

Hinton Pulp
A division of West Fraser Mills Limited
Hinton, Alberta

AIR QUALITY MONITORING
May 2015
Monthly Report

Prepared by:

West Central Airshed Society
Drayton Valley, Alberta





June 8th, 2015

Hinton Pulp
A Division of West Fraser Mills Ltd.
Mr. Phil Whitney
760 Switzer Drive
Hinton, Alberta
T7V 1V7

Dear Mr. Whitney:

**Monthly Ambient Air Quality Monitoring Report for May 2015
For Hinton Pulp – A Division of West Fraser Mills Ltd.**

Enclosed are the reports for the continuous ambient air quality monitoring station of the West Central Airshed Society network.

Network Station is AMS 906 Hinton
Identified as:

The person responsible for this reporting is Robert Scotten Executive Director of West Central Airshed Society.

The following operational notes are included as required by the Air Monitoring Directive:

1. Concentrations in excess of the Clean Air (Maximum Levels) Regulation:

There were two (2) readings occurring in May 2015 in excess of the one – hour average guidelines as indicated in Air Monitoring Directive Section III.A.3. (a) for H₂S. The maximum one-hour average reading was 11.10 ppb, occurring May 25th. There were no readings in May 2015 in excess of the twenty–four hour average guidelines as indicated in Air Monitoring Directive Section III.A.3. (a) for H₂S. The maximum 24-hour average reading was 2.34 ppb.

There were twelve (12) readings occurring in May 2015 in excess of the one – hour average guidelines and two (2) in excess of the twenty-four hour guidelines as indicated in Air Monitoring Directive Section III.A.3. (a) for PM_{2.5}. The maximum one-hour average reading was 199.02 µg/m³, occurring May 24th.

2. Operational times less than 90 percent:

There were no operational times less than 90 percent in the month of May.

3. Monitoring Notes:

AMS 906 (Hinton)

All analyzers and meteorological equipment returned uptimes of 100 percent.

If additional information is required please contact Patrick Andersen at (780) 514-3533 or (403) 505-1041.

Sincerely,



Robert Scotten
Executive Director



Patrick Andersen
Environmental Specialist

Forest Products Industry Monthly Report Summary

Hinton
Plant Name/Location

Hinton Pulp - A Division of West Fraser Mills Ltd.
Company

License Number	Report Date	
	Year	Month
	2015	May

TOTAL EMISSIONS FOR MONTH (IN TONNES)

POLLUTANT	INCINERATOR STACK	FLARE	MISCELLANEOUS
SO ₂			

"HOURS" OF EXCEEDED STACK LICENSED LIMITS (CEM)

POLLUTANT	STACK TYPE	1-HR AVG CONCENTRATION	1-HR AVG MASS EMISSION	24-HR AVG MASS EMISSION	STACK TOP TEMP.	% TIME STACK MONITOR OPERATIONAL
SO ₂						

STATIC AMBIENT MONITORING

PARAMETER	NO. OF STATIONS	PEAK READING	AVG. OF NETWORK	NO. OF STATIONS OVER GUIDELINES
T.S.				
H ₂ S				

CONTINUOUS AMBIENT MONITORING

PARAMETER	STATION NUMBER	% TIME OPERATIONAL	1-HR AVERAGE		24-HR AVERAGE	
			MAXIMUM CONCENTRATION (ppm)	NO. READINGS > REGULATIONS	MAXIMUM CONCENTRATION (ppm)	NO. READINGS > REGULATIONS
Wind	906	100.0	n/a	n/a	n/a	n/a
TRS	906	100.0	0.011	2	0.002	0
PM _{2.5}	906	100.0	29.0 µg/m ³	12	11.05 µg/m ³	2

SIGNATURE OF COMPANY REPRESENTATIVE

FOR ALBERTA ENVIRONMENT USE ONLY

WEST CENTRAL AIRSHED SOCIETY

**CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT
CONTINUOUS AIR QUALITY**

**AMS 906
HINTON
MAY 2015**

Operations and Data Collection by:
West Central Airshed Society
Drayton Valley, Alberta

QA/QC, Data Validation and Reporting by:
West Central Airshed Society
Drayton Valley, Alberta

Summary Report

Continuous air quality/meteorological monitoring measurements

West Central Airshed Society

Hinton Pulp / Hinton Station 906												24 Hour Average Max (ppm)
May 2015												
Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Min	Max	P10	Q1	Percentile Median	Q3	P90	
TRS (ppb)	39	705	100.0	0.7	0.0	11.0	0.1	0.1	0.2	0.5	2.1	0.002
SO ₂ (ppb)	39	705	100.0	0.2	0.0	7.0	0.0	0.0	0.0	0.2	0.5	0.001
O ₃ (ppb)	37	707	100.0	40.3	1.8	76.1	13.4	24.6	41.3	56.1	67.0	0.056
NO (ppb)	37	707	100.0	1.0	0.0	19.3	0.0	0.1	0.6	1.3	2.3	-
NO ₂ (ppb)	37	707	100.0	4.4	0.3	17.7	1.6	2.3	3.6	5.6	8.4	0.006
NO _x (ppb)	37	707	100.0	5.4	0.2	27.4	1.9	2.8	4.4	7.0	10.5	-
Particulate Matter 2.5 microns (μ/m ³)	0	744	100.0	14.5	0.0	199.0	3.8	6.4	10.3	15.9	24.8	69.35 ug/m3
Wind Speed (kph)	0	744	100.0	3.5	0.0	14.0	0.7	1.3	2.7	5.2	7.3	-
Temperature (°C)	0	744	100.0	9.8	-4.7	26.5	0.3	4.1	9.0	15.6	20.1	-
Relative Humidity (%)	0	744	100.0	52.1	5.8	92.2	14.5	27.3	53.9	77.3	86.8	-
Std Dev Wind Direction (deg)	0	744	100.0	51.0	16.4	106.8	29.7	35.7	46.0	63.4	79.1	-
Std Dev Wind Speed (kph)	0	744	100.0	2.5	0.3	7.7	1.0	1.4	2.2	3.4	4.3	-



WCAS - Hinton
Summary of Hourly Averages

Total Reduced Sulphur (TRS) - ppb
May 2015

Maximum Value: 11.10 ppb on May 25 06:00		Maximum Daily Average: 2.34 ppb on May 25		Hours in Service: 744																																													
Minimum Value: 0 ppb on May 20 21:00		Minimum Daily Average: 0.16 ppb on May 17		Hours of Data: 705																																													
Maximum Diurnal Average: 2.45 ppb at hour 8		Minimum Diurnal Average: 0.17 ppb at hour 16		Hours of Missing Data: 39																																													
Monthly Average: 0.731 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.1 Q ₁ = 0.1 Median = 0.2 O ₃ = 0.5 P ₉₀ = 2.1 P ₉₉ = 6.9		Hours of Calibration: 39																																													
				Percent Operational Time: 100.0																																													
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	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-May	0	0	0	Z	0	0	0	2	3	1	0	1	1	1	0	0	0	1	0	1	0	0	2	3	0.77	3.17																							
2-May	1	2	2	Z	5	7	3	4	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1.25	6.83																							
3-May	0	0	7	Z	4	2	3	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.17	7.16																							
4-May	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.20	0.33																							
5-May	0	1	0	Z	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.28	1.11																							
6-May	0	0	0	Z	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0.75																							
7-May	0	0	0	Z	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.32	1.11																							
8-May	0	1	1	Z	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	3	0.57	3.09																							
9-May	4	2	1	Z	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3	8	1.14	7.60																							
10-May	4	2	1	Z	1	3	2	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.96	4.01																							
11-May	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.20	0.28																							
12-May	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.19	0.27																							
13-May	0	0	0	Z	0	0	0	0	C	C	C	C	C	C	C	C	C	0	0	0	0	0	0	0	--	0.28																							
14-May	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.17	0.24																							
15-May	0	0	0	Z	0	2	5	3	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.77	4.61																							
16-May	1	1	4	Z	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.61	3.75																							
17-May	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.16	0.21																							
18-May	0	0	0	Z	4	5	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.73	4.59																							
19-May	0	0	0	Z	1	1	4	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.75	8.04																							
20-May	0	0	1	Z	1	0	2	5	7	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.98	6.61																							
21-May	0	1	11	Z	3	2	8	5	3	4	2	0	0	0	0	0	0	0	0	0	0	0	1	1	1.80	10.56																							
22-May	3	1	1	Z	1	3	6	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.09	5.61																							
23-May	1	1	1	Z	2	2	3	6	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.02	5.65																							
24-May	0	0	2	Z	1	0	5	4	4	2	4	2	0	0	0	0	0	0	0	0	0	1	0	1	1.19	4.62																							
25-May	1	5	5	Z	10	11	7	7	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2.34	11.10																							
26-May	2	1	0	Z	2	3	2	5	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0.93	5.03																							
27-May	0	0	1	Z	1	3	2	6	4	2	1	0	1	1	0	0	1	0	0	0	0	0	3	2	1.24	6.24																							
28-May	1	1	1	Z	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.34	1.20																							
29-May	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.18	0.24																							
30-May	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.17	0.53																							
31-May	0	1	0	Z	1	1	1	0	1	1	0	1	0	0	0	0	0	0	1	2	0	0	0	0	0.57	1.94																							
																								0.72	0.71	1.31	--	1.44	1.60	1.97	2.45	1.59	0.86	0.53	0.33	0.24	0.24	0.18	0.17	0.19	0.18	0.21	0.25	0.18	0.21	0.43	0.77	Diurnal Average	
																								4.01	4.61	10.56	--	9.99	11.10	8.43	8.04	6.61	3.55	3.71	2.07	1.08	1.03	0.72	0.41	0.60	0.52	1.28	1.94	0.47	0.72	2.85	7.60	Diurnal Maximum	
Z - zerospan C - Calibration																								Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb 24-hr 3 ppb																									



WCAS - Hinton
Summary of Hourly Averages

Sulphur Dioxide (SO₂) - ppb
May 2015

Maximum Value: 7.00 ppb on May 24 12:00 Minimum Value: 0.0 ppb on May 1 01:00 Maximum Diurnal Average: 1.10 ppb at hour 10 Monthly Average: 0.246 ppb		Maximum Daily Average: 1.00 ppb on May 24 Minimum Daily Average: 0.00 ppb on May 16 Minimum Diurnal Average: 0.01 ppb at hour 5 Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.0 Q ₃ = 0.2 P ₉₀ = 0.5 P ₉₉ = 4.0		Hours in Service: 744 Hours of Data: 705 Hours of Missing Data: 39 Hours of Calibration: 39 Percent Operational Time: 100.0																						
Day	Hourly Period Ending At																								Daily Average	Daily Maximum
	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-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.1	2.4	0.4	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.23	2.39
2-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.4	0.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.10	1.02
3-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.7	0.4	1.1	1.4	0.0	0.7	0.7	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.24	1.42
4-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.5	1.3	2.1	1.6	0.9	0.4	0.2	0.0	0.37	2.11
5-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.3	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.07	1.27
6-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.10
7-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	2.1	1.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.16	2.08
8-May	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.0	0.1	1.1	3.0	1.2	2.0	0.3	0.3	0.0	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.43	3.03
9-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.3	0.9	0.2	0.6	0.6	0.1	0.0	0.2	0.3	0.7	0.4	0.1	0.0	0.0	0.0	0.0	0.19	0.86
10-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.4	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.2	0.2	0.10	0.36
11-May	0.2	0.1	0.0	Z	0.0	0.0	0.0	0.2	0.9	0.3	0.4	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.17	0.85
12-May	0.2	0.1	0.0	Z	0.0	0.0	0.0	0.2	0.5	1.1	0.7	0.4	0.5	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.1	0.0	0.1	0.2	0.25	1.05
13-May	0.1	0.0	0.1	Z	0.0	0.0	0.0	0.2	C	C	C	C	C	C	C	C	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	--	0.24
14-May	0.0	0.1	0.1	Z	0.0	0.0	0.0	0.3	0.5	0.5	0.4	0.3	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.13	0.49
15-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	1.1	2.8	4.1	0.8	1.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.43	4.05
16-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.3	0.3	0.2	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.09	0.31
18-May	0.1	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.5	0.5	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.22	0.51
19-May	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.4	2.1	2.1	0.7	0.5	0.4	0.3	0.5	0.2	0.2	0.2	0.1	0.0	0.0	0.1	0.1	0.3	0.39	2.13
20-May	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.3	1.9	2.3	2.0	0.8	0.3	0.3	0.4	0.1	0.1	0.1	0.4	0.2	0.1	0.0	0.0	0.0	0.41	2.27
21-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.6	2.0	1.7	0.4	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.26	2.05
22-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	4.1	1.0	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.1	0.0	0.1	0.0	0.0	0.30	4.09
23-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	1.6	2.7	1.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.4	0.5	0.3	0.38	2.73
24-May	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.3	1.7	1.6	6.4	7.0	0.8	1.6	0.1	0.1	1.3	1.1	0.0	0.0	0.3	0.2	0.1	0.4	1.00	7.00
25-May	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	4.1	1.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.27	4.14
26-May	0.1	0.1	0.0	Z	0.0	0.0	0.0	0.1	0.3	4.9	1.4	0.2	0.0	4.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.51	4.85
27-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.8	0.7	0.9	3.3	1.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.31	3.33
28-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.16
29-May	0.0	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.03	0.10
30-May	0.1	0.1	0.1	Z	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.2	0.4	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.08	0.38
31-May	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.4	0.2	0.6	2.8	1.7	0.3	1.0	0.1	0.0	0.3	0.5	0.0	0.1	0.0	0.0	0.36	2.83
																								Diurnal Average		
																								Diurnal Maximum		
0.04 0.02 0.02 -- 0.01 0.01 0.01 0.09 0.47 1.10 1.00 0.74 0.48 0.47 0.21 0.15 0.21 0.20 0.16 0.12 0.07 0.05 0.06 0.07 0.24 0.15 0.13 -- 0.13 0.15 0.13 0.36 2.06 4.85 6.38 7.00 2.83 4.04 1.02 0.99 1.36 1.35 2.11 1.63 0.91 0.38 0.49 0.42																										
Z - zerospan C - Calibration Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb																										



WCAS - Hinton
Summary of Hourly Averages

Ozone (O₃) - ppb
May 2015

Maximum Value: 76.08 ppb on May 22 19:00																								Maximum Daily Average: 56.38 ppb on May 12																								Hours in Service: 744	
Minimum Value: 1.8 ppb on May 18 03:00																								Minimum Daily Average: 23.08 ppb on May 28																								Hours of Data: 707	
Maximum Diurnal Average: 56.84 ppb at hour 19																								Minimum Diurnal Average: 14.11 ppb at hour 6																								Hours of Missing Data: 37	
Monthly Average: 40.318 ppb																								Percentiles: P ₁ = 2.8 P ₁₀ = 13.4 Q ₁ = 24.6 Median = 41.3 Q ₃ = 56.1 P ₉₀ = 67.0 P ₉₉ = 75.1																								Hours of Calibration: 37	
																								Percentiles: P ₁ = 2.8 P ₁₀ = 13.4 Q ₁ = 24.6 Median = 41.3 Q ₃ = 56.1 P ₉₀ = 67.0 P ₉₉ = 75.1																								Percent Operational Time: 100.0	
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	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-May	27.2	25.6	26.5	Z	12.9	14.3	15.2	14.0	13.1	23.2	30.6	44.8	47.1	51.0	50.7	59.2	64.3	62.3	58.3	56.1	57.4	57.7	48.1	48.7	39.49	64.29																							
2-May	41.6	34.3	33.1	Z	27.8	26.7	27.8	32.7	50.1	57.5	55.8	56.3	56.9	56.5	55.9	56.0	55.4	52.4	53.1	52.8	49.2	38.3	34.5	26.0	44.82	57.46																							
3-May	23.8	15.4	15.3	Z	11.8	5.4	13.1	25.9	41.3	50.8	54.1	55.0	55.2	56.0	59.3	60.9	61.4	61.8	61.3	51.8	30.8	24.6	17.3	15.2	37.71	61.82																							
4-May	19.2	18.3	18.7	Z	18.3	13.1	16.4	21.4	31.7	37.2	36.4	43.2	49.2	52.2	50.8	49.3	50.8	49.1	49.0	47.4	42.1	28.6	31.4	43.3	35.52	52.16																							
5-May	25.7	24.6	21.1	Z	13.7	13.8	16.5	14.5	19.3	26.4	33.1	30.4	26.5	26.1	26.4	29.0	30.9	29.4	26.4	26.1	25.7	24.6	24.2	25.4	24.34	33.06																							
6-May	29.2	35.9	35.6	Z	29.1	28.7	30.2	36.6	36.7	37.8	40.2	44.8	46.9	48.1	50.3	49.9	48.9	46.7	47.9	47.1	36.3	26.2	16.2	13.1	37.49	50.34																							
7-May	10.5	7.7	5.5	Z	4.5	5.4	16.8	28.1	35.9	39.0	44.0	45.9	45.2	42.7	44.5	43.3	43.9	41.0	41.7	48.9	30.7	16.3	5.0	5.0	28.33	48.92																							
8-May	3.8	5.4	2.9	Z	3.2	2.8	6.2	19.7	28.9	36.6	42.9	54.2	52.5	54.1	55.4	55.3	53.5	55.4	49.8	34.2	22.1	15.8	16.9	20.6	30.10	55.43																							
9-May	16.1	13.1	8.7	Z	7.9	11.6	17.3	29.6	34.8	41.0	56.0	61.3	62.9	65.4	66.4	67.0	67.2	64.0	62.1	61.1	51.5	30.5	22.9	18.6	40.74	67.21																							
10-May	17.8	13.9	11.5	Z	11.4	8.7	9.0	21.2	37.9	40.4	45.2	48.6	55.3	60.7	64.4	65.4	70.5	72.0	69.1	62.1	56.0	54.6	50.5	49.6	43.29	72.02																							
11-May	46.2	36.5	29.2	Z	16.9	7.6	14.6	29.7	43.6	47.2	49.8	61.3	66.4	71.6	70.7	71.0	69.1	70.1	71.2	71.6	67.5	60.5	56.3	55.9	51.49	71.61																							
12-May	54.0	43.0	35.9	Z	18.9	16.8	26.4	33.0	49.1	52.4	60.1	74.0	75.7	73.6	74.2	73.4	72.4	72.6	72.4	71.7	66.8	63.5	59.0	57.6	56.38	75.72																							
13-May	56.7	51.0	45.3	Z	27.0	14.6	24.0	37.1	C	C	C	C	C	69.3	72.1	Z	71.6	71.7	69.9	66.9	63.1	62.5	61.7	58.0	--	72.15																							
14-May	51.0	50.4	43.3	Z	25.4	18.3	21.7	37.1	47.4	50.9	56.6	60.0	62.3	60.2	56.5	53.4	52.2	53.6	55.5	52.8	49.9	43.5	29.2	19.9	45.71	62.30																							
15-May	15.6	12.9	8.5	Z	2.6	2.5	5.2	16.0	28.6	37.4	50.4	59.6	61.0	58.5	54.9	54.7	56.5	58.7	58.2	57.6	54.5	51.7	52.0	46.8	39.32	61.04																							
16-May	34.3	32.8	29.5	Z	19.1	28.4	37.4	26.4	24.4	26.4	30.1	32.0	31.8	31.5	43.6	49.1	44.8	44.4	41.1	34.9	31.7	25.6	17.6	13.5	31.76	49.09																							
17-May	11.9	13.1	13.7	Z	14.4	17.8	22.4	22.4	22.0	22.7	24.3	30.5	42.1	40.8	41.3	42.4	43.0	42.8	43.9	39.2	28.9	11.7	7.3	4.3	26.22	43.90																							
18-May	2.2	3.2	1.8	Z	1.9	2.4	4.6	12.1	29.0	31.2	33.2	37.9	41.5	47.1	52.7	53.2	55.0	57.1	60.7	61.6	56.5	54.5	54.8	50.8	35.01	61.64																							
19-May	38.6	32.1	21.9	Z	10.5	8.1	10.7	23.4	42.4	49.9	51.2	55.7	60.6	66.2	68.1	67.5	67.1	68.2	69.1	68.7	65.4	61.6	56.7	54.5	48.61	69.07																							
20-May	39.9	34.1	28.3	Z	11.9	11.8	14.4	22.2	40.8	48.5	54.6	57.4	61.8	64.9	66.4	65.1	65.2	64.7	64.9	65.4	60.6	49.7	54.2	50.3	47.71	66.43																							
21-May	36.2	28.0	16.2	Z	13.2	11.3	19.0	30.4	41.1	51.9	65.2	70.6	71.4	72.1	69.3	68.3	67.4	67.2	68.2	66.3	54.0	42.5	36.7	27.4	47.57	72.15																							
22-May	22.5	19.7	16.5	Z	6.5	8.6	14.6	31.6	42.0	56.3	63.2	71.2	73.5	74.7	75.5	74.6	74.1	75.2	76.1	71.7	65.9	51.0	30.7	29.7	48.92	76.08																							
23-May	22.2	21.8	19.2	Z	19.2	16.6	18.0	31.4	47.6	63.1	70.5	75.1	74.5	74.3	75.4	75.2	73.5	73.3	72.0	70.9	68.3	59.9	54.3	36.3	52.72	75.36																							
24-May	34.8	24.1	23.3	Z	15.9	16.8	23.3	33.8	47.0	51.4	53.9	63.9	65.6	67.4	65.9	67.5	66.4	67.2	63.3	61.5	54.6	54.0	47.7	47.7	48.58	67.49																							
25-May	47.3	36.7	31.0	Z	21.2	21.9	28.7	34.4	39.4	48.1	62.9	67.4	69.4	71.0	68.4	68.8	70.5	70.8	70.8	65.3	56.3	51.5	48.5	51.7	52.25	70.97																							
26-May	56.3	45.1	41.3	Z	25.7	28.2	25.7	25.6	42.1	54.3	61.3	56.1	52.1	60.5	54.5	52.4	33.9	52.2	57.2	55.6	48.0	19.8	13.0	11.4	42.29	61.35																							
27-May	8.8	4.8	3.7	Z	2.4	4.6	6.8	20.6	33.5	46.6	57.0	60.8	59.3	51.3	50.0	39.3	40.2	38.3	52.4	52.1	47.9	37.2	30.1	19.3	33.35	60.79																							
28-May	11.8	9.8	8.2	Z	8.9	18.5	23.1	20.2	26.6	26.6	25.8	20.5	22.3	23.3	25.1	29.5	29.4	29.6	33.9	33.5	27.6	27.0	24.8	24.9	23.08	33.92																							
29-May	38.5	41.3	37.8	Z	29.3	28.1	28.4	25.5	27.2	25.8	25.0	23.7	27.1	27.6	30.3	29.5	31.1	33.0	35.7	37.9	38.7	37.2	35.8	37.0	31.80	41.26																							
30-May	32.4	24.7	19.7	Z	16.9	15.5	20.9	30.3	31.4	30.6	33.1	39.7	45.6	50.0	53.6	57.7	57.3	55.1	47.4	46.4	45.2	41.8	30.0	20.6	36.78	57.71																							
31-May	21.0	23.0	14.5	Z	8.9	8.5	11.0	21.1	27.7	34.4	43.2	53.8	59.5	60.2	61.7	61.3	61.4	60.9	59.3	54.6	48.9	40.3	24.2	11.6	37.87	61.71																							
28.94 25.24 21.54 -- 14.75 14.11 18.38 26.07 35.42 41.53 47.00 51.85 54.03 55.77 56.60 56.32 56.42 56.80 56.84 54.64 48.45 40.79 35.20 32.08																								Diurnal Average																									
56.73 51.05 45.35 -- 29.28 28.74 37.42 37.12 50.08 63.11 70.54 75.14 75.72 74.68 75.47 75.21 74.09 75.23 76.08 71.71 68.30 63.53 61.66 58.02																								Diurnal Maximum																									
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82.5 ppb 24-hr -- ppb																																																	



