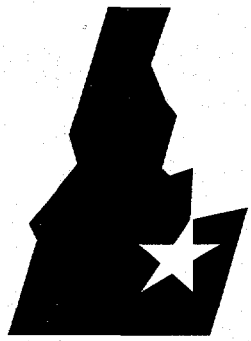

Idaho
National
Engineering
Laboratory

INEL-95/0537

Routine Organic Air Emissions at the Radioactive Waste Management Complex Waste Storage Facilities Fiscal Year 1995 Report

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Idaho Technologies Company

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DISCLAIMER

ABSTRACT

This report presents the data and results of the routine organic air emissions monitoring performed in the Radioactive Waste Management Complex Waste Storage Facility, WMF-628, from January 4, 1995 to September 3, 1995. The task objectives were to systematically identify and measure volatile organic compound (VOC) concentrations within WMF-628 that could be emitted into the environment. These routine measurements implemented a dual method approach using Open-Path Fourier Transform Infrared Spectroscopy (OP-FTIR) monitoring and the Environmental Protection Agency (EPA) analytical method TO-14, Summa® Canister sampling. The data collected from the routine monitoring of WMF-628 will assist in estimating the total VOC emissions from WMF-628.

CONTENTS

Original signatures appear on DRR EO-RS-2658.

FIGURES

TABLES

ACRONYMS

1,1,1-TCA	1,1,1-trichloroethane
CCl_4	Carbon tetrachloride
$CHCl_3$	Chloroform
EDF	Engineering design file
ER	Environmental Restoration
EPA	U. S. Environmental Protection Agency
F113	Freon 113
GC/MS	Gas chromatograph/mass spectrometer
INEL	Idaho National Engineering Laboratory
IR	Infrared
MDL	Minimum detection limit
$MeCl_2$	Methylene chloride
MST	Mountain standard time
ND	Non detect
NIST	National Institute of Standards Testing
OP-FTIR	Open path fourier transform infrared spectrometer
ppb	Part per billion
ppm	Parts per million
QA	Quality assurance
QC	Quality control
RWMC	Radioactive Waste Management Complex
SOW	Statement of work

STP	Standard temperature and pressure
TCE	Trichloroethylene
VOC	Volatile organic compound
WMF	Waste Management Facility
WSF	Waste storage facility

Routine Organic Air Emissions at the Radioactive Waste Management Complex Waste Storage Facilities Fiscal Year 1995 Report

1. Introduction

On December 19, 1994, the Radioactive Waste Management Complex (RWMC) began transferring waste containers into the first completed, newly constructed Waste Storage Facility (WSF), WMF-628. On January 4, 1995 routine monitoring for organic air emissions in WMF-628 commenced. The task objectives were to systematically identify and measure (qualitatively and quantitatively) volatile organic compound (VOC) concentrations within WMF-628 that could be emitted into the environment. The VOCs of primary interest were carbon tetrachloride (CCl_4), chloroform ($CHCl_3$), methylene chloride ($MeCl_2$), Freon 113 (F113), 1,1,1-trichloroethane (1,1,1-TCA), and trichloroethylene (TCE). These routine measurements implemented a dual method approach using Open-Path Fourier Transform Infrared Spectroscopy (OP-FTIR), *in situ*, real time monitoring in conjunction with ancillary Summa® canister sampling, following the U. S. Environmental Protection Agency (EPA) analytical method TO-14. The Summa® canister samples were analyzed using gas chromatograph/mass spectrometry (GC/MS) analysis. Meteorological data (i.e., temperature, absolute barometric pressure, etc.) were collected inside WMF-628 to provide support information for the VOC monitoring.

The data collected from the routine monitoring of WMF-628 will be used to estimate the total VOC emissions from WMF-628. This report presents the concentration data collected during the performance of the routine monitoring for the 01/04/95 to 09/03/95 portion of Fiscal Year 1995. The VOC emissions estimates are presented in an engineering design file (EDF), INEL-95/281 (RWMC-856), titled, "WMF-628 VOC Emission Estimates, January 1995 through August 1995."

A total of seven Type II and one Type I WSFs have been constructed at the RWMC. WMF-628 was the first Type II WSF to become operational and was monitored during the FY-1995 reporting period. Once waste container transfer into a WSF has been initiated, the WSF may be included in the routine monitoring schedule. (For additional monitoring information refer to "Monitoring Plan for Routine Organic Air Emissions at the Radioactive Waste Management Complex Waste Storage Facilities", INEL-94/0159, Revision 1.)

2. Monitoring Strategy and Design

2.1 OP-FTIR Monitoring

OP-FTIR monitoring was performed using an MDA Scientific OP-FTIR (model: System, FTIR-RS; Rev.:P). The OP-FTIR was operated per the MDA Scientific, OP-FTIR Operators Manual and the "Monitoring Plan for Routine Organic Air Emissions at the Radioactive Waste Management Complex Waste Storage Facilities", INEL-94/0159, Revision 1. The OP-FTIR was setup in a unistatic configuration (spectrometer and infrared source at one end) with a 12-inch Cassegrain telescope and retroreflector mirror assembly. The infrared (IR) light propagates from the spectrometer, out the telescope, through the ambient air, and strikes the retroreflector. The IR light is then reflected back through the ambient air, into the telescope, and back into the

spectrometer for detection and subsequent analyses. Any VOCs (and some volatile inorganic compounds) in the IR light can be detected and measured. See Figure 2-1 for general schematic of OP-FTIR setup.

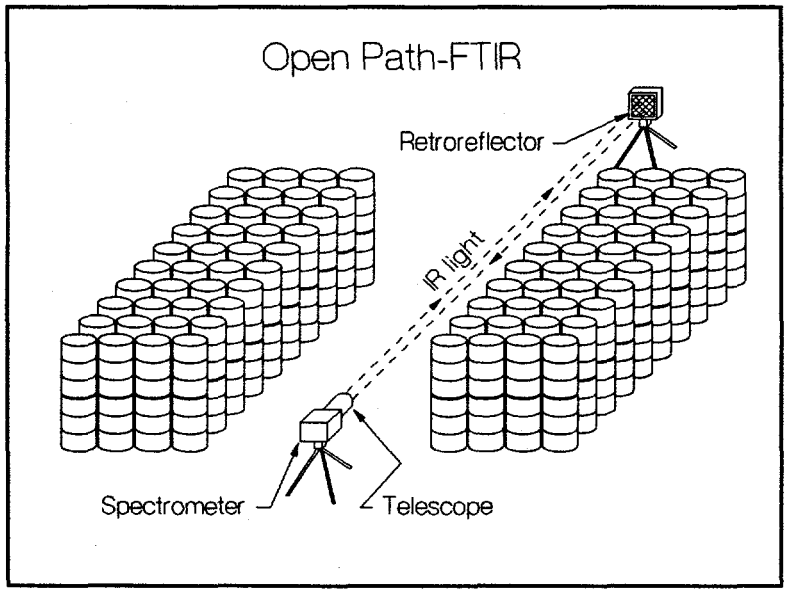

Figure 2-1. Open Path-FTIR schematic. Infrared light from the spectrometer is transmitted to the air and reflected back to the spectrometer by the retroreflector mirror.

2.1.1 OP-FTIR Monitoring Scheme

During this monitoring, three primary corridors were monitored adjacent to the waste container stacks in WMF-628. The first corridor was along the south wall of WMF-628. The second corridor went through the middle section of WMF-628; and, the third corridor was along the north wall of WMF-628. See Figure 2-2 for the general placements of the OP-FTIR system. For the south corridor configuration, the spectrometer was positioned in the southeast corner and the retroreflector was positioned in the southwest corner. For the middle corridor, the spectrometer was placed in the center aisle on the west end of WMF-628 and the retroreflector was placed in the center aisle on the east end of WMF-628. For the north corridor, the spectrometer was placed in the northwest corner and the retroreflector was positioned in the northeast corner of WMF-628. In all cases, the OP-FTIR was set up to monitor the breathing zone approximately 5 ft above floor surface; however, the path lengths did vary from 216 ft to 237 ft. The OP-FTIR data were collected by co-adding 64 scans for each spectral file. This provided concentration data recorded approximately every five minutes throughout the entire period monitored.

The middle corridor was assumed to be the optimal location for OP-FTIR monitoring for best representing the path averaged VOC concentrations since the ventilation system draws outside air through the north and south sides of the WSFs into the middle corridor past the waste barrels. When possible, the OP-FTIR was moved to the middle corridor for monitoring. During most of this monitoring period, however, facility operations were moving and transferring waste

containers in the middle corridor. It was not feasible, at times, to monitor this area without interfering with operations. See Table 2-1 for a schedule breakdown of monitoring in the south, north, and middle corridors. The intent was to monitor continuously, 24 hours per day, seven days per week as much as practical during this period. The OP-FTIR monitoring was temporarily shut down for facility power outages, equipment relocation, data downloading, system maintenance and quality assurance testing.

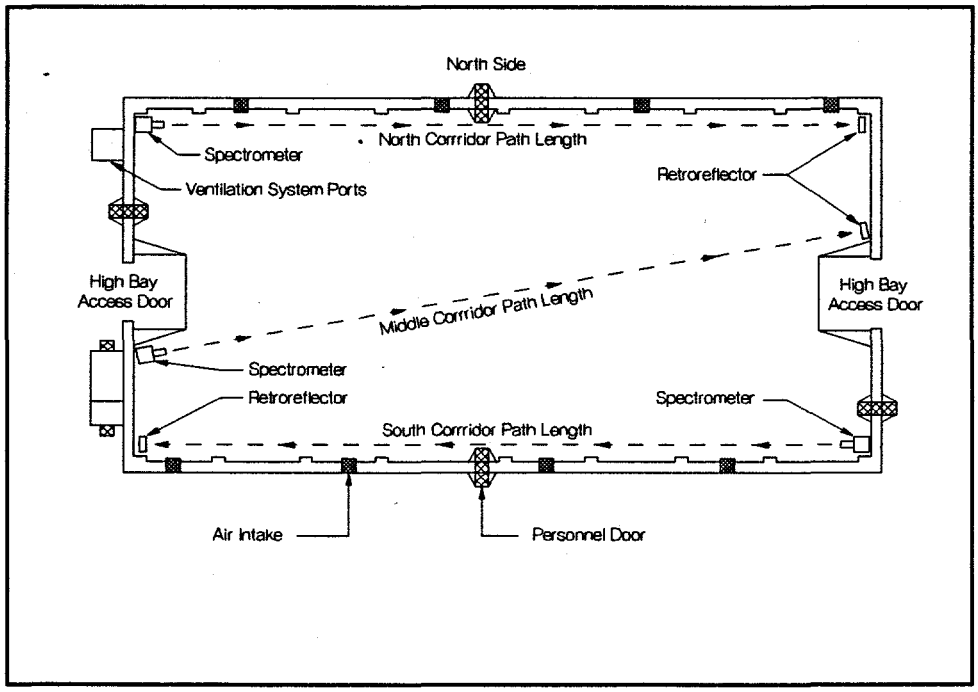

Figure 2-2. Plan view of WMF-628 Waste Storage Facility and general locations of the OP-FTIR monitoring corridors.

2.1.2 OP-FTIR Data Results

Carbon tetrachloride, chloroform, methylene chloride, Freon 113, 1,1,1-trichloroethane and trichloroethylene were all detected in WMF-628 during the routine monitoring period. Appendix A provides a table summarizing the VOC concentration maximums, minimums, and averages by week, starting the week of 1/1/95 and ending the week of 8/27/95. In this table, non detects were assigned a value of the minimum detection limit (MDL) instead of zero. These numbers were included in determining the minimum concentration values and in calculating the concentration averages for the week.

Carbon tetrachloride was the most prominent compound present with concentrations ranging from 2 ppb to a maximum of 1.79 ppm. The 1.79 ppm value, however, occurred during a ventilation system shutdown test. See section 2.5 for additional details. When the ventilation system was off, the concentrations of VOCs increased in WMF-628. Overall, the concentrations appear to follow a diurnal cycle where VOC concentrations would increase during the heat of the day and decrease during the cool of the night and early morning. See Figures 2-3 and 2-4 for

examples of carbon tetrachloride concentration and temperature variation as a function of time. In general, as the temperature inside WMF-628 increases, the VOC concentrations increase. 1,1,1-trichloroethane, Freon 113, and trichloroethylene concentrations tend to follow the same trends as the carbon tetrachloride. See Figures 2-5 to 2-7. The chloroform and methylene chloride concentrations frequently fell below the MDLs; therefore, the temperature variation trends were not prominent. See Figures 2-8 and 2-9. From the data, one could potentially predict (assuming no significant contribution from inside or outside facility activities to the overall VOC concentrations) that VOC concentrations would be the highest in summer and lowest in the winter. The OP-FTIR data graphs of the six target compounds for the entire monitoring period can be found in Appendix B.

Table 2-1. OP-FTIR location rotation schedule.

WMF-628 OP-FTIR Location	Monitoring Start Date (MST)	Monitoring End Date (MST)
south corridor	01/04/95 at 16:47	02/21/95 at 8:36
middle corridor	02/21/95 at 12:57	02/23/95 at 7:38
north corridor	02/23/95 at 9:11	03/02/95 at 13:34
middle corridor	03/02/95 at 15:08	03/06/95 at 8:19
north corridor	03/06/95 at 10:31	03/08/95 at 12:52
north corridor	03/13/95 at 2:33	03/16/95 at 15:26
middle corridor	03/16/95 at 16:06	03/19/95 at 00:34
north corridor	03/20/95 at 9:14	03/23/95 at 14:43
middle corridor	03/23/95 at 15:06	03/27/95 at 7:10
north corridor	03/27/95 at 7:31	04/06/95 at 14:26
middle corridor	04/06/95 at 14:48	04/10/95 at 7:11
north corridor	04/10/95 at 7:39	04/13/95 at 14:06
middle corridor	04/13/95 at 14:28	04/17/95 at 7:06
north corridor	04/17/95 at 7:37	04/20/95 at 7:37
middle corridor	04/20/95 at 15:26	04/21/95 at 8:26
north corridor	05/30/95 at 13:09	07/26/95 at 7:16
middle corridor	07/26/95 at 7:51	09/03/95 at 24:00

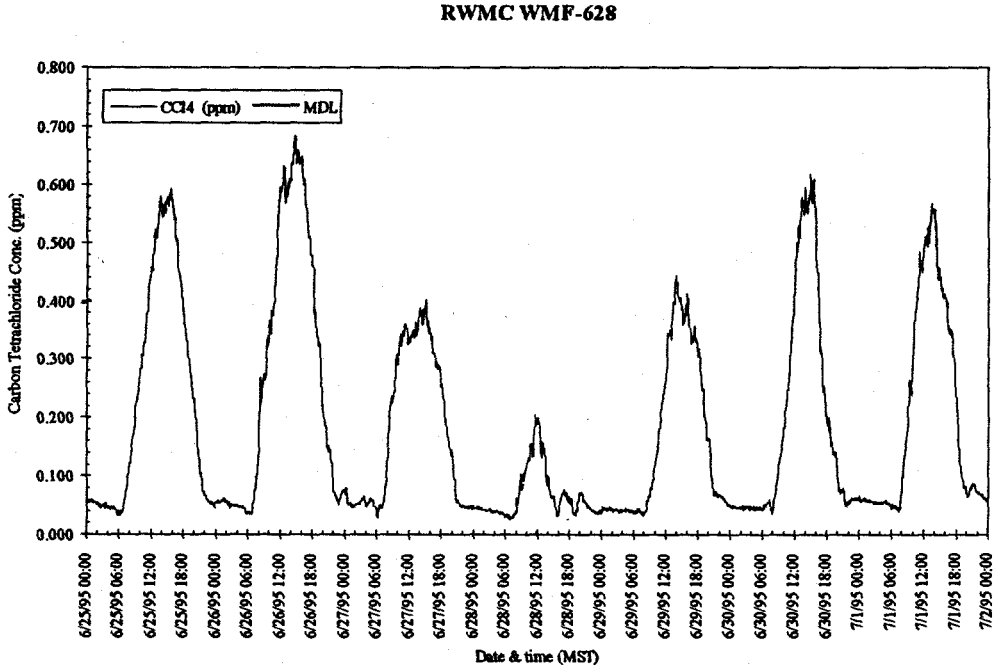

Figure 2-3. Example of CCl_4 concentration variation as a function of time. Maximum, minimum, and average conc. were 684, 26, and 187 ppb, respectively.

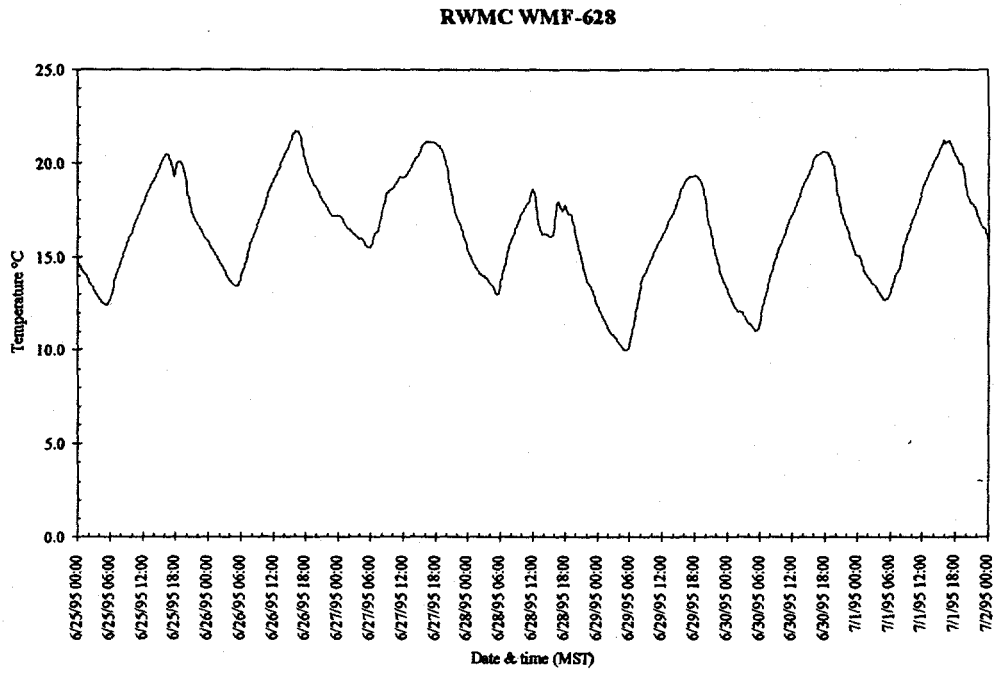

Figure 2-4. Example of the temperature variation as a function of time. Maximum, minimum, and average temp. were 21.7, 10.0, and 16.5°C, respectively.

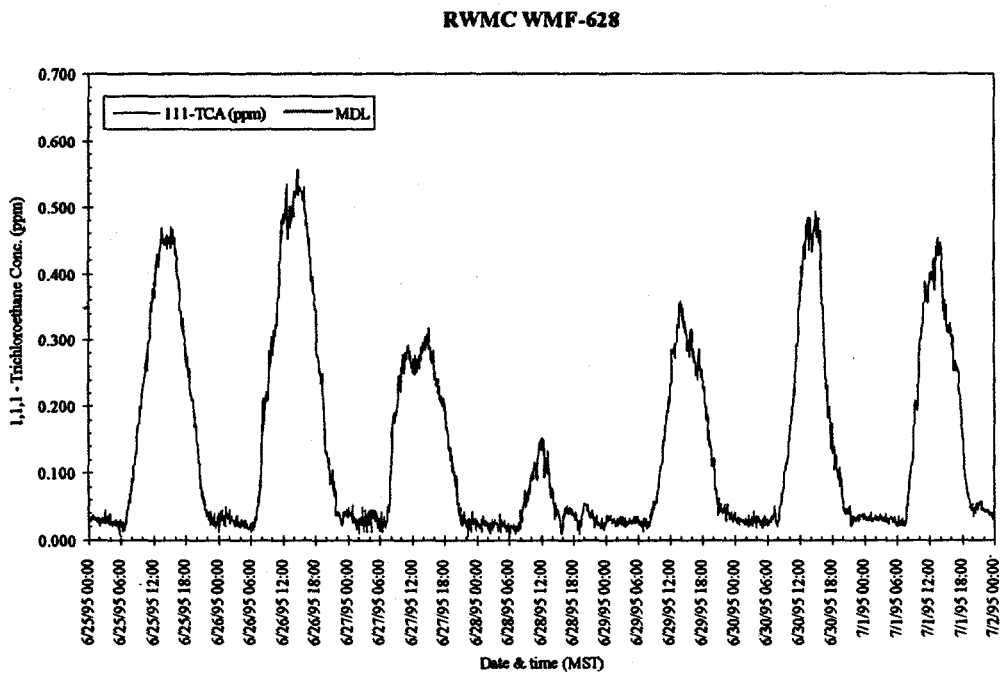

Figure 2-5. Example of 1,1,1-TCA concentration variation as a function of time. Maximum, minimum, and average conc. were 557, 5, and 141 ppb, respectively.

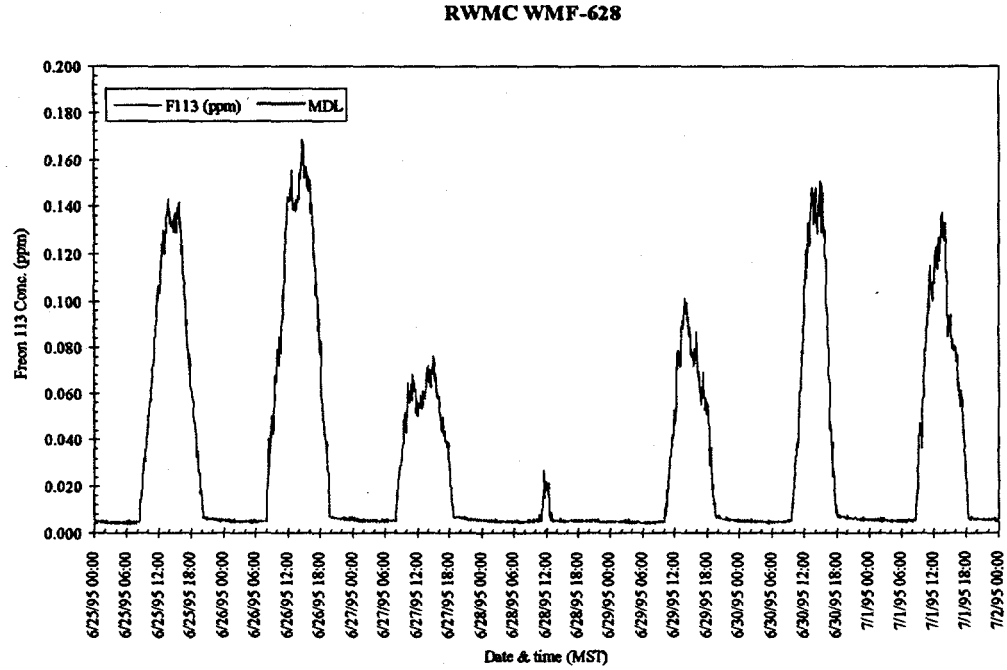

Figure 2-6. Example of Freon 113 concentration variation as a function of time. Maximum, minimum, and average conc. were 169, 4, and 32 ppb, respectively.

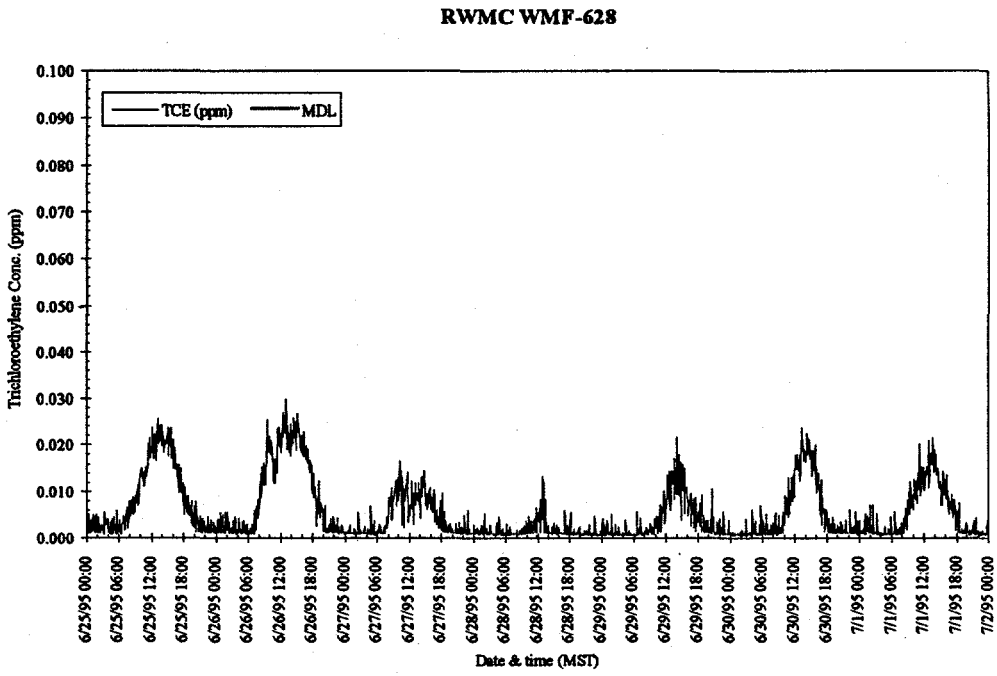

Figure 2-7. Example of TCE concentration variation as a function of time. Maximum, minimum, and average conc. were 30, 0.6, and 5 ppb, respectively.

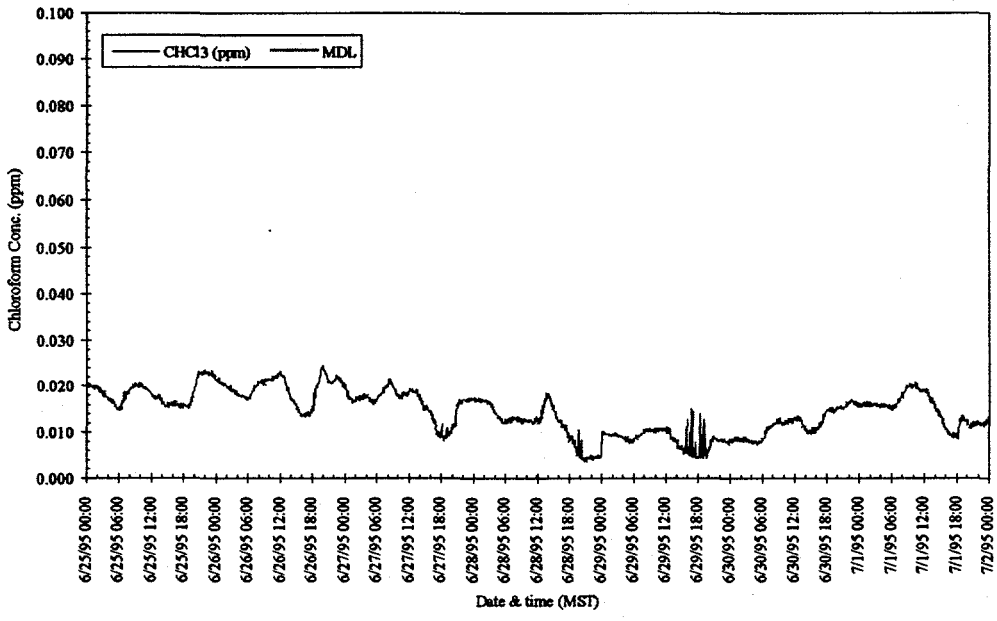

Figure 2-8. Example of $CHCl_3$ concentration as a function of time.

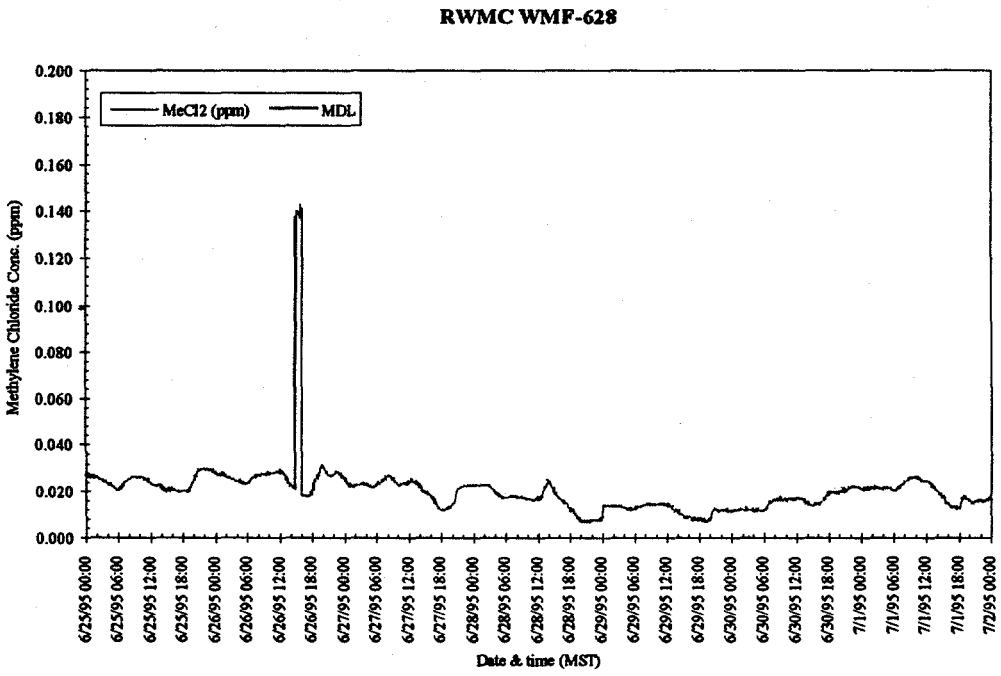

Figure 2-9. Example of $MeCl_2$ concentration as a function of time.

2.2 SUMMA® Canister Sampling

Summa® canister sampling was conducted in accordance with the EPA Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Method TO-14, "Determination of Volatile Organic Compounds in Ambient Air Using SUMMA® Polished Canister Sampling and Gas Chromatography Analysis." After sample collection, the Summa® canister samples were sent to Southwest Research Institute, San Antonio, Texas and analyzed by GC/MS per ER-SOW-159 (Reference K.J. Izbicki, "Volatile Organic Compound Analysis for Monitoring Plan for Routine Organic Air Emissions at the Radioactive Waste Management Complex Waste Storage Facilities," Lockheed Idaho Technologies Co., Statement of Work No. ER-SOW-159, Modifications 1 and 2.)

Air samples were collected in 6-liter Summa® canisters (Scientific Instrumentation Specialists or equivalent), which were certified cleaned, evacuated, and prepared by Southwest Research Institute for sample collection. The Summa® canisters were equipped with stainless steel pressure gauges capable of being processed at 110°C and with 1 % full scale accuracy. Pressure gauges were used for gross indication of canister pressures. The canisters were also equipped with Veriflo stainless steel sampling valves to regulate flow into the canisters. See Figure 2-10 for sketch of Summa® canister.

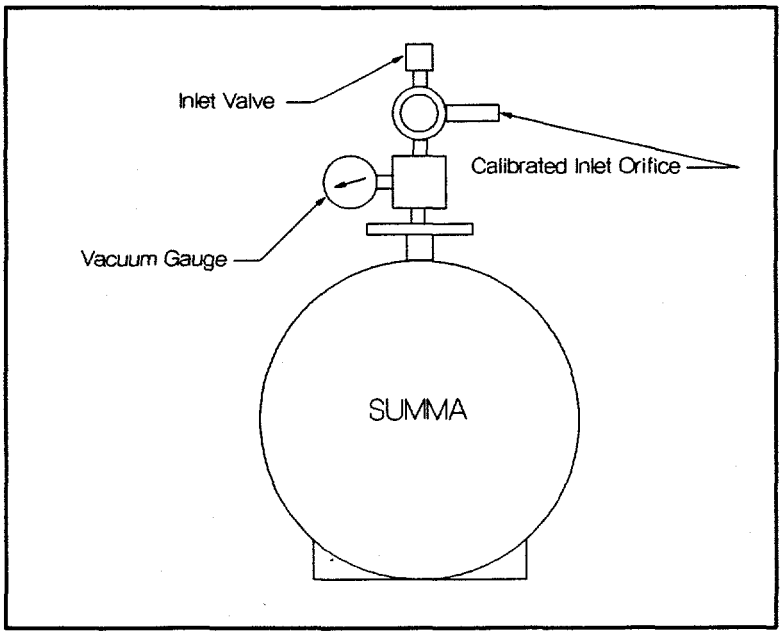

Figure 2-10. Sketch of Summa® canister.

2.2.1 Summa® Canister Sampling Event Design

The Summa® canister sampling events were coordinated with OP-FTIR monitoring. Three sets of seven (one blank, one standard or duplicate, and five field samples) canister samples were collected from WMF-628 in the winter (February 1995 time frame), and another three sets of

seven canister samples were collected in the summer (July/August 1995 time frame.) See Table 2-2 for sampling event information, Summa® sample type, and date collected.

Basically three types of Summa® samples were collected, stationary Summa® samples, Summa® Walks, and ventilation system Summa® samples. The stationary Summa® samples were collected by positioning the canisters next to the OP-FTIR beam path length at the 5 ft height above floor surface on a tripod. These stationary samples were allowed to collect for set periods of time (i.e., 5 hrs) for time composites. The Summa® Walk samples were obtained by transporting the canisters adjacent to the OP-FTIR beam by hand. This provided path-averaged VOC concentration measurements which can be most easily correlated with OP-FTIR monitoring results for the same time period (i.e., 15 min.). Summa® Walks are both time and spatial composites. Finally, the ventilation Summa® samples were collected by tapping into monitoring ports located on the WMF-628 ventilation system exhaust air effluent with ¼" o.d. stainless steel tubing. Ambient air samples were pulled out of the ventilation system, through the stainless steel tubing, through ¼" i.d. Teflon® tubing, through a Veriflo controller and into the canister. These samples, like the stationary samples, were time composite samples.

Table 2-2. Summa® canister sampling events.

Summa® Sampling Event	Summa® Sampling Type	Date Collected
Round 1 - Sample Delivery Group: R1628101VT	Stationary time composite (adjacent to OP-FTIR path length)	02/15/95
Round 2 - Sample Delivery Group: R2628101VT	Summa® Walks time and spatial composite (adjacent to OP-FTIR path length)	02/21/95
Round 3 - Sample Delivery Group: R3628101VT	Ventilation System time composite (from ventilation system stack)	02/28/95
Round 4 - Sample Delivery Group: R4628101VT	Stationary time composite (adjacent to OP-FTIR path length)	07/19/95
Round 5 - Sample Delivery Group: R5628101VT	Summa® Walks time and spatial composite (adjacent to OP-FTIR path length)	07/26/95
Round 6 - Sample Delivery Group: R6628101VT	Ventilation System time composite (from ventilation system stack)	08/03/95

2.2.2 Summa® Canister Sampling Data Results

The Summa® canister sampling data for the events outlined in Table 2-2 are summarized in Appendix C, Tables 1 through Table 6. The tables primarily identify concentrations for the six original target compounds, carbon tetrachloride, chloroform, Freon 113, methylene chloride, 1,1,1-trichloroethane, and trichloroethylene. Other volatile organic compounds and associated

concentrations detected in each sample are also included in the tables. All other VOCs from the EPA Method TO-14 target list not recorded in the tables were non detects (i.e., below detection limits of the GC/MS instrumentation). These tables, however, do not include tentatively identified compounds.

All six data sets have been validated to Level "A" in accordance with Lockheed Martin Idaho Technologies Sample Management Office's Standard Operating Procedure 12.1.3. During a project internal data review of the first three sampling rounds, it was discovered that the field blank samples showed low concentration detects. It was postulated that either the nitrogen used for these blanks or the method of blank preparation was contaminating the samples. To eliminate the first variable, a different gas cylinder was used. No detects appeared in the blank samples for the last three sampling rounds.

2.3 Quality Assurance/Quality Control Data Comparisons

2.3.1 OP-FTIR Quality Assurance/Quality Control

Quality assurance/quality control (QA/QC) testing of the OP-FTIR system was performed in the field by introducing National Institute of Standards Testing (NIST) traceable gas standards into the OP-FTIR internal QA gas cell while the system continued routine monitoring. The OP-FTIR's response (concentration measurements) for each compound was then compared to the actual concentrations of each NIST gas standard. Table 2-3 below summarizes the results and provides the percent deviation from the standard values. The percent deviation ranged between -16% for $MeCl_2$ to -2.9% deviation for TCE. All of the calculated percent deviations were negative which implies the OP-FTIR biased the concentrations low; however, all except $MeCl_2$ were within ±10% of the gas standards concentrations. The average deviation across all six target compounds was -7.4%.

Table 2-3. Quality control (QC) OP-FTIR gas standard recovery.

	CCl_4 (ppm)	$CHCl_3$ (ppm)	$MeCl_2$ (ppm)	F113 (ppm)	1,1,1 TCA (ppm)	TCE (ppm)
QC Standards*	338.1	602.5	867.9	1,004	849.3	1,805
OP-FTIR	324.1	551.4	727.0	932.5	798.5	1,752
% Deviation from Standard	-4.1	-8.5	-16	-7.1	-6.0	-2.9

* The gas standards for the OP-FTIR calibration and QA/QC testing are in the high ppm concentration levels. This is because the internal OP-FTIR QA cell path length is only 0.153 m whereas the OP-FTIR system is designed to monitor up to 650 m. The OP-FTIR performs path averaging measurements.

2.3.2 Summa® Canister Quality Assurance/Quality Control

Blind QA/QC gas standard Summa® canister samples were sent to the off-site laboratory for GC/MS analysis for three different Summa® canisters sampling rounds, Rounds 3, 4, and 6. (See Appendix C for the field sample data.) Table 2-4 summarizes the Summa® canister gas standard analyses results for each gas standard sample and lists the percent deviation for the selected target compounds. The GC/MS analyses of the gas standards did not yield favorable results for concentrations or percent deviations when compared to the NIST gas standard concentrations. Overall, the percent deviation ranged between +21.3% to a high of +89.5%. For the Summa® gas standard sample in Round 3, the GC/MS measured the gas standard concentrations an average of 41.4% high. Round 4 yielded concentrations an average 71.4% high; and for Round 6, the concentrations were an average 33.1% high. In all cases, the GC/MS analyses biased the concentrations high.

Because percent deviations were relatively high for the Summa® gas standard results, these deviations should be taken into consideration when looking at the actual field sample data. Confidence of this data is questionable. The Summa® canister data is valuable in that it does provide an order of magnitude validation for the OP-FTIR data and does assist in identifying the target compounds for the OP-FTIR monitoring program; however, the continuation of Summa® canister sampling for the purpose OP-FTIR data validation should be re-evaluated.

Table 2-4. Blind quality control (QC) Summa® canister gas standard comparisons.

	CCl_4 (ppb)	$CHCl_3$ (ppb)	$MeCl_2$ (ppb)	F113 (ppb)	1,1,1 TCA (ppb)	TCE (ppb)
QC Standard	1,054	989	1,001	990	1,027	950
R3628601VT	1,400	1,300	1,500	1,500	1,500	1,300
% Deviation from Standard	+32.8	+31.4	+49.8	+51.5	+46.1	+36.8
R4628601VT	1,900	1,400	1,600	1,800	1,800	1,800
% Deviation from Standard	+80.3	+41.6	+59.8	+81.8	+75.3	+89.5
R6628601VT	1,400	1,200	1,300	1,400	1,400	1,300
% Deviation from Standard	+32.8	+21.3	+29.9	+41.4	+36.3	+36.8

2.4 OP-FTIR/Summa®Walk Data Comparison Results

To further support the conclusions of the OP-FTIR monitoring, the OP-FTIR data was compared to the Summa® canister data from the same monitoring path and the same time frame. The

Summa® Walk samples, Rounds 2 and 5, provide this direct comparison. See Tables 2-5 and 2-6. Additional information can be found in Appendix C. As mentioned before, the Summa® Walk samples were collected by transporting Summa® canisters adjacent to the OP-FTIR beam. Path-averaged VOC concentration measurement for both methods were then obtained simultaneously. As noted previously, the percent deviations were relatively high for the Summa® gas standard results. These deviations should be taken into consideration when performing the comparison.

Table 2-5. Summa® Walk/OP-FTIR comparison for February 21, 1995

	Time Period (MST)	CCl_4 (ppb)	$CHCl_3$ (ppb)	$MeCl_2$ (ppb)	F113 (ppb)	1,1,1 TCA (ppb)	TCE (ppb)
Summa® Walk (R2628101VT)	13:07 to 13:21	6.8	ND (2 MDL)	ND (10 MDL)	2	4.6	ND (2 MDL)
Summa® Walk (R2628201VT)	13:07 to 13:21	6.7	ND (2 MDL)	ND (13 MDL)	ND (2 MDL)	4.6	ND (2 MDL)
OP-FTIR	13:06 to 13:20	13.5	ND (7 MDL)	ND (12 MDL)	4	25.4	3
Summa® Walk (R2628301VT)	13:28 to 13:43	7.1	ND (2 MDL)	ND (11 MDL)	ND (2 MDL)	2.6	ND (2 MDL)
Summa® Walk (R2628401VT)	13:28 to 13:43	6.8	ND (2 MDL)	ND (9 MDL)	2	4.2	ND (2 MDL)
OP-FTIR	13:29 to 13:43	11.5	ND (6 MDL)	ND (13 MDL)	ND (5 MDL)	26	4
Summa® Walk (R2628501VT)	13:51 to 14:07	7.2	ND (2 MDL)	ND (11 MDL)	2	4.3	ND (2 MDL)
Summa® Walk (R2628601VT)	13:51 to 14:07	7.1	ND (2 MDL)	ND (11 MDL)	ND (2 MDL)	9.3	ND (2 MDL)
OP-FTIR	13:52 to 14:06	11.5	ND (7 MDL)	ND (12 MDL)	ND (5 MDL)	16.6	ND (3 MDL)

Table 2-6. Summa® Walk/OP-FTIR comparison for July 26, 1995.

	Time Period (MDT)	CCl_4 (ppb)	$CHCl_3$ (ppb)	$MeCl_2$ (ppb)	F113 (ppb)	1,1,1 TCA (ppb)	TCE (ppb)
Summa® Walk (R5628101VT)	9:10 to 9:31	170	ND (4 MDL)	ND (18 MDL)	50	120	ND (4 MDL)
Summa® Walk (R5628201VT)	9:10 to 9:31	170	ND (4 MDL)	ND (18 MDL)	50	130	ND (4 MDL)
OP-FTIR	9:09 to 9:32	125	14	17	ND (8 MDL)	92.6	4
Summa® Walk (R5628301VT)	9:36 to 9:53 10:02 to 10:16	270	ND (8 MDL)	ND (38 MDL)	84	200	ND (8 MDL)
OP-FTIR	9:37 to 9:55 10:04 to 10:18	183	16	ND (16 MDL)	ND (9 MDL)	144	8
Summa® Walk (R5628401VT)	9:36 to 9:53 10:02 to 10:10	280	4	ND (18 MDL)	87	210	ND (4 MDL)
OP-FTIR	9:37 to 9:55 10:04 to 10:09	178	16	ND (16 MDL)	ND (9 MDL)	139	7
Summa® Walk (R5628501VT)	10:19 to 10:48	380	4	ND (16 MDL)	110	300	ND (3 MDL)
Summa® Walk (R5628601VT)	10:19 to 10:48	340	ND (4 MDL)	ND (22 MDL)	100	270	ND (4 MDL)
OP-FTIR	10:18 to 10:50	231	17	ND (15 MDL)	15	190	11

2.5 Ventilation System Shutdown Tests

During the routine monitoring, two deliberate and successful ventilation system shutdown tests were conducted. These tests were performed to provide information on the VOC concentration trends when no air flow is passing through WMF-628 building. The WSFs are not sealed facilities; therefore, there will be some air exchange inherently. This air exchange, however, is minimal in comparison to when the ventilation system is running at full capacity. For the first test, the ventilation system was turned off at 3:16 pm MST, August 25, 1995 and turned back on August 28, 1995 at 6:25 am MST. The OP-FTIR continuously monitored and collected data at approximately 5 minute increments. During this time period, the concentration of carbon tetrachloride reached a maximum of 1.60 ppm, and the concentration averaged 0.897 ppm. 1,1,1-trichloroethane also reached relatively high concentration levels. The maximum concentration for 1,1,1-trichloroethane was 1.42 ppm, and the average for the time period was 0.725 ppm. See Table 2-7 for a summary of the OP-FTIR data during the first ventilation test.

Table 2-7. OP-FTIR data for Ventilation system shutdown test 08/25/95 (3:16 pm MST) to 08/28/95 (6:25 am MST).

	CCl_4 (ppm)	$CHCl_3$ (ppm)	$MeCl_2$ (ppm)	F113 (ppm)	1,1,1-TCA (ppm)	TCE (ppm)
Maximum:	1.60	0.042	0.062	0.430	1.42	0.103
Minimum:	0.402	ND (<MDL)	ND (<MDL)	.0315	0.312	0.016
Average:	0.897	0.018	0.037	0.177	0.725	0.050

Note: ND (<MDL) indicates a non detect, below minimum detection limits. For calculating averages, however, MDL values were used for all the non detects instead of using zero.

The second ventilation shutdown test started August 31, 1995 at 4:00 pm MST and ended September 3, 1995 at 12:04 am MST. Again, the concentrations of carbon tetrachloride and 1,1,1-trichloroethane reached the highest levels of 1.79 ppm and 1.59 ppm, respectively. See Table 2-8 for the OP-FTIR data summary for the second ventilation system shutdown test.

Table 2-8. OP-FTIR data for Ventilation system shutdown test 08/31/95 (4:00 pm MST) to 09/03/95 (12:04 am MST).

	CCl_4 (ppm)	$CHCl_3$ (ppm)	$MeCl_2$ (ppm)	F113 (ppm)	1,1,1-TCA (ppm)	TCE (ppm)
Maximum:	1.79	0.052	0.110	0.478	1.59	0.119
Minimum:	0.260	ND (<MDL)	0.037	ND (<MDL)	0.223	0.015
Average:	0.970	0.019	0.053	0.195	0.786	0.056

Note: ND (<MDL) indicates a non detect, below minimum detection limits. For calculating averages, however, MDL values were used for all the non detects instead of using zero.

In both cases, when the tests were completed and the ventilation system was turned back on, the VOC concentrations decreased.

Over the course of routine monitoring, several unexpected and unrecorded shutdowns of the ventilation system occurred. These shutdowns were caused by power outages, facility maintenance routines, and radiation control testing of the Continuous Air Monitors. At this time, there are no indicators or recording devices that would log when these events occur. It would be beneficial to have flow indicators/recorders installed onto the ventilation systems' effluent ducting. This would allow for more accurate emissions calculations and would provide a record of when the ventilation system is on or off.

2.6 Meteorological Data

A Met One Meteorological Station was used to collect meteorological data from within WMF-628. Temperature, absolute barometric pressure, and relative humidity averages were recorded every 15 minutes. This data, primarily the temperature and absolute barometric pressure, were used to correct VOC concentrations for temperature and pressure variations from STP (Standard Temperature Pressure, 29.92 in. Hg and 23°C) conditions. Appendix D contains graphs of the temperature and absolute barometric pressure data during the monitoring period. From 01/04/95 to 09/03/95, the minimum temperature reached inside WMF-628 was -12.3°C. The maximum temperature reached was 25.7°C. Absolute barometric pressures ranged from 24.36 in. Hg to 25.38 in. Hg.

3.0 Conclusions

The VOC concentrations in WMF-628 depend on a number of variables. These variables include the number of drums placed in the facility, facility activities, headspace gas concentrations, the quantity of liquid organic material present, length of time since drums had been vented, ventilation rates, ambient temperature, and ambient pressure. By mid July 1995, over 11,000 drums had been transferred into WMF-628. From mid July to September 1995 there was a negligible increase in the number of drums placed into WMF-628. The Type II WSFs, however, are designed to hold approximately 16,000 drums to 19,000 drums depending on waste container size and stacking configuration. WMF-628 has not yet reached full capacity. As more drums and other waste containers are placed in WMF-628, the VOC concentrations are expected to increase. Additionally, it is anticipated that the concentration levels will continue to cycle with temperature and ambient pressure.

Both the OP-FTIR and Summa® canister methods detected the six primary target compounds in WMF-628. At this time, this target list appears to sufficiently encompass the VOCs of concern. No other significant VOC concentrations were detected in either the OP-FTIR monitoring or Summa® canister sampling during this time period (01/04/95 to 09/03/95). The emissions estimates from the VOC concentration data are presented in EDF, "WMF-628 Emission Estimates, January 1995 through August 1995," INEL-95/281 (RWMC-856).

When the ventilation system has been turned off, the concentrations of VOCs increased. During the second ventilation system shutdown test, the concentration of CCl_4 reached 1.79 ppm. The

time weighted average exposure limit (National Institute for Occupational Safety and Health, Pocket Guide to Chemical Hazards, June 1994) for carbon tetrachloride is 2 ppm. From a worker safety perspective, it is advised that when the ventilation system is off in WMF-628, personnel should consult the facility industrial hygienist and safety programs prior to entry.

Appendix A

OP-FTIR Data Summary Table for Target Volatile Organic Compounds (Maximum, Minimum, and Average Concentrations)

RWMC OP-FTIR Data Summary Table

Pressure, Temperature, and Corrected Concentration Data (Maximums, Minimums, and Averages)

Time Period		T °C	BP "Hg	CCl_4 (ppm)	MDL (ppm)	$CHCl_3$ (ppm)	MDL (ppm)	$MeCl_2$ (ppm)	MDL (ppm)	F113 (ppm)	MDL (ppm)	111-TCA (ppm)	MDL (ppm)	TCE (ppm)	MDL (ppm)
1/1/95 to 1/8/95	Maximum:	-1.6	24.83	0.011	0.007	0.035	0.012	0.123	0.018	0.016	0.007	0.049	0.005	0.0297	0.0021
	Minimum:	-7.0	24.47	0.003	0.004	0.006	0.006	0.011	0.011	0.002	0.002	0.001	0.001	0.0006	0.0007
	Average:	-4.5	24.70	0.005	0.005	0.009	0.008	0.028	0.014	0.004	0.004	0.007	0.002	0.0080	0.0012
1/8/95 to 1/15/95	Maximum:	3.5	24.92	0.017	0.006	0.008	0.008	0.040	0.040	0.010	0.010	0.030	0.002	0.0291	0.0012
	Minimum:	-5.4	24.54	0.004	0.004	0.005	0.005	0.011	0.011	0.002	0.002	0.001	0.001	0.0006	0.0006
	Average:	0.0	24.77	0.006	0.005	0.006	0.006	0.014	0.013	0.004	0.003	0.008	0.002	0.0075	0.0009
1/15/95 to 1/22/95	Maximum:	1.0	25.14	0.021	0.007	0.011	0.011	0.058	0.058	0.019	0.005	0.040	0.005	0.0417	0.0017
	Minimum:	-10.4	24.53	0.003	0.003	0.005	0.005	0.011	0.011	0.003	0.003	0.001	0.001	0.0007	0.0007
	Average:	-3.4	24.88	0.007	0.005	0.008	0.008	0.018	0.018	0.004	0.004	0.007	0.002	0.0077	0.0011
1/22/95 to 1/29/95	Maximum:	0.6	25.24	0.037	0.007	0.012	0.012	0.047	0.046	0.024	0.007	0.044	0.004	0.0428	0.0023
	Minimum:	-12.3	24.69	0.002	0.003	0.005	0.005	0.000	0.000	0.003	0.003	0.001	0.001	0.0007	0.0007
	Average:	-3.6	24.99	0.010	0.005	0.008	0.008	0.014	0.007	0.004	0.004	0.007	0.002	0.0062	0.0013
1/29/95 to 2/5/95	Maximum:	3.0	25.38	0.023	0.007	0.009	0.009	0.019	0.019	0.014	0.005	0.044	0.003	0.0471	0.0018
	Minimum:	-6.0	24.93	0.003	0.003	0.004	0.004	0.010	0.010	0.003	0.003	0.001	0.001	0.0007	0.0007
	Average:	-1.3	25.16	0.007	0.005	0.006	0.006	0.013	0.013	0.004	0.004	0.008	0.002	0.0075	0.0011
2/5/95 to 2/12/95	Maximum:	4.8	25.19	0.022	0.008	0.013	0.012	0.041	0.032	0.006	0.006	0.043	0.004	0.0394	0.0016
	Minimum:	-6.4	24.61	0.003	0.003	0.004	0.004	0.009	0.009	0.003	0.003	0.001	0.001	0.0007	0.0007
	Average:	-1.4	24.94	0.006	0.005	0.007	0.007	0.012	0.012	0.004	0.004	0.007	0.002	0.0068	0.0010
2/12/95 to 2/19/95	Maximum:	1.6	25.27	0.018	0.006	0.016	0.012	0.052	0.051	0.011	0.005	0.045	0.004	0.0503	0.0016
	Minimum:	-12.2	24.36	0.002	0.003	0.005	0.005	0.011	0.011	0.003	0.003	0.001	0.001	0.0006	0.0006
	Average:	-4.8	24.78	0.006	0.004	0.009	0.009	0.014	0.019	0.004	0.004	0.006	0.002	0.0067	0.0010
2/19/95 to 2/26/95	Maximum:	7.0	25.32	0.041	0.009	0.008	0.008	0.046	0.031	0.009	0.009	0.153	0.010	0.0300	0.0020
	Minimum:	-5.7	24.84	0.003	0.003	0.004	0.004	0.010	0.010	0.003	0.003	0.001	0.001	0.0006	0.0006
	Average:	0.2	25.11	0.009	0.005	0.006	0.006	0.013	0.012	0.004	0.004	0.010	0.003	0.0059	0.0010
2/26/95 to 3/5/95	Maximum:	6.2	24.98	0.028	0.007	0.019	0.011	0.042	0.040	0.006	0.006	0.056	0.007	0.0386	0.0016
	Minimum:	-5.4	24.59	0.003	0.003	0.004	0.004	0.009	0.009	0.004	0.004	0.001	0.001	0.0007	0.0007
	Average:	0.1	24.83	0.007	0.005	0.007	0.007	0.012	0.014	0.005	0.005	0.006	0.002	0.0080	0.0011
3/5/95 to 3/12/95	Maximum:	5.2	25.01	0.022	0.007	0.019	0.011	0.040	0.036	0.011	0.005	0.033	0.003	0.0392	0.0020
	Minimum:	-7.3	24.47	0.003	0.003	0.005	0.005	0.010	0.010	0.003	0.004	0.001	0.001	0.0006	0.0006
	Average:	0.4	24.74	0.007	0.005	0.008	0.008	0.012	0.015	0.004	0.004	0.005	0.002	0.0063	0.0011

RWMC OP-FTIR Data Summary Table															
Pressure, Temperature, and Corrected Concentration Data (Maximums, Minimums, and Averages)															
Time Period		**T °C**	**BP "Hg**	**CCl_4 (ppm)**	**MDL (ppm)**	**$CHCl_3$ (ppm)**	**MDL (ppm)**	**$MeCl_2$ (ppm)**	**MDL (ppm)**	**F113 (ppm)**	**MDL (ppm)**	**111-TCA (ppm)**	**MDL (ppm)**	**TCE (ppm)**	**MDL (ppm)**
3/12/95 to 3/19/95	**Maximum:**	8.1	25.14	0.042	0.006	0.010	0.010	0.059	0.023	0.012	0.010	0.030	0.002	0.0308	0.0013
	Minimum:	-1.3	24.57	0.002	0.002	0.003	0.003	0.006	0.007	0.002	0.002	0.001	0.001	0.0006	0.0006
	Average:	2.5	24.98	0.010	0.004	0.006	0.006	0.012	0.010	0.003	0.003	0.006	0.002	0.0067	0.0009
3/19/95 to 3/26/95	**Maximum:**	6.7	25.04	0.049	0.008	0.017	0.010	0.027	0.022	0.034	0.005	0.071	0.005	0.0562	0.0034
	Minimum:	-4.4	24.45	0.003	0.003	0.004	0.004	0.007	0.007	0.003	0.003	0.002	0.002	0.0010	0.0011
	Average:	1.3	24.69	0.010	0.005	0.006	0.006	0.011	0.011	0.004	0.004	0.009	0.003	0.0096	0.0019
3/26/95 to 4/2/95	**Maximum:**	7.7	25.17	0.065	0.008	0.034	0.012	0.134	0.045	0.027	0.005	0.055	0.004	0.0498	0.0031
	Minimum:	-5.0	24.80	0.002	0.002	0.004	0.004	0.008	0.008	0.003	0.003	0.002	0.002	0.0009	0.0010
	Average:	0.7	25.03	0.010	0.005	0.008	0.008	0.012	0.015	0.004	0.004	0.009	0.003	0.0084	0.0017
4/2/95 to 4/9/95	**Maximum:**	10.7	25.10	0.068	0.008	0.034	0.010	0.128	0.013	0.020	0.006	0.074	0.005	0.0504	0.0029
	Minimum:	-0.3	24.61	0.002	0.003	0.003	0.003	0.006	0.006	0.003	0.003	0.002	0.002	0.0010	0.0011
	Average:	5.6	24.82	0.018	0.005	0.006	0.005	0.009	0.009	0.004	0.004	0.014	0.003	0.0084	0.0017
4/9/95 to 4/16/95	**Maximum:**	11.4	25.01	0.070	0.011	0.043	0.011	0.050	0.050	0.044	0.008	0.084	0.007	0.0801	0.0032
	Minimum:	-1.4	24.60	0.003	0.003	0.004	0.004	0.005	0.006	0.004	0.004	0.003	0.003	0.0013	0.0014
	Average:	4.6	24.82	0.016	0.006	0.008	0.007	0.011	0.011	0.007	0.006	0.015	0.005	0.0098	0.0020
4/16/95 to 4/23/95	**Maximum:**	9.2	25.14	0.070	0.012	0.052	0.013	0.132	0.029	0.037	0.008	0.083	0.008	0.0747	0.0034
	Minimum:	-2.2	24.55	0.003	0.003	0.004	0.004	0.006	0.006	0.004	0.004	0.002	0.002	0.0012	0.0012
	Average:	4.5	24.75	0.014	0.006	0.009	0.008	0.015	0.012	0.007	0.006	0.015	0.005	0.0111	0.0023
OP-FTIR Maintenance															
5/28/95 to 6/4/95	**Maximum:**	17.9	25.07	0.326	n.a.	0.030	0.030	0.150	0.037	0.079	0.005	0.234	0.004	0.0194	0.0010
	Minimum:	6.0	24.76	0.021	n.a.	0.006	0.006	0.009	0.009	0.002	0.002	0.003	0.003	0.0005	0.0005
	Average:	13.0	24.95	0.086	n.a.	0.020	0.020	0.026	0.025	0.011	0.003	0.052	0.003	0.0057	0.0007
6/4/95 to 6/11/95	**Maximum:**	15.6	25.18	0.306	n.a.	0.027	0.027	0.034	0.034	0.067	0.004	0.212	0.003	0.0215	0.0010
	Minimum:	4.4	24.56	0.016	n.a.	0.002	0.002	0.004	0.004	0.002	0.002	0.002	0.002	0.0006	0.0006
	Average:	9.9	24.86	0.051	n.a.	0.011	0.011	0.014	0.014	0.005	0.003	0.032	0.002	0.0046	0.0007
6/11/95 to 6/18/95	**Maximum:**	19.4	25.09	0.405	n.a.	0.022	0.022	0.133	0.029	0.093	0.005	0.323	0.003	0.0309	0.0011
	Minimum:	8.0	24.65	0.017	n.a.	0.003	0.003	0.005	0.005	0.003	0.003	0.003	0.003	0.0006	0.0006
	Average:	15.0	24.85	0.135	n.a.	0.011	0.011	0.014	0.014	0.021	0.004	0.099	0.003	0.0089	0.0008
6/18/95 to 6/25/95	**Maximum:**	19.2	25.21	0.546	n.a.	0.022	0.022	0.029	0.029	0.136	0.006	0.437	n.a.	0.0246	0.0013
	Minimum:	7.4	24.82	0.019	n.a.	0.002	0.002	0.005	0.005	0.003	0.003	0.003	n.a.	0.0005	0.0005
	Average:	12.7	25.01	0.100	n.a.	0.012	0.012	0.017	0.017	0.013	0.004	0.073	n.a.	0.0050	0.0008

RWMC OP-FTIR Data Summary Table															
Pressure, Temperature, and Corrected Concentration Data (Maximums, Minimums, and Averages)															
Time Period		**T °C**	**BP "Hg**	**CCl_4 (ppm)**	**MDL (ppm)**	**$CHCl_3$ (ppm)**	**MDL (ppm)**	**$MeCl_2$ (ppm)**	**MDL (ppm)**	**F113 (ppm)**	**MDL (ppm)**	**111-TCA (ppm)**	**MDL (ppm)**	**TCE (ppm)**	**MDL (ppm)**
6/25/95 to 7/2/95	**Maximum:**	21.7	25.20	0.684	n.a.	0.025	0.024	0.143	0.031	0.169	0.007	0.557	n.a.	0.0299	0.0015
	Minimum:	10.0	24.89	0.026	n.a.	0.004	0.004	0.007	0.007	0.004	0.004	0.005	n.a.	0.0006	0.0006
	Average:	16.5	25.02	0.187	n.a.	0.014	0.014	0.020	0.019	0.032	0.005	0.141	n.a.	0.0056	0.0009
7/2/95 to 7/9/95	**Maximum:**	23.9	25.13	0.316	n.a.	0.032	0.032	0.040	0.040	0.058	0.007	0.252	n.a.	0.0091	0.0013
	Minimum:	11.8	24.74	0.032	n.a.	0.006	0.006	0.010	0.010	0.005	0.005	0.015	n.a.	0.0006	0.0006
	Average:	17.4	24.97	0.106	n.a.	0.011	0.011	0.015	0.015	0.010	0.006	0.077	n.a.	0.0020	0.0009
7/9/95 to 7/16/95	**Maximum:**	25.4	25.14	0.529	n.a.	0.025	0.017	0.023	0.023	0.103	0.009	0.433	n.a.	0.0169	0.0013
	Minimum:	12.7	24.81	0.033	n.a.	0.007	0.007	0.011	0.011	0.006	0.006	0.004	n.a.	0.0007	0.0007
	Average:	18.5	25.00	0.150	n.a.	0.013	0.013	0.018	0.018	0.017	0.007	0.111	n.a.	0.0033	0.0010
7/16/95 to 7/23/95	**Maximum:**	24.5	25.14	0.808	n.a.	0.033	0.033	0.158	0.042	0.170	0.010	0.633	0.005	0.0451	0.0017
	Minimum:	14.3	24.90	0.036	n.a.	0.011	0.011	0.013	0.013	0.007	0.007	0.004	0.004	0.0009	0.0009
	Average:	19.4	25.01	0.198	n.a.	0.020	0.020	0.027	0.026	0.025	0.008	0.144	0.004	0.0068	0.0012
7/23/95 to 7/30/95	**Maximum:**	25.0	25.11	1.475	n.a.	0.039	0.037	0.359	0.048	0.383	0.017	1.226	0.004	0.0860	0.0018
	Minimum:	14.1	24.78	0.029	n.a.	0.006	0.006	0.012	0.012	0.008	0.008	0.003	0.003	0.0007	0.0007
	Average:	20.0	24.97	0.294	n.a.	0.017	0.014	0.018	0.019	0.044	0.009	0.229	0.003	0.0145	0.0010
7/30/95 to 8/6/95	**Maximum:**	25.3	25.20	0.896	n.a.	0.041	0.021	0.171	0.029	0.216	0.011	0.767	0.004	0.0515	0.0013
	Minimum:	13.0	24.80	0.026	n.a.	0.006	0.006	0.011	0.012	0.008	0.008	0.003	0.003	0.0006	0.0006
	Average:	19.6	25.01	0.200	n.a.	0.021	0.015	0.019	0.017	0.033	0.009	0.164	0.004	0.0089	0.0008
8/6/95 to 8/13/95	**Maximum:**	25.7	25.04	0.826	n.a.	0.046	0.013	0.036	0.022	0.198	0.012	0.699	n.a.	0.0452	0.0016
	Minimum:	12.7	24.65	0.099	n.a.	0.008	0.008	0.015	0.015	0.010	0.010	0.052	n.a.	0.0009	0.0009
	Average:	19.7	24.85	0.379	n.a.	0.018	0.009	0.026	0.019	0.041	0.011	0.304	n.a.	0.0152	0.0010
8/13/95 to 8/20/95	**Maximum:**	24.4	25.18	0.935	n.a.	0.042	0.020	0.051	0.031	0.235	0.013	0.825	n.a.	0.0760	0.0020
	Minimum:	12.2	24.66	0.026	n.a.	0.008	0.008	0.015	0.015	0.010	0.010	0.003	n.a.	0.0006	0.0006
	Average:	19.0	24.92	0.231	n.a.	0.024	0.015	0.023	0.021	0.032	0.011	0.190	n.a.	0.0098	0.0009
8/20/95 to 8/27/95	**Maximum:**	24.5	25.19	1.595	n.a.	0.560	0.038	0.710	0.050	0.917	0.013	1.392	n.a.	0.0962	0.0017
	Minimum:	13.3	24.90	0.050	n.a.	0.010	0.010	0.029	0.029	0.010	0.010	0.006	n.a.	0.0015	0.0015
	Average:	20.2	25.01	0.519	n.a.	0.028	0.027	0.041	0.039	0.077	0.012	0.403	n.a.	0.0271	0.0016
8/27/95 to 9/03/95	**Maximum:**	24.8	25.12	1.791	n.a.	0.052	0.046	0.185	n.a.	0.478	0.013	1.586	n.a.	0.119	0.0011
	Minimum:	12.8	24.90	0.021	n.a.	0.009	0.009	0.022	n.a.	0.011	0.011	0.009	n.a.	0.0006	0.0006
	Average:	19.4	24.99	0.592	n.a.	0.023	0.017	0.032	n.a.	0.116	0.012	0.481	n.a.	0.0339	0.0008

Appendix B

Graphs of OP-FTIR Volatile Organic Compound Concentration Data (From 01/04/95 to 09/03/95)

RWMC WMF-628

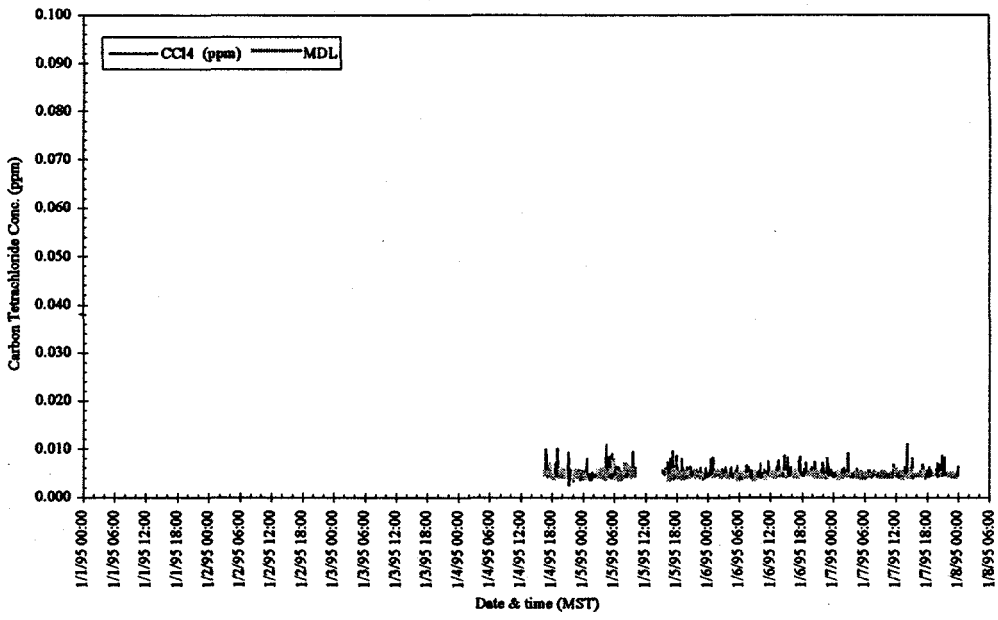

Figure B-1. Week 1, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.011, 0.003, and 0.005 ppm, respectively. Maximum, minimum, and average MDLs were 0.007, 0.004, and 0.005 ppm, respectively.

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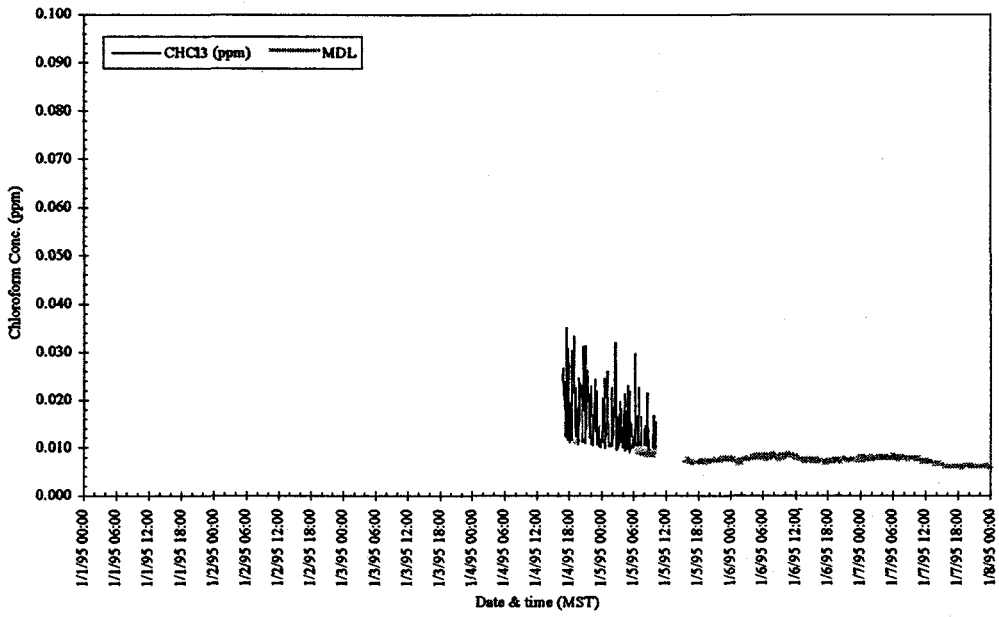

Figure B-2. Week 1, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.035, 0.006, and 0.009 ppm, respectively. Maximum, minimum, and average MDLs were 0.012, 0.006, and 0.008 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

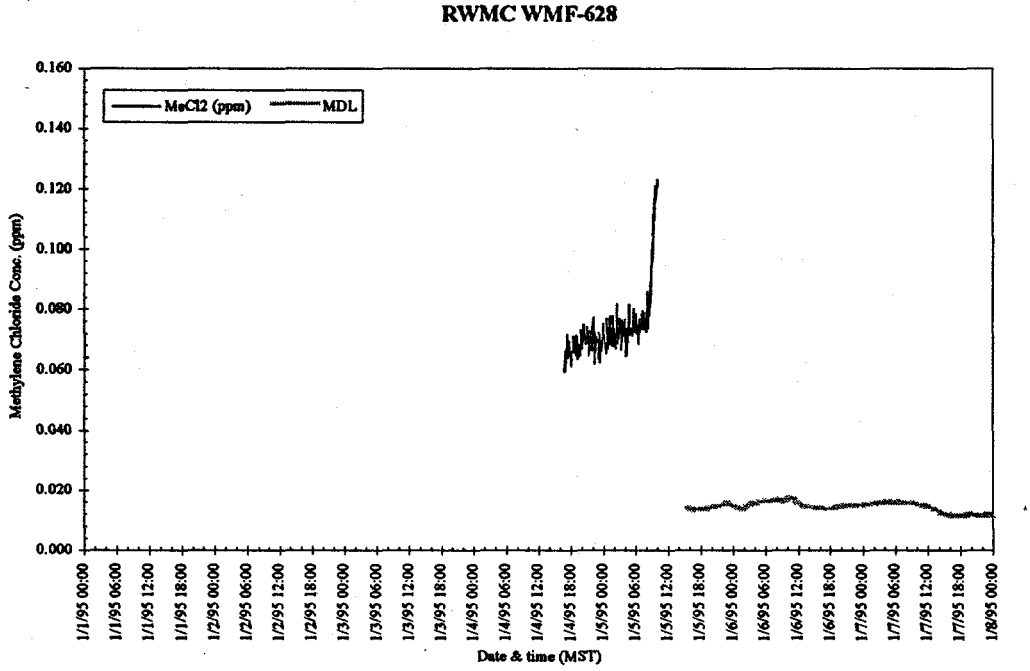

Figure B-3. Week 1, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.123, 0.011, and 0.028 ppm, respectively. Maximum, minimum, and average MDLs were 0.018, 0.011, and 0.014 ppm, respectively.

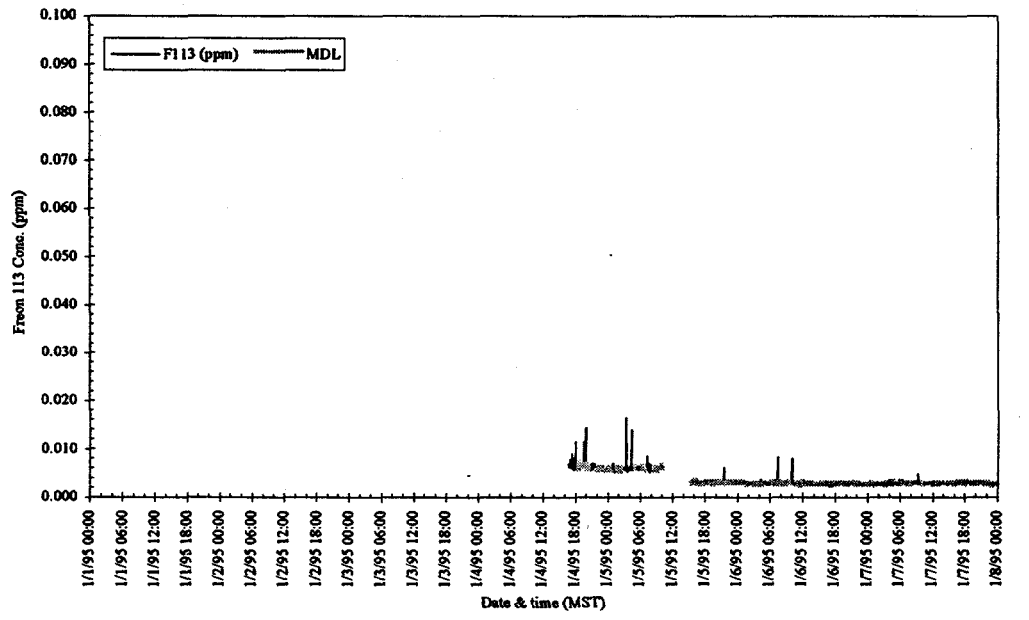

Figure B-4. Week 1, 1995. Concentration as a function of time. Maximum, minimum, and average concentration were 0.016, 0.002, and 0.004 ppm, respectively. Maximum, minimum, and average MDLs were 0.007, 0.002, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

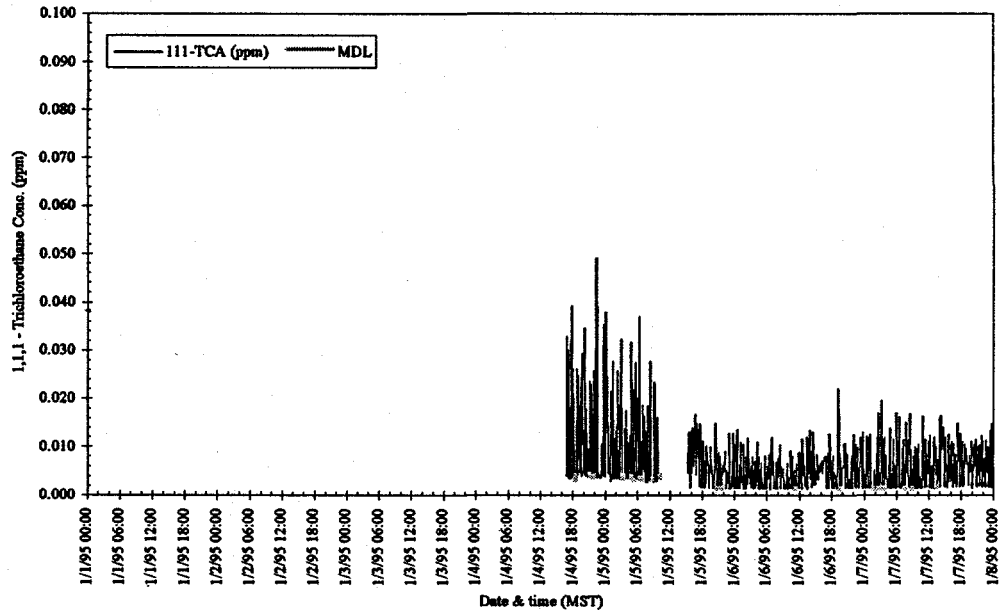

Figure B-5. Week 1, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.049, 0.001, and 0.007 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.001, and 0.002 ppm, respectively.

