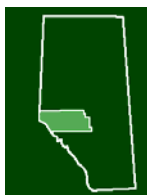


# **Capital Power**

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

**Prepared by:**

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





October 12<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 September 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>, NO<sub>2</sub> and PM<sub>2.5</sub>.

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

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

**3. Monitoring Notes:**

**AMS 910 (Genesee)**

The PM<sub>2.5</sub> analyzer experienced unstable operation, returning an uptime of 99.2%. All other analyzers and meteorological equipment returned uptimes of 100% in September.

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'.

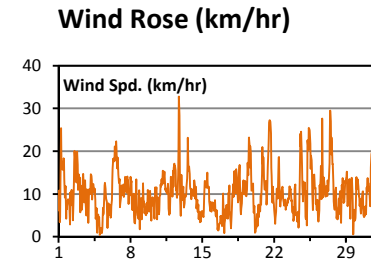
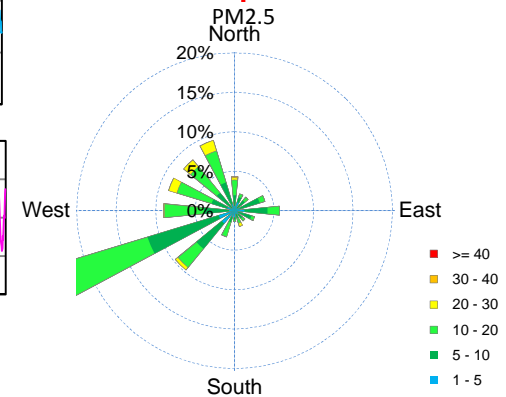
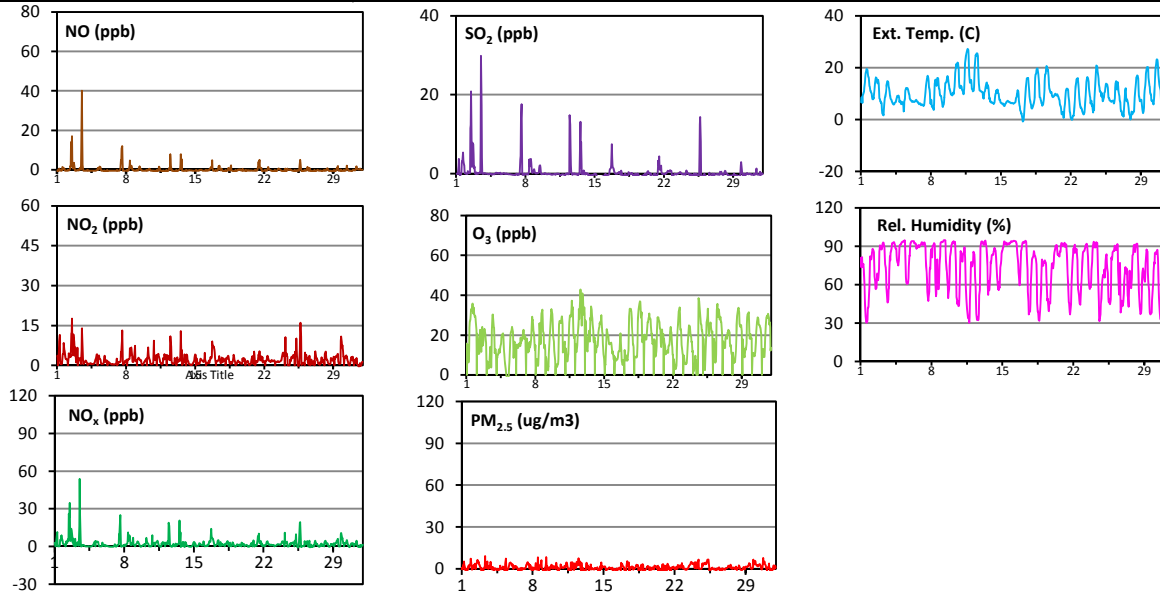
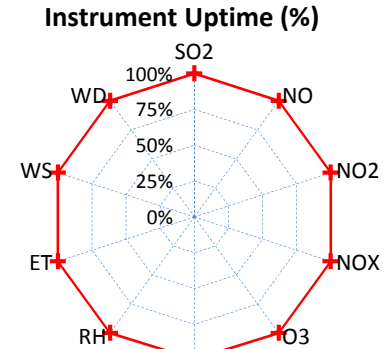
Robert Scotten  
Executive Director

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

Patrick Andersen  
Environmental Specialist

# WCAS - September 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	0.4	100.0%	3.8	Sep-2	48	0	29.9	Sep-03 13:00	172	0
NO	ppb	0.1	100.0%	< 0.1	#N/A	-	-	40.1	Sep-03 13:00	-	-
NO <sub>2</sub>	ppb	2.4	100.0%	6.1	Sep-2	-	-	17.6	Sep-02 13:00	159	0
NO <sub>x</sub>	ppb	2.5	100.0%	8.5	Sep-2	-	-	53.8	Sep-03 13:00	-	-
O <sub>3</sub>	ppb	18	100.0%	28	Sep-12	-	-	43	Sep-12 15:00	82	0
PM <sub>2.5</sub>	µg/m <sup>3</sup>	1	99.2%	3	Sep-24	30	0	9	Sep-03 8:00	-	-



## Monthly Summary

- \* 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 September 2015.
- \* All compliance parameters are above 90% operational for the month of September 2015.
- \* Routine calibration was performed on September 24, 2015.

**WEST CENTRAL AIRSHED SOCIETY**

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

**AMS 910  
GENESEE  
SEPTEMBER 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**

EPCOR / Genesee Station 910													September 2015		
Parameter	Calibration Hours	Number of Data	Percent Uptime	Mean	Min	Max	Percentile					Exceedences		24 Hour Average Max (ppm)	
							P10	Q1	Median	Q3	P90	1-hour	24-hour		
SO <sub>2</sub> (ppb)	35	685	100.0	0.6	0.0	29.9	0.0	0.0	0.0	0.1	1.2	0	0	0.004	
O <sub>3</sub> (ppb)	35	685	100.0	18.3	0.0	42.9	7.3	11.5	17.6	24.8	30.4	0	-	0.028	
NO (ppb)	35	685	100.0	0.5	0.0	40.1	0.0	0.0	0.0	0.0	1.0	-	-	-	
NO <sub>2</sub> (ppb)	35	685	100.0	2.4	0.0	17.6	0.5	1.0	1.8	3.1	4.5	0	0	0.006	
NO <sub>x</sub> (ppb)	35	685	100.0	2.6	0.0	53.8	0.0	0.5	1.5	3.0	4.9	-	-	-	
Particulate Matter 2.5 microns (µ/m <sup>3</sup> )	5	709	99.2	1.4	0.0	9.3	0.0	0.0	0.8	2.3	3.9	0	0	3.06 ug/m3	
Wind Speed (kph)	0	720	100.0	10.1	0.4	32.8	4.4	6.6	9.6	12.6	16.5	-	-	-	
Temperature - 2m (°C)	0	720	100.0	10.1	-0.8	27.3	4.1	6.5	9.2	13.2	16.9	-	-	-	
Temperature - 10m (°C)	0	720	100.0	10.0	1.0	26.4	4.7	6.2	9.3	13.1	17.0	-	-	-	
Delta Temperature (°C)	0	720	100.0	-0.1	-2.7	4.1	-1.4	-1.0	-0.4	0.7	1.9	-	-	-	
Relative Humidity (%)	0	720	100.0	73.3	30.3	94.8	44.8	58.9	78.7	89.7	92.7	-	-	-	
Global Solar Radiation (W/m <sup>2</sup> )	0	720	100.0	142.9	0.0	734.2	0.0	0.0	11.3	244.6	500.6	-	-	-	
Std Dev Wind Direction (deg)	0	720	100.0	19.7	3.1	95.2	7.7	10.6	15.1	22.6	38.6	-	-	-	
Std Dev Wind Speed (kph)	0	720	100.0	2.7	0.6	11.5	1.3	1.7	2.5	3.5	4.4	-	-	-	



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

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

Maximum Value: 29.86 ppb on Sep 3 13:00	Maximum Daily Average: 3.76 ppb on Sep 2	Hours in Service: 720
Minimum Value: 0.0 ppb on Sep 1 01:00	Minimum Daily Average: 0.00 ppb on Sep 15	Hours of Data: 685
Maximum Diurnal Average: 2.86 ppb at hour 13	Minimum Diurnal Average: 0.02 ppb at hour 1	Hours of Missing Data: 35
Monthly Average: 0.638 ppb	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> = 0.1 P <sub>90</sub> = 1.2 P <sub>99</sub> = 13.2	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-Sep	0.0	0.0	Z	0.0	0.1	2.0	3.8	0.5	0.0	0.0	0.1	0.0	0.4	2.7	3.2	3.2	5.3	3.4	2.7	1.9	0.2	0.2	0.1	0.0	1.30	5.33
2-Sep	0.0	0.0	Z	0.0	0.6	0.5	0.3	0.3	0.4	0.2	11.5	12.4	20.9	6.6	1.7	7.8	7.5	7.4	4.9	1.3	1.8	0.3	0.0	0.2	3.76	20.88
3-Sep	0.0	0.3	Z	0.0	0.1	0.0	0.1	0.3	0.3	0.2	0.1	7.3	29.9	17.3	4.2	0.2	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	2.65	29.86
4-Sep	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	0.13
5-Sep	0.3	0.2	Z	0.1	0.2	0.1	0.0	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.08	0.27
6-Sep	0.0	0.1	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	0.0	0.00	0.06
7-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.4	13.5	17.6	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.06	17.64
8-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.5	3.6	1.8	2.4	3.2	3.8	3.0	0.5	0.3	0.2	0.2	0.8	0.9	1.2	0.4	0.2	1.00	3.77
9-Sep	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.3	1.4	1.9	2.2	1.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.39	2.15	
10-Sep	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	0.0	0.00	0.00
11-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.05
12-Sep	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	14.8	12.4	6.5	2.2	0.4	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	1.60	14.84
13-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	4.2	13.1	1.5	8.0	0.0	0.0	0.2	0.4	0.0	0.8	0.5	0.3	1.26	13.12
14-Sep	0.0	0.0	Z	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.15
15-Sep	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	0.0	0.00	0.00
16-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.1	1.3	1.4	2.1	7.5	4.2	2.2	1.5	1.4	1.0	0.7	1.09	7.46	
17-Sep	0.2	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.4	0.2	0.3	0.1	0.0	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.72
18-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.05	0.42
19-Sep	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	0.0	0.00	0.02
20-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.6	0.6	0.3	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.09	0.63
21-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.4	2.0	4.4	1.6	1.0	1.1	1.5	2.1	0.5	0.0	0.0	0.0	0.0	0.0	0.81	4.38
22-Sep	0.0	0.0	Z	0.0	0.0	0.3	0.2	0.2	0.3	0.7	0.7	0.5	0.6	0.5	0.7	0.9	0.6	0.7	0.8	0.0	0.0	0.0	0.0	0.0	0.33	0.89
23-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.08	0.45
24-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.8	0.6	0.4	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10	0.81
25-Sep	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	4.9	12.5	14.4	8.1	0.0	0.0	0.0	0.0	0.0	0.0	1.74	14.39
26-Sep	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	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.30
27-Sep	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	0.5	0.3	0.0	0.5	0.0	0.0	0.0	0.0	0.05	0.49
28-Sep	0.0	0.0	Z	0.4	0.7	0.7	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	0.09	0.74
29-Sep	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	2.0	2.9	2.1	0.4	0.0	0.0	0.33	2.93
30-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.14

0.02	0.03	--	0.02	0.06	0.13	0.19	0.08	0.11	0.29	0.73	1.59	2.86	2.34	1.40	1.48	1.11	1.00	0.53	0.34	0.23	0.16	0.08	0.06	Diurnal Average	
0.27	0.35	--	0.38	0.74	1.99	3.77	0.57	0.59	3.62	11.51	14.84	29.86	17.26	17.64	12.50	14.39	8.08	4.92	2.93	2.12	1.39	1.03	0.66	Diurnal Maximum	

Z - zerospan      C - Calibration  
 Alberta Ambient Air Quality Objectives (AAQO): 1-hr 172 ppb      24-hr 48 ppb



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

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

Maximum Value: 42.90 ppb on Sep 12 15:00		Maximum Daily Average: 27.58 ppb on Sep 12		Hours in Service: 720																							
Minimum Value: 0.0 ppb on Sep 5 03:00		Minimum Daily Average: 9.97 ppb on Sep 16		Hours of Data: 685																							
Maximum Diurnal Average: 27.41 ppb at hour 17		Minimum Diurnal Average: 9.47 ppb at hour 7		Hours of Missing Data: 35																							
Monthly Average: 18.273 ppb		Percentiles: P <sub>1</sub> = 2.3 P <sub>10</sub> = 7.3 Q <sub>1</sub> = 11.5 Median = 17.6 O <sub>3</sub> = 24.8 P <sub>90</sub> = 30.4 P <sub>99</sub> = 37.3		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-Sep	15.8	Z	15.3	11.8	12.2	6.2	12.0	23.8	26.5	28.0	30.1	32.9	32.3	33.6	35.2	35.9	30.8	33.8	32.2	30.5	29.0	29.7	28.6	26.3	25.77	35.86	
2-Sep	22.5	Z	20.7	18.6	12.8	13.1	10.4	10.7	15.9	22.6	14.9	17.1	11.5	21.9	24.2	14.7	15.1	17.6	21.3	22.2	23.1	20.7	20.1	17.6	17.80	24.15	
3-Sep	16.3	Z	6.9	6.5	4.1	5.1	3.2	5.9	7.3	10.8	14.1	10.4	3.8	10.1	22.2	29.9	30.4	28.4	24.1	23.7	18.6	10.9	13.1	12.3	13.83	30.40	
4-Sep	10.7	Z	9.1	8.5	10.2	10.4	11.7	12.9	11.9	11.1	13.4	14.5	15.8	19.2	19.4	20.3	19.5	20.9	19.6	12.0	10.4	8.2	5.9	3.2	12.98	20.91	
5-Sep	2.3	Z	0.0	0.0	0.0	0.0	0.0	0.3	4.0	6.7	15.2	19.3	21.0	22.1	22.7	24.0	23.1	21.5	15.7	8.5	15.9	16.8	13.4	12.6	11.52	24.03	
6-Sep	12.1	Z	15.1	15.2	14.7	13.9	13.5	15.0	15.3	15.9	15.4	14.5	18.8	15.7	18.4	17.2	18.0	19.5	20.9	22.6	19.3	18.0	19.8	19.7	16.89	22.63	
7-Sep	17.8	Z	15.4	18.3	15.6	12.4	11.3	12.4	11.7	13.5	16.6	13.9	15.4	16.6	18.4	26.0	29.3	27.4	27.6	22.2	21.1	20.1	13.5	12.5	17.79	29.26	
8-Sep	15.0	Z	7.9	8.0	7.9	5.8	4.5	5.2	9.3	17.1	26.1	22.6	15.5	17.0	26.3	30.7	32.0	32.7	27.9	21.9	20.8	13.9	13.3	15.1	17.24	32.71	
9-Sep	12.1	Z	9.1	8.0	6.7	4.0	3.7	2.3	4.3	10.7	16.5	19.9	21.8	27.2	30.3	33.1	32.0	30.6	27.4	23.0	19.0	16.8	12.3	10.4	16.57	33.11	
10-Sep	7.1	Z	4.4	5.1	5.3	4.0	5.1	5.3	7.9	17.4	25.3	27.2	26.8	26.3	26.1	27.5	28.8	29.3	25.6	11.3	15.1	15.2	15.3	15.2	16.37	29.34	
11-Sep	16.7	Z	13.3	12.2	10.0	9.5	6.8	8.3	10.4	15.5	21.8	26.2	29.9	29.9	29.1	30.6	33.2	37.2	32.6	34.1	27.0	20.5	18.5	19.6	21.43	37.21	
12-Sep	19.9	Z	15.5	12.7	11.5	12.1	14.9	18.6	21.4	25.2	33.1	27.9	30.8	38.2	42.9	38.7	33.0	24.8	37.0	40.9	38.3	32.7	30.2	33.8	27.58	42.90	
13-Sep	30.7	Z	27.4	26.3	20.5	17.0	12.7	11.7	15.3	18.3	20.2	22.1	19.2	16.6	28.8	27.5	34.3	32.6	29.8	28.5	25.5	22.2	17.3	16.4	22.64	34.32	
14-Sep	18.9	Z	17.0	12.8	11.3	13.9	14.5	14.0	15.0	17.6	21.4	23.7	23.9	26.2	25.4	26.9	26.5	30.0	24.2	21.6	20.8	15.5	10.3	9.2	19.15	30.01	
15-Sep	8.0	Z	5.4	5.0	9.9	17.9	23.0	22.1	21.2	19.0	19.6	17.2	15.3	15.8	15.8	15.6	15.9	16.3	15.0	11.7	10.7	11.9	10.5	7.8	14.37	23.01	
16-Sep	9.6	Z	9.1	7.0	7.3	7.3	7.7	7.5	7.7	8.8	11.0	11.8	11.9	11.9	15.2	18.1	20.9	13.8	11.0	7.1	5.7	5.0	6.2	7.6	9.97	20.87	
17-Sep	7.1	Z	12.5	8.5	8.4	7.3	9.9	7.3	7.9	7.3	10.9	12.4	21.3	29.4	33.2	32.8	32.4	33.3	31.8	28.1	24.6	19.7	15.3	15.2	18.11	33.26	
18-Sep	13.9	Z	9.2	8.9	9.0	9.0	9.4	8.7	9.7	14.3	25.9	31.8	33.0	34.8	35.6	36.9	36.8	33.3	28.8	31.4	24.3	16.4	18.2	17.9	21.62	36.94	
19-Sep	18.8	Z	20.2	18.8	19.0	18.1	17.7	17.8	20.0	24.6	26.6	26.3	28.7	29.0	30.8	28.4	28.3	27.7	24.5	20.5	20.8	17.7	15.5	16.2	22.43	30.78	
20-Sep	15.2	Z	18.1	17.3	13.3	9.2	10.3	11.7	14.5	22.5	29.0	28.4	28.9	27.3	27.0	26.2	23.3	23.1	16.2	14.0	17.9	22.7	19.2	17.6	19.69	28.98	
21-Sep	20.6	Z	18.4	16.5	14.8	13.3	10.3	11.3	11.8	11.1	11.2	12.4	11.2	14.7	14.8	15.5	17.0	21.5	24.0	21.6	21.6	15.5	13.7	10.0	15.33	24.04	
22-Sep	10.1	Z	8.0	6.5	5.2	4.8	2.9	3.1	4.9	9.1	17.3	22.6	25.4	28.6	31.8	32.8	33.9	30.3	22.7	22.9	19.8	15.2	12.4	10.8	16.57	33.93	
23-Sep	10.1	Z	9.8	8.5	7.1	5.9	5.6	5.3	6.0	5.9	8.0	11.1	15.4	19.4	22.4	24.8	24.6	24.4	22.1	20.1	18.9	16.5	16.8	11.5	13.92	24.82	
24-Sep	12.1	Z	3.7	2.1	3.9	4.6	9.6	6.3	7.5	C	C	C	C	C	38.5	37.5	36.9	32.4	30.3	28.2	25.8	24.9	22.4	22.5	19.40	38.50	
25-Sep	19.5	Z	18.4	12.9	12.4	11.5	2.4	11.9	16.1	19.7	26.2	27.9	29.7	33.2	27.8	21.3	19.6	25.1	25.2	26.3	26.2	23.9	21.5	21.0	20.86	33.23	
26-Sep	21.7	Z	17.2	16.8	18.1	15.6	11.2	6.2	6.5	10.4	24.3	32.7	35.7	30.4	29.0	33.0	31.8	30.3	27.7	29.3	28.6	26.5	26.7	21.8	23.11	35.66	
27-Sep	19.1	Z	16.9	14.0	13.3	14.2	14.1	13.6	18.6	19.0	18.8	20.0	18.2	21.4	20.4	22.7	22.1	21.5	21.4	16.0	14.0	14.9	11.5	10.6	17.23	22.71	
28-Sep	10.0	Z	11.3	7.9	7.7	5.9	6.9	6.4	9.0	11.1	16.3	23.9	28.1	30.8	32.4	33.3	33.7	31.3	25.8	25.1	24.2	24.1	25.1	23.5	19.73	33.70	
29-Sep	22.0	Z	18.0	14.9	12.7	10.0	9.4	8.8	12.8	13.4	12.7	15.7	25.6	29.1	30.2	30.7	31.0	31.5	20.2	18.2	19.2	20.6	18.1	18.3	19.27	31.45	
30-Sep	18.5	Z	11.2	10.7	10.9	10.1	9.8	9.3	9.9	11.9	17.9	21.2	24.6	27.0	27.9	28.9	27.9	25.3	25.0	24.9	24.1	23.7	22.9	20.1	19.30	28.88	
15.14		--	12.81	11.34	10.53	9.74	9.47	10.12	12.01	15.12	19.30	20.95	22.06	24.25	26.73	27.39	27.41	26.91	24.60	22.28	21.00	18.67	16.91	15.88	Diurnal Average		
30.68		--	27.44	26.27	20.48	18.09	23.01	23.80	26.46	28.00	33.13	32.95	35.66	38.19	42.90	38.71	36.93	37.21	37.02	40.93	38.26	32.72	30.21	33.81	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 Oxide (NO) - ppb**  
**September 2015**

