

# METEOROLOGICAL AND DEPOSITION CHEMISTRY MONITORING

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## COOPERATORS

UVM Proctor Maple Research Center (PMRC), VT Dept. of Environmental Conservation (DEC),  
WCAX-TV staff at Mt. Mansfield, National Atmospheric Deposition Program (NADP),

Continuous monitoring of meteorology and wet and dry deposition chemistry has been conducted

**OBJECTIVES:**

[REDACTED]

**METHODS:**

Several monitoring stations and programs were contacted to determine if monitoring is being conducted in the area.

1. [REDACTED]

2. The National Weather Service (NWS) is a part of the National Oceanic and Atmospheric Administration (NOAA) and is responsible for monitoring and forecasting the weather. [REDACTED]

[REDACTED]

4. NADP/NTN (National Atmospheric Deposition Program (NADP) Total Deposition Network) is a [REDACTED]

sample is then shipped to the NADP Central Analytical Laboratory in Illinois for analysis. [REDACTED]

**SIGNIFICANT FINDINGS:**

No major analyses of trends and relationships in the source area have been conducted to date. [REDACTED]

**1. Basic meteorology.**

Grand Consolidator, for the basic meteorology part from the VMCI Mainframe site is technical

**Table 1: Basic Meteorology at PMRC: portion of raw data file as logged hourly at the weather station.**

time	precip	wdr	wsp	temp	dp	sd-wd
hr	cm	deg	mph	deg F	deg F	
9/18/92 1:00	0.00	110	2.0	28.43	56.2	31.7
9/18/92 2:00	0.00	98	2.5	28.43	56.4	17.7
3:00	0.00	91	2.1	28.43	56.4	16.4
4:00	0.00		2.7	28.43	56.4	19.2
5:00	0.00		2.5	28.43	56.3	18.8
6:00	0.00		2.2	28.43	55.9	39.6
7:00	0.00		2.7	28.43	55.5	33.9
8:00	0.00		2.6	28.43	55.5	32.5
9:00	0.00		2.3	28.43	55.5	38.6
10:00	0.00		3.6	28.43	55.5	46.3
11:00	0.00		5.1	28.43	55.5	29.0
12:00	0.00		5.9	28.43	55.5	20.8
13:00	0.00		7.1	28.43	55.5	23.5
14:00	0.00		7.7	28.43	55.5	21.0
15:00	0.00		8.6	28.43	55.5	24.0
16:00	0.00		8.3	28.43	55.5	21.9
17:00	0.00		7.6	28.43	55.5	24.4
18:00	0.00		5.6	28.43	55.5	47.3

## 2. National Weather Service data.

Due to the time lag in obtaining data from the National Climatic Data Center, the 1999 data is



2. Vermont Acid Deposition Study: Monitoring Program



Figure 2: VAPMP stations in Vermont: Voyager view showing the Vermont map view and

