

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

AIR QUALITY MONITORING
March 2017
Monthly Report

Prepared by:

West Central Airshed Society
Drayton Valley, Alberta





April 15, 2017

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 March 2017
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 Gary Redmond, 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 in March in excess of the 1-hour average TRS guideline, as indicated in Air Monitoring Directive Section III.A.3. (a).

2. Operational times less than 90 percent:

All analyzers and meteorological equipment returned operational times greater than 90%.

3. Monitoring Notes:

AMS 906 (Hinton)

All analyzers and meteorological equipment returned uptimes of 100% for the month of March.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Patrick Andersen'.

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
	2017	March

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	0.014	2	0.002	0
PM _{2.5}	906	100.0	42.7 µg/m ³	0	16.48 µg/m ³	0
H ₂ S	906	100.0	0.005	0	0.001	0

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
MARCH 2017**

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													March 2017		24 Hour Average Max (ppm)
Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Min	Max	Percentile					Exceedences			
							P10	Q1	Median	Q3	P90	1-hour	24-hour		
TRS (ppb)	36	708	100.0	0.9	0.0	14.0	0.2	0.3	0.4	1.0	2.6	2	0	0.002	
SO ₂ (ppb)	36	708	100.0	0.5	0.0	5.5	0.0	0.0	0.2	0.6	1.5	0	-	0.002	
H ₂ S (ppb)	36	708	100.0	0.3	0.0	5.0	0.0	0.1	0.1	0.3	0.8	0	0	0.001	
O ₃ (ppb)	36	708	100.0	26.7	0.4	51.8	5.3	16.0	29.0	37.9	44.1	0	-	0.037	
NO (ppb)	38	706	100.0	5.8	0.0	137.8	0.3	0.7	2.0	4.5	12.5	-	-	-	
NO ₂ (ppb)	38	706	100.0	10.9	0.6	44.9	3.0	4.9	8.4	14.8	22.3	0	0	0.021	
NO _x (ppb)	38	706	100.0	16.8	0.7	164.6	3.9	6.7	10.9	19.2	34.9	-	-	-	
Particulate Matter 2.5 microns (µm ³)	0	744	100.0	7.1	0.0	42.6	1.3	3.4	6.0	9.2	14.1	0	0	16.48 ug/m3	
Wind Speed (kph)	0	744	100.0	3.7	0.1	15.4	0.6	1.3	3.2	5.4	7.2	-	-	-	
Temperature (°C)	0	744	100.0	-4.0	-28.0	11.3	-16.4	-12.1	-2.7	3.0	7.1	-	-	-	
Relative Humidity (%)	0	744	100.0	64.5	15.4	95.2	29.3	50.6	71.6	79.7	83.8	-	-	-	
Std Dev Wind Direction (deg)	0	744	100.0	50.1	18.4	101.3	27.7	34.1	45.0	64.6	83.1	-	-	-	
Std Dev Wind Speed (kph)	0	744	100.0	2.5	0.4	8.8	1.1	1.5	2.2	2.9	4.5	-	-	-	



WCAS - Hinton
Summary of Hourly Averages

Total Reduced Sulphur (TRS) - ppb
March 2017

Maximum Value: 13.90 ppb on Mar 22 11:00		Maximum Daily Average: 2.40 ppb on Mar 28		Hours in Service: 744																													
Minimum Value: 0 ppb on Mar 18 23:00		Minimum Daily Average: 0.22 ppb on Mar 4		Hours of Data: 708																													
Maximum Diurnal Average: 2.01 ppb at hour 11		Minimum Diurnal Average: 0.50 ppb at hour 3		Hours of Missing Data: 36																													
Monthly Average: 0.941 ppb		Percentiles: P ₁ = 0.1 P ₁₀ = 0.2 Q ₁ = 0.3 Median = 0.4 Q ₃ = 1.0 P ₉₀ = 2.6 P ₉₉ = 7.2		Hours of Calibration: 36																													
				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-Mar	1	2	2	Z	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.49	1.79						
2-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	1	1	3	3	3	2	4	3	4	3	3	3	1.53	3.72							
3-Mar	1	1	1	Z	0	1	1	2	2	1	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0.92	7.19							
4-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0.31							
5-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.28	0.40							
6-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.28	0.37							
7-Mar	0	0	0	Z	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.30	0.72							
8-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.29	0.46							
9-Mar	0	0	0	Z	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.39	0.85							
10-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.27	0.41							
11-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.24	0.37							
12-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.27	0.38							
13-Mar	0	0	0	Z	0	0	0	0	0	0	0	1	2	1	2	1	1	1	1	2	2	0	1	0	0.74	2.09							
14-Mar	0	0	0	Z	1	1	3	4	4	3	3	4	5	2	1	1	1	1	1	1	0	0	0	3	1.72	4.74							
15-Mar	3	0	0	Z	0	0	0	0	1	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0.44	2.96							
16-Mar	0	0	0	Z	0	0	0	0	0	0	0	1	1	0	0	1	1	0	0	2	0	0	1	0	0.45	2.04							
17-Mar	0	0	1	Z	1	1	2	2	1	11	3	1	1	1	1	1	0	0	0	1	0	0	0	0	1.34	11.33							
18-Mar	0	0	0	Z	1	1	1	1	1	0	3	3	0	0	0	1	2	0	0	0	0	0	0	1	0.74	2.92							
19-Mar	2	3	1	Z	2	3	2	2	4	1	1	1	1	1	0	0	1	0	1	2	3	1	1	0	1.41	3.65							
20-Mar	0	1	0	Z	0	1	1	1	0	0	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0.61	2.97							
21-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.28	0.36							
22-Mar	0	0	0	Z	0	0	1	2	0	5	14	10	2	3	2	1	1	3	1	0	0	1	1	1	2.11	13.90							
23-Mar	1	0	0	Z	0	1	1	1	0	0	0	0	0	1	1	1	1	2	3	3	0	1	0	0	0.84	2.96							
24-Mar	0	0	0	Z	0	0	0	0	0	0	1	4	2	1	2	3	2	1	0	0	1	2	1	4	1.18	4.32							
25-Mar	2	2	1	Z	1	0	0	1	1	1	3	2	0	0	1	1	1	2	5	1	3	0	0	0	1.36	4.65							
26-Mar	0	0	0	Z	1	1	1	2	4	7	5	1	1	1	1	1	0	1	3	0	7	4	0	1	1.87	7.38							
27-Mar	1	1	0	Z	2	1	1	2	2	7	5	2	1	1	0	1	1	1	0	2	1	1	1	0	1.52	7.30							
28-Mar	0	0	0	Z	3	3	2	3	2	2	2	3	1	1	2	3	3	3	2	0	4	7	5	1	2.40	7.10							
29-Mar	1	1	1	Z	1	1	1	1	2	4	3	4	1	0	0	0	0	1	3	1	1	1	1	1	1.28	3.69							
30-Mar	2	1	2	Z	4	7	4	5	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1.49	6.62							
31-Mar	1	1	1	Z	2	2	1	1	1	1	2	1	1	1	2	2	1	2	2	2	3	3	5	4	1.81	4.68							
		0.63	0.58	0.50	--	0.85	0.91	0.92	1.09	1.13	1.60	2.01	1.52	0.85	0.66	0.74	0.79	0.79	0.78	0.99	0.80	1.08	0.91	0.76	0.82	Diurnal Average							
		2.96	2.56	2.21	--	4.01	6.62	4.32	4.68	4.09	11.33	13.90	9.69	4.74	2.74	2.58	2.91	3.46	2.74	4.65	3.14	7.38	7.10	5.08	4.32	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
March 2017

Maximum Value: 5.47 ppb on Mar 2 16:00		Maximum Daily Average: 1.94 ppb on Mar 2		Hours in Service: 744																													
Minimum Value: 0.0 ppb on Mar 1 08:00		Minimum Daily Average: 0.00 ppb on Mar 4		Hours of Data: 708																													
Maximum Diurnal Average: 1.12 ppb at hour 15		Minimum Diurnal Average: 0.18 ppb at hour 5		Hours of Missing Data: 36																													
Monthly Average: 0.511 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.0 Median = 0.2 Q ₃ = 0.6 P ₉₀ = 1.5 P ₉₉ = 4.6		Hours of Calibration: 36																													
				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-Mar	1.2	2.8	2.6	Z	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.0	0.0	0.1	0.1	0.1	0.0	0.34	2.76							
2-Mar	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.1	5.0	5.5	4.7	4.3	3.8	4.7	5.1	2.8	2.7	4.5	1.94	5.47							
3-Mar	0.5	0.9	1.1	Z	0.2	0.2	0.4	0.5	0.6	0.2	0.4	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.26	1.08							
4-Mar	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	0.05							
5-Mar	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.5	0.3	0.1	0.1	0.2	0.0	0.2	0.1	0.2	0.1	0.2	0.12	0.48							
6-Mar	0.2	0.3	0.8	Z	0.7	0.6	1.0	0.8	0.5	0.5	1.3	1.8	1.5	1.2	1.5	1.9	1.8	1.1	0.6	0.4	0.2	0.2	0.1	0.1	0.83	1.90							
7-Mar	0.1	0.2	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.20	0.32							
8-Mar	0.2	0.2	0.3	Z	0.3	0.4	0.6	1.2	1.0	0.8	0.7	0.9	1.1	1.0	0.8	0.7	0.7	0.7	0.6	0.4	0.2	0.2	0.1	0.0	0.57	1.20							
9-Mar	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	1.5	3.8	3.3	2.0	1.7	1.0	0.6	0.5	0.4	0.6	1.2	1.5	0.9	0.6	0.88	3.81							
10-Mar	0.4	0.4	0.3	Z	0.4	0.3	0.3	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.6	0.6	0.7	0.7	0.5	0.4	0.4	0.3	0.4	0.3	0.45	0.70							
11-Mar	0.2	0.3	0.2	Z	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.5	0.5	0.3	0.3	0.2	0.3	0.5	0.7	1.3	1.7	0.45	1.75							
12-Mar	2.3	2.6	2.4	Z	1.8	1.5	1.1	1.0	0.8	1.0	0.9	0.8	0.7	0.7	0.8	1.2	0.7	0.6	0.4	0.3	0.3	0.2	0.3	0.2	0.98	2.56							
13-Mar	0.2	0.2	0.1	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.7	1.4	1.7	4.9	2.4	2.5	1.8	1.3	0.4	0.2	0.2	0.1	0.1	0.83	4.94							
14-Mar	0.0	0.1	0.1	Z	0.2	0.5	0.7	1.2	1.1	0.7	0.6	0.6	0.5	0.3	0.6	1.0	1.0	0.5	0.4	0.2	0.1	0.0	0.0	0.7	0.48	1.15							
15-Mar	0.9	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06	0.93							
16-Mar	0.1	0.0	0.1	Z	0.0	0.1	0.0	0.0	0.2	0.1	0.2	0.3	0.9	0.1	0.5	1.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.18	1.03							
17-Mar	0.0	0.0	0.0	Z	0.1	0.3	0.5	0.4	0.2	0.3	0.5	1.0	2.0	1.3	0.6	0.2	0.1	0.1	0.2	0.8	0.2	0.1	0.1	0.1	0.40	1.95							
18-Mar	0.1	0.1	0.1	Z	0.1	0.4	0.6	0.4	0.3	0.3	1.6	0.8	0.4	0.2	0.1	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.30	1.57							
19-Mar	0.2	0.0	0.1	Z	0.1	0.1	0.1	0.3	1.0	1.7	3.0	1.6	2.0	2.6	0.4	1.7	2.2	1.2	1.0	0.3	0.1	0.1	0.1	0.2	0.89	3.01							
20-Mar	0.2	0.1	0.2	Z	0.1	0.3	0.3	0.3	0.1	0.2	1.1	1.2	2.7	4.1	1.7	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.61	4.12							
21-Mar	0.1	0.1	0.2	Z	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.4	0.7	0.5	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.18	0.67							
22-Mar	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.1	0.0	0.2	0.3	0.4	1.5	2.6	2.1	1.2	0.6	1.4	0.5	0.1	0.1	0.2	0.1	0.0	0.51	2.56							
23-Mar	0.0	0.0	0.0	Z	0.0	0.2	0.4	0.2	0.1	0.2	0.2	0.1	0.4	1.5	1.5	1.5	1.1	1.4	1.7	0.2	0.0	0.1	0.0	0.1	0.47	1.68							
24-Mar	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.9	3.2	1.4	1.6	1.1	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.9	0.53	3.19							
25-Mar	0.2	0.1	0.0	Z	0.1	0.0	0.0	0.1	0.2	0.1	0.2	2.6	0.2	0.0	1.7	1.7	1.2	0.9	0.9	0.7	0.0	0.0	0.0	0.0	0.48	2.59							
26-Mar	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.3	1.3	0.2	0.3	0.7	1.0	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.23	1.38							
27-Mar	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.2	0.8	0.5	1.2	1.9	0.5	0.7	0.3	0.7	0.7	0.2	0.2	0.2	0.2	0.2	0.38	1.87							
28-Mar	0.2	0.2	0.2	Z	0.3	0.3	0.4	0.3	0.3	0.2	0.1	0.2	0.2	0.4	1.2	2.4	4.2	2.4	2.0	0.3	0.2	0.3	0.1	0.1	0.73	4.19							
29-Mar	0.1	0.0	0.1	Z	0.1	0.2	0.1	0.2	0.0	0.1	0.2	4.6	2.2	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.37	4.62							
30-Mar	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	0.1	0.01	0.10							
31-Mar	0.0	0.2	0.1	Z	0.2	0.2	0.2	0.2	0.3	0.1	0.9	0.9	2.4	2.5	3.1	2.5	2.7	1.7	2.5	2.4	1.0	0.5	0.3	0.4	1.10	3.12							
		0.25	0.29	0.30	--	0.18	0.20	0.24	0.27	0.26	0.28	0.60	0.91	1.02	1.00	1.12	1.03	0.90	0.72	0.61	0.44	0.36	0.27	0.25	0.36	Diurnal Average							
		2.27	2.76	2.61	--	1.85	1.53	1.15	1.20	1.10	1.75	3.01	4.62	3.33	4.12	5.01	5.47	4.73	4.28	3.76	4.68	5.10	2.83	2.66	4.45	Diurnal Maximum							
Z - zerospan		C - Calibration																															
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr 172 ppb				24-hr 48 ppb																											



WCAS - Hinton
Summary of Hourly Averages

Hydrogen Sulphide (H2S) - ppb
March 2017

Maximum Value: 5.36 ppb on Mar 22 11:00		Maximum Daily Average: 0.79 ppb on Mar 28		Hours in Service: 744																													
Minimum Value: 0 ppb on Mar 4 01:00		Minimum Daily Average: 0.05 ppb on Mar 4		Hours of Data: 708																													
Maximum Diurnal Average: 0.66 ppb at hour 11		Minimum Diurnal Average: 0.13 ppb at hour 3		Hours of Missing Data: 36																													
Monthly Average: 0.272 ppb		Percentiles: P ₁ = 0.0 P ₁₀ = 0.0 Q ₁ = 0.1 Median = 0.1 Q ₃ = 0.3 P ₉₀ = 0.8 P ₉₉ = 2.8		Hours of Calibration: 36																													
				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-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.14	0.49							
2-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0.46	1.07							
3-Mar	0	0	0	Z	0	0	0	1	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0.31	2.73							
4-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.05	0.09							
5-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.08	0.14							
6-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.09	0.17							
7-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.08	0.28							
8-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.08	0.25							
9-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.14	0.35							
10-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.10	0.15							
11-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.09	0.17							
12-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.08	0.14							
13-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	1	0	0	0.23	0.64							
14-Mar	0	0	0	Z	0	0	1	1	1	1	1	1	2	1	0	0	0	0	0	0	0	0	0	1	0.62	1.71							
15-Mar	1	0	0	Z	0	0	0	0	0	0	C	C	C	C	C	1	0	0	0	0	0	0	0	0	0.30	1.01							
16-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.07	0.41							
17-Mar	0	0	0	Z	0	0	1	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.37	3.96							
18-Mar	0	0	0	Z	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.13	0.71							
19-Mar	0	0	0	Z	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.19	0.86							
20-Mar	0	0	0	Z	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.16	0.93							
21-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.07	0.13							
22-Mar	0	0	0	Z	0	0	0	1	0	2	5	3	1	1	0	0	0	1	0	0	0	0	0	0	0.68	5.36							
23-Mar	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.17	0.69							
24-Mar	0	0	0	Z	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0.24	1.15							
25-Mar	0	1	0	Z	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	1	0	0	0	0.29	1.31							
26-Mar	0	0	0	Z	0	0	0	0	1	2	2	0	0	0	0	0	0	0	1	0	3	1	0	0	0.56	2.88							
27-Mar	0	0	0	Z	1	0	0	1	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0.46	2.81							
28-Mar	0	0	0	Z	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	0	2	3	2	0	0.79	2.77							
29-Mar	0	0	0	Z	0	0	0	0	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0.36	1.29							
30-Mar	1	0	1	Z	2	3	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.53	2.79							
31-Mar	0	0	0	Z	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	2	1	0.51	1.88							
		0.16	0.13	0.13	--	0.27	0.30	0.29	0.35	0.35	0.54	0.66	0.44	0.22	0.14	0.16	0.18	0.18	0.20	0.26	0.20	0.34	0.29	0.25	0.23	Diurnal Average							
		1.01	0.67	0.91	--	1.72	2.79	1.68	1.90	1.51	3.96	5.36	3.46	1.71	0.76	0.76	0.79	0.84	0.77	1.31	0.82	2.88	2.77	1.95	1.42	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

Ozone (O₃) - ppb
March 2017

Maximum Value: 51.81 ppb on Mar 26 15:00		Maximum Daily Average: 37.35 ppb on Mar 19		Hours in Service: 744																																													
Minimum Value: 0.4 ppb on Mar 14 07:00		Minimum Daily Average: 10.41 ppb on Mar 14		Hours of Data: 708																																													
Maximum Diurnal Average: 39.11 ppb at hour 15		Minimum Diurnal Average: 10.99 ppb at hour 7		Hours of Missing Data: 36																																													
Monthly Average: 26.730 ppb		Percentiles: P ₁ = 0.7 P ₁₀ = 5.3 Q ₁ = 16.0 Median = 29.0 O ₃ = 37.9 P ₉₀ = 44.1 P ₉₉ = 47.8		Hours of Calibration: 36																																													
				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-Mar	39.3	35.4	33.1	Z	38.8	25.2	10.0	12.5	16.8	20.4	16.3	28.8	36.3	36.7	35.7	32.5	30.6	29.0	26.9	19.8	8.6	4.0	3.1	5.3	23.69	39.25																							
2-Mar	8.9	6.1	6.9	Z	4.2	3.6	4.6	3.9	7.4	14.6	16.6	14.6	16.1	40.5	38.9	38.0	37.2	38.1	35.3	35.3	35.4	40.0	40.2	38.7	22.83	40.49																							
3-Mar	46.5	42.4	38.1	Z	18.7	10.8	1.8	1.4	4.2	17.6	24.7	39.9	42.0	40.8	42.1	41.3	42.2	42.9	38.1	32.8	36.9	36.3	35.1	36.4	30.99	46.49																							
4-Mar	35.6	37.5	38.0	Z	28.9	29.2	31.0	32.7	32.3	34.3	33.8	35.1	35.7	35.8	35.6	34.8	32.5	32.7	30.9	29.9	27.7	30.0	33.0	32.9	33.04	38.05																							
5-Mar	32.6	30.6	20.6	Z	24.7	24.8	20.4	25.1	28.9	31.0	30.9	30.4	31.5	30.6	31.7	30.5	29.9	29.6	28.4	28.0	25.9	26.1	27.0	28.5	28.16	32.62																							
6-Mar	28.4	29.0	24.4	Z	25.4	21.5	18.3	19.3	23.5	25.5	26.3	27.1	27.3	27.5	26.4	26.4	26.8	27.1	27.9	23.6	27.1	28.1	30.9	30.3	26.00	30.88																							
7-Mar	30.4	28.9	21.8	Z	5.0	1.2	2.5	8.1	15.3	27.5	33.6	34.3	33.4	33.9	33.3	32.6	31.9	29.0	27.5	28.7	29.4	31.0	32.1	32.3	25.37	34.27																							
8-Mar	32.3	30.9	31.6	Z	31.9	30.6	27.8	25.0	27.3	29.6	30.7	31.7	31.9	32.5	33.7	32.9	30.8	30.2	30.1	23.0	17.3	17.0	9.2	17.1	27.62	33.67																							
9-Mar	12.2	7.6	14.0	Z	9.1	6.3	6.9	2.2	7.0	21.0	28.1	29.6	29.2	30.3	30.9	28.1	28.1	32.5	33.2	29.8	27.0	26.3	28.1	30.9	21.68	33.21																							
10-Mar	32.1	31.3	31.8	Z	31.9	31.2	30.2	27.8	28.1	29.3	29.4	30.6	31.8	33.6	34.2	34.1	33.5	32.6	32.1	27.3	27.2	26.1	24.7	24.2	30.22	34.19																							
11-Mar	24.9	23.9	20.5	Z	22.1	16.0	20.1	19.2	22.8	25.0	27.2	28.3	29.4	29.6	28.9	27.1	24.6	22.5	23.5	25.4	24.2	24.3	22.9	20.7	24.05	29.56																							
12-Mar	20.4	21.4	22.5	Z	22.5	22.9	23.6	23.3	25.3	28.4	28.8	30.0	31.1	31.5	31.3	30.7	30.1	28.9	28.0	27.9	27.8	28.6	30.1	29.6	27.17	31.53																							
13-Mar	28.2	26.3	25.9	Z	18.3	18.5	20.5	19.0	21.4	21.8	22.0	20.8	33.8	37.6	36.6	39.9	38.8	40.9	37.1	20.2	12.3	27.4	17.5	14.9	26.07	40.92																							
14-Mar	12.8	7.3	4.1	Z	1.2	0.8	0.4	0.7	1.0	1.2	1.7	2.8	3.5	13.5	22.7	27.2	35.7	30.3	8.4	8.7	10.9	10.4	13.0	21.1	10.41	35.70																							
15-Mar	26.6	17.7	12.9	Z	7.4	5.6	14.4	20.8	4.3	13.7	C	C	C	C	C	43.7	40.4	41.6	39.7	36.0	22.3	21.2	19.3	23.0	22.81	43.67																							
16-Mar	22.9	20.8	19.5	Z	20.9	15.3	21.8	15.4	18.5	24.4	30.7	30.1	30.9	38.6	42.1	42.8	45.3	45.7	44.3	37.4	30.6	34.1	18.7	16.3	28.99	45.67																							
17-Mar	9.9	8.9	1.2	Z	1.6	1.1	1.1	1.5	5.6	11.6	29.9	44.9	44.8	46.0	46.2	45.4	44.6	37.7	29.0	26.4	33.2	35.0	30.1	19.4	24.15	46.24																							
18-Mar	13.5	10.2	7.7	Z	8.8	1.2	0.9	2.3	9.6	23.7	34.6	38.3	39.4	37.5	35.3	31.4	29.1	30.9	32.0	40.6	40.8	41.8	47.9	46.9	26.27	47.94																							
19-Mar	43.1	40.8	36.9	Z	18.8	15.0	12.1	7.6	33.3	45.5	44.8	46.5	46.5	46.6	47.6	46.4	45.9	46.4	44.5	44.1	42.1	27.2	32.8	44.6	37.35	47.63																							
20-Mar	37.9	35.8	36.7	Z	19.3	5.4	1.7	2.9	16.4	31.1	35.0	39.6	44.7	46.0	47.5	48.4	47.6	47.9	46.1	44.6	42.4	39.6	39.3	38.7	34.55	48.38																							
21-Mar	37.0	37.2	35.0	Z	31.6	26.8	28.6	29.6	29.6	29.6	32.3	34.3	36.1	37.9	41.6	40.1	34.0	33.7	34.3	32.9	28.1	22.4	28.6	24.8	32.43	41.60																							
22-Mar	20.1	9.1	3.4	Z	13.8	11.2	6.9	4.9	12.8	12.0	22.7	29.2	40.0	44.0	43.6	44.9	43.9	41.6	41.5	37.9	26.9	10.7	3.1	10.0	23.23	44.95																							
23-Mar	8.1	9.0	17.3	Z	9.3	2.2	0.9	4.4	14.7	21.2	31.9	47.6	48.9	48.3	48.6	47.9	47.6	46.6	41.8	40.4	35.4	7.7	11.1	13.8	26.30	48.94																							
24-Mar	18.3	19.0	11.0	Z	7.9	14.0	14.9	15.1	19.4	22.3	32.5	41.2	45.7	46.3	45.5	45.9	45.5	46.8	47.3	45.7	42.8	40.6	41.8	39.4	32.56	47.33																							
25-Mar	42.7	25.6	23.7	Z	14.5	14.2	9.3	4.0	5.3	16.1	36.9	42.6	46.6	47.1	45.6	46.2	45.1	44.6	41.7	43.2	35.2	34.1	24.4	18.5	30.74	47.15																							
26-Mar	14.8	9.0	6.8	Z	2.2	2.3	1.0	4.1	12.3	25.8	41.2	51.0	51.1	51.3	51.8	51.7	51.8	48.9	45.3	37.9	31.8	40.9	28.2	12.2	29.28	51.81																							
27-Mar	7.6	7.3	12.5	Z	4.6	11.5	4.9	3.9	9.9	27.9	38.3	41.6	44.1	44.4	45.6	44.5	43.7	44.0	43.9	36.9	14.8	11.2	9.9	12.9	24.61	45.60																							
28-Mar	9.1	9.1	7.4	Z	2.3	1.5	1.0	2.0	5.1	12.6	12.8	28.3	37.9	40.9	40.7	39.7	39.7	39.6	41.1	40.9	37.7	36.7	22.5	13.0	22.69	41.07																							
29-Mar	13.5	17.6	9.3	Z	1.6	1.1	0.8	3.8	10.0	15.1	33.3	38.8	44.1	47.0	47.3	47.2	46.0	43.7	42.7	41.0	29.4	16.4	35.0	34.4	26.92	47.30																							
30-Mar	25.2	12.9	10.3	Z	5.3	4.1	1.8	5.0	16.1	26.8	38.2	38.9	38.6	40.7	40.3	37.9	43.6	42.6	40.6	24.5	9.9	5.2	3.4	3.0	22.39	43.55																							
31-Mar	3.2	1.0	1.2	Z	0.7	0.5	0.6	0.7	2.2	10.5	29.7	41.1	42.1	42.5	41.8	42.6	42.9	41.9	39.5	38.6	37.4	38.8	40.0	40.6	25.22	42.88																							
																								23.81	20.96	18.91	--	14.63	12.11	10.99	11.23	15.69	22.48	29.17	33.93	36.49	38.65	39.11	38.81	38.36	37.76	35.57	32.56	28.33	26.43	25.25	24.98	Diurnal Average	
																								46.49	42.37	38.13	--	38.81	31.18	31.05	32.70	33.26	45.50	44.83	50.97	51.10	51.33	51.81	51.68	51.75	48.86	47.33	45.68	42.81	41.76	47.94	46.86	Diurnal Maximum	
Z - zerospan C - Calibration																																																	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82.5 ppb 24-hr -- ppb																																																	



