Appendix G

Geomatrix Air Quality and Meteorological Monitoring Summary Report and PCS Daily Air Monitoring Report

Geomatrix

Air Quality and Meteorological Monitoring Summary
Port of Seattle – Terminal 117
Seattle, Washington

Prepared for:

Port of Seattle
Pier 69
Seattle, Washington 98111

December 2006

Project No. 009950.003

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Air Quality and Meteorological Monitoring Summary
Port of Seattle – Terminal 117

Seattle, Washington

Prepared for:

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Seattle, WA 98111

Prepared by:

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TABLE OF CONTENTS

Port of Seattle – Terminal 117
Seattle, Washington

1.0 INTRODUCTION 1

2.0 SITE BACKGROUND 1

3.0 DESCRIPTION OF MONITORING NETWORK 2

4.0 AMBIENT MEASUREMENTS 7

4.1 PM10 CONCENTRATIONS 7

4.2 PCB CONCENTRATIONS 9

5.0 METEOROLOGICAL MEASUREMENTS 10

6.0 EQUIPMENT CALIBRATION 13

- 6.1 DataRAMS 13
- 6.2 TE-1000 PUF Samplers 13
- 6.3 Meteorological Monitoring Station 13

7.0 ODOR OBSERVATIONS 13

8.0 NOISE MONITORING 14

9.0 REFERENCES 17

FIGURE

Figure 1 Air Monitoring Sample Location Map

Figure 2 Wind Rose

APPENDICES

Appendix A DataRAM Particulate Data

Appendix B TE-1000 PUF Data

Appendix C Meteorological Data

Appendix D Photographs

AIR QUALITY AND METEOROLOGICAL MONITORING SUMMARY FOR TIME CRITICAL REMOVAL ACTION

Port of Seattle – Terminal 117
Seattle, Washington

1.0 INTRODUCTION

On behalf of the Port of Seattle, Geomatrix Consultants, Inc. (Geomatrix) has prepared this *Air Quality and Meteorological Monitoring Summary* to present the findings of the air monitoring activities during the Time-Critical Removal Actions (TCRA) at the Port of Seattle's Terminal 117 (T-117) in Seattle, Washington, within the jurisdiction of King County during September and October of 2006. The objective of the *Air Quality and Meteorological Monitoring Summary* is to assemble and present the collected data in a single document and to describe the air quality environment that existed during the TCRA. This summary is also intended to be used as a resource for information related to the measurement of PM10 particulate matter, polychlorinated biphenyls (PCBs), odor, and meteorology during future air monitoring activities at Terminal 117.

In addition to the air quality information collected during the TCRA, Geomatrix performed construction related compliance noise monitoring near the residences along Dallas Avenue South. Results of those measurements and their relationship to Seattle's construction noise ordinance are presented in the noise section of this report.

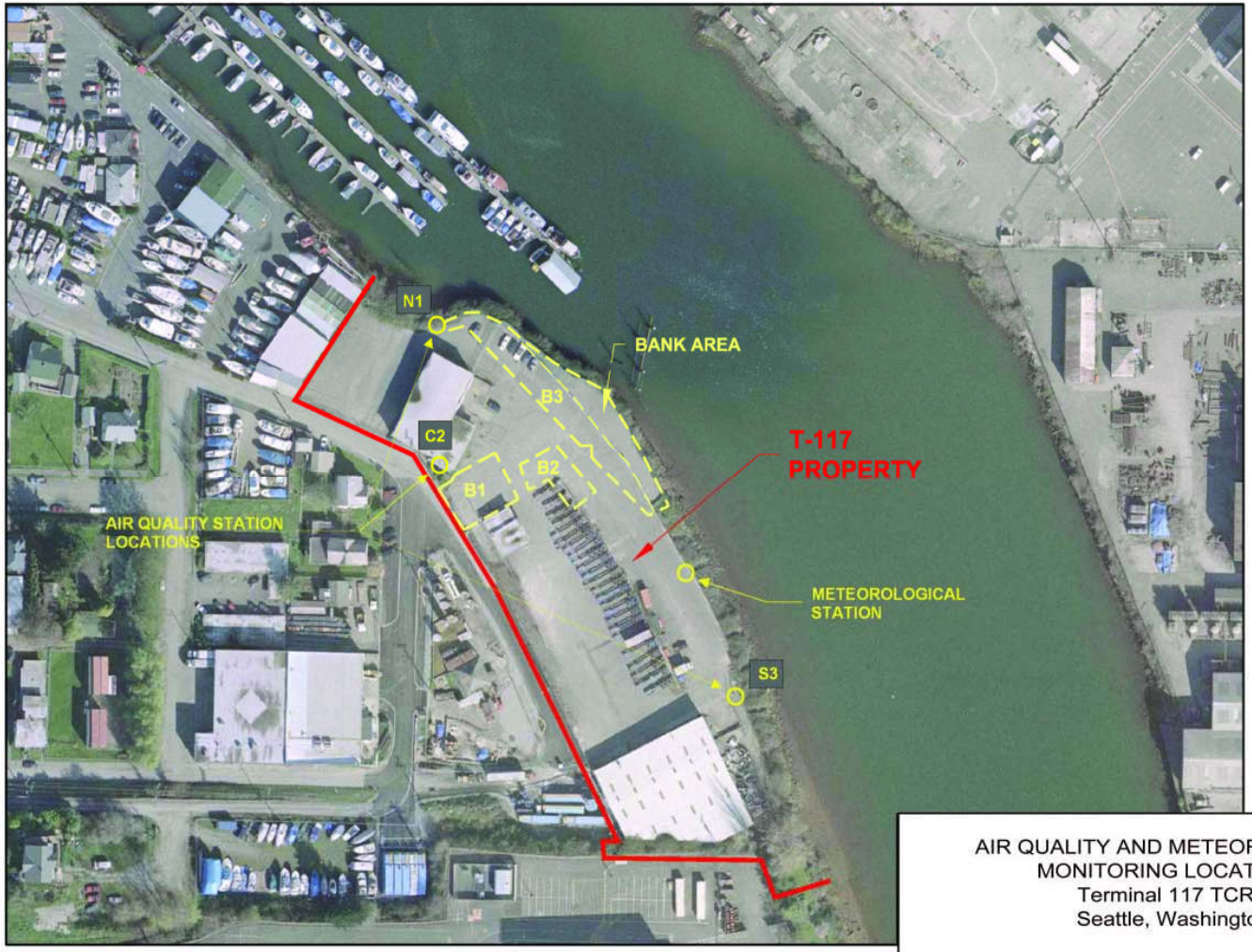
2.0 SITE BACKGROUND

T-117 is located at 8700 Dallas Avenue South in Seattle, Washington on an approximately 3 acre parcel (Figure 1). There are three buildings on the property. The north building and associated office/carport were used as offices and work rooms during the TCRA. The south building is occupied by Second Use Building Materials, a business that obtains reusable building materials for resale. The remaining areas are covered by asphalt or concrete. The property is fenced on three sides and bordered by the Lower Duwamish Waterway to the east. The property entrance is located on Dallas Avenue South.

3.0 DESCRIPTION OF MONITORING NETWORK

The air monitoring network consisted of four (4) individual monitoring locations: North Station or N1, Central Station or C2, South Station or S3, and the Meteorological station. Air quality instrumentation at N1, C2, and S3 included a Thermo Electron DataRAM4 dust monitor and a Tisch Environmental TE-1000 PUF Poly-Urethane Foam (PUF) High Volume Sampler. The meteorological station consisted of instrumentation detailed below.

The DataRAM4 dust monitor provided real-time PM10 concentrations and recorded hourly average concentration data throughout the duration of the project.



AIR QUALITY AND METEOROLOGICAL
MONITORING LOCATIONS
Terminal 117 TCRA
Seattle, Washington

By: KMW	Date: 12/7/06	Project No. 9950.003
Geomatrix		Figure 1

The TE-1000 PUF samplers operated on eight separate days during the TCRA activity, capturing polychlorinated biphenyls in ambient air samples collected by a high volume sampler equipped with a quartz-fiber filter and polyurethane foam (PUF) cartridge for the duration of the work day and analyzed by Method TO-4A. The filter media were analyzed by Air Toxics, Ltd. in Folsom, California, an EPA-accredited laboratory.

The meteorological system measured the following parameters at designated tower heights using Campbell Scientific and RM Young instrumentation: wind speed (10-meter), wind direction (10-meter), air temperature (2-meter, 10-meter), differential temperature (2-10 meter), barometric pressure (2-meter), solar radiation (2-meter), and precipitation (ground-level). Measurements were taken at one-second intervals then averaged and recorded in 15-minute blocks except for precipitation which was recorded as a 15-minute total.

In addition to measured data, 15-minute values of standard deviation of horizontal wind direction (sigma theta) were calculated and stored by the meteorological system's Campbell Scientific data logger.

4.0 AMBIENT MEASUREMENTS

DataRAMs were used for particulate air monitoring for the duration of the TCRA activities. TE-1000 PUF samplers were used for the PCB sampling that began on September 13th and concluded on October 10th. Following is a description of the sampling and discussion of the results.

4.1 PM10 CONCENTRATIONS

PM10 monitors called DataRAMs were utilized to provide real-time particulate data as well as hourly average concentrations. The hourly average concentrations were saved in the internal memory of the DataRAM and downloaded each day via laptop computer. The DataRAMs are used as particulate indicators, and though calibrated to standard dusts at the factory, the actual PM10 levels may vary because the optical response of the instruments to urban aerosols are not necessarily the same as they are to the calibration dust. The DataRAM flow rate was set to 3 liters/minute.

Action levels were established for this program as a means to provide the project team with real-time feedback in the event of high measured PM10 concentrations. The action level for PM10 for this monitoring program based on a running 24-hour average PM10 concentration was 70% of the NAAQS 24-hour standard of 150µg/m^3 or 105µg/m^3. If the running 24-hour average PM10 concentrations were to exceed this action level, steps were to be taken to reduce emissions.

Initially, the DataRAMs were deployed for the work day only and provided instantaneous PM10 concentrations as well as hourly average concentrations. The DataRAMs were then retrieved, downloaded, zeroed (an instrument diagnostic procedure), and prepared for the following work day. This pattern was selected because the hourly concentrations during site activity were quite low and because at the end of each work day the soil stockpiles were covered with plastic and all dust generating activity ceased. The highest running hourly average concentration for any work day between September 13th and October 16th was 72.5µg/m^3 and occurred on October 3rd at sampler N1 over the nine hour day. The highest 24-hour running average with those same 9 hours was 42.4 µg/m^3.

Activity on October 3rd included asphalt paving of the initial excavation B1 near the entrance to the site, peeling of asphalt for excavation of the B2 area, and backfill material being imported and stockpiled on the north end of the site. The major dust generating source on October 3rd (and throughout the duration of the project) was the import of clean backfill material. Winds from the northwest at 6 to 7 mph on October 3rd contributed to the higher than usual PM10 concentrations. DataRAMs C2 and S3 (central and south monitoring stations) recorded a work day running average of 38 and 37 µg/m^3 during the same period. Daily field notes indicate Geomatrix personnel requested additional water application to the north end of the site on October 3rd.

Beginning October 2nd, the DataRAMs remained deployed to confirm that the 24-hour running averages remained below the designated action level of 105µg/m^3. The DataRAMs remained in monitor mode continuously from October 2nd through October 16th unless there was a non-working weekend day. A one-hour interval interruption would typically occur between 1600 and 1700 each day for downloading and re-zeroing the instruments. DataRAM data including hourly and work day average concentrations, wind direction data, and hourly graphs are compiled in Appendix A.

DataRAM downtime: Although the DataRAMs were zeroed at the end of the day on September 20th, rain resulted in malfunctions to two instruments. The malfunctions were not apparent until they were deployed on September 21st. Because excavation of the B1 area was occurring near C2 (central station) the operational N1 DataRAM was relocated to the C2 monitoring location. Geomatrix purged one of the two malfunctioning instruments for the September 22nd work day and received a replacement DataRAM at 8:30 a.m. via Federal Express that morning to resume monitoring at three locations.

The N1 DataRAM began malfunctioning for a brief period during the night of October 10th and again on October 12th. Calls to Ashtead Technologies for diagnostics indicated the lenses in the instrument were compromised and the instrument should be sent back for service. It was very

evident during the project that the N1 DataRAM was exposed to particulate levels higher than those measured or observed at the other monitoring locations due to high truck traffic immediately adjacent to the DataRAM. Consequently, due to physical restrictions for siting the monitor, the DataRAM was exposed to above normal ambient dust conditions and caused the lenses to fail. A replacement DataRAM for the N1 location was not procured due to the timing of the malfunction with relationship to the conclusion of the project.

4.2 PCB CONCENTRATIONS

The TE-1000 PUF samplers were installed and operated according to manufacturer's recommendations. Although EPA guidance was considered for sampler siting, site conditions required siting compromises as a result of structures on site, locations of excavations, power availability, and safety. Geomatrix procured washed polyurethane filter media through the Air Toxics laboratory. The samplers were operated during operational hours exposing the filters and when finished the filter media was removed from the samplers and shipped back to Air Toxics for analysis. The analytical method for determination of PCBs in ambient air involves analyzing the particulate filter and PUF cartridge as a single sample train. Start time, stop time, flow rates, temperature, and pressure were recorded in the daily field notes for each sampler.

PCB air samples were collected on eight days during the project. Each of the three samplers ran on the same eight days. The first day of sampling occurred on September 13th and was chosen as a background sample to document local PCB ambient air concentrations prior to commencing excavation. PCB sampling occurred on seven (7) additional days during the soil removal activities chosen to specifically capture soil excavation and soil loading (exporting) activities. PCB air samples were collected using polyurethane foam cartridges (PUF), particulate filter media, and a high volume sampling pump drawing approximately 10 cfm (each sampler had a slightly different flow rate). The samples were collected for the entire work day period (between about 7.5 and 10.4 hours). Each of the air samplers were installed with their inlets elevated approximately 5 to 6 feet off the ground surface to collect a representative breathing zone sample. The samples were individually packaged and shipped to Air Toxics, Ltd. in Folsom, California, an EPA accredited laboratory, for analysis. The PCB samples were analyzed by EPA Method TO-4A.

The second set of samples was exposed on September 20th and coincided with the Area B-1 excavation. The September 13th and 20th sample runs were analyzed on an expedited (48 hours) basis to quickly ensure the perimeter action levels were appropriate. The six remaining sample events were analyzed with a standard laboratory turn around time of ten business days.

Two of the twenty-four (three samplers times eight days) exposed PUF cartridges submitted to Air Toxics were found to contain detectable levels of Aroclor 1260 at or above the detection limit of 1 µg. The C2 (Central 2 sampler) exposed filter from September 20th resulted in 2.8 µg and the N1 (North 1 sampler) exposed filter from the September 30th sampling run resulted in 1.0 µg. To determine the concentrations of the two filters with detectable levels of PCBs, the flow rate, sample duration, average temperature, and average pressure were documented. Converting the 2.8 µg and 1.0 µg to a concentration based on the actual conditions results in a mass concentration of .02 $\mu g/m^3$ for the C2 sample on September 20th, and a 0.008 $\mu g/m^3$ for the N1 sample on September 30th. Overall the detection limits ranged from 0.0056 $\mu g/m^3$ to 0.0082 $\mu g/m^3$ for the eight sampling days. Laboratory results and an analysis summary are presented in Appendix B.

The *Air Quality and Meteorological Monitoring Plan* identified a PCB concentration not to be exceeded at the property perimeter as 0.11 $\mu g/m^3$, based on the most stringent preliminary remediation goal for chronic inhalation exposure (cancer effects, assuming high-risk Aroclor 1254), published by Region IX of the U.S. Environmental Protection Agency. Based on the calculated concentrations, the two samples with detectable levels are 19.3% and 6.9% respectively, of the not to be exceeded property perimeter.

The sample run on September 20th specifically targeted the B1 excavation as having the potential to release airborne PCB's. The B1 excavation was adjacent to the C2 monitor and consequently the sampler had direct exposure to the soil removal activity. Winds during the day were southerly in the morning and switched to easterly in the afternoon with wind speeds between 3 and 5.7 miles per hour.

It should be noted that Air Toxics documented the results of the ambient sampling analysis in Level IV B CLP as categorized by EPA Region V Model Quality Assurance Project Plan, 1991.

5.0 METEOROLOGICAL MEASUREMENTS

The meteorological station operated from September 8th through October 31st, 2006. The tower was installed in a concrete foundation along the eastern edge of the site enabling the tower to free stand without guy wires. The station's power supply consisted of a solar panel and rechargeable battery.

The meteorological parameters are measured in one-second intervals and averaged in 15-minute blocks by a Campbell CR-10X electronic data logger except for precipitation which is logged as a 15 minute total. The data logger calculates and records sigma theta using techniques approved

for Prevention of Significant Deterioration (PSD) meteorological monitoring studies. The Model 5305-AQ wind speed and direction sensor meets the requirements for PSD monitoring studies.

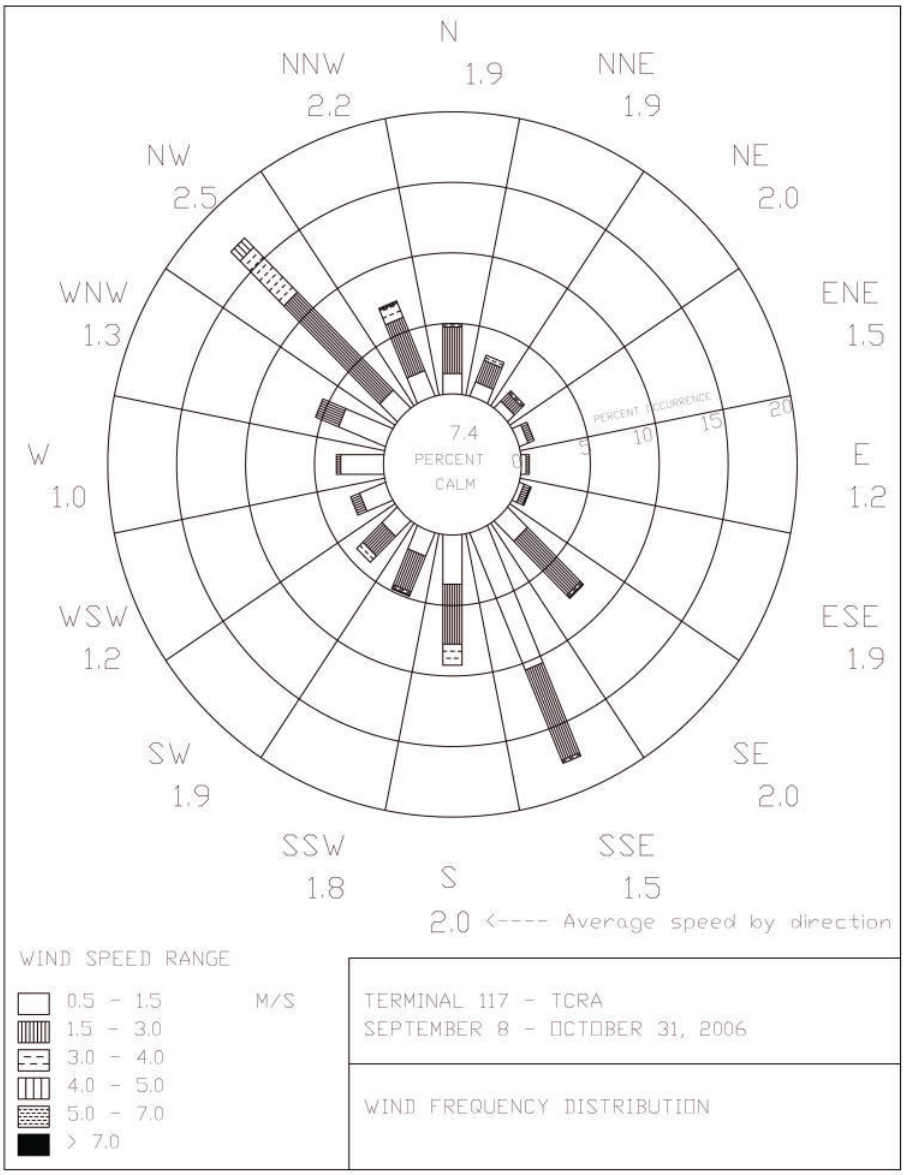
Following is a list of the meteorological instruments operated during the monitoring program:

- One RM Young 5305 Wind Monitor AQ to measure wind speed, wind direction, sigma theta ($\sigma\theta$) at 10 meters;
- Two Campbell Scientific 107 temperature sensors mounted in naturally aspirated shields at 2 and 10 meters;
- One Licor solar pyranometer to measure solar radiation at 4 meters;
- One Vaisala CS105 to measure barometric sensor at 2 meters; and
- One Qualimetrics 6011-A rain gauge.

Wind data are important in determining the relationship between emission sources and measured concentrations. Figure 2 presents wind data in the form of a wind rose for the period between September 8th and October 31st. The wind rose depicts the diurnal pattern of winds that are dominant near rivers. The predominant winds were from the northwest and southeast directions that parallel the Duwamish Waterway adjacent to the site.

Pressure data obtained from Boeing Field was used for the PUF concentration calculations. On-site meteorological data collected from September 8th until October 31st are presented in Appendix C.

Meteorological Downtime: Geomatrix procured a barometric pressure sensor for the meteorological station but delivery was delayed. The sensor was installed on October 2nd. Upon sensor installation, a new program was uploaded to the data logger. The new program contained an error and the precipitation data inadvertently was no longer written to final storage from October 2nd through the end of the data collection.



WIND ROSE
Terminal 117 TCRA
Seattle, Washington

By: KMW	Date: 12/7/06	Project No.	9950.003
Geomatrix		Figure	2

6.0 EQUIPMENT CALIBRATION

6.1 DataRAMS

The DataRAM4 used for the particulate monitoring is a high sensitivity, two-wavelength nephelometric monitor whose light scattering sensing configuration has been optimized for the measurement of the fine particle of airborne dust in ambient environments. The instrument automatically checks its own optical background during the zeroing sequence and indicates any significant deviations requiring maintenance. The DataRAM4 was zeroed on a daily basis during the duration of the project.

The monitors were programmed to provide hourly average, maximum, and minimum PM_{10} concentrations. Initially, the monitors were operated continuously during on-site activities and downloaded following completion of the work day. As the project progressed the DataRAMs were left running throughout the night to achieve a running 23 or 24 hour average concentration. The DataRAMs required a data stop in order to run the diagnostic zero and therefore, the monitors ran 23 hours per day.

6.2 TE-1000 PUF Samplers

Manufacturer's recommendations for calibration and maintenance were followed throughout the monitoring program. The samplers' flow rate ranged between 9 and 10.5 cfm (280 to 300 liters per minute) as outlined in the sampler specifications. PUF sampler calibrations were conducted prior to the first sample run on September 13th and following the last sample run on October 10th and are presented in Appendix B.

6.3 Meteorological Monitoring Station

Quality assurance checks were performed on the meteorological instruments both before and after the monitoring program. The quality assurance field data sheets are presented in Appendix C.

7.0 ODOR OBSERVATIONS

As a part of the *Air Quality and Meteorological Monitoring Plan*, odor observations were conducted throughout the duration of the TCRA activities. Although perimeter odor observations were conducted throughout the site, the majority of the odor observations were concentrated on the western and north end of the site in the direction of sensitive residential receivers. With the exception of heavy equipment exhaust odors and those odors associated with the application of asphalt, perimeter odor observations did not identify any quantifiable odors.

Discussions with the equipment operators in the excavation zones identified occasional instances of petroleum based odors localized in the B2 and B3 excavations but those odors were localized and not discernible along the perimeter of the site.

8.0 NOISE MONITORING

Geomatrix assessed noise generated by the T-117 Time-Critical Removal Actions (TCRA) by measuring noise during site clean up and then comparing measurement data to the applicable noise limits. The details of this review are presented below.

Applicable Noise Limits

Although T-117 is located in unincorporated King County, the nearest residences to the site are in the City of Seattle, and the applicable regulations for noise from T-117 affecting the residences are those included in the Seattle Municipal Code Chapter 25.08 (SMC 25.08). The Seattle noise rule includes timing restrictions and noise limits. This rule defines "maximum permissible sound levels" based on the zoning of the source and receiving properties, and sets limits for both long-term operational noise and for noise produced during various temporary construction activities. The construction noise limits use the operational noise limits as a base and allow specified increases over the base limits for varying types of construction equipment noise during daytime hours (i.e., between 7 a.m. and 10 p.m. weekdays and between 9 a.m. and 10 p.m. weekdays and holidays). Both the operational and construction noise limits for sources in industrial districts/zones are higher (i.e., less stringent) than when the noise source is from commercial or residential districts/zones. Throughout the T-117 project, weekday and weekend construction activity adhered to the allowable hours of operation.

The TCRA at T-117 are considered temporary construction noise sources under the Seattle noise rule, and the primary noise from the site is from loaders and other mobile construction equipment. A summary of the applicable construction noise limits for loaders and other similar equipment is displayed in **TABLE 1**.

TABLE 1

Seattle Construction Noise Limits (dBA)

Zoning District of Noise Source	Zoning District of Receiving Property		
	Residential	**Commercial**	**Industrial**
On-site sources like dozers, loaders, power shovels, cranes, derricks, graders, off-highway trucks, ditchers, and pneumatic equipment			
Residential	80	82	85
Commercial	82	85	90
Industrial	85	90	95
Daytime hourly L_n sound level limits for Industrial Noise Sources			
District of Receiving Property	**L_{25}**	**$L_{8.3}$**	**$L_{2.5}$**	**L_{max}**
Commercial	90	95	100	105

Note: Construction noise limits are applied at 50' or a real property line, whichever is greater, and are limited to **daytime hours only**. Daytime hours are defined as 7 a.m. to 10 p.m. weekdays and 9 a.m. to 10 p.m. weekends and holidays.

Source: Seattle Municipal Code Chapter 25.08

Seattle's noise limits (upper portion of **TABLE 1)** may be exceeded for certain periods of time. Noise limits can be exceeded by 5 dBA for no more than 15 minutes in any hour, or 10 dBA for no more than 5 minutes of any hour, or 15 dBA for no more than 1.5 minutes of any hour. Sometimes these exceptions are described in terms of the percentage of time a certain level is exceeded. For example, L_{25} represents a sound level that is exceeded 25 percent of the time, or 15 minutes in an hour. Similarly, $L_{8.33}$ and $L_{2.5}$ are the sound levels that are exceeded 5 and 1.5 minutes in an hour, respectively. At no time can the allowable sound level be exceeded by more than 15 dBA, represented by the L_{max}.

T-117 is in unincorporated King County on land zoned "I" for industrial use, so on-site noise sources due to construction and operation are considered to be in an Industrial district for purposes of applying the Seattle noise limits.

The residential receivers nearest to T-117 are located on Dallas Avenue S and on 17th Avenue S, near the intersection of Dallas and 17th Avenues S. These residences are on land zoned "IB" or Industrial Buffer. The Seattle noise code considers receiving properties located in IB zones to be in Commercial districts for purposes of applying the Seattle noise limits.

The applicable limits for construction noise from loaders and similar equipment working in Industrial Districts received in Commercial Districts are displayed in the bottom half of **TABLE 1**. The noise limits are shown as four noise descriptors that result from the allowed short-term increases to the "maximum permissible sound levels."

Measured Sound Levels

Geomatrix measured sound levels related to the T-117 Time-Critical Removal Actions (TCRA) at locations representing residences across from the main terminal building at T-117. Geomatrix measured sound levels in the vicinity of T-117 on Tuesday, September 26, 2006 and Thursday, September 28, 2006. Each measurement lasted at least 1 hour, and collected sound data in 1-second increments. The data included the 1-second equivalent sound level (L_{eq} or integrated sound-energy average) and the 1-second maximum level (L_{max}).[(1)] During the measurements, detailed time-indexed notes were taken to document the sources of noise. Using these data, Geomatrix calculated levels for the four sound level descriptors shown in the bottom of **TABLE 1** to assess compliance with Seattle's noise limits.

SLM 1 was taken on September 26, 2006 near the intersection of Dallas Ave S and 17th Ave S and adjacent to the residence at 8601 17th Ave S. SLM 2 was taken on September 28, 2006 further south on 17th Avenue S, adjacent to the residence at 8609 17th Avenue S. The major source of noise noted during each measurement was overhead aircraft, which passed frequently from SeaTac Airport and to and from King County International Airport. Other sources of noise included trucks traveling to and from the T-117 site on Dallas Ave S, construction equipment noise from the T-117 site, and other background sources such as equipment across the Duwamish River and distant traffic noise.

TABLE 2 displays the results of the measurements and compares the calculated L_{25}, $L_{8.33}$, $L_{2.5}$, and L_{max} values at each measurement location with the City of Seattle's noise limits for construction noise from an Industrial district received in a Commercial district. The calculated sound levels displayed in **TABLE 2** *include* all extraneous noise events, such as overhead aircraft (at times a very dominant noise source) and other background noise sources. Measured sound levels were well within the City of Seattle noise limits for all four noise limit descriptors. Because these calculated levels include noise from extraneous sources other than the activities at T-117, it is clear that noise related to on-site construction activity was well within the City of Seattle construction noise limits.

---

(1) Geomatrix collected data using 1-second intervals in the event it was necessary to extract intrusive sound levels from sources unrelated to the T-117 activities from the measurements in order to assess compliance. This proved not to be necessary because overall levels from all sources in the area comply with the applicable limits.

TABLE 2

Measured Sound Levels (dBA)

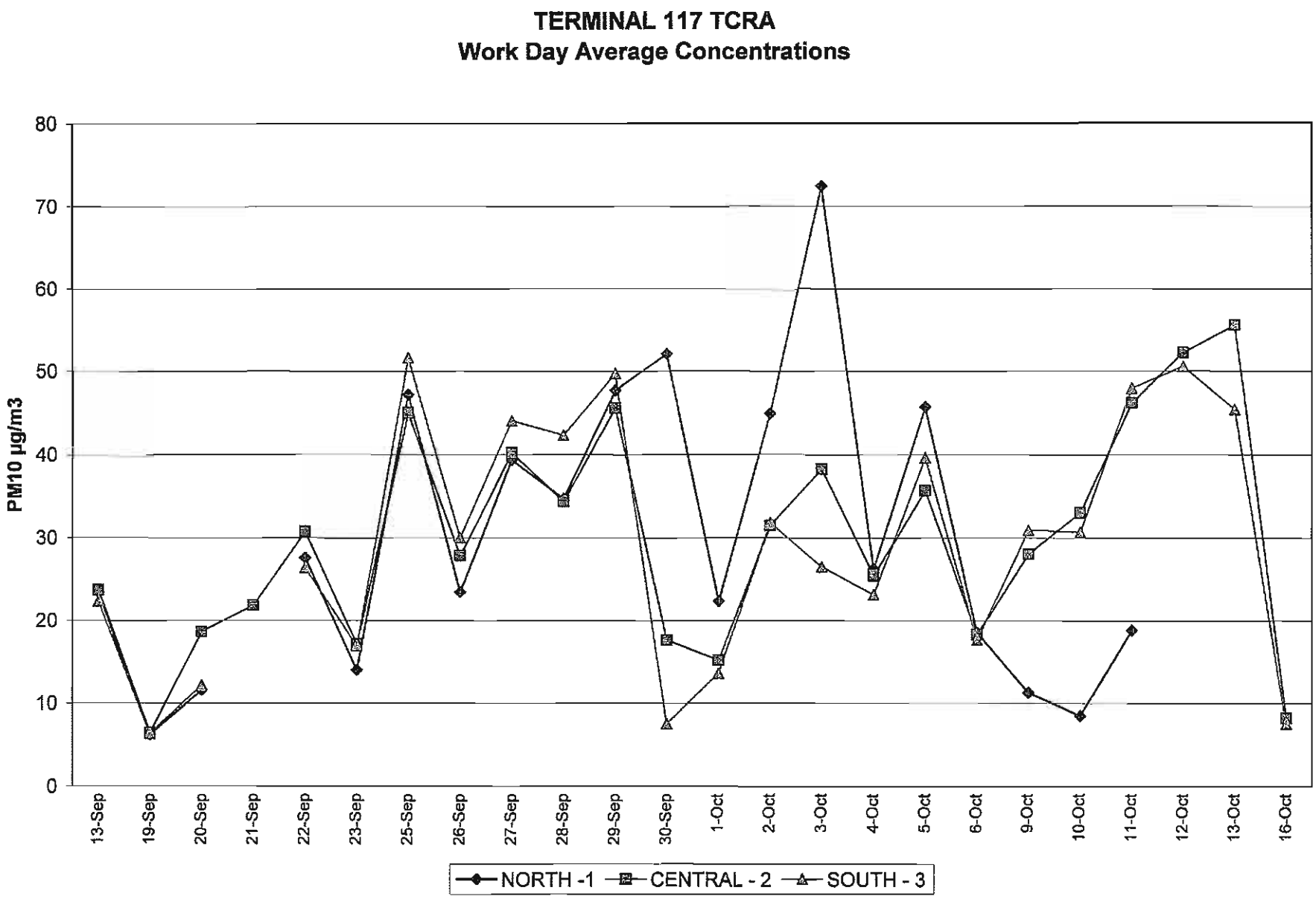
SLM Location	L_{25}	$L_{8.3}$	$L_{2.5}$	L_{max}
SLM 1 : 8601 17th Avenue S	64	70	73	83
SLM 2 : 8609 17th Avenue S	63	69	74	86
Seattle Noise Limits *Industrial affecting Commercial*	90	95	100	105
Source: Geomatrix Consultants, Inc., 2006.				

9.0 REFERENCES

U.S. EPA, Compendium Method TO-4A, January 1999

Seattle Municipal Code Chapter 25.08

Appendix A


TERMINAL 117 TCRA
Work Day Average Concentrations
PM10 µg/m3
80
70
60
50
40
30
20
10
0
13-Sep
19-Sep
20-Sep
21-Sep
22-Sep
23-Sep
25-Sep
26-Sep
27-Sep
28-Sep
29-Sep
30-Sep
1-Oct
2-Oct
3-Oct
4-Oct
5-Oct
6-Oct
9-Oct
10-Oct
11-Oct
12-Oct
13-Oct
16-Oct
NORTH -1
CENTRAL - 2
SOUTH - 3

TERMINAL 117
DATARAM - FIELD DATASHEET

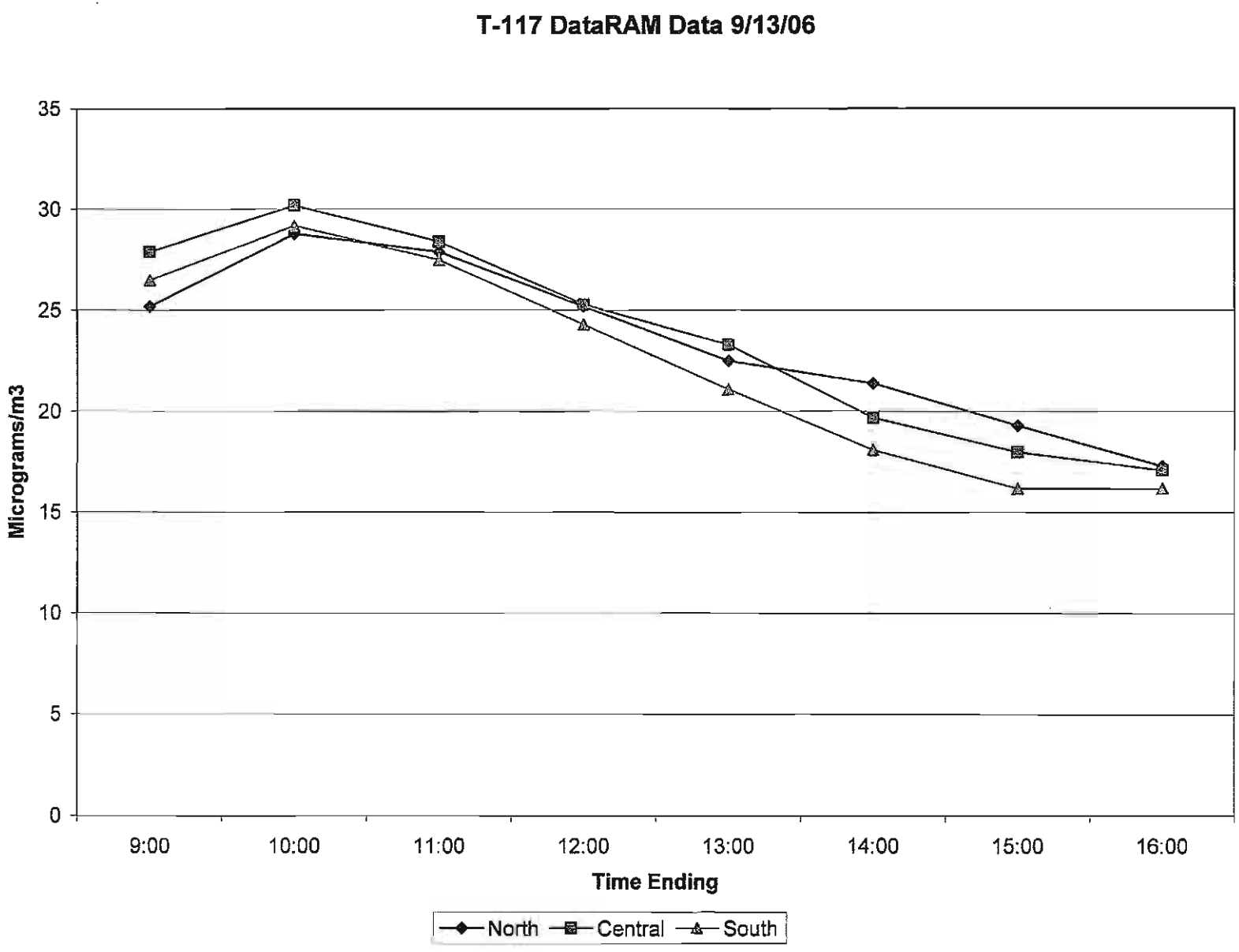
DATE **Sept.13, 2006**

DATARAM ID	NORTH - 1			START TIME	8:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	9:00	25.2	17	62	202
2	10:00	28.8	18.1	63	205
3	11:00	27.9	18.8	59	176
4	12:00	25.2	19.3	56	181
5	13:00	22.5	20.7	52	194
6	14:00	21.4	21.6	47	191
7	15:00	19.3	22.3	45	214
8	16:00	17.3	22.4	43	216
9					
10	**AVERAGE**	**23.5**			
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	8:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	9:00	27.9	17.4	62	202
2	10:00	30.2	17.8	63	205
3	11:00	28.4	18.1	61	176
4	12:00	25.3	18.6	58	181
5	13:00	23.3	19.9	54	194
6	14:00	19.7	20.9	49	191
7	15:00	18	21.7	46	214
8	16:00	17.1	21.5	45	216
9					
10	**AVERAGE**	**23.7**			
11					
12					

DATARAM ID	SOUTH - 3			START TIME	8:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	9:00	26.5	16.8	61	202
2	10:00	29.2	17.8	63	205
3	11:00	27.5	18.4	59	176
4	12:00	24.3	19	56	181
5	13:00	21.1	20.7	52	194
6	14:00	18.1	21.4	47	191
7	15:00	16.2	22.2	45	214
8	16:00	16.2	22	43	216
9					
10	**AVERAGE**	**22.4**			
11					
12					

Observer:kh
Weather:Overcast cool


T-117 DataRAM Data 9/13/06
35
30
25
20
15
10
5
0
Micrograms/m3
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

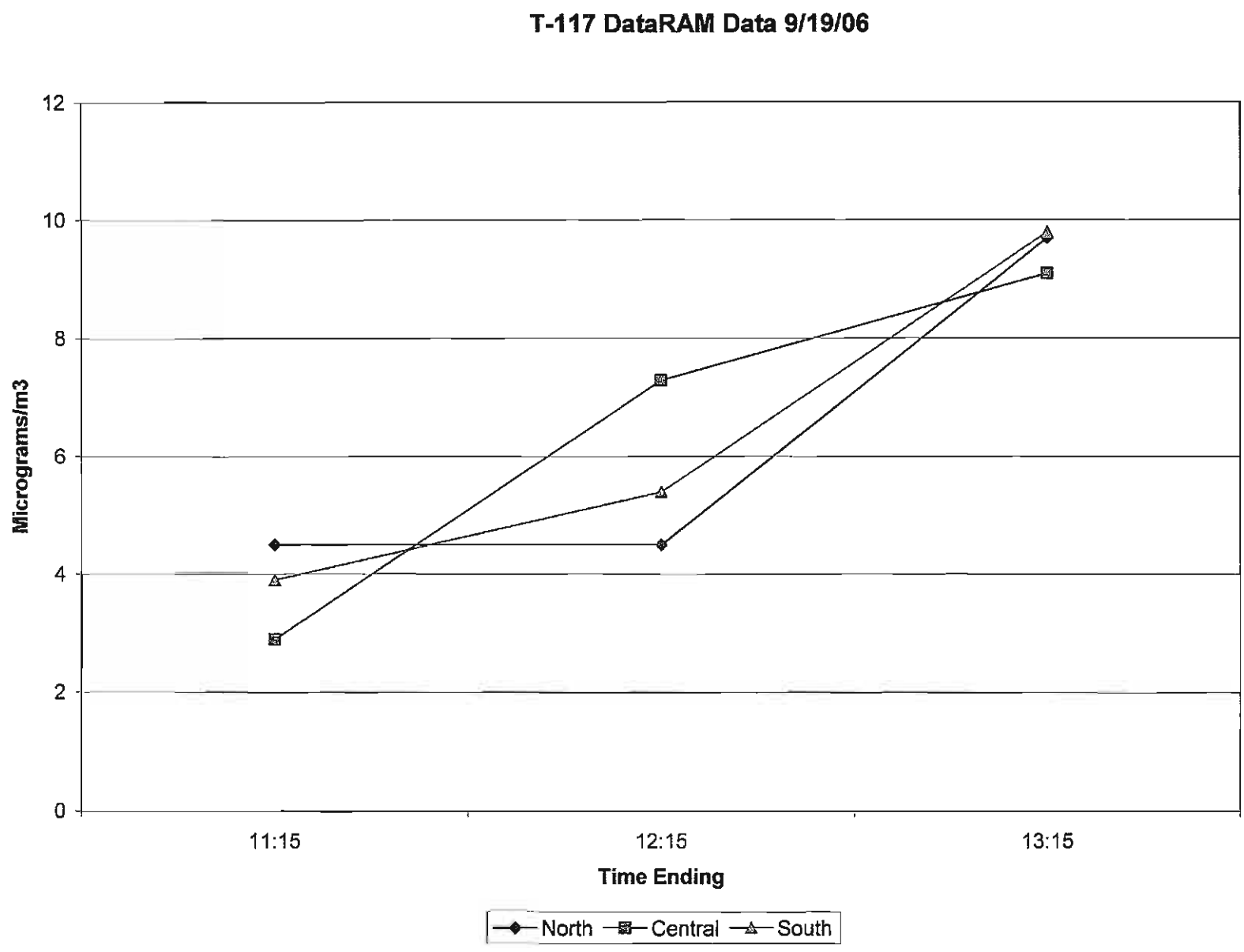
DATE Sept. 19, 2006

DATARAM ID	NORTH - 1			START TIME	10:15
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	11:15	4.5	22.2	55	357
2	12:15	4.5	27.6	44	218
3	13:15	9.7	29.7	41	60
4					
5	Average	6.2			
6					
7					
8					
9					
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	10:15
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	11:15	2.9	21.3	60	357
2	12:15	7.3	24.6	51	218
3	13:15	9.1	24.3	50	60
4					
5	Average	6.4			
6					
7					
8					
9					
10					
11					
12					

DATARAM ID	SOUTH - 3			START TIME	10.15
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	11:15	3.9	21.5	58	357
2	12:15	5.4	25.1	48	218
3	13:15	9.8	28	44	60
4					
5	Average	6.4			
6					
7					
8					
9					
10					
11					
12					

Observer:kh
Weather:partly cloudy, warm


T-117 DataRAM Data 9/19/06
12
10
8
6
4
2
0
Micrograms/m3
11:15
12:15
13:15
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

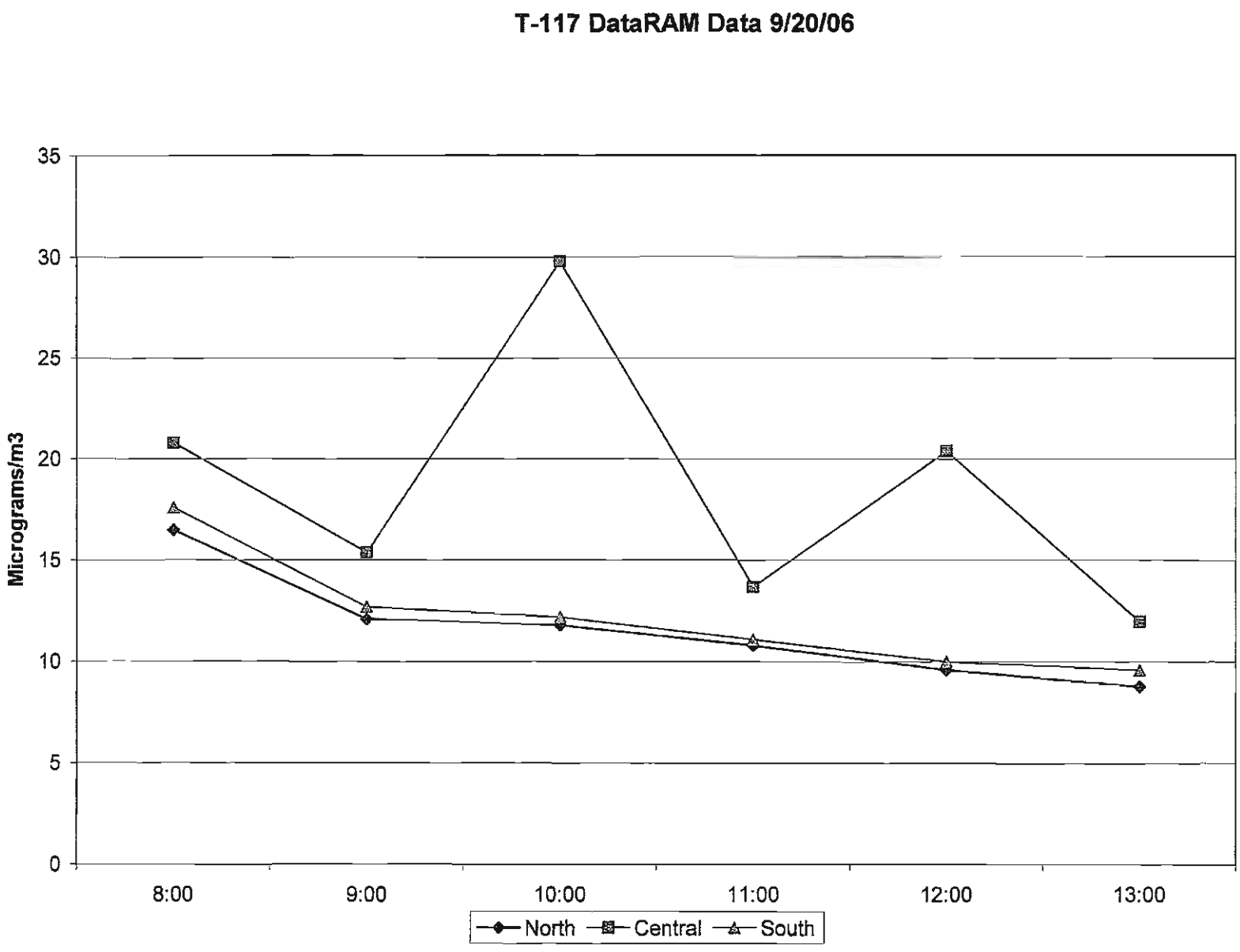
DATE Sept. 20, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	16.5	16.7	57	168
2	9:00	12.1	17.4	63	173
3	10:00	11.8	18.4	63	170
4	11:00	10.8	19.9	61	175
5	12:00	9.6	21.8	57	168
6	13:00	8.8	21.7	56	163
7					
8	Average	11.6			
9					
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	20.8	17	60	168
2	9:00	15.4	18.1	63	173
3	10:00	29.8	18.6	64	170
4	11:00	13.7	19.2	64	175
5	12:00	20.4	19.8	64	168
6	13:00	12	19.5	64	163
7					
8	Average	18.7			
9					
10					
11					
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	17.6	15.8	58	168
2	9:00	12.7	17.8	62	173
3	10:00	12.2	19.2	61	170
4	11:00	11.1	20.7	59	175
5	12:00	10	22.6	55	168
6	13:00	9.6	22.1	56	163
7					
8	Average	12.2			
9					
10					
11					
12					

Observer:kh
Weather:rain


T-117 DataRAM Data 9/20/06
Micrograms/m3
35
30
25
20
15
10
5
0
8:00
9:00
10:00
11:00
12:00
13:00
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

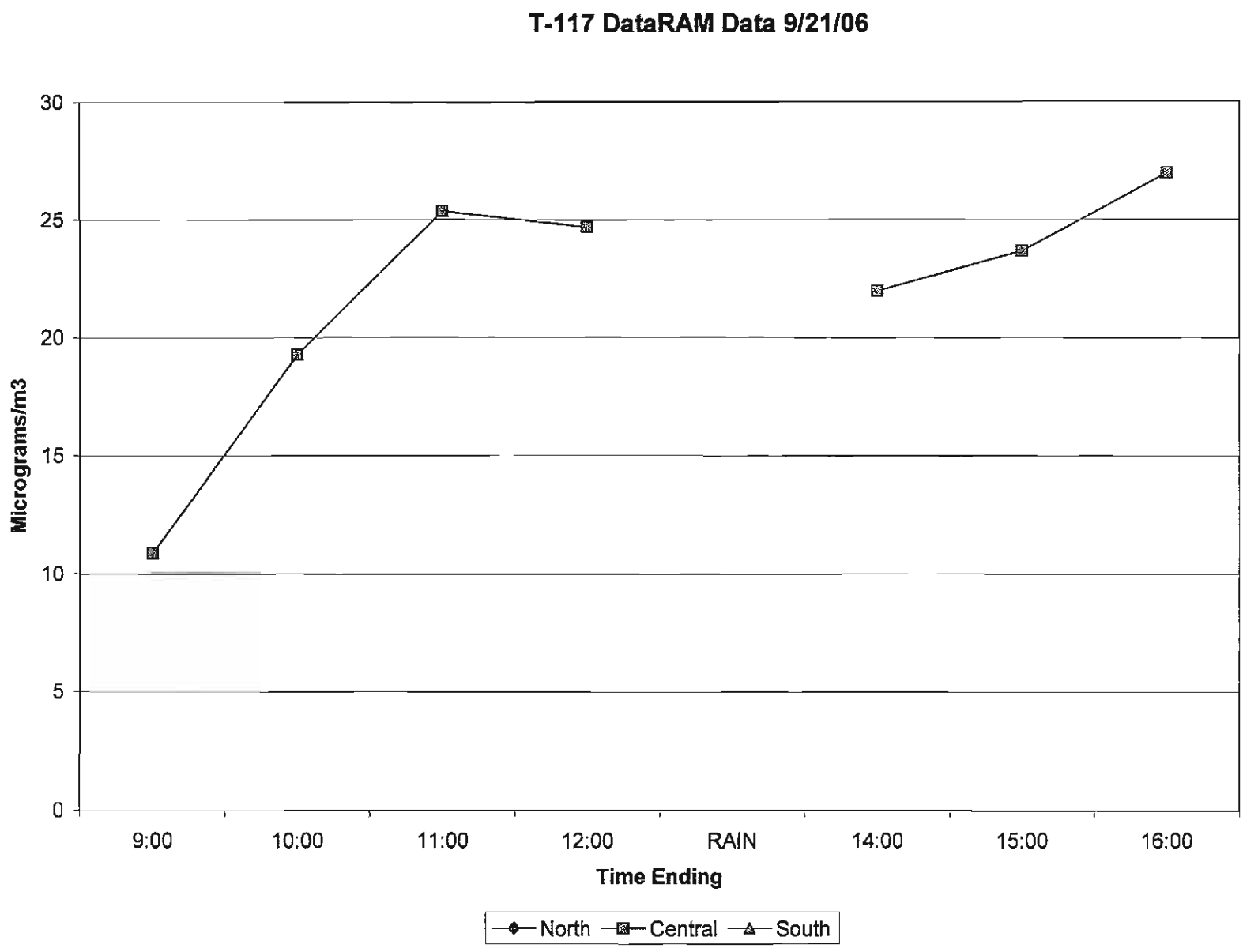
DATE Sept. 21, 2006

DATARAM ID	NORTH - 1	(malfunction)		START TIME	
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

DATARAM ID	CENTRAL - 2	(USED NORTH DR)		START TIME	8:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	9:00	10.9	17.1	68	169
2	10:00	19.3	18.1	67	161
3	11:00	25.4	18.8	64	140
4	12:00	24.7	20	61	138
5	RAIN				145
6	14:00	22	21.7	58	151
7	15:00	23.7	22.9	53	110
8	16:00	27	23.5	49	99
9					
10	Average	21.9			
11					
12					

DATARAM ID	SOUTH - 3	(malfunction)		START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Observer:kh
Weather:wet


T-117 DataRAM Data 9/21/06
Micrograms/m3
30
25
20
15
10
5
0
9:00
10:00
11:00
12:00
RAIN
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

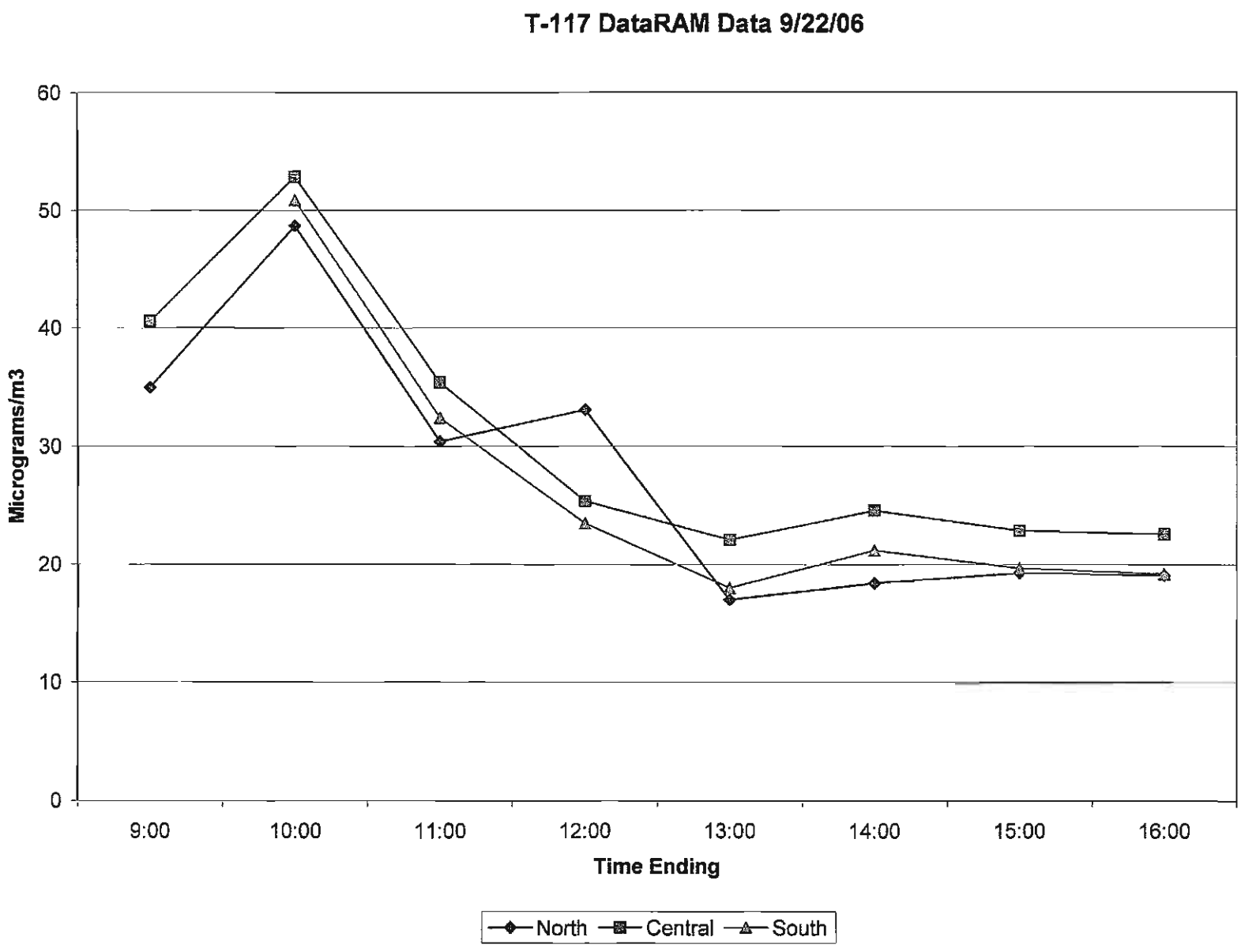
DATE **Sept.22, 2006**

DATARAM ID	NORTH - 1			START TIME	8:02
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	9:02	35	15.3	65	312
2	10:02	48.7	17.7	66	14
3	11:02	30.4	19.9	61	5
4	12:02	33.1	23.2	53	354
5	13:02	17	28.1	42	8
6	14:02	18.4	32.6	33	331
7	15:02	19.3	37.3	28	345
8	16:02	19.1	40.8	23	4
9					
10	**Average**	**27.6**			
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	8:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	9:00	40.6	14.1	66	312
2	10:00	52.9	16.7	69	14
3	11:00	35.4	18.9	65	5
4	12:00	25.4	22.1	58	354
5	13:00	22.1	25.2	49	8
6	14:00	24.6	26.2	44	331
7	15:00	22.9	26.5	43	345
8	16:00	22.6	26.3	42	4
9					
10	**Average**	**30.8**			
11					
12					

DATARAM ID	SOUTH - 3			START TIME	9:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	9:00				312
2	10:00	50.9	19.4	55	14
3	11:00	32.4	21.5	54	5
4	12:00	23.5	25.8	46	354
5	13:00	18	30.7	36	8
6	14:00	21.2	33.9	30	331
7	15:00	19.7	39.2	24	345
8	16:00	19.2	43.8	20	4
9					
10	**Average**	**26.4**			
11					
12					

Observer:
Weather:


T-117 DataRAM Data 9/22/06
Micrograms/m3
60
50
40
30
20
10
0
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

DATE Sept.23, 2006

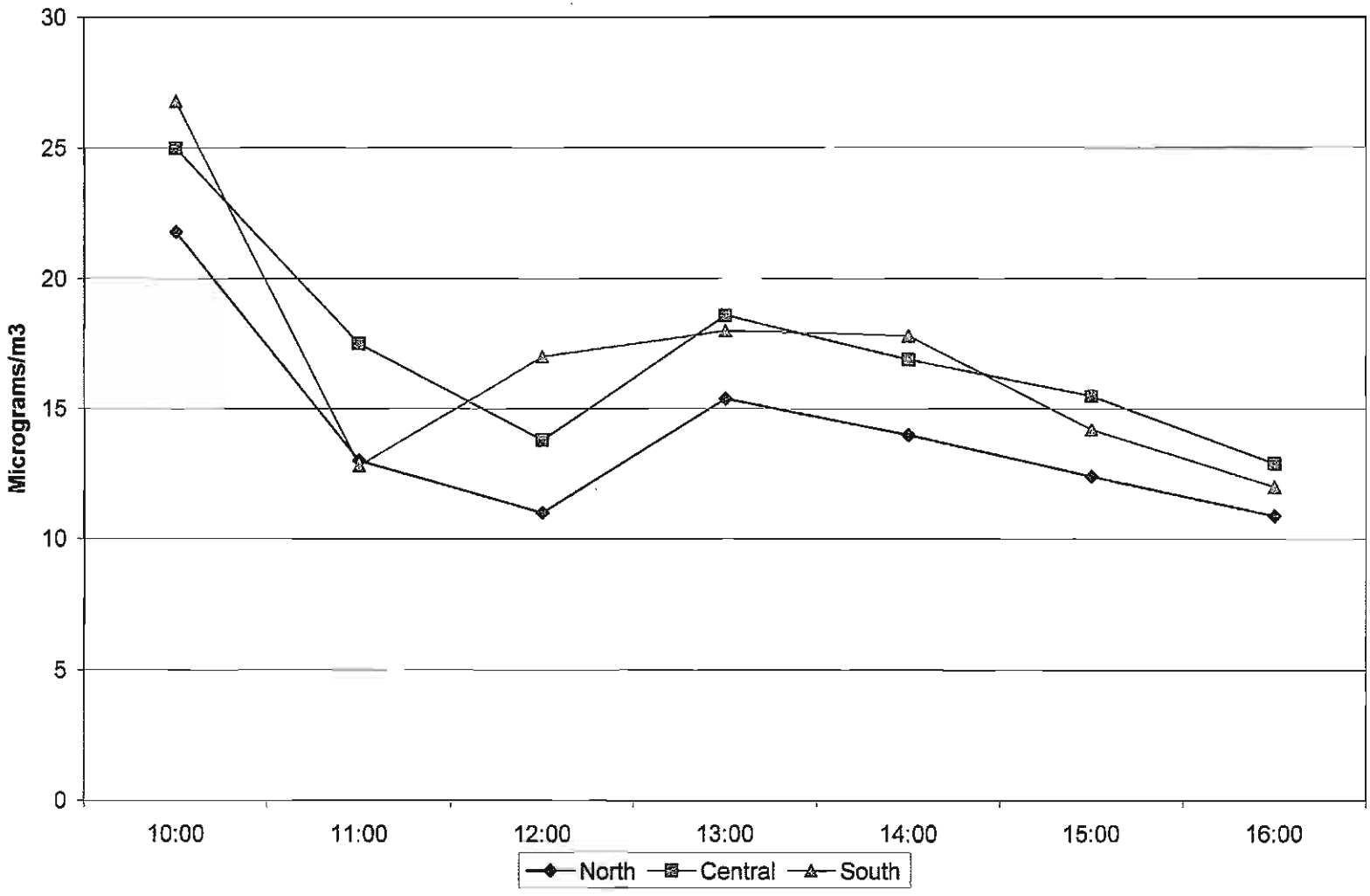
DATARAM ID	NORTH - 1			START TIME	9:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	10:00	21.8	18.5	53	34
2	11:00	13	21.9	53	356
3	12:00	11	28.6	39	318
4	13:00	15.4	31.9	34	315
5	14:00	14	32.8	31	320
6	15:00	12.4	33.6	30	319
7	16:00	10.9	33.7	29	319
8					
9	Average	14.1			
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	9:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	10:00	25	19.8	58	34
2	11:00	17.5	28.2	43	356
3	12:00	13.8	33.3	33	318
4	13:00	18.6	28.2	37	315
5	14:00	16.9	25.4	41	320
6	15:00	15.5	25.5	43	319
7	16:00	12.9	25.7	42	319
8					
9	Average	17.2			
10					
11					
12					

DATARAM ID	SOUTH - 3			START TIME	9:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	10:00	26.8	17.2	53	34
2	11:00	12.8	23.6	48	356
3	12:00	17	26.9	40	318
4	13:00	18	26.4	39	315
5	14:00	17.8	26.2	39	320
6	15:00	14.2	27.6	37	319
7	16:00	12	27.7	36	319
8					
9	Average	16.9			
10					
11					
12					

Observer:kh
Weather:warm,partly cloudy

T-117 DataRAM Data 9/23/06



TERMINAL 117
DATARAM - FIELD DATASHEET

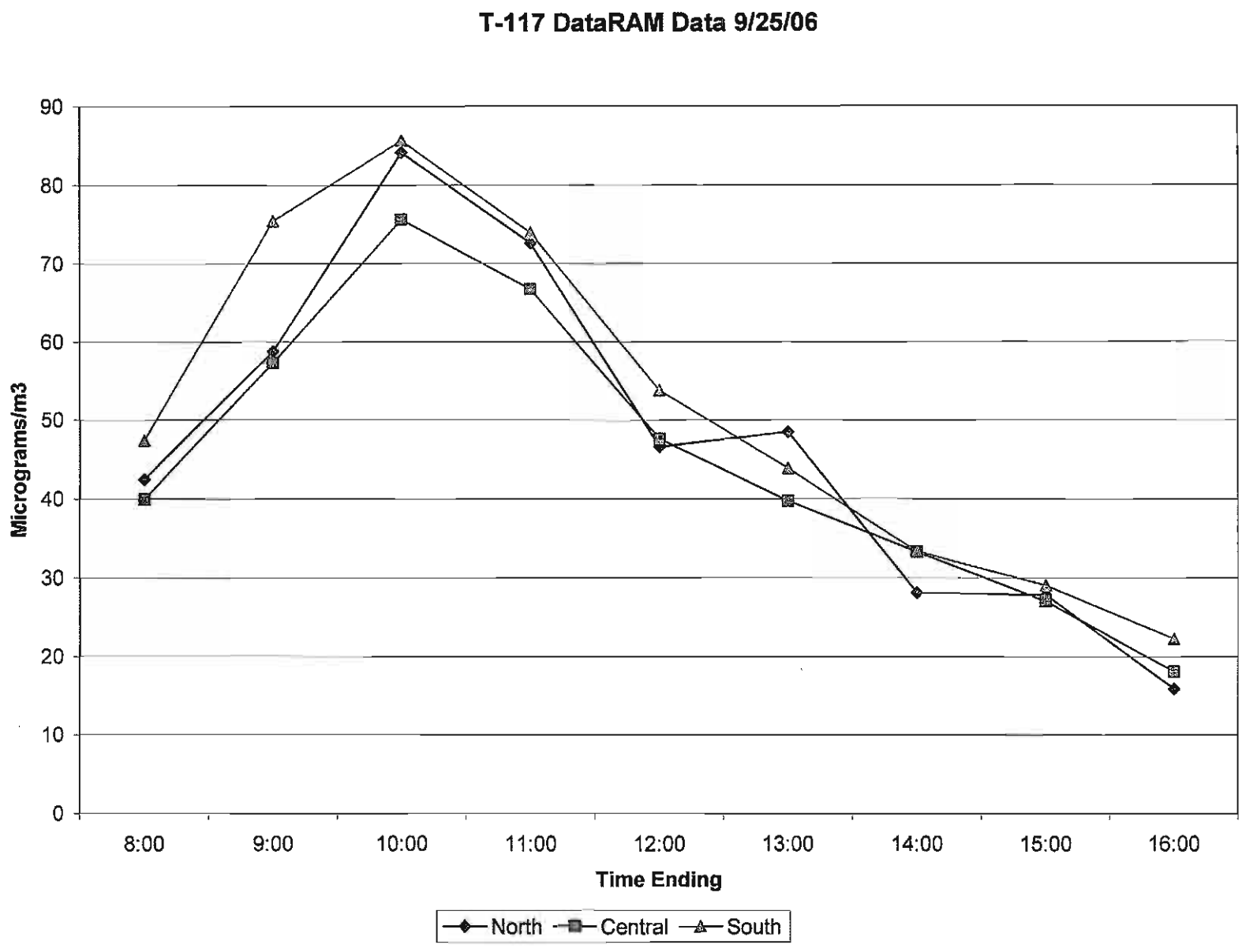
DATE Sept.25, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	42.5	17.9	58	12
2	9:00	58.8	18.8	66	119
3	10:00	84.2	22.5	59	355
4	11:00	72.7	25.1	55	316
5	12:00	46.6	31.7	40	311
6	13:00	48.5	35.2	33	311
7	14:00	28.2	36.9	29	318
8	15:00	27.9	38.6	27	320
9	16:00	15.9	39.3	24	316
10					
11	**Average**	**47.3**			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	40	19	58	12
2	9:00	57.3	20.2	63	119
3	10:00	75.7	24.1	56	355
4	11:00	66.8	29.7	45	316
5	12:00	47.6	35.1	33	311
6	13:00	39.8	31.3	35	311
7	14:00	33.4	29.8	37	318
8	15:00	27.1	30	37	320
9	16:00	18.1	30.4	34	316
10					
11	**Average**	**45.1**			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	47.4	18	57	12
2	9:00	75.5	17.4	68	119
3	10:00	85.7	21.5	65	355
4	11:00	74	26.6	50	316
5	12:00	53.8	28.4	43	311
6	13:00	43.9	30.6	38	311
7	14:00	33.4	33.5	32	318
8	15:00	29.1	33.7	30	320
9	16:00	22.3	33.9	28	316
10					
11	**Average**	**51.7**			
12					

Observer:kh
Weather:clear, warm


T-117 DataRAM Data 9/25/06
Micrograms/m3
90
80
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

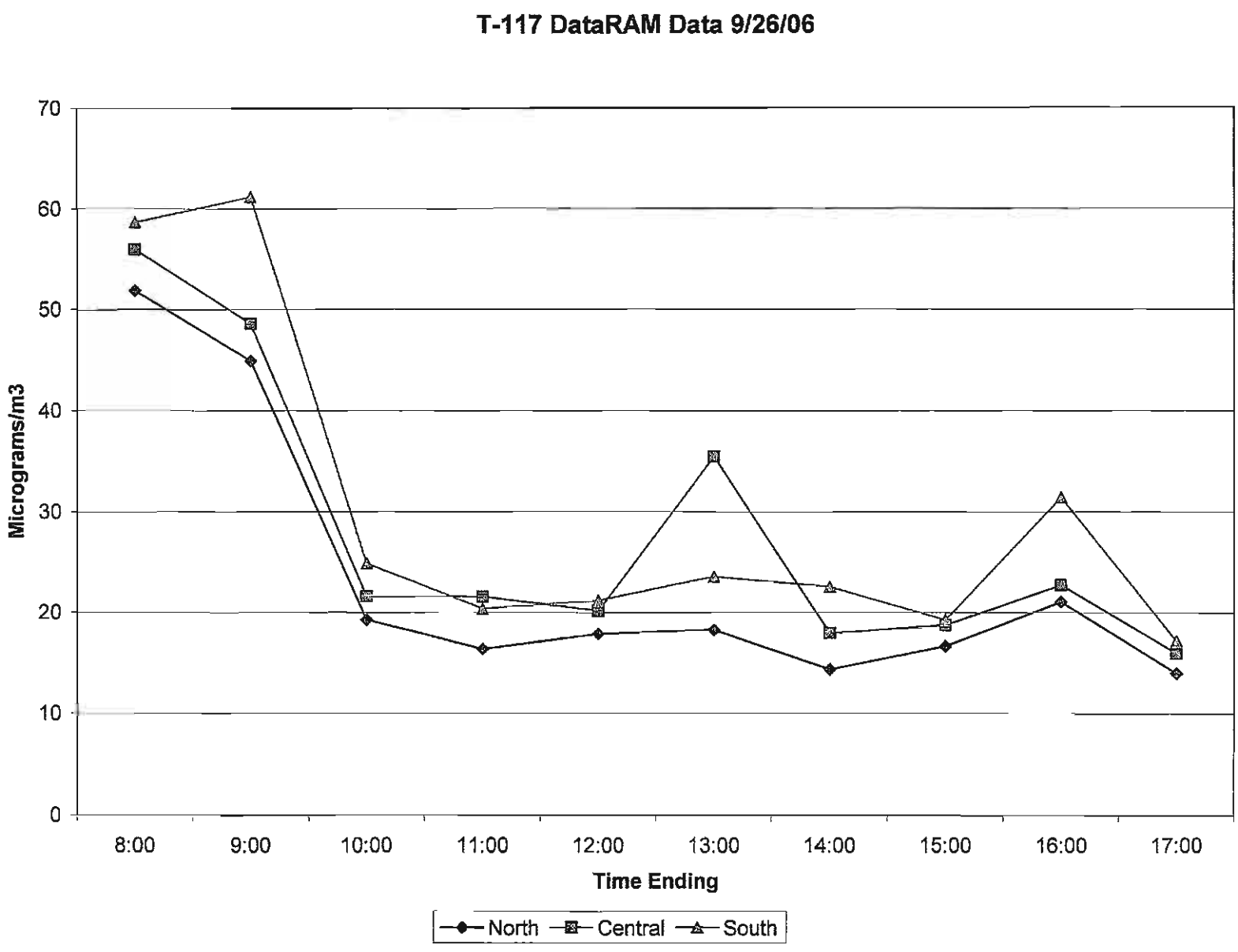
DATE **Sept.26, 2006**

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	51.9	17.9	55	314
2	9:00	44.9	19.5	65	16
3	10:00	19.3	26.7	51	339
4	11:00	16.4	31.7	39	344
5	12:00	17.9	32.9	34	315
6	13:00	18.3	33.1	34	307
7	14:00	14.4	33	34	310
8	15:00	16.7	35.1	30	309
9	16:00	21.1	35.2	30	315
10	17:00	14	35.8	29	316
11					
12	**Average**	**23.5**			

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	56	19.2	55	314
2	9:00	48.6	20.9	62	16
3	10:00	21.6	28.1	48	339
4	11:00	21.6	34.1	35	344
5	12:00	20.2	37.7	28	315
6	13:00	35.5	31.7	33	307
7	14:00	18	29.1	38	310
8	15:00	18.8	29.3	37	309
9	16:00	22.8	29.8	38	315
10	17:00	16	30.6	37	316
11					
12	**Average**	**27.9**			

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	58.7	18.3	55	314
2	9:00	61.2	17.5	68	16
3	10:00	24.9	22	62	339
4	11:00	20.4	27.4	46	344
5	12:00	21.2	30.8	37	315
6	13:00	23.6	30	37	307
7	14:00	22.6	31.3	34	310
8	15:00	19.3	31.8	33	309
9	16:00	31.5	32.5	33	315
10	17:00	17.2	32.1	32	316
11					
12	**Average**	**30.1**			

Observer:kh
Weather:warm, clear


T-117 DataRAM Data 9/26/06
Micrograms/m3
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

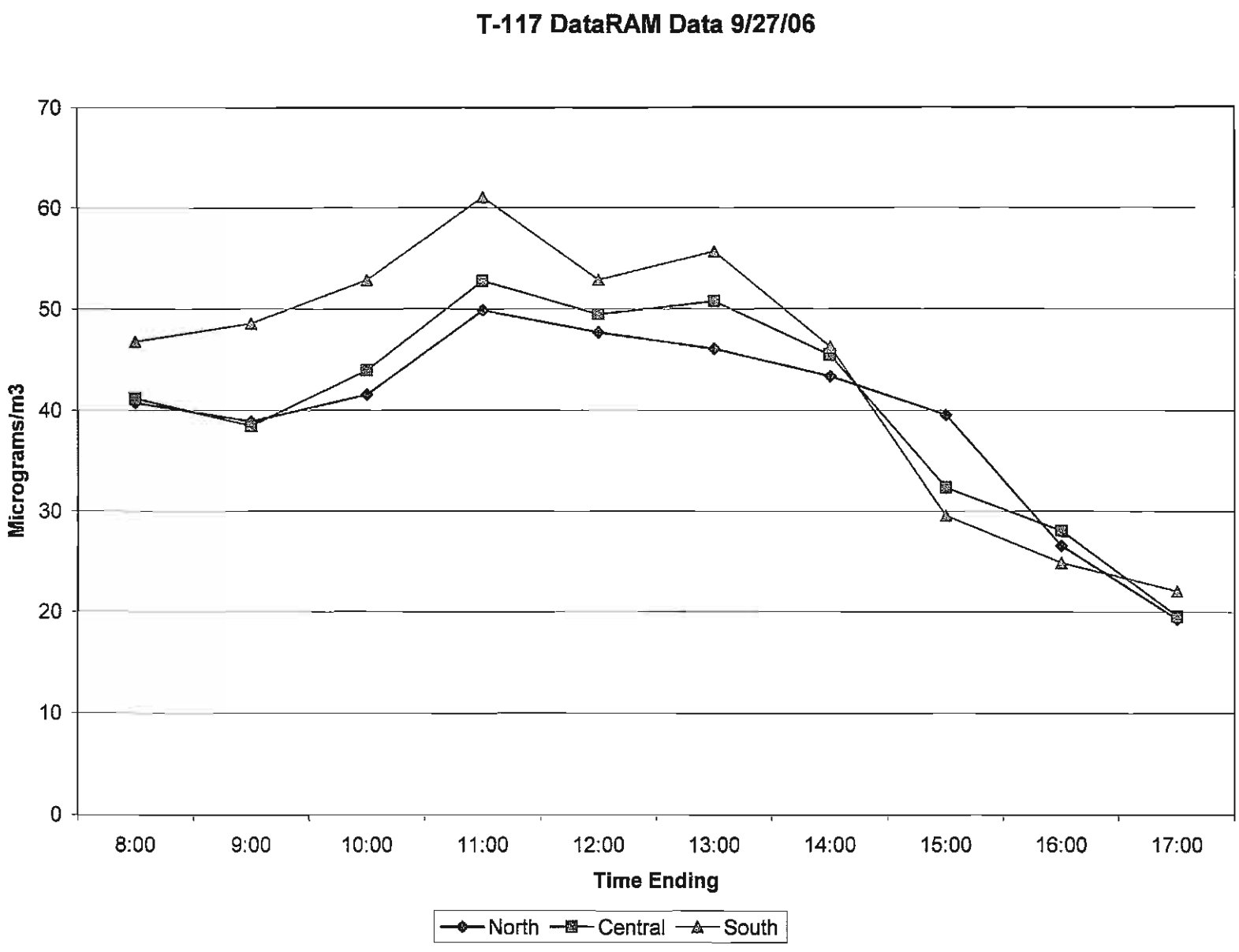
DATE **Sept.27, 2006**

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	40.8	20.2	54	136
2	9:00	38.9	21.9	59	11
3	10:00	41.6	27.5	49	337
4	11:00	49.9	32.3	40	20
5	12:00	47.7	35.4	34	315
6	13:00	46.1	35.4	32	322
7	14:00	43.4	35.2	33	323
8	15:00	39.6	38.3	29	308
9	16:00	26.6	40.3	26	309
10	17:00	19.3	40	24	317
11					
12	**Average**	**39.4**			

