

REPORT N° 171-00556-00

AMBIENT AIR QUALITY MONTHLY REPORT

APRIL 2017

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APRIL 2017

Lafarge Canada Inc.

Project no: 171-00556-00
Date: April 2017

WSP Canada Inc.
150-12791 Clarke Place
Richmond, BC V6V 2H9

Phone: +1 604 278 1411
Fax: +1 604 278 1042
www.wspgroup.com





Project Number: 171-00556-00

May 10, 2017

Janet Brygger
Lafarge Canada Inc.
Highway 1A
Exshaw, AB T0L 2C0

WSP Canada Inc.
150-12791 Clarke Place
Richmond, BC V6V 2H9

Phone: +1 604 278 1411
Fax: +1 604 278 1042

www.wspgroup.com
www.pbworld.com

Dear Ms. Brygger,

Subject: Ambient Air Quality Monthly Report – April 2017

The operational uptime for the meteorological systems and all analyzers except for PM₁₀ BAM at the Lagoon station was 100% in April. The temporary PM₁₀ BAM analyzer was removed and replaced on April 11th with the permanent analyzer after it was serviced in Calgary, resulting in the loss of data for 5 hours. There were no contraventions of the 24-hour TSP and PM_{2.5} Alberta Ambient Air Quality Objectives (AAAQOs) in April 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 greater than 95%. The Entrance and West GRIMM monitors exceeded the TSP AAAQO for 1 day while the Berm GRIMM had 8 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



Tyler Abel, M.Sc.
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 April 1, 2017 and April 30, 2017.

April'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

APRIL 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)	100.0	24.3	0	9.6	-
SO ₂ (ppb)	100.0	7.2	0	1.1	0
PM _{2.5} (µg/m ³)	100.0	11.6	-	4.2	0
PM ₁₀ (µg/m ³)	99.6	88.7	-	27.3	-
TSP (µg/m ³)	100.0	147.8	-	41.2	0
Temperature (°C)	100.0	12.8	-	8.3	-
Wind Speed (km/hr) /Direction	100.0	43.9/W	-	27.7/WSW	-
Precipitation (mm)	100.0	2.0	-	10.0	-

Data Quality Notes:

- There were no exceedances of any AAAQOs.

Data Quality Notes:

- There were 8 exceedances of the 24-hour TSP Guideline.

Calibration/Maintenance Notes:

- The monitor had 99.9% uptime for the month due to maintenance work performed on April 11th.

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} ($\mu\text{g}/\text{m}^3$)	96.5	37.8	-	14.2	0
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	96.5	225.1	-	52.0	-
TSP ($\mu\text{g}/\text{m}^3$)	96.5	563.0	-	132.9	1

Data Quality Notes:

- There was 1 exceedance of the 24-hour TSP Guideline.
- Fewest number of exceedances of the 24-hour TSP Guidelines recorded in April since monitoring began in 2010

Calibration/Maintenance Notes:

- The monitor had 96.5% uptime for the month due to instrument error from April 9th to 10th and maintenance work on April 11th.

3

LAGOON STATION

The Lagoon trailer contains NO_x, SO₂, TSP, PM₁₀, 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 April 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 monthly calibration on April 11th and had 100% uptime.

3.1.2 SO₂ MONITORING

The SO₂ monitor underwent monthly calibration on April 11th and had 100% uptime.

3.1.3 PM MONITORING

The PM_{2.5} and TSP BAM monitors underwent monthly calibration on April 11th, 2017 and had 100% uptime for the month. The temporary PM₁₀ analyzer was removed and replaced with the permanent analyzer on April 11th after it was serviced in Calgary, resulting in 99.6% 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 April.

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 April 2017. Table 3-2 summarizes the hourly and daily concentrations recorded in April 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 April 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 April 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.

Table 3-2 Summary of April 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		Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration/Meteorological Variable	Day	Day	
NO ₂ (ppb)	159	-	Lagoon	0	-	4.9	24.3	18	2	5.5	80.9	9.6	20	100.0
SO ₂ (ppb)	172	48	Lagoon	0	0	0.4	7.2	6	20	28.0	274.8	1.1	20	100.0
PM _{2.5} (µg/m ³)	-	30	Lagoon	-	0	1.7	11.6	28	9	8.3	251.2	4.2	12	100.0
PM ₁₀ (µg/m ³)	-	-	Lagoon	-	-	13.4	88.7	17	8	11.0	266.6	27.3	17	99.6
TSP (µg/m ³)	-	100	Lagoon	-	0	16.7	147.8	4	8	23.2	285.1	41.2	17	100.0
Temperature (°C)	-	-	Lagoon	-	-	4.0	12.8	6	16	25.1	270.9	8.3	6	100.0
Wind Speed/Direction	-	-	Lagoon	-	-	14.8	43.9/W	7	1	43.9	253.6	27.7/WSW	5	100.0
Precipitation (mm)	-	-	Lagoon	-	-	0.1	2.0	9	16	6.4	219.4	10.0	24	100.0

