

# **Capital Power**

## **AIR QUALITY MONITORING January 2015 Monthly Report**

**Prepared by:**

**West Central Airshed Society  
Drayton Valley, Alberta**





February 9<sup>th</sup>, 2015

Capital Power  
Mr. Kevin Parry  
Box 20, Site 2, RR 1  
Warburg, AB  
T0C 2T0

Dear Mr. Parry:

**Monthly Ambient Air Quality Monitoring Report for January 2015  
For Capital Power**

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

Network Station is                      AMS 910                      Genesee  
Identified as:

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

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

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

There were no readings in excess of guidelines as indicated in Air Monitoring Directive Section III.A.3. (a&b) for SO<sub>2</sub> and NO<sub>2</sub>.

**2. Operational times less than 90 percent:**

There were no operational times less than 90 percent in January.

**3. Monitoring Notes:**

**AMS 910 (Genesee)**

All analyzers and meteorological equipment returned uptimes of 100% in January.

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 'R. Scotten'.

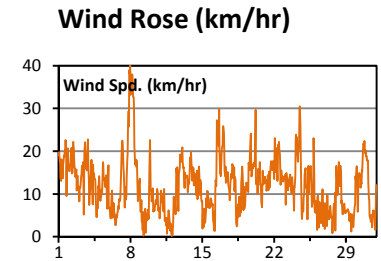
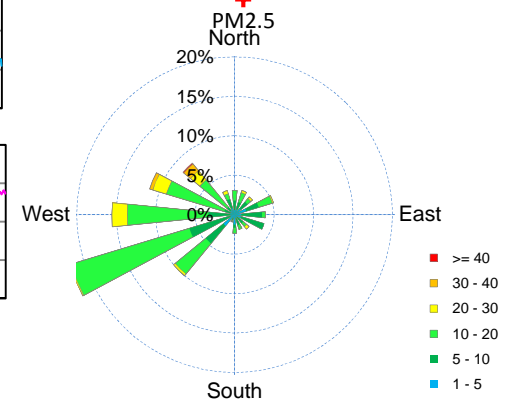
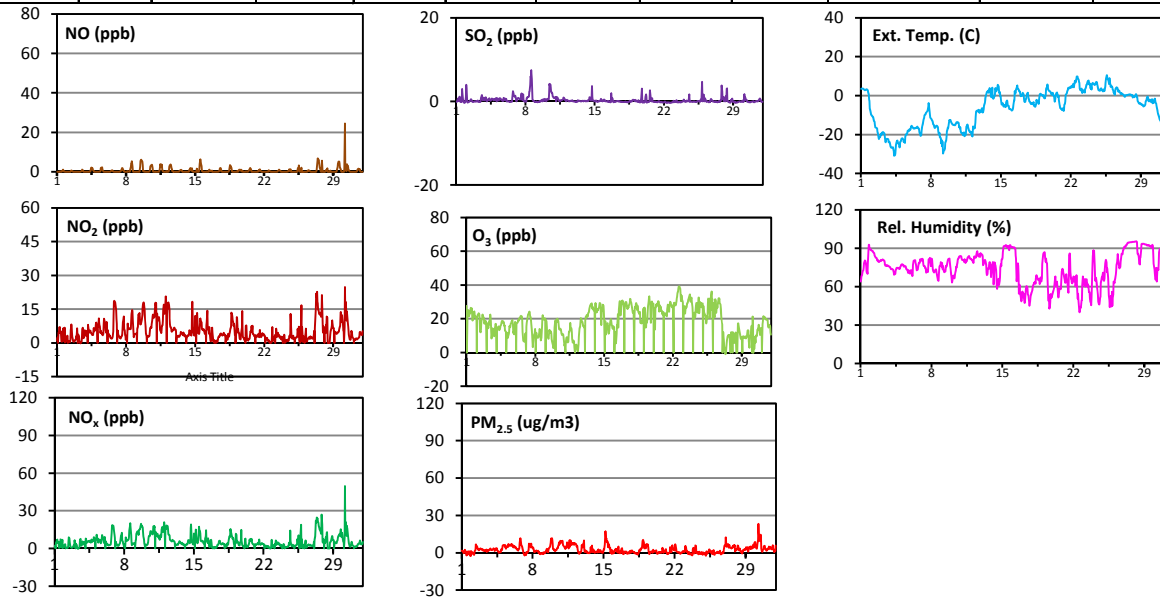
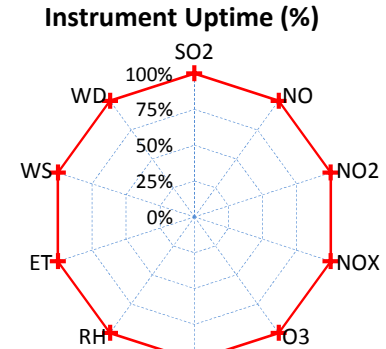
Robert Scotten  
Executive Director

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

Patrick Andersen  
Environmental Specialist

# WCAS - January 2015 Genesee Summary Report

Pollutants		Month Records		24-Hour Records				1-Hour Records			
Name	Conc Unit	Avg. Conc.	Uptime	Maximum		AAAQO Objective	Exceed No.	Maximum		AAAQO Objective	Exceed No.
				Conc	Time			Conc	Time		
SO <sub>2</sub>	ppb	0.3	100.0%	1.9	Jan-8	48	0	7.5	Jan-08 15:00	172	0
NO	ppb	0.6	100.0%	2.1	Jan-27	-	-	24.5	Jan-30 5:00	-	-
NO <sub>2</sub>	ppb	5.5	100.0%	13.4	Jan-27	-	-	24.9	Jan-30 5:00	159	0
NO <sub>x</sub>	ppb	6.2	100.0%	15.6	Jan-27	-	-	49.6	Jan-30 5:00	-	-
O <sub>3</sub>	ppb	19	100.0%	33	Jan-22	-	-	39	Jan-22 16:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	3	100.0%	7	Jan-31	30	0	23	Jan-30 7:00	-	-



\* All data has been slope, intercept, and baseline corrected. Data may change after validation process.  
 \* The measured ambient concentrations of all parameters are within the AAAQO for the month of January 2015.  
 \* All compliance parameters are above 90% operational for the month of January 2015.  
 \* Routine calibration was performed on January 28, 2015.

**WEST CENTRAL AIRSHED SOCIETY**

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

**AMS 910  
GENESEE  
JANUARY 2015**

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

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

**Summary Report**

*Continuous air quality/meteorological monitoring measurements*

**West Central Airshed Society**

Capital Power / Genesee Station 910													January 2015
Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Total	Min	Max	----- P10	----- Q1	Percentile Median	----- Q3	----- P90	24 Hour Average Max (ppm)
SO <sub>2</sub> (ppb)	35	709	100.0	0.4	-	0.0	7.5	0.0	0.0	0.1	0.4	1.0	0.002
O <sub>3</sub> (ppb)	35	709	100.0	19.1	-	0.0	39.1	8.7	12.4	19.0	25.9	29.4	0.033
NO (ppb)	37	707	100.0	0.6	-	0.0	24.5	0.0	0.0	0.1	0.6	1.9	-
NO <sub>2</sub> (ppb)	37	707	100.0	5.5	-	0.0	24.9	1.3	2.5	4.2	7.1	12.4	0.013
NO <sub>x</sub> (ppb)	37	707	100.0	6.2	-	0.0	49.6	1.4	2.8	4.6	7.9	13.7	-
Particulate Matter 2.5 microns (µ/m <sup>3</sup> )	0	744	100.0	2.8	-	0.0	23.3	0.0	0.4	2.0	4.3	6.6	6.89 ug/m3
Wind Speed (kph)	0	744	100.0	12.1	-	0.2	40.9	4.4	6.8	12.2	15.9	19.8	-
Temperature - 2m (°C)	0	744	100.0	-6.7	-	-30.9	10.5	-20.7	-15.8	-4.0	1.5	4.3	-
Temperature - 10m (°C)	0	744	100.0	-6.2	-	-30.0	11.0	-19.8	-15.9	-3.4	2.3	5.3	-
Delta Temperature (°C)	0	744	100.0	0.5	-	-1.7	5.2	-0.7	-0.4	0.3	1.3	2.0	-
Relative Humidity (%)	0	744	100.0	74.5	-	39.9	95.4	55.8	66.3	76.1	83.1	91.0	-
Global Solar Radiation (W/m <sup>2</sup> )	0	744	100.0	43.6	-	0.0	411.7	0.0	0.0	0.0	54.4	174.6	-
Precipitation (mm)	0	744	100.0	-	1.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	-
Std Dev Wind Direction (deg)	0	744	100.0	14.8	-	1.9	97.3	5.7	7.6	10.0	16.2	29.1	-
Std Dev Wind Speed (kph)	0	744	100.0	2.4	-	0.4	8.0	1.2	1.5	2.1	3.1	4.0	-



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**January 2015**

Maximum Value: 7.50 ppb on Jan 8 15:00																			Maximum Daily Average: 1.88 ppb on Jan 8						Hours in Service: 744																			
Minimum Value: 0.0 ppb on Jan 1 01:00																			Minimum Daily Average: 0.01 ppb on Jan 22						Hours of Data: 709																			
Maximum Diurnal Average: 0.72 ppb at hour 15																			Minimum Diurnal Average: 0.19 ppb at hour 8						Hours of Missing Data: 35																			
Monthly Average: 0.368 ppb																			Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.1 Q <sub>3</sub> = 0.4 P <sub>90</sub> = 1.0 P <sub>99</sub> = 4.0						Hours of Calibration: 35																			
																			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-Jan	0.0	0.0	Z	0.4	0.7	0.1	0.2	0.1	1.1	0.2	0.0	0.0	0.0	0.0	3.0	2.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.40	2.96																		
2-Jan	4.0	3.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.38	3.96																		
3-Jan	0.0	0.1	Z	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.8	1.3	1.5	0.8	0.2	0.5	0.7	0.9	0.2	0.7	0.5	1.0	0.43	1.54																		
4-Jan	0.7	0.4	Z	0.4	0.3	0.4	0.3	0.4	0.7	0.6	0.3	0.2	0.2	0.4	0.7	0.6	0.6	0.6	0.3	0.2	0.5	0.3	0.4	0.5	0.44	0.74																		
5-Jan	0.8	0.8	Z	0.8	0.5	0.4	0.3	0.3	0.5	0.8	0.8	0.7	0.6	0.4	0.3	0.3	0.2	0.1	0.1	0.8	0.3	0.6	0.7	0.3	0.50	0.82																		
6-Jan	0.3	0.7	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.4	2.1	1.7	1.2	1.2	1.2	1.4	0.58	2.42																			
7-Jan	0.8	0.6	Z	0.5	0.6	0.8	0.9	0.8	0.6	0.6	0.5	0.5	0.5	1.0	1.9	0.4	0.4	1.2	1.7	0.3	0.1	0.0	0.1	0.0	0.63	1.88																		
8-Jan	0.0	0.0	Z	0.9	0.9	1.0	1.0	1.1	1.1	2.3	2.4	4.0	6.0	5.8	7.5	5.3	2.9	0.6	0.2	0.1	0.1	0.0	0.0	0.0	1.88	7.50																		
9-Jan	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	0.1	0.2	0.4	0.1	0.0	0.2	0.6	0.5	0.1	0.3	0.6	0.14	0.64																		
10-Jan	0.5	0.4	Z	0.4	0.4	0.6	0.6	0.4	0.4	1.9	4.2	3.8	4.0	3.4	2.5	2.1	2.1	1.8	1.3	1.0	0.9	0.8	0.9	0.9	1.54	4.18																		
11-Jan	1.0	1.1	Z	1.1	1.1	0.9	0.8	0.6	0.5	0.3	0.2	0.0	0.1	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.9	1.0	0.6	0.4	0.56	1.06																		
12-Jan	0.4	0.4	Z	0.3	0.4	0.3	0.2	0.2	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.16	0.41																		
13-Jan	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.07	0.34																		
14-Jan	0.0	0.1	Z	0.0	0.1	0.1	0.2	0.0	0.2	0.2	0.4	1.0	1.0	0.9	0.8	0.1	1.3	3.7	1.2	0.4	0.2	0.2	0.1	0.2	0.53	3.69																		
15-Jan	0.1	0.0	Z	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.1	0.1	0.6	0.5	0.3	0.0	0.0	0.3	0.1	0.1	0.5	0.13	0.60																		
16-Jan	0.3	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.7	0.8	0.0	0.2	0.0	0.0	0.19	2.02																		
17-Jan	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.06																		
18-Jan	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	0.0	0.1	0.0	0.1	0.0	0.2	0.4	0.4	0.4	0.2	0.08	0.39																		
19-Jan	0.2	0.1	Z	0.4	0.1	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.9	3.1	0.3	0.0	0.0	0.0	0.0	0.25	3.06																		
20-Jan	0.0	0.0	Z	1.0	1.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.7	1.2	0.3	0.1	0.0	0.8	0.1	0.0	0.0	0.0	0.41	2.69																		
21-Jan	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.10																		
22-Jan	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	0.1	0.01	0.14																		
23-Jan	0.0	0.0	Z	0.0	0.0	0.0	0.3	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	0.2	0.02	0.27																		
24-Jan	0.5	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.1	0.0	0.2	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.13	1.69																		
25-Jan	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.4	0.1	0.1	4.7	1.2	0.0	1.6	0.37	4.66																		
26-Jan	1.6	1.2	Z	0.8	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.3	0.3	0.1	0.1	0.0	0.28	1.61																		
27-Jan	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	0.3	0.2	0.9	3.8	2.5	0.4	0.8	0.39	3.83																		
28-Jan	1.1	0.8	Z	0.2	0.1	0.0	1.2	0.9	3.0	3.1	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.7	0.3	0.0	0.64	3.13																		
29-Jan	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	0.1	0.1	0.2	0.02	0.20																		
30-Jan	0.0	0.0	Z	1.7	0.4	0.9	0.3	0.3	0.3	0.2	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	0.18	1.74																		
31-Jan	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.7	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.12	0.69																		
																			0.40	0.31	--	0.30	0.26	0.24	0.21	0.19	0.28	0.34	0.33	0.37	0.49	0.55	0.72	0.47	0.43	0.48	0.44	0.34	0.47	0.33	0.21	0.33	Diurnal Average	
																			3.96	3.03	--	1.74	1.70	1.17	1.22	1.08	3.02	3.13	4.18	3.98	6.00	5.81	7.50	5.35	2.94	3.69	3.06	1.73	4.66	2.45	1.18	1.59	Diurnal Maximum	
Z - zerospan      C - Calibration																			Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb      24-hr 48 ppb																									



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Ozone (O<sub>3</sub>) - ppb**  
**January 2015**

Maximum Value: 39.13 ppb on Jan 22 16:00		Maximum Daily Average: 32.88 ppb on Jan 22		Hours in Service: 744																									
Minimum Value: 0.0 ppb on Jan 27 09:00		Minimum Daily Average: 7.07 ppb on Jan 27		Hours of Data: 709																									
Maximum Diurnal Average: 21.84 ppb at hour 16		Minimum Diurnal Average: 17.00 ppb at hour 6		Hours of Missing Data: 35																									
Monthly Average: 19.063 ppb		Percentiles: P <sub>1</sub> = 1.3 P <sub>10</sub> = 8.7 Q <sub>1</sub> = 12.4 Median = 19.0 Q <sub>3</sub> = 25.9 P <sub>90</sub> = 29.4 P <sub>99</sub> = 35.7		Hours of Calibration: 35																									
				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-Jan	27.7	Z	22.7	24.6	25.1	24.3	21.7	24.7	23.0	23.5	26.6	26.1	25.8	26.1	19.1	19.0	19.7	23.0	21.5	24.4	21.6	21.5	20.7	21.0	23.18	27.70			
2-Jan	20.2	Z	20.9	22.3	22.5	22.4	23.2	22.6	19.3	12.7	11.9	13.7	17.6	19.0	20.5	22.4	21.0	20.8	20.9	17.7	17.0	18.3	17.8	18.6	19.28	23.22			
3-Jan	16.6	Z	16.8	17.4	15.3	14.4	15.7	17.4	18.8	16.7	22.4	18.4	12.4	8.3	9.7	14.4	13.2	13.0	13.8	9.7	10.5	13.6	15.9	17.0	14.85	22.43			
4-Jan	15.9	Z	14.0	13.5	13.7	15.2	15.5	14.8	13.2	13.7	14.8	15.8	16.2	17.4	18.4	18.8	18.5	17.6	18.3	17.1	15.6	16.0	13.1	12.6	15.64	18.78			
5-Jan	12.3	Z	11.7	11.8	10.4	8.8	10.5	10.7	12.2	15.7	14.9	15.7	17.1	17.6	18.6	18.8	19.3	16.2	11.6	12.2	10.8	14.9	17.3	18.1	14.23	19.32			
6-Jan	14.5	Z	16.8	17.3	17.6	17.9	18.9	19.4	18.9	20.4	20.6	20.9	21.6	21.8	21.4	21.3	18.8	12.2	7.5	6.8	7.0	6.5	7.1	8.4	15.81	21.81			
7-Jan	11.4	Z	15.4	17.7	19.8	20.9	22.2	22.8	23.5	24.2	24.2	21.0	21.1	20.1	17.6	13.5	9.1	6.2	3.2	8.2	9.2	10.5	11.4	14.0	15.97	24.23			
8-Jan	11.9	Z	11.7	8.9	9.5	9.0	8.7	8.8	9.1	11.4	14.0	13.9	10.1	7.3	8.2	8.8	15.6	20.7	22.2	20.6	20.4	19.3	19.8	20.3	13.48	22.16			
9-Jan	19.5	Z	19.3	18.1	15.2	9.4	9.6	9.2	8.3	9.9	13.4	12.3	11.7	12.2	12.4	11.2	7.7	6.0	5.3	4.2	2.7	4.6	9.9	14.9	10.74	19.51			
10-Jan	18.8	Z	19.4	18.3	17.9	20.0	20.0	18.9	18.2	16.0	14.2	13.6	13.5	14.2	13.3	12.1	11.1	10.3	10.6	10.9	10.8	9.3	5.6	4.0	13.96	20.01			
11-Jan	4.6	Z	5.3	7.3	8.8	9.1	6.8	6.1	6.2	9.7	12.3	12.0	13.4	17.6	15.1	14.4	14.2	12.2	7.9	5.8	6.3	7.2	6.1	2.9	9.19	17.59			
12-Jan	1.0	Z	2.8	3.3	4.7	3.2	2.4	1.1	0.6	4.8	9.6	11.9	14.2	15.5	18.2	20.4	20.0	18.5	18.2	18.1	16.0	15.5	15.6	14.6	10.89	20.37			
13-Jan	14.4	Z	19.3	21.5	20.8	21.4	22.3	21.2	22.0	23.2	23.6	24.8	26.1	27.0	28.1	28.6	28.7	29.1	28.4	25.9	27.1	26.6	24.9	24.7	24.32	29.10			
14-Jan	25.7	Z	27.6	29.3	25.8	24.1	23.7	24.7	25.8	25.0	25.9	26.6	28.2	29.4	29.4	28.4	19.9	16.3	26.6	25.5	24.9	28.4	27.5	24.3	25.78	29.43			
15-Jan	18.9	Z	18.6	18.5	10.5	12.5	14.9	16.9	17.4	14.5	15.3	11.1	13.0	15.5	16.2	18.2	19.8	18.4	17.5	15.4	15.0	14.1	15.7	15.3	15.79	19.78			
16-Jan	14.8	Z	12.3	10.0	7.8	5.4	11.0	16.2	16.3	22.6	14.8	19.5	25.6	29.5	30.5	23.8	22.0	25.2	27.8	30.6	30.9	28.9	30.3	29.4	21.09	30.88			
17-Jan	26.5	Z	25.8	28.6	29.8	29.9	29.9	27.8	26.4	25.7	26.8	26.5	27.8	28.2	29.2	31.8	31.5	30.3	29.2	27.8	26.6	24.1	23.4	24.1	27.73	31.81			
18-Jan	24.4	Z	22.5	26.9	26.7	28.5	29.3	28.5	25.2	27.8	26.6	23.8	23.8	23.6	22.6	23.9	17.6	17.3	17.5	17.2	19.0	18.3	17.6	21.1	23.03	29.25			
19-Jan	26.1	Z	26.7	25.2	23.8	14.8	14.9	19.2	17.5	19.5	24.2	27.3	30.1	32.4	33.3	30.7	28.8	21.3	17.7	27.2	30.2	28.5	28.4	29.1	25.09	33.28			
20-Jan	28.7	Z	26.2	19.9	13.6	25.6	28.4	27.8	27.3	29.0	28.0	29.5	30.5	29.7	24.3	28.2	26.7	24.9	27.0	24.6	25.0	23.1	23.4	22.4	25.81	30.46			
21-Jan	24.0	Z	21.9	21.9	22.4	23.4	23.0	22.5	21.6	21.3	25.8	28.4	26.3	25.0	24.0	27.4	28.0	30.2	29.6	28.5	27.9	26.6	26.7	27.8	25.40	30.17			
22-Jan	28.0	Z	29.4	29.6	27.7	28.9	28.2	28.0	30.2	32.2	33.2	34.9	36.3	38.1	39.0	39.1	38.5	38.3	37.4	30.5	33.5	33.8	30.8	30.5	32.88	39.13			
23-Jan	29.3	Z	27.2	26.2	27.5	23.0	25.2	27.3	26.4	26.9	29.1	29.1	29.2	31.4	31.8	32.6	33.9	34.4	32.2	30.1	32.2	32.5	29.9	26.9	29.31	34.42			
24-Jan	22.8	Z	19.0	22.6	23.7	20.5	21.6	25.8	28.1	29.3	29.3	25.1	23.6	26.1	32.6	32.5	23.4	28.1	29.8	27.3	27.9	29.4	26.6	28.8	26.25	32.55			
25-Jan	28.9	Z	27.6	24.7	23.2	22.9	22.6	21.3	19.7	17.2	18.3	21.6	20.1	28.1	32.0	31.4	30.9	24.1	20.5	32.3	24.9	33.6	36.2	30.1	25.75	36.17			
26-Jan	31.6	Z	29.4	29.0	25.2	20.9	25.7	31.6	30.6	23.5	25.3	27.9	26.6	28.5	29.8	32.1	31.1	32.0	29.1	28.7	28.0	23.5	21.0	18.4	27.37	32.11			
27-Jan	16.7	Z	12.2	9.5	7.5	3.8	1.5	1.3	0.0	0.9	3.6	5.8	7.5	9.7	9.6	10.3	10.4	9.4	10.1	5.7	0.0	3.7	12.1	11.3	7.07	16.67			
28-Jan	7.2	Z	12.1	10.8	8.8	7.5	5.6	9.1	10.8	11.9	C	C	C	C	17.1	17.5	15.9	14.2	12.3	11.2	10.4	8.2	8.3	9.2	10.95	17.49			
29-Jan	8.7	Z	8.3	9.6	9.4	8.7	8.7	8.9	9.6	8.6	8.2	9.0	9.3	11.2	12.6	13.2	12.6	6.6	2.8	7.3	10.3	9.2	10.4	13.9	9.44	13.95			
30-Jan	15.9	Z	21.5	18.3	0.0	9.0	2.1	4.8	9.4	5.9	9.1	10.2	9.6	11.6	13.5	13.4	14.9	16.5	15.2	12.1	10.4	12.4	14.4	14.5	11.51	21.46			
31-Jan	14.4	Z	16.9	18.4	20.9	21.5	20.7	20.5	21.0	20.5	20.1	19.6	19.6	19.6	19.4	18.9	16.1	14.8	15.8	16.4	15.9	15.2	11.8	10.6	17.77	21.54			
		18.76	--	18.75	18.74	17.28	17.00	17.24	18.07	17.95	18.20	19.54	19.86	20.26	21.39	21.53	21.84	20.61	19.62	18.95	18.71	18.32	18.62	18.71	18.68	Diurnal Average			
		31.63	--	29.42	29.57	29.85	29.94	29.92	31.62	30.56	32.16	33.21	34.94	36.34	38.14	39.01	39.13	38.45	38.29	37.43	32.34	33.49	33.79	36.17	30.45	Diurnal Maximum			
Z - zerospan		C - Calibration																											
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr 82.5 ppb		24-hr -- ppb																									