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	41.2	21	53	136
2	9:00	38.5	23.1	56	11
3	10:00	44	28.1	48	337
4	11:00	52.8	33.6	37	20
5	12:00	49.5	37.2	31	315
6	13:00	50.8	32.8	34	322
7	14:00	45.5	30.9	38	323
8	15:00	32.4	30.8	38	308
9	16:00	28.1	31.3	37	309
10	17:00	19.6	32.2	34	317
11					
12	**Average**	**40.2**			

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	46.8	19.8	55	136
2	9:00	48.6	18.7	66	11
3	10:00	52.9	22.8	61	337
4	11:00	61.1	27.8	48	20
5	12:00	52.9	32.5	38	315
6	13:00	55.7	31.9	36	322
7	14:00	46.3	32.8	35	323
8	15:00	29.6	34.2	32	308
9	16:00	24.9	35.5	29	309
10	17:00	22.1	37.1	26	317
11					
12	**Average**	**44.1**			

Observer:kh
Weather:hot, mostly calm


T-117 DataRAM Data 9/27/06
Micrograms/m3
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

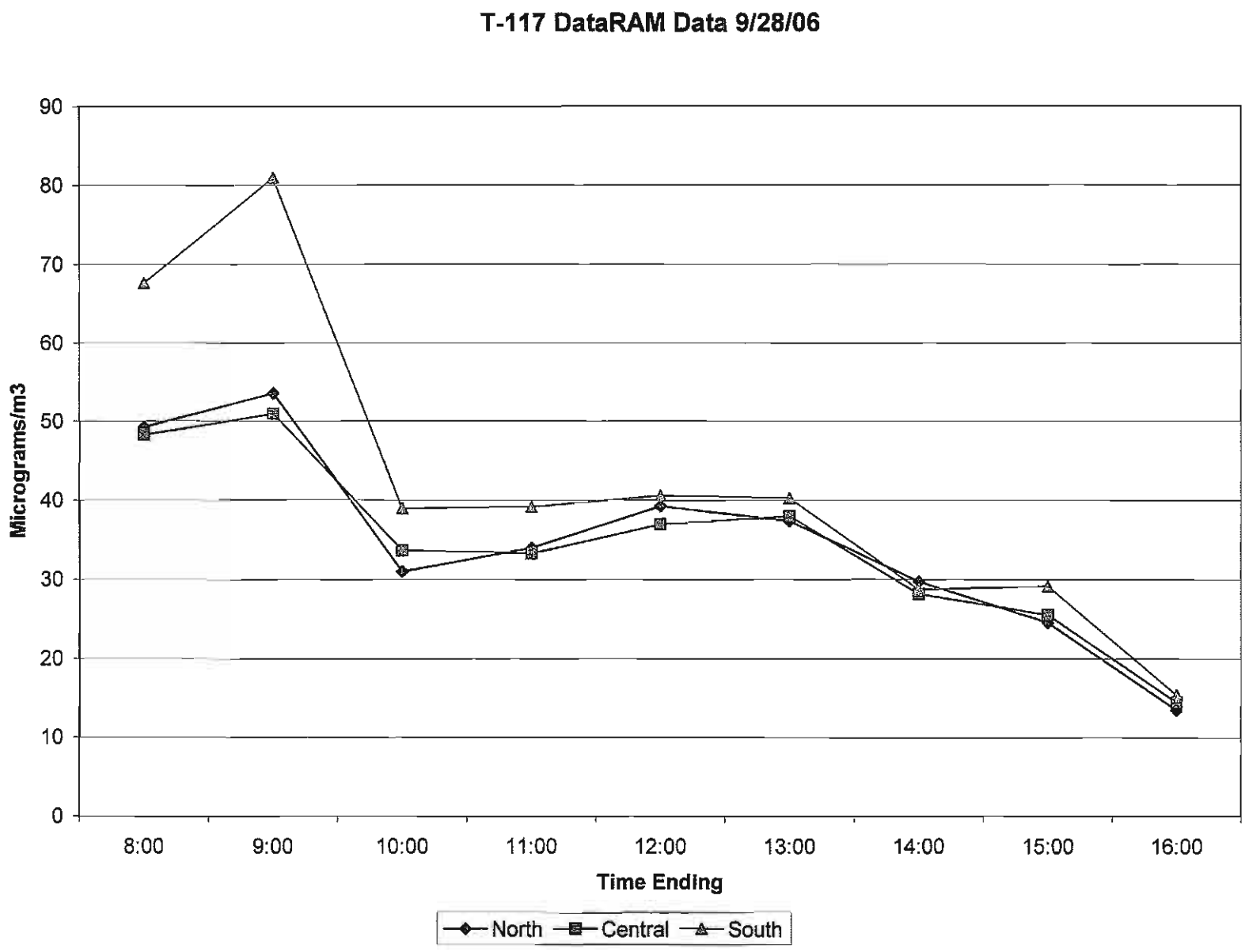
DATE Sept.28, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	49.3	20.5	52	119
2	9:00	53.6	22.7	58	319
3	10:00	31	27	48	323
4	11:00	34	29.2	43	306
5	12:00	39.3	32	38	307
6	13:00	37.4	32.4	37	306
7	14:00	29.8	32.2	39	318
8	15:00	24.6	36.9	32	308
9	16:00	13.5	36.4	30	308
10					
11	Average	34.7			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	48.3	21.4	53	119
2	9:00	51	24.1	54	319
3	10:00	33.7	28.5	44	323
4	11:00	33.3	32.6	36	306
5	12:00	37	35.5	31	307
6	13:00	38	30.6	37	306
7	14:00	28.2	29	41	318
8	15:00	25.6	30	41	308
9	16:00	14.5	29.9	39	308
10					
11	Average	34.4			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	67.7	16.9	62	119
2	9:00	81	17.9	71	319
3	10:00	39	21.3	62	323
4	11:00	39.2	25.7	52	306
5	12:00	40.6	32.4	38	307
6	13:00	40.3	35.1	32	306
7	14:00	28.8	33.7	32	318
8	15:00	29.2	33.9	32	308
9	16:00	15.4	33	32	308
10					
11	Average	42.4			
12					

Observer:kh
Weather:hot, nw winds


T-117 DataRAM Data 9/28/06
Micrograms/m3
90
80
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

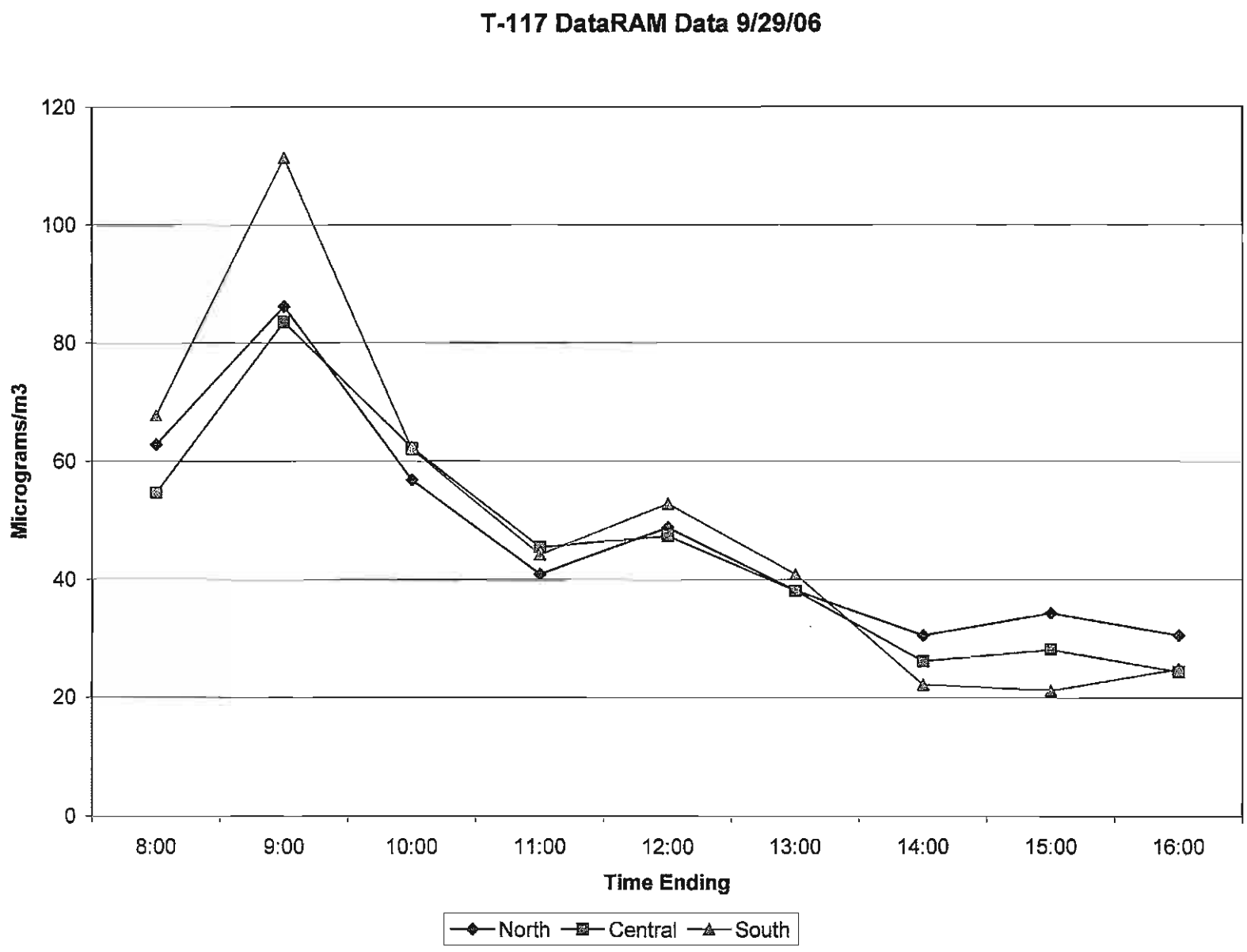
DATE Sept.29, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	62.9	18.5	59	304
2	9:00	86.2	17.9	69	36
3	10:00	56.9	21.5	65	101
4	11:00	41	26.3	52	329
5	12:00	48.9	30.5	42	315
6	13:00	38.2	30.2	40	322
7	14:00	30.6	30.7	41	318
8	15:00	34.4	35.9	32	310
9	16:00	30.6	37.3	29	308
10					
11	**Average**	**47.7**			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	54.8	19.5	59	304
2	9:00	83.6	18.8	67	36
3	10:00	62.3	21.4	65	101
4	11:00	45.6	28.3	50	329
5	12:00	47.5	34.3	36	315
6	13:00	38.2	30.4	38	322
7	14:00	26.2	28.5	42	318
8	15:00	28.2	28.7	42	310
9	16:00	24.4	29.2	41	308
10					
11	**Average**	**45.6**			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	67.8	18.5	59	304
2	9:00	111.5	17.9	69	36
3	10:00	62.1	21	65	101
4	11:00	44.3	27.2	50	329
5	12:00	52.9	31.1	39	315
6	13:00	41	29.7	39	322
7	14:00	22.2	31.7	35	318
8	15:00	21.2	33.2	32	310
9	16:00	24.9	33.1	32	308
10					
11	**Average**	**49.8**			
12					

Observer:kh
Weather:foggy early, sun


T-117 DataRAM Data 9/29/06
120
100
80
60
40
20
0
Micrograms/m3
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

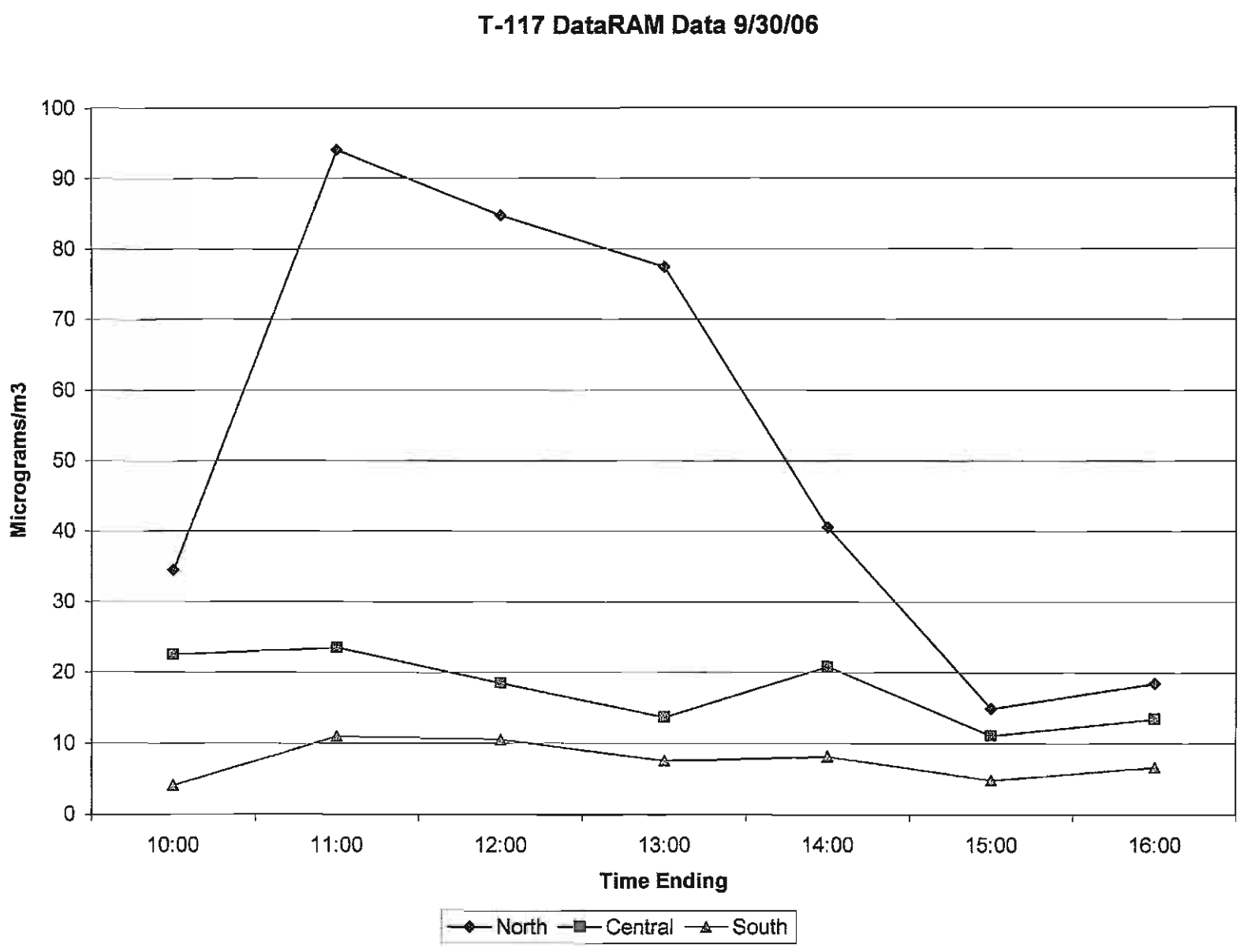
DATE Sept.30, 2006

DATARAM ID	NORTH - 1			START TIME	9:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	10:00	34.5	18.2	51	145
2	11:00	94.1	18.1	60	170
3	12:00	84.8	20.5	57	184
4	13:00	77.5	21.7	51	74
5	14:00	40.6	23.4	48	52
6	15:00	14.9	24.4	44	34
7	16:00	18.5	24	44	18
8					
9	**Average**	**52.1**			
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	9:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	10:00	22.5	19.4	52	145
2	11:00	23.5	18.9	58	170
3	12:00	18.5	20.3	57	184
4	13:00	13.7	21.2	53	74
5	14:00	20.9	22.2	51	52
6	15:00	11.1	23.4	47	34
7	16:00	13.5	23.7	45	18
8					
9	**Average**	**17.7**			
10					
11					
12					

DATARAM ID	SOUTH - 3			START TIME	9:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	10:00	4.1	19.1	57	145
2	11:00	11	19.8	62	170
3	12:00	10.5	21.9	61	184
4	13:00	7.6	22.6	60	74
5	14:00	8.2	24.3	59	52
6	15:00	4.8	25.8	57	34
7	16:00	6.7	25.6	56	18
8					
9	**Average**	**7.6**			
10					
11					
12					

Observer:kh
Weather:cloudy, dry


T-117 DataRAM Data 9/30/06
Micrograms/m3
100
90
80
70
60
50
40
30
20
10
0
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

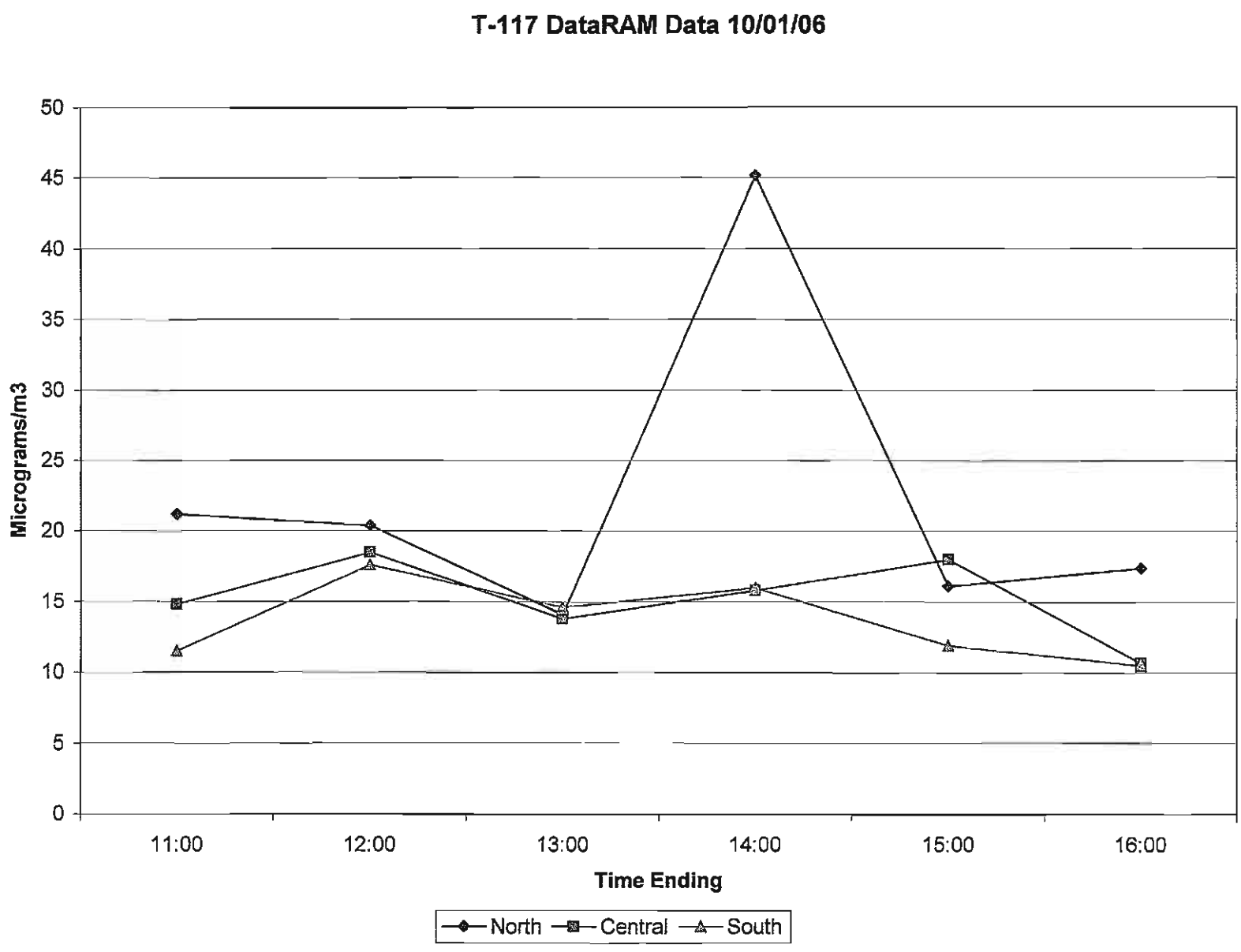
DATE Oct. 1, 2006

DATARAM ID	NORTH - 1			START TIME	10:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	11:00	21.2	19.4	52	298
2	12:00	20.4	22.4	49	313
3	13:00	14.1	27.6	39	324
4	14:00	45.2	29.1	35	321
5	15:00	16.1	33.1	29	315
6	16:00	17.4	31.6	28	319
7					
8	**Average**	**22.4**			
9					
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	10:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	11:00	14.8	19.7	52	298
2	12:00	18.5	22.9	48	313
3	13:00	13.8	26.3	41	324
4	14:00	15.8	26.7	38	321
5	15:00	18	26.7	37	315
6	16:00	10.7	26.3	36	319
7					
8	**Average**	**15.3**			
9					
10					
11					
12					

DATARAM ID	SOUTH - 3			START TIME	10:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	11:00	11.5	19.8	61	298
2	12:00	17.6	22.8	59	313
3	13:00	14.6	27.3	50	324
4	14:00	16	27.9	40	321
5	15:00	11.9	27.9	37	315
6	16:00	10.5	24.9	39	319
7					
8	**Average**	**13.7**			
9					
10					
11					
12					

Observer:jm
Weather:warm, dry


T-117 DataRAM Data 10/01/06
Micrograms/m3
50
45
40
35
30
25
20
15
10
5
0
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

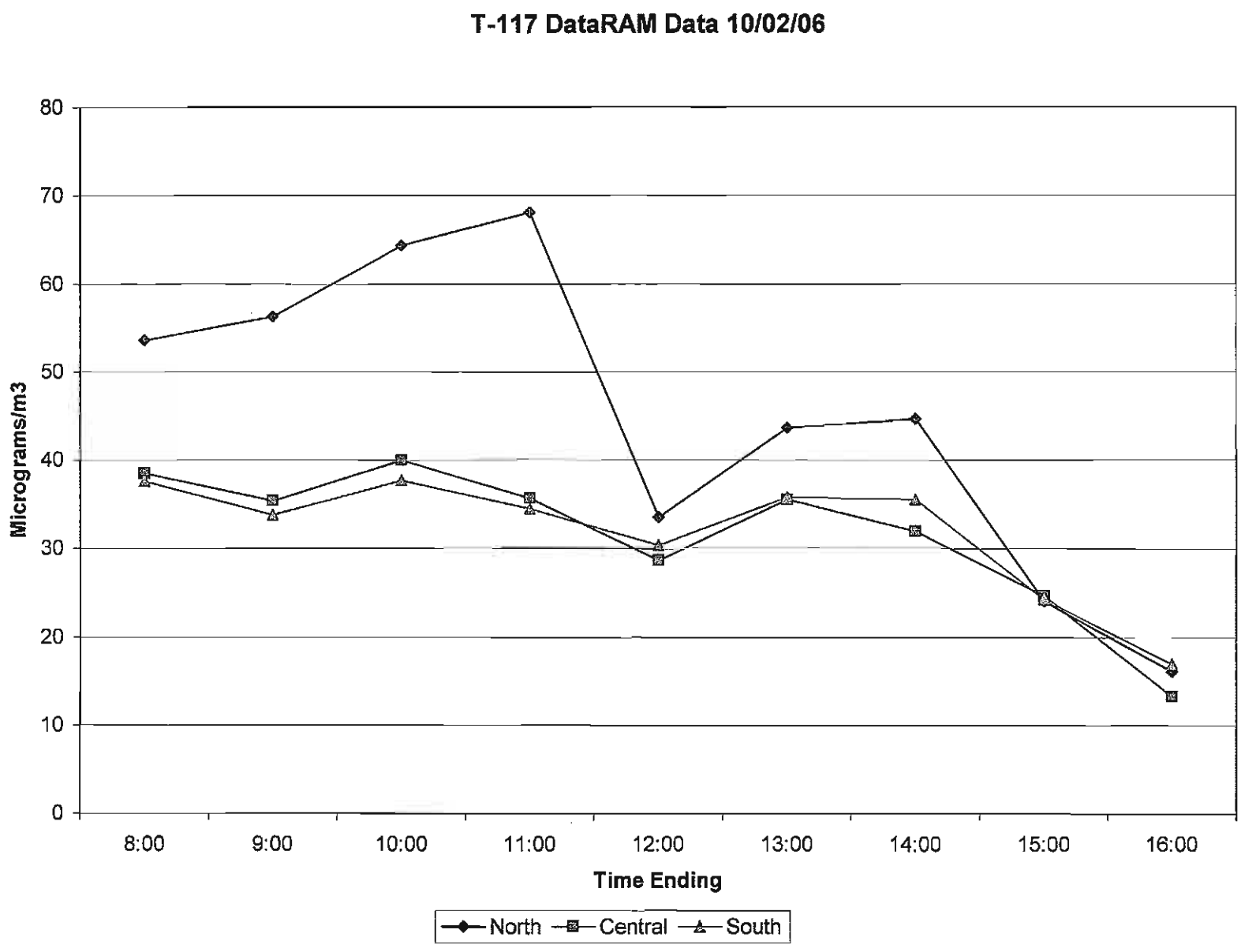
DATE Oct. 2, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	53.6	16.4	48	150
2	9:00	56.3	15.9	56	146
3	10:00	64.4	18.4	53	152
4	11:00	68.1	24.6	44	196
5	12:00	33.6	29.4	34	337
6	13:00	43.7	30.5	32	310
7	14:00	44.7	31.4	31	323
8	15:00	24.1	33.5	28	317
9	16:00	16.1	34.6	24	315
10					
11	**Average**	**45.0**			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	38.5	17.2	49	150
2	9:00	35.4	17	54	146
3	10:00	40	19.3	52	152
4	11:00	35.7	25	43	196
5	12:00	28.7	29	35	337
6	13:00	35.6	28.5	35	310
7	14:00	32	28.6	34	323
8	15:00	24.7	27.9	34	317
9	16:00	13.3	28.1	32	315
10					
11	**Average**	**31.5**			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	37.6	15.7	57	150
2	9:00	33.8	15.5	60	146
3	10:00	37.7	18.1	60	152
4	11:00	34.5	24.2	56	196
5	12:00	30.4	29.2	51	337
6	13:00	35.8	31.2	47	310
7	14:00	35.6	32.6	43	323
8	15:00	24.3	32.4	39	317
9	16:00	17	29.1	35	315
10					
11	**Average**	**31.9**			
12					

Observer:kh
Weather:warm, clear


T-117 DataRAM Data 10/02/06
Micrograms/m3
80
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

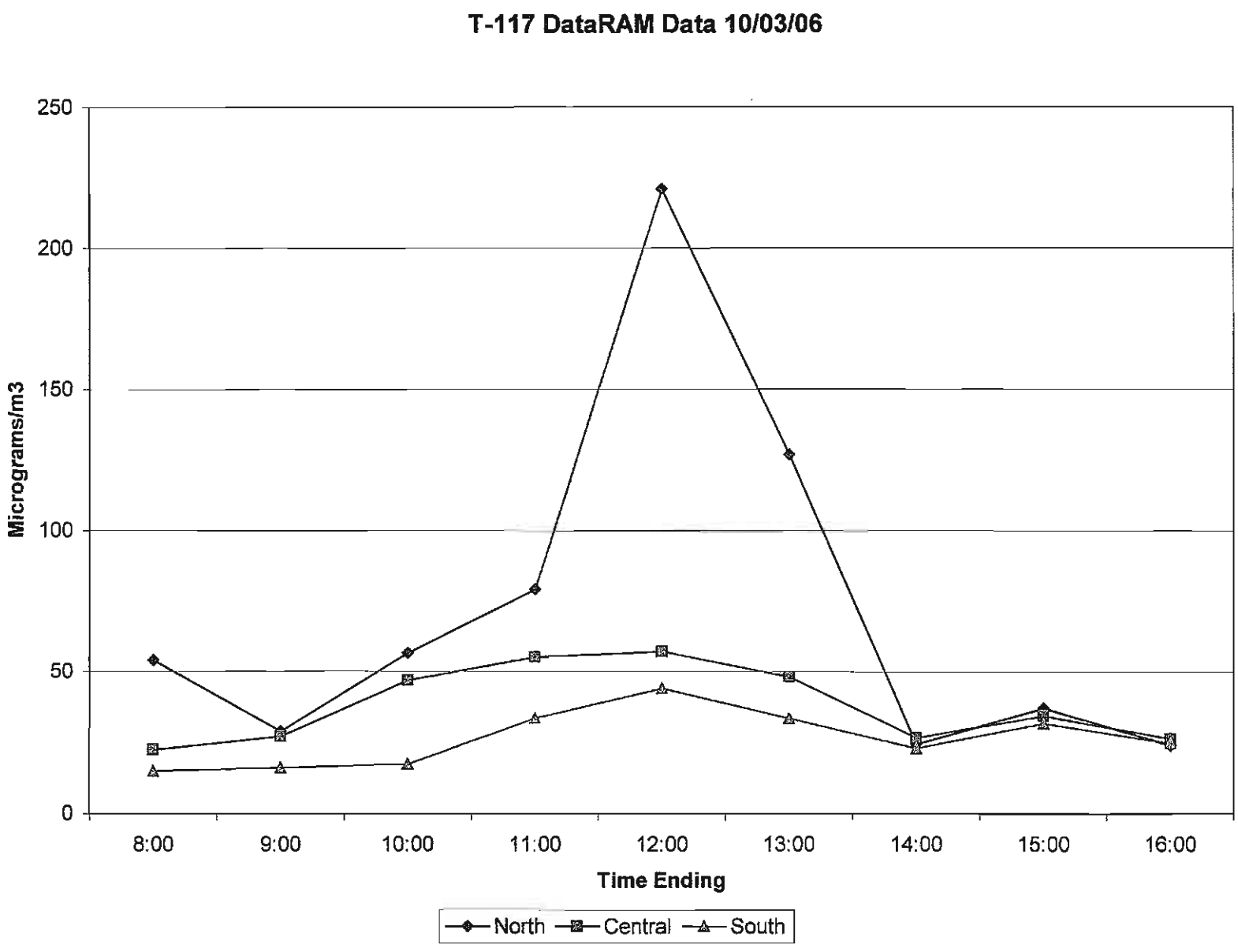
DATE Oct. 3, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	53.9	12.9	71	30
2	9:00	28.9	13.7	70	10
3	10:00	56.7	17.3	64	310
4	11:00	79.3	21.9	53	311
5	12:00	221.2	26.3	43	318
6	13:00	126.9	26.7	40	322
7	14:00	24.4	27	39	313
8	15:00	37.1	26.2	40	314
9	16:00	24	24.3	44	334
10					
11	Average	72.5			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	22.5	18.4	54	30
2	9:00	27	18.9	54	10
3	10:00	46.9	20.6	51	310
4	11:00	55.3	22.8	46	311
5	12:00	57.2	25.6	41	318
6	13:00	48.2	26.5	39	322
7	14:00	26.8	26	39	313
8	15:00	34.4	25.2	41	314
9	16:00	26.3	23.7	45	334
10					
11	Average	38.3			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	14.8	17.3	54	30
2	9:00	16.1	17.9	55	10
3	10:00	17.4	19.9	54	310
4	11:00	33.5	22.1	52	311
5	12:00	44.1	24.7	49	318
6	13:00	33.6	25.8	47	322
7	14:00	23	25.6	46	313
8	15:00	31.7	24.5	46	314
9	16:00	24.7	23.1	48	334
10					
11	Average	26.5			
12					

Observer:kh
Weather:high clouds, some rain


T-117 DataRAM Data 10/03/06
250
200
150
100
50
0
Micrograms/m3
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

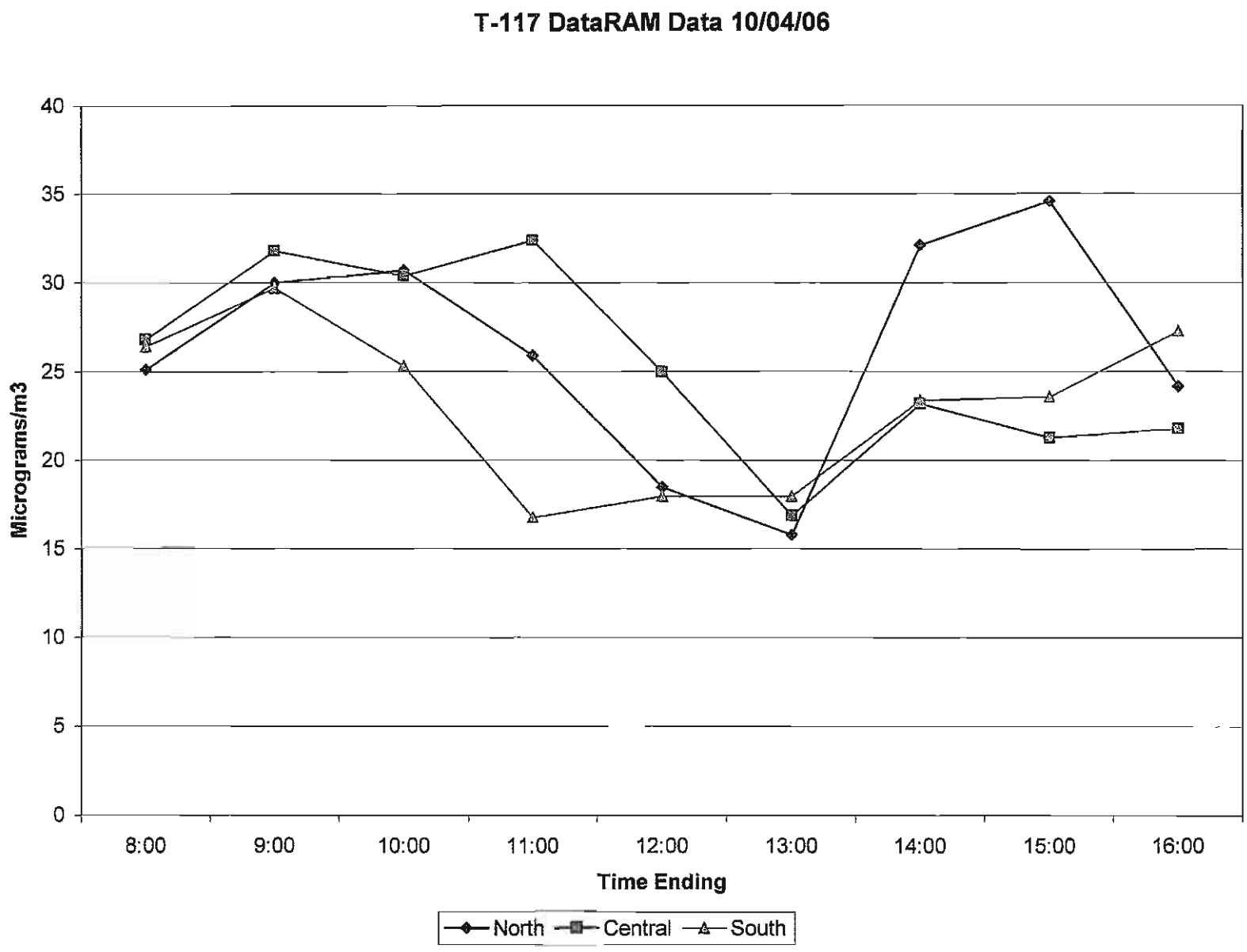
DATE Oct. 4, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	25.1	15.9	67	36
2	9:00	30	16.8	66	21
3	10:00	30.7	18.1	62	39
4	11:00	25.9	22	55	37
5	12:00	18.5	27.7	42	18
6	13:00	15.8	28.9	37	322
7	14:00	32.1	29.2	35	340
8	15:00	34.6	34.5	29	309
9	16:00	24.2	37.8	24	304
10					
11	Average	26.3			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	26.8	17.6	61	36
2	9:00	31.8	18.4	60	21
3	10:00	30.4	19.4	58	39
4	11:00	32.4	24.8	49	37
5	12:00	25	32.5	34	18
6	13:00	16.9	32.4	31	322
7	14:00	23.2	30.2	31	340
8	15:00	21.3	28.7	33	309
9	16:00	21.8	28.5	32	304
10					
11	Average	25.5			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	26.4	16.1	59	36
2	9:00	29.7	17.1	60	21
3	10:00	25.3	18.6	60	39
4	11:00	16.8	22.4	58	37
5	12:00	18	28.2	53	18
6	13:00	18	31.8	47	322
7	14:00	23.4	33.5	42	340
8	15:00	23.6	34.7	39	309
9	16:00	27.3	35.7	35	304
10					
11	Average	23.2			
12					

Observer:kh
Weather:cloudy am, nice pm


T-117 DataRAM Data 10/04/06
Micrograms/m3
40
35
30
25
20
15
10
5
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

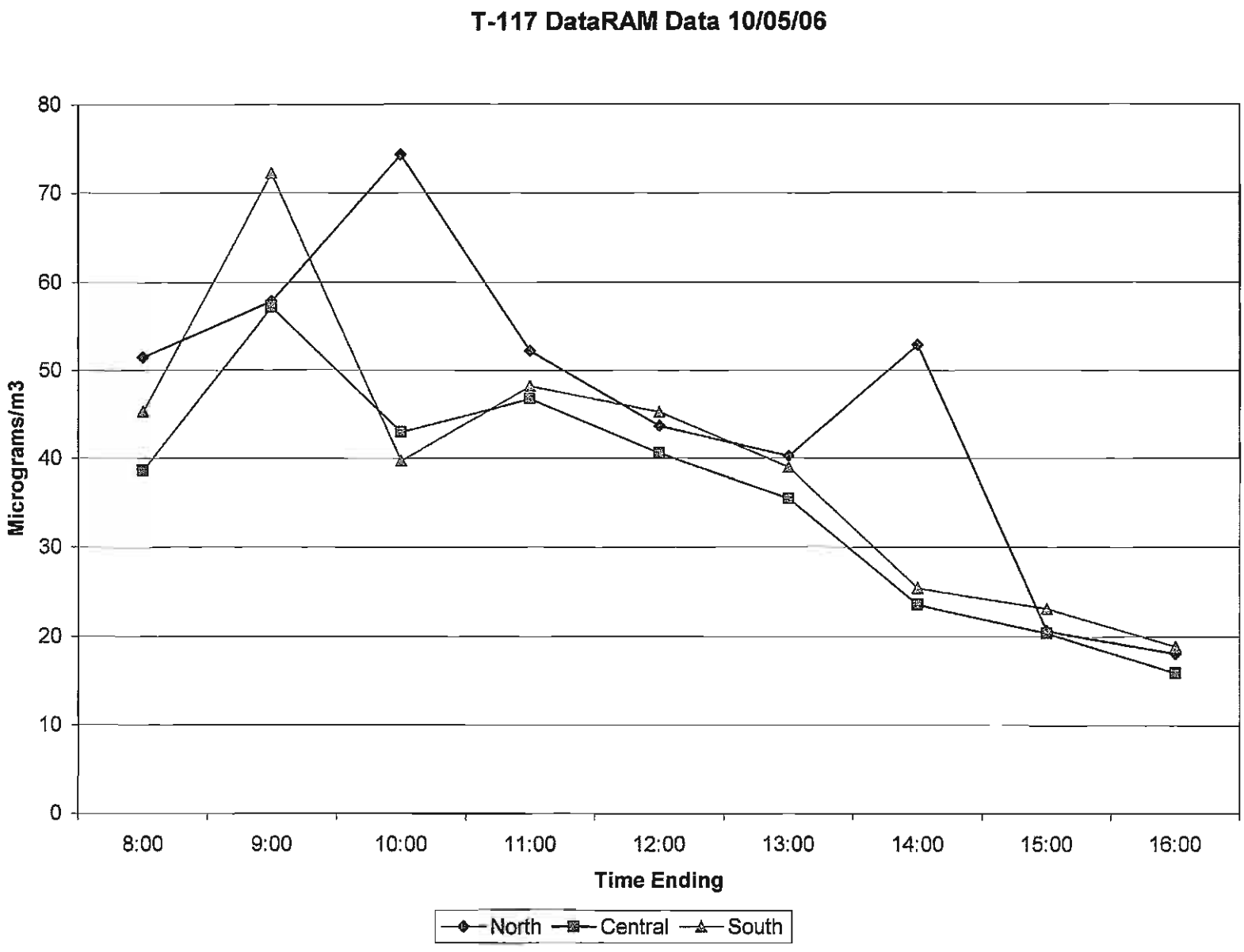
DATE Oct. 5, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	51.5	15.8	63	162
2	9:00	57.9	17.3	65	113
3	10:00	74.4	21.8	55	1
4	11:00	52.2	26.3	45	58
5	12:00	43.7	28.7	37	7
6	13:00	40.3	26.1	37	271
7	14:00	52.9	25.4	36	330
8	15:00	20.6	30.9	29	24
9	16:00	18.1	34.1	23	85
10					
11	**Average**	**45.7**			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	38.6	18.2	58	162
2	9:00	57.2	19.5	58	113
3	10:00	43	24.3	50	1
4	11:00	46.8	29.9	39	58
5	12:00	40.6	34.4	30	7
6	13:00	35.5	31.2	30	271
7	14:00	23.6	27.9	31	330
8	15:00	20.4	27.4	31	24
9	16:00	15.9	28.1	28	85
10					
11	**Average**	**35.7**			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	45.3	16.3	52	162
2	9:00	72.3	16.6	54	113
3	10:00	39.7	20.4	54	1
4	11:00	48.2	25.1	51	58
5	12:00	45.3	28.7	45	7
6	13:00	39	31.5	40	271
7	14:00	25.4	29.5	34	330
8	15:00	23.1	31.5	33	24
9	16:00	18.9	32.5	29	85
10					
11	**Average**	**39.7**			
12					

Observer:jm
Weather:sunny


T-117 DataRAM Data 10/05/06
Micrograms/m3
80
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

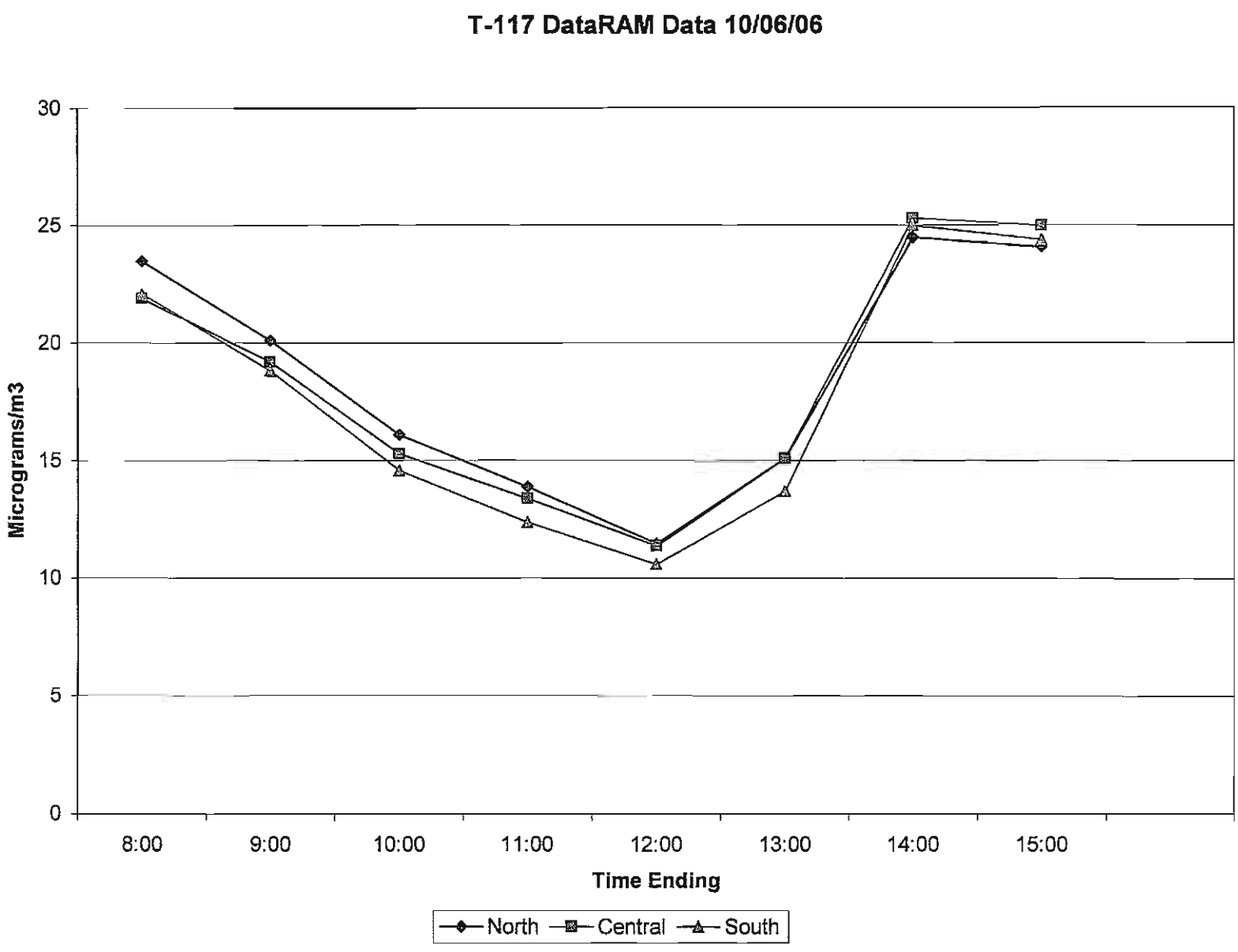
DATE Oct. 6, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	23.5	18.7	59	177
2	9:00	20.1	18.6	62	175
3	10:00	16.1	19.1	62	193
4	11:00	13.9	20.1	61	232
5	12:00	11.5	20.9	59	301
6	13:00	15.1	22.4	55	339
7	14:00	24.5	23.6	51	333
8	15:00	24.1	23.6	50	314
9					
10	**Average**	**18.6**			
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	21.9	19.4	57	177
2	9:00	19.2	19.2	61	175
3	10:00	15.3	19.6	61	193
4	11:00	13.4	20.1	61	232
5	12:00	11.4	20.4	60	301
6	13:00	15.1	21.2	58	339
7	14:00	25.3	22.2	55	333
8	15:00	25	22.5	52	314
9					
10	**Average**	**18.3**			
11					
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	22.1	19.1	51	177
2	9:00	18.8	19.2	53	175
3	10:00	14.6	19.6	54	193
4	11:00	12.4	20.5	55	232
5	12:00	10.6	21.4	55	301
6	13:00	13.7	22.7	55	339
7	14:00	25	23.5	53	333
8	15:00	24.4	23.1	53	314
9					
10	**Average**	**17.7**			
11					
12					

Observer:kh
Weather:some rain


T-117 DataRAM Data 10/06/06
30
25
20
15
10
5
0
Micrograms/m3
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

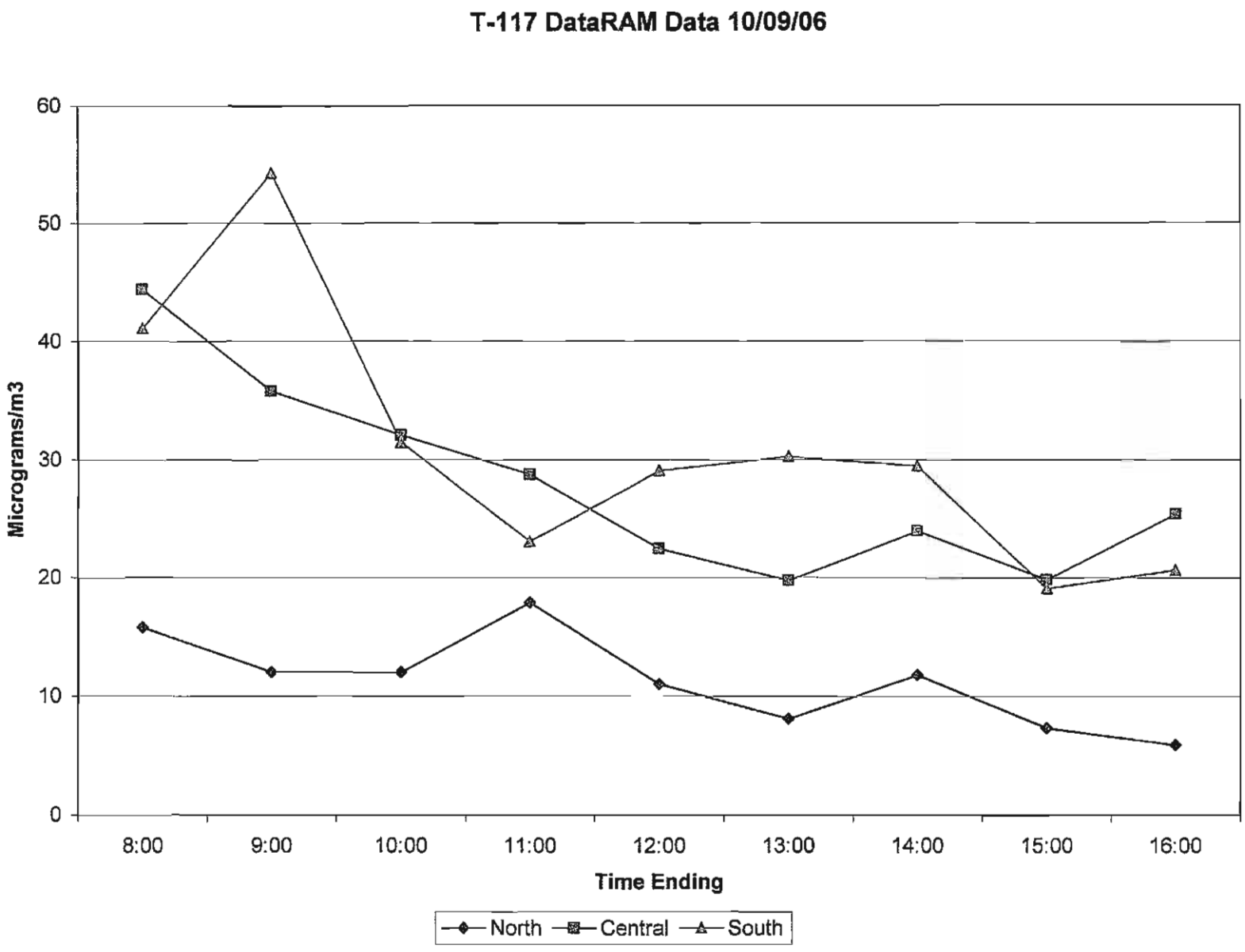
DATE Oct. 9, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	15.8	15.4	61	354
2	9:00	12	16.1	64	344
3	10:00	12	20.1	57	9
4	11:00	17.9	27	42	326
5	12:00	11	30.9	34	313
6	13:00	8.1	28	35	310
7	14:00	11.8	27	37	305
8	15:00	7.3	31	31	314
9	16:00	5.9	33.4	27	315
10					
11	Average	11.3			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	44.4	16.5	59	354
2	9:00	35.8	17.1	60	344
3	10:00	32.1	21.4	54	9
4	11:00	28.8	29.5	39	326
5	12:00	22.5	35.8	29	313
6	13:00	19.8	32.9	28	310
7	14:00	24	29.4	32	305
8	15:00	19.9	27.4	33	314
9	16:00	25.5	26.5	34	315
10					
11	Average	28.1			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	41.1	15.5	68	354
2	9:00	54.3	16.2	69	344
3	10:00	31.5	18.5	67	9
4	11:00	23.1	23.5	62	326
5	12:00	29.1	28.1	55	313
6	13:00	30.3	27	45	310
7	14:00	29.5	23.4	45	305
8	15:00	19.1	22.7	44	314
9	16:00	20.7	25.3	44	315
10					
11	Average	31.0			
12					

Observer:kh
Weather:early clouds then sun


T-117 DataRAM Data 10/09/06
60
50
40
30
20
10
0
Micrograms/m3
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

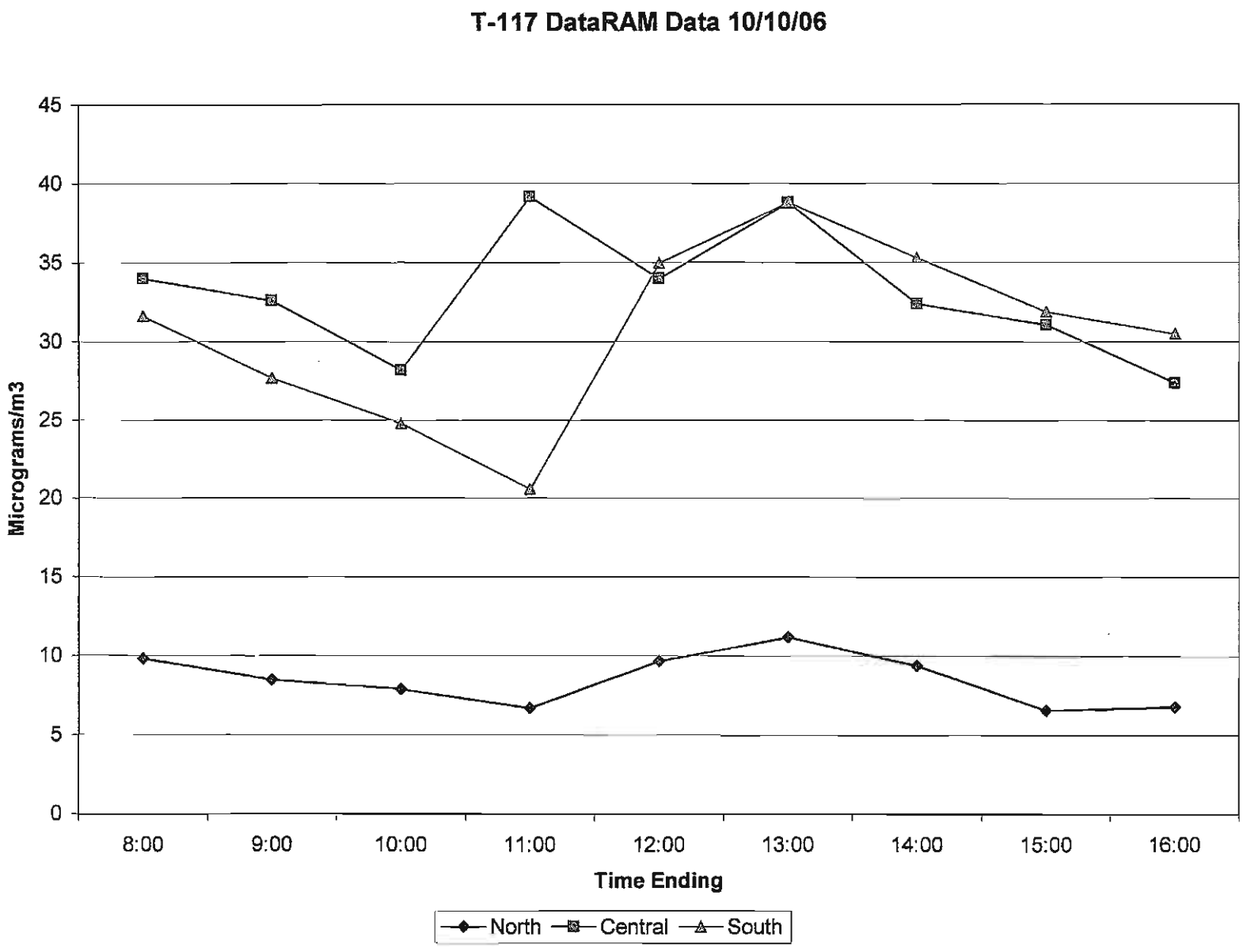
DATE Oct.10, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	9.8	11.6	66	146
2	9:00	8.5	13.1	64	144
3	10:00	7.9	18.4	53	78
4	11:00	6.7	23.9	42	331
5	12:00	9.7	27.8	35	77
6	13:00	11.2	26.2	35	323
7	14:00	9.4	27.1	36	311
8	15:00	6.6	32.4	29	316
9	16:00	6.8	36.5	25	307
10					
11	**Average**	**8.5**			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	34	14.1	59	146
2	9:00	32.6	15	56	144
3	10:00	28.2	19.2	49	78
4	11:00	39.2	24.3	41	331
5	12:00	34	30	32	77
6	13:00	38.8	29.9	30	323
7	14:00	32.4	28.9	31	311
8	15:00	31.1	28.2	31	316
9	16:00	27.4	28	32	307
10					
11	**Average**	**33.1**			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	31.6	11.8	58	146
2	9:00	27.7	12.4	59	144
3	10:00	24.8	15.9	59	78
4	11:00	20.6	21.5	55	331
5	12:00	35	26.5	49	77
6	13:00	38.8	30.4	46	323
7	14:00	35.3	33.7	41	311
8	15:00	31.9	34.1	37	316
9	16:00	30.5	34.7	35	307
10					
11	**Average**	**30.7**			
12					

Observer:kh
Weather:clear, calm, cool


T-117 DataRAM Data 10/10/06
Micrograms/m3
45
40
35
30
25
20
15
10
5
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

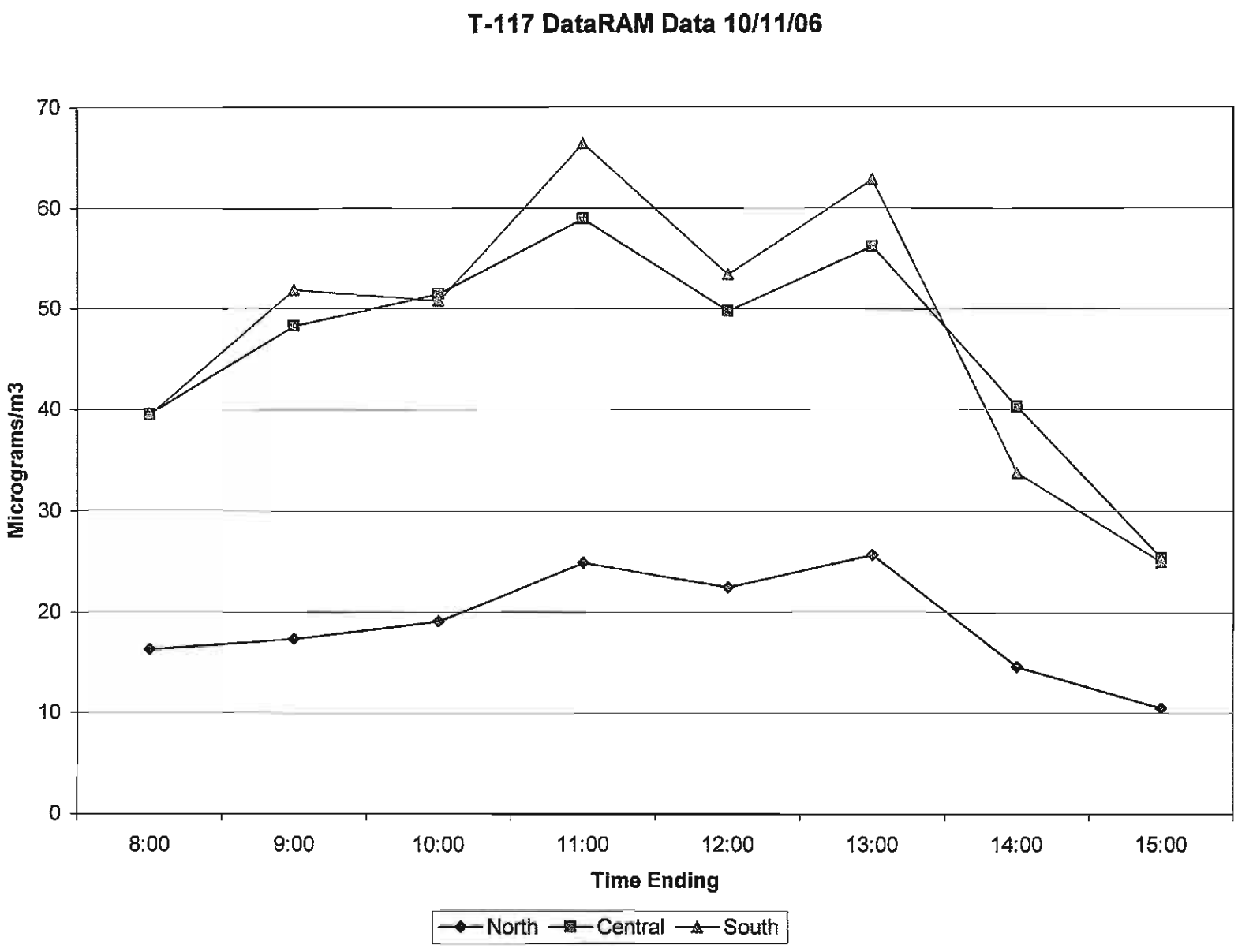
DATE Oct.11, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	16.3	11.5	66	245
2	9:00	17.3	13.1	67	4
3	10:00	19.1	20.2	57	10
4	11:00	24.9	26.9	42	298
5	12:00	22.5	30.9	33	310
6	13:00	25.7	28.3	34	312
7	14:00	14.6	28.1	35	324
8	15:00	10.5	34.9	27	307
9					
10	**Average**	**18.9**			
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	39.6	14.1	59	245
2	9:00	48.3	15.4	59	4
3	10:00	51.5	21.6	50	10
4	11:00	59	28.9	37	298
5	12:00	49.8	35	28	310
6	13:00	56.3	33.9	27	312
7	14:00	40.3	31.1	28	324
8	15:00	25.4	29.2	29	307
9					
10	**Average**	**46.3**			
11					
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	39.5	11.6	53	245
2	9:00	51.9	12.2	54	4
3	10:00	50.8	16.3	55	10
4	11:00	66.5	22.5	51	298
5	12:00	53.5	27.3	44	310
6	13:00	62.9	27.5	39	312
7	14:00	33.8	27.2	37	324
8	15:00	25	27.7	34	307
9					
10	**Average**	**48.0**			
11					
12					

Observer:kh
Weather:warm, clear


T-117 DataRAM Data 10/11/06
Micrograms/m3
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

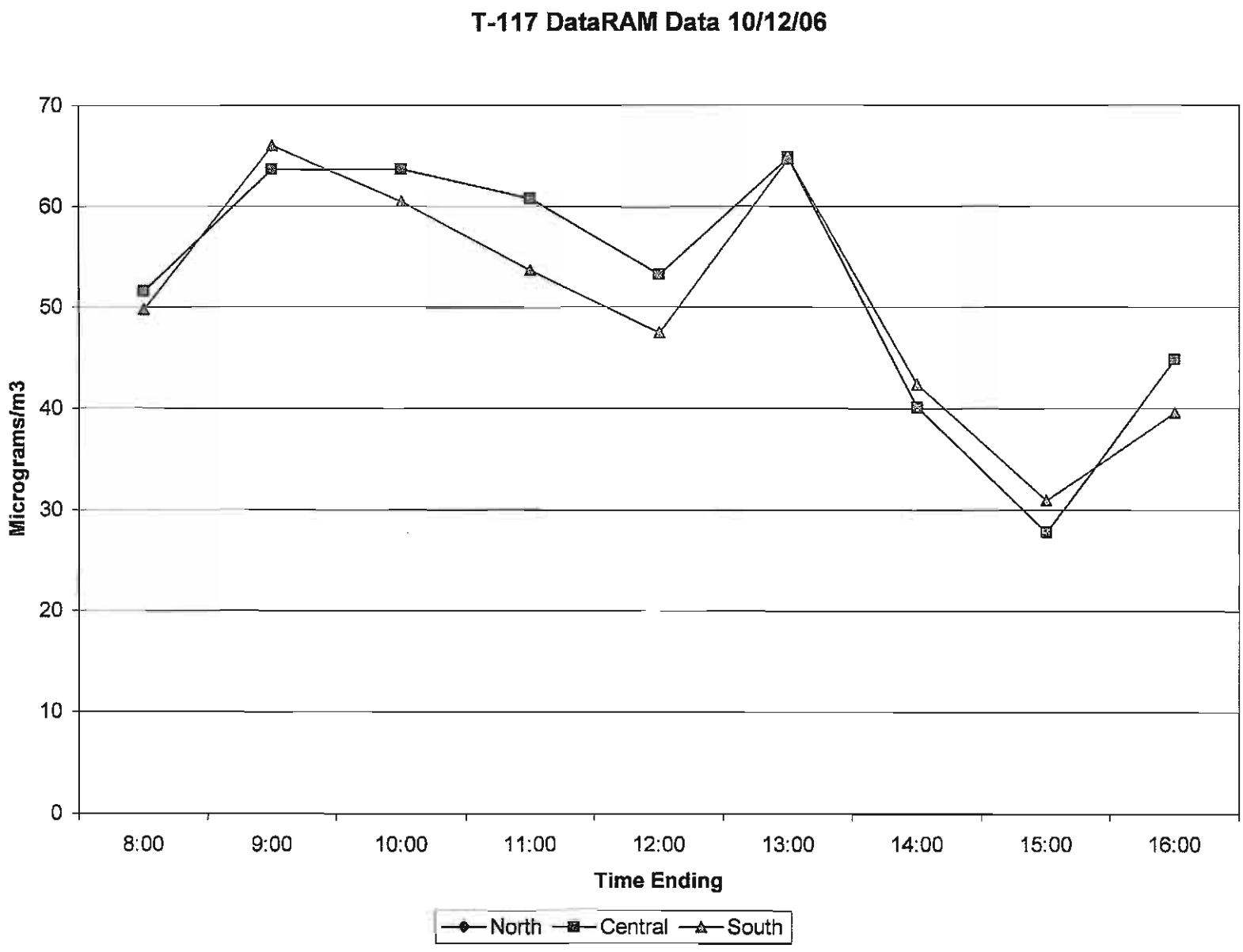
DATE Oct.12, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00				
2	9:00				
3	10:00				
4	11:00				
5	12:00				
6	13:00				
7	14:00				
8	15:00				
9	16:00				
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	51.6	15.7	60	164
2	9:00	63.7	16.2	62	154
3	10:00	63.7	17.3	63	87
4	11:00	60.8	23.6	53	347
5	12:00	53.3	33.4	33	320
6	13:00	64.9	34.2	29	329
7	14:00	40.1	31.9	31	315
8	15:00	27.8	30.6	31	310
9	16:00	44.9	30.5	30	310
10					
11	Average	52.3			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	49.8	13.4	54	164
2	9:00	66.1	14.4	55	154
3	10:00	60.5	16.9	56	87
4	11:00	53.7	22.8	54	347
5	12:00	47.5	29.2	48	320
6	13:00	64.8	32.9	43	329
7	14:00	42.4	35.1	39	315
8	15:00	31	37.2	36	310
9	16:00	39.6	38.8	32	310
10					
11	Average	50.6			
12					

Observer:kh
Weather:warm, light winds


T-117 DataRAM Data 10/12/06
70
60
50
40
30
20
10
0
Micrograms/m3
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

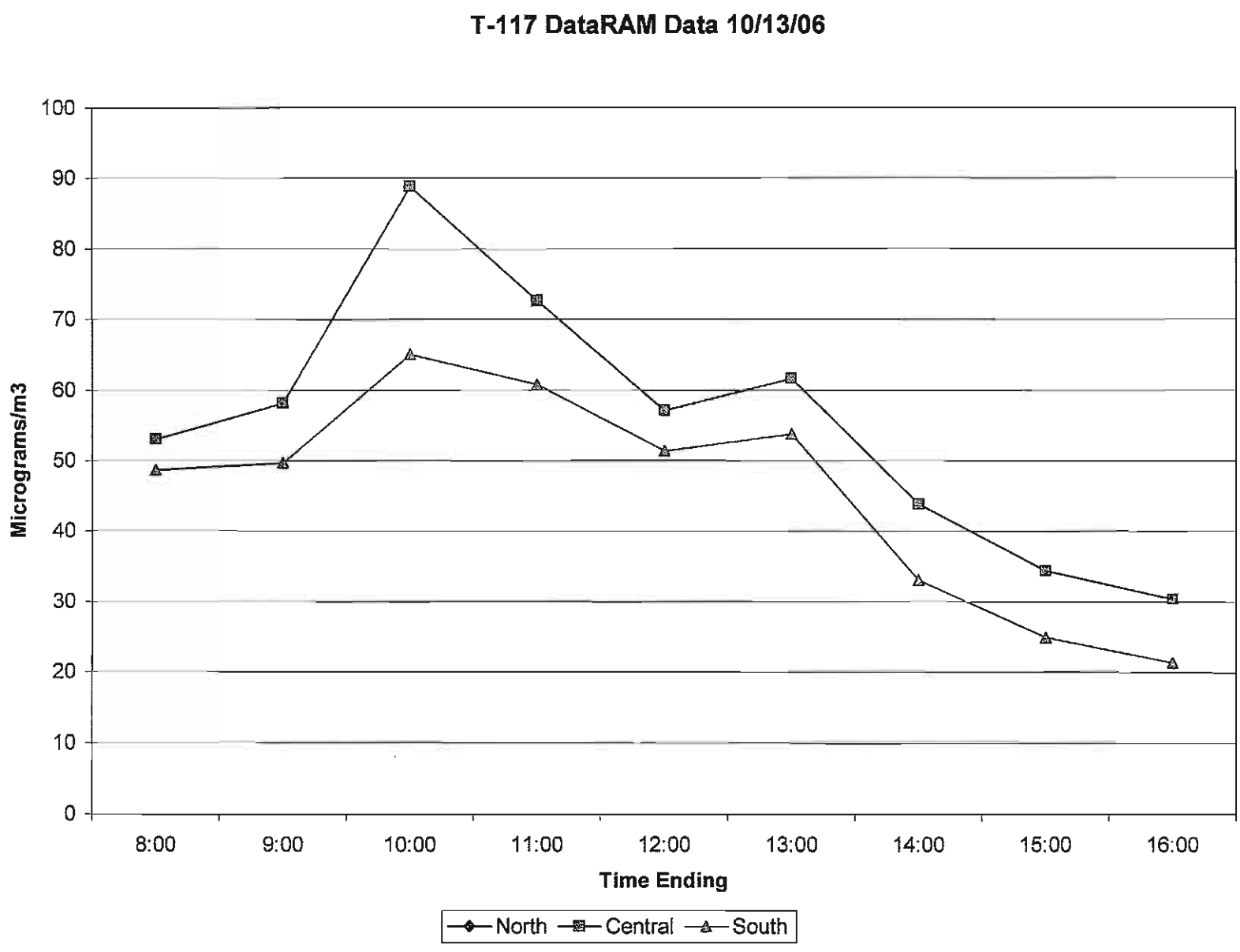
DATE Oct.13, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00				
2	9:00				
3	10:00				
4	11:00				
5	12:00				
6	13:00				
7	14:00				
8	15:00				
9	16:00				
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	53.1	16.1	61	155
2	9:00	58.2	16.5	61	93
3	10:00	88.9	19	60	54
4	11:00	72.7	26.6	45	331
5	12:00	57.2	33.2	33	314
6	13:00	61.7	32.6	31	326
7	14:00	43.9	29.5	34	318
8	15:00	34.4	28.2	34	316
9	16:00	30.4	28	34	312
10					
11	**Average**	**55.6**			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	48.7	14	54	155
2	9:00	49.7	14.9	55	93
3	10:00	65.1	17.6	55	54
4	11:00	60.8	23.2	52	331
5	12:00	51.4	27.8	48	314
6	13:00	53.8	29.1	44	326
7	14:00	33.1	31.2	41	318
8	15:00	25	33.1	38	316
9	16:00	21.4	33.4	35	312
10					
11	**Average**	**45.4**			
12					

Observer:kh
Weather:warm, variable winds


T-117 DataRAM Data 10/13/06
Micrograms/m3
100
90
80
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

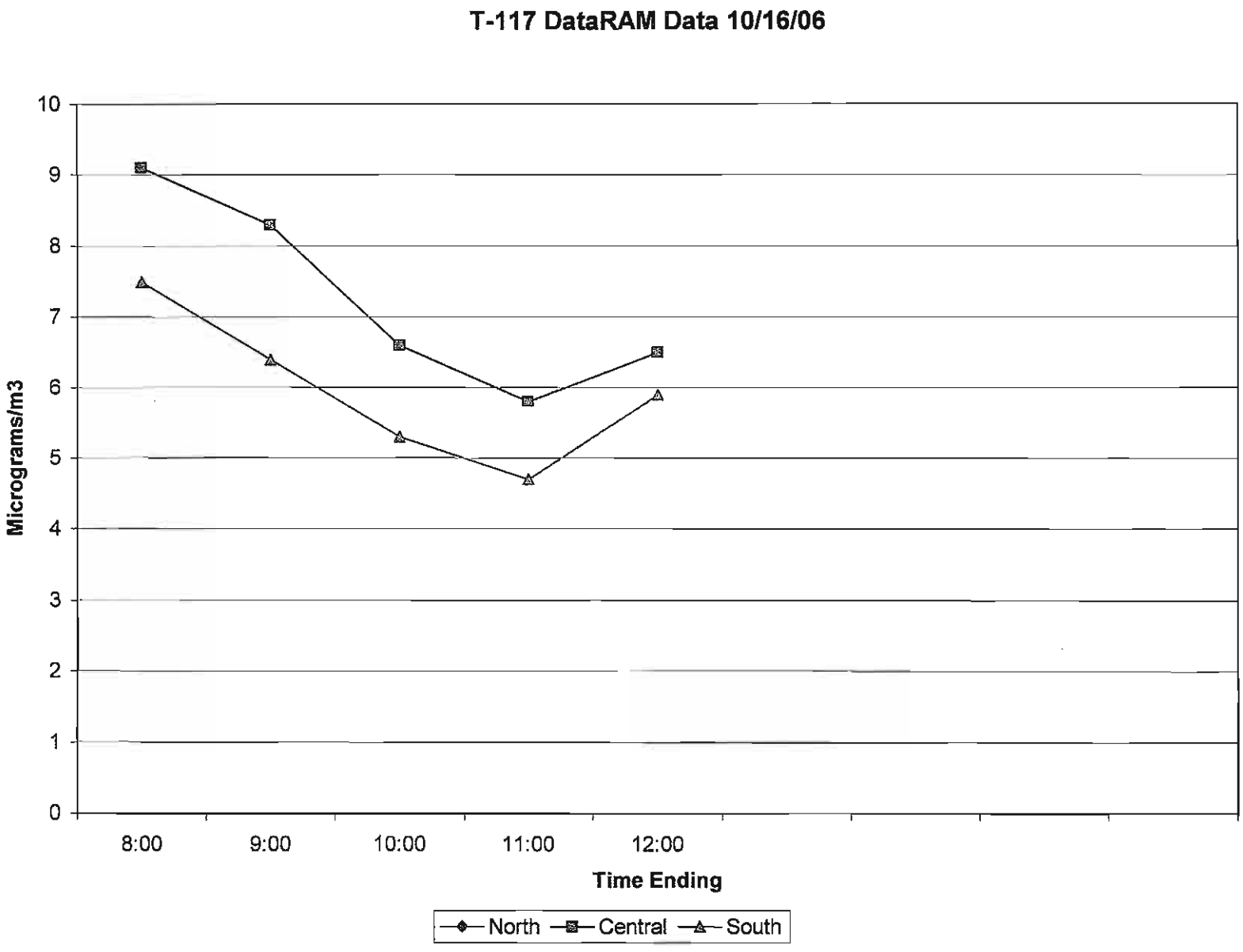
DATE Oct.16, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00				
2	9:00				
3	10:00				
4	11:00				
5	12:00				
6					
7					
8					
9					
10					
11					
12					

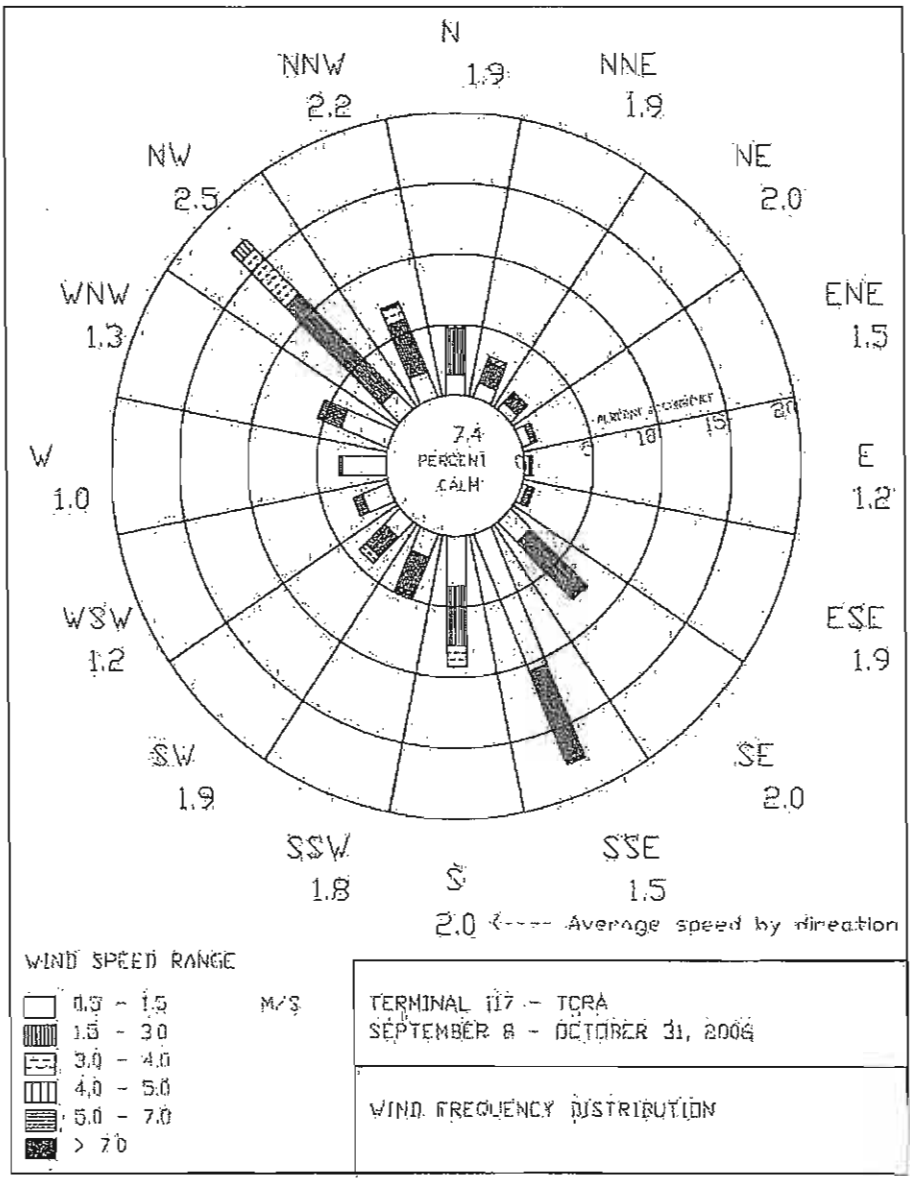
DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	9.1	15.6	59	228
2	9:00	8.3	16.9	64	236
3	10:00	6.6	18.1	62	209
4	11:00	5.8	19.5	59	254
5	12:00	6.5	21.1	55	245
6					
7	Average	7.3			
8					
9					
10					
11					
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	7.5	14.3	66	228
2	9:00	6.4	15.8	74	236
3	10:00	5.3	17.5	73	209
4	11:00	4.7	19.9	71	254
5	12:00	5.9	22.3	68	245
6					
7	Average	6.0			
8					
9					
10					
11					
12					

Observer:kh
Weather:overcast, some rain


T-117 DataRAM Data 10/16/06
Micrograms/m3
10
9
8
7
6
5
4
3
2
1
0
8:00
9:00
10:00
11:00
12:00
Time Ending
North
Central
South

Appendix B



WIND ROSE
Terminal 117 TCRA
Seattle, Washington

By: KMW | Date: 12/7/06 | Project No. 9950.003

Geomatrix | Figure 2

TERMINAL 117 TCRA
AIR VOLUME - DETECTION LIMIT - WIND DIRECTION - WIND SPEED

Sample Date	Station ID	Air Volume Meters^3	Detection Limit [a] µg/m3	Analytical Result µg	Wind Direction [b] Degrees	Wind Speed [c] Mph
	North - 1	142.2	0.0070	ND		
9/13/2006	Central - 2	134.7	0.0074	ND	197	6
	South - 3	143.7	0.0070	ND		
	North - 1	143.8	0.0070	ND		
9/20/2006	Central - 2	131.5	0.0076	2.8	167	5.6
	South - 3	142.8	0.0070	ND		
	North - 1	158.7	0.0063	ND		
9/22/2006	Central - 2	149.2	0.0067	ND	172	3.5
	South - 3	154.4	0.0065	ND		
	North - 1	161.2	0.0062	ND		
9/25/2006	Central - 2	133.7	0.0075	ND	264	3.5
	South - 3	157	0.0064	ND		
	North - 1	175.1	0.0057	ND		
9/27/2006	Central - 2	162.9	0.0061	ND	240	3.4
	South - 3	179.9	0.0056	ND		
	North - 1	131.2	0.0076	1.0		
9/30/2006	Central - 2	122.3	0.0082	ND	97	4.3
	South - 3	127.9	0.0078	ND		
	North - 1	162.1	0.0062	ND		
10/4/2006	Central - 2	151.6	0.0066	ND	159	7.7
	South - 3	159.7	0.0063	ND		
	North - 1	160.1	0.0062	ND		
10/10/2006	Central - 2	149.3	0.0067	ND	226	3.2
	South - 3	157.2	0.0064	ND		

Notes:
a) Detection limit is based on the volume of air sampled.
b) Wind direction is the unit vector average for the sampling period.
c) Wind speed is the average for the sampling period.
1.0 µg Laboratory Detection Limit
ND = Not Detected

TERMINAL 117 TCRA
PCB ANALYTICAL DATA - AIR TOXICS LTD.