WCAS - Hinton
Eight Hour Running Averages

Ozone (O₃) - ppb
March 2017

Maximum Value: 50.35 ppb on Mar 26 19:00 Maximum Daily Average: 37.72 ppb on Mar 19																						Hours in Service: 744 Hours of Data: 736				
Minimum Value: 1.0 ppb on Mar 31 09:00 Minimum Daily Average: 11.15 ppb on Mar 14 Maximum Diurnal Average: 37.27 ppb at hour 19 Minimum Diurnal Average: 14.93 ppb at hour 9 Monthly Average: 26.360 ppb Percentiles: P ₁ = 1.8 P ₁₀ = 9.9 Q ₁ = 18.9 Median = 27.7 O ₃ = 34.2 P ₉₀ = 40.4 P ₉₉ = 46.1																						Hours of Missing Data: 8 Hours of Calibration: 8 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-Mar	37.3	36.7	36.0	36.1	36.2	34.6	31.2	27.7	24.5	22.4	20.0	21.1	20.8	22.2	25.4	27.9	29.7	30.7	32.1	30.9	27.5	23.4	19.3	15.9	27.90	37.32
2-Mar	13.2	10.3	7.8	6.1	5.5	5.4	5.7	5.5	5.2	6.4	7.8	8.7	10.2	14.8	19.1	23.3	27.1	30.0	32.3	34.9	37.3	37.3	37.4	37.5	17.88	37.53
3-Mar	38.7	39.2	39.6	40.2	37.8	33.6	28.1	22.8	16.8	13.2	11.3	14.9	17.8	21.5	26.6	31.6	36.3	39.5	41.2	40.3	39.6	39.1	38.2	37.6	31.06	41.16
4-Mar	36.8	36.1	36.1	36.5	35.4	34.4	33.8	33.3	32.8	32.4	31.8	32.2	33.0	33.8	34.4	34.7	34.7	34.5	34.1	33.5	32.5	31.7	31.4	31.2	33.79	36.76
5-Mar	31.2	30.9	29.7	29.6	29.2	28.5	26.7	25.5	25.0	25.1	26.5	27.0	27.9	28.6	30.0	30.7	30.8	30.6	30.3	30.0	29.3	28.8	28.2	27.9	28.67	31.21
6-Mar	27.7	27.7	27.2	27.0	27.0	26.3	25.1	23.8	23.1	22.6	22.8	23.4	23.6	24.3	25.4	26.2	26.6	26.8	27.0	26.6	26.6	26.7	27.2	27.7	25.77	27.74
7-Mar	28.2	28.4	27.6	28.2	25.0	21.2	17.2	14.0	11.8	11.6	13.3	15.9	19.5	23.6	27.4	30.5	32.6	32.7	32.0	31.3	30.8	30.4	30.3	30.2	24.74	32.75
8-Mar	30.3	30.5	31.0	31.4	31.7	31.7	31.1	30.0	29.3	29.1	29.0	29.3	29.3	29.6	30.3	31.3	31.7	31.8	31.7	30.6	28.8	26.9	23.8	21.8	29.67	31.80
9-Mar	19.5	16.7	14.7	13.5	12.3	10.8	10.5	8.3	7.6	9.5	11.5	13.8	16.3	19.3	22.3	25.5	28.2	29.6	30.3	30.3	30.0	29.5	29.1	29.5	19.53	30.28
10-Mar	30.0	29.8	29.7	29.6	30.3	31.0	31.3	30.9	30.3	30.0	29.7	29.8	29.8	30.1	30.6	31.4	32.1	32.5	32.8	32.4	31.8	30.9	29.7	28.5	30.63	32.82
11-Mar	27.4	26.3	24.9	24.5	23.8	22.3	21.7	21.0	20.7	20.8	21.8	22.6	23.5	25.2	26.3	27.3	27.5	27.2	26.8	26.4	25.7	25.1	24.3	23.5	24.44	27.51
12-Mar	23.0	22.8	22.7	22.3	22.1	21.9	22.0	22.4	23.1	24.1	25.0	25.6	26.7	27.8	28.7	29.7	30.3	30.3	30.2	30.0	29.5	29.2	29.0	28.9	26.13	30.33
13-Mar	28.6	28.3	28.1	28.1	26.7	25.3	23.9	22.4	21.4	20.8	20.2	20.3	22.2	24.6	26.6	29.2	31.4	33.8	35.7	35.6	32.9	31.7	29.3	26.1	27.22	35.68
14-Mar	22.9	18.7	14.6	13.7	12.2	8.4	5.9	3.9	2.2	1.3	1.0	1.2	1.5	3.1	5.9	9.2	13.5	17.2	18.0	18.7	19.7	19.3	18.1	17.3	11.15	22.88
15-Mar	16.2	14.6	15.2	16.1	15.6	14.9	15.1	15.1	11.9	11.3	11.0	11.0	C	C	C	C	C	C	C	C	37.3	35.0	33.0	30.4	--	37.28
16-Mar	28.3	25.6	23.1	21.3	21.1	20.2	20.6	19.5	18.9	19.4	21.0	22.1	23.4	26.3	28.8	32.2	35.6	38.3	40.0	40.9	40.8	40.3	37.4	34.0	28.29	40.88
17-Mar	29.6	25.0	19.7	17.1	13.0	8.2	5.7	3.6	3.0	3.4	7.5	12.2	17.6	23.2	28.8	34.3	39.2	42.5	42.3	40.0	38.6	37.2	35.2	31.9	23.29	42.46
18-Mar	28.0	24.6	21.9	21.3	17.8	13.0	8.8	6.4	5.8	7.7	11.6	14.9	18.7	23.3	27.6	31.2	33.7	34.6	34.2	34.5	34.7	35.2	36.8	38.7	23.55	38.75
19-Mar	40.5	41.7	42.3	42.6	39.5	35.6	30.5	24.9	23.5	24.2	25.3	28.0	31.4	35.4	39.8	44.7	46.2	46.4	46.3	46.0	45.4	43.0	41.2	40.9	37.72	46.36
20-Mar	39.9	38.6	37.6	36.7	33.5	30.4	25.9	20.0	16.9	16.2	16.0	18.9	22.1	27.2	32.9	38.6	42.5	44.6	46.0	46.6	46.3	45.5	44.5	43.3	33.78	46.61
21-Mar	42.0	40.6	39.2	38.5	36.9	35.1	33.5	32.2	31.2	30.1	29.7	30.3	30.8	32.2	33.9	35.2	35.7	36.2	36.5	36.3	35.3	33.4	31.8	29.8	34.43	41.95
22-Mar	28.1	25.0	21.2	19.5	17.5	15.9	12.8	9.9	8.9	9.3	12.0	14.2	17.5	21.6	26.2	31.2	35.0	38.7	41.1	42.2	40.5	36.4	31.3	27.0	24.28	42.18
23-Mar	22.5	18.4	15.4	12.2	9.6	8.4	8.1	7.3	8.3	10.0	12.1	16.5	21.5	27.3	33.2	38.7	42.8	45.9	47.2	46.3	44.6	39.5	34.8	30.6	25.04	47.17
24-Mar	26.9	23.4	19.6	16.6	12.7	13.6	14.1	14.3	14.5	14.9	18.0	20.9	25.6	29.7	33.5	37.4	40.6	43.7	45.5	46.1	45.7	45.0	44.6	43.8	28.78	46.09
25-Mar	43.4	40.8	37.8	36.7	32.6	28.9	24.2	19.1	13.8	12.4	14.3	17.8	21.9	26.0	30.5	35.8	40.8	44.3	44.9	45.0	43.6	42.0	39.3	35.8	32.15	45.00
26-Mar	32.1	27.6	23.3	20.4	15.7	11.1	7.8	5.7	5.4	7.8	12.7	17.5	23.6	29.7	36.1	42.0	47.0	49.8	50.4	48.7	46.3	45.0	42.0	37.1	28.53	50.35
27-Mar	31.6	26.4	22.3	20.1	16.2	12.0	8.7	7.5	7.8	10.8	14.5	17.8	22.8	26.9	32.0	37.0	41.3	43.3	44.0	43.4	39.7	35.6	31.1	27.2	25.82	43.96
28-Mar	22.8	18.5	13.9	10.6	8.8	7.5	6.2	4.6	4.1	4.6	5.3	8.2	12.7	17.6	22.6	27.3	31.6	35.0	38.5	40.1	40.1	39.5	37.3	33.9	20.46	40.07
29-Mar	30.6	27.9	23.9	21.5	16.3	11.2	8.1	6.8	6.3	5.9	9.4	13.1	18.4	24.1	29.9	35.3	39.9	43.4	44.6	44.9	43.0	39.2	37.7	36.1	25.73	44.89
30-Mar	33.5	29.6	25.6	23.4	19.9	18.2	13.4	9.2	7.9	9.9	13.9	17.0	21.2	25.8	30.6	34.7	38.1	40.1	40.4	38.6	35.0	30.6	26.0	21.6	25.18	40.40
31-Mar	16.5	11.3	6.4	3.8	2.5	1.8	1.4	1.1	1.0	2.3	6.4	10.7	15.9	21.2	26.3	31.6	36.6	40.6	41.8	41.5	40.9	40.4	40.2	40.0	20.10	41.80
29.27 27.17 25.09 24.04 22.08 20.05 18.04 16.09 14.93 15.15 16.53 18.61 21.57 24.86 28.39 31.85 34.63 36.49 37.27 37.09 36.13 34.60 32.88 31.16																								Diurnal Average		
43.40 41.73 42.34 42.60 39.46 35.64 33.82 33.29 32.81 32.36 31.75 32.18 33.02 35.37 39.81 44.66 46.96 49.84 50.35 48.72 46.32 45.51 44.57 43.75																								Diurnal Maximum		
C - Calibration																										



WCAS - Hinton
Summary of Hourly Averages

Nitrogen Oxide (NO) - ppb
March 2017

Maximum Value: 137.76 ppb on Mar 14 08:00																						Maximum Daily Average: 36.28 ppb on Mar 14																						Hours in Service: 744					
Minimum Value: 0.0 ppb on Mar 7 03:00																						Minimum Daily Average: 1.08 ppb on Mar 4																						Hours of Data: 706					
Maximum Diurnal Average: 19.94 ppb at hour 8																						Minimum Diurnal Average: 1.29 ppb at hour 1																						Hours of Missing Data: 38					
Monthly Average: 5.763 ppb																						Percentiles: P ₁ = 0.1 P ₁₀ = 0.3 Q ₁ = 0.7 Median = 2.0 Q ₃ = 4.5 P ₉₀ = 12.5 P ₉₉ = 73.0																						Hours of Calibration: 38					
																						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-Mar	0.2	0.5	0.8	Z	0.1	0.9	5.6	5.0	3.5	4.1	12.2	3.8	2.7	1.9	2.0	2.7	3.8	2.6	1.1	4.6	10.7	12.2	7.0	3.0	3.96	12.23																							
2-Mar	0.4	1.2	0.7	Z	1.9	5.9	6.9	9.6	10.4	8.0	7.9	10.9	13.1	1.5	2.7	2.9	2.0	1.2	0.6	0.4	0.6	0.2	0.3	0.2	3.89	13.10																							
3-Mar	0.1	1.4	2.4	Z	4.7	14.2	34.7	64.5	65.1	18.0	16.3	1.3	0.9	1.0	1.8	2.3	0.7	0.2	0.6	1.2	0.2	0.4	0.1	0.2	10.11	65.13																							
4-Mar	0.2	0.1	0.1	Z	0.1	0.2	0.4	0.2	0.9	0.9	2.3	2.2	1.4	1.9	1.8	1.9	4.0	1.4	2.1	0.9	0.8	0.6	0.4	0.5	1.08	3.96																							
5-Mar	0.2	0.2	0.3	Z	0.2	0.4	2.0	1.7	1.7	1.0	2.3	3.6	2.8	2.8	3.1	2.7	3.2	2.2	1.2	0.8	0.9	0.7	0.6	0.2	1.53	3.58																							
6-Mar	0.8	0.2	0.5	Z	0.4	1.5	2.8	3.6	4.0	5.1	7.5	6.6	6.9	4.8	5.9	5.8	5.5	3.9	2.3	1.5	1.5	0.1	0.2	0.6	3.13	7.51																							
7-Mar	1.2	0.4	0.0	Z	10.7	26.3	20.1	5.7	7.8	4.0	3.2	3.0	3.8	3.0	3.1	1.9	3.2	2.2	0.7	0.3	0.3	0.2	0.3	4.54	26.31																								
8-Mar	0.6	0.5	0.2	Z	0.2	0.6	1.2	3.0	2.8	2.5	3.2	3.3	4.7	3.7	2.9	2.6	3.5	3.1	2.3	1.9	1.8	2.1	8.3	0.6	2.42	8.33																							
9-Mar	1.9	7.3	1.0	Z	8.7	6.3	2.1	31.8	33.1	12.0	8.2	8.7	7.3	5.3	4.4	6.2	4.9	2.6	1.7	0.9	0.5	0.8	0.9	0.4	6.82	33.08																							
10-Mar	0.3	0.4	0.8	Z	0.5	1.1	1.4	3.0	4.0	2.6	3.5	4.1	3.4	2.8	2.4	3.0	4.4	3.1	1.5	1.4	1.2	1.4	1.5	0.3	2.10	4.44																							
11-Mar	0.8	0.3	0.4	Z	0.3	1.2	3.0	2.7	3.2	3.7	3.4	3.4	4.0	3.8	4.0	4.1	4.4	4.6	2.2	1.5	1.4	0.8	0.6	0.7	2.37	4.58																							
12-Mar	0.4	0.3	0.2	Z	1.4	1.9	1.8	2.1	4.2	2.8	4.5	3.7	3.2	3.2	4.2	4.2	2.4	2.6	1.9	1.1	1.2	0.3	0.3	0.4	2.10	4.52																							
13-Mar	0.2	0.2	0.5	Z	1.7	2.7	2.0	3.7	3.3	5.8	11.3	23.6	7.5	3.2	4.3	2.3	2.5	1.2	0.6	7.7	5.2	0.4	2.9	3.7	4.19	23.57																							
14-Mar	5.0	4.5	4.9	Z	18.7	59.9	88.0	137.8	134.8	76.8	66.2	73.3	50.5	16.1	11.8	15.5	9.3	14.4	25.0	8.2	7.6	2.1	2.5	1.3	36.28	137.76																							
15-Mar	0.2	0.8	1.8	Z	4.8	8.1	2.8	6.5	34.9	15.4	C	C	C	C	C	C	C	1.1	0.7	1.0	1.3	3.2	1.0	1.5	--	34.91																							
16-Mar	0.2	0.7	0.4	Z	1.7	2.0	1.5	2.9	9.9	3.1	1.9	6.8	6.5	1.1	3.9	3.0	1.0	0.2	0.1	0.6	1.8	1.6	2.4	3.0	2.45	9.87																							
17-Mar	7.3	4.2	12.5	Z	25.2	65.3	97.8	74.7	44.5	45.7	12.6	1.3	2.5	1.1	0.6	0.6	0.6	2.5	3.2	5.3	3.3	5.0	1.9	3.5	18.30	97.85																							
18-Mar	2.2	3.3	6.0	Z	11.6	40.7	73.6	34.5	29.5	6.5	5.1	3.1	1.3	0.8	1.1	1.0	1.5	2.8	2.1	0.1	0.5	0.4	0.1	0.1	9.91	73.58																							
19-Mar	0.0	0.9	0.1	Z	1.5	1.4	2.0	20.1	4.1	1.3	2.3	1.4	1.6	1.7	0.6	1.3	1.3	0.7	0.3	0.1	0.1	0.9	0.4	0.0	1.91	20.08																							
20-Mar	0.5	0.3	0.6	Z	2.8	14.4	24.2	32.8	12.0	4.2	4.4	3.6	2.8	2.4	1.4	0.7	1.2	1.4	0.7	0.5	0.4	1.4	0.6	1.0	4.96	32.78																							
21-Mar	0.7	0.3	0.9	Z	1.0	1.6	1.5	1.6	2.1	3.7	2.9	3.1	2.3	2.3	1.9	1.7	2.5	1.7	1.1	1.1	1.4	1.9	0.8	0.7	1.69	3.67																							
22-Mar	1.8	4.7	8.2	Z	2.3	5.6	4.3	8.7	6.0	23.9	13.5	9.0	3.5	2.6	2.1	1.5	0.9	0.8	0.4	0.6	1.7	13.0	13.9	2.4	5.71	23.86																							
23-Mar	2.6	4.8	0.6	Z	5.6	20.7	43.3	33.3	7.0	5.1	3.0	1.1	1.2	1.6	1.4	1.0	0.8	0.7	0.5	0.2	1.3	12.3	4.0	1.4	6.66	43.30																							
24-Mar	0.8	1.2	1.9	Z	4.2	0.7	2.9	2.0	3.4	4.9	5.6	5.1	3.4	1.7	1.3	1.0	1.2	0.5	0.3	0.2	0.1	0.2	0.1	0.1	1.86	5.58																							
25-Mar	0.1	1.2	0.4	Z	3.8	3.4	4.2	15.5	23.5	9.7	2.2	2.1	0.7	0.6	1.7	1.3	0.9	0.6	0.3	0.1	0.7	0.4	0.8	1.1	3.27	23.52																							
26-Mar	1.2	1.2	3.5	Z	8.3	10.0	9.6	13.1	10.8	10.5	3.5	0.3	0.5	0.8	0.8	0.8	0.2	0.1	0.2	0.2	0.1	0.1	0.8	3.9	3.50	13.11																							
27-Mar	2.9	2.2	0.7	Z	3.4	2.8	7.1	15.2	12.4	6.2	2.7	1.5	1.8	1.5	0.8	0.5	0.2	0.5	0.4	0.4	5.2	6.6	5.0	4.7	3.69	15.15																							
28-Mar	4.5	1.7	1.9	Z	11.9	15.1	25.5	22.8	21.9	14.7	6.6	3.1	1.5	1.9	0.9	1.9	2.4	1.2	0.6	0.2	0.1	0.1	1.9	2.8	6.32	25.54																							
29-Mar	0.4	1.9	1.8	Z	19.3	25.2	23.7	19.6	14.6	16.1	3.6	3.5	1.5	0.5	0.5	0.6	1.2	0.9	0.2	0.1	2.7	10.5	0.1	0.1	6.47	25.22																							
30-Mar	0.1	3.7	0.3	Z	2.0	6.0	11.5	8.5	4.6	2.0	1.3	0.4	0.3	0.3	0.6	0.4	0.5	1.9	0.7	2.0	10.4	3.4	3.1	8.2	3.14	11.50																							
31-Mar	2.2	18.8	9.9	Z	19.5	25.2	37.5	32.3	31.7	9.4	4.7	1.3	2.6	2.0	2.4	1.6	0.8	0.5	0.7	0.5	0.5	0.0	0.0	0.0	8.88	37.52																							
																								1.29	2.24	2.07	--	5.76	11.98	17.58	19.94	17.80	10.63	7.60	6.60	4.86	2.59	2.54	2.61	2.32	2.07	1.86	1.49	2.12	2.68	2.02	1.51	Diurnal Average	
																								7.27	18.77	12.54	--	25.21	65.25	97.85	137.76	134.79	76.82	66.23	73.35	50.45	16.12	11.78	15.53	9.28	14.41	24.98	8.23	10.71	12.96	13.88	8.21	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
March 2017