WCAS - Hinton
Summary of Hourly Averages

Nitrogen Oxide (NO) - ppb
May 2015

Maximum Value: 19.29 ppb on May 8 06:00		Maximum Daily Average: 2.97 ppb on May 8		Hours in Service: 744																																													
Minimum Value: 0.0 ppb on May 1 21:00		Minimum Daily Average: 0.26 ppb on May 6		Hours of Data: 707																																													
Maximum Diurnal Average: 3.19 ppb at hour 7		Minimum Diurnal Average: 0.25 ppb at hour 20		Hours of Missing Data: 37																																													
Monthly Average: 1.028 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.6 Q ₃ = 1.3 P ₉₀ = 2.3 P ₉₉ = 7.7		Hours of Calibration: 37																																													
Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.6 Q ₃ = 1.3 P ₉₀ = 2.3 P ₉₉ = 7.7		Percent Operational Time: 100.0																																															
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	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-May	0.2	0.1	0.1	Z	2.0	2.2	3.2	3.6	5.9	3.4	1.7	1.0	2.2	2.0	0.9	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.27	5.86																							
2-May	0.1	0.0	0.0	Z	0.0	1.0	2.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.6	0.3	0.9	0.8	0.0	0.0	0.0	0.0	0.0	0.1	0.34	2.47																							
3-May	0.0	0.2	0.0	Z	2.0	4.2	3.5	2.1	1.6	1.4	0.4	0.5	0.0	0.2	0.5	0.7	0.6	0.2	0.0	0.0	2.9	0.5	2.4	1.3	1.10	4.19																							
4-May	0.4	0.0	0.1	Z	0.6	1.7	2.4	2.0	1.8	1.2	2.4	1.6	1.1	1.1	1.4	1.2	1.0	1.4	1.3	0.6	0.5	0.5	0.1	0.1	1.07	2.39																							
5-May	0.1	0.2	0.2	Z	2.4	1.5	1.5	1.9	1.4	2.1	1.5	2.1	0.2	0.8	1.3	0.3	0.8	1.8	0.8	0.2	0.0	0.0	0.0	0.0	0.92	2.38																							
6-May	0.0	0.1	0.5	Z	0.1	0.5	0.5	0.2	0.7	0.9	1.4	0.1	0.1	0.1	0.3	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.2	0.0	0.26	1.36																							
7-May	0.0	0.1	0.4	Z	0.8	0.9	2.1	3.2	1.6	1.4	1.8	1.2	0.3	0.1	0.8	1.2	2.5	2.5	0.8	0.3	0.1	3.3	1.4	1.2	1.21	3.32																							
8-May	2.7	2.2	6.1	Z	1.3	19.3	11.8	0.7	1.5	3.0	2.7	1.8	1.7	2.3	1.4	0.9	1.6	0.3	1.2	1.7	1.2	1.5	1.3	0.1	2.97	19.29																							
9-May	0.2	0.1	0.3	Z	0.7	0.5	0.8	0.6	2.0	2.0	0.6	0.7	0.9	0.3	0.3	0.4	0.4	0.8	0.1	0.4	0.4	0.9	0.8	0.1	0.62	2.04																							
10-May	0.1	0.3	0.2	Z	0.1	0.6	3.3	2.2	1.0	1.7	0.9	0.7	0.7	0.5	0.4	1.4	0.4	0.3	0.3	0.4	0.1	0.1	0.1	0.1	0.70	3.30																							
11-May	0.1	0.0	1.1	Z	0.2	5.6	7.0	3.5	2.1	1.3	1.2	1.6	1.3	0.6	0.8	0.6	0.8	0.7	0.7	0.3	0.2	0.1	0.5	0.0	1.31	7.01																							
12-May	0.0	0.0	0.4	Z	1.5	1.2	1.5	3.6	1.6	1.2	1.1	0.8	0.8	0.9	0.9	1.0	1.1	0.6	0.5	0.2	0.0	0.0	0.0	0.1	0.83	3.63																							
13-May	0.0	0.0	0.2	Z	0.5	3.3	3.8	4.0	C	C	C	C	C	C	0.7	0.8	1.0	0.6	0.6	0.3	0.3	0.3	0.1	0.0	--	4.04																							
14-May	0.0	0.1	0.0	Z	0.6	2.3	3.3	5.0	1.3	1.1	0.9	1.0	0.4	0.9	1.0	1.2	0.6	0.3	0.1	0.4	1.0	0.1	0.5	0.6	0.98	4.96																							
15-May	0.0	0.0	0.1	Z	5.2	8.6	11.4	7.8	3.5	3.4	3.6	0.8	0.7	2.0	1.3	2.0	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.0	2.22	11.45																							
16-May	0.0	0.1	0.0	Z	0.7	0.0	0.0	0.4	0.6	0.6	0.5	0.6	1.4	1.7	0.5	0.3	0.2	0.2	0.0	0.1	0.0	0.3	0.0	1.0	0.40	1.72																							
17-May	0.5	0.3	0.0	Z	0.8	0.7	1.0	1.5	1.3	1.6	1.8	1.6	0.9	1.3	0.8	0.8	0.8	0.4	1.0	0.9	3.6	1.7	2.2	1.4	1.16	3.59																							
18-May	6.0	0.4	2.6	Z	4.4	8.0	7.5	7.0	2.7	1.5	1.4	0.9	0.7	0.9	0.5	1.1	0.6	0.9	0.7	0.3	0.1	0.4	0.7	0.1	2.15	8.04																							
19-May	0.2	0.1	0.1	Z	0.6	1.0	6.5	5.2	2.7	1.7	1.5	0.9	0.9	1.5	1.3	0.8	1.3	0.9	0.6	0.2	0.1	0.1	0.0	0.1	1.23	6.46																							
20-May	0.1	0.0	0.0	Z	0.7	1.6	7.8	10.3	3.6	2.1	1.3	1.3	0.9	0.5	0.5	0.5	0.7	1.2	0.5	0.3	0.0	0.3	0.0	0.3	1.51	10.34																							
21-May	0.1	0.0	0.0	Z	0.1	1.2	1.3	1.2	0.7	1.6	0.8	0.7	0.5	0.3	0.6	0.5	0.6	0.4	0.2	0.1	0.4	0.3	0.0	0.2	0.51	1.62																							
22-May	0.0	0.1	0.0	Z	3.9	2.1	3.1	1.3	0.6	1.9	0.9	0.6	0.3	0.3	0.3	0.4	0.4	0.4	0.1	0.2	0.0	0.2	0.7	0.1	0.78	3.90																							
23-May	0.1	0.1	0.1	Z	0.0	0.4	2.1	4.6	2.8	1.5	0.6	0.6	0.8	0.5	0.4	0.4	0.5	0.5	0.3	0.1	0.1	0.4	0.1	0.6	0.76	4.59																							
24-May	0.1	1.5	0.1	Z	1.0	0.8	1.1	1.0	0.9	0.8	1.9	1.1	0.2	0.2	0.5	0.2	0.2	0.6	0.3	0.0	2.7	0.1	0.0	0.1	0.68	2.70																							
25-May	0.0	0.1	0.0	Z	0.1	0.3	0.8	0.8	1.7	3.5	1.5	0.7	1.5	1.0	0.6	1.2	0.3	0.4	0.2	0.1	0.1	0.0	0.5	0.0	0.66	3.46																							
26-May	0.0	0.4	0.4	Z	0.2	0.1	0.6	3.0	3.0	2.0	1.2	0.4	0.8	0.9	0.2	1.4	2.2	0.8	0.2	0.0	0.0	0.1	0.5	0.6	0.82	3.02																							
27-May	0.2	0.5	0.5	Z	3.7	1.4	2.8	1.2	1.9	1.2	0.9	1.4	0.5	2.4	1.4	5.7	0.7	0.7	0.1	0.1	0.0	0.0	0.0	0.2	1.19	5.71																							
28-May	0.2	0.7	0.1	Z	1.0	0.5	1.4	3.3	1.8	1.5	2.2	2.1	2.5	1.8	2.3	1.1	0.5	0.7	0.7	0.2	0.2	0.1	0.3	0.4	1.12	3.32																							
29-May	0.0	0.2	0.2	Z	0.4	0.8	0.8	1.7	1.9	2.0	2.4	2.4	2.0	1.9	1.3	2.4	1.2	0.5	0.6	0.2	0.0	0.0	0.0	0.0	0.99	2.41																							
30-May	0.1	0.1	0.1	Z	0.9	1.0	1.1	1.0	1.2	1.9	0.9	0.8	0.5	0.6	0.4	0.7	0.6	0.3	0.1	0.1	0.4	0.2	0.1	0.1	0.56	1.91																							
31-May	0.1	0.2	0.3	Z	0.4	0.4	2.1	0.6	1.3	2.0	0.7	0.8	1.0	1.0	0.2	0.4	0.0	0.0	0.1	0.1	0.0	0.4	0.0	0.5	0.54	2.10																							
																								0.38	0.26	0.46	--	1.19	2.37	3.19	2.76	1.84	1.72	1.35	1.03	0.86	0.95	0.79	0.97	0.74	0.63	0.39	0.25	0.48	0.38	0.41	0.30	Diurnal Average	
																								5.96	2.23	6.13	--	5.21	19.29	11.85	10.34	5.86	3.46	3.62	2.41	2.54	2.40	2.32	5.71	2.51	2.47	1.34	1.68	3.59	3.32	2.45	1.36	Diurnal Maximum	
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ppb 24-hr --- ppb																																																	



WCAS - Hinton
Summary of Hourly Averages

Nitrogen Dioxide (NO₂) - ppb
May 2015

Maximum Value: 17.66 ppb on May 22 05:00		Maximum Daily Average: 6.23 ppb on May 26		Hours in Service: 744																							
Minimum Value: 0.3 ppb on May 2 20:00		Minimum Daily Average: 2.10 ppb on May 6		Hours of Data: 707																							
Maximum Diurnal Average: 6.90 ppb at hour 6		Minimum Diurnal Average: 2.30 ppb at hour 19		Hours of Missing Data: 37																							
Monthly Average: 4.397 ppb		Percentiles: P ₁ = 0.4 P ₁₀ = 1.6 Q ₁ = 2.3 Median = 3.6 O ₃ = 5.6 P ₉₀ = 8.4 P ₉₉ = 15.0		Hours of Calibration: 37																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At																								Daily Average	Daily Maximum	
	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-May	5.2	3.6	2.4	Z	6.8	5.2	7.2	11.3	16.0	11.3	6.2	3.9	5.2	4.8	3.5	1.9	2.2	1.9	0.6	1.3	0.4	1.7	2.8	2.3	4.69	16.02	
2-May	6.4	4.1	2.8	Z	2.7	5.4	9.4	5.0	2.0	0.4	0.3	0.3	0.3	0.4	1.8	1.5	2.5	2.5	0.5	0.3	0.5	3.0	2.5	3.3	2.52	9.43	
3-May	2.3	7.6	3.6	Z	9.0	11.6	7.0	4.6	4.9	2.9	1.7	1.7	0.4	0.9	1.4	1.5	1.7	1.5	0.7	0.8	16.3	9.7	13.6	9.9	5.00	16.27	
4-May	7.6	4.9	5.3	Z	5.3	7.7	7.7	7.3	5.1	3.2	3.6	3.4	3.1	2.5	3.7	3.9	3.4	5.4	6.5	6.8	7.7	12.2	6.8	3.3	5.50	12.21	
5-May	4.8	5.5	4.2	Z	8.5	6.0	6.0	7.5	7.1	5.4	3.3	7.0	1.7	2.1	2.8	1.4	2.6	4.1	4.5	2.8	1.2	1.2	1.0	1.7	4.02	8.53	
6-May	1.1	0.8	1.9	Z	5.1	6.6	4.3	1.5	3.0	1.7	3.1	0.6	0.6	0.6	1.0	0.6	0.6	0.7	0.8	0.7	3.6	2.1	4.9	2.3	2.10	6.61	
7-May	1.7	2.6	4.7	Z	3.6	3.8	6.6	7.7	2.9	3.9	4.4	2.9	1.1	1.4	3.9	4.7	6.7	6.7	4.1	3.2	5.2	8.9	11.6	10.2	4.89	11.59	
8-May	7.9	5.2	8.7	Z	6.1	8.1	4.9	1.6	3.3	5.0	5.4	2.9	4.1	3.9	2.3	1.8	4.9	2.0	4.2	11.4	11.1	8.1	9.8	4.0	5.51	11.39	
9-May	7.0	3.8	4.4	Z	3.5	4.3	3.4	2.1	5.0	5.3	1.6	2.2	2.1	0.8	1.0	1.2	2.1	4.2	2.2	3.9	3.8	7.9	8.4	6.0	3.74	8.43	
10-May	6.8	5.6	4.9	Z	2.8	3.4	4.5	4.0	3.1	4.4	2.8	2.5	2.8	2.1	1.7	2.4	2.3	2.1	2.0	2.8	2.3	2.1	4.4	3.5	3.27	6.77	
11-May	4.1	5.2	7.5	Z	8.7	14.1	10.9	7.3	5.4	3.5	3.3	3.0	3.2	2.4	2.1	2.3	2.7	2.7	2.7	2.4	2.8	3.1	3.0	2.4	4.56	14.15	
12-May	3.6	4.8	5.8	Z	13.3	13.3	6.1	9.4	5.1	3.6	2.8	2.7	2.2	2.8	2.6	2.6	2.6	2.3	2.6	1.9	1.8	1.7	2.5	2.6	4.28	13.33	
13-May	2.0	2.8	5.7	Z	9.5	16.4	10.8	10.6	C	C	C	C	C	C	3.1	3.5	3.6	3.3	3.3	3.1	3.7	2.9	2.8	2.3	--	16.36	
14-May	3.1	2.8	4.7	Z	9.5	12.8	11.6	8.0	4.4	3.4	2.6	2.5	1.9	3.3	3.6	4.3	2.5	2.0	1.4	3.2	4.2	4.8	8.8	10.9	5.05	12.78	
15-May	6.3	4.3	3.3	Z	5.9	6.6	7.1	7.6	6.4	7.3	7.0	2.9	3.0	2.2	2.2	3.6	1.1	0.8	0.8	2.6	2.8	1.8	3.7	3.91	7.56		
16-May	5.8	6.3	5.8	Z	7.5	2.7	1.5	4.2	4.8	2.2	1.8	1.9	3.2	4.7	2.1	1.6	1.8	1.3	0.6	1.7	1.9	4.8	4.1	4.1	3.32	7.48	
17-May	3.6	2.9	2.6	Z	4.3	4.9	4.3	3.6	3.6	3.2	3.4	2.7	1.9	2.0	2.2	2.3	2.4	1.8	2.0	3.2	6.8	8.3	4.9	4.3	3.53	8.33	
18-May	4.7	1.5	2.0	Z	5.0	5.5	4.1	5.3	4.2	2.6	2.6	2.1	2.1	2.1	1.6	2.2	2.5	2.7	2.6	2.3	3.5	3.5	3.9	4.3	3.17	5.55	
19-May	5.7	4.4	6.1	Z	9.0	6.7	8.9	9.1	7.7	5.2	4.4	3.4	3.4	3.3	3.0	2.4	2.9	3.0	2.4	2.3	3.1	3.7	4.1	3.3	4.66	9.11	
20-May	5.8	5.6	5.1	Z	12.2	10.7	11.8	16.9	10.0	6.9	5.6	5.0	3.6	3.0	2.6	2.3	2.2	3.1	3.1	3.5	2.8	7.6	3.7	6.0	6.05	16.94	
21-May	6.9	7.1	10.3	Z	8.7	8.4	5.4	4.6	3.1	7.1	4.6	3.6	2.7	1.8	2.6	2.5	3.1	2.7	2.5	2.8	5.9	9.2	7.1	8.5	5.27	10.31	
22-May	6.6	5.9	7.3	Z	17.7	11.2	9.9	5.5	3.4	8.0	4.6	2.9	2.2	2.2	2.3	2.4	2.7	2.6	2.3	3.8	3.0	7.6	14.3	8.4	5.94	17.66	
23-May	8.0	6.8	6.3	Z	2.5	4.0	7.7	15.4	11.1	7.6	3.9	2.4	2.3	2.3	2.0	1.7	2.8	2.5	2.8	2.5	2.7	5.4	10.5	17.3	5.68	17.29	
24-May	7.3	12.0	11.6	Z	8.4	8.8	6.9	7.2	5.8	4.7	8.4	6.5	2.0	3.0	2.6	2.1	2.0	4.2	2.0	1.2	8.6	4.8	3.9	6.3	5.67	12.03	
25-May	4.6	4.7	4.3	Z	9.0	6.5	6.9	5.2	7.2	9.9	5.6	3.9	4.1	3.1	3.3	4.1	2.3	2.6	2.3	1.8	5.7	5.4	8.3	4.5	5.02	9.87	
26-May	2.5	7.8	5.4	Z	7.8	3.0	5.4	13.1	11.2	8.0	4.2	4.0	5.3	6.1	2.6	6.8	12.4	5.2	2.4	1.2	2.1	10.8	9.4	6.6	6.23	13.08	
27-May	3.7	5.0	3.7	Z	4.2	2.9	3.4	4.0	6.2	4.9	3.5	4.9	4.0	6.8	4.2	11.8	4.4	4.3	1.1	1.3	1.7	2.0	2.2	6.9	4.21	11.81	
28-May	5.8	5.3	4.1	Z	5.1	3.0	4.4	7.2	4.7	4.3	4.9	4.8	4.9	3.9	3.9	3.0	2.3	2.6	2.2	1.7	1.9	1.7	2.0	1.7	3.71	7.15	
29-May	2.4	3.5	3.3	Z	3.7	4.3	4.4	6.4	5.2	5.7	6.1	6.1	4.7	5.6	4.8	6.3	4.6	3.5	3.2	2.3	2.0	2.6	2.2	2.7	4.16	6.39	
30-May	5.1	6.4	5.1	Z	4.7	4.3	2.6	2.6	2.3	3.1	2.0	2.0	1.5	1.6	1.4	2.0	2.2	2.1	1.6	1.6	4.8	2.4	3.0	2.6	2.91	6.43	
31-May	1.4	4.4	4.7	Z	2.6	1.8	3.4	1.5	2.8	4.0	2.0	2.6	2.8	3.4	0.9	1.6	0.6	0.6	1.4	1.9	1.0	4.3	3.2	8.7	2.67	8.68	
		4.83	4.94	5.09	--	6.86	6.90	6.41	6.68	5.56	4.95	3.87	3.25	2.75	2.84	2.54	2.97	2.99	2.80	2.30	2.61	4.02	5.04	5.54	5.31	Diurnal Average	
		8.01	12.03	11.61	--	17.66	16.36	11.81	16.94	16.02	11.29	8.44	7.02	5.27	6.77	4.78	11.81	12.44	6.71	6.47	11.39	16.27	12.21	14.25	17.29	Diurnal Maximum	
Z - zerospan																											
C - Calibration																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb																											
24-hr 106 ppb																											



