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

AIR QUALITY MONITORING
January 2018
Monthly Report

Prepared by:

West Central Airshed Society
Drayton Valley, Alberta

West Central Airshed Society

February 15, 2018

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

Dear Mr. Whitney:

Monthly Ambient Air Quality Monitoring Report for January 2018
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 Identified as:	AMS 906	Hinton

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 nine 1-hour and two 24-hour TRS exceedances of the AAAQO recorded in January. There were nine 1-hour and one 24-hour H_2S exceedances of the AAAQO recorded in January. There were four 1-hour and three 24-hour $PM_{2.5}$ exceedances of the AAAQO recorded in January.

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 sensors returned uptimes of 100% for the month of January.

If additional information is required, please call (587) 499-4900.

Sincerely,

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
	2018	JANUARY

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_2S				

CONTINUOUS AMBIENT MONITORING

			1-HR AVERAGE		24-HR AVERAGE	
PARAMETER	STATION NUMBER	% TIME OPERATIONAL	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	0.024	9	0.009	2
$PM_{2.5}$	906	100.0	156.9 $\mu g/m^3$	4	43.44 $\mu g/m^3$	3
H_2S	906	100.0	0.021	9	0.008	1

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
JANUARY 2018

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 **West Central Airshed Society**

Continuous air quality/meteorlogical monitoring measurements

Hinton Pulp / Hinton **Station 906**		**January 2018**												24 Hour Average Max **(ppm)**
							-------	-------	**Percentile**	---------	-------	**Exceedences**		
Parameter	**Calibration Hours**	**Number of Data**	**Percent Uptime**	**Mean**	**Min**	**Max**	**P10**	**Q1**	**Median**	**Q3**	**P90**	**1-hour**	**24-hour**	
TRS (ppb)	35	709	100.0	1.2	0.0	24.0	0.2	0.3	0.4	1.1	2.6	9	2	0.009
SO_2 (ppb)	35	709	100.0	0.4	0.0	7.5	0.0	0.0	0.1	0.2	0.7	0	-	0.002
H_2S (ppb)	35	709	100.0	1.0	0.0	21.0	0.0	0.3	0.5	0.9	2.0	9	1	0.008
O_3 (ppb)	35	709	100.0	16.4	0.4	41.8	1.3	5.2	13.3	29.1	35.0	0	-	0.034
NO (ppb)	36	708	100.0	9.3	0.0	140.8	0.2	0.6	2.5	8.8	25.6	-	-	-
NO_2 (ppb)	36	708	100.0	11.6	1.0	40.0	3.6	6.0	10.2	15.9	21.1	0	0	0.024
NO_x (ppb)	36	708	100.0	21.0	1.1	168.7	4.1	7.2	13.3	24.5	45.5	-	-	-
Particulate Matter 2.5 microns ($\mu g/m^3$)	7	737	100.0	14.1	0.1	156.9	1.9	3.6	8.7	18.9	35.0	4	3	43.44 ug/m3
Wind Speed (kph)	0	744	100.0	3.4	0.1	14.4	0.6	1.3	2.9	4.8	6.9	-	-	-
Temperature (^oC)	0	744	100.0	-7.8	-31.3	7.3	-21.4	-14.6	-6.9	0.2	3.2	-	-	-
Relative Humidity (%)	0	744	100.0	69.3	25.5	96.4	43.9	60.2	72.9	80.8	86.7	-	-	-
Std Dev Wind Direction (deg)	0	744	100.0	47.0	14.1	104.7	25.3	32.3	41.8	58.8	78.8	-	-	-
Std Dev Wind Speed (kph)	0	744	100.0	2.3	0.3	7.8	1.0	1.3	1.9	2.9	4.3	-	-	-

WCAS - Hinton
Summary of Hourly Averages

Total Reduced Sulphur (TRS) - ppb
January 2018

Maximum Value: 24.08 ppb on Jan 16 10:00

Maximum Daily Average: 9.23 ppb on Jan 16

Minimum Value: 0 ppb on Jan 1 18:00

Minimum Daily Average: 0.21 ppb on Jan 9

Maximum Diurnal Average: 2.09 ppb at hour 10

Minimum Diurnal Average: 0.79 ppb at hour 18

Monthly Average: 1.200 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.2 Q_1 = 0.3 Median = 0.4 Q_3 = 1.1 P_{90} = 2.6 P_{99} = 16.1

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	1	1	0	Z	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.23	0.80
2-Jan	1	0	1	Z	0	0	1	1	0	0	0	1	2	1	1	0	2	1	1	1	1	0	0	0	0.72	2.03
3-Jan	0	0	0	Z	0	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0.43	1.17
4-Jan	0	0	1	Z	0	0	0	0	0	0	0	0	1	0	1	2	2	2	1	1	1	1	0	0	0.65	2.14
5-Jan	0	0	0	Z	1	1	2	3	3	3	3	2	2	2	2	1	2	1	1	1	1	1	0	0	1.38	3.46
6-Jan	1	0	1	Z	1	0	0	0	0	0	0	0	0	2	1	2	2	1	3	2	2	2	2	2	1.05	2.97
7-Jan	1	2	2	Z	3	3	1	0	0	2	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0.80	2.86
8-Jan	0	0	0	Z	1	0	0	0	2	1	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0.61	2.19
9-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.21	0.29
10-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.21	0.41
11-Jan	0	0	0	Z	1	0	0	1	1	0	3	3	2	1	1	1	1	2	1	1	1	1	1	1	1.05	3.48
12-Jan	1	1	2	Z	2	1	1	1	2	2	2	5	8	5	4	4	4	4	3	3	2	2	1	1	2.67	7.74
13-Jan	2	3	3	Z	1	5	1	2	1	2	1	0	0	0	0	0	0	0	0	0	0	1	2	1	1.11	5.18
14-Jan	2	1	1	Z	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.56	1.64
15-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	5	5	4	2	2	1	0	0	0	1	1	2	1.18	5.04
16-Jan	5	17	10	Z	17	10	8	24	14	24	17	15	10	7	5	4	5	4	0	5	4	2	1	3	9.23	24.08
17-Jan	2	2	2	Z	2	3	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.04	3.89
18-Jan	0	0	0	Z	1	1	4	7	9	17	16	7	4	2	1	0	0	1	1	2	3	6	0	2	3.68	17.45
19-Jan	2	2	2	Z	3	1	2	3	3	2	3	0	0	0	0	0	0	3	2	1	2	8	5	8	2.40	8.49
20-Jan	5	4	1	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.69	4.56
21-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0.35	0.59
22-Jan	1	0	0	Z	1	1	1	1	1	1	1	1	1	1	0	1	1	0	6	3	1	2	2	1	1.17	5.92
23-Jan	0	1	0	Z	0	0	1	1	1	1	2	4	2	2	2	1	0	1	1	1	1	0	0	0	1.02	3.87
24-Jan	0	0	0	Z	0	0	0	0	0	1	0	C	C	C	C	1	0	1	1	0	1	0	0	0	0.45	0.62
25-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	1	0.50	1.91
26-Jan	1	1	1	Z	1	1	1	1	1	1	4	3	3	3	1	0	0	0	0	0	0	0	0	0	1.19	3.93
27-Jan	0	0	0	Z	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.32	0.62
28-Jan	1	1	1	Z	1	1	1	1	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0.65	1.64
29-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	2	1	0.50	2.07
30-Jan	0	1	2	Z	1	1	1	0	1	2	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0.66	1.89
31-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.35	0.46
	0.93	1.36	1.07	--	1.34	1.18	1.15	1.80	1.54	2.09	2.03	1.72	1.53	1.22	0.97	0.80	0.86	0.79	0.86	0.81	0.80	1.05	0.81	0.93	Diurnal Average	
	5.32	17.48	9.99	--	16.64	10.00	8.17	23.99	13.84	24.08	17.08	15.29	9.60	7.12	5.04	4.09	4.68	4.23	5.92	4.75	4.13	8.49	4.90	8.24	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 (SO_2) - ppb
January 2018

Maximum Value: 7.54 ppb on Jan 17 02:00

Maximum Daily Average: 2.37 ppb on Jan 6

Minimum Value: 0.0 ppb on Jan 1 02:00

Minimum Daily Average: 0.00 ppb on Jan 9

Maximum Diurnal Average: 0.56 ppb at hour 1

Minimum Diurnal Average: 0.19 ppb at hour 12

Monthly Average: 0.370 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.7 P_{99} = 5.0

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	0.0	0.0	0.0	Z	0.1	0.1	0.6	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.4	0.2	0.1	0.1	0.2	0.12	0.59
2-Jan	0.1	0.1	0.2	Z	0.1	0.1	0.1	0.2	0.1	0.0	0.2	0.4	0.8	0.4	0.3	0.2	0.5	0.2	0.4	0.5	0.3	0.1	0.1	0.2	0.25	0.76
3-Jan	0.1	0.1	0.2	Z	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.08	0.22
4-Jan	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.05	0.21
5-Jan	0.0	0.0	0.0	Z	0.1	0.4	0.4	0.8	0.7	0.8	0.8	0.5	0.4	0.6	0.7	0.3	0.1	0.1	0.0	0.1	0.0	0.3	0.1	0.1	0.31	0.82
6-Jan	0.1	0.1	0.5	Z	2.0	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	3.5	4.5	5.2	4.5	1.0	3.2	5.1	6.0	5.9	5.0	6.8	2.37	6.83
7-Jan	3.0	2.7	2.0	Z	1.2	1.0	2.4	0.4	0.6	0.4	0.3	0.3	0.3	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.69	3.03
8-Jan	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.04	0.18
9-Jan	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
10-Jan	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	0.02
11-Jan	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.1	0.1	0.1	0.1	0.4	0.3	0.2	0.1	0.0	0.0	0.1	0.08	0.35
12-Jan	0.0	0.0	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.2	0.1	0.0	0.1	0.17	0.49
13-Jan	0.2	0.1	0.0	Z	0.0	0.0	0.1	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.08	0.32
14-Jan	0.1	0.1	0.2	Z	0.1	0.4	0.2	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.09	0.38
15-Jan	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.3	0.2	0.2	1.9	0.4	0.1	0.1	0.1	0.1	0.5	0.6	0.4	0.22	1.88
16-Jan	0.1	0.2	0.1	Z	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.4	2.2	0.2	3.8	0.37	3.82
17-Jan	6.5	7.5	5.0	Z	4.7	3.0	2.2	2.0	2.5	0.9	1.3	0.2	0.2	0.6	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	1.66	7.54
18-Jan	0.1	0.1	0.1	Z	0.1	0.2	0.6	0.9	1.0	0.7	0.7	0.4	2.6	2.1	1.1	0.3	0.5	2.9	3.6	4.4	2.4	0.8	0.2	1.3	1.17	4.42
19-Jan	5.4	4.3	5.1	Z	3.4	2.2	2.9	2.4	2.1	1.7	1.7	1.3	1.1	0.7	0.0	0.0	0.1	0.7	0.5	0.9	1.6	0.3	0.1	0.1	1.69	5.40
20-Jan	0.1	0.2	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	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.15
21-Jan	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	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.0	0.04	0.16
22-Jan	0.1	0.0	0.0	Z	0.2	0.2	0.1	0.3	0.2	0.1	0.1	0.1	0.7	0.9	0.2	1.4	0.4	0.0	0.0	0.3	0.1	0.0	0.3	0.0	0.25	1.39
23-Jan	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.06	0.28
24-Jan	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	C	C	C	C	0.2	0.3	0.4	0.7	0.5	0.3	0.2	0.4	0.3	0.3	0.2	0.2	0.21	0.73
25-Jan	0.2	0.2	0.1	Z	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.14	0.25
26-Jan	0.2	0.2	0.1	Z	0.0	0.0	0.1	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.14	0.27
27-Jan	0.2	0.2	0.2	Z	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.16	0.38
28-Jan	0.1	0.1	0.0	Z	0.0	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.12	0.38
29-Jan	0.2	0.1	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0	0.0	0.1	0.3	0.11	0.32
30-Jan	0.3	0.0	0.0	Z	0.0	0.3	0.2	0.0	0.2	0.6	0.3	0.1	0.2	0.2	0.3	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.15	0.56
31-Jan	0.0	0.1	0.1	Z	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.3	1.6	2.0	2.8	2.7	1.4	0.8	0.5	0.2	0.2	0.1	0.1	0.0	0.59	2.79
	0.56	0.53	0.46	--	0.40	0.28	0.35	0.28	0.31	0.23	0.24	0.19	0.32	0.46	0.42	0.49	0.33	0.27	0.34	0.47	0.42	0.38	0.26	0.46	Diurnal Average	
	6.54	7.54	5.14	--	4.70	3.04	2.88	2.42	2.52	1.70	1.65	1.34	2.61	3.54	4.47	5.16	4.48	2.91	3.62	5.12	6.01	5.93	4.97	6.83	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
January 2018

Maximum Value: 20.81 ppb on Jan 16 10:00

Maximum Daily Average: 7.79 ppb on Jan 16

Minimum Value: 0 ppb on Jan 24 16:00

Minimum Daily Average: 0.01 ppb on Jan 27

Maximum Diurnal Average: 1.74 ppb at hour 10

Minimum Diurnal Average: 0.65 ppb at hour 20

Monthly Average: 0.986 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.3 Median = 0.5 Q_3 = 0.9 P_{90} = 2.0 P_{99} = 12.0

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	1	1	0	Z	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0.39	0.80
2-Jan	1	0	1	Z	1	1	1	1	0	0	1	1	2	1	1	1	1	1	1	1	1	0	0	0	0.69	1.73
3-Jan	0	1	0	Z	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0.58	1.23
4-Jan	0	1	1	Z	0	0	1	0	0	0	0	0	1	0	1	2	1	2	1	1	1	1	0	0	0.66	1.62
5-Jan	0	0	0	Z	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	0	0	1.14	2.50
6-Jan	1	0	1	Z	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2	1	2	1	1	1	0.78	2.06
7-Jan	1	1	1	Z	1	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.62	2.01
8-Jan	0	0	0	Z	1	0	0	0	2	1	1	2	2	1	1	1	0	0	0	0	0	0	0	0	0.70	2.07
9-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.34	0.44
10-Jan	0	0	0	Z	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.29	0.55
11-Jan	0	0	0	Z	1	0	0	0	0	0	3	3	1	1	1	1	1	1	1	1	1	1	1	1	0.85	2.80
12-Jan	1	1	1	Z	1	1	1	1	2	1	2	4	6	4	3	3	3	3	2	2	1	1	1	1	2.07	5.82
13-Jan	1	2	2	Z	1	5	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	1	2	1	1.04	4.68
14-Jan	2	1	1	Z	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	1	0.73	1.53
15-Jan	1	1	0	Z	1	0	0	1	0	0	0	0	4	4	4	2	2	0	0	0	0	0	1	1	0.99	3.81
16-Jan	5	15	8	Z	16	9	6	19	11	21	15	13	8	6	4	3	4	4	0	4	3	1	1	2	7.79	20.81
17-Jan	1	1	1	Z	1	2	3	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.81	3.01
18-Jan	0	0	1	Z	1	1	3	6	7	15	13	5	3	1	1	0	0	1	1	1	2	5	0	1	3.00	14.70
19-Jan	1	2	1	Z	3	1	2	2	2	2	3	0	0	0	0	0	0	2	2	1	1	7	4	7	1.95	7.46
20-Jan	4	3	1	Z	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0.76	4.04
21-Jan	1	0	0	Z	1	0	0	1	0	0	0	0	1	0	1	0	1	1	1	1	1	1	1	1	0.51	0.64
22-Jan	1	1	1	Z	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	2	1	2	1	1	1.16	5.23
23-Jan	1	1	1	Z	1	1	1	1	1	1	2	3	2	1	2	1	1	1	1	1	1	1	0	1	1.00	2.91
24-Jan	1	1	0	Z	0	0	1	1	0	1	1	C	C	C	C	0	0	0	0	0	0	0	0	0	0.27	0.59
25-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0.13	1.30
26-Jan	0	0	0	Z	0	0	0	0	0	1	3	2	2	2	1	0	0	0	0	0	0	0	0	0	0.57	2.63
27-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.14
28-Jan	0	0	0	Z	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.21	1.02
29-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.14	1.37
30-Jan	0	1	1	Z	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.28	1.10
31-Jan	0	0	0	Z	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.02	0.10
	0.80	1.15	0.89	--	1.13	0.99	0.91	1.42	1.22	1.74	1.67	1.39	1.25	1.00	0.82	0.66	0.69	0.65	0.69	0.65	0.65	0.88	0.67	0.78	Diurnal Average	
	4.62	14.66	8.47	--	15.52	8.96	6.46	19.13	11.19	20.81	15.27	12.89	8.34	6.33	4.20	3.15	3.93	3.67	5.23	3.65	3.12	7.41	4.31	7.46	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 (O_3) - ppb
January 2018

Maximum Value: 41.84 ppb on Jan 1 16:00

Maximum Daily Average: 34.05 ppb on Jan 19

Minimum Value: 0.4 ppb on Jan 5 08:00

Minimum Daily Average: 2.77 ppb on Jan 12

Maximum Diurnal Average: 22.69 ppb at hour 16

Minimum Diurnal Average: 10.83 ppb at hour 9

Monthly Average: 16.374 ppb

Percentiles: P_1 = 0.6 P_{10} = 1.3 Q_1 = 5.2 Median = 13.3 Q_3 = 29.1 P_{90} = 35.0 P_{99} = 40.4

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	5.9	5.4	10.0	Z	18.9	26.2	34.3	38.2	38.8	39.1	39.4	39.4	40.6	41.2	41.4	41.8	40.9	40.2	39.1	35.2	39.7	37.1	41.8	41.5	33.76	41.84
2-Jan	38.1	37.8	34.1	Z	35.1	33.3	31.9	30.7	33.2	35.1	31.4	31.4	33.1	34.7	36.1	35.9	32.7	30.3	25.3	29.3	28.7	26.8	17.4	22.3	31.51	38.07
3-Jan	26.2	25.9	25.0	Z	13.4	17.1	11.7	4.5	7.0	4.2	18.5	24.9	31.5	32.3	34.0	35.0	34.1	34.4	32.2	33.3	33.2	31.4	26.9	29.8	24.63	34.98
4-Jan	34.6	30.9	29.4	Z	30.7	27.6	23.6	15.4	12.1	11.7	11.8	13.9	24.6	29.2	29.6	29.3	21.4	19.6	23.7	10.8	7.6	11.2	17.0	11.7	20.75	34.65
5-Jan	19.7	16.1	13.9	Z	1.3	0.4	0.5	0.4	0.5	0.7	1.8	3.0	2.6	2.1	1.9	8.1	19.1	20.2	25.1	27.4	12.6	14.9	25.1	32.1	10.86	32.11
6-Jan	27.9	23.7	28.6	Z	30.6	27.8	14.4	14.2	17.8	17.1	13.4	16.7	20.3	36.9	39.4	35.1	33.0	37.8	34.1	32.9	32.6	33.9	34.2	33.6	27.67	39.45
7-Jan	36.9	37.1	38.0	Z	34.7	37.8	36.6	37.4	37.1	37.4	34.2	36.1	35.8	36.7	36.7	34.6	29.9	27.7	20.7	20.3	22.1	17.3	7.7	7.7	30.46	38.04
8-Jan	9.6	15.0	23.1	Z	26.5	32.9	31.1	27.3	10.5	3.3	5.3	18.4	9.6	7.2	8.9	7.5	12.8	17.2	16.9	15.7	15.6	18.1	18.8	18.3	16.08	32.89
9-Jan	18.3	17.9	17.5	Z	20.8	21.4	17.6	21.0	22.4	23.9	26.4	28.6	30.9	31.0	31.9	31.7	30.7	31.5	32.0	31.9	32.1	31.0	28.9	29.8	26.50	32.08
10-Jan	30.9	30.7	31.2	Z	31.3	29.3	29.1	27.8	27.7	28.0	26.6	27.5	29.2	29.5	27.3	25.7	27.1	20.3	22.1	22.6	22.8	24.0	22.9	22.9	26.81	31.28
11-Jan	20.6	12.6	3.7	Z	11.4	8.4	3.3	1.4	1.3	3.1	7.1	8.1	15.4	19.7	17.5	14.9	7.3	1.2	0.9	1.0	3.0	4.5	2.9	4.7	7.57	20.63
12-Jan	2.9	4.3	2.4	Z	1.7	1.7	1.3	1.3	1.2	2.6	4.4	6.5	8.1	6.4	4.2	4.3	2.4	1.3	1.3	1.0	1.1	0.8	1.2	1.2	2.77	8.15
13-Jan	1.0	1.2	3.5	Z	3.6	21.0	2.4	2.4	9.5	19.9	16.8	31.1	31.6	34.4	32.9	32.8	32.8	31.3	32.7	33.4	33.4	32.4	27.9	24.8	21.43	34.43
14-Jan	25.4	8.7	2.2	Z	2.4	0.6	1.3	5.2	2.8	7.2	8.6	12.3	11.7	18.0	19.7	19.6	17.5	17.6	15.7	14.4	13.3	13.3	17.9	15.5	11.78	25.41
15-Jan	13.9	13.8	14.0	Z	14.5	11.2	3.1	1.1	1.6	2.1	4.1	5.9	10.1	14.3	20.0	23.1	21.0	6.1	6.1	4.0	1.7	1.0	1.4	0.6	8.48	23.14
16-Jan	0.5	0.7	4.9	Z	10.1	3.0	0.7	0.8	0.9	1.1	3.3	9.7	10.0	8.9	6.4	6.2	16.7	19.5	16.3	10.9	23.8	35.7	38.1	33.6	11.38	38.11
17-Jan	32.1	30.8	32.3	Z	33.1	32.4	36.3	34.1	33.1	34.2	35.4	36.9	37.3	36.3	38.6	35.4	35.5	25.0	9.1	11.3	10.5	11.0	9.5	10.5	27.86	38.64
18-Jan	3.6	4.1	1.8	Z	1.1	1.4	1.3	0.9	0.7	1.1	1.9	4.8	28.0	36.8	39.0	39.5	38.7	35.1	33.3	31.3	31.9	36.5	34.8	35.3	19.25	39.47
19-Jan	31.4	32.9	31.0	Z	32.2	36.1	31.9	30.9	32.1	32.8	35.1	36.9	37.7	38.0	37.9	38.0	36.2	29.2	30.0	32.7	33.8	36.5	35.7	34.5	34.05	38.00
20-Jan	33.0	30.1	17.8	Z	21.8	16.0	12.8	15.3	6.7	11.4	13.7	17.3	15.6	18.5	21.8	24.6	24.2	12.3	13.2	8.7	3.1	6.0	4.5	4.7	15.34	32.97
21-Jan	4.9	5.5	5.2	Z	5.5	5.6	1.9	3.2	6.8	9.2	12.1	15.4	16.3	16.4	15.4	12.0	10.7	6.0	3.6	1.8	1.1	1.5	1.1	0.8	7.03	16.39
22-Jan	1.0	1.1	1.0	Z	1.0	1.0	0.8	0.9	1.0	1.6	3.6	5.3	16.7	38.4	39.0	36.8	35.9	33.4	33.0	3.0	5.3	19.8	28.3	6.3	13.66	38.96
23-Jan	4.5	3.9	3.0	Z	6.0	3.8	1.6	1.2	1.2	1.7	2.7	4.8	6.6	6.8	8.5	24.4	23.2	6.8	1.5	2.9	8.6	9.4	10.3	5.5	6.48	24.44
24-Jan	3.7	4.2	4.2	Z	4.1	2.4	2.0	1.2	1.0	C	C	C	C	20.1	26.8	24.6	21.4	13.3	13.5	17.4	9.6	10.0	8.8	8.4	10.35	26.83
25-Jan	8.3	7.3	7.7	Z	6.7	5.0	5.3	4.5	2.8	3.0	4.3	6.3	6.4	7.6	6.9	7.2	7.9	9.2	13.3	10.5	10.8	1.3	0.7	1.0	6.26	13.33
26-Jan	1.0	1.3	0.6	Z	1.5	0.9	0.9	0.6	0.9	1.4	2.9	6.4	7.2	10.4	15.3	15.6	16.6	14.4	13.3	14.1	15.3	14.4	14.5	15.9	8.07	16.55
27-Jan	16.8	17.6	17.6	Z	11.3	3.4	0.8	1.2	3.0	4.5	6.9	9.8	13.1	12.9	13.7	14.1	13.3	12.1	12.4	12.7	10.7	8.8	8.8	7.1	10.11	17.60
28-Jan	4.2	2.6	2.1	Z	3.3	4.4	2.8	2.2	2.3	2.4	4.8	6.6	8.3	9.9	10.8	10.9	10.7	8.7	7.5	7.5	6.9	7.1	7.1	8.6	6.16	10.92
29-Jan	10.4	10.9	9.0	Z	8.5	8.9	8.0	7.1	7.2	8.4	8.9	9.6	11.0	11.8	11.7	10.0	4.6	2.4	0.8	0.6	0.6	0.5	7.3	28.1	8.10	28.12
30-Jan	31.9	30.9	26.0	Z	4.8	1.1	4.1	2.9	1.3	2.2	4.9	9.4	10.1	10.8	7.6	10.6	8.7	6.4	5.9	6.6	6.3	7.2	11.7	13.4	9.77	31.85
31-Jan	11.2	9.3	9.9	Z	9.9	11.4	12.0	10.5	11.0	10.5	13.2	15.0	16.0	15.8	16.1	14.0	13.9	11.8	12.3	10.2	10.6	11.9	7.7	3.2	11.62	16.07
	16.47	15.30	14.55	--	14.12	13.98	11.80	11.15	10.83	12.03	13.46	16.60	19.19	21.71	22.48	22.69	21.97	18.78	17.64	15.97	15.75	16.62	16.81	16.56	Diurnal Average	
	38.07	37.80	38.04	--	35.07	37.79	36.55	38.16	38.85	39.12	39.39	39.38	40.62	41.22	41.36	41.84	40.93	40.25	39.14	35.25	39.66	37.14	41.81	41.53	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 (O_3) - ppb
January 2018

