

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

**AIR QUALITY MONITORING**  
**February 2018**  
**Monthly Report**

**Prepared by:**

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

March 15, 2018

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

Dear Mr. Whitney:

**Monthly Ambient Air Quality Monitoring Report for February 2018  
For Hinton Pulp – A Division of West Fraser Mills Ltd.**

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

Network Station is                      AMS 906                      Hinton  
Identified as:

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

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

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

There were no readings in excess of the 1-hour or 24-hour AAAQO in February

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

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

**3. Monitoring Notes:**

**AMS 906 (Hinton)**

All analyzers and meteorological sensors returned uptimes of 99.6%-99.7% for the month of February due to logger malfunction.

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

Sincerely,



Patrick Andersen  
Environmental Specialist

# Forest Products Industry Monthly Report Summary

**Hinton**

Plant Name/Location

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

Company

|                |             |          |
|----------------|-------------|----------|
| License Number | Report Date |          |
|                | Year        | Month    |
|                | 2018        | FEBRUARY |

**TOTAL EMISSIONS FOR MONTH (IN TONNES)**

| POLLUTANT       | INCINERATOR STACK | FLARE | MISCELLANEOUS |
|-----------------|-------------------|-------|---------------|
| SO <sub>2</sub> |                   |       |               |

**"HOURS" OF EXCEEDED STACK LICENSED LIMITS (CEM)**

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

**STATIC AMBIENT MONITORING**

| PARAMETER        | NO. OF STATIONS | PEAK READING | AVG. OF NETWORK | NO. OF STATIONS OVER GUIDELINES |
|------------------|-----------------|--------------|-----------------|---------------------------------|
| T.S.             |                 |              |                 |                                 |
| H <sub>2</sub> S |                 |              |                 |                                 |

**CONTINUOUS AMBIENT MONITORING**

| PARAMETER         | STATION NUMBER | % TIME OPERATIONAL | 1-HR AVERAGE                |                            | 24-HR AVERAGE               |                            |
|-------------------|----------------|--------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|
|                   |                |                    | MAXIMUM CONCENTRATION (ppm) | NO. READINGS > REGULATIONS | MAXIMUM CONCENTRATION (ppm) | NO. READINGS > REGULATIONS |
| Wind              | 906            | 100.0              | n/a                         | n/a                        | n/a                         | n/a                        |
| TRS               | 906            | 99.7               | 0.001                       | 0                          | 0.003                       | 0                          |
| PM <sub>2.5</sub> | 906            | 99.7               | 45.9 µg/m <sup>3</sup>      | 0                          | 21.90 µg/m <sup>3</sup>     | 0                          |
| H <sub>2</sub> S  | 906            | 99.6               | 0.006                       | 0                          | 0.013                       | 0                          |
|                   |                |                    |                             |                            |                             |                            |
|                   |                |                    |                             |                            |                             |                            |
|                   |                |                    |                             |                            |                             |                            |
|                   |                |                    |                             |                            |                             |                            |
|                   |                |                    |                             |                            |                             |                            |

SIGNATURE OF COMPANY REPRESENTATIVE

FOR ALBERTA ENVIRONMENT USE ONLY

**WEST CENTRAL AIRSHED SOCIETY**

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

**AMS 906  
HINTON  
FEBRUARY 2018**

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

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

**Summary Report**

*Continuous air quality/meteorological monitoring measurements*

**West Central Airshed Society**

| Hinton Pulp / Hinton Station 906                   |                   |                |                |       |       |       |       |       |                   |      |      |             | February 2018 |            | 24 Hour Average Max (ppm) |
|--|-------------------|----------------|----------------|-------|-------|-------|-------|-------|-------------------|------|------|-------------|---------------|------------|---------------------------|
| Parameter  | Calibration Hours | Number of Data | Percent Uptime | Mean  | Min   | Max   | P10   | Q1    | Percentile Median | Q3   | P90  | Exceedences |               |            |                           |
|  |                   |                |                |       |       |       |       |       |                   |      |      | 1-hour      | 24-hour       |            |                           |
| TRS (ppb)  | 34                | 636            | 99.7           | 0.8   | 0.0   | 8.0   | 0.1   | 0.2   | 0.4               | 1.0  | 1.9  | 0           | 0             | 0.003      |                           |
| SO <sub>2</sub> (ppb)                              | 34                | 636            | 99.7           | 1.1   | 0.0   | 37.4  | 0.0   | 0.0   | 0.1               | 0.5  | 3.5  | 0           | -             | 0.006      |                           |
| H <sub>2</sub> S (ppb)                             | 34                | 636            | 99.7           | 0.3   | 0.0   | 5.0   | 0.0   | 0.0   | 0.0               | 0.5  | 1.1  | 0           | 0             | 0.002      |                           |
| O <sub>3</sub> (ppb)                               | 34                | 636            | 99.7           | 28.0  | 0.6   | 47.1  | 5.7   | 17.6  | 32.2              | 39.0 | 41.9 | 0           | -             | 0.043      |                           |
| NO (ppb)   | 35                | 635            | 99.7           | 5.3   | 0.0   | 125.3 | 0.1   | 0.3   | 1.3               | 3.4  | 11.5 | -           | -             | -          |                           |
| NO <sub>2</sub> (ppb)                              | 35                | 635            | 99.7           | 10.7  | 0.7   | 47.8  | 2.4   | 4.4   | 7.9               | 13.0 | 25.5 | 0           | 0             | 0.024      |                           |
| NO <sub>x</sub> (ppb)                              | 35                | 635            | 99.7           | 16.1  | 0.8   | 171.6 | 3.1   | 5.3   | 9.3               | 16.0 | 38.6 | -           | -             | -          |                           |
| Particulate Matter 2.5 microns (µ/m <sup>3</sup> ) | 0                 | 669            | 99.6           | 6.2   | 0.0   | 37.9  | 1.3   | 2.6   | 4.9               | 8.0  | 12.5 | 0           | 0             | 13.1 ug/m3 |                           |
| Wind Speed (kph)                                   | 0                 | 670            | 99.7           | 5.0   | 0.1   | 18.4  | 0.7   | 1.4   | 3.6               | 7.6  | 11.5 | -           | -             | -          |                           |
| Temperature (°C)                                   | 0                 | 670            | 99.7           | -11.7 | -31.4 | 7.2   | -22.9 | -18.0 | -11.7             | -4.4 | -0.8 | -           | -             | -          |                           |
| Relative Humidity (%)                              | 0                 | 670            | 99.7           | 59.6  | 22.1  | 85.4  | 33.1  | 42.8  | 65.3              | 74.9 | 79.0 | -           | -             | -          |                           |
| Std Dev Wind Direction (deg)                       | 0                 | 670            | 99.7           | 42.1  | 16.7  | 104.7 | 23.7  | 28.9  | 37.1              | 50.5 | 72.0 | -           | -             | -          |                           |
| Std Dev Wind Speed (kph)                           | 0                 | 670            | 99.7           | 3.1   | 0.2   | 10.4  | 1.0   | 1.4   | 2.4               | 4.2  | 6.7  | -           | -             | -          |                           |



**WCAS - Hinton**  
**Summary of Hourly Averages**

**Total Reduced Sulphur (TRS) - ppb**  
**February 2018**

| Maximum Value: 7.80 ppb on Feb 19 10:00<br>Minimum Value: 0 ppb on Feb 12 11:00<br>Maximum Diurnal Average: 1.15 ppb at hour 6<br>Monthly Average: 0.772 ppb   |                         | Maximum Daily Average: 2.53 ppb on Feb 9<br>Minimum Daily Average: 0.11 ppb on Feb 12<br>Minimum Diurnal Average: 0.48 ppb at hour 17<br>Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.2 Median = 0.4 Q <sub>3</sub> = 1.0 P <sub>90</sub> = 1.9 P <sub>99</sub> = 4.4 |    | Hours in Service: 672<br>Hours of Data: 636<br>Hours of Missing Data: 36<br>Hours of Calibration: 34<br>Percent Operational Time: 99.7 |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 |                 |               |
|--|-------------------------|---|----|--|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------------|-----------------|---------------|
| 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-Feb  | 0                       | 0   | 0  | Z  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0               | 0.32            | 0.44          |
| 2-Feb  | 0                       | 0   | 0  | Z  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0               | 0.29            | 0.47          |
| 3-Feb  | 0                       | 0   | 0  | Z  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 1  | 1  | 1  | 1  | 1  | 4               | 0.55            | 3.66          |
| 4-Feb  | 3                       | 1   | 1  | Z  | 2 | 5 | 1 | 1 | 2 | 2  | 3  | 2  | 5  | 2  | 3  | 1  | 2  | 2  | 1  | 2  | 1  | 1  | 1  | 1               | 2.07            | 4.81          |
| 5-Feb  | 2                       | 2   | 1  | Z  | 1 | 3 | 1 | 1 | 1 | 1  | 2  | 3  | 2  | 1  | 1  | 1  | 1  | 2  | 3  | 3  | 2  | 2  | 2  | 2               | 1.77            | 3.09          |
| 6-Feb  | 2                       | 3   | 1  | Z  | 1 | 1 | 1 | 2 | 2 | 1  | 2  | 3  | 3  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0               | 1.11            | 2.89          |
| 7-Feb  | 0                       | 0   | 0  | Z  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0               | 0.30            | 0.47          |
| 8-Feb  | 0                       | 0   | 0  | Z  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 1  | 1  | 1  | 1               | 0.37            | 1.00          |
| 9-Feb  | 1                       | 0   | 0  | Z  | 1 | 3 | 3 | 2 | 2 | 4  | 5  | 5  | 3  | 4  | 3  | 3  | 3  | 1  | 2  | 5  | 4  | 2  | 1  | 1               | 2.53            | 5.30          |
| 10-Feb   | 1                       | 3   | 1  | Z  | 2 | 1 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 1  | 1  | 1  | 1  | 0               | 0.76            | 2.83          |
| 11-Feb   | 0                       | 0   | 0  | Z  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 1  | 1  | 1  | 0  | 0               | 0.38            | 1.23          |
| 12-Feb   | 0                       | 0   | 0  | Z  | 1 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0               | 0.11            | 0.64          |
| 13-Feb   | 0                       | 0   | 0  | Z  | 2 | 2 | 1 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 2  | 0  | 0  | 0  | 0  | 0  | 0               | 0.44            | 1.90          |
| 14-Feb   | 0                       | 0   | 0  | Z  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0               | 0.25            | 0.49          |
| 15-Feb   | 0                       | 0   | 0  | Z  | 1 | 0 | 0 | 0 | 1 | 1  | 1  | 1  | 0  | 0  | 0  | 0  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1               | 0.68            | 1.35          |
| 16-Feb   | 1                       | MS  | MS | Z  | Z | 2 | 1 | 1 | 0 | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0               | 0.45            | 2.09          |
| 17-Feb   | 0                       | 0   | 0  | Z  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0               | 0.20            | 0.45          |
| 18-Feb   | 0                       | 0   | 1  | Z  | 1 | 1 | 1 | 1 | 2 | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 1               | 0.52            | 1.62          |
| 19-Feb   | 1                       | 1   | 2  | Z  | 1 | 4 | 4 | 4 | 3 | 8  | 2  | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 2  | 1  | 1  | 1               | 1.66            | 7.80          |
| 20-Feb   | 1                       | 0   | 1  | Z  | 1 | 1 | 2 | 2 | 2 | 1  | 1  | 3  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 2  | 2  | 3  | 1               | 1.15            | 2.94          |
| 21-Feb   | 1                       | 1   | 1  | Z  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | C  | C  | C  | C  | C  | 0  | 1  | 0               | 0.37            | 1.41          |
| 22-Feb   | 0                       | 0   | 0  | Z  | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 1  | 1  | 1  | 1               | 0.39            | 1.37          |
| 23-Feb   | 1                       | 0   | 0  | Z  | 0 | 0 | 1 | 1 | 0 | 1  | 0  | 1  | 1  | 0  | 1  | 2  | 0  | 0  | 0  | 0  | 0  | 1  | 1  | 1               | 0.59            | 1.62          |
| 24-Feb   | 0                       | 1   | 1  | Z  | 1 | 1 | 2 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 1  | 0               | 0.42            | 2.20          |
| 25-Feb   | 1                       | 1   | 1  | Z  | 1 | 1 | 1 | 0 | 0 | 1  | 1  | 0  | 0  | 0  | 1  | 1  | 1  | 0  | 0  | 0  | 7  | 1  | 0  | 0               | 0.85            | 6.50          |
| 26-Feb   | 0                       | 1   | 1  | Z  | 0 | 2 | 2 | 2 | 3 | 2  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 0               | 0.82            | 3.46          |
| 27-Feb   | 0                       | 1   | 1  | Z  | 1 | 1 | 1 | 1 | 1 | 1  | 0  | 1  | 1  | 1  | 1  | 1  | 1  | 0  | 1  | 2  | 2  | 1  | 3  | 3               | 1.11            | 3.06          |
| 28-Feb   | 3                       | 1   | 1  | Z  | 1 | 1 | 1 | 1 | 2 | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 2  | 2  | 1  | 1  | 0  | 0  | 0               | 1.01            | 2.56          |
| 0.76 0.72 0.64 -- 0.83 1.15 0.96 0.85 0.88 0.99 0.77 0.92 0.65 0.58 0.55 0.57 0.48 0.56 0.68 0.87 1.12 0.66 0.74 0.79<br>2.64 2.83 2.31 -- 1.90 4.81 3.79 4.10 3.46 7.80 4.51 5.30 3.14 4.71 3.16 2.75 2.82 2.21 2.98 5.27 6.50 2.37 2.72 3.66 |                         |   |    |  |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    | Diurnal Average | Diurnal Maximum |               |
| Z - zerospan    C - Calibration    MS - Missing<br>Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb    24-hr 3 ppb  |                         |   |    |  |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                 |                 |               |



**WCAS - Hinton**  
**Summary of Hourly Averages**

**Sulphur Dioxide (SO<sub>2</sub>) - ppb**  
**February 2018**

| <b>Maximum Value: 37.40 ppb on Feb 13 05:00</b>    |                         | <b>Maximum Daily Average: 6.14 ppb on Feb 27</b>   |       | <b>Hours in Service: 672</b>          |      |       |       |       |       |       |      |       |      |      |      |       |       |      |      |      |      |      |      |      |               |                 |      |
|--|-------------------------|--|-------|---------------------------------------|------|-------|-------|-------|-------|-------|------|-------|------|------|------|-------|-------|------|------|------|------|------|------|------|---------------|-----------------|------|
| <b>Minimum Value: 0.0 ppb on Feb 1 01:00</b>       |                         | <b>Minimum Daily Average: 0.00 ppb on Feb 18</b>   |       | <b>Hours of Data: 636</b>             |      |       |       |       |       |       |      |       |      |      |      |       |       |      |      |      |      |      |      |      |               |                 |      |
| <b>Maximum Diurnal Average: 2.19 ppb at hour 6</b> |                         | <b>Minimum Diurnal Average: 0.63 ppb at hour 18</b>  |       | <b>Hours of Missing Data: 36</b>      |      |       |       |       |       |       |      |       |      |      |      |       |       |      |      |      |      |      |      |      |               |                 |      |
| <b>Monthly Average: 1.130 ppb</b>                  |                         | <b>Percentiles: P<sub>1</sub> = 0.0 P<sub>10</sub> = 0.0 Q<sub>1</sub> = 0.0 Median = 0.1 Q<sub>3</sub> = 0.5 P<sub>90</sub> = 3.5 P<sub>99</sub> = 13.9</b> |       | <b>Hours of Calibration: 34</b>       |      |       |       |       |       |       |      |       |      |      |      |       |       |      |      |      |      |      |      |      |               |                 |      |
|  |                         |  |       | <b>Percent Operational Time: 99.7</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-Feb  | 0.0                     | 0.0  | 0.0   | Z                                     | 0.0  | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.1   | 0.1  | 0.2  | 0.1  | 0.1   | 0.1   | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.04          | 0.20            |      |
| 2-Feb  | 0.0                     | 0.0  | 0.0   | Z                                     | 0.0  | 0.0   | 0.0   | 0.1   | 0.0   | 0.0   | 0.0  | 0.1   | 0.0  | 0.2  | 0.2  | 0.5   | 0.5   | 0.4  | 0.3  | 0.2  | 0.2  | 0.2  | 0.2  | 0.4  | 0.16          | 0.50            |      |
| 3-Feb  | 0.4                     | 0.2  | 0.1   | Z                                     | 0.2  | 0.1   | 0.2   | 0.2   | 0.2   | 0.1   | 0.1  | 0.1   | 0.2  | 0.1  | 0.0  | 0.1   | 0.1   | 0.1  | 0.1  | 0.2  | 0.3  | 0.0  | 0.0  | 0.0  | 0.13          | 0.40            |      |
| 4-Feb  | 0.0                     | 0.0  | 0.0   | Z                                     | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1  | 0.2   | 0.1  | 0.2  | 0.0  | 0.1   | 0.2   | 0.2  | 0.1  | 0.3  | 0.4  | 0.6  | 0.5  | 0.4  | 0.2           | 0.16            | 0.64 |
| 5-Feb  | 0.2                     | 0.1  | 0.1   | Z                                     | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.3  | 0.3  | 0.9  | 0.7   | 0.3   | 0.2  | 0.7  | 0.8  | 0.7  | 0.5  | 0.3  | 0.1  | 0.3           | 0.28            | 0.88 |
| 6-Feb  | 0.0                     | 0.0  | 0.0   | Z                                     | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1  | 0.3   | 0.1  | 0.3  | 0.8  | 0.6   | 0.5   | 0.1  | 0.0  | 0.1  | 0.1  | 0.0  | 0.1  | 0.1  | 0.14          | 0.81            |      |
| 7-Feb  | 0.0                     | 0.0  | 0.0   | Z                                     | 0.0  | 0.1   | 0.0   | 0.0   | 0.1   | 0.1   | 0.1  | 0.1   | 0.2  | 0.2  | 0.2  | 0.1   | 0.1   | 0.2  | 0.3  | 0.4  | 0.5  | 0.5  | 0.5  | 0.5  | 0.19          | 0.52            |      |
| 8-Feb  | 0.5                     | 0.6  | 0.4   | Z                                     | 0.3  | 0.3   | 0.5   | 0.5   | 0.6   | 1.0   | 1.3  | 1.8   | 1.7  | 1.3  | 1.0  | 0.7   | 0.5   | 0.4  | 0.1  | 0.2  | 0.2  | 0.0  | 0.1  | 0.0  | 0.62          | 1.80            |      |
| 9-Feb  | 0.0                     | 0.0  | 0.0   | Z                                     | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.2   | 0.5  | 0.5  | 0.6  | 0.4   | 0.3   | 0.2  | 0.1  | 0.1  | 0.2  | 0.1  | 0.1  | 0.1  | 0.16          | 0.64            |      |
| 10-Feb   | 0.1                     | 0.1  | 0.1   | Z                                     | 0.1  | 0.2   | 0.2   | 0.2   | 0.1   | 0.2   | 0.2  | 0.1   | 0.2  | 0.2  | 0.2  | 0.2   | 0.1   | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.1  | 0.0  | 0.15          | 0.24            |      |
| 11-Feb   | 0.0                     | 0.0  | 0.0   | Z                                     | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.1   | 0.1  | 0.0  | 0.1  | 1.3   | 0.5   | 0.4  | 0.5  | 0.3  | 0.3  | 0.2  | 0.1  | 0.0  | 0.17          | 1.27            |      |
| 12-Feb   | 0.0                     | 0.0  | 0.0   | Z                                     | 0.2  | 0.1   | 0.1   | 0.1   | 0.1   | 0.0   | 0.0  | 0.0   | 0.1  | 0.0  | 0.0  | 0.1   | 0.0   | 0.6  | 2.5  | 4.3  | 6.1  | 0.3  | 0.1  | 0.3  | 0.65          | 6.07            |      |
| 13-Feb   | 0.4                     | 5.3  | 4.3   | Z                                     | 37.4 | 27.9  | 17.1  | 17.7  | 5.6   | 1.8   | 1.1  | 0.5   | 0.7  | 1.3  | 1.2  | 0.8   | 0.4   | 0.4  | 0.3  | 0.6  | 0.3  | 0.1  | 0.2  | 0.2  | 5.46          | 37.40           |      |
| 14-Feb   | 0.2                     | 0.2  | 0.1   | Z                                     | 0.1  | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.1   | 0.1  | 0.0  | 0.0  | 0.0   | 0.1   | 0.1  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.07          | 0.22            |      |
| 15-Feb   | 0.0                     | 0.0  | 0.0   | Z                                     | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.1   | 0.0  | 0.0  | 0.0  | 0.9   | 6.2   | 8.8  | 4.7  | 4.1  | 6.8  | 6.2  | 5.8  | 5.9  | 2.15          | 8.75            |      |
| 16-Feb   | 6.6                     | DF   | DF    | Z                                     | Z    | 9.8   | 3.4   | 1.8   | 0.4   | 0.2   | 0.1  | 0.5   | 0.2  | 0.2  | 0.2  | 0.2   | 0.3   | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.0  | 1.22          | 9.76            |      |
| 17-Feb   | 0.1                     | 0.1  | 0.0   | Z                                     | 0.0  | 0.0   | 0.0   | 0.1   | 0.1   | 0.0   | 0.1  | 0.3   | 0.1  | 0.1  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.05          | 0.31            |      |
| 18-Feb   | 0.0                     | 0.0  | 0.0   | Z                                     | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.00          | 0.04            |      |
| 19-Feb   | 0.0                     | 0.0  | 0.0   | Z                                     | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 1.5  | 1.6   | 5.2  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.36          | 5.25            |      |
| 20-Feb   | 0.0                     | 0.1  | 0.0   | Z                                     | 0.0  | 0.3   | 0.4   | 0.0   | 0.0   | 0.0   | 1.0  | 0.3   | 0.1  | 0.1  | 0.1  | 0.1   | 0.1   | 0.2  | 0.1  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.18          | 0.98            |      |
| 21-Feb   | 0.3                     | 0.1  | 0.1   | Z                                     | 0.2  | 0.1   | 0.2   | 0.1   | 0.1   | 0.1   | 0.1  | 0.0   | 0.1  | 0.4  | 0.1  | 0.3   | C     | C    | C    | C    | C    | 0.1  | 0.1  | 0.0  | 0.15          | 0.39            |      |
| 22-Feb   | 0.0                     | 0.0  | 0.2   | Z                                     | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1  | 0.0   | 0.1  | 0.0  | 0.1  | 0.1   | 0.1   | 0.2  | 1.8  | 1.3  | 1.3  | 0.1  | 0.2  | 1.2  | 0.30          | 1.80            |      |
| 23-Feb   | 3.6                     | 0.5  | 1.0   | Z                                     | 0.0  | 0.1   | 6.4   | 3.4   | 1.3   | 8.1   | 1.3  | 7.0   | 1.6  | 1.6  | 7.8  | 10.9  | 3.1   | 0.6  | 0.5  | 3.5  | 4.1  | 7.4  | 7.4  | 4.6  | 3.73          | 10.94           |      |
| 24-Feb   | 2.2                     | 4.0  | 4.3   | Z                                     | 3.5  | 11.6  | 9.8   | 0.3   | 0.1   | 0.9   | 0.4  | 0.1   | 0.0  | 0.2  | 0.4  | 0.6   | 0.1   | 0.2  | 0.3  | 3.9  | 6.3  | 2.7  | 2.9  | 8.5  | 2.75          | 11.59           |      |
| 25-Feb   | 9.2                     | 5.6  | 0.6   | Z                                     | 1.3  | 0.6   | 8.1   | 3.4   | 0.7   | 9.4   | 13.9 | 4.1   | 0.3  | 2.1  | 5.2  | 3.0   | 0.1   | 0.1  | 0.2  | 0.1  | 0.3  | 0.3  | 0.2  | 0.2  | 3.01          | 13.92           |      |
| 26-Feb   | 0.2                     | 0.1  | 0.1   | Z                                     | 0.1  | 0.0   | 0.0   | 0.5   | 0.9   | 0.5   | 1.1  | 0.8   | 1.4  | 3.3  | 0.3  | 0.3   | 2.2   | 2.7  | 8.7  | 7.9  | 2.8  | 0.5  | 2.5  | 4.5  | 1.80          | 8.70            |      |
| 27-Feb   | 8.3                     | 12.5   | 8.5   | Z                                     | 12.4 | 9.6   | 9.4   | 14.9  | 15.1  | 9.2   | 0.9  | 2.5   | 4.4  | 2.9  | 13.8 | 9.3   | 1.5   | 0.0  | 0.1  | 0.3  | 0.4  | 2.5  | 1.9  | 0.8  | 6.14          | 15.13           |      |
| 28-Feb   | 0.5                     | 0.3  | 0.2   | Z                                     | 0.1  | 0.3   | 0.4   | 0.3   | 0.4   | 0.4   | 0.3  | 4.1   | 4.5  | 6.0  | 6.0  | 2.3   | 0.3   | 0.2  | 0.4  | 0.5  | 0.4  | 0.2  | 0.2  | 0.2  | 1.25          | 6.04            |      |
|  |                         | 1.17   | 1.11  | 0.75                                  | --   | 2.08  | 2.19  | 2.01  | 1.55  | 0.93  | 1.15 | 0.86  | 0.90 | 0.81 | 0.79 | 1.40  | 1.20  | 0.65 | 0.63 | 0.85 | 1.11 | 1.18 | 0.81 | 0.84 | 1.02          | Diurnal Average |      |
|  |                         | 9.22   | 12.51 | 8.53                                  | --   | 37.40 | 27.91 | 17.07 | 17.70 | 15.13 | 9.44 | 13.92 | 7.00 | 5.25 | 5.97 | 13.76 | 10.94 | 6.19 | 8.75 | 8.70 | 7.89 | 6.83 | 7.36 | 7.44 | 8.51          | Diurnal Maximum |      |
| Z - zerospan                                       |                         | C - Calibration  |       | DF - DAS Failure                      |      |       |       |       |       |       |      |       |      |      |      |       |       |      |      |      |      |      |      |      |               |                 |      |
| Alberta Ambient Air Quality Objectives (AAAQO):    |                         | 1-hr 172 ppb   |       | 24-hr 48 ppb                          |      |       |       |       |       |       |      |       |      |      |      |       |       |      |      |      |      |      |      |      |               |                 |      |



**WCAS - Hinton**  
**Summary of Hourly Averages**

**Hydrogen Sulphide (H2S) - ppb**  
**February 2018**

| Maximum Value: 4.79 ppb on Feb 25 21:00      Maximum Daily Average: 1.74 ppb on Feb 9  |                         |    |    |   |   |   |   |   |   |    |    |    |    |    |    |    |    | Hours in Service: 672<br>Hours of Data: 636   |    |    |    |    |    |    |               |               |
|--|-------------------------|----|----|---|---|---|---|---|---|----|----|----|----|----|----|----|----|---|----|----|----|----|----|----|---------------|---------------|
| Minimum Value: 0 ppb on Feb 1 01:00      Minimum Daily Average: 0.00 ppb on Feb 2<br>Maximum Diurnal Average: 0.57 ppb at hour 6      Minimum Diurnal Average: 0.19 ppb at hour 17<br>Monthly Average: 0.349 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> = 0.5 P <sub>90</sub> = 1.1 P <sub>99</sub> = 2.9 |                         |    |    |   |   |   |   |   |   |    |    |    |    |    |    |    |    | Hours of Missing Data: 36<br>Hours of Calibration: 34<br>Percent Operational Time: 99.7 |    |    |    |    |    |    |               |               |
| 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-Feb  | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.01          | 0.06          |
| 2-Feb  | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.00          | 0.05          |
| 3-Feb  | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 1  | 1  | 2  | 0.20          | 2.48          |
| 4-Feb  | 2                       | 0  | 1  | Z | 1 | 4 | 1 | 1 | 1 | 1  | 2  | 1  | 4  | 2  | 2  | 1  | 1  | 1   | 1  | 1  | 1  | 0  | 1  | 1  | 1.23          | 3.57          |
| 5-Feb  | 1                       | 1  | 1  | Z | 1 | 2 | 1 | 0 | 0 | 0  | 1  | 2  | 1  | 0  | 1  | 1  | 0  | 1   | 1  | 1  | 1  | 1  | 1  | 1  | 0.94          | 1.97          |
| 6-Feb  | 1                       | 2  | 1  | Z | 0 | 1 | 1 | 1 | 1 | 1  | 1  | 1  | 2  | 1  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.55          | 2.10          |
| 7-Feb  | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.03          | 0.10          |
| 8-Feb  | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.07          | 0.47          |
| 9-Feb  | 0                       | 0  | 0  | Z | 1 | 2 | 2 | 2 | 2 | 3  | 3  | 4  | 2  | 3  | 2  | 2  | 2  | 1   | 2  | 4  | 3  | 2  | 0  | 0  | 1.74          | 4.45          |
| 10-Feb   | 1                       | 2  | 0  | Z | 1 | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 1  | 1  | 0  | 1  | 1  | 0  | 0.38          | 2.01          |
| 11-Feb   | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 1  | 1  | 1  | 0  | 0  | 0  | 0.11          | 0.64          |
| 12-Feb   | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.01          | 0.16          |
| 13-Feb   | 0                       | 0  | 0  | Z | 1 | 1 | 0 | 1 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 2   | 0  | 0  | 0  | 0  | 0  | 0  | 0.29          | 1.73          |
| 14-Feb   | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.04          | 0.26          |
| 15-Feb   | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 1  | 0  | 1  | 0  | 0  | 0  | 0.22          | 0.66          |
| 16-Feb   | 1                       | DF | DF | Z | Z | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.14          | 0.97          |
| 17-Feb   | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.02          | 0.16          |
| 18-Feb   | 0                       | 0  | 0  | Z | 1 | 0 | 0 | 0 | 1 | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.14          | 0.77          |
| 19-Feb   | 1                       | 0  | 1  | Z | 1 | 2 | 2 | 2 | 1 | 4  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 1  | 0  | 0  | 0  | 0.75          | 4.30          |
| 20-Feb   | 0                       | 0  | 1  | Z | 0 | 0 | 1 | 1 | 1 | 0  | 0  | 2  | 1  | 0  | 0  | 0  | 0  | 0   | 0  | 1  | 1  | 1  | 2  | 1  | 0.56          | 2.07          |
| 21-Feb   | 1                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | C  | C   | C  | C  | C  | 0  | 0  | 0  | 0.13          | 0.96          |
| 22-Feb   | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 1  | 1  | 0  | 0  | 0  | 0.11          | 0.60          |
| 23-Feb   | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.14          | 1.05          |
| 24-Feb   | 0                       | 0  | 0  | Z | 0 | 0 | 1 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.12          | 1.30          |
| 25-Feb   | 0                       | 0  | 0  | Z | 0 | 1 | 0 | 0 | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 5  | 0  | 0  | 0  | 0.35          | 4.79          |
| 26-Feb   | 0                       | 0  | 1  | Z | 0 | 1 | 1 | 1 | 2 | 1  | 1  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0.38          | 1.81          |
| 27-Feb   | 0                       | 0  | 0  | Z | 0 | 0 | 0 | 0 | 1 | 1  | 0  | 0  | 1  | 0  | 1  | 1  | 0  | 0   | 0  | 1  | 1  | 0  | 2  | 2  | 0.49          | 2.38          |
| 28-Feb   | 2                       | 0  | 0  | Z | 0 | 0 | 1 | 1 | 1 | 1  | 0  | 1  | 0  | 0  | 1  | 1  | 1  | 1   | 1  | 0  | 0  | 0  | 0  | 0  | 0.54          | 1.87          |
| 0.37 0.32 0.24 -- 0.30 0.57 0.40 0.36 0.38 0.44 0.33 0.47 0.27 0.28 0.24 0.28 0.19 0.27 0.31 0.43 0.56 0.27 0.35 0.38  |                         |    |    |   |   |   |   |   |   |    |    |    |    |    |    |    |    | Diurnal Average   |    |    |    |    |    |    |               |               |
| 1.87 2.10 1.14 -- 1.11 3.56 1.89 2.00 1.81 4.30 3.02 3.68 1.90 3.57 2.17 1.94 2.01 1.73 1.58 4.45 4.79 1.82 2.02 2.48  |                         |    |    |   |   |   |   |   |   |    |    |    |    |    |    |    |    | Diurnal Maximum   |    |    |    |    |    |    |               |               |
| Z - zerospan      C - Calibration      DF - DAS Failure<br>Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 10 ppb      24-hr 3 ppb  |                         |    |    |   |   |   |   |   |   |    |    |    |    |    |    |    |    |   |    |    |    |    |    |    |               |               |