Maximum Value: 40.05 ppb on Sep 3 13:00		Maximum Daily Average: 3.14 ppb on Sep 3		Hours in Service: 720																						
Minimum Value: 0.0 ppb on Sep 1 01:00		Minimum Daily Average: 0.00 ppb on Sep 4		Hours of Data: 685																						
Maximum Diurnal Average: 2.75 ppb at hour 13		Minimum Diurnal Average: 0.00 ppb at hour 1		Hours of Missing Data: 35																						
Monthly Average: 0.471 ppb		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> = 1.0 P <sub>99</sub> = 10.4		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-Sep	0.0	0.0	Z	0.0	0.0	0.7	0.2	0.0	0.0	0.0	0.0	0.1	1.5	1.1	0.7	0.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.24	1.54	
2-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.5	2.0	1.5	14.1	11.5	17.1	3.2	0.6	2.8	2.5	3.6	1.3	0.0	0.0	0.0	0.0	2.64	17.09	
3-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.8	1.1	0.4	0.1	10.7	40.1	16.5	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.14	40.05	
4-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
5-Sep	0.0	0.0	Z	1.0	0.1	0.2	0.7	1.6	1.5	1.3	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	0.29	1.61	
6-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
7-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	5.0	4.6	10.7	12.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.60	12.02	
8-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.5	2.0	4.8	1.0	0.9	2.2	2.0	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.64	4.81	
9-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.8	1.7	1.7	0.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.24	1.71	
10-Sep	0.0	0.0	Z	0.0	0.0	0.3	0.0	0.0	0.6	0.5	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	0.06	0.55	
11-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.6	1.6	0.9	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	0.14	1.60	
12-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.7	1.0	0.1	8.0	5.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.77	8.03	
13-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	2.8	8.0	0.7	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.77	7.96	
14-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
15-Sep	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.08	
16-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	1.0	1.3	1.0	1.5	5.0	1.2	0.0	0.0	0.0	0.0	0.51	4.97	
17-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.5	1.8	1.8	2.1	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.32	2.11	
18-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.4	0.0	0.0	0.0	1.5	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.23	2.37	
19-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.06	0.57	
20-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	
21-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.4	2.1	4.1	2.5	5.1	1.8	0.8	0.7	0.9	1.1	0.0	0.0	0.0	0.0	0.0	0.85	5.11	
22-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	1.5	0.8	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.14	1.51	
23-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.7	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.12	0.74	
24-Sep	0.0	0.0	Z	0.6	0.0	0.0	0.0	0.0	0.7	C	C	C	C	C	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.10	0.70	
25-Sep	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	1.9	5.1	3.5	1.7	0.0	0.0	0.0	0.0	0.0	0.53	5.08	
26-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.3	1.5	0.3	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.14	1.54	
27-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.01	
28-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.5	0.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.09	0.84	
29-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.8	0.4	1.4	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.21	1.97	
30-Sep	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	1.1	2.2	0.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20	2.16	
		0.00	0.00	--	0.05	0.00	0.04	0.03	0.17	0.53	0.84	0.98	1.56	2.75	1.65	0.84	0.75	0.32	0.40	0.09	0.02	0.00	0.00	0.00	Diurnal Average	
		0.00	0.00	--	0.98	0.07	0.71	0.70	1.61	2.01	4.81	14.12	11.49	40.05	16.48	12.02	5.45	3.53	4.97	1.32	0.57	0.00	0.00	0.00	Diurnal Maximum	
Z - zerospan		C - Calibration																								
Alberta Ambient Air Quality Objectives (AAAQO):		1-hr --- ppb																						24-hr --- ppb		





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

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

Maximum Value: 17.65 ppb on Sep 2 13:00      Maximum Daily Average: 6.11 ppb on Sep 2																	Hours in Service: 720 Hours of Data: 685																																
Minimum Value: 0.0 ppb on Sep 25 11:00      Minimum Daily Average: 0.74 ppb on Sep 6 Maximum Diurnal Average: 3.00 ppb at hour 13      Minimum Diurnal Average: 1.98 ppb at hour 11 Monthly Average: 2.427 ppb      Percentiles: P <sub>1</sub> = 0.1 P <sub>10</sub> = 0.5 Q <sub>1</sub> = 1.0 Median = 1.8 Q <sub>3</sub> = 3.1 P <sub>90</sub> = 4.5 P <sub>99</sub> = 11.9																	Hours of Missing Data: 35 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-Sep	3.6	3.1	Z	3.3	5.4	9.1	11.5	1.6	0.4	0.7	0.9	0.4	1.2	3.9	4.4	4.3	8.5	6.0	5.3	4.5	2.6	2.3	2.5	2.3	3.81	11.47																							
2-Sep	2.1	1.8	Z	2.4	4.6	3.5	3.0	4.2	4.1	3.1	12.1	12.1	17.6	8.5	3.8	11.7	11.4	9.0	6.6	3.6	6.7	2.8	1.1	4.5	6.11	17.65																							
3-Sep	2.0	6.6	Z	2.7	2.0	1.8	2.0	2.8	2.2	1.0	0.5	5.5	14.0	10.3	3.5	0.5	0.5	0.6	1.2	1.2	1.5	1.8	1.7	1.3	2.92	13.99																							
4-Sep	1.1	0.7	Z	0.7	0.6	0.7	0.6	0.6	0.7	0.8	0.6	0.6	0.5	0.4	0.5	0.5	0.6	0.6	0.7	1.1	1.6	2.1	2.6	3.2	0.96	3.21																							
5-Sep	4.0	4.2	Z	3.5	3.5	3.7	3.3	2.5	2.4	2.2	1.3	0.6	0.5	0.5	0.5	0.6	0.7	1.0	2.0	3.7	1.9	1.2	1.6	1.8	2.07	4.24																							
6-Sep	2.0	1.7	Z	1.4	1.5	1.2	1.1	0.8	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.5	0.4	0.3	0.3	0.4	0.4	0.5	0.6	0.74	1.99																							
7-Sep	1.4	2.5	Z	1.4	0.5	1.2	1.4	1.1	1.4	1.3	1.4	5.0	4.8	9.0	13.1	6.9	0.6	0.3	0.5	1.0	1.2	1.7	1.0	1.3	2.60	13.15																							
8-Sep	1.6	2.2	Z	2.2	2.1	2.3	2.4	2.3	2.7	6.5	3.7	4.1	6.7	5.9	3.6	1.3	1.2	1.3	1.7	3.2	3.9	7.3	2.5	1.6	3.14	7.34																							
9-Sep	1.6	1.6	Z	2.1	2.3	2.5	2.9	2.7	2.4	2.0	1.8	2.1	1.8	0.8	0.4	0.1	0.2	0.5	0.7	1.1	1.4	1.4	2.0	1.9	1.59	2.94																							
10-Sep	2.3	2.6	Z	2.6	3.2	6.8	4.5	3.2	2.3	2.0	1.6	0.7	0.6	0.4	0.5	0.6	0.5	0.6	1.1	9.3	2.9	2.1	2.5	2.2	2.39	9.28																							
11-Sep	2.4	3.8	Z	3.4	3.7	4.1	4.3	3.5	3.1	2.2	1.6	1.1	1.0	0.6	0.4	0.4	0.5	0.7	2.8	2.1	2.9	4.3	3.4	2.6	2.39	4.29																							
12-Sep	2.7	3.9	Z	3.5	3.9	3.6	3.1	2.2	3.2	3.5	2.0	11.0	10.7	7.0	2.3	0.8	0.6	0.8	0.5	0.5	0.7	1.2	2.8	1.2	3.12	10.96																							
13-Sep	0.8	0.8	Z	1.0	3.0	1.2	1.3	1.6	2.0	1.9	2.3	1.7	6.2	12.9	2.2	5.8	0.2	0.3	1.1	1.8	1.1	4.2	4.2	3.9	2.67	12.89																							
14-Sep	0.7	0.2	Z	4.1	3.7	2.0	1.8	1.3	0.7	0.5	0.4	0.4	0.4	0.1	0.2	0.1	0.3	0.2	0.6	1.1	1.1	1.8	3.0	3.6	1.23	4.11																							
15-Sep	4.1	3.9	Z	2.7	1.7	0.9	0.5	0.5	0.7	0.9	0.6	1.4	2.3	2.6	2.3	2.1	1.8	1.7	1.6	1.4	1.3	1.5	2.5	4.7	1.89	4.66																							
16-Sep	2.2	1.1	Z	0.9	0.8	0.8	0.8	1.1	1.1	1.8	0.9	1.4	2.1	3.1	2.5	2.8	3.4	9.1	7.8	7.4	6.9	7.0	5.9	4.8	3.31	9.08																							
17-Sep	2.8	1.8	Z	1.7	1.4	1.4	1.7	1.7	1.8	2.4	3.5	2.7	1.6	1.1	0.7	1.3	2.8	2.2	1.1	1.4	2.6	1.9	1.9	1.7	1.89	3.53																							
18-Sep	1.8	2.3	Z	2.7	2.9	2.4	2.6	3.6	3.6	3.4	1.8	1.0	0.8	0.5	1.4	0.9	1.1	0.6	1.3	1.3	2.8	4.0	3.6	2.6	2.12	3.98																							
19-Sep	1.6	1.1	Z	0.6	0.4	0.6	1.1	1.8	1.8	1.2	1.3	1.1	1.0	1.3	0.7	0.9	0.7	0.8	0.7	2.7	1.6	2.3	2.8	1.8	1.29	2.76																							
20-Sep	2.5	1.5	Z	1.2	1.2	1.5	1.5	1.7	1.5	1.0	0.2	0.4	0.5	0.3	0.4	0.6	1.4	2.4	3.2	3.5	1.4	0.5	0.5	5.2	1.49	5.23																							
21-Sep	4.2	0.6	Z	1.0	1.7	1.3	1.1	1.2	1.8	3.2	4.1	3.4	5.3	2.7	1.9	2.0	2.5	3.4	1.7	3.1	1.2	0.9	1.4	1.5	2.23	5.29																							
22-Sep	1.6	1.5	Z	1.7	1.6	1.8	2.5	3.4	3.6	2.7	2.3	1.7	1.7	1.4	1.3	1.7	1.3	1.5	2.1	1.4	1.7	1.7	1.7	1.6	1.89	3.64																							
23-Sep	2.0	1.7	Z	1.3	1.2	1.3	1.4	1.5	1.5	1.6	1.3	1.2	1.2	1.4	1.4	1.4	1.6	1.8	1.9	2.4	3.1	4.3	4.7	4.9	4.4	2.12	4.88																						
24-Sep	3.4	3.8	Z	10.6	5.0	3.5	4.4	3.5	3.2	C	C	C	C	C	0.9	2.2	1.5	2.3	3.2	2.9	2.7	3.3	3.8	4.0	3.57	10.56																							
25-Sep	3.4	3.4	Z	5.3	4.4	5.5	10.2	3.8	1.7	0.3	0.0	0.0	0.0	1.0	5.9	13.5	16.0	10.8	0.2	0.6	0.4	0.9	1.0	0.9	3.87	15.99																							
26-Sep	1.0	0.9	Z	4.8	2.2	3.5	4.0	2.6	2.5	3.0	1.4	0.4	0.2	2.0	3.6	0.5	0.0	0.8	2.1	0.3	0.5	1.5	0.3	0.6	1.69	4.82																							
27-Sep	1.1	1.7	Z	3.4	5.3	3.9	3.0	2.9	2.1	2.2	1.4	0.7	0.6	0.4	0.4	0.3	1.3	1.1	0.8	3.0	1.5	1.0	2.2	1.7	1.82	5.34																							
28-Sep	2.0	2.0	Z	4.3	4.4	5.2	3.7	2.2	2.3	1.9	1.6	0.9	0.6	0.5	0.4	0.4	0.5	0.9	2.7	2.2	2.6	1.9	1.7	2.3	2.06	5.23																							
29-Sep	2.5	3.2	Z	2.9	2.4	2.8	3.4	3.2	3.6	3.9	4.2	4.4	1.5	0.6	0.7	0.5	0.6	0.8	9.3	10.9	8.8	6.8	7.6	5.4	3.92	10.86																							
30-Sep	3.3	3.3	Z	3.3	2.9	2.7	2.9	3.8	3.1	3.1	1.9	1.5	1.2	0.3	0.0	0.0	0.1	1.3	2.1	2.6	3.1	2.1	2.4	3.3	2.18	3.80																							
																								2.26	2.32	--	2.76	2.66	2.76	2.93	2.30	2.14	2.10	1.98	2.34	3.00	2.75	2.01	2.18	2.10	2.13	2.24	2.74	2.45	2.55	2.52	2.61	Diurnal Average	
																								4.24	6.63	--	10.56	5.41	9.09	11.47	4.21	4.15	6.48	12.09	12.14	17.65	12.89	13.15	13.52	15.99	10.82	9.31	10.86	8.84	7.34	7.60	5.40	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**  
**September 2015**

Maximum Value: 53.83 ppb on Sep 3 13:00	Maximum Daily Average: 8.52 ppb on Sep 2	Hours in Service: 720
Minimum Value: 0.0 ppb on Sep 4 14:00	Minimum Daily Average: 0.28 ppb on Sep 6	Hours of Data: 685
Maximum Diurnal Average: 5.57 ppb at hour 13	Minimum Diurnal Average: 1.75 ppb at hour 1	Hours of Missing Data: 35
Monthly Average: 2.554 ppb	Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.5 Median = 1.5 Q <sub>3</sub> = 3.0 P <sub>90</sub> = 4.9 P <sub>99</sub> = 19.8	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-Sep	3.0	2.4	Z	2.7	4.9	9.7	11.7	1.4	0.0	0.5	0.7	0.1	1.2	5.4	5.4	4.9	8.9	6.6	5.2	4.0	2.0	1.8	2.0	1.8	3.75	11.67
2-Sep	1.6	1.3	Z	2.0	4.2	3.2	2.8	4.7	6.0	4.5	26.1	23.5	34.6	11.7	4.3	14.4	13.8	12.5	7.9	3.4	6.5	2.3	0.7	4.1	8.52	34.60
3-Sep	1.6	6.3	Z	2.5	1.6	1.4	1.8	3.5	3.3	1.3	0.6	16.1	53.8	26.7	5.9	0.1	0.0	0.2	0.8	0.7	1.0	1.4	1.2	0.7	5.76	53.83
4-Sep	0.6	0.2	Z	0.2	0.1	0.2	0.1	0.1	0.2	0.4	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.6	1.1	1.5	2.2	2.8	0.49	2.85
5-Sep	3.8	4.1	Z	4.5	3.6	3.9	3.9	4.0	3.8	3.5	1.7	0.3	0.1	0.0	0.1	0.1	0.1	0.5	1.5	3.3	1.4	0.7	1.0	1.3	2.04	4.48
6-Sep	1.4	1.1	Z	0.9	0.9	0.6	0.5	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.28	1.41
7-Sep	0.9	2.0	Z	0.9	0.0	0.6	0.9	0.7	1.1	1.3	1.7	9.9	9.3	19.6	25.1	10.9	0.2	0.0	0.0	0.4	0.7	1.1	0.5	0.8	3.85	25.07
8-Sep	1.1	1.7	Z	1.7	1.6	1.9	2.1	2.7	4.6	11.2	4.7	5.0	8.9	7.9	4.8	1.4	1.1	1.1	1.3	2.7	3.5	7.1	2.0	1.2	3.53	11.20
9-Sep	1.2	1.2	Z	1.7	1.9	2.2	2.7	3.4	4.0	3.6	2.6	2.5	1.9	0.6	0.1	0.0	0.0	0.1	0.3	0.6	0.9	0.9	1.5	1.4	1.54	4.02
10-Sep	1.8	2.1	Z	2.2	2.7	7.0	4.1	3.1	2.8	2.5	1.6	0.4	0.2	0.0	0.0	0.3	0.0	0.1	0.6	9.0	2.3	1.5	1.9	1.6	2.09	9.04
11-Sep	1.9	3.2	Z	2.8	3.1	3.5	3.8	4.1	4.7	3.0	1.8	0.9	0.6	0.0	0.0	0.0	0.0	0.2	2.6	1.6	2.3	3.6	2.8	1.9	2.11	4.69
12-Sep	2.1	3.3	Z	2.8	3.3	2.9	2.6	1.9	3.9	4.5	2.1	18.9	16.1	9.1	2.2	0.4	0.2	0.4	0.0	0.0	0.1	0.6	2.2	0.6	3.48	18.88
13-Sep	0.3	0.3	Z	0.5	2.4	0.6	0.8	1.2	1.7	2.0	2.4	2.0	8.9	20.8	2.9	11.2	0.0	0.0	0.6	1.3	0.6	3.6	3.6	3.3	3.09	20.78
14-Sep	0.2	0.0	Z	3.6	3.3	1.5	1.3	0.9	0.4	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.2	0.6	0.7	1.4	2.6	3.2	0.90	3.59	
15-Sep	3.7	3.4	Z	2.3	1.3	0.5	0.1	0.1	0.3	0.7	0.3	1.2	2.2	2.6	2.3	2.1	1.6	1.4	1.1	1.0	0.8	1.0	2.1	4.2	1.57	4.18
16-Sep	1.7	0.6	Z	0.5	0.3	0.3	0.3	0.7	1.1	1.6	0.6	1.5	2.8	4.1	3.8	3.8	4.9	14.0	9.0	7.1	6.4	6.5	5.4	4.4	3.53	14.00
17-Sep	2.4	1.4	Z	1.2	1.0	1.0	1.3	1.8	2.4	4.2	5.3	4.8	2.0	1.0	0.4	1.2	3.3	2.2	0.5	0.8	2.1	1.3	1.3	1.2	1.93	5.30
18-Sep	1.2	1.7	Z	2.2	2.4	1.8	2.1	3.2	3.6	4.5	2.2	0.8	0.5	0.1	2.8	3.3	1.0	0.1	0.8	0.7	2.2	3.4	3.0	2.0	1.98	4.47
19-Sep	1.0	0.5	Z	0.0	0.0	0.1	0.6	1.4	1.9	1.4	1.2	0.9	1.0	1.6	0.5	0.5	0.3	0.6	0.2	3.3	1.1	1.8	2.3	1.4	1.03	3.26
20-Sep	2.0	1.1	Z	0.7	0.8	1.1	1.1	1.3	1.2	0.7	0.0	0.1	0.2	0.0	0.0	0.3	1.1	2.0	2.7	3.0	1.0	0.1	0.1	4.8	1.11	4.82
21-Sep	3.8	0.1	Z	0.5	1.3	0.8	0.7	0.9	2.2	5.2	8.2	5.8	10.3	4.5	2.6	2.7	3.4	4.5	1.3	2.5	0.6	0.4	0.9	0.9	2.79	10.34
22-Sep	1.1	1.0	Z	1.2	1.1	1.3	2.0	3.1	3.8	4.1	3.1	2.1	1.9	1.4	1.2	1.5	1.0	1.2	1.6	0.8	1.1	1.1	1.1	0.9	1.68	4.14
23-Sep	1.4	1.1	Z	0.7	0.7	0.7	0.8	1.0	1.3	1.9	2.0	1.9	1.7	1.7	1.5	1.5	1.5	1.5	1.9	2.5	3.6	4.1	4.3	3.8	1.87	4.26
24-Sep	2.8	3.2	Z	11.1	4.4	2.9	3.7	3.3	4.0	C	C	C	C	C	0.9	2.4	1.4	2.1	2.9	2.5	2.3	2.8	3.2	3.4	3.29	11.14
25-Sep	2.8	2.7	Z	4.8	3.7	4.9	9.8	3.4	1.5	0.0	0.0	0.0	0.0	1.0	7.8	18.6	19.5	12.5	0.0	0.0	0.4	0.5	0.4	0.4	4.09	19.50
26-Sep	0.5	0.4	Z	4.5	1.7	3.1	3.7	2.5	2.8	4.5	1.7	0.0	0.0	1.9	4.7	0.0	0.0	0.3	1.6	0.0	0.0	0.9	0.0	0.0	1.51	4.66
27-Sep	0.5	1.1	Z	2.8	4.7	3.3	2.4	2.5	1.7	2.2	1.4	0.4	0.2	0.0	0.0	0.0	1.1	0.8	0.3	2.5	1.0	0.5	1.7	1.2	1.40	4.71
28-Sep	1.5	1.5	Z	3.8	3.9	4.7	3.2	2.0	2.8	2.7	2.3	0.8	0.3	0.1	0.0	0.0	0.0	0.4	2.2	1.6	2.0	1.2	1.1	1.7	1.73	4.72
29-Sep	1.9	2.6	Z	2.3	1.8	2.2	2.8	3.0	4.4	4.3	5.6	6.3	1.5	0.2	0.3	0.0	0.2	0.3	9.5	10.9	8.3	6.2	7.0	4.9	3.75	10.91
30-Sep	2.7	2.8	Z	2.8	2.4	2.2	2.4	3.7	4.2	5.2	2.7	1.9	1.2	0.0	0.0	0.0	0.0	0.9	1.6	2.0	2.5	1.5	1.9	2.7	2.06	5.23

1.75	1.82	--	2.35	2.17	2.34	2.54	2.20	2.54	2.83	2.86	3.74	5.57	4.20	2.65	2.73	2.16	2.21	1.95	2.31	1.93	2.02	2.00	2.09	Diurnal Average
3.81	6.32	--	11.14	4.92	9.74	11.67	4.66	6.02	11.20	26.08	23.55	53.83	26.66	25.07	18.59	19.50	14.00	9.55	10.91	8.26	7.07	7.04	4.86	Diurnal Maximum

Z - zerospan      C - Calibration  
 Alberta Ambient Air Quality Objectives (AAQO): 1-hr --- ppb      24-hr --- ppb