Maximum Value: 40.62 ppb on Jan 1 18:00

Maximum Daily Average: 34.01 ppb on Jan 19

Minimum Value: 0.8 ppb on Jan 5 11:00

Minimum Daily Average: 3.08 ppb on Jan 12

Maximum Diurnal Average: 20.15 ppb at hour 19

Minimum Diurnal Average: 12.59 ppb at hour 10

Monthly Average: 16.303 ppb

Percentiles: P_1 = 1.0 P_{10} = 3.1 Q_1 = 6.5 Median = 13.3 Q_3 = 26.1 P_{90} = 33.6 P_{99} = 39.6

Hours in Service:	744
Hours of Data:	736
Hours of Missing Data:	8
Hours of Calibration:	8
Percent Operational Time:	100.0

Day	Hourly Period Ending At																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	4.3	4.8	5.9	6.3	8.5	11.5	15.2	19.9	24.6	29.4	33.6	34.3	37.0	38.9	39.8	40.2	40.5	40.6	40.6	40.1	40.0	39.4	39.5	39.5	28.09	40.62
2-Jan	39.1	38.8	38.2	38.6	37.9	37.4	36.0	34.4	33.7	33.3	33.0	32.8	32.5	32.7	33.2	33.9	33.8	33.2	32.4	32.2	31.6	30.6	28.3	26.6	33.92	39.11
3-Jan	25.8	25.2	25.2	24.6	22.5	21.1	20.2	17.7	15.0	11.8	10.9	12.7	14.9	16.8	19.6	23.4	26.8	30.6	32.3	33.4	33.6	33.4	32.6	31.9	23.42	33.56
4-Jan	32.0	31.5	31.2	30.9	30.5	30.0	29.5	27.5	24.2	21.5	19.0	18.4	17.6	17.8	18.5	20.3	21.4	22.4	23.9	23.5	21.4	19.1	17.6	15.4	23.54	31.97
5-Jan	15.2	14.7	13.5	13.9	13.0	11.4	9.1	7.5	4.7	2.5	0.8	1.1	1.2	1.5	1.6	2.6	4.9	7.4	10.3	13.3	14.6	16.2	19.1	22.1	9.26	22.08
6-Jan	23.2	23.6	24.1	23.6	26.2	28.0	26.5	23.9	22.5	21.5	19.3	19.0	17.7	18.9	22.0	24.6	26.5	29.1	31.7	33.7	35.2	34.9	34.2	34.0	25.99	35.25
7-Jan	34.5	34.4	34.9	35.2	35.5	36.1	36.4	36.9	37.0	37.0	36.5	36.4	36.6	36.4	36.4	36.1	35.2	34.0	32.3	30.3	28.6	26.1	22.5	19.2	33.52	37.00
8-Jan	16.6	15.0	15.4	14.6	15.3	17.5	20.9	23.7	23.8	22.1	19.6	19.4	17.3	14.1	11.3	8.9	9.1	10.9	12.3	12.0	12.7	14.1	15.3	16.7	15.77	23.78
9-Jan	17.4	17.5	17.5	17.8	18.5	19.0	18.8	19.2	19.8	20.7	21.9	22.8	24.0	25.2	27.0	28.4	29.4	30.4	31.0	31.5	31.6	31.6	31.2	31.0	24.30	31.61
10-Jan	31.0	30.9	30.8	30.7	30.6	30.3	30.3	30.0	29.6	29.2	28.5	28.4	28.1	28.2	27.9	27.7	27.6	26.7	26.1	25.5	24.7	24.0	23.4	23.1	28.06	31.02
11-Jan	22.3	21.3	19.0	18.5	16.9	14.7	11.9	8.8	6.0	4.7	5.1	5.5	6.0	7.4	9.2	10.9	11.7	11.4	10.6	9.7	8.2	6.3	4.5	3.2	10.58	22.28
12-Jan	2.6	3.0	3.2	3.5	3.4	3.0	2.7	2.2	2.0	1.8	2.0	2.6	3.4	4.0	4.3	4.7	4.9	4.7	4.3	3.6	2.8	2.1	1.7	1.3	3.08	4.87
13-Jan	1.1	1.1	1.4	1.4	1.8	4.7	4.8	5.0	6.2	8.9	10.8	13.3	16.8	18.5	22.3	26.1	29.0	30.5	32.4	32.7	33.0	32.7	32.1	31.1	16.58	32.97
14-Jan	30.2	27.3	23.5	22.1	17.7	13.2	9.4	6.6	3.3	3.1	4.0	5.0	6.2	8.4	10.7	12.5	14.3	15.6	16.5	16.8	17.0	16.4	16.2	15.7	13.81	30.17
15-Jan	15.2	14.7	14.5	14.5	14.7	14.4	12.3	10.2	8.5	6.8	5.4	5.5	4.9	5.3	7.4	10.2	12.6	13.1	13.3	13.1	12.1	10.4	8.1	5.3	10.52	15.20
16-Jan	2.7	2.0	1.9	1.6	2.8	3.0	2.9	3.0	3.0	3.1	2.8	3.7	3.7	4.4	5.1	5.8	7.8	10.1	11.7	11.9	13.6	16.9	20.9	24.3	7.03	24.33
17-Jan	26.2	27.7	29.7	32.3	33.7	33.2	32.9	33.0	33.1	33.6	34.1	34.4	35.0	35.5	35.7	35.9	36.2	35.1	31.8	28.6	25.2	22.1	18.4	15.3	30.78	36.21
18-Jan	11.3	8.7	7.8	7.3	6.0	4.6	3.4	2.0	1.6	1.2	1.2	1.7	5.0	9.4	14.1	19.0	23.7	28.0	31.9	35.2	35.7	35.6	35.1	34.6	15.18	35.68
19-Jan	33.7	33.4	33.1	33.4	33.4	33.4	33.0	32.3	32.4	32.4	33.0	33.5	34.2	34.4	35.2	36.1	36.6	36.1	35.5	35.0	34.5	34.3	34.0	33.6	34.01	36.57
20-Jan	33.2	33.3	31.7	31.6	29.9	27.0	23.7	21.0	17.2	14.6	14.0	14.4	13.6	13.9	15.0	16.2	18.4	18.5	18.4	17.3	15.8	14.2	12.1	9.6	19.77	33.27
21-Jan	7.2	6.3	5.3	4.8	5.2	5.1	4.7	4.5	4.8	5.3	6.3	7.5	8.8	10.2	11.8	12.9	13.4	13.0	12.0	10.3	8.4	6.5	4.7	3.3	7.60	13.42
22-Jan	2.1	1.5	1.2	1.1	1.1	1.0	0.9	1.0	1.0	1.0	1.4	1.9	3.9	8.5	13.3	17.8	22.1	26.1	29.8	29.5	28.1	25.8	24.4	20.6	11.04	29.79
23-Jan	16.7	13.0	9.3	10.1	10.2	8.0	4.1	3.4	3.0	2.6	2.6	2.9	3.0	3.3	4.2	7.1	9.9	10.5	10.3	10.1	10.3	10.7	10.9	8.5	7.70	16.70
24-Jan	6.1	5.8	6.1	6.6	5.9	4.9	3.7	3.1	2.7	2.5	Z	C	C	C	C	C	C	C	20.0	19.6	18.3	17.1	14.8	12.8	--	19.95
25-Jan	11.2	10.4	9.7	8.6	8.2	7.5	7.0	6.4	5.6	5.0	4.5	4.7	4.7	5.0	5.2	5.6	6.2	7.0	8.1	8.6	9.2	8.4	7.6	6.8	7.13	11.15
26-Jan	6.0	5.0	3.4	2.4	1.1	1.0	1.0	1.0	1.0	1.0	1.3	1.9	2.7	3.8	5.6	7.5	9.5	11.1	12.4	13.4	14.4	14.9	14.8	14.8	6.29	14.88
27-Jan	14.9	15.3	15.8	16.0	15.4	13.9	11.9	9.8	7.8	6.0	4.4	5.1	5.3	6.5	8.1	9.8	11.0	12.0	12.7	13.0	12.7	12.2	11.6	10.7	10.92	16.03
28-Jan	9.6	8.4	7.1	6.3	5.3	4.6	3.8	3.1	2.8	2.8	3.2	3.6	4.2	4.9	5.9	7.0	8.0	8.8	9.2	9.3	9.1	8.8	8.3	8.0	6.34	9.59
29-Jan	8.0	8.2	8.4	8.6	8.8	9.1	9.2	9.0	8.5	8.2	8.1	8.3	8.6	9.0	9.5	9.8	9.5	8.8	7.7	6.6	5.3	3.9	3.3	5.6	7.92	9.83
30-Jan	9.0	12.6	15.7	17.9	18.5	18.6	18.1	14.5	10.2	6.1	3.0	3.8	4.5	5.7	6.1	7.1	8.0	8.6	8.7	8.3	7.9	7.4	7.9	8.3	9.86	18.60
31-Jan	8.6	8.9	9.4	9.8	10.3	10.9	11.0	10.6	10.5	10.7	11.2	11.7	12.4	13.0	13.5	14.0	14.3	14.5	14.4	13.8	13.1	12.6	11.6	10.2	11.71	14.48
	16.67	16.27	15.93	15.96	15.76	15.41	14.69	13.91	13.10	12.59	12.72	13.21	13.80	14.73	16.00	17.39	18.75	19.62	20.15	20.06	19.63	18.99	18.28	17.51	Diurnal Average	
	39.11	38.80	38.17	38.59	37.93	37.38	36.40	36.94	36.97	37.00	36.45	36.42	37.00	38.88	39.76	40.22	40.48	40.62	40.59	40.08	39.96	39.45	39.50	39.46	Diurnal Maximum	

Z - zerospan C - Calibration

WCAS - Hinton
Summary of Hourly Averages

Nitrogen Oxide (NO) - ppb
January 2018

Maximum Value: 140.82 ppb on Jan 18 09:00

Maximum Daily Average: 41.45 ppb on Jan 5

Minimum Value: 0.0 ppb on Jan 1 06:00

Minimum Daily Average: 0.36 ppb on Jan 19

Maximum Diurnal Average: 20.18 ppb at hour 9

Minimum Diurnal Average: 3.48 ppb at hour 3

Monthly Average: 9.268 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.2 Q_1 = 0.6 Median = 2.5 Q_3 = 8.8 P_{90} = 25.6 P_{99} = 103.4

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	5.2	6.8	2.1	Z	2.4	0.0	0.1	0.6	1.1	1.2	1.3	2.6	0.4	0.7	0.7	0.4	0.4	0.1	0.2	0.1	0.1	0.0	0.1	0.1	1.16	6.83
2-Jan	0.1	0.1	0.1	Z	0.0	0.0	0.1	0.1	0.2	0.4	0.9	1.7	1.8	1.6	0.9	0.6	0.4	0.3	0.6	0.1	0.1	0.3	1.1	0.5	0.52	1.83
3-Jan	0.0	0.0	0.0	Z	0.0	0.5	1.3	13.9	4.8	20.2	2.4	1.7	1.4	1.2	0.9	0.6	0.7	0.4	0.3	0.4	0.2	0.2	0.2	0.1	2.24	20.21
4-Jan	0.1	0.1	0.1	Z	0.1	0.2	0.0	0.6	0.9	3.1	6.1	15.5	0.8	0.7	1.0	1.1	1.2	0.4	0.1	5.8	14.5	2.4	0.4	0.1	2.41	15.46
5-Jan	0.0	0.8	0.6	Z	11.9	62.4	65.8	112.9	103.8	104.3	120.8	70.9	60.1	90.7	104.6	28.7	3.2	1.2	2.9	0.7	4.3	1.3	1.1	0.3	41.45	120.79
6-Jan	0.0	0.5	0.0	Z	2.8	6.2	6.0	4.0	3.2	3.8	5.2	5.9	1.7	1.7	0.9	1.1	1.1	0.2	0.2	0.4	0.3	0.2	0.2	0.1	1.99	6.21
7-Jan	0.2	0.2	0.1	Z	0.1	0.2	0.1	0.1	0.1	0.0	1.3	0.5	0.6	0.7	0.9	2.3	2.9	2.5	7.8	2.2	2.1	1.7	5.1	1.7	1.44	7.82
8-Jan	4.0	0.7	0.6	Z	0.8	0.2	0.9	1.9	8.9	33.0	27.2	6.5	19.3	15.4	11.8	9.9	4.4	1.4	0.5	0.8	1.2	1.3	0.4	0.4	6.58	33.02
9-Jan	0.2	0.1	0.2	Z	0.3	0.6	1.4	1.0	2.2	0.9	0.4	0.5	0.4	0.7	0.6	0.7	1.1	0.2	0.1	0.1	0.0	0.0	0.2	0.0	0.53	2.16
10-Jan	0.0	0.0	0.0	Z	0.1	0.9	1.0	2.0	1.8	1.8	3.6	3.4	2.1	1.5	3.0	4.3	2.6	4.3	2.9	1.3	0.6	0.3	0.6	0.2	1.66	4.30
11-Jan	0.8	1.2	4.8	Z	0.1	1.3	6.2	15.0	16.3	10.9	19.5	39.3	13.5	6.4	9.4	8.6	13.5	45.4	36.4	24.5	7.7	4.7	4.2	3.3	12.75	45.41
12-Jan	3.0	1.4	3.9	Z	5.1	6.9	6.8	8.3	11.2	10.5	30.4	43.4	28.8	47.8	70.9	53.2	63.6	68.2	65.4	56.4	31.0	24.2	13.1	26.6	29.57	70.94
13-Jan	31.5	24.0	4.8	Z	8.1	0.5	23.5	50.4	28.9	1.8	9.3	1.3	1.7	1.8	2.8	3.1	2.9	6.5	2.1	0.8	0.3	0.2	0.1	0.3	8.99	50.38
14-Jan	0.1	1.8	25.7	Z	8.3	42.5	28.4	9.9	5.7	2.9	4.3	3.4	3.3	1.7	1.9	1.3	2.4	2.0	2.4	0.5	1.1	0.7	0.3	0.4	6.55	42.53
15-Jan	0.2	0.3	0.2	Z	0.3	1.5	10.8	18.0	17.1	17.6	13.3	21.8	17.9	10.8	2.5	1.6	0.9	5.6	4.4	10.2	16.7	64.8	81.2	54.7	16.19	81.18
16-Jan	28.2	41.4	9.9	Z	0.2	22.5	36.3	37.5	46.8	25.2	23.2	7.2	5.3	7.1	26.1	18.1	1.5	0.3	3.2	3.3	0.1	0.2	0.1	0.5	14.96	46.76
17-Jan	0.9	1.0	0.8	Z	0.8	0.8	0.1	0.6	0.1	9.2	2.7	1.5	2.2	2.2	2.4	4.4	4.5	4.4	14.0	4.3	2.9	5.6	4.5	1.6	3.12	14.04
18-Jan	5.0	3.2	8.9	Z	11.0	27.3	90.3	127.9	140.8	88.9	93.9	50.7	8.2	2.5	1.1	0.7	0.5	0.4	0.2	0.3	0.3	0.1	0.0	0.2	28.81	140.82
19-Jan	0.6	0.4	0.4	Z	0.2	0.1	0.2	0.2	0.2	0.3	0.5	0.7	0.8	0.8	0.7	0.5	0.4	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.36	0.84
20-Jan	0.0	0.0	1.2	Z	0.1	1.3	1.3	1.7	9.0	2.2	2.7	1.5	3.5	3.4	4.3	2.1	1.3	8.1	3.3	3.6	7.6	2.4	3.1	2.3	2.87	9.01
21-Jan	1.4	0.6	0.8	Z	0.6	1.3	5.9	7.2	3.1	3.1	3.6	3.3	4.2	5.7	5.2	4.9	3.7	4.1	3.6	3.8	9.1	12.7	19.3	13.5	5.26	19.29
22-Jan	16.2	3.8	5.6	Z	27.2	22.3	25.2	35.2	36.5	25.6	21.4	24.9	24.5	1.1	0.9	1.3	0.8	0.6	0.9	34.9	14.4	0.6	0.4	3.0	14.22	36.49
23-Jan	2.6	4.5	4.1	Z	2.6	5.3	20.3	25.1	49.7	54.5	54.5	55.9	36.5	32.5	20.8	8.6	6.2	14.9	27.6	15.7	5.3	3.0	1.2	3.5	19.79	55.88
24-Jan	2.9	1.1	1.7	Z	2.8	8.8	11.6	13.1	C	C	C	C	C	9.9	7.8	3.3	3.9	10.1	5.7	1.3	2.5	2.2	0.9	1.2	5.04	13.06
25-Jan	0.6	0.6	1.0	Z	1.0	1.0	2.0	3.1	4.2	7.9	8.3	5.3	4.7	12.0	10.1	7.7	9.3	5.2	0.2	2.1	2.1	14.6	12.3	10.2	5.45	14.57
26-Jan	19.8	27.2	22.0	Z	6.2	13.9	23.4	27.9	50.2	41.1	35.9	18.7	21.1	18.2	7.5	4.5	4.3	5.1	2.6	1.5	0.3	0.8	0.6	0.7	15.37	50.23
27-Jan	0.4	0.2	0.4	Z	0.4	2.8	12.8	23.4	6.6	6.4	5.1	4.6	4.6	4.8	4.6	3.1	3.5	2.3	0.2	0.2	0.3	1.2	0.9	2.2	3.96	23.38
28-Jan	5.2	3.9	5.9	Z	8.1	8.1	7.5	10.0	14.2	17.7	11.6	10.2	10.6	8.1	6.2	5.5	3.5	3.4	3.1	1.6	1.4	1.0	0.6	0.4	6.44	17.74
29-Jan	0.3	1.1	0.7	Z	0.7	1.5	1.7	4.8	4.5	3.9	7.0	9.9	9.0	10.3	9.5	9.4	17.7	11.8	18.5	25.2	19.0	5.5	7.9	0.3	7.83	25.20
30-Jan	0.6	0.0	0.3	Z	16.3	40.7	21.6	13.1	31.8	85.0	40.6	16.7	19.5	14.2	24.1	10.9	9.6	7.3	3.4	0.9	0.9	1.0	0.3	0.5	15.63	85.00
31-Jan	0.4	0.5	0.7	Z	0.5	1.1	1.2	1.9	1.3	4.4	4.3	4.7	6.1	5.6	5.6	7.2	5.1	6.0	3.3	3.9	3.8	2.7	1.7	3.1	3.26	7.16
	4.21	4.12	3.48	--	3.85	9.12	13.35	18.43	20.18	19.60	18.71	14.47	10.50	10.38	11.28	6.76	5.71	7.18	6.98	6.67	4.86	5.04	5.23	4.27	Diurnal Average	
	31.46	41.42	25.65	--	27.17	62.39	90.32	127.94	140.82	104.34	120.79	70.90	60.14	90.74	104.64	53.22	63.55	68.23	65.45	56.44	30.99	64.80	81.18	54.70	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 (NO_2) - ppb
January 2018

Maximum Value: 40.01 ppb on Jan 22 20:00

Maximum Daily Average: 24.33 ppb on Jan 12

Minimum Value: 1.0 ppb on Jan 16 23:00

Minimum Daily Average: 3.74 ppb on Jan 9

Maximum Diurnal Average: 14.59 ppb at hour 9

Minimum Diurnal Average: 9.49 ppb at hour 14

Monthly Average: 11.615 ppb

Percentiles: P_1 = 1.9 P_{10} = 3.6 Q_1 = 6.0 Median = 10.2 Q_3 = 15.9 P_{90} = 21.1 P_{99} = 33.9