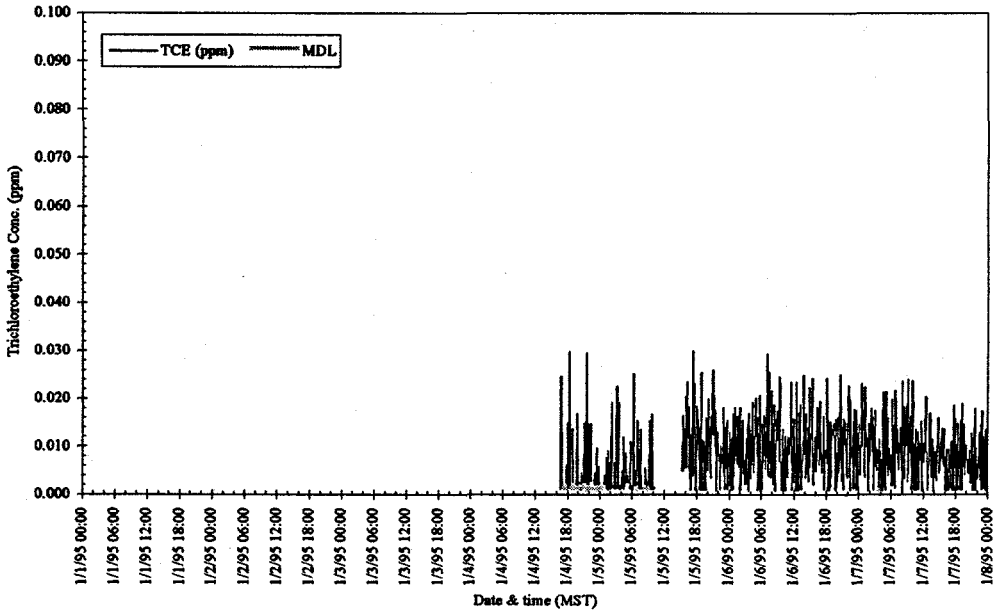

Figure B-6. Week 1, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0297, 0.0006, and 0.0080 ppm, respectively. Maximum, minimum, and average MDLs were 0.0021, 0.0007, and 0.0012 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

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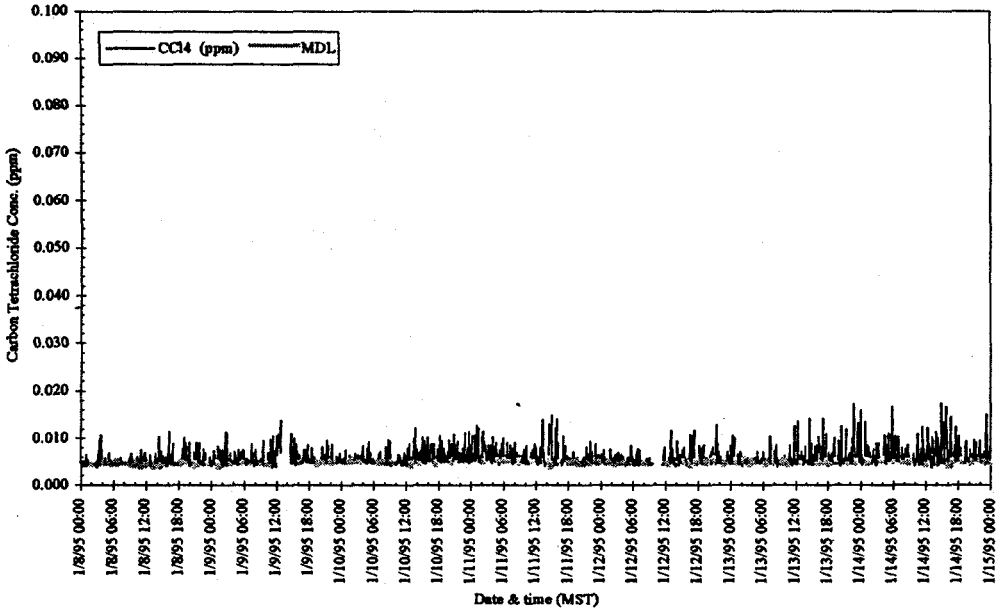

Figure B-7. Week 2, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.017, 0.004, and 0.006 ppm, respectively. Maximum, minimum, and average MDLs were 0.006, 0.004, and 0.005 ppm, respectively.

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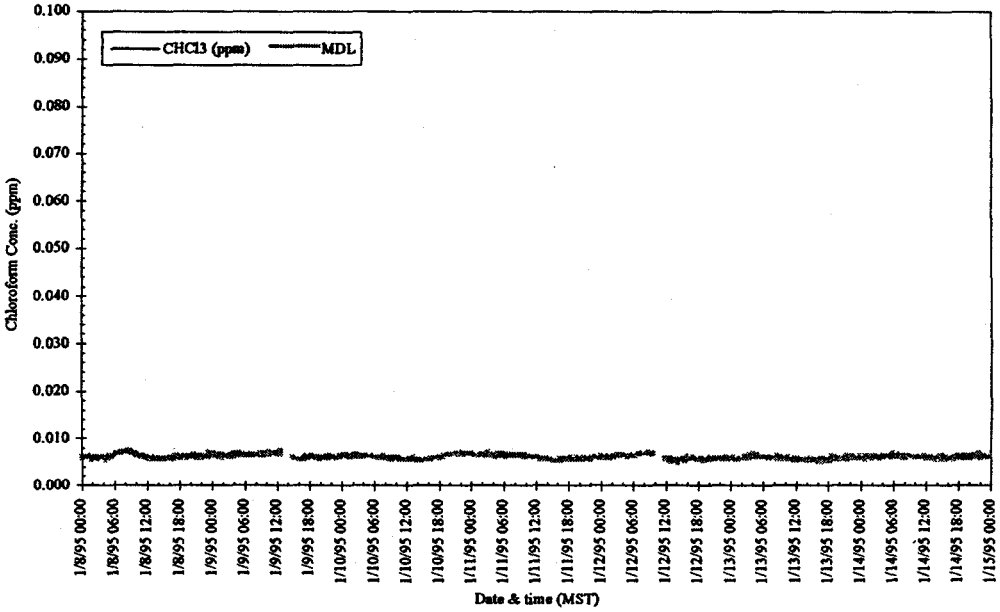

Figure B-8. Week 2, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.008, 0.005, and 0.006 ppm, respectively. Maximum, minimum, and average MDLs were 0.008, 0.005, and 0.006 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

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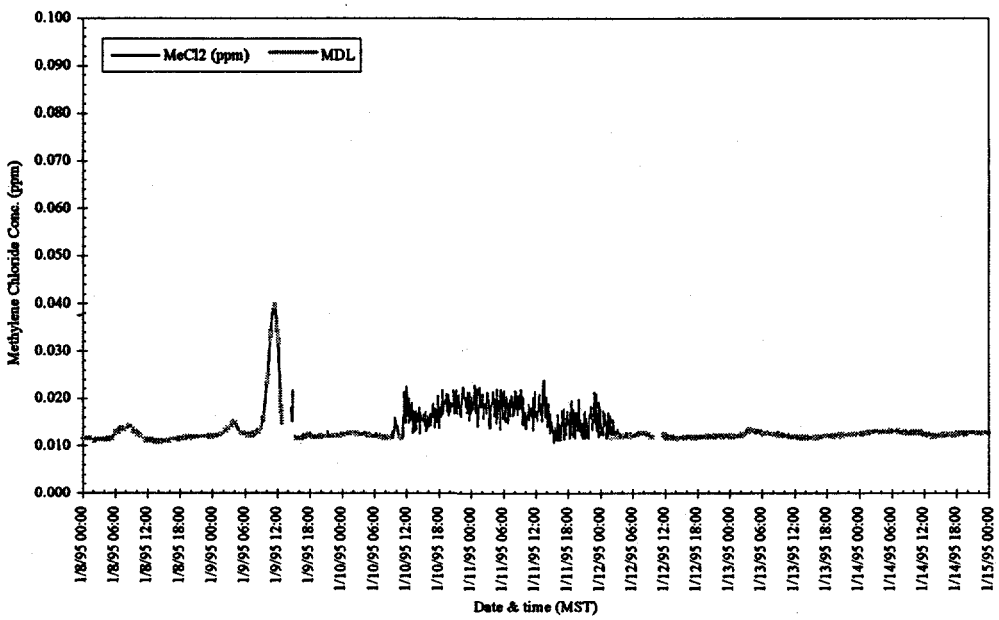

Figure B-9. Week 2, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.040, 0.011, and 0.014 ppm, respectively. Maximum, minimum, and average MDLs were 0.040, 0.011, and 0.013 ppm, respectively.

RWMC WMF-628

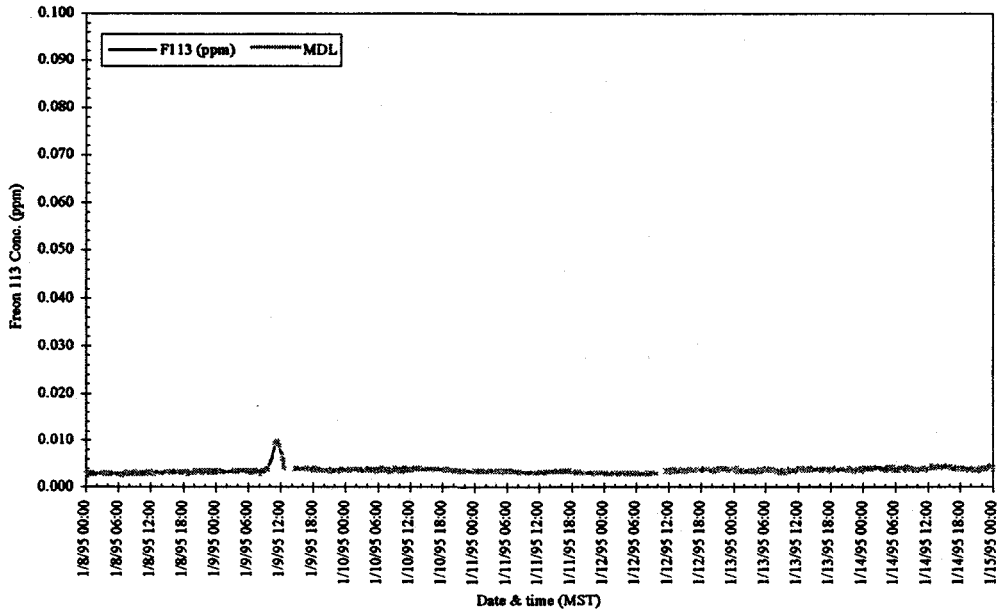

Figure B-10. Week 2, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.010, 0.002, and 0.004 ppm, respectively. Maximum, minimum, and average MDLs were 0.010, 0.002, and 0.003 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

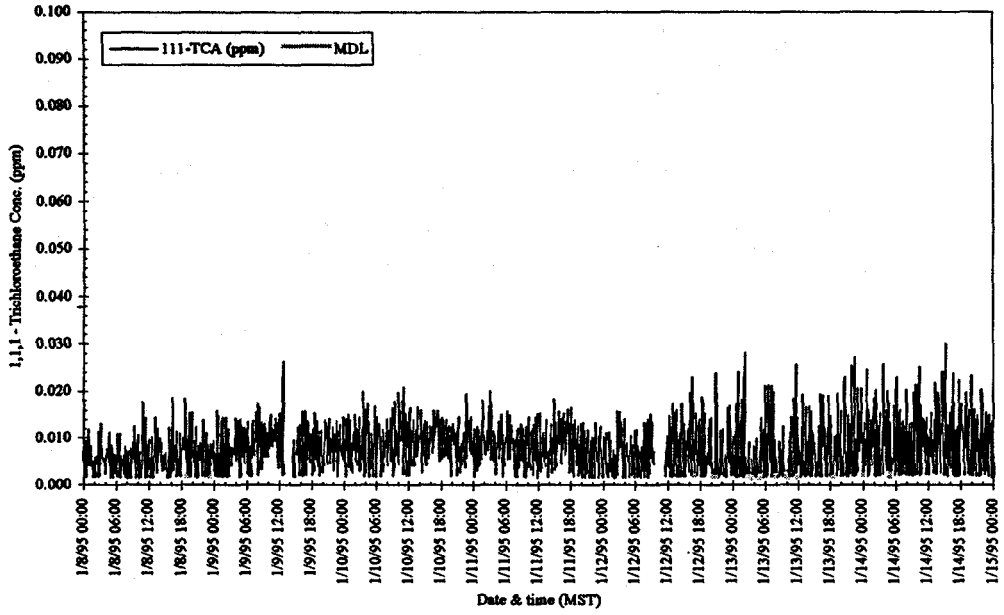

Figure B-11. Week 2, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.030, 0.001, and 0.008 ppm, respectively. Maximum, minimum, and average MDLs were 0.002, 0.001, and 0.002 ppm, respectively.

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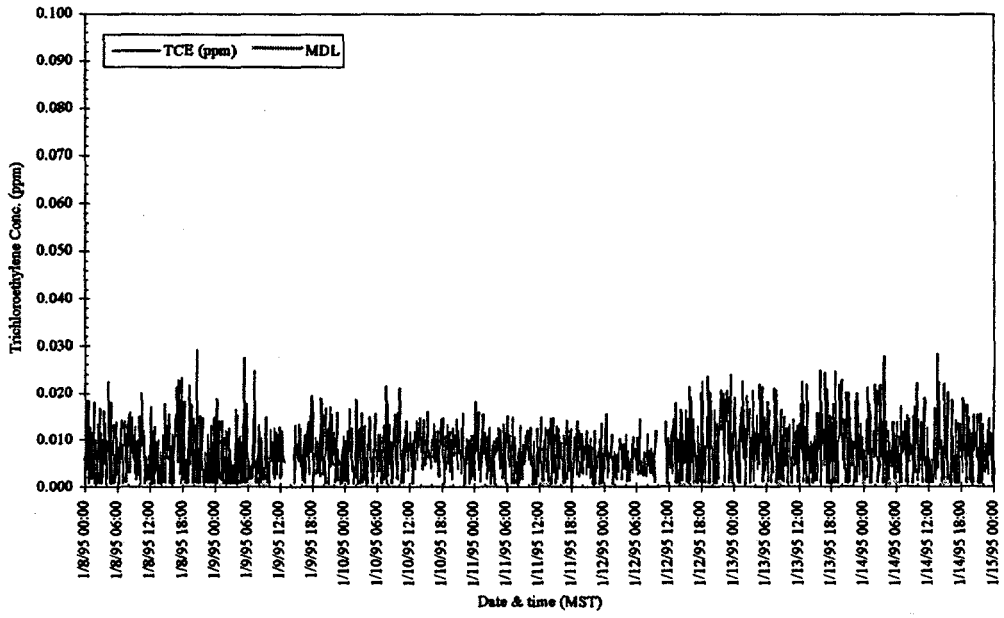

Figure B-12. Week 2, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0291, 0.0006, and 0.0075 ppm, respectively. Maximum, minimum, and average MDLs were 0.0012, 0.0006, and 0.0009 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

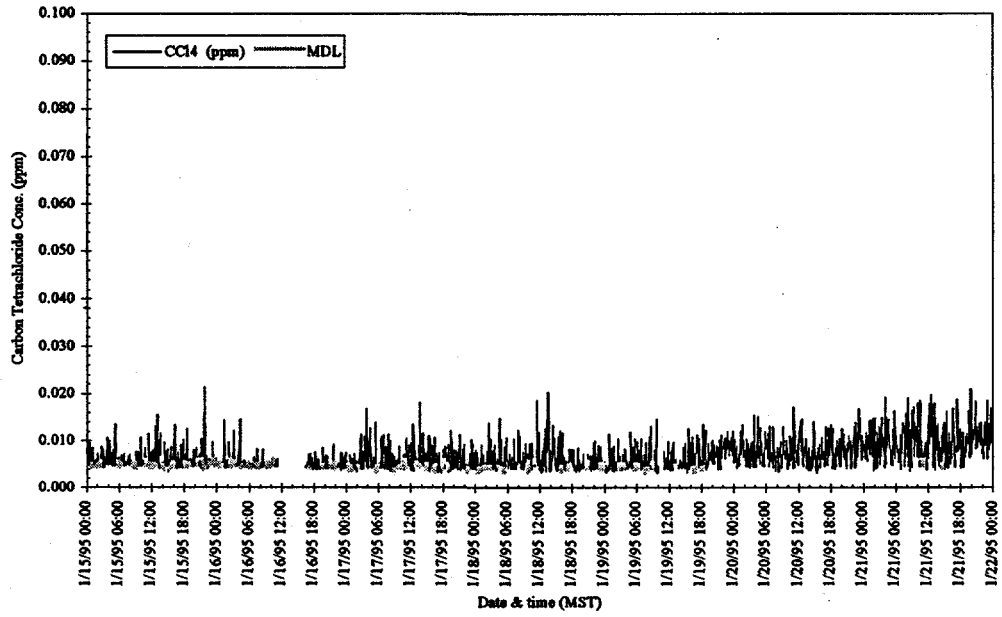

Figure B-13. Week 3, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.021, 0.003, and 0.007 ppm, respectively. Maximum, minimum, and average MDLs were 0.007, 0.003, and 0.005 ppm, respectively.

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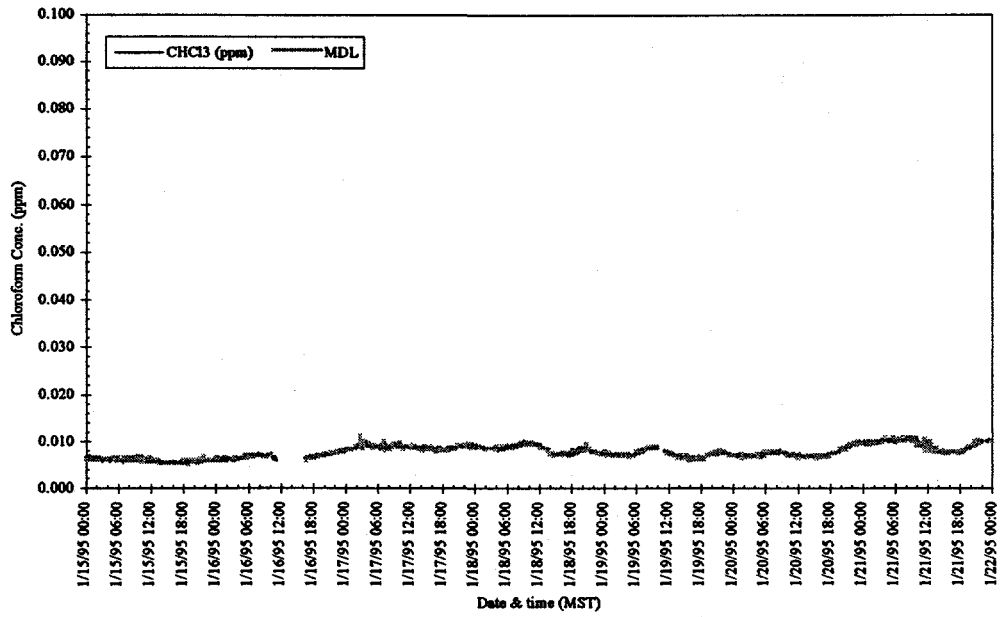

Figure B-14. Week 3, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.011, 0.005, and 0.008 ppm, respectively. Maximum, minimum, and average MDLs were 0.011, 0.005, and 0.008 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

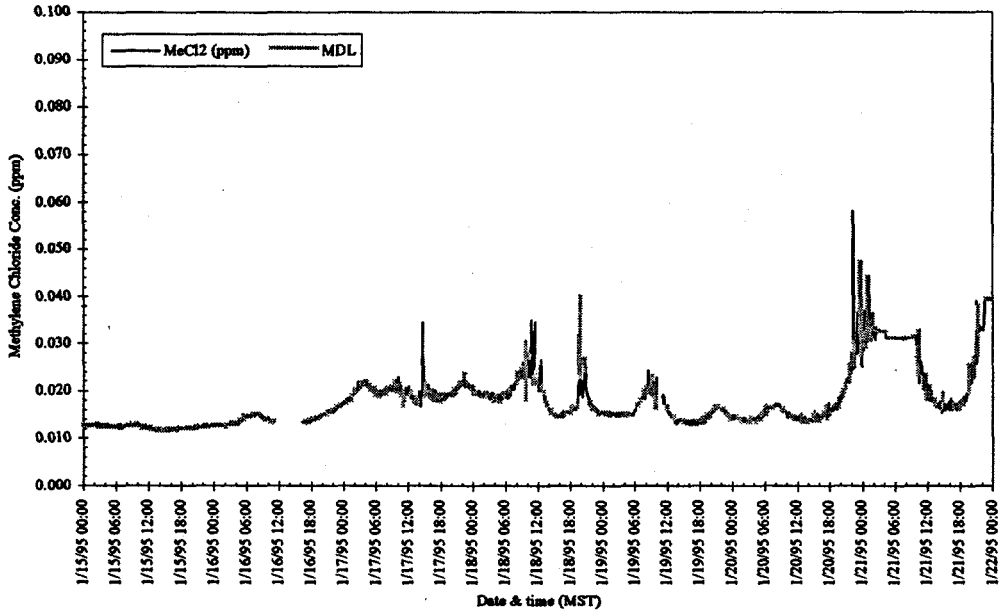

Figure B-15. Week 3, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.058, 0.011, and 0.018 ppm, respectively. Maximum, minimum, and average MDLs were 0.058, 0.011, and 0.018 ppm, respectively.

RWMC WMF-628

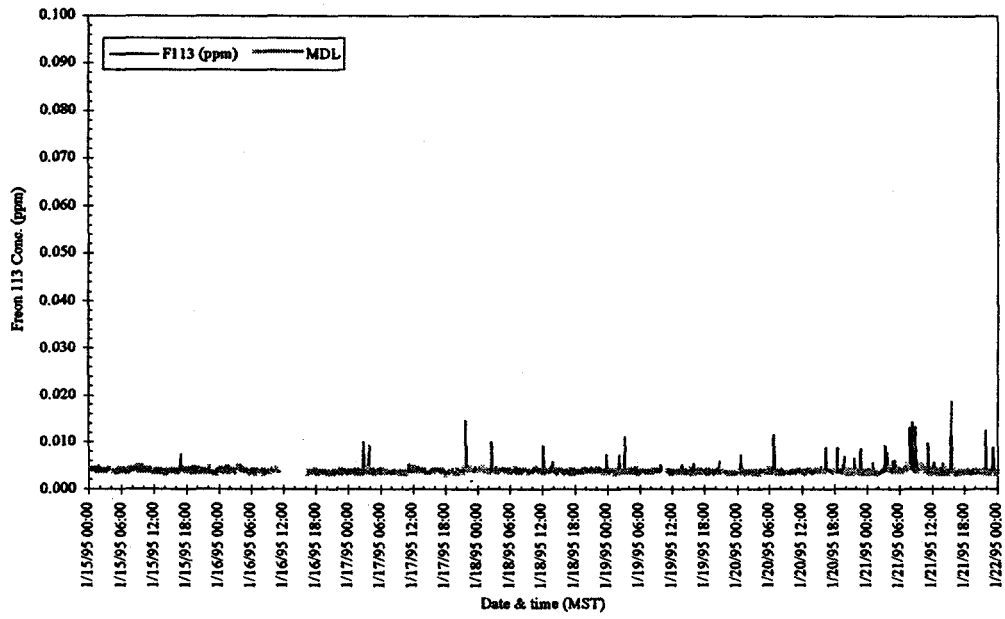

Figure B-16. Week 3, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.019, 0.003, and 0.004 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.003, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

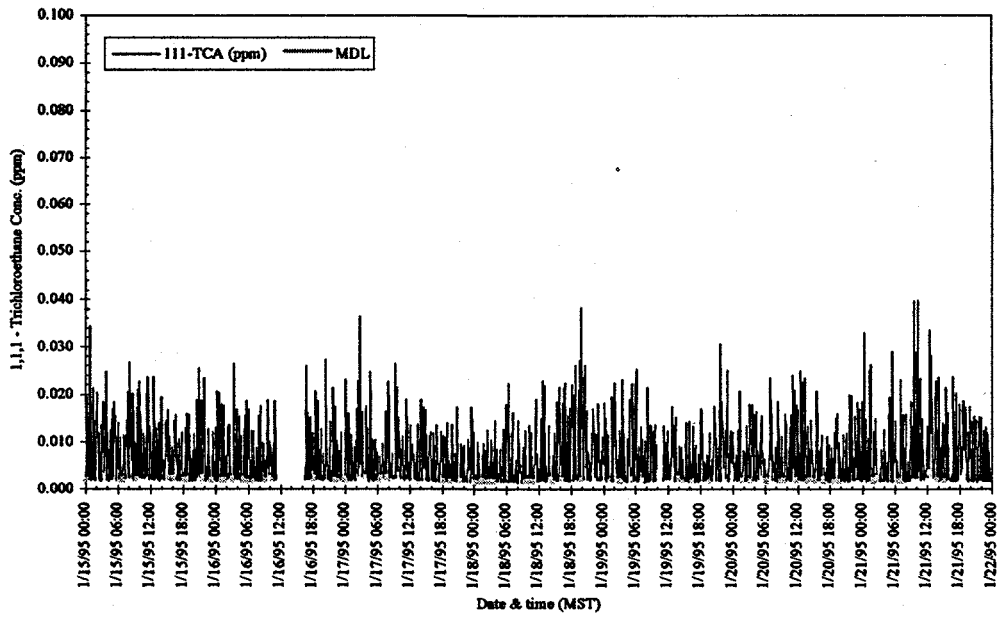

Figure B-17. Week 3, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.040, 0.001, and 0.007 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.001, and 0.002 ppm, respectively.

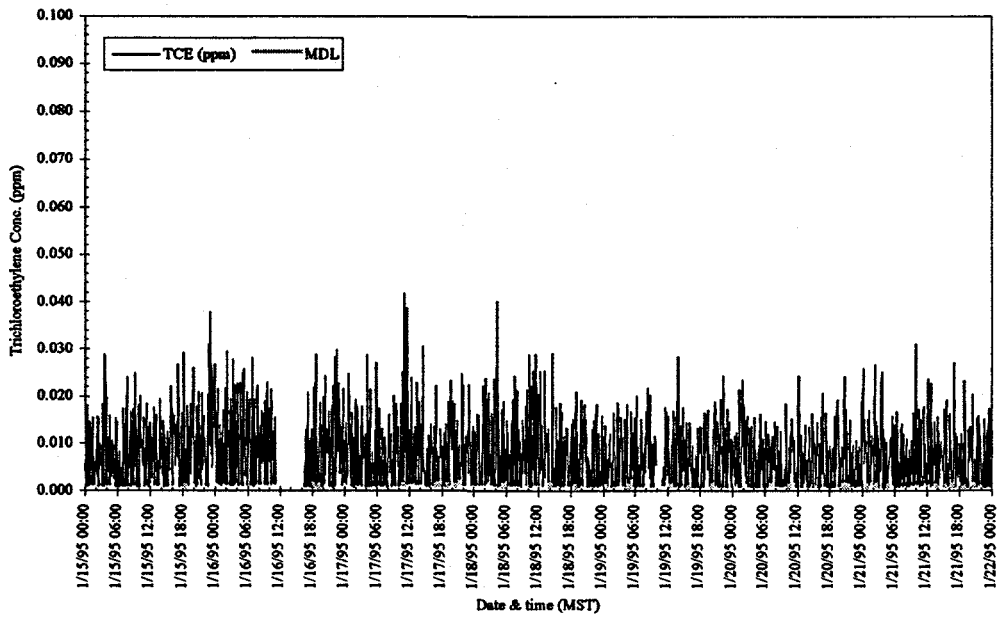

Figure B-18. Week 3, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0417, 0.0007, and 0.0077 ppm, respectively. Maximum, minimum, and average MDLs were 0.0017, 0.0007, and 0.0011 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

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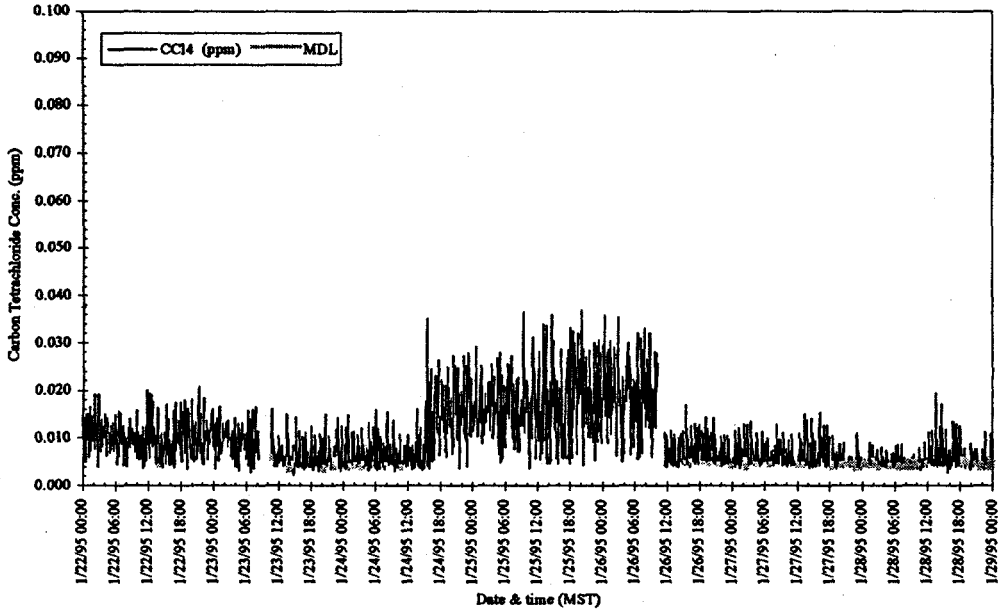

Figure B-19. Week 4, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.037, 0.002, and 0.010 ppm, respectively. Maximum, minimum, and average MDLs were 0.007, 0.003, and 0.005 ppm, respectively.

RWMC WMF-628

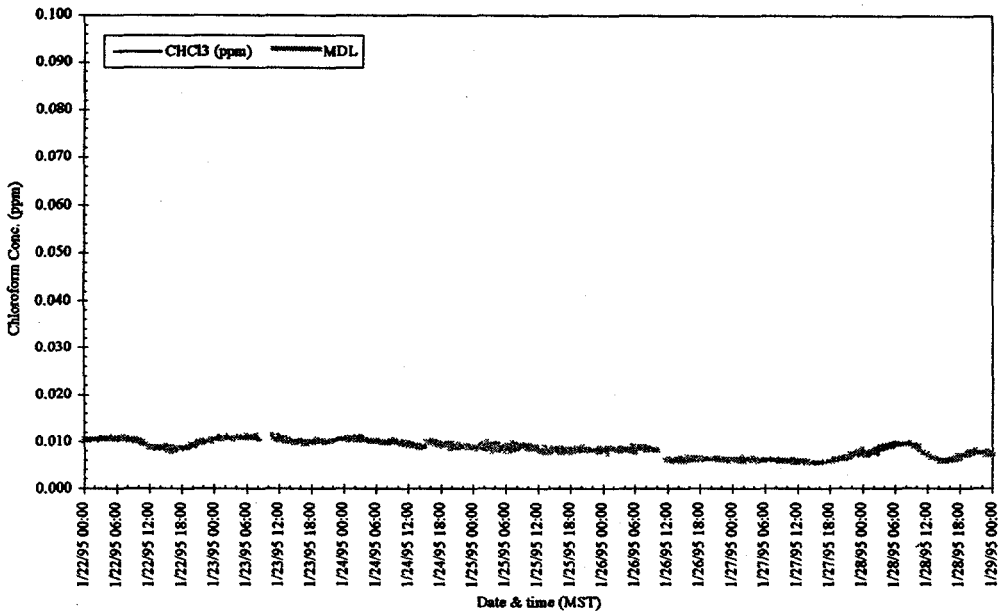

Figure B-20. Week 4, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.012, 0.005, and 0.008 ppm, respectively. Maximum, minimum, and average MDLs were 0.012, 0.005, and 0.008 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

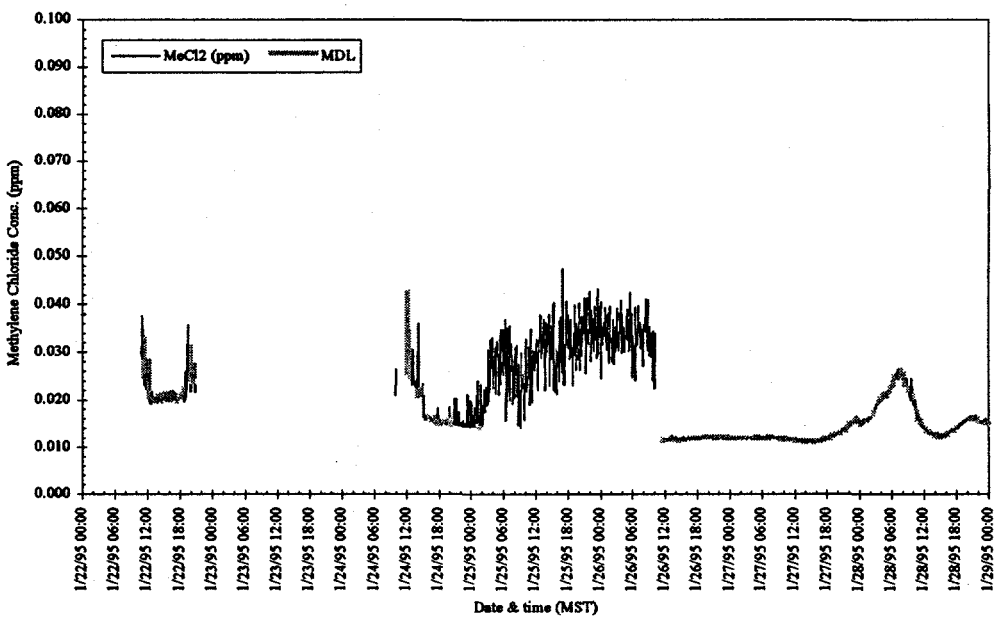

Figure B-21. Week 4, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.047, 0.011, and 0.020 ppm, respectively. Maximum, minimum, and average MDLs were 0.046, 0.011, and 0.016 ppm, respectively.

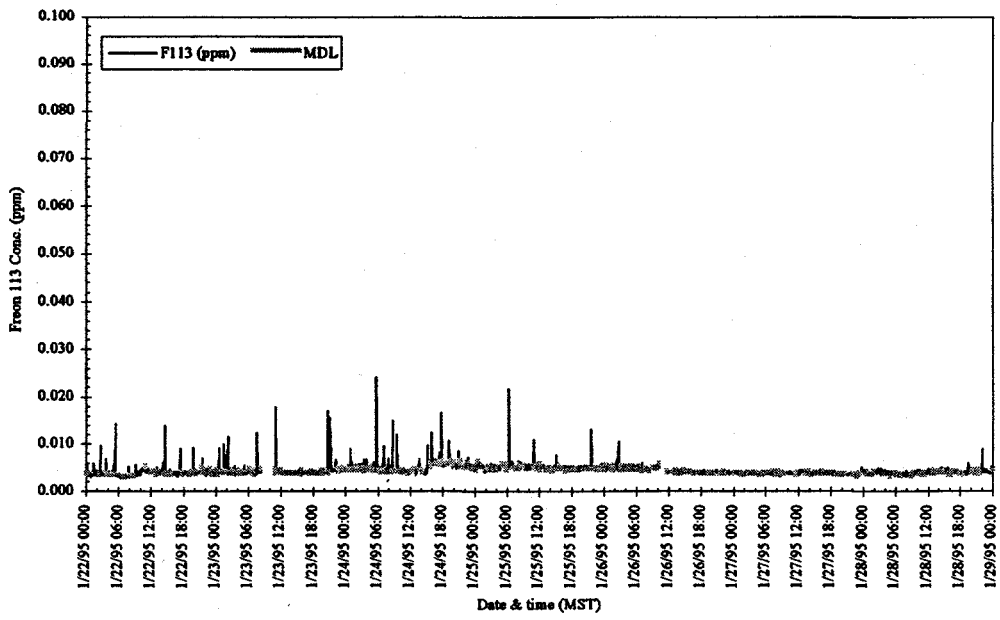

Figure B-22. Week 4, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.024, 0.003, and 0.004 ppm, respectively. Maximum, minimum, and average MDLs were 0.007, 0.003, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

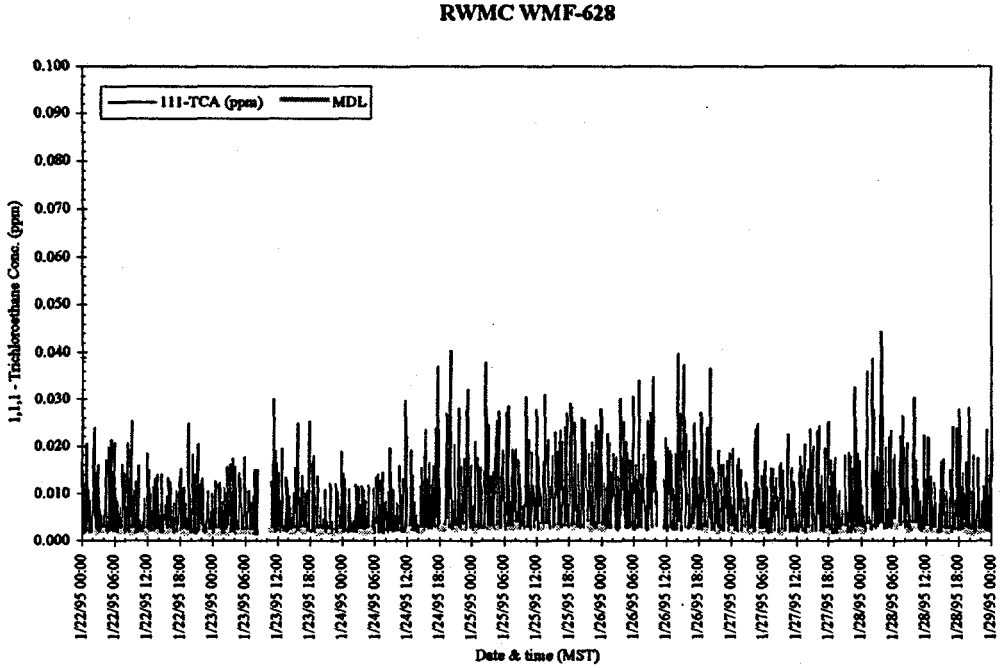

Figure B-23. Week 4, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.044, 0.001, and 0.007 ppm, respectively. Maximum, minimum, and average MDLs were 0.004, 0.001, and 0.002 ppm, respectively.

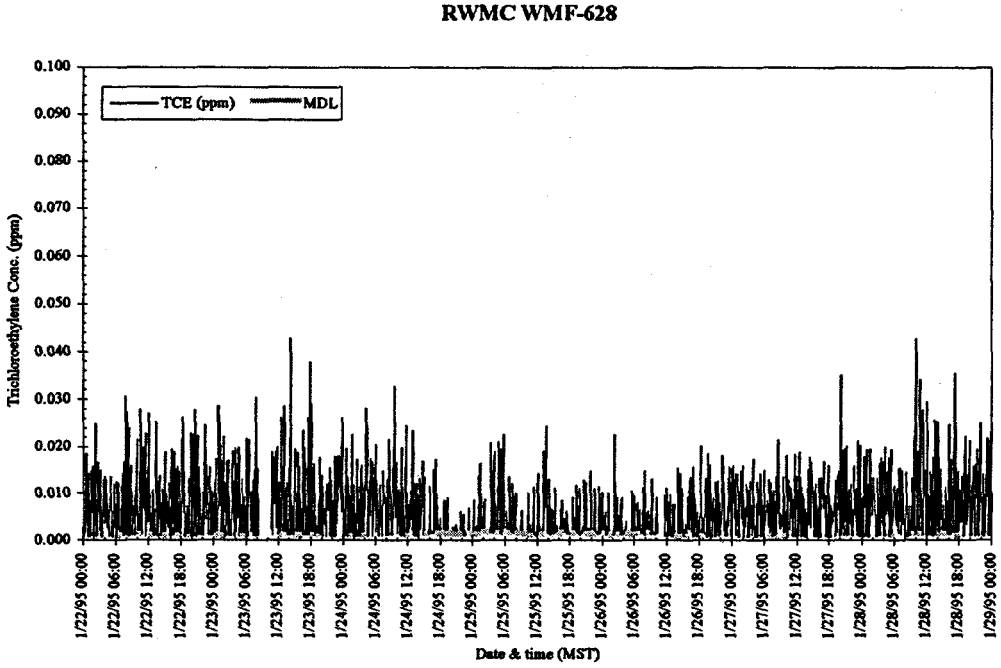

Figure B-24. Week 4, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0428, 0.0007, and 0.0062 ppm, respectively. Maximum, minimum, and average MDLs were 0.0023, 0.0007, and 0.0013 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

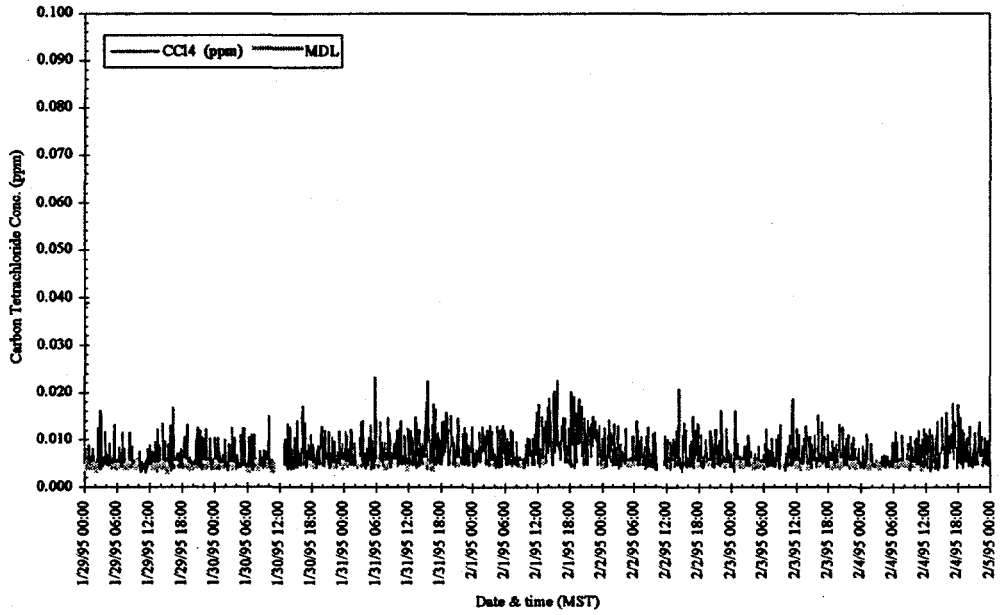

Figure B-25. Week 5, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.023, 0.003, and 0.007 ppm, respectively. Maximum, minimum, and average MDLs were 0.007, 0.003, and 0.005 ppm, respectively.

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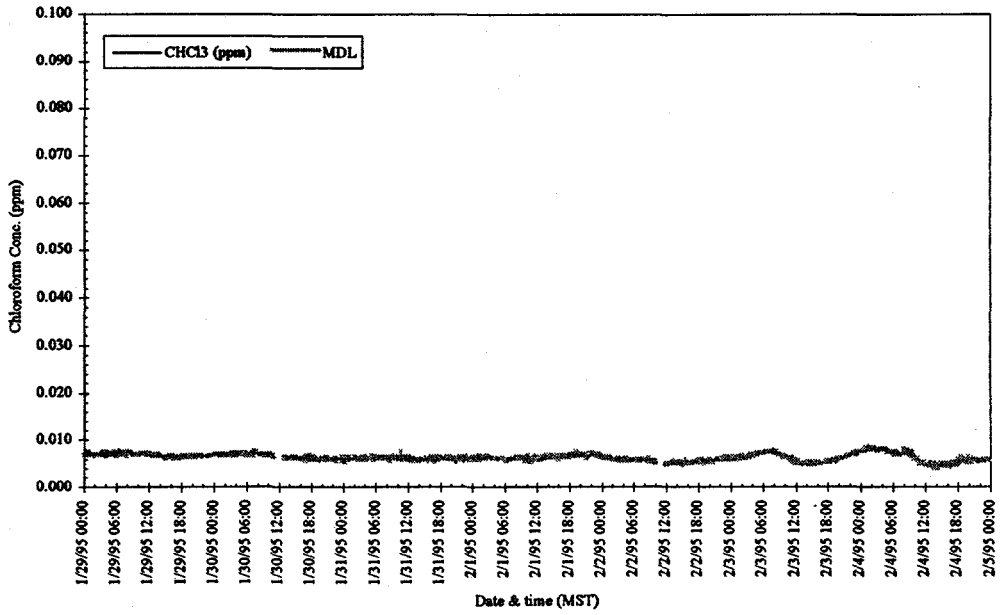

Figure B-26. Week 5, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.009, 0.004, and 0.006 ppm, respectively. Maximum, minimum, and average MDLs were 0.009, 0.004, and 0.006 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

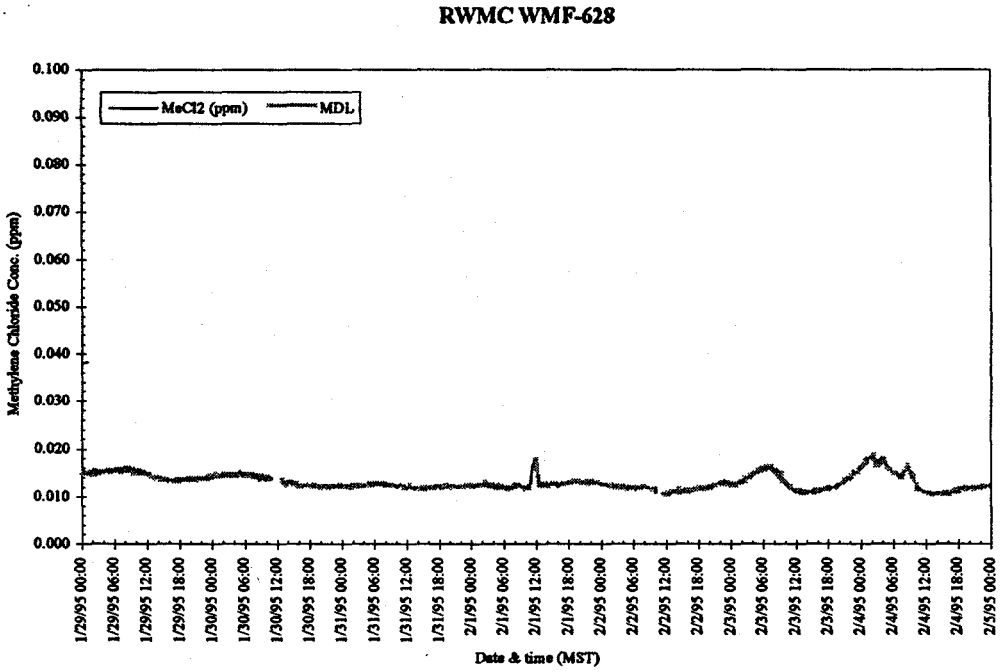

Figure B-27. Week 5, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.019, 0.010, and 0.013 ppm, respectively. Maximum, minimum, and average MDLs were 0.019, 0.010,and 0.013 ppm, respectively.

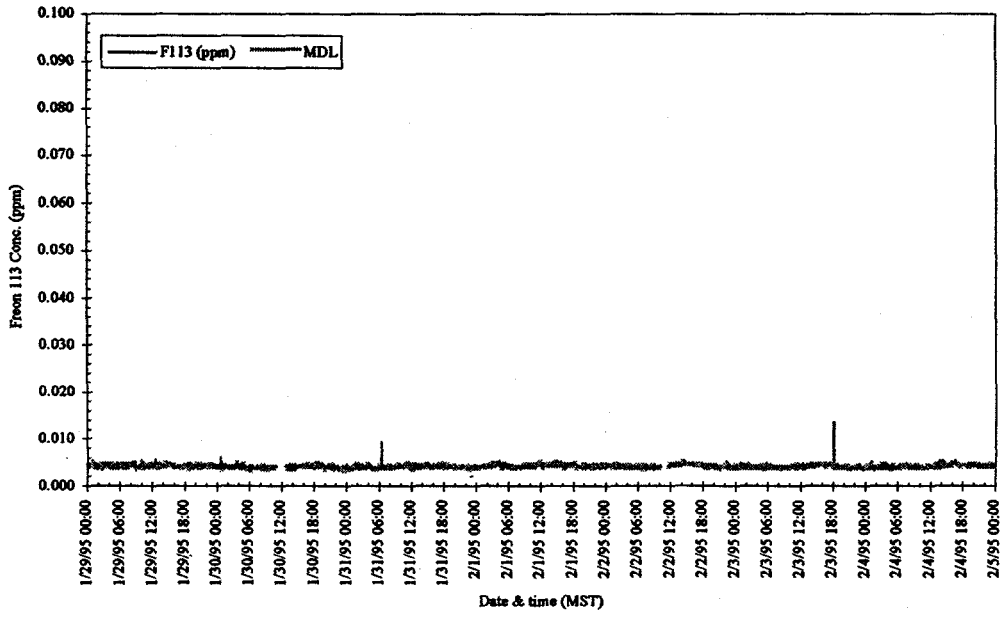

Figure B-28. Week 5, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.014, 0.003, and 0.004 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.003, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

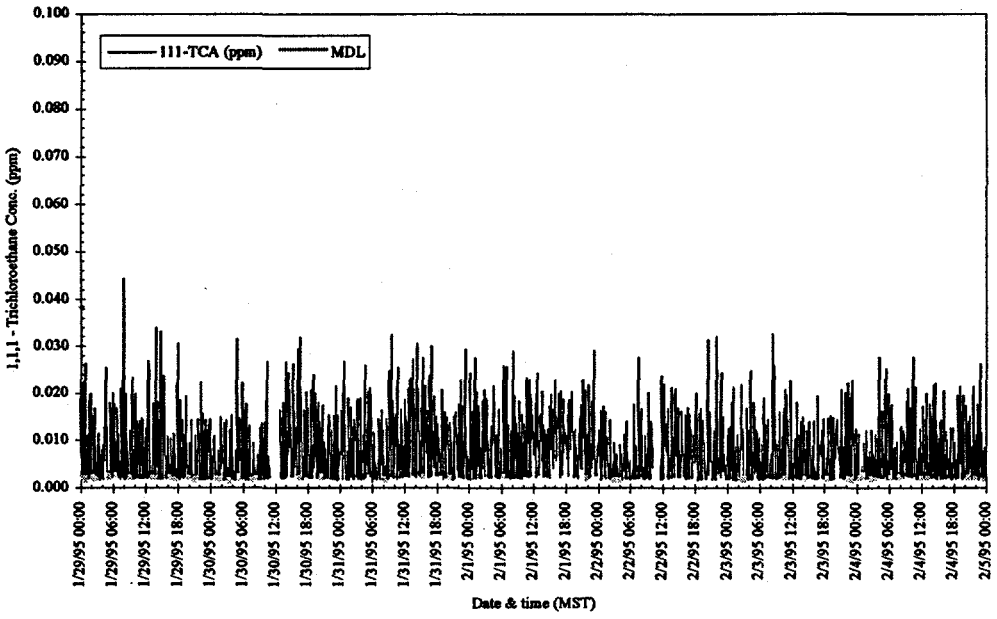

Figure B-29. Week 5 , 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.044, 0.001, and 0.008 ppm, respectively. Maximum, minimum, and average MDLs were 0.003, 0.001, and 0.002 ppm, respectively.

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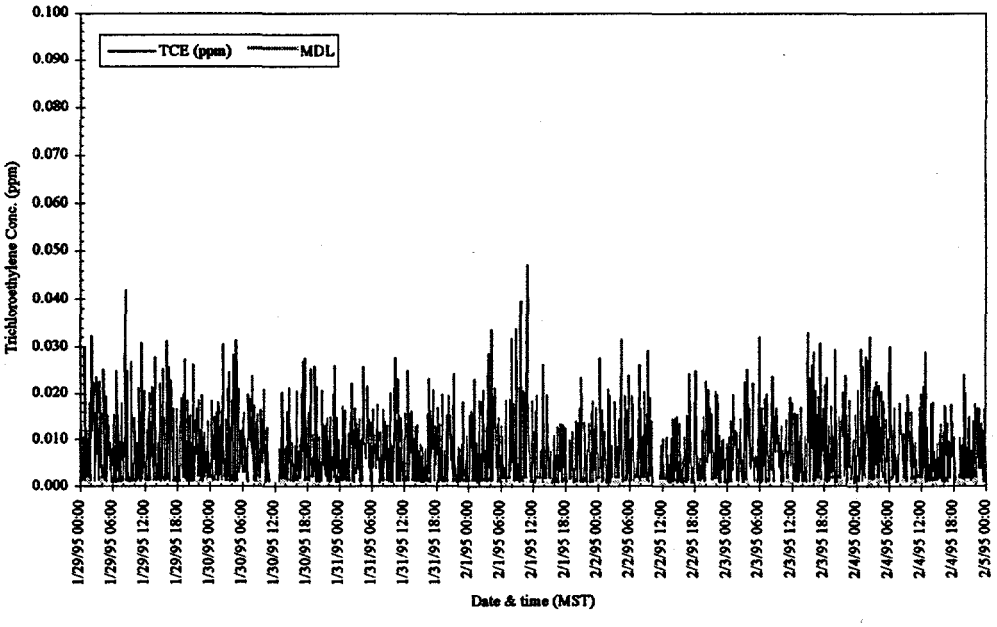

Figure B-30. Week 5, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0471, 0.0007, and 0.0075 ppm, respectively. Maximum, minimum, and average MDLs were 0.0018, 0.0007, and 0.0011 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

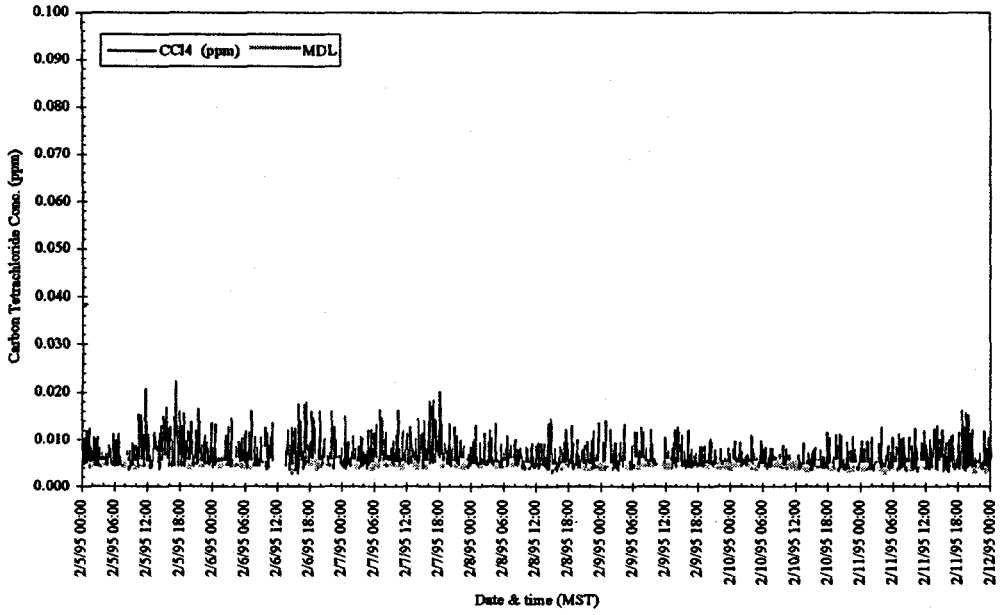

Figure B-31. Week 6, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.022, 0.003, and 0.006 ppm, respectively. Maximum, minimum, and average MDLs were 0.008, 0.003, and 0.005 ppm, respectively.

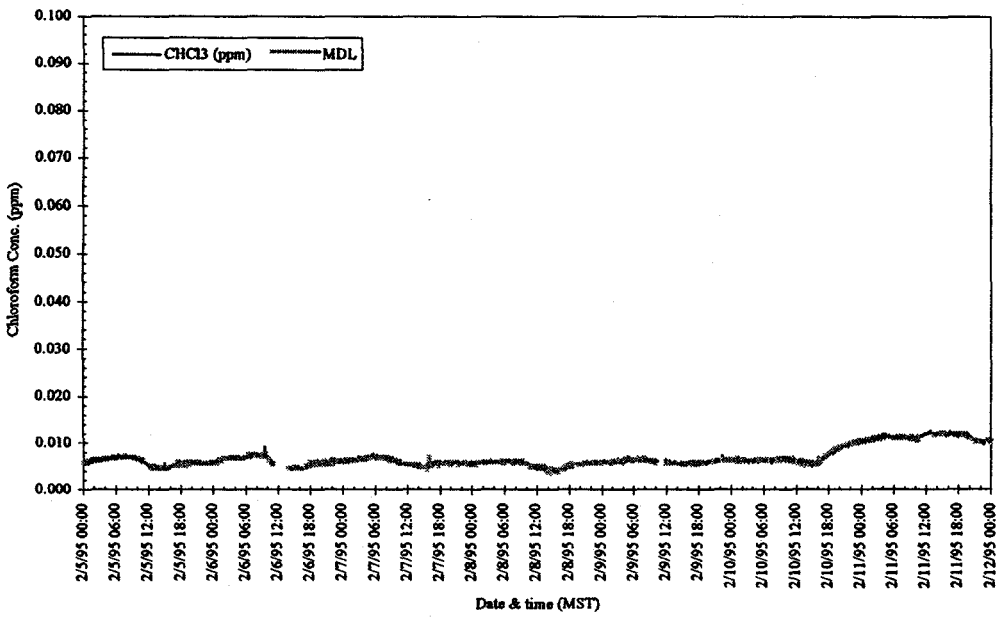

Figure B-32. Week 6, 1995. Concentration as a function of time. Maximum, minimum, and average concentration were ,0.013, 0.004, and 0.007 ppm, respectively. Maximum, minimum, and average MDLs were 0.012, 0.004, and 0.007 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

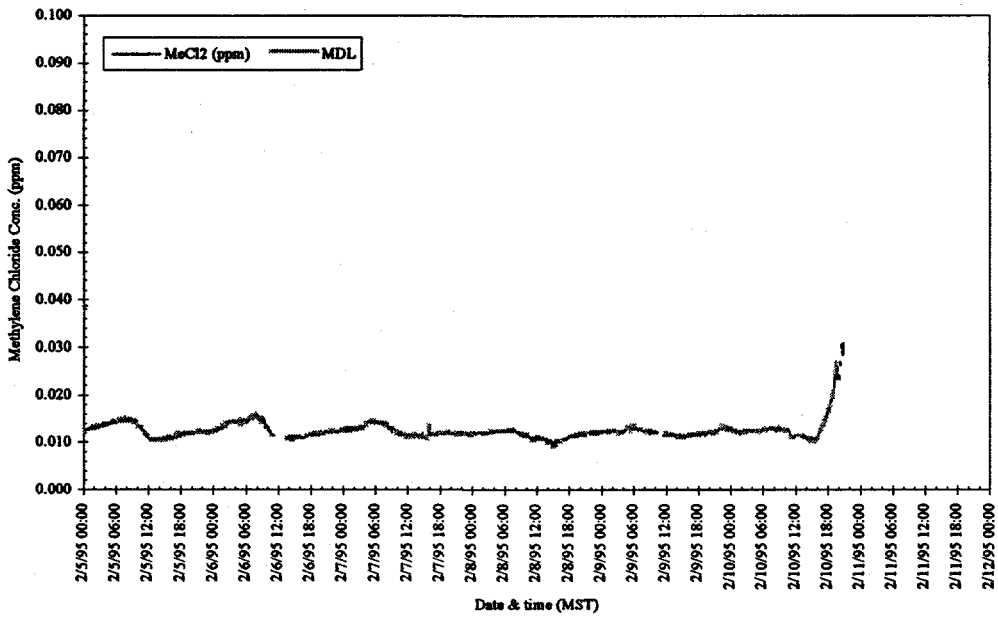

Figure B-33. Week 6, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.041, 0.009, and 0.012 ppm, respectively. Maximum, minimum, and average MDLs were 0.032, 0.009, and 0.012 ppm, respectively.

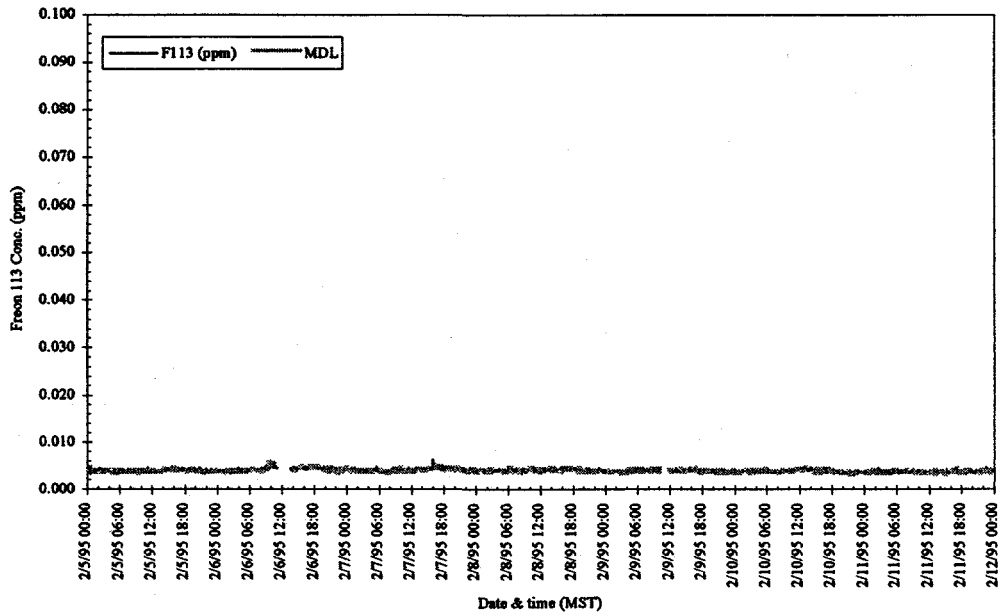

Figure B-34. Week 6, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.006, 0.003, and 0.004 ppm, respectively. Maximum, minimum, and average MDLs were 0.006, 0.003, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

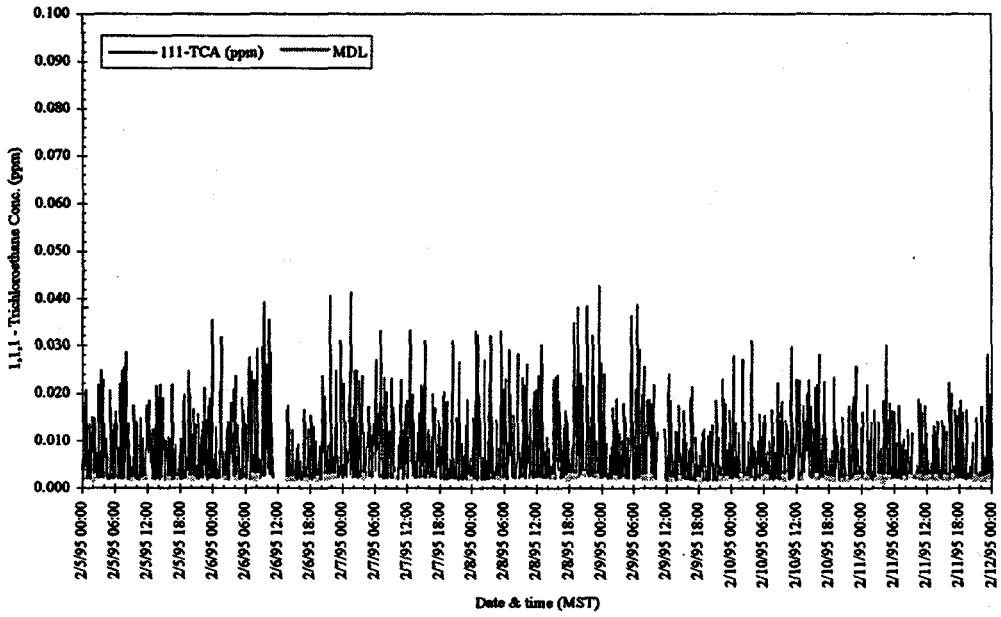

Figure B-35. Week 6, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.043, 0.001, and 0.007 ppm, respectively. Maximum, minimum, and average MDLs were 0.004, 0.001, and 0.002 ppm, respectively.

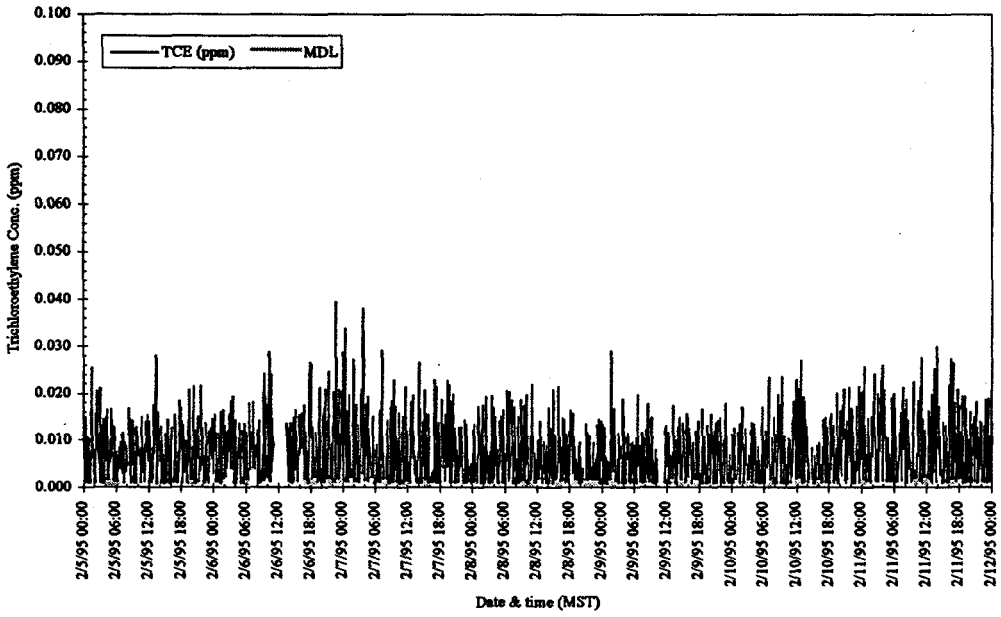

Figure B-36. Week 6, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0394, 0.0007, and 0.0068 ppm, respectively. Maximum, minimum, and average MDLs were 0.0016, 0.0007, and 0.0010 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

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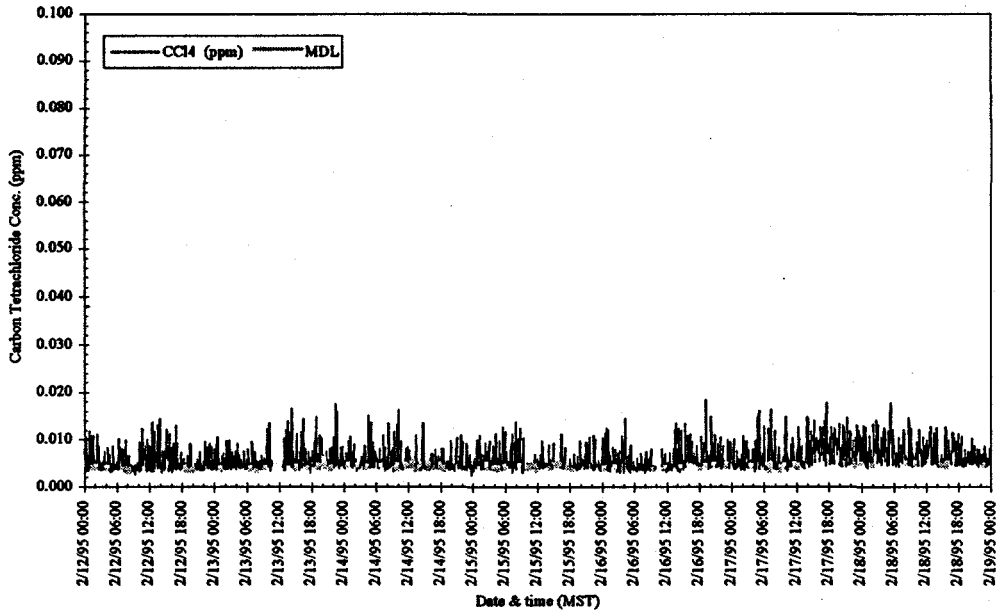

Figure B-37. Week 7, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.018, 0.002, and 0.006 ppm, respectively. Maximum, minimum, and average MDLs were 0.006, 0.003, and 0.004 ppm, respectively.

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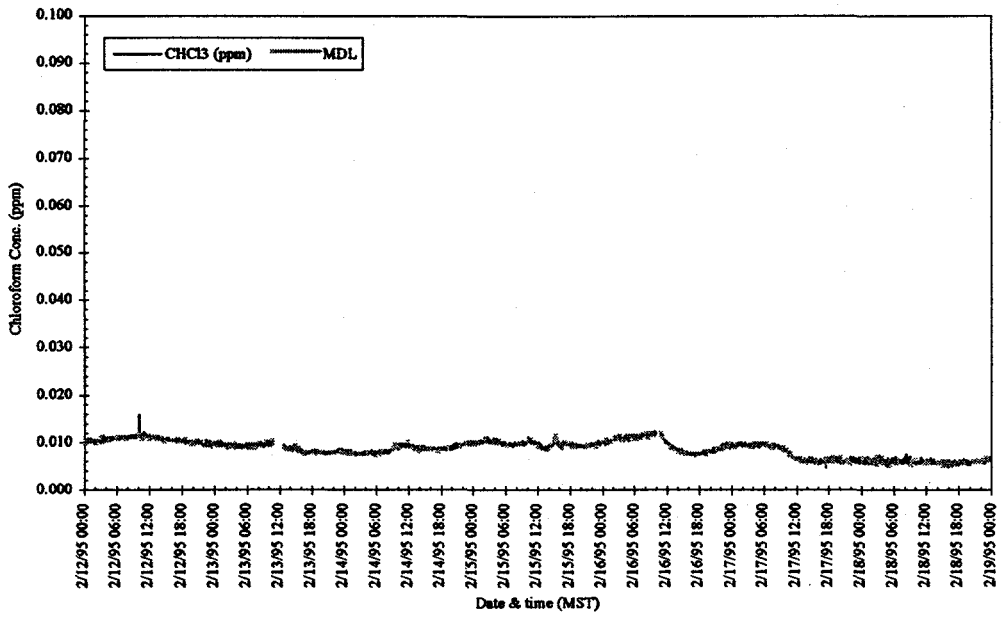

Figure B-38. Week 7, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.016, 0.005, and 0.009 ppm, respectively. Maximum, minimum, and average MDLs were 0.012, 0.005, and 0.009 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

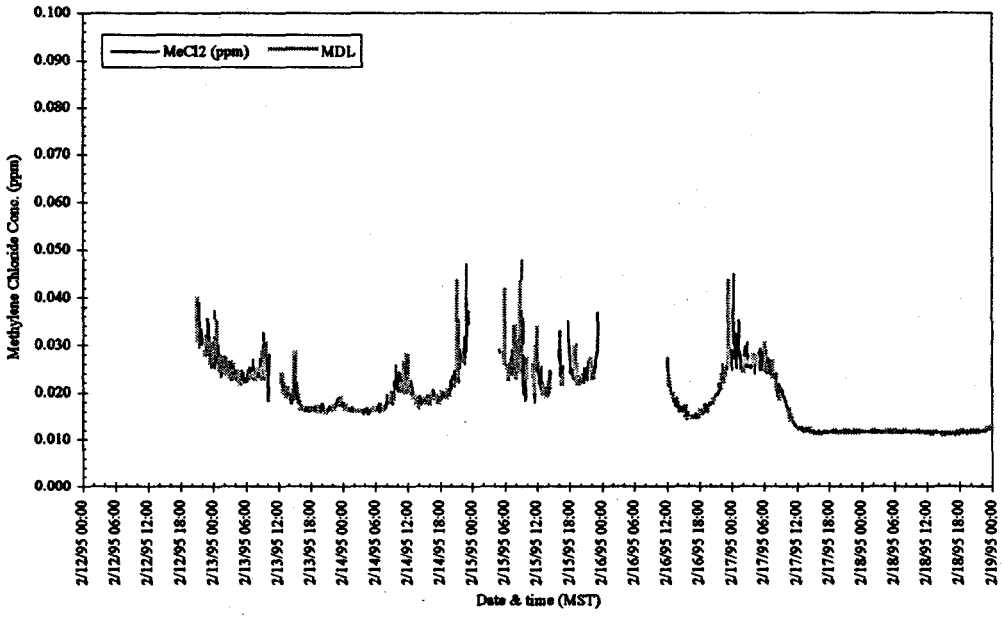

Figure B-39. Week 7, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.052, 0.011, and 0.014 ppm, respectively. Maximum, minimum, and average MDLs were 0.051, 0.011, and 0.019 ppm, respectively.

