REPORT N$^{O}$ 151-63724-00

# AMBIENT AIR QUALITY MONTHLY REPORT

MARCH 2017

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WSP

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## MARCH 2017

**Lafarge Canada Inc.**

Project no: 151-63724-00
Date: March 2017

**WSP Canada Inc.**
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Project Number: 151-63724-00

April 25, 2017

Janet Brygger
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**www.pbworld.com**

Dear Ms. Brygger,

**Subject: Ambient Air Quality Monthly Report – March 2017**

The operational uptime for meteorological systems at the Lagoon station was 100% in March while the operational uptime for all the other analyzers was over 97%. There were no contraventions of the 24-hour TSP and $PM_{2.5}$ Alberta Ambient Air Quality Objectives (AAAQOs) in March at the Lagoon monitoring location.

Data collected at all of the GRIMM monitors are considered Industrial Ambient Monitors and are meant for assessing the performance of Lafarge Exshaw's Fugitive Dust Control Best Management Practices – Program. All GRIMM monitors had operational uptime of 100%. The Entrance GRIMM monitor exceeded the TSP AAAQO for 6 days while the West GRIMM monitor exceeded it for 2 days. The Berm GRIMM had 9 exceedances of the TSP objective.

I certify that I have reviewed and verified this report and that the information is complete, accurate and representative of the monitoring results, reporting timeframe and the specified analysis, summarization and reporting requirements.

Sincerely,

Tyler Abel, M.Sc.
Group Manager, Air Quality
Environment

# SIGNATURES

PREPARED BY

Byeong Kim, B.Sc.
Air Quality Specialist, Environment

REVIEWED BY

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Project Manager, Air Quality Specialist, Environment

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# 1 INTRODUCTION

This report summarizes the ambient air quality and meteorological data collected at the Lagoon monitoring location and the GRIMM monitors in Exshaw, AB. The station is operated by WSP on behalf of Lafarge Canada Inc. (Lafarge) and is a requirement of Lafarge's Approval 1702-02-04. This report contains data collected between March 1, 2017 and March 31, 2017.

March's monthly report was prepared by Byeong Kim, an Air Quality Specialist with WSP, on behalf of Lafarge and was reviewed by Tyler Abel, Manager of Air Quality and Air Quality Specialist at WSP.

# 2 MARCH 2017 REPORT SUMMARY

This summary section provides the pertinent details on data collected and maintenance/calibration activities at each of the monitoring locations. The monitoring results for the stations are described in further detail in their corresponding sections. Maximum hourly concentrations are shown for all particulate matter size fractions, but there are no Alberta Ambient Air Quality Objectives (AAAQO) for 1-hour PM concentrations.

## 2.1 LAGOON STATION

**Table 2-1 Lagoon station data summary**

| Parameter | Data Completeness (%) | 1-Hour Average | | 24-hour Average | |
|---|---|---|---|---|---|
| | | Maximum Concentration | Exceedances of AAAQO or AAAQG | Maximum Concentration | Exceedances of AAAQO |
| $NO_2$ (ppb) | 97.6 | 29.6 | 0 | 15.4 | - |
| $SO_2$ (ppb) | 97.3 | 9.7 | 0 | 1.7 | 0 |
| $PM_{2.5}$ (µg/m$^3$) | 100.0 | 43.3 | - | 10.8 | 0 |
| $PM_{10}$ (µg/m$^3$) | 100.0 | 165.3 | - | 28.4 | - |
| TSP (µg/m$^3$) | 100.0 | 231.7 | - | 40.8 | 0 |
| Temperature (°C) | 100.0 | 10.9 | - | 5.9 | - |
| Wind Speed (km/hr) /Direction | 100.0 | 43.7/W | - | 27.0/WSW | - |
| Precipitation (mm) | 100.0 | 2.3 | - | 5.0 | - |

**Data Quality Notes:**

→ There were no exceedances of any AAAQOs.

**Calibration/Maintenance Notes:**

- The operational uptime for all analyzers was over 97%.
- The meteorological systems had 100% uptime for the month.
- The leak test for the first $PM_{10}$ calibration passed, but was close to failure on March 21. Maintenance was performed and the second leak test was successfully conducted on March 22.
- $NO_x$ and $SO_2$ analyzers were removed on March 21 and replaced with new analyzers on March 22, resulting in the loss of data for 28 hours.

## 2.2 WEST GRIMM

The GRIMM monitors are Industrial Ambient Monitors meant to aid Lafarge in assessing the performance of their Fugitive Dust Control Best Management Practices – Program (FDCBMP-P). The AAAQO are used as Guidelines to evaluate the performance of the FDCBMP-P.

**Table 2-2 West station data summary**

| Parameter | Data Completeness (%) | 1-Hour Average | | 24-hour Average | |
|---|---|---|---|---|---|
| | | Maximum Concentration | Exceedances of Guidelines | Maximum Concentration | Exceedances of Guidelines |
| $PM_{2.5}$ (µg/m$^3$) | 100.0 | 59.1 | - | 19.3 | 0 |
| $PM_{10}$ (µg/m$^3$) | 100.0 | 220.7 | - | 42.9 | - |
| TSP (µg/m$^3$) | 100.0 | 386.0 | - | 166.9 | 2 |

**Data Quality Notes:**

- There were 2 exceedances of the 24-hour TSP Guideline.

**Calibration/Maintenance Notes:**

- The monitor had 100% uptime for the month.

## 2.3 BERM GRIMM

The GRIMM monitors are Industrial Ambient Monitors meant to aid Lafarge in assessing the performance of their FDCBMP-P. The AAAQO are used as Guidelines to evaluate the performance of the FDCBMP-P.

**Table 2-3 Berm station data summary**

| Parameter | Data Completeness (%) | 1-Hour Average | | 24-hour Average | |
|---|---|---|---|---|---|
| | | Maximum Concentration | Exceedances of Guidelines | Maximum Concentration | Exceedances of Guidelines |
| $PM_{2.5}$ (µg/m$^3$) | 100.0 | 50.3 | - | 13.5 | 0 |
| $PM_{10}$ (µg/m$^3$) | 100.0 | 494.2 | - | 126.7 | - |
| TSP (µg/m$^3$) | 100.0 | 2013.9 | - | 453.1 | 9 |

**Data Quality Notes:**

- There were 9 exceedances of the 24-hour TSP Guideline.
- Fewest number of exceedances of the 24-hour TSP Guidelines recorded in March since monitoring began in 2010.

**Calibration/Maintenance Notes:**

- The monitor had 100% uptime for the month.

## 2.4 ENTRANCE GRIMM

The GRIMM monitors are Industrial Ambient Monitors meant to aid Lafarge in assessing the performance of their FDCBMP-P. The AAAQO are used as Guidelines to evaluate the performance of the FDCBMP-P.

**Table 2-4 Entrance station data summary**

| Parameter | Data Completeness (%) | 1-Hour Average | | 24-hour Average | |
|---|---|---|---|---|---|
| | | Maximum Concentration | Exceedances of Guidelines | Maximum Concentration | Exceedances of Guidelines |
| $PM_{2.5}$ (µg/m$^3$) | 100.0 | 31.8 | - | 14.9 | 0 |
| $PM_{10}$ (µg/m$^3$) | 100.0 | 211.0 | - | 71.6 | - |
| TSP (µg/m$^3$) | 100.0 | 671.1 | - | 163.0 | 6 |

**Data Quality Notes:**

- There were 6 exceedances of the 24-hour TSP Guideline.

**Calibration/Maintenance Notes:**

- The monitor had 100% uptime for the month.

# 3 LAGOON STATION

The Lagoon trailer contains $NO_x$, $SO_2$, TSP, $PM_{10}$, and $PM_{2.5}$ analyzers as well as meteorological sensors, and is shown in Figure 3-1. An ambient air quality station has been at this location since 2002, providing a long-term data record for air quality in the Exshaw area.

This section provides a summary of the monitoring activities for the Lagoon ambient air quality station, including: a table of instrumentation (Table 3-1), site visit notes, a wind rose (Figure 3-3) and tables and graphs illustrating the monitoring results for March 2017.

All of the monitors comply with Alberta Environment and Parks Air Monitoring Directive (2016).

**Table 3-1 Instrumentation List at the Lagoon Station**

| Equipment Description | Parameter Measured |
|---|---|
| MetOne BAM-1020 FRM Continuous Particulate Monitor | $PM_{2.5}$ Concentrations |
| MetOne BAM-1020 Continuous Particulate Monitor | $PM_{10}$ Concentrations |
| MetOne BAM-1020 Continuous Particulate Monitor | TSP Concentrations |
| TEI 42C | Oxides of Nitrogen |
| Teledyne API 102A | Sulphur Dioxide |
| MetOne 130 Rain/Snow Gauge | Precipitation |
| MetOne Wind Sensor | Wind Speed |
| | Wind Direction |
| MetOne Ambient Temperature Sensor | Ambient Temperature |

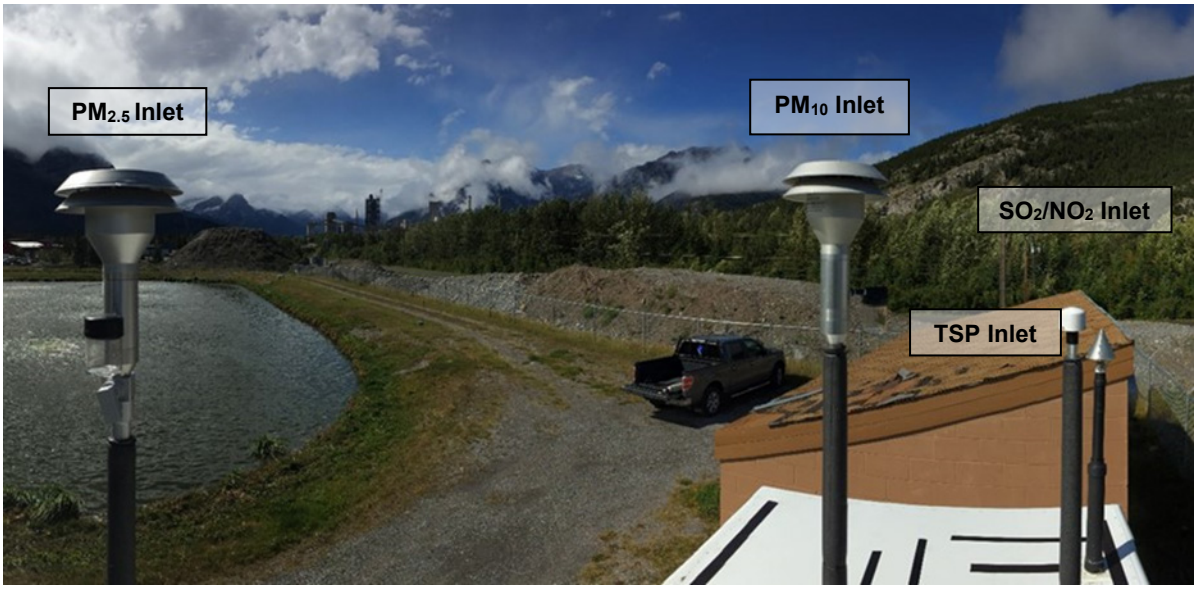


**Figure 3-1 Inlets on the top of WSP's Lagoon monitor**

## 3.1 SITE VISIT NOTES

A summary of site visit notes for each of the monitors is provided in this section.

### 3.1.1 $NO_X$ MONITORING

The $NO_x$ monitor underwent two calibrations on March 21st, for the shutdown of the old analyzer, March 22nd, 2017 for the new replacement analyzer and had 97.6% uptime.

### 3.1.2 $SO_2$ MONITORING

The $SO_2$ monitor underwent two calibrations on March 21st, for the shutdown of the old analyzer, March 22nd, 2017 for the new replacement analyzer and had 97.3% uptime.

### 3.1.3 PM MONITORING

BAMs monthly calibration was conducted on March 21st, 2017 and repeated following maintenance on March 22nd for TSP and $PM_{10}$. The BAM monitors had 100% uptime for the month.

### 3.1.4 METEOROLOGICAL MONITORING

All of the meteorological instruments (wind speed, wind direction, relative humidity, pressure, and precipitation) had an uptime of 100% for the month of March.

## 3.2 MONITORING RESULTS AND TRENDS

The following wind rose (Figure 3-3) illustrates the frequency of wind speed by wind direction for the month of March 2017. Table 3-2 summarizes the hourly and daily concentrations recorded in March 2017. Figure 3-4 graphically illustrates the time series for hourly concentrations as well as wind speed and direction, while Figure 3-5 shows daily average concentrations recorded during March 2017 for the pollutants listed in Table 3-2.

Since flooding in 2013, the Municipal District has built up stockpiles of dirt on the far western edge of the wastewater treatment facility. During the summer of 2016, the Municipal District has planted grass seed on these stockpiles in an effort to reduce the amount of fugitive dust generated. Figure 3-2 shows the extent of the grass planted by the MD.

**Figure 3-2 Grass planted on the stockpiles near the Lagoon monitor. Photo taken July 12, 2016.**

The wind rose (Figure 3-3) indicates that the winds predominantly came from the west. The wind rose for March 2017 follows the general orientation of the valley. As typical of the wind characteristics at the Lagoon site, the westerly winds were much more intense than the easterly winds. However, the frequency and intensity of the easterly winds notably increased compared to February.

**Table 3-2 Summary of March 2017 data at Lagoon**

| Parameter | Objectives | | Station | Exceedances | | Monthly Average | 1-hour | | | | | 24-hour | | Operational Time (Percent) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1-hr | 24-hr | | 1-hr | 24-hr | | Maximum Concentration/ Meteorological Variable | Day | Hour | Wind Speed (km/hr) | Wind Direction (degrees) | Maximum Concentration/ Meteorological Variable | Day | |
| $NO_2$ (ppb) | 159 | - | Lagoon | 0 | - | 5.8 | 29.6 | 13 | 0 | 6.0 | 74.8 | 15.4 | 12 | 97.6 |
| $SO_2$ (ppb) | 172 | 48 | Lagoon | 0 | 0 | 0.2 | 9.7 | 12 | 11 | 4.3 | 97.4 | 1.7 | 12 | 97.3 |
| $PM_{2.5}$ (µg/m$^3$) | - | 30 | Lagoon | - | 0 | 3.0 | 43.3 | 19 | 13 | 26.5 | 250.8 | 10.8 | 12 | 100.0 |
| $PM_{10}$ (µg/m$^3$) | - | - | Lagoon | - | - | 18.2 | 165.3 | 7 | 9 | 7.9 | 80.0 | 28.4 | 21 | 100.0 |
| TSP (µg/m$^3$) | - | 100 | Lagoon | - | 0 | 22.8 | 231.7 | 7 | 9 | 7.9 | 80.0 | 40.8 | 21 | 100.0 |
| Temperature (°C) | - | - | Lagoon | - | - | -2.0 | 10.9 | 15 | 13 | 20.3 | 261.2 | 5.9 | 22 | 100.0 |
| Wind Speed/Direction | - | - | Lagoon | - | - | 16.4 | 43.7/W | 2 | 23 | 43.7 | 249.5 | 27.0/WSW | 28 | 100.0 |
| Precipitation (mm) | - | - | Lagoon | - | - | 0.0 | 2.3 | | | | | 5.0 | 16 | 100.0 |

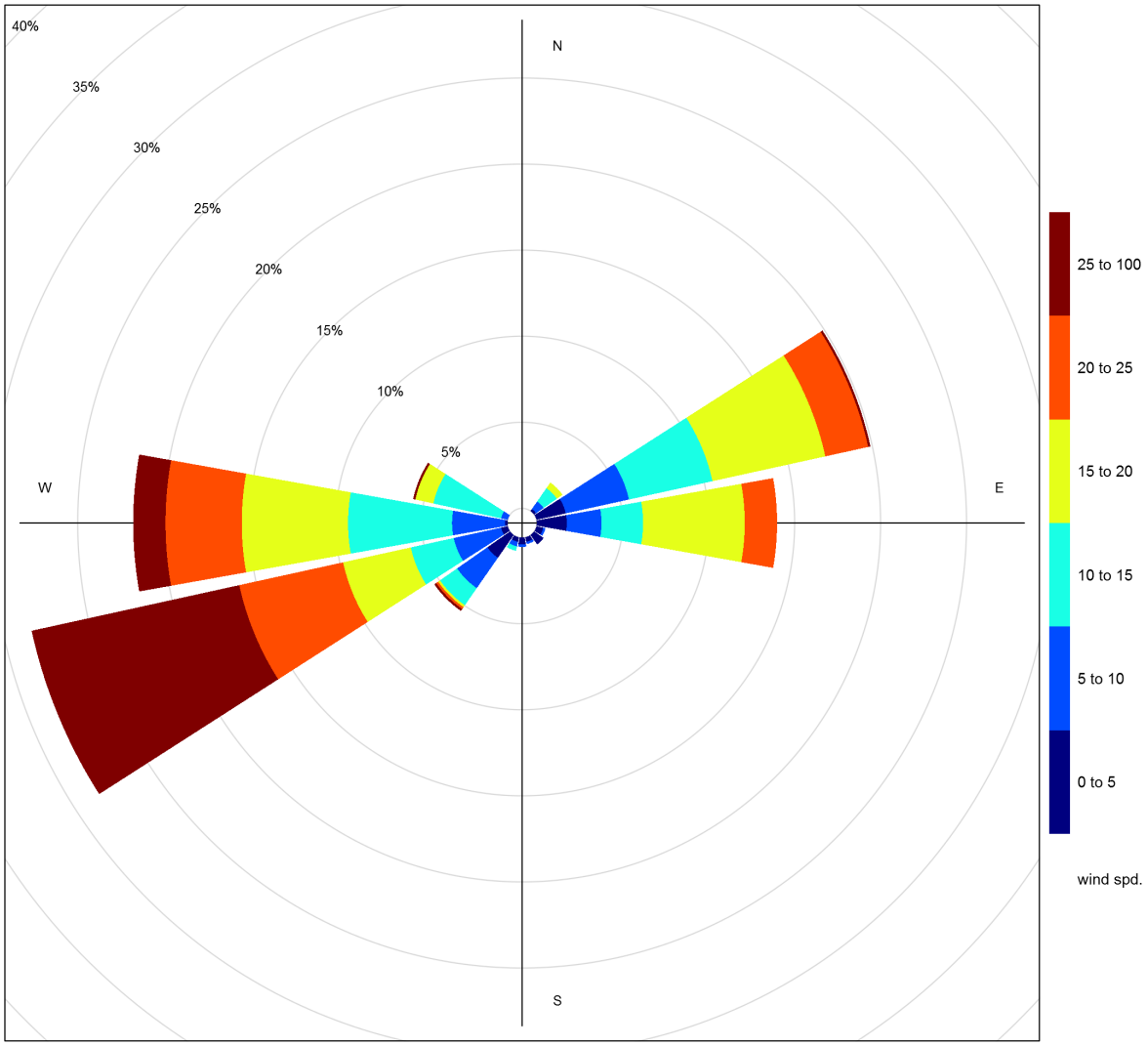


**Figure 3-3 March 2017 wind rose from the Lagoon Station**

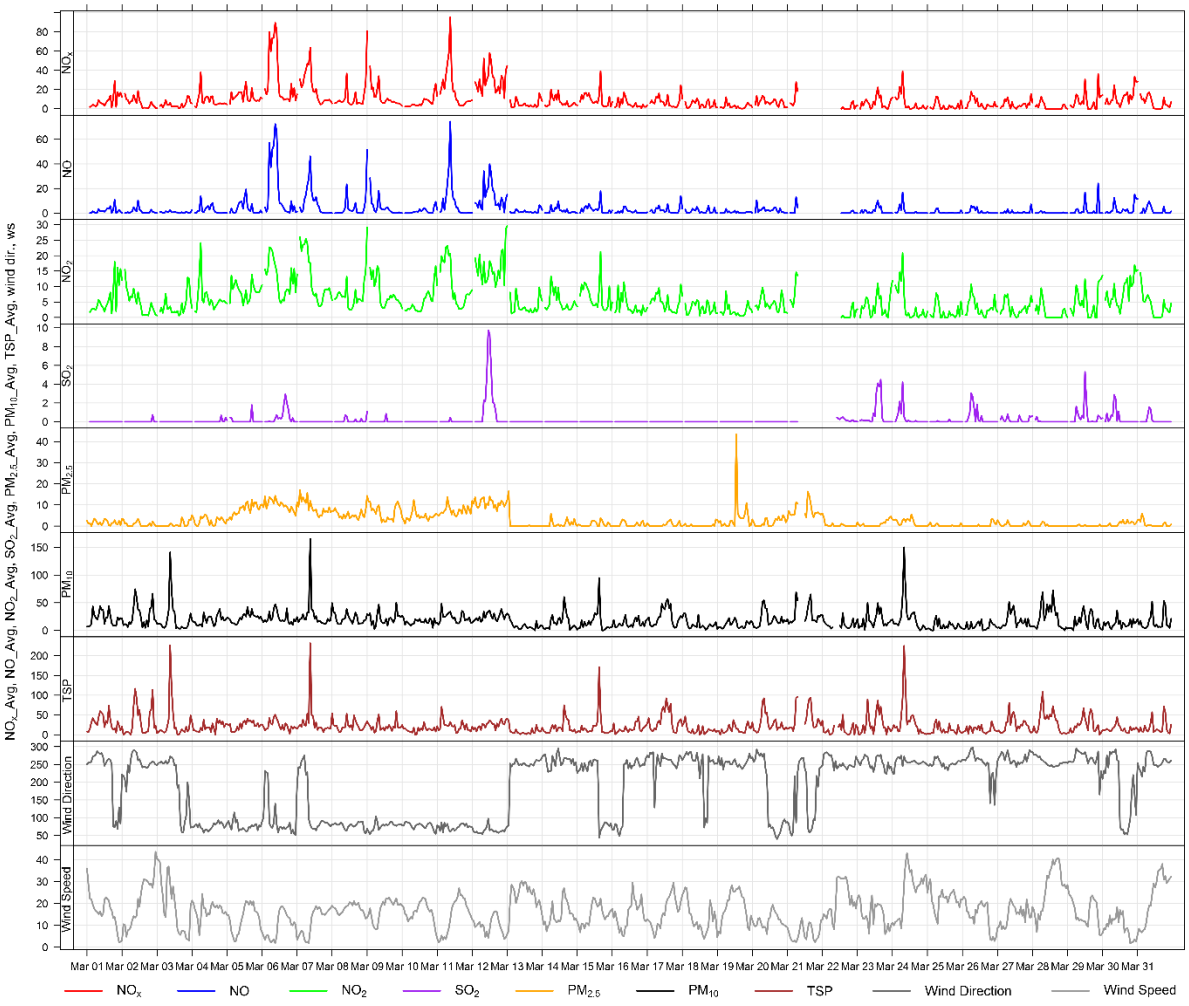


**Figure 3-4 1-hour concentrations of $NO_x$, $SO_2$, particulate matter, wind direction and wind speed at the Lagoon monitor**

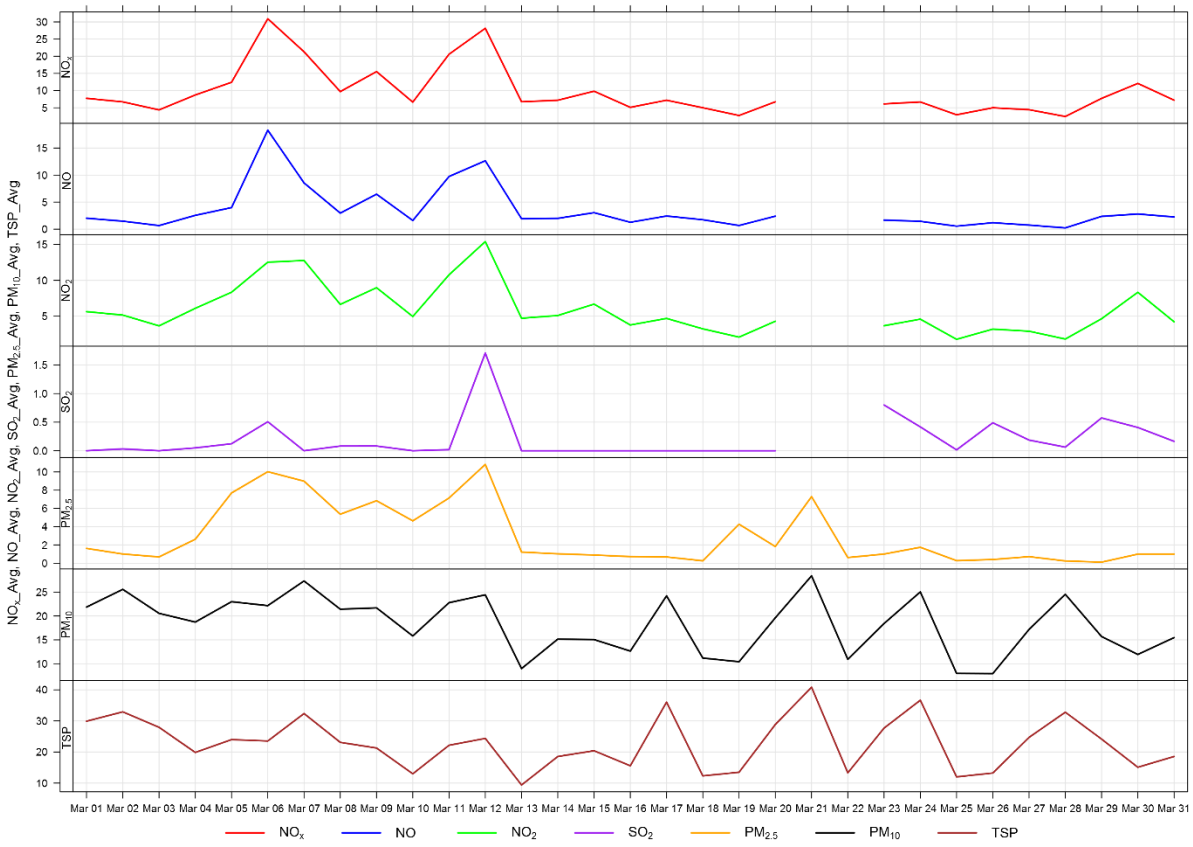


**Figure 3-5 24-hour concentrations of $NO_x$, $SO_2$, and particulate matter at the Lagoon monitor**

Figure 3-6 through Figure 3-8 show the variation in concentrations over various time averaging periods for PM, $SO_2$ and $NO_x$. The particulate matter plot in Figure 3-6 shows that $PM_{10}$ and TSP concentrations tended to rise through the morning before peaking mid-morning and decreasing during the afternoon and evening. $PM_{10}$ and TSP are generally associated with dust from fugitive sources.

Figure 3-7 shows the variation of $SO_2$ over various time periods. $SO_2$ concentrations were extremely low in March. Figure 3-8 shows the variation of $NO_x$, NO and $NO_2$, with the peak of all three pollutants occurring in the morning between 6 am and noon. This may be indicative of a peak in traffic.

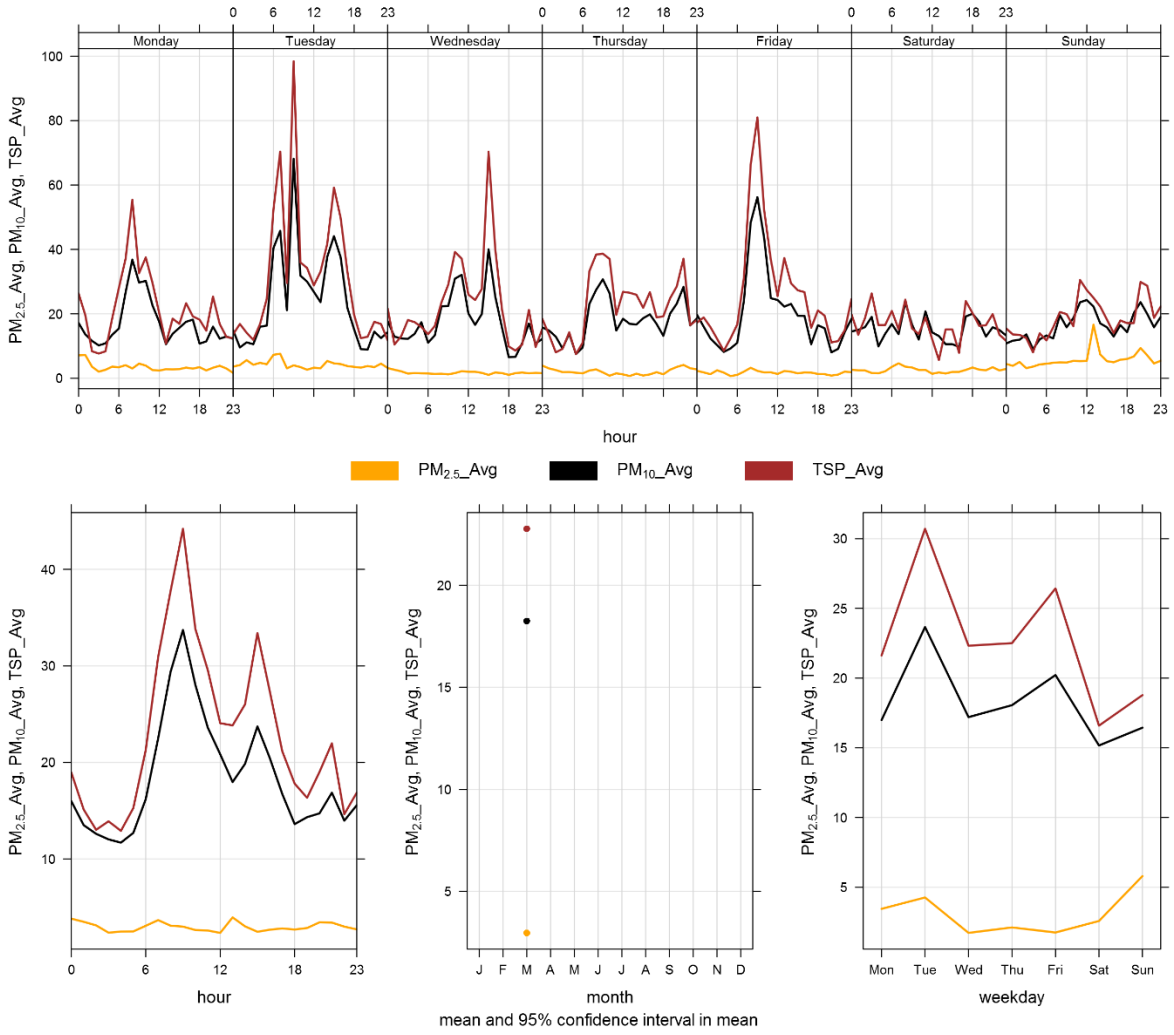


**Figure 3-6 Lagoon Monitor particulate matter time variation**

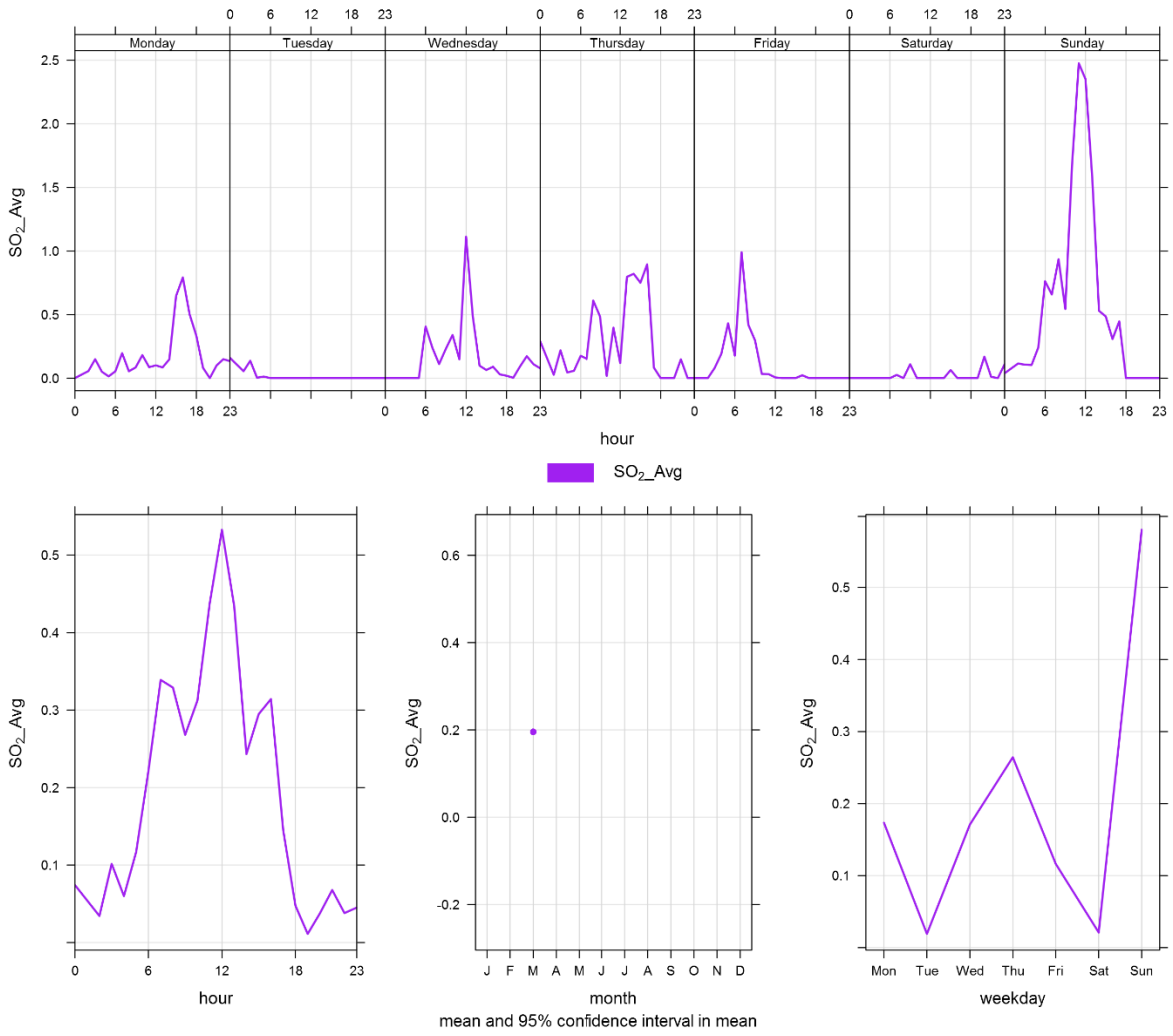


**Figure 3-7 Lagoon Monitor $SO_2$ time variation**

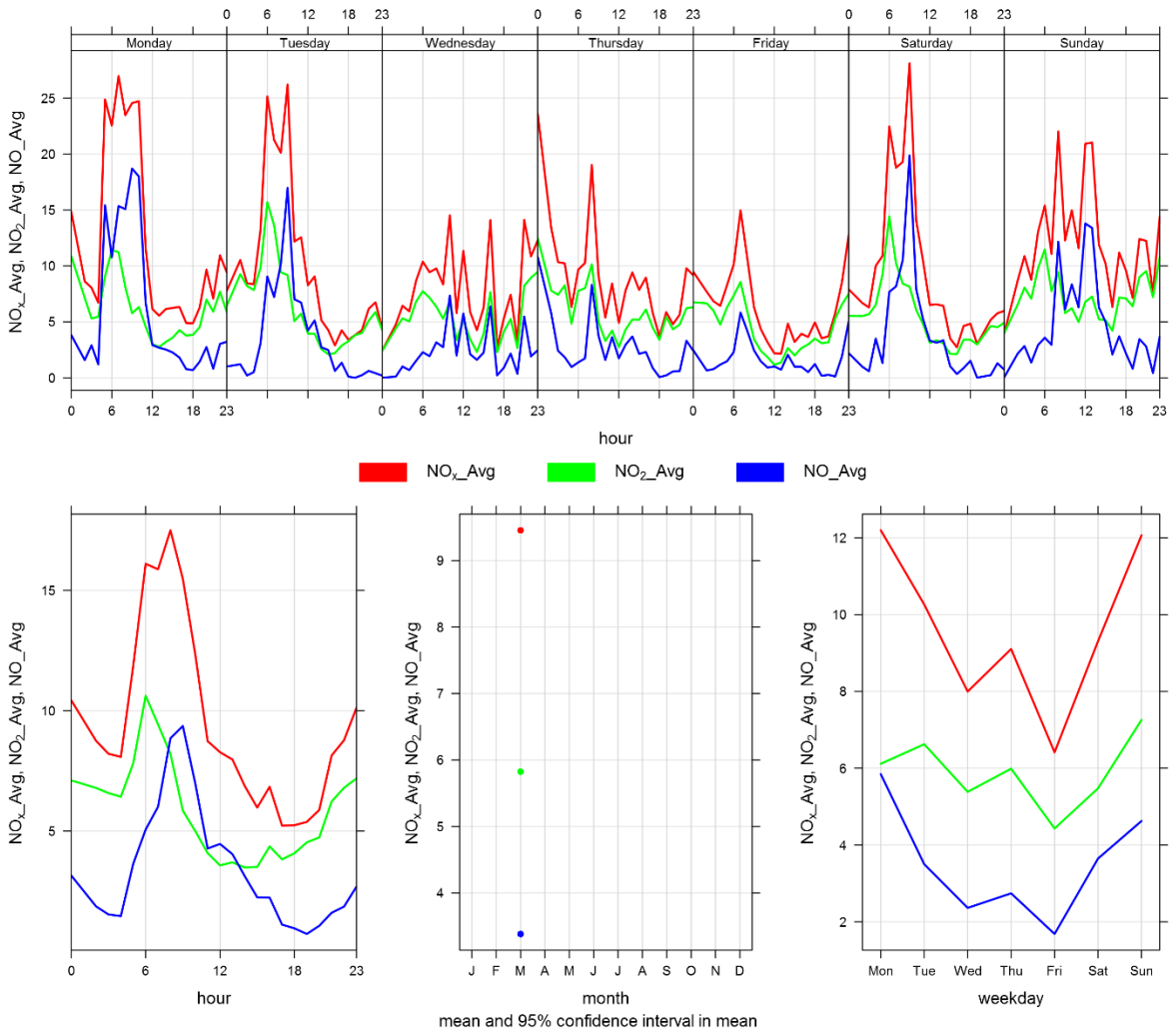


**Figure 3-8 Lagoon Monitor $NO_x$ time variation**

# 4 WEST GRIMM

## 4.1 SITE VISIT NOTES

Table 4-1 indicates the equipment that is installed at the West monitoring location. During the month of March, the West GRIMM had 100% uptime.

**Table 4-1 Equipment at the West monitoring location**

| Equipment Description | Parameter Measured |
|---|---|
| GRIMM 365 Continuous Particulate Monitor | $PM_{2.5}$, $PM_{10}$, TSP Concentrations |

## 4.2 MONITORING RESULTS AND TRENDS

The West GRIMM was installed in its current location in order to monitor “background” PM concentrations since the predominant wind pattern is from west to east in the valley. As indicated in Figure 3-3, the majority of winds came from the west during March. Table 4-2 summarizes the maximum 1-hour and 24-hour concentrations recorded over the course of the month.

Figure 4-1 and Figure 4-2 show the hourly and daily $PM_{2.5}$, $PM_{10}$ and TSP concentrations recorded over the month. There were 2 exceedances of the 24-hour TSP guideline (100 µg/m$^3$) and no recorded exceedances of the 24-hour $PM_{2.5}$ guideline (30 µg/m$^3$). Exceedances of the TSP guideline were recorded when winds were from the east (Table 4-3).

**Table 4-2 Summary of March 2017 data at the West GRIMM**

| Parameter | Guideline | | Station | Exceedances | | Monthly Average | Maximum 1-hour | | | | | Maximum 24-hour | | Operational Time (Percent) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1-hr | 24-hr | | 1-hr | 24-hr | | Maximum Concentration | Day | Hour | Wind Speed (km/hr) | Wind Direction (degrees) | Maximum Concentration | Day | |
| $PM_{2.5}$ (µg/m$^3$) | - | 30 | West | - | 0 | 6.4 | 59.1 | 17 | 13 | 20.3 | 265.8 | 19.3 | 6 | 100.0 |
| $PM_{10}$ (µg/m$^3$) | - | - | West | - | - | 19.4 | 220.7 | 17 | 13 | 20.3 | 265.8 | 42.9 | 9 | 100.0 |
| TSP (µg/m$^3$) | - | 100 | West | - | 2 | 46.2 | 386.0 | 10 | 15 | 22.5 | 72.6 | 166.9 | 9 | 100.0 |

**Table 4-3 Days exceeding the Guideline for TSP at the West Monitor**

| Date | TSP (ug/m$^3$) | $PM_{2.5}$ (ug/m$^3$) | Average Wind Direction | Average Wind Speed | Average RH | Root Cause (Provided by Lafarge) |
|---|---|---|---|---|---|---|
| West | | | | | | |
| 3/9/2017 | 166.9 | - | 77.3 | 17.4 | 74.0 | |
| 3/10/2017 | 115.9 | - | 78.1 | 16.6 | 71.9 | |
| **Total # of Exceedances** | **2** | **0** | | | | |
| **Maximum # of Exceedances (March)** | **10 (2014)** | **1 (2013)** | | | | |
| **Average # of Exceedances (March)** | **2** | **0** | | | | |
| **Minimum # of Exceedances (March)** | **0 (2015, 2016)** | **0 (2010, 2011, 2012, 2014, 2015, 2016)** | | | | |

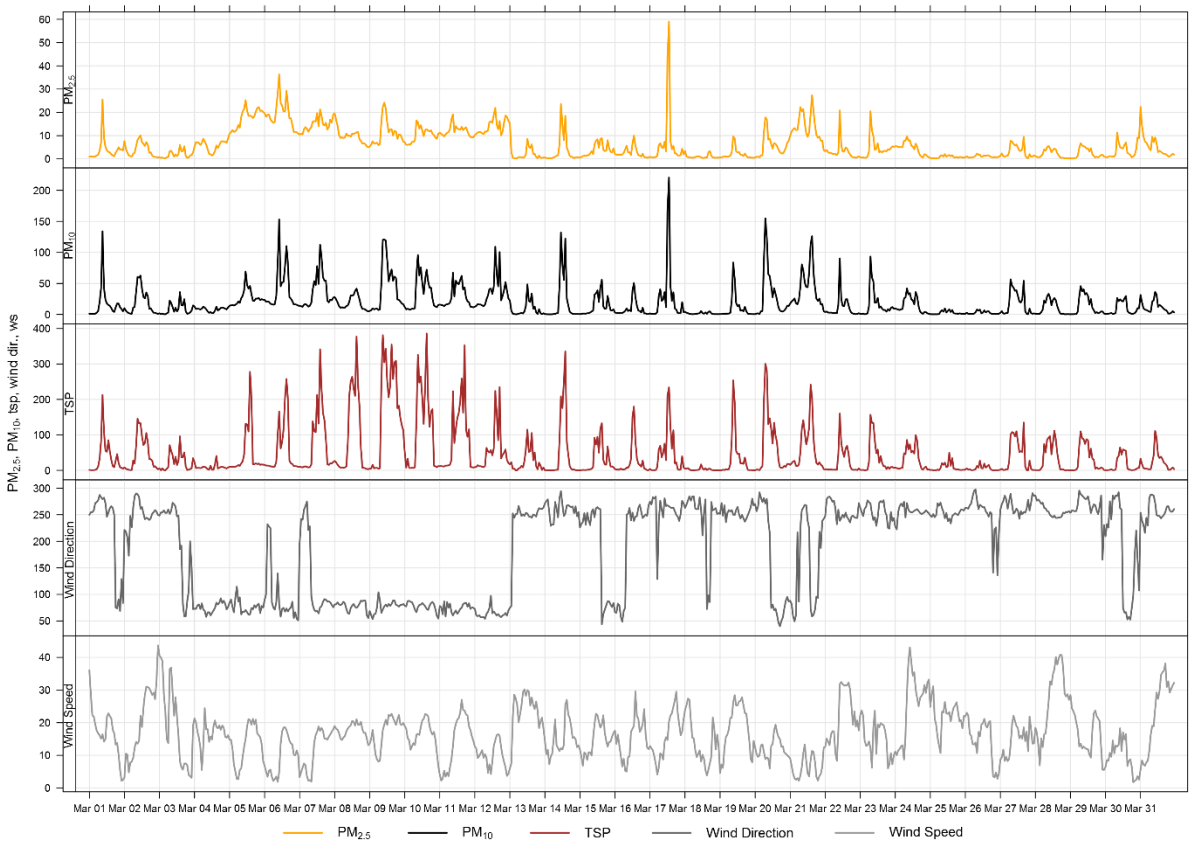


**Figure 4-1 1-hour particulate matter concentrations at the West monitor**

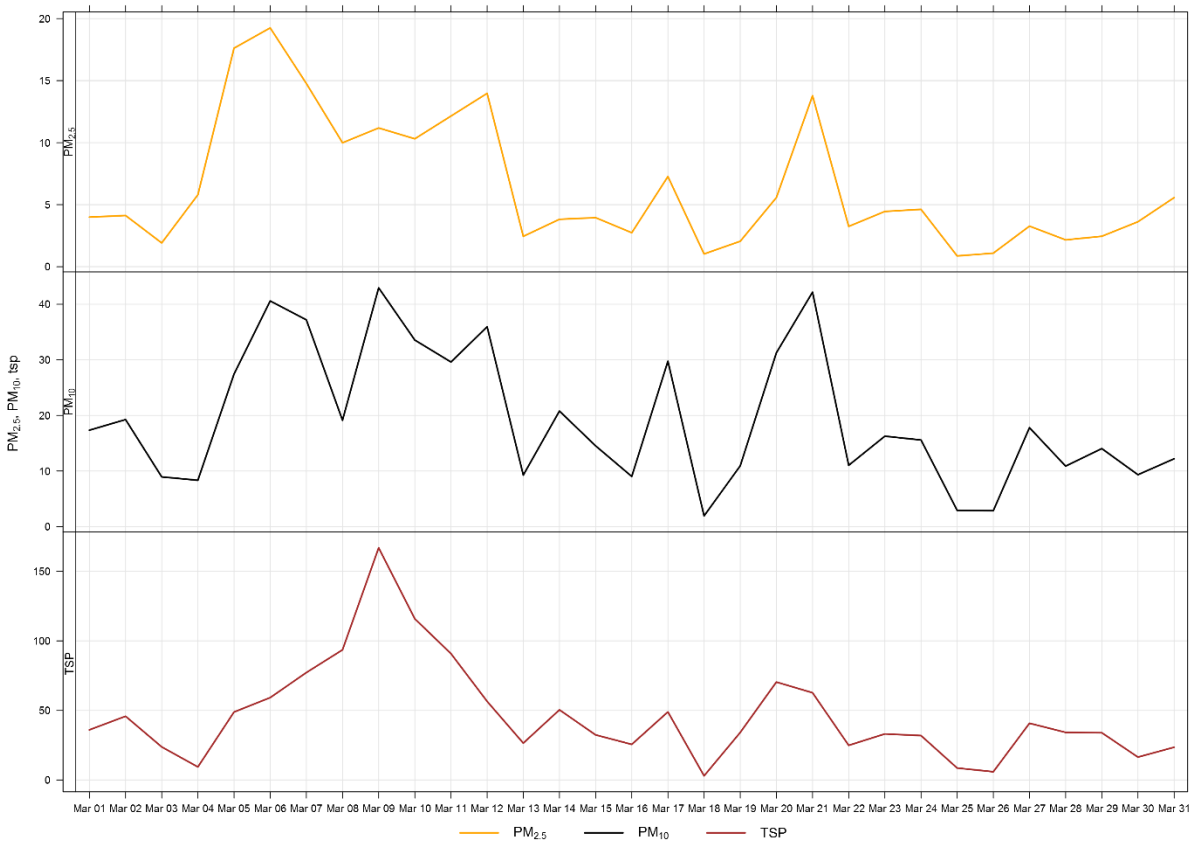


**Figure 4-2 24-hour particulate matter concentrations at the West monitor**

Figure 4-3 illustrates the hourly PM concentrations recorded at the West monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 4-3 is based on data collected during March 2017 and indicates a strong relationship between TSP and hours which Lafarge is typically operational. Due to the proximity of the West monitor to the highway, the daily variations in PM may also be a result of higher traffic volume during daylight hours.

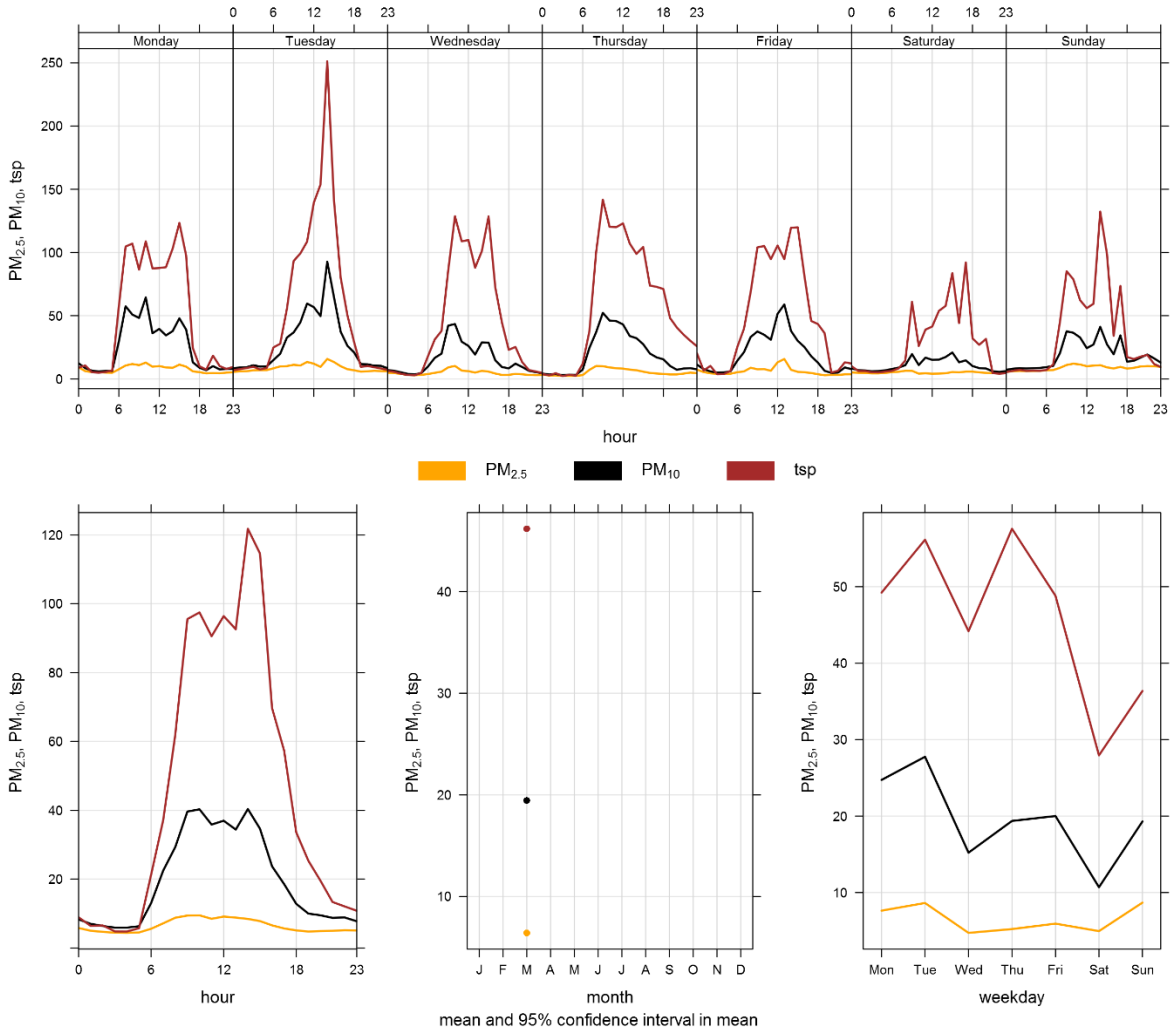


**Figure 4-3 West particulate matter time variation**

# 5 BERM GRIMM

## 5.1 SITE VISIT NOTES

This station was found to be in good operating condition and no repairs were required during the month. During the month of March, the Berm GRIMM had 100% uptime.

**Table 5-1 Equipment at the Berm monitoring location**

| Equipment Description | Parameter Measured |
|---|---|
| GRIMM 365 Continuous Particulate Monitor | $PM_{2.5}$, $PM_{10}$, TSP Concentrations |

## 5.2 MONITORING RESULTS AND TRENDS

The Berm monitor was placed at its current location as a result of the dispersion modelling conducted in 2009. Table 5-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month. The monitor had 100% uptime during the month of March.

Figure 5-1 and Figure 5-2 show the hourly and daily $PM_{2.5}$, $PM_{10}$ and TSP concentrations recorded over the month. Table 5-3 summarizes the recorded exceedances.

During March, there were 9 exceedances of the 24-hour TSP Guideline (100 µg/m$^3$). Historically, the Berm monitor records an average of 15 and 0 exceedances of the 24-hour TSP and $PM_{2.5}$ Guidelines respectively, during the month of March. The largest number of TSP exceedances recorded during March occurred in 2010, which had 28 days that exceeded the Guideline. The fewest number of TSP exceedances recorded in March, prior to this year, was recorded during March 2016, which had 10 days that exceeded the Guideline.

It should also be noted that the GRIMM monitors become more conservative in the reported PM concentrations as the size fraction increases. The $PM_{2.5}$ size fraction has been shown to match other regulatory approved $PM_{2.5}$ monitors, but the TSP concentrations recorded by the GRIMM tend to be higher than regulatory approved monitors (Levelton, 2015).

The Berm monitor is located along a ridge at the edge of the Lafarge property and is in an area where on-site trucks drive through site, which can create fugitive dust. Quarry blasting also has the potential to impact short term PM immediately following a blast. As described above, March has historically recorded many exceedances of the TSP Guideline, but this month recorded the fewest number of exceedances for March since monitoring began at this location. The highest TSP concentrations in the month correspond to the high wind speed events recorded in March.