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	15.7	16.6	10.4	Z	10.2	4.4	3.5	2.6	2.2	2.3	3.4	2.8	2.7	2.2	2.9	2.8	4.0	4.2	4.4	6.3	4.0	5.3	2.8	2.6	5.15	16.60
2-Jan	4.1	3.6	4.7	Z	2.8	3.9	5.9	7.3	6.2	4.3	6.9	7.5	7.0	6.0	3.9	4.0	6.8	6.3	9.0	6.1	4.7	4.7	6.8	5.4	5.57	9.00
3-Jan	2.7	3.4	3.6	Z	4.3	4.5	7.0	13.0	11.6	18.1	7.7	5.6	3.9	4.4	3.8	3.1	4.1	3.6	4.9	3.9	3.3	4.0	5.1	3.9	5.63	18.13
4-Jan	1.9	3.4	3.5	Z	3.3	5.4	4.8	5.4	6.3	4.7	7.8	13.3	2.5	2.5	3.8	7.5	16.2	14.5	7.7	17.5	18.5	10.2	6.5	6.8	7.56	18.53
5-Jan	3.4	3.9	3.1	Z	17.8	26.4	32.3	31.4	34.7	29.1	31.7	26.3	23.7	28.4	31.0	21.9	13.5	10.0	8.9	7.0	15.9	10.0	5.8	2.7	18.22	34.68
6-Jan	2.6	6.7	4.8	Z	6.5	7.3	19.0	17.9	12.1	11.0	11.2	9.2	4.7	7.0	5.6	9.6	10.1	3.4	9.1	11.1	11.0	8.2	8.4	9.2	8.93	19.00
7-Jan	3.7	3.4	1.9	Z	2.1	1.5	4.4	3.7	4.4	2.9	6.9	4.7	4.4	6.1	5.8	6.7	9.7	11.3	19.2	8.4	6.6	11.5	20.5	19.3	7.36	20.54
8-Jan	15.9	11.3	8.9	Z	7.0	1.1	2.7	7.4	26.1	30.5	28.5	16.3	20.5	15.9	14.8	14.6	11.3	9.0	8.8	8.6	6.2	4.3	3.3	3.4	12.01	30.45
9-Jan	3.2	3.5	4.0	Z	3.3	3.7	8.1	5.8	5.3	4.4	2.5	2.4	2.2	3.0	2.6	3.3	4.7	3.2	3.1	3.0	2.4	2.7	5.4	4.4	3.74	8.10
10-Jan	2.8	2.8	2.5	Z	2.6	4.7	4.7	6.7	6.7	6.7	8.2	7.0	5.0	4.4	6.9	8.8	7.4	14.6	11.1	10.7	9.5	6.5	7.5	6.9	6.73	14.56
11-Jan	9.6	16.0	25.6	Z	11.3	11.8	16.9	20.7	19.9	16.7	16.9	21.9	12.3	7.8	11.8	15.8	24.8	30.4	27.4	24.8	18.0	14.2	16.2	13.2	17.56	30.41
12-Jan	16.2	14.1	18.1	Z	19.5	19.0	19.5	19.5	20.4	17.6	18.8	22.6	23.0	29.4	35.3	34.7	35.2	37.4	34.2	30.4	26.0	23.1	21.1	24.5	24.33	37.43
13-Jan	23.8	24.0	20.3	Z	21.4	7.0	24.8	27.2	16.6	9.9	15.0	4.3	5.3	3.4	5.4	5.9	6.3	7.5	5.5	4.4	3.9	3.6	6.0	9.6	11.35	27.21
14-Jan	4.1	15.0	21.1	Z	11.9	15.1	11.8	9.2	9.9	7.0	7.3	6.0	5.6	4.1	4.2	4.1	5.6	6.0	6.3	4.6	5.3	5.6	5.2	7.5	7.94	21.11
15-Jan	9.2	9.1	7.9	Z	6.4	8.3	15.6	15.9	14.0	12.3	9.5	12.1	13.7	12.6	5.5	4.3	7.7	13.4	11.7	13.4	16.4	18.2	17.1	12.6	11.61	18.23
16-Jan	10.8	14.0	8.3	Z	3.5	8.6	16.5	18.3	17.2	13.6	12.6	10.5	9.0	11.4	20.0	22.9	9.0	6.4	10.0	17.6	7.0	4.4	1.0	6.1	11.25	22.95
17-Jan	8.8	10.3	8.6	Z	8.9	8.3	4.3	7.5	8.7	8.3	6.4	4.4	4.7	6.8	6.4	10.1	9.3	18.3	31.2	21.8	18.0	15.5	16.2	14.3	11.18	31.23
18-Jan	21.1	18.2	19.8	Z	18.7	16.5	25.5	28.3	27.8	23.6	28.8	29.1	15.0	7.4	4.3	3.4	4.2	8.6	10.3	11.8	9.2	2.5	2.2	4.6	14.82	29.12
19-Jan	11.9	9.4	11.5	Z	9.4	6.0	9.9	10.2	8.9	8.3	4.8	4.7	3.9	3.4	2.9	2.7	4.5	10.6	10.0	8.2	6.8	1.9	1.5	1.5	6.65	11.89
20-Jan	1.8	4.7	8.6	Z	4.0	10.2	11.6	9.3	17.8	11.4	9.6	7.6	10.3	9.2	9.0	7.6	8.0	16.4	12.7	14.8	20.4	14.4	14.5	13.4	10.75	20.43
21-Jan	13.4	12.1	12.9	Z	11.7	11.2	13.6	13.2	12.3	11.5	8.5	6.2	6.9	7.9	9.6	13.1	15.2	19.9	23.6	25.0	24.1	22.2	22.0	17.5	14.51	24.96
22-Jan	17.4	16.8	18.4	Z	20.7	18.3	16.2	16.5	16.8	14.2	12.6	13.2	13.3	4.2	3.9	7.6	8.7	9.4	6.2	40.0	27.3	11.0	6.8	15.0	14.55	40.01
23-Jan	15.6	17.0	14.4	Z	8.6	10.6	16.3	17.3	20.0	20.6	21.1	24.3	24.1	24.2	27.4	14.6	16.8	23.5	31.3	24.3	15.6	13.6	14.7	19.8	18.95	31.33
24-Jan	17.6	13.6	12.3	Z	13.5	14.7	16.0	15.5	C	C	C	C	C	15.3	13.0	9.7	13.2	22.6	21.3	19.0	26.7	22.2	19.5	17.9	16.87	26.74
25-Jan	16.7	16.3	14.5	Z	13.5	14.5	14.8	15.8	17.7	18.3	16.3	13.6	13.4	12.9	13.5	13.1	15.2	14.1	7.8	10.7	9.7	20.8	19.0	17.2	14.75	20.82
26-Jan	18.1	18.2	17.2	Z	13.0	14.5	15.3	15.8	19.7	16.4	16.1	12.8	12.7	13.3	9.2	7.5	7.7	10.2	10.5	8.5	6.8	7.5	7.4	5.6	12.34	19.71
27-Jan	4.9	4.7	4.8	Z	8.8	17.6	20.0	19.4	14.1	12.6	10.7	10.7	7.6	8.4	8.1	8.9	9.9	11.2	8.9	8.0	9.3	10.0	11.8	15.2	10.69	19.96
28-Jan	18.2	18.1	16.1	Z	13.1	13.2	13.2	13.9	15.5	14.4	10.4	10.2	10.1	9.7	9.8	9.4	9.9	13.2	13.8	13.7	14.7	14.5	14.6	12.8	13.14	18.15
29-Jan	10.4	10.2	12.2	Z	11.8	11.0	11.7	13.4	12.7	11.4	10.9	9.9	8.3	7.7	8.3	10.6	17.1	17.6	19.7	19.5	18.9	18.3	21.9	10.5	13.22	21.93
30-Jan	7.2	5.5	6.7	Z	22.8	26.9	15.3	17.8	21.6	27.8	16.9	11.2	10.9	9.5	14.9	11.2	11.5	13.4	14.0	12.7	12.9	12.1	9.0	8.8	13.94	27.76
31-Jan	9.8	10.7	9.4	Z	10.3	9.3	8.9	11.1	10.6	11.3	8.0	6.4	5.6	5.4	5.2	7.3	8.3	11.3	10.8	12.3	12.2	11.2	13.8	18.9	9.91	18.85
	10.41	10.86	10.84	--	10.41	10.82	13.22	14.10	14.59	13.37	12.54	11.23	9.74	9.49	9.95	9.89	10.83	12.96	13.33	13.81	12.62	10.79	10.77	10.69	Diurnal Average	
	23.75	24.04	25.56	--	22.76	26.89	32.30	31.38	34.68	30.45	31.67	29.12	24.11	29.35	35.33	34.71	35.25	37.43	34.21	40.01	27.34	23.13	21.97	24.50	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
January 2018

Maximum Value: 168.74 ppb on Jan 18 09:00

Maximum Daily Average: 59.88 ppb on Jan 5

Minimum Value: 1.1 ppb on Jan 16 23:00

Minimum Daily Average: 4.31 ppb on Jan 9

Maximum Diurnal Average: 34.92 ppb at hour 9

Minimum Diurnal Average: 14.36 ppb at hour 5

Monthly Average: 20.993 ppb

Percentiles: P_1 = 2.1 P_{10} = 4.1 Q_1 = 7.2 Median = 13.3 Q_3 = 24.5 P_{90} = 45.5 P_{99} = 132.5

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	21.0	23.6	12.6	Z	12.7	4.4	3.6	3.2	3.3	3.5	4.8	5.5	3.1	2.9	3.6	3.2	4.4	4.3	4.5	6.4	4.1	5.4	2.9	2.7	6.35	23.61
2-Jan	4.2	3.7	4.8	Z	2.8	3.9	6.0	7.4	6.4	4.7	7.9	9.3	8.9	7.6	4.8	4.6	7.3	6.6	9.6	6.3	4.8	5.0	8.0	6.0	6.12	9.64
3-Jan	2.7	3.4	3.6	Z	4.3	5.0	8.4	27.1	16.5	38.5	10.2	7.3	5.3	5.7	4.7	3.7	4.8	4.0	5.2	4.3	3.5	4.2	5.3	3.9	7.89	38.52
4-Jan	2.0	3.5	3.5	Z	3.3	5.6	4.8	6.1	7.3	7.8	14.0	28.9	3.4	3.2	4.9	8.6	17.5	15.0	7.9	23.4	33.2	12.6	6.9	7.0	10.03	33.25
5-Jan	3.4	4.7	3.8	Z	30.0	89.1	98.5	144.6	138.8	133.8	152.7	97.5	84.2	119.5	135.9	50.8	16.9	11.4	11.9	7.8	20.3	11.4	7.0	3.1	59.88	152.74
6-Jan	2.7	7.4	4.9	Z	9.4	13.6	25.2	22.2	15.5	15.0	16.6	15.2	6.5	8.8	6.5	10.8	11.2	3.6	9.4	11.6	11.5	8.5	8.7	9.5	11.06	25.20
7-Jan	3.9	3.7	2.1	Z	2.2	1.7	4.6	3.8	4.5	3.0	8.3	5.3	5.0	6.9	6.7	9.1	12.7	13.9	27.2	10.7	8.8	13.4	25.8	21.2	8.90	27.24
8-Jan	20.1	12.2	9.6	Z	7.9	1.3	3.6	9.4	35.3	63.8	56.0	23.0	40.0	31.4	26.8	24.7	15.9	10.5	9.4	9.4	7.4	5.6	3.8	3.9	18.74	63.84
9-Jan	3.5	3.6	4.2	Z	3.6	4.3	9.6	6.9	7.6	5.4	2.9	3.0	2.6	3.8	3.2	4.1	5.8	3.4	3.2	3.1	2.4	2.8	5.7	4.5	4.31	9.59
10-Jan	2.8	2.8	2.5	Z	2.7	5.6	5.7	8.8	8.6	8.6	11.9	10.6	7.2	5.9	9.9	13.2	10.1	19.0	14.2	12.2	10.3	6.8	8.2	7.2	8.47	18.97
11-Jan	10.5	17.3	30.6	Z	11.6	13.3	23.3	35.9	36.4	27.9	36.6	61.5	26.0	14.3	21.3	24.6	38.6	76.1	64.1	49.6	25.9	19.1	20.6	16.7	30.51	76.14
12-Jan	19.4	15.6	22.2	Z	24.8	26.1	26.5	27.9	31.8	28.3	49.5	66.3	52.0	77.5	106.7	88.4	99.2	106.1	100.1	87.2	57.3	47.7	34.4	51.4	54.19	106.68
13-Jan	55.5	48.4	25.3	Z	29.7	7.7	48.6	77.9	45.8	11.8	24.5	5.7	7.1	5.3	8.2	9.1	9.3	14.1	7.7	5.3	4.2	3.8	6.2	10.1	20.49	77.91
14-Jan	4.2	17.0	47.0	Z	20.4	57.8	40.3	19.2	15.8	10.0	11.7	9.5	9.0	5.8	6.1	5.5	8.0	8.0	8.8	5.1	6.4	6.3	5.5	7.9	14.58	57.81
15-Jan	9.6	9.6	8.3	Z	6.7	9.9	26.6	34.1	31.2	30.0	23.0	34.0	31.7	23.5	8.1	6.0	8.6	19.2	16.2	23.8	33.3	83.3	98.5	67.5	27.93	98.52
16-Jan	39.2	55.6	18.2	Z	3.8	31.3	53.0	56.1	64.2	39.0	35.9	17.8	14.6	18.7	46.3	41.2	10.6	6.7	13.3	21.1	7.2	4.7	1.1	6.6	26.37	64.17
17-Jan	9.8	11.5	9.6	Z	9.8	9.3	4.5	8.2	9.0	17.5	9.2	5.9	6.9	9.1	8.8	14.7	13.9	22.8	45.6	26.3	21.1	21.3	20.9	16.0	14.42	45.56
18-Jan	26.2	21.5	28.9	Z	29.9	44.1	116.0	156.5	168.7	112.8	123.0	80.1	23.4	10.0	5.4	4.1	4.7	9.1	10.6	12.2	9.6	2.7	2.2	4.9	43.76	168.74
19-Jan	12.6	9.9	12.0	Z	9.6	6.1	10.2	10.6	9.2	8.7	5.3	5.5	4.8	4.2	3.7	3.2	5.0	11.0	10.4	8.4	7.1	2.1	1.6	1.6	7.09	12.64
20-Jan	1.8	4.7	9.9	Z	4.1	11.7	13.0	11.2	27.0	13.8	12.5	9.2	14.0	12.7	13.4	9.8	9.4	24.7	16.2	18.5	28.2	17.0	17.8	15.8	13.75	28.15
21-Jan	15.0	12.9	13.9	Z	12.4	12.6	19.6	20.6	15.6	14.7	12.3	9.5	11.3	13.8	15.0	18.1	19.1	24.1	27.3	29.0	33.4	35.1	41.5	31.2	19.91	41.46
22-Jan	33.8	20.8	24.2	Z	48.1	40.8	41.5	51.8	53.5	39.9	34.2	38.2	38.0	5.3	4.7	9.0	9.6	10.1	7.0	75.4	42.0	11.6	7.2	18.2	28.92	75.37
23-Jan	18.4	21.6	18.7	Z	11.3	16.1	36.8	42.5	70.0	75.3	75.9	80.5	60.9	57.1	48.4	23.4	23.2	38.6	59.2	40.2	21.1	16.8	16.0	23.4	38.93	80.52
24-Jan	20.7	14.8	14.1	Z	16.5	23.7	28.0	29.0	C	C	C	C	C	24.6	20.2	12.4	16.6	32.2	26.6	20.0	29.0	24.1	20.2	19.0	21.76	32.18
25-Jan	17.2	16.8	15.6	Z	14.6	15.6	16.9	18.9	22.0	26.3	24.7	18.9	18.1	25.0	23.7	20.8	24.5	19.5	8.0	12.9	11.8	35.5	31.4	27.5	20.27	35.47
26-Jan	37.9	45.6	39.4	Z	19.3	28.5	38.8	43.8	70.1	57.7	52.1	31.6	33.9	31.6	16.8	12.0	12.1	15.4	13.2	10.0	7.1	8.3	8.0	6.3	27.80	70.13
27-Jan	5.3	4.9	5.3	Z	9.2	20.5	32.8	42.9	20.9	19.1	15.9	15.4	12.3	13.3	12.8	12.1	13.6	13.6	9.2	8.3	9.7	11.4	12.9	17.6	14.73	42.93
28-Jan	23.5	22.1	22.1	Z	21.3	21.4	20.8	24.0	29.8	32.2	22.1	20.5	20.9	17.9	16.2	15.0	13.6	16.8	17.0	15.4	16.2	15.7	15.4	13.3	19.70	32.25
29-Jan	10.9	11.4	13.0	Z	12.6	12.6	13.4	18.2	17.3	15.4	18.0	20.0	17.4	18.1	17.9	20.1	34.9	29.5	38.3	44.9	38.0	23.8	29.9	10.9	21.16	44.86
30-Jan	7.9	5.5	7.0	Z	39.2	67.8	37.1	31.0	53.6	112.9	57.7	28.0	30.5	23.7	39.0	22.3	21.3	20.9	17.4	13.7	13.9	13.2	9.4	9.4	29.66	112.90
31-Jan	10.2	11.4	10.2	Z	11.0	10.4	10.1	13.1	12.0	15.8	12.4	11.2	11.8	11.1	10.8	14.7	13.5	17.4	14.2	16.3	16.1	14.1	15.7	22.1	13.29	22.12
	14.71	15.09	14.42	--	14.36	20.06	26.71	32.67	34.92	33.11	31.39	25.83	20.36	19.95	21.32	16.75	16.64	20.25	20.42	20.60	17.58	15.91	16.08	15.05	Diurnal Average	
	55.54	55.65	46.98	--	48.12	89.15	116.04	156.47	168.74	133.76	152.74	97.55	84.18	119.45	135.94	88.38	99.22	106.10	100.07	87.25	57.34	83.27	98.52	67.50	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 ($PM_{2.5}$) - $\mu g/m^3$
January 2018

Maximum Value: 156.88 $\mu g/m^3$ on Jan 28 06:00

Maximum Daily Average: 43.44 $\mu g/m^3$ on Jan 28

Minimum Value: 0.1 $\mu g/m^3$ on Jan 18 23:00

Minimum Daily Average: 1.93 $\mu g/m^3$ on Jan 1

Maximum Diurnal Average: 17.11 $\mu g/m^3$ at hour 6

Minimum Diurnal Average: 10.08 $\mu g/m^3$ at hour 15

Monthly Average: 14.100 $\mu g/m^3$

Percentiles: P_1 = 0.5 P_{10} = 1.9 Q_1 = 3.6 Median = 8.7 Q_3 = 18.9 P_{90} = 35.0 P_{99} = 66.6

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	7
Percent Operational Time:	100.0

Day	Hourly Period Ending At																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	4.2	8.4	2.5	5.9	2.1	1.4	1.8	1.0	0.7	0.5	0.7	1.3	0.9	1.1	1.1	1.1	1.2	1.4	1.6	2.3	1.2	1.6	1.1	1.4	1.93	8.38
2-Jan	1.9	1.5	2.3	2.3	1.3	1.5	2.8	4.2	2.2	2.4	5.1	6.6	6.5	5.0	2.8	2.7	6.0	2.7	4.9	6.5	3.3	1.6	2.0	2.1	3.34	6.57
3-Jan	2.8	4.3	3.6	3.0	3.2	8.7	3.0	3.8	2.7	4.5	4.0	5.7	3.8	3.0	2.7	2.3	2.0	1.7	2.2	1.9	1.8	2.2	2.8	2.3	3.24	8.73
4-Jan	1.3	1.9	1.8	1.8	1.4	1.6	2.0	1.3	1.8	1.8	1.9	2.5	1.8	1.8	2.0	4.1	6.6	5.4	4.1	8.4	4.0	3.6	2.9	2.7	2.85	8.45
5-Jan	2.0	1.8	1.6	2.4	3.2	5.8	9.0	10.3	7.4	10.5	23.9	12.1	9.5	26.4	21.1	12.2	5.7	5.4	4.7	4.2	9.8	7.2	2.8	2.4	8.38	26.36
6-Jan	2.4	4.7	4.0	3.4	3.1	3.9	2.9	2.7	4.6	1.2	0.8	5.7	3.9	10.2	6.9	12.2	11.9	3.5	11.4	13.8	12.3	10.1	10.7	11.2	6.56	13.83
7-Jan	3.8	4.1	2.5	6.8	4.0	2.4	5.1	1.5	2.1	4.4	3.3	3.3	4.3	5.9	3.6	3.1	3.4	4.3	3.6	3.1	4.1	16.7	19.3	25.0	5.82	25.03
8-Jan	18.6	12.0	4.7	1.5	0.5	0.2	0.2	0.4	2.7	2.7	2.5	3.7	14.6	6.5	3.4	3.9	3.5	3.1	4.9	7.4	6.7	5.5	5.0	4.8	4.96	18.62
9-Jan	3.7	3.1	3.0	4.6	3.2	3.1	2.9	3.5	3.7	2.4	1.9	2.7	2.4	2.4	2.5	2.4	1.9	1.7	2.0	2.3	2.1	2.2	10.1	4.7	3.09	10.07
10-Jan	3.1	3.3	3.8	4.2	4.5	8.8	7.2	10.3	9.2	8.5	13.4	10.0	10.5	8.7	6.6	4.9	5.7	9.3	8.1	26.6	18.1	9.7	10.3	10.8	8.99	26.60
11-Jan	12.1	14.6	23.1	26.5	43.7	70.4	67.0	56.0	54.3	42.0	27.0	35.4	22.3	15.8	15.6	17.0	19.0	22.3	22.1	25.3	22.4	27.9	34.0	52.8	32.02	70.45
12-Jan	25.5	12.3	22.6	17.6	18.4	16.0	14.0	13.6	13.0	12.7	13.7	21.7	17.3	19.2	23.3	48.1	31.9	39.1	33.4	25.6	30.6	19.9	18.5	31.9	22.50	48.08
13-Jan	30.5	33.1	23.7	20.8	12.6	4.2	12.6	12.1	7.9	4.0	9.0	0.7	0.4	0.3	0.6	0.6	0.9	0.7	0.7	0.5	0.4	1.1	4.2	2.9	7.69	33.14
14-Jan	2.2	13.2	10.6	12.9	5.1	9.4	10.5	6.3	6.5	8.9	7.8	5.0	4.1	5.8	5.9	6.4	5.6	13.0	13.0	9.7	11.0	11.8	15.8	16.6	9.04	16.59
15-Jan	21.0	22.2	22.2	20.8	19.1	19.1	34.3	34.9	28.4	45.6	23.5	23.0	20.7	14.2	4.2	2.1	2.2	20.9	27.1	29.1	28.5	38.0	48.9	32.7	24.28	48.85
16-Jan	22.8	14.7	4.5	3.1	3.1	4.3	6.9	8.7	7.9	7.4	5.2	4.3	3.0	3.0	5.0	4.9	1.7	1.1	1.3	4.5	4.2	2.4	0.5	3.7	5.34	22.79
17-Jan	6.1	7.1	6.8	6.8	6.7	5.3	3.2	4.6	4.7	1.5	2.2	1.0	1.9	3.3	1.3	1.7	2.8	2.8	11.1	9.5	11.7	14.6	21.4	22.4	6.68	22.44
18-Jan	35.2	28.5	24.1	24.0	25.1	23.0	58.0	34.6	27.7	30.2	39.3	40.1	23.4	5.0	2.3	1.1	1.1	4.2	5.6	7.7	6.3	1.5	0.1	3.4	18.82	57.95
19-Jan	9.9	7.7	9.8	10.8	8.5	4.8	8.9	7.8	7.3	6.2	4.2	3.3	3.0	2.9	1.4	1.2	1.7	8.7	7.3	6.6	7.7	2.2	0.9	1.5	5.60	10.84
20-Jan	2.1	9.3	33.1	13.4	8.9	7.6	4.8	11.2	10.3	3.5	16.6	8.2	7.5	13.3	17.3	20.0	18.6	16.6	23.4	40.5	33.6	34.4	54.6	67.7	19.86	67.71
21-Jan	69.9	49.7	25.5	13.0	12.1	11.6	10.8	14.7	16.5	15.8	23.3	26.2	27.4	29.3	34.5	38.6	38.2	38.6	55.4	49.4	48.3	58.5	50.3	37.1	33.13	69.88
22-Jan	36.2	40.1	44.1	42.8	41.4	48.2	39.2	35.1	40.4	41.5	38.5	37.7	23.4	2.6	2.1	4.7	5.0	3.6	2.8	16.9	74.9	25.0	6.1	45.8	29.08	74.90
23-Jan	37.0	41.9	51.8	47.4	12.5	9.9	11.8	9.6	11.0	12.6	17.9	18.0	10.8	11.5	13.5	3.8	5.1	37.3	14.9	14.9	21.1	13.9	17.1	18.2	19.31	51.81
24-Jan	16.9	16.4	17.3	16.1	19.0	21.5	21.9	20.5	C	C	C	C	C	C	C	17.4	17.5	27.8	23.2	30.2	54.5	64.9	39.5	29.6	--	64.86
25-Jan	28.2	28.0	29.9	33.7	39.7	37.4	35.1	37.2	36.1	37.4	37.4	35.7	33.1	31.6	28.8	26.3	19.9	14.2	11.7	11.8	11.2	22.3	17.4	19.0	27.62	39.73
26-Jan	30.4	38.4	12.5	9.0	8.7	15.7	18.1	14.4	15.5	17.6	18.7	14.4	19.1	22.4	15.3	12.8	8.8	16.8	17.0	10.4	15.0	12.1	6.4	4.6	15.58	38.37
27-Jan	4.5	4.6	5.2	6.1	6.4	6.8	7.0	12.4	14.3	14.3	11.0	8.7	9.3	13.4	26.2	35.0	45.5	47.4	33.0	27.5	31.8	26.7	18.1	16.0	17.96	47.42
28-Jan	22.0	23.8	33.6	105.3	130.1	156.9	94.6	65.8	74.9	53.2	45.7	29.7	24.7	32.6	28.7	15.6	14.8	13.6	16.7	13.8	13.8	12.4	11.0	9.3	43.44	156.88
29-Jan	7.4	6.9	7.1	6.9	7.6	6.7	6.3	6.1	6.7	6.9	6.8	6.5	7.4	8.7	8.6	9.0	10.8	11.0	10.1	11.8	13.5	12.4	15.9	6.1	8.63	15.89
30-Jan	1.9	3.0	3.2	1.6	3.6	4.2	8.1	10.5	13.7	39.1	17.8	13.2	20.0	9.8	9.1	8.7	9.6	9.4	9.3	12.5	14.6	14.0	10.7	8.3	10.67	39.09
31-Jan	9.8	10.7	9.6	8.0	12.0	9.7	7.0	6.8	6.0	5.4	4.8	5.4	7.9	7.7	6.3	6.1	6.6	8.2	5.7	8.7	10.8	7.1	6.8	7.3	7.68	12.05
	15.34	15.20	14.53	15.56	15.19	17.11	16.68	14.90	14.67	14.81	14.25	13.05	11.50	10.77	10.08	10.65	10.17	12.76	12.66	14.29	17.07	15.60	15.00	16.27	Diurnal Average	
	69.88	49.74	51.81	105.26	130.05	156.88	94.56	65.83	74.89	53.18	45.70	40.09	33.15	32.61	34.52	48.08	45.48	47.42	55.40	49.40	74.90	64.86	54.63	67.71	Diurnal Maximum	