Maximum Value: 44.88 ppb on Mar 3 08:00		Maximum Daily Average: 21.44 ppb on Mar 14		Hours in Service: 744																						
Minimum Value: 0.6 ppb on Mar 18 23:00		Minimum Daily Average: 3.96 ppb on Mar 4		Hours of Data: 706																						
Maximum Diurnal Average: 19.10 ppb at hour 7		Minimum Diurnal Average: 4.51 ppb at hour 14		Hours of Missing Data: 38																						
Monthly Average: 10.907 ppb		Percentiles: P ₁ = 1.0 P ₁₀ = 3.0 Q ₁ = 4.9 Median = 8.4 Q ₃ = 14.8 P ₉₀ = 22.3 P ₉₉ = 35.0		Hours of Calibration: 38																						
				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-Mar	5.1	8.6	10.8	Z	4.1	10.3	22.6	18.1	12.5	9.4	18.1	7.6	4.2	4.1	4.9	5.9	8.8	10.7	8.3	15.0	23.8	26.5	24.4	18.8	12.29	26.52
2-Mar	12.6	16.3	14.9	Z	17.1	18.9	19.0	19.0	14.3	9.7	10.8	14.0	16.5	8.1	10.6	10.7	10.7	9.1	12.2	12.4	12.0	6.7	6.4	8.8	12.64	19.05
3-Mar	1.8	5.4	9.4	Z	21.2	31.0	41.4	44.9	37.6	21.1	20.9	3.4	2.9	3.8	4.5	5.5	3.3	2.4	6.8	8.2	4.0	3.7	3.1	2.6	12.57	44.88
4-Mar	2.6	2.2	2.2	Z	2.8	2.4	2.2	2.0	3.8	2.6	3.6	2.7	2.3	2.6	3.1	3.8	6.3	5.3	7.1	8.0	9.6	6.9	3.5	3.5	3.96	9.64
5-Mar	3.3	4.5	14.5	Z	8.4	7.2	11.7	8.4	5.0	2.8	3.3	4.3	3.4	4.3	3.9	4.9	6.1	5.9	6.8	6.5	7.7	6.8	6.0	5.0	6.12	14.50
6-Mar	5.6	6.0	10.2	Z	8.7	12.7	15.7	14.1	9.7	8.2	7.4	6.7	6.6	6.9	8.0	9.8	10.9	11.4	11.0	14.4	10.0	7.9	5.8	6.2	9.30	15.75
7-Mar	6.4	7.0	11.2	Z	27.9	34.2	31.1	21.5	15.2	6.5	4.0	3.8	4.2	4.0	5.0	5.6	5.7	8.2	9.0	6.9	6.1	5.1	4.8	4.5	10.35	34.16
8-Mar	3.7	5.2	4.3	Z	4.8	5.2	7.0	9.1	6.9	5.1	4.6	4.2	4.1	3.9	4.1	5.1	7.5	8.6	8.4	14.2	19.7	19.4	26.2	15.9	8.57	26.24
9-Mar	22.4	27.0	20.7	Z	26.6	30.6	25.1	33.5	28.4	14.2	8.2	7.8	7.0	6.2	6.7	9.6	9.5	7.9	7.4	10.9	12.8	13.1	11.6	8.8	15.48	33.46
10-Mar	7.5	8.0	7.2	Z	7.0	8.4	9.3	11.4	10.4	8.0	7.5	6.0	5.5	4.3	4.1	4.7	5.1	6.9	6.6	10.0	9.1	9.7	10.1	9.9	7.68	11.44
11-Mar	9.0	9.3	12.5	Z	10.3	16.5	12.2	13.2	9.5	7.4	5.2	5.3	4.8	5.3	6.3	7.4	9.7	11.9	11.1	9.3	9.7	9.6	11.2	13.3	9.55	16.49
12-Mar	13.9	12.9	11.8	Z	11.8	11.6	10.7	11.0	9.0	5.9	5.6	4.8	4.1	4.3	5.2	6.9	7.5	8.0	8.6	7.5	8.0	7.5	6.2	6.5	8.23	13.93
13-Mar	7.2	8.6	8.2	Z	15.0	15.6	13.5	15.6	11.8	11.2	11.5	16.6	9.9	5.4	7.3	5.0	7.1	6.5	8.4	20.4	21.2	14.1	16.1	18.5	11.94	21.20
14-Mar	16.2	14.8	18.8	Z	16.1	21.3	28.1	30.2	30.2	24.3	23.7	30.2	30.0	17.0	12.3	17.7	14.2	18.4	39.2	29.0	18.6	15.3	14.0	13.4	21.44	39.18
15-Mar	8.6	6.7	9.5	Z	12.3	13.6	11.6	9.6	30.9	20.7	C	C	C	C	C	C	C	5.3	5.7	8.2	18.9	16.5	15.6	10.6	--	30.90
16-Mar	6.3	6.6	8.1	Z	8.1	11.6	8.8	15.0	11.4	7.5	3.9	7.1	7.9	2.7	6.6	5.5	2.8	1.1	1.3	7.8	15.2	10.8	19.0	18.7	8.43	19.04
17-Mar	20.8	17.6	26.6	Z	19.4	24.8	30.5	23.8	21.9	29.7	14.8	2.8	4.2	2.7	1.8	2.6	3.5	12.7	21.7	25.5	14.6	14.3	15.8	20.6	16.19	30.49
18-Mar	21.7	25.3	25.9	Z	26.3	35.6	40.3	30.0	18.3	10.7	10.0	7.7	3.1	2.4	2.6	3.5	4.8	6.8	5.7	0.7	1.5	2.6	0.6	2.2	12.53	40.31
19-Mar	3.9	3.9	7.8	Z	14.9	14.2	11.3	30.0	10.8	3.4	4.8	2.7	2.7	2.9	1.3	2.7	3.4	2.5	3.5	2.2	4.7	19.2	11.1	0.9	7.15	29.96
20-Mar	9.4	7.8	4.9	Z	16.0	32.3	33.5	31.1	17.7	7.3	7.0	5.9	5.0	4.2	2.9	1.6	2.2	3.2	3.7	4.6	5.7	7.8	6.6	7.0	9.89	33.52
21-Mar	8.4	7.1	8.5	Z	10.2	14.0	11.0	9.3	8.8	8.7	5.4	4.1	3.6	4.3	4.3	5.5	9.2	8.4	7.3	8.3	12.5	17.1	8.6	8.1	8.38	17.13
22-Mar	11.1	20.6	24.4	Z	11.8	13.9	20.7	21.7	11.4	22.9	20.3	14.4	6.3	6.4	5.8	4.2	4.3	5.5	4.7	7.7	14.3	29.4	32.4	18.7	14.47	32.40
23-Mar	17.1	20.0	10.1	Z	17.5	27.6	29.1	23.9	13.6	8.3	4.8	2.1	2.2	3.0	2.9	2.9	3.0	3.9	7.8	8.0	13.0	36.7	26.2	19.5	13.18	36.70
24-Mar	13.7	12.8	20.2	Z	20.1	10.9	12.8	11.2	10.1	10.0	8.2	10.0	7.7	5.0	4.0	3.0	3.8	2.7	2.6	3.7	4.2	6.1	4.9	7.5	8.49	20.18
25-Mar	4.6	6.7	6.6	Z	13.0	12.2	17.4	22.9	23.5	14.5	5.5	4.3	1.4	1.3	3.7	3.3	3.1	3.0	4.2	4.0	7.1	6.8	13.0	14.9	8.56	23.53
26-Mar	16.2	20.7	21.1	Z	25.3	24.6	18.4	19.5	14.8	17.6	8.1	1.0	1.5	1.9	2.2	2.5	0.7	0.8	3.6	12.1	12.2	6.6	12.6	22.3	11.57	25.32
27-Mar	22.3	18.2	14.1	Z	22.1	14.6	20.8	21.7	17.1	14.2	9.0	5.2	4.7	4.3	2.2	1.7	1.0	2.5	3.4	8.2	23.6	21.3	19.7	13.0	12.38	23.60
28-Mar	14.8	14.0	14.5	Z	22.6	21.1	21.8	22.8	23.0	24.1	20.1	12.1	5.4	4.3	4.1	5.7	6.8	5.3	4.3	3.5	4.0	4.3	12.6	17.6	12.55	24.13
29-Mar	12.1	13.3	15.9	Z	25.6	27.7	24.1	16.7	16.1	18.6	7.7	8.6	4.7	2.1	1.9	2.3	4.4	5.4	2.4	4.1	14.1	26.4	7.7	7.7	11.72	27.73
30-Mar	6.6	14.7	14.0	Z	16.7	17.6	18.5	19.2	12.9	8.5	4.5	2.9	1.8	1.6	2.4	2.4	2.5	4.0	3.1	17.0	26.1	24.4	22.4	19.6	11.44	26.14
31-Mar	15.6	16.2	12.1	Z	11.8	12.5	11.8	10.4	11.5	9.3	9.1	4.1	6.0	6.2	7.9	6.8	7.9	6.2	8.9	8.9	6.8	5.4	3.6	4.4	8.86	16.15
	10.65	11.87	12.94	--	15.33	17.90	19.10	19.06	15.43	12.02	9.26	7.07	5.79	4.51	4.75	5.30	5.85	6.46	7.89	9.90	11.96	13.16	12.32	11.25		Diurnal Average
	22.42	27.00	26.63	--	27.86	35.61	41.43	44.88	37.60	29.73	23.75	30.18	30.02	16.97	12.26	17.71	14.22	18.43	39.18	29.00	26.14	36.70	32.40	22.29		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
March 2017

Maximum Value: 164.60 ppb on Mar 14 09:00																						Maximum Daily Average: 57.55 ppb on Mar 14																						Hours in Service: 744					
Minimum Value: 0.7 ppb on Mar 18 23:00																						Minimum Daily Average: 5.08 ppb on Mar 4																						Hours of Data: 706					
Maximum Diurnal Average: 38.99 ppb at hour 8																						Minimum Diurnal Average: 7.15 ppb at hour 14																						Hours of Missing Data: 38					
Monthly Average: 16.751 ppb																						Percentiles: P ₁ = 1.3 P ₁₀ = 3.9 Q ₁ = 6.7 Median = 10.9 Q ₃ = 19.2 P ₉₀ = 34.9 P ₉₉ = 100.2																						Hours of Calibration: 38					
																																												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-Mar	5.3	9.1	11.7	Z	4.3	11.3	28.3	23.2	16.1	13.6	30.5	11.5	7.0	6.0	6.9	8.7	12.7	13.4	9.4	19.6	34.6	38.8	31.5	22.0	16.32	38.79																							
2-Mar	13.0	17.6	15.7	Z	19.2	24.9	25.9	28.8	24.8	17.7	18.8	25.0	29.7	9.6	13.4	13.6	12.7	10.3	12.8	12.9	12.7	6.9	6.7	9.1	16.60	29.65																							
3-Mar	1.9	6.9	11.9	Z	26.0	45.3	76.1	109.0	102.6	39.2	37.3	4.7	3.8	4.8	6.3	7.9	4.0	2.6	7.5	9.5	4.3	4.2	3.3	2.8	22.69	108.99																							
4-Mar	2.8	2.3	2.3	Z	2.9	2.5	2.7	2.2	4.7	3.5	5.9	4.9	3.7	4.5	4.9	5.7	10.3	6.7	9.3	9.0	10.5	7.5	4.0	4.0	5.08	10.48																							
5-Mar	3.5	4.8	14.9	Z	8.7	7.7	13.8	10.2	6.7	3.8	5.6	8.0	6.3	7.2	7.1	7.7	9.4	8.1	8.1	7.4	8.7	7.6	6.7	5.2	7.70	14.93																							
6-Mar	6.4	6.3	10.8	Z	9.2	14.3	18.6	17.8	13.8	13.2	15.0	13.4	13.5	11.7	14.0	15.6	16.4	15.4	13.3	15.9	11.5	8.0	6.0	6.9	12.48	18.63																							
7-Mar	7.7	7.5	11.2	Z	38.7	60.5	51.2	27.3	23.1	10.5	7.3	6.8	8.1	7.1	8.0	8.8	7.6	11.5	11.2	7.7	6.4	5.5	5.1	4.9	14.94	60.49																							
8-Mar	4.4	5.8	4.5	Z	5.0	5.9	8.2	12.2	9.7	7.6	7.9	7.6	8.8	7.7	7.1	7.7	11.1	11.7	10.8	16.1	21.6	21.6	34.7	16.5	11.05	34.68																							
9-Mar	24.4	34.4	21.7	Z	35.4	37.1	27.4	65.3	61.5	26.3	16.5	16.5	14.3	11.6	11.1	15.9	14.5	10.5	9.1	11.9	13.3	14.1	12.6	9.2	22.37	65.30																							
10-Mar	7.9	8.4	8.0	Z	7.5	9.5	10.7	14.5	14.5	10.7	11.1	10.1	8.9	7.2	6.6	7.8	9.6	10.0	8.1	11.5	10.3	11.2	11.7	10.2	9.83	14.48																							
11-Mar	9.8	9.6	12.9	Z	10.7	17.8	15.2	16.0	12.8	11.2	8.6	8.8	8.8	9.1	10.3	11.5	14.1	16.5	13.4	10.8	11.1	10.4	11.8	14.0	11.97	17.77																							
12-Mar	14.4	13.2	12.0	Z	13.2	13.6	12.6	13.2	13.1	8.8	10.2	8.5	7.4	7.5	9.5	11.1	10.0	10.6	10.5	8.7	9.2	7.8	6.6	7.0	10.38	14.43																							
13-Mar	7.4	8.8	8.7	Z	16.8	18.4	15.6	19.3	15.2	17.0	22.8	40.3	17.4	8.7	11.6	7.4	9.6	7.7	9.0	28.2	26.5	14.6	19.1	22.3	16.19	40.26																							
14-Mar	21.3	19.4	23.9	Z	34.9	81.1	115.9	164.4	164.6	100.9	89.8	103.3	80.4	33.2	24.1	33.3	23.6	32.9	64.2	37.3	26.3	17.4	16.6	14.7	57.55	164.60																							
15-Mar	8.8	7.6	11.4	Z	17.1	21.6	14.2	15.9	65.6	35.9	C	C	C	C	C	C	C	6.8	6.8	9.6	20.6	20.0	16.9	12.3	--	65.55																							
16-Mar	6.7	7.4	8.7	Z	9.9	13.8	10.4	18.0	21.4	10.8	5.9	14.0	14.5	3.8	10.6	8.6	3.8	1.3	1.5	8.5	17.2	12.5	21.6	21.9	10.99	21.90																							
17-Mar	28.3	22.0	39.4	Z	44.8	89.9	128.3	98.5	66.6	75.6	27.5	4.1	6.7	3.9	2.4	3.2	4.0	15.3	25.2	31.0	18.0	19.4	17.8	24.2	34.61	128.33																							
18-Mar	24.2	28.9	32.2	Z	38.1	76.5	114.0	64.6	47.9	17.3	15.2	10.9	4.4	3.2	3.8	4.5	6.4	9.7	7.9	0.8	2.0	3.0	0.7	2.3	22.54	113.98																							
19-Mar	3.9	4.9	8.0	Z	16.6	15.7	13.4	50.3	15.0	4.7	7.1	4.2	4.4	4.6	1.8	4.0	4.7	3.2	3.9	2.3	4.9	20.3	11.6	0.9	9.14	50.29																							
20-Mar	10.0	8.1	5.5	Z	18.9	47.0	58.0	64.1	29.9	11.6	11.5	9.5	7.8	6.7	4.3	2.3	3.4	4.7	4.5	5.2	6.2	9.3	7.3	8.1	14.96	64.12																							
21-Mar	9.2	7.6	9.5	Z	11.3	15.8	12.7	11.0	11.0	12.4	8.4	7.3	6.0	6.6	6.2	7.3	11.8	10.2	8.4	9.5	14.1	19.2	9.5	8.9	10.17	19.17																							
22-Mar	13.0	25.5	32.8	Z	14.3	19.6	25.2	30.6	17.6	47.0	34.0	23.6	9.9	9.1	8.0	5.7	5.3	6.4	5.1	8.5	16.2	42.6	46.6	21.2	20.35	47.01																							
23-Mar	19.9	25.0	10.8	Z	23.3	48.5	72.5	57.4	20.7	13.5	7.9	3.2	3.4	4.6	4.4	3.9	3.8	4.6	8.4	8.3	14.4	49.3	30.5	21.1	19.97	72.52																							
24-Mar	14.6	14.2	22.3	Z	24.5	11.8	15.8	13.4	13.6	15.0	13.9	15.3	11.2	6.9	5.4	4.0	5.0	3.3	2.9	3.9	4.3	6.4	5.1	7.8	10.46	24.53																							
25-Mar	4.7	8.0	7.1	Z	16.9	15.7	21.8	38.6	47.3	24.4	7.8	6.4	2.1	1.9	5.4	4.6	4.1	3.6	4.6	4.2	7.9	7.2	13.9	16.2	11.93	47.28																							
26-Mar	17.5	22.1	24.8	Z	33.9	34.9	28.2	32.8	25.9	28.2	11.7	1.3	2.1	2.6	3.0	3.3	0.8	0.9	3.9	12.4	12.4	6.8	13.5	26.4	15.20	34.89																							
27-Mar	25.4	20.6	14.9	Z	25.7	17.6	28.1	37.1	29.7	20.6	11.9	6.8	6.6	5.9	3.0	2.2	1.2	3.0	3.8	8.7	29.0	28.2	24.9	17.8	16.21	37.11																							
28-Mar	19.4	15.9	16.5	Z	34.7	36.4	47.5	45.8	45.2	39.0	26.9	15.3	6.9	6.2	5.1	7.7	9.3	6.6	4.9	3.7	4.2	4.5	14.6	20.5	19.00	47.54																							
29-Mar	12.7	15.3	17.9	Z	45.1	53.2	48.1	36.5	30.9	34.9	11.5	12.2	6.3	2.6	2.4	3.0	5.7	6.3	2.6	4.3	17.0	37.1	7.8	7.9	18.31	53.18																							
30-Mar	6.7	18.6	14.5	Z	18.9	23.9	30.2	27.9	17.7	10.6	5.8	3.4	2.1	1.9	3.0	2.9	3.0	5.9	3.8	19.2	36.8	28.1	25.7	28.1	14.73	36.82																							
31-Mar	18.0	35.1	22.2	Z	31.4	37.9	49.5	42.8	43.4	18.8	14.0	5.5	8.7	8.3	10.4	8.5	8.8	6.8	9.7	9.5	7.5	5.5	3.6	4.5	17.84	49.49																							
																								12.04	14.22	15.12	--	21.23	29.99	36.78	38.99	33.30	22.73	16.94	13.74	10.70	7.15	7.34	7.95	8.22	8.59	9.82	11.48	14.18	15.97	14.46	12.87	Diurnal Average	
																								28.26	35.12	39.44	--	45.10	89.94	128.33	164.38	164.60	100.92	89.85	103.33	80.38	33.18	24.11	33.31	23.57	32.85	64.20	37.34	36.82	49.31	46.59	28.06	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
March 2017

Maximum Value: 42.65 µg/m ³ on Mar 27 02:00		Maximum Daily Average: 16.48 µg/m ³ on Mar 27		Hours in Service: 744																							
Minimum Value: 0.0 µg/m ³ on Mar 1 20:00		Minimum Daily Average: 2.14 µg/m ³ on Mar 4		Hours of Data: 744																							
Maximum Diurnal Average: 10.51 µg/m ³ at hour 10		Minimum Diurnal Average: 3.85 µg/m ³ at hour 18		Hours of Missing Data: 0																							
Monthly Average: 7.087 µg/m ³		Percentiles: P ₁ = 0.0 P ₁₀ = 1.3 Q ₁ = 3.4 Median = 6.0 Q ₃ = 9.2 P ₉₀ = 14.1 P ₉₉ = 25.4		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-Mar	7.3	7.1	11.3	8.1	3.4	4.0	3.2	9.5	10.4	8.1	9.3	11.4	6.3	8.7	5.8	3.0	2.5	3.5	2.4	0.0	0.1	6.6	8.6	10.2	6.28	11.39	
2-Mar	1.5	4.3	8.4	8.7	7.5	6.9	3.3	15.2	8.2	13.9	4.2	4.4	11.4	11.7	10.0	11.5	12.0	6.6	6.6	8.4	10.0	7.3	3.8	6.1	7.99	15.18	
3-Mar	13.9	1.8	1.7	0.0	3.4	9.8	13.7	8.8	14.0	18.8	22.5	13.7	2.4	0.0	0.0	0.0	1.5	0.0	0.5	0.6	0.0	0.2	0.9	5.35	22.52		
4-Mar	0.0	0.0	0.3	0.3	2.8	6.5	4.4	4.2	1.1	1.2	2.2	4.8	8.5	0.0	1.1	2.7	2.5	0.0	4.1	1.1	1.2	0.8	0.2	1.5	2.14	8.54	
5-Mar	5.0	7.2	0.0	1.6	7.6	3.6	4.4	7.3	8.3	4.7	9.9	6.8	6.7	4.2	4.6	5.6	0.0	0.0	0.4	0.4	4.0	5.7	3.9	6.0	4.49	9.91	
6-Mar	12.5	5.3	8.0	8.5	6.8	3.2	8.2	7.1	7.8	7.6	8.7	9.1	9.8	7.8	3.9	6.9	7.9	4.0	8.5	4.2	5.9	3.2	7.3	6.8	7.05	12.50	
7-Mar	0.0	0.2	6.3	6.6	7.8	11.0	8.0	8.8	12.5	14.1	2.6	0.9	3.9	2.9	2.7	0.5	1.3	3.6	1.3	4.0	4.5	3.0	2.2	2.2	4.62	14.09	
8-Mar	5.3	4.3	7.2	3.8	8.8	1.0	2.6	7.9	0.0	7.9	5.3	6.4	6.4	5.2	4.2	4.5	3.7	4.3	5.9	1.3	6.6	9.2	6.4	3.8	5.08	9.16	
9-Mar	6.5	2.8	7.9	3.3	6.9	9.2	6.9	8.4	10.5	16.7	15.0	5.3	3.3	4.2	2.2	0.1	5.8	4.3	4.7	3.5	4.0	4.2	3.8	0.0	5.81	16.72	
10-Mar	0.0	0.7	7.9	7.8	0.3	4.0	7.0	6.8	8.5	4.8	7.5	4.4	4.6	4.4	3.1	4.5	3.9	2.8	3.5	4.7	4.6	3.2	3.5	6.3	4.54	8.55	
11-Mar	1.9	6.0	5.6	7.1	4.9	5.1	8.2	6.2	5.8	8.0	8.8	3.9	3.6	5.6	8.3	6.5	3.9	6.7	3.8	5.4	6.9	4.5	2.7	7.6	5.72	8.85	
12-Mar	7.9	12.8	4.9	5.3	6.0	9.5	12.1	6.8	9.1	9.5	7.3	10.7	11.3	8.9	9.1	6.5	4.2	3.8	2.3	3.1	5.0	2.7	1.8	2.2	6.77	12.81	
13-Mar	5.1	13.8	10.9	2.4	7.3	5.4	6.1	6.3	8.0	8.1	4.1	14.3	17.3	11.4	3.0	3.6	0.0	2.8	4.9	3.1	5.6	6.9	4.9	10.9	6.93	17.28	
14-Mar	17.4	12.7	4.9	5.5	7.9	8.5	13.3	9.2	18.5	15.1	8.6	14.9	19.5	20.0	13.5	6.3	5.2	5.9	4.8	12.7	4.8	1.6	1.3	6.1	9.92	19.96	
15-Mar	10.3	0.0	0.5	3.4	3.6	6.2	7.7	7.6	14.7	4.6	5.3	0.9	0.5	0.0	2.7	0.0	2.6	1.0	1.0	1.8	1.9	4.8	2.8	5.4	3.73	14.71	
16-Mar	2.0	3.0	6.2	3.4	3.6	4.2	4.4	9.6	7.4	6.1	7.4	15.4	16.9	4.1	3.0	5.5	3.2	0.9	1.2	2.9	3.2	4.5	9.9	7.8	5.65	16.91	
17-Mar	4.3	4.0	6.8	8.8	13.7	12.2	9.9	9.4	9.2	34.9	12.3	2.4	3.9	2.4	1.4	1.0	1.3	4.5	7.5	7.3	4.7	3.1	4.1	8.1	7.37	34.87	
18-Mar	4.3	6.0	6.9	6.4	7.7	10.6	11.3	9.5	13.5	5.4	15.6	9.3	1.2	0.5	0.7	2.1	2.5	2.0	1.4	0.3	0.5	0.4	0.5	2.5	5.04	15.60	
19-Mar	3.6	1.3	1.3	0.8	1.4	1.2	1.1	5.2	4.5	3.3	6.9	3.2	4.0	4.4	1.6	3.8	4.0	2.7	3.8	2.4	2.6	5.7	3.4	1.0	3.05	6.90	
20-Mar	5.5	10.6	6.2	7.8	12.4	12.6	15.5	24.0	14.6	8.1	12.8	10.8	9.0	7.7	4.9	3.2	4.3	6.5	4.9	5.1	7.3	9.8	6.4	18.2	9.51	24.03	
21-Mar	8.2	5.5	6.7	5.0	6.4	8.6	7.7	7.3	7.9	8.1	6.6	6.0	5.9	6.0	5.3	4.9	6.1	5.0	6.4	12.2	5.9	6.7	3.4	4.3	6.51	12.16	
22-Mar	14.1	20.1	11.6	8.4	4.5	4.0	5.4	5.9	6.4	17.3	26.0	21.1	7.1	4.8	3.1	2.9	2.1	3.4	1.6	1.8	4.8	15.7	13.9	10.9	9.04	25.95	
23-Mar	15.5	6.4	2.8	5.5	4.7	7.9	8.9	6.7	6.9	4.9	2.7	1.6	2.2	2.8	2.7	2.5	2.5	3.3	6.4	3.7	7.4	23.7	13.1	9.0	6.42	23.69	
24-Mar	8.8	8.7	12.0	10.7	7.0	4.7	5.9	6.3	8.6	6.3	7.0	15.0	12.1	7.2	4.7	3.7	5.0	3.1	2.0	2.0	2.7	3.9	2.3	7.3	6.55	15.01	
25-Mar	4.1	22.1	6.0	3.6	5.4	4.3	8.2	8.8	11.3	10.2	7.0	6.1	1.9	2.2	5.1	4.6	3.9	3.2	4.2	3.6	7.7	4.9	8.0	8.4	6.46	22.12	
26-Mar	8.0	12.8	10.1	9.5	9.2	5.9	9.2	6.5	9.7	14.6	10.5	1.4	2.2	2.7	2.7	3.0	1.5	2.6	3.2	6.9	7.7	4.0	10.3	22.7	7.38	22.75	
27-Mar	39.5	42.6	27.9	23.4	25.7	19.5	24.1	27.9	23.7	15.1	10.6	5.5	5.5	4.8	3.0	3.5	1.1	3.2	3.9	11.9	23.7	20.0	15.3	14.1	16.48	42.65	
28-Mar	18.6	14.1	15.0	19.5	19.8	24.0	25.6	21.6	22.4	15.7	19.8	16.7	7.2	4.5	6.0	10.0	11.9	7.2	5.5	2.5	3.8	4.7	13.4	18.1	13.64	25.64	
29-Mar	16.4	12.7	21.6	15.3	14.9	9.8	9.9	14.6	17.0	16.0	8.6	19.0	9.4	5.6	4.5	4.4	5.3	6.7	2.7	4.0	14.2	16.2	7.6	6.0	10.94	21.59	
30-Mar	6.1	14.1	10.8	4.7	5.5	5.5	8.5	8.0	6.6	4.8	6.0	3.1	1.1	1.2	2.1	3.5	5.1	6.2	4.2	11.0	20.4	15.8	19.1	16.6	7.91	20.35	
31-Mar	9.3	13.5	19.7	14.8	16.9	11.5	11.2	10.6	11.3	12.1	13.5	6.8	12.9	11.6	13.0	9.8	10.6	8.1	11.2	11.4	10.1	8.3	5.9	8.2	11.34	19.65	
		8.48	8.93	8.30	7.09	7.87	7.76	8.90	9.74	10.28	10.51	9.50	8.24	7.03	5.40	4.45	4.21	4.06	3.85	4.01	4.61	6.21	6.82	6.14	7.71	Diurnal Average	
		39.50	42.65	27.95	23.42	25.67	23.97	25.64	27.94	23.67	34.87	25.95	21.11	19.54	19.96	13.45	11.48	12.03	8.13	11.22	12.66	23.69	23.69	19.09	22.75	Diurnal Maximum	
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 ul/m ³ 24-hr 30 ul/m ³																											

Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton
 Calibration Date: March 15, 2017
 Parameter: H₂S

Instrument: Teco 45C	Serial Number: 45C-71671-369	Previous Calibration Date: February 7, 2017
Calibration: Routine	Calibration Equipment: Sabio 2010 SN 11100113	Barometric Pressure: 27.70" Hg
Calibration Method: Standard Gas Dilution	Permeation Device ID: DT0014794, 10.5 ppm H ₂ S	Temperature: 22.4° C
Permeation Rate: 0 ng/min	In Service: 10/21/2016 EXP 10/4/2019	Technician: L. Burns

Instrument Settings	H ₂ S bkg ppb	H ₂ S Coefficient	Monitoring Range
Previous	19.2	1.380	200 ppb
Current	18.8	1.375	200 ppb

Final Zero: -0.1 ppb Final Span: 121.3 ppb As Found Correction Factor: 0.987

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
0.038	79.4	11966.4	79.3	1.001
0.021	43.0	6523.6	43.2	0.995
0.011	22.3	3370.1	22.2	1.001
0.000	0.0	3.8	-0.1	

Results of Linear Regression			
R _c vs C _c	Slope	Intercept	R ²
Previous	150.000000	0.000000	1.000000
Current	150.802500	14.934440	0.999983
C _i vs C _c			
Current	1.000000	0.000010	0.999983

Average Correction Factor: 0.999

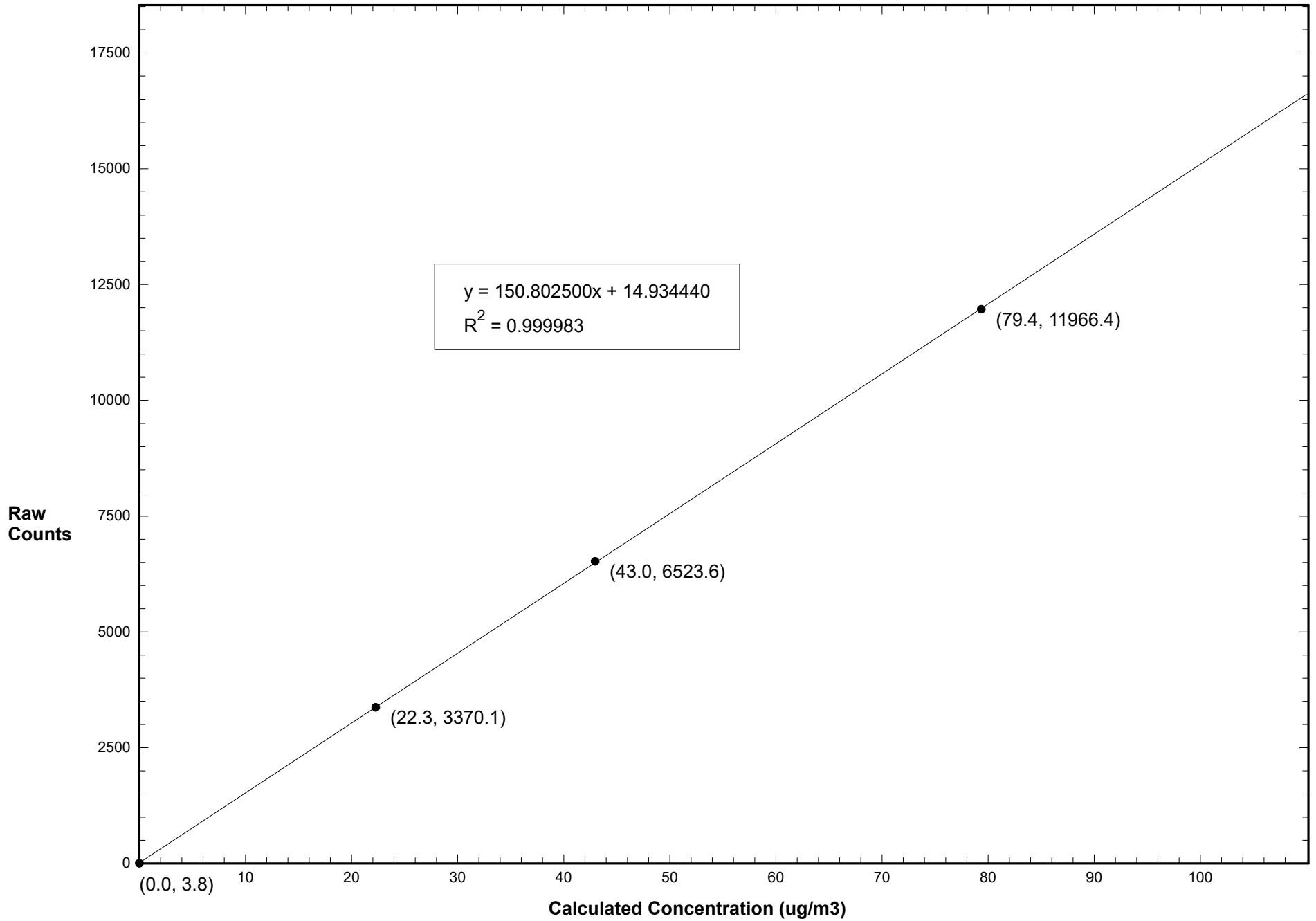
Previous Correction Factor: 1.000

Current Correction Factor: 1.001

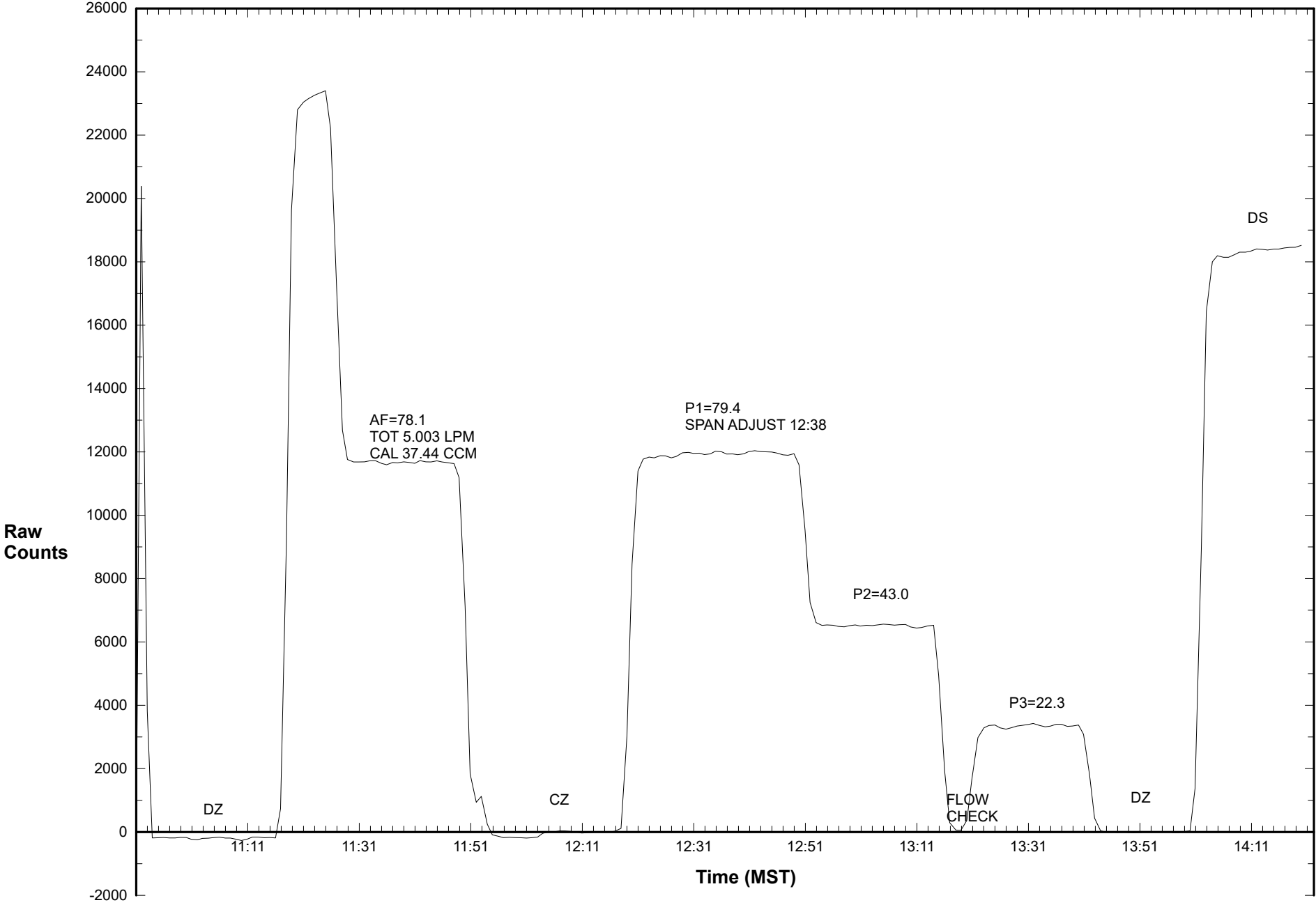
Percent Change of Correction Factor: 0.1

Comments: SAMPLE FLOW = 0.456 LPM

Station 906 H2S March 15, 2017: Linear Regression



Station 906 H2S March 15, 2017: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: March 15, 2017

Parameter: NO/NO₂/NO_x

Instrument: Teco 42i

Serial Number: CM13040041

Previous Calibration Date: February 7, 2017

Calibration: Routine

Calibration Equipment: Sabio 2010 SN 08600312

Barometric Pressure: 27.70" Hg

Calibration Method: Standard Gas Dilution/GPT

Cylinder ID: FF24195

Temperature: 22.4° C

Cylinder Concentration: 12.0 ppm NO

In Service: 6/2/2016 EXP 1/20/2019

Technician: L. Burns

Instrument Settings	NO bkg ppb	NO _x bkg ppb	Pre-reactor bkg ppb	NO Coefficient	NO _x Coefficient	NO ₂ Coefficient	Monitoring Range
Previous	13.9	14.2	NA	1.283	0.998	0.995	200 ppb
Current	14.8	15.8	NA	1.360	0.990	0.995	200 ppb

NO	Final Zero: 0.1 ppb	Final Span: 162.3 ppb	As Found Correction Factor: 1.057
NO ₂	Final Zero: -0.2 ppb	Final Span: -0.1 ppb	As Found Correction Factor: NA
NO _x	Final Zero: 0.0 ppb	Final Span: 162.2 ppb	As Found Correction Factor: 1.048

Results of Linear Regression			Slope	Intercept	R ²
NO	R _c vs C _c	Previous	149.747100	106.657500	0.999781
		Current	149.347400	41.905380	0.999997
	C _i vs C _c	Current	1.000000	-0.000008	0.999997
NO ₂	R _c vs C _c	Previous	150.565100	-74.601160	0.999781
		Current	150.803000	19.020960	0.999991
	C _i vs C _c	Current	1.000000	-0.000006	0.999991
NO _x	R _c vs C _c	Previous	150.166100	108.571700	0.999781
		Current	149.571200	27.816390	0.999992
	C _i vs C _c	Current	1.000000	0.000011	0.999992

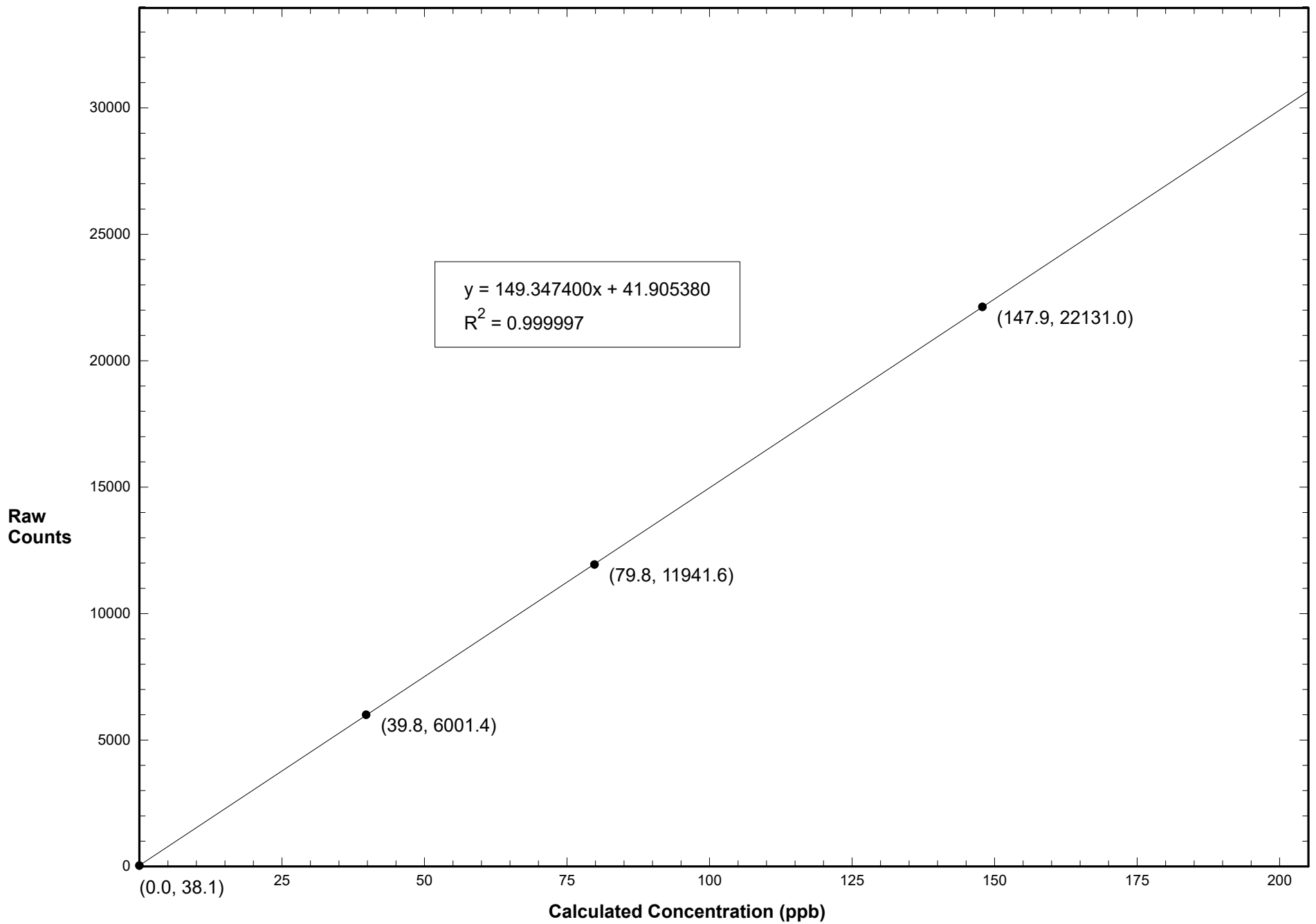
Comments: SAMPLE FLOW = 0.466 LPM

Calibration Data Summary (Page 2)

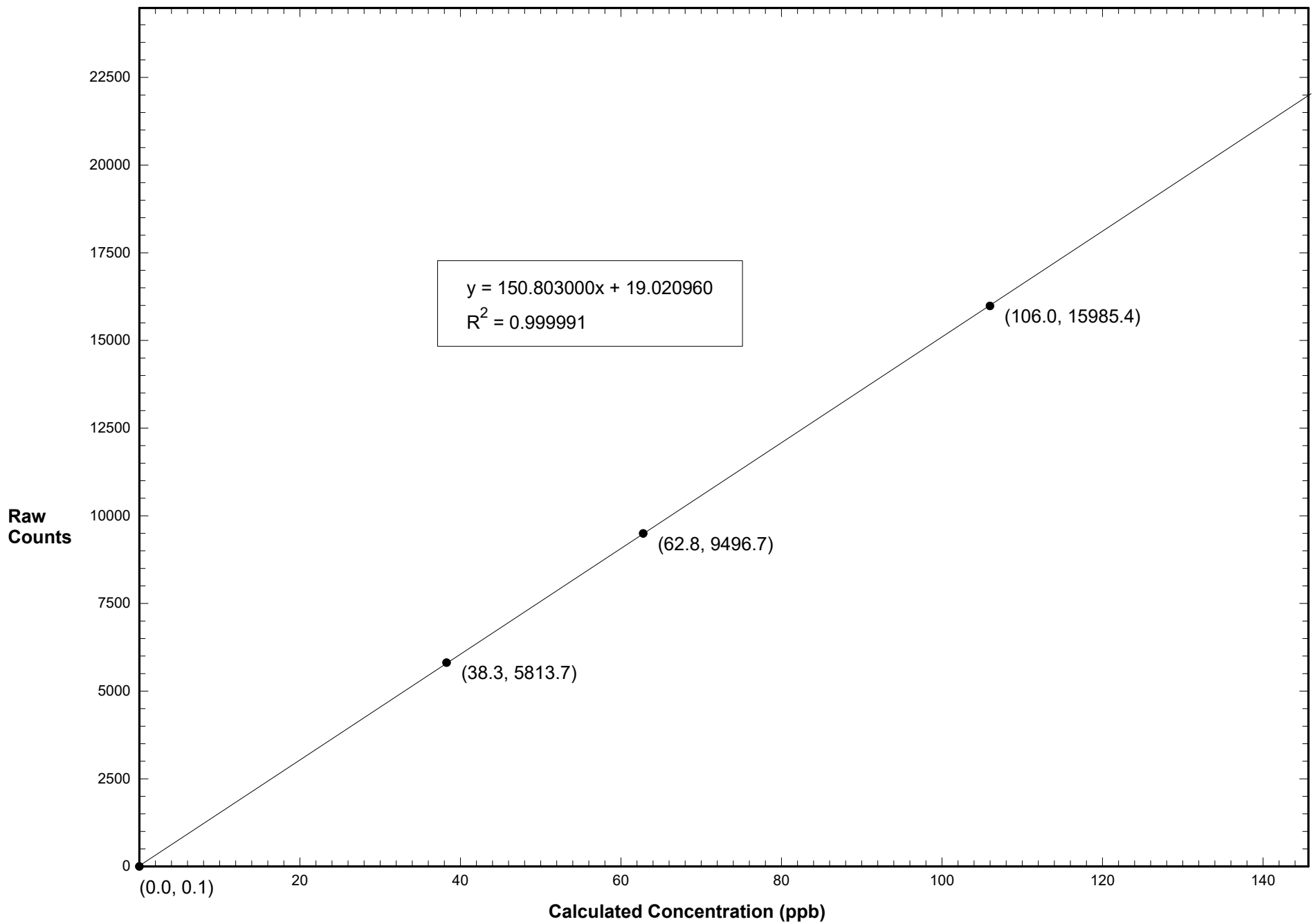
March 15, 2017 - Station 906

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		
0.07534	6.039	147.9	22131.0	147.9	1.000		
0.04045	6.041	79.8	11941.6	79.7	1.002		
0.02008	6.037	39.8	6001.4	39.9	0.997		
0.00000	6.000	0.0	38.1	0.0			
NO Calibration					Average Correction Factor:	0.999	
0.07534	6.039	147.9	22153.7	147.9	1.000		
0.04045	6.041	79.8	11932.4	79.6	1.003		
0.02008	6.037	39.8	6008.5	40.0	0.995		
0.00000	6.000	0.0	21.0	0.0			
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
147.8	6283.8	41.8	106.0	15985.4	105.9	1.001	0.999
147.8	12736.5	85.0	62.8	9496.7	62.8	0.999	1.001
147.8	16394.0	109.5	38.3	5813.7	38.4	0.996	1.004
			0.0	0.1	-0.1		
						Average Correction Factor:	0.999
NO ₂ Gas Phase Titration						Average Converter Efficiency:	1.001
Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor				
NO	1.005	1.000	-0.5				
NO ₂	0.998	1.001	0.3				
NO _x	1.006	1.000	-0.6				