**Table 5-2 Summary of March 2017 data at the Berm GRIMM**

| Parameter | Guideline | | Station | Exceedances | | Monthly Average | Maximum 1-hour | | | | | Maximum 24-hour | | Operational Time (Percent) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1-hr | 24-hr | | 1-hr | 24-hr | | Maximum Concentration | Day | Hour | Wind Speed (km/hr) | Wind Direction (degrees) | Maximum Concentration | Day | |
| $PM_{2.5}$ (µg/m$^3$) | - | 30 | Berm | - | 0 | 5.2 | 50.3 | 24 | 9 | 38.6 | 259.6 | 13.5 | 2 | 100.0 |
| $PM_{10}$ (µg/m$^3$) | - | - | Berm | - | - | 26.5 | 494.2 | 24 | 9 | 38.6 | 259.6 | 126.7 | 2 | 100.0 |
| TSP (µg/m$^3$) | - | 100 | Berm | - | 9 | 88.6 | 2013.9 | 24 | 9 | 38.6 | 259.6 | 453.1 | 2 | 100.0 |

**Table 5-3 Days exceeding the Guideline for TSP at the Berm Monitor**

| Date | TSP (ug/m$^3$) | $PM_{2.5}$ (ug/m$^3$) | Average Wind Direction | Average Wind Speed | Average RH | Root Cause (Provided by Lafarge) |
|---|---|---|---|---|---|---|
| Berm | | | | | | |
| 3/1/2017 | 121.5 | - | 264.1 | 17.1 | 52.8 | |
| 3/2/2017 | 453.1 | - | 251.7 | 20.2 | 52.4 | high wind event |
| 3/3/2017 | 335.0 | - | 253.5 | 19.3 | 47.2 | |
| 3/13/2017 | 130.7 | - | 252.0 | 23.5 | 54.5 | high wind event |
| 3/22/2017 | 144.8 | - | 252.3 | 21.7 | 53.0 | high wind event |
| 3/23/2017 | 100.4 | - | 257.3 | 15.2 | 47.1 | |
| 3/24/2017 | 230.4 | - | 256.3 | 25.3 | 51.0 | high wind event |
| 3/27/2017 | 116.8 | - | 264.5 | 14.7 | 48.5 | |
| 3/28/2017 | 303.0 | - | 253.5 | 27.0 | 44.9 | high wind event |
| **Total # of Exceedances** | **9** | **0** | | | | |
| **Maximum # of Exceedances (March)** | **28 (2010)** | **1 (2012)** | | | | |
| **Average # of Exceedances (March)** | **15** | **0** | | | | |
| **Minimum # of Exceedances (March)** | **10 (2016)** | **0 (2010, 2011, 2013, 2014, 2015, 2016)** | | | | |

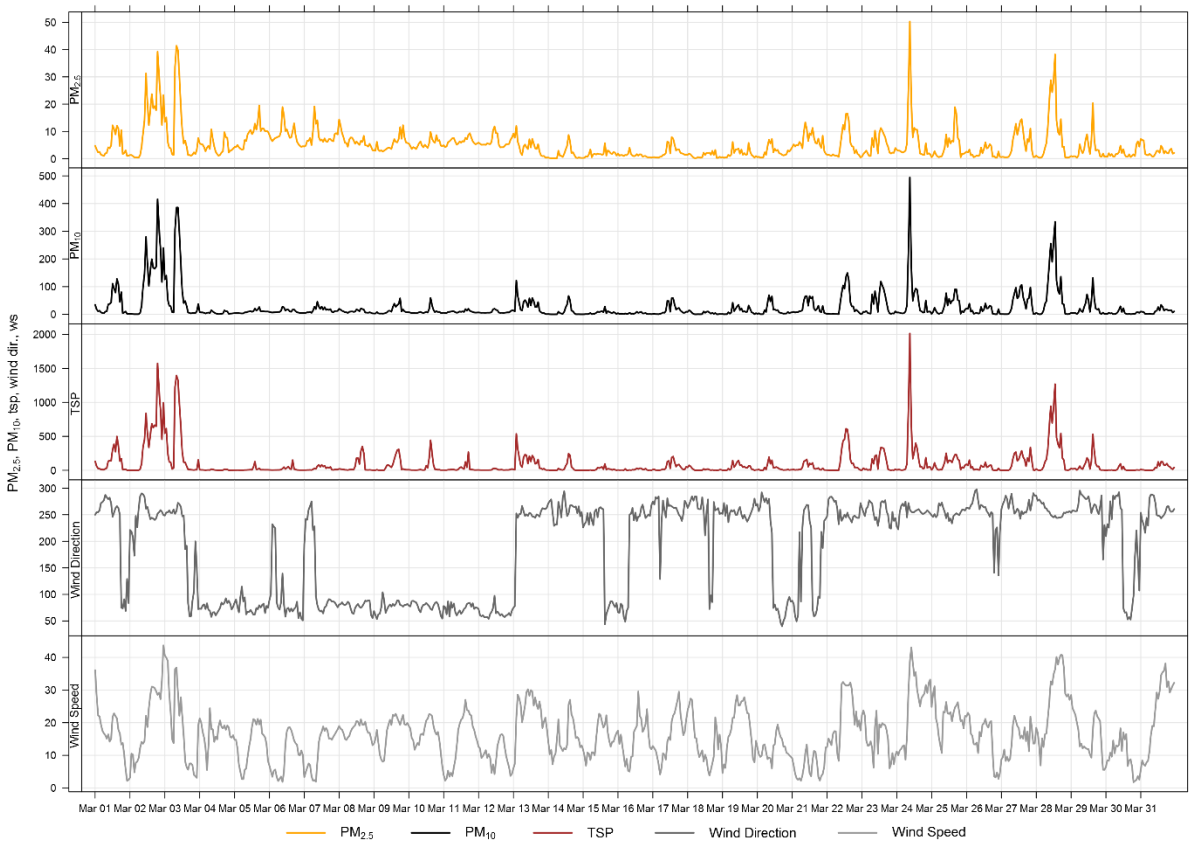


**Figure 5-1 1-hour particulate matter concentrations recorded at the Berm monitor**

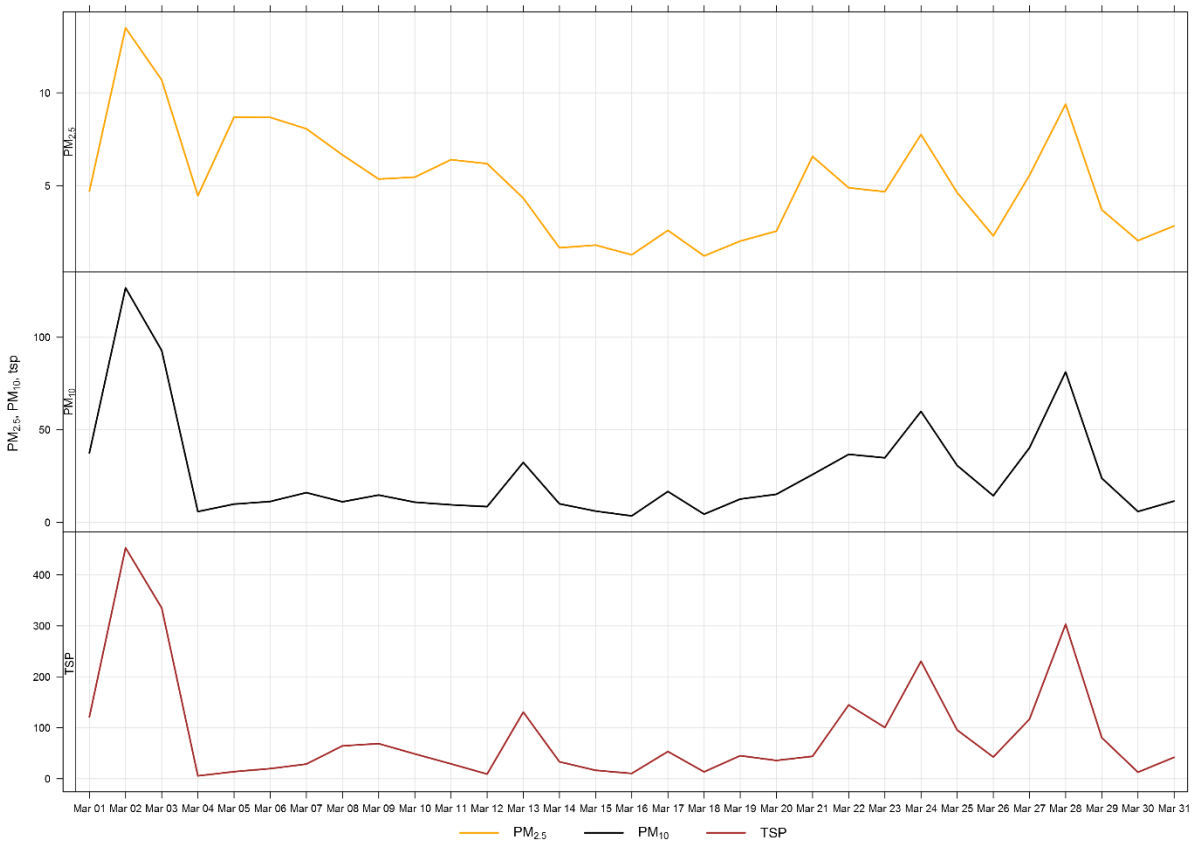


**Figure 5-2 24-hour particulate matter concentrations recorded at the Berm monitor**

Figure 5-3 shows the wind rose for the 9 days which recorded a TSP exceedance. This wind rose shows that the winds predominantly come from the west and over 25 km/hr.

Figure 5-4 shows the variation of PM recorded at the Berm monitor over various time averaging periods. Similar to the Entrance monitor, the Berm, on average, records elevated PM concentrations during standard operating hours of Lafarge.

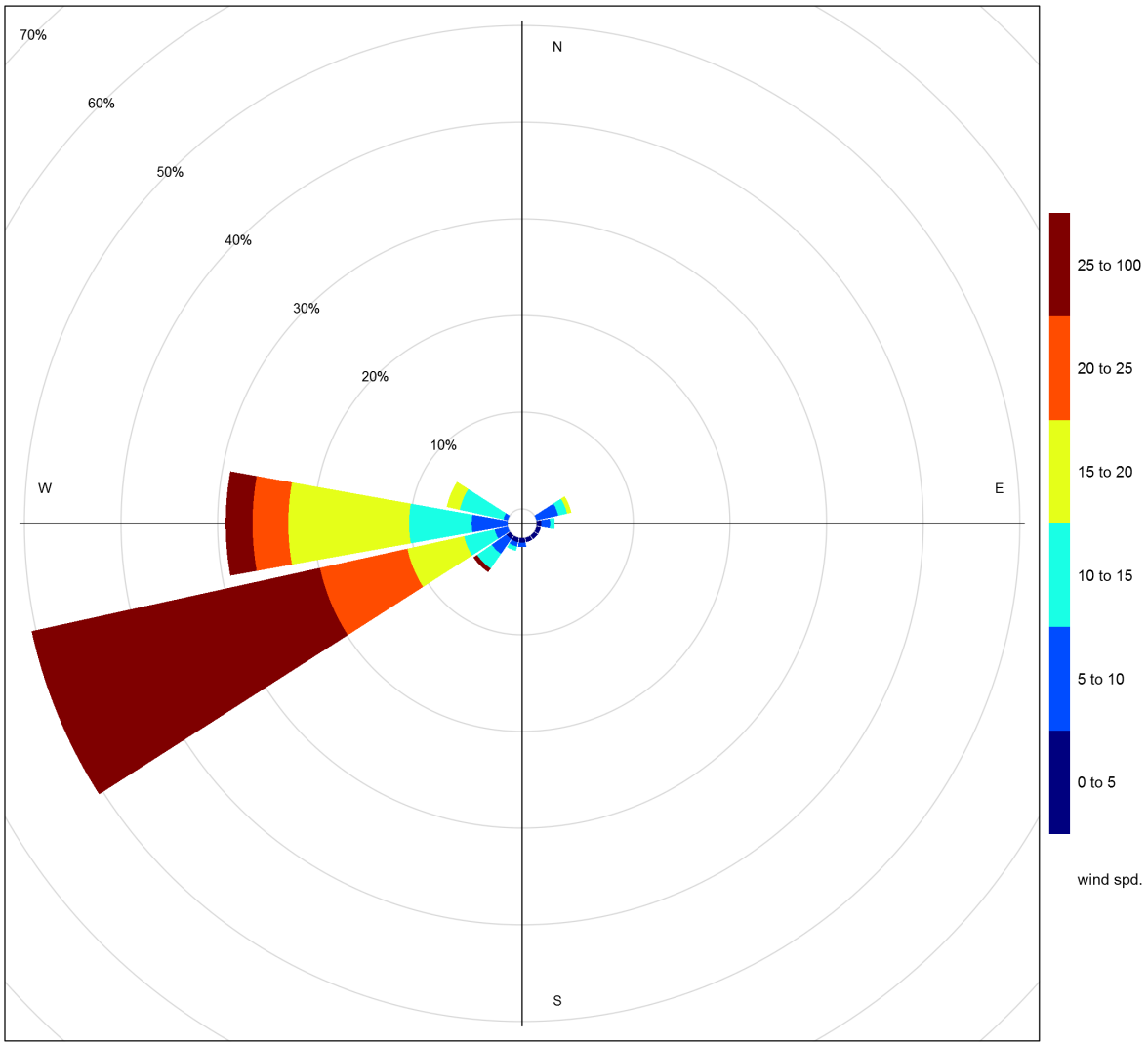


**Figure 5-3 Wind rose for TSP exceedance days recorded at the Berm GRIMM**

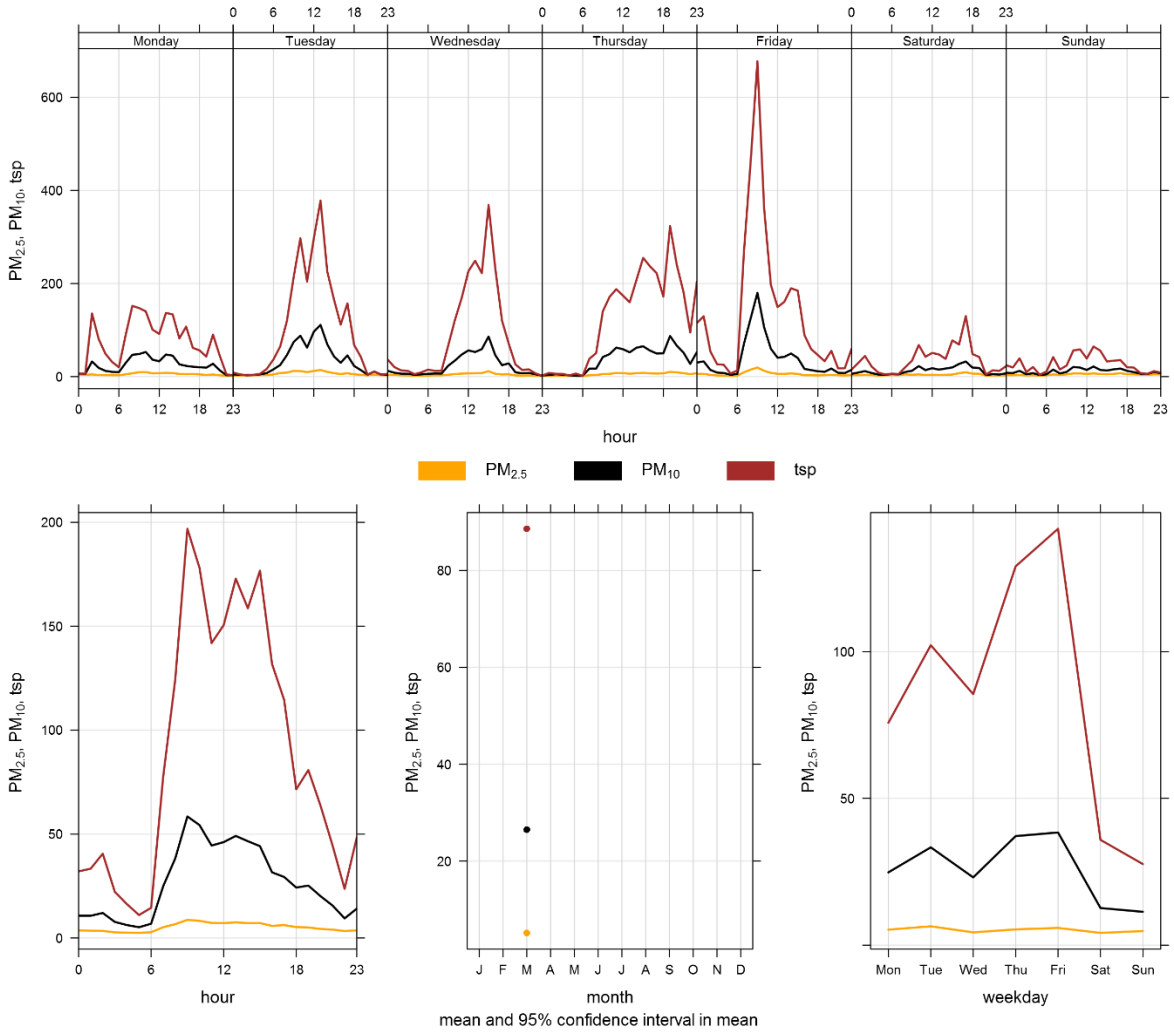


**Figure 5-4 Berm particulate matter time variation**

# 6 ENTRANCE GRIMM

## 6.1 SITE VISIT NOTES

This station was found to be in good operating condition and no repairs were required during the month.

During the month of March, the Entrance GRIMM had 100% uptime.

**Table 6-1 Equipment at the Entrance monitoring location**

| Equipment Description | Parameter Measured |
|---|---|
| GRIMM 365 Continuous Particulate Monitor | $PM_{2.5}$, $PM_{10}$, TSP Concentrations |

## 6.2 MONITORING RESULTS AND TRENDS

The Entrance monitor was placed at its current location as a result of dispersion modelling conducted in 2009. This area was indicated as being the area where the maximum PM concentrations were expected. Table 6-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month. The monitor had 100% uptime during the month of March.

Figure 6-1 and Figure 6-2 show the hourly and daily $PM_{2.5}$, $PM_{10}$ and TSP concentrations recorded over the month. Table 6-3 summarizes the recorded exceedances.

During March, there were 6 exceedances of the 24-hour TSP Guideline (100 µg/m$^3$). Historically, the Entrance monitor records an average of 12 and 0 exceedances of the 24-hour TSP and $PM_{2.5}$ Guidelines respectively, during the month of March. The largest number of TSP exceedances recorded during March occurred in 2014, which had 28 days that exceeded the Guideline. The previous fewest number of TSP exceedances recorded during March occurred in 2011, which had 0 days that exceeded the Guideline.

It should also be noted that the GRIMM monitors become more conservative in the reported PM concentrations as the size fraction increases. The $PM_{2.5}$ size fraction has been shown to match other regulatory approved $PM_{2.5}$ monitors, but the TSP concentrations recorded by the GRIMM tend to be higher than regulatory approved monitors (Levelton, 2015).

The Entrance monitor is impacted by fugitive dust from plant activities, and the high wind events described under the Berm monitor section. Trucks also queue nearby the Entrance monitor while waiting to be loaded with material. Additionally, the monitor is closely located to Highway 1A. Traffic, particularly large trucks, can create dust while crossing over the railway tracks. This can all lead to the monitor recording high TSP concentrations, which are typically associated with fugitive dust sources.

Figure 6-3 shows the wind rose for the days which exceeded the TSP Guideline at the Entrance GRIMM. During these 6 days, winds were predominantly from the west and above 25 km/hr.

**Table 6-2 Summary of March 2017 data at the Entrance GRIMM**

| Parameter | Guideline | | Station | Exceedances | | Monthly Average | Maximum 1-hour | | | | | Maximum 24-hour | | Operational Time (Percent) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1-hr | 24-hr | | 1-hr | 24-hr | | Maximum Concentration | Day | Hour | Wind Speed (km/hr) | Wind Direction (degrees) | Maximum Concentration | Day | |
| $PM_{2.5}$ (µg/m$^3$) | - | 30 | Entrance | - | 0 | 7.0 | 31.8 | 20 | 10 | 6.0 | 215.6 | 14.9 | 21 | 100.0 |
| $PM_{10}$ (µg/m$^3$) | - | - | Entrance | - | - | 24.8 | 211.0 | 20 | 10 | 6.0 | 215.6 | 71.6 | 20 | 100.0 |
| TSP (µg/m$^3$) | - | 100 | Entrance | - | 6 | 61.1 | 671.1 | 24 | 9 | 38.6 | 259.6 | 163.0 | 20 | 100.0 |

**Table 6-3 Days exceeding the Guideline for TSP at the Entrance Monitor**

| Date | TSP ($ug/m^3$) | $PM_{2.5}$ ($ug/m^3$) | Average Wind Direction | Average Wind Speed | Average RH | Root Cause (Provided by Lafarge) |
|---|---|---|---|---|---|---|
| Entrance | | | | | | |
| 3/2/2017 | 125.0 | - | 251.7 | 20.2 | 52.4 | high wind event |
| 3/17/2017 | 138.9 | - | 262.0 | 15.9 | 43.6 | |
| 3/20/2017 | 163.0 | - | 38.0 | 12.1 | 46.8 | |
| 3/21/2017 | 113.9 | - | 194.5 | 6.4 | 61.5 | |
| 3/24/2017 | 149.3 | - | 256.3 | 25.3 | 51.0 | high wind event |
| 3/28/2017 | 134.5 | - | 253.5 | 27.0 | 44.9 | high wind event |
| **Total # of Exceedances** | **6** | **0** | | | | |
| **Maximum # of Exceedances (March)** | **28 (2014)** | **0 (2010 ~ 2016)** | | | | |
| **Average # of Exceedances (March)** | **12** | **0** | | | | |
| **Minimum # of Exceedances (March)** | **0 (2011)** | **0 (2010 ~ 2016)** | | | | |

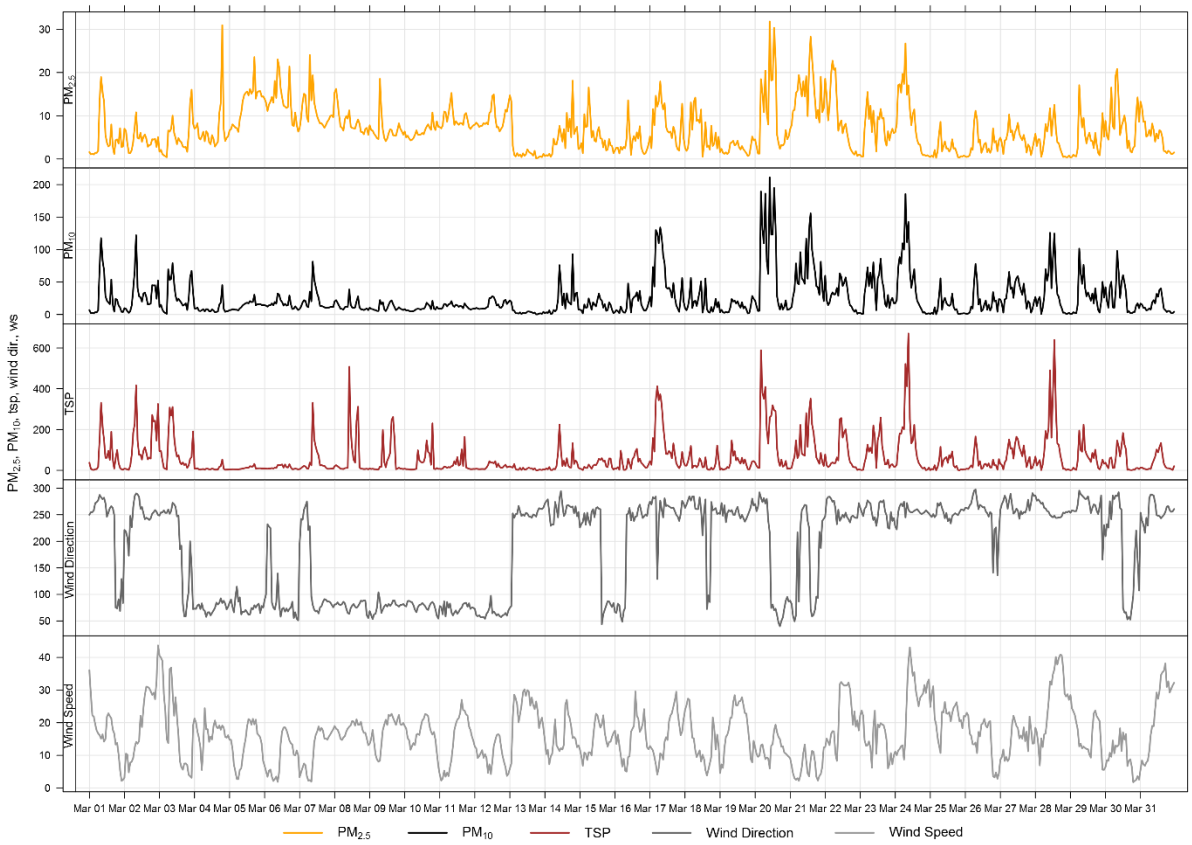


**Figure 6-1 1-hour particulate matter concentrations recorded at the Entrance monitor**

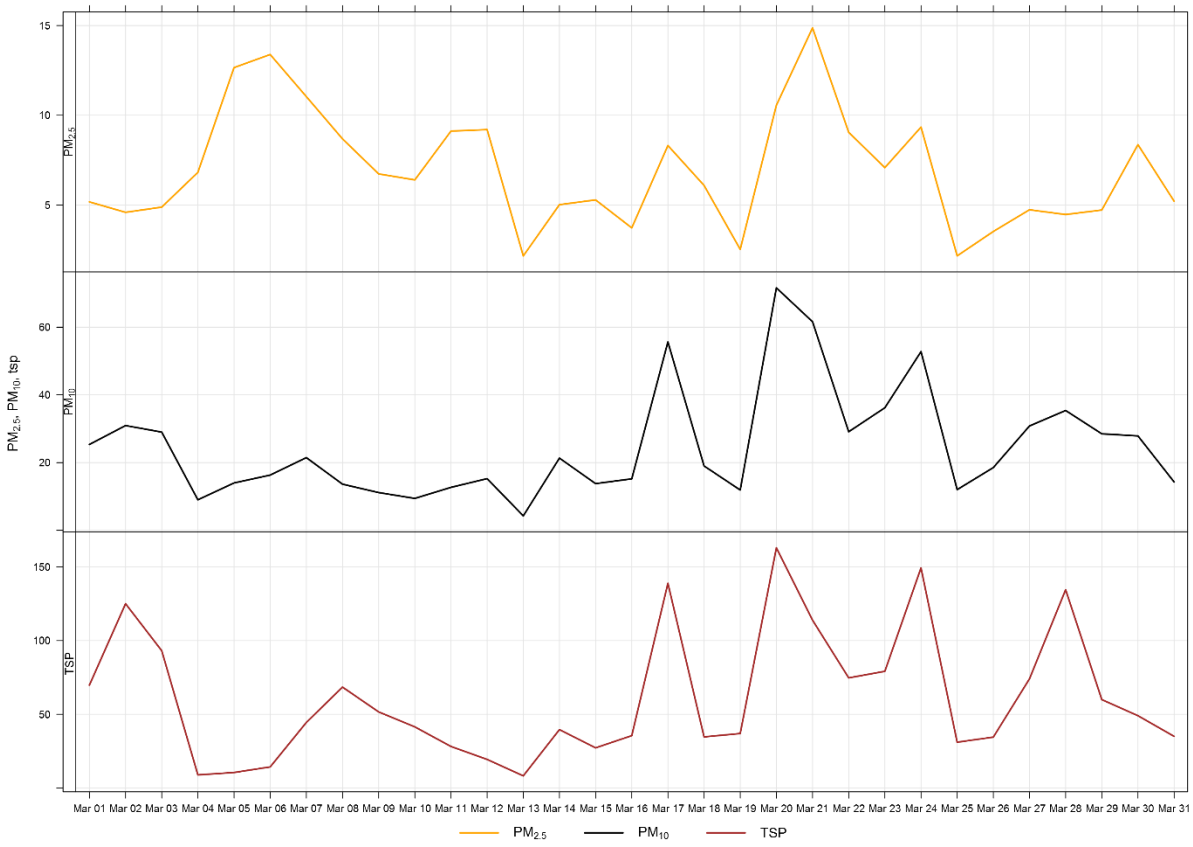


**Figure 6-2 24-hour particulate matter concentrations at the Entrance monitor**

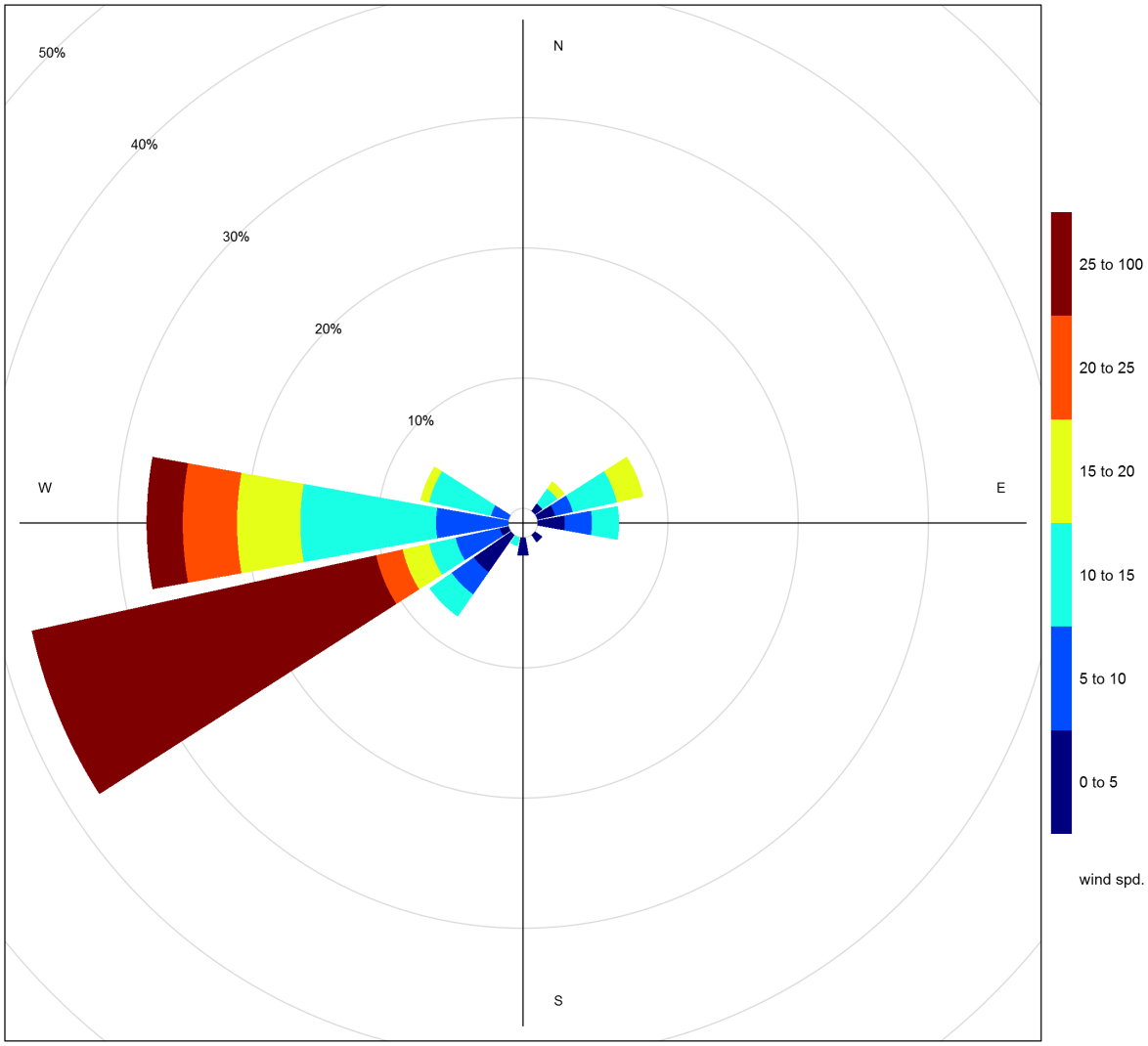


**Figure 6-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM**

Figure 6-4 illustrates the hourly PM concentrations recorded at the Entrance monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 6-4 is based on data collected during March 2017 and indicates a strong diurnal pattern that is typical at this station.

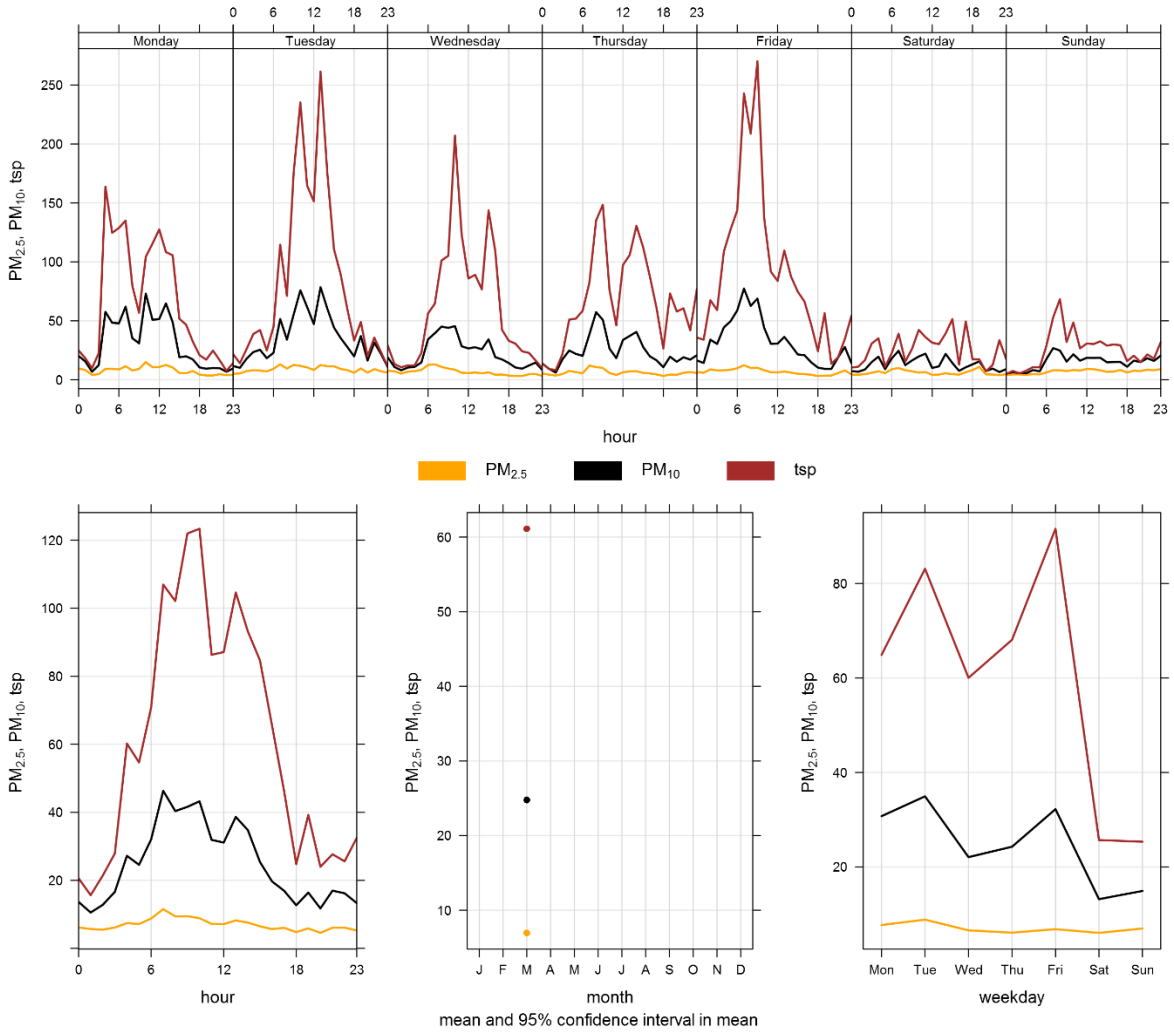


**Figure 6-4 Entrance particulate matter time variation**

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# Appendix A

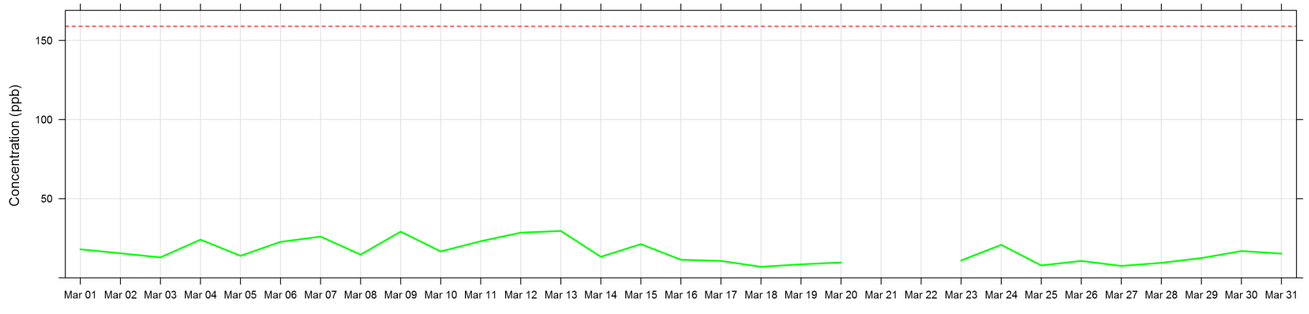
**DATA & CALIBRATION REPORTS**

# Lagoon $NO_2$ (ppb) – March 2017

| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.6 | S | 1.7 | 2.5 | 2.9 | 2.8 | 2.4 | 3.7 | 5.7 | 4.9 | 3.7 | 3.2 | 1.8 | 3.5 | 4.5 | 6.0 | 8.1 | 1.3 | 8.3 | 18.0 | 2.0 | 16.2 | 10.5 | 15.7 | 18.0 | 5.6 |
| 2 | 12.1 | S | 15.5 | 9.8 | 8.1 | 5.4 | 6.8 | 6.5 | 9.4 | 6.7 | 4.5 | 8.1 | 5.5 | 3.6 | 0.7 | 0.9 | 0.9 | 0.9 | 0.6 | 2.3 | 4.7 | 3.2 | 2.0 | 0.8 | 15.5 | 5.2 |
| 3 | 0.6 | S | 1.8 | 3.2 | 1.5 | 4.0 | 7.6 | 2.9 | 2.8 | 3.6 | 1.7 | 1.6 | 1.9 | 1.5 | 2.1 | 0.6 | 1.1 | 4.6 | 1.4 | 3.0 | 5.5 | 12.9 | 12.6 | 5.7 | 12.9 | 3.7 |
| 4 | 3.0 | S | 2.0 | 1.7 | 6.8 | 14.0 | 24.1 | 5.6 | 4.9 | 7.9 | 8.2 | 6.1 | 4.0 | 5.8 | 4.7 | 2.5 | 3.4 | 4.2 | 4.9 | 5.8 | 5.3 | 5.1 | 5.4 | 4.9 | 24.1 | 6.1 |
| 5 | 4.5 | S | 4.6 | 13.6 | 9.1 | 10.7 | 12.2 | 10.3 | 9.1 | 8.3 | 7.4 | 3.8 | 6.1 | 8.8 | 4.5 | 5.2 | 6.6 | 13.9 | 10.5 | 8.9 | 8.1 | 8.2 | 8.1 | 9.3 | 13.9 | 8.3 |
| 6 | 10.5 | S | 15.6 | 13.7 | 15.2 | 22.7 | 22.4 | 21.6 | 18.9 | 16.9 | 14.9 | 9.9 | 5.3 | 4.6 | 5.8 | 5.4 | 8.2 | 9.0 | 9.0 | 7.5 | 16.0 | 10.9 | 15.7 | 8.2 | 22.7 | 12.5 |
| 7 | 14.0 | S | 26.0 | 21.5 | 23.5 | 23.6 | 25.4 | 24.0 | 18.0 | 17.5 | 9.7 | 7.6 | 6.9 | 7.7 | 5.1 | 3.5 | 3.6 | 4.3 | 7.2 | 9.0 | 9.2 | 8.9 | 9.5 | 7.8 | 26.0 | 12.8 |
| 8 | 5.5 | S | 5.9 | 6.3 | 7.7 | 8.2 | 7.4 | 6.6 | 6.7 | 6.6 | 13.2 | 3.1 | 2.6 | 2.4 | 3.1 | 4.7 | 8.9 | 4.6 | 5.9 | 5.9 | 5.4 | 5.2 | 12.2 | 14.7 | 14.7 | 6.6 |
| 9 | 29.2 | S | 16.2 | 12.4 | 15.3 | 10.1 | 11.7 | 16.6 | 15.7 | 5.0 | 3.5 | 3.0 | 3.2 | 4.7 | 6.0 | 5.8 | 7.1 | 6.4 | 7.4 | 6.8 | 5.8 | 5.6 | 4.9 | 4.3 | 29.2 | 9.0 |
| 10 | 2.9 | S | 2.3 | 2.3 | 2.9 | 2.6 | 3.0 | 4.2 | 3.6 | 2.4 | 2.2 | 1.9 | 2.0 | 2.0 | 3.6 | 6.1 | 6.4 | 7.8 | 8.5 | 7.1 | 5.4 | 5.4 | 13.1 | 16.6 | 16.6 | 5.0 |
| 11 | 10.3 | S | 14.7 | 19.9 | 18.4 | 17.8 | 22.7 | 23.1 | 20.0 | 20.7 | 10.4 | 6.0 | 7.9 | 4.5 | 3.9 | 2.7 | 2.8 | 2.9 | 3.3 | 5.1 | 7.4 | 7.5 | 7.4 | 8.2 | 23.1 | 10.8 |
| 12 | 8.9 | S | 19.2 | 16.2 | 13.5 | 20.4 | 14.5 | 10.7 | 18.0 | 11.2 | 11.7 | 13.3 | 18.2 | 17.2 | 14.1 | 14.7 | 9.8 | 12.0 | 15.2 | 12.7 | 21.5 | 22.0 | 10.5 | 28.5 | 28.5 | 15.4 |
| 13 | 29.6 | S | 8.1 | 1.2 | 1.5 | 1.9 | 9.4 | 6.1 | 2.8 | 2.5 | 2.4 | 3.1 | 3.3 | 2.2 | 2.4 | 1.7 | 2.7 | 1.7 | 1.8 | 3.0 | 1.8 | 2.7 | 9.7 | 6.7 | 29.6 | 4.7 |
| 14 | 5.3 | S | 3.2 | 2.5 | 3.3 | 4.3 | 13.3 | 10.4 | 7.1 | 9.9 | 5.5 | 9.6 | 4.9 | 4.1 | 2.6 | 2.8 | 3.0 | 4.3 | 2.6 | 2.4 | 2.9 | 3.9 | 5.3 | 4.2 | 13.3 | 5.1 |
| 15 | 3.5 | S | 7.0 | 10.6 | 8.9 | 11.4 | 10.7 | 9.5 | 8.5 | 5.9 | 4.7 | 3.9 | 3.9 | 4.5 | 3.4 | 9.0 | 21.3 | 3.9 | 2.6 | 2.3 | 2.6 | 3.5 | 10.0 | 2.3 | 21.3 | 6.7 |
| 16 | 4.9 | S | 1.6 | 2.7 | 10.3 | 1.7 | 7.9 | 5.0 | 11.4 | 7.4 | 4.5 | 2.5 | 2.5 | 2.1 | 1.4 | 2.3 | 3.9 | 1.7 | 2.3 | 2.2 | 0.7 | 3.9 | 2.1 | 2.0 | 11.4 | 3.8 |
| 17 | 3.1 | S | 4.4 | 5.8 | 6.2 | 5.4 | 8.0 | 7.7 | 9.6 | 5.2 | 5.1 | 4.2 | 2.0 | 3.3 | 7.3 | 2.5 | 2.5 | 1.7 | 1.8 | 1.5 | 1.3 | 3.7 | 5.1 | 10.7 | 10.7 | 4.7 |
| 18 | 7.0 | S | 4.5 | 0.9 | 0.8 | 1.8 | 3.1 | 5.1 | 4.9 | 4.0 | 5.6 | 5.3 | 0.6 | 3.2 | 3.6 | 1.3 | 1.6 | 5.5 | 4.8 | 0.9 | 1.8 | 2.1 | 5.0 | 1.4 | 7.0 | 3.2 |
| 19 | 1.4 | S | 1.7 | 1.6 | 0.9 | 2.1 | 8.5 | 2.7 | 4.2 | 1.0 | 1.2 | 1.7 | 1.6 | 0.7 | 1.4 | 0.7 | 0.5 | 0.4 | 0.5 | 1.1 | 3.2 | 5.4 | 2.9 | 2.7 | 8.5 | 2.1 |
| 20 | 1.6 | S | 3.7 | 3.8 | 2.4 | 4.4 | 7.3 | 9.7 | 7.3 | 3.4 | 4.4 | 3.8 | 2.8 | 4.1 | 4.5 | 5.4 | 4.5 | 1.8 | 1.7 | 3.8 | 8.8 | 6.5 | 1.6 | 1.6 | 9.7 | 4.3 |
| 21 | 1.4 | S | 5.6 | 4.9 | 3.4 | 7.3 | 14.6 | 13.6 | C | C | C | C | C | R | R | R | R | R | R | R | R | R | R | R | - | - |
| 22 | R | R | R | R | R | R | R | C | C | C | C | C | C | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 4.9 | 0.0 | 2.2 | - | - |
| 23 | 2.7 | S | 0.0 | 3.7 | 2.8 | 3.6 | 6.6 | 6.0 | 3.4 | 0.0 | 0.3 | 3.8 | 1.4 | 6.9 | 11.0 | 6.0 | 7.1 | 0.7 | 1.3 | 2.4 | 0.4 | 0.0 | 5.2 | 9.4 | 11.0 | 3.7 |
| 24 | 11.8 | S | 10.3 | 8.8 | 7.9 | 14.6 | 11.8 | 20.8 | 7.5 | 0.9 | 0.6 | 1.5 | 0.0 | 0.0 | 0.4 | 0.8 | 3.3 | 0.4 | 0.0 | 0.7 | 0.7 | 2.5 | 0.4 | 0.0 | 20.8 | 4.6 |
| 25 | 1.9 | S | 0.9 | 0.3 | 0.0 | 3.2 | 7.8 | 7.1 | 3.9 | 0.0 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 2.0 | 0.6 | 1.0 | 0.6 | 0.0 | 0.7 | 3.8 | 0.3 | 5.2 | 7.8 | 1.8 |
| 26 | 1.1 | S | 0.7 | 0.8 | 4.8 | 5.9 | 10.7 | 7.3 | 6.6 | 2.7 | 4.6 | 1.1 | 1.2 | 2.4 | 0.9 | 0.0 | 0.0 | 2.4 | 2.1 | 2.8 | 3.2 | 2.4 | 7.4 | 2.6 | 10.7 | 3.2 |
| 27 | 1.8 | S | 1.1 | 2.4 | 2.6 | 7.3 | 6.6 | 7.5 | 3.4 | 0.2 | 3.5 | 1.6 | 0.6 | 0.0 | 0.2 | 1.9 | 1.6 | 2.6 | 2.8 | 3.8 | 1.4 | 3.6 | 3.7 | 7.0 | 7.5 | 2.9 |
| 28 | 5.0 | S | 2.2 | 4.0 | 1.2 | 4.3 | 9.5 | 6.5 | 3.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 2.9 | 0.8 | 9.5 | 1.8 |
| 29 | 0.0 | S | 2.9 | 1.9 | 0.6 | 4.9 | 10.4 | 8.8 | 4.5 | 3.8 | 5.4 | 3.3 | 12.4 | 6.8 | 0.0 | 0.0 | 0.0 | 1.6 | 3.9 | 0.0 | 0.0 | 11.3 | 12.1 | 12.5 | 12.5 | 4.7 |
| 30 | 13.7 | S | 5.7 | 8.5 | 4.9 | 3.3 | 5.9 | 5.9 | 10.9 | 5.9 | 3.8 | 3.7 | 1.2 | 4.3 | 7.0 | 11.0 | 11.5 | 12.8 | 5.3 | 13.5 | 10.0 | 11.2 | 16.9 | 15.0 | 16.9 | 8.3 |
| 31 | 15.3 | S | 14.5 | 9.9 | 5.3 | 4.9 | 6.3 | 7.3 | 6.2 | 5.1 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 5.8 | 3.0 | 2.9 | 1.9 | 1.6 | 4.5 | 15.3 | 4.2 |
| Hourly Max | 29.6 | - | 26.0 | 21.5 | 23.5 | 23.6 | 25.4 | 24.0 | 20.0 | 20.7 | 14.9 | 13.3 | 18.2 | 17.2 | 14.1 | 14.7 | 21.3 | 13.9 | 15.2 | 18.0 | 21.5 | 22.0 | 16.9 | 28.5 | | |
| Hourly Average | 7.1 | - | 6.8 | 6.6 | 6.4 | 7.8 | 10.6 | 9.4 | 8.2 | 5.8 | 5.0 | 4.1 | 3.6 | 3.7 | 3.5 | 3.5 | 4.4 | 3.8 | 4.1 | 4.5 | 4.7 | 6.2 | 6.8 | 7.2 | | |

S = Span | C = Calibration | R = Instrument Replacement

Daily 1-hour $NO_2$ Maximums (ppb) at Trailer

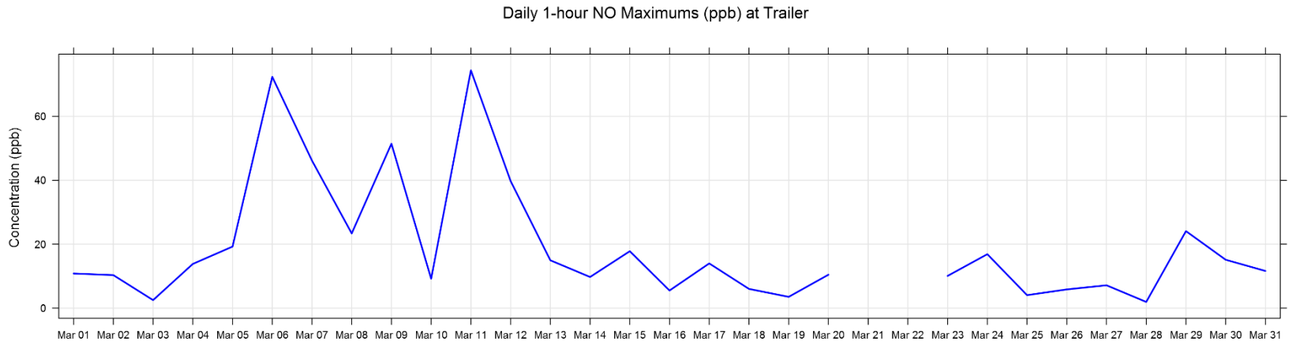



| | | | | | |
|---|---|---|---|---|---|
| Number of 1HR Exceedances | 0 | | Objective | 159 | PPB |
| Number of Non-Zero Readings | 639 | | | | |
| Maximum 1-HR Average | 29.6 | PPB | | | |
| Maximum 24-HR Average | 15.4 | PPB | | | |
| IZS Calibration Time | 30 | HRS | Operational Time | 726 | HRS |
| Monthly Calibration Time | 11 | HRS | Operational Uptime | 97.6 | % |
| Standard Deviation | 5.4 | | Monthly Average | 5.8 | PPB |

# Lagoon NO (ppb) – March 2017

| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.0 | S | 0.1 | 0.3 | 1.4 | 0.7 | 0.1 | 0.4 | 3.4 | 1.4 | 1.7 | 1.9 | 1.2 | 2.5 | 3.9 | 3.4 | 5.7 | 0.1 | 2.6 | 10.8 | 0.1 | 1.1 | 2.7 | 1.0 | 10.8 | 2.0 |
| 2 | 0.3 | S | 0.1 | 0.1 | 0.8 | 0.0 | 0.8 | 1.5 | 4.8 | 2.5 | 1.4 | 10.3 | 3.0 | 2.1 | 0.1 | 0.3 | 0.2 | 0.2 | 0.0 | 0.6 | 2.8 | 1.0 | 0.7 | 0.1 | 10.3 | 1.5 |
| 3 | 0.0 | S | 1.1 | 1.0 | 0.0 | 0.1 | 1.6 | 1.1 | 1.0 | 2.5 | 0.7 | 0.7 | 1.0 | 0.6 | 0.5 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 1.3 | 0.5 | 0.0 | 0.6 | 2.5 | 0.7 |
| 4 | 2.6 | S | 0.2 | 0.0 | 1.9 | 1.8 | 13.8 | 1.4 | 0.8 | 3.1 | 4.8 | 5.8 | 2.8 | 6.8 | 8.3 | 2.6 | 0.8 | 0.5 | 0.1 | 0.0 | 0.0 | 0.0 | 0.4 | 0.4 | 13.8 | 2.6 |
| 5 | 0.0 | S | 0.2 | 3.8 | 0.6 | 0.4 | 0.6 | 3.9 | 7.7 | 9.1 | 9.4 | 3.5 | 13.4 | 19.2 | 4.7 | 2.6 | 1.7 | 7.5 | 0.6 | 0.1 | 0.0 | 0.5 | 0.1 | 2.2 | 19.2 | 4.0 |
| 6 | 0.3 | S | 4.8 | 1.2 | 4.2 | 57.2 | 37.3 | 51.8 | 54.8 | 72.4 | 66.6 | 23.3 | 7.8 | 7.8 | 6.0 | 3.8 | 1.6 | 1.2 | 1.1 | 0.0 | 9.9 | 1.6 | 5.7 | 0.6 | 72.4 | 18.3 |
| 7 | 1.1 | S | 4.5 | 0.8 | 1.9 | 11.1 | 14.6 | 22.7 | 27.9 | 46.2 | 17.5 | 10.4 | 10.3 | 13.2 | 7.0 | 5.2 | 1.0 | 0.6 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 46.2 | 8.5 |
| 8 | 0.0 | S | 0.0 | 0.0 | 0.2 | 0.4 | 0.0 | 0.3 | 1.5 | 4.9 | 23.4 | 3.5 | 2.2 | 1.9 | 1.8 | 3.4 | 8.4 | 0.5 | 0.2 | 0.0 | 0.0 | 0.0 | 4.3 | 11.3 | 23.4 | 3.0 |
| 9 | 51.4 | S | 28.5 | 8.2 | 6.8 | 2.1 | 0.6 | 4.7 | 18.2 | 4.6 | 3.2 | 2.9 | 2.7 | 4.2 | 4.8 | 2.6 | 1.6 | 0.6 | 0.2 | 0.0 | 0.0 | 0.1 | 0.7 | 0.1 | 51.4 | 6.5 |
| 10 | 0.0 | S | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.5 | 0.9 | 1.3 | 1.3 | 1.1 | 3.2 | 1.4 | 2.3 | 4.2 | 3.1 | 1.5 | 0.4 | 0.1 | 0.0 | 0.1 | 6.2 | 9.2 | 9.2 | 1.6 |
| 11 | 2.7 | S | 0.8 | 2.0 | 12.1 | 2.7 | 12.1 | 23.6 | 38.0 | 74.4 | 21.6 | 12.0 | 10.5 | 4.8 | 4.6 | 1.1 | 0.5 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.4 | 0.1 | 74.4 | 9.7 |
| 12 | 0.2 | S | 8.4 | 7.6 | 4.4 | 10.3 | 4.4 | 2.7 | 34.1 | 12.9 | 18.4 | 20.9 | 39.8 | 32.2 | 19.1 | 17.2 | 6.6 | 6.4 | 7.9 | 3.1 | 12.7 | 9.6 | 0.5 | 11.5 | 39.8 | 12.6 |
| 13 | 15.0 | S | 1.1 | 0.0 | 0.0 | 0.2 | 3.3 | 2.3 | 0.6 | 0.8 | 0.7 | 1.0 | 2.2 | 0.8 | 0.9 | 0.6 | 1.1 | 0.4 | 0.3 | 1.4 | 0.0 | 0.1 | 6.4 | 5.2 | 15.0 | 1.9 |
| 14 | 2.6 | S | 0.1 | 0.0 | 0.1 | 0.0 | 6.7 | 1.4 | 1.4 | 4.8 | 3.6 | 9.7 | 2.3 | 2.2 | 1.2 | 2.3 | 0.8 | 3.5 | 0.1 | 0.0 | 0.7 | 1.2 | 1.2 | 0.2 | 9.7 | 2.0 |
| 15 | 0.0 | S | 0.3 | 3.7 | 1.2 | 4.7 | 5.8 | 3.6 | 7.7 | 4.6 | 3.2 | 1.9 | 2.7 | 3.2 | 2.3 | 4.4 | 17.8 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 0.0 | 17.8 | 3.0 |
| 16 | 2.2 | S | 0.1 | 0.1 | 1.5 | 0.0 | 2.0 | 0.4 | 5.5 | 5.5 | 2.7 | 1.5 | 1.6 | 1.1 | 0.4 | 1.0 | 2.3 | 0.2 | 0.1 | 0.5 | 0.0 | 0.5 | 0.0 | 0.0 | 5.5 | 1.3 |
| 17 | 0.7 | S | 1.6 | 2.9 | 0.1 | 0.1 | 4.3 | 3.5 | 6.3 | 2.0 | 2.5 | 2.7 | 0.8 | 1.5 | 7.4 | 0.8 | 0.5 | 0.2 | 0.5 | 0.2 | 0.0 | 0.0 | 3.4 | 14.0 | 14.0 | 2.4 |
| 18 | 3.5 | S | 3.0 | 0.3 | 0.0 | 0.2 | 1.2 | 3.6 | 2.6 | 2.0 | 5.1 | 2.9 | 0.0 | 1.0 | 0.6 | 0.1 | 0.1 | 2.4 | 6.0 | 0.0 | 0.5 | 0.6 | 4.4 | 0.0 | 6.0 | 1.7 |
| 19 | 0.0 | S | 0.0 | 0.0 | 0.0 | 0.2 | 3.5 | 0.5 | 1.5 | 0.4 | 0.6 | 0.8 | 2.1 | 0.2 | 1.3 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 1.1 | 1.0 | 1.0 | 3.5 | 0.7 |
| 20 | 0.0 | S | 0.4 | 10.4 | 0.6 | 2.8 | 2.4 | 3.8 | 4.9 | 1.6 | 2.4 | 2.7 | 1.6 | 2.2 | 2.4 | 4.6 | 4.6 | 1.5 | 0.1 | 3.9 | 1.1 | 1.1 | 0.0 | 0.0 | 10.4 | 2.4 |
| 21 | 0.0 | S | 0.2 | 0.0 | 0.0 | 0.2 | 13.0 | 4.7 | C | C | C | C | C | R | R | R | R | R | R | R | R | R | R | R | - | - |
| 22 | R | R | R | R | R | R | R | C | C | C | C | C | C | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 2.2 | 0.0 | 0.0 | - | - |
| 23 | 0.0 | S | 0.0 | 2.6 | 0.0 | 2.4 | 2.1 | 0.0 | 0.8 | 0.0 | 0.0 | 2.6 | 1.4 | 6.7 | 10.1 | 4.2 | 5.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.1 | 1.7 |
| 24 | 0.0 | S | 0.6 | 0.0 | 1.7 | 7.1 | 2.5 | 16.9 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.9 | 1.5 |
| 25 | 0.0 | S | 0.0 | 0.0 | 0.0 | 0.5 | 3.6 | 4.0 | 0.8 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 2.5 | 4.0 | 0.6 |
| 26 | 0.0 | S | 0.0 | 0.0 | 0.5 | 0.9 | 5.8 | 4.7 | 5.3 | 2.0 | 5.0 | 0.0 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 1.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.8 | 1.2 |
| 27 | 0.0 | S | 0.0 | 0.0 | 0.0 | 1.5 | 0.1 | 3.4 | 0.0 | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.7 | 0.1 | 0.0 | 0.0 | 1.3 | 0.4 | 0.0 | 0.4 | 0.0 | 7.1 | 7.1 | 0.8 |
| 28 | 0.3 | S | 0.0 | 0.0 | 0.0 | 1.1 | 1.9 | 0.1 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 1.9 | 0.2 |
| 29 | 0.0 | S | 0.0 | 0.0 | 0.0 | 0.2 | 3.2 | 3.5 | 0.0 | 0.0 | 1.1 | 0.8 | 16.9 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 24.1 | 0.0 | 0.0 | 24.1 | 2.4 |
| 30 | 0.0 | S | 0.0 | 1.2 | 0.0 | 0.2 | 1.5 | 2.0 | 12.2 | 6.1 | 0.7 | 0.8 | 0.0 | 0.7 | 3.1 | 2.5 | 1.7 | 3.4 | 0.0 | 0.0 | 0.0 | 1.4 | 15.1 | 11.9 | 15.1 | 2.8 |
| 31 | 11.6 | S | 0.0 | 0.0 | 4.0 | 0.0 | 3.1 | 7.2 | 9.5 | 6.5 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 0.6 | 0.0 | 0.0 | 0.0 | 1.4 | 11.6 | 2.3 |
| Hourly Max | 51.4 | - | 28.5 | 10.4 | 12.1 | 57.2 | 37.3 | 51.8 | 54.8 | 74.4 | 66.6 | 23.3 | 39.8 | 32.2 | 19.1 | 17.2 | 17.8 | 7.5 | 7.9 | 10.8 | 12.7 | 24.1 | 15.1 | 14.0 | | |
| Hourly Average | 3.2 | - | 1.9 | 1.5 | 1.5 | 3.6 | 5.1 | 6.0 | 8.9 | 9.4 | 7.0 | 4.3 | 4.5 | 4.0 | 3.1 | 2.2 | 2.2 | 1.1 | 1.0 | 0.7 | 1.1 | 1.6 | 1.9 | 2.7 | | |