Sample Date	Station ID	Aroclor 1016/1242	1221	1232	1248	1254	1260
	North - 1	ND	ND	ND	ND	ND	ND
9/13/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	ND
9/20/2006	Central - 2	ND	ND	ND	ND	ND	2.8 µg
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	ND
9/22/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	ND
9/25/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	ND
9/27/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	1.0 µg
9/30/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	ND
10/4/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	ND
10/10/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND

Note:	ND = Not Detected
Reporting Limit	1.0 µg
EPA Method	Modified TO-4A

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-091306

Lab ID#: 0609330-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8091808	Date of Collection:	9/13/06
Dil. Factor:	1.00	Date of Analysis:	9/18/06 02:09 PM
		Date of Extraction:	9/15/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	72	60-120
Decachlorobiphenyl	72	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-091306 Duplicate

Lab ID#: 0609330-01AA

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8091809	Date of Collection:	9/13/06
Dil. Factor:	1.00	Date of Analysis:	9/18/06 02:48 PM
		Date of Extraction:	9/15/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	72	60-120
Decachlorobiphenyl	72	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2-091306

Lab ID#: 0609330-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8091811	Date of Collection:	9/13/06
Dil. Factor:	1.00	Date of Analysis:	9/18/06 04:06 PM
		Date of Extraction:	9/15/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	74	60-120
Decachlorobiphenyl	71	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-091306

Lab ID#: 0609330-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8091810	Date of Collection:	9/13/06
Dil. Factor:	1.00	Date of Analysis:	9/18/06 03:27 PM
		Date of Extraction:	9/15/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	74	60-120
Decachlorobiphenyl	72	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB-BLANK-091306

Lab ID#: 0609330-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8091812	Date of Collection:	9/13/06
Dil. Factor:	1.00	Date of Analysis:	9/18/06 04:45 PM
		Date of Extraction:	9/15/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	71	60-120
Decachlorobiphenyl	72	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB 1-092006

Lab ID#: 0609488-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092514	Date of Collection:	9/20/06
Dil. Factor:	1.00	Date of Analysis:	9/25/06 05:12 PM
		Date of Extraction:	9/22/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	77	60-120
Decachlorobiphenyl	77	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB 2-092006

Lab ID#: 0609488-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092515	Date of Collection:	9/20/06
Dil. Factor:	1.00	Date of Analysis:	9/25/06 05:51 PM
		Date of Extraction:	9/22/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	2.8

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	74	60-120
Decachlorobiphenyl	77	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB 3-092006

Lab ID#: 0609488-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092516	Date of Collection:	9/20/06
Dil. Factor:	1.00	Date of Analysis:	9/25/06 06:30 PM
		Date of Extraction:	9/22/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	70	60-120
Decachlorobiphenyl	75	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB BLANK-092006

Lab ID#: 0609488-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092517	Date of Collection:	9/20/06
Dil. Factor:	1.00	Date of Analysis:	9/25/06 07:09 PM
		Date of Extraction:	9/22/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	77	60-120
Decachlorobiphenyl	76	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-092206

Lab ID#: 0609606-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092907	Date of Collection:	9/22/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 11:41 AM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	78	60-120
Decachlorobiphenyl	79	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2-092206

Lab ID#: 0609606-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092908	Date of Collection:	9/22/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 12:20 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	77	60-120
Decachlorobiphenyl	78	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-092206

Lab ID#: 0609606-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092909	Date of Collection:	9/22/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 12:59 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	74	60-120
Decachlorobiphenyl	76	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB BLANK 092206

Lab ID#: 0609606-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092910	Date of Collection:	9/22/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 01:38 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	71	60-120
Decachlorobiphenyl	77	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-092506

Lab ID#: 0609606-05A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092911	Date of Collection:	9/25/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 02:18 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	75	60-120
Decachlorobiphenyl	72	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2-092506

Lab ID#: 0609606-06A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092912	Date of Collection:	9/25/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 02:57 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	76	60-120
Decachlorobiphenyl	74	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-092506

Lab ID#: 0609606-07A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092913	Date of Collection:	9/25/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 03:36 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	76	60-120
Decachlorobiphenyl	74	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB BLANK 092506

Lab ID#: 0609606-08A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092914	Date of Collection:	9/25/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 04:15 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	72	60-120
Decachlorobiphenyl	78	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-092706

Lab ID#: 0609677-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100407	Date of Collection:	9/27/06
Dil. Factor:	1.00	Date of Analysis:	10/4/06 12:24 PM
		Date of Extraction:	10/2/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	75	60-120
Decachlorobiphenyl	78	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2-092706

Lab ID#: 0609677-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100409	Date of Collection:	9/27/06
Dil. Factor:	1.00	Date of Analysis:	10/4/06 01:42 PM
		Date of Extraction:	10/2/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	77	60-120
Decachlorobiphenyl	78	60-120

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-092706

Lab ID#: 0609677-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100410	Date of Collection:	9/27/06
Dil. Factor:	1.00	Date of Analysis:	10/4/06 02:21 PM
		Date of Extraction:	10/2/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	70	60-120
Decachlorobiphenyl	71	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-092706 Duplicate

Lab ID#: 0609677-03AA

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100411	Date of Collection:	9/27/06
Dil. Factor:	1.00	Date of Analysis:	10/4/06 03:00 PM
		Date of Extraction:	10/2/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	73	60-120
Decachlorobiphenyl	72	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCBBLANK-092706

Lab ID#: 0610058-05A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100615b	Date of Collection:	9/27/06
Dil. Factor:	1.00	Date of Analysis:	10/6/06 07:21 PM
		Date of Extraction:	10/4/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	65	60-120
Decachlorobiphenyl	74	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-093006

Lab ID#: 0610058-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100608b	Date of Collection:	9/30/06
Dil. Factor:	1.00	Date of Analysis:	10/6/06 02:48 PM
		Date of Extraction:	10/4/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	1.0

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	62	60-120
Decachlorobiphenyl	72	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2-093006

Lab ID#: 0610058-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100611b	Date of Collection:	9/30/06
Dil. Factor:	1.00	Date of Analysis:	10/6/06 04:45 PM
		Date of Extraction:	10/4/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	63	60-120
Decachlorobiphenyl	75	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-093006

Lab ID#: 0610058-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100612b	Date of Collection:	9/30/06
Dil. Factor:	1.00	Date of Analysis:	10/6/06 05:24 PM
		Date of Extraction:	10/4/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	66	60-120
Decachlorobiphenyl	76	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCBBLANK-093006

Lab ID#: 0610058-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100614b	Date of Collection:	9/30/06
Dil. Factor:	1.00	Date of Analysis:	10/6/06 06:42 PM
		Date of Extraction:	10/4/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	65	60-120
Decachlorobiphenyl	71	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1.100406

Lab ID#: 0610092-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101211	Date of Collection:	10/4/06
Dil. Factor:	1.00	Date of Analysis:	10/12/06 03:56 PM
		Date of Extraction:	10/5/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	90	60-120
Decachlorobiphenyl	93	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2.100406

Lab ID#: 0610092-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101212	Date of Collection:	10/4/06
Dil. Factor:	1.00	Date of Analysis:	10/12/06 04:35 PM
		Date of Extraction:	10/5/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	87	60-120
Decachlorobiphenyl	89	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3.100406

Lab ID#: 0610092-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101213	Date of Collection:	10/4/06
Dil. Factor:	1.00	Date of Analysis:	10/12/06 05:14 PM
		Date of Extraction:	10/5/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	88	60-120
Decachlorobiphenyl	89	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB BLANK 100406

Lab ID#: 0610092-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101214	Date of Collection:	10/4/06
Dil. Factor:	1.00	Date of Analysis:	10/12/06 05:53 PM
		Date of Extraction:	10/5/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	89	60-120
Decachlorobiphenyl	92	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0609677-05A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100408	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 10/4/06 01:03 PM	
		Date of Extraction: 10/2/06	

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Spiked
Aroclor-1221	1.0	Not Spiked
Aroclor-1232	1.0	Not Spiked
Aroclor-1248	1.0	Not Spiked
Aroclor-1254	1.0	Not Spiked
Aroclor-1260	1.0	Not Spiked

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	45 Q	60-120
Decachlorobiphenyl	48 Q	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-101006 Duplicate

Lab ID#: 0610274-01AA

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101612	Date of Collection: 10/10/06
Dil. Factor:	1.00	Date of Analysis: 10/16/06 04:56 PM
		Date of Extraction: 10/13/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	88	60-120
Decachlorobiphenyl	87	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2-101006

Lab ID#: 0610274-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101613	Date of Collection:	10/10/06
Dil. Factor:	1.00	Date of Analysis:	10/16/06 05:35 PM
		Date of Extraction:	10/13/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	88	60-120
Decachlorobiphenyl	90	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-101006

Lab ID#: 0610274-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101614	Date of Collection:	10/10/06
Dil. Factor:	1.00	Date of Analysis:	10/16/06 06:14 PM
		Date of Extraction:	10/13/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	93	60-120
Decachlorobiphenyl	92	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCBBLANK-101006

Lab ID#: 0610274-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101615	Date of Collection:	10/10/06
Dil. Factor:	1.00	Date of Analysis:	10/16/06 06:53 PM
		Date of Extraction:	10/13/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	82	60-120
Decachlorobiphenyl	85	60-120

Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	Lynnwood Washington	Date:	12-Sep-06
Sampler:	NORTH - 1	Tech:	Kris Hansen

CONDITIONS

Sampler Elevation (feet):	420		
Sea Level Pressure (in Hg):	30.20	Corrected Pressure (mm Hg):	756
Temperature (deg F):	65	Temperature (deg K):	291
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	759
Seasonal Temp. (deg F):	62	Seasonal Temp. (deg K):	290

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.85214
Model:	TE-5040A	Qstd Intercept:	-0.00699
Serial#:	434	Date Certified:	5/30/2006

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	7.00	0.302	70.0	8.44	Slope =	31.2122
2	6.10	0.282	60.0	7.82	Intercept =	-1.0277
3	5.30	0.263	50.0	7.13	Corr. coeff.=	0.9985
4	4.40	0.240	40.0	6.38		
5	3.30	0.208	30.0	5.53	# of Observations	5

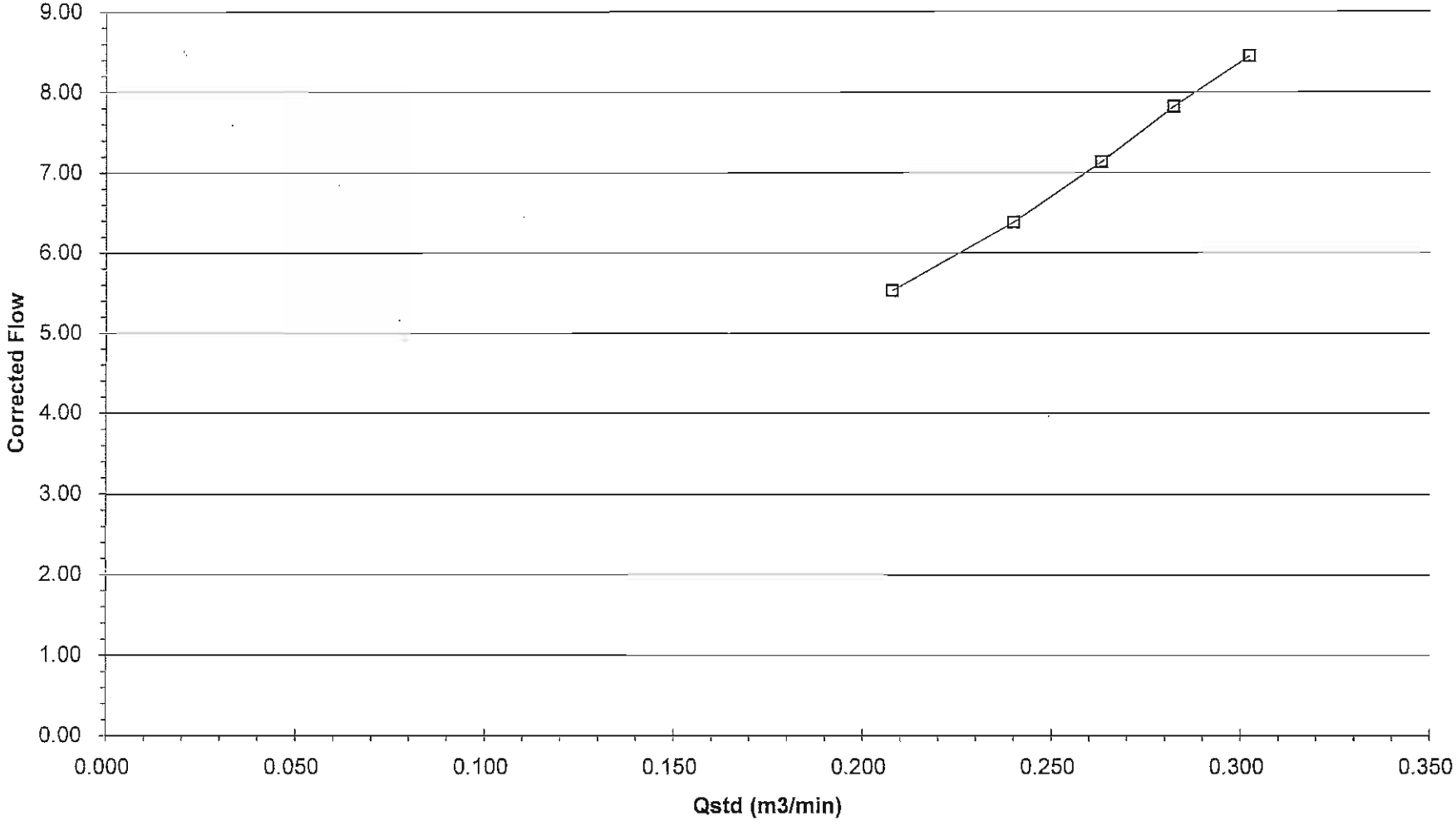
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

TERMINAL 117
PRE-PROJECT CALIBRATION
NORTH 1 PUF SAMPLER



Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	Lynnwood Washington	Date:	12-Sep-06
Sampler:	CENTRAL - 2	Tech:	Kris Hansen

CONDITIONS

Sampler Elevation (feet):	420		
Sea Level Pressure (in Hg):	30.20	Corrected Pressure (mm Hg):	756
Temperature (deg F):	65	Temperature (deg K):	291
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	759
Seasonal Temp. (deg F):	62	Seasonal Temp. (deg K):	290

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.85214
Model:	TE-5040A	Qstd Intercept:	-0.00699
Serial#:	434	Date Certified:	5/30/2006

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	6.10	0.282	70.0	8.44	Slope =	28.7867
2	5.30	0.263	60.0	7.82	Intercept =	0.2155
3	4.60	0.245	50.0	7.13	Corr. coeff.=	0.9955
4	3.60	0.217	40.0	6.38		
5	2.50	0.181	30.0	5.53	# of Observations	5

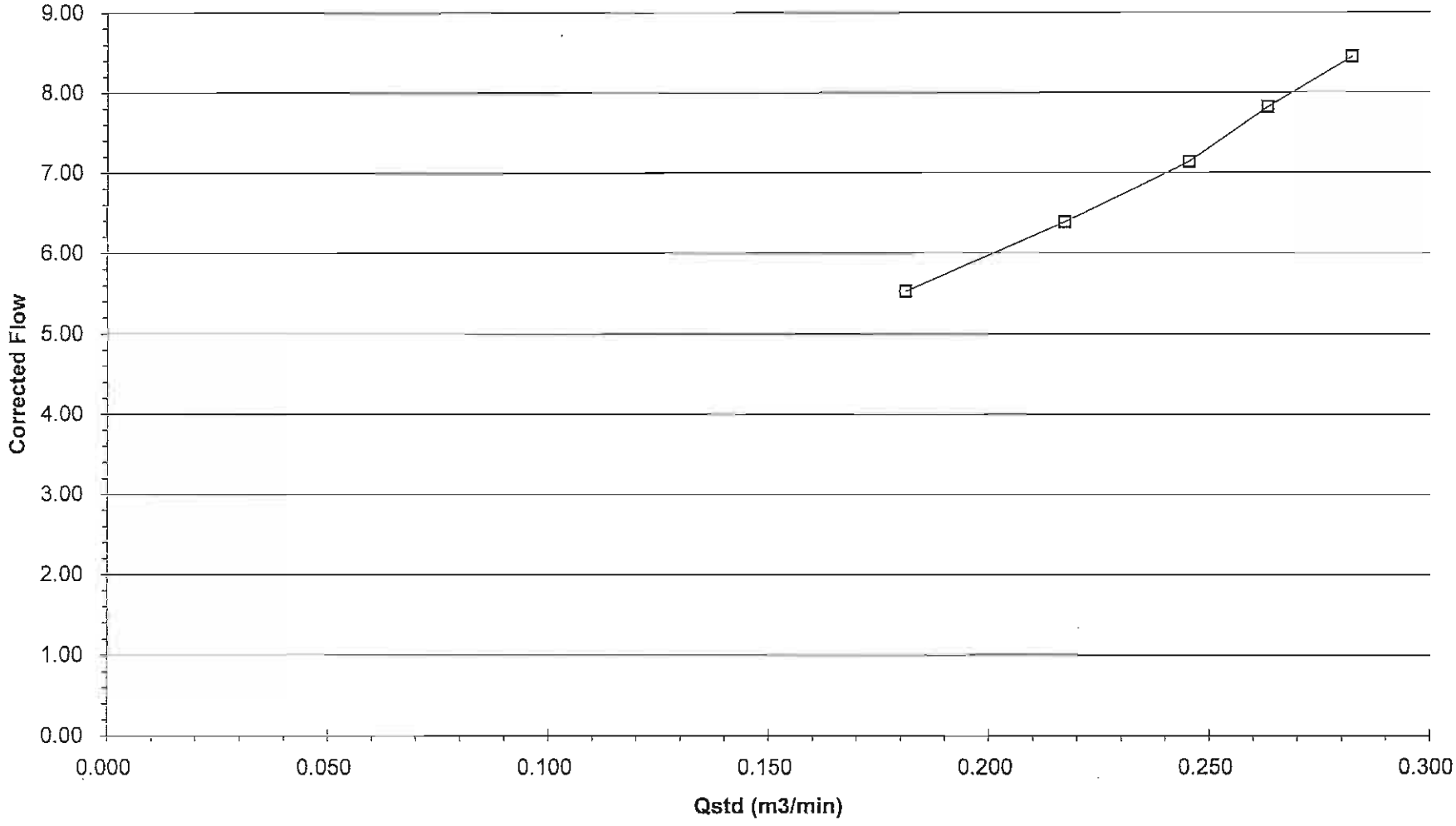
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

TERMINAL 117
PRE-PROJECT CALIBRATION
CENTRAL 2 PUF SAMPLER



Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	Lynnwood Washington	Date:	12-Sep-06
Sampler:	SOUTH - 3	Tech:	Kris Hansen

CONDITIONS

Sampler Elevation (feet):	420		
Sea Level Pressure (in Hg):	30.20	Corrected Pressure (mm Hg):	756
Temperature (deg F):	65	Temperature (deg K):	291
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	759
Seasonal Temp. (deg F):	62	Seasonal Temp. (deg K):	290

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.85214
Model:	TE-5040A	Qstd Intercept:	-0.00699
Serial#:	434	Date Certified:	5/30/2006

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	7.00	0.302	70.0	8.44	Slope =	30.9010
2	6.20	0.285	60.0	7.82	Intercept =	-0.9612
3	5.30	0.263	50.0	7.13	Corr. coeff.=	0.9986
4	4.40	0.240	40.0	6.38		
5	3.30	0.208	30.0	5.53	# of Observations	5

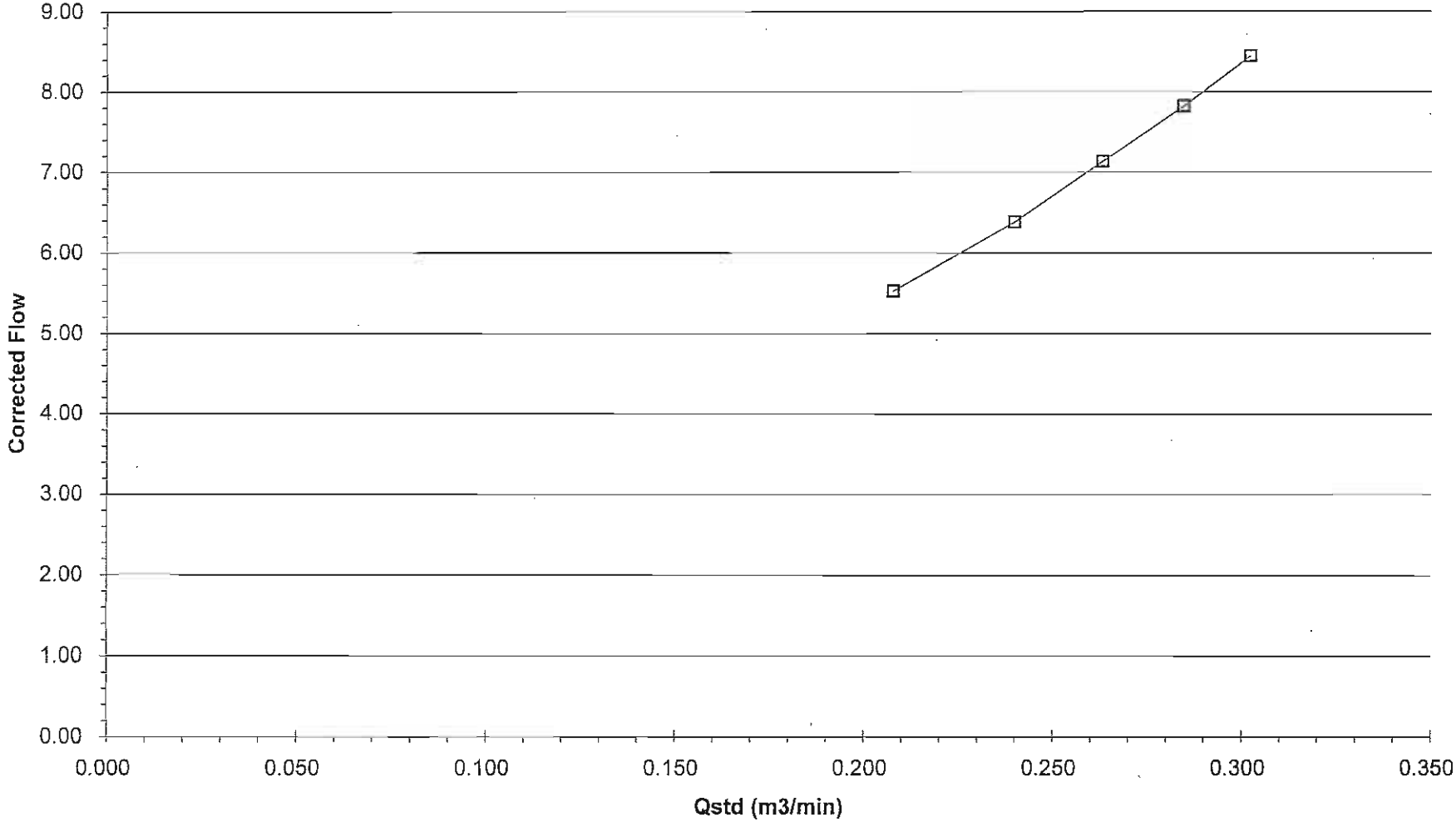
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

TERMINAL 117
PRE-PROJECT CALIBRATION
SOUTH 3 PUF SAMPLER



Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	Terminal 117, Seattle	Date:	12-Oct-06
Sampler:	NORTH - 1	Tech:	Kris Hansen

CONDITIONS

Sampler Elevation (feet):	25		
Sea Level Pressure (in Hg):	30.08	Corrected Pressure (mm Hg):	763
Temperature (deg F):	70	Temperature (deg K):	294
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	769
Seasonal Temp. (deg F):	53	Seasonal Temp. (deg K):	285

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.85214
Model:	TE-5040A	Qstd Intercept:	-0.00699
Serial#:	434	Date Certified:	5/30/2006

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	6.90	0.300	70.0	8.44	Slope =	30.1828
2	6.10	0.282	60.0	7.81	Intercept =	-0.6955
3	5.30	0.263	50.0	7.13	Corr. coeff.=	0.9980
4	4.20	0.234	40.0	6.38		
5	3.20	0.205	30.0	5.53	# of Observations	5

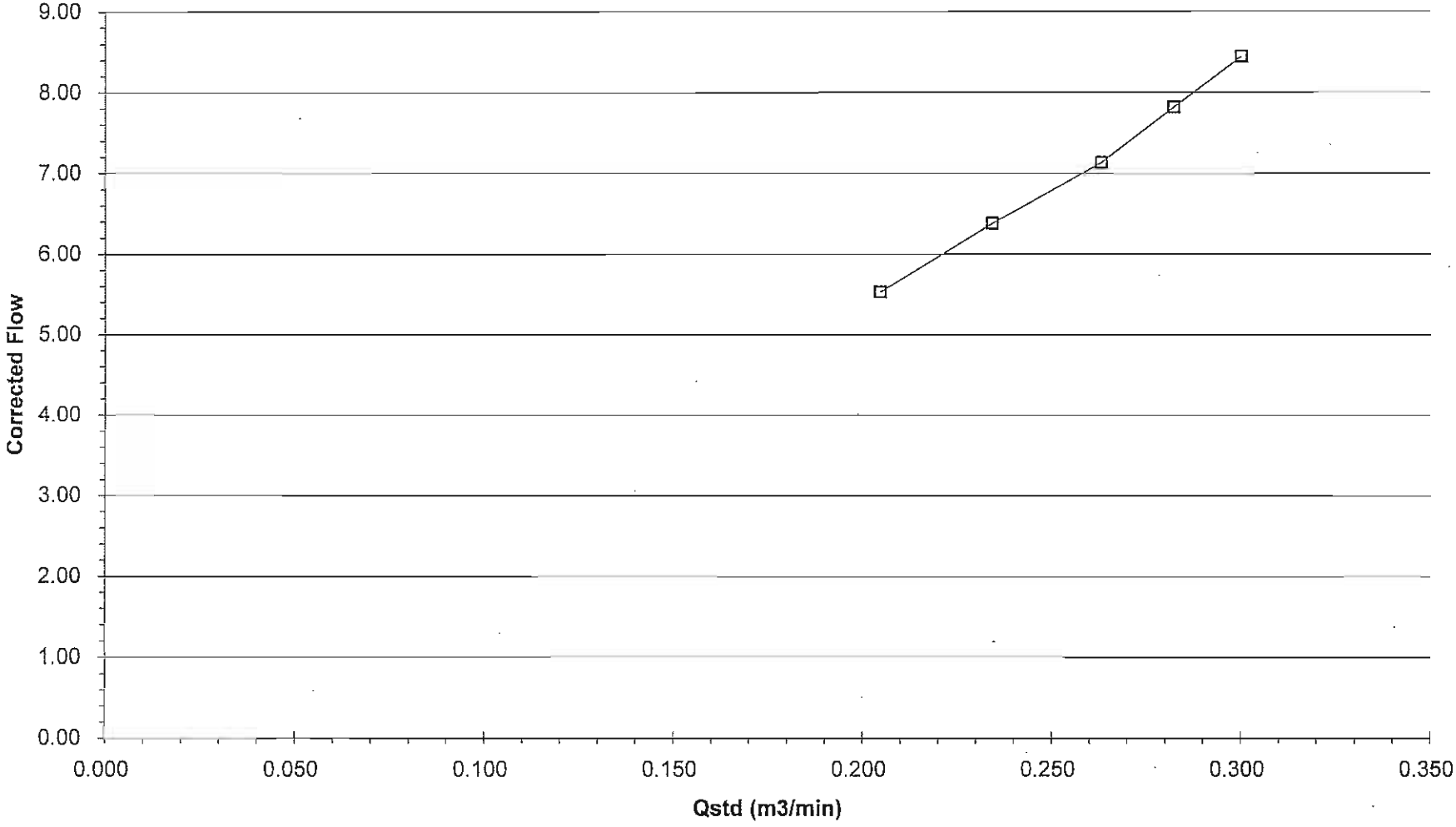
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

TERMINAL 117
POST-PROJECT CALIBRATION
NORTH 1 PUF SAMPLER



Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	Terminal 117, Seattle	Date:	12-Oct-06
Sampler:	CENTRAL - 2	Tech:	Kris Hansen

CONDITIONS

Sampler Elevation (feet):	25		
Sea Level Pressure (in Hg):	30.08	Corrected Pressure (mm Hg):	763
Temperature (deg F):	70	Temperature (deg K):	294
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	769
Seasonal Temp. (deg F):	53	Seasonal Temp. (deg K):	285

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.85214
Model:	TE-5040A	Qstd Intercept:	-0.00699
Serial#:	434	Date Certified:	5/30/2006

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	6.00	0.280	70.0	8.44	Slope =	28.3648
2	5.20	0.261	60.0	7.81	Intercept =	0.4442
3	4.30	0.237	50.0	7.13	Corr. coeff.=	0.9991
4	3.40	0.211	40.0	6.38		
5	2.40	0.177	30.0	5.53	# of Observations	5

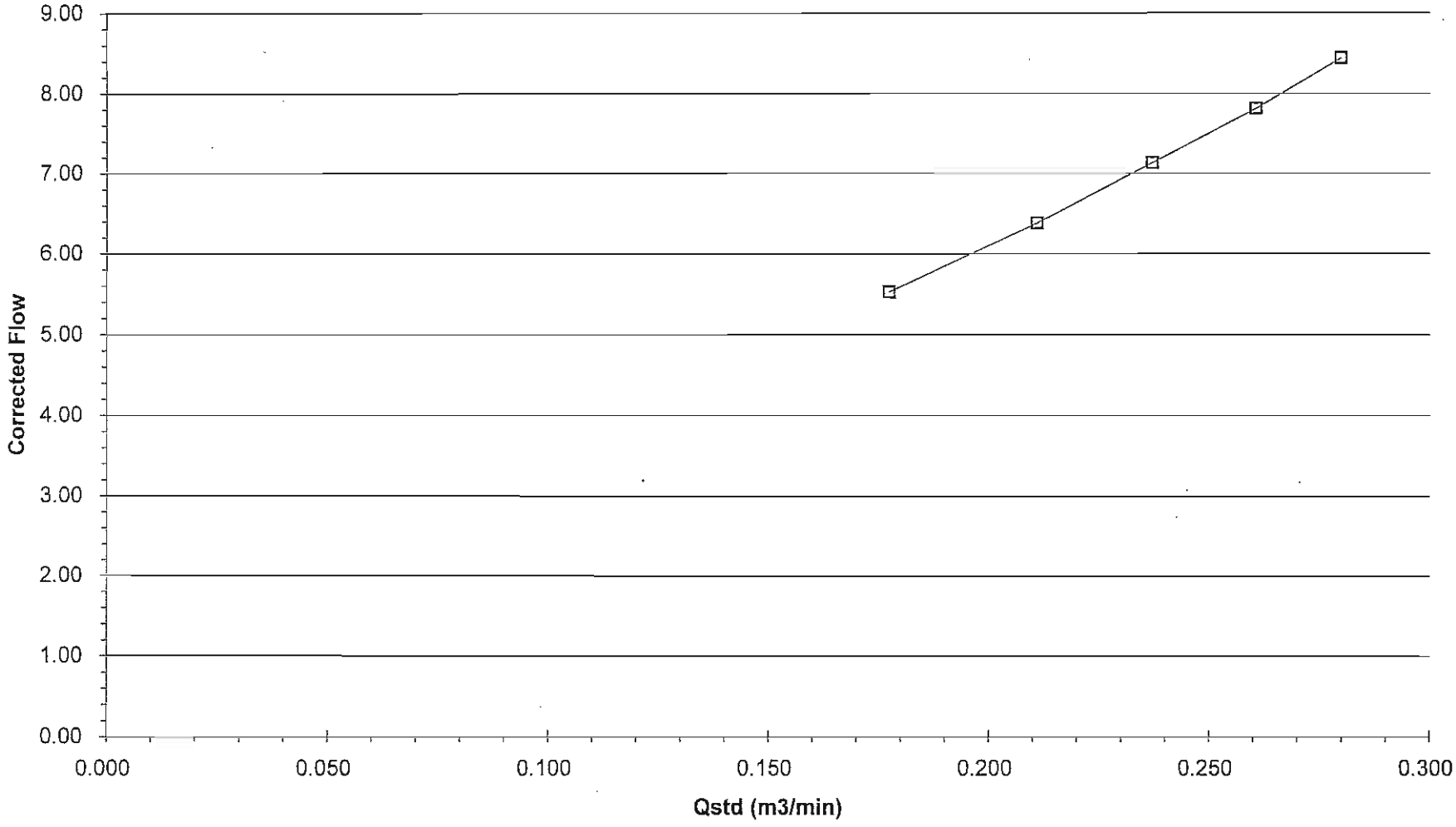
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

TERMINAL 117
POST-PROJECT CALIBRATION
CENTRAL 2 PUF SAMPLER



Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	Terminal 117, Seattle	Date:	12-Oct-06
Sampler:	SOUTH - 3	Tech:	Kris Hansen

CONDITIONS

Sampler Elevation (feet):	25		
Sea Level Pressure (in Hg):	30.08	Corrected Pressure (mm Hg):	763
Temperature (deg F):	70	Temperature (deg K):	294
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	769
Seasonal Temp. (deg F):	53	Seasonal Temp. (deg K):	285

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.85214
Model:	TE-5040A	Qstd Intercept:	-0.00699
Serial#:	434	Date Certified:	5/30/2006

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	7.00	0.302	70.0	8.44	Slope =	30.9882
2	6.10	0.282	60.0	7.81	Intercept =	-0.9371
3	5.20	0.261	50.0	7.13	Corr. coeff.=	0.9998
4	4.30	0.237	40.0	6.38		
5	3.30	0.208	30.0	5.53	# of Observations	5

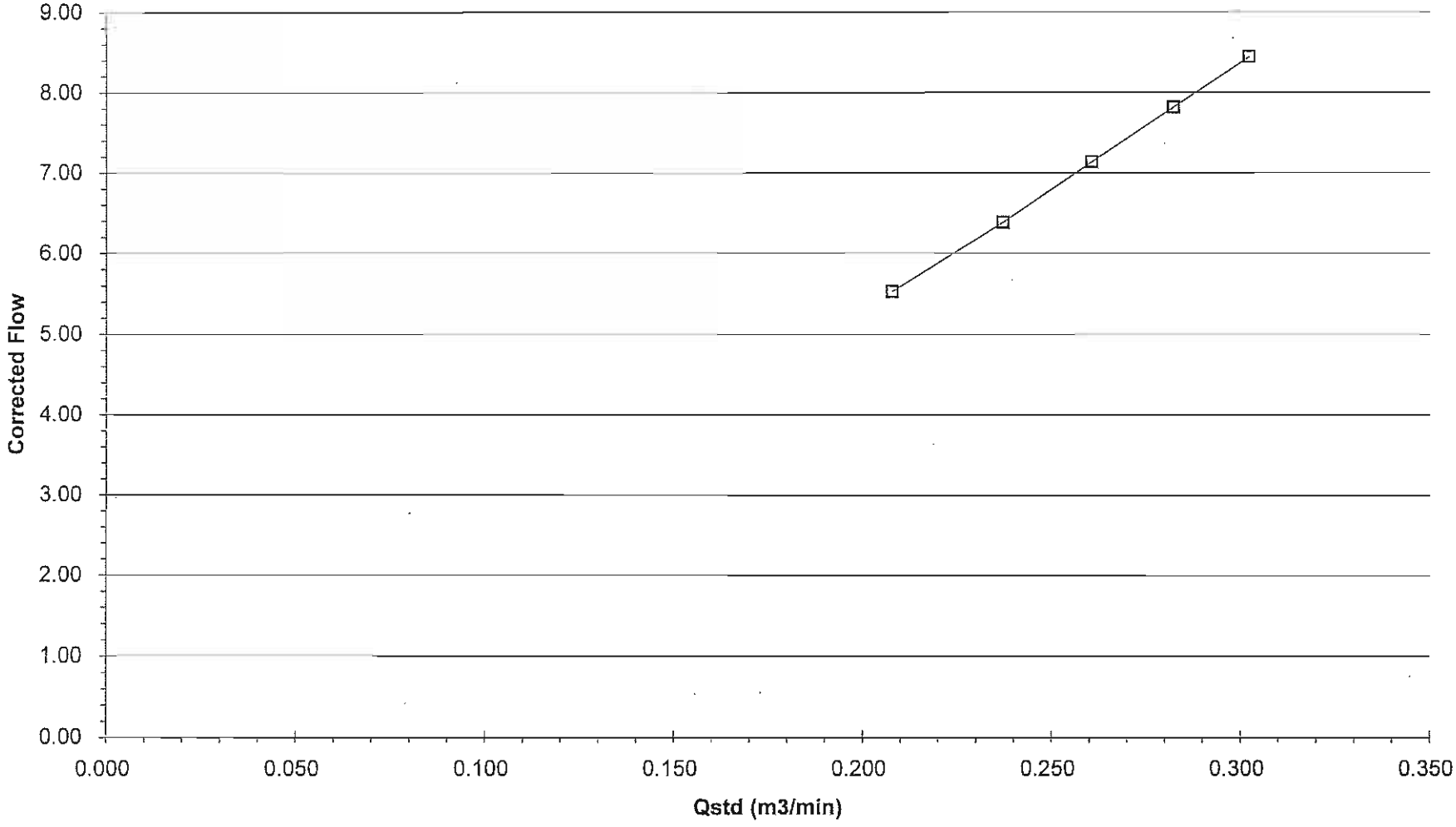
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

TERMINAL 117
POST-PROJECT CALIBRATION
SOUTH 3 PUF SAMPLER



Appendix C

WIND SPEED FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN MILES PER HOUR

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
2	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
3	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
4	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
5	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
6	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
7	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
8	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	3.1	4.5	4.3	3.7	3.5	3.1	3.8	3.3	3.9	4.8	4.0	3.8
9	4.8	5.0	6.6	4.8	5.5	4.9	5.0	5.9	5.3	5.8	6.0	5.8	5.9	6.8	6.6	5.6	5.0	6.9	7.9	5.4	4.3	2.9	2.3	2.4	5.3
10	2.1	1.8	1.8	1.3	1.5	1.5	2.2	2.0	5.2	6.7	4.4	2.7	7.2	6.3	5.6	5.9	7.0	7.9	7.8	5.1	4.7	5.0	3.6	3.2	4.3
11	2.5	1.8	2.0	2.3	2.2	2.9	1.5	4.8	4.5	5.2	5.4	5.6	6.5	7.7	7.2	8.7	9.1	8.6	6.6	6.2	5.8	3.3	2.7	3.3	4.8
12	2.5	2.4	2.4	1.9	1.0	1.0	2.6	2.4	1.8	4.9	4.7	7.6	8.5	7.2	7.5	8.7	9.2	7.2	7.2	3.0	4.6	5.5	4.6	3.8	4.7
13	4.3	3.5	3.7	3.4	3.6	3.8	4.3	4.0	5.2	5.3	4.8	4.2	6.3	6.1	7.9	7.7	7.5	5.9	4.6	5.7	4.8	3.7	5.5	3.8	5.0
14	3.6	3.3	1.9	2.5	2.2	3.9	5.1	3.9	2.1	4.5	6.6	7.3	6.0	5.2	5.5	4.6	6.9	6.5	4.1	2.1	4.6	8.2	6.1	2.8	4.6
15	1.8	1.1	1.6	2.2	2.0	2.3	2.6	1.3	3.1	4.6	4.9	5.6	6.7	8.3	7.6	8.2	7.9	7.6	4.4	3.3	2.1	2.2	1.8	2.5	4.0
16	4.7	5.0	6.5	5.3	4.2	5.3	6.3	5.5	5.7	6.6	7.1	6.9	6.9	5.3	4.2	5.0	8.3	6.2	3.4	3.0	2.7	2.1	2.7	4.1	5.1
17	3.0	2.4	2.9	2.9	3.0	4.1	3.0	4.5	4.9	4.2	4.0	3.8	5.2	4.6	3.5	1.9	2.2	2.5	2.1	2.6	4.4	4.0	3.0	1.7	3.4
18	2.8	2.8	4.3	6.0	6.3	4.6	3.9	5.3	5.7	5.2	4.4	5.4	6.5	7.2	6.3	4.7	3.9	4.7	5.2	4.5	4.2	3.4	2.6	2.7	4.7
19	3.3	2.4	2.2	2.2	2.1	2.8	3.2	1.2	2.2	2.5	2.4	2.3	4.3	5.6	6.3	5.0	2.8	2.4	2.0	1.5	1.8	1.7	1.7	2.3	2.8
20	3.3	3.5	3.2	3.1	3.7	3.5	4.0	4.9	5.2	6.7	7.8	6.1	4.4	4.6	4.5	3.6	4.7	4.4	5.3	6.1	4.1	4.2	3.3	3.3	4.5
21	4.1	2.5	3.4	3.3	3.6	2.8	3.3	3.4	2.5	3.0	4.3	5.7	5.9	4.7	6.2	4.4	1.5	2.2	1.5	1.9	2.5	2.3	1.6	2.0	3.3
22	2.5	3.0	2.2	2.4	2.0	1.7	1.0	1.7	0.7	3.4	5.2	3.1	3.6	4.7	3.3	3.9	4.1	3.3	2.2	0.7	0.4	0.4	1.5	1.3	2.4
23	1.7	0.9	2.3	1.7	1.2	1.3	1.9	1.8	1.7	3.3	4.6	7.5	7.6	8.1	9.2	8.5	9.1	8.3	4.8	3.0	2.8	1.8	1.5	1.7	4.0
24	0.5	0.3	0.0	0.4	0.5	1.6	1.3	1.1	2.6	4.1	5.0	5.9	7.4	8.2	7.1	6.7	6.2	7.0	5.9	4.5	3.8	4.8	4.2	1.7	3.8
25	0.8	0.3	0.5	1.5	0.6	1.7	1.4	0.9	2.2	1.6	2.6	3.1	3.2	5.4	6.1	6.0	6.2	7.3	2.0	1.1	2.1	1.4	1.4	2.0	2.6
26	0.9	0.9	0.4	0.9	0.8	1.4	0.9	0.8	1.3	2.4	4.6	6.8	6.9	7.9	7.5	7.0	7.6	7.4	4.0	1.5	2.9	1.7	3.9	2.2	3.4
27	0.8	2.1	1.0	0.6	1.2	1.9	2.0	2.2	0.8	0.9	2.5	3.9	4.7	4.6	4.2	4.8	5.2	3.4	2.6	1.6	0.6	0.8	3.4	2.6	2.4
28	1.0	0.9	1.1	0.9	0.7	0.5	0.3	0.9	4.5	2.3	4.1	5.4	5.0	6.9	7.9	8.6	6.7	6.5	3.8	2.1	2.8	2.7	2.1	3.0	3.4
29	3.8	3.1	1.3	1.2	1.0	2.0	3.9	2.9	1.6	1.5	3.4	5.5	5.3	5.1	4.5	4.7	4.3	2.6	1.8	4.2	4.0	6.3	4.7	4.2	3.5
30	3.0	3.5	2.3	2.4	2.7	3.3	3.8	4.9	4.7	4.0	3.3	2.8	3.2	5.2	5.6	5.7	5.7	5.6	4.9	5.5	4.2	4.0	4.0	4.1	4.1

MONTHLY AVERAGE = 3.90
MAXIMUM 15-MINUTE AVG WIND SPEED = 10.13

WIND DIRECTION FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN DEGREES

(MEASURED CLOCKWISE FROM NORTH)
HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	**********																								0.
2	**********																								0.
3	**********																								0.
4	**********																								0.
5	**********																								0.
6	**********																								0.
7	**********																								0.
8	**********													199.	252.	271.	222.	204.	191.	222.	157.	156.	183.	167.	202.
9	184.	182.	192.	183.	174.	165.	170.	182.	188.	193.	198.	206.	223.	224.	244.	236.	246.	0.	345.	349.	22.	11.	54.	0.	174.
10	354.	345.	324.	297.	163.	197.	139.	194.	9.	45.	7.	341.	319.	329.	329.	325.	312.	304.	306.	315.	349.	320.	338.	334.	262.
11	332.	314.	329.	284.	287.	291.	291.	352.	5.	33.	357.	319.	316.	314.	316.	310.	307.	309.	314.	319.	7.	354.	19.	331.	267.
12	290.	305.	353.	18.	353.	17.	53.	12.	66.	340.	323.	316.	308.	314.	316.	306.	309.	306.	337.	354.	27.	30.	7.	351.	225.
13	330.	319.	222.	183.	225.	206.	178.	181.	202.	205.	176.	181.	194.	191.	214.	216.	198.	184.	184.	186.	175.	150.	147.	161.	200.
14	162.	190.	164.	155.	157.	154.	140.	142.	202.	203.	203.	217.	215.	215.	301.	307.	50.	60.	72.	164.	153.	138.	149.	169.	170.
15	166.	201.	232.	164.	167.	164.	156.	165.	250.	293.	318.	317.	313.	306.	315.	309.	319.	324.	296.	294.	210.	166.	163.	155.	240.
16	138.	143.	143.	151.	146.	141.	146.	153.	199.	231.	225.	228.	223.	223.	222.	214.	225.	228.	208.	155.	163.	166.	157.	149.	182.
17	154.	147.	146.	140.	145.	117.	144.	146.	148.	146.	201.	207.	218.	205.	197.	315.	227.	207.	181.	256.	200.	150.	156.	193.	181.
18	268.	271.	151.	144.	143.	146.	135.	143.	146.	153.	183.	181.	189.	185.	192.	231.	275.	236.	242.	231.	216.	180.	160.	165.	190.
19	172.	161.	163.	157.	170.	144.	43.	92.	166.	106.	357.	218.	60.	315.	313.	313.	310.	282.	260.	185.	153.	165.	153.	155.	192.
20	150.	153.	169.	162.	158.	166.	160.	168.	173.	170.	175.	168.	163.	160.	160.	158.	163.	156.	154.	150.	147.	146.	149.	182.	161.
21	205.	184.	154.	163.	0.	166.	169.	164.	169.	161.	140.	138.	145.	151.	110.	99.	167.	186.	182.	168.	152.	163.	164.	156.	152.
22	158.	139.	152.	156.	151.	193.	253.	294.	312.	14.	5.	354.	8.	331.	345.	4.	324.	299.	277.	263.	221.	212.	168.	253.	204.
23	219.	205.	161.	170.	213.	218.	141.	301.	325.	34.	356.	318.	315.	320.	319.	319.	315.	304.	308.	274.	268.	278.	292.	289.	261.
24	182.	260.	341.	269.	202.	167.	141.	91.	7.	2.	311.	322.	325.	318.	316.	317.	324.	315.	316.	307.	303.	317.	317.	284.	252.
25	282.	298.	308.	220.	151.	171.	173.	12.	119.	355.	316.	311.	311.	318.	320.	316.	310.	305.	284.	269.	268.	288.	277.	278.	261.
26	274.	294.	241.	235.	267.	165.	256.	314.	16.	339.	344.	315.	307.	310.	309.	315.	316.	318.	298.	251.	332.	281.	292.	241.	276.
27	200.	300.	240.	201.	170.	161.	157.	136.	11.	337.	20.	315.	322.	323.	308.	309.	317.	295.	284.	275.	272.	256.	303.	291.	242.
28	249.	193.	181.	190.	183.	220.	234.	119.	319.	323.	306.	307.	306.	318.	308.	308.	313.	311.	315.	299.	291.	303.	283.	296.	270.
29	310.	314.	277.	282.	259.	283.	306.	304.	36.	101.	329.	315.	322.	318.	310.	308.	313.	279.	305.	305.	295.	315.	305.	346.	285.
30	6.	340.	351.	348.	55.	64.	76.	72.	81.	145.	170.	184.	74.	52.	34.	18.	27.	10.	342.	341.	348.	343.	6.	33.	147.

MONTHLY AVERAGE = 217.65

SIGMA THETA FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN DEGREES

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	**********																								0.0
2	**********																								0.0
3	**********																								0.0
4	**********																								0.0
5	**********																								0.0
6	**********																								0.0
7	**********																								0.0
8	**********													48.0	29.8	31.7	34.5	21.6	18.4	29.7	40.1	23.3	22.8	24.3	29.5
9	22.3	24.0	22.0	24.2	20.3	24.4	22.7	23.4	25.6	23.3	23.1	22.8	27.7	24.8	23.0	20.6	19.2	21.3	17.6	20.9	20.6	19.3	25.4	18.7	22.4
10	34.7	22.1	16.1	20.9	44.3	27.1	19.4	35.5	18.6	18.4	33.2	59.9	19.2	18.3	22.8	16.2	12.6	10.3	10.2	11.3	15.9	12.3	21.4	17.5	22.4
11	16.8	20.3	15.0	7.4	6.1	6.5	20.5	20.2	20.8	18.9	19.2	19.3	17.1	11.9	13.2	10.6	10.7	10.4	10.9	10.6	15.8	32.6	35.0	19.0	16.2
12	16.5	17.5	20.0	22.2	29.8	22.9	21.3	30.4	53.3	20.0	24.0	15.5	12.7	14.1	13.9	11.3	10.6	10.6	15.0	29.7	19.1	16.7	22.5	17.0	20.3
13	15.7	21.3	17.9	28.7	23.0	22.6	22.4	23.9	23.8	24.6	24.8	26.9	23.0	21.7	21.2	22.0	22.6	20.0	21.4	20.2	25.1	20.4	22.3	23.2	22.4
14	23.4	29.2	47.1	29.2	36.3	18.7	17.2	23.4	41.8	27.6	27.6	23.9	28.1	45.9	46.8	24.0	26.8	14.6	18.9	46.6	21.2	12.1	19.3	20.1	27.9
15	21.7	32.2	17.0	14.8	18.1	12.7	15.1	46.5	39.4	16.0	19.3	16.6	17.0	15.6	16.3	15.3	13.0	13.8	14.6	14.8	33.8	21.9	17.9	17.8	20.1
16	12.6	16.6	15.5	18.7	16.1	13.4	14.3	27.2	26.7	18.7	20.2	23.9	25.4	32.8	43.6	34.8	18.2	14.9	30.6	18.1	20.9	21.5	19.1	15.6	21.6
17	21.1	16.3	17.1	16.8	15.9	12.7	19.9	16.8	13.8	15.8	27.9	27.5	19.7	25.5	33.8	35.4	33.6	19.6	27.1	25.1	38.7	24.8	21.8	27.5	23.1
18	24.7	52.6	19.5	12.6	13.1	14.2	13.5	16.5	16.6	19.1	22.6	26.1	26.7	24.7	27.6	24.6	44.2	26.7	23.5	16.7	18.4	19.9	20.9	21.6	22.8
19	24.3	30.2	20.5	20.1	22.1	21.9	25.7	49.7	24.6	51.4	42.6	68.6	30.5	14.5	14.2	14.7	13.5	15.8	11.5	31.0	12.4	11.3	10.6	12.4	24.7
20	16.2	20.3	25.8	22.3	22.9	23.2	24.7	21.9	20.2	21.5	20.5	21.6	24.5	23.3	24.2	25.6	23.6	23.8	21.6	19.2	18.0	18.3	22.4	25.7	22.2
21	24.6	32.2	21.2	29.9	*****	25.5	22.5	23.0	29.3	21.5	21.5	16.0	18.9	21.0	24.7	27.5	29.7	21.7	24.9	21.7	18.6	21.4	17.0	18.5	23.2
22	39.3	27.6	21.6	24.0	32.2	27.0	29.6	15.7	51.5	23.9	20.0	56.0	29.2	28.7	54.8	28.3	29.7	13.2	17.9	33.5	46.3	51.3	20.0	33.6	31.4
23	18.2	21.4	14.6	29.0	36.4	43.0	26.2	39.4	42.7	36.9	32.0	13.3	13.0	12.8	10.5	10.1	10.5	10.6	9.8	10.4	10.2	15.3	17.9	11.6	20.7
24	26.1	15.8	0.2	17.8	33.1	23.8	34.6	54.2	19.3	27.5	11.6	13.5	13.1	10.9	11.4	10.8	10.2	9.7	10.0	9.2	10.6	10.4	11.7	22.6	17.4
25	29.2	0.0	15.1	25.5	28.5	29.1	35.4	25.4	17.8	50.5	17.4	16.0	22.5	15.3	14.5	11.9	9.7	10.3	31.4	9.2	12.9	11.8	31.0	9.1	20.0
26	14.7	10.8	42.3	37.8	18.9	23.3	47.7	17.8	40.2	36.6	26.6	14.4	13.1	11.3	10.3	9.9	8.6	10.3	15.0	42.4	20.4	18.8	19.7	39.6	22.9
27	39.0	13.5	58.9	32.4	26.7	15.6	22.3	7.2	26.7	48.6	31.3	16.1	19.7	20.5	14.1	9.9	10.0	10.2	11.4	6.5	8.8	15.8	11.7	33.9	21.3
28	58.8	27.6	16.3	24.0	26.7	23.9	16.5	31.3	13.9	41.7	26.0	16.5	15.2	14.2	11.7	11.5	10.9	9.4	14.3	11.8	9.4	9.1	13.8	12.6	19.5
29	12.2	14.5	23.4	11.7	8.1	18.4	9.4	14.6	36.8	16.6	24.2	13.4	16.6	15.4	17.6	13.8	11.4	20.4	10.7	12.2	14.4	8.6	11.1	32.1	16.1
30	22.8	21.4	26.2	25.4	18.3	19.6	19.1	19.1	21.8	23.1	23.3	29.6	35.2	17.1	18.6	17.7	16.2	18.6	15.4	14.3	13.8	14.2	17.3	19.1	20.3

MONTHLY AVERAGE = 21.92

2 M TEMPERATURE FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN DEGREES C

	HOUR ENDING																								
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	**********																								0.0
2	**********																								0.0
3	**********																								0.0
4	**********																								0.0
5	**********																								0.0
6	**********																								0.0
7	**********																								0.0
8	**********													23.1	22.7	22.8	23.1	22.2	19.6	18.4	17.1	16.2	16.5	16.6	19.8
9	16.0	14.9	14.6	14.2	14.2	14.2	14.8	15.3	16.1	16.9	18.7	19.0	20.7	23.1	22.4	21.3	20.5	18.9	17.1	16.1	14.9	13.9	13.4	13.3	16.8
10	13.3	13.0	12.3	11.4	10.9	10.4	12.2	15.1	17.0	18.3	20.1	21.6	21.5	22.4	23.3	23.0	22.7	20.9	18.6	17.3	16.2	16.1	15.0	14.4	16.9
11	13.8	12.9	12.7	11.8	11.5	11.5	13.4	16.2	17.8	19.3	21.4	22.5	24.0	24.5	25.6	24.8	24.9	24.0	21.1	19.7	19.1	18.1	16.9	16.6	18.5
12	15.7	15.0	14.8	14.5	13.9	13.5	16.0	18.3	19.7	20.4	21.4	22.1	22.3	23.2	23.8	23.6	23.0	21.9	20.5	19.1	18.1	17.7	17.3	16.9	18.9
13	16.8	16.2	14.9	14.0	13.8	13.6	13.5	13.1	13.6	14.0	14.3	15.4	16.6	17.0	16.7	16.6	16.1	15.4	15.1	14.9	13.7	11.5	11.5	11.5	14.6
14	11.7	11.4	10.9	10.5	10.4	10.2	10.7	11.0	11.4	12.5	15.2	16.1	17.4	19.3	19.0	17.6	17.0	15.8	13.9	12.9	13.2	12.5	11.7	11.0	13.5
15	10.9	11.0	10.4	9.7	10.1	10.5	11.0	12.1	12.9	12.7	13.8	15.1	16.9	17.6	18.5	17.8	17.5	16.5	14.6	13.6	11.8	11.0	10.1	9.7	13.2
16	10.3	10.8	10.8	10.4	10.5	10.2	10.5	12.5	14.7	14.5	16.4	18.0	19.3	20.2	20.9	20.6	19.2	17.2	16.0	14.9	14.4	13.7	13.8	13.6	14.7
17	12.5	11.9	12.1	11.9	12.2	12.3	12.8	14.1	15.3	16.6	18.6	19.3	19.0	19.4	18.8	19.3	20.2	18.1	17.1	17.0	16.3	15.9	15.7	15.8	15.9
18	15.5	14.0	13.5	13.6	13.6	13.5	13.7	13.8	14.3	14.6	15.5	17.5	19.9	21.4	21.7	19.3	19.3	18.6	16.5	15.5	14.8	14.2	14.3	14.7	16.0
19	14.2	13.4	12.9	12.9	12.8	12.5	12.2	11.7	12.9	15.2	15.9	16.2	16.4	16.6	17.1	16.5	16.3	15.9	15.0	14.0	13.5	13.4	13.2	13.5	14.3
20	13.4	13.3	12.6	11.8	11.7	11.7	12.1	12.1	12.1	12.4	12.7	12.5	12.6	12.6	12.6	12.8	12.5	12.3	12.1	12.2	12.3	12.5	12.7	12.9	12.4
21	12.2	12.2	12.3	12.1	11.8	11.4	11.2	11.3	11.7	11.9	12.5	12.8	14.3	14.4	15.8	13.1	13.3	13.3	11.5	10.5	10.2	9.7	8.8	8.8	12.0
22	9.4	9.5	9.4	9.5	9.2	8.5	9.2	10.3	11.6	12.8	14.3	16.0	16.9	17.8	18.8	18.7	18.2	17.0	14.7	12.4	11.2	10.6	10.2	10.4	12.8
23	10.5	10.5	10.1	9.4	8.8	8.8	10.2	11.5	14.8	17.8	19.6	19.9	20.4	21.5	21.4	21.2	20.3	18.3	16.8	15.3	14.4	13.5	12.7	12.2	15.0
24	11.5	11.0	10.6	10.4	10.0	9.9	10.5	13.6	16.9	19.3	20.6	22.4	23.4	23.9	24.7	24.9	24.6	21.9	19.6	18.3	17.0	16.5	15.9	14.7	17.2
25	13.0	12.2	11.9	11.7	11.4	11.3	11.8	13.9	16.9	19.8	21.6	23.5	25.5	25.8	26.3	25.8	24.9	22.2	19.7	16.8	16.2	15.3	14.6	14.1	17.8
26	13.1	12.7	12.1	11.6	11.4	11.4	12.0	14.9	19.1	21.5	23.1	23.5	24.7	25.0	25.3	25.2	24.3	22.0	20.2	18.4	18.3	16.7	16.3	15.5	18.3
27	14.4	14.0	13.6	12.9	12.6	12.7	13.1	16.2	19.3	21.6	23.4	24.4	25.4	26.3	27.1	26.8	26.1	23.9	21.1	19.0	17.7	16.6	17.1	16.8	19.2
28	15.1	14.5	14.1	13.4	13.1	12.7	13.0	16.6	18.4	20.6	22.5	23.6	25.1	25.8	25.1	24.6	24.3	22.6	20.8	18.9	17.7	16.8	15.4	14.9	18.7
29	14.8	14.3	13.0	12.1	11.9	13.1	13.6	14.1	16.8	19.1	21.2	21.8	23.5	24.3	24.9	24.6	24.0	21.3	18.2	17.6	16.1	15.2	14.4	14.1	17.7
30	13.0	12.5	12.1	11.9	11.2	11.2	12.1	13.0	13.5	13.7	14.0	14.2	15.3	15.3	15.2	15.6	15.9	15.3	15.0	14.9	14.7	14.7	14.5	14.0	13.9

MONTHLY AVERAGE = 15.91
MINIMUM MONTHLY 15-MINUTE AVG = 8.46
MAXIMUM MONTHLY 15-MINUTE AVG = 27.15

10 M TEMPERATURE FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN DEGREES C

	HOUR ENDING																								
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	**********																								0.0
2	**********																								0.0
3	**********																								0.0
4	**********																								0.0
5	**********																								0.0
6	**********																								0.0
7	**********																								0.0
8	**********												21.7	21.7	22.0	22.3	21.3	19.3	18.2	17.0	16.1	16.3	16.4	19.3
9	15.8	14.7	14.2	13.9	14.0	14.1	14.6	15.1	15.8	16.6	18.2	18.6	20.2	22.4	22.0	21.0	20.0	18.5	16.9	16.0	15.2	14.5	14.1	13.9	16.7
10	13.7	13.3	12.6	11.6	11.0	10.5	11.9	14.6	16.1	17.0	18.5	20.1	20.1	20.8	21.5	21.5	21.8	20.4	18.3	17.1	16.7	16.1	15.2	14.6	16.5
11	14.0	13.1	13.0	11.9	11.7	11.7	13.5	15.4	16.6	17.8	19.9	20.8	21.9	22.5	23.6	23.5	23.9	23.3	21.0	19.7	19.7	18.3	17.6	17.1	18.0
12	15.8	15.2	15.4	15.0	14.5	14.0	15.5	17.6	18.9	19.3	20.2	21.0	21.4	21.9	22.5	22.8	22.3	21.5	20.5	19.4	18.4	17.8	17.5	17.0	18.6
13	16.8	16.2	14.7	13.8	13.6	13.4	13.3	12.9	13.4	13.7	14.1	15.1	16.3	16.6	16.3	16.2	15.8	15.2	15.0	14.8	13.5	11.3	11.4	11.5	14.4
14	11.7	11.2	10.6	10.2	10.1	10.1	10.5	10.8	11.2	12.2	14.5	15.7	16.9	18.4	17.9	16.9	16.2	15.5	14.3	13.1	13.2	12.4	11.5	11.0	13.2
15	10.9	10.9	10.2	9.8	10.1	10.5	11.0	11.9	12.6	12.5	13.4	14.4	16.0	16.7	17.1	16.9	16.6	16.1	14.3	13.5	11.8	11.2	10.2	9.9	12.8
16	10.2	10.7	10.6	10.2	10.4	10.1	10.5	12.3	14.5	14.4	16.1	17.7	18.8	19.5	19.8	19.9	18.4	16.8	15.7	15.0	14.5	13.8	13.9	13.6	14.5
17	12.6	12.1	12.1	12.0	12.2	12.3	12.8	13.8	15.0	16.3	18.3	19.0	18.7	19.1	18.4	18.8	19.6	17.8	17.1	16.8	16.2	16.0	15.7	15.8	15.8
18	15.3	13.7	13.2	13.4	13.4	13.4	13.6	13.6	13.9	14.3	15.1	16.8	18.4	20.5	20.8	18.3	18.6	18.2	16.2	15.2	14.6	14.2	14.4	14.7	15.6
19	14.2	13.3	12.8	12.8	12.6	12.5	12.2	11.6	12.6	14.3	15.0	15.5	16.0	16.0	16.5	16.0	15.9	15.6	14.7	14.0	13.7	13.5	13.3	13.6	14.1
20	13.4	13.3	12.6	11.8	11.7	11.6	12.0	11.9	11.9	12.2	12.4	12.3	12.5	12.6	12.7	12.9	12.6	12.3	12.1	12.1	12.3	12.4	12.7	12.9	12.4
21	12.3	12.3	12.3	12.1	11.8	11.4	11.3	11.4	11.8	12.1	12.9	12.7	14.4	14.9	16.0	12.9	13.2	13.5	11.8	10.9	10.4	9.9	9.3	9.1	12.1
22	9.4	9.4	9.6	9.8	9.5	8.7	9.3	10.4	11.6	12.5	13.6	15.1	15.7	16.4	17.1	17.4	17.2	16.7	14.5	12.5	11.5	10.7	10.5	10.6	12.5
23	10.6	10.6	10.3	9.6	9.0	8.9	10.1	11.4	14.5	16.4	17.9	18.7	19.2	20.0	20.1	20.2	19.5	18.1	16.6	15.2	14.4	14.0	13.2	12.6	14.6
24	11.9	11.3	10.9	10.7	10.3	10.2	10.6	13.6	16.4	17.9	19.6	21.0	21.8	22.4	23.4	23.8	23.4	21.7	19.5	18.2	17.0	16.6	16.0	14.9	16.8
25	13.3	12.6	12.4	12.1	11.7	11.6	12.0	13.9	16.4	19.0	20.6	22.5	24.0	24.3	24.8	24.6	24.1	22.0	19.8	17.4	16.6	15.8	15.1	14.7	17.5
26	13.7	13.2	12.5	11.9	11.5	11.7	12.1	15.1	18.7	20.5	21.8	22.3	23.7	23.9	24.2	24.3	23.4	21.8	20.1	18.7	18.9	17.1	16.6	15.6	18.1
27	14.7	14.3	13.8	13.1	12.9	12.9	13.4	16.1	19.1	20.8	22.4	23.2	23.9	24.7	25.6	25.7	25.2	23.7	21.1	19.1	18.0	16.9	17.4	17.0	19.0
28	15.4	15.0	14.5	13.6	13.4	13.0	13.4	16.8	18.1	19.9	21.5	22.6	23.9	24.4	24.0	23.8	23.4	22.5	20.9	19.4	18.0	17.1	15.7	15.2	18.6
29	15.0	14.4	13.2	12.3	12.0	13.1	13.5	13.9	16.5	18.2	20.1	20.4	21.1	22.1	22.9	23.1	22.8	21.1	18.3	17.6	16.0	15.2	14.4	14.5	17.1
30	13.7	13.0	12.5	12.4	12.0	11.8	12.4	12.9	13.3	13.4	13.7	13.9	14.7	14.9	15.0	15.3	15.6	15.4	15.1	15.0	14.9	14.8	14.7	14.2	13.9

MONTHLY AVERAGE = 15.65
MINIMUM MONTHLY 15-MINUTE AVG = 8.61
MAXIMUM MONTHLY 15-MINUTE AVG = 25.80

PRECIPITATION FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN INCHES

	HOUR ENDING																								
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	TOT
1	**********																								0.00
2	**********																								0.00
3	**********																								0.00
4	**********																								0.00
5	**********																								0.00
6	**********																								0.00
7	**********																								0.00
8	**********												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.02
14	0.00	0.03	0.14	0.04	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.02	0.06	0.06	0.03	0.06	0.04	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
19	0.00	0.02	0.02	0.02	0.01	0.00	0.13	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.05	0.02	0.08	0.12	0.08	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.41
21	0.01	0.00	0.01	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

MONTHLY TOTAL = 1.57
MAXIMUM RUNNING 24-HOUR PRECIPITATION = 0.49

SOLAR RADIATION FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN WATTS/M**2

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG
1	**********																								0.
2	**********																								0.
3	**********																								0.
4	**********																								0.
5	**********																								0.
6	**********																								0.
7	**********																								0.
8	**********												673.	600.	434.	228.	80.	6.	0.	0.	0.	0.	0.	184.
9	0.	0.	0.	0.	0.	2.	77.	65.	160.	187.	328.	227.	582.	808.	500.	220.	130.	41.	5.	0.	0.	0.	0.	0.	139.
10	0.	0.	0.	0.	0.	4.	97.	245.	417.	581.	690.	732.	747.	682.	628.	434.	212.	90.	5.	0.	0.	0.	0.	0.	232.
11	0.	0.	0.	0.	0.	3.	95.	262.	428.	571.	661.	676.	740.	671.	600.	431.	205.	94.	5.	0.	0.	0.	0.	0.	227.
12	0.	0.	0.	0.	0.	3.	95.	278.	361.	533.	660.	721.	725.	681.	582.	420.	194.	83.	5.	0.	0.	0.	0.	0.	222.
13	0.	0.	0.	0.	0.	0.	10.	34.	55.	93.	104.	144.	164.	199.	190.	246.	122.	41.	0.	0.	0.	0.	0.	0.	58.
14	0.	0.	0.	0.	0.	0.	5.	32.	104.	274.	664.	462.	688.	804.	560.	281.	223.	77.	5.	0.	0.	0.	0.	0.	174.
15	0.	0.	0.	0.	0.	1.	29.	59.	93.	156.	212.	413.	648.	710.	603.	440.	186.	74.	3.	0.	0.	0.	0.	0.	151.
16	0.	0.	0.	0.	0.	2.	42.	211.	333.	404.	600.	677.	717.	708.	543.	453.	144.	41.	1.	0.	0.	0.	0.	0.	203.
17	0.	0.	0.	0.	0.	2.	41.	124.	181.	206.	351.	338.	251.	269.	141.	200.	132.	21.	1.	0.	0.	0.	0.	0.	94.
18	0.	0.	0.	0.	0.	0.	4.	27.	149.	102.	218.	580.	721.	661.	434.	243.	193.	34.	1.	0.	0.	0.	0.	0.	140.
19	0.	0.	0.	0.	0.	1.	2.	46.	172.	412.	225.	490.	149.	287.	293.	124.	90.	24.	1.	0.	0.	0.	0.	0.	96.
20	0.	0.	0.	0.	0.	0.	10.	34.	60.	128.	139.	70.	67.	76.	66.	47.	32.	14.	1.	0.	0.	0.	0.	0.	31.
21	0.	0.	0.	0.	0.	0.	11.	23.	66.	69.	149.	314.	435.	294.	422.	179.	108.	55.	1.	0.	0.	0.	0.	0.	89.
22	0.	0.	0.	0.	0.	1.	23.	37.	76.	152.	321.	445.	482.	566.	505.	375.	152.	68.	3.	0.	0.	0.	0.	0.	134.
23	0.	0.	0.	0.	0.	0.	22.	72.	364.	514.	615.	663.	664.	612.	514.	377.	147.	48.	1.	0.	0.	0.	0.	0.	192.
24	0.	0.	0.	0.	0.	1.	62.	220.	376.	518.	614.	668.	671.	618.	515.	374.	141.	46.	1.	0.	0.	0.	0.	0.	201.
25	0.	0.	0.	0.	0.	1.	42.	166.	350.	493.	598.	651.	654.	606.	510.	368.	129.	48.	1.	0.	0.	0.	0.	0.	192.
26	0.	0.	0.	0.	0.	0.	26.	178.	357.	493.	591.	633.	640.	590.	470.	352.	125.	39.	0.	0.	0.	0.	0.	0.	187.
27	0.	0.	0.	0.	0.	0.	45.	188.	336.	470.	569.	612.	620.	575.	480.	341.	120.	33.	0.	0.	0.	0.	0.	0.	183.
28	0.	0.	0.	0.	0.	0.	39.	183.	338.	480.	575.	626.	631.	579.	483.	344.	121.	29.	0.	0.	0.	0.	0.	0.	184.
29	0.	0.	0.	0.	0.	0.	15.	66.	324.	488.	574.	632.	638.	586.	482.	343.	118.	27.	0.	0.	0.	0.	0.	0.	179.
30	0.	0.	0.	0.	0.	0.	11.	37.	69.	103.	97.	123.	163.	130.	89.	110.	107.	30.	0.	0.	0.	0.	0.	0.	44.