**WCAS - Genesee**  
**Summary of Hourly Averages**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**January 2015**

Maximum Value: 24.90 ppb on Jan 30 05:00		Maximum Daily Average: 13.37 ppb on Jan 27		Hours in Service: 744																													
Minimum Value: 0.0 ppb on Jan 3 09:00		Minimum Daily Average: 1.65 ppb on Jan 22		Hours of Data: 707																													
Maximum Diurnal Average: 7.47 ppb at hour 19		Minimum Diurnal Average: 4.46 ppb at hour 12		Hours of Missing Data: 37																													
Monthly Average: 5.540 ppb		Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 1.3 Q <sub>1</sub> = 2.5 Median = 4.2 Q <sub>3</sub> = 7.1 P <sub>90</sub> = 12.4 P <sub>99</sub> = 18.1		Hours of Calibration: 37																													
				Percent Operational Time: 100.0																													
Day	Hourly Period Ending At																								Daily Average	Daily Maximum							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24									
1-Jan	1.0	2.4	Z	4.7	4.6	6.6	7.1	4.3	4.6	5.2	0.5	0.5	0.6	0.8	6.0	6.5	2.9	0.7	6.9	0.3	0.4	1.1	1.8	2.2	3.13	7.14							
2-Jan	3.0	3.2	Z	0.8	0.5	0.6	0.5	0.4	1.4	5.7	8.3	7.2	4.3	2.6	1.3	0.6	0.5	0.5	0.6	0.9	1.3	1.5	2.9	1.8	2.20	8.27							
3-Jan	6.6	4.0	Z	3.9	3.2	2.9	1.0	0.1	0.0	0.0	0.1	0.4	2.2	6.1	6.7	4.1	2.2	2.7	4.0	5.6	3.6	3.5	3.1	5.0	3.09	6.73							
4-Jan	5.3	4.5	Z	8.0	5.9	4.9	4.5	5.4	5.5	5.4	4.4	4.3	4.0	3.6	3.7	3.6	5.3	6.7	5.1	6.0	6.3	5.9	9.0	9.1	5.49	9.10							
5-Jan	8.0	7.5	Z	7.3	7.3	11.0	8.9	7.7	7.5	4.4	5.4	5.0	4.1	4.4	3.6	3.5	4.1	8.2	10.8	9.4	7.4	8.6	5.8	4.5	6.71	10.98							
6-Jan	9.3	8.9	Z	5.7	4.1	4.1	3.8	2.9	3.3	2.6	2.1	1.9	2.1	1.9	2.4	2.5	5.0	12.6	18.4	18.8	18.2	18.1	16.8	14.6	7.82	18.77							
7-Jan	10.7	8.5	Z	5.5	4.2	3.5	3.1	2.9	2.2	2.0	2.0	2.3	2.7	3.1	3.9	6.2	9.0	10.5	11.8	6.2	5.4	3.4	3.2	1.3	4.95	11.78							
8-Jan	2.6	3.3	Z	8.6	7.1	6.6	6.0	6.1	6.2	6.5	6.0	6.6	10.0	13.0	14.7	13.9	10.1	5.1	2.5	3.4	3.8	3.8	4.1	4.1	6.69	14.65							
9-Jan	4.1	4.2	Z	6.2	7.2	11.5	12.8	12.1	13.3	11.5	8.2	8.3	8.9	9.3	10.2	12.3	16.3	17.1	18.0	17.0	16.5	12.8	9.7	7.2	11.07	17.96							
10-Jan	4.2	3.1	Z	3.1	3.1	2.9	2.6	2.9	3.2	4.7	6.2	6.8	7.1	6.6	8.4	10.3	11.9	12.6	11.7	11.1	11.2	12.1	17.0	17.8	7.85	17.82							
11-Jan	16.6	17.6	Z	13.1	10.8	9.9	10.3	11.4	11.5	8.9	6.1	5.6	5.0	4.4	5.7	7.6	7.8	9.9	14.8	17.1	15.3	12.9	13.7	17.8	11.04	17.83							
12-Jan	20.8	18.9	Z	16.6	15.0	17.4	18.1	17.4	17.0	12.9	8.4	7.3	6.9	6.7	5.1	5.0	5.4	5.7	5.6	5.7	6.8	6.8	6.1	5.9	10.50	20.77							
13-Jan	5.9	5.2	Z	3.3	3.1	3.1	2.9	3.2	3.1	2.7	3.2	3.5	3.6	4.9	4.4	4.2	4.1	3.8	3.4	4.7	3.9	3.1	3.6	3.6	3.77	5.93							
14-Jan	2.5	2.8	Z	2.0	2.9	3.4	3.4	3.2	3.3	4.7	5.6	5.0	4.3	3.9	3.3	4.2	14.4	18.3	7.2	5.1	4.9	3.3	3.2	5.9	5.07	18.33							
15-Jan	12.0	9.1	Z	6.2	13.4	10.3	6.9	4.7	4.2	4.0	4.7	8.7	10.9	9.5	9.5	9.2	6.2	5.9	5.7	5.6	6.2	5.7	4.8	4.1	7.29	13.40							
16-Jan	4.0	5.1	Z	7.8	9.4	14.3	7.7	6.0	6.2	4.1	7.1	5.0	2.0	0.8	0.6	1.5	5.5	6.8	4.5	1.7	0.5	1.3	0.0	0.4	4.45	14.33							
17-Jan	0.8	0.9	Z	1.2	0.6	0.4	0.6	1.4	2.4	2.9	2.7	2.8	4.0	4.1	4.2	3.6	3.8	3.7	3.2	3.5	3.6	4.5	4.0	3.4	2.70	4.48							
18-Jan	3.5	3.7	Z	3.2	1.6	1.4	1.4	1.8	4.1	2.8	2.8	3.9	4.5	6.3	6.7	7.3	13.5	12.6	11.8	10.2	9.0	7.5	8.5	7.9	5.90	13.48							
19-Jan	3.6	3.1	Z	3.9	4.7	11.5	10.7	4.6	6.2	4.9	4.4	3.1	1.8	1.8	1.6	3.7	4.8	6.7	14.2	5.9	2.6	2.3	2.2	1.4	4.78	14.19							
20-Jan	1.2	1.8	Z	7.3	7.8	3.6	1.3	1.3	1.2	1.0	1.8	1.7	1.8	3.1	5.2	4.7	6.2	7.5	6.0	7.6	4.0	3.8	3.8	3.2	3.77	7.81							
21-Jan	2.9	2.6	Z	3.5	3.0	2.6	2.8	3.1	3.6	3.9	4.1	2.6	3.6	5.8	4.3	2.9	2.5	3.3	3.3	4.4	3.8	3.8	3.9	3.3	3.46	5.83							
22-Jan	3.5	2.8	Z	1.8	2.3	2.0	2.2	2.2	1.1	0.8	0.7	1.3	0.7	0.1	0.0	0.0	0.2	0.1	0.6	7.1	3.8	0.9	1.6	2.1	1.65	7.08							
23-Jan	2.4	3.0	Z	3.8	2.6	6.4	4.1	2.7	3.6	4.5	3.1	3.7	3.3	2.2	2.3	2.9	2.4	1.6	2.6	2.8	1.1	0.0	0.8	1.6	2.77	6.43							
24-Jan	3.7	3.1	Z	1.4	0.4	1.0	1.3	0.9	1.3	1.5	0.9	0.8	1.7	3.3	2.3	3.4	12.8	5.9	2.9	2.1	1.9	1.8	3.3	2.7	2.63	12.84							
25-Jan	1.8	1.7	Z	2.4	2.5	2.4	2.4	2.5	3.2	6.2	4.8	3.0	7.2	1.2	0.1	0.1	0.7	10.3	16.7	0.8	7.1	2.2	0.3	3.1	3.59	16.68							
26-Jan	2.3	2.0	Z	2.4	4.4	6.4	1.8	0.6	1.0	1.7	1.8	2.1	2.5	2.0	1.8	1.8	2.9	2.4	2.7	2.3	2.2	1.8	2.3	2.5	2.33	6.37							
27-Jan	2.8	5.4	Z	6.9	9.6	15.4	22.1	20.3	22.7	18.2	17.5	14.9	14.2	13.0	12.7	12.5	13.2	13.4	11.6	14.1	21.3	16.0	5.2	4.6	13.37	22.70							
28-Jan	7.4	5.7	Z	4.4	4.3	4.4	8.0	7.7	11.8	11.3	C	C	C	C	C	C	3.7	5.0	5.7	6.6	7.6	10.1	8.8	6.6	--	11.82							
29-Jan	6.6	6.6	Z	5.1	4.9	5.0	4.6	4.3	4.0	4.6	4.4	4.7	5.0	5.0	6.1	6.7	7.7	11.6	13.8	9.4	9.2	12.4	10.6	7.8	6.96	13.83							
30-Jan	5.3	5.4	Z	7.0	24.9	14.1	18.2	13.2	9.9	14.1	10.6	8.9	7.4	4.1	2.6	2.2	1.6	1.4	1.7	3.1	5.4	4.6	2.9	2.4	7.43	24.90							
31-Jan	2.1	1.8	Z	1.5	1.2	1.2	1.4	2.1	1.7	1.6	1.6	1.9	2.0	2.3	2.3	2.8	4.9	4.9	4.2	3.6	3.6	3.6	3.6	5.2	2.66	5.23							
		5.37	5.09	--	5.12	5.69	6.15	5.89	5.14	5.48	5.33	4.65	4.46	4.62	4.54	4.73	4.99	6.18	7.02	7.47	6.52	6.38	5.78	5.38	5.26	Diurnal Average							
		20.77	18.88	--	16.65	24.90	17.38	22.05	20.27	22.70	18.21	17.48	14.92	14.18	13.03	14.65	13.91	16.32	18.33	18.37	18.77	21.30	18.05	16.95	17.83	Diurnal Maximum							
Z - zerospan		C - Calibration																															
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr 159 ppb				24-hr 106 ppb																											



**WCAS - Genesee**  
**Summary of Hourly Averages**

**NOx (NO<sub>x</sub>) - ppb**  
**January 2015**

Maximum Value: 49.58 ppb on Jan 30 05:00		Maximum Daily Average: 15.58 ppb on Jan 27		Hours in Service: 744																							
Minimum Value: 0.0 ppb on Jan 3 09:00		Minimum Daily Average: 1.81 ppb on Jan 22		Hours of Data: 707																							
Maximum Diurnal Average: 7.69 ppb at hour 19		Minimum Diurnal Average: 5.16 ppb at hour 2		Hours of Missing Data: 37																							
Monthly Average: 6.208 ppb		Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 1.4 Q <sub>1</sub> = 2.8 Median = 4.6 Q <sub>3</sub> = 7.9 P <sub>90</sub> = 13.7 P <sub>99</sub> = 20.5		Hours of Calibration: 37																							
				Percent Operational Time: 100.0																							
Day	Hourly Period Ending At																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1-Jan	1.1	2.5	Z	4.8	4.7	6.7	7.3	4.4	4.7	5.4	0.7	0.7	0.8	1.2	7.2	7.1	3.2	0.9	7.1	0.4	0.6	1.2	2.0	2.3	3.35	7.31	
2-Jan	3.2	3.4	Z	0.9	0.6	0.7	0.6	0.5	1.5	6.0	9.1	7.9	4.9	3.0	1.6	0.8	0.6	0.6	0.7	1.0	1.4	1.6	3.0	1.8	2.41	9.08	
3-Jan	6.6	4.0	Z	3.9	3.3	3.0	1.0	0.1	0.0	0.0	0.3	0.8	3.0	7.3	7.8	4.5	2.2	2.8	4.0	5.7	3.6	3.6	3.1	5.1	3.28	7.78	
4-Jan	5.3	4.5	Z	8.0	5.9	4.9	4.6	5.4	5.5	5.9	5.7	6.3	6.1	5.3	5.6	4.7	5.9	7.2	5.1	6.0	6.2	5.8	9.0	9.1	6.00	9.08	
5-Jan	8.0	7.5	Z	7.3	7.3	11.0	8.9	7.7	7.5	4.7	7.3	7.2	6.1	6.7	5.0	4.1	4.4	8.2	10.9	9.5	7.4	8.6	5.8	4.5	7.21	11.01	
6-Jan	9.4	8.9	Z	5.7	4.1	4.1	3.8	2.9	3.3	2.7	2.4	2.6	2.8	2.7	3.2	3.1	5.4	12.6	18.4	18.8	18.3	18.1	16.9	14.6	8.03	18.80	
7-Jan	10.8	8.5	Z	5.5	4.2	3.5	3.1	2.9	2.2	2.1	2.3	2.8	3.5	4.2	5.9	8.0	10.0	11.3	12.5	6.4	5.6	3.6	3.3	1.4	5.37	12.51	
8-Jan	2.7	3.4	Z	9.0	7.4	6.9	6.3	6.3	6.4	6.9	7.2	9.0	14.3	17.4	20.1	16.9	11.0	5.2	2.6	3.4	3.8	3.7	4.1	4.0	7.73	20.11	
9-Jan	4.0	4.1	Z	6.1	7.2	11.6	12.7	12.2	13.5	12.8	10.9	13.7	15.1	15.1	15.9	17.4	19.7	17.6	18.1	17.2	16.8	13.0	9.8	7.3	12.69	19.74	
10-Jan	4.2	3.2	Z	3.2	3.1	3.0	2.7	2.9	3.2	5.2	7.9	9.7	10.2	9.9	12.0	13.9	13.8	12.8	11.8	11.3	11.3	12.2	17.2	18.0	8.82	17.96	
11-Jan	16.7	17.7	Z	13.3	10.9	10.0	10.4	11.6	11.7	10.0	8.7	9.5	8.5	7.1	9.5	11.1	9.1	10.2	14.9	17.3	15.5	13.1	13.9	18.1	12.13	18.08	
12-Jan	21.0	19.1	Z	17.2	15.3	17.6	18.3	17.6	17.9	15.6	11.9	11.1	10.9	10.4	7.0	6.5	6.2	5.9	5.8	5.8	6.9	6.8	6.1	6.0	11.61	21.04	
13-Jan	6.0	5.2	Z	3.3	3.2	3.1	2.9	3.3	3.2	2.9	3.7	4.4	4.4	6.0	5.3	4.9	4.4	3.9	3.5	4.8	4.0	3.2	3.7	3.7	4.04	6.03	
14-Jan	2.6	2.9	Z	2.1	2.9	3.5	3.4	3.2	3.4	5.1	6.8	6.7	6.3	5.4	4.2	4.9	16.3	19.1	7.1	5.1	4.9	3.3	3.2	6.0	5.58	19.10	
15-Jan	12.1	9.2	Z	6.2	15.1	10.5	7.0	4.7	4.3	4.3	6.0	12.8	17.4	14.9	13.7	12.1	6.9	6.1	5.8	5.7	6.3	5.8	4.9	4.2	8.52	17.37	
16-Jan	4.0	5.1	Z	7.9	9.5	14.5	7.8	6.1	6.3	4.3	8.3	5.8	2.6	1.2	1.0	1.9	6.2	7.0	4.6	1.8	0.6	1.4	0.1	0.5	4.73	14.54	
17-Jan	0.9	1.0	Z	1.3	0.7	0.5	0.7	1.5	2.5	3.2	3.2	3.5	5.6	6.1	6.1	4.7	4.2	3.7	3.3	3.6	3.6	4.5	4.1	3.5	3.13	6.10	
18-Jan	3.5	3.7	Z	3.2	1.6	1.4	1.4	1.8	4.1	2.9	3.3	5.5	7.0	9.8	9.5	9.4	15.7	12.8	11.9	10.3	9.1	7.5	8.6	7.9	6.60	15.71	
19-Jan	3.6	3.1	Z	4.0	4.8	11.8	11.1	4.7	6.3	5.2	5.3	4.3	2.8	2.8	2.4	4.9	5.4	7.0	14.9	6.1	2.6	2.4	2.3	1.5	5.18	14.91	
20-Jan	1.2	1.9	Z	7.6	8.0	3.8	1.3	1.4	1.3	1.1	2.3	2.5	2.8	4.9	7.3	6.3	7.1	7.6	6.0	7.6	4.1	3.9	3.8	3.3	4.23	8.00	
21-Jan	3.0	2.7	Z	3.6	3.0	2.6	2.9	3.1	3.6	4.2	4.8	3.1	4.6	7.2	5.1	3.5	2.8	3.4	3.4	4.4	3.9	3.9	4.0	3.3	3.74	7.19	
22-Jan	3.6	3.0	Z	1.9	2.4	2.1	2.3	2.2	1.2	0.9	1.1	2.2	1.3	0.4	0.3	0.2	0.3	0.1	0.6	7.1	3.8	0.8	1.6	2.0	1.81	7.09	
23-Jan	2.3	3.0	Z	3.7	2.7	6.4	4.2	2.8	3.6	4.9	3.7	4.6	4.5	3.1	3.0	3.3	2.5	1.5	2.6	2.9	1.1	0.0	0.9	1.7	3.00	6.43	
24-Jan	3.7	3.2	Z	1.5	0.5	1.2	1.4	1.0	1.3	1.7	1.2	1.2	2.4	4.6	3.1	4.1	14.3	6.0	2.9	2.2	1.9	1.8	3.2	2.6	2.91	14.29	
25-Jan	1.9	1.6	Z	2.4	2.5	2.4	2.4	2.5	3.3	7.5	6.7	4.7	10.5	2.0	0.3	0.3	0.9	11.0	18.9	0.9	7.5	2.3	0.3	3.1	4.16	18.89	
26-Jan	2.4	2.0	Z	2.5	4.4	6.4	1.9	0.7	1.0	1.9	2.4	3.0	3.5	2.7	2.5	2.3	3.2	2.4	2.7	2.3	2.3	1.9	2.4	2.6	2.58	6.44	
27-Jan	2.9	5.4	Z	6.9	9.7	15.5	22.2	20.6	24.7	23.5	24.4	21.0	20.5	18.1	16.5	14.9	14.6	13.9	11.8	14.3	27.2	19.3	5.6	4.7	15.58	27.17	
28-Jan	7.5	5.9	Z	4.6	4.5	4.6	9.1	8.3	12.3	13.2	C	C	C	C	C	C	4.5	5.3	5.8	6.7	7.7	10.1	8.9	6.7	--	13.16	
29-Jan	6.6	6.7	Z	5.2	4.9	5.0	4.7	4.4	4.1	5.6	6.6	8.8	9.6	10.2	11.4	11.0	10.2	13.1	15.3	9.6	9.4	12.6	10.7	7.9	8.43	15.28	
30-Jan	5.4	5.4	Z	8.6	49.6	16.3	21.1	13.6	10.2	18.1	13.6	12.1	9.6	5.1	3.3	2.6	1.7	1.4	1.7	3.1	5.4	4.6	2.9	2.4	9.46	49.58	
31-Jan	2.1	1.8	Z	1.6	1.2	1.3	1.4	2.1	1.7	1.8	2.2	3.3	3.6	3.9	3.7	4.0	6.4	5.2	4.1	3.5	3.6	3.5	3.5	5.2	3.07	6.38	
		5.44	5.16	--	5.25	6.62	6.31	6.09	5.24	5.66	6.12	6.00	6.36	6.84	6.62	6.66	6.45	7.08	7.29	7.69	6.60	6.65	5.95	5.45	5.32	Diurnal Average	
		21.04	19.15	--	17.18	49.58	17.60	22.18	20.61	24.66	23.54	24.40	20.96	20.49	18.06	20.11	17.38	19.74	19.10	18.89	18.80	27.17	19.31	17.17	18.08	Diurnal Maximum	
Z - zerospan		C - Calibration																									
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr --- ppb												24-hr --- ppb													



