**The MAP3S Precipitation
Chemistry Network:
Fourth Periodic Summary Report (1980)**

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251-275	A012
276-300	A013

THE MAP3S PRECIPITATION CHEMISTRY NETWORK:
FOURTH PERIODIC SUMMARY REPORT (1980)*

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December 1981

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ABSTRACT

This, the fourth in a series of summary reports, contains complete field and chemical data from the MAP3S/RAINE Precipitation Chemistry Network for the year 1980. The 1980 data were added to the previous data base, and an update of the previous statistical summary completed. Included are basic statistics, time trend analyses, and monthly averages.

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PREFACE

The contributors to this report are the MAP3S Precipitation Chemistry Network site operators and laboratory organization personnel. The cooperating organizations and individuals are listed below. Inquiries should be directed to M. Terry Dana.

This report contains a listing of precipitation chemistry data collected during the period 1980. It is the fourth of the planned annual summaries of the data collected during the MAP3S.

The primary objective of the project is to collect the concentration data and distribute them promptly; further analysis of the data and use of the data as an aid in precipitation chemistry research is generally left to the reader, but analyses and interesting applications of the results may appear in summary reports or in the open literature authored by the persons listed below. Other users of the data herein may credit: "The MAP3S Precipitation Chemistry Network."

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1.0 DATA FOR 1980

The results of the field data collection and chemical analyses of precipitation samples collected on the MAP3S/RAINE network during 1980 are listed in the following tables. The first shows data availability. Each row represents a date, which is the date of collection^a of one or more samples. The appearance of an "S" in a column indicates that a sample was collected on that date at the site heading the column.

The second table is the chronological list of field and chemistry data. Each row corresponds to a collection^a date and a site, and each column to a "species." Since there are 28 species and room for seven columns per page, this table is broken into four sub-tables, as described in the data tables legend, Appendix A.

Site locations and data periods, and chemical analyses information are listed in Appendix B. A complete description of procedures and quality control may be found in another report⁽¹⁾. Data for periods previous to 1980 are listed in the first three summaries^(2,3,4).

^aNot necessarily the date of precipitation occurrence.

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(CONT.)

W H I T E F A C E
I T H A C A
P E N N S Y L V A N I A
V I R G I N I A
I L L I N O I S
R O C K H A V E N
L E W I S
O X F O R D
C A K E

17 MAY 1980	-	-	-	-	S	-	-	-
18 MAY 1980	-	-	-	-	S	-	-	S
19 MAY 1980	-	-	S	S	S	S	S	S
20 MAY 1980	S	S	-	-	S	-	-	-
21 MAY 1980	-	-	S	S	-	S	-	-
22 MAY 1980	-	-	-	-	-	-	S	-
23 MAY 1980	-	-	-	-	S	-	-	S
24 MAY 1980	-	-	-	-	S	-	-	S
25 MAY 1980	-	-	-	-	S	-	S	S
27 MAY 1980	-	-	-	S	-	-	-	-
30 MAY 1980	-	-	-	-	-	-	-	S
31 MAY 1980	-	-	-	-	S	-	-	S
1 JUN 1980	-	-	-	-	S	-	-	S
2 JUN 1980	S	-	S	S	S	S	-	S
3 JUN 1980	-	-	-	-	S	S	-	-
4 JUN 1980	-	S	S	-	-	S	S	-
5 JUN 1980	S	-	-	-	-	-	-	-
6 JUN 1980	-	-	-	-	S	-	-	-
7 JUN 1980	-	-	-	S	-	S	S	-
8 JUN 1980	-	S	S	-	S	S	S	S
9 JUN 1980	S	-	S	-	-	-	-	-
10 JUN 1980	-	S	S	-	-	S	-	S
11 JUN 1980	S	-	-	S	-	-	-	-
15 JUN 1980	-	-	-	-	-	-	-	S
16 JUN 1980	S	S	S	-	S	-	S	S
17 JUN 1980	-	-	-	S	-	-	S	-
19 JUN 1980	S	-	-	-	-	-	-	-
20 JUN 1980	S	S	S	-	S	-	-	S
21 JUN 1980	S	S	-	-	-	-	-	S
23 JUN 1980	-	-	-	-	S	-	-	-
24 JUN 1980	S	-	-	-	S	-	-	S
26 JUN 1980	-	-	-	-	-	-	S	-
27 JUN 1980	S	-	-	-	-	-	-	-
29 JUN 1980	-	-	-	-	-	-	-	S
30 JUN 1980	-	S	S	S	-	S	S	-
1 JUL 1980	S	S	-	-	S	-	-	-
2 JUL 1980	S	-	-	-	-	-	-	-
3 JUL 1980	S	-	-	-	-	S	-	S
4 JUL 1980	-	-	-	-	S	-	S	S
5 JUL 1980	-	-	-	S	S	S	-	S
6 JUL 1980	-	S	-	S	-	S	-	-
7 JUL 1980	S	-	S	-	-	-	-	-
8 JUL 1980	-	-	S	-	-	-	S	S
9 JUL 1980	S	S	-	S	-	-	-	S
10 JUL 1980	-	-	-	S	-	-	-	S
11 JUL 1980	-	-	-	S	S	-	-	S
12 JUL 1980	-	-	S	-	-	-	-	-
13 JUL 1980	S	-	-	-	-	-	-	-
14 JUL 1980	-	-	-	S	-	-	-	-

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SAMPLES AVAILABLE

(CONT.)

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	W	I	P	V	I	B	L	O	O
	H	T	E	I	L	R	E	X	A
	I	H	N	R	I	O	W	F	K
	T	A	S	G	N	K	E	O	I
	E	C	T	I	O	H	S	R	D
	A					V			G
	F								F
	C								
14 SEP 1980	-	-	-	-	S	-	-	-	-
15 SEP 1980	S	S	S	S	-	-	-	-	-
16 SEP 1980	-	-	-	-	S	-	-	S	-
17 SEP 1980	-	-	-	-	-	-	-	S	-
18 SEP 1980	S	S	-	-	S	S	S	-	-
19 SEP 1980	-	-	-	S	-	-	-	-	-
20 SEP 1980	-	-	-	-	-	-	-	S	-
21 SEP 1980	S	-	-	-	-	-	-	-	-
22 SEP 1980	S	S	-	S	-	-	-	S	-
23 SEP 1980	S	S	-	S	S	-	S	S	-
24 SEP 1980	-	-	S	S	-	-	S	-	-
25 SEP 1980	-	-	-	-	-	-	S	-	-
26 SEP 1980	S	S	-	S	-	S	S	-	-
27 SEP 1980	-	-	S	-	-	-	-	-	-
29 SEP 1980	S	-	-	-	-	-	-	-	-
1 OCT 1980	-	-	-	-	-	-	S	-	-
2 OCT 1980	-	-	S	S	S	-	-	S	-
3 OCT 1980	S	S	-	-	S	S	-	-	-
4 OCT 1980	-	-	S	S	-	S	S	S	-
5 OCT 1980	S	-	-	-	-	-	-	-	-
6 OCT 1980	-	-	-	S	-	-	-	-	-
8 OCT 1980	-	-	S	-	-	-	-	-	-
10 OCT 1980	-	-	S	-	-	-	-	-	-
11 OCT 1980	-	-	-	-	-	S	-	-	-
12 OCT 1980	-	-	-	-	-	S	S	-	-
14 OCT 1980	S	S	-	-	-	-	-	-	-
15 OCT 1980	-	-	-	-	S	-	-	-	-
16 OCT 1980	-	-	-	-	S	-	-	-	-
17 OCT 1980	-	-	S	-	S	-	-	-	-
18 OCT 1980	-	S	S	-	S	-	-	S	-
19 OCT 1980	S	-	-	-	-	S	-	-	-
20 OCT 1980	S	-	-	S	-	-	S	-	-
22 OCT 1980	S	S	-	-	-	-	-	-	-
25 OCT 1980	-	-	-	S	S	-	-	S	-
26 OCT 1980	-	-	-	-	-	S	S	S	-
27 OCT 1980	S	S	-	-	-	-	-	-	-
28 OCT 1980	-	-	-	-	S	-	-	S	-
29 OCT 1980	S	S	S	S	S	S	S	S	-
30 OCT 1980	-	-	-	-	-	-	-	S	-
31 OCT 1980	-	-	-	S	-	-	-	-	-
3 NOV 1980	S	S	-	-	-	-	-	-	-
4 NOV 1980	-	-	-	-	S	-	-	S	-
5 NOV 1980	-	S	S	S	-	S	S	-	-
6 NOV 1980	S	-	-	-	-	-	-	-	-
7 NOV 1980	S	S	-	-	-	S	-	-	-
8 NOV 1980	-	-	-	-	-	S	-	-	-
10 NOV 1980	-	S	S	S	-	S	S	-	-
12 NOV 1980	S	S	-	-	-	-	-	-	-
14 NOV 1980	-	-	-	-	S	-	-	-	-

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MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

R/

		Z	HOURS	HOURS	HOURS		MO,DA	
2 JAN 1980	ITHACA	1500.00	309.00	0.00	40.00	NAP	1.08	6599.00
6 JAN 1980	PENN STATE	2130.00	267.50	0.00	MOE	NAP	2.26	MOE
	BROOKHAVEN	1930.00	289.50	0.00	14.60	1.00	1.15	4521.00
	OXFORD	1600.00	265.50	0.00	13.00	45.00	2.06	4422.00
7 JAN 1980	PENN STATE	2030.00	23.00	0.00	1.20	NAP	2.26	4714.00
	VIRGINIA	1700.00	290.00	0.00	26.00	MOE	1.21	4513.00
	LEWES	2000.00	241.00	0.00	9.00	NAP	1.21	4501.00
8 JAN 1980	WHITEFACE	1500.00	288.00	0.00	7.00	NAP	2.06	4811.00
	ITHACA	1900.00	148.00	0.00	6.00	NAP	2.14	4815.00
	LEWES	1830.00	22.50	0.00	7.00	NAP	2.15	4720.00
10 JAN 1980	PENN STATE	1530.00	67.00	0.00	MOE	NAP	2.26	MOE
11 JAN 1980	WHITEFACE	1930.00	76.50	0.00	4.00	NAP	2.06	5014.00
	ILLINOIS	1600.00	407.50	0.00	MOE	20.00	1SA	MOE
12 JAN 1980	ITHACA	1400.00	91.00	0.00	5.00	NAP	2.14	5213.00
	PENN STATE	1800.00	50.50	0.00	5.50	NAP	2.26	5119.00
	VIRGINIA	1630.00	119.50	0.00	16.50	2.00	1.21	5205.00
	LEWES	1650.00	93.00	0.00	7.00	NAP	2.15	5200.00
14 JAN 1980	BROOKHAVEN	1530.00	188.00	0.00	9.70	2.00	2.26	5209.00
15 JAN 1980	WHITEFACE	1300.00	89.50	0.00	26.00	NAP	2.06	5502.00
	ITHACA	1800.00	76.00	0.00	10.00	NAP	2.14	5420.00
	PENN STATE	1600.00	70.00	0.00	MOE	NAP	2.26	MOE
	VIRGINIA	1630.00	72.00	0.00	23.00	12.00	1.21	5505.00
16 JAN 1980	OXFORD	2000.00	118.50	125.50	2.00	19.00	2.06	5408.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		Z	HOURS	HOURS	HOURS		MO,DA	
17 JAN 1980	ILLINOIS	1500.00	143.00	0.00	18.00	75.00	2.14	5708.00
19 JAN 1980	PENN STATE	1930.00	99.50	0.00	1.00	NAP	2.26	5710.00
	VIRGINIA	2100.00	100.50	0.00	26.50	6.00	2.11	5900.00
	BROOKHAVEN	1800.00	122.50	0.00	9.70	1.00	2.26	5912.00
	LEWES	1830.00	171.00	0.00	25.00	NAP	2.15	5901.00
	OXFORD	2130.00	735.00	0.00	0.50	25.00	ISA	5711.00
20 JAN 1980	ILLINOIS	1630.00	73.50	0.00	22.00	2.00	2.14	6017.00
21 JAN 1980	OXFORD	1530.00	42.00	0.00	1.50	18.00	2.06	6008.00
22 JAN 1980	WHITEFACE	1600.00	171.00	0.00	5.00	NAP	2.06	6012.00
23 JAN 1980	VIRGINIA	2230.00	49.50	0.00	7.50	4.00	2.11	6300.00
	BROOKHAVEN	1530.00	96.00	0.00	7.90	1.00	2.26	6305.00
24 JAN 1980	PENN STATE	1530.00	116.00	0.00	MOE	NAP	2.26	MOE
	LEWES	1830.00	120.00	0.00	22.00	NAP	2.15	6310.00
25 JAN 1980	ITHACA	1800.00	240.00	0.00	5.00	NAP	2.14	6316.00
	PENN STATE	1700.00	25.50	0.00	MOE	NAP	2.26	MOE
	ILLINOIS	1500.00	118.50	0.00	4.50	5.00	2.14	6500.00
	OXFORD	1700.00	97.50	0.00	17.00	87.00	2.06	6506.00
29 JAN 1980	WHITEFACE	1330.00	165.50	0.00	8.00	NAP	MOE	6617.00
30 JAN 1980	ILLINOIS	1530.00	120.50	0.00	4.50	MOE	ISA	7015.00
31 JAN 1980	PENN STATE	2030.00	147.50	0.00	0.50	NAP	2.26	6708.00
	VIRGINIA	1930.00	189.00	0.00	10.00	11.00	2.11	7114.00
	OXFORD	2330.00	150.50	0.00	20.50	1.00	3.11	7109.00
1 FEB 1980	ITHACA	1400.00	164.00	0.00	10.00	NAP	2.14	4199.00

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	Z	HOURS	HOURS	HOURS	HOURS		NO. DA	
	LEWES	1800.00	191.50	0.00	4.50	NAP	2.15	4112.00
5 FEB 1980	ITHACA	1900.00	101.00	0.00	19.00	NAP	2.14	4419.00
6 FEB 1980	ILLINOIS	1600.00	168.50	0.00	6.00	19.00	2.14	4611.00
7 FEB 1980	PENN STATE	1430.00	162.00	0.00	MOE	NAP	2.26	MOE
	VIRGINIA	1900.00	167.50	0.00	15.00	15.00	3.03	4716.00
	LEWES	1830.00	144.50	0.00	17.00	NAP	ISA	4702.00
	OXFORD	1700.00	161.50	0.00	12.80	133.00	3.11	4610.00
10 FEB 1980	OXFORD	1930.00	74.50	0.00	15.00	87.00	3.11	4912.00
11 FEB 1980	VIRGINIA	2130.00	100.50	0.00	20.50	5.00	3.03	5018.00
	LEWES	1800.00	95.50	0.00	6.00	NAP	2.15	5002.00
12 FEB 1980	PENN STATE	1400.00	119.50	0.00	MOE	NAP	2.26	MOE
	OXFORD	1730.00	46.00	0.00	1.50	9.00	3.11	5121.00
16 FEB 1980	VIRGINIA	2030.00	119.00	0.00	7.00	3.00	ISA	5617.00
	ILLINOIS	1530.00	240.50	0.00	19.00	NAP	ISA	5614.00
17 FEB 1980	BROOKHAVEN	2230.00	607.00	0.00	20.00	1.00	2.26	5703.00
	LEWES	1700.00	143.00	0.00	18.00	NAP	5.01	5615.00
	OXFORD	2030.00	123.00	0.00	1.00	175.00	3.11	5513.00
18 FEB 1980	WHITEFACE	1330.00	480.00	0.00	17.00	NAP	MOE	5622.00
	ITHACA	1700.00	310.00	0.00	23.00	NAP	3.04	5619.00
	PENN STATE	1900.00	149.00	0.00	NAP	NAP	3.31	NAP
21 FEB 1980	VIRGINIA	2030.00	120.00	0.00	16.50	6.00	3.03	6116.00
22 FEB 1980	VIRGINIA	2300.00	26.50	0.00	15.50	2.00	ISA	6219.00
	ILLINOIS	1530.00	144.00	0.00	4.50	NAP	3.25	6206.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		Z	HOURS	HOURS	HOURS	MO,DA	
	OXFORD	1600.00	115.50	0.00	13.50	227.00	3.11 6209.00
23 FEB 1980	PENN STATE	2030.00	121.50	0.00	NAP	NAP	3.31 NAP
	ILLINOIS	2000.00	28.70	0.00	1.00	NAP	ISA 6318.00
	BROOKHAVEN	1630.00	138.00	0.00	13.90	1.00	3.18 6303.00
	LEWES	2000.00	147.00	0.00	1.50	NAP	5.01 6206.00
24 FEB 1980	VIRGINIA	1730.00	42.50	0.00	17.00	14.00	3.03 6414.00
	LEWES	1830.00	22.50	0.00	9.50	NAP	5.01 6403.00
25 FEB 1980	WHITEFACE	1430.00	169.00	0.00	12.00	NAP	4.08 6500.00
	ITHACA	1300.00	164.00	0.00	10.00	NAP	3.04 6404.00
	VIRGINIA	2030.00	27.00	0.00	11.00	3.00	3.03 6519.00
	OXFORD	1900.00	75.00	0.00	5.30	6.00	3.11 6500.00
26 FEB 1980	VIRGINIA	1700.00	20.50	0.00	15.50	4.00	3.03 6614.00
	ILLINOIS	1430.00	42.50	0.00	29.80	NAP	3.25 6614.00
	LEWES	1830.00	48.00	0.00	10.00	NAP	5.01 6516.00
28 FEB 1980	WHITEFACE	1330.00	71.00	0.00	6.00	NAP	4.08 6801.00
	ITHACA	1200.00	71.00	0.00	2.00	NAP	3.04 6723.00
	ILLINOIS	1630.00	50.00	0.00	0.50	NAP	3.25 6714.00
	OXFORD	1700.00	70.00	0.00	4.30	72.00	3.11 6811.00
29 FEB 1980	VIRGINIA	1730.00	72.50	0.00	7.00	16.00	ISA 6820.00
	LEWES	1800.00	71.50	0.00	37.00	150.00	5.01 6916.00
2 MAR 1980	OXFORD	2030.00	75.50	0.00	9.00	35.00	3.11 6920.00
3 MAR 1980	VIRGINIA	1900.00	73.50	0.00	22.50	1.00	ISA 4212.00
4 MAR 1980	LEWES	1830.00	96.50	0.00	15.00	57.00	5.01 4207.00

(CONT.)

		<div> <div> <div>D</div> <div>V</div> <div>H</div> <div>M</div> <div>E</div> <div>I</div> <div>T</div> </div> <div>Z</div> </div>	<div> <div> <div>D</div> <div>M</div> <div>I</div> <div>T</div> </div> <div>HOURS</div> </div>	<div> <div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div> <div>HOURS</div> </div>	<div> <div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div> <div>HOURS</div> </div>	<div> <div> <div>E</div> <div>N</div> <div>P</div> <div>O</div> <div>I</div> <div>L</div> </div> <div>HOURS</div> </div>	<div> <div> <div>E</div> <div>T</div> <div>A</div> <div>D</div> <div>R</div> <div>A</div> </div> <div>MO, DA</div> </div>	<div> <div> <div>D</div> <div>N</div> <div>F</div> <div>E</div> <div>C</div> <div>R</div> <div>P</div> </div> <div></div> </div>
5 MAR 1980	VIRGINIA	2130.00	50.50	0.00	5.00	6.00	3.25	4513.00
	ILLINOIS	1500.00	142.50	0.00	24.00	NAP	3.25	4512.00
6 MAR 1980	ITHACA	1700.00	173.00	0.00	9.00	NAP	4.04	4605.00
	PENN STATE	1500.00	282.50	0.00	NAP	NAP	3.31	NAP
	BROOKHAVEN	1530.00	287.00	0.00	16.70	5.00	3.18	4604.00
	LEWES	2030.00	50.00	0.00	0.50	NAP	ISA	4513.00
	OXFORD	1600.00	91.50	0.00	17.50	123.00	3.11	4517.00
7 MAR 1980	WHITEFACE	1700.00	195.50	0.00	14.00	NAP	4.08	4614.00
8 MAR 1980	BROOKHAVEN	2230.00	55.00	0.00	8.00	2.00	3.18	4812.00
	OXFORD	1830.00	50.50	0.00	13.50	154.00	4.16	4810.00
9 MAR 1980	PENN STATE	2030.00	77.50	0.00	4.00	NAP	3.31	4823.00
	VIRGINIA	1600.00	90.50	0.00	1.00	11.00	ISA	4823.00
	BROOKHAVEN	1800.00	19.50	0.00	1.60	1.00	3.18	4905.00
10 MAR 1980	WHITEFACE	1600.00	71.00	0.00	15.00	NAP	4.08	5007.00
	ITHACA	1200.00	91.00	0.00	13.00	NAP	4.04	4814.00
	ILLINOIS	1430.00	119.50	0.00	23.80	NAP	3.25	4818.00
11 MAR 1980	PENN STATE	1500.00	42.50	0.00	1.50	NAP	4.07	5106.00
	VIRGINIA	1630.00	48.50	0.00	1.00	4.00	ISA	5103.00
	BROOKHAVEN	1500.00	45.00	0.00	6.80	1.00	3.18	5109.00
	LEWES	1900.00	118.50	0.00	1.50	10.00	5.01	5013.00
	OXFORD	1700.00	70.50	0.00	1.80	16.00	4.16	5023.00
12 MAR 1980	WHITEFACE	1400.00	46.00	0.00	6.00	NAP	4.08	5201.00
13 MAR 1980	PENN STATE	2300.00	56.00	0.00	NAP	NAP	4.07	NAP

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		Z	HOURS	HOURS	HOURS		MO.DA	
	ILLINOIS	1430.00	72.00	0.00	7.00	NAP	3.25	5312.00
14 MAR 1980	ITHACA	1900.00	103.00	0.00	28.00	NAP	4.04	5419.00
	VIRGINIA	1930.00	75.00	0.00	23.00	14.00	3.25	5323.00
	BROOKHAVEN	2200.00	79.00	0.00	12.50	1.00	4.01	5411.00
	OXFORD	2200.00	77.00	0.00	23.80	48.00	4.16	5402.00
15 MAR 1980	LEWES	1800.00	95.00	0.00	12.00	12.00	5.01	5322.00
17 MAR 1980	WHITEFACE	1300.00	119.00	0.00	31.00	NAP	4.08	5516.00
	ILLINOIS	1500.00	96.50	0.00	24.00	NAP	3.25	5711.00
18 MAR 1980	ITHACA	1700.00	94.00	0.00	15.00	NAP	4.04	5810.00
	PENN STATE	1600.00	113.00	0.00	11.00	NAP	4.07	5809.00
	VIRGINIA	1700.00	93.50	0.00	13.50	10.00	3.25	5801.00
	ILLINOIS	1530.00	24.50	0.00	1.00	NAP	ISA	5717.00
	BROOKHAVEN	1930.00	93.50	0.00	13.80	1.00	4.01	5812.00
	LEWES	1900.00	73.00	0.00	18.00	225.00	5.01	5808.00
19 MAR 1980	WHITEFACE	1300.00	48.00	0.00	13.00	NAP	4.08	5906.00
	OXFORD	1930.00	117.50	0.00	18.00	16.00	4.16	5803.00
21 MAR 1980	ILLINOIS	1630.00	73.00	0.00	8.50	NAP	4.17	6108.00
22 MAR 1980	PENN STATE	1900.00	99.00	0.00	10.50	NAP	4.29	6119.00
	BROOKHAVEN	1900.00	95.50	0.00	20.70	2.00	4.01	6216.00
	OXFORD	2000.00	72.50	0.00	14.20	59.00	4.16	6112.00
23 MAR 1980	VIRGINIA	1800.00	121.00	0.00	16.30	13.00	4.07	6116.00
	LEWES	1830.00	119.50	0.00	37.00	143.00	5.01	6218.00
24 MAR 1980	WHITEFACE	1800.00	125.00	0.00	11.00	NAP	4.08	6208.00

(CONT.)

		Z	HOURS	HOURS	HOURS		MO.DA	
	ITHACA	1200.00	139.00	0.00	37.00	NAP	4.04	6301.00
	ILLINOIS	1600.00	71.50	0.00	13.00	NAP	4.17	6416.00
25 MAR 1980	VIRGINIA	1700.00	47.00	0.00	9.50	3.00	4.07	6421.00
	ILLINOIS	1600.00	24.00	0.00	6.00	NAP	ISA	6422.00
	BROOKHAVEN	2130.00	74.50	0.00	15.40	1.00	4.11	6515.00
	OXFORD	2000.00	72.00	0.00	9.50	22.00	4.16	6415.00
26 MAR 1980	ITHACA	1400.00	50.00	0.00	20.00	NAP	4.04	6602.00
	LEWES	1800.00	71.50	0.00	26.00	275.00	5.01	6502.00
27 MAR 1980	WHITEFACE	1530.00	69.50	0.00	7.00	NAP	4.08	6523.00
28 MAR 1980	ILLINOIS	1600.00	72.00	0.00	0.80	NAP	ISA	6816.00
29 MAR 1980	VIRGINIA	1800.00	97.00	0.00	17.80	5.00	4.07	6910.00
	ILLINOIS	1430.00	22.50	0.00	8.20	NAP	4.17	6900.00
	OXFORD	2130.00	73.50	0.00	17.80	52.00	4.16	6910.00
30 MAR 1980	ITHACA	2000.00	102.00	0.00	19.00	NAP	4.04	6922.00
	PENN STATE	1900.00	192.00	0.00	10.00	NAP	4.29	7018.00
	ILLINOIS	1600.00	25.50	0.00	4.00	NAP	7.14	7016.00
	BROOKHAVEN	1630.00	115.00	0.00	23.80	1.00	4.11	7015.00
	LEWES	1430.00	92.50	0.00	23.00	5.00	5.01	6919.00
31 MAR 1980	ILLINOIS	1530.00	23.50	0.00	0.50	NAP	4.17	7108.00
1 APR 1980	WHITEFACE	1430.00	119.00	0.00	11.00	NAP	5.06	7004.00
	ITHACA	1600.00	44.00	0.00	17.00	NAP	4.04	4101.00
	PENN STATE	1530.00	44.30	0.00	7.00	NAP	5.16	7107.00
	VIRGINIA	1600.00	70.00	0.00	22.00	1.00	4.07	7119.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		Z	HOURS	HOURS	HOURS	MO,DA	
	BROOKHAVEN	1530.00	47.00	0.00	31.30	1.00	4.11 4118.00
	LEWES	1800.00	51.50	0.00	27.00	375.00	5.01 4104.00
	OXFORD	2100.00	71.50	0.00	19.00	23.00	4.16 7113.00
3 APR 1980	ILLINOIS	1530.00	72.00	0.00	4.60	NAP	4.17 4316.00
4 APR 1980	PENN STATE	1830.00	75.00	0.00	5.70	NAP	5.16 4403.00
	ILLINOIS	1600.00	24.50	0.00	4.40	NAP	4.17 4320.00
	BROOKHAVEN	1630.00	73.00	0.00	9.80	2.00	4.16 4601.00
5 APR 1980	PENN STATE	2000.00	25.50	0.00	0.00	NAP	5.16 ISA
	LEWES	2100.00	99.00	0.00	16.00	MOE	5.01 4418.00
	OXFORD	1930.00	94.50	0.00	9.80	69.00	4.16 4323.00
7 APR 1980	ITHACA	1200.00	140.00	0.00	3.00	NAP	5.09 4512.00
	VIRGINIA	1700.00	145.00	0.00	8.00	6.00	4.28 4415.00
	ILLINOIS	1600.00	72.00	0.00	4.00	NAP	4.17 4713.00
8 APR 1980	WHITEFACE	2130.00	175.00	0.00	8.00	NAP	5.06 4501.00
	ILLINOIS	1530.00	23.00	0.00	12.00	NAP	6.09 4815.00
	BROOKHAVEN	2030.00	100.00	0.00	5.50	1.00	4.16 4816.00
	OXFORD	2000.00	72.50	0.00	1.40	8.00	4.16 4706.00
9 APR 1980	PENN STATE	1900.00	95.00	0.00	11.00	NAP	5.16 4904.00
	VIRGINIA	1700.00	48.00	0.00	34.50	7.00	4.28 4908.00
	ILLINOIS	1600.00	23.50	0.00	21.00	NAP	6.09 4916.00
10 APR 1980	ITHACA	1200.00	72.00	0.00	8.00	NAP	5.09 5004.00
	PENN STATE	1700.00	22.00	0.00	NAP	NAP	5.16 NAP
	ILLINOIS	1630.00	24.50	0.00	10.00	NAP	6.09 5002.00

		Z	HOURS	HOURS	HOURS		MO.DA	
	BROOKHAVEN	1630.00	44.00	0.00	29.50	1.00	4.16	5011.00
	OXFORD	2300.00	51.00	0.00	18.50	5.00	4.16	5013.00
11 APR 1980	LEWES	1300.00	136.00	0.00	6.00	1.00	6.09	4912.00
13 APR 1980	WHITEFACE	2200.00	120.50	0.00	33.00	NAP	5.06	5312.00
14 APR 1980	ILLINOIS	1630.00	51.00	45.00	16.00	NAP	6.09	5416.00
	OXFORD	2200.00	95.00	0.00	12.50	120.00	5.28	5413.00
15 APR 1980	ITHACA	1200.00	120.00	0.00	8.00	NAP	5.09	5508.00
	VIRGINIA	1730.00	144.50	0.00	35.50	15.00	4.28	5423.00
	ILLINOIS	1700.00	24.50	0.00	20.50	NAP	6.09	5513.00
	BROOKHAVEN	1500.00	119.00	0.00	13.00	3.00	5.14	5511.00
16 APR 1980	PENN STATE	1800.00	145.00	0.00	18.00	NAP	5.16	5418.00
17 APR 1980	ITHACA	1400.00	50.00	0.00	12.00	NAP	5.09	5620.00
	BROOKHAVEN	1530.00	48.00	0.00	1.50	1.00	ISA	5621.00
18 APR 1980	WHITEFACE	2100.00	119.00	0.00	19.00	NAP	5.06	5701.00
	LEWES	1500.00	166.00	0.00	14.00	389.00	6.09	5417.00
21 APR 1980	ITHACA	1200.00	94.00	0.00	1.00	NAP	ISA	6017.00
	BROOKHAVEN	1530.00	96.00	0.00	3.50	2.00	5.14	6105.00
23 APR 1980	WHITEFACE	1500.00	114.00	0.00	3.00	NAP	5.06	6024.00
	OXFORD	100.00	219.00	0.00	1.25	6.00	5.28	6104.00
25 APR 1980	ITHACA	1200.00	96.00	0.00	1.00	NAP	5.09	6502.00
	VIRGINIA	2030.00	243.00	0.00	1.25	7.00	5.09	6500.00
	LEWES	2100.00	174.00	0.00	6.00	10.00	6.09	6505.00
28 APR 1980	WHITEFACE	2000.00	125.00	0.00	12.00	NAP	5.06	6806.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		<div> <div> <div>D</div> <div>V</div> <div>R</div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div> <div>Z</div> </div>	<div> <div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div> <div>HOURS</div> </div>	<div> <div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div> <div>HOURS</div> </div>	<div> <div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div> <div>HOURS</div> </div>	<div> <div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div> <div>HOURS</div> </div>	<div> <div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div> <div>MO,DA</div> </div>	
	ILLINOIS	1530.00	311.00	0.00	5.50	NAP	6.09	6712.00
29 APR 1980	VIRGINIA	1900.00	94.00	0.00	29.00	60.00	5.09	6821.00
	ILLINOIS	1600.00	24.00	0.00	22.50	NAP	6.09	6915.00
	BROOKHAVEN	1530.00	192.00	0.00	40.50	5.00	5.14	6914.00
	OXFORD	1630.00	159.50	0.00	21.00	MOE	5.28	6817.00
30 APR 1980	WHITEFACE	2000.00	48.00	0.00	17.00	NAP	5.06	7008.00
	ITHACA	1700.00	125.00	0.00	35.00	NAP	5.09	7004.00
	VIRGINIA	1830.00	24.00	0.00	3.00	1.00	5.09	7003.00
	BROOKHAVEN	2000.00	28.00	0.00	8.75	1.00	ISA	7006.00
1 MAY 1980	ILLINOIS	1830.00	50.50	0.00	4.00	NAP	6.09	7003.00
	OXFORD	2300.00	55.00	0.00	10.50	MOE	5.28	6906.00
2 MAY 1980	PENN STATE	1300.00	379.00	0.00	24.00	NAP	6.23	7020.00
	VIRGINIA	1730.00	47.00	0.00	12.50	4.00	5.09	4114.00
	LEWES	1500.00	162.00	0.00	131.00	206.00	6.09	4201.00
5 MAY 1980	ITHACA	1200.00	115.00	0.00	ISA	ISA	ISA	ISA
	PENN STATE	2000.00	79.00	0.00	1.00	NAP	6.23	4300.00
7 MAY 1980	WHITEFACE	2030.00	168.00	MOE	MOE	MOE	6.09	MOE
	VIRGINIA	1930.00	27.00	0.00	0.50	3.00	ISA	4622.00
	BROOKHAVEN	1930.00	168.00	0.00	2.00	1.00	5.15	4713.00
9 MAY 1980	VIRGINIA	1630.00	45.00	0.00	4.50	5.00	6.18	4814.00
	BROOKHAVEN	1500.00	43.50	0.00	13.70	1.00	5.15	4818.00
11 MAY 1980	ILLINOIS	1430.00	168.00	68.00	0.25	NAP	6.09	5106.00
12 MAY 1980	ITHACA	1200.00	168.00	0.00	2.00	NAP	6.12	5209.00

		Z	HOURS	HOURS	HOURS		MO. DA	
	PENN STATE	1930.00	167.00	0.00	6.00	NAP	6.23	5216.00
	VIRGINIA	1730.00	73.00	0.00	0.75	2.00	ISA	5118.00
	ILLINOIS	1500.00	25.00	0.00	5.00	NAP	6.09	5114.00
13 MAY 1980	ILLINOIS	1530.00	24.00	0.00	3.00	NAP	6.09	5307.00
	BROOKHAVEN	1600.00	97.00	0.00	5.50	NAP	5.15	5322.00
	OXFORD	1700.00	306.00	0.00	43.00	50.00	5.28	5302.00
14 MAY 1980	ITHACA	1800.00	54.00	0.00	4.00	NAP	6.12	5413.00
15 MAY 1980	PENN STATE	2300.00	75.00	0.00	6.00	NAP	6.23	5404.00
17 MAY 1980	ILLINOIS	1600.00	96.50	0.00	9.50	NAP	6.09	5603.00
18 MAY 1980	ILLINOIS	1400.00	22.00	0.00	13.00	NAP	6.09	5805.00
	OXFORD	1700.00	120.00	0.00	31.00	109.00	5.28	5804.00
19 MAY 1980	PENN STATE	1530.00	88.00	0.00	MOE	NAP	6.23	MOE
	VIRGINIA	1700.00	168.00	0.00	10.50	11.00	6.18	5812.00
	ILLINOIS	1530.00	25.00	0.00	1.00	NAP	ISA	5819.00
	BROOKHAVEN	1430.00	142.50	0.00	9.50	2.00	5.28	5823.00
	LEWES	1200.00	405.00	0.00	7.00	33.00	6.09	5810.00
	OXFORD	1800.00	25.00	0.00	12.00	26.00	5.28	5911.00
20 MAY 1980	WHITEFACE	1800.00	310.00	0.00	34.00	NAP	6.09	5910.00
	ITHACA	1200.00	138.00	0.00	2.00	NAP	6.12	5804.00
	ILLINOIS	1930.00	28.00	0.00	8.00	NAP	ISA	6001.00
	BROOKHAVEN	1530.00	25.00	0.00	3.25	NAP	5.28	6003.00
21 MAY 1980	PENN STATE	1830.00	51.00	0.00	MOE	NAP	6.23	MOE
	VIRGINIA	1830.00	71.00	0.00	23.50	16.00	6.18	6106.00

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		Z	HOURS	HOURS	HOURS		MO, DA	
	BROOKHAVEN	1430.00	18.00	5.00	18.00	7.00	5.28	NAP
22 MAY 1980	LEWES	1200.00	72.00	0.00	35.00	53.00	6.09	6109.00
23 MAY 1980	ILLINOIS	1900.00	72.00	0.00	9.00	NAP	6.09	6317.00
	OXFORD	2000.00	98.00	0.00	9.00	50.00	6.23	6319.00
24 MAY 1980	ILLINOIS	2000.00	24.50	0.00	0.75	NAP	6.09	6323.00
	OXFORD	1800.00	22.00	0.00	13.00	51.00	6.23	6412.00
25 MAY 1980	ILLINOIS	1400.00	18.00	0.00	2.50	NAP	6.09	6500.00
	LEWES	1200.00	72.00	0.00	1.00	2.00	6.09	6417.00
	OXFORD	1530.00	22.00	0.00	14.00	41.00	ISA	6510.00
27 MAY 1980	VIRGINIA	1630.00	142.00	0.00	18.50	52.00	6.18	6516.00
30 MAY 1980	OXFORD	1900.00	124.00	0.00	0.25	14.00	6.23	7011.00
31 MAY 1980	ILLINOIS	1600.00	146.00	0.00	8.00	NAP	6.09	7100.00
	OXFORD	1500.00	20.00	0.00	0.50	63.00	6.23	7121.00
1 JUN 1980	ILLINOIS	1730.00	25.50	0.00	6.00	NAP	6.09	4117.00
	OXFORD	2200.00	31.00	0.00	5.00	48.00	6.23	4120.00
2 JUN 1980	WHITEFACE	1400.00	308.00	0.00	9.00	NAP	6.09	4213.00
	PENN STATE	1930.00	289.00	0.00	5.00	NAP	6.23	4216.00
	VIRGINIA	1700.00	145.00	0.00	36.00	53.00	6.18	4201.00
	ILLINOIS	1500.00	21.50	0.00	14.00	NAP	7.10	4212.00
	BROOKHAVEN	1500.00	288.50	0.00	7.00	2.00	6.12	4212.00
	OXFORD	2230.00	24.00	0.00	10.00	28.00	6.23	4221.00
3 JUN 1980	ILLINOIS	1530.00	24.50	0.00	16.00	NAP	7.10	4307.00
	BROOKHAVEN	1900.00	19.00	0.00	13.00	2.00	6.12	4316.00

(CONT.)