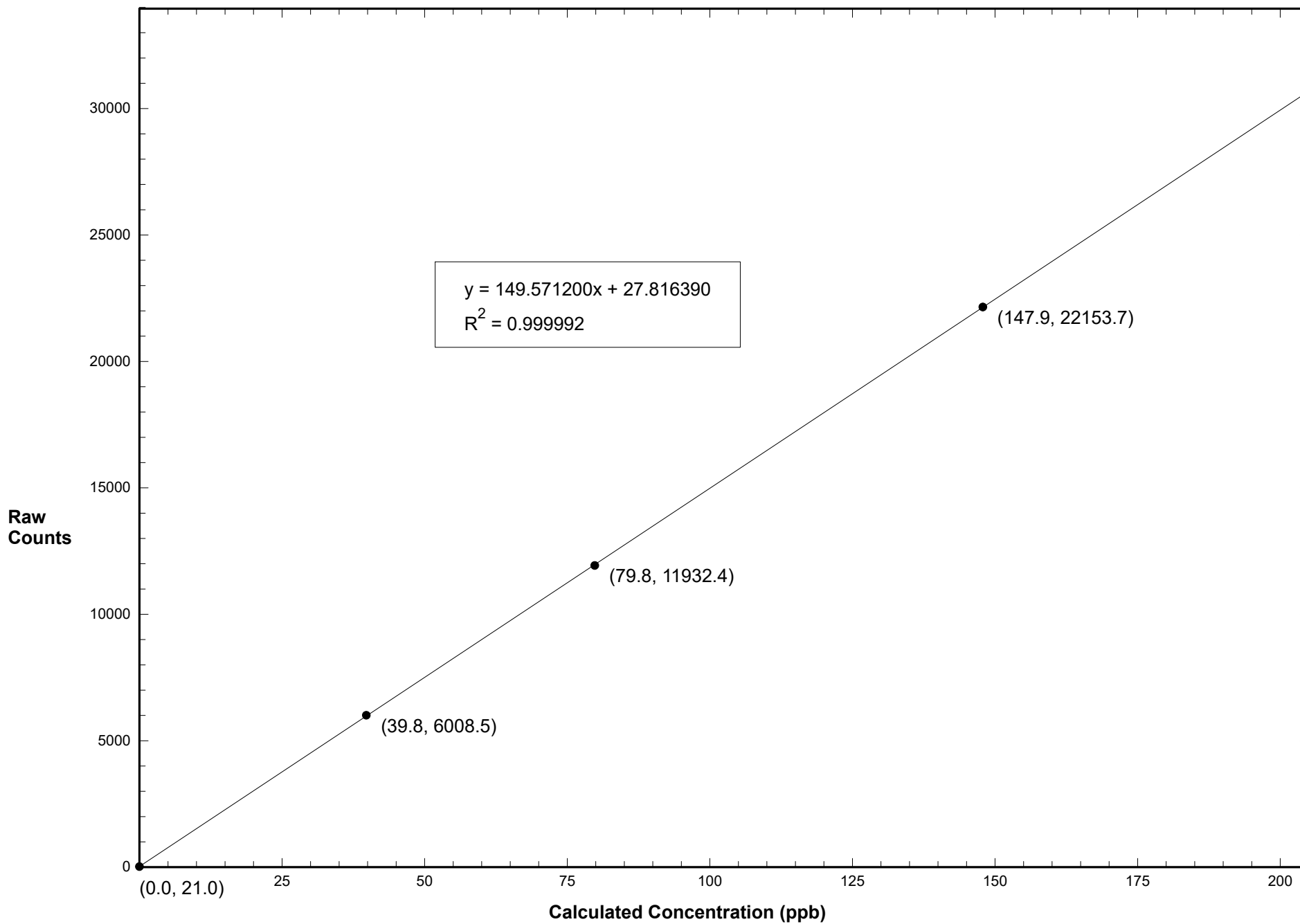
Station 906 NO March 15, 2017: Linear Regression



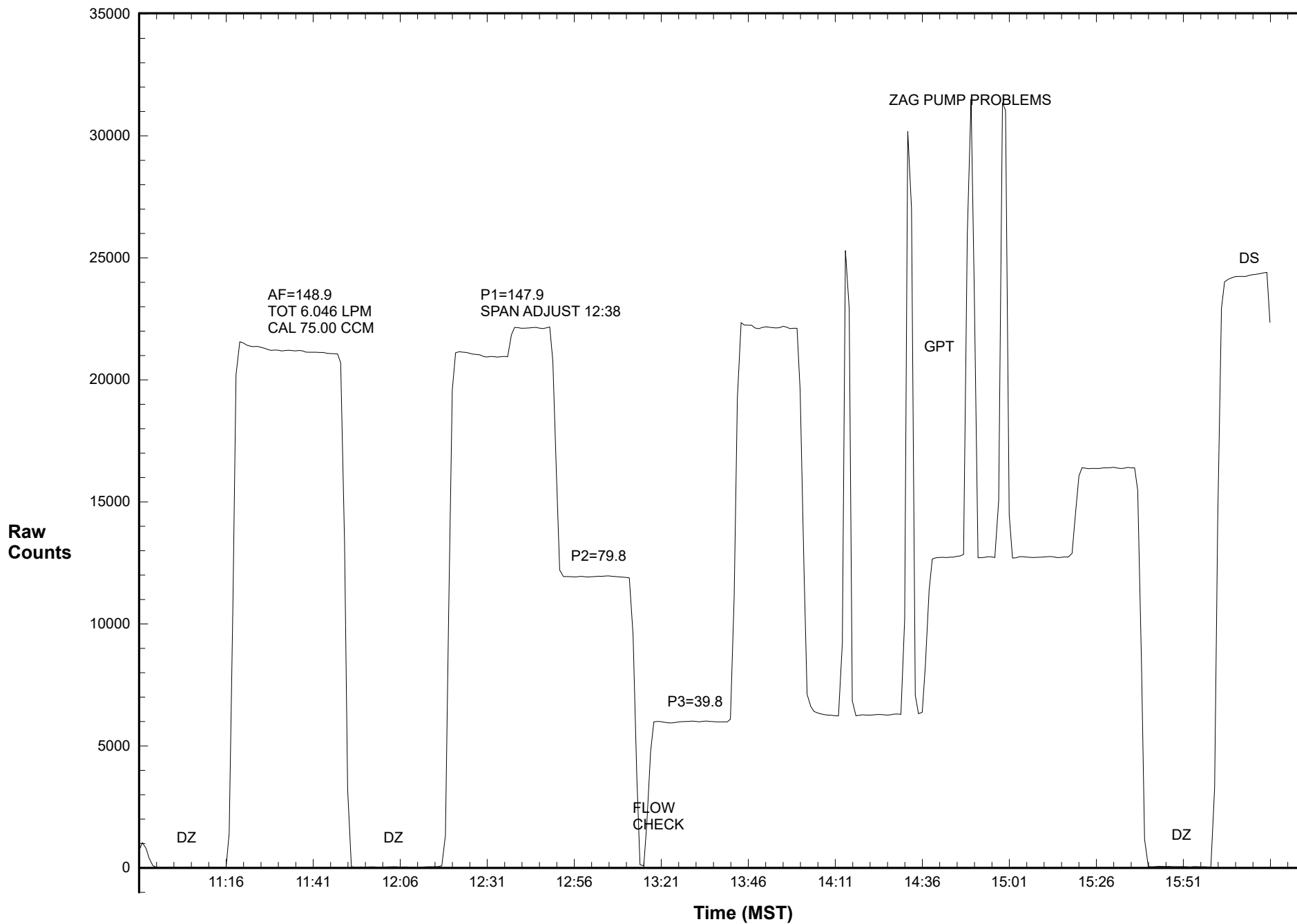
Station 906 NO2 March 15, 2017: Linear Regression



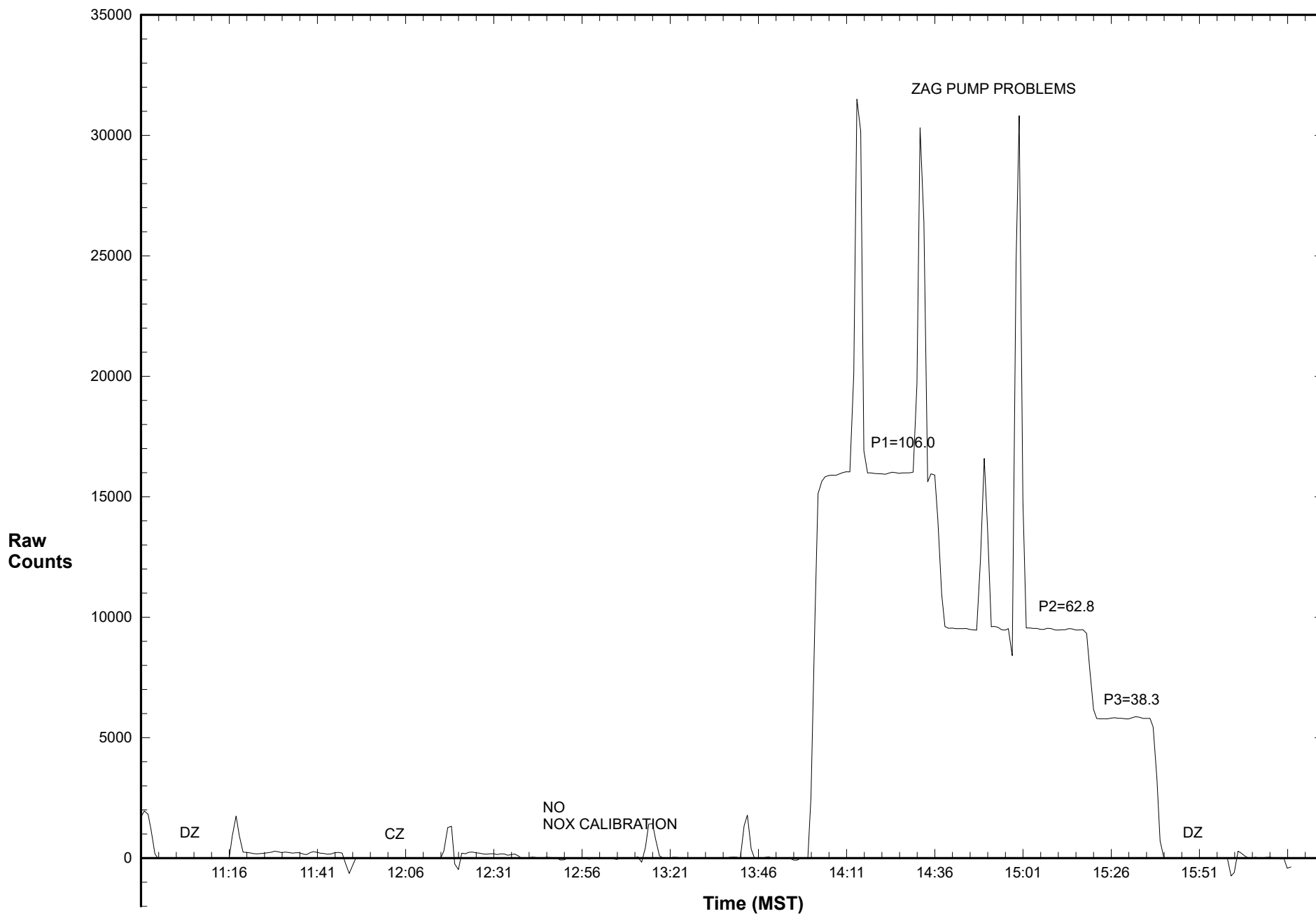
Station 906 NOX March 15, 2017: Linear Regression



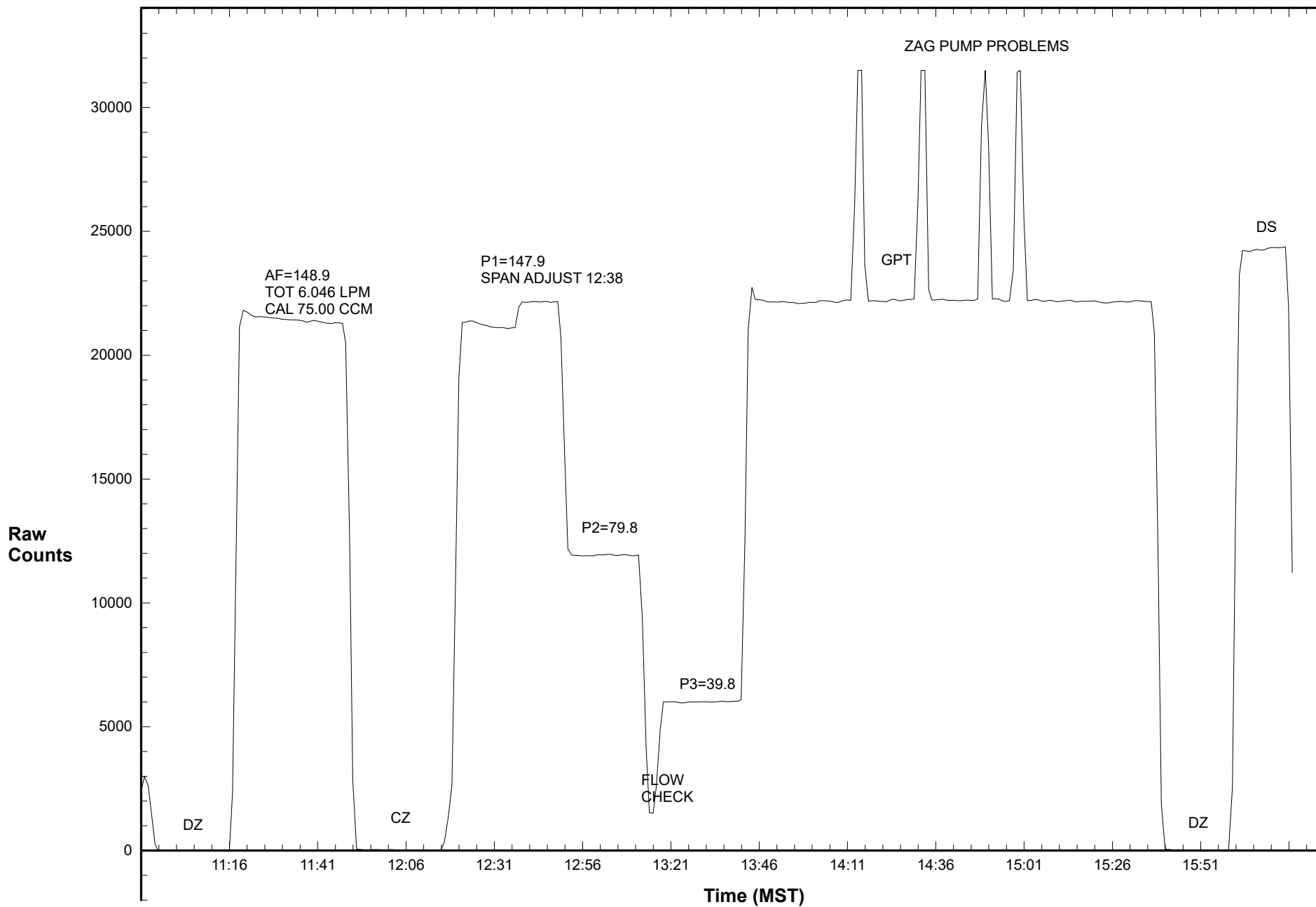
Station 906 NO March 15, 2017: Calibration Graph



Station 906 NO2 March 15, 2017: Calibration Graph



Station 906 NOX March 15, 2017: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton
 Calibration Date: March 15, 2017
 Parameter: O₃

Instrument: Teco 49i

Serial Number: 1150790050

Previous Calibration Date: February 7, 2017

Calibration: Routine

Calibration Equipment: 2B Tech Model 306 SN142

Barometric Pressure: 27.70" Hg

Calibration Method: Certified Ozone Generator

Temperature: 22.4° C

Technician: L. Burns

Instrument Settings	Background	Coefficient	Monitoring Range
Previous	-0.1	0.997	500 ppb
Current	-0.1	1.011	500 ppb

Final Zero: -1.2 ppb

Final Span: 372.8 ppb

As Found Correction Factor: 1.004

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	399.0	23914.3	398.4	1.002
3.000	215.0	12967.8	215.5	0.998
3.000	105.0	6428.3	106.3	0.988
3.000	0.0	-4.1	-1.2	

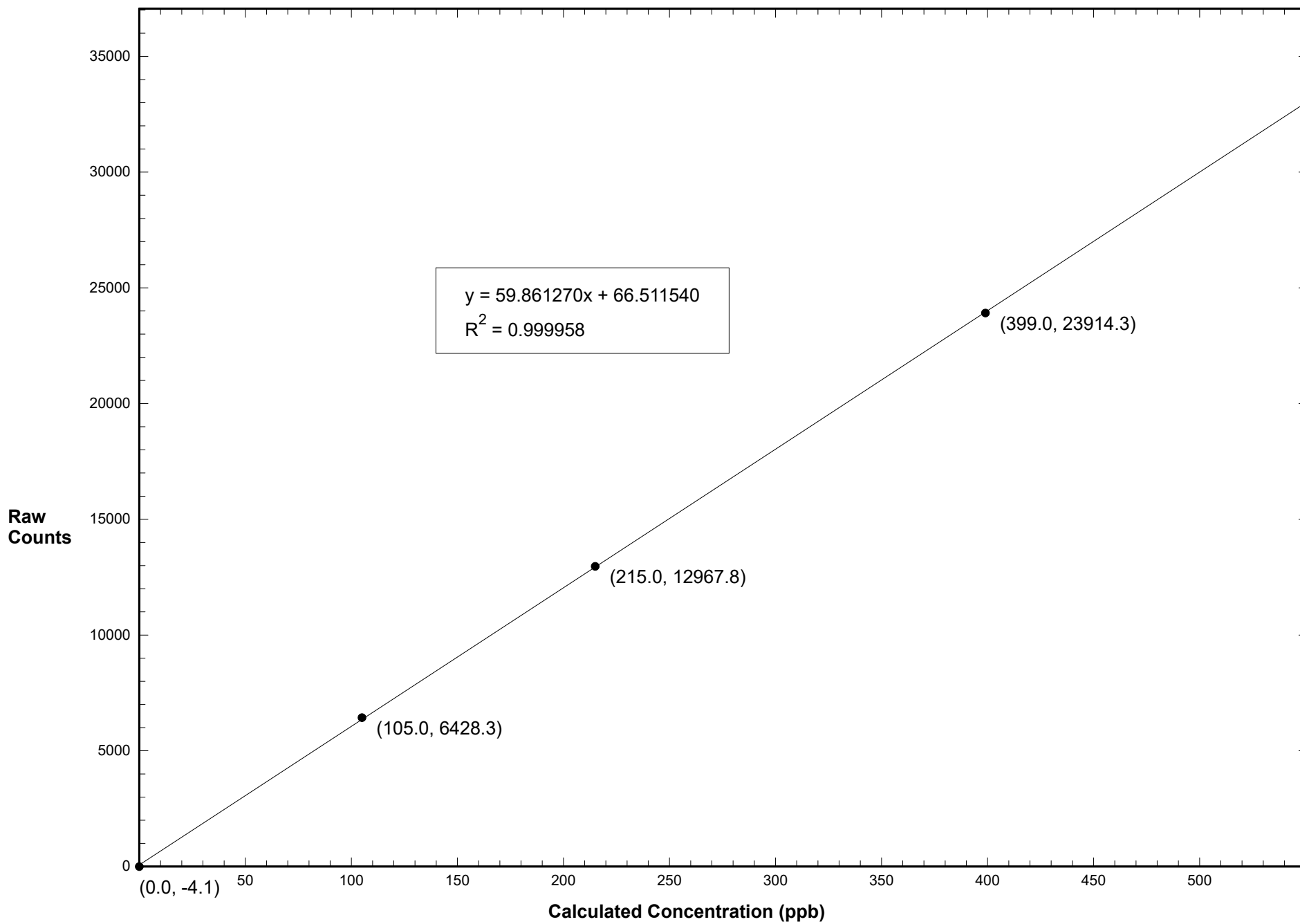
Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	59.809600	39.613530	0.999976
Current	59.861270	66.511540	0.999958
C _i vs C _c			
Current	1.000000	-0.000032	0.999958

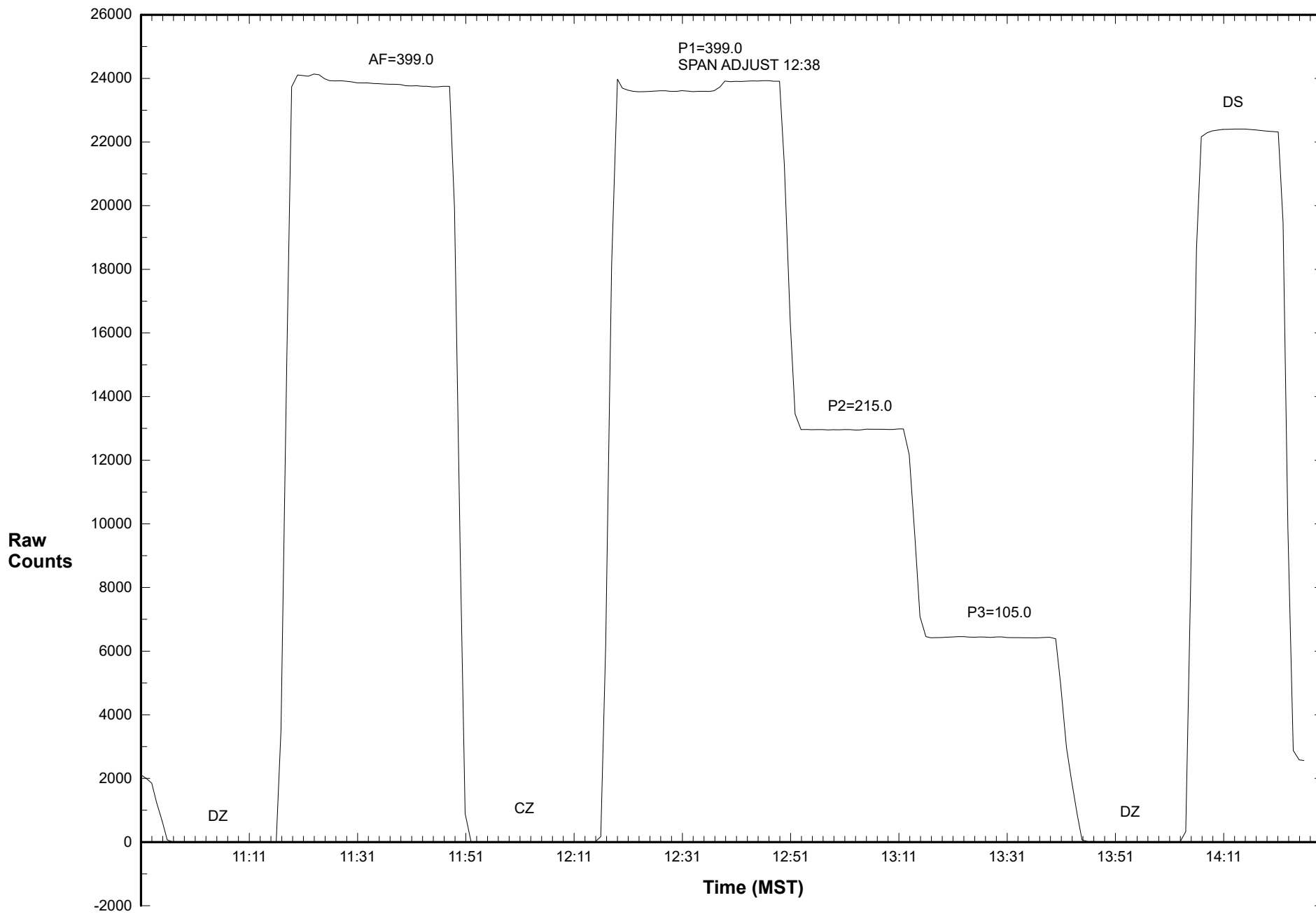
Average Correction Factor: 0.996
 Previous Correction Factor: 1.000
 Current Correction Factor: 1.002
 Percent Change of Correction Factor: 0.2

Comments: SAMPLE FLOWS = 0.705 AND 0.688 LPM

Station 906 O3 March 15, 2017: Linear Regression



Station 906 O3 March 15, 2017: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton
 Calibration Date: March 15, 2017
 Parameter: SO₂

Instrument: TECO 43i	Serial Number: CM12499009	Previous Calibration Date: February 7, 2017
Calibration: Routine	Calibration Equipment: Sabio 2010 SN 08600312	Barometric Pressure: 27.70" Hg
Calibration Method: Standard Gas Dilution	Cylinder ID: FF24195	Temperature: 22.4° C
Cylinder Concentration: 5.78 ppm SO ₂	In Service: 6/2/2016 EXP 1/20/2019	Technician: L. Burns

Instrument Settings	SO ₂ bkg ppb	SO ₂ Coefficient	Monitoring Range
Previous	26.4	1.041	100 ppb
Current	26.5	1.045	100 ppb