**WCAS - Genesee**  
**Summary of Hourly Averages**

**PM2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>**  
**January 2015**

Maximum Value: 23.27 µg/m <sup>3</sup> on Jan 30 07:00		Maximum Daily Average: 6.89 µg/m <sup>3</sup> on Jan 30		Hours in Service: 744																							
Minimum Value: 0.0 µg/m <sup>3</sup> on Jan 1 05:00		Minimum Daily Average: 0.62 µg/m <sup>3</sup> on Jan 17		Hours of Data: 744																							
Maximum Diurnal Average: 3.87 µg/m <sup>3</sup> at hour 21		Minimum Diurnal Average: 1.91 µg/m <sup>3</sup> at hour 14		Hours of Missing Data: 0																							
Monthly Average: 2.766 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.4 Median = 2.0 Q <sub>3</sub> = 4.3 P <sub>90</sub> = 6.6 P <sub>99</sub> = 11.2		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-Jan	1.8	1.8	1.1	1.3	0.0	0.0	0.6	2.5	0.9	0.9	0.8	0.0	1.1	0.0	0.0	1.1	0.0	0.4	1.2	0.0	0.0	0.0	1.4	0.0	0.70	2.50	
2-Jan	0.0	0.4	0.0	0.0	0.0	0.0	1.2	1.5	2.4	6.9	5.1	5.6	5.0	3.8	3.3	2.6	3.3	2.0	2.5	2.7	3.5	3.2	2.8	2.9	2.53	6.92	
3-Jan	2.6	2.0	2.9	1.9	1.6	2.0	1.7	1.5	2.3	2.1	2.6	0.7	1.2	2.0	2.6	1.8	1.8	2.2	2.5	3.6	3.2	2.6	2.2	2.4	2.17	3.57	
4-Jan	2.2	2.7	2.9	3.4	3.1	2.8	1.4	2.3	3.4	2.8	3.9	3.2	1.8	1.6	1.0	0.9	0.0	0.9	0.6	0.6	0.4	2.3	3.0	2.1	2.05	3.87	
5-Jan	4.3	5.7	6.4	6.1	6.1	6.1	4.7	6.1	3.1	4.5	4.2	4.9	5.7	4.6	7.2	6.1	5.5	5.9	5.8	6.1	5.7	7.2	5.6	6.6	5.59	7.22	
6-Jan	6.3	5.0	4.3	5.3	4.3	5.3	4.2	4.9	3.5	3.6	3.3	2.4	2.8	1.7	2.6	3.1	4.1	8.1	11.8	10.6	8.6	6.4	5.3	4.5	5.09	11.80	
7-Jan	3.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.3	1.4	2.8	7.3	6.3	7.5	6.0	4.3	7.4	5.3	4.6	4.7	2.62	7.48	
8-Jan	3.5	4.2	2.5	0.8	0.5	0.9	0.9	0.9	1.9	1.5	1.5	1.4	1.7	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.99	4.20	
9-Jan	0.0	0.5	0.0	0.0	0.4	0.0	0.5	1.0	1.7	3.3	2.2	1.6	0.5	2.4	3.2	3.9	4.6	4.9	7.7	11.5	10.6	11.7	10.3	7.7	3.76	11.73	
10-Jan	3.6	2.7	3.0	2.0	1.7	1.3	1.9	2.4	2.3	2.9	3.9	3.7	5.0	6.7	8.3	6.7	8.2	9.7	8.6	8.2	8.9	8.9	9.7	7.2	5.31	9.74	
11-Jan	5.7	5.5	5.1	4.6	4.1	3.0	5.1	5.0	4.2	8.3	4.7	7.7	6.0	3.4	6.6	10.3	4.9	9.8	6.3	6.3	6.4	7.0	7.9	7.6	6.06	10.28	
12-Jan	7.9	7.0	6.2	7.8	7.5	7.2	7.2	6.4	5.1	5.4	3.0	1.5	0.3	0.0	0.0	0.5	0.2	0.3	0.7	2.5	6.2	5.0	4.3	6.8	4.13	7.90	
13-Jan	7.9	10.0	2.7	0.6	0.6	1.8	1.0	1.6	0.0	0.6	0.2	0.0	0.0	0.1	0.0	0.0	0.3	4.4	0.7	4.0	5.9	2.0	0.5	2.7	1.99	9.96	
14-Jan	1.9	1.5	1.2	0.0	0.2	0.7	1.0	1.2	0.1	0.5	0.9	2.7	0.5	1.1	0.5	2.0	2.2	1.3	0.8	0.3	0.6	0.8	0.0	1.7	0.98	2.71	
15-Jan	3.0	2.6	6.7	11.7	17.4	11.2	11.7	9.2	8.3	9.2	4.5	7.3	6.6	5.0	3.5	4.1	0.0	1.7	2.1	0.0	1.9	0.0	0.0	0.7	5.35	17.39	
16-Jan	0.0	1.5	1.9	1.6	3.1	2.2	2.9	1.1	2.1	0.2	4.7	5.0	0.2	0.0	0.2	0.0	1.7	0.3	3.3	3.7	1.1	0.0	0.0	0.0	1.53	5.01	
17-Jan	1.2	0.6	0.3	0.2	1.2	0.5	0.2	0.0	0.0	0.4	0.0	0.0	0.1	1.0	0.5	1.8	0.2	0.9	0.7	2.0	1.1	0.9	0.7	0.3	0.62	2.01	
18-Jan	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.6	1.4	3.3	2.4	3.9	3.8	6.3	9.5	10.5	8.5	8.4	2.65	10.54
19-Jan	3.6	6.1	4.4	3.5	4.8	7.2	6.0	6.1	6.8	4.0	0.7	0.6	0.0	0.0	0.5	0.7	1.0	1.1	1.1	0.0	0.6	2.6	1.0	1.2	2.64	7.18	
20-Jan	0.8	1.2	1.3	1.7	2.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.4	0.7	0.1	0.0	0.4	0.6	4.0	2.3	0.0	0.8	1.0	0.74	3.98	
21-Jan	0.7	1.2	2.7	2.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	4.5	0.7	1.7	0.4	4.2	6.0	4.8	4.1	2.2	2.6	2.1	1.76	6.01	
22-Jan	1.6	6.8	5.9	3.1	1.2	0.9	0.4	0.1	0.1	0.6	0.6	0.2	0.0	0.0	0.0	0.1	0.0	0.2	0.3	1.3	0.7	1.0	0.8	0.5	1.10	6.79	
23-Jan	1.4	5.4	2.4	4.1	0.7	1.1	1.1	0.1	0.0	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	4.1	0.7	0.0	0.7	1.07	5.44	
24-Jan	1.4	5.8	5.4	0.0	0.9	0.3	0.7	0.0	0.0	0.0	0.9	0.0	0.1	0.0	0.0	0.3	0.6	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.69	5.78	
25-Jan	0.0	0.0	0.0	1.2	0.0	0.0	0.4	0.4	0.4	2.7	2.7	2.1	0.6	0.1	0.0	1.4	0.1	0.0	0.0	0.9	2.2	0.0	0.0	0.0	0.64	2.71	
26-Jan	0.0	0.0	0.0	0.4	0.0	0.5	1.0	0.5	0.0	0.0	0.9	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	2.7	4.0	5.7	5.9	1.01	5.93	
27-Jan	5.9	12.4	5.2	4.8	5.6	5.3	7.1	5.8	4.1	6.2	5.0	4.3	4.1	3.7	3.6	3.9	4.1	5.2	4.2	5.9	6.1	5.4	6.0	1.1	5.21	12.42	
28-Jan	2.0	3.3	2.4	2.5	3.2	5.8	5.6	2.7	2.0	2.8	3.5	1.9	1.1	0.4	1.1	0.0	0.2	0.8	2.4	2.0	2.5	2.9	2.6	2.2	2.33	5.80	
29-Jan	2.6	4.4	4.3	3.3	2.6	4.5	1.1	3.5	3.7	4.6	3.6	4.9	3.0	5.0	4.0	3.4	3.8	4.0	6.6	4.2	6.2	8.4	8.7	6.2	4.44	8.68	
30-Jan	4.8	3.5	3.3	4.7	7.3	10.2	23.3	16.0	10.1	9.3	10.5	14.6	12.6	3.5	1.2	0.7	2.1	2.4	2.7	5.3	5.6	5.6	3.6	2.5	6.89	23.27	
31-Jan	2.2	1.8	1.9	3.0	3.4	3.0	3.1	5.0	3.6	3.2	3.7	4.8	3.3	4.1	2.8	3.4	6.0	3.6	1.9	0.4	1.8	1.1	1.6	5.8	3.09	6.01	
																								Diurnal Average			
																								Diurnal Maximum			
2.67 3.44 2.79 2.66 2.72 2.70 3.10 2.83 2.33 2.84 2.53 2.68 2.14 1.91 1.92 2.29 2.07 2.78 2.96 3.36 3.87 3.48 3.24 3.08																											
7.90 12.42 6.69 11.70 17.39 11.22 23.27 16.02 10.05 9.32 10.51 14.57 12.61 6.68 8.33 10.28 8.24 9.82 11.80 11.49 10.59 11.73 10.26 8.37																											
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 ul/m <sup>3</sup> 24-hr 30 ul/m <sup>3</sup>																											

# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 910, Genesee

Calibration Date: January 28, 2015

Parameter: NO/NO<sub>2</sub>/NO<sub>x</sub>

Instrument: Teco 42C

Serial Number: 42c-70978-367

Previous Calibration Date: December 9, 2014

Calibration: Routine

Calibration Equipment: Sabio 2010 SN 08600312

Barometric Pressure: 27.60" Hg

Calibration Method: Standard Gas Dilution/GPT

Cylinder ID: FF14354

Temperature: 19.6° C

Cylinder Concentration: 12.6 ppm NO

In Service: January 14, 2015

Technician: L. Burns

Instrument Settings	NO bkg ppb	NO <sub>x</sub> bkg ppb	Pre-reactor bkg ppb	NO Coefficient	NO <sub>x</sub> Coefficient	NO <sub>2</sub> Coefficient	Monitoring Range
Previous	4.5	5.2	NA	0.816	1.011	1.008	300 ppb
Current	4.4	4.5	NA	0.791	1.009	1.013	300 ppb

NO	Final Zero: -0.3 ppb	Final Span: 0.0 ppb	As Found Correction Factor: 0.975
NO <sub>2</sub>	Final Zero: 0.0 ppb	Final Span: 82.3 ppb	As Found Correction Factor: 0.000
NO <sub>x</sub>	Final Zero: 0.0 ppb	Final Span: 82.2 ppb	As Found Correction Factor: 0.963

Results of Linear Regression			Slope	Intercept	R <sup>2</sup>
NO	R <sub>c</sub> vs C <sub>c</sub>	Previous	100.741300	-24.741300	0.999945
		Current	100.491100	2.287248	0.999946
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000030	0.999945
NO <sub>2</sub>	R <sub>c</sub> vs C <sub>c</sub>	Previous	99.813710	-35.599570	0.999945
		Current	99.756390	9.683723	0.999973
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000000	0.999973
NO <sub>x</sub>	R <sub>c</sub> vs C <sub>c</sub>	Previous	99.988170	18.157770	0.999945
		Current	100.400700	38.273650	0.999970
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000009	0.999969

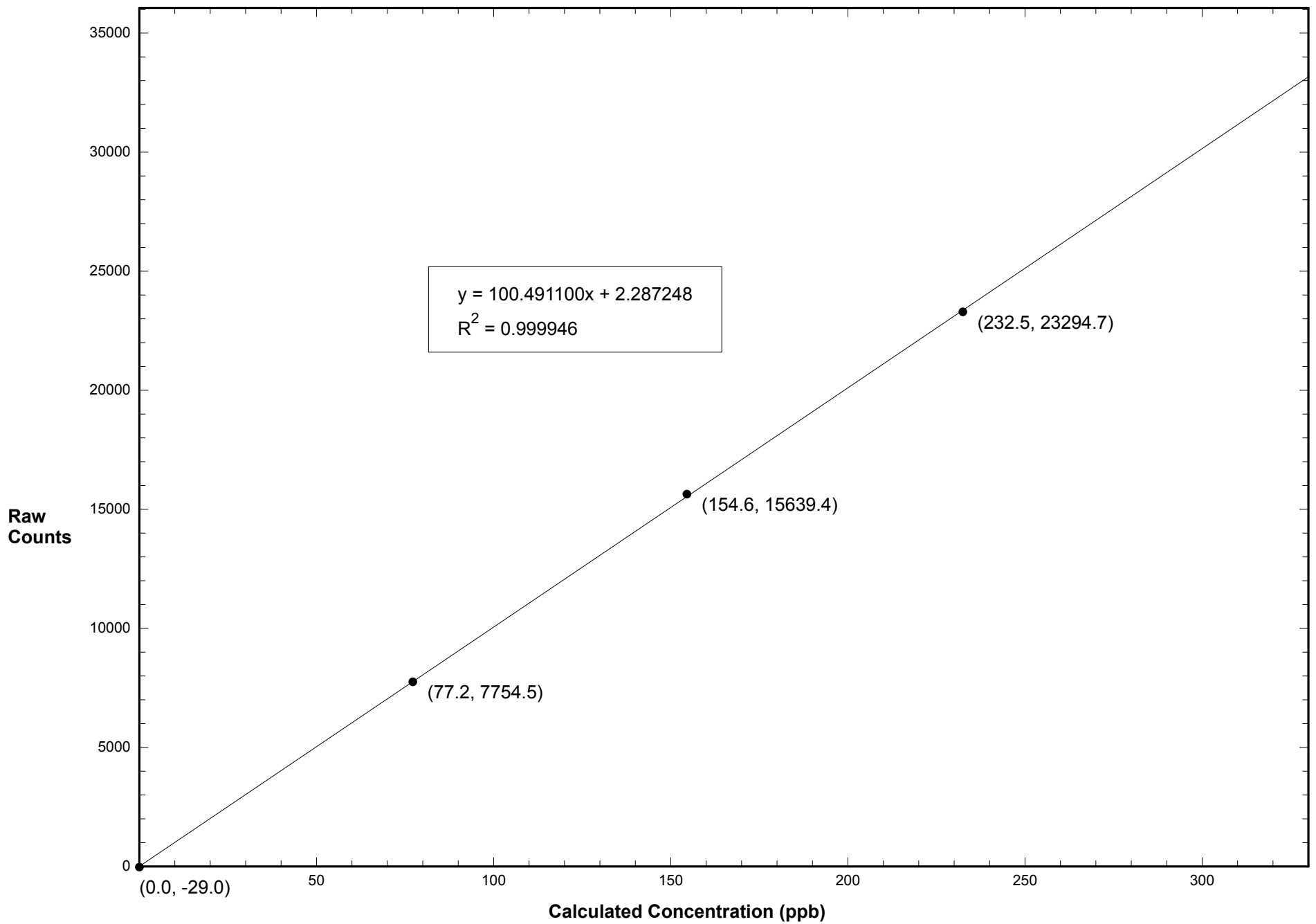
Comments:

**Calibration Data Summary (Page 2)**

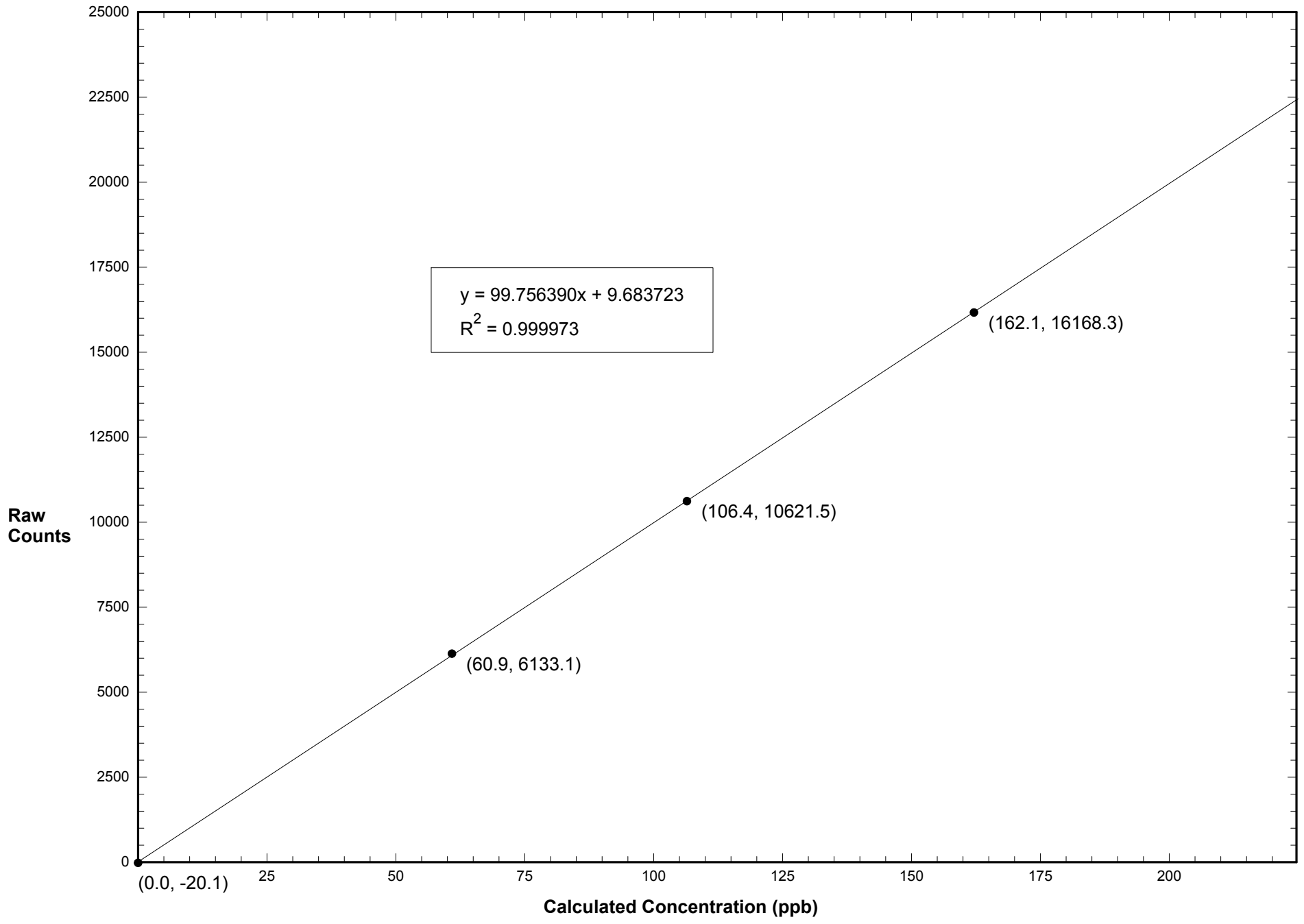
January 28, 2015 - Station 910

NO Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>		
0.07477	3.978	232.5	23294.7	231.8	1.003		
0.04943	3.980	154.6	15639.4	155.6	0.993		
0.02456	3.984	77.2	7754.5	77.1	1.001		
0.00000	4.000	0.0	-29.0	-0.3			
NO Calibration					Average Correction Factor:	0.999	
0.07477	3.978	232.5	23324.6	231.9	1.002		
0.04943	3.980	154.6	15629.6	155.3	0.995		
0.02456	3.984	77.2	7802.3	77.3	0.998		
0.00000	4.000	0.0	5.1	-0.3			
NO <sub>x</sub> Calibration					Average Correction Factor:	0.999	
Reference Concentration NO (ppb)	Raw Count Output NO	Calculated Concentration NO (ppb)	Calculated Concentration NO <sub>2</sub> , C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>	Converter Efficiency C <sub>i</sub> /C <sub>c</sub>
232.3	7051.6	70.1	162.1	16168.3	162.0	1.001	0.999
232.3	12646.8	125.8	106.4	10621.5	106.4	1.001	0.999
232.3	17227.5	171.4	60.9	6133.1	61.4	0.992	1.009
			0.0	-20.1	-0.3		
					Average Correction Factor:	0.998	
NO <sub>2</sub> Gas Phase Titration					Average Converter Efficiency:	1.002	
Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor				
NO	1.002	1.003	0.1				
NO <sub>2</sub>	0.998	1.001	0.3				
NO <sub>x</sub>	1.002	1.002	0.0				

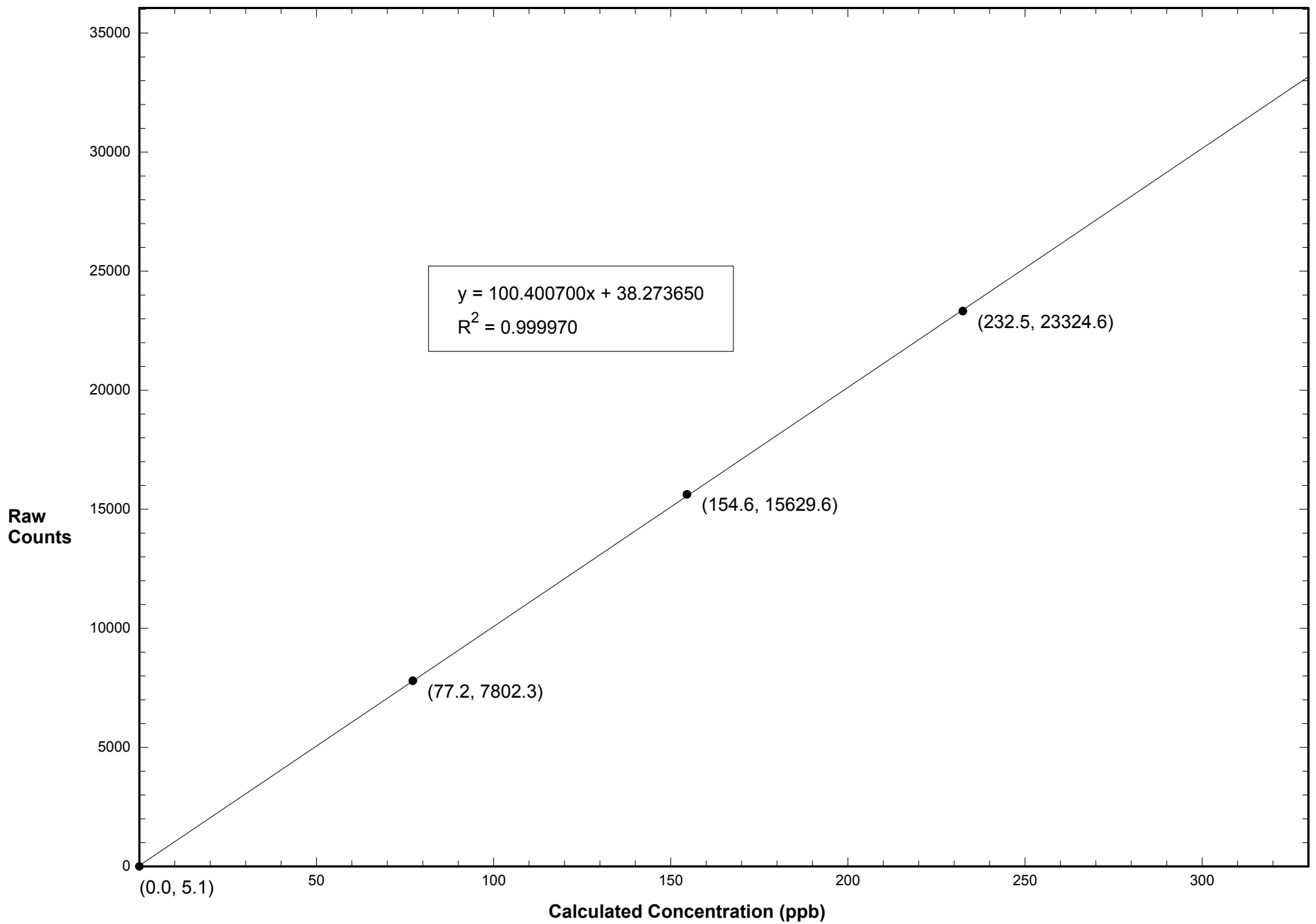
# Station 910 NO January 28, 2015: Linear Regression