S = Span  C = Calibration  R = Instrument Replacement

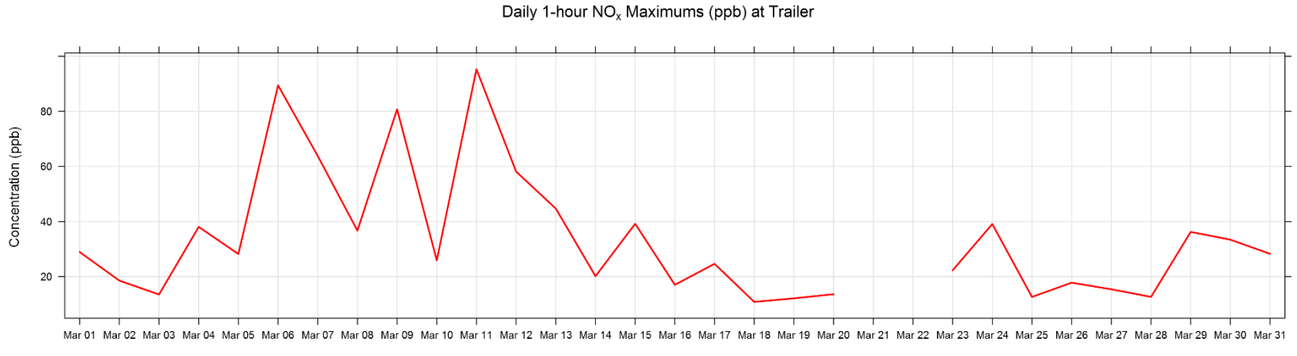



| | | | | | |
|---|---|---|---|---|---|
| Number of 1HR Exceedances | n/a | | Objective | n/a | PPB |
| Number of Non-Zero Readings | 525 | | | | |
| Maximum 1-HR Average | 74.4 | PPB | | | |
| Maximum 24-HR Average | 18.3 | PPB | | | |
| IZS Calibration Time | 30 | HRS | Operational Time | 726 | HRS |
| Monthly Calibration Time | 11 | HRS | Operational Uptime | 97.6 | % |
| Standard Deviation | 8.0 | | Monthly Average | 3.4 | PPB |

# Lagoon $NO_x$ (ppb) – March 2017

| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.6 | S | 1.9 | 2.8 | 4.4 | 3.5 | 2.5 | 4.1 | 9.2 | 6.5 | 5.6 | 5.2 | 3.1 | 6.1 | 8.6 | 9.5 | 13.8 | 1.4 | 11.0 | 28.9 | 2.1 | 17.3 | 13.2 | 16.7 | 28.9 | 7.7 |
| 2 | 12.5 | S | 15.7 | 10.0 | 9.0 | 5.5 | 7.7 | 8.1 | 14.3 | 9.3 | 6.0 | 18.5 | 8.6 | 5.7 | 0.8 | 1.2 | 1.1 | 1.1 | 0.7 | 2.9 | 7.4 | 4.3 | 2.8 | 1.0 | 18.5 | 6.7 |
| 3 | 0.7 | S | 2.9 | 4.3 | 1.5 | 4.1 | 9.2 | 4.0 | 4.0 | 6.2 | 2.5 | 2.3 | 3.0 | 2.2 | 2.7 | 0.6 | 1.1 | 5.4 | 1.4 | 3.1 | 6.8 | 13.5 | 12.6 | 6.3 | 13.5 | 4.4 |
| 4 | 5.6 | S | 2.3 | 1.7 | 8.8 | 15.9 | 38.0 | 7.1 | 5.7 | 11.1 | 13.0 | 12.0 | 6.9 | 12.7 | 13.1 | 5.0 | 4.3 | 4.7 | 5.0 | 5.9 | 5.3 | 5.2 | 5.8 | 5.2 | 38.0 | 8.7 |
| 5 | 4.6 | S | 4.9 | 17.5 | 9.7 | 11.1 | 12.8 | 14.3 | 16.9 | 17.5 | 16.9 | 7.3 | 19.6 | 28.2 | 9.4 | 7.9 | 8.5 | 21.5 | 11.2 | 9.0 | 8.1 | 8.7 | 8.2 | 11.5 | 28.2 | 12.4 |
| 6 | 10.9 | S | 20.5 | 14.9 | 19.4 | 80.0 | 59.8 | 73.6 | 73.9 | 89.4 | 81.7 | 33.3 | 13.3 | 12.5 | 11.9 | 9.3 | 10.0 | 10.3 | 10.2 | 7.6 | 26.0 | 12.5 | 21.5 | 8.8 | 89.4 | 30.9 |
| 7 | 15.1 | S | 30.7 | 22.4 | 25.4 | 34.7 | 40.1 | 46.8 | 46.0 | 63.8 | 27.2 | 18.2 | 17.4 | 20.9 | 11.6 | 7.6 | 4.7 | 4.9 | 7.4 | 9.0 | 9.2 | 9.0 | 9.6 | 8.1 | 63.8 | 21.3 |
| 8 | 5.6 | S | 6.0 | 6.4 | 7.9 | 8.6 | 7.4 | 7.0 | 8.4 | 11.6 | 36.7 | 6.7 | 5.0 | 4.5 | 4.9 | 8.3 | 17.5 | 5.2 | 6.1 | 5.9 | 5.5 | 5.3 | 16.5 | 26.1 | 36.7 | 9.7 |
| 9 | 80.7 | S | 44.4 | 20.7 | 22.2 | 12.3 | 12.4 | 21.5 | 34.0 | 9.8 | 6.8 | 6.0 | 6.1 | 9.0 | 10.8 | 8.6 | 8.8 | 7.0 | 7.6 | 6.8 | 5.8 | 5.7 | 5.7 | 4.5 | 80.7 | 15.5 |
| 10 | 2.9 | S | 2.3 | 2.3 | 2.9 | 2.7 | 3.1 | 4.7 | 4.6 | 3.7 | 3.7 | 3.2 | 4.9 | 3.6 | 6.1 | 10.4 | 9.7 | 9.5 | 9.0 | 7.2 | 5.5 | 5.5 | 19.3 | 25.9 | 25.9 | 6.6 |
| 11 | 13.1 | S | 15.5 | 22.0 | 30.4 | 20.6 | 34.9 | 46.9 | 58.1 | 95.3 | 32.2 | 18.1 | 18.5 | 9.3 | 8.4 | 4.0 | 3.3 | 3.1 | 3.5 | 5.2 | 7.5 | 7.6 | 7.9 | 8.3 | 95.3 | 20.6 |
| 12 | 9.1 | S | 27.7 | 23.9 | 18.0 | 30.8 | 19.0 | 13.5 | 52.3 | 24.3 | 30.2 | 34.3 | 58.1 | 49.5 | 33.4 | 32.0 | 16.6 | 18.5 | 23.3 | 15.9 | 34.3 | 31.6 | 11.0 | 40.1 | 58.1 | 28.1 |
| 13 | 44.7 | S | 9.2 | 1.3 | 1.6 | 2.2 | 12.8 | 8.6 | 3.5 | 3.4 | 3.2 | 4.3 | 5.7 | 3.2 | 3.4 | 2.4 | 3.9 | 2.2 | 2.1 | 4.4 | 1.8 | 2.8 | 16.2 | 11.9 | 44.7 | 6.7 |
| 14 | 8.0 | S | 3.3 | 2.4 | 3.4 | 4.3 | 20.1 | 11.9 | 8.7 | 14.8 | 9.3 | 19.4 | 7.4 | 6.3 | 3.8 | 5.2 | 4.0 | 7.9 | 2.8 | 2.5 | 3.6 | 5.2 | 6.5 | 4.4 | 20.1 | 7.2 |
| 15 | 3.5 | S | 7.3 | 14.4 | 10.2 | 16.2 | 16.7 | 13.2 | 16.3 | 10.6 | 8.0 | 5.9 | 6.8 | 7.9 | 5.8 | 13.5 | 39.2 | 4.5 | 2.6 | 2.3 | 2.5 | 3.5 | 12.6 | 2.3 | 39.2 | 9.8 |
| 16 | 7.1 | S | 1.7 | 2.8 | 11.9 | 1.7 | 9.9 | 5.4 | 17.0 | 13.0 | 7.3 | 4.2 | 4.2 | 3.3 | 1.8 | 3.4 | 6.4 | 2.0 | 2.4 | 2.7 | 0.7 | 4.4 | 2.1 | 2.0 | 17.0 | 5.1 |
| 17 | 3.9 | S | 6.0 | 8.7 | 6.3 | 5.5 | 12.3 | 11.3 | 16.0 | 7.4 | 7.6 | 7.1 | 2.9 | 4.9 | 14.8 | 3.4 | 3.1 | 2.0 | 2.4 | 1.7 | 1.3 | 3.7 | 8.5 | 24.6 | 24.6 | 7.2 |
| 18 | 10.6 | S | 7.5 | 1.2 | 0.8 | 2.0 | 4.4 | 8.7 | 7.5 | 6.1 | 10.8 | 8.2 | 0.6 | 4.2 | 4.2 | 1.4 | 1.8 | 8.0 | 10.0 | 0.9 | 2.3 | 2.7 | 9.4 | 1.4 | 10.8 | 5.0 |
| 19 | 1.3 | S | 1.6 | 1.6 | 0.8 | 2.2 | 12.1 | 3.3 | 5.7 | 1.4 | 1.8 | 2.5 | 3.7 | 0.8 | 2.7 | 0.8 | 0.3 | 0.2 | 0.3 | 1.2 | 4.3 | 6.6 | 3.9 | 3.7 | 12.1 | 2.7 |
| 20 | 1.6 | S | 4.1 | 13.4 | 3.0 | 7.2 | 9.8 | 13.6 | 12.2 | 5.2 | 7.0 | 6.6 | 4.6 | 6.5 | 7.1 | 10.1 | 9.1 | 3.4 | 1.9 | 7.7 | 10.0 | 7.6 | 1.6 | 1.6 | 13.6 | 6.7 |
| 21 | 1.4 | S | 5.8 | 4.8 | 3.4 | 7.4 | 27.7 | 18.4 | C | C | C | C | C | R | R | R | R | R | R | R | R | R | R | R | - | - |
| 22 | R | R | R | R | R | R | R | C | C | C | C | C | C | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.3 | 8.3 | 0.0 | 2.9 | - | - |
| 23 | 3.4 | S | 0.0 | 7.4 | 3.2 | 7.3 | 9.7 | 7.1 | 5.4 | 0.0 | 1.0 | 7.6 | 4.0 | 14.9 | 22.3 | 11.4 | 14.1 | 1.6 | 2.4 | 2.4 | 0.2 | 0.0 | 5.0 | 10.1 | 22.3 | 6.1 |
| 24 | 11.7 | S | 12.1 | 9.5 | 10.8 | 23.0 | 15.5 | 39.1 | 11.9 | 1.3 | 1.3 | 2.8 | 0.0 | 0.0 | 0.6 | 1.6 | 5.8 | 0.6 | 0.0 | 0.9 | 1.1 | 3.6 | 0.5 | 0.0 | 39.1 | 6.7 |
| 25 | 2.4 | S | 1.4 | 0.3 | 0.0 | 5.0 | 12.6 | 12.3 | 5.9 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 3.7 | 1.5 | 2.7 | 0.9 | 0.0 | 1.2 | 5.2 | 0.0 | 9.0 | 12.6 | 2.9 |
| 26 | 0.9 | S | 0.6 | 0.5 | 6.6 | 8.0 | 17.8 | 13.2 | 13.2 | 6.0 | 11.0 | 2.2 | 2.3 | 5.6 | 2.2 | 0.0 | 0.0 | 4.6 | 3.6 | 2.5 | 2.8 | 2.0 | 7.0 | 2.2 | 17.8 | 5.0 |
| 27 | 2.3 | S | 0.6 | 2.6 | 2.8 | 10.1 | 7.9 | 12.1 | 4.4 | 0.2 | 7.0 | 2.4 | 1.1 | 0.0 | 2.2 | 3.2 | 2.3 | 3.8 | 5.3 | 5.5 | 0.9 | 5.3 | 4.5 | 15.4 | 15.4 | 4.4 |
| 28 | 6.5 | S | 2.3 | 4.1 | 1.3 | 6.6 | 12.6 | 7.9 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 4.1 | 0.6 | 12.6 | 2.4 |
| 29 | 0.0 | S | 3.9 | 2.2 | 1.3 | 6.3 | 14.9 | 13.5 | 5.1 | 4.7 | 7.7 | 5.3 | 30.6 | 11.0 | 0.0 | 0.0 | 0.0 | 2.6 | 7.0 | 0.0 | 0.0 | 36.2 | 11.9 | 13.4 | 36.2 | 7.7 |
| 30 | 14.3 | S | 5.2 | 10.9 | 4.8 | 4.8 | 8.6 | 9.2 | 24.4 | 13.2 | 5.7 | 5.8 | 1.6 | 6.2 | 11.3 | 14.7 | 14.4 | 17.5 | 5.4 | 14.5 | 9.9 | 13.8 | 33.4 | 28.2 | 33.4 | 12.1 |
| 31 | 28.3 | S | 15.1 | 9.5 | 10.6 | 6.2 | 10.6 | 15.8 | 17.0 | 12.9 | 6.6 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 12.0 | 4.7 | 4.0 | 2.5 | 1.7 | 7.0 | 28.3 | 7.2 |
| Hourly Max | 80.7 | - | 44.4 | 23.9 | 30.4 | 80.0 | 59.8 | 73.6 | 73.9 | 95.3 | 81.7 | 34.3 | 58.1 | 49.5 | 33.4 | 32.0 | 39.2 | 21.5 | 23.3 | 28.9 | 34.3 | 36.2 | 33.4 | 40.1 | | |
| Hourly Average | 10.4 | - | 8.7 | 8.2 | 8.1 | 11.9 | 16.1 | 15.9 | 17.5 | 15.5 | 12.3 | 8.7 | 8.3 | 8.0 | 6.9 | 6.0 | 6.8 | 5.2 | 5.2 | 5.4 | 5.9 | 8.1 | 8.8 | 10.1 | | |

S = Span | C = Calibration | R = Instrument Replacement



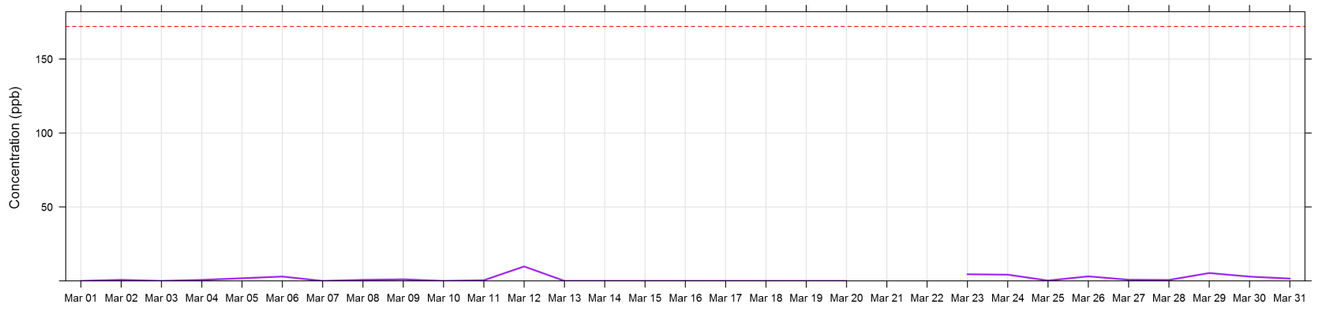

| | | | | | |
|---|---|---|---|---|---|
| Number of 1HR Exceedances | n/a | | Objective | n/a | PPB |
| Number of Non-Zero Readings | 640 | | | | |
| Maximum 1-HR Average | 95.3 | PPB | | | |
| Maximum 24-HR Average | 30.9 | PPB | | | |
| IZS Calibration Time | 30 | HRS | Operational Time | 726 | HRS |
| Monthly Calibration Time | 11 | HRS | Operational Uptime | 97.6 | % |
| Standard Deviation | 12.0 | | Monthly Average | 9.5 | PPB |

# Lagoon $SO_2$ (ppb) – March 2017

| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.7 | 0.0 |
| 3 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.4 | 0.7 | 0.0 |
| 5 | 0.2 | **S** | 0.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 0.1 |
| 6 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.7 | 0.3 | 0.4 | 0.3 | 0.6 | 1.9 | 2.9 | 2.0 | 1.3 | 0.3 | 0.0 | 0.4 | 0.0 | 0.0 | 2.9 | 0.5 |
| 7 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.7 | 0.1 |
| 9 | 1.1 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.1 |
| 10 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 |
| 12 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 | 2.2 | 4.8 | 9.7 | 9.3 | 5.7 | 2.1 | 1.9 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.7 | 1.7 |
| 13 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | **C** | **C** | **R** | **R** | **R** | **R** | **R** | **R** | **R** | **R** | **R** | **R** | **R** | **R** | **R** | **R** | - | - |
| 22 | **R** | **R** | **R** | **R** | **R** | **R** | **C** | **C** | **C** | **C** | 0.5 | 0.3 | 0.3 | 0.4 | 0.5 | 0.3 | 0.2 | 0.1 | 0.1 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | - | - |
| 23 | 0.0 | **S** | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 | 0.1 | 0.2 | 0.0 | 0.0 | 0.9 | 0.6 | 3.1 | 4.1 | 3.8 | 4.5 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 | 0.8 |
| 24 | 0.0 | **S** | 0.0 | 0.4 | 1.0 | 2.2 | 0.9 | 4.2 | 0.5 | 0.2 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 0.4 |
| 25 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 |
| 26 | 0.0 | **S** | 0.0 | 0.0 | 0.4 | 1.0 | 3.0 | 2.6 | 1.5 | 0.0 | 1.9 | 0.2 | 0.1 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 0.5 |
| 27 | 0.0 | **S** | 0.2 | 0.6 | 0.2 | 0.0 | 0.2 | 0.8 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.5 | 0.8 | 0.2 |
| 28 | 0.6 | **S** | 0.2 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.1 |
| 29 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 1.0 | 0.4 | 0.2 | 0.7 | 0.4 | 5.3 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.5 | 0.3 | 5.3 | 0.6 |
| 30 | 0.4 | **S** | 0.0 | 0.9 | 0.1 | 0.2 | 0.7 | 0.6 | 2.9 | 2.4 | 0.1 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 0.4 |
| 31 | 0.0 | **S** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 1.6 | 1.3 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.2 |
| Hourly Max | 1.1 | - | 0.5 | 0.9 | 1.0 | 2.2 | 3.0 | 4.2 | 2.9 | 2.4 | 4.8 | 9.7 | 9.3 | 5.7 | 4.1 | 3.8 | 4.5 | 2.0 | 1.3 | 0.3 | 0.7 | 0.7 | 0.6 | 0.5 | | |
| Hourly Average | 0.1 | - | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.4 | 0.2 | 0.3 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | | |

S = Span  C = Calibration  R = Instrument Replacement

Daily 1-hour $SO_2$ Maximums (ppb) at Trailer

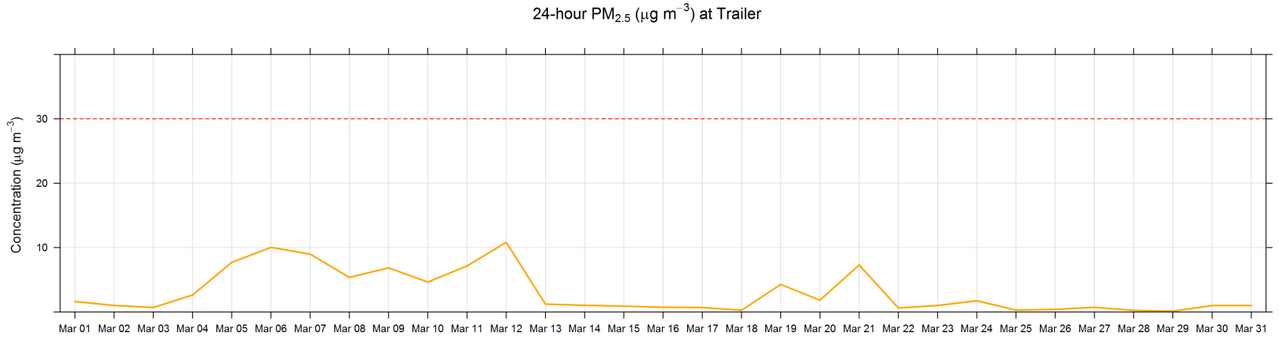



| | | | | | |
|---|---|---|---|---|---|
| Number of 1HR Exceedances | 0 | | Objective | 172 | PPB |
| Number of 24HR Exceedances | 0 | | Objective | 48 | PPB |
| Number of Non-Zero Readings | 127 | | | | |
| Maximum 1-HR Average | 9.7 | PPB | | | |
| Maximum 24-HR Average | 1.7 | PPB | | | |
| IZS Calibration Time | 30 | HRS | Operational Time | 724 | HRS |
| Monthly Calibration Time | 6 | HRS | Operational Uptime | 97.3 | % |
| Standard Deviation | 0.8 | | Monthly Average | 0.2 | PPB |

# Lagoon $PM_{2.5}$ (µg/m$^3$) – March 2017

| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | 1.1 | 1.4 | 0.0 | 1.8 | 3.5 | 2.8 | 1.4 | 0.8 | 1.8 | 0.4 | 1.4 | 3.5 | 3.1 | 2.5 | 0.4 | 0.1 | 1.4 | 1.5 | 2.8 | 1.1 | 0.8 | 2.5 | 0.4 | 3.5 | 1.6 |
| 2 | 3.5 | 3.1 | 1.2 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 1.4 | 2.1 | 3.5 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 1.4 | 0.0 | 2.1 | 1.1 | 0.0 | 3.5 | 1.0 |
| 3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 1.1 | 0.0 | 0.0 | 0.5 | 0.4 | 0.0 | 0.0 | 4.1 | 2.8 | 0.0 | 0.0 | 0.4 | 3.1 | 2.8 | 4.1 | 0.7 |
| 4 | 5.2 | 3.8 | 1.1 | 0.1 | 0.0 | 1.5 | 4.5 | 3.8 | 4.5 | 5.5 | 4.8 | 2.8 | 0.4 | 2.8 | 0.4 | 0.0 | 0.4 | 4.1 | 3.5 | 2.8 | 4.1 | 3.4 | 2.1 | 1.2 | 5.5 | 2.6 |
| 5 | 3.1 | 3.0 | 4.1 | 3.0 | 5.5 | 6.5 | 5.3 | 5.9 | 6.2 | 8.9 | 8.6 | 9.6 | 7.5 | 10.9 | 11.6 | 8.2 | 6.2 | 12.4 | 9.2 | 11.3 | 11.2 | 8.6 | 7.8 | 10.0 | 12.4 | 7.7 |
| 6 | 10.3 | 8.9 | 14.0 | 8.2 | 10.5 | 13.6 | 13.0 | 12.4 | 10.6 | 14.3 | 11.9 | 10.3 | 9.6 | 11.3 | 10.6 | 9.2 | 9.8 | 9.2 | 7.9 | 6.5 | 9.3 | 7.9 | 6.5 | 4.8 | 14.3 | 10.0 |
| 7 | 11.3 | 9.2 | 17.0 | 11.6 | 13.7 | 11.9 | 10.9 | 15.7 | 7.5 | 11.9 | 9.3 | 7.2 | 7.3 | 7.9 | 5.2 | 4.1 | 5.2 | 4.8 | 8.2 | 6.6 | 7.1 | 6.5 | 8.9 | 6.5 | 17.0 | 9.0 |
| 8 | 7.2 | 7.2 | 8.6 | 6.9 | 6.2 | 4.1 | 4.5 | 3.5 | 5.5 | 3.8 | 5.2 | 6.9 | 3.8 | 4.1 | 5.2 | 4.5 | 5.2 | 3.8 | 2.8 | 5.2 | 7.9 | 5.2 | 4.1 | 7.5 | 8.6 | 5.4 |
| 9 | 14.3 | 11.6 | 11.6 | 7.5 | 8.2 | 7.2 | 5.8 | 8.9 | 9.9 | 5.5 | 1.8 | 3.1 | 2.1 | 2.1 | 4.1 | 3.1 | 3.1 | 3.5 | 2.1 | 8.9 | 10.6 | 11.6 | 9.6 | 7.9 | 14.3 | 6.8 |
| 10 | 4.1 | 2.8 | 1.1 | 3.8 | 3.5 | 2.5 | 4.5 | 7.2 | 12.3 | 7.9 | 4.5 | 5.3 | 3.8 | 4.5 | 4.1 | 4.1 | 5.8 | 3.5 | 2.5 | 4.5 | 4.1 | 4.1 | 4.8 | 5.8 | 12.3 | 4.6 |
| 11 | 5.5 | 4.8 | 5.8 | 6.5 | 6.2 | 7.2 | 7.9 | 13.6 | 9.9 | 7.9 | 5.5 | 7.5 | 5.2 | 4.5 | 5.5 | 7.9 | 7.5 | 5.8 | 9.9 | 7.9 | 5.8 | 9.6 | 7.5 | 5.8 | 13.6 | 7.1 |
| 12 | 11.9 | 10.6 | 13.6 | 9.6 | 8.6 | 9.6 | 12.6 | 13.3 | 13.6 | 8.2 | 10.6 | 9.9 | 14.0 | 12.3 | 11.9 | 8.6 | 9.9 | 7.1 | 10.9 | 9.9 | 11.9 | 11.3 | 9.2 | 10.6 | 14.0 | 10.8 |
| 13 | 12.3 | 16.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.5 | 1.2 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.8 | 2.1 | 0.0 | 0.0 | 0.4 | 0.8 | 0.0 | 0.4 | 0.0 | 0.0 | 1.8 | 4.1 | 1.8 | 0.4 | 2.0 | 0.8 | 3.5 | 0.8 | 5.8 | 1.0 |
| 15 | 0.1 | 0.8 | 0.4 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.4 | 2.5 | 2.5 | 2.4 | 1.8 | 0.0 | 0.0 | 3.8 | 2.8 | 1.1 | 0.0 | 0.0 | 1.8 | 1.1 | 0.0 | 3.8 | 0.9 |
| 16 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 3.1 | 2.8 | 2.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 1.8 | 0.4 | 0.1 | 1.8 | 2.5 | 0.0 | 0.1 | 3.1 | 0.7 |
| 17 | 1.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.8 | 0.4 | 0.8 | 2.1 | 2.5 | 3.1 | 1.2 | 0.0 | 0.1 | 0.0 | 1.1 | 2.5 | 0.0 | 3.1 | 0.7 |
| 18 | 0.0 | 0.4 | 1.1 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.1 | 3.1 | 3.1 | 0.3 |
| 19 | 2.8 | 1.8 | 2.5 | 0.0 | 0.4 | 1.2 | 0.1 | 0.0 | 0.0 | 2.5 | 2.5 | 1.0 | 0.0 | 43.3 | 6.0 | 4.5 | 3.8 | 3.6 | 3.8 | 6.0 | 10.9 | 5.5 | 0.0 | 0.4 | 43.3 | 4.3 |
| 20 | 3.1 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.5 | 3.8 | 3.8 | 0.0 | 0.0 | 0.0 | 0.4 | 1.8 | 3.5 | 2.8 | 4.5 | 2.8 | 2.8 | 5.2 | 4.1 | 1.8 | 5.2 | 1.8 |
| 21 | 3.1 | 7.2 | 5.5 | 5.2 | 5.5 | 5.5 | 11.3 | 10.6 | **C** | **C** | **C** | **C** | 5.8 | 4.1 | 16.4 | 14.4 | 10.7 | 6.2 | 4.1 | 6.2 | 6.2 | 6.5 | 5.8 | 5.5 | 16.4 | 7.3 |
| 22 | 5.9 | 4.1 | 0.4 | 0.4 | 0.1 | 0.0 | 0.1 | 1.4 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 1.1 | 0.8 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.9 | 0.6 |
| 23 | 1.8 | 0.5 | 0.0 | 0.5 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 1.1 | 1.8 | 1.4 | 3.1 | 2.8 | 4.1 | 4.5 | 4.5 | 1.0 |
| 24 | 3.1 | 2.8 | 3.1 | 2.8 | 1.1 | 0.4 | 0.8 | 2.8 | 3.5 | 2.1 | 3.4 | 3.1 | 2.5 | 5.5 | 3.5 | 1.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 5.5 | 1.7 |
| 25 | 0.0 | 0.8 | 1.7 | 0.0 | 0.0 | 0.0 | 1.1 | 1.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 1.4 | 1.7 | 0.3 |
| 26 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | 3.1 | 1.4 | 0.8 | 3.5 | 0.4 |
| 27 | 2.8 | 1.8 | 0.4 | 0.0 | 0.1 | 0.8 | 0.8 | 2.8 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 0.4 | 1.0 | 2.5 | 1.5 | 0.0 | 2.8 | 0.7 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 2.1 | 1.7 | 0.1 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 | 0.2 |
| 29 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.8 | 0.1 | 0.0 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.8 | 0.1 |
| 30 | 0.0 | 0.0 | 0.0 | 0.1 | 0.4 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 2.1 | 1.4 | 3.0 | 1.1 | 1.1 | 3.1 | 1.4 | 1.4 | 2.1 | 1.8 | 0.8 | 1.4 | 3.1 | 1.0 |
| 31 | 2.8 | 3.1 | 2.1 | 5.8 | 4.1 | 0.5 | 0.0 | 0.4 | 0.5 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 1.8 | 0.0 | 0.0 | 0.0 | 0.8 | 5.8 | 1.0 |
| Hourly Max | 14.3 | 16.5 | 17.0 | 11.6 | 13.7 | 13.6 | 13.0 | 15.7 | 13.6 | 14.3 | 11.9 | 10.3 | 14.0 | 43.3 | 16.4 | 14.4 | 10.7 | 12.4 | 10.9 | 11.3 | 11.9 | 11.6 | 9.6 | 10.6 | | |
| Hourly Average | 3.8 | 3.5 | 3.1 | 2.4 | 2.5 | 2.5 | 3.1 | 3.7 | 3.1 | 3.0 | 2.6 | 2.6 | 2.3 | 4.0 | 3.0 | 2.5 | 2.7 | 2.8 | 2.7 | 2.9 | 3.4 | 3.4 | 3.0 | 2.7 | | |

C = CALIBRATION

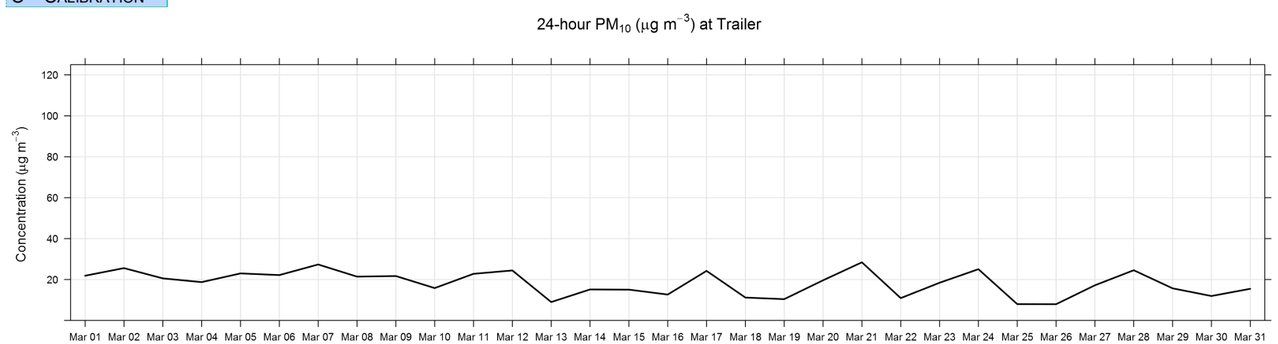



| | | | | | |
|---|---|---|---|---|---|
| Number of 1HR Exceedances | 0 | | Guideline | 80 | UG/M3 |
| Number of 24HR Exceedances | 0 | | Objective | 30 | UG/M3 |
| Number of Non-Zero Readings | 488 | | | | |
| Maximum 1-HR Average | 43.3 | UG/M3 | | | |
| Maximum 24-HR Average | 10.8 | UG/M3 | | | |
| IZS Calibration Time | 0 | HRS | Operational Time | 744 | HRS |
| Monthly Calibration Time | 4 | HRS | Operational Uptime | 100.0 | % |
| Standard Deviation | 4.0 | | Monthly Average | 3.0 | UG/M3 |

# Lagoon $PM_{10}$ (µg/m$^3$) – March 2017

| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.7 | 6.7 | 8.0 | 11.4 | 43.3 | 27.9 | 23.0 | 19.6 | 27.7 | 44.0 | 36.5 | 37.3 | 12.1 | 23.0 | 23.0 | 44.0 | 27.0 | 12.8 | 8.7 | 9.4 | 8.0 | 23.6 | 18.9 | 22.3 | 44.0 | 21.9 |
| 2 | 21.6 | 9.4 | 11.4 | 10.8 | 6.0 | 14.8 | 11.4 | 18.2 | 43.3 | 74.5 | 59.8 | 37.9 | 36.5 | 23.0 | 5.3 | 14.8 | 4.7 | 18.3 | 7.4 | 38.5 | 41.6 | 66.3 | 20.2 | 18.2 | 74.5 | 25.6 |
| 3 | 12.1 | 11.4 | 12.1 | 10.1 | 5.3 | 4.7 | 7.4 | 19.8 | 36.5 | 140.9 | 71.8 | 36.5 | 34.5 | 4.0 | 5.3 | 3.3 | 3.1 | 6.7 | 4.7 | 4.0 | 4.0 | 7.4 | 17.5 | 30.4 | 140.9 | 20.6 |
| 4 | 18.2 | 15.5 | 15.2 | 10.0 | 8.0 | 10.1 | 10.8 | 7.4 | 32.4 | 21.6 | 13.8 | 23.6 | 25.4 | 25.0 | 16.2 | 7.4 | 10.1 | 27.0 | 32.3 | 38.5 | 19.6 | 24.3 | 17.5 | 19.6 | 38.5 | 18.7 |
| 5 | 23.1 | 21.9 | 19.6 | 14.1 | 12.8 | 12.8 | 10.1 | 11.2 | 17.5 | 23.0 | 19.6 | 27.7 | 29.7 | 25.0 | 41.9 | 28.4 | 24.3 | 38.5 | 27.7 | 25.7 | 25.0 | 25.7 | 21.6 | 25.0 | 41.9 | 23.0 |
| 6 | 18.9 | 14.8 | 18.9 | 15.5 | 19.6 | 33.8 | 18.2 | 20.9 | 39.2 | 47.3 | 39.9 | 26.3 | 18.9 | 16.9 | 18.2 | 16.5 | 19.6 | 39.9 | 14.8 | 11.4 | 15.3 | 10.1 | 20.2 | 16.9 | 47.3 | 22.2 |
| 7 | 24.0 | 14.8 | 20.5 | 20.9 | 29.1 | 20.2 | 19.4 | 32.4 | 32.4 | 165.3 | 38.1 | 35.9 | 21.6 | 25.7 | 15.5 | 17.5 | 16.2 | 13.5 | 12.8 | 11.4 | 12.8 | 20.9 | 16.9 | 18.2 | 165.3 | 27.3 |
| 8 | 49.4 | 33.1 | 31.8 | 17.5 | 11.4 | 11.3 | 11.5 | 19.6 | 20.6 | 22.3 | 38.6 | 27.7 | 20.9 | 17.5 | 12.1 | 21.6 | 32.2 | 26.7 | 12.1 | 12.6 | 12.8 | 12.9 | 18.9 | 18.9 | 49.4 | 21.4 |
| 9 | 29.1 | 27.0 | 31.1 | 9.4 | 17.5 | 2.6 | 8.0 | 31.1 | 46.7 | 21.6 | 14.8 | 12.8 | 13.5 | 20.9 | 8.7 | 21.1 | 23.0 | 19.6 | 14.1 | 20.7 | 50.1 | 26.3 | 26.9 | 24.3 | 50.1 | 21.7 |
| 10 | 26.3 | 22.3 | 10.1 | 16.2 | 13.5 | 10.8 | 8.7 | 11.4 | 11.4 | 20.2 | 18.2 | 16.8 | 20.9 | 14.8 | 15.5 | 14.1 | 20.9 | 13.5 | 13.5 | 22.3 | 18.2 | 4.7 | 22.3 | 12.8 | 26.3 | 15.8 |
| 11 | 13.5 | 10.8 | 16.2 | 48.0 | 25.0 | 24.3 | 25.7 | 29.3 | 31.7 | 33.8 | 25.0 | 20.9 | 23.6 | 14.0 | 12.8 | 12.8 | 17.5 | 35.2 | 33.1 | 17.5 | 19.6 | 18.9 | 23.6 | 14.1 | 48.0 | 22.8 |
| 12 | 14.1 | 16.9 | 18.9 | 22.3 | 17.5 | 24.3 | 15.5 | 18.2 | 33.8 | 22.3 | 31.1 | 33.8 | 35.8 | 26.3 | 20.9 | 30.4 | 20.2 | 16.2 | 22.3 | 29.7 | 38.5 | 29.3 | 20.2 | 27.7 | 38.5 | 24.4 |
| 13 | 30.4 | 28.4 | 18.9 | 14.7 | 8.0 | 4.8 | 8.0 | 6.7 | 2.6 | 2.0 | 4.7 | 9.4 | 11.4 | 7.4 | 4.0 | 5.3 | 6.1 | 4.0 | 2.6 | 0.0 | 17.5 | 4.0 | 5.3 | 9.4 | 30.4 | 9.0 |
| 14 | 8.0 | 3.3 | 2.6 | 4.7 | 4.7 | 2.6 | 20.5 | 27.9 | 12.8 | 13.5 | 10.0 | 20.9 | 23.0 | 12.8 | 22.3 | 60.2 | 41.3 | 25.0 | 20.9 | 0.6 | 4.0 | 7.4 | 8.7 | 6.0 | 60.2 | 15.1 |
| 15 | 1.3 | 4.0 | 4.7 | 18.2 | 6.1 | 15.5 | 8.7 | 10.1 | 17.5 | 10.1 | 16.9 | 19.5 | 31.1 | 28.4 | 30.4 | 94.8 | 21.6 | 0.0 | 0.0 | 1.9 | 4.7 | 6.0 | 4.7 | 5.3 | 94.8 | 15.1 |
| 16 | 6.7 | 18.9 | 6.0 | 6.0 | 8.7 | 12.8 | 9.4 | 8.7 | 18.2 | 27.7 | 10.1 | 6.0 | 7.4 | 10.1 | 6.0 | 16.9 | 23.6 | 16.2 | 26.3 | 8.7 | 9.4 | 14.8 | 7.4 | 17.5 | 27.7 | 12.6 |
| 17 | 20.5 | 23.6 | 9.4 | 7.1 | 8.0 | 10.8 | 10.1 | 18.9 | 24.3 | 25.0 | 48.0 | 40.6 | 37.9 | 52.8 | 56.8 | 40.6 | 48.0 | 16.9 | 6.7 | 4.7 | 6.0 | 16.9 | 21.6 | 26.3 | 56.8 | 24.2 |
| 18 | 23.2 | 30.4 | 30.4 | 18.2 | 6.7 | 3.3 | 4.7 | 10.8 | 8.7 | 7.4 | 6.0 | 28.4 | 4.7 | 6.0 | 8.7 | 6.0 | 1.3 | 3.2 | 8.0 | 11.4 | 8.0 | 7.4 | 10.8 | 14.8 | 30.4 | 11.2 |
| 19 | 2.6 | 5.3 | 6.0 | 3.3 | 3.3 | 8.0 | 12.1 | 16.9 | 22.3 | 10.1 | 11.3 | 16.9 | 23.0 | 17.5 | 5.3 | 4.0 | 6.0 | 7.4 | 4.0 | 5.3 | 16.9 | 14.1 | 11.4 | 16.9 | 23.0 | 10.4 |
| 20 | 14.8 | 6.0 | 5.3 | 4.0 | 6.0 | 7.4 | 24.1 | 52.1 | 54.1 | 39.9 | 39.2 | 10.1 | 11.4 | 12.8 | 19.6 | 26.1 | 22.3 | 16.2 | 12.8 | 13.5 | 24.6 | 14.1 | 18.2 | 16.2 | 54.1 | 19.6 |
| 21 | 20.2 | 12.1 | 16.2 | 14.1 | 16.9 | 18.9 | 69.0 | 54.1 | **C** | **C** | **C** | **C** | 16.9 | 23.0 | 40.6 | 54.1 | 65.0 | 17.6 | 18.9 | 17.5 | 14.8 | 26.3 | 24.3 | 27.7 | 69.0 | 30.1 |
| 22 | 27.8 | 16.9 | 12.8 | 10.1 | 8.3 | 7.4 | 3.3 | 5.3 | **C** | **C** | **C** | **C** | 8.7 | 4.7 | 31.8 | 10.3 | 7.4 | 4.7 | 4.0 | 5.3 | 10.1 | 21.6 | 5.4 | 12.8 | 467.8 | 32.7 |
| 23 | 20.2 | 4.0 | 7.4 | 6.7 | 21.4 | 1.3 | 17.0 | 49.4 | 18.3 | 15.7 | 11.4 | 5.3 | 17.5 | 27.9 | 49.4 | 29.7 | 41.3 | 22.2 | 8.7 | 12.1 | 8.7 | 13.5 | 14.8 | 18.2 | 49.4 | 18.4 |
| 24 | 19.6 | 12.1 | 12.8 | 11.4 | 8.8 | 16.2 | 24.3 | 62.9 | 150.0 | 70.7 | 27.7 | 19.6 | 20.9 | 29.1 | 31.8 | 32.4 | 18.9 | 8.5 | 4.0 | 0.0 | 2.6 | 8.7 | 6.0 | 2.0 | 150.0 | 25.0 |
| 25 | 3.3 | 3.5 | 1.8 | 0.0 | 0.0 | 17.5 | 26.3 | 7.4 | 21.6 | 4.0 | 3.3 | 10.1 | 3.3 | 7.5 | 4.7 | 16.2 | 10.1 | 11.4 | 6.7 | 2.6 | 4.7 | 12.8 | 8.0 | 4.7 | 26.3 | 8.0 |
| 26 | 3.3 | 2.6 | 3.4 | 14.8 | 2.6 | 3.3 | 15.5 | 3.3 | 4.7 | 8.0 | 12.8 | 16.0 | 8.7 | 20.2 | 0.0 | 0.6 | 1.3 | 4.0 | 3.3 | 20.2 | 14.1 | 10.8 | 10.1 | 6.7 | 20.2 | 7.9 |
| 27 | 4.7 | 5.3 | 3.3 | 6.7 | 9.8 | 8.0 | 11.4 | 27.0 | 51.4 | 29.7 | 37.2 | 44.6 | 28.4 | 5.3 | 13.5 | 14.7 | 22.3 | 12.8 | 12.8 | 20.9 | 6.7 | 21.0 | 8.0 | 6.7 | 51.4 | 17.2 |
| 28 | 7.4 | 8.0 | 5.3 | 2.6 | 13.5 | 23.6 | 52.8 | 68.6 | 18.2 | 25.7 | 47.5 | 33.2 | 46.0 | 33.1 | 72.4 | 44.6 | 27.7 | 31.4 | 8.0 | 6.7 | 4.0 | 3.3 | 0.0 | 5.3 | 72.4 | 24.5 |
| 29 | 3.3 | 4.0 | 4.7 | 4.0 | 0.0 | 25.0 | 8.7 | 12.1 | 23.6 | 13.4 | 31.8 | 44.0 | 27.7 | 9.4 | 2.6 | 29.7 | 38.5 | 34.5 | 8.0 | 4.0 | 18.9 | 20.9 | 6.0 | 1.9 | 44.0 | 15.7 |
| 30 | 1.3 | 14.8 | 8.7 | 13.5 | 15.5 | 6.0 | 1.9 | 8.0 | 10.7 | 14.1 | 35.8 | 12.1 | 17.5 | 2.6 | 14.1 | 10.8 | 6.7 | 8.0 | 9.4 | 20.2 | 6.0 | 20.9 | 12.8 | 14.8 | 35.8 | 11.9 |
| 31 | 20.2 | 10.8 | 17.5 | 6.7 | 5.3 | 4.0 | 4.7 | 8.0 | 19.6 | 24.3 | 52.0 | 10.8 | 7.4 | 10.7 | 6.0 | 6.7 | 6.0 | 7.4 | 53.6 | 46.7 | 9.4 | 8.0 | 4.7 | 20.9 | 53.6 | 15.5 |
| Hourly Max | 49.4 | 33.1 | 31.8 | 48.0 | 43.3 | 33.8 | 69.0 | 68.6 | 467.8 | 165.3 | 71.8 | 44.6 | 46.0 | 52.8 | 72.4 | 94.8 | 65.0 | 39.9 | 53.6 | 46.7 | 50.1 | 66.3 | 26.9 | 30.4 | | |
| Hourly Average | 16.0 | 13.5 | 12.6 | 12.0 | 11.7 | 12.7 | 16.2 | 22.5 | 44.0 | 34.7 | 28.0 | 23.6 | 20.8 | 18.0 | 19.9 | 23.7 | 20.4 | 16.7 | 13.6 | 14.3 | 14.7 | 16.9 | 14.0 | 15.6 | | |

C = CALIBRATION

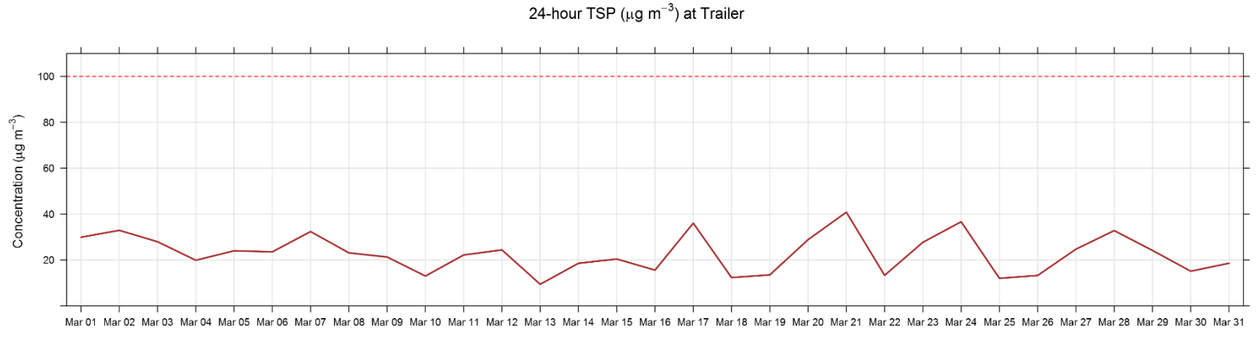



| | | | | | |
|---|---|---|---|---|---|
| Number of 1HR Exceedances | n/a | | Objective | n/a | UG/M3 |
| Number of Non-Zero Readings | 727 | | | | |
| Maximum 1-HR Average | 165.3 | UG/M3 | | | |
| Maximum 24-HR Average | 28.4 | UG/M3 | | | |
| IZS Calibration Time | 0 | HRS | Operational Time | 744 | HRS |
| Monthly Calibration Time | 8 | HRS | Operational Uptime | 100.0 | % |
| Standard Deviation | 15.8 | | Monthly Average | 18.2 | UG/M3 |

# Lagoon TSP (µg/m$^3$) – March 2017

| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.04 | 6.688 | 14.82 | 31.09 | 41.93 | 35.15 | 28.38 | 24.31 | 44.64 | 59.55 | 55.48 | 51.42 | 18.93 | 35.15 | 29.82 | 73.11 | 37.86 | 18.89 | 12.47 | 16.18 | 5.332 | 34.57 | 22.95 | 10.75 | 73.1 | 29.9 |
| 2 | 20.24 | 0 | 3.977 | 8.04 | 6.688 | 5.332 | 0 | 17.53 | 74.46 | 116.5 | 92.1 | 48.71 | 62.26 | 27.02 | 5.332 | 5.332 | 3.977 | 8.04 | 8.04 | 57.88 | 63.75 | 113.8 | 17.85 | 22.95 | 116.5 | 32.9 |
| 3 | 3.977 | 6.688 | 10.75 | 10.75 | 8.04 | 5.332 | 8.04 | 20.24 | 39.31 | 226.3 | 115.1 | 54.13 | 16.18 | 17.53 | 0 | 0 | 6.688 | 13.65 | 9.4 | 6.688 | 20.24 | 8.04 | 14.82 | 48.71 | 226.3 | 27.9 |
| 4 | 32.44 | 10.93 | 10.75 | 8.04 | 8.04 | 6.688 | 17.53 | 10.98 | 37.86 | 13.46 | 18.89 | 17.53 | 18.89 | 6.688 | 28.38 | 16.18 | 0.678 | 40.57 | 29.73 | 36.28 | 27.02 | 33.8 | 18.89 | 26.43 | 40.6 | 19.9 |
| 5 | 27.02 | 24.31 | 27.02 | 6.688 | 6.688 | 6.733 | 9.4 | 20.06 | 12.11 | 28.38 | 16.18 | 32.44 | 35.15 | 27.02 | 40.57 | 33.8 | 36.51 | 31.09 | 36.24 | 21.51 | 21.6 | 29.73 | 19.79 | 25.66 | 40.6 | 24.0 |
| 6 | 25.66 | 20.24 | 10.75 | 14.82 | 15.32 | 41.93 | 28.38 | 25.66 | 44.73 | 50.42 | 40.57 | 32.44 | 20.24 | 13.46 | 24.31 | 12.11 | 28.38 | 25.66 | 13.46 | 2.531 | 21.6 | 14.82 | 19.84 | 17.53 | 50.4 | 23.5 |
| 7 | 15.54 | 20.24 | 24.31 | 19.75 | 37.86 | 24.31 | 22.95 | 52.77 | 29.73 | 231.7 | 49.84 | 46 | 17.58 | 31.09 | 12.11 | 18.89 | 18.89 | 16.18 | 6.688 | 14.82 | 16.18 | 17.53 | 16.18 | 15.59 | 231.7 | 32.4 |
| 8 | 54.04 | 24.31 | 22.19 | 23.04 | 13.46 | 6.688 | 7.727 | 17.85 | 18.89 | 18.89 | 52.77 | 24.31 | 18.89 | 24.31 | 12.11 | 48.71 | 36.69 | 27.02 | 20.24 | 12.11 | 10.75 | 13.46 | 18.89 | 27.02 | 54.0 | 23.1 |
| 9 | 33.8 | 27.02 | 21.6 | 12.11 | 20.24 | 5.332 | 8.04 | 35.15 | 51.42 | 12.11 | 14.82 | 17.53 | 10.17 | 20.02 | 16.18 | 24.31 | 18.89 | 9.4 | 20.24 | 17.53 | 59.46 | 18.89 | 17.53 | 18.89 | 59.5 | 21.3 |
| 10 | 24.31 | 14.82 | 16.18 | 12.11 | 9.4 | 8.04 | 6.688 | 5.377 | 17.53 | 0 | 1.266 | 17.53 | 9.94 | 16.18 | 12.11 | 32.44 | 17.53 | 10.75 | 14.82 | 14.82 | 12.11 | 10.75 | 18.89 | 8.04 | 32.4 | 13.0 |
| 11 | 21.6 | 10.75 | 15.27 | 70.39 | 46 | 24.31 | 24.31 | 22.95 | 22.95 | 32.44 | 22.95 | 20.24 | 24.31 | 3.977 | 5.332 | 14.82 | 14.82 | 36.51 | 25.66 | 12.61 | 27.02 | 12.11 | 12.56 | 8.04 | 70.4 | 22.2 |
| 12 | 20.24 | 12.65 | 17.53 | 8.13 | 18.89 | 21.6 | 12.11 | 27.02 | 25.66 | 17.53 | 27.02 | 29.73 | 36.51 | 32.44 | 27.02 | 27.06 | 10.39 | 28.33 | 20.24 | 32.44 | 40.57 | 28.38 | 25.66 | 37.86 | 40.6 | 24.4 |
| 13 | 40.57 | 36.51 | 8.04 | 6.688 | 3.977 | 3.977 | 13.46 | 5.151 | 3.977 | 1.266 | 3.977 | 5.332 | 2.621 | 1.266 | 3.977 | 3.977 | 1.311 | 16.18 | 5.332 | 5.242 | 24.49 | 12.11 | 8.04 | 8.04 | 40.6 | 9.4 |
| 14 | 17.53 | 9.4 | 6.688 | 3.977 | 5.332 | 3.977 | 14.82 | 24.31 | 15.68 | 24.31 | 8.04 | 17.53 | 18.89 | 16.18 | 9.4 | 74.46 | 50.06 | 38.95 | 36.87 | 10.75 | 11.16 | 8.04 | 13.46 | 5.332 | 74.5 | 18.5 |
| 15 | 6.688 | 9.4 | 6.688 | 22.95 | 10.75 | 16.18 | 13.46 | 6.688 | 8.04 | 9.4 | 8.04 | 22.82 | 22.95 | 22.91 | 35.15 | 170.7 | 55.48 | 6.688 | 6.688 | 3.977 | 3.977 | 3.977 | 6.688 | 9.4 | 170.7 | 20.4 |
| 16 | 8.04 | 28.38 | 1.266 | 3.977 | 8.04 | 13.46 | 10.75 | 8.04 | 9.4 | 21.6 | 12.11 | 6.688 | 14.82 | 12.11 | 12.11 | 13.46 | 33.8 | 32.44 | 46 | 10.75 | 8.04 | 16.49 | 18.89 | 22.95 | 46.0 | 15.6 |
| 17 | 28.38 | 41.93 | 16.18 | 10.08 | 9.4 | 16.18 | 13.46 | 29.82 | 35.15 | 27.02 | 62.26 | 70.39 | 58.2 | 92.1 | 73.11 | 56.84 | 78.53 | 25.66 | 6.688 | 5.332 | 5.287 | 28.38 | 35.15 | 39.22 | 92.1 | 36.0 |
| 18 | 22.55 | 29.73 | 46 | 21.6 | 8.04 | 6.688 | 3.977 | 13.46 | 3.073 | 3.977 | 7.772 | 24.31 | 0 | 3.977 | 21.6 | 1.266 | 3.977 | 8.04 | 14.82 | 10.8 | 10.57 | 9.4 | 13.46 | 6.688 | 46.0 | 12.3 |
| 19 | 9.4 | 9.4 | 0 | 13.46 | 3.977 | 5.332 | 8.04 | 12.11 | 25.66 | 14.82 | 8.04 | 36.96 | 27.16 | 14.82 | 14.82 | 6.688 | 6.688 | 6.688 | 3.977 | 5.197 | 23.13 | 33.8 | 17.53 | 16.18 | 37.0 | 13.5 |
| 20 | 31.09 | 11.03 | 9.4 | 5.242 | 6.688 | 18.89 | 39.22 | 85.3 | 92.1 | 54.13 | 55.48 | 22.95 | 13.46 | 18.89 | 24.31 | 35.15 | 39.22 | 12.11 | 18.89 | 17.53 | 31.09 | 17.53 | 13.46 | 18.89 | 92.1 | 28.8 |
| 21 | 14.82 | 16.18 | 18.89 | 18.89 | 9.4 | 25.66 | 93.4 | 96.1 | **C** | **C** | **C** | **C** | 27.43 | 39.22 | 73.15 | 90.7 | 93.4 | 41.93 | 18.89 | 18.89 | 21.6 | 40.57 | 33.8 | 23.41 | 96.1 | 42.5 |
| 22 | 35.24 | 6.688 | 5.332 | 8.04 | 13.46 | 0 | 1.266 | 3.977 | 22.95 | **C** | **C** | 20.24 | 27.16 | 12.11 | 50.56 | 7.727 | 5.151 | 1.266 | 0 | 2.621 | 14.82 | 29.73 | 0 | 24.31 | 50.6 | 13.3 |
| 23 | 18.89 | 0 | 1.266 | 6.688 | 24.31 | 3.977 | 27.02 | 89.4 | 37.86 | 16.18 | 21.6 | 1.266 | 26.75 | 62.8 | 86.1 | 50.06 | 70.39 | 40.57 | 17.98 | 17.67 | 0.588 | 20.24 | 14.78 | 8.04 | 89.4 | 27.7 |
| 24 | 14.82 | 24.31 | 17.53 | 20.24 | 8.04 | 9.4 | 43.29 | 93.4 | 224.9 | 120.7 | 25.66 | 35.15 | 33.8 | 47.35 | 50.06 | 37.86 | 24.31 | 18.89 | 2.621 | 13.46 | 4.564 | 5.332 | 2.621 | 1.266 | 224.9 | 36.6 |
| 25 | 2.937 | 2.621 | 2.621 | 5.332 | 3.977 | 28.38 | 37.86 | 13.46 | 33.8 | 12.06 | 5.332 | 13.46 | 5.332 | 8.04 | 5.332 | 28.38 | 12.11 | 10.75 | 10.75 | 5.332 | 1.356 | 24.31 | 9.17 | 5.332 | 37.9 | 12.0 |
| 26 | 5.332 | 8.04 | 9.4 | 21.6 | 2.621 | 22.14 | 17.53 | 3.977 | 18.89 | 18.89 | 13.46 | 22.95 | 10.75 | 25.66 | 6.688 | 5.332 | 2.621 | 5.694 | 8.04 | 9.4 | 34.34 | 22.95 | 12.11 | 9.4 | 34.3 | 13.2 |
| 27 | 8.18 | 10.75 | 5.332 | 3.977 | 7.456 | 9.4 | 31.22 | 32.44 | 80.9 | 24.67 | 50.06 | 57.74 | 44.64 | 9.44 | 21.51 | 16.31 | 24.31 | 22.95 | 35.15 | 33.8 | 24.31 | 22.95 | 10.03 | 5.332 | 80.9 | 24.7 |
| 28 | 6.688 | 21.6 | 6.688 | 5.106 | 14.82 | 44.64 | 78.53 | 108.3 | 43.29 | 39.26 | 50.06 | 39.22 | 51.42 | 46 | 72.29 | 52.77 | 36.51 | 35.15 | 16.18 | 5.332 | 2.621 | 3.977 | 3.977 | 2.621 | 108.3 | 32.8 |
| 29 | 3.977 | 5.332 | 16.18 | 5.332 | 7.546 | 21.6 | 17.53 | 28.33 | 23.45 | 28.38 | 40.57 | 66.96 | 41.93 | 27.02 | 11.03 | 51.42 | 64.97 | 52.77 | 10.08 | 8.04 | 17.53 | 24.31 | 0 | 5.332 | 67.0 | 24.2 |
| 30 | 11.12 | 12.11 | 12.11 | 14.82 | 12.11 | 9.4 | 9.4 | 16.18 | 18.89 | 27.02 | 44.64 | 24.31 | 20.24 | 10.75 | 9.94 | 16.18 | 6.688 | 3.977 | 3.977 | 20.15 | 10.75 | 16.18 | 13.51 | 17.76 | 44.6 | 15.1 |
| 31 | 14.82 | 6.688 | 18.89 | 8.04 | 7.772 | 22.95 | 12.11 | 8.04 | 14.82 | 30.91 | 56.84 | 6.688 | 9.4 | 13.46 | 12.11 | 9.4 | 6.683 | 9.4 | 71.75 | 56.84 | 13.46 | 5.287 | 3.299 | 25.66 | 71.8 | 18.6 |
| Hourly Max | 54.0 | 41.9 | 46.0 | 70.4 | 46.0 | 44.6 | 93.4 | 108.3 | 224.9 | 231.7 | 115.1 | 70.4 | 62.3 | 92.1 | 86.1 | 170.7 | 93.4 | 52.8 | 71.8 | 57.9 | 63.8 | 113.8 | 35.2 | 48.7 | | |
| Hourly Average | 19.0 | 15.1 | 13.0 | 13.9 | 12.9 | 15.3 | 21.3 | 30.9 | 37.7 | 45.3 | 33.8 | 29.6 | 24.1 | 23.8 | 26.0 | 33.4 | 27.3 | 21.2 | 17.8 | 16.3 | 19.0 | 22.0 | 14.6 | 16.9 | | |