**WCAS - Hinton**  
**Summary of Hourly Averages**

**Ozone (O<sub>3</sub>) - ppb**  
**February 2018**

| Maximum Value: 47.06 ppb on Feb 23 17:00   |                         | Maximum Daily Average: 42.79 ppb on Feb 23  |      | Hours in Service: 672          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                 |               |               |
|--|-------------------------|---|------|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------|---------------|---------------|
| Minimum Value: 0.6 ppb on Feb 6 07:00  |                         | Minimum Daily Average: 7.57 ppb on Feb 4  |      | Hours of Data: 636             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                 |               |               |
| Maximum Diurnal Average: 35.71 ppb at hour 16  |                         | Minimum Diurnal Average: 23.00 ppb at hour 9  |      | Hours of Missing Data: 36      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                 |               |               |
| Monthly Average: 28.004 ppb  |                         | Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 5.7 Q <sub>1</sub> = 17.6 Median = 32.2 O <sub>3</sub> = 39.0 P <sub>90</sub> = 41.9 P <sub>99</sub> = 45.1 |      | Hours of Calibration: 34       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                 |               |               |
|  |                         |   |      | Percent Operational Time: 99.7 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                 |               |               |
| 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-Feb  | 4.3                     | 11.8  | 11.7 | Z                              | 10.7 | 5.3  | 1.7  | 1.5  | 1.3  | 5.9  | 11.9 | 15.3 | 16.2 | 16.9 | 15.7 | 16.2 | 15.4 | 15.4 | 18.1 | 17.5 | 16.4 | 18.2 | 20.3 | 19.2            | 12.47         | 20.30         |
| 2-Feb  | 18.6                    | 18.4  | 16.6 | Z                              | 16.5 | 16.0 | 16.2 | 16.7 | 16.5 | 17.2 | 17.9 | 19.2 | 19.5 | 18.4 | 18.6 | 18.5 | 17.7 | 15.5 | 15.7 | 18.1 | 15.8 | 16.7 | 15.9 | 18.7            | 17.35         | 19.49         |
| 3-Feb  | 21.6                    | 23.6  | 23.9 | Z                              | 23.1 | 23.2 | 24.5 | 25.5 | 26.5 | 29.3 | 28.8 | 29.4 | 30.3 | 32.5 | 32.2 | 31.9 | 27.4 | 11.7 | 2.5  | 0.9  | 2.8  | 5.4  | 10.0 | 9.8             | 20.72         | 32.47         |
| 4-Feb  | 10.0                    | 8.7   | 11.0 | Z                              | 12.4 | 10.8 | 8.1  | 3.6  | 2.8  | 2.4  | 4.9  | 11.6 | 15.1 | 19.0 | 18.5 | 16.1 | 9.2  | 4.0  | 0.7  | 0.8  | 0.8  | 0.8  | 1.2  | 1.6             | 7.57          | 19.03         |
| 5-Feb  | 1.0                     | 1.2   | 2.8  | Z                              | 5.4  | 9.0  | 6.7  | 7.2  | 5.7  | 8.7  | 11.5 | 11.7 | 18.1 | 28.1 | 31.4 | 31.9 | 22.5 | 5.5  | 1.1  | 1.6  | 0.8  | 0.8  | 0.9  | 1.0             | 9.32          | 31.90         |
| 6-Feb  | 2.8                     | 4.6   | 3.3  | Z                              | 10.9 | 2.1  | 0.6  | 0.7  | 1.5  | 5.0  | 6.6  | 6.2  | 12.3 | 24.3 | 30.2 | 30.8 | 29.5 | 26.0 | 21.8 | 23.9 | 22.4 | 29.7 | 28.0 | 27.3            | 15.24         | 30.75         |
| 7-Feb  | 27.4                    | 26.3  | 23.0 | Z                              | 16.3 | 12.9 | 12.0 | 8.7  | 13.1 | 18.9 | 23.3 | 24.0 | 22.4 | 26.8 | 27.3 | 27.9 | 27.5 | 25.9 | 23.5 | 25.1 | 26.9 | 28.2 | 28.8 | 30.0            | 22.88         | 29.95         |
| 8-Feb  | 29.5                    | 30.1  | 31.8 | Z                              | 33.7 | 33.1 | 31.9 | 31.2 | 31.8 | 29.1 | 28.8 | 28.2 | 29.4 | 30.5 | 32.5 | 31.1 | 32.5 | 26.2 | 19.7 | 10.0 | 1.4  | 3.0  | 1.7  | 1.5             | 24.28         | 33.71         |
| 9-Feb  | 2.0                     | 7.4   | 8.5  | Z                              | 15.4 | 8.8  | 10.4 | 9.3  | 7.8  | 12.1 | 17.0 | 22.3 | 28.2 | 30.7 | 31.9 | 32.8 | 32.2 | 21.3 | 18.4 | 19.6 | 14.6 | 5.7  | 8.8  | 6.8             | 16.19         | 32.78         |
| 10-Feb   | 11.3                    | 16.8  | 15.3 | Z                              | 30.1 | 31.0 | 34.3 | 34.9 | 34.1 | 35.0 | 36.0 | 36.2 | 36.4 | 36.0 | 34.4 | 33.8 | 30.1 | 21.9 | 12.5 | 3.4  | 2.2  | 5.0  | 8.0  | 24.2            | 24.48         | 36.42         |
| 11-Feb   | 36.9                    | 37.0  | 36.3 | Z                              | 38.6 | 38.7 | 38.6 | 35.7 | 25.1 | 23.5 | 30.5 | 37.2 | 38.5 | 38.9 | 38.9 | 38.5 | 35.2 | 20.8 | 3.0  | 2.0  | 0.9  | 1.3  | 7.4  | 9.7             | 26.67         | 38.93         |
| 12-Feb   | 15.2                    | 13.5  | 20.4 | Z                              | 37.1 | 38.9 | 38.9 | 39.1 | 39.6 | 40.4 | 40.9 | 41.0 | 41.6 | 42.2 | 41.7 | 40.9 | 40.6 | 40.2 | 41.5 | 42.2 | 41.5 | 44.9 | 44.9 | 45.5            | 37.94         | 45.53         |
| 13-Feb   | 43.9                    | 41.5  | 41.2 | Z                              | 32.7 | 33.1 | 32.5 | 29.7 | 36.1 | 37.8 | 37.8 | 37.9 | 35.9 | 33.5 | 32.8 | 34.7 | 33.3 | 33.9 | 40.7 | 35.6 | 40.7 | 41.1 | 41.5 | 41.3            | 36.93         | 43.89         |
| 14-Feb   | 39.3                    | 35.5  | 31.8 | Z                              | 28.3 | 27.5 | 38.4 | 37.5 | 35.8 | 36.6 | 36.5 | 38.8 | 37.7 | 36.3 | 35.3 | 33.7 | 34.7 | 32.7 | 31.2 | 30.7 | 33.3 | 31.6 | 20.0 | 10.7            | 32.78         | 39.28         |
| 15-Feb   | 8.4                     | 12.0  | 5.0  | Z                              | 4.3  | 9.3  | 13.4 | 11.0 | 1.5  | 6.9  | 20.8 | 33.0 | 36.0 | 38.3 | 40.0 | 39.3 | 39.3 | 33.7 | 36.6 | 37.0 | 36.6 | 38.0 | 37.4 | 35.2            | 24.91         | 40.01         |
| 16-Feb   | 34.7                    | DF  | DF   | Z                              | 32.3 | 38.9 | 37.7 | 35.0 | 39.2 | 36.9 | 33.1 | 38.3 | 37.7 | 37.7 | 38.9 | 38.2 | 37.6 | 35.9 | 35.0 | 37.0 | 38.9 | 37.9 | 35.4 | 36.81           | 39.22         |               |
| 17-Feb   | 34.6                    | 24.8  | 23.0 | Z                              | 17.8 | 13.7 | 24.1 | 27.3 | 24.4 | 27.4 | 32.1 | 37.5 | 39.0 | 39.3 | 38.1 | 39.4 | 38.4 | 40.4 | 37.5 | 35.3 | 39.5 | 41.5 | 40.6 | 38.9            | 32.81         | 41.49         |
| 18-Feb   | 36.9                    | 35.1  | 25.9 | Z                              | 27.5 | 26.3 | 24.1 | 25.5 | 21.9 | 26.4 | 29.4 | 38.8 | 39.5 | 40.2 | 41.0 | 41.2 | 41.4 | 41.5 | 41.2 | 37.8 | 37.7 | 36.4 | 28.5 | 27.9            | 33.58         | 41.53         |
| 19-Feb   | 22.7                    | 26.7  | 24.8 | Z                              | 27.0 | 24.5 | 25.5 | 27.2 | 22.7 | 28.7 | 33.4 | 34.4 | 36.8 | 38.3 | 39.8 | 40.7 | 39.3 | 37.6 | 34.6 | 33.9 | 31.8 | 29.3 | 29.8 | 29.7            | 31.26         | 40.66         |
| 20-Feb   | 30.7                    | 29.7  | 33.5 | Z                              | 27.9 | 31.6 | 27.6 | 20.5 | 26.9 | 30.0 | 27.4 | 30.2 | 39.9 | 41.9 | 42.0 | 41.7 | 41.6 | 41.4 | 41.1 | 40.1 | 41.1 | 30.5 | 8.5  | 4.6             | 31.76         | 41.98         |
| 21-Feb   | 1.6                     | 7.9   | 8.3  | Z                              | 37.9 | 39.3 | 38.8 | 38.9 | 37.7 | 39.2 | 39.7 | 40.2 | 41.0 | 41.1 | 40.6 | 39.7 | C    | C    | C    | C    | C    | 28.6 | 35.8 | 39.2            | 33.09         | 41.09         |
| 22-Feb   | 38.3                    | 38.4  | 36.2 | Z                              | 37.5 | 37.0 | 35.6 | 34.3 | 31.3 | 33.5 | 36.2 | 38.2 | 39.6 | 41.4 | 41.7 | 42.5 | 42.3 | 40.8 | 39.8 | 38.3 | 39.8 | 38.9 | 31.4 | 39.2            | 37.93         | 42.49         |
| 23-Feb   | 40.8                    | 43.4  | 43.7 | Z                              | 43.4 | 40.5 | 39.6 | 42.0 | 43.4 | 41.0 | 44.8 | 45.4 | 45.5 | 45.2 | 40.8 | 41.9 | 47.1 | 46.5 | 46.2 | 43.7 | 43.4 | 38.2 | 37.9 | 39.9            | 42.79         | 47.06         |
| 24-Feb   | 41.5                    | 39.8  | 40.7 | Z                              | 39.6 | 37.1 | 35.7 | 40.6 | 40.8 | 40.3 | 42.0 | 43.0 | 43.0 | 43.5 | 43.7 | 43.9 | 42.9 | 42.4 | 41.8 | 40.7 | 38.7 | 41.3 | 41.4 | 37.2            | 40.94         | 43.85         |
| 25-Feb   | 36.1                    | 39.1  | 42.9 | Z                              | 41.9 | 42.2 | 35.5 | 37.5 | 38.5 | 38.7 | 38.4 | 42.2 | 42.7 | 43.1 | 42.8 | 43.2 | 44.6 | 44.3 | 43.4 | 37.4 | 35.5 | 34.9 | 40.2 | 31.7            | 39.87         | 44.65         |
| 26-Feb   | 21.8                    | 29.0  | 26.8 | Z                              | 36.2 | 30.8 | 22.1 | 4.1  | 2.0  | 9.9  | 33.9 | 42.6 | 42.8 | 43.5 | 43.8 | 43.5 | 43.0 | 41.7 | 39.7 | 39.8 | 41.9 | 43.6 | 43.2 | 41.8            | 33.37         | 43.84         |
| 27-Feb   | 39.6                    | 38.8  | 39.7 | Z                              | 38.2 | 39.8 | 39.3 | 35.9 | 37.1 | 39.0 | 43.1 | 41.9 | 40.9 | 42.0 | 39.0 | 41.0 | 44.0 | 44.2 | 42.9 | 32.5 | 9.9  | 33.1 | 36.9 | 35.5            | 38.01         | 44.22         |
| 28-Feb   | 37.4                    | 38.2  | 33.5 | Z                              | 8.0  | 1.9  | 0.7  | 1.0  | 3.0  | 8.1  | 20.3 | 30.4 | 44.2 | 44.3 | 43.6 | 44.1 | 44.8 | 43.6 | 13.6 | 5.2  | 5.9  | 15.4 | 35.5 | 39.4            | 24.44         | 44.79         |
| 24.60 25.17 24.50 -- 25.87 24.88 24.85 23.75 23.00 25.36 28.96 31.78 33.96 35.49 35.56 35.71 34.62 30.99 27.58 25.48 24.42 25.75 25.80 25.82 |                         |   |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Diurnal Average |               |               |
| 43.89 43.42 43.70 -- 43.41 42.23 39.62 42.00 43.37 41.03 44.84 45.45 45.49 45.15 43.84 44.15 47.06 46.47 46.17 43.72 43.41 44.87 44.93 45.53 |                         |   |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Diurnal Maximum |               |               |
| Z - zerospan C - Calibration DF - DAS Failure  |                         |   |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                 |               |               |
| Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 82.5 ppb 24-hr -- ppb   |                         |   |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                 |               |               |



**WCAS - Hinton**  
**Eight Hour Running Averages**

**Ozone (O<sub>3</sub>) - ppb**  
**February 2018**

| Maximum Value: 44.81 ppb on Feb 23 19:00      |                         | Maximum Daily Average: 42.26 ppb on Feb 23  |      | Hours in Service: 672          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |               |               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
|---|-------------------------|---|------|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|---------------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|
| Minimum Value: 1.0 ppb on Feb 5 02:00         |                         | Minimum Daily Average: 8.41 ppb on Feb 4  |      | Hours of Data: 657             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |               |               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| Maximum Diurnal Average: 33.45 ppb at hour 18 |                         | Minimum Diurnal Average: 24.28 ppb at hour 10   |      | Hours of Missing Data: 15      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |               |               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| Monthly Average: 27.703 ppb                   |                         | Percentiles: P <sub>1</sub> = 2.0 P <sub>10</sub> = 8.8 Q <sub>1</sub> = 17.9 Median = 30.6 O <sub>3</sub> = 37.9 P <sub>90</sub> = 40.9 P <sub>99</sub> = 43.5 |      | Hours of Calibration: 8        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |               |               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
|   |                         |   |      | Percent Operational Time: 99.0 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |               |               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 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-Feb   | 9.1                     | 9.1   | 9.0  | 8.8                            | 8.8  | 7.9  | 7.0  | 6.7  | 6.3  | 5.4  | 5.5  | 6.7  | 7.4  | 8.8  | 10.6 | 12.4 | 14.2 | 15.4 | 16.2 | 16.4 | 16.5 | 16.6 | 17.2 | 17.6  | 10.82         | 17.55         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 2-Feb   | 18.0                    | 18.3  | 18.1 | 18.2                           | 18.3 | 17.9 | 17.4 | 17.0 | 16.7 | 16.5 | 16.7 | 17.0 | 17.4 | 17.7 | 18.0 | 18.2 | 18.4 | 18.1 | 17.9 | 17.8 | 17.3 | 17.1 | 16.7 | 16.8  | 17.57         | 18.36         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 3-Feb   | 17.3                    | 18.3  | 19.3 | 19.5                           | 20.5 | 21.4 | 22.7 | 23.6 | 24.3 | 25.1 | 25.8 | 26.3 | 27.2 | 28.3 | 29.3 | 30.1 | 30.2 | 28.0 | 24.7 | 21.2 | 17.7 | 14.4 | 11.6 | 8.8   | 22.32         | 30.21         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 4-Feb   | 6.6                     | 6.3   | 7.3  | 8.2                            | 9.6  | 10.4 | 10.1 | 9.2  | 8.2  | 7.3  | 6.4  | 7.1  | 7.4  | 8.4  | 9.7  | 11.3 | 12.1 | 12.3 | 11.8 | 10.4 | 8.6  | 6.4  | 4.2  | 2.4   | 8.41          | 12.29         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 5-Feb   | 1.4                     | 1.0   | 1.3  | 1.4                            | 2.0  | 3.2  | 3.9  | 4.7  | 5.4  | 6.5  | 7.7  | 8.2  | 9.8  | 12.2 | 15.3 | 18.4 | 20.5 | 20.1 | 18.8 | 17.5 | 15.3 | 11.9 | 8.1  | 4.3   | 9.12          | 20.47         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 6-Feb   | 1.8                     | 1.7   | 2.0  | 2.0                            | 3.5  | 3.6  | 3.6  | 3.6  | 3.4  | 3.4  | 3.9  | 4.2  | 4.4  | 7.2  | 10.9 | 14.6 | 18.1 | 20.7 | 22.6 | 24.9 | 26.1 | 26.8 | 26.5 | 26.1  | 11.07         | 26.78         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 7-Feb   | 25.8                    | 25.9  | 26.0 | 26.3                           | 25.4 | 23.1 | 20.8 | 18.1 | 16.1 | 15.0 | 15.0 | 16.1 | 16.9 | 18.6 | 20.5 | 22.9 | 24.7 | 25.6 | 25.7 | 25.8 | 26.4 | 26.5 | 26.7 | 27.0  | 22.54         | 26.99         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 8-Feb   | 27.2                    | 27.8  | 28.8 | 29.3                           | 30.3 | 31.0 | 31.4 | 31.6 | 31.9 | 31.8 | 31.3 | 31.0 | 30.4 | 30.1 | 30.2 | 30.2 | 30.2 | 29.9 | 28.8 | 26.5 | 23.0 | 19.5 | 15.7 | 12.0  | 27.91         | 31.93         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 9-Feb   | 8.2                     | 5.8   | 4.5  | 3.7                            | 5.7  | 6.5  | 7.7  | 8.8  | 9.7  | 10.3 | 11.6 | 12.9 | 14.5 | 17.2 | 19.9 | 22.9 | 25.9 | 27.1 | 27.2 | 26.9 | 25.2 | 22.1 | 19.2 | 15.9  | 14.98         | 27.24         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 10-Feb  | 13.3                    | 12.8  | 12.4 | 11.3                           | 13.6 | 17.2 | 20.8 | 24.8 | 28.1 | 30.7 | 33.6 | 34.0 | 34.7 | 35.4 | 35.4 | 35.2 | 34.7 | 33.1 | 30.2 | 26.1 | 21.8 | 17.9 | 14.6 | 13.4  | 24.38         | 35.38         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 11-Feb  | 14.3                    | 16.1  | 19.1 | 21.4                           | 26.6 | 31.4 | 35.8 | 37.4 | 35.7 | 33.8 | 33.0 | 33.5 | 33.5 | 33.5 | 33.5 | 33.9 | 35.2 | 34.8 | 31.4 | 27.0 | 22.3 | 17.6 | 13.6 | 10.0  | 27.68         | 37.42         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 12-Feb  | 7.5                     | 6.6   | 8.8  | 9.8                            | 14.9 | 20.3 | 24.8 | 29.0 | 32.5 | 36.3 | 39.3 | 39.5 | 40.1 | 40.5 | 40.8 | 41.1 | 41.2 | 41.1 | 41.2 | 41.4 | 41.4 | 41.7 | 42.1 | 42.7  | 31.85         | 42.66         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 13-Feb  | 43.1                    | 43.2  | 43.2 | 43.3                           | 42.1 | 40.4 | 38.6 | 36.4 | 35.3 | 34.7 | 34.3 | 34.7 | 35.1 | 35.2 | 35.2 | 35.8 | 35.5 | 35.0 | 35.3 | 35.0 | 35.6 | 36.6 | 37.7 | 38.5  | 37.50         | 43.34         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 14-Feb  | 39.3                    | 39.5  | 38.4 | 38.7                           | 37.0 | 35.0 | 34.6 | 34.0 | 33.6 | 33.7 | 34.4 | 34.9 | 36.1 | 37.2 | 36.8 | 36.3 | 36.2 | 35.7 | 35.0 | 34.0 | 33.5 | 32.9 | 31.0 | 28.1  | 35.25         | 39.46         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 15-Feb  | 24.8                    | 22.2  | 19.0 | 17.3                           | 13.1 | 10.0 | 9.0  | 9.1  | 8.1  | 7.3  | 9.6  | 12.5 | 16.5 | 20.1 | 23.4 | 27.0 | 31.7 | 35.0 | 37.0 | 37.5 | 37.6 | 37.5 | 37.2 | 36.7  | 22.48         | 37.59         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 16-Feb  | 36.1                    | 36.5  | 36.5 | DF                             | DF   | DF   | DF   | DF   | DF   | DF   | 36.7 | 36.2 | 36.4 | 37.1 | 37.0 | 37.1 | 37.5 | 37.3 | 37.2 | 37.4 | 37.3 | 37.4 | 37.4 | 37.0  | --            | 37.50         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 17-Feb  | 36.5                    | 34.9  | 33.3 | 33.1                           | 30.3 | 26.7 | 24.8 | 23.6 | 22.2 | 22.5 | 23.8 | 25.5 | 28.2 | 31.4 | 33.1 | 34.6 | 36.4 | 38.0 | 38.7 | 38.4 | 38.5 | 38.8 | 39.1 | 39.0  | 32.15         | 39.07         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 18-Feb  | 38.8                    | 38.2  | 36.7 | 36.9                           | 35.2 | 33.0 | 30.7 | 28.8 | 26.6 | 25.4 | 25.9 | 27.5 | 29.0 | 30.7 | 32.8 | 34.8 | 37.2 | 39.1 | 40.6 | 40.5 | 40.3 | 39.8 | 38.2 | 36.6  | 34.30         | 40.61         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 19-Feb  | 34.2                    | 32.4  | 30.3 | 29.3                           | 27.7 | 26.0 | 25.6 | 25.5 | 25.5 | 25.8 | 27.0 | 27.9 | 29.1 | 30.9 | 32.6 | 34.3 | 36.4 | 37.5 | 37.7 | 37.6 | 37.0 | 35.9 | 34.6 | 33.2  | 31.43         | 37.68         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 20-Feb  | 32.2                    | 31.2  | 31.0 | 30.6                           | 30.1 | 30.4 | 30.1 | 28.8 | 28.2 | 28.3 | 27.4 | 27.8 | 29.3 | 30.6 | 32.4 | 35.0 | 36.8 | 38.3 | 40.0 | 41.2 | 41.4 | 39.9 | 35.8 | 31.1  | 32.82         | 41.37         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 21-Feb  | 26.1                    | 21.9  | 17.8 | 14.6                           | 14.2 | 15.4 | 19.8 | 24.7 | 29.8 | 34.3 | 38.8 | 39.0 | 39.3 | 39.6 | 39.8 | 39.9 | 40.2 | 40.4 | C    | C    | C    | C    | C    | C     | 29.76         | 40.38         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 22-Feb  | C                       | C   | 36.1 | 36.1                           | 36.3 | 37.5 | 37.5 | 36.8 | 35.8 | 35.1 | 35.1 | 35.5 | 35.7 | 36.3 | 37.0 | 38.1 | 39.4 | 40.3 | 40.8 | 40.8 | 40.8 | 40.5 | 39.2 | 38.8  | 37.70         | 40.81         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 23-Feb  | 38.6                    | 38.9  | 39.4 | 39.6                           | 40.1 | 40.3 | 41.5 | 41.9 | 42.3 | 41.9 | 42.1 | 42.5 | 42.8 | 43.4 | 43.5 | 44.0 | 44.6 | 44.8 | 44.6 | 44.3 | 43.5 | 43.1 | 42.9 | 42.6  | 42.26         | 44.81         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 24-Feb  | 42.2                    | 41.3  | 40.6 | 40.2                           | 39.7 | 39.5 | 39.2 | 39.3 | 39.2 | 39.3 | 39.5 | 39.9 | 40.3 | 41.1 | 42.1 | 42.5 | 42.8 | 43.0 | 43.0 | 42.7 | 42.2 | 41.9 | 41.6 | 40.8  | 41.00         | 43.04         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 25-Feb  | 40.0                    | 39.6  | 39.7 | 39.5                           | 40.0 | 40.1 | 39.3 | 39.3 | 39.7 | 39.6 | 39.0 | 39.4 | 39.5 | 39.6 | 40.5 | 41.2 | 42.0 | 42.7 | 43.3 | 42.7 | 41.8 | 40.8 | 40.5 | 39.0  | 40.35         | 43.30         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 26-Feb  | 36.2                    | 34.2  | 32.2 | 31.4                           | 31.5 | 30.9 | 28.3 | 24.4 | 21.6 | 18.8 | 19.8 | 22.7 | 23.5 | 25.1 | 27.8 | 32.8 | 37.9 | 41.9 | 42.6 | 42.2 | 42.1 | 42.1 | 42.0 | 41.8  | 32.25         | 42.58         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 27-Feb  | 41.4                    | 41.1  | 41.1 | 41.2                           | 40.7 | 40.2 | 39.6 | 38.7 | 38.4 | 38.4 | 38.9 | 39.3 | 39.6 | 39.9 | 39.9 | 40.5 | 41.4 | 42.0 | 42.0 | 40.8 | 39.9 | 35.8 | 35.6 | 34.9  | 39.51         | 42.02         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
| 28-Feb  | 34.1                    | 33.3  | 32.1 | 32.1                           | 31.8 | 27.3 | 22.2 | 17.2 | 12.3 | 8.0  | 6.1  | 9.2  | 13.7 | 19.0 | 24.4 | 29.8 | 35.0 | 39.4 | 38.6 | 35.4 | 30.6 | 27.0 | 26.0 | 25.4  | 25.42         | 39.43         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
|   |                         |   |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 25.71 | 25.12         | 25.14         | 24.59 | 24.78 | 24.70 | 24.69 | 24.56 | 24.32 | 24.28 | 25.29 | 26.10 | 27.07 | 28.39 | 29.73 | 31.23 | 32.71 | 33.45 | 33.07 | 32.32 | 31.16 | 29.96 | 28.72 | 27.44 | Diurnal Average |
|   |                         |   |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 43.07 | 43.23         | 43.20         | 43.34 | 42.09 | 40.41 | 41.52 | 41.92 | 42.29 | 41.94 | 42.11 | 42.52 | 42.78 | 43.37 | 43.51 | 43.50 | 43.96 | 44.64 | 44.81 | 44.59 | 44.33 | 43.47 | 43.10 | 42.86 | Diurnal Maximum |
| C - Calibration                               |                         | DF - DAS Failure  |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |               |               |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |



**WCAS - Hinton**  
**Summary of Hourly Averages**

**Nitrogen Oxide (NO) - ppb**  
**February 2018**

| Maximum Value: 125.28 ppb on Feb 26 09:00   |                         |     |     |   |     |      |      |      |       |      |      |      |      |     |     |     |      |      |       |       |      |      |      | Maximum Daily Average: 29.47 ppb on Feb 5  |               |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Hours in Service: 672     |  |
|---|-------------------------|-----|-----|---|-----|------|------|------|-------|------|------|------|------|-----|-----|-----|------|------|-------|-------|------|------|------|--|---------------|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---------------------------|--|
| Minimum Value: 0.0 ppb on Feb 1 02:00   |                         |     |     |   |     |      |      |      |       |      |      |      |      |     |     |     |      |      |       |       |      |      |      | Minimum Daily Average: 0.44 ppb on Feb 24  |               |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Hours of Data: 635        |  |
| Maximum Diurnal Average: 11.72 ppb at hour 20   |                         |     |     |   |     |      |      |      |       |      |      |      |      |     |     |     |      |      |       |       |      |      |      | Minimum Diurnal Average: 1.11 ppb at hour 3  |               |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Hours of Missing Data: 37 |  |
| Monthly Average: 5.315 ppb  |                         |     |     |   |     |      |      |      |       |      |      |      |      |     |     |     |      |      |       |       |      |      |      | Percentiles: P <sub>1</sub> = 0.0 P <sub>10</sub> = 0.1 Q <sub>1</sub> = 0.3 Median = 1.3 Q <sub>3</sub> = 3.4 P <sub>90</sub> = 11.5 P <sub>99</sub> = 71.4 |               |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Hours of Calibration: 35  |  |
|   |                         |     |     |   |     |      |      |      |       |      |      |      |      |     |     |     |      |      |       |       |      |      |      | Percent Operational Time: 99.7   |               |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 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-Feb   | 0.9                     | 0.0 | 0.1 | Z | 0.1 | 3.3  | 8.1  | 9.6  | 11.7  | 8.6  | 6.2  | 8.1  | 8.3  | 6.7 | 7.3 | 5.5 | 5.3  | 3.8  | 1.7   | 1.6   | 1.4  | 0.9  | 0.8  | 0.6  | 4.36          | 11.66         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 2-Feb   | 0.4                     | 0.3 | 1.5 | Z | 0.4 | 1.0  | 1.3  | 2.4  | 3.6   | 2.1  | 2.7  | 3.5  | 4.3  | 4.6 | 4.2 | 6.4 | 5.2  | 4.9  | 2.4   | 1.4   | 1.8  | 1.3  | 0.6  | 0.3  | 2.46          | 6.37          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 3-Feb   | 0.3                     | 0.3 | 0.2 | Z | 1.5 | 0.6  | 0.2  | 0.1  | 0.1   | 0.1  | 0.6  | 1.4  | 3.0  | 1.3 | 3.3 | 3.3 | 3.1  | 14.1 | 29.7  | 44.4  | 15.9 | 2.7  | 0.6  | 0.5  | 5.54          | 44.43         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 4-Feb   | 1.0                     | 0.7 | 0.1 | Z | 1.6 | 2.2  | 1.0  | 5.0  | 9.9   | 30.0 | 34.3 | 22.5 | 10.7 | 4.6 | 7.2 | 8.9 | 16.9 | 11.6 | 39.0  | 53.5  | 75.4 | 53.0 | 46.4 | 16.1   | 19.63         | 75.41         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 5-Feb   | 12.0                    | 6.6 | 4.5 | Z | 4.1 | 0.0  | 0.6  | 0.3  | 4.3   | 13.2 | 19.2 | 45.6 | 40.0 | 9.5 | 4.6 | 4.2 | 13.3 | 80.4 | 113.2 | 102.9 | 79.4 | 52.4 | 30.2 | 37.3   | 29.47         | 113.20        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 6-Feb   | 8.7                     | 5.2 | 6.7 | Z | 1.0 | 18.6 | 22.3 | 21.4 | 11.3  | 19.7 | 33.7 | 63.6 | 36.9 | 9.9 | 4.4 | 3.5 | 3.1  | 3.5  | 6.0   | 2.7   | 2.0  | 0.3  | 0.6  | 0.2  | 12.40         | 63.57         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 7-Feb   | 0.3                     | 0.8 | 1.5 | Z | 1.9 | 0.7  | 1.4  | 5.0  | 6.4   | 3.6  | 2.7  | 3.1  | 5.3  | 4.1 | 3.5 | 2.6 | 2.5  | 2.4  | 2.1   | 1.0   | 0.9  | 0.8  | 0.7  | 0.6  | 2.34          | 6.37          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 8-Feb   | 0.3                     | 0.2 | 0.4 | Z | 0.2 | 0.8  | 1.3  | 1.7  | 1.7   | 2.7  | 3.1  | 5.9  | 5.7  | 5.4 | 3.4 | 5.0 | 4.1  | 3.7  | 1.4   | 13.4  | 35.8 | 11.4 | 12.8 | 15.9   | 5.93          | 35.75         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 9-Feb   | 11.4                    | 3.8 | 1.0 | Z | 0.2 | 0.4  | 0.5  | 1.4  | 1.7   | 6.9  | 9.0  | 11.1 | 5.3  | 3.7 | 3.3 | 2.2 | 1.5  | 3.4  | 0.9   | 0.5   | 10.1 | 9.9  | 3.8  | 7.5  | 4.33          | 11.41         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 10-Feb  | 0.8                     | 0.2 | 0.5 | Z | 0.1 | 0.4  | 0.4  | 0.6  | 1.1   | 1.2  | 1.4  | 1.8  | 2.3  | 3.0 | 3.4 | 1.9 | 1.9  | 4.0  | 17.6  | 25.4  | 25.5 | 11.4 | 2.7  | 0.0  | 4.68          | 25.50         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 11-Feb  | 0.1                     | 0.3 | 0.2 | Z | 0.0 | 0.3  | 0.4  | 0.6  | 3.4   | 4.5  | 4.0  | 2.0  | 1.4  | 1.3 | 1.3 | 1.6 | 1.6  | 8.7  | 49.7  | 34.5  | 33.6 | 18.5 | 2.1  | 1.8  | 7.47          | 49.70         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 12-Feb  | 0.9                     | 0.6 | 0.0 | Z | 0.5 | 0.7  | 1.5  | 1.3  | 1.1   | 1.2  | 2.3  | 2.9  | 2.1  | 1.5 | 3.0 | 4.8 | 1.3  | 0.7  | 0.2   | 0.2   | 0.4  | 0.1  | 0.1  | 0.1  | 1.20          | 4.82          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 13-Feb  | 0.6                     | 0.1 | 0.0 | Z | 1.5 | 1.3  | 1.5  | 1.3  | 0.5   | 0.6  | 0.7  | 0.9  | 1.4  | 2.3 | 2.2 | 1.0 | 1.5  | 1.0  | 0.1   | 0.6   | 0.1  | 0.0  | 0.1  | 0.0  | 0.85          | 2.32          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 14-Feb  | 0.0                     | 0.1 | 0.1 | Z | 0.9 | 1.1  | 0.2  | 0.3  | 1.1   | 1.3  | 1.9  | 1.1  | 2.0  | 2.3 | 2.1 | 3.1 | 1.8  | 2.9  | 2.6   | 1.5   | 0.3  | 1.2  | 4.2  | 2.9  | 1.53          | 4.24          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 15-Feb  | 2.0                     | 2.2 | 7.6 | Z | 7.9 | 1.3  | 1.7  | 7.9  | 42.6  | 38.5 | 15.3 | 3.4  | 3.0  | 1.9 | 1.5 | 1.9 | 2.4  | 2.1  | 0.6   | 0.7   | 0.5  | 0.6  | 0.6  | 0.9  | 6.40          | 42.60         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 16-Feb  | 0.8                     | DF  | DF  | Z | Z   | 0.9  | 0.2  | 0.1  | 1.3   | 0.0  | 1.2  | 3.0  | 0.6  | 1.0 | 1.5 | 0.6 | 0.4  | 0.2  | 0.5   | 2.0   | 0.4  | 0.1  | 0.1  | 0.8  | 0.78          | 2.99          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 17-Feb  | 0.1                     | 3.5 | 0.5 | Z | 0.3 | 6.9  | 1.8  | 2.2  | 2.7   | 2.7  | 2.9  | 2.1  | 1.9  | 3.4 | 2.7 | 1.6 | 2.3  | 0.3  | 0.4   | 2.0   | 0.0  | 0.0  | 0.1  | 0.0  | 1.75          | 6.85          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 18-Feb  | 0.0                     | 0.0 | 0.1 | Z | 0.0 | 0.5  | 0.3  | 0.1  | 0.6   | 1.5  | 3.2  | 0.6  | 0.4  | 0.4 | 0.3 | 0.2 | 0.2  | 0.2  | 0.1   | 1.0   | 0.1  | 0.1  | 0.2  | 0.1  | 0.45          | 3.15          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 19-Feb  | 0.2                     | 0.1 | 0.0 | Z | 0.0 | 0.0  | 0.0  | 0.0  | 1.6   | 2.0  | 2.5  | 3.7  | 3.8  | 2.4 | 2.2 | 1.4 | 1.5  | 1.6  | 1.2   | 0.2   | 0.2  | 0.2  | 0.1  | 0.1  | 1.09          | 3.79          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 20-Feb  | 0.1                     | 0.1 | 0.1 | Z | 0.1 | 0.1  | 0.1  | 0.7  | 1.3   | 2.0  | 6.6  | 4.9  | 0.8  | 0.2 | 0.3 | 0.2 | 0.3  | 0.3  | 0.3   | 0.2   | 0.2  | 0.8  | 8.7  | 6.7  | 1.53          | 8.73          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 21-Feb  | 19.8                    | 4.4 | 3.3 | Z | 2.1 | 3.1  | 4.0  | 2.2  | 0.8   | 2.7  | 2.2  | 2.3  | 2.3  | 1.6 | 1.6 | 1.6 | C    | C    | C     | C     | C    | C    | 0.1  | 0.2  | --            | 19.80         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 22-Feb  | 0.1                     | 0.1 | 0.2 | Z | 0.2 | 0.1  | 0.2  | 0.3  | 0.8   | 2.2  | 3.7  | 2.8  | 2.6  | 1.5 | 2.1 | 1.4 | 1.3  | 0.9  | 0.4   | 0.2   | 0.1  | 0.1  | 0.4  | 0.0  | 0.94          | 3.75          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 23-Feb  | 0.0                     | 0.0 | 0.2 | Z | 0.2 | 2.8  | 0.6  | 0.1  | 0.2   | 1.1  | 0.7  | 2.3  | 1.2  | 1.1 | 2.6 | 1.5 | 0.5  | 0.5  | 0.2   | 0.1   | 0.1  | 0.1  | 0.2  | 0.1  | 0.72          | 2.76          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 24-Feb  | 0.0                     | 0.0 | 0.0 | Z | 0.0 | 0.1  | 0.4  | 0.5  | 0.5   | 1.0  | 0.9  | 0.8  | 1.0  | 0.9 | 0.9 | 0.7 | 0.6  | 0.4  | 0.2   | 0.1   | 0.2  | 0.1  | 0.1  | 0.5  | 0.44          | 1.00          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 25-Feb  | 0.9                     | 0.6 | 0.0 | Z | 0.1 | 0.1  | 0.5  | 0.8  | 1.6   | 1.5  | 2.9  | 1.4  | 1.1  | 1.0 | 1.7 | 0.8 | 0.1  | 0.3  | 0.1   | 0.1   | 0.5  | 3.3  | 0.2  | 0.9  | 0.89          | 3.30          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 26-Feb  | 0.3                     | 0.1 | 0.1 | Z | 0.0 | 0.0  | 6.2  | 75.8 | 125.3 | 58.9 | 6.0  | 1.2  | 1.5  | 1.4 | 0.8 | 0.8 | 0.9  | 0.7  | 0.4   | 0.3   | 0.1  | 0.1  | 0.1  | 0.4  | 12.24         | 125.28        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 27-Feb  | 0.6                     | 0.4 | 0.1 | Z | 0.2 | 0.1  | 0.1  | 0.2  | 1.2   | 1.9  | 0.9  | 1.1  | 1.4  | 1.3 | 3.7 | 2.4 | 0.4  | 0.2  | 0.2   | 3.3   | 15.5 | 3.6  | 0.1  | 0.0  | 1.69          | 15.46         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 28-Feb  | 0.1                     | 0.2 | 0.9 | Z | 8.5 | 20.3 | 47.0 | 35.9 | 59.2  | 39.4 | 21.6 | 11.1 | 1.5  | 1.5 | 1.6 | 0.7 | 0.2  | 0.2  | 17.6  | 22.3  | 12.5 | 4.7  | 0.5  | 0.2  | 13.38         | 59.23         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 2.24 1.15 1.11 -- 1.24 2.41 3.71 6.35 10.64 8.97 6.87 7.66 5.42 2.86 2.74 2.50 2.75 5.66 10.70 11.72 11.59 6.59 4.18 3.38                 |                         |     |     |   |     |      |      |      |       |      |      |      |      |     |     |     |      |      |       |       |      |      |      | Diurnal Average  |               |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| 19.80 6.62 7.61 -- 8.52 20.28 47.05 75.75 125.28 58.88 34.25 63.57 40.04 9.92 7.28 8.92 16.94 80.43 113.20 102.92 79.45 53.00 46.38 37.25 |                         |     |     |   |     |      |      |      |       |      |      |      |      |     |     |     |      |      |       |       |      |      |      | Diurnal Maximum  |               |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| Z - zerospan C - Calibration DF - DAS Failure   |                         |     |     |   |     |      |      |      |       |      |      |      |      |     |     |     |      |      |       |       |      |      |      |  |               |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |
| Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ppb 24-hr --- ppb  |                         |     |     |   |     |      |      |      |       |      |      |      |      |     |     |     |      |      |       |       |      |      |      |  |               |               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                           |  |