# Station 910 NO2 January 28, 2015: Linear Regression

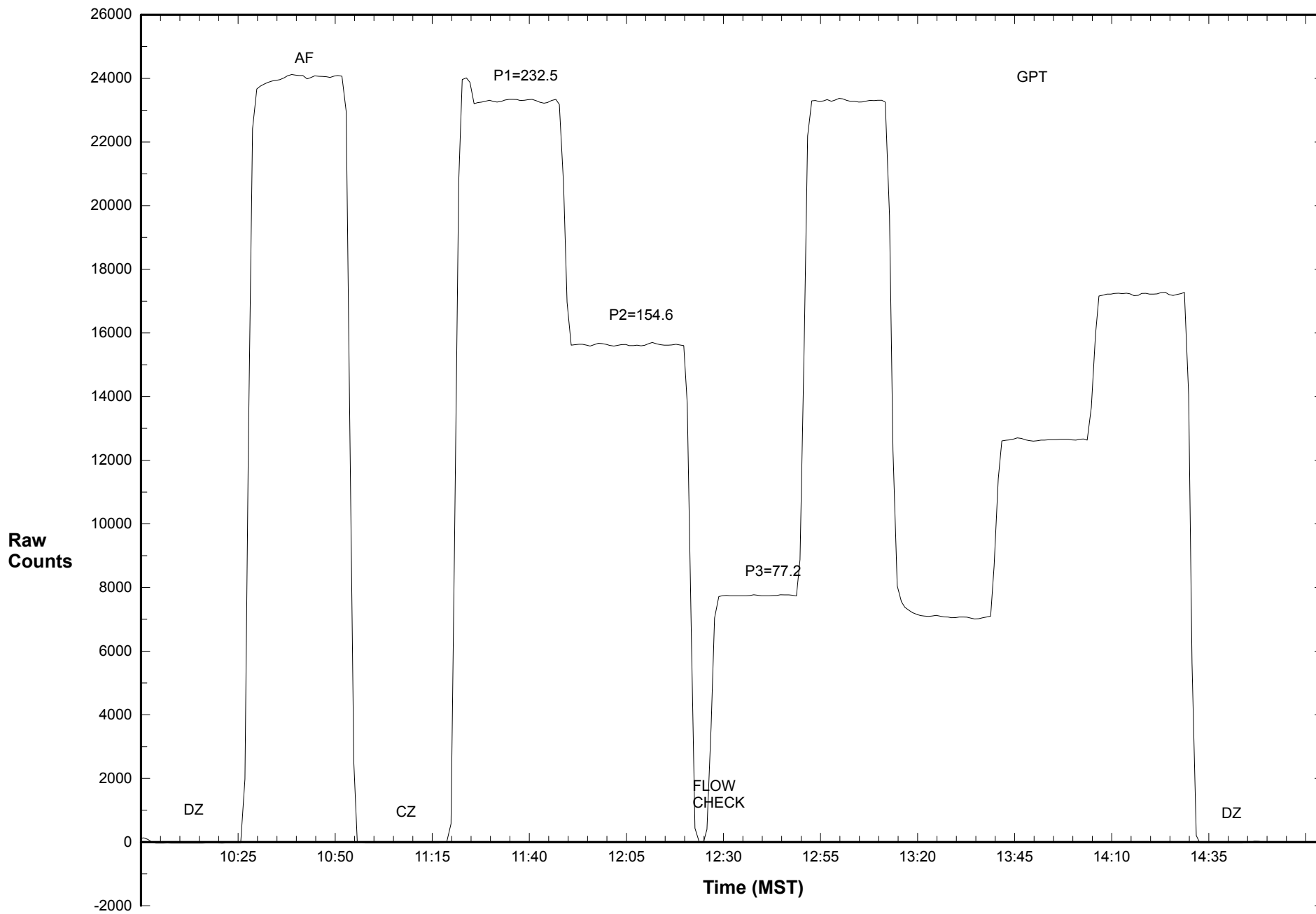


# Station 910 NOX January 28, 2015: Linear Regression

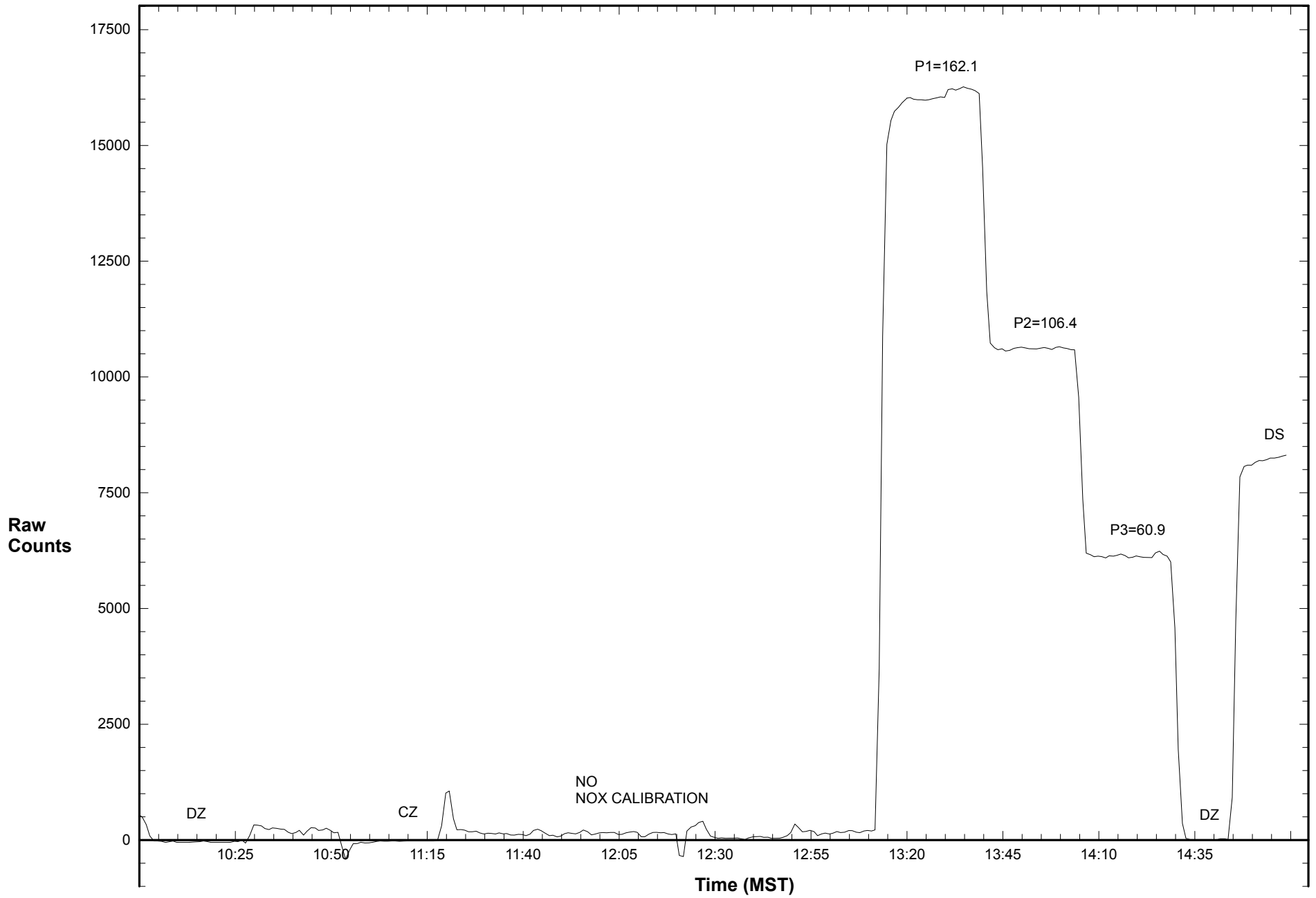




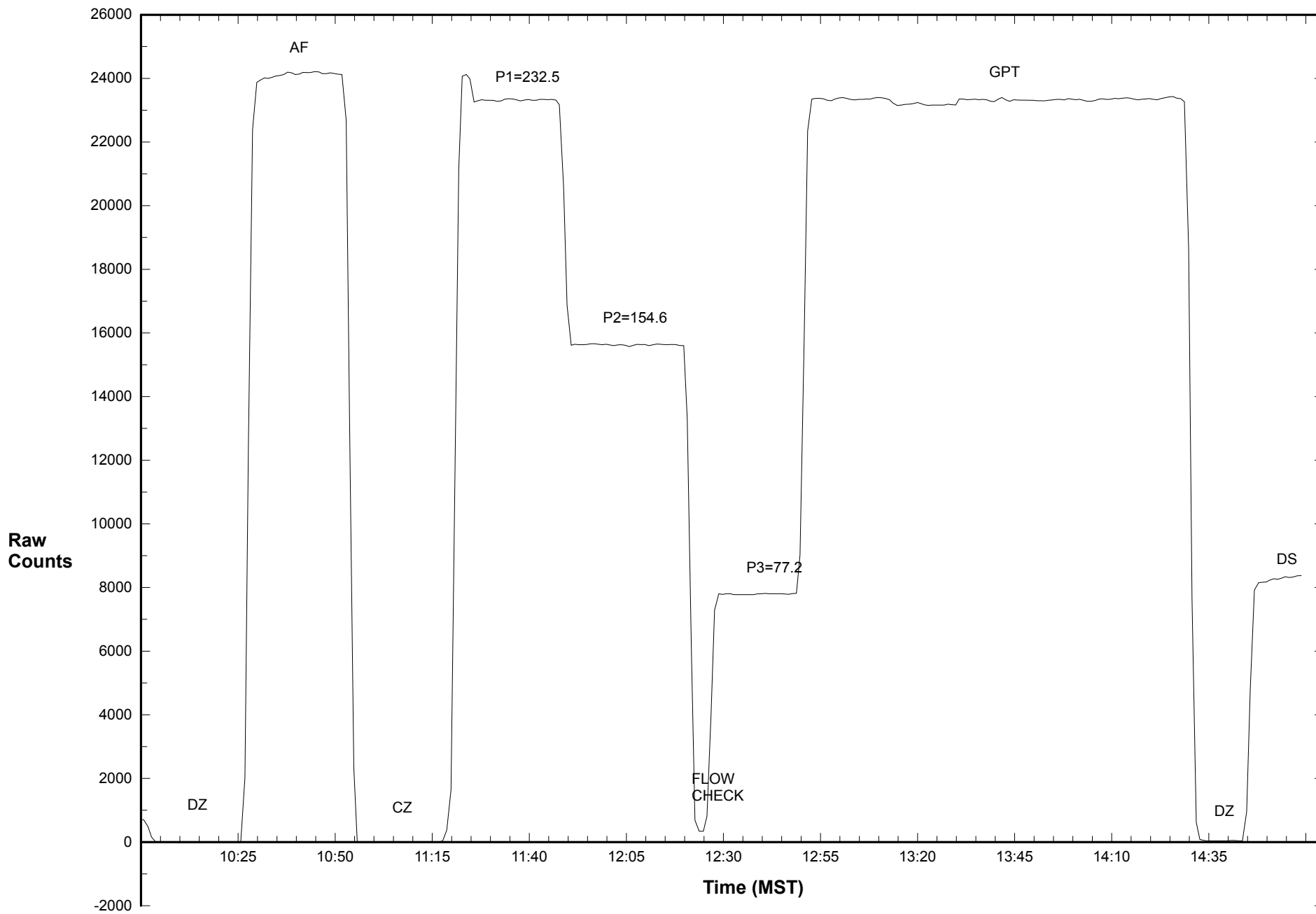
# Station 910 NO January 28, 2015: Calibration Graph



# Station 910 NO2 January 28, 2015: Calibration Graph



# Station 910 NOX January 28, 2015: Calibration Graph



# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 910, Genesee  
 Calibration Date: January 28, 2015  
 Parameter: O<sub>3</sub>

Instrument: Teco 49i

Serial Number: 0708721220

Previous Calibration Date: December 9, 2014

Calibration: Routine

Calibration Equipment: TECO 175 sn 175-51760-291 Barometric Pressure: 27.60" Hg

Calibration Method: Certified Ozone Generator

Temperature: 19.6° C

Technician: L. Burns

Instrument Settings	Background	Coefficient	Monitoring Range
Previous	-0.7	0.955	500 ppb
Current	0.0	1.040	500 ppb

Final Zero: 3.3 ppb

Final Span: 242.6 ppb

As Found Correction Factor: 1.065

Calibration System Flow Rate (LPM)	Calculated Concentration C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>
3.000	425.0	25414.2	428.2	0.993
3.000	216.0	12374.0	210.4	1.027
3.000	111.0	6352.7	109.8	1.011
3.000	0.0	-4.6	3.6	

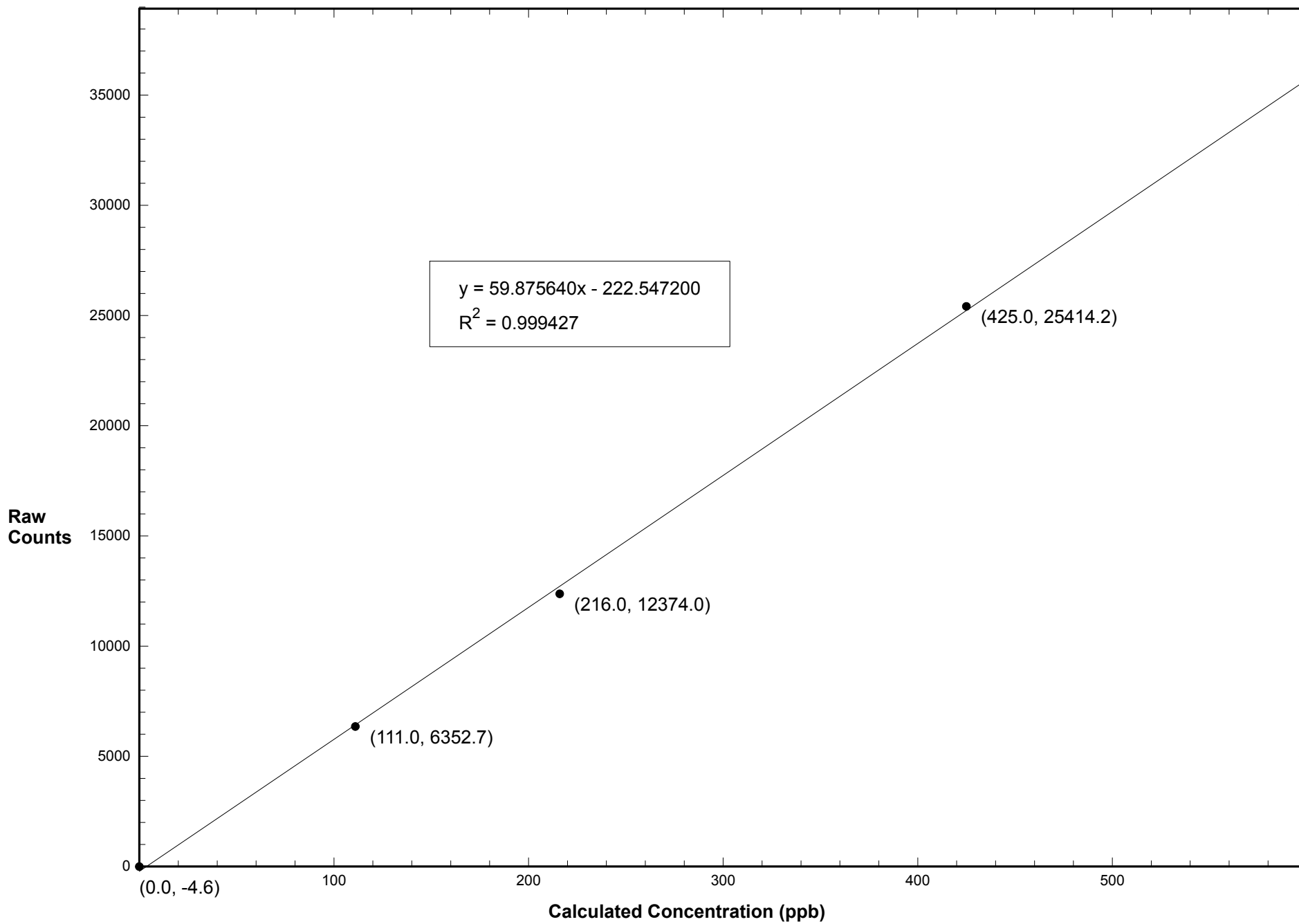
### Results of Linear Regression

R <sub>c</sub> vs C <sub>c</sub>	Slope	Intercept	R <sup>2</sup>
Previous	59.992800	27.283900	0.999991
Current	59.875640	-222.547200	0.999427
C <sub>i</sub> vs C <sub>c</sub>			
Current	1.000000	0.000067	0.999427

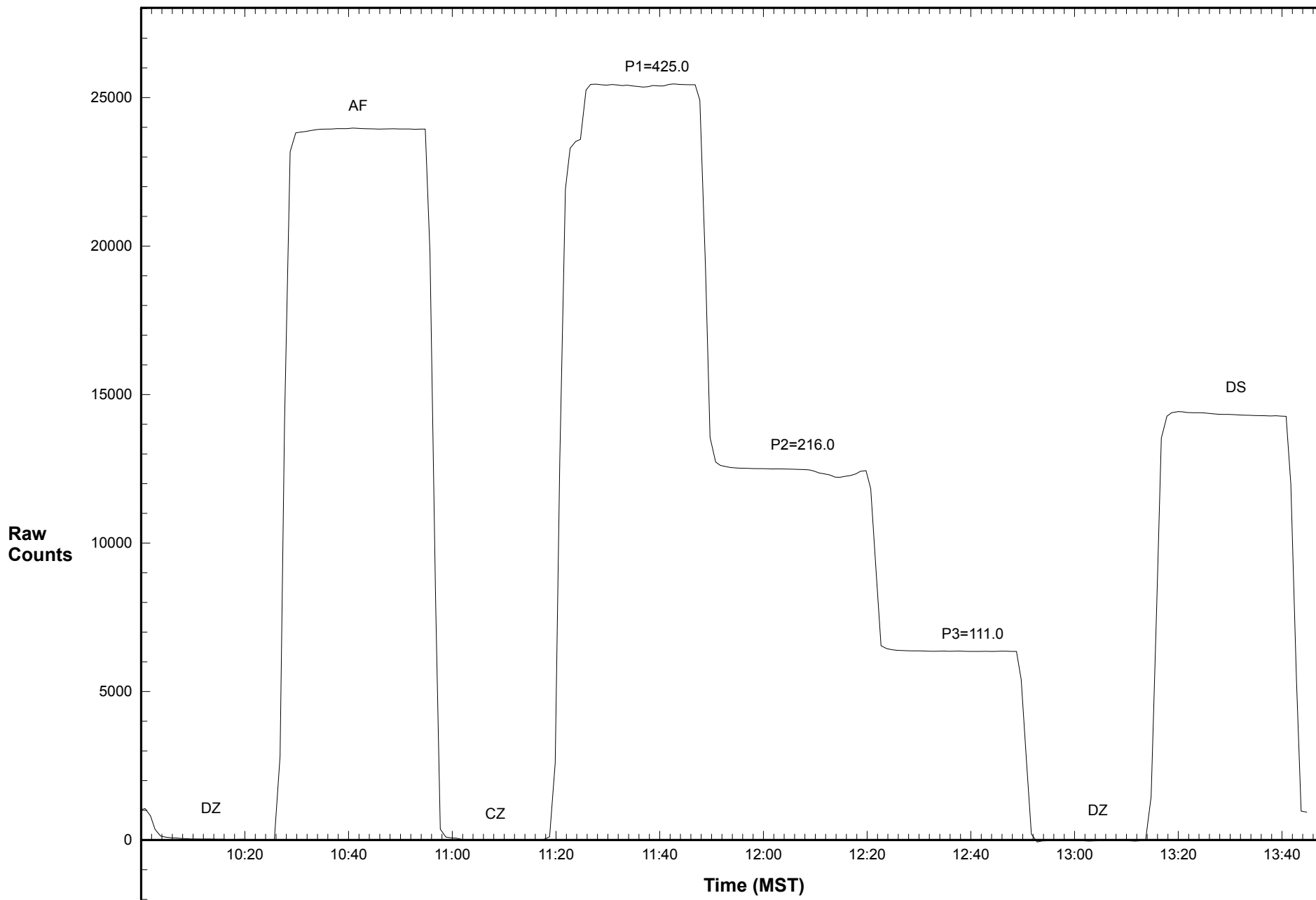
Average Correction Factor: 1.010  
 Previous Correction Factor: 1.001  
 Current Correction Factor: 0.993  
 Percent Change of Correction Factor: -0.8

Comments:

# Station 910 O3 January 28, 2015: Linear Regression



# Station 910 O3 January 28, 2015: Calibration Graph



# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 910, Genesee  
 Calibration Date: January 28, 2015  
 Parameter: SO<sub>2</sub>

Instrument: Teco 43i	Serial Number: 0708721218	Previous Calibration Date: December 9, 2014
Calibration: Routine	Calibration Equipment: Sabio 2010 SN 08600312	Barometric Pressure: 27.60" Hg
Calibration Method: Standard Gas Dilution	Cylinder ID: FF14354	Temperature: 19.6° C
Cylinder Concentration: 6.34 ppm SO <sub>2</sub>	In Service: January 14, 2015	Technician: L. Burns

Instrument Settings	SO <sub>2</sub> bkg ppb	SO <sub>2</sub> Coefficient	Monitoring Range
Previous	13.6	0.871	200 ppb
Current	13.6	0.877	200 ppb