WCAS - Hinton
Summary of Hourly Averages

NOx (NO_x) - ppb
May 2015

Maximum Value: 27.38 ppb on May 8 06:00		Maximum Daily Average: 8.49 ppb on May 8		Hours in Service: 744																																													
Minimum Value: 0.2 ppb on May 2 20:00		Minimum Daily Average: 2.35 ppb on May 6		Hours of Data: 707																																													
Maximum Diurnal Average: 9.63 ppb at hour 7		Minimum Diurnal Average: 2.67 ppb at hour 19		Hours of Missing Data: 37																																													
Monthly Average: 5.427 ppb		Percentiles: P ₁ = 0.4 P ₁₀ = 1.9 Q ₁ = 2.8 Median = 4.4 Q ₃ = 7.0 P ₉₀ = 10.5 P ₉₉ = 19.7		Hours of Calibration: 37																																													
				Percent Operational Time: 100.0																																													
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	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-May	5.4	3.7	2.5	Z	8.8	7.3	10.5	14.9	21.9	14.7	7.9	4.9	7.4	6.9	4.4	2.2	2.5	2.0	0.5	1.3	0.4	1.6	2.8	2.3	5.95	21.91																							
2-May	6.5	4.1	2.8	Z	2.7	6.4	11.9	6.0	2.5	0.4	0.3	0.3	0.3	0.4	2.4	1.8	3.5	3.3	0.5	0.2	0.4	3.0	2.5	3.4	2.85	11.90																							
3-May	2.2	7.8	3.6	Z	11.0	15.8	10.6	6.7	6.5	4.3	2.1	2.2	0.4	1.1	1.9	2.1	2.3	1.7	0.7	0.8	19.2	10.2	16.0	11.2	6.11	19.17																							
4-May	8.0	5.0	5.4	Z	6.0	9.4	10.1	9.3	7.0	4.4	6.0	5.1	4.2	3.6	5.1	5.1	4.4	6.8	7.8	7.5	8.2	12.7	7.0	3.4	6.57	12.67																							
5-May	4.9	5.7	4.5	Z	10.9	7.6	7.5	9.4	8.5	7.6	4.8	9.2	1.9	2.8	4.1	1.7	3.4	5.9	5.3	3.0	1.2	1.2	1.0	1.7	4.94	10.91																							
6-May	1.1	0.9	2.4	Z	5.2	7.1	4.8	1.7	3.7	2.6	4.5	0.7	0.6	0.7	1.3	0.6	0.6	0.7	0.9	0.8	3.7	2.0	5.1	2.3	2.35	7.09																							
7-May	1.6	2.6	5.1	Z	4.4	4.7	8.7	11.0	4.5	5.3	6.2	4.1	1.4	1.4	4.7	5.9	9.2	9.2	4.9	3.5	5.3	12.3	13.0	11.3	6.10	12.96																							
8-May	10.6	7.4	14.9	Z	7.4	27.4	16.7	2.3	4.8	8.0	8.2	4.7	5.7	6.2	3.7	2.7	6.5	2.4	5.4	13.1	12.3	9.6	11.1	4.1	8.49	27.38																							
9-May	7.2	3.9	4.7	Z	4.2	4.8	4.2	2.6	7.0	7.3	2.2	2.9	2.9	1.1	1.3	1.6	2.5	5.0	2.3	4.3	4.2	8.8	9.2	6.1	4.36	9.20																							
10-May	6.9	5.9	5.1	Z	2.9	4.0	7.8	6.3	4.0	6.1	3.7	3.2	3.5	2.6	2.1	3.8	2.7	2.4	2.3	3.2	2.4	2.2	4.5	3.5	3.96	7.80																							
11-May	4.2	5.2	8.6	Z	8.9	19.7	18.0	10.9	7.5	4.7	4.5	4.6	4.5	2.9	2.9	2.8	3.5	3.4	3.4	2.7	3.0	3.2	3.5	2.4	5.87	19.71																							
12-May	3.6	4.8	6.2	Z	14.8	14.5	7.7	13.0	6.6	4.8	3.9	3.5	3.0	3.7	3.4	3.6	3.7	2.9	3.1	2.1	1.8	1.7	2.5	2.7	5.10	14.80																							
13-May	2.0	2.7	5.9	Z	10.0	19.8	14.8	14.9	C	C	C	C	C	C	3.1	3.7	4.0	3.4	3.5	3.0	3.7	2.9	2.6	2.1	--	19.82																							
14-May	2.9	2.7	4.7	Z	10.2	15.1	15.1	13.0	5.7	4.5	3.5	3.5	2.3	4.2	4.6	5.5	3.1	2.3	1.5	3.6	5.2	4.9	9.4	11.6	6.04	15.11																							
15-May	6.4	4.3	3.4	Z	11.2	15.2	18.6	15.5	10.0	10.7	10.7	3.8	3.7	4.3	3.5	5.6	1.2	0.8	0.8	0.8	2.8	2.8	1.9	3.7	6.16	18.60																							
16-May	5.9	6.4	5.8	Z	8.3	2.8	1.6	4.5	5.4	2.8	2.3	2.4	4.5	6.5	2.5	1.9	2.0	1.5	0.6	1.8	1.9	5.1	4.1	5.1	3.72	8.26																							
17-May	4.1	3.1	2.6	Z	5.1	5.5	5.3	5.0	4.9	4.8	5.2	4.3	2.8	3.2	3.0	3.1	3.1	2.2	3.0	4.1	10.4	10.0	7.1	5.7	4.69	10.44																							
18-May	10.7	1.9	4.7	Z	9.4	13.6	11.6	12.3	7.0	4.2	4.1	3.0	2.7	2.9	2.1	3.2	3.1	3.5	3.3	2.5	3.6	3.9	4.6	4.5	5.32	13.62																							
19-May	5.9	4.5	6.3	Z	9.7	7.7	15.4	14.4	10.4	6.9	5.9	4.2	4.3	4.8	4.3	3.1	4.2	3.9	2.9	2.5	3.1	3.8	4.1	3.3	5.90	15.37																							
20-May	6.0	5.6	5.2	Z	12.9	12.3	19.7	27.4	13.7	9.1	7.0	6.3	4.5	3.5	3.1	2.8	2.9	4.4	3.6	3.8	2.7	7.9	3.6	6.4	7.58	27.35																							
21-May	7.0	7.1	10.4	Z	8.8	9.5	6.7	5.8	3.8	8.8	5.5	4.3	3.2	2.2	3.2	3.0	3.8	3.1	2.7	2.9	6.3	9.5	7.2	8.7	5.80	10.36																							
22-May	6.6	6.1	7.4	Z	21.6	13.3	13.1	6.9	4.0	9.9	5.5	3.5	2.5	2.5	2.7	2.8	3.1	3.1	2.4	4.0	3.0	7.8	15.0	8.5	6.75	21.65																							
23-May	8.1	6.9	6.4	Z	2.5	4.4	9.8	20.0	14.0	9.1	4.5	3.1	3.1	2.8	2.3	2.1	3.3	3.0	3.1	2.7	2.8	5.9	10.6	17.9	6.46	20.03																							
24-May	7.4	13.6	11.8	Z	9.5	9.7	8.1	8.2	6.8	5.6	10.4	7.7	2.2	3.2	3.1	2.3	2.2	4.8	2.4	1.3	11.3	5.0	3.9	6.4	6.38	13.62																							
25-May	4.7	4.8	4.4	Z	9.2	6.8	7.8	6.0	8.9	13.4	7.1	4.6	5.7	4.1	3.9	5.3	2.6	2.9	2.5	1.9	5.8	5.5	8.9	4.5	5.70	13.39																							
26-May	2.5	8.2	5.9	Z	8.0	3.1	6.0	16.1	14.3	10.1	5.4	4.3	6.1	7.1	2.8	8.2	14.7	6.0	2.7	1.3	2.2	10.9	9.9	7.2	7.08	16.11																							
27-May	4.0	5.6	4.1	Z	7.9	4.3	6.2	5.2	8.1	6.2	4.4	6.4	4.5	9.2	5.6	17.6	5.1	5.0	1.1	1.3	1.7	2.0	2.2	7.2	5.43	17.59																							
28-May	6.0	6.0	4.2	Z	6.1	3.5	5.8	10.5	6.6	5.8	7.1	6.9	7.5	5.8	6.2	4.1	2.7	3.3	2.9	1.9	2.1	1.8	2.3	2.1	4.84	10.52																							
29-May	2.4	3.7	3.5	Z	4.1	5.1	5.3	8.1	7.1	7.7	8.6	8.6	6.7	7.5	6.2	8.8	5.8	4.0	3.8	2.5	2.0	2.6	2.2	2.7	5.17	8.80																							
30-May	5.2	6.5	5.2	Z	5.6	5.3	3.7	3.6	3.5	5.0	2.8	2.8	2.1	2.2	1.9	2.7	2.8	2.4	1.7	1.7	5.2	2.6	3.1	2.7	3.48	6.52																							
31-May	1.5	4.6	5.0	Z	2.9	2.2	5.5	2.1	4.2	6.0	2.7	3.4	3.8	4.4	1.1	2.0	0.7	0.6	1.5	1.9	1.0	4.7	3.2	9.2	3.23	9.24																							
																								5.20	5.21	5.56	--	8.07	9.29	9.63	9.47	7.43	6.69	5.23	4.28	3.60	3.80	3.31	3.92	3.71	3.41	2.67	2.84	4.48	5.42	5.94	5.61	Diurnal Average	
																								10.68	13.62	14.90	--	21.65	27.38	19.72	27.35	21.91	14.65	10.70	9.16	7.48	9.21	6.22	17.59	14.66	9.19	7.81	13.08	19.17	12.67	16.04	17.94	Diurnal Maximum	
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ppb 24-hr --- ppb																																																	



WCAS - Hinton
Summary of Hourly Averages

PM2.5 (PM_{2.5}) - µg/m³
May 2015

Maximum Value: 199.02 µg/m ³ on May 24 12:00		Maximum Daily Average: 69.35 µg/m ³ on May 24		Hours in Service: 744																						
Minimum Value: 0.0 µg/m ³ on May 31 12:00		Minimum Daily Average: 4.02 µg/m ³ on May 6		Hours of Data: 744																						
Maximum Diurnal Average: 20.78 µg/m ³ at hour 20		Minimum Diurnal Average: 10.52 µg/m ³ at hour 4		Hours of Missing Data: 0																						
Monthly Average: 14.484 µg/m ³		Percentiles: P ₁ = 1.6 P ₁₀ = 3.8 Q ₁ = 6.4 Median = 10.3 Q ₃ = 15.9 P ₉₀ = 24.8 P ₉₉ = 99.0		Hours of Calibration: 0																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At																								Daily Average	Daily Maximum
	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-May	3.5	4.0	2.9	4.8	6.9	6.6	8.1	8.9	14.9	7.7	5.8	5.0	10.0	9.9	4.9	3.9	3.2	3.8	3.0	4.0	2.6	3.7	5.5	4.0	5.74	14.88
2-May	6.9	6.4	4.7	5.5	3.8	4.6	10.9	6.2	2.1	2.3	4.1	2.7	1.7	3.3	17.5	3.5	4.0	9.1	7.6	3.5	4.3	19.9	16.3	7.7	6.61	19.89
3-May	5.0	5.2	4.4	5.3	4.9	6.3	7.1	5.2	8.3	3.8	2.5	2.7	2.9	3.9	2.9	3.6	3.7	5.2	5.1	8.2	23.2	44.5	27.6	15.3	8.61	44.48
4-May	24.9	7.3	6.6	8.7	8.8	11.3	8.4	8.0	10.1	8.0	10.4	13.6	11.4	13.9	13.4	17.5	13.3	13.1	10.7	17.0	21.4	13.7	11.1	10.1	12.19	24.88
5-May	8.7	7.4	6.3	4.9	4.8	6.6	5.4	6.8	7.3	5.4	6.1	12.6	5.7	2.7	3.7	3.0	2.6	2.4	5.4	3.7	3.5	2.7	2.0	2.8	5.10	12.61
6-May	1.9	2.3	2.8	3.1	3.8	3.9	3.8	2.7	4.4	3.1	3.1	3.1	2.4	3.5	3.5	4.3	3.6	3.9	4.2	4.5	10.8	5.3	7.9	4.5	4.02	10.78
7-May	3.7	3.1	3.8	3.4	4.1	5.2	10.9	7.5	3.7	5.9	8.4	7.6	6.7	8.0	5.6	5.7	6.1	6.0	8.1	3.7	6.4	7.3	6.3	5.7	5.95	10.87
8-May	4.1	4.3	4.4	5.0	3.6	7.0	9.4	7.3	4.6	5.5	6.4	5.4	8.2	10.8	8.1	9.3	11.1	7.8	14.0	42.1	34.8	22.7	14.9	7.5	10.75	42.09
9-May	8.7	6.8	7.0	12.7	6.6	6.7	8.4	6.4	6.9	7.9	3.6	7.6	8.7	8.7	10.9	9.7	9.6	9.8	10.3	20.4	22.3	34.6	32.4	14.2	11.71	34.56
10-May	10.9	11.6	11.5	9.2	7.8	7.6	12.2	10.0	8.7	12.8	9.5	13.0	12.0	14.7	12.8	20.9	18.9	15.4	13.8	15.7	13.0	9.8	9.3	7.3	12.02	20.94
11-May	7.6	6.6	29.6	7.2	15.4	24.2	23.1	9.8	9.2	11.6	14.6	12.9	11.9	10.5	10.9	13.0	18.8	19.2	15.0	10.5	14.4	11.6	9.8	8.1	13.57	29.61
12-May	6.7	10.1	18.2	7.5	20.7	34.2	12.8	14.5	9.6	12.7	10.3	7.6	8.7	9.3	9.3	11.3	18.8	11.6	9.8	10.9	18.8	15.7	13.4	10.8	13.05	34.16
13-May	9.0	10.2	11.2	23.6	22.9	42.0	31.5	21.0	13.5	11.4	9.8	11.9	11.6	12.8	6.7	1.6	10.4	15.4	15.6	12.3	16.2	12.8	10.4	10.2	14.75	42.01
14-May	14.9	9.2	10.1	15.5	24.1	38.0	23.6	17.8	11.8	10.6	11.0	10.4	9.5	12.8	17.0	19.8	11.5	9.2	5.4	8.7	10.1	11.9	24.4	18.2	14.81	38.00
15-May	10.9	6.2	5.7	6.9	10.1	10.7	15.2	14.0	10.4	10.5	9.1	4.4	5.6	11.1	10.7	10.3	14.0	17.5	18.9	17.2	11.1	11.3	10.0	10.9	10.95	18.91
16-May	10.1	7.0	9.3	11.1	16.9	14.9	11.0	11.0	8.8	3.8	4.0	2.4	2.5	2.7	3.5	4.5	5.8	4.4	4.0	4.4	4.5	6.2	7.1	7.4	6.98	16.93
17-May	5.5	3.2	3.1	3.6	4.9	6.1	7.8	7.6	7.2	7.8	8.7	8.2	7.1	8.6	8.9	9.3	10.2	8.0	7.4	11.0	13.2	14.3	9.2	8.1	7.86	14.31
18-May	10.3	6.4	9.0	8.6	8.6	9.0	8.7	11.4	6.2	8.6	9.0	10.2	9.7	11.8	10.4	9.9	8.8	8.0	8.4	10.7	15.7	11.1	10.3	7.8	9.54	15.67
19-May	7.5	6.8	8.3	8.1	11.5	12.5	18.3	17.0	15.7	10.9	15.2	13.4	12.5	10.7	11.2	11.8	14.2	15.1	16.0	17.7	16.4	17.7	17.1	9.2	13.11	18.26
20-May	9.7	23.6	20.1	10.3	17.5	22.3	24.8	33.9	23.6	16.1	15.5	16.0	11.1	12.4	14.7	16.9	11.6	13.6	16.6	23.6	49.6	36.0	23.5	14.1	19.88	49.63
21-May	19.8	29.4	20.8	16.6	9.1	13.8	17.0	13.3	13.4	18.9	15.3	14.8	14.1	13.5	19.8	25.2	22.2	29.8	24.9	30.4	63.8	26.6	28.3	38.0	22.44	63.77
22-May	22.0	25.8	22.7	19.0	21.6	17.9	20.8	15.8	15.4	19.9	15.9	14.1	17.8	20.6	20.9	22.1	17.5	17.9	23.6	18.2	25.9	39.0	62.4	49.6	23.60	62.40
23-May	56.1	41.5	46.4	34.4	15.0	13.0	26.4	24.1	25.7	25.2	15.1	10.2	12.9	11.6	11.1	10.1	13.2	10.9	12.2	12.7	17.2	22.7	20.3	89.8	24.07	89.76
24-May	82.8	63.7	142.3	33.8	35.9	57.7	78.7	198.5	31.9	19.0	39.8	199.0	78.3	131.5	90.9	101.3	25.2	16.1	37.7	92.3	22.6	17.3	45.7	22.3	69.35	199.02
25-May	37.6	90.7	48.4	15.2	16.7	14.2	23.0	18.7	24.3	20.2	29.4	18.7	18.1	16.1	24.9	13.9	15.3	30.1	36.6	33.6	67.9	36.7	21.1	16.5	28.66	90.69
26-May	14.9	46.4	37.8	11.4	15.9	12.9	14.9	30.3	32.2	16.8	22.0	20.3	15.5	15.4	16.6	16.9	17.3	7.6	103.8	167.9	78.7	32.2	16.0	10.9	32.28	167.91
27-May	7.2	7.8	7.9	7.3	10.0	10.6	16.1	18.5	17.6	13.7	9.8	13.9	17.3	14.0	24.1	14.7	10.1	10.1	1.1	4.6	5.7	7.3	4.7	10.9	11.04	24.06
28-May	7.8	11.2	9.3	10.9	14.3	13.3	14.2	16.9	9.3	6.6	5.3	6.6	5.7	6.4	8.8	10.6	10.0	11.0	11.6	12.0	10.1	11.2	10.5	6.9	10.02	16.85
29-May	0.6	4.9	5.0	5.2	5.1	5.4	5.8	5.9	6.0	8.1	7.4	9.1	10.0	12.0	10.6	11.4	9.7	6.5	5.6	5.4	4.8	4.8	5.0	4.7	6.63	12.04
30-May	6.3	7.7	6.5	5.8	6.6	5.9	6.3	6.4	7.5	8.2	8.7	10.0	8.3	6.7	6.1	5.2	11.5	7.3	17.2	2.5	5.6	5.1	4.5	6.3	7.17	17.19
31-May	1.6	3.7	3.5	1.6	3.8	3.3	11.1	3.1	5.8	7.6	0.0	0.0	0.0	1.8	1.8	3.2	3.6	9.3	10.8	14.9	16.8	21.6	14.6	14.1	6.56	21.61
13.78 15.50 17.09 10.52 11.67 14.44 16.00 18.66 12.12 10.66 10.84 15.73 11.54 13.93 13.62 13.69 11.47 11.45 15.62 20.78 20.37 17.32 16.18 14.64																								Diurnal Average		
82.81 90.69 142.27 34.38 35.91 57.68 78.71 198.48 32.23 25.16 39.81 199.02 78.33 131.52 90.86 101.33 25.23 30.14 103.76 167.91 78.68 44.48 62.40 89.76																								Diurnal Maximum		
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 ul/m^3 24-hr 30 ul/m^3																										

WEST CENTRAL AIRSHED SOCIETY

**CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT
METEOROLOGICAL DATA**

**AMS 906
HINTON
MAY 2015**

Operations and Data Collection by:
West Central Airshed Society
Drayton Valley, Alberta

QA/QC, Data Validation and Reporting by:
West Central Airshed Society
Drayton Valley, Alberta