Final Zero: 0.1 ppm Final Span: 73.3 ppm As Found Correction Factor: 1.025

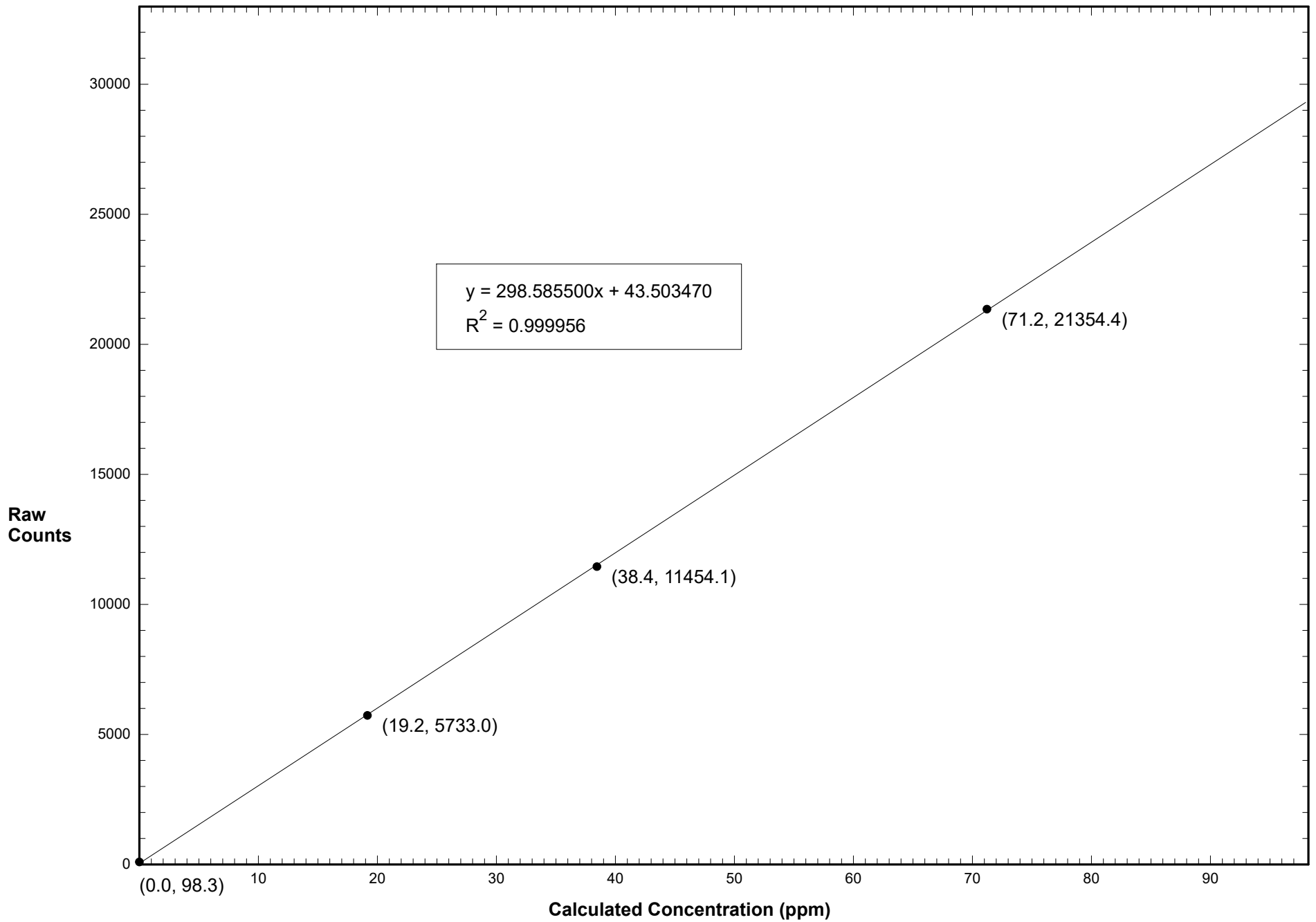
SO ₂ Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C _c (ppm)	Raw Count Output R _c	Indicated Concentration C _i (ppm)	Correction Factor C _c /C _i
0.0753	6.039	71.2	21354.4	71.4	0.998
0.0405	6.041	38.4	11454.1	38.2	1.006
0.0201	6.037	19.2	5733.0	19.1	1.006
0.0000	6.000	0.0	98.3	0.2	

Results of Linear Regression			
R _c vs C _c	Slope	Intercept	R ²
Previous	301.490500	10.327000	0.999914
Current	298.585500	43.503470	0.999956
C _i vs C _c			
Current	1.000000	-0.000004	0.999956

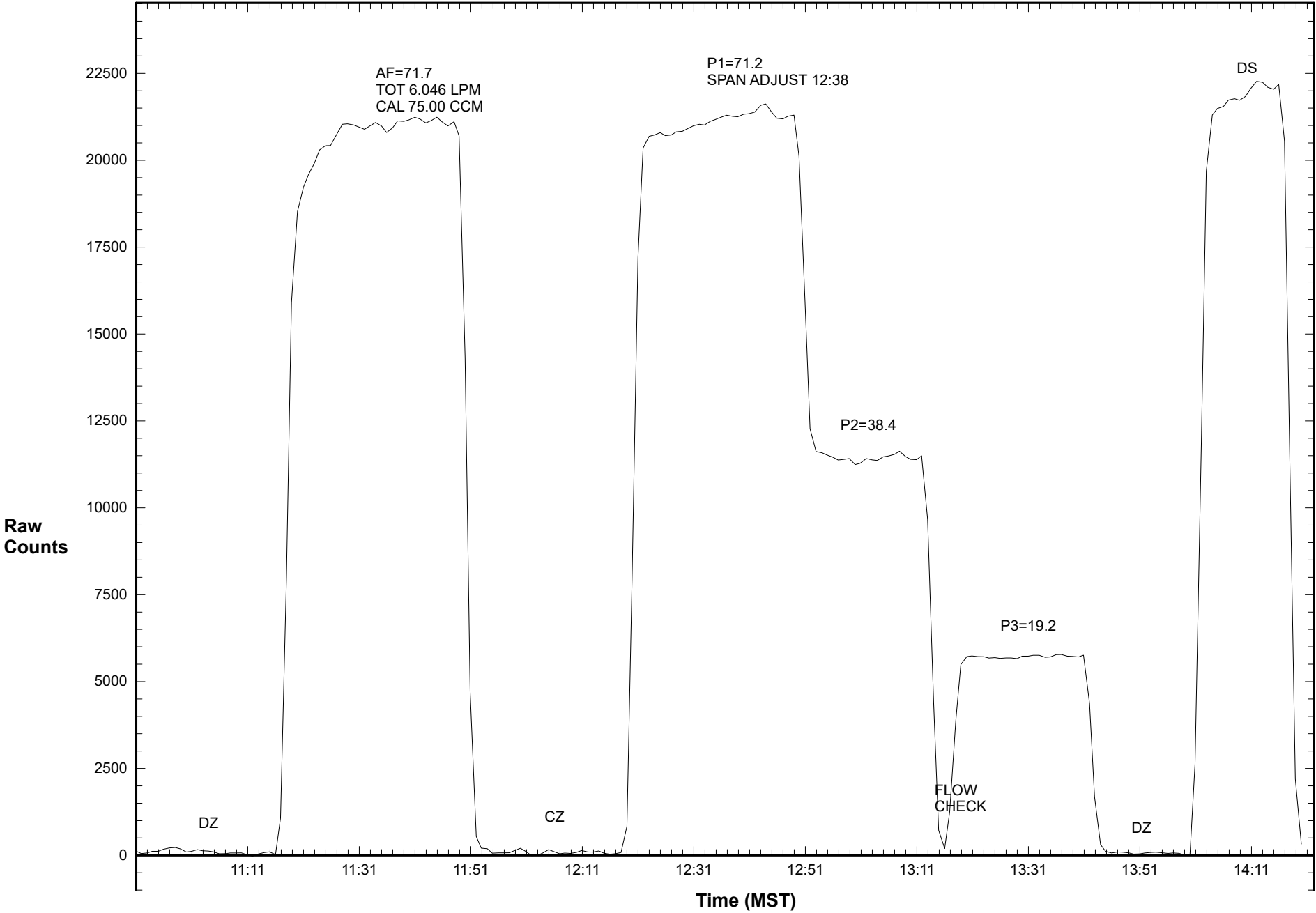
Average Correction Factor: 1.003
 Previous Correction Factor: 1.003
 Current Correction Factor: 0.998
 Percent Change of Correction Factor: -0.5

Comments: SAMPLE FLOW = 0.380 LPM

Station 906 SO2 March 15, 2017: Linear Regression



Station 906 SO2 March 15, 2017: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: March 15, 2017

Parameter: TRS

Instrument: Teco 43C

Serial Number: 43CTL-60324-326

Previous Calibration Date: February 7, 2017

Calibration: Routine

Calibration Equipment: Sabio 2010 SN 11100113

Barometric Pressure: 27.70" Hg

Calibration Method: Standard Gas Dilution

Permeation Device ID: DT0014794, 10.5 ppm H2S

Temperature: 22.4° C

Permeation Rate: 0 ng/min

In Service: 10/21/2016 EXP 10/4/2019

Technician: L. Burns

Instrument Settings	H ₂ S bkg ppb	H ₂ S Coefficient	Monitoring Range
Previous	1.81	0.829	100 ppb
Current	1.78	0.823	100 ppb

Final Zero: -0.1 ppb

Final Span: 66.9 ppb

As Found Correction Factor: 0.978

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
0.038	79.4	23929.7	79.3	1.000
0.021	43.0	13016.8	43.1	0.998
0.011	22.3	6748.0	22.2	1.003
0.000	0.0	60.7	0.0	

Results of Linear Regression

R _c vs C _c	Slope	Intercept	R ²
Previous	300.690400	36.826740	0.999928
Current	300.910900	61.809410	0.999996
C _i vs C _c			
Current	1.000000	-0.000010	0.999996

Average Correction Factor: 1.000

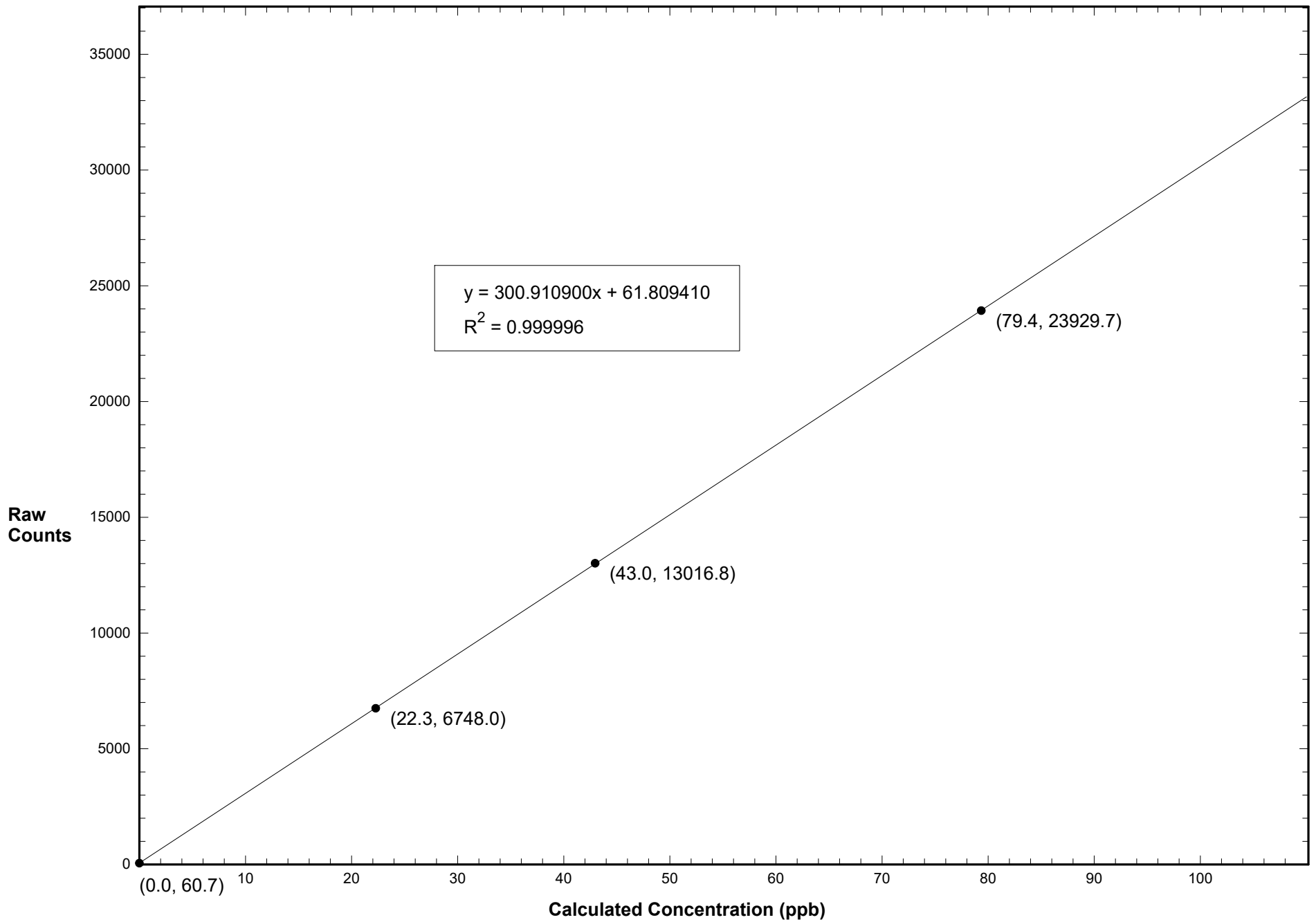
Previous Correction Factor: 1.003

Current Correction Factor: 1.000

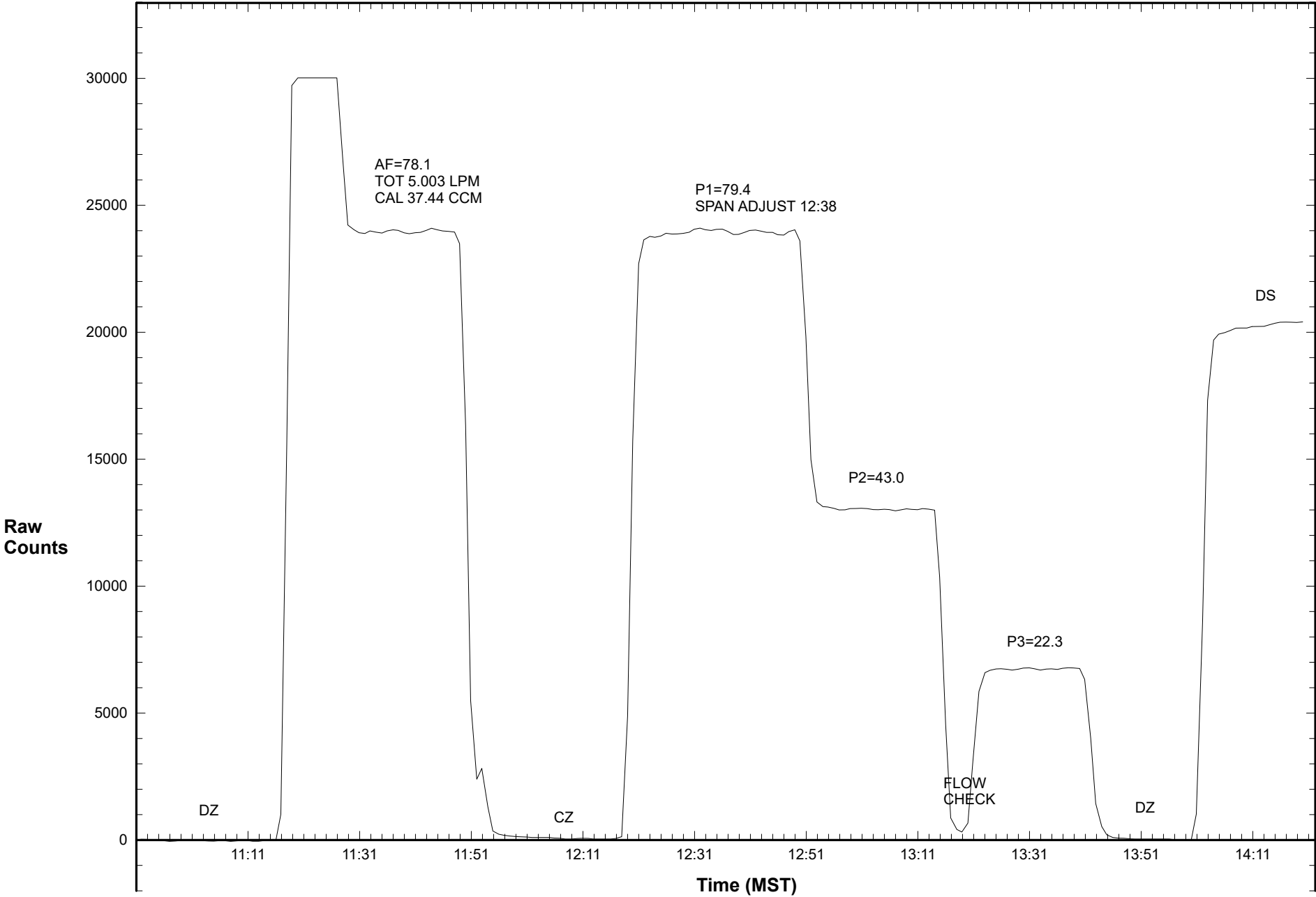
Percent Change of Correction Factor: -0.3

Comments: SAMPLE FLOW = 0.332 LPM

Station 906 TRS March 15, 2017: Linear Regression



Station 906 TRS March 15, 2017: Calibration Graph



WEST CENTRAL AIRSHED SOCIETY

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

**AMS 906
HINTON
MARCH 2017**

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
March 2017

Maximum Value: 11.33 C on Mar 22 16:00 Maximum Daily Average: 4.71 C on Mar 31 Minimum Value: -28.0 C on Mar 9 08:00 Minimum Daily Average: -19.59 C on Mar 9 Maximum Diurnal Average: 1.04 C at hour 16 Minimum Diurnal Average: -9.29 C at hour 7 Monthly Average: -4.010 C Percentiles: P ₁ = -22.9 P ₁₀ = -16.4 Q ₁ = -12.1 Median = -2.7 Q ₃ = 3.0 P ₉₀ = 7.1 P ₉₉ = 10.6																								Hours in Service:	744																								
																								Hours of Data:	744																								
																								Hours of Missing Data:	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-Mar	-4.8	-4.6	-4.8	-5.3	-5.8	-8.4	-12.3	-12.9	-12.4	-11.1	-8.6	-6.4	-3.5	-3.3	-3.0	-3.5	-3.1	-2.4	-5.5	-7.5	-9.2	-10.5	-11.7	-13.2	-7.25	-2.42																							
2-Mar	-14.4	-15.0	-15.6	-16.5	-17.1	-17.2	-17.2	-17.5	-17.0	-14.9	-12.4	-8.9	-4.2	1.7	3.3	4.1	3.8	3.8	3.0	2.9	2.8	2.3	2.1	2.9	-6.47	4.06																							
3-Mar	3.9	3.3	1.9	-1.5	-3.4	-4.3	-4.8	-5.8	-5.2	-1.4	3.4	5.8	-0.6	-2.7	-3.7	-3.9	-4.1	-4.5	-4.7	-4.6	-4.7	-4.8	-4.8	-4.8	-2.33	5.84																							
4-Mar	-4.9	-5.0	-5.1	-5.6	-9.0	-12.1	-13.7	-14.6	-15.1	-15.3	-14.8	-13.6	-13.9	-13.6	-13.7	-13.6	-13.7	-13.5	-14.0	-14.1	-14.3	-14.8	-15.2	-15.5	-12.44	-4.86																							
5-Mar	-15.7	-15.7	-15.6	-15.5	-15.4	-15.2	-15.1	-14.9	-14.8	-14.0	-12.6	-11.6	-10.5	-10.0	-8.7	-8.5	-9.3	-10.3	-11.2	-11.7	-12.1	-12.2	-12.5	-12.7	-12.74	-8.53																							
6-Mar	-13.1	-13.6	-14.4	-14.8	-15.0	-15.1	-15.2	-15.6	-15.5	-14.2	-12.7	-11.6	-10.4	-10.3	-10.3	-10.0	-9.9	-10.2	-10.6	-10.8	-11.0	-11.5	-11.9	-12.4	-12.51	-9.93																							
7-Mar	-12.5	-12.9	-14.4	-16.5	-18.4	-19.4	-18.9	-17.8	-16.7	-14.5	-13.4	-12.7	-12.2	-11.7	-11.5	-11.4	-11.4	-11.7	-12.2	-12.6	-12.7	-12.7	-12.9	-13.7	-13.96	-11.42																							
8-Mar	-14.4	-15.0	-15.7	-16.2	-16.7	-17.2	-18.0	-18.4	-18.4	-18.1	-17.2	-16.0	-14.8	-14.3	-13.3	-13.7	-14.0	-14.3	-14.7	-15.8	-17.1	-18.6	-19.8	-20.8	-16.36	-13.29																							
9-Mar	-21.6	-22.8	-23.1	-24.0	-25.1	-26.2	-27.4	-28.0	-25.9	-21.5	-19.0	-17.2	-15.5	-14.4	-14.2	-14.3	-14.4	-14.7	-15.5	-16.0	-16.6	-17.2	-17.5	-17.9	-19.59	-14.15																							
10-Mar	-18.2	-18.5	-18.8	-19.1	-19.3	-19.4	-19.4	-19.4	-19.3	-18.8	-17.9	-16.9	-16.0	-15.3	-14.9	-14.2	-14.1	-14.3	-14.6	-15.5	-16.3	-17.1	-17.7	-18.3	-17.23	-14.09																							
11-Mar	-18.6	-18.9	-19.0	-18.9	-18.9	-19.4	-19.1	-18.9	-18.5	-17.6	-16.5	-15.5	-14.4	-13.6	-13.6	-13.4	-13.5	-13.8	-14.1	-14.6	-15.2	-15.7	-16.2	-16.4	-16.43	-13.41																							
12-Mar	-16.7	-17.0	-17.2	-17.3	-17.2	-17.3	-17.1	-17.0	-16.4	-15.3	-14.1	-12.3	-10.5	-8.3	-6.5	-5.7	-5.6	-5.9	-6.9	-7.8	-8.6	-9.1	-9.5	-9.7	-12.04	-5.61																							
13-Mar	-9.7	-9.7	-9.8	-10.1	-10.9	-11.1	-10.9	-10.9	-10.5	-9.3	-6.3	-1.0	6.9	8.3	9.1	9.6	9.8	9.2	7.7	4.7	0.9	4.1	0.2	-0.9	-1.70	9.80																							
14-Mar	-1.1	-2.5	-2.5	-3.1	-3.5	-3.7	-3.3	-3.8	-3.3	-2.2	-1.0	0.8	1.7	3.6	6.2	8.5	9.8	8.9	6.7	3.5	1.2	-0.5	-0.6	3.9	1.01	9.78																							
15-Mar	6.5	-1.0	-2.2	-2.7	-3.5	-3.8	-2.3	-1.0	-0.2	1.1	2.2	2.7	2.7	3.0	2.9	3.0	3.1	2.8	2.4	1.7	0.6	0.2	-0.3	-1.1	0.70	6.51																							
16-Mar	-1.6	-1.9	-1.9	-1.7	-1.9	-1.8	-2.0	-1.9	-1.5	-0.6	1.1	1.6	4.1	3.6	3.3	5.4	5.8	4.7	3.4	2.2	0.9	0.5	-2.3	-3.4	0.58	5.79																							
17-Mar	-4.6	-5.8	-7.0	-8.1	-8.8	-9.5	-10.1	-10.4	-7.5	-2.6	3.0	6.0	6.7	6.5	6.6	6.4	5.9	5.5	4.2	3.1	2.3	2.1	0.6	-1.1	-0.69	6.68																							
18-Mar	-1.6	-1.8	-2.3	-2.9	-3.2	-4.1	-4.4	-4.6	-2.3	0.1	3.3	4.5	5.9	5.9	5.4	4.6	4.9	6.1	5.0	1.9	0.2	-0.3	-0.8	-1.3	0.75	6.07																							
19-Mar	-1.9	-3.0	-3.3	-5.0	-6.6	-7.6	-8.8	-7.9	-2.8	0.1	1.1	1.9	2.1	2.4	2.2	1.9	1.6	1.4	0.1	-1.4	-2.3	-2.5	-3.4	-3.5	-1.90	2.36																							
20-Mar	-3.2	-3.6	-4.6	-6.1	-7.8	-9.2	-10.6	-11.0	-8.3	-5.6	-3.3	-1.0	1.6	2.9	3.9	4.3	4.3	3.7	2.2	-0.2	-1.6	-2.3	-2.9	-3.4	-2.58	4.31																							
21-Mar	-3.8	-4.5	-5.0	-5.7	-6.3	-6.6	-6.5	-6.4	-6.0	-4.7	-2.6	0.2	2.2	4.1	5.4	5.2	4.8	4.6	3.9	2.9	1.4	-0.2	-0.9	-2.1	-1.11	5.40																							
22-Mar	-2.5	-3.2	-3.7	-3.6	-3.1	-2.8	-2.5	-2.3	-1.9	-0.3	2.2	6.1	9.7	10.7	10.9	11.3	10.6	10.1	9.4	7.9	5.3	3.5	1.5	0.5	3.08	11.33																							
23-Mar	-0.4	-0.5	-0.8	-1.7	-2.6	-3.3	-3.9	-3.4	-1.3	0.9	4.2	5.8	6.4	6.9	6.8	6.0	6.1	5.9	4.8	3.9	2.9	0.0	-2.1	-3.1	1.57	6.86																							
24-Mar	-3.5	-4.0	-4.8	-5.1	-5.1	-4.9	-4.7	-4.4	-3.7	-2.2	1.7	5.3	8.1	8.6	8.9	9.1	9.0	8.7	7.7	6.4	4.9	4.0	3.4	3.9	1.97	9.05																							
25-Mar	3.9	-0.1	-2.1	-2.3	-2.8	-3.2	-3.1	-2.7	-1.4	1.5	5.7	8.3	9.2	8.9	9.1	9.2	8.7	8.3	6.3	5.8	3.1	1.4	-0.1	-1.5	2.92	9.16																							
26-Mar	-2.5	-3.4	-4.0	-4.4	-4.4	-4.9	-5.3	-4.6	-1.6	2.3	5.2	6.9	7.6	8.2	8.6	8.9	9.0	7.4	6.2	4.7	3.7	3.8	2.2	0.1	2.07	8.99																							
27-Mar	-1.3	-2.2	-2.5	-2.4	-2.7	-2.7	-2.4	-1.7	-0.2	2.8	5.9	7.6	8.0	8.8	9.9	9.8	9.3	9.9	9.1	6.8	3.1	0.8	-0.6	-1.1	3.00	9.88																							
28-Mar	-1.6	-1.5	-2.0	-2.4	-2.1	-2.0	-1.9	-1.3	0.2	2.4	2.7	4.3	6.6	9.6	9.4	10.1	10.2	9.1	8.5	7.2	5.4	4.6	2.4	1.0	3.29	10.19																							
29-Mar	0.4	1.1	-0.6	-2.0	-2.2	-2.6	-3.2	-2.8	-0.3	3.1	6.1	8.5	9.6	9.9	9.5	9.7	9.8	8.7	7.4	6.2	5.2	4.7	4.4	3.3	3.91	9.92																							
30-Mar	2.1	1.8	1.6	0.5	-0.2	-0.1	0.1	0.8	2.9	4.7	5.6	6.1	5.7	6.5	7.1	6.5	6.2	6.0	6.1	5.0	3.8	2.7	1.3	-0.3	3.44	7.13																							
31-Mar	-1.4	-1.7	-1.8	-2.4	-2.9	-3.3	-3.5	-3.0	-1.3	2.0	7.3	9.8	10.7	10.2	11.1	11.0	10.7	10.3	10.4	9.4	8.4	8.2	7.5	7.3	4.71	11.10																							
																								-5.77	-6.56	-7.14	-7.82	-8.45	-8.98	-9.29	-9.16	-7.95	-5.92	-3.60	-1.69	-0.36	0.42	0.86	1.04	0.98	0.63	-0.30	-1.50	-2.76	-3.46	-4.45	-5.01	Diurnal Average	
																								6.51	3.29	1.90	0.52	-0.24	-0.10	0.11	0.84	2.87	4.67	7.29	9.81	10.74	10.70	11.10	11.33	10.67	10.30	10.35	9.36	8.39	8.15	7.54	7.34	Diurnal Maximum	