**WCAS - Hinton**  
**Summary of Hourly Averages**

**Nitrogen Dioxide (NO<sub>2</sub>) - ppb**  
**February 2018**

| Maximum Value: 47.79 ppb on Feb 5 19:00         |                         | Maximum Daily Average: 23.78 ppb on Feb 5   |       | Hours in Service:         | 672  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               |                 |  |
|---|-------------------------|---|-------|---------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|-----------------|--|
| Minimum Value: 0.7 ppb on Feb 18 18:00          |                         | Minimum Daily Average: 4.61 ppb on Feb 25   |       | Hours of Data:            | 635  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               |                 |  |
| Maximum Diurnal Average: 16.00 ppb at hour 21   |                         | Minimum Diurnal Average: 4.97 ppb at hour 14  |       | Hours of Missing Data:    | 37   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               |                 |  |
| Monthly Average: 10.717 ppb                     |                         | Percentiles: P <sub>1</sub> = 0.8 P <sub>10</sub> = 2.4 Q <sub>1</sub> = 4.4 Median = 7.9 Q <sub>3</sub> = 13.0 P <sub>90</sub> = 25.5 P <sub>99</sub> = 43.5 |       | Hours of Calibration:     | 35   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               |                 |  |
|   |                         |   |       | Percent Operational Time: | 99.7 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               |                 |  |
| 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-Feb   | 17.8                    | 10.5  | 10.1  | Z                         | 10.0 | 15.8  | 18.5  | 17.4  | 18.4  | 14.1  | 9.4   | 7.9   | 7.2   | 7.2   | 9.2   | 8.3   | 10.0  | 11.2  | 7.9   | 8.5   | 9.5   | 8.0   | 6.1   | 7.1   | 10.88         | 18.49           |  |
| 2-Feb   | 7.5                     | 7.5   | 9.1   | Z                         | 8.4  | 9.3   | 9.2   | 9.6   | 10.4  | 9.1   | 8.4   | 7.3   | 6.9   | 7.7   | 8.3   | 9.6   | 10.9  | 13.5  | 13.0  | 10.4  | 13.3  | 11.9  | 12.2  | 8.5   | 9.66          | 13.46           |  |
| 3-Feb   | 5.9                     | 4.5   | 4.8   | Z                         | 5.6  | 6.1   | 5.0   | 3.9   | 3.6   | 1.8   | 2.4   | 3.1   | 3.6   | 2.5   | 3.4   | 7.2   | 26.9  | 37.3  | 38.8  | 33.0  | 23.3  | 15.7  | 16.8  | 11.21 | 38.82         |                 |  |
| 4-Feb   | 15.5                    | 16.1  | 11.6  | Z                         | 9.1  | 10.7  | 12.8  | 18.5  | 19.7  | 22.4  | 22.2  | 17.7  | 13.2  | 9.0   | 11.3  | 15.4  | 25.4  | 28.5  | 34.3  | 32.6  | 34.9  | 29.5  | 27.1  | 23.5  | 20.05         | 34.88           |  |
| 5-Feb   | 27.2                    | 24.6  | 20.1  | Z                         | 18.2 | 12.5  | 15.7  | 15.0  | 18.8  | 18.0  | 17.6  | 25.9  | 23.4  | 10.2  | 7.0   | 7.3   | 19.4  | 44.3  | 47.8  | 44.2  | 36.6  | 32.2  | 29.3  | 31.4  | 23.78         | 47.79           |  |
| 6-Feb   | 23.9                    | 22.0  | 21.4  | Z                         | 13.7 | 27.6  | 28.9  | 28.1  | 24.8  | 20.1  | 23.2  | 31.3  | 27.5  | 13.5  | 10.7  | 9.9   | 11.3  | 14.0  | 17.1  | 13.5  | 13.9  | 6.7   | 8.5   | 7.7   | 18.22         | 31.26           |  |
| 7-Feb   | 6.2                     | 7.4   | 9.9   | Z                         | 15.5 | 17.4  | 17.1  | 20.7  | 17.8  | 12.8  | 8.6   | 7.6   | 9.9   | 8.0   | 7.9   | 7.9   | 8.2   | 9.9   | 12.3  | 10.6  | 9.3   | 8.8   | 8.7   | 7.4   | 10.87         | 20.71           |  |
| 8-Feb   | 7.5                     | 7.1   | 6.1   | Z                         | 4.6  | 6.5   | 8.2   | 9.5   | 8.9   | 11.8  | 11.2  | 11.6  | 9.7   | 8.4   | 6.8   | 9.4   | 8.6   | 15.6  | 20.0  | 30.2  | 41.3  | 33.3  | 34.7  | 34.0  | 15.00         | 41.33           |  |
| 9-Feb   | 31.8                    | 23.2  | 20.0  | Z                         | 9.6  | 17.5  | 16.0  | 17.9  | 20.2  | 16.3  | 12.5  | 11.5  | 6.6   | 5.0   | 4.9   | 4.3   | 4.6   | 17.2  | 19.1  | 15.0  | 19.1  | 23.4  | 15.2  | 18.1  | 15.18         | 31.79           |  |
| 10-Feb  | 14.0                    | 9.3   | 9.9   | Z                         | 4.6  | 6.2   | 5.5   | 4.6   | 5.8   | 5.0   | 4.2   | 4.3   | 4.6   | 5.8   | 8.5   | 9.0   | 9.4   | 18.1  | 27.3  | 37.3  | 35.2  | 25.8  | 25.5  | 8.0   | 12.53         | 37.29           |  |
| 11-Feb  | 3.6                     | 4.4   | 4.4   | Z                         | 1.4  | 2.1   | 2.7   | 5.4   | 15.6  | 16.1  | 9.1   | 4.2   | 2.5   | 2.4   | 2.2   | 3.0   | 4.9   | 23.3  | 46.2  | 45.4  | 44.4  | 39.5  | 26.6  | 23.1  | 14.46         | 46.23           |  |
| 12-Feb  | 12.6                    | 14.4  | 5.6   | Z                         | 3.8  | 3.1   | 3.0   | 3.0   | 3.0   | 2.9   | 2.3   | 2.7   | 3.3   | 2.6   | 4.5   | 5.7   | 5.9   | 8.2   | 6.3   | 5.8   | 7.1   | 2.4   | 2.1   | 1.4   | 4.86          | 14.44           |  |
| 13-Feb  | 3.2                     | 5.8   | 5.3   | Z                         | 14.7 | 13.0  | 12.9  | 15.3  | 8.2   | 6.3   | 6.0   | 4.9   | 6.2   | 8.7   | 9.9   | 5.7   | 8.7   | 9.0   | 1.6   | 7.8   | 1.2   | 0.9   | 0.9   | 0.8   | 6.83          | 15.35           |  |
| 14-Feb  | 1.3                     | 5.0   | 6.4   | Z                         | 10.4 | 11.7  | 2.1   | 3.0   | 5.0   | 4.4   | 5.1   | 2.2   | 3.3   | 4.3   | 4.8   | 5.6   | 4.9   | 8.3   | 9.3   | 9.6   | 5.5   | 8.1   | 20.9  | 28.1  | 7.36          | 28.09           |  |
| 15-Feb  | 29.1                    | 24.4  | 34.1  | Z                         | 28.5 | 20.4  | 16.0  | 19.0  | 32.4  | 28.1  | 14.1  | 6.0   | 4.5   | 3.1   | 3.1   | 5.2   | 8.5   | 13.6  | 8.8   | 7.1   | 10.3  | 8.2   | 8.1   | 9.8   | 14.89         | 34.08           |  |
| 16-Feb  | 10.3                    | DF  | DF    | Z                         | 13.1 | 4.1   | 5.2   | 5.9   | 1.6   | 5.2   | 9.9   | 1.9   | 2.5   | 3.2   | 2.1   | 2.3   | 2.2   | 4.2   | 6.6   | 3.7   | 1.9   | 2.3   | 4.6   | 4.65  | 13.11         |                 |  |
| 17-Feb  | 4.9                     | 15.4  | 16.0  | Z                         | 15.1 | 21.2  | 11.3  | 10.3  | 12.9  | 9.6   | 7.5   | 4.4   | 3.5   | 4.2   | 5.4   | 3.9   | 5.7   | 2.9   | 5.4   | 7.7   | 2.1   | 1.0   | 1.2   | 1.3   | 7.51          | 21.16           |  |
| 18-Feb  | 1.5                     | 3.4   | 11.1  | Z                         | 6.5  | 7.0   | 10.3  | 9.3   | 12.6  | 9.1   | 9.3   | 1.6   | 1.3   | 1.1   | 0.8   | 0.7   | 0.8   | 0.7   | 0.9   | 5.1   | 3.7   | 3.3   | 12.3  | 11.3  | 5.38          | 12.62           |  |
| 19-Feb  | 15.8                    | 9.5   | 10.5  | Z                         | 6.4  | 9.3   | 8.7   | 7.2   | 12.0  | 7.2   | 5.1   | 6.7   | 4.2   | 4.0   | 3.0   | 2.7   | 4.5   | 6.3   | 9.1   | 8.9   | 9.5   | 8.1   | 8.6   | 11.2  | 7.76          | 15.76           |  |
| 20-Feb  | 9.8                     | 11.4  | 6.9   | Z                         | 14.4 | 8.3   | 12.2  | 21.3  | 14.0  | 8.4   | 12.6  | 9.5   | 2.4   | 0.8   | 0.8   | 0.8   | 1.0   | 1.2   | 2.0   | 3.2   | 1.6   | 12.5  | 38.7  | 39.9  | 10.16         | 39.87           |  |
| 21-Feb  | 42.0                    | 30.4  | 27.4  | Z                         | 5.3  | 4.1   | 6.1   | 6.1   | 7.5   | 5.6   | 5.1   | 6.5   | 4.6   | 6.0   | 6.2   | 7.1   | C     | C     | C     | C     | C     | C     | 7.3   | 4.4   | --            | 42.04           |  |
| 22-Feb  | 4.7                     | 4.3   | 6.6   | Z                         | 4.3  | 4.6   | 5.8   | 7.0   | 10.3  | 8.0   | 4.8   | 4.0   | 3.4   | 2.5   | 3.3   | 2.7   | 3.3   | 5.4   | 7.3   | 7.0   | 5.0   | 3.0   | 9.7   | 5.3   | 5.32          | 10.30           |  |
| 23-Feb  | 6.1                     | 2.7   | 3.1   | Z                         | 2.4  | 7.0   | 8.8   | 6.5   | 5.2   | 10.2  | 4.3   | 8.6   | 4.9   | 3.6   | 8.6   | 9.2   | 4.3   | 3.4   | 3.1   | 6.2   | 6.4   | 12.0  | 11.8  | 8.3   | 6.39          | 12.04           |  |
| 24-Feb  | 4.8                     | 7.7   | 6.5   | Z                         | 6.8  | 8.9   | 9.1   | 3.8   | 3.2   | 4.2   | 2.9   | 2.1   | 2.4   | 2.2   | 2.3   | 2.2   | 2.7   | 3.5   | 3.6   | 5.7   | 8.0   | 4.5   | 4.3   | 9.2   | 4.81          | 9.20            |  |
| 25-Feb  | 10.4                    | 5.8   | 1.0   | Z                         | 2.0  | 1.3   | 9.4   | 6.9   | 4.9   | 6.3   | 8.6   | 3.7   | 2.6   | 3.1   | 4.6   | 2.9   | 0.9   | 1.2   | 0.9   | 5.7   | 4.1   | 7.5   | 2.9   | 9.5   | 4.61          | 10.39           |  |
| 26-Feb  | 17.7                    | 10.3  | 11.8  | Z                         | 7.8  | 10.0  | 11.8  | 32.0  | 46.2  | 36.4  | 10.1  | 3.0   | 3.3   | 3.0   | 2.0   | 2.1   | 3.0   | 4.3   | 6.9   | 6.1   | 3.8   | 2.1   | 3.7   | 5.6   | 10.56         | 46.18           |  |
| 27-Feb  | 8.6                     | 8.6   | 7.0   | Z                         | 8.2  | 7.4   | 8.3   | 12.3  | 10.9  | 7.8   | 3.0   | 2.9   | 3.7   | 3.6   | 7.9   | 5.3   | 1.1   | 0.8   | 0.8   | 11.1  | 33.3  | 11.1  | 6.2   | 7.2   | 7.70          | 33.33           |  |
| 28-Feb  | 5.1                     | 5.5   | 6.7   | Z                         | 28.3 | 35.7  | 38.5  | 35.3  | 33.9  | 30.5  | 20.5  | 14.4  | 3.7   | 3.7   | 3.7   | 2.3   | 0.9   | 1.5   | 32.5  | 36.8  | 36.1  | 24.8  | 7.5   | 5.2   | 17.96         | 38.45           |  |
|   |                         | 12.46   | 11.16 | 10.86                     | --   | 9.83  | 11.35 | 11.36 | 12.65 | 14.01 | 11.94 | 9.12  | 8.06  | 6.23  | 4.97  | 5.48  | 5.49  | 6.60  | 10.94 | 14.26 | 15.81 | 16.00 | 13.10 | 12.79 | 12.45         | Diurnal Average |  |
|   |                         | 42.04   | 30.43 | 34.08                     | --   | 28.53 | 35.73 | 38.45 | 35.31 | 46.18 | 36.38 | 23.20 | 31.26 | 27.47 | 13.50 | 11.33 | 15.44 | 25.44 | 44.34 | 47.79 | 45.40 | 44.43 | 39.45 | 38.75 | 39.87         | Diurnal Maximum |  |
| Z - zerospan                                    |                         | C - Calibration   |       | DF - DAS Failure          |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               |                 |  |
| Alberta Ambient Air Quality Objectives (AAAQO): |                         | 1-hr 159 ppb  |       | 24-hr 106 ppb             |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               |                 |  |



**WCAS - Hinton**  
**Summary of Hourly Averages**

**NOx (NO<sub>x</sub>) - ppb**  
**February 2018**

| <b>Maximum Value: 171.62 ppb on Feb 26 09:00</b> <b>Maximum Daily Average: 53.39 ppb on Feb 5</b>  |                         |      |      |   |      |      |      |       |       |      |      |      |      |      |      |      |      |       |       |       |       | <b>Hours in Service: 672</b>          |      |      |               |               |
|--|-------------------------|------|------|---|------|------|------|-------|-------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|---------------------------------------|------|------|---------------|---------------|
| <b>Minimum Value: 0.8 ppb on Feb 14 00:00</b> <b>Minimum Daily Average: 5.26 ppb on Feb 24</b>   |                         |      |      |   |      |      |      |       |       |      |      |      |      |      |      |      |      |       |       |       |       | <b>Hours of Data: 635</b>             |      |      |               |               |
| <b>Maximum Diurnal Average: 27.69 ppb at hour 21</b> <b>Minimum Diurnal Average: 7.81 ppb at hour 14</b>   |                         |      |      |   |      |      |      |       |       |      |      |      |      |      |      |      |      |       |       |       |       | <b>Hours of Missing Data: 37</b>      |      |      |               |               |
| <b>Monthly Average: 16.070 ppb</b> <b>Percentiles: P<sub>1</sub> = 1.0 P<sub>10</sub> = 3.1 Q<sub>1</sub> = 5.3 Median = 9.3 Q<sub>3</sub> = 16.0 P<sub>90</sub> = 38.6 P<sub>99</sub> = 103.9</b> |                         |      |      |   |      |      |      |       |       |      |      |      |      |      |      |      |      |       |       |       |       | <b>Hours of Calibration: 35</b>       |      |      |               |               |
|  |                         |      |      |   |      |      |      |       |       |      |      |      |      |      |      |      |      |       |       |       |       | <b>Percent Operational Time: 99.7</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-Feb  | 17.5                    | 9.2  | 8.9  | Z | 10.1 | 19.2 | 26.7 | 27.2  | 30.2  | 22.9 | 15.8 | 16.2 | 15.7 | 14.1 | 16.6 | 13.9 | 15.4 | 15.1  | 9.6   | 10.2  | 11.1  | 8.9                                   | 6.9  | 7.7  | 15.19         | 30.21         |
| 2-Feb  | 7.9                     | 7.8  | 10.6 | Z | 8.9  | 10.3 | 10.6 | 12.1  | 14.1  | 11.2 | 11.2 | 10.9 | 11.3 | 12.4 | 12.6 | 16.1 | 16.2 | 18.4  | 15.5  | 11.9  | 15.2  | 13.3                                  | 12.9 | 8.8  | 12.19         | 18.45         |
| 3-Feb  | 6.2                     | 4.8  | 5.0  | Z | 7.1  | 6.6  | 5.2  | 3.9   | 3.7   | 1.9  | 2.9  | 4.5  | 6.6  | 3.8  | 5.9  | 6.6  | 10.3 | 41.2  | 67.3  | 83.6  | 49.1  | 26.0                                  | 16.4 | 17.4 | 16.78         | 83.58         |
| 4-Feb  | 16.6                    | 16.8 | 11.8 | Z | 10.7 | 12.9 | 13.9 | 23.5  | 29.7  | 52.6 | 56.6 | 40.3 | 24.1 | 13.7 | 18.6 | 24.5 | 42.5 | 40.2  | 73.6  | 86.3  | 110.5 | 82.7                                  | 73.7 | 39.7 | 39.81         | 110.53        |
| 5-Feb  | 39.3                    | 31.3 | 24.7 | Z | 22.4 | 12.7 | 16.4 | 15.4  | 23.1  | 31.3 | 36.9 | 71.8 | 63.6 | 19.8 | 11.6 | 11.5 | 32.8 | 125.0 | 161.2 | 147.4 | 116.3 | 84.9                                  | 59.8 | 68.9 | 53.39         | 161.15        |
| 6-Feb  | 32.8                    | 27.3 | 28.2 | Z | 14.8 | 46.3 | 51.4 | 49.6  | 36.2  | 39.9 | 57.1 | 95.0 | 64.6 | 23.5 | 15.2 | 13.5 | 14.6 | 17.5  | 23.2  | 16.3  | 16.0  | 7.0                                   | 9.1  | 7.9  | 30.73         | 95.01         |
| 7-Feb  | 6.5                     | 8.3  | 11.4 | Z | 17.5 | 18.1 | 18.6 | 25.8  | 24.3  | 16.5 | 11.4 | 10.8 | 15.3 | 12.2 | 11.5 | 10.6 | 10.8 | 12.3  | 14.5  | 11.7  | 10.3  | 9.6                                   | 9.4  | 8.0  | 13.27         | 25.79         |
| 8-Feb  | 7.8                     | 7.3  | 6.5  | Z | 4.8  | 7.3  | 9.6  | 11.3  | 10.7  | 14.5 | 14.4 | 17.6 | 15.6 | 13.9 | 10.3 | 14.5 | 12.8 | 19.4  | 21.5  | 43.8  | 77.5  | 44.9                                  | 47.8 | 50.1 | 21.04         | 77.46         |
| 9-Feb  | 43.4                    | 27.2 | 21.1 | Z | 9.8  | 18.1 | 16.6 | 19.5  | 22.0  | 23.3 | 21.6 | 22.8 | 12.1 | 8.8  | 8.3  | 6.5  | 6.1  | 20.7  | 20.1  | 15.6  | 29.4  | 33.5                                  | 19.1 | 25.7 | 19.62         | 43.40         |
| 10-Feb   | 14.9                    | 9.5  | 10.5 | Z | 4.7  | 6.7  | 6.0  | 5.2   | 6.9   | 6.3  | 5.6  | 6.1  | 6.9  | 8.8  | 12.0 | 11.0 | 11.4 | 22.3  | 45.1  | 62.9  | 61.0  | 37.5                                  | 28.4 | 8.1  | 17.29         | 62.94         |
| 11-Feb   | 3.8                     | 4.7  | 4.6  | Z | 1.4  | 2.4  | 3.1  | 6.0   | 19.0  | 20.6 | 13.2 | 6.2  | 3.8  | 3.7  | 3.5  | 4.6  | 6.5  | 32.1  | 96.2  | 80.2  | 78.4  | 58.3                                  | 28.8 | 25.0 | 22.01         | 96.21         |
| 12-Feb   | 13.6                    | 15.1 | 5.5  | Z | 4.3  | 3.8  | 4.5  | 4.3   | 4.1   | 4.1  | 4.6  | 5.6  | 5.4  | 4.1  | 7.5  | 10.6 | 7.2  | 9.0   | 6.6   | 6.0   | 7.4   | 2.5                                   | 2.2  | 1.5  | 6.06          | 15.12         |
| 13-Feb   | 3.8                     | 6.0  | 5.4  | Z | 16.3 | 14.3 | 14.6 | 16.8  | 8.7   | 6.9  | 6.7  | 5.9  | 7.6  | 11.2 | 12.2 | 6.7  | 10.3 | 10.1  | 1.7   | 8.5   | 1.3   | 0.9                                   | 0.9  | 0.8  | 7.72          | 16.80         |
| 14-Feb   | 1.3                     | 5.0  | 6.5  | Z | 11.3 | 12.9 | 2.3  | 3.3   | 6.2   | 5.8  | 7.1  | 3.3  | 5.3  | 6.6  | 6.9  | 8.8  | 6.7  | 11.3  | 12.0  | 11.2  | 5.9   | 9.4                                   | 25.2 | 31.1 | 8.93          | 31.12         |
| 15-Feb   | 31.2                    | 26.7 | 41.9 | Z | 36.6 | 21.8 | 17.9 | 27.0  | 75.3  | 66.8 | 29.6 | 9.5  | 7.5  | 5.0  | 4.5  | 7.1  | 10.9 | 15.8  | 9.4   | 7.9   | 10.9  | 8.8                                   | 8.8  | 10.8 | 21.38         | 75.33         |
| 16-Feb   | 11.2                    | DF   | DF   | Z | 14.1 | 4.3  | 5.3  | 7.2   | 1.7   | 6.4  | 12.9 | 2.4  | 3.5  | 4.8  | 2.7  | 2.7  | 2.4  | 4.7   | 8.7   | 4.1   | 2.0   | 2.3                                   | 5.4  | 5.44 | 14.13         |               |
| 17-Feb   | 5.1                     | 19.0 | 16.5 | Z | 15.5 | 28.2 | 13.2 | 12.6  | 15.7  | 12.3 | 10.4 | 6.5  | 5.4  | 7.6  | 8.1  | 5.5  | 8.0  | 3.2   | 5.8   | 9.7   | 2.1   | 1.0                                   | 1.3  | 1.3  | 9.31          | 28.16         |
| 18-Feb   | 1.5                     | 3.4  | 11.3 | Z | 6.5  | 7.5  | 10.6 | 9.4   | 13.3  | 10.7 | 12.6 | 2.2  | 1.7  | 1.5  | 1.0  | 0.9  | 1.0  | 0.9   | 1.0   | 6.1   | 3.8   | 3.3                                   | 12.5 | 11.5 | 5.84          | 13.33         |
| 19-Feb   | 16.1                    | 9.6  | 10.6 | Z | 6.4  | 9.3  | 8.8  | 7.1   | 13.7  | 9.3  | 7.6  | 10.4 | 8.0  | 6.4  | 5.2  | 4.1  | 6.0  | 8.0   | 10.3  | 9.2   | 9.7   | 8.3                                   | 8.7  | 11.4 | 8.87          | 16.05         |
| 20-Feb   | 9.9                     | 11.6 | 7.0  | Z | 14.6 | 8.3  | 12.4 | 22.1  | 15.4  | 10.4 | 19.2 | 14.6 | 3.2  | 1.0  | 1.1  | 1.1  | 1.2  | 1.4   | 2.3   | 3.4   | 1.8   | 13.3                                  | 47.7 | 46.9 | 11.73         | 47.70         |
| 21-Feb   | 62.2                    | 35.0 | 30.8 | Z | 7.2  | 6.8  | 9.7  | 7.7   | 7.7   | 7.6  | 6.3  | 7.7  | 5.7  | 6.3  | 6.3  | 7.1  | C    | C     | C     | C     | C     | C                                     | 8.1  | 5.1  | --            | 62.18         |
| 22-Feb   | 5.2                     | 4.7  | 6.9  | Z | 4.5  | 4.7  | 6.0  | 7.3   | 11.2  | 10.3 | 8.6  | 6.8  | 5.9  | 4.1  | 5.3  | 4.1  | 4.5  | 6.4   | 7.7   | 7.2   | 5.1   | 3.1                                   | 10.1 | 5.3  | 6.29          | 11.23         |
| 23-Feb   | 6.1                     | 2.7  | 3.4  | Z | 2.6  | 9.8  | 9.5  | 6.6   | 5.4   | 11.4 | 5.0  | 11.1 | 6.1  | 4.8  | 11.3 | 10.8 | 4.7  | 3.9   | 3.3   | 6.3   | 6.5   | 12.3                                  | 12.1 | 8.4  | 7.13          | 12.28         |
| 24-Feb   | 4.8                     | 7.7  | 6.4  | Z | 6.9  | 9.0  | 9.5  | 4.3   | 3.8   | 5.2  | 3.9  | 2.9  | 3.4  | 3.1  | 3.1  | 2.9  | 3.3  | 3.9   | 3.8   | 5.8   | 8.2   | 4.6                                   | 4.4  | 9.7  | 5.26          | 9.74          |
| 25-Feb   | 11.4                    | 6.4  | 1.1  | Z | 2.1  | 1.3  | 9.9  | 7.7   | 6.5   | 7.9  | 11.6 | 5.2  | 3.7  | 4.1  | 6.3  | 3.6  | 1.0  | 1.5   | 1.0   | 5.9   | 4.6   | 10.9                                  | 3.0  | 10.4 | 5.52          | 11.57         |
| 26-Feb   | 18.0                    | 10.4 | 11.9 | Z | 7.8  | 10.0 | 18.1 | 107.9 | 171.6 | 95.5 | 16.2 | 4.2  | 4.8  | 4.5  | 2.8  | 2.9  | 3.9  | 5.0   | 7.3   | 6.4   | 3.9   | 2.2                                   | 3.8  | 6.0  | 22.84         | 171.62        |
| 27-Feb   | 9.3                     | 9.0  | 7.1  | Z | 8.5  | 7.6  | 8.4  | 12.6  | 12.2  | 9.7  | 3.9  | 4.1  | 5.1  | 4.9  | 11.6 | 7.7  | 1.5  | 0.9   | 1.0   | 14.4  | 48.9  | 14.8                                  | 6.3  | 7.2  | 9.42          | 48.93         |
| 28-Feb   | 5.1                     | 5.8  | 7.6  | Z | 36.9 | 56.2 | 85.8 | 71.5  | 93.4  | 70.1 | 42.2 | 25.6 | 5.2  | 5.2  | 5.3  | 3.0  | 1.1  | 1.8   | 50.3  | 59.3  | 48.8  | 29.7                                  | 8.0  | 5.3  | 31.44         | 93.38         |
|  |                         |      |      |   |      |      |      |       |       |      |      |      |      |      |      |      |      |       |       |       |       | Diurnal Average                       |      |      |               |               |
| 14.73 12.31 11.97 -- 11.11 13.80 15.12 19.03 24.70 20.95 16.02 15.74 11.64 7.81 8.20 7.97 9.38 16.65 25.04 27.62 27.69 19.76 17.06 15.91   |                         |      |      |   |      |      |      |       |       |      |      |      |      |      |      |      |      |       |       |       |       | Diurnal Maximum                       |      |      |               |               |
| 62.18 34.97 41.90 -- 36.85 56.21 85.77 107.93 171.62 95.47 57.08 95.01 64.56 23.50 18.64 24.46 42.49 124.95 161.15 147.36 116.29 84.92 73.70 68.91   |                         |      |      |   |      |      |      |       |       |      |      |      |      |      |      |      |      |       |       |       |       |                                       |      |      |               |               |
| Z - zerospan      C - Calibration      DF - DAS Failure  |                         |      |      |   |      |      |      |       |       |      |      |      |      |      |      |      |      |       |       |       |       |                                       |      |      |               |               |
| Alberta Ambient Air Quality Objectives (AAAQO): 1-hr --- ppb      24-hr --- ppb  |                         |      |      |   |      |      |      |       |       |      |      |      |      |      |      |      |      |       |       |       |       |                                       |      |      |               |               |