WCAS - Hinton
Summary of Hourly Averages

External Temperature (ET) - C
May 2015

Maximum Value: 26.49 C on May 23 17:00		Maximum Daily Average: 16.90 C on May 23		Hours in Service: 744																							
Minimum Value: -4.7 C on May 7 05:00		Minimum Daily Average: 1.54 C on May 6		Hours of Data: 744																							
Maximum Diurnal Average: 15.76 C at hour 17		Minimum Diurnal Average: 1.67 C at hour 6		Hours of Missing Data: 0																							
Monthly Average: 9.775 C		Percentiles: P ₁ = -3.0 P ₁₀ = 0.3 Q ₁ = 4.1 Median = 9.0 Q ₃ = 15.6 P ₉₀ = 20.1 P ₉₉ = 25.1		Hours of Calibration: 0																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At																								Daily Average	Daily Maximum	
	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-May	2.8	2.2	1.9	1.6	0.3	0.2	1.0	1.9	2.3	2.1	2.5	4.4	6.8	9.4	9.7	11.6	10.4	10.1	9.1	7.9	6.3	4.7	3.5	3.2	4.83	11.59	
2-May	3.5	2.8	1.8	0.9	-0.7	-1.3	0.0	2.0	5.6	6.1	6.7	8.0	8.6	9.7	10.0	9.2	8.3	9.1	8.9	7.3	5.6	3.7	2.5	0.6	4.96	9.95	
3-May	-0.8	-1.6	-2.7	-3.0	-3.3	-3.9	-2.6	0.8	4.5	7.2	8.1	8.5	9.5	10.2	11.4	11.8	12.7	12.8	11.9	9.4	7.5	4.6	2.4	0.7	4.84	12.84	
4-May	-0.6	-0.3	-0.1	-0.5	-0.1	0.2	0.9	2.1	3.7	5.8	8.8	11.5	12.5	13.3	13.4	13.4	13.9	13.7	13.4	11.8	9.8	9.0	8.3	7.7	7.16	13.95	
5-May	6.1	5.9	5.1	4.2	2.8	2.9	3.4	4.2	4.7	4.9	6.3	7.3	5.8	4.3	4.1	3.9	2.5	2.1	2.6	2.5	1.9	1.5	1.3	1.2	3.80	7.29	
6-May	0.9	0.3	-0.1	-0.7	-1.0	-1.1	-0.7	0.1	0.3	0.7	1.1	2.8	3.1	4.2	5.0	5.2	4.9	4.4	4.7	4.3	2.5	-0.2	-1.6	-2.0	1.54	5.23	
7-May	-2.4	-3.0	-3.4	-4.1	-4.7	-4.5	-1.7	2.2	4.5	6.5	8.0	8.6	7.7	5.1	4.0	3.7	4.4	4.3	4.2	2.7	1.8	0.6	-0.7	-0.5	1.80	8.62	
8-May	-1.1	-1.4	-1.8	-2.2	-2.8	-3.0	-1.7	1.1	4.3	6.7	9.5	10.8	11.7	12.2	13.4	13.5	14.1	14.7	13.5	12.0	9.1	6.5	5.9	4.0	6.22	14.73	
9-May	2.6	0.9	0.0	-0.8	-1.2	-1.1	1.3	6.0	9.7	12.9	15.2	16.2	17.3	17.9	18.4	18.7	19.0	18.8	19.0	18.0	15.0	10.9	8.4	6.3	10.39	19.01	
10-May	4.9	3.0	1.5	0.2	-0.3	-0.5	1.5	5.1	10.5	12.6	15.5	18.1	18.7	19.2	19.8	20.4	20.1	19.6	18.4	16.5	13.9	11.9	10.8	9.6	11.29	20.37	
11-May	8.0	5.6	3.2	1.2	-0.3	-1.0	2.0	5.0	8.5	11.5	14.3	15.5	16.7	17.4	18.4	18.8	18.9	18.7	17.3	16.0	13.5	10.9	9.3	8.1	10.73	18.92	
12-May	6.9	3.8	1.7	0.6	-0.9	-1.8	0.2	4.0	7.4	10.8	13.2	15.5	16.5	17.7	18.1	18.4	18.5	17.8	16.9	15.4	13.1	11.1	9.4	8.2	10.09	18.46	
13-May	6.8	5.0	3.7	1.1	-0.7	-1.1	2.1	6.4	8.5	11.7	14.5	15.8	16.9	17.8	18.1	18.5	18.5	18.1	17.0	15.6	13.8	12.2	10.9	9.0	10.84	18.53	
14-May	6.8	5.8	4.4	1.4	-0.3	-0.8	2.0	6.5	8.2	11.0	12.5	14.2	15.6	16.3	15.9	15.3	13.2	13.5	13.0	13.2	12.0	9.0	6.3	4.4	9.13	16.26	
15-May	2.6	1.3	0.1	-0.8	-1.4	-0.8	0.8	5.0	8.6	12.4	15.1	17.5	17.5	18.3	17.4	16.2	18.3	18.1	15.7	13.8	11.9	10.5	10.2	9.0	9.88	18.34	
16-May	7.7	7.4	7.1	6.5	6.8	7.3	8.0	7.5	7.2	6.7	5.4	4.3	2.9	2.3	2.1	2.4	2.5	2.6	2.3	2.4	2.2	2.3	1.7	1.5	4.54	7.95	
17-May	0.9	0.4	0.0	-0.1	-0.1	0.0	0.5	1.5	2.2	3.4	4.9	6.6	7.7	7.9	8.6	8.9	9.4	10.3	10.8	10.0	8.3	5.4	3.1	1.7	4.69	10.83	
18-May	0.5	-0.5	-0.7	-0.7	-0.6	-0.8	-0.6	1.5	5.8	9.0	12.2	15.0	16.6	17.6	18.1	18.0	18.1	18.3	18.2	16.8	14.7	12.5	11.2	9.5	9.56	18.27	
19-May	7.2	4.6	2.9	1.7	0.3	-0.1	2.5	5.9	9.6	12.5	15.6	18.2	19.7	20.3	21.0	21.7	22.0	21.8	20.9	19.3	16.8	14.7	13.6	12.6	12.72	22.04	
20-May	9.1	6.6	4.5	2.7	1.1	0.6	3.8	7.8	10.9	14.3	17.8	20.7	22.7	23.6	23.7	24.3	24.2	24.2	23.4	22.2	19.1	15.7	14.0	12.7	14.57	24.29	
21-May	9.5	7.3	5.7	4.2	2.9	2.5	5.5	10.1	14.1	17.0	19.8	22.6	23.7	24.6	24.9	25.6	25.2	25.1	23.9	22.3	19.1	16.3	13.8	11.0	15.69	25.65	
22-May	8.9	6.9	5.8	4.6	3.8	3.6	6.4	11.6	15.4	18.9	21.7	23.3	24.2	24.7	24.7	25.1	25.1	24.8	23.7	22.4	19.6	15.8	13.0	10.8	16.03	25.09	
23-May	9.3	8.0	6.5	5.0	4.0	3.6	6.3	10.8	15.3	18.8	22.3	24.1	24.5	25.2	25.9	26.2	26.5	25.2	24.4	23.2	21.9	18.9	16.6	13.3	16.90	26.49	
24-May	10.6	9.1	7.4	6.4	5.4	5.8	9.0	12.1	15.6	17.1	17.5	20.9	23.4	23.3	21.9	20.9	22.9	22.4	20.7	18.0	17.4	16.2	15.1	15.1	15.59	23.44	
25-May	13.2	10.2	8.7	6.9	6.1	6.1	8.4	11.2	14.6	17.5	19.7	21.1	22.5	23.9	23.6	22.9	24.1	24.3	23.4	21.0	18.5	16.4	15.8	15.3	16.47	24.29	
26-May	14.7	13.8	12.2	12.2	11.2	11.2	11.9	13.0	16.1	18.5	21.1	18.5	17.9	21.1	19.4	16.9	16.1	17.7	17.0	15.5	13.4	10.9	9.0	7.5	14.87	21.13	
27-May	6.4	5.5	4.7	4.1	3.6	3.7	5.5	10.1	14.4	17.2	19.9	21.8	21.2	19.1	18.5	14.4	16.5	16.2	15.6	15.5	14.3	12.9	11.7	11.0	12.65	21.79	
28-May	9.5	9.4	9.5	9.6	9.8	9.9	9.8	9.3	9.2	8.4	7.9	7.2	7.4	7.7	8.2	8.7	9.0	9.3	9.9	9.9	9.6	9.2	9.1	9.0	9.02	9.94	
29-May	8.2	7.5	5.5	4.3	4.2	4.1	4.2	4.3	4.7	5.2	5.9	6.4	6.8	7.3	7.7	8.0	8.5	8.4	7.9	8.0	7.6	7.3	7.1	6.9	6.50	8.47	
30-May	6.5	6.1	5.8	5.6	5.5	5.5	6.7	9.4	10.4	11.6	14.0	16.4	18.1	20.0	20.2	20.0	19.4	18.5	15.1	11.0	8.8	9.2	9.1	8.5	11.73	20.18	
31-May	8.2	8.2	7.6	7.0	6.7	6.5	7.0	9.8	12.6	14.6	16.4	17.9	19.6	19.8	20.9	21.3	21.6	20.5	20.6	19.0	16.8	14.7	10.7	8.3	14.00	21.57	
		5.72	4.54	3.49	2.55	1.81	1.67	3.33	6.07	8.68	10.76	12.69	14.18	14.95	15.53	15.69	15.62	15.76	15.66	14.95	13.65	11.79	9.84	8.44	7.23	Diurnal Average	
		14.74	13.83	12.23	12.23	11.25	11.20	11.87	12.95	16.09	18.90	22.31	24.08	24.48	25.15	25.91	26.20	26.49	25.21	24.45	23.21	21.90	18.92	16.64	15.28	Diurnal Maximum	



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
May 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	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 Spd	2.8	2.6	3.7	2.6	2.1	2.8	1.4	2.2	0.7	3.6	1.6	1.3	1.6	4.8	4.2	2.3	8.2	5.2	4.0	2.7	4.0	1.6	1.5	1.3	0.69	8.24
Dir	ENE	ENE	ENE	ENE	ENE	ENE	SE	WSW	ENE	NE	N	NNE	NE	NE	NNE	NW	SW	W	WNW	WNW	NW	WSW	WSW	SW	N	SW
2 Spd	3.5	1.9	1.7	1.8	1.2	1.0	2.3	1.4	4.0	4.3	3.6	5.1	7.9	5.9	6.5	6.7	6.6	3.3	3.4	7.1	1.7	2.4	1.7	1.9	1.95	7.85
Dir	SSW	WSW	WSW	W	WSW	SSW	SSW	NNW	WNW	W	W	WNW	WNW	W	SW	SW	S	ESE	N	NNW	WNW	NE	ENE	NE	W	WNW
3 Spd	0.6	1.8	1.2	2.0	2.0	0.8	1.1	2.4	3.1	6.8	4.8	2.0	5.0	2.3	4.9	8.8	7.5	4.8	3.5	1.3	0.9	0.5	0.4	1.2	2.05	8.81
Dir	NNE	SW	W	WSW	SW	SW	W	WNW	WNW	SSW	SW	SSW	WNW	NNW	SW	SSW	SSW	W	WNW	WNW	SSE	ENE	E	E	WSW	SSW
4 Spd	0.8	1.8	2.1	1.5	2.4	2.3	0.7	1.7	4.4	4.5	7.2	7.3	8.5	7.8	7.3	9.7	10.4	9.4	9.0	7.2	2.4	1.2	2.4	5.2	4.49	10.43
Dir	ENE	ENE	ENE	ENE	ENE	ENE	NNE	NNE	NE	NE	NE	NE	ENE	E	E	ENE	ENE	E	E	ENE	NE	SE	ENE	SSE	ENE	ENE
5 Spd	0.8	1.7	0.3	3.4	3.0	2.0	2.3	1.7	2.1	3.5	0.4	3.5	5.7	0.3	0.7	1.9	2.4	4.2	3.6	1.2	1.1	1.3	1.7	1.4	0.60	5.73
Dir	SW	NE	N	ENE	ENE	NE	ENE	NNE	NE	NE	NE	WSW	NW	NNE	ENE	N	NE	SE	SW	SW	NW	W	NW	WSW	NNE	NW
6 Spd	3.4	3.3	1.3	1.4	2.2	3.6	2.8	1.2	2.4	2.2	2.0	4.3	5.2	4.9	3.8	5.7	4.9	3.7	3.5	1.3	1.2	0.8	1.0	0.9	1.44	5.68
Dir	N	N	ESE	WSW	SW	SW	SW	WSW	SSW	SW	SSE	NNW	NNW	N	N	NNW	NNW	N	NNE	NNE	ENE	NNW	NE	WNW	NNW	NNW
7 Spd	0.6	0.1	0.8	0.5	0.6	1.2	2.4	4.4	9.2	4.5	5.8	4.8	5.0	2.0	5.0	5.5	5.7	2.9	2.1	3.2	1.3	1.0	0.3	0.7	2.26	9.16
Dir	WNW	NW	WSW	WSW	W	WNW	WSW	WSW	SW	SW	SW	WSW	N	NW	SW	SW	SW	SSW	WNW	SSW	WSW	S	S	SSW	SW	SW
8 Spd	0.8	0.7	0.8	0.7	1.3	0.1	0.4	2.1	2.7	4.6	3.6	6.1	4.9	10.3	5.2	7.1	4.4	3.8	2.9	0.9	0.6	0.4	1.6	1.2	2.48	10.34
Dir	WSW	W	WSW	SW	W	ENE	W	W	WNW	SW	WSW	SSW	SW	SSW	SSW	SSW	S	SSW	S	SE	SW	SSW	SW	WSW	SW	SSW
9 Spd	1.3	1.0	0.6	0.5	1.3	1.5	2.1	1.9	2.9	2.5	3.2	5.8	3.8	2.3	3.5	3.0	4.4	1.6	1.1	2.1	2.2	1.5	1.1	1.8	0.84	5.80
Dir	SW	W	W	SW	WNW	WNW	WNW	WNW	WNW	W	WSW	S	SE	E	ESE	E	SSW	SW	W	ESE	ESE	NNE	W	W	SSW	S
10 Spd	1.5	0.5	0.3	1.1	1.8	2.3	1.5	1.7	1.5	4.2	4.9	7.2	8.4	7.1	6.6	6.5	7.0	6.3	8.8	9.7	5.9	4.5	5.5	3.6	3.67	9.73
Dir	WSW	E	SW	NE	SW	W	ENE	W	NW	NE	NNE	NE	ENE	ENE	ENE	NE	NE	E	ENE	ENE	NE	ENE	E	E	ENE	ENE
11 Spd	2.6	2.3	2.0	2.1	0.6	0.3	0.4	1.6	2.7	5.5	5.5	7.9	7.2	7.3	6.1	7.0	8.0	8.2	9.3	7.4	5.0	5.1	5.9	4.9	4.41	9.31
Dir	ESE	E	ENE	ENE	ENE	NNE	NW	NE	NE	NE	ENE	SE	ESE	ESE	ESE	E	ENE	ENE	E	E	ENE	E	E	ENE	E	E
12 Spd	3.7	1.4	1.3	1.0	0.3	0.4	1.4	1.4	3.8	6.0	8.9	11.7	13.2	11.1	11.3	12.4	11.6	12.2	11.1	8.8	5.5	4.1	5.0	7.1	5.80	13.21
Dir	ENE	NE	NNE	N	ENE	NW	WNW	NE	NE	NE	ESE	ESE	ESE	E	ESE	E	E	E	E	E	ENE	NE	NE	ENE	E	ESE
13 Spd	2.1	3.0	3.5	1.2	0.8	0.9	1.8	3.4	4.7	5.4	12.6	14.0	12.6	11.4	13.2	10.6	11.4	11.3	10.8	8.7	7.8	8.3	8.6	4.4	6.86	14.01
Dir	ENE	E	E	NE	NNE	NE	NE	ENE	NE	ESE	E	ESE	E	E	ESE	ESE	E	E	E	E	E	ESE	ESE	ESE	E	ESE
14 Spd	4.5	6.2	3.9	1.2	1.7	1.6	2.1	4.2	3.0	3.8	6.6	5.1	5.4	7.1	9.0	10.7	6.1	4.6	1.1	5.2	4.9	1.1	1.0	0.9	3.87	10.68
Dir	E	E	E	NE	NE	ENE	ENE	ENE	NE	ENE	ESE	E	ESE	E	ENE	E	E	E	NNW	ESE	SSE	E	E	E	E	E
15 Spd	0.6	0.4	0.3	0.4	0.3	1.0	0.7	0.9	2.2	2.2	3.8	2.2	1.3	6.6	8.8	13.9	4.8	5.1	5.0	5.7	2.5	0.4	1.9	1.2	0.61	13.89
Dir	WNW	WNW	NNE	NE	NNE	SSW	N	NW	WNW	W	SSW	WNW	SSW	ESE	SE	SSW	NW	NNW	NNW	NW	SW	SW	NNE	SSW	WSW	SSW
16 Spd	3.0	3.2	2.3	0.7	1.0	1.1	0.8	1.4	3.8	4.4	5.5	4.6	5.7	5.6	7.1	6.9	3.4	1.9	1.7	1.5	0.8	1.9	1.3	2.6	1.82	7.09
Dir	SSW	SSW	WSW	NW	W	NW	W	SW	ENE	NE	NE	NE	E	ENE	ENE	NE	NNE	N	N	NNE	N	E	NE	ENE	NE	ENE
17 Spd	5.0	5.1	2.9	4.1	3.7	4.4	3.7	5.4	5.6	5.6	4.8	4.9	8.8	7.9	5.3	6.8	5.5	1.8	6.1	6.3	2.7	2.8	1.4	0.6	3.67	8.83
Dir	ENE	ENE	ENE	ENE	ENE	ENE	NE	NE	ENE	NE	NE	ENE	ESE	ESE	ESE	ESE	ESE	S	S	S	SE	ENE	E	E	E	ESE
18 Spd	0.8	0.3	1.0	0.6	0.6	2.0	1.0	0.0	1.0	2.8	5.9	6.5	7.4	6.6	9.4	8.6	9.2	7.7	8.9	7.0	4.4	3.7	2.4	2.9	3.45	9.37
Dir	NE	N	SW	NW	WSW	ENE	ENE	NNE	NNE	ENE	NE	NE	NE	E	ESE	SE	SE	ESE	ESE	ENE	NE	E	E	E	E	ESE
19 Spd	2.1	0.8	0.4	1.5	0.7	0.4	0.1	0.9	3.6	4.0	5.8	6.4	6.8	6.4	9.8	8.4	9.0	8.8	7.9	6.8	3.8	3.6	2.5	2.5	3.59	9.80
Dir	ENE	NE	WSW	SW	WSW	W	N	N	NE	ENE	NE	NE	NE	ESE	ESE	ESE	ESE	E	E	ENE	NE	ENE	ENE	E	E	ESE
20 Spd	1.9	2.1	1.4	0.4	0.3	0.4	0.7	0.9	1.4	1.2	1.9	1.8	4.3	6.2	5.2	6.6	6.4	7.2	7.1	6.1	4.1	2.0	2.6	2.2	2.34	7.15
Dir	ESE	ENE	WSW	SSW	W	NE	NE	N	WNW	WNW	NW	ENE	NE	NE	ENE	E	ESE	ESE	ESE	E	ENE	E	E	E	E	ESE
21 Spd	0.9	0.6	1.4	1.5	0.9	1.4	1.4	1.8	2.2	2.5	0.0	2.4	3.1	3.6	4.8	4.8	6.9	6.9	6.6	6.8	2.6	1.9	0.9	1.2	1.57	6.90
Dir	ENE	W	WSW	WSW	W	W	W	WNW	WNW	WNW	ENE	ENE	ENE	E	ENE	ENE	E	ENE	ENE	ENE	ENE	ENE	ENE	W	ENE	ENE
22 Spd	0.4	0.7	1.1	0.4	1.7	0.7	1.4	2.1	2.2	1.3	5.0	5.4	5.1	6.2	7.8	5.5	5.7	4.7	5.9	6.8	3.1	0.7	0.8	0.6	2.30	7.79
Dir	SSW	SW	SW	W	SSW	WNW	WNW	WNW	NW	NE	NE	ENE	NE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	E	SW	ENE	ENE



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
May 2015

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
23 Spd	0.4	0.6	0.2	0.5	1.6	2.0	1.0	0.9	0.2	3.4	5.7	7.7	8.0	9.0	7.5	7.3	7.8	7.6	8.0	7.3	6.2	4.4	2.3	0.9	3.61	8.97	
Dir	N	ESE	N	WNW	W	W	NW	NNW	S	ENE	E	E	ESE	E	E	E	E	E	E	ENE	ENE	ENE	E	ESE	E	E	
24 Spd	1.4	0.2	1.4	0.7	0.4	0.7	1.2	1.6	2.5	2.8	3.0	0.8	2.0	2.9	11.6	6.7	2.4	7.0	0.8	1.6	5.3	3.5	0.2	6.3	1.96	11.55	
Dir	ENE	SE	SW	WSW	N	NNE	WNW	W	WNW	SW	SW	WNW	NNW	SW	SSW	S	W	S	WSW	N	S	S	S	S	SSW	SSW	
25 Spd	1.7	1.3	2.6	2.3	1.3	1.1	1.3	2.2	2.0	1.8	2.2	2.9	5.2	4.5	5.1	5.8	3.6	4.9	5.7	4.5	0.7	1.4	2.3	4.0	0.92	5.81	
Dir	WSW	WSW	WSW	W	WSW	W	W	W	W	SSW	ENE	ENE	ESE	ENE	NE	SE	ENE	NE	NE	NE	NE	ENE	SE	SW	E	SE	
26 Spd	0.8	0.7	1.1	2.7	1.0	0.6	0.5	0.9	4.3	5.6	2.3	1.5	1.3	2.0	4.1	2.3	2.0	0.9	0.9	1.3	0.1	0.3	0.5	0.5	0.44	5.60	
Dir	WSW	S	SSE	SSW	W	W	W	WSW	SSW	S	E	NNW	S	NW	NNW	S	ENE	SSE	NE	NNW	W	ENE	SE	NE	SSW	S	
27 Spd	0.8	0.4	0.2	0.4	0.9	1.6	0.7	1.6	2.4	3.1	3.5	3.3	2.9	6.8	2.2	3.0	0.5	3.0	1.7	1.4	1.1	0.8	0.9	2.3	0.87	6.80	
Dir	SSW	NW	S	WNW	WSW	WSW	WNW	WNW	W	WSW	SW	ESE	SW	SSW	NNW	S	ESE	NE	N	WNW	NNE	W	WSW	SSW	SW	SSW	
28 Spd	0.6	0.2	0.3	0.5	0.9	3.3	5.7	3.9	4.7	5.2	4.5	3.6	4.8	3.4	4.0	3.9	2.2	3.1	4.1	5.1	3.0	2.9	2.8	3.9	2.99	5.74	
Dir	NW	S	SW	NNE	NE	ENE	ENE	NE	ENE	ENE	E	NE	NE	ENE	E	E	NNE	ENE	ENE	ENE	NE	NNE	NE	ENE	ENE	ENE	
29 Spd	3.3	4.2	4.1	1.7	3.8	5.8	3.8	5.4	7.0	5.5	4.5	4.8	7.3	4.9	5.0	5.7	4.7	5.1	3.9	3.1	2.8	2.9	2.5	4.2	4.30	7.25	
Dir	NE	ENE	NE	NE	ENE	ENE	ENE	ENE	ENE	NE	NE	NE	ENE	E	ENE	E	ENE	ENE	NE	NE	NE	NE	NE	ENE	ENE	ENE	
30 Spd	3.2	1.6	1.5	0.7	1.9	2.1	3.4	3.1	0.9	2.5	1.0	4.2	6.1	6.6	8.5	8.4	8.8	6.7	4.3	3.0	1.6	2.5	1.0	2.2	2.58	8.77	
Dir	E	E	NE	NE	ENE	ENE	ENE	NE	SSE	SSW	N	E	ESE	E	ESE	SE	ESE	E	NNE	N	S	E	SSW	WSW	E	ESE	
31 Spd	0.2	2.6	1.1	1.5	0.5	0.7	1.6	2.2	1.7	1.9	1.5	4.5	5.8	5.6	4.5	4.2	4.5	4.1	3.7	2.1	0.6	1.6	0.3	0.4	1.76	5.83	
Dir	S	SW	SSE	W	SW	WNW	WSW	WNW	NW	NNE	NNE	WSW	WSW	WSW	WNW	W	W	W	WNW	WNW	N	E	NNE	ESE	W	WSW	
Spd	0.73	0.69	0.30	0.14	0.11	0.42	0.43	0.70	0.75	0.90	1.87	2.28	2.99	3.34	3.66	3.44	3.08	3.13	2.96	2.82	1.64	1.58	1.37	1.03	Diurnal Average		
Dir	E	ENE	E	NNE	NNE	NNE	NNE	N	N	ENE	ENE	E	ENE	E	E	ESE	ESE	E	ENE	ENE	ENE	E	E	ESE	Diurnal Maximum		
Spd	4.99	6.18	4.13	4.13	3.76	5.78	5.74	5.43	9.16	6.79	12.64	14.01	13.21	11.38	13.21	13.89	11.62	12.24	11.15	9.73	7.75	8.31	8.65	7.14	Diurnal Maximum		
Dir	67.28	80.36	53.40	68.91	70.52	67.80	60.20	56.24	217.40	206.89	97.32	117.19	105.67	99.77	110.13	196.80	98.43	92.47	89.25	66.34	95.49	107.85	119.43	61.28	Diurnal Maximum		
Maximum Speed Value: 14.0 kph on May 13 12:00																		Minimum Speed Value: 0.0 kph on May 18 08:00						Hours in Service:		744	
Maximum Daily Speed Average: 6.86 kph on May 13																		Minimum Daily Speed Average: 0.44 kph on May 26						Hours of Data:		744	
Maximum Diurnal Speed Average: 3.66 kph at hour 15																		Minimum Diurnal Speed Average: 0.11 kph at hour 5						Hours of Missing Data:		0	
Monthly Average Velocity: 1.543 kph 84.155 deg																		Speed Percentiles: P ₁ = 0.2 P ₁₀ = 0.7 Q ₁ = 1.3 Median = 2.7 Q ₃ = 5.2 P ₉₀ = 7.3 P ₉₉ = 12.3						Percent Operational Time:		100.0	
All monthly, daily, and diurnal averages have been calculated using vector methods																											
Frequency Distribution																											
Speed Range (kph)																											
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																				
North	44	5	0	0	0	0	49																				
NorthEast	141	51	0	0	0	0	192																				
East	84	75	13	0	0	0	172																				
SouthEast	19	19	2	0	0	0	40																				
South	32	11	2	0	0	0	45																				
SouthWest	83	15	0	0	0	0	98																				
West	100	3	0	0	0	0	103																				
NorthWest	40	5	0	0	0	0	45																				
Total	543	184	17	0	0	0	744																				