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

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

Maximum Value: 9.30 µg/m <sup>3</sup> on Sep 3 08:00		Maximum Daily Average: 3.06 µg/m <sup>3</sup> on Sep 24		Hours in Service: 720																																																																					
Minimum Value: 0.0 µg/m <sup>3</sup> on Sep 1 03:00		Minimum Daily Average: 0.15 µg/m <sup>3</sup> on Sep 26		Hours of Data: 709																																																																					
Maximum Diurnal Average: 2.73 µg/m <sup>3</sup> at hour 9		Minimum Diurnal Average: 0.68 µg/m <sup>3</sup> at hour 3		Hours of Missing Data: 11																																																																					
Monthly Average: 1.411 µg/m <sup>3</sup>		Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 0.8 Q <sub>3</sub> = 2.3 P <sub>90</sub> = 3.9 P <sub>99</sub> = 7.3		Hours of Calibration: 5																																																																					
				Percent Operational Time: 99.2																																																																					
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-Sep	0.0	1.0	0.0	2.8	3.2	5.3	2.7	1.0	0.0	0.0	0.0	0.0	UC	0.0	0.6	0.0	2.4	0.9	3.0	2.4	3.3	7.4	5.7	0.6	1.84	7.42																																															
2-Sep	0.0	0.5	0.0	1.8	2.7	1.2	1.1	3.6	0.0	1.4	3.4	4.4	4.5	6.6	5.4	4.7	5.2	3.1	2.7	1.6	1.4	0.0	0.0	0.4	2.33	6.56																																															
3-Sep	0.0	0.1	0.0	0.0	0.4	0.8	1.5	9.3	0.6	1.9	0.8	2.7	5.2	1.6	2.1	0.0	0.8	1.0	2.4	0.7	5.1	2.3	0.0	0.9	1.68	9.30																																															
4-Sep	0.6	1.4	0.9	0.0	0.0	0.2	0.6	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.5	0.4	0.2	0.32	2.38																																															
5-Sep	0.1	1.7	1.5	0.7	1.3	0.0	UC	4.1	7.4	1.8	0.0	0.0	0.0	0.0	0.3	1.7	2.3	3.7	4.3	4.6	4.4	4.0	2.8	2.2	2.12	7.37																																															
6-Sep	3.2	2.4	0.0	0.8	2.1	1.8	1.8	0.8	2.1	1.6	1.5	1.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.7	0.8	0.0	0.3	0.88	3.23																																															
7-Sep	0.0	0.5	0.0	0.0	0.3	0.3	0.1	0.8	2.7	2.5	3.9	4.3	5.0	3.6	2.7	3.5	0.1	3.0	2.8	2.0	0.0	0.0	0.0	0.0	1.59	4.97																																															
8-Sep	1.1	0.0	0.2	0.2	0.6	0.0	1.7	4.1	3.7	0.9	0.0	3.4	8.3	2.2	0.0	2.0	0.6	0.9	3.3	2.7	6.3	1.3	0.4	0.0	1.83	8.25																																															
9-Sep	0.0	0.0	0.0	0.0	0.0	0.9	1.5	4.0	8.3	0.0	2.0	0.2	1.0	0.2	UC	0.0	1.1	0.8	1.8	1.2	3.0	1.6	0.2	2.3	1.31	8.34																																															
10-Sep	1.1	0.3	0.6	0.8	2.0	1.6	0.0	4.3	3.7	1.1	1.4	0.0	0.6	0.0	0.0	0.0	0.1	0.5	3.3	1.9	0.9	0.9	0.8	0.9	1.12	4.32																																															
11-Sep	0.6	0.6	1.0	2.1	2.2	0.9	2.5	4.0	4.6	4.0	2.4	0.2	0.0	0.0	0.0	0.2	0.0	0.0	4.8	0.0	4.7	1.9	4.5	0.8	1.75	4.76																																															
12-Sep	1.4	0.0	0.0	3.9	1.9	2.5	0.5	3.4	5.2	4.7	2.3	2.8	7.7	4.3	5.1	3.0	5.4	0.6	0.0	4.4	2.2	0.0	0.4	0.7	2.60	7.68																																															
13-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.6	1.1	2.6	1.0	UC	0.0	0.0	1.1	0.2	3.4	1.0	0.0	0.8	0.4	0.0	0.0	0.72	4.43																																															
14-Sep	0.0	0.0	0.0	0.7	0.4	0.5	0.4	0.4	1.0	1.1	0.0	0.0	0.0	0.0	0.0	2.0	UC	4.8	0.0	1.5	1.8	1.7	1.5	0.0	0.78	4.76																																															
15-Sep	1.4	1.4	2.0	1.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.1	0.7	0.5	0.5	0.8	0.0	0.1	0.9	0.0	0.0	0.0	0.53	1.95																																															
16-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.3	0.4	0.9	0.8	0.7	0.0	4.3	2.7	3.7	2.9	1.9	1.3	1.6	0.92	4.32																																															
17-Sep	0.0	0.4	0.0	0.0	0.0	0.0	2.6	5.6	2.8	2.6	2.2	4.6	0.0	0.0	0.0	0.8	1.2	0.7	0.8	1.8	0.7	1.4	0.0	0.4	1.20	5.55																																															
18-Sep	0.2	0.2	0.9	0.9	1.9	3.0	2.0	2.0	2.7	2.6	0.0	0.0	1.0	0.0	0.0	0.0	0.3	3.0	0.6	0.0	3.4	2.4	0.0	0.0	1.12	3.39																																															
19-Sep	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.2	2.1	1.8	1.6	1.1	0.0	0.0	0.0	1.2	0.0	0.0	0.4	0.4	1.3	0.0	0.0	0.0	0.52	2.09																																															
20-Sep	2.4	2.2	1.6	2.0	1.1	1.5	0.0	1.9	2.4	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	3.1	3.5	0.0	2.8	0.0	1.21	3.51																																															
21-Sep	0.0	0.0	0.0	2.4	1.0	0.4	0.0	3.8	2.4	2.3	1.0	0.0	1.0	0.0	0.8	0.0	0.9	0.8	1.3	0.8	1.1	1.6	0.3	0.6	0.94	3.82																																															
22-Sep	0.5	0.0	0.0	1.5	0.5	0.2	0.2	2.7	2.7	2.0	0.9	1.7	2.6	2.7	0.8	2.1	1.4	4.2	1.8	0.4	2.1	1.2	0.2	0.0	1.34	4.17																																															
23-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	1.8	2.6	2.6	2.7	3.5	4.6	5.0	4.5	3.9	3.5	4.4	3.6	3.7	3.3	0.5	2.13	5.00																																															
24-Sep	5.0	1.1	2.4	4.6	0.2	2.6	4.8	3.9	6.6	UC	UC	UC	UC	UC	UC	0.1	0.4	4.0	2.1	2.2	3.9	3.5	3.7	4.1	3.06	6.60																																															
25-Sep	4.4	3.4	4.4	3.8	4.8	6.1	6.7	6.8	6.7	1.9	0.0	0.0	0.0	0.0	0.0	0.6	0.2	1.0	0.3	0.0	0.0	0.3	0.0	0.0	2.14	6.80																																															
26-Sep	0.0	0.0	0.0	0.0	0.5	0.1	0.0	0.1	0.7	1.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.15	1.17																																															
27-Sep	0.1	0.5	0.8	0.5	0.7	1.0	1.0	2.5	1.8	1.9	1.3	1.1	3.0	0.7	1.7	0.1	0.4	0.1	0.3	0.9	1.0	0.2	0.9	0.0	0.93	2.96																																															
28-Sep	1.0	1.6	0.0	0.0	0.2	0.8	0.6	0.9	2.7	1.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.5	1.1	0.0	0.2	0.8	0.60	2.66																																															
29-Sep	1.7	1.6	1.4	1.3	1.4	2.1	2.1	2.8	4.2	3.2	3.6	1.9	1.0	0.3	0.0	0.1	0.5	0.8	6.8	3.0	3.3	3.7	5.8	4.8	2.38	6.81																																															
30-Sep	3.0	2.8	2.5	2.8	1.8	1.9	2.0	2.6	3.3	3.5	2.5	2.5	0.8	0.0	0.0	0.5	1.0	7.8	4.0	4.1	5.3	3.8	3.2	2.6	2.68	7.84																																															
																								0.93		0.78		0.68		1.18		1.07		1.20		1.30		2.72		2.73		1.67		1.32		1.24		1.70		0.95		0.92		0.93		1.06		1.72		2.09		1.68		2.28		1.54		1.30		0.88		Diurnal Average	
																								4.96		3.36		4.39		4.59		4.84		6.12		6.69		9.30		8.34		4.67		3.94		4.58		8.25		6.56		5.45		5.00		5.41		7.84		6.81		4.60		6.26		7.42		5.76		4.77		Diurnal Maximum	
C - Calibration																								UC - Unstable Operation																																																	
Alberta Ambient Air Quality Objectives (AAQO): 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: September 24, 2015

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

Instrument: 42i

Serial Number: 1150790046

Previous Calibration Date: August 21, 2015

Calibration: Routine

Calibration Equipment: SABIO 2010 sn 05200311

Barometric Pressure: 27.46" Hg

Calibration Method: Standard Gas Dilution/ GPT

Cylinder ID: FF9469

Temperature: 20.0° C

Cylinder Concentration: 12.6 ppm No/ NOX

In Service: Jan.14/15

Technician: J.McClintock

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	1.6	1.7	na	1.107	1.003	1.000	300 ppb
Current	1.7	1.9	na	1.127	1.001	1.000	300 ppb

NO	Final Zero: 0.9 ppb	Final Span: 224.9 ppb	As Found Correction Factor: 1.005
NO <sub>2</sub>	Final Zero: -0.2 ppb	Final Span: 0.0 ppb	As Found Correction Factor: 0.998
NO <sub>x</sub>	Final Zero: 0.8 ppb	Final Span: 224.8 ppb	As Found Correction Factor: 1.003

Results of Linear Regression			Slope	Intercept	R <sup>2</sup>
NO	R <sub>c</sub> vs C <sub>c</sub>	Previous	99.797380	41.963550	0.999989
		Current	99.995710	-78.594010	0.999916
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000021	0.999915
NO <sub>2</sub>	R <sub>c</sub> vs C <sub>c</sub>	Previous	99.816680	43.606030	0.999989
		Current	99.920840	10.079040	0.999999
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	-0.000023	1.000000
NO <sub>x</sub>	R <sub>c</sub> vs C <sub>c</sub>	Previous	99.948550	47.027410	0.999989
		Current	99.957310	-80.423360	0.999915
	C <sub>i</sub> vs C <sub>c</sub>	Current	1.000000	0.000039	0.999914

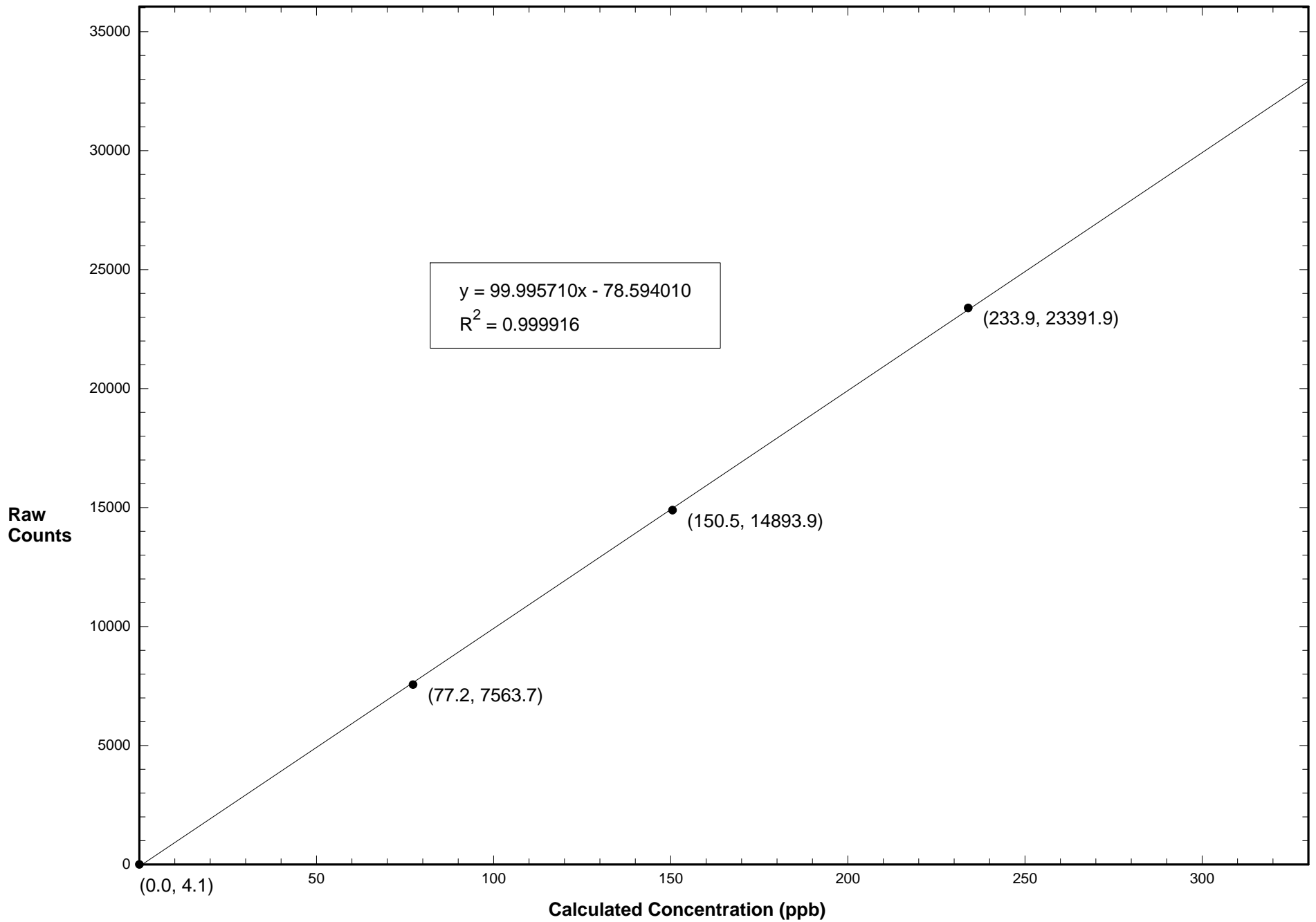
Comments:

**Calibration Data Summary (Page 2)**

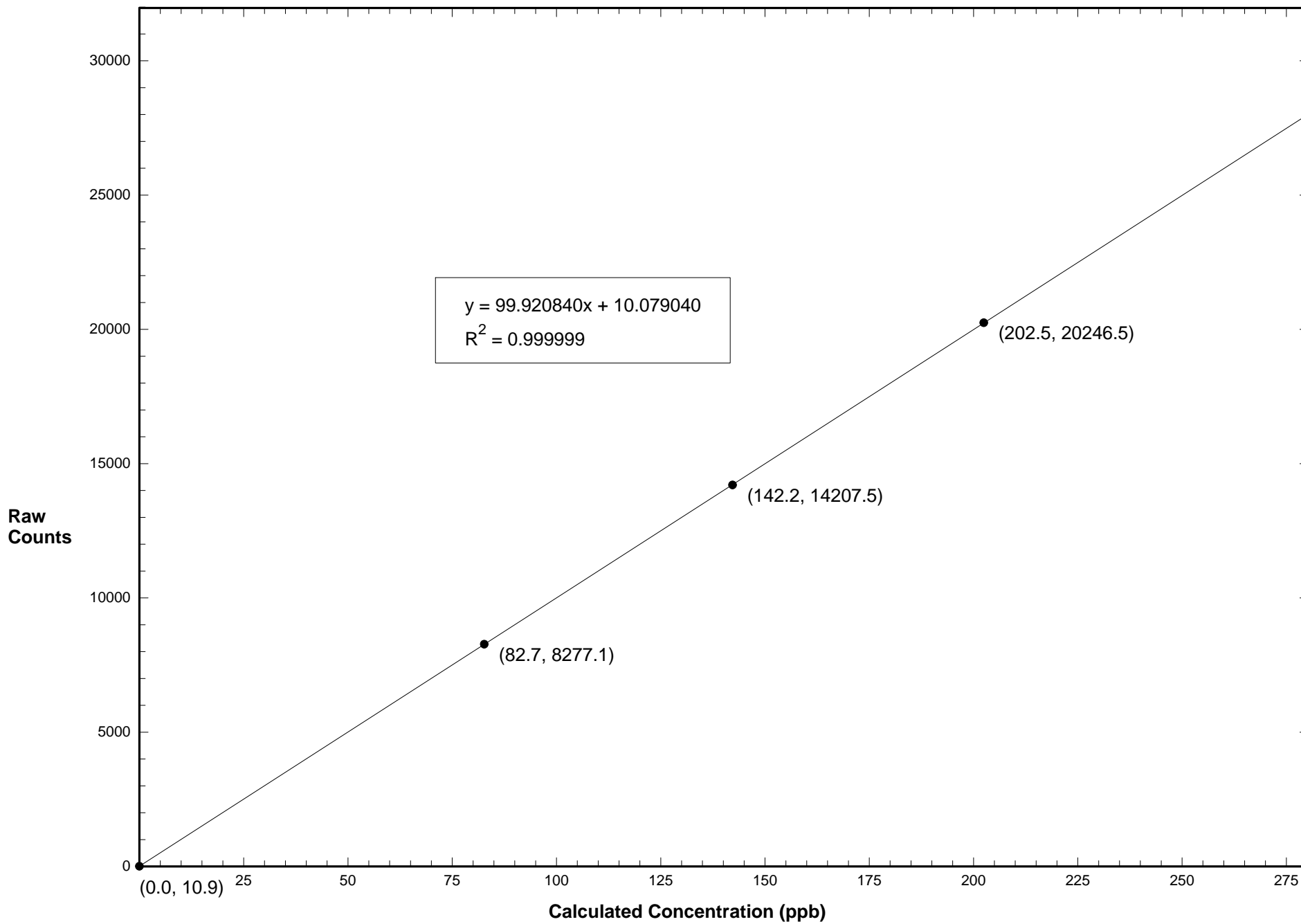
September 24, 2015 - Station 910

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>		
0.09760	5.159	233.9	23391.9	234.7	0.997		
0.06180	5.112	150.5	14893.9	149.7	1.005		
0.03130	5.074	77.2	7563.7	76.4	1.011		
0.00000	5.000	0.0	4.1	0.8			
NO Calibration					Average Correction Factor:	1.004	
0.09760	5.160	233.9	23373.7	234.6	0.997		
0.06180	5.112	150.5	14895.6	149.8	1.005		
0.03130	5.074	77.2	7549.7	76.3	1.012		
0.00000	5.000	0.0	5.1	0.9			
NO <sub>x</sub> Calibration					Average Correction Factor:	1.004	
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>
232.5	2928.8	30.1	202.5	20246.5	202.5	1.000	1.000
232.5	8952.3	90.3	142.2	14207.5	142.1	1.001	0.999
232.5	14905.3	149.8	82.7	8277.1	82.7	0.999	1.001
			0.0	10.9	0.0		
					Average Correction Factor:	1.000	
NO <sub>2</sub> Gas Phase Titration					Average Converter Efficiency: 1.000		
Parameter	Correction Factor (Previous)	Correction Factor: (Current)	Percent Change of Correction Factor				
NO	0.998	0.997	-0.1				
NO <sub>2</sub>	0.997	1.000	0.3				
NO <sub>x</sub>	0.998	0.997	-0.1				

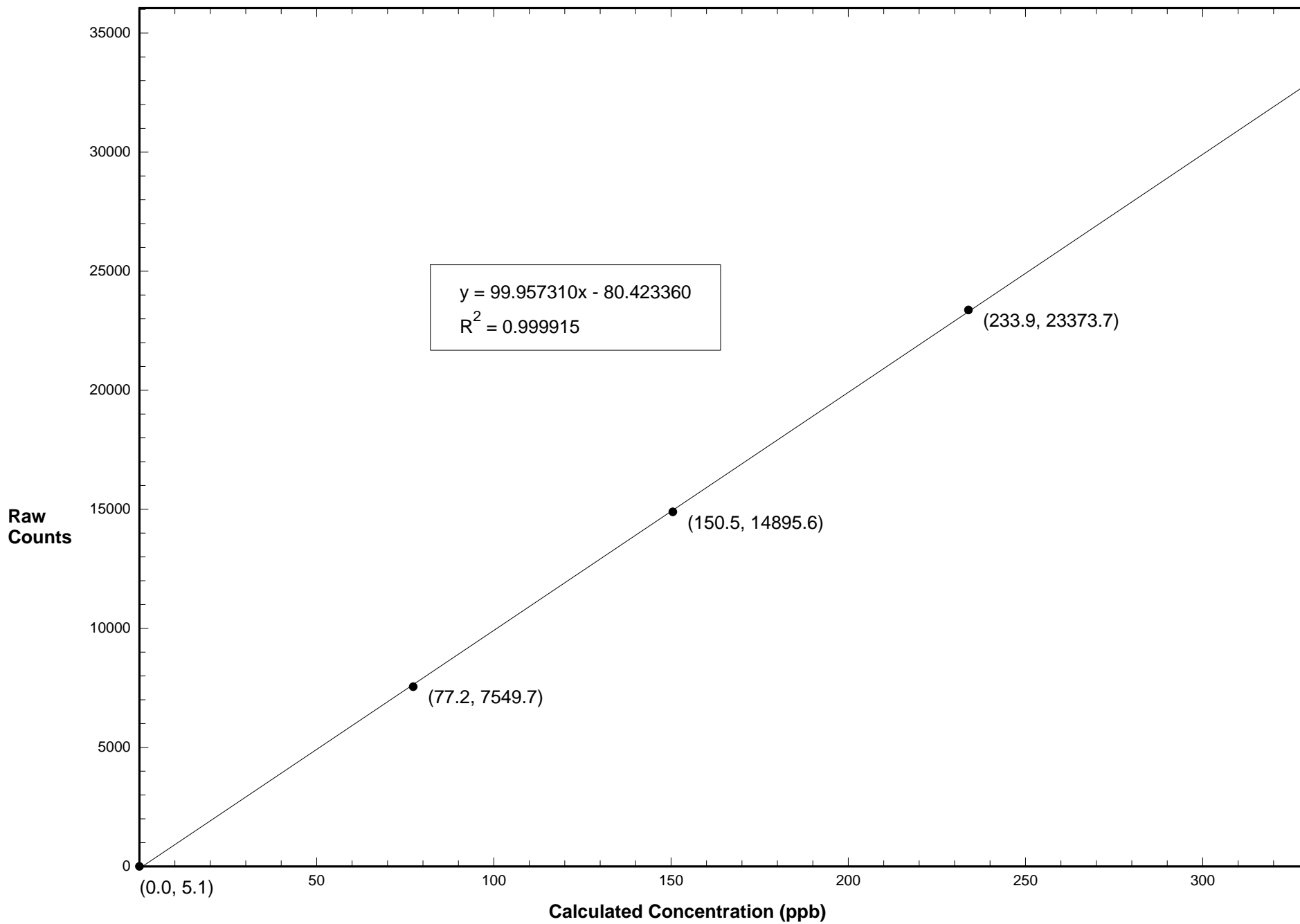
# Station 910 NO September 24, 2015: Linear Regression