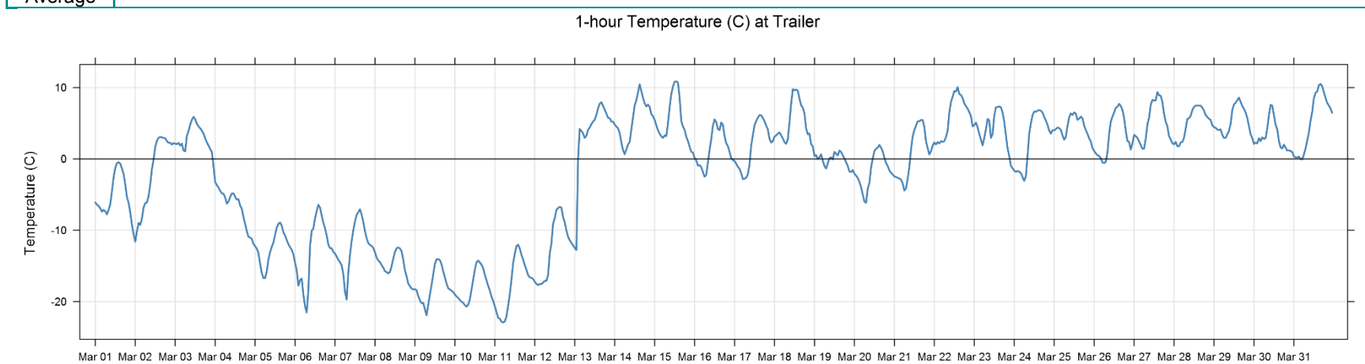
C = CALIBRATION




| | | | | | |
|---|---|---|---|---|---|
| Number of 24HR Exceedances | 0 | | Objective | 100 | UG/M3 |
| Number of Non-Zero Readings | 726 | | | | |
| Maximum 1-HR Average | 231.7 | UG/M3 | | | |
| Maximum 24-HR Average | 40.8 | UG/M3 | | | |
| IZS Calibration Time | 0 | HRS | Operational Time | 744 | HRS |
| Monthly Calibration Time | 6 | HRS | Operational Uptime | 100.0 | % |
| Standard Deviation | 23.9 | | Monthly Average | 22.8 | UG/M3 |

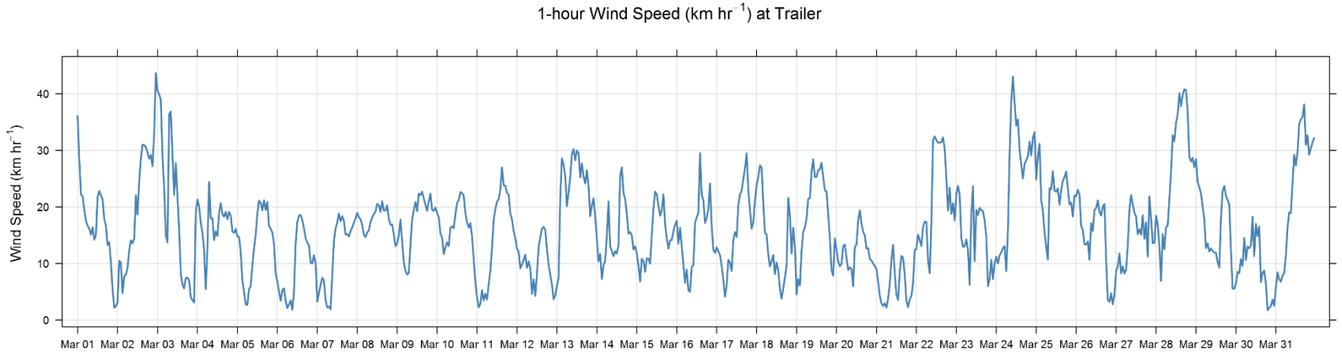
# Lagoon Temperature (°C) – March 2017

| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -6.1 | -6.4 | -6.6 | -6.9 | -7.4 | -7.1 | -7.3 | -7.8 | -7.1 | -6.3 | -4.5 | -2.6 | -1.3 | -0.6 | -0.5 | -0.7 | -1.3 | -2.1 | -3.6 | -5.3 | -6.2 | -7.5 | -9.2 | -10.6 | -0.5 | -5.2 |
| 2 | -11.6 | -10.2 | -9.0 | -9.2 | -8.4 | -6.8 | -6.2 | -6.1 | -5.2 | -3.6 | -1.5 | -0.1 | 1.7 | 2.5 | 3.0 | 3.1 | 3.0 | 2.9 | 2.9 | 2.5 | 2.3 | 2.3 | 2.0 | 2.2 | 3.1 | -2.0 |
| 3 | 2.1 | 2.1 | 2.2 | 1.9 | 2.2 | 1.2 | 1.1 | 3.2 | 3.9 | 4.8 | 5.5 | 5.9 | 5.6 | 4.9 | 4.6 | 4.3 | 4.0 | 3.6 | 2.9 | 2.3 | 1.9 | 1.4 | 1.0 | -1.0 | 5.9 | 3.0 |
| 4 | -3.2 | -3.7 | -4.0 | -4.5 | -4.8 | -4.9 | -5.4 | -6.3 | -6.0 | -5.3 | -4.9 | -4.8 | -5.3 | -5.7 | -5.6 | -6.5 | -7.0 | -8.1 | -9.1 | -10.1 | -10.9 | -11.0 | -11.2 | -11.9 | -3.2 | -6.7 |
| 5 | -12.2 | -12.6 | -13.2 | -14.7 | -16.0 | -16.7 | -16.7 | -15.8 | -14.1 | -13.1 | -12.3 | -11.7 | -10.7 | -9.7 | -9.1 | -8.9 | -9.4 | -10.3 | -10.7 | -11.4 | -12.0 | -12.4 | -12.8 | -13.4 | -8.9 | -12.5 |
| 6 | -14.6 | -15.6 | -17.8 | -17.0 | -16.8 | -19.0 | -20.7 | -21.5 | -18.4 | -12.2 | -10.1 | -9.8 | -8.3 | -7.3 | -6.4 | -6.8 | -7.9 | -9.0 | -9.7 | -10.8 | -12.0 | -12.5 | -12.5 | -13.0 | -6.4 | -12.9 |
| 7 | -13.3 | -13.7 | -14.2 | -14.5 | -14.9 | -16.2 | -18.6 | -19.7 | -15.9 | -13.4 | -11.5 | -10.0 | -8.8 | -7.8 | -7.5 | -7.1 | -7.8 | -8.9 | -10.1 | -11.1 | -11.8 | -12.1 | -12.2 | -12.5 | -7.1 | -12.2 |
| 8 | -13.1 | -13.8 | -14.3 | -14.5 | -14.9 | -15.3 | -15.8 | -15.9 | -16.1 | -15.9 | -15.0 | -14.0 | -13.0 | -12.5 | -12.4 | -12.6 | -13.0 | -14.1 | -15.6 | -16.5 | -17.5 | -17.8 | -18.2 | -18.3 | -12.4 | -15.0 |
| 9 | -18.3 | -18.4 | -19.2 | -19.8 | -20.2 | -20.2 | -21.1 | -21.9 | -20.5 | -19.0 | -17.7 | -16.2 | -14.7 | -14.1 | -14.1 | -14.2 | -14.8 | -15.7 | -16.6 | -17.5 | -18.1 | -18.3 | -18.5 | -18.7 | -14.1 | -17.8 |
| 10 | -19.0 | -19.3 | -19.5 | -19.8 | -20.0 | -20.2 | -20.5 | -20.7 | -20.4 | -19.7 | -18.3 | -16.9 | -15.5 | -14.5 | -14.3 | -14.5 | -14.8 | -15.3 | -16.3 | -17.0 | -17.8 | -18.5 | -19.3 | -19.9 | -14.3 | -18.0 |
| 11 | -20.7 | -21.5 | -22.3 | -22.4 | -22.8 | -22.9 | -22.8 | -22.1 | -20.6 | -19.0 | -16.9 | -14.6 | -13.3 | -12.2 | -12.0 | -12.6 | -13.5 | -14.1 | -14.9 | -15.6 | -16.3 | -16.6 | -16.7 | -16.9 | -12.0 | -17.6 |
| 12 | -17.2 | -17.5 | -17.7 | -17.6 | -17.6 | -17.3 | -17.1 | -17.1 | -16.3 | -13.2 | -11.8 | -9.1 | -8.3 | -7.2 | -6.9 | -6.7 | -6.8 | -8.2 | -8.9 | -10.0 | -10.9 | -11.4 | -11.8 | -12.1 | -6.7 | -12.4 |
| 13 | -12.5 | -12.8 | -0.1 | 4.2 | 3.9 | 3.6 | 2.9 | 3.3 | 4.1 | 4.4 | 4.9 | 5.2 | 5.5 | 6.2 | 7.1 | 7.7 | 8.0 | 7.4 | 6.9 | 6.4 | 5.8 | 5.7 | 5.2 | 5.2 | 8.0 | 3.7 |
| 14 | 4.8 | 4.5 | 4.3 | 3.6 | 2.3 | 1.3 | 0.7 | 1.3 | 2.0 | 2.4 | 4.1 | 5.8 | 7.5 | 8.2 | 9.3 | 10.5 | 9.5 | 8.6 | 7.8 | 7.4 | 7.6 | 7.3 | 6.3 | 6.0 | 10.5 | 5.5 |
| 15 | 5.5 | 4.7 | 4.0 | 3.5 | 3.2 | 2.9 | 3.3 | 3.2 | 5.0 | 7.3 | 9.1 | 10.2 | 10.8 | 10.9 | 10.7 | 8.6 | 5.3 | 4.6 | 4.1 | 3.1 | 2.5 | 1.7 | 1.0 | 0.9 | 10.9 | 5.3 |
| 16 | 0.1 | -0.2 | -0.9 | -0.9 | -1.2 | -1.8 | -2.5 | -2.2 | -0.5 | 1.2 | 2.8 | 4.7 | 5.5 | 5.2 | 4.2 | 4.0 | 5.1 | 4.8 | 3.2 | 2.2 | 1.8 | 1.0 | 0.1 | -0.2 | 5.5 | 1.5 |
| 17 | -0.3 | -0.7 | -1.1 | -1.4 | -2.0 | -2.8 | -2.8 | -2.6 | -2.1 | -0.8 | 1.9 | 3.3 | 4.7 | 5.3 | 5.8 | 6.2 | 6.1 | 5.8 | 5.3 | 4.7 | 4.2 | 2.8 | 2.3 | 2.5 | 6.2 | 1.8 |
| 18 | 3.1 | 3.3 | 3.5 | 3.7 | 3.3 | 2.9 | 2.4 | 2.1 | 2.8 | 5.1 | 7.7 | 9.8 | 9.6 | 9.7 | 9.5 | 8.5 | 7.5 | 7.2 | 6.4 | 4.3 | 3.5 | 3.6 | 2.1 | 1.8 | 9.8 | 5.1 |
| 19 | 0.4 | 0.5 | 0.0 | 0.2 | 0.7 | -0.2 | -1.0 | -1.4 | -0.6 | 0.1 | 0.2 | -0.1 | 1.0 | 0.7 | 0.5 | 1.2 | 1.0 | 0.5 | 0.1 | -0.5 | -1.0 | -1.8 | -1.8 | -1.6 | 1.2 | -0.1 |
| 20 | -2.1 | -2.3 | -2.7 | -3.2 | -4.0 | -5.0 | -6.0 | -6.2 | -4.2 | -3.4 | -1.2 | 0.1 | 1.1 | 1.4 | 1.6 | 2.0 | 1.6 | 1.1 | 0.2 | -0.6 | -1.0 | -1.6 | -1.9 | -2.2 | 2.0 | -1.6 |
| 21 | -2.5 | -2.5 | -2.6 | -2.7 | -2.9 | -3.4 | -4.4 | -4.1 | -2.8 | -1.2 | 1.4 | 3.1 | 4.0 | 4.7 | 5.3 | 5.3 | 5.5 | 5.4 | 4.5 | 2.5 | 1.5 | 0.6 | 1.1 | 1.9 | 5.5 | 0.7 |
| 22 | 2.3 | 2.0 | 2.4 | 2.2 | 2.5 | 2.4 | 2.5 | 3.1 | 4.0 | 6.5 | 8.0 | 8.7 | 9.5 | 9.5 | 10.1 | 9.1 | 9.0 | 8.5 | 7.8 | 7.4 | 7.0 | 6.6 | 6.0 | 4.6 | 10.1 | 5.9 |
| 23 | 4.7 | 5.1 | 4.4 | 3.5 | 2.7 | 1.9 | 2.9 | 4.2 | 5.6 | 5.4 | 2.9 | 3.5 | 6.0 | 7.2 | 7.3 | 7.4 | 7.2 | 6.5 | 5.2 | 3.3 | 1.5 | 0.4 | -1.0 | -1.3 | 7.4 | 4.0 |
| 24 | -1.6 | -1.8 | -1.7 | -1.8 | -2.0 | -2.5 | -3.1 | -2.4 | 0.4 | 3.5 | 5.0 | 6.1 | 6.6 | 6.6 | 6.8 | 6.8 | 6.8 | 6.5 | 5.9 | 5.4 | 4.8 | 4.0 | 3.5 | 4.0 | 6.8 | 2.7 |
| 25 | 4.0 | 4.2 | 4.4 | 4.3 | 4.1 | 3.3 | 2.7 | 3.1 | 4.6 | 5.8 | 6.4 | 6.2 | 6.5 | 6.4 | 5.5 | 5.7 | 5.9 | 5.7 | 4.7 | 4.1 | 3.5 | 2.9 | 2.4 | 1.5 | 6.5 | 4.5 |
| 26 | 1.1 | 0.8 | 0.5 | 0.4 | 0.1 | -0.5 | -0.6 | -0.4 | 0.9 | 3.5 | 5.2 | 5.9 | 6.5 | 7.2 | 7.3 | 7.7 | 7.4 | 6.9 | 5.8 | 4.0 | 2.5 | 2.4 | 1.3 | 2.2 | 7.7 | 3.3 |
| 27 | 3.4 | 3.2 | 3.0 | 2.5 | 1.9 | 1.4 | 1.5 | 2.9 | 4.8 | 5.8 | 7.6 | 8.3 | 8.2 | 8.2 | 9.4 | 8.9 | 8.9 | 8.0 | 6.3 | 5.2 | 4.6 | 3.2 | 2.7 | 2.2 | 9.4 | 5.1 |
| 28 | 2.0 | 2.4 | 1.8 | 1.8 | 2.3 | 2.4 | 3.0 | 4.2 | 5.6 | 5.7 | 6.0 | 6.9 | 7.3 | 7.5 | 7.5 | 7.5 | 7.5 | 7.2 | 6.8 | 6.1 | 5.9 | 5.6 | 5.5 | 4.7 | 7.5 | 5.1 |
| 29 | 4.4 | 4.4 | 4.1 | 4.1 | 4.2 | 3.4 | 2.9 | 2.9 | 3.5 | 3.9 | 4.9 | 6.9 | 7.6 | 7.9 | 8.2 | 8.6 | 8.0 | 7.4 | 7.0 | 6.5 | 5.7 | 4.6 | 3.5 | 2.9 | 8.6 | 5.3 |
| 30 | 2.1 | 2.3 | 2.2 | 2.9 | 2.5 | 3.0 | 2.8 | 2.9 | 4.3 | 6.1 | 7.6 | 7.5 | 6.1 | 4.8 | 4.2 | 2.5 | 1.6 | 1.5 | 2.0 | 1.6 | 1.2 | 1.2 | 1.1 | 1.0 | 7.6 | 3.1 |
| 31 | 0.3 | 0.2 | 0.2 | 0.3 | 0.0 | -0.1 | 0.6 | 1.5 | 2.6 | 3.7 | 5.4 | 6.6 | 8.5 | 9.3 | 9.5 | 10.3 | 10.5 | 10.2 | 9.4 | 8.6 | 7.9 | 7.5 | 7.1 | 6.5 | 10.5 | 5.3 |
| Hourly Max | 5.5 | 5.1 | 4.4 | 4.3 | 4.2 | 3.6 | 3.3 | 4.2 | 5.6 | 7.3 | 9.1 | 10.2 | 10.8 | 10.9 | 10.7 | 10.5 | 10.5 | 10.2 | 9.4 | 8.6 | 7.9 | 7.5 | 7.1 | 6.5 | | |
| Hourly Average | -4.1 | -4.3 | -4.2 | -4.2 | -4.5 | -4.9 | -5.3 | -5.0 | -3.8 | -2.3 | -0.9 | 0.2 | 1.0 | 1.4 | 1.6 | 1.5 | 1.1 | 0.5 | -0.3 | -1.3 | -1.9 | -2.5 | -3.0 | -3.3 | | |



# Lagoon Wind Speed (km/hr) – March 2017

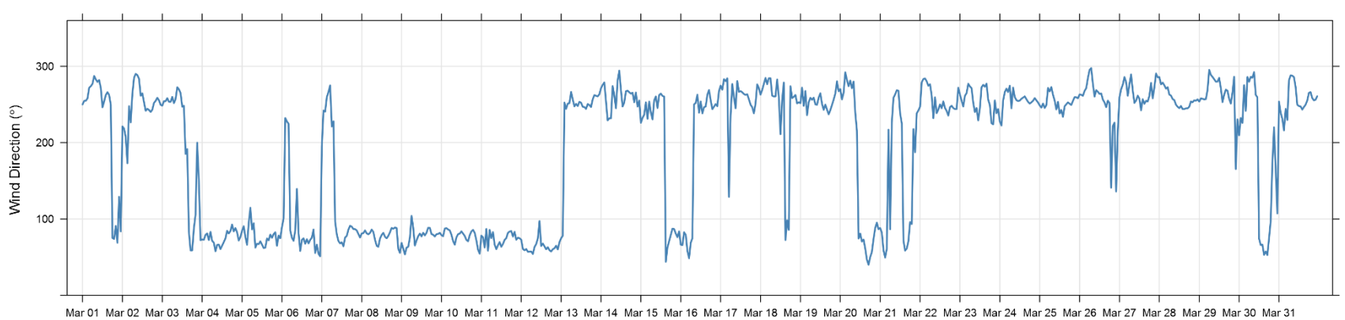
| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36.1 | 28.5 | 22.2 | 21.9 | 19.5 | 17.6 | 16.7 | 16.2 | 15.1 | 16.4 | 14.2 | 15.0 | 21.8 | 22.9 | 22.0 | 21.3 | 17.9 | 16.7 | 13.3 | 13.8 | 10.2 | 5.5 | 2.2 | 2.5 | 36.1 | 17.1 |
| 2 | 3.1 | 10.5 | 10.2 | 4.8 | 7.7 | 8.1 | 9.2 | 12.3 | 14.1 | 13.6 | 14.4 | 22.1 | 18.7 | 24.5 | 28.6 | 31.0 | 30.9 | 30.6 | 29.6 | 28.5 | 29.2 | 27.2 | 33.0 | 43.7 | 43.7 | 20.2 |
| 3 | 40.6 | 39.9 | 38.9 | 28.9 | 23.4 | 15.0 | 13.7 | 36.4 | 36.9 | 29.2 | 22.1 | 27.8 | 21.8 | 15.9 | 8.2 | 6.3 | 5.6 | 7.4 | 7.5 | 7.0 | 4.0 | 3.6 | 3.1 | 19.2 | 40.6 | 19.3 |
| 4 | 21.3 | 20.1 | 17.2 | 15.4 | 12.4 | 5.5 | 12.7 | 24.4 | 18.0 | 18.0 | 14.1 | 15.7 | 14.9 | 18.9 | 20.7 | 18.7 | 18.3 | 19.1 | 17.8 | 19.1 | 18.5 | 15.7 | 15.4 | 16.1 | 24.4 | 17.0 |
| 5 | 14.8 | 14.7 | 12.1 | 7.1 | 5.0 | 2.8 | 2.7 | 5.5 | 6.0 | 9.6 | 12.7 | 15.0 | 18.8 | 21.1 | 20.7 | 19.4 | 21.2 | 19.5 | 20.9 | 16.7 | 16.2 | 15.5 | 13.5 | 8.3 | 21.2 | 13.3 |
| 6 | 6.8 | 5.1 | 3.4 | 5.2 | 5.6 | 3.4 | 2.1 | 2.7 | 3.5 | 1.8 | 4.9 | 13.5 | 17.3 | 18.5 | 18.6 | 17.7 | 16.3 | 14.5 | 13.7 | 13.2 | 10.2 | 10.0 | 11.5 | 10.1 | 18.6 | 9.6 |
| 7 | 3.3 | 4.8 | 6.2 | 7.5 | 7.0 | 3.6 | 2.2 | 2.4 | 1.9 | 7.9 | 13.9 | 16.2 | 17.3 | 18.8 | 17.5 | 18.4 | 17.5 | 15.1 | 15.2 | 14.8 | 15.7 | 16.4 | 17.2 | 18.0 | 18.8 | 11.6 |
| 8 | 19.0 | 18.1 | 17.9 | 16.8 | 15.1 | 14.7 | 15.5 | 15.9 | 17.3 | 18.2 | 18.8 | 19.2 | 20.5 | 20.3 | 19.1 | 21.0 | 19.4 | 19.4 | 20.3 | 17.9 | 16.9 | 16.9 | 15.2 | 13.1 | 21.0 | 17.8 |
| 9 | 13.6 | 15.0 | 17.8 | 13.9 | 10.2 | 8.7 | 8.1 | 8.3 | 13.3 | 17.8 | 19.4 | 20.9 | 19.3 | 22.4 | 22.1 | 22.7 | 21.5 | 20.4 | 19.3 | 21.0 | 22.4 | 19.5 | 19.3 | 19.9 | 22.7 | 17.4 |
| 10 | 19.0 | 18.2 | 15.3 | 14.6 | 11.7 | 12.8 | 13.8 | 13.1 | 16.3 | 16.6 | 16.2 | 18.7 | 20.7 | 21.2 | 22.6 | 22.5 | 22.0 | 18.9 | 17.3 | 16.3 | 17.2 | 14.8 | 10.8 | 6.7 | 22.6 | 16.6 |
| 11 | 4.0 | 2.3 | 2.9 | 5.3 | 3.5 | 4.6 | 3.6 | 6.3 | 8.7 | 12.8 | 17.8 | 19.6 | 20.9 | 21.4 | 23.1 | 27.0 | 23.8 | 23.7 | 22.5 | 22.2 | 18.9 | 17.8 | 15.8 | 14.4 | 27.0 | 14.3 |
| 12 | 12.7 | 12.1 | 9.2 | 9.8 | 10.6 | 11.6 | 9.2 | 10.4 | 9.2 | 4.6 | 7.2 | 4.3 | 8.1 | 12.9 | 14.6 | 16.2 | 16.5 | 16.0 | 12.5 | 9.8 | 8.0 | 6.4 | 3.7 | 4.3 | 16.5 | 10.0 |
| 13 | 6.0 | 7.5 | 21.5 | 28.6 | 27.5 | 25.5 | 20.1 | 22.6 | 25.3 | 29.3 | 30.2 | 28.2 | 30.0 | 29.5 | 25.2 | 27.7 | 25.4 | 24.2 | 26.5 | 23.8 | 18.4 | 20.3 | 21.5 | 18.3 | 30.2 | 23.5 |
| 14 | 14.4 | 10.4 | 11.7 | 7.3 | 9.7 | 10.5 | 15.0 | 21.0 | 13.1 | 12.2 | 11.3 | 12.2 | 11.8 | 13.3 | 25.5 | 27.0 | 22.5 | 21.4 | 18.8 | 15.3 | 15.6 | 15.0 | 12.5 | 13.0 | 27.0 | 15.0 |
| 15 | 11.7 | 9.6 | 6.8 | 10.8 | 10.5 | 8.5 | 10.9 | 10.9 | 10.0 | 15.1 | 19.7 | 22.7 | 22.3 | 20.3 | 18.5 | 19.4 | 22.2 | 17.0 | 14.4 | 12.7 | 14.1 | 14.2 | 15.7 | 16.9 | 22.7 | 14.8 |
| 16 | 17.6 | 13.5 | 16.3 | 13.0 | 9.8 | 6.6 | 8.9 | 5.3 | 5.0 | 9.4 | 9.7 | 17.2 | 18.2 | 19.0 | 29.6 | 22.1 | 21.2 | 17.2 | 18.1 | 19.6 | 24.1 | 16.6 | 12.5 | 11.9 | 29.6 | 15.1 |
| 17 | 12.9 | 12.2 | 11.5 | 9.5 | 7.2 | 4.1 | 6.2 | 10.6 | 10.1 | 8.7 | 14.2 | 15.6 | 14.7 | 20.3 | 22.2 | 22.9 | 24.9 | 26.9 | 29.5 | 22.9 | 19.5 | 16.2 | 17.3 | 21.0 | 29.5 | 15.9 |
| 18 | 23.9 | 25.4 | 27.4 | 27.0 | 20.6 | 15.4 | 15.2 | 11.6 | 9.5 | 10.4 | 11.5 | 8.1 | 10.2 | 8.9 | 5.5 | 3.8 | 5.6 | 7.6 | 9.7 | 21.6 | 18.4 | 11.8 | 16.3 | 12.9 | 27.4 | 14.1 |
| 19 | 4.6 | 7.2 | 6.1 | 12.2 | 15.6 | 16.3 | 18.0 | 21.4 | 21.6 | 26.2 | 28.4 | 25.3 | 25.3 | 26.5 | 26.7 | 27.8 | 25.4 | 22.9 | 22.8 | 18.7 | 14.5 | 8.9 | 7.9 | 14.5 | 28.4 | 18.5 |
| 20 | 12.5 | 10.3 | 9.5 | 10.0 | 13.1 | 13.4 | 11.0 | 8.8 | 9.3 | 9.0 | 6.0 | 12.9 | 13.4 | 17.6 | 19.4 | 17.1 | 15.6 | 14.9 | 12.7 | 12.7 | 10.8 | 10.5 | 10.0 | 9.6 | 19.4 | 12.1 |
| 21 | 9.1 | 6.8 | 4.4 | 3.0 | 2.5 | 3.0 | 2.2 | 3.8 | 6.4 | 10.7 | 13.3 | 8.3 | 4.5 | 3.6 | 8.5 | 11.3 | 11.0 | 8.0 | 3.4 | 2.3 | 3.7 | 4.3 | 6.5 | 12.4 | 13.3 | 6.4 |
| 22 | 12.6 | 15.1 | 14.1 | 13.1 | 16.5 | 17.4 | 17.3 | 10.6 | 8.3 | 17.2 | 31.8 | 32.5 | 31.8 | 31.4 | 31.4 | 31.5 | 32.3 | 30.3 | 25.1 | 19.4 | 23.4 | 18.8 | 20.7 | 17.6 | 32.5 | 21.7 |
| 23 | 22.3 | 23.7 | 22.1 | 14.6 | 12.9 | 13.1 | 14.3 | 12.3 | 6.2 | 18.6 | 23.7 | 10.4 | 19.5 | 18.6 | 19.9 | 19.4 | 19.3 | 17.6 | 14.7 | 6.0 | 7.3 | 10.7 | 7.3 | 10.0 | 23.7 | 15.2 |
| 24 | 11.2 | 10.0 | 11.5 | 12.0 | 12.8 | 13.1 | 8.7 | 16.0 | 29.4 | 38.6 | 43.1 | 38.5 | 34.4 | 35.4 | 30.1 | 27.6 | 25.0 | 27.6 | 28.2 | 28.9 | 31.5 | 29.1 | 32.2 | 33.2 | 43.1 | 25.3 |
| 25 | 24.8 | 28.9 | 31.1 | 21.2 | 19.3 | 15.4 | 12.9 | 10.7 | 23.3 | 23.1 | 26.3 | 22.9 | 22.7 | 23.3 | 20.4 | 22.9 | 24.6 | 25.3 | 26.3 | 23.3 | 20.4 | 20.8 | 18.3 | 22.0 | 31.1 | 22.1 |
| 26 | 21.9 | 23.0 | 22.2 | 16.6 | 16.0 | 13.4 | 13.3 | 13.9 | 10.7 | 17.2 | 15.8 | 19.4 | 19.8 | 21.2 | 19.2 | 18.5 | 20.1 | 20.5 | 10.7 | 3.6 | 3.2 | 4.7 | 2.8 | 4.5 | 23.0 | 14.7 |
| 27 | 8.7 | 9.5 | 11.8 | 8.3 | 9.5 | 8.2 | 8.9 | 13.2 | 19.5 | 22.1 | 20.5 | 19.0 | 18.3 | 15.2 | 16.1 | 15.1 | 18.6 | 14.4 | 17.3 | 11.2 | 21.9 | 18.1 | 13.6 | 13.6 | 22.1 | 14.7 |
| 28 | 18.5 | 17.0 | 13.0 | 6.9 | 15.2 | 12.5 | 16.4 | 16.7 | 21.4 | 26.2 | 32.7 | 31.6 | 34.8 | 36.3 | 40.1 | 37.8 | 39.8 | 40.8 | 40.7 | 36.9 | 28.9 | 28.0 | 28.7 | 27.0 | 40.8 | 27.0 |
| 29 | 28.5 | 24.4 | 23.5 | 22.4 | 20.1 | 17.9 | 12.7 | 13.6 | 12.1 | 12.7 | 12.2 | 11.9 | 11.9 | 10.2 | 9.3 | 17.9 | 22.8 | 23.7 | 22.0 | 21.3 | 20.4 | 12.4 | 5.6 | 5.6 | 28.5 | 16.5 |
| 30 | 6.4 | 8.5 | 8.3 | 10.8 | 9.6 | 14.5 | 10.6 | 13.0 | 12.7 | 13.2 | 18.3 | 11.3 | 17.0 | 14.9 | 16.5 | 6.7 | 8.3 | 8.8 | 6.5 | 1.7 | 2.2 | 2.5 | 3.6 | 2.5 | 18.3 | 9.5 |
| 31 | 5.7 | 8.4 | 7.2 | 6.8 | 7.8 | 8.3 | 11.4 | 16.3 | 19.0 | 18.9 | 24.1 | 29.2 | 27.3 | 29.6 | 34.6 | 35.4 | 35.9 | 38.1 | 31.0 | 32.7 | 29.3 | 30.3 | 31.4 | 32.2 | 38.1 | 23.0 |
| Hourly Max | 40.6 | 39.9 | 38.9 | 28.9 | 27.5 | 25.5 | 20.1 | 36.4 | 36.9 | 38.6 | 43.1 | 38.5 | 34.8 | 36.3 | 40.1 | 37.8 | 39.8 | 40.8 | 40.7 | 36.9 | 31.5 | 30.3 | 33.0 | 43.7 | | |
| Hourly Average | 15.1 | 14.9 | 14.6 | 13.1 | 12.5 | 11.1 | 11.1 | 13.1 | 14.0 | 16.3 | 18.3 | 18.9 | 19.6 | 20.4 | 21.2 | 21.1 | 21.0 | 20.3 | 19.0 | 17.3 | 16.6 | 14.9 | 14.4 | 15.3 | | |



# Lagoon Wind Direction (°) – March 2017

| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 250.0 | 254.7 | 254.9 | 258.0 | 271.9 | 273.9 | 277.2 | 287.3 | 282.8 | 279.5 | 282.1 | 271.5 | 246.2 | 253.8 | 262.4 | 266.0 | 262.6 | 249.7 | 75.1 | 73.8 | 90.9 | 68.9 | 129.1 | 83.7 | 287.3 | 221.1 |
| 2 | 221.3 | 218.3 | 207.3 | 173.0 | 247.8 | 226.6 | 264.0 | 285.1 | 290.1 | 288.4 | 283.6 | 261.4 | 264.5 | 252.8 | 241.7 | 244.3 | 242.8 | 240.2 | 243.2 | 252.0 | 254.7 | 258.7 | 255.4 | 249.5 | 290.1 | 248.6 |
| 3 | 248.4 | 254.3 | 254.3 | 258.2 | 253.5 | 253.4 | 260.0 | 251.7 | 257.1 | 272.5 | 269.9 | 265.0 | 247.0 | 248.2 | 185.1 | 191.6 | 83.6 | 58.9 | 58.9 | 87.4 | 105.8 | 199.9 | 149.9 | 72.2 | 272.5 | 199.5 |
| 4 | 73.2 | 72.7 | 79.2 | 81.1 | 72.5 | 83.2 | 71.4 | 69.0 | 57.8 | 66.1 | 66.6 | 60.6 | 65.2 | 69.7 | 74.6 | 84.6 | 81.1 | 84.2 | 92.7 | 83.8 | 88.1 | 82.6 | 71.8 | 76.5 | 92.7 | 75.3 |
| 5 | 84.5 | 90.5 | 76.7 | 66.2 | 94.3 | 114.7 | 86.4 | 94.4 | 62.5 | 67.7 | 67.0 | 70.8 | 66.5 | 62.0 | 62.5 | 74.5 | 72.1 | 79.6 | 75.4 | 80.2 | 82.5 | 64.9 | 78.3 | 74.8 | 114.7 | 77.0 |
| 6 | 89.3 | 100.6 | 232.2 | 227.7 | 224.8 | 84.9 | 75.4 | 71.4 | 85.1 | 139.4 | 81.6 | 58.1 | 72.6 | 74.7 | 67.6 | 73.4 | 68.0 | 72.7 | 75.7 | 86.2 | 55.5 | 66.4 | 54.4 | 51.1 | 232.2 | 95.4 |
| 7 | 194.6 | 242.1 | 240.6 | 259.6 | 266.4 | 274.9 | 221.1 | 228.0 | 96.6 | 80.0 | 71.1 | 68.0 | 69.5 | 64.3 | 75.7 | 77.9 | 86.1 | 91.2 | 90.0 | 86.8 | 86.8 | 85.0 | 80.4 | 75.7 | 274.9 | 133.8 |
| 8 | 81.0 | 81.5 | 85.0 | 81.2 | 79.9 | 81.8 | 86.1 | 83.1 | 72.8 | 65.0 | 63.5 | 74.4 | 79.0 | 81.9 | 76.8 | 74.7 | 77.9 | 82.5 | 88.3 | 87.2 | 88.9 | 88.2 | 61.1 | 55.6 | 88.9 | 78.2 |
| 9 | 68.7 | 61.2 | 53.6 | 62.6 | 63.6 | 75.7 | 104.1 | 88.7 | 65.3 | 72.0 | 77.5 | 81.0 | 77.2 | 82.0 | 78.6 | 82.0 | 88.6 | 88.4 | 80.2 | 79.4 | 77.1 | 80.1 | 80.4 | 82.0 | 104.1 | 77.1 |
| 10 | 78.8 | 77.5 | 87.5 | 88.0 | 86.2 | 85.1 | 79.4 | 71.1 | 66.4 | 76.0 | 80.2 | 80.9 | 83.8 | 80.9 | 77.8 | 72.6 | 70.8 | 78.8 | 83.7 | 85.8 | 81.8 | 72.1 | 59.8 | 54.5 | 88.0 | 77.5 |
| 11 | 78.2 | 76.0 | 62.6 | 86.9 | 58.5 | 85.7 | 75.0 | 82.8 | 66.3 | 60.5 | 65.6 | 69.8 | 63.5 | 67.3 | 72.6 | 75.0 | 81.9 | 83.5 | 84.3 | 77.0 | 83.2 | 72.8 | 75.6 | 74.8 | 86.9 | 74.1 |
| 12 | 72.8 | 60.8 | 59.0 | 60.7 | 57.1 | 57.2 | 57.4 | 54.2 | 63.3 | 67.2 | 74.6 | 97.4 | 64.6 | 67.8 | 64.1 | 60.3 | 63.1 | 59.1 | 57.5 | 60.4 | 61.7 | 65.0 | 60.1 | 69.7 | 97.4 | 64.0 |
| 13 | 74.8 | 78.1 | 252.4 | 244.2 | 251.1 | 251.7 | 266.5 | 256.5 | 247.6 | 250.7 | 247.9 | 253.5 | 252.3 | 247.0 | 246.6 | 244.2 | 250.5 | 249.3 | 246.6 | 256.6 | 262.2 | 261.4 | 260.6 | 263.3 | 266.5 | 238.2 |
| 14 | 271.2 | 275.6 | 278.9 | 254.2 | 229.1 | 231.8 | 231.8 | 274.1 | 261.8 | 245.0 | 281.5 | 294.3 | 268.8 | 247.4 | 252.5 | 267.3 | 268.1 | 265.9 | 264.2 | 265.5 | 253.0 | 265.6 | 247.1 | 255.1 | 294.3 | 260.4 |
| 15 | 226.0 | 232.5 | 236.6 | 252.8 | 231.2 | 253.8 | 239.6 | 230.4 | 255.4 | 260.4 | 245.3 | 262.3 | 264.2 | 261.2 | 260.4 | 43.8 | 62.8 | 71.0 | 79.1 | 87.4 | 86.8 | 80.9 | 76.2 | 83.7 | 264.2 | 182.7 |
| 16 | 66.4 | 65.7 | 82.6 | 79.2 | 58.1 | 48.6 | 68.8 | 74.9 | 250.1 | 252.0 | 262.7 | 239.1 | 253.9 | 238.2 | 246.5 | 247.3 | 262.8 | 268.9 | 255.5 | 243.8 | 247.1 | 250.5 | 247.8 | 267.6 | 268.9 | 190.8 |
| 17 | 274.7 | 269.3 | 283.1 | 280.4 | 284.3 | 128.9 | 235.8 | 276.8 | 259.4 | 245.0 | 280.8 | 266.5 | 267.6 | 265.8 | 263.7 | 262.5 | 263.4 | 256.8 | 249.7 | 246.4 | 238.4 | 251.3 | 276.3 | 271.4 | 284.3 | 258.3 |
| 18 | 262.9 | 269.0 | 276.9 | 284.7 | 276.5 | 284.4 | 284.4 | 261.6 | 260.4 | 260.6 | 282.7 | 259.6 | 211.0 | 255.7 | 278.7 | 72.4 | 98.2 | 85.7 | 273.9 | 258.4 | 260.0 | 262.4 | 251.4 | 252.9 | 284.7 | 242.7 |
| 19 | 251.6 | 272.1 | 248.1 | 267.7 | 236.0 | 253.0 | 258.7 | 256.1 | 258.9 | 250.2 | 249.6 | 259.0 | 264.7 | 250.8 | 243.0 | 249.8 | 243.3 | 237.0 | 242.5 | 249.3 | 256.3 | 264.2 | 280.3 | 267.3 | 280.3 | 254.6 |
| 20 | 270.1 | 256.7 | 265.2 | 292.1 | 282.1 | 273.9 | 281.3 | 271.3 | 280.0 | 239.4 | 215.6 | 74.4 | 81.0 | 70.5 | 73.1 | 61.4 | 46.9 | 40.0 | 50.1 | 56.7 | 73.7 | 88.2 | 95.3 | 86.7 | 292.1 | 159.4 |
| 21 | 88.1 | 82.1 | 59.0 | 49.5 | 61.2 | 217.0 | 86.6 | 226.0 | 258.7 | 263.2 | 268.7 | 267.9 | 238.5 | 225.0 | 71.9 | 58.6 | 61.3 | 71.1 | 96.0 | 93.4 | 217.8 | 187.4 | 238.4 | 242.2 | 268.7 | 155.4 |
| 22 | 247.0 | 279.0 | 283.3 | 284.0 | 280.3 | 274.4 | 276.5 | 261.6 | 232.1 | 259.3 | 238.7 | 243.3 | 250.1 | 245.0 | 254.0 | 245.4 | 241.5 | 235.4 | 246.4 | 248.3 | 245.3 | 243.9 | 243.9 | 272.0 | 284.0 | 255.4 |
| 23 | 263.0 | 255.0 | 247.3 | 261.3 | 264.9 | 277.1 | 273.6 | 271.4 | 252.3 | 240.0 | 245.3 | 229.1 | 245.0 | 272.5 | 275.7 | 273.2 | 277.2 | 256.2 | 249.2 | 225.5 | 223.9 | 255.3 | 238.6 | 243.9 | 277.2 | 254.9 |
| 24 | 227.7 | 222.4 | 255.1 | 266.2 | 270.8 | 266.2 | 274.6 | 245.0 | 272.1 | 259.6 | 255.6 | 254.4 | 255.1 | 257.4 | 258.9 | 260.6 | 256.9 | 253.4 | 251.2 | 252.8 | 254.9 | 258.3 | 255.4 | 252.5 | 274.6 | 255.7 |
| 25 | 248.8 | 245.9 | 251.2 | 245.4 | 249.1 | 271.6 | 267.0 | 272.8 | 262.6 | 255.1 | 243.5 | 253.4 | 238.1 | 242.7 | 233.7 | 247.6 | 250.3 | 252.7 | 251.0 | 249.3 | 254.7 | 259.5 | 259.4 | 258.0 | 272.8 | 252.6 |
| 26 | 263.1 | 262.7 | 261.3 | 267.7 | 271.4 | 284.5 | 295.2 | 297.6 | 277.1 | 260.3 | 268.7 | 266.6 | 263.8 | 264.4 | 256.4 | 252.7 | 246.5 | 255.0 | 251.9 | 140.9 | 221.7 | 226.1 | 136.0 | 216.1 | 297.6 | 250.3 |
| 27 | 259.5 | 269.9 | 275.9 | 285.8 | 279.2 | 261.4 | 276.6 | 289.3 | 268.3 | 252.0 | 255.1 | 261.5 | 257.6 | 242.3 | 256.9 | 250.9 | 254.8 | 253.9 | 261.3 | 278.2 | 257.9 | 272.1 | 290.5 | 285.4 | 290.5 | 266.5 |
| 28 | 285.8 | 276.4 | 278.6 | 275.1 | 270.8 | 272.6 | 263.0 | 261.7 | 257.1 | 255.7 | 249.7 | 247.0 | 245.2 | 248.0 | 243.9 | 244.0 | 244.9 | 244.9 | 247.0 | 253.9 | 252.9 | 255.5 | 254.9 | 256.7 | 285.8 | 257.7 |
| 29 | 253.7 | 257.9 | 257.4 | 256.6 | 257.0 | 269.1 | 295.4 | 288.7 | 286.0 | 283.0 | 279.8 | 279.9 | 284.8 | 271.3 | 253.1 | 262.6 | 269.4 | 268.0 | 257.5 | 251.1 | 265.5 | 286.3 | 165.4 | 230.5 | 295.4 | 263.8 |
| 30 | 209.5 | 232.3 | 225.8 | 275.3 | 241.5 | 285.9 | 279.7 | 286.2 | 285.0 | 292.3 | 262.6 | 259.3 | 74.3 | 65.9 | 66.6 | 53.0 | 57.6 | 52.7 | 74.5 | 97.3 | 171.8 | 220.1 | 165.7 | 107.3 | 292.3 | 180.9 |
| 31 | 253.8 | 239.1 | 231.2 | 216.0 | 244.2 | 229.7 | 281.7 | 288.1 | 287.7 | 285.8 | 272.9 | 249.6 | 247.9 | 247.5 | 243.3 | 246.7 | 249.7 | 255.1 | 265.2 | 266.2 | 258.4 | 255.4 | 256.2 | 260.8 | 288.1 | 255.5 |
| Hourly Max | 285.8 | 279.0 | 283.3 | 292.1 | 284.3 | 285.9 | 295.4 | 297.6 | 290.1 | 292.3 | 283.6 | 294.3 | 284.8 | 272.5 | 278.7 | 273.2 | 277.2 | 268.9 | 273.9 | 278.2 | 265.5 | 286.3 | 290.5 | 285.4 | | |
| Hourly Average | 188.3 | 191.3 | 201.4 | 204.6 | 203.7 | 204.3 | 206.3 | 211.5 | 209.0 | 207.9 | 206.1 | 199.3 | 189.1 | 187.9 | 181.2 | 168.4 | 167.2 | 165.9 | 168.3 | 166.5 | 176.1 | 182.2 | 174.1 | 174.0 | | |

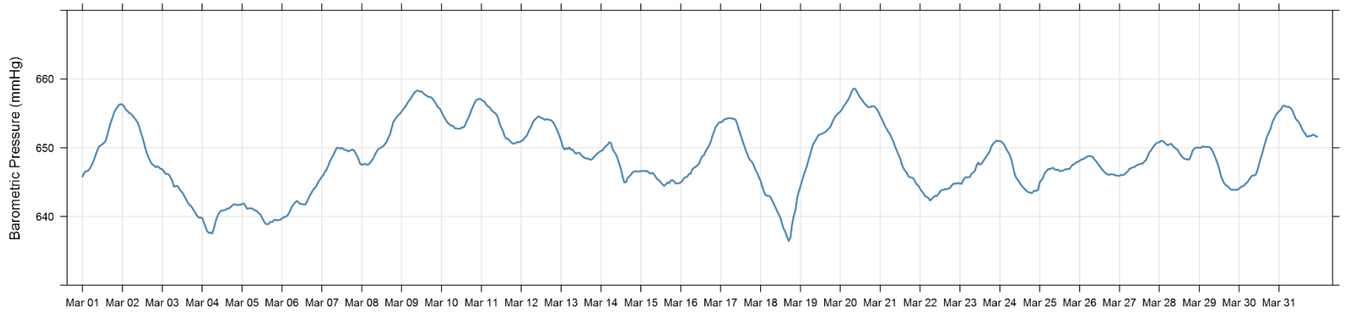
1-hour Wind Direction (°) at Trailer



# Lagoon Pressure (mmHg) – March 2017

| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 645.8 | 646.3 | 646.6 | 646.6 | 646.8 | 647.2 | 647.7 | 648.3 | 649.0 | 649.7 | 650.2 | 650.4 | 650.5 | 650.7 | 651.1 | 651.9 | 652.9 | 653.7 | 654.4 | 655.1 | 655.6 | 655.9 | 656.3 | 656.3 | 656.3 | 650.8 |
| 2 | 656.3 | 656.0 | 655.6 | 655.4 | 655.1 | 655.0 | 654.7 | 654.4 | 654.1 | 653.8 | 653.2 | 652.3 | 651.6 | 650.7 | 649.7 | 649.0 | 648.4 | 647.9 | 647.6 | 647.5 | 647.2 | 647.3 | 647.2 | 646.9 | 656.3 | 651.5 |
| 3 | 646.9 | 646.5 | 646.2 | 646.2 | 646.1 | 645.7 | 645.2 | 644.4 | 644.4 | 644.5 | 644.1 | 643.7 | 643.5 | 643.1 | 642.6 | 642.2 | 641.8 | 641.6 | 641.3 | 640.9 | 640.5 | 640.1 | 639.8 | 639.9 | 646.9 | 643.4 |
| 4 | 639.8 | 639.1 | 638.5 | 637.9 | 637.6 | 637.6 | 637.5 | 638.2 | 639.2 | 639.9 | 640.4 | 640.8 | 640.8 | 640.9 | 640.9 | 641.2 | 641.2 | 641.4 | 641.6 | 641.8 | 641.8 | 641.7 | 641.7 | 641.7 | 641.8 | 640.1 |
| 5 | 641.8 | 641.9 | 641.6 | 641.1 | 641.2 | 641.2 | 641.2 | 641.0 | 640.9 | 640.8 | 640.5 | 640.3 | 639.8 | 639.4 | 639.0 | 638.9 | 638.9 | 639.2 | 639.2 | 639.4 | 639.6 | 639.4 | 639.5 | 639.5 | 641.9 | 640.2 |
| 6 | 639.7 | 639.9 | 640.0 | 640.1 | 640.4 | 640.9 | 641.4 | 641.8 | 642.1 | 642.3 | 642.1 | 641.8 | 641.8 | 641.7 | 641.7 | 642.1 | 642.7 | 643.1 | 643.6 | 644.0 | 644.2 | 644.6 | 645.1 | 645.4 | 645.4 | 642.2 |
| 7 | 645.8 | 646.1 | 646.5 | 646.9 | 647.5 | 648.1 | 648.5 | 649.0 | 649.5 | 650.0 | 650.0 | 649.9 | 650.0 | 649.8 | 649.7 | 649.6 | 649.5 | 649.6 | 649.7 | 649.7 | 649.4 | 648.9 | 648.4 | 647.7 | 650.0 | 648.7 |
| 8 | 647.5 | 647.6 | 647.7 | 647.5 | 647.6 | 647.8 | 648.1 | 648.5 | 649.0 | 649.4 | 649.8 | 649.9 | 650.1 | 650.2 | 650.5 | 650.9 | 651.5 | 651.9 | 652.9 | 653.7 | 654.1 | 654.5 | 654.7 | 654.9 | 654.9 | 650.4 |
| 9 | 655.3 | 655.6 | 655.9 | 656.3 | 656.7 | 657.0 | 657.4 | 657.8 | 658.1 | 658.3 | 658.3 | 658.2 | 658.2 | 657.9 | 657.7 | 657.6 | 657.4 | 657.4 | 657.3 | 657.0 | 656.7 | 656.3 | 655.9 | 655.7 | 658.3 | 657.1 |
| 10 | 655.2 | 654.7 | 654.3 | 653.9 | 653.6 | 653.4 | 653.2 | 653.2 | 652.9 | 652.8 | 652.8 | 652.8 | 652.9 | 652.9 | 653.2 | 653.8 | 654.3 | 654.8 | 655.5 | 656.0 | 656.6 | 657.0 | 657.0 | 657.2 | 657.2 | 654.3 |
| 11 | 657.0 | 656.8 | 656.7 | 656.3 | 656.0 | 655.9 | 655.5 | 655.3 | 655.1 | 654.9 | 654.4 | 653.5 | 652.9 | 652.4 | 651.7 | 651.3 | 651.3 | 651.0 | 650.8 | 650.6 | 650.6 | 650.8 | 650.8 | 650.8 | 657.0 | 653.4 |
| 12 | 651.0 | 651.1 | 651.5 | 651.6 | 652.1 | 652.7 | 653.1 | 653.7 | 654.1 | 654.3 | 654.5 | 654.5 | 654.3 | 654.3 | 654.1 | 654.1 | 654.1 | 654.0 | 654.0 | 653.8 | 653.4 | 652.9 | 652.3 | 651.7 | 654.5 | 653.2 |
| 13 | 651.0 | 650.2 | 649.8 | 649.9 | 649.8 | 650.0 | 649.7 | 649.7 | 649.4 | 649.1 | 649.3 | 649.3 | 649.0 | 648.7 | 648.5 | 648.4 | 648.5 | 648.3 | 648.3 | 648.4 | 648.7 | 649.0 | 649.2 | 649.4 | 651.0 | 649.2 |
| 14 | 649.5 | 649.6 | 650.0 | 650.2 | 650.5 | 650.8 | 650.7 | 649.8 | 649.4 | 649.0 | 648.4 | 647.7 | 646.9 | 645.8 | 645.0 | 645.0 | 645.6 | 645.9 | 646.0 | 646.4 | 646.5 | 646.6 | 646.5 | 646.5 | 650.8 | 647.9 |
| 15 | 646.6 | 646.6 | 646.6 | 646.6 | 646.6 | 646.4 | 646.2 | 646.3 | 646.1 | 645.7 | 645.4 | 645.3 | 645.0 | 644.7 | 644.4 | 644.7 | 644.9 | 644.9 | 645.2 | 645.3 | 645.1 | 644.8 | 644.8 | 644.8 | 646.6 | 645.5 |
| 16 | 644.9 | 645.2 | 645.6 | 645.7 | 645.8 | 646.2 | 646.2 | 646.9 | 647.1 | 647.2 | 647.4 | 647.7 | 648.3 | 648.8 | 648.9 | 649.5 | 649.9 | 650.3 | 650.8 | 651.7 | 652.3 | 653.0 | 653.3 | 653.7 | 653.7 | 648.6 |
| 17 | 653.7 | 653.8 | 654.1 | 654.2 | 654.2 | 654.3 | 654.3 | 654.2 | 654.2 | 654.1 | 653.4 | 652.6 | 651.9 | 651.1 | 650.4 | 649.7 | 649.1 | 648.5 | 648.1 | 647.9 | 647.4 | 646.7 | 646.4 | 645.7 | 654.3 | 651.3 |
| 18 | 645.2 | 644.4 | 643.7 | 643.1 | 643.0 | 643.0 | 642.8 | 642.3 | 641.9 | 641.3 | 640.8 | 640.3 | 639.8 | 638.9 | 638.2 | 637.7 | 637.0 | 636.4 | 637.0 | 638.9 | 640.1 | 640.9 | 642.6 | 643.6 | 645.2 | 641.0 |
| 19 | 644.4 | 645.2 | 646.0 | 646.7 | 647.4 | 648.3 | 649.1 | 650.0 | 650.7 | 651.0 | 651.5 | 651.9 | 651.9 | 652.0 | 652.2 | 652.3 | 652.5 | 652.8 | 653.0 | 653.6 | 654.1 | 654.6 | 654.8 | 655.1 | 655.1 | 650.9 |
| 20 | 655.3 | 655.6 | 656.0 | 656.3 | 656.7 | 657.1 | 657.6 | 658.3 | 658.6 | 658.6 | 658.1 | 657.7 | 657.3 | 657.0 | 656.6 | 656.3 | 656.1 | 655.9 | 655.9 | 656.1 | 656.0 | 655.9 | 655.6 | 655.2 | 658.6 | 656.7 |
| 21 | 654.6 | 654.2 | 653.7 | 653.1 | 652.7 | 652.3 | 651.9 | 651.4 | 650.9 | 650.2 | 649.6 | 649.0 | 648.5 | 647.6 | 647.0 | 646.6 | 646.3 | 645.8 | 645.7 | 645.7 | 645.5 | 645.1 | 644.7 | 644.5 | 654.6 | 649.0 |
| 22 | 644.0 | 643.7 | 643.4 | 643.0 | 642.8 | 642.7 | 642.3 | 642.5 | 642.8 | 643.0 | 643.0 | 643.2 | 643.6 | 643.8 | 643.9 | 644.0 | 643.9 | 644.1 | 644.2 | 644.5 | 644.8 | 644.8 | 644.8 | 644.9 | 644.9 | 643.6 |
| 23 | 644.8 | 644.8 | 645.3 | 645.6 | 645.7 | 645.7 | 645.8 | 646.2 | 646.4 | 646.6 | 647.4 | 647.8 | 647.5 | 647.7 | 648.1 | 648.4 | 648.8 | 649.1 | 649.5 | 650.2 | 650.6 | 650.8 | 651.1 | 651.0 | 651.1 | 647.7 |
| 24 | 651.0 | 650.9 | 650.7 | 650.3 | 649.8 | 649.4 | 649.0 | 648.2 | 647.2 | 646.1 | 645.6 | 645.3 | 644.9 | 644.5 | 644.3 | 644.0 | 643.8 | 643.5 | 643.5 | 643.4 | 643.6 | 643.8 | 643.7 | 643.9 | 651.0 | 646.3 |
| 25 | 645.0 | 645.3 | 645.7 | 646.3 | 646.6 | 646.9 | 646.9 | 647.0 | 647.1 | 646.9 | 646.7 | 646.8 | 646.6 | 646.6 | 646.7 | 646.8 | 646.9 | 646.9 | 646.9 | 647.3 | 647.5 | 647.6 | 647.9 | 647.9 | 647.9 | 646.8 |
| 26 | 648.1 | 648.3 | 648.3 | 648.5 | 648.6 | 648.8 | 648.8 | 648.7 | 648.7 | 648.3 | 648.0 | 647.7 | 647.4 | 647.0 | 646.7 | 646.5 | 646.2 | 646.1 | 646.1 | 646.1 | 646.1 | 646.0 | 646.0 | 645.9 | 648.8 | 647.4 |
| 27 | 645.9 | 646.0 | 646.0 | 646.1 | 646.4 | 646.6 | 646.9 | 647.0 | 647.1 | 647.2 | 647.4 | 647.5 | 647.6 | 647.7 | 647.7 | 648.0 | 648.2 | 648.8 | 649.3 | 649.6 | 650.0 | 650.3 | 650.6 | 650.8 | 650.8 | 647.9 |
| 28 | 650.8 | 651.0 | 651.0 | 650.8 | 650.5 | 650.4 | 650.5 | 650.6 | 650.3 | 650.1 | 649.8 | 649.7 | 649.2 | 648.9 | 648.6 | 648.4 | 648.3 | 648.3 | 648.3 | 648.8 | 649.6 | 649.8 | 650.0 | 650.0 | 651.0 | 649.7 |
| 29 | 650.0 | 650.0 | 650.2 | 650.1 | 650.1 | 650.1 | 650.1 | 649.9 | 649.5 | 649.0 | 648.4 | 647.7 | 647.0 | 646.0 | 645.3 | 644.8 | 644.6 | 644.4 | 644.2 | 643.9 | 643.9 | 643.9 | 643.9 | 643.9 | 650.2 | 647.1 |
| 30 | 644.0 | 644.3 | 644.4 | 644.5 | 644.8 | 645.0 | 645.3 | 645.7 | 646.0 | 646.0 | 646.1 | 646.7 | 647.6 | 648.5 | 649.3 | 650.2 | 651.0 | 651.8 | 652.2 | 652.8 | 653.7 | 654.2 | 654.7 | 655.1 | 655.1 | 648.5 |
| 31 | 655.3 | 655.5 | 656.0 | 656.1 | 656.0 | 655.9 | 655.9 | 655.8 | 655.5 | 654.8 | 654.2 | 653.9 | 653.7 | 653.2 | 652.7 | 652.3 | 652.0 | 651.6 | 651.7 | 651.7 | 651.9 | 651.9 | 651.7 | 651.6 | 656.1 | 653.8 |
| Hourly Max | 657.0 | 656.8 | 656.7 | 656.3 | 656.7 | 657.1 | 657.6 | 658.3 | 658.6 | 658.6 | 658.3 | 658.2 | 658.2 | 657.9 | 657.7 | 657.6 | 657.4 | 657.4 | 657.3 | 657.0 | 656.7 | 657.0 | 657.0 | 657.2 | | |
| Hourly Average | 648.6 | 648.6 | 648.6 | 648.6 | 648.7 | 648.8 | 648.8 | 648.9 | 648.9 | 648.9 | 648.7 | 648.6 | 648.4 | 648.2 | 647.9 | 647.9 | 648.0 | 648.0 | 648.2 | 648.4 | 648.6 | 648.7 | 648.7 | 648.7 | | |

