,4.64,4.70,4.64,4.58,,4.34,0.909,"NONE",",",
2.5000,"REG/","",0.683,1.200,30,0.762,0.762,19,"A",5.0,"N",4.9,4.8,1.124,"NV",
6.056,126.0860,2.10,104.0838,"84","NY","1A1",,,15:03.8.6,,10,
0.6,,8.0,0.30,,7.50,7.362962963,"SW",",",96.000,99.4,"", "MODERATE",9.633,
9.633,1.2754,12.285

"H",26.4,35.4000,19.2000,18.3000,64.9,16.2000,99.1000,1.1384,26.8393,193.8700,
711,8,,2.609,130.1890,220.7100,0.361,10.1840,2,"36041",0.0420,
30,"ABUNDANT SUBMERGED VEGETATION",",,,24.2,,03NOV86,0.861,0.656,0.902,,
3.11,11.58,,2.0,3,,0.640,1.640,0.103,0.000,0.0604,3.1790,0.1480,55.8650,
0.043,"BAB","DRAINAGE","I/0",0.139,3.5540,"VERSAR","1A1-008","43-42'30'N",43.7083,
"05-667","CEDAR RIVER FLOW",264.60,266.4,1.842,3.02632,74.4750,"74-28'30'W",
"UTICA","15' INDIAN LAKE",0.605,49.7670,1.000,0.848,36.8880,0.003,0.1660,0.3611,
5.8250,1.23,"N","81",30.2327,6.52,6.69,6.83,6.73,6.85,,0.909,"NONE",",",
7.3000,"REG/","",0.025,33.400,25,0.635,0.889,3,"A",1.9,"N",1.8,1.7,6.482,"V1",
5.705,118.7780,2.08,220.3986,"90","NY","1A1",,,8:50.4.8,,1,,
.,0.80,,1,45.03,42.649399399,"SW","DR",11914.00,11361.8,"DAM AT NORTH END OF
LAKE","LIGHT",9.633,9.633,2.2883,22.043

"H",30.4,26.9000,20.8000,17.4000,9.8,6.1000,58.7000,1.1789,21.7888,121.8100,
711,4,,1.818,90.7180,143.5900,0.238,6.7140,1,"36041",0.0020,
5,,,"",18.1.4,,200CT86,0.462,0.095,0.320,,2.48,9.84,,9.83,,10.2,12.2,
.,8.7,1,748.6,749.0,35.000,0.0413,2.1740,0.6310,10.7980,0.045,"BBB","DRAINAGE",
"NI/0",0.176,4.5000,"VERSAR","1A1-012","43-35'15'N",43.5875,"07-936","WHITNEY
LAKE",43.10,42.6,0.860,1.64342,74.5625,"74-33'45'W", "UTICA","15' WEST CANADA
LAKES",0.327,26.8990,26.000,0.455,19.7930,0.019,1.0530,0.2514,4.0550,1.30,"N",
"84",23.1924,5.69,5.84,6.20,5.95,5.97,,5.55,0.899,"NONE",",",4.7000,"REG/",
",0.492,1.500,30,0.762,0.889,5,"A",6.2,"N",6.1,6.0,1.205,"V1",4.710,98.0620,
2.18,141.9100,"90","NY","1A1",,,12:00,8.5,,14,0.3,,8.2,0.40,
.,1,6.31,6.5798122066,"SW",",",272.000,280.3,"", "MODERATE",9.633,9.633,1.2754,
12.285

8. GEOGRAPHIC AND SPATIAL INFORMATION

8.1 Minimum Longitude
-73.3208 decimal degrees

8.2 Maximum Longitude
-67.2667 decimal degrees

8.3 Minimum Latitude
41.0042 decimal degrees

8.4 Maximum Latitude
46.9339 decimal degrees

8.5 Name of Area or Region
Connecticut, Maine, New York, Pennsylvania, Rhode Island, Massachusetts,
and New Hampshire

9. QUALITY CONTROL / QUALITY ASSURANCE

9.1 Data Quality Objectives

9.2 Quality Assurance Procedures

9.3 Unassessed Errors
NA

10. DATA ACCESS

10.1 Data Access Procedures

10.2 Data Access Restrictions

10.3 Data Access Contact Persons

10.4 Data Set Format

10.5 Information Concerning Anonymous FTP

10.6 Information Concerning Gopher and WWW

10.7 EMAP CD-ROM Containing the Data

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12. TABLE OF ACRONYMS

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