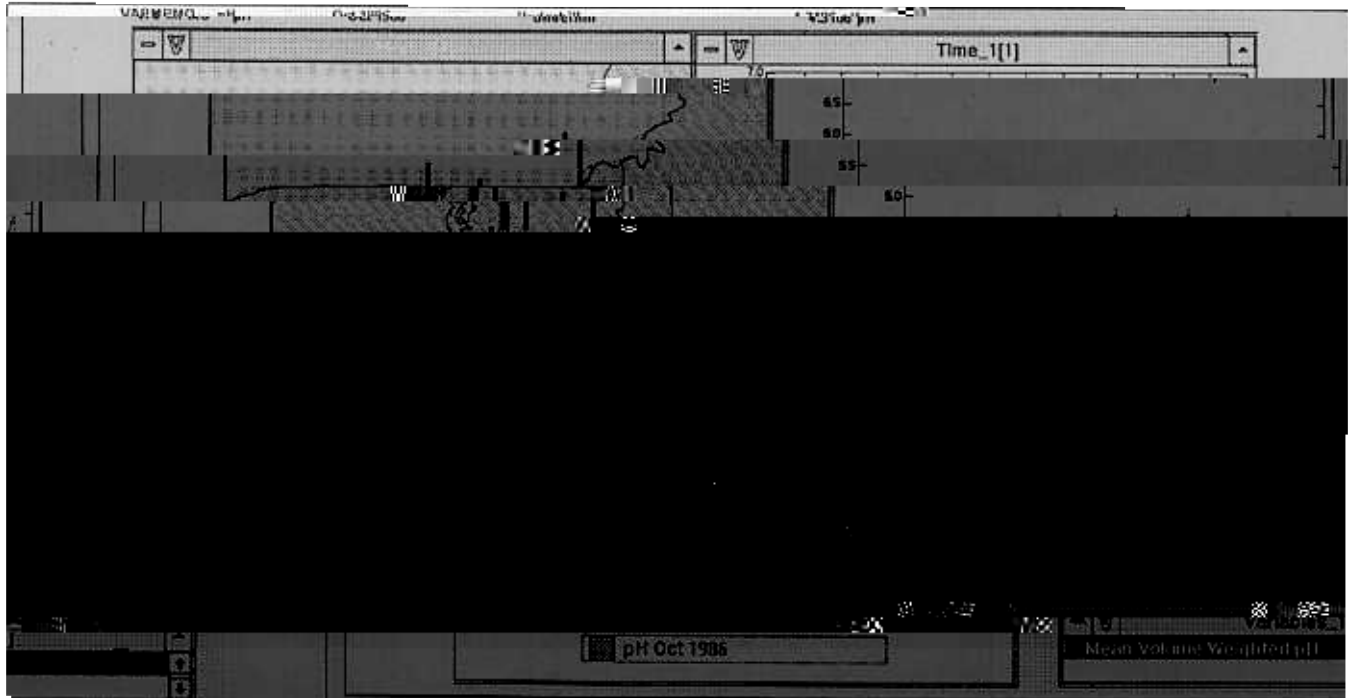


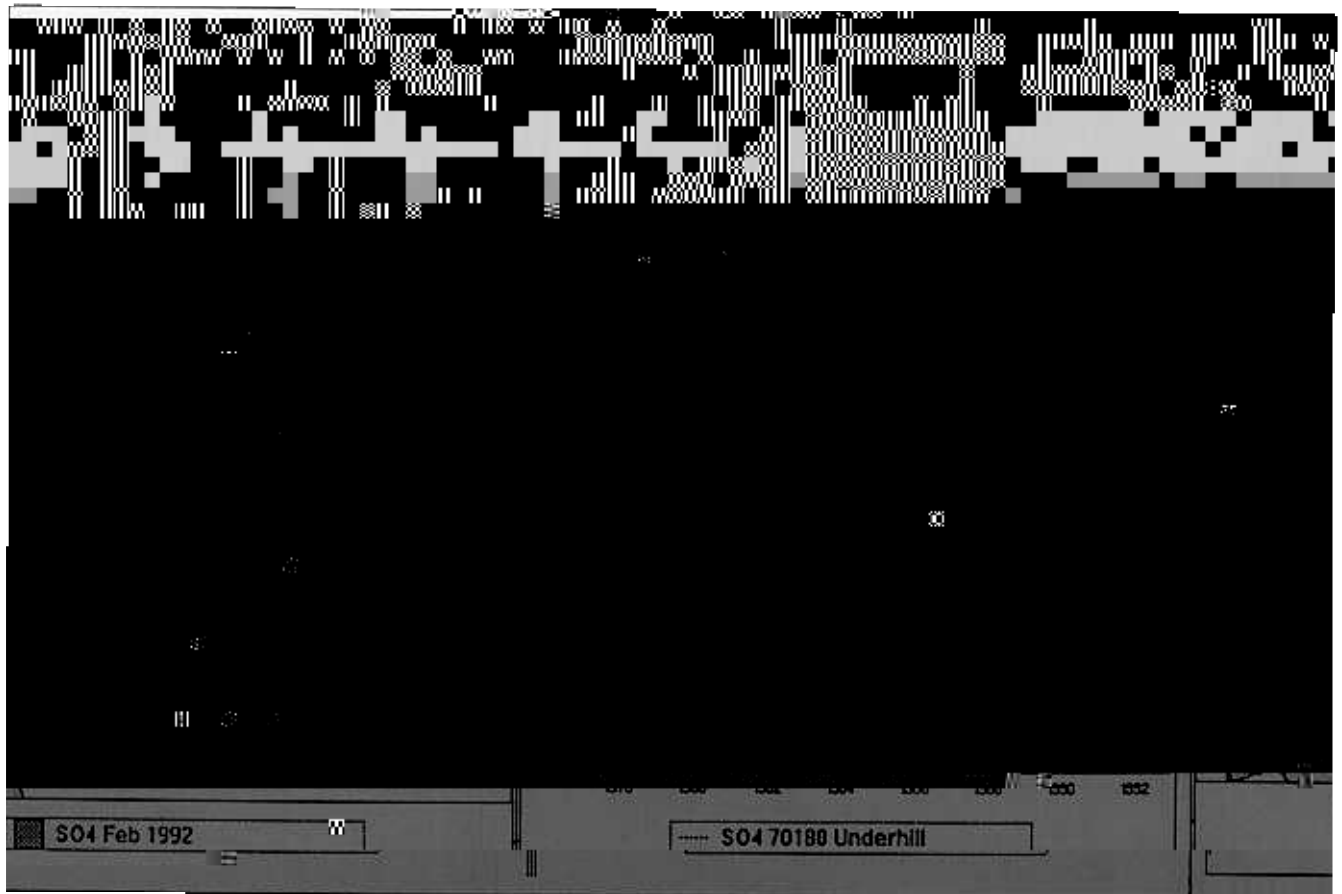
Table 2: VAPMP data: portion of raw data file for VMC station in Underhill showing daily

id	yr	mo	da	pH	precip (in), form	vol wtd H+
11	92		1	4.76	0.03 M	
11	92		12	4.81	0.72 R	
11	92		13			
	92		16			
11	92		20			
11	92					
11	92					
11	92		16			
	92					

#### 4. National Atmospheric Deposition/National Trends Network.

Data from the NADP station nearest to the location of the study site is shown in the following figure. The data are presented in a Voyager view showing a map view for the western United States.