# Station 910 NO2 September 24, 2015: Linear Regression

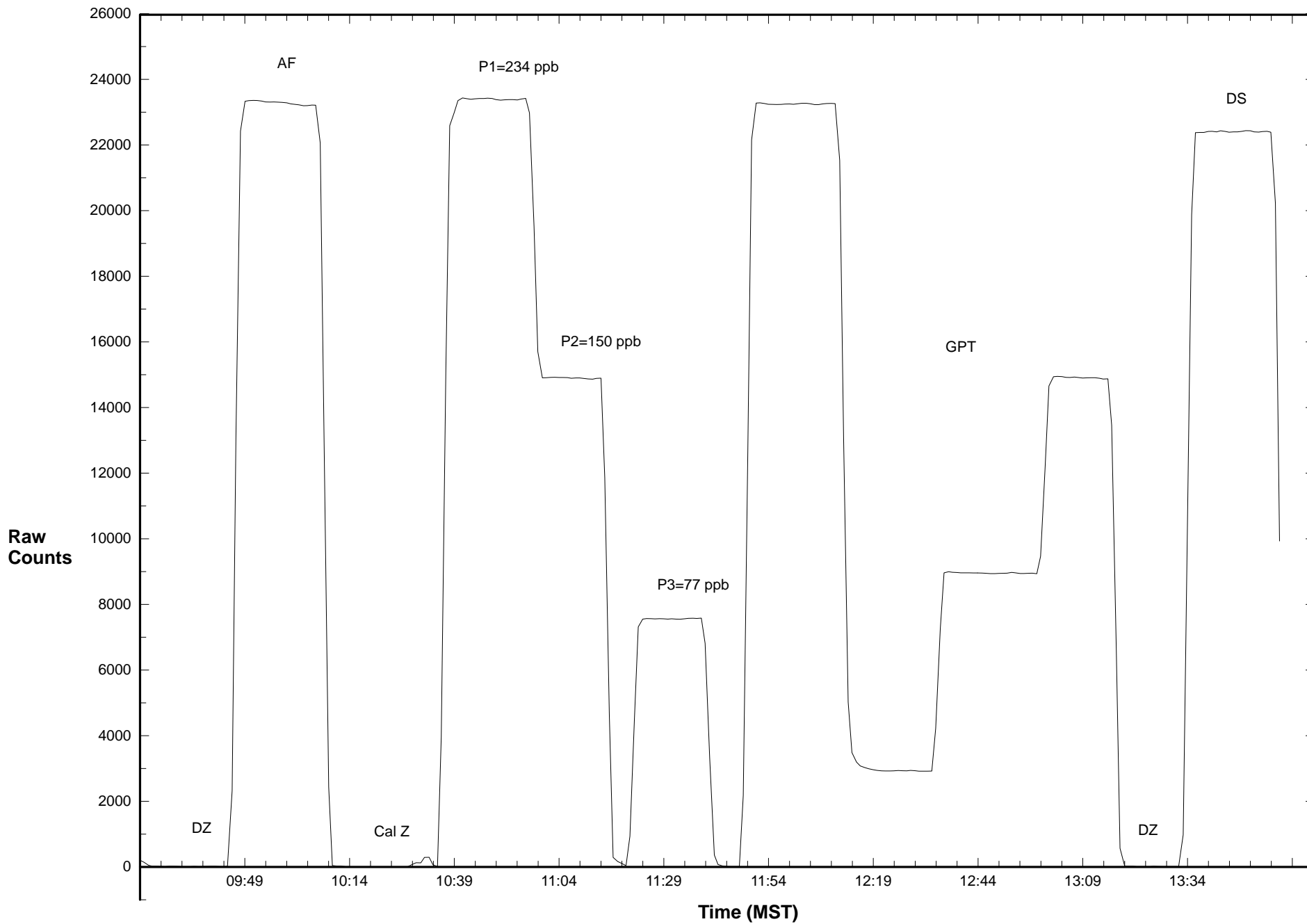


# Station 910 NOX September 24, 2015: Linear Regression

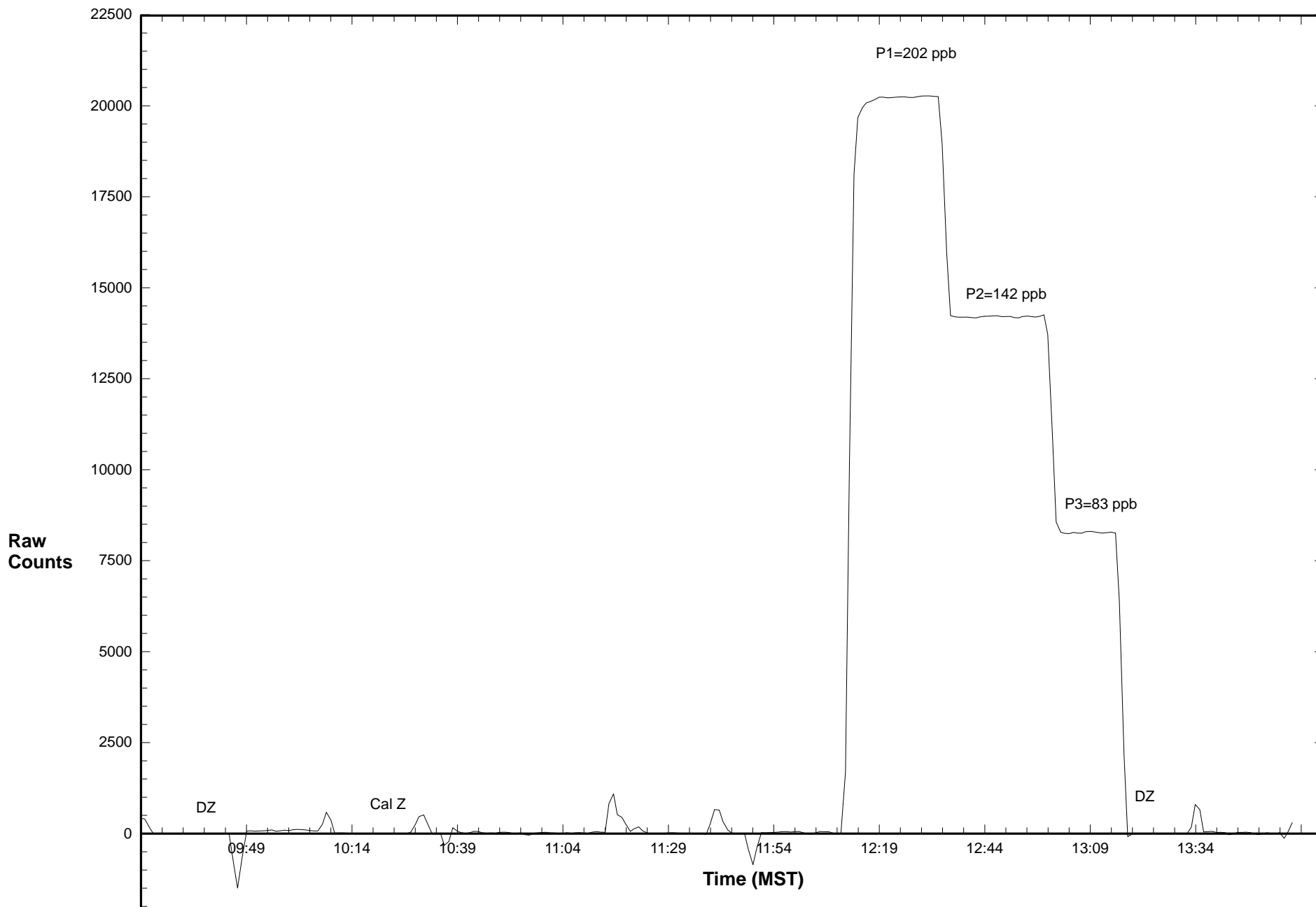




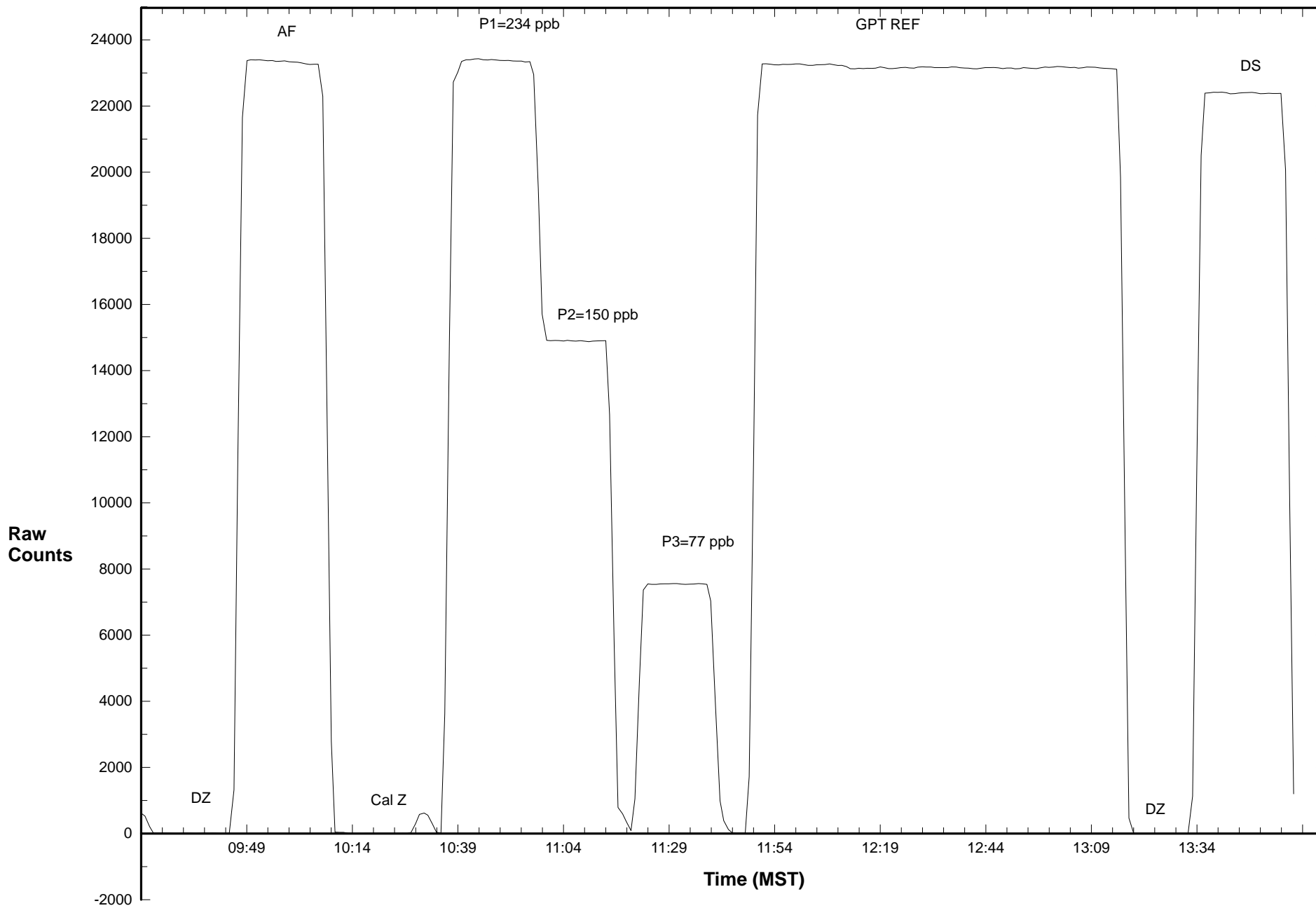
# Station 910 NO September 24, 2015: Calibration Graph



# Station 910 NO2 September 24, 2015: Calibration Graph



# Station 910 NOX September 24, 2015: Calibration Graph



# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 910, Genesee  
 Calibration Date: September 24, 2015  
 Parameter: O<sub>3</sub>

Instrument: Teco 49i

Serial Number: 1150790051

Previous Calibration Date: August 21, 2015

Calibration: Routine

Calibration Equipment: 2B Technology 306 SN 145 Barometric Pressure: 27.46" Hg

Calibration Method: Ozone Generator

Temperature: 20.0° C

Technician: J.McClintock

Instrument Settings	Background	Coefficient	Monitoring Range
Previous	-1.0	1.085	500 ppb
Current	0.1	0.998	500 ppb

Final Zero: 0.5 ppb

Final Span: 400.2 ppb

As Found Correction Factor: 0.905

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	397.0	23883.2	398.0	0.997
3.000	252.0	15040.9	251.3	1.003
3.000	103.0	5970.0	100.8	1.022
3.000	0.0	13.7	1.9	

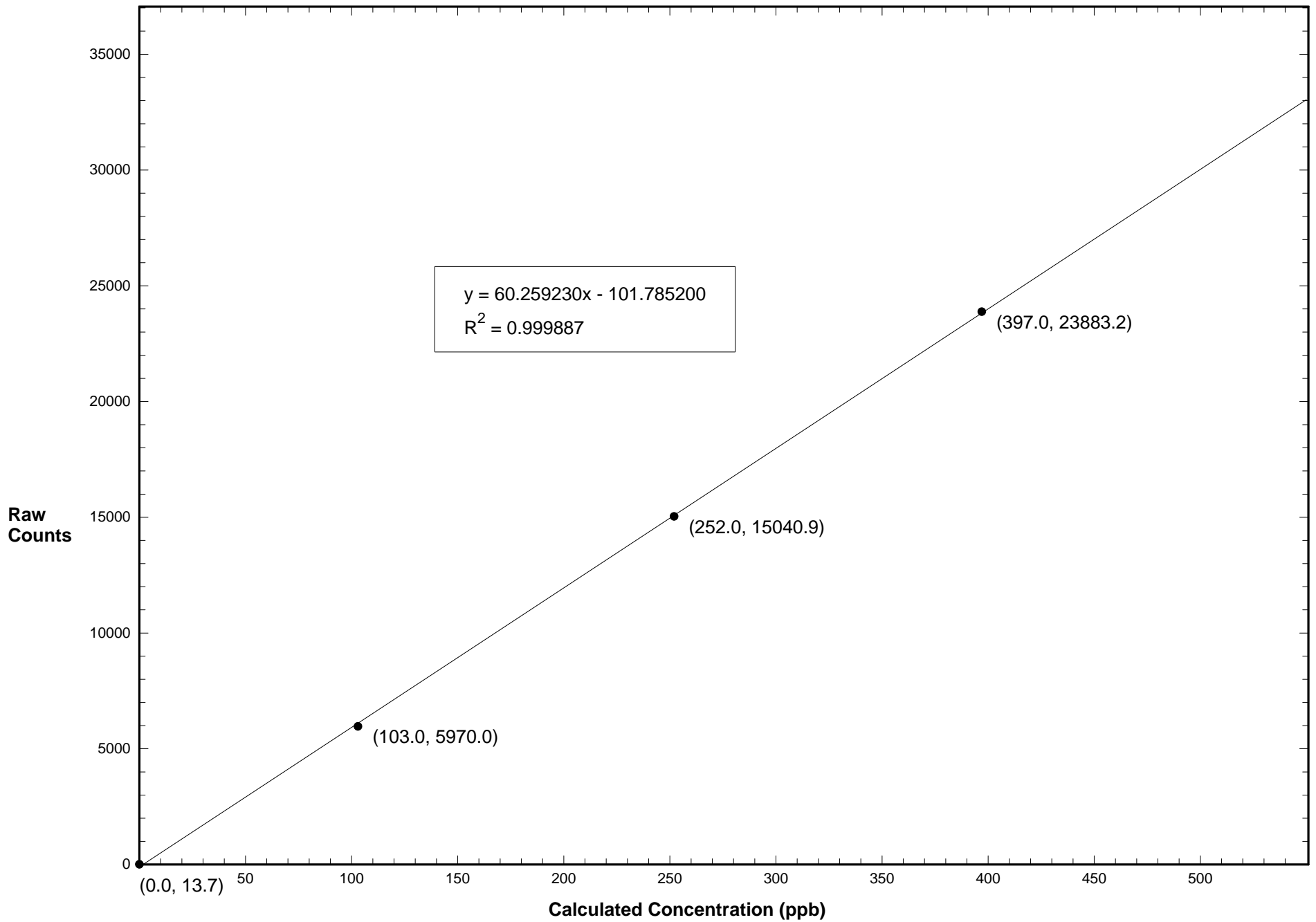
### Results of Linear Regression

R <sub>c</sub> vs C <sub>c</sub>	Slope	Intercept	R <sup>2</sup>
Previous	60.089340	-70.885480	0.999865
Current	60.259240	-101.785200	0.999887
C <sub>i</sub> vs C <sub>c</sub>			
Current	1.000000	-0.000046	0.999887

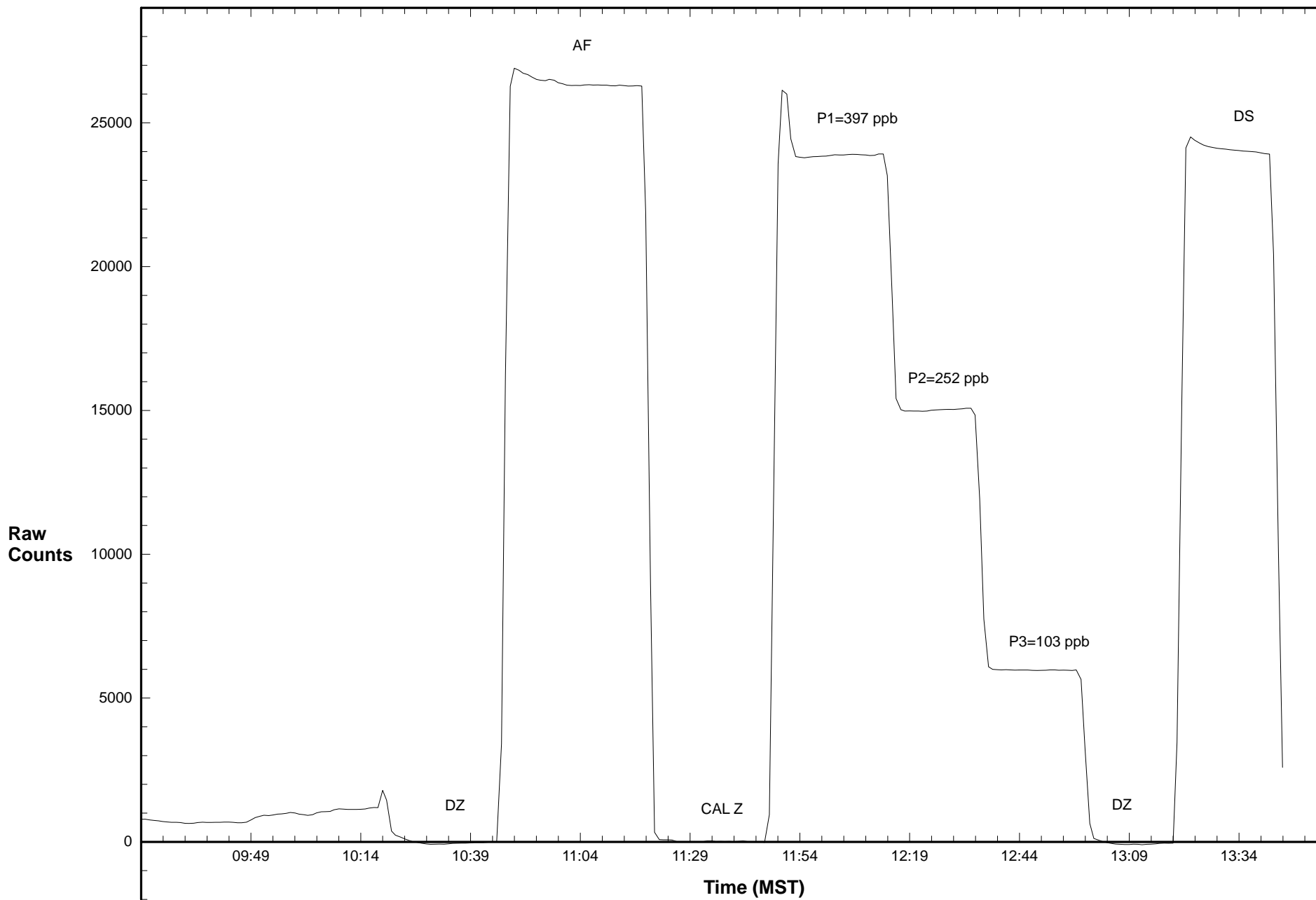
Average Correction Factor: 1.007  
 Previous Correction Factor: 0.996  
 Current Correction Factor: 0.997  
 Percent Change of Correction Factor: 0.1

Comments:

# Station 910 O3 September 24, 2015: Linear Regression



# Station 910 O3 September 24, 2015: Calibration Graph



# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 910, Genesee

Calibration Date: September 24, 2015

Parameter: SO<sub>2</sub>

Instrument: Teco 43 i

Serial Number: JC1433001437

Previous Calibration Date: August 21, 2015

Calibration: Routine

Calibration Equipment: SABIO 2010 sn 05200311

Barometric Pressure: 27.46" Hg

Calibration Method: Standard Gas Dilution

Cylinder ID: FF9469

Temperature: 20.0° C

Cylinder Concentration: 6.2 ppm SO<sub>2</sub>

In Service: Jan.14/15

Technician: J.McClintock

Instrument Settings	SO <sub>2</sub> bkg ppb	SO <sub>2</sub> Coefficient	Monitoring Range
Previous	30.5	1.022	200 ppb
Current	33.4	1.061	200 ppb

Final Zero: 0.2 ppb

Final Span: 103.1 ppb

As Found Correction Factor: 1.059

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>
0.0976	5.159	115.1	17391.6	115.7	0.995
0.0618	5.112	74.1	11034.2	73.7	1.005
0.0313	5.075	38.0	5500.8	37.1	1.025
0.0000	5.000	0.0	5.2	0.8	

### Results of Linear Regression

R <sub>c</sub> vs C <sub>c</sub>	Slope	Intercept	R <sup>2</sup>
Previous	150.468600	-0.667571	0.999989
Current	151.293600	-109.696100	0.999739
C <sub>i</sub> vs C <sub>c</sub>			
Current	1.000000	0.000011	0.999739