C - Calibration

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: January 24, 2018

Parameter: H_2S

Instrument: TECO 45C

Serial Number: 45C-71671-369

Previous Calibration Date: December 22, 2017

Calibration: Routine

Calibration Equipment: Sabio 2010 sn 05200311

Barometric Pressure: 25.11" Hg

Calibration Method: Standard Gas Dilution

Permeation Device ID: DT0014794 / 10.50 ppm H2S

Temperature: 21.0° C

Permeation Rate: 0 ng/min

In Service: 10/21/2016 EXP 10/04/2019

Technician: J.McClintock

Instrument Settings	H_2S bkg ppb	H_2S Coefficient	Monitoring Range
Previous	18.6	1.338	100 ppb
Current	19.2	1.324	100 ppb

Final Zero: -0.3 ug/m3

Final Span: 45.0 ug/m3

As Found Correction Factor: 0.996

Calibration System Flow Rate (LPM)	Calculated Concentration C_c (ug/m3)	Raw Count Output R_c	Indicated Concentration C_i (ug/m3)	Correction Factor C_c/C_i
0.046	78.3	23384.2	78.4	0.999
0.031	53.0	15795.8	53.0	1.001
0.016	26.9	7929.8	26.6	1.008
0.000	0.0	26.8	0.2	

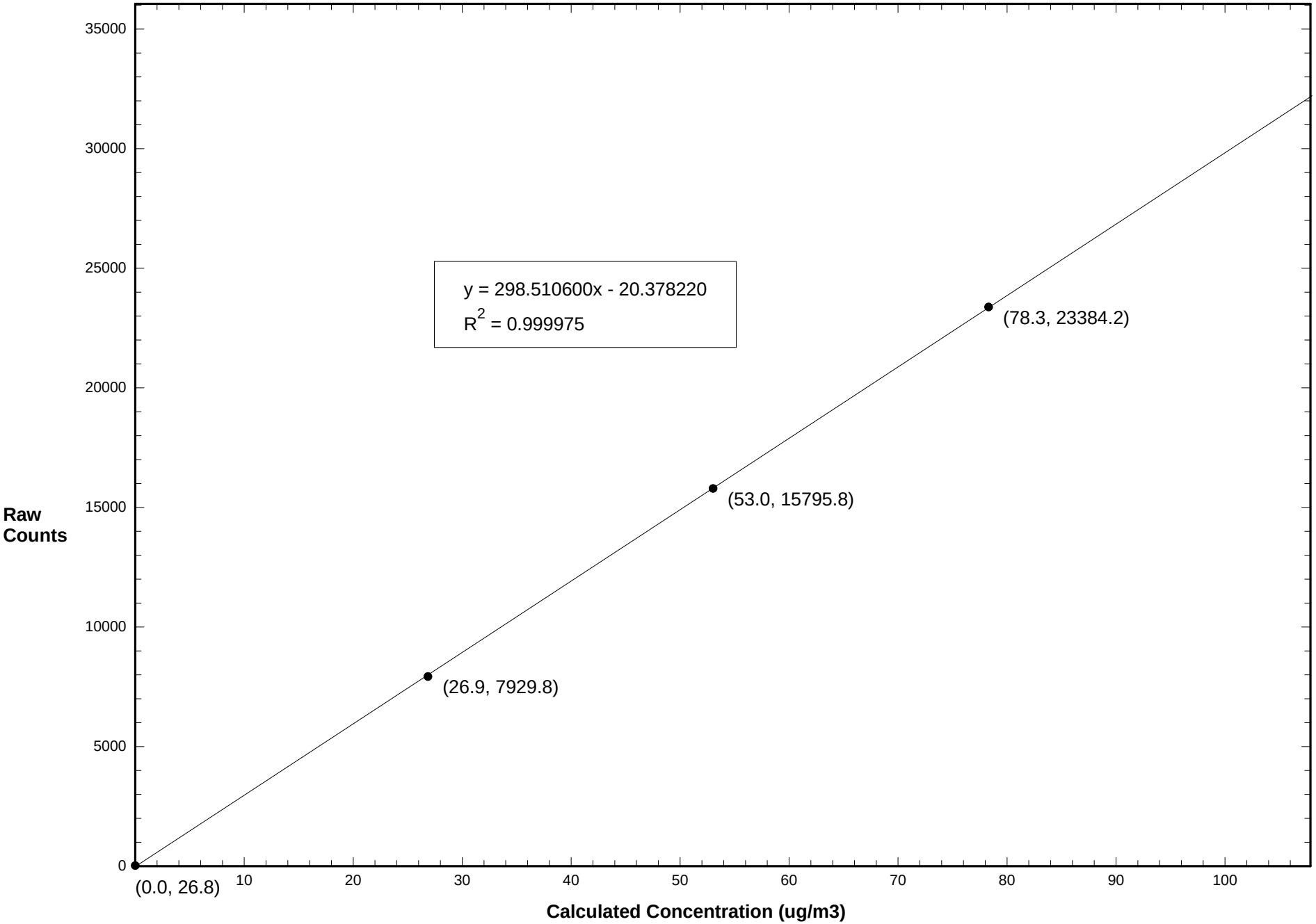
Results of Linear Regression

R_c vs C_c	Slope	Intercept	R^2
Previous	300.164500	16.416750	0.999971
Current	298.510600	-20.378220	0.999975
C_i vs C_c			
Current	1.000000	-0.000011	0.999975

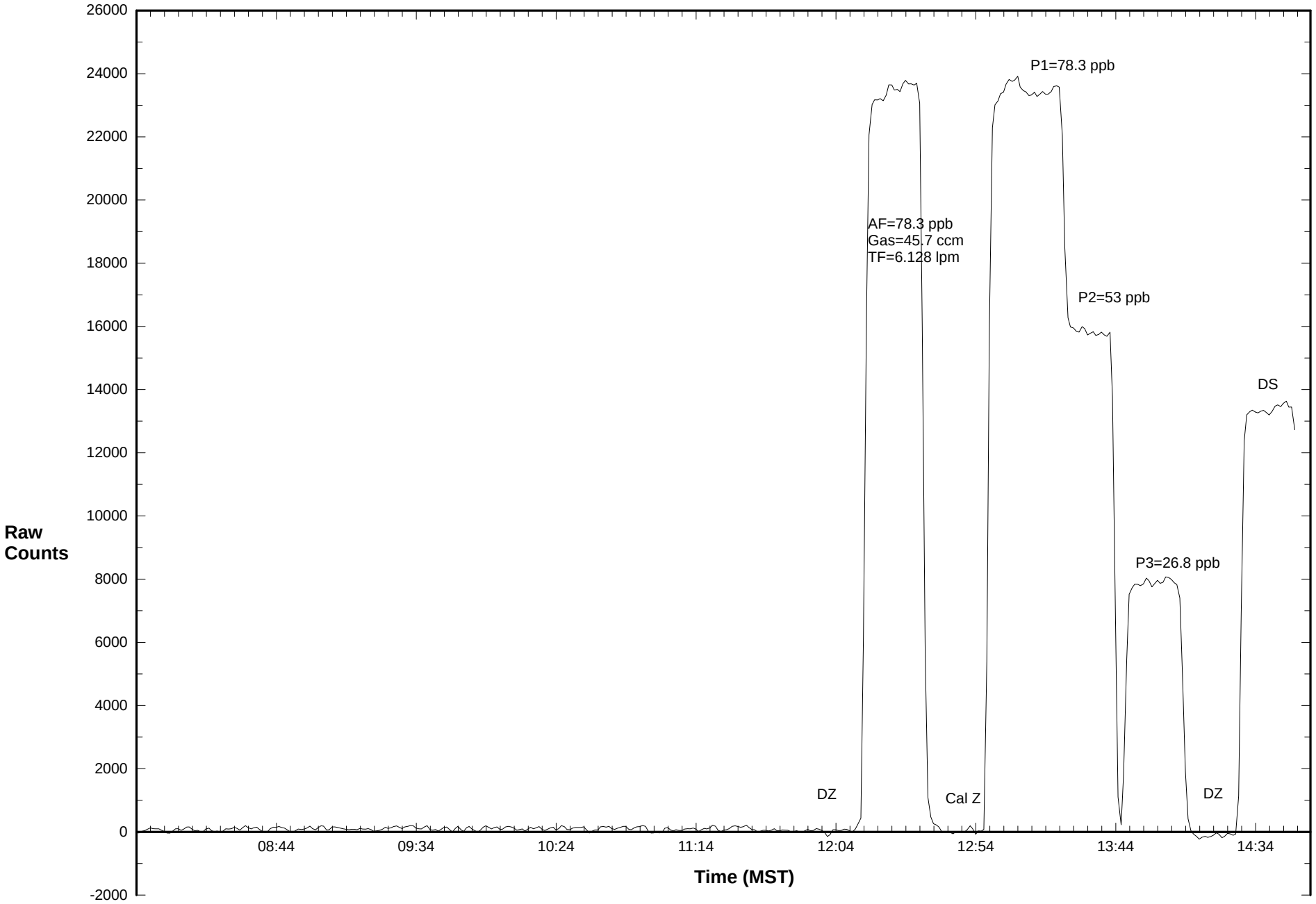
Average Correction Factor:	1.003
Previous Correction Factor:	1.000
Current Correction Factor:	0.999
Percent Change of Correction Factor:	-0.1

Comments: SF=0.340 lpm

Station 906 H2S January 24, 2018: Linear Regression



Station 906 H2S January 24, 2018: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: January 24, 2018

Parameter: $NO/NO_2/NO_x$

Instrument: Teco 42i

Serial Number: 0905034788

Previous Calibration Date: December 22, 2017

Calibration: Routine

Calibration Equipment: Sabio 2010 sn 05200311

Barometric Pressure: 26.33" Hg

Calibration Method: Standard Gas Dilution/GPT

Cylinder ID: EX0012478

Temperature: 21.0° C

Cylinder Concentration: 27.5 ppm NO/ 27.6 ppm NOX

In Service: Dec6/17;Oct./20

Technician: J.McClintock

Instrument Settings	NO bkg ppb	NO_x bkg ppb	Pre-reactor bkg ppb	NO Coefficient	NO_x Coefficient	NO_2 Coefficient	Monitoring Range
Previous	14.5	14.7	na	1.327	0.995	0.995	500 ppb
Current	15.2	16.0	na	1.369	0.999	0.995	500 ppb

NO	Final Zero: 0.0 ppb	Final Span: 167.0 ppb	As Found Correction Factor: 1.015
NO_2	Final Zero: 0.6 ppb	Final Span: 2.1 ppb	As Found Correction Factor: NA
NO_x	Final Zero: -0.7 ppb	Final Span: 168.0 ppb	As Found Correction Factor: 1.018

Results of Linear Regression			Slope	Intercept	R^2
NO	R_c vs C_c	Previous	59.961560	54.289590	0.999973
		Current	59.802830	15.996760	0.999996
	C_i vs C_c	Current	1.000000	-0.000008	0.999996
NO_2	R_c vs C_c	Previous	60.364190	11.154040	0.999973
		Current	60.026080	-58.805290	0.999943
	C_i vs C_c	Current	1.000000	0.000040	0.999943
NO_x	R_c vs C_c	Previous	60.005030	49.268540	0.999973
		Current	59.844650	21.593620	0.999989
	C_i vs C_c	Current	1.000000	0.000039	0.999989

Comments: SF=0.525 lpm

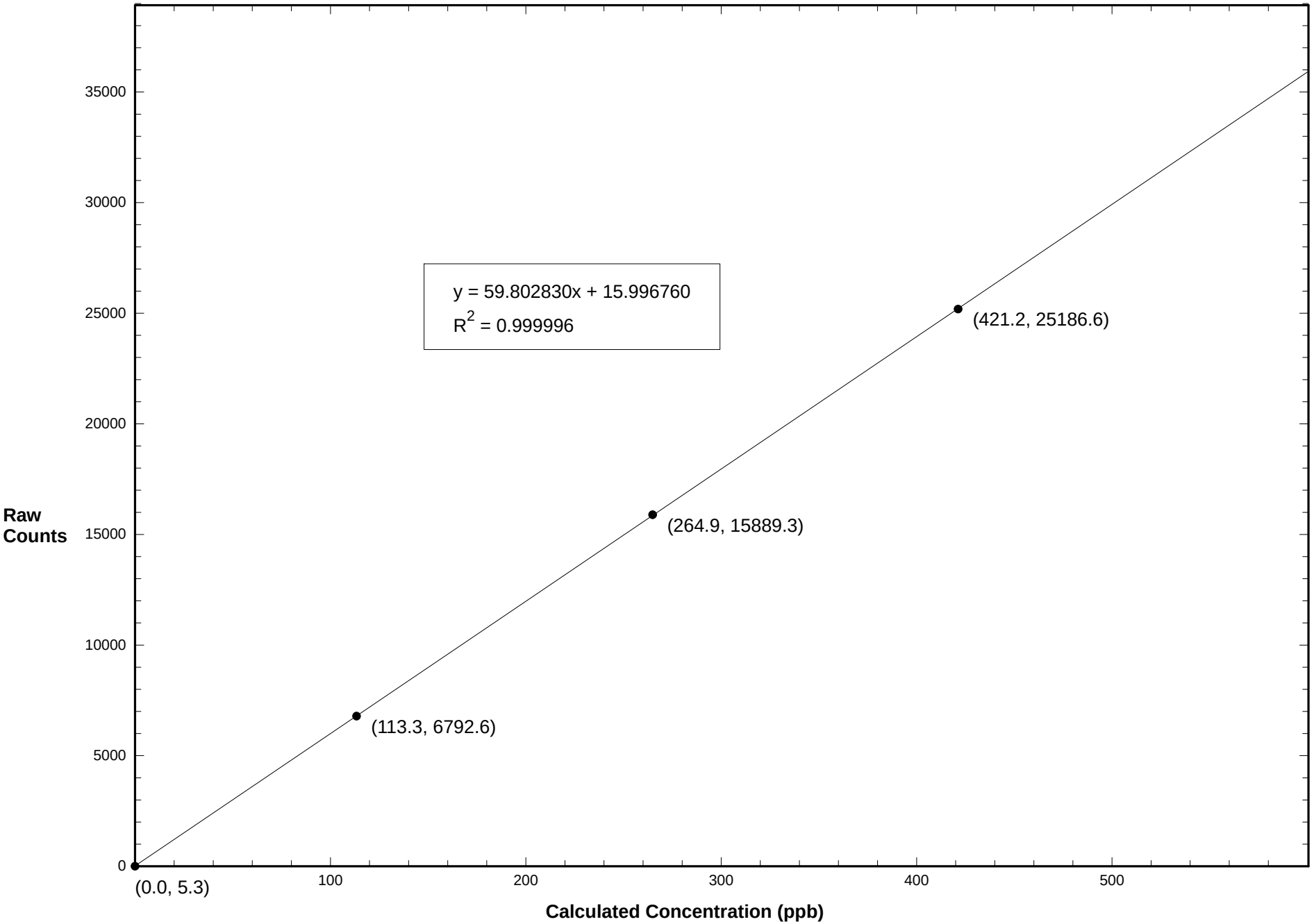
Calibration Data Summary (Page 2)

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
0.07000	4.500	421.2	25186.6	420.9	1.001
0.04400	4.524	264.9	15889.3	265.4	0.998
0.01870	4.518	113.3	6792.6	113.3	1.000
0.00000	4.500	0.0	5.3	-0.2	
NO Calibration				Average Correction Factor:	1.000
0.07000	4.500	422.8	25288.4	422.2	1.001
0.04400	4.524	265.8	15979.8	266.7	0.997
0.01870	4.518	113.8	6838.4	113.9	0.999
0.00000	4.500	0.0	-3.0	-0.4	
NO_x Calibration				Average Correction Factor:	0.999

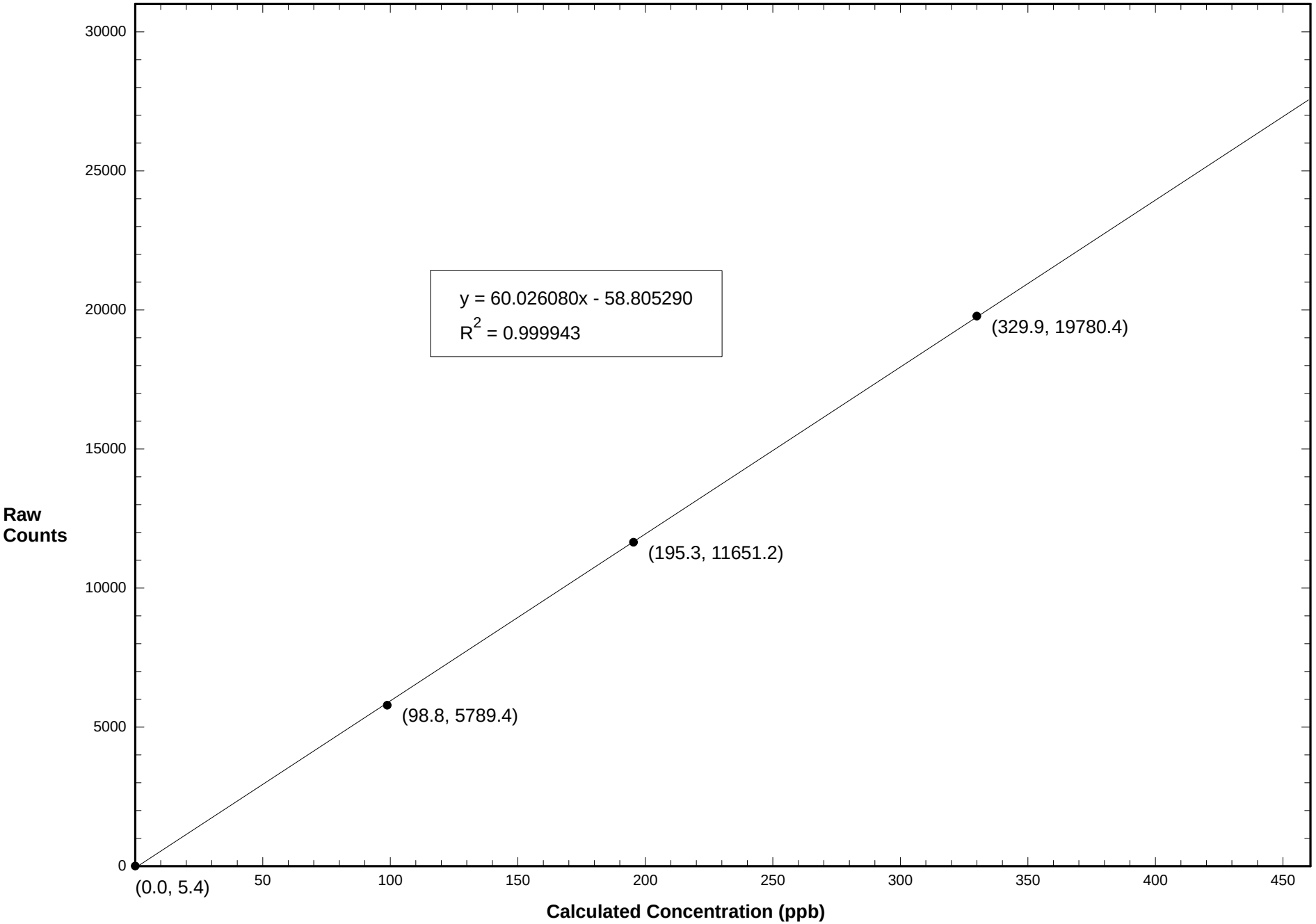
Reference Concentration NO (ppb)	Raw Count Output NO	Calculated Concentration NO (ppb)	Calculated Concentration NO_2, C_c (ppb)	Raw Count Output R_c	Indicated Concentration C_i (ppb)	Correction Factor C_c/C_i	Converter Efficiency C_i/C_c
423.5	5608.5	93.5	329.9	19780.4	330.5	0.998	1.002
423.5	13658.8	228.1	195.3	11651.2	195.1	1.001	0.999
423.5	19431.3	324.7	98.8	5789.4	97.4	1.014	0.986
			0.0	5.4	1.1		
					Average Correction Factor:	1.005	
NO_2 Gas Phase Titration						Average Converter Efficiency:	0.995

Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor
NO	0.997	1.001	0.4
NO_2	0.999	0.998	-0.1
NO_x	0.997	1.001	0.4

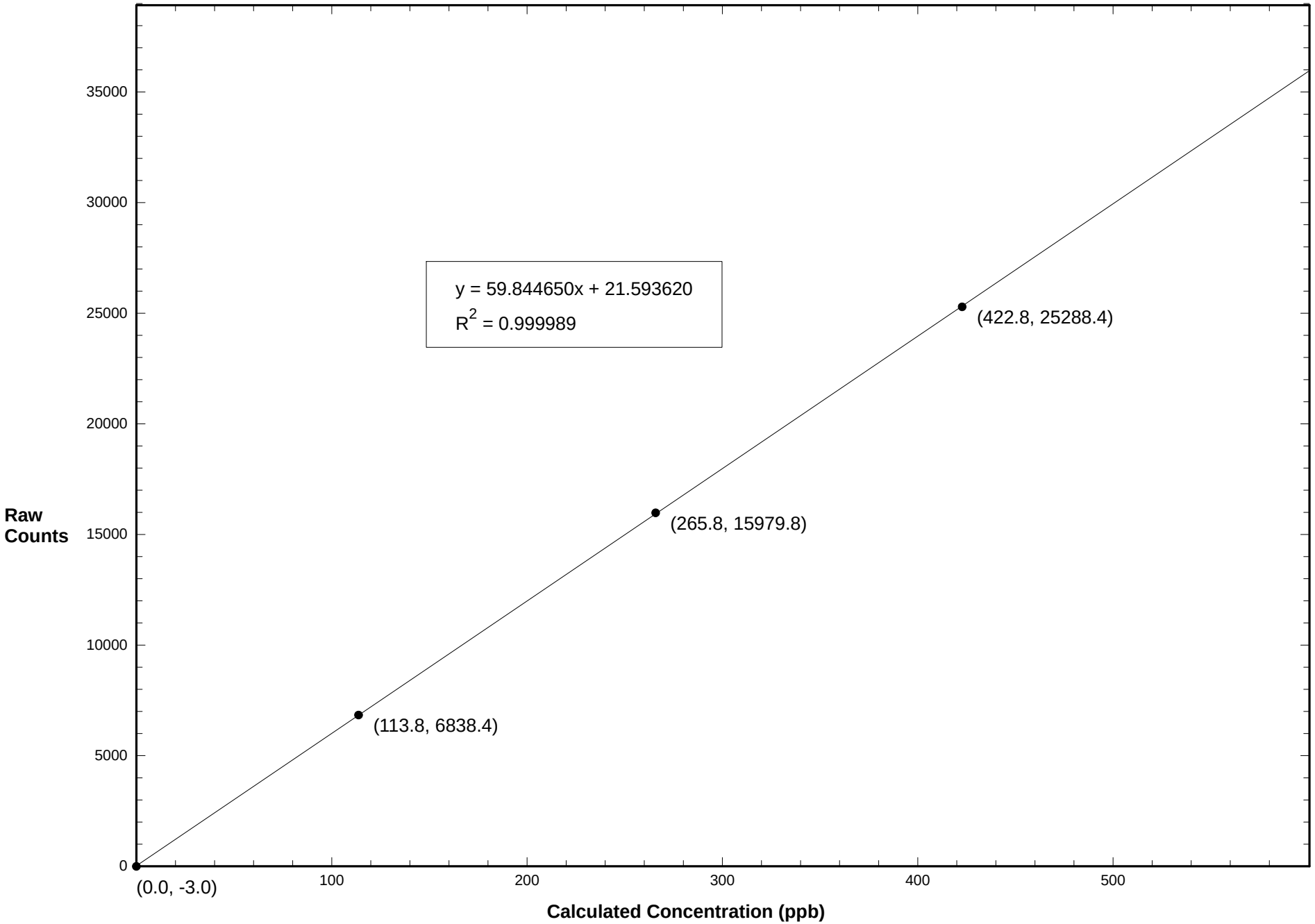
Station 906 NO January 24, 2018: Linear Regression