		<div> <div> <div>D</div> <div>V</div> <div>R</div> <div>E</div> <div>I</div> <div>T</div> <div>Z</div> </div> <div> <div>M</div> <div>A</div> <div>S</div> </div> </div>	<div> <div> <div>D</div> <div>M</div> <div>E</div> </div> <div> <div>I</div> <div>T</div> <div>HOURS</div> </div> </div>	<div> <div> <div>E</div> <div>M</div> <div>I</div> </div> <div> <div>T</div> <div>HOURS</div> </div> </div>	<div> <div> <div>E</div> <div>M</div> <div>I</div> </div> <div> <div>T</div> <div>HOURS</div> </div> </div>	<div> <div> <div>E</div> <div>N</div> <div>O</div> </div> <div> <div>I</div> <div>D</div> <div>L</div> </div> </div>	<div> <div> <div>E</div> <div>T</div> <div>A</div> </div> <div> <div>D</div> <div>R</div> <div>A</div> </div> </div>	<div> <div> <div>E</div> <div>N</div> <div>D</div> </div> <div> <div>C</div> <div>F</div> <div>P</div> </div> </div>
4 JUN 1980	ITHACA	1800.00	366.00	0.00	3.00	NAP	6.12	4322.00
	PENN STATE	1930.00	48.00	0.00	MOE	NAP	6.23	MOE
	BROOKHAVEN	1930.00	24.00	0.00	8.50	2.00	6.12	4403.00
	LEWES	1400.00	242.00	0.00	1.50	NAP	6.23	4320.00
5 JUN 1980	WHITEFACE	1600.00	74.00	0.00	11.00	NAP	6.19	4501.00
6 JUN 1980	ILLINOIS	1630.00	73.00	0.00	0.75	NAP	ISA	4417.00
7 JUN 1980	VIRGINIA	1630.00	120.00	0.00	9.50	7.00	6.18	4711.00
	BROOKHAVEN	1900.00	72.00	0.00	6.00	1.00	6.23	4715.00
	LEWES	2400.00	82.00	0.00	7.00	NAP	6.23	4623.00
8 JUN 1980	ITHACA	1400.00	92.00	0.00	9.00	NAP	6.12	4810.00
	PENN STATE	1900.00	95.00	0.00	MOE	NAP	6.23	MOE
	ILLINOIS	1530.00	47.00	0.00	3.00	NAP	ISA	4800.00
	BROOKHAVEN	1900.00	24.00	0.00	2.00	2.00	6.23	4814.00
	LEWES	2015.00	20.00	0.00	12.00	NAP	6.23	4804.00
	OXFORD	1630.00	138.00	0.00	3.00	30.00	6.23	4804.00
9 JUN 1980	WHITEFACE	1800.00	98.00	0.00	9.00	NAP	6.19	4817.00
	PENN STATE	1800.00	23.00	0.00	MOE	NAP	6.23	MOE
10 JUN 1980	ITHACA	1900.00	53.00	0.00	3.00	NAP	7.08	5922.00
	PENN STATE	1700.00	23.00	0.00	3.50	NAP	6.23	4922.00
	BROOKHAVEN	1800.00	23.00	0.00	6.00	1.00	6.23	5104.00
	OXFORD	1900.00	26.00	0.00	7.00	22.00	6.23	5007.00
11 JUN 1980	WHITEFACE	1830.00	48.00	0.00	14.00	NAP	6.19	5102.00
	VIRGINIA	1430.00	94.00	0.00	8.00	7.00	ISA	5112.00

MAP39/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		<div> <div> <div>D</div> <div>V</div> <div>M</div> <div>R</div> </div> <div> <div>E</div> <div>I</div> <div>T</div> <div>P</div> <div>M</div> <div>A</div> <div>S</div> </div> </div>	<div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div>	<div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div>	<div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> <div>C</div> <div>R</div> <div>P</div> </div>	<div> <div>E</div> <div>N</div> <div>P</div> <div>O</div> <div>I</div> <div>L</div> </div>	<div> <div>E</div> <div>T</div> <div>D</div> <div>R</div> <div>A</div> </div>	<div> <div>D</div> <div>N</div> <div>E</div> <div>C</div> <div>R</div> <div>P</div> </div>
		Z	HOURS	HOURS	HOURS		MO,DA	
15 JUN 1980	OXFORD	1630.00	118.00	0.00	0.20	12.00	6.23	5515.00
16 JUN 1980	WHITEFACE	1315.00	115.00	0.00	9.00	NAP	6.27	5603.00
	ITHACA	1600.00	141.00	0.00	5.00	NAP	7.08	5603.00
	PENN STATE	2000.00	147.00	0.00	2.00	NAP	8.05	5602.00
	ILLINOIS	1400.00	23.00	167.00	6.00	NAP	7.10	5604.00
	LEWES	1420.00	186.00	0.00	1.00	NAP	6.23	5520.00
	OXFORD	1900.00	27.00	0.00	7.00	33.00	6.23	5610.00
17 JUN 1980	VIRGINIA	1400.00	143.50	0.00	5.00	6.00	7.14	5712.00
	LEWES	1340.00	21.00	0.00	1.00	NAP	6.23	5622.00
19 JUN 1980	WHITEFACE	1300.00	72.00	0.00	5.00	NAP	6.27	5908.00
20 JUN 1980	WHITEFACE	1900.00	30.00	0.00	5.00	NAP	6.27	6019.00
	ITHACA	1800.00	98.00	0.00	5.00	NAP	7.08	6012.00
	PENN STATE	1900.00	95.00	0.00	0.50	NAP	8.05	6006.00
	ILLINOIS	1900.00	100.00	0.00	3.50	NAP	7.10	5918.00
	OXFORD	1830.00	95.50	0.00	0.90	22.00	7.22	5923.00
21 JUN 1980	WHITEFACE	2545.00	31.00	0.00	11.00	NAP	6.27	6115.00
	ITHACA	2200.00	28.00	0.00	7.00	NAP	7.08	6101.00
	OXFORD	1830.00	24.00	0.00	0.20	4.00	ISA	6112.00
23 JUN 1980	ILLINOIS	1600.00	69.00	0.00	5.00	NAP	7.10	6316.00
24 JUN 1980	WHITEFACE	1930.00	65.50	61.00	1.00	NAP	7.22	6405.00
	ILLINOIS	1530.00	23.50	0.00	2.00	NAP	7.10	6318.00
	OXFORD	1400.00	67.50	0.00	1.50	37.00	ISA	6324.00
26 JUN 1980	LEWES	2200.00	224.00	0.00	9.00	NAP	7.14	6621.00

		Z	HOURS	HOURS	HOURS		MO.DA	
27 JUN 1980	WHITEFACE	2000.00	72.50	0.00	2.00	NAP	ISA	6718.00
29 JUN 1980	OXFORD	1730.00	123.50	0.00	6.20	80.00	7.22	6905.00
30 JUN 1980	ITHACA	1300.00	207.00	0.00	11.00	NAP	7.08	7005.00
	PENN STATE	1530.00	116.50	0.00	MOE	NAP	8.05	MOE
	VIRGINIA	1600.00	314.00	0.00	3.00	5.00	7.14	7001.00
	BROOKHAVEN	1400.00	476.00	0.00	5.00	2.00	7.22	7006.00
	LEWES	1500.00	89.00	0.00	1.00	NAP	7.14	7002.00
1 JUL 1980	WHITEFACE	1300.00	89.00	0.00	8.00	NAP	7.22	4104.00
	ITHACA	1500.00	26.00	0.00	2.00	NAP	8.06	7022.00
	ILLINOIS	1600.00	168.50	0.00	17.50	NAP	7.10	6813.00
2 JUL 1980	WHITEFACE	1730.00	28.50	0.00	5.00	NAP	7.22	4213.00
3 JUL 1980	WHITEFACE	1400.00	20.50	0.00	1.00	NAP	ISA	4221.00
	BROOKHAVEN	1500.00	73.00	0.00	6.00	2.00	7.22	4312.00
	OXFORD	1600.00	94.50	0.00	7.30	91.00	7.22	4309.00
4 JUL 1980	ILLINOIS	1430.00	69.50	0.00	2.00	NAP	7.10	4410.00
	LEWES	1400.00	95.00	0.00	5.00	NAP	7.14	4324.00
	OXFORD	1830.00	26.50	0.00	15.00	35.00	ISA	4416.00
5 JUL 1980	VIRGINIA	1700.00	121.00	0.00	3.00	22.00	ISA	4502.00
	ILLINOIS	1430.00	24.00	0.00	0.10	NAP	8.07	4510.00
	BROOKHAVEN	1600.00	49.00	0.00	1.00	3.00	ISA	4402.00
	OXFORD	1700.00	22.50	0.00	0.25	10.00	7.22	4513.00
6 JUL 1980	ITHACA	1700.00	122.00	0.00	5.00	NAP	8.06	4601.00
	VIRGINIA	1800.00	25.00	0.00	2.00	1.00	7.14	4521.00

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		Z	HOURS	HOURS	HOURS		MO,DA	
	BROOKHAVEN	1730.00	25.50	0.00	3.50	1.00	7.22	4604.00
7 JUL 1980	WHITEFACE	1330.00	95.50	0.00	4.00	NAP	7.22	4609.00
	PENN STATE	1830.00	171.00	0.00	1.30	NAP	8.05	4520.00
8 JUL 1980	PENN STATE	1830.00	24.00	0.00	3.50	NAP	8.05	4813.00
	LEWES	1900.00	101.00	0.00	3.00	NAP	8.05	4899.00
	OXFORD	0.50	55.50	0.00	0.20	6.00	ISA	4721.00
9 JUL 1980	WHITEFACE	1930.00	78.00	0.00	8.00	NAP	7.22	4819.00
	ITHACA	1500.00	70.00	0.00	2.00	NAP	8.06	4819.00
	VIRGINIA	2130.00	75.00	0.00	4.50	3.00	7.25	4901.00
	OXFORD	2330.00	47.00	0.00	4.30	41.00	7.22	4904.00
10 JUL 1980	VIRGINIA	1730.00	20.00	0.00	14.00	6.00	7.25	5014.00
	OXFORD	2200.00	22.50	0.00	7.10	28.00	7.22	5019.00
11 JUL 1980	VIRGINIA	1630.00	23.00	0.00	6.50	14.00	ISA	5111.00
	ILLINOIS	1330.00	143.00	0.00	2.30	NAP	8.07	5014.00
	OXFORD	2200.00	24.00	0.00	0.08	17.00	ISA	5109.00
12 JUL 1980	PENN STATE	1530.00	93.00	0.00	1.50	NAP	8.05	5202.00
13 JUL 1980	WHITEFACE	2030.00	73.00	0.00	2.00	NAP	7.22	5302.00
14 JUL 1980	VIRGINIA	400.00	59.50	0.00	8.80	12.00	7.25	5312.00
16 JUL 1980	WHITEFACE	1230.00	64.00	0.00	2.00	NAP	8.05	5607.00
	PENN STATE	2000.00	100.50	0.00	1.50	NAP	8.05	5620.00
17 JUL 1980	ITHACA	2100.00	198.00	0.00	4.00	NAP	8.06	5712.00
	PENN STATE	1730.00	21.50	0.00	4.50	NAP	8.05	5712.00
18 JUL 1980	WHITEFACE	1330.00	49.00	0.00	3.00	NAP	8.05	5720.00

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		7	HOURS	HOURS	HOURS		MO, DA	
	VIRGINIA	1730.00	109.50	0.00	2.80	2.00	7.25	5400.00
	LEWES	1300.00	234.00	0.00	2.00	NAP	8.05	5799.00
19 JUL 1980	ILLINOIS	1400.00	72.00	0.00	2.10	NAP	8.07	5818.00
21 JUL 1980	WHITEFACE	1700.00	75.50	0.00	7.00	NAP	8.05	6111.00
22 JUL 1980	WHITEFACE	2400.00	31.00	0.00	11.00	NAP	8.05	6219.00
	ITHACA	1800.00	117.00	0.00	16.00	NAP	8.06	6216.00
	PENN STATE	1930.00	122.00	0.00	5.50	NAP	8.05	6210.00
	VIRGINIA	2200.00	76.50	0.00	1.50	0.00	MOE	6122.00
	ILLINOIS	1600.00	74.00	0.00	3.70	NAP	8.07	6123.00
	OXFORD	1700.00	253.00	0.00	15.80	90.00	8.12	6215.00
23 JUL 1980	PENN STATE	1800.00	22.50	0.00	MOE	NAP	8.05	MOE
	LEWES	1400.00	121.00	0.00	16.30	NAP	8.05	6399.00
24 JUL 1980	WHITEFACE	2100.00	45.00	0.00	5.00	NAP	8.05	6412.00
	VIRGINIA	400.00	54.00	0.00	12.00	0.00	MOE	6404.00
	LEWES	1430.00	24.50	0.00	11.80	NAP	8.05	6399.00
27 JUL 1980	WHITEFACE	2030.00	71.50	0.00	8.00	NAP	8.05	6712.00
	ILLINOIS	1500.00	119.00	0.00	7.10	NAP	8.07	6705.00
	OXFORD	1630.00	119.50	0.00	1.30	17.00	8.12	6715.00
28 JUL 1980	ITHACA	2000.00	146.00	0.00	24.00	NAP	8.06	6712.00
	ILLINOIS	2030.00	29.50	0.00	5.20	NAP	8.07	6720.00
29 JUL 1980	PENN STATE	1400.00	144.00	0.00	13.00	NAP	10.17	NAP
	VIRGINIA	1500.00	131.00	0.00	8.80	0.00	MOE	6910.00
	LEWES	1700.00	122.50	0.00	0.30	NAP	ISA	6917.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		Z	HOURS	HOURS	HOURS	MO.DA	
	OXFORD	1500.00	46.50	0.00	12.70	68.00	8.12 6816.00
30 JUL 1980	WHITEFACE	1530.00	67.00	0.00	12.00	NAP	8.25 7015.00
	PENN STATE	1300.00	23.00	0.00	1.00	NAP	10.17 NAP
	ILLINOIS	1530.00	43.00	0.00	0.70	NAP	ISA 7015.00
	BROOKHAVEN	1500.00	146.00	427.50	4.80	6.00	8.19 6923.00
31 JUL 1980	WHITEFACE	1230.00	21.00	0.00	2.00	NAP	ISA 7102.00
	ITHACA	1800.00	70.00	0.00	8.00	NAP	8.06 7020.00
	PENN STATE	1550.00	26.00	0.20	4.00	NAP	10.17 NAP
	VIRGINIA	2300.00	32.00	0.00	1.00	0.00	MOF 7023.00
	ILLINOIS	1600.00	24.50	0.00	3.00	NAP	ISA 7104.00
1 AUG 1980	ILLINOIS	1500.00	23.00	0.00	14.00	NAP	ISA 4113.00
	OXFORD	1900.00	76.00	0.00	1.30	18.00	8.12 4113.00
2 AUG 1980	WHITEFACE	1500.00	49.50	0.00	5.00	NAP	8.25 4122.00
	LEWES	2000.00	99.00	0.00	2.00	NAP	ISA 4200.00
3 AUG 1980	ILLINOIS	1530.00	49.00	0.00	12.30	NAP	8.24 4303.00
	BROOKHAVEN	1430.00	99.50	0.00	3.00	3.00	8.19 4310.00
	OXFORD	1700.00	46.00	0.00	7.20	21.00	8.12 4309.00
4 AUG 1980	WHITEFACE	1430.00	47.50	0.00	4.00	NAP	8.25 4314.00
	ITHACA	1300.00	91.00	0.00	12.00	NAP	9.08 4300.00
	PENN STATE	1330.00	94.00	0.00	11.00	NAP	10.17 NAP
	VIRGINIA	1500.00	112.00	0.00	5.50	3.00	8.18 4406.00
5 AUG 1980	ILLINOIS	1530.00	48.00	0.00	1.00	NAP	8.24 4416.00
6 AUG 1980	WHITEFACE	1330.00	47.00	0.00	3.00	NAP	8.25 4606.00

		Z	HOURS	HOURS	HOURS		MO.DA	
	PENN STATE	1535.00	50.00	0.00	5.00	NAP	10.17	NAP
	VIRGINIA	1630.00	49.50	0.00	1.00	2.00	8.18	4523.00
	LEWES	1230.00	88.50	0.00	1.00	NAP	ISA	4524.00
7 AUG 1980	ILLINOIS	1600.00	48.50	0.00	1.20	NAP	8.24	4621.00
	OXFORD	1400.00	93.00	0.00	3.80	14.00	9.08	4707.00
8 AUG 1980	ITHACA	1800.00	101.00	0.00	8.00	NAP	9.08	4712.00
10 AUG 1980	OXFORD	1300.00	71.00	0.00	0.30	53.00	9.08	5004.00
11 AUG 1980	PENN STATE	1430.00	119.00	0.00	14.00	NAP	10.17	NAP
	VIRGINIA	1830.00	73.00	0.00	7.50	10.00	8.18	5022.00
	ILLINOIS	1330.00	98.50	0.00	1.20	NAP	8.24	5103.00
	LEWES	1230.00	120.00	0.00	3.50	NAP	8.22	5104.00
	OXFORD	1300.00	24.00	0.00	1.80	32.00	9.08	5107.00
12 AUG 1980	WHITEFACE	1930.00	150.00	0.00	6.00	NAP	8.25	5216.00
	ITHACA	2000.00	98.00	0.00	30.00	NAP	9.08	5216.00
	PENN STATE	1530.00	25.00	0.00	9.00	NAP	10.17	NAP
	ILLINOIS	1530.00	26.00	0.00	1.50	NAP	8.24	5116.00
	BROOKHAVEN	1730.00	27.00	192.00	1.50	2.00	8.19	5209.00
	LEWES	1430.00	26.00	0.00	0.50	NAP	ISA	5205.00
	OXFORD	1300.00	24.00	0.00	6.00	27.00	9.08	5201.00
14 AUG 1980	ILLINOIS	1630.00	50.00	0.00	12.00	NAP	8.24	5415.00
15 AUG 1980	WHITEFACE	1530.00	68.00	0.00	2.00	NAP	9.12	NAP
	ITHACA	2200.00	74.00	0.00	8.00	NAP	9.08	5512.00
	PENN STATE	1540.00	72.00	0.00	NAP	NAP	10.17	NAP

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		Z	HOURS	HOURS	HOURS		MO.DA	
	ILLINOIS	1600.00	23.50	0.00	18.00	NAP	8.24	5515.00
	BROOKHAVEN	1900.00	73.50	0.00	1.90	5.00	ISA	5518.00
	OXFORD	1500.00	74.00	0.00	8.30	35.00	MOE	5513.00
16 AUG 1980	WHITEFACE	1700.00	25.50	0.00	4.00	NAP	9.12	NAP
	VIRGINIA	1730.00	119.00	0.00	2.80	NAP	8.29	5610.00
	ILLINOIS	1730.00	25.50	0.00	12.20	NAP	8.25	6618.00
	LEWES	1500.00	96.50	0.00	6.00	NAP	8.22	5602.00
17 AUG 1980	ILLINOIS	1730.00	24.00	0.00	23.50	NAP	8.25	5717.00
18 AUG 1980	ILLINOIS	1530.00	22.00	0.00	3.20	NAP	8.25	5814.00
	OXFORD	1300.00	70.00	0.00	21.00	35.00	9.08	5714.00
19 AUG 1980	WHITEFACE	1700.00	72.00	0.00	3.00	NAP	9.12	NAP
	ILLINOIS	1600.00	24.50	0.00	3.50	NAP	11.18	MOE
	OXFORD	1000.00	21.00	0.00	3.50	15.00	9.08	5904.00
20 AUG 1980	WHITEFACE	2000.00	27.00	0.00	5.00	NAP	9.12	NAP
	VIRGINIA	1830.00	96.00	0.00	8.00	NAP	8.29	6013.00
	BROOKHAVEN	1800.00	116.00	0.00	2.30	1.00	9.23	6011.00
	LEWES	1300.00	94.00	0.00	13.00	NAP	9.05	5918.00
21 AUG 1980	PENN STATE	1420.00	142.00	0.00	NAP	NAP	10.17	NAP
22 AUG 1980	LEWES	1300.00	48.00	0.00	5.00	NAP	ISA	6214.00
26 AUG 1980	VIRGINIA	1430.00	140.00	0.00	6.50	NAP	8.29	6118.00
27 AUG 1980	WHITEFACE	2400.00	172.00	0.00	4.00	NAP	9.12	NAP
	OXFORD	1700.00	199.00	0.00	0.10	30.00	9.08	6713.00
28 AUG 1980	WHITEFACE	1400.00	14.00	0.00	4.00	NAP	9.12	6803.00

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		<div> <div> <div>D</div> <div>V</div> <div>R</div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div> <div> <div>7</div> </div> </div>	<div> <div> <div>D</div> <div>M</div> <div>I</div> <div>T</div> </div> <div> <div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div> <div> <div> <div>S</div> <div>A</div> <div>M</div> <div>P</div> </div> <div> <div> <div>D</div> <div>O</div> <div>K</div> </div> </div> </div></div></div>	<div> <div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div> <div> <div> <div> <div> <div>D</div> <div>O</div> <div>K</div> </div> <div> <div> <div>N</div> <div>I</div> </div> </div> </div> </div></div></div>	<div> <div> <div>E</div> <div>M</div> <div>I</div> <div>T</div> </div> <div> <div> <div> <div> <div>E</div> <div>C</div> </div> <div> <div> <div>R</div> <div>P</div> </div> </div> </div> </div></div></div>	<div> <div> <div> <div> <div>N</div> <div>F</div> </div> <div> <div> <div>P</div> <div>O</div> </div> </div> <div> <div> <div>L</div> <div>I</div> </div> </div> </div></div></div>	<div> <div> <div> <div> <div>E</div> <div>T</div> </div> <div> <div> <div>A</div> <div>R</div> </div> </div> <div> <div> <div> <div>D</div> <div>R</div> </div> <div> <div> <div>A</div> <div>R</div> </div> </div> </div></div></div></div></div>	<div> <div> <div> <div> <div>D</div> <div>N</div> </div> <div> <div> <div>E</div> <div>C</div> </div> </div> <div> <div> <div> <div>P</div> <div>R</div> </div> </div> </div></div></div></div>
		Z	HOURS	HOURS	HOURS		MO,DA	
30 AUG 1980	ITHACA	1300.00	351.00	0.00	3.00	NAP	9.08	7002.00
	ILLINOIS	1330.00	94.00	167.50	1.50	NAP	ISA	MOE
	OXFORD	1600.00	71.00	0.00	0.20	MOE	MOE	6923.00
31 AUG 1980	WHITEFACE	1700.00	75.00	0.00	6.00	NAP	9.12	7113.00
1 SEP 1980	ILLINOIS	1330.00	48.00	0.00	19.00	NAP	11.18	MOE
2 SEP 1980	WHITEFACE	1500.00	46.00	0.00	8.00	NAP	9.12	4124.00
	ITHACA	1400.00	73.00	0.00	10.00	NAP	9.08	4212.00
	VIRGINIA	1830.00	148.00	0.00	1.00	7.00	ISA	4212.00
	ILLINOIS	1600.00	26.50	0.00	18.00	NAP	11.18	MOE
	OXFORD	1600.00	118.00	0.00	14.00	MOE	MOE	4213.00
3 SEP 1980	WHITEFACE	1630.00	25.50	0.00	3.00	NAP	10.01	4219.00
	ITHACA	1300.00	23.00	0.00	3.00	NAP	10.07	4223.00
	VIRGINIA	2000.00	22.50	0.00	1.30	14.00	10.01	4222.00
5 SEP 1980	LEWES	1830.00	317.50	0.00	1.00	MOE	10.03	4512.00
6 SEP 1980	ILLINOIS	1500.00	95.00	0.00	1.00	NAP	11.18	MOE
7 SEP 1980	OXFORD	2030.00	124.50	0.00	0.45	3.00	10.03	4719.00
8 SEP 1980	ILLINOIS	1800.00	51.00	0.00	NAP	NAP	11.18	MOE
9 SEP 1980	OXFORD	2030.00	48.00	0.00	0.10	1.00	10.03	4921.00
10 SEP 1980	WHITEFACE	1630.00	168.00	0.00	3.00	NAP	10.01	4921.00
	ITHACA	1200.00	167.00	0.00	2.00	NAP	MOE	5002.00
	LEWES	1430.00	116.00	0.00	2.00	MOE	10.03	5009.00
12 SEP 1980	ILLINOIS	1730.00	95.00	0.00	NAP	NAP	ISA	MOE
13 SEP 1980	ILLINOIS	1730.00	24.00	0.00	NAP	NAP	11.18	MOE

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		<div><div><div>D</div><div>V</div><div>M</div><div>R</div><div>E</div><div>I</div><div>T</div><div>Z</div></div><div><div><div>F</div><div>M</div><div>I</div><div>P</div><div>A</div><div>S</div><div>HOURS</div></div></div></div>	<div><div><div>E</div><div>M</div><div>N</div><div>D</div><div>HOURS</div></div><div><div><div>E</div><div>M</div><div>I</div><div>T</div><div>C</div><div>R</div><div>P</div><div>HOURS</div></div></div></div>	<div><div><div>N</div><div>F</div><div>P</div><div>D</div><div>L</div><div>HOURS</div></div><div><div><div>E</div><div>M</div><div>I</div><div>T</div><div>A</div><div>R</div><div>P</div><div>MO.DA</div></div></div></div>	<div><div><div>N</div><div>F</div><div>C</div><div>R</div><div>F</div><div>HOURS</div></div><div><div><div>E</div><div>M</div><div>I</div><div>T</div><div>A</div><div>R</div><div>P</div><div>MOE</div></div></div></div>			
14 SEP 1980	ILLINOIS	1600.00	22.50	0.00	NAP	NAP	TSA	MOE
15 SEP 1980	WHITEFACE	1530.00	119.00	0.00	18.00	NAP	10.01	5420.00
	ITHACA	1600.00	124.00	0.00	5.00	NAP	10.07	5417.00
	PENN STATE	1600.00	601.50	0.00	10.00	NAP	11.14	5513.00
	VIRGINIA	1500.00	264.00	0.00	0.30	7.00	ISA	5419.00
16 SEP 1980	ILLINOIS	2000.00	52.00	0.00	NAP	NAP	11.18	MOE
	OXFORD	2100.00	168.50	0.00	2.30	12.00	10.03	5617.00
17 SEP 1980	OXFORD	2200.00	25.00	0.00	8.50	11.00	10.03	5714.00
18 SEP 1980	WHITEFACE	1430.00	71.00	0.00	4.00	NAP	10.01	5804.00
	ITHACA	2000.00	76.00	0.00	2.00	NAP	10.07	MOE
	ILLINOIS	1300.00	41.00	0.00	NAP	NAP	11.18	MOE
	BROOKHAVEN	1800.00	696.00	0.00	6.50	2.00	9.23	5810.00
	LEWES	1200.00	189.50	0.00	1.50	MOE	10.03	5804.00
19 SEP 1980	VIRGINIA	1500.00	96.00	0.00	8.50	18.00	10.01	5813.00
20 SEP 1980	OXFORD	2000.00	70.00	0.00	0.10	2.00	ISA	6014.00
21 SEP 1980	WHITEFACE	1600.00	73.50	0.00	3.00	NAP	10.01	6019.00
22 SEP 1980	WHITEFACE	1330.00	21.50	0.00	2.00	NAP	10.01	6201.00
	ITHACA	1200.00	88.00	0.00	1.00	NAP	10.07	6101.00
	VIRGINIA	1800.00	75.00	0.00	0.80	22.00	ISA	6201.00
23 SEP 1980	WHITEFACE	1430.00	25.00	0.00	6.00	NAP	10.01	6308.00
	ITHACA	2000.00	32.00	0.00	3.00	NAP	MOE	6308.00
	VIRGINIA	1500.00	21.00	0.00	2.00	4.00	10.01	6223.00
	ILLINOIS	1630.00	123.50	0.00	NAP	NAP	ISA	MOE

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		Z	HOURS	HOURS	HOURS	MO, DA	
	LEWES	1430.00	122.50	0.00	0.50	MOE	10.03 6308.00
	OXFORD	1700.00	69.00	0.00	0.10	2.00	ISA 6302.00
24 SEP 1980	PENN STATE	1400.00	214.00	0.00	1.00	NAP	11.14 6323.00
	VIRGINIA	1300.00	21.00	0.00	1.25	NAP	10.22 6322.00
	LEWES	1230.00	22.00	0.00	0.50	MOE	10.03 6402.00
25 SEP 1980	LEWES	1730.00	29.00	0.00	7.00	MOE	10.03 6512.00
26 SEP 1980	WHITEFACE	1500.00	73.00	0.00	10.00	NAP	11.07 6613.00
	ITHACA	1100.00	63.00	0.00	2.00	NAP	10.07 6606.00
	VIRGINIA	1615.00	46.00	0.00	8.00	NAP	10.22 6524.00
	BROOKHAVEN	1330.00	187.50	0.00	10.00	3.00	10.22 6609.00
	LEWES	1200.00	18.50	0.00	3.00	MOE	10.03 6523.00
27 SEP 1980	PENN STATE	1330.00	71.50	0.00	7.00	NAP	11.14 6623.00
29 SEP 1980	WHITEFACE	1530.00	72.50	0.00	12.00	NAP	11.07 6801.00
1 OCT 1980	LEWES	1300.00	121.00	0.00	1.00	NAP	ISA 7024.00
2 OCT 1980	PENN STATE	2100.00	127.50	0.00	5.00	NAP	11.14 4220.00
	VIRGINIA	1600.00	141.50	0.00	8.75	30.00	10.22 7023.00
	ILLINOIS	1630.00	216.00	0.00	NAP	NAP	11.18 MOE
	OXFORD	1730.00	216.50	0.00	3.40	1.00	11.06 4211.00
3 OCT 1980	WHITEFACE	1400.00	94.50	0.00	7.00	NAP	11.07 4306.00
	ITHACA	1400.00	171.00	0.00	5.00	NAP	10.28 4221.00
	ILLINOIS	1330.00	21.00	0.00	NAP	NAP	ISA MOE
	BROOKHAVEN	1500.00	169.00	0.00	MOE	MOE	MOE 4309.00
4 OCT 1980	PENN STATE	1400.00	41.00	0.00	5.00	NAP	11.14 4400.00

MAP38/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		<div><div><div>D</div><div>V</div><div>R</div><div>M</div><div>E</div><div>I</div><div>T</div></div><div>Z</div></div>	<div><div><div>E</div><div>M</div><div>P</div><div>A</div><div>S</div></div><div>HOURS</div></div>	<div><div><div>E</div><div>M</div><div>I</div><div>T</div></div><div>HOURS</div></div>	<div><div><div>E</div><div>M</div><div>I</div><div>T</div><div>C</div><div>R</div><div>P</div></div><div>HOURS</div></div>	<div><div><div>N</div><div>E</div><div>P</div><div>D</div><div>I</div><div>L</div></div><div>MO,DA</div></div>	<div><div><div>D</div><div>N</div><div>F</div><div>C</div><div>E</div><div>R</div><div>P</div></div><div></div></div>	
	VIRGINIA	2100.00	53.00	0.00	10.50	39.00	10.22	4405.00
	BROOKHAVEN	1500.00	24.00	0.00	7.50	1.00	10.22	4406.00
	LEWES	1530.00	74.50	0.00	4.00	NAP	10.17	4321.00
	OXFORD	1700.00	47.50	0.00	0.50	10.00	ISA	4311.00
5 OCT 1980	WHITEFACE	1300.00	47.00	0.00	12.00	NAP	11.07	4502.00
6 OCT 1980	VIRGINIA	1930.00	46.50	0.00	9.50	26.00	10.22	4608.00
8 OCT 1980	PENN STATE	1500.00	97.00	0.00	3.00	NAP	11.14	4703.00
10 OCT 1980	PENN STATE	1800.00	51.00	0.00	MOE	NAP	11.14	MOE
11 OCT 1980	BROOKHAVEN	1830.00	171.00	0.00	14.50	6.00	10.22	5115.00
12 OCT 1980	BROOKHAVEN	1600.00	21.50	0.00	11.50	3.00	10.22	5202.00
	LEWES	1630.00	217.00	0.00	2.50	NAP	11.10	5120.00
14 OCT 1980	WHITEFACE	1400.00	217.00	0.00	9.00	NAP	11.07	5316.00
	ITHACA	1300.00	263.00	0.00	12.00	NAP	10.28	5321.00
15 OCT 1980	ILLINOIS	1700.00	193.50	98.00	MOE	NAP	ISA	MOE
16 OCT 1980	ILLINOIS	1530.00	22.50	0.00	MOE	NAP	ISA	MOE
17 OCT 1980	PENN STATE	1900.00	169.00	0.00	MOE	NAP	11.14	MOE
	ILLINOIS	1630.00	25.00	0.00	MOE	NAP	12.15	MOE
18 OCT 1980	ITHACA	2200.00	105.00	0.00	8.00	NAP	10.28	5818.00
	PENN STATE	1900.00	24.00	0.00	8.00	NAP	11.14	5815.00
	ILLINOIS	1430.00	22.00	0.00	MOE	NAP	12.15	MOE
	OXFORD	1600.00	335.50	0.00	7.20	14.00	11.06	5806.00
19 OCT 1980	WHITEFACE	1430.00	120.50	0.00	7.00	NAP	11.07	5911.00
	BROOKHAVEN	1700.00	169.00	0.00	18.50	8.00	11.03	5907.00

		Z	HOURS	HOURS	HOURS		MO,DA	
20 OCT 1980	WHITEFACE	1900.00	19.50	0.00	6.00	NAP	11.07	6008.00
	VIRGINIA	1930.00	336.00	0.00	8.00	16.00	12.05	5920.00
	LEWES	1230.00	188.00	0.00	8.50	NAP	11.10	5909.00
22 OCT 1980	WHITEFACE	1600.00	45.00	0.00	9.00	NAP	11.07	6210.00
	ITHACA	1200.00	86.00	0.00	15.00	NAP	11.07	6118.00
25 OCT 1980	VIRGINIA	2230.00	123.00	0.00	18.00	9.00	12.05	6519.00
	ILLINOIS	1630.00	170.00	0.00	MOE	NAP	12.15	MOE
	OXFORD	1700.00	169.00	0.00	11.00	12.00	11.06	6504.00
26 OCT 1980	BROOKHAVEN	1730.00	168.50	0.00	8.50	2.00	11.03	6522.00
	LEWES	1330.00	145.00	0.00	13.00	NAP	11.10	6519.00
	OXFORD	1630.00	23.50	0.00	0.20	3.00	ISA	6607.00
27 OCT 1980	WHITEFACE	2100.00	125.00	0.00	40.00	NAP	11.07	6716.00
	ITHACA	1400.00	122.00	0.00	21.00	NAP	11.07	6606.00
28 OCT 1980	ILLINOIS	1400.00	69.50	0.00	MOE	NAP	MOE	MOE
	OXFORD	1900.00	50.50	0.00	10.00	78.00	11.06	6811.00
29 OCT 1980	WHITEFACE	2000.00	47.00	0.00	3.00	NAP	ISA	6821.00
	ITHACA	1300.00	47.00	0.00	5.00	NAP	11.07	6814.00
	PENN STATE	1400.00	259.00	0.00	22.00	NAP	11.14	6805.00
	VIRGINIA	1500.00	112.50	0.00	0.50	3.00	ISA	6611.00
	ILLINOIS	1830.00	28.50	0.00	MOE	NAP	MOE	MOE
	BROOKHAVEN	1500.00	69.50	0.00	6.00	3.00	11.03	6819.00
	LEWES	1230.00	71.00	0.00	14.00	NAP	11.10	6819.00
30 OCT 1980	OXFORD	1900.00	48.00	0.00	0.10	0.00	ISA	7016.00

MAP38/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		Z	HOURS	HOURS	HOURS	MO,DA	
31 OCT 1980	VIRGINIA	1600.00	49.00	0.00	3.00	10.00	ISA 7007.00
3 NOV 1980	WHITEFACE	1630.00	116.50	0.00	10.00	NAP	11.07 4309.00
	ITHACA	1800.00	125.00	0.00	6.00	NAP	11.07 4122.00
4 NOV 1980	ILLINOIS	1730.00	143.00	0.00	MOE	NAP	ISA MOE
	OXFORD	1900.00	218.50	0.00	1.30	4.00	12.08 4409.00
5 NOV 1980	ITHACA	1300.00	43.00	0.00	3.00	NAP	11.24 4425.00
	PENN STATE	2000.00	174.00	0.00	2.00	NAP	11.14 4509.00
	VIRGINIA	1600.00	120.00	0.00	6.00	NAP	12.05 4417.00
	BROOKHAVEN	1600.00	169.00	0.00	7.00	1.00	11.24 NAP
	LEWES	1330.00	169.00	0.00	6.00	NAP	12.03 4422.00
6 NOV 1980	WHITEFACE	1930.00	75.00	0.00	13.00	NAP	11.24 4519.00
7 NOV 1980	WHITEFACE	1700.00	21.50	0.00	4.00	NAP	11.24 4710.00
	ITHACA	1600.00	51.00	0.00	5.00	NAP	11.24 4706.00
	BROOKHAVEN	1500.00	47.00	0.00	4.00	1.00	11.24 NAP
8 NOV 1980	BROOKHAVEN	1800.00	27.00	0.00	NAP	1.00	11.24 NAP
10 NOV 1980	ITHACA	1300.00	69.00	0.00	6.00	NAP	11.24 4918.00
	PENN STATE	MOE	MOE	0.00	MOE	NAP	12.09 MOE
	VIRGINIA	MOE	MOE	0.00	1.00	MOE	MOE 4922.00
	BROOKHAVEN	1500.00	45.00	0.00	2.00	1.00	11.24 NAP
	LEWES	1300.00	119.50	0.00	4.00	NAP	12.03 5001.00
12 NOV 1980	WHITEFACE	1630.00	119.50	0.00	33.00	NAP	11.24 5118.00
	ITHACA	1600.00	51.00	0.00	27.00	NAP	11.24 5202.00
14 NOV 1980	ILLINOIS	1730.00	240.00	0.00	MOE	NAP	ISA MOE

		Z	HOURS	HOURS	HOURS		MO. DA	
15 NOV 1980	ITHACA	1800.00	74.00	0.00	10.00	NAP	ISA	5506.00
	ILLINOIS	1630.00	23.00	0.00	MOE	NAP	ISA	MOE
16 NOV 1980	PENN STATE	1930.00	MOE	0.00	2.00	NAP	ISA	5509.00
	OXFORD	1700.00	285.00	0.00	1.80	4.00	ISA	5601.00
17 NOV 1980	VIRGINIA	MOE	MOE	0.00	MOE	MOE	MOE	MOE
18 NOV 1980	ITHACA	1300.00	91.00	0.00	17.00	NAP	12.05	5815.00
	PENN STATE	1930.00	48.00	0.00	MOE	NAP	12.09	MOE
	VIRGINIA	MOE	MOE	0.00	14.00	MOE	MOE	5805.00
	OXFORD	2130.00	52.50	0.00	8.00	13.00	12.08	5723.00
19 NOV 1980	WHITEFACE	1430.00	166.00	0.00	24.00	NAP	12.16	5820.00
	BROOKHAVEN	1500.00	216.00	0.00	12.20	1.00	12.09	4814.00
21 NOV 1980	LEWES	1300.00	264.00	0.00	15.00	NAP	12.03	5808.00
23 NOV 1980	ILLINOIS	1800.00	193.50	0.00	MOE	NAP	12.15	MOE
24 NOV 1980	ILLINOIS	1430.00	20.50	0.00	MOE	NAP	ISA	MOE
	OXFORD	2200.00	96.50	0.00	9.00	47.00	12.08	6415.00
25 NOV 1980	WHITEFACE	1500.00	144.50	0.00	20.00	NAP	12.16	MOE
	PENN STATE	MOE	MOE	0.00	MOE	NAP	12.09	MOE
	VIRGINIA	1630.00	MOE	0.00	9.00	MOE	MOE	6419.00
	BROOKHAVEN	1500.00	144.00	0.00	10.50	2.00	12.09	6505.00
	LEWES	1230.00	95.50	0.00	6.00	NAP	12.23	6419.00
26 NOV 1980	WHITEFACE	1530.00	24.50	0.00	5.00	NAP	12.16	MOE
	ITHACA	1500.00	170.00	0.00	11.00	NAP	12.05	6422.00
28 NOV 1980	VIRGINIA	2130.00	77.00	0.00	26.00	44.00	12.05	6813.00

MAP33/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		Z	HOURS	HOURS	HOURS		MO.DA	
	ILLINOIS	1730.00	99.00	0.00	MOE	NAP	12.15	MOE
29 NOV 1980	BROOKHAVEN	1700.00	90.00	8.00	9.20	2.00	12.09	6821.00
30 NOV 1980	ITHACA	1500.00	96.00	0.00	MOE	NAP	12.05	6821.00
	LEWES	1430.00	122.00	0.00	11.00	NAP	12.23	6815.00
	OXFORD	1900.00	142.00	0.00	8.80	68.00	12.08	6809.00
1 DEC 1980	WHITEFACE	1430.00	119.00	0.00	23.00	NAP	12.16	MOE
	PENN STATE	MOE	MOE	0.00	MOE	NAP	12.09	MOE
2 DEC 1980	WHITEFACE	1800.00	27.50	0.00	1.00	NAP	12.16	4209.00
	OXFORD	1900.00	48.00	0.00	1.00	2.00	1.19	4215.00
3 DEC 1980	ITHACA	1800.00	75.00	0.00	5.00	NAP	12.16	4223.00
	BROOKHAVEN	1400.00	117.00	0.00	5.40	1.00	12.22	NAP
	LEWES	1230.00	46.00	0.00	1.00	NAP	12.23	NAP
4 DEC 1980	WHITEFACE	1330.00	43.50	0.00	8.00	NAP	12.16	4304.00
	PENN STATE	1600.00	72.00	0.00	MOE	NAP	MOE	MOE
5 DEC 1980	ILLINOIS	1700.00	72.00	0.00	6.00	NAP	ISA	NAP
	OXFORD	1930.00	72.50	0.00	1.00	5.00	ISA	4515.00
7 DEC 1980	ILLINOIS	1700.00	48.00	0.00	6.50	NAP	2.09	NAP
	OXFORD	1700.00	45.50	0.00	0.25	3.00	ISA	4708.00
8 DEC 1980	WHITEFACE	1500.00	121.50	0.00	15.00	NAP	1.29	4815.00
	ITHACA	1800.00	120.00	0.00	1.00	NAP	12.16	4804.00
	ILLINOIS	1700.00	24.00	0.00	24.00	NAP	2.09	NAP
9 DEC 1980	ITHACA	1300.00	19.00	0.00	2.00	NAP	12.16	4902.00
	PENN STATE	1500.00	119.00	0.00	MOE	NAP	12.23	MOE

(CONT.)