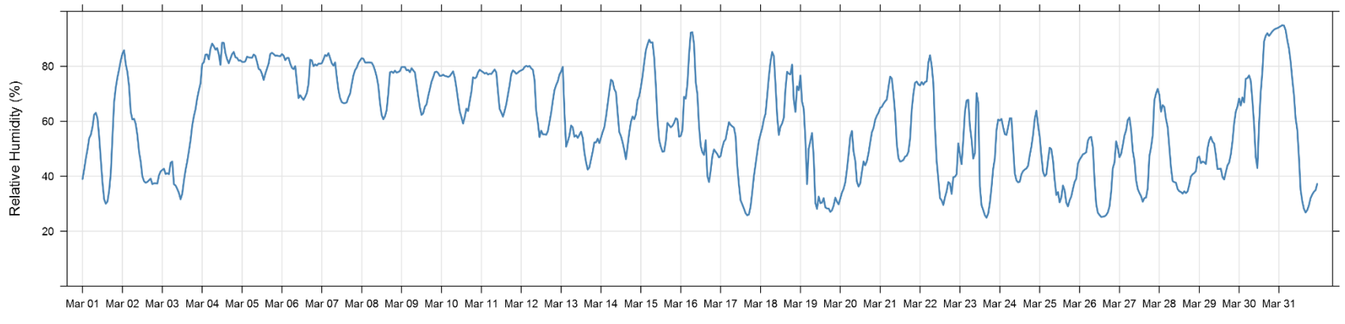
1-hour Barometric Pressures (mmHg) at Trailer



# Lagoon Relative Humidity (%) – March 2017

| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 39.0 | 42.5 | 46.5 | 49.8 | 53.8 | 55.1 | 57.9 | 62.4 | 63.1 | 61.0 | 54.5 | 46.0 | 37.7 | 31.6 | 30.0 | 30.8 | 34.7 | 41.1 | 54.1 | 66.9 | 72.3 | 76.0 | 78.9 | 82.1 | 82.1 | 52.8 |
| 2 | 84.6 | 85.8 | 80.8 | 77.9 | 72.8 | 63.5 | 60.6 | 60.9 | 59.1 | 55.0 | 49.0 | 45.3 | 40.0 | 38.2 | 37.6 | 38.0 | 38.5 | 39.1 | 37.1 | 37.4 | 37.5 | 37.3 | 40.3 | 41.8 | 85.8 | 52.4 |
| 3 | 42.3 | 42.7 | 40.8 | 41.1 | 40.7 | 44.9 | 45.3 | 37.1 | 36.6 | 35.4 | 33.9 | 31.6 | 33.6 | 38.4 | 42.3 | 45.4 | 49.1 | 53.1 | 58.4 | 61.8 | 64.4 | 68.3 | 71.3 | 73.8 | 73.8 | 47.2 |
| 4 | 80.8 | 81.5 | 84.2 | 84.3 | 82.5 | 86.4 | 88.3 | 87.3 | 86.0 | 86.6 | 84.4 | 80.5 | 88.6 | 88.5 | 84.7 | 82.6 | 81.1 | 82.8 | 84.4 | 85.2 | 83.3 | 83.1 | 82.0 | 82.1 | 88.6 | 84.2 |
| 5 | 81.6 | 81.5 | 81.8 | 83.5 | 83.2 | 83.2 | 83.1 | 84.3 | 83.8 | 81.6 | 79.0 | 78.7 | 77.2 | 75.0 | 77.3 | 79.2 | 81.0 | 84.5 | 84.9 | 84.4 | 83.8 | 83.9 | 83.7 | 83.6 | 84.9 | 81.8 |
| 6 | 84.5 | 83.9 | 82.2 | 83.0 | 83.0 | 80.9 | 79.5 | 78.9 | 80.0 | 74.2 | 68.4 | 69.5 | 68.5 | 67.8 | 68.9 | 70.3 | 73.7 | 82.4 | 82.1 | 80.0 | 80.7 | 80.3 | 81.0 | 80.9 | 84.5 | 77.7 |
| 7 | 81.1 | 82.5 | 84.1 | 83.7 | 84.8 | 83.0 | 81.1 | 80.2 | 81.4 | 76.1 | 71.3 | 68.4 | 67.0 | 66.6 | 66.6 | 66.9 | 68.7 | 70.0 | 73.5 | 76.6 | 78.6 | 79.5 | 81.2 | 82.1 | 84.8 | 76.5 |
| 8 | 82.9 | 82.7 | 81.4 | 81.4 | 81.4 | 81.4 | 81.3 | 80.2 | 78.5 | 76.2 | 72.9 | 66.7 | 62.3 | 60.7 | 61.8 | 64.0 | 70.1 | 77.8 | 78.1 | 77.6 | 78.4 | 77.7 | 77.9 | 78.3 | 82.9 | 75.5 |
| 9 | 79.7 | 79.7 | 79.7 | 78.5 | 78.7 | 77.8 | 79.3 | 78.5 | 77.8 | 73.5 | 69.1 | 65.0 | 62.3 | 62.9 | 65.3 | 66.1 | 69.2 | 71.7 | 74.4 | 76.0 | 77.9 | 78.1 | 77.6 | 76.5 | 79.7 | 74.0 |
| 10 | 76.6 | 76.9 | 76.5 | 76.4 | 76.1 | 76.4 | 77.3 | 78.1 | 75.9 | 72.1 | 67.7 | 63.6 | 61.5 | 59.2 | 61.6 | 64.6 | 63.7 | 67.3 | 70.7 | 76.0 | 75.6 | 76.0 | 77.8 | 78.7 | 78.7 | 71.9 |
| 11 | 78.3 | 77.9 | 77.4 | 77.6 | 77.0 | 77.3 | 77.2 | 78.0 | 78.8 | 77.7 | 70.8 | 64.5 | 63.2 | 61.7 | 63.8 | 66.2 | 69.7 | 73.1 | 77.2 | 78.5 | 78.0 | 77.3 | 77.7 | 78.3 | 78.8 | 74.0 |
| 12 | 78.5 | 78.8 | 79.7 | 80.2 | 79.9 | 80.1 | 79.2 | 78.7 | 75.0 | 63.7 | 59.5 | 54.2 | 56.6 | 55.3 | 55.3 | 55.1 | 56.3 | 59.7 | 63.1 | 67.4 | 71.3 | 73.2 | 74.5 | 77.0 | 80.2 | 68.9 |
| 13 | 78.1 | 79.8 | 63.5 | 50.8 | 52.7 | 54.8 | 58.5 | 57.8 | 54.4 | 54.9 | 54.0 | 55.1 | 56.2 | 54.0 | 48.7 | 45.1 | 42.4 | 43.2 | 46.1 | 48.9 | 52.3 | 52.3 | 53.7 | 52.1 | 79.8 | 54.5 |
| 14 | 54.0 | 56.1 | 57.8 | 61.6 | 66.2 | 70.8 | 75.1 | 74.6 | 71.7 | 70.5 | 63.2 | 56.1 | 54.6 | 52.3 | 49.5 | 46.2 | 50.9 | 55.9 | 59.8 | 61.8 | 60.8 | 62.5 | 67.6 | 69.1 | 75.1 | 61.2 |
| 15 | 72.5 | 76.4 | 81.3 | 85.8 | 88.0 | 89.7 | 88.5 | 88.7 | 83.2 | 73.1 | 60.6 | 53.2 | 50.7 | 48.9 | 49.0 | 52.8 | 59.4 | 58.6 | 57.8 | 58.4 | 59.5 | 61.1 | 60.7 | 54.4 | 89.7 | 67.2 |
| 16 | 54.7 | 56.8 | 68.9 | 68.2 | 73.6 | 84.3 | 92.2 | 92.4 | 88.0 | 74.3 | 69.8 | 58.2 | 51.0 | 48.7 | 47.7 | 53.1 | 40.1 | 37.9 | 42.0 | 47.2 | 49.8 | 48.9 | 48.0 | 46.8 | 92.4 | 60.1 |
| 17 | 47.4 | 50.4 | 52.6 | 53.4 | 56.7 | 59.7 | 58.7 | 58.1 | 57.7 | 54.5 | 43.8 | 36.9 | 31.3 | 29.8 | 28.3 | 26.6 | 25.8 | 26.1 | 28.9 | 34.1 | 40.0 | 44.3 | 48.6 | 52.9 | 59.7 | 43.6 |
| 18 | 55.3 | 57.5 | 60.7 | 62.8 | 69.2 | 76.0 | 81.7 | 85.2 | 83.7 | 73.5 | 62.0 | 55.0 | 58.0 | 59.2 | 61.3 | 71.7 | 78.0 | 77.3 | 77.1 | 80.6 | 67.8 | 63.4 | 72.7 | 71.3 | 85.2 | 69.2 |
| 19 | 76.6 | 67.1 | 64.5 | 53.3 | 37.2 | 50.0 | 52.8 | 55.7 | 46.9 | 30.3 | 28.1 | 32.6 | 30.2 | 30.4 | 32.0 | 28.7 | 28.3 | 28.3 | 27.0 | 27.6 | 29.3 | 32.2 | 30.8 | 29.8 | 76.6 | 39.6 |
| 20 | 31.9 | 34.0 | 35.5 | 37.8 | 42.4 | 48.1 | 54.4 | 56.5 | 48.9 | 45.6 | 38.0 | 36.2 | 37.4 | 41.6 | 45.4 | 44.0 | 45.5 | 48.4 | 52.3 | 56.0 | 57.6 | 60.6 | 62.0 | 63.1 | 63.1 | 46.8 |
| 21 | 64.9 | 65.2 | 66.4 | 67.2 | 67.9 | 72.5 | 76.2 | 75.5 | 69.9 | 62.7 | 51.7 | 46.6 | 45.3 | 45.5 | 45.9 | 47.1 | 47.5 | 48.9 | 53.7 | 64.2 | 70.0 | 74.0 | 74.4 | 73.4 | 76.2 | 61.5 |
| 22 | 73.0 | 74.3 | 73.3 | 74.3 | 74.5 | 81.4 | 84.0 | 80.2 | 73.9 | 57.6 | 45.5 | 38.9 | 32.0 | 31.2 | 29.5 | 32.4 | 34.5 | 37.9 | 37.4 | 33.6 | 39.6 | 39.8 | 40.7 | 52.0 | 84.0 | 53.0 |
| 23 | 47.8 | 44.4 | 53.3 | 63.4 | 67.5 | 67.8 | 58.3 | 53.3 | 46.4 | 48.4 | 70.3 | 66.7 | 36.3 | 29.4 | 27.7 | 25.8 | 24.9 | 26.4 | 30.3 | 36.0 | 42.7 | 46.5 | 56.8 | 60.6 | 70.3 | 47.1 |
| 24 | 60.3 | 60.9 | 57.9 | 55.3 | 55.0 | 57.9 | 61.1 | 61.1 | 50.9 | 41.1 | 38.5 | 37.8 | 38.0 | 40.7 | 41.9 | 42.4 | 42.8 | 43.8 | 47.6 | 50.8 | 55.0 | 60.8 | 63.9 | 58.6 | 63.9 | 51.0 |
| 25 | 54.4 | 47.6 | 41.6 | 40.0 | 40.7 | 45.8 | 50.4 | 49.8 | 45.7 | 38.7 | 33.2 | 34.2 | 30.5 | 32.3 | 36.6 | 34.8 | 30.4 | 29.0 | 31.2 | 32.6 | 35.4 | 37.9 | 39.1 | 44.6 | 54.4 | 39.0 |
| 26 | 46.0 | 46.9 | 48.0 | 48.3 | 48.7 | 52.9 | 54.1 | 54.3 | 50.4 | 38.7 | 29.8 | 26.7 | 25.9 | 25.2 | 25.3 | 25.4 | 25.9 | 26.9 | 29.0 | 34.3 | 42.9 | 45.0 | 52.7 | 50.2 | 54.3 | 39.7 |
| 27 | 46.9 | 48.1 | 51.3 | 54.8 | 56.7 | 60.5 | 61.4 | 56.9 | 49.2 | 45.7 | 38.6 | 35.4 | 33.9 | 32.8 | 30.7 | 32.0 | 32.2 | 35.6 | 47.3 | 50.4 | 54.9 | 67.7 | 70.1 | 71.8 | 71.8 | 48.5 |
| 28 | 69.6 | 63.5 | 65.9 | 65.2 | 60.8 | 57.9 | 50.7 | 43.2 | 38.2 | 37.9 | 37.6 | 35.3 | 34.5 | 34.3 | 33.7 | 34.5 | 33.9 | 34.5 | 36.9 | 39.9 | 40.7 | 41.2 | 41.9 | 46.7 | 69.6 | 44.9 |
| 29 | 47.2 | 44.8 | 45.3 | 45.1 | 44.4 | 50.1 | 53.0 | 54.3 | 52.6 | 51.9 | 47.7 | 42.6 | 42.7 | 42.8 | 39.7 | 38.8 | 41.5 | 43.9 | 45.0 | 47.9 | 52.6 | 59.2 | 63.5 | 65.4 | 65.4 | 48.4 |
| 30 | 68.3 | 65.7 | 68.7 | 66.8 | 75.5 | 75.7 | 76.7 | 74.7 | 67.6 | 58.9 | 47.0 | 43.0 | 58.9 | 70.5 | 78.1 | 89.0 | 91.1 | 92.0 | 91.0 | 91.8 | 92.7 | 93.3 | 93.7 | 93.9 | 93.9 | 76.0 |
| 31 | 94.2 | 94.6 | 95.0 | 94.8 | 93.1 | 89.5 | 86.5 | 81.7 | 75.3 | 69.6 | 61.0 | 56.9 | 46.9 | 35.0 | 30.9 | 28.1 | 26.8 | 27.7 | 29.4 | 32.0 | 33.4 | 34.3 | 34.9 | 37.2 | 95.0 | 57.9 |
| Hourly Max | 94.2 | 94.6 | 95.0 | 94.8 | 93.1 | 89.7 | 92.2 | 92.4 | 88.0 | 86.6 | 84.4 | 80.5 | 88.6 | 88.5 | 84.7 | 89.0 | 91.1 | 92.0 | 91.0 | 91.8 | 92.7 | 93.3 | 93.7 | 93.9 | | |
| Hourly Average | 65.6 | 65.5 | 66.0 | 66.0 | 66.6 | 68.9 | 69.8 | 69.0 | 65.5 | 60.0 | 54.9 | 51.0 | 48.8 | 48.1 | 48.3 | 49.3 | 50.2 | 52.4 | 55.1 | 57.9 | 60.0 | 61.8 | 63.9 | 64.8 | | |

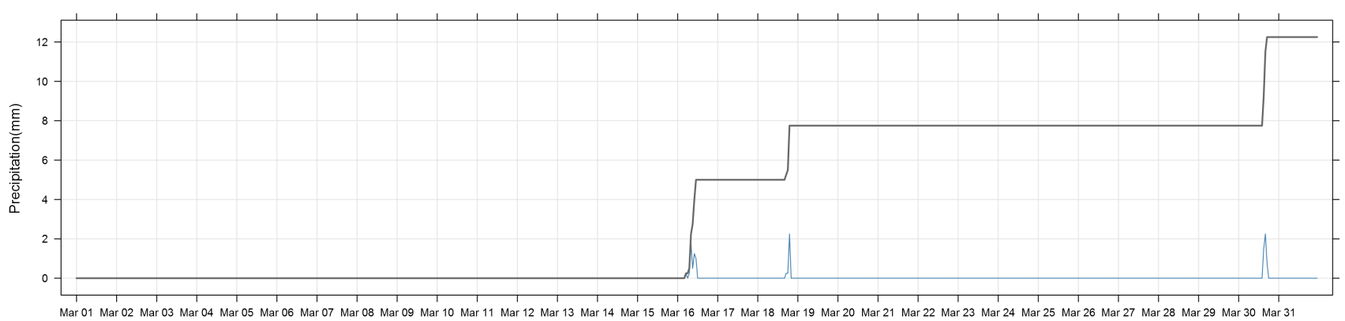
1-hour Relative Humitidy (%) at Trailer



# Lagoon Precipitation (mm) – March 2017

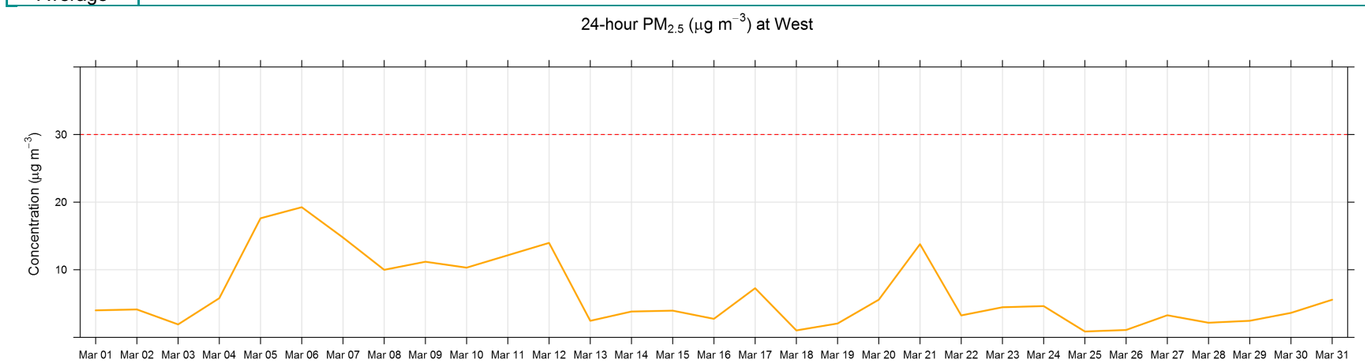
| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.3 | 1.8 | 0.5 | 1.3 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.75 | 5.00 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.25 | 2.75 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 27 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 29 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| 30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 2.3 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.25 | 4.50 |
| 31 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 |
| Hourly Max | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.3 | 1.8 | 0.5 | 1.3 | 1.0 | 0.0 | 0.0 | 0.0 | 1.5 | 2.3 | 0.8 | 0.3 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| Hourly Average | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | | |

1-hour Precipitation (mm) at Trailer



# West $PM_{2.5}$ (µg/m$^3$) – March 2017

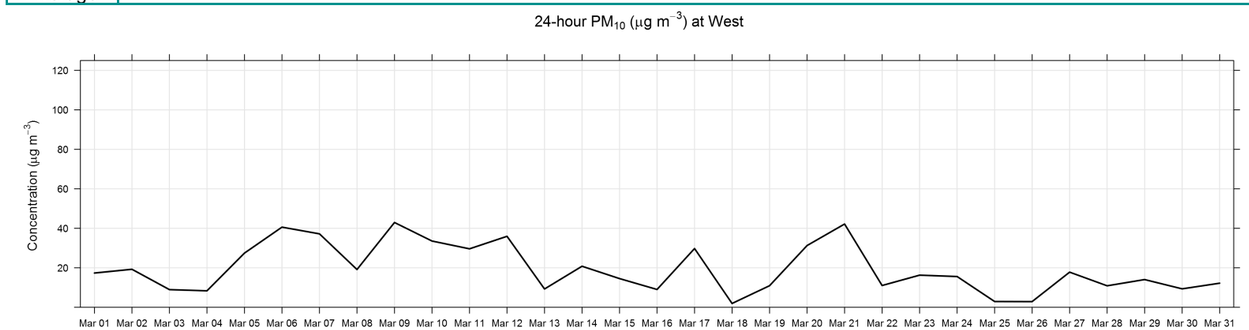
| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.4 | 1.9 | 3.5 | 7.0 | 25.5 | 9.0 | 5.2 | 3.7 | 3.0 | 2.8 | 2.0 | 1.5 | 1.2 | 2.8 | 3.7 | 5.0 | 4.0 | 4.2 | 3.6 | 25.5 | 4.0 |
| 2 | 7.7 | 4.2 | 2.7 | 1.5 | 1.2 | 1.0 | 2.2 | 2.7 | 5.6 | 8.2 | 9.2 | 10.1 | 7.2 | 6.5 | 5.6 | 7.2 | 6.2 | 2.6 | 2.8 | 1.4 | 0.9 | 0.9 | 0.8 | 0.6 | 10.1 | 4.1 |
| 3 | 0.8 | 0.4 | 0.5 | 0.4 | 0.3 | 0.7 | 0.9 | 3.3 | 3.5 | 2.4 | 1.0 | 1.9 | 1.2 | 2.1 | 6.1 | 3.3 | 3.3 | 5.4 | 1.2 | 0.5 | 0.6 | 1.5 | 1.7 | 2.8 | 6.1 | 1.9 |
| 4 | 5.3 | 7.2 | 7.2 | 6.9 | 6.0 | 6.9 | 8.7 | 7.5 | 6.1 | 4.2 | 2.2 | 1.9 | 1.4 | 2.0 | 3.4 | 5.8 | 4.7 | 5.9 | 7.3 | 7.7 | 7.5 | 7.3 | 7.0 | 8.9 | 8.9 | 5.8 |
| 5 | 10.8 | 11.5 | 12.5 | 11.6 | 11.9 | 12.7 | 14.5 | 13.5 | 18.1 | 20.3 | 21.6 | 25.3 | 20.8 | 18.5 | 18.6 | 18.4 | 17.6 | 18.4 | 20.4 | 21.9 | 22.3 | 20.6 | 20.8 | 20.2 | 25.3 | 17.6 |
| 6 | 19.6 | 18.1 | 19.0 | 19.0 | 17.0 | 16.2 | 15.5 | 16.0 | 22.0 | 28.1 | 36.3 | 24.1 | 22.9 | 20.4 | 20.5 | 29.2 | 23.1 | 17.4 | 17.5 | 14.6 | 11.5 | 11.7 | 11.4 | 10.9 | 36.3 | 19.3 |
| 7 | 10.5 | 10.8 | 10.6 | 12.8 | 13.7 | 13.0 | 11.7 | 12.9 | 13.7 | 16.0 | 16.3 | 16.1 | 19.7 | 14.1 | 21.2 | 18.7 | 15.0 | 14.4 | 15.5 | 12.6 | 13.8 | 17.0 | 15.7 | 19.0 | 21.2 | 14.8 |
| 8 | 19.6 | 16.8 | 14.2 | 10.3 | 9.0 | 9.2 | 9.0 | 9.3 | 10.9 | 9.9 | 10.1 | 9.5 | 10.9 | 10.8 | 11.1 | 11.4 | 11.6 | 8.5 | 7.7 | 6.6 | 6.7 | 6.4 | 5.4 | 5.0 | 19.6 | 10.0 |
| 9 | 5.4 | 6.1 | 7.6 | 6.6 | 6.8 | 6.9 | 5.9 | 6.4 | 16.3 | 22.4 | 24.2 | 21.6 | 15.5 | 11.4 | 12.6 | 12.8 | 10.1 | 12.1 | 11.7 | 8.6 | 10.5 | 10.4 | 9.0 | 7.4 | 24.2 | 11.2 |
| 10 | 7.1 | 6.1 | 6.0 | 6.3 | 6.2 | 7.3 | 7.3 | 8.0 | 16.5 | 15.8 | 13.1 | 14.5 | 12.2 | 9.8 | 12.4 | 12.7 | 12.2 | 11.9 | 12.3 | 10.8 | 10.2 | 9.1 | 8.7 | 10.9 | 16.5 | 10.3 |
| 11 | 11.3 | 10.8 | 10.3 | 9.7 | 10.5 | 11.2 | 11.5 | 12.9 | 17.0 | 19.2 | 11.4 | 14.1 | 13.1 | 12.8 | 12.6 | 13.8 | 12.4 | 13.1 | 13.6 | 11.8 | 10.3 | 9.4 | 9.4 | 9.3 | 19.2 | 12.1 |
| 12 | 10.2 | 10.8 | 11.4 | 11.5 | 11.5 | 11.0 | 10.7 | 11.8 | 11.6 | 12.3 | 15.8 | 16.1 | 15.5 | 18.9 | 21.9 | 14.8 | 12.8 | 16.3 | 10.1 | 11.7 | 15.5 | 18.6 | 18.1 | 16.4 | 21.9 | 14.0 |
| 13 | 15.3 | 3.1 | 0.5 | 0.4 | 0.3 | 0.3 | 0.8 | 0.8 | 0.7 | 0.6 | 0.7 | 1.9 | 8.6 | 5.4 | 4.6 | 6.2 | 2.2 | 2.2 | 0.8 | 0.3 | 1.5 | 0.4 | 0.4 | 0.6 | 15.3 | 2.4 |
| 14 | 0.6 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.7 | 0.9 | 1.4 | 1.5 | 6.1 | 23.6 | 15.1 | 8.1 | 18.5 | 4.9 | 3.1 | 1.3 | 0.9 | 0.8 | 0.3 | 0.7 | 0.7 | 0.7 | 23.6 | 3.8 |
| 15 | 0.6 | 0.8 | 1.2 | 1.3 | 1.3 | 1.6 | 1.6 | 2.3 | 3.4 | 2.0 | 6.2 | 7.8 | 8.4 | 4.8 | 8.6 | 8.9 | 4.0 | 3.4 | 3.6 | 8.0 | 4.6 | 3.1 | 2.8 | 4.5 | 8.9 | 4.0 |
| 16 | 2.1 | 1.9 | 1.9 | 1.8 | 1.9 | 1.9 | 2.6 | 4.1 | 5.7 | 2.8 | 2.8 | 1.6 | 6.6 | 10.0 | 5.8 | 3.3 | 1.6 | 1.4 | 1.0 | 2.2 | 0.8 | 0.7 | 0.5 | 0.6 | 10.0 | 2.7 |
| 17 | 0.9 | 0.7 | 0.7 | 0.7 | 0.8 | 1.4 | 5.8 | 6.8 | 4.9 | 4.8 | 7.4 | 3.3 | 43.9 | 59.1 | 7.8 | 4.2 | 5.6 | 2.4 | 2.4 | 1.5 | 1.5 | 1.7 | 4.4 | 1.9 | 59.1 | 7.3 |
| 18 | 3.4 | 1.1 | 0.8 | 0.7 | 0.6 | 0.5 | 0.6 | 0.8 | 1.1 | 1.2 | 1.0 | 0.7 | 0.4 | 0.4 | 0.7 | 0.5 | 2.8 | 3.4 | 1.3 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 3.4 | 1.0 |
| 19 | 0.6 | 0.7 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.4 | 2.8 | 9.6 | 8.8 | 3.3 | 2.8 | 2.9 | 1.8 | 1.7 | 1.2 | 2.3 | 1.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.5 | 9.6 | 2.0 |
| 20 | 0.6 | 0.9 | 0.9 | 0.7 | 1.6 | 1.6 | 11.5 | 17.8 | 17.1 | 8.3 | 8.7 | 6.4 | 4.4 | 6.8 | 6.4 | 5.5 | 4.1 | 2.8 | 2.4 | 2.3 | 3.3 | 4.7 | 7.0 | 7.8 | 17.8 | 5.6 |
| 21 | 9.9 | 11.8 | 12.7 | 13.2 | 12.4 | 12.5 | 16.9 | 22.2 | 20.4 | 21.4 | 15.4 | 11.1 | 9.5 | 11.4 | 19.3 | 27.4 | 20.4 | 14.4 | 10.4 | 9.1 | 9.5 | 7.9 | 7.9 | 3.7 | 27.4 | 13.8 |
| 22 | 3.3 | 3.8 | 2.8 | 2.6 | 2.6 | 2.2 | 2.1 | 2.1 | 1.7 | 2.7 | 20.8 | 5.8 | 3.2 | 3.1 | 4.9 | 4.5 | 2.9 | 2.0 | 1.1 | 0.7 | 0.6 | 0.5 | 0.7 | 1.1 | 20.8 | 3.2 |
| 23 | 0.7 | 0.6 | 0.7 | 0.4 | 0.5 | 1.0 | 3.2 | 20.5 | 12.2 | 9.8 | 3.9 | 4.3 | 6.7 | 2.9 | 3.2 | 2.8 | 3.4 | 3.4 | 3.2 | 4.2 | 3.8 | 4.7 | 5.4 | 5.2 | 20.5 | 4.5 |
| 24 | 5.4 | 5.5 | 5.1 | 5.1 | 5.0 | 5.2 | 7.8 | 7.9 | 9.7 | 7.9 | 8.0 | 5.7 | 5.3 | 4.1 | 6.6 | 5.2 | 2.9 | 1.5 | 0.9 | 0.6 | 2.0 | 1.8 | 1.1 | 0.8 | 9.7 | 4.6 |
| 25 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 1.4 | 1.6 | 1.0 | 2.1 | 1.0 | 1.5 | 1.6 | 1.2 | 1.6 | 0.8 | 0.6 | 0.9 | 0.5 | 0.8 | 0.9 | 0.6 | 0.6 | 2.1 | 0.9 |
| 26 | 0.7 | 1.1 | 0.6 | 0.5 | 0.7 | 0.7 | 0.9 | 1.3 | 2.3 | 1.7 | 1.8 | 0.9 | 1.1 | 1.5 | 1.3 | 1.6 | 1.5 | 1.0 | 0.8 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 2.3 | 1.1 |
| 27 | 1.4 | 2.4 | 1.2 | 1.1 | 1.3 | 1.3 | 2.8 | 7.8 | 7.4 | 6.4 | 5.7 | 6.2 | 4.9 | 3.5 | 3.5 | 4.2 | 9.5 | 1.5 | 0.5 | 0.4 | 2.0 | 1.0 | 1.1 | 1.5 | 9.5 | 3.3 |
| 28 | 1.2 | 0.8 | 0.8 | 0.8 | 1.3 | 2.1 | 4.1 | 3.5 | 5.1 | 5.6 | 4.6 | 2.9 | 3.9 | 4.5 | 4.0 | 2.4 | 1.5 | 0.6 | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.3 | 5.6 | 2.2 |
| 29 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 1.3 | 4.6 | 6.7 | 5.7 | 5.5 | 5.2 | 4.5 | 4.5 | 3.2 | 4.6 | 2.0 | 1.2 | 0.6 | 1.0 | 0.7 | 1.1 | 1.7 | 1.8 | 1.0 | 6.7 | 2.5 |
| 30 | 0.8 | 0.7 | 0.9 | 1.2 | 1.2 | 1.0 | 1.1 | 1.9 | 11.3 | 7.2 | 5.1 | 4.6 | 4.5 | 6.0 | 7.0 | 2.6 | 2.2 | 1.7 | 0.7 | 1.1 | 1.7 | 4.1 | 9.2 | 8.9 | 11.3 | 3.6 |
| 31 | 22.4 | 14.3 | 9.7 | 7.5 | 7.0 | 5.9 | 4.5 | 3.6 | 9.5 | 7.2 | 9.2 | 6.8 | 2.9 | 3.5 | 3.1 | 2.5 | 2.2 | 2.1 | 1.7 | 1.1 | 1.2 | 1.6 | 2.2 | 1.9 | 22.4 | 5.6 |
| Hourly Max | 22.4 | 18.1 | 19.0 | 19.0 | 17.0 | 16.2 | 16.9 | 22.2 | 22.0 | 28.1 | 36.3 | 25.3 | 43.9 | 59.1 | 21.9 | 29.2 | 23.1 | 18.4 | 20.4 | 21.9 | 22.3 | 20.6 | 20.8 | 20.2 | | |
| Hourly Average | 5.8 | 5.0 | 4.7 | 4.4 | 4.4 | 4.5 | 5.6 | 7.2 | 8.8 | 9.4 | 9.5 | 8.5 | 9.1 | 8.8 | 8.4 | 7.8 | 6.6 | 5.7 | 5.1 | 4.8 | 4.9 | 5.0 | 5.2 | 5.1 | | |




| | | | | | |
|---|---|---|---|---|---|
| Number of 1HR Exceedances | 0 | | Guideline | 80 | UG/M3 |
| Number of 24HR Exceedances | 0 | | Guideline | 30 | UG/M3 |
| Number of Non-Zero Readings | 744 | | | | |
| Maximum 1-HR Average | 59.1 | UG/M3 | | | |
| Maximum 24-HR Average | 19.3 | UG/M3 | | | |
| IZS Calibration Time | 0 | HRS | Operational Time | 744 | HRS |
| Monthly Calibration Time | 0 | HRS | Operational Uptime | 100.0 | % |
| Standard Deviation | 6.6 | | Monthly Average | 6.4 | UG/M3 |

# West $PM_{10}$ (µg/m$^3$) – March 2017

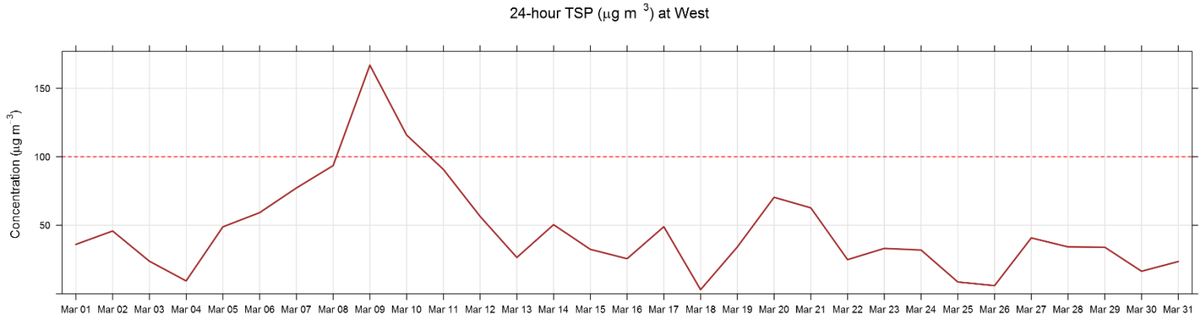
| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.3 | 1.2 | 1.1 | 1.1 | 1.4 | 2.8 | 5.5 | 20.5 | 42.1 | 133.9 | 42.2 | 23.7 | 17.6 | 15.5 | 13.8 | 10.3 | 5.6 | 4.2 | 11.4 | 17.7 | 17.4 | 11.6 | 8.8 | 5.2 | 133.9 | 17.3 |
| 2 | 10.2 | 6.0 | 3.6 | 2.1 | 1.5 | 1.3 | 11.0 | 12.3 | 36.6 | 60.4 | 59.4 | 62.6 | 42.0 | 28.4 | 25.9 | 35.5 | 29.6 | 9.1 | 10.0 | 6.0 | 2.8 | 2.8 | 1.8 | 1.3 | 62.6 | 19.3 |
| 3 | 1.9 | 0.6 | 1.5 | 0.5 | 0.4 | 1.8 | 3.1 | 22.4 | 18.6 | 11.9 | 4.5 | 10.8 | 4.9 | 9.0 | 36.1 | 15.3 | 14.5 | 24.6 | 4.9 | 1.2 | 1.8 | 3.3 | 6.3 | 14.6 | 36.1 | 8.9 |
| 4 | 12.7 | 8.7 | 9.2 | 9.0 | 8.2 | 9.4 | 12.8 | 11.0 | 8.4 | 5.0 | 2.6 | 4.0 | 1.9 | 2.5 | 6.1 | 12.7 | 6.4 | 8.2 | 10.5 | 10.9 | 10.7 | 9.3 | 8.3 | 11.4 | 12.8 | 8.3 |
| 5 | 14.2 | 14.7 | 15.3 | 14.5 | 15.7 | 17.4 | 20.7 | 18.7 | 26.3 | 30.1 | 39.4 | 69.3 | 47.6 | 41.7 | 46.0 | 32.6 | 22.2 | 22.4 | 25.6 | 25.5 | 26.6 | 23.3 | 24.6 | 23.8 | 69.3 | 27.4 |
| 6 | 23.5 | 20.8 | 21.0 | 20.3 | 17.4 | 16.5 | 15.7 | 16.6 | 30.0 | 82.8 | 153.0 | 45.4 | 51.8 | 52.6 | 78.2 | 110.2 | 81.1 | 28.0 | 25.5 | 21.6 | 16.0 | 16.2 | 15.7 | 14.3 | 153.0 | 40.6 |
| 7 | 14.0 | 13.4 | 12.4 | 15.9 | 16.9 | 15.1 | 12.6 | 14.1 | 19.0 | 40.4 | 53.7 | 47.3 | 77.9 | 49.3 | 112.3 | 93.5 | 60.1 | 54.6 | 54.5 | 22.3 | 19.6 | 24.0 | 22.8 | 27.1 | 112.3 | 37.2 |
| 8 | 28.2 | 24.3 | 19.4 | 13.5 | 10.9 | 11.6 | 11.1 | 11.2 | 13.6 | 14.6 | 20.2 | 30.5 | 30.3 | 31.6 | 38.1 | 41.6 | 32.9 | 24.4 | 14.1 | 8.9 | 9.0 | 8.1 | 6.0 | 5.2 | 41.6 | 19.1 |
| 9 | 5.7 | 6.9 | 9.9 | 8.3 | 9.2 | 9.3 | 7.2 | 8.4 | 51.8 | 120.4 | 120.7 | 119.0 | 87.2 | 53.5 | 63.9 | 72.5 | 54.3 | 61.0 | 58.7 | 24.4 | 23.4 | 20.9 | 17.8 | 16.4 | 120.7 | 42.9 |
| 10 | 12.1 | 8.4 | 9.2 | 8.2 | 8.1 | 9.3 | 8.8 | 10.4 | 62.7 | 95.8 | 62.9 | 75.9 | 50.9 | 33.0 | 57.1 | 72.2 | 53.5 | 43.1 | 43.1 | 25.7 | 14.6 | 12.9 | 11.7 | 15.5 | 95.8 | 33.6 |
| 11 | 15.9 | 15.6 | 14.8 | 13.5 | 15.6 | 16.5 | 17.0 | 19.1 | 26.8 | 67.3 | 29.1 | 54.4 | 50.4 | 48.8 | 55.7 | 62.3 | 40.0 | 43.6 | 26.8 | 21.2 | 19.8 | 12.6 | 12.1 | 11.5 | 67.3 | 29.6 |
| 12 | 12.6 | 13.8 | 16.6 | 16.0 | 16.0 | 14.6 | 13.3 | 16.0 | 24.5 | 30.6 | 41.0 | 41.5 | 33.2 | 45.0 | 109.1 | 65.2 | 45.3 | 100.5 | 22.7 | 29.6 | 38.7 | 52.2 | 38.9 | 25.9 | 109.1 | 35.9 |
| 13 | 22.5 | 6.2 | 1.4 | 0.8 | 0.3 | 0.5 | 1.5 | 1.8 | 2.6 | 1.6 | 4.8 | 14.3 | 48.4 | 21.9 | 20.2 | 33.8 | 9.2 | 12.9 | 3.5 | 0.8 | 8.6 | 2.2 | 0.5 | 2.0 | 48.4 | 9.3 |
| 14 | 0.8 | 0.5 | 0.4 | 0.4 | 0.3 | 0.4 | 0.9 | 1.1 | 2.0 | 2.0 | 46.2 | 132.1 | 81.9 | 55.7 | 122.1 | 26.0 | 14.7 | 4.7 | 2.4 | 1.2 | 0.7 | 0.9 | 0.8 | 0.8 | 132.1 | 20.8 |
| 15 | 0.6 | 1.0 | 1.6 | 1.5 | 1.4 | 2.0 | 2.1 | 3.2 | 4.9 | 6.0 | 31.9 | 33.9 | 38.7 | 20.1 | 43.4 | 55.9 | 13.3 | 9.1 | 9.8 | 30.0 | 16.7 | 6.8 | 6.4 | 8.3 | 55.9 | 14.5 |
| 16 | 3.0 | 2.6 | 2.5 | 2.3 | 2.8 | 2.4 | 3.8 | 5.8 | 9.8 | 5.6 | 7.4 | 5.3 | 38.4 | 50.8 | 28.3 | 14.4 | 6.3 | 5.7 | 3.3 | 11.0 | 1.7 | 1.8 | 0.8 | 0.8 | 50.8 | 9.0 |
| 17 | 1.8 | 1.0 | 1.0 | 1.0 | 1.4 | 4.1 | 29.1 | 40.9 | 22.2 | 24.3 | 36.2 | 11.7 | 166.4 | 220.7 | 46.4 | 22.0 | 35.7 | 9.8 | 7.8 | 2.3 | 2.0 | 2.5 | 20.0 | 3.9 | 220.7 | 29.8 |
| 18 | 4.2 | 2.8 | 2.1 | 1.1 | 0.8 | 0.5 | 0.6 | 0.9 | 1.4 | 1.6 | 2.2 | 5.6 | 2.1 | 1.4 | 3.4 | 1.2 | 4.2 | 5.1 | 1.8 | 0.9 | 0.7 | 0.6 | 0.7 | 0.6 | 5.6 | 1.9 |
| 19 | 0.7 | 0.8 | 1.1 | 1.3 | 1.3 | 1.5 | 1.5 | 2.7 | 22.4 | 83.7 | 57.6 | 18.4 | 13.4 | 15.5 | 6.2 | 6.9 | 5.2 | 12.5 | 5.0 | 1.4 | 1.1 | 0.8 | 0.7 | 0.5 | 83.7 | 10.9 |
| 20 | 0.7 | 1.6 | 1.9 | 0.9 | 5.3 | 5.6 | 84.4 | 154.8 | 124.5 | 65.1 | 61.8 | 45.8 | 27.8 | 42.3 | 33.4 | 23.4 | 11.5 | 6.4 | 5.1 | 4.7 | 6.5 | 9.4 | 14.2 | 13.6 | 154.8 | 31.3 |
| 21 | 17.6 | 21.0 | 23.1 | 25.8 | 18.0 | 16.5 | 23.6 | 45.3 | 80.6 | 71.3 | 51.5 | 44.1 | 43.9 | 67.2 | 113.6 | 126.0 | 67.8 | 43.7 | 25.6 | 22.0 | 25.5 | 16.3 | 16.9 | 5.1 | 126.0 | 42.2 |
| 22 | 4.1 | 4.8 | 3.1 | 2.9 | 3.1 | 2.4 | 2.3 | 2.6 | 2.1 | 15.4 | 90.4 | 24.4 | 14.0 | 13.4 | 24.3 | 24.7 | 14.8 | 6.7 | 2.7 | 1.6 | 1.1 | 0.6 | 1.1 | 2.0 | 90.4 | 11.0 |
| 23 | 1.1 | 0.9 | 1.4 | 0.5 | 0.8 | 1.9 | 13.1 | 93.4 | 59.8 | 53.3 | 18.9 | 19.4 | 26.8 | 10.9 | 13.1 | 9.3 | 7.2 | 7.2 | 4.6 | 8.5 | 6.1 | 10.5 | 12.0 | 9.5 | 93.4 | 16.3 |
| 24 | 9.4 | 8.8 | 7.9 | 7.3 | 8.6 | 8.8 | 26.0 | 27.5 | 41.9 | 32.4 | 34.5 | 24.4 | 22.8 | 16.4 | 36.2 | 29.1 | 13.2 | 4.7 | 2.3 | 1.1 | 4.0 | 3.7 | 1.8 | 1.3 | 41.9 | 15.6 |
| 25 | 0.4 | 0.5 | 0.3 | 0.5 | 0.3 | 0.6 | 0.7 | 4.5 | 6.9 | 4.5 | 9.8 | 3.2 | 5.9 | 8.3 | 4.1 | 7.3 | 2.0 | 1.7 | 1.6 | 1.2 | 1.8 | 1.5 | 1.1 | 1.3 | 9.8 | 2.9 |
| 26 | 1.2 | 2.9 | 1.0 | 1.2 | 0.9 | 1.0 | 1.6 | 3.7 | 8.0 | 6.1 | 7.8 | 1.8 | 3.1 | 6.5 | 3.5 | 5.0 | 5.1 | 2.2 | 1.3 | 0.8 | 1.0 | 0.9 | 0.9 | 1.3 | 8.0 | 2.9 |
| 27 | 2.8 | 5.3 | 1.7 | 1.5 | 2.5 | 2.5 | 17.3 | 56.5 | 46.4 | 43.3 | 38.1 | 38.9 | 30.1 | 20.8 | 19.4 | 24.3 | 54.3 | 5.4 | 1.0 | 0.5 | 9.4 | 2.2 | 1.3 | 1.8 | 56.5 | 17.8 |
| 28 | 1.4 | 1.0 | 1.0 | 1.3 | 3.7 | 7.8 | 22.6 | 18.9 | 29.1 | 33.3 | 27.5 | 14.9 | 23.3 | 26.4 | 22.9 | 13.1 | 6.5 | 1.7 | 1.1 | 1.4 | 0.4 | 0.5 | 0.7 | 0.5 | 33.3 | 10.9 |
| 29 | 0.5 | 0.5 | 0.5 | 0.8 | 0.7 | 4.6 | 28.3 | 45.7 | 37.2 | 40.8 | 32.4 | 34.5 | 30.0 | 15.8 | 24.9 | 10.8 | 6.8 | 2.4 | 3.7 | 2.1 | 3.0 | 4.9 | 4.7 | 1.7 | 45.7 | 14.0 |
| 30 | 1.1 | 0.9 | 1.5 | 1.8 | 2.3 | 1.1 | 1.3 | 2.5 | 26.5 | 21.6 | 24.4 | 22.0 | 21.0 | 26.0 | 29.7 | 5.8 | 2.9 | 2.1 | 0.9 | 1.4 | 2.1 | 5.0 | 10.2 | 10.0 | 29.7 | 9.3 |
| 31 | 31.5 | 19.5 | 10.1 | 7.9 | 7.3 | 6.0 | 4.6 | 4.3 | 20.5 | 23.1 | 36.4 | 32.1 | 12.3 | 15.4 | 13.9 | 11.6 | 8.8 | 7.3 | 6.0 | 1.6 | 1.5 | 2.7 | 5.3 | 3.4 | 36.4 | 12.2 |
| Hourly Max | 31.5 | 24.3 | 23.1 | 25.8 | 18.0 | 17.4 | 84.4 | 154.8 | 124.5 | 133.9 | 153.0 | 132.1 | 166.4 | 220.7 | 122.1 | 126.0 | 81.1 | 100.5 | 58.7 | 30.0 | 38.7 | 52.2 | 38.9 | 27.1 | | |
| Hourly Average | 8.3 | 7.0 | 6.4 | 5.9 | 5.9 | 6.3 | 13.0 | 22.5 | 29.3 | 39.6 | 40.3 | 35.8 | 37.0 | 34.4 | 40.4 | 34.7 | 23.7 | 18.5 | 12.8 | 10.0 | 9.5 | 8.7 | 8.9 | 7.8 | | |




| | | | | | |
|---|---|---|---|---|---|
| Number of 1HR Exceedances | n/a | | Guideline | n/a | UG/M3 |
| Number of Non-Zero Readings | 744 | | | | |
| Maximum 1-HR Average | 220.7 | UG/M3 | | | |
| Maximum 24-HR Average | 42.9 | UG/M3 | | | |
| IZS Calibration Time | 0 | HRS | Operational Time | 744 | HRS |
| Monthly Calibration Time | 0 | HRS | Operational Uptime | 100.0 | % |
| Standard Deviation | 25.7 | | Monthly Average | 19.4 | UG/M3 |