MONTHLY AVERAGE = 153.07

WIND SPEED/DIRECTION TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN MPH/DIR

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
2	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
3	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
4	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
5	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
6	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
7	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
8	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	3S	5W	4W	4SW	4SW	3S	4SW	3SE	4SE	5S	4S	
9	5S	5S	7S	5S	5S	5S	5S	6S	5S	6S	6S	6SW	6SW	7SW	7SW	6SW	5SW	7N	8N	5N	4N	3N	2NE	2N
10	2N	2N	2NW	1NW	1S	2S	2SE	2S	5N	7NE	4N	3N	7NW	6NW	6NW	6NW	7NW	8NW	8NW	5NW	5N	5NW	4N	3NW
11	2NW	2NW	2NW	2W	2W	3W	1W	5N	5N	5NE	5N	6NW	6NW	8NW	7NW	9NW	9NW	9NW	7NW	6NW	6N	3N	3N	3NW
12	2W	2NW	2N	2N	1N	1N	3NE	2N	2NE	5N	5NW	8NW	9NW	7NW	8NW	9NW	9NW	7NW	7NW	3N	5NE	6NE	5N	4N
13	4NW	3NW	4SW	3S	4SW	4SW	4S	4S	5S	5SW	5S	4S	6S	6S	8SW	8SW	7S	6S	5S	6S	5S	4SE	6SE	4S
14	4S	3S	2S	2SE	2SE	4SE	5SE	4SE	2S	4SW	7SW	7SW	6SW	5SW	6NW	5NW	7NE	7NE	4E	2S	5SE	8SE	6SE	3S
15	2S	1S	2SW	2S	2S	2S	3SE	1S	3W	5NW	5NW	6NW	7NW	8NW	8NW	8NW	8NW	8NW	4NW	3NW	2SW	2S	2S	3SE
16	5SE	5SE	7SE	5SE	4SE	5SE	6SE	5SE	6S	7SW	7SW	7SW	7SW	5SW	4SW	5SW	8SW	6SW	3SW	3SE	3S	2S	3SE	4SE
17	3SE	2SE	3SE	3SE	3SE	4SE	3SE	4SE	5SE	4SE	4S	4SW	5SW	5SW	3S	2NW	2SW	3SW	2S	3W	4S	4SE	3SE	2S
18	3W	3W	4SE	6SE	6SE	5SE	4SE	5SE	6SE	5SE	4S	5S	6S	7S	6S	5SW	4W	5SW	5SW	4SW	4SW	3S	3S	3S
19	3S	2S	2S	2SE	2S	3SE	3NE	1E	2S	2E	2N	2SW	4NE	6NW	6NW	5NW	3NW	2W	2W	2S	2SE	2S	2SE	2SE
20	3SE	3SE	3S	3S	4S	3S	4S	5S	5S	7S	8S	6S	4S	5S	4S	4S	5S	4SE	5SE	6SE	4SE	4SE	3SE	3S
21	4SW	3S	3SE	3S	4N	3S	3S	3S	3S	3S	4SE	6SE	6SE	5SE	6E	4E	2S	2S	2S	2S	2SE	2S	2S	2SE
22	2S	3SE	2SE	2SE	2SE	2S	1W	2NW	1NW	3N	5N	3N	4N	5NW	3N	4N	4NW	3NW	2W	1W	0SW	0SW	2S	1W
23	2SW	1SW	2S	2S	1SW	1SW	2SE	2NW	2NW	3NE	5N	8NW	8NW	8NW	9NW	9NW	9NW	8NW	5NW	3W	3W	2W	1W	2W
24	0S	0W	0N	0W	0S	2S	1SE	1E	3N	4N	5NW	6NW	7NW	8NW	7NW	7NW	6NW	7NW	6NW	5NW	4NW	5NW	4NW	2W
25	1W	0NW	1NW	1SW	1SE	2S	1S	1N	2SE	2N	3NW	3NW	3NW	5NW	6NW	6NW	6NW	7NW	2W	1W	2W	1W	1W	2W
26	1W	1NW	0SW	1SW	1W	1S	1W	1NW	1N	2N	5N	7NW	7NW	8NW	7NW	7NW	8NW	7NW	4NW	2W	3NW	2W	4W	2SW
27	1S	2NW	1SW	1S	1S	2S	2SE	2SE	1N	1NW	2N	4NW	5NW	5NW	4NW	5NW	5NW	3NW	3W	2W	1W	1W	3NW	3W
28	1W	1S	1S	1S	1S	1SW	0SW	1SE	5NW	2NW	4NW	5NW	5NW	7NW	8NW	9NW	7NW	6NW	4NW	2NW	3W	3NW	2W	3NW
29	4NW	3NW	1W	1W	1W	2W	4NW	3NW	2NE	1E	3NW	6NW	5NW	5NW	4NW	5NW	4NW	3W	2NW	4NW	4NW	6NW	5NW	4N
30	3N	4N	2N	2N	3NE	3NE	4E	5E	5E	4SE	3S	3S	3E	5NE	6NE	6N	6NE	6N	5N	5N	4N	4N	4N	4NE

WIND SPEED FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN MILES PER HOUR

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	3.5	2.2	1.7	2.5	2.2	2.3	3.6	4.4	4.9	5.0	2.9	3.9	4.7	4.9	5.2	4.0	6.2	7.1	3.2	2.0	1.4	0.9	2.3	2.4	3.5
2	2.2	3.6	2.7	2.0	2.4	2.0	2.5	3.0	3.9	3.5	2.4	2.8	3.7	4.9	5.2	4.6	5.4	3.4	2.6	1.4	1.2	0.7	0.6	1.9	2.9
3	1.6	3.4	2.8	2.0	2.7	2.4	2.9	2.7	3.6	5.5	5.9	6.4	6.2	7.8	7.0	5.4	5.1	5.0	5.3	4.9	4.4	4.9	4.7	4.9	4.5
4	6.2	6.6	5.4	4.1	4.4	4.1	5.7	4.8	6.0	7.6	7.5	8.1	9.2	6.9	9.9	9.0	6.5	5.1	3.0	2.6	1.6	0.8	1.2	1.2	5.3
5	0.4	0.6	1.0	0.7	1.5	1.2	0.6	1.5	1.7	1.0	1.2	1.9	2.6	2.2	2.0	1.7	2.7	1.9	1.1	0.9	2.7	2.8	2.3	2.0	1.6
6	3.1	5.9	6.4	6.4	4.7	2.8	3.4	3.2	3.0	3.0	3.3	2.7	4.0	5.6	5.8	6.2	6.2	4.9	4.0	4.3	3.7	2.6	2.1	1.5	4.1
7	2.7	2.0	2.2	2.3	0.9	2.3	1.6	2.5	3.2	1.6	3.1	3.1	5.3	4.6	3.6	3.5	3.2	1.8	0.6	1.5	1.8	4.6	3.5	4.1	2.7
8	4.8	5.7	5.6	3.8	3.2	5.3	3.3	2.5	2.6	4.1	2.1	3.5	3.8	5.5	7.3	7.4	6.2	6.9	6.9	5.9	5.8	4.5	3.9	7.3	4.9
9	8.5	5.9	5.2	6.5	5.6	6.0	6.1	6.2	6.5	5.5	6.2	8.3	9.9	11.1	11.1	8.7	8.8	8.8	7.6	6.7	6.2	5.3	5.2	5.0	7.1
10	2.5	3.0	0.8	1.8	1.7	2.2	3.6	3.7	2.5	1.1	1.7	1.5	4.2	3.7	5.0	4.9	5.0	3.7	1.5	0.7	0.4	1.7	1.2	1.2	2.5
11	1.1	1.0	1.0	1.2	1.6	2.5	1.5	1.2	0.7	0.7	1.4	4.1	4.7	4.5	4.6	4.5	4.5	2.7	1.1	0.4	0.1	0.0	0.1	0.9	1.9
12	0.9	0.6	1.3	0.7	1.1	1.7	2.1	2.0	1.9	0.8	1.8	4.2	5.7	4.3	5.3	4.5	3.5	1.9	0.7	0.3	1.3	1.9	1.5	1.5	2.1
13	1.7	1.1	2.1	1.3	1.5	2.3	2.5	1.5	1.3	1.6	4.2	4.5	6.3	6.7	7.0	7.6	4.6	3.7	2.7	1.9	1.7	6.2	4.9	2.1	3.4
14	2.7	3.2	3.4	3.5	1.9	2.7	2.6	2.7	3.6	3.2	3.2	3.1	4.3	3.5	3.8	4.5	3.6	4.6	3.8	3.2	4.0	3.2	5.4	3.0	3.4
15	4.1	3.6	3.2	3.1	5.0	4.4	4.4	4.0	6.0	3.5	2.4	4.8	6.6	4.5	6.7	8.6	8.0	7.6	7.5	6.0	5.9	5.5	6.4	5.3	5.3
16	5.1	4.1	4.6	2.7	1.6	1.6	2.3	2.1	2.5	2.7	3.5	4.0	3.1	2.9	6.0	5.8	4.4	2.3	2.4	1.2	0.6	0.5	0.9	1.2	2.8
17	1.2	0.6	1.3	1.3	1.3	1.7	2.2	2.7	2.7	4.0	6.4	4.0	3.2	3.9	3.7	4.4	2.5	1.8	1.6	1.8	1.1	2.7	3.9	3.9	2.7
18	3.9	4.9	4.5	3.2	3.2	2.7	3.3	3.2	3.3	3.9	4.0	5.1	6.0	5.5	5.1	4.6	4.3	5.6	5.4	3.0	3.3	4.1	5.3	6.4	4.3
19	6.1	5.9	5.4	4.4	6.0	3.9	4.0	3.7	3.3	3.9	3.6	5.4	3.2	3.0	4.1	3.9	8.2	5.9	3.8	3.1	2.2	3.0	3.5	5.3	4.4
20	4.3	3.7	2.5	2.4	1.8	1.6	0.9	1.6	2.2	3.1	5.8	5.3	6.7	8.5	9.8	9.1	5.8	5.6	5.3	3.8	3.2	1.9	1.0	0.9	4.0
21	0.2	1.3	3.1	4.9	4.5	4.0	4.6	4.9	6.4	5.6	6.2	7.4	7.1	8.8	7.7	7.1	5.9	6.6	5.2	4.5	4.7	4.7	3.0	1.3	5.0
22	1.2	1.3	1.9	0.5	0.9	0.6	0.7	1.9	0.8	1.5	3.5	4.5	4.1	4.5	4.7	2.8	5.5	3.6	3.8	5.2	4.8	4.2	4.5	3.1	2.9
23	1.6	1.1	0.6	1.3	1.2	2.3	2.4	2.7	2.3	3.9	3.9	2.1	1.9	2.1	3.7	4.4	2.7	2.1	1.8	1.3	2.3	3.0	3.3	3.6	2.4
24	4.5	7.8	6.3	8.0	6.2	5.8	3.2	4.4	4.5	3.1	5.2	3.1	4.9	6.4	5.8	5.9	4.0	2.4	2.2	2.8	2.5	4.2	5.9	3.5	4.7
25	5.0	3.8	4.0	2.5	2.2	3.4	4.0	2.4	4.4	5.0	5.4	5.1	4.7	4.3	3.5	2.3	3.1	2.9	2.6	3.0	3.1	7.7	5.1	7.3	4.0
26	5.7	5.2	4.9	5.3	4.6	6.2	5.4	6.1	6.2	8.1	8.4	8.8	8.3	6.9	8.1	8.5	7.2	7.8	6.8	7.6	5.8	5.8	7.6	6.1	6.7
27	3.6	5.2	5.4	4.8	4.9	5.0	5.6	6.0	5.5	5.8	6.0	7.1	6.3	5.1	4.7	4.3	2.5	1.3	1.8	1.2	2.4	3.9	3.4	3.1	4.4
28	2.7	3.2	3.0	3.6	2.6	3.0	5.4	5.8	4.9	3.6	2.2	2.3	3.9	3.6	3.3	4.0	2.8	2.6	2.5	2.8	3.6	6.3	4.6	4.7	3.6
29	5.5	8.7	9.0	5.9	3.1	4.7	3.8	6.6	8.2	9.7	8.0	5.6	6.4	8.1	11.7	11.5	6.5	5.4	4.4	1.2	5.3	4.5	7.8	8.4	6.7
30	7.9	3.7	2.4	1.7	2.8	1.7	1.4	1.5	2.5	5.7	5.1	5.0	7.1	7.9	6.5	5.7	7.5	7.2	5.2	5.1	3.1	1.7	1.6	0.6	4.2
31	3.8	3.6	1.6	1.7	1.4	1.9	3.8	2.2	6.5	6.9	8.1	7.9	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	4.1

MONTHLY AVERAGE = 3.94
MAXIMUM 15-MINUTE AVG WIND SPEED = 17.17

WIND DIRECTION FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN DEGREES

(MEASURED CLOCKWISE FROM NORTH)
HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	52.	17.	12.	10.	15.	326.	357.	5.	12.	10.	298.	313.	324.	321.	315.	319.	309.	307.	291.	268.	258.	220.	287.	295.	206.
2	344.	13.	156.	165.	157.	161.	164.	150.	146.	152.	196.	337.	310.	323.	317.	315.	318.	289.	266.	275.	257.	268.	263.	293.	235.
3	309.	340.	330.	328.	30.	33.	25.	30.	10.	310.	311.	318.	322.	313.	314.	334.	331.	337.	343.	348.	342.	348.	341.	332.	266.
4	344.	350.	355.	15.	41.	32.	27.	36.	21.	39.	37.	18.	322.	340.	309.	304.	307.	298.	271.	214.	254.	198.	280.	253.	194.
5	213.	168.	229.	256.	248.	225.	161.	162.	113.	1.	58.	7.	271.	330.	24.	85.	151.	171.	262.	235.	223.	237.	230.	162.	176.
6	159.	141.	139.	142.	148.	157.	153.	177.	175.	193.	232.	301.	339.	333.	314.	316.	321.	355.	350.	314.	293.	278.	302.	287.	247.
7	318.	280.	267.	268.	207.	163.	154.	144.	144.	141.	115.	258.	300.	309.	295.	253.	230.	190.	246.	165.	158.	135.	140.	134.	209.
8	144.	136.	134.	144.	150.	136.	152.	146.	143.	116.	80.	36.	13.	328.	317.	322.	319.	321.	328.	345.	346.	338.	313.	339.	214.
9	334.	325.	349.	344.	346.	3.	4.	354.	344.	9.	326.	313.	310.	305.	314.	315.	316.	326.	327.	324.	327.	351.	357.	339.	290.
10	329.	67.	185.	75.	176.	162.	146.	146.	144.	78.	331.	77.	323.	311.	316.	307.	307.	290.	256.	173.	282.	163.	177.	174.	208.
11	185.	169.	163.	164.	161.	150.	163.	245.	4.	10.	298.	310.	312.	324.	307.	313.	304.	280.	263.	276.	345.	0.	11.	173.	205.
12	160.	146.	161.	153.	161.	159.	159.	164.	154.	87.	347.	320.	329.	315.	310.	310.	299.	268.	263.	275.	218.	286.	244.	239.	230.
13	228.	282.	172.	265.	211.	155.	162.	155.	93.	54.	331.	314.	326.	318.	316.	312.	305.	309.	286.	287.	279.	320.	321.	261.	253.
14	230.	256.	282.	318.	246.	244.	246.	203.	217.	206.	197.	189.	162.	202.	202.	220.	177.	185.	201.	199.	198.	185.	147.	166.	212.
15	157.	163.	155.	150.	197.	192.	149.	151.	138.	151.	193.	122.	150.	164.	174.	183.	191.	189.	189.	183.	185.	180.	189.	187.	170.
16	178.	181.	202.	162.	156.	126.	155.	228.	236.	209.	254.	245.	255.	338.	320.	313.	315.	308.	267.	162.	214.	239.	198.	162.	226.
17	154.	191.	175.	177.	169.	278.	271.	282.	292.	322.	319.	317.	341.	315.	294.	252.	243.	187.	181.	162.	179.	153.	146.	142.	231.
18	136.	144.	143.	133.	140.	157.	157.	157.	159.	156.	173.	176.	179.	173.	164.	162.	156.	147.	143.	155.	152.	152.	142.	141.	154.
19	143.	146.	140.	150.	144.	137.	149.	157.	171.	194.	174.	190.	174.	159.	171.	215.	339.	10.	316.	268.	216.	161.	151.	144.	176.
20	141.	142.	159.	161.	204.	176.	227.	246.	297.	327.	333.	353.	327.	308.	308.	308.	297.	306.	335.	349.	320.	256.	314.	238.	268.
21	304.	300.	353.	340.	329.	20.	15.	20.	7.	11.	35.	20.	356.	314.	333.	327.	304.	308.	303.	293.	308.	312.	278.	305.	229.
22	298.	327.	302.	263.	323.	174.	181.	144.	85.	325.	311.	320.	321.	322.	320.	325.	311.	315.	352.	0.	353.	336.	333.	339.	278.
23	268.	166.	178.	185.	229.	154.	155.	155.	148.	145.	148.	49.	358.	15.	333.	311.	286.	278.	180.	183.	157.	153.	146.	149.	189.
24	138.	142.	141.	150.	157.	196.	102.	138.	153.	198.	228.	188.	218.	213.	213.	215.	196.	159.	168.	137.	157.	149.	142.	157.	169.
25	145.	153.	145.	173.	147.	133.	143.	157.	144.	145.	165.	166.	165.	198.	179.	161.	154.	157.	160.	156.	159.	147.	153.	151.	156.
26	155.	155.	168.	159.	162.	165.	170.	184.	188.	186.	183.	180.	181.	176.	194.	187.	178.	187.	178.	188.	181.	180.	192.	179.	177.
27	170.	170.	157.	165.	167.	166.	170.	169.	168.	167.	170.	176.	174.	186.	207.	203.	232.	263.	178.	197.	152.	135.	132.	137.	175.
28	141.	131.	151.	138.	146.	152.	142.	137.	146.	143.	132.	144.	239.	235.	254.	278.	275.	241.	168.	169.	154.	136.	137.	152.	173.
29	165.	179.	195.	341.	55.	106.	99.	139.	143.	126.	107.	104.	60.	28.	339.	335.	321.	334.	271.	349.	318.	298.	333.	335.	212.
30	336.	143.	158.	176.	151.	161.	282.	198.	3.	20.	36.	14.	18.	31.	17.	349.	325.	338.	349.	337.	354.	348.	310.	279.	197.
31	317.	344.	75.	205.	267.	330.	285.	305.	38.	349.	323.	319.	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	263.

MONTHLY AVERAGE = 211.70

SIGMA THETA FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN DEGREES

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	17.8	29.2	33.2	22.1	23.8	22.7	19.0	18.6	17.1	19.9	35.8	36.0	17.9	21.1	17.8	19.4	10.6	11.3	13.2	10.7	12.1	47.9	11.0	8.6	20.7
2	13.6	26.4	15.9	18.9	18.9	17.5	17.1	19.0	16.0	21.0	40.3	21.0	21.8	17.1	23.3	13.4	15.2	11.0	13.0	6.8	34.7	20.1	18.6	21.9	19.3
3	24.8	14.6	14.4	19.4	18.8	18.9	16.0	18.4	24.7	10.4	13.7	13.5	11.3	11.3	9.6	13.1	15.6	13.7	13.0	16.9	14.1	14.6	12.9	13.4	15.3
4	13.2	14.6	14.4	13.2	14.7	14.7	19.9	17.3	19.9	19.3	19.9	22.5	18.1	29.0	11.4	10.1	11.7	10.9	10.0	21.3	29.0	17.1	12.5	15.9	16.7
5	11.5	14.9	26.5	12.1	11.9	24.9	28.1	16.1	21.4	35.7	20.3	38.7	50.2	46.0	42.8	41.0	32.1	19.6	14.5	45.2	20.1	20.3	21.0	28.0	26.8
6	23.1	15.4	12.9	12.3	15.6	18.6	18.7	22.3	24.8	24.8	21.1	33.7	17.2	14.7	12.4	13.3	14.7	16.6	15.4	15.1	10.6	10.6	21.1	22.5	17.8
7	21.9	9.1	12.3	10.8	33.2	22.4	19.9	18.4	15.9	42.4	30.4	49.8	31.2	33.0	54.3	36.8	23.7	19.5	24.0	18.2	13.9	11.8	13.9	14.0	24.2
8	12.9	11.4	12.4	22.0	21.8	16.0	20.0	15.2	18.0	15.8	39.5	23.0	23.6	22.0	11.8	12.0	11.1	11.9	12.3	16.8	17.2	20.3	13.0	13.5	17.2
9	11.1	13.9	21.1	17.8	15.3	17.5	21.7	20.1	17.9	21.1	18.9	10.7	10.4	10.4	10.9	9.7	10.2	8.6	8.4	8.8	10.1	11.1	12.3	13.3	13.8
10	18.5	54.4	34.3	45.1	37.5	13.7	13.9	16.6	21.5	32.2	39.1	43.8	16.3	24.7	20.1	12.5	10.3	15.3	10.4	22.7	22.5	27.0	24.4	29.2	25.2
11	22.9	29.1	21.5	20.1	14.9	12.9	21.7	29.4	21.9	41.4	48.4	10.6	14.6	16.0	15.4	12.5	10.1	18.7	41.2	7.8	0.0	0.0	24.0	24.4	20.0
12	15.2	35.6	27.5	14.0	17.6	15.9	13.0	16.3	24.3	16.8	33.4	15.7	15.1	14.5	9.7	12.0	13.1	7.6	20.6	10.6	45.3	10.2	34.3	28.9	19.5
13	17.1	28.4	25.0	35.1	23.3	13.3	16.3	14.4	41.8	50.1	20.4	15.5	14.4	12.1	12.8	10.6	10.8	12.6	14.3	13.5	8.2	9.2	15.4	19.4	18.9
14	11.8	14.8	21.5	17.5	20.3	19.3	18.6	29.3	27.7	34.3	30.6	30.3	24.9	31.0	27.2	26.0	28.0	21.7	22.9	22.8	32.7	28.7	19.9	24.2	24.4
15	22.4	25.4	22.0	17.9	26.8	21.6	18.5	18.5	10.2	18.6	24.9	30.5	16.5	23.0	21.4	20.2	21.6	19.7	22.1	22.7	23.0	21.7	22.7	23.5	21.5
16	21.1	22.2	24.0	25.2	33.1	54.0	18.4	23.3	27.2	29.1	24.7	17.9	27.6	21.4	13.7	13.5	14.4	14.0	24.8	38.0	20.7	18.6	10.8	33.7	23.8
17	12.6	30.4	32.2	23.4	17.4	21.4	11.8	12.5	17.8	14.3	12.0	21.1	38.1	22.5	35.3	18.5	20.5	21.6	17.6	15.4	17.8	15.2	14.4	13.9	19.9
18	12.6	13.5	20.3	16.3	13.1	15.8	21.8	19.9	22.8	21.8	25.2	22.4	21.7	22.0	25.1	25.5	21.9	15.4	13.0	21.1	19.3	19.0	13.8	12.1	19.0
19	13.6	14.0	14.9	20.6	16.3	17.4	19.9	20.6	25.7	29.0	29.9	24.3	23.7	22.5	23.0	41.5	18.2	15.6	22.9	19.2	31.6	23.3	17.2	16.9	21.8
20	16.1	17.8	21.3	21.0	24.5	24.1	18.9	12.7	20.1	29.0	18.6	18.6	19.3	11.5	11.3	11.4	13.8	10.5	12.8	17.4	19.2	51.1	38.1	40.0	20.8
21	3.9	7.8	20.4	17.3	13.3	15.3	16.2	16.5	18.9	18.7	15.9	17.3	19.4	11.0	15.6	14.2	11.6	9.0	11.3	14.9	13.9	14.7	21.4	36.7	15.6
22	26.7	32.5	41.5	24.5	8.5	45.9	14.0	30.6	36.2	47.9	9.0	11.7	11.7	12.8	10.4	7.9	10.6	13.8	23.6	18.1	15.8	14.2	12.1	10.5	20.4
23	31.1	33.2	42.1	18.3	33.1	19.6	17.4	19.6	18.8	15.9	14.9	44.9	51.8	42.8	37.7	10.9	19.2	9.2	18.4	28.7	17.2	14.0	18.0	18.2	24.8
24	13.4	11.1	17.9	20.0	19.3	21.7	32.3	26.4	21.2	36.6	23.9	38.9	27.7	21.8	23.3	20.2	25.0	18.2	18.4	19.7	23.1	19.3	17.7	22.5	22.5
25	18.4	21.8	18.0	23.3	12.8	11.3	14.9	24.0	14.5	14.5	19.6	23.5	21.2	25.2	30.3	19.0	14.6	16.8	19.5	19.5	23.8	13.4	20.2	19.2	19.1
26	22.5	22.2	22.2	21.4	24.4	23.9	22.3	20.6	19.0	19.9	20.1	20.7	20.5	22.6	21.5	20.7	22.0	19.3	20.7	20.6	22.1	21.3	19.6	19.0	21.2
27	33.6	25.5	22.1	24.0	22.7	20.8	21.8	20.7	21.8	23.0	22.0	21.1	23.1	24.2	25.3	23.8	19.7	42.8	27.7	28.9	13.1	10.2	12.6	23.1	23.1
28	12.3	9.4	15.6	9.7	15.8	13.6	10.0	10.2	11.0	12.0	30.6	51.0	20.7	29.2	26.3	21.3	20.0	14.2	19.1	15.6	19.5	14.2	16.4	20.9	18.3
29	23.8	19.6	21.5	33.7	34.1	21.5	25.6	13.6	15.8	13.7	19.7	24.6	20.5	25.1	49.3	12.6	15.6	16.0	20.7	48.3	15.2	20.2	13.1	13.0	22.4
30	13.0	41.6	19.4	49.0	46.3	32.5	24.4	62.7	39.0	20.2	18.5	21.7	16.9	16.5	21.5	21.5	12.2	12.2	14.0	13.9	14.7	11.3	20.1	39.5	25.1
31	13.7	33.8	23.9	53.8	47.4	33.2	14.3	30.4	13.4	16.5	14.0	14.7	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	25.7

MONTHLY AVERAGE = 20.72

2 M TEMPERATURE FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN DEGREES C

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	13.0	12.6	12.2	11.8	11.7	11.8	12.4	12.8	13.3	14.2	16.3	18.4	19.2	19.4	18.3	19.1	17.6	15.2	13.8	12.1	11.0	10.3	9.9	9.9	14.0
2	9.8	10.7	9.5	8.9	8.6	7.9	8.0	9.2	11.5	14.3	15.4	17.2	17.4	18.0	18.9	17.8	16.7	15.0	13.1	12.2	11.2	10.3	10.2	10.6	12.6
3	11.3	11.6	11.0	10.7	11.0	10.8	10.8	11.5	13.1	14.0	14.9	15.0	15.3	14.7	14.1	14.0	13.8	13.6	13.5	13.0	12.9	12.3	11.7	11.5	12.7
4	11.3	11.5	10.9	10.5	10.3	10.2	11.4	11.8	12.3	14.8	16.0	17.5	18.5	19.5	19.0	18.5	18.4	16.7	15.8	15.7	15.2	14.3	13.7	13.4	14.5
5	12.0	11.6	12.2	11.0	10.9	10.3	9.8	12.4	16.1	18.7	20.7	21.9	21.2	23.2	23.3	21.4	21.3	18.8	15.4	14.0	13.8	13.4	13.0	12.5	15.8
6	12.4	12.4	12.7	12.8	12.8	12.0	12.1	12.7	12.9	13.0	13.4	14.3	14.2	14.4	15.1	15.0	14.5	14.0	13.0	13.2	12.1	11.0	10.8	11.0	13.0
7	11.0	9.4	8.4	8.3	7.5	7.2	7.0	9.2	10.7	11.5	13.0	15.6	16.4	16.8	17.6	16.8	15.7	13.9	12.5	11.5	11.5	11.7	11.6	11.5	11.9
8	11.4	11.5	11.3	11.0	11.0	11.1	11.2	11.6	12.4	12.8	13.6	14.3	14.6	15.4	14.7	14.3	14.0	13.3	13.2	13.0	12.1	11.1	10.6	10.5	12.5
9	10.6	10.7	10.5	9.8	9.8	10.1	9.8	10.0	12.6	14.6	16.8	17.5	17.9	17.5	18.1	17.7	16.6	14.6	13.4	12.8	12.4	11.7	10.8	10.4	13.2
10	9.5	9.0	7.3	6.8	6.4	6.0	6.3	7.6	10.4	13.6	15.8	18.1	18.8	19.0	19.6	19.2	18.2	15.7	13.0	11.2	10.5	9.8	9.4	8.5	12.1
11	7.9	7.5	6.9	6.4	6.3	6.3	6.0	8.3	12.2	15.3	17.9	18.9	20.1	21.1	21.6	21.0	19.9	16.9	13.6	12.0	10.8	10.0	9.5	9.1	12.7
12	8.8	8.3	7.9	7.6	7.3	7.6	8.1	9.3	10.9	15.6	18.7	20.0	21.0	21.9	22.1	21.8	20.4	16.9	13.9	12.1	11.3	11.0	10.5	10.1	13.5
13	10.4	9.8	9.6	8.8	8.3	8.3	8.3	9.5	12.3	15.5	16.7	17.6	18.5	18.7	18.6	17.6	16.4	14.5	12.9	11.4	10.5	10.5	10.2	10.2	12.7
14	10.2	10.0	9.5	9.5	9.7	9.7	9.7	9.9	10.3	10.5	10.9	11.2	11.5	11.3	11.7	11.6	11.3	11.1	11.1	11.2	11.2	11.2	10.6	10.4	10.6
15	10.4	10.4	10.4	10.3	10.3	10.5	10.5	10.5	10.6	10.9	11.0	11.3	12.3	12.5	13.0	13.0	13.1	12.6	12.6	12.8	12.6	12.4	12.3	11.9	11.6
16	11.4	11.2	11.4	10.6	10.4	10.3	10.5	10.8	11.6	12.6	13.0	12.9	13.1	12.3	12.6	12.7	12.7	12.0	10.8	9.6	8.8	9.4	10.0	10.4	11.3
17	10.7	10.6	10.1	10.5	10.7	10.8	11.1	11.4	11.7	12.8	14.5	16.2	16.8	16.2	17.5	16.0	14.5	13.0	11.6	11.0	10.3	10.9	11.1	10.5	12.5
18	10.5	10.7	10.6	10.7	10.8	10.8	10.7	10.4	10.5	10.8	11.6	11.9	12.2	11.8	11.3	11.1	11.0	10.9	11.0	11.1	11.1	11.0	11.1	11.3	11.0
19	11.4	11.6	11.8	11.9	12.1	12.3	12.6	13.0	13.5	14.2	14.3	14.9	15.3	15.7	16.2	16.3	14.4	13.0	13.0	12.8	12.5	12.0	11.6	11.3	13.2
20	11.0	10.7	10.4	10.2	10.0	10.0	10.1	10.6	12.3	14.2	13.8	13.9	13.8	14.2	13.8	13.2	12.5	11.1	10.5	9.6	9.4	8.0	7.2	6.7	11.1
21	6.6	6.9	8.6	8.5	8.3	8.6	8.5	8.5	8.9	9.6	12.2	13.9	15.8	16.2	17.0	17.2	14.7	12.5	11.7	10.6	10.3	10.3	8.4	7.4	10.9
22	6.7	6.3	6.8	6.1	5.1	5.1	4.8	7.2	10.1	13.4	15.9	17.6	19.0	19.8	20.3	19.6	16.4	13.4	12.8	12.5	11.7	10.7	10.0	9.1	11.7
23	7.8	6.6	6.1	5.6	5.2	5.5	5.5	5.9	7.8	9.2	10.9	14.0	15.1	15.8	15.2	13.8	12.5	10.6	9.1	8.2	7.4	7.3	7.0	6.7	9.1
24	6.6	6.5	6.4	6.7	7.2	8.6	8.2	8.4	9.1	10.6	12.6	13.0	13.4	13.7	13.0	12.7	11.4	10.8	9.5	8.6	7.6	7.3	7.1	6.3	9.4
25	6.6	7.2	6.7	5.7	5.6	6.7	6.2	7.0	8.9	10.8	11.5	11.9	11.9	13.0	12.4	11.6	11.3	11.1	10.7	10.5	10.2	10.6	10.3	10.4	9.5
26	10.0	10.0	10.2	10.3	10.7	10.7	10.7	11.1	11.9	12.6	12.9	13.6	13.6	13.6	14.0	14.3	14.0	13.7	13.7	13.7	13.6	13.5	13.6	13.5	12.5
27	13.3	13.2	13.0	13.2	13.2	13.2	13.2	13.2	13.6	15.1	16.2	17.5	18.7	18.6	18.1	17.7	15.9	13.0	11.1	10.0	9.6	9.7	9.2	8.8	13.7
28	8.1	8.4	9.1	9.6	9.7	9.3	8.6	8.6	8.7	10.4	13.7	15.7	16.3	16.2	16.1	14.7	11.8	10.2	9.6	9.4	9.7	9.8	8.9	8.9	10.9
29	9.7	10.5	11.6	10.5	9.1	9.0	8.4	8.1	7.7	7.1	6.8	8.2	10.4	8.5	7.4	7.1	6.7	6.3	4.4	3.2	5.2	4.7	5.7	5.6	7.6
30	5.3	2.7	1.3	0.4	0.0	-0.5	-1.1	0.4	3.7	5.6	6.6	8.1	8.4	8.7	9.1	8.7	6.7	5.6	4.4	3.9	3.0	1.8	1.0	-0.3	3.9
31	1.2	1.3	0.0	-1.2	-1.1	-1.4	-0.8	1.3	4.0	5.6	7.1	8.4	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	2.0

MONTHLY AVERAGE = 11.57
MINIMUM MONTHLY 15-MINUTE AVG = -1.67
MAXIMUM MONTHLY 15-MINUTE AVG = 23.68

10 M TEMPERATURE FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN DEGREES C

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	13.3	12.9	12.5	12.2	12.1	12.0	12.6	12.8	13.1	13.7	15.6	17.1	17.6	17.8	17.2	17.8	16.7	14.9	13.6	12.0	11.1	10.6	10.1	10.4	13.7
2	10.6	11.2	9.6	9.0	8.8	8.1	8.1	9.0	11.1	13.6	14.7	15.8	16.3	16.6	17.4	16.9	16.3	14.8	12.9	12.3	11.3	10.7	10.3	10.8	12.3
3	11.6	11.9	11.3	10.8	11.2	11.2	11.0	11.5	12.6	13.5	14.2	14.3	14.6	14.3	13.7	13.8	13.7	13.7	13.7	13.3	13.2	12.7	12.2	11.9	12.7
4	11.7	11.7	11.4	11.1	10.6	10.6	11.6	11.8	12.2	13.8	14.7	16.1	17.2	18.0	18.0	17.9	17.7	16.6	15.7	15.8	15.2	14.6	13.9	13.5	14.2
5	12.2	12.0	12.3	11.3	10.9	10.6	10.1	12.6	15.6	17.8	19.6	20.2	20.4	21.6	21.7	20.8	20.6	18.9	15.7	14.4	13.8	13.1	12.8	12.5	15.5
6	12.4	12.4	12.6	12.7	12.7	11.9	12.2	12.6	12.7	12.7	13.1	13.9	13.7	14.0	14.5	14.5	14.2	14.2	13.4	13.2	12.0	11.1	11.0	11.2	12.9
7	11.5	9.9	8.9	8.7	8.0	7.7	7.4	9.3	10.5	11.3	12.6	14.6	15.0	15.3	15.9	15.8	14.8	13.6	12.4	11.6	11.6	11.8	11.6	11.6	11.7
8	11.4	11.4	11.3	11.0	11.0	11.1	11.1	11.4	12.2	12.6	13.2	13.7	13.9	14.5	14.1	13.7	13.5	13.2	13.2	13.0	12.4	11.5	10.8	10.8	12.3
9	10.8	10.7	10.3	9.6	9.6	9.9	9.6	9.7	11.5	13.1	15.2	16.2	16.6	16.8	17.1	16.8	16.0	14.6	13.5	13.0	12.6	12.5	11.6	10.9	12.8
10	10.0	9.6	7.8	7.4	6.6	6.3	6.3	7.6	10.2	12.7	14.7	16.7	17.4	17.8	18.3	18.3	17.7	15.6	13.1	11.6	10.8	10.2	9.9	9.0	11.9
11	8.3	7.8	7.3	6.9	6.7	6.5	6.4	8.9	12.4	14.9	16.9	18.0	19.0	19.7	20.3	20.1	19.4	16.9	14.1	12.7	11.3	10.3	9.8	9.6	12.7
12	9.3	8.7	8.3	7.9	7.6	7.9	8.2	9.2	10.7	14.9	17.5	18.5	19.3	20.2	20.8	20.6	19.9	16.9	14.2	12.7	12.1	11.8	11.0	10.8	13.3
13	10.8	10.3	10.0	9.2	8.7	8.6	8.5	9.4	12.1	14.8	15.6	16.4	16.8	17.1	17.1	16.6	16.0	14.5	12.9	11.7	10.8	10.6	10.2	10.1	12.4
14	10.0	9.9	9.4	9.3	9.5	9.6	9.6	9.7	10.1	10.3	10.6	11.0	11.1	11.1	11.5	11.4	11.2	11.0	11.0	11.1	11.1	11.1	10.4	10.3	10.5
15	10.3	10.1	10.1	10.2	10.0	10.1	10.2	10.2	10.3	10.5	10.7	11.0	11.9	12.4	12.8	12.9	13.3	12.8	12.6	12.8	12.6	12.4	12.3	11.8	11.4
16	11.4	11.2	11.3	10.5	10.4	10.4	10.6	10.8	11.4	12.3	12.7	12.6	13.0	11.9	12.4	12.5	12.6	12.1	10.9	10.1	9.2	9.7	10.2	10.6	11.3
17	10.8	10.7	10.3	10.6	10.8	10.8	11.0	11.4	11.6	12.5	13.5	14.8	15.3	15.1	16.3	15.2	14.1	12.9	11.9	11.3	10.6	11.0	11.1	10.6	12.3
18	10.5	10.7	10.6	10.7	10.9	10.9	10.7	10.3	10.4	10.6	11.4	11.7	11.9	11.6	10.9	10.9	10.8	10.7	10.8	10.9	10.9	10.8	11.0	11.1	10.9
19	11.3	11.5	11.7	11.9	12.0	12.3	12.5	13.0	13.4	13.8	13.9	14.4	14.9	15.3	15.7	15.8	14.1	13.4	13.2	12.7	12.4	12.0	11.6	11.3	13.1
20	11.1	10.8	10.4	10.3	10.0	10.1	10.1	10.6	12.3	13.6	13.2	13.3	13.5	13.6	13.2	12.7	12.3	11.1	10.9	10.3	9.7	8.4	7.8	7.2	11.1
21	7.1	7.4	8.7	8.4	8.3	8.4	8.4	8.3	8.4	9.0	10.9	12.6	14.5	15.0	16.0	16.4	14.6	12.6	11.8	10.7	10.7	10.6	8.7	7.9	10.6
22	7.5	7.1	7.5	6.8	6.1	5.9	5.5	7.4	10.3	13.1	15.0	16.4	17.6	18.4	19.0	18.6	16.4	13.6	13.5	13.1	12.2	11.0	10.3	9.6	11.8
23	8.4	7.1	6.6	6.1	5.8	5.9	5.7	6.0	7.5	8.8	10.5	12.9	13.6	14.4	14.1	13.2	12.3	10.6	9.4	8.5	7.9	7.7	7.3	6.9	9.0
24	6.7	6.5	6.4	6.8	7.4	8.6	8.2	8.3	9.1	10.6	12.3	12.7	13.3	13.4	12.8	12.5	11.2	10.9	9.8	9.1	8.2	7.7	7.4	6.6	9.4
25	6.9	7.3	7.0	6.1	6.1	7.0	6.5	7.3	8.7	10.6	11.1	11.3	11.5	12.6	12.2	11.5	11.4	11.2	10.9	10.7	10.4	10.6	10.4	10.6	9.6
26	10.1	10.1	10.4	10.4	10.9	10.8	10.8	11.2	11.7	12.3	12.7	13.4	13.4	13.4	13.9	14.2	14.0	13.7	13.7	13.7	13.6	13.6	13.6	13.5	12.5
27	13.3	13.3	13.1	13.2	13.2	13.2	13.3	13.2	13.6	14.8	15.7	16.9	17.8	17.8	17.4	17.0	15.7	13.2	12.0	10.6	10.3	10.2	9.8	9.2	13.6
28	8.5	8.6	9.3	9.6	9.7	9.1	8.4	8.4	8.5	10.0	13.2	14.6	15.5	15.4	15.1	13.9	11.6	9.9	9.6	9.4	9.7	9.7	9.0	9.1	10.7
29	9.9	10.7	11.6	10.4	9.0	8.7	8.2	7.8	7.2	6.4	6.0	7.2	8.7	7.6	6.5	6.4	6.8	6.7	4.2	3.6	5.5	4.9	5.7	5.5	7.3
30	5.7	3.2	1.6	0.8	0.4	-0.2	-0.6	0.9	4.2	5.0	5.5	6.7	7.1	7.6	7.9	7.9	6.8	5.9	5.0	4.4	3.7	2.6	2.2	0.8	4.0
31	2.1	2.0	1.1	-0.5	-0.5	-0.4	-0.2	1.8	3.8	5.0	6.1	7.3	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	2.3

MONTHLY AVERAGE = 11.44
MINIMUM MONTHLY 15-MINUTE AVG = -0.79
MAXIMUM MONTHLY 15-MINUTE AVG = 21.99

SOLAR RADIATION FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN WATTS/M**2

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG
1	0.	0.	0.	0.	0.	0.	10.	39.	105.	176.	476.	637.	645.	507.	328.	325.	83.	11.	0.	0.	0.	0.	0.	0.	139.
2	0.	0.	0.	0.	0.	0.	15.	107.	287.	465.	390.	548.	487.	493.	427.	220.	95.	18.	0.	0.	0.	0.	0.	0.	148.
3	0.	0.	0.	0.	0.	0.	16.	93.	189.	324.	390.	272.	190.	139.	99.	64.	32.	10.	0.	0.	0.	0.	0.	0.	76.
4	0.	0.	0.	0.	0.	0.	7.	36.	118.	446.	547.	594.	587.	533.	432.	293.	99.	15.	0.	0.	0.	0.	0.	0.	154.
5	0.	0.	0.	0.	0.	0.	11.	145.	297.	426.	492.	542.	424.	537.	350.	198.	126.	15.	0.	0.	0.	0.	0.	0.	148.
6	0.	0.	0.	0.	0.	0.	4.	21.	53.	89.	138.	176.	82.	156.	193.	129.	47.	7.	0.	0.	0.	0.	0.	0.	46.
7	0.	0.	0.	0.	0.	0.	17.	154.	142.	117.	244.	553.	502.	429.	455.	298.	103.	12.	0.	0.	0.	0.	0.	0.	126.
8	0.	0.	0.	0.	0.	0.	6.	33.	72.	86.	111.	161.	187.	216.	147.	110.	67.	8.	0.	0.	0.	0.	0.	0.	50.
9	0.	0.	0.	0.	0.	0.	8.	75.	317.	449.	548.	588.	583.	513.	428.	286.	91.	6.	0.	0.	0.	0.	0.	0.	162.
10	0.	0.	0.	0.	0.	0.	15.	120.	253.	391.	457.	536.	534.	457.	404.	266.	68.	4.	0.	0.	0.	0.	0.	0.	146.
11	0.	0.	0.	0.	0.	0.	10.	139.	292.	426.	525.	561.	570.	509.	405.	265.	82.	5.	0.	0.	0.	0.	0.	0.	158.
12	0.	0.	0.	0.	0.	0.	9.	50.	196.	416.	509.	546.	548.	499.	396.	257.	79.	4.	0.	0.	0.	0.	0.	0.	146.
13	0.	0.	0.	0.	0.	0.	9.	57.	233.	372.	471.	521.	530.	478.	362.	257.	70.	2.	0.	0.	0.	0.	0.	0.	140.
14	0.	0.	0.	0.	0.	0.	3.	28.	48.	46.	87.	94.	87.	61.	98.	73.	28.	1.	0.	0.	0.	0.	0.	0.	27.
15	0.	0.	0.	0.	0.	0.	2.	14.	23.	63.	30.	162.	222.	150.	138.	132.	39.	1.	0.	0.	0.	0.	0.	0.	41.
16	0.	0.	0.	0.	0.	0.	4.	28.	126.	217.	177.	149.	115.	51.	99.	65.	29.	1.	0.	0.	0.	0.	0.	0.	44.
17	0.	0.	0.	0.	0.	0.	4.	17.	79.	211.	467.	536.	479.	323.	411.	184.	62.	1.	0.	0.	0.	0.	0.	0.	115.
18	0.	0.	0.	0.	0.	0.	3.	15.	27.	71.	141.	131.	149.	71.	57.	18.	5.	0.	0.	0.	0.	0.	0.	0.	29.
19	0.	0.	0.	0.	0.	0.	3.	12.	23.	41.	91.	109.	90.	67.	57.	26.	2.	0.	0.	0.	0.	0.	0.	0.	22.
20	0.	0.	0.	0.	0.	0.	4.	33.	197.	274.	204.	204.	153.	320.	305.	202.	83.	2.	0.	0.	0.	0.	0.	0.	82.
21	0.	0.	0.	0.	0.	0.	2.	54.	111.	201.	473.	521.	515.	452.	350.	211.	58.	1.	0.	0.	0.	0.	0.	0.	123.
22	0.	0.	0.	0.	0.	0.	10.	115.	252.	376.	467.	511.	507.	443.	333.	192.	37.	1.	0.	0.	0.	0.	0.	0.	135.
23	0.	0.	0.	0.	0.	0.	4.	31.	116.	183.	298.	470.	473.	412.	273.	142.	35.	1.	0.	0.	0.	0.	0.	0.	101.
24	0.	0.	0.	0.	0.	0.	0.	4.	73.	204.	300.	244.	202.	167.	99.	66.	23.	1.	0.	0.	0.	0.	0.	0.	58.
25	0.	0.	0.	0.	0.	0.	3.	70.	171.	337.	327.	275.	226.	250.	110.	38.	9.	0.	0.	0.	0.	0.	0.	0.	76.
26	0.	0.	0.	0.	0.	0.	2.	33.	51.	145.	176.	182.	148.	96.	114.	85.	15.	0.	0.	0.	0.	0.	0.	0.	44.
27	0.	0.	0.	0.	0.	0.	1.	21.	84.	296.	282.	461.	467.	387.	202.	173.	36.	0.	0.	0.	0.	0.	0.	0.	100.
28	0.	0.	0.	0.	0.	0.	1.	22.	72.	194.	420.	470.	463.	403.	302.	168.	33.	0.	0.	0.	0.	0.	0.	0.	106.
29	0.	0.	0.	0.	0.	0.	0.	15.	28.	49.	128.	404.	511.	141.	134.	56.	15.	0.	0.	0.	0.	0.	0.	0.	62.
30	0.	0.	0.	0.	0.	0.	2.	74.	233.	354.	440.	486.	478.	419.	314.	177.	30.	0.	0.	0.	0.	0.	0.	0.	125.
31	0.	0.	0.	0.	0.	0.	2.	82.	223.	349.	439.	479.	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	131.

MONTHLY AVERAGE = 98.18

BAROMETRIC PRESSURE FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN Mbar

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG
1	**********																								0.
2	**********												1017.	1017.	1017.	1017.	1017.	1017.	1018.	1018.	1018.	1018.	1018.	1018.	1018.
3	1019.	1019.	1019.	1019.	1019.	1019.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1019.	1019.	1019.	1019.	1019.	1019.	1019.	1019.	1019.	1019.	1019.	1019.
4	1018.	1019.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1017.	1017.	1016.	1016.	1015.	1015.	1015.	1016.	1016.	1016.	1016.	1016.	1016.	1017.
5	1016.	1016.	1016.	1016.	1015.	1015.	1015.	1016.	1016.	1015.	1015.	1014.	1013.	1013.	1012.	1012.	1012.	1012.	1012.	1013.	1014.	1014.	1015.	1015.	1014.
6	1016.	1016.	1016.	1016.	1016.	1017.	1017.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1019.	1019.	1019.	1020.	1020.	1020.	1018.
7	1021.	1022.	1022.	1023.	1023.	1024.	1025.	1025.	1026.	1026.	1027.	1026.	1027.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1025.
8	1026.	1026.	1026.	1025.	1025.	1025.	1025.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1025.	1025.	1026.	1027.	1027.	1027.	1027.	1028.	1026.
9	1028.	1028.	1029.	1029.	1029.	1029.	1029.	1029.	1029.	1029.	1028.	1028.	1027.	1026.	1025.	1025.	1024.	1024.	1024.	1024.	1024.	1024.	1024.	1024.	1027.
10	1024.	1024.	1023.	1023.	1023.	1023.	1023.	1024.	1023.	1023.	1022.	1022.	1021.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1022.
11	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1019.	1019.	1018.	1017.	1017.	1016.	1016.	1016.	1016.	1016.	1016.	1016.	1016.	1018.
12	1016.	1016.	1016.	1015.	1015.	1015.	1015.	1015.	1015.	1015.	1014.	1014.	1013.	1012.	1012.	1011.	1010.	1010.	1010.	1010.	1010.	1010.	1010.	1011.	1013.
13	1011.	1011.	1010.	1010.	1010.	1011.	1011.	1011.	1012.	1012.	1011.	1011.	1010.	1010.	1010.	1009.	1009.	1009.	1010.	1010.	1011.	1011.	1011.	1011.	1010.
14	1011.	1011.	1011.	1011.	1011.	1011.	1011.	1011.	1011.	1011.	1012.	1012.	1011.	1010.	1009.	1009.	1009.	1009.	1009.	1008.	1009.	1009.	1009.	1008.	1010.
15	1008.	1007.	1006.	1006.	1005.	1005.	1004.	1004.	1004.	1003.	1002.	1001.	1000.	999.	999.	999.	999.	999.	1000.	1000.	1000.	1001.	1001.	1001.	1002.
16	1001.	1002.	1002.	1002.	1003.	1004.	1004.	1005.	1006.	1006.	1007.	1008.	1008.	1008.	1009.	1010.	1010.	1010.	1011.	1012.	1013.	1013.	1014.	1015.	1007.
17	1015.	1016.	1016.	1017.	1018.	1018.	1019.	1019.	1020.	1021.	1021.	1021.	1021.	1022.	1022.	1022.	1022.	1022.	1022.	1022.	1023.	1023.	1023.	1023.	1020.
18	1023.	1024.	1023.	1023.	1023.	1024.	1024.	1024.	1024.	1024.	1024.	1023.	1023.	1023.	1023.	1022.	1022.	1021.	1021.	1021.	1021.	1021.	1021.	1020.	1023.
19	1020.	1019.	1019.	1018.	1018.	1018.	1018.	1018.	1018.	1019.	1018.	1019.	1018.	1018.	1018.	1018.	1020.	1020.	1021.	1022.	1022.	1023.	1023.	1023.	1020.
20	1024.	1024.	1024.	1024.	1025.	1025.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1025.	1025.	1025.	1025.	1026.	1026.	1026.	1026.	1026.	1026.	1025.
21	1025.	1025.	1025.	1025.	1025.	1025.	1025.	1025.	1025.	1025.	1025.	1024.	1023.	1022.	1021.	1021.	1021.	1020.	1020.	1020.	1020.	1020.	1020.	1019.	1023.
22	1019.	1019.	1019.	1018.	1018.	1018.	1018.	1018.	1018.	1017.	1017.	1017.	1016.	1016.	1016.	1016.	1016.	1017.	1018.	1019.	1019.	1020.	1020.	1021.	1018.
23	1021.	1022.	1023.	1023.	1023.	1023.	1024.	1024.	1024.	1024.	1024.	1024.	1023.	1022.	1021.	1021.	1020.	1020.	1020.	1020.	1019.	1019.	1018.	1018.	1022.
24	1018.	1016.	1016.	1015.	1015.	1015.	1015.	1015.	1016.	1016.	1016.	1015.	1015.	1015.	1016.	1017.	1017.	1018.	1018.	1019.	1020.	1021.	1021.	1022.	1017.
25	1023.	1024.	1025.	1025.	1026.	1027.	1027.	1028.	1029.	1030.	1030.	1030.	1030.	1030.	1030.	1030.	1029.	1029.	1029.	1029.	1029.	1029.	1029.	1029.	1028.
26	1029.	1028.	1028.	1028.	1028.	1028.	1028.	1028.	1029.	1028.	1029.	1029.	1029.	1028.	1028.	1028.	1027.	1028.	1028.	1028.	1028.	1028.	1028.	1028.	1028.
27	1028.	1028.	1028.	1028.	1028.	1028.	1028.	1029.	1029.	1029.	1029.	1029.	1029.	1028.	1028.	1028.	1028.	1027.	1027.	1027.	1027.	1027.	1027.	1027.	1028.
28	1026.	1026.	1026.	1025.	1025.	1025.	1025.	1024.	1024.	1024.	1024.	1023.	1022.	1021.	1020.	1020.	1019.	1019.	1018.	1018.	1017.	1017.	1016.	1015.	1022.
29	1014.	1013.	1012.	1012.	1012.	1012.	1012.	1013.	1013.	1013.	1014.	1014.	1013.	1014.	1015.	1016.	1017.	1018.	1019.	1019.	1020.	1021.	1022.	1022.	1015.
30	1023.	1023.	1024.	1024.	1025.	1025.	1025.	1026.	1026.	1026.	1026.	1026.	1026.	1025.	1025.	1025.	1024.	1024.	1025.	1025.	1025.	1024.	1024.	1024.	1025.
31	1024.	1024.	1024.	1024.	1024.	1024.	1025.	1025.	1025.	1025.	1025.	1025.	**********												1024.

MONTHLY AVERAGE = 1019.39

WIND SPEED/DIRECTION TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN MPH/DIR

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	4NE	2N	2N	3N	2N	2NW	4N	4N	5N	5N	3NW	4NW	5NW	5NW	5NW	4NW	6NW	7NW	3W	2W	1W	1SW	2W	2NW
2	2N	4N	3SE	2S	2SE	2S	2S	3SE	4SE	3SE	2S	3NW	4NW	5NW	5NW	5NW	5NW	3W	3W	1W	1W	1W	1W	2NW
3	2NW	3N	3NW	2NW	3NE	2NE	3NE	3NE	4N	6NW	6NW	6NW	6NW	8NW	7NW	5NW	5NW	5NW	5N	5N	4N	5N	5N	5NW
4	6N	7N	5N	4N	4NE	4NE	6NE	5NE	6N	8NE	7NE	8N	9NW	7N	10NW	9NW	6NW	5NW	3W	3SW	2W	1S	1W	1W
5	0SW	1S	1SW	1W	1W	1SW	1S	1S	2SE	1N	1NE	2N	3W	2NW	2NE	2E	3SE	2S	1W	1SW	3SW	3SW	2SW	2S
6	3S	6SE	6SE	6SE	5SE	3SE	3SE	3S	3S	3S	3SW	3NW	4N	6NW	6NW	6NW	6NW	5N	4N	4NW	4NW	3W	2NW	1W
7	3NW	2W	2W	2W	1SW	2S	2SE	2SE	3SE	2SE	3SE	3W	5NW	5NW	4NW	3W	3SW	2S	1SW	1S	2S	5SE	3SE	4SE
8	5SE	6SE	6SE	4SE	3SE	5SE	3SE	3SE	3SE	4SE	2E	4NE	4N	5NW	7NW	7NW	6NW	7NW	7NW	6N	6N	5N	4NW	7N
9	9NW	6NW	5N	6N	6N	6N	6N	6N	6N	6N	6NW	8NW	10NW	11NW	11NW	9NW	9NW	9NW	8NW	7NW	6NW	5N	5N	5N
10	2NW	3NE	1S	2E	2S	2S	4SE	4SE	2SE	1E	2NW	2E	4NW	4NW	5NW	5NW	5NW	4W	2W	1S	0W	2S	1S	1S
11	1S	1S	1S	1S	2S	3SE	1S	1SW	1N	1N	1NW	4NW	5NW	5NW	5NW	5NW	4NW	3W	1W	0W	0N	0N	0N	1S
12	1S	1SE	1S	1SE	1S	2S	2S	2S	2SE	1E	2N	4NW	6NW	4NW	5NW	5NW	3NW	2W	1W	0W	1SW	2W	1SW	1SW
13	2SW	1W	2S	1W	2SW	2SE	3S	2SE	1E	2NE	4NW	5NW	6NW	7NW	7NW	8NW	5NW	4NW	3W	2W	2W	6NW	5NW	2W
14	3SW	3W	3W	3NW	2SW	3SW	3SW	3SW	4SW	3SW	3S	3S	4S	4S	4S	5SW	4S	5S	4S	3S	4S	3S	5SE	3S
15	4SE	4S	3SE	3SE	5S	4S	4SE	4SE	6SE	4SE	2S	5SE	7SE	5S	7S	9S	8S	8S	8S	6S	6S	5S	6S	5S
16	5S	4S	5S	3S	2SE	2SE	2SE	2SW	3SW	3SW	4W	4SW	3W	3N	6NW	6NW	4NW	2NW	2W	1S	1SW	1SW	1S	1S
17	1SE	1S	1S	1S	1S	2W	2W	3W	3W	4NW	6NW	4NW	3N	4NW	4NW	4W	3SW	2S	2S	2S	1S	3SE	4SE	4SE
18	4SE	5SE	4SE	3SE	3SE	3SE	3SE	3SE	3S	4SE	4S	5S	6S	5S	5S	5S	4SE	6SE	5SE	3SE	3SE	4SE	5SE	6SE
19	6SE	6SE	5SE	4SE	6SE	4SE	4SE	4SE	3S	4S	4S	5S	3S	3S	4S	4SW	8N	6N	4NW	3W	2SW	3S	4SE	5SE
20	4SE	4SE	2S	2S	2SW	2S	1SW	2SW	2NW	3NW	6NW	5N	7NW	9NW	10NW	9NW	6NW	6NW	5NW	4N	3NW	2W	1NW	1SW
21	0NW	1NW	3N	5N	4NW	4N	5N	5N	6N	6N	6NE	7N	7N	9NW	8NW	7NW	6NW	7NW	5NW	4NW	5NW	5NW	3W	1NW
22	1NW	1NW	2NW	1W	1NW	1S	1S	2SE	1E	2NW	3NW	4NW	4NW	4NW	5NW	3NW	6NW	4NW	4N	5N	5N	4NW	4NW	3N
23	2W	1S	1S	1S	1SW	2SE	2SE	3SE	2SE	4SE	4SE	2NE	2N	2N	4NW	4NW	3W	2W	2S	1S	2SE	3SE	3SE	4SE
24	5SE	8SE	6SE	8SE	6SE	6S	3E	4SE	5SE	3S	5SW	3S	5SW	6SW	6SW	6SW	4S	2S	2S	3SE	2SE	4SE	6SE	4SE
25	5SE	4SE	4SE	2S	2SE	3SE	4SE	2SE	4SE	5SE	5S	5S	5S	4S	3S	2S	3SE	3SE	3S	3SE	3S	8SE	5SE	7SE
26	6SE	5SE	5S	5S	5S	6S	5S	6S	6S	8S	8S	9S	8S	7S	8S	9S	7S	8S	7S	8S	6S	6S	8S	6S
27	4S	5S	5SE	5S	5S	5S	6S	6S	5S	6S	6S	7S	6S	5S	5SW	4SW	2SW	1W	2S	1S	2SE	4SE	3SE	3SE
28	3SE	3SE	3SE	4SE	3SE	3SE	5SE	6SE	5SE	4SE	2SE	2SE	4SW	4SW	3W	4W	3W	3SW	2S	3S	4SE	6SE	5SE	5SE
29	6S	9S	9S	6N	3NE	5E	4E	7SE	8SE	10SE	8E	6E	6NE	8NE	12N	11NW	7NW	5NW	4W	1N	5NW	4NW	8NW	8NW
30	8NW	4SE	2S	2S	3SE	2S	1W	1S	2N	6N	5NE	5N	7N	8NE	7N	6N	7NW	7N	5N	5NW	3N	2N	2NW	1W
31	4NW	4N	2E	2SW	1W	2NW	4W	2NW	6NE	7N	8NW	8NW	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
19203 36th Avenue West, Suite 101
Lynnwood, Washington 98036
(425) 921-4000

WIND SPEED AUDIT

Sensor Model	RM YOUNG 5305	**Client**	P.O.S.
Sensor Serial #	46714	**Job No.**	9950.003.0 TASK 4
Sensor Height	10 METERS	**Site**	T117 BENCH CHECK
Data Logger Model	CR10	**Date**	SEPT. 6 2006
Logger Serial #		**Time**	900 PDT

Auditor Kris Hansen
Signature Kris Hansen

1. Constant RPM Motor Verification

Motor Speed RPM	Calculated Motor Speed	System Indicated Speed	Indicated Difference
0	0	0	-
100	1.145	1.14	-
300	3.435	3.43	-
500	5.725	5.72	-
900	10.305	10.30	-

2. Torque Watch Verification

Torque Reading < 3 **gm-cm**
Sensor Threshold 0.9 mph

3. Bearings, Cable and Propeller Assembly Inspection

✓ **Acceptable**
____ **Unacceptable**

Comments:

rpm * 0.01145 = mph

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
19203 36th Avenue West, Suite 101
Lynnwood, Washington 98036
(425) 921-4000

WIND DIRECTION AUDIT

Sensor Model	RM YOUNG 5305	**Client**	P.O.S.
Sensor Serial #	46714	**Job No.**	9950.003.0 TASK 4
Sensor Height	10 METERS	**Site**	T117 BENCHCHECK
Data Logger Model	CR10	**Date**	SEPT. 6 2006
Logger Serial #		**Time**	10 AM PST

Auditor Kris Hansen **Signature** Kris Hansen

1. Crossarm Orientation Verification

Magnetic North Declination of Site	17.3
Crossarm Orientation with Theodolite	16.5
Difference Between Audit and Site	0.8°E

2. Sensor Linearity Verification

Input Angle	System Output	Input Angle	System Output
180	180.9	150	149.6
210	210.4	120	119.4
240	241.6	90	90.7
270	270.1	60	61.3
300	301.4	30	29.6
330	331.7	360	0.8
360	0.7	330	330.1
30	29.9	300	300.9
60	60.0	270	271.4
90	91.4	240	239.6
120	119.7	210	209.5
150	151.04	180	180.6
180	179.8		

3. Starting Threshold - Torque Gauge Verification

Torque Reading	< 10 gm cm gm/cm
Sensor Threshold	≤ 11 gm cm

4. Bearings, Cable and Wind Vane Assembly Inspection

Acceptable	
Unacceptable	

Comments:

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
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Lynnwood, Washington 98036
(425) 921-4000

TEMPERATURE AUDIT

Sensor Model	RM YOUNG RTD	**Client**	P.O.S
Sensor Serial #	6778 6779	**Job No.**	9950.003.0 TASK 4
Sensor Height	2m 10m	**Site**	T117 BONCHASKE
Data Logger Model	CR10	**Date**	SEPT. 6 2006
Logger Serial #		**Time**	1000 1100 PST

Auditor KRIS HANSEN
Signature Kris Hansen

ASTM-NBS Thermometer - System Sensor Collocation Verification

ICE WATER BATH

ASTM Thermometer Indication		System Temperature Indication 2m / 10m		Indicated Difference 2m / 10m	
37.71	deg F	38.17 38.23	deg F	0.46 0.52	deg F
3.17	deg C	3.43 3.46	deg C	0.26 0.29	deg C

AMBIENT

ASTM Thermometer Indication		System Temperature Indication 2m / 10m		Indicated Difference 2m / 10m	
76.68	deg F	77.48 77.47	deg F	0.8 0.79	deg F
24.82	deg C	25.27 25.26	deg C	0.45 0.44	deg C

HOT WATER BATH

ASTM Thermometer Indication		System Temperature Indication 2m / 10m		Indicated Difference 2m / 10m	
94.65	deg F	95.3 95.41	deg F	0.65 0.76	deg F
34.80	deg C	35.17 35.22	deg C	0.37 0.42	deg C

Comments:

	GMX	GMX AUDIT
Solar Radiation	479.4 w/m²	476.7 w/m²
	0	0

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
19203 36th Avenue West, Suite 101
Lynnwood, Washington 98036
(425) 921-4000

DELTA - TEMPERATURE AUDIT

Sensor Model	RM YOUNG RTD	**Client**	P.O.S.
Sensor Serial #	6778 6779	**Job No.**	9950.003.0 TASK 4
Sensor Height	2m 10m	**Site**	T11.7 BENCHCHECK
Data Logger Model	CRIO	**Date**	SEPT. 6 2006
Logger Serial #		**Time**	10 - 11 PST

Auditor KRIS HANSEN
Signature Kris Hansen

System Sensor Collocation Verification

ICE WATER BATH

10-M Temperature Indication	2-M Temperature Indication	Indicated Difference
38.23 deg F	38.17 deg F	0.06 deg F
3.46 deg C	3.43 deg C	0.03 deg C

AMBIENT

10-M Temperature Indication	2-M Temperature Indication	Indicated Difference
77.47 deg F	77.48 deg F	0.01 deg F
25.26 deg C	25.27 deg C	0.01 deg C

HOT WATER BATH

10-M Temperature Indication	2-M Temperature Indication	Indicated Difference
95.41 deg F	95.3 deg F	0.11 deg F
35.22 deg C	35.17 deg C	0.05 deg C

Comments:

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

Geomatrix Consultants, Inc.
19203 36th Avenue W, Suite 101
Lynnwood, Washington 98036
(425) 921-4000

PRECIPITATION AUDIT

Sensor Model		**Client**	P.O.S.
Sensor Serial #		**Job No.**	9950.003.0 TASK 4
Sensor Height	GROUND LEVEL	**Site**	T117 / BENCH CHECK
Data Logger Model	CR10	**Date**	SEPTEMBER 6 2006
Logger Serial #		**Time**	930 PDT

Auditor KRIS HANSEN
Signature Kris Hansen

1. Calibrated Burette

Trial Number	Number of Bucket Tips	Volume of Water
1	5	38.7
2	5	38.7
3	5	38.8
Total	15	**Total** 116.2

Gage Diameter 8.00" **Surface Area** 50.2655 in^2

7.7467
ml/tip x 0.061024 = in^3 0.4727

in^3/surface area = 0.0094 **inches**

audit = 0.0094 **inches/bucket tip**

audit within 10% of .01 inches/tip ✓ **Yes** _____ **No**

Comments:

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
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Lynnwood, Washington 98036
(425) 921-4000

WIND SPEED AUDIT

Sensor Model	RM YOUNG 5305	**Client**	P.O.S.
Sensor Serial #	46714	**Job No.**	9950.003.0 TASK 4
Sensor Height	10 METERS	**Site**	T117
Data Logger Model	CR10	**Date**	OCT 31 2006
Logger Serial #		**Time**	1310 PDT

Auditor KRIS HANSEN
Signature Kris Hansen

1. Constant RPM Motor Verification

Motor Speed RPM	Calculated Motor Speed	System Indicated Speed	Indicated Difference
0	0	0	-
100	1.145	1.14	-
200	2.29	2.29	-
300	3.435	3.43	-
500	5.725	5.72	-
900	10.305	10.30	-

2. Torque Watch Verification

Torque Reading < 3 **gm-cm**
Sensor Threshold 0.9 mph

3. Bearings, Cable and Propeller Assembly Inspection

✓ **Acceptable**
_____ **Unacceptable**

Comments:

rpm * 0.01145 = mph

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
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Lynnwood, Washington 98036
(425) 921-4000

WIND DIRECTION AUDIT

Sensor Model	RM YOUNG 5305	**Client**	P.O.S.
Sensor Serial #	46714	**Job No.**	9950.003.0 TASK 4
Sensor Height	10 METERS	**Site**	T117
Data Logger Model	CR10	**Date**	OCT 31, 2006
Logger Serial #		**Time**	1315 PDT

Auditor KRIS HANSEN **Signature** Kris Hansen

1. Crossarm Orientation Verification

Magnetic North Declination of Site	17.3
Crossarm Orientation with Theodolite	16.5
Difference Between Audit and Site	0.8°E

2. Sensor Linearity Verification

Input Angle	System Output	Input Angle	System Output
180	181.4	150	150.7
210	211.6	120	119.6
240	240.7	90	90.4
270	271.0	60	61.2
300	302.1	30	29.9
330	331.4	360	0.7
360	0.9	330	329.8
30	29.8	300	301.2
60	60.1	270	270.7
90	90.7	240	241.3
120	121.1	210	210.6
150	150.3	180	180.7
180	179.06		

3. Starting Threshold - Torque Gauge Verification

Torque Reading	< 10 gm cm cw/ccw
Sensor Threshold	≤ 11 gm cm

4. Bearings, Cable and Wind Vane Assembly Inspection

Acceptable	✓
Unacceptable	

Comments:

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
19203 36th Avenue West, Suite 101
Lynnwood, Washington 98036
(425) 921-4000

TEMPERATURE AUDIT

Sensor Model	RM YOUNG RTD	**Client**	P.O.S.
Sensor Serial #	6778 6779	**Job No.**	9950.003.0 TASK 4
Sensor Height	2m 10m	**Site**	T117
Data Logger Model	CR10	**Date**	OCT. 31, 2006
Logger Serial #		**Time**	1330 PST

Auditor KRIS HANSEN
Signature Kris Hansen

ASTM-NBS Thermometer - System Sensor Collocation Verification

ICE WATER BATH

ASTM Thermometer Indication	System Temperature Indication 2m / 10m	Indicated Difference 2m / 10m
34.35 deg F	34.42 / 34.4 deg F	+ 0.07 / 0.05 deg F
1.31 deg C	1.34 / 1.33 deg C	+ 0.03 / 0.02 deg C

AMBIENT

ASTM Thermometer Indication	System Temperature Indication 2m / 10m	Indicated Difference 2m / 10m
62.85 deg F	63.41 / 63.48 deg F	+ 0.56 / 0.63 deg F
17.14 deg C	17.45 / 17.49 deg C	+ 0.31 / 0.35 deg C

HOT WATER BATH

ASTM Thermometer Indication	System Temperature Indication 2m / 10m	Indicated Difference 2m / 10m
97.41 deg F	97.53 / 97.57 deg F	+ 0.12 / 0.16 deg F
36.34 deg C	36.41 / 36.43 deg C	+ 0.07 / 0.09 deg C

Comments:

	GMX	GMX AUDIT
Solar Radiation	483.8 w/m²	479.6 w/m²
	0	0
PRESSURE	1024 mb	1026 mb

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
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Lynnwood, Washington 98036
(425) 921-4000

DELTA - TEMPERATURE AUDIT

Sensor Model	RM YOUNG RTD	**Client**	P.O.S.
Sensor Serial #	6778 6779	**Job No.**	9950.003.0 TASKY
Sensor Height	2m 10 m	**Site**	TIT
Data Logger Model	CR10	**Date**	OCT 31 2006
Logger Serial #		**Time**	1330 PST

Auditor KRIS HANSEN
Signature Kris Hansen

System Sensor Collocation Verification

ICE WATER BATH

10-M Temperature Indication	2-M Temperature Indication	Indicated Difference
34.4 deg F	34.42 deg F	0.02 deg F
1.33 deg C	1.34 deg C	0.01 deg C

AMBIENT

10-M Temperature Indication	2-M Temperature Indication	Indicated Difference
63.48 deg F	63.41 deg F	0.07 deg F
17.49 deg C	17.45 deg C	0.04 deg C

HOT WATER BATH

10-M Temperature Indication	2-M Temperature Indication	Indicated Difference
97.57 deg F	97.53 deg F	0.04 deg F
36.43 deg C	36.41 deg C	0.02 deg C

Comments:

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

Geomatrix Consultants, Inc.
19203 36th Avenue W, Suite 101
Lynnwood, Washington 98036
(425) 921-4000

PRECIPITATION AUDIT

Sensor Model		**Client**	P.O.S.
Sensor Serial #		**Job No.**	9950.003.0 TASK 4
Sensor Height	GROUND LEVEL	**Site**	T.117
Data Logger Model	CR10	**Date**	OCT 31 2006
Logger Serial #		**Time**	1300 PDT

Auditor KRIS HANSEN
Signature Kris Hansen

1. Calibrated Burette

Trial Number	Number of Bucket Tips	Volume of Water
1	5	38.6
2	5	38.9
3	5	38.4
4	5	38.7
Total	20	**Total** 154.6

Gage Diameter 8.00" **Surface Area** 50.2655 in^2

7.73
ml/tip x 0.061024 = in^3 0.4717

in^3/surface area = 0.0094 **inches**

audit = 0.0094 **inches/bucket tip**

audit within 10% of .01 inches/tip ✓ **Yes** ____ **No**

Comments:

Appendix D

Terminal 117

N1 - North Monitoring Location

C2 – Central Monitoring Location

Terminal 117

S3 – South Monitoring Location

Meteorological Monitoring Station

T-117 TCRA

PCS Daily Air Monitoring Report

Current Test:	002
Start Time:	14:58:00 09/25/2006
Stop Time:	16:04:00 09/25/2006
Total Time:	00:01:06:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/25/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.024
TWA (8 hr):	0.003
Minimum:	0.015
Time	15:51:00
Date	09/25/2006
Maximum:	0.045
Time	15:04:00
Date	09/25/2006

Current Test:	001
Start Time:	10:36:16 09/25/2006
Stop Time:	14:55:16 09/25/2006
Total Time:	00:04:19:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/25/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.051
TWA (8 hr):	0.028
Minimum:	0.026
Time	14:45:16
Date	09/25/2006
Maximum:	0.097
Time	11:03:16
Date	09/25/2006

Current Test:	003
Start Time:	06:22:33 09/26/2006
Stop Time:	17:28:33 09/26/2006
Total Time:	00:11:06:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/26/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.045
TWA (8 hr):	0.050
Minimum:	0.018
Time	17:01:33
Date	09/26/2006
Maximum:	0.442
Time	08:06:33
Date	09/26/2006

Current Test:	001
Start Time:	07:39:08 09/27/2006
Stop Time:	16:59:08 09/27/2006
Total Time:	00:09:20:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/27/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.067
TWA (8 hr):	0.069
Minimum:	0.025
Time	16:10:08
Date	09/27/2006
Maximum:	0.696
Time	16:53:08
Date	09/27/2006

Current Test:	002
Start Time:	06:21:05 09/28/2006
Stop Time:	16:07:05 09/28/2006
Total Time:	00:09:46:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/28/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.017
TWA (8 hr):	0.019
Minimum:	0.000
Time	15:22:05
Date	09/28/2006
Maximum:	0.103
Time	13:26:05
Date	09/28/2006

Current Test:	003
Start Time:	08:43:32 09/30/2006
Stop Time:	16:19:32 09/30/2006
Total Time:	00:07:36:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/30/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.018
TWA (8 hr):	0.017
Minimum:	0.005
Time	09:38:32
Date	09/30/2006
Maximum:	0.181
Time	09:21:32
Date	09/30/2006

Current Test:	001
Start Time:	09:46:24 10/01/2006
Stop Time:	15:39:24 10/01/2006
Total Time:	00:05:53:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/01/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.032
TWA (8 hr):	0.024
Minimum:	0.009
Time	09:49:24
Date	10/01/2006
Maximum:	1.605
Time	14:37:24
Date	10/01/2006

Current Test:	001
Start Time:	06:11:09 10/02/2006
Stop Time:	16:30:09 10/02/2006
Total Time:	00:10:19:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/02/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.052
TWA (8 hr):	0.058
Minimum:	0.011
Time	15:45:09
Date	10/02/2006
Maximum:	1.470
Time	06:45:09
Date	10/02/2006

Current Test:	002
Start Time:	06:30:47 10/04/2006
Stop Time:	16:14:47 10/04/2006
Total Time:	00:09:44:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/04/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.027
TWA (8 hr):	0.028
Minimum:	0.011
Time	12:51:47
Date	10/04/2006
Maximum:	0.286
Time	07:06:47
Date	10/04/2006

Current Test:	003
Start Time:	06:52:22 10/05/2006
Stop Time:	16:22:22 10/05/2006
Total Time:	00:09:30:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/05/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.046
TWA (8 hr):	0.050
Minimum:	0.019
Time	15:26:22
Date	10/05/2006
Maximum:	0.129
Time	15:35:22
Date	10/05/2006

Current Test:	004
Start Time:	07:04:20 10/06/2006
Stop Time:	15:20:20 10/06/2006
Total Time:	00:08:16:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/06/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.051
TWA (8 hr):	0.051
Minimum:	0.000
Time	11:41:20
Date	10/06/2006
Maximum:	1.457
Time	11:14:20
Date	10/06/2006

Current Test:	005
Start Time:	15:21:19 10/06/2006
Stop Time:	15:30:19 10/06/2006
Total Time:	00:00:09:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/06/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.035
TWA (8 hr):	N/A
Minimum:	0.030
Time	15:23:19
Date	10/06/2006
Maximum:	0.047
Time	15:22:19
Date	10/06/2006

Current Test:	006
Start Time:	08:12:31 10/09/2006
Stop Time:	15:33:31 10/09/2006
Total Time:	00:07:21:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/09/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.062
TWA (8 hr):	0.057
Minimum:	0.015
Time	15:24:31
Date	10/09/2006
Maximum:	1.047
Time	09:25:31
Date	10/09/2006

Current Test:	001
Start Time:	07:02:16 10/10/2006
Stop Time:	15:21:16 10/10/2006
Total Time:	00:08:19:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/10/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.044
TWA (8 hr):	0.045
Minimum:	0.020
Time	15:14:16
Date	10/10/2006
Maximum:	0.145
Time	12:00:16
Date	10/10/2006

Current Test:	001
Start Time:	06:03:23 10/11/2006
Stop Time:	16:14:23 10/11/2006
Total Time:	00:10:11:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/11/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.062
TWA (8 hr):	0.069
Minimum:	0.027
Time	14:39:23
Date	10/11/2006
Maximum:	0.139
Time	08:55:23
Date	10/11/2006

Current Test:	002
Start Time:	06:53:36 10/12/2006
Stop Time:	17:36:36 10/12/2006
Total Time:	00:10:43:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/12/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.067
TWA (8 hr):	0.075
Minimum:	0.026
Time	17:14:36
Date	10/12/2006
Maximum:	0.628
Time	14:21:36
Date	10/12/2006

Current Test:	001
Start Time:	06:58:12 10/13/2006
Stop Time:	15:41:12 10/13/2006
Total Time:	00:08:43:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/13/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.084
TWA (8 hr):	0.088
Minimum:	0.033
Time	15:10:12
Date	10/13/2006
Maximum:	0.816
Time	06:59:12
Date	10/13/2006

Current Test:	002
Start Time:	11:47:20 10/16/2006
Stop Time:	16:01:20 10/16/2006
Total Time:	00:04:14:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/16/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.018
TWA (8 hr):	0.009
Minimum:	0.004
Time	13:24:20
Date	10/16/2006
Maximum:	0.568
Time	12:17:20
Date	10/16/2006

Current Test:	002
Start Time:	14:58:00 09/25/2006
Stop Time:	16:04:00 09/25/2006
Total Time:	00:01:06:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/25/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.024
TWA (8 hr):	0.003
Minimum:	0.015
Time	15:51:00
Date	09/25/2006
Maximum:	0.045
Time	15:04:00
Date	09/25/2006

Geomatrix

Air Quality and Meteorological Monitoring Summary
Port of Seattle – Terminal 117
Seattle, Washington

Prepared for:

Port of Seattle
Pier 69
Seattle, Washington 98111

December 2006

Project No. 009950.003

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Air Quality and Meteorological Monitoring Summary
Port of Seattle – Terminal 117

Seattle, Washington

Prepared for:

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Prepared by:

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TABLE OF CONTENTS

Port of Seattle – Terminal 117
Seattle, Washington

1.0 INTRODUCTION 1

2.0 SITE BACKGROUND 1

3.0 DESCRIPTION OF MONITORING NETWORK 2

4.0 AMBIENT MEASUREMENTS 7

4.1 PM10 CONCENTRATIONS 7

4.2 PCB CONCENTRATIONS 9

5.0 METEOROLOGICAL MEASUREMENTS 10

6.0 EQUIPMENT CALIBRATION 13

- 6.1 DataRAMS 13
- 6.2 TE-1000 PUF Samplers 13
- 6.3 Meteorological Monitoring Station 13

7.0 ODOR OBSERVATIONS 13

8.0 NOISE MONITORING 14

9.0 REFERENCES 17

FIGURE

Figure 1 Air Monitoring Sample Location Map

Figure 2 Wind Rose

APPENDICES

Appendix A DataRAM Particulate Data

Appendix B TE-1000 PUF Data

Appendix C Meteorological Data

Appendix D Photographs

AIR QUALITY AND METEOROLOGICAL MONITORING SUMMARY FOR TIME CRITICAL REMOVAL ACTION

Port of Seattle – Terminal 117
Seattle, Washington

1.0 INTRODUCTION

On behalf of the Port of Seattle, Geomatrix Consultants, Inc. (Geomatrix) has prepared this *Air Quality and Meteorological Monitoring Summary* to present the findings of the air monitoring activities during the Time-Critical Removal Actions (TCRA) at the Port of Seattle's Terminal 117 (T-117) in Seattle, Washington, within the jurisdiction of King County during September and October of 2006. The objective of the *Air Quality and Meteorological Monitoring Summary* is to assemble and present the collected data in a single document and to describe the air quality environment that existed during the TCRA. This summary is also intended to be used as a resource for information related to the measurement of PM10 particulate matter, polychlorinated biphenyls (PCBs), odor, and meteorology during future air monitoring activities at Terminal 117.