**WCAS - Hinton**  
**Summary of Hourly Averages**

**PM2.5 (PM<sub>2.5</sub>) - µg/m<sup>3</sup>**  
**February 2018**

| Maximum Value: 37.92 µg/m <sup>3</sup> on Feb 8 20:00  |                         | Maximum Daily Average: 13.10 µg/m <sup>3</sup> on Feb 6  |      | Hours in Service: 672          |      |      |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |      |      |  |               |               |
|--|-------------------------|--|------|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|------|------|--|---------------|---------------|
| Minimum Value: 0.0 µg/m <sup>3</sup> on Feb 16 05:00   |                         | Minimum Daily Average: 1.27 µg/m <sup>3</sup> on Feb 16  |      | Hours of Data: 669             |      |      |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |      |      |  |               |               |
| Maximum Diurnal Average: 9.16 µg/m <sup>3</sup> at hour 20   |                         | Minimum Diurnal Average: 4.04 µg/m <sup>3</sup> at hour 17   |      | Hours of Missing Data: 3       |      |      |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |      |      |  |               |               |
| Monthly Average: 6.164 µg/m <sup>3</sup>   |                         | Percentiles: P <sub>1</sub> = 0.3 P <sub>10</sub> = 1.3 Q <sub>1</sub> = 2.6 Median = 4.9 Q <sub>3</sub> = 8.0 P <sub>90</sub> = 12.5 P <sub>99</sub> = 24.8 |      | Hours of Calibration: 0        |      |      |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |      |      |  |               |               |
|  |                         |  |      | Percent Operational Time: 99.6 |      |      |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |      |      |  |               |               |
| 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-Feb  | 9.0                     | 6.6  | 6.5  | 7.9                            | 6.5  | 6.4  | 6.3  | 6.5  | 9.1  | 20.0 | 13.7 | 11.9 | 12.3 | 14.4 | 13.0 | 12.3 | 7.4 | 8.2  | 6.5  | 5.2  | 5.9  | 7.0  | 6.7  | 5.8  | 8.97          | 20.05         |
| 2-Feb  | 5.1                     | 4.7  | 4.9  | 5.7                            | 6.4  | 5.4  | 4.5  | 3.9  | 3.7  | 4.0  | 4.1  | 4.7  | 5.2  | 7.2  | 7.1  | 6.5  | 6.5 | 6.3  | 6.1  | 6.6  | 8.4  | 6.1  | 8.0  | 4.9  | 5.66          | 8.41          |
| 3-Feb  | 2.5                     | 3.2  | 3.8  | 4.3                            | 4.0  | 3.4  | 2.8  | 2.3  | 2.2  | 1.9  | 2.2  | 2.2  | 3.0  | 2.6  | 2.6  | 4.1  | 3.1 | 10.0 | 21.2 | 24.9 | 14.5 | 8.6  | 8.1  | 6.8  | 6.02          | 24.87         |
| 4-Feb  | 6.8                     | 5.8  | 5.9  | 10.4                           | 7.1  | 4.0  | 5.4  | 6.6  | 4.4  | 6.2  | 10.4 | 11.6 | 5.6  | 3.6  | 4.7  | 5.1  | 9.2 | 5.9  | 13.1 | 17.4 | 17.5 | 19.8 | 23.9 | 12.8   | 9.31          | 23.93         |
| 5-Feb  | 14.9                    | 12.3   | 6.9  | 9.7                            | 11.9 | 7.1  | 5.2  | 5.0  | 3.9  | 5.4  | 10.0 | 17.7 | 15.1 | 8.0  | 5.3  | 3.4  | 3.0 | 17.1 | 18.8 | 29.0 | 12.4 | 12.7 | 8.5  | 16.7   | 10.83         | 28.96         |
| 6-Feb  | 7.5                     | 7.1  | 6.5  | 6.8                            | 6.4  | 12.0 | 16.9 | 16.0 | 24.7 | 16.2 | 14.6 | 22.2 | 34.9 | 20.6 | 11.7 | 8.1  | 6.6 | 10.2 | 13.2 | 14.1 | 10.7 | 10.2 | 8.3  | 9.0  | 13.10         | 34.94         |
| 7-Feb  | 14.9                    | 18.4   | 15.0 | 11.2                           | 11.2 | 11.1 | 11.2 | 12.3 | 11.2 | 9.3  | 7.7  | 8.9  | 7.8  | 6.4  | 6.3  | 6.0  | 5.2 | 6.0  | 6.3  | 4.5  | 5.2  | 5.6  | 4.5  | 3.9  | 8.74          | 18.41         |
| 8-Feb  | 3.6                     | 3.7  | 3.9  | 4.6                            | 4.7  | 4.2  | 4.5  | 4.0  | 3.9  | 4.0  | 4.4  | 5.8  | 6.7  | 6.8  | 9.0  | 7.6  | 8.3 | 6.5  | 10.4 | 37.9 | 19.7 | 13.3 | 23.6 | 13.2   | 8.92          | 37.92         |
| 9-Feb  | 7.8                     | 5.2  | 4.4  | 3.7                            | 4.7  | 9.3  | 11.7 | 9.4  | 8.1  | 7.4  | 7.5  | 9.3  | 6.8  | 5.6  | 5.1  | 4.9  | 4.5 | 7.9  | 8.6  | 7.3  | 6.6  | 5.3  | 4.0  | 4.9  | 6.67          | 11.72         |
| 10-Feb   | 6.1                     | 5.6  | 4.9  | 3.7                            | 2.4  | 2.5  | 2.4  | 2.0  | 2.8  | 3.0  | 2.7  | 2.6  | 2.6  | 3.2  | 3.8  | 4.0  | 4.1 | 7.5  | 18.5 | 17.5 | 17.1 | 11.3 | 14.5 | 4.0  | 6.21          | 18.49         |
| 11-Feb   | 1.9                     | 1.4  | 1.9  | 2.2                            | 1.9  | 1.7  | 3.0  | 3.5  | 6.2  | 5.9  | 5.5  | 3.9  | 4.1  | 4.3  | 4.3  | 5.5  | 4.9 | 13.0 | 20.4 | 9.6  | 9.9  | 12.1 | 7.1  | 5.7  | 5.83          | 20.39         |
| 12-Feb   | 6.1                     | 10.5   | 4.2  | 3.5                            | 1.6  | 1.2  | 1.7  | 1.1  | 1.0  | 1.0  | 1.1  | 1.0  | 1.1  | 1.4  | 1.9  | 6.2  | 2.5 | 3.4  | 3.5  | 5.3  | 7.0  | 1.7  | 1.5  | 1.5  | 2.97          | 10.51         |
| 13-Feb   | 1.5                     | 4.5  | 3.8  | 9.1                            | 15.3 | 12.5 | 10.9 | 10.9 | 2.9  | 1.3  | 1.2  | 1.5  | 1.5  | 1.8  | 2.3  | 1.3  | 0.7 | 1.2  | 0.4  | 1.0  | 0.4  | 0.4  | 0.6  | 0.6  | 3.65          | 15.31         |
| 14-Feb   | 0.9                     | 2.2  | 4.1  | 3.2                            | 5.1  | 3.2  | 0.8  | 1.2  | 1.0  | 1.2  | 1.3  | 1.1  | 1.9  | 3.3  | 6.4  | 6.8  | 7.4 | 8.2  | 9.0  | 16.1 | 9.2  | 2.6  | 14.5 | 18.8   | 5.40          | 18.75         |
| 15-Feb   | 22.4                    | 10.2   | 13.6 | 7.4                            | 8.7  | 4.1  | 2.3  | 2.7  | 5.6  | 9.6  | 5.8  | 3.9  | 3.8  | 2.8  | 1.8  | 2.9  | 6.5 | 8.5  | 5.6  | 5.9  | 8.5  | 7.3  | 8.4  | 9.7  | 7.00          | 22.45         |
| 16-Feb   | 10.1                    | DF   | DF   | DF                             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1  | 0.4  | 3.3  | 0.4  | 0.5  | 0.7  | 1.3  | 1.0 | 0.8  | 0.9  | 1.4  | 1.6  | 1.5  | 0.9  | 1.9  | 1.27          | 10.12         |
| 17-Feb   | 2.9                     | 20.3   | 5.1  | 5.2                            | 4.5  | 5.5  | 6.9  | 3.6  | 6.2  | 4.7  | 5.5  | 5.4  | 2.6  | 2.6  | 2.2  | 3.4  | 1.5 | 0.6  | 2.1  | 1.8  | 0.4  | 0.4  | 0.4  | 0.3  | 3.92          | 20.25         |
| 18-Feb   | 0.6                     | 2.1  | 5.6  | 11.4                           | 5.3  | 3.4  | 5.4  | 3.2  | 3.5  | 3.3  | 7.6  | 1.3  | 1.5  | 1.3  | 1.1  | 1.1  | 0.9 | 0.4  | 0.4  | 1.2  | 1.2  | 1.4  | 5.2  | 4.9  | 3.05          | 11.43         |
| 19-Feb   | 8.2                     | 4.1  | 5.4  | 4.3                            | 4.0  | 4.7  | 4.2  | 3.2  | 2.7  | 3.0  | 4.5  | 6.2  | 4.2  | 1.6  | 1.6  | 2.1  | 2.1 | 2.2  | 3.1  | 3.9  | 4.8  | 3.6  | 2.7  | 4.6  | 3.79          | 8.24          |
| 20-Feb   | 5.0                     | 3.7  | 2.7  | 1.9                            | 3.2  | 3.7  | 5.6  | 6.1  | 1.9  | 3.3  | 5.3  | 4.4  | 1.4  | 0.7  | 0.7  | 1.7  | 7.1 | 8.3  | 12.6 | 3.1  | 1.4  | 6.8  | 20.5 | 12.4   | 5.14          | 20.55         |
| 21-Feb   | 13.1                    | 10.0   | 7.0  | 4.1                            | 1.0  | 1.0  | 1.1  | 1.0  | 1.1  | 1.4  | 1.2  | 1.2  | 1.4  | 2.1  | 1.7  | 1.9  | 3.5 | 3.2  | 4.2  | 5.3  | 3.3  | 5.1  | 5.1  | 2.5  | 3.44          | 13.05         |
| 22-Feb   | 2.2                     | 2.1  | 4.8  | 2.1                            | 2.1  | 2.1  | 2.5  | 2.4  | 2.7  | 2.6  | 4.9  | 2.6  | 2.7  | 2.7  | 2.9  | 3.0  | 3.0 | 3.9  | 7.1  | 7.8  | 6.6  | 3.2  | 4.2  | 7.6  | 3.66          | 7.77          |
| 23-Feb   | 6.7                     | 2.3  | 3.3  | 2.5                            | 1.7  | 2.0  | 8.5  | 5.8  | 4.1  | 11.8 | 3.9  | 11.6 | 4.3  | 3.6  | 9.3  | 10.5 | 4.5 | 2.7  | 2.6  | 5.2  | 6.8  | 11.8 | 13.4 | 9.4  | 6.18          | 13.42         |
| 24-Feb   | 4.9                     | 9.0  | 7.3  | 5.9                            | 7.1  | 11.3 | 11.4 | 1.6  | 1.9  | 3.4  | 3.0  | 2.9  | 3.0  | 2.8  | 2.4  | 2.8  | 2.5 | 2.4  | 2.7  | 5.9  | 9.7  | 4.2  | 4.2  | 11.5   | 5.15          | 11.50         |
| 25-Feb   | 12.4                    | 7.9  | 1.6  | 4.9                            | 2.8  | 1.8  | 12.2 | 3.5  | 1.9  | 10.1 | 15.7 | 4.5  | 2.7  | 4.8  | 6.8  | 4.8  | 0.7 | 0.9  | 0.7  | 2.1  | 1.4  | 1.5  | 1.0  | 4.9  | 4.65          | 15.72         |
| 26-Feb   | 5.9                     | 3.8  | 7.9  | 3.5                            | 2.1  | 7.9  | 5.8  | 13.2 | 13.4 | 11.0 | 6.8  | 3.7  | 4.8  | 5.7  | 2.7  | 3.0  | 4.7 | 5.2  | 9.4  | 8.3  | 4.8  | 3.0  | 4.5  | 7.5  | 6.19          | 13.37         |
| 27-Feb   | 10.8                    | 9.0  | 11.0 | 5.9                            | 11.2 | 9.0  | 9.6  | 14.5 | 17.1 | 11.5 | 3.4  | 4.1  | 5.6  | 4.3  | 13.5 | 7.1  | 1.3 | 0.4  | 0.4  | 3.8  | 9.5  | 5.9  | 6.0  | 4.9  | 7.48          | 17.06         |
| 28-Feb   | 4.6                     | 2.5  | 3.2  | 8.1                            | 25.8 | 19.9 | 19.1 | 26.7 | 28.0 | 11.9 | 6.4  | 8.7  | 3.0  | 3.0  | 3.3  | 2.0  | 0.8 | 0.9  | 7.9  | 4.3  | 5.4  | 7.5  | 4.9  | 2.9  | 8.78          | 28.02         |
|  |                         |  |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |      |      | Diurnal Average  |               |               |
|  |                         |  |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |      |      | Diurnal Maximum  |               |               |
|  |                         |  |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |      |      | 7.09 6.59 5.75 5.67 6.03 5.73 6.49 6.15 6.26 6.23 5.74 6.00 5.36 4.57 4.79 4.62 4.04 5.43 7.69 9.16 7.49 6.42 7.69 6.91                        |               |               |
|  |                         |  |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |      |      | 22.45 20.25 14.98 11.43 25.82 19.94 19.07 26.73 28.02 20.05 15.72 22.18 34.94 20.58 13.50 12.31 9.17 17.15 21.18 37.92 19.67 19.82 23.93 18.75 |               |               |
| DF - DAS Failure   |                         |  |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |      |      |  |               |               |
| Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 80 ul/m <sup>3</sup> 24-hr 30 ul/m <sup>3</sup> |                         |  |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |      |      |  |               |               |

# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton  
 Calibration Date: February 21, 2018  
 Parameter: H<sub>2</sub>S

|                                      |   |  |
|--------------------------------------|---|--|
| Instrument: Teco 43C                 | Serial Number: 45c-71671-369                                  | Previous Calibration Date: January 24 2018 |
| Calibration: Routine                 | Calibration Equipment: SABIO 2010 sn # 04300810               | Barometric Pressure: 26.50" Hg             |
| Calibration Method: Std.Gas Dilution | Permeation Device ID: Cyl DT0014794 10.5 ppm H <sub>2</sub> S | Temperature: 25.5° C                       |
| Permeation Rate: 0 ng/min            | In Service: Oct 21 2016; Exp Oct 2019                         | Technician: Dean Yustak                    |

| Instrument Settings | H <sub>2</sub> S bkg ppb | H <sub>2</sub> S Coefficient | Monitoring Range |
|---------------------|--------------------------|------------------------------|------------------|
| Previous            | 18.9                     | 1.324                        | 100 ppb          |
| Current             | 20.4                     | 1.410                        | 100 ppb          |

Final Zero: -0.4 ug/m<sup>3</sup>                      Final Span: 45.5 ug/m<sup>3</sup>                      As Found Correction Factor: 1.073

| Calibration System Flow Rate (LPM) | Calculated Concentration C <sub>c</sub> (ug/m <sup>3</sup> ) | Raw Count Output R <sub>c</sub> | Indicated Concentration C <sub>i</sub> (ug/m <sup>3</sup> ) | Correction Factor C <sub>c</sub> /C <sub>i</sub> |
|------------------------------------|--|---------------------------------|---|--|
| 0.039                              | 80.9   | 24201.7                         | 80.9  | 1.001  |
| 0.027                              | 56.0   | 16696.8                         | 55.7  | 1.006  |
| 0.016                              | 33.1   | 10176.5                         | 33.8  | 0.981  |
| 0.000                              | 0.0  | 19.0                            | -0.3  |  |

| Results of Linear Regression     |            |             |                |
|----------------------------------|------------|-------------|----------------|
| R <sub>c</sub> vs C <sub>c</sub> | Slope      | Intercept   | R <sup>2</sup> |
| Previous                         | 298.110100 | -130.949500 | 0.999741       |
| Current                          | 297.995100 | 105.186400  | 0.999829       |
| C <sub>i</sub> vs C <sub>c</sub> |            |             |                |
| Current                          | 1.000000   | 0.000000    | 0.999829       |

Average Correction Factor: 0.996

Previous Correction Factor: 0.994

Current Correction Factor: 1.001

Percent Change of Correction Factor: 0.6

Comments: Sample Flow: 0.444 lpm

## Station 906 H2S February 21, 2018: Initial Zero, As Found, and Final Zero/Span

16:23:03 -110  
 16:23:57 -137  
 16:25:01 -47  
 16:26:06 2  
 16:26:59 -6  
 16:28:03 33  
 16:28:57 18  
 16:30:01 -38  
 16:31:06 -10  
 16:31:59 -56

**Initial Zero**

Average = -35.1 (0.3 ug/m3)

19:31:00 -27  
 19:32:05 -37  
 19:32:58 -84  
 19:34:02 -14  
 19:34:56 66  
 19:36:00 29  
 19:37:05 -92  
 19:37:58 -63  
 19:39:03 16  
 19:39:56 -64

**Final Zero**

Average = -27.0 (-0.4 ug/m3)

17:05:02 23123  
 17:05:56 23228  
 17:07:00 23388  
 17:08:04 23396  
 17:08:58 23368  
 17:10:02 23408  
 17:10:56 23451  
 17:12:00 23445  
 17:13:05 23458  
 17:13:58 23433

**As Found**

Raw Count Average ( $R_c$ ) = 23369.8

Indicated Concentration ( $C_i$ ) = 78.5

Calculated Concentration ( $C_c$ ) = 84.2

Correction Factor ( $C_c/C_i$ ) = 1.073

20:02:59 13706  
 20:04:03 13734  
 20:04:57 13558  
 20:06:01 13708  
 20:06:55 13641  
 20:07:59 13705  
 20:09:03 13631  
 20:09:57 13544  
 20:11:01 13838  
 20:11:55 13723

**Final Span**

Average = 13678.8 (45.5 ug/m3)

Previous Correlation of  $C_c$  vs  $R_c$ :

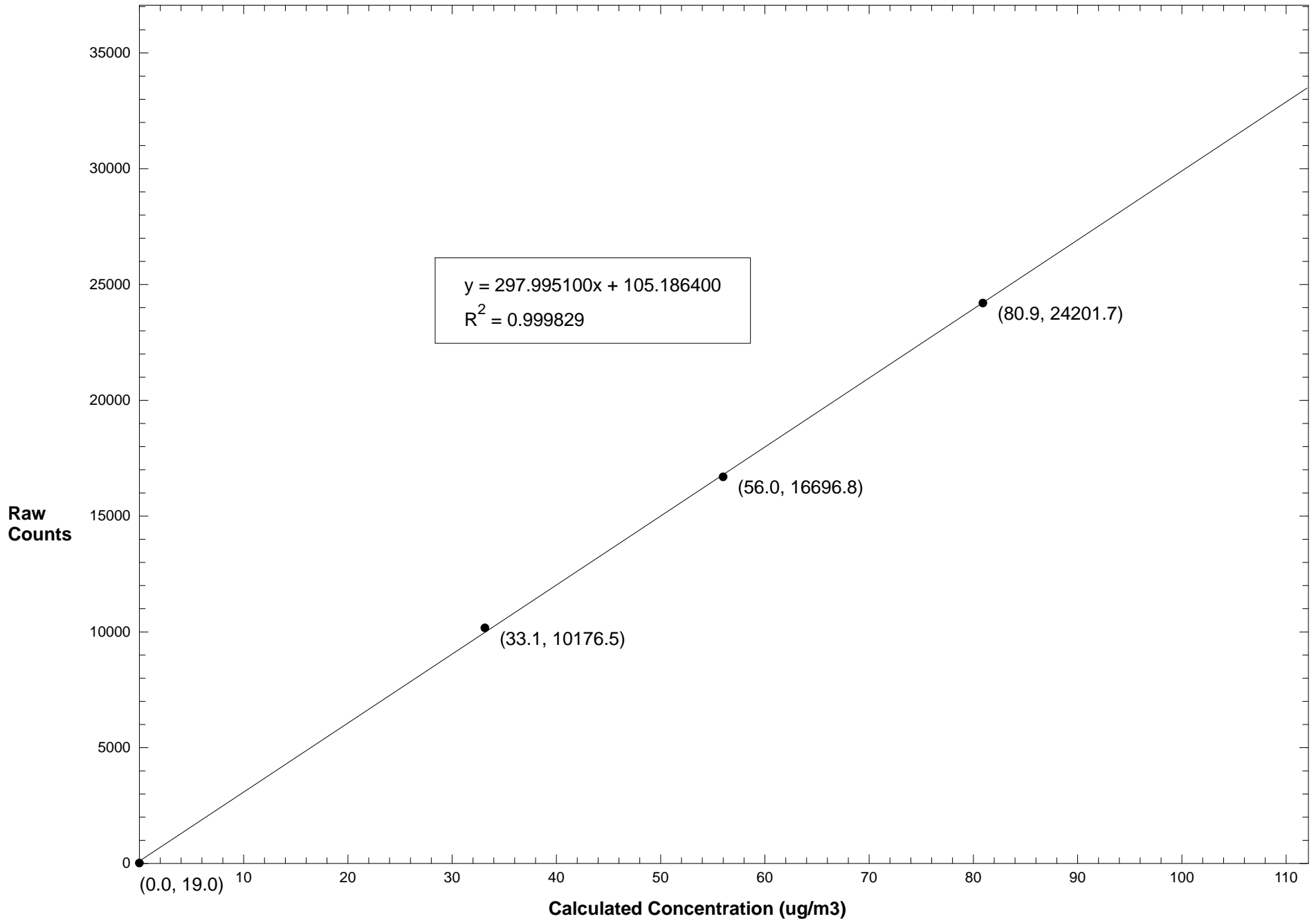
$$y = 0.003354465x + 0.439266$$

Current Correlation of  $C_c$  vs  $R_c$ :

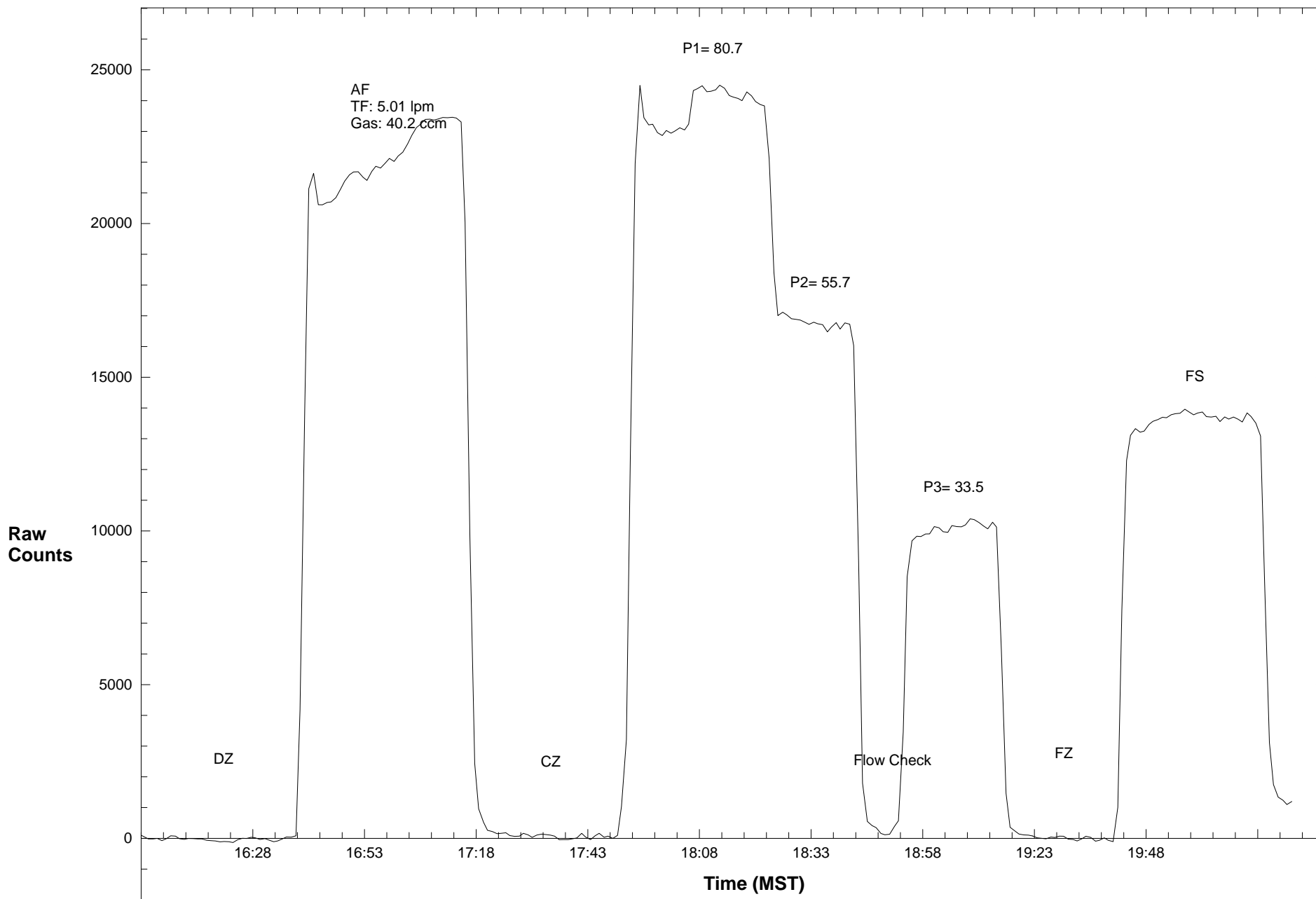
$$y = 0.003355759x - 0.35298$$



# Station 906 H2S February 21, 2018: Linear Regression



# Station 906 H2S February 21, 2018: Calibration Graph



# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: February 21, 2018

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

Instrument: Teco 42i

Serial Number: 09505034785

Previous Calibration Date: January 24 2018

Calibration: Routine

Calibration Equipment: SABIO 2010 sn # 04300810

Barometric Pressure: 26.50" Hg

Calibration Method: Std.Gas Dilution / GPT

Cylinder ID: EX0012497

Temperature: 25.5° C

Cylinder Concentration: 27.4 ppm NO & 27.5 ppm NO<sub>x</sub>

In Service: Dec 6/17 exp: Oct/20

Technician: Dean Yustak

| Instrument Settings | NO<br>bkg ppb | NO <sub>x</sub><br>bkg ppb | Pre-reactor<br>bkg ppb | NO<br>Coefficient | NO <sub>x</sub><br>Coefficient | NO <sub>2</sub><br>Coefficient | Monitoring<br>Range |
|---------------------|---------------|----------------------------|------------------------|-------------------|--------------------------------|--------------------------------|---------------------|
| Previous            | 15.2          | 15.9                       | na                     | 1.369             | 0.999                          | 0.995                          | 500 ppb             |
| Current             | 14.4          | 15.0                       | na                     | 1.315             | 0.994                          | 0.995                          | 500 ppb             |

|                 |                      |                       |                                   |
|-----------------|----------------------|-----------------------|-----------------------------------|
| NO              | Final Zero: -1.2 ppb | Final Span: 164.3 ppb | As Found Correction Factor: 0.966 |
| NO <sub>2</sub> | Final Zero: -3.5 ppb | Final Span: -2.8 ppb  | As Found Correction Factor: NA    |
| NO <sub>x</sub> | Final Zero: -1.7 ppb | Final Span: 164.9 ppb | As Found Correction Factor: 0.962 |

| Results of Linear Regression |                                  |          | Slope     | Intercept  | R <sup>2</sup> |
|------------------------------|----------------------------------|----------|-----------|------------|----------------|
| NO                           | R <sub>c</sub> vs C <sub>c</sub> | Previous | 59.802830 | 15.996760  | 0.999996       |
|                              |                                  | Current  | 60.015050 | 59.887960  | 0.999965       |
|                              | C <sub>i</sub> vs C <sub>c</sub> | Current  | 1.000000  | 0.000000   | 0.999965       |
| NO <sub>2</sub>              | R <sub>c</sub> vs C <sub>c</sub> | Previous | 60.026080 | -58.805290 | 0.999996       |
|                              |                                  | Current  | 59.973580 | 191.312700 | 0.999530       |
|                              | C <sub>i</sub> vs C <sub>c</sub> | Current  | 1.000000  | 0.000040   | 0.999529       |
| NO <sub>x</sub>              | R <sub>c</sub> vs C <sub>c</sub> | Previous | 59.844650 | 21.593620  | 0.999996       |
|                              |                                  | Current  | 59.984380 | 52.668790  | 0.999961       |
|                              | C <sub>i</sub> vs C <sub>c</sub> | Current  | 1.000000  | -0.000036  | 0.999961       |

Comments: Sample Flow: 0.475 lpm

**Calibration Data Summary (Page 2)**

February 21, 2018 - Station 906

| 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> |  |   |
|-------------------------------------|------------------------------|---|---|--|--|--|---|
| 0.07380                             | 5.000                        | 398.5   | 23942.9   | 398.0  | 1.001  |  |   |
| 0.04974                             | 5.007                        | 269.5   | 16245.2   | 269.7  | 0.999  |  |   |
| 0.02531                             | 5.012                        | 137.7   | 8403.5  | 139.0  | 0.990  |  |   |
| 0.00000                             | 4.925                        | 0.0   | 3.4   | -0.9   |  |  |   |
| NO Calibration                      |                              |   |   |  | Average Correction Factor:                       | 0.997  |   |
| 0.07380                             | 5.000                        | 400.0   | 24010.0   | 399.4  | 1.002  |  |   |
| 0.04974                             | 5.007                        | 270.5   | 16287.0   | 270.6  | 0.999  |  |   |
| 0.02531                             | 5.012                        | 138.2   | 8427.6  | 139.6  | 0.990  |  |   |
| 0.00000                             | 4.925                        | 0.0   | -6.8  | -1.0   |  |  |   |
| NO <sub>x</sub> Calibration         |                              |   |   |  | Average Correction Factor:                       | 0.997  |   |
| 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> |
| 403.9                               | 4058.6                       | 66.6  | 337.3   | 20287.7                                      | 335.1  | 1.007  | 0.993   |
| 403.9                               | 12289.5                      | 203.8   | 200.1   | 12323.2                                      | 202.3  | 0.989  | 1.011   |
| 403.9                               | 18371.9                      | 305.1   | 98.8  | 6307.7                                       | 102.0  | 0.969  | 1.032   |
|                                     |                              |   | 0.0   | 3.9  | -3.1   |  |   |
|                                     |                              |   |   |  | Average Correction Factor:                       | 0.988  |   |
| NO <sub>2</sub> Gas Phase Titration |                              |   |   |  | Average Converter Efficiency: 1.012              |  |   |
| Parameter                           | Correction Factor (Previous) | Correction Factor: (Current)                  | Percent Change of Correction Factor                             |  |  |  |   |
| NO                                  | 1.001                        | 1.001   | 0.0   |  |  |  |   |
| NO <sub>2</sub>                     | 1.001                        | 1.007   | 0.6   |  |  |  |   |
| NO <sub>x</sub>                     | 1.001                        | 1.002   | 0.1   |  |  |  |   |

## Station 906 NO February 21, 2018: Initial Zero, As Found, and Final Zero/Span

16:23:03 4  
 16:23:57 2  
 16:25:01 4  
 16:26:06 4  
 16:26:59 -4  
 16:28:03 -1  
 16:28:57 4  
 16:30:01 10  
 16:31:06 4  
 16:31:59 -4

**Initial Zero**  
 Average = 2.3 (-0.2 ppb)

20:55:03 -12  
 20:55:57 -12  
 20:57:01 -18  
 20:58:05 -14  
 20:58:59 -12  
 21:00:03 -12  
 21:00:57 -12  
 21:02:01 -12  
 21:02:54 -12  
 21:03:59 -12

**Final Zero**  
 Average = -12.8 (-1.2 ppb)

17:03:58 25549  
 17:05:02 25536  
 17:05:56 25525  
 17:07:00 25525  
 17:08:04 25525  
 17:08:58 25516  
 17:10:02 25525  
 17:10:56 25513  
 17:12:00 25499  
 17:13:05 25475

**As Found**  
 Raw Count Average ( $R_c$ ) = 25518.8  
 Indicated Concentration ( $C_i$ ) = 426.7  
 Calculated Concentration ( $C_c$ ) = 412.1  
 Correction Factor ( $C_c/C_i$ ) = 0.966

21:17:01 9882  
 21:17:55 9883  
 21:18:59 9897  
 21:20:04 9914  
 21:20:57 9913  
 21:22:01 9920  
 21:22:55 9949  
 21:23:59 9957  
 21:25:04 9944  
 21:25:57 9938

**Final Span**  
 Average = 9919.7 (164.3 ppb)

Previous Correlation of  $C_c$  vs  $R_c$ :  
 $y = 0.01672162x - 0.267492$

Current Correlation of  $C_c$  vs  $R_c$ :  
 $y = 0.01666249x - 0.997882$

## Station 906 NO2 February 21, 2018: Initial Zero, As Found, and Final Zero/Span

16:23:03 -28  
 16:23:57 -28  
 16:25:01 -28  
 16:26:06 -28  
 16:26:59 -26  
 16:28:03 -24  
 16:28:57 -36  
 16:30:01 -35  
 16:31:06 -27  
 16:31:59 -19

**Initial Zero**  
 Average = -27.9 (0.5 ppb)

20:55:03 -19  
 20:55:57 -14  
 20:57:01 -10  
 20:58:05 -16  
 20:58:59 -19  
 21:00:03 -16  
 21:00:57 -19  
 21:02:01 -28  
 21:02:54 -30  
 21:03:59 -25