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
March 2017

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	10.0	7.2	6.2	4.6	6.4	0.4	2.7	2.4	2.3	0.3	0.6	4.8	6.3	6.5	5.3	7.1	3.1	1.9	4.9	2.2	1.2	0.4	0.7	0.9	0.83	9.98
Dir	WSW	WSW	WSW	SW	SW	N	ENE	ENE	ENE	NNE	NNE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	ENE	E	E	ENE	ENE	WSW
2 Spd	0.6	1.0	0.9	1.1	1.4	1.2	1.5	1.3	1.8	3.3	3.5	2.2	0.7	4.1	5.8	9.1	8.7	5.8	6.5	6.3	7.7	6.5	5.1	4.0	2.09	9.09
Dir	ENE	ENE	ENE	E	ENE	ENE	ENE	ENE	ENE	E	ENE	ENE	WNW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW
3 Spd	13.8	6.4	3.4	2.3	1.7	0.4	1.2	1.0	1.1	1.2	0.9	2.6	3.5	2.6	5.4	3.9	2.9	0.6	0.5	0.7	0.6	1.6	2.6	3.5	0.38	13.81
Dir	SW	SW	S	ENE	E	S	ENE	ESE	E	SE	W	WNW	NNE	NNE	E	E	ENE	NNW	W	N	NNE	NE	NE	ENE	ESE	WSW
4 Spd	4.2	3.8	4.1	8.2	8.1	4.5	2.5	3.0	3.5	2.8	4.3	4.5	5.5	6.5	7.4	7.7	8.0	3.5	5.5	4.6	3.9	4.8	6.9	6.1	4.95	8.21
Dir	ENE	NE	NE	ENE	ENE	N	NNE	N	NE	NNE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE
5 Spd	5.5	6.6	4.7	3.7	2.0	1.5	0.7	3.1	5.3	1.9	1.0	1.3	3.4	3.9	5.4	6.1	7.4	7.9	5.9	7.6	6.4	6.0	5.3	6.5	3.65	7.88
Dir	ENE	ENE	ENE	ENE	NE	ENE	ESE	SW	SW	WNW	NNW	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE
6 Spd	6.9	6.8	7.2	5.3	6.4	5.6	4.5	6.0	6.7	4.9	5.8	5.6	6.2	6.5	7.3	7.0	6.8	5.7	5.4	1.9	3.7	3.5	5.1	5.0	5.63	7.29
Dir	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	E	ENE	ENE	ENE	ENE	ENE
7 Spd	4.9	3.0	0.4	1.3	0.6	1.0	1.9	1.7	1.6	4.7	6.7	6.8	8.2	7.1	5.6	5.5	4.2	4.8	4.6	3.4	3.5	4.3	5.5	8.4	4.07	8.38
Dir	ENE	ENE	ENE	E	SSE	ESE	E	E	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE
8 Spd	4.4	5.4	5.4	4.6	5.8	4.9	4.6	6.8	6.2	5.7	5.0	5.5	7.1	6.7	5.2	5.3	5.2	5.4	5.4	2.6	2.1	1.6	1.7	3.1	4.77	7.13
Dir	NE	ENE	ENE	ENE	ENE	ENE	ENE	E	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE
9 Spd	2.0	1.3	2.3	1.6	0.6	0.9	0.2	0.7	2.1	5.2	6.4	6.8	6.6	7.8	7.9	7.2	7.7	8.5	4.3	3.6	6.6	4.3	5.9	5.9	4.16	8.49
Dir	ENE	ENE	E	ENE	ENE	ENE	NNE	ENE	NNE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	E	ENE	NE	E	ENE	E	ENE	E
10 Spd	5.8	6.0	6.7	7.5	5.2	4.0	3.6	3.4	4.4	3.4	3.5	4.0	4.4	5.8	6.4	4.8	5.8	5.7	4.3	3.7	5.0	4.9	4.6	4.0	4.68	7.46
Dir	E	E	E	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ESE	ESE	E	ESE	ESE	E	ENE	E	E	E	E	E	E
11 Spd	4.2	3.4	3.0	3.9	3.3	1.6	4.5	3.2	4.8	3.9	5.4	7.1	7.0	5.6	5.3	6.5	5.6	5.1	3.5	4.9	4.5	5.2	6.0	5.1	4.66	7.15
Dir	E	E	E	E	E	ENE	E	ENE	E	ENE	E	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	E	ENE	E
12 Spd	4.9	5.4	6.2	6.5	5.3	5.3	5.0	4.6	4.5	4.6	3.7	3.1	4.3	5.2	5.3	5.6	4.9	5.5	5.7	7.2	7.5	4.7	5.6	5.7	5.22	7.52
Dir	E	E	E	E	E	E	E	E	E	ENE	ENE	E	ENE	ENE	ENE	ENE	ENE	ENE	E	E	E	ENE	E	E	E	E
13 Spd	5.2	3.1	2.8	3.0	1.8	2.1	2.4	2.2	4.5	4.7	2.1	1.6	7.5	10.6	10.6	11.4	8.7	7.4	2.6	1.1	2.7	4.4	1.8	2.4	1.41	11.39
Dir	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	E	ENE	SSE	WSW	WSW	WSW	WSW	SW	WSW	WSW	ESE	E	SW	SE	SE	SSW	WSW
14 Spd	2.8	2.2	0.3	1.9	0.2	1.2	0.3	0.3	0.7	0.9	1.0	0.5	0.8	1.2	1.2	1.3	1.1	0.8	0.9	2.2	2.7	2.3	4.0	3.4	0.72	3.95
Dir	S	E	WSW	E	SE	WSW	N	WNW	SE	E	WNW	S	SE	SSE	SE	SW	S	SW	SSE	ESE	E	E	E	WSW	SE	E
15 Spd	2.9	4.4	1.9	0.8	2.4	3.5	3.5	1.0	0.4	0.8	3.6	4.9	6.5	6.4	5.3	6.6	4.7	4.6	3.1	2.9	1.6	3.0	2.3	1.8	2.93	6.63
Dir	WSW	E	E	ESE	E	E	ENE	N	SW	NE	E	E	E	E	ENE	ENE	ENE	E	ENE	E	NE	E	ENE	ENE	E	ENE
16 Spd	3.3	3.6	2.5	2.6	2.0	1.5	3.6	1.3	1.6	1.3	1.1	3.8	1.9	2.2	5.4	3.5	2.6	3.6	1.5	2.6	4.7	3.1	1.0	2.0	0.20	5.43
Dir	ENE	E	ENE	ENE	E	NE	E	ENE	ENE	ESE	NNW	SSW	WSW	NNE	SSW	WSW	W	NW	W	WSW	WSW	SW	ESE	E	S	SSW
17 Spd	1.6	0.6	0.3	1.3	0.4	0.1	0.1	0.6	1.3	0.9	2.5	2.5	4.5	3.3	1.6	1.6	1.2	1.4	0.7	2.6	2.9	4.6	1.9	1.1	0.66	4.65
Dir	E	ESE	SW	E	ESE	SSE	NNE	ENE	W	ESE	ENE	WNW	WSW	W	W	WSW	WSW	SSW	SE	WSW	ESE	SW	SW	E	SW	SW
18 Spd	1.2	0.7	1.2	1.5	1.3	0.1	0.2	0.6	1.3	2.2	0.7	0.9	3.3	3.7	8.0	3.3	3.1	7.8	0.9	7.8	3.1	2.7	7.4	4.6	1.19	7.97
Dir	E	SE	ENE	E	ESE	SW	E	ENE	E	E	E	WSW	WSW	WSW	SW	WSW	WSW	SW	W	NNW	NNE	N	NW	W	W	SW
19 Spd	3.0	2.5	4.2	2.7	2.5	2.3	1.1	1.7	3.2	11.4	10.3	13.7	14.1	13.5	15.4	13.4	12.8	11.7	6.5	2.8	3.8	2.6	1.4	2.7	6.42	15.38
Dir	WSW	WSW	SW	SW	W	W	NE	SSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	NW	WSW	WSW
20 Spd	4.6	0.8	7.2	2.2	0.6	1.0	0.2	0.2	2.4	1.1	1.6	0.7	2.2	0.7	1.6	4.0	5.3	8.5	6.3	5.9	3.1	3.1	3.4	3.5	2.03	8.54
Dir	SW	E	E	ENE	NE	SE	SSE	NNE	ENE	N	NW	SSW	NW	WNW	ESE	NE	E	ESE	E	E	ENE	E	E	E	E	ESE
21 Spd	4.4	3.8	5.0	4.2	5.3	4.6	6.1	6.5	5.5	4.9	5.5	6.9	7.3	6.2	5.7	6.5	4.8	4.0	3.2	3.4	3.2	2.7	3.8	1.4	4.70	7.26
Dir	E	E	E	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	E	ENE	ENE	ENE	E	ENE	ENE	E	ENE	ENE	ENE
22 Spd	2.5	0.2	0.4	0.7	1.7	0.4	1.6	2.1	0.7	1.6	1.2	1.1	3.3	7.9	7.8	9.5	8.8	7.5	7.5	6.4	0.5	1.6	0.7	1.1	2.18	9.49
Dir	ENE	N	E	ENE	E	ESE	SW	ENE	ESE	WSW	NW	E	SW	WSW	SW	WSW	WSW	WSW	SW	SW	SE	SSE	E	E	SW	WSW



WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
March 2017

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	0.8	1.1	3.2	1.3	1.3	0.7	0.7	1.8	4.7	5.5	3.0	11.7	13.1	11.2	8.5	8.0	6.0	3.3	3.4	3.6	1.7	0.6	0.6	0.9	2.08	13.08
Dir	NE	SE	ENE	ENE	ENE	ESE	SSW	SE	ENE	ENE	ENE	SW	WSW	SW	WSW	WSW	W	WSW	SW	WSW	SE	SE	ESE	SW	WSW	
24 Spd	1.8	2.2	1.1	0.2	1.2	1.6	1.7	1.7	2.4	1.3	2.9	1.5	3.0	6.3	4.1	3.9	7.5	6.8	9.5	7.8	4.0	3.5	3.9	4.9	2.03	9.48
Dir	E	E	E	N	E	ENE	E	ENE	ENE	ENE	E	WSW	S	SW	WSW	W	WSW	SW	SW	SW	WSW	WSW	SW	WSW	SW	SW
25 Spd	4.3	2.0	2.8	2.2	2.4	2.4	0.5	0.5	0.4	0.6	0.7	7.4	12.2	10.9	11.2	10.8	7.8	6.2	3.5	6.4	0.9	1.8	0.5	0.6	2.74	12.18
Dir	WSW	NE	ENE	ENE	ENE	ENE	ESE	SSE	NE	NNE	NNW	WSW	SW	WSW	WSW	SW	WSW	WSW	WSW	WSW	N	NE	S	SSE	WSW	SW
26 Spd	0.4	0.4	1.1	0.8	0.1	0.5	0.6	0.5	0.1	0.9	2.4	3.8	4.3	4.3	4.4	3.5	3.3	2.7	2.1	1.8	1.9	2.2	0.4	0.4	1.43	4.41
Dir	SSW	WSW	ESE	SE	SW	SSW	WSW	ENE	ESE	WNW	WNW	W	W	W	WSW	W	WNW	WNW	WSW	WSW	WSW	SW	N	E	W	WSW
27 Spd	0.4	0.7	0.6	1.3	1.5	0.9	0.5	0.2	0.7	2.2	2.4	2.6	2.7	3.5	6.9	4.2	2.1	6.2	5.8	2.1	1.0	1.0	1.3	1.3	1.38	6.86
Dir	WSW	NE	E	WSW	ENE	ESE	S	SSE	NE	WNW	W	WSW	WSW	SW	SW	WSW	W	SW	SW	SW	SE	E	E	E	SW	SW
28 Spd	1.0	1.2	1.1	1.3	1.0	0.9	1.0	0.3	0.2	0.9	0.4	1.8	3.8	1.5	5.4	8.0	10.2	7.2	10.8	8.4	3.2	1.8	1.0	1.4	1.94	10.79
Dir	ENE	E	E	SW	WSW	ESE	SSW	E	ESE	SSW	NNE	E	ENE	SSE	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	E	ENE	SW	WSW
29 Spd	1.0	2.3	0.3	0.2	0.8	1.0	0.6	0.2	0.1	1.0	0.9	1.4	1.8	2.3	2.5	2.8	2.8	3.6	1.4	1.4	0.6	0.9	1.1	2.5	0.57	3.56
Dir	ENE	SW	SE	NE	SSE	S	NE	NNE	SW	ESE	S	W	ESE	ENE	E	ESE	SSW	SW	WSW	W	SSE	SSE	WSW	SW	S	SW
30 Spd	0.7	0.2	0.7	1.2	1.1	1.2	0.3	0.4	1.3	0.7	2.8	2.3	3.8	4.4	4.0	4.5	4.3	4.0	0.2	0.3	0.7	0.9	0.6	0.4	0.49	4.47
Dir	NW	SSW	WSW	WSW	WSW	SW	NW	WSW	W	WNW	SSE	NNE	NNW	NNW	NE	NNE	NE	SE	NNW	NE	S	WSW	SSW	W	NNE	NNE
31 Spd	0.7	0.3	0.5	0.5	0.4	0.7	0.7	0.4	1.2	2.6	3.4	7.1	9.6	10.6	8.6	9.7	8.9	5.3	9.1	7.3	4.9	4.0	3.1	3.4	3.77	10.58
Dir	SW	NE	WSW	SSE	S	ESE	ENE	N	ENE	E	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
Spd	0.94	1.64	1.89	1.85	1.64	1.32	1.56	1.45	1.66	1.40	1.39	0.38	0.28	0.40	1.05	0.57	0.67	0.91	0.58	0.29	0.90	0.91	1.50	1.45	Diurnal Average	
Dir	ESE	E	E	E	E	ENE	ENE	ENE	ENE	ENE	E	SE	SW	SSW	SSW	SSW	SSW	S	S	S	E	E	ENE	E		
Spd	13.81	7.23	7.16	8.21	8.15	5.59	6.07	6.84	6.68	11.39	10.31	13.74	14.06	13.54	15.38	13.36	12.85	11.68	10.79	8.38	7.68	6.65	7.39	8.38	Diurnal Maximum	
Dir	236.26	242.59	83.28	70.68	64.45	70.26	75.06	80.16	74.12	251.45	248.27	244.92	243.04	243.18	239.15	239.71	239.81	238.39	238.84	233.08	246.83	79.32	319.51	76.37		
Maximum Speed Value: 15.4 kph on Mar 19 15:00		Minimum Speed Value: 0.1 kph on Mar 26 05:00										Hours in Service: 744														
Maximum Daily Speed Average: 6.42 kph on Mar 19		Minimum Daily Speed Average: 0.20 kph on Mar 29										Hours of Data: 744														
Maximum Diurnal Speed Average: 1.89 kph at hour 3		Minimum Diurnal Speed Average: 0.28 kph at hour 13										Hours of Missing Data: 0														
Monthly Average Velocity: 0.848 kph 92.538 deg		Speed Percentiles: P ₁ = 0.2 P ₁₀ = 0.6 Q ₁ = 1.3 Median = 3.2 Q ₃ = 5.4 P ₉₀ = 7.2 P ₉₉ = 12.8										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	22	0	0	0	0	0	22																			
NorthEast	99	27	0	0	0	0	126																			
East	199	107	0	0	0	0	306																			
SouthEast	37	2	0	0	0	0	39																			
South	25	0	0	0	0	0	25																			
SouthWest	67	53	14	0	0	0	134																			
West	60	11	1	0	0	0	72																			
NorthWest	18	2	0	0	0	0	20																			
Total	527	202	15	0	0	0	744																			