Average Correction Factor: 1.008

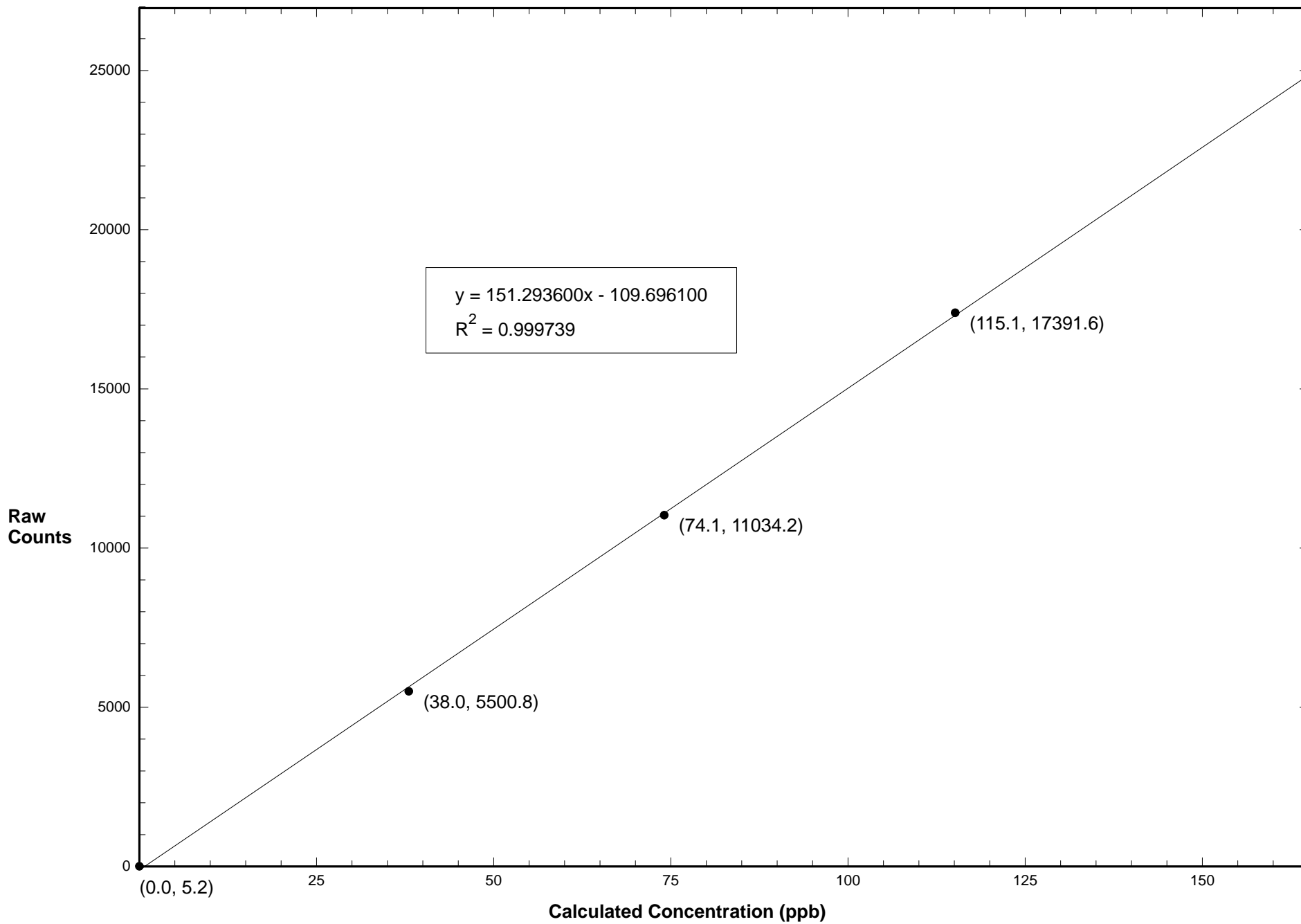
Previous Correction Factor: 0.999

Current Correction Factor: 0.995

Percent Change of Correction Factor: -0.4

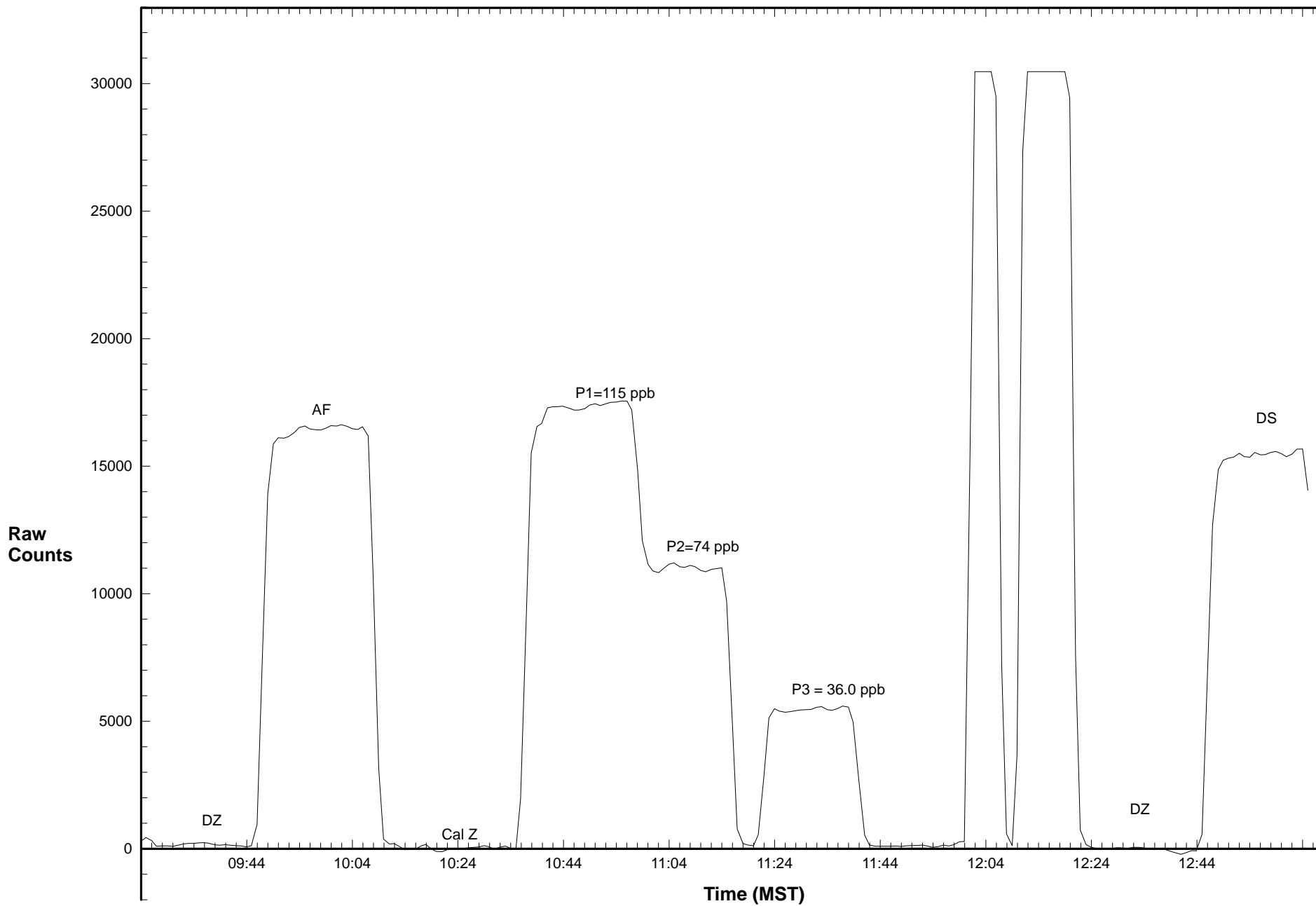
Comments:

# Station 910 SO2 September 24, 2015: Linear Regression





# Station 910 SO2 September 24, 2015: Calibration Graph



**WEST CENTRAL AIRSHED SOCIETY**

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

**AMS 910  
GENESEE  
SEPTEMBER 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**  
**September 2015**

<b>Maximum Value: 27.26 C on Sep 11 17:00</b>		<b>Maximum Daily Average: 18.12 C on Sep 11</b>		<b>Hours in Service: 720</b>																							
<b>Minimum Value: -0.8 C on Sep 17 05:00</b>		<b>Minimum Daily Average: 4.70 C on Sep 27</b>		<b>Hours of Data: 720</b>																							
<b>Maximum Diurnal Average: 15.43 C at hour 16</b>		<b>Minimum Diurnal Average: 5.51 C at hour 7</b>		<b>Hours of Missing Data: 0</b>																							
<b>Monthly Average: 10.063 C</b>		<b>Percentiles: P<sub>1</sub> = 0.4 P<sub>10</sub> = 4.1 Q<sub>1</sub> = 6.5 Median = 9.2 Q<sub>3</sub> = 13.2 P<sub>90</sub> = 16.9 P<sub>99</sub> = 25.5</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-Sep	6.7	8.6	8.3	6.4	9.2	10.0	10.4	10.6	12.4	14.4	16.4	17.7	18.7	19.5	19.5	18.9	17.6	16.8	16.1	14.6	13.0	12.7	11.0	11.0	13.36	19.52	
2-Sep	10.4	10.0	8.8	8.1	7.8	8.5	8.0	9.5	11.9	13.5	14.5	16.2	16.0	16.1	15.0	13.9	14.1	15.3	13.9	11.4	8.3	7.7	7.0	7.0	11.37	16.24	
3-Sep	6.2	6.4	3.8	2.5	1.9	2.1	1.6	5.5	7.0	8.3	8.9	9.7	10.8	13.0	14.2	14.8	14.9	14.3	12.8	12.2	10.7	9.5	9.0	8.2	8.68	14.86	
4-Sep	7.7	7.5	7.1	6.4	6.1	5.9	5.8	5.8	6.2	6.5	6.7	6.6	7.1	8.1	8.6	9.1	9.0	9.2	9.3	8.3	6.7	7.2	7.3	7.0	7.31	9.27	
5-Sep	5.9	6.5	6.5	6.8	6.5	5.4	3.1	3.3	7.1	8.0	11.0	11.5	12.2	12.1	12.0	12.1	11.7	11.4	10.7	9.8	9.3	8.2	7.7	7.4	8.59	12.16	
6-Sep	7.3	7.2	6.8	6.7	6.9	7.0	7.0	6.8	6.8	6.9	7.0	7.4	7.6	7.4	7.0	6.8	6.8	6.4	6.3	5.9	6.0	6.3	6.0	5.6	6.74	7.59	
7-Sep	5.5	5.5	5.9	5.8	5.6	5.6	5.2	5.6	6.7	8.2	10.4	12.0	13.3	14.4	15.6	16.6	16.9	15.9	14.8	12.5	11.5	10.0	6.9	6.1	9.85	16.91	
8-Sep	7.7	7.2	4.9	4.7	5.3	4.6	3.7	6.1	10.4	13.8	15.3	15.4	13.5	12.9	14.6	16.0	16.1	15.7	14.0	12.2	11.3	9.9	9.3	9.2	10.57	16.06	
9-Sep	9.1	8.1	6.5	5.5	4.7	5.4	5.7	6.5	8.5	11.9	13.9	14.2	14.3	14.8	15.6	16.8	16.1	15.5	14.4	12.9	11.7	11.7	10.6	10.2	11.02	16.76	
10-Sep	9.6	9.8	9.7	9.3	10.0	10.5	9.7	10.7	12.5	14.9	18.0	20.2	21.4	21.4	20.2	22.0	21.9	21.6	19.2	14.7	12.7	12.1	12.4	12.5	14.87	21.98	
11-Sep	13.1	12.7	11.6	11.4	11.0	10.6	9.7	11.7	15.2	18.9	22.0	23.6	24.8	25.9	26.5	27.0	27.3	26.9	24.5	20.0	17.0	14.2	14.7	14.9	18.12	27.26	
12-Sep	15.3	13.8	12.0	11.6	10.9	11.0	11.0	12.8	16.5	20.3	23.5	24.9	24.6	25.6	25.5	25.6	24.4	19.6	16.1	13.8	11.3	11.1	11.0	11.0	16.80	25.58	
13-Sep	10.7	10.8	10.8	10.7	10.1	8.5	8.0	9.1	10.6	10.8	11.6	12.6	13.7	14.1	14.3	12.0	13.3	12.8	12.1	9.2	7.7	8.4	6.8	7.0	10.66	14.33	
14-Sep	6.6	6.5	6.7	6.6	6.4	6.2	6.3	6.0	6.8	8.0	9.2	9.8	10.4	11.3	10.3	11.6	11.2	10.4	9.9	8.6	7.6	7.7	7.1	6.6	8.24	11.62	
15-Sep	6.5	6.2	6.3	6.1	6.2	6.1	5.5	5.3	5.2	5.7	5.9	6.2	6.4	6.7	7.0	7.1	7.3	7.1	7.1	6.8	6.6	6.7	6.7	6.4	6.37	7.33	
16-Sep	6.3	6.3	6.4	6.4	6.3	6.1	6.0	6.2	6.4	6.5	6.6	7.3	8.4	8.6	9.9	10.3	11.3	11.0	9.8	7.3	5.5	5.1	3.6	3.1	7.11	11.34	
17-Sep	2.2	2.4	1.7	0.5	-0.8	-0.7	0.0	1.5	4.2	6.9	8.3	11.1	14.1	15.3	15.9	15.6	16.0	16.1	14.2	11.3	9.4	8.0	6.9	5.9	7.75	16.06	
18-Sep	5.8	4.5	4.2	4.5	4.9	5.7	6.1	6.5	7.8	11.5	16.2	17.2	17.8	19.0	19.3	19.7	18.9	17.9	16.2	13.9	11.0	8.8	8.3	7.6	11.38	19.69	
19-Sep	7.4	6.2	6.2	5.4	5.7	6.1	6.9	7.8	11.3	15.8	17.2	17.7	19.6	20.6	20.5	18.8	19.1	19.3	16.2	13.5	12.1	11.2	10.8	10.4	12.74	20.59	
20-Sep	10.5	10.6	9.4	8.7	8.7	8.6	8.8	9.0	9.4	9.7	9.9	9.8	9.7	9.3	9.7	9.7	9.4	8.9	8.5	8.0	7.4	6.1	5.6	5.0	8.76	10.61	
21-Sep	4.1	2.6	2.0	2.5	2.9	1.9	0.6	1.6	4.1	6.1	8.2	9.7	11.0	11.9	11.9	11.9	11.7	11.2	9.2	7.2	5.1	3.1	2.7	0.6	5.99	11.93	
22-Sep	0.6	0.4	-0.1	0.0	1.0	1.6	1.4	2.6	4.4	7.2	10.2	12.7	14.3	15.4	15.6	15.8	16.1	14.4	11.8	9.8	8.1	6.5	5.2	4.6	7.49	16.08	
23-Sep	4.6	4.1	3.9	3.2	2.6	2.2	2.0	2.0	2.8	4.0	6.6	9.6	12.1	14.5	16.2	16.4	16.0	15.9	14.4	12.1	11.0	9.0	8.5	6.2	8.33	16.38	
24-Sep	7.1	7.3	5.2	5.9	3.6	2.8	4.3	3.5	7.6	10.6	13.9	16.5	19.2	20.9	20.6	20.2	18.6	16.9	15.8	13.6	12.1	10.7	10.7	10.9	11.60	20.89	
25-Sep	10.3	8.9	10.3	8.7	7.0	7.3	8.3	8.7	10.2	10.7	12.0	12.9	13.8	13.7	13.7	13.4	12.2	10.4	8.4	8.2	7.6	7.3	7.3	7.2	9.94	13.81	
26-Sep	7.2	6.7	7.1	7.3	7.2	7.3	6.7	6.1	6.6	8.2	12.3	13.9	14.8	13.5	11.6	13.5	14.4	13.1	11.1	9.7	9.0	7.5	6.5	4.3	9.41	14.78	
27-Sep	3.2	3.4	2.2	1.7	1.8	2.1	1.2	3.0	7.1	8.3	11.3	12.1	8.7	7.2	7.9	7.4	6.6	6.5	4.5	2.7	2.1	1.5	0.3	0.0	4.70	12.10	
28-Sep	1.4	3.1	2.9	2.0	2.5	2.6	3.0	3.1	6.0	8.7	11.8	13.0	14.3	16.1	16.6	17.0	16.9	15.7	12.1	9.2	8.1	7.0	7.2	7.0	8.64	17.02	
29-Sep	7.6	7.7	6.2	3.8	3.1	2.4	3.3	4.4	9.4	11.3	13.1	14.8	17.7	19.3	20.1	19.8	20.2	19.7	16.1	15.1	13.1	12.5	10.4	9.6	11.71	20.21	
30-Sep	9.6	7.2	7.2	7.4	7.0	6.3	5.7	6.7	10.1	13.6	17.2	19.8	21.5	22.7	23.2	23.0	22.0	20.0	17.3	14.5	13.5	12.7	11.9	11.1	13.80	23.19	
		7.21	6.95	6.34	5.88	5.75	5.66	5.51	6.26	8.37	10.30	12.30	13.53	14.39	15.04	15.28	15.43	15.27	14.53	12.89	10.97	9.55	8.68	7.98	7.45	Diurnal Average	
		15.31	13.82	11.98	11.56	10.98	10.98	11.05	12.75	16.48	20.25	23.53	24.86	24.84	25.86	26.52	27.04	27.26	26.89	24.47	19.99	16.95	14.23	14.73	14.90	Diurnal Maximum	



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

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

<b>Maximum Value: 26.37 C on Sep 11 17:00</b>		<b>Maximum Daily Average: 18.48 C on Sep 11</b>		<b>Hours in Service: 720</b>																							
<b>Minimum Value: 1.0 C on Sep 21 07:00</b>		<b>Minimum Daily Average: 4.91 C on Sep 27</b>		<b>Hours of Data: 720</b>																							
<b>Maximum Diurnal Average: 14.46 C at hour 17</b>		<b>Minimum Diurnal Average: 6.04 C at hour 7</b>		<b>Hours of Missing Data: 0</b>																							
<b>Monthly Average: 10.005 C</b>		<b>Percentiles: P<sub>1</sub> = 1.6 P<sub>10</sub> = 4.7 Q<sub>1</sub> = 6.2 Median = 9.3 Q<sub>3</sub> = 13.1 P<sub>90</sub> = 17.0 P<sub>99</sub> = 24.5</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-Sep	10.8	10.6	9.9	8.8	9.9	9.9	10.2	10.0	11.1	13.1	14.9	16.1	17.0	17.9	18.2	17.9	17.2	16.3	15.9	14.8	13.4	12.6	10.9	10.8	13.27	18.17	
2-Sep	10.3	9.8	9.6	9.4	9.3	8.9	8.4	9.2	10.9	12.2	13.4	14.8	14.8	15.0	14.1	13.2	13.5	14.1	13.6	11.5	8.5	7.3	6.7	7.2	11.07	15.02	
3-Sep	6.8	6.6	4.9	4.8	3.0	3.3	2.6	5.0	6.1	7.1	7.6	8.2	9.3	11.4	12.7	13.4	13.7	13.5	12.7	12.5	11.0	9.7	9.3	8.1	8.46	13.69	
4-Sep	7.5	7.2	6.7	5.7	5.3	5.2	5.1	5.0	5.2	5.4	5.4	5.9	6.3	7.2	7.8	8.2	8.3	8.5	8.5	8.1	7.5	7.3	7.2	6.9	6.73	8.50	
5-Sep	6.6	6.5	6.3	6.1	6.2	5.6	4.9	4.6	6.0	6.3	9.2	10.3	10.8	10.9	10.9	11.2	11.1	10.9	10.7	10.3	9.2	7.9	7.2	6.8	8.18	11.17	
6-Sep	6.7	6.5	6.1	6.0	6.2	6.3	6.3	6.0	6.0	6.3	6.4	6.7	7.0	6.9	6.4	6.2	6.4	6.0	5.9	5.7	5.8	6.0	5.6	5.3	6.19	7.03	
7-Sep	5.0	4.9	5.1	5.0	4.8	4.8	4.6	4.9	5.9	6.9	9.0	10.8	11.8	13.0	14.2	15.2	15.5	15.1	14.5	13.0	12.1	11.2	8.7	8.3	9.34	15.54	
8-Sep	9.0	8.3	6.2	5.6	6.4	5.6	5.3	6.2	9.3	12.7	14.0	14.0	13.0	12.3	13.6	14.8	15.1	14.9	14.4	13.4	11.7	10.0	8.9	8.5	10.55	15.07	
9-Sep	8.5	8.2	7.3	6.8	6.2	5.8	5.9	5.7	7.2	9.6	11.7	12.6	13.0	13.5	14.2	14.8	14.8	14.7	14.1	13.1	12.0	11.8	11.1	10.8	10.56	14.84	
10-Sep	10.1	10.3	10.1	10.0	10.1	10.5	10.3	10.4	11.5	13.7	16.1	17.8	18.6	19.3	19.4	20.5	20.8	20.9	19.9	17.4	15.5	14.8	14.3	13.8	14.84	20.90	
11-Sep	14.0	13.5	12.5	12.2	12.4	12.1	10.7	11.4	13.9	17.3	20.2	21.5	22.9	24.2	25.3	26.1	26.4	26.3	25.5	23.8	19.7	17.5	17.2	17.0	18.48	26.37	
12-Sep	17.0	16.4	15.2	13.6	12.8	13.0	12.7	12.8	15.7	19.1	22.5	23.7	23.4	24.4	24.5	24.5	23.7	18.9	15.7	13.5	11.0	10.4	10.3	10.2	16.88	24.50	
13-Sep	10.0	9.9	9.9	10.0	9.9	9.1	8.3	8.6	9.8	9.9	10.6	11.4	12.6	13.1	13.2	11.1	12.3	12.2	11.7	9.9	9.1	8.6	7.8	7.2	10.26	13.21	
14-Sep	6.6	6.3	6.2	6.2	6.0	5.9	5.9	5.6	6.1	6.9	8.1	8.7	9.2	10.0	9.4	10.2	10.0	9.7	9.5	8.8	8.4	7.5	6.9	6.4	7.69	10.16	
15-Sep	6.2	5.8	5.7	5.6	5.8	5.8	4.8	4.4	4.4	4.7	4.7	5.1	5.3	5.6	5.8	5.9	6.1	6.2	6.2	6.1	6.0	6.1	6.2	6.0	5.62	6.23	
16-Sep	5.9	5.9	5.9	6.0	5.9	5.7	5.5	5.7	5.8	5.8	5.9	6.3	7.2	7.6	8.7	9.2	10.2	10.0	9.4	7.6	6.8	5.7	5.3	4.4	6.78	10.21	
17-Sep	3.6	4.3	4.0	2.2	1.9	2.0	2.6	1.8	2.8	5.3	7.4	9.3	11.9	13.5	14.6	14.5	14.9	15.2	14.4	13.0	11.3	9.9	8.6	7.9	8.21	15.19	
18-Sep	7.4	6.6	5.5	5.4	5.6	6.1	6.7	6.4	7.3	10.5	14.7	15.7	16.1	17.3	17.9	18.5	18.3	17.8	17.0	16.0	13.4	11.1	10.5	9.3	11.70	18.47	
19-Sep	8.9	8.4	8.1	7.7	7.5	7.5	7.9	8.5	10.3	14.3	16.3	16.9	18.6	19.4	19.6	18.7	18.8	18.9	17.5	15.4	14.4	13.0	12.4	12.5	13.40	19.58	
20-Sep	12.7	10.7	10.3	10.0	9.8	9.0	9.2	9.2	9.0	8.9	8.9	8.6	8.5	8.4	8.6	8.8	8.6	8.4	8.1	7.7	6.6	5.3	4.8	4.1	8.50	12.65	
21-Sep	3.4	2.5	2.4	2.9	3.0	2.2	1.0	2.0	3.5	5.2	7.1	8.4	9.6	10.3	10.4	10.7	10.8	10.5	9.5	8.7	7.3	5.2	4.7	3.5	6.02	10.78	
22-Sep	2.9	3.1	2.4	1.5	1.1	1.4	1.1	2.2	3.9	6.1	9.0	10.9	12.1	13.3	13.8	14.2	14.5	13.7	11.7	10.0	8.3	6.6	5.5	4.8	7.25	14.45	
23-Sep	4.5	4.1	3.7	3.1	2.4	2.0	1.7	1.6	2.0	2.9	4.8	7.6	10.0	12.1	14.0	15.1	15.4	15.4	14.4	12.8	12.2	11.1	10.2	8.2	7.97	15.44	
24-Sep	8.8	9.6	7.4	6.8	5.3	4.5	6.6	4.6	6.5	9.4	12.7	15.1	18.1	19.9	19.9	20.0	19.0	17.6	16.6	15.2	14.5	14.5	14.1	13.8	12.52	19.95	
25-Sep	13.9	12.3	13.3	10.9	9.6	9.8	8.3	8.6	9.5	9.8	10.8	11.6	12.2	12.3	12.4	12.3	11.5	10.1	8.3	8.3	7.6	7.1	7.0	6.9	10.19	13.88	
26-Sep	7.0	6.6	6.9	7.2	7.0	7.1	6.6	5.9	6.0	7.3	10.0	11.6	12.7	12.1	10.7	12.8	13.8	12.8	11.7	10.6	9.5	8.4	7.7	5.8	9.08	13.81	
27-Sep	5.0	3.8	3.1	2.9	3.2	3.0	2.7	3.0	6.7	7.7	10.3	11.0	7.8	6.2	6.8	6.3	5.9	5.8	4.5	3.5	2.8	2.8	1.8	1.3	4.91	11.04	
28-Sep	1.6	3.0	3.1	2.1	2.1	2.3	2.8	3.4	5.3	7.4	9.6	11.5	13.0	14.4	15.2	15.9	16.1	15.9	14.3	12.0	10.4	10.2	10.4	9.9	8.84	16.11	
29-Sep	9.2	8.9	7.4	5.7	5.0	4.3	4.5	4.9	8.2	10.5	12.1	13.7	16.0	17.6	18.5	18.9	19.2	19.3	17.7	16.0	15.0	13.8	12.5	12.5	12.15	19.32	
30-Sep	11.5	8.3	8.7	8.7	8.3	8.1	7.7	7.8	8.9	12.1	15.9	18.2	19.8	21.3	22.0	22.2	21.9	21.3	19.3	17.4	16.0	15.3	14.7	13.5	14.55	22.16	
		8.04	7.63	7.13	6.64	6.40	6.23	6.04	6.17	7.49	9.15	10.98	12.12	12.97	13.68	14.09	14.37	14.46	14.03	13.11	11.87	10.57	9.62	8.95	8.39	Diurnal Average	
		16.95	16.36	15.21	13.60	12.84	12.99	12.70	12.80	15.65	19.13	22.51	23.72	23.44	24.39	25.27	26.07	26.37	26.26	25.48	23.84	19.66	17.54	17.16	16.98	Diurnal Maximum	