# West TSP (µg/m$^3$) – March 2017

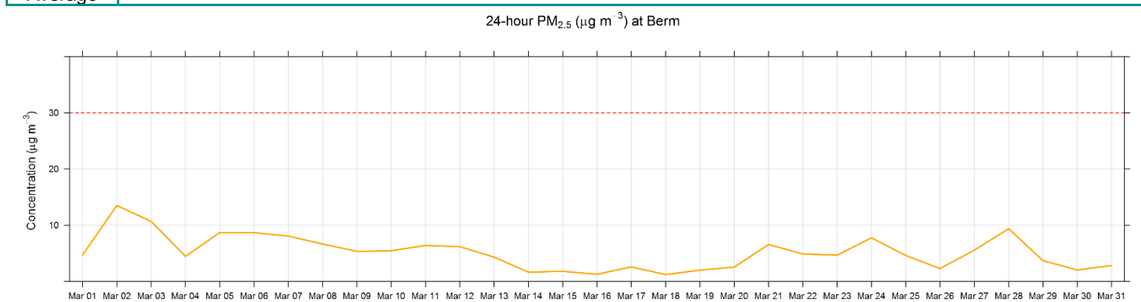
| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.4 | 0.8 | 0.7 | 0.9 | 1.5 | 3.4 | 10.8 | 33.2 | 81.9 | 212.4 | 107.1 | 55.2 | 52.4 | 84.9 | 53.7 | 29.3 | 12.1 | 8.9 | 27.3 | 45.8 | 20.8 | 8.6 | 7.3 | 4.7 | 212.4 | 36.0 |
| 2 | 8.2 | 4.8 | 2.7 | 1.5 | 1.0 | 1.1 | 27.6 | 19.4 | 69.6 | 145.6 | 132.5 | 132.9 | 96.9 | 71.5 | 77.1 | 105.3 | 79.1 | 32.1 | 31.5 | 27.3 | 10.4 | 11.6 | 6.7 | 3.3 | 145.6 | 45.8 |
| 3 | 5.6 | 0.4 | 5.7 | 0.9 | 0.3 | 4.3 | 8.9 | 70.9 | 55.1 | 42.8 | 17.8 | 38.5 | 15.0 | 26.4 | 95.8 | 37.2 | 36.9 | 50.7 | 10.8 | 0.9 | 1.7 | 3.7 | 6.1 | 34.4 | 95.8 | 23.8 |
| 4 | 22.8 | 6.3 | 6.9 | 6.8 | 6.3 | 7.2 | 10.6 | 10.0 | 7.2 | 3.6 | 1.9 | 13.2 | 1.6 | 1.9 | 16.9 | 40.6 | 5.6 | 7.2 | 9.8 | 9.7 | 8.8 | 6.8 | 5.6 | 8.2 | 40.6 | 9.4 |
| 5 | 9.8 | 10.1 | 10.4 | 9.7 | 10.6 | 11.9 | 14.6 | 12.8 | 19.7 | 25.6 | 45.4 | 131.2 | 129.4 | 109.7 | 277.9 | 203.4 | 17.6 | 17.7 | 19.5 | 17.9 | 19.3 | 15.5 | 16.7 | 16.0 | 277.9 | 48.9 |
| 6 | 15.5 | 13.5 | 13.6 | 13.2 | 11.2 | 11.0 | 10.2 | 10.9 | 24.4 | 100.9 | 166.2 | 61.9 | 79.3 | 116.1 | 206.0 | 257.5 | 198.9 | 27.3 | 19.9 | 18.1 | 11.9 | 12.0 | 11.5 | 10.1 | 257.5 | 59.2 |
| 7 | 10.2 | 9.3 | 8.3 | 10.7 | 11.3 | 9.9 | 8.2 | 9.1 | 16.5 | 138.0 | 110.8 | 107.6 | 212.5 | 132.0 | 341.4 | 231.1 | 162.1 | 141.0 | 87.8 | 17.5 | 15.3 | 19.9 | 18.9 | 23.7 | 341.4 | 77.2 |
| 8 | 26.6 | 22.5 | 15.7 | 10.5 | 7.7 | 8.2 | 7.7 | 8.2 | 11.1 | 75.1 | 209.7 | 251.7 | 263.9 | 230.5 | 210.1 | 377.5 | 242.7 | 178.9 | 59.6 | 7.3 | 7.1 | 5.8 | 3.9 | 3.4 | 377.5 | 93.5 |
| 9 | 4.8 | 5.5 | 15.6 | 5.8 | 6.8 | 6.8 | 5.0 | 6.2 | 254.5 | 381.3 | 304.9 | 342.7 | 250.7 | 206.0 | 238.2 | 354.9 | 257.5 | 304.1 | 309.2 | 175.4 | 182.0 | 147.6 | 127.2 | 112.5 | 381.3 | 166.9 |
| 10 | 51.0 | 7.7 | 33.1 | 7.0 | 6.3 | 7.1 | 6.5 | 8.9 | 144.2 | 326.0 | 247.6 | 264.6 | 204.6 | 130.9 | 241.6 | 386.0 | 201.3 | 122.5 | 165.9 | 172.4 | 13.3 | 11.4 | 8.9 | 11.9 | 386.0 | 115.9 |
| 11 | 12.0 | 12.0 | 11.4 | 10.9 | 13.6 | 13.5 | 13.9 | 16.2 | 29.4 | 223.2 | 77.2 | 116.9 | 147.3 | 161.7 | 194.9 | 258.8 | 162.6 | 352.4 | 114.2 | 94.8 | 115.8 | 9.9 | 8.8 | 8.2 | 352.4 | 90.8 |
| 12 | 8.8 | 9.7 | 14.4 | 11.8 | 11.7 | 10.4 | 9.1 | 12.3 | 63.3 | 53.8 | 50.3 | 57.2 | 42.5 | 61.8 | 223.7 | 160.7 | 84.9 | 234.8 | 33.6 | 43.0 | 49.6 | 58.7 | 29.6 | 20.4 | 234.8 | 56.5 |
| 13 | 17.5 | 22.9 | 4.6 | 4.7 | 0.3 | 0.6 | 5.5 | 6.9 | 12.8 | 8.3 | 26.3 | 61.1 | 114.7 | 51.8 | 54.3 | 105.4 | 28.5 | 50.5 | 12.0 | 3.0 | 21.8 | 13.4 | 1.0 | 7.9 | 114.7 | 26.5 |
| 14 | 0.5 | 0.8 | 0.2 | 0.2 | 0.2 | 0.3 | 0.6 | 0.9 | 1.5 | 1.7 | 84.1 | 208.6 | 175.7 | 250.7 | 335.5 | 81.9 | 44.5 | 12.2 | 4.5 | 1.6 | 2.3 | 0.6 | 0.5 | 0.6 | 335.5 | 50.4 |
| 15 | 0.4 | 0.8 | 1.2 | 1.1 | 0.9 | 1.5 | 1.7 | 2.9 | 4.4 | 8.9 | 91.9 | 72.9 | 94.5 | 49.8 | 118.2 | 132.9 | 30.0 | 16.8 | 16.0 | 67.6 | 32.4 | 10.9 | 11.3 | 8.9 | 132.9 | 32.4 |
| 16 | 3.6 | 2.2 | 1.7 | 1.9 | 5.1 | 2.2 | 2.5 | 3.8 | 7.4 | 7.4 | 14.7 | 31.9 | 150.1 | 179.7 | 83.5 | 34.5 | 18.8 | 14.7 | 10.6 | 27.6 | 5.5 | 3.6 | 0.7 | 0.5 | 179.7 | 25.6 |
| 17 | 3.9 | 0.9 | 0.8 | 0.6 | 1.0 | 9.6 | 59.0 | 69.6 | 37.1 | 49.2 | 75.4 | 28.7 | 210.6 | 234.1 | 122.3 | 61.0 | 112.9 | 20.1 | 22.4 | 3.5 | 1.3 | 2.8 | 40.0 | 8.2 | 234.1 | 48.9 |
| 18 | 4.7 | 5.4 | 6.5 | 2.5 | 0.5 | 0.3 | 0.4 | 0.7 | 1.0 | 1.3 | 3.4 | 16.8 | 5.6 | 2.1 | 6.2 | 0.9 | 4.0 | 4.9 | 1.6 | 0.7 | 0.5 | 0.5 | 0.5 | 0.4 | 16.8 | 3.0 |
| 19 | 0.5 | 0.5 | 1.7 | 0.9 | 3.0 | 2.4 | 3.2 | 17.2 | 83.8 | 253.5 | 192.1 | 54.4 | 46.2 | 47.0 | 19.9 | 20.1 | 18.3 | 36.1 | 14.8 | 1.5 | 0.8 | 1.1 | 0.5 | 0.3 | 253.5 | 34.2 |
| 20 | 0.4 | 1.9 | 1.8 | 0.6 | 7.3 | 11.7 | 190.9 | 300.4 | 283.1 | 130.4 | 146.7 | 116.5 | 75.7 | 134.1 | 98.1 | 78.4 | 28.4 | 8.9 | 7.1 | 8.0 | 12.5 | 10.2 | 18.1 | 18.5 | 300.4 | 70.4 |
| 21 | 15.6 | 20.1 | 25.1 | 26.7 | 12.9 | 12.0 | 16.6 | 50.8 | 117.9 | 141.5 | 106.0 | 72.9 | 91.1 | 120.7 | 241.8 | 205.0 | 91.3 | 45.3 | 21.0 | 16.3 | 22.6 | 16.0 | 12.4 | 3.6 | 241.8 | 62.7 |
| 22 | 2.8 | 3.2 | 2.1 | 1.9 | 2.2 | 1.6 | 1.5 | 1.9 | 1.6 | 45.2 | 160.2 | 76.7 | 53.3 | 37.9 | 62.1 | 69.2 | 47.2 | 12.5 | 4.1 | 1.4 | 1.4 | 1.7 | 0.8 | 5.3 | 160.2 | 24.9 |
| 23 | 1.6 | 0.8 | 1.5 | 0.3 | 0.6 | 1.9 | 23.9 | 156.7 | 134.0 | 133.8 | 84.7 | 48.2 | 58.6 | 21.4 | 40.3 | 21.1 | 11.5 | 11.7 | 3.7 | 9.4 | 4.1 | 9.1 | 9.7 | 6.4 | 156.7 | 33.1 |
| 24 | 8.1 | 6.2 | 5.3 | 4.8 | 6.7 | 7.0 | 48.2 | 45.5 | 85.8 | 59.3 | 73.3 | 50.6 | 54.7 | 47.5 | 99.6 | 83.4 | 33.3 | 17.5 | 4.5 | 2.0 | 7.4 | 10.4 | 2.3 | 2.9 | 99.6 | 31.9 |
| 25 | 0.8 | 1.5 | 0.2 | 0.8 | 0.2 | 2.1 | 0.5 | 6.2 | 20.7 | 15.7 | 21.6 | 9.0 | 11.2 | 49.4 | 13.0 | 34.5 | 4.5 | 4.0 | 2.5 | 2.6 | 1.4 | 1.0 | 1.4 | 1.4 | 49.4 | 8.6 |
| 26 | 2.4 | 5.3 | 2.3 | 2.9 | 0.9 | 0.8 | 1.4 | 3.3 | 12.5 | 7.9 | 27.2 | 6.3 | 5.7 | 19.1 | 7.7 | 11.4 | 15.5 | 5.4 | 1.2 | 0.5 | 0.7 | 0.6 | 0.6 | 0.9 | 27.2 | 5.9 |
| 27 | 2.0 | 4.1 | 1.1 | 1.1 | 3.1 | 3.0 | 23.9 | 100.6 | 107.8 | 105.9 | 96.0 | 110.2 | 81.0 | 51.5 | 53.9 | 52.2 | 134.9 | 11.0 | 0.9 | 0.3 | 27.2 | 4.8 | 0.9 | 1.2 | 134.9 | 40.8 |
| 28 | 1.0 | 0.8 | 0.7 | 0.9 | 5.7 | 12.3 | 74.2 | 50.4 | 86.2 | 92.0 | 96.2 | 45.2 | 77.9 | 111.7 | 86.4 | 47.3 | 22.3 | 2.7 | 2.8 | 2.4 | 0.8 | 0.3 | 1.1 | 0.3 | 111.7 | 34.2 |
| 29 | 0.3 | 0.5 | 0.4 | 0.9 | 2.1 | 8.8 | 68.9 | 110.0 | 90.5 | 88.0 | 74.5 | 87.8 | 84.9 | 36.3 | 61.2 | 33.6 | 29.8 | 4.8 | 8.1 | 4.4 | 4.7 | 8.0 | 6.2 | 1.1 | 110.0 | 34.0 |
| 30 | 0.7 | 0.6 | 1.0 | 1.5 | 2.7 | 0.8 | 0.9 | 2.2 | 35.1 | 40.6 | 64.4 | 44.5 | 58.8 | 56.7 | 55.2 | 5.7 | 2.2 | 1.5 | 0.6 | 1.0 | 1.5 | 3.3 | 6.6 | 6.5 | 64.4 | 16.4 |
| 31 | 32.9 | 17.9 | 6.5 | 5.1 | 4.7 | 3.9 | 3.0 | 3.4 | 22.1 | 42.9 | 111.6 | 91.3 | 42.5 | 34.8 | 38.6 | 31.8 | 21.7 | 18.3 | 13.3 | 1.8 | 1.2 | 3.9 | 8.2 | 3.5 | 111.6 | 23.5 |
| Hourly Max | 51.0 | 22.9 | 33.1 | 26.7 | 13.6 | 13.5 | 190.9 | 300.4 | 283.1 | 381.3 | 304.9 | 342.7 | 263.9 | 250.7 | 341.4 | 386.0 | 257.5 | 352.4 | 309.2 | 175.4 | 182.0 | 147.6 | 127.2 | 112.5 | | |
| Hourly Average | 8.9 | 6.4 | 6.5 | 4.8 | 4.8 | 5.7 | 21.3 | 37.1 | 62.0 | 95.5 | 97.5 | 90.6 | 96.4 | 92.6 | 121.8 | 114.6 | 69.7 | 57.3 | 33.6 | 25.3 | 19.6 | 13.3 | 12.1 | 10.8 | | |




| | | | | | |
|---|---|---|---|---|---|
| Number of 24HR Exceedances | 2 | | Guideline | 100 | UG/M3 |
| Number of Non-Zero Readings | 744 | | | | |
| Maximum 1-HR Average | 386.0 | UG/M3 | | | |
| Maximum 24-HR Average | 166.9 | UG/M3 | | | |
| IZS Calibration Time | 0 | HRS | Operational Time | 744 | HRS |
| Monthly Calibration Time | 0 | HRS | Operational Uptime | 100.0 | % |
| Standard Deviation | 71.6 | | Monthly Average | 46.2 | UG/M3 |

# Berm $PM_{2.5}$ (µg/m$^3$) – March 2017

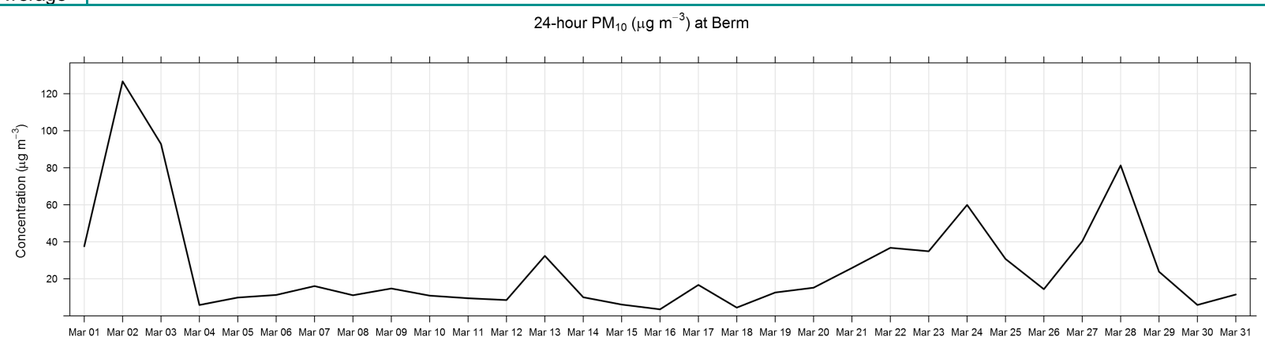
| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.7 | 3.5 | 2.3 | 2.5 | 1.5 | 1.2 | 1.0 | 1.9 | 2.1 | 4.2 | 3.8 | 4.9 | 12.2 | 10.9 | 8.9 | 12.1 | 11.1 | 4.7 | 10.5 | 1.7 | 2.1 | 3.0 | 1.0 | 1.1 | 12.2 | 4.7 |
| 2 | 1.4 | 1.3 | 1.0 | 0.5 | 0.5 | 0.4 | 0.4 | 1.4 | 4.4 | 9.4 | 14.1 | 31.3 | 20.1 | 12.3 | 18.0 | 23.7 | 18.5 | 19.3 | 17.8 | 39.3 | 30.5 | 22.6 | 12.4 | 23.4 | 39.3 | 13.5 |
| 3 | 13.5 | 15.1 | 6.1 | 4.1 | 3.8 | 1.6 | 1.4 | 33.7 | 41.4 | 39.8 | 30.4 | 18.8 | 10.2 | 5.6 | 6.7 | 4.4 | 1.3 | 1.4 | 1.1 | 1.5 | 2.3 | 1.7 | 3.2 | 7.6 | 41.4 | 10.7 |
| 4 | 5.6 | 5.3 | 5.2 | 4.2 | 2.7 | 4.0 | 4.7 | 3.6 | 10.7 | 7.2 | 4.5 | 2.5 | 1.7 | 1.1 | 1.4 | 2.2 | 2.7 | 9.7 | 7.9 | 7.6 | 2.3 | 2.9 | 3.1 | 3.7 | 10.7 | 4.5 |
| 5 | 4.2 | 4.3 | 5.0 | 4.2 | 3.7 | 3.3 | 3.4 | 6.8 | 6.4 | 8.9 | 9.8 | 10.6 | 9.0 | 9.8 | 12.9 | 10.6 | 13.5 | 19.5 | 10.1 | 11.1 | 11.0 | 10.1 | 10.1 | 9.9 | 19.5 | 8.7 |
| 6 | 8.7 | 7.3 | 6.4 | 7.1 | 7.6 | 7.8 | 8.0 | 8.3 | 10.0 | 18.9 | 15.8 | 10.1 | 10.8 | 9.1 | 7.7 | 7.8 | 10.0 | 12.9 | 8.8 | 6.3 | 5.3 | 4.7 | 4.3 | 4.6 | 18.9 | 8.7 |
| 7 | 4.5 | 4.8 | 6.5 | 6.6 | 7.6 | 5.0 | 10.1 | 19.1 | 12.8 | 14.1 | 7.9 | 6.7 | 7.0 | 6.2 | 7.4 | 6.4 | 6.2 | 7.2 | 7.2 | 6.6 | 6.4 | 9.1 | 9.4 | 8.9 | 19.1 | 8.1 |
| 8 | 14.4 | 12.1 | 9.4 | 7.9 | 5.8 | 5.7 | 4.4 | 7.0 | 7.8 | 7.7 | 6.7 | 5.5 | 6.3 | 5.7 | 5.1 | 6.6 | 6.2 | 8.4 | 4.9 | 4.8 | 4.5 | 5.5 | 4.4 | 3.1 | 14.4 | 6.7 |
| 9 | 3.1 | 2.9 | 6.2 | 3.3 | 2.8 | 3.1 | 2.6 | 2.9 | 3.3 | 3.7 | 4.1 | 3.9 | 3.6 | 5.6 | 7.2 | 6.2 | 6.0 | 7.2 | 11.6 | 7.3 | 12.3 | 7.9 | 6.0 | 5.8 | 12.3 | 5.4 |
| 10 | 5.6 | 4.7 | 3.6 | 4.2 | 4.0 | 3.6 | 4.5 | 5.7 | 6.3 | 4.8 | 4.2 | 5.1 | 4.5 | 4.0 | 5.7 | 9.8 | 7.3 | 6.3 | 5.8 | 8.6 | 6.5 | 6.8 | 4.8 | 4.6 | 9.8 | 5.5 |
| 11 | 4.9 | 4.3 | 4.5 | 6.0 | 6.4 | 6.9 | 7.5 | 7.5 | 6.2 | 5.2 | 5.6 | 6.3 | 5.9 | 6.5 | 6.3 | 7.7 | 7.1 | 8.7 | 9.3 | 7.8 | 6.4 | 5.7 | 5.3 | 5.6 | 9.3 | 6.4 |
| 12 | 5.9 | 5.5 | 5.1 | 5.1 | 5.2 | 5.1 | 5.6 | 5.5 | 5.3 | 6.2 | 10.4 | 11.8 | 9.4 | 9.3 | 5.1 | 4.1 | 4.2 | 4.2 | 4.7 | 5.3 | 5.3 | 5.4 | 6.9 | 7.7 | 11.8 | 6.2 |
| 13 | 9.1 | 7.7 | 12.0 | 6.2 | 4.6 | 2.2 | 1.3 | 4.5 | 5.2 | 4.2 | 3.5 | 7.1 | 4.1 | 7.3 | 5.6 | 3.8 | 3.6 | 5.3 | 2.6 | 1.2 | 0.9 | 1.0 | 0.4 | 0.4 | 12.0 | 4.3 |
| 14 | 0.4 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 2.9 | 1.1 | 1.0 | 0.6 | 1.8 | 3.4 | 4.8 | 8.7 | 6.4 | 2.1 | 2.3 | 1.4 | 0.4 | 0.2 | 0.4 | 0.3 | 0.3 | 8.7 | 1.7 |
| 15 | 0.3 | 0.4 | 0.9 | 0.7 | 1.6 | 3.4 | 0.5 | 1.6 | 1.8 | 1.5 | 1.9 | 1.6 | 1.7 | 1.5 | 1.6 | 5.7 | 1.1 | 3.0 | 2.7 | 2.0 | 1.7 | 2.5 | 2.2 | 1.2 | 5.7 | 1.8 |
| 16 | 1.9 | 1.1 | 1.3 | 1.3 | 1.0 | 1.4 | 1.3 | 1.8 | 4.0 | 1.7 | 1.1 | 0.9 | 1.1 | 1.7 | 1.1 | 1.6 | 1.5 | 0.8 | 1.0 | 1.0 | 0.6 | 0.5 | 0.5 | 0.4 | 4.0 | 1.3 |
| 17 | 0.5 | 0.6 | 0.4 | 0.4 | 0.4 | 0.7 | 0.8 | 1.4 | 1.5 | 2.1 | 6.2 | 6.0 | 1.9 | 7.9 | 7.4 | 5.2 | 3.0 | 3.5 | 3.4 | 2.2 | 2.0 | 1.8 | 1.4 | 1.5 | 7.9 | 2.6 |
| 18 | 1.4 | 1.9 | 1.6 | 0.9 | 0.4 | 0.2 | 0.3 | 0.6 | 0.5 | 0.4 | 0.5 | 2.2 | 1.4 | 2.1 | 2.1 | 2.2 | 1.5 | 2.9 | 1.4 | 3.2 | 0.3 | 0.3 | 0.7 | 0.4 | 3.2 | 1.2 |
| 19 | 0.6 | 0.3 | 0.5 | 0.5 | 1.4 | 0.9 | 1.5 | 6.1 | 2.1 | 3.4 | 3.4 | 3.7 | 1.9 | 3.3 | 1.4 | 2.0 | 1.5 | 1.6 | 5.8 | 2.6 | 1.4 | 1.0 | 0.4 | 1.0 | 6.1 | 2.0 |
| 20 | 0.6 | 0.7 | 0.4 | 0.4 | 0.4 | 2.3 | 1.4 | 4.6 | 7.0 | 5.6 | 7.3 | 2.4 | 3.6 | 2.9 | 3.2 | 2.0 | 1.9 | 1.4 | 1.2 | 1.4 | 1.6 | 3.0 | 2.6 | 3.3 | 7.3 | 2.5 |
| 21 | 4.2 | 5.2 | 4.5 | 5.1 | 4.8 | 6.1 | 5.4 | 3.8 | 9.9 | 13.3 | 10.9 | 6.4 | 9.3 | 8.6 | 11.3 | 7.7 | 5.8 | 5.6 | 7.4 | 5.1 | 4.0 | 8.4 | 2.9 | 1.9 | 13.3 | 6.6 |
| 22 | 1.4 | 1.5 | 1.2 | 1.1 | 1.6 | 1.2 | 1.1 | 1.0 | 0.6 | 4.3 | 8.5 | 12.4 | 10.6 | 16.4 | 16.6 | 13.8 | 6.0 | 4.6 | 4.4 | 2.0 | 3.2 | 1.7 | 1.4 | 0.5 | 16.6 | 4.9 |
| 23 | 0.7 | 1.7 | 2.3 | 2.9 | 1.9 | 1.0 | 1.0 | 7.5 | 4.2 | 10.3 | 6.3 | 1.9 | 9.4 | 11.3 | 10.3 | 9.0 | 7.9 | 5.6 | 4.4 | 2.3 | 1.9 | 2.2 | 2.2 | 3.9 | 11.3 | 4.7 |
| 24 | 3.2 | 3.0 | 2.9 | 2.5 | 2.3 | 2.5 | 3.0 | 5.7 | 25.6 | 50.3 | 20.5 | 7.8 | 11.3 | 10.6 | 10.6 | 6.7 | 1.9 | 1.7 | 1.5 | 1.5 | 5.7 | 1.7 | 2.0 | 1.6 | 50.3 | 7.8 |
| 25 | 0.5 | 1.3 | 2.8 | 1.5 | 0.8 | 0.6 | 0.8 | 0.9 | 2.3 | 4.1 | 8.9 | 4.3 | 7.5 | 5.6 | 6.7 | 6.3 | 18.9 | 16.5 | 7.7 | 6.7 | 0.5 | 1.9 | 1.8 | 2.1 | 18.9 | 4.6 |
| 26 | 2.6 | 2.3 | 3.4 | 1.3 | 1.5 | 0.5 | 0.8 | 1.2 | 1.0 | 1.3 | 4.1 | 2.0 | 3.6 | 6.0 | 3.8 | 4.1 | 5.3 | 4.7 | 0.7 | 1.0 | 0.4 | 0.4 | 2.6 | 0.7 | 6.0 | 2.3 |
| 27 | 0.6 | 0.7 | 0.6 | 0.5 | 0.5 | 0.7 | 1.5 | 3.0 | 7.1 | 9.6 | 12.8 | 8.8 | 11.1 | 13.8 | 14.5 | 10.1 | 5.7 | 2.8 | 7.2 | 6.3 | 11.1 | 3.3 | 0.6 | 0.6 | 14.5 | 5.6 |
| 28 | 1.1 | 0.7 | 0.4 | 0.3 | 0.6 | 1.8 | 3.9 | 5.7 | 11.5 | 21.1 | 28.8 | 24.4 | 29.1 | 38.2 | 14.1 | 9.8 | 8.8 | 14.5 | 4.3 | 4.4 | 0.5 | 0.4 | 0.4 | 0.6 | 38.2 | 9.4 |
| 29 | 1.0 | 0.8 | 1.0 | 0.9 | 0.4 | 1.1 | 5.2 | 3.1 | 2.0 | 3.4 | 7.0 | 9.0 | 4.9 | 1.7 | 6.8 | 20.4 | 6.7 | 3.0 | 3.3 | 3.1 | 0.9 | 0.7 | 1.9 | 0.7 | 20.4 | 3.7 |
| 30 | 0.9 | 0.7 | 2.0 | 1.1 | 1.7 | 0.8 | 0.8 | 1.8 | 1.7 | 2.4 | 4.8 | 2.1 | 3.5 | 1.4 | 0.7 | 0.7 | 1.6 | 0.6 | 1.1 | 1.6 | 1.0 | 5.3 | 6.4 | 4.4 | 6.4 | 2.0 |
| 31 | 7.2 | 6.9 | 6.7 | 1.8 | 1.4 | 1.3 | 1.8 | 1.4 | 0.8 | 0.9 | 1.8 | 2.9 | 2.9 | 2.2 | 4.8 | 3.8 | 1.9 | 2.8 | 2.1 | 2.0 | 3.2 | 3.7 | 1.8 | 2.1 | 7.2 | 2.8 |
| Hourly Max | 14.4 | 15.1 | 12.0 | 7.9 | 7.6 | 7.8 | 10.1 | 33.7 | 41.4 | 50.3 | 30.4 | 31.3 | 29.1 | 38.2 | 18.0 | 23.7 | 18.9 | 19.5 | 17.8 | 39.3 | 30.5 | 22.6 | 12.4 | 23.4 | | |
| Hourly Average | 3.7 | 3.5 | 3.4 | 2.8 | 2.5 | 2.5 | 2.8 | 5.2 | 6.7 | 8.7 | 8.3 | 7.3 | 7.2 | 7.5 | 7.2 | 7.2 | 5.8 | 6.2 | 5.3 | 5.1 | 4.4 | 4.0 | 3.3 | 3.7 | | |




| | | | | | |
|---|---|---|---|---|---|
| Number of 1HR Exceedances | 0 | | Guideline | 80 | UG/M3 |
| Number of 24HR Exceedances | 0 | | Guideline | 30 | UG/M3 |
| Number of Non-Zero Readings | 744 | | | | |
| Maximum 1-HR Average | 50.3 | UG/M3 | | | |
| Maximum 24-HR Average | 13.5 | UG/M3 | | | |
| IZS Calibration Time | 0 | HRS | Operational Time | 744 | HRS |
| Monthly Calibration Time | 0 | HRS | Operational Uptime | 100.0 | % |
| Standard Deviation | 5.7 | | Monthly Average | 5.2 | UG/M3 |

# Berm $PM_{10}$ (µg/m$^3$) – March 2017

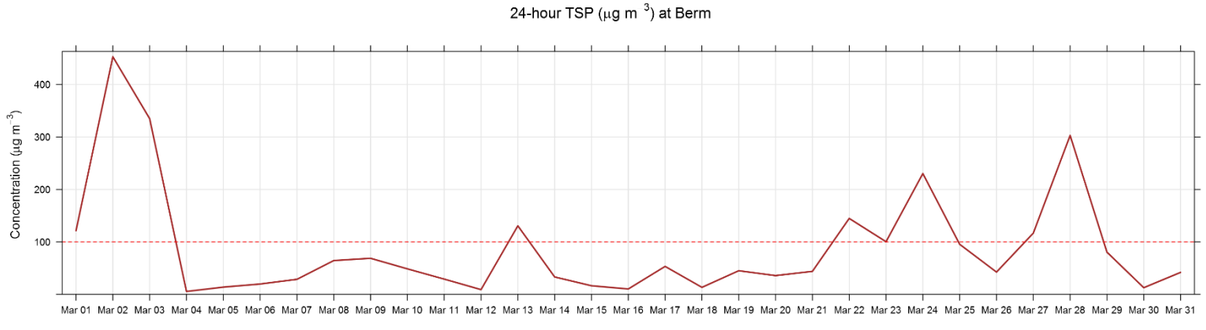
| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 34.7 | 18.5 | 11.3 | 13.4 | 7.4 | 4.6 | 3.8 | 9.8 | 11.2 | 35.9 | 37.7 | 42.7 | 110.8 | 93.6 | 78.7 | 128.2 | 109.1 | 45.1 | 80.4 | 3.8 | 7.0 | 10.4 | 1.6 | 1.7 | 128.2 | 37.6 |
| 2 | 1.8 | 1.6 | 1.2 | 0.6 | 0.7 | 0.6 | 0.9 | 5.5 | 31.2 | 101.1 | 145.9 | 279.6 | 182.4 | 102.5 | 160.6 | 199.3 | 168.1 | 164.9 | 172.1 | 415.7 | 310.5 | 236.3 | 116.7 | 239.9 | 415.7 | 126.7 |
| 3 | 126.1 | 139.8 | 52.9 | 31.5 | 29.0 | 8.2 | 7.2 | 306.4 | 385.3 | 385.5 | 296.8 | 182.8 | 80.2 | 40.6 | 48.1 | 30.0 | 6.6 | 5.2 | 3.3 | 4.8 | 4.4 | 4.6 | 11.1 | 37.3 | 385.5 | 92.8 |
| 4 | 7.9 | 6.9 | 6.8 | 5.4 | 3.1 | 5.3 | 6.4 | 4.5 | 15.3 | 10.2 | 6.4 | 3.5 | 2.3 | 1.2 | 1.6 | 2.5 | 3.2 | 14.0 | 11.2 | 10.6 | 2.3 | 2.9 | 3.2 | 3.8 | 15.3 | 5.9 |
| 5 | 4.3 | 4.4 | 5.1 | 4.3 | 3.8 | 3.4 | 3.6 | 7.0 | 7.0 | 9.4 | 10.3 | 11.9 | 9.2 | 11.6 | 20.8 | 13.7 | 17.4 | 26.6 | 10.4 | 11.2 | 11.1 | 10.2 | 10.3 | 10.2 | 26.6 | 9.9 |
| 6 | 8.9 | 7.4 | 6.5 | 7.2 | 7.6 | 8.0 | 8.4 | 8.8 | 12.7 | 28.2 | 24.8 | 13.5 | 17.9 | 16.7 | 10.6 | 9.5 | 17.1 | 17.3 | 11.4 | 7.6 | 6.3 | 5.0 | 4.7 | 4.8 | 28.2 | 11.3 |
| 7 | 4.8 | 5.3 | 7.3 | 7.2 | 9.0 | 5.4 | 13.3 | 27.4 | 18.8 | 45.6 | 28.3 | 19.4 | 28.3 | 17.2 | 26.0 | 16.2 | 18.2 | 15.9 | 19.2 | 9.0 | 7.4 | 12.0 | 12.2 | 12.4 | 45.6 | 16.1 |
| 8 | 20.1 | 16.8 | 13.0 | 10.8 | 7.7 | 7.5 | 5.0 | 9.3 | 10.1 | 10.5 | 9.1 | 10.1 | 18.0 | 15.2 | 11.3 | 21.5 | 19.3 | 17.3 | 6.5 | 6.3 | 5.6 | 7.3 | 5.6 | 3.4 | 21.5 | 11.1 |
| 9 | 3.3 | 3.1 | 8.3 | 3.7 | 3.0 | 3.3 | 2.8 | 3.3 | 4.7 | 7.4 | 12.9 | 12.9 | 9.6 | 26.7 | 38.6 | 27.3 | 33.1 | 37.9 | 58.0 | 10.5 | 17.6 | 10.9 | 8.2 | 7.7 | 58.0 | 14.8 |
| 10 | 7.6 | 6.3 | 4.4 | 5.3 | 4.8 | 4.0 | 5.3 | 7.3 | 8.8 | 6.2 | 4.9 | 6.6 | 9.2 | 6.8 | 19.5 | 59.7 | 32.5 | 15.6 | 7.9 | 11.8 | 8.2 | 9.1 | 5.2 | 5.1 | 59.7 | 10.9 |
| 11 | 5.6 | 4.7 | 5.1 | 8.3 | 9.1 | 10.1 | 11.1 | 10.9 | 7.7 | 5.6 | 7.1 | 10.4 | 9.0 | 10.8 | 8.7 | 19.2 | 13.3 | 20.2 | 12.9 | 10.5 | 8.5 | 6.8 | 6.2 | 6.5 | 20.2 | 9.5 |
| 12 | 6.8 | 6.2 | 5.5 | 5.8 | 5.6 | 5.5 | 6.0 | 5.9 | 6.1 | 8.1 | 18.2 | 20.3 | 16.3 | 14.4 | 6.4 | 5.1 | 5.8 | 5.0 | 5.6 | 6.5 | 7.0 | 6.9 | 11.0 | 14.5 | 20.3 | 8.5 |
| 13 | 13.7 | 11.0 | 122.3 | 66.9 | 40.6 | 16.5 | 14.0 | 44.7 | 51.4 | 43.3 | 26.3 | 58.0 | 32.0 | 59.1 | 47.7 | 26.9 | 26.5 | 44.5 | 12.5 | 7.5 | 4.6 | 5.1 | 1.4 | 0.8 | 122.3 | 32.4 |
| 14 | 1.2 | 0.5 | 0.2 | 0.2 | 0.1 | 0.3 | 0.2 | 9.7 | 4.6 | 3.0 | 2.2 | 9.2 | 25.4 | 36.0 | 66.6 | 51.0 | 13.2 | 11.4 | 3.7 | 0.5 | 0.5 | 0.6 | 0.4 | 0.3 | 66.6 | 10.0 |
| 15 | 0.3 | 0.5 | 1.3 | 0.9 | 2.2 | 5.0 | 0.6 | 2.2 | 2.5 | 5.5 | 9.7 | 8.2 | 10.0 | 11.4 | 7.9 | 28.5 | 3.7 | 11.7 | 8.8 | 6.2 | 3.9 | 8.4 | 5.4 | 1.5 | 28.5 | 6.1 |
| 16 | 4.4 | 1.8 | 2.3 | 2.2 | 1.3 | 3.4 | 1.5 | 2.3 | 5.9 | 2.4 | 2.8 | 2.3 | 4.4 | 9.3 | 5.3 | 7.2 | 9.1 | 3.4 | 3.5 | 4.8 | 1.7 | 1.0 | 1.5 | 0.7 | 9.3 | 3.5 |
| 17 | 1.5 | 2.2 | 1.0 | 0.9 | 0.6 | 2.1 | 3.5 | 6.6 | 5.6 | 12.7 | 48.8 | 48.0 | 9.6 | 58.4 | 58.3 | 35.3 | 17.2 | 21.1 | 23.0 | 14.0 | 9.5 | 5.5 | 5.8 | 9.7 | 58.4 | 16.7 |
| 18 | 9.1 | 14.7 | 11.5 | 5.5 | 1.7 | 0.2 | 0.3 | 0.7 | 0.5 | 0.4 | 1.1 | 10.4 | 5.6 | 9.4 | 10.5 | 6.5 | 2.8 | 5.6 | 2.0 | 4.8 | 0.4 | 0.5 | 1.4 | 1.1 | 14.7 | 4.4 |
| 19 | 1.4 | 0.4 | 0.7 | 0.6 | 7.4 | 2.6 | 6.8 | 41.9 | 11.7 | 19.8 | 28.3 | 34.7 | 15.3 | 21.8 | 9.5 | 11.4 | 8.6 | 9.4 | 31.8 | 20.1 | 7.6 | 5.3 | 0.8 | 4.3 | 41.9 | 12.6 |
| 20 | 2.0 | 4.0 | 0.6 | 0.6 | 0.8 | 15.1 | 8.7 | 41.9 | 69.4 | 46.8 | 65.0 | 17.5 | 17.5 | 14.6 | 15.6 | 6.9 | 5.3 | 3.9 | 2.8 | 3.1 | 3.1 | 8.6 | 4.4 | 6.5 | 69.4 | 15.2 |
| 21 | 7.4 | 9.0 | 6.7 | 8.0 | 7.7 | 12.1 | 11.9 | 15.5 | 50.6 | 65.3 | 66.0 | 31.3 | 65.9 | 57.5 | 63.6 | 20.6 | 14.3 | 19.2 | 31.0 | 10.5 | 7.6 | 30.1 | 5.5 | 3.2 | 66.0 | 25.9 |
| 22 | 2.3 | 2.3 | 1.5 | 1.2 | 2.1 | 1.5 | 1.4 | 1.2 | 0.9 | 39.3 | 76.2 | 104.3 | 93.1 | 135.4 | 149.6 | 121.2 | 44.7 | 28.6 | 28.8 | 10.3 | 16.5 | 12.1 | 6.6 | 1.1 | 149.6 | 36.8 |
| 23 | 1.5 | 9.4 | 8.8 | 12.2 | 5.1 | 3.4 | 2.8 | 72.5 | 37.2 | 83.6 | 51.3 | 8.9 | 76.4 | 118.6 | 104.5 | 91.4 | 68.6 | 42.1 | 15.6 | 3.6 | 2.3 | 3.7 | 3.1 | 10.9 | 118.6 | 34.9 |
| 24 | 6.5 | 6.7 | 5.8 | 4.1 | 3.4 | 4.5 | 10.6 | 32.8 | 227.1 | 494.2 | 167.7 | 48.9 | 78.2 | 92.8 | 88.8 | 48.6 | 13.5 | 11.3 | 6.4 | 7.4 | 50.1 | 8.5 | 10.2 | 10.1 | 494.2 | 59.9 |
| 25 | 1.7 | 9.2 | 24.1 | 12.3 | 4.5 | 2.1 | 4.2 | 3.7 | 16.9 | 34.7 | 76.6 | 32.0 | 56.0 | 39.2 | 49.3 | 51.0 | 90.1 | 90.5 | 51.6 | 48.8 | 2.3 | 11.7 | 7.8 | 17.4 | 90.5 | 30.7 |
| 26 | 21.3 | 20.1 | 38.4 | 9.9 | 13.7 | 2.5 | 3.7 | 6.0 | 3.0 | 3.7 | 26.9 | 11.2 | 17.1 | 39.4 | 21.2 | 22.6 | 31.2 | 28.6 | 2.4 | 1.3 | 0.5 | 0.6 | 19.1 | 1.6 | 39.4 | 14.4 |
| 27 | 1.0 | 1.1 | 0.8 | 0.7 | 0.7 | 1.4 | 7.9 | 21.6 | 54.6 | 75.8 | 96.3 | 57.4 | 64.7 | 100.0 | 106.9 | 62.3 | 44.0 | 19.4 | 54.6 | 58.9 | 97.3 | 36.3 | 1.9 | 0.9 | 106.9 | 40.3 |
| 28 | 5.8 | 2.5 | 0.5 | 0.5 | 2.9 | 13.4 | 37.5 | 47.8 | 111.4 | 183.3 | 255.7 | 189.7 | 266.5 | 334.2 | 122.4 | 86.2 | 73.6 | 136.2 | 38.4 | 36.1 | 1.7 | 1.1 | 0.8 | 2.0 | 334.2 | 81.3 |
| 29 | 4.9 | 4.3 | 5.5 | 4.6 | 1.5 | 6.2 | 20.3 | 11.9 | 8.6 | 26.4 | 40.5 | 72.1 | 50.2 | 9.0 | 48.6 | 131.5 | 54.0 | 20.6 | 18.1 | 20.0 | 3.4 | 1.9 | 6.3 | 1.8 | 131.5 | 23.8 |
| 30 | 2.5 | 1.7 | 6.0 | 3.3 | 4.5 | 1.1 | 1.1 | 2.5 | 7.2 | 16.8 | 29.1 | 8.5 | 22.3 | 4.5 | 2.0 | 0.8 | 1.9 | 0.7 | 1.2 | 2.1 | 1.3 | 7.0 | 7.7 | 5.5 | 29.1 | 5.9 |
| 31 | 10.4 | 9.1 | 8.4 | 2.0 | 1.7 | 1.4 | 2.2 | 1.6 | 1.0 | 2.4 | 11.7 | 13.1 | 26.5 | 14.3 | 34.2 | 27.4 | 13.6 | 17.3 | 17.3 | 14.2 | 15.0 | 14.4 | 6.7 | 10.6 | 34.2 | 11.5 |
| Hourly Max | 126.1 | 139.8 | 122.3 | 66.9 | 40.6 | 16.5 | 37.5 | 306.4 | 385.3 | 494.2 | 296.8 | 279.6 | 266.5 | 334.2 | 160.6 | 199.3 | 168.1 | 164.9 | 172.1 | 415.7 | 310.5 | 236.3 | 116.7 | 239.9 | | |
| Hourly Average | 10.7 | 10.7 | 12.1 | 7.7 | 6.2 | 5.2 | 6.9 | 25.0 | 38.4 | 58.5 | 54.3 | 44.5 | 46.1 | 49.1 | 46.6 | 44.2 | 31.6 | 29.4 | 24.3 | 25.2 | 20.2 | 15.6 | 9.4 | 14.1 | | |




| | | | | | |
|---|---|---|---|---|---|
| Number of 1HR Exceedances | n/a | | Guideline | n/a | UG/M3 |
| Number of Non-Zero Readings | 744 | | | | |
| Maximum 1-HR Average | 494.2 | UG/M3 | | | |
| Maximum 24-HR Average | 126.7 | UG/M3 | | | |
| IZS Calibration Time | 0 | HRS | Operational Time | 744 | HRS |
| Monthly Calibration Time | 0 | HRS | Operational Uptime | 100.0 | % |
| Standard Deviation | 52.2 | | Monthly Average | 26.5 | UG/M3 |

# Berm TSP (µg/m$^3$) – March 2017

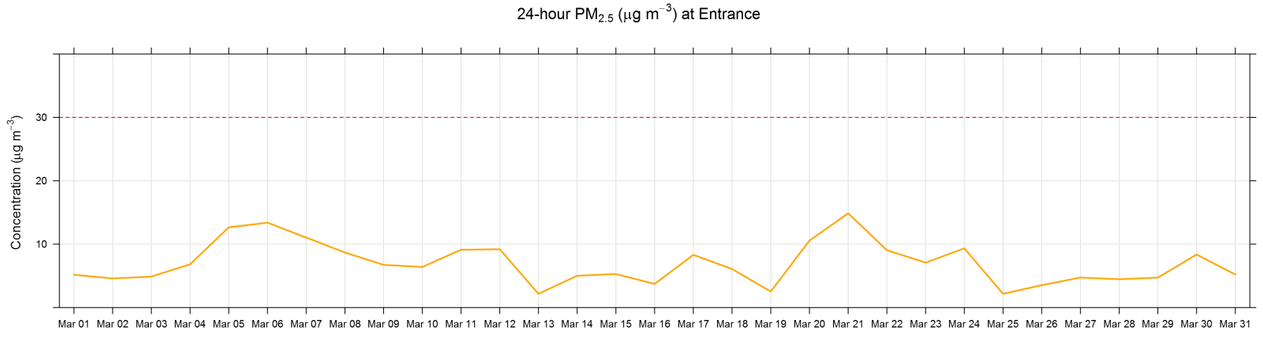
| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 131.9 | 61.4 | 27.4 | 23.8 | 11.7 | 9.3 | 8.5 | 23.3 | 32.0 | 134.3 | 142.1 | 141.0 | 304.7 | 384.2 | 274.3 | 497.5 | 361.3 | 135.2 | 170.9 | 10.0 | 12.1 | 14.3 | 1.4 | 2.2 | 497.5 | 121.5 |
| 2 | 1.4 | 1.2 | 0.8 | 0.4 | 1.3 | 0.8 | 1.7 | 18.3 | 98.7 | 350.3 | 451.8 | 838.5 | 538.0 | 336.5 | 522.6 | 685.5 | 627.8 | 664.3 | 647.2 | 1574.7 | 1173.5 | 886.9 | 455.9 | 995.5 | 1574.7 | 453.1 |
| 3 | 544.3 | 613.6 | 250.1 | 123.6 | 117.9 | 19.5 | 33.9 | 1225.6 | 1395.1 | 1327.8 | 985.5 | 636.9 | 258.6 | 119.0 | 116.3 | 62.1 | 12.3 | 10.2 | 7.7 | 6.0 | 4.2 | 7.3 | 8.6 | 154.0 | 1395.1 | 335.0 |
| 4 | 7.9 | 5.8 | 6.1 | 4.4 | 2.2 | 4.3 | 5.4 | 3.8 | 16.6 | 11.1 | 6.3 | 3.3 | 2.2 | 0.8 | 1.1 | 1.6 | 2.4 | 15.8 | 12.5 | 11.7 | 1.5 | 1.9 | 2.1 | 2.4 | 16.6 | 5.5 |
| 5 | 2.8 | 2.8 | 3.3 | 2.8 | 2.5 | 2.2 | 2.4 | 4.6 | 4.7 | 6.1 | 6.8 | 9.0 | 6.0 | 46.7 | 127.8 | 13.0 | 17.0 | 29.3 | 7.1 | 7.3 | 7.2 | 6.6 | 6.7 | 6.6 | 127.8 | 13.8 |
| 6 | 5.8 | 4.8 | 4.2 | 4.7 | 4.9 | 5.2 | 5.4 | 5.8 | 9.7 | 24.6 | 46.8 | 19.0 | 37.1 | 54.6 | 25.5 | 15.6 | 150.9 | 18.3 | 10.4 | 5.6 | 4.5 | 3.3 | 3.2 | 3.1 | 150.9 | 19.7 |
| 7 | 3.2 | 3.6 | 4.8 | 4.9 | 6.3 | 3.7 | 13.1 | 29.3 | 20.9 | 61.8 | 79.5 | 51.4 | 79.9 | 55.8 | 67.9 | 30.0 | 44.7 | 32.9 | 50.7 | 8.1 | 5.2 | 9.7 | 9.9 | 10.6 | 79.9 | 28.7 |
| 8 | 21.4 | 18.5 | 14.1 | 11.5 | 6.8 | 6.1 | 3.8 | 8.9 | 9.6 | 10.6 | 9.2 | 56.4 | 180.6 | 179.9 | 92.4 | 284.5 | 350.6 | 250.0 | 6.5 | 5.8 | 5.0 | 6.8 | 4.8 | 2.5 | 350.6 | 64.4 |
| 9 | 2.2 | 2.0 | 8.4 | 2.8 | 1.9 | 2.2 | 1.8 | 2.4 | 35.4 | 75.8 | 76.4 | 60.9 | 42.9 | 86.4 | 164.9 | 236.3 | 294.2 | 309.2 | 185.7 | 11.6 | 20.2 | 11.2 | 8.0 | 7.4 | 309.2 | 68.8 |
| 10 | 7.6 | 6.0 | 3.6 | 4.1 | 3.5 | 2.8 | 4.2 | 7.0 | 9.4 | 5.6 | 3.8 | 5.6 | 68.7 | 36.3 | 180.0 | 442.1 | 250.3 | 76.9 | 13.9 | 12.3 | 7.5 | 8.7 | 3.5 | 3.4 | 442.1 | 48.6 |
| 11 | 3.9 | 3.1 | 3.4 | 7.4 | 7.9 | 9.8 | 10.5 | 9.6 | 5.6 | 3.7 | 13.9 | 37.3 | 47.8 | 31.2 | 19.0 | 124.1 | 43.5 | 268.5 | 13.8 | 10.1 | 8.4 | 5.2 | 4.5 | 5.3 | 268.5 | 29.1 |
| 12 | 5.5 | 4.6 | 3.6 | 3.9 | 3.6 | 3.7 | 3.9 | 4.0 | 4.1 | 6.2 | 25.3 | 28.8 | 25.4 | 14.7 | 6.2 | 7.8 | 8.7 | 4.7 | 4.3 | 5.9 | 5.2 | 6.2 | 12.3 | 18.8 | 28.8 | 9.1 |
| 13 | 12.8 | 9.1 | 536.6 | 316.1 | 189.3 | 77.1 | 46.7 | 190.3 | 231.5 | 219.6 | 99.0 | 207.6 | 129.7 | 216.9 | 184.0 | 95.2 | 104.2 | 160.4 | 30.5 | 30.4 | 14.4 | 25.2 | 7.2 | 3.0 | 536.6 | 130.7 |
| 14 | 4.8 | 1.0 | 0.2 | 0.1 | 0.1 | 0.2 | 0.5 | 27.1 | 13.5 | 6.8 | 5.0 | 16.4 | 66.3 | 103.3 | 245.3 | 220.3 | 49.7 | 28.5 | 5.4 | 0.3 | 0.4 | 0.5 | 0.2 | 0.2 | 245.3 | 33.2 |
| 15 | 0.2 | 0.4 | 1.1 | 0.7 | 2.1 | 5.1 | 0.4 | 1.9 | 2.5 | 10.3 | 38.9 | 31.3 | 42.3 | 49.3 | 16.1 | 93.4 | 10.0 | 24.0 | 19.7 | 15.1 | 4.5 | 15.7 | 7.4 | 1.4 | 93.4 | 16.4 |
| 16 | 5.6 | 3.0 | 3.7 | 4.4 | 1.4 | 21.2 | 1.2 | 1.9 | 5.8 | 2.1 | 8.1 | 5.9 | 13.9 | 30.5 | 18.5 | 31.9 | 29.5 | 11.9 | 10.9 | 25.6 | 5.1 | 1.3 | 3.5 | 0.7 | 31.9 | 10.3 |
| 17 | 9.5 | 13.1 | 2.2 | 2.2 | 0.8 | 2.5 | 8.1 | 16.8 | 11.6 | 32.5 | 128.0 | 138.8 | 28.4 | 187.3 | 202.5 | 120.1 | 54.2 | 78.0 | 85.8 | 54.3 | 27.6 | 10.1 | 13.7 | 51.5 | 202.5 | 53.3 |
| 18 | 42.6 | 73.2 | 58.8 | 30.4 | 12.4 | 0.4 | 0.2 | 0.6 | 0.4 | 0.4 | 1.0 | 21.2 | 7.3 | 15.4 | 18.2 | 7.8 | 1.9 | 6.3 | 1.8 | 3.1 | 0.3 | 1.2 | 8.1 | 8.0 | 73.2 | 13.4 |
| 19 | 1.4 | 0.3 | 0.5 | 0.4 | 25.1 | 4.5 | 25.6 | 142.8 | 45.6 | 78.2 | 120.7 | 144.8 | 73.5 | 79.7 | 46.1 | 55.2 | 38.6 | 34.8 | 64.4 | 63.9 | 17.3 | 11.4 | 0.6 | 6.4 | 144.8 | 45.1 |
| 20 | 6.1 | 11.8 | 1.6 | 0.4 | 2.1 | 41.9 | 12.4 | 95.7 | 194.4 | 95.6 | 147.5 | 38.3 | 38.2 | 48.3 | 38.5 | 22.7 | 15.2 | 9.3 | 4.2 | 5.5 | 5.7 | 11.9 | 4.5 | 7.0 | 194.4 | 35.8 |
| 21 | 8.1 | 10.2 | 5.1 | 7.2 | 6.2 | 14.5 | 12.7 | 43.6 | 131.5 | 141.7 | 161.2 | 52.9 | 101.7 | 86.3 | 108.9 | 27.6 | 20.3 | 25.0 | 33.8 | 9.0 | 5.7 | 30.6 | 4.8 | 4.3 | 161.2 | 43.9 |
| 22 | 3.0 | 2.2 | 1.0 | 0.8 | 1.8 | 1.1 | 1.1 | 0.9 | 1.4 | 111.3 | 308.3 | 433.1 | 456.6 | 612.0 | 599.9 | 438.0 | 163.2 | 97.3 | 101.5 | 40.3 | 42.4 | 38.2 | 16.4 | 3.0 | 612.0 | 144.8 |
| 23 | 2.2 | 32.4 | 13.2 | 19.8 | 3.3 | 8.7 | 3.0 | 167.6 | 95.3 | 211.5 | 224.7 | 18.3 | 219.7 | 333.9 | 330.3 | 321.9 | 233.6 | 126.4 | 15.2 | 4.5 | 1.6 | 4.7 | 2.0 | 15.5 | 333.9 | 100.4 |
| 24 | 5.3 | 9.2 | 8.8 | 3.0 | 2.9 | 7.6 | 18.7 | 97.7 | 899.6 | 2013.9 | 644.4 | 170.1 | 266.7 | 398.9 | 324.2 | 174.5 | 53.7 | 54.4 | 25.0 | 32.0 | 185.6 | 34.6 | 49.9 | 48.1 | 2013.9 | 230.4 |
| 25 | 6.3 | 36.0 | 109.7 | 44.7 | 12.0 | 5.0 | 10.1 | 8.8 | 59.0 | 122.3 | 250.9 | 109.4 | 146.9 | 143.5 | 114.7 | 178.2 | 228.4 | 230.2 | 165.9 | 144.5 | 8.5 | 45.9 | 35.3 | 74.9 | 250.9 | 95.5 |
| 26 | 88.7 | 71.4 | 150.1 | 32.4 | 51.6 | 6.3 | 12.3 | 16.7 | 7.5 | 5.2 | 72.8 | 51.7 | 50.8 | 118.1 | 43.7 | 55.1 | 72.6 | 74.0 | 5.2 | 1.0 | 0.3 | 0.4 | 28.2 | 3.5 | 150.1 | 42.5 |
| 27 | 0.6 | 0.7 | 0.5 | 0.7 | 0.5 | 1.9 | 16.2 | 63.7 | 172.6 | 249.9 | 267.8 | 139.6 | 162.4 | 228.3 | 287.5 | 195.2 | 159.7 | 59.6 | 180.4 | 131.3 | 337.1 | 140.7 | 4.7 | 0.6 | 337.1 | 116.8 |
| 28 | 19.6 | 4.7 | 0.5 | 1.3 | 12.2 | 48.2 | 122.2 | 159.4 | 312.9 | 644.3 | 943.5 | 696.5 | 940.5 | 1267.9 | 482.7 | 385.4 | 332.5 | 543.6 | 182.3 | 151.8 | 5.4 | 4.0 | 1.3 | 9.8 | 1267.9 | 303.0 |
| 29 | 26.6 | 19.8 | 23.5 | 25.0 | 4.2 | 25.1 | 61.5 | 27.7 | 17.9 | 68.6 | 111.9 | 183.2 | 148.6 | 19.7 | 129.2 | 530.9 | 278.3 | 95.5 | 56.1 | 59.6 | 8.5 | 2.8 | 5.0 | 1.3 | 530.9 | 80.4 |
| 30 | 2.0 | 1.1 | 4.7 | 2.8 | 5.6 | 0.8 | 0.8 | 2.5 | 17.6 | 62.3 | 96.1 | 16.4 | 56.0 | 12.2 | 2.5 | 0.6 | 1.3 | 0.5 | 0.9 | 1.7 | 1.2 | 6.0 | 5.1 | 3.7 | 96.1 | 12.7 |
| 31 | 10.1 | 7.0 | 6.2 | 1.5 | 1.3 | 1.0 | 1.8 | 1.2 | 0.7 | 8.7 | 43.6 | 34.6 | 125.0 | 62.4 | 126.9 | 124.8 | 75.0 | 76.4 | 99.0 | 61.6 | 52.6 | 28.5 | 14.7 | 41.3 | 126.9 | 41.9 |
| Hourly Max | 544.3 | 613.6 | 536.6 | 316.1 | 189.3 | 77.1 | 122.2 | 1225.6 | 1395.1 | 2013.9 | 985.5 | 838.5 | 940.5 | 1267.9 | 599.9 | 685.5 | 627.8 | 664.3 | 647.2 | 1574.7 | 1173.5 | 886.9 | 455.9 | 995.5 | | |
| Hourly Average | 32.1 | 33.4 | 40.6 | 22.2 | 16.3 | 11.1 | 14.5 | 77.7 | 124.6 | 196.9 | 178.1 | 141.9 | 150.5 | 172.9 | 158.6 | 176.7 | 131.8 | 114.6 | 71.6 | 80.8 | 63.8 | 44.6 | 23.7 | 48.3 | | |




| | | | | | |
|---|---|---|---|---|---|
| Number of 24HR Exceedances | 9 | | Guideline | 100 | UG/M3 |
| Number of Non-Zero Readings | 744 | | | | |
| Maximum 1-HR Average | 2013.9 | UG/M3 | | | |
| Maximum 24-HR Average | 453.1 | UG/M3 | | | |
| IZS Calibration Time | 0 | HRS | Operational Time | 744 | HRS |
| Monthly Calibration Time | 0 | HRS | Operational Uptime | 100.0 | % |
| Standard Deviation | 197.4 | | Monthly Average | 88.6 | UG/M3 |