WCAS - Hinton
Summary of Hourly Averages

Relative Humidity (RH) - %
May 2015

Maximum Value: 92.18 % on May 18 07:00 Maximum Daily Average: 82.78 % on May 16																								Hours in Service: 744		
Minimum Value: 5.8 % on May 21 14:00 Minimum Daily Average: 28.34 % on May 13																								Hours of Data: 744		
Maximum Diurnal Average: 81.31 % at hour 6 Minimum Diurnal Average: 32.70 % at hour 15																								Hours of Missing Data: 0		
Monthly Average: 52.138 % Percentiles: P₁ = 7.1 P₁₀ = 14.5 Q₁ = 27.3 Median = 53.9 Q₃ = 77.3 P₉₀ = 86.8 P₉₉ = 91.9																								Hours of Calibration: 0		
Percent Operational Time: 100.0																										
Day	Hourly Period Ending At																								Daily Average	Daily Maximum
	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-May	68.2	71.5	71.6	73.7	79.2	79.6	76.9	74.6	81.1	87.3	88.5	80.8	71.1	56.8	52.6	34.3	28.4	28.9	34.7	37.9	36.6	37.0	46.8	47.1	60.21	88.45
2-May	49.7	58.6	64.4	69.4	74.1	75.4	68.7	61.2	38.8	32.1	36.5	32.6	29.1	25.8	26.6	25.6	26.7	27.9	27.4	30.0	35.4	49.5	62.9	74.1	45.93	75.44
3-May	80.6	81.4	82.1	80.5	81.0	83.1	79.0	65.5	48.9	32.1	25.4	23.0	22.2	20.2	15.3	12.7	11.3	12.1	14.4	24.0	29.8	45.5	53.1	60.5	45.15	83.14
4-May	65.3	68.1	70.6	74.6	75.4	76.8	76.4	74.0	68.7	59.9	48.9	36.3	28.5	26.2	28.6	32.0	30.5	28.8	28.0	31.0	39.1	45.9	50.5	68.5	51.36	76.83
5-May	86.1	86.4	87.6	84.4	85.3	87.0	83.8	82.5	78.0	77.1	71.7	69.3	74.4	80.6	80.7	79.5	81.7	84.1	81.4	80.3	79.1	79.3	79.0	78.0	80.72	87.65
6-May	76.0	72.8	76.3	81.3	86.0	85.7	84.2	73.7	75.0	76.8	71.4	61.4	57.0	53.5	50.8	48.8	49.6	52.8	47.9	48.7	59.0	74.4	81.1	83.4	67.82	86.01
7-May	86.3	87.6	88.4	88.8	89.3	89.6	86.6	67.6	54.1	46.9	41.7	41.8	56.7	71.3	75.4	78.7	78.4	78.6	80.3	85.0	86.9	89.2	90.1	90.8	76.25	90.82
8-May	91.3	91.5	91.7	91.8	91.9	92.0	91.6	89.5	80.0	62.9	48.9	31.2	29.2	27.0	24.3	24.7	23.0	22.2	25.8	33.6	48.6	61.6	61.8	68.0	58.50	92.01
9-May	72.5	80.0	83.3	85.6	86.8	86.5	77.9	60.2	44.5	34.3	22.5	18.6	16.9	15.4	14.1	13.3	13.1	14.1	16.1	16.4	24.1	42.3	54.9	66.2	44.15	86.79
10-May	67.0	72.6	77.7	81.0	82.8	85.4	78.8	65.9	43.8	36.2	29.7	25.8	23.4	20.3	17.9	17.1	16.8	17.0	19.5	25.0	32.8	38.1	40.2	41.1	44.00	85.45
11-May	43.6	51.6	60.2	67.6	73.5	77.5	65.9	50.3	35.7	30.1	26.6	22.7	17.3	14.8	14.5	13.5	13.8	12.4	13.4	14.5	17.7	24.0	28.5	31.0	34.20	77.49
12-May	33.5	46.9	59.6	63.2	68.0	73.6	65.0	48.3	32.5	25.7	20.6	12.0	9.0	8.1	7.2	6.7	6.8	7.7	8.6	11.1	17.8	23.5	26.7	28.7	29.61	73.58
13-May	33.0	39.3	42.3	52.9	64.1	68.6	58.3	38.0	30.0	24.3	15.3	13.1	12.7	11.4	10.4	9.8	10.3	11.7	15.7	18.3	21.2	23.7	25.5	30.1	28.34	68.61
14-May	39.4	41.5	46.5	58.9	65.4	70.0	62.1	48.1	43.0	34.9	29.3	24.2	21.7	21.4	25.2	30.9	43.0	41.5	41.4	40.5	43.7	54.8	65.7	72.1	44.39	72.13
15-May	79.3	84.2	86.5	88.0	88.6	89.4	88.0	69.1	55.5	42.2	28.4	19.3	17.2	18.3	22.2	26.9	24.1	27.3	33.6	41.6	47.4	52.6	54.6	59.1	51.80	89.44
16-May	63.8	65.3	68.2	72.3	72.3	75.2	77.3	84.4	88.4	88.8	89.4	88.3	86.9	87.8	88.3	86.8	87.7	86.5	87.0	87.3	87.7	88.0	89.0	90.0	82.78	89.96
17-May	90.9	91.5	91.8	91.9	92.0	91.9	91.3	87.2	83.6	82.7	78.0	70.8	59.5	58.7	56.4	55.3	53.4	51.4	50.2	54.9	61.7	75.6	82.7	86.3	74.57	91.99
18-May	88.0	89.2	90.2	90.9	91.5	91.9	92.2	91.4	68.5	56.8	48.3	41.7	38.0	34.5	30.7	30.0	27.9	26.3	22.9	22.8	25.5	29.2	30.1	36.4	53.97	92.18
19-May	48.0	59.2	68.6	74.2	77.7	81.8	73.8	61.4	42.9	34.6	29.2	23.8	18.6	13.7	10.6	8.9	8.4	8.2	8.7	11.7	16.5	19.8	22.0	24.4	35.27	81.81
20-May	37.7	48.1	58.9	64.4	71.6	73.7	63.2	51.5	42.0	31.8	24.9	20.2	15.8	15.2	12.8	10.2	10.1	9.9	10.2	10.4	16.0	23.1	26.0	28.8	32.34	73.74
21-May	42.9	55.3	66.4	70.3	74.1	77.3	67.0	50.0	38.3	28.5	19.4	11.2	8.2	5.8	5.9	7.1	7.6	7.1	8.0	9.3	15.7	22.3	30.5	44.9	32.21	77.34
22-May	55.5	63.9	68.2	71.4	72.7	76.2	67.5	49.5	38.1	25.1	19.2	12.5	10.1	9.5	9.2	9.2	8.2	7.1	9.1	12.7	18.6	27.3	40.1	50.6	34.64	76.25
23-May	59.3	62.9	69.1	74.9	77.4	77.8	68.6	51.8	36.7	25.3	16.5	9.2	8.9	9.0	7.9	7.3	7.1	7.4	8.3	9.3	12.9	20.1	24.5	34.6	32.78	77.79
24-May	46.1	53.7	61.2	65.2	69.3	67.4	58.8	45.8	32.1	28.0	25.9	19.2	16.6	17.2	17.2	20.8	18.9	15.3	21.9	29.4	31.2	35.9	41.4	41.0	36.64	69.26
25-May	48.4	61.6	66.7	73.6	75.7	76.6	67.0	57.5	47.7	36.9	27.7	23.1	16.1	11.8	14.8	15.5	12.2	11.2	13.6	21.5	28.2	35.4	37.1	39.9	38.33	76.62
26-May	41.8	49.0	69.3	66.6	72.0	73.0	69.9	66.8	51.1	39.7	31.0	42.4	47.4	33.3	39.6	49.6	65.2	48.6	45.2	51.6	60.6	73.6	80.5	84.0	56.32	83.96
27-May	86.7	86.8	88.2	88.9	89.4	89.9	89.5	74.3	56.4	44.6	33.8	26.5	30.1	42.4	48.7	74.7	69.9	67.6	59.3	59.6	62.5	70.3	74.5	77.7	66.34	89.86
28-May	83.2	84.4	84.9	85.3	85.0	83.8	82.0	85.8	82.7	82.3	80.9	87.0	84.0	79.3	75.9	74.4	75.3	74.3	71.1	71.0	73.5	74.5	75.5	74.2	79.60	87.04
29-May	62.3	61.2	78.3	86.1	87.1	87.1	85.3	83.1	81.4	81.0	80.2	79.7	78.3	77.6	76.0	75.7	75.5	76.8	77.8	76.7	77.2	77.5	78.0	77.0	78.20	87.14
30-May	77.9	79.5	82.1	83.5	84.7	85.4	79.6	65.7	63.2	61.1	55.3	48.9	42.8	36.9	34.6	32.0	38.4	44.2	66.2	78.8	85.8	84.2	85.0	88.6	66.01	88.60
31-May	88.7	89.4	90.0	90.5	90.9	91.1	91.4	89.0	75.6	64.7	51.7	32.7	24.0	21.0	19.4	18.4	17.3	18.5	18.7	22.3	28.4	35.8	55.7	66.9	53.84	91.41
64.28 68.88 73.90 77.15 79.83 81.31 76.37 66.58 56.08 48.86 42.48 37.07 34.57 33.06 32.70 33.23 33.57 33.14 34.40 37.65 42.62 49.48 54.65 59.48																								Diurnal Average		
91.26 91.53 91.79 91.94 91.99 92.01 92.18 91.43 88.39 88.76 89.40 88.34 86.93 87.78 88.26 86.75 87.71 86.50 86.97 87.34 87.69 89.23 90.06 90.82																								Diurnal Maximum		



WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Speed (WS) - kph
May 2015

Maximum Value: 7.74 kph on May 15 16:00		Maximum Daily Average: 3.78 kph on May 13		Hours in Service: 744																							
Minimum Value: 0.3 kph on May 19 07:00		Minimum Daily Average: 1.83 kph on May 26		Hours of Data: 744																							
Maximum Diurnal Average: 4.24 kph at hour 16		Minimum Diurnal Average: 1.25 kph at hour 4		Hours of Missing Data: 0																							
Monthly Average: 2.516 kph		Percentiles: P ₁ = 0.6 P ₁₀ = 1.0 Q ₁ = 1.4 Median = 2.2 Q ₃ = 3.4 P ₉₀ = 4.3 P ₉₉ = 6.1		Hours of Calibration: 0																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	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-May	1.4	1.4	1.6	1.6	1.6	1.8	1.5	1.9	1.6	1.8	1.7	1.9	2.5	2.5	2.4	2.6	6.0	5.1	2.6	2.5	2.1	1.9	1.7	1.5	2.20	6.03	
2-May	2.5	1.6	1.5	1.3	1.0	1.4	1.5	1.3	3.0	3.1	3.1	4.0	3.9	3.9	5.2	4.5	4.3	3.1	3.0	4.4	1.9	1.8	1.6	1.3	2.68	5.18	
3-May	1.2	1.6	1.2	1.1	0.8	1.1	1.2	1.5	1.9	4.4	4.3	3.4	2.6	2.2	5.3	5.8	5.3	3.6	2.7	1.4	1.4	1.1	1.2	1.1	2.39	5.82	
4-May	1.0	1.1	1.0	1.4	2.0	2.2	1.8	1.5	2.3	2.4	3.5	4.2	4.2	4.2	3.5	4.1	4.5	5.0	4.6	3.9	2.4	1.8	1.9	4.9	2.89	5.02	
5-May	1.8	3.0	1.3	2.2	2.2	1.6	1.4	1.5	1.8	2.0	1.8	2.5	3.2	2.1	2.3	2.0	2.2	2.0	2.5	1.9	1.6	1.7	1.7	2.1	2.02	3.15	
6-May	2.5	3.1	1.5	1.7	1.8	2.1	2.0	2.1	2.1	2.0	2.2	3.3	3.4	3.7	3.0	3.7	3.2	2.6	2.5	1.9	1.1	1.1	1.1	0.8	2.26	3.69	
7-May	0.8	0.3	0.8	0.7	0.8	1.0	2.0	3.6	4.6	3.7	4.2	4.0	3.8	2.6	3.8	4.2	3.3	3.8	3.0	2.4	1.4	1.4	1.1	1.0	2.44	4.64	
8-May	0.9	0.9	0.9	0.9	1.2	0.3	0.7	1.5	2.0	4.0	3.2	4.1	4.2	4.0	5.2	3.7	3.1	3.5	3.6	1.3	1.6	1.5	1.4	1.2	2.29	5.17	
9-May	1.1	1.0	1.3	1.2	1.7	1.3	0.8	1.4	2.0	2.3	2.7	3.2	3.2	2.8	3.5	4.3	3.2	1.9	1.6	2.7	2.3	1.7	2.0	1.6	2.12	4.31	
10-May	1.9	1.1	1.1	1.3	1.7	1.6	1.8	1.4	1.5	1.9	2.9	3.4	5.1	3.9	4.3	3.6	3.9	4.0	4.0	3.8	3.5	3.0	2.3	2.4	2.73	5.09	
11-May	1.7	1.3	1.1	1.0	1.0	0.8	0.9	1.6	2.1	3.0	4.0	3.7	3.9	4.7	4.1	4.3	4.3	4.1	3.9	3.5	2.7	2.5	2.6	2.8	2.73	4.71	
12-May	2.0	1.1	1.2	1.0	1.0	0.7	1.0	1.6	2.3	2.6	5.0	6.0	5.8	5.7	5.7	5.9	6.0	5.7	5.8	5.3	4.2	3.0	2.9	2.3	3.49	6.02	
13-May	2.4	1.8	1.7	1.7	1.0	1.1	1.1	2.0	2.6	4.5	6.1	6.3	6.2	5.9	6.5	5.5	5.3	5.7	5.2	4.4	3.8	3.5	3.2	3.2	3.78	6.48	
14-May	1.6	1.9	1.2	1.1	1.1	1.2	2.0	2.1	2.4	3.1	3.7	4.4	4.6	4.5	4.4	6.6	6.1	4.3	2.2	4.3	2.5	1.6	1.1	1.1	2.87	6.58	
15-May	0.8	0.7	0.6	0.8	0.7	1.2	1.1	1.3	1.7	2.5	3.4	2.5	2.8	5.4	5.9	7.7	3.1	3.6	3.5	3.5	3.6	1.9	2.1	1.9	2.60	7.74	
16-May	2.0	2.3	1.2	1.2	1.4	1.2	1.0	1.7	4.0	3.7	4.2	3.4	2.8	2.6	3.4	3.7	2.1	1.4	1.3	1.4	1.0	1.4	1.1	1.7	2.14	4.20	
17-May	1.6	1.7	1.7	2.0	1.7	2.2	2.2	2.7	2.4	3.3	2.9	3.8	4.6	4.0	3.8	3.5	3.9	2.4	3.3	3.0	2.2	1.3	1.6	1.0	2.61	4.57	
18-May	0.9	0.9	1.2	0.7	0.9	1.3	1.1	1.0	1.6	2.8	3.3	3.8	3.8	3.7	4.7	4.7	5.0	4.3	4.4	3.2	2.6	2.7	2.5	2.5	2.65	5.00	
19-May	1.5	1.3	0.7	1.3	1.0	0.7	0.3	1.6	2.1	2.3	3.0	3.6	3.9	4.4	5.5	4.6	4.6	4.1	4.4	4.0	2.6	2.1	2.7	2.1	2.68	5.46	
20-May	1.8	1.4	1.2	1.0	0.7	0.5	1.1	1.5	1.8	2.0	1.9	2.8	2.8	3.4	3.5	4.4	4.1	3.9	3.6	2.8	2.1	1.6	1.9	1.5	2.22	4.38	
21-May	1.1	1.3	1.2	1.2	1.0	1.2	1.4	1.6	1.9	2.2	2.0	2.7	3.3	2.9	3.4	3.6	3.7	4.0	3.3	2.7	2.3	1.4	1.4	1.3	2.16	4.02	
22-May	1.2	1.4	1.3	1.0	1.6	1.0	1.2	1.7	1.7	2.4	2.8	4.1	3.9	4.2	4.3	3.9	4.2	3.9	3.2	2.5	2.1	1.0	1.0	1.1	2.35	4.33	
23-May	1.2	1.3	0.6	0.7	1.3	1.1	1.0	1.3	1.3	2.4	4.8	4.4	5.3	4.7	4.6	5.1	4.7	4.3	4.2	3.3	2.5	2.9	1.7	1.3	2.75	5.27	
24-May	1.4	1.0	1.4	1.1	0.7	1.0	1.3	1.7	1.9	2.7	2.5	1.8	2.1	3.4	6.0	6.0	2.1	3.8	3.0	2.4	3.0	2.8	2.1	4.7	2.49	5.97	
25-May	1.5	1.9	2.2	1.4	1.3	1.2	1.6	1.8	2.1	2.1	2.4	2.8	4.1	4.0	4.3	3.2	2.6	3.5	3.4	3.6	1.1	1.7	2.4	2.4	2.44	4.27	
26-May	1.3	1.4	1.9	2.7	1.3	1.0	0.8	1.2	3.5	3.4	2.8	2.3	2.4	1.9	2.5	3.2	1.6	1.8	2.1	1.8	0.7	0.5	1.0	0.8	1.83	3.46	
27-May	1.7	0.5	1.0	0.7	1.2	1.2	1.0	1.5	2.1	2.7	3.0	2.9	3.2	4.1	2.1	2.9	2.1	2.4	1.9	1.3	1.4	1.1	1.2	2.3	1.89	4.07	
28-May	1.2	1.5	1.0	0.7	1.4	2.4	3.5	2.8	2.6	2.7	2.9	2.7	3.3	2.8	2.9	2.7	2.1	2.1	2.3	2.9	2.3	2.2	2.3	2.7	2.34	3.54	
29-May	3.0	2.2	3.3	1.8	1.9	2.4	2.5	2.5	3.4	3.2	3.2	3.1	3.0	2.6	2.8	2.9	3.0	3.0	2.9	2.4	2.6	2.3	2.2	2.3	2.67	3.42	
30-May	1.6	1.5	1.2	1.1	1.6	2.0	2.0	2.1	2.0	2.1	2.2	3.4	3.8	3.6	4.3	4.0	5.6	4.2	4.0	3.6	2.3	2.9	1.7	2.1	2.71	5.62	
31-May	3.2	2.2	1.6	1.2	1.0	1.0	1.9	1.6	1.5	1.8	2.3	4.7	5.9	5.3	3.5	4.8	4.2	3.3	3.1	2.7	1.1	1.9	1.4	0.8	2.59	5.90	
		1.61	1.48	1.32	1.25	1.27	1.32	1.43	1.76	2.25	2.74	3.16	3.52	3.80	3.73	4.08	4.24	3.86	3.56	3.26	2.93	2.19	1.92	1.80	1.93	Diurnal Average	
		3.23	3.07	3.32	2.70	2.21	2.45	3.54	3.60	4.64	4.49	6.10	6.30	6.18	5.90	6.48	7.74	6.12	5.69	5.83	5.31	4.16	3.52	3.19	4.93	Diurnal Maximum	
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m ³ 24-hr 100 ul/m ³																											



WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Direction (WD) - deg
May 2015

Maximum Value: 106.77 deg on May 30 09:00																								Maximum Daily Average: 68.88 deg on May 26																								Hours in Service: 744	
Minimum Value: 16.4 deg on May 11 04:00																								Minimum Daily Average: 37.90 deg on May 17																								Hours of Data: 744	
Maximum Diurnal Average: 58.39 deg at hour 2																								Minimum Diurnal Average: 43.56 deg at hour 20																								Hours of Missing Data: 0	
Monthly Average: 51.006 deg																								Percentiles: P ₁ = 20.3 P ₁₀ = 29.7 Q ₁ = 35.7 Median = 46.0 Q ₃ = 63.4 P ₉₀ = 79.1 P ₉₉ = 101.2																								Hours of Calibration: 0	
																								Percentiles: P ₁ = 20.3 P ₁₀ = 29.7 Q ₁ = 35.7 Median = 46.0 Q ₃ = 63.4 P ₉₀ = 79.1 P ₉₉ = 101.2																								Percent Operational Time: 100.0	
Day	Hourly Period Ending At																								Daily Average	Daily Maximum																							
	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-May	25.8	38.4	29.5	42.6	45.3	64.5	70.9	44.9	99.1	29.7	62.8	78.4	89.4	37.9	41.5	74.9	39.3	55.2	24.5	46.8	24.3	55.9	39.3	85.1	51.91	99.06																							
2-May	38.4	37.4	38.0	25.8	31.4	68.0	37.9	58.1	40.2	45.1	48.2	48.6	33.8	40.9	49.5	39.6	59.2	79.2	55.5	35.6	46.9	35.8	42.5	43.6	44.96	79.20																							
3-May	89.6	62.0	35.7	28.3	21.7	75.8	52.5	30.0	36.0	48.0	54.7	94.5	30.0	74.8	75.5	43.1	44.2	48.7	39.6	51.2	61.0	82.4	88.3	43.1	54.62	94.48																							
4-May	40.1	22.1	20.3	23.0	55.6	42.1	102.7	51.0	29.7	37.3	33.2	39.1	29.2	36.6	32.5	24.8	26.6	31.3	30.9	27.1	69.5	70.2	36.3	65.7	40.70	102.71																							
5-May	94.2	91.3	80.1	29.7	53.5	46.2	33.8	43.9	44.9	27.8	99.3	45.6	26.6	99.7	101.6	59.8	56.1	48.1	44.8	86.4	71.3	83.2	58.3	66.0	62.18	101.55																							
6-May	37.9	45.7	79.4	51.0	33.6	29.6	44.5	86.1	62.5	62.5	78.7	43.8	36.6	42.1	52.8	38.4	35.3	36.9	45.1	70.6	55.2	39.5	60.2	35.3	50.13	86.09																							
7-May	37.1	85.8	26.1	44.1	38.8	18.8	37.3	43.5	26.7	54.6	55.5	56.1	48.6	71.6	38.7	45.1	33.7	93.9	72.3	53.7	49.5	75.5	106.1	73.0	53.59	106.10																							
8-May	35.0	43.7	44.9	45.1	28.7	85.1	39.9	31.1	37.1	48.2	53.9	45.4	52.3	24.7	60.5	41.0	48.9	53.7	68.4	76.2	84.2	85.7	26.9	40.5	50.04	85.69																							
9-May	33.2	57.3	83.1	97.3	56.0	31.0	18.5	35.2	42.4	55.0	60.3	43.5	59.3	86.5	64.0	87.1	46.3	70.3	76.5	59.7	54.2	77.7	94.5	48.2	59.88	97.30																							
10-May	63.5	74.4	87.2	56.4	64.7	43.6	73.9	42.6	62.4	34.9	37.1	31.7	39.9	40.7	43.4	37.0	36.5	40.2	27.1	22.9	34.5	45.2	31.9	42.7	46.43	87.18																							
11-May	40.8	31.2	20.9	16.4	36.8	71.7	91.1	70.9	48.8	33.1	51.1	36.7	45.4	46.5	47.6	47.8	35.7	29.8	31.1	28.1	33.7	36.8	32.1	37.8	41.74	91.07																							
12-May	35.9	39.2	26.4	51.2	93.1	63.2	31.4	59.5	49.2	30.8	38.2	33.6	30.4	32.8	35.6	31.2	34.4	31.3	32.1	35.9	43.6	44.6	29.7	18.9	39.68	93.08																							
13-May	66.8	35.1	34.7	74.8	81.5	80.1	43.2	30.5	40.6	55.3	31.3	30.0	35.7	35.7	30.7	35.6	30.5	32.3	28.7	29.2	25.9	23.3	20.4	32.5	40.18	81.51																							
14-May	23.9	20.6	17.6	57.9	25.4	34.2	66.2	32.2	56.4	58.2	43.0	63.2	53.6	42.8	30.3	35.3	61.2	58.9	76.5	42.6	38.7	80.0	55.1	64.7	47.44	80.00																							
15-May	65.0	72.0	52.6	59.8	74.0	58.7	57.1	91.2	51.1	69.1	67.9	77.4	90.5	48.4	34.2	29.0	46.4	40.4	39.4	27.8	79.5	96.4	50.8	99.7	61.60	99.74																							
16-May	54.6	38.3	36.8	85.6	83.7	36.0	39.4	45.4	72.2	43.9	41.5	44.4	30.9	27.3	26.0	30.6	39.1	46.4	28.7	35.6	46.2	41.5	27.9	32.5	43.10	85.57																							
17-May	17.3	17.7	30.0	21.0	24.5	25.0	29.8	27.2	24.3	32.6	34.1	53.3	34.1	32.2	48.4	33.1	46.8	79.4	36.9	21.3	59.7	39.8	68.7	72.5	37.90	79.38																							
18-May	55.6	72.6	75.7	37.8	57.0	36.3	48.4	101.9	91.7	62.8	36.2	39.4	36.1	43.4	36.0	30.8	37.9	36.7	29.8	25.2	34.0	50.9	71.2	59.4	50.29	101.92																							
19-May	50.5	74.4	78.4	65.0	56.6	45.0	73.7	63.1	40.8	37.5	34.7	36.1	42.4	47.4	34.6	36.7	36.7	30.5	33.7	34.8	44.8	35.0	71.6	53.2	48.22	78.42																							
20-May	67.8	49.6	39.7	91.9	65.1	37.6	55.7	76.0	73.8	81.4	72.9	87.9	53.7	42.9	50.4	47.4	45.1	37.9	33.3	27.0	24.2	37.7	48.4	48.8	54.01	91.92																							
21-May	58.3	91.9	39.9	35.5	49.4	24.3	43.2	41.2	50.0	59.6	99.4	76.6	68.7	61.3	52.2	53.8	35.6	36.9	31.3	22.6	32.7	47.5	73.9	64.4	52.09	99.41																							
22-May	102.5	70.5	44.4	87.4	72.2	44.8	34.2	46.0	42.6	85.4	39.7	52.6	52.1	45.0	36.3	42.8	44.8	52.4	34.6	23.7	32.7	41.8	44.1	82.5	52.30	102.51																							
23-May	100.7	91.1	76.8	62.0	27.7	20.7	42.4	76.5	94.8	55.5	49.2	40.7	48.4	40.8	46.0	40.8	38.5	37.2	29.2	24.9	20.8	29.7	34.8	79.7	50.37	100.71																							
24-May	85.8	95.1	59.2	81.5	62.4	57.6	55.0	58.7	49.3	61.6	55.4	95.4	75.3	57.8	26.2	69.8	57.7	33.7	77.8	75.8	40.3	50.9	86.3	60.1	63.69	95.36																							
25-May	56.4	65.8	38.6	31.1	40.8	50.6	53.6	46.0	52.9	69.4	72.0	73.5	58.9	66.4	55.4	41.5	49.9	45.3	38.9	42.5	49.1	53.4	64.1	37.0	52.21	73.49																							
26-May	77.6	95.2	90.3	71.4	75.8	60.0	44.2	62.9	40.4	31.9	69.3	76.6	77.2	57.8	31.0	89.9	48.9	89.9	98.2	72.3	72.6	54.2	93.4	72.1	68.88	98.20																							
27-May	76.1	58.7	92.5	38.9	65.7	32.2	58.4	43.6	50.9	52.9	60.1	66.4	64.8	36.7	68.7	85.6	88.0	45.7	62.5	45.2	67.8	54.1	41.4	72.7	59.57	92.53																							
28-May	78.8	99.6	88.1	31.9	63.1	39.5	34.9	37.5	32.7	33.3	40.9	46.7	41.3	54.2	49.3	48.8	48.5	40.1	32.1	29.7	44.6	44.3	44.9	40.6	47.73	99.62																							
29-May	53.0	29.0	59.6	69.8	22.4	21.8	33.9	25.7	25.7	35.0	45.3	39.7	25.2	31.6	31.5	30.5	36.1	35.6	43.7	44.7	48.8	47.9	46.6	34.6	38.24	69.78																							
30-May	27.1	46.0	31.0	54.8	70.6	52.5	34.6	37.2	106.8	65.3	87.9	62.6	46.6	41.8	35.2	28.7	39.4	40.9	53.5	69.0	81.1	76.0	86.6	43.1	54.93	106.77																							
31-May	77.7	58.3	79.3	32.4	62.6	53.2	48.0	40.8	50.0	72.7	79.7	61.3	60.1	55.6	48.4	63.6	55.1	50.7	52.8	62.1	86.1	74.1	105.1	72.2	62.57	105.08																							
57.00 58.39 52.81 51.66 52.89 46.76 49.36 50.99 52.45 50.66 55.91 55.50 48.94 48.51 45.62 46.58 44.59 48.05 45.47 43.56 50.25 55.19 57.47 55.56																								Diurnal Average																									
102.51 99.62 92.53 97.30 93.08 85.15 102.71 101.92 106.77 85.40 99.41 95.36 90.50 99.72 101.55 89.88 87.97 93.91 98.20 86.38 86.08 96.39 106.10 99.74																								Diurnal Maximum																									
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m^3 24-hr 100 ul/m^3																																																	

CALIBRATIONS

Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: May 13, 2015

Parameter: NO/NO₂/NO_x

Instrument: Teco 42i

Serial Number: CM13040041

Previous Calibration Date: April 15, 2015

Calibration: Routine

Calibration Equipment: SABIO 2010 sn # 04300810

Barometric Pressure: 26.60" Hg

Calibration Method: Std.Gas Dilution / GPT

Cylinder ID: FF 47744

Temperature: 21.0° C

Cylinder Concentration: 12.4 ppm NO 12.5 ppm NO_x

In Service: December 10, 2013

Technician: Dean Yustak

Instrument Settings	NO bkg ppb	NO _x bkg ppb	Pre-reactor bkg ppb	NO Coefficient	NO _x Coefficient	NO ₂ Coefficient	Monitoring Range
Previous	4.5	4.7	na	0.740	1.002	0.997	300 ppb
Current	4.5	4.7	na	0.750	1.005	0.997	300 ppb

NO	Final Zero: -0.1 ppb	Final Span: 195.9 ppb	As Found Correction Factor: 1.007
NO ₂	Final Zero: 0.8 ppb	Final Span: 2.0 ppb	As Found Correction Factor: NA
NO _x	Final Zero: -0.1 ppb	Final Span: 197.7 ppb	As Found Correction Factor: 1.016

Results of Linear Regression			Slope	Intercept	R ²
NO	R _c vs C _c	Previous	99.989830	-50.661010	0.999972
		Current	100.144200	25.149690	0.999970
	C _i vs C _c	Current	1.000000	0.000000	0.999970
NO ₂	R _c vs C _c	Previous	100.392600	-5.058926	0.999972
		Current	100.150500	-90.884530	0.999863
	C _i vs C _c	Current	1.000000	-0.000020	0.999863
NO _x	R _c vs C _c	Previous	100.276600	-55.480750	0.999972
		Current	99.852780	23.819290	0.999973
	C _i vs C _c	Current	1.000000	0.000030	0.999972

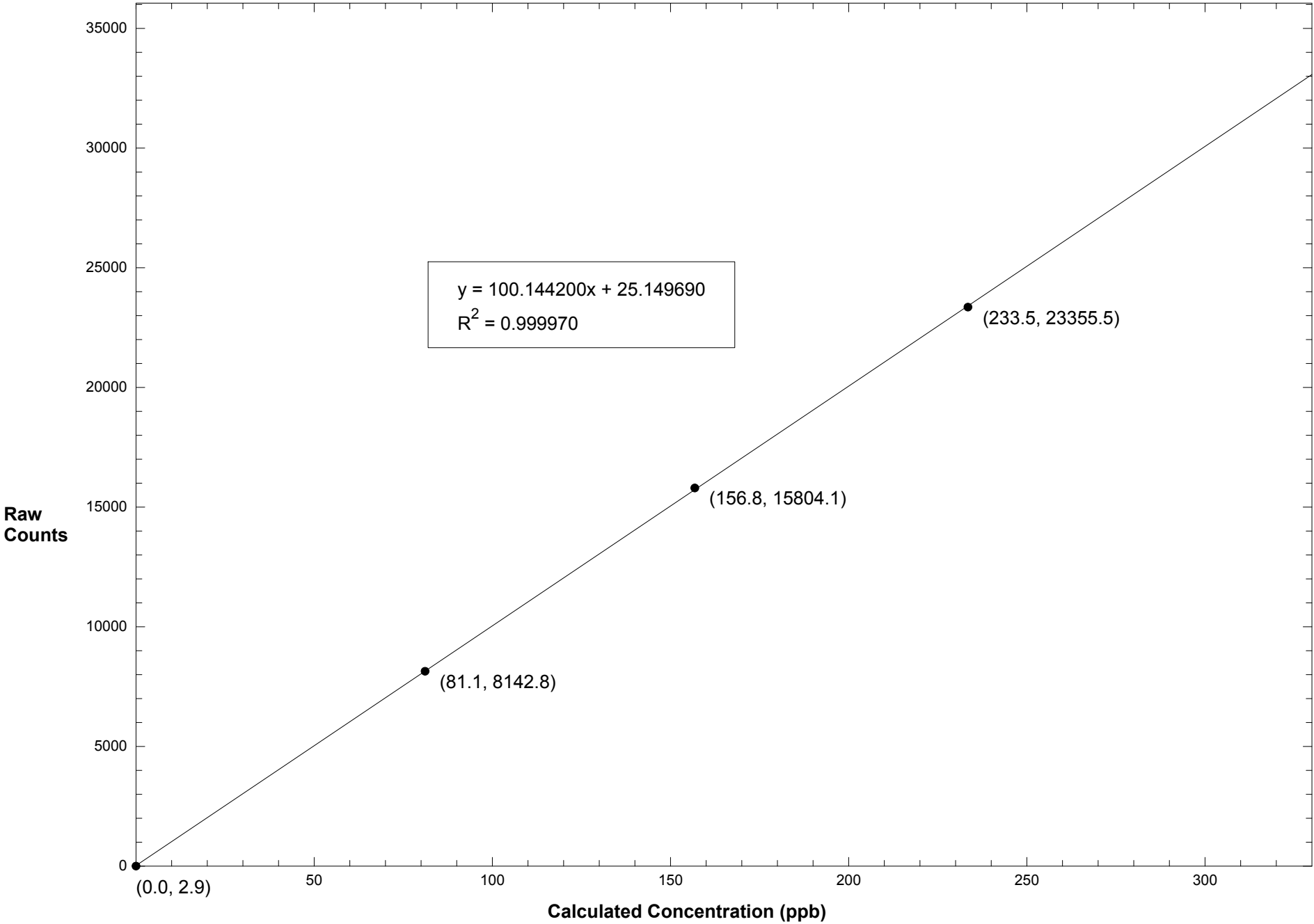
Comments:

Calibration Data Summary (Page 2)

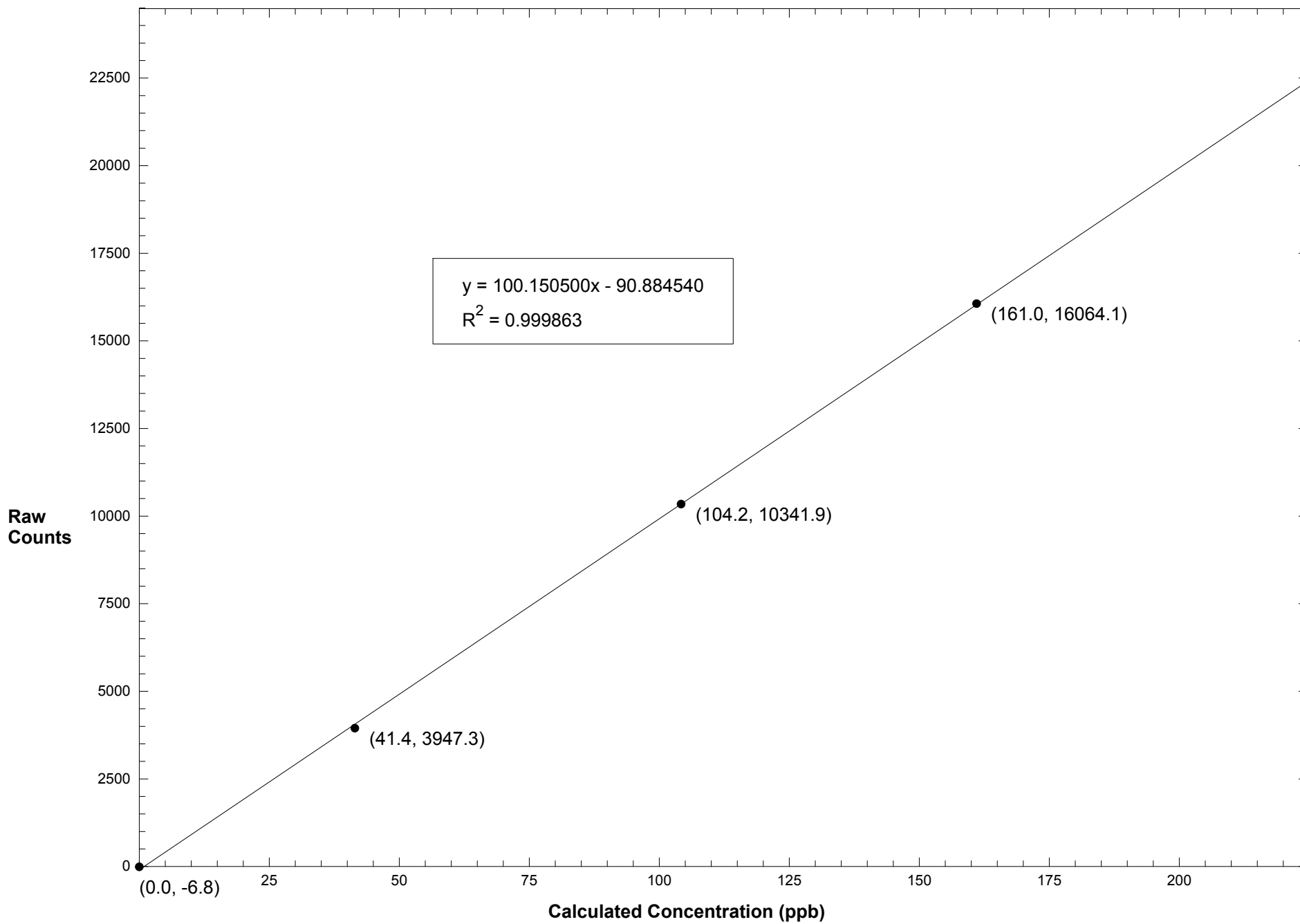
May 13, 2015 - Station 906

NO Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C_c (ppb)	Raw Count Output R_c	Indicated Concentration C_i (ppb)	Correction Factor C_c/C_i		
0.07720	4.023	233.5	23355.5	233.0	1.002		
0.05180	4.045	156.8	15804.1	157.6	0.995		
0.02659	4.038	81.1	8142.8	81.1	1.001		
0.00000	3.977	0.0	2.9	-0.2			
NO Calibration					Average Correction Factor:	0.999	
0.07720	4.023	235.4	23474.7	234.9	1.002		
0.05180	4.045	158.1	15877.1	158.8	0.995		
0.02659	4.038	81.8	8193.6	81.8	0.999		
0.00000	3.977	0.0	-3.2	-0.3			
NO _x Calibration					Average Correction Factor:	0.999	
Reference Concentration NO (ppb)	Raw Count Output NO	Calculated Concentration NO (ppb)	Calculated Concentration NO ₂ , C _c (ppb)	Raw Count Output R_c	Indicated Concentration C_i (ppb)	Correction Factor C_c/C_i	Converter Efficiency C_i/C_c
232.6	7191.8	71.6	161.0	16064.1	161.3	0.998	1.002
232.6	12882.4	128.4	104.2	10341.9	104.2	1.000	1.000
232.6	19165.4	191.1	41.4	3947.3	40.3	1.028	0.973
			0.0	-6.8	0.8		
						Average Correction Factor:	1.009
NO ₂ Gas Phase Titration						Average Converter Efficiency:	0.992
Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor				
NO	0.998	1.002	0.4				
NO ₂	1.000	0.998	-0.2				
NO _x	0.998	1.002	0.4				