In addition to the air quality information collected during the TCRA, Geomatrix performed construction related compliance noise monitoring near the residences along Dallas Avenue South. Results of those measurements and their relationship to Seattle's construction noise ordinance are presented in the noise section of this report.

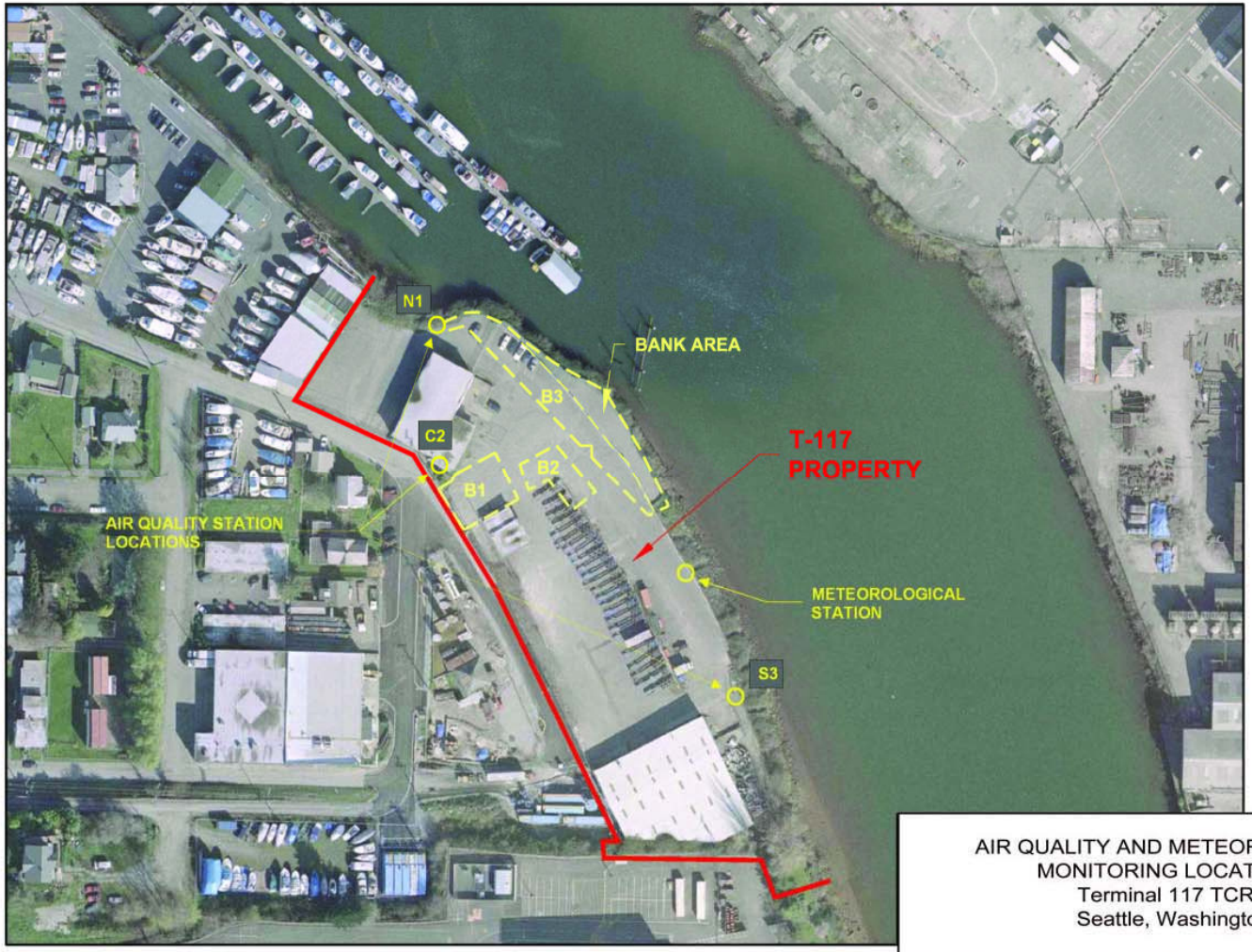
2.0 SITE BACKGROUND

T-117 is located at 8700 Dallas Avenue South in Seattle, Washington on an approximately 3 acre parcel (Figure 1). There are three buildings on the property. The north building and associated office/carport were used as offices and work rooms during the TCRA. The south building is occupied by Second Use Building Materials, a business that obtains reusable building materials for resale. The remaining areas are covered by asphalt or concrete. The property is fenced on three sides and bordered by the Lower Duwamish Waterway to the east. The property entrance is located on Dallas Avenue South.

3.0 DESCRIPTION OF MONITORING NETWORK

The air monitoring network consisted of four (4) individual monitoring locations: North Station or N1, Central Station or C2, South Station or S3, and the Meteorological station. Air quality instrumentation at N1, C2, and S3 included a Thermo Electron DataRAM4 dust monitor and a Tisch Environmental TE-1000 PUF Poly-Urethane Foam (PUF) High Volume Sampler. The meteorological station consisted of instrumentation detailed below.

The DataRAM4 dust monitor provided real-time PM10 concentrations and recorded hourly average concentration data throughout the duration of the project.



AIR QUALITY AND METEOROLOGICAL
MONITORING LOCATIONS
Terminal 117 TCRA
Seattle, Washington

By: KMW	Date: 12/7/06	Project No. 9950.003
Geomatrix		Figure 1

The TE-1000 PUF samplers operated on eight separate days during the TCRA activity, capturing polychlorinated biphenyls in ambient air samples collected by a high volume sampler equipped with a quartz-fiber filter and polyurethane foam (PUF) cartridge for the duration of the work day and analyzed by Method TO-4A. The filter media were analyzed by Air Toxics, Ltd. in Folsom, California, an EPA-accredited laboratory.

The meteorological system measured the following parameters at designated tower heights using Campbell Scientific and RM Young instrumentation: wind speed (10-meter), wind direction (10-meter), air temperature (2-meter, 10-meter), differential temperature (2-10 meter), barometric pressure (2-meter), solar radiation (2-meter), and precipitation (ground-level). Measurements were taken at one-second intervals then averaged and recorded in 15-minute blocks except for precipitation which was recorded as a 15-minute total.

In addition to measured data, 15-minute values of standard deviation of horizontal wind direction (sigma theta) were calculated and stored by the meteorological system's Campbell Scientific data logger.

4.0 AMBIENT MEASUREMENTS

DataRAMs were used for particulate air monitoring for the duration of the TCRA activities. TE-1000 PUF samplers were used for the PCB sampling that began on September 13th and concluded on October 10th. Following is a description of the sampling and discussion of the results.

4.1 PM10 CONCENTRATIONS

PM10 monitors called DataRAMs were utilized to provide real-time particulate data as well as hourly average concentrations. The hourly average concentrations were saved in the internal memory of the DataRAM and downloaded each day via laptop computer. The DataRAMs are used as particulate indicators, and though calibrated to standard dusts at the factory, the actual PM10 levels may vary because the optical response of the instruments to urban aerosols are not necessarily the same as they are to the calibration dust. The DataRAM flow rate was set to 3 liters/minute.

Action levels were established for this program as a means to provide the project team with real-time feedback in the event of high measured PM10 concentrations. The action level for PM10 for this monitoring program based on a running 24-hour average PM10 concentration was 70% of the NAAQS 24-hour standard of 150µg/m^3 or 105µg/m^3. If the running 24-hour average PM10 concentrations were to exceed this action level, steps were to be taken to reduce emissions.

Initially, the DataRAMs were deployed for the work day only and provided instantaneous PM10 concentrations as well as hourly average concentrations. The DataRAMs were then retrieved, downloaded, zeroed (an instrument diagnostic procedure), and prepared for the following work day. This pattern was selected because the hourly concentrations during site activity were quite low and because at the end of each work day the soil stockpiles were covered with plastic and all dust generating activity ceased. The highest running hourly average concentration for any work day between September 13th and October 16th was 72.5µg/m^3 and occurred on October 3rd at sampler N1 over the nine hour day. The highest 24-hour running average with those same 9 hours was 42.4 µg/m^3.

Activity on October 3rd included asphalt paving of the initial excavation B1 near the entrance to the site, peeling of asphalt for excavation of the B2 area, and backfill material being imported and stockpiled on the north end of the site. The major dust generating source on October 3rd (and throughout the duration of the project) was the import of clean backfill material. Winds from the northwest at 6 to 7 mph on October 3rd contributed to the higher than usual PM10 concentrations. DataRAMs C2 and S3 (central and south monitoring stations) recorded a work day running average of 38 and 37 µg/m^3 during the same period. Daily field notes indicate Geomatrix personnel requested additional water application to the north end of the site on October 3rd.

Beginning October 2nd, the DataRAMs remained deployed to confirm that the 24-hour running averages remained below the designated action level of 105µg/m^3. The DataRAMs remained in monitor mode continuously from October 2nd through October 16th unless there was a non-working weekend day. A one-hour interval interruption would typically occur between 1600 and 1700 each day for downloading and re-zeroing the instruments. DataRAM data including hourly and work day average concentrations, wind direction data, and hourly graphs are compiled in Appendix A.

DataRAM downtime: Although the DataRAMs were zeroed at the end of the day on September 20th, rain resulted in malfunctions to two instruments. The malfunctions were not apparent until they were deployed on September 21st. Because excavation of the B1 area was occurring near C2 (central station) the operational N1 DataRAM was relocated to the C2 monitoring location. Geomatrix purged one of the two malfunctioning instruments for the September 22nd work day and received a replacement DataRAM at 8:30 a.m. via Federal Express that morning to resume monitoring at three locations.

The N1 DataRAM began malfunctioning for a brief period during the night of October 10th and again on October 12th. Calls to Ashtead Technologies for diagnostics indicated the lenses in the instrument were compromised and the instrument should be sent back for service. It was very

evident during the project that the N1 DataRAM was exposed to particulate levels higher than those measured or observed at the other monitoring locations due to high truck traffic immediately adjacent to the DataRAM. Consequently, due to physical restrictions for siting the monitor, the DataRAM was exposed to above normal ambient dust conditions and caused the lenses to fail. A replacement DataRAM for the N1 location was not procured due to the timing of the malfunction with relationship to the conclusion of the project.

4.2 PCB CONCENTRATIONS

The TE-1000 PUF samplers were installed and operated according to manufacturer's recommendations. Although EPA guidance was considered for sampler siting, site conditions required siting compromises as a result of structures on site, locations of excavations, power availability, and safety. Geomatrix procured washed polyurethane filter media through the Air Toxics laboratory. The samplers were operated during operational hours exposing the filters and when finished the filter media was removed from the samplers and shipped back to Air Toxics for analysis. The analytical method for determination of PCBs in ambient air involves analyzing the particulate filter and PUF cartridge as a single sample train. Start time, stop time, flow rates, temperature, and pressure were recorded in the daily field notes for each sampler.

PCB air samples were collected on eight days during the project. Each of the three samplers ran on the same eight days. The first day of sampling occurred on September 13th and was chosen as a background sample to document local PCB ambient air concentrations prior to commencing excavation. PCB sampling occurred on seven (7) additional days during the soil removal activities chosen to specifically capture soil excavation and soil loading (exporting) activities. PCB air samples were collected using polyurethane foam cartridges (PUF), particulate filter media, and a high volume sampling pump drawing approximately 10 cfm (each sampler had a slightly different flow rate). The samples were collected for the entire work day period (between about 7.5 and 10.4 hours). Each of the air samplers were installed with their inlets elevated approximately 5 to 6 feet off the ground surface to collect a representative breathing zone sample. The samples were individually packaged and shipped to Air Toxics, Ltd. in Folsom, California, an EPA accredited laboratory, for analysis. The PCB samples were analyzed by EPA Method TO-4A.

The second set of samples was exposed on September 20th and coincided with the Area B-1 excavation. The September 13th and 20th sample runs were analyzed on an expedited (48 hours) basis to quickly ensure the perimeter action levels were appropriate. The six remaining sample events were analyzed with a standard laboratory turn around time of ten business days.

Two of the twenty-four (three samplers times eight days) exposed PUF cartridges submitted to Air Toxics were found to contain detectable levels of Aroclor 1260 at or above the detection limit of 1 µg. The C2 (Central 2 sampler) exposed filter from September 20th resulted in 2.8 µg and the N1 (North 1 sampler) exposed filter from the September 30th sampling run resulted in 1.0 µg. To determine the concentrations of the two filters with detectable levels of PCBs, the flow rate, sample duration, average temperature, and average pressure were documented. Converting the 2.8 µg and 1.0 µg to a concentration based on the actual conditions results in a mass concentration of .02 $\mu g/m^3$ for the C2 sample on September 20th, and a 0.008 $\mu g/m^3$ for the N1 sample on September 30th. Overall the detection limits ranged from 0.0056 $\mu g/m^3$ to 0.0082 $\mu g/m^3$ for the eight sampling days. Laboratory results and an analysis summary are presented in Appendix B.

The *Air Quality and Meteorological Monitoring Plan* identified a PCB concentration not to be exceeded at the property perimeter as 0.11 $\mu g/m^3$, based on the most stringent preliminary remediation goal for chronic inhalation exposure (cancer effects, assuming high-risk Aroclor 1254), published by Region IX of the U.S. Environmental Protection Agency. Based on the calculated concentrations, the two samples with detectable levels are 19.3% and 6.9% respectively, of the not to be exceeded property perimeter.

The sample run on September 20th specifically targeted the B1 excavation as having the potential to release airborne PCB's. The B1 excavation was adjacent to the C2 monitor and consequently the sampler had direct exposure to the soil removal activity. Winds during the day were southerly in the morning and switched to easterly in the afternoon with wind speeds between 3 and 5.7 miles per hour.

It should be noted that Air Toxics documented the results of the ambient sampling analysis in Level IV B CLP as categorized by EPA Region V Model Quality Assurance Project Plan, 1991.

5.0 METEOROLOGICAL MEASUREMENTS

The meteorological station operated from September 8th through October 31st, 2006. The tower was installed in a concrete foundation along the eastern edge of the site enabling the tower to free stand without guy wires. The station's power supply consisted of a solar panel and rechargeable battery.

The meteorological parameters are measured in one-second intervals and averaged in 15-minute blocks by a Campbell CR-10X electronic data logger except for precipitation which is logged as a 15 minute total. The data logger calculates and records sigma theta using techniques approved

for Prevention of Significant Deterioration (PSD) meteorological monitoring studies. The Model 5305-AQ wind speed and direction sensor meets the requirements for PSD monitoring studies.

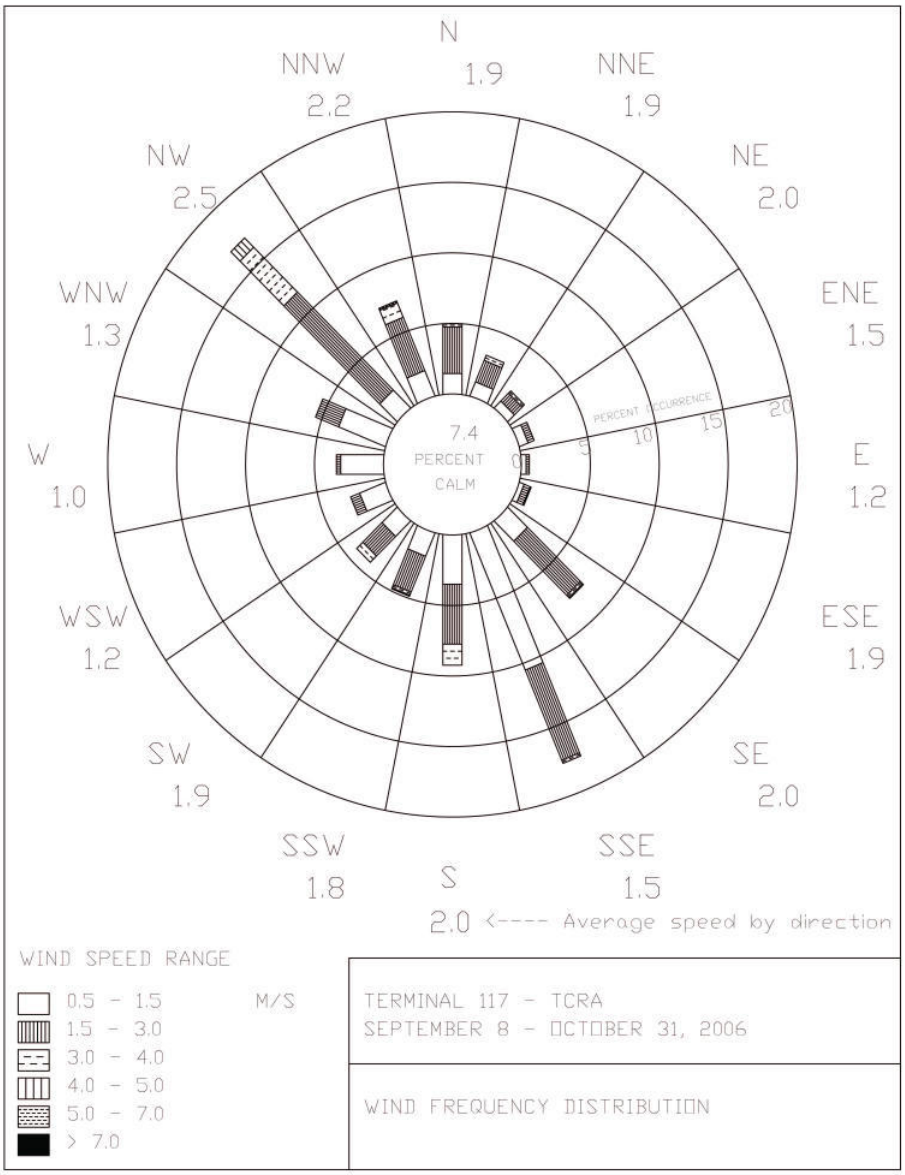
Following is a list of the meteorological instruments operated during the monitoring program:

- One RM Young 5305 Wind Monitor AQ to measure wind speed, wind direction, sigma theta ($\sigma\theta$) at 10 meters;
- Two Campbell Scientific 107 temperature sensors mounted in naturally aspirated shields at 2 and 10 meters;
- One Licor solar pyranometer to measure solar radiation at 4 meters;
- One Vaisala CS105 to measure barometric sensor at 2 meters; and
- One Qualimetrics 6011-A rain gauge.

Wind data are important in determining the relationship between emission sources and measured concentrations. Figure 2 presents wind data in the form of a wind rose for the period between September 8th and October 31st. The wind rose depicts the diurnal pattern of winds that are dominant near rivers. The predominant winds were from the northwest and southeast directions that parallel the Duwamish Waterway adjacent to the site.

Pressure data obtained from Boeing Field was used for the PUF concentration calculations. On-site meteorological data collected from September 8th until October 31st are presented in Appendix C.

Meteorological Downtime: Geomatrix procured a barometric pressure sensor for the meteorological station but delivery was delayed. The sensor was installed on October 2nd. Upon sensor installation, a new program was uploaded to the data logger. The new program contained an error and the precipitation data inadvertently was no longer written to final storage from October 2nd through the end of the data collection.



WIND ROSE
Terminal 117 TCRA
Seattle, Washington

By: KMW	Date: 12/7/06	Project No.	9950.003
Geomatrix		Figure	2

6.0 EQUIPMENT CALIBRATION

6.1 DataRAMS

The DataRAM4 used for the particulate monitoring is a high sensitivity, two-wavelength nephelometric monitor whose light scattering sensing configuration has been optimized for the measurement of the fine particle of airborne dust in ambient environments. The instrument automatically checks its own optical background during the zeroing sequence and indicates any significant deviations requiring maintenance. The DataRAM4 was zeroed on a daily basis during the duration of the project.

The monitors were programmed to provide hourly average, maximum, and minimum PM_{10} concentrations. Initially, the monitors were operated continuously during on-site activities and downloaded following completion of the work day. As the project progressed the DataRAMs were left running throughout the night to achieve a running 23 or 24 hour average concentration. The DataRAMs required a data stop in order to run the diagnostic zero and therefore, the monitors ran 23 hours per day.

6.2 TE-1000 PUF Samplers

Manufacturer's recommendations for calibration and maintenance were followed throughout the monitoring program. The samplers' flow rate ranged between 9 and 10.5 cfm (280 to 300 liters per minute) as outlined in the sampler specifications. PUF sampler calibrations were conducted prior to the first sample run on September 13th and following the last sample run on October 10th and are presented in Appendix B.

6.3 Meteorological Monitoring Station

Quality assurance checks were performed on the meteorological instruments both before and after the monitoring program. The quality assurance field data sheets are presented in Appendix C.

7.0 ODOR OBSERVATIONS

As a part of the *Air Quality and Meteorological Monitoring Plan*, odor observations were conducted throughout the duration of the TCRA activities. Although perimeter odor observations were conducted throughout the site, the majority of the odor observations were concentrated on the western and north end of the site in the direction of sensitive residential receivers. With the exception of heavy equipment exhaust odors and those odors associated with the application of asphalt, perimeter odor observations did not identify any quantifiable odors.

Discussions with the equipment operators in the excavation zones identified occasional instances of petroleum based odors localized in the B2 and B3 excavations but those odors were localized and not discernible along the perimeter of the site.

8.0 NOISE MONITORING

Geomatrix assessed noise generated by the T-117 Time-Critical Removal Actions (TCRA) by measuring noise during site clean up and then comparing measurement data to the applicable noise limits. The details of this review are presented below.

Applicable Noise Limits

Although T-117 is located in unincorporated King County, the nearest residences to the site are in the City of Seattle, and the applicable regulations for noise from T-117 affecting the residences are those included in the Seattle Municipal Code Chapter 25.08 (SMC 25.08). The Seattle noise rule includes timing restrictions and noise limits. This rule defines "maximum permissible sound levels" based on the zoning of the source and receiving properties, and sets limits for both long-term operational noise and for noise produced during various temporary construction activities. The construction noise limits use the operational noise limits as a base and allow specified increases over the base limits for varying types of construction equipment noise during daytime hours (i.e., between 7 a.m. and 10 p.m. weekdays and between 9 a.m. and 10 p.m. weekdays and holidays). Both the operational and construction noise limits for sources in industrial districts/zones are higher (i.e., less stringent) than when the noise source is from commercial or residential districts/zones. Throughout the T-117 project, weekday and weekend construction activity adhered to the allowable hours of operation.

The TCRA at T-117 are considered temporary construction noise sources under the Seattle noise rule, and the primary noise from the site is from loaders and other mobile construction equipment. A summary of the applicable construction noise limits for loaders and other similar equipment is displayed in **TABLE 1**.

TABLE 1

Seattle Construction Noise Limits (dBA)

Zoning District of Noise Source	Zoning District of Receiving Property		
	Residential	**Commercial**	**Industrial**
On-site sources like dozers, loaders, power shovels, cranes, derricks, graders, off-highway trucks, ditchers, and pneumatic equipment			
Residential	80	82	85
Commercial	82	85	90
Industrial	85	90	95
Daytime hourly L_n sound level limits for Industrial Noise Sources			
District of Receiving Property	**L_{25}**	**$L_{8.3}$**	**$L_{2.5}$**	**L_{max}**
Commercial	90	95	100	105

Note: Construction noise limits are applied at 50' or a real property line, whichever is greater, and are limited to **daytime hours only**. Daytime hours are defined as 7 a.m. to 10 p.m. weekdays and 9 a.m. to 10 p.m. weekends and holidays.

Source: Seattle Municipal Code Chapter 25.08

Seattle's noise limits (upper portion of **TABLE 1)** may be exceeded for certain periods of time. Noise limits can be exceeded by 5 dBA for no more than 15 minutes in any hour, or 10 dBA for no more than 5 minutes of any hour, or 15 dBA for no more than 1.5 minutes of any hour. Sometimes these exceptions are described in terms of the percentage of time a certain level is exceeded. For example, L_{25} represents a sound level that is exceeded 25 percent of the time, or 15 minutes in an hour. Similarly, $L_{8.33}$ and $L_{2.5}$ are the sound levels that are exceeded 5 and 1.5 minutes in an hour, respectively. At no time can the allowable sound level be exceeded by more than 15 dBA, represented by the L_{max}.

T-117 is in unincorporated King County on land zoned "I" for industrial use, so on-site noise sources due to construction and operation are considered to be in an Industrial district for purposes of applying the Seattle noise limits.

The residential receivers nearest to T-117 are located on Dallas Avenue S and on 17th Avenue S, near the intersection of Dallas and 17th Avenues S. These residences are on land zoned "IB" or Industrial Buffer. The Seattle noise code considers receiving properties located in IB zones to be in Commercial districts for purposes of applying the Seattle noise limits.

The applicable limits for construction noise from loaders and similar equipment working in Industrial Districts received in Commercial Districts are displayed in the bottom half of **TABLE 1**. The noise limits are shown as four noise descriptors that result from the allowed short-term increases to the "maximum permissible sound levels."

Measured Sound Levels

Geomatrix measured sound levels related to the T-117 Time-Critical Removal Actions (TCRA) at locations representing residences across from the main terminal building at T-117. Geomatrix measured sound levels in the vicinity of T-117 on Tuesday, September 26, 2006 and Thursday, September 28, 2006. Each measurement lasted at least 1 hour, and collected sound data in 1-second increments. The data included the 1-second equivalent sound level (L_{eq} or integrated sound-energy average) and the 1-second maximum level (L_{max}).[(1)] During the measurements, detailed time-indexed notes were taken to document the sources of noise. Using these data, Geomatrix calculated levels for the four sound level descriptors shown in the bottom of **TABLE 1** to assess compliance with Seattle's noise limits.

SLM 1 was taken on September 26, 2006 near the intersection of Dallas Ave S and 17th Ave S and adjacent to the residence at 8601 17th Ave S. SLM 2 was taken on September 28, 2006 further south on 17th Avenue S, adjacent to the residence at 8609 17th Avenue S. The major source of noise noted during each measurement was overhead aircraft, which passed frequently from SeaTac Airport and to and from King County International Airport. Other sources of noise included trucks traveling to and from the T-117 site on Dallas Ave S, construction equipment noise from the T-117 site, and other background sources such as equipment across the Duwamish River and distant traffic noise.

TABLE 2 displays the results of the measurements and compares the calculated L_{25}, $L_{8.33}$, $L_{2.5}$, and L_{max} values at each measurement location with the City of Seattle's noise limits for construction noise from an Industrial district received in a Commercial district. The calculated sound levels displayed in **TABLE 2** *include* all extraneous noise events, such as overhead aircraft (at times a very dominant noise source) and other background noise sources. Measured sound levels were well within the City of Seattle noise limits for all four noise limit descriptors. Because these calculated levels include noise from extraneous sources other than the activities at T-117, it is clear that noise related to on-site construction activity was well within the City of Seattle construction noise limits.

---

(1) Geomatrix collected data using 1-second intervals in the event it was necessary to extract intrusive sound levels from sources unrelated to the T-117 activities from the measurements in order to assess compliance. This proved not to be necessary because overall levels from all sources in the area comply with the applicable limits.

TABLE 2

Measured Sound Levels (dBA)

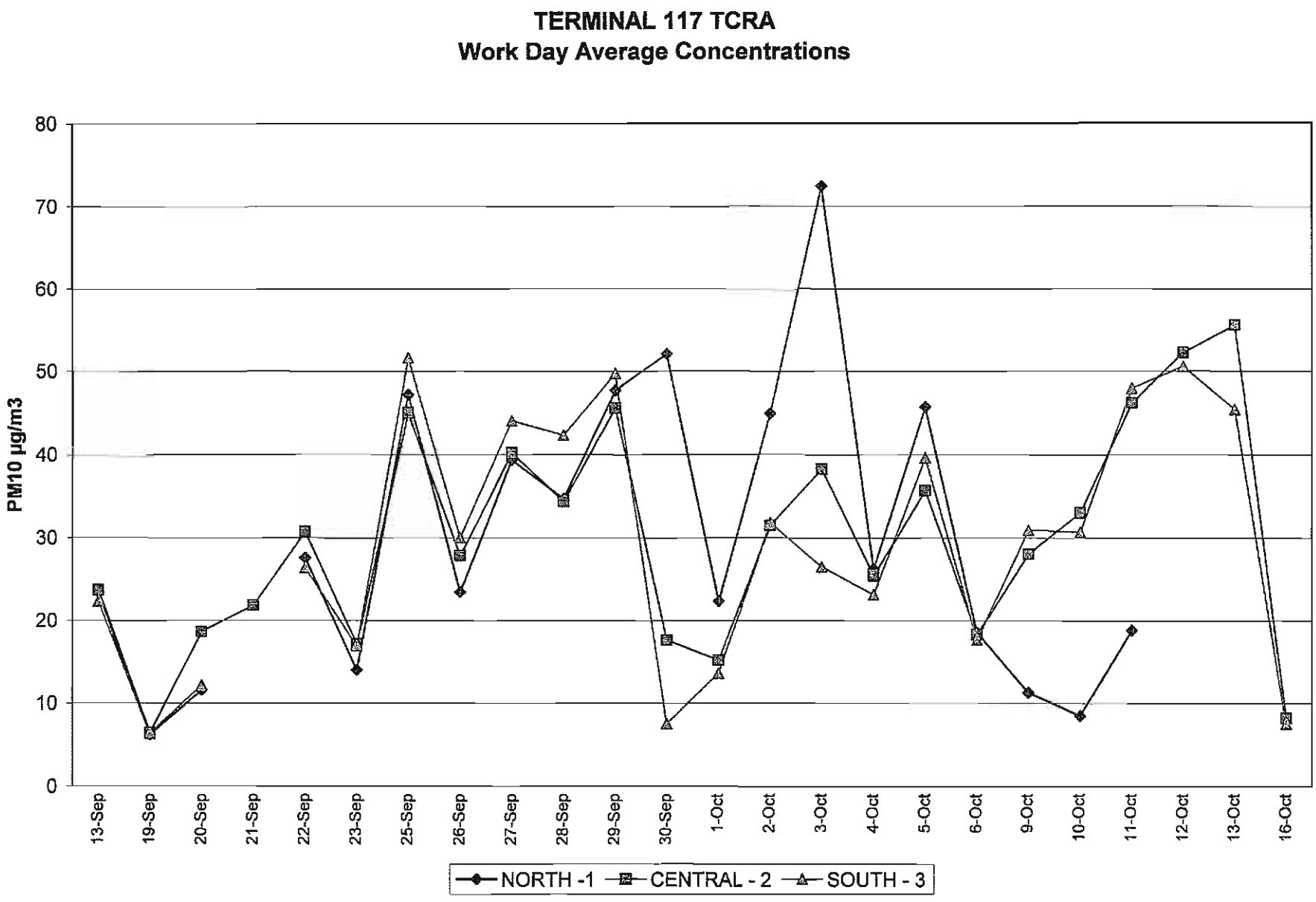
SLM Location	L_{25}	$L_{8.3}$	$L_{2.5}$	L_{max}
SLM 1 : 8601 17th Avenue S	64	70	73	83
SLM 2 : 8609 17th Avenue S	63	69	74	86
Seattle Noise Limits *Industrial affecting Commercial*	90	95	100	105
Source: Geomatrix Consultants, Inc., 2006.				

9.0 REFERENCES

U.S. EPA, Compendium Method TO-4A, January 1999

Seattle Municipal Code Chapter 25.08

Appendix A


TERMINAL 117 TCRA
Work Day Average Concentrations
PM10 µg/m3
80
70
60
50
40
30
20
10
0
13-Sep
19-Sep
20-Sep
21-Sep
22-Sep
23-Sep
25-Sep
26-Sep
27-Sep
28-Sep
29-Sep
30-Sep
1-Oct
2-Oct
3-Oct
4-Oct
5-Oct
6-Oct
9-Oct
10-Oct
11-Oct
12-Oct
13-Oct
16-Oct
NORTH -1
CENTRAL - 2
SOUTH - 3

TERMINAL 117
DATARAM - FIELD DATASHEET

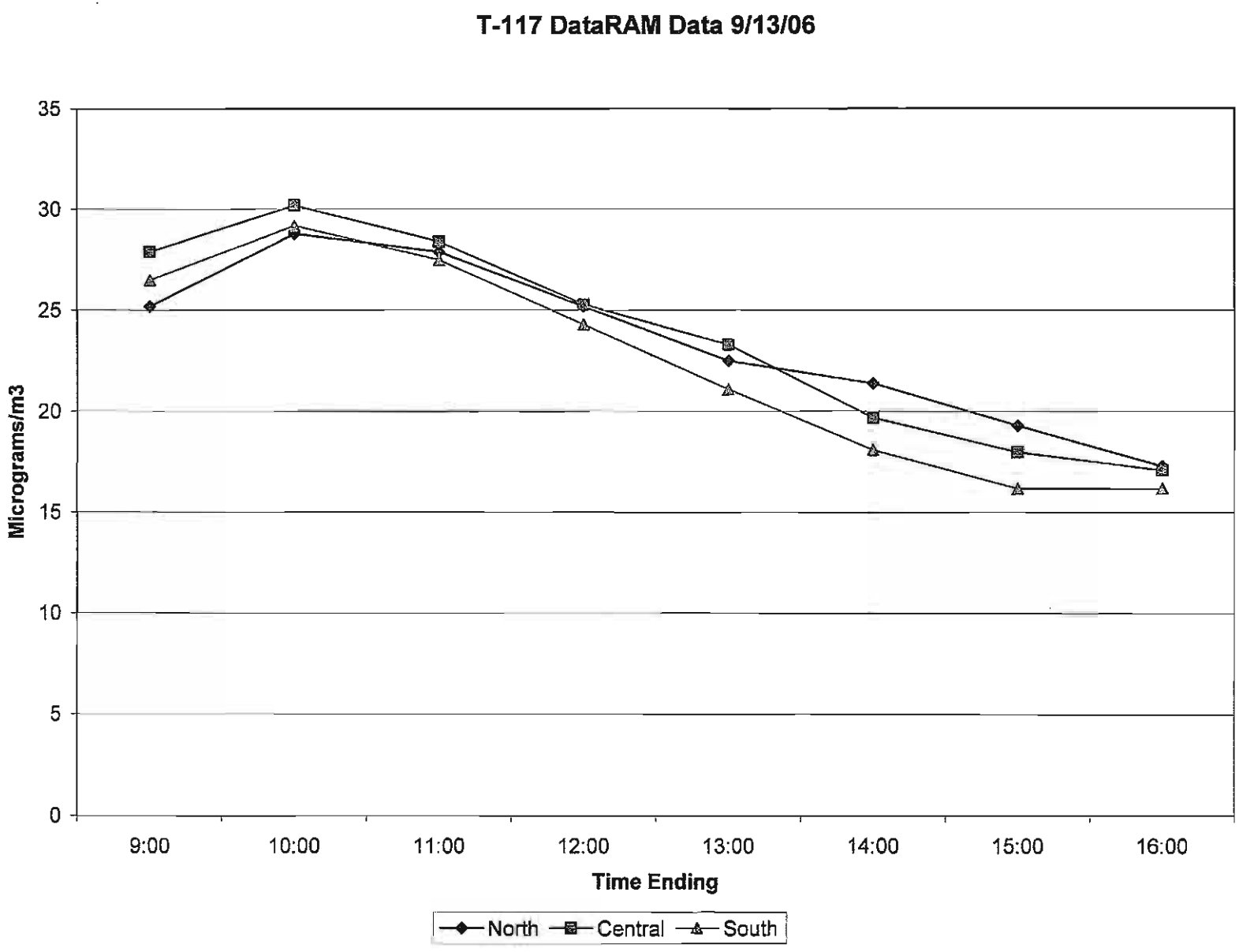
DATE **Sept.13, 2006**

DATARAM ID	NORTH - 1			START TIME	8:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	9:00	25.2	17	62	202
2	10:00	28.8	18.1	63	205
3	11:00	27.9	18.8	59	176
4	12:00	25.2	19.3	56	181
5	13:00	22.5	20.7	52	194
6	14:00	21.4	21.6	47	191
7	15:00	19.3	22.3	45	214
8	16:00	17.3	22.4	43	216
9					
10	**AVERAGE**	**23.5**			
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	8:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	9:00	27.9	17.4	62	202
2	10:00	30.2	17.8	63	205
3	11:00	28.4	18.1	61	176
4	12:00	25.3	18.6	58	181
5	13:00	23.3	19.9	54	194
6	14:00	19.7	20.9	49	191
7	15:00	18	21.7	46	214
8	16:00	17.1	21.5	45	216
9					
10	**AVERAGE**	**23.7**			
11					
12					

DATARAM ID	SOUTH - 3			START TIME	8:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	9:00	26.5	16.8	61	202
2	10:00	29.2	17.8	63	205
3	11:00	27.5	18.4	59	176
4	12:00	24.3	19	56	181
5	13:00	21.1	20.7	52	194
6	14:00	18.1	21.4	47	191
7	15:00	16.2	22.2	45	214
8	16:00	16.2	22	43	216
9					
10	**AVERAGE**	**22.4**			
11					
12					

Observer:kh
Weather:Overcast cool


T-117 DataRAM Data 9/13/06
35
30
25
20
15
10
5
0
Micrograms/m3
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

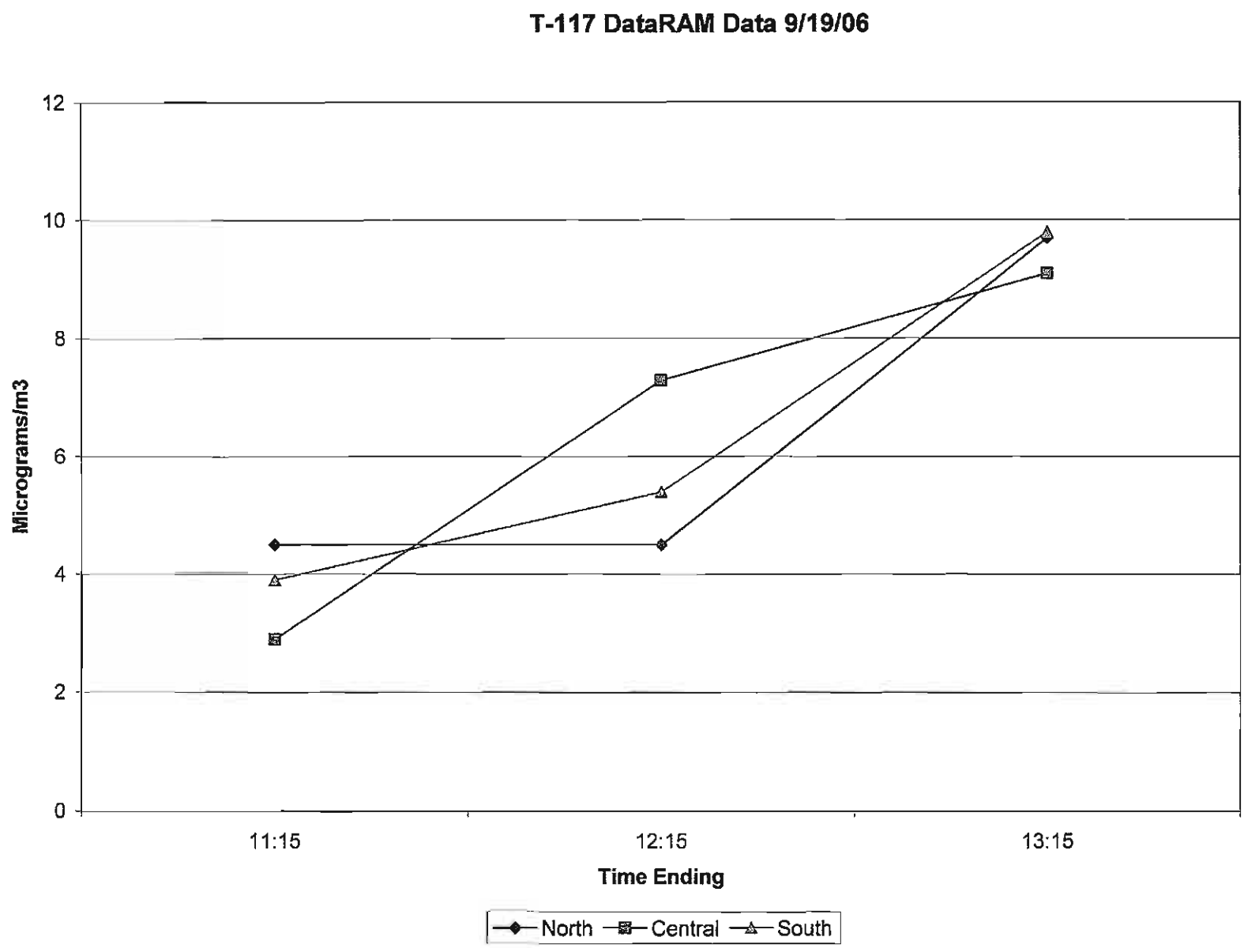
DATE Sept. 19, 2006

DATARAM ID	NORTH - 1			START TIME	10:15
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	11:15	4.5	22.2	55	357
2	12:15	4.5	27.6	44	218
3	13:15	9.7	29.7	41	60
4					
5	Average	6.2			
6					
7					
8					
9					
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	10:15
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	11:15	2.9	21.3	60	357
2	12:15	7.3	24.6	51	218
3	13:15	9.1	24.3	50	60
4					
5	Average	6.4			
6					
7					
8					
9					
10					
11					
12					

DATARAM ID	SOUTH - 3			START TIME	10.15
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	11:15	3.9	21.5	58	357
2	12:15	5.4	25.1	48	218
3	13:15	9.8	28	44	60
4					
5	Average	6.4			
6					
7					
8					
9					
10					
11					
12					

Observer:kh
Weather:partly cloudy, warm


T-117 DataRAM Data 9/19/06
12
10
8
6
4
2
0
Micrograms/m3
11:15
12:15
13:15
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

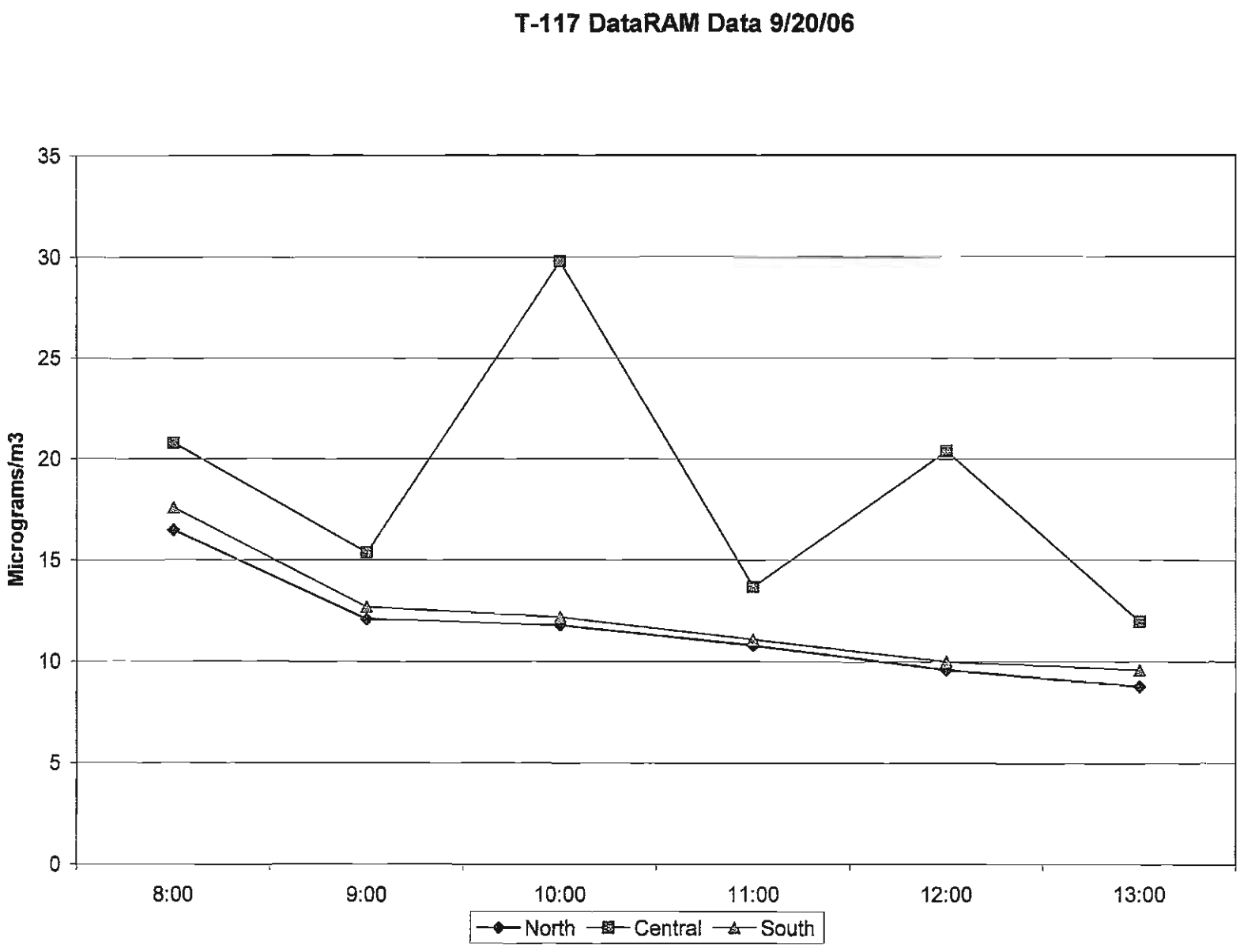
DATE Sept. 20, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	16.5	16.7	57	168
2	9:00	12.1	17.4	63	173
3	10:00	11.8	18.4	63	170
4	11:00	10.8	19.9	61	175
5	12:00	9.6	21.8	57	168
6	13:00	8.8	21.7	56	163
7					
8	Average	11.6			
9					
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	20.8	17	60	168
2	9:00	15.4	18.1	63	173
3	10:00	29.8	18.6	64	170
4	11:00	13.7	19.2	64	175
5	12:00	20.4	19.8	64	168
6	13:00	12	19.5	64	163
7					
8	Average	18.7			
9					
10					
11					
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	17.6	15.8	58	168
2	9:00	12.7	17.8	62	173
3	10:00	12.2	19.2	61	170
4	11:00	11.1	20.7	59	175
5	12:00	10	22.6	55	168
6	13:00	9.6	22.1	56	163
7					
8	Average	12.2			
9					
10					
11					
12					

Observer:kh
Weather:rain


T-117 DataRAM Data 9/20/06
Micrograms/m3
35
30
25
20
15
10
5
0
8:00
9:00
10:00
11:00
12:00
13:00
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

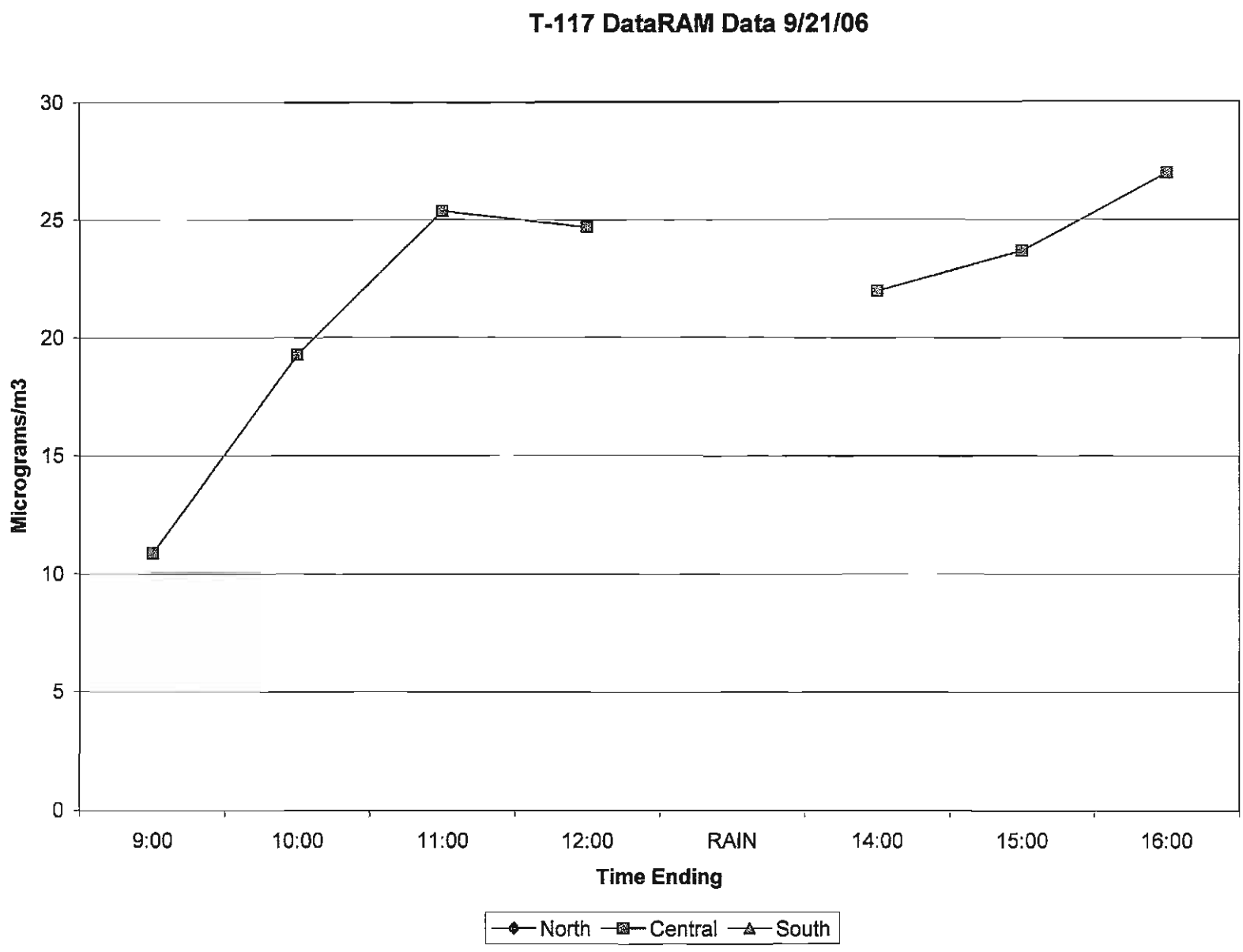
DATE Sept. 21, 2006

DATARAM ID	NORTH - 1	(malfunction)		START TIME	
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

DATARAM ID	CENTRAL - 2	(USED NORTH DR)		START TIME	8:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	9:00	10.9	17.1	68	169
2	10:00	19.3	18.1	67	161
3	11:00	25.4	18.8	64	140
4	12:00	24.7	20	61	138
5	RAIN				145
6	14:00	22	21.7	58	151
7	15:00	23.7	22.9	53	110
8	16:00	27	23.5	49	99
9					
10	Average	21.9			
11					
12					

DATARAM ID	SOUTH - 3	(malfunction)		START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Observer:kh
Weather:wet


T-117 DataRAM Data 9/21/06
Micrograms/m3
30
25
20
15
10
5
0
9:00
10:00
11:00
12:00
RAIN
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

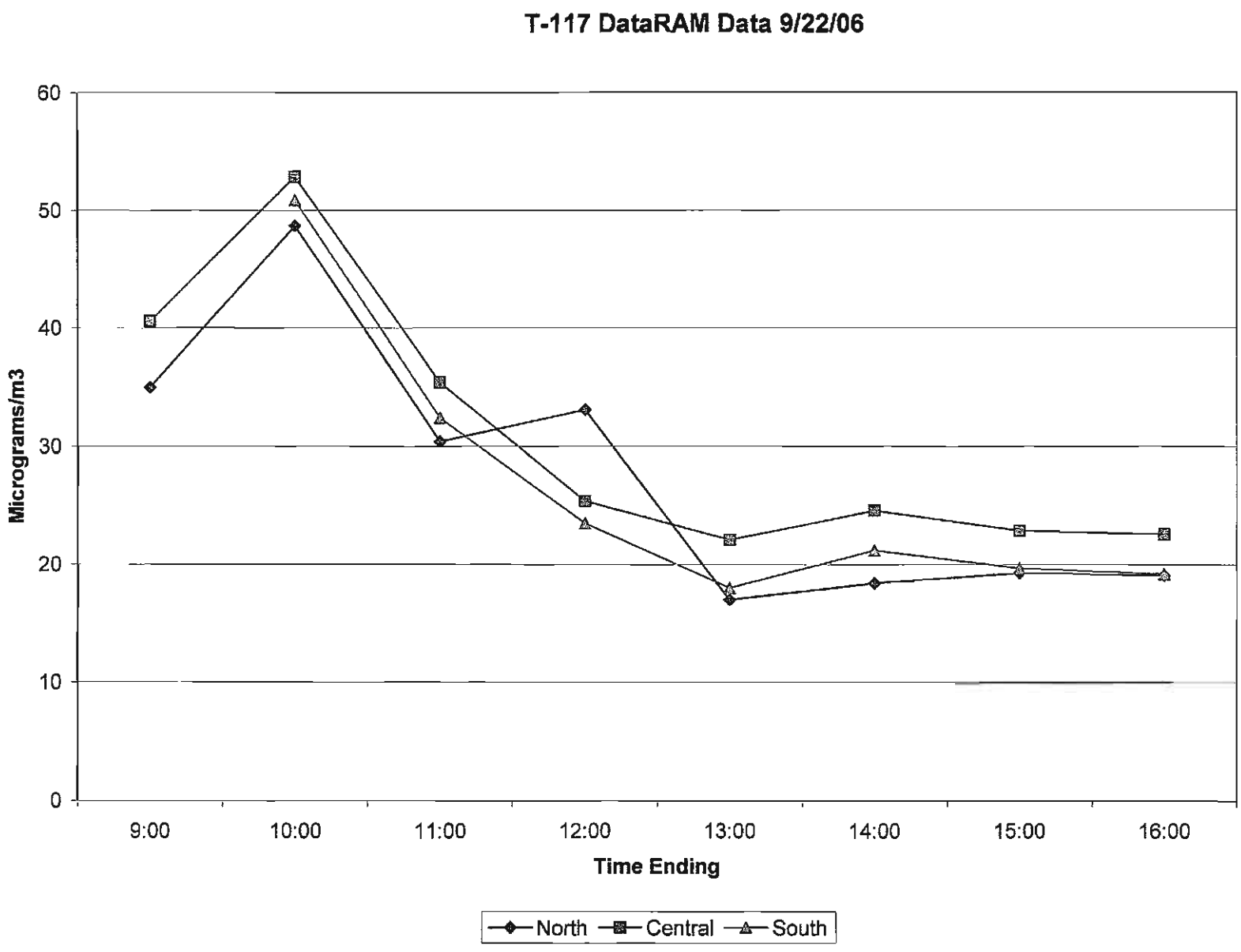
DATE **Sept.22, 2006**

DATARAM ID	NORTH - 1			START TIME	8:02
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	9:02	35	15.3	65	312
2	10:02	48.7	17.7	66	14
3	11:02	30.4	19.9	61	5
4	12:02	33.1	23.2	53	354
5	13:02	17	28.1	42	8
6	14:02	18.4	32.6	33	331
7	15:02	19.3	37.3	28	345
8	16:02	19.1	40.8	23	4
9					
10	**Average**	**27.6**			
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	8:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	9:00	40.6	14.1	66	312
2	10:00	52.9	16.7	69	14
3	11:00	35.4	18.9	65	5
4	12:00	25.4	22.1	58	354
5	13:00	22.1	25.2	49	8
6	14:00	24.6	26.2	44	331
7	15:00	22.9	26.5	43	345
8	16:00	22.6	26.3	42	4
9					
10	**Average**	**30.8**			
11					
12					

DATARAM ID	SOUTH - 3			START TIME	9:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	9:00				312
2	10:00	50.9	19.4	55	14
3	11:00	32.4	21.5	54	5
4	12:00	23.5	25.8	46	354
5	13:00	18	30.7	36	8
6	14:00	21.2	33.9	30	331
7	15:00	19.7	39.2	24	345
8	16:00	19.2	43.8	20	4
9					
10	**Average**	**26.4**			
11					
12					

Observer:
Weather:


T-117 DataRAM Data 9/22/06
Micrograms/m3
60
50
40
30
20
10
0
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

DATE Sept.23, 2006

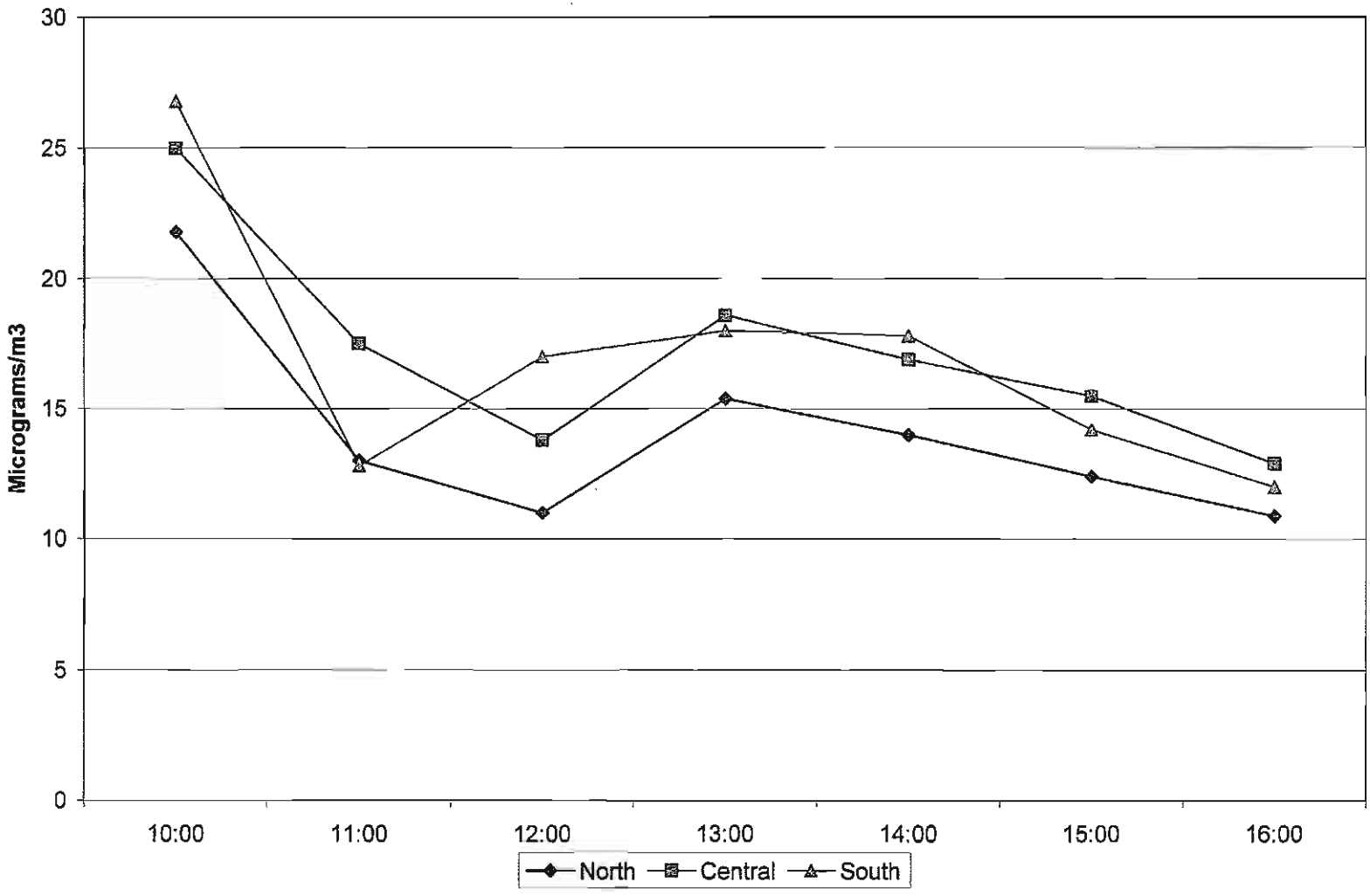
DATARAM ID	NORTH - 1			START TIME	9:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	10:00	21.8	18.5	53	34
2	11:00	13	21.9	53	356
3	12:00	11	28.6	39	318
4	13:00	15.4	31.9	34	315
5	14:00	14	32.8	31	320
6	15:00	12.4	33.6	30	319
7	16:00	10.9	33.7	29	319
8					
9	Average	14.1			
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	9:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	10:00	25	19.8	58	34
2	11:00	17.5	28.2	43	356
3	12:00	13.8	33.3	33	318
4	13:00	18.6	28.2	37	315
5	14:00	16.9	25.4	41	320
6	15:00	15.5	25.5	43	319
7	16:00	12.9	25.7	42	319
8					
9	Average	17.2			
10					
11					
12					

DATARAM ID	SOUTH - 3			START TIME	9:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	10:00	26.8	17.2	53	34
2	11:00	12.8	23.6	48	356
3	12:00	17	26.9	40	318
4	13:00	18	26.4	39	315
5	14:00	17.8	26.2	39	320
6	15:00	14.2	27.6	37	319
7	16:00	12	27.7	36	319
8					
9	Average	16.9			
10					
11					
12					

Observer:kh
Weather:warm,partly cloudy

T-117 DataRAM Data 9/23/06



TERMINAL 117
DATARAM - FIELD DATASHEET

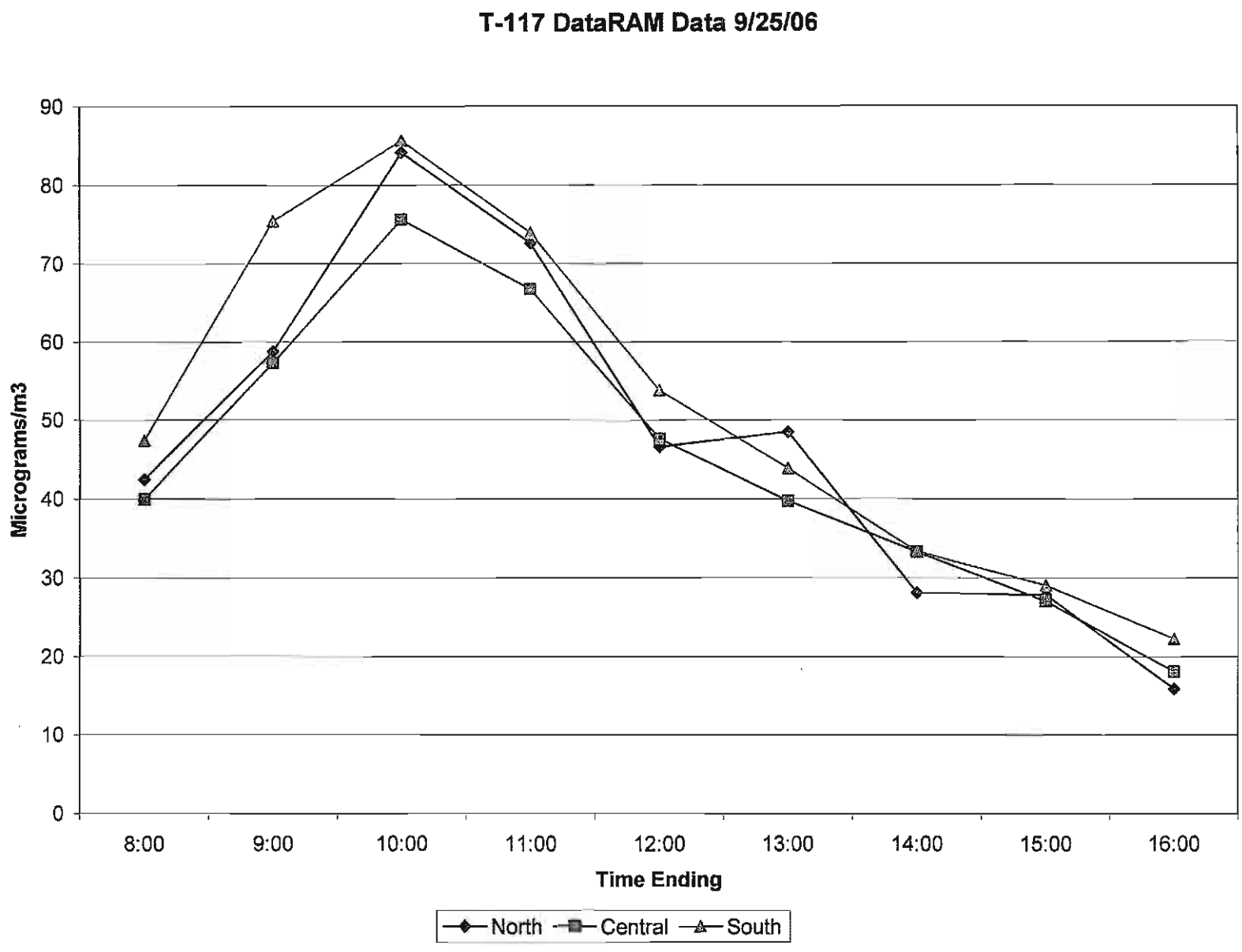
DATE Sept.25, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	42.5	17.9	58	12
2	9:00	58.8	18.8	66	119
3	10:00	84.2	22.5	59	355
4	11:00	72.7	25.1	55	316
5	12:00	46.6	31.7	40	311
6	13:00	48.5	35.2	33	311
7	14:00	28.2	36.9	29	318
8	15:00	27.9	38.6	27	320
9	16:00	15.9	39.3	24	316
10					
11	**Average**	**47.3**			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	40	19	58	12
2	9:00	57.3	20.2	63	119
3	10:00	75.7	24.1	56	355
4	11:00	66.8	29.7	45	316
5	12:00	47.6	35.1	33	311
6	13:00	39.8	31.3	35	311
7	14:00	33.4	29.8	37	318
8	15:00	27.1	30	37	320
9	16:00	18.1	30.4	34	316
10					
11	**Average**	**45.1**			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	47.4	18	57	12
2	9:00	75.5	17.4	68	119
3	10:00	85.7	21.5	65	355
4	11:00	74	26.6	50	316
5	12:00	53.8	28.4	43	311
6	13:00	43.9	30.6	38	311
7	14:00	33.4	33.5	32	318
8	15:00	29.1	33.7	30	320
9	16:00	22.3	33.9	28	316
10					
11	**Average**	**51.7**			
12					

Observer:kh
Weather:clear, warm


T-117 DataRAM Data 9/25/06
Micrograms/m3
90
80
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

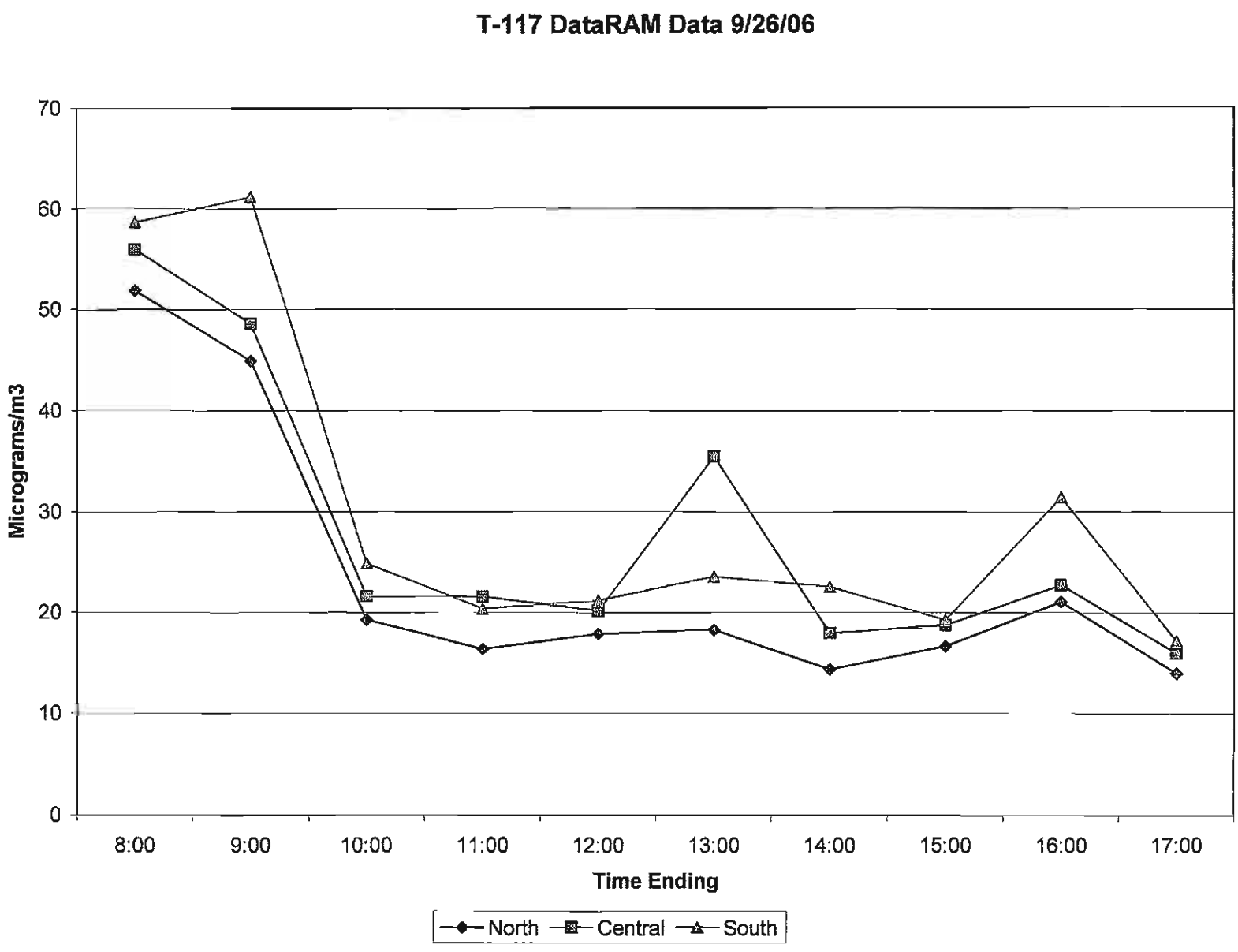
DATE **Sept.26, 2006**

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	51.9	17.9	55	314
2	9:00	44.9	19.5	65	16
3	10:00	19.3	26.7	51	339
4	11:00	16.4	31.7	39	344
5	12:00	17.9	32.9	34	315
6	13:00	18.3	33.1	34	307
7	14:00	14.4	33	34	310
8	15:00	16.7	35.1	30	309
9	16:00	21.1	35.2	30	315
10	17:00	14	35.8	29	316
11					
12	**Average**	**23.5**			

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	56	19.2	55	314
2	9:00	48.6	20.9	62	16
3	10:00	21.6	28.1	48	339
4	11:00	21.6	34.1	35	344
5	12:00	20.2	37.7	28	315
6	13:00	35.5	31.7	33	307
7	14:00	18	29.1	38	310
8	15:00	18.8	29.3	37	309
9	16:00	22.8	29.8	38	315
10	17:00	16	30.6	37	316
11					
12	**Average**	**27.9**			

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	58.7	18.3	55	314
2	9:00	61.2	17.5	68	16
3	10:00	24.9	22	62	339
4	11:00	20.4	27.4	46	344
5	12:00	21.2	30.8	37	315
6	13:00	23.6	30	37	307
7	14:00	22.6	31.3	34	310
8	15:00	19.3	31.8	33	309
9	16:00	31.5	32.5	33	315
10	17:00	17.2	32.1	32	316
11					
12	**Average**	**30.1**			

Observer:kh
Weather:warm, clear


T-117 DataRAM Data 9/26/06
Micrograms/m3
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

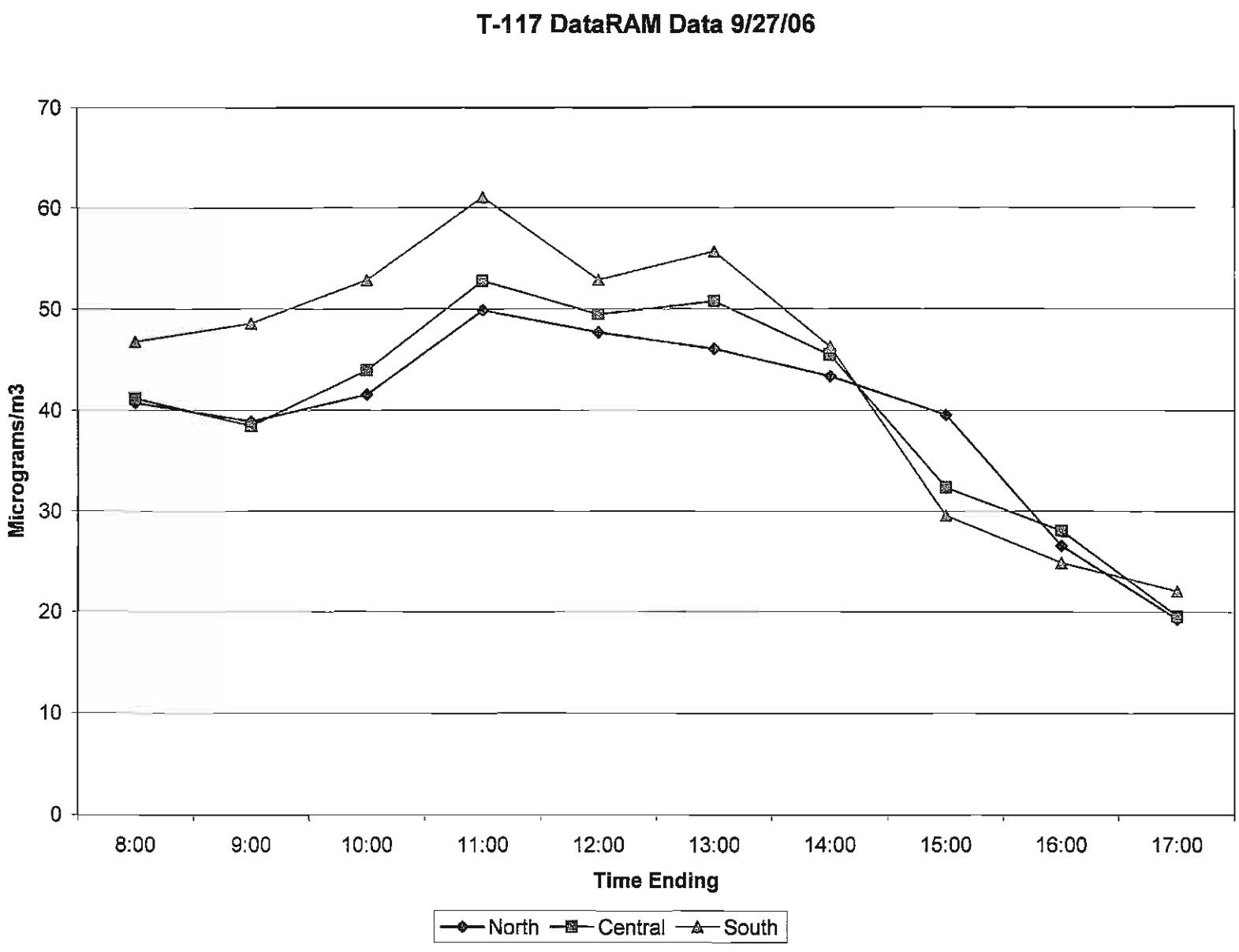
DATE **Sept.27, 2006**

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	40.8	20.2	54	136
2	9:00	38.9	21.9	59	11
3	10:00	41.6	27.5	49	337
4	11:00	49.9	32.3	40	20
5	12:00	47.7	35.4	34	315
6	13:00	46.1	35.4	32	322
7	14:00	43.4	35.2	33	323
8	15:00	39.6	38.3	29	308
9	16:00	26.6	40.3	26	309
10	17:00	19.3	40	24	317
11					
12	**Average**	**39.4**			

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	41.2	21	53	136
2	9:00	38.5	23.1	56	11
3	10:00	44	28.1	48	337
4	11:00	52.8	33.6	37	20
5	12:00	49.5	37.2	31	315
6	13:00	50.8	32.8	34	322
7	14:00	45.5	30.9	38	323
8	15:00	32.4	30.8	38	308
9	16:00	28.1	31.3	37	309
10	17:00	19.6	32.2	34	317
11					
12	**Average**	**40.2**			

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	46.8	19.8	55	136
2	9:00	48.6	18.7	66	11
3	10:00	52.9	22.8	61	337
4	11:00	61.1	27.8	48	20
5	12:00	52.9	32.5	38	315
6	13:00	55.7	31.9	36	322
7	14:00	46.3	32.8	35	323
8	15:00	29.6	34.2	32	308
9	16:00	24.9	35.5	29	309
10	17:00	22.1	37.1	26	317
11					
12	**Average**	**44.1**			

Observer:kh
Weather:hot, mostly calm


T-117 DataRAM Data 9/27/06
Micrograms/m3
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