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

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

Maximum Value: 4.11 C on Sep 1 01:00		Maximum Daily Average: 0.91 C on Sep 24		Hours in Service: 720																						
Minimum Value: -2.7 C on Sep 10 13:00		Minimum Daily Average: -0.74 C on Sep 15		Hours of Data: 720																						
Maximum Diurnal Average: 1.01 C at hour 21		Minimum Diurnal Average: -1.41 C at hour 13		Hours of Missing Data: 0																						
Monthly Average: -0.053 C		Percentiles: P <sub>1</sub> = -2.2 P <sub>10</sub> = -1.4 Q <sub>1</sub> = -1.0 Median = -0.4 Q <sub>3</sub> = 0.7 P <sub>90</sub> = 1.9 P <sub>99</sub> = 3.3		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-Sep	4.1	2.1	1.6	2.4	0.7	-0.2	-0.3	-0.6	-1.2	-1.3	-1.4	-1.6	-1.7	-1.6	-1.3	-1.0	-0.4	-0.5	-0.2	0.2	0.4	0.0	-0.1	-0.1	-0.09	4.11
2-Sep	-0.1	-0.2	0.8	1.3	1.5	0.4	0.5	-0.3	-1.0	-1.3	-1.1	-1.5	-1.2	-1.0	-0.8	-0.6	-0.6	-1.1	-0.2	0.1	0.2	-0.5	-0.2	0.2	-0.29	1.46
3-Sep	0.6	0.1	1.1	2.3	1.0	1.2	1.0	-0.5	-1.0	-1.2	-1.3	-1.6	-1.5	-1.6	-1.5	-1.3	-1.2	-0.7	0.0	0.2	0.3	0.2	0.3	-0.1	-0.22	2.26
4-Sep	-0.2	-0.3	-0.4	-0.6	-0.8	-0.7	-0.7	-0.8	-0.9	-1.1	-1.3	-0.7	-0.8	-0.9	-0.9	-0.9	-0.7	-0.7	-0.7	-0.2	0.8	0.1	-0.1	-0.1	-0.57	0.80
5-Sep	0.7	0.1	-0.2	-0.8	-0.3	0.2	1.8	1.3	-1.1	-1.6	-1.8	-1.2	-1.3	-1.2	-1.1	-0.9	-0.6	-0.5	0.0	0.5	-0.1	-0.3	-0.4	-0.6	-0.39	1.82
6-Sep	-0.6	-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.8	-0.8	-0.6	-0.6	-0.7	-0.5	-0.5	-0.6	-0.5	-0.5	-0.4	-0.3	-0.2	-0.2	-0.3	-0.4	-0.3	-0.53	-0.16
7-Sep	-0.5	-0.6	-0.7	-0.8	-0.8	-0.8	-0.6	-0.6	-0.8	-1.2	-1.3	-1.2	-1.4	-1.5	-1.5	-1.4	-1.4	-0.8	-0.4	0.4	0.6	1.2	1.7	2.2	-0.50	2.16
8-Sep	1.3	1.1	1.2	0.9	1.1	1.0	1.6	0.1	-1.1	-1.0	-1.2	-1.4	-0.6	-0.6	-1.0	-1.2	-1.0	-0.7	0.5	1.2	0.4	0.1	-0.4	-0.6	-0.02	1.57
9-Sep	-0.6	0.1	0.8	1.3	1.5	0.4	0.1	-0.8	-1.4	-2.2	-2.2	-1.6	-1.2	-1.2	-1.4	-1.9	-1.3	-0.8	-0.3	0.2	0.4	0.1	0.5	0.6	-0.46	1.45
10-Sep	0.5	0.4	0.4	0.7	0.1	0.0	0.6	-0.2	-1.1	-1.2	-1.9	-2.3	-2.7	-2.1	-0.8	-1.5	-1.2	-0.7	0.7	2.7	2.8	2.7	1.9	1.3	-0.03	2.79
11-Sep	0.9	0.8	0.9	0.8	1.4	1.5	1.0	-0.3	-1.2	-1.6	-1.7	-2.0	-1.9	-1.6	-1.2	-1.0	-0.9	-0.6	1.0	3.8	2.7	3.3	2.4	2.1	0.35	3.83
12-Sep	1.6	2.5	3.2	2.0	2.0	2.0	1.6	0.1	-0.8	-1.1	-1.0	-1.1	-1.1	-1.2	-1.0	-1.0	-0.8	-0.6	-0.4	-0.3	-0.3	-0.8	-0.7	-0.7	0.09	3.22
13-Sep	-0.7	-0.8	-0.8	-0.7	-0.2	0.5	0.3	-0.5	-0.8	-0.9	-1.0	-1.2	-1.1	-1.0	-1.1	-0.9	-1.0	-0.5	-0.4	0.8	1.4	0.1	1.0	0.2	-0.39	1.39
14-Sep	0.0	-0.2	-0.4	-0.4	-0.4	-0.3	-0.3	-0.4	-0.8	-1.1	-1.1	-1.1	-1.2	-1.2	-0.8	-1.4	-1.2	-0.7	-0.3	0.2	0.8	-0.1	-0.1	-0.1	-0.54	0.81
15-Sep	-0.3	-0.3	-0.5	-0.5	-0.4	-0.3	-0.6	-0.9	-0.9	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.2	-0.8	-0.9	-0.6	-0.6	-0.6	-0.4	-0.3	-0.74	-0.26
16-Sep	-0.3	-0.4	-0.5	-0.4	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.9	-1.2	-1.0	-1.2	-1.1	-1.1	-1.0	-0.4	0.3	1.3	0.7	1.7	1.2	-0.33	1.65
17-Sep	1.3	1.9	2.3	1.7	2.7	2.8	2.6	0.3	-1.3	-1.5	-0.9	-1.8	-2.1	-1.8	-1.3	-1.0	-1.1	-0.8	0.1	1.7	1.9	1.8	1.7	2.0	0.46	2.75
18-Sep	1.6	2.1	1.2	0.9	0.6	0.4	0.6	0.0	-0.5	-1.0	-1.5	-1.5	-1.6	-1.8	-1.4	-1.2	-0.6	-0.1	0.7	2.1	2.4	2.3	2.1	1.7	0.32	2.36
19-Sep	1.5	2.2	1.9	2.4	1.8	1.4	1.1	0.6	-1.0	-1.5	-0.9	-0.8	-1.0	-1.2	-0.9	-0.1	-0.3	-0.4	1.2	1.9	2.3	1.8	1.6	2.1	0.66	2.37
20-Sep	2.1	0.1	0.8	1.3	1.1	0.3	0.4	0.2	-0.4	-0.8	-1.1	-1.2	-1.1	-0.9	-1.1	-0.9	-0.7	-0.5	-0.3	-0.3	-0.8	-0.7	-0.8	-0.8	-0.25	2.12
21-Sep	-0.7	-0.1	0.3	0.3	0.1	0.3	0.4	0.3	-0.5	-0.9	-1.1	-1.3	-1.4	-1.6	-1.5	-1.2	-0.9	-0.7	0.3	1.5	2.1	2.1	2.0	2.9	0.03	2.89
22-Sep	2.3	2.6	2.4	1.5	0.0	-0.2	-0.3	-0.4	-0.5	-1.1	-1.1	-1.9	-2.1	-2.1	-1.8	-1.5	-1.6	-0.7	-0.1	0.1	0.1	0.1	0.3	0.1	-0.24	2.61
23-Sep	-0.1	0.0	-0.2	-0.1	-0.1	-0.2	-0.3	-0.4	-0.8	-1.2	-1.8	-1.9	-2.0	-2.4	-2.2	-1.3	-0.6	-0.5	0.0	0.7	1.2	2.0	1.7	2.0	-0.35	2.03
24-Sep	1.7	2.3	2.1	0.9	1.7	1.7	2.3	1.1	-1.1	-1.2	-1.2	-1.4	-1.1	-1.0	-0.7	-0.2	0.4	0.7	0.8	1.7	2.4	3.8	3.3	2.9	0.91	3.79
25-Sep	3.5	3.3	3.0	2.3	2.6	2.5	0.0	-0.1	-0.6	-0.8	-1.2	-1.3	-1.6	-1.3	-1.3	-1.1	-0.7	-0.3	-0.1	0.1	0.0	-0.2	-0.2	-0.2	0.26	3.53
26-Sep	-0.2	-0.1	-0.2	-0.1	-0.2	-0.2	-0.1	-0.2	-0.6	-0.9	-2.3	-2.3	-2.1	-1.4	-0.9	-0.7	-0.6	-0.3	0.6	0.9	0.5	0.8	1.2	1.5	-0.32	1.53
27-Sep	1.7	0.4	0.9	1.2	1.4	0.9	1.6	0.0	-0.3	-0.6	-1.0	-1.0	-0.9	-1.0	-1.1	-1.1	-0.7	-0.6	0.0	0.7	0.6	1.3	1.4	1.3	0.20	1.70
28-Sep	0.2	-0.1	0.2	0.2	-0.4	-0.3	-0.2	0.3	-0.7	-1.3	-2.1	-1.4	-1.3	-1.7	-1.4	-1.1	-0.8	0.2	2.2	2.7	2.4	3.1	3.2	2.9	0.20	3.18
29-Sep	1.6	1.1	1.2	1.8	1.8	1.9	1.2	0.4	-1.2	-0.7	-1.0	-1.1	-1.7	-1.7	-1.6	-0.9	-1.0	-0.4	1.6	0.9	1.9	1.3	2.0	2.8	0.44	2.84
30-Sep	1.9	1.1	1.5	1.3	1.3	1.7	1.9	1.1	-1.2	-1.5	-1.3	-1.5	-1.7	-1.4	-1.2	-0.8	-0.1	1.3	2.0	2.8	2.6	2.7	2.8	2.4	0.74	2.83
		0.83	0.68	0.78	0.75	0.66	0.56	0.53	-0.09	-0.87	-1.13	-1.30	-1.39	-1.41	-1.35	-1.18	-1.04	-0.80	-0.48	0.22	0.89	1.01	0.94	0.96	0.94	Diurnal Average
		4.11	3.31	3.22	2.38	2.69	2.75	2.55	1.34	-0.34	-0.60	-0.56	-0.68	-0.55	-0.53	-0.63	-0.15	0.38	1.28	2.21	3.83	2.79	3.79	3.33	2.91	Diurnal Maximum



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

**Wind Speed (WS) - kph**  
**September 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	6.1	10.8	3.4	4.6	12.5	25.4	18.3	15.8	15.9	15.6	16.5	18.4	18.2	13.4	9.2	11.0	11.8	4.2	7.2	6.5	8.3	8.4	8.8	8.2	7.32	25.36	
Dir	WSW	WSW	WSW	W	WNW	WNW	WNW	WNW	W	W	WNW	WNW	WNW	NW	NNW	NNW	NNW	NE	ENE	NE	NE	E	E	E	NW	WNW	
2 Spd	7.9	7.2	2.9	10.4	8.9	10.3	10.9	7.4	7.9	3.8	6.2	12.1	17.4	20.1	17.9	12.9	13.7	16.2	12.7	20.0	16.8	11.0	12.9	14.6	9.18	20.05	
Dir	ENE	E	NNE	NW	NNW	N	N	N	NE	NNE	NW	NW	NW	NW	WNW	NW	NW	NNW	NW	WNW	NW	WSW	W	W	NW	NW	
3 Spd	11.8	13.9	5.7	6.6	11.9	9.0	6.3	8.6	13.7	14.7	11.6	11.0	8.0	13.2	10.5	7.5	4.9	11.1	8.1	8.8	11.0	3.3	9.6	11.2	7.70	14.67	
Dir	W	WNW	WSW	W	WSW	WSW	W	WNW	NW	NNW	NW	WNW	NW	NNW	N	NNW	N	N	NNW	NNW	NNW	WNW	N	N	NW	NNW	
4 Spd	10.0	10.0	12.3	14.6	14.1	13.1	8.7	11.4	12.4	12.2	10.8	10.4	11.2	8.6	4.2	4.5	6.7	1.8	0.9	4.6	5.1	3.9	4.6	2.6	7.09	14.60	
Dir	NNE	N	N	N	N	N	NNW	NNW	NNW	NNW	NNW	NW	NNW	N	NNW	NNE	N	N	SW	SW	WSW	WSW	W	WSW	NNW	N	
5 Spd	0.4	1.3	1.4	2.0	0.9	1.1	1.9	6.7	5.2	5.7	9.5	12.0	12.6	11.2	9.6	8.8	8.2	4.3	2.0	5.6	7.8	5.4	5.0	7.5	4.18	12.57	
Dir	SSW	WNW	SSW	SW	E	S	W	NNE	E	ESE	E	E	E	E	E	ENE	ENE	NNE	N	ENE	ENE	NNE	N	ENE	E	E	
6 Spd	5.9	4.5	4.6	7.1	8.6	13.1	15.9	18.3	17.6	17.9	18.6	21.1	17.9	18.8	22.3	20.9	15.9	16.2	18.5	14.6	13.6	12.6	13.5	6.9	14.14	22.32	
Dir	N	NNE	N	NNW	NW	NNW	NNW	NNW	NNW	NW	NNW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	NNW	N	NNW	NNW	NNW	NNW
7 Spd	7.8	9.0	11.7	12.0	9.8	10.2	10.1	12.2	9.3	10.4	10.5	14.0	13.8	12.6	12.0	10.3	14.0	12.8	13.2	7.6	10.0	9.6	9.7	11.9	10.29	14.05	
Dir	W	W	W	W	W	WSW	WSW	WSW	SW	SW	WSW	WNW	WNW	WNW	NW	WNW	W	W	WSW	WSW	W	W	WSW	WSW	W	W	
8 Spd	14.0	12.6	13.1	7.8	6.3	9.0	8.9	10.0	4.8	3.4	3.1	4.5	8.0	13.4	9.8	7.1	5.1	4.9	4.2	5.7	10.9	1.8	9.0	8.7	3.69	14.04	
Dir	W	W	WSW	WSW	WSW	WSW	WSW	WSW	W	WNW	SSE	SSW	NW	N	NE	ENE	NE	ENE	NE	NNE	WNW	WNW	WSW	WSW	W	W	
9 Spd	4.6	8.2	4.0	9.1	7.0	12.5	7.6	8.3	5.6	6.3	6.9	5.3	5.0	7.8	5.5	8.3	11.0	9.8	7.5	5.9	9.2	10.7	9.3	7.7	7.38	12.50	
Dir	WSW	WSW	SW	SW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	WSW	W	W	SW	SW	WSW	WSW	WSW	W	W	W	WSW	WSW	WSW	WSW
10 Spd	3.8	7.4	7.7	9.2	7.3	8.0	7.7	4.8	4.2	11.6	11.2	10.3	11.6	9.2	4.1	9.1	6.7	9.0	5.3	6.2	9.4	9.9	12.2	11.7	7.87	12.19	
Dir	WSW	SW	WSW	SW	WSW	W	WSW	WSW	SW	WSW	SW	SW	SSW	WSW	WSW	WSW	SW	SW	SW	S	SSW	SW	SW	WSW	SW	SW	SW
11 Spd	13.4	12.6	12.2	15.4	14.3	12.5	14.3	15.2	13.8	10.9	11.3	10.5	11.2	10.4	10.1	12.3	11.1	6.6	5.1	8.4	5.5	11.2	14.0	13.6	11.05	15.44	
Dir	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SSW	SSW	SSW	SSW	SW	WSW	W	WSW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW
12 Spd	13.8	12.0	9.4	15.4	11.7	16.1	17.1	14.9	16.5	15.5	11.0	11.2	9.1	10.0	9.8	14.6	21.0	32.8	28.4	17.2	8.8	4.9	8.8	14.5	9.80	32.79	
Dir	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WNW	NNW	NNW	NNW	NNW	NNW	NNW	N	N	N	NNW	WSW	WSW	W	WNW	N
13 Spd	8.6	10.8	9.9	11.7	8.9	6.8	7.8	9.7	9.5	9.4	9.9	11.7	13.6	16.5	23.1	15.5	15.4	16.4	14.7	11.8	11.1	11.2	8.8	11.2	11.08	23.12	
Dir	WSW	W	W	W	W	WSW	WSW	WSW	W	WNW	WNW	WNW	WNW	NW	WNW	WNW	W	W	WNW	NW	WNW	NW	NW	NW	WNW	WNW	WNW
14 Spd	10.5	10.0	10.1	9.5	11.0	13.2	12.0	8.9	11.7	10.8	6.6	8.3	8.6	5.9	7.5	4.1	5.5	5.9	3.4	3.7	3.5	5.5	5.8	6.0	5.15	13.19	
Dir	NW	NW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NNW	NNW	NNW	N	N	E	NE	E	ESE	E	ENE	ENE	ENE	ENE	NNW	NW	NW
15 Spd	5.4	5.1	4.5	5.9	9.0	13.0	13.0	11.7	12.3	11.5	11.8	15.0	12.5	11.3	11.3	11.7	8.3	7.0	6.0	8.2	6.2	5.8	7.6	8.0	6.74	14.97	
Dir	ENE	ENE	E	ENE	ENE	ENE	E	E	ENE	NE	NE	NE	NNE	NE	NNE	NNE	NNE	N	NNW	NNW	NW	WNW	WNW	WNW	NE	NE	
16 Spd	7.2	7.9	6.2	6.1	6.8	8.5	6.3	5.0	4.7	6.2	5.1	1.7	2.2	1.4	1.8	3.0	3.1	3.1	4.8	4.6	4.8	3.4	2.5	4.0	2.59	8.54	
Dir	WNW	NW	NW	NNW	NW	NW	NW	NW	NW	NNW	WNW	NNW	ENE	NNE	NW	NW	NNW	NE	E	E	E	ESE	SE	S	NNW	NW	
17 Spd	10.1	7.8	3.0	0.9	3.2	4.2	6.5	4.4	7.4	4.7	6.2	4.2	6.8	10.3	9.7	12.0	5.8	4.1	3.4	2.0	5.2	7.0	9.6	10.6	5.26	11.97	
Dir	WSW	SW	WNW	SSW	SW	SW	WSW	WSW	WSW	SW	NW	SW	SSW	WSW	WNW	WNW	NW	W	WSW	S	SSW	SW	WSW	WSW	WSW	WSW	WSW
18 Spd	12.3	9.3	15.0	15.4	13.2	11.2	10.2	15.8	14.5	13.7	10.9	8.0	8.6	11.9	16.0	16.8	12.6	6.2	5.3	6.6	7.8	10.3	10.3	12.6	11.30	16.75	
Dir	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	WSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW
19 Spd	13.2	10.3	9.9	11.0	13.0	12.4	9.6	9.5	10.9	14.0	17.3	14.4	18.3	23.2	21.6	16.2	21.2	19.4	14.4	10.8	10.9	11.8	12.5	8.2	13.72	23.22	
Dir	WSW	WSW	WSW	WSW	WSW	WSW	SW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	SW	SW
20 Spd	5.6	7.2	4.8	0.9	1.1	2.5	2.0	5.3	4.1	2.5	6.2	7.5	4.6	7.0	7.2	5.9	9.6	7.5	10.0	14.6	21.0	17.0	18.6	17.9	2.91	20.96	
Dir	NNW	NE	NNE	NNW	N	S	S	SW	SW	SE	SE	SSE	SE	ESE	ESE	ESE	SE	ENE	NNE	N	NNW	N	NW	NW	NNE	NNW	
21 Spd	13.8	11.0	11.0	11.3	13.1	10.5	7.5	9.9	13.5	16.5	20.4	23.0	26.7	27.3	26.9	26.9	24.2	16.1	14.2	8.0	7.9	11.7	8.3	7.6	13.88	27.26	
Dir	WNW	W	WSW	W	W	W	SW	W	WNW	WNW	WNW	NW	NW	WNW	NW	NW	NW	NW	NW	W	WSW	WSW	WSW	WSW	WNW	WNW	WNW
22 Spd	6.2	4.5	3.0	4.4	5.9	9.1	11.2	10.8	9.0	11.8	18.5	18.7	13.2	8.3	7.1	8.0	9.1	10.6	11.3	11.7	10.7	8.9	7.9	7.3	7.27	18.68	
Dir	WSW	SW	SSW	E	NE	ENE	ENE	ENE	ENE	E	SSE	SSE	SE	SE	SE	ESE	E	E	ENE	E	E	E	ESE	ESE	ESE	ESE	SSE