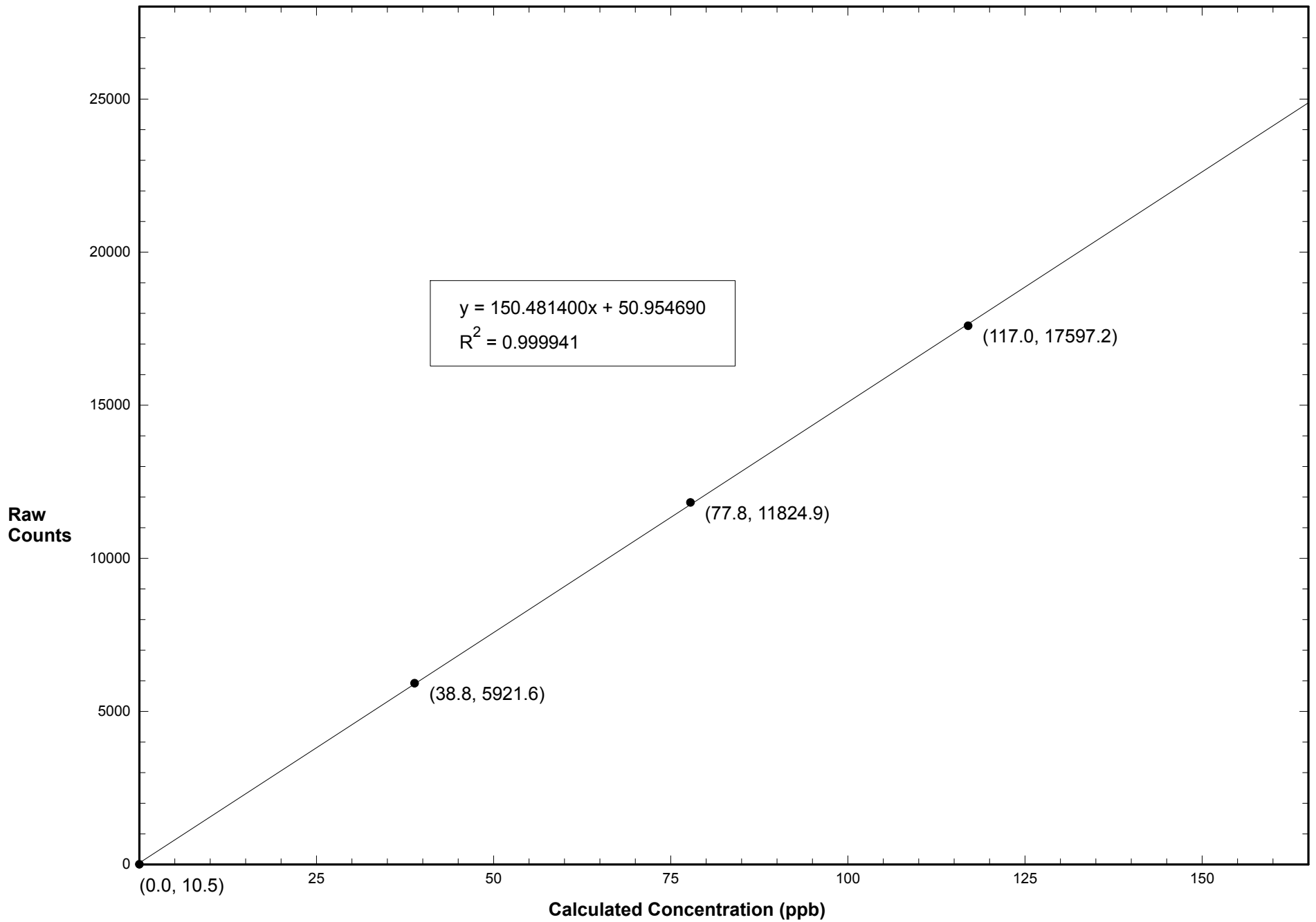
Final Zero: -0.5 ppb                      Final Span: 44.6 ppb                      As Found Correction Factor: 1.014

SO <sub>2</sub> Flow Rate (LPM)	Dilution Flow Rate (LPM)	Calculated Concentration C <sub>c</sub> (ppb)	Raw Count Output R <sub>c</sub>	Indicated Concentration C <sub>i</sub> (ppb)	Correction Factor C <sub>c</sub> /C <sub>i</sub>
0.0748	3.978	117.0	17597.2	116.6	1.003
0.0494	3.980	77.8	11824.9	78.2	0.994
0.0246	3.984	38.8	5921.6	39.0	0.996
0.0000	4.000	0.0	10.5	-0.3	

Results of Linear Regression				Average Correction Factor:	0.998
R <sub>c</sub> vs C <sub>c</sub>	Slope	Intercept	R <sup>2</sup>	Previous Correction Factor:	1.003
Previous	150.747800	36.806840	0.999951	Current Correction Factor:	1.003
Current	150.481400	50.954690	0.999941	Percent Change of Correction Factor:	0.0
C <sub>i</sub> vs C <sub>c</sub>					
Current	1.000000	-0.000004	0.999941		

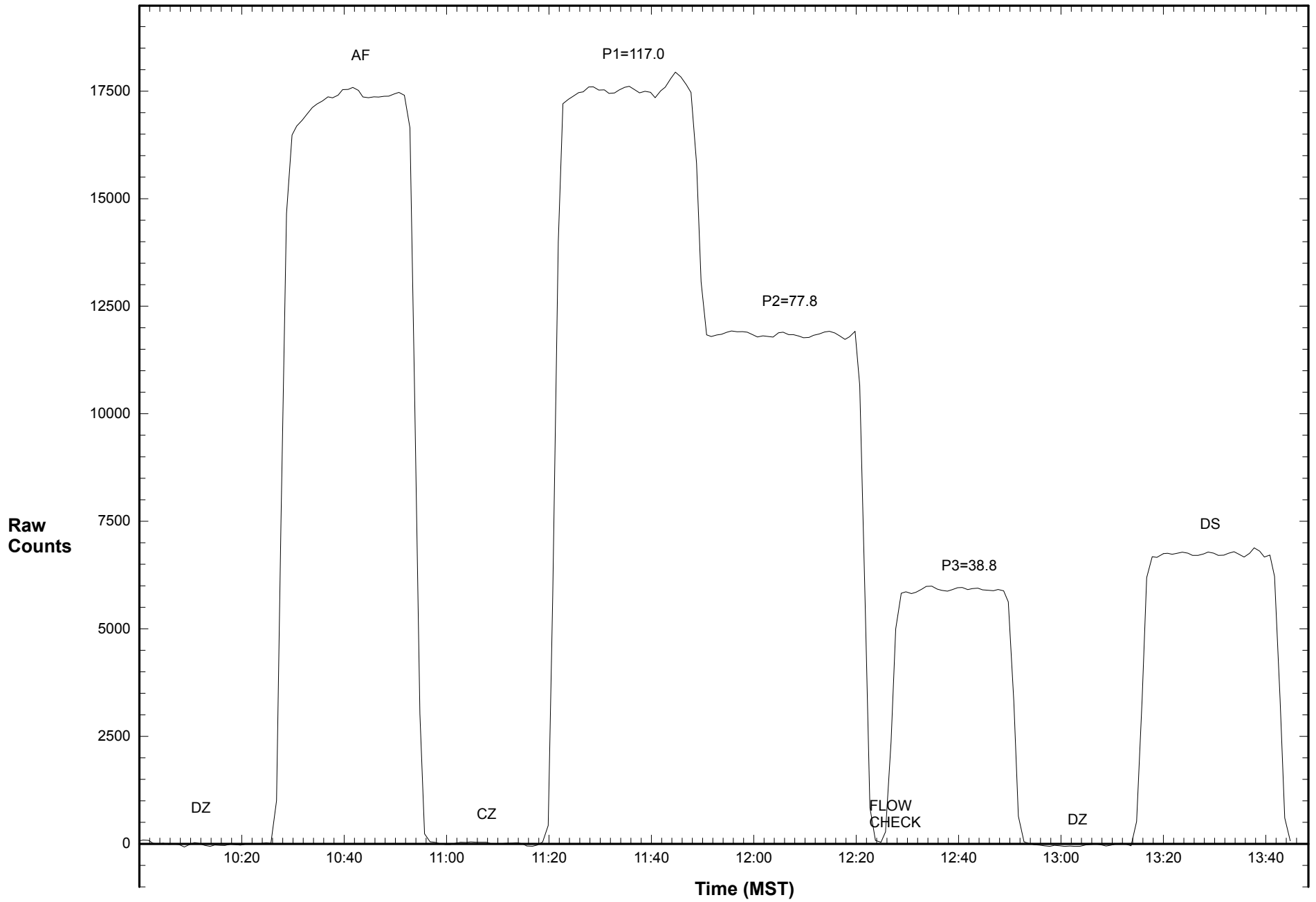
Comments:

# Station 910 SO2 January 28, 2015: Linear Regression





# Station 910 SO2 January 28, 2015: Calibration Graph



**WEST CENTRAL AIRSHED SOCIETY**

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

**AMS 910  
GENESEE  
JANUARY 2015**

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

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



**WCAS - Genesee**  
**Summary of Hourly Averages**

**External Temperature (ET) - C**  
**January 2015**

Maximum Value: 10.51 C on Jan 25 15:00      Maximum Daily Average: 6.30 C on Jan 22 Minimum Value: -30.9 C on Jan 4 08:00      Minimum Daily Average: -26.37 C on Jan 4 Maximum Diurnal Average: -4.63 C at hour 16      Minimum Diurnal Average: -7.88 C at hour 9 Monthly Average: -6.674 C      Percentiles: P <sub>1</sub> = -28.2 P <sub>10</sub> = -20.7 Q <sub>1</sub> = -15.8 Median = -4.0 Q <sub>3</sub> = 1.5 P <sub>90</sub> = 4.3 P <sub>99</sub> = 8.9																								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																								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-Jan	3.4	3.5	3.6	3.5	3.5	3.4	3.4	3.1	3.0	2.8	2.9	2.9	3.0	3.2	3.3	3.0	2.5	1.7	0.6	-2.0	-2.8	-6.6	-7.9	-8.7	1.18	3.60																							
2-Jan	-9.5	-10.0	-10.4	-10.7	-10.9	-11.3	-12.1	-12.8	-13.4	-15.0	-16.0	-16.4	-16.6	-16.7	-16.7	-18.7	-19.1	-20.1	-21.9	-22.3	-21.4	-21.5	-20.9	-20.5	-16.04	-9.50																							
3-Jan	-19.4	-20.1	-19.5	-19.3	-18.8	-18.8	-19.0	-19.2	-19.6	-21.0	-23.8	-24.1	-22.3	-22.4	-22.2	-22.2	-22.4	-22.5	-24.0	-23.8	-23.9	-24.5	-25.4	-26.2	-21.84	-18.76																							
4-Jan	-26.8	-26.9	-26.7	-26.7	-26.6	-26.9	-28.4	-30.9	-30.7	-30.7	-29.9	-27.4	-25.2	-23.9	-23.5	-23.1	-24.2	-24.4	-24.8	-25.1	-26.6	-25.9	-24.1	-23.5	-26.37	-23.07																							
5-Jan	-22.9	-22.3	-22.1	-21.9	-22.2	-22.6	-23.9	-23.5	-23.3	-24.3	-21.2	-20.3	-19.8	-19.7	-19.8	-18.6	-17.9	-18.3	-18.2	-17.3	-17.8	-17.4	-17.0	-20.45	-17.00																								
6-Jan	-15.9	-15.5	-15.8	-16.0	-16.5	-16.9	-16.9	-16.9	-17.0	-16.8	-16.6	-16.8	-16.7	-16.4	-16.1	-16.0	-16.7	-16.8	-16.8	-17.3	-18.6	-19.8	-20.0	-20.7	-17.06	-15.48																							
7-Jan	-20.3	-18.0	-16.9	-15.6	-14.5	-13.5	-12.4	-11.4	-10.1	-9.8	-9.8	-9.3	-8.7	-8.6	-8.2	-8.1	-7.6	-5.9	-3.8	-5.2	-8.0	-9.7	-11.1	-11.6	-10.76	-3.84																							
8-Jan	-11.9	-12.1	-12.5	-13.1	-13.7	-14.4	-15.0	-15.5	-16.1	-16.7	-16.5	-16.2	-15.7	-15.4	-15.5	-15.6	-16.1	-18.3	-19.1	-20.0	-19.1	-21.6	-21.5	-21.7	-16.38	-11.89																							
9-Jan	-24.5	-22.7	-26.0	-23.6	-25.3	-29.8	-28.5	-28.2	-27.9	-27.2	-24.3	-23.9	-22.9	-21.2	-18.5	-17.4	-16.5	-16.8	-15.7	-13.3	-12.5	-12.8	-12.5	-13.0	-21.03	-12.47																							
10-Jan	-13.5	-14.1	-14.4	-14.7	-14.9	-15.0	-15.2	-15.2	-15.1	-15.3	-15.1	-14.5	-14.2	-13.7	-13.6	-13.8	-13.7	-13.9	-14.0	-16.1	-16.0	-16.9	-16.3	-18.0	-14.88	-13.49																							
11-Jan	-18.7	-19.4	-19.5	-19.3	-19.3	-20.4	-19.1	-19.0	-20.9	-20.7	-19.9	-20.3	-18.2	-15.7	-15.5	-14.8	-15.4	-16.8	-17.3	-17.9	-18.2	-18.8	-18.5	-18.9	-18.43	-14.84																							
12-Jan	-18.8	-19.5	-20.2	-21.1	-18.2	-15.8	-16.7	-16.9	-16.3	-16.8	-14.1	-10.8	-8.7	-7.8	-8.3	-7.7	-7.7	-8.1	-7.3	-7.9	-8.8	-7.5	-7.7	-7.9	-12.52	-7.33																							
13-Jan	-8.5	-7.3	-6.4	-6.9	-8.7	-8.5	-6.9	-5.3	-4.7	-3.6	-1.3	-0.6	0.5	1.1	1.7	2.2	2.1	2.6	1.4	2.6	3.5	3.9	1.7	0.2	-1.88	3.93																							
14-Jan	-0.4	-0.8	1.5	4.1	-0.9	-1.6	-0.9	-1.0	0.0	0.0	3.1	3.9	2.2	2.4	2.8	4.2	5.6	5.2	4.5	2.3	1.1	1.8	-0.5	-0.3	1.59	5.60																							
15-Jan	-2.1	-4.7	-4.7	-4.0	-4.0	-4.9	-5.6	-5.4	-4.7	-5.6	-5.1	-6.0	-3.7	-3.2	-2.5	-3.2	-4.8	-5.5	-5.3	-6.1	-6.9	-6.9	-6.9	-6.9	-4.94	-2.10																							
16-Jan	-7.2	-7.6	-7.7	-7.5	-6.9	-6.1	-4.6	-2.5	-2.5	2.3	1.1	1.9	3.2	3.8	4.7	5.2	3.9	3.3	3.2	2.6	2.0	2.2	1.2	-0.4	-0.52	5.24																							
17-Jan	0.3	-0.1	-0.2	0.7	1.5	1.2	0.7	-1.7	-3.1	-3.2	-3.2	-2.3	-1.3	-0.6	0.5	1.1	1.5	0.1	-1.2	-2.3	-3.1	-3.1	-3.4	-4.2	-1.06	1.51																							
18-Jan	-3.8	-4.3	-4.0	-4.4	-4.0	-3.6	-3.3	-5.3	-5.5	-4.9	-5.8	-5.4	-4.3	-2.2	-2.6	-2.6	-2.6	-2.9	-4.2	-2.1	-0.8	0.6	1.0	1.0	-3.16	1.00																							
19-Jan	0.4	0.3	0.5	0.1	-0.2	0.2	-0.1	-1.0	-0.8	-1.6	-0.9	0.6	3.3	4.0	3.7	5.8	5.1	3.6	2.6	2.4	2.2	2.2	2.2	1.8	1.52	5.82																							
20-Jan	0.9	0.5	0.7	1.1	1.4	0.2	0.3	-0.4	-1.8	-3.2	-1.5	-0.2	0.9	1.5	1.7	0.9	0.2	-0.9	0.0	-2.3	-4.4	-5.3	-6.4	-6.4	-0.95	1.68																							
21-Jan	-6.9	-7.1	-6.9	-7.3	-6.5	-6.4	-8.0	-7.1	-4.9	-4.2	-3.2	-0.2	0.6	0.9	1.1	2.1	3.0	4.0	4.1	3.6	4.0	4.2	4.4	4.4	-1.35	4.39																							
22-Jan	3.9	4.9	4.6	4.3	5.3	6.1	5.2	4.3	5.6	7.4	7.7	6.7	7.7	9.0	9.9	9.9	9.0	8.7	8.2	6.9	6.8	3.7	2.9	2.5	6.30	9.89																							
23-Jan	3.1	3.6	2.8	1.3	2.2	2.7	2.7	2.6	1.8	1.5	3.2	3.9	4.6	5.5	5.7	6.8	7.2	7.6	7.8	6.8	5.6	6.2	4.7	3.6	4.31	7.79																							
24-Jan	4.6	3.1	5.6	6.3	6.6	6.2	5.9	5.7	5.5	5.3	5.7	6.6	6.9	7.0	6.8	5.7	5.0	3.2	2.8	2.6	2.7	2.7	2.5	3.5	4.94	7.04																							
25-Jan	3.7	3.5	2.8	2.7	2.3	2.1	2.5	3.3	2.3	3.7	4.7	6.7	8.6	9.6	10.5	9.6	8.3	8.1	7.8	6.0	9.0	7.7	6.5	4.4	5.68	10.51																							
26-Jan	5.1	5.0	4.4	4.5	3.2	2.6	1.5	1.6	0.9	0.3	1.9	3.6	3.8	4.2	4.0	3.2	2.8	2.0	2.6	2.5	1.8	1.4	0.9	2.83	5.06																								
27-Jan	1.0	1.2	0.9	0.6	0.7	0.6	0.5	0.3	-0.6	-0.7	0.0	0.1	0.3	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.7	0.7	0.7	0.5	0.41	1.23																							
28-Jan	0.4	0.2	0.3	0.3	-0.9	-0.8	-0.3	-0.1	-0.8	-0.7	-0.1	0.5	0.8	0.6	-0.9	-0.8	-2.7	-3.4	-3.5	-3.9	-4.3	-4.0	-3.8	-4.0	-1.33	0.83																							
29-Jan	-4.3	-4.7	-4.7	-4.6	-4.7	-5.1	-5.6	-5.4	-5.3	-5.3	-4.7	-3.3	-2.8	-2.1	-1.3	-0.7	-0.5	-1.6	-2.8	-2.9	-2.9	-1.9	-2.3	-2.7	-3.44	-0.54																							
30-Jan	-3.3	-2.2	-1.9	-2.9	-4.0	-2.5	-3.1	-3.7	-2.1	-1.5	-2.4	-3.5	-4.0	-5.1	-6.2	-7.6	-8.8	-9.4	-10.0	-10.9	-11.5	-12.2	-12.8	-13.1	-6.02	-1.47																							
31-Jan	-13.7	-14.1	-14.4	-15.1	-15.8	-16.1	-16.2	-16.3	-16.3	-16.2	-15.8	-15.1	-14.7	-14.0	-13.7	-13.6	-14.2	-16.2	-15.0	-14.5	-15.3	-14.6	-17.0	-18.0	-15.25	-13.61																							
																								-7.27	-7.34	-7.32	-7.27	-7.45	-7.60	-7.70	-7.86	-7.88	-7.79	-7.13	-6.42	-5.60	-5.03	-4.78	-4.63	-4.97	-5.50	-5.79	-6.30	-6.52	-6.90	-7.33	-7.77	Diurnal Average	
																								5.06	5.05	5.63	6.26	6.64	6.23	5.92	5.67	5.64	7.41	7.71	6.73	8.56	9.59	10.51	9.89	8.98	8.69	8.18	6.90	8.98	7.72	6.49	4.39	Diurnal Maximum	