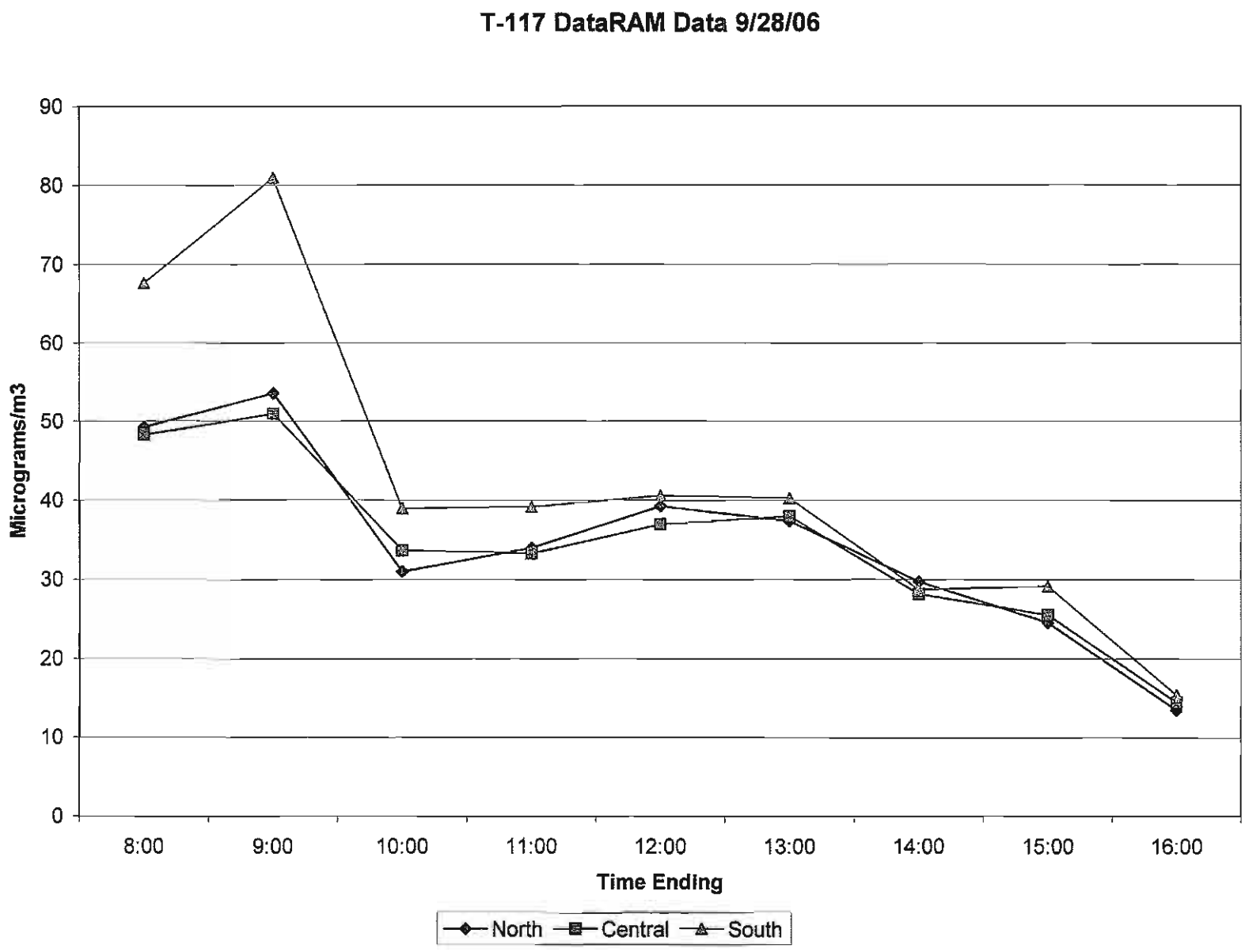
DATE Sept.28, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	49.3	20.5	52	119
2	9:00	53.6	22.7	58	319
3	10:00	31	27	48	323
4	11:00	34	29.2	43	306
5	12:00	39.3	32	38	307
6	13:00	37.4	32.4	37	306
7	14:00	29.8	32.2	39	318
8	15:00	24.6	36.9	32	308
9	16:00	13.5	36.4	30	308
10					
11	Average	34.7			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	48.3	21.4	53	119
2	9:00	51	24.1	54	319
3	10:00	33.7	28.5	44	323
4	11:00	33.3	32.6	36	306
5	12:00	37	35.5	31	307
6	13:00	38	30.6	37	306
7	14:00	28.2	29	41	318
8	15:00	25.6	30	41	308
9	16:00	14.5	29.9	39	308
10					
11	Average	34.4			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	67.7	16.9	62	119
2	9:00	81	17.9	71	319
3	10:00	39	21.3	62	323
4	11:00	39.2	25.7	52	306
5	12:00	40.6	32.4	38	307
6	13:00	40.3	35.1	32	306
7	14:00	28.8	33.7	32	318
8	15:00	29.2	33.9	32	308
9	16:00	15.4	33	32	308
10					
11	Average	42.4			
12					

Observer:kh
Weather:hot, nw winds


T-117 DataRAM Data 9/28/06
Micrograms/m3
90
80
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

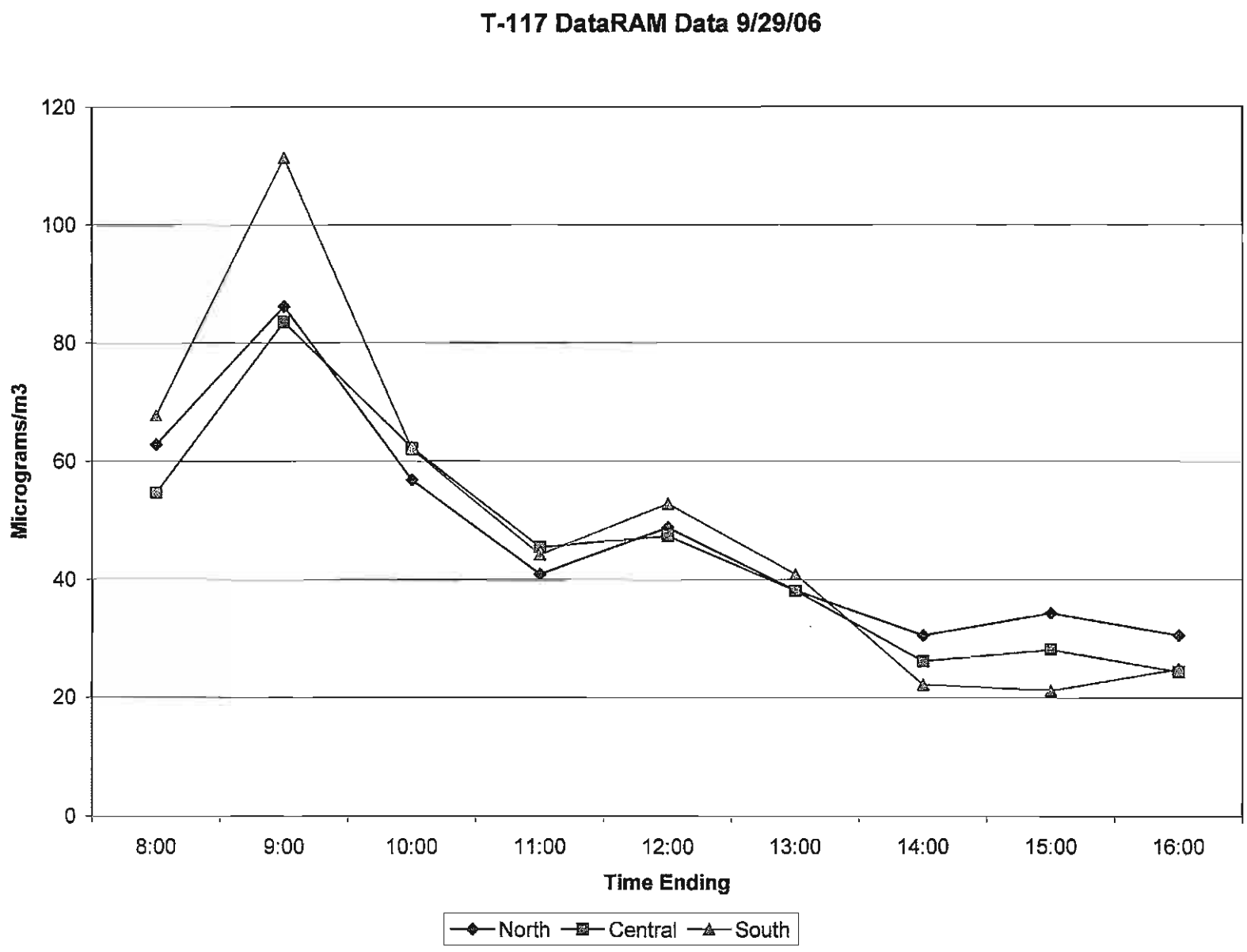
DATE Sept.29, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	62.9	18.5	59	304
2	9:00	86.2	17.9	69	36
3	10:00	56.9	21.5	65	101
4	11:00	41	26.3	52	329
5	12:00	48.9	30.5	42	315
6	13:00	38.2	30.2	40	322
7	14:00	30.6	30.7	41	318
8	15:00	34.4	35.9	32	310
9	16:00	30.6	37.3	29	308
10					
11	**Average**	**47.7**			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	54.8	19.5	59	304
2	9:00	83.6	18.8	67	36
3	10:00	62.3	21.4	65	101
4	11:00	45.6	28.3	50	329
5	12:00	47.5	34.3	36	315
6	13:00	38.2	30.4	38	322
7	14:00	26.2	28.5	42	318
8	15:00	28.2	28.7	42	310
9	16:00	24.4	29.2	41	308
10					
11	**Average**	**45.6**			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	67.8	18.5	59	304
2	9:00	111.5	17.9	69	36
3	10:00	62.1	21	65	101
4	11:00	44.3	27.2	50	329
5	12:00	52.9	31.1	39	315
6	13:00	41	29.7	39	322
7	14:00	22.2	31.7	35	318
8	15:00	21.2	33.2	32	310
9	16:00	24.9	33.1	32	308
10					
11	**Average**	**49.8**			
12					

Observer:kh
Weather:foggy early, sun


T-117 DataRAM Data 9/29/06
120
100
80
60
40
20
0
Micrograms/m3
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

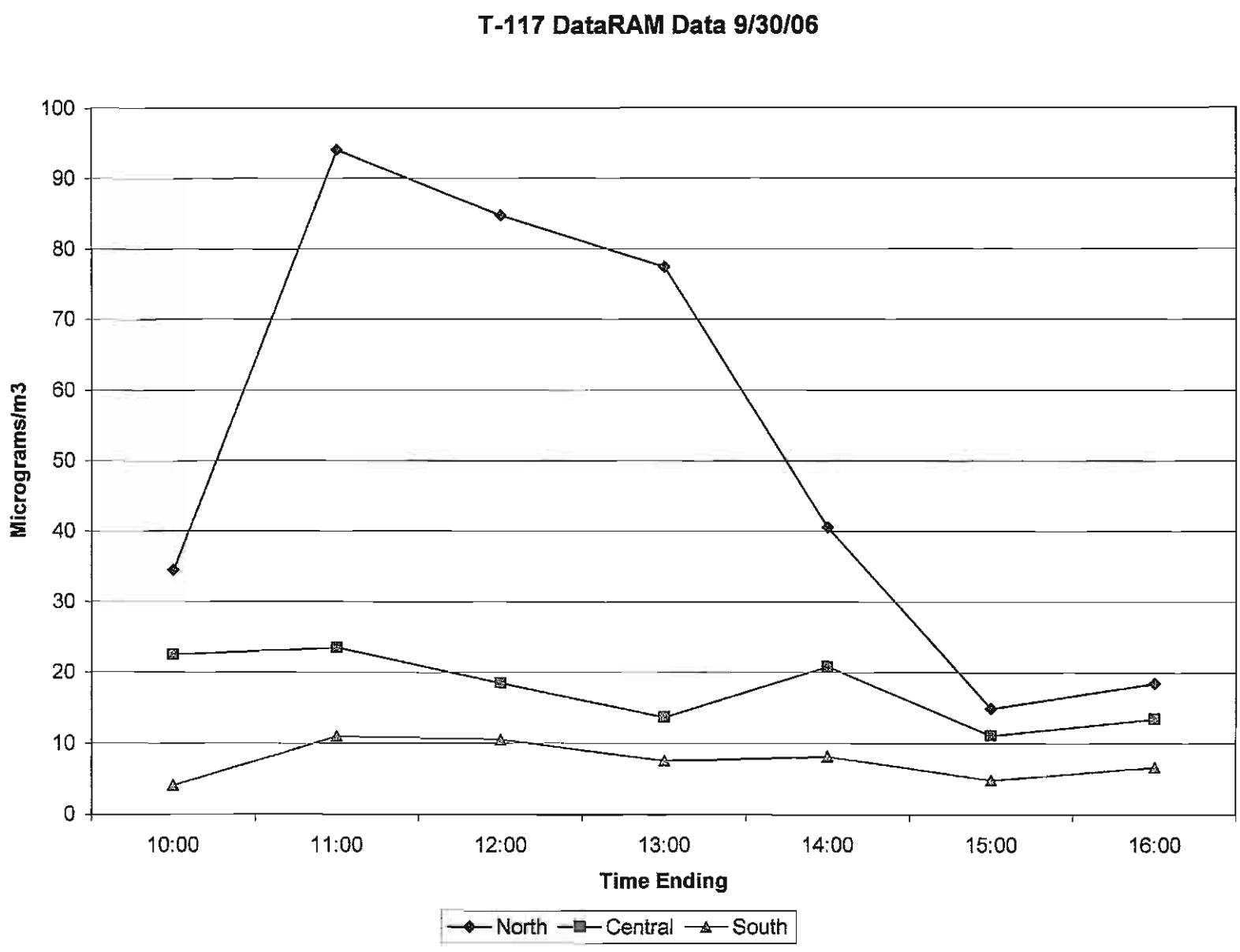
DATE Sept.30, 2006

DATARAM ID	NORTH - 1			START TIME	9:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	10:00	34.5	18.2	51	145
2	11:00	94.1	18.1	60	170
3	12:00	84.8	20.5	57	184
4	13:00	77.5	21.7	51	74
5	14:00	40.6	23.4	48	52
6	15:00	14.9	24.4	44	34
7	16:00	18.5	24	44	18
8					
9	**Average**	**52.1**			
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	9:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	10:00	22.5	19.4	52	145
2	11:00	23.5	18.9	58	170
3	12:00	18.5	20.3	57	184
4	13:00	13.7	21.2	53	74
5	14:00	20.9	22.2	51	52
6	15:00	11.1	23.4	47	34
7	16:00	13.5	23.7	45	18
8					
9	**Average**	**17.7**			
10					
11					
12					

DATARAM ID	SOUTH - 3			START TIME	9:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	10:00	4.1	19.1	57	145
2	11:00	11	19.8	62	170
3	12:00	10.5	21.9	61	184
4	13:00	7.6	22.6	60	74
5	14:00	8.2	24.3	59	52
6	15:00	4.8	25.8	57	34
7	16:00	6.7	25.6	56	18
8					
9	**Average**	**7.6**			
10					
11					
12					

Observer:kh
Weather:cloudy, dry


T-117 DataRAM Data 9/30/06
Micrograms/m3
100
90
80
70
60
50
40
30
20
10
0
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

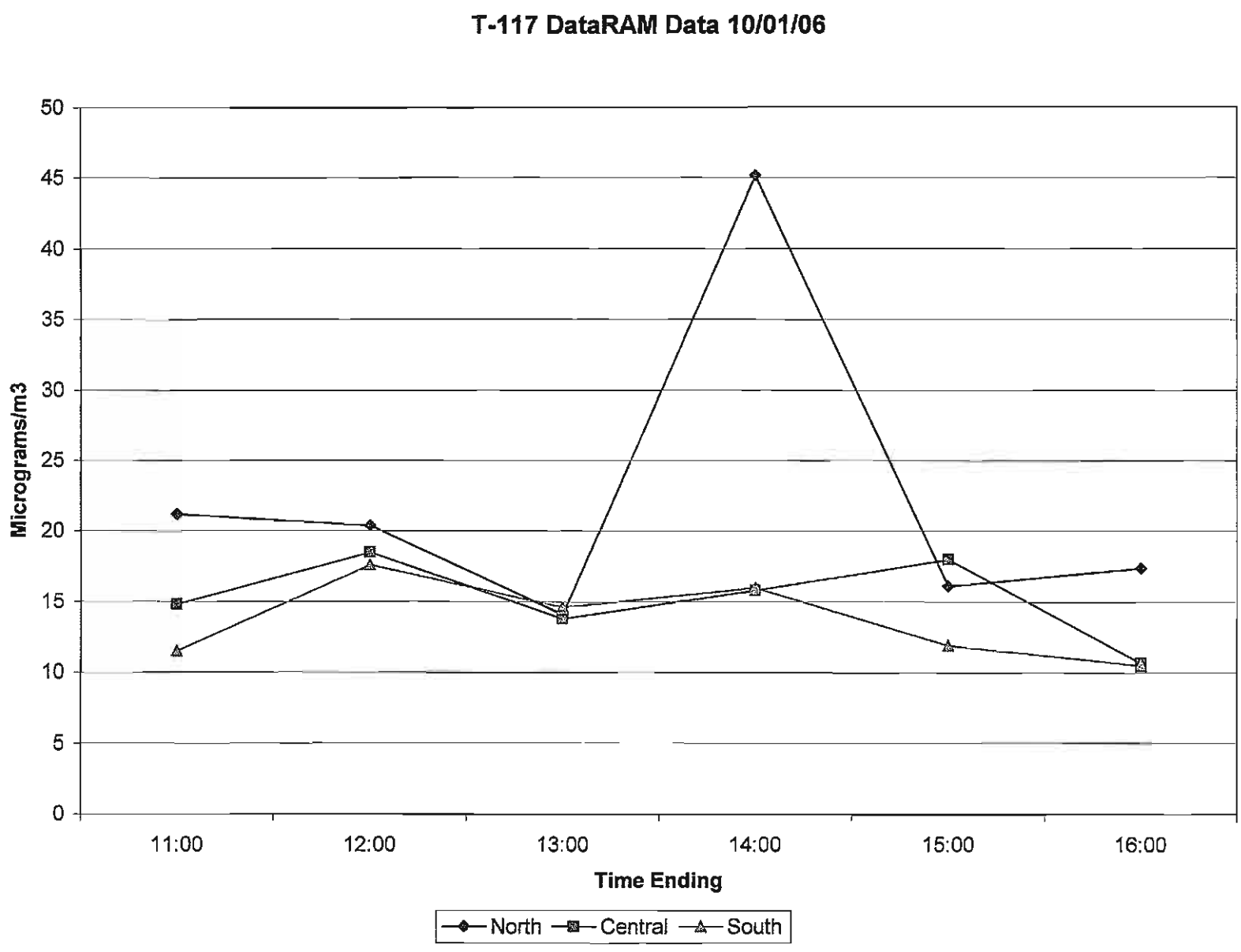
DATE Oct. 1, 2006

DATARAM ID	NORTH - 1			START TIME	10:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	11:00	21.2	19.4	52	298
2	12:00	20.4	22.4	49	313
3	13:00	14.1	27.6	39	324
4	14:00	45.2	29.1	35	321
5	15:00	16.1	33.1	29	315
6	16:00	17.4	31.6	28	319
7					
8	**Average**	**22.4**			
9					
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	10:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	11:00	14.8	19.7	52	298
2	12:00	18.5	22.9	48	313
3	13:00	13.8	26.3	41	324
4	14:00	15.8	26.7	38	321
5	15:00	18	26.7	37	315
6	16:00	10.7	26.3	36	319
7					
8	**Average**	**15.3**			
9					
10					
11					
12					

DATARAM ID	SOUTH - 3			START TIME	10:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	11:00	11.5	19.8	61	298
2	12:00	17.6	22.8	59	313
3	13:00	14.6	27.3	50	324
4	14:00	16	27.9	40	321
5	15:00	11.9	27.9	37	315
6	16:00	10.5	24.9	39	319
7					
8	**Average**	**13.7**			
9					
10					
11					
12					

Observer:jm
Weather:warm, dry


T-117 DataRAM Data 10/01/06
Micrograms/m3
50
45
40
35
30
25
20
15
10
5
0
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

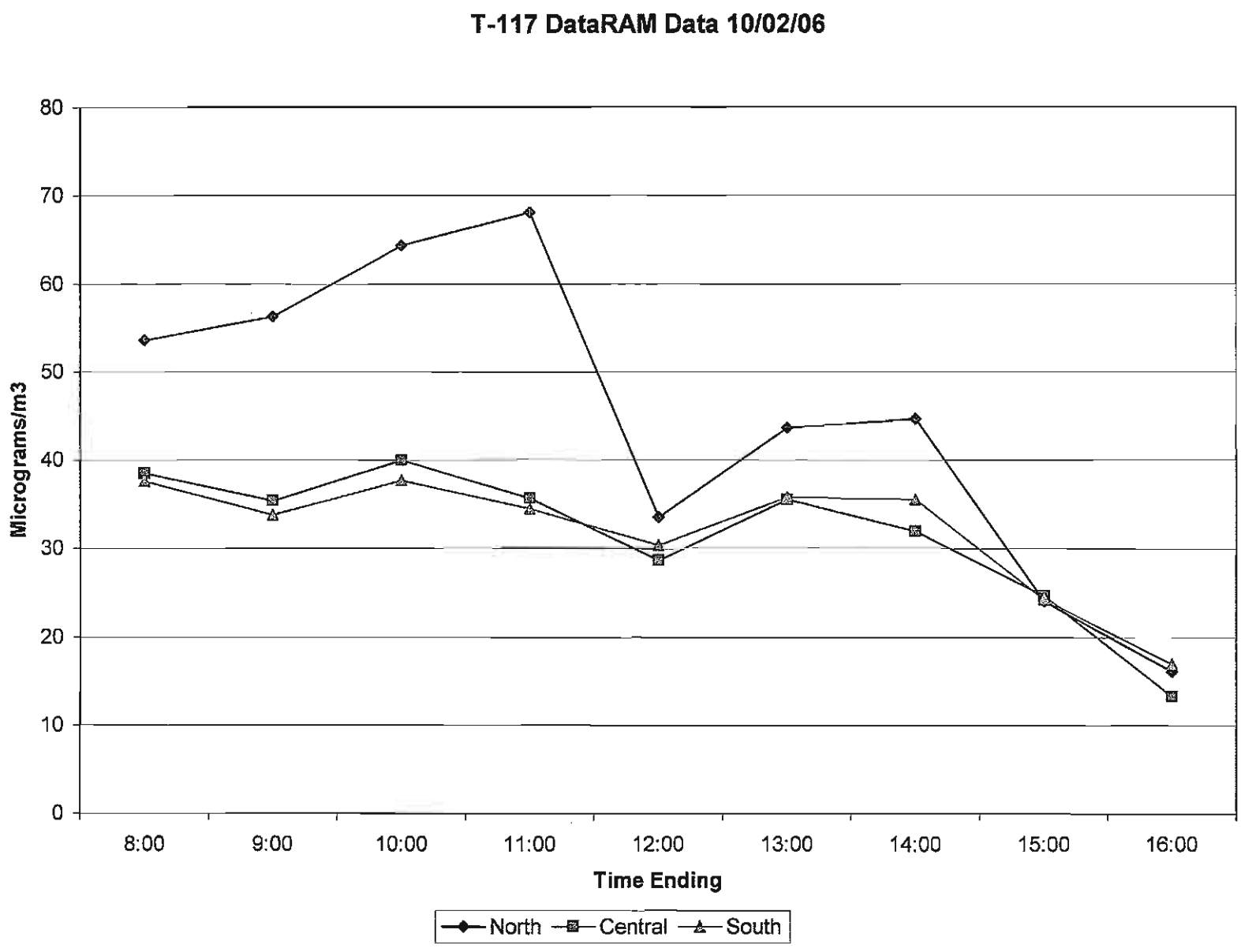
DATE Oct. 2, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	53.6	16.4	48	150
2	9:00	56.3	15.9	56	146
3	10:00	64.4	18.4	53	152
4	11:00	68.1	24.6	44	196
5	12:00	33.6	29.4	34	337
6	13:00	43.7	30.5	32	310
7	14:00	44.7	31.4	31	323
8	15:00	24.1	33.5	28	317
9	16:00	16.1	34.6	24	315
10					
11	**Average**	**45.0**			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	38.5	17.2	49	150
2	9:00	35.4	17	54	146
3	10:00	40	19.3	52	152
4	11:00	35.7	25	43	196
5	12:00	28.7	29	35	337
6	13:00	35.6	28.5	35	310
7	14:00	32	28.6	34	323
8	15:00	24.7	27.9	34	317
9	16:00	13.3	28.1	32	315
10					
11	**Average**	**31.5**			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	37.6	15.7	57	150
2	9:00	33.8	15.5	60	146
3	10:00	37.7	18.1	60	152
4	11:00	34.5	24.2	56	196
5	12:00	30.4	29.2	51	337
6	13:00	35.8	31.2	47	310
7	14:00	35.6	32.6	43	323
8	15:00	24.3	32.4	39	317
9	16:00	17	29.1	35	315
10					
11	**Average**	**31.9**			
12					

Observer:kh
Weather:warm, clear


T-117 DataRAM Data 10/02/06
Micrograms/m3
80
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

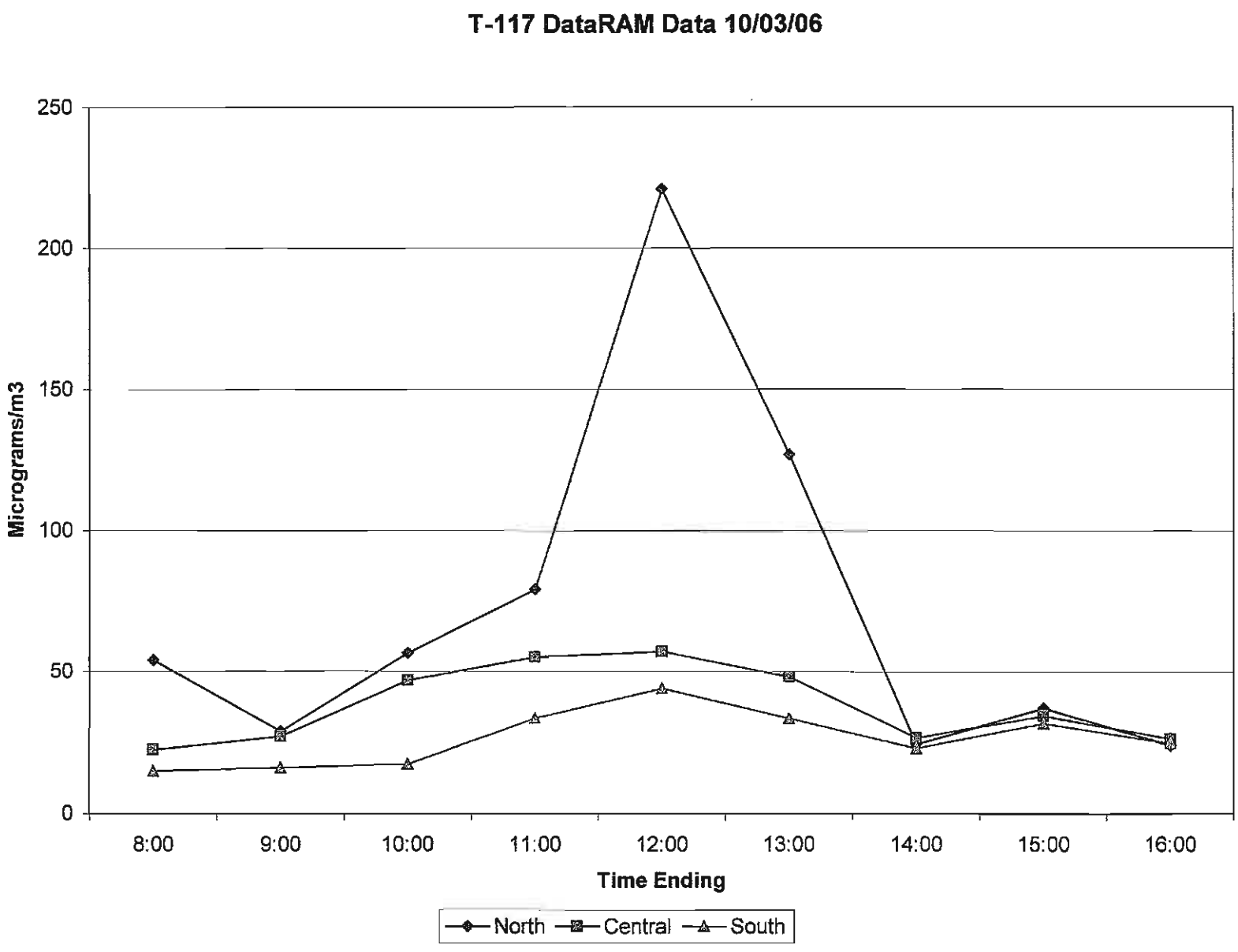
DATE Oct. 3, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	53.9	12.9	71	30
2	9:00	28.9	13.7	70	10
3	10:00	56.7	17.3	64	310
4	11:00	79.3	21.9	53	311
5	12:00	221.2	26.3	43	318
6	13:00	126.9	26.7	40	322
7	14:00	24.4	27	39	313
8	15:00	37.1	26.2	40	314
9	16:00	24	24.3	44	334
10					
11	Average	72.5			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	22.5	18.4	54	30
2	9:00	27	18.9	54	10
3	10:00	46.9	20.6	51	310
4	11:00	55.3	22.8	46	311
5	12:00	57.2	25.6	41	318
6	13:00	48.2	26.5	39	322
7	14:00	26.8	26	39	313
8	15:00	34.4	25.2	41	314
9	16:00	26.3	23.7	45	334
10					
11	Average	38.3			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	14.8	17.3	54	30
2	9:00	16.1	17.9	55	10
3	10:00	17.4	19.9	54	310
4	11:00	33.5	22.1	52	311
5	12:00	44.1	24.7	49	318
6	13:00	33.6	25.8	47	322
7	14:00	23	25.6	46	313
8	15:00	31.7	24.5	46	314
9	16:00	24.7	23.1	48	334
10					
11	Average	26.5			
12					

Observer:kh
Weather:high clouds, some rain


T-117 DataRAM Data 10/03/06
250
200
150
100
50
0
Micrograms/m3
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

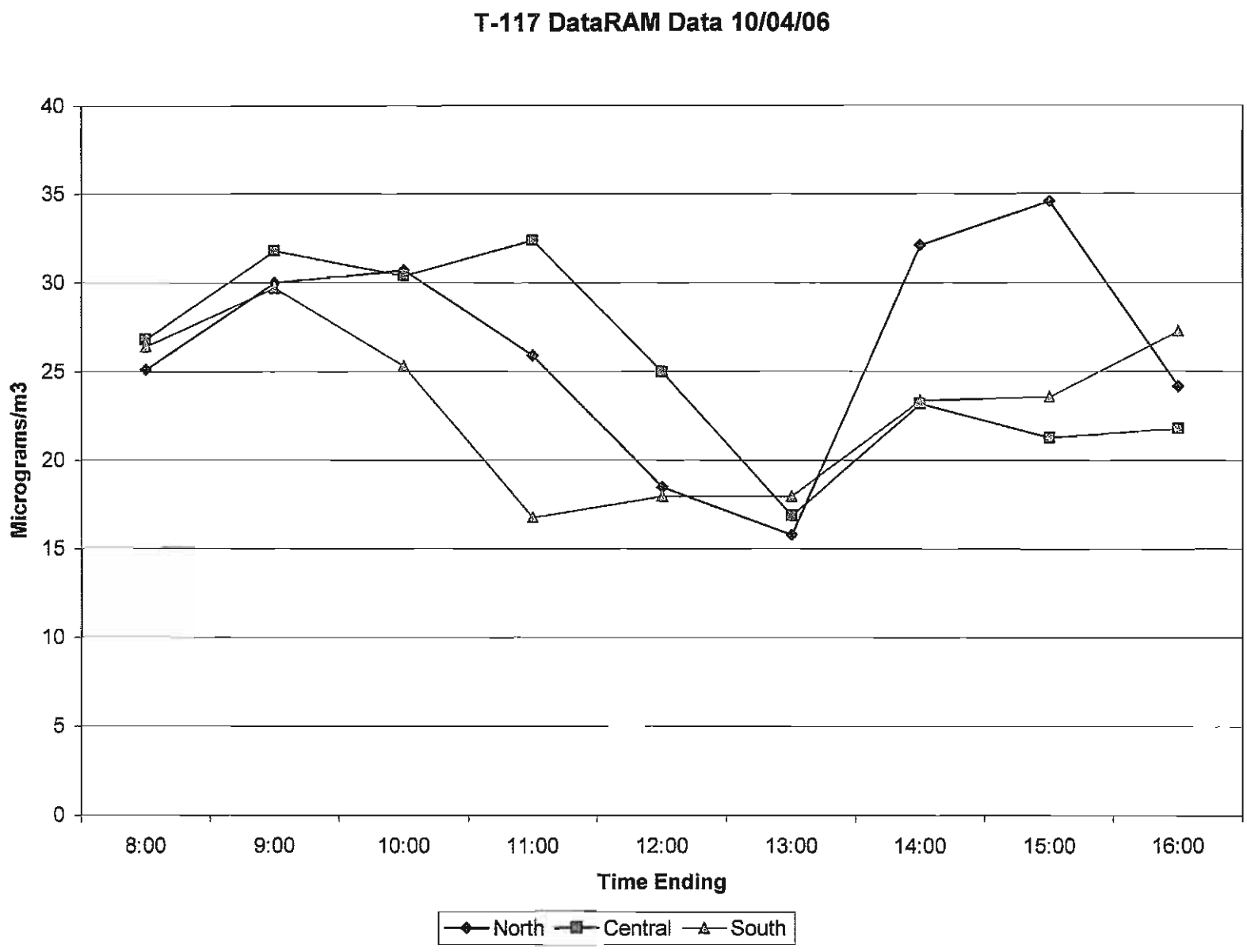
DATE Oct. 4, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	25.1	15.9	67	36
2	9:00	30	16.8	66	21
3	10:00	30.7	18.1	62	39
4	11:00	25.9	22	55	37
5	12:00	18.5	27.7	42	18
6	13:00	15.8	28.9	37	322
7	14:00	32.1	29.2	35	340
8	15:00	34.6	34.5	29	309
9	16:00	24.2	37.8	24	304
10					
11	Average	26.3			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	26.8	17.6	61	36
2	9:00	31.8	18.4	60	21
3	10:00	30.4	19.4	58	39
4	11:00	32.4	24.8	49	37
5	12:00	25	32.5	34	18
6	13:00	16.9	32.4	31	322
7	14:00	23.2	30.2	31	340
8	15:00	21.3	28.7	33	309
9	16:00	21.8	28.5	32	304
10					
11	Average	25.5			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	26.4	16.1	59	36
2	9:00	29.7	17.1	60	21
3	10:00	25.3	18.6	60	39
4	11:00	16.8	22.4	58	37
5	12:00	18	28.2	53	18
6	13:00	18	31.8	47	322
7	14:00	23.4	33.5	42	340
8	15:00	23.6	34.7	39	309
9	16:00	27.3	35.7	35	304
10					
11	Average	23.2			
12					

Observer:kh
Weather:cloudy am, nice pm


T-117 DataRAM Data 10/04/06
Micrograms/m3
40
35
30
25
20
15
10
5
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

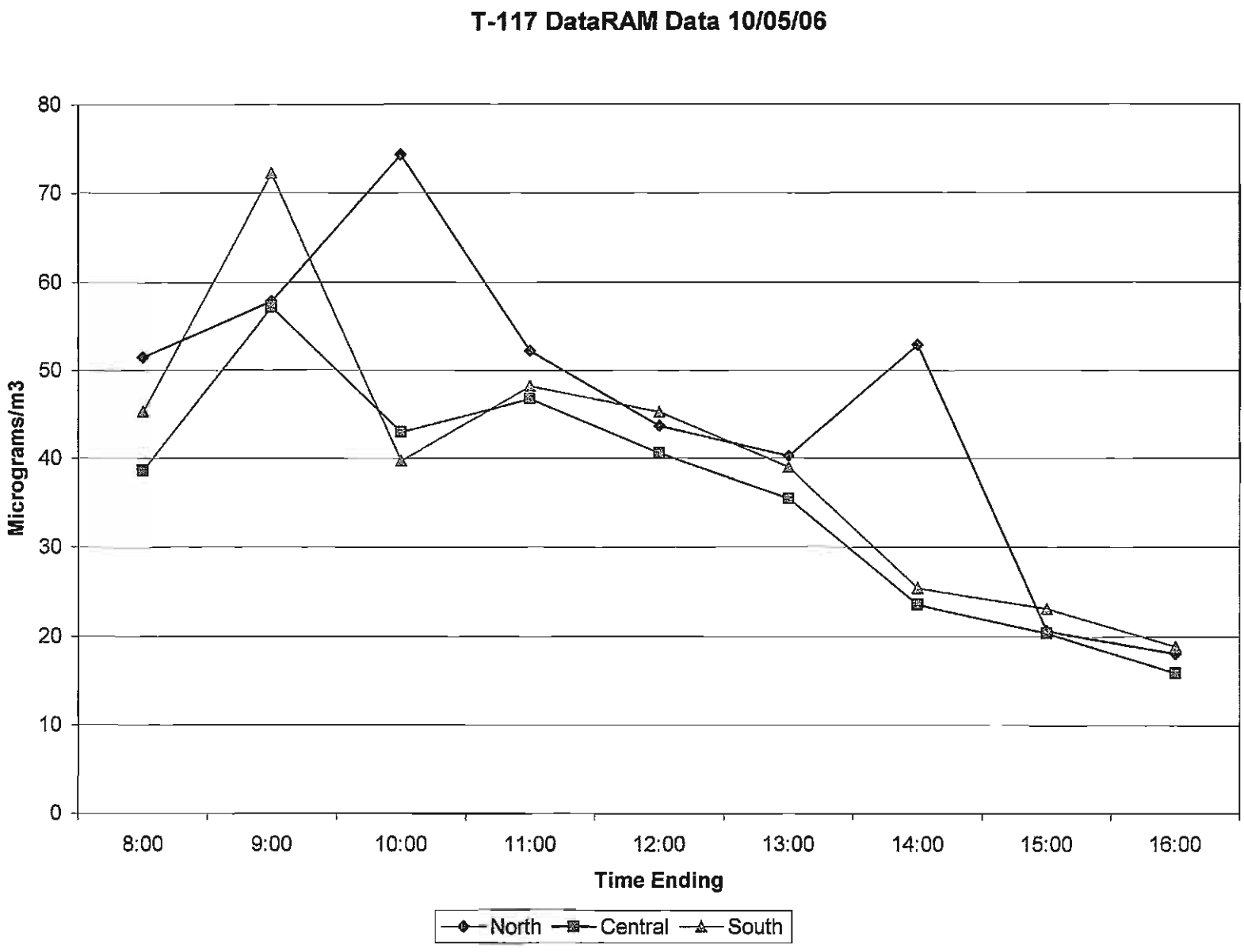
DATE Oct. 5, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	51.5	15.8	63	162
2	9:00	57.9	17.3	65	113
3	10:00	74.4	21.8	55	1
4	11:00	52.2	26.3	45	58
5	12:00	43.7	28.7	37	7
6	13:00	40.3	26.1	37	271
7	14:00	52.9	25.4	36	330
8	15:00	20.6	30.9	29	24
9	16:00	18.1	34.1	23	85
10					
11	**Average**	**45.7**			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	38.6	18.2	58	162
2	9:00	57.2	19.5	58	113
3	10:00	43	24.3	50	1
4	11:00	46.8	29.9	39	58
5	12:00	40.6	34.4	30	7
6	13:00	35.5	31.2	30	271
7	14:00	23.6	27.9	31	330
8	15:00	20.4	27.4	31	24
9	16:00	15.9	28.1	28	85
10					
11	**Average**	**35.7**			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	45.3	16.3	52	162
2	9:00	72.3	16.6	54	113
3	10:00	39.7	20.4	54	1
4	11:00	48.2	25.1	51	58
5	12:00	45.3	28.7	45	7
6	13:00	39	31.5	40	271
7	14:00	25.4	29.5	34	330
8	15:00	23.1	31.5	33	24
9	16:00	18.9	32.5	29	85
10					
11	**Average**	**39.7**			
12					

Observer:jm
Weather:sunny


T-117 DataRAM Data 10/05/06
Micrograms/m3
80
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

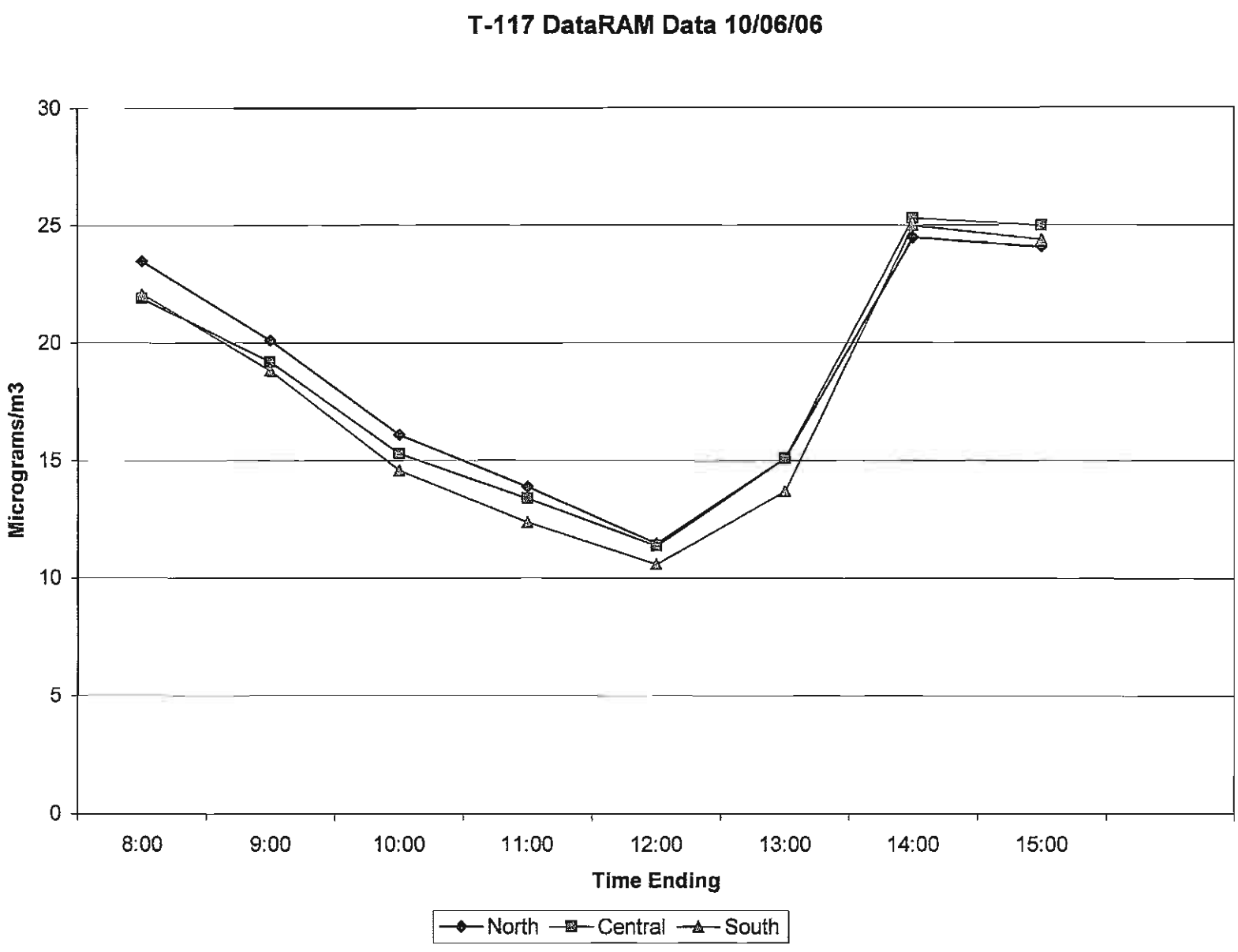
DATE Oct. 6, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	23.5	18.7	59	177
2	9:00	20.1	18.6	62	175
3	10:00	16.1	19.1	62	193
4	11:00	13.9	20.1	61	232
5	12:00	11.5	20.9	59	301
6	13:00	15.1	22.4	55	339
7	14:00	24.5	23.6	51	333
8	15:00	24.1	23.6	50	314
9					
10	**Average**	**18.6**			
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	21.9	19.4	57	177
2	9:00	19.2	19.2	61	175
3	10:00	15.3	19.6	61	193
4	11:00	13.4	20.1	61	232
5	12:00	11.4	20.4	60	301
6	13:00	15.1	21.2	58	339
7	14:00	25.3	22.2	55	333
8	15:00	25	22.5	52	314
9					
10	**Average**	**18.3**			
11					
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	22.1	19.1	51	177
2	9:00	18.8	19.2	53	175
3	10:00	14.6	19.6	54	193
4	11:00	12.4	20.5	55	232
5	12:00	10.6	21.4	55	301
6	13:00	13.7	22.7	55	339
7	14:00	25	23.5	53	333
8	15:00	24.4	23.1	53	314
9					
10	**Average**	**17.7**			
11					
12					

Observer:kh
Weather:some rain


T-117 DataRAM Data 10/06/06
30
25
20
15
10
5
0
Micrograms/m3
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

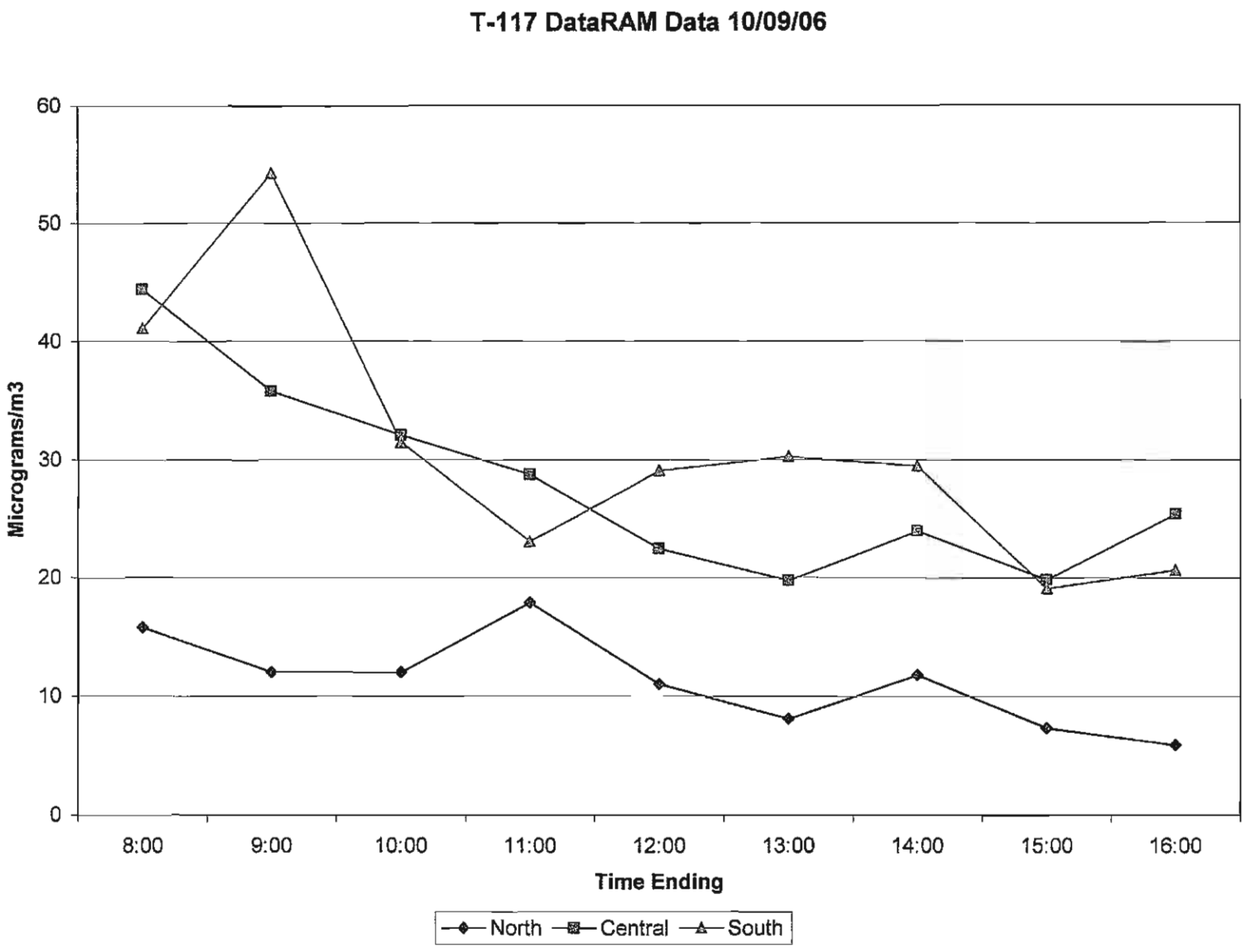
DATE Oct. 9, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	15.8	15.4	61	354
2	9:00	12	16.1	64	344
3	10:00	12	20.1	57	9
4	11:00	17.9	27	42	326
5	12:00	11	30.9	34	313
6	13:00	8.1	28	35	310
7	14:00	11.8	27	37	305
8	15:00	7.3	31	31	314
9	16:00	5.9	33.4	27	315
10					
11	Average	11.3			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	44.4	16.5	59	354
2	9:00	35.8	17.1	60	344
3	10:00	32.1	21.4	54	9
4	11:00	28.8	29.5	39	326
5	12:00	22.5	35.8	29	313
6	13:00	19.8	32.9	28	310
7	14:00	24	29.4	32	305
8	15:00	19.9	27.4	33	314
9	16:00	25.5	26.5	34	315
10					
11	Average	28.1			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	41.1	15.5	68	354
2	9:00	54.3	16.2	69	344
3	10:00	31.5	18.5	67	9
4	11:00	23.1	23.5	62	326
5	12:00	29.1	28.1	55	313
6	13:00	30.3	27	45	310
7	14:00	29.5	23.4	45	305
8	15:00	19.1	22.7	44	314
9	16:00	20.7	25.3	44	315
10					
11	Average	31.0			
12					

Observer:kh
Weather:early clouds then sun


T-117 DataRAM Data 10/09/06
60
50
40
30
20
10
0
Micrograms/m3
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

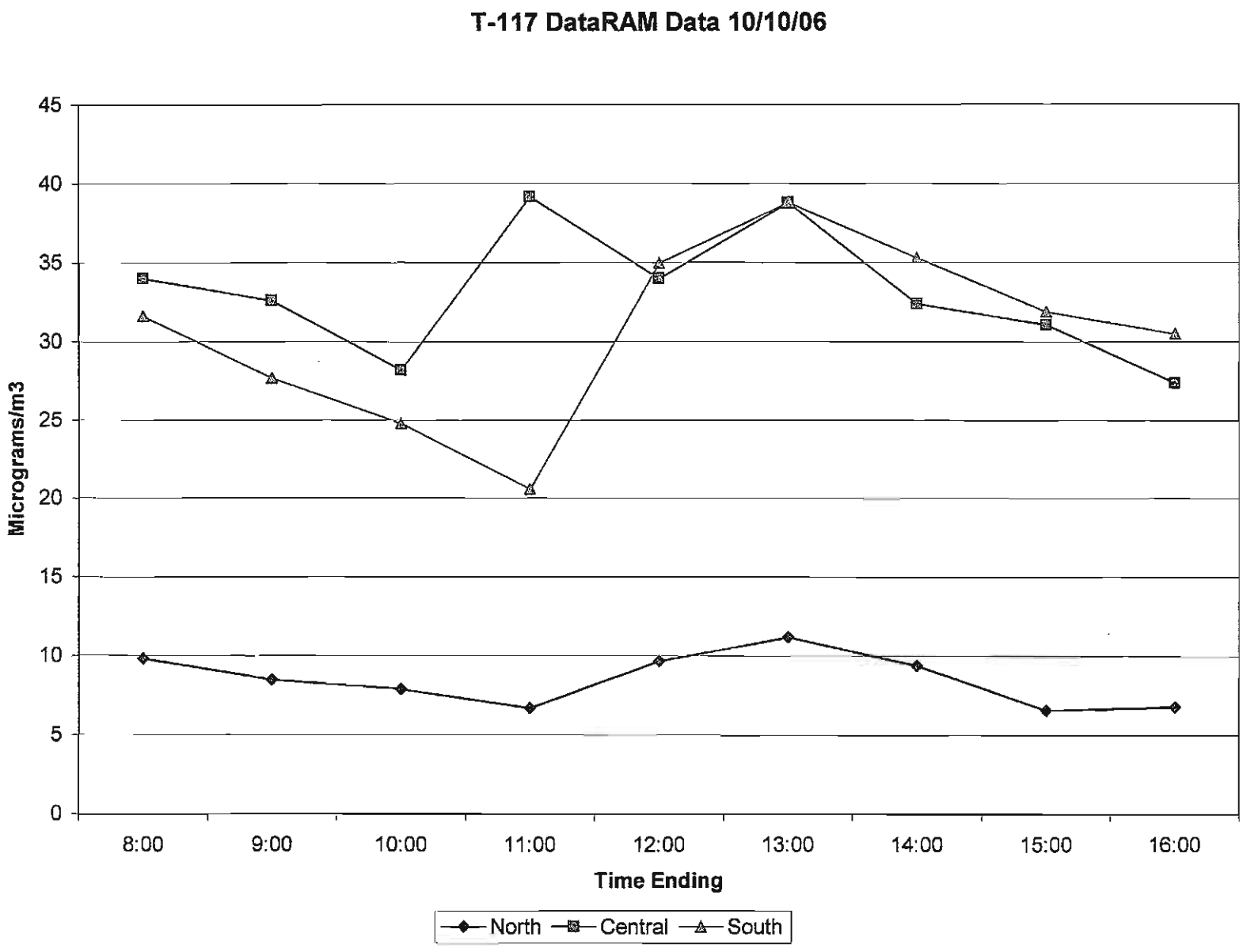
DATE Oct.10, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	9.8	11.6	66	146
2	9:00	8.5	13.1	64	144
3	10:00	7.9	18.4	53	78
4	11:00	6.7	23.9	42	331
5	12:00	9.7	27.8	35	77
6	13:00	11.2	26.2	35	323
7	14:00	9.4	27.1	36	311
8	15:00	6.6	32.4	29	316
9	16:00	6.8	36.5	25	307
10					
11	**Average**	**8.5**			
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	34	14.1	59	146
2	9:00	32.6	15	56	144
3	10:00	28.2	19.2	49	78
4	11:00	39.2	24.3	41	331
5	12:00	34	30	32	77
6	13:00	38.8	29.9	30	323
7	14:00	32.4	28.9	31	311
8	15:00	31.1	28.2	31	316
9	16:00	27.4	28	32	307
10					
11	**Average**	**33.1**			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	31.6	11.8	58	146
2	9:00	27.7	12.4	59	144
3	10:00	24.8	15.9	59	78
4	11:00	20.6	21.5	55	331
5	12:00	35	26.5	49	77
6	13:00	38.8	30.4	46	323
7	14:00	35.3	33.7	41	311
8	15:00	31.9	34.1	37	316
9	16:00	30.5	34.7	35	307
10					
11	**Average**	**30.7**			
12					

Observer:kh
Weather:clear, calm, cool


T-117 DataRAM Data 10/10/06
Micrograms/m3
45
40
35
30
25
20
15
10
5
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

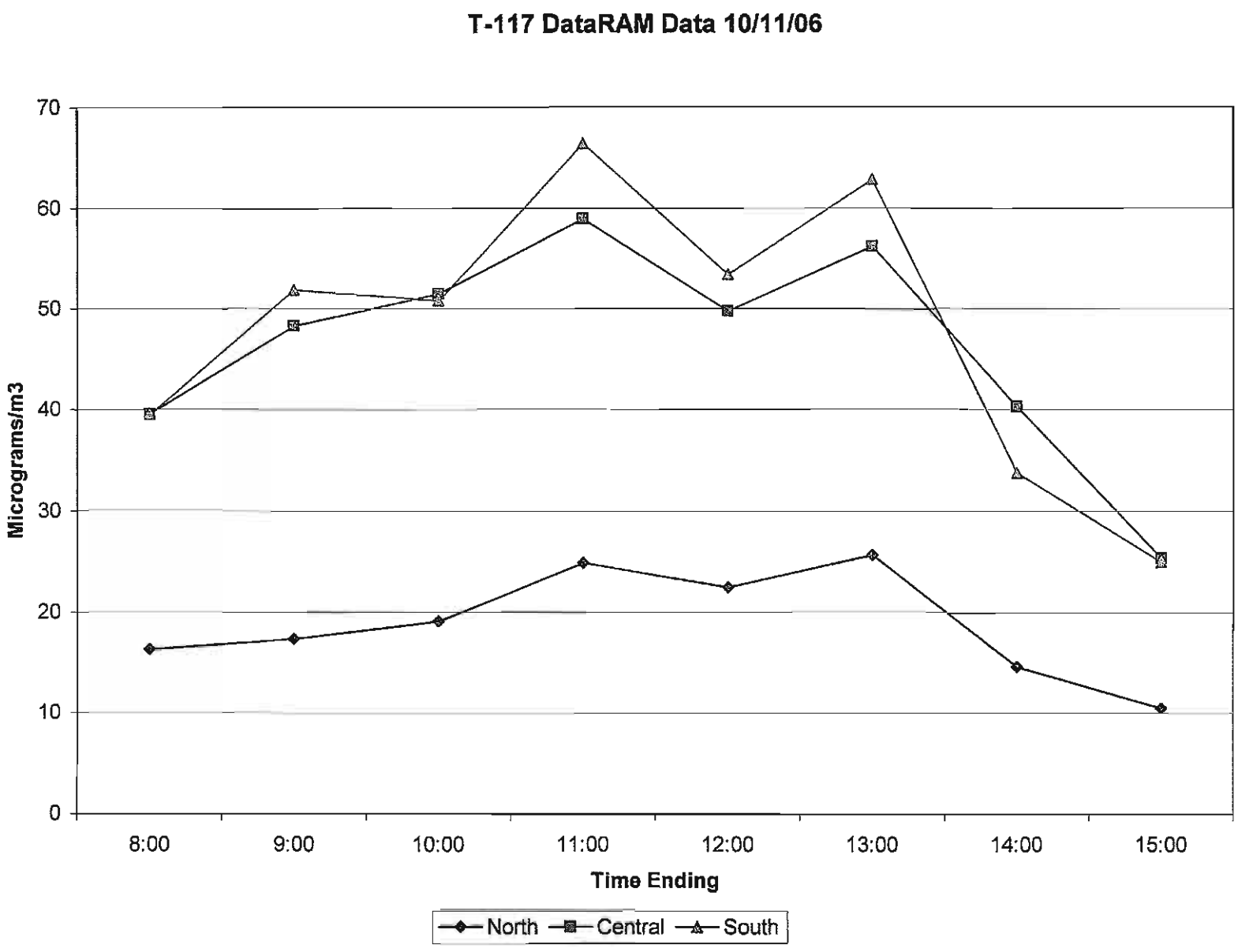
DATE Oct.11, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	16.3	11.5	66	245
2	9:00	17.3	13.1	67	4
3	10:00	19.1	20.2	57	10
4	11:00	24.9	26.9	42	298
5	12:00	22.5	30.9	33	310
6	13:00	25.7	28.3	34	312
7	14:00	14.6	28.1	35	324
8	15:00	10.5	34.9	27	307
9					
10	**Average**	**18.9**			
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	39.6	14.1	59	245
2	9:00	48.3	15.4	59	4
3	10:00	51.5	21.6	50	10
4	11:00	59	28.9	37	298
5	12:00	49.8	35	28	310
6	13:00	56.3	33.9	27	312
7	14:00	40.3	31.1	28	324
8	15:00	25.4	29.2	29	307
9					
10	**Average**	**46.3**			
11					
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	**TIME ENDING**	**MASS ug/m3**	**TEMP. DEG. C**	**R HUMIDITY %**	**WIND DIR.**
1	8:00	39.5	11.6	53	245
2	9:00	51.9	12.2	54	4
3	10:00	50.8	16.3	55	10
4	11:00	66.5	22.5	51	298
5	12:00	53.5	27.3	44	310
6	13:00	62.9	27.5	39	312
7	14:00	33.8	27.2	37	324
8	15:00	25	27.7	34	307
9					
10	**Average**	**48.0**			
11					
12					

Observer:kh
Weather:warm, clear


T-117 DataRAM Data 10/11/06
Micrograms/m3
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

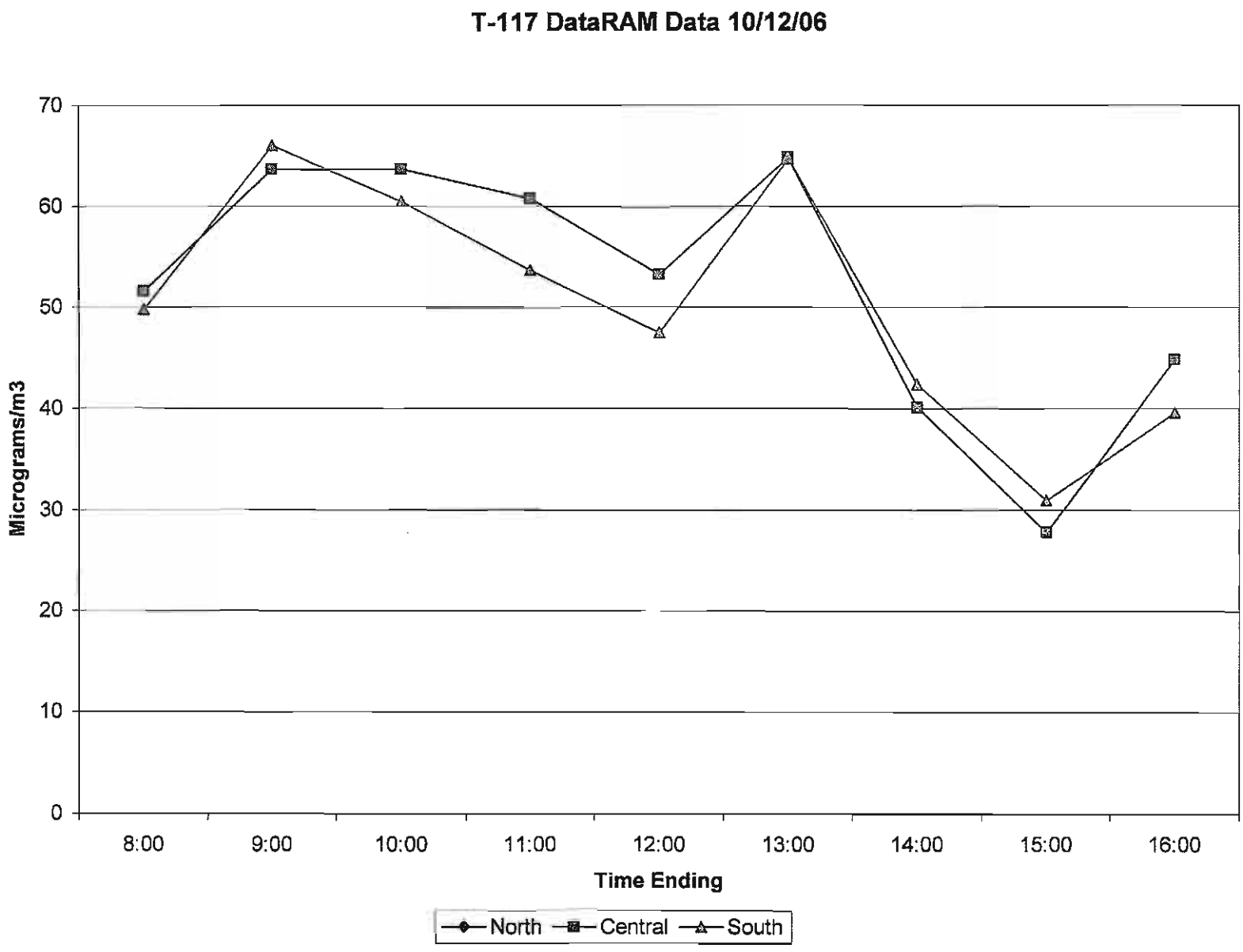
DATE Oct.12, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00				
2	9:00				
3	10:00				
4	11:00				
5	12:00				
6	13:00				
7	14:00				
8	15:00				
9	16:00				
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	51.6	15.7	60	164
2	9:00	63.7	16.2	62	154
3	10:00	63.7	17.3	63	87
4	11:00	60.8	23.6	53	347
5	12:00	53.3	33.4	33	320
6	13:00	64.9	34.2	29	329
7	14:00	40.1	31.9	31	315
8	15:00	27.8	30.6	31	310
9	16:00	44.9	30.5	30	310
10					
11	Average	52.3			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	49.8	13.4	54	164
2	9:00	66.1	14.4	55	154
3	10:00	60.5	16.9	56	87
4	11:00	53.7	22.8	54	347
5	12:00	47.5	29.2	48	320
6	13:00	64.8	32.9	43	329
7	14:00	42.4	35.1	39	315
8	15:00	31	37.2	36	310
9	16:00	39.6	38.8	32	310
10					
11	Average	50.6			
12					

Observer:kh
Weather:warm, light winds


T-117 DataRAM Data 10/12/06
70
60
50
40
30
20
10
0
Micrograms/m3
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

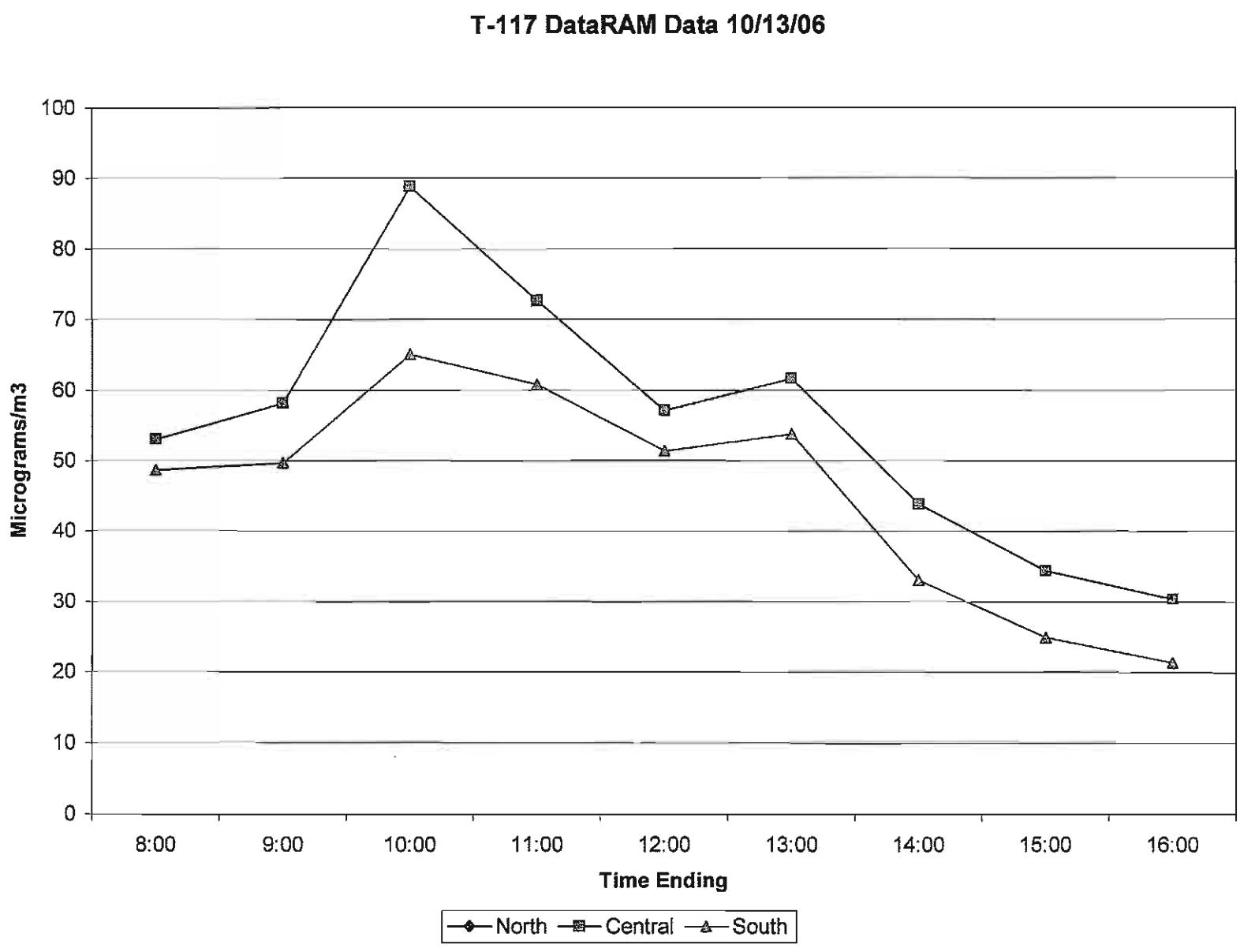
DATE Oct.13, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00				
2	9:00				
3	10:00				
4	11:00				
5	12:00				
6	13:00				
7	14:00				
8	15:00				
9	16:00				
10					
11					
12					

DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	53.1	16.1	61	155
2	9:00	58.2	16.5	61	93
3	10:00	88.9	19	60	54
4	11:00	72.7	26.6	45	331
5	12:00	57.2	33.2	33	314
6	13:00	61.7	32.6	31	326
7	14:00	43.9	29.5	34	318
8	15:00	34.4	28.2	34	316
9	16:00	30.4	28	34	312
10					
11	**Average**	**55.6**			
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	48.7	14	54	155
2	9:00	49.7	14.9	55	93
3	10:00	65.1	17.6	55	54
4	11:00	60.8	23.2	52	331
5	12:00	51.4	27.8	48	314
6	13:00	53.8	29.1	44	326
7	14:00	33.1	31.2	41	318
8	15:00	25	33.1	38	316
9	16:00	21.4	33.4	35	312
10					
11	**Average**	**45.4**			
12					

Observer:kh
Weather:warm, variable winds


T-117 DataRAM Data 10/13/06
Micrograms/m3
100
90
80
70
60
50
40
30
20
10
0
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
Time Ending
North
Central
South

TERMINAL 117
DATARAM - FIELD DATASHEET

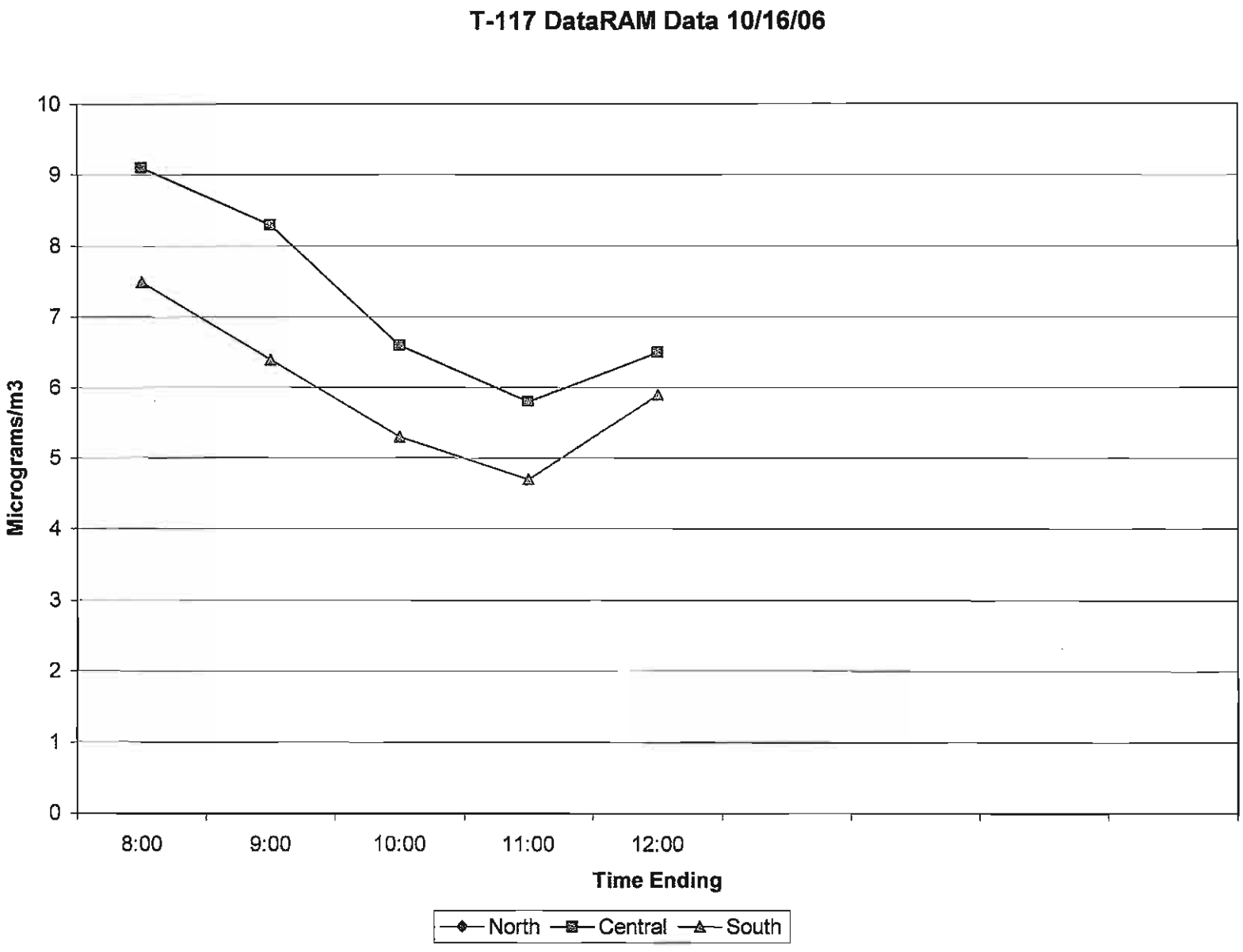
DATE Oct.16, 2006

DATARAM ID	NORTH - 1			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00				
2	9:00				
3	10:00				
4	11:00				
5	12:00				
6					
7					
8					
9					
10					
11					
12					

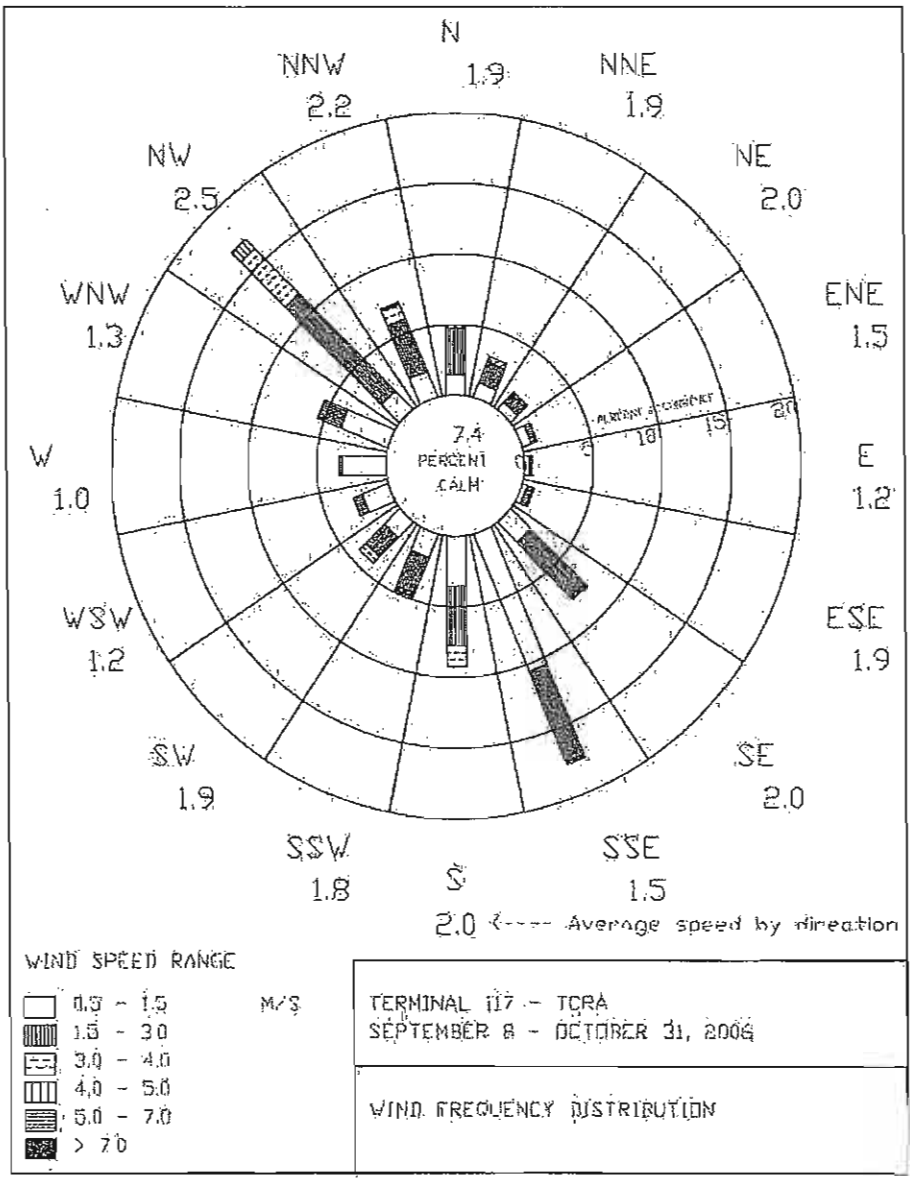
DATARAM ID	CENTRAL - 2			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	9.1	15.6	59	228
2	9:00	8.3	16.9	64	236
3	10:00	6.6	18.1	62	209
4	11:00	5.8	19.5	59	254
5	12:00	6.5	21.1	55	245
6					
7	Average	7.3			
8					
9					
10					
11					
12					

DATARAM ID	SOUTH - 3			START TIME	7:00
NUMBER	TIME ENDING	MASS ug/m3	TEMP. DEG. C	R HUMIDITY %	WIND DIR.
1	8:00	7.5	14.3	66	228
2	9:00	6.4	15.8	74	236
3	10:00	5.3	17.5	73	209
4	11:00	4.7	19.9	71	254
5	12:00	5.9	22.3	68	245
6					
7	Average	6.0			
8					
9					
10					
11					
12					

Observer:kh
Weather:overcast, some rain


T-117 DataRAM Data 10/16/06
Micrograms/m3
10
9
8
7
6
5
4
3
2
1
0
8:00
9:00
10:00
11:00
12:00
Time Ending
North
Central
South

Appendix B



WIND ROSE
Terminal 117 TCRA
Seattle, Washington

By: KMW | Date: 12/7/06 | Project No. 9950.003

Geomatrix | Figure 2

TERMINAL 117 TCRA
AIR VOLUME - DETECTION LIMIT - WIND DIRECTION - WIND SPEED

Sample Date	Station ID	Air Volume Meters^3	Detection Limit [a] µg/m3	Analytical Result µg	Wind Direction [b] Degrees	Wind Speed [c] Mph
	North - 1	142.2	0.0070	ND		
9/13/2006	Central - 2	134.7	0.0074	ND	197	6
	South - 3	143.7	0.0070	ND		
	North - 1	143.8	0.0070	ND		
9/20/2006	Central - 2	131.5	0.0076	2.8	167	5.6
	South - 3	142.8	0.0070	ND		
	North - 1	158.7	0.0063	ND		
9/22/2006	Central - 2	149.2	0.0067	ND	172	3.5
	South - 3	154.4	0.0065	ND		
	North - 1	161.2	0.0062	ND		
9/25/2006	Central - 2	133.7	0.0075	ND	264	3.5
	South - 3	157	0.0064	ND		
	North - 1	175.1	0.0057	ND		
9/27/2006	Central - 2	162.9	0.0061	ND	240	3.4
	South - 3	179.9	0.0056	ND		
	North - 1	131.2	0.0076	1.0		
9/30/2006	Central - 2	122.3	0.0082	ND	97	4.3
	South - 3	127.9	0.0078	ND		
	North - 1	162.1	0.0062	ND		
10/4/2006	Central - 2	151.6	0.0066	ND	159	7.7
	South - 3	159.7	0.0063	ND		
	North - 1	160.1	0.0062	ND		
10/10/2006	Central - 2	149.3	0.0067	ND	226	3.2
	South - 3	157.2	0.0064	ND		

Notes:
a) Detection limit is based on the volume of air sampled.
b) Wind direction is the unit vector average for the sampling period.
c) Wind speed is the average for the sampling period.
1.0 µg Laboratory Detection Limit
ND = Not Detected

TERMINAL 117 TCRA
PCB ANALYTICAL DATA - AIR TOXICS LTD.