**Final Zero**  
 Average = -19.6 (-3.5 ppb)

**As Found**  
**Not Available**

21:17:01 29  
 21:17:55 39  
 21:18:59 44  
 21:20:04 37  
 21:20:57 38  
 21:22:01 7  
 21:22:55 -15  
 21:23:59 -1  
 21:25:04 15  
 21:25:57 22

**Final Span**  
 Average = 21.5 (-2.8 ppb)

Previous Correlation of  $C_c$  vs  $R_c$ :  
 $y = 0.01665943x + 0.979662$

Current Correlation of  $C_c$  vs  $R_c$ :  
 $y = 0.01667401x - 3.18995$

## Station 906 NOX February 21, 2018: Initial Zero, As Found, and Final Zero/Span

16:23:03 -36  
 16:23:57 -36  
 16:25:01 -36  
 16:26:06 -36  
 16:26:59 -36  
 16:28:03 -40  
 16:28:57 -45  
 16:30:01 -37  
 16:31:06 -36  
 16:31:59 -36

**Initial Zero**  
 Average = -37.4 (-1.0 ppb)

20:55:03 -46  
 20:55:57 -46  
 20:57:01 -45  
 20:58:05 -46  
 20:58:59 -46  
 21:00:03 -46  
 21:00:57 -45  
 21:02:01 -50  
 21:02:54 -55  
 21:03:59 -49

**Final Zero**  
 Average = -47.4 (-1.7 ppb)

17:05:02 25738  
 17:05:56 25724  
 17:07:00 25730  
 17:08:04 25721  
 17:08:58 25709  
 17:10:02 25698  
 17:10:56 25689  
 17:12:00 25691  
 17:13:05 25678  
 17:13:58 25665

**As Found**  
 Raw Count Average ( $R_c$ ) = 25704.3  
 Indicated Concentration ( $C_i$ ) = 430.1  
 Calculated Concentration ( $C_c$ ) = 413.6  
 Correction Factor ( $C_c/C_i$ ) = 0.962

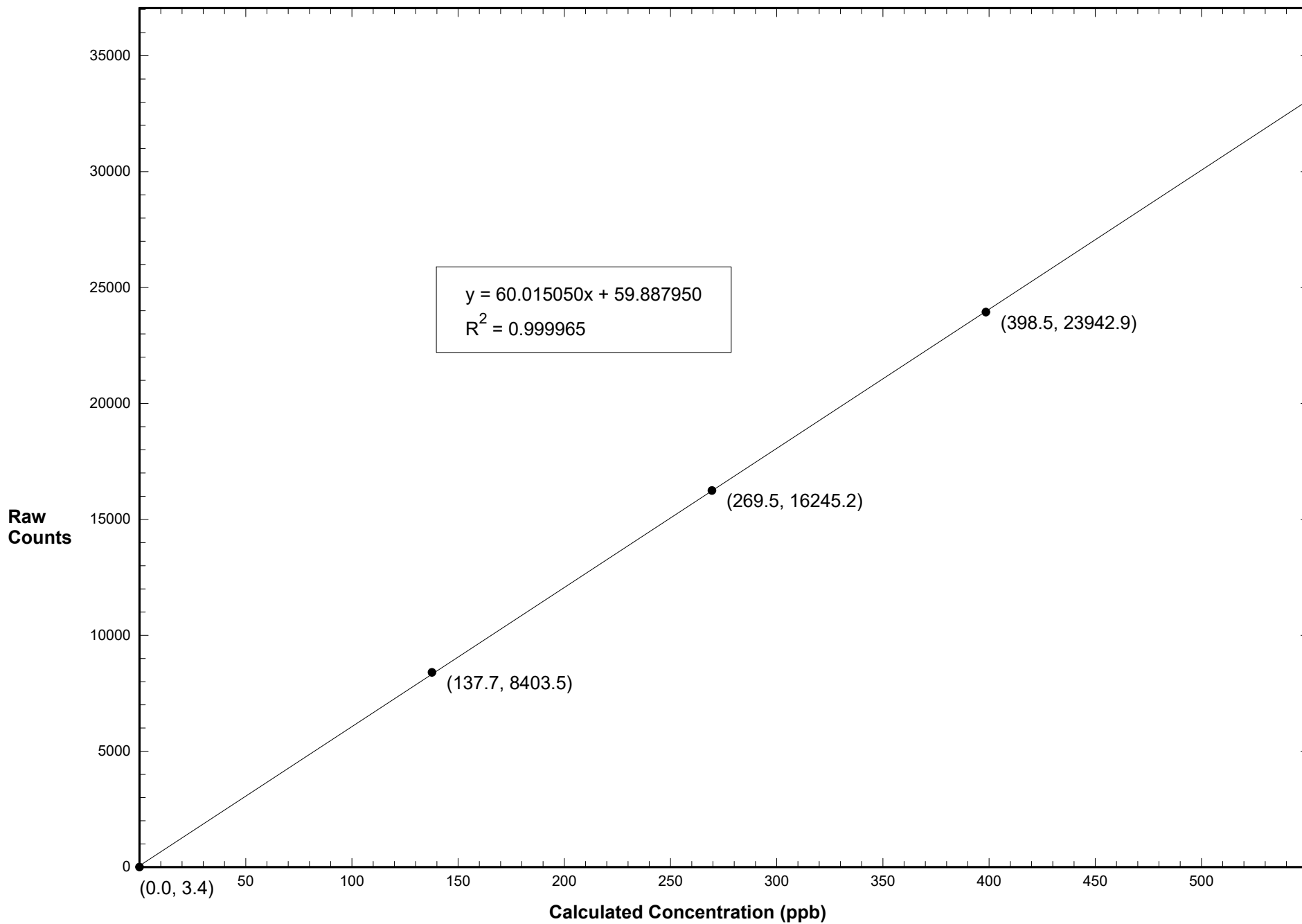
21:17:01 9915  
 21:17:55 9930  
 21:18:59 9948  
 21:20:04 9956  
 21:20:57 9953  
 21:22:01 9936  
 21:22:55 9939  
 21:23:59 9962  
 21:25:04 9964  
 21:25:57 9967

**Final Span**  
 Average = 9947.0 (164.9 ppb)

Previous Correlation of  $C_c$  vs  $R_c$ :  
 $y = 0.01670993x - 0.360828$

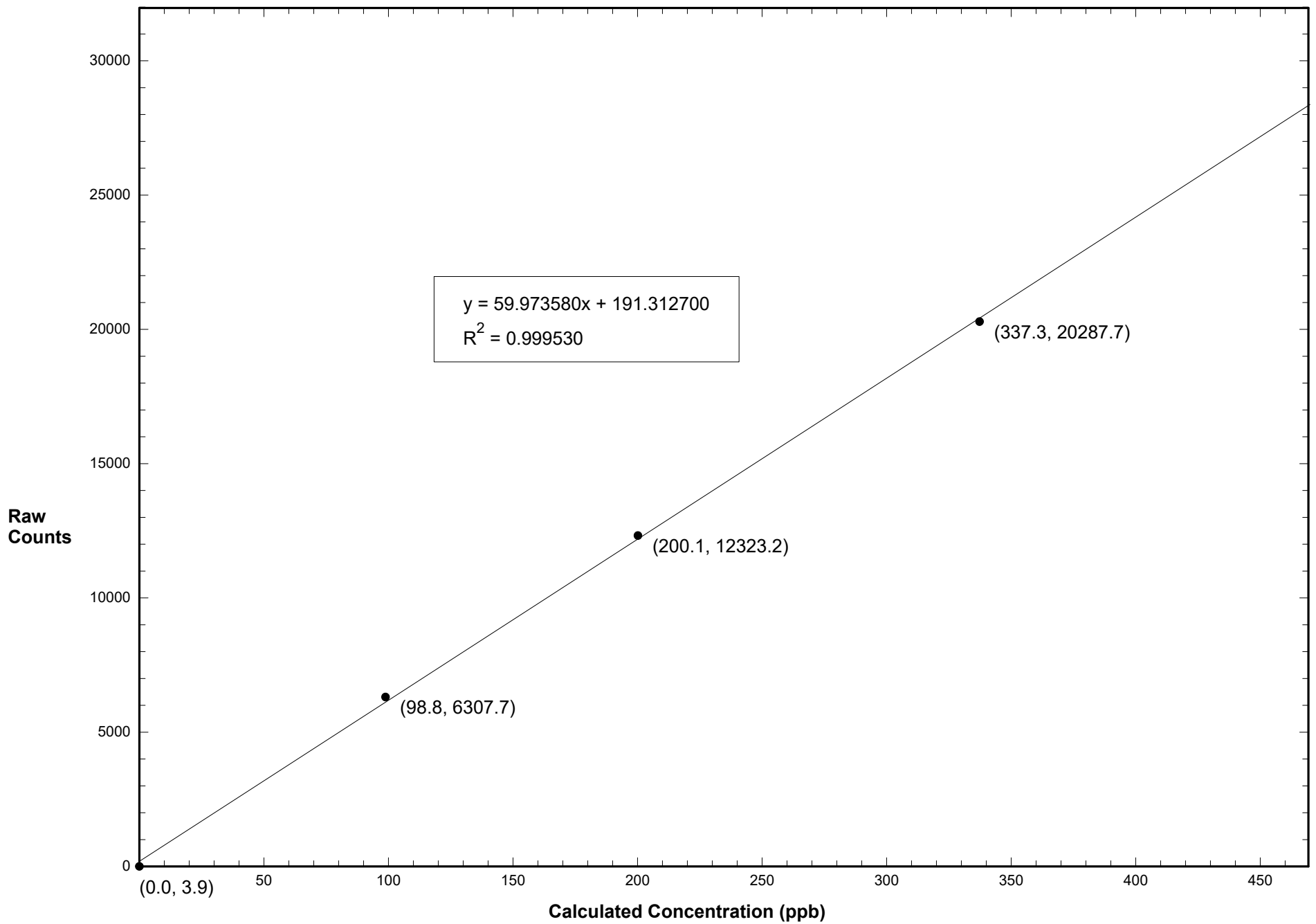
Current Correlation of  $C_c$  vs  $R_c$ :  
 $y = 0.01667101x - 0.878042$

# Station 906 NO February 21, 2018: Linear Regression

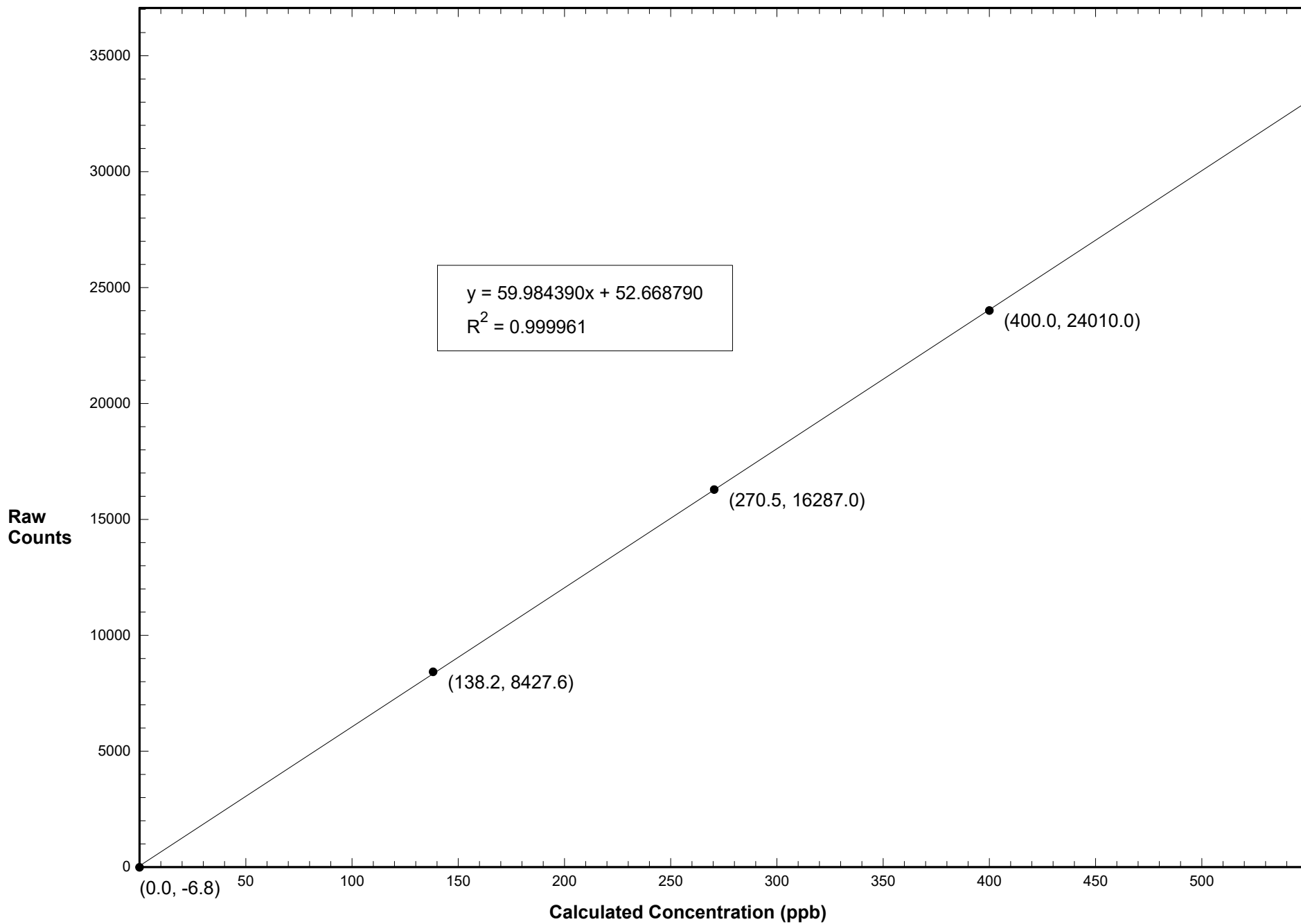




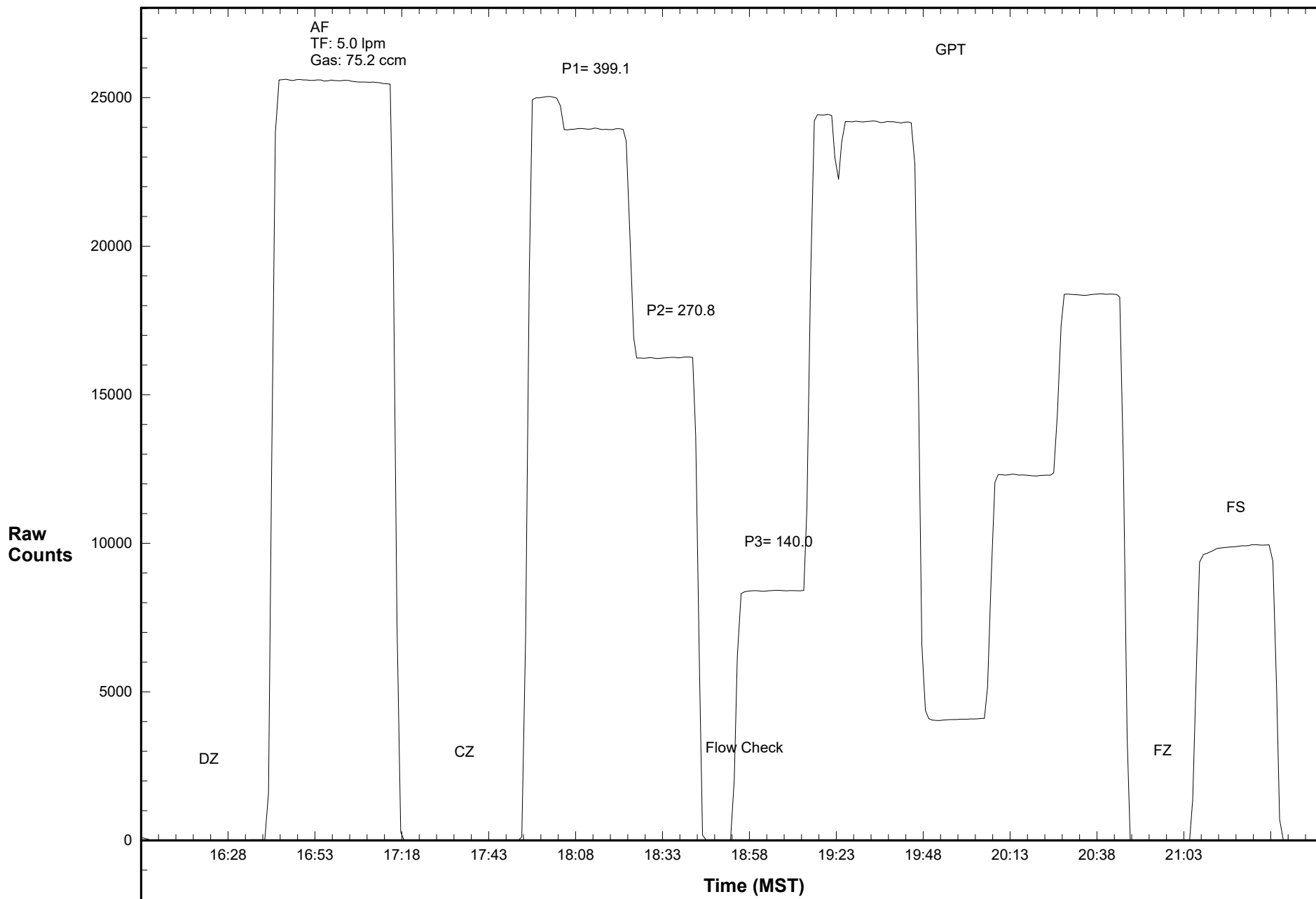
# Station 906 NO2 February 21, 2018: Linear Regression



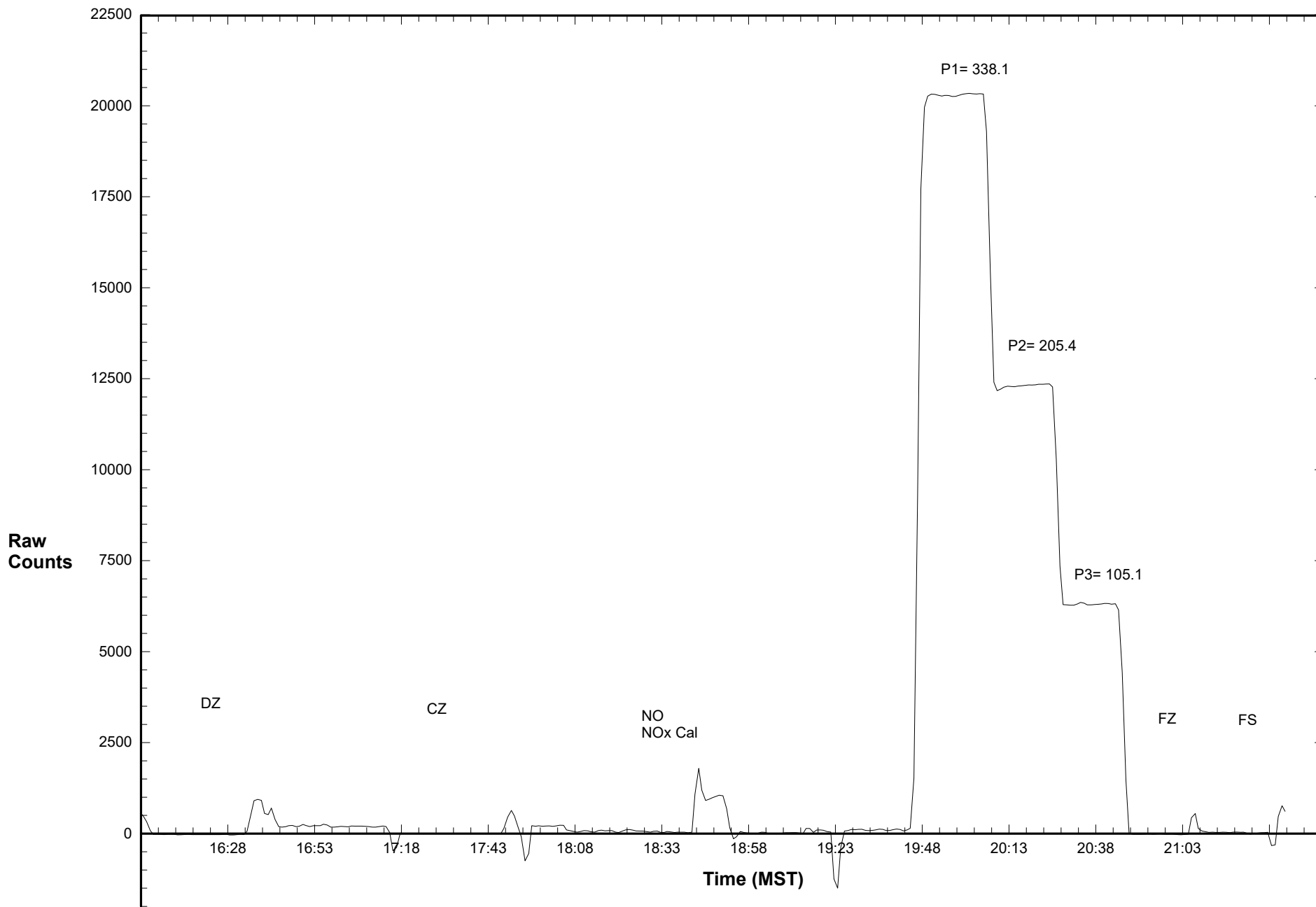
# Station 906 NOX February 21, 2018: Linear Regression



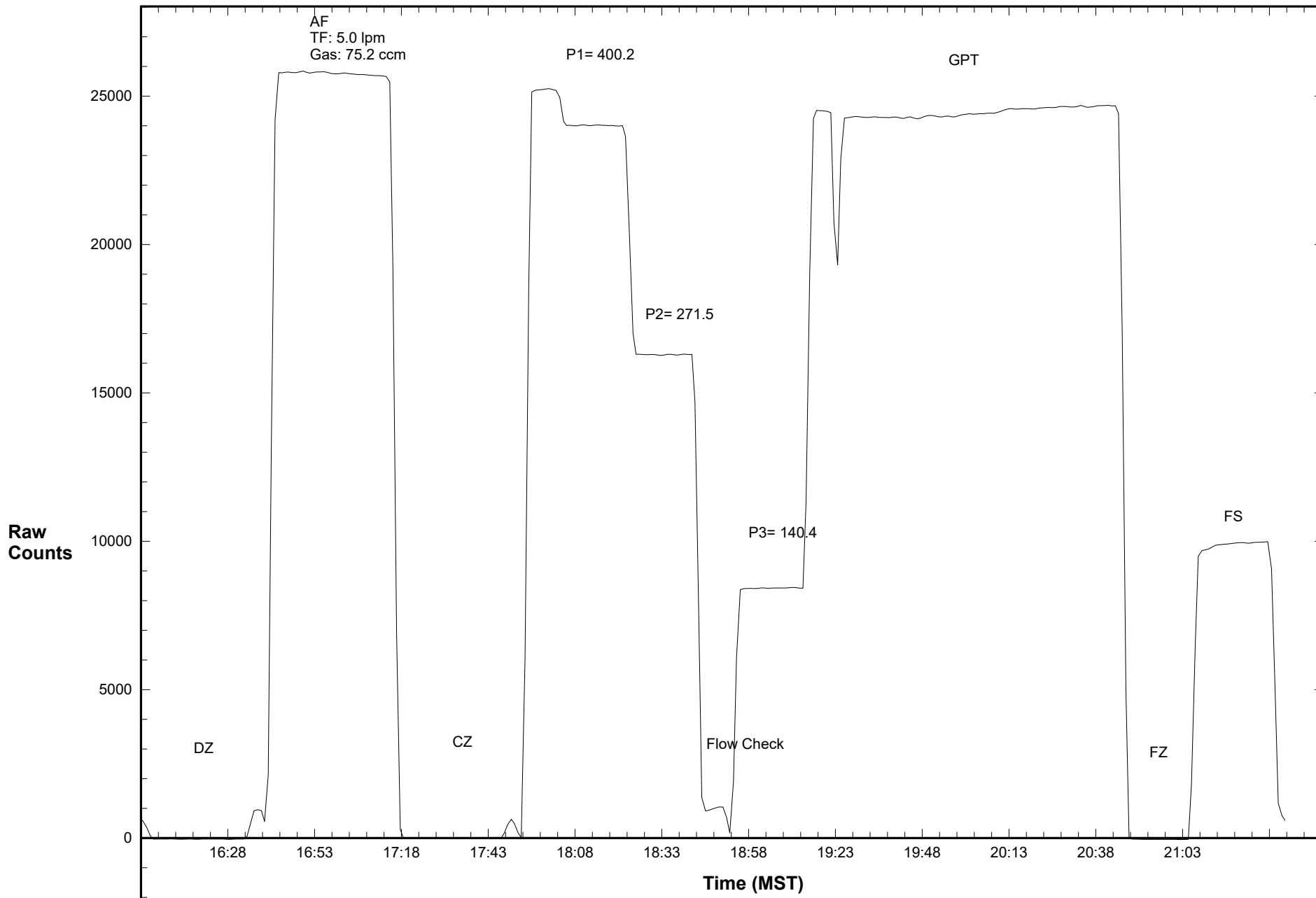
# Station 906 NO February 21, 2018: Calibration Graph



# Station 906 NO2 February 21, 2018: Calibration Graph



# Station 906 NOX February 21, 2018: Calibration Graph



# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton

Calibration Date: February 21, 2018

Parameter: O<sub>3</sub>

Instrument: Teco 49i

Serial Number: 1150790050

Previous Calibration Date: January 24 2018

Calibration: Routine

Calibration Equipment: 2B Tech 306 SN-135

Barometric Pressure: 26.50" Hg

Calibration Method: Certified Ozone Generator In service: Jan 16/17

Temperature: 25.5° C

Technician: Dean Yustak

| Instrument Settings | Background | Coefficient | Monitoring Range |
|---------------------|------------|-------------|------------------|
| Previous            | -0.1       | 0.986       | 500 ppb          |
| Current             | -0.1       | 1.041       | 500 ppb          |

Final Zero: -0.9 ppb

Final Span: 392.1 ppb

As Found Correction Factor: 1.040

| 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                              | 403.0   | 24189.7                         | 403.0  | 1.000  |
| 3.000                              | 254.0   | 15228.8                         | 253.3  | 1.003  |
| 3.000                              | 100.1   | 6152.9                          | 101.7  | 0.984  |
| 3.000                              | 0.0   | 5.3                             | -1.0   |  |

### Results of Linear Regression

| R <sub>c</sub> vs C <sub>c</sub> | Slope     | Intercept | R <sup>2</sup> |
|----------------------------------|-----------|-----------|----------------|
| Previous                         | 59.679320 | 47.973190 | 0.999974       |
| Current                          | 59.863780 | 63.457190 | 0.999957       |
| C <sub>i</sub> vs C <sub>c</sub> |           |           |                |
| Current                          | 1.000000  | 0.000007  | 0.999957       |

Average Correction Factor: 0.996

Previous Correction Factor: 1.000

Current Correction Factor: 1.000

Percent Change of Correction Factor: 0.0

Comments: Sample Flow: 0.695 & 0.675 lpm

## Station 906 O3 February 21, 2018: Initial Zero, As Found, and Final Zero/Span

16:23:03 9  
 16:23:57 10  
 16:25:01 3  
 16:26:06 3  
 16:26:59 3  
 16:28:03 4  
 16:28:57 6  
 16:30:01 14  
 16:31:06 11  
 16:31:59 6

**Initial Zero**  
 Average = 6.9 (-0.7 ppb)

19:31:00 10  
 19:32:05 8  
 19:32:58 7  
 19:34:02 17  
 19:34:56 17  
 19:36:00 13  
 19:37:05 10  
 19:37:58 4  
 19:39:03 4  
 19:39:56 3

**Final Zero**  
 Average = 9.3 (-0.9 ppb)

17:03:58 23209  
 17:05:02 23176  
 17:05:56 23149  
 17:07:00 23104  
 17:08:04 23126  
 17:08:58 23134  
 17:10:02 23084  
 17:10:56 23091  
 17:12:00 23131  
 17:13:05 23137

**As Found**  
 Raw Count Average ( $R_c$ ) = 23134.1  
 Indicated Concentration ( $C_i$ ) = 387.5  
 Calculated Concentration ( $C_c$ ) = 403.0  
 Correction Factor ( $C_c/C_i$ ) = 1.040

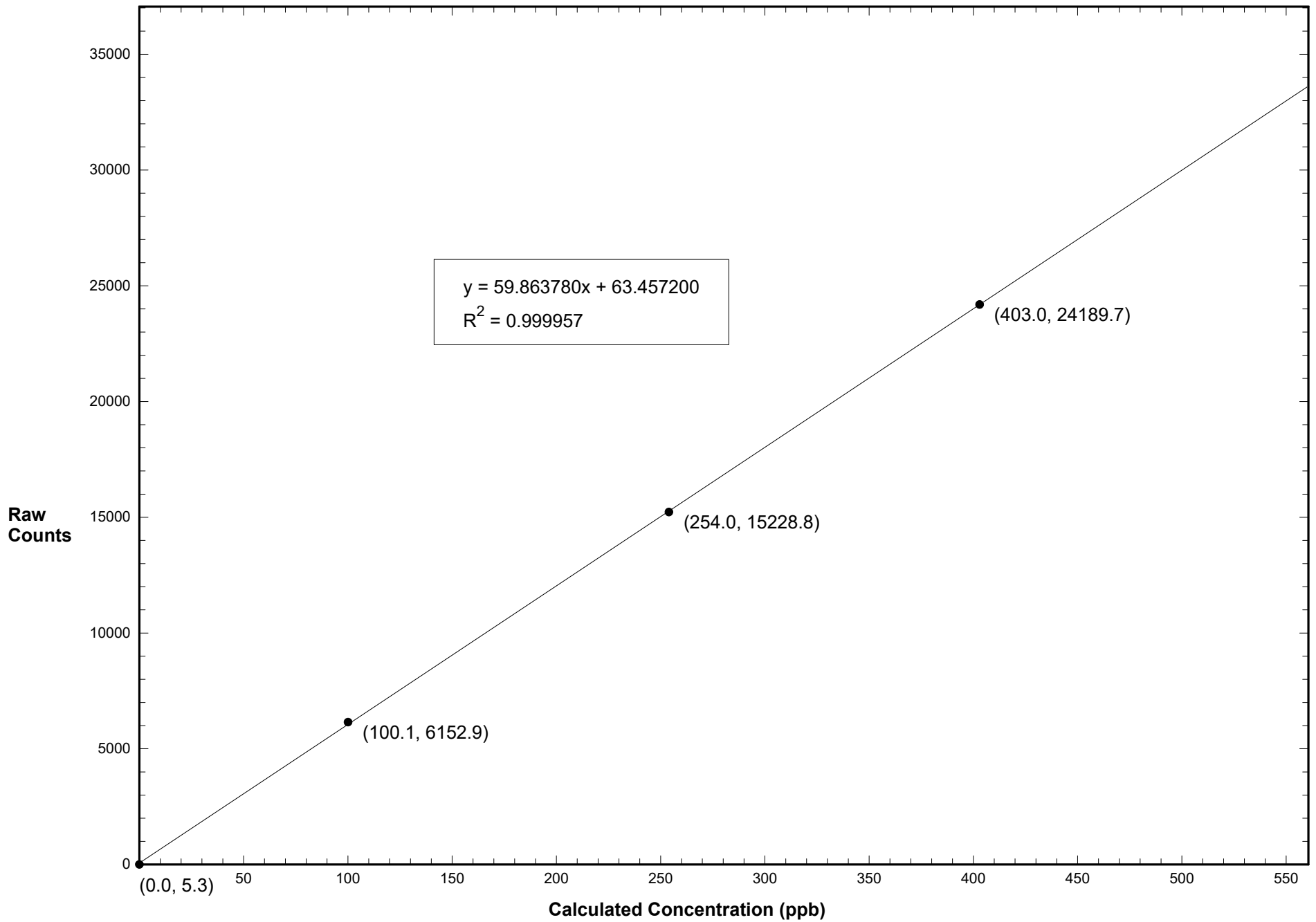
20:02:59 23595  
 20:04:03 23598  
 20:04:57 23576  
 20:06:01 23548  
 20:06:55 23533  
 20:07:59 23527  
 20:09:03 23534  
 20:09:57 23517  
 20:11:01 23488  
 20:11:55 23452