**WCAS - Genesee**  
**Summary of Hourly Averages**

**External Temperature 10 m (ET\_10) - C**  
**January 2015**

Maximum Value: 11.04 C on Jan 25 15:00      Maximum Daily Average: 7.60 C on Jan 22 Minimum Value: -30.0 C on Jan 4 09:00      Minimum Daily Average: -26.04 C on Jan 4 Maximum Diurnal Average: -4.47 C at hour 16      Minimum Diurnal Average: -7.22 C at hour 9 Monthly Average: -6.168 C      Percentiles: P <sub>1</sub> = -26.9 P <sub>10</sub> = -19.8 Q <sub>1</sub> = -15.9 Median = -3.4 Q <sub>3</sub> = 2.3 P <sub>90</sub> = 5.3 P <sub>99</sub> = 10.0																								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 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-Jan	3.2	3.4	3.5	3.4	3.4	3.2	3.2	3.0	2.8	2.5	2.6	2.6	2.7	2.9	3.1	2.8	2.3	1.3	0.1	-2.6	-3.4	-7.2	-8.5	-9.3	0.88	3.55
2-Jan	-10.1	-10.6	-11.0	-11.3	-11.5	-12.0	-12.7	-13.3	-13.9	-15.6	-16.6	-17.0	-17.3	-17.3	-17.3	-18.3	-18.8	-19.2	-19.8	-20.2	-20.0	-19.8	-19.9	-19.7	-15.98	-10.10
3-Jan	-19.7	-20.1	-19.8	-19.8	-19.3	-19.3	-19.5	-19.7	-20.0	-21.1	-23.5	-23.3	-22.4	-22.5	-22.5	-22.0	-22.1	-22.3	-23.0	-23.4	-23.7	-24.0	-24.5	-25.1	-21.78	-19.27
4-Jan	-25.7	-26.2	-26.5	-26.7	-26.6	-27.0	-27.8	-29.7	-30.0	-29.4	-29.1	-27.8	-26.0	-24.6	-23.5	-22.6	-22.6	-22.8	-23.5	-24.5	-26.9	-26.5	-24.8	-24.3	-26.04	-22.56
5-Jan	-23.6	-23.0	-22.9	-22.6	-22.8	-22.9	-24.2	-23.7	-23.0	-22.7	-21.4	-20.7	-20.2	-19.6	-18.6	-17.8	-17.9	-17.7	-17.8	-17.3	-17.5	-17.4	-17.2	-20.52	-17.21	
6-Jan	-16.3	-16.0	-16.3	-16.6	-17.1	-17.5	-17.6	-17.5	-17.6	-17.5	-17.4	-17.5	-17.2	-16.9	-16.7	-17.1	-17.4	-17.5	-17.6	-17.7	-18.0	-18.8	-19.5	-17.37	-15.98	
7-Jan	-19.4	-17.9	-17.0	-15.9	-14.8	-13.9	-12.9	-12.0	-10.6	-10.3	-10.4	-10.1	-9.8	-9.3	-8.9	-8.7	-8.1	-6.3	-4.2	-5.6	-8.5	-10.2	-11.6	-12.0	-11.20	-4.21
8-Jan	-12.4	-12.6	-12.9	-13.4	-13.9	-14.4	-14.9	-15.5	-16.1	-16.6	-16.7	-16.4	-15.9	-15.6	-15.4	-15.1	-15.3	-16.5	-17.2	-18.3	-17.5	-19.7	-19.9	-20.0	-15.92	-12.38
9-Jan	-21.5	-20.9	-21.6	-22.5	-23.4	-24.6	-25.4	-24.4	-26.0	-25.5	-23.7	-23.5	-23.2	-22.0	-19.4	-18.1	-17.1	-17.6	-16.1	-13.8	-12.8	-13.3	-13.0	-13.4	-20.11	-12.79
10-Jan	-13.9	-14.7	-15.0	-15.4	-15.6	-15.7	-15.9	-16.0	-16.0	-16.1	-16.1	-15.5	-15.1	-14.5	-14.3	-14.4	-14.4	-14.5	-14.5	-15.0	-15.3	-15.6	-15.7	-16.7	-15.24	-13.93
11-Jan	-17.3	-18.0	-17.2	-16.9	-16.8	-18.0	-17.2	-17.6	-19.5	-18.4	-18.4	-19.3	-18.0	-15.4	-15.0	-14.0	-14.6	-16.0	-17.0	-17.4	-17.8	-17.8	-17.8	-18.5	-17.24	-14.03
12-Jan	-18.5	-17.8	-18.3	-16.3	-14.9	-14.9	-15.9	-16.1	-15.9	-15.7	-13.8	-10.4	-8.9	-8.0	-6.6	-5.9	-5.0	-5.4	-5.1	-5.3	-6.3	-5.6	-5.6	-5.6	-10.91	-5.01
13-Jan	-5.7	-5.7	-4.3	-4.4	-5.8	-5.8	-5.4	-4.0	-3.2	-2.3	-1.3	-0.7	0.4	0.9	1.9	2.8	3.2	3.5	3.2	3.4	4.3	4.2	2.7	2.5	-0.66	4.29
14-Jan	1.8	1.2	3.4	4.6	1.7	0.2	1.2	1.3	2.0	2.0	3.6	4.0	3.2	3.5	4.0	5.0	5.8	5.8	5.6	3.5	2.6	3.5	1.3	1.8	3.03	5.82
15-Jan	0.8	-2.7	-2.2	-2.5	-1.6	-2.0	-3.5	-3.9	-4.2	-4.6	-5.2	-5.7	-4.1	-3.9	-3.4	-3.7	-5.0	-5.8	-5.9	-6.6	-7.3	-7.2	-7.1	-7.2	-4.35	0.83
16-Jan	-7.4	-7.6	-7.6	-7.7	-7.0	-5.2	-3.0	-1.2	-1.8	2.9	0.9	1.5	2.9	3.7	4.6	5.4	4.4	3.8	3.5	2.8	2.3	2.5	2.1	0.9	-0.18	5.44
17-Jan	0.9	0.7	0.6	1.4	2.0	1.8	1.5	0.4	-0.7	-1.2	-1.8	-1.2	-0.2	0.2	1.4	2.1	2.7	2.3	1.3	-0.1	-0.8	-0.9	-0.9	-1.4	0.42	2.72
18-Jan	-1.4	-1.5	-1.6	-2.1	-1.8	-1.9	-1.6	-2.6	-3.2	-4.0	-5.4	-5.7	-4.6	-2.4	-2.3	-2.0	-2.3	-2.2	-2.8	-1.4	-0.7	0.5	1.0	1.1	-2.12	1.13
19-Jan	1.3	1.3	1.4	1.1	0.9	0.8	0.3	0.1	0.0	0.0	0.6	1.3	3.5	4.2	4.4	6.1	5.6	4.5	3.7	2.9	2.6	2.3	2.2	1.9	2.21	6.05
20-Jan	1.2	0.6	0.6	0.9	1.3	0.2	0.2	-0.3	-0.9	-1.7	-0.9	0.0	0.8	1.4	2.0	1.9	1.9	1.5	1.1	0.3	-1.7	-3.5	-4.5	-4.6	-0.09	1.98
21-Jan	-4.6	-4.7	-5.2	-5.0	-4.5	-4.6	-5.5	-4.6	-3.4	-2.8	-1.6	0.2	0.6	0.6	0.9	2.5	3.8	5.0	5.4	5.2	5.4	5.3	5.3	5.5	-0.04	5.54
22-Jan	5.2	5.9	5.8	5.6	6.6	7.4	6.7	6.2	7.2	8.5	8.5	7.9	8.7	9.8	10.6	10.7	10.4	9.6	8.9	8.0	7.8	5.7	5.4	5.3	7.60	10.74
23-Jan	4.9	5.1	5.0	2.9	3.9	3.8	4.0	4.4	3.7	3.7	4.2	4.7	5.3	6.4	6.7	8.0	8.8	9.0	9.4	8.1	7.2	7.3	6.0	4.7	5.72	9.41
24-Jan	5.7	4.2	6.3	6.6	7.0	6.5	6.2	6.0	5.8	5.6	5.9	6.9	7.3	7.4	7.4	6.7	6.5	4.8	4.0	3.1	3.5	3.7	3.3	4.7	5.62	7.43
25-Jan	5.0	5.2	4.2	3.9	4.0	3.7	3.5	4.8	4.7	5.2	5.5	7.5	9.2	10.1	11.0	10.8	10.0	10.2	9.7	7.9	9.9	9.0	8.1	6.2	7.06	11.04
26-Jan	6.8	6.2	5.9	5.8	5.4	4.4	3.4	3.4	2.1	1.3	1.6	2.4	3.3	3.7	3.8	4.0	3.8	3.6	3.3	3.0	2.4	1.9	1.7	1.3	3.51	6.76
27-Jan	1.0	1.1	0.8	0.5	0.7	0.7	0.6	0.0	-0.7	-1.1	-0.6	-0.5	-0.4	-0.5	-0.4	-0.3	-0.2	-0.1	-0.1	-0.1	0.2	0.2	0.1	0.0	0.03	1.14
28-Jan	-0.1	-0.2	-0.2	-0.2	-0.6	-0.8	-0.5	-0.2	-0.4	-0.7	-0.4	0.2	0.3	-0.1	-1.6	-2.0	-3.3	-4.1	-4.4	-4.7	-5.0	-4.9	-4.7	-4.8	-1.80	0.30
29-Jan	-5.3	-5.7	-5.7	-5.5	-5.6	-6.1	-6.5	-6.2	-5.8	-6.1	-5.9	-5.0	-4.4	-3.5	-2.6	-2.2	-1.7	-1.2	-1.6	-1.6	-1.8	-0.2	-0.4	-0.6	-3.80	-0.24
30-Jan	-1.8	-0.9	-0.2	-0.7	-3.3	-1.7	-2.8	-3.2	-2.2	-1.7	-3.0	-4.3	-4.8	-5.8	-6.9	-8.3	-9.5	-10.0	-10.6	-11.5	-12.0	-12.8	-13.4	-13.7	-6.05	-0.24
31-Jan	-14.3	-14.7	-15.0	-15.7	-16.3	-16.6	-16.8	-16.9	-17.1	-17.2	-17.0	-16.6	-16.3	-15.5	-14.6	-14.4	-14.9	-15.4	-15.4	-15.5	-15.5	-15.6	-16.8	-17.3	-15.89	-14.25
																								Diurnal Average		
																								Diurnal Maximum		



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Delta Temperature (ET\_D) - C**  
**January 2015**

Maximum Value: 5.19 C on Jan 9 06:00      Maximum Daily Average: 1.60 C on Jan 12																			Hours in Service: 744 Hours of Data: 744 Hours of Missing Data: 0 Hours of Calibration: 0 Percent Operational Time: 100.0							
Minimum Value: -1.7 C on Jan 29 12:00      Minimum Daily Average: -0.63 C on Jan 31 Maximum Diurnal Average: 0.82 C at hour 24      Minimum Diurnal Average: -0.24 C at hour 14 Monthly Average: 0.503 C      Percentiles: P <sub>1</sub> = -1.3 P <sub>10</sub> = -0.7 Q <sub>1</sub> = -0.4 Median = 0.3 Q <sub>3</sub> = 1.3 P <sub>90</sub> = 2.0 P <sub>99</sub> = 2.9																										
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-Jan	-0.2	-0.1	0.0	-0.1	-0.1	-0.2	-0.2	-0.1	-0.1	-0.2	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.28	-0.03
2-Jan	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	0.4	0.3	0.9	2.1	2.1	1.3	1.7	1.0	0.8	0.07	2.07
3-Jan	-0.3	0.0	-0.3	-0.5	-0.5	-0.5	-0.5	-0.5	-0.4	-0.1	0.3	0.7	-0.1	-0.1	-0.3	0.1	0.3	0.2	0.9	0.4	0.2	0.4	0.8	1.1	0.06	1.12
4-Jan	1.2	0.7	0.2	0.0	-0.1	-0.1	0.6	1.1	0.7	1.3	0.7	-0.3	-0.8	-0.6	0.0	0.4	1.7	1.6	1.3	0.6	-0.2	-0.6	-0.7	-0.8	0.32	1.66
5-Jan	-0.7	-0.7	-0.7	-0.7	-0.5	-0.4	-0.2	-0.2	0.3	1.6	-0.2	-0.3	-0.4	-0.3	0.2	0.0	0.1	0.4	0.5	0.4	0.0	0.3	0.1	-0.2	-0.06	1.59
6-Jan	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.7	-0.8	-0.7	-0.8	-0.8	-0.7	-0.8	-0.4	-0.6	-0.7	-0.3	0.9	1.7	1.2	1.2	-0.30	1.68
7-Jan	0.9	0.1	-0.1	-0.3	-0.3	-0.4	-0.5	-0.6	-0.6	-0.5	-0.6	-0.8	-1.1	-0.7	-0.7	-0.6	-0.5	-0.4	-0.4	-0.4	-0.5	-0.4	-0.4	-0.4	-0.43	0.88
8-Jan	-0.5	-0.5	-0.4	-0.3	-0.2	0.0	0.0	0.0	0.0	0.1	-0.1	-0.2	-0.2	-0.1	0.2	0.5	0.8	1.8	1.8	1.7	1.6	1.8	1.6	1.6	0.46	1.82
9-Jan	3.0	1.8	4.4	1.0	1.8	5.2	3.1	3.7	1.9	1.7	0.5	0.4	-0.2	-0.7	-0.9	-0.7	-0.6	-0.8	-0.4	-0.5	-0.3	-0.4	-0.5	-0.4	0.93	5.19
10-Jan	-0.4	-0.5	-0.6	-0.6	-0.6	-0.6	-0.7	-0.8	-0.9	-0.8	-0.9	-0.9	-0.8	-0.8	-0.7	-0.7	-0.7	-0.6	-0.5	1.0	0.7	1.3	0.6	1.3	-0.35	1.30
11-Jan	1.4	1.4	2.2	2.4	2.5	2.4	1.8	1.4	1.5	2.3	1.5	1.0	0.2	0.4	0.5	0.8	0.8	0.9	0.3	0.4	0.3	1.0	0.7	0.4	1.18	2.52
12-Jan	0.3	1.7	1.9	4.8	3.3	0.9	0.8	0.8	0.4	1.1	0.3	0.4	-0.2	-0.2	1.6	1.8	2.7	2.8	2.2	2.6	2.5	1.9	2.1	2.3	1.60	4.80
13-Jan	2.8	1.7	2.0	2.5	2.9	2.7	1.4	1.3	1.5	1.3	0.0	-0.1	-0.1	-0.1	0.1	0.6	1.0	0.9	1.7	0.8	0.8	0.3	0.9	2.2	1.21	2.94
14-Jan	2.2	2.0	2.0	0.5	2.7	1.8	2.1	2.2	2.0	1.9	0.5	0.2	1.0	1.1	1.1	0.8	0.1	0.6	1.1	1.1	1.5	1.7	1.8	2.1	1.42	2.66
15-Jan	2.9	2.0	2.4	1.5	2.4	2.8	2.0	1.4	0.6	1.0	0.0	0.3	-0.3	-0.7	-0.9	-0.5	-0.2	-0.3	-0.5	-0.5	-0.4	-0.2	-0.2	-0.3	0.59	2.91
16-Jan	-0.2	0.1	0.1	-0.2	-0.1	0.9	1.6	1.4	0.7	0.6	-0.2	-0.3	-0.2	-0.1	0.0	0.2	0.5	0.4	0.2	0.2	0.3	0.3	0.9	1.2	0.34	1.59
17-Jan	0.5	0.8	0.8	0.7	0.5	0.6	0.8	2.2	2.4	2.0	1.4	1.0	1.1	0.8	0.9	0.9	1.2	2.2	2.5	2.3	2.3	2.1	2.4	2.8	1.46	2.80
18-Jan	2.4	2.8	2.4	2.3	2.1	1.7	1.7	2.6	2.2	1.0	0.3	-0.4	-0.3	-0.2	0.3	0.6	0.3	0.8	1.4	0.7	0.1	0.0	0.0	0.1	1.03	2.79
19-Jan	0.8	0.9	0.9	1.0	1.1	0.5	0.5	1.2	0.8	1.5	1.5	0.6	0.2	0.2	0.7	0.2	0.5	0.9	1.1	0.5	0.4	0.1	0.0	0.1	0.67	1.49
20-Jan	0.3	0.2	0.0	-0.1	0.0	0.0	-0.1	0.1	0.9	1.5	0.6	0.2	-0.1	-0.1	0.3	1.0	1.6	2.4	1.1	2.5	2.7	1.8	1.9	1.8	0.84	2.69
21-Jan	2.2	2.4	1.8	2.3	2.0	1.8	2.4	2.5	1.5	1.3	1.6	0.4	0.0	-0.3	-0.2	0.4	0.8	1.0	1.3	1.6	1.3	1.1	0.9	1.1	1.30	2.51
22-Jan	1.3	1.0	1.2	1.2	1.3	1.3	1.4	1.8	1.6	1.1	0.7	1.2	1.0	0.8	0.7	0.8	1.4	0.9	0.7	1.1	1.0	2.0	2.5	2.7	1.28	2.72
23-Jan	1.8	1.5	2.2	1.6	1.7	1.1	1.2	1.8	2.0	2.2	1.0	0.9	0.7	0.8	1.0	1.2	1.6	1.4	1.6	1.3	1.6	1.1	1.3	1.1	1.40	2.18
24-Jan	1.0	1.1	0.7	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.4	0.4	0.5	1.0	1.5	1.6	1.2	0.5	0.8	1.0	0.8	1.2	0.66	1.58
25-Jan	1.3	1.6	1.4	1.2	1.7	1.6	0.9	1.6	2.5	1.5	0.8	0.8	0.6	0.5	0.5	1.3	1.7	2.1	1.9	1.9	0.9	1.3	1.6	1.8	1.36	2.47
26-Jan	1.7	1.2	1.4	1.3	2.1	1.8	1.8	1.8	1.1	1.1	-0.3	-1.1	-0.6	-0.5	-0.4	0.0	0.7	0.8	1.3	0.4	-0.1	0.1	0.3	0.5	0.68	2.14
27-Jan	0.0	-0.1	-0.1	0.0	-0.1	0.1	0.0	-0.3	-0.1	-0.4	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.4	-0.5	-0.6	-0.5	-0.36	0.09
28-Jan	-0.5	-0.3	-0.5	-0.5	0.3	0.1	-0.2	-0.1	0.4	0.0	-0.3	-0.4	-0.5	-0.6	-0.7	-1.1	-0.5	-0.7	-0.9	-0.7	-0.7	-0.9	-0.9	-0.8	-0.46	0.40
29-Jan	-1.0	-0.9	-0.9	-0.9	-0.9	-1.0	-0.9	-0.8	-0.6	-0.7	-1.2	-1.7	-1.5	-1.3	-1.3	-1.5	-1.2	0.4	1.1	1.3	1.1	1.7	1.9	2.1	-0.35	2.12
30-Jan	1.5	1.2	1.6	2.2	0.7	0.7	0.3	0.4	0.0	-0.2	-0.6	-0.8	-0.7	-0.7	-0.7	-0.7	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.02	2.20
31-Jan	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.7	-1.0	-1.2	-1.5	-1.6	-1.5	-1.0	-0.8	-0.6	0.8	-0.4	-0.9	-0.2	-0.9	0.1	0.7	-0.63	0.80
																			0.78 0.69 0.78 0.68 0.79 0.74 0.64 0.79 0.66 0.67 0.13 -0.09 -0.23 -0.24 -0.04 0.16 0.43 0.67 0.71 0.66 0.59 0.63 0.67 0.82					Diurnal Average		
																			2.99 2.79 4.42 4.80 3.26 5.19 3.05 3.74 2.47 2.28 1.60 1.19 1.08 1.09 1.63 1.77 2.71 2.77 2.47 2.56 2.69 2.14 2.45 2.80					Diurnal Maximum		



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Wind Speed (WS) - kph**  
**January 2015**

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1 Spd	19.0	19.7	17.6	17.5	13.8	13.0	18.1	14.2	16.5	13.6	16.6	17.8	19.0	18.7	20.3	19.1	22.6	18.7	9.5	16.5	18.5	20.7	15.7	16.6	12.58	22.65	
Dir	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	WNW	WNW	NW	NW	NW	NW	NNE	NE	NE	NE	NE	NE	NW	NW	
2 Spd	16.4	15.3	17.0	17.3	18.3	20.7	19.5	14.7	15.1	21.4	22.2	20.2	17.6	16.3	15.8	13.9	15.3	15.7	10.8	14.2	14.2	11.0	11.8	11.3	11.75	22.16	
Dir	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	NE	NNE	NE	NNE	NNE	N	N	N	N	N	NW	NW	NW	NW	WNW	NW	NNE	NE
3 Spd	8.2	11.3	11.4	12.1	14.3	14.6	16.4	16.6	14.4	17.4	5.2	13.9	20.1	22.1	19.6	15.9	19.2	18.3	15.5	21.0	22.8	17.0	13.0	7.4	14.87	22.79	
Dir	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NNW	NNE	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	NW	NW	NW
4 Spd	9.6	10.8	13.1	14.6	18.0	15.1	13.0	7.5	16.8	14.7	14.8	13.6	13.6	13.2	10.4	7.7	4.6	6.9	6.8	6.6	11.8	11.4	14.2	12.5	5.54	17.97	
Dir	W	W	W	W	WNW	W	W	WSW	WSW	WSW	WSW	WSW	SW	SW	WSW	SW	S	SE	SE	ESE	ENE	ENE	E	E	WSW	WSW	WNW
5 Spd	10.3	8.4	10.1	9.3	11.0	10.0	12.4	17.4	16.7	13.3	13.8	13.4	11.7	11.6	12.4	14.4	9.8	6.5	10.8	14.2	16.7	7.2	6.5	6.7	9.05	17.42	
Dir	ENE	NE	NNE	N	NW	W	W	WNW	W	W	W	W	W	W	W	W	W	W	WNW	WNW	NW	WSW	WSW	WSW	WSW	WNW	WNW
6 Spd	5.6	4.3	6.0	8.0	10.8	9.3	4.4	5.7	7.8	6.0	5.4	5.2	2.8	2.7	3.6	4.9	4.5	5.5	5.8	7.2	6.4	8.8	8.3	8.3	2.96	10.78	
Dir	W	NW	NNW	NNW	N	N	NNW	NW	NNW	N	NNE	NE	ENE	ENE	ENE	ESE	E	E	E	ESE	SE	ESE	ESE	ESE	NE	N	NE
7 Spd	8.9	13.7	16.1	19.4	22.5	22.3	21.1	16.1	15.0	12.6	6.8	11.6	11.3	8.7	9.6	13.9	18.2	19.4	24.9	29.3	25.8	38.9	38.1	40.9	4.04	40.89	
Dir	ESE	SE	SE	SE	SE	SE	SE	SE	SSE	S	S	SW	WSW	W	W	W	W	W	WNW	NW	NNW	NNW	NW	NW	NW	WNW	NW
8 Spd	33.2	35.5	37.5	37.9	37.9	35.5	32.7	32.6	29.8	21.2	17.9	16.7	17.9	18.0	16.2	17.6	11.2	8.3	12.0	12.7	12.5	13.5	8.5	5.9	20.17	37.92	
Dir	NW	NW	NW	NW	NW	NW	WNW	WNW	NW	WNW	WNW	WNW	WNW	NW	NW	WNW	WNW	WSW	WSW	WSW	WSW	WSW	WSW	SSW	WNW	NW	
9 Spd	6.0	8.5	3.5	3.5	1.6	5.8	0.3	2.5	3.1	6.0	6.5	0.9	3.7	4.9	5.4	3.9	6.3	5.1	4.2	11.0	15.7	22.6	17.3	11.2	4.05	22.60	
Dir	SW	SW	SSW	SE	S	NNW	SW	WNW	SW	SW	WSW	WNW	N	N	N	N	WSW	SW	NW	WNW	NW	NNW	NNW	NNW	NW	NNW	
10 Spd	10.3	8.3	8.7	11.0	11.3	5.9	6.3	6.2	6.1	7.3	8.1	8.5	7.6	8.5	11.2	10.4	6.7	6.1	6.7	5.8	4.2	6.9	7.7	10.8	4.40	11.34	
Dir	N	N	NNW	N	NNE	ENE	E	E	ESE	E	E	E	ENE	ENE	ENE	ENE	E	NE	NE	N	WNW	W	W	W	NE	NNE	
11 Spd	9.9	9.7	8.1	8.3	8.1	5.9	11.2	7.9	3.7	4.2	4.2	2.6	4.5	0.7	3.0	2.0	5.2	6.1	4.7	3.7	1.4	3.1	2.8	1.0	2.27	11.17	
Dir	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SSW	SW	ESE	E	E	ENE	ENE	ENE	ENE	NE	NNE	NE	NNE	WSW	WSW	
12 Spd	0.2	1.0	0.4	2.7	6.0	9.4	7.1	8.2	7.7	5.2	9.0	16.0	14.8	16.2	14.3	6.1	6.0	14.5	15.6	16.2	19.2	17.5	17.5	18.8	10.30	19.24	
Dir	NNE	WSW	SSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	WSW	W	WSW	WSW	WSW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
13 Spd	19.8	20.9	17.5	16.0	16.2	14.5	11.4	15.0	13.7	14.2	14.3	14.1	14.3	11.8	10.4	12.3	12.4	12.4	15.4	18.5	15.8	19.8	17.9	16.4	14.88	20.91	
Dir	SW	SW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	W	SW	SW	SW	SW	SW	SW	WSW	SW	WSW	WSW	W	WSW	WSW	WSW	WSW	SW
14 Spd	13.1	15.6	16.3	15.9	12.0	14.9	14.7	13.7	12.8	9.7	14.1	15.4	8.8	9.0	12.0	14.8	16.4	12.7	9.8	13.3	12.5	8.9	8.3	8.4	12.06	16.39	
Dir	WSW	WSW	W	W	SW	WSW	WSW	SW	WSW	WSW	W	W	SW	SW	WSW	W	WNW	WNW	W	WSW	WSW	WSW	SW	W	WSW	WSW	WNW
15 Spd	1.9	5.2	6.5	2.3	3.3	6.5	3.2	3.9	6.1	9.0	6.8	10.7	10.5	10.2	7.4	7.3	6.7	7.5	6.8	8.9	8.8	8.2	7.2	7.4	3.81	10.71	
Dir	W	SW	WSW	SW	SW	SW	S	ENE	E	NNE	ENE	N	ENE	E	ESE	E	E	E	E	ESE	ESE	ESE	ESE	E	E	E	N
16 Spd	7.6	3.9	3.0	1.5	5.9	1.4	10.7	13.2	11.9	18.7	27.3	22.3	25.3	23.8	21.1	29.8	20.5	14.8	17.2	14.2	18.1	20.3	20.9	21.4	14.09	29.85	
Dir	ENE	E	W	NNW	WSW	S	WSW	WSW	WSW	W	WNW	W	W	W	W	WNW	NW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	WNW
17 Spd	25.9	25.9	24.3	19.7	15.4	14.2	16.4	12.6	13.6	13.6	13.0	15.1	12.8	12.0	11.1	10.4	8.6	12.4	13.4	14.7	13.7	14.9	17.0	16.5	14.88	25.86	
Dir	W	W	W	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W
18 Spd	16.5	13.8	16.1	10.7	13.9	13.3	9.2	3.3	2.4	2.5	4.6	7.6	4.6	6.5	9.3	5.2	4.8	6.8	5.7	12.6	14.6	16.4	15.0	11.4	7.28	16.55	
Dir	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	ENE	ESE	ENE	ENE	NNE	W	WSW	WNW	W	W	WSW	W	W	WNW	NW	W	W	W	WSW
19 Spd	6.2	11.7	6.6	10.6	7.4	11.1	11.9	12.7	12.4	11.7	10.8	10.4	17.3	16.9	15.6	19.1	21.0	24.1	17.2	14.1	15.2	16.8	16.0	16.6	12.83	24.09	
Dir	WSW	WSW	WSW	WSW	W	WNW	WSW	WSW	SW	SW	WSW	WSW	W	W	W	WNW	WNW	WNW	WNW	W	W	WNW	W	W	W	W	WNW
20 Spd	17.3	16.5	16.8	19.7	29.7	12.3	12.4	13.6	13.4	10.2	15.9	14.8	13.2	13.7	17.4	12.2	12.2	10.2	7.9	6.9	12.5	15.4	12.2	12.9	13.28	29.65	
Dir	W	W	WNW	WNW	NW	W	W	WNW	W	W	W	W	W	WNW	NW	NW	NW	WNW	W	W	WSW	WSW	WSW	WSW	W	W	NW
21 Spd	13.2	12.7	14.0	12.7	13.3	12.8	10.7	11.6	12.7	14.4	10.9	12.2	15.2	11.6	13.7	15.4	17.7	17.1	16.4	15.6	16.1	17.7	17.0	14.8	13.69	17.71	
Dir	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	W	W	SSW	SW	SW	WSW	WSW	SW	WSW	SW	SW	SW	SW	WSW
22 Spd	13.5	23.1	19.8	15.1	20.7	18.6	16.6	13.1	13.8	21.5	21.1	22.2	20.5	19.2	15.4	12.1	15.5	15.0	13.2	14.1	13.7	12.9	13.9	14.0	15.82	23.08	
Dir	SW	WSW	SW	SW	SW	WSW	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	W	WSW	WSW	SW	WSW	WSW	WSW