		<div><div><div>D</div><div>V</div><div>M</div><div>R</div><div>E</div><div>I</div><div>T</div></div><div>Z</div></div>	<div><div><div>E</div><div>M</div><div>I</div><div>T</div></div><div>HOURS</div></div>	<div><div><div>E</div><div>M</div><div>I</div><div>T</div></div><div>HOURS</div></div>	<div><div><div>E</div><div>M</div><div>I</div><div>T</div></div><div>HOURS</div></div>	<div><div><div>E</div><div>N</div><div>P</div><div>D</div><div>I</div><div>L</div></div><div>MO,DA</div></div>	<div><div><div>D</div><div>A</div><div>T</div><div>R</div><div>E</div><div>C</div><div>P</div></div><div></div></div>	
	ILLINOIS	1730.00	24.50	0.00	25.50	NAP	2.09	NAP
10 DEC 1980	ITHACA	1900.00	30.00	0.00	4.00	NAP	12.16	4924.00
	PENN STATE	1900.00	28.00	0.00	MOE	NAP	12.23	MOE
	ILLINOIS	1600.00	22.50	0.00	25.50	NAP	ISA	NAP
	BROOKHAVEN	1800.00	172.00	0.00	8.20	1.00	12.22	NAP
	LEWES	2030.00	176.00	0.00	7.00	NAP	12.23	NAP
	OXFORD	1630.00	71.50	0.00	13.00	121.00	1.19	4917.00
11 DEC 1980	WHITEFACE	1600.00	49.00	0.00	13.00	NAP	1.29	5102.00
	PENN STATE	1600.00	21.00	0.00	MOE	NAP	ISA	MOE
	VIRGINIA	2200.00	78.50	0.00	4.50	3.00	1.09	4918.00
15 DEC 1980	WHITEFACE	1530.00	95.50	0.00	24.00	NAP	1.29	5509.00
	ITHACA	1900.00	120.00	0.00	3.00	NAP	1.09	5416.00
	PENN STATE	1700.00	97.00	0.00	MOE	NAP	ISA	MOE
16 DEC 1980	BROOKHAVEN	1500.00	141.00	0.00	4.00	1.00	12.22	NAP
17 DEC 1980	ITHACA	1800.00	47.00	0.00	12.00	NAP	1.09	5613.00
	PENN STATE	1930.00	50.50	0.00	5.00	NAP	12.23	5604.00
	BROOKHAVEN	1900.00	28.00	0.00	8.50	1.00	1.09	5609.00
	LEWES	1300.00	160.50	0.00	4.00	NAP	1.13	5618.00
	OXFORD	2100.00	172.50	0.00	3.50	12.00	1.19	5522.00
18 DEC 1980	WHITEFACE	1800.00	74.50	0.00	20.00	NAP	1.29	5816.00
19 DEC 1980	OXFORD	1500.00	42.00	0.00	1.00	5.00	ISA	5902.00
22 DEC 1980	ITHACA	1300.00	115.00	0.00	13.00	NAP	1.09	6020.00
23 DEC 1980	PENN STATE	1500.00	141.50	0.00	1.00	NAP	ISA	5913.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		Z	HOURS	HOURS	HOURS		MO.DA	
24 DEC 1980	BROOKHAVEN	1400.00	163.00	0.00	7.00	2.00	1.09	6321.00
	LEWES	1500.00	166.00	0.00	9.00	NAP	1.13	6316.00
	OXFORD	1600.00	121.00	0.00	3.50	1.00	1.19	6415.00
25 DEC 1980	ILLINOIS	1730.00	361.50	0.00	34.50	NAP	ISA	NAP
26 DEC 1980	ITHACA	2100.00	104.00	0.00	6.00	NAP	1.09	6420.00
	VIRGINIA	1700.00	355.00	0.00	2.00	8.00	1.09	6418.00
28 DEC 1980	LEWES	1730.00	98.50	0.00	1.00	NAP	1.13	6418.00
29 DEC 1980	ILLINOIS	1700.00	95.50	0.00	16.00	NAP	2.09	NAP
	OXFORD	1830.00	146.50	0.00	6.00	42.00	ISA	6917.00
30 DEC 1980	PENN STATE	1430.00	167.50	0.00	2.00	NAP	1.19	6412.00
	VIRGINIA	1630.00	95.00	0.00	14.00	59.00	ISA	6906.00
	LEWES	1300.00	43.50	0.00	9.00	NAP	1.13	6921.00
31 DEC 1980	ITHACA	2000.00	119.00	0.00	3.00	NAP	1.09	6818.00

NSC MEANS NO SAMPLE COLLECTED
ISA MEANS INSUFF. SAMPLE FOR ANALYSIS
NAP MEANS NO ANALYSIS PERFORMED
MOE MEANS MALFUNCTION OF OPERATOR ERROR
RPC MEANS REJECTED--PROB. CONTAMINATION

(CONT.)

$\begin{matrix} & & L & & T \\ & O & & & \\ V & & & & H \\ & P & & & \end{matrix}$

		$\frac{P}{V}$	$\frac{D}{V}$	$\frac{L}{P}$	$\frac{L}{P}$	$\frac{R}{P}$	$\frac{H}{+}$	$\frac{U}{D}$
		S	P	F	F	L	(	C
		ML	ML	C			UMH(L)/L	UMH(U)/C(L)
2 JAN 1980	ITHACA	1940.00	1960.00	22.00	4.27	4.28	52.00	27.00
6 JAN 1980	PENN STATE	218.00	MOE	25.00	4.59	4.51	31.00	19.00
	BROOKHAVEN	176.00	NAP	26.00	4.67	5.17	6.80	28.00
	OXFORD	80.00	100.00	12.00	3.96	4.08	83.00	ISA
7 JAN 1980	PENN STATE	60.00	70.00	ISA	ISA	3.93	120.00	70.00
	VIRGINIA	537.00	1520.00	23.00	4.17	4.20	63.00	31.00
	LEWES	558.00	850.00	10.00	4.27	4.23	50.00	36.00
8 JAN 1980	WHITEFACE	69.00	150.00	18.00	4.04	ISA	91.00	ISA
	ITHACA	25.00	60.00	22.00	4.23	ISA	59.00	ISA
	LEWES	66.00	150.00	10.00	4.19	4.20	63.00	30.00
10 JAN 1980	PENN STATE	90.00	MOE	25.00	4.40	4.31	49.00	34.00
11 JAN 1980	WHITEFACE	109.00	65.00	18.00	4.20	RPC	63.00	RPC
	ILLINOIS	MOE	MOE	25.00	4.60	MOE	25.00	MOE
12 JAN 1980	ITHACA	240.00	270.00	22.00	4.30	4.36	44.00	24.00
	PENN STATE	264.00	260.00	25.00	4.60	4.48	33.00	18.00
	VIRGINIA	788.00	820.00	24.00	4.11	4.15	71.00	38.00
	LEWES	1068.00	910.00	10.00	4.75	4.89	13.00	19.00
14 JAN 1980	BROOKHAVEN	1062.00	1200.00	27.00	4.77	4.86	14.00	28.00
15 JAN 1980	WHITEFACE	1020.00	880.00	11.00	4.32	4.61	25.00	12.00
	ITHACA	510.00	580.00	22.00	4.58	4.58	26.00	11.00
	PENN STATE	1393.00	MOE	25.00	4.60	4.49	32.00	20.00
	VIRGINIA	1055.00	1100.00	24.00	4.39	4.44	36.00	17.00
16 JAN 1980	OXFORD	95.00	90.00	17.00	4.11	4.29	51.00	ISA

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		V O L		V O L		P H		P H		P H		T	
		S A M P		P R E D		F I E L D		F I E L D		L A B		H +	
		ML		ML		C						UMOL/L	
17 JAN 1980	ILLINOIS	97.00		120.00		25.00		4.52		4.60		25.00	43.00
19 JAN 1980	PENN STATE	27.00		35.00		ISA		ISA		6.01		1.00	ISA
	VIRGINIA	1592.00		1660.00		22.00		4.67		4.80		16.00	9.50
	BROOKHAVEN	353.00		330.00		26.00		3.95		4.00		100.00	55.00
	LEWES	771.00		1470.00		11.00		4.69		4.68		21.00	12.00
	OXFORD	24.00		25.00		17.00		3.74		ISA		180.00	ISA
20 JAN 1980	ILLINOIS	75.00		90.00		25.00		4.25		4.31		49.00	39.00
21 JAN 1980	OXFORD	44.00		25.00		ISA		ISA		ISA		<20.00	ISA
22 JAN 1980	WHITEFACE	152.00		130.00		16.00		3.92		4.17		68.00	34.00
23 JAN 1980	VIRGINIA	275.00		260.00		19.00		4.45		4.59		26.00	14.00
	BROOKHAVEN	471.00		470.00		26.00		4.24		4.30		50.00	29.00
24 JAN 1980	PENN STATE	22.00		MOE		ISA		ISA		4.20		63.00	ISA
	LEWES	833.00		1030.00		2.00		4.28		4.29		51.00	20.00
25 JAN 1980	ITHACA	175.00		320.00		22.00		4.43		4.40		40.00	24.00
	PENN STATE	40.00		MOE		ISA		ISA		4.10		79.00	44.00
	ILLINOIS	108.00		120.00		25.00		5.08		5.05		8.90	12.00
	OXFORD	185.00		150.00		18.00		4.25		4.49		32.00	25.00
29 JAN 1980	WHITEFACE	194.00		180.00		19.00		4.05		MOE		89.00	MOE
30 JAN 1980	ILLINOIS	7.00		12.00		25.00		6.55		ISA		0.28	ISA
31 JAN 1980	PENN STATE	54.00		50.00		ISA		ISA		5.76		2.00	26.00
	VIRGINIA	162.00		190.00		17.00		4.25		4.35		45.00	23.00
	OXFORD	63.00		100.00		17.00		4.10		ISA		79.00	ISA
1 FEB 1980	ITHACA	420.00		1220.00		22.00		4.30		4.30		50.00	25.00

MAP35/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		ML	ML	C			UMOL/L	UMHOL/CM
	LEWES	23.00	60.00	11.00	4.07	ISA	85.00	ISA
5 FEB 1980	ITHACA	45.00	190.00	22.00	4.75	4.75	18.00	13.00
6 FEB 1980	ILLINOIS	70.00	50.00	25.00	3.88	3.93	120.00	65.00
7 FEB 1980	PENN STATE	63.00	MOE	ISA	ISA	4.50	32.00	19.00
	VIRGINIA	201.00	210.00	20.00	3.99	4.10	79.00	38.00
	LEWES	24.00	25.00	12.00	3.92	ISA	120.00	ISA
	OXFORD	99.00	120.00	17.00	4.12	4.13	74.00	ISA
10 FEB 1980	OXFORD	62.00	10.00	17.00	3.89	ISA	130.00	ISA
11 FEB 1980	VIRGINIA	266.00	250.00	19.00	4.09	4.19	65.00	26.00
	LEWES	124.00	250.00	14.00	4.07	4.12	76.00	38.00
12 FEB 1980	PENN STATE	38.00	MOE	ISA	ISA	ISA	ISA	ISA
	OXFORD	25.00	10.00	ISA	ISA	ISA	ISA	ISA
16 FEB 1980	VIRGINIA	7.00	10.00	18.00	3.92	ISA	120.00	ISA
	ILLINOIS	2.00	40.00	25.00	4.08	ISA	83.00	ISA
17 FEB 1980	BROOKHAVEN	863.00	1350.00	27.00	4.48	3.90	130.00	73.00
	LEWES	304.00	370.00	5.00	3.92	4.01	98.00	48.00
	OXFORD	16.00	70.00	ISA	ISA	ISA	ISA	ISA
18 FEB 1980	WHITEFACE	530.00	410.00	20.00	4.00	MOE	100.00	MOE
	ITHACA	840.00	1410.00	22.00	4.26	4.24	58.00	27.00
	PENN STATE	455.00	NAP	25.00	4.29	4.13	74.00	36.00
21 FEB 1980	VIRGINIA	70.00	60.00	24.00	4.22	4.33	47.00	20.00
22 FEB 1980	VIRGINIA	17.00	10.00	24.00	4.66	ISA	22.00	ISA
	ILLINOIS	481.00	270.00	25.00	4.59	4.68	21.00	18.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		ML	ML	C	F	L	UMOL/L	UMHO/CM
	OXFORD	40.00	510.00	18.00	4.54	ISA	29.00	ISA
23 FEB 1980	PENN STATE	743.00	NAP	25.00	4.32	4.10	79.00	44.00
	ILLINOIS	2.00	8.00	25.00	3.68	ISA	210.00	ISA
	BROOKHAVEN	369.00	370.00	27.00	3.86	3.98	100.00	62.00
	LEWES	176.00	240.00	18.00	3.86	3.80	160.00	79.00
24 FEB 1980	VIRGINIA	102.00	70.00	24.00	3.80	3.87	130.00	65.00
	LEWES	38.00	70.00	14.00	3.80	ISA	ISA	ISA
25 FEB 1980	WHITEFACE	781.00	600.00	20.00	3.87	4.10	79.00	42.00
	ITHACA	320.00	450.00	22.00	4.07	4.09	81.00	43.00
	VIRGINIA	135.00	150.00	23.00	3.93	3.99	100.00	51.00
	OXFORD	37.00	60.00	18.00	4.13	ISA	74.00	ISA
26 FEB 1980	VIRGINIA	890.00	910.00	23.00	4.05	4.10	79.00	42.00
	ILLINOIS	37.00	170.00	25.00	4.71	ISA	19.00	ISA
	LEWES	400.00	360.00	10.00	4.12	4.08	83.00	48.00
28 FEB 1980	WHITEFACE	238.00	110.00	20.00	3.95	4.10	79.00	47.00
	ITHACA	90.00	510.00	22.00	3.96	4.00	100.00	55.00
	ILLINOIS	53.00	190.00	25.00	4.42	ISA	38.00	ISA
	OXFORD	295.00	270.00	14.00	4.30	4.42	38.00	18.00
29 FEB 1980	VIRGINIA	0.00	225.00	MOE	MOE	MOE	MOE	MOE
	LEWES	95.00	350.00	10.00	3.87	3.85	140.00	73.00
2 MAR 1980	OXFORD	44.00	90.00	20.00	4.21	ISA	62.00	ISA
3 MAR 1980	VIRGINIA	0.00	520.00	MOE	MOE	MOE	MOE	MOE
4 MAR 1980	LEWES	133.00	370.00	15.00	4.33	4.30	50.00	25.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		[•] L O V	[•] L O V	[•] T P H	[•] D L P H	[•] D L P H	[•] +) (	[•] C T U N D C
		[•] P M A S	[•] D F R P	[•] D L F I	[•] D L F T	[•] D L F T	[•] +) (	[•] C T U N D C
		ML	ML	C			UMOL/L	UMOL/CM
5 MAR 1980	VIRGINIA	64.00	40.00	24.00	4.37	4.47	34.00	ISA
	ILLINOIS	27.00	40.00	25.00	3.63	ISA	230.00	ISA
6 MAR 1980	ITHACA	310.00	320.00	22.00	4.11	4.14	72.00	40.00
	PENN STATE	472.00	NAP	25.00	4.37	4.22	60.00	31.00
	BROOKHAVEN	107.00	150.00	27.00	3.84	4.05	89.00	47.00
	LEWES	9.00	10.00	ISA	ISA	ISA	ISA	ISA
	OXFORD	556.00	520.00	13.00	4.21	4.26	55.00	34.00
7 MAR 1980	WHITEFACE	587.00	470.00	20.00	3.98	4.22	60.00	34.00
8 MAR 1980	BROOKHAVEN	169.00	160.00	27.00	3.87	4.04	91.00	57.00
	OXFORD	392.00	350.00	20.00	4.04	4.08	83.00	48.00
9 MAR 1980	PENN STATE	1450.00	920.00	25.00	4.30	4.18	66.00	44.00
	VIRGINIA	25.00	10.00	RPC	RPC	RPC	RPC	RPC
	BROOKHAVEN	146.00	110.00	27.00	4.29	4.54	29.00	23.00
10 MAR 1980	WHITEFACE	712.00	630.00	20.00	3.99	4.18	66.00	36.00
	ITHACA	1235.00	1340.00	22.00	4.10	4.13	74.00	34.00
	ILLINOIS	650.00	620.00	25.00	4.07	4.10	79.00	57.00
11 MAR 1980	PENN STATE	102.00	100.00	25.00	4.25	4.13	74.00	52.00
	VIRGINIA	31.00	25.00	25.00	3.63	ISA	230.00	ISA
	BROOKHAVEN	573.00	540.00	27.00	3.95	4.10	79.00	60.00
	LEWES	140.00	130.00	15.00	4.56	4.18	66.00	32.00
	OXFORD	99.00	90.00	16.00	4.88	5.58	2.60	ISA
12 MAR 1980	WHITEFACE	135.00	240.00	20.00	3.85	4.00	100.00	68.00
13 MAR 1980	PENN STATE	327.00	NAP	25.00	5.60	4.77	17.00	11.00

MAPSS/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		V O L • P • M • A • S	V O L • D • E • R • P	T H • D • L • E • I • F	P H • D • L • E • I • F	P H • D • L • E • I • A • B • L	) + H • (	T C • U • D • N • O • C
		ML	ML	C			UMOL/L	UMHO/CM
	ILLINOIS	25.00	30.00	25.00	4.13	ISA	74.00	ISA
14 MAR 1980	ITHACA	1570.00	1970.00	22.00	4.73	4.78	17.00	12.00
	VIRGINIA	960.00	1800.00	24.00	4.52	4.70	20.00	8.00
	BROOKHAVEN	1048.00	740.00	26.00	4.72	4.88	13.00	11.00
	OXFORD	359.00	310.00	17.00	4.06	4.07	85.00	55.00
15 MAR 1980	LEWES	930.00	1470.00	15.00	4.61	4.69	20.00	64.00
17 MAR 1980	WHITEFACE	1056.00	1440.00	20.00	4.42	4.85	14.00	7.20
	ILLINOIS	781.00	750.00	25.00	4.42	4.47	34.00	20.00
18 MAR 1980	ITHACA	730.00	960.00	22.00	4.33	4.32	48.00	24.00
	PENN STATE	958.00	680.00	25.00	4.45	4.36	44.00	22.00
	VIRGINIA	430.00	410.00	24.00	3.99	4.10	79.00	55.00
	ILLINOIS	4.00	8.00	25.00	4.73	ISA	19.00	ISA
	BROOKHAVEN	1322.00	1510.00	27.00	4.50	4.51	31.00	23.00
	LEWES	1075.00	1210.00	15.00	4.75	4.60	25.00	23.00
19 MAR 1980	WHITEFACE	690.00	720.00	20.00	4.22	4.44	36.00	20.00
	OXFORD	708.00	810.00	19.00	4.36	4.50	32.00	20.00
21 MAR 1980	ILLINOIS	65.00	80.00	25.00	3.99	4.07	85.00	ISA
22 MAR 1980	PENN STATE	2235.00	1640.00	25.00	4.59	4.40	40.00	15.00
	BROOKHAVEN	1663.00	2330.00	27.00	4.29	4.38	42.00	31.00
	OXFORD	1192.00	1260.00	19.00	4.45	4.63	23.00	13.00
23 MAR 1980	VIRGINIA	1715.00	1670.00	23.00	4.67	4.70	20.00	12.00
	LEWES	1306.00	1410.00	12.00	4.80	4.77	17.00	13.00
24 MAR 1980	WHITEFACE	850.00	570.00	20.00	4.06	4.48	33.00	20.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		ML	ML	C			UMOL/L	UMHO/CM
	ITHACA	2750.00	2750.00	22.00	4.54	4.56	28.00	14.00
	ILLINOIS	453.00	450.00	25.00	4.43	4.49	32.00	20.00
25 MAR 1980	VIRGINIA	268.00	230.00	23.00	4.21	4.35	45.00	33.00
	ILLINOIS	2.00	ISA	25.00	3.97	ISA	110.00	ISA
	BROOKHAVEN	906.00	880.00	27.00	4.40	4.47	34.00	19.00
	OXFORD	418.00	410.00	17.00	4.30	4.40	40.00	24.00
26 MAR 1980	ITHACA	810.00	820.00	22.00	4.21	4.25	56.00	30.00
	LEWES	830.00	1510.00	15.00	4.48	4.53	30.00	17.00
27 MAR 1980	WHITEFACE	618.00	NAP	20.00	4.07	4.27	54.00	28.00
28 MAR 1980	ILLINOIS	5.00	10.00	25.00	3.74	ISA	180.00	ISA
29 MAR 1980	VIRGINIA	975.00	960.00	24.00	4.34	4.40	40.00	19.00
	ILLINOIS	244.00	240.00	25.00	4.09	4.20	63.00	38.00
	OXFORD	590.00	600.00	19.00	4.25	4.30	50.00	29.00
30 MAR 1980	ITHACA	1480.00	1420.00	22.00	4.21	4.25	56.00	30.00
	PENN STATE	1333.00	1140.00	25.00	4.58	4.35	45.00	19.00
	ILLINOIS	458.00	700.00	25.00	4.55	4.69	20.00	13.00
	BROOKHAVEN	767.00	750.00	27.00	4.41	4.50	32.00	18.00
	LEWES	1331.00	1510.00	12.00	4.88	4.80	16.00	13.00
31 MAR 1980	ILLINOIS	254.00	NAP	25.00	4.47	4.58	26.00	16.00
1 APR 1980	WHITEFACE	656.00	360.00	20.00	4.00	4.20	63.00	36.00
	ITHACA	1120.00	1100.00	22.00	4.45	4.48	33.00	17.00
	PENN STATE	563.00	239.00	25.00	4.50	4.22	60.00	29.00
	VIRGINIA	517.00	510.00	24.00	3.94	4.01	98.00	53.00

MAP39/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		V O L P M A S ML	V O L D R E P ML	T H P D L E I F C	H P D L E I F	H P D L E I F L	H P D L E I F L UMOL/L	H P D L E I F L UMHO/CM
	BROOKHAVEN	685.00	680.00	27.00	4.12	4.20	63.00	40.00
	LEWES	386.00	690.00	10.00	4.15	4.10	79.00	58.00
	OXFORD	703.00	570.00	19.00	4.23	4.22	60.00	33.00
3 APR 1980	ILLINOIS	37.00	80.00	25.00	4.03	ISA	93.00	ISA
4 APR 1980	PENN STATE	689.00	529.00	NAP	4.11	3.98	105.00	56.00
	ILLINOIS	134.00	130.00	25.00	4.49	4.70	20.00	36.00
	BROOKHAVEN	1293.00	1370.00	27.00	4.25	4.41	39.00	26.00
5 APR 1980	PENN STATE	32.00	0.00	ISA	ISA	4.02	95.00	43.00
	LEWES	1092.00	1120.00	12.00	4.55	4.60	25.00	18.00
	OXFORD	711.00	410.00	22.00	4.10	4.16	69.00	43.00
7 APR 1980	ITHACA	210.00	230.00	NAP	3.62	3.62	240.00	11.00
	VIRGINIA	578.00	570.00	24.00	4.13	4.24	57.50	30.00
	ILLINOIS	37.00	40.00	25.00	3.83	ISA	150.00	ISA
8 APR 1980	WHITEFACE	913.00	600.00	20.00	3.95	4.10	79.00	33.00
	ILLINOIS	229.00	348.00	25.00	4.64	4.99	10.23	16.00
	BROOKHAVEN	57.00	60.00	27.00	3.62	ISA	240.00	ISA
	OXFORD	172.00	170.00	20.00	4.19	4.25	56.00	33.00
9 APR 1980	PENN STATE	3044.00	2507.00	NAP	4.86	4.52	30.00	13.00
	VIRGINIA	1905.00	1870.00	25.00	4.18	4.48	33.00	20.00
	ILLINOIS	173.00	196.00	25.00	4.53	4.82	15.14	26.00
10 APR 1980	ITHACA	1560.00	1562.00	NAP	4.33	4.33	47.00	22.00
	PENN STATE	425.00	NAP	NAP	4.30	4.34	46.00	29.00
	ILLINOIS	51.00	103.00	25.00	4.15	ISA	ISA	ISA

MAP35/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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	ML	ML	C				UMOL/L	UMHO/CM
	BROOKHAVEN	2152.00	2630.00	26.00	4.56	4.74	18.00	25.00
	OXFORD	768.00	600.00	16.00	RPC	RPC	RPC	RPC
11 APR 1980	LEWES	1460.00	1480.00	10.00	4.52	4.53	29.51	25.00
13 APR 1980	WHITEFACE	1845.00	1500.00	20.00	3.94	4.13	74.00	36.00
14 APR 1980	ILLINOIS	128.00	260.00	25.00	4.21	4.35	44.67	27.00
	OXFORD	1329.00	958.00	13.00	4.20	4.21	62.00	30.00
15 APR 1980	ITHACA	1270.00	1250.00	NAP	4.32	4.35	45.00	21.00
	VIRGINIA	2000.00	2120.00	24.00	4.07	4.24	57.50	31.00
	ILLINOIS	106.00	160.00	25.00	4.08	4.18	66.07	40.00
	BROOKHAVEN	374.00	362.00	25.40	3.95	4.04	91.00	50.00
16 APR 1980	PENN STATE	2652.00	1978.00	NAP	4.55	4.38	42.00	21.00
17 APR 1980	ITHACA	145.00	160.00	NAP	4.22	4.24	58.00	26.00
	BROOKHAVEN	26.00	47.00	25.00	3.77	ISA	ISA	ISA
18 APR 1980	WHITEFACE	441.00	370.00	20.00	3.91	4.13	74.00	34.00
	LEWES	318.00	386.00	15.00	4.55	4.59	25.70	26.00
21 APR 1980	ITHACA	5.00	NAP	NAP	3.46	ISA	ISA	ISA
	BROOKHAVEN	129.00	129.00	25.80	3.47	3.61	245.00	170.00
23 APR 1980	WHITEFACE	299.00	260.00	20.00	3.84	4.01	98.00	53.00
	OXFORD	466.00	485.00	13.00	4.59	5.80	1.60	48.00
25 APR 1980	ITHACA	220.00	218.00	22.00	3.86	4.00	100.00	77.00
	VIRGINIA	95.00	106.00	19.50	4.09	4.18	66.00	60.00
	LEWES	305.00	349.00	10.00	3.92	4.04	91.20	69.00
28 APR 1980	WHITEFACE	1325.00	880.00	20.00	3.73	3.93	120.00	58.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		ML	ML	C			UMOL/L	UMHO/CM
	ILLINOIS	50.00	64.00	25.00	4.68	ISA	ISA	ISA
29 APR 1980	VIRGINIA	950.00	936.00	19.50	3.80	3.81	155.00	74.00
	ILLINOIS	137.00	191.00	25.00	4.11	4.17	67.61	42.00
	BROOKHAVEN	2142.00	2384.00	25.10	4.42	4.40	40.00	26.00
	OXFORD	167.00	199.00	14.00	5.24	RPC	RPC	RPC
30 APR 1980	WHITEFACE	528.00	410.00	19.00	4.09	4.53	30.00	19.00
	ITHACA	3050.00	3264.00	22.00	4.66	4.59	26.00	9.60
	VIRGINIA	403.00	358.00	19.50	3.95	3.98	105.00	50.00
	BROOKHAVEN	12.00	35.00	25.10	3.70	ISA	ISA	ISA
1 MAY 1980	ILLINOIS	20.00	15.00	25.00	3.71	ISA	ISA	ISA
	OXFORD	355.00	348.00	16.00	4.60	5.20	6.30	49.00
2 MAY 1980	PENN STATE	2670.00	1620.00	25.00	3.99	4.02	95.50	48.00
	VIRGINIA	53.00	31.00	23.80	3.64	3.70	200.00	ISA
	LEWES	1913.00	3261.00	15.00	4.25	4.23	58.88	36.00
5 MAY 1980	ITHACA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	PENN STATE	382.00	260.00	25.00	3.98	4.00	100.00	44.00
7 MAY 1980	WHITEFACE	MOE	MOE	MOE	MOE	4.81	15.49	43.00
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	53.00	47.00	25.00	2.90	ISA	ISA	ISA
9 MAY 1980	VIRGINIA	176.00	160.00	22.00	4.13	4.10	79.43	55.00
	BROOKHAVEN	646.00	631.00	24.00	3.06	3.84	145.00	88.00
11 MAY 1980	ILLINOIS	30.00	33.00	25.00	4.65	ISA	ISA	ISA
12 MAY 1980	ITHACA	150.00	190.00	22.00	4.02	4.12	75.86	70.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		ML	ML	C			UMOL/L	UMHO/CM
	PENN STATE	2830.00	2010.00	25.00	4.12	4.15	70.79	39.00
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	185.00	374.00	25.00	4.09	4.32	47.86	42.00
13 MAY 1980	ILLINOIS	353.00	500.00	25.00	4.42	4.60	25.12	18.00
	BROOKHAVEN	251.00	222.00	25.80	3.51	4.09	81.00	48.00
	OXFORD	43.00	1310.00	15.50	4.19	4.30	32.00	33.00
14 MAY 1980	ITHACA	880.00	850.00	22.00	4.06	4.15	70.79	46.00
15 MAY 1980	PENN STATE	1050.00	970.00	25.00	4.15	4.25	56.23	27.00
17 MAY 1980	ILLINOIS	118.00	221.00	25.00	3.78	3.95	112.20	65.00
18 MAY 1980	ILLINOIS	314.00	416.00	25.00	3.93	4.10	79.43	45.00
	OXFORD	MOE	2700.00	18.00	4.18	4.19	65.00	34.00
19 MAY 1980	PENN STATE	532.00	MOE	25.00	4.22	4.94	11.48	31.00
	VIRGINIA	1300.00	1280.00	20.00	4.38	4.61	24.55	22.00
	ILLINOIS	3.00	62.00	25.00	3.50	ISA	ISA	ISA
	BROOKHAVEN	111.00	129.00	27.80	4.05	4.17	68.00	47.00
	LEWES	315.00	360.00	20.00	4.03	4.04	91.20	57.00
	OXFORD	1480.00	1290.00	19.00	4.26	4.31	49.00	27.00
20 MAY 1980	WHITEFACE	2482.00	1630.00	20.00	4.05	4.29	51.29	29.00
	ITHACA	170.00	160.00	22.00	3.40	3.99	102.33	62.00
	ILLINOIS	3.00	123.00	25.00	3.23	ISA	ISA	ISA
	BROOKHAVEN	81.00	70.00	27.00	3.61	ISA	ISA	ISA
21 MAY 1980	PENN STATE	478.00	MOE	25.00	3.89	4.19	64.57	60.00
	VIRGINIA	1010.00	1000.00	20.00	3.98	4.34	45.71	45.00

MAP33/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		ML	ML	C			UMOL/L	UMOL/CM
	BROOKHAVEN	710.00	654.00	28.00	4.29	4.71	19.50	19.00
22 MAY 1980	LEWES	1212.00	1360.00	10.00	4.02	4.00	100.00	52.00
23 MAY 1980	ILLINOIS	280.00	417.00	25.00	3.82	3.90	125.89	70.00
	OXFORD	40.00	60.00	24.00	4.76	ISA	ISA	ISA
24 MAY 1980	ILLINDIS	44.00	392.00	25.00	3.79	ISA	ISA	ISA
	OXFORD	1670.00	1010.00	16.00	3.88	4.55	28.18	22.00
25 MAY 1980	ILLINOIS	330.00	490.00	25.00	4.11	4.18	66.07	34.00
	LEWES	18.00	25.00	15.00	4.18	ISA	ISA	ISA
	OXFORD	7.00	510.00	ISA	ISA	ISA	ISA	ISA
27 MAY 1980	VIRGINIA	248.00	220.00	19.00	4.32	4.62	23.99	25.00
30 MAY 1980	OXFORD	47.00	50.00	20.00	3.84	ISA	ISA	ISA
31 MAY 1980	ILLINOIS	92.00	440.00	25.00	4.06	4.10	79.43	59.00
	OXFORD	144.00	150.00	20.00	3.74	4.00	100.00	61.00
1 JUN 1980	ILLINOIS	574.00	860.00	25.00	4.65	4.80	15.85	13.00
	OXFORD	628.00	630.00	19.00	3.78	4.12	75.86	40.00
2 JUN 1980	WHITEFACE	480.00	440.00	21.00	3.93	4.10	79.43	44.00
	PENN STATE	611.00	580.00	25.00	3.88	4.02	95.50	78.00
	VIRGINIA	1220.00	1200.00	21.00	4.05	4.11	77.62	43.00
	ILLINOIS	1300.00	1200.00	25.00	4.45	4.52	30.20	20.00
	BROOKHAVEN	332.00	190.00	28.00	3.92	4.09	81.28	53.00
	OXFORD	1222.00	1430.00	19.00	3.81	4.28	52.48	31.00
3 JUN 1980	ILLINOIS	425.00	1250.00	25.00	4.34	4.70	19.95	25.00
	BROOKHAVEN	1200.00	960.00	28.00	3.90	4.11	77.62	46.00

(CONT.)

		<div><div><div></div><div>L</div><div>V</div></div></div>	<div><div><div></div><div>L</div><div>V</div></div></div>	<div><div><div></div><div>L</div><div>P</div><div>H</div></div></div>	<div><div><div></div><div>L</div><div>P</div><div>H</div></div></div>	<div><div><div></div><div>L</div><div>P</div><div>H</div></div></div>	<div><div><div></div><div>L</div><div>P</div><div>H</div></div></div>	<div><div><div></div><div>L</div><div>P</div><div>H</div></div></div>
		<div><div><div></div><div>M</div><div>A</div><div>S</div></div></div>	<div><div><div></div><div>E</div><div>R</div><div>P</div></div></div>	<div><div><div></div><div>L</div><div>E</div><div>F</div></div></div>	<div><div><div></div><div>L</div><div>E</div><div>F</div></div></div>	<div><div><div></div><div>L</div><div>E</div><div>F</div></div></div>	<div><div><div></div><div>H</div><div>A</div><div>L</div></div></div>	<div><div><div></div><div>H</div><div>A</div><div>L</div></div></div>
		ML	ML	C			UMOL/L	UMHO/CM
4 JUN 1980	ITHACA	690.00	700.00	22.00	4.20	4.24	57.54	35.00
	PENN STATE	349.00	MOE	25.00	3.99	4.21	61.66	48.00
	BROOKHAVEN	145.00	390.00	28.00	3.95	6.60	0.25	67.00
	LEWES	757.00	930.00	20.00	4.76	5.43	3.72	30.00
5 JUN 1980	WHITEFACE	611.00	550.00	21.00	4.08	4.41	38.90	25.00
6 JUN 1980	ILLINOIS	2.00	24.00	25.00	3.19	ISA	ISA	ISA
7 JUN 1980	VIRGINIA	154.00	160.00	20.00	3.61	3.65	223.87	120.00
	BROOKHAVEN	636.00	510.00	26.00	4.01	4.50	31.62	23.00
	LEWES	669.00	710.00	15.00	3.84	3.85	141.25	73.00
8 JUN 1980	ITHACA	745.00	750.00	22.00	4.00	4.07	85.11	46.00
	PENN STATE	830.00	MOE	25.00	4.10	4.20	63.10	38.00
	ILLINOIS	8.00	24.00	25.00	4.57	ISA	ISA	ISA
	BROOKHAVEN	569.00	1160.00	26.00	3.77	4.19	64.57	36.00
	LEWES	1592.00	2990.00	13.00	4.08	4.14	72.44	48.00
	OXFORD	713.00	1210.00	17.00	4.15	4.70	19.95	17.00
9 JUN 1980	WHITEFACE	447.00	390.00	17.00	3.92	4.50	50.12	26.00
	PENN STATE	474.00	MOE	25.00	4.02	4.40	39.81	29.00
10 JUN 1980	ITHACA	340.00	340.00	22.00	4.18	4.28	52.48	36.00
	PENN STATE	526.00	510.00	25.00	4.30	4.63	23.44	16.00
	BROOKHAVEN	548.00	510.00	26.00	3.92	4.29	51.29	32.00
	OXFORD	255.00	320.00	18.00	4.59	5.75	1.78	17.00
11 JUN 1980	WHITEFACE	754.00	630.00	16.00	4.16	4.51	30.90	18.00
	VIRGINIA	18.00	25.00	20.00	4.04	ISA	ISA	ISA

(CONT.)