# Entrance $PM_{2.5}$ (µg/m$^3$) – March 2017

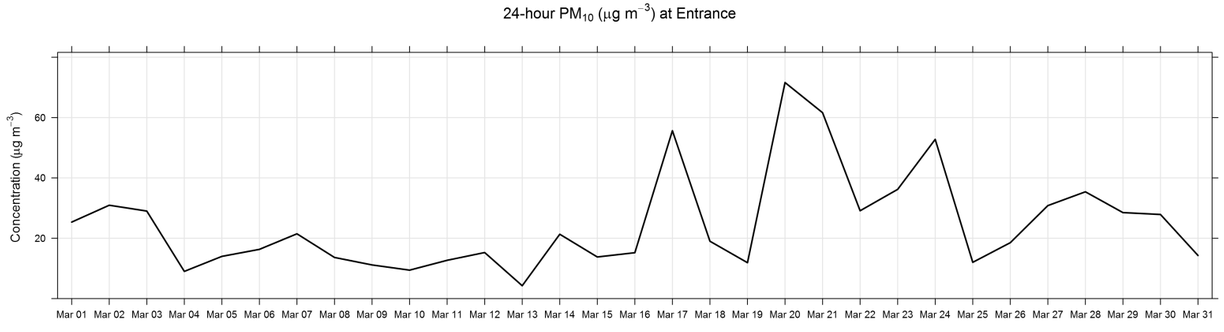
| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.6 | 1.1 | 1.2 | 1.1 | 1.4 | 1.4 | 1.9 | 13.8 | 19.0 | 15.5 | 13.3 | 5.5 | 3.8 | 2.9 | 3.2 | 8.0 | 2.9 | 1.2 | 4.4 | 4.5 | 3.6 | 7.1 | 2.8 | 2.9 | 19.0 | 5.2 |
| 2 | 7.0 | 6.5 | 3.6 | 1.4 | 1.4 | 2.1 | 4.0 | 7.4 | 10.8 | 4.9 | 4.7 | 6.1 | 4.0 | 5.1 | 5.7 | 4.7 | 2.8 | 3.2 | 3.3 | 4.6 | 4.5 | 4.7 | 2.8 | 5.1 | 10.8 | 4.6 |
| 3 | 1.7 | 2.1 | 1.2 | 0.8 | 0.7 | 0.4 | 6.6 | 6.3 | 7.0 | 10.0 | 6.1 | 4.9 | 3.4 | 4.8 | 4.2 | 3.9 | 2.9 | 2.7 | 2.8 | 1.7 | 5.8 | 13.0 | 16.0 | 8.2 | 16.0 | 4.9 |
| 4 | 7.0 | 7.3 | 8.2 | 4.9 | 4.5 | 5.2 | 6.3 | 4.1 | 6.4 | 6.0 | 3.9 | 3.4 | 5.5 | 4.6 | 2.9 | 3.4 | 4.0 | 10.7 | 12.9 | 30.9 | 6.9 | 4.2 | 4.9 | 5.2 | 30.9 | 6.8 |
| 5 | 6.6 | 6.9 | 8.0 | 7.7 | 7.3 | 7.1 | 6.3 | 9.2 | 10.7 | 13.4 | 14.8 | 15.3 | 15.6 | 14.7 | 16.2 | 15.1 | 15.7 | 23.6 | 14.0 | 15.4 | 15.7 | 15.7 | 14.4 | 14.5 | 23.6 | 12.7 |
| 6 | 13.9 | 13.0 | 11.1 | 12.6 | 13.3 | 14.4 | 13.0 | 18.1 | 14.1 | 23.0 | 21.2 | 16.3 | 14.3 | 12.4 | 12.1 | 11.8 | 12.1 | 21.4 | 12.6 | 7.9 | 7.6 | 10.8 | 8.0 | 6.4 | 23.0 | 13.4 |
| 7 | 7.0 | 9.6 | 13.1 | 15.1 | 14.8 | 9.7 | 8.6 | 24.0 | 13.6 | 19.3 | 13.1 | 11.4 | 9.9 | 9.0 | 8.2 | 8.2 | 7.8 | 7.2 | 7.9 | 8.7 | 9.1 | 9.9 | 10.1 | 9.7 | 24.0 | 11.0 |
| 8 | 15.4 | 16.2 | 13.3 | 10.1 | 7.5 | 7.2 | 6.6 | 9.2 | 9.9 | 9.3 | 11.2 | 7.5 | 7.2 | 7.1 | 7.0 | 8.3 | 9.1 | 8.2 | 6.3 | 6.2 | 5.7 | 6.9 | 7.2 | 5.6 | 16.2 | 8.7 |
| 9 | 7.8 | 6.7 | 6.6 | 5.9 | 5.4 | 4.8 | 4.6 | 18.5 | 10.9 | 6.8 | 4.9 | 4.1 | 4.7 | 6.0 | 6.9 | 6.7 | 5.5 | 5.5 | 5.4 | 6.7 | 8.2 | 7.0 | 6.4 | 5.6 | 18.5 | 6.7 |
| 10 | 6.4 | 5.0 | 5.4 | 4.8 | 4.3 | 4.5 | 4.8 | 5.6 | 6.6 | 5.7 | 5.6 | 5.7 | 6.0 | 5.7 | 6.8 | 7.5 | 8.0 | 7.3 | 6.7 | 10.8 | 7.5 | 6.7 | 8.7 | 7.5 | 10.8 | 6.4 |
| 11 | 7.4 | 7.1 | 7.7 | 11.0 | 10.8 | 8.6 | 10.5 | 12.8 | 15.3 | 10.8 | 7.9 | 8.8 | 8.3 | 7.9 | 8.3 | 8.3 | 7.9 | 10.2 | 10.6 | 9.2 | 7.4 | 6.9 | 7.4 | 7.8 | 15.3 | 9.1 |
| 12 | 7.9 | 8.4 | 8.0 | 7.4 | 7.7 | 7.7 | 8.3 | 8.1 | 8.4 | 8.0 | 10.7 | 11.0 | 14.6 | 14.9 | 9.7 | 7.3 | 7.4 | 6.4 | 7.0 | 7.5 | 9.2 | 11.4 | 11.0 | 12.8 | 14.9 | 9.2 |
| 13 | 14.7 | 13.4 | 3.1 | 1.0 | 0.6 | 1.3 | 0.7 | 1.0 | 0.5 | 1.3 | 0.8 | 1.1 | 2.2 | 1.7 | 1.4 | 1.2 | 0.8 | 1.9 | 0.2 | 0.2 | 0.5 | 0.6 | 0.4 | 1.2 | 14.7 | 2.2 |
| 14 | 0.7 | 0.9 | 0.7 | 1.2 | 0.5 | 1.1 | 4.7 | 3.4 | 3.4 | 4.9 | 7.7 | 5.9 | 4.1 | 6.9 | 2.5 | 10.7 | 6.4 | 9.3 | 5.1 | 18.1 | 5.7 | 6.7 | 7.4 | 2.3 | 18.1 | 5.0 |
| 15 | 2.5 | 3.7 | 1.4 | 10.4 | 7.4 | 7.6 | 16.5 | 11.0 | 5.0 | 6.5 | 4.2 | 4.0 | 6.3 | 7.4 | 4.8 | 4.7 | 2.7 | 4.3 | 2.0 | 2.2 | 4.6 | 3.2 | 3.0 | 1.4 | 16.5 | 5.3 |
| 16 | 2.0 | 2.6 | 2.6 | 1.3 | 2.8 | 2.2 | 2.8 | 2.5 | 4.8 | 13.6 | 6.4 | 1.0 | 4.2 | 5.3 | 4.2 | 6.2 | 4.7 | 7.6 | 2.8 | 1.7 | 1.1 | 1.4 | 2.3 | 3.4 | 13.6 | 3.7 |
| 17 | 5.2 | 2.5 | 11.5 | 7.8 | 14.6 | 12.1 | 13.4 | 17.9 | 13.1 | 11.5 | 12.9 | 7.4 | 6.4 | 6.1 | 6.4 | 4.8 | 7.5 | 6.3 | 3.2 | 2.2 | 2.0 | 6.9 | 12.8 | 4.9 | 17.9 | 8.3 |
| 18 | 2.6 | 1.9 | 2.5 | 5.9 | 13.1 | 6.8 | 13.2 | 14.2 | 8.8 | 9.1 | 8.4 | 11.4 | 0.5 | 3.3 | 8.5 | 2.8 | 3.1 | 2.2 | 7.7 | 3.0 | 3.6 | 6.1 | 2.5 | 5.1 | 14.2 | 6.1 |
| 19 | 1.6 | 2.3 | 1.4 | 1.2 | 1.5 | 1.2 | 1.6 | 3.7 | 3.8 | 4.2 | 3.1 | 3.4 | 4.2 | 2.7 | 2.2 | 3.0 | 2.3 | 1.8 | 1.3 | 0.7 | 0.9 | 2.8 | 5.2 | 4.3 | 5.2 | 2.5 |
| 20 | 4.5 | 2.9 | 1.3 | 1.3 | 18.5 | 15.3 | 10.8 | 20.4 | 10.4 | 8.0 | 31.8 | 18.2 | 18.3 | 30.3 | 23.2 | 5.7 | 3.7 | 2.4 | 3.3 | 3.1 | 3.6 | 6.7 | 4.6 | 5.2 | 31.8 | 10.6 |
| 21 | 6.9 | 7.8 | 11.2 | 11.4 | 15.3 | 15.8 | 19.4 | 16.9 | 14.5 | 17.9 | 14.5 | 19.2 | 9.9 | 21.6 | 28.3 | 23.2 | 18.6 | 13.7 | 9.4 | 11.3 | 8.5 | 19.0 | 10.8 | 11.7 | 28.3 | 14.9 |
| 22 | 18.5 | 14.4 | 8.9 | 12.3 | 19.5 | 22.7 | 20.6 | 20.9 | 13.4 | 6.5 | 8.2 | 8.9 | 6.0 | 7.5 | 8.2 | 6.0 | 4.1 | 2.6 | 1.9 | 1.4 | 1.0 | 1.8 | 0.7 | 1.0 | 22.7 | 9.1 |
| 23 | 0.9 | 0.6 | 0.6 | 7.1 | 11.2 | 15.5 | 9.3 | 12.3 | 6.2 | 11.2 | 6.7 | 1.8 | 9.8 | 9.2 | 11.6 | 9.4 | 9.5 | 4.4 | 3.1 | 6.4 | 4.3 | 6.0 | 7.0 | 6.0 | 15.5 | 7.1 |
| 24 | 6.2 | 8.1 | 17.1 | 17.3 | 15.4 | 19.7 | 17.4 | 26.7 | 14.9 | 17.0 | 11.6 | 7.8 | 10.4 | 11.5 | 6.5 | 4.4 | 3.4 | 3.3 | 1.4 | 0.9 | 0.9 | 0.8 | 0.9 | 0.7 | 26.7 | 9.3 |
| 25 | 0.5 | 0.8 | 0.5 | 2.1 | 0.3 | 1.8 | 5.9 | 8.6 | 1.8 | 2.9 | 4.1 | 2.5 | 2.5 | 1.7 | 2.4 | 4.6 | 2.4 | 2.5 | 1.5 | 0.4 | 0.3 | 0.7 | 0.6 | 0.8 | 8.6 | 2.2 |
| 26 | 0.6 | 0.5 | 0.6 | 0.9 | 2.5 | 2.1 | 8.7 | 11.2 | 9.2 | 3.9 | 4.5 | 1.5 | 2.3 | 3.5 | 3.7 | 1.6 | 2.4 | 1.4 | 2.3 | 7.1 | 3.8 | 4.2 | 1.8 | 4.3 | 11.2 | 3.5 |
| 27 | 4.9 | 3.7 | 1.1 | 4.3 | 4.5 | 6.1 | 10.3 | 6.2 | 6.6 | 4.3 | 6.2 | 7.0 | 8.4 | 5.8 | 5.0 | 4.4 | 5.6 | 4.0 | 1.5 | 3.3 | 2.8 | 0.9 | 2.4 | 4.2 | 10.3 | 4.7 |
| 28 | 5.8 | 3.0 | 4.6 | 4.5 | 0.5 | 1.8 | 4.2 | 8.1 | 6.4 | 8.4 | 11.8 | 5.4 | 9.1 | 12.5 | 7.0 | 3.9 | 3.7 | 2.4 | 1.4 | 0.5 | 0.6 | 0.4 | 0.4 | 0.8 | 12.5 | 4.5 |
| 29 | 0.4 | 0.5 | 1.0 | 0.7 | 0.6 | 2.5 | 17.1 | 10.5 | 7.3 | 9.5 | 5.5 | 3.6 | 5.2 | 6.1 | 4.2 | 4.2 | 2.5 | 6.0 | 3.3 | 1.4 | 0.9 | 4.4 | 10.6 | 5.2 | 17.1 | 4.7 |
| 30 | 8.8 | 5.3 | 4.5 | 8.5 | 16.5 | 7.6 | 6.9 | 19.4 | 20.8 | 13.8 | 5.5 | 7.6 | 8.7 | 10.1 | 7.8 | 2.5 | 4.3 | 1.9 | 1.5 | 2.6 | 3.0 | 10.3 | 14.3 | 8.6 | 20.8 | 8.4 |
| 31 | 13.3 | 11.9 | 8.6 | 8.7 | 5.1 | 5.5 | 6.7 | 5.3 | 8.2 | 6.7 | 4.0 | 5.9 | 4.7 | 6.7 | 6.3 | 4.9 | 1.9 | 1.8 | 1.3 | 1.9 | 1.7 | 1.2 | 1.2 | 1.5 | 13.3 | 5.2 |
| Hourly Max | 18.5 | 16.2 | 17.1 | 17.3 | 19.5 | 22.7 | 20.6 | 26.7 | 20.8 | 23.0 | 31.8 | 19.2 | 18.3 | 30.3 | 28.3 | 23.2 | 18.6 | 23.6 | 14.0 | 30.9 | 15.7 | 19.0 | 16.0 | 14.5 | | |
| Hourly Average | 6.1 | 5.7 | 5.5 | 6.1 | 7.4 | 7.2 | 8.8 | 11.5 | 9.4 | 9.5 | 8.9 | 7.2 | 7.1 | 8.2 | 7.6 | 6.5 | 5.7 | 6.0 | 4.8 | 5.9 | 4.6 | 6.1 | 6.1 | 5.3 | | |




| | | | | | |
|---|---|---|---|---|---|
| Number of1HR Exceedances | 0 | | Guideline | 80 | UG/M3 |
| Number of 24HR Exceedances | 0 | | Guideline | 30 | UG/M3 |
| Number of Non-Zero Readings | 744 | | | | |
| Maximum 1-HR Average | 31.8 | UG/M3 | | | |
| Maximum 24-HR Average | 14.9 | UG/M3 | | | |
| IZS Calibration Time | 0 | HRS | Operational Time | 744 | HRS |
| Monthly Calibration Time | 0 | HRS | Operational Uptime | 100.0 | % |
| Standard Deviation | 5.3 | | Monthly Average | 7.0 | UG/M3 |

# Entrance $PM_{10}$ (µg/m$^3$) – March 2017

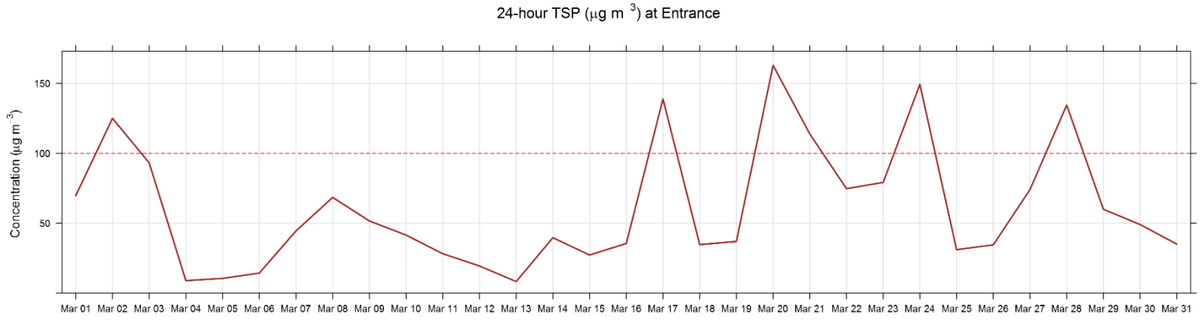
| Day/Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.8 | 2.2 | 2.5 | 1.8 | 3.7 | 3.4 | 6.6 | 74.2 | 117.6 | 83.9 | 68.6 | 28.3 | 21.4 | 18.7 | 16.0 | 53.7 | 15.4 | 4.5 | 24.1 | 22.5 | 14.0 | 10.6 | 4.3 | 3.8 | 117.6 | 25.4 |
| 2 | 9.8 | 8.9 | 5.1 | 2.6 | 5.4 | 14.1 | 38.7 | 66.9 | 122.1 | 41.4 | 28.1 | 26.6 | 19.9 | 32.2 | 33.8 | 27.0 | 15.4 | 15.9 | 17.0 | 45.2 | 44.8 | 45.0 | 24.4 | 52.2 | 122.1 | 30.9 |
| 3 | 11.8 | 15.0 | 7.6 | 4.0 | 2.3 | 1.2 | 69.5 | 53.2 | 55.0 | 79.0 | 48.7 | 29.2 | 20.9 | 24.3 | 21.2 | 17.9 | 13.8 | 15.1 | 17.2 | 7.1 | 23.8 | 57.7 | 67.2 | 33.6 | 79.0 | 29.0 |
| 4 | 9.5 | 9.2 | 10.8 | 5.8 | 5.4 | 6.6 | 8.3 | 4.8 | 8.4 | 8.2 | 5.2 | 4.7 | 8.0 | 6.4 | 3.6 | 4.1 | 4.8 | 15.2 | 18.5 | 45.3 | 8.8 | 4.3 | 5.0 | 5.4 | 45.3 | 9.0 |
| 5 | 6.7 | 7.0 | 8.2 | 7.9 | 7.5 | 7.3 | 6.4 | 9.4 | 11.1 | 14.1 | 15.7 | 17.3 | 18.2 | 17.3 | 20.7 | 19.0 | 19.6 | 30.6 | 14.2 | 15.6 | 15.8 | 16.3 | 14.8 | 14.9 | 30.6 | 14.0 |
| 6 | 14.5 | 13.6 | 12.1 | 14.2 | 14.5 | 17.1 | 14.5 | 19.4 | 16.8 | 32.5 | 30.3 | 22.2 | 19.1 | 13.9 | 16.5 | 13.8 | 14.6 | 29.3 | 15.8 | 8.4 | 8.9 | 12.7 | 9.8 | 7.0 | 32.5 | 16.3 |
| 7 | 8.5 | 12.4 | 18.5 | 22.1 | 20.9 | 12.6 | 11.3 | 35.3 | 20.4 | 81.5 | 54.0 | 43.0 | 32.4 | 25.7 | 13.3 | 13.0 | 12.4 | 11.1 | 10.3 | 10.6 | 10.7 | 11.5 | 12.3 | 11.5 | 81.5 | 21.5 |
| 8 | 20.2 | 22.1 | 18.0 | 13.5 | 9.1 | 8.6 | 7.7 | 11.3 | 12.4 | 12.0 | 38.6 | 14.8 | 10.8 | 10.2 | 10.9 | 20.5 | 28.0 | 11.0 | 8.2 | 7.9 | 6.9 | 8.1 | 9.4 | 6.8 | 38.6 | 13.6 |
| 9 | 10.6 | 8.6 | 8.4 | 7.2 | 6.8 | 5.6 | 5.5 | 22.3 | 16.1 | 19.1 | 8.1 | 5.4 | 9.3 | 15.2 | 19.9 | 21.8 | 16.1 | 11.2 | 6.7 | 8.6 | 11.2 | 9.0 | 8.1 | 7.0 | 22.3 | 11.2 |
| 10 | 8.4 | 6.3 | 6.7 | 5.6 | 4.8 | 4.9 | 5.3 | 6.6 | 8.4 | 8.9 | 8.5 | 7.9 | 8.8 | 8.6 | 11.5 | 18.2 | 15.9 | 13.6 | 8.2 | 21.1 | 9.1 | 7.8 | 11.9 | 9.2 | 21.1 | 9.4 |
| 11 | 9.2 | 8.6 | 10.6 | 16.4 | 16.1 | 12.5 | 15.6 | 16.5 | 20.6 | 13.7 | 11.9 | 15.1 | 14.2 | 11.9 | 13.2 | 12.6 | 9.7 | 17.1 | 13.8 | 11.3 | 9.0 | 7.8 | 8.4 | 9.0 | 20.6 | 12.7 |
| 12 | 8.9 | 10.2 | 9.4 | 8.4 | 8.8 | 8.8 | 9.3 | 9.0 | 10.9 | 11.9 | 25.2 | 25.6 | 28.2 | 26.9 | 21.8 | 13.9 | 15.6 | 10.9 | 10.5 | 13.1 | 21.3 | 22.5 | 16.2 | 18.9 | 28.2 | 15.3 |
| 13 | 21.8 | 19.4 | 6.6 | 6.0 | 1.9 | 2.1 | 1.5 | 3.3 | 0.9 | 2.8 | 2.0 | 2.4 | 4.5 | 4.8 | 4.2 | 3.5 | 2.3 | 3.0 | 0.3 | 0.4 | 1.6 | 1.9 | 1.2 | 4.1 | 21.8 | 4.3 |
| 14 | 2.0 | 3.4 | 2.3 | 6.3 | 1.3 | 1.5 | 7.0 | 5.0 | 7.6 | 23.6 | 76.1 | 46.8 | 14.6 | 32.3 | 9.2 | 32.7 | 19.3 | 17.8 | 15.3 | 92.9 | 21.1 | 32.3 | 33.8 | 7.7 | 92.9 | 21.3 |
| 15 | 7.6 | 6.3 | 1.7 | 15.4 | 10.7 | 11.1 | 24.8 | 16.5 | 7.4 | 18.9 | 15.4 | 12.6 | 22.8 | 32.3 | 23.8 | 21.5 | 10.7 | 15.8 | 5.7 | 6.9 | 18.8 | 15.1 | 7.4 | 2.1 | 32.3 | 13.8 |
| 16 | 3.7 | 6.9 | 5.0 | 2.1 | 12.5 | 6.0 | 3.2 | 2.9 | 9.7 | 47.7 | 26.3 | 3.2 | 23.5 | 26.8 | 28.3 | 34.2 | 21.3 | 36.5 | 15.6 | 10.2 | 6.0 | 6.0 | 9.9 | 17.5 | 47.7 | 15.2 |
| 17 | 27.4 | 12.3 | 73.2 | 43.2 | 130.0 | 125.0 | 109.8 | 134.0 | 119.2 | 91.6 | 78.4 | 42.0 | 40.0 | 41.2 | 37.2 | 26.1 | 48.5 | 26.4 | 14.2 | 9.3 | 4.3 | 25.9 | 56.3 | 20.1 | 134.0 | 55.6 |
| 18 | 9.8 | 6.7 | 12.4 | 26.6 | 56.5 | 10.1 | 19.7 | 21.3 | 13.2 | 23.8 | 35.9 | 51.0 | 3.1 | 13.6 | 55.6 | 8.3 | 4.0 | 2.9 | 11.5 | 4.4 | 11.0 | 24.1 | 11.2 | 19.4 | 56.5 | 19.0 |
| 19 | 3.6 | 7.2 | 3.5 | 2.6 | 4.1 | 3.2 | 3.8 | 11.0 | 24.0 | 20.2 | 21.4 | 17.0 | 20.5 | 14.3 | 10.5 | 19.0 | 9.5 | 12.6 | 8.1 | 1.7 | 2.3 | 12.7 | 28.7 | 24.2 | 28.7 | 11.9 |
| 20 | 21.5 | 12.6 | 5.4 | 5.8 | 189.4 | 130.6 | 109.7 | 186.1 | 81.4 | 62.6 | 211.0 | 123.0 | 123.2 | 194.8 | 136.9 | 28.6 | 15.2 | 7.6 | 16.6 | 8.0 | 11.9 | 21.8 | 7.3 | 7.8 | 211.0 | 71.6 |
| 21 | 9.1 | 11.6 | 27.8 | 38.3 | 78.7 | 48.6 | 46.6 | 96.1 | 55.8 | 52.6 | 47.4 | 116.8 | 55.3 | 131.3 | 155.8 | 100.0 | 82.5 | 66.2 | 43.7 | 41.9 | 30.4 | 81.3 | 39.9 | 20.8 | 155.8 | 61.6 |
| 22 | 59.7 | 22.2 | 14.5 | 18.4 | 29.3 | 34.1 | 30.9 | 31.4 | 40.8 | 28.7 | 63.5 | 57.9 | 44.0 | 48.9 | 57.1 | 43.1 | 24.5 | 14.3 | 12.5 | 7.4 | 4.3 | 7.1 | 1.3 | 2.5 | 63.5 | 29.1 |
| 23 | 2.6 | 1.1 | 1.2 | 32.5 | 48.7 | 72.7 | 43.7 | 64.5 | 40.9 | 80.2 | 43.6 | 6.7 | 55.6 | 62.2 | 85.9 | 52.4 | 41.1 | 16.3 | 12.1 | 30.0 | 10.1 | 21.5 | 25.8 | 17.5 | 85.9 | 36.2 |
| 24 | 17.3 | 22.3 | 72.2 | 88.4 | 78.3 | 109.7 | 99.9 | 185.4 | 111.5 | 142.7 | 67.6 | 41.3 | 55.8 | 69.7 | 35.6 | 21.1 | 16.9 | 12.0 | 7.9 | 2.8 | 3.7 | 1.1 | 1.5 | 2.0 | 185.4 | 52.8 |
| 25 | 0.8 | 2.7 | 1.0 | 11.1 | 0.4 | 6.8 | 29.1 | 55.6 | 7.6 | 19.7 | 25.8 | 17.7 | 14.7 | 13.4 | 15.4 | 32.1 | 11.7 | 7.1 | 8.4 | 1.2 | 0.7 | 1.6 | 1.7 | 2.1 | 55.6 | 12.0 |
| 26 | 1.6 | 1.2 | 1.6 | 3.1 | 12.5 | 9.3 | 51.0 | 77.8 | 53.0 | 15.4 | 23.8 | 5.0 | 7.4 | 15.5 | 21.6 | 7.4 | 15.3 | 6.2 | 11.4 | 34.5 | 20.5 | 21.5 | 4.4 | 23.7 | 77.8 | 18.5 |
| 27 | 23.2 | 16.7 | 3.0 | 23.4 | 24.6 | 43.5 | 65.6 | 39.3 | 41.7 | 25.7 | 49.0 | 56.1 | 59.0 | 45.8 | 37.6 | 30.5 | 47.6 | 29.1 | 9.0 | 20.7 | 17.6 | 2.9 | 8.7 | 19.4 | 65.6 | 30.8 |
| 28 | 27.0 | 13.1 | 22.7 | 27.1 | 0.8 | 10.3 | 26.6 | 69.7 | 52.2 | 63.4 | 125.8 | 40.6 | 86.6 | 124.6 | 63.8 | 31.4 | 27.0 | 15.6 | 10.0 | 2.7 | 3.0 | 1.0 | 1.4 | 2.8 | 125.8 | 35.4 |
| 29 | 0.8 | 1.1 | 3.5 | 2.4 | 2.1 | 16.0 | 101.4 | 63.7 | 47.3 | 76.5 | 41.3 | 28.2 | 34.0 | 27.8 | 21.4 | 32.5 | 17.2 | 40.5 | 20.6 | 7.0 | 3.1 | 19.3 | 50.3 | 26.0 | 101.4 | 28.5 |
| 30 | 42.1 | 20.7 | 10.7 | 42.4 | 50.4 | 11.1 | 10.4 | 35.8 | 98.0 | 65.5 | 25.6 | 49.7 | 60.6 | 49.5 | 35.2 | 3.4 | 5.3 | 2.3 | 1.9 | 3.6 | 4.1 | 13.8 | 17.3 | 9.8 | 98.0 | 27.9 |
| 31 | 16.9 | 15.3 | 10.3 | 10.5 | 6.4 | 7.2 | 9.6 | 7.5 | 18.9 | 22.1 | 17.2 | 31.8 | 27.6 | 38.1 | 40.1 | 24.1 | 8.9 | 6.8 | 4.0 | 5.8 | 5.3 | 2.0 | 2.1 | 4.3 | 40.1 | 14.3 |
| Hourly Max | 59.7 | 22.3 | 73.2 | 88.4 | 189.4 | 130.6 | 109.8 | 186.1 | 122.1 | 142.7 | 211.0 | 123.0 | 123.2 | 194.8 | 155.8 | 100.0 | 82.5 | 66.2 | 43.7 | 92.9 | 44.8 | 81.3 | 67.2 | 52.2 | | |
| Hourly Average | 13.7 | 10.5 | 12.8 | 16.6 | 27.2 | 24.6 | 32.0 | 46.3 | 40.4 | 41.6 | 43.2 | 31.9 | 31.1 | 38.6 | 34.8 | 25.4 | 19.7 | 16.9 | 12.7 | 16.4 | 11.7 | 17.0 | 16.2 | 13.3 | | |




| | | | | | |
|---|---|---|---|---|---|
| Number of 1HR Exceedances | n/a | | Guideline | n/a | UG/M3 |
| Number of Non-Zero Readings | 744 | | | | |
| Maximum 1-HR Average | 211.0 | UG/M3 | | | |
| Maximum 24-HR Average | 71.6 | UG/M3 | | | |
| IZS Calibration Time | 0 | HRS | Operational Time | 744 | HRS |
| Monthly Calibration Time | 0 | HRS | Operational Uptime | 100.0 | % |
| Standard Deviation | 29.4 | | Monthly Average | 24.8 | UG/M3 |

# Entrance TSP (μg/m$^3$) – March 2017

| Day/ Hour | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Daily Max | 24-hour Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 37.3 | 7.9 | 2.9 | 1.9 | 5.5 | 6.5 | 17.0 | 157.9 | 331.8 | 218.6 | 149.8 | 61.6 | 61.9 | 95.6 | 51.4 | 188.7 | 53.6 | 8.8 | 59.9 | 100.1 | 35.9 | 12.1 | 5.2 | 3.1 | 331.8 | 69.8 |
| 2 | 8.5 | 7.1 | 4.6 | 2.3 | 23.4 | 75.6 | 183.3 | 227.1 | 416.8 | 150.0 | 76.1 | 76.7 | 53.1 | 96.1 | 113.6 | 86.0 | 53.7 | 62.8 | 58.0 | 271.7 | 240.1 | 242.9 | 146.0 | 325.2 | 416.8 | 125.0 |
| 3 | 94.3 | 95.1 | 49.5 | 11.3 | 8.5 | 4.5 | 160.4 | 307.9 | 269.2 | 310.9 | 166.4 | 101.1 | 67.1 | 74.7 | 40.4 | 29.6 | 38.4 | 26.0 | 32.2 | 11.9 | 24.2 | 56.2 | 65.3 | 190.6 | 310.9 | 93.1 |
| 4 | 9.6 | 8.2 | 10.7 | 4.7 | 3.8 | 5.4 | 6.5 | 3.7 | 8.3 | 8.3 | 5.0 | 4.7 | 8.8 | 6.7 | 3.1 | 3.2 | 3.9 | 17.2 | 20.9 | 52.6 | 8.6 | 2.8 | 3.2 | 3.5 | 52.6 | 8.9 |
| 5 | 4.4 | 4.6 | 5.3 | 5.1 | 4.8 | 4.7 | 4.1 | 6.1 | 7.2 | 9.2 | 10.3 | 11.8 | 12.8 | 12.6 | 20.5 | 18.6 | 19.0 | 31.9 | 9.2 | 10.1 | 10.2 | 10.5 | 9.6 | 9.6 | 31.9 | 10.5 |
| 6 | 9.3 | 8.8 | 7.9 | 9.2 | 9.4 | 11.1 | 9.4 | 12.5 | 11.2 | 25.5 | 25.4 | 25.9 | 28.8 | 13.4 | 28.8 | 15.4 | 14.0 | 30.0 | 14.2 | 5.8 | 6.3 | 8.9 | 7.2 | 4.7 | 30.0 | 14.3 |
| 7 | 6.2 | 10.7 | 17.2 | 21.9 | 19.0 | 9.4 | 8.7 | 37.7 | 24.6 | 331.2 | 153.1 | 116.6 | 89.9 | 72.4 | 24.4 | 25.7 | 22.8 | 22.1 | 13.4 | 7.6 | 7.6 | 8.0 | 8.9 | 8.0 | 331.2 | 44.5 |
| 8 | 20.8 | 25.0 | 20.1 | 14.7 | 7.9 | 7.4 | 6.6 | 10.7 | 11.7 | 11.7 | 507.8 | 192.8 | 103.9 | 51.9 | 38.3 | 243.0 | 312.0 | 14.6 | 8.2 | 7.7 | 6.2 | 6.7 | 8.1 | 5.2 | 507.8 | 68.5 |
| 9 | 9.2 | 6.6 | 8.0 | 5.9 | 5.3 | 4.0 | 4.1 | 17.7 | 18.0 | 198.5 | 40.3 | 15.0 | 47.4 | 63.2 | 85.1 | 247.3 | 261.5 | 151.9 | 5.8 | 8.5 | 12.6 | 8.9 | 7.8 | 6.4 | 261.5 | 51.6 |
| 10 | 8.3 | 5.8 | 5.7 | 4.7 | 3.3 | 3.4 | 3.8 | 5.7 | 7.9 | 98.2 | 49.7 | 41.4 | 38.5 | 41.3 | 66.4 | 146.6 | 90.6 | 83.5 | 27.4 | 230.4 | 8.2 | 6.0 | 11.4 | 7.3 | 230.4 | 41.5 |
| 11 | 7.5 | 6.2 | 9.2 | 18.4 | 17.1 | 12.1 | 16.1 | 13.8 | 20.2 | 23.0 | 45.1 | 30.3 | 64.8 | 23.3 | 29.1 | 102.3 | 21.2 | 164.3 | 14.4 | 10.7 | 8.2 | 5.9 | 5.9 | 7.0 | 164.3 | 28.2 |
| 12 | 6.6 | 8.2 | 6.9 | 5.6 | 6.1 | 6.6 | 6.3 | 6.1 | 13.5 | 24.8 | 45.0 | 37.9 | 38.1 | 34.7 | 44.9 | 16.3 | 33.1 | 17.6 | 12.1 | 13.5 | 21.1 | 27.7 | 14.7 | 17.6 | 45.0 | 19.4 |
| 13 | 19.4 | 16.0 | 13.7 | 30.8 | 6.2 | 2.7 | 2.5 | 12.1 | 2.1 | 12.5 | 4.4 | 3.9 | 10.1 | 12.5 | 10.1 | 10.6 | 3.5 | 10.0 | 0.8 | 0.3 | 3.3 | 3.0 | 1.6 | 5.4 | 30.8 | 8.2 |
| 14 | 3.8 | 9.4 | 5.3 | 15.8 | 1.9 | 1.4 | 7.7 | 5.5 | 21.7 | 88.9 | 224.7 | 101.2 | 21.3 | 46.8 | 20.9 | 59.2 | 23.1 | 14.5 | 13.6 | 133.0 | 31.4 | 48.4 | 39.4 | 11.9 | 224.7 | 39.6 |
| 15 | 9.0 | 6.3 | 1.4 | 17.3 | 11.5 | 11.2 | 28.2 | 18.3 | 7.6 | 22.4 | 27.7 | 25.4 | 38.1 | 56.6 | 52.1 | 59.5 | 44.3 | 47.4 | 19.3 | 15.7 | 58.0 | 57.6 | 14.5 | 3.8 | 59.5 | 27.2 |
| 16 | 10.1 | 8.7 | 15.5 | 3.2 | 96.7 | 43.1 | 2.1 | 2.1 | 9.8 | 57.1 | 33.7 | 8.8 | 55.4 | 65.2 | 91.8 | 105.4 | 42.6 | 57.4 | 37.2 | 30.2 | 20.5 | 13.0 | 14.0 | 28.7 | 105.4 | 35.5 |
| 17 | 45.2 | 27.5 | 158.4 | 92.4 | 346.3 | 411.8 | 343.9 | 373.1 | 323.9 | 222.2 | 150.6 | 81.4 | 79.9 | 94.9 | 86.4 | 59.6 | 131.7 | 80.5 | 35.3 | 20.5 | 10.5 | 26.4 | 90.6 | 41.0 | 411.8 | 138.9 |
| 18 | 23.3 | 23.0 | 42.2 | 75.0 | 119.4 | 11.1 | 22.1 | 23.7 | 14.6 | 25.4 | 59.0 | 45.1 | 15.2 | 16.1 | 63.7 | 7.8 | 3.2 | 2.4 | 12.7 | 4.3 | 10.9 | 36.3 | 121.5 | 54.6 | 121.5 | 34.7 |
| 19 | 3.0 | 9.1 | 2.7 | 5.4 | 7.7 | 16.7 | 10.8 | 33.5 | 146.7 | 71.3 | 93.8 | 49.4 | 61.0 | 43.9 | 32.6 | 61.4 | 33.9 | 53.6 | 27.6 | 5.8 | 4.2 | 22.9 | 44.4 | 45.5 | 146.7 | 37.0 |
| 20 | 38.1 | 22.2 | 12.6 | 11.6 | 589.1 | 379.5 | 351.3 | 409.1 | 196.6 | 131.3 | 259.5 | 267.4 | 319.0 | 295.1 | 290.4 | 111.4 | 47.2 | 21.4 | 52.2 | 18.4 | 23.5 | 46.1 | 8.1 | 10.0 | 589.1 | 163.0 |
| 21 | 9.4 | 12.7 | 44.1 | 67.1 | 146.7 | 59.8 | 76.3 | 222.7 | 82.6 | 75.7 | 72.9 | 280.8 | 115.9 | 287.9 | 351.9 | 225.5 | 186.6 | 124.5 | 62.4 | 47.6 | 32.0 | 85.2 | 40.8 | 21.7 | 351.9 | 113.9 |
| 22 | 77.6 | 25.0 | 16.0 | 20.9 | 33.8 | 38.7 | 34.7 | 36.0 | 63.3 | 49.0 | 250.3 | 256.5 | 160.5 | 186.3 | 200.9 | 142.2 | 75.2 | 40.1 | 31.6 | 17.5 | 15.2 | 15.2 | 1.9 | 4.9 | 256.5 | 74.7 |
| 23 | 3.1 | 1.3 | 2.6 | 38.3 | 66.8 | 125.6 | 91.6 | 110.4 | 85.4 | 220.0 | 161.3 | 11.6 | 148.0 | 178.2 | 259.3 | 120.3 | 76.1 | 29.3 | 30.0 | 52.3 | 12.9 | 27.2 | 29.8 | 18.5 | 259.3 | 79.2 |
| 24 | 17.9 | 27.4 | 115.0 | 180.3 | 180.2 | 212.3 | 201.8 | 521.5 | 412.1 | 671.1 | 253.1 | 132.6 | 145.6 | 222.6 | 110.5 | 61.3 | 37.4 | 25.6 | 15.2 | 8.7 | 14.6 | 1.1 | 3.2 | 12.8 | 671.1 | 149.3 |
| 25 | 1.0 | 6.8 | 4.6 | 24.8 | 0.3 | 15.3 | 46.6 | 115.1 | 18.8 | 47.9 | 59.8 | 64.5 | 36.8 | 74.7 | 61.1 | 92.3 | 23.1 | 13.9 | 21.5 | 1.7 | 0.6 | 5.3 | 3.6 | 5.3 | 115.1 | 31.1 |
| 26 | 5.2 | 8.1 | 6.6 | 14.8 | 24.1 | 14.1 | 94.5 | 165.7 | 106.0 | 22.6 | 45.2 | 7.3 | 11.1 | 29.7 | 32.3 | 19.6 | 33.7 | 13.8 | 14.3 | 52.1 | 24.7 | 24.7 | 3.4 | 54.8 | 165.7 | 34.5 |
| 27 | 32.5 | 26.3 | 5.1 | 38.7 | 50.8 | 105.4 | 151.8 | 106.4 | 109.2 | 57.9 | 128.0 | 164.6 | 152.4 | 112.2 | 93.0 | 69.4 | 121.9 | 67.9 | 16.1 | 43.8 | 66.0 | 7.9 | 13.4 | 36.6 | 164.6 | 74.0 |
| 28 | 67.3 | 23.4 | 37.7 | 50.4 | 1.2 | 28.8 | 86.6 | 192.7 | 155.7 | 206.8 | 490.4 | 160.5 | 378.4 | 639.1 | 307.2 | 132.4 | 124.8 | 77.1 | 43.7 | 7.7 | 8.3 | 1.5 | 4.2 | 3.3 | 639.1 | 134.5 |
| 29 | 0.8 | 2.1 | 12.7 | 6.0 | 2.2 | 49.8 | 195.1 | 99.3 | 91.7 | 223.9 | 100.1 | 78.5 | 65.0 | 54.6 | 40.9 | 85.1 | 60.3 | 100.9 | 46.4 | 12.1 | 5.0 | 22.4 | 52.1 | 32.3 | 223.9 | 60.0 |
| 30 | 37.5 | 21.6 | 10.2 | 59.7 | 62.9 | 11.3 | 11.5 | 54.7 | 146.0 | 116.5 | 68.5 | 119.0 | 183.2 | 126.6 | 103.5 | 2.7 | 3.6 | 1.7 | 1.4 | 3.0 | 3.1 | 11.0 | 11.6 | 6.4 | 183.2 | 49.0 |
| 31 | 13.1 | 14.2 | 8.6 | 7.0 | 4.4 | 5.2 | 8.4 | 6.7 | 31.1 | 49.0 | 66.9 | 101.7 | 88.3 | 114.4 | 134.0 | 76.6 | 33.7 | 18.0 | 10.8 | 10.7 | 9.6 | 6.0 | 1.9 | 20.6 | 134.0 | 35.0 |
| Hourly Max | 94.3 | 95.1 | 158.4 | 180.3 | 589.1 | 411.8 | 351.3 | 521.5 | 416.8 | 671.1 | 507.8 | 280.8 | 378.4 | 639.1 | 351.9 | 247.3 | 312.0 | 164.3 | 62.4 | 271.7 | 240.1 | 242.9 | 146.0 | 325.2 | | |
| Hourly Average | 20.6 | 15.6 | 21.4 | 27.9 | 60.2 | 54.7 | 70.8 | 107.0 | 102.1 | 122.0 | 123.4 | 86.3 | 87.1 | 104.6 | 93.2 | 84.7 | 65.5 | 46.2 | 24.8 | 39.2 | 24.0 | 27.7 | 25.6 | 32.5 | | |




| | | | | | |
|---|---|---|---|---|---|
| Number of 24HR Exceedances | 6 | | Guideline | 100 | UG/M3 |
| Number of Non-Zero Readings | 744 | | | | |
| Maximum 1-HR Average | 671.1 | UG/M3 | | | |
| Maximum 24-HR Average | 163.0 | UG/M3 | | | |
| IZS Calibration Time | 0 | HRS | Operational Time | 744 | HRS |
| Monthly Calibration Time | 0 | HRS | Operational Uptime | 100.0 | % |
| Standard Deviation | 90.1 | | Monthly Average | 61.1 | UG/M3 |

# MetOne BAM $PM_{2.5}$ Calibration

AIR QUALITY MONITORING

| | | | |
|---|---|---|---|
| STATION: | Lafarge | OPERATOR: | Lenin Flores/Gagandeep Singh |
| LOCATION: | Exshaw - Lagoon | DATE: | March 21, 2017 |
| START TIME (MST): | 9:00 | END TIME (MST): | 12:00 |

MONITOR INFO / PARAMETER VALUES:

| | | | |
|---|---|---|---|
| Make/Model | Met One BAM | Audit Device Model | Delta Cal |
| Configuration | PM2.5 | Audit Device S/N | 682 |
| Serial Number | T19087 | Certification Date | 16-Sep-16 |

AUDIT / CALIBRATION RESULTS:

| | | Ambient Temp. ( ˚ C ) | Ambient Pres. (mmHg) | Leak Check (L/min) | Flow Rate (lpm) | Time settings (hh:mm) |
|---|---|---|---|---|---|---|
| | Audit values (I) | -0.7 | 648 | 0.00 | 16.7 | 10:43 |
| ***As Found Data*** | MEASURED ( AF ) | -3.0 | 646 | 0.40 | 16.44 | 10:43 |
| | AF Difference (AF-I) | -2.3 | -2 | 0.40 | -0.26 | 0:00 |
| ***Adjusted Data*** | MEASURED ( M ) | -0.7 | 648 | 0.40 | 16.70 | 10:43 |
| | Adj Difference (M-I) | 0.0 | 0 | 0.40 | 0.00 | 0:00 |
| | ***LIMITS*** | **± 4.0 $^0$C** | **5 mm Hg** | **1.0 L/min** | **± 1.0 L/min** | **±2 min** |

**Sample Head Inspect/Cleaning:** Sample head cleaned.

**Status of sampling tape:** 3/4 roll left

**Nozzle Inspection / cleanliness:** Inspected, cleaned.

***COMMENTS:***

Performed self test - all passed. Performed leak check and full flow calibration

No issues noted.

# MetOne BAM $PM_{10}$ Calibration

AIR QUALITY MONITORING

| | | | |
|---|---|---|---|
| STATION: | Lafarge | OPERATOR: | Lenin Flores |
| LOCATION: | Exshaw - Lagoon | DATE: | March 21, 2017 |
| START TIME (MST): | 10:00 | END TIME (MST): | 12:00 |

MONITOR INFO / PARAMETER VALUES:

| | | | |
|---|---|---|---|
| Make/Model | MetOne BAM | Audit Device Model | Delta Cal |
| Configuration | PM10 | Audit Device S/N | 682 |
| Serial Number | A 3315 | Certification Date | 16-Sep-16 |

AUDIT / CALIBRATION RESULTS:

| | | Ambient Temp. ( ˚ C ) | Ambient Pres. (mmHg) | Leak Check (L/min) | Flow Rate (lpm) | Time settings (hh:mm) |
|---|---|---|---|---|---|---|
| | Audit values (I) | 1.2 | 648 | 0.00 | 16.7 | 10:55 |
| ***As Found Data*** | MEASURED ( AF ) | 1.3 | 647 | 0.90 | 16.51 | 10:55 |
| | AF Difference (AF-I) | 0.1 | -1 | 0.90 | -0.19 | 0:00 |
| ***Adjusted Data*** | MEASURED ( M ) | 1.2 | 648 | 0.90 | 16.69 | 10:55 |
| | Adj Difference (M-I) | 0.0 | 0 | 0.90 | -0.01 | 0:00 |
| | ***LIMITS*** | **± 4.0 $^0$C** | **5 mm Hg** | **1.0 L/min** | **± 1.0 L/min** | **±2 min** |

**Sample Head Inspect/Cleaning:** Sample head cleaned.

**Status of sampling tape:** 3/4 roll left

**Nozzle Inspection / cleanliness:** Inspected and cleaned.

***COMMENTS:***

Performed self test - all passed. Performed leak check and full flow calibration

Leak test borderline fail. Cleaned nozzle however seems it needs to be re-aligned/replaced. Will remove tomorrow.

# MetOne BAM $PM_{10}$ Calibration

AIR QUALITY MONITORING

| | | | |
|---|---|---|---|
| STATION: | Lafarge | OPERATOR: | Lenin Flores |
| LOCATION: | Exshaw - Lagoon | DATE: | March 22, 2017 |
| START TIME (MST): | 9:00 | END TIME (MST): | 12:00 |

MONITOR INFO / PARAMETER VALUES:

| | | | |
|---|---|---|---|
| Make/Model | MetOne BAM | Audit Device Model | Delta Cal |
| Configuration | PM10 | Audit Device S/N | 624 |
| Serial Number | F4643 | Certification Date | 16-Sep-16 |

AUDIT / CALIBRATION RESULTS:

| | | Ambient Temp. ( ˚ C ) | Ambient Pres. (mmHg) | Leak Check (L/min) | Flow Rate (lpm) | Time settings (hh:mm) |
|---|---|---|---|---|---|---|
| | Audit values (I) | 7.6 | 641 | 0.00 | 16.7 | 10:05 |
| ***As Found Data*** | MEASURED ( AF ) | 8.1 | 641 | 0.60 | 15.80 | 10:06 |
| | AF Difference (AF-I) | 0.5 | 0 | 0.60 | -0.90 | 0:01 |
| ***Adjusted Data*** | MEASURED ( M ) | 7.6 | 641 | 0.60 | 16.70 | 10:05 |
| | Adj Difference (M-I) | 0.0 | 0 | 0.60 | 0.00 | 0:00 |
| | ***LIMITS*** | **± 4.0 $^0$C** | **5 mm Hg** | **1.0 L/min** | **± 1.0 L/min** | **±2 min** |

**Sample Head Inspect/Cleaning:** Cleaned yesterday.

**Status of sampling tape:** New tape installed

**Nozzle Inspection / cleanliness:** Inspected and cleaned.

***COMMENTS:***

Temporary replacement BAM until we get parts to repair the original one.

Leak check bounces around a bit from 0.3 to 0.8LPM. Self test performed and passed. Full flow calibration performed.

# MetOne BAM TSP Calibration

AIR QUALITY MONITORING

| | | | |
|---|---|---|---|
| STATION: | Lafarge | OPERATOR: | Lenin Flores/Gagandeep Singh |
| LOCATION: | Exshaw | DATE: | March 21, 2017 |
| START TIME (MST): | 10:00 | END TIME (MST): | 12:00 |

MONITOR INFO / PARAMETER VALUES:

| | | | |
|---|---|---|---|
| Make/Model | MetOne BAM | Audit Device Model | Delta Cal |
| Configuration | TSP | Audit Device S/N | 682 |
| Serial Number | A 3589 | Certification Date | 16-Sep-16 |

AUDIT / CALIBRATION RESULTS:

| | | Ambient Temp. ( ˚ C ) | Ambient Pres. (mmHg) | Leak Check (L/min) | Flow Rate (lpm) | Time settings (hh:mm) |
|---|---|---|---|---|---|---|
| | Audit values (I) | 0.5 | 648 | 0.00 | 16.7 | 11:07 |
| | MEASURED ( AF ) | 0.2 | 645 | 0.50 | 16.50 | 11:07 |
| | AF Difference (AF-I) | -0.3 | -3 | 0.50 | -0.20 | 0:00 |
| ***Adjusted Data*** | MEASURED ( M ) | 0.5 | 648 | 0.50 | 16.66 | 11:07 |
| | Adj Difference (M-I) | 0.0 | 0 | 0.50 | -0.04 | 0:00 |
| | ***LIMITS*** | **± 4.0 $^{0}$C** | **5 mm Hg** | **1.0 L/min** | **± 1.0 L/min** | **±2 min** |

**Sample Head Inspect/Cleaning:** Sample head cleaned.

**Status of sampling tape:** 3/4 roll left

**Nozzle Inspection / cleanliness:** Inspected and cleaned

***COMMENTS:***

Performed self test, all passed. Performed leak check and full flow calibration

No issues noted.

# Calibration Report

Parameter **$NO_X$-NO-$NO_2$**

Air Monitoring Network **Lafarge - Exshaw**

WSP AIR QUALITY MONITORING

## *Station Information*

| | | | |
|---|---|---|---|
| Calibration Date | March 21, 2017 | Previous Calibration | February 9, 2017 |
| Station Number | N/A | Station Location | Exshaw - Lagoon |

Reason: Routine | Installation | **Removal** | Other:

| | | | | | |
|---|---|---|---|---|---|
| Start Time (MST) | 8:00 | | End Time (MST) | 12:30 | |
| Barometric Pressure | 650 | mmHg | Station Temperature | 20.0 | Deg C |
| Calibrator | SABIO 2010 | | Serial Number | 09700712 | |
| NO Cal Gas Conc | 51.2 | ppm | Cal Gas Expiry Date | July 26, 2019 | |
| NOx Cal Gas Conc | 51.3 | ppm | Cal Gas Serial # | EY667 | |

## *DACS Information*

DACS make: Campbell Scientific CR1000 | DACS serial No.: 67802

| Parameter | | NO2 | NOx | NO |
|---|---|---|---|---|
| Before | Data Slope | 1.003862 | 1.005239 | 0.997415 |
| | Data Offset | 0.271657 | 2.107439 | 2.267044 |
| After | Data Slope | 1.015574 | 1.053544 | 1.044544 |
| | Data Offset | -2.488477 | 1.724931 | 1.669847 |
| Channel # | | 3 | 1 | 2 |
| Voltage Range | | 0 - 5 VDC | 0 - 5 VDC | 0 - 5 VDC |

## *Analyzer Information*

Analyzer make/model: TECO 42C | Analyzer serial #: 64179-342

| Test Point | before | | after | |
|---|---|---|---|---|
| Concentration range | 0 - 500 | ppb | 0 - 500 | ppb |
| NOX COEF | 0.992 | | NA | |
| NOX BKG | 0.9 | | NA | |
| NO COEF | 0.828 | | NA | |
| NO BKG | 0.8 | | NA | |
| Cooler Temp | -4.1 | Deg C | NA | Deg C |
| Converter Temp | 319.0 | Deg C | NA | Deg C |
| Pressure | 146.2 | mmHg | NA | mmHg |
| Sample Flow | 0.609 | LPM | NA | LPM |
| Ozonator Flow | 0.071 | LPM | NA | LPM |

Notes: Removal calibration. Analyzer taken out of service.
No adjustments performed.