Sample Date	Station ID	Aroclor 1016/1242	1221	1232	1248	1254	1260
	North - 1	ND	ND	ND	ND	ND	ND
9/13/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	ND
9/20/2006	Central - 2	ND	ND	ND	ND	ND	2.8 µg
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	ND
9/22/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	ND
9/25/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	ND
9/27/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	1.0 µg
9/30/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	ND
10/4/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND
	North - 1	ND	ND	ND	ND	ND	ND
10/10/2006	Central - 2	ND	ND	ND	ND	ND	ND
	South - 3	ND	ND	ND	ND	ND	ND

Note:	ND = Not Detected
Reporting Limit	1.0 µg
EPA Method	Modified TO-4A

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-091306

Lab ID#: 0609330-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8091808	Date of Collection:	9/13/06
Dil. Factor:	1.00	Date of Analysis:	9/18/06 02:09 PM
		Date of Extraction:	9/15/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	72	60-120
Decachlorobiphenyl	72	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-091306 Duplicate

Lab ID#: 0609330-01AA

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8091809	Date of Collection:	9/13/06
Dil. Factor:	1.00	Date of Analysis:	9/18/06 02:48 PM
		Date of Extraction:	9/15/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	72	60-120
Decachlorobiphenyl	72	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2-091306

Lab ID#: 0609330-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8091811	Date of Collection:	9/13/06
Dil. Factor:	1.00	Date of Analysis:	9/18/06 04:06 PM
		Date of Extraction:	9/15/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	74	60-120
Decachlorobiphenyl	71	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-091306

Lab ID#: 0609330-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8091810	Date of Collection:	9/13/06
Dil. Factor:	1.00	Date of Analysis:	9/18/06 03:27 PM
		Date of Extraction:	9/15/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	74	60-120
Decachlorobiphenyl	72	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB-BLANK-091306

Lab ID#: 0609330-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8091812	Date of Collection:	9/13/06
Dil. Factor:	1.00	Date of Analysis:	9/18/06 04:45 PM
		Date of Extraction:	9/15/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	71	60-120
Decachlorobiphenyl	72	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB 1-092006

Lab ID#: 0609488-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092514	Date of Collection:	9/20/06
Dil. Factor:	1.00	Date of Analysis:	9/25/06 05:12 PM
		Date of Extraction:	9/22/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	77	60-120
Decachlorobiphenyl	77	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB 2-092006

Lab ID#: 0609488-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092515	Date of Collection:	9/20/06
Dil. Factor:	1.00	Date of Analysis:	9/25/06 05:51 PM
		Date of Extraction:	9/22/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	2.8

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	74	60-120
Decachlorobiphenyl	77	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB 3-092006

Lab ID#: 0609488-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092516	Date of Collection:	9/20/06
Dil. Factor:	1.00	Date of Analysis:	9/25/06 06:30 PM
		Date of Extraction:	9/22/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	70	60-120
Decachlorobiphenyl	75	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB BLANK-092006

Lab ID#: 0609488-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092517	Date of Collection:	9/20/06
Dil. Factor:	1.00	Date of Analysis:	9/25/06 07:09 PM
		Date of Extraction:	9/22/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	77	60-120
Decachlorobiphenyl	76	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-092206

Lab ID#: 0609606-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092907	Date of Collection:	9/22/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 11:41 AM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	78	60-120
Decachlorobiphenyl	79	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2-092206

Lab ID#: 0609606-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092908	Date of Collection:	9/22/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 12:20 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	77	60-120
Decachlorobiphenyl	78	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-092206

Lab ID#: 0609606-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092909	Date of Collection:	9/22/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 12:59 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	74	60-120
Decachlorobiphenyl	76	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB BLANK 092206

Lab ID#: 0609606-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092910	Date of Collection:	9/22/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 01:38 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	71	60-120
Decachlorobiphenyl	77	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-092506

Lab ID#: 0609606-05A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092911	Date of Collection:	9/25/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 02:18 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	75	60-120
Decachlorobiphenyl	72	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2-092506

Lab ID#: 0609606-06A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092912	Date of Collection:	9/25/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 02:57 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	76	60-120
Decachlorobiphenyl	74	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-092506

Lab ID#: 0609606-07A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092913	Date of Collection:	9/25/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 03:36 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	76	60-120
Decachlorobiphenyl	74	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB BLANK 092506

Lab ID#: 0609606-08A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8092914	Date of Collection:	9/25/06
Dil. Factor:	1.00	Date of Analysis:	9/29/06 04:15 PM
		Date of Extraction:	9/27/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	72	60-120
Decachlorobiphenyl	78	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-092706

Lab ID#: 0609677-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100407	Date of Collection:	9/27/06
Dil. Factor:	1.00	Date of Analysis:	10/4/06 12:24 PM
		Date of Extraction:	10/2/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	75	60-120
Decachlorobiphenyl	78	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2-092706

Lab ID#: 0609677-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100409	Date of Collection:	9/27/06
Dil. Factor:	1.00	Date of Analysis:	10/4/06 01:42 PM
		Date of Extraction:	10/2/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	77	60-120
Decachlorobiphenyl	78	60-120

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-092706

Lab ID#: 0609677-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100410	Date of Collection:	9/27/06
Dil. Factor:	1.00	Date of Analysis:	10/4/06 02:21 PM
		Date of Extraction:	10/2/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	70	60-120
Decachlorobiphenyl	71	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-092706 Duplicate

Lab ID#: 0609677-03AA

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100411	Date of Collection:	9/27/06
Dil. Factor:	1.00	Date of Analysis:	10/4/06 03:00 PM
		Date of Extraction:	10/2/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	73	60-120
Decachlorobiphenyl	72	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCBBLANK-092706

Lab ID#: 0610058-05A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100615b	Date of Collection:	9/27/06
Dil. Factor:	1.00	Date of Analysis:	10/6/06 07:21 PM
		Date of Extraction:	10/4/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	65	60-120
Decachlorobiphenyl	74	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-093006

Lab ID#: 0610058-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100608b	Date of Collection:	9/30/06
Dil. Factor:	1.00	Date of Analysis:	10/6/06 02:48 PM
		Date of Extraction:	10/4/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	1.0

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	62	60-120
Decachlorobiphenyl	72	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2-093006

Lab ID#: 0610058-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100611b	Date of Collection:	9/30/06
Dil. Factor:	1.00	Date of Analysis:	10/6/06 04:45 PM
		Date of Extraction:	10/4/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	63	60-120
Decachlorobiphenyl	75	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-093006

Lab ID#: 0610058-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100612b	Date of Collection:	9/30/06
Dil. Factor:	1.00	Date of Analysis:	10/6/06 05:24 PM
		Date of Extraction:	10/4/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	66	60-120
Decachlorobiphenyl	76	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCBBLANK-093006

Lab ID#: 0610058-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100614b	Date of Collection:	9/30/06
Dil. Factor:	1.00	Date of Analysis:	10/6/06 06:42 PM
		Date of Extraction:	10/4/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	65	60-120
Decachlorobiphenyl	71	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1.100406

Lab ID#: 0610092-01A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101211	Date of Collection:	10/4/06
Dil. Factor:	1.00	Date of Analysis:	10/12/06 03:56 PM
		Date of Extraction:	10/5/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	90	60-120
Decachlorobiphenyl	93	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2.100406

Lab ID#: 0610092-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101212	Date of Collection:	10/4/06
Dil. Factor:	1.00	Date of Analysis:	10/12/06 04:35 PM
		Date of Extraction:	10/5/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	87	60-120
Decachlorobiphenyl	89	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3.100406

Lab ID#: 0610092-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101213	Date of Collection:	10/4/06
Dil. Factor:	1.00	Date of Analysis:	10/12/06 05:14 PM
		Date of Extraction:	10/5/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	88	60-120
Decachlorobiphenyl	89	60-120

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB BLANK 100406

Lab ID#: 0610092-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101214	Date of Collection:	10/4/06
Dil. Factor:	1.00	Date of Analysis:	10/12/06 05:53 PM
		Date of Extraction:	10/5/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	89	60-120
Decachlorobiphenyl	92	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0609677-05A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8100408	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 10/4/06 01:03 PM	
		Date of Extraction: 10/2/06	

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Spiked
Aroclor-1221	1.0	Not Spiked
Aroclor-1232	1.0	Not Spiked
Aroclor-1248	1.0	Not Spiked
Aroclor-1254	1.0	Not Spiked
Aroclor-1260	1.0	Not Spiked

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	45 Q	60-120
Decachlorobiphenyl	48 Q	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB1-101006 Duplicate

Lab ID#: 0610274-01AA

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101612	Date of Collection: 10/10/06
Dil. Factor:	1.00	Date of Analysis: 10/16/06 04:56 PM
		Date of Extraction: 10/13/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	88	60-120
Decachlorobiphenyl	87	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB2-101006

Lab ID#: 0610274-02A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101613	Date of Collection:	10/10/06
Dil. Factor:	1.00	Date of Analysis:	10/16/06 05:35 PM
		Date of Extraction:	10/13/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	88	60-120
Decachlorobiphenyl	90	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCB3-101006

Lab ID#: 0610274-03A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101614	Date of Collection:	10/10/06
Dil. Factor:	1.00	Date of Analysis:	10/16/06 06:14 PM
		Date of Extraction:	10/13/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	93	60-120
Decachlorobiphenyl	92	60-120

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: PCBBLANK-101006

Lab ID#: 0610274-04A

MODIFIED EPA METHOD TO-4A GC/ECD

File Name:	8101615	Date of Collection:	10/10/06
Dil. Factor:	1.00	Date of Analysis:	10/16/06 06:53 PM
		Date of Extraction:	10/13/06

Compound	Rpt. Limit (ug)	Amount (ug)
Aroclor 1016/1242	1.0	Not Detected
Aroclor-1221	1.0	Not Detected
Aroclor-1232	1.0	Not Detected
Aroclor-1248	1.0	Not Detected
Aroclor-1254	1.0	Not Detected
Aroclor-1260	1.0	Not Detected

Container Type: PUF Cartridge

Surrogates	%Recovery	Method Limits
2,4,5,6-Tetrachloro-m-xylene	82	60-120
Decachlorobiphenyl	85	60-120

Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	Lynnwood Washington	Date:	12-Sep-06
Sampler:	NORTH - 1	Tech:	Kris Hansen

CONDITIONS

Sampler Elevation (feet):	420		
Sea Level Pressure (in Hg):	30.20	Corrected Pressure (mm Hg):	756
Temperature (deg F):	65	Temperature (deg K):	291
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	759
Seasonal Temp. (deg F):	62	Seasonal Temp. (deg K):	290

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.85214
Model:	TE-5040A	Qstd Intercept:	-0.00699
Serial#:	434	Date Certified:	5/30/2006

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	7.00	0.302	70.0	8.44	Slope =	31.2122
2	6.10	0.282	60.0	7.82	Intercept =	-1.0277
3	5.30	0.263	50.0	7.13	Corr. coeff.=	0.9985
4	4.40	0.240	40.0	6.38		
5	3.30	0.208	30.0	5.53	# of Observations	5

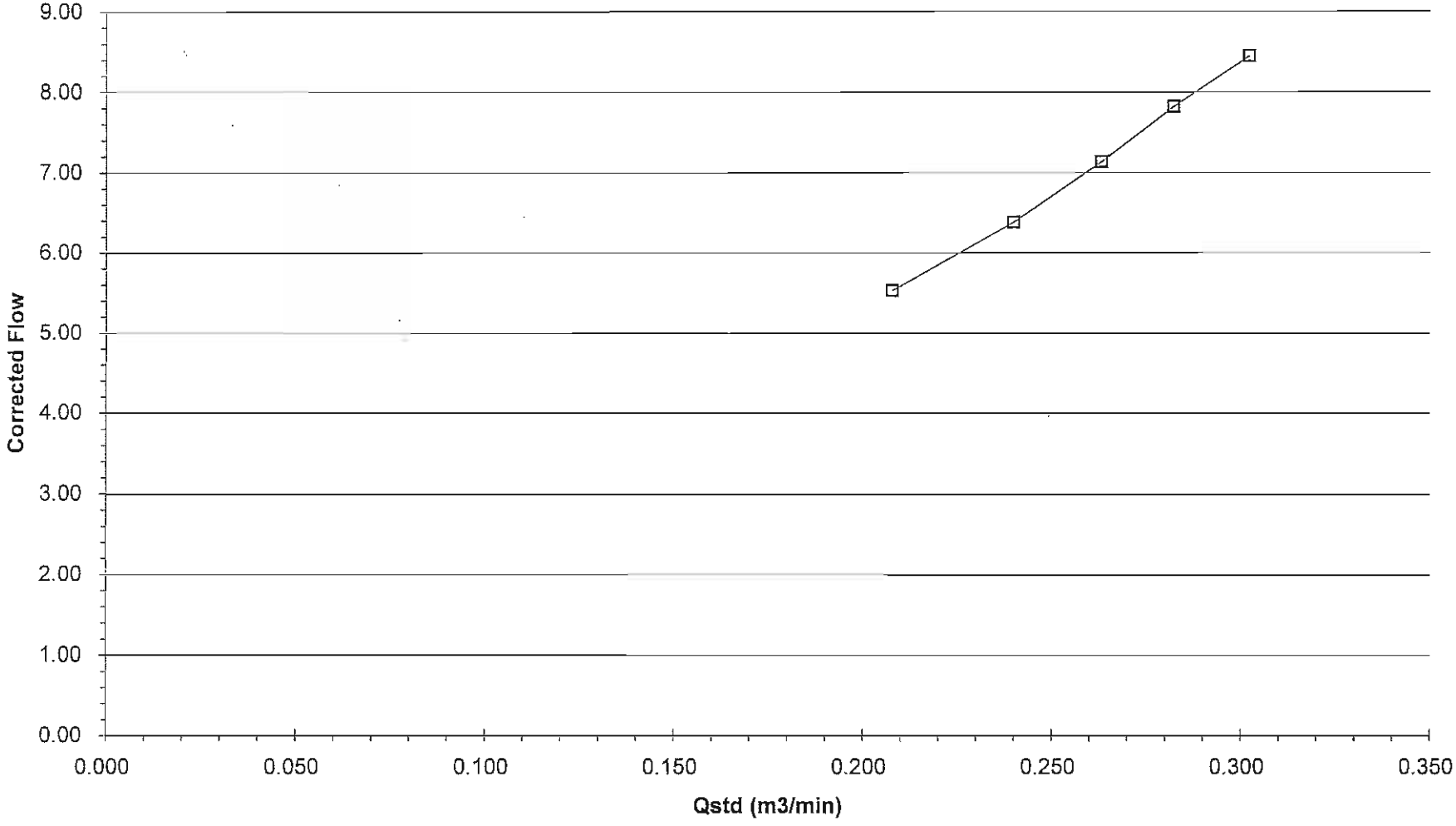
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

TERMINAL 117
PRE-PROJECT CALIBRATION
NORTH 1 PUF SAMPLER



Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	Lynnwood Washington	Date:	12-Sep-06
Sampler:	CENTRAL - 2	Tech:	Kris Hansen

CONDITIONS

Sampler Elevation (feet):	420		
Sea Level Pressure (in Hg):	30.20	Corrected Pressure (mm Hg):	756
Temperature (deg F):	65	Temperature (deg K):	291
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	759
Seasonal Temp. (deg F):	62	Seasonal Temp. (deg K):	290

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.85214
Model:	TE-5040A	Qstd Intercept:	-0.00699
Serial#:	434	Date Certified:	5/30/2006

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	6.10	0.282	70.0	8.44	Slope =	28.7867
2	5.30	0.263	60.0	7.82	Intercept =	0.2155
3	4.60	0.245	50.0	7.13	Corr. coeff.=	0.9955
4	3.60	0.217	40.0	6.38		
5	2.50	0.181	30.0	5.53	# of Observations	5

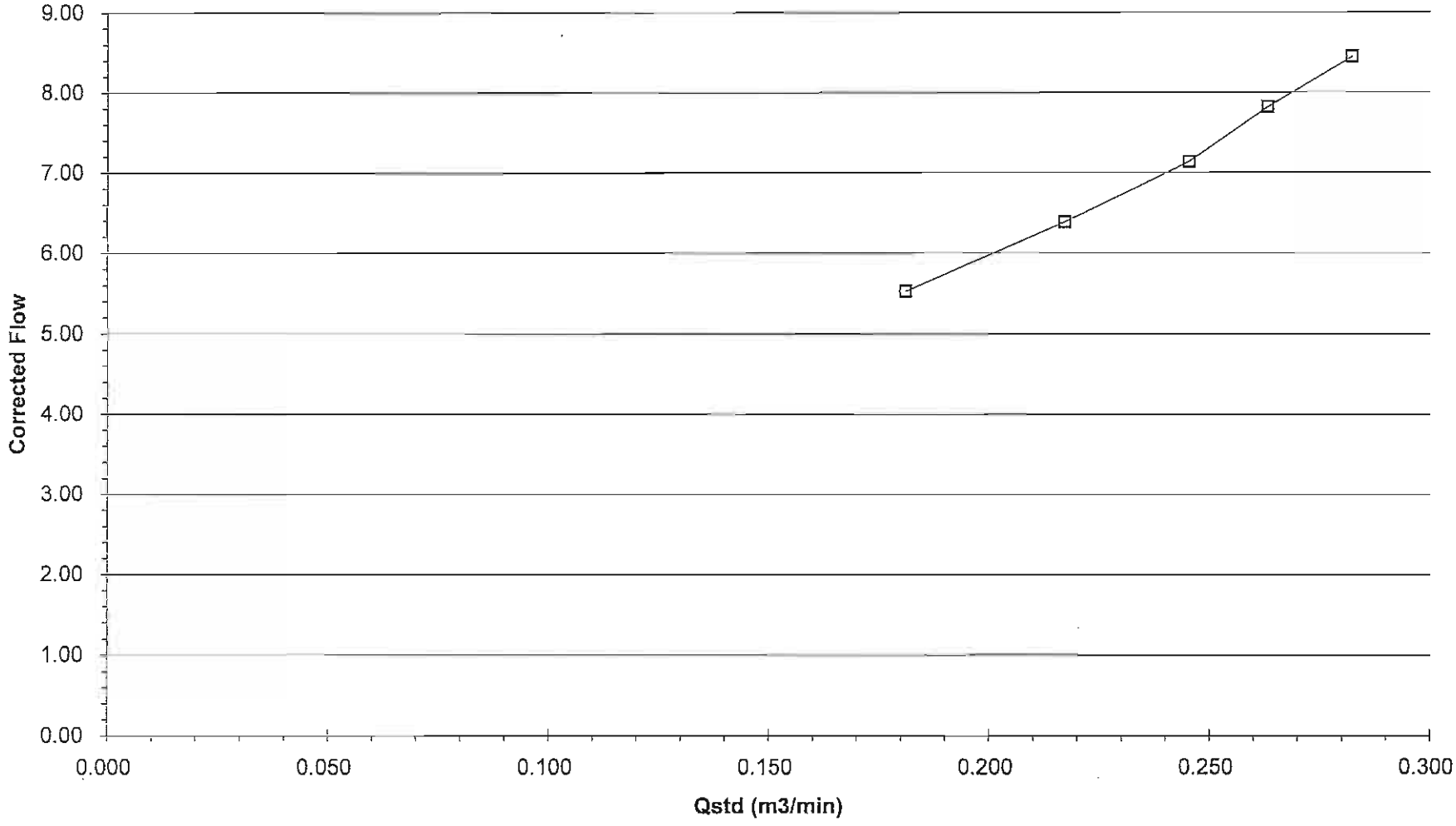
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

TERMINAL 117
PRE-PROJECT CALIBRATION
CENTRAL 2 PUF SAMPLER



Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	Lynnwood Washington	Date:	12-Sep-06
Sampler:	SOUTH - 3	Tech:	Kris Hansen

CONDITIONS

Sampler Elevation (feet):	420		
Sea Level Pressure (in Hg):	30.20	Corrected Pressure (mm Hg):	756
Temperature (deg F):	65	Temperature (deg K):	291
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	759
Seasonal Temp. (deg F):	62	Seasonal Temp. (deg K):	290

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.85214
Model:	TE-5040A	Qstd Intercept:	-0.00699
Serial#:	434	Date Certified:	5/30/2006

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	7.00	0.302	70.0	8.44	Slope =	30.9010
2	6.20	0.285	60.0	7.82	Intercept =	-0.9612
3	5.30	0.263	50.0	7.13	Corr. coeff.=	0.9986
4	4.40	0.240	40.0	6.38		
5	3.30	0.208	30.0	5.53	# of Observations	5

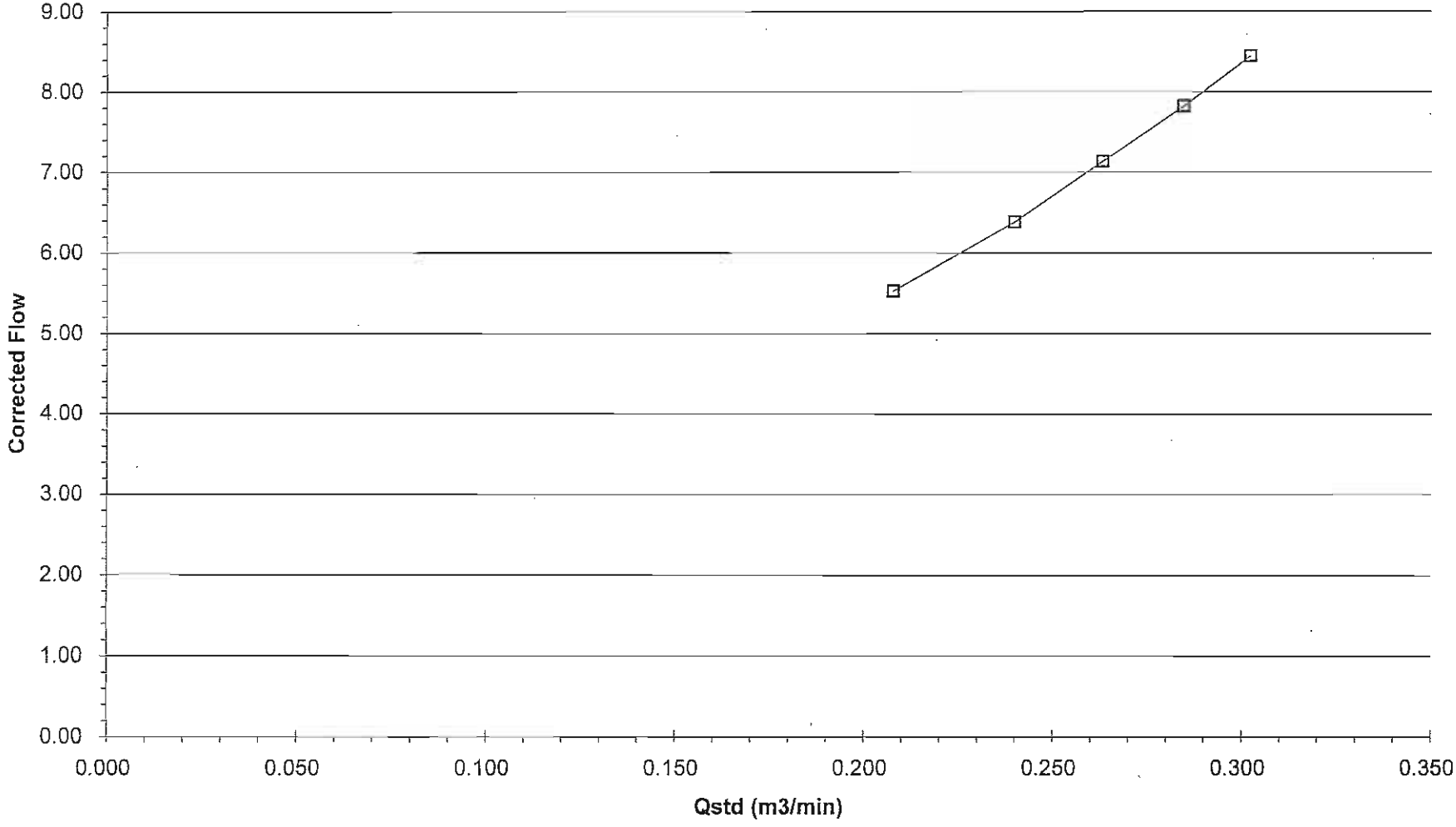
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

TERMINAL 117
PRE-PROJECT CALIBRATION
SOUTH 3 PUF SAMPLER



Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	Terminal 117, Seattle	Date:	12-Oct-06
Sampler:	NORTH - 1	Tech:	Kris Hansen

CONDITIONS

Sampler Elevation (feet):	25		
Sea Level Pressure (in Hg):	30.08	Corrected Pressure (mm Hg):	763
Temperature (deg F):	70	Temperature (deg K):	294
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	769
Seasonal Temp. (deg F):	53	Seasonal Temp. (deg K):	285

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.85214
Model:	TE-5040A	Qstd Intercept:	-0.00699
Serial#:	434	Date Certified:	5/30/2006

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	6.90	0.300	70.0	8.44	Slope =	30.1828
2	6.10	0.282	60.0	7.81	Intercept =	-0.6955
3	5.30	0.263	50.0	7.13	Corr. coeff.=	0.9980
4	4.20	0.234	40.0	6.38		
5	3.20	0.205	30.0	5.53	# of Observations	5

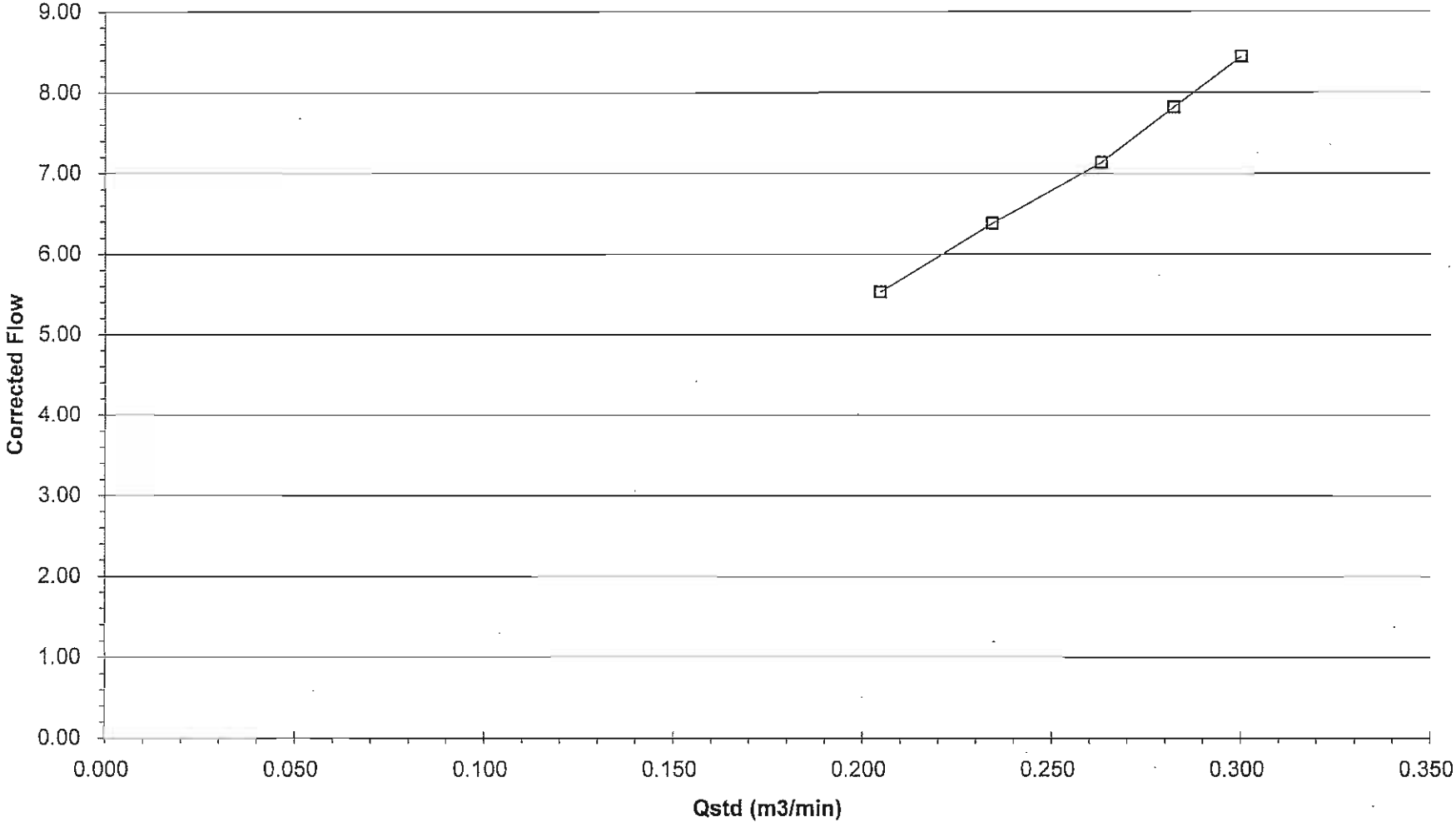
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

TERMINAL 117
POST-PROJECT CALIBRATION
NORTH 1 PUF SAMPLER



Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	Terminal 117, Seattle	Date:	12-Oct-06
Sampler:	CENTRAL - 2	Tech:	Kris Hansen

CONDITIONS

Sampler Elevation (feet):	25		
Sea Level Pressure (in Hg):	30.08	Corrected Pressure (mm Hg):	763
Temperature (deg F):	70	Temperature (deg K):	294
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	769
Seasonal Temp. (deg F):	53	Seasonal Temp. (deg K):	285

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.85214
Model:	TE-5040A	Qstd Intercept:	-0.00699
Serial#:	434	Date Certified:	5/30/2006

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	6.00	0.280	70.0	8.44	Slope =	28.3648
2	5.20	0.261	60.0	7.81	Intercept =	0.4442
3	4.30	0.237	50.0	7.13	Corr. coeff.=	0.9991
4	3.40	0.211	40.0	6.38		
5	2.40	0.177	30.0	5.53	# of Observations	5

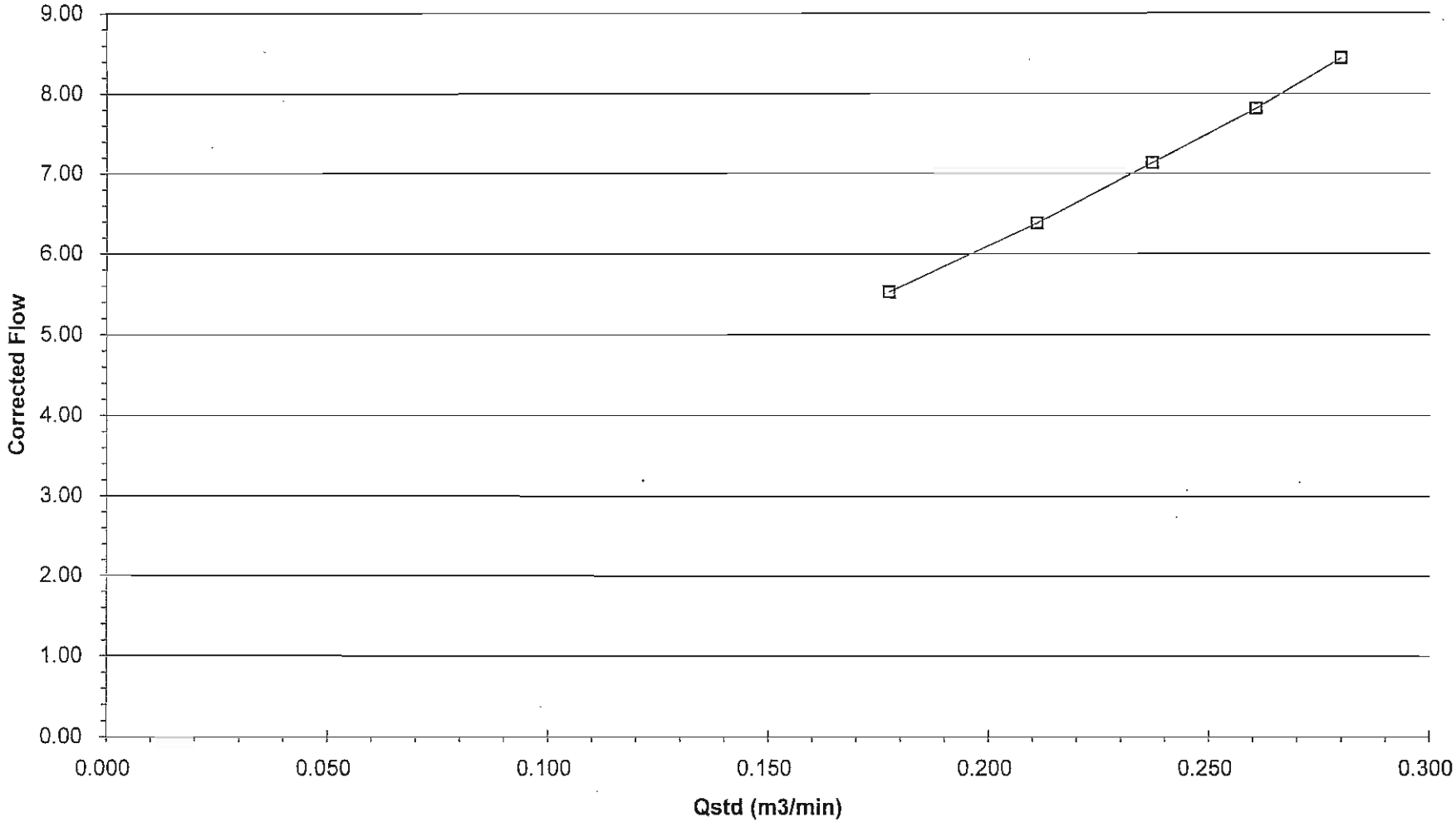
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

TERMINAL 117
POST-PROJECT CALIBRATION
CENTRAL 2 PUF SAMPLER



Tisch Environmental Inc.
PUF Sampler Calibration

SITE

Location:	Terminal 117, Seattle	Date:	12-Oct-06
Sampler:	SOUTH - 3	Tech:	Kris Hansen

CONDITIONS

Sampler Elevation (feet):	25		
Sea Level Pressure (in Hg):	30.08	Corrected Pressure (mm Hg):	763
Temperature (deg F):	70	Temperature (deg K):	294
Seasonal SL Press. (in Hg):	30.32	Corrected Seasonal (mm Hg):	769
Seasonal Temp. (deg F):	53	Seasonal Temp. (deg K):	285

CALIBRATION ORIFICE

Make:	Tisch	Qstd Slope:	8.85214
Model:	TE-5040A	Qstd Intercept:	-0.00699
Serial#:	434	Date Certified:	5/30/2006

CALIBRATION

Plate or Test #	H2O (in)	Qstd (m3/min)	FLOW (magn)	FLOW (corrected)	LINEAR REGRESSION	
1	7.00	0.302	70.0	8.44	Slope =	30.9882
2	6.10	0.282	60.0	7.81	Intercept =	-0.9371
3	5.20	0.261	50.0	7.13	Corr. coeff.=	0.9998
4	4.30	0.237	40.0	6.38		
5	3.30	0.208	30.0	5.53	# of Observations	5

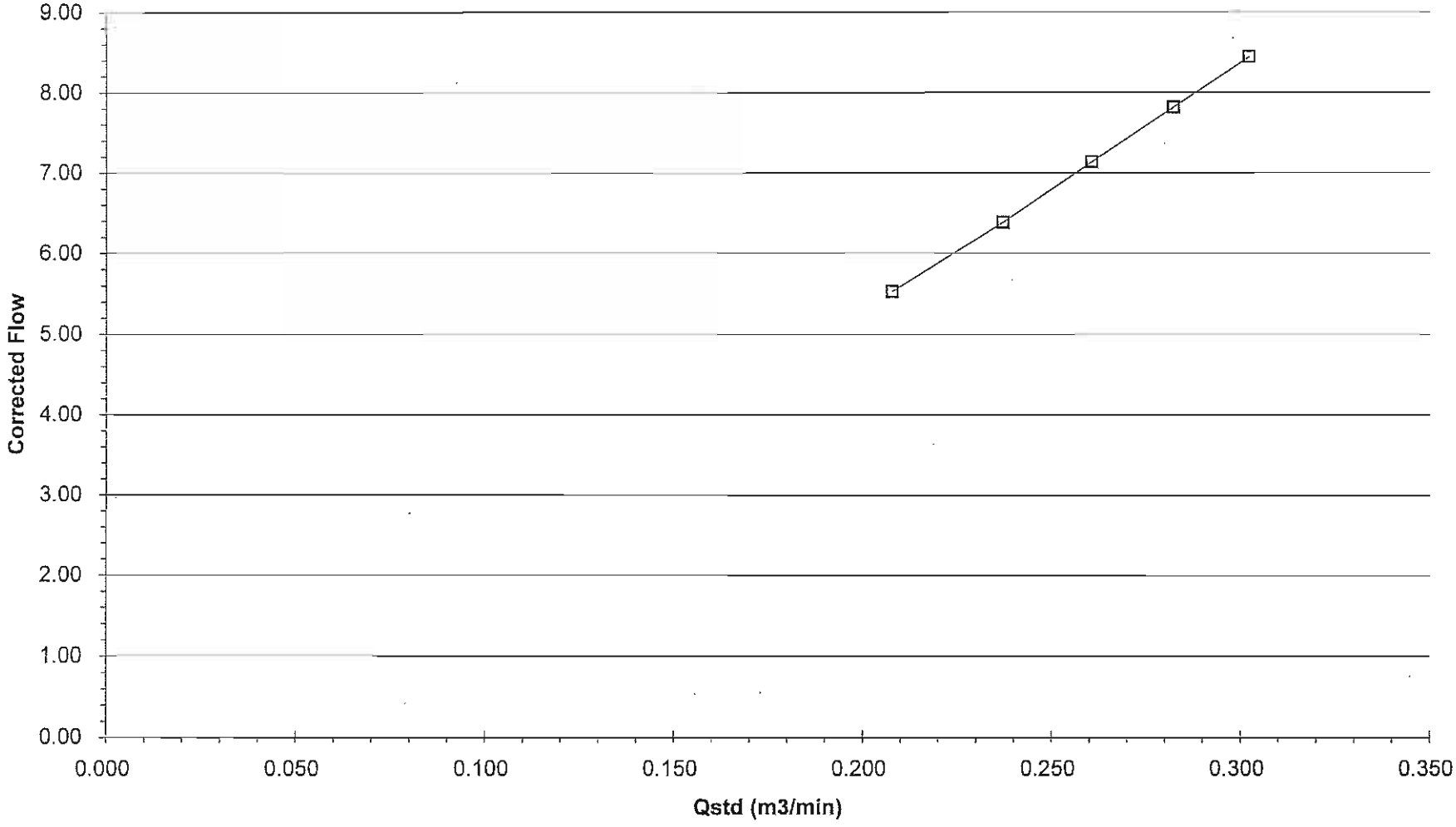
Calculations

Qstd = 1/m[Sqrt(H2O(Pa/Pstd)(Tstd/Ta))-b]
Flow (corrected)=Sqrt((magn)(Pa/Pstd)(Tstd/Ta))

Qstd = standard flow rate
Flow (magn)= reading off of magnehelic gauge
Flow (corrected)= corrected flow rate
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg
For subsequent calculation of sampler flow:
1/m([Sqrt(magn)(Pav/760)(298/Tav)]-b)

m = sampler slope
b = sampler intercept
(magn)= magnehelic reading
Tav = daily average temperature
Pav = daily average pressure

TERMINAL 117
POST-PROJECT CALIBRATION
SOUTH 3 PUF SAMPLER



Appendix C

WIND SPEED FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN MILES PER HOUR

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
2	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
3	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
4	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
5	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
6	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
7	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	0.0
8	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	3.1	4.5	4.3	3.7	3.5	3.1	3.8	3.3	3.9	4.8	4.0	3.8
9	4.8	5.0	6.6	4.8	5.5	4.9	5.0	5.9	5.3	5.8	6.0	5.8	5.9	6.8	6.6	5.6	5.0	6.9	7.9	5.4	4.3	2.9	2.3	2.4	5.3
10	2.1	1.8	1.8	1.3	1.5	1.5	2.2	2.0	5.2	6.7	4.4	2.7	7.2	6.3	5.6	5.9	7.0	7.9	7.8	5.1	4.7	5.0	3.6	3.2	4.3
11	2.5	1.8	2.0	2.3	2.2	2.9	1.5	4.8	4.5	5.2	5.4	5.6	6.5	7.7	7.2	8.7	9.1	8.6	6.6	6.2	5.8	3.3	2.7	3.3	4.8
12	2.5	2.4	2.4	1.9	1.0	1.0	2.6	2.4	1.8	4.9	4.7	7.6	8.5	7.2	7.5	8.7	9.2	7.2	7.2	3.0	4.6	5.5	4.6	3.8	4.7
13	4.3	3.5	3.7	3.4	3.6	3.8	4.3	4.0	5.2	5.3	4.8	4.2	6.3	6.1	7.9	7.7	7.5	5.9	4.6	5.7	4.8	3.7	5.5	3.8	5.0
14	3.6	3.3	1.9	2.5	2.2	3.9	5.1	3.9	2.1	4.5	6.6	7.3	6.0	5.2	5.5	4.6	6.9	6.5	4.1	2.1	4.6	8.2	6.1	2.8	4.6
15	1.8	1.1	1.6	2.2	2.0	2.3	2.6	1.3	3.1	4.6	4.9	5.6	6.7	8.3	7.6	8.2	7.9	7.6	4.4	3.3	2.1	2.2	1.8	2.5	4.0
16	4.7	5.0	6.5	5.3	4.2	5.3	6.3	5.5	5.7	6.6	7.1	6.9	6.9	5.3	4.2	5.0	8.3	6.2	3.4	3.0	2.7	2.1	2.7	4.1	5.1
17	3.0	2.4	2.9	2.9	3.0	4.1	3.0	4.5	4.9	4.2	4.0	3.8	5.2	4.6	3.5	1.9	2.2	2.5	2.1	2.6	4.4	4.0	3.0	1.7	3.4
18	2.8	2.8	4.3	6.0	6.3	4.6	3.9	5.3	5.7	5.2	4.4	5.4	6.5	7.2	6.3	4.7	3.9	4.7	5.2	4.5	4.2	3.4	2.6	2.7	4.7
19	3.3	2.4	2.2	2.2	2.1	2.8	3.2	1.2	2.2	2.5	2.4	2.3	4.3	5.6	6.3	5.0	2.8	2.4	2.0	1.5	1.8	1.7	1.7	2.3	2.8
20	3.3	3.5	3.2	3.1	3.7	3.5	4.0	4.9	5.2	6.7	7.8	6.1	4.4	4.6	4.5	3.6	4.7	4.4	5.3	6.1	4.1	4.2	3.3	3.3	4.5
21	4.1	2.5	3.4	3.3	3.6	2.8	3.3	3.4	2.5	3.0	4.3	5.7	5.9	4.7	6.2	4.4	1.5	2.2	1.5	1.9	2.5	2.3	1.6	2.0	3.3
22	2.5	3.0	2.2	2.4	2.0	1.7	1.0	1.7	0.7	3.4	5.2	3.1	3.6	4.7	3.3	3.9	4.1	3.3	2.2	0.7	0.4	0.4	1.5	1.3	2.4
23	1.7	0.9	2.3	1.7	1.2	1.3	1.9	1.8	1.7	3.3	4.6	7.5	7.6	8.1	9.2	8.5	9.1	8.3	4.8	3.0	2.8	1.8	1.5	1.7	4.0
24	0.5	0.3	0.0	0.4	0.5	1.6	1.3	1.1	2.6	4.1	5.0	5.9	7.4	8.2	7.1	6.7	6.2	7.0	5.9	4.5	3.8	4.8	4.2	1.7	3.8
25	0.8	0.3	0.5	1.5	0.6	1.7	1.4	0.9	2.2	1.6	2.6	3.1	3.2	5.4	6.1	6.0	6.2	7.3	2.0	1.1	2.1	1.4	1.4	2.0	2.6
26	0.9	0.9	0.4	0.9	0.8	1.4	0.9	0.8	1.3	2.4	4.6	6.8	6.9	7.9	7.5	7.0	7.6	7.4	4.0	1.5	2.9	1.7	3.9	2.2	3.4
27	0.8	2.1	1.0	0.6	1.2	1.9	2.0	2.2	0.8	0.9	2.5	3.9	4.7	4.6	4.2	4.8	5.2	3.4	2.6	1.6	0.6	0.8	3.4	2.6	2.4
28	1.0	0.9	1.1	0.9	0.7	0.5	0.3	0.9	4.5	2.3	4.1	5.4	5.0	6.9	7.9	8.6	6.7	6.5	3.8	2.1	2.8	2.7	2.1	3.0	3.4
29	3.8	3.1	1.3	1.2	1.0	2.0	3.9	2.9	1.6	1.5	3.4	5.5	5.3	5.1	4.5	4.7	4.3	2.6	1.8	4.2	4.0	6.3	4.7	4.2	3.5
30	3.0	3.5	2.3	2.4	2.7	3.3	3.8	4.9	4.7	4.0	3.3	2.8	3.2	5.2	5.6	5.7	5.7	5.6	4.9	5.5	4.2	4.0	4.0	4.1	4.1

MONTHLY AVERAGE = 3.90
MAXIMUM 15-MINUTE AVG WIND SPEED = 10.13

WIND DIRECTION FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN DEGREES

(MEASURED CLOCKWISE FROM NORTH)
HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	**********																								0.
2	**********																								0.
3	**********																								0.
4	**********																								0.
5	**********																								0.
6	**********																								0.
7	**********																								0.
8	**********													199.	252.	271.	222.	204.	191.	222.	157.	156.	183.	167.	202.
9	184.	182.	192.	183.	174.	165.	170.	182.	188.	193.	198.	206.	223.	224.	244.	236.	246.	0.	345.	349.	22.	11.	54.	0.	174.
10	354.	345.	324.	297.	163.	197.	139.	194.	9.	45.	7.	341.	319.	329.	329.	325.	312.	304.	306.	315.	349.	320.	338.	334.	262.
11	332.	314.	329.	284.	287.	291.	291.	352.	5.	33.	357.	319.	316.	314.	316.	310.	307.	309.	314.	319.	7.	354.	19.	331.	267.
12	290.	305.	353.	18.	353.	17.	53.	12.	66.	340.	323.	316.	308.	314.	316.	306.	309.	306.	337.	354.	27.	30.	7.	351.	225.
13	330.	319.	222.	183.	225.	206.	178.	181.	202.	205.	176.	181.	194.	191.	214.	216.	198.	184.	184.	186.	175.	150.	147.	161.	200.
14	162.	190.	164.	155.	157.	154.	140.	142.	202.	203.	203.	217.	215.	215.	301.	307.	50.	60.	72.	164.	153.	138.	149.	169.	170.
15	166.	201.	232.	164.	167.	164.	156.	165.	250.	293.	318.	317.	313.	306.	315.	309.	319.	324.	296.	294.	210.	166.	163.	155.	240.
16	138.	143.	143.	151.	146.	141.	146.	153.	199.	231.	225.	228.	223.	223.	222.	214.	225.	228.	208.	155.	163.	166.	157.	149.	182.
17	154.	147.	146.	140.	145.	117.	144.	146.	148.	146.	201.	207.	218.	205.	197.	315.	227.	207.	181.	256.	200.	150.	156.	193.	181.
18	268.	271.	151.	144.	143.	146.	135.	143.	146.	153.	183.	181.	189.	185.	192.	231.	275.	236.	242.	231.	216.	180.	160.	165.	190.
19	172.	161.	163.	157.	170.	144.	43.	92.	166.	106.	357.	218.	60.	315.	313.	313.	310.	282.	260.	185.	153.	165.	153.	155.	192.
20	150.	153.	169.	162.	158.	166.	160.	168.	173.	170.	175.	168.	163.	160.	160.	158.	163.	156.	154.	150.	147.	146.	149.	182.	161.
21	205.	184.	154.	163.	0.	166.	169.	164.	169.	161.	140.	138.	145.	151.	110.	99.	167.	186.	182.	168.	152.	163.	164.	156.	152.
22	158.	139.	152.	156.	151.	193.	253.	294.	312.	14.	5.	354.	8.	331.	345.	4.	324.	299.	277.	263.	221.	212.	168.	253.	204.
23	219.	205.	161.	170.	213.	218.	141.	301.	325.	34.	356.	318.	315.	320.	319.	319.	315.	304.	308.	274.	268.	278.	292.	289.	261.
24	182.	260.	341.	269.	202.	167.	141.	91.	7.	2.	311.	322.	325.	318.	316.	317.	324.	315.	316.	307.	303.	317.	317.	284.	252.
25	282.	298.	308.	220.	151.	171.	173.	12.	119.	355.	316.	311.	311.	318.	320.	316.	310.	305.	284.	269.	268.	288.	277.	278.	261.
26	274.	294.	241.	235.	267.	165.	256.	314.	16.	339.	344.	315.	307.	310.	309.	315.	316.	318.	298.	251.	332.	281.	292.	241.	276.
27	200.	300.	240.	201.	170.	161.	157.	136.	11.	337.	20.	315.	322.	323.	308.	309.	317.	295.	284.	275.	272.	256.	303.	291.	242.
28	249.	193.	181.	190.	183.	220.	234.	119.	319.	323.	306.	307.	306.	318.	308.	308.	313.	311.	315.	299.	291.	303.	283.	296.	270.
29	310.	314.	277.	282.	259.	283.	306.	304.	36.	101.	329.	315.	322.	318.	310.	308.	313.	279.	305.	305.	295.	315.	305.	346.	285.
30	6.	340.	351.	348.	55.	64.	76.	72.	81.	145.	170.	184.	74.	52.	34.	18.	27.	10.	342.	341.	348.	343.	6.	33.	147.

MONTHLY AVERAGE = 217.65

SIGMA THETA FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN DEGREES

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	**********																								0.0
2	**********																								0.0
3	**********																								0.0
4	**********																								0.0
5	**********																								0.0
6	**********																								0.0
7	**********																								0.0
8	**********													48.0	29.8	31.7	34.5	21.6	18.4	29.7	40.1	23.3	22.8	24.3	29.5
9	22.3	24.0	22.0	24.2	20.3	24.4	22.7	23.4	25.6	23.3	23.1	22.8	27.7	24.8	23.0	20.6	19.2	21.3	17.6	20.9	20.6	19.3	25.4	18.7	22.4
10	34.7	22.1	16.1	20.9	44.3	27.1	19.4	35.5	18.6	18.4	33.2	59.9	19.2	18.3	22.8	16.2	12.6	10.3	10.2	11.3	15.9	12.3	21.4	17.5	22.4
11	16.8	20.3	15.0	7.4	6.1	6.5	20.5	20.2	20.8	18.9	19.2	19.3	17.1	11.9	13.2	10.6	10.7	10.4	10.9	10.6	15.8	32.6	35.0	19.0	16.2
12	16.5	17.5	20.0	22.2	29.8	22.9	21.3	30.4	53.3	20.0	24.0	15.5	12.7	14.1	13.9	11.3	10.6	10.6	15.0	29.7	19.1	16.7	22.5	17.0	20.3
13	15.7	21.3	17.9	28.7	23.0	22.6	22.4	23.9	23.8	24.6	24.8	26.9	23.0	21.7	21.2	22.0	22.6	20.0	21.4	20.2	25.1	20.4	22.3	23.2	22.4
14	23.4	29.2	47.1	29.2	36.3	18.7	17.2	23.4	41.8	27.6	27.6	23.9	28.1	45.9	46.8	24.0	26.8	14.6	18.9	46.6	21.2	12.1	19.3	20.1	27.9
15	21.7	32.2	17.0	14.8	18.1	12.7	15.1	46.5	39.4	16.0	19.3	16.6	17.0	15.6	16.3	15.3	13.0	13.8	14.6	14.8	33.8	21.9	17.9	17.8	20.1
16	12.6	16.6	15.5	18.7	16.1	13.4	14.3	27.2	26.7	18.7	20.2	23.9	25.4	32.8	43.6	34.8	18.2	14.9	30.6	18.1	20.9	21.5	19.1	15.6	21.6
17	21.1	16.3	17.1	16.8	15.9	12.7	19.9	16.8	13.8	15.8	27.9	27.5	19.7	25.5	33.8	35.4	33.6	19.6	27.1	25.1	38.7	24.8	21.8	27.5	23.1
18	24.7	52.6	19.5	12.6	13.1	14.2	13.5	16.5	16.6	19.1	22.6	26.1	26.7	24.7	27.6	24.6	44.2	26.7	23.5	16.7	18.4	19.9	20.9	21.6	22.8
19	24.3	30.2	20.5	20.1	22.1	21.9	25.7	49.7	24.6	51.4	42.6	68.6	30.5	14.5	14.2	14.7	13.5	15.8	11.5	31.0	12.4	11.3	10.6	12.4	24.7
20	16.2	20.3	25.8	22.3	22.9	23.2	24.7	21.9	20.2	21.5	20.5	21.6	24.5	23.3	24.2	25.6	23.6	23.8	21.6	19.2	18.0	18.3	22.4	25.7	22.2
21	24.6	32.2	21.2	29.9	*****	25.5	22.5	23.0	29.3	21.5	21.5	16.0	18.9	21.0	24.7	27.5	29.7	21.7	24.9	21.7	18.6	21.4	17.0	18.5	23.2
22	39.3	27.6	21.6	24.0	32.2	27.0	29.6	15.7	51.5	23.9	20.0	56.0	29.2	28.7	54.8	28.3	29.7	13.2	17.9	33.5	46.3	51.3	20.0	33.6	31.4
23	18.2	21.4	14.6	29.0	36.4	43.0	26.2	39.4	42.7	36.9	32.0	13.3	13.0	12.8	10.5	10.1	10.5	10.6	9.8	10.4	10.2	15.3	17.9	11.6	20.7
24	26.1	15.8	0.2	17.8	33.1	23.8	34.6	54.2	19.3	27.5	11.6	13.5	13.1	10.9	11.4	10.8	10.2	9.7	10.0	9.2	10.6	10.4	11.7	22.6	17.4
25	29.2	0.0	15.1	25.5	28.5	29.1	35.4	25.4	17.8	50.5	17.4	16.0	22.5	15.3	14.5	11.9	9.7	10.3	31.4	9.2	12.9	11.8	31.0	9.1	20.0
26	14.7	10.8	42.3	37.8	18.9	23.3	47.7	17.8	40.2	36.6	26.6	14.4	13.1	11.3	10.3	9.9	8.6	10.3	15.0	42.4	20.4	18.8	19.7	39.6	22.9
27	39.0	13.5	58.9	32.4	26.7	15.6	22.3	7.2	26.7	48.6	31.3	16.1	19.7	20.5	14.1	9.9	10.0	10.2	11.4	6.5	8.8	15.8	11.7	33.9	21.3
28	58.8	27.6	16.3	24.0	26.7	23.9	16.5	31.3	13.9	41.7	26.0	16.5	15.2	14.2	11.7	11.5	10.9	9.4	14.3	11.8	9.4	9.1	13.8	12.6	19.5
29	12.2	14.5	23.4	11.7	8.1	18.4	9.4	14.6	36.8	16.6	24.2	13.4	16.6	15.4	17.6	13.8	11.4	20.4	10.7	12.2	14.4	8.6	11.1	32.1	16.1
30	22.8	21.4	26.2	25.4	18.3	19.6	19.1	19.1	21.8	23.1	23.3	29.6	35.2	17.1	18.6	17.7	16.2	18.6	15.4	14.3	13.8	14.2	17.3	19.1	20.3

MONTHLY AVERAGE = 21.92

2 M TEMPERATURE FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN DEGREES C

	HOUR ENDING																								
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	**********																								0.0
2	**********																								0.0
3	**********																								0.0
4	**********																								0.0
5	**********																								0.0
6	**********																								0.0
7	**********																								0.0
8	**********													23.1	22.7	22.8	23.1	22.2	19.6	18.4	17.1	16.2	16.5	16.6	19.8
9	16.0	14.9	14.6	14.2	14.2	14.2	14.8	15.3	16.1	16.9	18.7	19.0	20.7	23.1	22.4	21.3	20.5	18.9	17.1	16.1	14.9	13.9	13.4	13.3	16.8
10	13.3	13.0	12.3	11.4	10.9	10.4	12.2	15.1	17.0	18.3	20.1	21.6	21.5	22.4	23.3	23.0	22.7	20.9	18.6	17.3	16.2	16.1	15.0	14.4	16.9
11	13.8	12.9	12.7	11.8	11.5	11.5	13.4	16.2	17.8	19.3	21.4	22.5	24.0	24.5	25.6	24.8	24.9	24.0	21.1	19.7	19.1	18.1	16.9	16.6	18.5
12	15.7	15.0	14.8	14.5	13.9	13.5	16.0	18.3	19.7	20.4	21.4	22.1	22.3	23.2	23.8	23.6	23.0	21.9	20.5	19.1	18.1	17.7	17.3	16.9	18.9
13	16.8	16.2	14.9	14.0	13.8	13.6	13.5	13.1	13.6	14.0	14.3	15.4	16.6	17.0	16.7	16.6	16.1	15.4	15.1	14.9	13.7	11.5	11.5	11.5	14.6
14	11.7	11.4	10.9	10.5	10.4	10.2	10.7	11.0	11.4	12.5	15.2	16.1	17.4	19.3	19.0	17.6	17.0	15.8	13.9	12.9	13.2	12.5	11.7	11.0	13.5
15	10.9	11.0	10.4	9.7	10.1	10.5	11.0	12.1	12.9	12.7	13.8	15.1	16.9	17.6	18.5	17.8	17.5	16.5	14.6	13.6	11.8	11.0	10.1	9.7	13.2
16	10.3	10.8	10.8	10.4	10.5	10.2	10.5	12.5	14.7	14.5	16.4	18.0	19.3	20.2	20.9	20.6	19.2	17.2	16.0	14.9	14.4	13.7	13.8	13.6	14.7
17	12.5	11.9	12.1	11.9	12.2	12.3	12.8	14.1	15.3	16.6	18.6	19.3	19.0	19.4	18.8	19.3	20.2	18.1	17.1	17.0	16.3	15.9	15.7	15.8	15.9
18	15.5	14.0	13.5	13.6	13.6	13.5	13.7	13.8	14.3	14.6	15.5	17.5	19.9	21.4	21.7	19.3	19.3	18.6	16.5	15.5	14.8	14.2	14.3	14.7	16.0
19	14.2	13.4	12.9	12.9	12.8	12.5	12.2	11.7	12.9	15.2	15.9	16.2	16.4	16.6	17.1	16.5	16.3	15.9	15.0	14.0	13.5	13.4	13.2	13.5	14.3
20	13.4	13.3	12.6	11.8	11.7	11.7	12.1	12.1	12.1	12.4	12.7	12.5	12.6	12.6	12.6	12.8	12.5	12.3	12.1	12.2	12.3	12.5	12.7	12.9	12.4
21	12.2	12.2	12.3	12.1	11.8	11.4	11.2	11.3	11.7	11.9	12.5	12.8	14.3	14.4	15.8	13.1	13.3	13.3	11.5	10.5	10.2	9.7	8.8	8.8	12.0
22	9.4	9.5	9.4	9.5	9.2	8.5	9.2	10.3	11.6	12.8	14.3	16.0	16.9	17.8	18.8	18.7	18.2	17.0	14.7	12.4	11.2	10.6	10.2	10.4	12.8
23	10.5	10.5	10.1	9.4	8.8	8.8	10.2	11.5	14.8	17.8	19.6	19.9	20.4	21.5	21.4	21.2	20.3	18.3	16.8	15.3	14.4	13.5	12.7	12.2	15.0
24	11.5	11.0	10.6	10.4	10.0	9.9	10.5	13.6	16.9	19.3	20.6	22.4	23.4	23.9	24.7	24.9	24.6	21.9	19.6	18.3	17.0	16.5	15.9	14.7	17.2
25	13.0	12.2	11.9	11.7	11.4	11.3	11.8	13.9	16.9	19.8	21.6	23.5	25.5	25.8	26.3	25.8	24.9	22.2	19.7	16.8	16.2	15.3	14.6	14.1	17.8
26	13.1	12.7	12.1	11.6	11.4	11.4	12.0	14.9	19.1	21.5	23.1	23.5	24.7	25.0	25.3	25.2	24.3	22.0	20.2	18.4	18.3	16.7	16.3	15.5	18.3
27	14.4	14.0	13.6	12.9	12.6	12.7	13.1	16.2	19.3	21.6	23.4	24.4	25.4	26.3	27.1	26.8	26.1	23.9	21.1	19.0	17.7	16.6	17.1	16.8	19.2
28	15.1	14.5	14.1	13.4	13.1	12.7	13.0	16.6	18.4	20.6	22.5	23.6	25.1	25.8	25.1	24.6	24.3	22.6	20.8	18.9	17.7	16.8	15.4	14.9	18.7
29	14.8	14.3	13.0	12.1	11.9	13.1	13.6	14.1	16.8	19.1	21.2	21.8	23.5	24.3	24.9	24.6	24.0	21.3	18.2	17.6	16.1	15.2	14.4	14.1	17.7
30	13.0	12.5	12.1	11.9	11.2	11.2	12.1	13.0	13.5	13.7	14.0	14.2	15.3	15.3	15.2	15.6	15.9	15.3	15.0	14.9	14.7	14.7	14.5	14.0	13.9

MONTHLY AVERAGE = 15.91
MINIMUM MONTHLY 15-MINUTE AVG = 8.46
MAXIMUM MONTHLY 15-MINUTE AVG = 27.15

10 M TEMPERATURE FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN DEGREES C

	HOUR ENDING																								
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	**********																								0.0
2	**********																								0.0
3	**********																								0.0
4	**********																								0.0
5	**********																								0.0
6	**********																								0.0
7	**********																								0.0
8	**********												21.7	21.7	22.0	22.3	21.3	19.3	18.2	17.0	16.1	16.3	16.4	19.3
9	15.8	14.7	14.2	13.9	14.0	14.1	14.6	15.1	15.8	16.6	18.2	18.6	20.2	22.4	22.0	21.0	20.0	18.5	16.9	16.0	15.2	14.5	14.1	13.9	16.7
10	13.7	13.3	12.6	11.6	11.0	10.5	11.9	14.6	16.1	17.0	18.5	20.1	20.1	20.8	21.5	21.5	21.8	20.4	18.3	17.1	16.7	16.1	15.2	14.6	16.5
11	14.0	13.1	13.0	11.9	11.7	11.7	13.5	15.4	16.6	17.8	19.9	20.8	21.9	22.5	23.6	23.5	23.9	23.3	21.0	19.7	19.7	18.3	17.6	17.1	18.0
12	15.8	15.2	15.4	15.0	14.5	14.0	15.5	17.6	18.9	19.3	20.2	21.0	21.4	21.9	22.5	22.8	22.3	21.5	20.5	19.4	18.4	17.8	17.5	17.0	18.6
13	16.8	16.2	14.7	13.8	13.6	13.4	13.3	12.9	13.4	13.7	14.1	15.1	16.3	16.6	16.3	16.2	15.8	15.2	15.0	14.8	13.5	11.3	11.4	11.5	14.4
14	11.7	11.2	10.6	10.2	10.1	10.1	10.5	10.8	11.2	12.2	14.5	15.7	16.9	18.4	17.9	16.9	16.2	15.5	14.3	13.1	13.2	12.4	11.5	11.0	13.2
15	10.9	10.9	10.2	9.8	10.1	10.5	11.0	11.9	12.6	12.5	13.4	14.4	16.0	16.7	17.1	16.9	16.6	16.1	14.3	13.5	11.8	11.2	10.2	9.9	12.8
16	10.2	10.7	10.6	10.2	10.4	10.1	10.5	12.3	14.5	14.4	16.1	17.7	18.8	19.5	19.8	19.9	18.4	16.8	15.7	15.0	14.5	13.8	13.9	13.6	14.5
17	12.6	12.1	12.1	12.0	12.2	12.3	12.8	13.8	15.0	16.3	18.3	19.0	18.7	19.1	18.4	18.8	19.6	17.8	17.1	16.8	16.2	16.0	15.7	15.8	15.8
18	15.3	13.7	13.2	13.4	13.4	13.4	13.6	13.6	13.9	14.3	15.1	16.8	18.4	20.5	20.8	18.3	18.6	18.2	16.2	15.2	14.6	14.2	14.4	14.7	15.6
19	14.2	13.3	12.8	12.8	12.6	12.5	12.2	11.6	12.6	14.3	15.0	15.5	16.0	16.0	16.5	16.0	15.9	15.6	14.7	14.0	13.7	13.5	13.3	13.6	14.1
20	13.4	13.3	12.6	11.8	11.7	11.6	12.0	11.9	11.9	12.2	12.4	12.3	12.5	12.6	12.7	12.9	12.6	12.3	12.1	12.1	12.3	12.4	12.7	12.9	12.4
21	12.3	12.3	12.3	12.1	11.8	11.4	11.3	11.4	11.8	12.1	12.9	12.7	14.4	14.9	16.0	12.9	13.2	13.5	11.8	10.9	10.4	9.9	9.3	9.1	12.1
22	9.4	9.4	9.6	9.8	9.5	8.7	9.3	10.4	11.6	12.5	13.6	15.1	15.7	16.4	17.1	17.4	17.2	16.7	14.5	12.5	11.5	10.7	10.5	10.6	12.5
23	10.6	10.6	10.3	9.6	9.0	8.9	10.1	11.4	14.5	16.4	17.9	18.7	19.2	20.0	20.1	20.2	19.5	18.1	16.6	15.2	14.4	14.0	13.2	12.6	14.6
24	11.9	11.3	10.9	10.7	10.3	10.2	10.6	13.6	16.4	17.9	19.6	21.0	21.8	22.4	23.4	23.8	23.4	21.7	19.5	18.2	17.0	16.6	16.0	14.9	16.8
25	13.3	12.6	12.4	12.1	11.7	11.6	12.0	13.9	16.4	19.0	20.6	22.5	24.0	24.3	24.8	24.6	24.1	22.0	19.8	17.4	16.6	15.8	15.1	14.7	17.5
26	13.7	13.2	12.5	11.9	11.5	11.7	12.1	15.1	18.7	20.5	21.8	22.3	23.7	23.9	24.2	24.3	23.4	21.8	20.1	18.7	18.9	17.1	16.6	15.6	18.1
27	14.7	14.3	13.8	13.1	12.9	12.9	13.4	16.1	19.1	20.8	22.4	23.2	23.9	24.7	25.6	25.7	25.2	23.7	21.1	19.1	18.0	16.9	17.4	17.0	19.0
28	15.4	15.0	14.5	13.6	13.4	13.0	13.4	16.8	18.1	19.9	21.5	22.6	23.9	24.4	24.0	23.8	23.4	22.5	20.9	19.4	18.0	17.1	15.7	15.2	18.6
29	15.0	14.4	13.2	12.3	12.0	13.1	13.5	13.9	16.5	18.2	20.1	20.4	21.1	22.1	22.9	23.1	22.8	21.1	18.3	17.6	16.0	15.2	14.4	14.5	17.1
30	13.7	13.0	12.5	12.4	12.0	11.8	12.4	12.9	13.3	13.4	13.7	13.9	14.7	14.9	15.0	15.3	15.6	15.4	15.1	15.0	14.9	14.8	14.7	14.2	13.9

MONTHLY AVERAGE = 15.65
MINIMUM MONTHLY 15-MINUTE AVG = 8.61
MAXIMUM MONTHLY 15-MINUTE AVG = 25.80

PRECIPITATION FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN INCHES

	HOUR ENDING																								
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	TOT
1	**********																								0.00
2	**********																								0.00
3	**********																								0.00
4	**********																								0.00
5	**********																								0.00
6	**********																								0.00
7	**********																								0.00
8	**********												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.02
14	0.00	0.03	0.14	0.04	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.02	0.06	0.06	0.03	0.06	0.04	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
19	0.00	0.02	0.02	0.02	0.01	0.00	0.13	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.05	0.02	0.08	0.12	0.08	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.41
21	0.01	0.00	0.01	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

MONTHLY TOTAL = 1.57
MAXIMUM RUNNING 24-HOUR PRECIPITATION = 0.49

SOLAR RADIATION FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN WATTS/M**2

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG
1	**********																								0.
2	**********																								0.
3	**********																								0.
4	**********																								0.
5	**********																								0.
6	**********																								0.
7	**********																								0.
8	**********												673.	600.	434.	228.	80.	6.	0.	0.	0.	0.	0.	184.
9	0.	0.	0.	0.	0.	2.	77.	65.	160.	187.	328.	227.	582.	808.	500.	220.	130.	41.	5.	0.	0.	0.	0.	0.	139.
10	0.	0.	0.	0.	0.	4.	97.	245.	417.	581.	690.	732.	747.	682.	628.	434.	212.	90.	5.	0.	0.	0.	0.	0.	232.
11	0.	0.	0.	0.	0.	3.	95.	262.	428.	571.	661.	676.	740.	671.	600.	431.	205.	94.	5.	0.	0.	0.	0.	0.	227.
12	0.	0.	0.	0.	0.	3.	95.	278.	361.	533.	660.	721.	725.	681.	582.	420.	194.	83.	5.	0.	0.	0.	0.	0.	222.
13	0.	0.	0.	0.	0.	0.	10.	34.	55.	93.	104.	144.	164.	199.	190.	246.	122.	41.	0.	0.	0.	0.	0.	0.	58.
14	0.	0.	0.	0.	0.	0.	5.	32.	104.	274.	664.	462.	688.	804.	560.	281.	223.	77.	5.	0.	0.	0.	0.	0.	174.
15	0.	0.	0.	0.	0.	1.	29.	59.	93.	156.	212.	413.	648.	710.	603.	440.	186.	74.	3.	0.	0.	0.	0.	0.	151.
16	0.	0.	0.	0.	0.	2.	42.	211.	333.	404.	600.	677.	717.	708.	543.	453.	144.	41.	1.	0.	0.	0.	0.	0.	203.
17	0.	0.	0.	0.	0.	2.	41.	124.	181.	206.	351.	338.	251.	269.	141.	200.	132.	21.	1.	0.	0.	0.	0.	0.	94.
18	0.	0.	0.	0.	0.	0.	4.	27.	149.	102.	218.	580.	721.	661.	434.	243.	193.	34.	1.	0.	0.	0.	0.	0.	140.
19	0.	0.	0.	0.	0.	1.	2.	46.	172.	412.	225.	490.	149.	287.	293.	124.	90.	24.	1.	0.	0.	0.	0.	0.	96.
20	0.	0.	0.	0.	0.	0.	10.	34.	60.	128.	139.	70.	67.	76.	66.	47.	32.	14.	1.	0.	0.	0.	0.	0.	31.
21	0.	0.	0.	0.	0.	0.	11.	23.	66.	69.	149.	314.	435.	294.	422.	179.	108.	55.	1.	0.	0.	0.	0.	0.	89.
22	0.	0.	0.	0.	0.	1.	23.	37.	76.	152.	321.	445.	482.	566.	505.	375.	152.	68.	3.	0.	0.	0.	0.	0.	134.
23	0.	0.	0.	0.	0.	0.	22.	72.	364.	514.	615.	663.	664.	612.	514.	377.	147.	48.	1.	0.	0.	0.	0.	0.	192.
24	0.	0.	0.	0.	0.	1.	62.	220.	376.	518.	614.	668.	671.	618.	515.	374.	141.	46.	1.	0.	0.	0.	0.	0.	201.
25	0.	0.	0.	0.	0.	1.	42.	166.	350.	493.	598.	651.	654.	606.	510.	368.	129.	48.	1.	0.	0.	0.	0.	0.	192.
26	0.	0.	0.	0.	0.	0.	26.	178.	357.	493.	591.	633.	640.	590.	470.	352.	125.	39.	0.	0.	0.	0.	0.	0.	187.
27	0.	0.	0.	0.	0.	0.	45.	188.	336.	470.	569.	612.	620.	575.	480.	341.	120.	33.	0.	0.	0.	0.	0.	0.	183.
28	0.	0.	0.	0.	0.	0.	39.	183.	338.	480.	575.	626.	631.	579.	483.	344.	121.	29.	0.	0.	0.	0.	0.	0.	184.
29	0.	0.	0.	0.	0.	0.	15.	66.	324.	488.	574.	632.	638.	586.	482.	343.	118.	27.	0.	0.	0.	0.	0.	0.	179.
30	0.	0.	0.	0.	0.	0.	11.	37.	69.	103.	97.	123.	163.	130.	89.	110.	107.	30.	0.	0.	0.	0.	0.	0.	44.