RWMC WMF-628

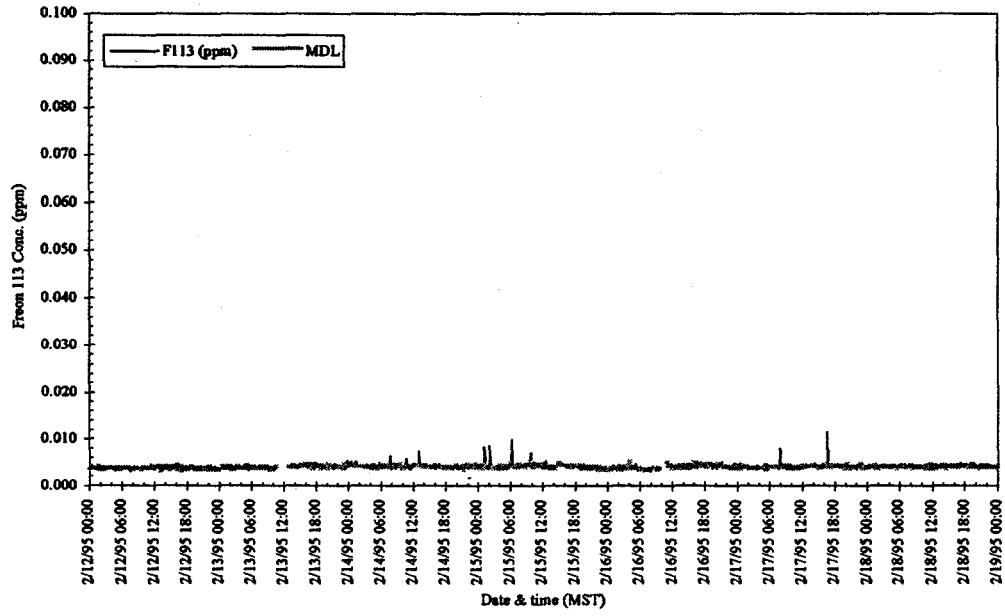

Figure B-40. Week 7, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.011,0.003, and 0.004 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.003, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

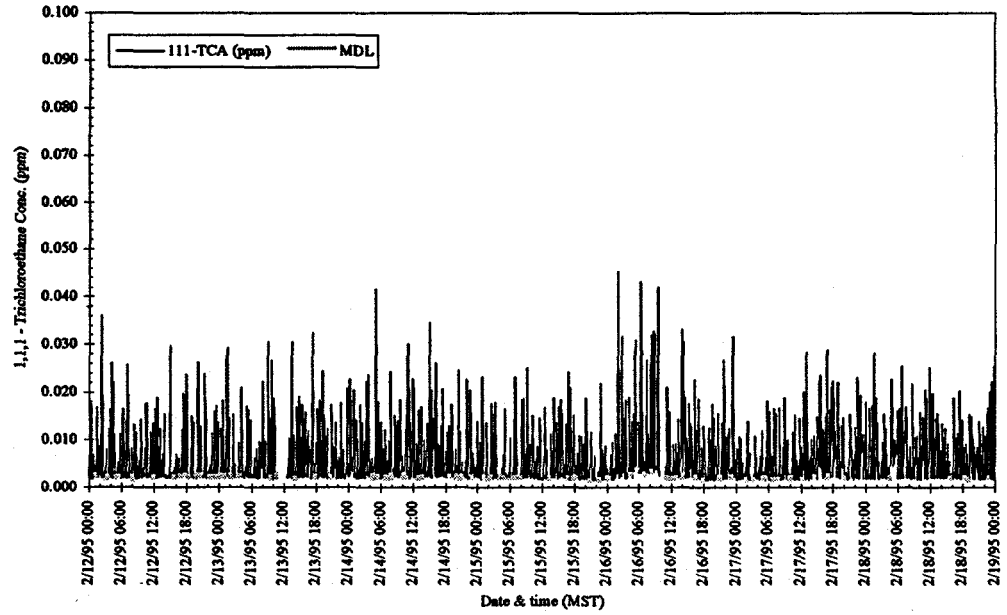

Figure B-41. Week 7, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.045, 0.001, and 0.006 ppm, respectively. Maximum, minimum, and average MDLs were 0.004, 0.001, and 0.002 ppm, respectively.

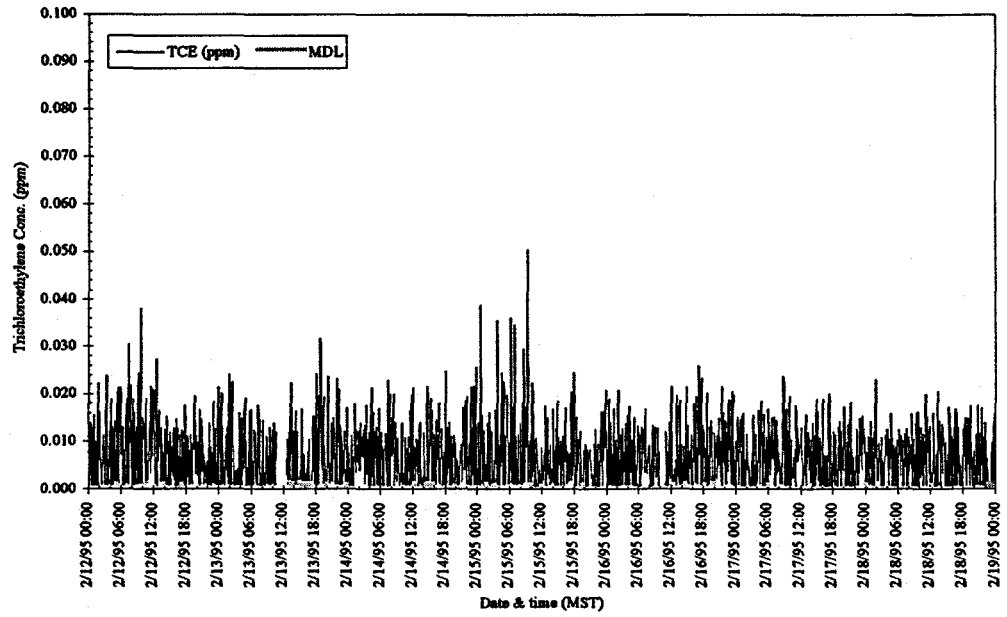

Figure B-42. Week 7, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0503, 0.0006, and 0.0067 ppm, respectively. Maximum, minimum, and average MDLs were 0.0016, 0.0006, and 0.0010 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

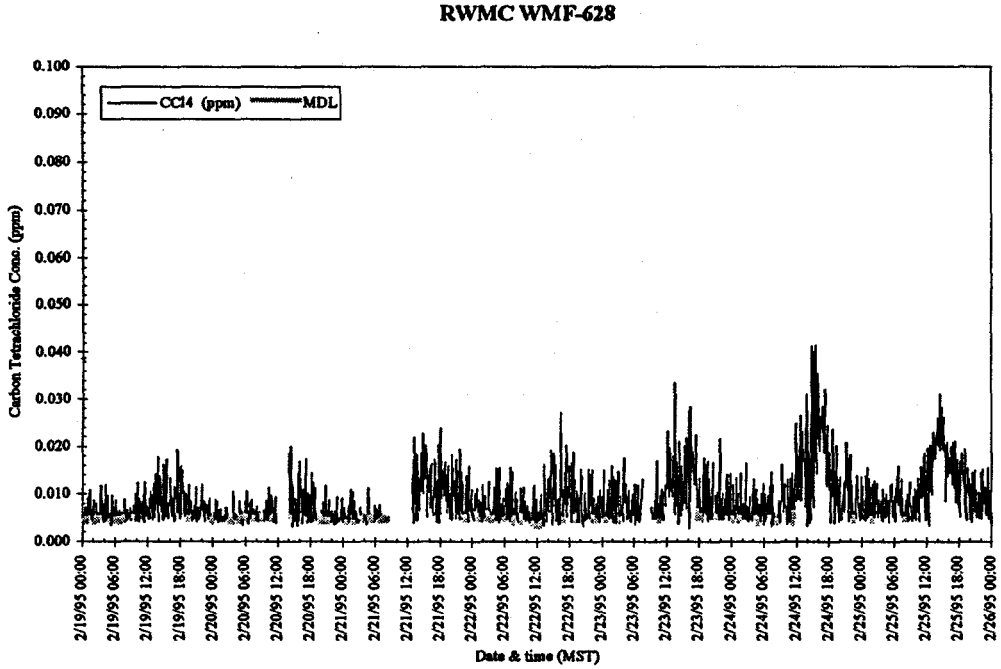

Figure B-43. Week 8, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.041, 0.003, and 0.009 ppm, respectively. Maximum, minimum, and average MDLs were 0.009, 0.003, and 0.005 ppm, respectively.

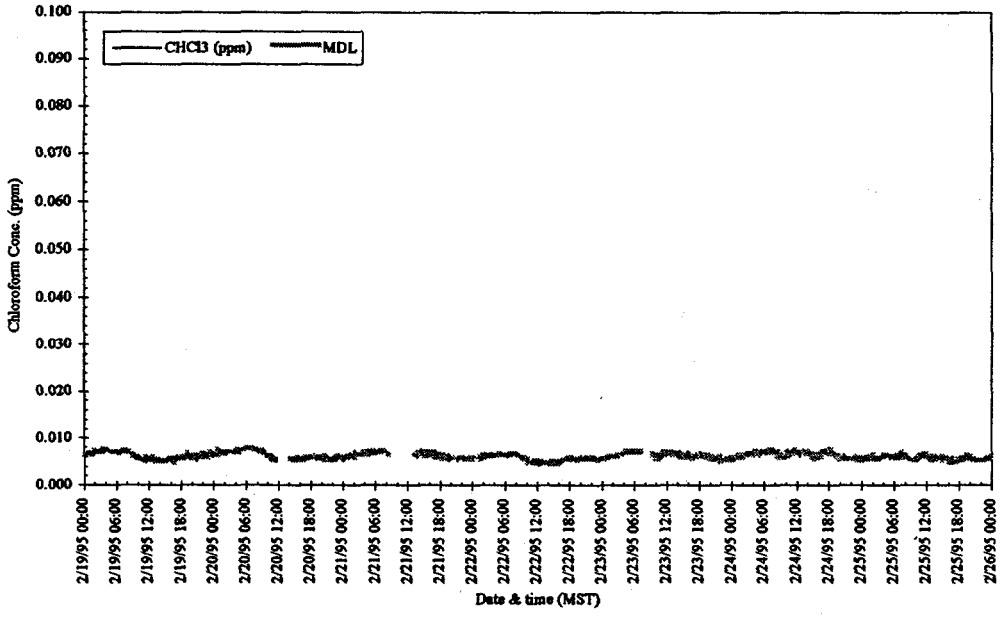

Figure B-44. Week 8, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.008, 0.004, and 0.006 ppm, respectively. Maximum, minimum, and average MDLs were 0.008, 0.004, and 0.006 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

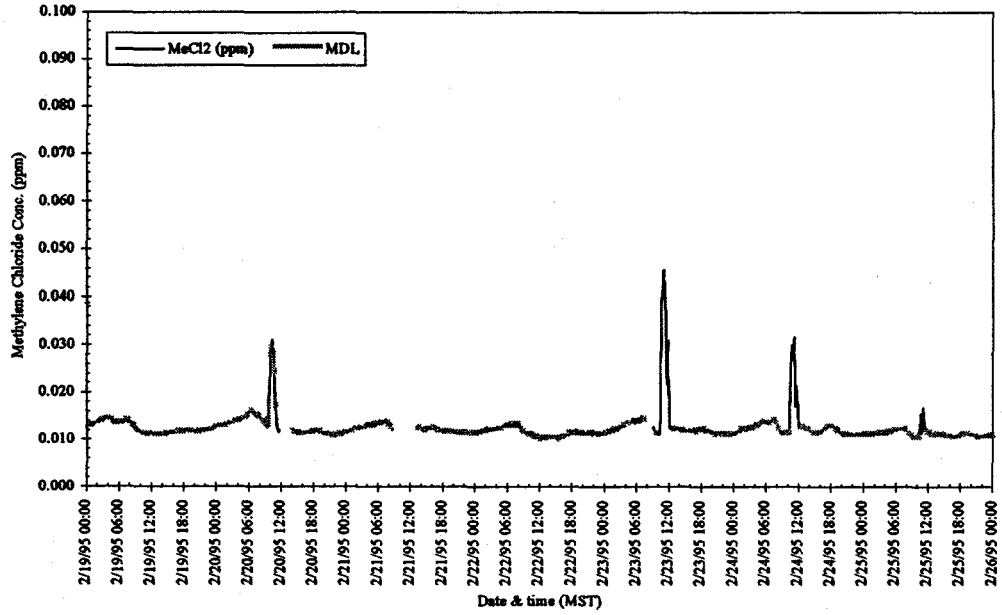

Figure B-45. Week 8, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.046, 0.010, and 0.013 ppm, respectively. Maximum, minimum, and average MDLs were 0.031, 0.010, and 0.012 ppm, respectively.

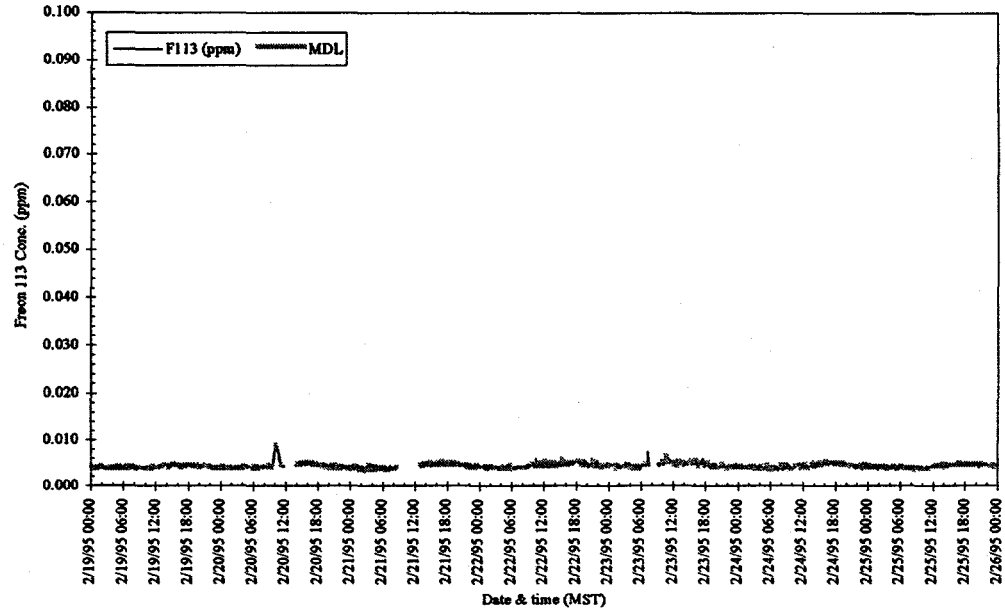

Figure B-46. Week 8, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.009, 0.003, and 0.004 ppm, respectively. Maximum, minimum, and average MDLs were 0.009, 0.003, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

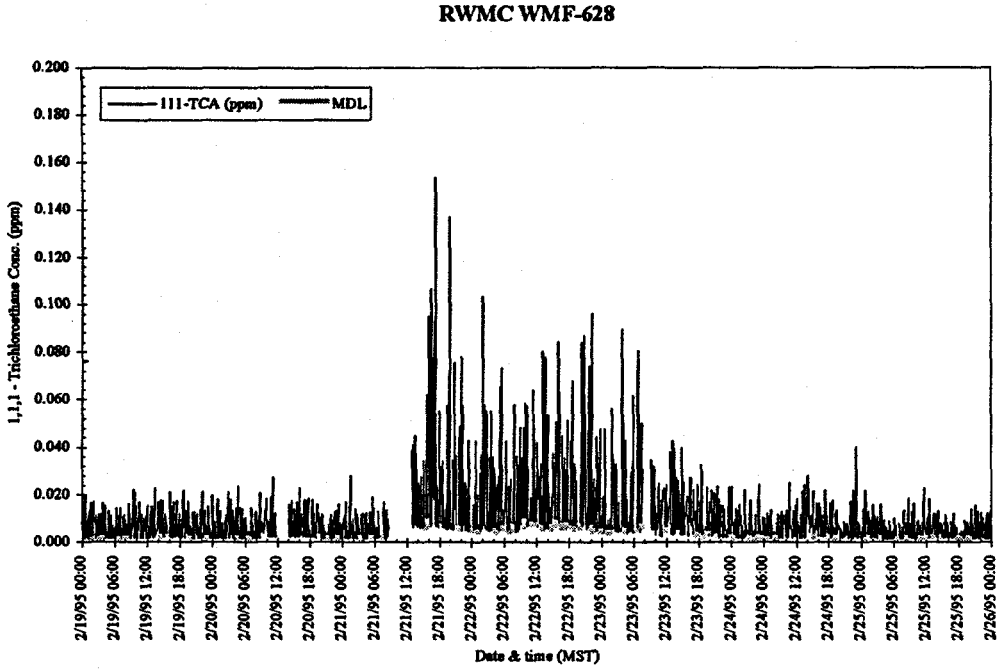

Figure B-47. Week 8, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.153, 0.001, and 0.010 ppm, respectively. Maximum, minimum, and average MDLs were 0.010, 0.001, and 0.003 ppm, respectively.

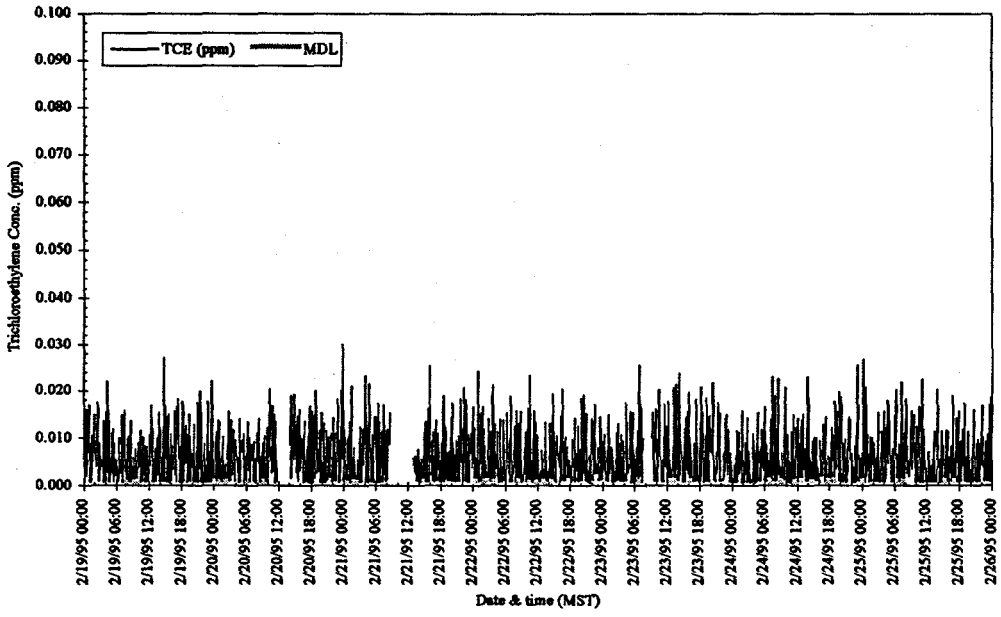

Figure B-48. Week 8, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0300, 0.0006, and 0.0059 ppm, respectively. Maximum, minimum, and average MDLs were 0.0020, 0.0006, and 0.0010 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

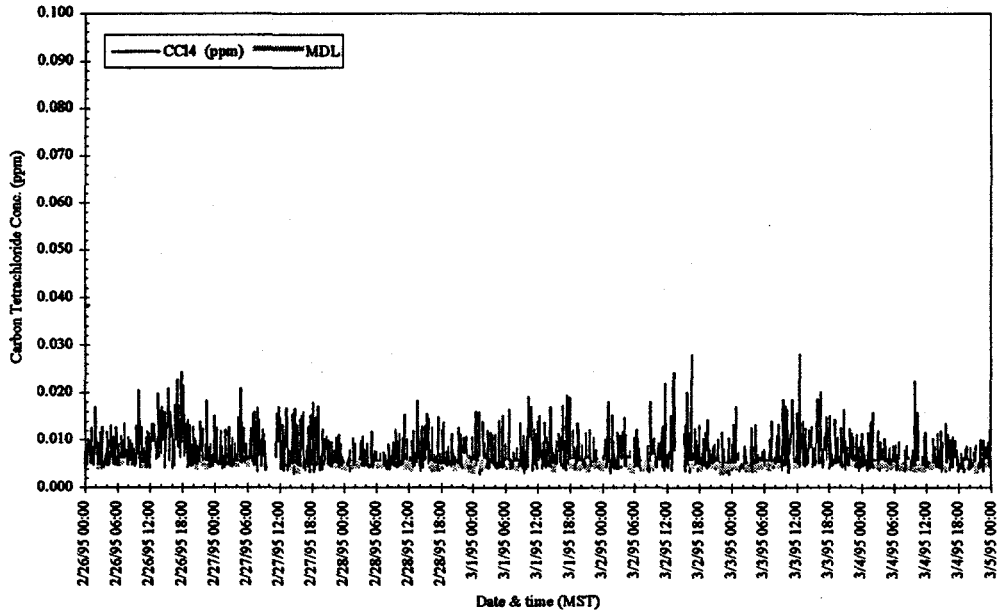

Figure B-49. Week 9, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.028, 0.003, and 0.007 ppm, respectively. Maximum, minimum, and average MDLs were 0.007, 0.003, and 0.005 ppm, respectively.

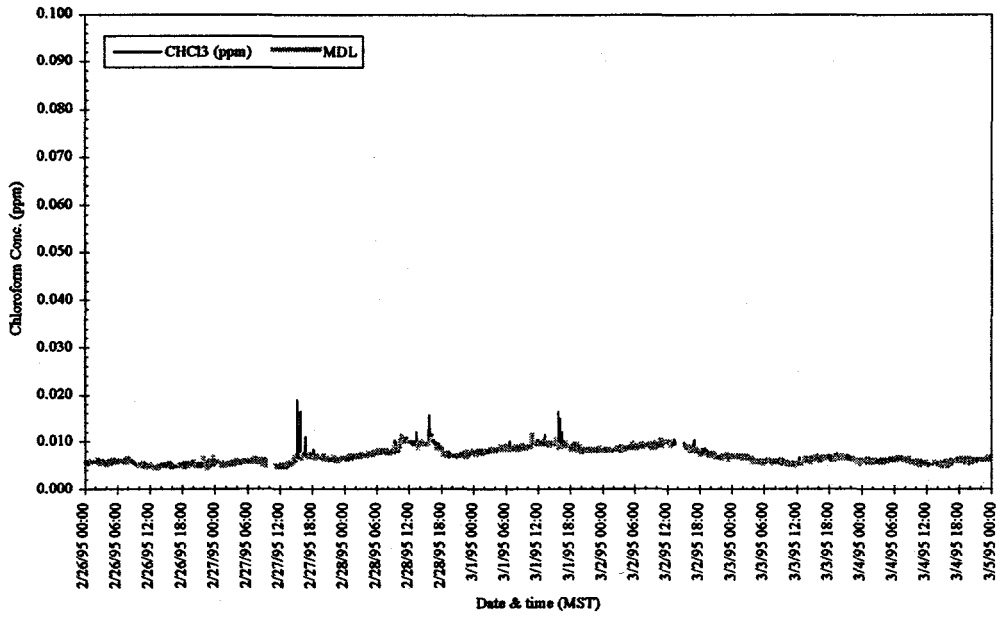

Figure B-50. Week 9, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.019, 0.004, and 0.007 ppm, respectively. Maximum, minimum, and average MDLs were 0.011, 0.004, and 0.007 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

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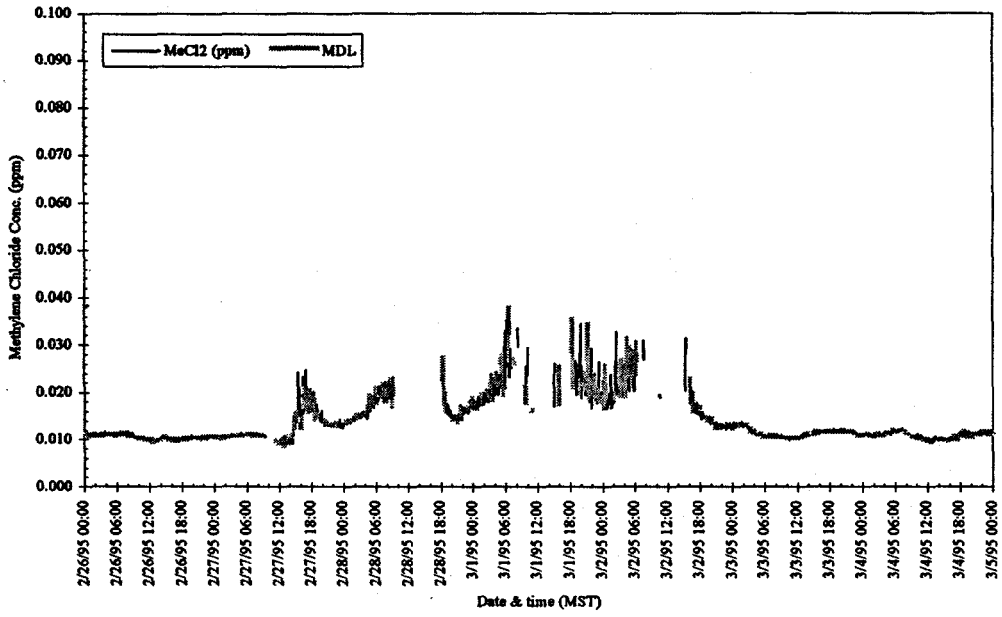

Figure B-51. Week 9, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.042, 0.009, and 0.012 ppm, respectively. Maximum, minimum, and average MDLs were 0.040, 0.009, and 0.014 ppm, respectively.

RWMC WMF-628

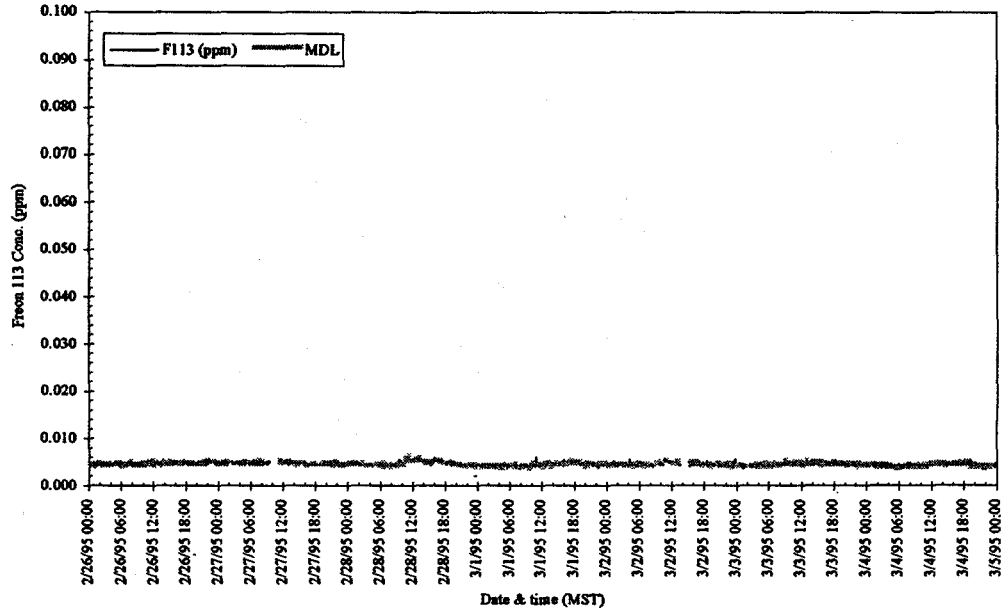

Figure B-52. Week 9, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.006, 0.004, and 0.005 ppm, respectively. Maximum, minimum, and average MDLs were 0.006, 0.004, and 0.005 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

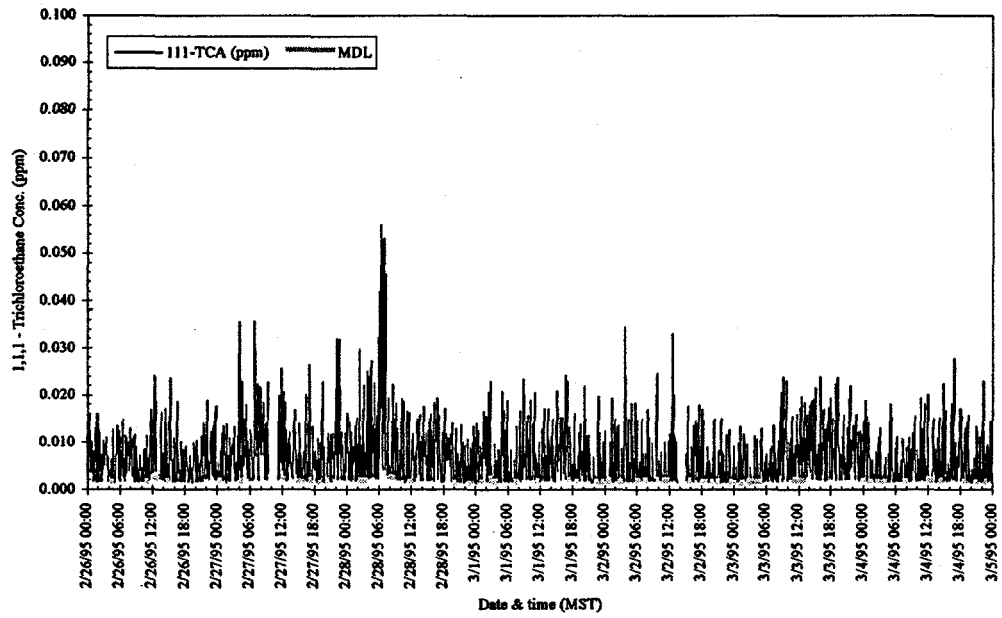

Figure B-53. Week 9, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.056, 0.001, and 0.006 ppm, respectively. Maximum, minimum, and average MDLs were 0.007, 0.001, and 0.002 ppm, respectively.

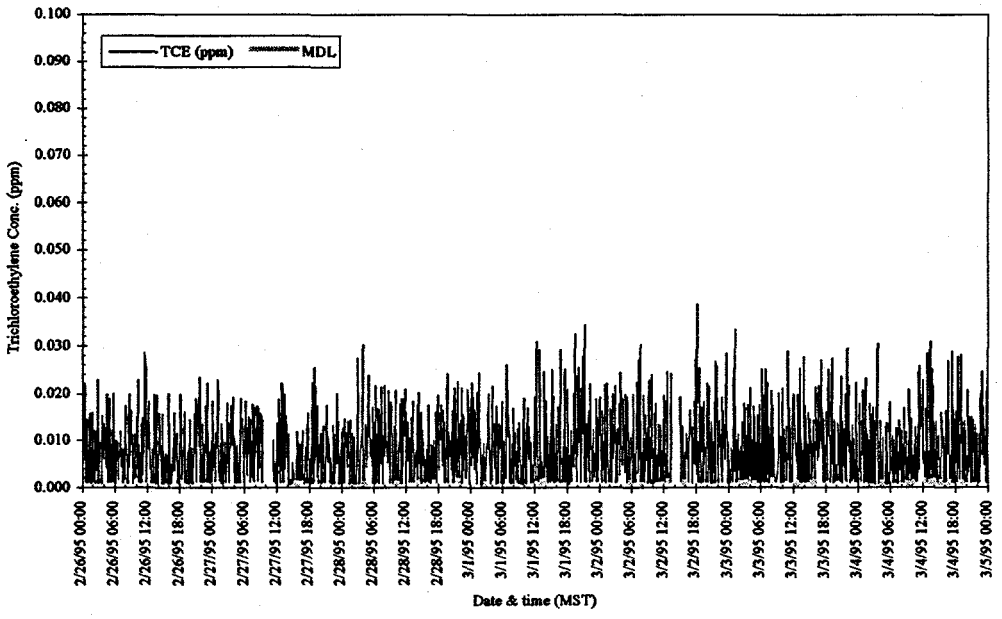

Figure B-54. Week 9, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0386, 0.0007, and 0.0080 ppm, respectively. Maximum, minimum, and average MDLs were 0.0016, 0.0007, and 0.0011 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

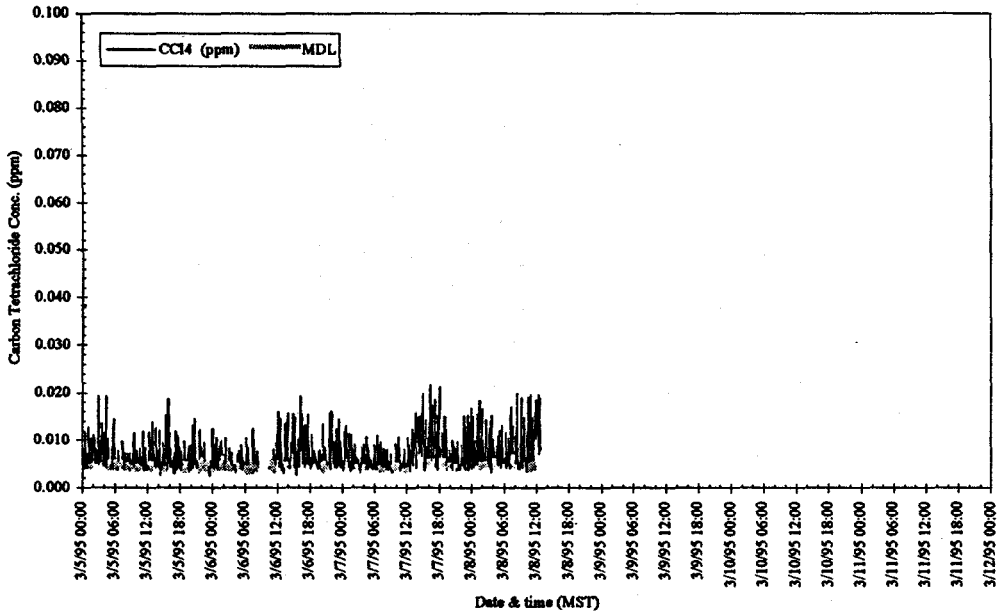

Figure B-55. Week 10, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.022, 0.003, and 0.007 ppm, respectively. Maximum, minimum, and average MDLs were 0.007, 0.003, and 0.005 ppm, respectively.

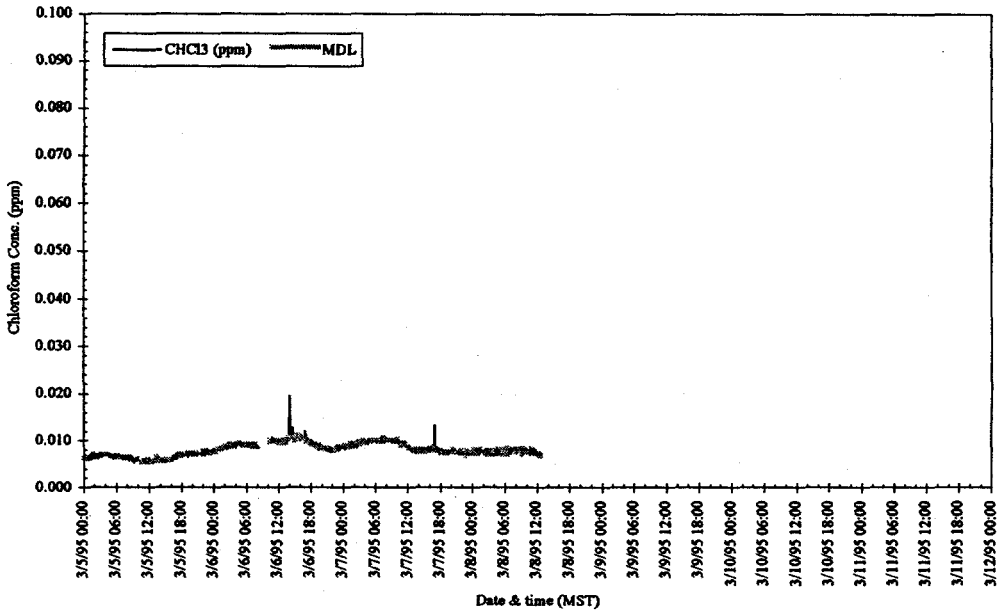

Figure B-56. Week 10, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.019, 0.005, and 0.008 ppm, respectively. Maximum, minimum, and average MDLs were 0.011, 0.005, and 0.008 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

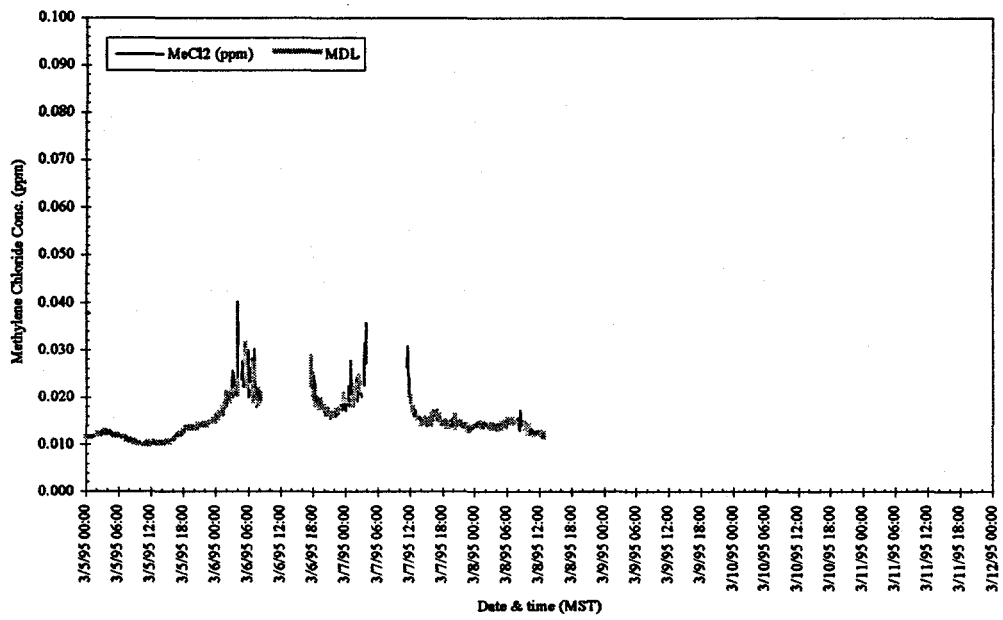

Figure B-57. Week 10, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.040, 0.010, and 0.012 ppm, respectively. Maximum, minimum, and average MDLs were 0.036, 0.010, and 0.015 ppm, respectively.

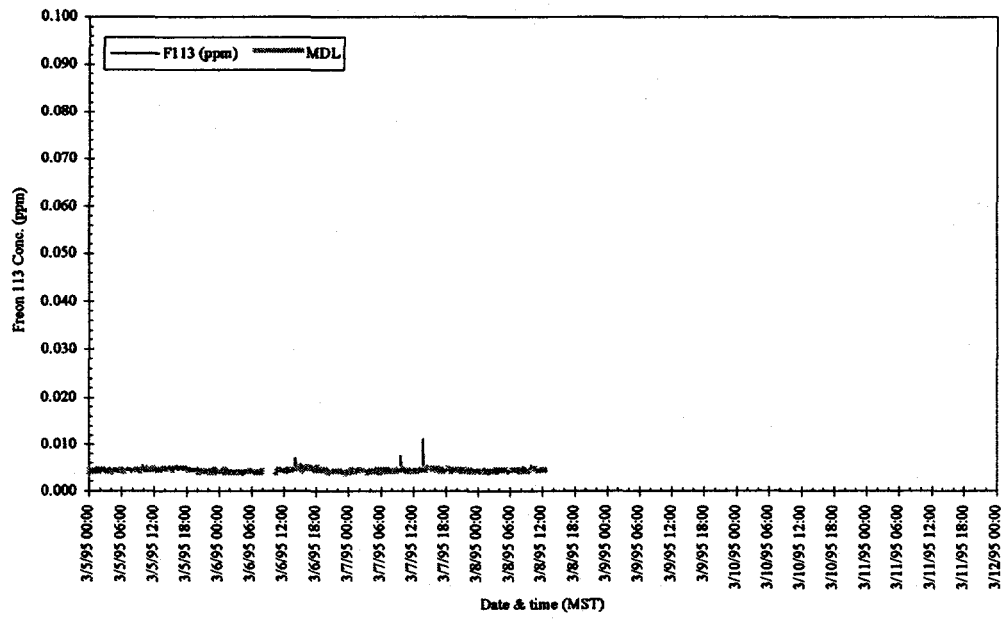

Figure B-58. Week 10, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.011, 0.003, and 0.004 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.004, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

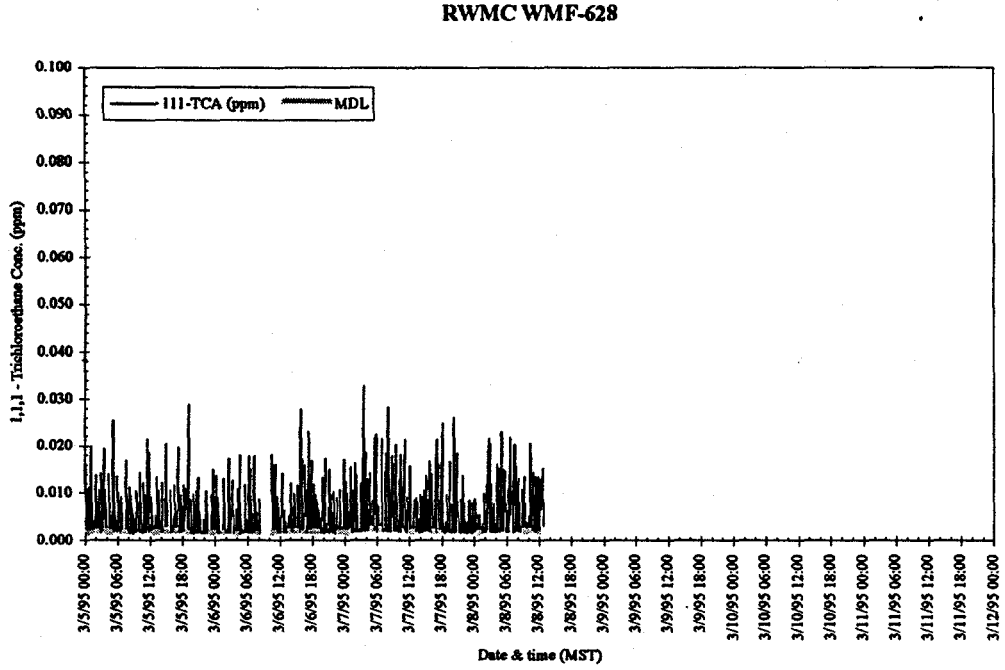

Figure B-59. Week 10, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.033, 0.001, and 0.005 ppm, respectively. Maximum, minimum, and average MDLs were 0.003, 0.001, and 0.002 ppm, respectively.

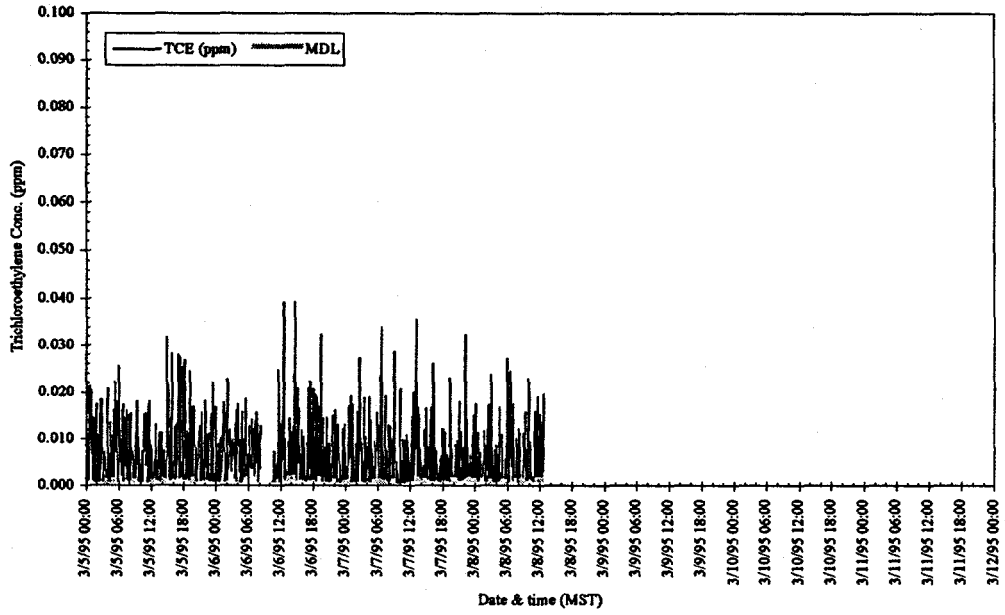

Figure B-60. Week 10, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0392, 0.0006, and 0.0063 ppm, respectively. Maximum, minimum, and average MDLs were 0.0020, 0.0006, and 0.0011 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

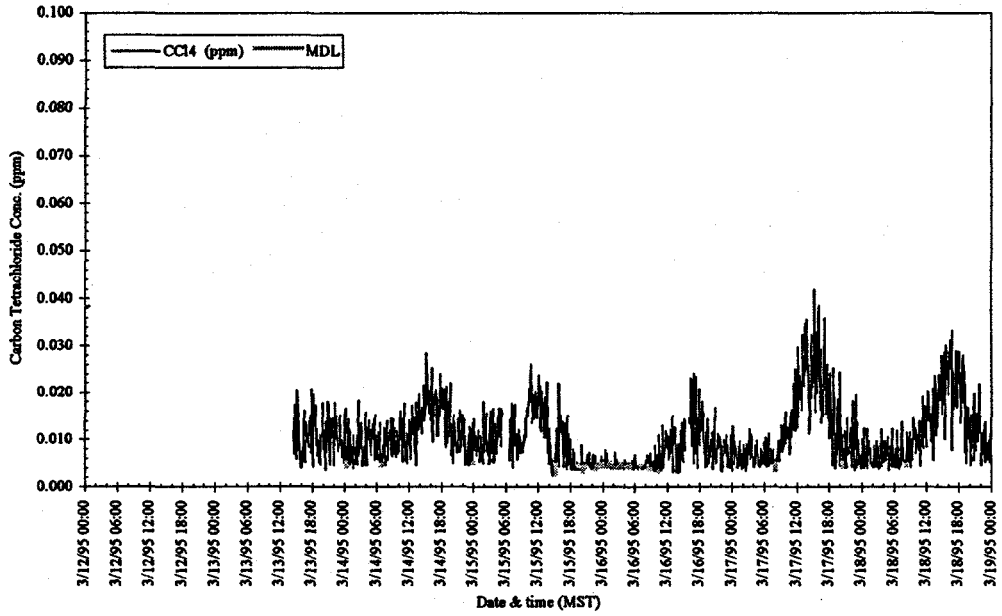

Figure B-61. Week 11, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.042, 0.002, and 0.010 ppm, respectively. Maximum, minimum, and average MDLs were 0.006, 0.002, and 0.004 ppm, respectively.

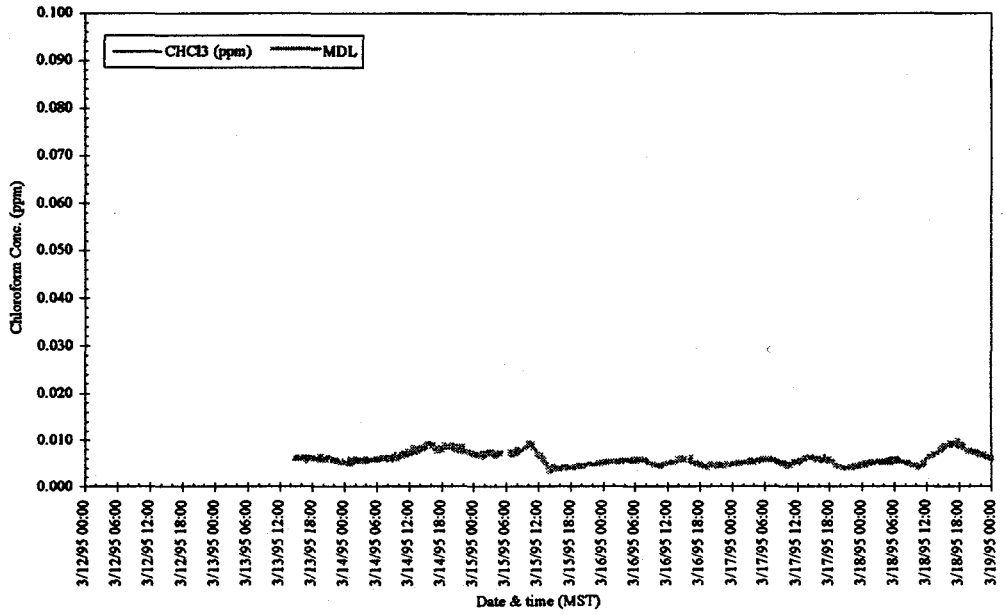

Figure B-62. Week 11, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.010, 0.003, and 0.006 ppm, respectively. Maximum, minimum, and average MDLs were 0.010, 0.003, and 0.006 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

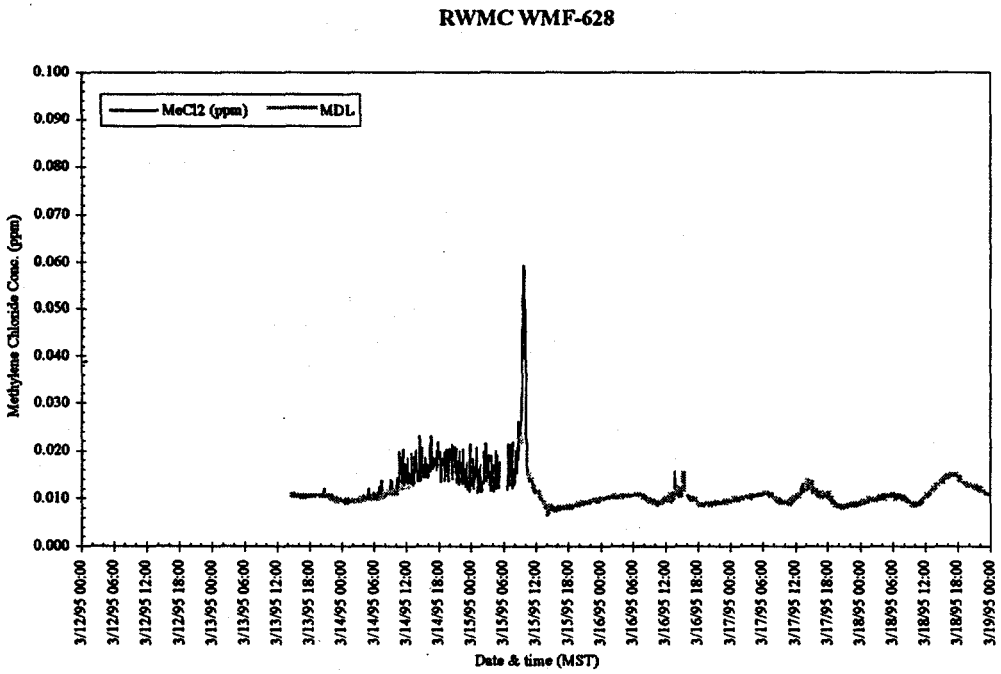

Figure B-63. Week 11, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.059, 0.006, and 0.012 ppm, respectively. Maximum, minimum, and average MDLs were 0.023, 0.007, and 0.010 ppm, respectively.

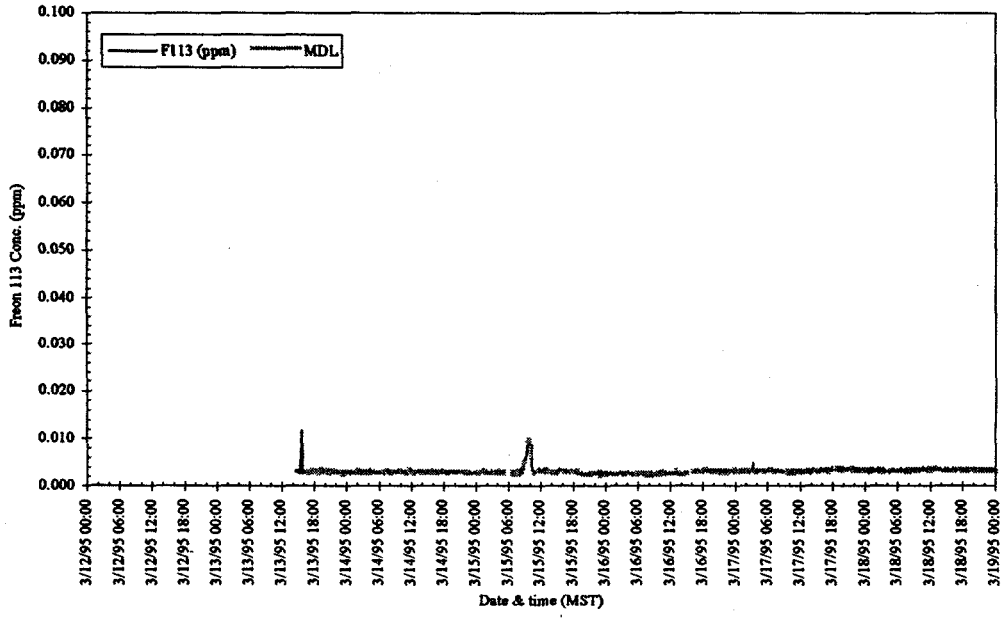

Figure B-64. Week 11, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.012, 0.002, and 0.003 ppm, respectively. Maximum, minimum, and average MDLs were 0.010, 0.002, and 0.003 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

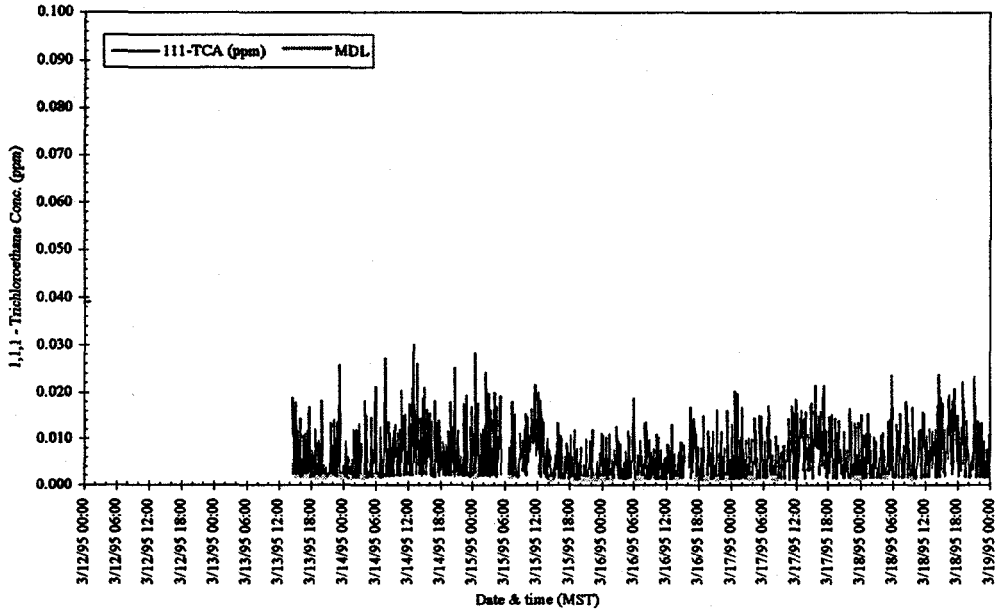

Figure B-65. Week 11, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.030, 0.001, and 0.006 ppm, respectively. Maximum, minimum, and average MDLs were 0.002, 0.001, and 0.002 ppm, respectively.

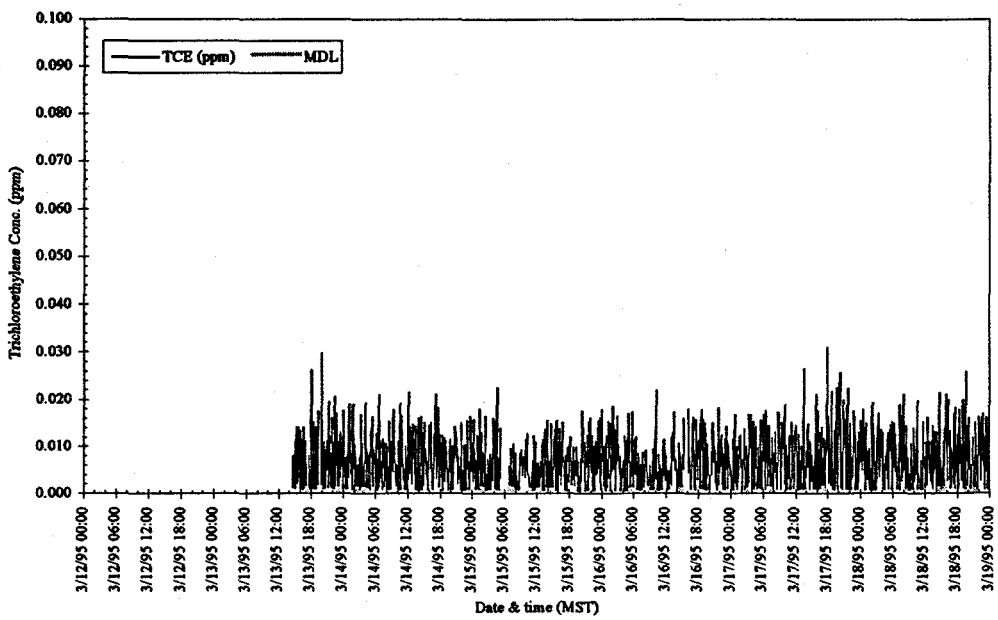

Figure B-66. Week 11, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0308, 0.0006, and 0.0067 ppm, respectively. Maximum, minimum, and average MDLs were 0.0013, 0.0006, and 0.0009 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

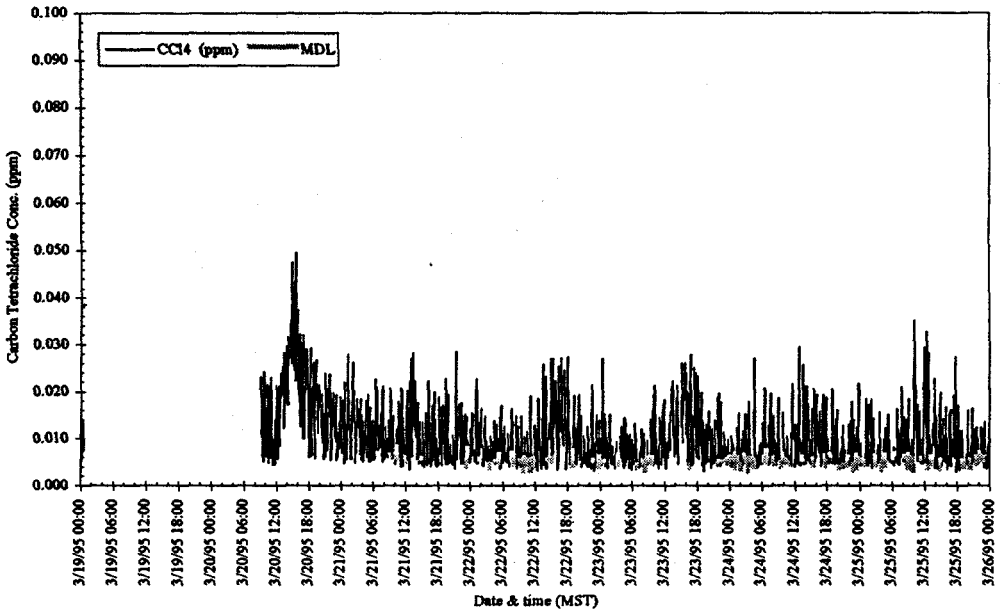

Figure B-67. Week 12, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.049, 0.003, and 0.010 ppm, respectively. Maximum, minimum, and average MDLs were 0.008, 0.003, and 0.010 ppm, respectively.

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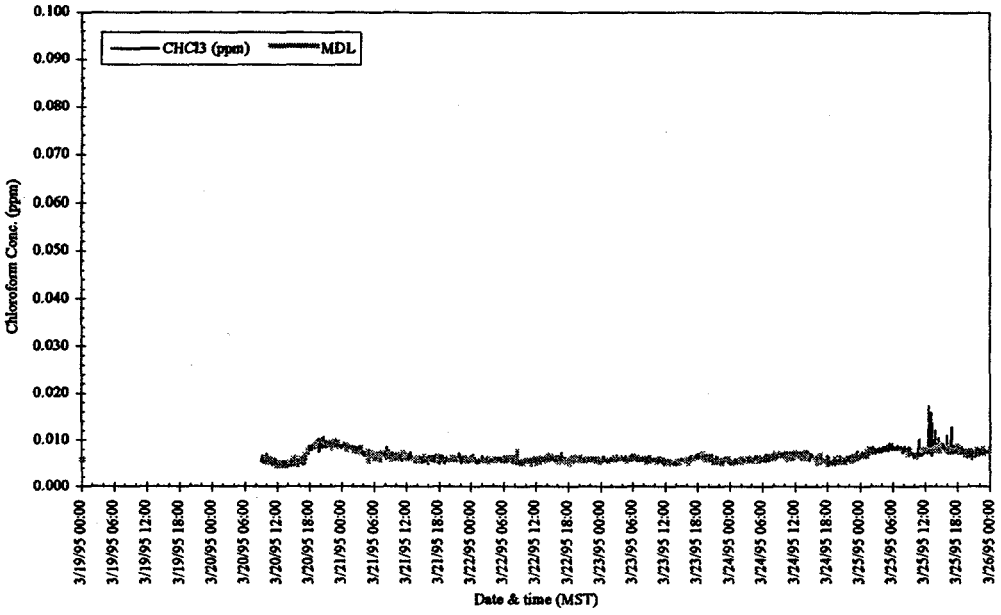

Figure B-68. Week 12, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.017, 0.004, and 0.006 ppm, respectively. Maximum, minimum, and average MDLs were 0.010, 0.004, and 0.006 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

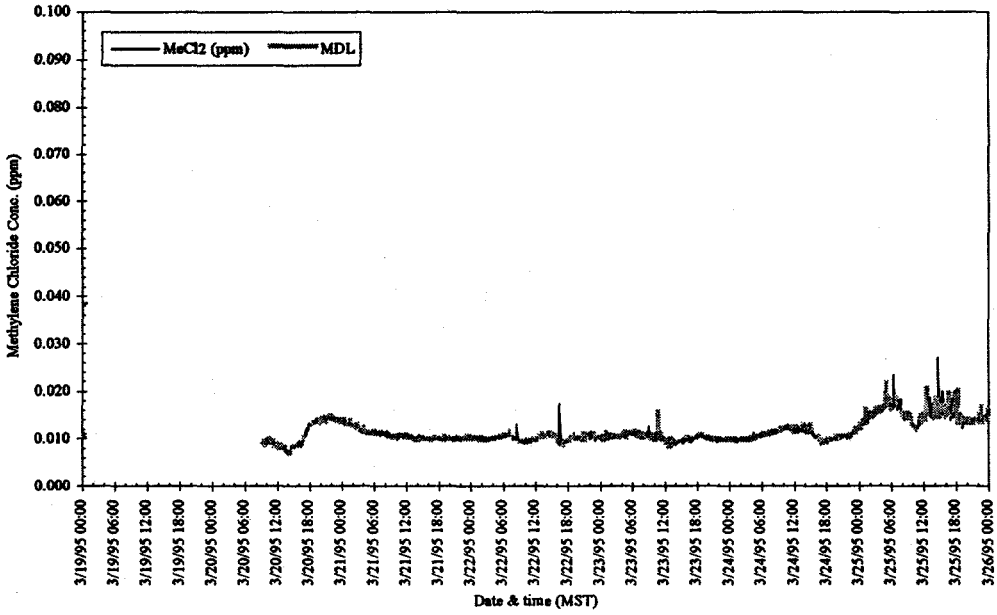

Figure B-69. Week 12, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.027, 0.007, and 0.011 ppm, respectively. Maximum, minimum, and average MDLs were 0.022, 0.007, and 0.011 ppm, respectively.

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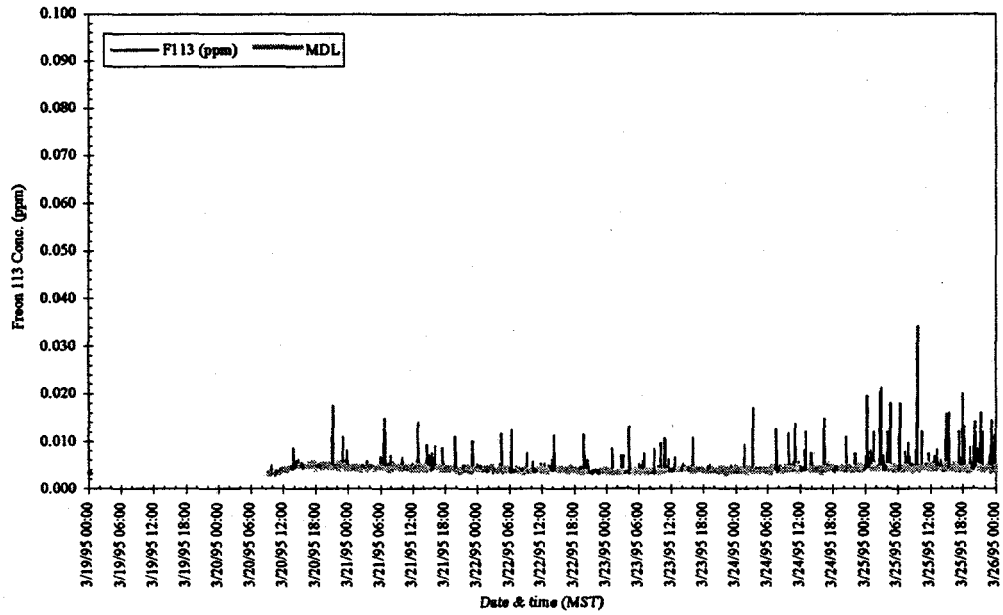

Figure B-70. Week 12, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.034, 0.003, and 0.004 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.003, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

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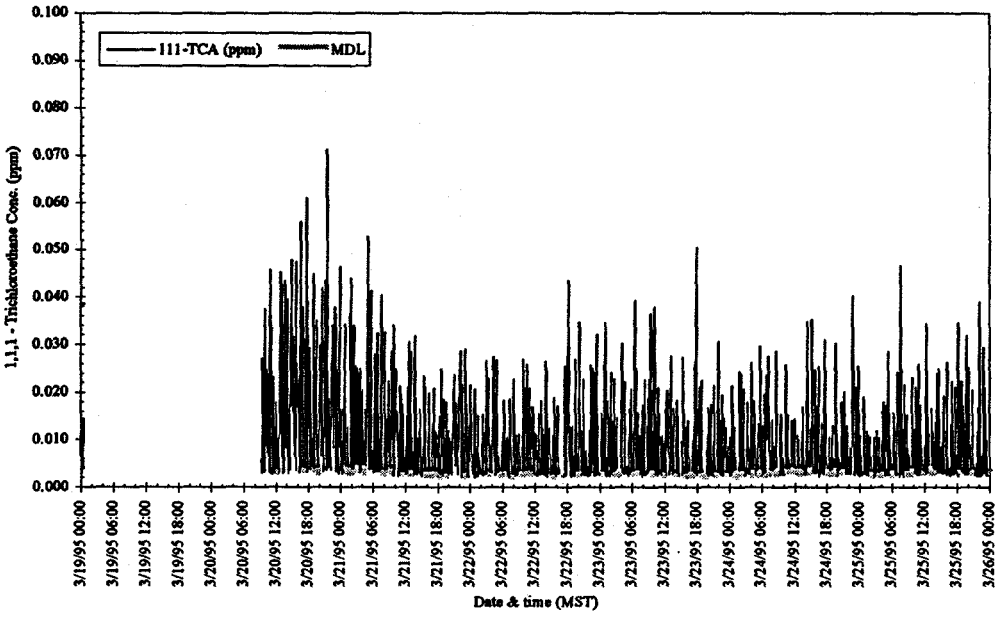

Figure B-71. Week 12, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.071, 0.002, and 0.009 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.002, and 0.003 ppm, respectively.

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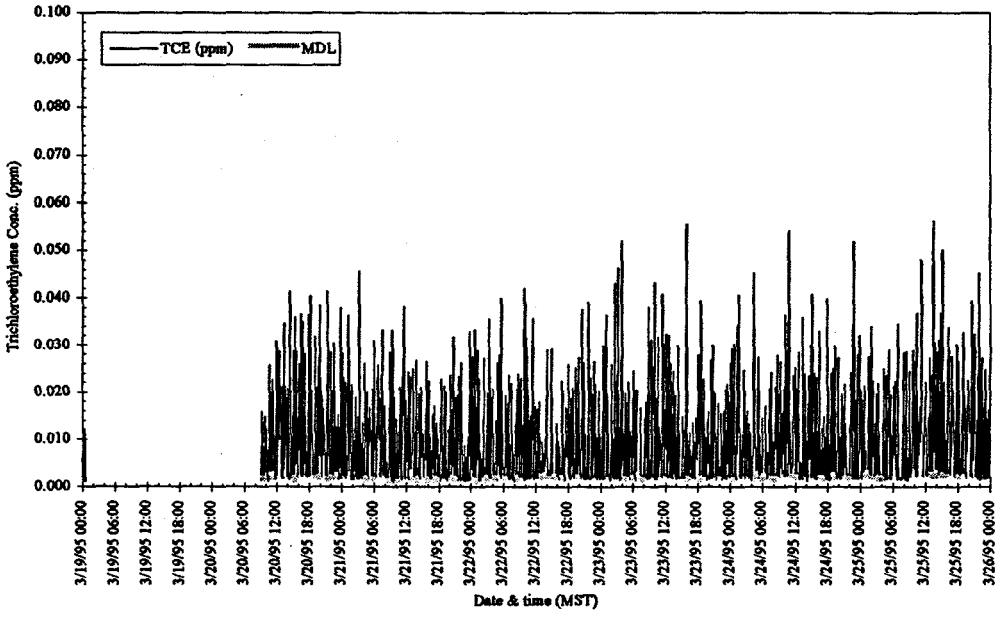

Figure B-72. Week 12, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0562, 0.0010, and 0.0096 ppm, respectively. Maximum, minimum, and average MDLs were 0.0034, 0.0011 and 0.0019 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

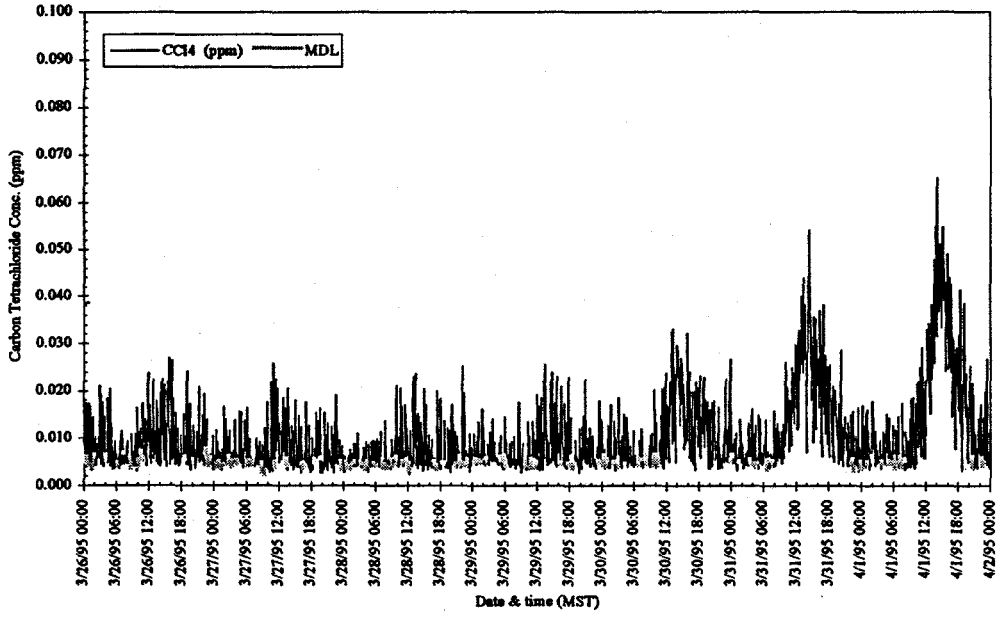

Figure B-73. Week 13, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.065, 0.002, and 0.010 ppm, respectively. Maximum, minimum, and average MDLs were 0.008, 0.002, and 0.005 ppm, respectively.

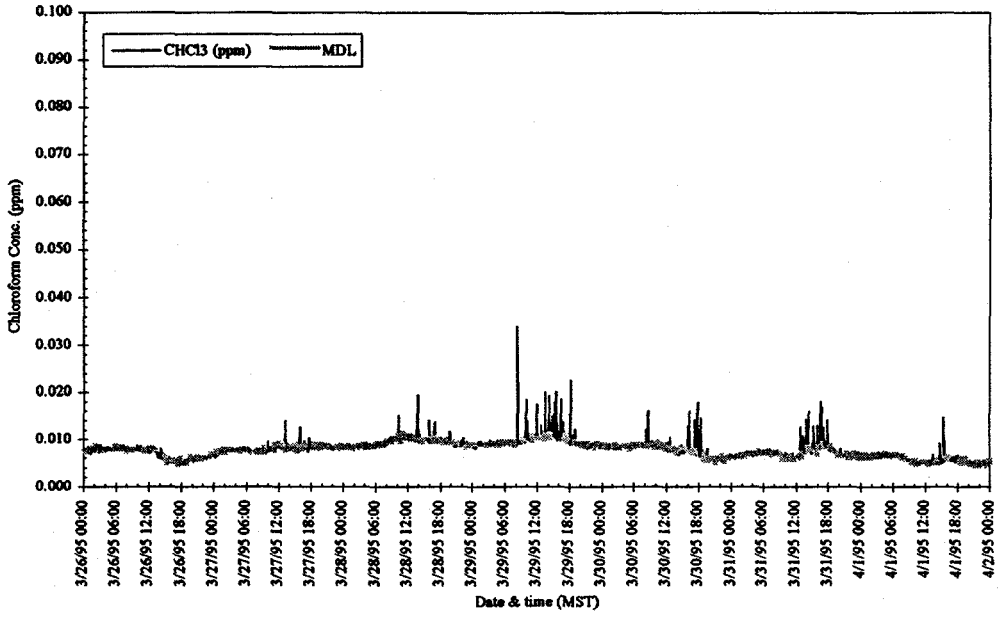

Figure B-74. Week 13, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.034, 0.004, and 0.008 ppm, respectively. Maximum, minimum, and average MDLs were 0.012, 0.004, and 0.008 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

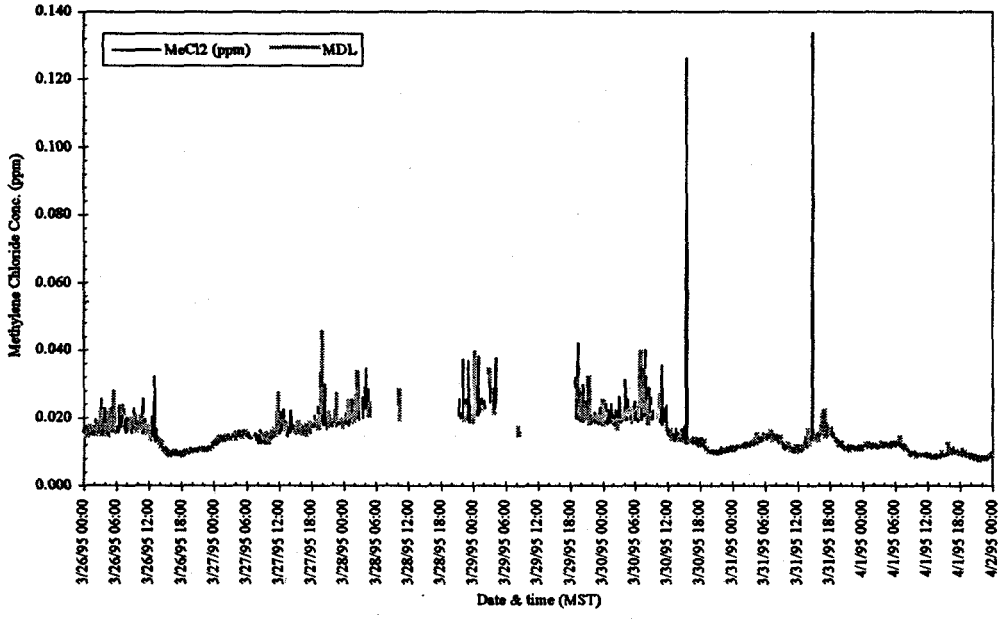

Figure B-75. Week 13, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.134, 0.008, and 0.012 ppm, respectively. Maximum, minimum, and average MDLs were 0.045, 0.008, and 0.015 ppm, respectively.