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Wind Speed (WS) - kph**  
**January 2015**

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
23 Spd	13.6	14.5	13.3	7.5	14.9	14.1	13.5	13.4	10.9	13.3	11.8	13.6	13.8	14.5	12.5	11.4	10.1	10.1	13.9	11.6	10.2	11.1	6.1	11.5	11.85	14.88
Dir	WSW	WSW	WSW	WSW	W	W	WSW	SW	WSW	WSW	SW	WSW	SW	WSW	WSW	W	W	W	W	WSW	W	WSW	WSW	WSW	WSW	W
24 Spd	11.5	14.2	21.6	23.9	22.1	23.3	20.3	17.5	19.7	20.0	22.7	29.9	30.5	25.9	19.0	13.9	5.0	4.1	6.1	5.8	6.1	9.1	10.3	14.2	12.72	30.45
Dir	W	WSW	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	NW	WNW	SSE	SSE	S	SSE	SSE	SSE	SSE	W	WNW
25 Spd	15.1	16.0	12.3	11.4	11.9	9.2	4.1	13.4	16.6	10.2	14.7	13.6	16.4	16.6	14.9	9.5	6.9	7.6	8.6	11.0	23.0	15.3	7.3	5.8	8.27	23.03
Dir	S	S	S	SSW	S	S	SW	WSW	WSW	W	WSW	W	WNW	WNW	W	W	WSW	W	W	WSW	NW	NNW	NNW	SSW	WSW	NW
26 Spd	5.6	7.9	8.4	6.6	1.6	9.3	9.6	6.7	2.1	7.8	8.1	6.4	5.4	3.2	3.5	7.1	8.2	11.1	2.5	6.1	7.6	7.8	1.8	3.3	1.05	11.09
Dir	SW	WSW	SW	SW	N	N	NNE	NE	S	SW	WSW	SW	WSW	S	SSE	SSE	SSE	SSE	E	ENE	NE	N	NE	NNW	SW	SSE
27 Spd	7.8	4.6	4.3	2.5	9.8	6.0	4.2	5.9	4.0	4.3	5.5	7.2	5.4	4.5	4.8	4.3	0.8	2.8	5.9	7.2	7.7	3.2	10.3	1.5	3.51	10.30
Dir	NNW	NE	ESE	NNE	NNW	N	NE	NE	NE	NW	NW	NNW	NW	NNW	NW	NNW	WNW	SW	SW	WNW	WNW	NW	NW	SW	NNW	NW
28 Spd	10.2	16.5	15.1	12.2	9.7	12.9	13.8	17.4	13.4	11.8	16.0	16.6	15.2	7.8	8.6	6.0	5.3	6.2	5.5	7.1	7.7	6.0	5.6	5.9	4.04	17.42
Dir	SW	W	WSW	WSW	WSW	W	WNW	NW	WNW	WNW	WNW	NW	NW	NNE	ENE	E	E	E	ESE	E	E	ESE	ESE	ESE	WNW	NW
29 Spd	5.7	6.1	6.2	6.0	6.5	6.1	6.0	4.6	3.7	4.6	5.3	3.9	1.2	4.3	5.3	4.3	4.6	2.3	4.5	5.6	6.7	7.7	14.2	13.3	2.69	14.16
Dir	ESE	ESE	ESE	ESE	ESE	SE	SE	ESE	SE	SSE	SSE	S	S	WSW	SW	SW	W	NNW	SW	SW	WSW	W	WSW	WSW	SSW	WSW
30 Spd	15.8	16.5	15.0	5.8	6.9	14.0	14.8	14.9	14.7	14.0	11.5	12.7	12.3	15.5	15.2	19.3	20.7	21.8	20.8	22.4	20.3	19.4	20.2	18.7	9.54	22.39
Dir	WSW	WSW	WSW	W	NNW	WNW	WNW	W	W	WNW	NNE	NE	NE	NE	NE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	N	NNE
31 Spd	18.9	17.8	17.7	17.9	12.8	8.9	8.7	5.0	4.4	4.2	3.4	5.1	5.2	2.2	3.9	6.1	5.5	6.1	5.4	5.6	1.6	4.5	10.4	12.1	4.16	18.89
Dir	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NE	ENE	E	ESE	SE	SSE	SE	ENE	ENE	ESE	NE	E	SE	ENE	S	SW	SW	NE	NNE
Spd	6.26	7.61	7.56	6.81	7.14	6.97	6.74	6.84	7.02	7.45	7.11	7.87	8.30	7.46	6.46	6.24	5.96	5.56	5.49	5.96	6.84	6.82	6.23	5.80	Diurnal Average	
Dir	W	W	W	W	W	W	W	W	W	W	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	Diurnal Maximum	
Spd	33.16	35.49	37.46	37.92	37.85	35.55	32.68	32.61	29.77	21.48	27.26	29.90	30.45	25.93	21.11	29.85	22.65	24.09	24.86	29.31	25.79	38.95	38.09	40.89	Diurnal Maximum	
Dir	316.54	317.22	316.55	306.33	305.46	305.13	303.19	301.48	305.54	269.30	289.17	293.89	298.99	299.26	273.71	292.88	315.03	303.16	322.55	333.57	341.37	315.62	316.54	320.18	Diurnal Maximum	
Maximum Speed Value: 40.9 kph on Jan 8 00:00																			Minimum Speed Value: 0.2 kph on Jan 12 01:00					Hours in Service:		744
Maximum Daily Speed Average: 20.17 kph on Jan 8																			Minimum Daily Speed Average: 1.05 kph on Jan 11					Hours of Data:		744
Maximum Diurnal Speed Average: 8.30 kph at hour 13																			Minimum Diurnal Speed Average: 5.49 kph at hour 19					Hours of Missing Data:		0
Monthly Average Velocity: 6.698 kph 278.18 deg																			Speed Percentiles: P <sub>1</sub> = 1.0 P <sub>10</sub> = 4.4 Q <sub>1</sub> = 6.8 Median = 12.2 Q <sub>3</sub> = 15.9 P <sub>90</sub> = 19.8 P <sub>99</sub> = 33.7					Percent Operational Time:		100.0
All monthly, daily, and diurnal averages have been calculated using vector methods																										
<b>Frequency Distribution</b>																										
	Speed Range (kph)																									
Direction	0 to 5	5 to 11	11 to 19	19 to 28	28 to 38	> 38	Total																			
North	6	23	16	5	0	0	50																			
NorthEast	18	17	14	8	0	0	57																			
East	13	43	8	2	0	0	66																			
SouthEast	7	18	3	4	0	0	32																			
South	11	8	10	0	0	0	29																			
SouthWest	17	60	90	6	0	0	173																			
West	8	44	141	29	0	0	222																			
NorthWest	13	18	47	20	14	3	115																			
Total	93	231	329	74	14	3	744																			



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Relative Humidity (RH) - %**  
**January 2015**

<b>Maximum Value: 95.37 % on Jan 28 06:00</b> <b>Maximum Daily Average: 93.68 % on Jan 27</b>																							<b>Hours in Service: 744</b>																									
<b>Minimum Value: 39.9 % on Jan 22 16:00</b> <b>Minimum Daily Average: 53.51 % on Jan 17</b>																							<b>Hours of Data: 744</b>																									
<b>Maximum Diurnal Average: 77.08 % at hour 24</b> <b>Minimum Diurnal Average: 71.16 % at hour 16</b>																							<b>Hours of Missing Data: 0</b>																									
<b>Monthly Average: 74.507 %</b> <b>Percentiles: P<sub>1</sub> = 44.3 P<sub>10</sub> = 55.8 Q<sub>1</sub> = 66.3 Median = 76.1 Q<sub>3</sub> = 83.1 P<sub>90</sub> = 91.0 P<sub>99</sub> = 94.9</b>																							<b>Hours of Calibration: 0</b>																									
																							<b>Percent Operational Time: 100.0</b>																									
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-Jan	64.0	65.6	68.1	69.2	70.8	72.3	72.8	74.7	78.2	79.7	80.6	80.2	77.9	75.9	71.4	71.7	69.9	78.3	88.6	92.6	92.7	90.0	89.6	89.2	77.66	92.74																						
2-Jan	88.5	88.3	88.2	87.9	87.8	87.3	86.8	86.4	85.9	84.3	83.4	82.9	82.4	82.4	82.3	80.5	80.9	79.9	79.3	79.1	79.8	80.1	80.1	80.2	83.53	88.52																						
3-Jan	80.8	80.1	80.7	80.7	81.3	81.0	80.8	80.5	80.2	78.3	76.5	76.3	76.7	76.2	76.6	76.2	76.4	76.3	76.0	76.1	75.4	75.4	74.7	74.6	77.82	81.25																						
4-Jan	73.5	74.0	73.7	73.8	73.5	73.1	71.2	69.1	69.8	69.7	70.3	72.6	74.0	74.6	74.7	74.8	74.3	74.7	74.3	74.8	73.6	74.5	75.8	76.1	73.36	76.08																						
5-Jan	76.8	77.3	77.4	77.4	76.9	76.9	75.7	75.9	75.6	75.8	75.9	74.9	73.5	73.4	73.4	72.8	70.8	71.8	72.7	72.1	70.2	71.7	71.7	72.9	74.33	77.44																						
6-Jan	70.0	70.5	68.3	69.0	76.9	79.9	80.5	80.2	80.4	80.6	78.7	76.5	73.8	72.8	73.3	73.3	74.8	77.9	78.7	78.3	78.8	81.4	80.4	80.9	76.50	81.41																						
7-Jan	80.1	81.7	81.8	81.3	78.5	76.5	75.9	76.1	75.7	74.1	74.4	71.0	71.2	73.1	71.5	71.4	76.9	81.4	81.0	79.5	82.5	79.7	75.9	79.7	77.13	82.52																						
8-Jan	81.8	80.3	77.0	73.8	71.8	71.7	71.0	72.0	72.0	73.1	73.3	72.2	70.5	68.0	66.8	65.1	64.6	69.8	73.2	76.1	76.4	76.5	79.2	78.4	73.11	81.83																						
9-Jan	75.5	78.3	73.5	76.0	74.5	71.9	71.3	72.6	71.9	73.2	76.2	75.7	76.7	78.1	80.4	81.3	81.8	81.6	82.0	80.5	76.7	73.6	69.6	68.4	75.88	81.99																						
10-Jan	63.1	64.5	66.0	68.5	68.8	67.3	66.4	68.8	70.5	72.7	75.5	74.6	77.4	78.7	81.1	82.1	82.2	83.3	83.6	83.8	84.0	83.8	83.7	81.7	75.50	83.99																						
11-Jan	81.5	80.7	80.6	80.8	80.7	79.3	81.3	80.9	78.4	79.4	79.8	79.7	81.1	82.6	83.0	83.3	83.9	83.2	82.8	81.9	81.8	81.4	81.7	80.8	81.28	83.88																						
12-Jan	80.6	80.2	79.4	78.5	81.1	83.7	82.8	82.5	83.2	82.7	85.0	87.2	87.7	85.8	83.7	83.8	83.4	84.7	85.5	83.2	86.2	85.6	85.3	85.3	83.63	87.68																						
13-Jan	84.8	83.4	76.6	77.7	79.0	80.0	81.0	80.3	79.3	76.7	70.6	69.0	69.7	73.7	74.5	73.8	77.2	78.8	79.3	76.7	73.6	67.5	73.0	76.1	76.35	84.81																						
14-Jan	77.3	79.2	74.4	61.8	73.0	79.1	77.7	76.3	74.5	72.8	60.5	58.2	61.3	62.7	65.7	66.3	61.2	64.2	67.3	74.9	77.5	76.1	81.1	81.4	71.02	81.45																						
15-Jan	82.6	87.1	91.0	91.7	91.7	91.8	91.4	92.2	92.4	92.2	91.5	90.5	91.1	91.7	91.2	88.8	88.5	91.7	92.3	91.8	91.2	91.0	91.0	91.0	90.73	92.44																						
16-Jan	90.9	90.5	90.4	90.5	90.7	90.0	89.6	84.1	81.9	64.3	67.3	74.4	78.2	76.1	69.2	54.4	61.4	57.3	54.6	51.9	49.6	48.5	51.5	56.2	71.41	90.89																						
17-Jan	53.0	54.8	54.6	50.8	47.2	48.2	51.8	58.5	59.1	60.6	59.5	58.0	53.9	53.0	50.3	48.3	45.2	48.2	50.9	52.9	54.8	55.7	56.0	59.2	53.51	60.59																						
18-Jan	60.2	61.2	62.2	63.3	62.8	63.6	62.1	66.5	69.0	68.0	67.4	66.0	65.2	65.2	65.9	64.4	61.9	62.5	67.2	65.1	64.1	66.6	77.7	80.6	65.77	80.57																						
19-Jan	85.1	85.9	86.3	86.9	86.7	82.2	79.3	82.0	79.1	78.0	70.3	62.8	51.2	48.6	53.5	42.8	44.4	48.1	54.3	52.1	51.2	52.8	54.5	55.2	65.54	86.91																						
20-Jan	56.1	57.5	58.7	61.1	66.3	67.9	63.0	60.7	60.5	63.9	58.5	54.9	51.6	51.7	56.5	58.7	58.7	58.4	57.9	61.9	71.9	72.3	73.9	72.4	61.46	73.91																						
21-Jan	70.4	69.8	66.9	65.5	63.7	63.0	66.5	69.7	65.1	64.6	62.6	56.3	55.1	68.5	84.3	86.0	82.1	71.2	66.3	66.2	63.6	62.3	64.2	64.7	67.44	85.96																						
22-Jan	67.9	63.9	64.6	67.2	63.6	60.1	63.6	69.0	63.8	53.9	50.5	54.5	49.8	43.7	40.0	39.9	43.7	43.5	44.3	49.5	49.6	61.1	67.9	65.6	55.87	68.96																						
23-Jan	64.1	61.3	61.1	65.9	60.0	61.2	65.6	65.7	62.0	62.4	59.4	61.0	58.4	55.8	55.7	50.8	48.6	47.3	45.4	51.6	67.7	76.6	83.9	88.4	61.66	88.37																						
24-Jan	83.0	87.8	76.5	68.2	64.5	66.8	65.8	61.9	58.2	56.4	53.6	48.4	46.6	45.9	47.0	51.5	52.3	63.0	65.2	67.2	67.2	69.4	70.9	65.8	62.63	87.82																						
25-Jan	64.3	65.4	72.2	78.4	79.7	80.9	78.8	71.4	74.2	69.7	66.7	60.4	53.2	49.3	44.1	48.6	52.6	48.9	44.4	55.9	45.0	51.5	54.0	63.9	61.39	80.85																						
26-Jan	63.7	62.8	65.3	66.3	69.4	72.1	76.6	78.9	82.0	85.5	81.9	77.6	75.9	74.2	74.9	75.1	79.5	83.4	85.6	85.6	85.3	87.6	88.5	89.8	77.82	89.83																						
27-Jan	90.9	91.1	90.5	91.3	92.3	92.2	92.7	93.3	93.8	94.3	94.5	94.5	94.5	94.4	94.6	94.7	94.6	94.6	94.8	94.9	94.9	94.9	95.0	95.0	93.68	94.97																						
28-Jan	95.0	95.2	95.2	95.2	95.2	95.4	94.9	88.9	85.5	85.7	84.3	82.1	78.3	77.2	82.4	83.0	88.2	92.8	93.3	93.4	93.5	93.5	93.4	93.4	89.79	95.37																						
29-Jan	93.3	93.0	92.9	93.0	92.9	92.6	92.2	92.4	92.2	92.0	92.3	92.4	92.1	91.7	91.6	91.1	90.8	90.4	91.6	92.6	91.1	85.1	78.0	74.8	90.51	93.26																						
30-Jan	73.3	69.7	65.5	66.3	74.7	63.9	68.9	74.3	73.7	72.9	78.2	86.6	89.2	89.4	89.5	88.9	88.8	88.9	88.3	87.6	87.2	86.4	85.9	85.8	80.16	89.48																						
31-Jan	85.2	85.1	84.8	83.8	83.6	83.4	83.3	83.2	83.2	83.3	82.9	83.3	82.4	81.9	81.2	82.2	82.3	82.8	84.2	84.4	83.4	84.0	81.7	82.2	83.24	85.25																						
																							76.05	76.33	75.63	75.55	76.10	75.97	76.17	76.41	75.85	74.87	73.61	72.74	71.63	71.50	71.94	71.16	71.68	72.87	73.71	74.66	74.85	75.37	76.44	77.08	Diurnal Average	
																							95.01	95.19	95.20	95.20	95.19	95.37	94.94	93.30	93.82	94.34	94.45	94.52	94.52	94.45	94.56	94.69	94.63	94.57	94.75	94.94	94.93	94.87	94.96	94.97	Diurnal Maximum	





**WCAS - Genesee**  
**Summary of Hourly Averages**

**Global Solar Radiation (GSR) - W/m2**  
**January 2015**

Maximum Value: 411.67 W/m2 on Jan 29 14:00      Maximum Daily Average: 77.82 W/m2 on Jan 28																								Hours in Service:	744	
Minimum Value: 0.0 W/m2 on Jan 1 01:00      Minimum Daily Average: 17.03 W/m2 on Jan 27																								Hours of Data:	744	
Maximum Diurnal Average: 210.84 W/m2 at hour 14      Minimum Diurnal Average: 0.00 W/m2 at hour 1																								Hours of Missing Data:	0	
Monthly Average: 43.575 W/m2      Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.0 Q <sub>3</sub> = 54.4 P <sub>90</sub> = 174.6 P <sub>99</sub> = 339.1																								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-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	31.6	70.9	87.7	114.4	91.6	42.1	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.98	114.37
2-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	50.9	86.5	107.7	102.1	88.5	47.5	15.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.33	107.68
3-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	141.1	239.9	250.4	237.5	177.1	84.7	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.13	250.35
4-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.2	183.6	272.4	319.1	281.6	225.8	83.8	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.47	319.13
5-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.2	153.6	247.9	259.3	195.8	135.9	52.8	16.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.12	259.34
6-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8	55.6	106.6	118.4	126.4	106.8	59.2	14.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.93	126.37
7-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	40.9	77.4	91.1	104.0	213.5	77.6	12.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.25	213.47
8-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.9	137.6	225.2	268.9	263.9	206.1	78.8	18.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.40	268.92
9-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	71.3	150.3	229.9	206.0	211.1	210.7	97.3	16.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.73	229.89
10-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	61.6	88.5	92.9	128.4	95.2	54.9	25.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.28	128.35
11-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	71.3	220.6	295.5	328.5	333.2	265.7	112.4	43.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69.59	333.24
12-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	87.5	246.0	346.9	386.5	366.8	182.0	106.4	31.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.07	386.49
13-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.7	81.6	112.6	114.6	86.4	93.6	72.1	21.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.88	114.59
14-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.6	97.1	166.5	238.3	152.3	106.6	51.9	19.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.44	238.27
15-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5	54.9	109.9	190.5	142.1	129.5	79.5	23.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.80	190.48
16-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6	46.3	53.5	143.1	224.3	227.4	96.7	32.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	34.80	227.39
17-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.0	75.0	105.7	179.8	263.8	222.9	103.6	27.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	42.48	263.83
18-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.8	81.7	195.4	264.4	252.0	163.4	107.4	37.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	46.75	264.35
19-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4	80.3	168.8	249.3	229.0	221.6	121.6	24.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	46.57	249.30
20-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.9	117.8	243.0	289.1	285.2	231.4	96.0	33.3	2.0	0.0	0.0	0.0	0.0	0.0	0.0	55.91	289.10
21-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	19.3	66.5	85.1	124.6	88.1	78.9	80.0	25.3	1.9	0.0	0.0	0.0	0.0	0.0	0.0	23.76	124.60
22-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.3	94.9	249.4	296.1	287.1	237.4	104.8	52.5	3.2	0.0	0.0	0.0	0.0	0.0	0.0	55.95	296.11
23-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	67.3	134.5	110.8	180.1	175.9	135.1	65.7	23.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	37.27	180.11
24-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	61.8	172.7	260.0	307.0	303.5	174.4	81.5	40.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	58.50	306.97
25-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	52.3	210.9	217.7	134.7	245.5	252.1	167.7	48.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0	55.46	252.12
26-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	36.1	167.3	255.6	177.0	139.1	133.4	97.3	35.7	1.5	0.0	0.0	0.0	0.0	0.0	0.0	43.47	255.58
27-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	13.8	30.9	60.5	90.6	81.6	63.9	44.5	20.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	17.03	90.64
28-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	109.5	229.5	327.3	372.9	351.5	290.4	123.2	54.4	4.5	0.0	0.0	0.0	0.0	0.0	0.0	77.82	372.93
29-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	43.9	112.5	219.4	283.8	411.7	342.9	146.5	88.9	8.3	0.0	0.0	0.0	0.0	0.0	0.0	69.16	411.67
30-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	54.6	102.9	111.2	79.1	82.8	89.2	57.3	27.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	25.43	111.21
31-Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	37.8	103.4	256.5	237.8	269.0	218.6	133.2	55.4	8.3	0.0	0.0	0.0	0.0	0.0	0.0	55.07	269.02
																								Diurnal Average		
																								Diurnal Maximum		