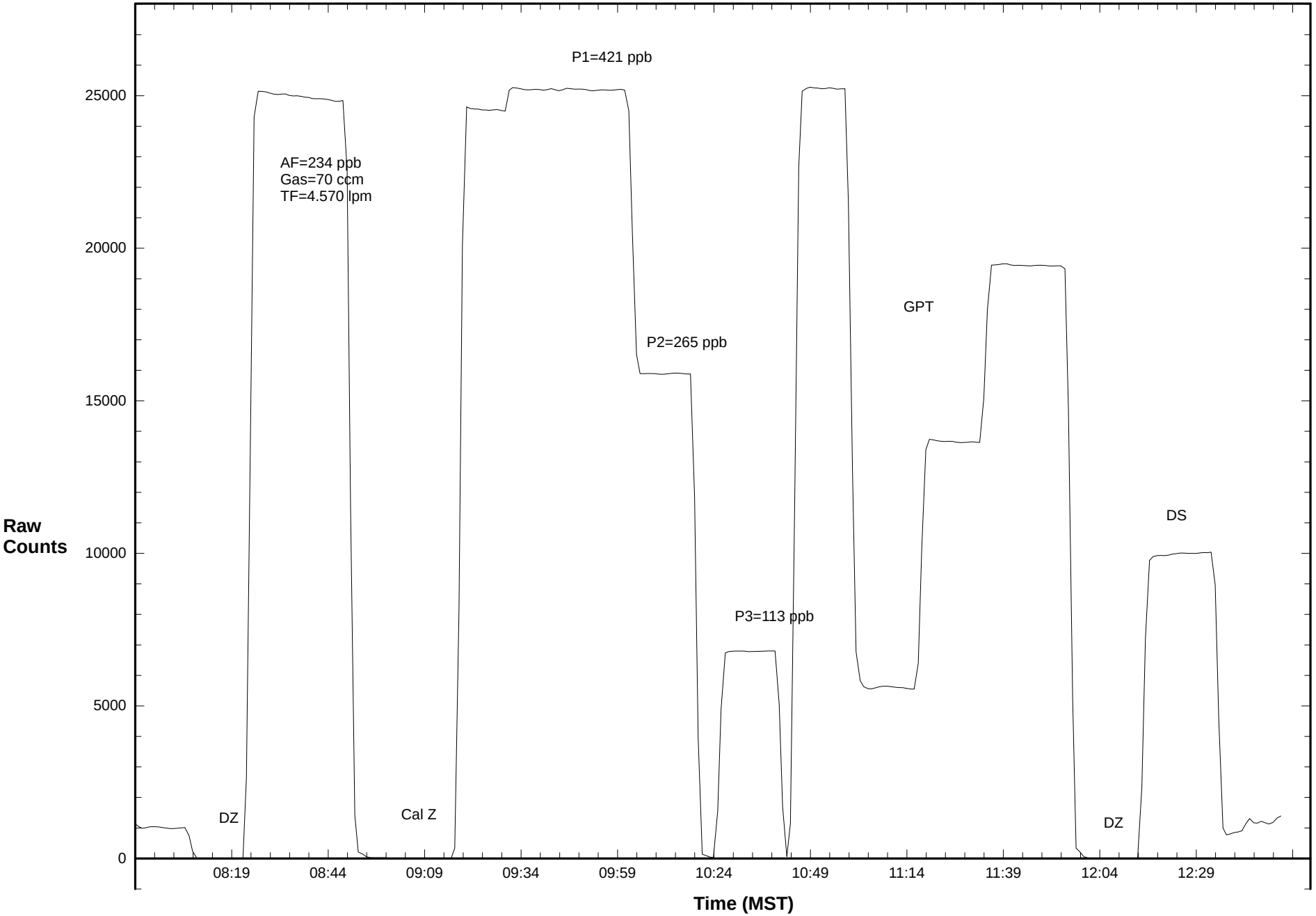
Station 906 NO2 January 24, 2018: Linear Regression



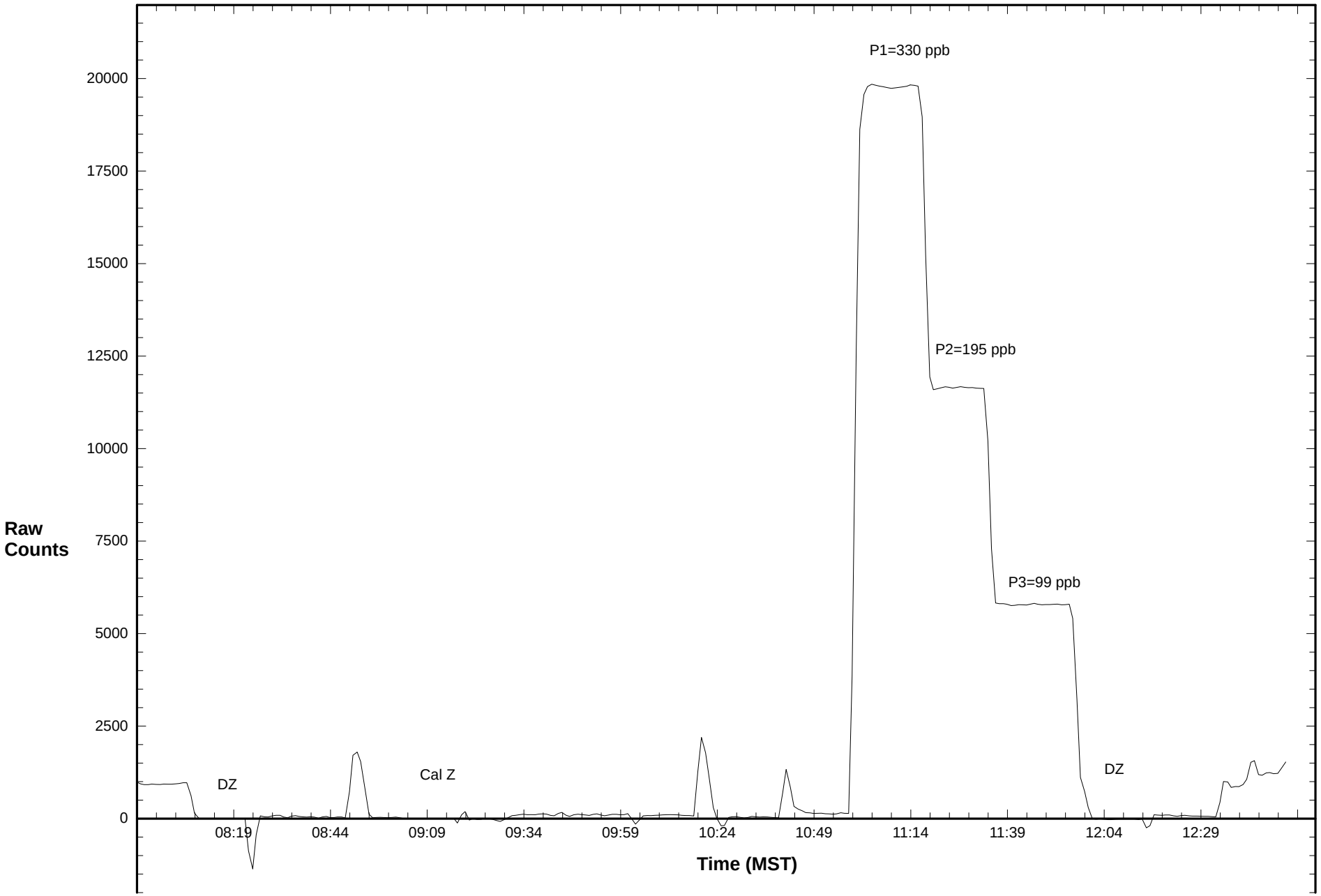
Station 906 NOX January 24, 2018: Linear Regression



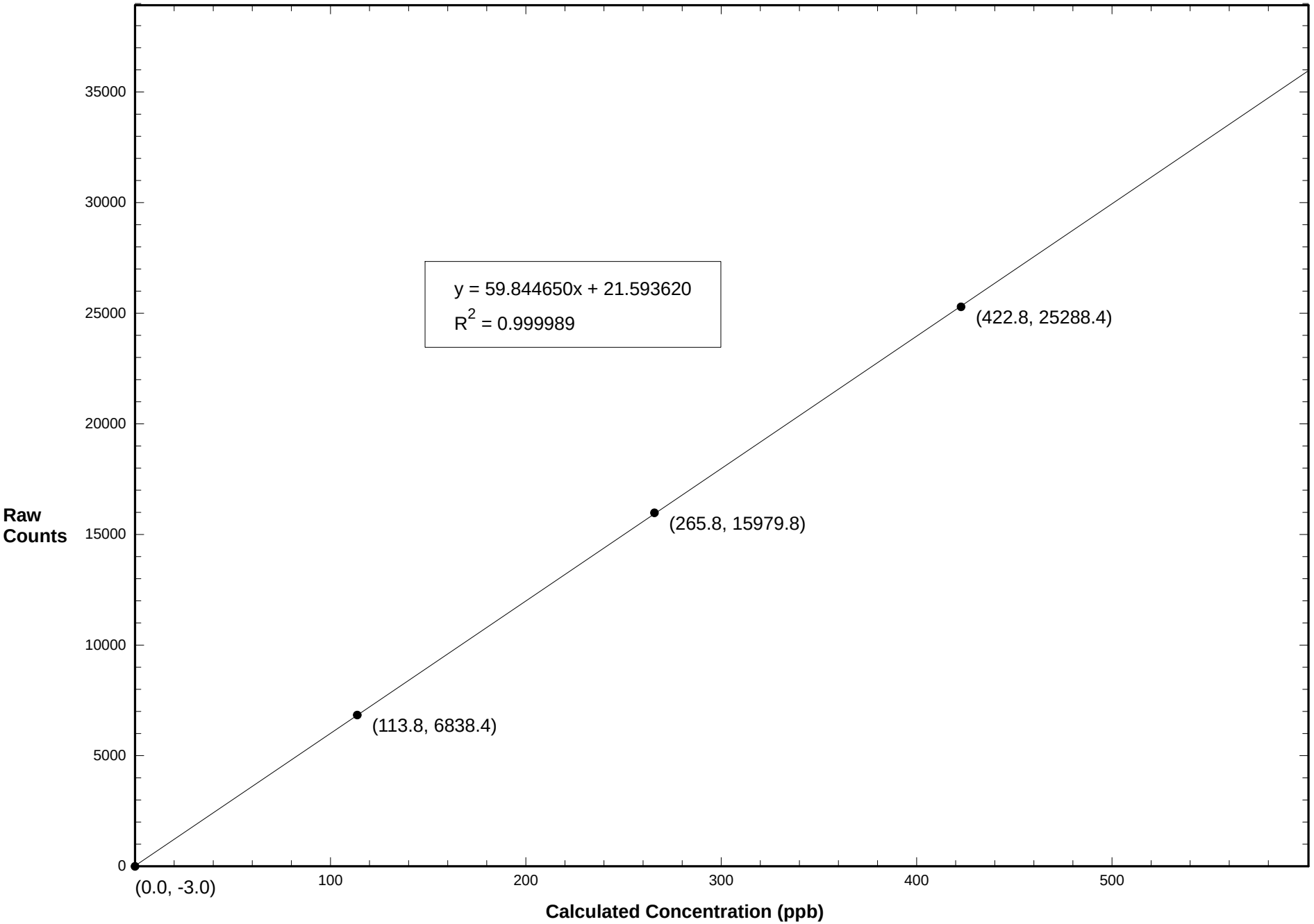
Station 906 NO January 24, 2018: Calibration Graph



Station 906 NO2 January 24, 2018: Calibration Graph



Station 906 NOX January 24, 2018: Linear Regression



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: January 24, 2018

Parameter: O_3

Instrument: Teco 49i

Serial Number: 1150790050

Previous Calibration Date: December 22, 2017

Calibration: Routine

Calibration Equipment: 2B Tech 306 sn#145

Barometric Pressure: 26.33" Hg

Calibration Method: Certified Ozone Generator April 28/17

Temperature: 21.3° C

Technician: J.McClintock

Instrument Settings	Background	Coefficient	Monitoring Range
Previous	-0.1	0.973	500 ppb
Current	-0.1	0.986	500 ppb

Final Zero: 0.2 ppb

Final Span: 381.3 ppb

As Found Correction Factor: 1.016

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	422.0	25329.5	422.0	1.000
3.000	266.0	15970.6	266.1	1.000
3.000	106.0	6344.7	105.7	1.002
3.000	0.0	7.1	0.2	

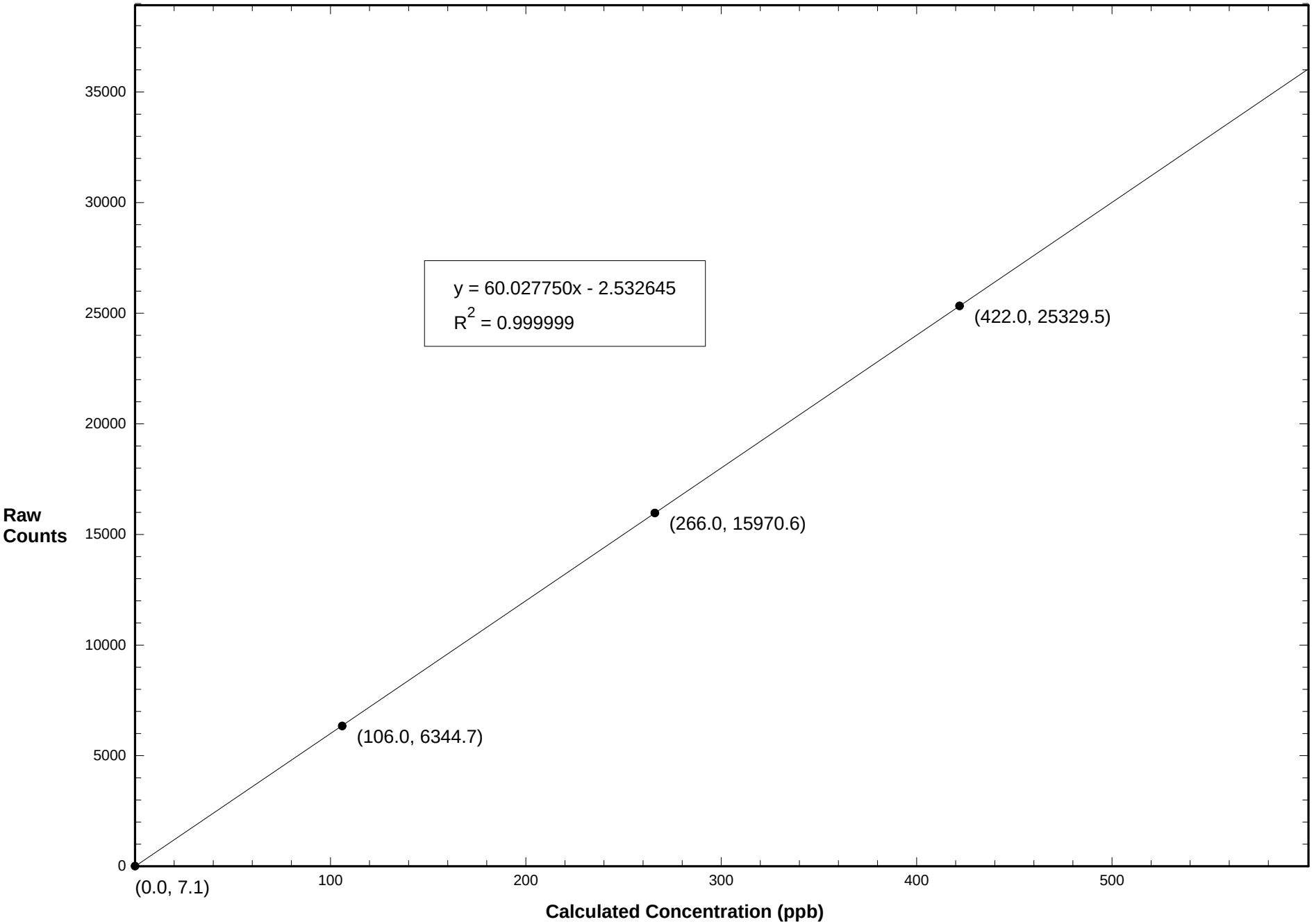
Results of Linear Regression

R_c vs C_c	Slope	Intercept	R^2
Previous	59.897140	76.087910	0.999966
Current	60.027750	-2.532645	0.999999
C_i vs C_c			
Current	1.000000	-0.000069	0.999999

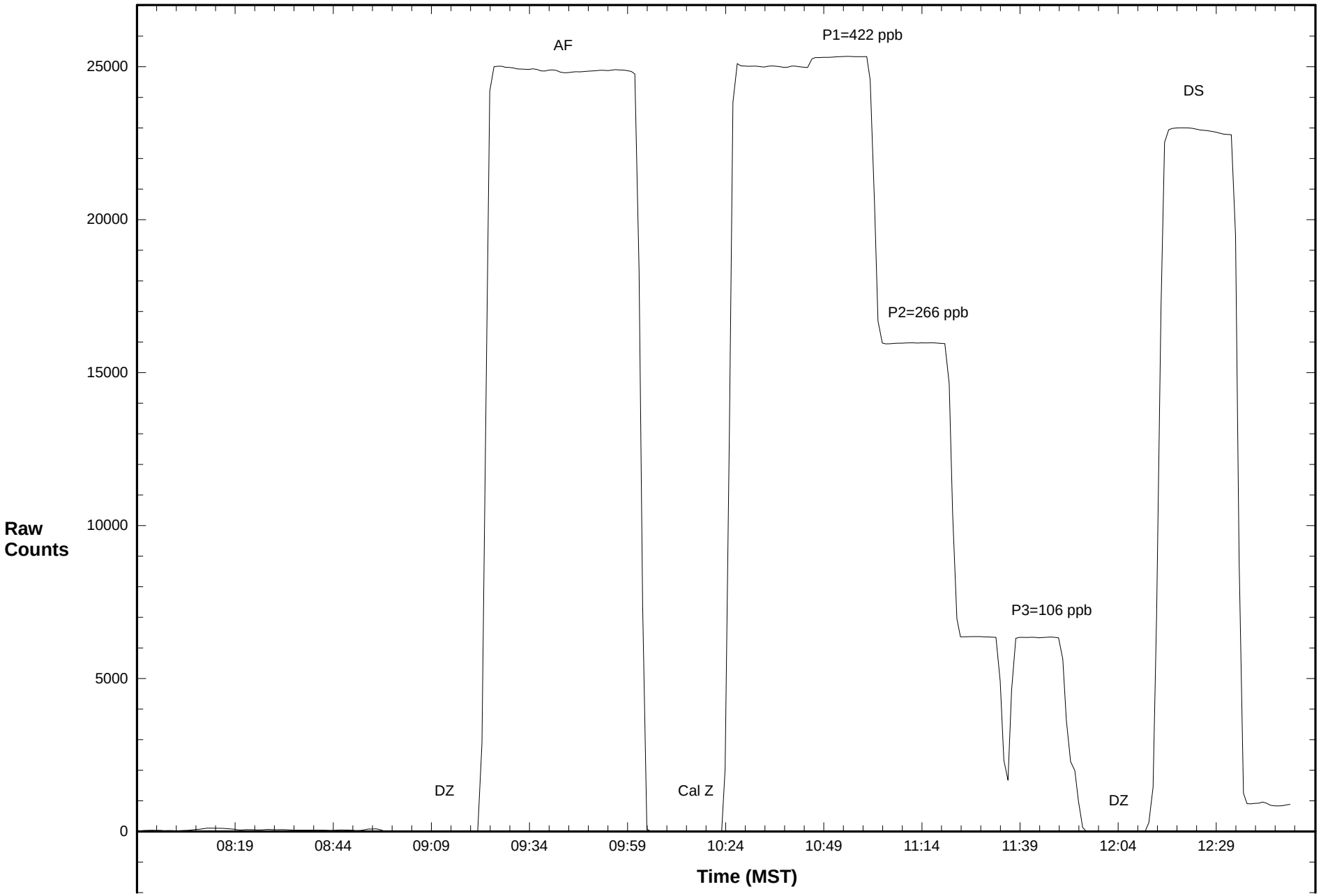
Average Correction Factor:	1.001
Previous Correction Factor:	1.002
Current Correction Factor:	1.000
Percent Change of Correction Factor:	-0.2

Comments: SF=1.117 lpm

Station 906 O3 January 24, 2018: Linear Regression



Station 906 O3 January 24, 2018: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: January 24, 2018

Parameter: SO_2

Instrument: Teco 43i

Serial Number: CM12499009

Previous Calibration Date: December 22, 2017

Calibration: Routine

Calibration Equipment: Sabio 2010 sn 05200311

Barometric Pressure: 26.33" Hg

Calibration Method: Standard Gas Dilution

Cylinder ID: EX0012478

Temperature: 21.0° C

Cylinder Concentration: 24.3 ppm SO2

In Service: Dec6/17;Oct./20

Technician: J.McClintock

Instrument Settings	SO_2 bkg ppb	SO_2 Coefficient	Monitoring Range
Previous	28.1	1.002	500 ppb
Current	29.0	1.012	500 ppb

Final Zero: -0.4 ppm

Final Span: 75.3 ppm

As Found Correction Factor: 1.001

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
0.0700	4.500	372.2	22488.2	372.0	1.000
0.0440	4.524	234.1	14165.7	234.4	0.999
0.0187	4.518	100.2	6050.7	100.1	1.001
0.0000	4.500	0.0	-4.7	-0.1	