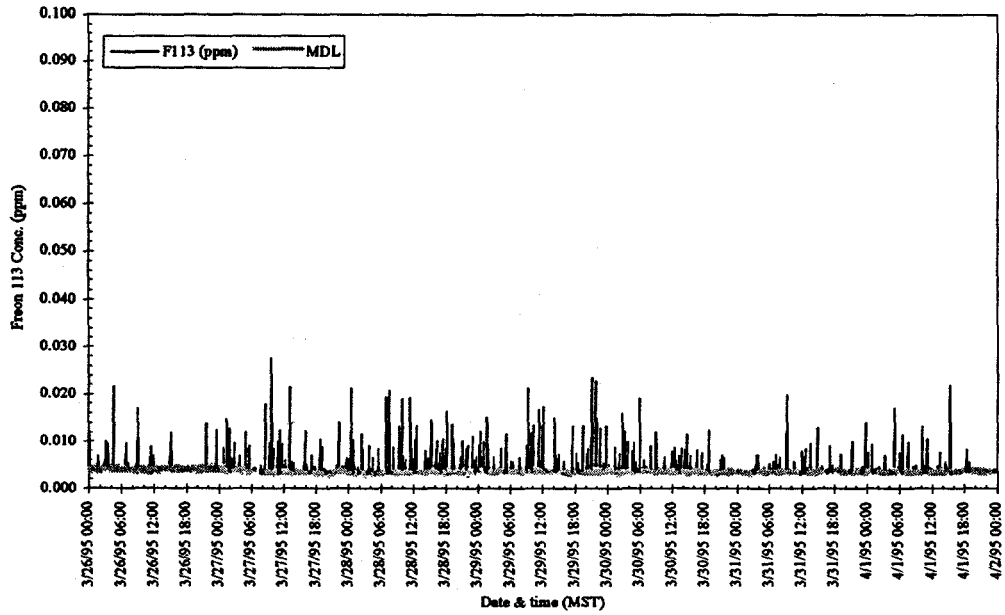

Figure B-76. Week 13, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.027, 0.003, and 0.004 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.003, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

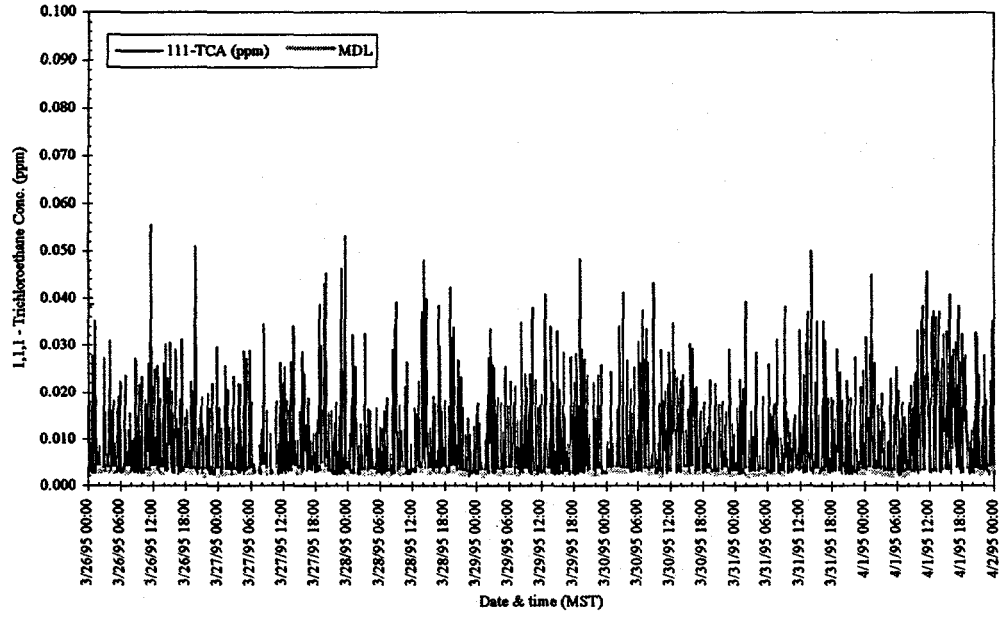

Figure B-77. Week 13, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.055, 0.002, and 0.009 ppm, respectively. Maximum, minimum, and average MDLs were 0.004, 0.002, and 0.003 ppm, respectively.

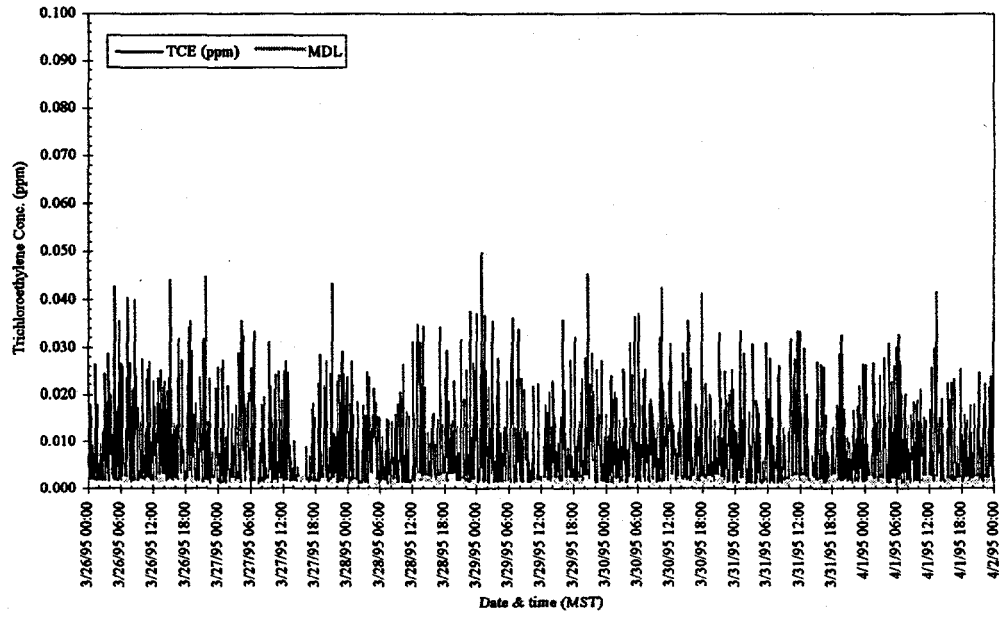

Figure B-78. Week 13, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0498, 0.0009, and 0.0084 ppm, respectively. Maximum, minimum, and average MDLs were 0.0031, 0.0010, and 0.0017 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

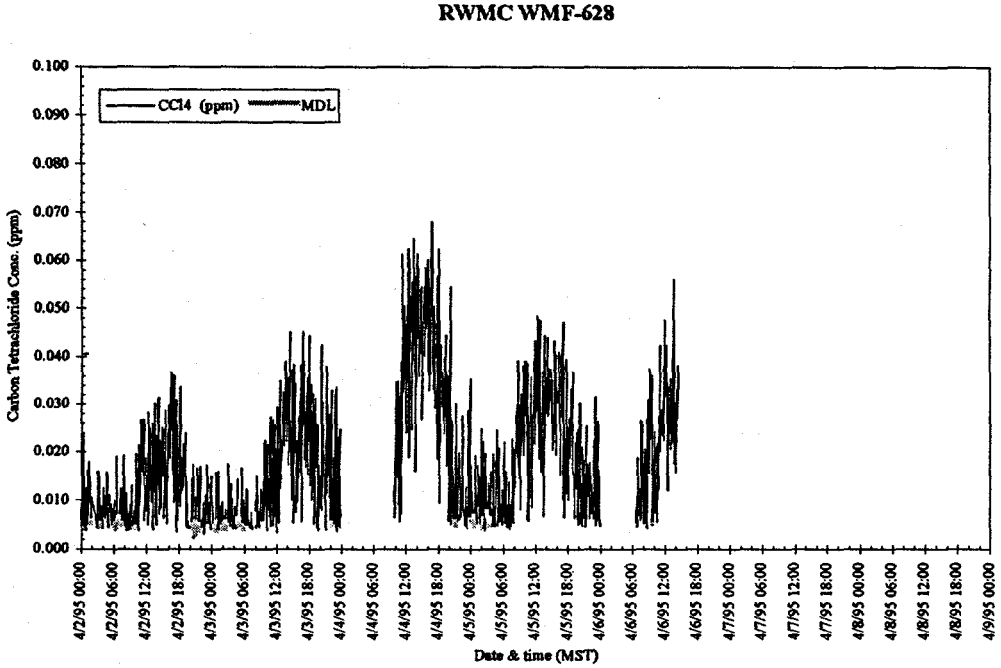

Figure B-79. Week 14, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.068, 0.002, and 0.018 ppm, respectively. Maximum, minimum, and average MDLs were 0.008, 0.003, and 0.005 ppm, respectively.

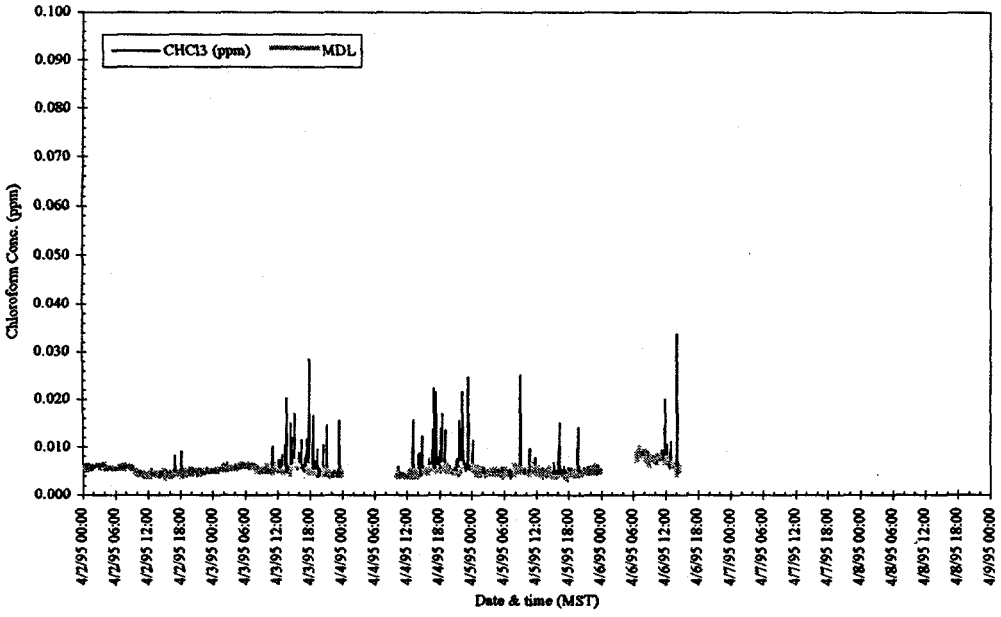

Figure B-80. Week 14, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.034, 0.003, and 0.006 ppm, respectively. Maximum, minimum, and average MDLs were 0.010, 0.003, and 0.005 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

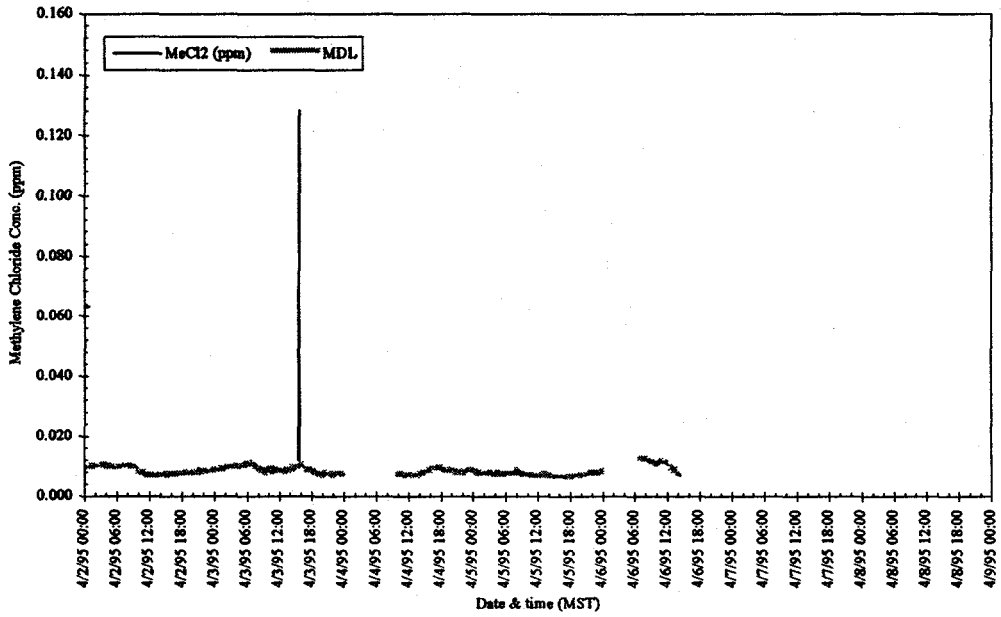

Figure B-81. Week 14, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.128, 0.006, and 0.009 ppm, respectively. Maximum, minimum, and average MDLs were 0.013, 0.006, and 0.009 ppm, respectively.

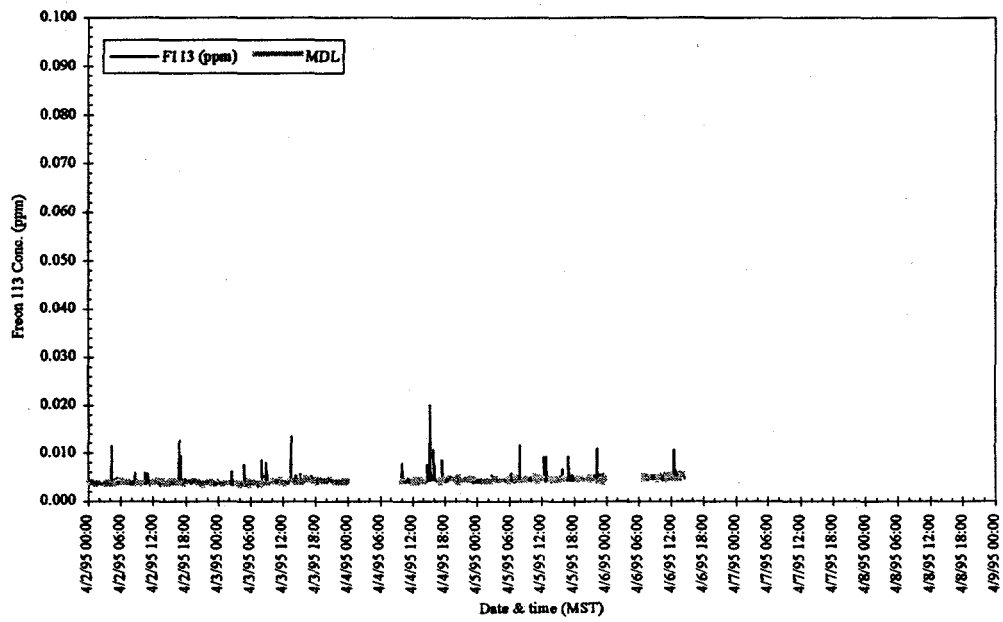

Figure B-82. Week 14, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.020, 0.003, and 0.004 ppm, respectively. Maximum, minimum, and average MDLs were 0.006, 0.003, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

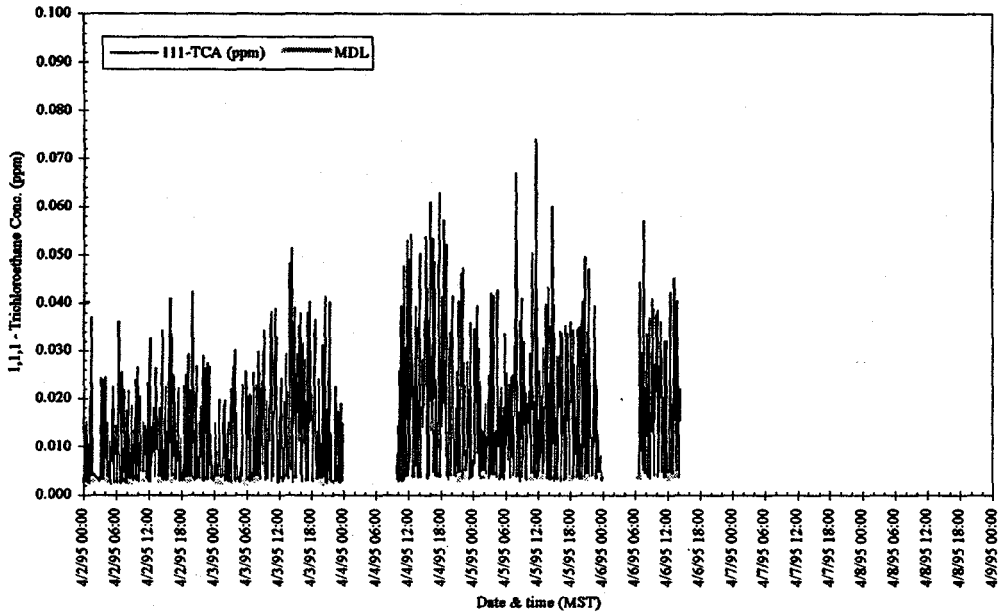

Figure B-83. Week 14, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.074, 0.002, and 0.014 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.002, and 0.003 ppm, respectively.

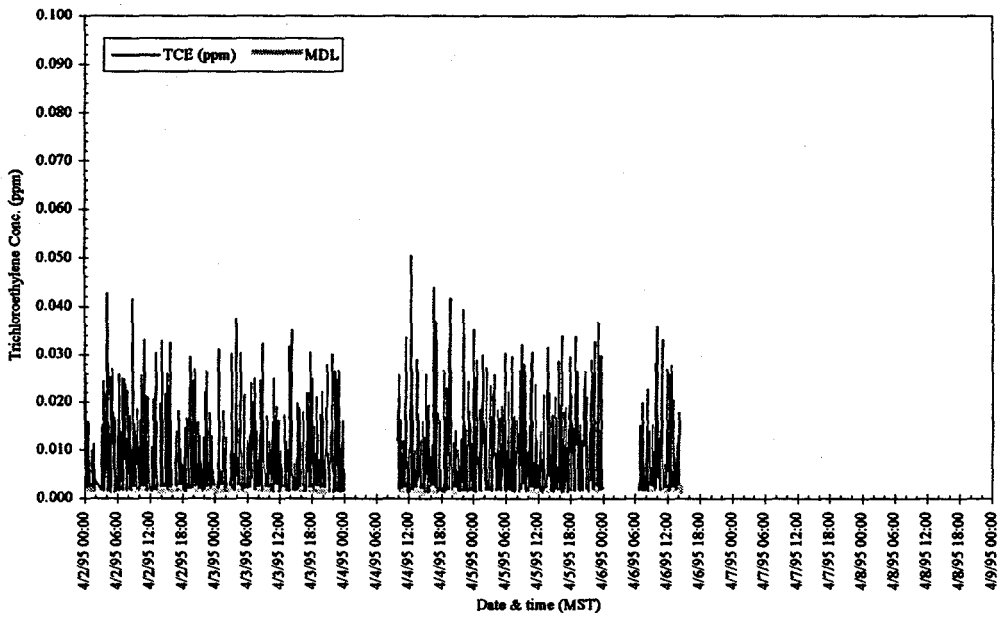

Figure B-84. Week 14, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0504, 0.0010, and 0.0084 ppm, respectively. Maximum, minimum, and average MDLs were 0.0029, 0.0011, and 0.0017 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

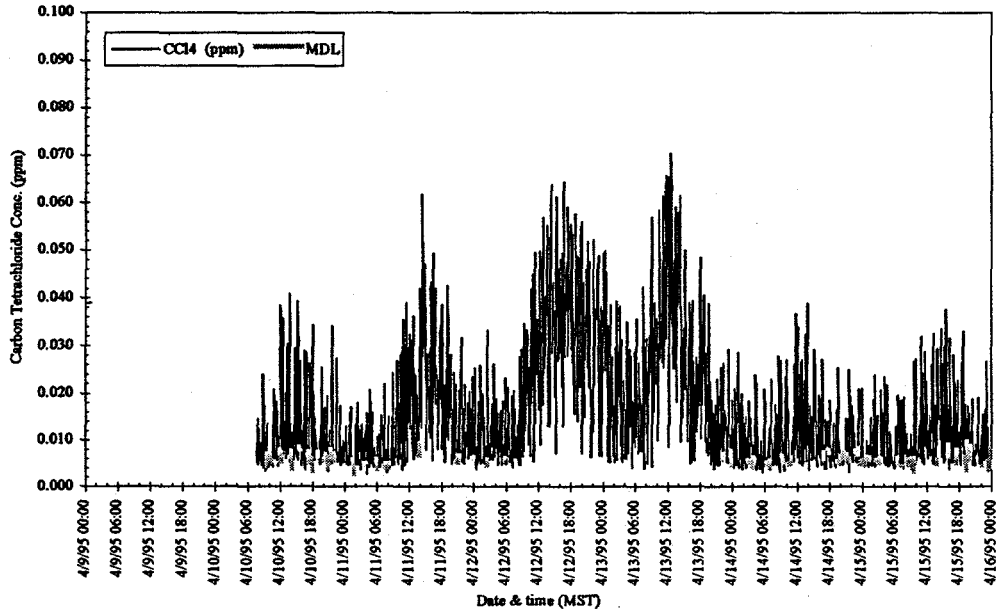

Figure B-85. Week 15, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.070, 0.003, and 0.016 ppm, respectively. Maximum, minimum, and average MDLs were 0.011, 0.003, and 0.006 ppm, respectively.

RWMC WMF-628

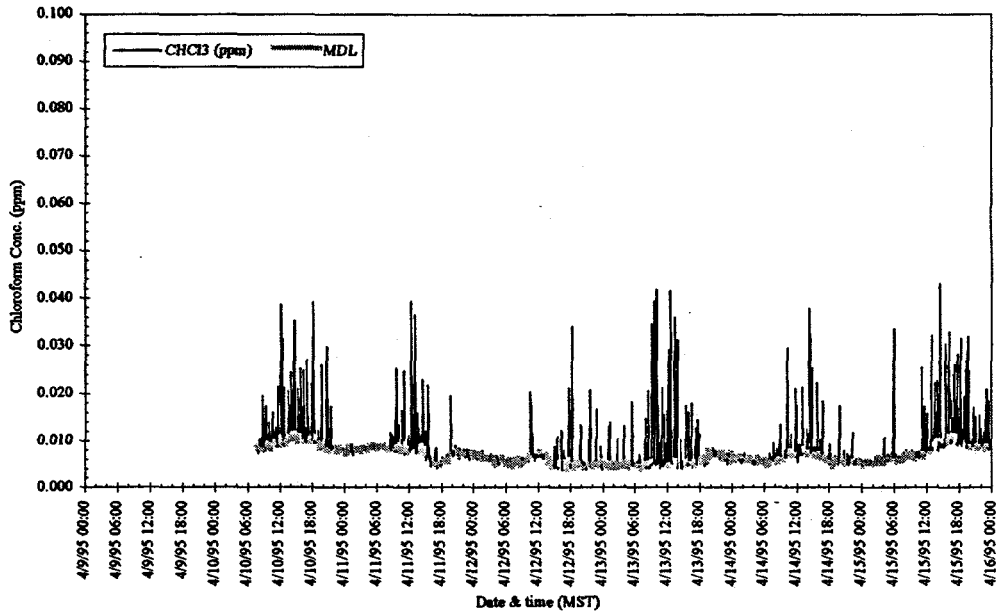

Figure B-86. Week 15, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.043, 0.004, and 0.008 ppm, respectively. Maximum, minimum, and average MDLs were 0.011, 0.004, and 0.007 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

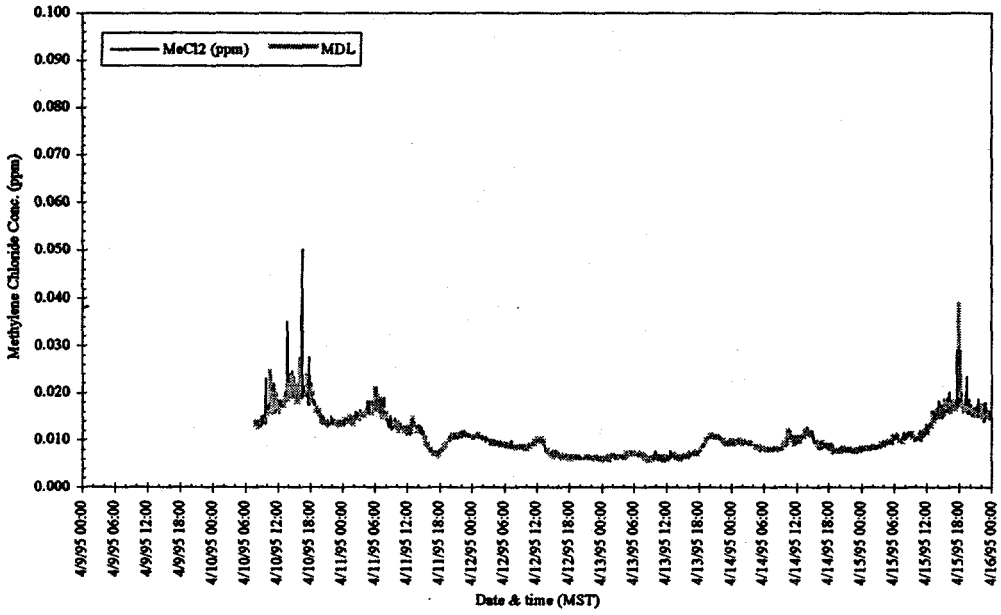

Figure B-87. Week 15, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.050, 0.005, and 0.011 ppm, respectively. Maximum, minimum, and average MDLs were 0.050, 0.006, and 0.011 ppm, respectively.

RWMC WMF-628

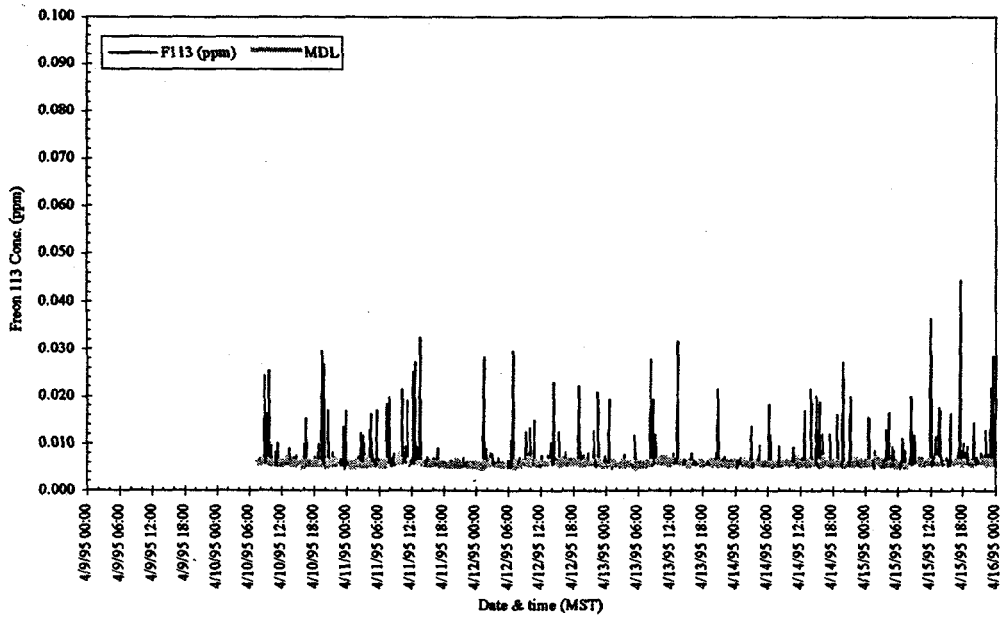

Figure B-88. Week 15, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.044, 0.004, and 0.007 ppm, respectively. Maximum, minimum, and average MDLs were 0.008, 0.004, and 0.006 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

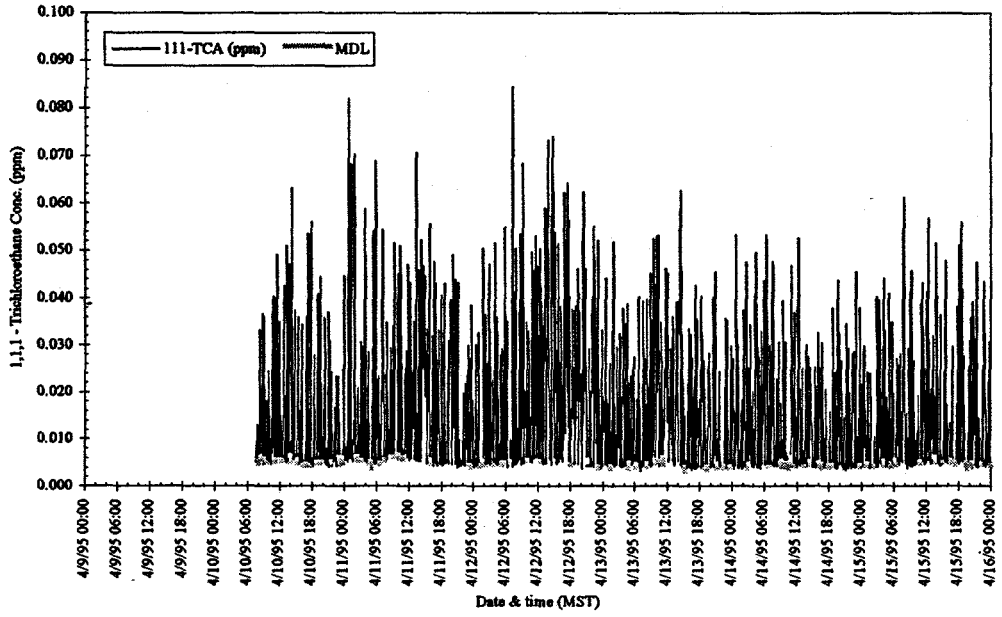

Figure B-89. Week 15, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.084, 0.003, and 0.015 ppm, respectively. Maximum, minimum, and average MDLs were 0.007, 0.003, and 0.005 ppm, respectively.

RWMC WMF-628

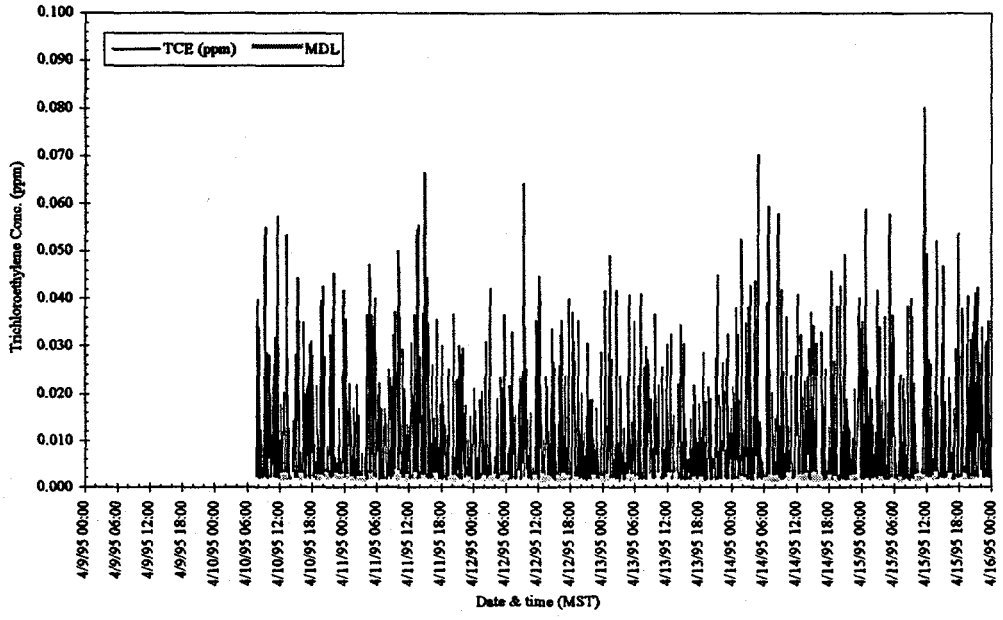

Figure B-90. Week 15, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0801, 0.0013, and 0.0098 ppm, respectively. Maximum, minimum, and average MDLs were 0.0032, 0.0014, and 0.0020 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

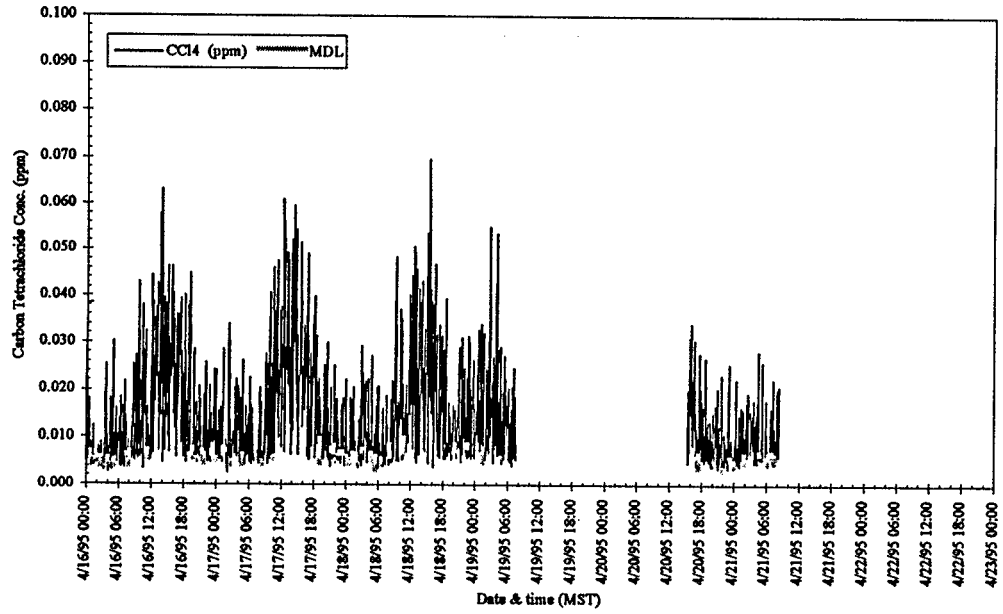

Figure B-91. Week 16, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.070, 0.003, and 0.014 ppm, respectively. Maximum, minimum, and average MDLs were 0.012, 0.003, and 0.006 ppm, respectively.

RWMC WMF-628

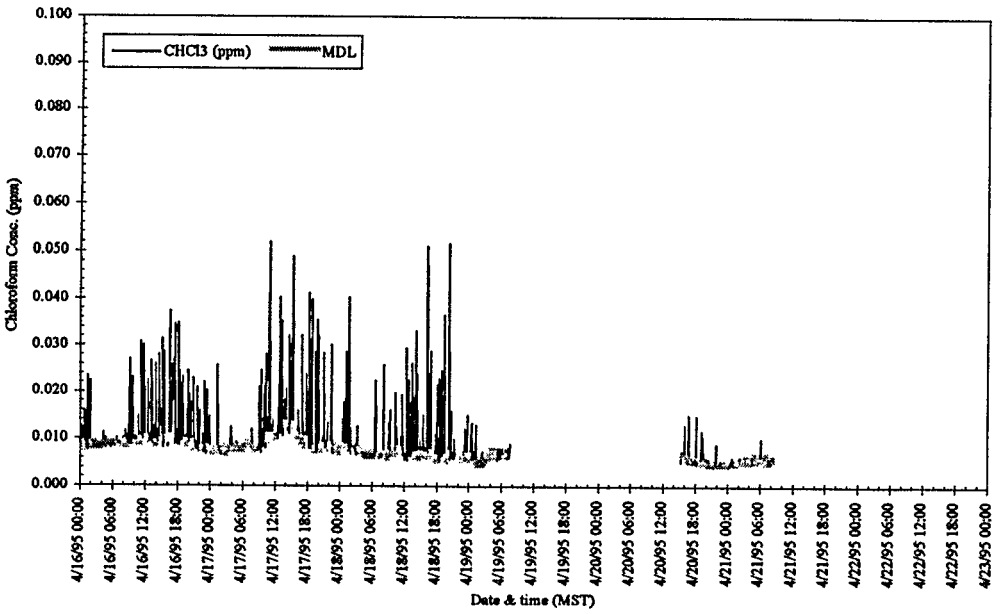

Figure B-92. Week 16, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.052, 0.004, and 0.009 ppm, respectively. Maximum, minimum, and average MDLs were 0.013, 0.004, and 0.008 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

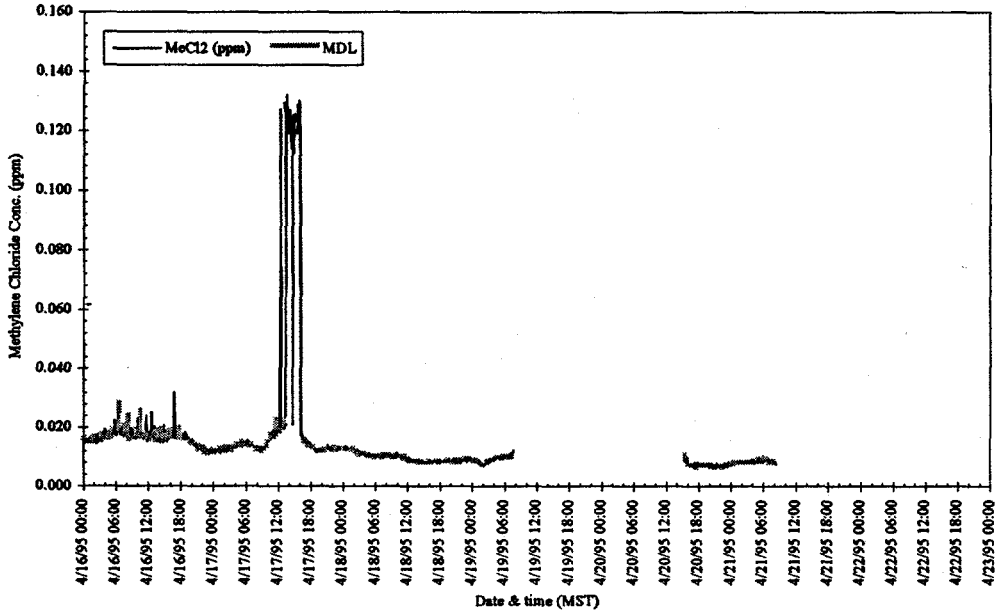

Figure B-93. Week 16, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.132, 0.006, and 0.015 ppm, respectively. Maximum, minimum, and average MDLs were 0.029, 0.006, and 0.012 ppm, respectively.

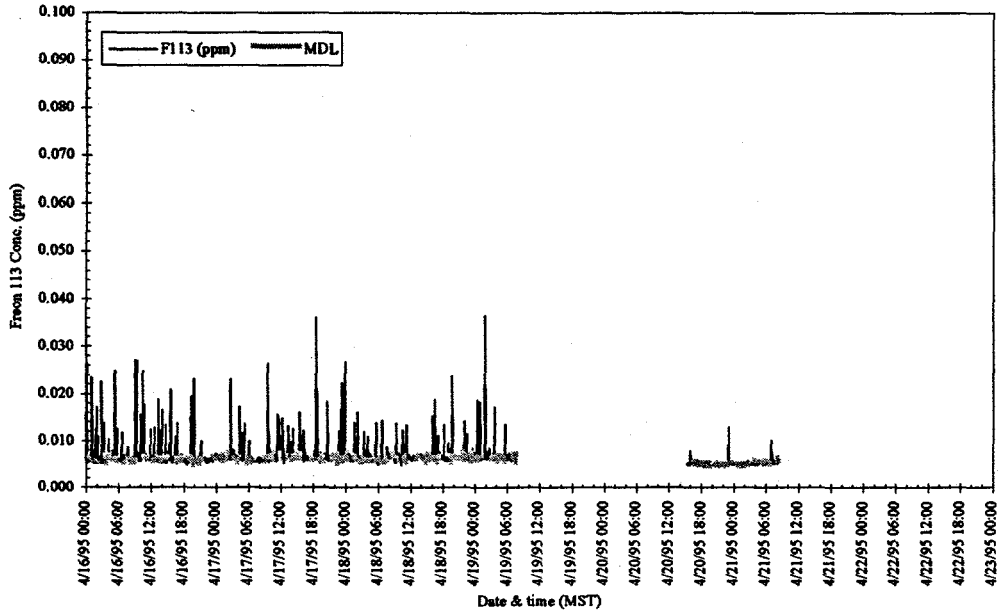

Figure B-94. Week 16, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.037, 0.004, and 0.007 ppm, respectively. Maximum, minimum, and average MDLs were 0.008, 0.004, and 0.006 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

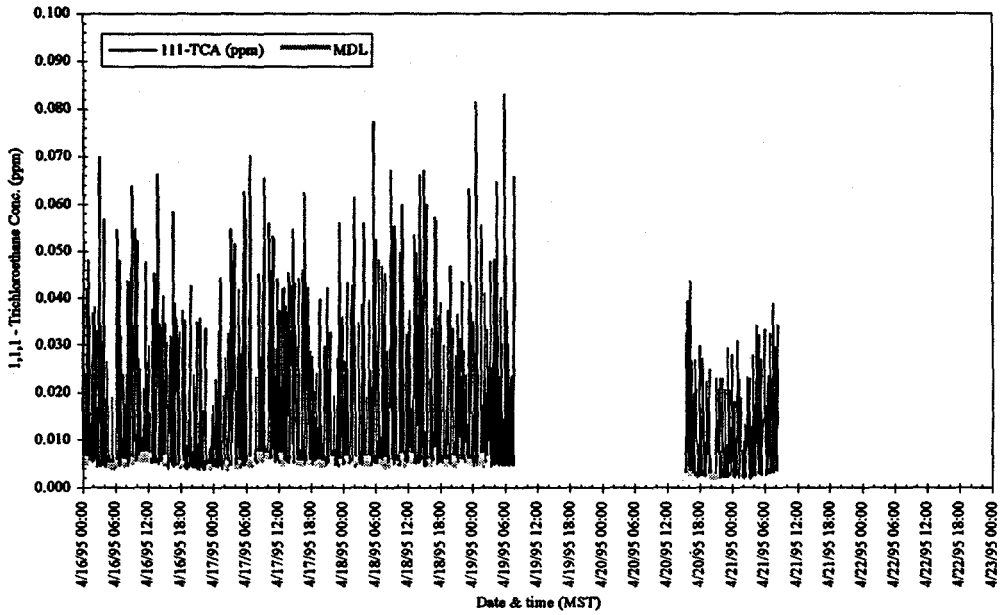

Figure B-95. Week 16, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.083, 0.002, and 0.015 ppm, respectively. Maximum, minimum, and average MDLs were 0.008, 0.002, and 0.005 ppm, respectively.

RWMC WMF-628

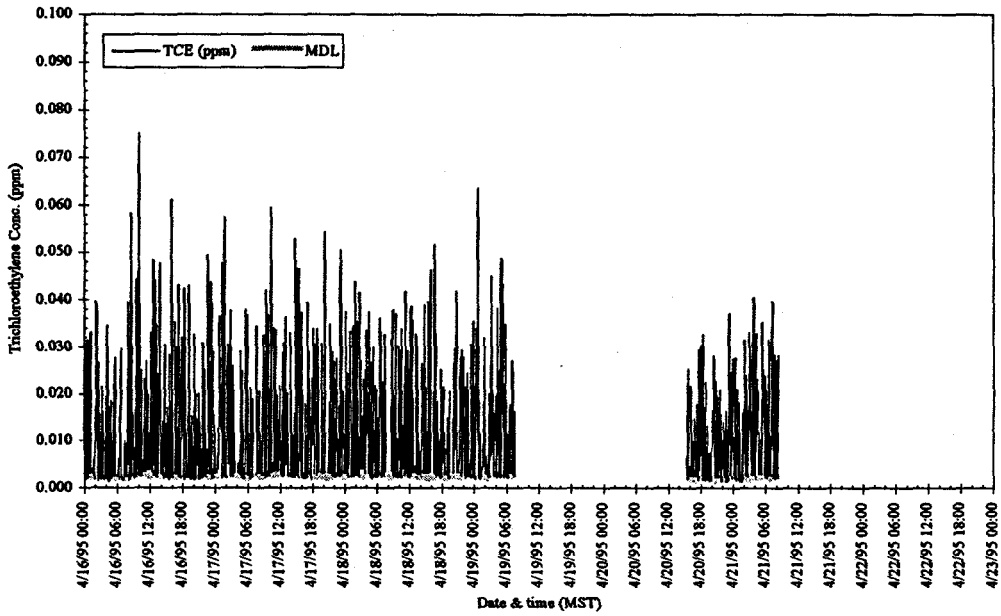

Figure B-96. Week 16, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0747, 0.0012, and 0.0111 ppm, respectively. Maximum, minimum, and average MDLs were 0.0034, 0.0012, and 0.0023 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

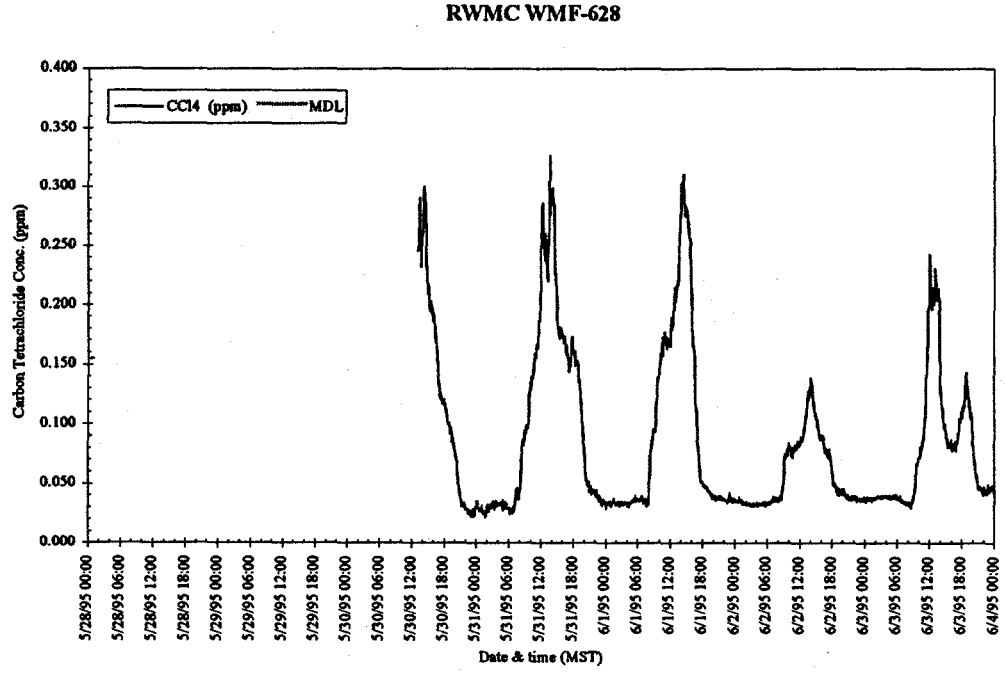

Figure B-97. Week 22, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.326, 0.021, and 0.086 ppm, respectively. No MDLs to report.

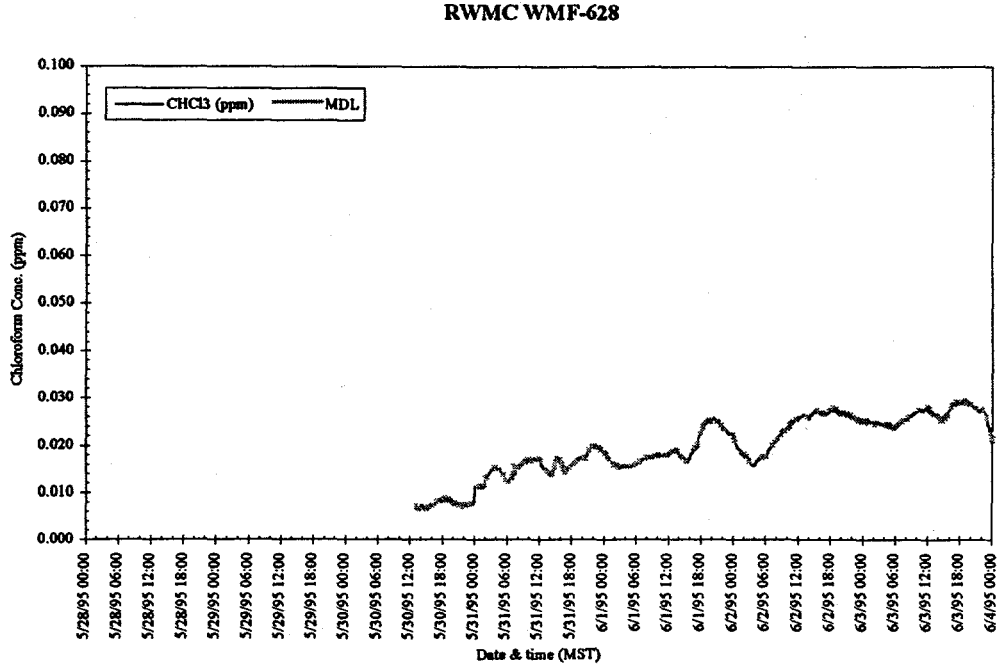

Figure B-98. Week 22, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.030, 0.006, and 0.020 ppm, respectively. Maximum, minimum, and average MDLs were 0.030, 0.006, and 0.020 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

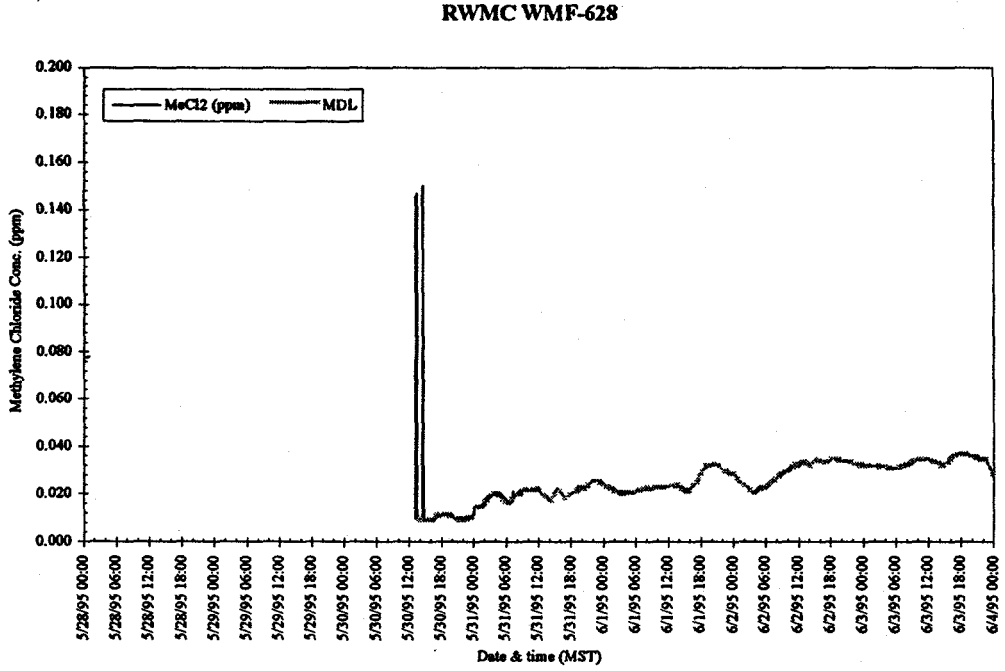

Figure B-99. Week 22, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.150, 0.009, and 0.026 ppm, respectively. Maximum, minimum, and average MDLs were 0.037, 0.009, and 0.025 ppm, respectively.

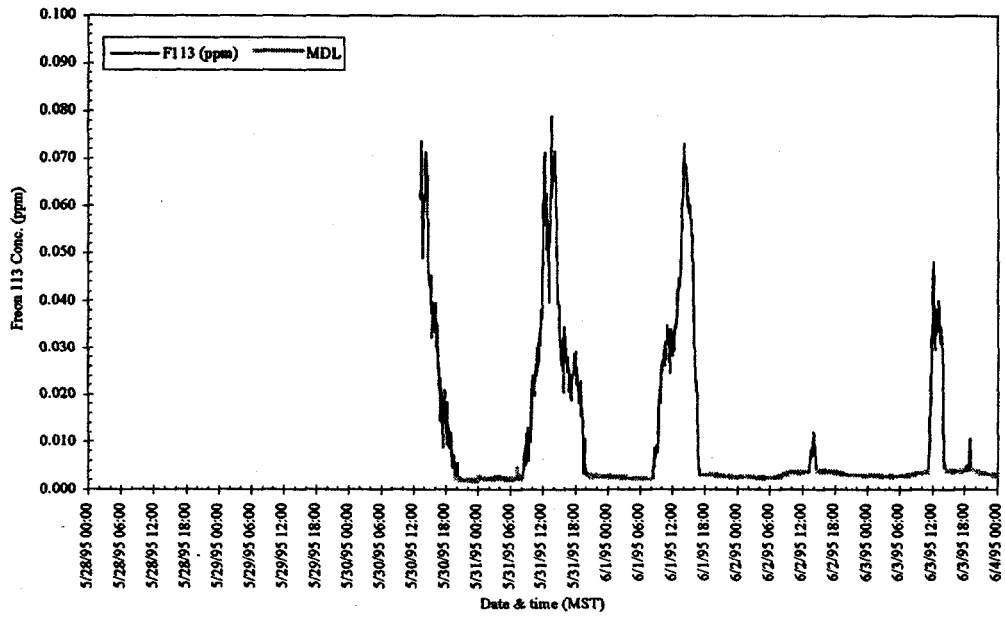

Figure B-100. Week 22, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.079, 0.002, and 0.011 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.002, and 0.003 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

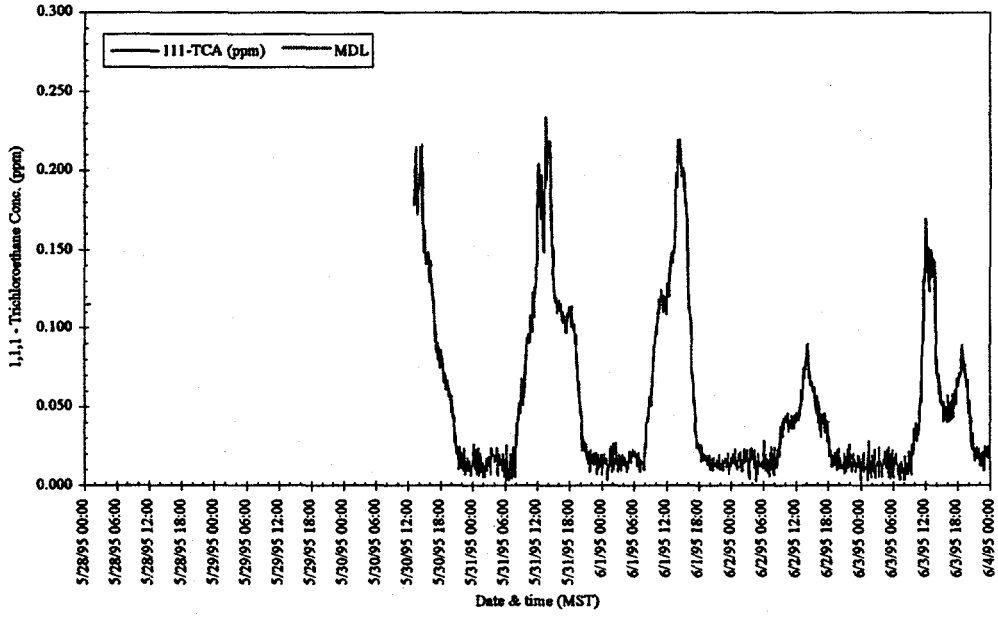

Figure B-101. Week 22, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.234, 0.003, and 0.052 ppm, respectively. Maximum, minimum, and average MDLs were 0.004, 0.003, and 0.003 ppm, respectively.

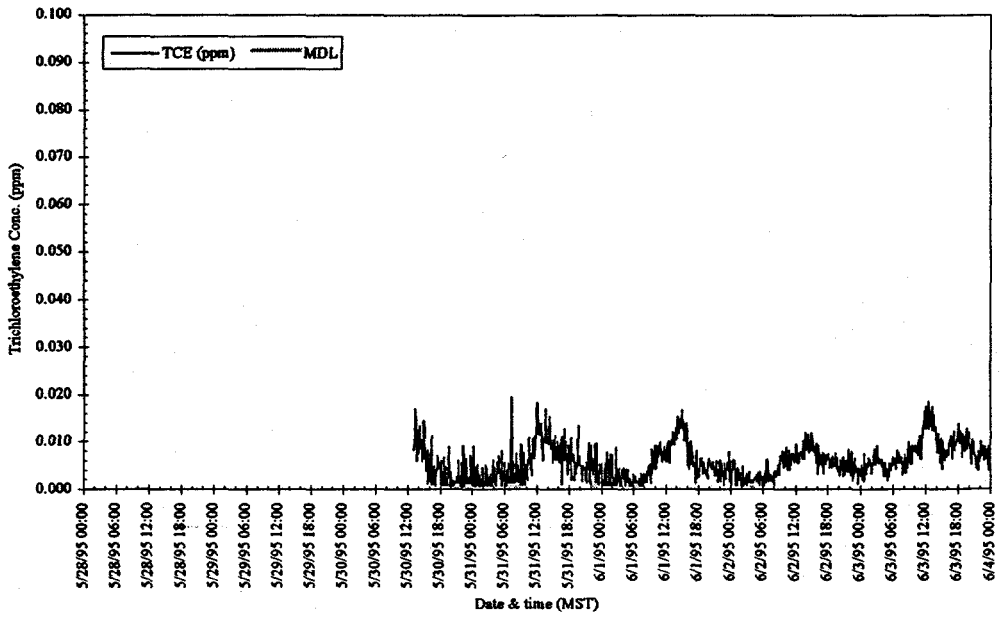

Figure B-102. Week 22, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0194, 0.0005, and 0.0057 ppm, respectively. Maximum, minimum, and average MDLs were 0.0010, 0.0005, and 0.0007 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

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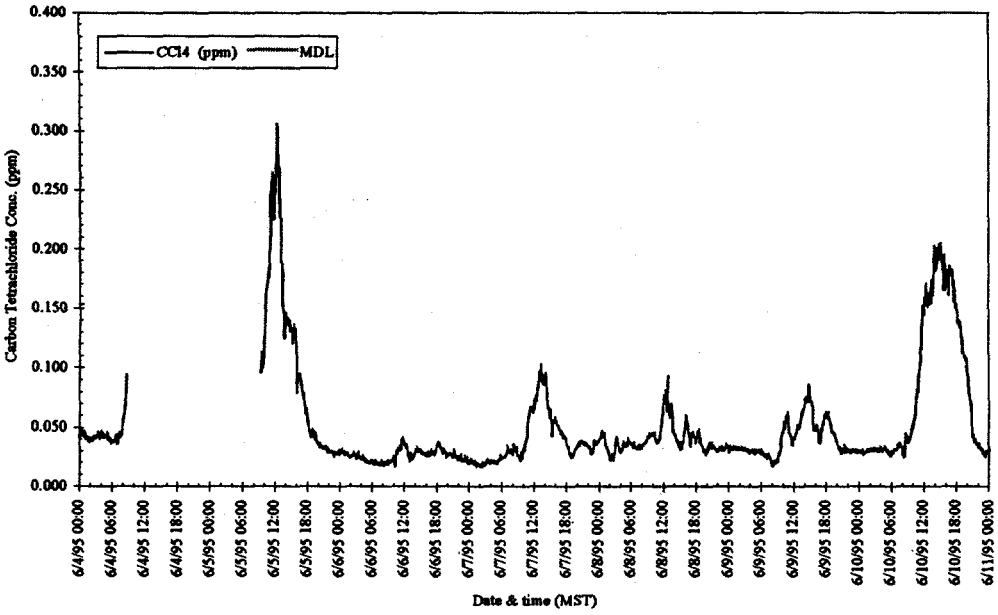

Figure B-103. Week 23, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.306, 0.016, and 0.051 ppm, respectively. No MDLs to report.

RWMC WMF-628

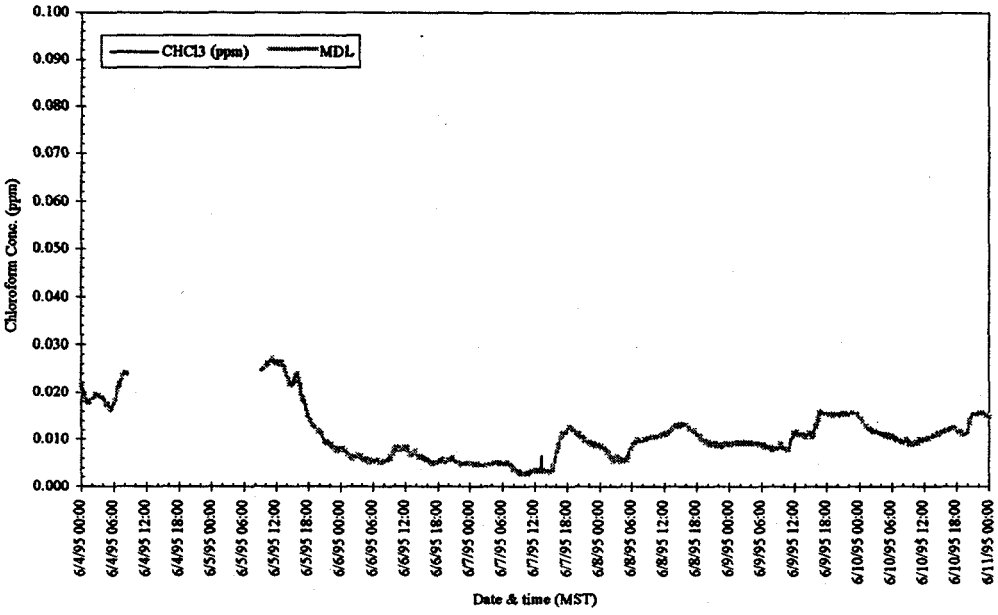

Figure B-104. Week 23, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.027, 0.002, and 0.011 ppm, respectively. Maximum, minimum, and MDLs were 0.027, 0.002, and 0.011 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

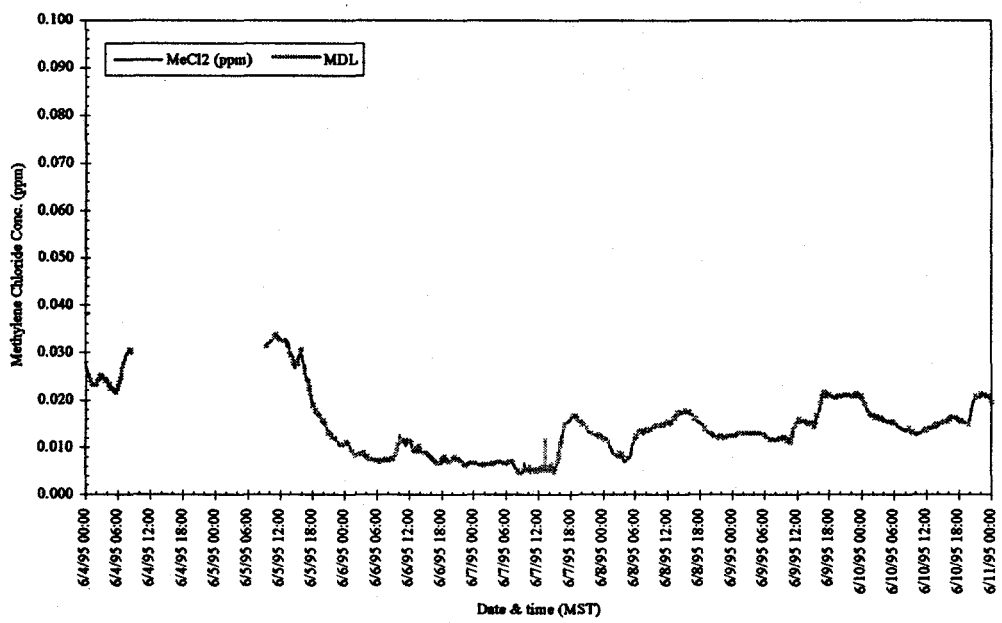

Figure B-105. Week 23, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.034, 0.004, and 0.014 ppm, respectively. Maximum, minimum, and average MDLs were 0.034, 0.004, and 0.014 ppm, respectively.

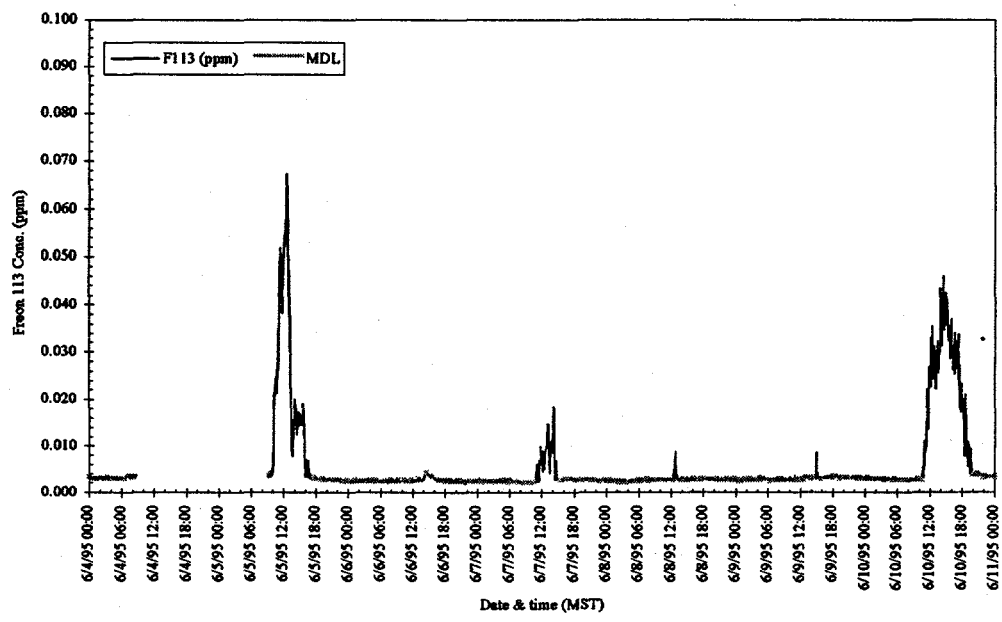

Figure B-106. Week 23, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.067, 0.002, and 0.005 ppm, respectively. Maximum, minimum, and average MDLs were 0.004, 0.002, and 0.003 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

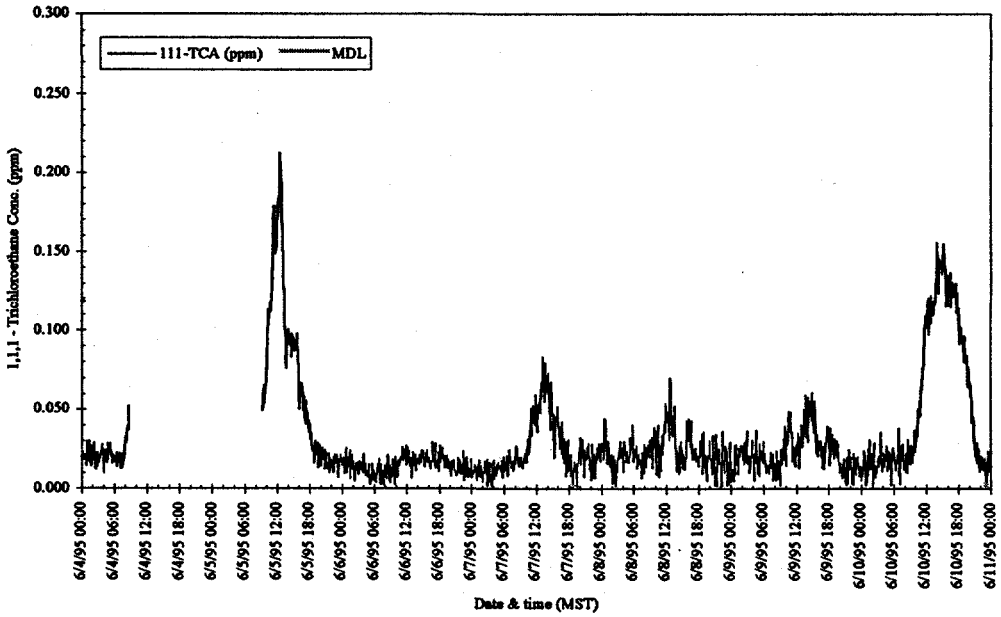

Figure B-107. Week 23, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.212, 0.002, and 0.032 ppm, respectively. Maximum, minimum, and average MDLs were 0.003, 0.002, and 0.002 ppm, respectively.

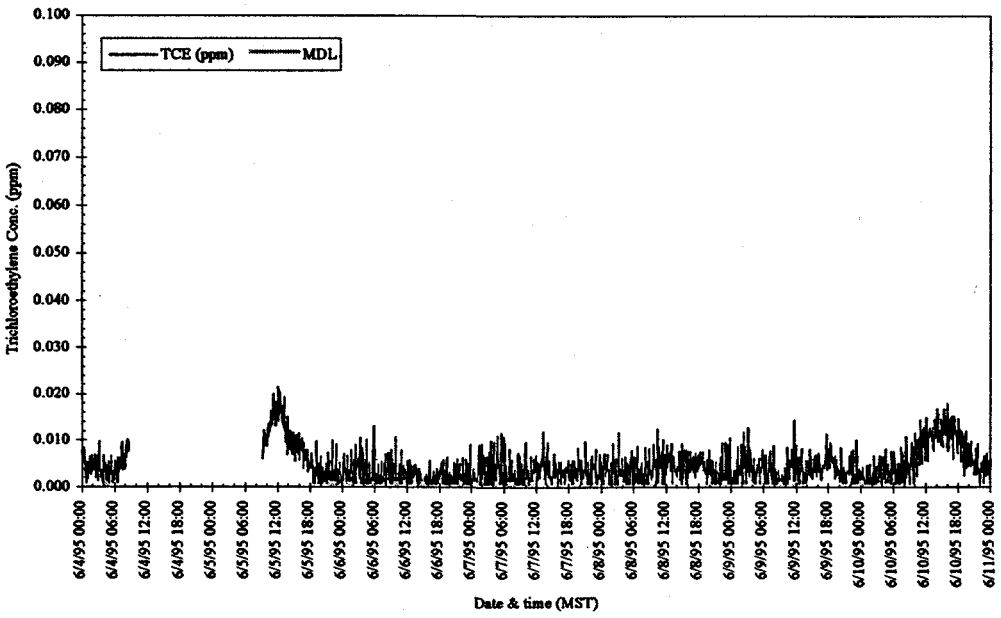

Figure B-108. Week 23, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0215, 0.0006, and 0.0046 ppm, respectively. Maximum, minimum, and average MDLs were 0.0010, 0.0006, and 0.0007 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

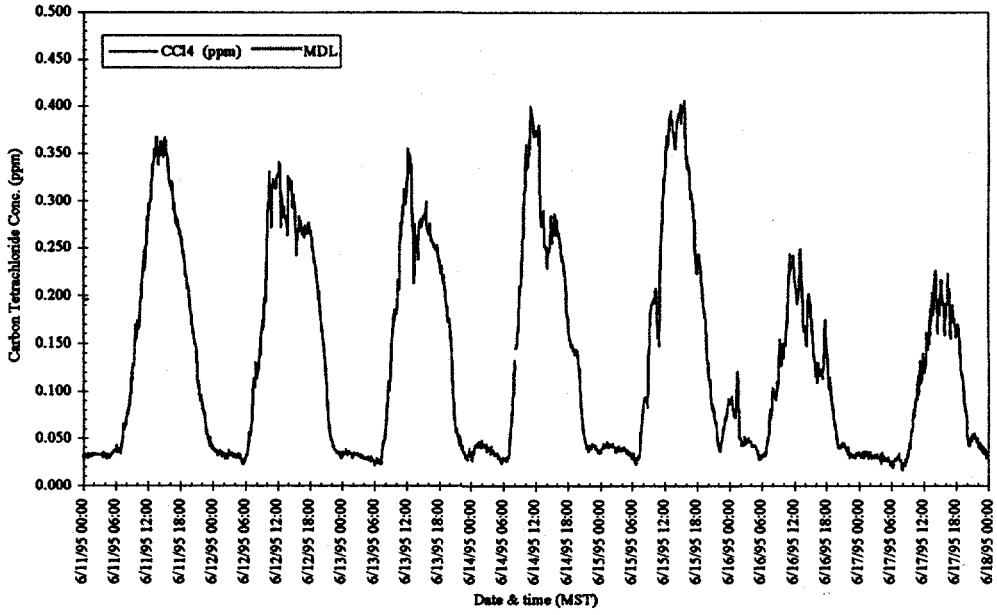

Figure B-109. Week 24, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.405, 0.017, and 0.135 ppm, respectively. No MDLs to report.

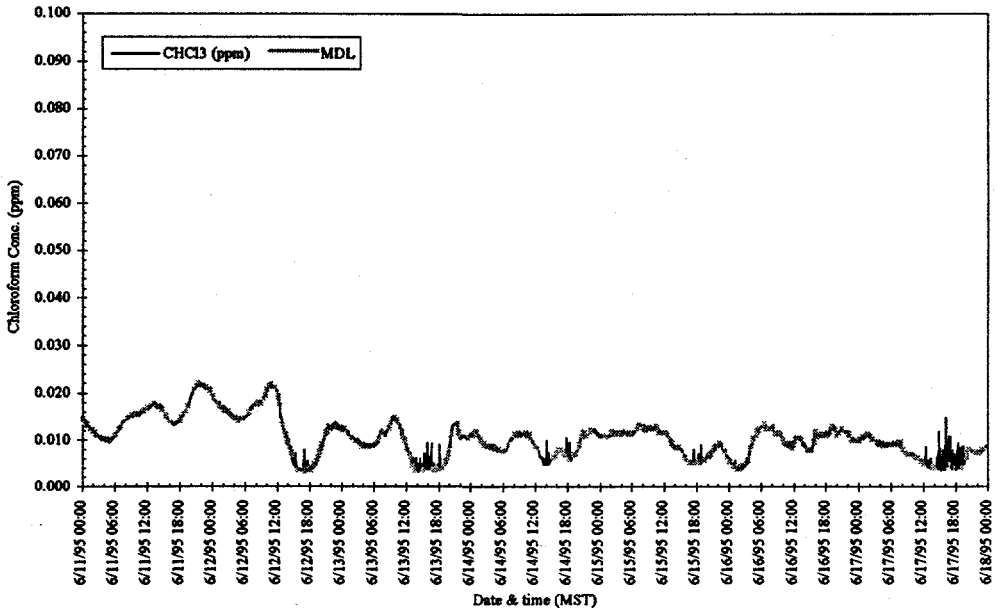

Figure B-110. Week 24, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.022, 0.003, and 0.011 ppm, respectively. Maximum, minimum, and average MDLs were 0.022, 0.003, and 0.011 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

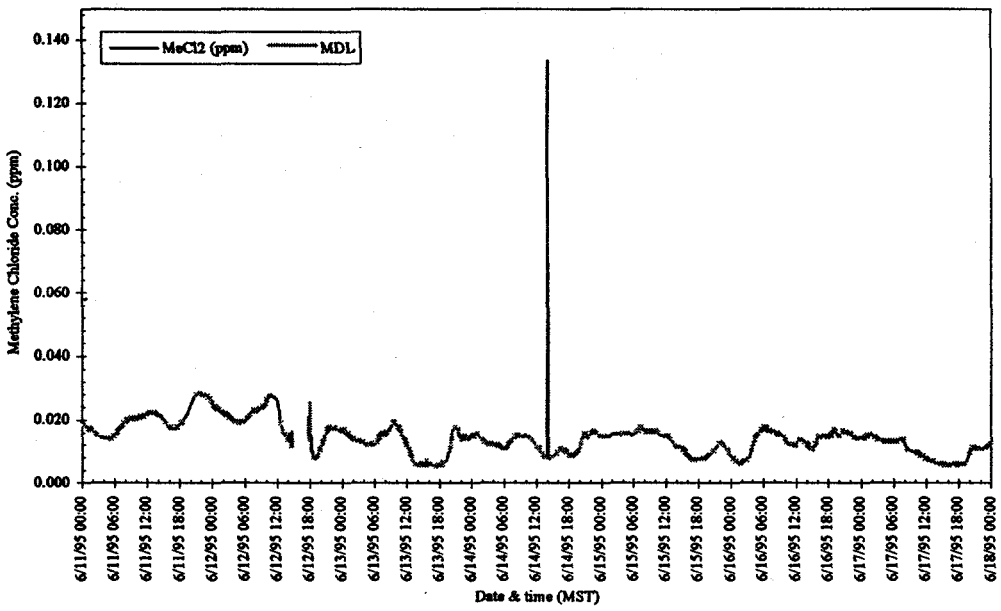

Figure B-111. Week 24, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.133, 0.005, and 0.014 ppm, respectively. Maximum, minimum, and average MDLs were 0.029, 0.005, and 0.014 ppm, respectively.