Figure 3: NADP program data: Voyager view showing map view for the western United States.



\*NL10730WVT99 W 072892 1032 080492 0815  
 [REDACTED]

PRELIMINARY PRINTOUT MDDP/NTN CENTRAL ANALYTICAL LABORATORY ILLINOIS STATE WATER SURVEY  
 DATE: 11/12/92

\*\*\*PLEASE NOTE - DATA WITH A SAMPLE ID LESS THAN NL14010W (MARKED WITH AN ASTERISK) HAS BEEN REVIEWED BY THE CAL FOR THIS REPORT\*\*\*

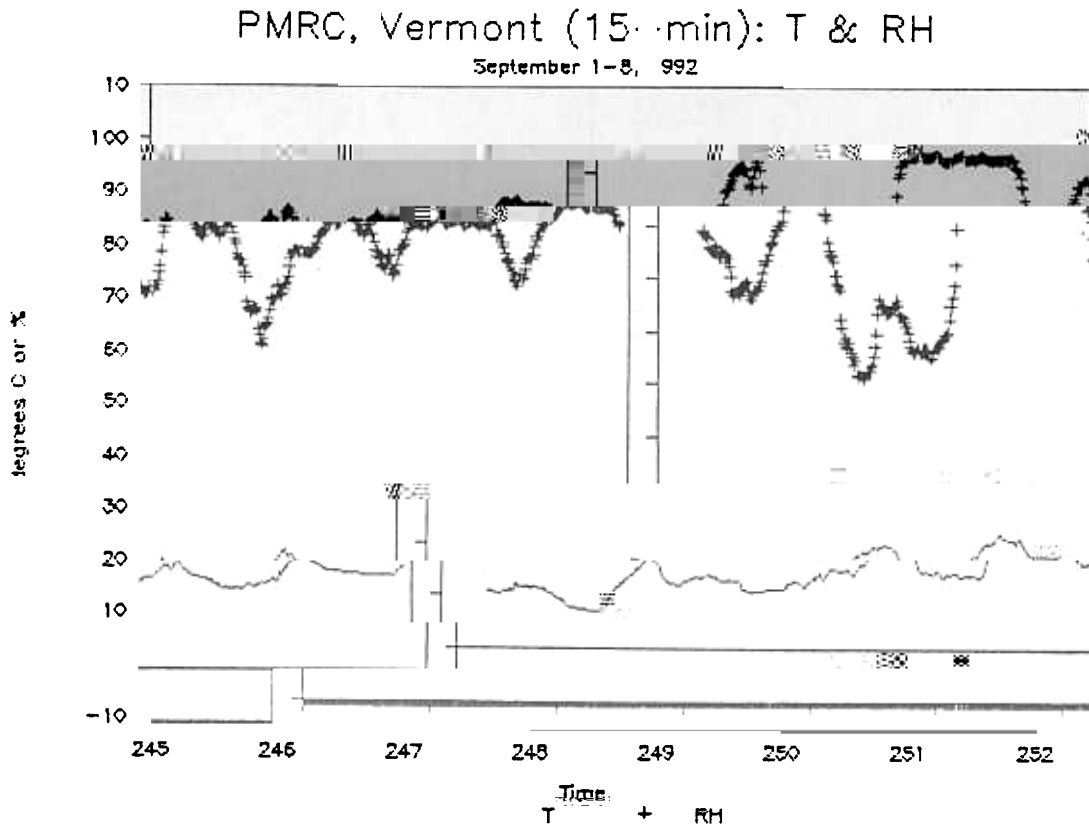
SAMPLE ID	LAB TYPE	DATE ON	TIME ON	DATE OFF	TIME OFF	CONCENTRATIONS (MG/L)				FIELD LAB	
						CA	MC	PC	SC	FIELD	LAB
*NL10730WVT99 W		072892	1032	080492	0815	.135	.017	.042		.06	
*NL13160WVT99 W		080492	0815	081192	0900	.043	.008	.010		.07	
NL14050WVT99 W		081192	0800	081192	0900	.045	.010	.009		.03	
[REDACTED]						.131	.034	.050		.21	
[REDACTED]						.182	.028	.046		.09	
[REDACTED]						.077	.022	.026		.08	
[REDACTED]						.088	.016	.043		.08	



## 5. Dry Deposition Inferential Measurement System

At this time, we have not yet received the data from the DDIM. The data is being processed and will be available in the next few days.

Figure 4. DDIM station representative data in six digit 15 minute increments for temperature and humidity for September 1-8, 1992.



**FUNDING:**

1. **Basic meteorology:** The weather station is maintained with funds from the VMC base budget

[REDACTED]

2. **National Weather Service:** [REDACTED]

[REDACTED]

3. **VAPMP:** This program is operated and maintained by the [REDACTED]

[REDACTED]