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

**Wind Speed (WS) - kph**  
**September 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	8.0	8.7	7.8	6.3	7.3	7.5	7.3	8.7	7.9	9.1	8.8	11.1	11.8	10.9	11.3	10.4	8.2	8.5	6.1	5.6	6.9	3.7	4.5	7.4	7.34	11.76	
Dir	ESE	ESE	ESE	E	E	ENE	E	E	E	E	E	E	E	ESE	ESE	ESE	E	E	E	NE	ESE	ENE	SSE	SW	E	E	
24 Spd	11.3	12.2	7.0	5.0	4.9	5.5	3.5	4.9	5.8	2.1	5.4	9.4	13.9	24.1	21.1	24.6	19.6	16.4	12.1	8.3	12.9	11.1	12.6	10.0	7.70	24.55	
Dir	WSW	WSW	NW	WNW	SW	SW	WSW	SW	SW	SSW	E	ESE	SE	SSE	SSE	SSE	SSE	SSE	SE	SE	SSE	S	S	SSW	S	SSE	
25 Spd	12.7	4.6	4.1	10.6	2.6	7.2	22.5	21.1	20.3	25.5	25.1	24.7	21.7	15.8	18.9	17.9	15.5	10.3	6.2	12.6	13.6	14.5	13.1	11.3	11.90	25.48	
Dir	SSW	SW	WNW	NNW	NNW	NW	NW	NW	NNW	NW	NNW	NNW	NNW	NW	NW	NW	NW	WNW	WSW	W	WSW	WSW	WSW	WSW	NW	NW	
26 Spd	11.4	7.7	8.3	6.2	7.2	8.6	4.2	3.5	3.9	6.2	12.1	10.8	13.5	16.6	8.8	8.9	27.6	18.5	9.2	13.2	13.8	12.2	11.0	10.8	9.78	27.60	
Dir	WSW	SW	W	WNW	W	WNW	WSW	SW	SW	WSW	SSW	SW	SW	W	WSW	WSW	WSW	WSW	W	W	WNW	W	W	WSW	WSW	WSW	
27 Spd	9.4	11.9	11.4	10.4	9.5	13.2	10.8	12.4	13.7	17.2	25.2	29.5	27.1	19.3	23.2	20.0	16.9	17.0	12.3	8.2	7.4	6.3	7.9	10.4	10.88	29.48	
Dir	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	WNW	WNW	N	N	NNW	NNW	NNW	NNW	NW	W	WSW	WSW	SW	WSW	WNW	WNW	
28 Spd	11.4	6.9	4.3	5.7	4.0	6.2	7.1	8.9	5.3	9.8	10.7	6.7	3.3	8.0	12.1	11.1	13.7	11.4	7.9	8.4	8.1	11.4	13.1	12.6	7.19	13.69	
Dir	WSW	WNW	NNW	SSE	S	SSW	SW	WSW	WSW	WSW	SW	WSW	WSW	SW	WSW	SW	SSW	SSW	SSE	SSE	S	SSW	SSW	SW	SW	SSW	
29 Spd	13.7	13.9	15.2	7.1	7.4	9.5	11.9	10.0	13.5	7.4	4.2	8.8	11.9	13.8	13.3	9.4	5.6	0.5	5.3	6.3	3.7	3.9	4.4	6.8	6.50	15.24	
Dir	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	SSW	SSW	SSW	WSW	WNW	SE	ENE	ENE	E	ESE	SSE	WSW	SW	WSW	
30 Spd	13.9	11.1	12.4	13.4	12.6	11.8	9.4	9.3	7.2	8.8	6.2	5.4	7.5	8.8	9.7	10.6	7.0	5.1	4.6	5.1	4.9	7.1	5.9	5.2	7.65	13.92	
Dir	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	WSW	SW	SSW	SSW	WSW	SSW	SSW	SSE	SSE	S	SSW	SSW	SW	SW	SW	WSW	
Spd	6.65	6.03	5.46	5.67	5.51	6.10	5.53	5.80	5.42	5.61	5.17	5.41	4.57	4.95	5.33	4.60	4.96	3.73	2.96	2.88	3.32	4.20	5.07	6.00	Diurnal Average		
Dir	W	W	W	W	W	W	W	W	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	WNW	WSW	WSW	W	Diurnal Maximum		
Spd	14.04	13.90	15.24	15.44	14.26	25.36	22.52	21.07	20.30	25.48	25.20	29.48	27.06	27.26	26.87	26.92	27.60	32.79	28.41	19.96	20.96	17.00	18.57	17.90	Diurnal Maximum		
Dir	268.98	257.00	245.21	247.40	257.83	302.89	320.94	321.49	326.92	324.68	294.22	295.04	352.81	299.51	320.39	314.77	252.91	354.77	354.25	301.28	346.69	350.23	320.93	316.19			
Maximum Speed Value: 32.8 kph on Sep 12 18:00 Maximum Daily Speed Average: 14.14 kph on Sep 21 Maximum Diurnal Speed Average: 6.65 kph at hour 1																				Minimum Speed Value: 0.4 kph on Sep 5 01:00 Minimum Daily Speed Average: 2.59 kph on Sep 16 Minimum Diurnal Speed Average: 2.88 kph at hour 20				Hours in Service: 720 Hours of Data: 720 Hours of Missing Data: 0			
Monthly Average Velocity: 4.853 kph 277.19 deg All monthly, daily, and diurnal averages have been calculated using vector methods																				Speed Percentiles: P <sub>1</sub> = 1.1 P <sub>10</sub> = 4.4 Q <sub>1</sub> = 6.6 Median = 9.6 Q <sub>3</sub> = 12.6 P <sub>90</sub> = 16.5 P <sub>99</sub> = 26.8				Percent Operational Time: 100.0			
<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	11	31	19	7	2	0	70																				
NorthEast	6	17	7	0	0	0	30																				
East	16	49	12	0	0	0	77																				
SouthEast	8	11	7	3	0	0	29																				
South	12	8	4	1	0	0	25																				
SouthWest	26	105	71	4	0	0	206																				
West	17	75	62	1	0	0	155																				
NorthWest	8	43	55	21	1	0	128																				
Total	104	339	237	37	3	0	720																				



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

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

Maximum Value: 94.77 % on Sep 5 09:00      Maximum Daily Average: 91.97 % on Sep 15																						Hours in Service: 720 Hours of Data: 720				
Minimum Value: 30.3 % on Sep 11 18:00      Minimum Daily Average: 57.87 % on Sep 1																						Hours of Missing Data: 0 Hours of Calibration: 0				
Maximum Diurnal Average: 88.54 % at hour 7      Minimum Diurnal Average: 51.59 % at hour 17																						Percent Operational Time: 100.0				
Monthly Average: 73.314 %      Percentiles: P <sub>1</sub> = 32.2 P <sub>10</sub> = 44.8 Q <sub>1</sub> = 58.9 Median = 78.7 Q <sub>3</sub> = 89.7 P <sub>90</sub> = 92.7 P <sub>99</sub> = 94.1																										
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-Sep	80.9	78.3	73.5	81.6	73.9	74.5	76.3	74.8	67.1	56.9	47.1	38.7	33.2	30.5	30.3	31.0	32.7	42.1	42.3	48.3	53.8	58.5	82.3	80.5	57.87	82.26
2-Sep	79.7	79.7	81.9	84.9	87.9	87.1	87.0	85.1	75.2	66.3	62.5	56.6	56.6	57.3	63.0	68.7	68.3	63.4	65.2	72.2	86.0	87.8	90.7	88.3	75.06	90.73
3-Sep	89.6	87.4	87.6	90.5	91.8	92.8	92.8	91.4	88.7	81.8	76.0	73.2	69.0	58.0	51.0	47.1	46.1	48.5	56.3	57.3	70.7	82.1	78.9	84.8	74.72	92.84
4-Sep	86.9	88.1	90.7	92.7	92.3	92.7	93.1	93.1	92.2	90.6	88.3	88.1	88.2	82.4	79.2	76.9	76.8	75.0	79.0	84.2	89.6	91.0	91.5	91.3	87.25	93.12
5-Sep	91.6	93.1	93.2	93.5	93.6	93.4	93.4	94.2	94.8	93.1	75.7	65.8	62.2	60.8	61.8	60.6	61.9	65.1	73.9	82.8	82.5	88.9	91.6	93.1	81.69	94.77
6-Sep	93.6	93.9	93.9	94.0	93.9	94.0	93.8	92.2	92.1	92.4	92.1	91.4	88.0	89.4	88.6	89.2	90.5	90.9	89.7	89.2	90.2	90.6	91.0	91.6	91.50	93.99
7-Sep	92.6	93.3	92.6	90.9	91.2	92.5	92.8	93.0	92.2	89.5	81.8	74.6	69.6	63.0	54.1	48.9	47.2	50.5	54.6	69.0	73.2	72.2	85.4	87.6	77.17	93.29
8-Sep	84.2	81.3	89.5	90.3	90.9	91.6	92.3	91.4	81.6	62.6	51.1	52.8	71.7	79.7	64.0	56.7	56.6	57.0	65.9	75.4	82.3	91.7	93.1	93.5	76.97	93.51
9-Sep	93.5	93.1	93.3	93.7	93.9	94.6	94.6	94.6	94.4	91.5	78.4	71.7	70.4	65.2	58.5	49.6	52.9	56.7	63.9	72.2	82.3	84.9	87.3	90.8	80.08	94.62
10-Sep	91.7	92.8	93.1	93.3	93.8	92.6	91.6	93.4	91.4	77.9	65.8	50.4	47.7	44.8	47.2	43.3	43.5	43.4	49.8	67.7	79.7	86.1	83.8	83.1	72.83	93.81
11-Sep	78.7	78.0	82.9	84.0	85.6	84.6	89.1	80.9	70.2	59.1	48.6	44.7	40.9	36.3	34.0	33.9	32.9	30.3	34.4	48.0	62.6	74.3	77.7	76.2	61.16	89.06
12-Sep	74.1	75.2	78.7	85.8	84.9	83.5	78.5	66.7	57.8	46.8	37.3	32.5	34.8	32.9	32.4	33.2	37.2	51.8	55.8	71.5	89.4	92.5	93.6	93.7	63.35	93.68
13-Sep	93.6	93.4	92.2	90.9	90.8	92.3	93.7	94.4	93.4	91.1	88.4	83.5	73.9	58.1	52.0	62.7	55.5	56.7	60.9	69.5	78.0	76.7	82.3	83.3	79.47	94.42
14-Sep	83.4	83.5	83.2	85.7	87.1	88.6	86.7	87.0	84.2	79.6	71.3	65.6	63.3	56.4	62.3	55.8	58.5	57.4	66.1	73.4	76.4	79.3	84.4	86.7	75.24	88.63
15-Sep	87.0	88.5	90.0	92.2	93.6	93.3	91.7	92.2	92.6	92.6	91.0	91.3	91.5	92.1	91.9	91.9	91.3	92.5	92.5	93.0	93.6	93.8	93.7	93.5	91.97	93.81
16-Sep	93.6	93.9	94.1	94.2	94.1	94.0	94.0	93.9	93.4	91.6	87.9	84.4	79.2	76.1	69.5	67.0	59.5	60.4	65.8	79.4	86.8	86.9	90.7	92.0	84.26	94.19
17-Sep	92.9	93.5	92.7	92.6	92.9	93.4	94.2	93.8	92.9	87.8	76.5	71.9	54.6	46.4	36.6	38.4	38.8	38.9	45.0	58.8	69.3	75.2	79.6	81.1	72.41	94.18
18-Sep	81.4	82.2	86.3	84.8	83.2	82.2	80.7	80.4	75.9	65.8	45.9	38.9	39.0	35.9	32.2	31.6	33.2	39.5	46.7	51.2	65.3	79.7	75.9	76.5	62.26	86.27
19-Sep	74.6	77.3	76.6	78.8	78.9	77.9	77.5	75.5	66.8	54.0	47.6	48.9	43.2	39.5	39.2	46.5	45.8	45.1	53.6	65.5	71.4	75.9	76.7	74.8	62.98	78.86
20-Sep	72.8	77.3	83.0	85.1	87.5	89.1	90.3	90.3	91.1	89.7	83.3	83.5	82.9	83.7	81.9	81.8	86.0	85.5	88.8	91.6	92.4	91.8	91.9	91.3	86.36	92.37
21-Sep	90.1	91.4	91.8	92.6	89.5	90.2	90.6	91.4	83.8	78.5	68.7	60.7	52.1	46.6	45.4	38.2	36.7	39.2	44.6	55.2	63.5	74.4	79.1	82.5	69.86	92.61
22-Sep	88.5	84.6	89.6	91.1	88.0	84.8	86.6	88.0	85.6	79.2	64.7	56.5	54.9	51.4	47.7	45.3	44.2	48.7	58.4	62.4	68.8	77.8	84.5	85.6	71.53	91.11
23-Sep	85.9	86.2	86.7	87.8	89.6	90.8	91.5	91.9	91.5	88.6	81.8	72.9	65.8	60.3	57.1	56.4	58.0	58.0	63.6	72.1	77.6	85.2	89.9	91.6	78.36	91.93
24-Sep	93.4	88.8	90.1	90.3	89.0	91.7	93.1	92.3	92.5	84.3	72.4	63.2	46.7	32.3	31.6	35.1	36.7	44.9	49.0	56.1	61.4	66.5	67.4	66.6	68.14	93.35
25-Sep	68.6	71.7	65.4	72.0	78.4	81.4	83.7	76.7	73.0	69.3	57.3	48.4	46.1	49.1	44.7	44.8	48.1	58.9	81.2	79.4	82.1	85.4	85.9	86.4	68.25	86.39
26-Sep	86.1	89.4	90.5	87.3	86.8	87.0	88.7	90.5	91.7	89.7	71.3	59.2	52.2	54.9	77.0	59.0	38.3	42.1	47.6	47.3	43.2	43.9	46.0	53.5	67.63	91.66
27-Sep	62.6	65.6	71.8	73.7	71.1	68.5	72.5	70.4	51.6	49.8	45.8	42.7	62.7	71.0	64.8	62.2	58.3	57.3	65.3	75.1	82.7	83.7	88.0	90.1	66.97	90.13
28-Sep	91.2	88.7	85.4	89.7	91.5	91.6	91.9	91.9	88.6	78.7	67.9	55.1	48.6	42.9	38.0	36.9	37.7	41.3	52.4	68.4	71.7	72.8	69.2	67.7	69.15	91.89
29-Sep	64.5	62.2	68.3	76.8	83.8	87.5	86.7	86.0	69.9	64.0	60.3	55.3	44.7	38.6	36.7	36.9	37.5	38.0	47.4	51.3	58.8	61.4	71.0	77.5	61.04	87.47
30-Sep	76.3	84.8	84.9	85.1	83.9	86.0	86.9	87.3	78.4	68.0	54.2	47.2	41.2	36.5	32.9	33.3	36.9	44.6	50.4	59.3	65.5	67.2	70.3	72.0	63.87	87.29
84.12 84.56 85.78 87.53 87.78 88.14 88.54 87.49 83.15 77.02 68.03 62.32 59.16 55.73 53.52 52.10 51.59 54.12 60.33 68.22 75.03 79.27 82.45 83.56																								Diurnal Average		
93.64 93.91 94.10 94.19 94.13 94.61 94.60 94.62 94.77 93.06 92.11 91.35 91.54 92.09 91.88 91.94 91.34 92.47 92.46 92.95 93.59 93.81 93.69 93.68																								Diurnal Maximum		





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

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

Maximum Value: 734.22 W/m2 on Sep 1 13:00      Maximum Daily Average: 225.94 W/m2 on Sep 3																								Hours in Service:	720	
Minimum Value: 0.0 W/m2 on Sep 1 01:00      Minimum Daily Average: 41.11 W/m2 on Sep 20																								Hours of Data:	720	
Maximum Diurnal Average: 461.87 W/m2 at hour 13      Minimum Diurnal Average: 0.00 W/m2 at hour 1																								Hours of Missing Data:	0	
Monthly Average: 142.86 W/m2      Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.0 Q <sub>1</sub> = 0.0 Median = 11.3 Q <sub>3</sub> = 244.6 P <sub>90</sub> = 500.6 P <sub>99</sub> = 693.8																								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-Sep	0.0	0.0	0.0	0.0	0.0	0.0	26.4	177.4	342.8	490.0	611.0	699.1	734.2	726.6	500.9	334.5	88.7	170.5	74.1	9.8	0.0	0.0	0.0	0.0	207.74	734.22
2-Sep	0.0	0.0	0.0	0.0	0.0	0.0	18.0	92.1	329.3	488.7	598.7	611.7	388.5	286.6	203.1	109.8	117.8	228.6	72.3	8.6	0.0	0.0	0.0	0.0	148.07	611.69
3-Sep	0.0	0.0	0.0	0.0	0.0	0.0	19.7	133.4	329.6	484.2	575.9	636.4	708.0	733.3	680.4	556.6	336.9	169.3	49.0	10.0	0.0	0.0	0.0	0.0	225.94	733.34
4-Sep	0.0	0.0	0.0	0.0	0.0	0.0	1.8	28.4	72.5	87.2	104.5	105.6	175.4	238.4	158.6	171.4	76.0	75.8	39.0	9.5	0.0	0.0	0.0	0.0	56.00	238.42
5-Sep	0.0	0.0	0.0	0.0	0.0	0.0	6.9	79.3	205.0	309.6	402.1	347.2	347.9	223.2	175.4	183.5	99.9	35.9	11.5	0.0	0.0	0.0	0.0	0.0	101.14	402.07
6-Sep	0.0	0.0	0.0	0.0	0.0	0.0	1.4	10.8	27.5	82.9	89.2	128.3	157.1	131.5	168.1	118.8	68.5	47.4	46.0	8.2	0.0	0.0	0.0	0.0	45.24	168.10
7-Sep	0.0	0.0	0.0	0.0	0.0	0.0	4.3	40.8	97.1	201.1	366.9	502.5	654.1	591.6	642.4	525.7	374.2	163.6	86.1	5.6	0.0	0.0	0.0	0.0	177.33	654.08
8-Sep	0.0	0.0	0.0	0.0	0.0	0.0	20.9	104.0	324.9	502.1	280.9	233.3	138.7	222.2	439.5	485.9	348.9	161.5	54.0	6.1	0.0	0.0	0.0	0.0	138.45	502.10
9-Sep	0.0	0.0	0.0	0.0	0.0	0.0	15.4	94.2	207.5	444.9	438.9	266.7	264.2	351.5	428.3	506.5	251.7	157.3	54.6	4.5	0.0	0.0	0.0	0.0	145.26	506.51
10-Sep	0.0	0.0	0.0	0.0	0.0	0.0	4.0	33.7	194.6	314.0	562.1	647.6	706.7	699.1	308.2	521.1	368.4	183.7	56.9	3.7	0.0	0.0	0.0	0.0	191.83	706.69
11-Sep	0.0	0.0	0.0	0.0	0.0	0.0	7.9	117.4	289.5	452.0	562.5	597.9	647.7	674.4	631.6	523.7	390.9	192.1	72.4	3.4	0.0	0.0	0.0	0.0	215.14	674.39
12-Sep	0.0	0.0	0.0	0.0	0.0	0.0	9.3	129.1	295.5	446.5	564.1	642.5	682.7	690.5	548.0	500.6	319.5	155.0	25.3	0.0	0.0	0.0	0.0	0.0	208.70	690.49
13-Sep	0.0	0.0	0.0	0.0	0.0	0.0	4.8	68.4	88.4	178.6	201.9	430.7	297.0	412.6	433.1	208.2	242.8	102.3	69.2	2.7	0.0	0.0	0.0	0.0	114.20	433.10
14-Sep	0.0	0.0	0.0	0.0	0.0	0.0	1.1	43.9	168.2	285.0	502.5	238.7	436.7	471.3	183.6	287.8	195.6	121.6	42.9	0.9	0.0	0.0	0.0	0.0	124.15	502.49
15-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	35.3	88.0	109.2	138.9	115.7	121.6	126.9	136.5	114.2	58.5	16.2	0.9	0.0	0.0	0.0	0.0	44.55	138.94
16-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.3	13.7	28.5	46.9	65.8	227.4	243.7	222.2	387.0	315.9	376.7	172.3	52.8	0.8	0.0	0.0	0.0	0.0	89.75	386.98
17-Sep	0.0	0.0	0.0	0.0	0.0	0.0	6.1	101.9	226.0	337.5	309.6	589.2	577.1	661.9	596.7	369.5	351.1	180.7	38.1	0.0	0.0	0.0	0.0	0.0	181.06	661.86
18-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.6	19.3	74.7	294.6	500.0	460.2	501.5	632.2	489.8	466.1	246.0	131.3	45.8	0.0	0.0	0.0	0.0	0.0	160.92	632.22
19-Sep	0.0	0.0	0.0	0.0	0.0	0.0	3.4	51.3	239.4	423.8	329.1	303.5	441.1	494.4	380.0	168.8	197.2	177.9	38.5	0.0	0.0	0.0	0.0	0.0	135.35	494.40
20-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	40.1	111.4	136.7	120.5	123.7	105.5	148.3	82.2	70.2	33.5	4.6	0.0	0.0	0.0	0.0	0.0	41.11	148.28
21-Sep	0.0	0.0	0.0	0.0	0.0	0.0	1.3	96.9	244.0	396.9	528.7	613.6	675.9	719.4	617.5	443.8	310.7	152.9	31.4	0.0	0.0	0.0	0.0	0.0	201.37	719.36
22-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.9	41.6	320.5	398.8	576.5	591.6	602.6	518.3	413.7	351.0	142.2	27.3	0.0	0.0	0.0	0.0	0.0	166.62	602.59
23-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.5	85.9	183.6	383.0	578.6	633.9	624.9	552.7	337.8	204.2	145.2	35.5	0.0	0.0	0.0	0.0	0.0	157.87	633.92
24-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.4	186.1	321.6	454.8	479.7	565.5	558.7	383.2	294.7	152.5	74.2	25.3	0.0	0.0	0.0	0.0	0.0	148.91	565.53
25-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.1	207.7	262.7	505.6	513.5	573.5	418.0	373.8	293.2	135.5	40.0	2.7	0.0	0.0	0.0	0.0	0.0	140.13	573.46
26-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.9	79.6	290.6	503.9	595.9	610.0	443.7	284.6	283.9	123.9	23.4	0.0	0.0	0.0	0.0	0.0	0.0	149.39	609.95
27-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.4	89.1	234.4	407.1	441.3	277.7	263.3	288.7	304.9	140.8	112.2	16.5	0.0	0.0	0.0	0.0	0.0	108.88	441.31
28-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.7	216.8	360.9	470.4	570.9	583.3	591.6	507.3	408.2	273.2	118.2	16.4	0.0	0.0	0.0	0.0	0.0	173.50	591.61
29-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.3	250.4	124.7	202.7	287.9	408.1	456.5	423.9	248.7	266.6	112.1	13.0	0.0	0.0	0.0	0.0	0.0	118.92	456.52
30-Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.5	199.9	348.9	469.3	557.5	595.1	591.3	535.4	407.7	197.4	73.0	11.4	0.0	0.0	0.0	0.0	0.0	168.18	595.11
																								Diurnal Average		
																								Diurnal Maximum		