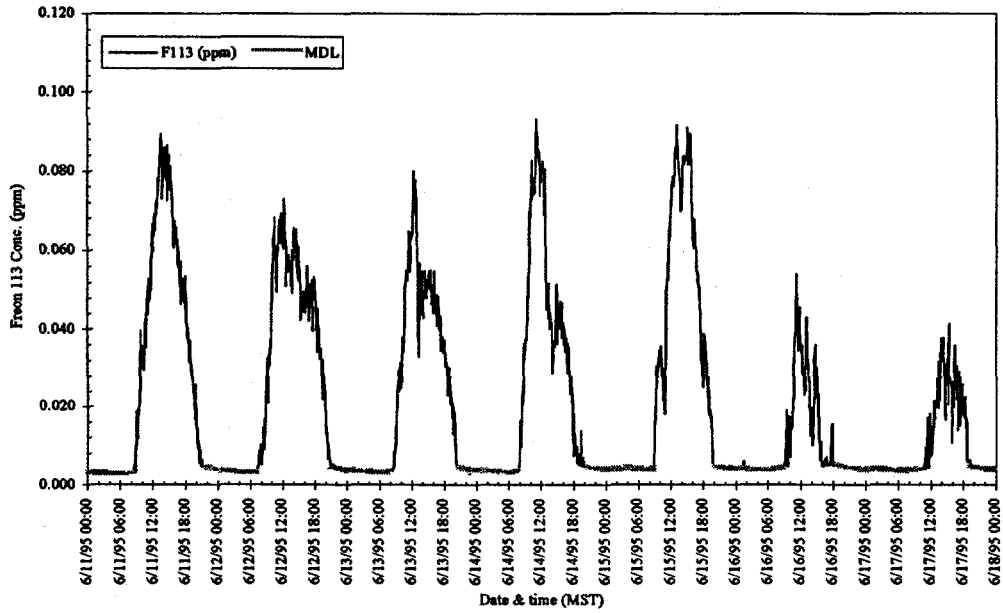

Figure B-112. Week 24, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.093, 0.003, and 0.021 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.003, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

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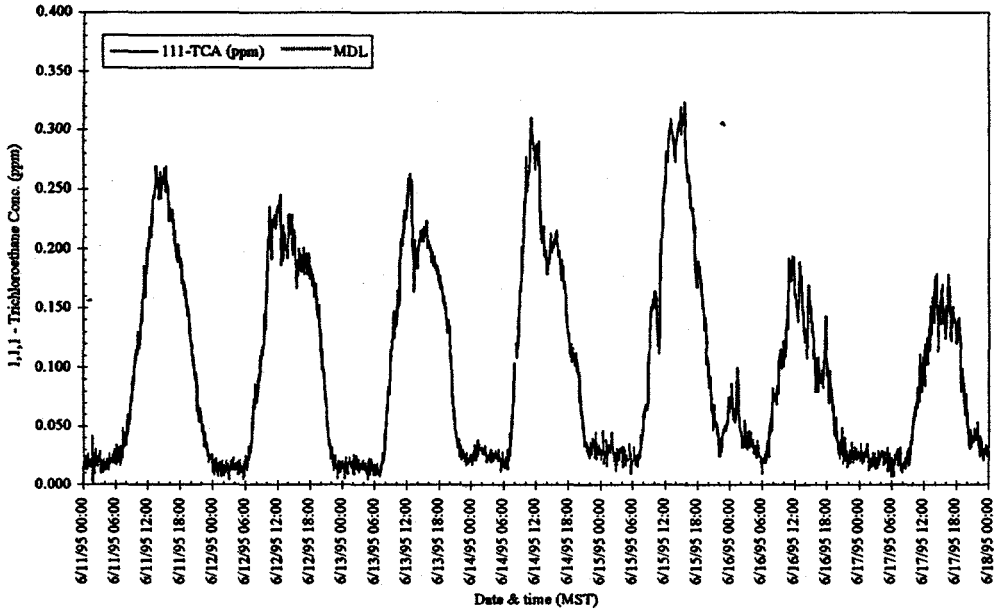

Figure B-113. Week 24, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.323, 0.003, and 0.099 ppm, respectively. Maximum, minimum, and average MDLs were 0.003, 0.003, and 0.003 ppm, respectively.

RWMC WMF-628

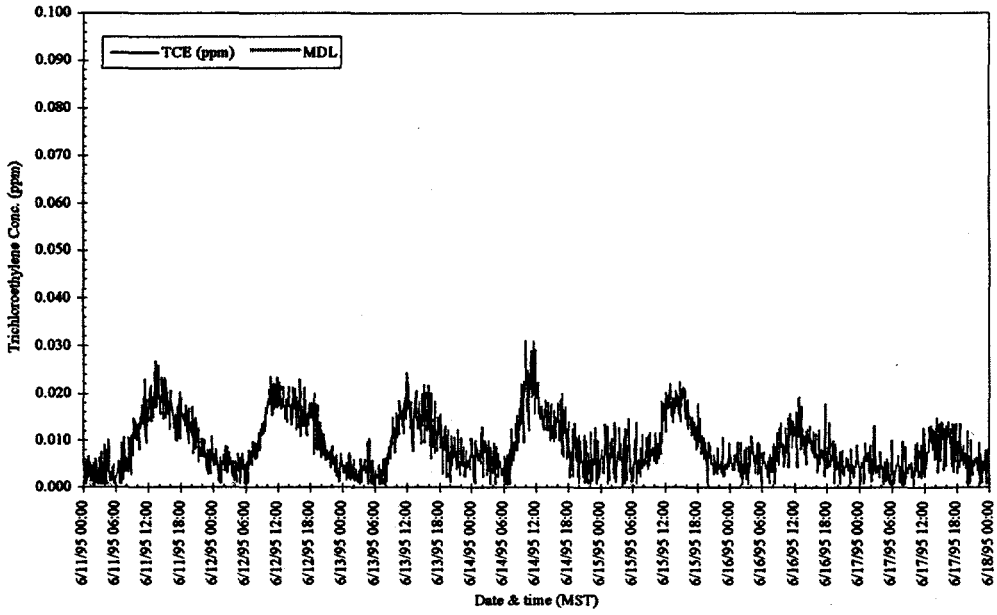

Figure B-114. Week 24, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0309, 0.0006, and 0.0089 ppm, respectively. Maximum, minimum, and average MDLs were 0.0011, 0.0006, and 0.0008 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

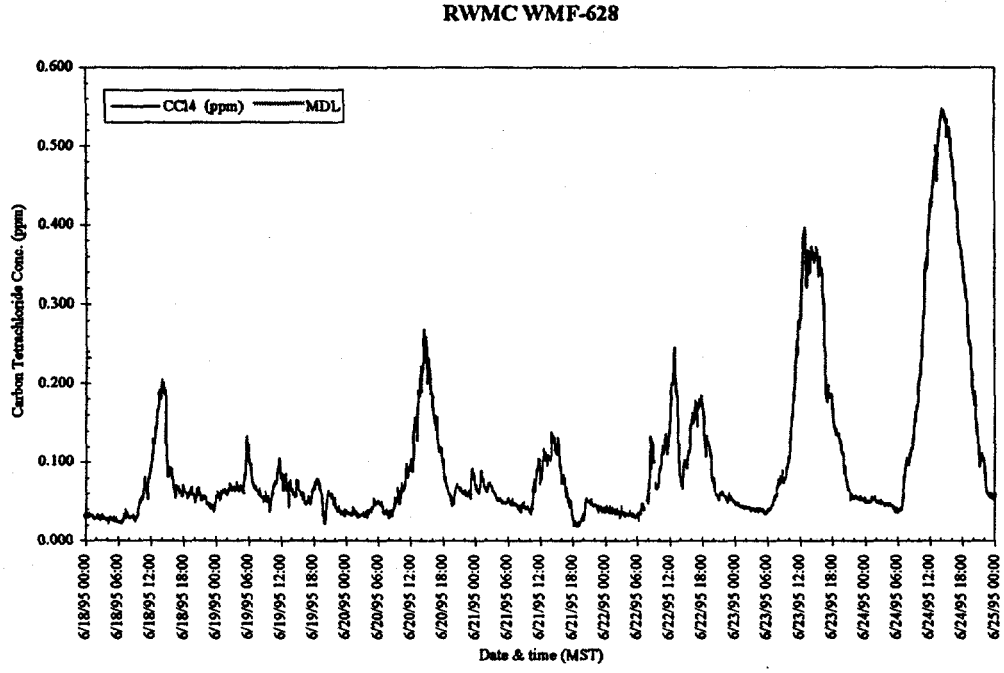

Figure B-115. Week 25, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.546, 0.019, and 0.100 ppm, respectively. No MDLs to report.

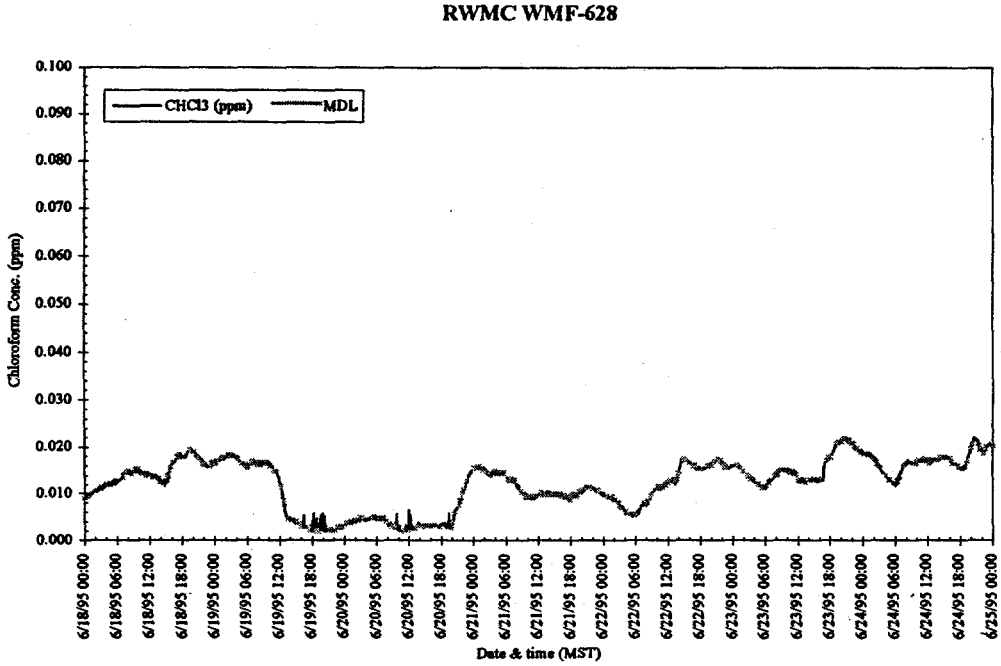

Figure B-116. Week 25, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.022, 0.002, and 0.012 ppm, respectively. Maximum, minimum, and average MDLs were 0.022, 0.002, and 0.012 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

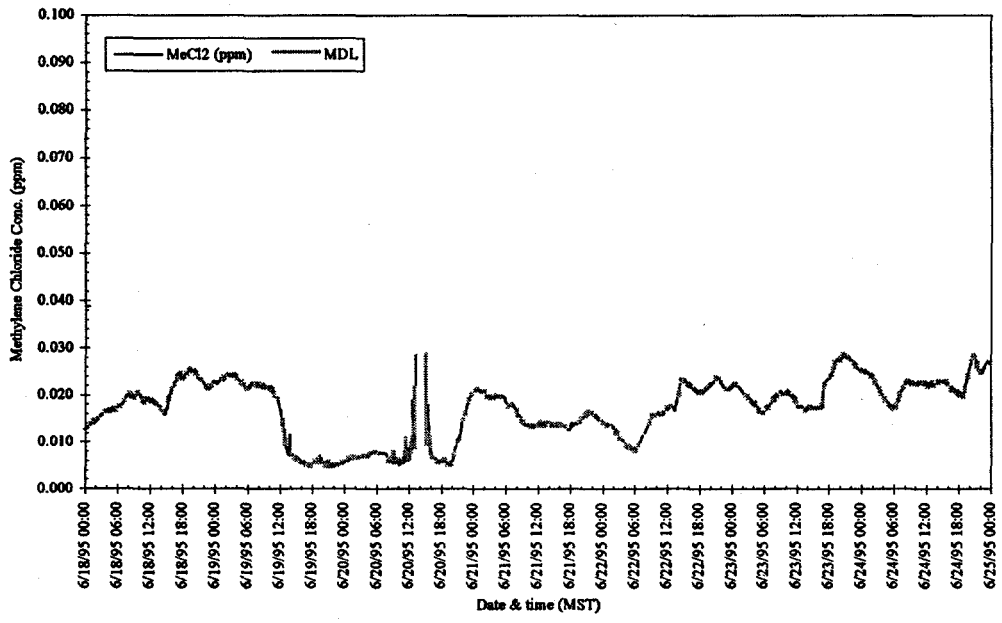

Figure B-117. Week 25, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.029, 0.005, and 0.017 ppm, respectively. Maximum, minimum, and average MDLs were 0.029, 0.005, and 0.017 ppm, respectively.

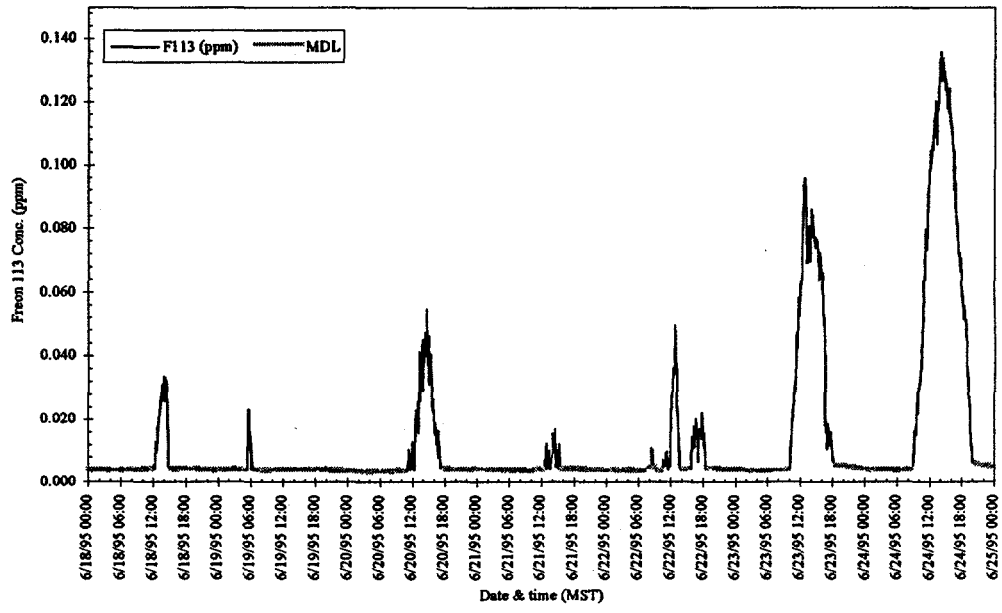

Figure B-118. Week 25, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.136, 0.003, and 0.013 ppm, respectively. Maximum, minimum, and average MDLs were 0.006, 0.003, and 0.004 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

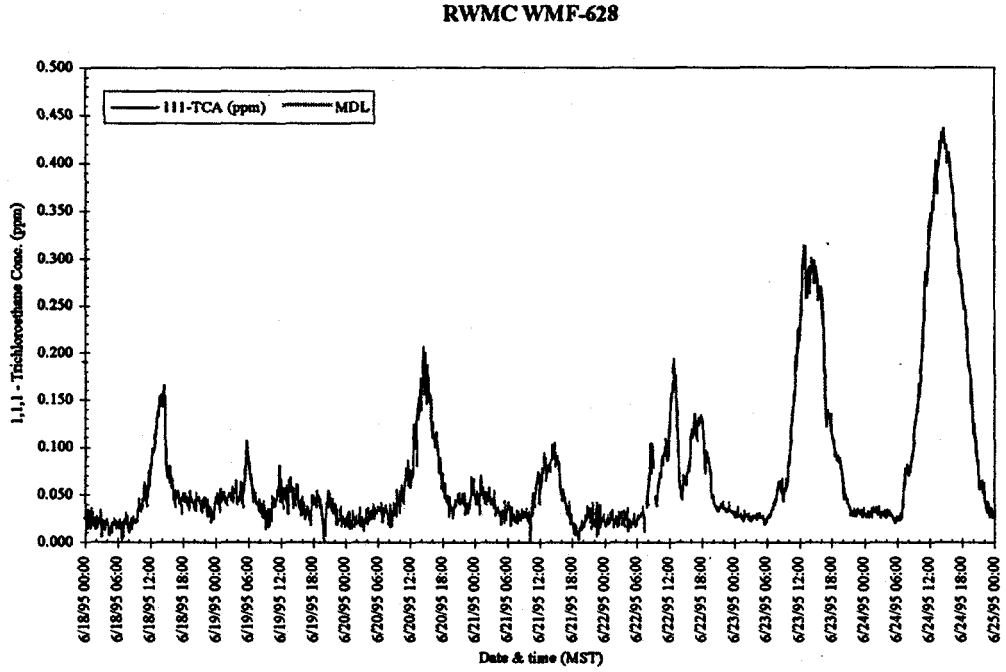

Figure B-119. Week 25, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.437, 0.003, and 0.073 ppm, respectively. No MDLs to report.

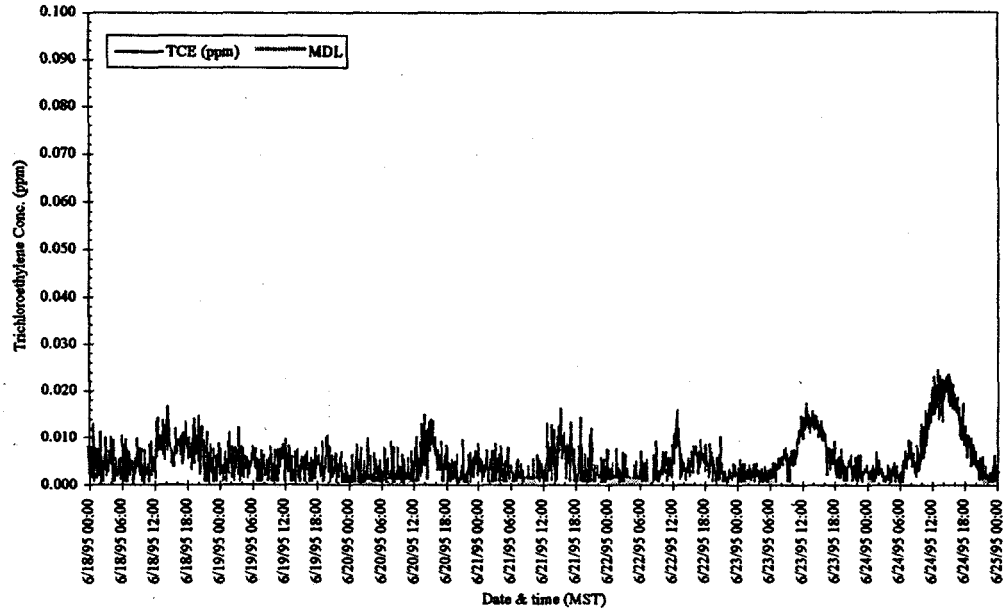

Figure B-120. Week 25, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0246, 0.0005, and 0.0050 ppm, respectively. Maximum, minimum, and average MDLs were 0.0013, 0.0005, and 0.0008 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

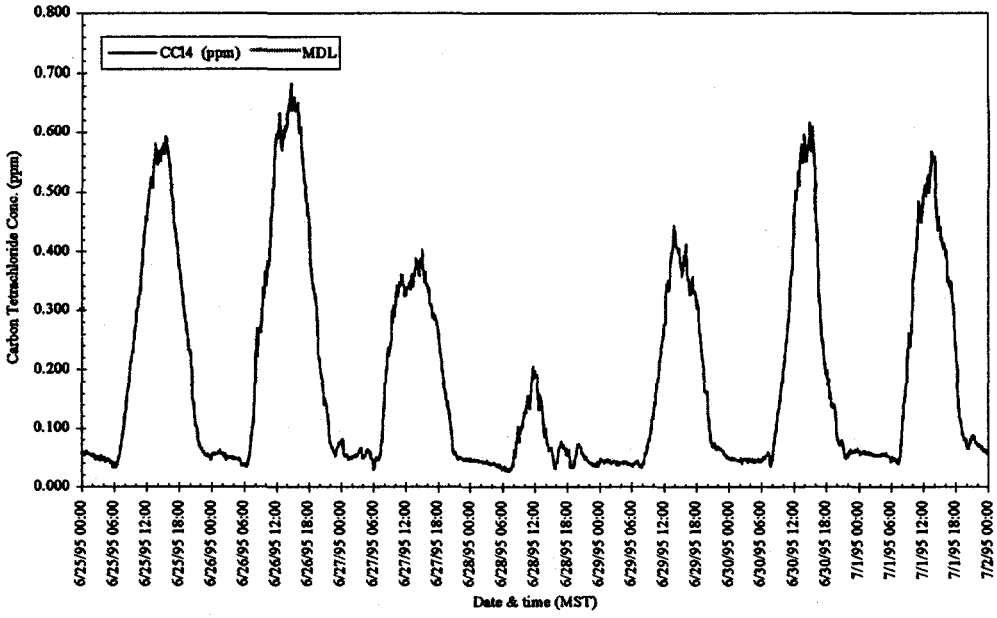

Figure B-121. Week 26, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.684, 0.026, and 0.187 ppm, respectively. No MDLs to report.

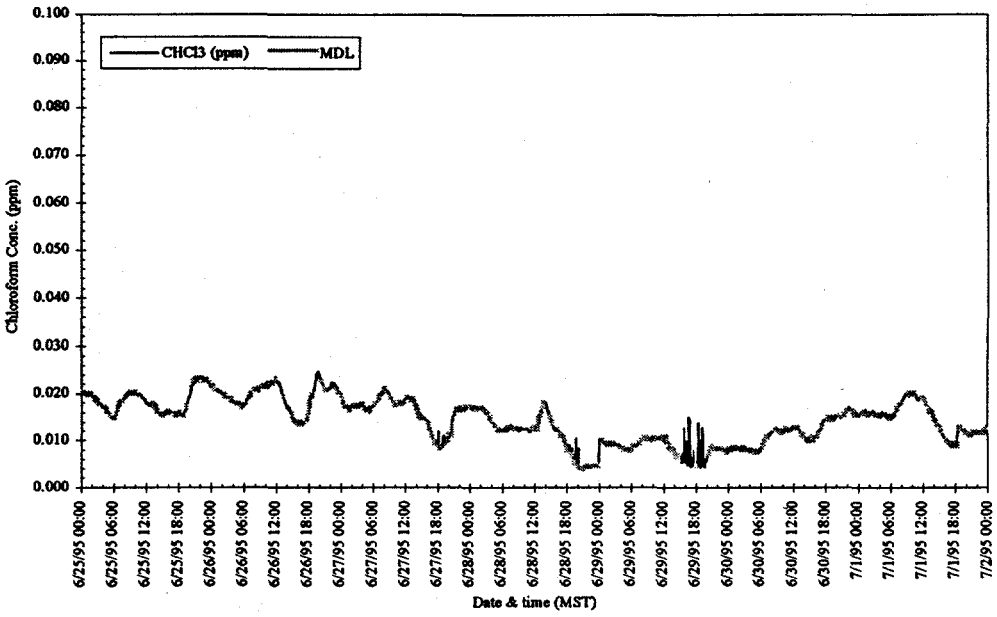

Figure B-122. Week 26, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.025, 0.004, and 0.014 ppm, respectively. Maximum, minimum, and average MDLs were 0.024, 0.004, and 0.014 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

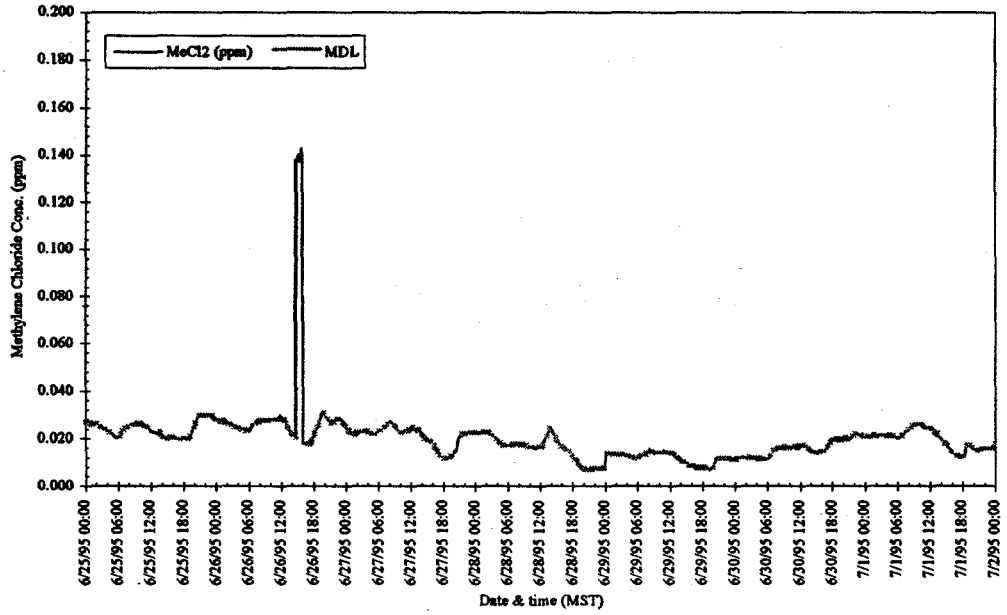

Figure B-123. Week 26, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.143, 0.007, and 0.020 ppm, respectively. Maximum, minimum, and average MDLs were 0.031, 0.007, and 0.019 ppm, respectively.

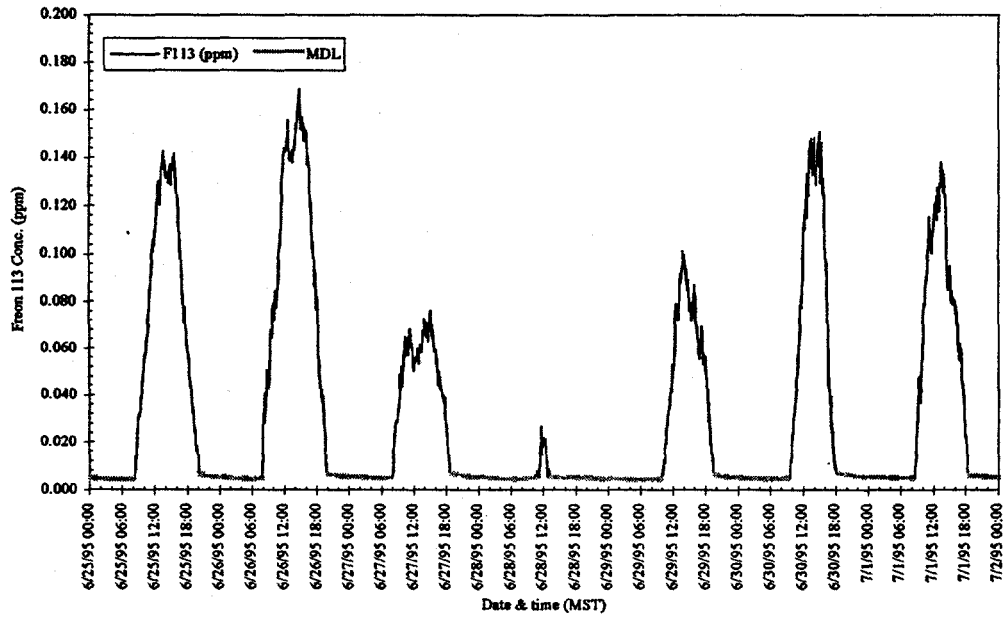

Figure B-124. Week 26, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.169, 0.004, and 0.032 ppm, respectively. Maximum, minimum, and average MDLs were 0.007, 0.004, and 0.005 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

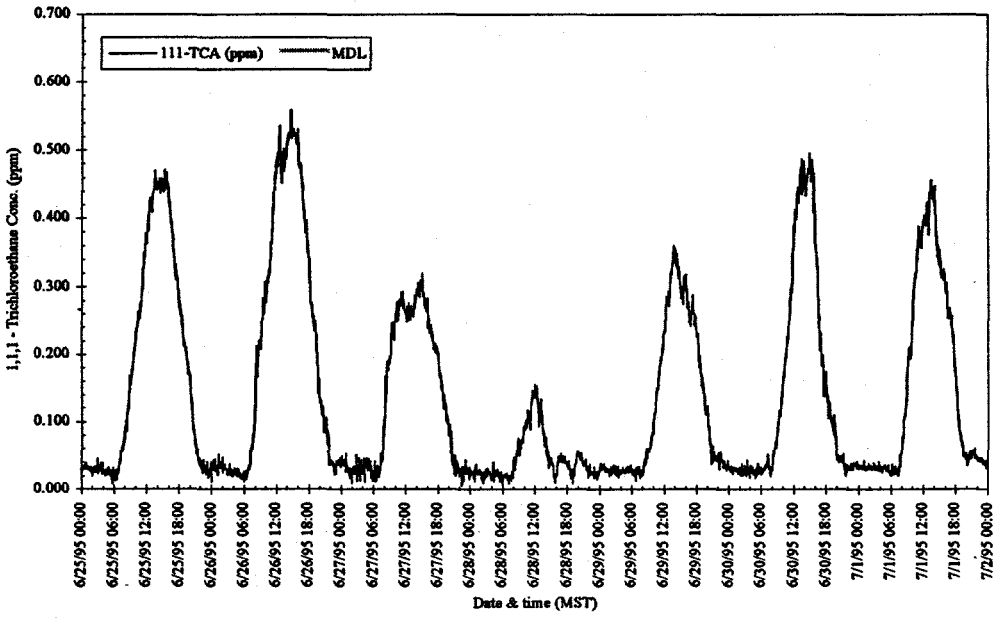

Figure B-125. Week 26, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.557, 0.005, and 0.141 ppm, respectively. No MDLs to report.

RWMC WMF-628

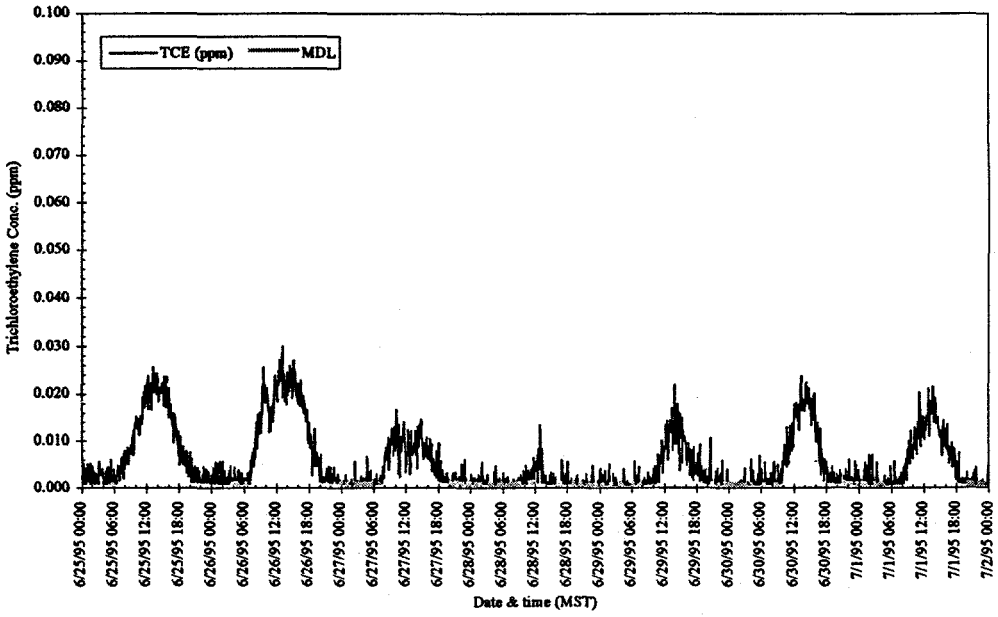

Figure B-126. Week 26, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0299, 0.0006, and 0.0056 ppm, respectively. Maximum, minimum, and average MDLs were 0.0015, 0.0006, and 0.0009 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

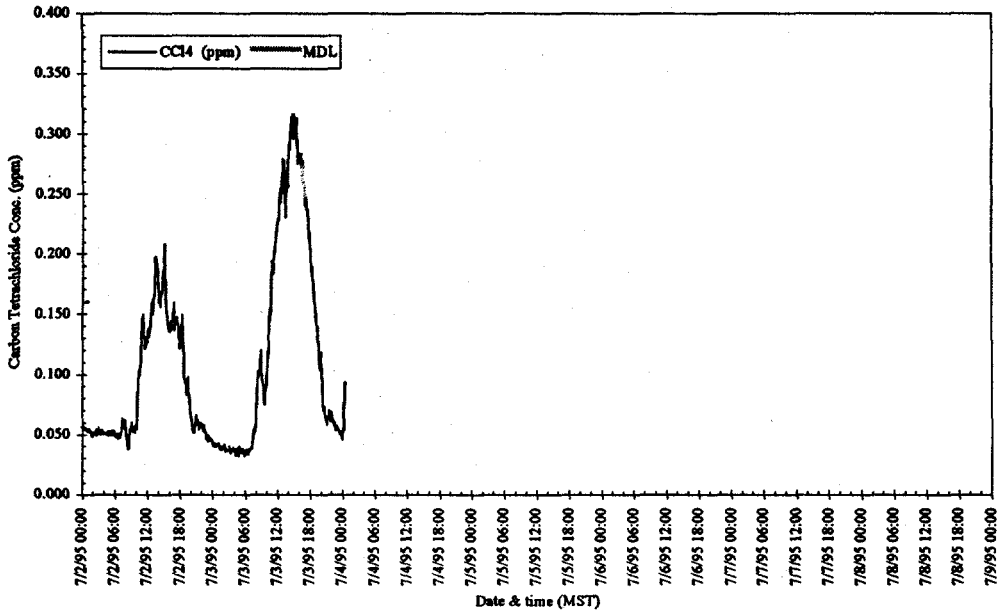

Figure B-127. Week 27, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.316, 0.032, and 0.106 ppm, respectively. No MDLs to report.

RWMC WMF-628

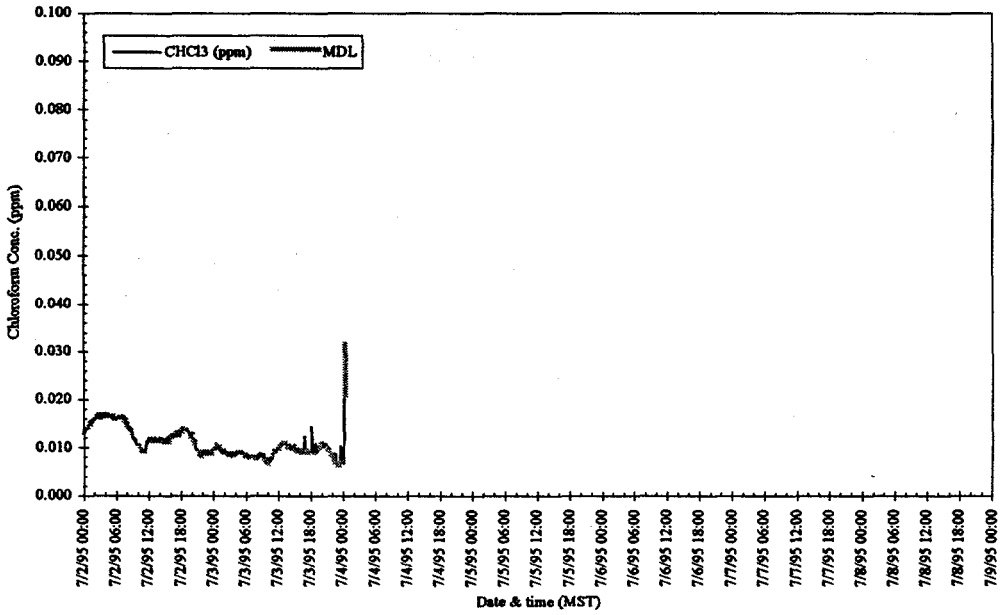

Figure B-128. Week 27, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.032, 0.006, and 0.011 ppm, respectively. Maximum, minimum, and average MDLs were 0.032, 0.006, and 0.011 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

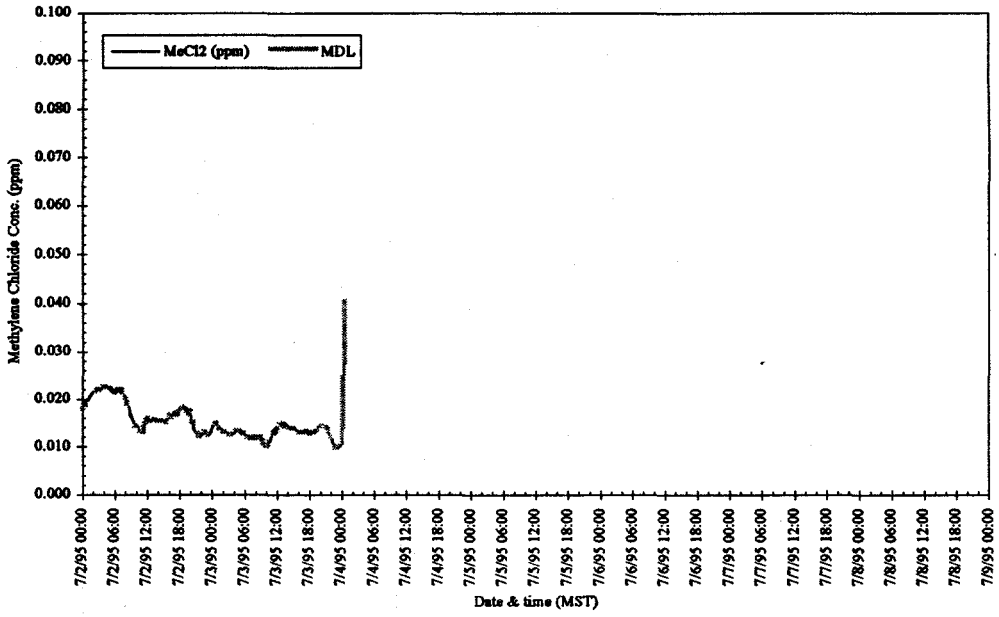

Figure B-129. Week 27, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.040, 0.010, and 0.015 ppm, respectively. Maximum, minimum, and average MDLs were 0.040, 0.010, and 0.015 ppm, respectively.

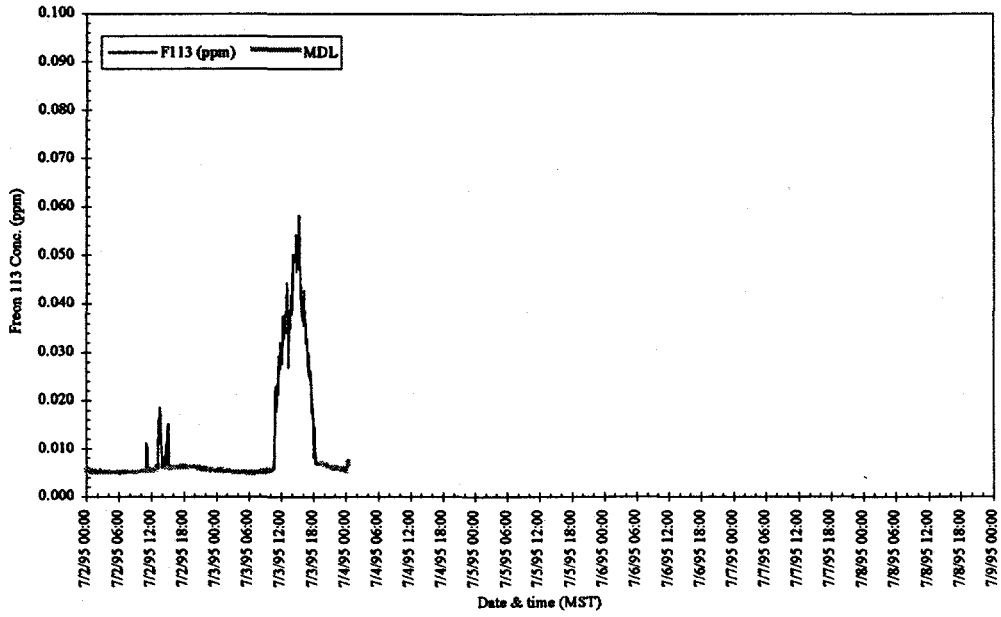

Figure B-130. Week 27, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.058, 0.005, and 0.010 ppm, respectively. Maximum, minimum, and average MDLs were 0.007, 0.005, and 0.006 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

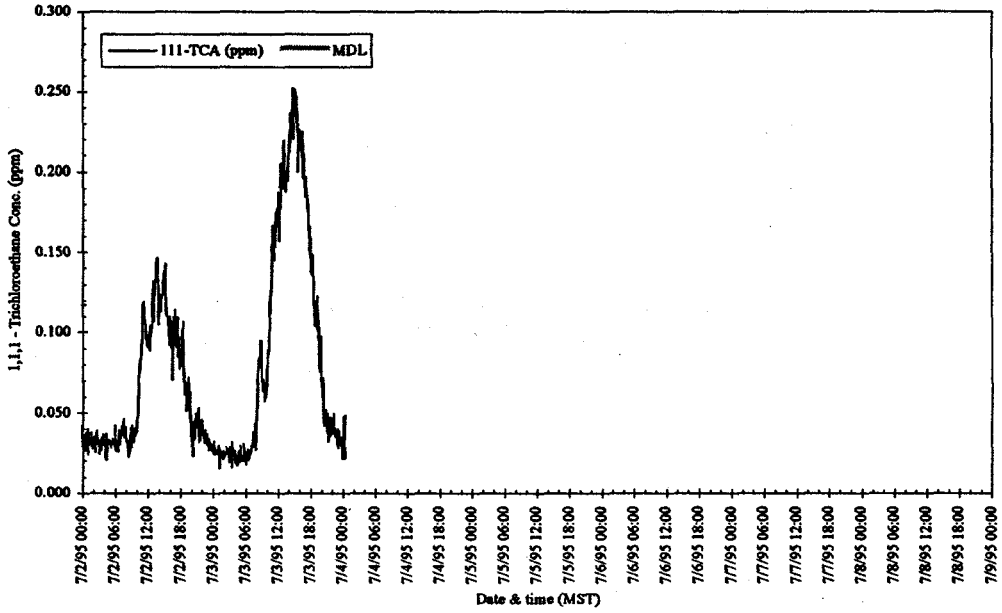

Figure B-131. Week 27, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.252, 0.015, and 0.077 ppm, respectively. No MDLs to report.

RWMC WMF-628

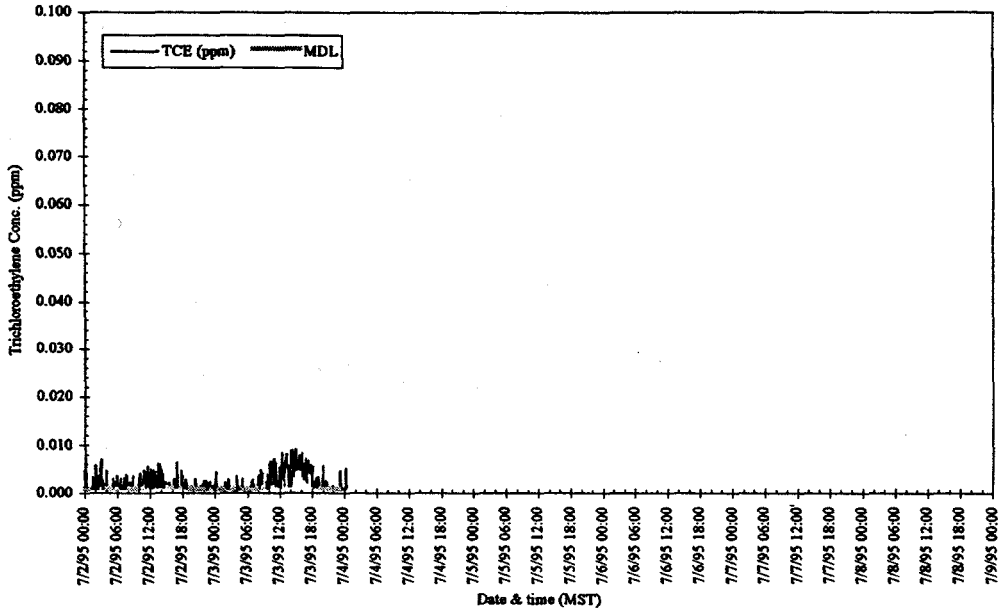

Figure B-132. Week 27, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0091, 0.0006, and 0.0020 ppm, respectively. Maximum, minimum, and average MDLs were 0.0013, 0.0006, and 0.0009 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

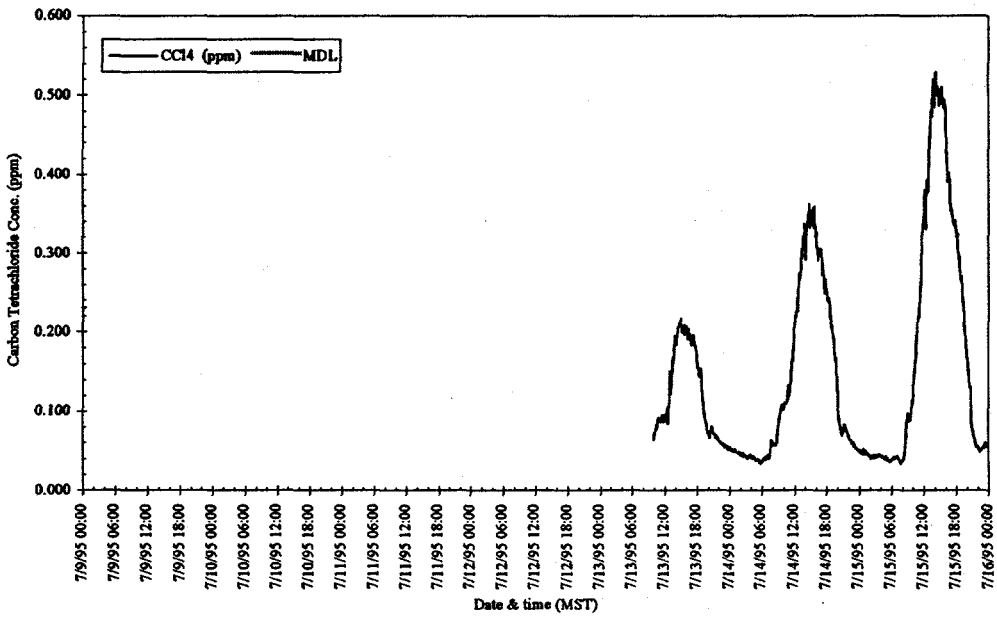

Figure B-133. Week 28, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.529, 0.033, and 0.150 ppm, respectively. No MDLs to report.

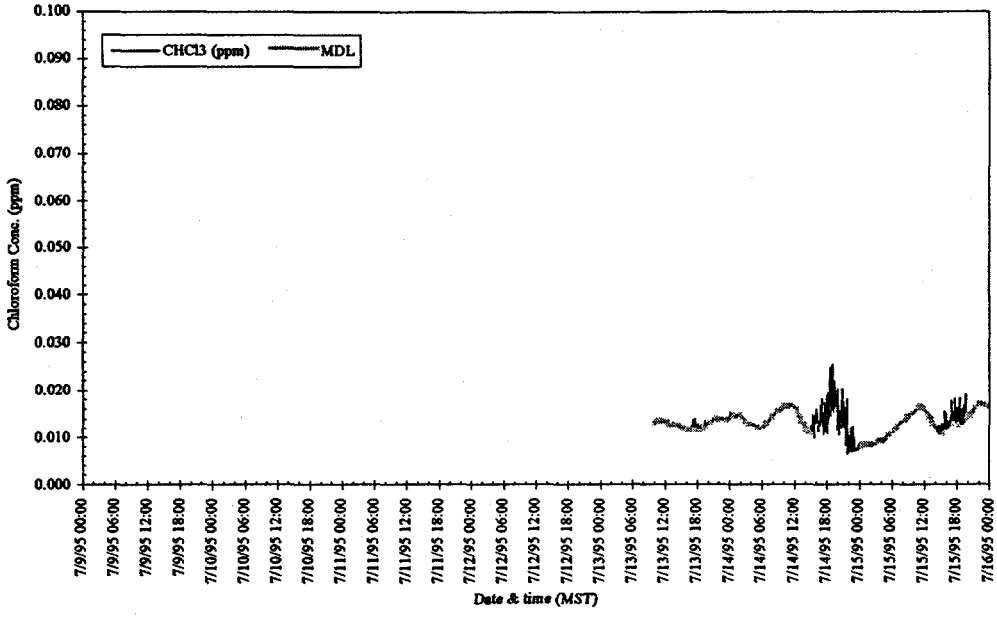

Figure B-134. Week 28, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.025, 0.007, and 0.013 ppm, respectively. Maximum, minimum, and average MDLs were 0.017, 0.007, and 0.013 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

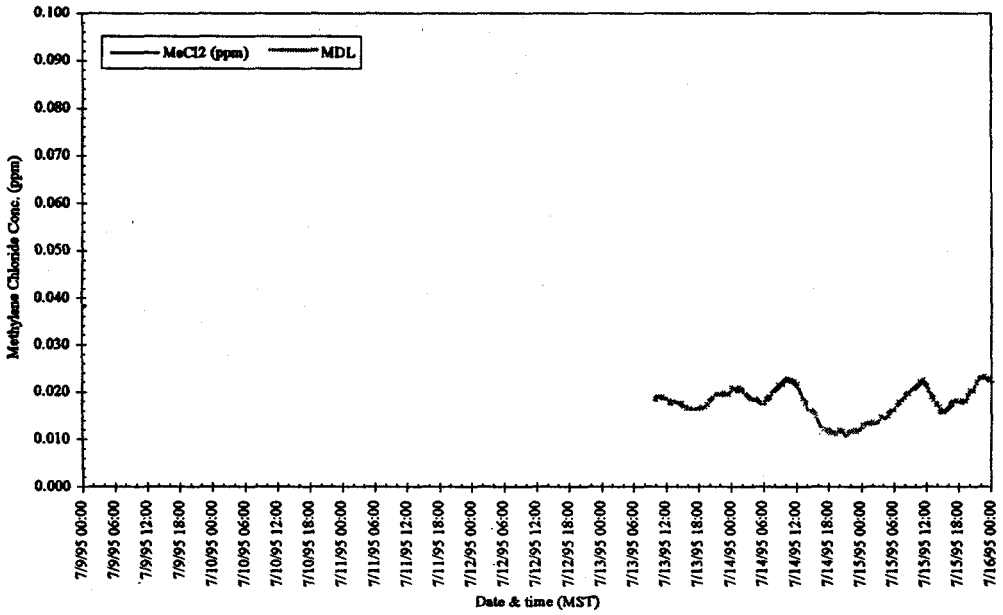

Figure B-135. Week 28, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.023, 0.011, and 0.018 ppm, respectively. Maximum, minimum, and average MDLs were 0.023, 0.011, and 0.018 ppm, respectively.

RWMC WMF-628

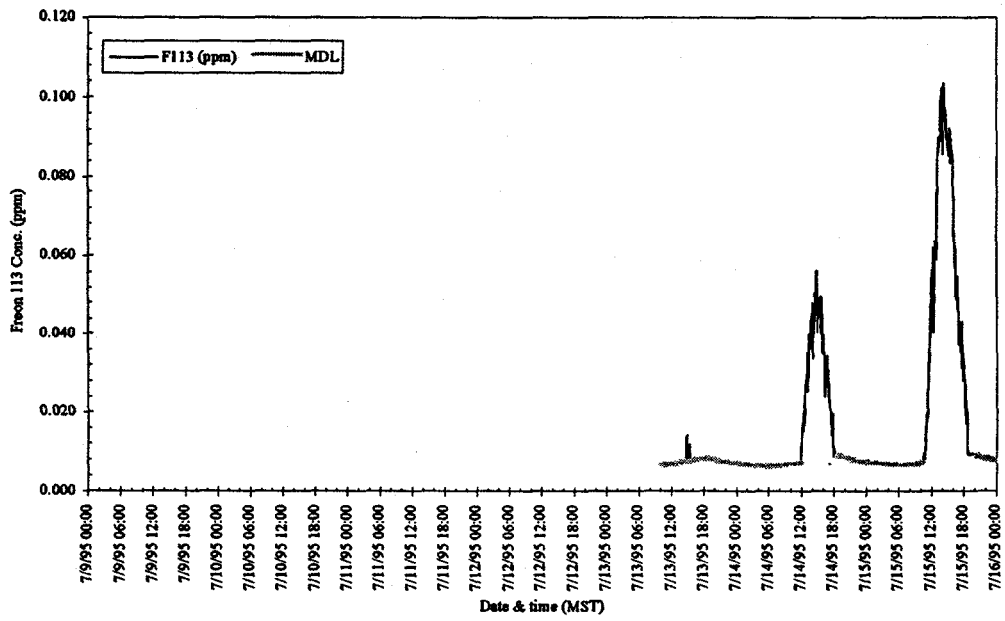

Figure B-136. Week 28, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.103, 0.006, and 0.017 ppm, respectively. Maximum, minimum, and average MDLs were 0.009, 0.006, and 0.007 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

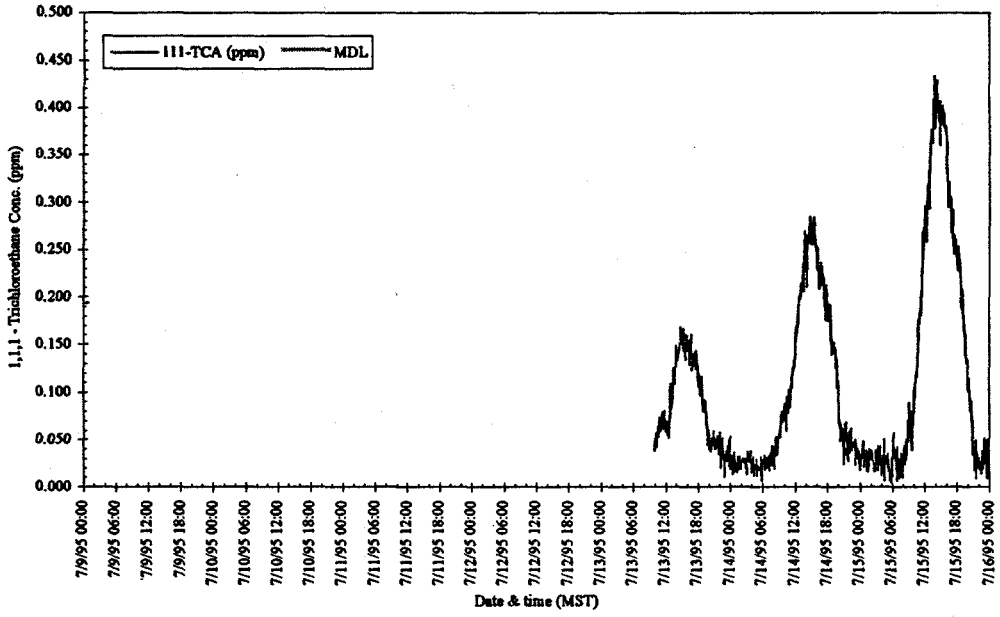

Figure B-137. Week 28, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.433, 0.004, and 0.111 ppm, respectively. No MDLs to report.

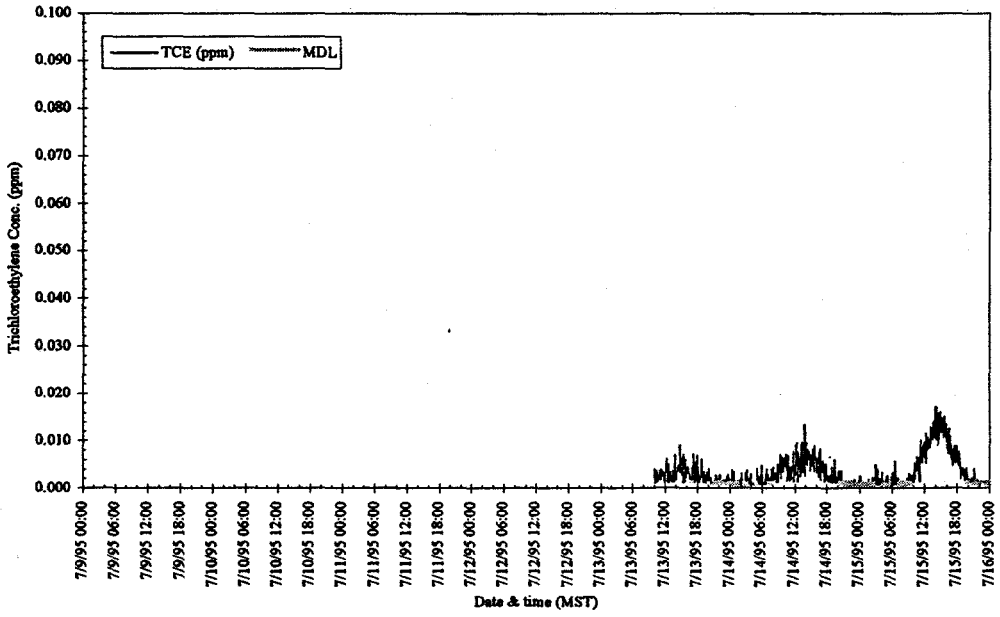

Figure B-138. Week 28, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0169, 0.0007, and 0.0033 ppm, respectively. Maximum, minimum, and average MDLs were 0.0013, 0.0007, and 0.0010 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

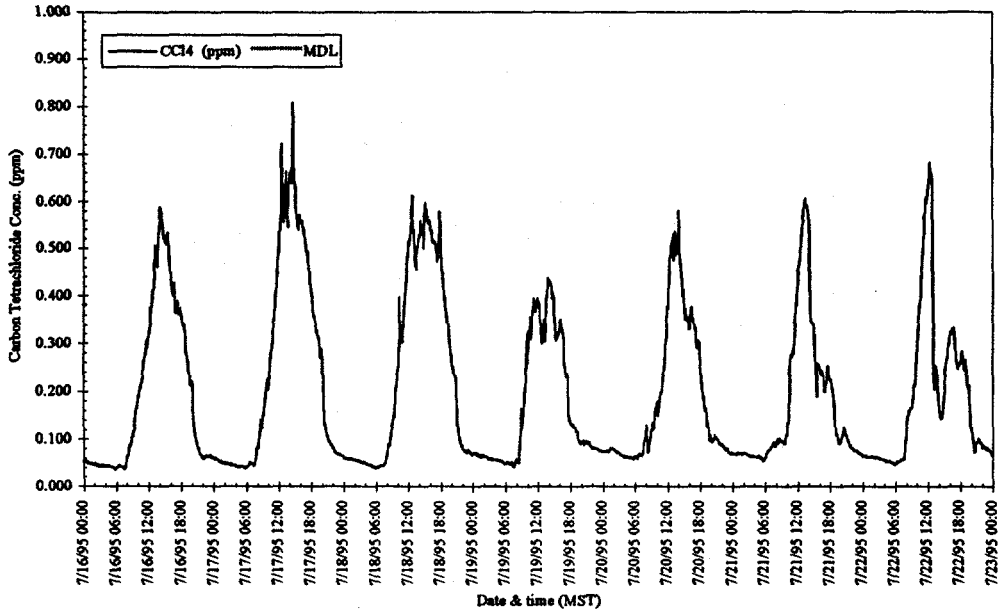

Figure B-139. Week 29, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.808, 0.036, and 0.198 ppm, respectively. No MDLs to report.

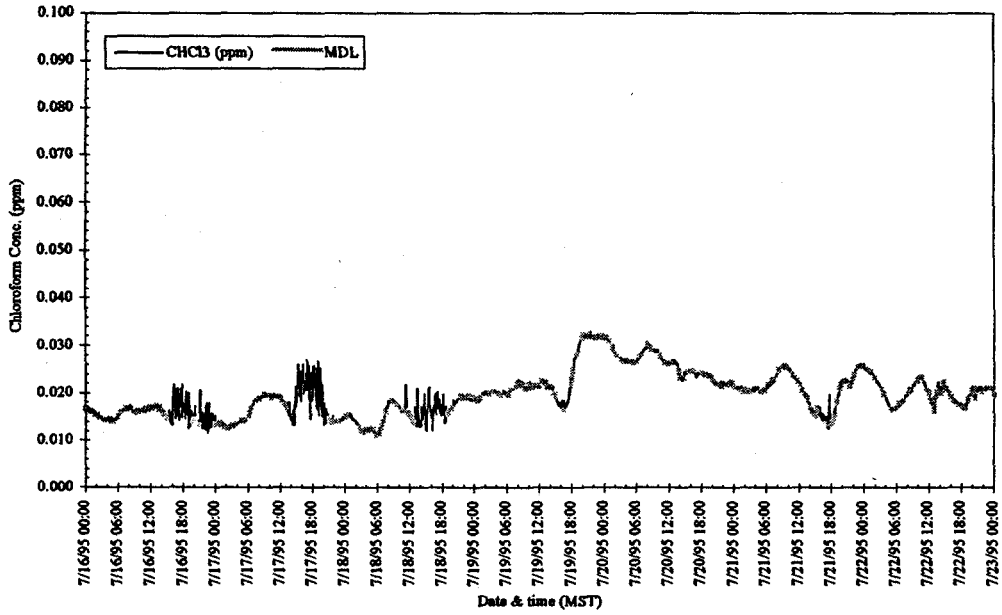

Figure B-140. Week 29, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.033, 0.011, and 0.020 ppm, respectively. Maximum, minimum, and average MDLs were 0.033, 0.011, and 0.020 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

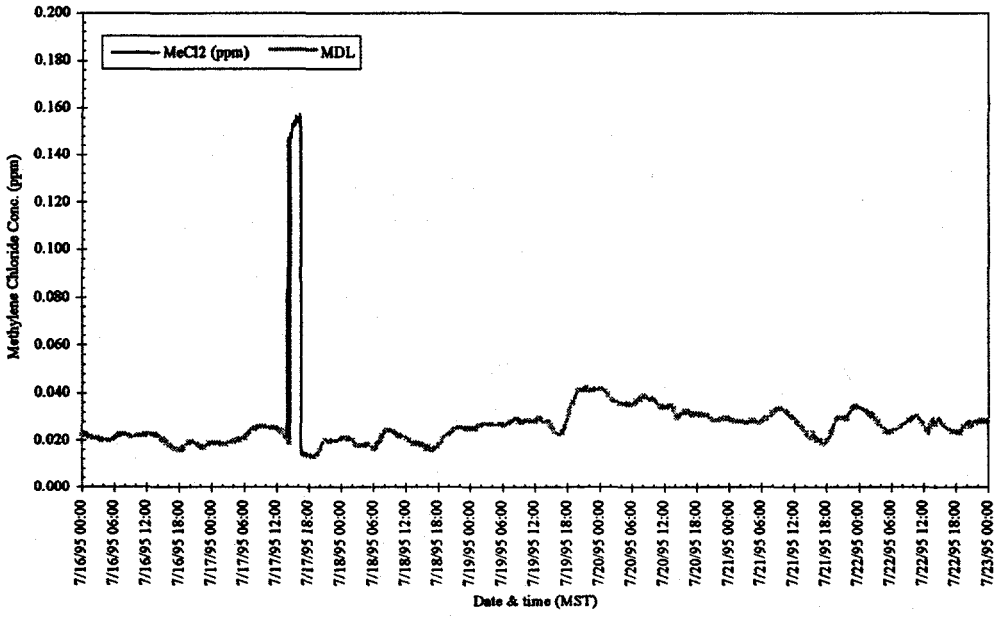

Figure B-141. Week 29, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.158, 0.013, and 0.027 ppm, respectively. Maximum, minimum, and average MDLs were 0.042, 0.013, and 0.026 ppm, respectively.

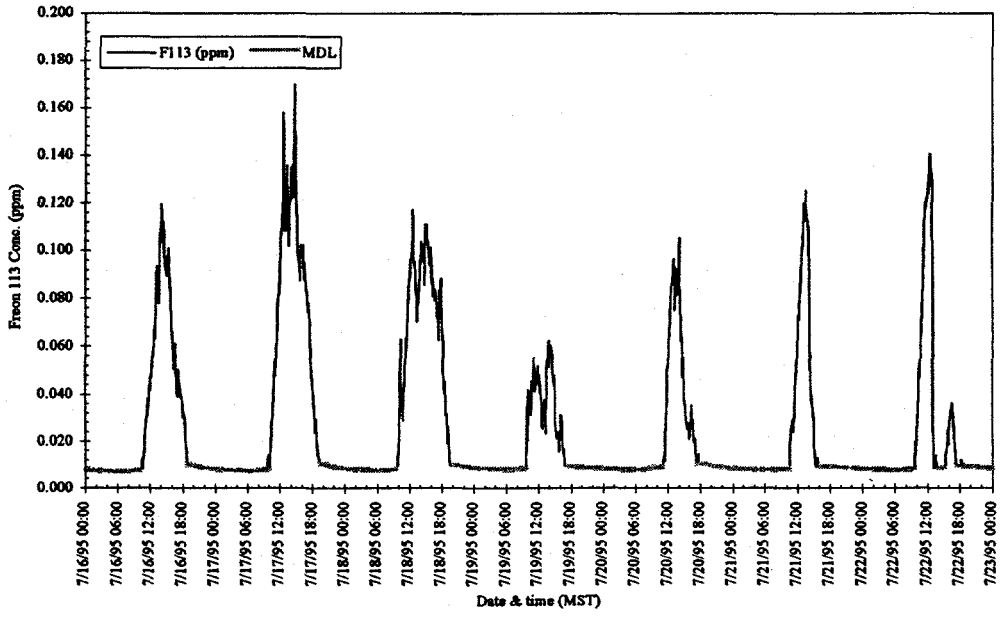

Figure B-142. Week 29, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.170, 0.007, and 0.025 ppm, respectively. Maximum, minimum, and average MDLs were 0.010, 0.007, and 0.008 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

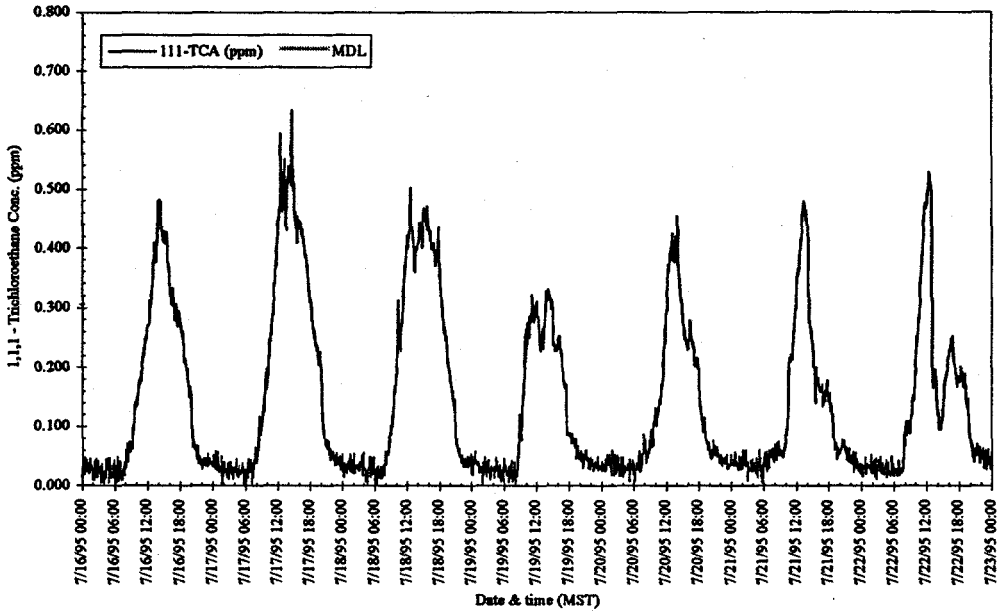

Figure B-143. Week 29, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.633, 0.004, and 0.144 ppm, respectively. Maximum, minimum, and average MDLs were 0.005, 0.004, and 0.004 ppm, respectively.

RWMC WMF-628

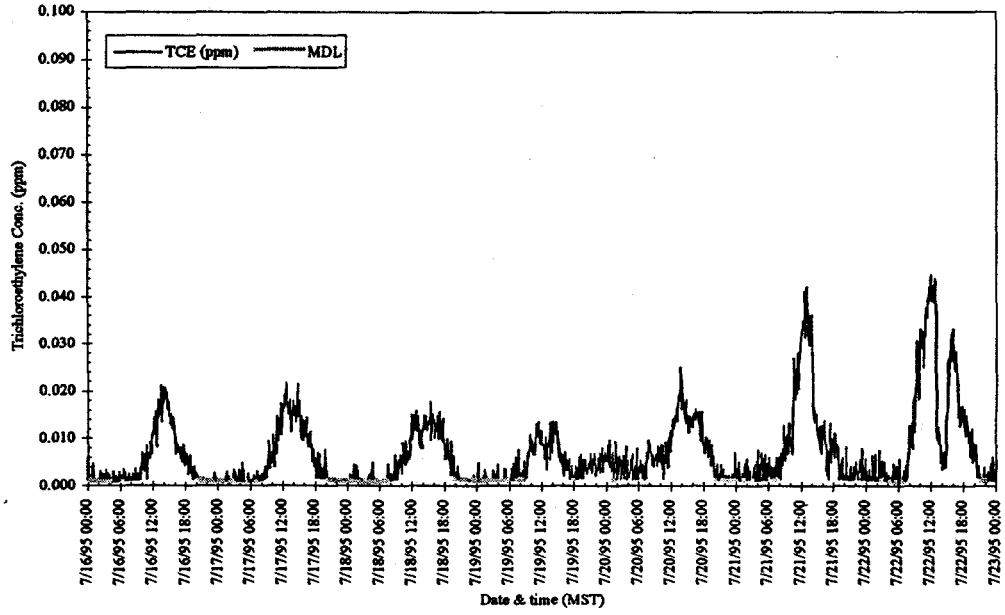

Figure B-144. Week 29, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0451, 0.0009, and 0.0068 ppm, respectively. Maximum, minimum, and average MDLs were 0.0017, 0.0009, and 0.0012 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

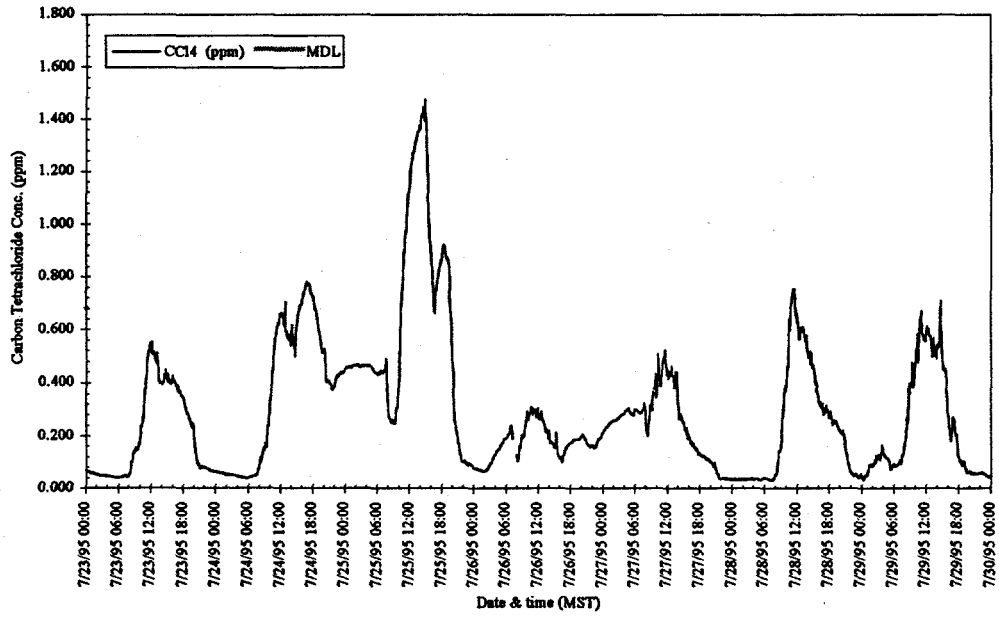

Figure B-145. Week 30, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 1.475, 0.029, and 0.294 ppm, respectively. No MDLs to report.

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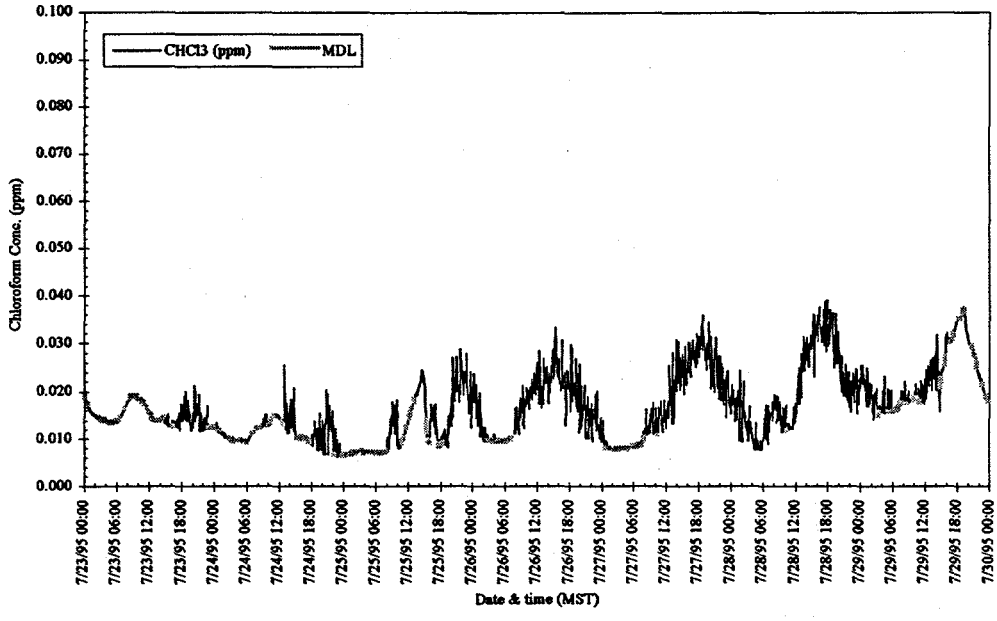

Figure B-146. Week 30, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.039, 0.006, and 0.017 ppm, respectively. Maximum, minimum, and average MDLs were 0.037, 0.006, and 0.014 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

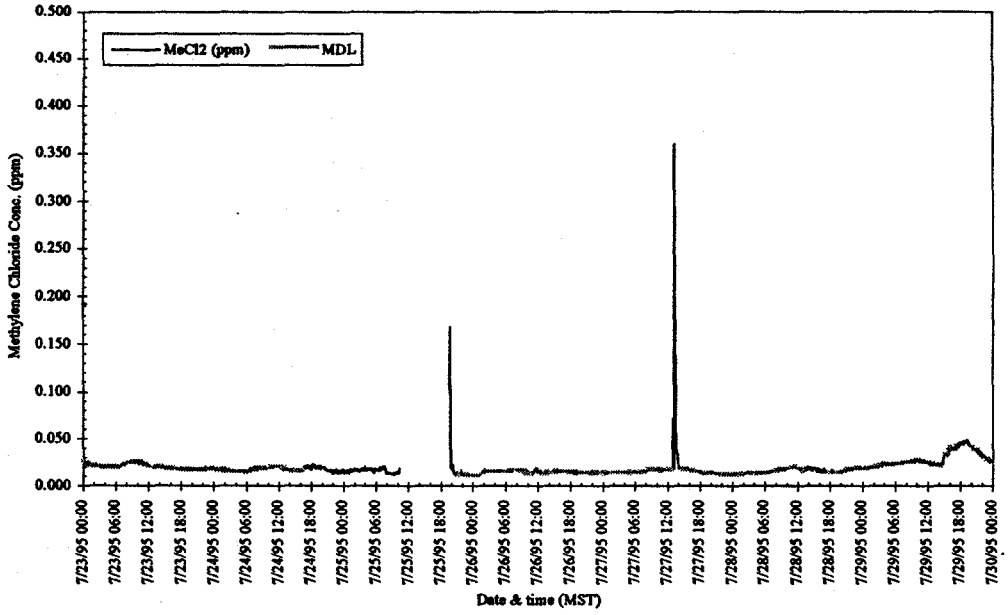

Figure B-147. Week 30, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.359, 0.012, and 0.018 ppm, respectively. Maximum, minimum, and average MDLs were 0.048, 0.012, and 0.019 ppm, respectively.