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		$\frac{V}{P} \cdot \frac{O}{M} \cdot \frac{L}{A}$	$\frac{V}{P} \cdot \frac{O}{M} \cdot \frac{L}{A}$	$\frac{P}{F} \cdot \frac{H}{I} \cdot \frac{T}{E} \cdot \frac{D}{L}$	$\frac{P}{F} \cdot \frac{H}{I} \cdot \frac{T}{E} \cdot \frac{D}{L}$	$\frac{P}{L} \cdot \frac{H}{A} \cdot \frac{T}{B}$	$\frac{H}{C} \cdot \frac{T}{+}$	$\frac{C}{O} \cdot \frac{U}{N} \cdot \frac{T}{D}$
		ML	ML	C			UMOL/L	UMHO/CM
15 JUN 1980	OXFORD	93.00	100.00	21.00	3.88	4.38	41.69	36.00
16 JUN 1980	WHITEFACE	751.00	620.00	18.00	3.82	4.06	87.10	48.00
	ITHACA	505.00	450.00	22.00	4.25	4.45	35.48	28.00
	PENN STATE	171.00	140.00	25.00	4.08	4.03	93.33	46.00
	ILLINOIS	138.00	216.00	25.00	4.09	4.29	51.29	45.00
	LEWES	145.00	140.00	11.00	4.10	4.44	36.31	44.00
	OXFORD	363.00	400.00	19.00	4.00	4.42	38.02	26.00
17 JUN 1980	VIRGINIA	115.00	90.00	20.00	4.07	4.19	64.57	47.00
	LEWES	21.00	40.00	25.00	4.07	ISA	ISA	ISA
19 JUN 1980	WHITEFACE	129.00	100.00	18.00	3.59	3.70	199.53	125.00
20 JUN 1980	WHITEFACE	393.00	180.00	15.00	3.89	4.00	100.00	51.00
	ITHACA	750.00	760.00	22.00	3.98	4.02	95.50	50.00
	PENN STATE	91.00	35.00	25.00	3.81	3.79	162.18	70.00
	ILLINOIS	19.00	34.00	25.00	5.50	ISA	ISA	ISA
	OXFORD	19.00	25.00	ISA	ISA	ISA	ISA	ISA
21 JUN 1980	WHITEFACE	369.00	240.00	18.00	4.00	4.80	15.85	35.00
	ITHACA	30.00	51.00	22.00	4.20	ISA	ISA	ISA
	OXFORD	8.00	10.00	ISA	ISA	ISA	ISA	ISA
23 JUN 1980	ILLINOIS	360.00	1410.00	25.00	3.68	3.90	125.89	69.00
24 JUN 1980	WHITEFACE	596.00	470.00	17.00	3.98	ISA	ISA	ISA
	ILLINOIS	15.00	39.00	25.00	3.79	ISA	ISA	ISA
	OXFORD	7.00	340.00	ISA	ISA	ISA	ISA	ISA
26 JUN 1980	LEWES	1060.00	1020.00	18.00	4.56	4.53	29.51	20.00

MAPSS/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		ML	ML	C			UMOL/L	UMOL/CM
27 JUN 1980	WHITEFACE	35.00	35.00	20.00	3.77	ISA	ISA	ISA
29 JUN 1980	OXFORD	295.00	MOE	20.00	3.85	4.08	83.18	70.00
30 JUN 1980	ITHACA	2220.00	2110.00	22.00	3.77	3.85	141.25	77.00
	PENN STATE	441.00	MOE	25.00	3.85	3.84	144.54	68.00
	VIRGINIA	65.00	54.00	22.00	3.80	ISA	ISA	ISA
	BROOKHAVEN	1030.00	1000.00	29.00	4.33	4.49	32.36	25.00
	LEWES	50.00	60.00	18.00	3.62	3.74	181.97	99.00
1 JUL 1980	WHITEFACE	1962.00	1280.00	20.00	4.15	4.71	19.50	11.00
	ITHACA	60.00	80.00	22.00	4.22	ISA	ISA	ISA
	ILLINOIS	100.00	180.00	25.00	3.61	3.80	158.49	92.00
2 JUL 1980	WHITEFACE	840.00	550.00	20.00	3.58	4.20	63.10	35.00
3 JUL 1980	WHITEFACE	35.00	15.00	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	1030.00	930.00	28.00	3.72	3.89	128.82	66.00
	OXFORD	426.00	1270.00	19.00	3.81	3.98	104.71	70.00
4 JUL 1980	ILLINOIS	64.00	110.00	25.00	3.86	3.91	123.03	NAP
	LEWES	50.00	60.00	18.00	3.62	3.65	223.87	NAP
	OXFORD	45.00	50.00	22.00	3.72	ISA	ISA	ISA
5 JUL 1980	VIRGINIA	34.00	25.00	21.00	3.58	ISA	ISA	ISA
	ILLINOIS	102.00	340.00	25.00	4.49	4.53	29.51	22.00
	BROOKHAVEN	10.00	30.00	28.00	5.69	ISA	ISA	ISA
	OXFORD	95.00	110.00	23.00	4.05	4.27	53.70	ISA
6 JUL 1980	ITHACA	1490.00	1470.00	22.00	4.09	4.09	81.28	43.00
	VIRGINIA	320.00	340.00	21.00	4.23	4.53	46.77	30.00

MAP38/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		^V ₀ ^L ^S _A ^M ^P	^V ₀ ^L ^P _{R^E}	^T _F ^I ^L ^D ^H	^P _F ^I ^L ^D ^H	^P _L ^A ^B ^H	^U _C ^O ^N ^D ^T	
		ML	ML	C			UMOL/L	UMHO/CM
	BROOKHAVEN	280.00	270.00	28.00	5.40	4.00	100.00	56.00
7 JUL 1980	WHITEFACE	60.00	80.00	22.00	3.71	ISA	ISA	ISA
	PENN STATE	238.00	240.00	25.00	3.69	3.64	229.09	99.00
8 JUL 1980	PENN STATE	1267.00	1040.00	25.00	4.08	4.02	95.50	40.00
	LEWES	191.00	190.00	23.00	4.03	4.33	46.77	45.00
	OXFORD	23.00	25.00	21.00	4.09	ISA	ISA	ISA
9 JUL 1980	WHITEFACE	1224.00	800.00	18.00	4.15	4.62	23.99	12.00
	ITHACA	140.00	150.00	22.00	3.74	3.79	162.18	312.00
	VIRGINIA	583.00	440.00	21.00	4.15	4.28	52.48	29.00
	OXFORD	219.00	220.00	20.00	4.22	4.90	12.59	30.00
10 JUL 1980	VIRGINIA	1095.00	1080.00	21.00	4.10	4.20	63.10	34.00
	OXFORD	805.00	1060.00	20.00	3.79	3.98	104.71	64.00
11 JUL 1980	VIRGINIA	0.00	15.00	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	39.00	60.00	25.00	5.31	ISA	ISA	ISA
	OXFORD	6.00	10.00	ISA	ISA	ISA	ISA	ISA
12 JUL 1980	PENN STATE	90.00	90.00	25.00	4.12	4.07	85.11	NAP
13 JUL 1980	WHITEFACE	74.00	80.00	23.00	4.08	4.85	14.13	ISA
14 JUL 1980	VIRGINIA	46.00	40.00	22.00	3.75	ISA	ISA	ISA
16 JUL 1980	WHITEFACE	210.00	200.00	25.00	3.95	4.10	79.43	42.00
	PENN STATE	469.00	390.00	25.00	3.81	3.86	138.04	78.00
17 JUL 1980	ITHACA	225.00	210.00	22.00	4.33	4.32	47.86	22.00
	PENN STATE	1970.00	1810.00	25.00	3.81	3.82	151.36	70.00
18 JUL 1980	WHITEFACE	693.00	650.00	23.00	4.11	4.42	38.02	21.00

(CONT.)

		ML	ML	C			UMOL/L	UMOL/CM
	VIRGINIA	115.00	240.00	23.00	3.59	3.65	223.87	120.00
	LEWES	614.00	590.00	16.00	3.92	3.95	112.20	62.00
19 JUL 1980	ILLINOIS	26.00	30.00	25.00	3.81	ISA	ISA	ISA
21 JUL 1980	WHITEFACE	665.00	620.00	25.00	3.91	4.24	57.54	29.00
22 JUL 1980	WHITEFACE	1064.00	1120.00	20.00	4.11	4.53	29.51	14.00
	ITHACA	725.00	630.00	22.00	4.02	4.04	91.20	48.00
	PENN STATE	237.00	200.00	25.00	3.70	3.69	204.17	98.00
	VIRGINIA	0.00	30.00	MOE	MOE	MOE	MOE	MOE
	ILLINOIS	181.00	250.00	25.00	3.79	3.84	128.82	60.00
	OXFORD	1737.00	5060.00	18.00	4.07	4.12	75.86	40.00
23 JUL 1980	PENN STATE	346.00	MOE	25.00	3.95	3.91	123.03	44.00
	LEWES	916.00	930.00	NAP	4.31	4.35	43.65	22.00
24 JUL 1980	WHITEFACE	280.00	290.00	14.00	4.20	4.63	23.44	15.00
	VIRGINIA	0.00	1640.00	MOE	MOE	MOE	MOE	MOE
	LEWES	165.00	190.00	NAP	4.16	4.17	67.61	27.00
27 JUL 1980	WHITEFACE	345.00	360.00	21.00	4.00	4.23	58.88	36.00
	ILLINOIS	110.00	150.00	25.00	3.80	3.95	112.20	45.00
	OXFORD	498.00	500.00	18.00	3.78	3.97	107.15	49.00
28 JUL 1980	ITHACA	820.00	620.00	22.00	4.21	4.14	72.44	35.00
	ILLINOIS	352.00	780.00	25.00	4.36	3.95	112.20	49.00
29 JUL 1980	PENN STATE	1550.00	1250.00	25.00	4.33	4.38	41.69	21.00
	VIRGINIA	0.00	2220.00	MOE	MOE	MOE	MOE	MOE
	LEWES	8.00	5.00	ISA	4.19	ISA	ISA	ISA

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		[•] V O L P A M S ML	[•] V O L D R E P ML	[•] P H D L E I F C	[•] P H D L E I F	[•] P H R A L	[•] T C N D U C H + (UMOL/L	[•] T C N D U C H + (UMOL/L
	OXFORD	97.00	100.00	23.00	3.62	ISA	ISA	ISA
30 JUL 1980	WHITEFACE	664.00	590.00	23.00	4.12	4.59	25.70	11.00
	PENN STATE	214.00	170.00	25.00	3.85	3.83	147.91	73.00
	ILLINOIS	3.00	5.00	25.00	4.05	ISA	ISA	ISA
	BROOKHAVEN	984.00	960.00	23.00	4.96	6.01	0.98	11.00
31 JUL 1980	WHITEFACE	32.00	50.00	23.00	3.78	ISA	ISA	ISA
	ITHACA	780.00	690.00	22.00	4.30	4.27	53.70	23.00
	PENN STATE	50.00	70.00	25.00	ISA	3.78	165.96	130.00
	VIRGINIA	0.00	80.00	MOE	MOE	MOE	MOE	MOE
	ILLINOIS	9.00	15.00	25.00	4.24	ISA	ISA	ISA
1 AUG 1980	ILLINOIS	7.00	15.00	25.00	4.05	ISA	ISA	ISA
	OXFORD	246.00	250.00	20.00	3.97	4.22	60.26	27.00
2 AUG 1980	WHITEFACE	1078.00	990.00	21.00	3.72	3.78	165.96	74.00
	LEWES	21.00	30.00	27.00	3.92	ISA	ISA	ISA
3 AUG 1980	ILLINOIS	70.00	100.00	25.00	4.58	ISA	ISA	ISA
	BROOKHAVEN	118.00	210.00	25.00	3.75	3.92	120.23	62.00
	OXFORD	1452.00	2360.00	17.00	3.80	4.02	95.50	41.00
4 AUG 1980	WHITEFACE	311.00	310.00	22.00	3.98	4.17	67.61	29.00
	ITHACA	2650.00	2760.00	22.00	4.18	4.17	67.61	31.00
	PENN STATE	2100.00	1800.00	25.00	3.80	3.77	169.82	79.00
	VIRGINIA	624.00	650.00	24.00	4.20	4.31	48.98	22.00
5 AUG 1980	ILLINOIS	247.00	360.00	25.00	4.35	4.47	33.88	20.00
6 AUG 1980	WHITEFACE	1082.00	1040.00	24.00	3.85	4.06	87.10	36.00

MAPSS/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		ML	ML	C			UMOL/L	UMOL/CM
	PENN STATE	400.00	400.00	25.00	4.00	4.04	91.20	45.00
	VIRGINIA	323.00	340.00	24.00	4.02	4.13	74.13	35.00
	LEWES	5.00	ISA	ISA	ISA	ISA	ISA	ISA
7 AUG 1980	ILLINOIS	103.00	160.00	25.00	4.20	4.23	58.88	30.00
	OXFORD	1316.00	1310.00	16.00	3.75	4.01	97.72	44.00
8 AUG 1980	ITHACA	50.00	50.00	22.00	3.79	ISA	ISA	ISA
10 AUG 1980	OXFORD	338.00	350.00	14.00	3.96	3.86	138.04	66.00
11 AUG 1980	PENN STATE	980.00	870.00	25.00	3.82	3.81	154.88	73.00
	VIRGINIA	855.00	1000.00	24.00	4.05	4.11	77.62	37.00
	ILLINOIS	316.00	500.00	25.00	4.17	4.23	58.88	31.00
	LEWES	102.00	110.00	15.00	3.88	ISA	ISA	ISA
	OXFORD	150.00	140.00	19.00	3.82	ISA	ISA	ISA
12 AUG 1980	WHITEFACE	1069.00	1070.00	20.00	3.98	4.22	60.26	26.00
	ITHACA	885.00	717.00	22.00	3.96	4.00	100.00	45.00
	PENN STATE	930.00	920.00	25.00	3.62	3.67	213.80	100.00
	ILLINOIS	32.00	90.00	25.00	3.75	ISA	ISA	ISA
	BROOKHAVEN	532.00	480.00	23.00	3.78	3.89	128.82	58.00
	LEWES	21.00	25.00	20.00	3.67	ISA	ISA	ISA
	OXFORD	789.00	720.00	15.00	3.86	3.94	114.82	45.00
14 AUG 1980	ILLINOIS	1435.00	2200.00	25.00	4.19	4.33	46.77	26.00
15 AUG 1980	WHITEFACE	836.00	780.00	23.00	3.87	4.19	16.22	29.00
	ITHACA	1360.00	1250.00	22.00	3.97	4.01	97.72	45.00
	PENN STATE	1260.00	NAP	25.00	4.03	3.96	109.65	54.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		ML	ML	C			UMOL/L	UMOL/CM
	ILLINOIS	546.00	770.00	25.00	4.00	4.08	83.18	38.00
	BROOKHAVEN	16.00	20.00	23.00	3.18	ISA	ISA	ISA
	OXFORD	69.00	1460.00	21.00	3.76	MOE	MOE	MOE
16 AUG 1980	WHITEFACE	90.00	100.00	17.00	4.27	4.79	16.22	7.00
	VIRGINIA	166.00	180.00	21.00	3.98	3.99	102.33	43.00
	ILLINOIS	678.00	MOE	25.00	4.08	4.12	75.86	34.00
	LEWES	917.00	910.00	19.00	3.96	3.95	112.20	46.00
17 AUG 1980	ILLINOIS	413.00	1610.00	25.00	3.86	3.93	117.49	56.00
18 AUG 1980	ILLINOIS	522.00	760.00	25.00	4.28	4.40	39.81	19.00
	OXFORD	331.00	310.00	16.00	3.68	3.88	131.83	61.00
19 AUG 1980	WHITEFACE	213.00	210.00	22.00	3.79	4.01	97.72	45.00
	ILLINOIS	590.00	510.00	25.00	4.31	4.30	50.12	18.00
	OXFORD	MOE	2300.00	15.00	3.72	3.96	109.65	45.00
20 AUG 1980	WHITEFACE	894.00	850.00	21.00	3.91	4.12	75.86	39.00
	VIRGINIA	1190.00	1230.00	24.00	4.14	4.17	67.61	31.00
	BROOKHAVEN	132.00	140.00	22.00	3.55	3.62	239.88	110.00
	LEWES	1161.00	1170.00	16.00	4.23	4.16	69.18	31.00
21 AUG 1980	PENN STATE	640.00	NAP	25.00	3.99	4.01	97.72	50.00
22 AUG 1980	LEWES	23.00	ISA	22.00	3.73	ISA	ISA	ISA
26 AUG 1980	VIRGINIA	176.00	170.00	21.00	3.46	3.51	309.03	150.00
27 AUG 1980	WHITEFACE	90.00	100.00	21.00	3.62	3.72	190.55	99.00
	OXFORD	19.00	12.00	ISA	ISA	ISA	ISA	ISA
28 AUG 1980	WHITEFACE	1207.00	1200.00	22.00	3.97	4.14	72.44	36.00

MAP38/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		ML	ML	C			UMOL/L	UMHO/CM
30 AUG 1980	ITHACA	240.00	240.00	22.00	3.44	3.46	346.74	172.00
	ILLINOIS	6.30	12.00	25.00	2.85	ISA	ISA	ISA
	OXFORD	MOE	460.00	MOE	MOE	MOE	MOE	MOE
31 AUG 1980	WHITEFACE	787.00	780.00	24.00	3.63	3.75	177.83	82.00
1 SEP 1980	ILLINOIS	240.00	290.00	25.00	3.97	3.96	109.65	43.00
2 SEP 1980	WHITEFACE	1199.00	1090.00	24.00	3.84	4.09	81.28	37.00
	ITHACA	1710.00	1500.00	22.00	3.63	3.69	204.17	95.00
	VIRGINIA	0.00	ISA	22.00	ISA	ISA	ISA	ISA
	ILLINOIS	720.00	690.00	25.00	4.28	4.29	51.29	19.00
	OXFORD	MOE	210.00	MOE	MOE	MOE	MOE	MOE
3 SEP 1980	WHITEFACE	519.00	550.00	22.00	4.10	4.50	31.62	14.00
	ITHACA	1650.00	1400.00	22.00	4.06	4.12	75.86	36.00
	VIRGINIA	416.00	430.00	21.00	3.54	4.42	38.02	17.00
5 SEP 1980	LEWES	146.00	150.00	22.00	4.07	4.07	85.11	40.00
6 SEP 1980	ILLINOIS	92.00	78.00	25.00	3.70	3.85	141.25	50.00
7 SEP 1980	OXFORD	456.00	440.00	20.00	3.89	4.13	74.13	42.00
8 SEP 1980	ILLINOIS	290.00	270.00	25.00	3.94	4.02	95.50	37.00
9 SEP 1980	OXFORD	227.00	120.00	20.00	3.96	4.31	48.98	28.00
10 SEP 1980	WHITEFACE	373.00	410.00	20.00	3.90	4.16	69.18	32.00
	ITHACA	0.00	490.00	MOE	MOE	MOE	MOE	MOE
	LEWES	68.00	60.00	22.00	4.16	4.23	58.88	37.00
12 SEP 1980	ILLINOIS	14.00	3.00	25.00	4.28	ISA	ISA	ISA
13 SEP 1980	ILLINOIS	48.00	46.00	25.00	3.76	3.66	218.78	74.00

(CONT.)

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P

		ML	ML	C			UMOL/L	UMHO/CM
14 SEP 1980	ILLINOIS	4.00	3.00	25.00	4.24	ISA	ISA	ISA
15 SEP 1980	WHITEFACE	1249.00	1350.00	16.00	3.83	3.95	112.20	53.00
	ITHACA	1830.00	1710.00	22.00	4.04	4.04	91.20	43.00
	PENN STATE	640.00	650.00	25.00	3.99	3.80	158.49	39.00
	VIRGINIA	4.00	10.00	22.00	ISA	ISA	ISA	ISA
16 SEP 1980	ILLINOIS	570.00	540.00	25.00	4.33	4.23	58.88	18.00
	OXFORD	102.00	100.00	19.00	3.79	ISA	ISA	ISA
17 SEP 1980	OXFORD	228.00	240.00	17.00	3.74	3.95	112.20	57.00
18 SEP 1980	WHITEFACE	993.00	930.00	13.00	4.06	4.31	48.98	23.00
	ITHACA	510.00	490.00	22.00	3.95	3.94	114.82	56.00
	ILLINOIS	690.00	670.00	25.00	4.22	4.16	69.18	24.00
	BROOKHAVEN	842.00	850.00	21.00	5.15	5.01	9.77	17.00
	LEWES	452.00	460.00	17.00	4.09	4.11	77.62	40.00
19 SEP 1980	VIRGINIA	144.00	160.00	28.00	3.94	3.97	107.15	55.00
20 SEP 1980	OXFORD	7.00	10.00	ISA	ISA	ISA	ISA	ISA
21 SEP 1980	WHITEFACE	554.00	520.00	21.00	3.72	3.83	147.91	73.00
22 SEP 1980	WHITEFACE	1767.00	1540.00	21.00	3.94	4.16	69.18	35.00
	ITHACA	50.00	60.00	22.00	3.60	3.64	229.09	121.00
	VIRGINIA	0.00	ISA	28.00	ISA	ISA	ISA	ISA
23 SEP 1980	WHITEFACE	470.00	460.00	20.00	3.96	4.09	81.28	36.00
	ITHACA	90.00	180.00	22.00	4.17	MOE	MOE	MOE
	VIRGINIA	312.00	770.00	22.00	4.40	4.47	33.88	19.00
	ILLINOIS	4.00	3.00	25.00	6.68	ISA	ISA	ISA

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		V O L P M A S ML	V O L P E R ML	T P H D L F I C	P H D L F I F	P H D L B A L	) H C UMOL/L	T C U N O C UMHO/CM
	LEWES	99.00	100.00	17.00	4.48	4.59	25.70	16.00
	OXFORD	15.00	10.00	ISA	ISA	ISA	ISA	ISA
24 SEP 1980	PENN STATE	90.00	85.00	25.00	3.90	3.87	134.90	49.00
	VIRGINIA	51.00	40.00	21.00	3.86	3.84	144.54	ISA
	LEWES	88.00	90.00	17.00	4.09	4.00	100.00	57.00
25 SEP 1980	LEWES	595.00	590.00	19.00	4.16	4.21	61.66	43.00
26 SEP 1980	WHITEFACE	970.00	880.00	18.00	3.94	3.99	102.33	35.00
	ITHACA	430.00	440.00	22.00	3.87	3.89	128.82	62.00
	VIRGINIA	290.00	280.00	21.00	3.90	3.89	128.82	56.00
	BROOKHAVEN	310.00	300.00	24.00	4.51	4.39	40.74	21.00
	LEWES	506.00	510.00	17.00	4.29	4.36	43.65	25.00
27 SEP 1980	PENN STATE	970.00	960.00	25.00	3.92	3.87	134.90	49.00
29 SEP 1980	WHITEFACE	410.00	420.00	19.00	4.11	4.28	52.48	21.00
1 OCT 1980	LEWES	20.00	25.00	17.00	4.58	ISA	ISA	ISA
2 OCT 1980	PENN STATE	63.00	68.00	25.00	3.18	3.34	457.09	240.00
	VIRGINIA	130.00	150.00	19.00	4.11	4.01	97.72	66.00
	ILLINOIS	380.00	390.00	25.00	6.88	6.36	0.44	33.00
	OXFORD	340.00	320.00	14.00	4.18	4.06	87.10	34.00
3 OCT 1980	WHITEFACE	475.00	490.00	20.00	3.88	3.91	123.03	43.00
	ITHACA	450.00	450.00	22.00	3.88	3.89	128.82	64.00
	ILLINOIS	11.00	6.00	25.00	7.18	ISA	ISA	ISA
	BROOKHAVEN	MOE	MOE	MOE	MOE	MOE	MOE	MOE
4 OCT 1980	PENN STATE	580.00	560.00	25.00	4.10	4.11	77.62	34.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		ML	ML	C			UMOL/L	UMOL/CM
	VIRGINIA	300.00	300.00	19.00	4.16	3.98	104.71	51.00
	BROOKHAVEN	1300.00	1200.00	24.00	4.03	4.34	45.71	24.00
	LEWES	960.00	900.00	17.00	4.07	4.02	95.50	51.00
	OXFORD	9.00	12.00	ISA	ISA	ISA	ISA	ISA
5 OCT 1980	WHITEFACE	800.00	730.00	18.00	4.17	4.32	47.86	17.00
6 OCT 1980	VIRGINIA	56.00	59.00	19.00	3.82	3.77	169.82	78.00
8 OCT 1980	PENN STATE	97.00	50.00	25.00	3.75	3.75	177.83	74.00
10 OCT 1980	PENN STATE	470.00	MOE	25.00	3.81	3.93	117.49	54.00
11 OCT 1980	BROOKHAVEN	150.00	140.00	25.00	3.60	3.82	151.36	80.00
12 OCT 1980	BROOKHAVEN	300.00	290.00	25.00	3.73	4.75	17.78	12.00
	LEWES	1200.00	1200.00	7.00	4.16	4.07	85.11	37.00
14 OCT 1980	WHITEFACE	220.00	260.00	20.00	3.94	4.03	93.33	33.00
	ITHACA	580.00	810.00	22.00	4.33	3.98	104.71	34.00
15 OCT 1980	ILLINOIS	21.00	MOE	25.00	3.45	ISA	ISA	ISA
16 OCT 1980	ILLINOIS	0.20	MOE	ISA	ISA	ISA	ISA	ISA
17 OCT 1980	PENN STATE	57.00	MOE	25.00	3.80	3.94	114.82	61.00
	ILLINOIS	357.00	350.00	25.00	4.56	4.77	16.98	9.30
18 OCT 1980	ITHACA	340.00	330.00	22.00	4.24	4.11	77.62	27.00
	PENN STATE	280.00	310.00	25.00	4.08	3.97	107.15	34.00
	ILLINOIS	41.00	MOE	25.00	4.38	4.55	28.18	22.00
	OXFORD	260.00	1770.00	16.00	3.89	4.27	53.70	19.00
19 OCT 1980	WHITEFACE	480.00	460.00	15.00	4.20	4.27	53.70	23.00
	BROOKHAVEN	440.00	420.00	25.00	4.38	4.36	43.65	16.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		ML	ML	C			UMOL/L	UMHO/CM
20 OCT 1980	WHITEFACE	290.00	280.00	21.00	4.21	4.57	26.92	11.00
	VIRGINIA	330.00	340.00	22.00	4.53	4.65	22.39	13.00
	LEWES	1900.00	18.00	15.00	4.61	4.50	31.62	14.00
22 OCT 1980	WHITEFACE	220.00	230.00	20.00	4.28	4.41	38.90	15.00
	ITHACA	240.00	275.00	22.00	4.12	4.07	85.11	32.00
25 OCT 1980	VIRGINIA	1800.00	1800.00	20.00	4.79	4.85	14.13	7.90
	ILLINOIS	101.00	220.00	25.00	4.20	4.17	67.61	27.00
	OXFORD	510.00	1100.00	14.00	4.20	4.22	60.26	21.00
26 OCT 1980	BROOKHAVEN	1770.00	1720.00	24.00	4.92	4.83	14.79	15.00
	LEWES	2000.00	2500.00	13.00	5.45	5.05	8.91	40.00
	OXFORD	8.00	0.00	ISA	ISA	ISA	ISA	ISA
27 OCT 1980	WHITEFACE	2900.00	3000.00	8.20	4.67	4.60	25.12	7.90
	ITHACA	4000.00	4000.00	22.00	4.86	4.78	16.60	6.20
28 OCT 1980	ILLINOIS	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	OXFORD	250.00	350.00	13.00	4.06	4.02	95.50	36.00
29 OCT 1980	WHITEFACE	ISA	50.00	ISA	ISA	ISA	ISA	ISA
	ITHACA	300.00	330.00	22.00	3.97	3.93	117.49	41.00
	PENN STATE	3800.00	3700.00	25.00	7.31	4.42	38.02	11.00
	VIRGINIA	2.00	20.00	20.00	ISA	ISA	ISA	ISA
	ILLINOIS	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	BROOKHAVEN	140.00	160.00	24.00	4.08	4.00	100.00	43.00
	LEWES	360.00	400.00	14.00	4.45	4.36	43.65	16.00
30 OCT 1980	OXFORD	0.00	12.00	ISA	ISA	ISA	ISA	ISA

(CONT.)

(CONT.)

		ML	ML	C	ISA	ISA	UMOL/L	UMHO/CM
31 OCT 1980	VIRGINIA	1.00	6.00	20.00	ISA	ISA	ISA	ISA
3 NOV 1980	WHITEFACE	240.00	280.00	18.00	5.95	5.98	1.05	20.00
	ITHACA	60.00	60.00	25.00	5.00	4.98	10.47	15.00
4 NOV 1980	ILLINOIS	0.30	MOE	ISA	ISA	ISA	ISA	ISA
	OXFORD	233.00	210.00	16.00	4.10	3.97	107.15	43.00
5 NOV 1980	ITHACA	320.00	340.00	24.00	4.17	4.10	79.43	33.00
	PENN STATE	74.00	85.00	25.00	3.70	3.64	229.09	98.00
	VIRGINIA	540.00	520.00	20.00	4.48	4.60	25.12	13.00
	BROOKHAVEN	170.00	260.00	24.00	4.31	4.24	57.54	27.00
	LEWES	700.00	730.00	20.00	5.00	4.31	48.98	20.00
6 NOV 1980	WHITEFACE	1200.00	1200.00	6.50	4.31	4.09	81.28	29.00
7 NOV 1980	WHITEFACE	140.00	130.00	20.00	4.03	4.09	81.28	25.00
	ITHACA	240.00	260.00	24.00	4.12	4.04	91.20	36.00
	BROOKHAVEN	85.00	100.00	24.00	4.11	3.93	117.49	38.00
8 NOV 1980	BROOKHAVEN	48.00	50.00	24.00	3.80	ISA	ISA	ISA
10 NOV 1980	ITHACA	770.00	830.00	24.00	4.03	4.00	100.00	38.00
	PENN STATE	1047.00	MOE	25.00	4.10	4.13	74.13	32.00
	VIRGINIA	0.00	29.00	MOE	MOE	MOE	MOE	MOE
	BROOKHAVEN	250.00	270.00	24.00	4.22	4.10	79.43	28.00
	LEWES	94.00	100.00	21.00	4.10	4.11	77.62	43.00
12 NOV 1980	WHITEFACE	2200.00	2100.00	20.00	4.14	4.20	63.10	23.00
	ITHACA	170.00	325.00	25.00	4.93	5.62	2.40	9.80
14 NOV 1980	ILLINOIS	32.00	MOE	25.00	4.44	ISA	ISA	ISA

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		ML	ML	C			UMOL/L	UMMO/CM
15 NOV 1980	ITHACA	10.00	160.00	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	33.00	MOE	25.00	3.97	ISA	ISA	ISA
16 NOV 1980	PENN STATE	2.00	ISA	ISA	ISA	MOE	MOE	MOE
	OXFORD	68.00	50.00	18.00	4.20	ISA	ISA	ISA
17 NOV 1980	VIRGINIA	0.00	64.00	MOE	MOE	MOE	MOE	MOE
18 NOV 1980	ITHACA	910.00	1400.00	25.00	5.30	5.30	5.01	2.60
	PENN STATE	2010.00	MOE	25.00	4.98	4.86	13.80	5.50
	VIRGINIA	0.00	1650.00	MOE	MOE	MOE	MOE	MOE
	OXFORD	793.00	820.00	15.00	4.49	4.46	34.67	12.00
19 NOV 1980	WHITEFACE	886.00	760.00	17.00	4.35	4.55	28.18	14.00
	BROOKHAVEN	1024.00	1110.00	25.00	4.63	4.79	16.22	13.00
21 NOV 1980	LEWES	1300.00	1300.00	4.00	4.56	4.59	25.70	19.00
23 NOV 1980	ILLINOIS	187.00	180.00	25.00	4.51	4.48	33.11	15.00
24 NOV 1980	ILLINOIS	30.00	MOE	25.00	3.96	ISA	ISA	ISA
	OXFORD	321.00	290.00	17.00	4.08	4.20	63.10	23.00
25 NOV 1980	WHITEFACE	1068.00	910.00	19.00	4.24	4.45	35.48	15.00
	PENN STATE	1455.00	MOE	25.00	4.86	4.68	20.89	7.80
	VIRGINIA	0.00	750.00	MOE	MOE	MOE	MOE	MOE
	BROOKHAVEN	1380.00	1510.00	25.00	4.72	4.74	18.20	11.00
	LEWES	647.00	680.00	17.00	4.53	4.68	20.89	16.00
26 NOV 1980	WHITEFACE	135.00	110.00	20.00	4.02	ISA	ISA	ISA
	ITHACA	810.00	840.00	25.00	4.36	4.45	35.48	17.00
28 NOV 1980	VIRGINIA	580.00	610.00	18.00	4.12	4.24	57.54	33.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		^P A M S ML	^D R P ML	^D I F C	^D I F	^H A L	^H H (	^T C U D N O C
							UMOL/L	UMOL/CM
	ILLINOIS	95.00	210.00	25.00	4.17	4.12	75.86	30.00
29 NOV 1980	BROOKHAVEN	396.00	1930.00	26.00	4.76	4.84	14.45	14.00
30 NOV 1980	ITHACA	480.00	500.00	25.00	MOE	4.38	41.69	21.00
	LEWES	1658.00	1710.00	15.00	4.30	4.63	23.44	24.00
	OXFORD	1386.00	1280.00	15.00	3.94	4.31	48.98	18.00
1 DEC 1980	WHITEFACE	998.00	760.00	15.00	4.18	4.42	38.02	17.00
	PENN STATE	793.00	MOE	25.00	4.25	4.06	87.10	34.00
2 DEC 1980	WHITEFACE	45.00	35.00	19.00	3.66	ISA	ISA	ISA
	OXFORD	145.00	145.00	17.00	4.01	4.29	51.29	21.00
3 DEC 1980	ITHACA	660.00	630.00	25.00	4.12	4.18	66.07	31.00
	BROOKHAVEN	205.00	240.00	26.00	4.08	4.19	64.57	42.00
	LEWES	32.00	15.00	14.00	3.70	ISA	ISA	0.67
4 DEC 1980	WHITEFACE	528.00	460.00	16.00	4.20	4.41	38.90	17.00
	PENN STATE	396.00	MOE	25.00	4.29	4.56	27.54	22.00
5 DEC 1980	ILLINOIS	13.00	NAP	25.00	3.65	ISA	ISA	ISA
	OXFORD	21.00	16.00	ISA	ISA	ISA	ISA	ISA
7 DEC 1980	ILLINOIS	250.00	260.00	25.00	4.35	4.42	38.02	20.00
	OXFORD	30.00	33.00	ISA	ISA	ISA	ISA	ISA
8 DEC 1980	WHITEFACE	1300.00	1200.00	19.00	4.19	4.39	40.74	18.00
	ITHACA	180.00	180.00	25.00	4.14	4.16	69.18	32.00
	ILLINOIS	620.00	580.00	25.00	4.38	4.45	35.48	20.00
9 DEC 1980	ITHACA	295.00	310.00	25.00	4.25	4.25	56.23	26.00
	PENN STATE	66.00	MOE	25.00	4.29	ISA	ISA	2.90

		ML	ML	C			UMOL/L	UMHO/CM
	ILLINOIS	93.00	99.00	25.00	4.38	4.41	38.90	ISA
10 DEC 1980	ITHACA	340.00	340.00	25.00	4.27	4.26	54.95	24.00
	PENN STATE	681.00	MOE	25.00	4.56	4.74	18.20	14.00
	ILLINOIS	0.30	NAP	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	207.00	210.00	25.00	3.99	4.03	93.33	42.00
	LEWES	97.00	100.00	19.00	4.56	4.47	33.88	24.00
	OXFORD	790.00	750.00	13.00	4.15	4.40	39.81	13.00
11 DEC 1980	WHITEFACE	320.00	300.00	21.00	4.44	4.83	14.79	9.90
	PENN STATE	5.00	MOE	ISA	ISA	ISA	ISA	ISA
	VIRGINIA	230.00	225.00	16.00	4.62	4.75	17.78	8.50
15 DEC 1980	WHITEFACE	500.00	460.00	9.20	4.43	4.43	37.15	21.00
	ITHACA	620.00	680.00	25.00	4.34	4.49	32.36	20.00
	PENN STATE	15.00	MOE	25.00	5.00	ISA	ISA	ISA
16 DEC 1980	BROOKHAVEN	45.00	40.00	26.00	4.47	ISA	ISA	2.30
17 DEC 1980	ITHACA	430.00	520.00	25.00	4.16	4.26	54.95	29.00
	PENN STATE	233.00	MOE	25.00	4.20	4.44	36.31	29.00
	BROOKHAVEN	50.00	110.00	25.00	4.16	ISA	ISA	ISA
	LEWES	70.00	114.00	19.00	3.87	4.02	95.50	48.00
	OXFORD	133.00	125.00	18.00	4.05	4.22	60.26	24.00
18 DEC 1980	WHITEFACE	390.00	360.00	17.00	4.07	4.21	61.66	27.00
19 DEC 1980	OXFORD	25.00	33.00	ISA	ISA	ISA	ISA	ISA
22 DEC 1980	ITHACA	220.00	240.00	25.00	4.13	4.25	56.23	41.00
23 DEC 1980	PENN STATE	ISA	ISA	ISA	ISA	ISA	ISA	ISA

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		ML	ML	C			UMOL/L	UMMO/CM
24 DEC 1980	BROOKHAVEN	520.00	535.00	25.00	4.46	4.50	31.62	10.00
	LEWES	590.00	670.00	26.00	4.19	5.02	9.55	4.70
	OXFORD	360.00	325.00	13.00	4.02	4.33	46.77	21.00
25 DEC 1980	ILLINOIS	12.00	200.00	25.00	5.03	ISA	ISA	ISA
26 DEC 1980	ITHACA	720.00	910.00	23.00	4.52	4.63	23.44	13.00
	VIRGINIA	90.00	64.00	14.00	4.17	4.18	66.07	23.00
28 DEC 1980	LEWES	200.00	230.00	17.00	4.30	4.54	28.84	14.00
29 DEC 1980	ILLINOIS	91.00	77.00	25.00	4.19	4.13	74.13	ISA
	OXFORD	90.00	81.00	13.00	4.06	ISA	ISA	ISA
30 DEC 1980	PENN STATE	380.00	150.00	25.00	4.00	4.09	81.28	42.00
	VIRGINIA	30.00	25.00	15.00	3.49	ISA	ISA	ISA
	LEWES	510.00	590.00	17.00	4.59	5.11	7.76	5.20
31 DEC 1980	ITHACA	110.00	170.00	23.00	3.90	4.02	95.50	52.00

NSC MEANS NO SAMPLE COLLECTED
ISA MEANS INSUFF. SAMPLE FOR ANALYSIS
NAP MEANS NO ANALYSIS PERFORMED
MOE MEANS MALFUNCTION OF OPERATOR ERROR
RPC MEANS REJECTED--PROB. CONTAMINATION