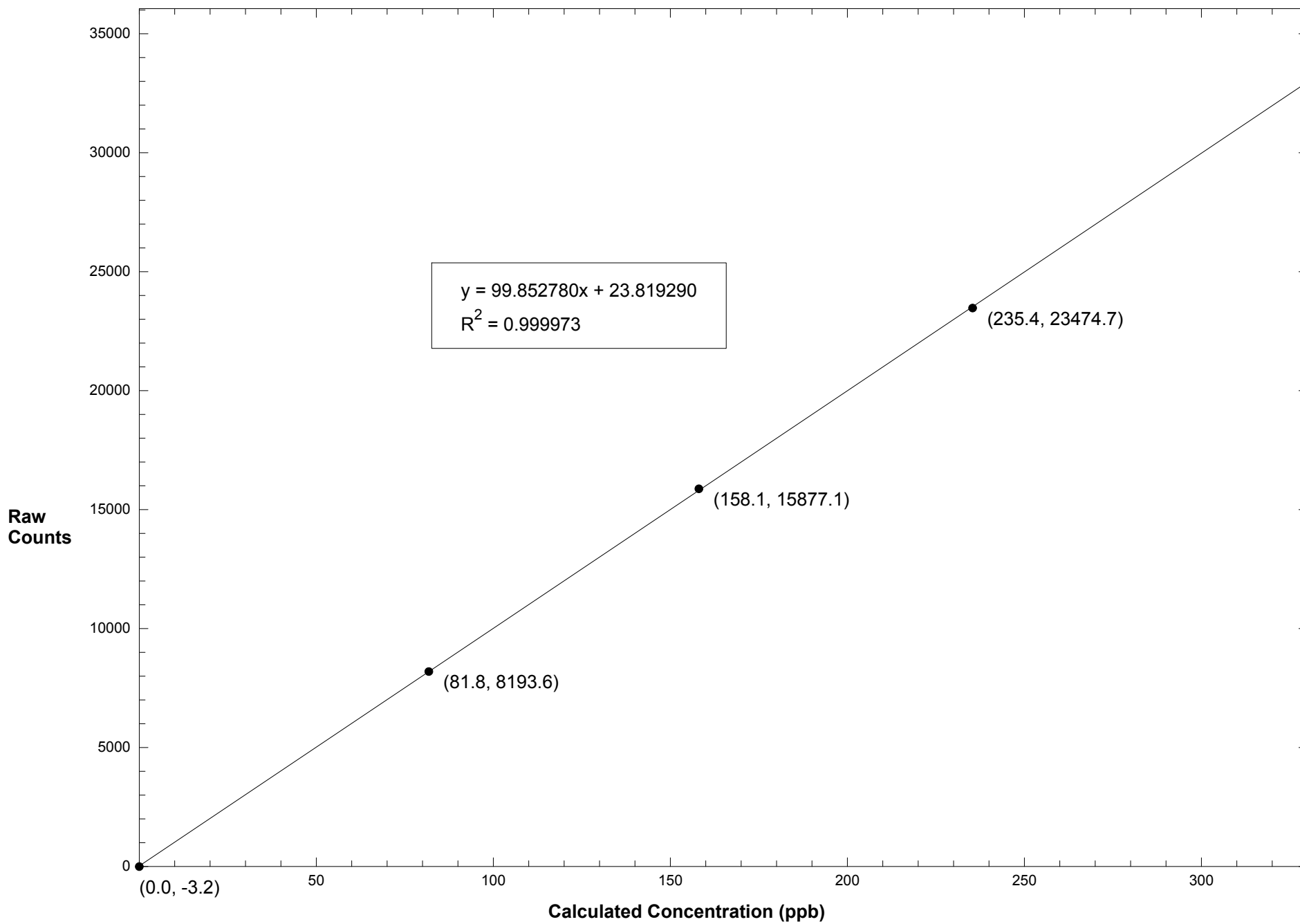
Station 906 NO May 13, 2015: Linear Regression



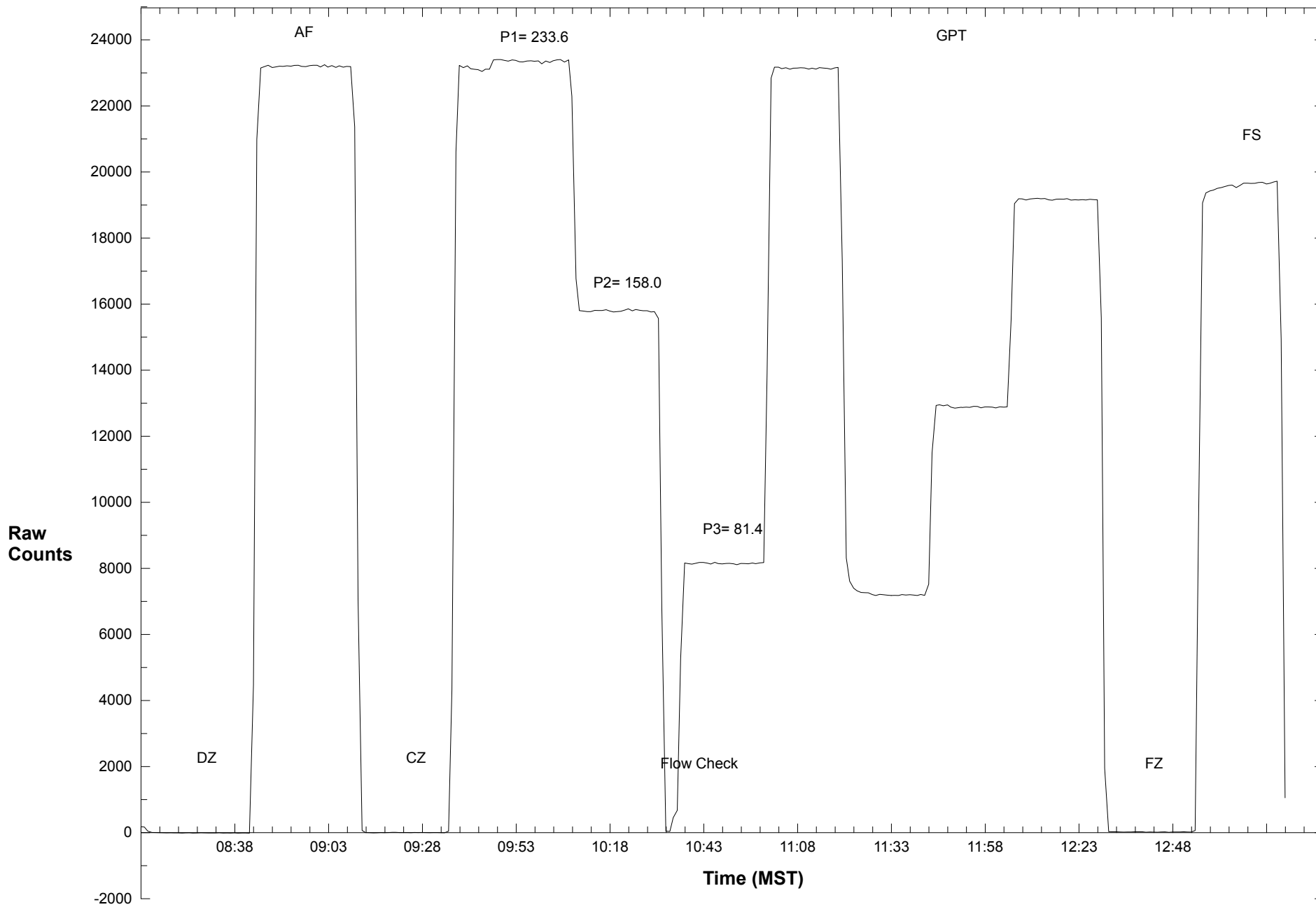
Station 906 NO2 May 13, 2015: Linear Regression



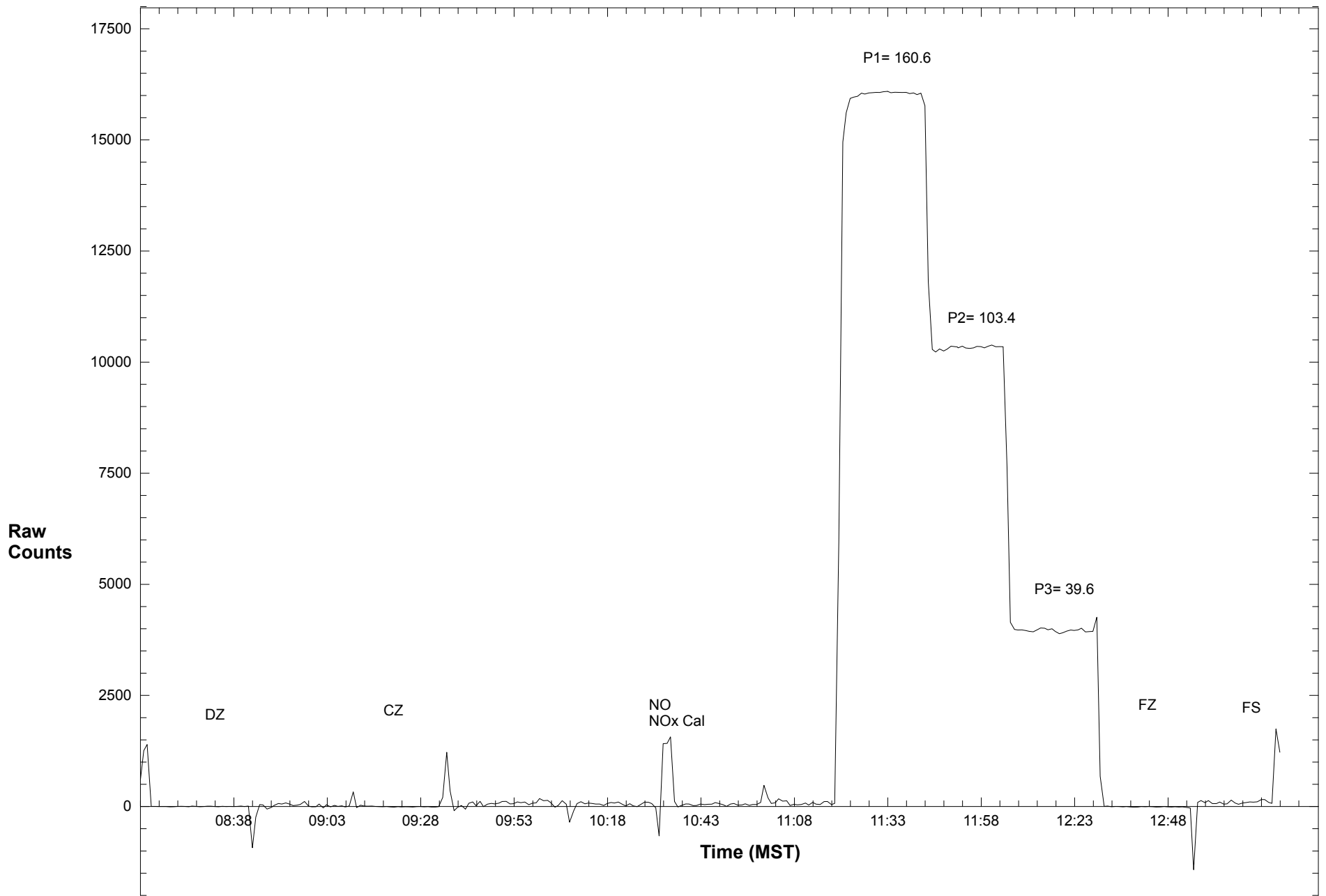
Station 906 NOX May 13, 2015: Linear Regression



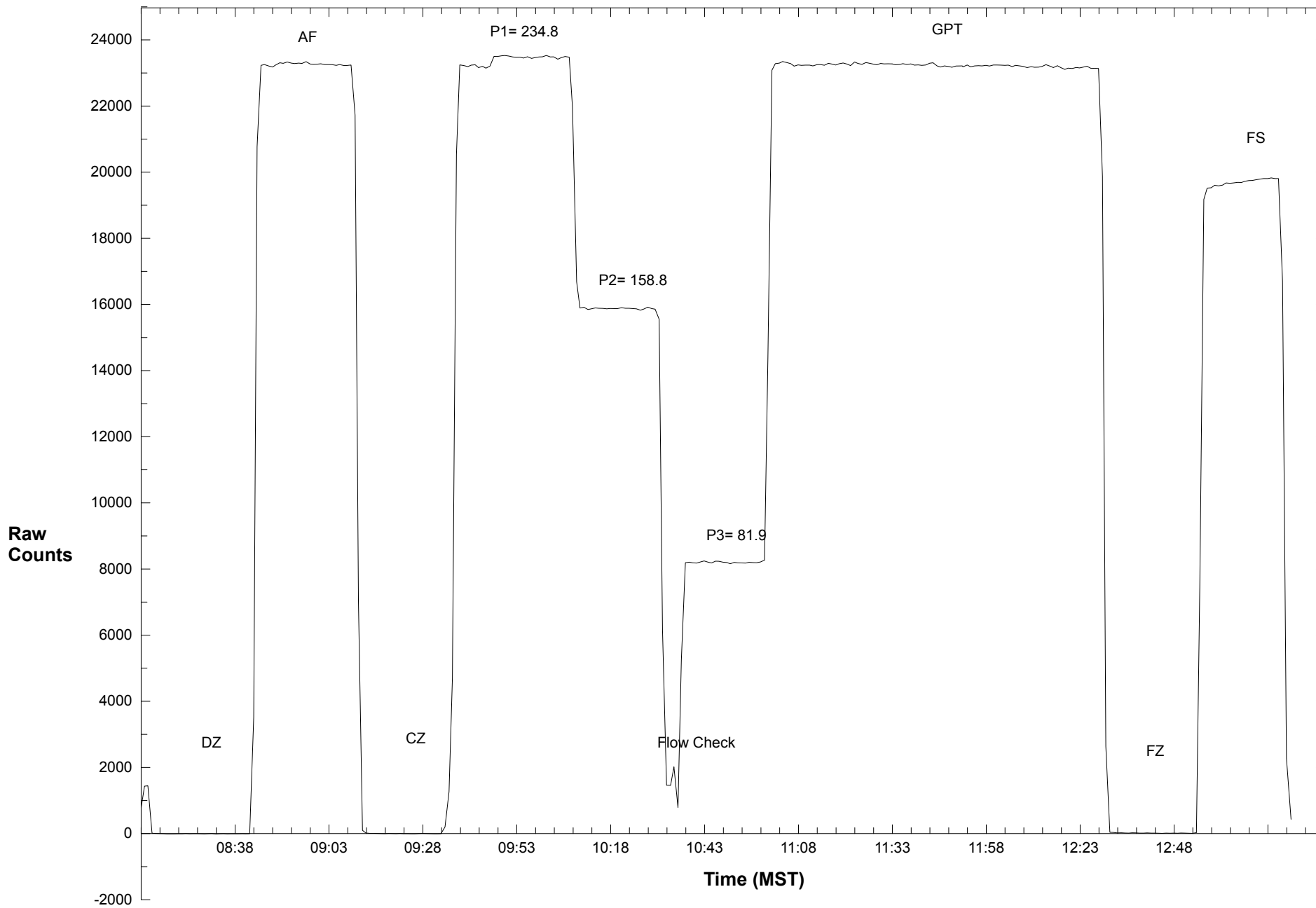
Station 906 NO May 13, 2015: Calibration Graph



Station 906 NO2 May 13, 2015: Calibration Graph



Station 906 NOX May 13, 2015: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton
 Calibration Date: May 13, 2015
 Parameter: O₃

Instrument: Teco 49i

Serial Number: 1136451325

Previous Calibration Date: April 15, 2015

Calibration: Routine

Calibration Equipment: 2B Tech 306 SN-135

Barometric Pressure: 26.60" Hg

Calibration Method: Certified Ozone Generator

Temperature: 21.0° C

Technician: Dean Yustak

Instrument Settings	Background	Coefficient	Monitoring Range
Previous	0.0	1.392	500 ppb
Current	0.4	1.335	500 ppb

Final Zero: -1.5 ppb

Final Span: 346.3 ppb

As Found Correction Factor: 0.967

Calibration System Flow Rate (LPM)	Calculated Concentration C _c (ppb)	Raw Count Output R _c	Indicated Concentration C _i (ppb)	Correction Factor C _c /C _i
3.000	396.0	23710.9	396.0	1.000
3.000	253.0	15137.6	252.7	1.001
3.000	104.0	6274.5	104.5	0.995
3.000	0.0	3.9	-0.3	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	59.807470	112.042800	0.999906
Current	59.815490	21.459160	0.999995
C _i vs C _c			
Current	1.000000	0.000033	0.999995

Average Correction Factor: 0.999

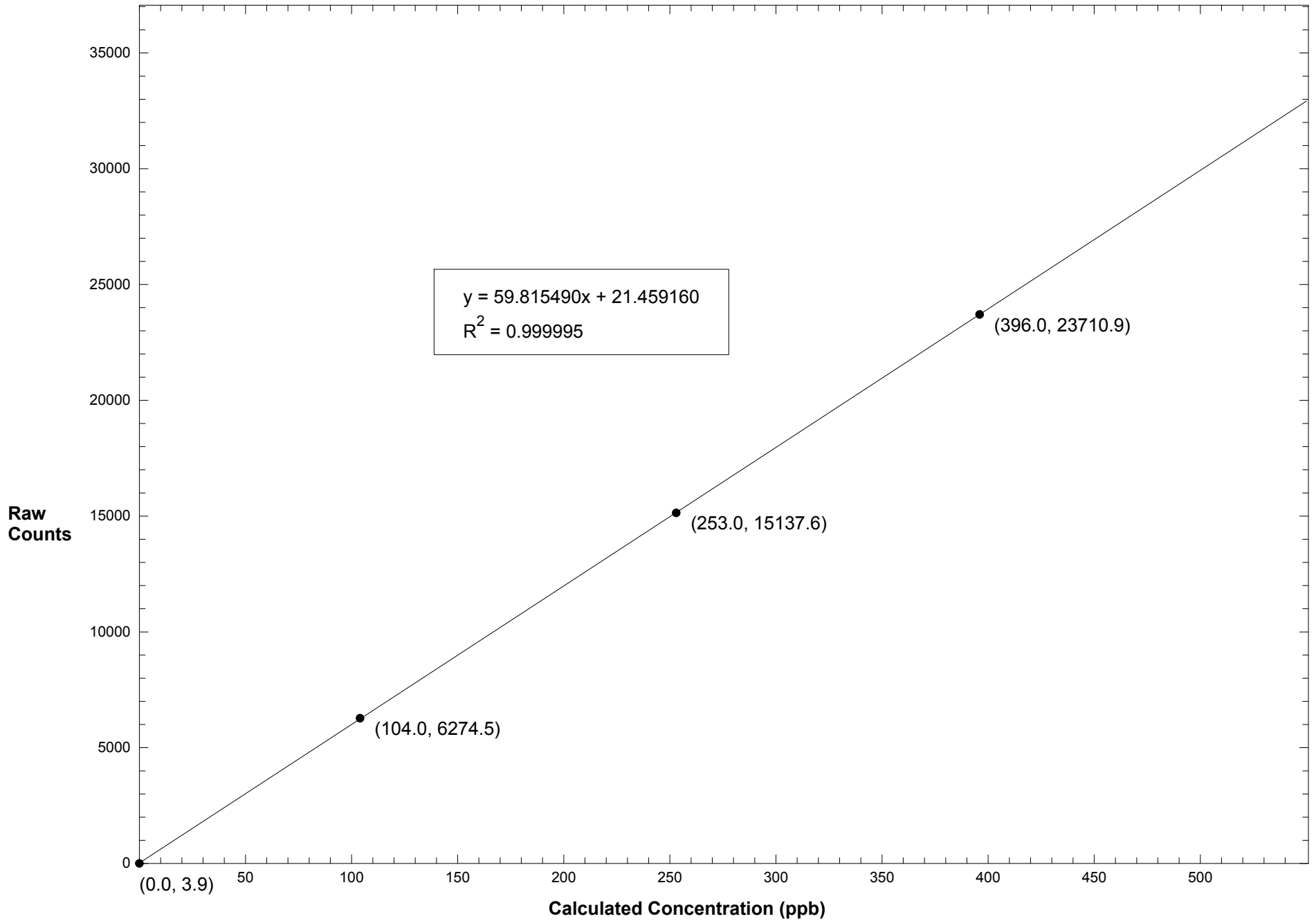
Previous Correction Factor: 1.002

Current Correction Factor: 1.000

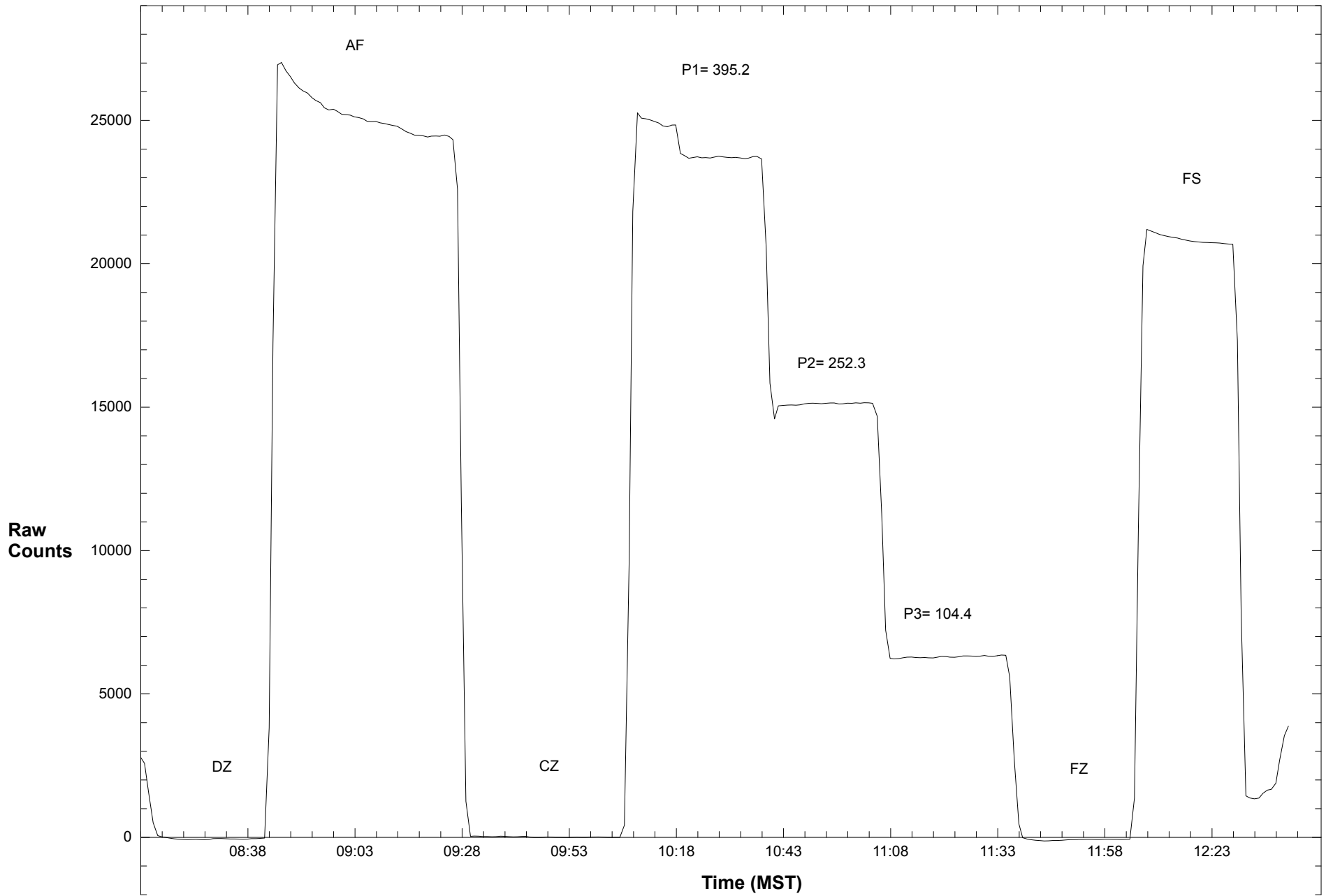
Percent Change of Correction Factor: -0.2