RWMC WMF-628

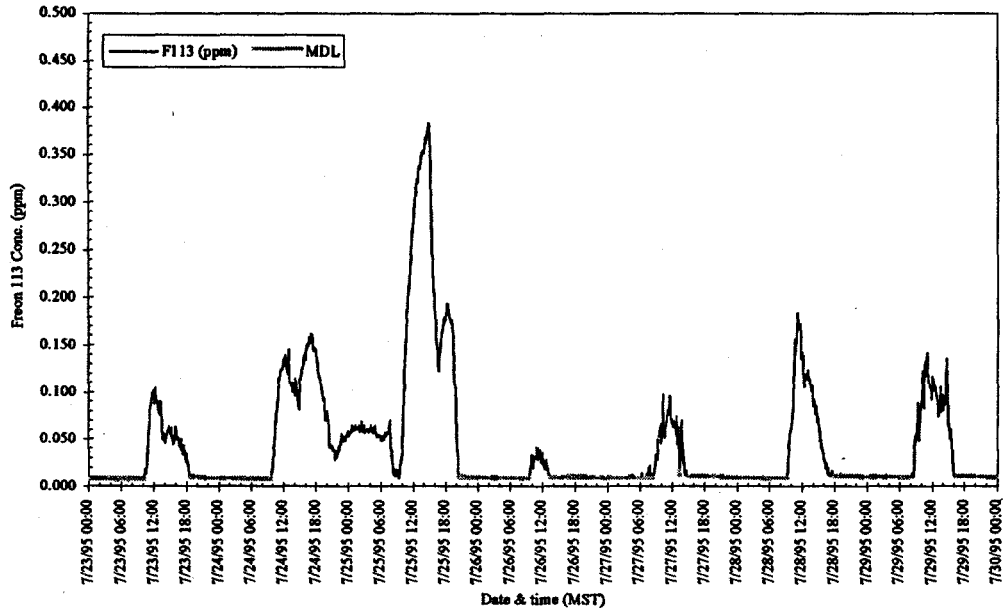

Figure B-148. Week 30, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.383, 0.008, and 0.044 ppm, respectively. Maximum, minimum, and average MDLs were 0.017, 0.008, and 0.009 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

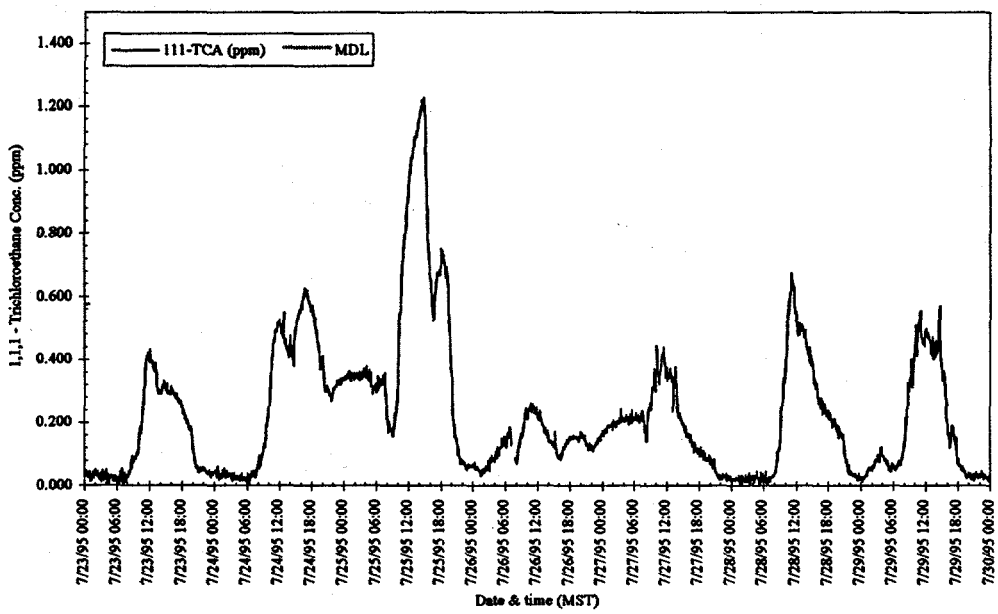

Figure B-149. Week 30, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 1.226, 0.003, and 0.229 ppm, respectively. Maximum, minimum, and average MDLs were 0.004, 0.003, and 0.003 ppm, respectively.

RWMC WMF-628

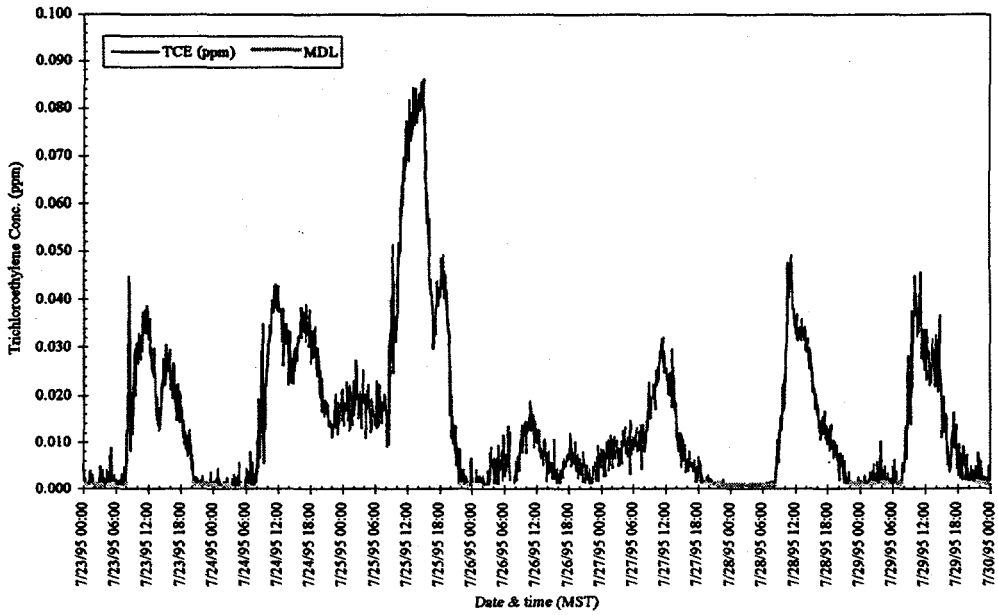

Figure B-150. Week 30, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0860, 0.0007, and 0.0145 ppm, respectively. Maximum, minimum, and average MDLs were 0.0018, 0.0007, and 0.0010 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

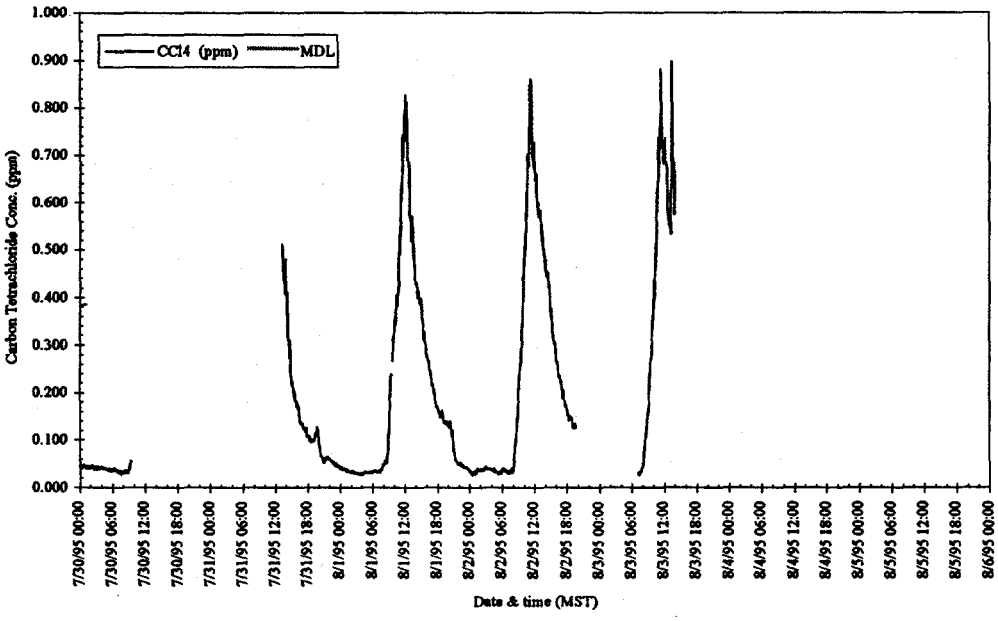

Figure B-151. Week 31, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.896, 0.026, and 0.200 ppm, respectively. No MDLs to report.

RWMC WMF-628

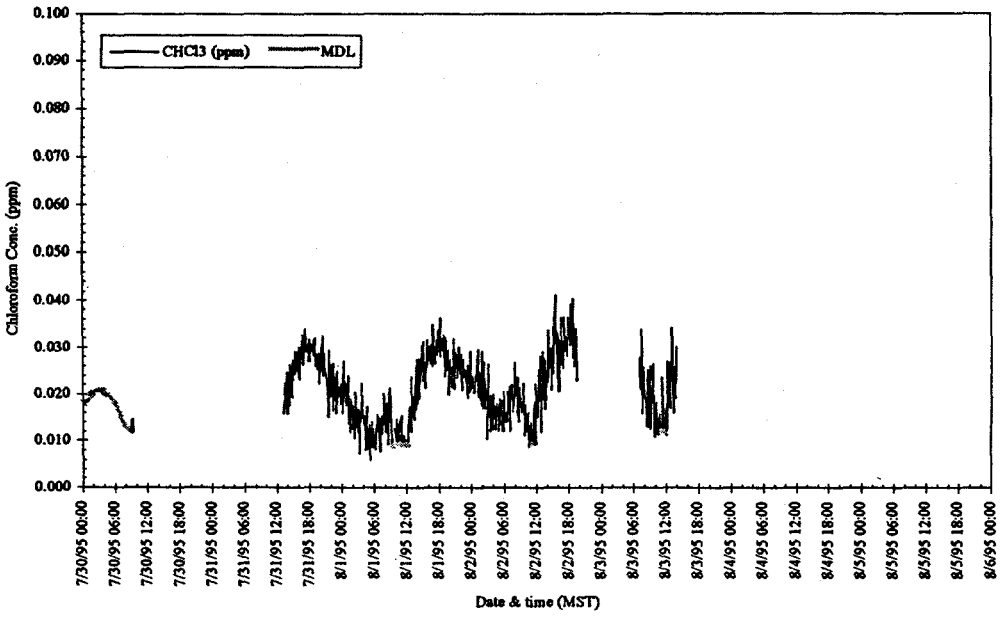

Figure B-152. Week 31, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.041, 0.006, and 0.021 ppm, respectively. Maximum, minimum, and average MDLs were 0.021, 0.006, and 0.015 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

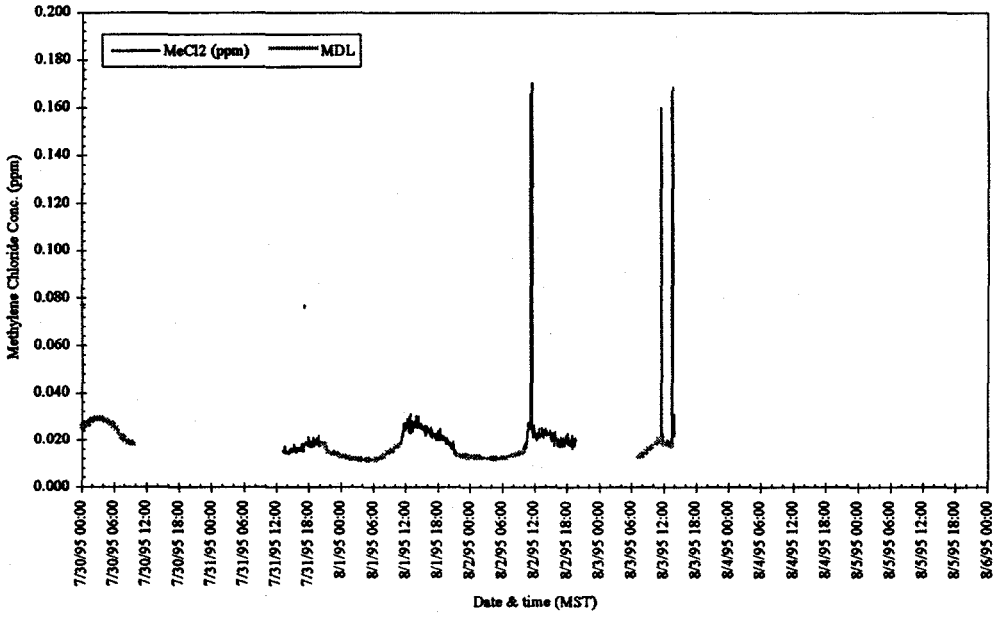

Figure B-153. Week 31, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.171, 0.011, and 0.019 ppm, respectively. Maximum, minimum, and average MDLs were 0.029, 0.012, and 0.017 ppm, respectively.

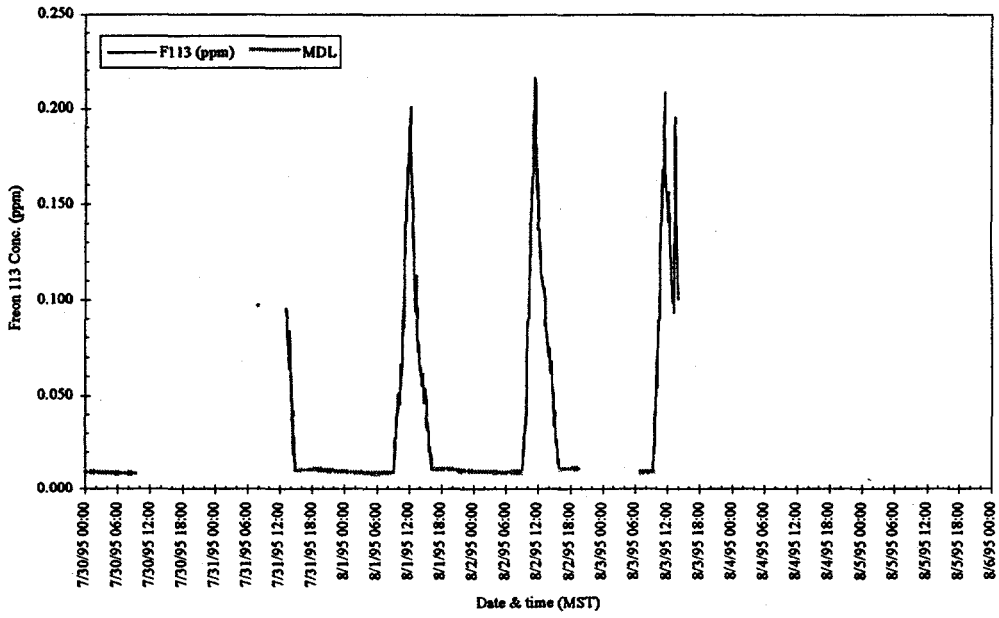

Figure B-154. Week 31, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.216, 0.008, and 0.033 ppm, respectively. Maximum, minimum, and average MDLs were 0.011, 0.008, and 0.009 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

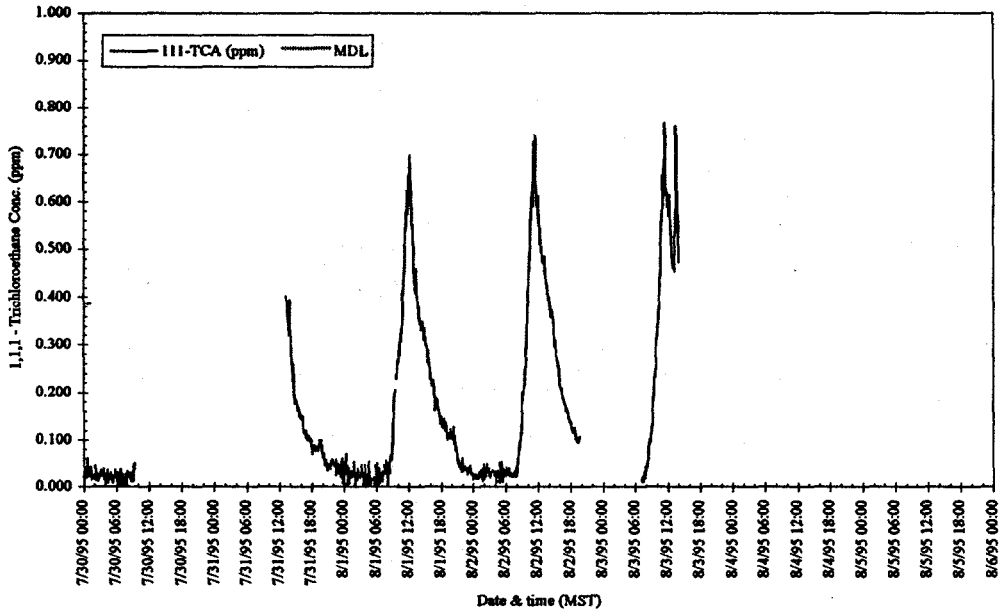

Figure B-155. Week 31, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.767, 0.003, and 0.164 ppm, respectively. Maximum, minimum, and average MDLs were 0.004, 0.003, and 0.004 ppm, respectively.

RWMC WMF-628

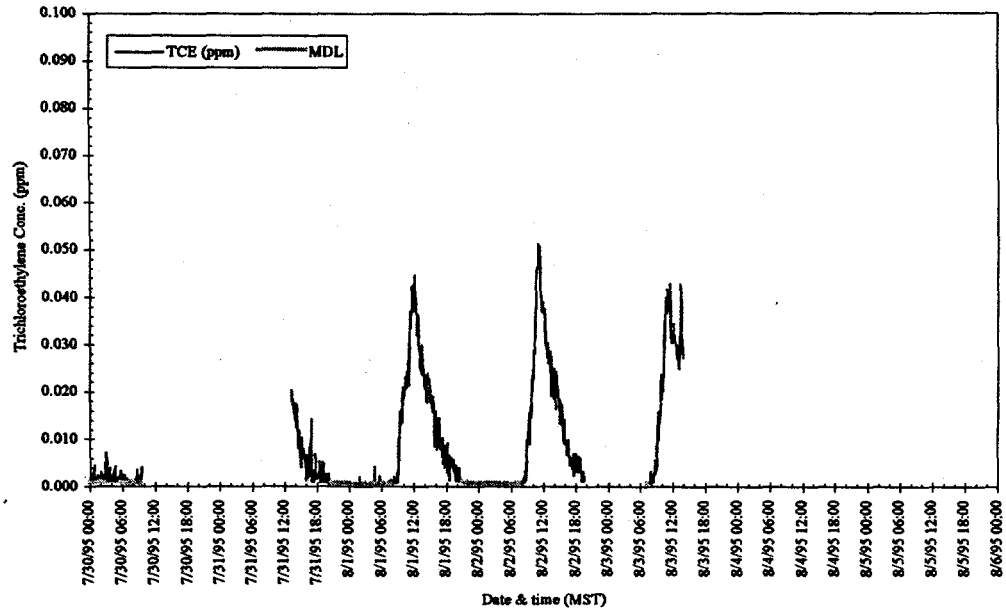

Figure B-156. Week 31, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0515, 0.0006, and 0.0089 ppm, respectively. Maximum, minimum, and average MDLs were 0.0013, 0.0006, and 0.0008 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

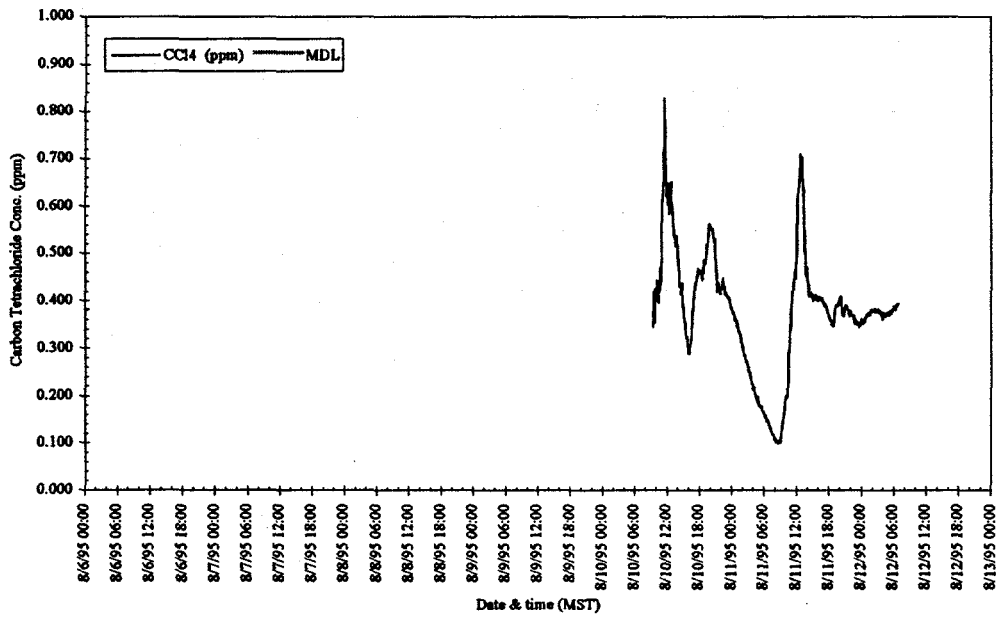

Figure B-157. Week 32, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.826, 0.099, and 0.379 ppm, respectively. No MDLs to report.

RWMC WMF-628

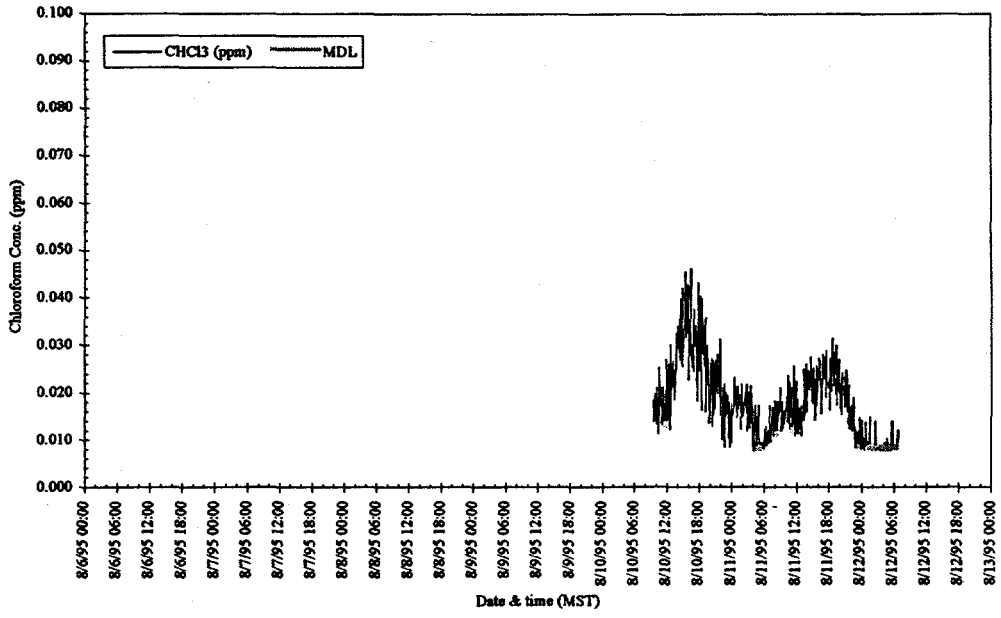

Figure B-158. Week 32, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.046, 0.008, and 0.018 ppm, respectively. Maximum, minimum, and average MDLs were 0.013, 0.008, and 0.009 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

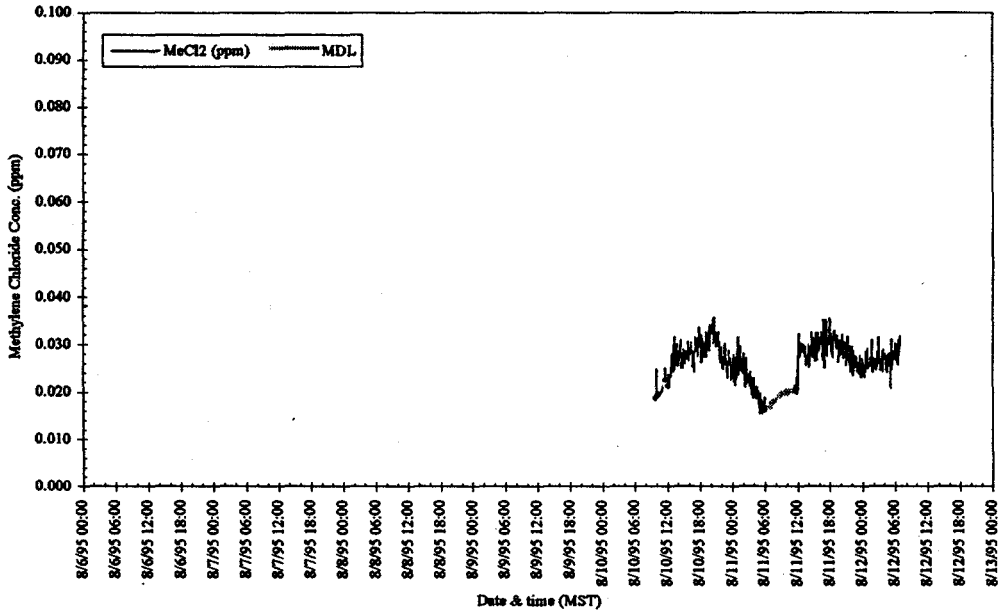

Figure B-159. Week 32, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.036, 0.015, and 0.026 ppm, respectively. Maximum, minimum, and average MDLs were 0.022, 0.015, and 0.019 ppm, respectively.

RWMC WMF-628

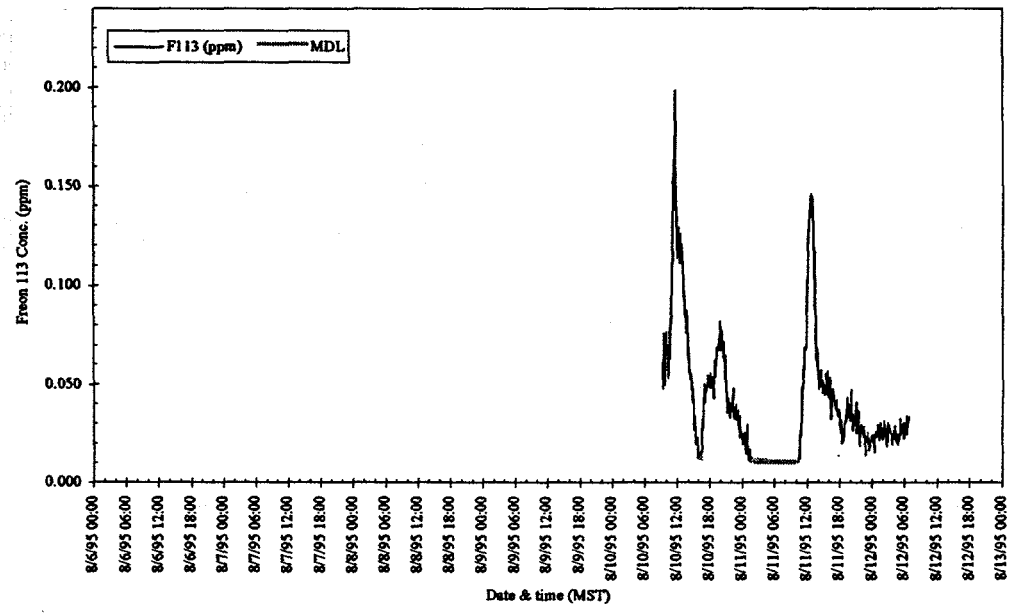

Figure B-160. Week 32, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.198, 0.010, and 0.041 ppm, respectively. Maximum, minimum, and average MDLs were 0.012, 0.010, and 0.011 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

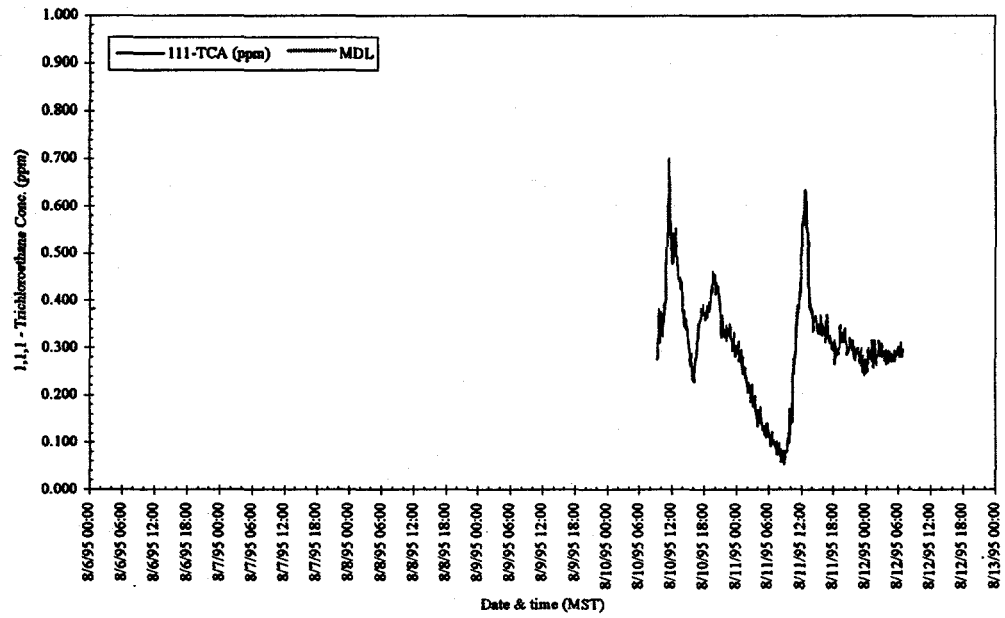

Figure B-161. Week 32, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.699, 0.052, and 0.304 ppm, respectively. No MDLs to report.

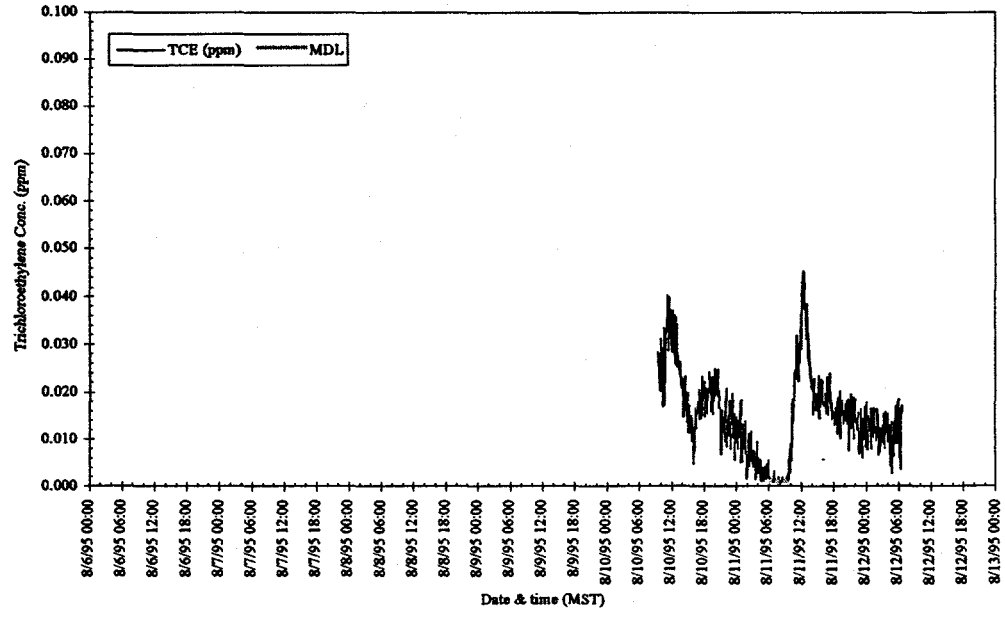

Figure B-162. Week 32, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were , 0.0452, 0.0009, and 0.0152 ppm, respectively. Maximum, minimum, and average MDLs were 0.0016, 0.0009, and 0.0010 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

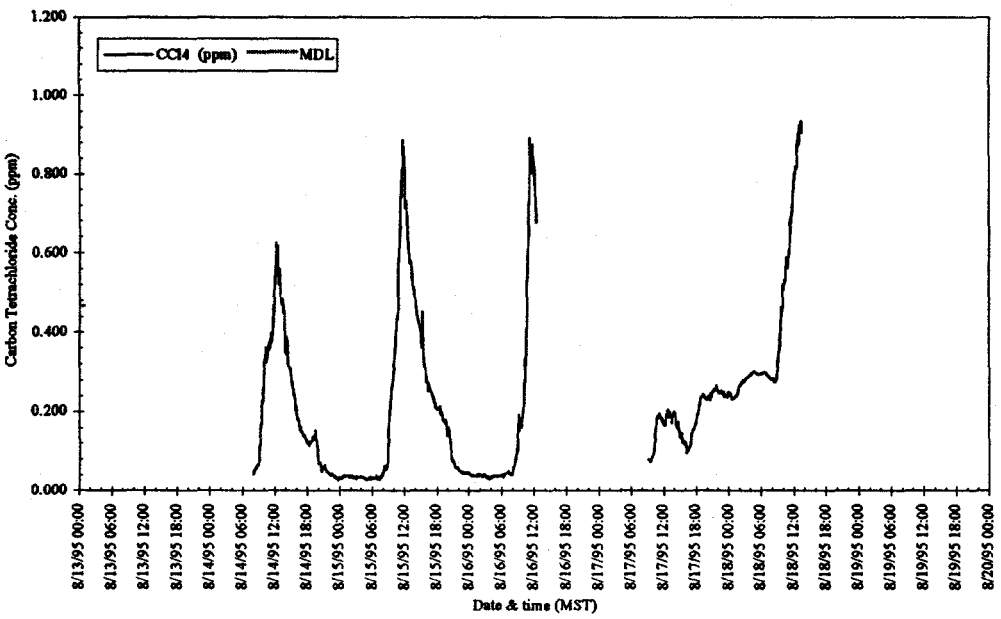

Figure B-163. Week 33, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.935, 0.026, and 0.231 ppm, respectively. No MDLs to report.

RWMC WMF-628

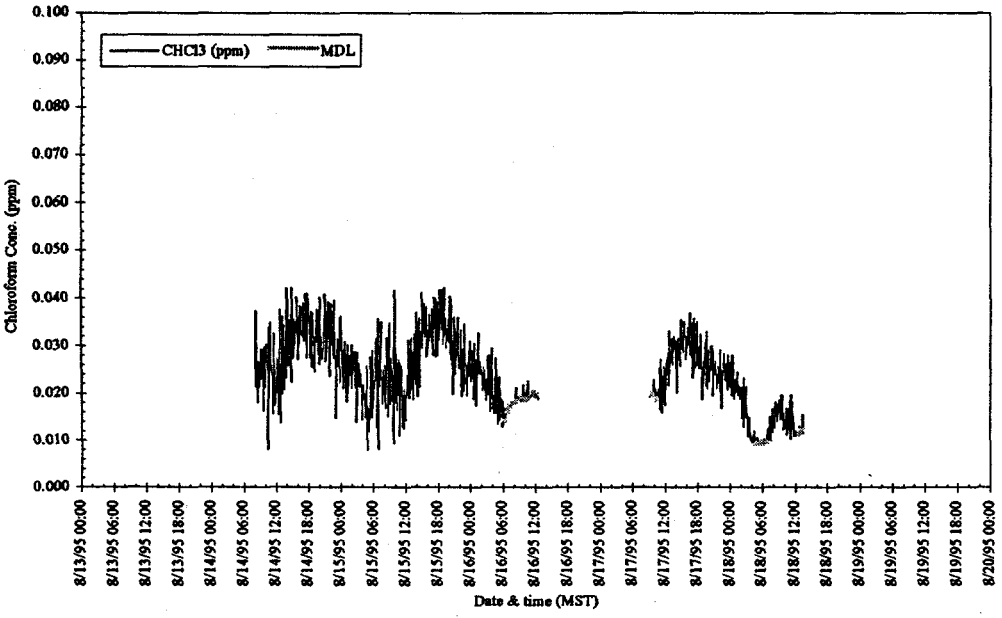

Figure B-164. Week 33, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.042, 0.008, and 0.024 ppm, respectively. Maximum, minimum, and average MDLs were 0.020, 0.008, and 0.015 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

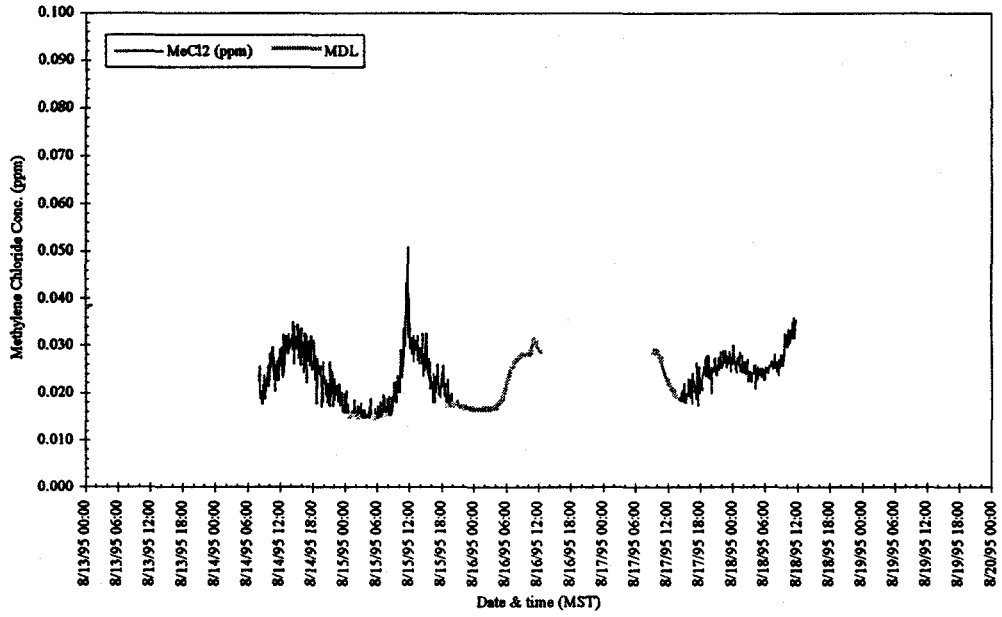

Figure B-165. Week 33, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.051, 0.015, and 0.023 ppm, respectively. Maximum, minimum, and average MDLs were 0.031, 0.015, and 0.021 ppm, respectively.

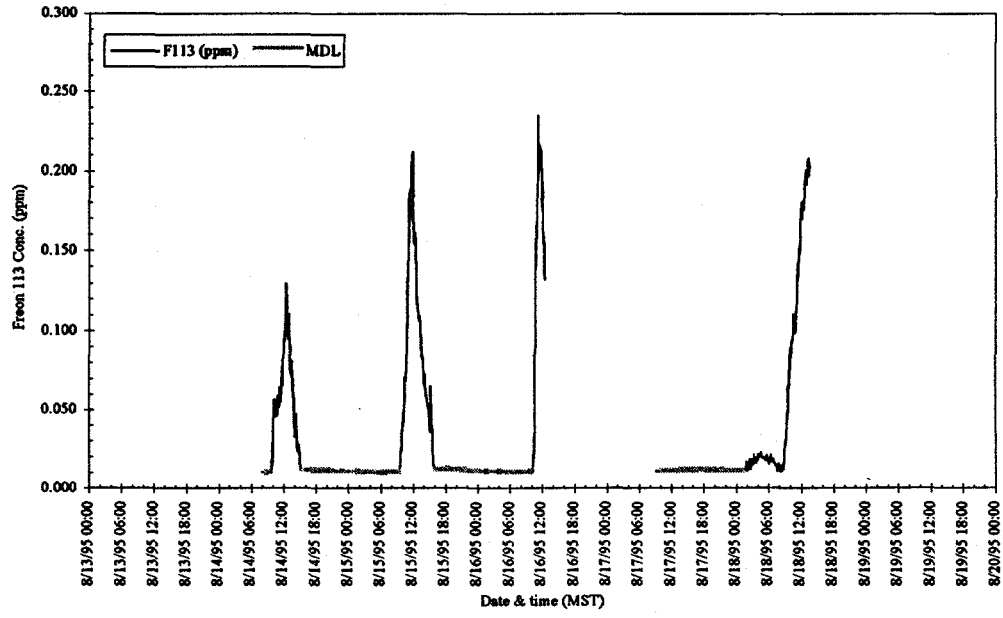

Figure B-166. Week 33, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.235, 0.010, and 0.032 ppm, respectively. Maximum, minimum, and average MDLs were 0.013, 0.010, and 0.011 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

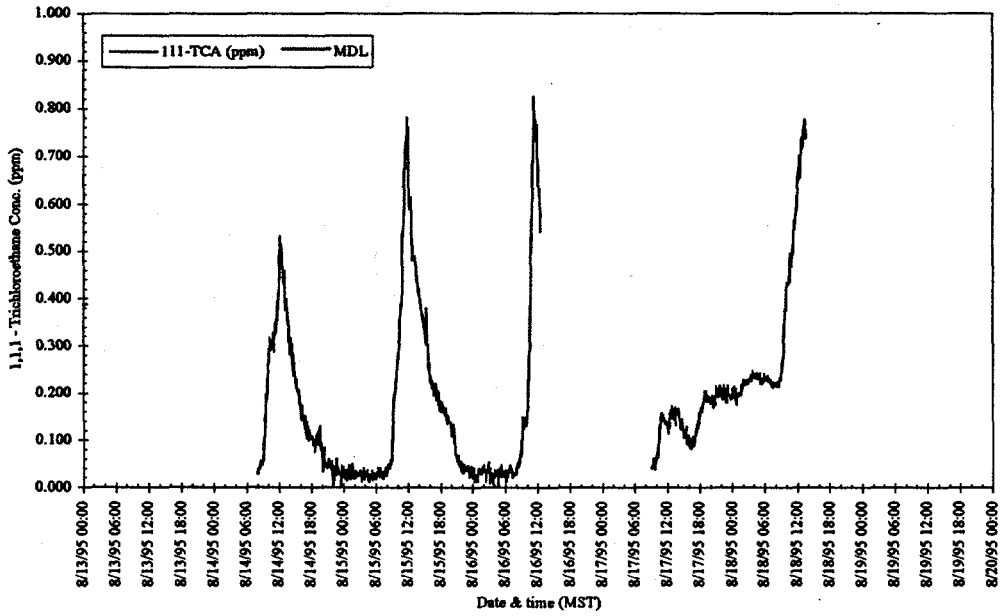

Figure B-167. Week 33, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.825, 0.003, and 0.190 ppm, respectively. No MDLs to report.

RWMC WMF-628

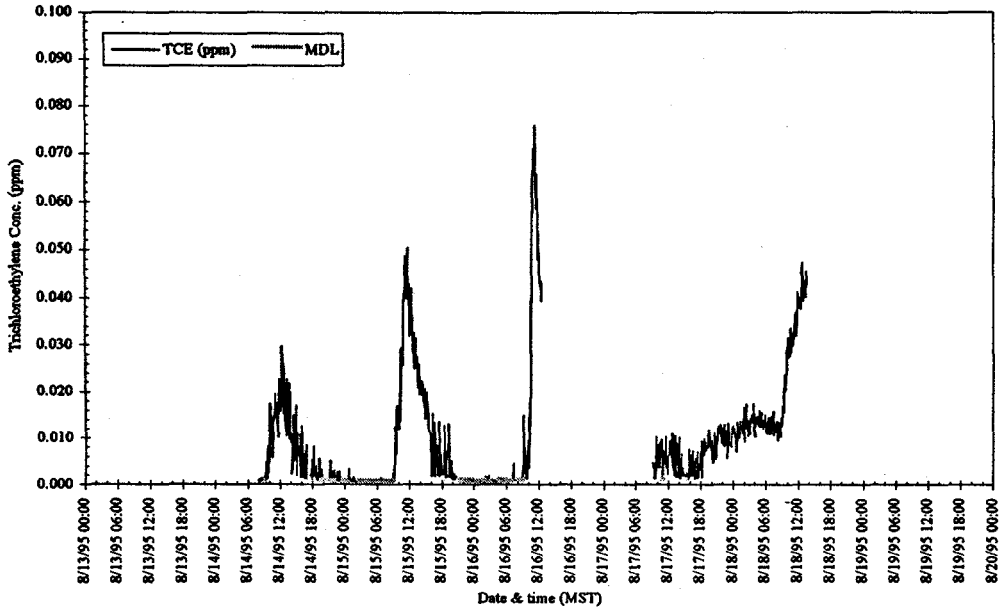

Figure B-168. Week 33, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0760, 0.0006, and 0.0098 ppm, respectively. Maximum, minimum, and average MDLs were 0.0020, 0.0006, and 0.0009 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

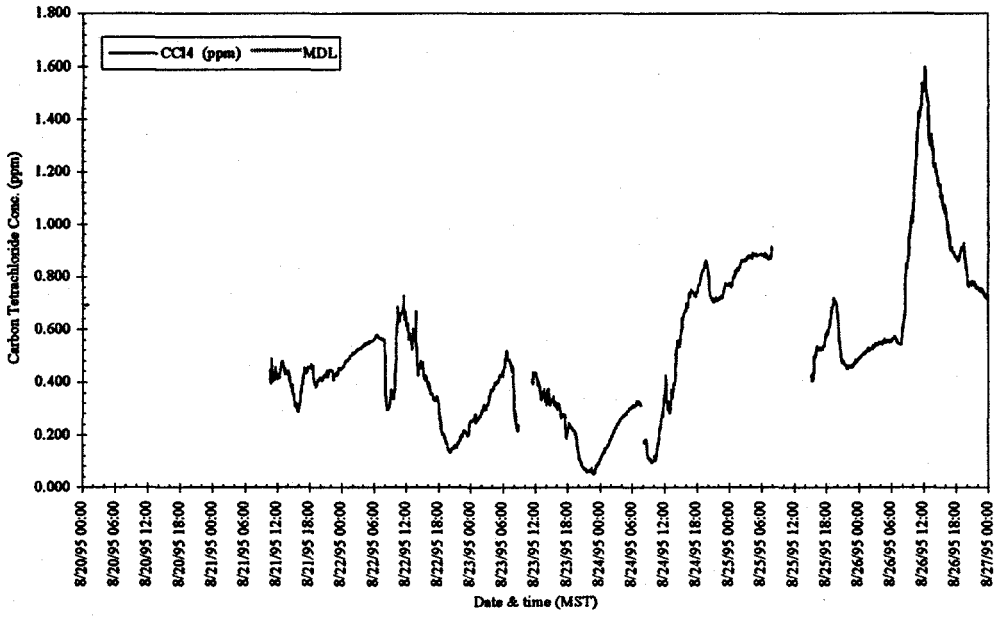

Figure B-169. Week 34, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 1.595, 0.050, and 0.519 ppm, respectively. No MDLs to report.

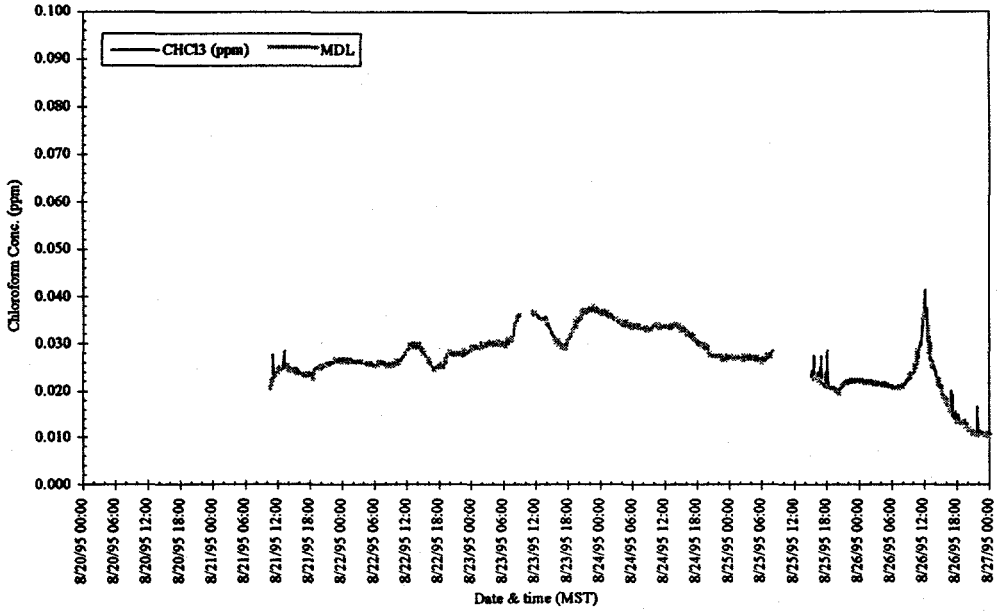

Figure B-170. Week 34, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.041, 0.010, and 0.027 ppm, respectively. Maximum, minimum, and average MDLs were 0.038, 0.010, and 0.027 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

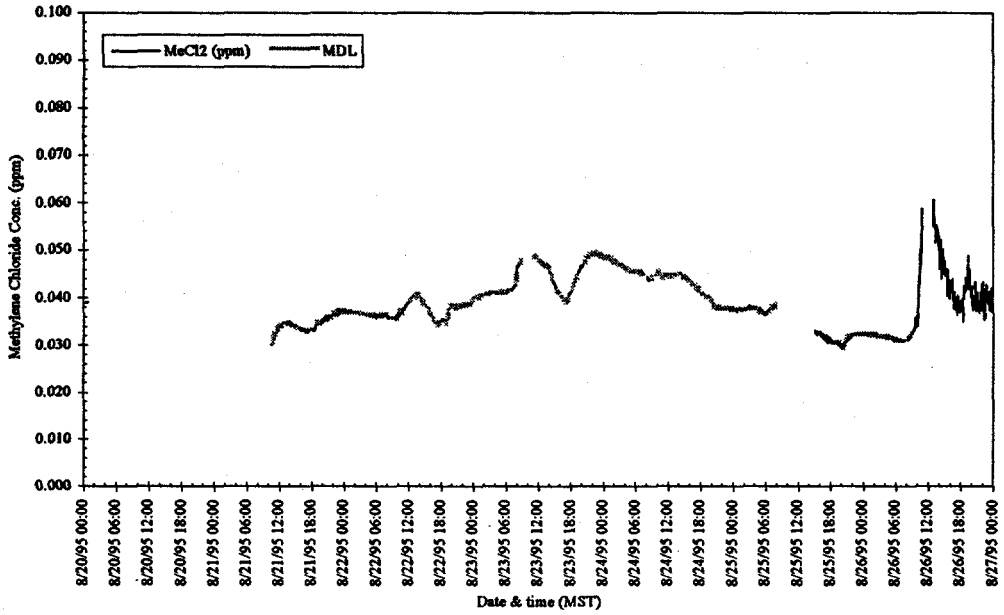

Figure B-171. Week 34, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.062, 0.029, and 0.038 ppm, respectively. Maximum, minimum, and average MDLs were 0.050, 0.029, and 0.039 ppm, respectively.

RWMC WMF-628

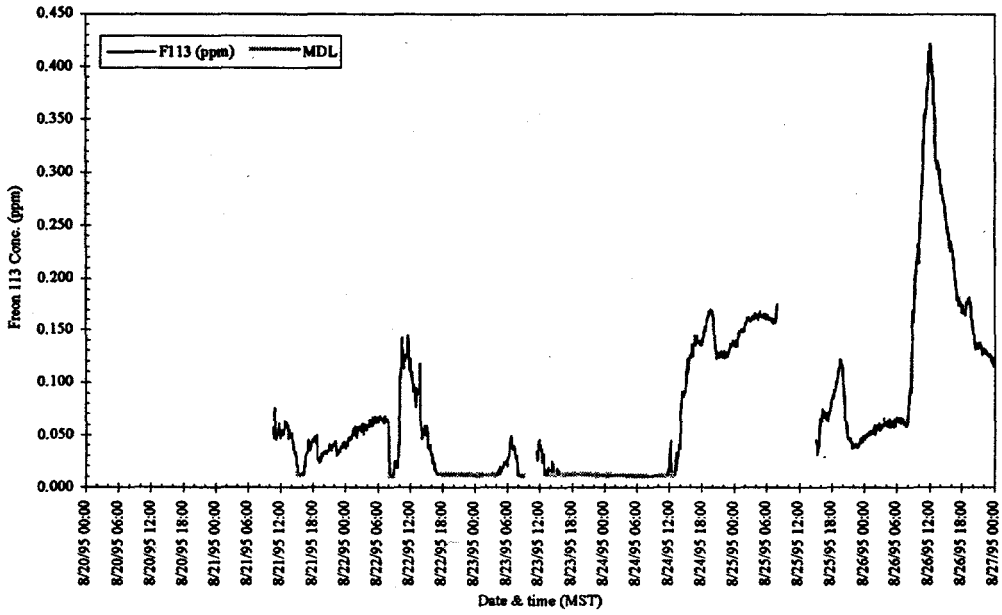

Figure B-172. Week 34, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.421, 0.010, and 0.075 ppm, respectively. Maximum, minimum, and average MDLs were 0.013, 0.010, and 0.012 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

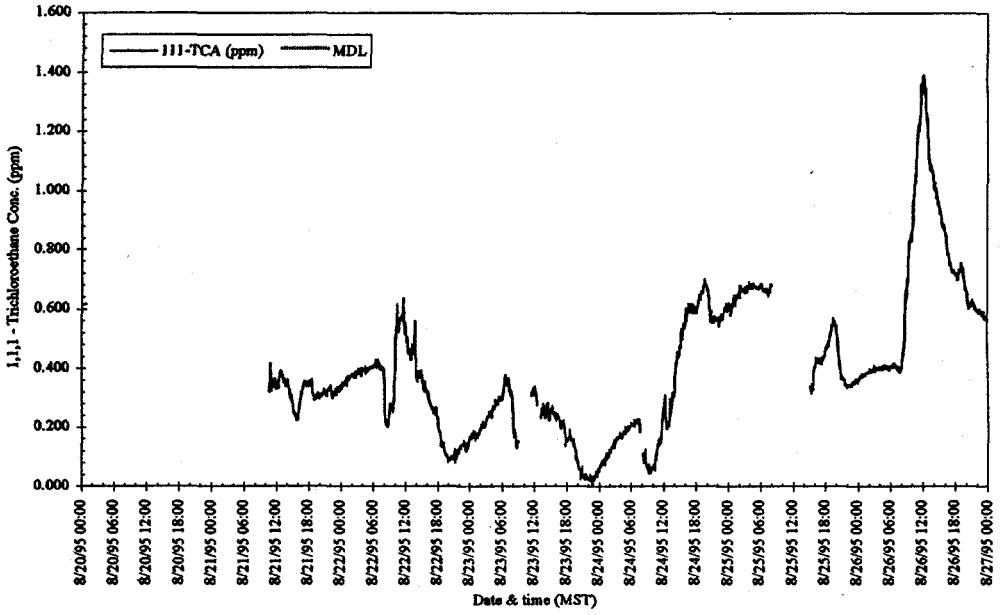

Figure B-173. Week 34, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 1.392, 0.006, and 0.400 ppm, respectively. No MDLs to report.

RWMC WMF-628

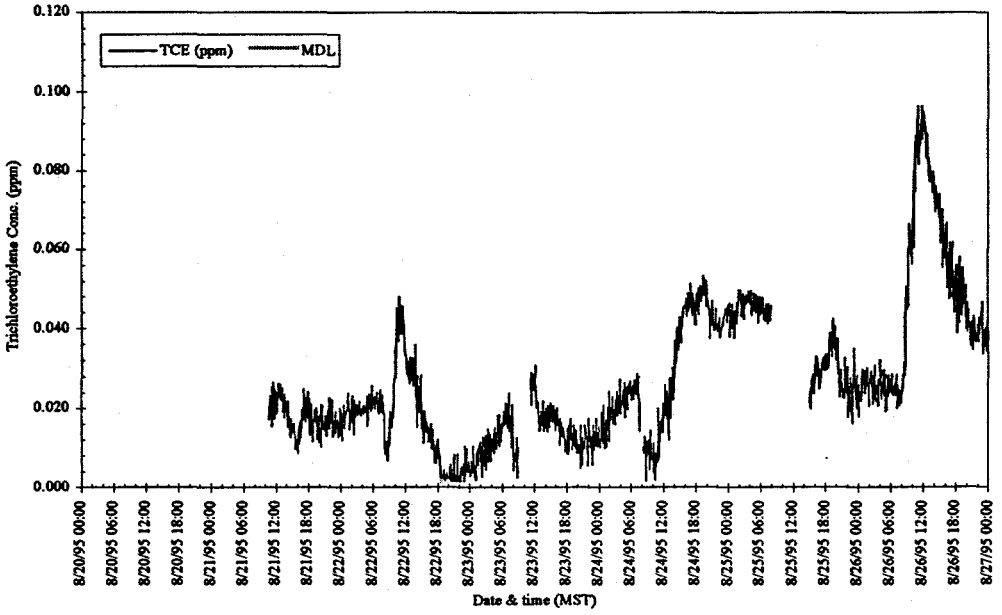

Figure B-174. Week 34, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.0962, 0.0015, and 0.0271 ppm, respectively. Maximum, minimum, and average MDLs were 0.0017, 0.0015, and 0.0016 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

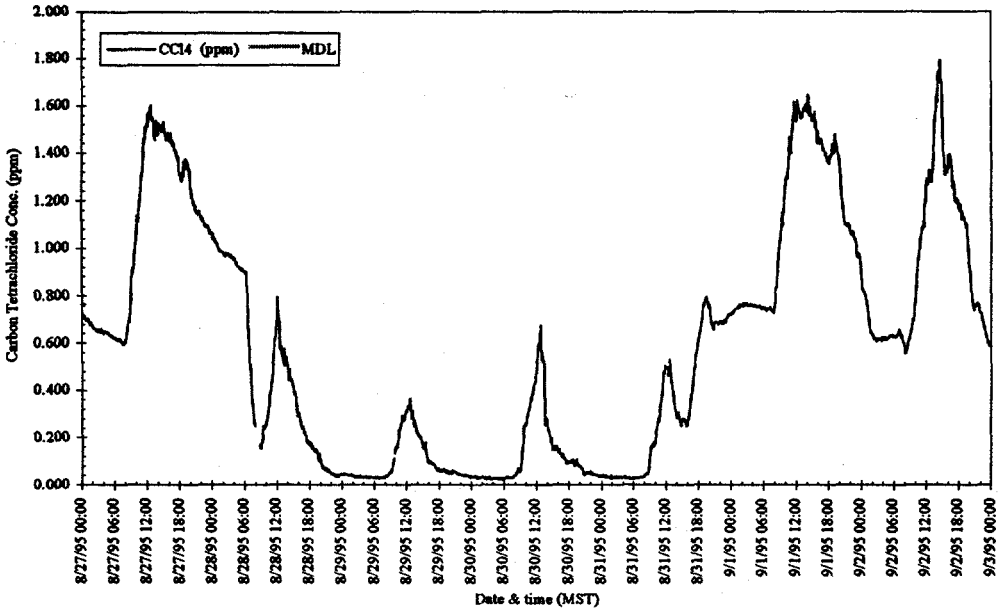

Figure B-175. Week 35, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 1.791, 0.021, and 0.592 ppm, respectively. No MDLs to report.

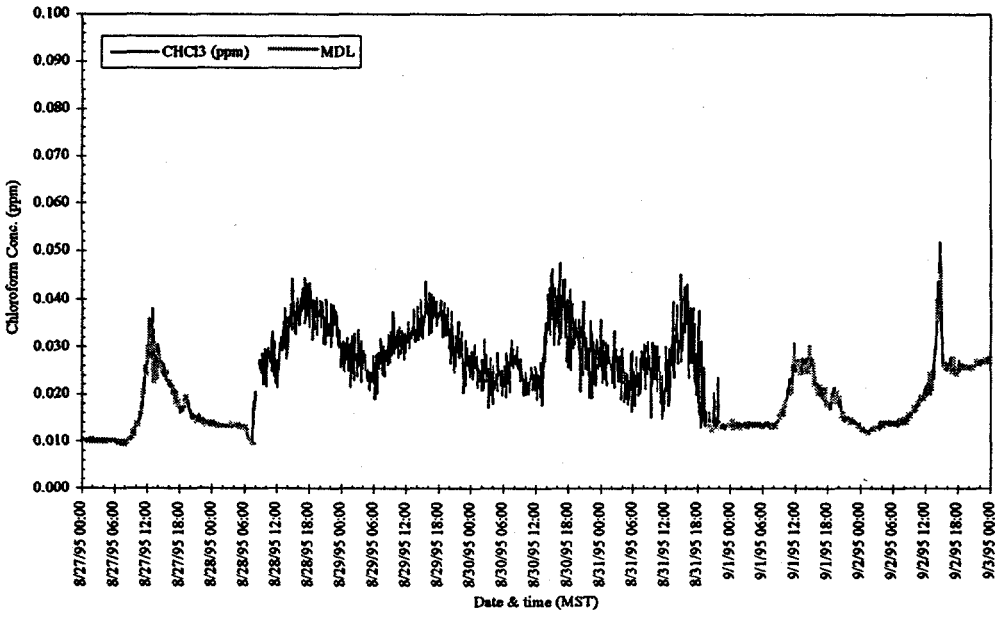

Figure B-176. Week 35, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.052, 0.009, and 0.023 ppm, respectively. Maximum, minimum, and average MDLs were 0.046, 0.009, and 0.017 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

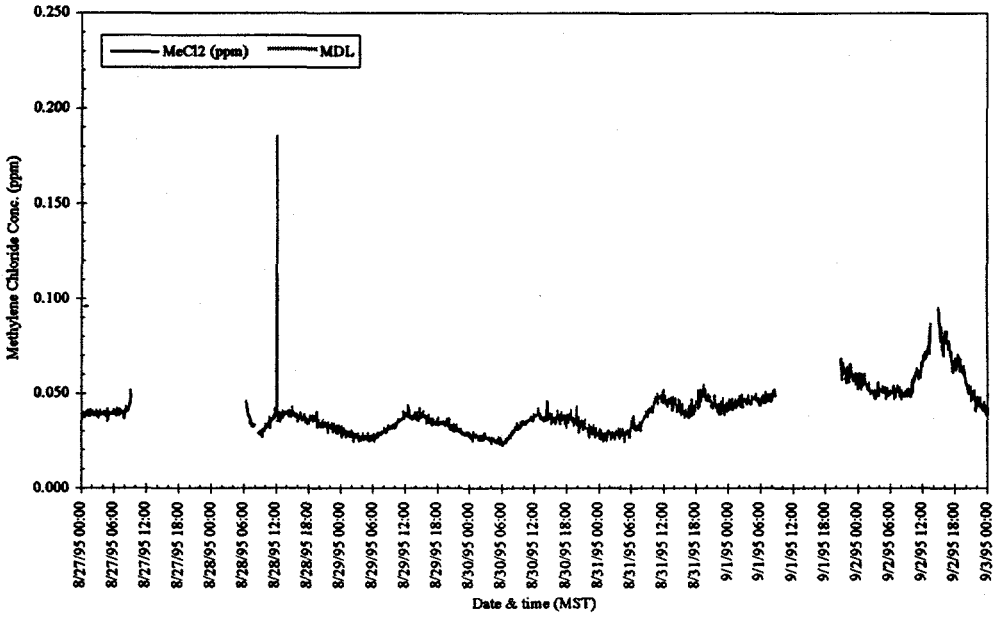

Figure B-177. Week 35, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.185, 0.022, and 0.032 ppm, respectively. No MDLs to report.

RWMC WMF-628

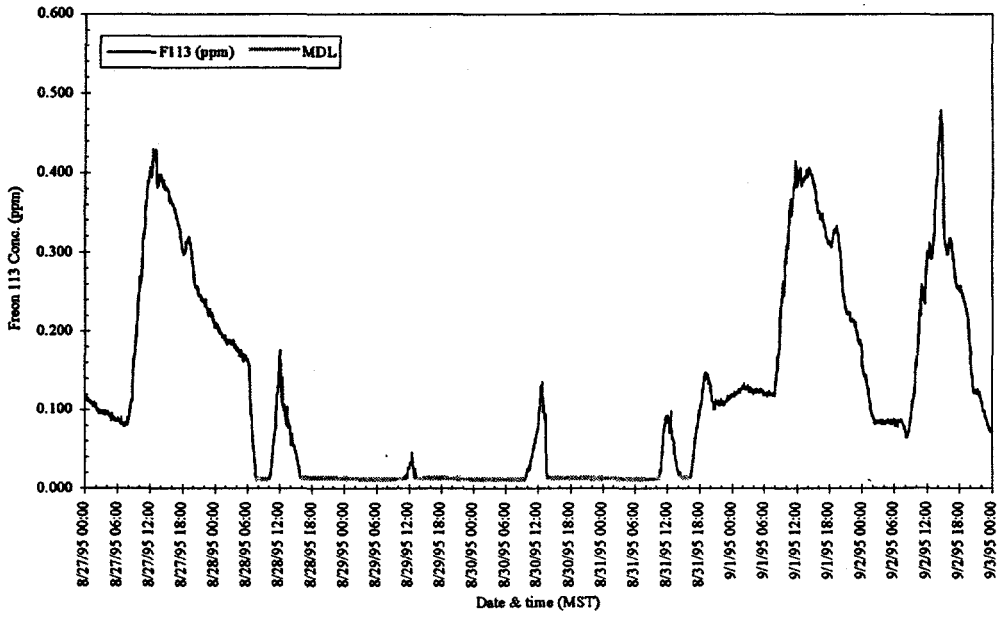

Figure B-178. Week 35, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.478, 0.011, and 0.116 ppm, respectively. Maximum, minimum, and average MDLs were 0.013, 0.011, and 0.012 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

RWMC WMF-628

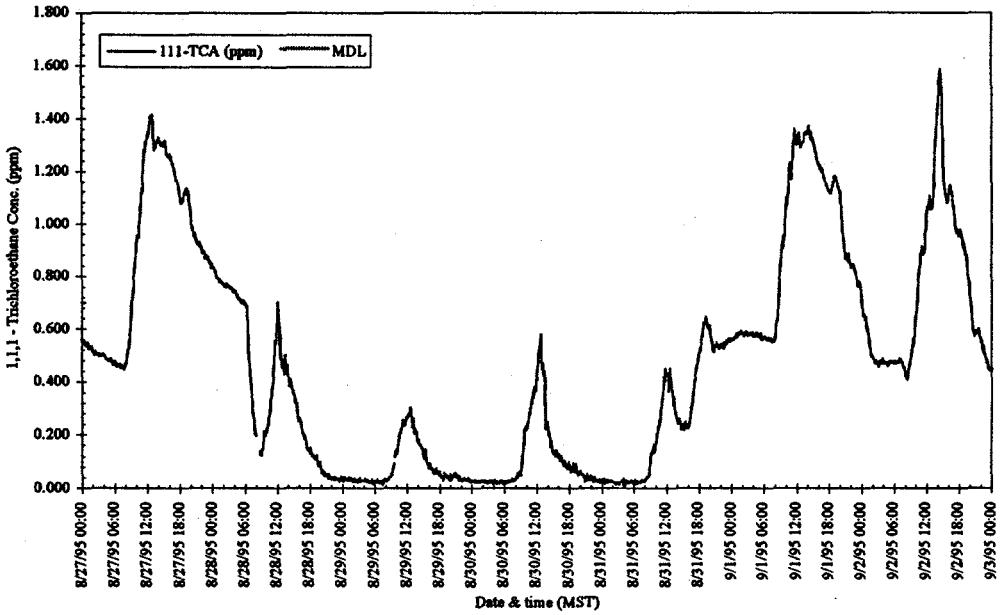

Figure B-179. Week 35, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 1.586, 0.009, and 0.481 ppm, respectively. No MDLs to report.

RWMC WMF-628

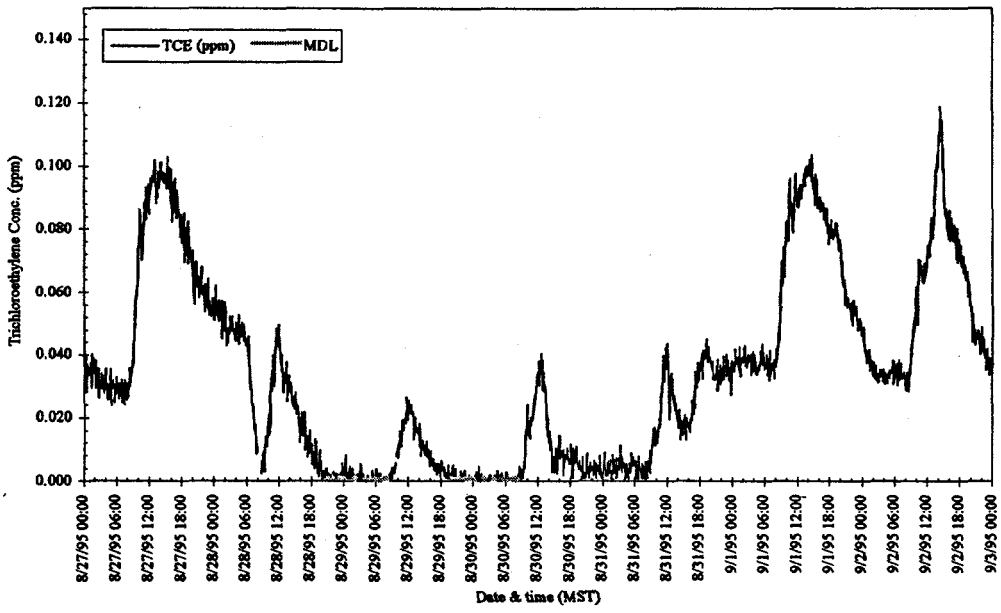

Figure B-180. Week 35, 1995. Concentration as a function of time. Maximum, minimum, and average concentrations were 0.119, 0.0006, and 0.0339 ppm, respectively. Maximum, minimum, and average MDLs were 0.0011, 0.0006, and 0.0008 ppm, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

Appendix C

Summa® Canister Sampling Data for Target Volatile Organic Compounds (Sampling Rounds 1 through 6)

Summa Canister Sampling - Round 1										
Type: Stationary Time Composite										
Date Samples Collected: 02/15/95										
Sample No.	Start Time	End Time	Sample Type	Carbon Tetrachloride[a] (ppb v/v)	Chloroform[a] (ppb v/v)	Methylene Chloride[a] (ppb v/v)	Freon 113[a] (ppb v/v)	1,1,1-Trichloroethane[a] (ppb v/v)	Trichloroethylene[a] (ppb v/v)	Other Volatiles[b] (ppb v/v)
R1628101VT	9:44 AM	2:46 PM	Time Comp.	ND (4 MDL)	ND (4 MDL)	ND (20 MDL)	ND (4 MDL)	5.4	ND (4 MDL)	none
R1628201VT	9:43 AM	2:47 PM	Time Comp.	ND (4 MDL)	ND (4 MDL)	ND (22 MDL)	ND (4 MDL)	ND (4MDL)	ND (4 MDL)	none
R1628301VT	9:42 AM	3:06 PM	Time Comp.	ND (5 MDL)	ND (5 MDL)	ND (25 MDL)	ND (5 MDL)	ND (5 MDL)	ND (5 MDL)	none
R1628401VT	9:41 AM	3:09 PM	Time Comp.	ND (5 MDL)	ND (5 MDL)	ND (26 MDL)	ND (5 MDL)	ND (5 MDL)	ND (5 MDL)	none
R1628501VT	9:40 AM	2:41 PM	Time Comp.	4.4 J	ND (4 MDL)	ND (22 MDL)	ND (4 MDL)	5.7	ND (4 MDL)	none
R1628601VT	9:39 AM	2:41 PM	Time Comp.	ND (4 MDL)	ND (4 MDL)	ND (22 MDL)	ND (4 MDL)	ND (4MDL)	6.6	none
a - Radioactive Waste Management Complex target analyte list										
b - U.S. EPA Method TO-14 target analyte list for volatile organic compounds. Tentatively identified compounds are not included in table.										
ND - Non Detect										
MDL - Minimum Detection Limit										
J - Estimated value										

Summa Canister Sampling - Round 2										
Type: Summa Walk - Time and Spatial Composite										
Date Samples Collected: 02/21/95										
Sample No.	Start Time	End Time	Sample Type	Carbon Tetrachloride[a] (ppb v/v)	Chloroform[a] (ppb v/v)	Methylene Chloride[a] (ppb v/v)	Freon 113[a] (ppb v/v)	1,1,1-Trichloroethane[a] (ppb v/v)	Trichloroethylene[a] (ppb v/v)	Other Volatiles[b] (ppb v/v)
R2628101VT	1:07 PM	1:21 PM	Time/Spatial Composite	6.8	ND (2 MDL)	ND (10 MDL)	2.2	4.6	ND (2 MDL)	none
R2628201VT	1:07 PM	1:21 PM	Time/Spatial Composite	6.7	ND (2 MDL)	ND (13 MDL)	ND (2 MDL)	4.6	ND (2 MDL)	none
R2628301VT	1:28 PM	1:43 PM	Time/Spatial Composite	7.1	ND (2 MDL)	ND (11 MDL)	ND (2 MDL)	2.6	ND (2 MDL)	none
R2628401VT	1:28 PM	1:43 PM	Time/Spatial Composite	6.8	ND (2 MDL)	ND (9 MDL)	2.2	4.2	ND (2 MDL)	none
R2628501VT	1:51 PM	2:07 PM	Time/Spatial Composite	7.2	ND (2 MDL)	ND (11 MDL)	2.3	4.3	ND (2 MDL)	none
R2628601VT	1:51 PM	2:07 PM	Time/Spatial Composite	7.1	ND (2 MDL)	ND (11 MDL)	ND (2 MDL)	9.3	ND (2 MDL)	none

a - Radioactive Waste Management Complex target analyte list

b - U.S. EPA Method TO-14 target analyte list for volatile organic compounds. Tentatively identified compounds are not included in table.