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		² S	⁴ S	² N	³ N	⁻ C	⁴ P	⁰ N I A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
2 JAN 1980	ITHACA	NAP	20.00	<0.10	23.00	7.40	<0.20	70.00
6 JAN 1980	PENN STATE	<0.20	3.90	0.18	35.00	9.80	<0.20	53.00
	BROOKHAVEN	0.38	17.00	0.34	40.00	120.00	<0.20	190.00
	OXFORD	1.20	22.00	0.22	93.00	16.00	<0.20	150.00
7 JAN 1980	PENN STATE	ISA	65.00	0.18	66.00	17.00	<0.20	210.00
	VIRGINIA	0.31	11.00	0.25	45.00	5.60	<0.20	73.00
	LEWES	1.80	20.00	0.26	30.00	130.00	<0.20	200.00
8 JAN 1980	WHITEFACE	0.30	ISA	ISA	ISA	ISA	ISA	ISA
	ITHACA	ISA	27.00	<0.10	49.00	28.00	<0.20	130.00
	LEWES	5.00	18.00	0.21	25.00	11.00	<0.20	72.00
10 JAN 1980	PENN STATE	<0.20	6.80	0.58	56.00	49.00	<0.20	120.00
11 JAN 1980	WHITEFACE	0.42	RPC	RPC	RPC	RPC	RPC	RPC
	ILLINOIS	MOE	MOE	MOE	MOE	MOE	MOE	MOE
12 JAN 1980	ITHACA	0.71	18.00	<0.10	34.00	9.20	<0.20	79.00
	PENN STATE	<0.20	12.00	0.15	20.00	6.30	<0.20	51.00
	VIRGINIA	5.20	29.00	0.39	29.00	60.00	<0.20	150.00
	LEWES	<0.20	9.10	0.10	5.80	83.00	<0.20	110.00
14 JAN 1980	BROOKHAVEN	<0.20	13.00	0.10	9.80	140.00	<0.20	180.00
15 JAN 1980	WHITEFACE	0.49	9.20	<0.10	15.00	2.80	<0.20	36.00
	ITHACA	7.30	11.00	0.23	4.90	3.50	<0.20	31.00
	PENN STATE	9.80	16.00	0.18	8.60	8.90	<0.20	52.00
	VIRGINIA	1.30	13.00	0.35	13.00	27.00	<0.20	66.00
16 JAN 1980	OXFORD	4.30	25.00	0.34	22.00	4.00	<0.20	76.00

MAP39/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		0 2 S (	0 4 S (	0 2 N (	0 3 N (	0 L C (	0 4 P (	0 N I A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
17 JAN 1980	ILLINOIS	2.10	68.00	0.49	120.00	18.00	0.54	270.00
19 JAN 1980	PENN STATE	ISA	41.00	2.50	28.00	17.00	0.92	130.00
	VIRGINIA	3.60	4.50	0.34	7.50	1.70	<0.20	19.00
	BROOKHAVEN	17.00	32.00	0.42	50.00	24.00	<0.20	140.00
	LEWES	2.60	9.20	0.11	8.00	5.50	<0.20	32.00
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
20 JAN 1980	ILLINOIS	0.24	43.00	0.39	83.00	8.60	0.36	180.00
21 JAN 1980	OXFORD	0.42	ISA	ISA	ISA	ISA	ISA	ISA
22 JAN 1980	WHITEFACE	0.23	33.00	<0.10	24.00	3.60	<0.20	94.00
23 JAN 1980	VIRGINIA	7.60	10.00	0.25	7.40	2.70	<0.20	30.00
	BROOKHAVEN	2.30	18.00	0.28	30.00	45.00	<0.20	110.00
24 JAN 1980	PENN STATE	ISA	52.00	0.29	82.00	17.00	<0.20	200.00
	LEWES	7.10	17.00	0.17	29.00	6.00	<0.20	69.00
25 JAN 1980	ITHACA	ISA	17.00	0.11	53.00	11.00	<0.20	98.00
	PENN STATE	ISA	14.00	0.51	62.00	15.00	<0.20	110.00
	ILLINOIS	1.40	17.00	0.38	25.00	5.30	<0.20	65.00
	OXFORD	1.20	18.00	0.21	43.00	8.20	<0.20	87.00
29 JAN 1980	WHITEFACE	MOE	MOE	MOE	MOE	MOE	MOE	MOE
30 JAN 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
31 JAN 1980	PENN STATE	ISA	26.00	0.94	74.00	25.00	<0.20	150.00
	VIRGINIA	<0.20	5.30	0.12	50.00	3.90	<0.20	65.00
	OXFORD	0.72	ISA	ISA	ISA	ISA	ISA	ISA
1 FEB 1980	ITHACA	0.24	6.20	<0.10	48.00	17.00	<0.20	77.00

		² S (	⁴ S (	² N (	³ N (	¹ C (	⁴ P (	⁰ I A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	LEWES	0.81	ISA	ISA	ISA	ISA	ISA	ISA
5 FEB 1980	ITHACA	ISA	5.20	<0.10	18.00	15.00	<0.20	43.00
6 FEB 1980	ILLINOIS	4.70	36.00	0.46	140.00	8.80	0.70	220.00
7 FEB 1980	PENN STATE	0.35	6.60	ISA	45.00	11.00	<0.20	69.00
	VIRGINIA	<0.30	6.80	0.36	71.00	11.00	<0.20	96.00
	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	2.10	13.00	0.49	54.00	24.00	<0.20	100.00
10 FEB 1980	OXFORD	4.10	ISA	ISA	ISA	ISA	ISA	ISA
11 FEB 1980	VIRGINIA	0.45	10.00	0.20	51.00	12.00	<0.20	83.00
	LEWES	4.20	13.00	0.34	68.00	21.00	<0.20	120.00
12 FEB 1980	PENN STATE	ISA	34.00	ISA	120.00	18.00	<0.20	210.00
	OXFORD	1.90	ISA	ISA	ISA	ISA	ISA	ISA
16 FEB 1980	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
17 FEB 1980	BROOKHAVEN	1.60	56.00	0.47	77.00	27.00	<0.20	220.00
	LEWES	2.30	34.00	0.09	62.00	9.20	<0.20	139.00
	OXFORD	1.00	ISA	ISA	ISA	ISA	ISA	ISA
18 FEB 1980	WHITEFACE	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	ITHACA	<0.30	4.10	0.16	55.00	6.60	<0.20	70.00
	PENN STATE	<0.60	21.00	0.30	63.00	11.00	<0.20	120.00
21 FEB 1980	VIRGINIA	0.49	13.00	0.41	27.00	7.00	0.54	62.00
22 FEB 1980	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	3.40	21.00	0.32	22.00	4.60	<0.20	69.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		2 0 S (	4 0 S (	2 0 N (	3 0 N (	L C (	4 0 P (	0 I N A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	OXFORD	2.00	ISA	ISA	ISA	ISA	ISA	ISA
23 FEB 1980	PENN STATE	0.87	33.00	0.36	44.00	9.00	<0.20	120.00
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	<0.30	45.00	0.47	49.00	57.00	<0.20	200.00
	LEWES	1.00	37.00	0.15	120.00	19.00	<0.20	213.00
24 FEB 1980	VIRGINIA	0.68	71.00	0.57	97.00	11.00	<0.20	250.00
	LEWES	2.90	ISA	ISA	ISA	ISA	ISA	ISA
25 FEB 1980	WHITEFACE	<0.20	38.00	<0.10	35.00	3.80	<0.20	110.00
	ITHACA	0.74	30.00	0.10	49.00	4.00	<0.20	110.00
	VIRGINIA	<0.30	28.00	0.34	76.00	5.50	<0.20	140.00
	OXFORD	7.60	ISA	ISA	ISA	ISA	ISA	ISA
26 FEB 1980	VIRGINIA	0.76	23.00	0.22	60.00	3.70	<0.20	110.00
	ILLINOIS	4.50	ISA	ISA	ISA	ISA	ISA	ISA
	LEWES	4.50	32.00	0.30	55.00	28.00	<0.20	147.00
28 FEB 1980	WHITEFACE	<0.20	9.70	0.32	83.00	18.00	<0.20	120.00
	ITHACA	<0.30	13.00	0.20	100.00	18.00	<0.20	140.00
	ILLINOIS	0.61	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	<0.30	5.90	0.22	35.00	4.10	<0.20	51.00
29 FEB 1980	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	LEWES	0.99	40.00	0.30	120.00	27.00	<0.20	227.00
2 MAR 1980	OXFORD	3.60	ISA	ISA	ISA	ISA	ISA	ISA
3 MAR 1980	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
4 MAR 1980	LEWES	<0.20	10.00	0.35	41.00	39.00	<0.20	100.00

		² S (	⁴ S (	² N (	³ N (	¹ L (	⁴ P (	⁰ N A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
5 MAR 1980	VIRGINIA	2.70	11.00	0.70	12.00	4.10	<0.20	39.00
	ILLINOIS	2.70	ISA	ISA	ISA	ISA	ISA	ISA
6 MAR 1980	ITHACA	4.20	23.00	0.13	45.00	3.80	<0.20	95.00
	PENN STATE	<0.60	26.00	0.42	39.00	12.00	<0.20	100.00
	BROOKHAVEN	<0.30	49.00	0.49	38.00	66.00	<0.20	200.00
	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	5.90	27.00	0.39	32.00	5.00	<0.20	91.00
7 MAR 1980	WHITEFACE	0.92	17.00	<0.10	43.00	4.00	<0.20	81.00
8 MAR 1980	BROOKHAVEN	<0.30	55.00	0.51	77.00	44.00	<0.20	230.00
	OXFORD	4.90	44.00	0.23	44.00	10.00	<0.20	140.00
9 MAR 1980	PENN STATE	0.86	37.00	0.27	43.00	10.00	<0.20	130.00
	VIRGINIA	RPC	RPC	RPC	RPC	RPC	RPC	RPC
	BROOKHAVEN	1.20	31.00	0.41	49.00	9.20	<0.20	120.00
10 MAR 1980	WHITEFACE	<0.20	18.00	<0.10	48.00	2.60	<0.20	87.00
	ITHACA	8.80	21.00	0.18	46.00	2.50	<0.20	99.00
	ILLINOIS	5.20	53.00	0.53	61.00	12.00	<0.20	180.00
11 MAR 1980	PENN STATE	NAP	37.00	0.28	70.00	39.00	<0.20	180.00
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	<0.30	41.00	0.36	39.00	79.00	<0.20	200.00
	LEWES	0.38	34.00	0.28	47.00	15.00	<0.20	130.00
	OXFORD	4.70	59.00	0.80	89.00	10.00	<0.20	220.00
12 MAR 1980	WHITEFACE	0.21	52.00	<0.10	78.00	7.50	<0.20	190.00
13 MAR 1980	PENN STATE	0.44	3.60	0.18	15.00	5.60	<0.20	28.00

MAP38/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		2 0 S (	4 0 S (	2 0 N (	3 0 N (	L C (	4 0 P (	0 N I A UEQ/L
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	
	ILLINOIS	<0.30	ISA	ISA	ISA	ISA	ISA	ISA
14 MAR 1980	ITHACA	<0.20	6.40	<0.10	15.00	1.90	<0.20	30.00
	VIRGINIA	2.50	6.90	0.14	5.70	3.90	<0.20	24.00
	BROOKHAVEN	<0.60	8.60	0.11	4.00	33.00	<0.20	54.00
	OXFORD	5.50	28.00	0.25	72.00	6.40	<0.20	130.00
15 MAR 1980	LEWES	<0.20	29.00	0.07	7.10	470.00	<0.20	535.00
17 MAR 1980	WHITEFACE	0.29	5.80	<0.10	5.00	2.20	<0.20	19.00
	ILLINOIS	<0.30	21.00	0.12	20.00	4.70	<0.20	67.00
18 MAR 1980	ITHACA	1.30	15.00	0.14	30.00	3.40	<0.20	64.00
	PENN STATE	<0.20	17.00	0.11	22.00	3.40	<0.20	60.00
	VIRGINIA	<0.60	51.00	0.11	31.00	140.00	<0.20	270.00
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	<0.60	20.00	0.10	10.00	71.00	<0.20	120.00
	LEWES	<0.20	19.00	0.08	9.20	88.00	<0.20	135.00
19 MAR 1980	WHITEFACE	2.00	14.00	<0.10	18.00	3.00	<0.20	49.00
	OXFORD	<0.20	22.00	0.16	16.00	3.20	<0.20	63.00
21 MAR 1980	ILLINOIS	1.10	66.00	0.34	130.00	12.00	<0.20	270.00
22 MAR 1980	PENN STATE	0.61	11.00	0.14	19.00	3.00	<0.20	44.00
	BROOKHAVEN	<0.20	21.00	0.18	15.00	69.00	<0.20	130.00
	OXFORD	<0.20	11.00	0.17	17.00	1.60	<0.20	41.00
23 MAR 1980	VIRGINIA	<0.20	9.10	<0.10	6.80	2.10	<0.20	27.00
	LEWES	<0.20	9.10	0.06	5.70	29.00	<0.20	53.00
24 MAR 1980	WHITEFACE	<0.20	16.00	0.12	10.00	3.70	<0.20	46.00

		0 S (	0 S (	0 N (	0 N (	0 C (	0 P (	0 A (
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	ITHACA	<0.20	8.00	0.13	15.00	2.00	<0.20	33.00
	ILLINOIS	5.60	14.00	0.17	20.00	2.00	<0.20	54.00
25 MAR 1980	VIRGINIA	0.17	33.00	0.29	31.00	4.70	<0.20	100.00
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	0.65	13.00	0.18	12.00	12.00	<0.20	50.00
	OXFORD	1.70	22.00	0.29	14.00	2.60	<0.20	61.00
26 MAR 1980	ITHACA	0.44	17.00	<0.10	43.00	2.00	<0.20	79.00
	LEWES	<0.20	17.00	0.14	12.00	14.00	<0.20	60.00
27 MAR 1980	WHITEFACE	<0.20	20.00	<0.10	26.00	3.20	<0.20	69.00
28 MAR 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
29 MAR 1980	VIRGINIA	<0.20	14.00	0.19	17.00	8.00	<0.20	53.00
	ILLINOIS	5.40	26.00	0.16	33.00	3.00	<0.20	88.00
	OXFORD	<0.20	23.00	0.23	21.00	2.10	<0.20	69.00
30 MAR 1980	ITHACA	0.24	20.00	0.17	41.00	1.70	<0.20	83.00
	PENN STATE	0.53	14.00	0.18	17.00	2.10	<0.20	47.00
	ILLINOIS	<0.20	10.00	<0.05	10.00	1.40	<0.20	31.00
	BROOKHAVEN	<0.20	11.00	<0.10	9.60	30.00	<0.20	62.00
	LEWES	<0.20	9.10	0.05	4.00	50.00	<0.20	72.00
31 MAR 1980	ILLINOIS	2.60	13.00	0.20	15.00	1.30	<0.20	43.00
1 APR 1980	WHITEFACE	<0.20	30.00	0.16	43.00	3.00	<0.20	106.00
	ITHACA	<0.20	17.00	0.11	8.80	1.20	<0.20	44.00
	PENN STATE	0.59	20.00	0.12	24.00	4.30	<0.20	68.00
	VIRGINIA	<0.20	38.00	0.19	40.00	3.10	<0.20	120.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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	² ₀ S (	⁴ ₀ S (	² ₀ N (	³ ₀ N (	² ₀ L (	⁴ ₀ P (	⁰ ₀ I A
	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
BROOKHAVEN	<0.20	32.00	0.18	18.00	40.00	<0.20	120.00
LEWES	<0.20	41.00	0.09	30.00	200.00	<0.20	312.00
OXFORD	2.90	22.00	0.15	22.00	2.60	<0.20	69.00
3 APR 1980 ILLINOIS	1.70	ISA	ISA	ISA	ISA	ISA	ISA
4 APR 1980 PENN STATE	0.71	44.00	0.21	57.00	6.80	<0.20	152.00
ILLINOIS	2.30	63.00	0.41	50.00	15.00	<0.20	190.00
BROOKHAVEN	<0.20	19.00	0.18	14.00	13.00	<0.20	65.00
5 APR 1980 PENN STATE	ISA	42.00	0.35	44.00	14.00	<0.20	142.00
LEWES	<0.20	16.00	0.09	15.00	10.00	<0.20	57.00
OXFORD	1.10	51.00	0.17	37.00	7.70	<0.20	150.00
7 APR 1980 ITHACA	ISA	96.00	0.28	130.00	10.00	<0.20	332.00
VIRGINIA	<0.20	31.00	0.26	31.00	3.00	<0.20	96.00
ILLINOIS	0.24	ISA	ISA	ISA	ISA	ISA	ISA
8 APR 1980 WHITEFACE	0.43	27.00	0.17	35.00	2.40	<0.20	92.00
ILLINOIS	0.50	21.00	0.14	18.00	3.20	<0.20	62.74
BROOKHAVEN	0.21	ISA	ISA	ISA	ISA	ISA	ISA
OXFORD	<0.20	32.00	0.21	21.00	3.70	<0.20	89.00
9 APR 1980 PENN STATE	<0.20	12.00	0.17	10.00	6.40	<0.20	41.00
VIRGINIA	<0.20	21.00	0.08	14.00	31.00	<0.20	87.00
ILLINOIS	2.90	36.00	0.21	32.00	3.20	<0.20	106.81
10 APR 1980 ITHACA	<0.20	19.00	0.12	23.00	4.70	<0.20	66.00
PENN STATE	0.77	29.00	0.30	28.00	7.50	<0.20	94.00
ILLINOIS	1.80	ISA	ISA	ISA	ISA	ISA	ISA

		2 S (	4 S (	2 N (	3 N (	L C (	4 P (	0 N A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEG/L
	BROOKHAVEN	<0.20	16.00	<0.05	7.10	90.00	<0.20	130.00
	OXFORD	RPC	<50.00	RPC	RPC	RPC	RPC	RPC
11 APR 1980	LEWES	<0.20	19.00	<0.10	8.90	68.00	<0.20	114.90
13 APR 1980	WHITEFACE	<0.20	31.00	0.20	35.00	4.90	<0.20	102.00
14 APR 1980	ILLINOIS	1.90	26.00	0.18	37.00	5.10	<0.20	93.68
	OXFORD	3.00	29.00	0.18	30.00	4.60	<0.20	93.00
15 APR 1980	ITHACA	<0.20	16.00	0.15	19.00	3.10	<0.20	54.00
	VIRGINIA	<0.20	28.00	0.08	29.00	12.00	<0.20	97.00
	ILLINOIS	1.60	30.00	0.25	45.00	3.20	<0.20	107.85
	BROOKHAVEN	<0.20	40.00	0.09	33.00	100.00	<0.20	213.00
16 APR 1980	PENN STATE	<0.20	21.00	0.22	18.00	8.70	<0.20	69.00
17 APR 1980	ITHACA	0.31	1.70	0.11	38.00	2.10	<0.20	44.00
	BROOKHAVEN	ISA	ISA	ISA	ISA	ISA	ISA	ISA
18 APR 1980	WHITEFACE	<0.20	26.00	0.12	35.00	3.90	<0.20	91.00
	LEWES	<0.20	21.00	<0.10	21.00	98.00	<0.20	161.00
21 APR 1980	ITHACA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	0.47	150.00	0.91	260.00	44.00	<0.20	605.00
23 APR 1980	WHITEFACE	<0.20	71.00	0.10	47.00	4.20	<0.20	193.00
	OXFORD	0.88	87.00	1.00	110.00	7.40	<0.20	292.00
25 APR 1980	ITHACA	0.83	86.00	0.49	160.00	14.00	<0.20	346.00
	VIRGINIA	0.81	110.00	0.27	100.00	11.00	<0.20	331.00
	LEWES	NAP	67.00	0.21	89.00	41.00	NAP	272.21
28 APR 1980	WHITEFACE	<0.20	41.00	0.24	74.00	5.20	<0.20	161.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		² S (UMOL/L	⁴ S (UMOL/L	² N (UMOL/L	³ N (UMOL/L	¹ C (UMOL/L	⁴ P (UMOL/L	⁰ I N A UEQ/L
	ILLINOIS	0.53	44.00	0.63	37.00	12.00	<0.20	137.03
29 APR 1980	VIRGINIA	<0.20	72.00	0.37	86.00	9.00	<0.20	239.00
	ILLINOIS	1.50	46.00	0.21	42.00	4.50	<0.20	138.11
	BROOKHAVEN	<0.20	19.00	0.20	17.00	30.00	<0.20	85.00
	OXFORD	RPC	RPC	RPC	HPC	RPC	RPC	RPC
30 APR 1980	WHITEFACE	<0.20	18.00	0.15	14.00	21.00	<0.20	71.00
	ITHACA	<0.20	8.60	0.13	11.00	2.40	<0.20	31.00
	VIRGINIA	<0.20	57.00	0.18	49.00	3.10	<0.20	166.00
	BROOKHAVEN	ISA	ISA	ISA	ISA	ISA	ISA	ISA
1 MAY 1980	ILLINOIS	0.43	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	5.90	92.00	1.00	110.00	6.40	<0.20	301.00
2 MAY 1980	PENN STATE	0.39	41.00	0.22	51.00	5.30	<0.20	138.52
	VIRGINIA	ISA	83.00	0.11	110.00	5.60	<0.20	282.00
	LEWES	<0.20	36.00	0.16	28.00	50.00	<0.20	150.16
5 MAY 1980	ITHACA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	PENN STATE	<0.20	54.00	0.23	42.00	7.00	<0.20	157.23
7 MAY 1980	WHITEFACE	0.29	96.00	1.60	150.00	12.00	<0.20	355.00
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	0.30	170.00	ISA	210.00	45.00	<0.20	595.00
9 MAY 1980	VIRGINIA	0.45	67.00	0.10	51.00	4.50	<0.20	189.60
	BROOKHAVEN	0.34	83.00	0.32	96.00	13.00	<0.20	275.00
11 MAY 1980	ILLINOIS	0.30	ISA	ISA	ISA	ISA	ISA	ISA
12 MAY 1980	ITHACA	0.49	92.00	0.29	110.00	12.00	<0.20	306.29

MAP35/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		² S (	⁴ S (	² N (	³ N (	¹ C (	⁴ P (	⁰ I A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	PENN STATE	<0.20	40.00	0.16	25.00	4.50	<0.20	109.66
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	<0.20	64.00	0.57	63.00	8.10	<0.20	199.67
13 MAY 1980	ILLINOIS	<0.20	22.00	0.37	22.00	4.20	<0.20	70.57
	BROOKHAVEN	<0.20	41.00	0.29	46.00	39.00	<0.20	169.00
	OXFORD	<0.20	44.00	0.10	27.00	4.20	<0.20	119.00
14 MAY 1980	ITHACA	0.63	33.00	0.16	46.00	3.60	<0.20	115.76
15 MAY 1980	PENN STATE	<0.20	27.00	0.11	29.00	12.00	<0.20	95.11
17 MAY 1980	ILLINOIS	<0.20	78.00	0.18	62.00	5.90	<0.20	224.08
18 MAY 1980	ILLINOIS	<0.20	41.00	0.18	27.00	3.70	<0.20	112.88
	OXFORD	<0.20	35.00	0.33	23.00	3.00	<0.20	96.00
19 MAY 1980	PENN STATE	<0.20	28.00	0.20	27.00	6.00	<0.20	89.20
	VIRGINIA	<0.20	20.00	0.21	13.00	8.00	<0.20	61.21
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	<0.20	34.00	0.18	52.00	50.00	<0.20	170.00
	LEWES	<0.20	50.00	<0.10	30.00	110.00	<0.20	259.30
	OXFORD	<0.20	27.00	0.32	17.00	2.00	<0.20	73.00
20 MAY 1980	WHITEFACE	<0.20	29.00	0.10	22.00	2.70	<0.20	82.20
	ITHACA	NAP	55.00	<0.10	48.00	7.00	<0.20	165.00
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	<0.20	82.00	0.58	150.00	16.00	<0.20	330.58
21 MAY 1980	PENN STATE	<0.20	44.00	0.37	65.00	7.00	<0.20	160.37
	VIRGINIA	<0.20	35.00	0.27	31.00	3.00	<0.20	104.27

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		0 2 S (	0 4 S (	0 2 N (	0 3 N (	0 L C (	0 4 P (	0 N I A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	BROOKHAVEN	<0.20	20.00	0.21	14.00	4.60	<0.20	58.81
22 MAY 1980	LEWES	<0.20	51.00	0.31	41.00	14.00	<0.20	156.71
23 MAY 1980	ILLINOIS	0.44	52.00	0.35	57.00	4.70	<0.20	166.05
	OXFORD	1.10	ISA	ISA	ISA	ISA	ISA	ISA
24 MAY 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	<0.20	36.00	0.23	21.00	8.30	1.40	105.73
25 MAY 1980	ILLINOIS	<0.20	30.00	0.30	21.00	2.30	<0.20	83.60
	LEWES	<0.20	ISA	ISA	ISA	ISA	<0.20	ISA
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
27 MAY 1980	VIRGINIA	<0.20	18.00	0.26	20.00	6.30	<0.20	62.56
30 MAY 1980	OXFORD	<0.20	ISA	ISA	ISA	ISA	ISA	ISA
31 MAY 1980	ILLINOIS	<0.20	75.00	0.29	39.00	19.00	<0.20	208.29
	OXFORD	<0.20	64.00	0.20	31.00	7.20	<0.20	166.40
1 JUN 1980	ILLINOIS	<0.20	14.00	0.48	12.00	4.60	<0.20	45.08
	OXFORD	<0.20	38.00	0.19	32.00	12.00	<0.20	120.19
2 JUN 1980	WHITEFACE	<0.20	44.00	0.09	38.00	4.00	<0.20	129.44
	PENN STATE	<0.20	60.00	0.08	52.00	11.00	<0.20	183.08
	VIRGINIA	<0.20	39.00	0.20	24.00	4.50	<0.20	106.70
	ILLINOIS	<0.20	27.00	0.38	14.00	5.10	<0.20	73.48
	BROOKHAVEN	<0.20	43.00	0.61	51.00	9.10	<0.20	146.71
	OXFORD	<0.20	43.00	0.19	21.00	6.40	<0.20	113.59
3 JUN 1980	ILLINOIS	<0.20	41.00	0.44	23.00	13.00	<0.20	118.44
	BROOKHAVEN	<0.20	48.00	0.50	37.00	6.90	<0.20	140.40

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		² ₀ S (	⁴ ₀ S (	² ₀ N (	³ ₀ N (	¹ _L C (	⁴ ₀ P (	⁰ _N A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
4 JUN 1980	ITHACA	<0.20	27.00	0.20	24.00	3.30	<0.20	81.50
	PENN STATE	<0.20	55.00	0.20	32.00	8.80	1.40	155.20
	BROOKHAVEN	<0.20	95.00	1.40	110.00	20.00	<0.20	321.40
	LEWES	<0.20	33.00	0.32	30.00	41.00	<0.20	137.32
5 JUN 1980	WHITEFACE	<0.20	23.00	0.07	24.00	7.70	<0.20	77.77
6 JUN 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
7 JUN 1980	VIRGINIA	<0.20	110.00	1.20	110.00	21.00	<0.20	352.20
	BROOKHAVEN	<0.20	22.00	<0.10	17.00	14.00	<0.20	75.00
	LEWES	<0.20	67.00	0.50	64.00	24.00	<0.20	222.50
8 JUN 1980	ITHACA	NAP	33.00	0.17	48.00	4.60	<0.20	118.77
	PENN STATE	<0.20	37.00	0.20	28.00	5.10	<0.20	107.30
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	<0.20	31.00	0.08	34.00	8.20	<0.20	104.28
	LEWES	<0.20	46.00	0.39	30.00	57.00	<0.20	179.39
	OXFORD	<0.20	22.00	0.32	17.00	4.80	<0.20	66.12
9 JUN 1980	WHITEFACE	<0.20	21.00	0.50	25.00	1.90	<0.20	69.40
	PENN STATE	2.00	29.00	0.24	29.00	8.70	<0.20	95.94
10 JUN 1980	ITHACA	<0.20	34.00	0.11	23.00	3.70	<0.20	94.81
	PENN STATE	<0.20	13.00	0.26	13.00	17.00	<0.20	56.26
	BROOKHAVEN	<0.20	21.00	0.11	32.00	34.00	<0.20	108.11
	OXFORD	<0.20	28.00	1.40	39.00	3.70	<0.20	100.10
11 JUN 1980	WHITEFACE	<0.20	15.00	0.13	9.90	1.40	<0.20	41.43
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		2 0 S (	4 0 S (	2 0 N (	3 0 N (	L C (	4 0 P (	0 N I A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
15 JUN 1980	OXFORD	<0.20	51.00	<0.10	49.00	9.80	<0.20	160.80
16 JUN 1980	WHITEFACE	<0.20	58.00	0.29	41.00	3.80	<0.20	161.09
	ITHACA	<0.20	23.00	0.16	18.00	3.70	<0.20	67.86
	PENN STATE	<0.20	40.00	0.24	27.00	10.00	<0.20	117.24
	ILLINOIS	<0.20	52.00	0.28	34.00	7.20	<0.20	145.48
	LEWES	<0.20	63.00	0.16	82.00	41.00	<0.20	249.16
	OXFORD	<0.20	31.00	1.20	22.00	3.60	<0.20	88.80
17 JUN 1980	VIRGINIA	<0.20	50.00	0.41	33.00	13.00	<0.20	146.41
	LEWES	<0.20	48.00	<0.10	52.00	47.00	<0.20	195.00
19 JUN 1980	WHITEFACE	<0.20	120.00	0.15	160.00	11.00	<0.20	411.15
20 JUN 1980	WHITEFACE	<0.20	50.00	0.27	43.00	5.90	<0.20	149.17
	ITHACA	1.20	43.00	0.32	36.00	3.40	<0.20	125.72
	PENN STATE	<0.20	71.00	0.45	59.00	9.40	<0.20	210.85
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
21 JUN 1980	WHITEFACE	<0.20	25.00	0.13	30.00	2.00	<0.20	82.13
	ITHACA	ISA	29.00	ISA	21.00	3.20	<0.20	82.20
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
23 JUN 1980	ILLINOIS	<0.20	64.00	0.38	35.00	14.00	<0.20	177.38
24 JUN 1980	WHITEFACE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	0.00
26 JUN 1980	LEWES	<0.20	15.00	0.15	14.00	38.00	<0.20	82.15

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		² S (	⁴ S (	² N (	³ N (	⁻ C (	⁴ P (	⁰ N A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
27 JUN 1980	WHITEFACE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
29 JUN 1980	OXFORD	<0.20	79.00	0.13	63.00	8.40	<0.20	229.53
30 JUN 1980	ITHACA	<0.20	74.00	0.38	52.00	5.10	<0.20	205.48
	PENN STATE	<0.20	67.00	0.19	39.00	6.60	<0.20	179.79
	VIRGINIA	ISA	83.00	ISA	41.00	12.00	0.70	221.10
	BROOKHAVEN	<0.20	24.00	0.47	24.00	15.00	<0.20	87.47
	LEWES	<0.20	120.00	0.46	63.00	18.00	<0.20	321.46
1 JUL 1980	WHITEFACE	<0.20	8.50	0.23	8.10	3.10	<0.20	28.43
	ITHACA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	<0.20	120.00	0.49	76.00	42.00	<0.20	358.49
2 JUL 1980	WHITEFACE	<0.20	42.00	<0.10	17.00	2.30	<0.20	103.30
3 JUL 1980	WHITEFACE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	<0.20	77.00	0.36	79.00	20.00	2.00	259.36
	OXFORD	<0.20	64.00	0.51	80.00	4.90	<0.20	213.41
4 JUL 1980	ILLINOIS	<0.20	55.00	0.56	73.00	12.00	<0.20	195.56
	LEWES	<0.20	120.00	0.53	150.00	39.00	<0.20	429.53
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
5 JUL 1980	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	<0.20	28.00	0.21	23.00	7.90	<0.20	87.11
	BROOKHAVEN	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	<0.20	40.00	0.12	21.00	3.20	<0.20	104.32
6 JUL 1980	ITHACA	<0.20	40.00	0.19	20.00	2.90	<0.20	103.09
	VIRGINIA	<0.20	43.00	0.16	23.00	3.80	<0.20	112.96

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		0 S (	0 S (	0 N (	0 N (	0 L C (	0 P (	0 N A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	BROOKHAVEN	<0.20	41.00	0.32	35.00	26.00	<0.20	143.32
7 JUL 1980	WHITEFACE	ISA	90.00	0.18	40.00	4.90	<0.20	225.08
	PENN STATE	<0.20	94.00	0.17	63.00	7.80	<0.20	258.97
8 JUL 1980	PENN STATE	<0.20	37.00	0.26	30.00	4.00	<0.20	108.26
	LEWES	<0.20	62.00	0.49	50.00	26.00	1.80	205.89
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
9 JUL 1980	WHITEFACE	<0.20	10.00	<0.10	8.80	2.20	<0.20	31.00
	ITHACA	<0.20	79.00	0.26	58.00	9.00	<0.20	225.26
	VIRGINIA	<0.20	28.00	0.51	23.00	4.30	<0.20	83.81
	OXFORD	<0.20	54.00	0.69	66.00	6.10	<0.20	180.79
10 JUL 1980	VIRGINIA	<0.20	29.00	0.27	26.00	3.80	<0.20	88.07
	OXFORD	<0.20	76.00	0.34	55.00	6.60	<0.20	213.94
11 JUL 1980	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	<0.20	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
12 JUL 1980	PENN STATE	<0.20	110.00	0.39	90.00	21.00	<0.20	331.39
13 JUL 1980	WHITEFACE	<0.20	22.00	0.51	22.00	5.40	<0.20	71.91
14 JUL 1980	VIRGINIA	<0.20	100.00	0.41	31.00	8.30	<0.20	239.71
16 JUL 1980	WHITEFACE	<0.20	43.00	0.40	45.00	4.50	<0.20	135.90
	PENN STATE	<0.20	78.00	0.36	59.00	8.70	<0.20	224.06
17 JUL 1980	ITHACA	<0.20	32.00	0.36	18.00	2.50	<0.20	84.86
	PENN STATE	<0.20	68.00	0.32	44.00	11.00	<0.20	191.32
18 JUL 1980	WHITEFACE	<0.20	20.00	0.33	16.00	3.90	<0.20	60.23

		2 0 S (	4 0 S (	2 0 N (	3 0 N (	L C (	4 0 P (	N O I A UEQ/L
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L
	VIRGINIA	<0.20	130.00	0.32	74.00	9.00	<0.20	343.32
	LEWES	<0.20	62.00	0.63	38.00	12.00	<0.20	174.63
19 JUL 1980	ILLINOIS	<0.20	ISA	ISA	ISA	ISA	ISA	ISA
21 JUL 1980	WHITEFACE	<0.20	13.00	0.23	34.00	5.00	<0.20	65.23
22 JUL 1980	WHITEFACE	<0.20	12.00	0.20	11.00	1.40	<0.20	36.60
	ITHACA	<0.20	59.00	0.52	39.00	4.50	<0.20	162.02
	PENN STATE	<0.20	82.00	0.23	60.00	9.30	<0.20	233.53
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	ILLINOIS	<0.20	61.00	0.42	48.00	11.00	<0.20	181.42
	OXFORD	<0.20	37.00	<0.10	26.00	4.20	<0.20	104.20
23 JUL 1980	PENN STATE	<0.20	43.00	0.20	25.00	5.20	<0.20	116.40
	LEWES	<0.20	18.00	0.41	19.00	14.00	<0.20	69.41
24 JUL 1980	WHITEFACE	<0.20	11.00	0.15	9.20	2.70	<0.20	34.05
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	LEWES	<0.20	33.00	0.31	23.00	11.00	<0.20	100.31
27 JUL 1980	WHITEFACE	<0.20	35.00	0.50	26.00	4.90	<0.20	101.40
	ILLINOIS	<0.20	55.00	0.34	45.00	9.30	<0.20	164.64
	OXFORD	<0.20	53.00	<0.10	27.00	3.80	<0.20	136.80
28 JUL 1980	ITHACA	<0.20	34.00	0.18	25.00	5.00	<0.20	98.18
	ILLINOIS	<0.20	15.00	<0.10	6.60	7.00	<0.20	43.60
29 JUL 1980	PENN STATE	<0.20	16.00	<0.10	18.00	15.00	<0.20	65.00
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA

MAP39/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		0 S (UMOL/L	4 S (UMOL/L	2 N (UMOL/L	3 N (UMOL/L	L C (UMOL/L	4 P (UMOL/L	0 I N A UEQ/L
	OXFORD	<0.20	78.00	<0.10	62.00	7.60	<0.20	225.60
30 JUL 1980	WHITEFACE	<0.20	8.00	<0.10	7.50	4.20	<0.20	27.70
	PENN STATE	<0.20	78.00	<0.10	62.00	7.50	<0.20	225.50
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	0.00
	BROOKHAVEN	<0.20	8.20	<0.10	4.70	20.00	2.70	49.20
31 JUL 1980	WHITEFACE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ITHACA	<0.20	22.00	0.23	20.00	7.00	<0.20	71.23
	PENN STATE	ISA	200.00	<0.10	160.00	36.00	<0.20	596.00
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
1 AUG 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	<0.20	27.00	<0.10	34.00	4.80	<0.20	92.80
2 AUG 1980	WHITEFACE	<0.20	82.00	<0.10	39.00	11.00	<0.20	214.00
	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
3 AUG 1980	ILLINOIS	<0.20	60.00	0.11	67.00	18.00	<0.20	205.11
	BROOKHAVEN	<0.20	60.00	0.09	80.00	18.00	0.69	220.16
	OXFORD	<0.20	46.00	0.09	29.00	6.00	<0.20	127.09
4 AUG 1980	WHITEFACE	<0.20	30.00	<0.10	22.00	2.50	<0.20	84.50
	ITHACA	<0.20	37.00	<0.10	23.00	3.50	<0.20	100.50
	PENN STATE	<0.20	76.00	<0.10	23.00	7.40	<0.20	182.40
	VIRGINIA	<0.20	23.00	0.48	16.00	5.70	<0.20	68.18
5 AUG 1980	ILLINOIS	<0.20	21.00	<0.10	28.00	12.00	<0.20	82.00
6 AUG 1980	WHITEFACE	<0.20	37.00	<0.10	22.00	5.30	<0.20	101.30