WCAS - Hinton
Summary of Hourly Averages

Relative Humidity (RH) - %
March 2017

Maximum Value: 95.24 % on Mar 16 07:00 Maximum Daily Average: 82.91 % on Mar 4																							Hours in Service: 744				
Minimum Value: 15.4 % on Mar 20 16:00 Minimum Daily Average: 47.21 % on Mar 20																							Hours of Data: 744				
Maximum Diurnal Average: 81.88 % at hour 7 Minimum Diurnal Average: 47.32 % at hour 15																							Hours of Missing Data: 0				
Monthly Average: 64.453 % Percentiles: P₁ = 19.3 P₁₀ = 29.3 Q₁ = 50.6 Median = 71.6 Q₃ = 79.7 P₉₀ = 83.8 P₉₉ = 94.1																							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-Mar	42.1	45.1	46.6	49.8	51.3	60.4	70.3	72.2	72.0	68.1	63.2	57.6	50.5	52.9	54.5	58.5	52.9	47.1	58.1	65.2	71.2	76.2	79.8	82.4	60.33	82.43	
2-Mar	84.1	83.7	83.2	82.9	82.5	81.6	81.0	80.6	79.2	75.6	74.5	68.5	58.9	39.5	36.6	34.3	36.0	36.6	38.5	37.5	38.2	39.6	40.7	37.2	59.63	84.08	
3-Mar	32.2	35.2	40.1	52.3	60.1	63.8	65.7	70.0	67.8	52.5	43.7	42.5	69.6	87.8	90.9	91.2	91.9	92.8	93.6	94.0	92.7	93.3	93.7	93.9	71.30	93.96	
4-Mar	93.9	94.0	94.1	93.4	90.2	87.4	86.3	84.1	83.2	82.5	82.1	81.0	80.0	79.9	78.8	77.3	76.3	76.8	75.8	76.7	78.3	79.1	79.1	79.5	82.91	94.11	
5-Mar	79.8	79.9	79.4	79.9	81.3	81.8	81.7	81.7	81.5	76.0	71.3	64.9	63.3	63.6	68.1	68.8	72.4	75.0	77.8	79.7	79.9	81.0	82.0	82.5	82.1	76.28	82.52
6-Mar	82.2	81.8	81.2	81.5	81.6	81.2	80.7	80.2	79.5	75.6	69.9	68.1	68.0	69.2	70.9	70.9	71.7	74.1	76.1	77.7	77.9	81.3	82.3	83.7	76.97	83.72	
7-Mar	84.1	83.9	83.5	82.2	80.6	79.8	80.5	81.1	80.7	73.3	66.3	64.7	65.8	65.1	65.7	67.0	70.1	74.2	76.6	79.5	79.7	79.6	79.3	77.3	75.86	84.11	
8-Mar	78.5	80.3	79.7	79.5	77.8	77.9	76.7	74.2	74.3	70.7	70.5	67.0	63.0	61.6	57.9	67.2	72.7	73.6	71.5	73.2	77.3	80.0	79.7	79.0	73.50	80.34	
9-Mar	78.4	76.8	76.9	75.6	75.1	73.3	72.3	71.8	72.1	70.0	63.9	60.6	59.3	59.4	62.5	65.9	69.4	68.5	71.4	75.2	76.2	76.2	78.4	77.9	71.13	78.43	
10-Mar	77.8	77.8	77.7	77.2	77.2	77.3	78.0	78.1	77.6	77.6	77.6	77.4	76.3	72.0	71.2	70.8	67.8	68.6	70.4	76.2	77.4	78.1	78.5	79.1	75.73	79.07	
11-Mar	78.9	78.6	78.0	77.8	77.6	78.3	78.0	77.5	76.4	75.0	72.6	71.0	69.0	67.8	74.2	73.8	75.9	79.6	81.4	81.4	81.4	80.5	80.0	80.8	76.91	81.43	
12-Mar	80.4	79.4	79.2	80.0	79.8	79.3	78.8	78.6	78.1	76.6	75.8	74.4	72.6	71.3	70.4	72.3	75.4	76.3	77.6	79.8	80.6	81.4	81.7	82.3	77.59	82.26	
13-Mar	82.4	82.0	82.6	82.8	83.7	84.1	83.4	83.1	81.9	79.3	71.2	61.8	55.6	48.3	42.1	36.1	34.5	36.6	42.0	55.2	71.7	53.8	70.0	75.8	65.84	84.14	
14-Mar	76.3	81.8	82.9	84.2	86.6	87.2	88.7	88.8	88.1	84.3	80.6	74.5	72.7	64.2	52.5	42.7	38.5	41.8	51.9	64.6	74.4	80.8	79.6	62.7	72.09	88.80	
15-Mar	51.1	78.3	83.4	84.5	86.4	89.3	89.2	89.0	85.5	79.6	72.0	66.2	65.5	60.8	61.9	62.9	63.2	65.4	67.8	69.4	74.5	76.8	79.1	81.0	74.29	89.32	
16-Mar	82.8	82.8	82.5	82.5	91.0	94.3	95.2	95.2	94.8	93.2	80.4	77.3	69.2	70.6	64.2	49.4	36.2	32.7	36.2	40.1	44.1	45.8	62.0	67.2	69.58	95.24	
17-Mar	74.3	79.7	82.6	85.9	89.6	88.7	88.3	88.1	79.9	67.3	39.0	25.8	22.2	25.5	26.5	26.2	25.3	25.6	32.8	37.3	42.0	40.8	49.8	62.7	54.41	89.60	
18-Mar	66.9	67.5	70.8	71.9	72.9	77.2	79.8	80.3	68.9	56.2	55.2	60.5	58.1	61.3	65.8	72.8	72.2	61.4	65.0	82.3	83.3	73.5	56.9	50.6	67.98	83.27	
19-Mar	54.6	56.3	52.7	63.8	76.8	83.0	86.3	84.6	57.3	32.4	26.7	24.7	25.5	25.0	26.1	29.8	31.6	33.2	41.5	50.8	58.9	59.5	60.1	60.4	50.06	86.34	
20-Mar	57.5	59.4	66.3	71.7	77.9	81.6	83.5	84.9	72.0	60.2	53.5	43.6	26.3	19.4	15.8	15.4	16.1	16.2	21.2	26.7	35.3	38.8	42.9	46.5	47.21	84.92	
21-Mar	51.8	58.3	62.4	66.0	69.1	71.3	72.0	71.8	70.6	66.8	59.7	49.3	42.1	34.6	27.0	29.3	36.0	38.6	43.9	50.5	58.8	66.5	69.7	75.5	55.90	75.53	
22-Mar	77.1	80.9	82.6	82.4	80.7	82.6	89.2	91.5	89.5	82.5	73.6	60.0	38.0	28.7	27.2	25.3	26.1	28.0	29.9	35.6	47.1	55.9	65.3	71.3	60.46	91.47	
23-Mar	74.9	75.6	78.1	82.1	85.1	88.0	90.6	87.5	80.1	70.0	55.7	27.0	23.6	22.8	24.4	28.3	28.3	28.6	35.5	38.7	39.6	56.6	67.1	72.1	56.68	90.57	
24-Mar	72.0	72.4	77.2	78.7	79.3	77.3	75.0	74.9	72.6	66.6	48.6	34.7	24.9	25.0	27.1	28.0	27.5	26.5	27.9	33.5	41.7	46.2	48.1	46.5	51.35	79.31	
25-Mar	44.6	63.8	71.9	73.2	75.5	77.7	78.3	78.5	75.8	66.1	50.6	32.2	25.3	25.3	24.4	23.5	26.9	26.9	33.8	32.0	44.8	63.2	73.0	77.5	52.70	78.53	
26-Mar	79.2	82.1	83.3	85.7	84.9	87.1	89.9	87.2	71.7	55.9	37.2	24.2	22.7	20.6	19.0	17.6	19.4	23.5	25.1	25.2	34.1	34.8	42.6	55.0	50.33	89.87	
27-Mar	63.1	70.6	71.1	73.3	75.0	72.2	73.2	73.3	67.1	53.3	42.5	37.0	33.2	29.7	26.5	30.8	33.0	26.5	25.5	31.6	48.8	60.3	67.7	71.3	52.37	75.02	
28-Mar	73.3	73.9	76.5	78.8	80.4	80.9	82.1	80.1	75.4	64.8	64.1	55.7	42.7	28.0	28.4	27.1	26.7	30.8	31.4	34.7	43.3	47.0	56.7	64.4	56.13	82.14	
29-Mar	67.7	65.5	73.8	80.0	81.9	83.7	85.3	84.4	74.8	63.9	50.2	34.8	26.7	24.3	26.2	26.7	25.5	35.4	43.4	49.8	55.1	56.2	59.7	68.2	55.97	85.28	
30-Mar	71.6	72.9	75.6	78.2	82.7	83.8	83.8	86.1	79.9	69.9	60.8	57.0	64.8	57.7	54.8	59.1	58.8	58.9	57.5	63.0	68.3	71.8	77.6	83.0	69.91	86.12	
31-Mar	87.3	90.2	90.6	92.7	93.6	94.1	94.1	94.0	91.8	79.2	46.6	27.9	23.8	24.7	24.7	24.8	25.9	29.2	29.8	33.5	36.9	38.3	41.6	44.9	56.68	94.15	
																							Diurnal Average				
																							Diurnal Maximum				



WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Speed (WS) - kph
March 2017

Maximum Value: 8.76 kph on Mar 3 01:00		Maximum Daily Average: 4.30 kph on Mar 19		Hours in Service: 744																						
Minimum Value: 0.4 kph on Mar 20 08:00		Minimum Daily Average: 1.60 kph on Mar 30		Hours of Data: 744																						
Maximum Diurnal Average: 3.92 kph at hour 16		Minimum Diurnal Average: 1.58 kph at hour 6		Hours of Missing Data: 0																						
Monthly Average: 2.494 kph		Percentiles: P ₁ = 0.7 P ₁₀ = 1.1 Q ₁ = 1.5 Median = 2.2 Q ₃ = 2.9 P ₉₀ = 4.5 P ₉₉ = 7.4		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-Mar	5.0	5.3	4.1	3.4	3.1	2.1	1.6	1.8	1.8	1.1	1.8	2.0	2.7	2.9	2.7	3.3	2.0	2.5	3.4	1.4	1.2	1.0	1.6	1.0	2.46	5.35
2-Mar	0.8	1.3	1.1	1.1	1.4	1.2	1.2	1.2	1.3	1.6	1.5	1.8	2.6	3.8	5.3	6.7	5.8	5.6	5.2	4.6	6.3	5.8	4.3	4.1	3.14	6.67
3-Mar	8.8	6.1	3.0	1.9	1.4	1.5	1.9	1.6	1.5	1.4	1.5	3.0	4.5	2.6	2.9	2.1	2.0	1.3	1.1	1.0	1.5	1.3	1.7	2.3	2.41	8.76
4-Mar	2.6	3.0	3.2	4.8	5.1	3.4	2.4	2.6	2.5	2.4	2.1	2.7	2.4	3.0	3.0	3.3	3.1	2.7	2.4	2.5	2.5	2.4	2.3	2.2	2.86	5.05
5-Mar	1.9	1.8	2.1	2.0	1.5	1.2	1.1	2.7	2.8	1.7	1.5	1.6	2.1	1.9	2.6	3.3	3.5	3.0	2.8	2.9	3.1	2.3	2.3	2.5	2.27	3.46
6-Mar	2.8	2.9	2.7	2.6	2.5	2.7	2.6	2.7	2.3	2.7	2.5	2.8	3.3	3.6	3.0	2.8	3.0	3.0	2.4	1.5	1.7	1.7	2.3	2.2	2.60	3.62
7-Mar	1.8	1.9	0.6	0.8	0.8	1.1	1.3	1.6	1.1	2.3	2.8	3.0	3.3	3.5	3.2	3.1	2.8	2.7	2.5	2.6	2.5	2.9	3.3	4.0	2.31	4.02
8-Mar	3.0	3.3	4.0	2.8	3.8	3.6	3.2	2.9	2.3	2.8	2.8	2.8	3.1	2.9	2.5	2.6	2.7	2.6	2.4	1.8	1.3	1.5	1.2	1.6	2.64	3.96
9-Mar	1.2	1.0	1.7	1.2	0.9	0.8	0.5	0.8	1.1	1.6	2.4	2.8	3.2	3.7	3.8	3.4	3.6	3.2	3.8	2.8	2.9	3.8	2.8	3.0	2.33	3.85
10-Mar	3.1	3.0	2.9	3.1	3.0	2.7	2.6	2.4	2.2	2.0	1.9	2.5	2.4	3.6	3.3	2.4	2.7	2.6	1.9	2.6	2.5	2.5	2.0	1.6	2.57	3.57
11-Mar	1.6	1.2	1.3	1.3	1.4	1.4	1.9	1.8	2.1	1.9	2.4	2.6	3.2	3.3	3.2	3.1	2.8	2.5	2.5	2.9	2.9	3.1	2.9	2.7	2.34	3.31
12-Mar	2.5	2.2	2.4	2.4	2.4	2.6	2.2	2.0	1.8	2.0	2.1	1.9	2.4	2.6	2.8	2.6	2.7	2.7	2.4	2.7	2.5	2.5	2.3	2.6	2.39	2.77
13-Mar	2.2	2.1	1.7	2.2	1.8	1.7	2.1	1.9	2.7	2.2	2.1	2.4	5.0	6.3	6.3	6.1	5.4	5.1	3.4	1.3	1.1	2.9	1.8	1.6	2.98	6.30
14-Mar	1.7	1.4	1.4	1.5	1.1	1.2	1.5	1.2	1.7	1.6	1.3	1.0	2.4	1.5	1.5	1.4	1.3	1.5	1.6	1.8	1.4	1.8	2.7	4.5	1.67	4.50
15-Mar	4.0	2.3	1.6	2.0	1.9	2.2	2.9	1.3	1.1	1.1	1.9	2.2	2.5	2.8	2.9	3.2	2.6	2.3	1.9	1.2	1.0	1.5	1.4	1.4	2.04	4.01
16-Mar	1.5	1.8	1.4	1.6	2.0	1.7	2.1	1.5	2.0	1.5	1.5	2.7	2.6	2.7	2.7	3.1	2.6	2.3	1.9	2.4	3.8	2.2	1.9	2.1	2.14	3.76
17-Mar	1.4	1.2	1.1	1.3	1.0	1.2	1.2	1.3	1.8	1.5	2.4	2.9	3.5	3.3	2.0	1.8	1.6	1.6	1.5	2.0	1.4	2.6	2.0	1.6	1.81	3.48
18-Mar	1.4	1.1	1.3	1.5	1.2	0.7	0.7	0.9	1.1	1.6	1.5	1.8	2.6	2.8	5.2	3.4	2.8	2.8	2.8	5.8	4.2	2.8	4.9	4.1	2.46	5.78
19-Mar	3.2	2.3	2.4	1.9	1.2	1.3	1.7	1.6	3.5	7.2	7.1	7.8	7.9	8.2	8.0	7.4	7.3	6.2	5.7	3.0	2.7	2.3	1.6	1.8	4.30	8.21
20-Mar	2.9	2.7	3.0	1.9	0.9	0.9	0.6	0.4	1.9	1.6	1.4	1.7	1.6	1.7	1.9	3.0	3.1	3.6	3.5	3.1	2.4	2.2	1.9	1.7	2.07	3.64
21-Mar	2.2	1.7	2.2	1.7	2.2	1.5	2.1	2.2	2.2	2.0	2.3	3.3	3.2	2.9	2.8	2.8	2.3	2.3	2.1	1.9	2.0	1.6	2.1	1.3	2.20	3.33
22-Mar	1.4	1.0	1.0	0.9	1.3	1.2	1.5	1.5	1.4	1.7	1.4	1.4	5.0	5.5	4.5	5.5	4.9	4.7	3.9	2.5	1.6	1.6	1.4	1.2	2.42	5.54
23-Mar	1.9	2.2	2.3	1.7	1.9	1.3	1.4	2.9	2.7	2.7	2.3	6.2	7.0	7.6	6.8	6.4	5.6	3.5	3.2	2.5	1.8	1.2	1.3	1.9	3.26	7.57
24-Mar	1.9	2.0	1.1	1.2	1.1	1.3	1.4	1.6	1.9	1.6	2.0	1.9	2.9	4.4	4.2	4.3	6.1	5.5	4.5	4.1	4.2	3.0	2.8	3.5	2.85	6.08
25-Mar	3.3	1.6	1.9	2.0	2.5	1.6	1.3	1.5	1.4	1.0	1.9	6.1	6.3	6.6	7.4	6.9	5.7	5.5	3.8	4.8	2.0	1.7	1.6	1.7	3.33	7.36
26-Mar	1.5	0.9	1.0	1.2	1.0	1.0	1.0	0.8	0.9	1.4	2.5	2.8	3.8	3.8	3.7	2.8	2.4	2.0	1.8	1.2	1.7	2.0	1.1	0.9	1.80	3.77
27-Mar	1.2	1.1	1.4	1.2	1.4	1.0	1.4	1.6	0.9	1.8	2.0	2.7	2.3	2.8	3.9	4.5	2.2	4.0	3.0	2.8	1.3	1.3	1.3	1.2	2.02	4.53
28-Mar	1.3	1.3	1.3	1.6	1.4	1.4	1.3	1.7	0.9	1.3	0.9	1.6	2.1	2.8	4.8	6.4	7.1	5.3	6.2	4.7	3.2	1.8	1.3	1.5	2.63	7.10
29-Mar	1.2	2.3	1.5	1.0	1.4	1.4	1.0	0.9	0.9	1.1	1.4	1.5	2.2	2.4	4.2	3.5	2.8	3.2	2.2	2.1	0.9	1.5	1.4	1.9	1.83	4.22
30-Mar	1.1	0.6	1.2	1.1	1.2	1.1	1.0	0.8	1.5	1.6	2.1	2.9	2.8	3.1	2.6	3.4	3.0	2.0	1.0	0.6	1.0	1.1	0.8	0.8	1.60	3.35
31-Mar	1.0	0.5	1.0	1.2	1.2	1.1	1.0	0.7	1.2	1.4	4.7	5.7	7.2	7.8	6.6	7.0	5.8	4.4	6.4	6.2	4.5	3.2	3.1	3.3	3.60	7.75
																								Diurnal Average		
																								Diurnal Maximum		
2.30 2.05 1.89 1.81 1.78 1.58 1.60 1.62 1.76 1.92 2.19 2.86 3.47 3.76 3.88 3.92 3.59 3.29 3.01 2.69 2.35 2.23 2.11 2.19																										
8.76 6.07 4.07 4.78 5.05 3.58 3.17 2.90 3.47 7.18 7.12 7.82 7.93 8.21 7.97 7.40 7.29 6.21 6.37 6.23 6.31 5.78 4.94 4.50																										
,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
March 2017

Maximum Value: 101.34 deg on Mar 17 06:00		Maximum Daily Average: 73.68 deg on Mar 14		Hours in Service:	744																																												
Minimum Value: 18.4 deg on Mar 5 02:00		Minimum Daily Average: 28.63 deg on Mar 21		Hours of Data:	744																																												
Maximum Diurnal Average: 60.11 deg at hour 6		Minimum Diurnal Average: 40.41 deg at hour 16		Hours of Missing Data:	0																																												
Monthly Average: 50.066 deg		Percentiles: P ₁ = 20.2 P ₁₀ = 27.7 Q ₁ = 34.1 Median = 45.0 Q ₃ = 64.6 P ₉₀ = 83.1 P ₉₉ = 97.4		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-Mar	27.3	42.2	39.7	38.4	23.4	84.3	35.6	31.3	48.9	90.7	99.7	26.3	28.5	27.7	27.7	30.8	35.3	66.2	38.1	39.9	43.6	68.6	77.3	54.4	46.91	99.67																							
2-Mar	45.1	67.7	42.4	56.3	55.1	51.3	39.9	45.0	36.9	25.9	29.6	54.2	95.2	53.6	53.6	41.6	36.3	57.9	45.6	41.9	44.7	46.0	49.1	53.7	48.69	95.20																							
3-Mar	35.4	77.6	53.2	68.9	70.9	98.2	79.9	82.9	70.9	61.2	69.4	47.3	67.8	56.8	32.4	34.7	40.4	80.6	71.2	60.8	85.9	49.0	36.1	35.0	61.11	98.25																							
4-Mar	39.5	48.8	45.8	34.7	39.1	43.9	63.6	48.3	44.0	51.8	28.5	40.3	25.4	27.2	26.1	25.5	21.9	45.4	26.1	28.8	35.9	30.3	19.5	21.2	35.90	63.58																							
5-Mar	19.2	18.4	25.3	34.4	37.0	47.0	60.9	62.4	31.9	51.2	78.9	74.1	42.2	24.2	31.1	36.3	29.9	23.4	30.1	22.5	27.7	22.0	23.2	21.9	36.47	78.85																							
6-Mar	24.0	26.0	21.9	26.1	22.8	30.8	36.2	26.7	22.5	36.0	28.6	34.6	38.4	37.9	27.6	27.1	29.1	32.5	26.1	44.4	20.9	22.9	29.4	24.8	29.06	44.36																							
7-Mar	22.7	24.5	29.8	19.5	36.8	52.2	26.1	65.8	35.2	20.3	28.7	32.0	27.0	33.4	39.4	38.0	41.1	34.8	34.9	42.7	39.1	44.5	38.5	32.9	35.00	65.84																							
8-Mar	44.9	40.4	45.6	41.2	43.3	48.9	48.4	26.8	25.5	31.6	41.8	39.7	32.2	30.6	33.8	35.9	37.0	36.0	29.6	31.8	36.5	48.3	41.0	29.6	37.52	48.91																							
9-Mar	33.0	32.4	33.5	38.3	40.6	55.8	80.2	38.1	65.6	37.6	32.3	31.1	34.0	39.8	32.7	31.2	35.3	31.0	29.7	46.7	54.1	40.1	44.5	36.9	40.60	80.19																							
10-Mar	37.0	34.5	32.9	30.9	41.7	45.8	46.4	47.1	36.7	42.2	38.5	43.3	39.4	37.3	26.5	33.0	29.2	26.7	27.8	44.9	35.1	34.4	27.7	25.4	36.02	47.07																							
11-Mar	25.7	22.5	24.7	24.8	27.8	48.5	28.5	38.8	31.9	42.0	32.7	29.4	35.3	43.2	45.2	36.4	36.7	38.4	50.2	42.1	45.8	46.6	38.1	39.9	36.47	50.23																							
12-Mar	37.7	31.8	32.6	32.3	36.6	35.1	34.4	34.8	32.5	31.6	40.3	41.9	40.7	39.1	33.4	31.7	36.5	34.6	30.3	28.9	28.5	40.3	33.7	38.1	34.89	41.92																							
13-Mar	30.8	45.0	41.6	50.3	59.9	54.6	49.4	55.0	47.4	37.2	69.8	89.2	37.2	34.0	35.0	32.2	35.3	40.2	79.0	78.5	29.6	61.0	66.2	36.2	49.77	89.18																							
14-Mar	56.2	53.4	87.8	59.6	98.1	80.7	87.2	90.8	99.8	68.8	53.9	85.9	90.0	80.9	84.9	64.0	60.6	78.5	83.4	56.4	43.2	60.7	52.4	90.9	73.68	99.78																							
15-Mar	86.0	51.1	65.4	87.4	50.3	46.1	55.1	63.2	89.5	49.0	28.4	29.9	26.2	27.9	33.9	29.7	36.0	27.9	32.6	25.1	29.8	31.5	40.8	51.7	45.60	89.55																							
16-Mar	34.2	32.2	35.4	40.1	49.3	61.5	40.1	49.0	74.7	67.9	81.1	67.5	84.2	67.5	40.0	47.6	49.1	31.4	57.4	44.7	31.2	63.0	95.8	58.4	54.29	95.79																							
17-Mar	58.2	94.9	92.3	57.5	86.3	101.3	97.6	72.7	72.4	80.1	68.9	67.6	53.1	47.7	65.0	48.6	66.7	57.3	89.4	36.2	55.5	31.0	77.8	70.5	68.70	101.34																							
18-Mar	57.6	73.8	52.3	53.6	73.4	92.7	84.0	61.4	43.2	30.3	92.7	86.4	51.7	49.6	38.9	47.9	48.4	19.0	88.3	44.4	82.6	66.1	41.6	43.8	59.33	92.74																							
19-Mar	40.7	49.2	33.0	40.3	36.0	35.0	77.5	59.2	41.8	35.4	39.5	33.3	32.5	35.7	28.8	31.0	34.2	28.8	46.2	46.3	38.7	64.3	64.2	33.1	41.86	77.45																							
20-Mar	42.7	95.6	22.4	52.5	41.5	27.5	77.3	78.4	47.5	74.4	69.2	88.8	64.0	88.5	76.5	49.6	42.4	22.2	32.4	25.7	50.1	45.8	33.4	21.3	52.90	95.62																							
21-Mar	26.3	24.7	23.6	23.8	21.1	19.5	19.2	20.9	22.1	27.7	27.4	32.6	27.8	28.7	35.1	28.2	24.8	39.0	39.3	28.2	28.4	36.9	37.0	45.0	28.63	44.95																							
22-Mar	30.4	83.6	90.3	51.3	41.0	87.1	39.5	38.7	73.5	60.0	78.6	56.7	74.4	39.8	31.6	30.7	28.9	35.8	27.0	22.4	92.8	72.6	86.3	69.3	55.93	92.78																							
23-Mar	78.2	76.9	53.1	72.8	62.9	82.6	76.9	91.8	46.6	29.5	65.6	28.1	30.0	40.5	45.9	43.0	48.0	54.5	51.9	37.7	55.0	85.9	84.5	78.4	59.18	91.79																							
24-Mar	71.8	38.9	52.2	90.2	46.3	40.0	35.5	47.0	62.1	64.8	46.4	72.1	65.5	46.3	54.3	58.1	45.0	46.3	22.6	27.2	45.5	43.0	31.8	39.3	49.67	90.17																							
25-Mar	38.0	51.4	51.9	77.4	63.3	46.0	73.2	81.6	76.1	68.8	85.2	45.7	28.4	37.9	40.3	34.5	43.2	54.0	56.0	41.4	97.5	64.7	90.7	96.1	60.13	97.49																							
26-Mar	93.1	93.8	77.7	89.2	92.5	70.7	60.8	77.3	94.4	81.9	48.0	47.0	52.0	49.5	49.0	48.0	38.9	42.9	43.4	27.4	43.9	44.5	81.0	70.0	63.21	94.43																							
27-Mar	77.7	71.9	94.9	48.7	48.0	51.9	82.1	83.3	61.9	48.3	42.0	56.6	53.9	57.1	41.3	53.9	62.8	34.1	28.2	64.5	70.9	59.7	55.6	55.0	58.51	94.85																							
28-Mar	48.9	64.8	65.2	77.5	85.8	79.0	80.3	90.8	94.1	59.0	59.8	45.7	38.7	83.0	50.8	45.6	43.6	42.1	31.9	28.2	47.3	48.8	76.8	84.1	61.32	94.07																							
29-Mar	66.5	84.6	92.1	86.2	82.9	87.0	69.8	79.3	92.5	47.3	76.9	75.1	74.1	72.7	73.0	72.4	67.9	63.7	62.9	63.6	62.3	83.2	47.3	37.6	71.70	92.51																							
30-Mar	82.0	81.6	62.7	37.6	51.5	69.4	84.4	53.7	54.4	87.4	53.7	77.5	39.3	46.6	47.1	44.9	47.9	32.8	80.7	46.0	71.1	66.2	84.5	76.1	61.62	87.39																							
31-Mar	77.4	61.5	84.9	87.6	96.1	88.9	71.7	56.5	45.0	29.8	85.3	47.7	45.4	42.2	42.2	40.7	36.3	49.3	37.6	47.3	52.5	44.5	51.1	55.9	57.40	96.13																							
																								48.00	54.70	51.81	52.56	53.59	60.11	59.41	58.03	55.53	50.63	55.53	52.49	47.56	46.03	42.67	40.41	40.93	42.17	46.14	40.86	49.22	50.53	53.45	49.23	Diurnal Average	
																								93.10	95.62	94.85	90.17	98.10	101.34	97.59	91.79	99.78	90.69	99.67	89.18	95.20	88.51	84.91	72.41	67.85	80.58	89.37	78.48	97.49	85.90	95.79	96.13	Diurnal Maximum	
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m^3 24-hr 100 ul/m^3																																																	

WEST CENTRAL AIRSHED SOCIETY

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

**END OF REPORT
MARCH 2017**