MONTHLY AVERAGE = 153.07

WIND SPEED/DIRECTION TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF SEPTEMBER , 2006

IN MPH/DIR

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
2	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
3	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
4	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
5	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
6	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
7	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********
8	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	3S	5W	4W	4SW	4SW	3S	4SW	3SE	4SE	5S	4S	
9	5S	5S	7S	5S	5S	5S	5S	6S	5S	6S	6S	6SW	6SW	7SW	7SW	6SW	5SW	7N	8N	5N	4N	3N	2NE	2N
10	2N	2N	2NW	1NW	1S	2S	2SE	2S	5N	7NE	4N	3N	7NW	6NW	6NW	6NW	7NW	8NW	8NW	5NW	5N	5NW	4N	3NW
11	2NW	2NW	2NW	2W	2W	3W	1W	5N	5N	5NE	5N	6NW	6NW	8NW	7NW	9NW	9NW	9NW	7NW	6NW	6N	3N	3N	3NW
12	2W	2NW	2N	2N	1N	1N	3NE	2N	2NE	5N	5NW	8NW	9NW	7NW	8NW	9NW	9NW	7NW	7NW	3N	5NE	6NE	5N	4N
13	4NW	3NW	4SW	3S	4SW	4SW	4S	4S	5S	5SW	5S	4S	6S	6S	8SW	8SW	7S	6S	5S	6S	5S	4SE	6SE	4S
14	4S	3S	2S	2SE	2SE	4SE	5SE	4SE	2S	4SW	7SW	7SW	6SW	5SW	6NW	5NW	7NE	7NE	4E	2S	5SE	8SE	6SE	3S
15	2S	1S	2SW	2S	2S	2S	3SE	1S	3W	5NW	5NW	6NW	7NW	8NW	8NW	8NW	8NW	8NW	4NW	3NW	2SW	2S	2S	3SE
16	5SE	5SE	7SE	5SE	4SE	5SE	6SE	5SE	6S	7SW	7SW	7SW	7SW	5SW	4SW	5SW	8SW	6SW	3SW	3SE	3S	2S	3SE	4SE
17	3SE	2SE	3SE	3SE	3SE	4SE	3SE	4SE	5SE	4SE	4S	4SW	5SW	5SW	3S	2NW	2SW	3SW	2S	3W	4S	4SE	3SE	2S
18	3W	3W	4SE	6SE	6SE	5SE	4SE	5SE	6SE	5SE	4S	5S	6S	7S	6S	5SW	4W	5SW	5SW	4SW	4SW	3S	3S	3S
19	3S	2S	2S	2SE	2S	3SE	3NE	1E	2S	2E	2N	2SW	4NE	6NW	6NW	5NW	3NW	2W	2W	2S	2SE	2S	2SE	2SE
20	3SE	3SE	3S	3S	4S	3S	4S	5S	5S	7S	8S	6S	4S	5S	4S	4S	5S	4SE	5SE	6SE	4SE	4SE	3SE	3S
21	4SW	3S	3SE	3S	4N	3S	3S	3S	3S	3S	4SE	6SE	6SE	5SE	6E	4E	2S	2S	2S	2S	2SE	2S	2S	2SE
22	2S	3SE	2SE	2SE	2SE	2S	1W	2NW	1NW	3N	5N	3N	4N	5NW	3N	4N	4NW	3NW	2W	1W	0SW	0SW	2S	1W
23	2SW	1SW	2S	2S	1SW	1SW	2SE	2NW	2NW	3NE	5N	8NW	8NW	8NW	9NW	9NW	9NW	8NW	5NW	3W	3W	2W	1W	2W
24	0S	0W	0N	0W	0S	2S	1SE	1E	3N	4N	5NW	6NW	7NW	8NW	7NW	7NW	6NW	7NW	6NW	5NW	4NW	5NW	4NW	2W
25	1W	0NW	1NW	1SW	1SE	2S	1S	1N	2SE	2N	3NW	3NW	3NW	5NW	6NW	6NW	6NW	7NW	2W	1W	2W	1W	1W	2W
26	1W	1NW	0SW	1SW	1W	1S	1W	1NW	1N	2N	5N	7NW	7NW	8NW	7NW	7NW	8NW	7NW	4NW	2W	3NW	2W	4W	2SW
27	1S	2NW	1SW	1S	1S	2S	2SE	2SE	1N	1NW	2N	4NW	5NW	5NW	4NW	5NW	5NW	3NW	3W	2W	1W	1W	3NW	3W
28	1W	1S	1S	1S	1S	1SW	0SW	1SE	5NW	2NW	4NW	5NW	5NW	7NW	8NW	9NW	7NW	6NW	4NW	2NW	3W	3NW	2W	3NW
29	4NW	3NW	1W	1W	1W	2W	4NW	3NW	2NE	1E	3NW	6NW	5NW	5NW	4NW	5NW	4NW	3W	2NW	4NW	4NW	6NW	5NW	4N
30	3N	4N	2N	2N	3NE	3NE	4E	5E	5E	4SE	3S	3S	3E	5NE	6NE	6N	6NE	6N	5N	5N	4N	4N	4N	4NE

WIND SPEED FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN MILES PER HOUR

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	3.5	2.2	1.7	2.5	2.2	2.3	3.6	4.4	4.9	5.0	2.9	3.9	4.7	4.9	5.2	4.0	6.2	7.1	3.2	2.0	1.4	0.9	2.3	2.4	3.5
2	2.2	3.6	2.7	2.0	2.4	2.0	2.5	3.0	3.9	3.5	2.4	2.8	3.7	4.9	5.2	4.6	5.4	3.4	2.6	1.4	1.2	0.7	0.6	1.9	2.9
3	1.6	3.4	2.8	2.0	2.7	2.4	2.9	2.7	3.6	5.5	5.9	6.4	6.2	7.8	7.0	5.4	5.1	5.0	5.3	4.9	4.4	4.9	4.7	4.9	4.5
4	6.2	6.6	5.4	4.1	4.4	4.1	5.7	4.8	6.0	7.6	7.5	8.1	9.2	6.9	9.9	9.0	6.5	5.1	3.0	2.6	1.6	0.8	1.2	1.2	5.3
5	0.4	0.6	1.0	0.7	1.5	1.2	0.6	1.5	1.7	1.0	1.2	1.9	2.6	2.2	2.0	1.7	2.7	1.9	1.1	0.9	2.7	2.8	2.3	2.0	1.6
6	3.1	5.9	6.4	6.4	4.7	2.8	3.4	3.2	3.0	3.0	3.3	2.7	4.0	5.6	5.8	6.2	6.2	4.9	4.0	4.3	3.7	2.6	2.1	1.5	4.1
7	2.7	2.0	2.2	2.3	0.9	2.3	1.6	2.5	3.2	1.6	3.1	3.1	5.3	4.6	3.6	3.5	3.2	1.8	0.6	1.5	1.8	4.6	3.5	4.1	2.7
8	4.8	5.7	5.6	3.8	3.2	5.3	3.3	2.5	2.6	4.1	2.1	3.5	3.8	5.5	7.3	7.4	6.2	6.9	6.9	5.9	5.8	4.5	3.9	7.3	4.9
9	8.5	5.9	5.2	6.5	5.6	6.0	6.1	6.2	6.5	5.5	6.2	8.3	9.9	11.1	11.1	8.7	8.8	8.8	7.6	6.7	6.2	5.3	5.2	5.0	7.1
10	2.5	3.0	0.8	1.8	1.7	2.2	3.6	3.7	2.5	1.1	1.7	1.5	4.2	3.7	5.0	4.9	5.0	3.7	1.5	0.7	0.4	1.7	1.2	1.2	2.5
11	1.1	1.0	1.0	1.2	1.6	2.5	1.5	1.2	0.7	0.7	1.4	4.1	4.7	4.5	4.6	4.5	4.5	2.7	1.1	0.4	0.1	0.0	0.1	0.9	1.9
12	0.9	0.6	1.3	0.7	1.1	1.7	2.1	2.0	1.9	0.8	1.8	4.2	5.7	4.3	5.3	4.5	3.5	1.9	0.7	0.3	1.3	1.9	1.5	1.5	2.1
13	1.7	1.1	2.1	1.3	1.5	2.3	2.5	1.5	1.3	1.6	4.2	4.5	6.3	6.7	7.0	7.6	4.6	3.7	2.7	1.9	1.7	6.2	4.9	2.1	3.4
14	2.7	3.2	3.4	3.5	1.9	2.7	2.6	2.7	3.6	3.2	3.2	3.1	4.3	3.5	3.8	4.5	3.6	4.6	3.8	3.2	4.0	3.2	5.4	3.0	3.4
15	4.1	3.6	3.2	3.1	5.0	4.4	4.4	4.0	6.0	3.5	2.4	4.8	6.6	4.5	6.7	8.6	8.0	7.6	7.5	6.0	5.9	5.5	6.4	5.3	5.3
16	5.1	4.1	4.6	2.7	1.6	1.6	2.3	2.1	2.5	2.7	3.5	4.0	3.1	2.9	6.0	5.8	4.4	2.3	2.4	1.2	0.6	0.5	0.9	1.2	2.8
17	1.2	0.6	1.3	1.3	1.3	1.7	2.2	2.7	2.7	4.0	6.4	4.0	3.2	3.9	3.7	4.4	2.5	1.8	1.6	1.8	1.1	2.7	3.9	3.9	2.7
18	3.9	4.9	4.5	3.2	3.2	2.7	3.3	3.2	3.3	3.9	4.0	5.1	6.0	5.5	5.1	4.6	4.3	5.6	5.4	3.0	3.3	4.1	5.3	6.4	4.3
19	6.1	5.9	5.4	4.4	6.0	3.9	4.0	3.7	3.3	3.9	3.6	5.4	3.2	3.0	4.1	3.9	8.2	5.9	3.8	3.1	2.2	3.0	3.5	5.3	4.4
20	4.3	3.7	2.5	2.4	1.8	1.6	0.9	1.6	2.2	3.1	5.8	5.3	6.7	8.5	9.8	9.1	5.8	5.6	5.3	3.8	3.2	1.9	1.0	0.9	4.0
21	0.2	1.3	3.1	4.9	4.5	4.0	4.6	4.9	6.4	5.6	6.2	7.4	7.1	8.8	7.7	7.1	5.9	6.6	5.2	4.5	4.7	4.7	3.0	1.3	5.0
22	1.2	1.3	1.9	0.5	0.9	0.6	0.7	1.9	0.8	1.5	3.5	4.5	4.1	4.5	4.7	2.8	5.5	3.6	3.8	5.2	4.8	4.2	4.5	3.1	2.9
23	1.6	1.1	0.6	1.3	1.2	2.3	2.4	2.7	2.3	3.9	3.9	2.1	1.9	2.1	3.7	4.4	2.7	2.1	1.8	1.3	2.3	3.0	3.3	3.6	2.4
24	4.5	7.8	6.3	8.0	6.2	5.8	3.2	4.4	4.5	3.1	5.2	3.1	4.9	6.4	5.8	5.9	4.0	2.4	2.2	2.8	2.5	4.2	5.9	3.5	4.7
25	5.0	3.8	4.0	2.5	2.2	3.4	4.0	2.4	4.4	5.0	5.4	5.1	4.7	4.3	3.5	2.3	3.1	2.9	2.6	3.0	3.1	7.7	5.1	7.3	4.0
26	5.7	5.2	4.9	5.3	4.6	6.2	5.4	6.1	6.2	8.1	8.4	8.8	8.3	6.9	8.1	8.5	7.2	7.8	6.8	7.6	5.8	5.8	7.6	6.1	6.7
27	3.6	5.2	5.4	4.8	4.9	5.0	5.6	6.0	5.5	5.8	6.0	7.1	6.3	5.1	4.7	4.3	2.5	1.3	1.8	1.2	2.4	3.9	3.4	3.1	4.4
28	2.7	3.2	3.0	3.6	2.6	3.0	5.4	5.8	4.9	3.6	2.2	2.3	3.9	3.6	3.3	4.0	2.8	2.6	2.5	2.8	3.6	6.3	4.6	4.7	3.6
29	5.5	8.7	9.0	5.9	3.1	4.7	3.8	6.6	8.2	9.7	8.0	5.6	6.4	8.1	11.7	11.5	6.5	5.4	4.4	1.2	5.3	4.5	7.8	8.4	6.7
30	7.9	3.7	2.4	1.7	2.8	1.7	1.4	1.5	2.5	5.7	5.1	5.0	7.1	7.9	6.5	5.7	7.5	7.2	5.2	5.1	3.1	1.7	1.6	0.6	4.2
31	3.8	3.6	1.6	1.7	1.4	1.9	3.8	2.2	6.5	6.9	8.1	7.9	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	4.1

MONTHLY AVERAGE = 3.94
MAXIMUM 15-MINUTE AVG WIND SPEED = 17.17

WIND DIRECTION FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN DEGREES

(MEASURED CLOCKWISE FROM NORTH)
HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	52.	17.	12.	10.	15.	326.	357.	5.	12.	10.	298.	313.	324.	321.	315.	319.	309.	307.	291.	268.	258.	220.	287.	295.	206.
2	344.	13.	156.	165.	157.	161.	164.	150.	146.	152.	196.	337.	310.	323.	317.	315.	318.	289.	266.	275.	257.	268.	263.	293.	235.
3	309.	340.	330.	328.	30.	33.	25.	30.	10.	310.	311.	318.	322.	313.	314.	334.	331.	337.	343.	348.	342.	348.	341.	332.	266.
4	344.	350.	355.	15.	41.	32.	27.	36.	21.	39.	37.	18.	322.	340.	309.	304.	307.	298.	271.	214.	254.	198.	280.	253.	194.
5	213.	168.	229.	256.	248.	225.	161.	162.	113.	1.	58.	7.	271.	330.	24.	85.	151.	171.	262.	235.	223.	237.	230.	162.	176.
6	159.	141.	139.	142.	148.	157.	153.	177.	175.	193.	232.	301.	339.	333.	314.	316.	321.	355.	350.	314.	293.	278.	302.	287.	247.
7	318.	280.	267.	268.	207.	163.	154.	144.	144.	141.	115.	258.	300.	309.	295.	253.	230.	190.	246.	165.	158.	135.	140.	134.	209.
8	144.	136.	134.	144.	150.	136.	152.	146.	143.	116.	80.	36.	13.	328.	317.	322.	319.	321.	328.	345.	346.	338.	313.	339.	214.
9	334.	325.	349.	344.	346.	3.	4.	354.	344.	9.	326.	313.	310.	305.	314.	315.	316.	326.	327.	324.	327.	351.	357.	339.	290.
10	329.	67.	185.	75.	176.	162.	146.	146.	144.	78.	331.	77.	323.	311.	316.	307.	307.	290.	256.	173.	282.	163.	177.	174.	208.
11	185.	169.	163.	164.	161.	150.	163.	245.	4.	10.	298.	310.	312.	324.	307.	313.	304.	280.	263.	276.	345.	0.	11.	173.	205.
12	160.	146.	161.	153.	161.	159.	159.	164.	154.	87.	347.	320.	329.	315.	310.	310.	299.	268.	263.	275.	218.	286.	244.	239.	230.
13	228.	282.	172.	265.	211.	155.	162.	155.	93.	54.	331.	314.	326.	318.	316.	312.	305.	309.	286.	287.	279.	320.	321.	261.	253.
14	230.	256.	282.	318.	246.	244.	246.	203.	217.	206.	197.	189.	162.	202.	202.	220.	177.	185.	201.	199.	198.	185.	147.	166.	212.
15	157.	163.	155.	150.	197.	192.	149.	151.	138.	151.	193.	122.	150.	164.	174.	183.	191.	189.	189.	183.	185.	180.	189.	187.	170.
16	178.	181.	202.	162.	156.	126.	155.	228.	236.	209.	254.	245.	255.	338.	320.	313.	315.	308.	267.	162.	214.	239.	198.	162.	226.
17	154.	191.	175.	177.	169.	278.	271.	282.	292.	322.	319.	317.	341.	315.	294.	252.	243.	187.	181.	162.	179.	153.	146.	142.	231.
18	136.	144.	143.	133.	140.	157.	157.	157.	159.	156.	173.	176.	179.	173.	164.	162.	156.	147.	143.	155.	152.	152.	142.	141.	154.
19	143.	146.	140.	150.	144.	137.	149.	157.	171.	194.	174.	190.	174.	159.	171.	215.	339.	10.	316.	268.	216.	161.	151.	144.	176.
20	141.	142.	159.	161.	204.	176.	227.	246.	297.	327.	333.	353.	327.	308.	308.	308.	297.	306.	335.	349.	320.	256.	314.	238.	268.
21	304.	300.	353.	340.	329.	20.	15.	20.	7.	11.	35.	20.	356.	314.	333.	327.	304.	308.	303.	293.	308.	312.	278.	305.	229.
22	298.	327.	302.	263.	323.	174.	181.	144.	85.	325.	311.	320.	321.	322.	320.	325.	311.	315.	352.	0.	353.	336.	333.	339.	278.
23	268.	166.	178.	185.	229.	154.	155.	155.	148.	145.	148.	49.	358.	15.	333.	311.	286.	278.	180.	183.	157.	153.	146.	149.	189.
24	138.	142.	141.	150.	157.	196.	102.	138.	153.	198.	228.	188.	218.	213.	213.	215.	196.	159.	168.	137.	157.	149.	142.	157.	169.
25	145.	153.	145.	173.	147.	133.	143.	157.	144.	145.	165.	166.	165.	198.	179.	161.	154.	157.	160.	156.	159.	147.	153.	151.	156.
26	155.	155.	168.	159.	162.	165.	170.	184.	188.	186.	183.	180.	181.	176.	194.	187.	178.	187.	178.	188.	181.	180.	192.	179.	177.
27	170.	170.	157.	165.	167.	166.	170.	169.	168.	167.	170.	176.	174.	186.	207.	203.	232.	263.	178.	197.	152.	135.	132.	137.	175.
28	141.	131.	151.	138.	146.	152.	142.	137.	146.	143.	132.	144.	239.	235.	254.	278.	275.	241.	168.	169.	154.	136.	137.	152.	173.
29	165.	179.	195.	341.	55.	106.	99.	139.	143.	126.	107.	104.	60.	28.	339.	335.	321.	334.	271.	349.	318.	298.	333.	335.	212.
30	336.	143.	158.	176.	151.	161.	282.	198.	3.	20.	36.	14.	18.	31.	17.	349.	325.	338.	349.	337.	354.	348.	310.	279.	197.
31	317.	344.	75.	205.	267.	330.	285.	305.	38.	349.	323.	319.	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	263.

MONTHLY AVERAGE = 211.70

SIGMA THETA FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN DEGREES

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	17.8	29.2	33.2	22.1	23.8	22.7	19.0	18.6	17.1	19.9	35.8	36.0	17.9	21.1	17.8	19.4	10.6	11.3	13.2	10.7	12.1	47.9	11.0	8.6	20.7
2	13.6	26.4	15.9	18.9	18.9	17.5	17.1	19.0	16.0	21.0	40.3	21.0	21.8	17.1	23.3	13.4	15.2	11.0	13.0	6.8	34.7	20.1	18.6	21.9	19.3
3	24.8	14.6	14.4	19.4	18.8	18.9	16.0	18.4	24.7	10.4	13.7	13.5	11.3	11.3	9.6	13.1	15.6	13.7	13.0	16.9	14.1	14.6	12.9	13.4	15.3
4	13.2	14.6	14.4	13.2	14.7	14.7	19.9	17.3	19.9	19.3	19.9	22.5	18.1	29.0	11.4	10.1	11.7	10.9	10.0	21.3	29.0	17.1	12.5	15.9	16.7
5	11.5	14.9	26.5	12.1	11.9	24.9	28.1	16.1	21.4	35.7	20.3	38.7	50.2	46.0	42.8	41.0	32.1	19.6	14.5	45.2	20.1	20.3	21.0	28.0	26.8
6	23.1	15.4	12.9	12.3	15.6	18.6	18.7	22.3	24.8	24.8	21.1	33.7	17.2	14.7	12.4	13.3	14.7	16.6	15.4	15.1	10.6	10.6	21.1	22.5	17.8
7	21.9	9.1	12.3	10.8	33.2	22.4	19.9	18.4	15.9	42.4	30.4	49.8	31.2	33.0	54.3	36.8	23.7	19.5	24.0	18.2	13.9	11.8	13.9	14.0	24.2
8	12.9	11.4	12.4	22.0	21.8	16.0	20.0	15.2	18.0	15.8	39.5	23.0	23.6	22.0	11.8	12.0	11.1	11.9	12.3	16.8	17.2	20.3	13.0	13.5	17.2
9	11.1	13.9	21.1	17.8	15.3	17.5	21.7	20.1	17.9	21.1	18.9	10.7	10.4	10.4	10.9	9.7	10.2	8.6	8.4	8.8	10.1	11.1	12.3	13.3	13.8
10	18.5	54.4	34.3	45.1	37.5	13.7	13.9	16.6	21.5	32.2	39.1	43.8	16.3	24.7	20.1	12.5	10.3	15.3	10.4	22.7	22.5	27.0	24.4	29.2	25.2
11	22.9	29.1	21.5	20.1	14.9	12.9	21.7	29.4	21.9	41.4	48.4	10.6	14.6	16.0	15.4	12.5	10.1	18.7	41.2	7.8	0.0	0.0	24.0	24.4	20.0
12	15.2	35.6	27.5	14.0	17.6	15.9	13.0	16.3	24.3	16.8	33.4	15.7	15.1	14.5	9.7	12.0	13.1	7.6	20.6	10.6	45.3	10.2	34.3	28.9	19.5
13	17.1	28.4	25.0	35.1	23.3	13.3	16.3	14.4	41.8	50.1	20.4	15.5	14.4	12.1	12.8	10.6	10.8	12.6	14.3	13.5	8.2	9.2	15.4	19.4	18.9
14	11.8	14.8	21.5	17.5	20.3	19.3	18.6	29.3	27.7	34.3	30.6	30.3	24.9	31.0	27.2	26.0	28.0	21.7	22.9	22.8	32.7	28.7	19.9	24.2	24.4
15	22.4	25.4	22.0	17.9	26.8	21.6	18.5	18.5	10.2	18.6	24.9	30.5	16.5	23.0	21.4	20.2	21.6	19.7	22.1	22.7	23.0	21.7	22.7	23.5	21.5
16	21.1	22.2	24.0	25.2	33.1	54.0	18.4	23.3	27.2	29.1	24.7	17.9	27.6	21.4	13.7	13.5	14.4	14.0	24.8	38.0	20.7	18.6	10.8	33.7	23.8
17	12.6	30.4	32.2	23.4	17.4	21.4	11.8	12.5	17.8	14.3	12.0	21.1	38.1	22.5	35.3	18.5	20.5	21.6	17.6	15.4	17.8	15.2	14.4	13.9	19.9
18	12.6	13.5	20.3	16.3	13.1	15.8	21.8	19.9	22.8	21.8	25.2	22.4	21.7	22.0	25.1	25.5	21.9	15.4	13.0	21.1	19.3	19.0	13.8	12.1	19.0
19	13.6	14.0	14.9	20.6	16.3	17.4	19.9	20.6	25.7	29.0	29.9	24.3	23.7	22.5	23.0	41.5	18.2	15.6	22.9	19.2	31.6	23.3	17.2	16.9	21.8
20	16.1	17.8	21.3	21.0	24.5	24.1	18.9	12.7	20.1	29.0	18.6	18.6	19.3	11.5	11.3	11.4	13.8	10.5	12.8	17.4	19.2	51.1	38.1	40.0	20.8
21	3.9	7.8	20.4	17.3	13.3	15.3	16.2	16.5	18.9	18.7	15.9	17.3	19.4	11.0	15.6	14.2	11.6	9.0	11.3	14.9	13.9	14.7	21.4	36.7	15.6
22	26.7	32.5	41.5	24.5	8.5	45.9	14.0	30.6	36.2	47.9	9.0	11.7	11.7	12.8	10.4	7.9	10.6	13.8	23.6	18.1	15.8	14.2	12.1	10.5	20.4
23	31.1	33.2	42.1	18.3	33.1	19.6	17.4	19.6	18.8	15.9	14.9	44.9	51.8	42.8	37.7	10.9	19.2	9.2	18.4	28.7	17.2	14.0	18.0	18.2	24.8
24	13.4	11.1	17.9	20.0	19.3	21.7	32.3	26.4	21.2	36.6	23.9	38.9	27.7	21.8	23.3	20.2	25.0	18.2	18.4	19.7	23.1	19.3	17.7	22.5	22.5
25	18.4	21.8	18.0	23.3	12.8	11.3	14.9	24.0	14.5	14.5	19.6	23.5	21.2	25.2	30.3	19.0	14.6	16.8	19.5	19.5	23.8	13.4	20.2	19.2	19.1
26	22.5	22.2	22.2	21.4	24.4	23.9	22.3	20.6	19.0	19.9	20.1	20.7	20.5	22.6	21.5	20.7	22.0	19.3	20.7	20.6	22.1	21.3	19.6	19.0	21.2
27	33.6	25.5	22.1	24.0	22.7	20.8	21.8	20.7	21.8	23.0	22.0	21.1	23.1	24.2	25.3	23.8	19.7	42.8	27.7	28.9	13.1	10.2	12.6	23.1	23.1
28	12.3	9.4	15.6	9.7	15.8	13.6	10.0	10.2	11.0	12.0	30.6	51.0	20.7	29.2	26.3	21.3	20.0	14.2	19.1	15.6	19.5	14.2	16.4	20.9	18.3
29	23.8	19.6	21.5	33.7	34.1	21.5	25.6	13.6	15.8	13.7	19.7	24.6	20.5	25.1	49.3	12.6	15.6	16.0	20.7	48.3	15.2	20.2	13.1	13.0	22.4
30	13.0	41.6	19.4	49.0	46.3	32.5	24.4	62.7	39.0	20.2	18.5	21.7	16.9	16.5	21.5	21.5	12.2	12.2	14.0	13.9	14.7	11.3	20.1	39.5	25.1
31	13.7	33.8	23.9	53.8	47.4	33.2	14.3	30.4	13.4	16.5	14.0	14.7	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	25.7

MONTHLY AVERAGE = 20.72

2 M TEMPERATURE FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN DEGREES C

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	13.0	12.6	12.2	11.8	11.7	11.8	12.4	12.8	13.3	14.2	16.3	18.4	19.2	19.4	18.3	19.1	17.6	15.2	13.8	12.1	11.0	10.3	9.9	9.9	14.0
2	9.8	10.7	9.5	8.9	8.6	7.9	8.0	9.2	11.5	14.3	15.4	17.2	17.4	18.0	18.9	17.8	16.7	15.0	13.1	12.2	11.2	10.3	10.2	10.6	12.6
3	11.3	11.6	11.0	10.7	11.0	10.8	10.8	11.5	13.1	14.0	14.9	15.0	15.3	14.7	14.1	14.0	13.8	13.6	13.5	13.0	12.9	12.3	11.7	11.5	12.7
4	11.3	11.5	10.9	10.5	10.3	10.2	11.4	11.8	12.3	14.8	16.0	17.5	18.5	19.5	19.0	18.5	18.4	16.7	15.8	15.7	15.2	14.3	13.7	13.4	14.5
5	12.0	11.6	12.2	11.0	10.9	10.3	9.8	12.4	16.1	18.7	20.7	21.9	21.2	23.2	23.3	21.4	21.3	18.8	15.4	14.0	13.8	13.4	13.0	12.5	15.8
6	12.4	12.4	12.7	12.8	12.8	12.0	12.1	12.7	12.9	13.0	13.4	14.3	14.2	14.4	15.1	15.0	14.5	14.0	13.0	13.2	12.1	11.0	10.8	11.0	13.0
7	11.0	9.4	8.4	8.3	7.5	7.2	7.0	9.2	10.7	11.5	13.0	15.6	16.4	16.8	17.6	16.8	15.7	13.9	12.5	11.5	11.5	11.7	11.6	11.5	11.9
8	11.4	11.5	11.3	11.0	11.0	11.1	11.2	11.6	12.4	12.8	13.6	14.3	14.6	15.4	14.7	14.3	14.0	13.3	13.2	13.0	12.1	11.1	10.6	10.5	12.5
9	10.6	10.7	10.5	9.8	9.8	10.1	9.8	10.0	12.6	14.6	16.8	17.5	17.9	17.5	18.1	17.7	16.6	14.6	13.4	12.8	12.4	11.7	10.8	10.4	13.2
10	9.5	9.0	7.3	6.8	6.4	6.0	6.3	7.6	10.4	13.6	15.8	18.1	18.8	19.0	19.6	19.2	18.2	15.7	13.0	11.2	10.5	9.8	9.4	8.5	12.1
11	7.9	7.5	6.9	6.4	6.3	6.3	6.0	8.3	12.2	15.3	17.9	18.9	20.1	21.1	21.6	21.0	19.9	16.9	13.6	12.0	10.8	10.0	9.5	9.1	12.7
12	8.8	8.3	7.9	7.6	7.3	7.6	8.1	9.3	10.9	15.6	18.7	20.0	21.0	21.9	22.1	21.8	20.4	16.9	13.9	12.1	11.3	11.0	10.5	10.1	13.5
13	10.4	9.8	9.6	8.8	8.3	8.3	8.3	9.5	12.3	15.5	16.7	17.6	18.5	18.7	18.6	17.6	16.4	14.5	12.9	11.4	10.5	10.5	10.2	10.2	12.7
14	10.2	10.0	9.5	9.5	9.7	9.7	9.7	9.9	10.3	10.5	10.9	11.2	11.5	11.3	11.7	11.6	11.3	11.1	11.1	11.2	11.2	11.2	10.6	10.4	10.6
15	10.4	10.4	10.4	10.3	10.3	10.5	10.5	10.5	10.6	10.9	11.0	11.3	12.3	12.5	13.0	13.0	13.1	12.6	12.6	12.8	12.6	12.4	12.3	11.9	11.6
16	11.4	11.2	11.4	10.6	10.4	10.3	10.5	10.8	11.6	12.6	13.0	12.9	13.1	12.3	12.6	12.7	12.7	12.0	10.8	9.6	8.8	9.4	10.0	10.4	11.3
17	10.7	10.6	10.1	10.5	10.7	10.8	11.1	11.4	11.7	12.8	14.5	16.2	16.8	16.2	17.5	16.0	14.5	13.0	11.6	11.0	10.3	10.9	11.1	10.5	12.5
18	10.5	10.7	10.6	10.7	10.8	10.8	10.7	10.4	10.5	10.8	11.6	11.9	12.2	11.8	11.3	11.1	11.0	10.9	11.0	11.1	11.1	11.0	11.1	11.3	11.0
19	11.4	11.6	11.8	11.9	12.1	12.3	12.6	13.0	13.5	14.2	14.3	14.9	15.3	15.7	16.2	16.3	14.4	13.0	13.0	12.8	12.5	12.0	11.6	11.3	13.2
20	11.0	10.7	10.4	10.2	10.0	10.0	10.1	10.6	12.3	14.2	13.8	13.9	13.8	14.2	13.8	13.2	12.5	11.1	10.5	9.6	9.4	8.0	7.2	6.7	11.1
21	6.6	6.9	8.6	8.5	8.3	8.6	8.5	8.5	8.9	9.6	12.2	13.9	15.8	16.2	17.0	17.2	14.7	12.5	11.7	10.6	10.3	10.3	8.4	7.4	10.9
22	6.7	6.3	6.8	6.1	5.1	5.1	4.8	7.2	10.1	13.4	15.9	17.6	19.0	19.8	20.3	19.6	16.4	13.4	12.8	12.5	11.7	10.7	10.0	9.1	11.7
23	7.8	6.6	6.1	5.6	5.2	5.5	5.5	5.9	7.8	9.2	10.9	14.0	15.1	15.8	15.2	13.8	12.5	10.6	9.1	8.2	7.4	7.3	7.0	6.7	9.1
24	6.6	6.5	6.4	6.7	7.2	8.6	8.2	8.4	9.1	10.6	12.6	13.0	13.4	13.7	13.0	12.7	11.4	10.8	9.5	8.6	7.6	7.3	7.1	6.3	9.4
25	6.6	7.2	6.7	5.7	5.6	6.7	6.2	7.0	8.9	10.8	11.5	11.9	11.9	13.0	12.4	11.6	11.3	11.1	10.7	10.5	10.2	10.6	10.3	10.4	9.5
26	10.0	10.0	10.2	10.3	10.7	10.7	10.7	11.1	11.9	12.6	12.9	13.6	13.6	13.6	14.0	14.3	14.0	13.7	13.7	13.7	13.6	13.5	13.6	13.5	12.5
27	13.3	13.2	13.0	13.2	13.2	13.2	13.2	13.2	13.6	15.1	16.2	17.5	18.7	18.6	18.1	17.7	15.9	13.0	11.1	10.0	9.6	9.7	9.2	8.8	13.7
28	8.1	8.4	9.1	9.6	9.7	9.3	8.6	8.6	8.7	10.4	13.7	15.7	16.3	16.2	16.1	14.7	11.8	10.2	9.6	9.4	9.7	9.8	8.9	8.9	10.9
29	9.7	10.5	11.6	10.5	9.1	9.0	8.4	8.1	7.7	7.1	6.8	8.2	10.4	8.5	7.4	7.1	6.7	6.3	4.4	3.2	5.2	4.7	5.7	5.6	7.6
30	5.3	2.7	1.3	0.4	0.0	-0.5	-1.1	0.4	3.7	5.6	6.6	8.1	8.4	8.7	9.1	8.7	6.7	5.6	4.4	3.9	3.0	1.8	1.0	-0.3	3.9
31	1.2	1.3	0.0	-1.2	-1.1	-1.4	-0.8	1.3	4.0	5.6	7.1	8.4	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	2.0

MONTHLY AVERAGE = 11.57
MINIMUM MONTHLY 15-MINUTE AVG = -1.67
MAXIMUM MONTHLY 15-MINUTE AVG = 23.68

10 M TEMPERATURE FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN DEGREES C

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG.
1	13.3	12.9	12.5	12.2	12.1	12.0	12.6	12.8	13.1	13.7	15.6	17.1	17.6	17.8	17.2	17.8	16.7	14.9	13.6	12.0	11.1	10.6	10.1	10.4	13.7
2	10.6	11.2	9.6	9.0	8.8	8.1	8.1	9.0	11.1	13.6	14.7	15.8	16.3	16.6	17.4	16.9	16.3	14.8	12.9	12.3	11.3	10.7	10.3	10.8	12.3
3	11.6	11.9	11.3	10.8	11.2	11.2	11.0	11.5	12.6	13.5	14.2	14.3	14.6	14.3	13.7	13.8	13.7	13.7	13.7	13.3	13.2	12.7	12.2	11.9	12.7
4	11.7	11.7	11.4	11.1	10.6	10.6	11.6	11.8	12.2	13.8	14.7	16.1	17.2	18.0	18.0	17.9	17.7	16.6	15.7	15.8	15.2	14.6	13.9	13.5	14.2
5	12.2	12.0	12.3	11.3	10.9	10.6	10.1	12.6	15.6	17.8	19.6	20.2	20.4	21.6	21.7	20.8	20.6	18.9	15.7	14.4	13.8	13.1	12.8	12.5	15.5
6	12.4	12.4	12.6	12.7	12.7	11.9	12.2	12.6	12.7	12.7	13.1	13.9	13.7	14.0	14.5	14.5	14.2	14.2	13.4	13.2	12.0	11.1	11.0	11.2	12.9
7	11.5	9.9	8.9	8.7	8.0	7.7	7.4	9.3	10.5	11.3	12.6	14.6	15.0	15.3	15.9	15.8	14.8	13.6	12.4	11.6	11.6	11.8	11.6	11.6	11.7
8	11.4	11.4	11.3	11.0	11.0	11.1	11.1	11.4	12.2	12.6	13.2	13.7	13.9	14.5	14.1	13.7	13.5	13.2	13.2	13.0	12.4	11.5	10.8	10.8	12.3
9	10.8	10.7	10.3	9.6	9.6	9.9	9.6	9.7	11.5	13.1	15.2	16.2	16.6	16.8	17.1	16.8	16.0	14.6	13.5	13.0	12.6	12.5	11.6	10.9	12.8
10	10.0	9.6	7.8	7.4	6.6	6.3	6.3	7.6	10.2	12.7	14.7	16.7	17.4	17.8	18.3	18.3	17.7	15.6	13.1	11.6	10.8	10.2	9.9	9.0	11.9
11	8.3	7.8	7.3	6.9	6.7	6.5	6.4	8.9	12.4	14.9	16.9	18.0	19.0	19.7	20.3	20.1	19.4	16.9	14.1	12.7	11.3	10.3	9.8	9.6	12.7
12	9.3	8.7	8.3	7.9	7.6	7.9	8.2	9.2	10.7	14.9	17.5	18.5	19.3	20.2	20.8	20.6	19.9	16.9	14.2	12.7	12.1	11.8	11.0	10.8	13.3
13	10.8	10.3	10.0	9.2	8.7	8.6	8.5	9.4	12.1	14.8	15.6	16.4	16.8	17.1	17.1	16.6	16.0	14.5	12.9	11.7	10.8	10.6	10.2	10.1	12.4
14	10.0	9.9	9.4	9.3	9.5	9.6	9.6	9.7	10.1	10.3	10.6	11.0	11.1	11.1	11.5	11.4	11.2	11.0	11.0	11.1	11.1	11.1	10.4	10.3	10.5
15	10.3	10.1	10.1	10.2	10.0	10.1	10.2	10.2	10.3	10.5	10.7	11.0	11.9	12.4	12.8	12.9	13.3	12.8	12.6	12.8	12.6	12.4	12.3	11.8	11.4
16	11.4	11.2	11.3	10.5	10.4	10.4	10.6	10.8	11.4	12.3	12.7	12.6	13.0	11.9	12.4	12.5	12.6	12.1	10.9	10.1	9.2	9.7	10.2	10.6	11.3
17	10.8	10.7	10.3	10.6	10.8	10.8	11.0	11.4	11.6	12.5	13.5	14.8	15.3	15.1	16.3	15.2	14.1	12.9	11.9	11.3	10.6	11.0	11.1	10.6	12.3
18	10.5	10.7	10.6	10.7	10.9	10.9	10.7	10.3	10.4	10.6	11.4	11.7	11.9	11.6	10.9	10.9	10.8	10.7	10.8	10.9	10.9	10.8	11.0	11.1	10.9
19	11.3	11.5	11.7	11.9	12.0	12.3	12.5	13.0	13.4	13.8	13.9	14.4	14.9	15.3	15.7	15.8	14.1	13.4	13.2	12.7	12.4	12.0	11.6	11.3	13.1
20	11.1	10.8	10.4	10.3	10.0	10.1	10.1	10.6	12.3	13.6	13.2	13.3	13.5	13.6	13.2	12.7	12.3	11.1	10.9	10.3	9.7	8.4	7.8	7.2	11.1
21	7.1	7.4	8.7	8.4	8.3	8.4	8.4	8.3	8.4	9.0	10.9	12.6	14.5	15.0	16.0	16.4	14.6	12.6	11.8	10.7	10.7	10.6	8.7	7.9	10.6
22	7.5	7.1	7.5	6.8	6.1	5.9	5.5	7.4	10.3	13.1	15.0	16.4	17.6	18.4	19.0	18.6	16.4	13.6	13.5	13.1	12.2	11.0	10.3	9.6	11.8
23	8.4	7.1	6.6	6.1	5.8	5.9	5.7	6.0	7.5	8.8	10.5	12.9	13.6	14.4	14.1	13.2	12.3	10.6	9.4	8.5	7.9	7.7	7.3	6.9	9.0
24	6.7	6.5	6.4	6.8	7.4	8.6	8.2	8.3	9.1	10.6	12.3	12.7	13.3	13.4	12.8	12.5	11.2	10.9	9.8	9.1	8.2	7.7	7.4	6.6	9.4
25	6.9	7.3	7.0	6.1	6.1	7.0	6.5	7.3	8.7	10.6	11.1	11.3	11.5	12.6	12.2	11.5	11.4	11.2	10.9	10.7	10.4	10.6	10.4	10.6	9.6
26	10.1	10.1	10.4	10.4	10.9	10.8	10.8	11.2	11.7	12.3	12.7	13.4	13.4	13.4	13.9	14.2	14.0	13.7	13.7	13.7	13.6	13.6	13.6	13.5	12.5
27	13.3	13.3	13.1	13.2	13.2	13.2	13.3	13.2	13.6	14.8	15.7	16.9	17.8	17.8	17.4	17.0	15.7	13.2	12.0	10.6	10.3	10.2	9.8	9.2	13.6
28	8.5	8.6	9.3	9.6	9.7	9.1	8.4	8.4	8.5	10.0	13.2	14.6	15.5	15.4	15.1	13.9	11.6	9.9	9.6	9.4	9.7	9.7	9.0	9.1	10.7
29	9.9	10.7	11.6	10.4	9.0	8.7	8.2	7.8	7.2	6.4	6.0	7.2	8.7	7.6	6.5	6.4	6.8	6.7	4.2	3.6	5.5	4.9	5.7	5.5	7.3
30	5.7	3.2	1.6	0.8	0.4	-0.2	-0.6	0.9	4.2	5.0	5.5	6.7	7.1	7.6	7.9	7.9	6.8	5.9	5.0	4.4	3.7	2.6	2.2	0.8	4.0
31	2.1	2.0	1.1	-0.5	-0.5	-0.4	-0.2	1.8	3.8	5.0	6.1	7.3	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	2.3

MONTHLY AVERAGE = 11.44
MINIMUM MONTHLY 15-MINUTE AVG = -0.79
MAXIMUM MONTHLY 15-MINUTE AVG = 21.99

SOLAR RADIATION FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN WATTS/M**2

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG
1	0.	0.	0.	0.	0.	0.	10.	39.	105.	176.	476.	637.	645.	507.	328.	325.	83.	11.	0.	0.	0.	0.	0.	0.	139.
2	0.	0.	0.	0.	0.	0.	15.	107.	287.	465.	390.	548.	487.	493.	427.	220.	95.	18.	0.	0.	0.	0.	0.	0.	148.
3	0.	0.	0.	0.	0.	0.	16.	93.	189.	324.	390.	272.	190.	139.	99.	64.	32.	10.	0.	0.	0.	0.	0.	0.	76.
4	0.	0.	0.	0.	0.	0.	7.	36.	118.	446.	547.	594.	587.	533.	432.	293.	99.	15.	0.	0.	0.	0.	0.	0.	154.
5	0.	0.	0.	0.	0.	0.	11.	145.	297.	426.	492.	542.	424.	537.	350.	198.	126.	15.	0.	0.	0.	0.	0.	0.	148.
6	0.	0.	0.	0.	0.	0.	4.	21.	53.	89.	138.	176.	82.	156.	193.	129.	47.	7.	0.	0.	0.	0.	0.	0.	46.
7	0.	0.	0.	0.	0.	0.	17.	154.	142.	117.	244.	553.	502.	429.	455.	298.	103.	12.	0.	0.	0.	0.	0.	0.	126.
8	0.	0.	0.	0.	0.	0.	6.	33.	72.	86.	111.	161.	187.	216.	147.	110.	67.	8.	0.	0.	0.	0.	0.	0.	50.
9	0.	0.	0.	0.	0.	0.	8.	75.	317.	449.	548.	588.	583.	513.	428.	286.	91.	6.	0.	0.	0.	0.	0.	0.	162.
10	0.	0.	0.	0.	0.	0.	15.	120.	253.	391.	457.	536.	534.	457.	404.	266.	68.	4.	0.	0.	0.	0.	0.	0.	146.
11	0.	0.	0.	0.	0.	0.	10.	139.	292.	426.	525.	561.	570.	509.	405.	265.	82.	5.	0.	0.	0.	0.	0.	0.	158.
12	0.	0.	0.	0.	0.	0.	9.	50.	196.	416.	509.	546.	548.	499.	396.	257.	79.	4.	0.	0.	0.	0.	0.	0.	146.
13	0.	0.	0.	0.	0.	0.	9.	57.	233.	372.	471.	521.	530.	478.	362.	257.	70.	2.	0.	0.	0.	0.	0.	0.	140.
14	0.	0.	0.	0.	0.	0.	3.	28.	48.	46.	87.	94.	87.	61.	98.	73.	28.	1.	0.	0.	0.	0.	0.	0.	27.
15	0.	0.	0.	0.	0.	0.	2.	14.	23.	63.	30.	162.	222.	150.	138.	132.	39.	1.	0.	0.	0.	0.	0.	0.	41.
16	0.	0.	0.	0.	0.	0.	4.	28.	126.	217.	177.	149.	115.	51.	99.	65.	29.	1.	0.	0.	0.	0.	0.	0.	44.
17	0.	0.	0.	0.	0.	0.	4.	17.	79.	211.	467.	536.	479.	323.	411.	184.	62.	1.	0.	0.	0.	0.	0.	0.	115.
18	0.	0.	0.	0.	0.	0.	3.	15.	27.	71.	141.	131.	149.	71.	57.	18.	5.	0.	0.	0.	0.	0.	0.	0.	29.
19	0.	0.	0.	0.	0.	0.	3.	12.	23.	41.	91.	109.	90.	67.	57.	26.	2.	0.	0.	0.	0.	0.	0.	0.	22.
20	0.	0.	0.	0.	0.	0.	4.	33.	197.	274.	204.	204.	153.	320.	305.	202.	83.	2.	0.	0.	0.	0.	0.	0.	82.
21	0.	0.	0.	0.	0.	0.	2.	54.	111.	201.	473.	521.	515.	452.	350.	211.	58.	1.	0.	0.	0.	0.	0.	0.	123.
22	0.	0.	0.	0.	0.	0.	10.	115.	252.	376.	467.	511.	507.	443.	333.	192.	37.	1.	0.	0.	0.	0.	0.	0.	135.
23	0.	0.	0.	0.	0.	0.	4.	31.	116.	183.	298.	470.	473.	412.	273.	142.	35.	1.	0.	0.	0.	0.	0.	0.	101.
24	0.	0.	0.	0.	0.	0.	0.	4.	73.	204.	300.	244.	202.	167.	99.	66.	23.	1.	0.	0.	0.	0.	0.	0.	58.
25	0.	0.	0.	0.	0.	0.	3.	70.	171.	337.	327.	275.	226.	250.	110.	38.	9.	0.	0.	0.	0.	0.	0.	0.	76.
26	0.	0.	0.	0.	0.	0.	2.	33.	51.	145.	176.	182.	148.	96.	114.	85.	15.	0.	0.	0.	0.	0.	0.	0.	44.
27	0.	0.	0.	0.	0.	0.	1.	21.	84.	296.	282.	461.	467.	387.	202.	173.	36.	0.	0.	0.	0.	0.	0.	0.	100.
28	0.	0.	0.	0.	0.	0.	1.	22.	72.	194.	420.	470.	463.	403.	302.	168.	33.	0.	0.	0.	0.	0.	0.	0.	106.
29	0.	0.	0.	0.	0.	0.	0.	15.	28.	49.	128.	404.	511.	141.	134.	56.	15.	0.	0.	0.	0.	0.	0.	0.	62.
30	0.	0.	0.	0.	0.	0.	2.	74.	233.	354.	440.	486.	478.	419.	314.	177.	30.	0.	0.	0.	0.	0.	0.	0.	125.
31	0.	0.	0.	0.	0.	0.	2.	82.	223.	349.	439.	479.	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	131.

MONTHLY AVERAGE = 98.18

BAROMETRIC PRESSURE FOR TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN Mbar

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	AVG
1	**********																								0.
2	**********												1017.	1017.	1017.	1017.	1017.	1017.	1018.	1018.	1018.	1018.	1018.	1018.	1018.
3	1019.	1019.	1019.	1019.	1019.	1019.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1019.	1019.	1019.	1019.	1019.	1019.	1019.	1019.	1019.	1019.	1019.	1019.
4	1018.	1019.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1017.	1017.	1016.	1016.	1015.	1015.	1015.	1016.	1016.	1016.	1016.	1016.	1016.	1017.
5	1016.	1016.	1016.	1016.	1015.	1015.	1015.	1016.	1016.	1015.	1015.	1014.	1013.	1013.	1012.	1012.	1012.	1012.	1012.	1013.	1014.	1014.	1015.	1015.	1014.
6	1016.	1016.	1016.	1016.	1016.	1017.	1017.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1018.	1019.	1019.	1019.	1020.	1020.	1020.	1018.
7	1021.	1022.	1022.	1023.	1023.	1024.	1025.	1025.	1026.	1026.	1027.	1026.	1027.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1025.
8	1026.	1026.	1026.	1025.	1025.	1025.	1025.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1025.	1025.	1026.	1027.	1027.	1027.	1027.	1028.	1026.
9	1028.	1028.	1029.	1029.	1029.	1029.	1029.	1029.	1029.	1029.	1028.	1028.	1027.	1026.	1025.	1025.	1024.	1024.	1024.	1024.	1024.	1024.	1024.	1024.	1027.
10	1024.	1024.	1023.	1023.	1023.	1023.	1023.	1024.	1023.	1023.	1022.	1022.	1021.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1022.
11	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1020.	1019.	1019.	1018.	1017.	1017.	1016.	1016.	1016.	1016.	1016.	1016.	1016.	1016.	1018.
12	1016.	1016.	1016.	1015.	1015.	1015.	1015.	1015.	1015.	1015.	1014.	1014.	1013.	1012.	1012.	1011.	1010.	1010.	1010.	1010.	1010.	1010.	1010.	1011.	1013.
13	1011.	1011.	1010.	1010.	1010.	1011.	1011.	1011.	1012.	1012.	1011.	1011.	1010.	1010.	1010.	1009.	1009.	1009.	1010.	1010.	1011.	1011.	1011.	1011.	1010.
14	1011.	1011.	1011.	1011.	1011.	1011.	1011.	1011.	1011.	1011.	1012.	1012.	1011.	1010.	1009.	1009.	1009.	1009.	1009.	1008.	1009.	1009.	1009.	1008.	1010.
15	1008.	1007.	1006.	1006.	1005.	1005.	1004.	1004.	1004.	1003.	1002.	1001.	1000.	999.	999.	999.	999.	999.	1000.	1000.	1000.	1001.	1001.	1001.	1002.
16	1001.	1002.	1002.	1002.	1003.	1004.	1004.	1005.	1006.	1006.	1007.	1008.	1008.	1008.	1009.	1010.	1010.	1010.	1011.	1012.	1013.	1013.	1014.	1015.	1007.
17	1015.	1016.	1016.	1017.	1018.	1018.	1019.	1019.	1020.	1021.	1021.	1021.	1021.	1022.	1022.	1022.	1022.	1022.	1022.	1022.	1023.	1023.	1023.	1023.	1020.
18	1023.	1024.	1023.	1023.	1023.	1024.	1024.	1024.	1024.	1024.	1024.	1023.	1023.	1023.	1023.	1022.	1022.	1021.	1021.	1021.	1021.	1021.	1021.	1020.	1023.
19	1020.	1019.	1019.	1018.	1018.	1018.	1018.	1018.	1018.	1019.	1018.	1019.	1018.	1018.	1018.	1018.	1020.	1020.	1021.	1022.	1022.	1023.	1023.	1023.	1020.
20	1024.	1024.	1024.	1024.	1025.	1025.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1026.	1025.	1025.	1025.	1025.	1026.	1026.	1026.	1026.	1026.	1026.	1025.
21	1025.	1025.	1025.	1025.	1025.	1025.	1025.	1025.	1025.	1025.	1025.	1024.	1023.	1022.	1021.	1021.	1021.	1020.	1020.	1020.	1020.	1020.	1020.	1019.	1023.
22	1019.	1019.	1019.	1018.	1018.	1018.	1018.	1018.	1018.	1017.	1017.	1017.	1016.	1016.	1016.	1016.	1016.	1017.	1018.	1019.	1019.	1020.	1020.	1021.	1018.
23	1021.	1022.	1023.	1023.	1023.	1023.	1024.	1024.	1024.	1024.	1024.	1024.	1023.	1022.	1021.	1021.	1020.	1020.	1020.	1020.	1019.	1019.	1018.	1018.	1022.
24	1018.	1016.	1016.	1015.	1015.	1015.	1015.	1015.	1016.	1016.	1016.	1015.	1015.	1015.	1016.	1017.	1017.	1018.	1018.	1019.	1020.	1021.	1021.	1022.	1017.
25	1023.	1024.	1025.	1025.	1026.	1027.	1027.	1028.	1029.	1030.	1030.	1030.	1030.	1030.	1030.	1030.	1029.	1029.	1029.	1029.	1029.	1029.	1029.	1029.	1028.
26	1029.	1028.	1028.	1028.	1028.	1028.	1028.	1028.	1029.	1028.	1029.	1029.	1029.	1028.	1028.	1028.	1027.	1028.	1028.	1028.	1028.	1028.	1028.	1028.	1028.
27	1028.	1028.	1028.	1028.	1028.	1028.	1028.	1029.	1029.	1029.	1029.	1029.	1029.	1028.	1028.	1028.	1028.	1027.	1027.	1027.	1027.	1027.	1027.	1027.	1028.
28	1026.	1026.	1026.	1025.	1025.	1025.	1025.	1024.	1024.	1024.	1024.	1023.	1022.	1021.	1020.	1020.	1019.	1019.	1018.	1018.	1017.	1017.	1016.	1015.	1022.
29	1014.	1013.	1012.	1012.	1012.	1012.	1012.	1013.	1013.	1013.	1014.	1014.	1013.	1014.	1015.	1016.	1017.	1018.	1019.	1019.	1020.	1021.	1022.	1022.	1015.
30	1023.	1023.	1024.	1024.	1025.	1025.	1025.	1026.	1026.	1026.	1026.	1026.	1026.	1025.	1025.	1025.	1024.	1024.	1025.	1025.	1025.	1024.	1024.	1024.	1025.
31	1024.	1024.	1024.	1024.	1024.	1024.	1025.	1025.	1025.	1025.	1025.	1025.	**********												1024.

MONTHLY AVERAGE = 1019.39

WIND SPEED/DIRECTION TERMINAL 117
METEOROLOGICAL MONITORING SYSTEM FOR
THE MONTH OF OCTOBER , 2006

IN MPH/DIR

HOUR ENDING

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	4NE	2N	2N	3N	2N	2NW	4N	4N	5N	5N	3NW	4NW	5NW	5NW	5NW	4NW	6NW	7NW	3W	2W	1W	1SW	2W	2NW
2	2N	4N	3SE	2S	2SE	2S	2S	3SE	4SE	3SE	2S	3NW	4NW	5NW	5NW	5NW	5NW	3W	3W	1W	1W	1W	1W	2NW
3	2NW	3N	3NW	2NW	3NE	2NE	3NE	3NE	4N	6NW	6NW	6NW	6NW	8NW	7NW	5NW	5NW	5NW	5N	5N	4N	5N	5N	5NW
4	6N	7N	5N	4N	4NE	4NE	6NE	5NE	6N	8NE	7NE	8N	9NW	7N	10NW	9NW	6NW	5NW	3W	3SW	2W	1S	1W	1W
5	0SW	1S	1SW	1W	1W	1SW	1S	1S	2SE	1N	1NE	2N	3W	2NW	2NE	2E	3SE	2S	1W	1SW	3SW	3SW	2SW	2S
6	3S	6SE	6SE	6SE	5SE	3SE	3SE	3S	3S	3S	3SW	3NW	4N	6NW	6NW	6NW	6NW	5N	4N	4NW	4NW	3W	2NW	1W
7	3NW	2W	2W	2W	1SW	2S	2SE	2SE	3SE	2SE	3SE	3W	5NW	5NW	4NW	3W	3SW	2S	1SW	1S	2S	5SE	3SE	4SE
8	5SE	6SE	6SE	4SE	3SE	5SE	3SE	3SE	3SE	4SE	2E	4NE	4N	5NW	7NW	7NW	6NW	7NW	7NW	6N	6N	5N	4NW	7N
9	9NW	6NW	5N	6N	6N	6N	6N	6N	6N	6N	6NW	8NW	10NW	11NW	11NW	9NW	9NW	9NW	8NW	7NW	6NW	5N	5N	5N
10	2NW	3NE	1S	2E	2S	2S	4SE	4SE	2SE	1E	2NW	2E	4NW	4NW	5NW	5NW	5NW	4W	2W	1S	0W	2S	1S	1S
11	1S	1S	1S	1S	2S	3SE	1S	1SW	1N	1N	1NW	4NW	5NW	5NW	5NW	5NW	4NW	3W	1W	0W	0N	0N	0N	1S
12	1S	1SE	1S	1SE	1S	2S	2S	2S	2SE	1E	2N	4NW	6NW	4NW	5NW	5NW	3NW	2W	1W	0W	1SW	2W	1SW	1SW
13	2SW	1W	2S	1W	2SW	2SE	3S	2SE	1E	2NE	4NW	5NW	6NW	7NW	7NW	8NW	5NW	4NW	3W	2W	2W	6NW	5NW	2W
14	3SW	3W	3W	3NW	2SW	3SW	3SW	3SW	4SW	3SW	3S	3S	4S	4S	4S	5SW	4S	5S	4S	3S	4S	3S	5SE	3S
15	4SE	4S	3SE	3SE	5S	4S	4SE	4SE	6SE	4SE	2S	5SE	7SE	5S	7S	9S	8S	8S	8S	6S	6S	5S	6S	5S
16	5S	4S	5S	3S	2SE	2SE	2SE	2SW	3SW	3SW	4W	4SW	3W	3N	6NW	6NW	4NW	2NW	2W	1S	1SW	1SW	1S	1S
17	1SE	1S	1S	1S	1S	2W	2W	3W	3W	4NW	6NW	4NW	3N	4NW	4NW	4W	3SW	2S	2S	2S	1S	3SE	4SE	4SE
18	4SE	5SE	4SE	3SE	3SE	3SE	3SE	3SE	3S	4SE	4S	5S	6S	5S	5S	5S	4SE	6SE	5SE	3SE	3SE	4SE	5SE	6SE
19	6SE	6SE	5SE	4SE	6SE	4SE	4SE	4SE	3S	4S	4S	5S	3S	3S	4S	4SW	8N	6N	4NW	3W	2SW	3S	4SE	5SE
20	4SE	4SE	2S	2S	2SW	2S	1SW	2SW	2NW	3NW	6NW	5N	7NW	9NW	10NW	9NW	6NW	6NW	5NW	4N	3NW	2W	1NW	1SW
21	0NW	1NW	3N	5N	4NW	4N	5N	5N	6N	6N	6NE	7N	7N	9NW	8NW	7NW	6NW	7NW	5NW	4NW	5NW	5NW	3W	1NW
22	1NW	1NW	2NW	1W	1NW	1S	1S	2SE	1E	2NW	3NW	4NW	4NW	4NW	5NW	3NW	6NW	4NW	4N	5N	5N	4NW	4NW	3N
23	2W	1S	1S	1S	1SW	2SE	2SE	3SE	2SE	4SE	4SE	2NE	2N	2N	4NW	4NW	3W	2W	2S	1S	2SE	3SE	3SE	4SE
24	5SE	8SE	6SE	8SE	6SE	6S	3E	4SE	5SE	3S	5SW	3S	5SW	6SW	6SW	6SW	4S	2S	2S	3SE	2SE	4SE	6SE	4SE
25	5SE	4SE	4SE	2S	2SE	3SE	4SE	2SE	4SE	5SE	5S	5S	5S	4S	3S	2S	3SE	3SE	3S	3SE	3S	8SE	5SE	7SE
26	6SE	5SE	5S	5S	5S	6S	5S	6S	6S	8S	8S	9S	8S	7S	8S	9S	7S	8S	7S	8S	6S	6S	8S	6S
27	4S	5S	5SE	5S	5S	5S	6S	6S	5S	6S	6S	7S	6S	5S	5SW	4SW	2SW	1W	2S	1S	2SE	4SE	3SE	3SE
28	3SE	3SE	3SE	4SE	3SE	3SE	5SE	6SE	5SE	4SE	2SE	2SE	4SW	4SW	3W	4W	3W	3SW	2S	3S	4SE	6SE	5SE	5SE
29	6S	9S	9S	6N	3NE	5E	4E	7SE	8SE	10SE	8E	6E	6NE	8NE	12N	11NW	7NW	5NW	4W	1N	5NW	4NW	8NW	8NW
30	8NW	4SE	2S	2S	3SE	2S	1W	1S	2N	6N	5NE	5N	7N	8NE	7N	6N	7NW	7N	5N	5NW	3N	2N	2NW	1W
31	4NW	4N	2E	2SW	1W	2NW	4W	2NW	6NE	7N	8NW	8NW	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********	**********

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
19203 36th Avenue West, Suite 101
Lynnwood, Washington 98036
(425) 921-4000

WIND SPEED AUDIT

Sensor Model	RM YOUNG 5305	**Client**	P.O.S.
Sensor Serial #	46714	**Job No.**	9950.003.0 TASK 4
Sensor Height	10 METERS	**Site**	T117 BENCH CHECK
Data Logger Model	CR10	**Date**	SEPT. 6 2006
Logger Serial #		**Time**	900 PDT

Auditor Kris Hansen
Signature Kris Hansen

1. Constant RPM Motor Verification

Motor Speed RPM	Calculated Motor Speed	System Indicated Speed	Indicated Difference
0	0	0	-
100	1.145	1.14	-
300	3.435	3.43	-
500	5.725	5.72	-
900	10.305	10.30	-

2. Torque Watch Verification

Torque Reading < 3 **gm-cm**
Sensor Threshold 0.9 mph

3. Bearings, Cable and Propeller Assembly Inspection

✓ **Acceptable**
____ **Unacceptable**

Comments:

rpm * 0.01145 = mph

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
19203 36th Avenue West, Suite 101
Lynnwood, Washington 98036
(425) 921-4000

WIND DIRECTION AUDIT

Sensor Model	RM YOUNG 5305	**Client**	P.O.S.
Sensor Serial #	46714	**Job No.**	9950.003.0 TASK 4
Sensor Height	10 METERS	**Site**	T117 BENCHCHECK
Data Logger Model	CR10	**Date**	SEPT. 6 2006
Logger Serial #		**Time**	10 AM PST

Auditor Kris Hansen **Signature** Kris Hansen

1. Crossarm Orientation Verification

Magnetic North Declination of Site	17.3
Crossarm Orientation with Theodolite	16.5
Difference Between Audit and Site	0.8°E

2. Sensor Linearity Verification

Input Angle	System Output	Input Angle	System Output
180	180.9	150	149.6
210	210.4	120	119.4
240	241.6	90	90.7
270	270.1	60	61.3
300	301.4	30	29.6
330	331.7	360	0.8
360	0.7	330	330.1
30	29.9	300	300.9
60	60.0	270	271.4
90	91.4	240	239.6
120	119.7	210	209.5
150	151.04	180	180.6
180	179.8		

3. Starting Threshold - Torque Gauge Verification

Torque Reading	< 10 gm cm gm/cm
Sensor Threshold	≤ 11 gm cm

4. Bearings, Cable and Wind Vane Assembly Inspection

Acceptable	
Unacceptable	

Comments:

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

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Lynnwood, Washington 98036
(425) 921-4000

TEMPERATURE AUDIT

Sensor Model	RM YOUNG RTD	**Client**	P.O.S
Sensor Serial #	6778 6779	**Job No.**	9950.003.0 TASK 4
Sensor Height	2m 10m	**Site**	T117 BONCHASKE
Data Logger Model	CR10	**Date**	SEPT. 6 2006
Logger Serial #		**Time**	1000 1100 PST

Auditor KRIS HANSEN
Signature Kris Hansen

ASTM-NBS Thermometer - System Sensor Collocation Verification

ICE WATER BATH

ASTM Thermometer Indication		System Temperature Indication 2m / 10m		Indicated Difference 2m / 10m	
37.71	deg F	38.17 38.23	deg F	0.46 0.52	deg F
3.17	deg C	3.43 3.46	deg C	0.26 0.29	deg C

AMBIENT

ASTM Thermometer Indication		System Temperature Indication 2m / 10m		Indicated Difference 2m / 10m	
76.68	deg F	77.48 77.47	deg F	0.8 0.79	deg F
24.82	deg C	25.27 25.26	deg C	0.45 0.44	deg C

HOT WATER BATH

ASTM Thermometer Indication		System Temperature Indication 2m / 10m		Indicated Difference 2m / 10m	
94.65	deg F	95.3 95.41	deg F	0.65 0.76	deg F
34.80	deg C	35.17 35.22	deg C	0.37 0.42	deg C

Comments:

	GMX	GMX AUDIT
Solar Radiation	479.4 w/m²	476.7 w/m²
	0	0

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
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Lynnwood, Washington 98036
(425) 921-4000

DELTA - TEMPERATURE AUDIT

Sensor Model	RM YOUNG RTD	**Client**	P.O.S.
Sensor Serial #	6778 6779	**Job No.**	9950.003.0 TASK 4
Sensor Height	2m 10m	**Site**	T11.7 BENCHCHECK
Data Logger Model	CRIO	**Date**	SEPT. 6 2006
Logger Serial #		**Time**	10 - 11 PST

Auditor KRIS HANSEN
Signature Kris Hansen

System Sensor Collocation Verification

ICE WATER BATH

10-M Temperature Indication	2-M Temperature Indication	Indicated Difference
38.23 deg F	38.17 deg F	0.06 deg F
3.46 deg C	3.43 deg C	0.03 deg C

AMBIENT

10-M Temperature Indication	2-M Temperature Indication	Indicated Difference
77.47 deg F	77.48 deg F	0.01 deg F
25.26 deg C	25.27 deg C	0.01 deg C

HOT WATER BATH

10-M Temperature Indication	2-M Temperature Indication	Indicated Difference
95.41 deg F	95.3 deg F	0.11 deg F
35.22 deg C	35.17 deg C	0.05 deg C

Comments:

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

Geomatrix Consultants, Inc.
19203 36th Avenue W, Suite 101
Lynnwood, Washington 98036
(425) 921-4000

PRECIPITATION AUDIT

Sensor Model		**Client**	P.O.S.
Sensor Serial #		**Job No.**	9950.003.0 TASK 4
Sensor Height	GROUND LEVEL	**Site**	T117 / BENCH CHECK
Data Logger Model	CR10	**Date**	SEPTEMBER 6 2006
Logger Serial #		**Time**	930 PDT

Auditor KRIS HANSEN
Signature Kris Hansen

1. Calibrated Burette

Trial Number	Number of Bucket Tips	Volume of Water
1	5	38.7
2	5	38.7
3	5	38.8
Total	15	**Total** 116.2

Gage Diameter 8.00" **Surface Area** 50.2655 in^2

7.7467
ml/tip x 0.061024 = in^3 0.4727

in^3/surface area = 0.0094 **inches**

audit = 0.0094 **inches/bucket tip**

audit within 10% of .01 inches/tip ✓ **Yes** _____ **No**

Comments:

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
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Lynnwood, Washington 98036
(425) 921-4000

WIND SPEED AUDIT

Sensor Model	RM YOUNG 5305	**Client**	P.O.S.
Sensor Serial #	46714	**Job No.**	9950.003.0 TASK 4
Sensor Height	10 METERS	**Site**	T117
Data Logger Model	CR10	**Date**	OCT 31 2006
Logger Serial #		**Time**	1310 PDT

Auditor KRIS HANSEN
Signature Kris Hansen

1. Constant RPM Motor Verification

Motor Speed RPM	Calculated Motor Speed	System Indicated Speed	Indicated Difference
0	0	0	-
100	1.145	1.14	-
200	2.29	2.29	-
300	3.435	3.43	-
500	5.725	5.72	-
900	10.305	10.30	-

2. Torque Watch Verification

Torque Reading < 3 **gm-cm**
Sensor Threshold 0.9 mph

3. Bearings, Cable and Propeller Assembly Inspection

✓ **Acceptable**
_____ **Unacceptable**

Comments:

rpm * 0.01145 = mph

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
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Lynnwood, Washington 98036
(425) 921-4000

WIND DIRECTION AUDIT

Sensor Model	RM YOUNG 5305	**Client**	P.O.S.
Sensor Serial #	46714	**Job No.**	9950.003.0 TASK 4
Sensor Height	10 METERS	**Site**	T117
Data Logger Model	CR10	**Date**	OCT 31, 2006
Logger Serial #		**Time**	1315 PDT

Auditor KRIS HANSEN **Signature** Kris Hansen

1. Crossarm Orientation Verification

Magnetic North Declination of Site	17.3
Crossarm Orientation with Theodolite	16.5
Difference Between Audit and Site	0.8°E

2. Sensor Linearity Verification

Input Angle	System Output	Input Angle	System Output
180	181.4	150	150.7
210	211.6	120	119.6
240	240.7	90	90.4
270	271.0	60	61.2
300	302.1	30	29.9
330	331.4	360	0.7
360	0.9	330	329.8
30	29.8	300	301.2
60	60.1	270	270.7
90	90.7	240	241.3
120	121.1	210	210.6
150	150.3	180	180.7
180	179.06		

3. Starting Threshold - Torque Gauge Verification

Torque Reading	< 10 gm cm cw/ccw
Sensor Threshold	≤ 11 gm cm

4. Bearings, Cable and Wind Vane Assembly Inspection

Acceptable	✓
Unacceptable	

Comments:

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
19203 36th Avenue West, Suite 101
Lynnwood, Washington 98036
(425) 921-4000

TEMPERATURE AUDIT

Sensor Model	RM YOUNG RTD	**Client**	P.O.S.
Sensor Serial #	6778 6779	**Job No.**	9950.003.0 TASK 4
Sensor Height	2m 10m	**Site**	T117
Data Logger Model	CR10	**Date**	OCT. 31, 2006
Logger Serial #		**Time**	1330 PST

Auditor KRIS HANSEN
Signature Kris Hansen

ASTM-NBS Thermometer - System Sensor Collocation Verification

ICE WATER BATH

ASTM Thermometer Indication	System Temperature Indication 2m / 10m	Indicated Difference 2m / 10m
34.35 deg F	34.42 / 34.4 deg F	+ 0.07 / 0.05 deg F
1.31 deg C	1.34 / 1.33 deg C	+ 0.03 / 0.02 deg C

AMBIENT

ASTM Thermometer Indication	System Temperature Indication 2m / 10m	Indicated Difference 2m / 10m
62.85 deg F	63.41 / 63.48 deg F	+ 0.56 / 0.63 deg F
17.14 deg C	17.45 / 17.49 deg C	+ 0.31 / 0.35 deg C

HOT WATER BATH

ASTM Thermometer Indication	System Temperature Indication 2m / 10m	Indicated Difference 2m / 10m
97.41 deg F	97.53 / 97.57 deg F	+ 0.12 / 0.16 deg F
36.34 deg C	36.41 / 36.43 deg C	+ 0.07 / 0.09 deg C

Comments:

	GMX	GMX AUDIT
Solar Radiation	483.8 w/m²	479.6 w/m²
	0	0
PRESSURE	1024 mb	1026 mb

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

GEOMATRIX
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Lynnwood, Washington 98036
(425) 921-4000

DELTA - TEMPERATURE AUDIT

Sensor Model	RM YOUNG RTD	**Client**	P.O.S.
Sensor Serial #	6778 6779	**Job No.**	9950.003.0 TASKY
Sensor Height	2m 10 m	**Site**	TIT
Data Logger Model	CR10	**Date**	OCT 31 2006
Logger Serial #		**Time**	1330 PST

Auditor KRIS HANSEN
Signature Kris Hansen

System Sensor Collocation Verification

ICE WATER BATH

10-M Temperature Indication	2-M Temperature Indication	Indicated Difference
34.4 deg F	34.42 deg F	0.02 deg F
1.33 deg C	1.34 deg C	0.01 deg C

AMBIENT

10-M Temperature Indication	2-M Temperature Indication	Indicated Difference
63.48 deg F	63.41 deg F	0.07 deg F
17.49 deg C	17.45 deg C	0.04 deg C

HOT WATER BATH

10-M Temperature Indication	2-M Temperature Indication	Indicated Difference
97.57 deg F	97.53 deg F	0.04 deg F
36.43 deg C	36.41 deg C	0.02 deg C

Comments:

METEOROLOGICAL PERFORMANCE AUDIT
FIELD DATA SHEET

Geomatrix Consultants, Inc.
19203 36th Avenue W, Suite 101
Lynnwood, Washington 98036
(425) 921-4000

PRECIPITATION AUDIT

Sensor Model		**Client**	P.O.S.
Sensor Serial #		**Job No.**	9950.003.0 TASK 4
Sensor Height	GROUND LEVEL	**Site**	T.117
Data Logger Model	CR10	**Date**	OCT 31 2006
Logger Serial #		**Time**	1300 PDT

Auditor KRIS HANSEN
Signature Kris Hansen

1. Calibrated Burette

Trial Number	Number of Bucket Tips	Volume of Water
1	5	38.6
2	5	38.9
3	5	38.4
4	5	38.7
Total	20	**Total** 154.6

Gage Diameter 8.00" **Surface Area** 50.2655 in^2

7.73
ml/tip x 0.061024 = in^3 0.4717

in^3/surface area = 0.0094 **inches**

audit = 0.0094 **inches/bucket tip**

audit within 10% of .01 inches/tip ✓ **Yes** ____ **No**

Comments:

Appendix D

Terminal 117

N1 - North Monitoring Location

C2 – Central Monitoring Location

Terminal 117

S3 – South Monitoring Location

Meteorological Monitoring Station

T-117 TCRA

PCS Daily Air Monitoring Report

Current Test:	002
Start Time:	14:58:00 09/25/2006
Stop Time:	16:04:00 09/25/2006
Total Time:	00:01:06:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/25/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.024
TWA (8 hr):	0.003
Minimum:	0.015
Time	15:51:00
Date	09/25/2006
Maximum:	0.045
Time	15:04:00
Date	09/25/2006

Current Test:	001
Start Time:	10:36:16 09/25/2006
Stop Time:	14:55:16 09/25/2006
Total Time:	00:04:19:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/25/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.051
TWA (8 hr):	0.028
Minimum:	0.026
Time	14:45:16
Date	09/25/2006
Maximum:	0.097
Time	11:03:16
Date	09/25/2006

Current Test:	003
Start Time:	06:22:33 09/26/2006
Stop Time:	17:28:33 09/26/2006
Total Time:	00:11:06:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/26/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.045
TWA (8 hr):	0.050
Minimum:	0.018
Time	17:01:33
Date	09/26/2006
Maximum:	0.442
Time	08:06:33
Date	09/26/2006

Current Test:	001
Start Time:	07:39:08 09/27/2006
Stop Time:	16:59:08 09/27/2006
Total Time:	00:09:20:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/27/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.067
TWA (8 hr):	0.069
Minimum:	0.025
Time	16:10:08
Date	09/27/2006
Maximum:	0.696
Time	16:53:08
Date	09/27/2006

Current Test:	002
Start Time:	06:21:05 09/28/2006
Stop Time:	16:07:05 09/28/2006
Total Time:	00:09:46:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/28/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.017
TWA (8 hr):	0.019
Minimum:	0.000
Time	15:22:05
Date	09/28/2006
Maximum:	0.103
Time	13:26:05
Date	09/28/2006

Current Test:	003
Start Time:	08:43:32 09/30/2006
Stop Time:	16:19:32 09/30/2006
Total Time:	00:07:36:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/30/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.018
TWA (8 hr):	0.017
Minimum:	0.005
Time	09:38:32
Date	09/30/2006
Maximum:	0.181
Time	09:21:32
Date	09/30/2006

Current Test:	001
Start Time:	09:46:24 10/01/2006
Stop Time:	15:39:24 10/01/2006
Total Time:	00:05:53:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/01/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.032
TWA (8 hr):	0.024
Minimum:	0.009
Time	09:49:24
Date	10/01/2006
Maximum:	1.605
Time	14:37:24
Date	10/01/2006

Current Test:	001
Start Time:	06:11:09 10/02/2006
Stop Time:	16:30:09 10/02/2006
Total Time:	00:10:19:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/02/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.052
TWA (8 hr):	0.058
Minimum:	0.011
Time	15:45:09
Date	10/02/2006
Maximum:	1.470
Time	06:45:09
Date	10/02/2006

Current Test:	002
Start Time:	06:30:47 10/04/2006
Stop Time:	16:14:47 10/04/2006
Total Time:	00:09:44:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/04/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.027
TWA (8 hr):	0.028
Minimum:	0.011
Time	12:51:47
Date	10/04/2006
Maximum:	0.286
Time	07:06:47
Date	10/04/2006

Current Test:	003
Start Time:	06:52:22 10/05/2006
Stop Time:	16:22:22 10/05/2006
Total Time:	00:09:30:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/05/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.046
TWA (8 hr):	0.050
Minimum:	0.019
Time	15:26:22
Date	10/05/2006
Maximum:	0.129
Time	15:35:22
Date	10/05/2006

Current Test:	004
Start Time:	07:04:20 10/06/2006
Stop Time:	15:20:20 10/06/2006
Total Time:	00:08:16:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/06/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.051
TWA (8 hr):	0.051
Minimum:	0.000
Time	11:41:20
Date	10/06/2006
Maximum:	1.457
Time	11:14:20
Date	10/06/2006

Current Test:	005
Start Time:	15:21:19 10/06/2006
Stop Time:	15:30:19 10/06/2006
Total Time:	00:00:09:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/06/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.035
TWA (8 hr):	N/A
Minimum:	0.030
Time	15:23:19
Date	10/06/2006
Maximum:	0.047
Time	15:22:19
Date	10/06/2006

Current Test:	006
Start Time:	08:12:31 10/09/2006
Stop Time:	15:33:31 10/09/2006
Total Time:	00:07:21:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/09/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.062
TWA (8 hr):	0.057
Minimum:	0.015
Time	15:24:31
Date	10/09/2006
Maximum:	1.047
Time	09:25:31
Date	10/09/2006

Current Test:	001
Start Time:	07:02:16 10/10/2006
Stop Time:	15:21:16 10/10/2006
Total Time:	00:08:19:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/10/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.044
TWA (8 hr):	0.045
Minimum:	0.020
Time	15:14:16
Date	10/10/2006
Maximum:	0.145
Time	12:00:16
Date	10/10/2006

Current Test:	001
Start Time:	06:03:23 10/11/2006
Stop Time:	16:14:23 10/11/2006
Total Time:	00:10:11:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/11/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.062
TWA (8 hr):	0.069
Minimum:	0.027
Time	14:39:23
Date	10/11/2006
Maximum:	0.139
Time	08:55:23
Date	10/11/2006

Current Test:	002
Start Time:	06:53:36 10/12/2006
Stop Time:	17:36:36 10/12/2006
Total Time:	00:10:43:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/12/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.067
TWA (8 hr):	0.075
Minimum:	0.026
Time	17:14:36
Date	10/12/2006
Maximum:	0.628
Time	14:21:36
Date	10/12/2006

Current Test:	001
Start Time:	06:58:12 10/13/2006
Stop Time:	15:41:12 10/13/2006
Total Time:	00:08:43:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/13/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.084
TWA (8 hr):	0.088
Minimum:	0.033
Time	15:10:12
Date	10/13/2006
Maximum:	0.816
Time	06:59:12
Date	10/13/2006

Current Test:	002
Start Time:	11:47:20 10/16/2006
Stop Time:	16:01:20 10/16/2006
Total Time:	00:04:14:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	10/16/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.018
TWA (8 hr):	0.009
Minimum:	0.004
Time	13:24:20
Date	10/16/2006
Maximum:	0.568
Time	12:17:20
Date	10/16/2006

Current Test:	002
Start Time:	14:58:00 09/25/2006
Stop Time:	16:04:00 09/25/2006
Total Time:	00:01:06:00

Logging Interval: 60 seconds

Serial Number:	10405054
Sensor:	Aerosol
Cal. Date:	09/25/2006
Cal. Factor:	1.000

Channel:	Aerosol
(Units)	mg/m^3
Average:	0.024
TWA (8 hr):	0.003
Minimum:	0.015
Time	15:51:00
Date	09/25/2006
Maximum:	0.045
Time	15:04:00
Date	09/25/2006