	0 2 S (	0 4 S (	0 2 N (	0 3 N (	0 L C (	0 4 P (	0 N I A (
	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
PENN STATE	0.67	40.00	<0.10	28.00	5.60	<0.20	113.60
VIRGINIA	<0.20	33.00	0.47	33.00	7.00	<0.20	106.47
LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
7 AUG 1980 ILLINOIS	<0.20	28.00	0.18	23.00	13.00	<0.20	92.18
OXFORD	<0.20	47.00	<0.10	26.00	7.40	<0.20	127.40
8 AUG 1980 ITHACA	<0.20	82.00	<0.10	92.00	10.00	<0.20	266.00
10 AUG 1980 OXFORD	<0.20	80.00	<0.10	45.00	6.40	<0.20	211.40
11 AUG 1980 PENN STATE	<0.20	69.00	0.26	45.00	7.50	<0.20	190.76
VIRGINIA	<0.20	40.00	0.11	37.00	6.20	<0.20	123.31
ILLINOIS	<0.20	35.00	0.32	28.00	5.30	<0.20	103.62
LEWES	<0.20	56.00	0.36	51.00	15.00	<0.20	178.36
OXFORD	<0.20	ISA	ISA	ISA	ISA	ISA	ISA
12 AUG 1980 WHITEFACE	<0.20	27.00	0.12	14.00	3.70	<0.20	71.62
ITHACA	<0.20	46.00	<0.10	29.00	3.70	<0.20	124.70
PENN STATE	<0.20	91.00	0.19	72.00	10.00	<0.20	264.19
ILLINOIS	ISA	120.00	0.35	75.00	26.00	<0.20	341.35
BROOKHAVEN	<0.20	57.00	0.76	45.00	20.00	<0.20	179.76
LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
OXFORD	<0.20	63.00	<0.10	30.00	8.20	<0.20	164.20
14 AUG 1980 ILLINOIS	<0.20	24.00	0.36	27.00	5.70	<0.20	81.06
15 AUG 1980 WHITEFACE	<0.20	31.00	<0.10	15.00	2.30	<0.20	79.30
ITHACA	<0.20	47.00	<0.10	25.00	3.50	<0.20	122.50
PENN STATE	<0.20	50.00	0.29	41.00	7.10	<0.20	148.39

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		² S (	⁴ S (	² N (	³ N (	¹ C (	⁴ P (	⁰ I A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	ILLINOIS	<0.20	33.00	0.10	23.00	2.10	<0.20	91.20
	BROOKHAVEN	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	MOE	MOE	MOE	MOE	MOE	MOE	MOE
16 AUG 1980	WHITEFACE	<0.20	10.00	<0.10	<0.30	3.30	<0.20	23.30
	VIRGINIA	<0.20	38.00	0.19	31.00	3.20	<0.20	110.39
	ILLINOIS	<0.20	28.00	<0.10	22.00	3.90	<0.20	81.90
	LEWES	<0.20	42.00	0.54	33.00	6.60	<0.20	124.14
17 AUG 1980	ILLINOIS	<0.20	56.00	0.23	33.00	11.00	<0.20	156.23
18 AUG 1980	ILLINOIS	<0.20	16.00	<0.10	15.00	4.90	<0.20	51.90
	OXFORD	<0.20	77.00	<0.10	51.00	24.00	1.70	234.10
19 AUG 1980	WHITEFACE	<0.20	48.00	<0.10	27.00	3.80	<0.20	126.80
	ILLINOIS	<0.20	17.00	0.14	12.00	4.30	<0.20	50.44
	OXFORD	<0.20	49.00	<0.10	23.00	6.10	<0.20	127.10
20 AUG 1980	WHITEFACE	<0.20	45.00	<0.10	25.00	3.10	<0.20	118.10
	VIRGINIA	<0.20	29.00	0.21	22.00	8.70	<0.20	88.91
	BROOKHAVEN	<0.20	65.00	0.75	170.00	18.00	<0.20	318.75
	LEWES	<0.20	36.00	0.14	17.00	8.10	<0.20	97.24
21 AUG 1980	PENN STATE	<0.20	54.00	0.32	54.00	7.30	<0.20	169.62
22 AUG 1980	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
26 AUG 1980	VIRGINIA	<0.20	160.00	0.53	150.00	17.00	<0.20	487.53
27 AUG 1980	WHITEFACE	<0.20	110.00	<0.10	91.00	9.50	<0.20	320.50
	OXFORD	<0.20	ISA	ISA	ISA	ISA	ISA	ISA
28 AUG 1980	WHITEFACE	<0.20	47.00	<0.10	15.00	3.50	<0.20	112.50

		² S (	⁴ S (	² N (	³ N (	⁻ C (	⁴ P (	^N A (
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
30 AUG 1980	ITHACA	<0.20	240.00	0.10	110.00	11.00	0.58	602.24
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	MOE	MOE	MOE	MOE	MOE	MOE	MOE
31 AUG 1980	WHITEFACE	<0.20	92.00	0.23	45.00	63.00	<0.20	292.23
1 SEP 1980	ILLINOIS	<0.20	53.00	0.35	41.00	11.00	<0.20	158.35
2 SEP 1980	WHITEFACE	<0.20	35.00	0.10	29.00	5.70	<0.20	104.80
	ITHACA	<0.20	100.00	0.20	60.00	7.80	<0.20	268.00
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	<0.20	22.00	0.13	15.00	4.10	<0.20	63.23
	OXFORD	MOE	MOE	MOE	MOE	MOE	MOE	MOE
3 SEP 1980	WHITEFACE	<0.20	10.00	0.18	13.00	1.80	<0.20	54.98
	ITHACA	<0.20	34.00	0.14	18.00	3.60	<0.20	89.74
	VIRGINIA	<0.20	16.00	<0.10	12.00	3.50	<0.20	47.50
5 SEP 1980	LEWES	<0.20	30.00	0.11	43.00	22.00	<0.20	125.11
6 SEP 1980	ILLINOIS	<0.20	57.00	0.29	45.00	7.60	<0.20	166.89
7 SEP 1980	OXFORD	<0.20	47.00	0.11	42.00	5.50	<0.20	141.61
8 SEP 1980	ILLINOIS	<0.20	44.00	0.23	34.00	6.00	<0.20	128.23
9 SEP 1980	OXFORD	<0.20	32.00	0.08	29.00	5.00	<0.20	98.08
10 SEP 1980	WHITEFACE	2.90	26.00	0.22	29.00	3.30	<0.20	84.52
	ITHACA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	LEWES	<0.20	41.00	<0.10	44.00	32.00	<0.20	158.00
12 SEP 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
13 SEP 1980	ILLINOIS	ISA	75.00	<0.10	88.00	16.00	<0.20	254.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		2 S (	4 S (	2 N (	3 N (	L C (	4 P (	0 N A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
14 SEP 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
15 SEP 1980	WHITEFACE	<0.20	51.00	0.14	34.00	4.90	<0.20	141.04
	ITHACA	<0.20	42.00	0.28	27.00	2.70	<0.20	113.98
	PENN STATE	<0.20	40.00	0.11	28.00	3.60	<0.20	111.71
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
16 SEP 1980	ILLINOIS	<0.20	21.00	0.24	14.00	3.10	<0.20	59.34
	OXFORD	<0.20	75.00	<0.10	44.00	7.90	<0.20	201.90
17 SEP 1980	OXFORD	<0.20	65.00	0.25	40.00	5.90	<0.20	176.15
18 SEP 1980	WHITEFACE	<0.20	22.00	0.23	13.00	6.30	<0.20	63.53
	ITHACA	<0.20	63.00	0.10	38.00	9.50	<0.20	173.60
	ILLINOIS	<0.20	27.00	0.22	23.00	3.30	<0.20	80.52
	BROOKHAVEN	<0.20	28.00	1.60	24.00	13.00	3.10	103.90
	LEWES	<0.20	40.00	0.31	27.00	18.00	<0.20	125.31
19 SEP 1980	VIRGINIA	<0.20	47.00	0.30	55.00	8.30	<0.20	157.60
20 SEP 1980	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
21 SEP 1980	WHITEFACE	<0.20	87.00	0.23	36.00	4.10	<0.20	214.33
22 SEP 1980	WHITEFACE	<0.20	40.00	<0.10	20.00	3.00	<0.20	103.00
	ITHACA	<0.20	140.00	0.65	110.00	15.00	<0.20	405.65
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
23 SEP 1980	WHITEFACE	<0.20	39.00	0.15	25.00	3.80	<0.20	106.95
	ITHACA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	VIRGINIA	<0.20	19.00	<0.10	14.00	5.60	<0.20	57.60
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		² _S	⁴ _S	² _N	³ _N	¹ _C	⁴ _P	⁰ _N
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	LEWES	<0.20	14.00	0.17	15.00	13.00	<0.20	56.17
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
24 SEP 1980	PENN STATE	ISA	49.00	0.36	51.00	11.00	<0.20	160.36
	VIRGINIA	<0.20	80.00	0.57	57.00	5.10	<0.20	222.67
	LEWES	<0.20	59.00	0.33	47.00	28.00	<0.20	193.33
25 SEP 1980	LEWES	<0.20	32.00	0.21	22.00	100.00	<0.20	186.21
26 SEP 1980	WHITEFACE	0.42	31.00	<0.10	37.00	3.90	<0.20	102.90
	ITHACA	<0.20	54.00	0.21	53.00	6.50	<0.20	167.71
	VIRGINIA	<0.20	41.00	0.80	60.00	9.00	<0.20	151.80
	BROOKHAVEN	<0.20	19.00	<0.10	23.00	29.00	<0.20	90.00
	LEWES	<0.20	18.00	<0.10	20.00	2.90	<0.20	58.90
27 SEP 1980	PENN STATE	<0.20	46.00	<0.10	53.00	5.60	<0.20	150.60
29 SEP 1980	WHITEFACE	0.83	26.00	<0.10	14.00	3.50	<0.20	69.50
1 OCT 1980	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
2 OCT 1980	PENN STATE	ISA	330.00	0.19	170.00	19.00	<0.20	849.19
	VIRGINIA	<0.20	52.00	0.23	71.00	110.00	<0.20	285.23
	ILLINOIS	<0.20	47.00	2.30	55.00	9.50	<0.20	160.80
	OXFORD	<0.20	48.00	0.20	31.00	3.70	<0.20	130.90
3 OCT 1980	WHITEFACE	<0.20	43.00	<0.10	33.00	6.10	<0.20	125.10
	ITHACA	<0.20	59.00	0.35	56.00	9.50	<0.20	183.85
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	MOE	MOE	MOE	MOE	MOE	MOE	MOE
4 OCT 1980	PENN STATE	0.64	31.00	0.16	50.00	5.00	<0.20	117.16

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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	2 S (	4 S (	2 N (	3 N (	L C (	4 P (	0 I A
	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
VIRGINIA	<0.20	51.00	0.43	43.00	5.70	<0.20	151.13
BROOKHAVEN	<0.20	17.00	0.16	20.00	12.00	<0.20	66.16
LEWES	<0.20	39.00	0.16	38.00	75.00	<0.20	191.16
OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
5 OCT 1980 WHITEFACE	<0.20	15.00	<0.10	18.00	1.50	<0.20	49.50
6 OCT 1980 VIRGINIA	<0.20	54.00	ISA	92.00	6.70	<0.20	206.70
8 OCT 1980 PENN STATE	ISA	33.00	0.47	120.00	58.00	<0.20	244.47
10 OCT 1980 PENN STATE	<0.20	62.00	0.32	86.00	6.70	<0.20	217.02
11 OCT 1980 BROOKHAVEN	<0.20	79.00	0.54	83.00	24.00	<0.20	265.54
12 OCT 1980 BROOKHAVEN	<0.20	14.00	0.24	12.00	4.20	<0.20	44.44
LEWES	<0.20	41.00	0.38	37.00	26.00	<0.20	145.38
14 OCT 1980 WHITEFACE	0.38	40.00	<0.10	32.00	3.60	<0.20	115.60
ITHACA	1.40	30.00	0.24	48.00	4.00	<0.20	112.24
15 OCT 1980 ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
16 OCT 1980 ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
17 OCT 1980 PENN STATE	ISA	60.00	0.56	120.00	18.00	<0.20	258.56
ILLINOIS	<0.20	10.00	0.43	8.00	4.00	<0.20	32.43
18 OCT 1980 ITHACA	<0.20	26.00	0.17	23.00	5.00	<0.20	80.17
PENN STATE	<0.20	38.00	0.52	7.10	11.00	<0.20	94.62
ILLINOIS	ISA	31.00	ISA	41.00	22.00	<0.20	125.00
OXFORD	1.60	17.00	0.16	19.00	2.50	<0.20	55.66
19 OCT 1980 WHITEFACE	<0.20	28.00	0.17	29.00	4.80	<0.20	89.97
BROOKHAVEN	4.20	16.00	0.22	18.00	22.00	<0.20	72.22

MAP33/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		² S (UMOL/L	⁴ S (UMOL/L	² N (UMOL/L	³ N (UMOL/L	¹ C (UMOL/L	⁴ P (UMOL/L	⁰ N A UEQ/L
20 OCT 1980	WHITEFACE	<0.20	11.00	0.13	12.00	1.90	<0.20	36.03
	VIRGINIA	<0.20	13.00	0.20	12.00	5.30	<0.20	43.50
	LEWES	<0.20	14.00	0.22	10.00	19.00	<0.20	57.22
22 OCT 1980	WHITEFACE	<0.20	16.00	<0.10	20.00	5.10	<0.20	57.10
	ITHACA	NAP	26.00	0.24	46.00	4.30	<0.20	102.24
25 OCT 1980	VIRGINIA	0.83	5.90	0.28	6.90	5.70	<0.20	24.68
	ILLINOIS	0.16	33.00	<0.10	21.00	4.40	<0.20	91.40
	OXFORD	<0.20	22.00	0.59	13.00	2.80	<0.20	60.39
26 OCT 1980	BROOKHAVEN	<0.20	7.10	<0.10	2.20	75.00	<0.20	91.40
	LEWES	<0.20	16.00	<0.10	2.90	360.00	<0.20	394.90
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
27 OCT 1980	WHITEFACE	<0.20	6.40	<0.10	5.50	4.40	<0.20	22.70
	ITHACA	MOE	4.50	<0.10	4.30	1.80	<0.20	15.10
28 OCT 1980	ILLINOIS	MOE	MOE	MOE	MOE	MOE	MOE	ISA
	OXFORD	4.80	30.00	0.26	44.00	6.70	<0.20	110.96
29 OCT 1980	WHITEFACE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ITHACA	NAP	31.00	0.12	61.00	4.60	<0.20	127.72
	PENN STATE	<0.20	9.60	0.24	9.00	3.70	<0.20	32.14
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	MOE	MOE	MOE	MOE	MOE	MOE	ISA
	BROOKHAVEN	<0.20	36.00	0.54	49.00	52.00	<0.20	173.54
	LEWES	<0.20	15.00	0.22	14.00	7.10	<0.20	51.32
30 OCT 1980	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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(CONT.)

		2 S (	4 S (	2 N (	3 N (	L C (	4 P (	0 I A (
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
31 OCT 1980	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
3 NOV 1980	WHITEFACE	1.10	27.00	0.52	58.00	6.00	<0.20	118.52
	ITHACA	NAP	30.00	0.30	20.00	8.50	<0.20	88.80
4 NOV 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	0.98	41.00	0.52	55.00	4.80	<0.20	142.32
5 NOV 1980	ITHACA	2.40	36.00	0.46	42.00	5.30	<0.20	119.76
	PENN STATE	ISA	93.00	0.70	150.00	20.00	0.26	357.48
	VIRGINIA	<0.20	12.00	0.34	9.00	4.00	<0.20	37.34
	BROOKHAVEN	<0.20	23.00	0.22	25.00	49.00	<0.20	120.22
	LEWES	<0.20	19.00	0.12	13.00	20.00	<0.20	71.12
6 NOV 1980	WHITEFACE	2.70	27.00	0.09	41.00	2.60	<0.20	97.69
7 NOV 1980	WHITEFACE	5.90	8.40	<0.10	46.00	3.40	<0.20	66.20
	ITHACA	8.10	26.00	0.34	74.00	3.80	<0.20	130.14
	BROOKHAVEN	8.80	30.00	0.54	52.00	8.10	<0.20	120.64
8 NOV 1980	BROOKHAVEN	0.74	ISA	ISA	ISA	ISA	ISA	ISA
10 NOV 1980	ITHACA	3.10	33.00	0.38	51.00	4.90	<0.20	122.28
	PENN STATE	1.60	31.00	0.33	41.00	5.60	<0.20	108.93
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	BROOKHAVEN	0.61	29.00	0.42	29.00	9.50	<0.20	96.92
	LEWES	<0.20	50.00	0.82	86.00	22.00	<0.20	208.82
12 NOV 1980	WHITEFACE	1.50	19.00	<0.10	34.00	2.30	<0.20	74.30
	ITHACA	0.46	20.00	0.25	15.00	9.20	<0.20	64.45
14 NOV 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA

		² S (	⁴ S (	² N (	³ N (	⁻ L (	⁴ P (	^N I A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
15 NOV 1980	ITHACA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
16 NOV 1980	PENN STATE	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	OXFORD	<0.20	ISA	ISA	ISA	ISA	ISA	ISA
17 NOV 1980	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
18 NOV 1980	ITHACA	<0.20	0.71	<0.10	2.90	<0.60	<0.20	4.32
	PENN STATE	<0.20	2.90	0.10	8.60	1.90	<0.20	16.40
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	OXFORD	6.70	7.80	0.24	10.00	2.80	<0.20	28.64
19 NOV 1980	WHITEFACE	0.77	9.10	<0.10	23.00	1.90	<0.20	43.10
	BROOKHAVEN	<0.20	12.00	0.16	9.70	32.00	<0.20	65.86
21 NOV 1980	LEWES	<0.20	12.00	0.10	8.30	82.00	<0.20	114.40
23 NOV 1980	ILLINOIS	8.60	16.00	0.29	11.00	1.90	<0.20	45.19
24 NOV 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	6.10	18.00	0.21	28.00	4.70	<0.20	68.91
25 NOV 1980	WHITEFACE	2.50	7.30	0.11	24.00	<0.60	<0.20	38.71
	PENN STATE	2.10	5.70	0.35	8.60	2.90	<0.20	23.25
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	BROOKHAVEN	<0.20	8.80	0.10	8.50	21.00	<0.20	47.20
	LEWES	<0.20	11.00	<0.10	14.00	41.00	<0.20	77.00
26 NOV 1980	WHITEFACE	<0.20	20.00	ISA	14.00	4.70	<0.20	58.70
	ITHACA	7.50	12.00	0.06	20.00	3.60	<0.20	47.66
28 NOV 1980	VIRGINIA	2.70	25.00	0.34	35.00	16.00	<0.20	101.34

MAP33/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		0 2 S (	0 4 S (	0 2 N (	0 3 N (	0 L C (	0 4 P (	0 N I A (
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	ILLINOIS	0.26	16.00	0.24	66.00	3.10	<0.20	101.34
29 NOV 1980	BROOKHAVEN	<0.20	11.00	0.13	9.70	50.00	<0.20	81.83
30 NOV 1980	ITHACA	<0.20	24.00	0.07	4.30	41.00	<0.20	93.37
	LEWES	<0.20	15.00	<0.10	12.00	110.00	<0.20	152.00
	OXFORD	16.00	20.00	0.18	20.00	3.60	<0.20	63.78
1 DEC 1980	WHITEFACE	1.90	14.00	<0.10	20.00	3.10	<0.20	51.10
	PENN STATE	1.50	24.00	0.21	41.00	11.00	<0.20	100.21
2 DEC 1980	WHITEFACE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	9.20	31.00	0.25	41.00	8.50	<0.20	111.75
3 DEC 1980	ITHACA	3.30	22.00	0.15	48.00	5.60	<0.20	97.75
	BROOKHAVEN	0.17	33.00	0.20	46.00	80.00	<0.20	192.20
	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
4 DEC 1980	WHITEFACE	2.40	8.30	<0.10	26.00	3.00	<0.20	45.60
	PENN STATE	3.20	22.00	0.08	24.00	20.00	0.36	89.16
5 DEC 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
7 DEC 1980	ILLINOIS	<0.20	21.00	0.14	13.00	8.50	<0.20	63.64
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
8 DEC 1980	WHITEFACE	2.60	16.00	<0.10	15.00	3.80	<0.20	50.80
	ITHACA	9.30	29.00	0.17	32.00	5.50	<0.20	95.67
	ILLINOIS	<0.20	21.00	0.14	15.00	15.00	<0.20	72.14
9 DEC 1980	ITHACA	6.60	23.00	0.13	28.00	5.80	<0.20	79.93
	PENN STATE	ISA	ISA	ISA	ISA	ISA	ISA	ISA

		² S (	⁴ S (	² N (	³ N (	² C (	⁴ P (	⁰ N A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	ILLINOIS	2.40	24.00	0.10	28.00	6.60	<0.20	82.70
10 DEC 1980	ITHACA	0.27	15.00	<0.10	32.00	4.00	<0.20	66.00
	PENN STATE	11.00	13.00	0.20	20.00	3.40	<0.20	49.60
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	1.80	26.00	0.38	59.00	22.00	<0.20	133.38
	LEWES	4.30	18.00	0.11	34.00	29.00	<0.20	99.11
	OXFORD	1.90	17.00	<0.10	21.00	4.00	<0.20	59.00
11 DEC 1980	WHITEFACE	<0.20	7.30	<0.10	12.00	1.40	<0.20	28.00
	PENN STATE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	VIRGINIA	<0.20	7.30	0.38	9.50	3.70	<0.20	28.18
15 DEC 1980	WHITEFACE	<0.20	12.00	<0.10	33.00	7.10	<0.20	64.10
	ITHACA	0.45	12.00	<0.10	42.00	7.30	<0.20	73.30
	PENN STATE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
16 DEC 1980	BROOKHAVEN	ISA	ISA	ISA	ISA	ISA	ISA	ISA
17 DEC 1980	ITHACA	<0.20	4.50	<0.10	67.00	5.40	<0.20	81.40
	PENN STATE	0.62	8.10	0.21	76.00	15.00	<0.20	107.41
	BROOKHAVEN	0.53	ISA	ISA	ISA	ISA	ISA	ISA
	LEWES	4.30	28.00	<0.10	87.00	97.00	<0.20	240.00
	OXFORD	2.20	20.00	0.24	55.00	5.30	<0.20	100.54
18 DEC 1980	WHITEFACE	<0.20	2.70	0.13	61.00	3.10	<0.20	69.63
19 DEC 1980	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
22 DEC 1980	ITHACA	1.20	36.00	0.11	87.00	19.00	<0.20	178.11
23 DEC 1980	PENN STATE	ISA	ISA	ISA	ISA	ISA	ISA	ISA

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		2 0 S (	4 0 S (	2 0 N (	3 0 N (	L C (	4 0 P (	0 I N A
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
24 DEC 1980	BROOKHAVEN	2.10	15.00	0.42	15.00	12.00	<0.20	57.42
	LEWES	3.20	3.20	<0.10	1.20	1.50	<0.20	9.10
	OXFORD	<0.20	18.00	0.29	65.00	12.00	<0.20	113.29
25 DEC 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
26 DEC 1980	ITHACA	<0.20	8.20	0.12	17.00	5.20	<0.20	38.72
	VIRGINIA	1.80	26.00	0.07	30.00	8.80	<0.20	90.87
28 DEC 1980	LEWES	<0.20	10.00	<0.10	12.00	9.40	<0.20	41.40
29 DEC 1980	ILLINOIS	11.00	32.00	0.16	31.00	6.10	<0.20	101.26
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
30 DEC 1980	PENN STATE	2.80	48.00	0.18	66.00	32.00	7.30	216.08
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	LEWES	4.50	4.50	<0.10	1.80	14.00	<0.20	24.80
31 DEC 1980	ITHACA	0.64	45.00	<0.10	47.00	26.00	<0.20	163.00

NSC MEANS NO SAMPLE COLLECTED
ISA MEANS INSUFF. SAMPLE FOR ANALYSIS
NAP MEANS NO ANALYSIS PERFORMED
MOE MEANS MALFUNCTION OF OPERATOR ERROR
RPC MEANS REJECTED--PROB. CONTAMINATION

		4 H N (UMOL/L	4 A N (UMOL/L	4 K (UMOL/L	4 L A (UMOL/L	4 A C (UMOL/L	4 G M (UMOL/L	4 I O N C (UMOL/L
2 JAN 1980	ITHACA	11.00	2.00	0.70	NAP	3.20	0.82	74.00
6 JAN 1980	PENN STATE	2.30	3.00	0.84	NAP	8.10	1.00	55.00
	BROOKHAVEN	8.10	100.00	15.00	NAP	15.00	14.00	190.00
	OXFORD	20.00	5.60	2.60	NAP	10.00	3.70	140.00
7 JAN 1980	PENN STATE	34.00	14.00	2.50	NAP	14.00	2.90	200.00
	VIRGINIA	12.00	18.00	19.00	NAP	1.40	<0.80	110.00
	LEWES	4.60	110.00	2.70	NAP	3.50	12.00	210.00
8 JAN 1980	WHITEFACE	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	ITHACA	12.00	12.00	1.40	NAP	18.00	4.90	130.00
	LEWES	1.10	8.90	1.30	NAP	1.10	1.10	79.00
10 JAN 1980	PENN STATE	4.10	29.00	3.50	NAP	10.00	2.70	110.00
11 JAN 1980	WHITEFACE	RPC	RPC	RPC	NAP	RPC	RPC	RPC
	ILLINOIS	MOE	MOE	MOE	NAP	MOE	MOE	MOE
12 JAN 1980	ITHACA	6.30	4.40	0.89	NAP	7.00	2.20	74.00
	PENN STATE	6.20	3.30	0.80	NAP	2.20	0.53	49.00
	VIRGINIA	9.20	60.00	1.60	NAP	4.30	6.20	160.00
	LEWES	5.00	72.00	1.30	NAP	1.60	7.80	110.00
14 JAN 1980	BROOKHAVEN	4.20	130.00	2.60	NAP	3.10	14.00	180.00
15 JAN 1980	WHITEFACE	1.90	0.91	0.48	NAP	1.60	0.41	32.00
	ITHACA	0.66	0.71	<0.30	NAP	0.52	<0.40	29.00
	PENN STATE	2.30	7.20	1.30	NAP	1.10	0.70	47.00
	VIRGINIA	2.90	23.00	0.47	NAP	1.30	2.40	70.00
16 JAN 1980	OXFORD	4.40	2.40	0.57	NAP	2.40	0.95	65.00

MAP38/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		N (UMOL/L	N (UMOL/L	K (UMOL/L	A (UMOL/L	C (UMOL/L	M (UMOL/L	S (UMOL/L
17 JAN 1980	ILLINOIS	64.00	9.90	5.00	NAP	61.00	17.00	260.00
19 JAN 1980	PENN STATE	39.00	15.00	3.80	NAP	29.00	18.00	150.00
	VIRGINIA	1.90	<0.45	<0.30	NAP	<0.25	<0.40	18.00
	BROOKHAVEN	10.00	16.00	1.20	NAP	2.90	2.90	140.00
	LEWES	2.60	3.60	0.37	NAP	<0.25	0.49	28.00
	OXFORD	ISA	ISA	ISA	NAP	ISA	ISA	ISA
20 JAN 1980	ILLINOIS	35.00	2.20	1.60	NAP	16.00	4.00	130.00
21 JAN 1980	OXFORD	ISA	ISA	ISA	NAP	ISA	ISA	ISA
22 JAN 1980	WHITEFACE	11.00	2.70	1.30	NAP	2.00	0.74	88.00
23 JAN 1980	VIRGINIA	1.20	0.64	<0.30	NAP	<0.25	<0.40	28.00
	BROOKHAVEN	11.00	37.00	1.20	NAP	2.80	0.78	110.00
24 JAN 1980	PENN STATE	90.00	21.00	6.90	NAP	8.00	2.30	200.00
	LEWES	7.80	3.60	0.60	NAP	0.50	0.49	65.00
25 JAN 1980	ITHACA	19.00	4.50	1.30	NAP	14.00	4.10	100.00
	PENN STATE	7.60	8.60	1.30	NAP	3.90	0.82	110.00
	ILLINOIS	33.00	1.90	1.80	NAP	11.00	2.80	73.00
	OXFORD	19.00	1.70	1.30	NAP	10.00	1.90	78.00
29 JAN 1980	WHITEFACE	MOE	MOE	MOE	NAP	MOE	MOE	MOE
30 JAN 1980	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
31 JAN 1980	PENN STATE	28.00	30.00	6.20	NAP	42.00	9.10	170.00
	VIRGINIA	3.30	2.10	0.98	NAP	5.00	0.91	63.00
	OXFORD	ISA	ISA	ISA	NAP	ISA	ISA	ISA
1 FEB 1980	ITHACA	3.80	7.50	0.46	NAP	5.50	1.20	75.00

		4 H N (	4 A N (	4 K (	4 L A (	4 A C (	4 G M (	4 I T C
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L
	LEWES	ISA	ISA	ISA	NAP	ISA	ISA	ISA
5 FEB 1980	ITHACA	1.50	8.20	1.90	NAP	6.70	1.20	45.00
6 FEB 1980	ILLINOIS	36.00	6.70	2.00	NAP	21.00	6.50	220.00
7 FEB 1980	PENN STATE	1.40	5.70	2.10	NAP	15.00	1.70	74.00
	VIRGINIA	2.40	4.70	0.39	NAP	1.50	0.53	91.00
	LEWES	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	OXFORD	3.70	7.60	0.43	NAP	8.40	2.40	110.00
10 FEB 1980	OXFORD	ISA	ISA	ISA	NAP	ISA	ISA	ISA
11 FEB 1980	VIRGINIA	3.90	3.90	0.67	NAP	2.10	0.41	78.00
	LEWES	5.40	16.00	0.81	NAP	1.80	2.20	110.00
12 FEB 1980	PENN STATE	25.00	8.20	1.80	NAP	17.00	4.10	ISA
	OXFORD	ISA	ISA	ISA	NAP	ISA	ISA	ISA
14 FEB 1980	VIRGINIA	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
17 FEB 1980	BROOKHAVEN	43.00	26.00	2.50	NAP	6.20	4.90	220.00
	LEWES	33.00	4.90	1.30	NAP	2.20	0.91	143.00
	OXFORD	ISA	ISA	ISA	NAP	ISA	ISA	ISA
18 FEB 1980	WHITEFACE	MOE	MOE	MOE	NAP	MOE	MOE	MOE
	ITHACA	2.30	2.80	0.42	NAP	1.90	0.53	68.00
	PENN STATE	18.00	3.20	0.92	NAP	5.40	1.00	110.00
21 FEB 1980	VIRGINIA	0.51	6.90	0.65	NAP	2.70	1.20	63.00
22 FEB 1980	VIRGINIA	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	ILLINOIS	17.00	3.80	1.60	NAP	11.00	1.70	69.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	OXFORD	ISA	ISA	ISA	NAP	ISA	ISA	ISA
23 FEB 1980	PENN STATE	25.00	6.00	2.00	NAP	4.00	0.74	120.00
	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	BROOKHAVEN	27.00	48.00	2.70	NAP	4.20	5.80	200.00
	LEWES	26.00	15.00	2.30	NAP	5.60	2.70	218.00
24 FEB 1980	VIRGINIA	38.00	8.20	2.60	NAP	31.00	4.20	250.00
	LEWES	ISA	ISA	ISA	NAP	ISA	ISA	ISA
25 FEB 1980	WHITEFACE	16.00	3.80	0.88	NAP	2.60	0.41	110.00
	ITHACA	21.00	2.00	1.10	NAP	3.30	0.66	110.00
	VIRGINIA	21.00	1.70	1.00	NAP	2.50	0.58	130.00
	OXFORD	ISA	ISA	ISA	NAP	ISA	ISA	ISA
26 FEB 1980	VIRGINIA	23.00	1.50	<0.30	NAP	<0.50	<0.40	100.00
	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	LEWES	25.00	22.00	1.90	NAP	2.60	3.60	144.00
28 FEB 1980	WHITEFACE	3.30	11.00	0.80	NAP	8.00	1.40	110.00
	ITHACA	15.00	5.70	1.00	NAP	7.30	2.20	140.00
	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	OXFORD	10.00	1.30	0.55	NAP	1.90	0.58	55.00
29 FEB 1980	VIRGINIA	MOE	MOE	MOE	NAP	MOE	MOE	MOE
	LEWES	38.00	16.00	2.50	NAP	7.20	2.60	217.00
2 MAR 1980	OXFORD	ISA	ISA	ISA	NAP	ISA	ISA	ISA
3 MAR 1980	VIRGINIA	MOE	MOE	MOE	NAP	MOE	MOE	MOE
4 MAR 1980	LEWES	1.60	32.00	0.80	NAP	3.20	4.10	99.00

		4 H N (	4 A N (	4 K (	4 L A (	4 A C (	4 G M (	4 I A C (
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L
5 MAR 1980	VIRGINIA	0.90	3.60	0.40	NAP	0.52	<0.40	40.00
	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
6 MAR 1980	ITHACA	12.00	2.00	<0.50	NAP	3.30	0.70	94.00
	PENN STATE	10.00	11.00	1.70	NAP	7.20	1.60	100.00
	BROOKHAVEN	19.00	49.00	3.20	NAP	7.00	6.50	190.00
	LEWES	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	OXFORD	20.00	3.30	1.10	NAP	7.60	1.00	97.00
7 MAR 1980	WHITEFACE	4.60	1.90	0.68	NAP	2.70	0.45	74.00
8 MAR 1980	BROOKHAVEN	32.00	43.00	3.50	NAP	22.00	7.20	230.00
	OXFORD	31.00	5.20	<0.40	NAP	4.80	1.10	130.00
9 MAR 1980	PENN STATE	20.00	5.90	1.90	NAP	15.00	2.00	130.00
	VIRGINIA	RPC	RPC	RPC	NAP	RPC	RPC	RPC
	BROOKHAVEN	31.00	12.00	3.30	NAP	18.00	3.20	120.00
10 MAR 1980	WHITEFACE	7.00	0.91	<0.40	NAP	1.10	<0.40	76.00
	ITHACA	21.00	0.87	<0.50	NAP	1.00	<0.40	98.00
	ILLINOIS	46.00	13.00	2.20	NAP	15.00	2.20	180.00
11 MAR 1980	PENN STATE	40.00	39.00	10.00	NAP	11.00	2.60	190.00
	VIRGINIA	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	BROOKHAVEN	17.00	99.00	2.80	NAP	5.00	8.20	220.00
	LEWES	35.00	11.00	1.80	NAP	3.10	1.90	124.00
	OXFORD	100.00	3.10	<0.50	NAP	37.00	11.00	210.00
12 MAR 1980	WHITEFACE	39.00	5.90	<0.40	NAP	6.60	2.00	160.00
13 MAR 1980	PENN STATE	1.30	2.50	<0.50	NAP	3.30	0.66	29.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		4 H N (	4 A N (	4 K (	4 L A (	4 A C (	4 G M (	4 O I A C	M U S
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L	
	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA	
14 MAR 1980	ITHACA	5.80	1.50	1.10	NAP	1.40	0.41	29.00	
	VIRGINIA	<0.60	<0.40	<0.30	NAP	0.90	<0.40	21.00	
	BROOKHAVEN	2.70	29.00	0.83	NAP	2.00	3.30	56.00	
	OXFORD	13.00	2.80	<0.40	NAP	6.90	2.10	120.00	
15 MAR 1980	LEWES	3.50	330.00	6.30	NAP	8.40	30.00	437.00	
17 MAR 1980	WHITEFACE	0.68	1.00	<0.40	NAP	0.90	<0.40	18.00	
	ILLINOIS	19.00	4.00	0.98	NAP	4.40	0.74	68.00	
18 MAR 1980	ITHACA	6.20	1.10	0.66	NAP	2.30	<0.40	60.00	
	PENN STATE	9.10	2.50	1.20	NAP	1.60	<0.40	60.00	
	VIRGINIA	28.00	120.00	3.70	NAP	7.30	13.00	270.00	
	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA	
	BROOKHAVEN	8.70	66.00	2.00	NAP	3.10	7.40	130.00	
	LEWES	9.10	73.00	1.80	NAP	3.40	7.90	132.00	
19 MAR 1980	WHITEFACE	3.40	1.40	0.49	NAP	1.80	<0.40	45.00	
	OXFORD	17.00	1.70	<0.40	NAP	6.00	0.95	64.00	
21 MAR 1980	ILLINOIS	120.00	6.50	<0.40	NAP	20.00	3.40	260.00	
22 MAR 1980	PENN STATE	3.70	0.92	<0.40	NAP	1.30	0.41	48.00	
	BROOKHAVEN	9.30	63.00	1.90	NAP	2.50	6.70	130.00	
	OXFORD	9.20	9.40	<0.40	NAP	2.40	<0.40	47.00	
23 MAR 1980	VIRGINIA	7.60	1.50	0.67	NAP	<0.50	<0.40	30.00	
	LEWES	3.20	24.00	0.69	NAP	1.00	2.80	52.00	
24 MAR 1980	WHITEFACE	6.20	1.30	0.51	NAP	1.20	<0.40	44.00	

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		4 H N (	3 A N (	2 K K (	1 L A (	0 C C (	0 G M (	0 I A C
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	ITHACA	2.70	0.73	<0.50	NAP	0.72	<0.40	32.00
	ILLINOIS	7.90	1.10	0.48	NAP	4.10	0.45	51.00
25 MAR 1980	VIRGINIA	15.00	3.20	<0.50	NAP	16.00	1.70	98.00
	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	BROOKHAVEN	4.40	5.70	<0.40	NAP	1.80	0.82	49.00
	OXFORD	11.00	1.10	0.49	NAP	3.80	0.58	61.00
26 MAR 1980	ITHACA	12.00	1.50	0.87	NAP	2.30	0.66	77.00
	LEWES	6.10	10.00	0.92	NAP	4.50	1.70	59.00
27 MAR 1980	WHITEFACE	8.50	2.80	<0.40	NAP	1.10	<0.40	67.00
28 MAR 1980	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
29 MAR 1980	VIRGINIA	7.60	5.60	<0.50	NAP	1.30	0.74	57.00
	ILLINOIS	9.50	1.30	<0.40	NAP	3.20	0.74	82.00
	OXFORD	15.00	0.54	<0.40	NAP	1.70	0.58	70.00
30 MAR 1980	ITHACA	5.20	0.73	0.71	NAP	<0.50	<0.40	63.00
	PENN STATE	3.40	0.46	<0.40	NAP	1.00	<0.40	51.00
	ILLINOIS	4.80	0.76	<.40	NAP	1.70	<0.20	29.00
	BROOKHAVEN	2.50	17.00	<0.40	NAP	0.80	2.10	57.00
	LEWES	1.60	44.00	0.78	NAP	1.10	4.60	74.00
31 MAR 1980	ILLINOIS	11.00	0.76	<0.40	NAP	1.80	0.58	43.00
1 APR 1980	WHITEFACE	38.00	1.20	0.47	NAP	1.40	<0.40	106.00
	ITHACA	6.80	0.45	0.64	NAP	0.62	<0.40	42.00
	PENN STATE	4.00	0.85	0.51	NAP	1.80	0.53	70.00
	VIRGINIA	18.00	0.79	<0.50	NAP	1.80	<0.40	120.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	BROOKHAVEN	9.20	36.00	1.40	NAP	1.50	4.10	120.00
	LEWES	7.00	160.00	7.80	NAP	5.60	17.00	299.00
	OXFORD	6.50	0.83	0.94	NAP	1.60	<0.40	72.00
3 APR 1980	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
4 APR 1980	PENN STATE	26.00	3.60	1.50	NAP	7.40	1.90	154.00
	ILLINOIS	48.00	17.00	3.90	NAP	44.00	7.70	190.00
	BROOKHAVEN	9.00	11.00	0.72	NAP	1.30	1.40	65.00
5 APR 1980	PENN STATE	30.00	9.60	4.30	NAP	4.90	1.40	152.00
	LEWES	10.00	8.50	0.83	NAP	3.10	1.50	54.00
	OXFORD	30.00	4.40	1.40	NAP	14.00	3.60	140.00
7 APR 1980	ITHACA	49.00	4.80	1.80	NAP	15.00	3.10	332.00
	VIRGINIA	29.00	4.50	1.30	NAP	1.50	0.70	97.00
	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
8 APR 1980	WHITEFACE	10.00	0.68	0.57	NAP	2.50	0.49	97.00
	ILLINOIS	16.00	2.50	2.60	NAP	13.00	1.60	60.53
	BROOKHAVEN	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	OXFORD	12.00	3.70	0.62	NAP	6.30	1.50	88.00
9 APR 1980	PENN STATE	6.40	4.00	<0.50	NAP	2.30	0.78	47.00
	VIRGINIA	15.00	30.00	1.20	NAP	3.00	3.50	92.00
	ILLINOIS	57.00	1.50	<0.50	NAP	11.00	1.40	97.94
10 APR 1980	ITHACA	8.90	30.00	25.00	NAP	3.10	1.10	119.00
	PENN STATE	28.00	7.10	2.10	NAP	7.70	2.30	103.00
	ILLINOIS	ISA	ISA	ISA	TSA	TSA	ISA	ISA