ND - Non Detect

MDL - Minimum Detection Limit

J - Estimated value

Summa Canister Sampling - Round 3										
Type: Ventilation System Time Composite										
Date Samples Collected: 02/28/95										
Sample No.	Start Time	End Time	Sample Type	Carbon Tetrachloride[a] (ppb v/v)	Chloroform[a] (ppb v/v)	Methylene Chloride[a] (ppb v/v)	Freon 113[a] (ppb v/v)	1,1,1-Trichloroethane[a] (ppb v/v)	Trichloroethylene[a] (ppb v/v)	Other Volatiles[b] (ppb v/v)
R3628101VT	10:09 AM	3:00 PM	Time Comp.	ND (4 MDL)	ND (4 MDL)	ND (22 MDL)	ND (4 MDL)	4 J	ND (4 MDL)	none
R3628201VT	10:09 AM	3:00 PM	Time Comp.	ND (4 MDL)	ND (4 MDL)	ND (21 MDL)	ND (4 MDL)	ND (4 MDL)	ND (4 MDL)	none
R3628301VT	10:09 AM	3:00 PM	Time Comp.	ND (4 MDL)	ND (4 MDL)	ND (20 MDL)	ND (4 MDL)	ND (4 MDL)	ND (4 MDL)	none
R3628401VT	10:09 AM	3:00 PM	Time Comp.	ND (4 MDL)	ND (4 MDL)	ND (21 MDL)	ND (4 MDL)	ND (4 MDL)	ND (4 MDL)	Acetone 13 J
R3628501VT	10:09 AM	3:00 PM	Time Comp.	ND (4 MDL)	ND (4 MDL)	ND (21 MDL)	ND (4 MDL)	4 J	ND (4 MDL)	none
a - Radioactive Waste Management Complex target analyte list										
b - U.S. EPA Method TO-14 target analyte list for volatile organic compounds. Tentatively identified compounds are not included in table.										
ND - Non Detect										
MDL - Minimum Detection Limit										
J - Estimated value										

Summa Canister Sampling - Round 4										
Type: Stationary Time Composite										
Date Samples Collected: 07/19/95										
Sample No.	Start Time	End Time	Sample Type	Carbon Tetrachloride[a] (ppb v/v)	Chloroform[a] (ppb v/v)	Methylene Chloride[a] (ppb v/v)	Freon 113[a] (ppb v/v)	1,1,1-Trichloroethane[a] (ppb v/v)	Trichloroethylene[a] (ppb v/v)	Other Volatiles[b] (ppb v/v)
R4628101VT	8:34 AM	11:16 AM	Time Comp.	89	ND (4 MDL)	ND (20 MDL)	27	73	ND (4 MDL)	none
R4628201VT	8:35 AM	11:17 AM	Time Comp.	330	ND (8 MDL)	ND (40 MDL)	85	250	ND (8 MDL)	none
R4628301VT	8:37 AM	11:17 AM	Time Comp.	90	ND (4 MDL)	ND (21 MDL)	26	65	ND (4 MDL)	none
R4628401VT	8:38 AM	11:18 AM	Time Comp.	96	ND (4 MDL)	ND (21 MDL)	30	75	ND (4 MDL)	none
R4628501VT	8:41 AM	9:35 AM	Time Comp.	43	ND (3 MDL)	ND (16 MDL)	10	30	ND (3 MDL)	m/p-xylene 3
a - Radioactive Waste Management Complex target analyte list										
b - U.S. EPA Method TO-14 target analyte list for volatile organic compounds. Tentatively identified compounds are not included in table.										
ND - Non Detect										
MDL - Minimum Detection Limit										
J - Estimated value										

Summa Canister Sampling - Round 5										
Type: Summa Walk - Time and Spatial Composite										
Date Samples Collected: 07/26/95										
Sample No.	Start Time	End Time	Sample Type	Carbon Tetrachloride[a] (ppb v/v)	Chloroform[a] (ppb v/v)	Methylene Chloride[a] (ppb v/v)	Freon 113[a] (ppb v/v)	1,1,1-Trichloroethane[a] (ppb v/v)	Trichloroethylene[a] (ppb v/v)	Other Volatiles[b] (ppb v/v)
R54628101V	9:10 AM	9:31 AM	Time/Spatial Composite	170	ND (4 MDL)	ND (18 MDL)	50	120	ND (4 MDL)	Toluene 4
R5628201VT	9:10 AM	9:31 AM	Time/Spatial Composite	170	ND (4 MDL)	ND (18 MDL)	50	130	ND (4 MDL)	Toluene 4
R5628301VT	9:36 AM	10:16 AM	Time/Spatial Composite	270	ND (8 MDL)	ND (38 MDL)	84	200	ND (8 MDL)	none
R5628401VT	9:36 AM	10:10 AM	Time/Spatial Composite	280	4	ND (18 MDL)	87	210	ND (4 MDL)	Toluene 4
R5628501VT	10:19 AM	10:48 AM	Time/Spatial Composite	380	4	ND (16 MDL)	110	300	ND (3 MDL)	Toluene 3
R5628601VT	10:19 AM	10:48 AM	Time/Spatial Composite	340	ND (4 MDL)	ND (22 MDL)	100	270	ND (4 MDL)	none
a - Radioactive Waste Management Complex target analyte list										
b - U.S. EPA Method TO-14 target analyte list for volatile organic compounds. Tentatively identified compounds are not included in table.										
ND - Non Detect										
MDL - Minimum Detection Limit										
J - Estimated value										

Summa Canister Sampling - Round 6										
Type: Ventilation System Time Composite										
Date Samples Collected: 08/03/95										
Sample No.	Start Time	End Time	Sample Type	Carbon Tetrachloride[a] (ppb v/v)	Chloroform[a] (ppb v/v)	Methylene Chloride[a] (ppb v/v)	Freon 113[a] (ppb v/v)	1,1,1-Trichloroethane[a] (ppb v/v)	Trichloroethylene[a] (ppb v/v)	Other Volatiles[b] (ppb v/v)
R6628101VT	8:32 AM	12:10 PM	Time Comp.	9	ND (4 MDL)	ND (21 MDL)	ND (4 MDL)	8	ND (4 MDL)	none
R6628201VT	8:32 AM	12:10 PM	Time Comp.	73	ND (4 MDL)	ND (22 MDL)	22	64	ND (4 MDL)	none
R6628301VT	8:32 AM	12:10 PM	Time Comp.	58	ND (4 MDL)	ND (21 MDL)	17	48	ND (4 MDL)	none
R6628401VT	8:32 AM	12:10 PM	Time Comp.	38	ND (4 MDL)	ND (20 MDL)	11	34	ND (4 MDL)	none
R6628501VT	8:32 AM	12:10 PM	Time Comp.	67	ND (4 MDL)	ND (22 MDL)	21	59	ND (4 MDL)	none
a - Radioactive Waste Management Complex target analyte list										
b - U.S. EPA Method TO-14 target analyte list for volatile organic compounds. Tentatively identified compounds are not included in table.										
ND - Non Detect										
MDL - Minimum Detection Limit										
J - Estimated value										

Appendix D

Graphs of Temperature and Absolute Barometric Pressure (Recorded inside WMF-628)

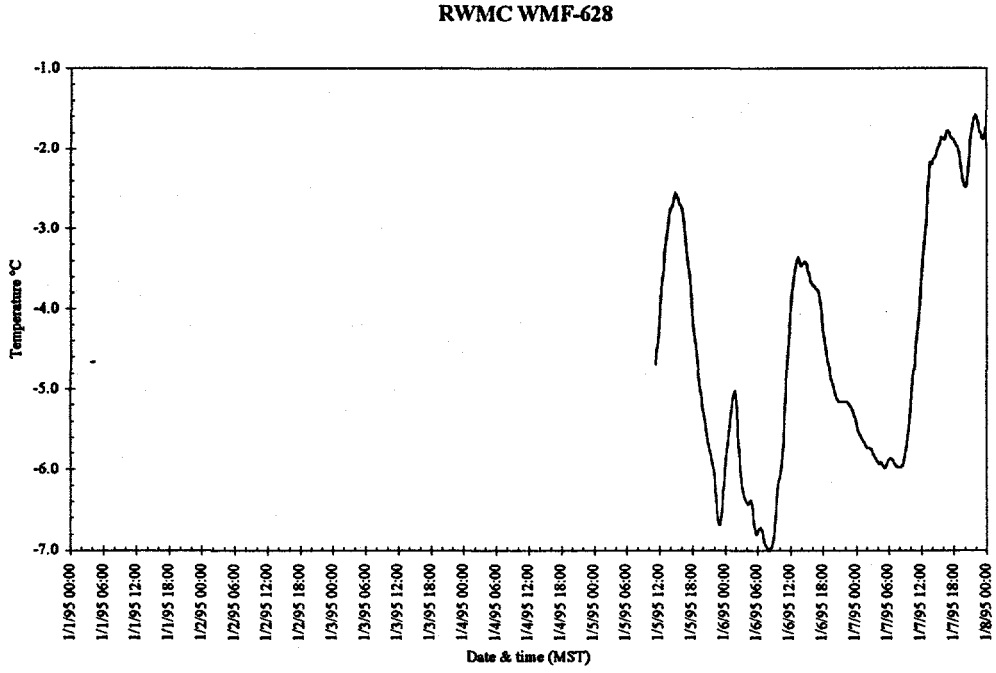

Figure D-1. Week 1, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were -1.6, -7.0, and -4.5 °C, respectively.

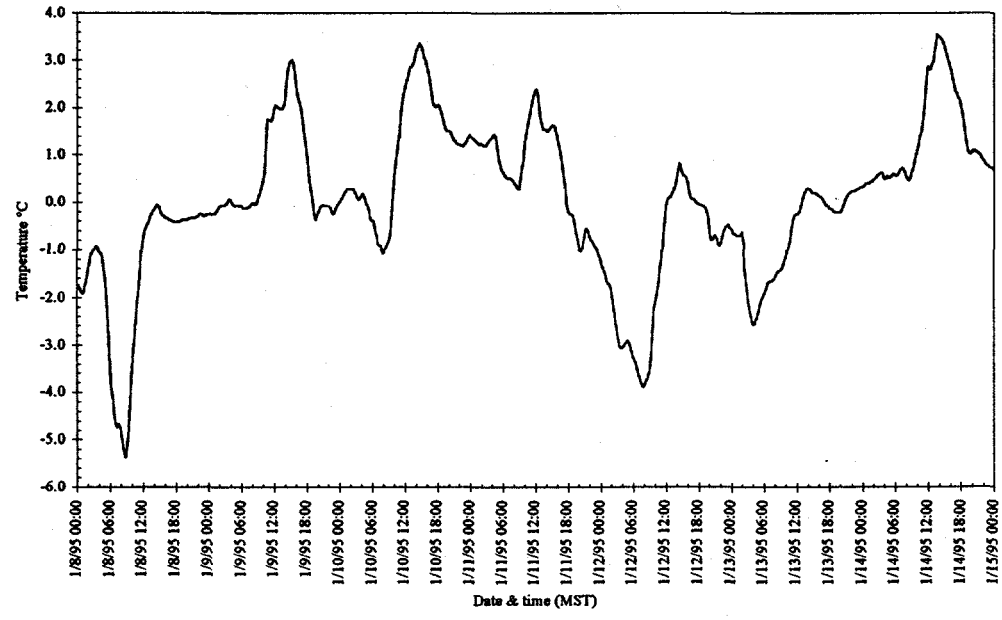

Figure D-2. Week 2, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 3.5, -5.4, and 0.0 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

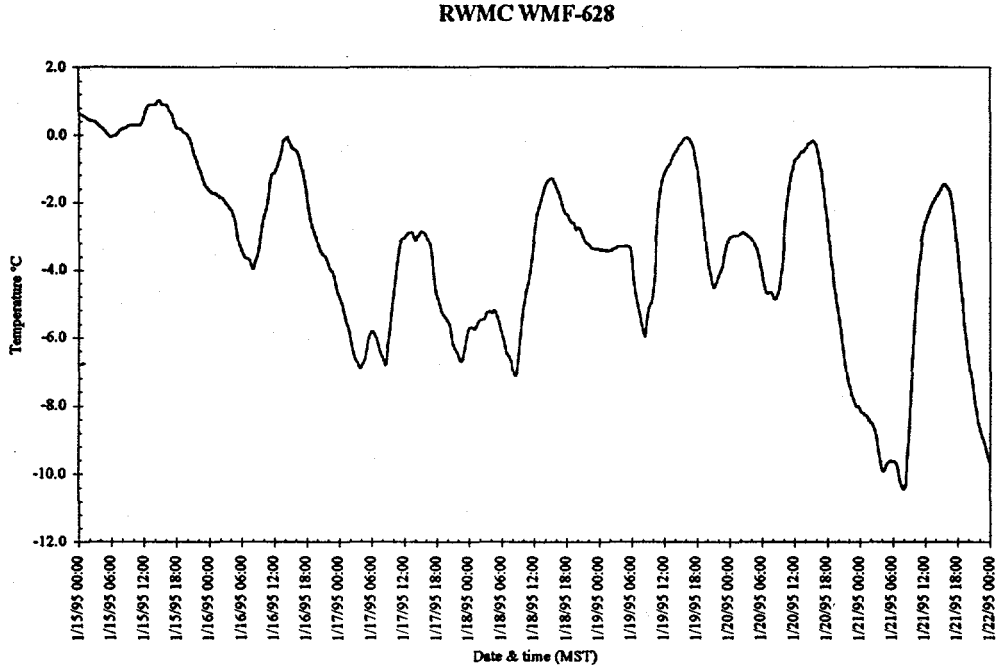

Figure D-3. Week 3, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 1.0, -10.4, and -3.4 °C, respectively.

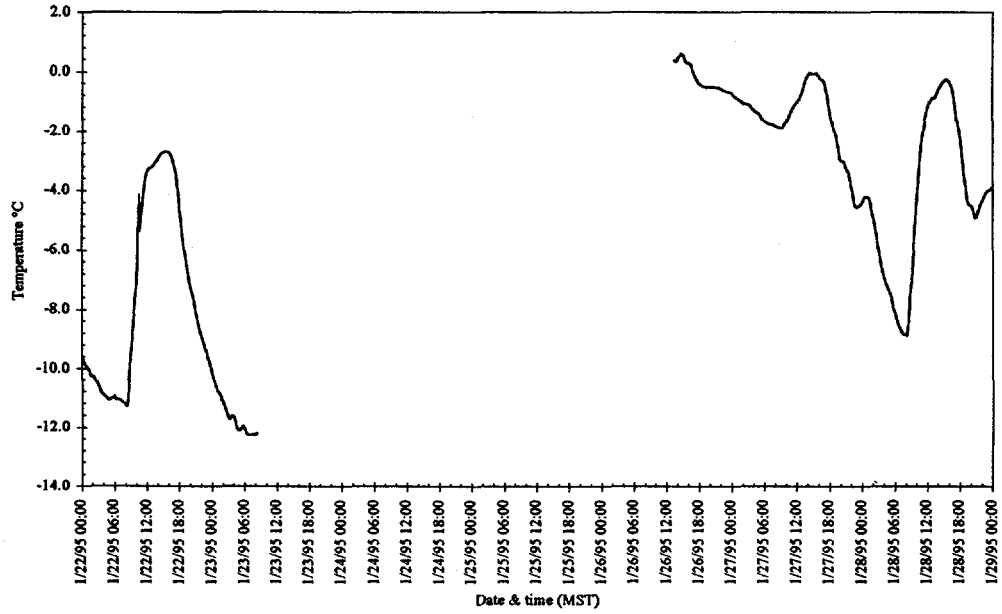

Figure D-4. Week 4, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 0.6, -12.3 and -3.6 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

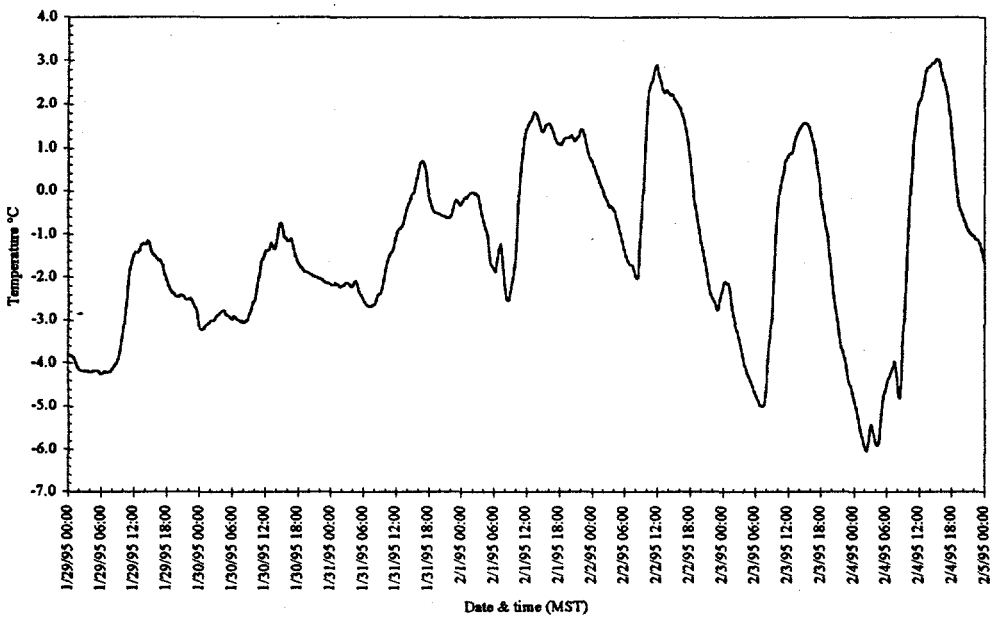

Figure D-5. Week 5, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 3.0, -6.0, and -1.3 °C, respectively.

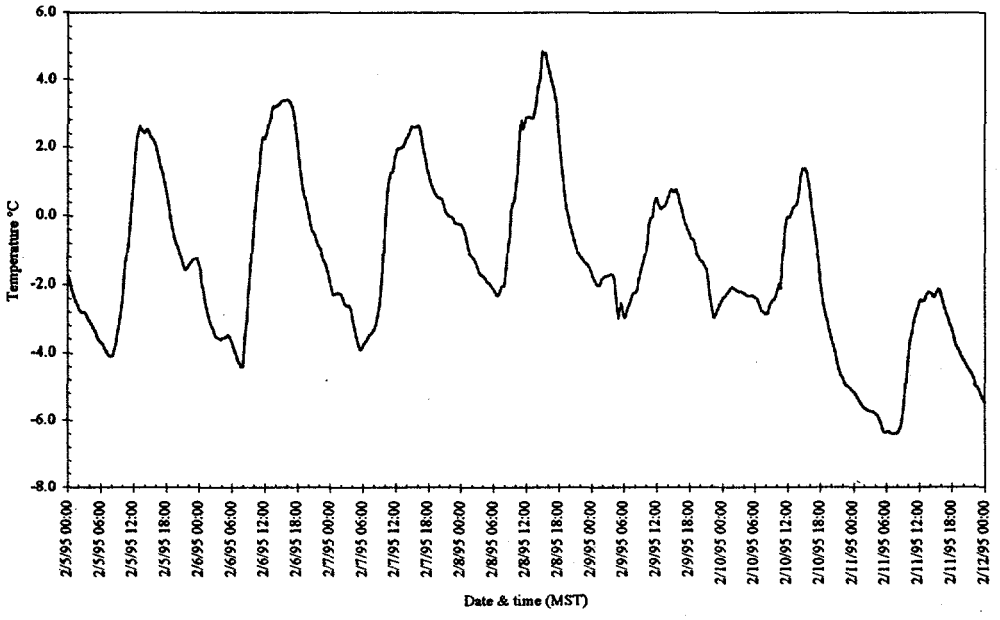

Figure D-6. Week 6, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 4.8, -6.4, and -1.4 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

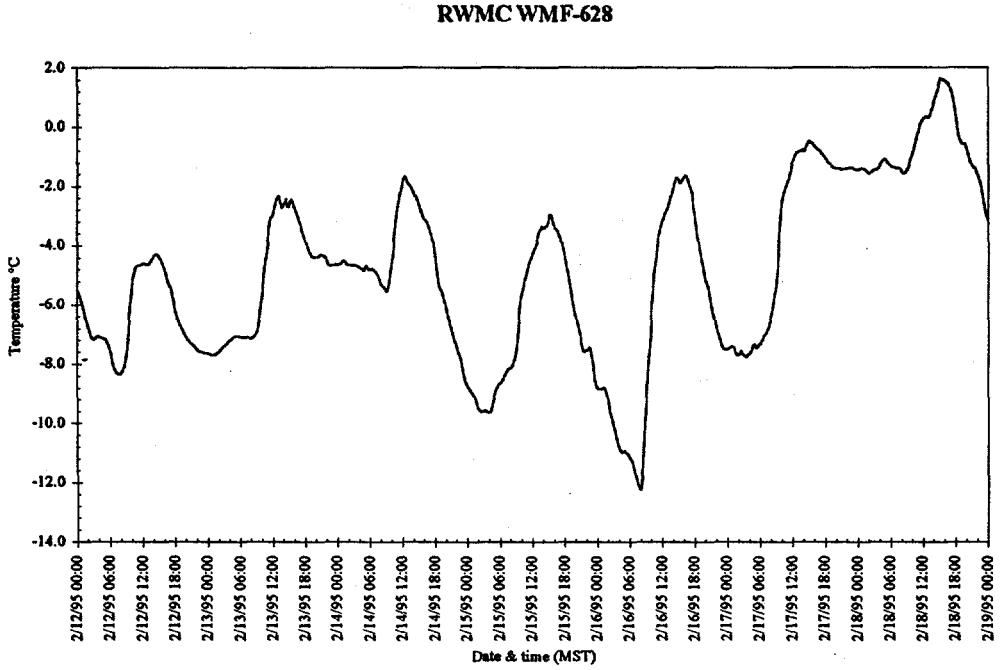

Figure D-7. Week 7, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 1.6, -12.2 and -4.8 °C, respectively.

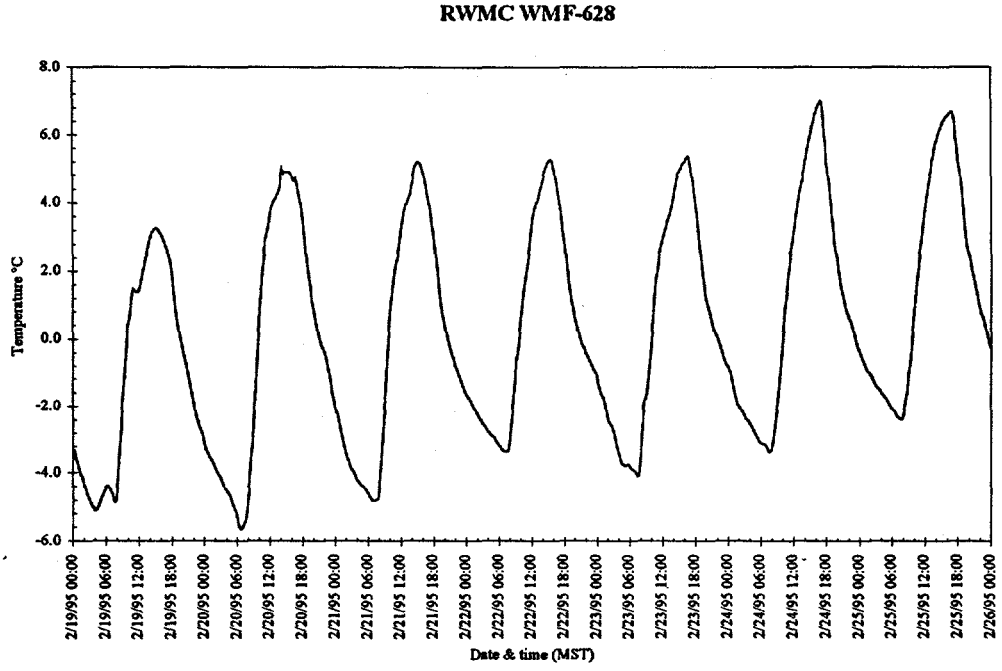

Figure D-8. Week 8, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 7.0, -5.7, and 0.2 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

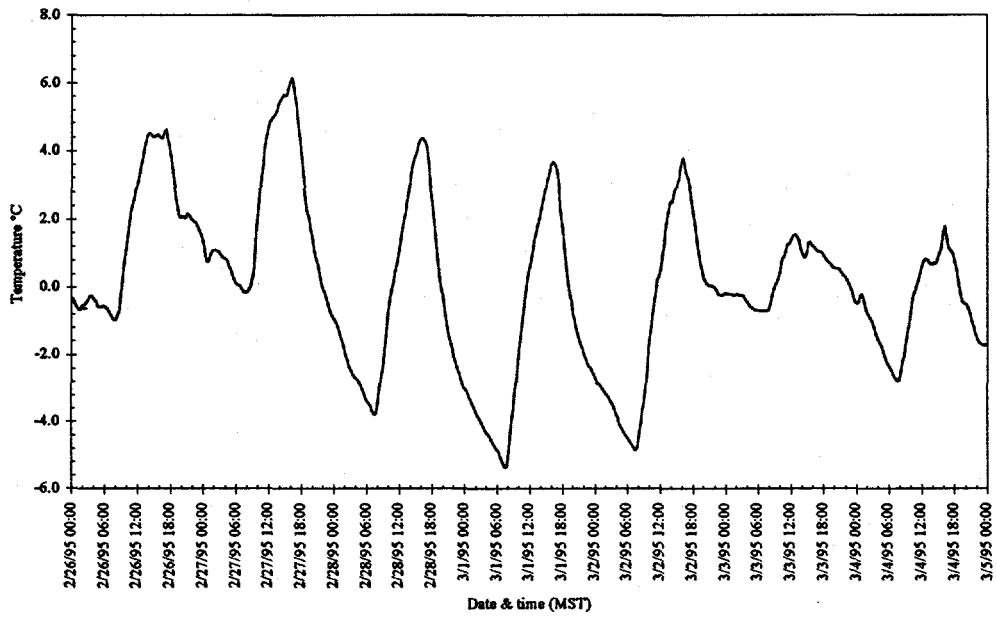

Figure D-9. Week 9, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 6.2, -5.4, and 0.1 °C, respectively.

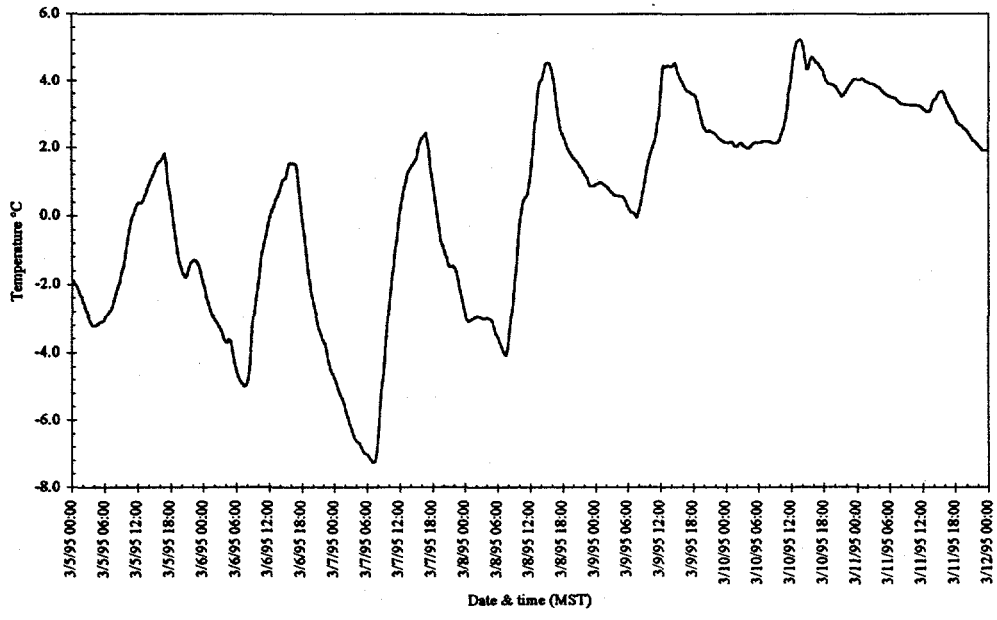

Figure D-10. Week 10, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 5.2, -7.3, and 0.4 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

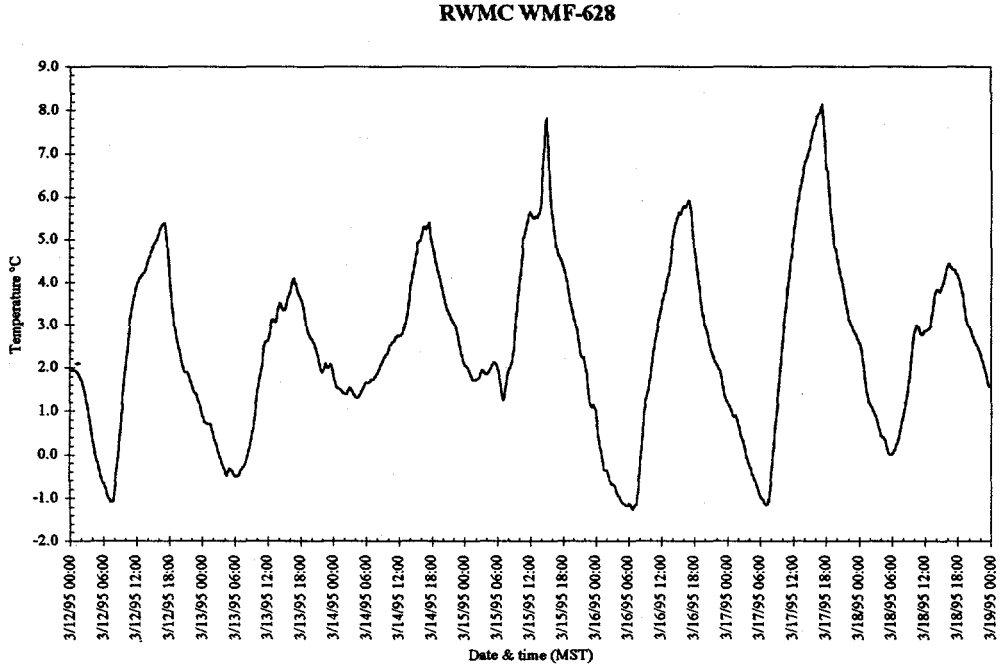

Figure D-11. Week 11, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 8.1, -1.3, and 2.5 °C, respectively.

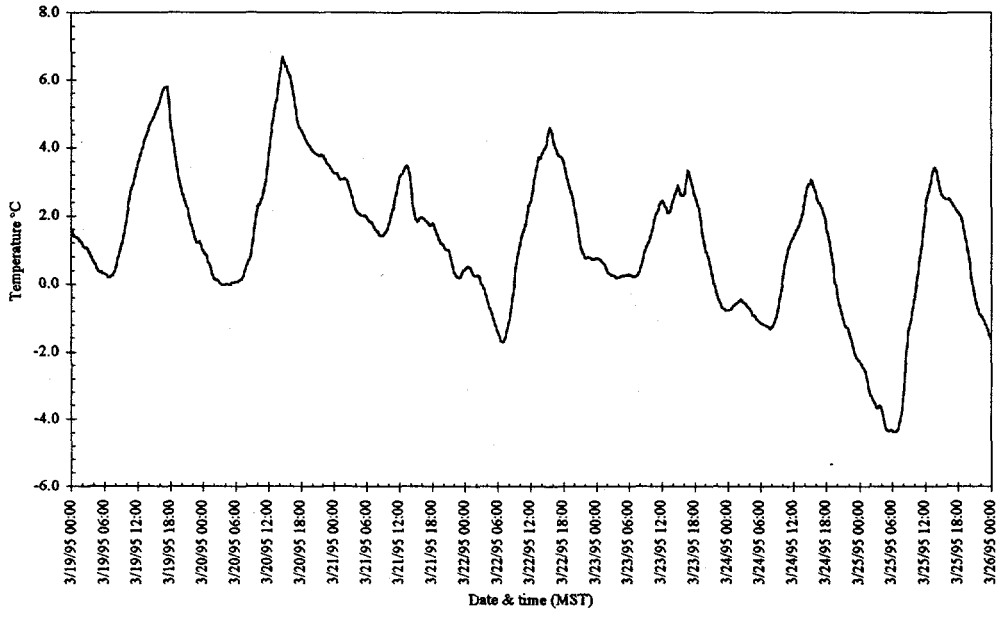

Figure D-12 Week 12, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 6.7, -4.4, and 1.3 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

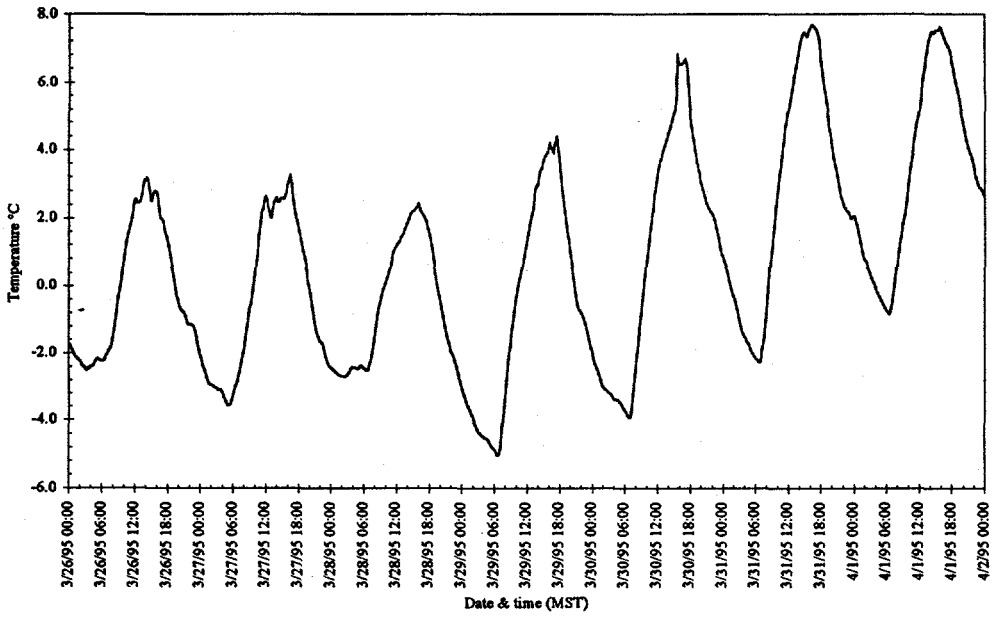

Figure D-13. Week 13, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 7.7, -5.0, and 0.7 °C, respectively.

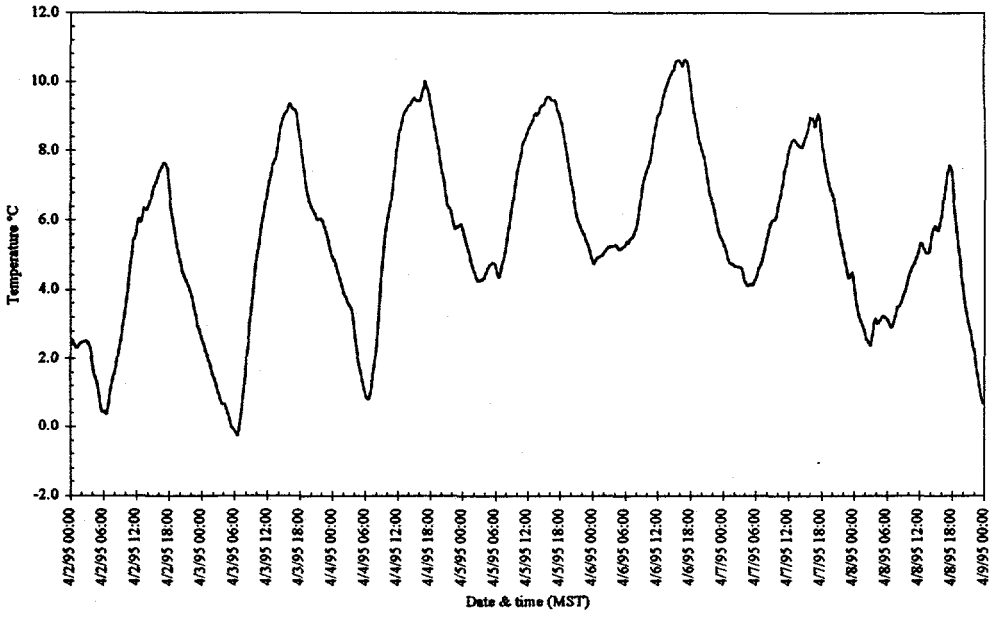

Figure D-14. Week 14, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 10.7, -0.3, and 5.6 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

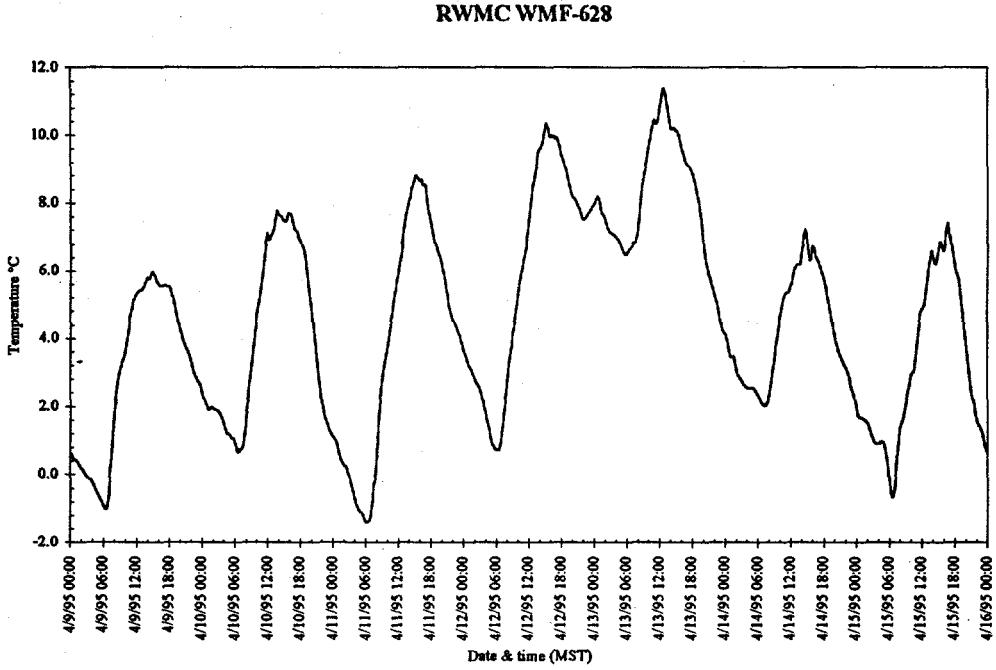

Figure D-15. Week 15, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 11.4, -1.4, and 4.6 °C, respectively.

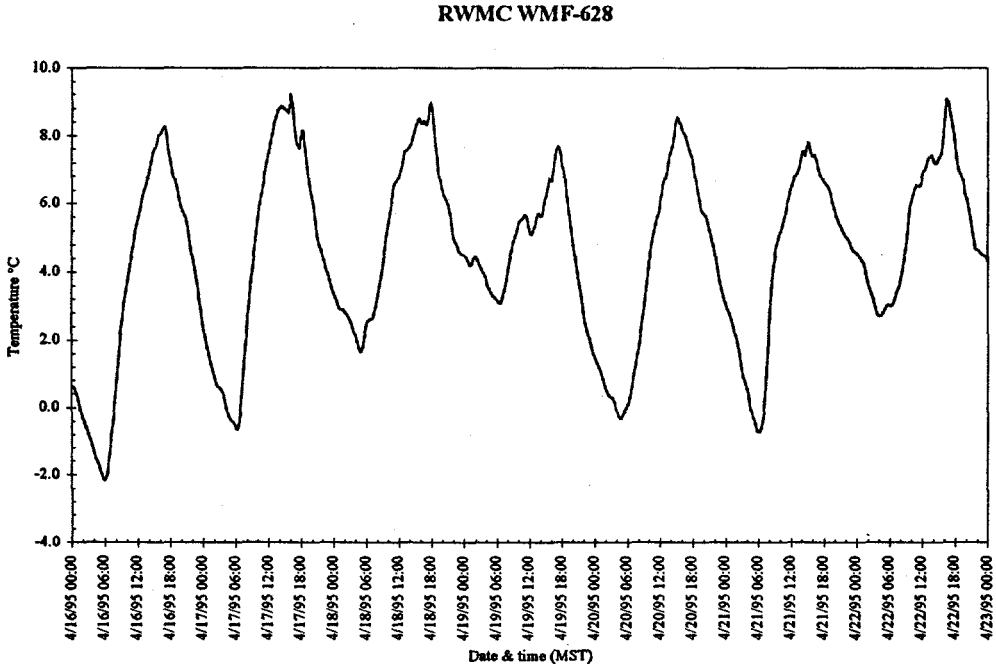

Figure D-16. Week 16, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 9.2, -2.2, and 4.5 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

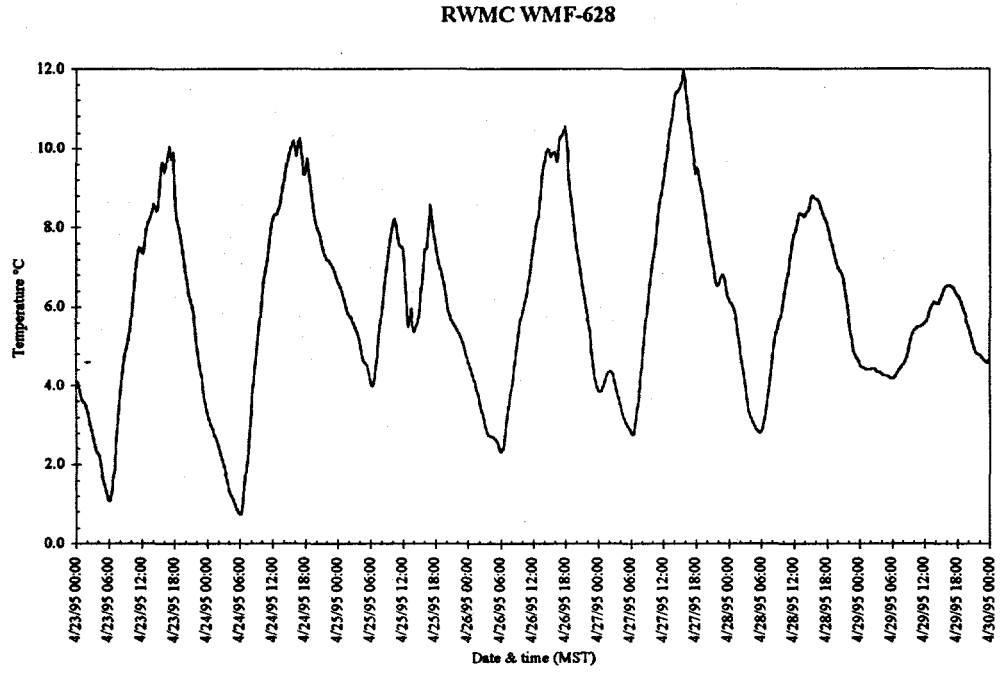

Figure D-17. Week 17, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 12.0, 0.7, and 6.0 °C, respectively.

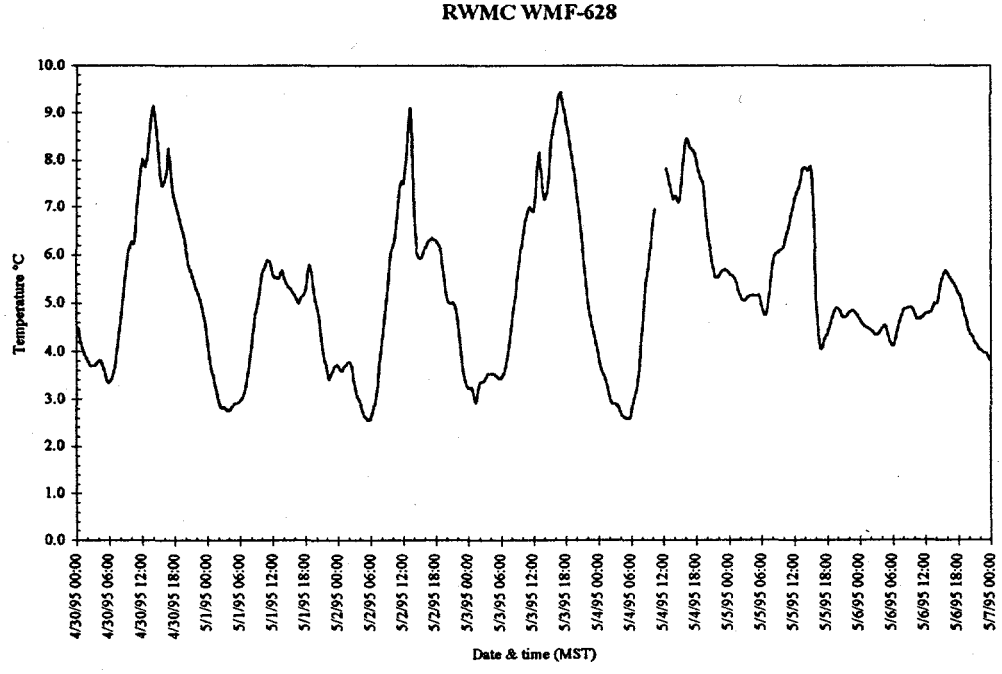

Figure D-18. Week 18, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 9.5, 2.5, and 5.3 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

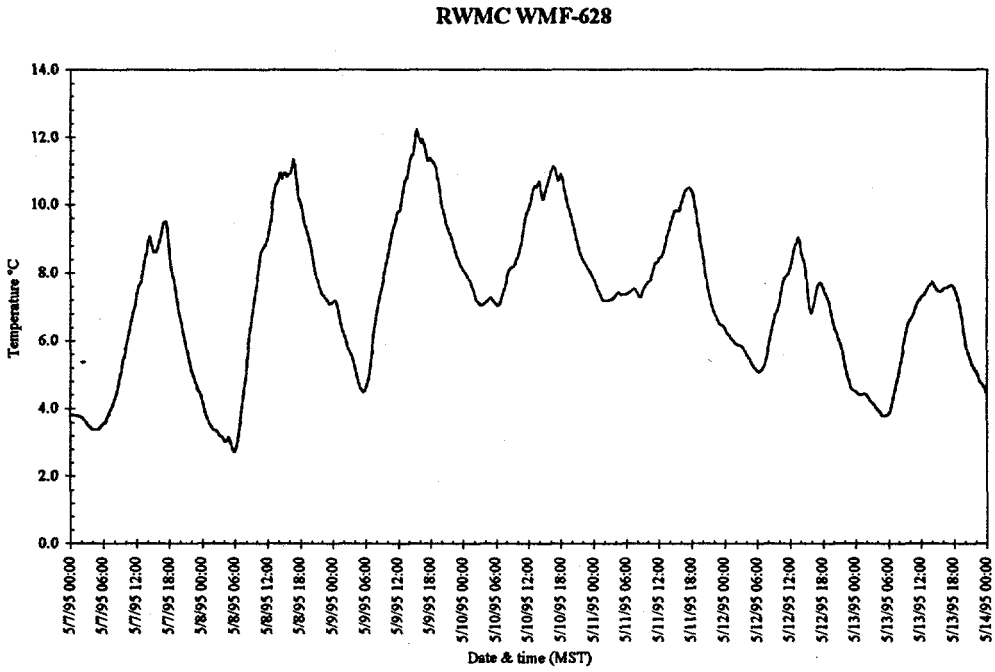

Figure D-19. Week 19, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 12.2, 2.7, and 7.5 °C, respectively.

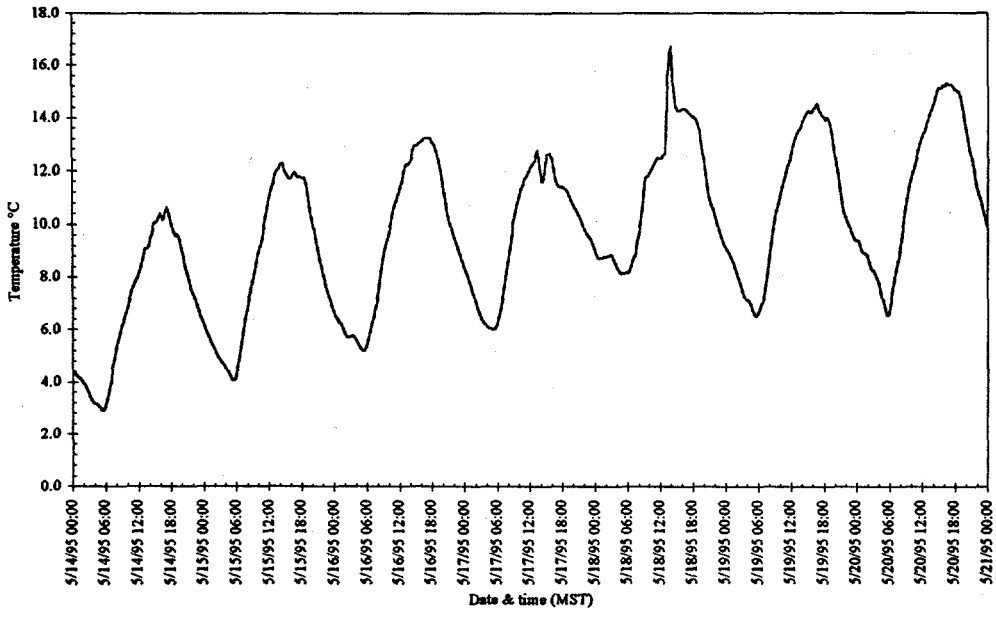

Figure D-20. Week 20, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 16.7, 2.9, and 9.7 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

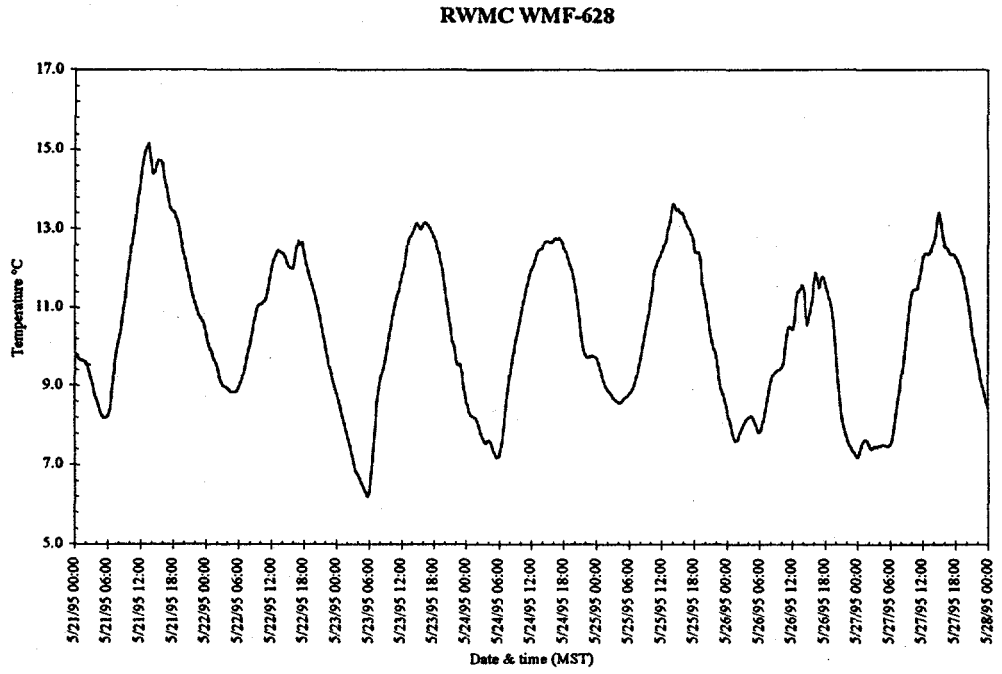

Figure D-21. Week 21, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 15.2, 6.2, and 10.4 °C, respectively.

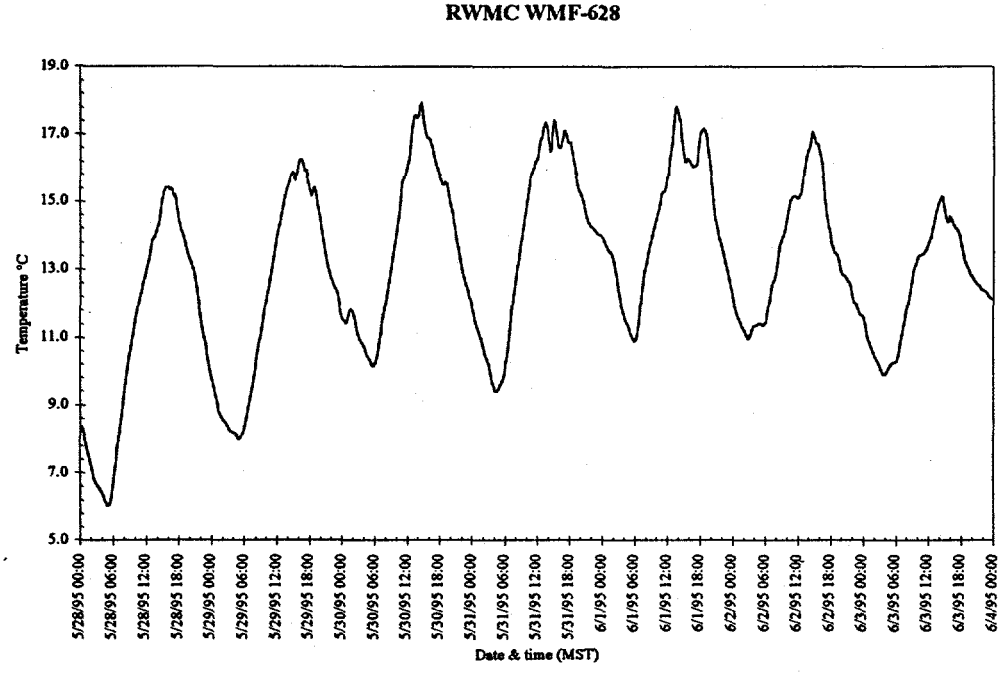

Figure D-22. Week 22, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 17.9, 6.0, and 13.0 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

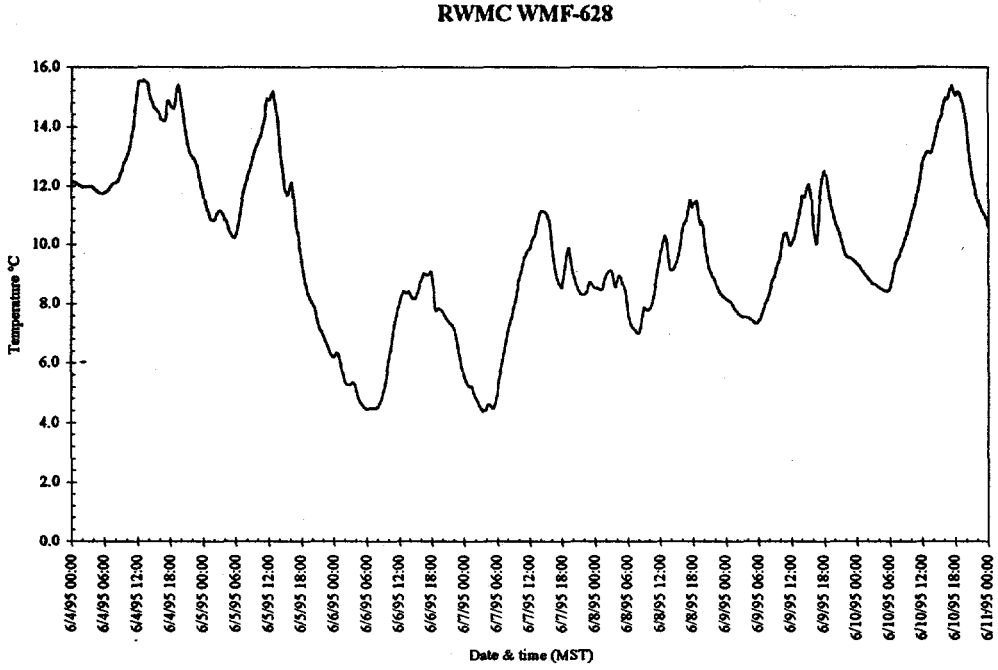

Figure D-23. Week 23, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 15.6, 4.4, and 9.9 °C, respectively.

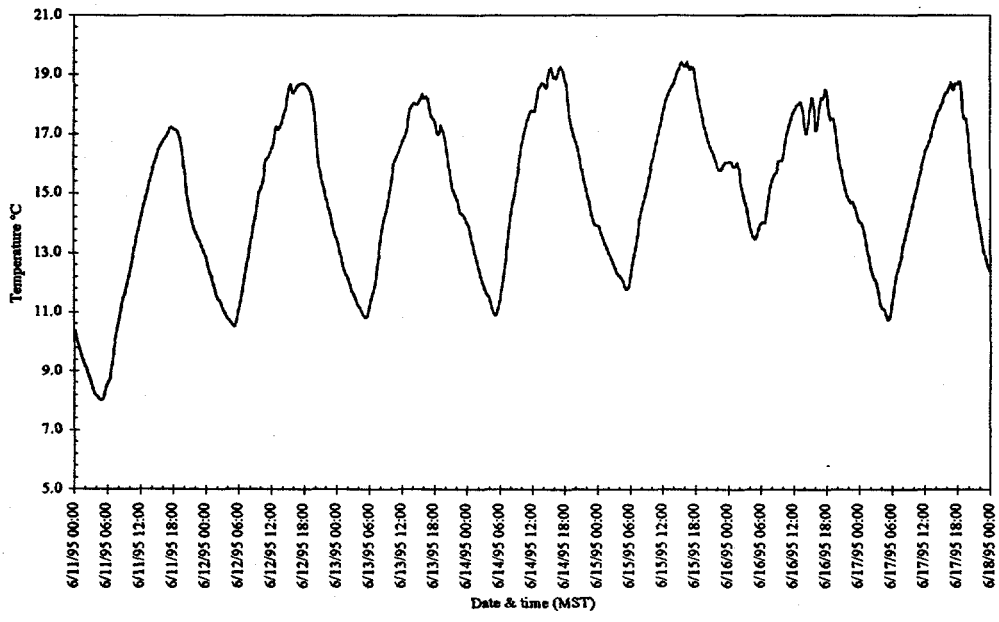

Figure D-24. Week 24, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 19.4, 8.0, and 15.0 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

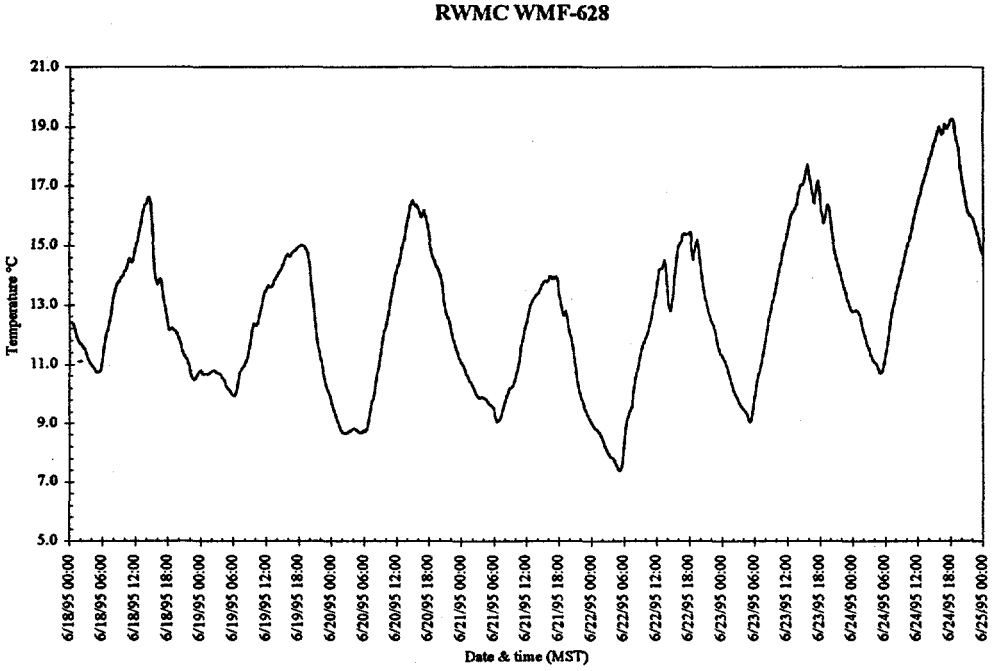

Figure D-25. Week 25, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 19.2, 7.4, and 12.7 °C, respectively.

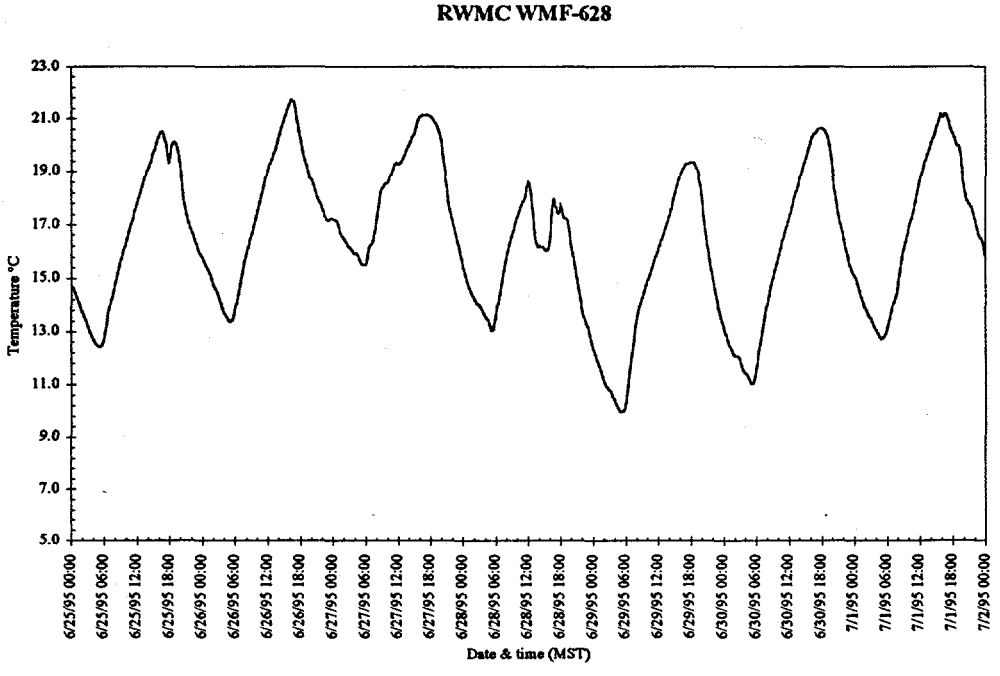

Figure D-26. Week 26, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 21.7, 10.0 and 16.5 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

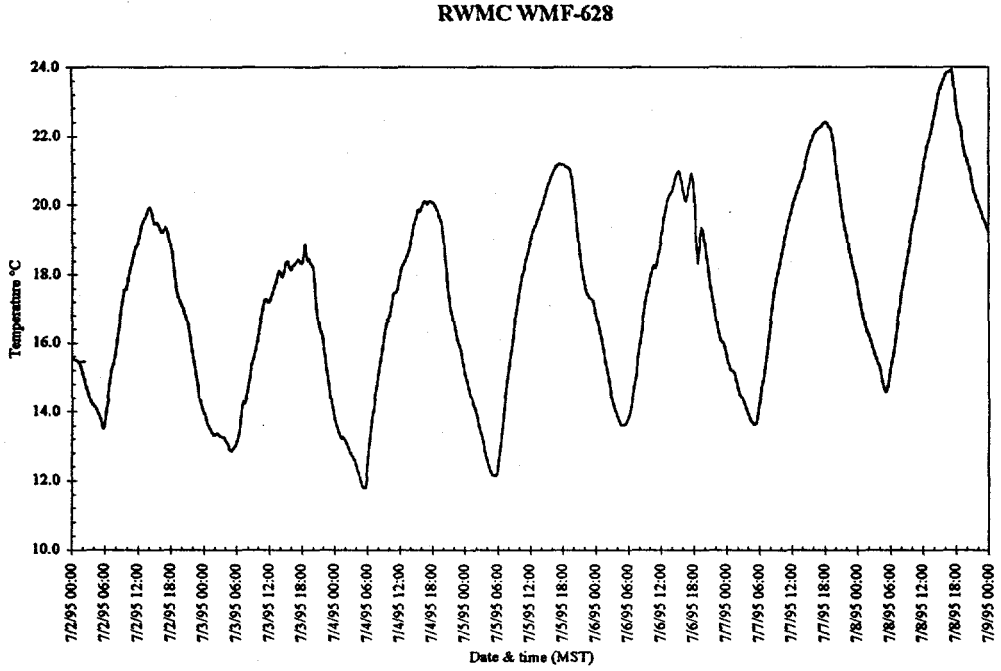

Figure D-27. Week 27, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 23.9, 11.8 and 17.4 °C, respectively.

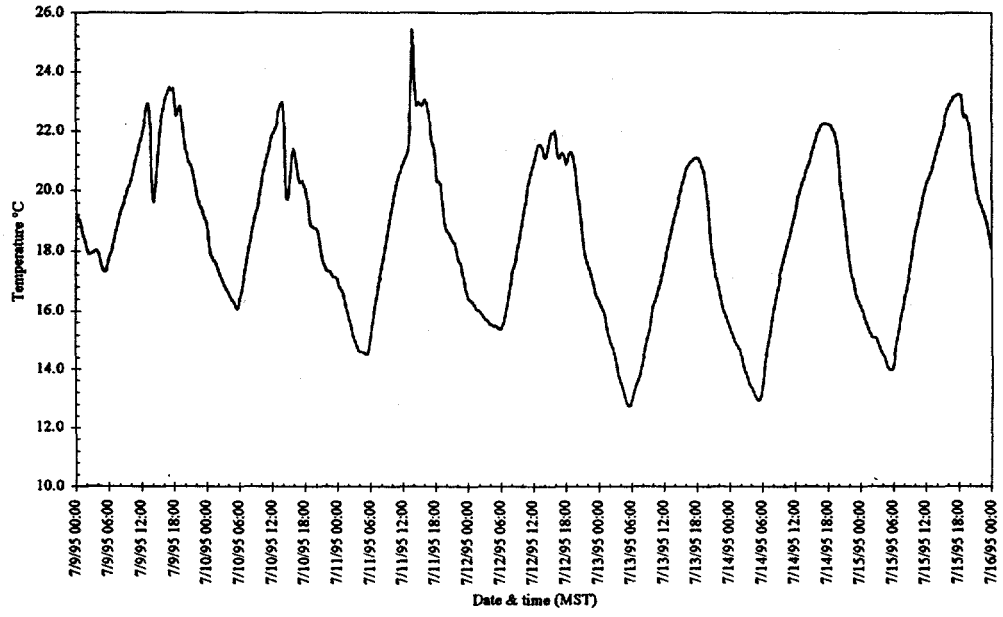

Figure D-28. Week 28, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 25.4, 12.7 and 18.5 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

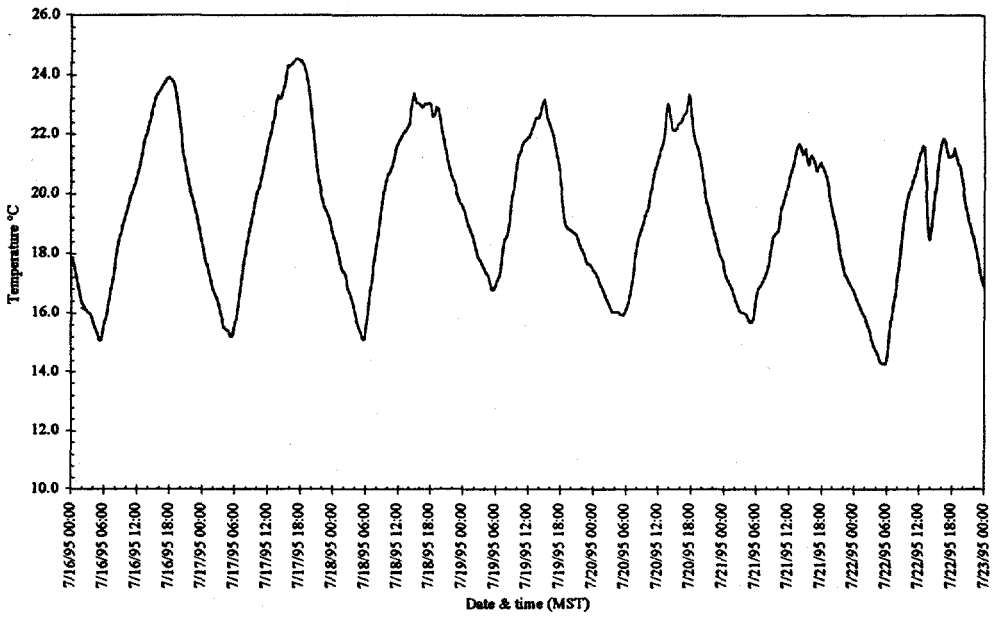

Figure D-29. Week 29, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 24.5, 14.3, and 19.4 °C, respectively.

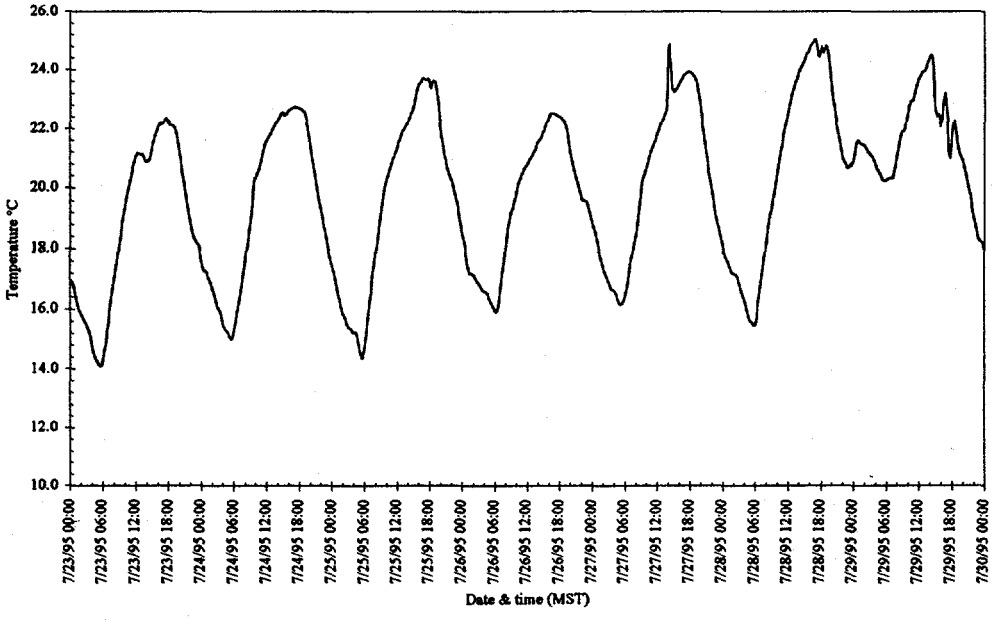

Figure D-30. Week 30, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 25.0, 14.1, and 20.0 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

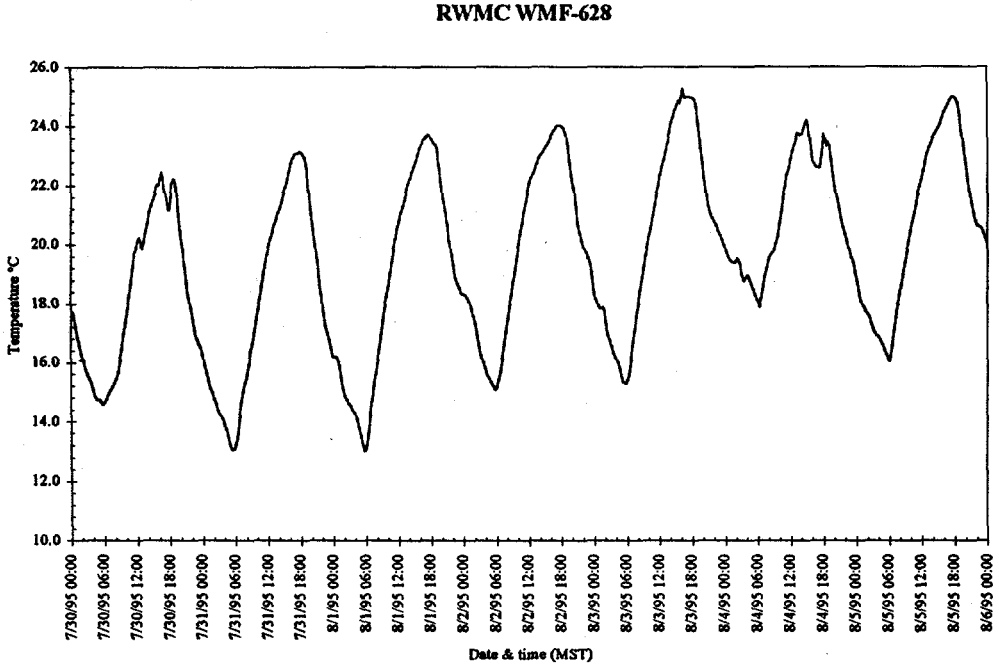

Figure D-31. Week 31, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 25.3, 13.0, and 19.6 °C, respectively.

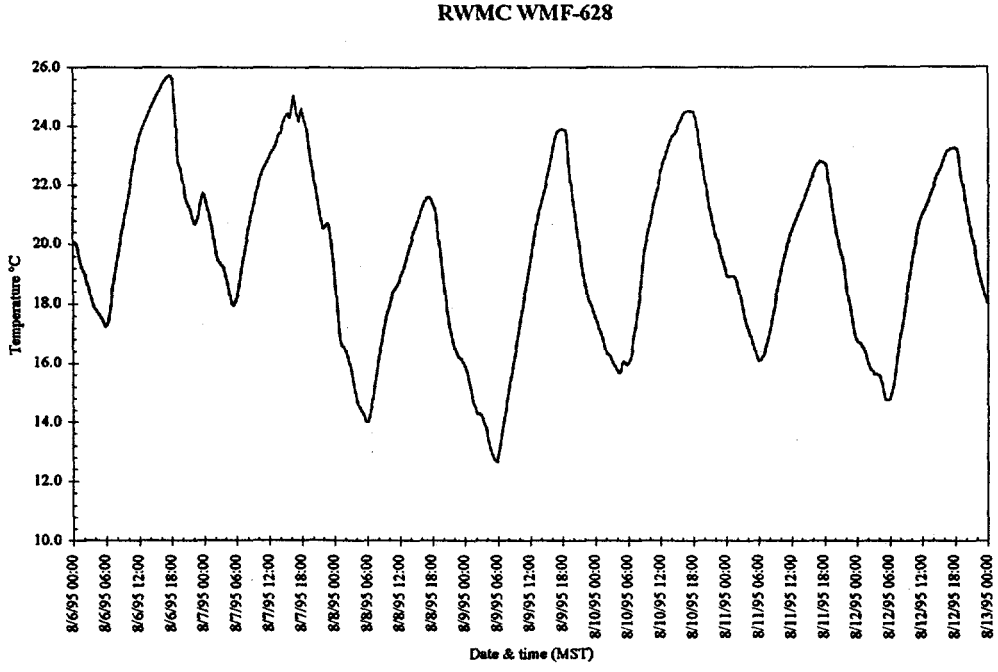

Figure D-32. Week 32, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 25.7, 12.7, and 19.7 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

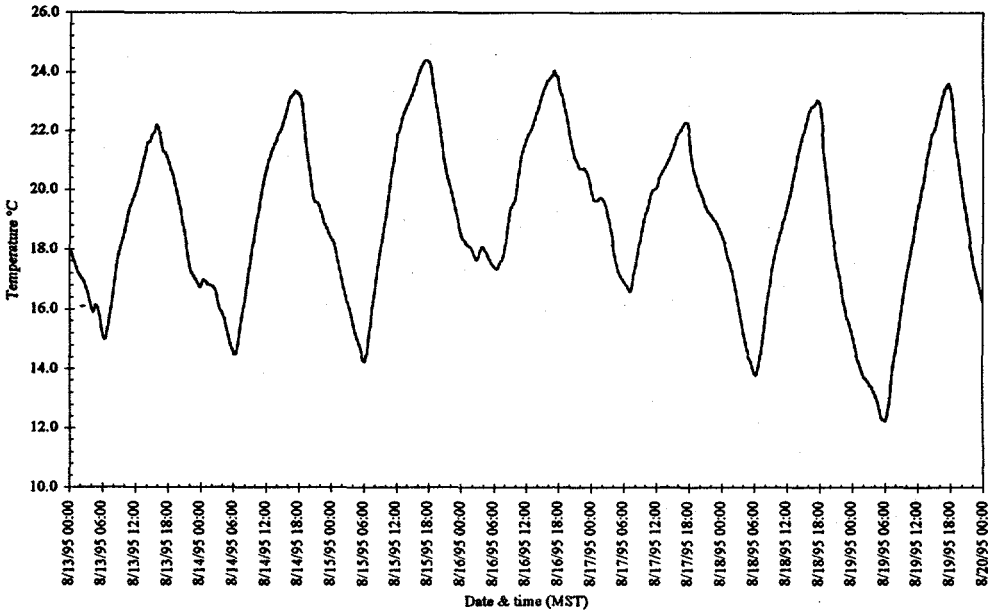

Figure D-33. Week 33, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 24.4, 12.2, and 19.0 °C, respectively.