**Final Span**  
 Average = 23536.8 (392.1 ppb)

Previous Correlation of  $C_c$  vs  $R_c$ :  
 $y = 0.01675622x - 0.80385$

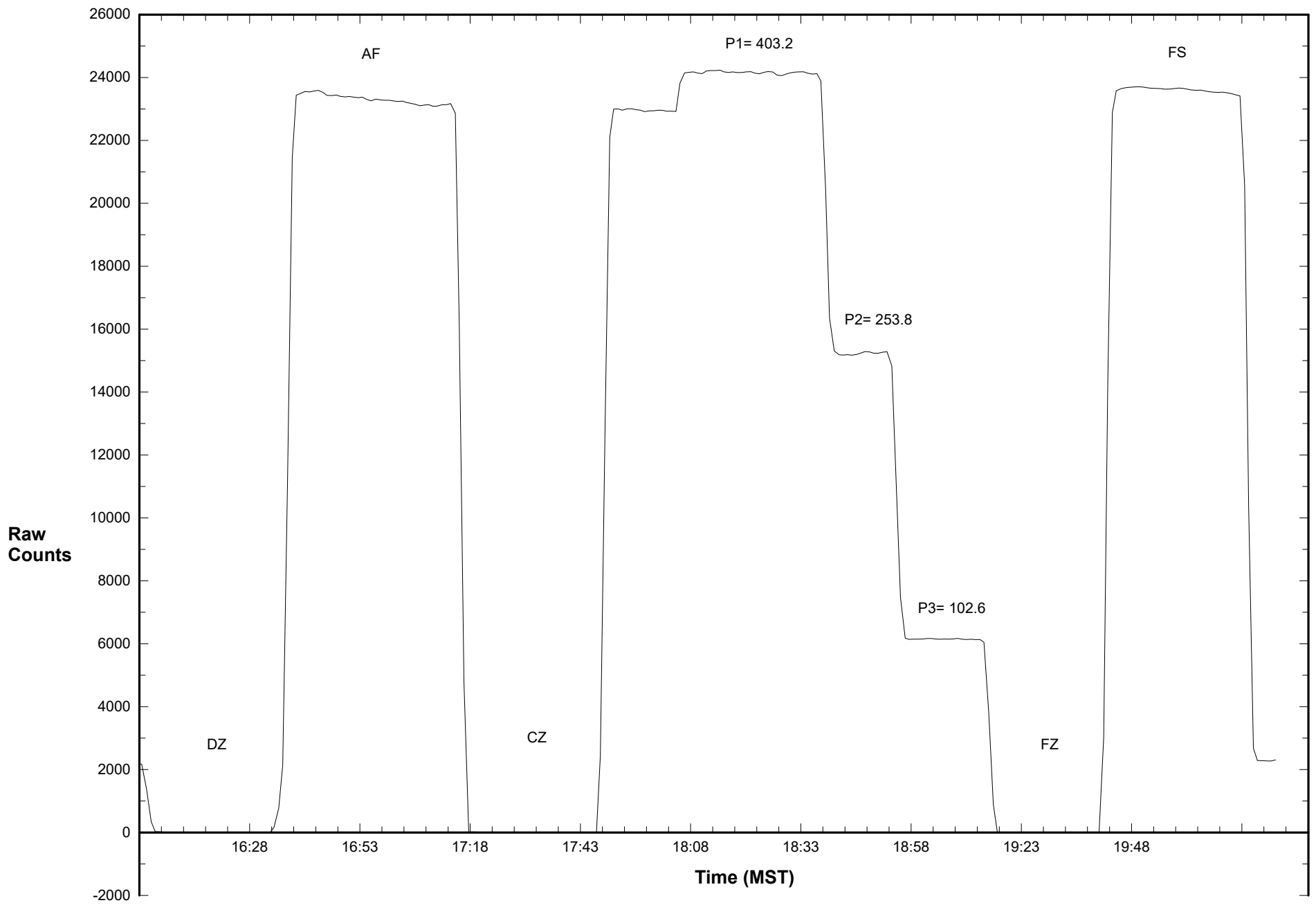
Current Correlation of  $C_c$  vs  $R_c$ :  
 $y = 0.01670459x - 1.060026$

# Station 906 O3 February 21, 2018: Linear Regression





# Station 906 O3 February 21, 2018: Calibration Graph



# Calibration Data Summary

## West Central Airshed Society

Operator: WCAS

Location: Station 906, Hinton  
 Calibration Date: February 21, 2018  
 Parameter: SO<sub>2</sub>

|  |   |  |
|--|---|--|
| Instrument: Teco 43i                             | Serial Number: CM 12499009                      | Previous Calibration Date: January 24 2018 |
| Calibration: Routine                             | Calibration Equipment: SABIO 2010 sn # 04300810 | Barometric Pressure: 26.50" Hg             |
| Calibration Method: Std.Gas Dilution             | Cylinder ID: EX0012497                          | Temperature: 25.5° C                       |
| Cylinder Concentration: 24.4 ppm SO <sub>2</sub> | In Service: Dec 6/17 exp: Oct/20                | Technician: Dean Yustak                    |

| Instrument Settings | SO <sub>2</sub> bkg ppb | SO <sub>2</sub> Coefficient | Monitoring Range |
|---------------------|-------------------------|-----------------------------|------------------|
| Previous            | 28.5                    | 1.012                       | 500 ppb          |
| Current             | 27.2                    | 1.001                       | 500 ppb          |

Final Zero: -0.2 ppm                      Final Span: 73.0 ppm                      As Found Correction Factor: 0.999

| SO <sub>2</sub> Flow Rate (LPM) | Dilution Flow Rate (LPM) | Calculated Concentration C <sub>c</sub> (ppm) | Raw Count Output R <sub>c</sub> | Indicated Concentration C <sub>i</sub> (ppm) | Correction Factor C <sub>c</sub> /C <sub>i</sub> |
|---------------------------------|--------------------------|---|---------------------------------|--|--|
| 0.0738                          | 5.000                    | 354.9   | 21339.7                         | 354.7  | 1.001  |
| 0.0497                          | 5.007                    | 240.0   | 14443.6                         | 239.9  | 1.000  |
| 0.0253                          | 5.012                    | 122.6   | 7433.8                          | 123.3  | 0.994  |
| 0.0000                          | 4.925                    | 0.0   | 0.2                             | -0.4   |  |

| Results of Linear Regression     |           |           |                |
|----------------------------------|-----------|-----------|----------------|
| R <sub>c</sub> vs C <sub>c</sub> | Slope     | Intercept | R <sup>2</sup> |
| Previous                         | 60.075020 | 8.357998  | 0.999998       |
| Current                          | 60.088620 | 25.862830 | 0.999990       |
| C <sub>i</sub> vs C <sub>c</sub> |           |           |                |
| Current                          | 1.000000  | 0.000007  | 0.999990       |

Average Correction Factor: 0.998

Previous Correction Factor: 1.001

Current Correction Factor: 1.001

Percent Change of Correction Factor: 0.0

Comments: Sample Flow: 0.423 lpm

## Station 906 SO2 February 21, 2018: Initial Zero, As Found, and Final Zero/Span

16:23:03 -56  
 16:23:57 -63  
 16:25:01 -61  
 16:26:06 -52  
 16:26:59 -48  
 16:28:03 -39  
 16:28:57 -41  
 16:30:01 -37  
 16:31:06 -29  
 16:31:59 -41

**Initial Zero**  
 Average = -46.7 (-0.9 ppm)

19:31:00 17  
 19:32:05 11  
 19:32:58 15  
 19:34:02 4  
 19:34:56 1  
 19:36:00 2  
 19:37:05 15  
 19:37:58 29  
 19:39:03 21  
 19:39:56 10

**Final Zero**  
 Average = 12.5 (-0.2 ppm)

17:03:58 21933  
 17:05:02 21953  
 17:05:56 22031  
 17:07:00 22029  
 17:08:04 22028  
 17:08:58 22049  
 17:10:02 22036  
 17:10:56 22030  
 17:12:00 22046  
 17:13:05 22012

**As Found**  
 Raw Count Average ( $R_c$ ) = 22014.7  
 Indicated Concentration ( $C_i$ ) = 367.2  
 Calculated Concentration ( $C_c$ ) = 367.0  
 Correction Factor ( $C_c/C_i$ ) = 0.999

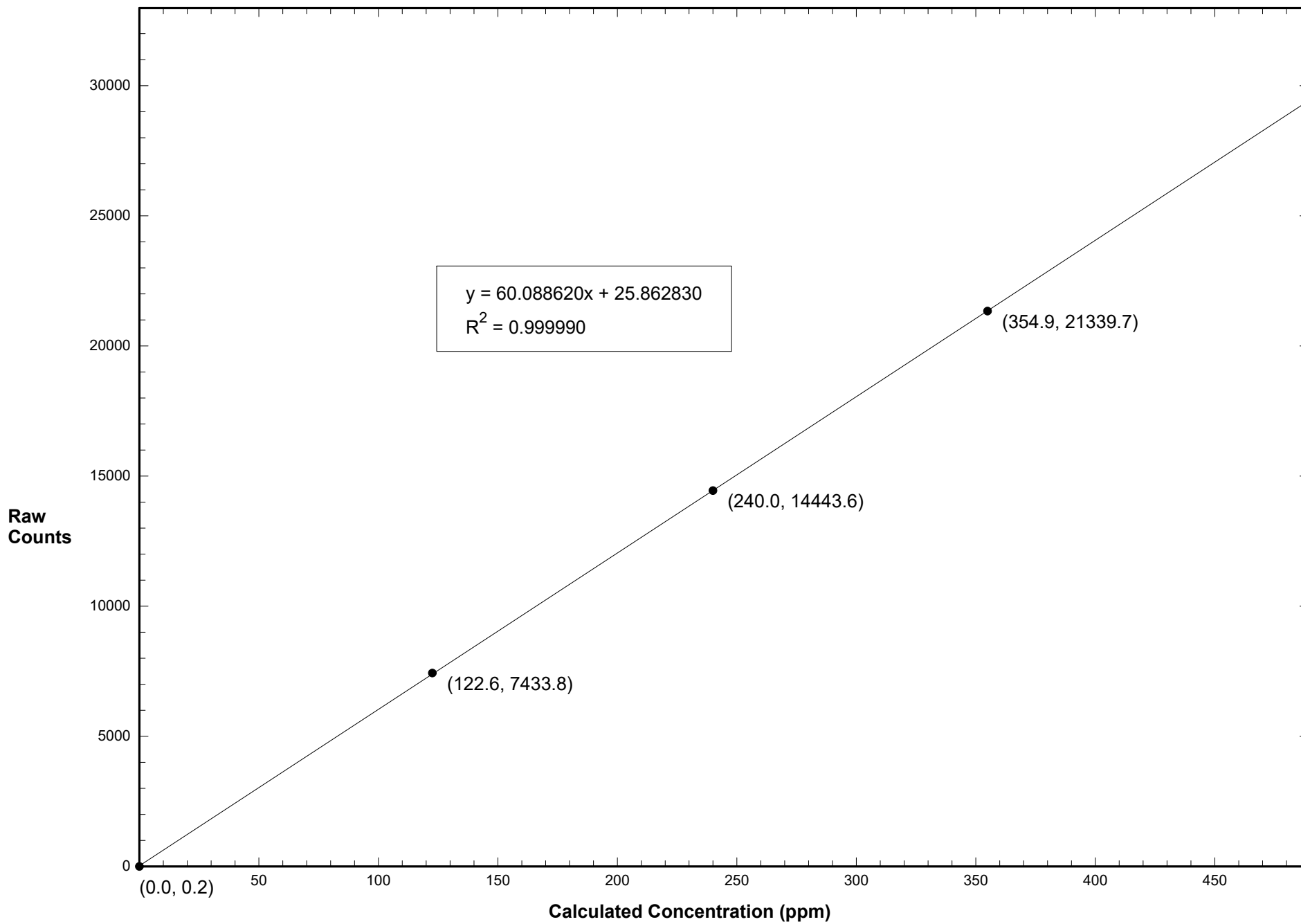
20:02:59 4428  
 20:04:03 4416  
 20:04:57 4421  
 20:06:01 4445  
 20:06:55 4434  
 20:07:59 4418  
 20:09:03 4398  
 20:09:57 4377  
 20:11:01 4386  
 20:11:55 4412

**Final Span**  
 Average = 4413.5 (73.0 ppm)

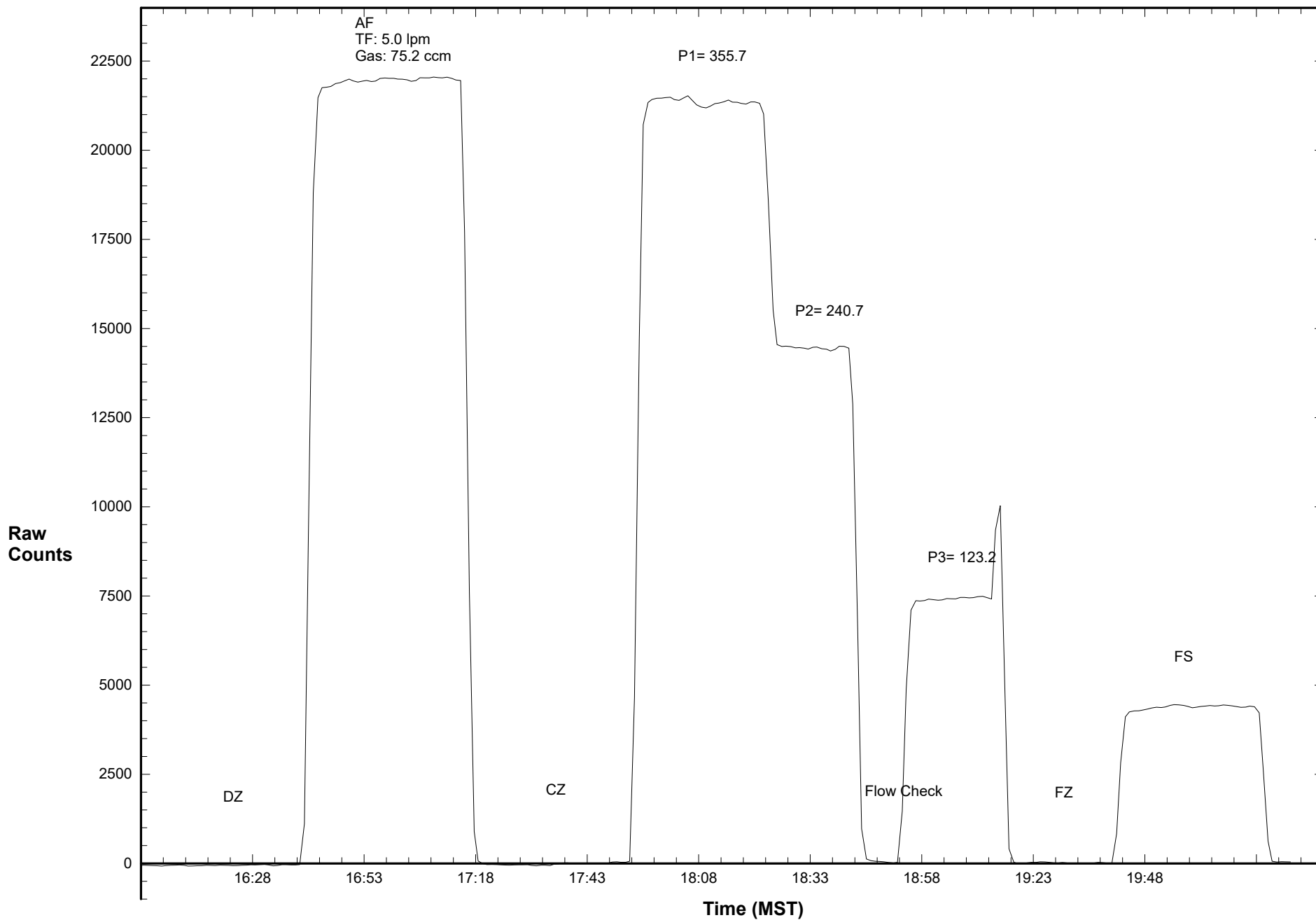
Previous Correlation of  $C_c$  vs  $R_c$ :  
 $y = 0.01664585x - 0.139126$

Current Correlation of  $C_c$  vs  $R_c$ :  
 $y = 0.01664209x - 0.430411$

# Station 906 SO2 February 21, 2018: Linear Regression



# Station 906 SO2 February 21, 2018: Calibration Graph





## Station 906 TRS February 21, 2018: Initial Zero, As Found, and Final Zero/Span

16:23:03 -48  
 16:23:57 -48  
 16:25:01 -48  
 16:26:06 -48  
 16:26:59 -48  
 16:28:03 -48  
 16:28:57 -48  
 16:30:01 -43  
 16:31:06 -37  
 16:31:59 -48

**Initial Zero**

Average = -46.4 (0.1 ppb)

19:31:00 -25  
 19:32:05 -25  
 19:32:58 -6  
 19:34:02 -25  
 19:34:56 -25  
 19:36:00 -25  
 19:37:05 -25  
 19:37:58 -25  
 19:39:03 -25  
 19:39:56 -25

**Final Zero**

Average = -23.1 (0.1 ppb)

17:03:58 26509  
 17:05:02 26516  
 17:05:56 26554  
 17:07:00 26544  
 17:08:04 26590  
 17:08:58 26615  
 17:10:02 26675  
 17:10:56 26690  
 17:12:00 26712  
 17:13:05 26730

**As Found**

Raw Count Average ( $R_c$ ) = 26613.5

Indicated Concentration ( $C_i$ ) = 88.4

Calculated Concentration ( $C_c$ ) = 84.2

Correction Factor ( $C_c/C_i$ ) = 0.953

20:02:59 17979  
 20:04:03 18005  
 20:04:57 18035  
 20:06:01 18014  
 20:06:55 17989  
 20:07:59 17993  
 20:09:03 17998  
 20:09:57 17951  
 20:11:01 17896  
 20:11:55 17810

**Final Span**

Average = 17967.0 (60.1 ppb)

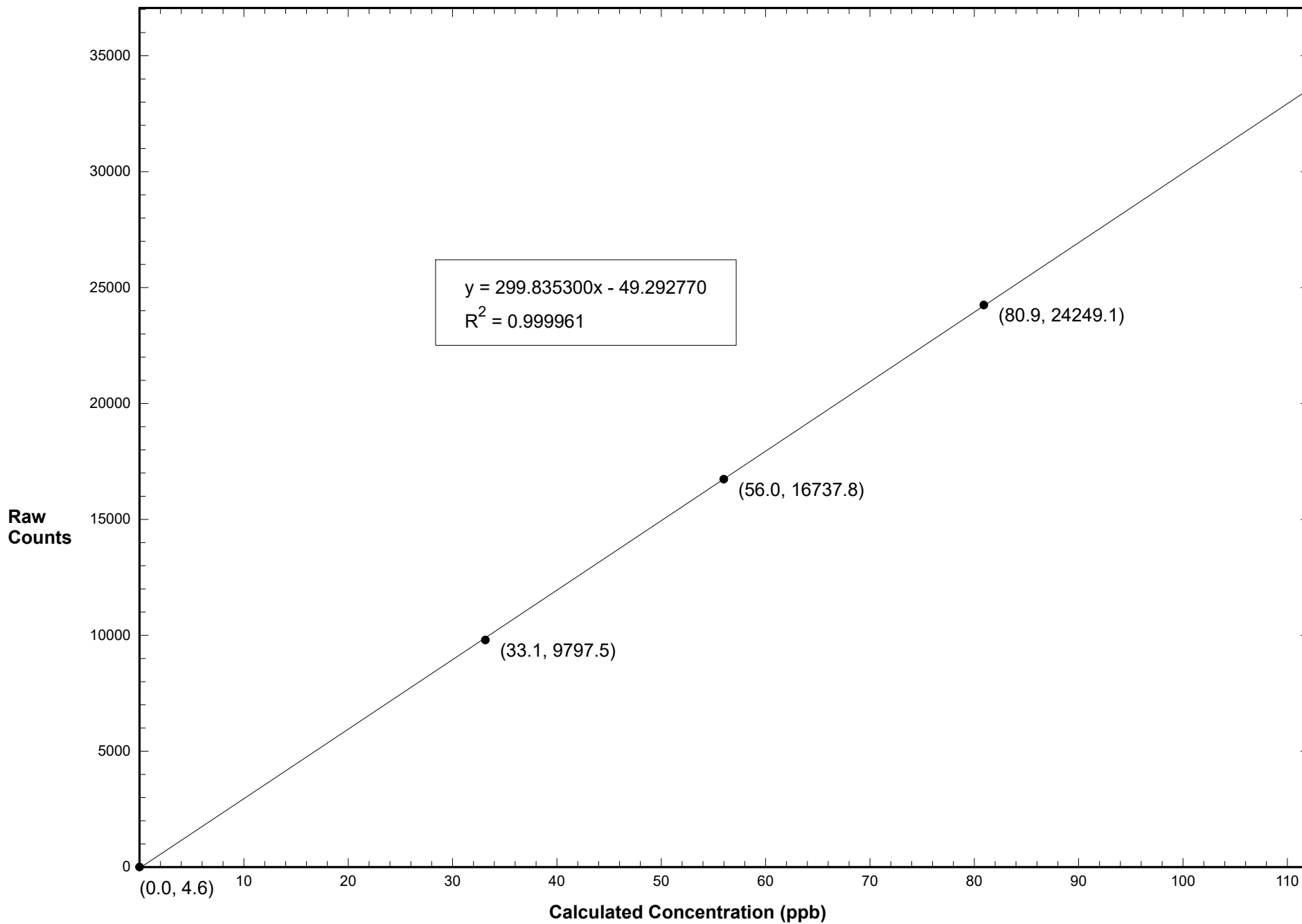
Previous Correlation of  $C_c$  vs  $R_c$ :

$$y = 0.003315361x + 0.273562$$

Current Correlation of  $C_c$  vs  $R_c$ :

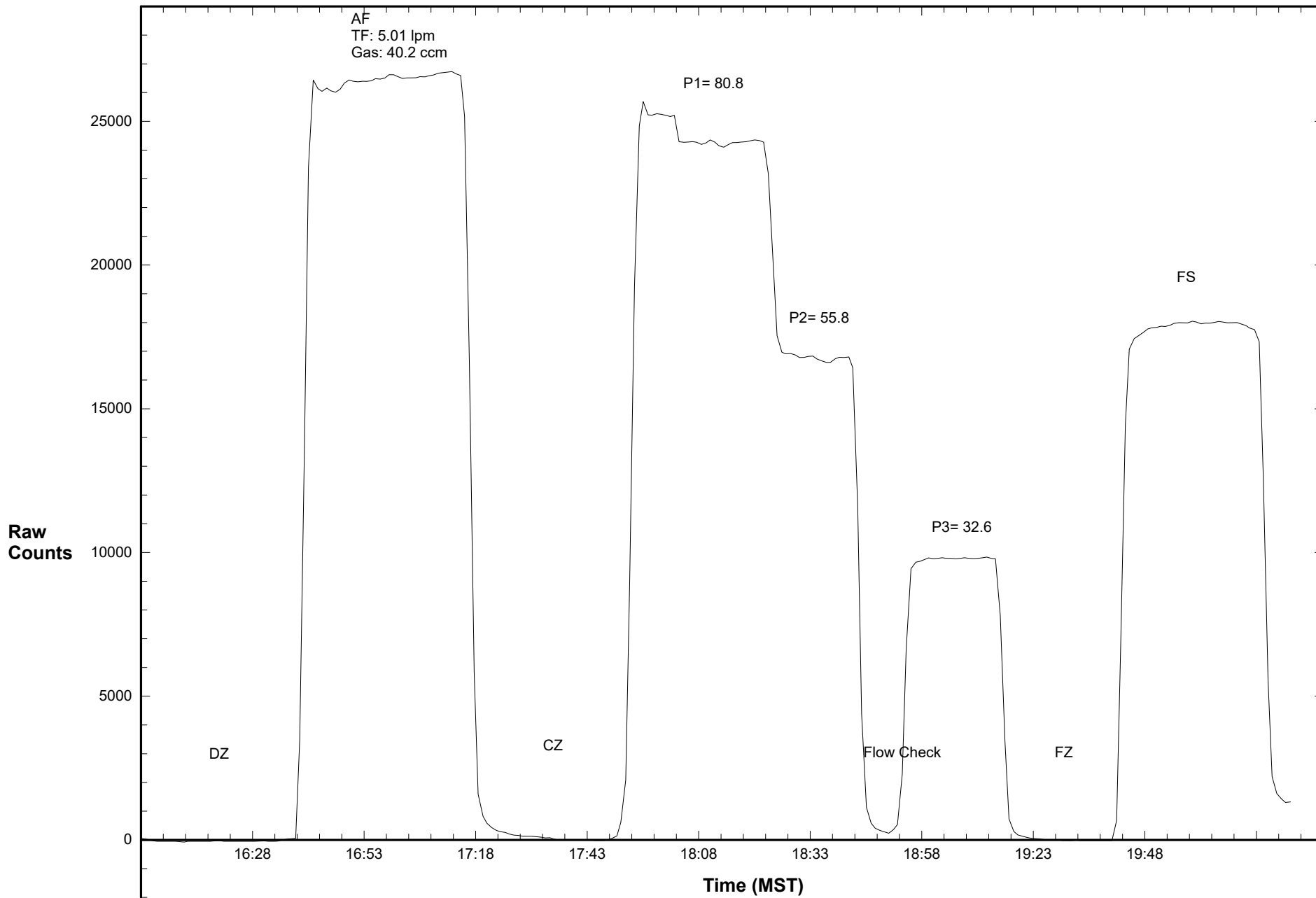
$$y = 0.003335164x + 0.1644$$

# Station 906 TRS February 21, 2018: Linear Regression





# Station 906 TRS February 21, 2018: Calibration Graph



**WEST CENTRAL AIRSHED SOCIETY**

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

**AMS 906  
HINTON  
FEBRUARY 2018**

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

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



**WCAS - Hinton**  
**Summary of Hourly Averages**

**External Temperature (ET) - C**  
**February 2018**

| Maximum Value: 7.23 C on Feb 13 15:00<br>Minimum Value: -31.4 C on Feb 9 09:00<br>Maximum Diurnal Average: -7.05 C at hour 16<br>Monthly Average: -11.738 C      |                         | Maximum Daily Average: 3.46 C on Feb 13<br>Minimum Daily Average: -22.74 C on Feb 4<br>Minimum Diurnal Average: -15.31 C at hour 9<br>Percentiles: P <sub>1</sub> = -30.2 P <sub>10</sub> = -22.9 Q <sub>1</sub> = -18.0 Median = -11.7 Q <sub>3</sub> = -4.4 P <sub>90</sub> = -0.8 P <sub>99</sub> = 3.8 |       | Hours in Service: 672<br>Hours of Data: 670<br>Hours of Missing Data: 2<br>Hours of Calibration: 0<br>Percent Operational Time: 99.7 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |               |               |
|--|-------------------------|--|-------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|---------------|---------------|
| 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-Feb  | -20.8                   | -20.2  | -20.3 | -20.2  | -20.2 | -20.8 | -21.9 | -21.6 | -20.9 | -20.2 | -19.2 | -18.0 | -16.2 | -15.6 | -15.5 | -14.7 | -15.1 | -16.0 | -17.0 | -17.6 | -17.7 | -18.2 | -18.4 | -18.6           | -18.53        | -14.71        |
| 2-Feb  | -18.8                   | -18.8  | -18.8 | -18.6  | -18.5 | -18.4 | -18.5 | -18.8 | -19.1 | -18.9 | -18.4 | -18.0 | -17.4 | -16.9 | -17.3 | -17.2 | -17.1 | -17.5 | -17.7 | -18.0 | -18.1 | -18.2 | -18.1 | -18.3           | -18.14        | -16.88        |
| 3-Feb  | -19.4                   | -20.1  | -20.6 | -21.0  | -21.3 | -21.5 | -21.8 | -22.0 | -22.1 | -21.8 | -21.3 | -20.6 | -20.3 | -20.0 | -19.6 | -18.7 | -19.3 | -20.9 | -22.9 | -24.6 | -25.7 | -26.7 | -27.4 | -27.8           | -21.97        | -18.69        |
| 4-Feb  | -28.8                   | -29.4  | -29.9 | -30.2  | -30.6 | -30.3 | -30.2 | -29.8 | -28.9 | -27.0 | -24.1 | -20.1 | -17.6 | -16.0 | -14.9 | -13.7 | -13.3 | -13.7 | -14.8 | -17.4 | -19.5 | -21.5 | -21.8 | -22.4           | -22.74        | -13.27        |
| 5-Feb  | -22.7                   | -23.8  | -25.0 | -25.8  | -26.6 | -27.2 | -27.8 | -28.3 | -28.8 | -27.2 | -25.6 | -20.1 | -15.5 | -12.3 | -9.4  | -8.1  | -8.3  | -10.3 | -14.0 | -16.4 | -17.6 | -18.8 | -19.4 | -20.0           | -19.96        | -8.07         |
| 6-Feb  | -20.9                   | -20.9  | -22.0 | -21.9  | -21.9 | -23.0 | -24.0 | -24.2 | -24.7 | -24.5 | -22.6 | -19.1 | -16.1 | -14.0 | -12.1 | -11.4 | -11.6 | -11.8 | -11.9 | -11.8 | -11.8 | -11.8 | -11.8 | -11.8           | -17.40        | -11.40        |
| 7-Feb  | -11.8                   | -11.8  | -11.8 | -11.7  | -11.4 | -11.2 | -11.1 | -11.1 | -11.1 | -10.9 | -10.7 | -10.3 | -10.2 | -10.4 | -10.5 | -10.9 | -11.5 | -12.0 | -12.4 | -12.8 | -13.0 | -13.2 | -13.5 | -13.8           | -11.63        | -10.24        |
| 8-Feb  | -14.2                   | -14.6  | -14.9 | -15.1  | -15.3 | -15.6 | -15.7 | -15.7 | -15.8 | -15.8 | -15.5 | -15.0 | -14.5 | -14.1 | -13.5 | -13.8 | -14.5 | -15.8 | -17.0 | -18.7 | -20.8 | -22.5 | -24.3 | -25.9           | -16.62        | -13.54        |
| 9-Feb  | -26.9                   | -27.5  | -27.4 | -27.9  | -29.0 | -29.9 | -30.4 | -31.2 | -31.4 | -30.4 | -26.4 | -18.9 | -14.4 | -11.8 | -10.1 | -10.0 | -10.8 | -12.4 | -14.2 | -15.7 | -18.1 | -20.7 | -22.4 | -23.5           | -21.72        | -10.04        |
| 10-Feb   | -24.1                   | -23.7  | -23.4 | -22.4  | -17.6 | -14.7 | -13.1 | -13.2 | -13.5 | -12.5 | -11.8 | -10.9 | -9.4  | -7.9  | -6.8  | -6.2  | -6.5  | -7.1  | -7.9  | -8.7  | -9.4  | -10.0 | -9.7  | -9.1            | -12.49        | -6.20         |
| 11-Feb   | -9.5                    | -10.1  | -10.8 | -11.8  | -12.9 | -14.1 | -15.7 | -16.1 | -17.7 | -19.2 | -17.5 | -15.8 | -14.5 | -14.0 | -13.6 | -13.1 | -13.9 | -15.5 | -17.8 | -20.5 | -22.6 | -23.5 | -25.5 | -27.0           | -16.35        | -9.47         |
| 12-Feb   | -28.2                   | -28.9  | -29.6 | -25.3  | -17.7 | -16.4 | -16.3 | -15.8 | -15.1 | -13.7 | -12.5 | -10.9 | -8.2  | -6.0  | -4.5  | -3.2  | -2.3  | -1.8  | -0.8  | -0.5  | -0.6  | -0.3  | 0.3   | 1.1             | -10.71        | 1.06          |
| 13-Feb   | 1.3                     | 2.3  | 2.9   | 3.0  | 3.5   | 3.7   | 3.4   | 3.0   | 2.7   | 3.0   | 2.8   | 3.4   | 5.2   | 6.7   | 7.2   | 6.3   | 6.2   | 5.6   | 4.0   | 2.8   | 1.8   | 1.2   | 0.7   | 0.2             | 3.46          | 7.23          |
| 14-Feb   | -0.2                    | -0.6   | -1.4  | -1.7   | -3.2  | -2.8  | -4.9  | -6.7  | -7.4  | -7.7  | -6.9  | -6.3  | -6.4  | -7.3  | -8.4  | -9.5  | -10.0 | -10.6 | -11.4 | -12.0 | -12.5 | -13.9 | -15.6 | -17.9           | -7.71         | -0.19         |
| 15-Feb   | -19.3                   | -20.0  | -20.8 | -21.7  | -22.8 | -24.2 | -25.2 | -25.8 | -26.7 | -24.2 | -16.7 | -10.9 | -7.8  | -5.1  | -3.6  | -3.2  | -2.7  | -2.9  | -3.0  | -3.0  | -2.9  | -3.3  | -3.5  | -3.6            | -12.62        | -2.67         |
| 16-Feb   | -3.6                    | DF   | DF    | -4.1   | -3.8  | -4.0  | -4.1  | -3.9  | -4.2  | -4.5  | -4.5  | -4.4  | -4.0  | -4.1  | -4.2  | -3.9  | -4.1  | -5.4  | -6.6  | -7.3  | -7.7  | -8.3  | -9.3  | -9.9            | -5.27         | -3.61         |
| 17-Feb   | -10.5                   | -11.0  | -11.3 | -12.1  | -12.3 | -12.7 | -12.4 | -12.2 | -12.4 | -12.3 | -11.7 | -11.7 | -11.4 | -10.9 | -10.6 | -10.5 | -10.7 | -11.4 | -12.7 | -13.9 | -14.4 | -14.7 | -15.8 | -17.4           | -12.38        | -10.47        |
| 18-Feb   | -18.8                   | -19.1  | -20.0 | -19.9  | -21.1 | -21.4 | -20.9 | -20.6 | -20.5 | -18.7 | -16.1 | -13.7 | -13.1 | -12.5 | -12.4 | -12.3 | -12.1 | -12.4 | -13.4 | -13.8 | -14.3 | -14.9 | -15.4 | -17.2           | -16.44        | -12.10        |
| 19-Feb   | -18.6                   | -20.7  | -22.0 | -23.4  | -24.9 | -25.7 | -26.3 | -26.7 | -26.9 | -23.0 | -18.6 | -16.3 | -13.3 | -12.2 | -10.4 | -9.7  | -8.9  | -9.6  | -11.2 | -12.6 | -13.9 | -14.1 | -13.3 | -12.8           | -17.30        | -8.91         |
| 20-Feb   | -13.0                   | -13.4  | -14.0 | -14.6  | -15.0 | -15.8 | -16.7 | -17.3 | -16.8 | -16.8 | -15.3 | -12.7 | -9.5  | -8.8  | -8.4  | -8.5  | -8.8  | -9.4  | -9.9  | -10.2 | -11.7 | -14.0 | -16.4 | -17.8           | -13.11        | -8.41         |
| 21-Feb   | -20.3                   | -21.8  | -22.9 | -22.7  | -14.4 | -12.7 | -12.3 | -11.7 | -11.2 | -10.9 | -9.9  | -8.7  | -7.7  | -6.7  | -6.4  | -6.0  | -6.4  | -7.0  | -8.0  | -8.6  | -8.8  | -8.6  | -8.5  | -9.1            | -11.30        | -6.05         |
| 22-Feb   | -9.5                    | -9.9   | -10.3 | -10.6  | -10.8 | -10.9 | -11.0 | -11.3 | -11.4 | -10.6 | -9.1  | -7.7  | -5.8  | -4.3  | -3.6  | -3.5  | -3.7  | -4.3  | -5.3  | -6.8  | -7.8  | -10.0 | -11.3 | -9.0            | -8.27         | -3.54         |
| 23-Feb   | -7.4                    | -7.4   | -7.2  | -7.4   | -8.1  | -7.8  | -6.7  | -6.1  | -5.8  | -5.4  | -4.7  | -3.1  | -2.4  | -2.1  | -2.4  | -2.3  | -1.8  | -1.1  | -2.1  | -2.8  | -3.3  | -3.8  | -4.5  | -4.9            | -4.61         | -1.14         |
| 24-Feb   | -5.6                    | -5.1   | -5.1  | -5.1   | -5.3  | -5.5  | -5.9  | -6.1  | -5.8  | -4.3  | -2.9  | -1.7  | -1.1  | -0.8  | -0.1  | -0.5  | -1.1  | -1.4  | -2.5  | -3.0  | -3.2  | -3.0  | -3.2  | -3.0            | -3.38         | -0.15         |
| 25-Feb   | -2.8                    | -3.4   | -4.0  | -3.8   | -3.8  | -4.1  | -4.2  | -4.6  | -4.6  | -2.5  | -1.4  | -0.6  | -0.1  | 0.4   | 1.3   | 1.5   | 0.6   | -0.3  | -1.0  | -2.2  | -2.9  | -2.9  | -3.2  | -3.9            | -2.18         | 1.53          |
| 26-Feb   | -4.3                    | -4.7   | -5.3  | -5.3   | -6.2  | -7.8  | -10.7 | -12.7 | -12.6 | -7.9  | -2.9  | -0.3  | 0.7   | 1.2   | 1.3   | 1.1   | 0.6   | -0.3  | -1.1  | -1.4  | -1.3  | -1.1  | -1.0  | -0.7            | -3.45         | 1.33          |
| 27-Feb   | -0.7                    | -0.9   | -1.0  | -1.0   | -1.1  | -1.4  | -1.7  | -1.9  | -1.8  | -0.5  | 0.4   | 1.3   | 1.2   | 1.0   | 1.2   | 2.0   | 1.5   | 0.2   | -1.8  | -3.0  | -4.0  | -2.8  | -3.1  | -3.7            | -0.90         | 1.99          |
| 28-Feb   | -4.3                    | -4.1   | -5.5  | -9.2   | -10.8 | -11.7 | -12.8 | -14.1 | -14.0 | -10.5 | -6.2  | -0.6  | 2.2   | 2.8   | 3.2   | 2.7   | 1.9   | 1.1   | -0.3  | -2.4  | -2.4  | -2.9  | -3.3  | -3.9            | -4.39         | 3.17          |
|  |                         |  |       |  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Diurnal Average |               |               |
|  |                         |  |       |  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | Diurnal Maximum |               |               |
| -13.71 -14.43 -14.90 -14.69 -14.40 -14.57 -14.95 -15.23 -15.31 -14.24 -12.48 -10.41 -8.84 -7.92 -7.28 -7.05 -7.28 -8.00 -9.09 -10.11 -10.86 -11.53 -12.09 -12.55 |                         |  |       |  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |               |               |
| 1.29 2.30 2.91 3.02 3.47 3.72 3.41 2.97 2.72 3.01 2.78 3.41 5.23 6.70 7.23 6.35 6.16 5.58 4.00 2.81 1.84 1.20 0.69 1.06  |                         |  |       |  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |               |               |
| DF - DAS Failure   |                         |  |       |  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |               |               |