Comments:

Station 906 O3 May 13, 2015: Linear Regression



Station 906 O3 May 13, 2015: Calibration Graph



Calibration Data Summary
West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton
 Calibration Date: May 13, 2015
 Parameter: SO₂

Instrument: Teco 43i	Serial Number: CM 12499009	Previous Calibration Date: April 15, 2015
Calibration: Routine	Calibration Equipment: SABIO 2010 sn # 04300810	Barometric Pressure: 26.60" Hg
Calibration Method: Std.Gas Dilution	Cylinder ID: FF 47744	Temperature: 21.0° C
Cylinder Concentration: 5.93 ppm SO ₂	In Service: December 10, 2013	Technician: Dean Yustak

Instrument Settings	SO ₂ bkg ppb	SO ₂ Coefficient	Monitoring Range
Previous	25.6	0.974	200 ppb
Current	25.8	0.982	200 ppb

Final Zero: 0.0 ppm	Final Span: 88.2 ppm	As Found Correction Factor: 1.010
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SO ₂ Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C _c (ppm)	Raw Count Output R _c	Indicated Concentration C _i (ppm)	Correction Factor C _c /C _i
0.0772	4.023	111.7	16830.0	111.5	1.001
0.0518	4.045	75.0	11364.1	75.3	0.995
0.0266	4.038	38.8	5807.4	38.5	1.006
0.0000	3.977	0.0	-8.4	0.0	

Results of Linear Regression			
R _c vs C _c	Slope	Intercept	R ²
Previous	150.954800	-11.646790	0.999991
Current	151.073200	-15.456730	0.999971
C _i vs C _c			
Current	1.000000	-0.000011	0.999970

Average Correction Factor: 1.001

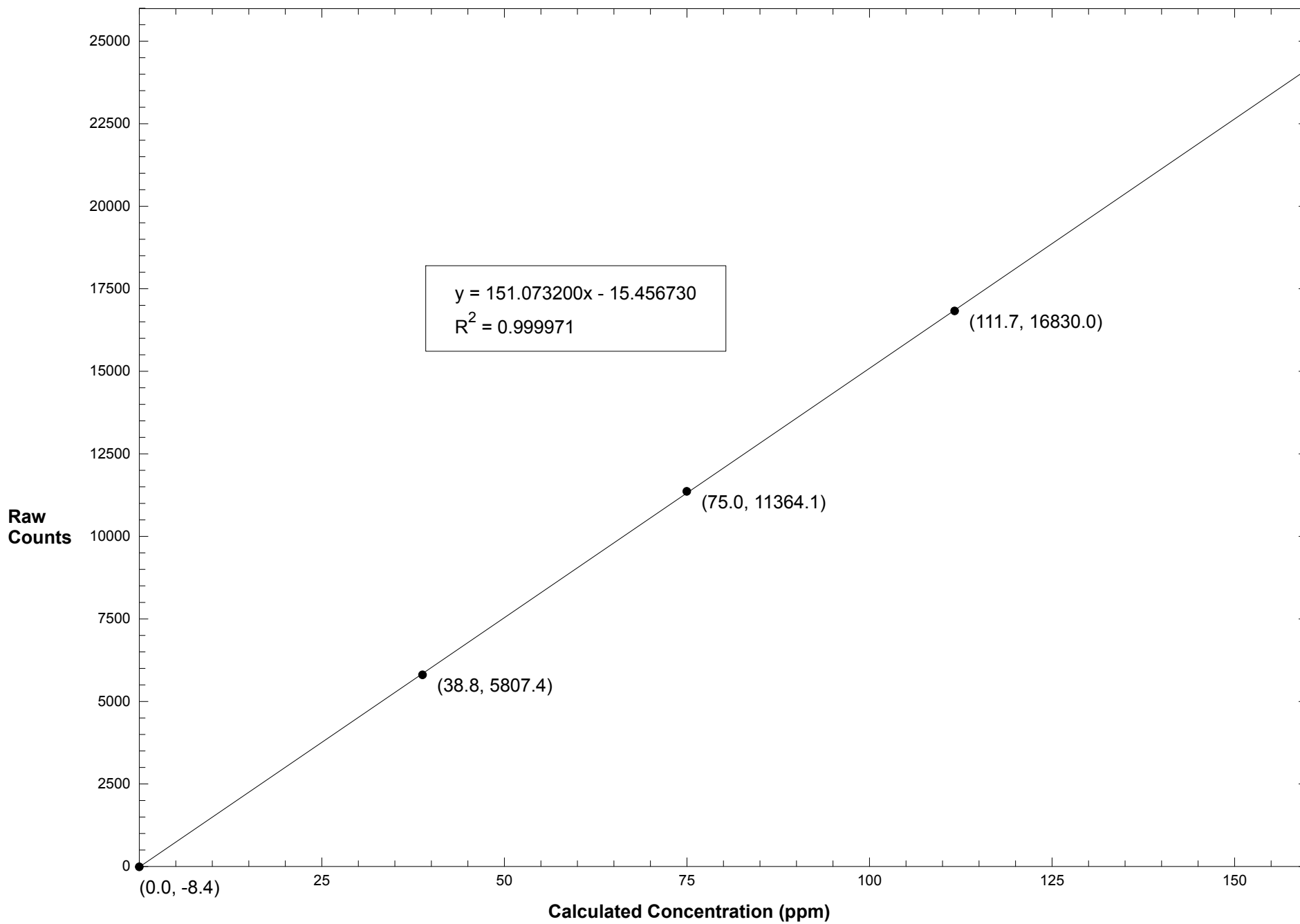
Previous Correction Factor: 0.999

Current Correction Factor: 1.001

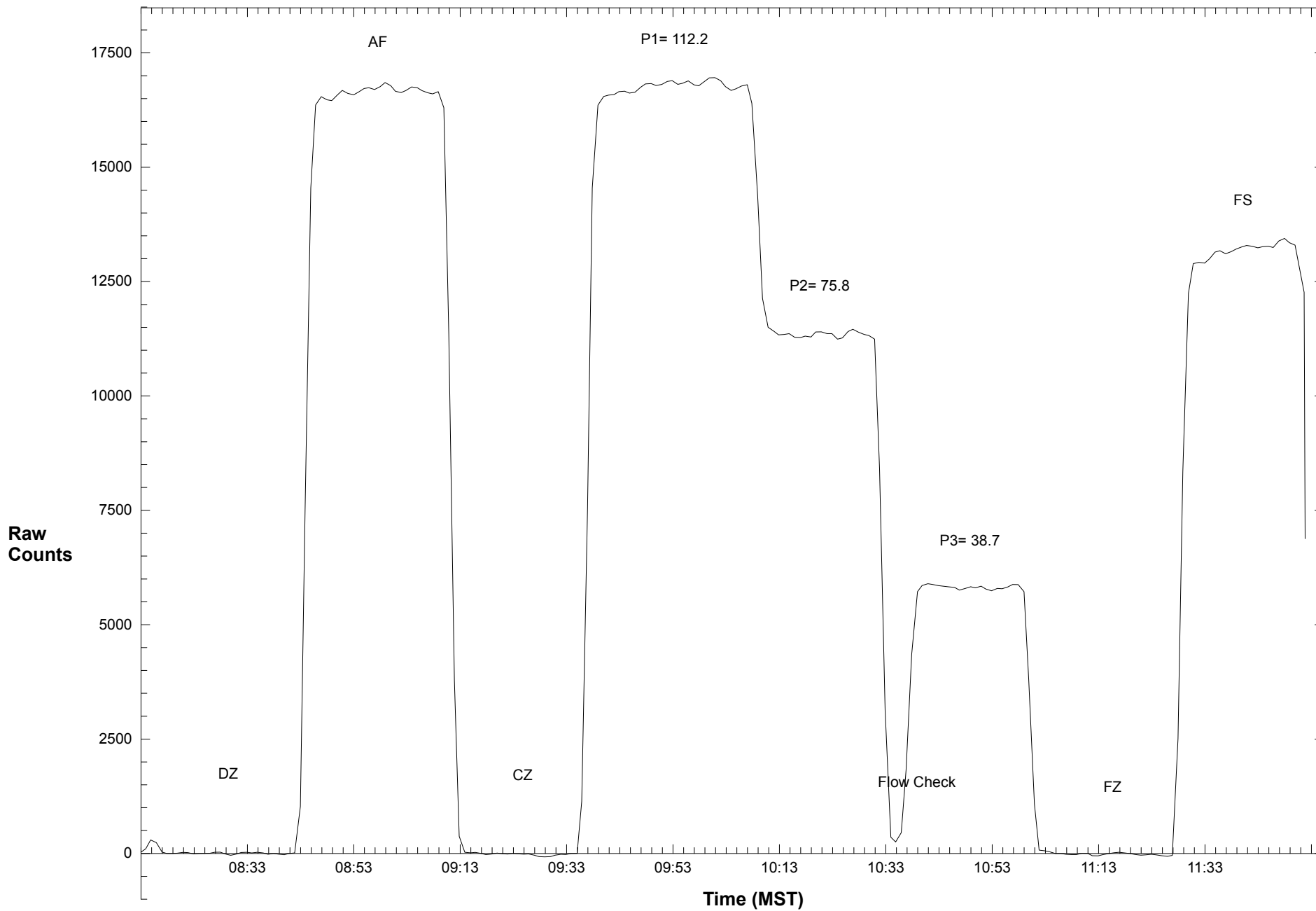
Percent Change of Correction Factor: 0.2

Comments:

Station 906 SO2 May 13, 2015: Linear Regression



Station 906 SO2 May 13, 2015: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton
 Calibration Date: May 13, 2015
 Parameter: TRS

Instrument: Teco 43C	Serial Number: 43CTL - 60324 - 326	Previous Calibration Date: April 15, 2015
Calibration: Routine	Calibration Equipment: SABIO 2010 sn # 04300810	Barometric Pressure: 26.60" Hg
Calibration Method: Std.Gas Dilution	Permeation Device ID: SV14360, 4.89 ppm H2S	Temperature: 21.0° C
Permeation Rate: 0 ng/min	In Service: February 5, 2013	Technician: Dean Yustak

Instrument Settings	H ₂ S bkg ppb	H ₂ S Coefficient	Monitoring Range
Previous	1.75	0.767	100 ppb
Current	1.74	0.762	100 ppb

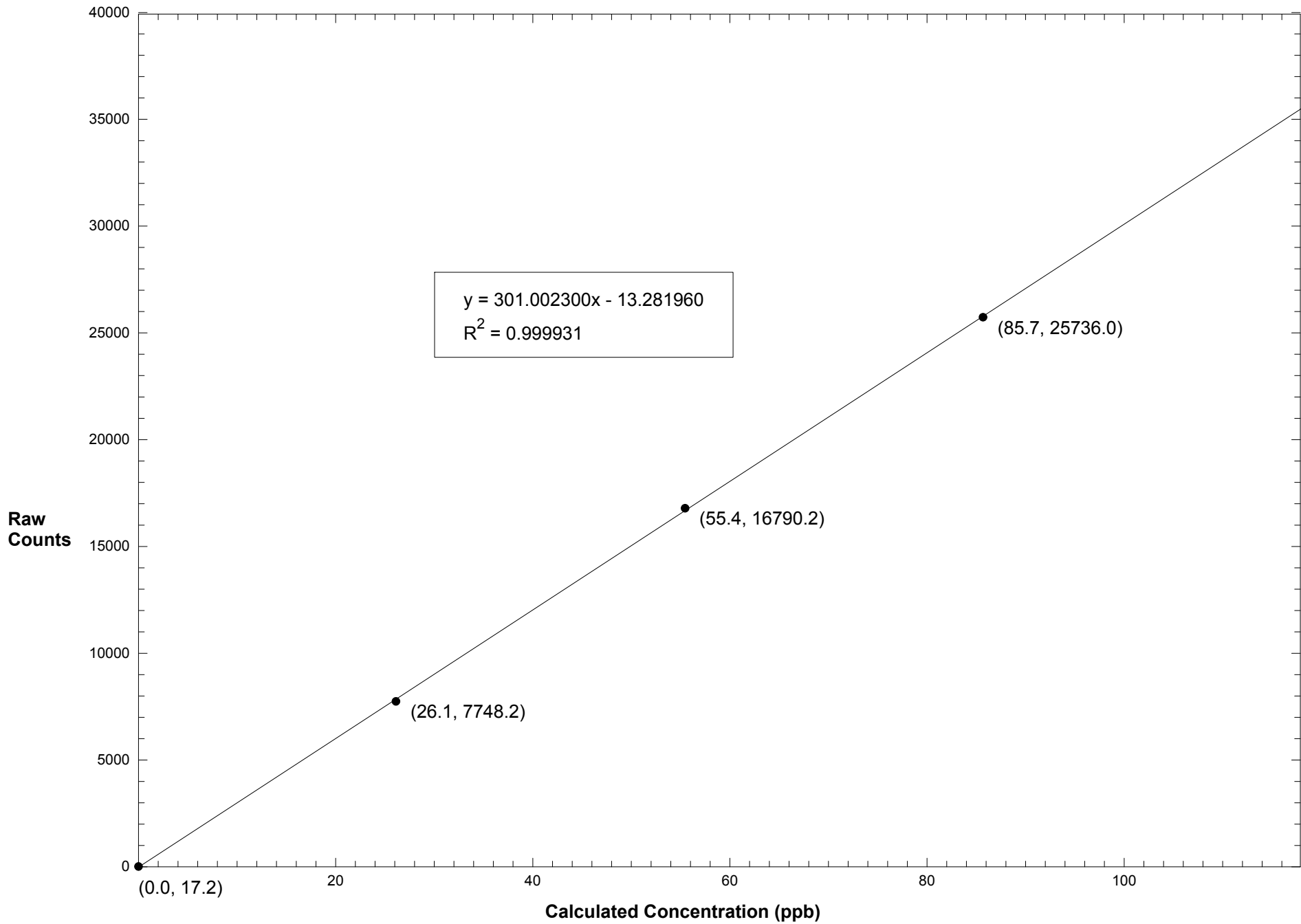
Final Zero: 0.1 ppb Final Span: 64.5 ppb As Found Correction Factor: 0.997

Calibration System Flow Rate (LPM)	Calculated Concentration C _c (ppb)	Raw Count Output R _c	Indicated Concentration C _i (ppb)	Correction Factor C _c /C _i
0.073	85.7	25736.0	85.5	1.002
0.047	55.4	16790.2	55.8	0.993
0.022	26.1	7748.2	25.8	1.013
0.000	0.0	17.2	0.1	

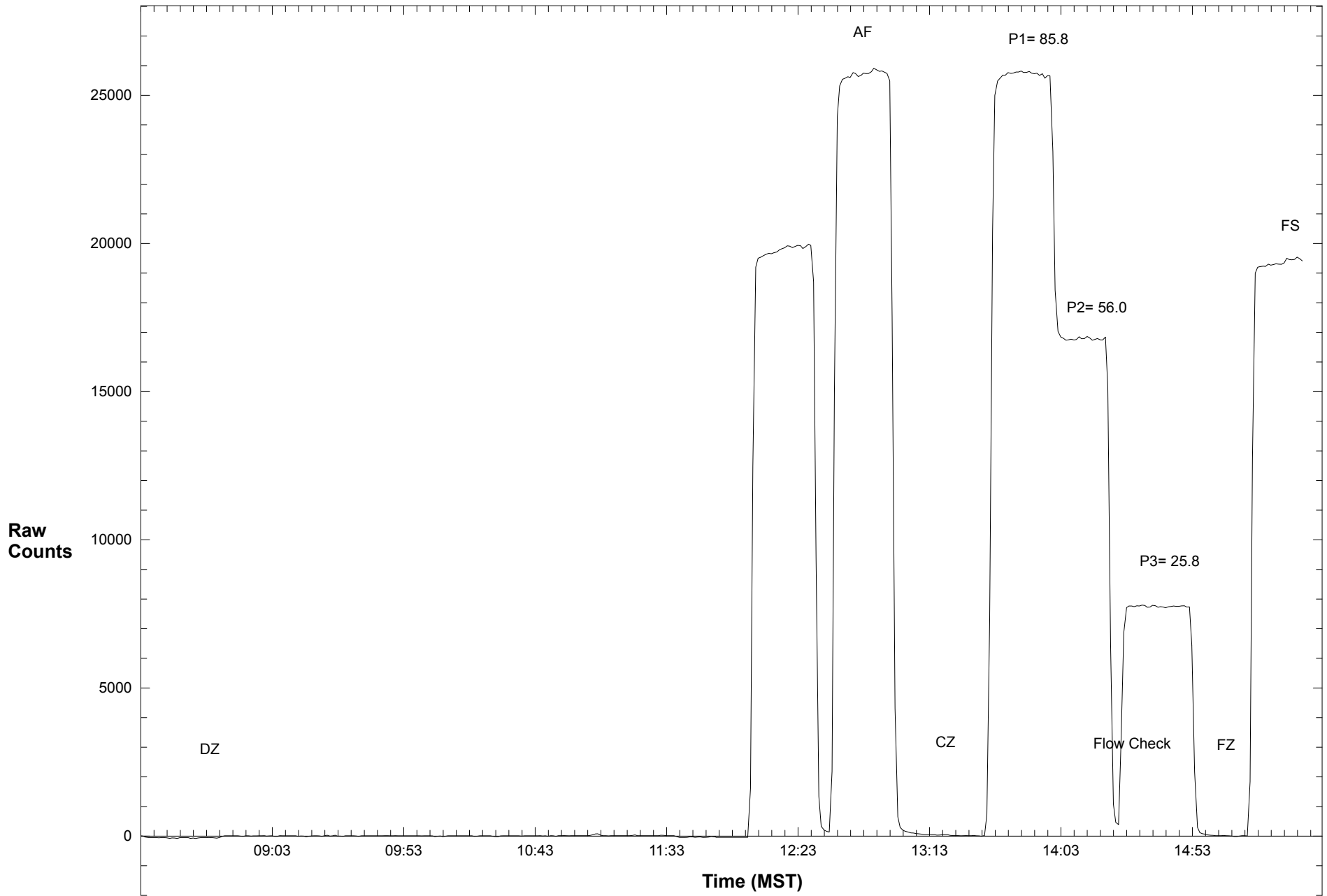
Results of Linear Regression				Average Correction Factor:	1.003
R _c vs C _c	Slope	Intercept	R ²		
Previous	300.817600	-73.806980	0.999911	Previous Correction Factor:	0.997
Current	301.002300	-13.281960	0.999931	Current Correction Factor:	1.002
C _i vs C _c				Percent Change of Correction Factor:	0.5
Current	1.000000	0.000010	0.999930		

Comments:

Station 906 TRS May 13, 2015: Linear Regression



Station 906 TRS May 13, 2015: Calibration Graph



WEST CENTRAL AIRSHED SOCIETY

**CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT**

**END OF REPORT
MAY 2015**