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

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

Maximum Value: 11.49 kph on Sep 2 20:00		Maximum Daily Average: 4.18 kph on Sep 1		Hours in Service: 720																							
Minimum Value: 0.6 kph on Sep 22 01:00		Minimum Daily Average: 1.79 kph on Sep 16		Hours of Data: 720																							
Maximum Diurnal Average: 4.03 kph at hour 14		Minimum Diurnal Average: 2.01 kph at hour 24		Hours of Missing Data: 0																							
Monthly Average: 2.732 kph		Percentiles: P <sub>1</sub> = 0.7 P <sub>10</sub> = 1.3 Q <sub>1</sub> = 1.7 Median = 2.5 Q <sub>3</sub> = 3.5 P <sub>90</sub> = 4.4 P <sub>99</sub> = 7.3		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-Sep	3.5	4.9	2.8	2.5	5.8	5.3	5.0	4.7	3.4	4.1	4.4	4.9	5.7	5.5	5.9	3.3	4.6	4.3	2.2	1.9	2.3	5.2	4.0	4.0	4.18	5.94	
2-Sep	2.0	2.3	3.0	2.9	2.6	1.7	1.4	1.9	2.4	3.4	3.6	4.6	4.4	4.6	4.5	3.1	3.3	3.7	2.8	11.5	5.4	1.7	2.1	2.3	3.37	11.49	
3-Sep	1.8	2.6	2.4	2.4	3.0	3.1	3.6	4.9	3.7	3.7	3.7	3.2	4.4	4.3	5.3	4.3	4.2	2.7	1.4	2.0	3.6	2.3	2.8	1.9	3.22	5.33	
4-Sep	2.4	3.2	2.8	2.7	2.5	2.6	2.0	2.2	2.6	2.4	2.4	2.3	2.6	3.2	2.4	2.1	2.3	2.4	1.5	1.3	1.4	1.9	1.5	1.4	2.26	3.24	
5-Sep	0.7	2.1	1.5	1.6	1.6	1.6	2.8	1.7	2.0	2.6	3.6	3.6	3.9	3.7	2.9	2.7	2.4	2.7	1.6	0.7	2.7	2.0	1.3	0.7	2.20	3.93	
6-Sep	0.8	1.0	0.7	1.1	1.4	2.5	3.8	3.5	3.5	3.9	3.7	5.7	4.5	4.8	4.9	4.7	4.0	3.6	4.2	3.1	2.4	2.6	3.3	1.5	3.13	5.75	
7-Sep	1.6	2.3	2.5	2.3	1.8	1.4	1.5	2.0	2.3	1.8	3.4	3.3	3.3	3.6	3.6	4.1	6.5	3.3	4.2	1.9	2.5	1.4	1.9	1.6	2.66	6.52	
8-Sep	1.9	1.9	1.5	3.6	3.1	2.3	1.9	2.2	2.6	3.5	2.0	2.6	3.9	2.5	2.8	3.1	3.4	2.4	1.6	1.1	8.0	2.9	1.2	1.9	2.66	7.99	
9-Sep	1.3	2.3	2.3	1.7	3.4	1.7	3.6	1.4	1.4	1.7	2.2	2.5	2.7	2.8	3.1	3.9	2.3	2.7	2.5	2.5	1.1	1.0	0.8	1.1	2.18	3.92	
10-Sep	2.6	1.1	1.2	1.0	1.6	1.4	0.9	1.9	2.1	2.5	2.8	3.8	3.7	5.6	3.2	4.1	3.5	2.6	1.2	1.2	1.6	0.9	1.2	1.5	2.21	5.56	
11-Sep	2.0	1.8	1.7	1.5	0.9	1.5	1.9	2.4	2.4	2.1	2.3	2.4	2.7	2.8	3.1	3.3	3.4	2.4	1.0	1.3	3.1	2.0	1.1	1.1	2.10	3.38	
12-Sep	2.3	1.8	1.6	1.2	2.5	1.3	1.6	1.9	2.5	2.4	2.5	3.0	3.8	3.6	3.4	4.8	5.2	7.3	6.8	5.3	3.2	2.7	2.5	4.0	3.22	7.31	
13-Sep	2.7	4.0	2.1	2.7	2.8	2.6	1.5	2.4	3.2	2.8	2.6	3.7	3.8	4.1	6.5	9.6	3.8	3.9	3.7	2.4	1.3	1.9	1.5	1.9	3.22	9.59	
14-Sep	2.2	1.8	2.2	1.9	2.6	2.4	2.3	1.7	2.3	2.8	2.7	3.5	3.0	5.2	2.9	2.5	5.0	3.5	1.1	0.6	1.0	1.6	1.3	1.5	2.40	5.18	
15-Sep	1.3	1.2	1.6	1.7	2.5	4.6	3.8	3.6	3.5	3.8	3.1	3.6	2.8	2.6	3.0	2.5	2.3	1.7	1.4	1.1	1.4	1.1	2.4	1.6	2.43	4.60	
16-Sep	1.3	2.0	1.1	1.5	1.5	1.7	1.8	1.0	1.7	1.6	1.2	1.9	2.1	2.1	2.9	3.0	2.7	2.2	1.0	1.7	1.2	1.7	1.7	2.3	1.79	3.04	
17-Sep	2.7	1.3	1.8	1.2	2.1	1.4	2.0	2.4	1.9	1.9	2.2	2.3	3.6	3.7	4.0	3.4	3.1	2.5	0.8	1.8	1.9	1.4	2.5	1.4	2.22	4.00	
18-Sep	2.5	2.3	1.5	2.1	2.1	2.1	2.2	3.1	2.0	2.5	2.8	2.4	2.9	3.9	4.0	3.8	3.6	1.8	1.0	1.0	1.9	1.6	1.3	1.3	2.33	4.03	
19-Sep	2.4	1.6	1.9	1.6	2.2	1.4	2.1	1.1	2.6	2.6	3.2	2.5	4.7	4.3	4.2	3.0	4.2	4.0	2.6	2.3	1.8	1.8	1.7	3.1	2.62	4.65	
20-Sep	3.8	3.6	1.9	1.6	1.8	3.8	2.8	1.5	1.3	1.9	1.8	1.7	2.2	2.4	1.9	1.9	5.0	2.7	2.1	3.2	3.8	6.7	9.2	4.4	3.05	9.25	
21-Sep	4.6	1.7	1.9	3.0	2.6	2.0	2.4	3.8	3.8	3.5	4.6	5.2	5.3	5.7	5.7	5.7	5.1	3.8	2.7	1.5	1.2	1.1	2.0	1.8	3.36	5.74	
22-Sep	0.6	1.0	1.6	2.5	1.1	1.8	1.9	2.1	2.4	3.1	4.3	4.7	4.0	4.2	3.9	3.8	3.2	3.7	3.0	3.2	3.3	2.6	2.1	2.6	2.77	4.68	
23-Sep	2.5	2.3	2.3	1.6	1.8	1.7	2.0	1.9	2.1	2.0	2.4	3.1	3.5	3.6	2.8	2.9	2.1	2.2	1.8	1.3	1.4	1.6	0.7	2.0	2.15	3.65	
24-Sep	2.9	2.4	4.5	3.4	3.3	3.1	3.7	3.6	1.7	2.4	2.0	2.8	6.9	4.7	5.2	4.6	5.5	4.4	3.1	2.0	1.7	1.7	2.2	1.7	3.31	6.86	
25-Sep	1.8	3.9	4.2	2.4	4.4	4.7	3.7	4.1	4.7	5.4	4.8	5.4	4.8	4.0	4.0	3.8	4.5	3.4	1.3	2.1	2.5	2.1	1.8	2.5	3.59	5.45	
26-Sep	1.9	1.5	2.4	1.8	2.2	2.0	3.1	2.9	1.6	2.6	2.9	3.8	4.8	7.7	2.9	4.7	7.3	6.7	1.6	2.5	2.7	2.2	1.9	1.5	3.13	7.69	
27-Sep	1.9	1.9	1.9	1.5	2.5	2.6	1.5	2.3	3.2	4.0	5.9	6.6	6.2	4.3	4.8	4.3	4.0	4.2	2.6	1.6	1.4	1.4	1.1	1.2	3.04	6.62	
28-Sep	1.2	2.0	5.5	2.7	2.7	2.9	2.6	1.5	3.6	2.1	2.7	4.2	3.9	5.1	5.0	4.3	3.4	2.9	1.9	0.7	0.8	3.3	1.6	2.1	2.86	5.49	
29-Sep	1.7	1.7	1.6	3.1	2.4	3.3	1.4	3.8	2.7	3.3	2.9	2.4	2.2	2.7	3.4	3.2	3.4	1.4	1.2	1.0	0.7	2.1	1.3	3.0	2.33	3.84	
30-Sep	1.5	3.3	3.6	1.2	1.9	1.5	1.3	1.0	1.2	1.6	2.6	2.5	3.0	3.7	4.3	3.3	2.7	0.9	0.8	1.2	1.0	1.0	1.0	1.3	1.98	4.26	
		2.08	2.23	2.25	2.08	2.42	2.40	2.40	2.48	2.55	2.80	3.04	3.48	3.84	4.03	3.88	3.80	3.87	3.20	2.15	2.16	2.27	2.12	2.04	2.01	Diurnal Average	
		4.64	4.89	5.49	3.63	5.83	5.31	4.97	4.92	4.67	5.45	5.88	6.62	6.86	7.69	6.50	9.59	7.33	7.31	6.77	11.49	7.99	6.74	9.25	4.42	Diurnal Maximum	
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m <sup>3</sup> 24-hr 100 ul/m <sup>3</sup>																											



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

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

Maximum Value: 95.16 deg on Sep 8 10:00		Maximum Daily Average: 32.87 deg on Sep 20		Hours in Service: 720																																													
Minimum Value: 3.1 deg on Sep 28 23:00		Minimum Daily Average: 9.91 deg on Sep 19		Hours of Data: 720																																													
Maximum Diurnal Average: 26.03 deg at hour 3		Minimum Diurnal Average: 12.62 deg at hour 20		Hours of Missing Data: 0																																													
Monthly Average: 19.718 deg		Percentiles: P <sub>1</sub> = 4.6 P <sub>10</sub> = 7.7 Q <sub>1</sub> = 10.6 Median = 15.1 Q <sub>3</sub> = 22.6 P <sub>90</sub> = 38.6 P <sub>99</sub> = 81.7		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-Sep	22.7	21.2	57.6	45.5	40.0	9.3	15.8	18.1	13.3	16.6	17.1	18.0	18.3	28.3	42.4	20.8	20.2	70.1	15.2	18.1	23.6	43.4	28.6	17.2	26.73	70.08																							
2-Sep	17.3	15.6	54.1	18.6	22.1	21.3	15.5	19.7	23.3	70.2	40.6	20.0	15.6	19.6	15.3	14.9	22.7	13.4	9.6	10.3	13.1	19.4	18.6	14.1	21.88	70.25																							
3-Sep	9.8	9.3	38.8	36.2	6.8	32.3	40.2	29.5	11.2	18.1	20.7	22.9	35.4	22.2	37.0	45.4	65.8	18.6	9.7	8.0	21.7	54.7	13.4	12.7	25.86	65.77																							
4-Sep	16.0	17.1	12.2	16.3	16.1	12.9	12.3	9.9	10.9	10.7	17.3	10.9	16.0	18.7	43.0	33.8	29.9	62.2	38.6	7.2	15.2	15.6	15.8	48.3	21.13	62.24																							
5-Sep	34.0	60.5	32.9	44.5	91.9	59.5	66.5	10.8	33.6	20.6	22.7	19.6	18.5	20.8	20.5	21.6	17.3	16.8	20.9	8.2	18.7	16.4	24.1	7.3	29.52	91.86																							
6-Sep	8.9	18.5	22.5	9.1	8.0	9.5	11.0	9.0	9.3	10.6	9.9	15.8	13.9	18.9	14.4	10.1	12.7	15.8	10.5	9.1	9.2	13.4	19.3	16.4	12.75	22.51																							
7-Sep	22.2	10.1	9.9	9.9	8.1	5.6	7.8	7.8	10.0	7.9	15.8	15.6	18.9	19.3	19.7	34.5	21.0	11.8	11.0	11.0	13.8	21.6	7.6	6.8	13.66	34.54																							
8-Sep	10.4	16.2	4.1	47.1	22.6	11.0	7.8	10.5	32.1	95.2	30.6	27.3	29.2	17.7	23.7	31.0	44.9	33.1	24.7	15.1	47.1	73.2	9.6	8.4	28.02	95.16																							
9-Sep	26.8	13.7	47.6	7.1	10.9	5.6	25.9	8.2	14.2	19.6	19.5	29.7	35.8	22.5	41.4	29.1	15.8	19.3	14.5	11.5	5.7	5.2	6.5	8.5	18.52	47.55																							
10-Sep	46.8	5.2	9.4	10.5	11.9	14.0	14.4	25.0	20.3	13.2	15.7	21.8	18.8	34.1	48.6	34.1	34.5	17.1	19.2	5.4	10.8	8.2	5.5	5.9	18.76	48.61																							
11-Sep	11.1	7.2	6.1	4.8	6.4	11.7	5.2	6.7	7.7	13.1	15.4	14.6	15.6	19.2	23.2	21.6	18.7	20.9	19.9	12.2	9.1	6.1	5.4	7.7	12.06	23.17																							
12-Sep	11.4	4.3	9.1	4.5	7.7	4.0	5.0	6.3	7.0	8.3	20.7	18.0	25.2	25.2	23.8	21.2	16.0	27.4	21.9	19.8	23.3	23.5	25.2	13.6	15.52	27.39																							
13-Sep	32.7	13.8	11.0	12.3	21.9	12.0	12.2	11.4	22.1	21.3	14.3	17.4	14.0	11.1	13.6	19.2	11.3	11.9	19.5	10.9	8.7	10.3	8.7	12.7	14.77	32.68																							
14-Sep	10.0	9.6	16.6	8.4	11.0	7.6	9.0	9.7	10.5	14.2	33.2	30.8	26.1	64.4	22.5	47.3	63.7	25.3	16.2	9.6	15.2	14.6	12.1	12.8	20.85	64.44																							
15-Sep	12.4	12.1	16.8	13.5	13.9	15.2	15.0	15.1	14.4	17.7	17.1	11.8	16.0	14.6	12.9	15.5	19.6	14.3	16.8	7.9	14.3	11.1	11.0	19.1	14.50	19.63																							
16-Sep	13.7	8.3	9.2	14.0	8.5	9.2	8.6	13.4	24.3	13.7	11.7	59.2	47.2	69.9	78.4	71.7	58.4	58.0	14.0	43.2	25.1	44.5	20.8	19.8	31.04	78.43																							
17-Sep	8.5	9.3	63.0	28.7	28.3	12.3	11.4	19.1	13.0	34.4	20.9	46.2	28.4	23.7	24.5	16.1	34.1	54.2	26.6	8.0	13.1	14.2	16.5	5.1	23.32	63.00																							
18-Sep	15.2	20.7	5.5	5.2	5.0	6.0	18.5	8.5	7.9	9.3	21.0	17.1	19.9	25.4	17.1	12.9	15.6	20.6	20.5	13.7	10.1	10.2	8.9	6.3	13.38	25.42																							
19-Sep	6.4	4.5	9.9	5.6	9.9	5.8	7.7	5.9	9.2	9.5	11.0	8.2	11.6	11.0	10.3	13.3	8.3	8.3	7.0	9.1	9.7	6.2	9.2	40.2	9.91	40.20																							
20-Sep	39.3	26.0	29.3	94.1	90.6	82.8	80.4	34.5	33.4	16.3	15.7	12.1	33.4	17.1	17.1	12.3	18.0	38.7	15.6	19.2	14.4	16.7	21.6	10.3	32.87	94.10																							
21-Sep	23.7	8.6	13.3	15.7	11.8	10.9	13.7	18.9	12.6	11.9	11.4	13.6	11.5	13.1	12.1	12.8	10.0	14.0	10.6	13.3	14.3	7.3	9.9	12.4	12.81	23.73																							
22-Sep	10.2	8.0	22.2	19.1	27.6	12.1	9.0	9.5	12.6	21.6	13.0	15.2	20.9	31.9	47.2	23.7	24.3	25.0	14.2	13.6	14.7	14.2	14.6	13.8	18.26	47.19																							
23-Sep	13.3	13.2	13.9	12.7	14.2	16.1	14.9	12.4	15.3	13.0	15.8	19.2	20.7	22.2	20.3	16.8	16.5	13.0	13.0	18.8	15.3	38.5	28.5	27.1	17.69	38.49																							
24-Sep	8.8	8.3	57.5	64.7	41.2	28.0	58.0	27.9	24.5	49.0	23.2	16.0	32.2	11.3	17.9	8.9	13.3	7.0	12.1	14.3	13.0	9.5	8.8	7.6	23.46	64.74																							
25-Sep	9.3	72.3	73.5	15.3	88.1	29.0	8.7	9.5	11.5	9.7	14.7	11.7	14.0	18.2	12.0	15.8	11.8	17.2	11.0	12.4	9.5	7.3	8.2	12.1	20.94	88.05																							
26-Sep	14.2	10.1	19.5	19.1	11.6	13.3	26.8	42.2	24.0	19.7	18.3	26.1	21.3	33.9	30.9	27.4	11.9	22.7	17.3	10.6	8.8	11.2	8.5	22.7	19.66	42.18																							
27-Sep	18.0	7.7	6.9	7.3	7.6	7.5	7.9	13.8	12.2	13.0	12.0	13.9	17.9	15.9	13.2	15.8	13.5	10.7	9.8	14.9	11.0	13.8	7.4	7.7	11.64	17.99																							
28-Sep	5.8	38.6	84.7	33.4	67.6	23.7	19.2	11.5	25.5	13.6	15.7	36.3	82.9	39.2	26.7	29.6	18.1	11.0	12.5	6.6	6.5	8.1	3.1	6.4	26.09	84.70																							
29-Sep	14.8	12.1	4.6	29.4	11.7	19.8	4.2	22.8	8.8	20.7	41.8	23.3	16.0	12.0	19.1	25.4	36.9	55.8	10.8	11.1	19.2	26.4	34.2	18.8	20.81	55.81																							
30-Sep	7.2	10.8	19.2	5.7	5.6	5.7	5.3	5.0	9.4	9.6	35.6	38.7	22.3	29.3	28.3	26.7	23.4	11.1	5.5	5.4	12.6	11.7	14.5	15.1	15.15	38.69																							
																								16.70	16.43	26.03	21.93	24.28	17.13	18.60	15.10	16.13	20.75	19.74	21.70	23.91	24.35	25.91	24.31	24.26	24.84	15.62	12.62	14.89	19.22	14.20	14.57	Diurnal Average	
																								46.79	72.27	84.70	94.10	91.86	82.78	80.37	42.18	33.55	95.16	41.78	59.23	82.91	69.89	78.43	71.68	65.77	70.08	38.60	43.20	47.07	73.23	34.15	48.29	Diurnal Maximum	
,Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ul/m <sup>3</sup> 24-hr 100 ul/m <sup>3</sup>																																																	

**WEST CENTRAL AIRSHED SOCIETY**

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

**END OF REPORT  
SEPTEMBER 2015**