**WCAS - Hinton**  
**Summary of Hourly Averages**

**Wind Speed (WS) - kph**  
**February 2018**

| 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  | 1.7                           | 1.5  | 0.3  | 0.3  | 0.4  | 0.3  | 0.4  | 0.4  | 1.3  | 1.9  | 3.1  | 4.9  | 4.6  | 5.7  | 3.3  | 4.1  | 5.1  | 4.6  | 6.9  | 5.5  | 4.4  | 4.1  | 7.0  | 6.1  | 3.13          | 7.02          |     |
| Dir    | ENE                           | NNE  | NNE  | NNE  | NNW  | N    | WNW  | N    | NNE  | E    | ENE  | ENE  | ENE  | ENE  | NE   | ENE  | ENE  | NE   | ENE  | ENE  | NE   | NE   | ENE  | ENE  | ENE           | ENE           |     |
| 2 Spd  | 6.3                           | 7.5  | 7.2  | 7.6  | 7.5  | 7.3  | 7.1  | 7.5  | 7.7  | 8.9  | 7.1  | 6.7  | 6.5  | 6.2  | 6.8  | 6.2  | 5.5  | 6.2  | 6.7  | 7.8  | 4.7  | 5.0  | 2.7  | 3.6  | 6.47          | 8.91          |     |
| Dir    | ENE                           | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | NE   | NE   | NE   | NE   | NE   | ENE  | ENE  | ENE  | NE   | ENE  | NE   | NNE  | ENE           | ENE           |     |
| 3 Spd  | 3.6                           | 3.3  | 1.7  | 2.5  | 2.8  | 1.2  | 1.5  | 0.6  | 1.4  | 0.8  | 1.4  | 1.6  | 2.6  | 3.9  | 3.1  | 2.4  | 1.3  | 0.5  | 0.8  | 0.4  | 1.5  | 0.4  | 1.1  | 2.3  | 0.54          | 3.88          |     |
| Dir    | N                             | NNE  | NNE  | ENE  | NE   | NE   | NNE  | NW   | W    | WNW  | NNW  | ENE  | SSE  | ESE  | S    | ESE  | ENE  | E    | SSW  | S    | WSW  | NNW  | W    | W    | NE            | ESE           |     |
| 4 Spd  | 1.9                           | 1.6  | 1.0  | 1.0  | 0.9  | 0.7  | 1.1  | 0.9  | 0.2  | 0.4  | 0.3  | 1.9  | 1.6  | 1.0  | 2.3  | 0.8  | 1.6  | 0.6  | 0.4  | 0.6  | 0.5  | 0.1  | 0.5  | 0.1  | 0.63          | 2.32          |     |
| Dir    | WNW                           | W    | NW   | NW   | W    | W    | WSW  | W    | NNE  | NNE  | N    | SW   | WSW  | W    | SW   | SW   | S    | W    | E    | ESE  | S    | WSW  | WSW  | SSW  | WSW           | SW            |     |
| 5 Spd  | 0.6                           | 0.7  | 0.3  | 0.4  | 1.0  | 0.8  | 0.9  | 0.5  | 0.6  | 1.0  | 1.6  | 0.5  | 0.7  | 1.6  | 0.9  | 0.7  | 0.6  | 1.8  | 0.9  | 0.3  | 0.6  | 0.7  | 0.7  | 1.0  | 0.27          | 1.81          |     |
| Dir    | ESE                           | NNW  | NNE  | NE   | W    | WNW  | NW   | WNW  | NW   | NW   | NW   | ESE  | SW   | ESE  | WNW  | NW   | SSW  | SSW  | ESE  | SW   | W    | SSW  | SW   | SSW  | W             | SSW           |     |
| 6 Spd  | 2.8                           | 0.8  | 0.1  | 0.9  | 1.0  | 1.1  | 0.4  | 0.6  | 0.6  | 1.1  | 0.7  | 0.2  | 1.8  | 2.2  | 2.7  | 4.3  | 5.0  | 5.4  | 4.4  | 3.3  | 3.0  | 3.2  | 1.9  | 2.7  | 1.47          | 5.41          |     |
| Dir    | W                             | W    | ENE  | WSW  | W    | ENE  | NNW  | WNW  | WNW  | NW   | NW   | E    | E    | ENE  | NE   | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | NE   | NE   | ENE  | NE            | ENE           |     |
| 7 Spd  | 2.2                           | 3.3  | 4.9  | 1.9  | 1.1  | 0.5  | 0.2  | 2.8  | 3.7  | 3.4  | 6.4  | 7.8  | 8.1  | 7.9  | 8.8  | 8.3  | 8.9  | 9.2  | 8.1  | 8.7  | 8.0  | 8.1  | 7.3  | 4.7  | 5.53          | 9.25          |     |
| Dir    | NE                            | ENE  | ENE  | NE   | SE   | N    | W    | ENE  | ENE  | NE   | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | NE   | ENE           | ENE           |     |
| 8 Spd  | 4.4                           | 4.5  | 4.4  | 5.4  | 6.0  | 5.2  | 5.0  | 4.6  | 5.9  | 5.6  | 4.8  | 5.6  | 5.8  | 5.0  | 6.0  | 5.9  | 6.9  | 3.8  | 1.7  | 1.5  | 1.2  | 1.0  | 0.5  | 0.7  | 4.18          | 6.91          |     |
| Dir    | NE                            | NE   | NE   | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | NE   | NE   | NE   | NE   | ENE  | ENE  | NE   | ENE  | ENE  | NE   | ENE  | E    | E    | E    | NE   | ENE           | ENE           |     |
| 9 Spd  | 0.7                           | 0.4  | 0.3  | 0.2  | 1.7  | 2.8  | 1.2  | 2.1  | 0.9  | 0.9  | 1.8  | 1.4  | 1.2  | 1.2  | 0.8  | 0.9  | 1.5  | 2.1  | 2.2  | 1.5  | 1.3  | 0.6  | 0.3  | 1.1  | 1.08          | 2.77          |     |
| Dir    | ENE                           | NNW  | NNW  | NNW  | W    | W    | WNW  | WNW  | WNW  | W    | NW   | WNW  | WNW  | WNW  | W    | WSW  | WSW  | WSW  | W    | WNW  | WNW  | WNW  | W    | W    | W             | W             |     |
| 10 Spd | 2.6                           | 3.3  | 2.0  | 1.9  | 3.6  | 4.3  | 7.7  | 9.0  | 8.7  | 10.8 | 9.1  | 8.9  | 7.6  | 6.3  | 4.5  | 3.1  | 0.7  | 0.8  | 0.2  | 0.4  | 1.4  | 0.8  | 1.4  | 1.4  | 3.60          | 10.78         |     |
| Dir    | WNW                           | WNW  | NW   | WNW  | WNW  | WSW  | SW   | SW   | SW   | SW   | SW   | SW   | SW   | SW   | SW   | SW   | NNW  | WNW  | NE   | ESE  | SW   | WSW  | E    | N    | WSW           | SW            |     |
| 11 Spd | 7.1                           | 6.9  | 2.8  | 3.3  | 3.3  | 8.1  | 7.5  | 2.7  | 1.5  | 2.3  | 3.1  | 4.5  | 5.1  | 4.0  | 4.8  | 3.0  | 2.4  | 2.3  | 1.7  | 0.8  | 0.8  | 0.7  | 0.5  | 0.7  | 2.99          | 8.09          |     |
| Dir    | ENE                           | E    | ENE  | NNE  | NNE  | ENE  | ENE  | E    | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | NE   | ENE  | E    | ESE  | SW   | WSW  | NE   | W    | ENE           | ENE           |     |
| 12 Spd | 0.9                           | 0.8  | 2.2  | 4.6  | 10.2 | 16.6 | 15.6 | 13.8 | 14.4 | 17.0 | 18.4 | 15.1 | 12.6 | 14.5 | 15.7 | 14.1 | 11.3 | 11.5 | 12.3 | 12.8 | 11.9 | 13.4 | 17.3 | 17.0 | 12.02         | 18.43         |     |
| Dir    | WNW                           | NW   | NW   | W    | WSW  | SW   | SW   | SW   | WSW  | SW   | SW   | SW   | SW   | SW   | SW   | SW   | SW   | SW   | SW   | WSW  | WSW  | SW   | SW   | SW   | SW            | SW            | SW  |
| 13 Spd | 17.6                          | 12.6 | 12.0 | 15.1 | 11.8 | 10.0 | 12.0 | 7.8  | 11.2 | 9.5  | 12.9 | 13.9 | 10.9 | 9.2  | 4.2  | 3.5  | 3.8  | 3.2  | 3.4  | 5.2  | 4.3  | 3.5  | 4.2  | 4.0  | 8.15          | 17.56         |     |
| Dir    | SSW                           | SW   | SW   | WSW  | WSW  | WSW  | SW   | WSW  | SW   | SW   | WSW  | SW   | SW   | SW   | WSW  | W    | SW   | W    | W    | W    | W    | W    | W    | NNW  | WSW           | SSW           |     |
| 14 Spd | 2.5                           | 2.5  | 0.6  | 1.9  | 0.7  | 3.8  | 6.2  | 4.3  | 3.0  | 3.5  | 2.0  | 2.4  | 5.4  | 7.9  | 10.7 | 8.7  | 8.3  | 6.5  | 5.0  | 4.6  | 2.8  | 2.3  | 1.3  | 0.6  | 2.98          | 10.69         |     |
| Dir    | W                             | WSW  | W    | W    | SSW  | NNW  | NNE  | N    | NNE  | NE   | NNE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | N    | NE   | SE   | SSE  | NE            | ENE           |     |
| 15 Spd | 1.0                           | 2.7  | 2.9  | 1.7  | 1.0  | 0.7  | 0.9  | 0.8  | 0.8  | 0.6  | 2.5  | 4.9  | 9.7  | 9.4  | 12.1 | 12.2 | 11.2 | 8.3  | 5.9  | 5.0  | 9.5  | 10.8 | 9.0  | 6.1  | 5.19          | 12.20         |     |
| Dir    | S                             | SW   | SW   | SW   | SSE  | NW   | NW   | WNW  | WNW  | NW   | WNW  | WSW  | WSW  | WSW  | WSW  | WSW  | WSW  | WSW  | WSW  | W    | WSW  | WSW  | WSW  | WSW  | WSW           | WSW           | WSW |
| 16 Spd | 5.1                           | DF   | DF   | 5.5  | 5.3  | 5.4  | 3.9  | 2.6  | 1.8  | 3.5  | 1.1  | 1.5  | 3.0  | 2.6  | 2.8  | 4.4  | 4.9  | 4.5  | 3.4  | 0.9  | 2.4  | 1.4  | 0.9  | 1.0  | 2.17          | 5.53          |     |
| Dir    | WSW                           | DF   | DF   | WSW  | WSW  | WSW  | W    | WSW  | NW   | NW   | WSW  | WSW  | N    | NNW  | N    | NW   | NNW  | NNW  | NNE  | NE   | WSW  | W    | NW   | SW   | WNW           | WSW           |     |
| 17 Spd | 1.0                           | 1.3  | 1.5  | 0.6  | 0.6  | 1.2  | 2.8  | 4.2  | 2.8  | 3.8  | 7.0  | 9.2  | 7.2  | 5.4  | 2.8  | 4.1  | 3.3  | 3.6  | 1.1  | 1.2  | 3.2  | 5.4  | 1.2  | 0.6  | 2.42          | 9.19          |     |
| Dir    | W                             | SSW  | SW   | NE   | ESE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | ENE  | E    | ENE  | NE   | NE   | NNE  | N    | NW   | N    | N    | N    | WSW  | NE   | ENE           |               |     |
| 18 Spd | 1.0                           | 2.7  | 2.0  | 2.8  | 3.4  | 1.7  | 1.7  | 1.9  | 2.0  | 2.0  | 1.5  | 2.3  | 2.9  | 3.6  | 5.5  | 5.6  | 4.4  | 3.8  | 2.9  | 3.0  | 0.9  | 1.5  | 2.3  | 0.8  | 2.17          | 5.55          |     |
| Dir    | WSW                           | WSW  | WSW  | SW   | W    | WNW  | W    | W    | WNW  | WNW  | W    | WNW  | NW   | NW   | NW   | NW   | NW   | NNW  | NW   | SW   | WSW  | W    | WSW  | W    | WNW           | NW            |     |
| 19 Spd | 1.7                           | 1.1  | 2.4  | 1.5  | 1.9  | 1.8  | 1.2  | 1.4  | 1.2  | 1.6  | 2.3  | 3.4  | 3.5  | 6.6  | 8.6  | 8.4  | 7.8  | 6.5  | 6.1  | 3.0  | 2.4  | 1.1  | 3.1  | 2.2  | 3.12          | 8.61          |     |
| Dir    | WSW                           | WSW  | W    | W    | WNW  | WNW  | WNW  | W    | W    | WNW  | W    | W    | WSW  | SW   | SW   | SW   | SW   | SW   | SW   | W    | W    | WNW  | WSW  | WSW  | WSW           | WSW           | SW  |
| 20 Spd | 4.1                           | 3.1  | 2.9  | 4.8  | 3.7  | 2.0  | 2.1  | 3.3  | 4.6  | 1.9  | 2.6  | 2.5  | 5.4  | 6.2  | 6.5  | 5.7  | 5.2  | 3.8  | 3.2  | 2.1  | 1.1  | 1.4  | 1.0  | 1.4  | 2.62          | 6.51          |     |
| Dir    | SW                            | WSW  | WSW  | WSW  | WSW  | WSW  | WSW  | WSW  | WSW  | W    | W    | W    | NW   | NNW  | NW   | NW   | NW   | NNW  | WNW  | W    | WSW  | SW   | SW   | SW   | W             | NW            |     |
| 21 Spd | 0.3                           | 0.4  | 1.0  | 2.4  | 8.0  | 10.6 | 11.6 | 11.4 | 10.1 | 10.0 | 11.4 | 12.2 | 12.9 | 12.4 | 9.7  | 8.8  | 6.7  | 3.1  | 5.3  | 2.0  | 2.5  | 4.7  | 3.6  | 6.3  | 6.79          | 12.87         |     |
| Dir    | ESE                           | NNE  | ENE  | W    | SW   | SW   | SW   | SW   | WSW  | SW   | SW   | SW   | SW   | SW   | SW   | SW   | WSW  | WSW  | WSW  | WSW  | WSW  | SW   | SW   | SW   | SW            | SW            | SW  |
| 22 Spd | 5.4                           | 6.0  | 7.1  | 7.9  | 6.6  | 6.1  | 7.0  | 6.7  | 6.4  | 5.5  | 5.8  | 8.6  | 7.4  | 6.5  | 6.6  | 9.1  | 8.6  | 8.1  | 8.1  | 3.1  | 2.3  | 1.3  | 1.4  | 5.1  | 6.06          | 9.07          |     |
| Dir    | SW                            | SW   | SW   | SW   | SW   | SW   | SW   | WSW  | SW   | WSW  | SW   | SW   | SW   | SW   | SW   | SW   | SW   | SW   | WSW  | WSW  | WSW  | WNW  | W    | WSW  | SW            | SW            |     |



**WCAS - Hinton**  
**Summary of Hourly Averages**

**Wind Speed (WS) - kph**  
**February 2018**

| 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   | 8.1                           | 10.2   | 11.2     | 12.7     | 12.5     | 12.7   | 11.8   | 10.7   | 11.5   | 9.5    | 12.1   | 11.6   | 13.4   | 13.8   | 11.7   | 10.2                           | 13.8   | 14.6   | 13.5   | 10.7   | 11.5   | 7.7    | 7.6    | 9.6    | 11.26           | 14.60         |
| Dir  | WSW                           | WSW  | WSW      | WSW      | SW       | SW     | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW                            | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW             | WSW           |
| 24 Spd   | 6.7                           | 8.2  | 10.4     | 8.1      | 8.4      | 6.5    | 6.8    | 10.9   | 11.3   | 9.6    | 10.6   | 13.1   | 13.2   | 13.3   | 14.9   | 13.0                           | 11.7   | 12.0   | 10.8   | 9.8    | 9.0    | 10.8   | 10.6   | 8.7    | 10.32           | 14.93         |
| Dir  | WSW                           | WSW  | WSW      | WSW      | WSW      | WSW    | WSW    | SW     | SW     | SW     | WSW    | WSW    | WSW    | WSW    | WSW    | WSW                            | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW             | WSW           |
| 25 Spd   | 8.3                           | 6.0  | 5.2      | 4.4      | 4.7      | 3.6    | 5.0    | 6.5    | 6.0    | 7.1    | 8.1    | 10.7   | 9.3    | 9.0    | 9.2    | 5.6                            | 4.2    | 5.3    | 3.7    | 0.1    | 0.4    | 3.3    | 2.5    | 1.1    | 4.57            | 10.68         |
| Dir  | WSW                           | W  | W        | W        | W        | W      | WSW    | SW     | SW     | WSW    | WSW    | WSW    | SW     | WSW    | WSW    | W                              | WNW    | WNW    | WNW    | W      | NNE    | NNE    | ESE    | ESE    | WSW             | WSW           |
| 26 Spd   | 1.8                           | 1.6  | 2.7      | 4.4      | 4.7      | 3.1    | 1.0    | 0.3    | 0.6    | 1.1    | 6.2    | 12.8   | 12.8   | 14.6   | 16.4   | 17.0                           | 15.8   | 13.2   | 12.2   | 12.0   | 14.4   | 15.7   | 16.1   | 14.8   | 8.78            | 17.01         |
| Dir  | SW                            | WSW  | SW       | SW       | SW       | WSW    | W      | SE     | SE     | E      | WSW    | WSW    | WSW    | WSW    | WSW    | WSW                            | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW             | WSW           |
| 27 Spd   | 12.4                          | 10.7   | 8.4      | 11.5     | 8.8      | 10.9   | 9.1    | 8.0    | 6.4    | 8.7    | 12.3   | 6.9    | 5.8    | 13.8   | 10.4   | 8.9                            | 7.8    | 5.6    | 2.5    | 1.1    | 1.2    | 6.3    | 3.3    | 2.4    | 7.48            | 13.77         |
| Dir  | WSW                           | WSW  | WSW      | WSW      | WSW      | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW                            | WNW    | WNW    | W      | W      | SW     | WSW    | WSW    | WSW    | WSW             | WSW           |
| 28 Spd   | 1.6                           | 5.1  | 2.6      | 0.4      | 0.5      | 0.4    | 0.7    | 0.9    | 0.7    | 0.1    | 2.0    | 0.4    | 7.2    | 6.7    | 3.7    | 3.5                            | 2.5    | 1.4    | 0.3    | 1.2    | 0.9    | 2.2    | 3.7    | 4.8    | 0.63            | 7.24          |
| Dir  | WSW                           | SW   | WSW      | ENE      | E        | ENE    | E      | ENE    | ESE    | E      | E      | ENE    | WSW    | WSW    | W      | W                              | W      | W      | ESE    | E      | E      | ESE    | E      | ENE    | WSW             | WSW           |
| Spd  | 1.92                          | 1.87   | 1.85     | 2.46     | 2.71     | 2.47   | 2.46   | 2.58   | 2.50   | 2.28   | 2.86   | 3.04   | 3.00   | 3.23   | 3.09   | 2.64                           | 2.18   | 2.00   | 1.73   | 1.32   | 1.95   | 1.86   | 1.85   | 2.10   | Diurnal Average |               |
| Dir  | WSW                           | WSW  | WSW      | WSW      | WSW      | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | WSW                            | W      | W      | WSW    | WSW    | WSW    | WSW    | WSW    | WSW    | Diurnal Maximum |               |
| Spd  | 17.56                         | 12.59  | 12.00    | 15.13    | 12.51    | 16.59  | 15.57  | 13.76  | 14.41  | 17.02  | 18.43  | 15.15  | 13.37  | 14.58  | 16.41  | 17.01                          | 15.82  | 14.60  | 13.53  | 12.79  | 14.44  | 15.66  | 17.31  | 17.02  | Diurnal Maximum |               |
| Dir  | 202.24                        | 232.51   | 231.44   | 240.61   | 228.16   | 234.35 | 233.44 | 236.30 | 238.85 | 234.94 | 231.47 | 227.10 | 244.60 | 243.30 | 243.47 | 243.77                         | 244.13 | 239.97 | 241.31 | 242.33 | 250.61 | 248.27 | 224.44 | 226.00 |                 |               |
| Maximum Speed Value: 18.4 kph on Feb 12 11:00                                      |                               | Minimum Speed Value: 0.1 kph on Feb 5 00:00  |          |          |          |        |        |        |        |        |        |        |        |        |        | Hours in Service: 672          |        |        |        |        |        |        |        |        |                 |               |
| Maximum Daily Speed Average: 12.02 kph on Feb 12                                   |                               | Minimum Daily Speed Average: 0.27 kph on Feb 5   |          |          |          |        |        |        |        |        |        |        |        |        |        | Hours of Data: 670             |        |        |        |        |        |        |        |        |                 |               |
| Maximum Diurnal Speed Average: 3.23 kph at hour 14                                 |                               | Minimum Diurnal Speed Average: 1.32 kph at hour 20   |          |          |          |        |        |        |        |        |        |        |        |        |        | Hours of Missing Data: 2       |        |        |        |        |        |        |        |        |                 |               |
| Monthly Average Velocity: 2.316 kph 247.89 deg                                     |                               | Speed Percentiles: P <sub>1</sub> = 0.2 P <sub>10</sub> = 0.7 Q <sub>1</sub> = 1.4 Median = 3.6 Q <sub>3</sub> = 7.6 P <sub>90</sub> = 11.5 P <sub>99</sub> = 16.5 |          |          |          |        |        |        |        |        |        |        |        |        |        | Percent Operational Time: 99.7 |        |        |        |        |        |        |        |        |                 |               |
| All monthly, daily, and diurnal averages have been calculated using vector methods |                               |  |          |          |          |        |        |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
| DF - DAS Failure   |                               |  |          |          |          |        |        |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
| Frequency Distribution   |                               |  |          |          |          |        |        |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
|  |                               | Speed Range (kph)  |          |          |          |        |        |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
| Direction  | 0 to 5                        | 5 to 11  | 11 to 19 | 19 to 28 | 28 to 38 | > 38   | Total  |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
| North  | 30                            | 2  | 0        | 0        | 0        | 0      | 32     |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
| NorthEast  | 75                            | 61   | 0        | 0        | 0        | 0      | 136    |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
| East   | 40                            | 8  | 0        | 0        | 0        | 0      | 48     |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
| SouthEast  | 13                            | 0  | 0        | 0        | 0        | 0      | 13     |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
| South  | 13                            | 0  | 1        | 0        | 0        | 0      | 14     |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
| SouthWest  | 51                            | 85   | 67       | 0        | 0        | 0      | 203    |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
| West   | 118                           | 34   | 9        | 0        | 0        | 0      | 161    |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
| NorthWest  | 55                            | 8  | 0        | 0        | 0        | 0      | 63     |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |
| Total  | 395                           | 198  | 77       | 0        | 0        | 0      | 670    |        |        |        |        |        |        |        |        |                                |        |        |        |        |        |        |        |        |                 |               |