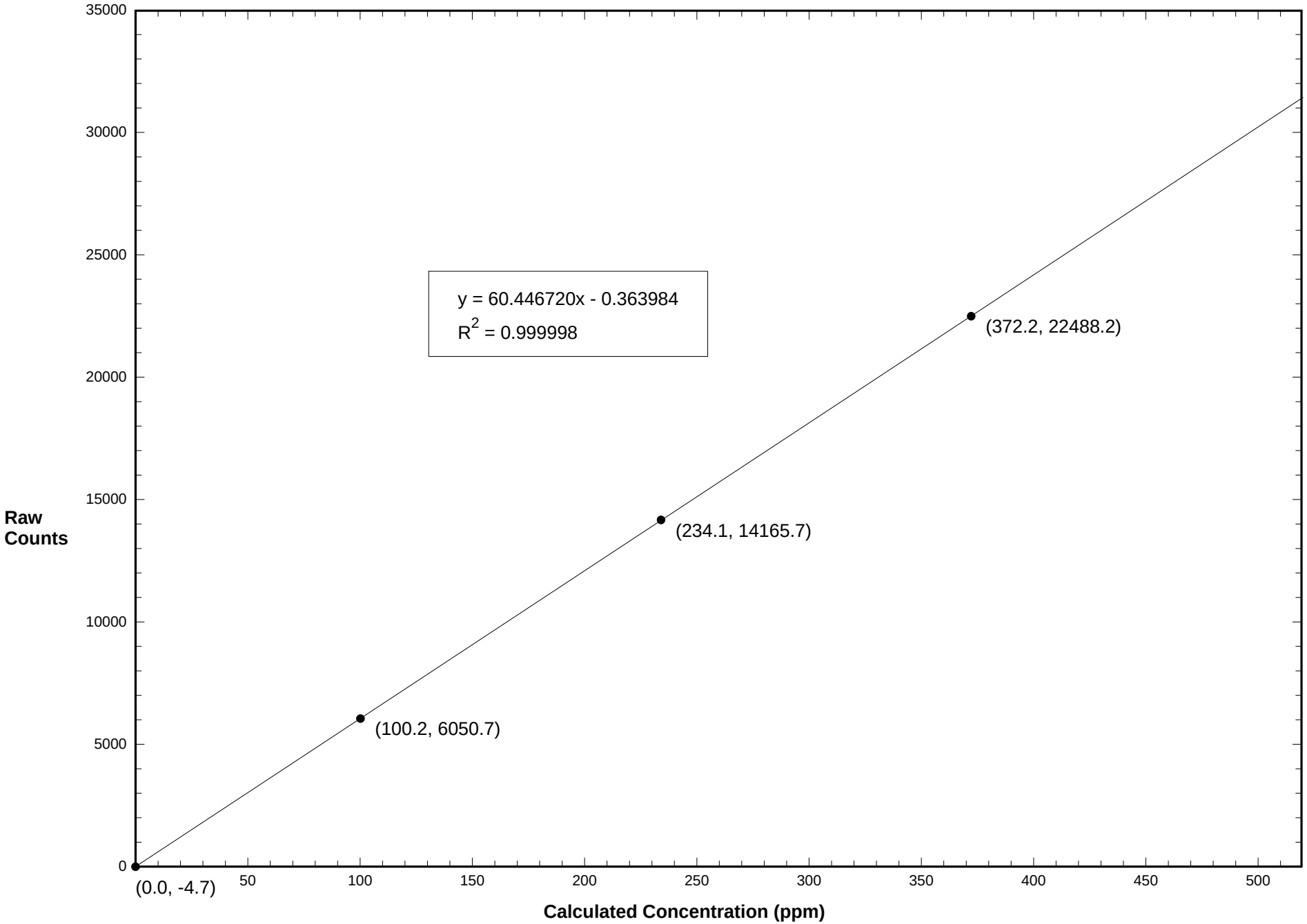
Results of Linear Regression

R_c vs C_c	Slope	Intercept	R^2
Previous	60.256920	33.695190	0.999993
Current	60.446720	-0.363984	0.999998
C_i vs C_c			
Current	1.000000	0.000000	0.999998

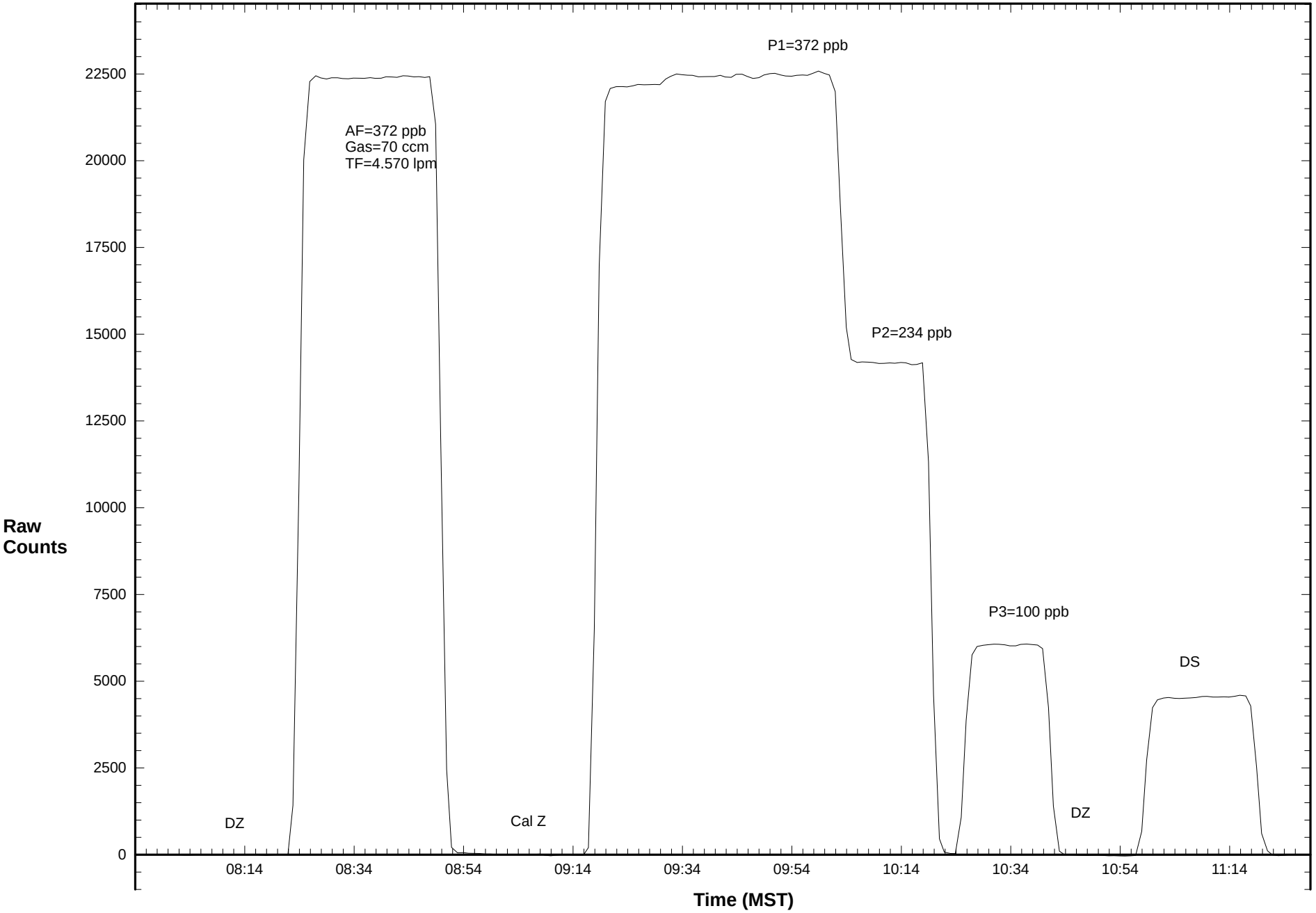
Average Correction Factor:	1.000
Previous Correction Factor:	1.001
Current Correction Factor:	1.000
Percent Change of Correction Factor:	-0.1

Comments: SF=0.383 lpm

Station 906 SO2 January 24, 2018: Linear Regression



Station 906 SO2 January 24, 2018: Calibration Graph



Calibration Data Summary

West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: January 24, 2018

Parameter: TRS

Instrument: Teco 43C

Serial Number: 43CTL-60324-326

Previous Calibration Date: December 22, 2017

Calibration: Routine

Calibration Equipment: Sabio 2010 sn 05200311

Barometric Pressure: 25.11" Hg

Calibration Method: Standard Gas Dilution

Permeation Device ID: DT0014794 / 10.50 ppm H2S

Temperature: 21.0° C

Permeation Rate: 0 ng/min

In Service: 10/21/2016 EXP 10/04/2019

Technician: J.McClintock

Instrument Settings	H_2S bkg ppb	H_2S Coefficient	Monitoring Range
Previous	1.74	0.808	100 ppb
Current	1.85	0.807	100 ppb

Final Zero: 0.2 ppb

Final Span: 64.5 ppb

As Found Correction Factor: 1.021

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
0.046	78.3	23544.7	78.4	0.998
0.031	53.0	15862.1	52.9	1.002
0.016	26.9	7979.3	26.7	1.006
0.000	0.0	-11.7	0.1	

Results of Linear Regression

R_c vs C_c	Slope	Intercept	R^2
Previous	300.250100	30.044720	0.999995
Current	300.860100	-53.840070	0.999978
C_i vs C_c			
Current	1.000000	-0.000022	0.999979

Average Correction Factor: 1.002

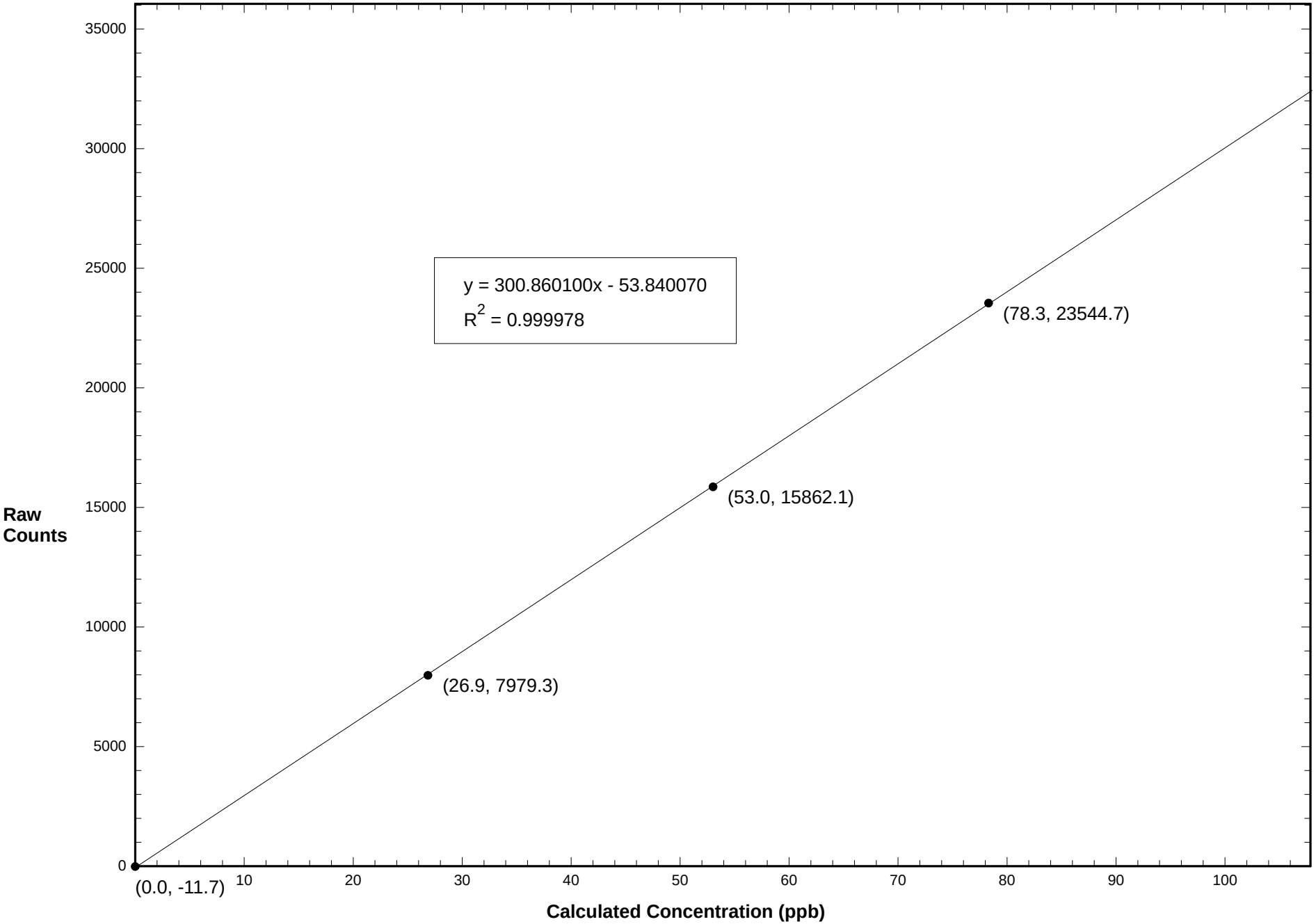
Previous Correction Factor: 1.000

Current Correction Factor: 0.998

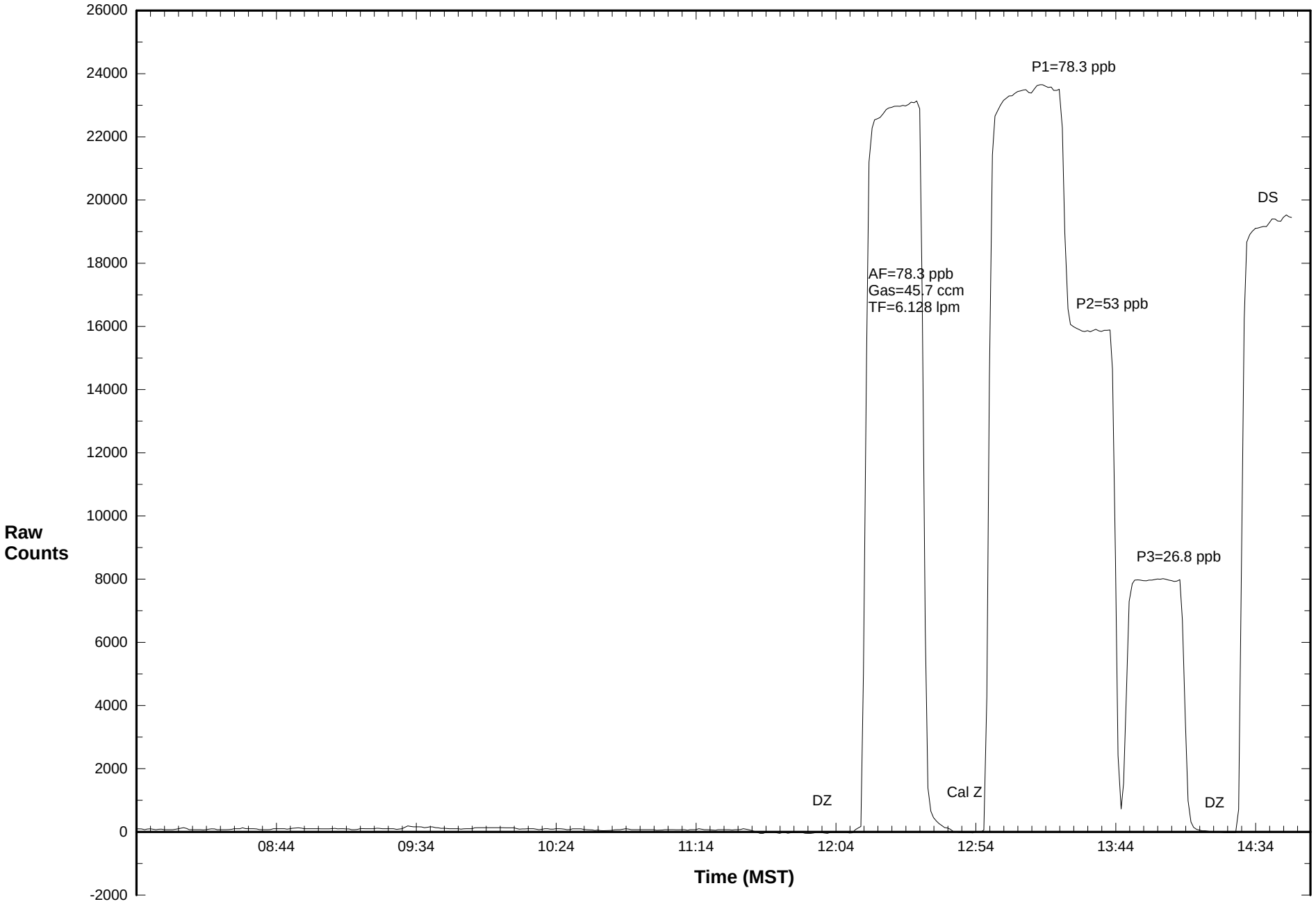
Percent Change of Correction Factor: -0.2

Comments: SF=0.340 lpm

Station 906 TRS January 24, 2018: Linear Regression



Station 906 TRS January 24, 2018: Calibration Graph



WEST CENTRAL AIRSHED SOCIETY

CONTINUOUS AMBIENT AIR QUALITY MONITORING PROGRAM MONTHLY REPORT METEOROLOGICAL DATA

AMS 906
HINTON
JANUARY 2018

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
January 2018

Maximum Value: 7.34 C on Jan 6 05:00

Maximum Daily Average: 3.87 C on Jan 6

Minimum Value: -31.3 C on Jan 11 09:00

Minimum Daily Average: -25.77 C on Jan 11

Maximum Diurnal Average: -3.35 C at hour 16

Minimum Diurnal Average: -10.96 C at hour 9

Monthly Average: -7.833 C

Percentiles: P_1 = -29.2 P_{10} = -21.4 Q_1 = -14.6 Median = -6.9 Q_3 = 0.2 P_{90} = 3.2 P_{99} = 6.0

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	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	-26.4	-27.2	-28.1	-27.9	-25.1	-22.8	-17.7	-14.5	-14.2	-13.7	-13.2	-11.5	-10.2	-9.1	-7.3	-6.9	-6.9	-7.1	-6.7	-7.5	-5.9	-6.0	-4.4	-3.9	-13.52	-3.91
2-Jan	-5.1	-5.2	-6.7	-6.7	-7.1	-7.4	-6.8	-6.2	-5.1	-4.3	-4.0	-1.7	0.4	2.2	2.6	2.2	0.3	-1.1	-2.5	-2.3	-3.5	-4.2	-5.8	-5.6	-3.49	2.56
3-Jan	-5.5	-5.2	-5.6	-6.9	-8.8	-8.8	-9.5	-10.7	-10.3	-9.7	-5.7	-2.0	0.8	1.9	2.2	2.8	2.5	2.3	1.8	1.7	1.4	0.7	-0.9	-0.6	-3.01	2.75
4-Jan	0.7	-0.5	-1.5	-2.6	-1.9	-2.0	-3.7	-5.3	-6.4	-6.7	-5.7	-3.1	0.3	2.1	2.8	1.8	0.1	-1.5	-2.4	-3.4	-4.3	-5.7	-5.7	-7.6	-2.58	2.82
5-Jan	-6.8	-7.8	-8.8	-9.9	-9.6	-9.4	-9.3	-9.3	-9.1	-9.6	-7.0	-3.0	-1.7	-0.4	1.0	2.5	4.1	4.4	5.2	5.6	3.3	2.5	3.9	5.9	-2.64	5.95
6-Jan	3.9	3.4	6.1	6.6	7.3	5.5	3.0	3.1	3.0	2.4	1.1	2.7	3.6	6.1	5.6	4.7	4.0	3.1	3.6	3.3	2.9	2.4	2.6	2.7	3.87	7.34
7-Jan	1.9	1.6	1.3	1.4	0.9	0.9	1.5	1.3	1.6	1.0	1.9	2.9	3.2	3.9	4.0	3.5	2.9	2.6	2.6	0.3	-0.9	-2.3	-3.2	-3.3	1.31	4.04
8-Jan	-3.3	-2.8	0.1	0.4	0.9	2.6	1.8	1.4	0.9	-1.5	-1.2	2.1	1.1	0.9	0.9	0.6	-0.4	-0.6	-0.9	-1.4	-2.3	-4.2	-5.7	-6.3	-0.71	2.55
9-Jan	-6.8	-7.4	-8.1	-8.7	-9.4	-10.5	-11.3	-12.1	-13.1	-13.6	-14.3	-15.4	-16.1	-16.3	-16.7	-17.1	-17.7	-18.6	-19.4	-19.9	-21.0	-21.4	-21.1	-21.2	-14.88	-6.80
10-Jan	-21.3	-21.3	-21.5	-21.6	-21.7	-21.8	-22.2	-22.5	-22.8	-23.2	-23.3	-22.9	-22.4	-22.1	-21.8	-22.0	-22.3	-22.9	-23.5	-23.6	-23.5	-23.4	-23.4	-23.5	-22.52	-21.29
11-Jan	-24.0	-25.7	-27.3	-27.5	-28.3	-29.3	-30.3	-31.1	-31.3	-31.2	-28.7	-25.7	-22.7	-19.9	-18.8	-18.0	-19.3	-22.0	-24.1	-24.8	-25.9	-26.8	-27.5	-28.2	-25.77	-17.95
12-Jan	-28.8	-29.1	-29.3	-29.1	-29.0	-29.2	-29.1	-29.3	-29.2	-29.1	-26.5	-22.2	-19.4	-17.2	-15.8	-14.1	-14.1	-15.9	-17.0	-18.1	-18.6	-18.6	-17.9	-16.3	-22.63	-14.12
13-Jan	-14.6	-11.9	-10.1	-9.4	-8.8	-6.7	-8.0	-8.2	-7.6	-6.4	-3.7	-0.3	1.7	3.3	3.6	4.3	5.0	4.4	4.1	4.2	4.5	4.4	3.7	3.0	-2.07	5.02
14-Jan	2.3	1.0	0.4	0.2	0.0	-0.2	-0.2	0.0	-0.3	-0.2	0.5	1.7	1.6	1.5	2.0	1.8	1.8	1.3	0.7	0.4	0.2	-0.8	-2.4	-3.2	0.42	2.29
15-Jan	-3.7	-4.2	-4.6	-4.5	-4.7	-5.0	-5.7	-6.9	-7.4	-7.8	-6.2	-3.6	-0.7	1.5	4.5	5.3	3.7	-1.7	-3.7	-5.1	-6.4	-7.3	-8.0	-8.7	-3.80	5.27
16-Jan	-8.8	-8.4	-7.2	-5.7	-6.2	-7.9	-8.2	-7.8	-8.1	-8.5	-5.6	-1.9	-2.0	-0.7	2.0	3.9	4.0	2.4	1.5	1.9	3.5	6.0	5.2	5.0	-2.14	6.01
17-Jan	5.1	4.6	4.2	3.6	3.6	2.6	2.6	3.2	2.9	3.2	4.0	4.1	4.6	5.4	6.7	6.3	5.5	4.2	2.0	-0.1	-1.3	-2.0	-2.1	-2.5	2.94	6.69
18-Jan	-3.5	-3.9	-4.7	-5.3	-5.8	-6.1	-6.3	-6.3	-6.6	-6.6	-3.6	-0.1	5.0	6.7	6.5	5.9	5.0	4.5	3.9	3.4	2.6	1.4	0.2	1.3	-0.50	6.75
19-Jan	3.2	2.8	2.6	2.2	2.4	2.8	2.5	2.1	2.4	2.4	2.8	3.8	4.1	4.3	4.4	4.5	3.5	2.2	1.9	1.9	1.9	0.4	-0.7	-1.7	2.45	4.50
20-Jan	-2.0	-0.9	-3.1	-3.5	-3.7	-3.8	-4.3	-4.2	-4.4	-4.3	-3.9	-3.0	-2.4	-1.7	-1.0	0.0	-0.6	-2.2	-3.1	-4.5	-6.1	-7.1	-8.1	-8.8	-3.61	0.02
21-Jan	-8.7	-8.5	-8.3	-8.4	-8.9	-9.1	-9.9	-9.7	-8.8	-8.1	-7.5	-6.5	-5.6	-4.4	-4.0	-4.8	-5.0	-5.8	-6.7	-7.7	-8.9	-10.2	-11.4	-12.6	-7.89	-4.01
22-Jan	-12.4	-12.8	-12.6	-12.8	-13.3	-13.6	-14.4	-15.0	-15.2	-15.1	-13.7	-9.4	-1.7	4.1	3.6	3.1	2.7	1.4	-0.7	-2.7	-4.2	-3.9	-2.6	-8.0	-7.05	4.14
23-Jan	-9.5	-10.0	-11.3	-12.5	-13.0	-13.7	-13.9	-14.3	-14.9	-14.8	-12.6	-8.9	-5.4	-3.4	-2.5	0.0	0.3	-2.4	-3.0	-3.8	-4.8	-6.2	-7.1	-8.3	-8.17	0.29
24-Jan	-10.1	-11.1	-11.3	-11.5	-12.0	-13.0	-13.0	-13.1	-13.4	-13.1	-10.9	-8.2	-6.2	-2.9	-0.5	0.5	-0.1	-2.1	-4.0	-5.1	-6.4	-7.1	-7.3	-7.7	-7.90	0.49
25-Jan	-8.2	-8.9	-9.5	-10.5	-11.3	-11.8	-12.4	-12.6	-12.5	-11.9	-11.2	-10.7	-10.5	-10.0	-9.7	-9.5	-9.3	-9.7	-10.7	-11.6	-12.5	-13.9	-15.7	-16.8	-11.30	-8.23
26-Jan	-17.8	-18.9	-19.6	-20.4	-21.1	-21.7	-22.4	-22.6	-22.8	-22.5	-19.8	-16.8	-13.9	-12.1	-11.0	-11.2	-12.1	-12.4	-13.0	-13.6	-14.0	-14.2	-14.7	-15.1	-16.83	-11.01
27-Jan	-15.6	-15.9	-16.1	-16.5	-18.1	-19.4	-20.5	-20.4	-20.1	-19.4	-18.2	-16.8	-15.9	-15.8	-15.7	-15.7	-15.6	-15.5	-15.6	-15.5	-15.6	-16.0	-16.7	-18.1	-17.04	-15.52
28-Jan	-18.7	-19.8	-21.5	-23.0	-23.9	-24.6	-24.8	-24.5	-24.2	-23.5	-22.4	-20.8	-18.9	-17.4	-16.0	-14.9	-14.6	-14.7	-14.6	-14.8	-15.0	-14.8	-14.8	-14.7	-19.03	-14.58
29-Jan	-14.9	-14.9	-14.7	-14.6	-14.7	-14.7	-14.8	-14.7	-14.7	-14.6	-14.2	-13.4	-12.0	-9.9	-7.8	-7.3	-7.8	-8.3	-9.0	-9.7	-10.3	-10.4	-5.8	-1.9	-11.46	-1.86
30-Jan	-1.5	-1.6	-2.1	-2.4	-5.0	-7.7	-8.5	-9.6	-10.7	-11.0	-8.7	-7.1	-5.8	-3.9	-2.9	-2.9	-5.1	-7.8	-9.9	-11.2	-12.2	-12.6	-12.4	-12.6	-7.31	-1.50
31-Jan	-13.4	-14.0	-14.6	-15.5	-16.0	-16.4	-16.8	-17.1	-17.3	-17.4	-17.2	-16.9	-15.9	-14.6	-13.4	-13.2	-13.7	-14.6	-15.2	-16.0	-16.9	-17.6	-19.1	-20.3	-15.96	-13.16
	-8.85	-9.18	-9.47	-9.77	-10.07	-10.40	-10.74	-10.86	-10.96	-10.93	-9.64	-7.56	-5.90	-4.44	-3.63	-3.35	-3.85	-4.97	-5.75	-6.45	-7.10	-7.72	-8.03	-8.37	Diurnal Average	
	5.15	4.58	6.14	6.64	7.34	5.47	3.00	3.17	3.04	3.25	4.00	4.13	5.00	6.75	6.69	6.30	5.48	4.54	5.18	5.61	4.52	6.01	5.24	5.95	Diurnal Maximum	