		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	BROOKHAVEN	6.20	87.00	1.20	NAP	4.50	9.40	140.00
	OXFORD	RPC	RPC	RPC	NAP	RPC	RPC	RPC
11 APR 1980	LEWES	5.00	63.00	23.00	NAP	4.00	5.90	140.31
13 APR 1980	WHITEFACE	25.00	2.40	0.66	NAP	2.70	0.74	109.00
14 APR 1980	ILLINOIS	13.00	2.40	1.60	NAP	9.60	1.70	84.27
	OXFORD	13.00	1.60	1.30	NAP	9.60	1.40	100.00
15 APR 1980	ITHACA	5.50	1.10	<0.50	NAP	2.30	0.58	57.00
	VIRGINIA	21.00	12.00	4.60	NAP	2.50	1.40	102.00
	ILLINOIS	24.00	1.50	0.60	NAP	2.60	<0.40	95.77
	BROOKHAVEN	15.00	63.00	2.20	NAP	5.50	9.10	201.00
16 APR 1980	PENN STATE	12.00	1.20	1.30	NAP	3.00	0.58	63.00
17 APR 1980	ITHACA	7.10	0.44	<0.50	NAP	2.60	0.49	71.00
	BROOKHAVEN	ISA	ISA	ISA	NAP	ISA	ISA	ISA
18 APR 1980	WHITEFACE	13.00	2.40	1.20	NAP	2.00	0.58	96.00
	LEWES	12.00	93.00	3.10	NAP	5.60	8.60	162.20
21 APR 1980	ITHACA	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	BROOKHAVEN	160.00	27.00	4.20	NAP	27.00	11.00	513.00
23 APR 1980	WHITEFACE	85.00	0.80	0.68	NAP	4.40	1.30	196.00
	OXFORD	150.00	2.70	5.10	NAP	57.00	9.90	293.00
25 APR 1980	ITHACA	110.00	3.80	1.00	NAP	35.00	8.40	302.00
	VIRGINIA	RPC	RPC	RPC	NAP	42.00	10.00	RPC
	LEWES	50.00	50.00	4.00	NAP	27.00	9.70	264.60
28 APR 1980	WHITEFACE	30.00	1.80	<0.50	NAP	4.50	1.20	161.00

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		4 H N (	4 A N (	4 K (	4 L A (	4 A C (	4 G M (	4 O T A C
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	ILLINOIS	74.00	5.70	1.90	NAP	22.00	5.80	ISA
29 APR 1980	VIRGINIA	59.00	4.40	1.50	NAP	7.30	1.70	238.00
	ILLINOIS	59.00	2.20	<0.40	NAP	2.60	0.78	135.37
	BROOKHAVEN	9.80	24.00	0.72	NAP	3.20	3.30	87.00
	OXFORD	RPC	RPC	RPC	NAP	RPC	RPC	RPC
30 APR 1980	WHITEFACE	12.00	15.00	0.77	NAP	2.80	2.00	67.00
	ITHACA	6.60	<0.40	<0.50	NAP	0.57	<0.40	33.00
	VIRGINIA	51.00	1.00	3.20	NAP	2.60	1.10	167.00
	BROOKHAVEN	ISA	ISA	ISA	NAP	ISA	ISA	ISA
1 MAY 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	200.00	2.70	9.60	NAP	11.00	5.90	252.00
2 MAY 1980	PENN STATE	28.00	1.50	<0.40	NAP	6.30	0.58	138.76
	VIRGINIA	28.00	1.30	3.80	NAP	2.30	1.20	240.00
	LEWES	21.00	44.00	2.10	NAP	4.40	4.50	143.78
5 MAY 1980	ITHACA	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	PENN STATE	31.00	3.90	<0.40	NAP	7.60	1.30	152.70
7 MAY 1980	WHITEFACE	110.00	4.50	6.70	NAP	63.00	19.00	300.69
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	160.00	28.00	13.00	NAP	60.00	16.00	ISA
9 MAY 1980	VIRGINIA	51.00	3.10	3.40	NAP	20.00	4.00	184.93
	BROOKHAVEN	76.00	5.70	1.50	NAP	17.00	4.50	271.00
11 MAY 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
12 MAY 1980	ITHACA	94.00	3.80	6.50	NAP	45.00	12.00	294.16

		4 H N (	A N (	K K (	L A (	A C (	G M (	T A C (
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UFQ/L
	PENN STATE	27.00	2.40	1.40	NAP	5.50	1.10	114.79
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	87.00	10.00	4.50	NAP	20.00	4.10	197.56
13 MAY 1980	ILLINOIS	22.00	2.80	1.60	NAP	8.00	1.40	70.32
	BROOKHAVEN	31.00	13.00	5.40	NAP	12.00	4.10	163.00
	OXFORD	38.00	3.20	2.70	NAP	10.00	2.40	119.00
14 MAY 1980	ITHACA	25.00	1.50	0.52	NAP	4.00	0.70	107.21
15 MAY 1980	PENN STATE	9.30	1.40	0.92	NAP	3.80	0.70	76.85
17 MAY 1980	ILLINOIS	26.00	2.50	3.80	NAP	22.00	5.30	199.10
18 MAY 1980	ILLINOIS	21.00	1.10	<0.40	NAP	2.00	<0.40	105.53
	OXFORD	25.00	0.74	0.82	NAP	1.60	0.49	95.00
19 MAY 1980	PENN STATE	22.00	5.40	<0.40	NAP	4.70	1.20	50.68
	VIRGINIA	13.00	6.70	1.00	NAP	1.70	0.82	50.29
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	29.00	44.00	7.20	NAP	8.40	7.20	179.00
	LEWES	20.00	100.00	3.70	NAP	5.00	9.40	243.70
	OXFORD	24.00	0.53	2.60	NAP	1.30	<0.40	79.00
20 MAY 1980	WHITEFACE	15.00	0.43	1.20	NAP	2.70	0.82	74.96
	ITHACA	30.00	3.20	4.30	NAP	7.20	3.00	160.23
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	56.00	5.10	5.40	NAP	8.00	2.90	ISA
21 MAY 1980	PENN STATE	30.00	2.80	<0.40	NAP	4.30	0.95	107.87
	VIRGINIA	18.00	0.75	1.40	NAP	1.10	<0.40	68.06

MAP33/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		⁴ H N (	³ A N (	² K (	¹ L A (	¹ C A (	¹ G M (	⁰ T A C
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	BROOKHAVEN	9.80	2.20	0.92	NAP	0.77	<0.40	33.96
22 MAY 1980	LEWES	38.00	8.70	1.40	NAP	2.30	1.40	155.50
23 MAY 1980	ILLINOIS	11.00	0.49	0.83	NAP	4.20	1.00	148.61
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
24 MAY 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	49.00	2.00	5.10	NAP	3.00	1.40	93.08
25 MAY 1980	ILLINOIS	9.30	0.65	<0.40	NAP	1.20	0.99	80.40
	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
27 MAY 1980	VIRGINIA	14.00	4.60	7.60	NAP	2.50	0.95	57.09
30 MAY 1980	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
31 MAY 1980	ILLINOIS	57.00	9.60	2.50	NAP	14.00	3.20	182.93
	OXFORD	28.00	4.30	<0.40	NAP	4.40	1.50	144.10
1 JUN 1980	ILLINOIS	20.00	4.20	0.78	NAP	2.80	0.74	47.91
	OXFORD	13.00	8.00	1.00	NAP	4.20	1.40	109.06
2 JUN 1980	WHITEFACE	28.00	46.00	14.00	NAP	4.10	0.91	177.45
	PENN STATE	24.00	9.00	6.00	NAP	14.00	3.40	169.30
	VIRGINIA	31.00	3.50	4.00	NAP	2.60	0.91	123.14
	ILLINOIS	22.00	5.60	1.90	NAP	6.90	1.90	77.30
	BROOKHAVEN	33.00	6.60	4.20	NAP	8.10	3.00	147.28
	OXFORD	24.00	5.40	1.40	NAP	8.40	1.40	102.88
3 JUN 1980	ILLINOIS	32.00	9.00	2.50	NAP	24.00	4.30	120.05
	BROOKHAVEN	41.00	3.30	2.10	NAP	2.90	0.74	131.30

5

		4 H N (	4 A N (	4 K K (	4 L A (	4 A C (	4 G M (	4 T A C
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
4 JUN 1980	ITHACA	9.60	1.80	1.80	NAP	5.50	0.95	83.64
	PENN STATE	16.00	22.00	1.60	NAP	9.20	2.50	124.66
	BROOKHAVEN	250.00	14.00	92.00	NAP	7.90	2.70	377.45
	LEWES	35.00	36.00	4.10	NAP	15.00	7.00	122.82
5 JUN 1980	WHITEFACE	16.00	2.60	2.00	NAP	7.70	1.40	77.70
6 JUN 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
7 JUN 1980	VIRGINIA	48.00	15.00	4.70	NAP	17.00	4.70	334.97
	BROOKHAVEN	13.00	13.00	1.40	NAP	2.10	1.90	67.02
	LEWES	38.00	17.00	1.90	NAP	9.80	4.10	225.95
8 JUN 1980	ITHACA	20.00	1.80	1.00	NAP	4.80	1.10	119.71
	PENN STATE	10.00	2.30	0.44	NAP	3.30	0.62	83.68
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	18.00	0.46	1.70	NAP	2.10	0.91	90.75
	LEWES	29.00	47.00	1.70	NAP	5.10	6.10	172.54
	OXFORD	17.00	3.80	0.74	NAP	9.30	1.40	62.89
9 JUN 1980	WHITEFACE	13.00	0.70	1.10	NAP	0.77	<0.40	66.46
	PENN STATE	16.00	3.50	2.30	NAP	6.60	1.80	78.41
10 JUN 1980	ITHACA	23.00	0.40	1.10	NAP	2.50	0.95	83.88
	PENN STATE	4.80	1.10	0.76	NAP	1.80	0.45	34.60
	BROOKHAVEN	13.00	26.00	1.50	NAP	3.50	3.90	106.59
	OXFORD	41.00	0.93	<0.40	NAP	23.00	6.50	102.71
11 JUN 1980	WHITEFACE	5.90	0.38	0.90	NAP	1.40	<0.40	40.48
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
(CONT.)

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		4 H N (	4 A N (	4 K (	4 L A (	4 A C (	4 G M (	4 I A C (
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
15 JUN 1980	OXFORD	35.00	5.30	3.10	NAP	25.00	5.10	145.29
16 JUN 1980	WHITEFACE	43.00	8.90	5.30	NAP	4.30	1.10	155.10
	ITHACA	14.00	1.10	1.40	NAP	1.70	<0.40	55.38
	PENN STATE	23.00	3.30	2.00	NAP	4.50	1.00	132.63
	ILLINOIS	41.00	3.60	1.30	NAP	19.00	2.90	140.99
	LEWES	27.00	57.00	7.30	NAP	30.00	15.00	217.61
	OXFORD	19.00	2.30	0.77	NAP	9.60	1.40	82.09
17 JUN 1980	VIRGINIA	32.00	5.50	5.60	NAP	13.00	2.90	139.47
	LEWES	34.00	63.00	6.90	NAP	17.00	6.20	150.30
19 JUN 1980	WHITEFACE	91.00	4.00	4.00	NAP	24.00	8.20	362.93
20 JUN 1980	WHITEFACE	25.00	6.60	5.40	NAP	3.20	1.40	146.20
	ITHACA	25.00	0.42	<0.40	NAP	1.20	<0.40	123.32
	PENN STATE	36.00	4.30	2.20	NAP	11.00	2.10	230.88
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
21 JUN 1980	WHITEFACE	9.70	2.20	1.10	NAP	0.85	<0.40	30.55
	ITHACA	20.00	2.10	2.40	NAP	2.20	0.86	ISA
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
23 JUN 1980	ILLINOIS	26.00	8.00	6.90	NAP	4.10	<0.40	174.99
24 JUN 1980	WHITEFACE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	OXFORD	ISA	ISA	ISA	NAP	ISA	ISA	0.00
26 JUN 1980	LEWES	4.80	43.00	12.00	NAP	2.40	4.10	102.31

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MAP35/RAINE PRECIPITATION CHEMISTRY DATA

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		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	BROOKHAVEN	24.00	11.00	1.50	NAP	1.50	1.50	142.50
7 JUL 1980	WHITEFACE	76.00	3.40	0.58	NAP	10.00	2.50	ISA
	PENN STATE	33.00	2.30	<0.40	NAP	5.20	0.95	276.69
8 JUL 1980	PENN STATE	16.00	0.96	<0.40	NAP	3.00	<0.40	118.46
	LEWES	77.00	23.00	11.00	NAP	24.00	5.80	217.37
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
9 JUL 1980	WHITEFACE	7.90	0.68	0.40	NAP	0.52	<0.40	34.01
	ITHACA	38.00	2.20	3.80	NAP	9.20	1.80	228.18
	VIRGINIA	22.00	1.30	0.94	NAP	5.00	0.70	88.12
	OXFORD	59.00	4.80	3.60	NAP	39.00	11.00	179.99
10 JUL 1980	VIRGINIA	15.00	1.60	0.79	NAP	3.30	<0.40	87.09
	OXFORD	42.00	4.20	1.90	NAP	21.00	3.70	202.21
11 JUL 1980	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
12 JUL 1980	PENN STATE	46.00	5.60	1.40	NAP	71.00	17.00	314.11
13 JUL 1980	WHITEFACE	22.00	3.30	1.50	NAP	16.00	3.10	79.13
14 JUL 1980	VIRGINIA	86.00	2.60	4.90	NAP	19.00	6.30	144.10
16 JUL 1980	WHITEFACE	40.00	2.10	0.93	NAP	6.50	1.50	138.46
	PENN STATE	42.00	2.40	<0.40	NAP	19.00	4.40	229.24
17 JUL 1980	ITHACA	16.00	1.20	1.20	NAP	12.00	2.50	95.26
	PENN STATE	23.00	4.20	<0.40	NAP	13.00	1.40	207.36
18 JUL 1980	WHITEFACE	20.00	0.42	<0.40	NAP	0.90	<0.40	60.24

		4 H N (	4 A N (	4 K (	4 L A (	4 C A (	4 G M (	4 T O N C
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	VIRGINIA	39.00	5.10	2.40	NAP	24.00	3.70	325.77
	LEWES	30.00	8.80	2.70	NAP	8.30	2.10	174.50
19 JUL 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
21 JUL 1980	WHITEFACE	11.00	1.40	1.30	NAP	3.40	<0.40	78.04
22 JUL 1980	WHITEFACE	5.90	0.67	0.83	NAP	<0.50	<0.40	36.91
	ITHACA	42.00	1.40	1.30	NAP	9.70	2.50	160.30
	PENN STATE	9.50	3.20	<0.40	NAP	11.00	1.80	242.47
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	ILLINOIS	45.00	3.70	1.10	NAP	8.00	1.60	197.82
	OXFORD	16.00	2.30	0.99	NAP	7.40	2.30	114.55
23 JUL 1980	PENN STATE	2.30	0.98	0.54	NAP	3.20	<0.40	133.25
	LEWES	7.00	11.00	1.70	NAP	2.50	1.40	71.15
24 JUL 1980	WHITEFACE	8.70	3.90	1.20	NAP	0.55	<0.40	38.34
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	LEWES	27.00	5.20	1.50	NAP	1.10	0.99	105.49
27 JUL 1980	WHITEFACE	34.00	1.30	1.40	NAP	2.80	<0.40	101.18
	ILLINOIS	29.00	5.10	0.69	NAP	7.60	1.50	165.19
	OXFORD	18.00	1.20	1.40	NAP	2.70	<0.40	133.15
28 JUL 1980	ITHACA	22.00	1.80	3.90	NAP	1.10	<0.40	102.34
	ILLINOIS	7.50	1.40	0.41	NAP	<0.50	<0.40	121.51
29 JUL 1980	PENN STATE	8.20	11.00	0.62	NAP	1.50	1.40	67.31
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA

MAP35/RAINE PRECIPITATION CHEMISTRY DATA
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		4 H N (	4 A N (	4 K (	4 L A (	4 A C (	4 G (	4 I A C (
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L
	OXFORD	39.00	2.00	1.40	NAP	3.00	<0.40	ISA
30 JUL 1980	WHITEFACE	1.80	2.30	0.54	NAP	<0.50	<0.40	30.34
	PENN STATE	55.00	1.40	2.80	NAP	8.30	1.60	226.91
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	0.00
	BROOKHAVEN	37.00	9.30	19.00	NAP	6.00	4.10	86.48
31 JUL 1980	WHITEFACE	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	ITHACA	7.60	4.00	0.86	NAP	1.20	1.10	70.76
	PENN STATE	100.00	21.00	15.00	NAP	120.00	13.00	567.96
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
1 AUG 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	19.00	2.00	2.20	NAP	10.00	1.60	106.66
2 AUG 1980	WHITEFACE	40.00	0.73	1.60	NAP	3.40	0.62	216.33
	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
3 AUG 1980	ILLINOIS	54.00	13.00	3.90	NAP	52.00	6.30	187.50
	BROOKHAVEN	43.00	11.00	9.00	NAP	9.50	3.80	209.83
	OXFORD	24.00	2.20	0.90	NAP	7.50	1.20	140.00
4 AUG 1980	WHITEFACE	20.00	3.10	0.78	NAP	2.20	0.58	97.05
	ITHACA	23.00	0.74	0.67	NAP	2.50	0.66	98.34
	PENN STATE	18.00	1.70	1.30	NAP	3.90	0.62	199.86
	VIRGINIA	22.00	1.20	1.10	NAP	2.50	1.10	80.48
5 AUG 1980	ILLINOIS	12.00	11.00	1.00	NAP	10.00	3.00	83.88
6 AUG 1980	WHITEFACE	12.00	1.40	0.65	NAP	1.60	<0.40	104.35

		4 + N (	A + N (	K + (	L + A (	A + C (	G + M (	I + O + N C
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	PENN STATE	7.30	2.40	0.79	NAP	3.10	0.74	109.37
	VIRGINIA	21.00	3.70	0.82	NAP	3.90	1.40	110.25
	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
7 AUG 1980	ILLINOIS	10.00	13.00	0.76	NAP	6.00	2.10	98.84
	OXFORD	10.00	4.40	0.96	NAP	3.80	1.20	123.08
8 AUG 1980	ITHACA	40.00	5.60	2.30	NAP	13.00	4.90	ISA
10 AUG 1980	OXFORD	39.00	2.00	1.70	NAP	10.00	2.00	204.74
11 AUG 1980	PENN STATE	17.00	3.70	1.40	NAP	5.50	0.95	189.88
	VIRGINIA	30.00	2.40	1.90	NAP	7.80	1.40	130.32
	ILLINOIS	31.00	3.50	0.80	NAP	8.60	1.20	113.78
	LEWES	21.00	10.00	0.80	NAP	6.10	2.30	ISA
	OXFORD	ISA	ISA	ISA	NAP	ISA	ISA	ISA
12 AUG 1980	WHITEFACE	11.00	0.73	<0.40	NAP	<0.50	<0.40	71.99
	ITHACA	25.00	0.62	0.64	NAP	0.82	<0.40	127.90
	PENN STATE	24.00	5.50	3.20	NAP	3.80	0.82	255.74
	ILLINOIS	110.00	37.00	5.50	NAP	25.00	5.80	214.10
	BROOKHAVEN	32.00	16.00	1.90	NAP	2.60	2.20	188.32
	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	32.00	7.00	1.20	NAP	11.00	2.60	182.22
14 AUG 1980	ILLINOIS	17.00	4.40	0.57	NAP	8.50	1.30	88.34
15 AUG 1980	WHITEFACE	15.00	0.99	0.89	NAP	0.50	<0.40	34.10
	ITHACA	25.00	0.64	0.58	NAP	2.50	0.49	129.92
	PENN STATE	18.00	3.40	2.60	NAP	3.90	0.95	143.35

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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		4 H N (	4 A N (	4 K (	4 L A (	4 A C (	4 G M (	4 T A C (
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	ILLINOIS	14.00	2.80	1.10	NAP	1.40	0.45	104.78
	BROOKHAVEN	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	MOE	MOE	MOE	NAP	MOE	MOE	MOE
16 AUG 1980	WHITEFACE	2.60	1.90	0.86	NAP	1.00	<0.40	23.58
	VIRGINIA	6.90	0.98	<0.40	NAP	1.50	<0.40	113.21
	ILLINOIS	9.00	1.50	<0.40	NAP	1.80	0.66	91.28
	LEWES	19.00	2.60	0.48	NAP	2.20	0.74	140.16
17 AUG 1980	ILLINOIS	21.00	9.50	1.00	NAP	5.80	1.90	164.39
18 AUG 1980	ILLINOIS	13.00	4.30	0.51	NAP	1.70	0.70	62.42
	OXFORD	22.00	23.00	2.80	NAP	17.00	5.70	225.03
19 AUG 1980	WHITEFACE	18.00	0.66	0.54	NAP	1.50	<0.40	119.92
	ILLINOIS	5.70	1.90	0.50	NAP	0.80	<0.40	59.82
	OXFORD	16.00	4.70	0.40	NAP	4.70	1.40	142.95
20 AUG 1980	WHITEFACE	40.00	5.40	2.50	NAP	2.70	0.58	130.32
	VIRGINIA	8.20	4.10	0.67	NAP	2.80	0.95	88.08
	BROOKHAVEN	17.00	11.00	3.70	NAP	5.60	2.30	287.38
	LEWES	15.00	6.00	0.96	NAP	1.40	0.91	95.76
21 AUG 1980	PENN STATE	37.00	2.60	1.80	NAP	16.00	1.60	174.32
22 AUG 1980	LEWES	ISA	ISA	ISA	NAP	ISA	ISA	ISA
26 AUG 1980	VIRGINIA	110.00	6.90	1.10	NAP	3.20	1.60	436.63
27 AUG 1980	WHITEFACE	65.00	3.20	2.00	NAP	17.00	3.20	301.15
	OXFORD	ISA	ISA	ISA	NAP	ISA	ISA	ISA
28 AUG 1980	WHITEFACE	29.00	0.61	0.74	NAP	3.00	<0.40	108.79

		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L
30 AUG 1980	ITHACA	120.00	2.00	4.20	NAP	19.00	3.20	517.34
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	MOE	MOE	MOE	NAP	MOE	MOE	MOE
31 AUG 1980	WHITEFACE	34.00	2.00	1.80	NAP	2.80	0.41	222.05
1 SEP 1980	ILLINOIS	37.00	9.10	1.50	NAP	8.50	1.10	176.45
2 SEP 1980	WHITEFACE	16.00	2.00	<0.40	NAP	2.40	<0.40	104.08
	ITHACA	33.00	2.80	3.10	NAP	3.20	0.95	251.37
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	17.00	2.90	1.50	NAP	2.60	0.45	78.79
	OXFORD	MOE	MOE	MOE	NAP	MOE	MOE	MOE
3 SEP 1980	WHITEFACE	2.60	0.72	<0.40	NAP	0.82	<0.40	36.58
	ITHACA	6.90	0.81	<0.40	NAP	<0.50	<0.40	83.57
	VIRGINIA	9.70	1.30	2.70	NAP	2.30	0.66	57.64
5 SEP 1980	LEWES	4.00	18.00	1.00	NAP	5.10	2.60	123.51
6 SEP 1980	ILLINOIS	28.00	5.40	1.20	NAP	7.80	0.91	193.27
7 SEP 1980	OXFORD	52.00	1.60	1.80	NAP	7.30	2.00	148.13
8 SEP 1980	ILLINOIS	32.00	3.30	1.30	NAP	9.10	0.99	152.28
9 SEP 1980	OXFORD	20.00	1.90	0.73	NAP	14.00	1.80	103.21
10 SEP 1980	WHITEFACE	7.80	1.20	1.40	NAP	2.70	0.41	85.80
	ITHACA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	LEWES	35.00	24.00	3.00	NAP	9.70	4.40	149.08
12 SEP 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
13 SEP 1980	ILLINOIS	31.00	11.00	2.30	NAP	22.00	3.00	313.08

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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		4 H N (	A N (	K K (	L A (	A C (	G M (	O I A C
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
14 SEP 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
15 SEP 1980	WHITEFACE	25.00	0.80	0.98	NAP	2.50	<0.40	143.98
	ITHACA	23.00	0.84	0.81	NAP	1.40	<0.40	118.65
	PENN STATE	17.00	1.50	1.30	NAP	1.70	<0.40	181.69
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
16 SEP 1980	ILLINOIS	12.00	1.10	0.62	NAP	4.60	0.53	82.86
	OXFORD	37.00	1.90	1.40	NAP	10.00	1.40	ISA
17 SEP 1980	OXFORD	45.00	1.50	1.10	NAP	7.10	0.82	175.64
18 SEP 1980	WHITEFACE	13.00	1.60	0.65	NAP	0.82	<0.40	65.87
	ITHACA	44.00	7.20	1.20	NAP	3.40	1.40	176.82
	ILLINOIS	31.00	1.00	0.75	NAP	2.60	<0.40	107.13
	BROOKHAVEN	52.00	19.00	6.00	NAP	3.80	3.30	100.97
	LEWES	24.00	12.00	1.30	NAP	2.60	1.80	123.72
19 SEP 1980	VIRGINIA	27.00	3.70	1.30	NAP	6.40	2.00	155.95
20 SEP 1980	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
21 SEP 1980	WHITEFACE	54.00	1.10	1.90	NAP	4.00	0.49	213.89
22 SEP 1980	WHITEFACE	27.00	0.98	0.78	NAP	3.80	0.58	106.70
	ITHACA	68.00	9.70	6.50	NAP	31.00	3.50	382.29
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
23 SEP 1980	WHITEFACE	24.00	2.20	1.00	NAP	4.70	0.66	119.20
	ITHACA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	VIRGINIA	15.00	3.10	5.60	NAP	2.70	0.91	64.80
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA

		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	LEWES	5.50	6.60	0.97	NAP	2.00	1.20	45.17
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
24 SEP 1980	PENN STATE	25.00	10.00	2.60	NAP	7.30	1.60	190.30
	VIRGINIA	50.00	3.40	2.80	NAP	ISA	ISA	200.74
	LEWES	25.00	25.00	0.94	NAP	8.80	5.80	180.14
25 SEP 1980	LEWES	12.00	94.00	1.80	NAP	3.30	9.60	195.26
26 SEP 1980	WHITEFACE	11.00	0.82	0.62	NAP	1.90	40.40	118.57
	ITHACA	21.00	3.40	1.50	NAP	2.70	0.58	161.28
	VIRGINIA	23.00	5.60	1.30	NAP	2.60	1.10	166.12
	BROOKHAVEN	14.00	26.00	2.70	NAP	4.00	3.50	98.44
	LEWES	6.00	22.00	0.45	NAP	40.50	2.50	77.10
27 SEP 1980	PENN STATE	21.00	2.30	1.60	NAP	3.00	0.70	167.20
29 SEP 1980	WHITEFACE	9.30	1.50	2.70	NAP	6.10	1.50	81.18
1 OCT 1980	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
2 OCT 1980	PENN STATE	91.00	5.10	32.00	NAP	17.00	3.00	625.19
	VIRGINIA	58.00	90.00	10.00	NAP	7.20	9.50	289.12
	ILLINOIS	89.00	3.00	7.10	NAP	82.00	16.00	295.54
	OXFORD	42.00	0.71	2.10	NAP	9.20	1.20	152.71
3 OCT 1980	WHITEFACE	7.90	4.00	1.50	NAP	1.50	0.62	140.67
	ITHACA	30.00	9.10	0.80	NAP	5.70	1.90	183.93
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	MOE	MOE	MOE	MOE	MOE	MOE	MOE
4 OCT 1980	PENN STATE	42.00	0.83	1.70	NAP	3.60	0.91	131.17

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA

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		⁴ H N (	⁴ A N (	⁴ K N (	⁴ L A N (	⁴ A C (	⁴ G M (	⁴ O I T A C
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	VIRGINIA	33.00	2.40	2.20	NAP	8.00	2.20	162.71
	BROOKHAVEN	8.90	9.20	0.66	NAP	1.40	1.10	69.47
	LEWES	18.00	68.00	2.10	NAP	2.80	7.50	204.20
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
5 OCT 1980	WHITEFACE	11.00	0.67	0.91	NAP	1.30	<0.40	63.04
6 OCT 1980	VIRGINIA	20.00	1.20	1.40	NAP	9.00	1.60	213.62
8 OCT 1980	PENN STATE	30.00	5.10	2.40	NAP	11.00	2.60	242.53
10 OCT 1980	PENN STATE	51.00	4.60	2.40	NAP	21.00	2.70	222.89
11 OCT 1980	BROOKHAVEN	56.00	21.00	2.50	NAP	15.00	4.00	268.86
12 OCT 1980	BROOKHAVEN	21.00	12.00	1.40	NAP	5.50	1.10	65.38
	LEWES	45.00	21.00	2.20	NAP	9.80	3.70	180.31
14 OCT 1980	WHITEFACE	26.00	0.75	<0.40	NAP	4.50	0.91	130.90
	ITHACA	20.00	1.40	<0.40	NAP	3.30	0.58	133.87
15 OCT 1980	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
16 OCT 1980	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
17 OCT 1980	PENN STATE	44.00	7.10	3.43	NAP	36.00	4.80	250.94
	ILLINOIS	6.90	2.70	0.61	NAP	1.70	0.45	31.49
18 OCT 1980	ITHACA	13.00	3.90	<0.40	NAP	2.40	0.78	100.88
	PENN STATE	20.00	8.90	1.50	NAP	4.60	1.60	149.95
	ILLINOIS	47.00	22.00	2.20	NAP	13.00	3.10	131.58
	OXFORD	7.00	0.97	0.63	NAP	2.40	0.49	68.08
19 OCT 1980	WHITEFACE	34.00	2.50	4.00	NAP	3.20	1.20	103.00
	BROOKHAVEN	9.30	21.00	2.70	NAP	2.70	2.40	86.85

		⁴ H N (	⁴ A N (	⁴ K (	⁴ L A (	⁴ A C (	⁴ G M (	⁴ I A C
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
20 OCT 1980	WHITEFACE	14.00	0.68	0.63	NAP	1.40	<0.40	45.03
	VIRGINIA	7.60	3.80	2.70	NAP	2.20	0.86	42.61
	LEWES	13.00	18.00	2.90	NAP	1.80	2.70	74.52
22 OCT 1980	WHITEFACE	2.90	0.94	11.00	NAP	6.20	4.50	75.14
	ITHACA	30.00	3.10	1.40	NAP	1.90	0.49	124.39
25 OCT 1980	VIRGINIA	3.70	4.00	0.55	NAP	0.50	0.45	24.28
	ILLINOIS	23.00	2.90	1.20	NAP	3.00	0.55	101.77
	OXFORD	7.90	0.49	0.60	NAP	2.30	0.53	75.11
26 OCT 1980	BROOKHAVEN	1.10	70.00	1.30	NAP	2.40	6.80	105.59
	LEWES	1.70	280.00	5.10	NAP	7.20	26.00	362.11
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
27 OCT 1980	WHITEFACE	2.70	2.90	0.71	NAP	1.10	0.41	34.45
	ITHACA	1.90	0.41	<0.40	NAP	<0.50	<0.40	19.41
28 OCT 1980	ILLINOIS	MOE	MOE	MOE	MOE	MOE	MOE	ISA
	OXFORD	22.00	2.10	0.83	NAP	6.50	1.60	136.63
29 OCT 1980	WHITEFACE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ITHACA	26.00	0.69	<0.40	NAP	2.40	<0.40	148.98
	PENN STATE	2.70	6.70	0.86	NAP	0.82	0.41	50.74
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	ILLINOIS	MOE	MOE	MOE	NAP	MOE	MOE	ISA
	BROOKHAVEN	25.00	49.00	3.00	NAP	6.50	5.40	200.80
	LEWES	7.40	4.00	0.93	NAP	1.60	1.00	61.18
30 OCT 1980	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA

MAP35/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
31 OCT 1980	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
3 NOV 1980	WHITEFACE	36.00	1.90	2.80	NAP	55.00	9.90	171.55
	ITHACA	44.00	1.80	1.80	NAP	18.00	4.60	103.27
4 NOV 1980	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA
	OXFORD	29.00	1.10	4.90	NAP	6.50	1.10	157.35
5 NOV 1980	ITHACA	49.00	1.00	0.74	NAP	5.00	0.82	141.81
	PENN STATE	61.00	17.00	7.70	NAP	27.00	5.60	379.99
	VIRGINIA	4.00	1.90	1.30	NAP	0.60	<0.40	33.52
	BROOKHAVEN	10.00	43.00	1.70	NAP	3.80	5.40	130.64
	LEWES	17.00	15.00	1.60	NAP	2.40	2.10	91.58
6 NOV 1980	WHITEFACE	34.00	0.85	<0.40	NAP	2.60	0.45	122.23
7 NOV 1980	WHITEFACE	7.30	0.43	0.95	NAP	1.30	<0.40	92.56
	ITHACA	31.00	0.67	1.90	NAP	12.00	2.20	153.17
	BROOKHAVEN	17.00	2.20	1.20	NAP	6.60	1.20	153.49
8 NOV 1980	BROOKHAVEN	ISA	ISA	ISA	ISA	ISA	ISA	ISA
10 NOV 1980	ITHACA	25.00	1.30	0.67	NAP	8.10	0.99	145.15
	PENN STATE	30.00	2.70	2.10	NAP	9.50	1.60	131.13
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE
	BROOKHAVEN	25.00	6.70	1.70	NAP	4.80	1.20	124.83
	LEWES	56.00	21.00	5.00	NAP	31.00	7.70	237.02
12 NOV 1980	WHITEFACE	24.00	<0.50	1.20	NAP	4.60	0.66	98.82
	ITHACA	8.30	4.30	0.69	NAP	26.00	4.00	75.69
14 NOV 1980	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA

		N H) (		N A) (		K +) (		L +) (		C A) (		G M) (		T I O N C	
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L	
15 NOV 1980	ITHACA	ISA	ISA	ISA	ISA	ISA	ISA	ISA	ISA	ISA	ISA	ISA	ISA	ISA	
	ILLINOIS	ISA	ISA	ISA	ISA	NAP	ISA	ISA	ISA	ISA	ISA	ISA	ISA	ISA	
16 NOV 1980	PENN STATE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	
	OXFORD	ISA	ISA	ISA	ISA	NAP	ISA	ISA	ISA	ISA	ISA	ISA	ISA	ISA	
17 NOV 1980	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	MOE	
18 NOV 1980	ITHACA	0.51	<0.50	<0.40	NAP	<0.50	<0.40	5.52							
	PENN STATE	1.90	0.78	<0.40	NAP	1.90	<0.40	20.28							
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE							
	OXFORD	1.60	<0.50	<0.40	NAP	0.57	<0.40	37.41							
19 NOV 1980	WHITEFACE	13.00	1.10	1.20	NAP	1.60	<0.40	46.68							
	BROOKHAVEN	3.70	28.00	2.20	NAP	4.30	4.30	67.32							
21 NOV 1980	LEWES	4.30	77.00	4.50	NAP	2.40	7.80	131.90							
23 NOV 1980	ILLINOIS	1.90	0.54	<0.40	NAP	1.50	<0.40	38.55							
24 NOV 1980	ILLINOIS	ISA	ISA	ISA	NAP	ISA	ISA	ISA							
	OXFORD	7.80	0.79	0.92	NAP	<0.50	<0.40	72.61							
25 NOV 1980	WHITEFACE	3.20	2.30	0.40	NAP	<0.50	<0.40	41.38							
	PENN STATE	3.80	2.40	1.50	NAP	0.62	<0.40	29.83							
	VIRGINIA	MOE	MOE	MOE	MOE	MOE	MOE	MOE							
	BROOKHAVEN	3.30	18.00	0.45	NAP	1.00	2.10	46.15							
	LEWES	4.40	39.00	1.10	NAP	1.10	4.20	75.49							
26 NOV 1980	WHITEFACE	ISA	ISA	ISA	NAP	ISA	ISA	ISA							
	ITHACA	2.40	0.60	0.49	NAP	0.57	<0.40	40.11							
28 NOV 1980	VIRGINIA	11.00	10.00	1.50	NAP	1.00	1.40	84.84							

MAP38/RAINE PRECIPITATION CHEMISTRY DATA

(CONT.)