**WCAS - Hinton**  
**Summary of Hourly Averages**

**Relative Humidity (RH) - %**  
**February 2018**

| Maximum Value: 85.40 % on Feb 7 07:00      Maximum Daily Average: 83.01 % on Feb 7<br>Minimum Value: 22.1 % on Feb 15 16:00      Minimum Daily Average: 34.58 % on Feb 24<br>Maximum Diurnal Average: 66.23 % at hour 3      Minimum Diurnal Average: 48.07 % at hour 16<br>Monthly Average: 59.590 %      Percentiles: P <sub>1</sub> = 24.6 P <sub>10</sub> = 33.1 Q <sub>1</sub> = 42.8 Median = 65.3 Q <sub>3</sub> = 74.9 P <sub>90</sub> = 79.0 P <sub>99</sub> = 83.8 |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Hours in Service:         | 672           |               |
|--|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------------------|---------------|---------------|
|  |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Hours of Data:            | 670           |               |
|  |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Hours of Missing Data:    | 2             |               |
|  |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Hours of Calibration:     | 0             |               |
|  |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Percent Operational Time: | 99.7          |               |
| 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-Feb  | 79.2                    | 78.4 | 78.0 | 78.6 | 78.6 | 78.1 | 78.0 | 78.9 | 78.5 | 78.9 | 76.7 | 72.0 | 62.0 | 60.9 | 62.5 | 61.4 | 67.2 | 72.1 | 73.2 | 73.2 | 74.0 | 75.6 | 75.1 | 73.8                      | 73.54         | 79.21         |
| 2-Feb  | 73.2                    | 72.4 | 73.8 | 74.7 | 73.8 | 73.8 | 74.4 | 74.1 | 72.9 | 71.5 | 72.1 | 72.0 | 70.4 | 68.0 | 68.6 | 68.0 | 68.2 | 70.3 | 71.6 | 72.2 | 72.6 | 72.1 | 72.8 | 73.3                      | 71.95         | 74.73         |
| 3-Feb  | 70.5                    | 72.6 | 73.3 | 73.7 | 70.7 | 71.8 | 72.3 | 72.4 | 72.1 | 66.9 | 65.0 | 62.4 | 58.2 | 59.3 | 57.5 | 54.0 | 61.7 | 68.9 | 74.9 | 73.8 | 73.3 | 71.6 | 71.7 | 71.9                      | 68.35         | 74.91         |
| 4-Feb  | 70.6                    | 69.5 | 69.2 | 69.2 | 68.7 | 68.6 | 68.8 | 69.2 | 70.1 | 72.0 | 74.9 | 78.1 | 78.5 | 77.7 | 74.9 | 72.7 | 71.3 | 75.9 | 79.5 | 81.1 | 79.0 | 77.3 | 78.0 | 76.2                      | 73.79         | 81.06         |
| 5-Feb  | 76.5                    | 74.7 | 73.7 | 72.8 | 72.4 | 71.4 | 70.9 | 70.2 | 69.9 | 71.4 | 72.3 | 76.0 | 70.0 | 60.4 | 56.5 | 55.1 | 58.8 | 69.5 | 79.2 | 81.5 | 80.9 | 79.4 | 79.0 | 78.5                      | 71.70         | 81.46         |
| 6-Feb  | 77.9                    | 77.5 | 76.8 | 77.1 | 76.8 | 75.6 | 74.6 | 74.7 | 73.9 | 74.3 | 75.7 | 79.0 | 80.2 | 78.8 | 71.9 | 69.7 | 70.9 | 74.5 | 77.1 | 77.3 | 78.9 | 80.3 | 82.8 | 83.4                      | 76.65         | 83.35         |
| 7-Feb  | 83.4                    | 83.6 | 83.8 | 83.6 | 84.0 | 84.8 | 85.4 | 85.3 | 84.8 | 84.3 | 83.3 | 81.8 | 80.9 | 80.5 | 80.9 | 81.3 | 82.1 | 82.6 | 82.9 | 82.7 | 82.6 | 82.6 | 82.6 | 82.6                      | 83.01         | 85.40         |
| 8-Feb  | 82.3                    | 82.0 | 82.0 | 81.9 | 81.7 | 81.7 | 81.6 | 81.5 | 81.4 | 81.2 | 80.7 | 79.7 | 78.7 | 77.7 | 76.8 | 76.8 | 76.2 | 77.8 | 80.0 | 79.5 | 77.9 | 76.1 | 74.4 | 72.9                      | 79.27         | 82.31         |
| 9-Feb  | 72.1                    | 71.3 | 71.3 | 70.4 | 69.1 | 68.6 | 68.0 | 67.2 | 67.0 | 68.2 | 71.8 | 72.9 | 70.4 | 68.8 | 67.5 | 67.8 | 71.2 | 76.2 | 79.2 | 81.2 | 79.2 | 78.2 | 76.6 | 76.1                      | 72.10         | 81.17         |
| 10-Feb   | 75.3                    | 75.8 | 75.1 | 78.1 | 80.5 | 76.4 | 70.7 | 67.6 | 66.8 | 64.0 | 61.4 | 60.2 | 57.1 | 55.4 | 55.0 | 56.4 | 66.1 | 72.2 | 77.3 | 80.5 | 82.5 | 84.5 | 81.6 | 78.6                      | 70.79         | 84.48         |
| 11-Feb   | 83.6                    | 80.2 | 77.8 | 75.5 | 74.8 | 75.6 | 72.2 | 73.6 | 77.0 | 78.4 | 73.4 | 64.2 | 59.3 | 54.1 | 53.2 | 50.3 | 59.0 | 65.8 | 72.4 | 77.2 | 77.0 | 75.2 | 72.6 | 71.8                      | 70.60         | 83.63         |
| 12-Feb   | 71.0                    | 70.5 | 69.8 | 75.3 | 65.6 | 56.9 | 54.2 | 51.9 | 49.8 | 45.3 | 41.4 | 37.4 | 32.2 | 27.4 | 25.5 | 24.4 | 24.4 | 25.8 | 24.9 | 26.2 | 28.5 | 30.3 | 33.6 | 36.8                      | 42.89         | 75.32         |
| 13-Feb   | 40.5                    | 43.7 | 45.0 | 46.3 | 46.1 | 46.4 | 47.7 | 50.2 | 49.9 | 48.9 | 51.8 | 50.8 | 44.9 | 41.4 | 39.8 | 44.6 | 42.8 | 43.2 | 49.8 | 54.0 | 58.6 | 58.3 | 56.9 | 56.9                      | 48.27         | 58.60         |
| 14-Feb   | 59.3                    | 64.4 | 70.1 | 69.9 | 74.7 | 70.6 | 75.6 | 76.5 | 68.5 | 69.4 | 65.9 | 54.5 | 56.8 | 64.4 | 69.7 | 74.5 | 76.6 | 75.7 | 78.4 | 77.3 | 74.8 | 72.2 | 76.0 | 80.4                      | 70.68         | 80.44         |
| 15-Feb   | 79.8                    | 78.3 | 77.2 | 76.8 | 75.4 | 73.9 | 73.2 | 72.5 | 72.0 | 74.4 | 75.0 | 59.2 | 42.3 | 30.7 | 22.6 | 22.1 | 22.4 | 24.1 | 25.8 | 28.2 | 28.4 | 34.2 | 37.9 | 39.7                      | 51.93         | 79.83         |
| 16-Feb   | 39.5                    | DF   | DF   | 41.9 | 43.1 | 44.5 | 46.7 | 46.3 | 51.2 | 66.1 | 76.0 | 78.7 | 61.8 | 60.8 | 61.3 | 53.4 | 51.4 | 53.2 | 55.3 | 57.2 | 59.8 | 59.8 | 60.9 | 62.5                      | 55.98         | 78.70         |
| 17-Feb   | 64.5                    | 68.3 | 70.1 | 74.0 | 76.2 | 80.1 | 82.7 | 83.1 | 83.3 | 81.6 | 74.9 | 67.4 | 61.1 | 55.3 | 54.6 | 55.4 | 57.1 | 54.1 | 55.5 | 59.1 | 62.1 | 56.9 | 62.1 | 69.3                      | 67.03         | 83.31         |
| 18-Feb   | 76.2                    | 77.3 | 78.7 | 78.6 | 77.7 | 76.9 | 77.5 | 77.3 | 77.7 | 78.9 | 77.6 | 58.2 | 50.9 | 44.7 | 43.5 | 45.6 | 45.5 | 46.8 | 52.6 | 54.9 | 57.8 | 61.3 | 65.1 | 68.8                      | 64.59         | 78.88         |
| 19-Feb   | 72.7                    | 75.9 | 76.6 | 74.8 | 73.4 | 73.2 | 72.5 | 71.9 | 71.7 | 73.3 | 64.5 | 52.9 | 37.9 | 33.2 | 29.2 | 27.5 | 26.8 | 28.8 | 34.6 | 41.2 | 48.5 | 52.4 | 51.4 | 51.8                      | 54.86         | 76.65         |
| 20-Feb   | 51.9                    | 53.0 | 55.5 | 54.0 | 57.0 | 59.6 | 62.4 | 65.5 | 61.0 | 62.0 | 58.4 | 53.0 | 46.4 | 42.7 | 40.0 | 44.1 | 47.6 | 53.6 | 51.0 | 47.5 | 48.3 | 55.9 | 67.1 | 72.3                      | 54.58         | 72.28         |
| 21-Feb   | 76.1                    | 77.1 | 76.1 | 76.2 | 52.8 | 43.5 | 41.9 | 40.4 | 40.9 | 41.4 | 41.2 | 38.7 | 35.7 | 33.6 | 33.4 | 33.5 | 36.9 | 51.7 | 64.9 | 58.4 | 54.2 | 50.2 | 57.1 | 71.3                      | 51.13         | 77.15         |
| 22-Feb   | 73.4                    | 72.7 | 73.4 | 72.6 | 71.9 | 72.4 | 71.4 | 70.3 | 69.2 | 64.0 | 56.3 | 49.8 | 42.3 | 35.8 | 30.3 | 29.1 | 28.1 | 30.7 | 32.9 | 38.0 | 41.1 | 46.9 | 51.4 | 43.9                      | 52.84         | 73.45         |
| 23-Feb   | 38.8                    | 36.4 | 35.6 | 35.5 | 36.7 | 36.1 | 34.5 | 34.9 | 37.6 | 41.2 | 38.0 | 39.0 | 36.8 | 36.2 | 38.5 | 37.9 | 34.6 | 31.1 | 32.7 | 35.0 | 35.7 | 37.8 | 39.0 | 39.2                      | 36.61         | 41.15         |
| 24-Feb   | 41.3                    | 40.2 | 38.8 | 39.1 | 40.4 | 42.5 | 42.9 | 39.9 | 39.1 | 35.3 | 31.1 | 27.8 | 27.3 | 27.6 | 26.0 | 26.7 | 28.2 | 28.2 | 30.1 | 31.1 | 33.6 | 32.8 | 41.1 | 38.7                      | 34.58         | 42.88         |
| 25-Feb   | 38.0                    | 40.6 | 44.7 | 47.7 | 49.4 | 53.3 | 53.2 | 54.9 | 53.1 | 44.7 | 40.2 | 35.7 | 33.2 | 32.2 | 29.7 | 32.2 | 31.6 | 33.6 | 34.8 | 37.0 | 40.9 | 50.7 | 64.0 | 67.8                      | 43.47         | 67.79         |
| 26-Feb   | 68.4                    | 59.5 | 56.6 | 51.4 | 53.9 | 60.1 | 71.3 | 77.5 | 78.9 | 60.7 | 40.8 | 28.6 | 25.7 | 25.2 | 23.9 | 24.7 | 26.6 | 29.5 | 33.1 | 34.4 | 33.1 | 32.2 | 32.5 | 33.4                      | 44.26         | 78.94         |
| 27-Feb   | 35.0                    | 37.3 | 38.6 | 37.3 | 37.7 | 36.8 | 37.4 | 39.5 | 41.2 | 36.3 | 32.1 | 32.0 | 32.7 | 32.4 | 35.4 | 29.6 | 25.2 | 26.1 | 31.8 | 33.4 | 37.1 | 38.4 | 42.3 | 44.6                      | 35.42         | 44.61         |
| 28-Feb   | 44.9                    | 42.2 | 46.6 | 61.6 | 69.0 | 72.2 | 75.0 | 77.5 | 77.6 | 64.5 | 49.3 | 33.4 | 25.5 | 24.8 | 25.1 | 27.0 | 29.3 | 30.3 | 35.7 | 46.4 | 46.3 | 46.5 | 42.9 | 43.5                      | 47.37         | 77.56         |
|  |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Diurnal Average           | 64.86         |               |
|  |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Diurnal Maximum           | 83.63         |               |

DF - DAS Failure



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

**Wind Speed (WS) - kph**  
**February 2018**

| Maximum Value: 10.41 kph on Feb 27 00:00     |                               | Maximum Daily Average: 6.73 kph on Feb 23  |      | Hours in Service: 672          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |               |                 |  |
|--|-------------------------------|--|------|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|---------------|-----------------|--|
| Minimum Value: 0.2 kph on Feb 7 07:00        |                               | Minimum Daily Average: 1.07 kph on Feb 5   |      | Hours of Data: 670             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |               |                 |  |
| Maximum Diurnal Average: 3.99 kph at hour 14 |                               | Minimum Diurnal Average: 2.50 kph at hour 3  |      | Hours of Missing Data: 2       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |               |                 |  |
| Monthly Average: 3.114 kph                   |                               | Percentiles: P <sub>1</sub> = 0.5 P <sub>10</sub> = 1.0 Q <sub>1</sub> = 1.4 Median = 2.4 Q <sub>3</sub> = 4.2 P <sub>90</sub> = 6.7 P <sub>99</sub> = 8.9 |      | Hours of Calibration: 0        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |               |                 |  |
|  |                               |  |      | Percent Operational Time: 99.7 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |               |                 |  |
| 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-Feb  | 1.2                           | 1.4  | 0.6  | 0.5                            | 0.6  | 0.5  | 0.6  | 0.5  | 1.1  | 1.3  | 1.6  | 2.2  | 1.9  | 2.2  | 1.8  | 1.9  | 2.2  | 2.9  | 3.4  | 2.7  | 2.4  | 2.3  | 2.9  | 2.9   | 1.73          | 3.42            |  |
| 2-Feb  | 2.7                           | 2.5  | 2.7  | 2.6                            | 3.0  | 3.1  | 3.0  | 3.0  | 2.8  | 3.4  | 3.8  | 3.0  | 3.0  | 3.5  | 3.2  | 2.8  | 3.1  | 3.1  | 2.7  | 3.0  | 2.6  | 2.3  | 1.7  | 2.6   | 2.88          | 3.83            |  |
| 3-Feb  | 2.7                           | 2.2  | 1.9  | 1.6                            | 1.7  | 1.3  | 1.7  | 1.1  | 1.4  | 1.0  | 1.2  | 1.8  | 1.6  | 1.6  | 1.5  | 1.5  | 1.1  | 0.9  | 1.5  | 0.8  | 1.4  | 0.6  | 1.1  | 1.7   | 1.45          | 2.74            |  |
| 4-Feb  | 1.5                           | 1.1  | 1.1  | 0.9                            | 1.0  | 1.2  | 1.1  | 1.0  | 0.8  | 0.7  | 0.6  | 1.6  | 1.4  | 1.2  | 1.4  | 1.0  | 1.3  | 0.8  | 0.9  | 1.6  | 1.4  | 1.3  | 1.7  | 1.4   | 1.16          | 1.70            |  |
| 5-Feb  | 1.0                           | 1.0  | 0.6  | 0.8                            | 0.9  | 0.9  | 0.8  | 0.6  | 0.6  | 1.2  | 0.9  | 0.8  | 1.2  | 1.5  | 1.2  | 0.9  | 1.2  | 1.2  | 1.3  | 1.1  | 1.2  | 1.5  | 1.4  | 1.8   | 1.07          | 1.85            |  |
| 6-Feb  | 2.0                           | 1.6  | 1.4  | 2.2                            | 2.0  | 1.3  | 0.8  | 0.8  | 0.8  | 0.9  | 0.7  | 0.5  | 1.9  | 1.3  | 1.4  | 2.2  | 2.2  | 2.2  | 2.2  | 1.9  | 1.7  | 1.9  | 1.4  | 1.3   | 1.53          | 2.24            |  |
| 7-Feb  | 1.5                           | 1.5  | 2.4  | 1.6                            | 1.0  | 0.6  | 0.2  | 2.2  | 2.1  | 2.2  | 2.4  | 3.0  | 3.3  | 3.2  | 3.4  | 3.5  | 3.5  | 3.6  | 3.5  | 3.0  | 2.9  | 2.9  | 3.3  | 2.8   | 2.49          | 3.59            |  |
| 8-Feb  | 3.1                           | 2.9  | 2.6  | 2.6                            | 2.8  | 2.6  | 2.4  | 1.9  | 2.4  | 2.6  | 2.7  | 2.8  | 2.6  | 2.5  | 2.7  | 2.8  | 3.1  | 2.8  | 1.4  | 1.4  | 0.9  | 1.1  | 0.7  | 0.8   | 2.25          | 3.11            |  |
| 9-Feb  | 0.8                           | 0.7  | 0.4  | 0.4                            | 1.8  | 1.2  | 1.2  | 1.2  | 0.8  | 1.0  | 1.1  | 1.3  | 1.4  | 1.5  | 1.3  | 1.4  | 1.9  | 1.9  | 1.6  | 1.4  | 1.2  | 1.1  | 0.8  | 1.4   | 1.20          | 1.93            |  |
| 10-Feb                                       | 1.3                           | 1.5  | 1.3  | 1.8                            | 1.5  | 3.5  | 4.0  | 4.1  | 4.1  | 5.3  | 4.8  | 4.2  | 4.0  | 3.4  | 2.7  | 2.8  | 1.3  | 0.9  | 1.2  | 1.5  | 1.7  | 1.7  | 1.9  | 1.3   | 2.59          | 5.32            |  |
| 11-Feb                                       | 2.9                           | 2.5  | 2.8  | 2.6                            | 2.1  | 4.0  | 3.3  | 2.1  | 1.2  | 1.5  | 1.6  | 2.1  | 2.4  | 1.8  | 2.0  | 2.0  | 1.8  | 1.2  | 1.0  | 1.2  | 1.1  | 1.1  | 0.9  | 1.0   | 1.92          | 4.03            |  |
| 12-Feb                                       | 1.2                           | 1.0  | 1.5  | 3.9                            | 7.0  | 8.2  | 7.9  | 7.8  | 7.7  | 8.8  | 8.6  | 7.3  | 6.7  | 7.0  | 7.5  | 5.7  | 4.9  | 5.7  | 6.6  | 7.8  | 7.9  | 7.2  | 7.5  | 7.3   | 6.37          | 8.78            |  |
| 13-Feb                                       | 6.3                           | 8.0  | 6.6  | 8.8                            | 7.7  | 6.9  | 6.3  | 6.1  | 6.1  | 5.2  | 7.0  | 6.3  | 6.0  | 5.1  | 4.0  | 3.2  | 2.4  | 3.1  | 3.4  | 4.3  | 3.7  | 3.5  | 4.0  | 3.1   | 5.30          | 8.83            |  |
| 14-Feb                                       | 2.0                           | 2.3  | 1.6  | 2.6                            | 1.5  | 4.6  | 4.8  | 3.1  | 2.9  | 2.4  | 2.6  | 2.3  | 2.7  | 3.2  | 3.6  | 3.4  | 2.8  | 2.4  | 2.0  | 1.8  | 1.9  | 1.7  | 1.3  | 1.1   | 2.53          | 4.75            |  |
| 15-Feb                                       | 1.4                           | 1.2  | 1.5  | 1.5                            | 1.3  | 1.1  | 0.9  | 1.2  | 1.0  | 1.0  | 2.3  | 3.9  | 5.6  | 5.4  | 6.5  | 6.6  | 8.0  | 6.7  | 5.9  | 4.4  | 7.6  | 7.2  | 7.3  | 5.4   | 3.95          | 8.00            |  |
| 16-Feb                                       | 4.4                           | MS   | MS   | 4.7                            | 5.4  | 4.9  | 3.5  | 3.1  | 1.7  | 1.9  | 1.4  | 2.0  | 3.1  | 3.2  | 2.9  | 3.5  | 3.8  | 2.6  | 2.5  | 1.6  | 2.1  | 2.1  | 1.6  | 1.6   | 2.88          | 5.42            |  |
| 17-Feb                                       | 1.5                           | 1.2  | 1.2  | 0.8                            | 0.8  | 1.1  | 1.3  | 1.5  | 1.4  | 1.4  | 3.0  | 3.3  | 2.8  | 2.4  | 2.2  | 2.6  | 2.4  | 3.0  | 1.6  | 1.4  | 3.5  | 3.8  | 1.6  | 1.0   | 1.95          | 3.80            |  |
| 18-Feb                                       | 1.4                           | 1.1  | 1.4  | 1.6                            | 1.0  | 1.5  | 1.7  | 1.1  | 1.3  | 1.5  | 1.4  | 2.1  | 1.9  | 2.6  | 2.8  | 3.3  | 2.6  | 2.5  | 2.2  | 2.6  | 1.2  | 1.5  | 2.1  | 1.0   | 1.81          | 3.29            |  |
| 19-Feb                                       | 2.0                           | 1.3  | 1.6  | 1.3                            | 1.2  | 1.3  | 1.2  | 1.2  | 1.0  | 1.3  | 2.0  | 2.6  | 3.5  | 3.5  | 4.1  | 4.4  | 4.0  | 3.3  | 3.6  | 2.4  | 1.6  | 1.2  | 2.1  | 2.1   | 2.25          | 4.36            |  |
| 20-Feb                                       | 2.3                           | 2.6  | 2.8  | 2.8                            | 3.0  | 2.1  | 2.1  | 2.6  | 3.8  | 2.1  | 2.8  | 2.4  | 3.9  | 3.9  | 3.8  | 3.2  | 3.4  | 2.6  | 2.7  | 2.0  | 1.3  | 1.2  | 1.2  | 1.2   | 2.56          | 3.87            |  |
| 21-Feb                                       | 0.8                           | 0.9  | 1.1  | 1.8                            | 4.0  | 4.5  | 4.5  | 5.1  | 5.2  | 4.6  | 5.1  | 5.9  | 6.0  | 5.8  | 5.6  | 5.0  | 4.7  | 3.0  | 3.2  | 1.8  | 1.8  | 2.4  | 2.7  | 3.4   | 3.71          | 6.01            |  |
| 22-Feb                                       | 2.7                           | 2.8  | 3.6  | 3.7                            | 3.2  | 3.1  | 3.4  | 3.5  | 3.2  | 3.4  | 3.7  | 3.9  | 4.5  | 3.5  | 3.9  | 5.1  | 5.0  | 4.2  | 4.3  | 2.8  | 2.3  | 1.2  | 1.5  | 4.5   | 3.47          | 5.07            |  |
| 23-Feb                                       | 5.2                           | 5.7  | 6.0  | 6.2                            | 4.7  | 3.9  | 5.9  | 6.0  | 7.2  | 6.8  | 7.0  | 8.2  | 7.8  | 8.4  | 7.6  | 7.4  | 8.0  | 8.0  | 7.5  | 7.3  | 8.0  | 6.2  | 6.1  | 6.3   | 6.73          | 8.44            |  |
| 24-Feb                                       | 5.1                           | 5.6  | 6.3  | 5.1                            | 5.2  | 5.0  | 4.5  | 3.7  | 4.6  | 4.9  | 6.2  | 7.3  | 7.5  | 7.4  | 7.5  | 7.1  | 6.4  | 6.5  | 6.0  | 6.0  | 5.8  | 6.3  | 6.5  | 6.8   | 5.98          | 7.52            |  |
| 25-Feb                                       | 6.8                           | 5.8  | 4.2  | 4.5                            | 4.5  | 3.4  | 4.0  | 3.5  | 4.3  | 5.2  | 5.9  | 6.8  | 4.8  | 5.5  | 5.4  | 5.7  | 3.2  | 3.4  | 1.9  | 0.3  | 1.0  | 2.1  | 1.9  | 1.7   | 4.00          | 6.84            |  |
| 26-Feb                                       | 2.0                           | 1.5  | 1.8  | 1.3                            | 1.5  | 1.8  | 1.0  | 1.0  | 0.9  | 1.2  | 6.6  | 6.3  | 7.0  | 8.3  | 8.9  | 9.2  | 9.0  | 7.6  | 8.1  | 8.2  | 9.2  | 9.3  | 10.2 | 10.4  | 5.51          | 10.41           |  |
| 27-Feb                                       | 9.0                           | 8.2  | 6.6  | 6.8                            | 6.6  | 7.4  | 6.8  | 6.3  | 5.9  | 7.1  | 7.6  | 6.5  | 5.5  | 7.7  | 7.4  | 6.9  | 5.1  | 3.9  | 2.5  | 1.6  | 2.1  | 4.9  | 3.0  | 2.3   | 5.74          | 9.02            |  |
| 28-Feb                                       | 1.6                           | 2.8  | 2.1  | 1.2                            | 1.3  | 1.1  | 1.3  | 1.2  | 1.8  | 1.3  | 1.8  | 2.5  | 5.2  | 5.1  | 3.7  | 3.2  | 2.4  | 1.7  | 1.3  | 1.4  | 1.3  | 2.0  | 2.2  | 2.4   | 2.16          | 5.20            |  |
|  |                               | 2.73   | 2.62 | 2.50                           | 2.72 | 2.80 | 2.93 | 2.86 | 2.74 | 2.79 | 2.90 | 3.44 | 3.68 | 3.91 | 3.99 | 3.93 | 3.87 | 3.61 | 3.28 | 3.07 | 2.77 | 2.89 | 2.92 | 2.89  | 2.88          | Diurnal Average |  |
|  |                               | 9.02   | 8.24 | 6.63                           | 8.83 | 7.70 | 8.19 | 7.89 | 7.76 | 7.71 | 8.78 | 8.60 | 8.17 | 7.77 | 8.44 | 8.90 | 9.25 | 8.98 | 7.99 | 8.07 | 8.15 | 9.17 | 9.34 | 10.25 | 10.41         | Diurnal Maximum |  |
| MS - Missing                                 |                               |  |      |                                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |               |                 |  |



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

**Wind Direction (WD) - deg**  
**February 2018**

| <b>Maximum Value: 104.71 deg on Feb 28 10:00</b>     |                         |      |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      | <b>Maximum Daily Average: 63.73 deg on Feb 5</b>   |       |               |               |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       | <b>Hours in Service: 672</b>          |                 |  |
|--|-------------------------|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|--|-------|---------------|---------------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------------------------------|-----------------|--|
| <b>Minimum Value: 16.7 deg on Feb 26 04:00</b>       |                         |      |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      | <b>Minimum Daily Average: 26.70 deg on Feb 2</b>   |       |               |               |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       | <b>Hours of Data: 670</b>             |                 |  |
| <b>Maximum Diurnal Average: 50.83 deg at hour 21</b> |                         |      |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      | <b>Minimum Diurnal Average: 36.70 deg at hour 18</b>   |       |               |               |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       | <b>Hours of Missing Data: 2</b>       |                 |  |
| <b>Monthly Average: 42.142 deg</b>                   |                         |      |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      | <b>Percentiles: P<sub>1</sub> = 18.4 P<sub>10</sub> = 23.7 Q<sub>1</sub> = 28.9 Median = 37.1 Q<sub>3</sub> = 50.5 P<sub>90</sub> = 72.0 P<sub>99</sub> = 93.1</b> |       |               |               |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       | <b>Hours of Calibration: 0</b>        |                 |  |
|  |                         |      |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      |  |       |               |               |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       | <b>Percent Operational Time: 99.7</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-Feb  | 27.4                    | 39.9 | 46.2 | 50.6 | 48.8 | 32.0 | 75.2 | 35.4 | 32.4 | 29.9  | 27.0 | 29.2 | 26.2 | 22.9 | 29.0 | 26.2 | 26.7 | 37.7 | 27.6 | 28.0 | 29.1 | 32.1 | 23.9   | 28.2  | 33.83         | 75.15         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 2-Feb  | 24.0                    | 18.9 | 19.2 | 20.6 | 22.4 | 22.0 | 23.5 | 21.5 | 20.1 | 20.6  | 32.5 | 28.6 | 29.6 | 36.3 | 30.1 | 30.1 | 33.9 | 26.4 | 23.3 | 22.2 | 30.5 | 24.2 | 35.8   | 44.5  | 26.70         | 44.52         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 3-Feb  | 43.4                    | 41.3 | 69.4 | 37.0 | 36.7 | 53.9 | 55.8 | 57.5 | 49.6 | 50.8  | 49.5 | 65.2 | 61.3 | 34.5 | 47.4 | 47.8 | 38.9 | 61.9 | 76.1 | 89.6 | 57.7 | 50.1 | 35.0   | 48.0  | 52.44         | 89.60         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 4-Feb  | 43.3                    | 31.5 | 64.7 | 29.8 | 51.1 | 57.5 | 56.2 | 44.5 | 62.1 | 54.2  | 67.7 | 60.0 | 48.8 | 43.2 | 33.1 | 61.4 | 51.3 | 46.1 | 74.4 | 82.2 | 90.8 | 94.0 | 97.0   | 101.4 | 60.27         | 101.40        |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 5-Feb  | 80.4                    | 80.2 | 70.6 | 57.7 | 48.4 | 47.4 | 25.2 | 29.7 | 26.7 | 56.3  | 26.8 | 59.2 | 72.3 | 87.2 | 66.3 | 64.9 | 88.0 | 30.8 | 70.5 | 85.0 | 81.5 | 89.7 | 86.2   | 98.7  | 63.73         | 98.70         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 6-Feb  | 59.8                    | 85.0 | 93.4 | 93.6 | 86.5 | 54.0 | 56.1 | 51.6 | 46.1 | 27.7  | 26.1 | 69.8 | 37.7 | 32.0 | 28.9 | 25.9 | 22.4 | 21.6 | 26.0 | 25.7 | 29.5 | 28.4 | 26.0   | 22.5  | 44.85         | 93.63         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 7-Feb  | 38.0                    | 23.9 | 26.4 | 51.5 | 54.0 | 33.0 | 44.7 | 29.3 | 31.9 | 36.7  | 20.7 | 20.6 | 21.6 | 22.1 | 20.3 | 23.5 | 20.9 | 20.9 | 23.7 | 18.5 | 19.4 | 18.4 | 23.9   | 38.2  | 28.41         | 54.02         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 8-Feb  | 40.7                    | 36.5 | 34.3 | 28.9 | 25.6 | 26.4 | 26.5 | 23.0 | 22.0 | 23.5  | 30.0 | 28.6 | 28.6 | 27.9 | 25.0 | 29.8 | 26.1 | 35.8 | 36.7 | 30.4 | 40.6 | 32.3 | 49.9   | 29.6  | 30.78         | 49.92         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 9-Feb  | 29.2                    | 41.3 | 29.5 | 40.5 | 63.8 | 18.3 | 24.4 | 18.4 | 33.5 | 50.6  | 29.5 | 43.6 | 55.2 | 67.3 | 72.0 | 66.4 | 52.5 | 48.3 | 38.4 | 40.5 | 65.4 | 58.4 | 68.7   | 52.8  | 46.18         | 72.01         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 10-Feb   | 30.4                    | 25.4 | 28.7 | 49.6 | 25.2 | 42.7 | 29.7 | 27.3 | 27.4 | 27.8  | 29.9 | 27.2 | 29.6 | 34.5 | 38.7 | 53.2 | 70.0 | 57.0 | 92.8 | 90.7 | 85.1 | 86.4 | 81.5   | 55.2  | 47.75         | 92.82         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 11-Feb   | 21.6                    | 18.8 | 48.3 | 44.6 | 33.1 | 30.1 | 24.5 | 46.6 | 32.9 | 32.9  | 26.2 | 27.3 | 30.9 | 30.2 | 27.0 | 46.5 | 35.5 | 21.4 | 37.3 | 73.3 | 62.3 | 86.7 | 46.4   | 77.4  | 40.08         | 86.74         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 12-Feb   | 79.3                    | 52.4 | 39.6 | 37.2 | 36.9 | 27.9 | 28.8 | 33.5 | 31.4 | 30.7  | 27.3 | 28.0 | 30.0 | 26.8 | 26.0 | 20.8 | 25.1 | 27.0 | 30.9 | 37.3 | 39.3 | 29.0 | 22.8   | 23.0  | 32.96         | 79.31         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 13-Feb   | 18.3                    | 32.2 | 28.8 | 32.6 | 34.6 | 38.2 | 26.7 | 43.7 | 33.0 | 41.7  | 28.9 | 24.5 | 29.9 | 27.7 | 60.6 | 46.8 | 35.3 | 51.1 | 54.5 | 46.4 | 46.8 | 54.4 | 55.9   | 46.3  | 39.13         | 60.61         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 14-Feb   | 37.8                    | 40.5 | 84.4 | 53.9 | 75.7 | 54.5 | 46.6 | 42.5 | 60.6 | 35.8  | 82.7 | 66.6 | 37.1 | 28.0 | 18.1 | 20.8 | 19.6 | 17.6 | 21.5 | 22.7 | 46.3 | 36.8 | 79.9   | 86.0  | 46.51         | 85.99         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 15-Feb   | 76.1                    | 28.4 | 52.2 | 75.7 | 84.8 | 58.3 | 27.3 | 74.0 | 64.9 | 77.4  | 43.3 | 45.8 | 30.6 | 31.1 | 30.1 | 29.5 | 41.2 | 46.1 | 47.7 | 45.1 | 43.6 | 38.3 | 41.9   | 48.5  | 49.24         | 84.78         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 16-Feb   | 51.1                    | MS   | MS   | 50.6 | 57.5 | 49.7 | 46.7 | 63.5 | 49.3 | 22.1  | 59.9 | 76.4 | 59.9 | 73.4 | 74.0 | 56.8 | 41.7 | 28.3 | 45.6 | 81.8 | 59.1 | 80.6 | 74.2   | 83.3  | 58.43         | 83.34         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 17-Feb   | 67.4                    | 51.0 | 48.7 | 55.0 | 50.4 | 43.5 | 21.2 | 20.1 | 21.5 | 18.3  | 19.7 | 19.9 | 22.0 | 35.2 | 51.5 | 38.3 | 40.1 | 43.3 | 67.3 | 51.2 | 58.1 | 38.1 | 67.9   | 53.4  | 41.80         | 67.95         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 18-Feb   | 44.5                    | 29.3 | 35.3 | 32.9 | 19.4 | 47.6 | 55.4 | 37.3 | 38.0 | 38.1  | 52.2 | 58.2 | 45.3 | 49.6 | 30.7 | 35.0 | 35.3 | 38.7 | 31.7 | 38.1 | 35.5 | 41.6 | 44.1   | 47.2  | 40.03         | 58.24         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 19-Feb   | 48.5                    | 33.0 | 23.0 | 41.7 | 24.4 | 32.9 | 43.9 | 43.1 | 32.2 | 37.9  | 44.4 | 41.2 | 53.6 | 31.0 | 25.1 | 28.0 | 25.9 | 23.8 | 33.2 | 41.1 | 31.0 | 52.4 | 36.0   | 46.5  | 36.40         | 53.58         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 20-Feb   | 28.8                    | 43.5 | 45.6 | 34.2 | 45.2 | 56.3 | 48.2 | 35.6 | 48.0 | 49.5  | 51.1 | 49.3 | 47.8 | 32.9 | 30.6 | 31.4 | 33.9 | 34.3 | 50.4 | 46.6 | 41.0 | 30.7 | 39.8   | 41.3  | 41.51         | 56.34         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 21-Feb   | 83.2                    | 61.8 | 49.3 | 39.2 | 27.9 | 23.0 | 21.5 | 24.6 | 27.8 | 24.2  | 23.3 | 25.2 | 25.3 | 27.1 | 33.4 | 33.5 | 37.5 | 55.1 | 32.1 | 29.5 | 38.5 | 23.3 | 28.9   | 28.5  | 34.32         | 83.21         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 22-Feb   | 29.0                    | 23.1 | 26.9 | 25.9 | 24.3 | 26.3 | 26.1 | 29.1 | 26.1 | 31.9  | 34.1 | 26.8 | 39.5 | 35.2 | 36.5 | 32.6 | 31.5 | 27.8 | 29.5 | 39.8 | 47.7 | 33.3 | 39.6   | 36.2  | 31.61         | 47.67         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 23-Feb   | 35.6                    | 29.9 | 30.2 | 26.1 | 20.7 | 22.1 | 28.6 | 32.4 | 32.1 | 41.1  | 33.5 | 37.1 | 32.6 | 34.2 | 36.0 | 41.2 | 33.6 | 28.8 | 30.2 | 36.2 | 38.3 | 43.4 | 43.5   | 33.1  | 33.35         | 43.54         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 24-Feb   | 36.2                    | 37.2 | 33.4 | 36.0 | 34.1 | 38.6 | 34.3 | 20.0 | 21.3 | 30.3  | 31.4 | 28.5 | 27.0 | 30.9 | 28.8 | 27.0 | 28.8 | 28.3 | 30.6 | 35.1 | 33.8 | 33.7 | 32.4   | 40.9  | 31.61         | 40.93         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 25-Feb   | 48.0                    | 51.1 | 43.6 | 54.3 | 55.6 | 48.5 | 46.1 | 28.7 | 50.4 | 41.3  | 38.9 | 36.0 | 30.4 | 32.8 | 31.5 | 46.6 | 40.1 | 39.4 | 23.2 | 76.3 | 74.7 | 33.2 | 47.0   | 85.8  | 45.96         | 85.83         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 26-Feb   | 49.3                    | 27.8 | 27.2 | 16.7 | 17.1 | 25.8 | 41.1 | 92.3 | 74.8 | 51.1  | 58.0 | 26.7 | 30.2 | 29.5 | 29.7 | 31.1 | 29.8 | 32.5 | 36.2 | 40.2 | 34.7 | 33.2 | 34.9   | 40.3  | 37.92         | 92.29         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 27-Feb   | 42.0                    | 39.3 | 41.7 | 31.8 | 43.3 | 38.2 | 43.1 | 45.3 | 51.5 | 42.9  | 34.2 | 46.8 | 48.4 | 32.5 | 40.7 | 44.5 | 36.6 | 35.9 | 50.0 | 59.3 | 84.6 | 36.0 | 36.9   | 37.9  | 43.47         | 84.63         |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
| 28-Feb   | 37.8                    | 25.9 | 37.0 | 73.9 | 79.4 | 93.0 | 77.4 | 72.0 | 81.5 | 104.7 | 78.2 | 88.9 | 44.4 | 43.8 | 54.5 | 51.3 | 48.6 | 61.6 | 80.5 | 59.8 | 78.3 | 63.4 | 29.8   | 23.7  | 62.07         | 104.71        |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |
|  |                         |      |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      | 44.68  | 38.85 | 43.61         | 43.64         | 43.82 | 40.78 | 39.46 | 40.10 | 40.32 | 40.36  | 39.53 | 42.33 | 38.42 | 37.14 | 37.71 | 38.95 | 37.52 | 36.70 | 43.63 | 49.02 | 50.83 | 46.51 | 47.50 | 49.94                                 | Diurnal Average |  |
|  |                         |      |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      | 83.21  | 85.03 | 93.37         | 93.63         | 86.55 | 93.02 | 77.43 | 92.29 | 81.51 | 104.71 | 82.68 | 88.94 | 72.26 | 87.23 | 74.04 | 66.36 | 87.96 | 61.93 | 92.82 | 90.69 | 90.77 | 93.95 | 97.02 | 101.40                                | Diurnal Maximum |  |
| MS - Missing   |                         |      |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      |  |       |               |               |       |       |       |       |       |        |       |       |       |       |       |       |       |       |       |       |       |       |       |                                       |                 |  |



**WEST CENTRAL AIRSHED SOCIETY**

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

**END OF REPORT  
FEBRUARY 2018**