West Central Airshed Society

WCAS - Hinton

Summary of Hourly Averages

Wind Speed (WS) - kph

January 2018

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1 Spd	0.5	0.7	0.3	0.5	3.1	3.3	6.1	10.5	14.1	12.9	11.4	9.1	9.5	12.7	11.3	7.3	6.9	5.4	6.0	3.3	7.2	3.7	8.0	5.4	6.44	14.11
Dir	WNW	NW	WNW	N	NW	WNW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW
2 Spd	3.6	3.7	3.2	3.6	3.0	3.3	3.4	3.1	4.8	6.4	3.8	3.0	2.5	2.6	4.0	3.6	3.3	3.0	1.3	2.8	2.0	1.9	1.4	2.0	3.02	6.37
Dir	W	W	W	W	WNW	WNW	W	W	WSW	WSW	W	W	W	W	W	W	W	WNW	NW	WNW	WNW	WNW	WNW	WNW	W	WSW
3 Spd	3.2	3.7	3.1	1.8	2.7	1.3	1.2	1.0	2.1	1.0	2.8	3.2	6.1	5.6	8.3	7.9	7.9	7.7	5.9	9.3	7.6	5.1	2.9	3.8	4.14	9.28
Dir	WNW	WNW	WNW	WNW	WNW	W	WSW	W	WNW	WNW	W	WNW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WNW	W	WSW	WSW
4 Spd	7.9	5.1	3.5	2.9	4.8	4.5	2.9	2.1	2.4	1.8	1.5	1.4	2.0	2.1	1.7	1.7	1.9	1.5	1.9	1.5	1.1	2.2	1.7	1.5	2.47	7.90
Dir	WSW	W	W	WNW	W	W	WNW	WNW	W	W	W	W	WNW	WNW	WNW	W	W	W	WNW	WNW	WNW	WNW	NW	WNW	W	WSW
5 Spd	2.2	1.7	1.0	0.1	0.7	0.8	1.4	0.5	0.5	0.2	0.6	0.3	0.3	0.7	0.5	2.0	2.8	1.7	8.0	3.9	1.8	1.8	6.6	8.5	1.19	8.45
Dir	NW	NW	NW	E	ESE	ESE	E	SE	SE	ENE	E	ESE	E	E	E	WNW	W	WNW	WSW	WSW	ENE	NW	WSW	WSW	W	WSW
6 Spd	2.7	0.4	2.2	4.0	5.5	5.9	2.1	1.1	1.4	2.0	1.2	0.7	1.6	6.0	10.2	7.4	5.4	3.4	4.5	6.4	6.5	4.3	6.5	5.9	3.02	10.16
Dir	WNW	SSW	WSW	WSW	SW	SSE	SSE	SE	E	ENE	ENE	ESE	NW	W	WSW	W	W	WNW	W	W	W	W	WSW	WSW	WSW	WSW
7 Spd	3.5	3.9	3.9	3.6	2.9	3.0	5.6	5.6	6.0	2.0	3.1	2.9	3.4	3.7	5.8	6.1	3.4	2.9	3.1	3.5	2.9	1.4	1.3	1.0	2.39	6.07
Dir	W	WNW	WNW	W	W	W	WSW	WSW	WSW	W	SW	WSW	WSW	WSW	SW	SSW	SSW	SSW	SSW	NE	ENE	E	ENE	ENE	WSW	SSW
8 Spd	1.8	3.3	3.5	1.9	2.4	3.6	1.6	2.3	2.2	1.3	1.0	2.7	3.1	2.5	2.1	2.8	4.8	4.2	4.0	4.3	4.3	6.4	5.8	5.6	1.72	6.35
Dir	E	ENE	SW	ESE	NW	WNW	WNW	SW	SW	SE	WSW	W	ENE	ENE	E	ENE	ENE	NE	NE	NE	NE	NE	NE	ENE	NE	NE
9 Spd	5.8	4.6	4.8	6.6	8.6	8.1	4.8	4.5	5.8	4.1	4.3	4.8	3.9	3.5	3.4	4.1	3.2	4.0	4.7	3.8	2.3	2.1	3.1	2.4	4.04	8.59
Dir	ENE	NE	NE	ENE	ENE	ENE	NE	NE	ENE	NNE	NNE	N	NNE	NNE	NNE	NNE	NNE	NNE	NNE	N	NNW	NNW	ENE	NNE	NE	ENE
10 Spd	2.6	2.4	3.5	3.1	2.6	3.7	6.0	5.2	5.0	4.5	4.4	4.4	3.9	4.3	4.4	5.5	5.9	3.5	6.3	4.2	2.4	2.3	1.9	3.0	3.51	6.33
Dir	N	NNW	N	NNW	N	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	NNE	NE	ENE	ENE	ENE
11 Spd	2.2	0.5	1.3	1.3	0.9	0.5	0.6	0.4	0.5	0.9	1.9	1.1	1.9	1.6	1.4	0.7	1.0	1.3	0.3	0.2	0.6	0.7	0.5	0.3	0.45	2.22
Dir	ENE	ESE	WSW	WSW	W	NNW	NNE	ENE	NNW	NNW	WNW	NW	NW	W	WNW	NW	SSW	E	ENE	N	N	NNW	NNE	N	NW	ENE
12 Spd	1.3	1.2	1.9	1.3	1.3	1.7	1.1	1.9	1.0	0.8	0.8	0.6	0.8	0.7	1.0	1.6	0.4	0.2	0.7	0.5	0.2	0.4	0.4	0.2	0.54	1.91
Dir	NW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NNW	NNW	NNW	ENE	ENE	E	ENE	N	ENE	E	NE	N	NE	NE	NW	WNW
13 Spd	0.4	0.8	0.6	0.6	0.3	1.7	0.5	0.4	1.6	1.9	3.9	6.2	9.2	13.0	14.4	12.1	11.2	11.0	10.6	10.9	6.6	3.4	2.1	3.3	4.87	14.44
Dir	NNE	SSE	N	NE	NW	WNW	NE	WNW	NW	NW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	SW	WSW	SW
14 Spd	1.3	0.6	0.3	0.3	0.7	0.5	1.4	3.6	1.5	3.0	1.6	4.4	5.3	5.5	4.5	6.1	4.6	3.9	4.2	2.6	4.9	5.1	7.6	6.4	3.19	7.63
Dir	WNW	E	SSW	E	ENE	ENE	ENE	ENE	ENE	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE
15 Spd	5.6	6.3	6.1	6.9	6.2	3.4	2.6	3.1	3.3	2.4	1.9	0.7	2.9	3.0	2.3	1.8	1.5	4.7	4.4	2.2	0.4	0.3	0.2	0.2	2.04	6.89
Dir	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	SSE	WSW	WSW	WNW	WNW	WNW	ENE	ENE	E	ESE	S	SW	NW	ENE	ENE
16 Spd	0.3	0.9	1.1	2.1	1.4	0.5	1.4	1.8	2.3	1.6	0.9	0.9	1.0	1.0	0.5	1.9	1.5	1.7	2.7	6.3	4.1	5.9	4.3	4.3	1.96	6.28
Dir	W	WSW	NW	WNW	WNW	SW	WSW	W	WSW	W	WNW	WNW	NW	NW	SSE	WSW	W	W	W	WSW	W	WNW	WNW	W	W	WSW
17 Spd	11.3	9.2	8.4	6.5	6.9	3.4	3.9	4.7	3.8	8.0	9.2	7.7	6.0	4.6	5.3	5.9	6.1	1.9	2.4	3.4	2.2	3.0	2.9	2.2	2.88	11.32
Dir	W	W	WSW	W	WSW	W	W	WSW	WNW	WSW	S	SW	S	SSE	S	SSE	SE	S	SSE	ENE	E	E	ENE	E	SW	W
18 Spd	1.0	0.9	0.8	0.9	0.6	0.6	0.6	0.5	1.1	1.2	1.4	1.1	6.5	9.9	11.3	12.7	10.7	9.3	7.1	6.2	4.2	3.0	3.4	3.6	3.44	12.73
Dir	E	ESE	SE	S	NE	WSW	SW	SSE	WNW	NE	E	SE	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	WNW	W	WSW	WSW
19 Spd	8.4	7.3	5.7	3.8	4.4	7.7	5.0	4.7	5.4	4.9	4.4	10.1	11.8	10.7	12.0	11.0	9.6	3.8	6.2	6.0	6.2	2.0	1.1	0.9	6.32	11.97
Dir	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WNW	W	WSW	WSW
20 Spd	1.4	1.3	2.0	2.4	3.0	1.2	1.9	1.5	1.4	1.9	1.3	4.2	3.3	3.9	3.4	4.0	3.7	2.9	4.6	2.2	2.2	2.9	1.7	2.0	2.29	4.56
Dir	W	W	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE
21 Spd	2.2	0.9	2.1	1.5	2.1	2.5	0.5	2.6	5.4	6.2	7.0	9.7	9.9	7.8	9.5	8.5	8.5	6.9	4.5	4.5	1.9	1.0	0.3	0.6	4.40	9.89
Dir	ENE	ENE	NE	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	SE	N	ENE	ENE
22 Spd	1.3	1.9	0.8	0.2	0.2	1.2	0.7	0.9	2.5	1.8	1.9	0.7	3.3	10.1	9.9	7.0	5.3	5.6	1.5	0.8	0.8	1.2	1.0	1.4	1.31	10.12
Dir	S	ENE	ENE	WSW	NE	ENE	NNE	ENE	ENE	ENE	E	ENE	W	W	WSW	WSW	WSW	WSW	WSW	SW	NNE	W	W	ENE	WSW	W

Calibration Date: 15/Apr/17

WCAS - Hinton
Summary of Hourly Averages

Wind Speed (WS) - kph
January 2018

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
23 Spd	0.5	0.4	0.8	1.9	0.3	1.6	0.6	0.9	0.6	0.7	0.6	1.0	0.4	2.4	2.0	5.5	3.1	1.6	1.1	1.8	3.8	2.2	1.4	0.9	0.77	5.45
Dir	E	S	NE	E	E	ENE	E	ENE	ENE	SSE	NE	ESE	NNE	ENE	E	SW	SW	NE	ESE	E	ENE	ENE	ENE	E	E	SW
24 Spd	1.3	0.4	1.1	1.1	1.6	1.4	1.1	1.0	0.7	0.5	1.9	2.9	2.1	3.4	4.1	5.1	6.0	4.6	4.4	6.1	5.2	4.5	4.2	4.0	2.81	6.11
Dir	ENE	N	E	ENE	E	E	E	ENE	E	ENE	E	E	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	ENE	ENE	ENE	ENE	ENE	E
25 Spd	4.2	3.6	4.6	3.3	3.1	2.0	5.8	5.9	5.3	2.4	2.1	1.2	1.0	2.3	3.1	1.5	1.4	1.6	1.4	1.4	2.2	2.1	1.0	0.4	2.00	5.89
Dir	ENE	NE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	N	NNW	ENE	ENE	ENE	E	NE	NNW	NW	WSW	SW	WSW	E	ENE	ENE
26 Spd	0.2	0.7	0.5	0.4	0.4	0.6	0.3	0.3	1.1	0.4	0.4	0.7	0.2	1.7	3.6	3.9	4.9	3.9	3.2	2.1	2.3	2.3	3.8	5.4	1.60	5.43
Dir	S	SE	SE	N	E	E	E	NNW	ENE	NNW	WNW	WNW	SSW	NE	ENE	ENE	ENE	ENE	ENE	NE	NNE	NE	ENE	ENE	ENE	ENE
27 Spd	5.7	6.4	5.8	3.3	1.8	0.9	0.3	1.3	1.1	1.1	1.5	3.2	6.7	6.6	6.3	6.4	4.1	1.3	1.1	0.3	0.6	1.2	3.0	0.5	2.87	6.74
Dir	ENE	ENE	ENE	ENE	ENE	NE	ENE	NE	ENE	E	ENE	ENE	ENE	ENE	ENE	ENE	E	NE	N	NNE	NE	NE	ENE	ENE	ENE	ENE
28 Spd	3.9	1.4	0.5	0.6	0.5	0.5	0.7	0.7	0.7	0.8	2.4	2.7	2.9	3.2	3.4	3.6	4.5	5.5	6.3	6.5	5.6	6.2	7.2	7.5	2.76	7.47
Dir	WSW	SW	SSE	E	NE	ENE	NNE	NE	NE	NNE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE
29 Spd	6.1	6.8	6.7	6.4	5.7	4.6	3.1	4.4	4.7	5.8	4.3	4.6	4.5	5.4	4.9	4.0	1.5	1.8	0.9	1.0	1.1	0.8	4.8	2.5	3.37	6.81
Dir	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	ENE	ENE	NE	ENE	ENE	ENE	WNW	SW	SW	ENE	ENE
30 Spd	7.8	4.4	4.4	2.4	1.0	1.6	2.4	2.2	1.8	1.2	0.3	2.2	3.0	3.8	3.3	5.2	6.5	5.4	4.8	3.8	3.3	2.2	2.7	3.1	1.53	7.82
Dir	WSW	WSW	SW	SW	E	E	ENE	E	E	SSE	SW	E	E	ENE	ENE	ENE	ENE	ENE	NE	NE	NE	NE	NE	NE	ENE	WSW
31 Spd	3.8	3.9	4.2	3.6	3.5	4.2	3.9	3.6	2.7	5.4	5.7	7.1	7.7	6.3	6.9	6.1	5.8	7.1	6.2	5.7	5.8	5.5	3.3	2.6	4.96	7.71
Dir	NE	NE	NE	NE	NE	NE	NE	NNE	NE	ENE	ENE	ENE	ENE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE
Spd	0.73	0.51	0.55	0.55	0.56	0.45	0.37	0.27	0.24	0.24	0.14	0.22	0.30	0.58	0.90	0.56	0.31	0.34	0.18	0.36	0.38	0.75	0.50	0.42	Diurnal Average	
Dir	WNW	NNW	NNW	NNE	N	NNE	NNE	NNE	N	N	NE	N	NW	W	WSW	SW	S	NNE	N	NNW	N	N	NNE	NNE		
Spd	11.32	9.23	8.41	6.89	8.59	8.05	6.15	10.55	14.11	12.87	11.44	10.11	11.81	13.05	14.44	12.73	11.18	11.01	10.59	10.86	7.58	6.35	7.97	8.45	Diurnal Maximum	
Dir	264.11	262.13	258.06	70.02	64.57	65.30	263.49	248.79	247.84	247.10	244.92	243.90	244.34	244.02	225.95	248.61	225.15	233.00	233.64	234.72	248.81	55.89	248.39	244.36		

Maximum Speed Value: 14.4 kph on Jan 13 15:00
Minimum Speed Value: 0.1 kph on Jan 5 04:00
Maximum Daily Speed Average: 6.44 kph on Jan 1
Minimum Daily Speed Average: 0.45 kph on Jan 12
Maximum Diurnal Speed Average: 0.90 kph at hour 15
Minimum Diurnal Speed Average: 0.14 kph at hour 11

Monthly Average Velocity: 0.270 kph 340.96 deg
Speed Percentiles: P_1 = 0.2 P_{10} = 0.6 Q_1 = 1.3 Median = 2.9 Q_3 = 4.8 P_{90} = 6.9 P_{99} = 11.5
All monthly, daily, and diurnal averages have been calculated using vector methods

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Frequency Distribution

Direction	Speed Range (kph) 0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total
North	35	0	0	0	0	0	35
NorthEast	142	40	0	0	0	0	182
East	141	40	0	0	0	0	181
SouthEast	19	2	0	0	0	0	21
South	16	4	0	0	0	0	20
SouthWest	27	33	11	0	0	0	71
West	126	47	4	0	0	0	177
NorthWest	57	0	0	0	0	0	57
Total	563	166	15	0	0	0	744

Calibration Date: 15/Apr/17

WCAS - Hinton
Summary of Hourly Averages

Relative Humidity (RH) - %
January 2018

Maximum Value: 96.36 % on Jan 30 00:00

Maximum Daily Average: 86.16 % on Jan 30

Minimum Value: 25.5 % on Jan 6 15:00

Minimum Daily Average: 40.84 % on Jan 19

Maximum Diurnal Average: 76.51 % at hour 10

Minimum Diurnal Average: 56.98 % at hour 16

Monthly Average: 69.339 %

Percentiles: P_1 = 31.1 P_{10} = 43.9 Q_1 = 60.2 Median = 72.9 Q_3 = 80.8 P_{90} = 86.7 P_{99} = 94.3