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		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	ILLINOIS	27.00	2.00	1.50	NAP	4.80	0.74	117.44
29 NOV 1980	BROOKHAVEN	2.90	45.00	1.20	NAP	2.00	5.10	77.75
30 NOV 1980	ITHACA	6.90	1.00	0.87	NAP	1.90	0.41	55.08
	LEWES	7.00	99.00	2.40	NAP	3.60	11.00	161.04
	OXFORD	6.20	<0.50	<0.40	NAP	1.40	<0.40	57.98
1 DEC 1980	WHITEFACE	6.00	0.47	0.40	NAP	1.10	<0.40	47.09
	PENN STATE	10.00	4.00	1.60	NAP	4.80	0.91	114.12
2 DEC 1980	WHITEFACE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	36.00	5.90	2.20	NAP	4.30	1.40	106.79
3 DEC 1980	ITHACA	21.00	2.80	1.10	NAP	3.50	0.74	99.45
	BROOKHAVEN	26.00	71.00	3.30	NAP	4.90	8.40	191.47
	LEWES	ISA	ISA	ISA	ISA	ISA	ISA	ISA
4 DEC 1980	WHITEFACE	3.20	0.55	<0.40	NAP	0.85	<0.40	44.35
	PENN STATE	18.00	21.00	6.80	NAP	5.30	1.40	86.74
5 DEC 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
7 DEC 1980	ILLINOIS	14.00	5.70	0.97	NAP	0.92	0.78	62.09
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
8 DEC 1980	WHITEFACE	6.40	1.60	0.53	NAP	0.60	<0.40	50.47
	ITHACA	14.00	1.90	0.40	NAP	5.20	0.78	97.44
	ILLINOIS	19.00	11.00	0.51	NAP	1.20	1.40	71.19
9 DEC 1980	ITHACA	18.00	5.80	1.30	NAP	1.30	0.91	85.75
	PENN STATE	ISA	ISA	ISA	ISA	ISA	ISA	ISA

		4 H N (	5 A N (	6 K K (	7 L A (	8 A C (	9 G M (	10 I A C (
		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
	ILLINOIS	18.00	3.00	1.70	NAP	4.30	1.60	73.40
10 DEC 1980	ITHACA	7.00	0.63	0.43	NAP	1.60	<0.40	66.21
	PENN STATE	5.50	2.70	1.00	NAP	8.60	1.70	48.00
	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	BROOKHAVEN	22.00	9.30	1.60	NAP	1.60	1.40	132.23
	LEWES	9.50	25.00	4.60	NAP	4.30	3.30	88.18
	OXFORD	10.00	2.20	0.98	NAP	0.62	<0.40	54.23
11 DEC 1980	WHITEFACE	6.00	0.71	0.44	NAP	0.82	<0.40	23.58
	PENN STATE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	VIRGINIA	1.20	1.30	<0.40	NAP	1.00	<0.40	22.28
15 DEC 1980	WHITEFACE	13.00	4.10	0.74	NAP	2.70	0.74	61.87
	ITHACA	21.00	2.10	1.40	NAP	3.80	1.10	66.66
	PENN STATE	ISA	ISA	ISA	ISA	ISA	ISA	ISA
16 DEC 1980	BROOKHAVEN	ISA	ISA	ISA	ISA	ISA	ISA	ISA
17 DEC 1980	ITHACA	40.00	0.96	<0.40	NAP	1.50	<0.40	98.91
	PENN STATE	11.00	12.00	3.60	NAP	10.00	1.60	86.11
	BROOKHAVEN	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	LEWES	15.00	84.00	4.70	NAP	8.40	10.00	236.00
	OXFORD	24.00	0.71	1.70	NAP	3.50	1.20	96.07
18 DEC 1980	WHITEFACE	0.92	0.70	<0.40	NAP	1.00	<0.40	65.28
19 DEC 1980	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
22 DEC 1980	ITHACA	76.00	10.00	0.49	NAP	9.70	2.80	167.72
23 DEC 1980	PENN STATE	ISA	ISA	ISA	ISA	ISA	ISA	ISA

MAP3S/RAINE PRECIPITATION CHEMISTRY DATA
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		UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UMOL/L	UEQ/L
24 DEC 1980	BROOKHAVEN	2.00	9.10	1.60	NAP	2.10	1.40	51.32
	LEWES	2.40	2.30	<0.40	NAP	0.37	<0.40	14.99
	OXFORD	30.00	13.00	6.60	NAP	4.80	1.30	108.57
25 DEC 1980	ILLINOIS	ISA	ISA	ISA	ISA	ISA	ISA	ISA
26 DEC 1980	ITHACA	6.60	2.50	0.91	NAP	1.80	0.49	38.03
	VIRGINIA	5.60	1.40	1.00	NAP	3.30	0.82	82.31
28 DEC 1980	LEWES	2.10	6.70	0.45	NAP	1.50	0.91	42.91
29 DEC 1980	ILLINOIS	9.20	1.40	0.59	NAP	7.60	0.70	101.92
	OXFORD	ISA	ISA	ISA	ISA	ISA	ISA	ISA
30 DEC 1980	PENN STATE	26.00	47.00	9.80	NAP	5.70	3.00	181.48
	VIRGINIA	ISA	ISA	ISA	ISA	ISA	ISA	ISA
	LEWES	0.74	10.00	0.77	NAP	0.35	1.20	22.37
31 DEC 1980	ITHACA	26.00	15.00	4.50	NAP	0.77	1.50	145.54

NSC MEANS NO SAMPLE COLLECTED
ISA MEANS INSUFF. SAMPLE FOR ANALYSIS
NAP MEANS NO ANALYSIS PERFORMED
MOE MEANS MALFUNCTION OF OPERATOR ERROR
RPC MEANS REJECTED--PROB. CONTAMINATION

2.0 RESULTS OF USGS/MAP3S BLIND AUDIT PROGRAM

The blind audit portion of the USGS/MAP3S Quality Assurance Program began with the distribution of samples to the field in June 1980. This quality assurance program depends on the cooperation of MAP3S site operators for the submission of known reference material samples to the MAP3S Laboratory. The quality assurance or blind audit samples are submitted during one-week periods at each site. There is no way to precisely control the number of samples received by the laboratory in a given week. The goal of the program is to achieve a submission of one reference sample for each one-week period, thus insuring that each batch of analyses that go through the laboratory contains one audit sample. To date this level has not been achieved. The analytical values determined by MAP3S are compared to calculated or expected values for the given reference samples. The term reported values is used since the reference materials currently employed by the program are quantitative dilutions of Standard Reference Water Samples employed by the Geological Survey in their methods development and quality assurance investigations.

Examination of Table 3 indicates that the MAP3S analysis compared well with the expected values from the reference samples for two of the three samples. The August 8, 1980 sample appears to be a sample other than the blind sample. Review of site number four data does not indicate a blind sample in the data-set. The large difference between the field site and laboratory pH values may indicate the sample changed during shipment.

TABLE 3

ANALYTICAL RESULTS BY THE MAP3S LABORATORY OF FIELD SUBMITTED SAMPLES
PREPARED FROM U.S. GEOLOGICAL SURVEY REFERENCE SAMPLES

<u>Parameter</u>	<u>Calc. MAP3S mg/L</u>	<u>USGS Reported mg/L</u>
Sample ID - June 25, 1980 - Penn State - Site No. 3 Laboratory pH 6.53; Field Site pH 6.41		
Ca	.96	1.16
Mg	.18	.20
Na	.28	.32
K	.09	.10
SO ₄	1.44	1.35
Cl	.23	.17
NO ₃	.07	--
PO ₄	<.02	--
Sample ID - July 16, 1980 - Illinois - Site No. 5 Laboratory pH 7.03; Field Site pH 7.42		
Ca	4.01	4.83
Mg	1.12	1.02
Na	5.28	4.95
K	.29	.34
SO ₄	9.31	9.60
Cl	3.90	3.87
NO ₃	1.12	.32
PO ₄	.12	.30
Sample ID - August 8, 1980 - Virginia - Site No. 4 Laboratory pH 6.57; Field Site pH 8.53		
Ca	1.76	3.62
Mg	.04	.77
Na	.04	3.71
K	<.02	.26
SO ₄	.24	7.20
Cl	.67	2.90
NO ₃	.18	.24
PO ₄	.05	.23

3.0 STATISTICAL SUMMARY

This section is intended as an update of the statistical overview soon to be published,⁽⁵⁾ which includes the MAP3S/RAINE precipitation chemistry data through 1979. Certain of the statistical analyses performed have been redone with the data base extended to include the data for 1980 listed in Table 2.

Table 4 is a listing of 1980 precipitation amounts and numbers of events by month. The previous criteria⁽⁵⁾ for elimination of month entries are followed, except that added here are indications of downtime less than 10% and the months in which the collector area changed (see Table 11). The precipitation amounts are derived from the raingauge records, except that the sample volume is used when it is greater than that predicted from the raingauge record. Some few events may not have sufficient information to determine rainfall amounts, but the resulting losses of rainfall to the totals are not believed to be significant. Nevertheless, these monthly rainfall amounts should be used only for weighting; the reader is advised to consult National Weather Service records or the forthcoming hourly data listings.

Table 5 is completely analogous to Table 7 of the published overview.⁽⁵⁾ The present table contains statistical parameters calculated from the previous data base (1977-1979) plus the current additional data (1980). The regression coefficients A and B follow from the time trend expression

$$C = A + Bt , \quad (1)$$

where C is the species concentration and t is time in years since July 1, 1976. The confidence estimate p is derived from the student-t test and expresses the probability that the stated trend is not a random occurrence.

Table 6 is similar to Table 4, listing monthly deposition-weighted average concentrations for the various species. A month entry maybe rejected if one or more of the following criteria are met:

- Fraction of the total precipitation included in average is less than 0.80
- Downtime greater than 10%

- Less than 2 events in the month.

Monthly averages for months prior to January 1980 are listed in the overview.⁽⁵⁾

TABLE 4
MONTHLY PRECIPITATION AMOUNTS AND NUMBERS OF EVENTS FOR 1980

MONTH	<u>Precipitation, cm</u>							
	<u>WH</u>	<u>IT</u>	<u>PS</u>	<u>VA</u>	<u>IL</u>	<u>BR</u>	<u>LE</u>	<u>OX</u>
1	2.5	4.6	3.4	11.	0.59	4.2	6.9	d
2	2.4	4.8	2.0	3.9	2.9 ^b	2.5	3.3	2.2
3	7.3	14.	11.	10.	9.1	14.	12.	9.0
4	9.4	12.	12.	13.	4.0 ^c	14.	7.3	8.8
5	a	1.9	12.	5.7	8.7 ^c	3.8	7.1	17.
6	7.1 ^c	8.3	5.5	3.2	d	11.	8.8	8.0
7	13.	6.6	10.	13.	5.08	d	4.0	9.8
8	12.	8.1	9.9	6.8	d	d	4.6	18.
9	13.	11.	2.7	3.4	8.2	2.4	4.0	2.5
10	8.5	9.2	8.4	5.4	ad	a	13.	7.1
11	9.2	6.1	7.2	7.4	1.5	10. ^c	7.4 ^b	5.0 ^b
12	6.4	5.6	4.0	0.71	3.9	2.2	2.3	2.5

<u>Events</u>								
1	5	5	9	6	5	4	5	6 ^d
2	3	5	4	9	6	2	8	7
3	7	7	7	9	12	9	8	9
4	7	8	6	7	10 ^c	9	5	7
5	2 ^a	4	6	7	12 ^c	6	4	9
6	10 ^c	7	8	5	9 ^d	7	7	10
7	14	7	10	11	10	4 ^d	6	10
8	11	5	6	6	13 ^d	4 ^d	7	11
9	10	8	3	8	10	2	7	7
10	8	6	7	7	9 ^d	7	6	7
11	7	9	5	6	6	7 ^c	5	5
12	7	9	9	3	7	5	6	8

^aEvent missing.

^cDowntime <10%

^bCollection area change.

^dDowntime >10%

TABLE 5

FUNDAMENTAL STATISTICS FOR 1980

Concentrations $\mu\text{m}/\ell$				Standard Deviations $\mu\text{m}/\ell$		Regression Coefficients			Correlation Coefficients, Confidence Estimates, and Numbers of Data Points		
Min	Max	Mean	Log Mean	Normal	Log	A $\mu\text{m}/\ell$	B $\mu\text{m}/\ell$ year		r	p	N

SPECIES = TOTAL SULFUR

WF	1.9	120.0	28.7	21.5	21.6	2.2	30.6	-0.146E	1	-0.069	0.725	252
IT	0.7	240.0	39.2	28.5	34.0	2.3	36.4	0.184E	1	0.061	0.631	222
PS	2.1	330.0	44.2	31.5	39.2	2.4	44.4	-0.766E	-1	-0.002	0.029	314
VA	4.1	250.0	41.2	30.1	35.9	2.3	39.5	0.116E	1	0.034	0.358	191
IL	0.5	280.0	40.3	33.7	31.8	1.8	38.3	0.140E	1	0.050	0.407	117
BK	2.4	170.0	32.1	24.1	27.0	2.2	37.5	-0.358E	1	-0.186	0.936	99
LE	3.2	130.0	30.8	23.2	25.2	2.1	33.6	-0.189E	1	-0.106	0.720	105
OH	0.1	120.0	38.7	31.4	22.3	2.3	39.5	-0.514E	0	-0.032	0.254	103

SPECIES = SO_2

WF	0.1	7.4	0.5	0.2	1.1	3.2	0.5	0.498E	-1	0.053	0.510	173
IT	0.1	20.0	1.2	0.3	2.5	4.5	1.2	-0.292E	-1	-0.014	0.138	161
PS	0.1	17.0	1.4	0.4	2.8	4.8	0.6	0.430E	0	0.174	0.988	209
VA	0.1	7.6	0.4	0.2	1.0	2.7	0.7	-0.229E	0	-0.250	0.991	111
IL	0.1	15.0	1.2	0.3	2.5	4.7	1.2	0.397E	-1	0.018	0.153	118
BK	0.1	19.0	1.0	0.2	3.0	3.9	0.8	0.122E	0	0.058	0.459	113
LE	0.1	7.1	0.6	0.2	1.4	3.6	0.8	-0.869E	-1	-0.089	0.639	107
OH	0.1	25.0	1.9	0.5	3.5	5.7	1.8	0.973E	-1	0.038	0.323	121

SPECIES = NITRATE

WF	0.1	190.0	30.9	22.9	25.8	2.3	33.2	-0.175E	1	-0.069	0.727	253
IT	2.5	210.0	40.8	32.3	29.4	2.1	41.2	-0.265E	0	-0.010	0.118	223
PS	2.0	280.0	51.2	38.6	41.6	2.2	51.6	-0.261E	0	-0.007	0.092	314
VA	3.2	530.0	39.9	28.4	46.2	2.3	39.3	0.388E	0	0.009	0.096	191
IL	7.2	140.0	37.0	30.2	25.2	1.9	40.1	-0.224E	1	-0.101	0.720	116
BK	1.8	260.0	37.3	23.3	42.5	2.7	47.2	-0.664E	1	-0.220	0.971	99
LE	1.2	150.0	29.7	20.0	27.2	2.6	34.9	-0.347E	1	-0.181	0.936	105
OH	6.2	140.0	37.9	31.9	24.7	1.8	40.8	-0.191E	1	-0.108	0.721	102

Concentrations $\mu\text{m}/\ell$				Standard Deviations $\mu\text{m}/\ell$		Regression Coefficients			Correlation Coefficients, Confidence Estimates, and Numbers of Data Points			
Min	Max	Mean	Log Mean	Normal	Log	A $\mu\text{m}/\ell$	B $\mu\text{m}/\ell$ year		r	p	N	

SPECIES = CHLORIDE

WF	0.1	63.0	5.6	3.0	7.3	3.9	5.4	0.145E	0	0.021	0.254	251
IT	0.1	53.0	6.9	4.4	7.3	3.1	6.5	0.314E	0	0.048	0.523	223
PS	0.1	84.0	9.5	5.9	9.8	3.3	11.0	-0.953E	0	-0.102	0.928	310
VA	0.1	210.0	12.3	7.2	21.6	2.7	15.6	-0.220E	1	-0.108	0.855	183
IL	0.1	79.0	7.6	5.6	8.6	2.2	7.6	0.954E	-2	0.001	0.011	116
BK	2.5	540.0	41.0	25.8	60.9	2.5	33.8	0.483E	1	0.111	0.727	99
LE	1.5	470.0	50.7	29.5	67.1	2.8	53.5	-0.187E	1	-0.040	0.312	105
OH	1.6	38.0	7.6	6.1	6.4	1.9	6.6	0.655E	0	0.144	0.846	100

SPECIES = HYDROGEN (from lab pH)

WF	1.0	199.5	60.7	48.9	38.3	2.0	61.9	-0.915E	0	-0.025	0.299	239
IT	2.4	398.1	88.3	71.4	59.7	2.0	78.6	0.636E	1	0.122	0.915	200
PS	1.0	457.1	94.2	72.0	68.2	2.3	90.4	0.245E	1	0.040	0.475	260
VA	7.6	851.1	86.4	66.3	82.3	2.1	70.9	0.104E	2	0.137	0.925	170
IL	0.2	218.8	58.6	39.6	40.3	3.3	63.9	-0.375E	1	-0.108	0.742	111
BK	0.4	245.5	62.4	40.4	52.1	3.1	68.8	-0.415E	1	-0.112	0.730	99
LE	3.7	323.6	61.4	43.7	53.3	2.3	60.9	0.364E	0	0.010	0.077	103
OH	1.6	263.0	68.5	53.7	42.6	2.3	61.9	0.428E	1	0.141	0.838	100

SPECIES = AMMONIUM

WF	0.4	91.0	17.7	10.8	17.4	3.0	18.6	-0.687E	0	-0.041	0.474	242
IT	0.1	120.0	21.9	12.7	22.2	3.5	21.7	0.174E	0	0.009	0.103	222
PS	0.1	170.0	22.4	14.1	23.3	2.9	20.3	0.132E	1	0.060	0.701	303
VA	0.1	200.0	21.7	11.7	26.2	3.6	22.7	-0.653E	0	-0.026	0.279	188
IL	1.9	140.0	30.2	22.6	23.3	2.3	28.1	0.153E	1	0.075	0.575	116
BK	0.1	160.0	23.1	13.3	27.4	3.2	27.3	-0.280E	1	-0.144	0.844	99
LE	0.7	79.0	18.0	11.3	17.1	2.8	19.4	-0.933E	0	-0.077	0.567	105
OH	1.3	200.0	28.4	20.4	27.8	2.3	31.5	-0.209E	1	-0.105	0.705	102

Concentrations $\mu\text{m}/\ell$				Standard Deviations $\mu\text{m}/\ell$		Regression Coefficients			Correlation Coefficients, Confidence Estimates, and Numbers of Data Points			
Min	Max	Mean	Log Mean	Normal	Log	A $\mu\text{m}/\ell$	B $\mu\text{m}/\ell$ year		r	p	N	

SPECIES = SODIUM

WF	0.1	46.0	2.7	1.5	4.9	2.7	2.6	0.684E-1	0.017	0.173	172	
IT	0.1	30.0	2.8	1.6	4.0	2.0	2.8	0.779E-2	0.002	0.025	177	
PS	0.1	52.0	4.8	2.7	7.0	2.9	6.7	-0.107E1	1	-0.176	0.992	228
VA	0.1	120.0	7.2	2.9	15.6	3.5	9.4	-0.139E1	1	-0.104	0.782	142
IL	0.1	26.0	4.0	2.5	4.3	2.7	4.9	-0.655E0	0	-0.172	0.936	116
BK	0.7	450.0	35.1	19.3	55.9	2.9	27.2	0.524E1	1	0.132	0.806	99
LE	2.3	330.0	44.5	24.6	54.6	3.0	45.3	-0.573E0	0	-0.015	0.119	105
OH	0.1	23.0	3.7	2.3	3.8	3.0	3.5	0.128E0	0	0.047	0.365	102

SPECIES = POTASSIUM

WF	0.1	43.0	1.9	0.9	4.0	3.3	1.4	0.374E0	0	0.113	0.859	171
IT	0.1	25.0	1.5	0.8	2.8	3.2	1.5	0.457E-1	-1	0.020	0.204	177
PS	0.1	32.0	2.3	1.1	3.7	3.6	2.2	0.490E-1	-1	0.016	0.183	225
VA	0.1	27.0	2.4	1.0	4.0	3.7	2.5	-0.940E-1	-1	-0.027	0.254	142
IL	0.1	11.0	1.7	1.0	1.8	3.1	1.2	0.377E0	0	0.242	0.990	113
BK	0.1	19.0	3.3	2.0	3.5	3.0	3.3	-0.278E-1	-1	-0.011	0.086	99
LE	0.1	23.0	2.8	1.9	3.2	2.5	3.1	-0.191E0	0	-0.085	0.611	105
OH	0.1	12.0	1.8	1.1	2.0	3.1	1.6	0.120E0	0	0.084	0.601	102

SPECIES = CALCIUM

WF	0.1	55.0	3.1	1.6	4.9	3.3	3.5	-0.316E0	0	-0.071	0.686	202
IT	0.1	45.0	5.0	2.6	6.7	3.3	5.5	-0.315E0	0	-0.054	0.552	200
PS	0.1	120.0	7.7	4.0	12.5	3.2	8.8	-0.640E0	0	-0.056	0.629	261
VA	0.1	42.0	4.6	2.2	6.2	3.6	5.3	-0.491E0	0	-0.085	0.724	165
IL	0.8	82.0	11.4	6.8	13.3	2.8	11.9	-0.420E0	0	-0.036	0.297	114
BK	0.1	60.0	5.3	3.2	7.3	2.8	7.1	-0.121E1	1	-0.231	0.979	99
LE	0.1	37.0	4.9	2.8	6.5	3.0	6.8	-0.126E1	1	-0.276	0.995	105
OH	0.1	57.0	8.8	5.3	9.9	2.9	9.6	-0.591E0	0	-0.083	0.595	102

Concentrations $\mu\text{m}/\ell$				Standard Deviations $\mu\text{m}/\ell$		Regression Coefficients			Correlation Coefficients, Confidence Estimates, and Numbers of Data Points			
Min	Max	Mean	Log Mean	Normal	Log	A $\mu\text{m}/\ell$	B $\mu\text{m}/\ell$ year		r	p	N	

SPECIES = MAGNESIUM

WF	0.1	9.9	0.8	0.4	1.3	3.4	0.8	-0.326E-2	-2	-0.003	0.031	192
IT	0.1	12.0	1.3	0.7	1.6	3.3	1.3	-0.332E-1	-1	-0.025	0.267	193
PS	0.1	18.0	1.7	0.9	2.6	3.3	1.9	-0.104E-0	0	-0.044	0.516	252
VA	0.1	13.0	1.6	0.8	2.1	3.4	1.9	-0.190E-0	0	-0.099	0.779	156
IL	0.1	17.0	2.3	1.3	2.8	3.1	2.3	-0.118E-1	-1	-0.005	0.041	114
BK	0.1	43.0	4.7	3.1	5.4	2.6	4.3	0.269E-0	0	0.070	0.510	99
LE	0.1	30.0	5.3	3.4	5.3	2.8	5.6	-0.188E-0	0	-0.050	0.390	105
OH	0.1	11.0	2.0	1.2	2.1	3.2	2.2	-0.160E-0	0	-0.106	0.710	102

TABLE 6

MONTHLY DEPOSITION-WEIGHTED AVERAGE CONCENTRATIONS FOR 1980 ($\mu\text{mol/l}$)

MONTH	<u>Total Sulfur (S)</u>							
	<u>WH</u>	<u>IT</u>	<u>PS</u>	<u>VA</u>	<u>IL</u>	<u>BR</u>	<u>LE</u>	<u>OX</u>
1	a	18	16	a	42	18	13	ab
2	a	a	28	22	a	53	a	a
3	15	13	19	15	26	20	16	23
4	33	18	20	37	a	23	25	33
5	29	43	39	29	a	53	43	a
6	37	50	43	49	b	a	41	39
7	17	40	52	a	72	b	40	a
8	50	51	67	38	b	b	39	a
9	38	59	44	a	30	26	31	51
10	15	15	23	15	b	15	23	a
11	17	19	12	a	a	a	15	18
12	12	17	23	13	22	21	6.7	19

<u>SO₂ (S^{IV})</u>								
1	a	a	7.0	a	1.3	3.5	2.8	b
2	a	a	0.53	0.54	a	1.1	a	a
3	0.49	1.6	0.51	0.59	2.7	0	0	1.9
4	0	0	0	0	a	0	0	a
5	0	0.61	0	0	a	0	0	a
6	0	0.20	0.27	0	ab	a	0	0
7	0	0	0	a	a	b	0	a
8	0	0	0	0	ab	b	0	a
9	0.22	0	0	a	0	0	0	0
10	0	a	0	0.57	ab	0.45	0	a
11	1.9	3.0	1.1	a	a	a	0	11
12	1.6	1.8	4.5	0.51	1.2	1.6	3.3	2.2

^aLess than 80% of precipitation represented.^bDowntime >10%^cN<2

MONTH	<u>NO₃⁻</u>							
	<u>WH</u>	<u>IT</u>	<u>PS</u>	<u>VA</u>	<u>IL</u>	<u>BR</u>	<u>LE</u>	<u>OX</u>
1	a	23	20	a	73	24	16	ab
2	a	a	53	62	a	69	a	a
3	24	28	26	13	71	16	8.2	28
4	43	23	19	36	a	19	21	a
5	22	54	38	24	a	61	33	a
6	33	40	33	34	ab	a	34	28
7	14	25	38	a	a	b	32	a
8	25	29	41	33	ab	b	25	a
9	25	37	43	a	24	24	26	39
10	14	18	25	17	ab	15	17	a
11	33	25	18	a	a	a	13	21
12	24	41	40	15	17	32	9.1	37

<u>Cl⁻</u>								
1	a	7.1	11	a	11	97	53	ab
2	a	a	10	6.6	a	36	a	a
3	3.2	2.2	5.6	17.	5.1	50	120	3.8
4	5.7	3.4	7.2	15.	a	51	65	a
5	2.7	5.1	6.1	5.8	a	17	43	a
6	4.0	4.3	9.3	7.1	ab	a	43	6.8
7	3.1	4.5	10.	a	a	b	15	a
8	11	3.9	7.6	7.5	ab	b	7.8	a
9	4.2	5.3	5.1	a	4.9	17	40	5.7
10	4.0	3.0	5.8	11.	ab	42	130	a
11	2.1	8.3	3.4	a	a	a	75	3.6
12	3.7	7.1	14.	5.1	12.	29	13	6.6

H⁺ (from pH)

MONTH	<u>WH</u>	<u>IT</u>	<u>PS</u>	<u>VA</u>	<u>IL</u>	<u>BR</u>	<u>LE</u>	<u>OX</u>
1	41	46	35	a	25	36	33	b
2	86	a	75	80	a	120	a	a
3	42	43	48	33	47	38	22	44
4	81	43	45	71	a	44	38	a
5	51	76	74	39	a	79	76	a
6	62	100	73	92	ab	a	60	47
7	35	77	120	a	a	b	72	a
8	92	94	150	82	ab	b	88	a
9	81	120	140	a	74	18	62	a
10	43	47	61	33	ab	36	45	a
11	54	48	33	a	a	a	29	51
12	39	49	53	31	40	53	17	45

NH₄⁺

1	a	9.3	5.8	a	44	7.1	5.1	ab
2	a	a	21.	17	a	38	a	a
3	5.7	7.7	8.7	8.3	22	8.6	5.2	17
4	26	11.	11.	27	a	12	11.	a
5	15	34	25	18	a	43	27	a
6	23	29	16	37	ab	a	26	24
7	14	23	20	a	a	b	24	a
8	25	29	20	23	ab	b	17	a
9	20	23	20	a	24	42	14	42
10	8.8	8.8	14	11	ab	8.7	16	a
11	21.	14	9.9	a	a	a	8.5	7.0
12	6.1	22	13	2.4	17	12.	2.9	19.

Na⁺

MONTH	<u>WH</u>	<u>IT</u>	<u>PS</u>	<u>VA</u>	<u>IL</u>	<u>BR</u>	<u>LE</u>	<u>OX</u>
1	a	2.1	8.2	a	4.8	87	45	ab
2	a	a	5.1	2.9	a	33	a	a
3	1.6	1.0	3.4	14.	4.6	47	86	4.3
4	2.9	6.7	2.9	14.	a	45	58	a
5	0.43	2.0	2.3	4.0	a	8.3	37	a
6	8.9	1.5	5.5	4.8	ab	a	39	5.0
7	1.3	1.7	4.9	a	a	b	11	a
8	1.7	0.80	3.1	3.1	ab	b	4.8	a
9	1.3	2.2	2.4	a	2.9	21	41	1.7
10	2.3	1.8	6.0	8.0	ab	39	110	a
11	0.87	0.87	2.0	a	a	a	69	0
12	1.3	3.2	14.	1.3	8.2	23	11	5.2

K⁺

1	a	0.63	1.5	a	2.9	3.1	1.1	ab
2	a	a	1.6	0.42	a	2.6	a	a
3	0	.45	0.83	.63	0.83	1.5	1.9	0
4	.53	5.3	0.78	2.4	a	1.1	11	a
5	1.2	1.8	.62	1.9	a	2.7	2.0	a
6	4.1	1.6	2.1	4.6	ab	a	5.0	1.3
7	.46	1.7	.41	a	a	b	3.0	a
8	1.1	0.82	1.9	1.1	ab	b	0.75	a
9	.82	1.4	1.5	a	1.1	5.1	1.2	1.4
10	1.5	0	1.5	1.5	ab	1.4	3.2	a
11	.86	0.60	1.1	a	a	a	2.8	0.53
12	.40	1.0	3.7	0.28	0.73	2.0	0.86	2.6

Ca⁺⁺

MONTH	<u>WH</u>	<u>IT</u>	<u>PS</u>	<u>VA</u>	<u>IL</u>	<u>BR</u>	<u>LE</u>	<u>OX</u>
1	a	3.7	4.2	a	30	4.0	1.3	ab
2	a	a	5.4	2.7	a	5.6	a	a
3	1.5	1.1	4.8	2.2	6.3	3.4	3.3	5.1
4	3.0	2.8	3.3	3.8	a	3.7	6.0	a
5	2.7	9.6	5.5	2.7	a	10.	3.7	a
6	4.1	4.6	6.9	4.9	ab	a	7.9	11.
7	1.1	3.4	9.3	a	a	b	7.2	a
8	2.2	3.1	5.3	4.1	ab	b	2.0	a
9	2.8	2.0	2.7	a	4.8	3.9	2.8	9.0
10	1.7	1.1	3.8	2.1	ab	2.9	5.1	a
11	4.9	4.7	3.6	a	a	a	3.3	1.4
12	1.1	3.0	6.6	1.7	2.0	2.6	1.2	2.3

Mg⁺⁺

1	a	0.99	1.3	a	8.0	9.1	4.9	ab
2	a	a	0.98	0.48	a	5.2	a	a
3	0	0	.73	1.5	0.95	5.1	8.5	0.95
4	.85	0.66	.88	2.0	a	5.4	6.3	a
5	.82	2.4	.88	0.74	a	3.1	3.9	a
6	.95	1.1	1.6	1.5	ab	a	5.7	2.1
7	0	0.83	1.6	a	a	b	2.2	a
8	0	0.66	.87	1.1	ab	b	0.90	a
9	0	0.45	.48	a	0.53	3.4	4.7	1.6
10	.60	0	.84	1.2	ab	4.0	11.	a
11	.76	0.72	.46	a	a	a	7.6	0
12	0	0.76	1.6	0	1.2	2.9	1.2	0.58

4.0 REFERENCES

1. MAP3S, The MAP3S/RAINE Precipitation Chemistry Network: Quality Control PNL-3612, Pacific Northwest Laboratory, Richland, WA 99352, 1980.
2. The MAP3S Precipitation Chemistry Network: First Periodic Summary Report (September 1976-June 1977), PNL-2402, Pacific Northwest Laboratory, Richland, WA 99352, 1977.
3. The MAP3S Precipitation Chemistry Network: Second Periodic Summary Report (July 1977-June 1978), PNL-2829, Pacific Northwest Laboratory, Richland, WA 99352, 1978.
4. The MAP3S/RAINE Precipitation Chemistry Network: Third Periodic Summary Report (July 1978-December 1979), PNL-3400, Pacific Northwest Laboratory, Richland, WA 99352, 1980.
5. MAP3S, The MAP3S/RAINE Precipitation Chemistry Network: Statistical Overview for the Period 1976-1979, Atmos. Environ. (in press), 1982, PNL-SA-9075.

APPENDIX A

LEGEND FOR DATA TABLES

Data Table 2 contains the 1980 field and precipitation chemistry data. Although the format is the same as for the previous two summaries^(3,4), slightly different interpretations may be placed on certain entries for 1980. Of particular importance are the following:

- Sample and Predicted Volumes represent collections by collectors of more than one area (see Table 11), depending on type of collector used and date of conversion. These volumes should be used for comparison and for weighting only. Hourly precipitation data for 1980 will be available on tape and in future summaries. Properly calculated monthly precipitation amounts and weighted average concentrations may be found in Section 3 of this report and in another publication.⁽⁵⁾
- Downtime refers only for times that both the collector and raingauge were out of service. That is, all precipitation events recorded by the raingauge are listed, regardless of collection of a sample.

TABLE 7
LEGEND FOR TABLE 2

<u>Sub-Table</u>	<u>Column</u>	<u>Species</u>	<u>Units</u>
1	1	Time Removed Time of Day (on date at left) that sample was collected.	GMT or "Z"
	2	Sample Time Total time that collector container was in the field	hours
	3	Downtime Total time prior to current sample period during which the collector and raingauge were out of service (with event missed).	hours
	4	Precipitation Time Duration of precipitation as recorded by the site raingauge - not necessarily consecutive hours	hours
	5	Lid Open Number of times the collector opened during the sample period	(none)
	6	Arrival Date Date sample arrived at the laboratory	Month. Date of Month
	7	P.E. CODE Code identifying date and time of day of <u>end</u> of precipitation	See Table 8
2	1	Sample Volume Volume of sample as measured immediately after collection	ml
	2	Predicted Volume Volume for sample predicted on the basis of precipitation amount measured by the raingauge. [Area of collectors: Battelle-490 cm ² ; HASL-640 cm ²]. See Table 11 for date of collector conversion.	ml

Sub-Table	Column	Species	Units
3	3	Field pH T Temperature at which field ph measurement was made	C
	4	Field pH	pH units
	5	Lab pH	pH units
	6	H ⁺ (a) Free hydrogen ion concentration calculated from Lab pH [H ⁺ = 10 ^(6-pH)]	μmoles ℓ
	7	Conductivity ^(a)	μmho cm
	1	SO ₂ SIV or dissolved SO ₂ measured in separate tetrachloromercurate-fixed aliquots	μmoles ℓ
	2	SO ₄ ⁼ "Total Sulfur" measured as sulfate-this is normally the sum of SO ₂ and SO ₄ ⁼	μmoles ℓ
	3	NO ₂ ⁻	μmoles ℓ
	4	NO ₃ ⁻	μmoles ℓ
	5	Cl ⁻	μmoles ℓ
4	6	PO ₄ ³⁻	μmoles ℓ
	7	Anion Sum The sum of the equivalents for all the cations: 2[SO ₄ ⁼] + [NO ₂ ⁻] + [NO ₃ ⁻] + [Cl ⁻] + 3[PO ₄ ³⁻] + 2[unoxidized SO ₂] ^b	μeq ℓ
	1	NH ₄ ⁺	μmoles ℓ
	2	Na ⁺	μmoles ℓ

(a) Measured at 25C.

(b) Estimated.

Sub- Table	Column	Species	Units
	3	K^+	$\mu\text{moles} \ell$
	4	Al^{3+} (not measured)	$\mu\text{moles} \ell$
	5	Ca^{++}	$\mu\text{moles} \ell$
	6	Mg^{++}	$\mu\text{moles} \ell$
	7	Cation Sum $\left([H^+] + [NH_4^+] + [Na^+] + [K^+] + 3[Al^{3+}] \right. \\ \left. + 2[Ca^{++}] + 2[Mg^{++}] \right)$	$\mu\text{eq} \ell$

Table 8 identifies the precipitation end code (Sub-Table 1, Column 7), and Table 9 lists the special symbols found in the data tables. The latter are also found at the foot of the individual tables within Table 2.

TABLE 8
P.E. CODES (SUB-TABLE 1, COLUMN 7)

P.E. Code: DDTT.

DD = Date of month of end
of precipitation + 40

TT = Hour of day of end of
precipitation, Z

TT = 99 means unknown

TABLE 9
SPECIAL DATA TABLE CODES

<u>Code</u>	<u>Numerical Value^a</u>	<u>Explanation</u>
ISA	-200.	Insufficient Sample for Analysis
NAP	-300.	No Analysis Performed
MOE	-400.	Malfunction or Operator Error
RPC	-500.	Rejected - Probable Contamination

^aOn data tape.

APPENDIX B

NETWORK BACKGROUND

Figure 1 shows the locations and names of the currently active MAP3S/RAINE network sites. (The Oak Ridge site began operating in January 1981, so none of its data is included in this report). Table 10 lists locations, elevations and start dates.

During the latter part of 1979 and during 1980, the network began using the HASL-type collectors, replacing the original Battelle wet only design. Table 11 documents the time of this change. Users of the data should be aware that the changes in area affects the volume of sample collected.

Table 12 is a list of current analytical techniques and sensitivities. The reader and data user is strongly advised to consult the more detailed descriptions of network operations in the previous publications.⁽¹⁻⁵⁾

TABLE 10
NETWORK SITE DETAILS^(a)

Site No.	Name	Location		Elevation (m, msl)	Date of First Sample Collected
		Longitude	Latitude		
1	WHITEFACE	73°, 51.	44°, 23.	604	October 11, 1976
2	ITHACA	76°, 43'	42°, 23'	503	October 26, 1976
3	PENN STATE	77°, 57'	40°, 47'	396	September 22, 1976
4	VIRGINIA	78°, 32	38°, 2	171	December 12, 1976
5	ILLINOIS	88°, 22'	40°, 3'	213	November 20, 1977
6	BROOKHAVEN	72°, 53'	40°, 52'	24	February 9, 1978
7	LEWES DE	75°, 0'	38°, 46'	0	March 1, 1978
8	OXFORD OH	84°, 44'	39°, 32'	283	October 1, 1978
9	OAK RIDGE TN	84°, 20'	35°, 55'	-	January 7, 1981

^(a) See Preface for cooperating institutions and personnel.

FIGURE 1. Locations of MAP3S/RAINE Network Sites

TABLE 11
 DATES OF CONVERSION FROM THE BATTELLE
 TO THE ACM OR HASL COLLECTOR

<u>Site</u>	<u>Date</u>	<u>Collector Previous</u>	<u>Area New</u>
1	December 10, 1979	490	640
2	November 20, 1979	490	640
3	December 19, 1979	490	640
4	April 1, 1981	490	640
5	February 16, 1980	490	325
6	February 24, 1981	490	640
7	November 10, 1980	490	640
8	November 24, 1980	490	640
9	January 7, 1981	--	640

TABLE 12
CHEMICAL SPECIES AND ANALYSIS DETAILS

Species	Method ^(a)	Instrument	Minimum Detection Limit(b) μmoles/ℓ	Estimated Error(c)
H ⁺ (free)	Electrode	Various	--	±0.05 pH units ^(d)
Conductivity	Bridge	Markson Electro- mark	--	±20%
SO ₃ ⁼	AWC	Technicon Auto Analyzer	0.1	±GO(MDL or 10%)
SO ₄ ⁼	IC	Dionex System 10 (Anion)	0.2	±GO(MDL or 10%)
NO ₂ ⁻	AWC	Technicon Auto Analyzer	0.05	±GO(MDL or 10%)
NO ₃ ⁻	IC	Dionex System 10 (Anion)	0.2	±GO(MDL or 10%)
Cl ⁻	IC	Dionex System 10 (Anion)	2	±GO(MDL or 10%)
PO ₄ ³⁻	IC	Dionex System 10 (Anion)	0.2	±GO(MDL or 10%)
NH ₄ ⁺	IC	Dionex System 10 (Cation)	0.6	±GD(MDL or 10%)
Na ⁺	IC	Dionex System 10 (Cation)	0.4	±GD(MDL or 10%)
K ⁺	IC	Dionex System 10 (Cation)	0.4	±GO(MDL or 10%)
Ca ⁺⁺	AA	Perkin-Elmer 306	0.5	±GO(MDL or 10%)
Mg ⁺⁺	AA	Perkin-Elmer 306	0.4	±GO(MDL or 10%)

(a) AWC = Automated Wet Chemistry; IC = Ion Chromatography; AA = Atomic Absorption Spectrophotometry

(b) Best Obtained--Some analysis sessions result in higher maximum detection limits. These are noted, where relevant, in the Appendix.

(c) MDL - Minimum detection limit; GO = "Greater Of".

(d) At pH = 4.

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