**WCAS - Genesee**  
**Summary of Hourly Averages**

**Precipitation (PR) - mm**  
**January 2015**

Maximum Value: 0.30 mm on Jan 20 05:00																				Maximum Daily Total: 0.40 mm on Jan 21					Hours in Service: 744		
Minimum Value: 0.0 mm on Jan 1 01:00																				Minimum Daily Total: 0.00 mm on Jan 1					Hours of Data: 744		
Maximum Diurnal Total: 0.30 mm at hour 5																				Minimum Diurnal Total: 0.00 mm at hour 1					Hours of Missing Data: 0		
Monthly Total: 1.700 mm																				Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.0 Q <sub>3</sub> = 0.0 P <sub>90</sub> = 0.0 P <sub>99</sub> = 0.1					Hours of Calibration: 0		
																									Percent Operational Time: 100.0		
Day	Hourly Period Ending At																								Daily Total	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-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
2-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
3-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
4-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
5-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
6-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
7-Jan	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	0.0	0.1	0.0	0.0	0.0	0.10	0.10
8-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
9-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
10-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
11-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
12-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
13-Jan	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10	0.10
14-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
15-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
16-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
17-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
18-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
19-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
20-Jan	0.0	0.0	0.0	0.0	0.3	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	0.30	0.30
21-Jan	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	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.40	0.10
22-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
23-Jan	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	0.0	0.0	0.0	0.1	0.0	0.10	0.10
24-Jan	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10	0.10
25-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
26-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
27-Jan	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	0.0	0.1	0.0	0.1	0.20	0.10	
28-Jan	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.40	0.10
29-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
30-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
31-Jan	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	0.0	0.0	0.0	0.0	0.0	0.00	0.00
																								Diurnal Average			
																								Diurnal Maximum			



**WCAS - Genesee**  
**Summary of Hourly Standard Deviations**

**Wind Speed (WS) - kph**  
**January 2015**

Maximum Value: 7.97 kph on Jan 7 10:00		Maximum Daily Average: 3.73 kph on Jan 7		Hours in Service: 744																						
Minimum Value: 0.4 kph on Jan 11 12:00		Minimum Daily Average: 1.32 kph on Jan 11		Hours of Data: 744																						
Maximum Diurnal Average: 2.74 kph at hour 22		Minimum Diurnal Average: 2.15 kph at hour 23		Hours of Missing Data: 0																						
Monthly Average: 2.417 kph		Percentiles: $P_1 = 0.7$ $P_{10} = 1.2$ $Q_1 = 1.5$ Median = 2.1 $Q_3 = 3.1$ $P_{90} = 4.0$ $P_{99} = 5.7$		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-Jan	3.4	3.3	2.3	2.7	3.8	2.7	3.2	3.1	3.0	2.7	3.4	3.7	3.6	3.6	3.5	2.8	4.5	4.9	3.2	3.1	5.2	4.3	2.9	3.7	3.44	5.16
2-Jan	3.6	3.2	4.0	3.5	3.9	4.4	4.6	3.8	3.0	3.4	3.6	2.8	4.0	1.9	2.6	2.9	3.1	3.4	1.7	1.3	1.1	1.1	1.1	1.4	2.89	4.58
3-Jan	1.1	2.3	1.9	1.9	1.9	1.9	3.1	2.3	2.3	4.1	2.8	4.0	2.8	2.3	3.1	3.7	2.2	3.3	1.5	3.3	3.1	2.5	3.6	2.7	2.65	4.15
4-Jan	3.4	1.4	1.6	2.1	2.8	1.9	2.0	4.3	1.8	1.6	1.6	1.9	2.2	3.5	2.8	0.9	0.6	1.0	1.3	1.8	1.8	1.8	2.5	2.4	2.05	4.25
5-Jan	2.1	1.9	2.0	1.3	2.2	2.7	2.8	4.1	2.6	2.4	3.2	3.4	3.2	2.2	4.0	2.8	2.6	3.9	4.7	3.6	5.4	1.7	1.2	1.3	2.80	5.44
6-Jan	2.2	2.0	1.1	1.6	0.9	0.9	2.6	2.0	1.1	1.4	1.1	1.3	1.6	1.5	0.9	1.4	1.5	1.4	1.7	1.2	0.8	1.1	1.3	1.1	1.40	2.59
7-Jan	1.5	2.1	2.5	2.7	3.1	3.2	2.7	2.6	4.6	8.0	1.3	2.6	2.0	2.0	3.5	3.9	3.3	3.5	7.4	5.4	4.7	6.2	5.4	5.1	3.73	7.97
8-Jan	4.6	5.0	5.0	5.5	5.2	5.0	3.6	4.4	5.4	3.0	4.7	3.2	2.7	2.1	2.2	2.1	3.4	2.5	1.5	2.1	1.8	2.2	1.7	1.7	3.34	5.46
9-Jan	1.3	1.1	1.6	1.1	2.1	3.4	0.9	1.2	2.1	2.0	2.1	1.7	1.3	1.6	1.2	2.4	2.4	2.4	3.8	2.5	2.3	2.5	3.0	1.7	1.98	3.84
10-Jan	2.7	2.4	1.3	1.7	1.2	1.9	1.9	1.5	1.4	1.9	2.2	2.4	1.6	2.2	2.1	2.0	2.3	1.2	1.5	1.7	1.4	2.3	1.5	1.3	1.82	2.74
11-Jan	1.1	0.9	1.0	1.2	1.0	3.0	0.7	3.6	1.9	1.4	1.1	0.4	0.7	1.7	1.5	1.5	1.0	1.4	1.1	0.6	1.2	1.3	1.1	1.3	1.32	3.56
12-Jan	1.1	1.7	0.8	1.4	2.8	1.2	1.0	1.1	2.1	2.2	1.9	3.0	5.0	2.8	1.7	4.8	2.0	1.8	0.8	1.1	1.8	2.1	1.5	1.9	1.98	4.96
13-Jan	1.4	2.2	3.9	2.6	1.2	1.2	2.7	2.2	2.0	1.4	2.1	1.7	1.9	1.3	2.0	1.4	2.4	1.4	2.4	2.7	2.9	3.9	2.4	1.8	2.13	3.95
14-Jan	1.8	2.3	2.0	2.2	1.4	1.6	1.5	1.0	1.2	4.0	2.9	2.1	1.7	1.6	1.7	2.3	2.6	3.2	2.3	1.4	1.3	1.5	2.8	3.9	2.10	4.05
15-Jan	2.3	2.6	2.2	2.9	3.1	3.2	2.1	2.1	1.4	2.0	2.6	4.3	2.3	2.4	1.7	2.0	2.1	2.4	2.3	2.0	2.0	1.5	1.7	1.9	2.30	4.26
16-Jan	1.9	2.0	1.3	1.4	2.6	2.0	2.6	1.8	3.4	5.5	4.5	4.1	4.4	3.6	4.2	5.9	3.9	5.6	4.7	2.8	3.7	4.1	3.2	3.9	3.46	5.85
17-Jan	3.6	3.2	3.3	3.6	3.1	3.2	3.0	1.4	1.3	1.5	1.5	1.4	1.2	1.5	1.2	1.8	1.3	1.3	1.5	1.2	1.5	1.5	1.6	1.5	1.96	3.63
18-Jan	1.4	1.9	1.0	4.2	1.3	1.4	1.5	2.0	1.7	1.6	1.6	4.1	2.5	3.5	2.0	1.7	2.2	1.7	2.0	3.9	2.5	3.2	2.4	3.2	2.27	4.21
19-Jan	3.1	2.5	1.1	1.6	2.6	2.1	1.5	1.6	1.2	1.8	1.6	3.8	2.8	2.5	2.3	5.6	4.4	3.4	3.2	2.2	2.9	3.1	2.8	2.6	2.60	5.61
20-Jan	3.0	2.7	3.0	4.3	8.0	5.1	1.9	2.5	2.3	2.9	2.4	2.3	2.3	2.8	2.7	1.4	2.5	1.9	1.3	1.9	3.3	0.7	2.0	1.7	2.70	7.96
21-Jan	0.7	1.0	1.5	0.9	0.7	1.6	1.3	2.5	1.1	3.4	2.8	2.0	3.0	4.0	2.2	1.6	3.4	2.8	2.3	2.2	2.8	2.4	1.9	3.0	2.13	4.04
22-Jan	2.2	3.5	4.1	2.2	3.1	3.0	2.5	2.4	4.2	3.6	3.4	2.7	3.4	3.4	3.2	2.3	5.0	2.6	2.7	2.1	1.8	1.5	0.9	1.2	2.80	4.97
23-Jan	1.7	1.4	2.2	4.9	5.3	2.5	1.5	2.1	1.7	2.0	3.0	1.9	3.9	2.4	1.4	1.6	2.2	1.6	3.6	2.7	2.1	4.3	2.1	3.3	2.55	5.28
24-Jan	2.0	1.5	7.2	5.0	4.4	4.8	3.8	3.5	3.8	3.8	4.8	6.8	5.5	4.6	4.1	3.0	2.6	1.9	2.0	1.2	1.5	1.8	1.6	2.6	3.49	7.20
25-Jan	2.9	3.3	2.0	1.7	2.5	2.1	1.8	3.7	1.3	2.0	3.2	2.7	3.4	4.0	3.1	1.9	1.1	1.7	1.5	2.6	7.2	5.5	3.6	1.9	2.78	7.18
26-Jan	1.5	1.3	0.6	1.0	1.7	4.6	1.9	1.3	2.3	1.7	1.3	1.1	1.0	1.5	1.6	2.2	1.9	2.0	2.1	2.3	1.7	1.6	2.1	3.2	1.82	4.62
27-Jan	2.0	2.1	2.3	3.2	1.5	1.7	1.2	1.7	1.2	1.5	1.8	1.7	1.9	1.7	1.8	2.8	1.4	2.4	2.4	2.6	3.3	5.1	2.2	3.7	2.21	5.12
28-Jan	3.1	2.8	3.2	2.1	1.4	1.9	2.8	3.0	2.5	2.5	2.8	3.8	3.0	2.1	1.5	1.0	1.2	1.5	1.4	1.7	1.4	1.5	1.6	1.7	2.15	3.78
29-Jan	1.3	1.2	1.2	1.5	1.5	1.6	1.1	1.4	0.9	1.0	1.0	0.9	1.6	2.2	1.0	1.0	1.1	1.3	1.8	1.1	3.2	6.2	1.0	1.0	1.55	6.20
30-Jan	0.8	0.9	1.2	3.9	2.3	5.6	3.1	1.6	2.0	1.8	2.5	2.6	2.4	3.0	3.8	3.3	3.2	3.3	3.1	3.2	3.3	3.4	3.3	3.1	2.78	5.57
31-Jan	2.8	2.2	2.5	2.8	2.1	1.7	1.6	1.7	1.1	1.2	1.3	1.3	1.1	1.6	2.1	1.6	1.5	1.1	1.5	2.4	1.5	3.1	0.9	1.8	1.77	3.15
																								Diurnal Average		
																								Diurnal Maximum		
2.18 2.19 2.29 2.55 2.59 2.68 2.21 2.37 2.18 2.57 2.45 2.63 2.57 2.49 2.35 2.43 2.41 2.38 2.40 2.27 2.59 2.74 2.15 2.34																										
4.61 4.97 7.20 5.46 7.96 5.57 4.58 4.37 5.36 7.97 4.82 6.77 5.47 4.57 4.16 5.85 4.97 5.58 7.39 5.43 7.18 6.20 5.41 5.11																										
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m^3 24-hr 100 ul/m^3																										



**WCAS - Genesee**  
**Summary of Hourly Standard Deviations**

**Wind Direction (WD) - deg**  
**January 2015**

Maximum Value: 97.33 deg on Jan 16 06:00		Maximum Daily Average: 33.12 deg on Jan 27		Hours in Service: 744																						
Minimum Value: 1.9 deg on Jan 30 03:00		Minimum Daily Average: 7.30 deg on Jan 13		Hours of Data: 744																						
Maximum Diurnal Average: 17.95 deg at hour 19		Minimum Diurnal Average: 11.43 deg at hour 20		Hours of Missing Data: 0																						
Monthly Average: 14.811 deg		Percentiles: P <sub>1</sub> = 3.3 P <sub>10</sub> = 5.7 Q <sub>1</sub> = 7.6 Median = 10.0 Q <sub>3</sub> = 16.2 P <sub>90</sub> = 29.1 P <sub>99</sub> = 77.9		Hours of Calibration: 0																						
				Percent Operational Time: 100.0																						
Day	Hourly Period Ending At																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Jan	8.7	9.3	6.9	6.9	8.8	10.3	7.8	8.1	8.9	10.7	10.1	10.0	9.4	9.9	8.0	7.0	7.1	7.6	40.3	8.7	11.0	12.4	10.0	14.5	10.51	40.30
2-Jan	11.0	11.4	10.8	11.4	9.6	10.4	10.6	12.6	11.8	7.2	8.3	8.9	9.2	12.4	13.9	15.4	6.0	11.8	12.3	6.8	4.1	6.2	5.8	5.6	9.73	15.44
3-Jan	9.8	11.2	9.9	6.8	8.1	5.7	6.4	6.9	6.3	26.4	42.1	14.3	9.5	5.7	8.1	8.6	6.0	8.8	5.6	5.4	4.5	8.2	12.0	15.4	10.48	42.06
4-Jan	22.9	8.3	6.6	7.7	7.3	8.3	7.5	18.3	4.6	7.0	4.5	9.7	6.2	5.6	8.4	8.8	20.8	8.3	6.0	20.8	8.6	8.1	9.9	9.4	9.73	22.92
5-Jan	17.3	16.8	9.9	21.4	18.3	11.0	14.2	10.0	10.3	10.7	10.6	11.5	14.4	13.3	11.1	7.1	12.4	38.0	24.6	5.9	33.5	15.0	14.1	9.7	15.05	37.99
6-Jan	13.6	19.8	6.5	7.7	14.0	12.7	45.6	19.7	6.4	7.0	24.1	16.3	16.1	23.2	14.1	17.6	17.7	15.5	12.6	16.4	14.7	10.0	10.1	9.9	15.46	45.61
7-Jan	7.9	7.8	8.1	6.7	7.2	6.9	6.4	7.8	11.0	29.9	13.7	11.2	11.4	22.5	16.0	12.0	10.1	11.6	8.3	8.5	9.7	6.5	6.0	5.8	10.56	29.91
8-Jan	6.1	6.0	6.1	6.1	6.1	5.6	5.0	5.9	6.0	6.9	10.8	9.6	7.4	5.9	5.1	5.7	8.8	21.1	13.2	6.9	4.6	6.0	12.6	14.1	7.99	21.07
9-Jan	8.0	8.1	18.9	13.1	80.3	38.5	77.9	46.2	39.3	6.6	9.9	80.0	17.5	10.5	11.6	25.6	24.6	27.2	66.7	15.9	8.2	5.7	6.9	11.2	27.44	80.30
10-Jan	16.9	13.0	7.9	13.7	7.9	18.1	13.1	14.1	13.3	14.0	12.9	14.7	12.8	12.4	10.6	9.1	12.6	11.7	10.4	7.0	40.6	14.6	6.3	8.5	13.17	40.59
11-Jan	4.4	3.5	3.5	2.6	10.0	19.3	2.9	16.6	13.3	21.5	21.3	24.5	10.2	76.4	26.9	48.2	10.6	11.7	11.4	7.1	20.6	17.9	32.0	38.5	18.95	76.41
12-Jan	82.8	57.2	43.3	17.3	6.7	7.5	6.0	6.3	8.4	19.9	7.1	9.3	13.6	8.7	5.1	28.8	42.8	3.4	3.9	4.5	3.6	5.2	4.1	5.1	16.69	82.84
13-Jan	3.7	4.9	13.0	8.7	4.9	3.0	7.5	5.6	5.0	5.4	6.3	6.6	9.2	11.4	7.6	4.7	8.6	10.0	9.3	7.4	9.7	9.4	7.4	5.6	7.30	13.02
14-Jan	7.0	4.4	8.1	7.3	10.9	4.6	4.5	4.9	4.6	32.8	7.7	7.1	17.6	10.6	7.4	15.0	8.2	13.3	25.2	7.0	5.1	13.4	10.0	43.4	11.67	43.44
15-Jan	84.1	31.2	34.6	79.5	62.5	20.0	37.2	27.4	14.5	18.5	26.7	30.3	25.5	12.7	15.0	15.7	13.4	11.7	16.9	16.5	15.7	10.0	11.6	17.4	27.02	84.12
16-Jan	18.4	27.6	66.1	56.6	36.9	97.3	22.0	5.1	12.8	10.8	9.5	8.8	9.6	7.9	9.8	9.5	10.3	10.1	10.1	10.1	8.5	9.7	10.6	7.7	20.24	97.33
17-Jan	6.8	6.3	6.0	8.2	9.4	10.3	10.3	16.7	8.0	7.5	8.2	6.0	9.1	7.1	6.9	7.4	9.8	5.3	4.4	4.3	6.2	6.7	4.6	4.7	7.51	16.69
18-Jan	4.7	5.4	3.4	15.6	4.0	6.0	8.4	48.8	46.2	35.3	36.8	29.3	45.8	25.0	14.8	23.5	26.3	10.8	20.6	22.2	12.8	21.6	12.8	32.0	21.34	48.76
19-Jan	18.5	9.9	9.3	6.0	28.4	16.0	20.2	4.8	7.4	5.7	5.6	20.8	8.4	7.4	9.1	10.3	8.9	7.1	8.4	8.0	8.6	8.5	8.7	8.5	10.60	28.36
20-Jan	8.7	7.9	8.5	9.3	8.2	15.8	9.6	8.1	10.1	12.1	7.1	8.2	9.4	13.0	6.8	6.6	8.7	9.5	17.6	20.9	6.7	3.3	5.2	3.5	9.38	20.88
21-Jan	5.2	3.2	3.5	3.6	4.3	9.0	6.5	6.9	4.4	7.9	9.9	10.9	17.9	32.6	7.3	10.4	9.9	7.9	7.0	4.4	7.2	6.9	4.9	6.0	8.23	32.63
22-Jan	6.5	5.5	6.3	6.5	6.2	7.6	7.1	8.8	14.9	8.6	8.3	6.0	7.6	9.0	9.5	10.2	7.4	8.0	9.0	7.9	7.5	13.0	7.8	10.2	8.31	14.91
23-Jan	6.8	8.7	13.6	41.6	16.9	9.8	8.3	5.5	5.3	5.2	8.4	8.4	9.1	6.8	10.2	8.0	12.0	11.5	14.0	16.1	21.9	17.0	20.6	9.5	12.29	41.56
24-Jan	30.1	8.6	10.8	10.2	9.7	8.8	8.4	8.2	8.7	8.9	9.8	8.6	7.2	7.3	8.2	7.6	69.7	23.5	19.8	10.0	14.0	9.0	11.7	10.4	13.72	69.66
25-Jan	7.7	11.9	8.8	14.2	11.8	5.4	38.0	13.2	9.5	35.9	18.4	21.3	14.1	10.3	11.6	12.0	21.2	22.8	24.7	19.4	13.6	11.8	30.9	14.2	16.77	37.99
26-Jan	14.0	9.5	5.9	9.7	85.8	17.2	14.0	9.3	54.8	10.9	10.2	6.6	9.8	28.2	32.4	9.6	7.2	9.0	50.7	17.4	12.5	20.0	76.5	64.4	24.41	85.83
27-Jan	19.1	44.0	27.5	67.2	9.5	17.2	16.3	18.2	32.2	29.5	13.8	16.0	15.2	21.9	27.8	52.0	49.7	49.7	32.3	16.3	23.1	93.4	12.7	90.3	33.12	93.38
28-Jan	28.6	9.1	10.0	8.2	6.5	7.9	13.3	9.8	7.8	10.7	10.4	10.7	11.2	44.6	10.3	18.6	12.9	12.7	18.4	15.3	11.6	20.0	20.8	20.4	14.57	44.59
29-Jan	17.6	15.7	13.8	15.7	12.7	16.8	13.8	11.7	19.2	9.7	17.9	14.9	22.3	37.4	21.0	33.8	14.4	27.6	22.4	12.9	35.1	42.1	3.8	3.6	19.01	42.12
30-Jan	3.3	2.9	1.9	38.3	29.6	15.7	8.0	10.5	7.7	16.2	28.1	12.4	10.5	12.8	9.6	8.1	8.0	9.0	7.8	7.7	7.7	10.4	8.0	9.2	11.81	38.26
31-Jan	8.1	7.9	9.3	8.9	8.7	9.1	8.9	14.2	15.7	22.0	17.9	15.4	8.2	33.6	16.9	16.0	27.3	9.5	22.7	16.6	48.3	24.5	10.7	5.7	16.10	48.34
16.40 12.82 12.87 17.32 17.78 14.58 15.02 13.23 13.82 14.89 14.08 15.10 13.07 17.62 12.29 15.26 16.55 14.38 17.95 11.43 14.18 15.05 13.20 16.60																								Diurnal Average		
84.12 57.16 66.07 79.46 85.83 97.33 77.89 48.76 54.84 35.89 42.06 80.01 45.81 76.41 32.38 51.96 69.66 49.71 66.69 22.24 48.34 93.38 76.50 90.34																								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  
JANUARY 2015**