# Calibration Report

Parameter **NOx-NO-$NO_2$**

Air Monitoring Network **Lafarge - Exshaw**

WSP AIR QUALITY MONITORING

## Station Information

Calibration Date: March 21, 2017 Station Location: Exshaw - Lagoon

## Calibration Data

| | Dilution flow rate (ccm) | Source gas flow rate (ccm) | Calculated NOx conc (ppb) | Calculated NO conc (ppb) | Calculated NO2 conc (ppb) | Indicated NOx conc (ppb) | Indicated NO conc (ppb) | Indicated NO2 conc (ppb) | NOx Correction factor | NO Correction factor |
|---|---|---|---|---|---|---|---|---|---|---|
| zero | 5000 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A | N/A |
| 1 | 5000 | 40.00 | 407.1 | 406.3 | 0.8 | 386.0 | 388.6 | -2.6 | 1.0548 | 1.0457 |
| 2 | 5000 | 25.00 | 255.2 | 254.7 | 0.5 | 239.3 | 241.0 | -1.6 | 1.0664 | 1.0571 |
| 3 | 7000 | 14.00 | 102.4 | 102.2 | 0.2 | 94.0 | 94.8 | -0.8 | 1.0890 | 1.0783 |
| | | | | | | | | | | |
| AFZ | 5000 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0000 | 0.0000 |
| AFS | 5000 | 40.00 | 407.1 | 406.3 | 0.8 | 386.0 | 388.6 | -2.6 | 1.0548 | 1.0457 |
| | | | | | | | Average Correction Factor | | 1.0701 | 1.0604 |

As Found Concentrations: $NO_X$= 388.1 NO= 390.9 As Found Percent Change $NO_X$= -4.7% NO= -3.8%

## GPT Calibration Data

Dilution Flow 5000 ccm Source Gas Flow 40.00 ccm

| O3 Setpoint (V) | Indicated NO high point (ppb) | Indicated NO drop conc (ppb) | Calculated NO2 conc (ppb) | Indicated NOx conc (ppb) | Indicated NO conc (ppb) | Indicated NO2 conc (ppb) | NOx Correction factor | NO Correction factor | NO2 Correction factor | Converter Efficiency |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N/A | N/A | N/A | N/A |
| NO point | 385.9 | 385.9 | 0.0 | 383.3 | 385.9 | -2.7 | 1.0069 | 1.0000 | N/A | N/A |
| 0.78V | 385.9 | 76.6 | 309.3 | 382.6 | 76.6 | 306.3 | 1.0087 | 1.0000 | 1.0097 | 99.0% |
| 0.60V | 385.9 | 158.2 | 227.7 | 382.4 | 158.2 | 224.3 | 1.0092 | 1.0000 | 1.0149 | 98.5% |
| 0.40V | 385.9 | 258.6 | 127.3 | 391.7 | 258.6 | 133.2 | 0.9851 | 1.0000 | 0.9556 | 104.7% |
| | | | | | Average Correction Factor | | 1.0010 | 1.0000 | 0.9934 | 100.7% |

## AIC Data

| | Previous calibration | | | | Current calibration | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | NOx | NO2 | NO | | NOx | NO2 | NO | |
| Auto zero | -0.5 | 1.5 | 0.0 | ppb | NA | NA | NA | ppb |
| Auto span | 393.8 | 0.0 | 392.6 | ppb | NA | NA | NA | ppb |

Calibration Performed By: Lenin Flores

# Calibration Summary

Parameter **$NO_2$**

Air Monitoring Network **Lafarge - Exshaw**

WSP AIR QUALITY MONITORING

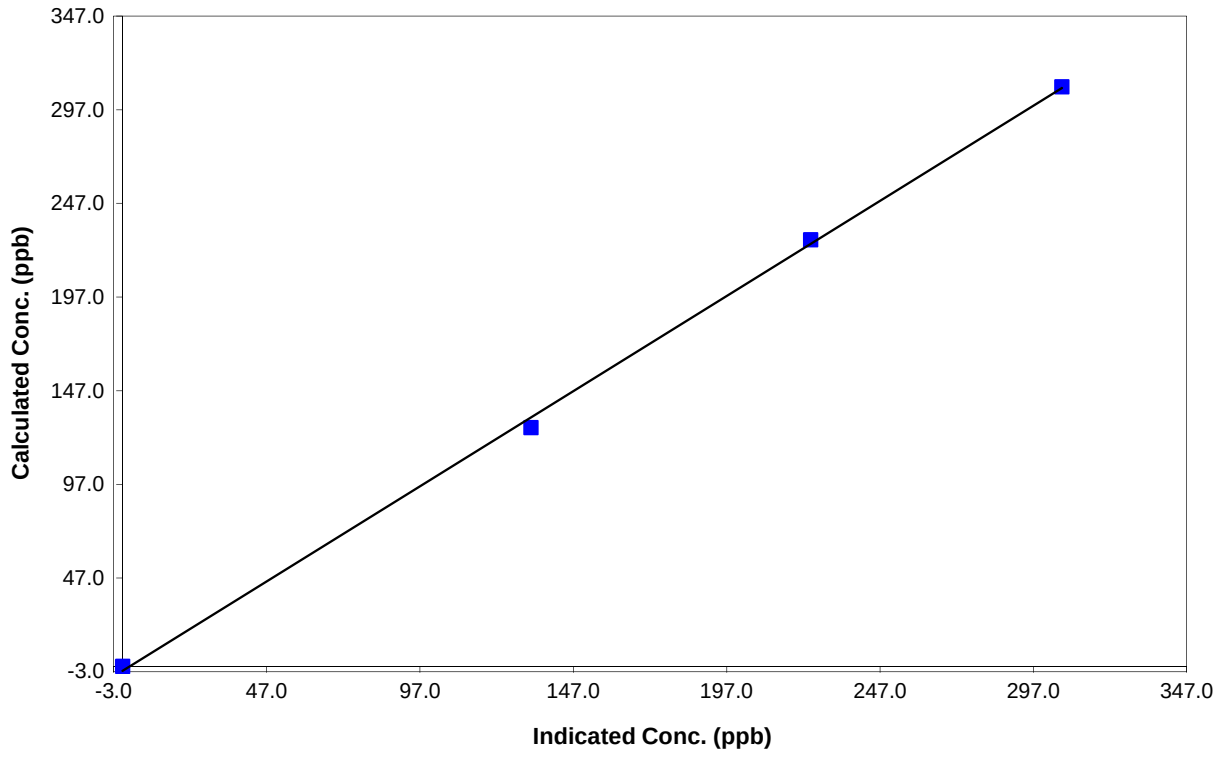
### *Station Information*

| | | | |
|---|---|---|---|
| Calibration Date | March 21, 2017 | Previous Calibration | February 9, 2017 |
| Station Number | N/A | Station Location | Exshaw - Lagoon |
| Start Time (MST) | 8:00 | End Time (MST) | 12:30 |
| Analyzer make | TECO 42C | Analyzer serial # | 64179-342 |

### *Calibration Data*

| Calculated conc (ppb) (Cc) | Indicated concentration (ppb) (Ic) | Correction factor (Cc/Ic) | Statistical Evaluation | |
|---|---|---|---|---|
| 0.0 | 0.0 | N/A | | |
| 309.3 | 306.3 | 1.0097 | Correlation Coefficient | 0.999206 |
| 227.7 | 224.3 | 1.0149 | | |
| 127.3 | 133.2 | 0.9556 | Slope | 1.015574 |
| | | | | |
| | | | Intercept | -2.488477 |
| | | | | |

## $NO_2$ Calibration Curve



# Calibration Summary

Parameter **$NO_x$**

Air Monitoring Network **Lafarge - Exshaw**

WSP AIR QUALITY MONITORING

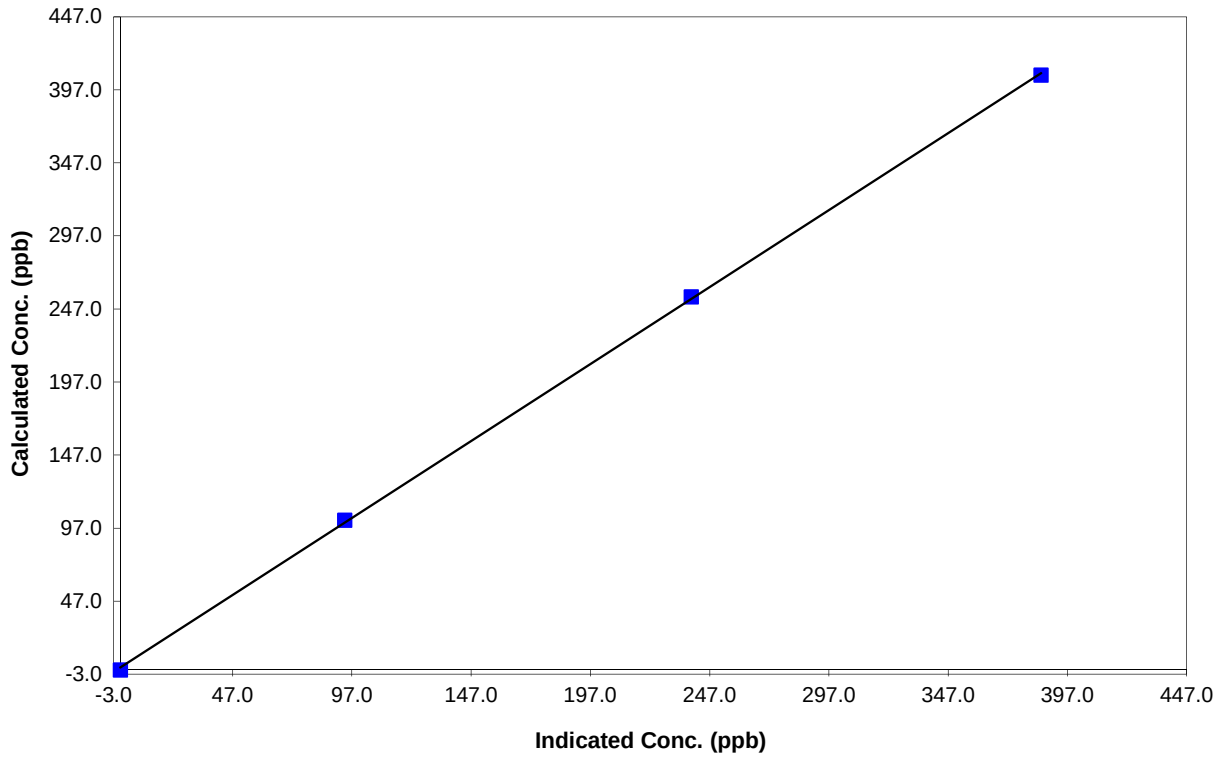
### *Station Information*

| | | | |
|---|---|---|---|
| Calibration Date | March 21, 2017 | Previous Calibration | February 9, 2017 |
| Station Number | N/A | Station Location | Exshaw - Lagoon |
| Start Time (MST) | 8:00 | End Time (MST) | 12:30 |
| Analyzer make | TECO 42C | Analyzer serial # | 64179-342 |

### *Calibration Data*

| Calculated conc (ppb) (Cc) | Indicated concentration (ppb) (Ic) | Correction factor (Cc/Ic) | Statistical Evaluation | |
|---|---|---|---|---|
| 0.0 | 0.0 | N/A | | |
| 407.1 | 386.0 | 1.0548 | Correlation Coefficient | 0.999907 |
| 255.2 | 239.3 | 1.0664 | | |
| 102.4 | 94.0 | 1.0890 | Slope | 1.053544 |
| | | | | |
| | | | Intercept | 1.724931 |
| | | | | |

## NOx Calibration Curve



# Calibration Summary

Parameter **NO**

Air Monitoring Network **Lafarge - Exshaw**

WSP AIR QUALITY MONITORING

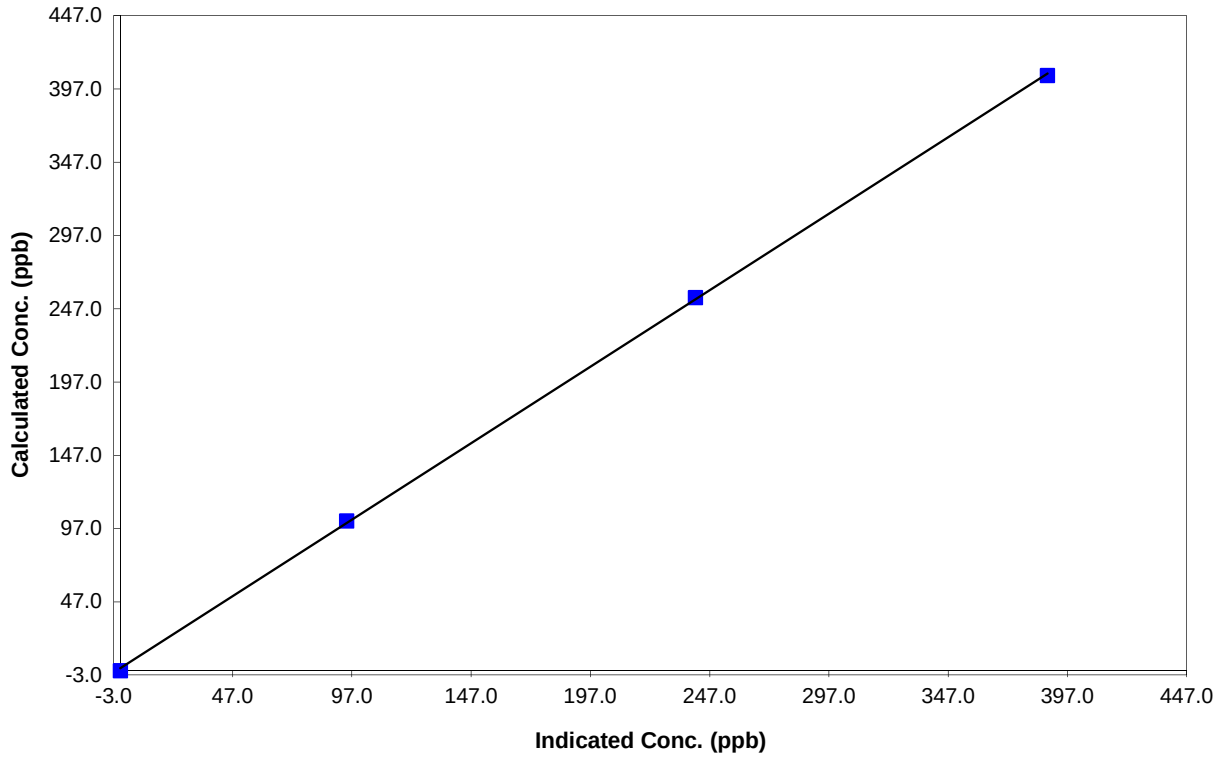
### *Station Information*

| | | | |
|---|---|---|---|
| Calibration Date | March 21, 2017 | Previous Calibration | February 9, 2017 |
| Station Number | N/A | Station Location | Exshaw - Lagoon |
| Start Time (MST) | 8:00 | End Time (MST) | 12:30 |
| Analyzer make | TECO 42C | Analyzer serial # | 64179-342 |

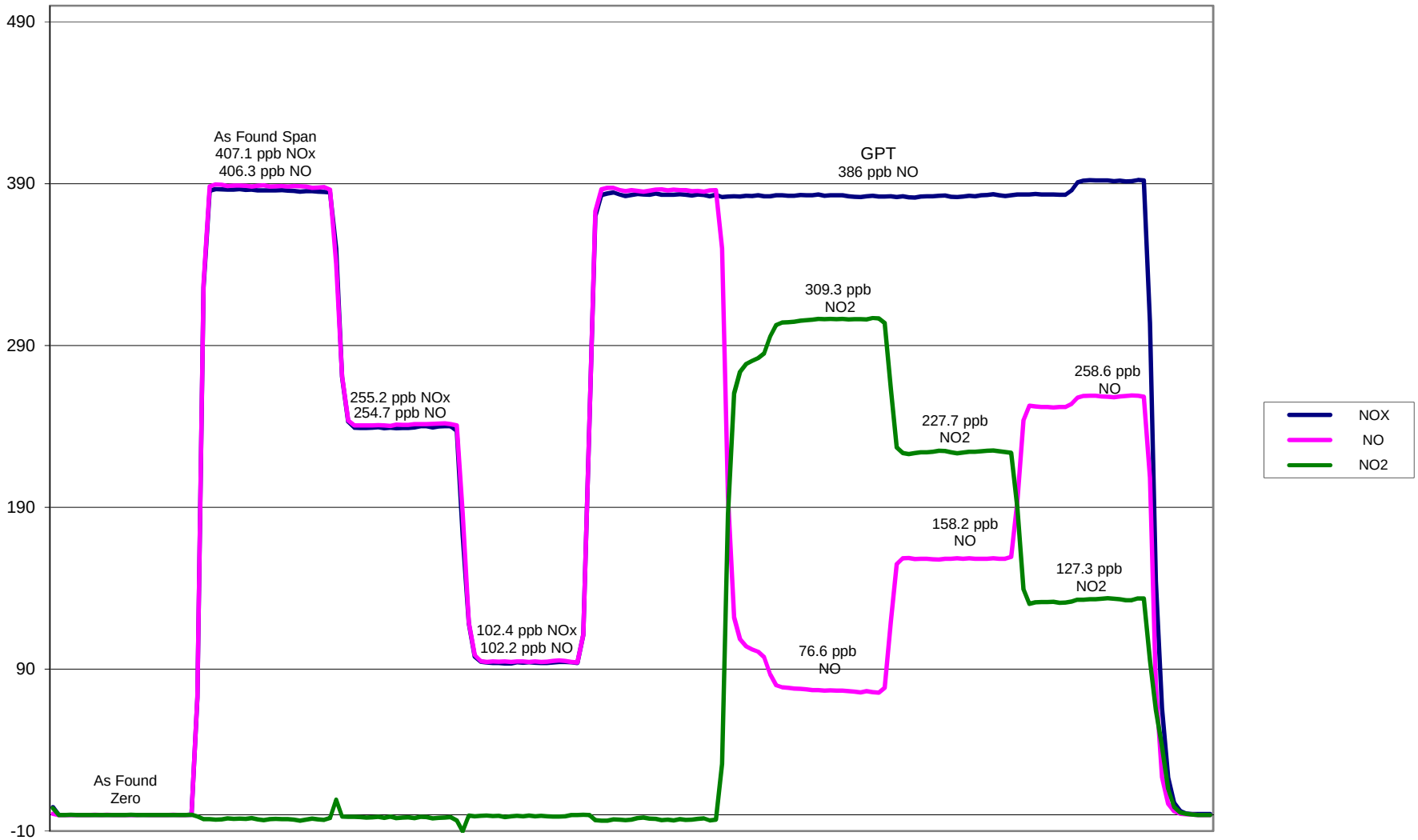
### *Calibration Data*

| Calculated conc (ppb) (Cc) | Indicated concentration (ppb) (Ic) | Correction factor (Cc/Ic) | Statistical Evaluation | |
|---|---|---|---|---|
| 0.0 | 0.0 | N/A | | |
| 406.3 | 388.6 | 1.0457 | Correlation Coefficient | 0.999911 |
| 254.7 | 241.0 | 1.0571 | | |
| 102.2 | 94.8 | 1.0783 | Slope | 1.044544 |
| | | | | |
| | | | Intercept | 1.669847 |
| | | | | |

## NO Calibration Curve



## NOX Calibration



# Calibration Report

Parameter **$NO_X$-NO-$NO_2$**

Air Monitoring Network **Lafarge - Exshaw**

WSP AIR QUALITY MONITORING

## *Station Information*

| | | | |
|---|---|---|---|
| Calibration Date | March 22, 2017 | Previous Calibration | NA |
| Station Number | N/A | Station Location | Exshaw - Lagoon |

Reason: Routine | Installation | Removal | Other:

| | | | | | |
|---|---|---|---|---|---|
| Start Time (MST) | 7:50 | | End Time (MST) | 12:15 | |
| Barometric Pressure | 642 | mmHg | Station Temperature | 20.0 | Deg C |
| Calibrator | SABIO 2010 | | Serial Number | 09700712 | |
| NO Cal Gas Conc | 51.2 | ppm | Cal Gas Expiry Date | July 26, 2019 | |
| NOx Cal Gas Conc | 51.3 | ppm | Cal Gas Serial # | EY667 | |

## *DACS Information*

DACS make: Campbell Scientific CR1000 DACS serial No.: 67802

| Parameter | | NO2 | NOx | NO |
|---|---|---|---|---|
| Before | Data Slope | NA | NA | NA |
| | Data Offset | NA | NA | NA |
| After | Data Slope | 1.004401 | 1.000648 | 0.995144 |
| | Data Offset | 0.596090 | 1.833510 | 2.729709 |
| Channel # | | 3 | 1 | 2 |
| Voltage Range | | 0 - 5 VDC | 0 - 5 VDC | 0 - 5 VDC |

## *Analyzer Information*

Analyzer make/model: T200 Analyzer serial #: 642

| Test Point | before | | after | |
|---|---|---|---|---|
| Concentration range | 0 - 500 | ppb | 0 - 500 | ppb |
| NO Slope | NA | | 0.942 | |
| NO Offset | NA | | -3.1 | mV |
| NOX Slope | NA | | 0.927 | |
| NOX Offset | NA | | -2.0 | mV |
| O3 Flow | NA | | 77.0 | ccm |
| HVPS | NA | V | 771.0 | V |
| Moly Temp | NA | degC | 316.0 | degC |
| Sample flow | NA | | OK | LPM |

Notes: New analyzer install. Adjusted Zero/Span.

# Calibration Report

Parameter **NOx-NO-$NO_2$**

Air Monitoring Network **Lafarge - Exshaw**

WSP AIR QUALITY MONITORING

## Station Information

Calibration Date: March 22, 2017 Station Location: Exshaw - Lagoon

## Calibration Data

| | Dilution flow rate (ccm) | Source gas flow rate (ccm) | Calculated NOx conc (ppb) | Calculated NO conc (ppb) | Calculated NO2 conc (ppb) | Indicated NOx conc (ppb) | Indicated NO conc (ppb) | Indicated NO2 conc (ppb) | NOx Correction factor | NO Correction factor |
|---|---|---|---|---|---|---|---|---|---|---|
| zero | 5000 | 0.00 | 0.0 | 0.0 | 0.0 | -1.4 | -1.5 | -1.3 | N/A | N/A |
| 1 | 5000 | 40.00 | 407.1 | 406.3 | 0.8 | 405.4 | 406.1 | -1.8 | 1.0042 | 1.0007 |
| 2 | 5000 | 25.00 | 255.2 | 254.7 | 0.5 | 252.7 | 253.1 | -1.6 | 1.0100 | 1.0065 |
| 3 | 7000 | 14.00 | 102.4 | 102.2 | 0.2 | 100.2 | 98.4 | 0.3 | 1.0217 | 1.0387 |
| | | | | | | | | | | |
| AFZ | | | | | | | | | | |
| AFS | | | | | | | | | | |
| | | | | | | | Average Correction Factor | | 1.0120 | 1.0153 |

As Found Concentrations: $NO_X$= NA NO= NA As Found Percent Change $NO_X$= NA NO= NA

## GPT Calibration Data

Dilution Flow 5000 ccm Source Gas Flow 40.00 ccm

| O3 Setpoint (V) | Indicated NO high point (ppb) | Indicated NO drop conc (ppb) | Calculated NO2 conc (ppb) | Indicated NOx conc (ppb) | Indicated NO conc (ppb) | Indicated NO2 conc (ppb) | NOx Correction factor | NO Correction factor | NO2 Correction factor | Converter Efficiency |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | -1.5 | -1.5 | 0.0 | -1.4 | -1.5 | -1.3 | N/A | N/A | N/A | N/A |
| NO point | 405.6 | 405.6 | 0.0 | 407.2 | 405.6 | 0.3 | 0.9961 | 1.0000 | N/A | N/A |
| 0.76V | 405.6 | 29.6 | 376.0 | 404.3 | 29.6 | 373.3 | 1.0032 | 1.0000 | 1.0073 | 99.3% |
| 0.58V | 405.6 | 144.1 | 261.5 | 405.5 | 144.1 | 260.2 | 1.0002 | 1.0000 | 1.0050 | 99.5% |
| 0.39V | 405.6 | 311.5 | 94.1 | 406.8 | 311.5 | 93.8 | 0.9969 | 1.0000 | 1.0028 | 99.7% |
| | | | | | Average Correction Factor | | 1.0001 | 1.0000 | 1.0050 | 99.5% |

## AIC Data

| | Previous calibration | | | | Current calibration | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | NOx | NO2 | NO | | NOx | NO2 | NO | |
| Auto zero | -0.5 | 1.5 | 0.0 | ppb | 0.0 | -0.8 | 0.9 | ppb |
| Auto span | 393.8 | 0.0 | 392.6 | ppb | 355.3 | 24.6 | 329.3 | ppb |

Calibration Performed By: Lenin Flores

# Calibration Summary

Parameter **$NO_2$**

Air Monitoring Network **Lafarge - Exshaw**

WSP AIR QUALITY MONITORING

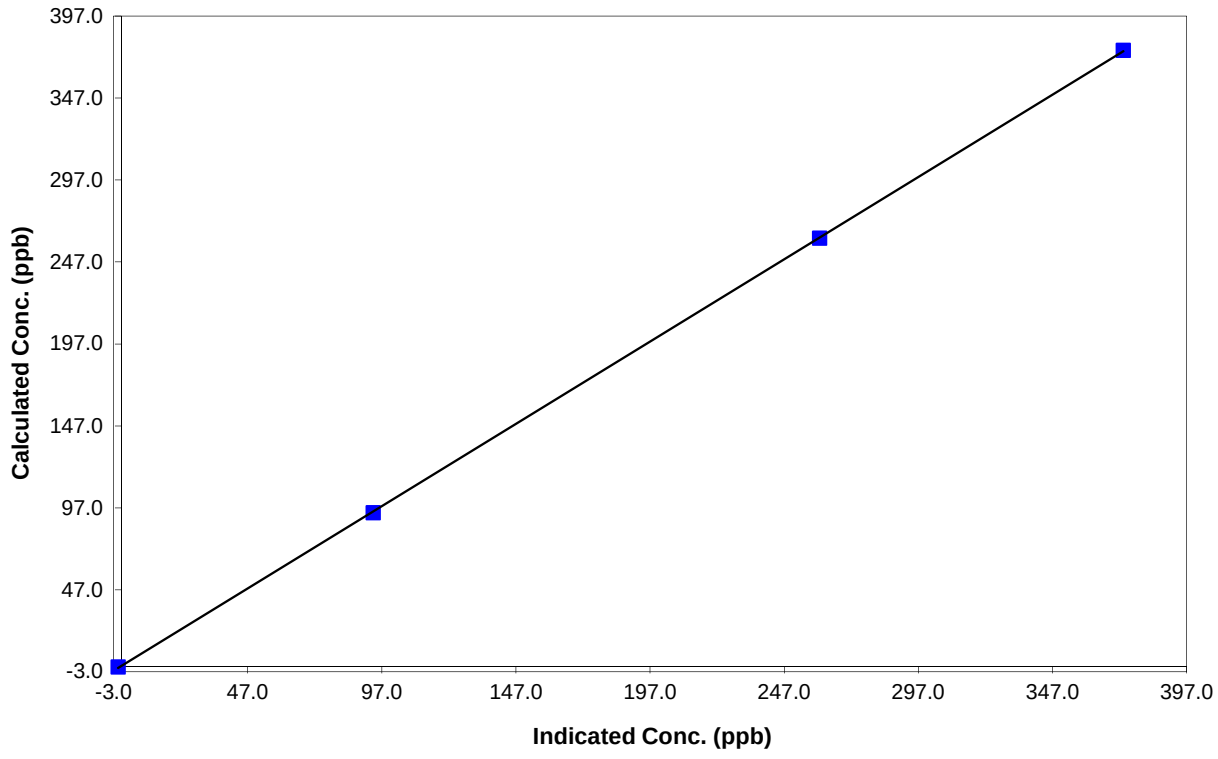
### *Station Information*

| | | | |
|---|---|---|---|
| Calibration Date | March 22, 2017 | Previous Calibration | NA |
| Station Number | N/A | Station Location | Exshaw - Lagoon |
| Start Time (MST) | 7:50 | End Time (MST) | 12:15 |
| Analyzer make | T200 | Analyzer serial # | 642 |

### *Calibration Data*

| Calculated conc (ppb) (Cc) | Indicated concentration (ppb) (Ic) | Correction factor (Cc/Ic) | Statistical Evaluation | |
|---|---|---|---|---|
| 0.0 | -1.3 | N/A | | |
| 376.0 | 373.3 | 1.0073 | Correlation Coefficient | 0.999983 |
| 261.5 | 260.2 | 1.0050 | | |
| 94.1 | 93.8 | 1.0028 | Slope | 1.004401 |
| | | | | |
| | | | Intercept | 0.596090 |
| | | | | |

## $NO_2$ Calibration Curve



# Calibration Summary

Parameter **$NO_x$**

Air Monitoring Network **Lafarge - Exshaw**

WSP AIR QUALITY MONITORING

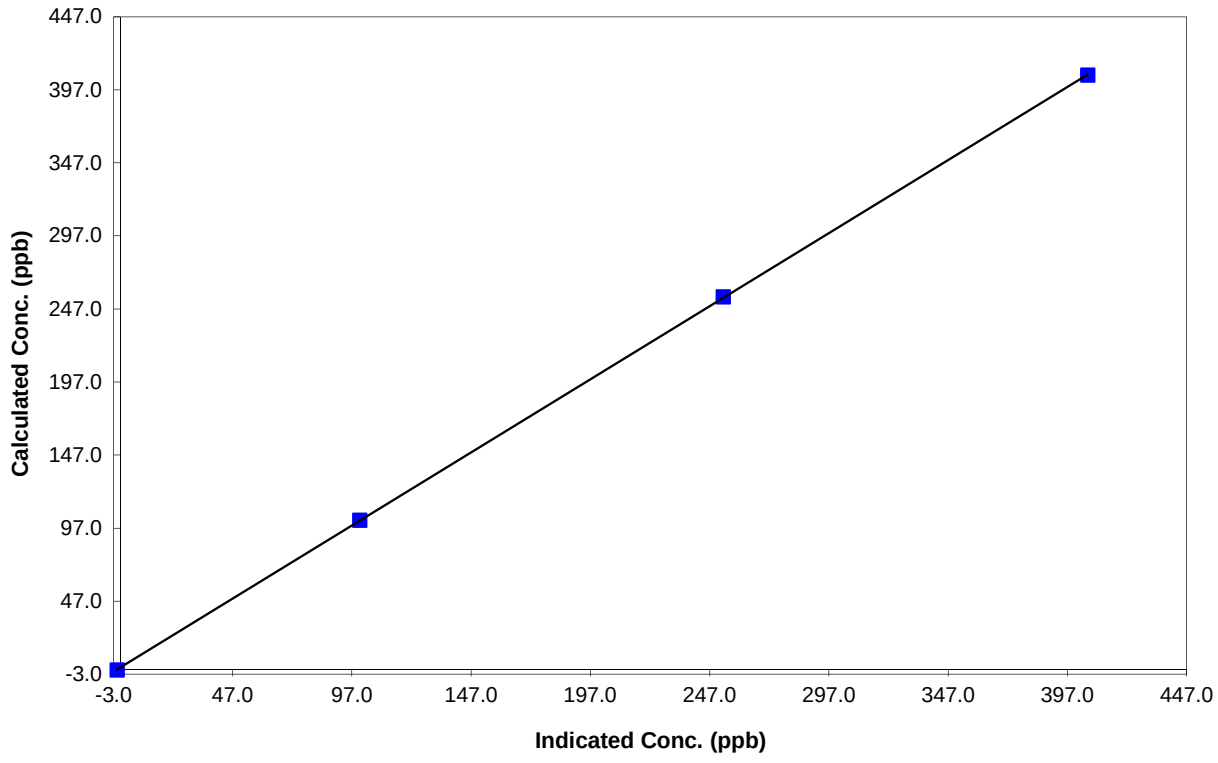
### *Station Information*

| | | | |
|---|---|---|---|
| Calibration Date | March 22, 2017 | Previous Calibration | NA |
| Station Number | N/A | Station Location | Exshaw - Lagoon |
| Start Time (MST) | 7:50 | End Time (MST) | 12:15 |
| Analyzer make | T200 | Analyzer serial # | 642 |

### *Calibration Data*

| Calculated conc (ppb) (Cc) | Indicated concentration (ppb) (Ic) | Correction factor (Cc/Ic) | Statistical Evaluation | |
|---|---|---|---|---|
| 0.0 | -1.4 | N/A | | |
| 407.1 | 405.4 | 1.0042 | Correlation Coefficient | 0.999993 |
| 255.2 | 252.7 | 1.0100 | | |
| 102.4 | 100.2 | 1.0217 | Slope | 1.000648 |
| | | | | |
| | | | Intercept | 1.833510 |
| | | | | |

## NOx Calibration Curve



# Calibration Summary

Parameter **NO**

Air Monitoring Network **Lafarge - Exshaw**

WSP AIR QUALITY MONITORING

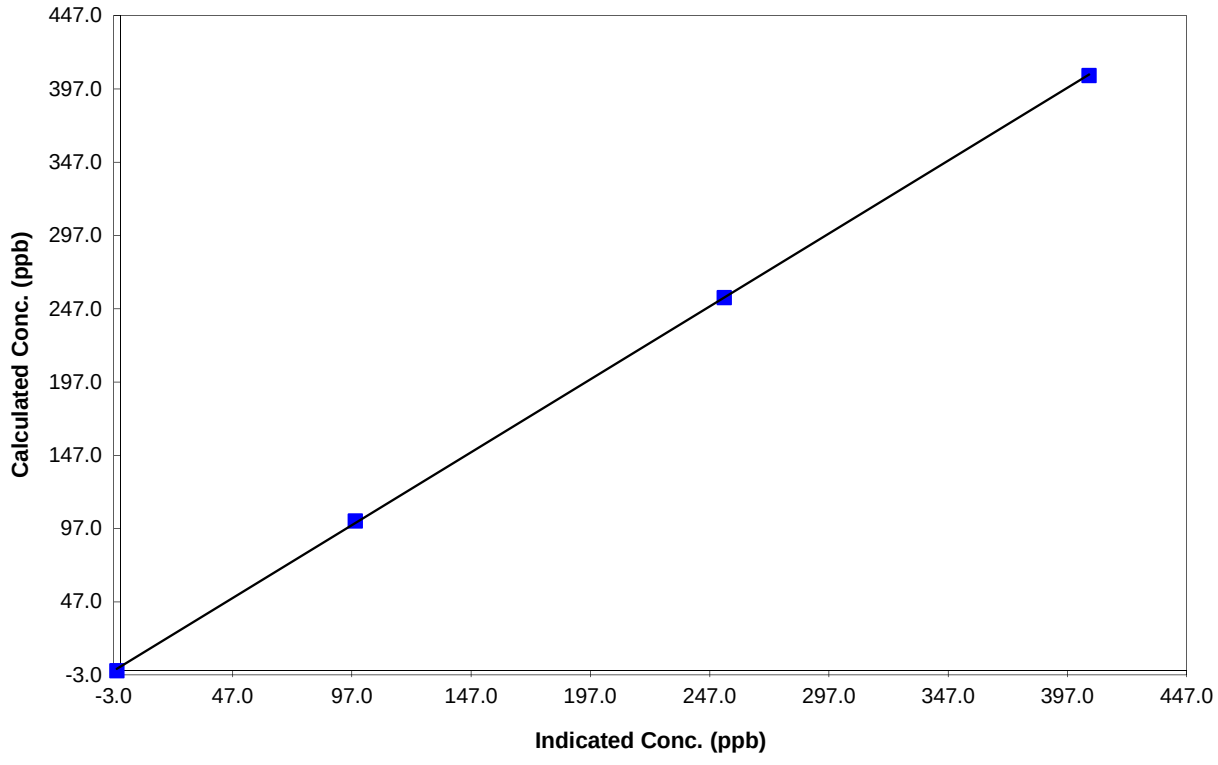
### *Station Information*

| | | | |
|---|---|---|---|
| Calibration Date | March 22, 2017 | Previous Calibration | NA |
| Station Number | N/A | Station Location | Exshaw - Lagoon |
| Start Time (MST) | 7:50 | End Time (MST) | 12:15 |
| Analyzer make | T200 | Analyzer serial # | 642 |

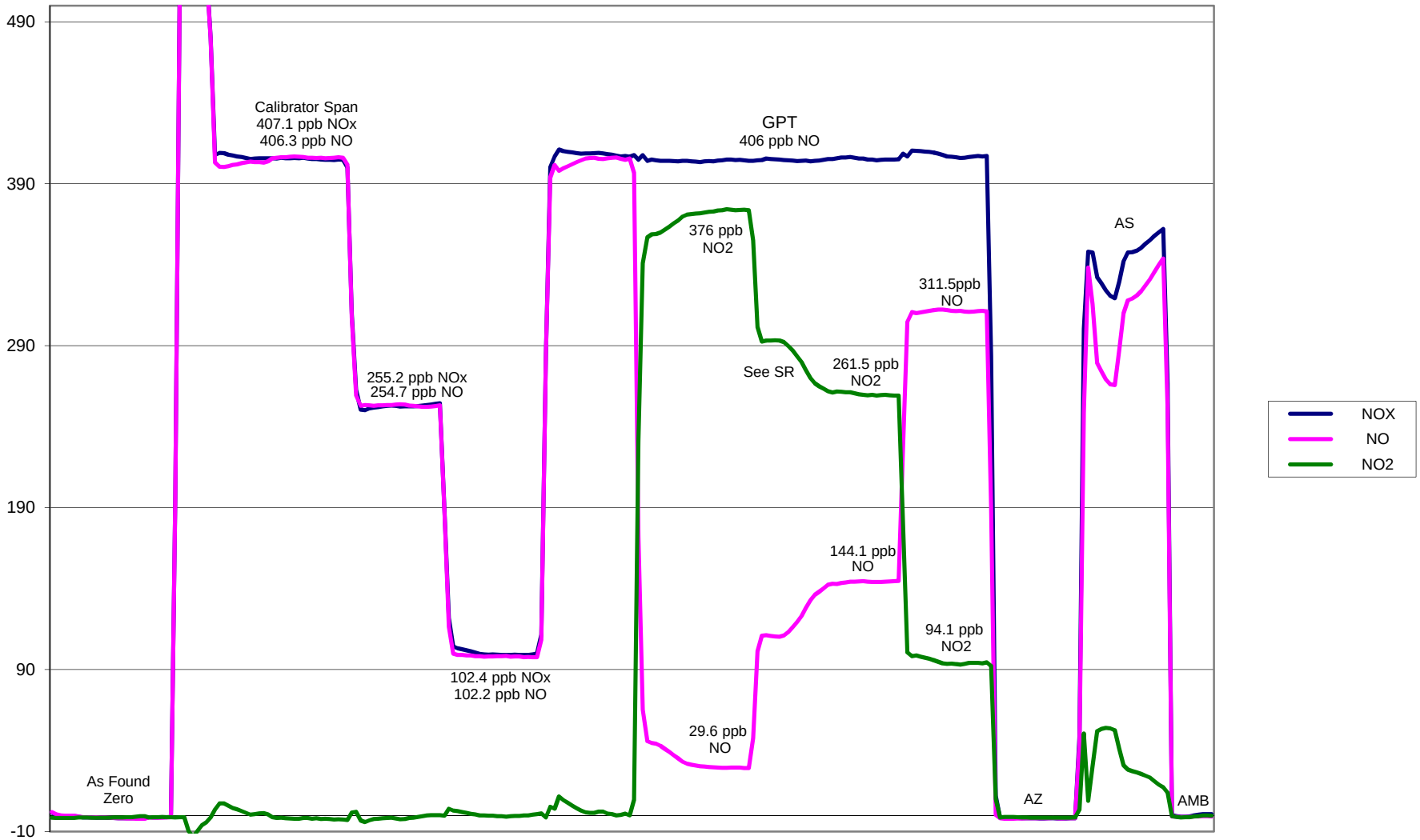
### *Calibration Data*

| Calculated conc (ppb) (Cc) | Indicated concentration (ppb) (Ic) | Correction factor (Cc/Ic) | Statistical Evaluation | |
|---|---|---|---|---|
| 0.0 | -1.5 | N/A | | |
| 406.3 | 406.1 | 1.0007 | Correlation Coefficient | 0.999956 |
| 254.7 | 253.1 | 1.0065 | | |
| 102.2 | 98.4 | 1.0387 | Slope | 0.995144 |
| | | | | |
| | | | Intercept | 2.729709 |
| | | | | |

## NO Calibration Curve



## NOX Calibration



# Calibration Report

Parameter **SO2**

Air Monitoring Network **Lafarge - Exshaw**

WSP AIR QUALITY MONITORING

## *Station Information*

| | | | |
|---|---|---|---|
| Calibration Date | March 21, 2017 | Previous Calibration | February 9, 2017 |
| Station Number | N/A | Station Location | Exshaw - Lagoon |
| Reason: Routine | Install | Removal | Other: |
| Start Time (MST) | 8:00 | End Time (MST) | 9:40 |
| Barometric Pressure | 650 mmHg | Station Temperature | 20.0 Deg C |
| Calibrator | SABIO 2010 | Serial Number | 04090809 |
| Cal Gas Concentratio | 49.8 ppm | Cal Gas Expiry Date | 7/14/2020 |
| Gas Cert Reference | EY643 | | |
| DACS make | Campbell Scientific CR1000 | DACS serial No. | 67802 |
| DACS voltage range | 0 - 5 VDC | DACS channel # | 4 |
| | Before | | After |
| DACS Scale High | 500 | DACS slope | 500 |
| DACS Scale Low | 0 | DACS intercept | 0 |
| Calculated slope | 0.997738 | Calculated slope | 0.960908 |
| Calculated intercept | 1.876184 | Calculated intercept | 2.582063 |
| Analyzer make | API Model 102A | Analyzer serial # | 393 |

| | before | | after | |
|---|---|---|---|---|
| Concentration range | 0-500 | ppb | 0-500 | ppb |
| Slope | 0.976 | | NA | |
| Offset | 47.7 | mV | NA | mV |
| Pressure | 23.7 | in Hg | NA | in Hg |
| Sample Flow | 496 | ccm | NA | ccm |
| UV Lamp | 2377.9 | mV | NA | mV |
| Lamp Ratio | 110.6 | % | NA | % |
| PMT Temp | 7.6 | degC | NA | degC |

## *Calibration Data*

| Dilution air flow rate (cc/min) | Source gas flow rate (cc/min) | Calculated concentration (ppm) (Cc) | Indicated concentration (ppm) (Ic) | Correction factor (Cc/Ic) |
|---|---|---|---|---|
| 5000 | 0.00 | 0.0 | -1.8 | N/A |
| 5000 | 40.00 | 395.2 | 410.1 | 0.9639 |
| 5000 | 25.00 | 247.8 | 252.9 | 0.9798 |
| 7000 | 14.00 | 99.4 | 100.7 | 0.9866 |
| | | | | |
| 5000 | 0.00 | 0.0 | -1.8 | As found zero |
| 5000 | 40.00 | 395.2 | 410.1 | As found span |
| | | | Average Correction Factor | 0.9768 |

Calculated value of As Found Response: 412.8 ppm Percent Change of As Found: -4.4%

| | before calibration | | after calibration | |
|---|---|---|---|---|
| Auto zero | -0.9 | ppm | 0.0 | ppm |
| Auto span | 381.1 | ppm | 0.0 | ppm |

Notes: Removal calibration, no adjustments made. Rebuilt sample pump and cleaned out orifices.

Calibration Performed By: Lenin Flores

# Calibration Summary

Parameter **SO2**

Air Monitoring Network **Lafarge - Exshaw**

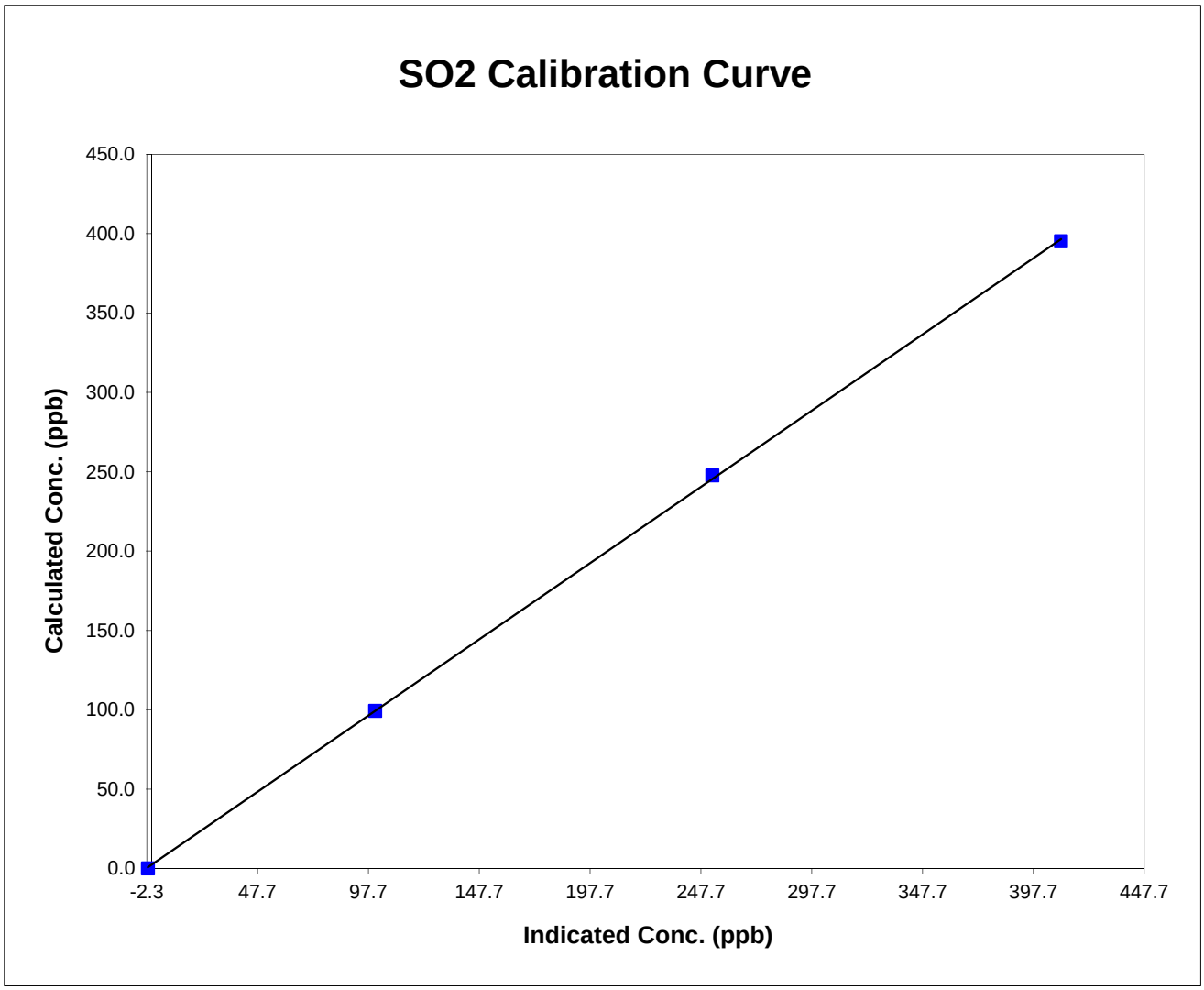
AIR QUALITY MONITORING

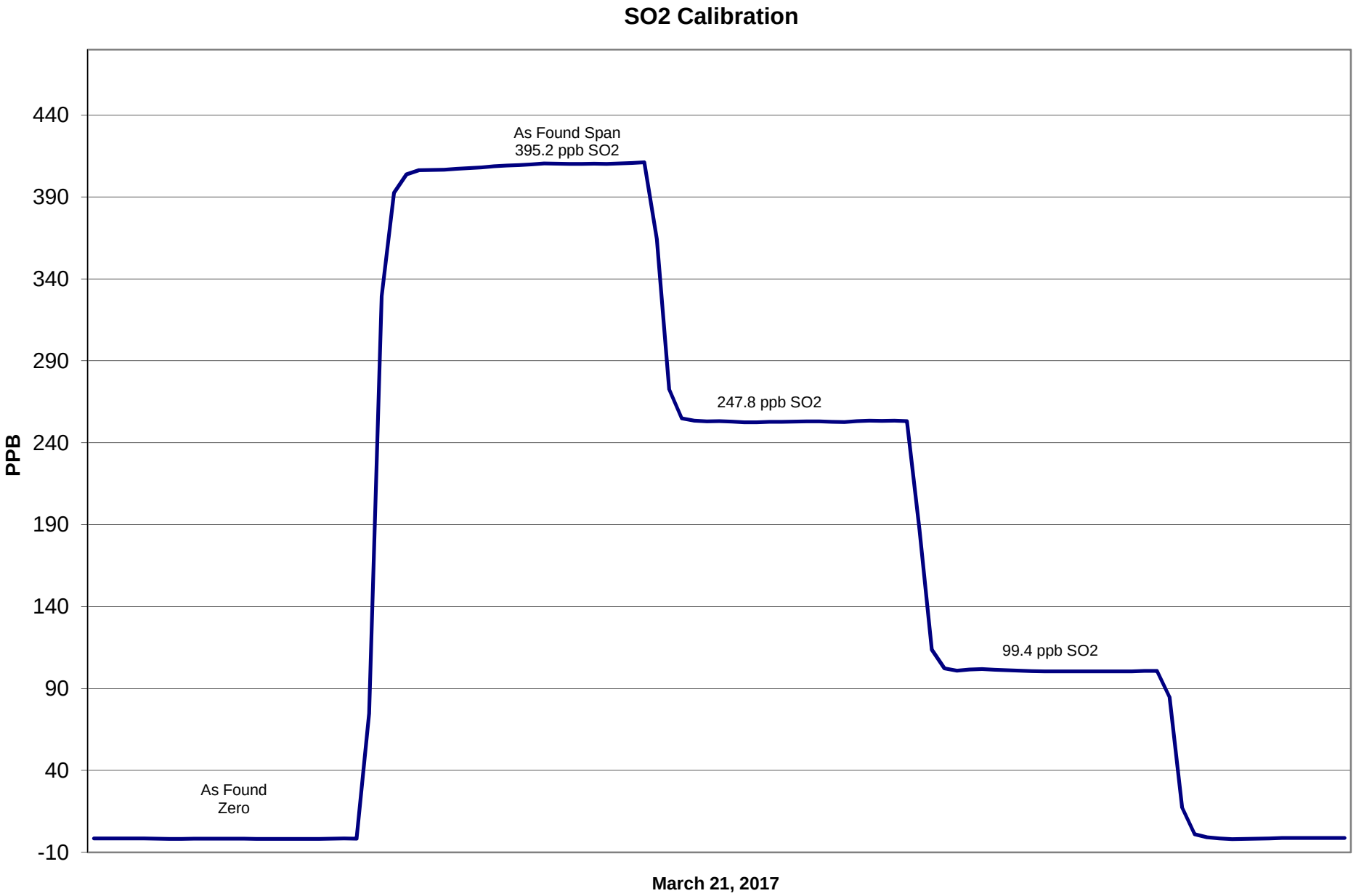
***Station Information***

| | | | |
|---|---|---|---|
| Calibration Date | March 21, 2017 | Previous Calibration | February 9, 2017 |
| Station Number | N/A | Station Location | Exshaw - Lagoon |
| Start Time (MST) | 8:00 | End Time (MST) | 9:40 |
| Analyzer make/model | API Model 102A | Analyzer serial # | 393 |

***Calibration Data***

| Calculated concentration (ppb) (Cc) | Indicated concentration (ppb) (Ic) | Correction factor (Cc/Ic) | Statistical Evaluation | |
|---|---|---|---|---|
| 0.0 | -1.8 | N/A | | |
| 395.2 | 410.1 | 0.9639 | Correlation Coefficient | 0.999917 |
| 247.8 | 252.9 | 0.9798 | | |
| 99.4 | 100.7 | 0.9866 | Slope | 0.960908 |
| | | | | |
| | | | Intercept | 2.582063 |
| | | | | |




SO2 Calibration
440
390
340
290
240
190
140
90
40
-10
PPB
As Found Span
395.2 ppb SO2
247.8 ppb SO2
99.4 ppb SO2
As Found
Zero
March 21, 2017

# Calibration Report

Parameter **SO2**

Air Monitoring Network **Lafarge - Exshaw**

WSP AIR QUALITY MONITORING

## *Station Information*

| | | | |
|---|---|---|---|
| Calibration Date | March 22, 2017 | Previous Calibration | NA |
| Station Number | N/A | Station Location | Exshaw - Lagoon |
| Reason: Routine | Install | Removal | Other: |
| Start Time (MST) | 6:50 | End Time (MST) | 9:40 |
| Barometric Pressure | 643 mmHg | Station Temperature | 20.0 Deg C |
| Calibrator | SABIO 2010 | Serial Number | 04090809 |
| Cal Gas Concentratio | 49.8 ppm | Cal Gas Expiry Date | 7/14/2020 |
| Gas Cert Reference | EY643 | | |
| DACS make | Campbell Scientific CR1000 | DACS serial No. | 67802 |
| DACS voltage range | 0 - 5 VDC | DACS channel # | 4 |
| | Before | | After |
| DACS Scale High | 500 | DACS slope | 500 |
| DACS Scale Low | 0 | DACS intercept | 0 |
| Calculated slope | 0.997738 | Calculated slope | 0.967878 |
| Calculated intercept | 1.876184 | Calculated intercept | -0.069969 |
| Analyzer make | API Model 102A | Analyzer serial # | 393 |

| | before | | after | |
|---|---|---|---|---|
| Concentration range | 0-500 | ppb | 0-500 | ppb |
| Slope | NA | | 0.967 | |
| Offset | NA | mV | 44.8 | mV |
| Pressure | NA | in Hg | 23.4 | in Hg |
| Sample Flow | NA | ccm | 490 | ccm |
| UV Lamp | NA | mV | 3008 | mV |
| Lamp Ratio | NA | % | 100 | % |
| PMT Temp | NA | degC | 7.6 | degC |

## *Calibration Data*

| Dilution air flow rate (cc/min) | Source gas flow rate (cc/min) | Calculated concentration (ppm) (Cc) | Indicated concentration (ppm) (Ic) | Correction factor (Cc/Ic) |
|---|---|---|---|---|
| 5000 | 0.00 | 0.0 | 0.1 | N/A |
| 5000 | 40.00 | 395.2 | 408.9 | 0.9666 |
| 5000 | 25.00 | 247.8 | 255.1 | 0.9711 |
| 7000 | 14.00 | 99.4 | 103.2 | 0.9636 |
| | | | | |
| | | | | As found zero |
| | | | | As found span |
| | | | Average Correction Factor | 0.9671 |

Calculated value of As Found Response: NA

Percent Change of As Found: NA

| | before calibration | | after calibration | |
|---|---|---|---|---|
| Auto zero | NA | ppm | 0.2 | ppm |
| Auto span | NA | ppm | 395.0 | ppm |

Notes: Install calibration post-maintenance. Adjusted Zero and Span.

Calibration Performed By: Lenin Flores

# Calibration Summary

Parameter **SO2**

Air Monitoring Network **Lafarge - Exshaw**

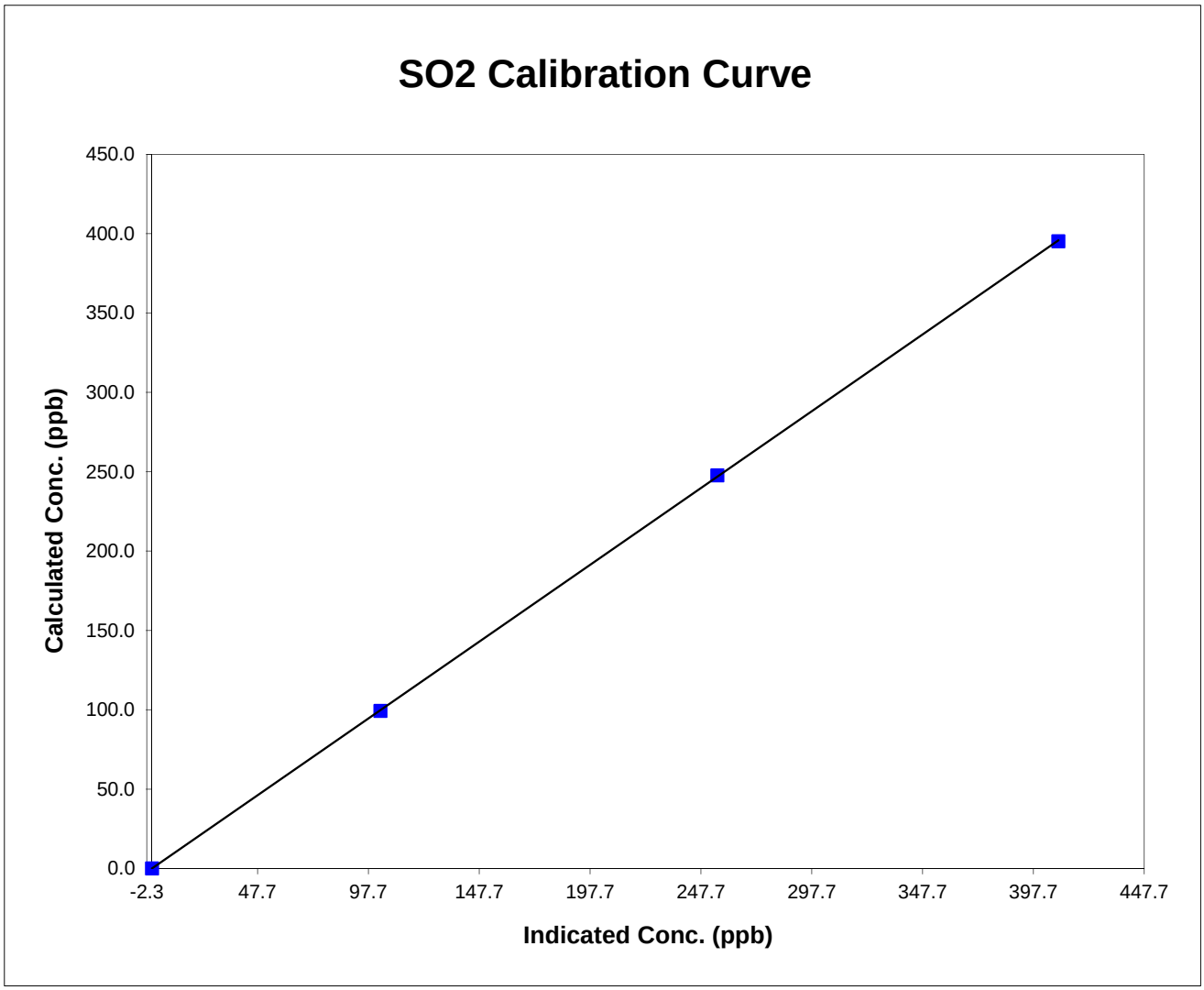
WSP AIR QUALITY MONITORING

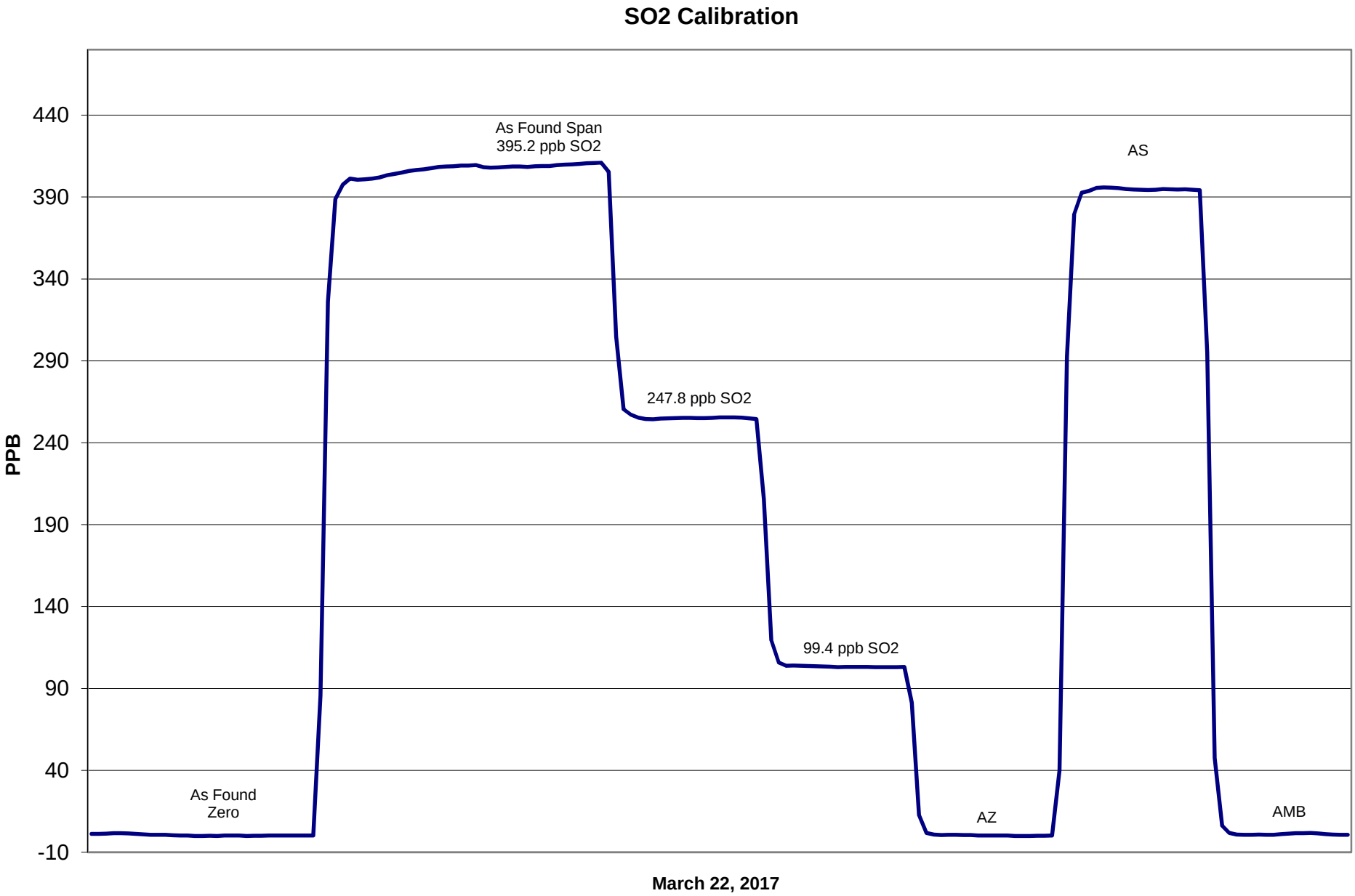
***Station Information***

| | | | |
|---|---|---|---|
| Calibration Date | March 22, 2017 | Previous Calibration | NA |
| Station Number | N/A | Station Location | Exshaw - Lagoon |
| Start Time (MST) | 6:50 | End Time (MST) | 9:40 |
| Analyzer make/model | API Model 102A | Analyzer serial # | 393 |

***Calibration Data***

| Calculated concentration (ppb) (Cc) | Indicated concentration (ppb) (Ic) | Correction factor (Cc/Ic) | Statistical Evaluation | |
|---|---|---|---|---|
| 0.0 | 0.1 | N/A | | |
| 395.2 | 408.9 | 0.9666 | Correlation Coefficient | 0.999987 |
| 247.8 | 255.1 | 0.9711 | | |
| 99.4 | 103.2 | 0.9636 | Slope | 0.967878 |
| | | | | |
| | | | Intercept | -0.069969 |
| | | | | |




SO2 Calibration
440
390
340
290
240
190
140
90
40
-10
PPB
As Found Span
395.2 ppb SO2
247.8 ppb SO2
99.4 ppb SO2
AS
As Found
Zero
AZ
AMB
March 22, 2017