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	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	72.3	71.6	70.3	70.7	74.2	75.9	77.4	67.0	61.6	58.6	54.9	52.6	48.8	44.4	39.7	40.3	41.6	45.1	47.1	54.7	48.0	50.1	45.1	45.4	56.56	77.40
2-Jan	53.1	56.0	63.3	65.6	67.5	70.1	70.3	68.1	65.0	62.2	61.2	55.1	50.6	46.4	46.4	48.5	57.5	62.5	69.8	68.4	72.3	75.4	78.8	80.3	63.10	80.28
3-Jan	80.9	79.0	79.4	83.1	84.9	89.0	88.1	88.1	88.5	88.3	79.9	65.8	55.4	52.7	53.9	53.3	54.9	56.9	59.2	60.7	61.7	64.3	70.2	69.6	71.16	88.98
4-Jan	63.3	67.0	69.8	73.1	70.5	69.2	75.5	78.9	82.4	83.4	81.1	71.5	57.0	50.1	48.4	50.9	57.4	64.4	69.6	73.7	75.7	79.5	79.3	84.1	69.84	84.10
5-Jan	83.4	84.6	85.3	85.9	86.6	86.8	88.2	89.0	89.7	88.6	81.6	73.1	77.1	75.3	71.8	66.1	61.9	59.9	58.5	57.2	67.3	70.7	64.4	54.9	75.33	89.75
6-Jan	63.9	66.0	53.5	50.3	46.2	52.7	62.8	66.2	70.2	78.3	86.5	80.4	71.6	30.0	25.5	28.5	31.7	35.1	32.7	32.6	36.1	39.2	39.3	40.2	50.81	86.45
7-Jan	42.7	44.9	45.4	45.3	46.8	47.7	43.9	43.8	43.8	46.6	44.1	43.0	43.8	41.8	41.2	47.2	52.6	54.9	53.6	61.5	66.9	72.9	76.4	77.4	51.18	77.41
8-Jan	78.8	78.1	65.6	63.3	60.7	53.6	55.0	56.3	58.9	68.5	68.0	57.9	60.6	62.0	60.8	62.8	65.6	69.0	74.6	78.9	81.8	83.4	85.0	84.8	68.08	85.00
9-Jan	81.9	80.0	78.6	75.2	72.7	74.7	80.0	80.6	81.1	76.2	71.8	71.5	70.5	69.0	69.0	66.3	66.4	65.7	63.4	64.1	66.5	67.2	64.5	63.7	71.70	81.93
10-Jan	62.7	62.4	59.9	61.5	60.4	62.0	66.3	65.2	66.8	66.5	65.1	59.0	59.5	59.6	62.9	65.2	64.9	68.1	67.1	63.4	63.9	68.4	69.3	69.5	64.14	69.46
11-Jan	69.8	72.3	72.2	70.6	69.8	69.0	68.0	67.8	67.4	67.2	67.0	65.5	63.9	58.8	58.4	57.4	64.5	71.3	73.4	73.6	72.3	71.7	70.8	70.3	68.04	73.58
12-Jan	69.6	69.4	68.8	69.9	69.3	68.9	68.9	68.7	68.8	68.8	69.4	70.1	72.2	72.9	75.7	77.1	78.9	80.8	80.8	79.8	79.8	79.4	80.3	81.2	73.74	81.20
13-Jan	82.5	84.7	85.1	85.6	85.9	88.4	86.8	87.6	87.4	86.3	73.2	60.9	54.3	48.7	48.3	47.8	46.0	49.4	51.4	52.1	52.0	54.1	57.9	60.2	67.37	88.41
14-Jan	63.9	71.4	75.0	77.2	80.5	83.1	84.8	88.7	92.3	94.3	93.9	88.5	87.8	84.1	79.1	81.0	81.6	82.8	85.9	87.6	89.1	90.2	90.6	90.2	84.32	94.32
15-Jan	91.6	94.0	95.1	94.3	93.7	93.2	93.9	94.1	94.3	93.5	89.6	76.6	70.7	62.6	50.3	47.5	53.4	73.7	79.6	82.5	85.5	88.2	89.7	89.8	82.38	95.11
16-Jan	91.2	93.5	93.6	92.8	90.5	91.3	92.9	93.3	94.0	93.1	93.1	80.0	81.2	78.0	67.3	59.1	58.3	64.2	66.5	66.6	59.2	42.0	44.3	43.7	76.25	94.00
17-Jan	42.9	41.8	40.8	40.3	39.2	42.6	42.1	38.9	39.0	38.8	35.4	36.2	36.9	35.7	32.6	37.8	45.8	54.3	60.9	64.2	68.3	69.3	70.5	72.0	46.93	72.01
18-Jan	76.9	77.8	80.0	82.1	83.5	84.5	86.7	87.4	90.2	94.3	84.8	74.6	43.6	32.1	31.1	34.7	36.9	35.0	35.7	38.2	41.4	45.9	49.0	45.5	61.33	94.33
19-Jan	39.0	41.0	41.3	43.4	43.6	40.7	43.0	44.4	44.0	44.1	43.3	36.5	35.3	34.8	33.7	32.8	35.8	42.7	40.9	39.1	38.6	44.5	47.2	50.4	40.84	50.41
20-Jan	51.8	48.5	60.2	62.6	65.5	67.0	70.3	71.6	73.0	73.0	71.2	66.7	64.9	63.0	64.3	61.3	63.6	68.0	70.6	75.7	79.8	82.7	84.3	85.8	68.57	85.81
21-Jan	84.4	84.2	83.4	82.9	83.9	85.5	87.4	90.6	90.9	87.6	85.4	81.6	77.3	71.9	69.0	73.4	74.4	77.8	81.4	85.1	87.8	90.2	88.7	86.6	82.98	90.86
22-Jan	86.6	86.2	86.2	85.5	85.1	85.2	83.9	83.5	83.3	83.1	83.2	82.9	62.9	27.3	26.7	28.7	29.3	31.4	40.3	48.2	55.5	52.9	45.3	67.2	63.77	86.63
23-Jan	72.7	74.3	77.2	80.1	82.2	82.8	82.8	83.2	83.2	83.5	81.2	72.3	63.3	59.3	56.3	39.7	37.6	55.7	58.5	62.2	64.5	66.9	68.7	72.4	69.19	83.48
24-Jan	78.6	82.5	84.2	83.8	83.1	84.7	83.9	84.1	83.9	83.7	76.4	66.9	62.9	52.5	47.3	45.9	45.7	49.5	55.6	58.1	63.0	67.9	70.5	72.9	69.48	84.75
25-Jan	74.8	77.0	78.5	80.6	83.1	84.4	86.6	86.8	85.6	85.1	84.0	82.4	83.4	81.3	79.8	78.0	72.0	72.0	76.5	79.0	79.6	81.4	83.2	83.1	80.75	86.76
26-Jan	81.6	80.4	79.8	78.4	78.3	77.4	76.5	76.4	76.3	76.9	79.8	80.0	79.6	75.2	69.8	69.7	72.0	73.8	76.2	78.4	78.8	78.8	78.7	78.6	77.14	81.60
27-Jan	78.7	77.4	76.8	77.0	80.4	80.2	79.3	79.0	79.1	79.2	79.5	78.4	75.7	75.7	75.7	75.9	76.3	76.6	79.4	80.4	80.7	81.4	79.3	78.6	78.38	81.45
28-Jan	77.0	76.1	76.7	76.3	75.4	74.6	74.6	75.0	75.5	75.9	77.0	76.7	76.3	74.3	73.5	73.1	73.4	74.3	75.9	78.6	80.6	78.4	77.1	76.7	75.97	80.59
29-Jan	76.9	76.4	76.4	76.6	77.0	78.4	80.0	79.8	79.8	79.0	78.0	76.1	73.6	69.7	67.1	70.2	74.6	78.5	81.2	83.5	84.7	84.4	91.8	96.4	78.75	96.36
30-Jan	95.1	91.4	93.4	90.0	94.0	93.6	92.9	91.7	90.7	90.4	89.8	82.3	78.1	77.2	78.6	78.0	80.0	82.8	83.8	83.6	82.8	83.2	83.1	81.1	86.16	95.05
31-Jan	80.2	78.7	77.8	77.6	77.3	76.3	76.4	76.6	76.7	76.4	75.9	73.5	69.7	67.2	65.1	68.2	71.2	74.3	76.0	77.0	78.0	77.9	79.5	79.3	75.28	80.24
	72.54	73.18	73.35	73.59	73.94	74.63	75.78	75.88	76.25	76.51	74.37	68.99	64.79	59.15	57.08	56.98	58.90	62.92	65.36	67.37	69.11	70.40	71.07	71.99	Diurnal Average	
	95.05	94.03	95.11	94.32	94.02	93.59	93.93	94.12	94.29	94.33	93.85	88.55	87.85	84.12	79.76	80.96	81.58	82.83	85.94	87.59	89.13	90.23	91.82	96.36	Diurnal Maximum	

WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Speed (WS) - kph
January 2018

Maximum Value: 7.84 kph on Jan 17 01:00

Maximum Daily Average: 4.68 kph on Jan 19

Minimum Value: 0.3 kph on Jan 27 20:00

Minimum Daily Average: 1.00 kph on Jan 11

Maximum Diurnal Average: 2.99 kph at hour 16

Minimum Diurnal Average: 1.79 kph at hour 6

Monthly Average: 2.314 kph

Percentiles: P_1 = 0.6 P_{10} = 1.0 Q_1 = 1.3 Median = 1.9 Q_3 = 2.9 P_{90} = 4.3 P_{99} = 6.9

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 (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	0.9	1.0	0.8	1.1	1.7	2.2	4.7	7.0	7.8	7.4	6.8	6.2	6.9	7.5	6.6	5.1	4.0	3.9	4.4	3.0	3.7	3.4	5.6	5.1	4.45	7.78
2-Jan	2.8	3.0	1.7	1.9	1.6	1.4	2.3	2.2	3.5	4.2	2.6	2.4	2.2	2.5	3.4	3.2	2.6	2.4	1.7	1.6	1.6	1.3	1.5	1.7	2.30	4.19
3-Jan	1.7	2.4	1.7	1.6	1.1	1.2	1.1	1.2	1.4	1.4	2.4	2.2	4.1	3.9	4.4	4.6	4.5	4.7	4.2	5.8	5.0	4.2	1.8	3.1	2.91	5.81
4-Jan	4.7	4.5	2.5	1.7	3.7	3.5	1.7	1.1	1.2	1.5	1.2	1.2	1.4	1.7	1.8	2.1	1.9	1.4	1.4	1.5	1.2	1.7	1.3	1.4	1.99	4.75
5-Jan	1.5	1.3	1.1	0.7	0.9	1.1	1.2	1.0	1.0	1.0	1.0	0.9	1.0	1.1	1.1	2.0	3.0	3.0	5.6	3.2	1.4	1.8	5.7	4.8	1.93	5.73
6-Jan	1.8	3.0	2.9	3.3	3.5	2.5	2.3	2.2	1.9	1.6	1.5	1.4	1.9	5.5	6.7	6.1	4.6	2.9	4.2	5.3	5.5	3.8	5.4	5.0	3.52	6.68
7-Jan	4.0	4.0	3.8	3.5	2.9	2.9	3.6	3.4	4.1	2.3	2.2	2.5	2.9	3.0	3.8	2.6	3.2	2.7	3.8	1.7	2.0	1.5	1.6	1.4	2.89	4.07
8-Jan	2.4	2.3	3.0	1.4	3.1	2.2	1.4	2.4	2.2	1.4	2.0	2.3	1.4	1.8	1.5	2.3	2.0	2.6	2.8	2.8	3.2	3.3	3.0	2.7	2.32	3.27
9-Jan	3.0	3.2	3.3	3.3	3.2	3.3	2.7	2.6	2.7	2.7	3.0	3.4	2.7	2.4	2.3	2.7	2.5	2.4	2.8	2.4	1.4	1.5	1.4	1.8	2.61	3.44
10-Jan	1.6	1.8	2.2	2.1	2.0	1.9	2.6	2.3	2.2	1.9	1.3	1.7	1.9	1.7	1.9	2.1	2.2	1.9	2.6	1.5	1.6	1.6	1.3	1.5	1.90	2.62
11-Jan	1.7	0.8	1.2	1.1	1.0	0.7	0.9	1.0	0.8	0.9	1.2	1.4	1.1	1.4	1.3	0.9	1.2	0.9	0.6	0.8	0.7	0.9	1.1	0.5	1.00	1.66
12-Jan	1.1	1.2	1.5	1.3	1.0	1.0	0.9	1.2	1.1	0.8	0.8	0.8	0.8	1.1	1.2	1.3	0.7	0.9	1.1	0.9	0.8	0.8	1.1	0.9	1.02	1.54
13-Jan	1.4	1.1	1.2	1.0	1.1	1.3	0.9	0.9	1.3	1.6	4.0	3.9	4.7	4.8	3.3	3.1	2.9	3.3	3.8	3.7	4.7	3.0	1.8	1.7	2.52	4.83
14-Jan	1.5	0.9	0.8	0.6	0.9	0.7	1.3	2.3	1.3	1.7	1.5	2.2	2.8	2.3	2.0	2.6	2.4	2.5	2.0	1.7	1.9	2.8	3.4	3.3	1.89	3.36
15-Jan	3.1	2.8	2.3	2.0	2.0	1.5	1.5	1.6	2.1	1.8	1.5	1.1	1.9	1.6	1.4	1.5	1.7	2.1	2.0	1.6	0.7	0.6	0.5	0.4	1.64	3.11
16-Jan	0.7	0.9	1.3	1.6	1.2	1.0	1.7	1.4	2.0	1.2	1.0	0.9	1.0	1.1	0.9	1.4	1.1	1.2	1.5	3.6	5.0	4.9	3.9	4.5	1.88	4.95
17-Jan	7.8	6.7	6.6	5.8	5.0	3.0	3.8	3.7	3.4	5.8	5.3	3.8	4.3	3.9	5.1	3.1	3.1	2.1	1.8	1.9	1.7	2.0	2.0	1.8	3.90	7.84
18-Jan	1.5	1.5	2.2	2.0	1.4	1.1	1.3	1.4	1.4	1.7	1.4	1.6	6.0	6.4	6.9	6.8	5.9	6.3	4.9	5.1	3.7	3.1	1.6	4.0	3.30	6.92
19-Jan	6.3	6.2	5.0	3.6	4.3	5.4	4.1	4.3	5.2	4.6	4.1	5.8	7.1	6.1	6.3	6.2	5.5	3.1	4.7	4.0	5.1	2.3	1.7	1.4	4.68	7.08
20-Jan	1.6	1.8	1.2	1.6	1.8	1.5	1.4	1.2	1.5	1.5	1.2	1.5	1.7	1.8	2.0	2.4	2.5	1.9	1.6	1.8	1.5	2.8	1.9	1.7	1.73	2.78
21-Jan	2.0	1.3	1.5	1.4	1.6	1.4	1.1	1.8	2.2	2.7	2.7	3.5	3.9	3.4	3.8	4.1	3.5	3.3	3.0	2.1	1.7	1.4	1.6	1.2	2.34	4.11
22-Jan	2.6	2.1	2.2	1.3	1.4	1.1	1.3	1.1	1.8	1.5	1.6	1.3	4.4	6.0	5.9	4.9	3.8	3.8	1.6	1.5	1.0	1.6	2.1	1.2	2.37	6.03
23-Jan	1.2	1.6	1.5	1.6	1.2	1.2	1.1	1.1	1.3	1.3	1.2	1.3	1.0	1.8	1.4	2.5	1.9	1.1	1.4	1.5	2.6	1.8	2.2	2.2	1.55	2.57
24-Jan	1.5	1.9	2.0	2.4	1.8	1.6	1.7	1.1	0.9	0.8	1.3	1.4	1.7	1.5	2.0	2.7	2.4	2.0	2.1	2.2	1.6	1.5	1.7	2.0	1.75	2.71
25-Jan	1.8	2.2	2.3	2.3	1.7	1.5	3.1	2.3	3.1	1.7	1.6	1.1	1.0	1.4	1.5	1.5	1.2	1.4	1.5	1.4	1.4	1.7	1.2	1.2	1.72	3.13
26-Jan	1.1	1.1	1.0	0.7	1.1	0.8	0.7	0.6	0.9	0.6	0.9	0.8	1.0	1.4	1.9	2.1	1.9	2.3	2.0	1.7	1.8	1.6	2.5	2.3	1.37	2.53
27-Jan	2.6	2.5	1.7	2.2	1.2	0.9	0.6	0.9	1.1	1.3	1.2	1.7	3.3	3.1	2.8	2.7	1.9	1.3	0.8	0.3	0.7	1.1	1.4	1.2	1.61	3.28
28-Jan	1.7	1.3	1.1	0.7	0.7	0.8	0.9	0.8	0.8	0.9	1.6	1.2	1.3	1.8	1.6	1.9	2.0	2.3	2.4	2.5	1.8	2.2	2.4	2.7	1.57	2.66
29-Jan	2.2	2.3	2.9	2.6	2.8	2.2	2.4	2.4	2.1	2.5	2.6	2.4	2.6	2.7	2.6	2.8	1.5	1.6	1.2	1.4	1.6	1.6	5.8	2.3	2.39	5.77
30-Jan	3.1	3.0	3.3	3.0	1.2	1.6	1.8	1.9	1.4	1.4	1.3	1.4	1.6	2.2	1.5	2.2	3.5	3.6	3.7	2.8	2.5	2.0	1.8	2.2	2.26	3.68
31-Jan	2.9	2.6	2.7	2.7	2.5	2.9	2.5	2.5	2.1	2.7	2.9	2.7	2.9	2.6	2.9	3.0	2.5	2.4	2.4	1.7	1.9	1.7	1.2	1.3	2.43	2.97
	2.39	2.33	2.22	2.00	1.96	1.79	1.89	1.98	2.13	2.08	2.10	2.14	2.67	2.89	2.96	2.99	2.70	2.49	2.56	2.36	2.29	2.12	2.31	2.21	Diurnal Average	
	7.84	6.69	6.64	5.79	4.96	5.42	4.71	7.00	7.78	7.36	6.75	6.18	7.08	7.47	6.92	6.83	5.93	6.27	5.56	5.81	5.55	4.92	5.77	5.07	Diurnal Maximum	

WCAS - Hinton
Summary of Hourly Standard Deviations

Wind Direction (WD) - deg
January 2018

Maximum Value: 104.71 deg on Jan 22 04:00

Maximum Daily Average: 70.13 deg on Jan 23

Minimum Value: 14.1 deg on Jan 31 23:00

Minimum Daily Average: 29.48 deg on Jan 10

Maximum Diurnal Average: 54.60 deg at hour 3

Minimum Diurnal Average: 38.98 deg at hour 15

Monthly Average: 46.995 deg

Percentiles: P_1 = 19.8 P_{10} = 25.3 Q_1 = 32.3 Median = 41.8 Q_3 = 58.8 P_{90} = 78.8 P_{99} = 96.7

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	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Jan	69.5	61.7	90.2	82.7	31.2	35.4	42.2	37.8	32.0	32.9	32.8	40.3	40.0	32.5	33.2	37.4	34.8	39.3	39.6	51.8	25.7	48.3	37.0	48.7	44.04	90.22
2-Jan	44.7	39.4	31.4	26.4	22.9	23.0	32.6	40.9	39.0	35.4	40.1	42.9	44.0	53.3	46.3	45.5	42.0	43.8	65.2	35.7	27.4	37.1	48.8	39.9	39.48	65.23
3-Jan	28.3	33.2	31.6	33.9	30.1	33.5	32.1	45.5	41.4	76.0	34.6	40.2	33.0	38.8	26.0	29.3	32.2	34.4	36.7	31.9	35.0	40.8	39.7	38.9	36.54	75.97
4-Jan	33.3	42.8	38.6	29.8	39.5	41.3	27.8	31.5	27.4	43.2	53.8	45.2	31.1	41.9	43.2	45.0	43.9	38.0	37.3	77.8	60.4	38.6	33.2	38.7	40.96	77.81
5-Jan	32.9	31.8	44.7	90.9	60.2	65.8	58.9	68.2	87.7	83.9	55.6	69.8	66.6	74.6	84.6	54.9	50.9	69.9	51.7	39.0	53.9	55.5	44.8	26.4	59.30	90.89
6-Jan	54.8	91.0	78.4	50.1	58.3	29.9	75.1	90.3	87.9	53.1	74.1	87.1	55.0	47.5	38.1	43.5	44.9	46.5	47.6	45.5	45.6	45.9	44.2	44.4	57.44	90.98
7-Jan	60.6	52.2	51.0	46.4	46.3	46.2	38.4	34.5	34.7	51.6	39.6	42.9	48.0	46.9	31.7	33.2	71.3	65.6	87.8	39.9	47.1	78.8	69.4	81.1	51.88	87.75
8-Jan	82.6	46.3	68.6	55.7	80.8	38.5	42.3	38.2	83.1	71.3	95.5	59.5	26.6	45.2	50.7	56.9	24.2	38.7	45.7	39.2	44.6	32.4	33.1	30.2	51.25	95.53
9-Jan	33.3	41.8	45.2	30.9	21.4	24.1	35.3	39.3	24.6	39.9	42.5	40.0	45.8	40.8	45.1	43.6	46.0	36.4	38.0	35.1	26.0	38.6	25.2	45.0	36.84	46.03
10-Jan	37.4	29.4	35.1	33.4	40.1	38.9	24.8	26.4	24.2	23.7	19.8	27.7	29.0	25.2	28.9	22.3	23.6	25.2	24.2	23.7	33.3	36.5	41.2	33.8	29.48	41.20
11-Jan	31.6	53.7	38.7	33.0	29.9	66.5	59.1	62.2	61.7	38.0	27.1	74.1	32.5	42.9	45.7	80.0	64.8	69.1	52.2	87.5	27.5	29.1	65.7	62.8	51.48	87.50
12-Jan	28.1	53.4	30.8	76.8	38.0	41.1	34.8	35.7	39.4	23.8	36.9	41.2	39.0	72.3	62.3	47.7	61.7	96.2	76.6	75.8	86.1	69.6	76.6	92.4	55.68	96.15
13-Jan	87.2	71.8	97.8	78.3	88.2	36.2	88.1	62.7	50.5	47.9	63.0	32.7	26.5	25.1	24.9	25.8	23.1	22.8	23.3	23.1	37.4	40.3	36.6	25.3	47.45	97.81
14-Jan	45.4	61.0	92.3	71.6	42.5	38.5	52.1	31.6	41.0	36.9	59.9	28.0	32.3	29.3	26.6	24.3	28.9	35.2	39.5	34.1	20.9	32.8	28.0	32.3	40.20	92.29
15-Jan	38.3	28.3	24.2	19.5	20.5	19.1	34.2	23.7	40.1	41.6	30.5	67.7	45.0	36.0	33.0	41.1	55.3	26.7	29.6	32.9	78.9	67.2	87.2	67.7	41.18	87.20
16-Jan	76.3	54.2	44.2	31.4	37.8	76.6	71.4	55.3	48.1	24.4	29.0	37.9	57.9	46.2	78.8	27.7	37.5	28.2	24.3	28.7	52.0	49.4	47.1	50.0	46.42	78.79
17-Jan	36.7	39.0	41.4	47.7	41.8	48.4	60.7	49.2	54.7	44.2	50.1	35.7	59.4	79.5	57.5	47.3	35.1	84.7	62.3	39.0	65.2	48.2	57.9	55.6	51.74	84.75
18-Jan	80.5	97.2	93.3	87.5	78.0	68.0	75.7	95.8	74.7	64.8	54.5	92.9	43.9	33.9	32.1	29.8	30.0	37.7	37.1	42.0	44.0	41.7	34.5	53.1	59.28	97.23
19-Jan	41.8	44.4	45.9	50.7	51.1	39.3	49.5	49.8	47.8	45.1	45.7	31.2	34.1	30.9	28.9	31.3	30.3	42.1	35.4	36.4	40.5	51.6	58.0	72.1	43.08	72.12
20-Jan	57.2	48.9	38.9	43.0	29.5	66.8	49.5	41.3	61.1	48.7	61.6	19.9	25.9	25.5	37.1	46.6	43.3	50.4	20.9	67.4	55.9	61.8	68.3	63.8	47.21	68.26
21-Jan	65.2	83.4	49.3	70.4	43.3	34.8	69.9	36.9	20.0	22.5	22.1	21.9	23.5	24.9	24.5	30.4	25.0	28.3	59.9	41.1	46.3	62.4	90.8	84.2	45.04	90.85
22-Jan	88.3	75.8	90.3	104.7	101.3	54.1	81.7	58.4	56.3	50.2	66.5	73.3	76.9	37.7	32.0	35.0	38.3	34.0	55.6	79.1	65.1	65.1	75.4	46.4	64.23	104.71
23-Jan	88.6	98.5	85.1	50.8	90.8	72.9	64.7	81.8	87.6	90.4	71.0	62.6	79.1	28.7	43.8	37.8	63.4	57.2	85.3	52.7	33.2	63.2	98.6	95.2	70.13	98.63
24-Jan	68.1	95.9	87.0	87.1	66.6	75.9	82.7	61.2	47.1	53.8	37.0	26.6	31.7	23.9	28.2	32.0	22.8	27.9	25.7	22.6	19.9	20.6	26.1	28.2	45.78	95.88
25-Jan	28.8	35.7	34.2	39.9	33.6	45.5	37.3	23.4	38.5	51.8	45.6	42.6	41.8	37.7	38.4	74.2	53.4	45.1	27.2	63.3	32.2	64.2	63.8	83.9	45.08	83.87
26-Jan	98.9	79.6	75.6	65.7	89.8	45.6	79.1	74.2	37.5	63.7	87.9	58.5	93.9	74.7	38.3	36.7	26.4	34.3	37.9	42.7	40.9	43.3	33.5	28.4	57.80	98.92
27-Jan	27.0	24.2	20.7	25.3	24.1	51.6	83.0	31.8	51.9	51.0	42.0	34.9	34.4	29.7	29.2	28.2	29.7	46.0	21.1	35.2	43.7	35.4	23.2	85.0	37.85	84.96
28-Jan	39.2	56.8	76.6	44.6	59.4	71.9	58.9	42.5	41.0	44.8	38.2	30.2	32.2	29.2	29.3	33.3	29.8	27.9	25.7	24.9	22.9	23.7	23.3	24.5	38.78	76.56
29-Jan	24.3	24.1	25.3	27.0	30.5	30.5	49.0	36.9	29.2	29.8	41.5	35.1	37.0	35.3	38.6	40.4	63.6	59.3	62.8	71.0	83.6	89.4	77.6	76.6	46.60	89.39
30-Jan	26.7	33.6	41.2	45.3	57.8	49.3	48.3	49.8	44.5	69.9	86.8	41.6	37.7	35.3	28.7	31.4	35.1	42.9	48.3	47.8	45.4	48.0	41.0	43.2	44.97	86.77
31-Jan	46.2	39.0	44.8	44.1	42.7	40.7	38.3	41.2	50.8	25.8	27.6	20.6	22.8	25.2	22.8	28.9	26.9	18.1	21.7	16.8	15.0	15.7	14.1	22.1	29.66	50.80
	51.67	53.81	54.60	52.40	49.30	46.77	54.11	48.32	48.57	47.75	48.80	45.31	42.78	40.34	38.98	39.39	39.94	43.60	43.43	44.64	43.74	47.58	49.81	52.26	Diurnal Average	
	98.92	98.51	97.81	104.71	101.33	76.55	88.13	95.82	87.87	90.43	95.53	92.88	93.87	79.48	84.57	79.96	71.26	96.15	87.75	87.50	86.12	89.39	98.63	95.21	Diurnal Maximum	

WEST CENTRAL AIRSHED SOCIETY

CONTINUOUS AMBIENT AIR QUALITY MONITORING PROGRAM MONTHLY REPORT

END OF REPORT JANUARY 2018