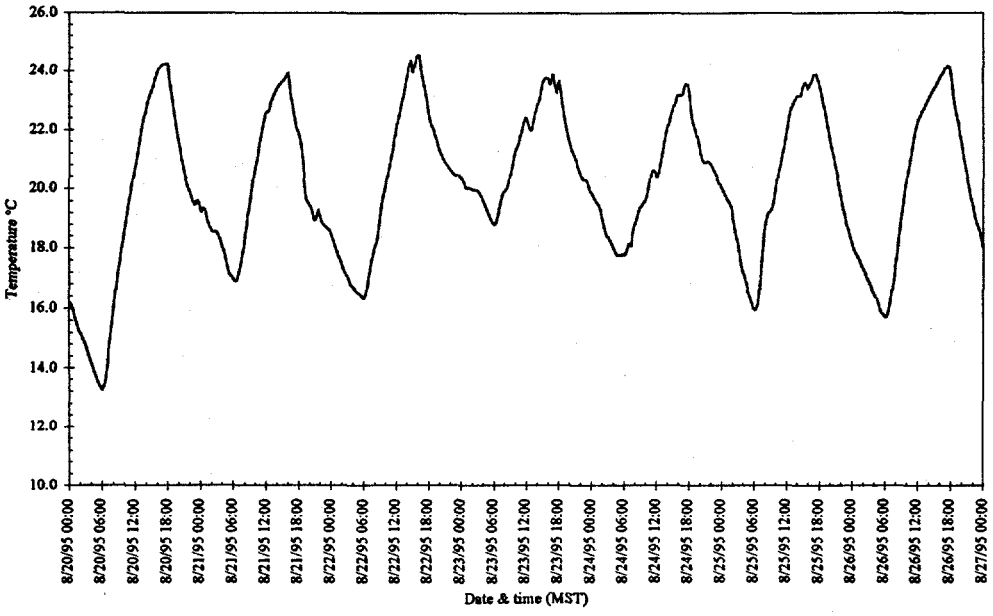

Figure D-34. Week 34, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 24.5, 13.3, and 20.2 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

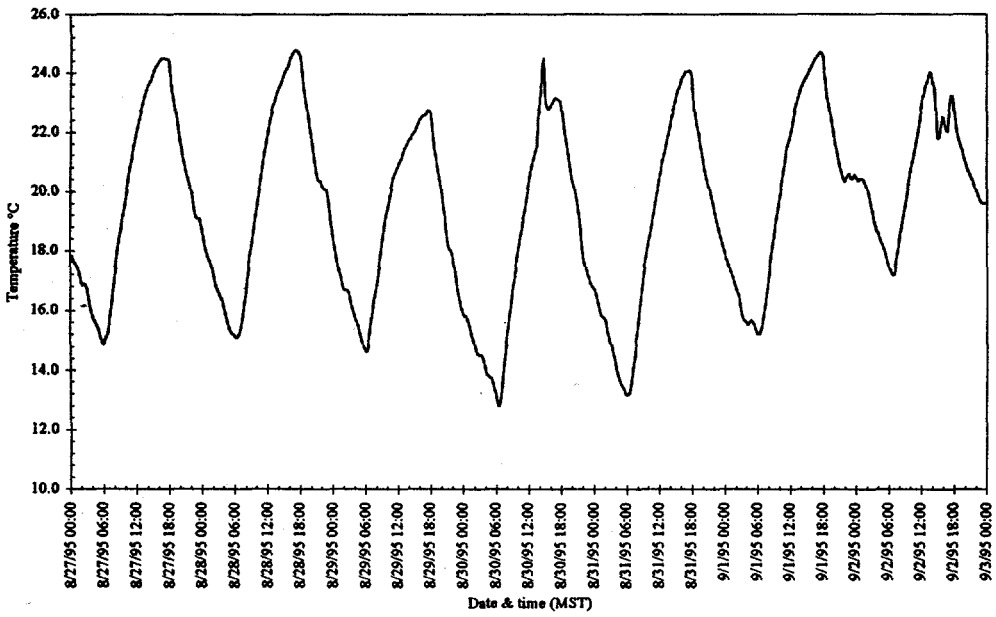

Figure D-35. Week 35, 1995. Temperature as a function of time. Maximum, minimum, and average temperatures were 24.8, 12.8, and 19.4 °C, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

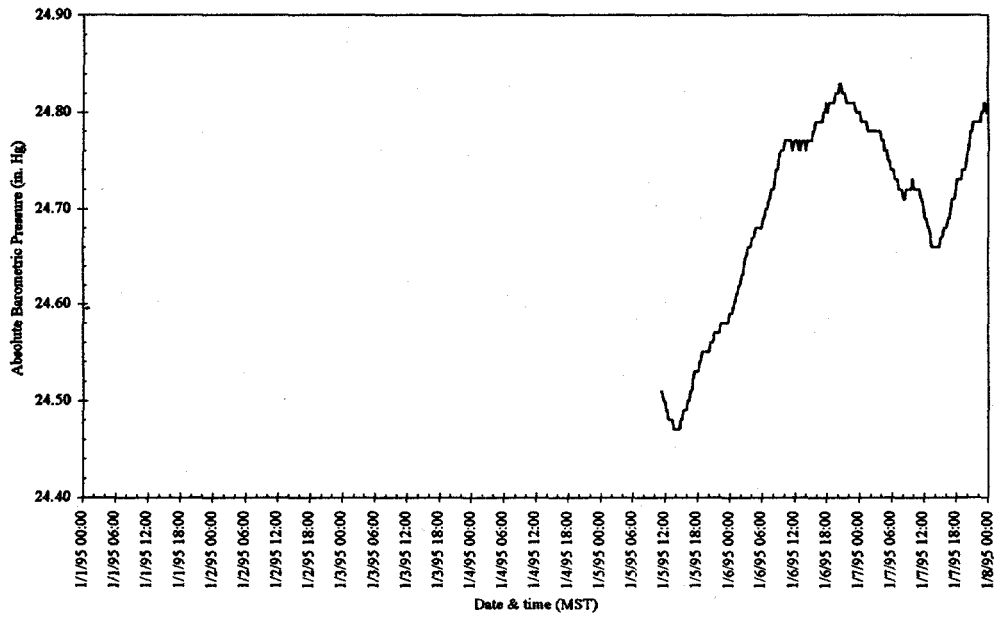

Figure D-36. Week 1, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 24.83, 24.47, and 24.70 "Hg, respectively.

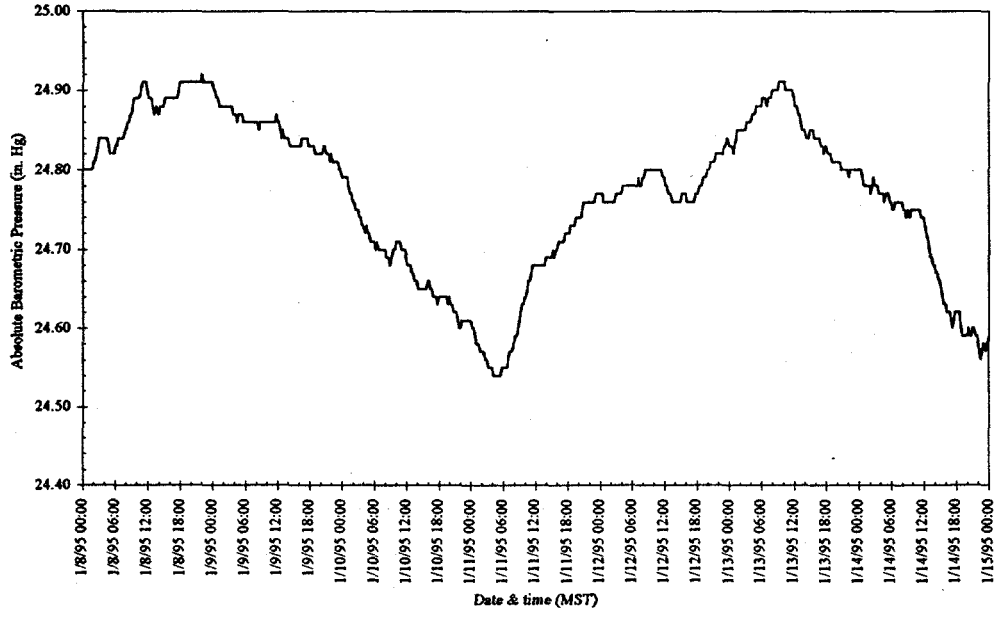

Figure D-37. Week 2, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 24.92, 24.54, and 24.77 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

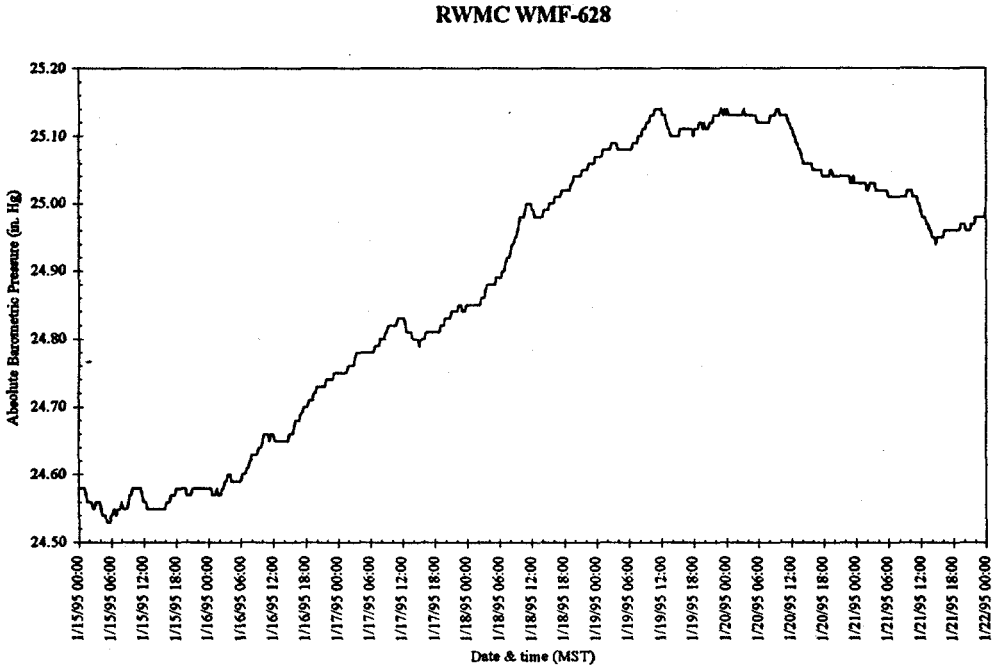

Figure D-38. Week 3, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.14, 24.53, and 24.88 "Hg, respectively.

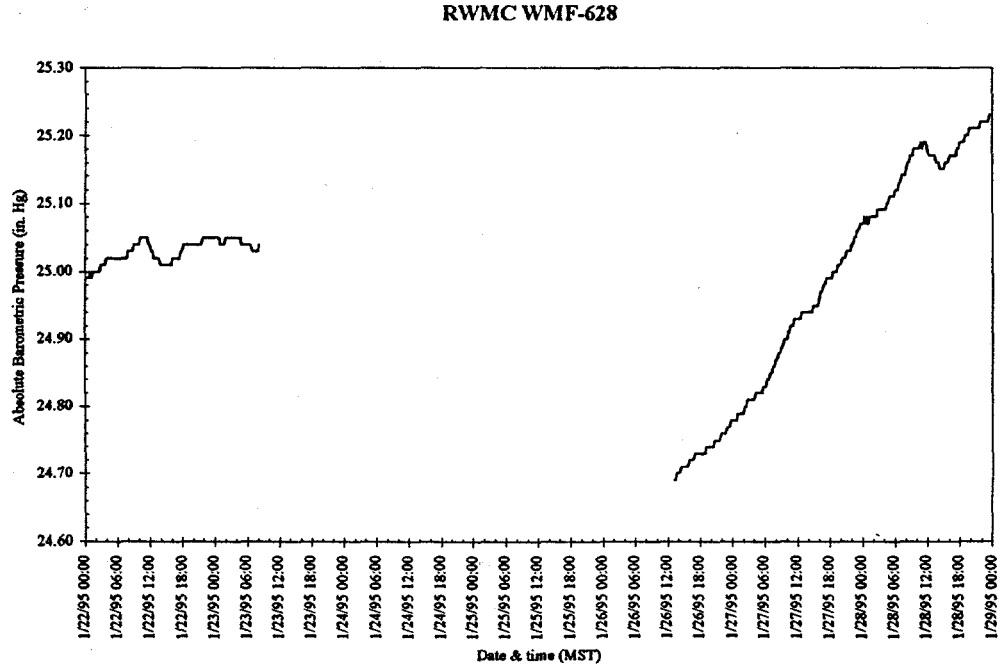

Figure D-39. Week 4, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.24, 24.69, and 24.99 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

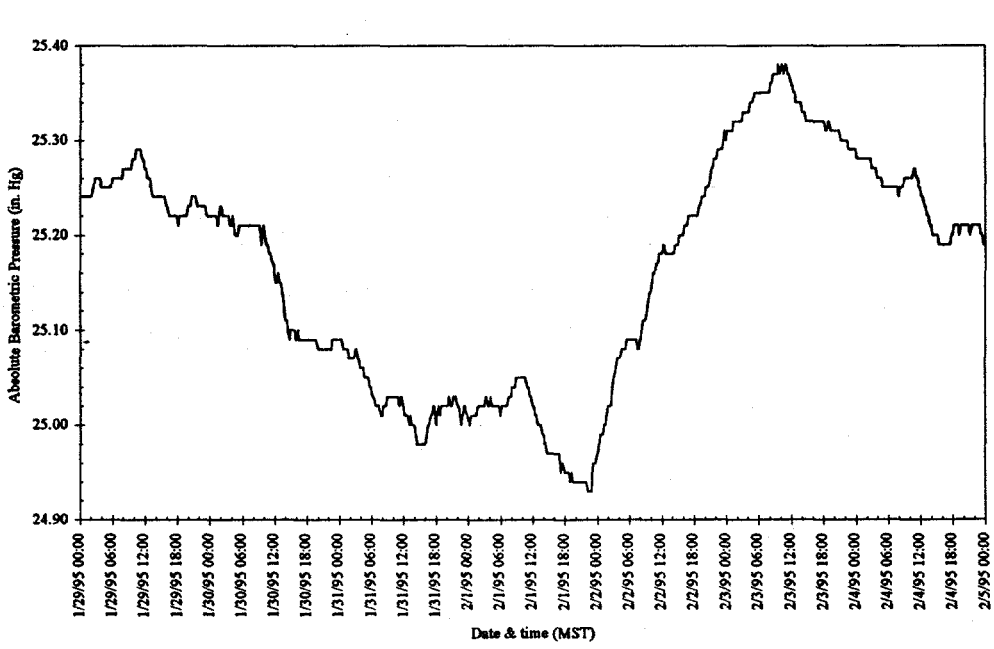

Figure D-40. Week 5, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.38, 24.93, and 25.16 "Hg, respectively.

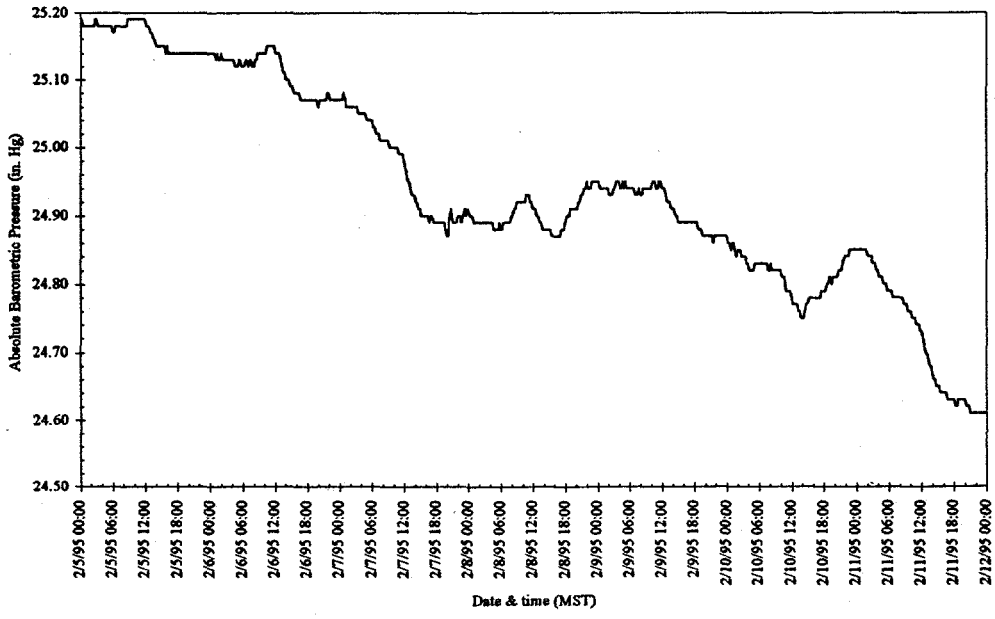

Figure D-41. Week 6, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.19, 24.61, and 24.94 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

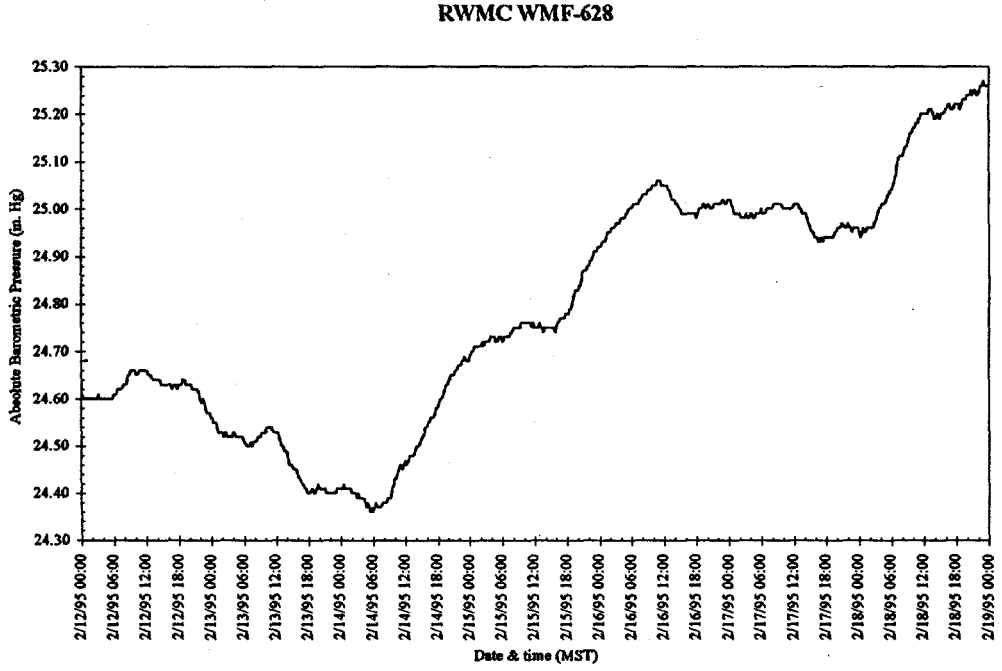

Figure D-42. Week 7, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.27, 24.36, and 24.78 "Hg, respectively.

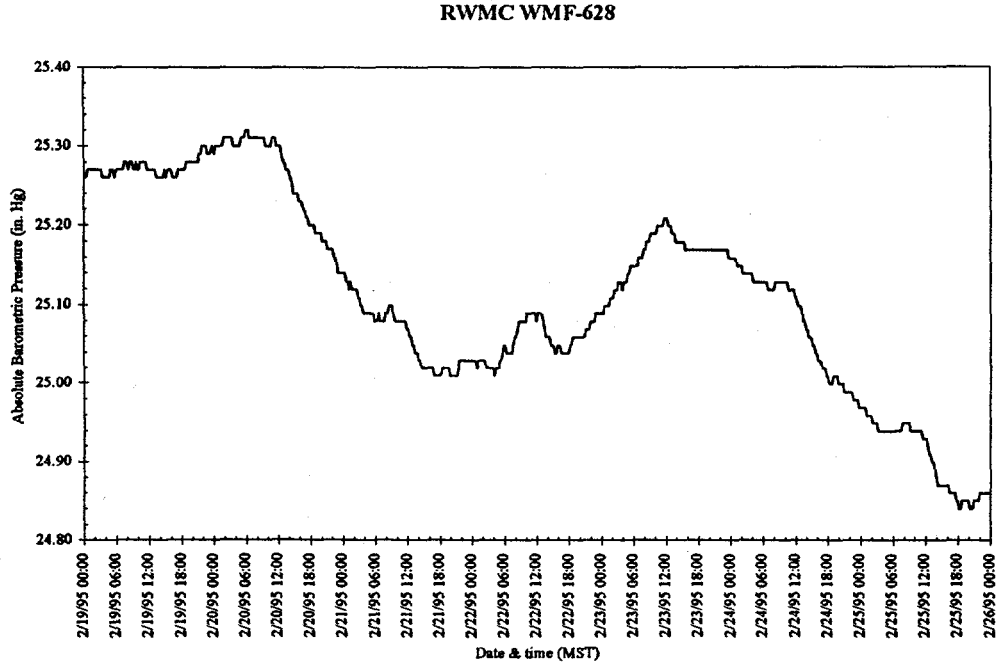

Figure D-43. Week 8, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.32, 24.84, and 25.11 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

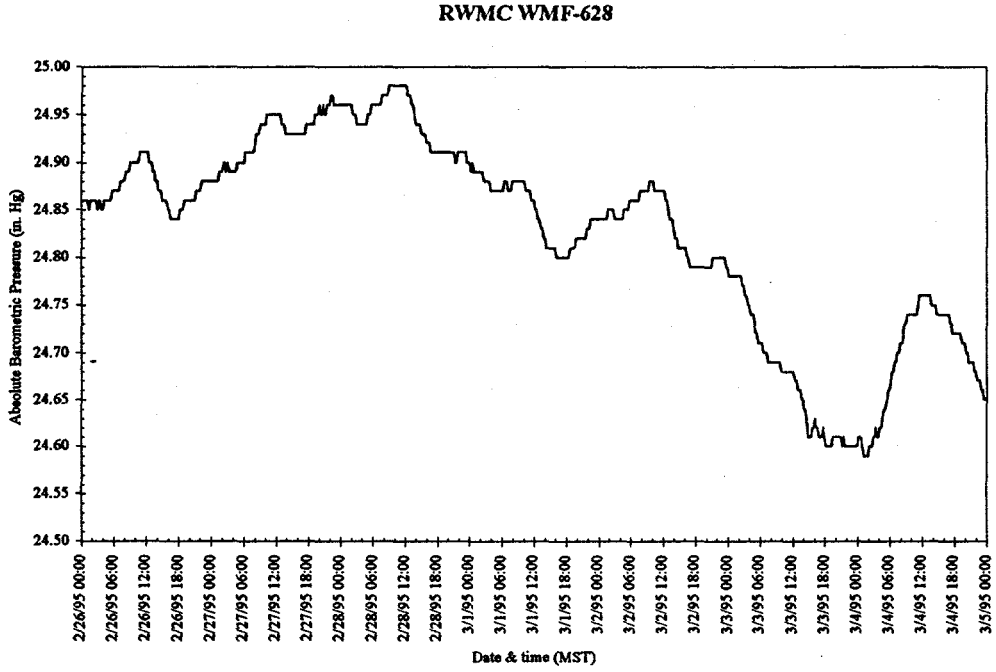

Figure D-44. Week 9, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 24.98, 24.59, and 24.83 "Hg, respectively.

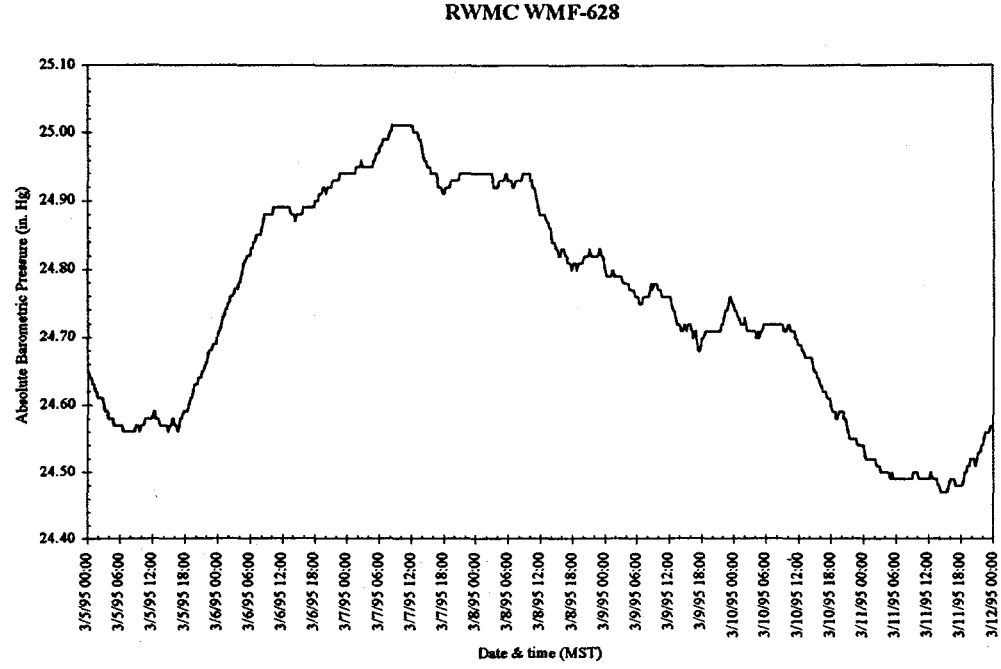

Figure D-45. Week 10, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.01, 24.47, and 24.74 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

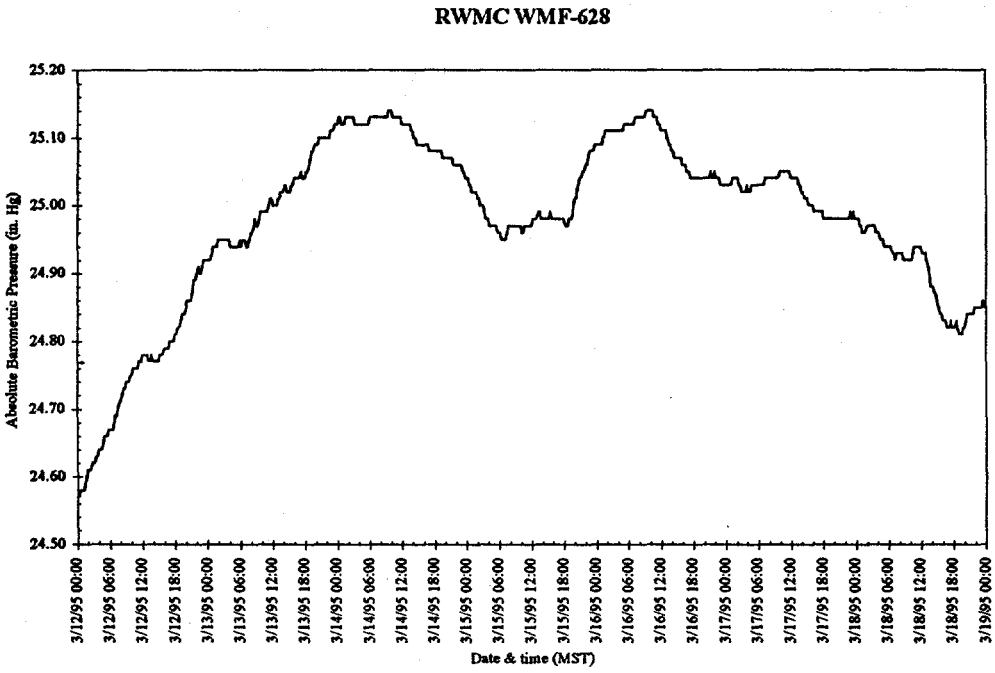

Figure D-46. Week 11, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.14, 24.57, and 24.98 "Hg, respectively.

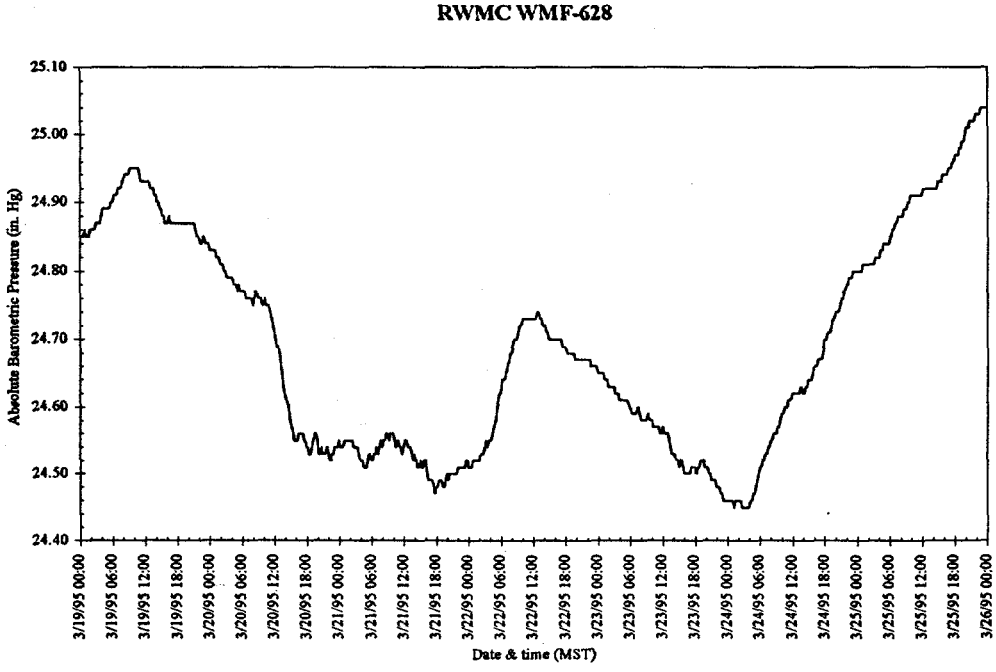

Figure D-47. Week 12, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.04, 24.45, and 24.69 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

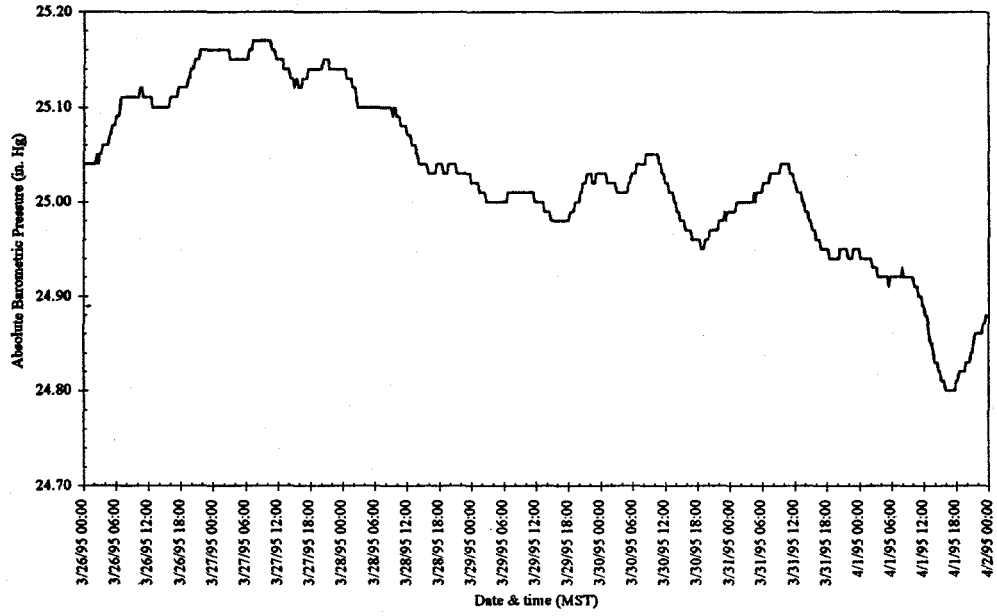

Figure D-48. Week 13, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.17, 24.80, and 25.03 "Hg, respectively.

Figure D-49. Week 14, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.10, 24.61, and 24.82 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

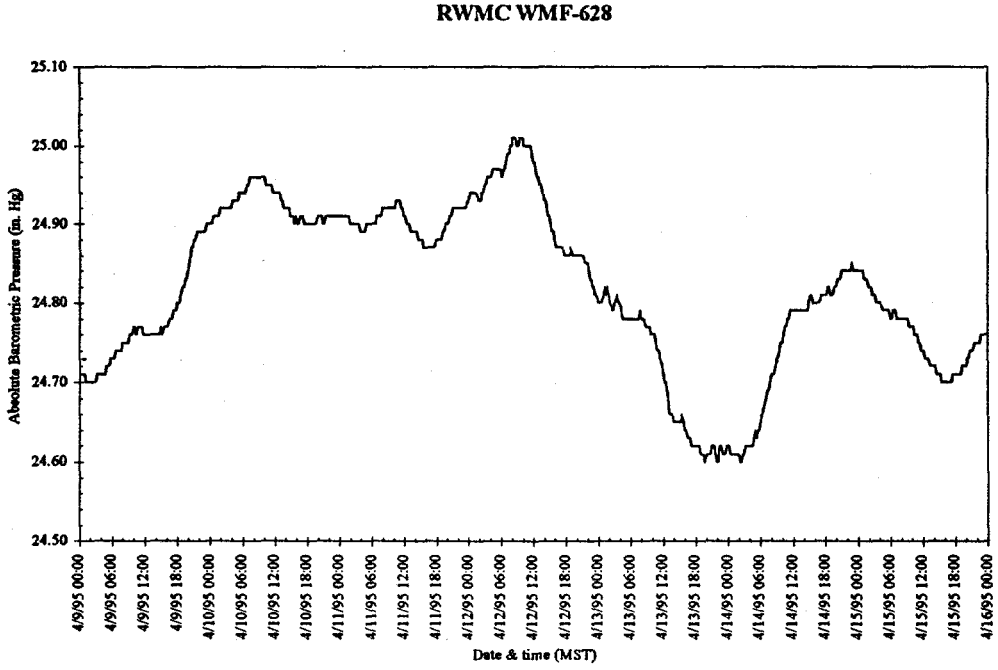

Figure D-50. Week 15, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.01, 24.60, and 24.82 "Hg, respectively.

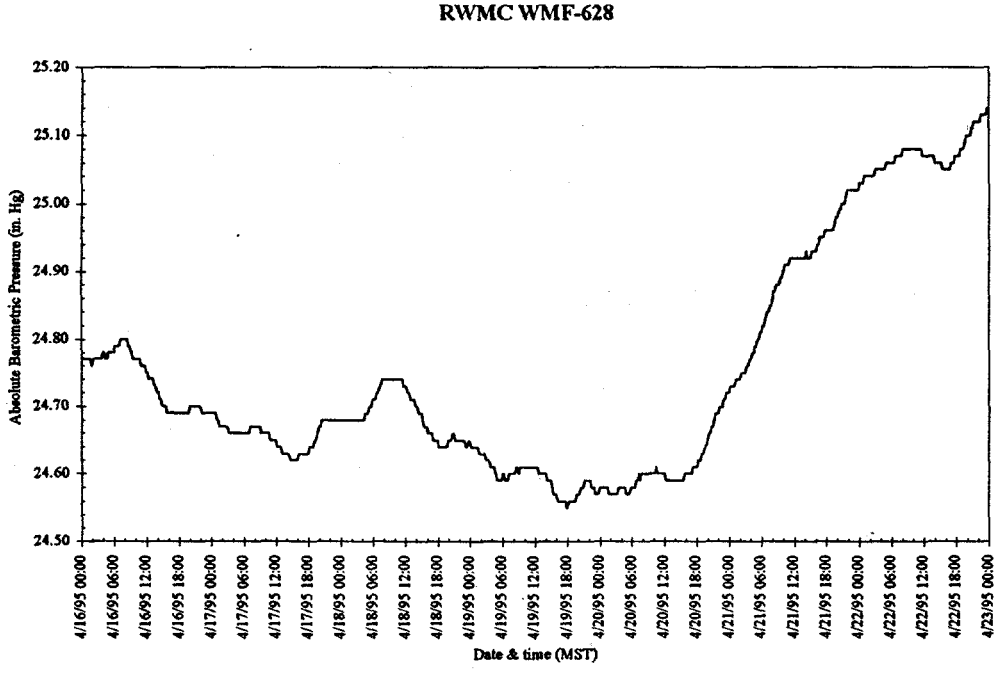

Figure D-51. Week 16, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.14, 24.55, and 24.75 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

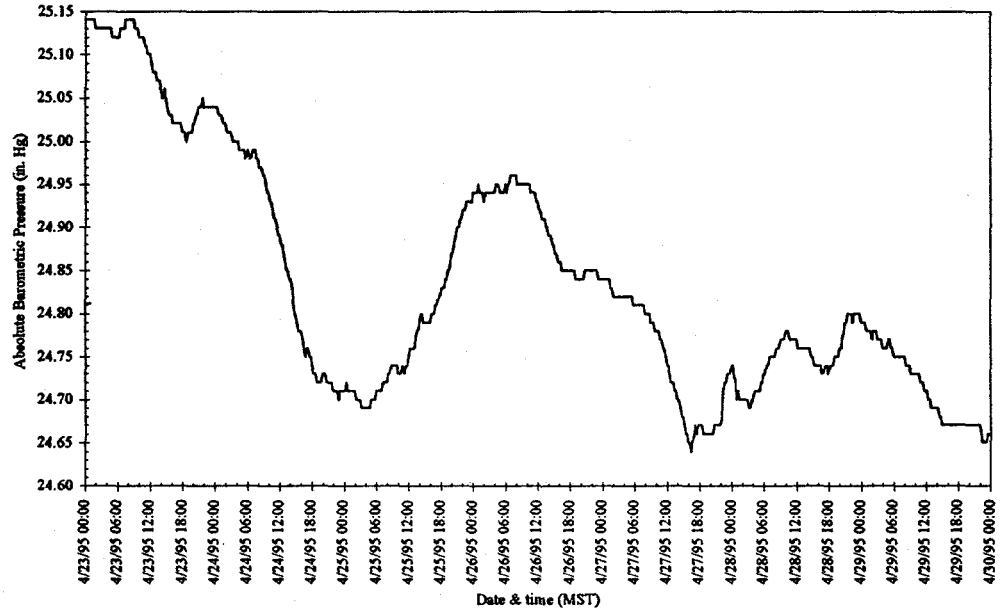

Figure D-52. Week 17, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.14, 24.64, and 24.83 "Hg, respectively.

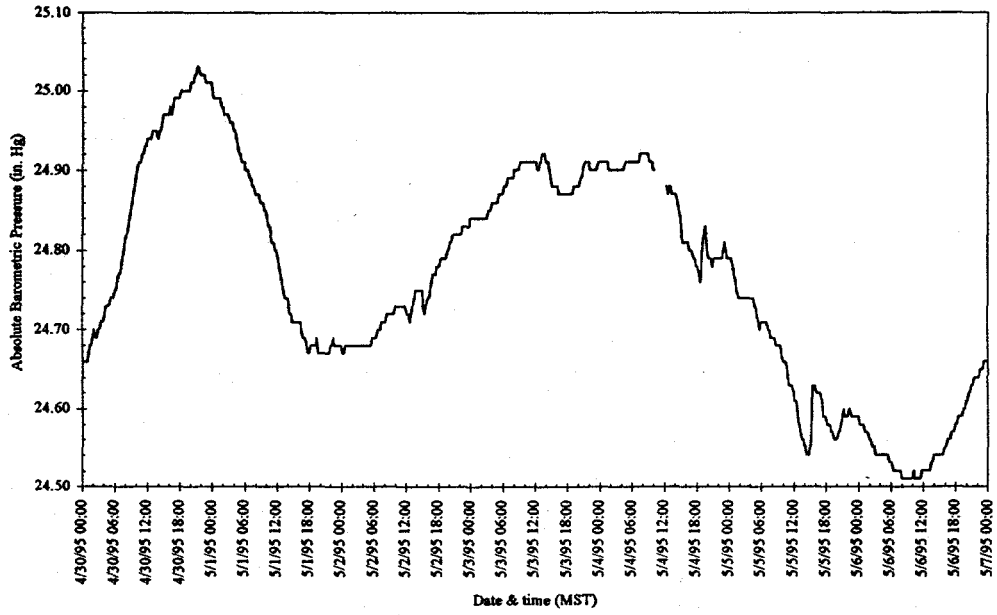

Figure D-53. Week 18, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.03, 24.51, and 24.76 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

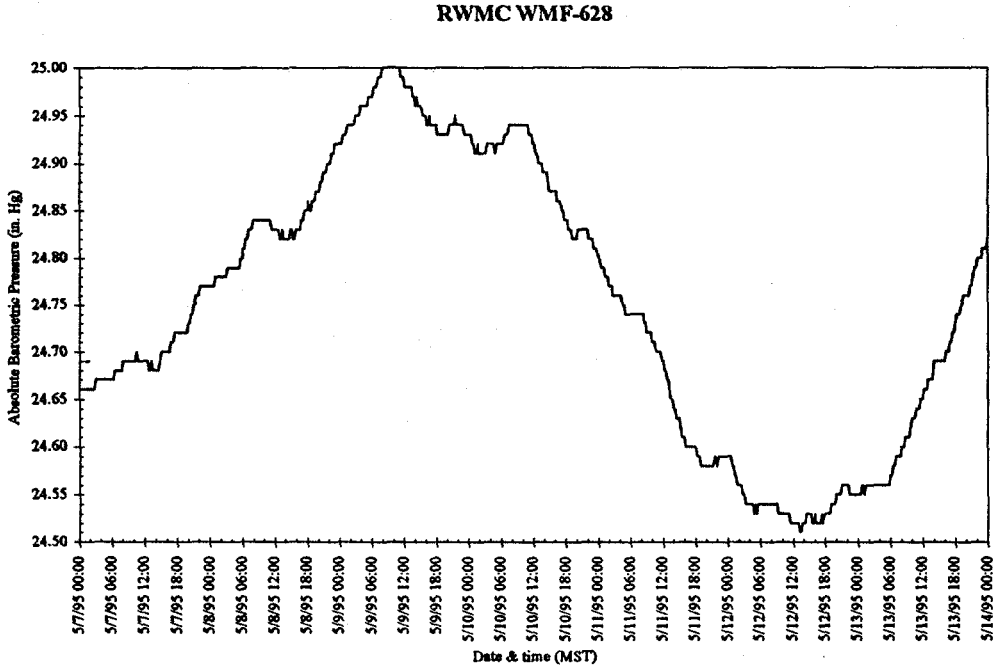

Figure D-54. Week 19, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.00, 24.51, and 24.76 "Hg, respectively.

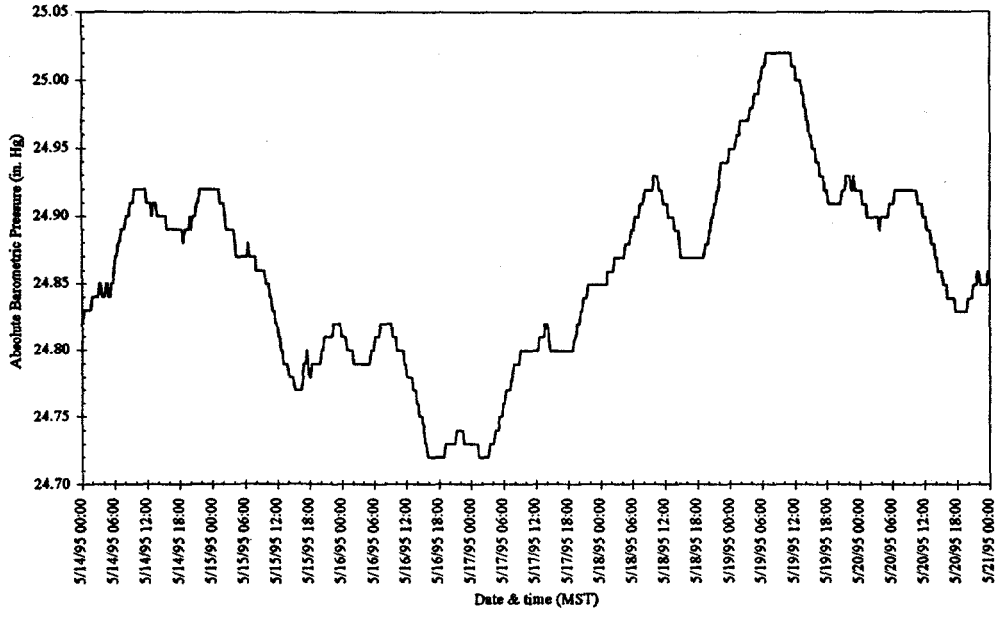

Figure D-55. Week 20, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.02, 24.72, and 24.86 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

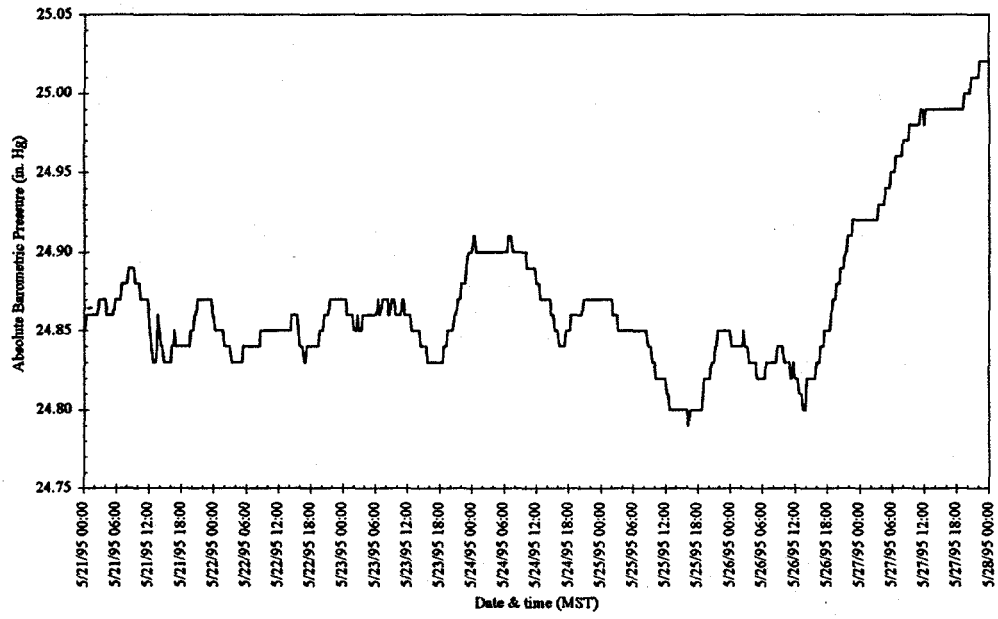

Figure D-56. Week 21, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.02, 24.79, and 24.87 "Hg, respectively.

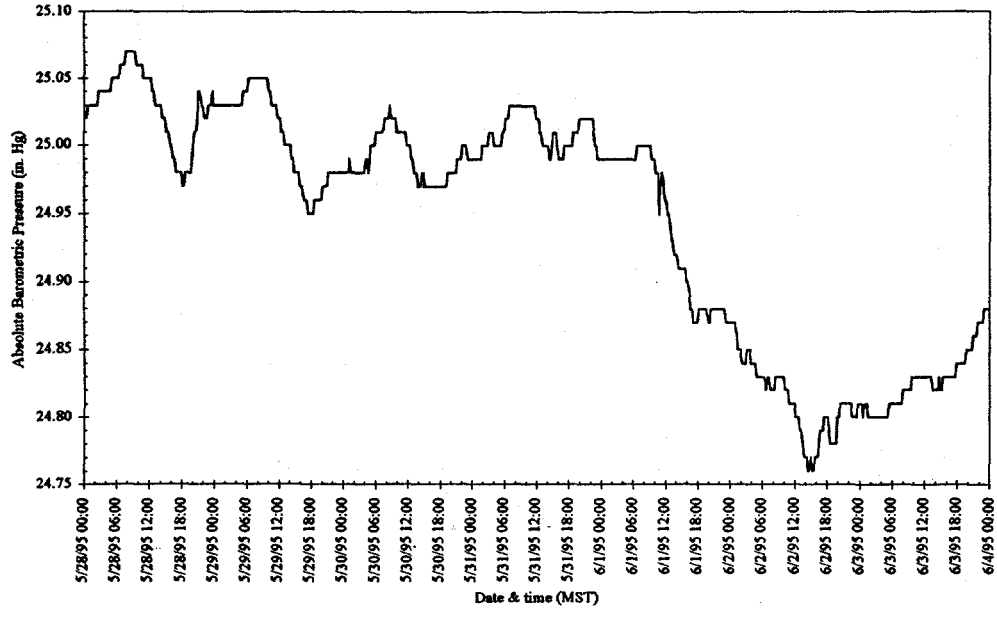

Figure D-57. Week 22, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.07, 24.76, and 24.95 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

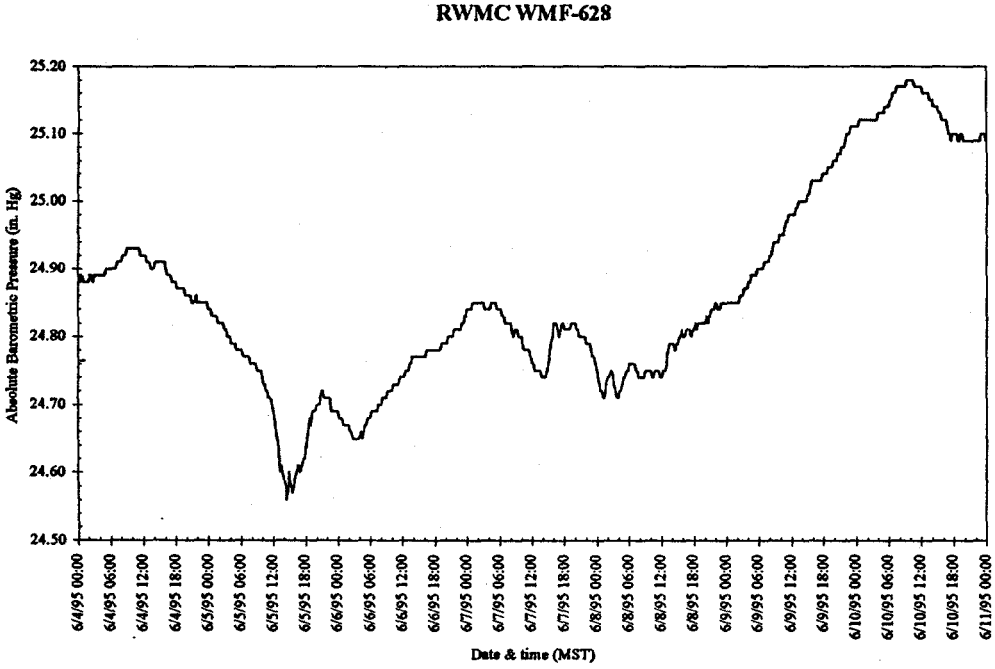

Figure D-58. Week 23, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.18, 24.56, and 24.86 "Hg, respectively.

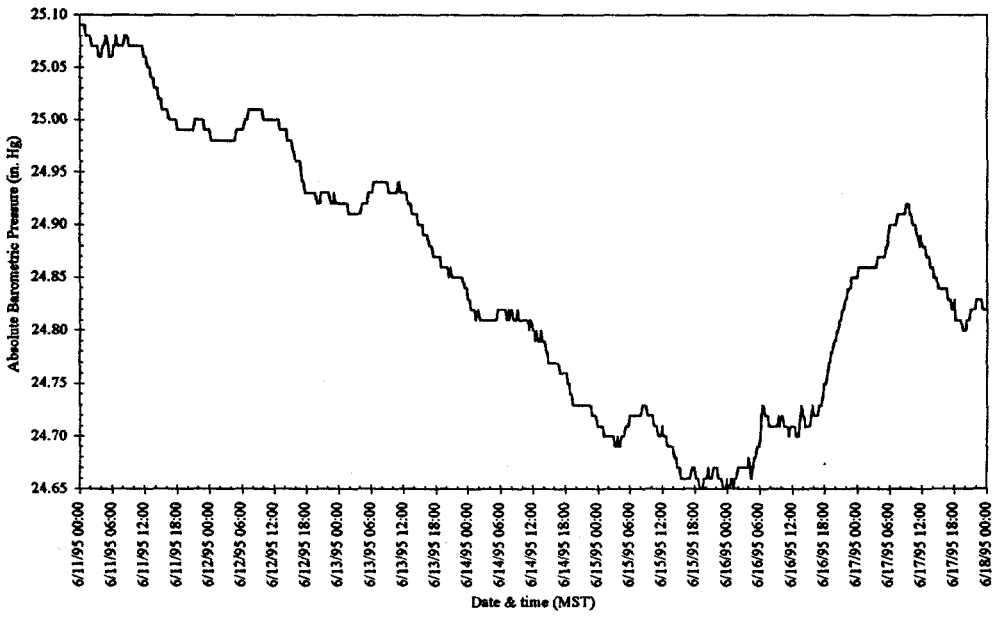

Figure D-59. Week 24, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.09, 24.65, and 24.85 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

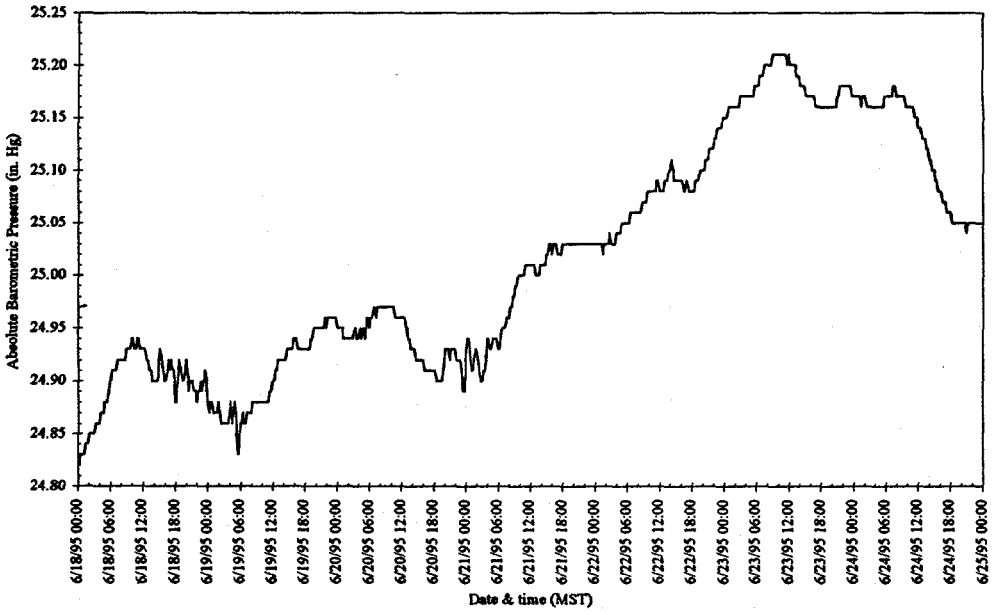

Figure D-60. Week 25, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.21, 24.82, and 25.01 "Hg, respectively.

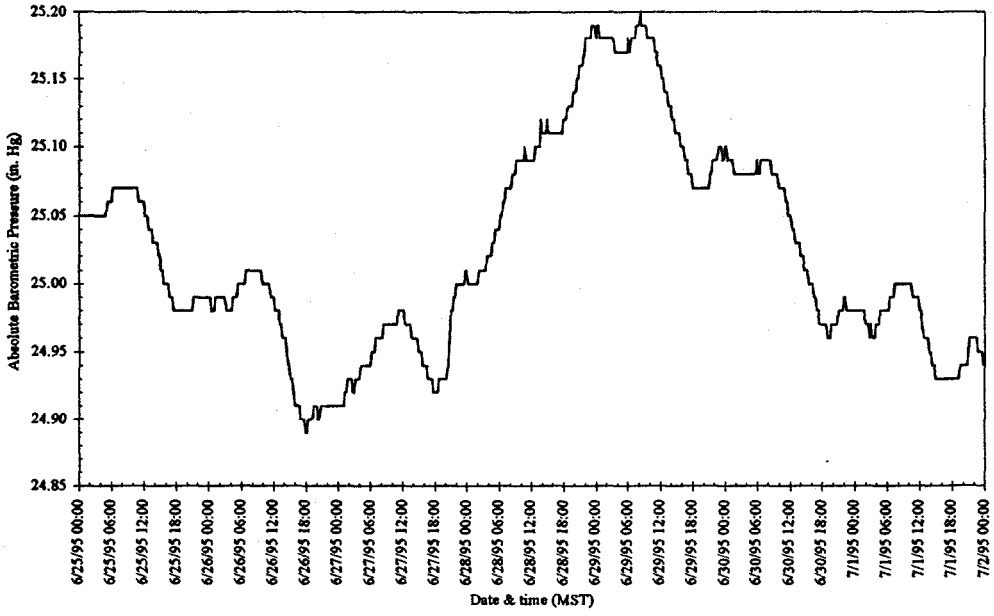

Figure D-61. Week 26, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.20, 24.89, and 25.02 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

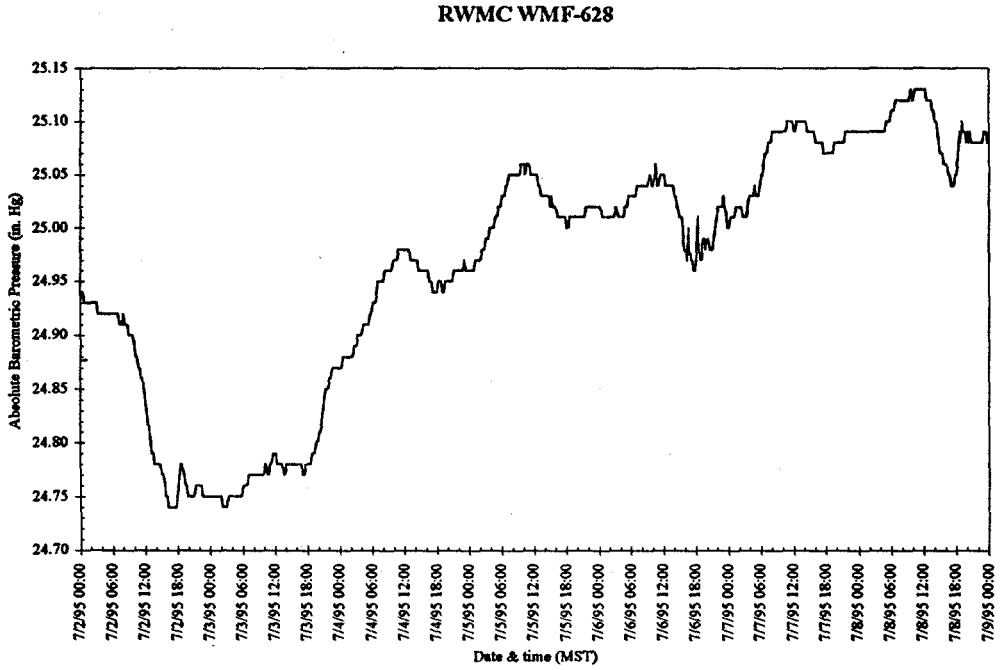

Figure D-62. Week 27, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.13, 24.74, and 24.97 "Hg, respectively.

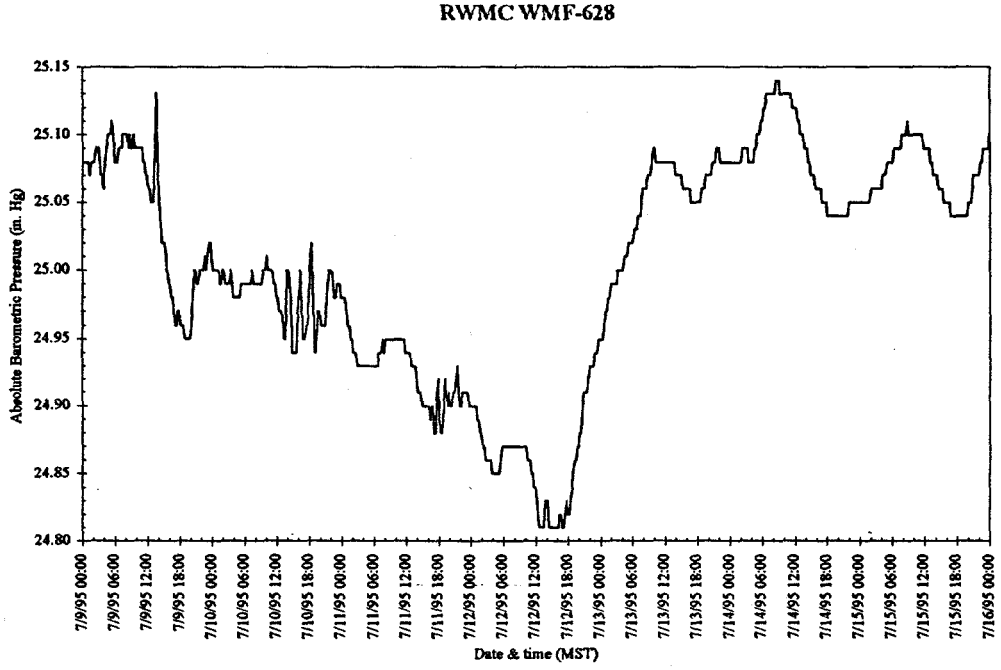

Figure D-63. Week 28, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.14, 24.81, and 25.00 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

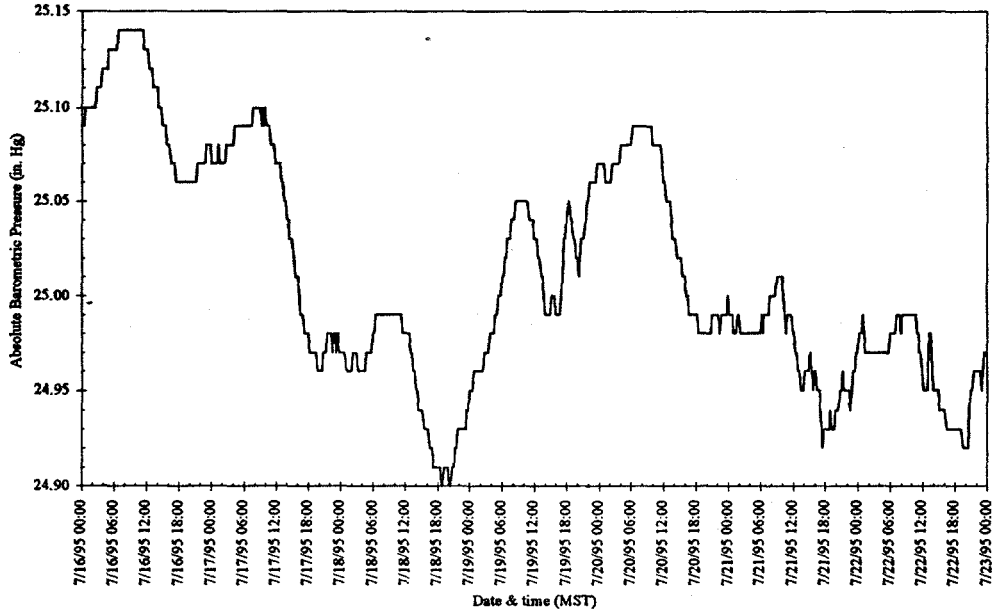

Figure D-64. Week 29, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.14, 24.90, and 25.01 "Hg, respectively.

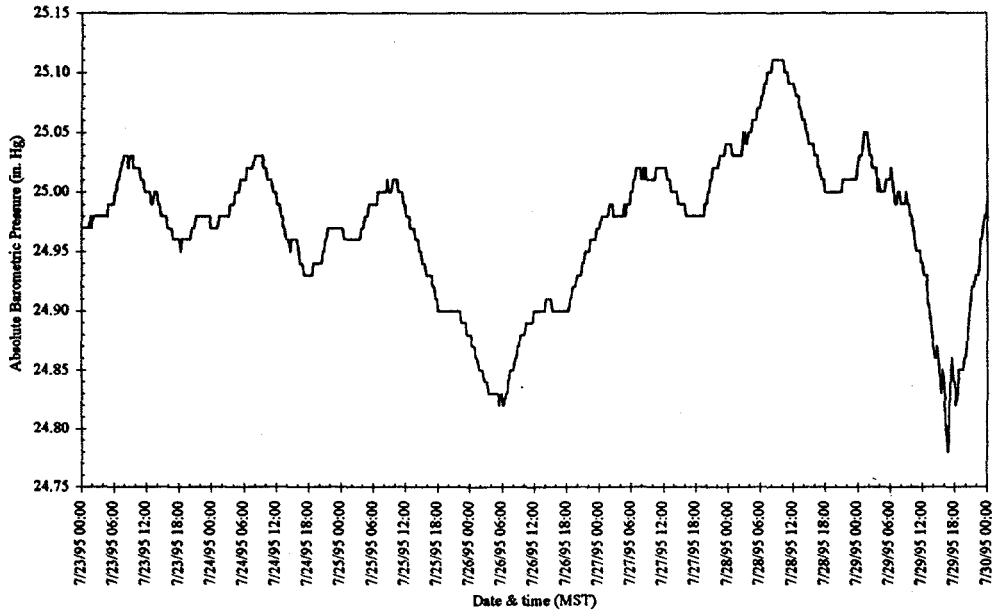

Figure D-65. Week 30, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.11, 24.78, and 24.97 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

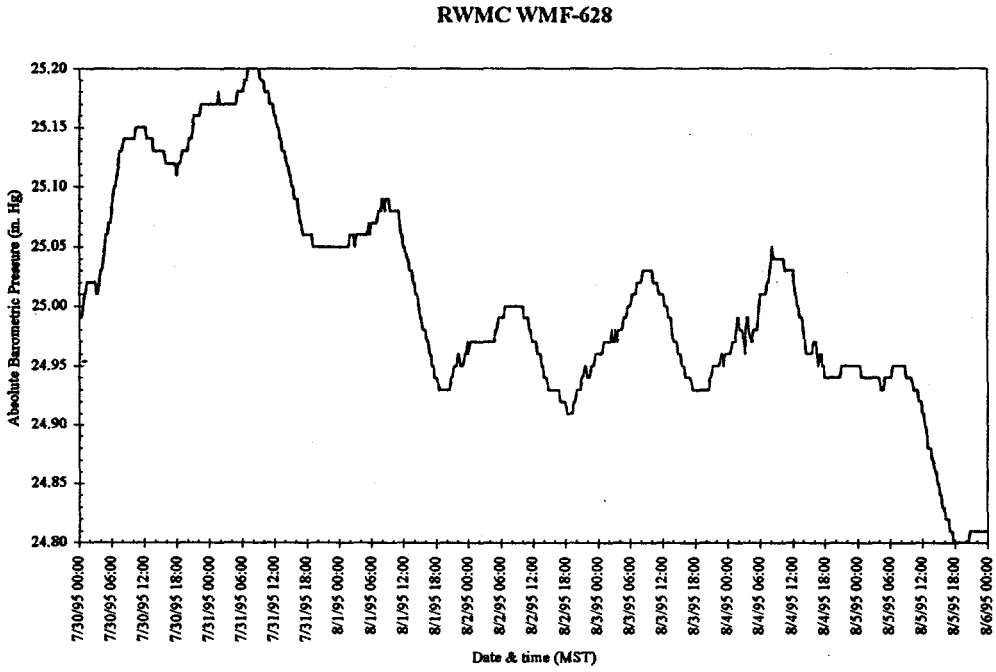

Figure D-66. Week 31, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.20, 24.80, and 25.01 "Hg, respectively.

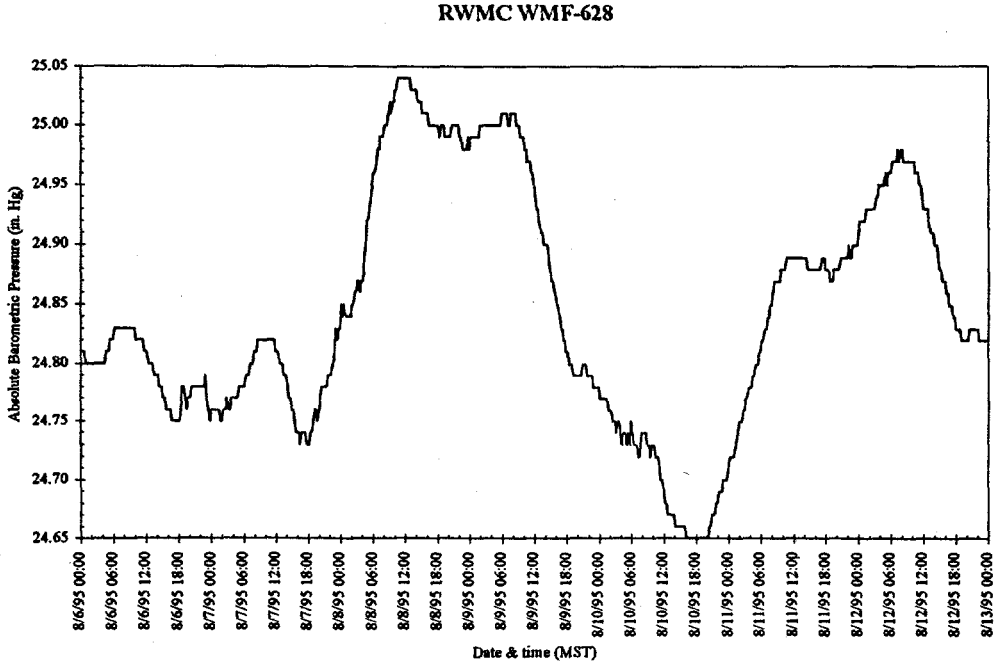

Figure D-67. Week 32, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.04, 24.65, and 24.85 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

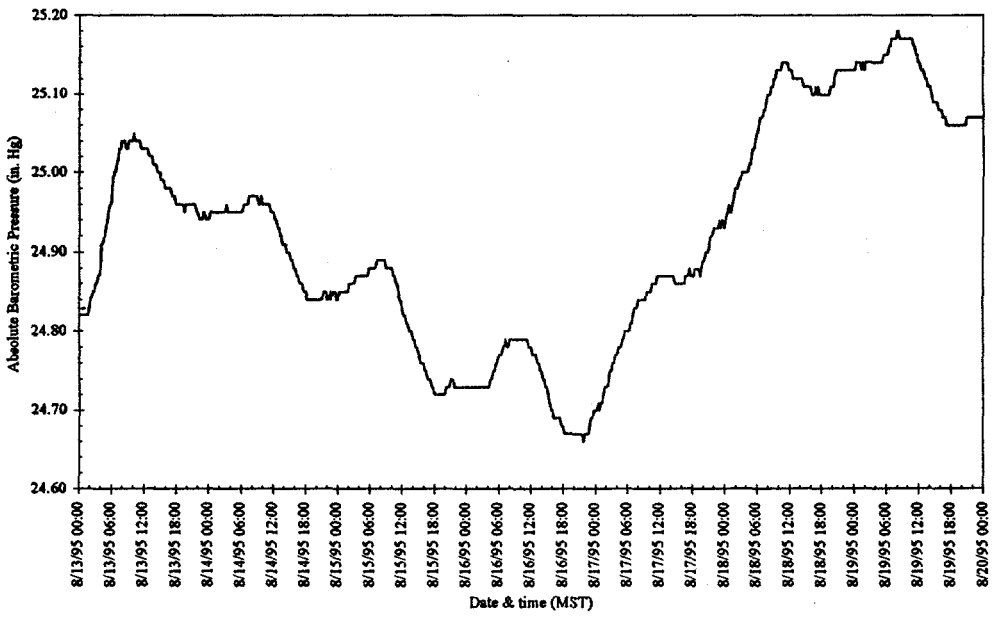

Figure D-68. Week 33, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.18, 24.66, and 24.92 "Hg, respectively.

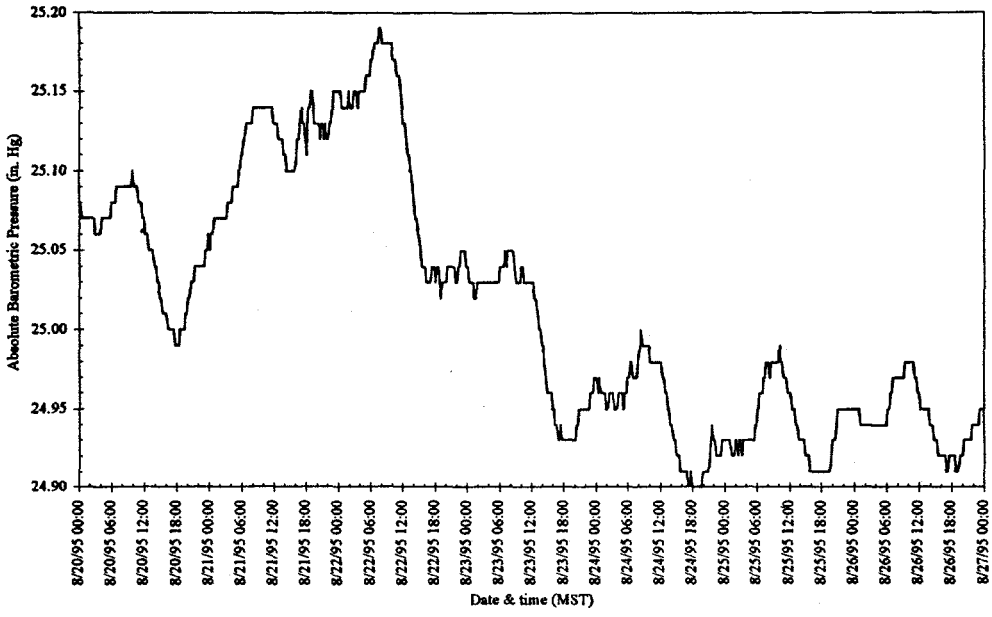

Figure D-69. Week 34, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.19, 24.90, and 25.01 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.

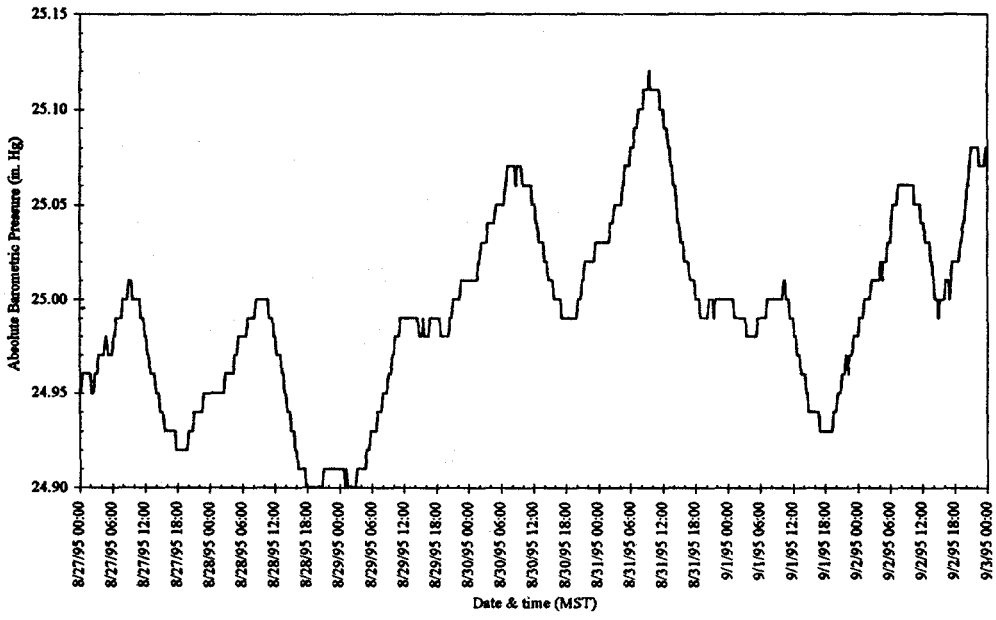

Figure D-70. Week 35, 1995. Absolute barometric pressure as a function of time. Maximum, minimum, and average pressures were 25.12, 24.90, and 24.99 "Hg, respectively.

Note: Data gaps in graphs were from instrument down time due to power outages, maintenance, calibration, and relocation of equipment activities.