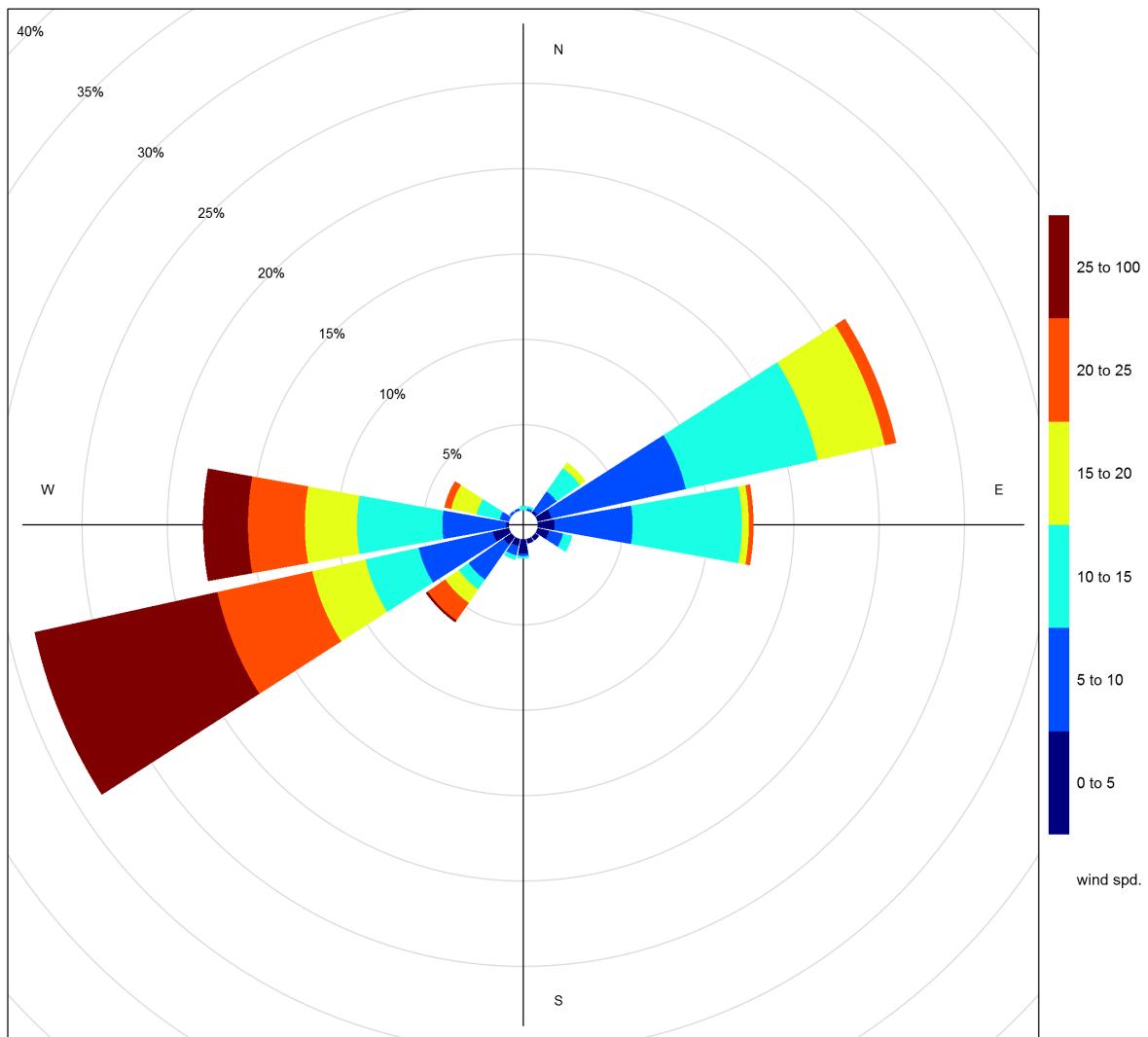


Figure 3-3 April 2017 wind rose from the Lagoon Station

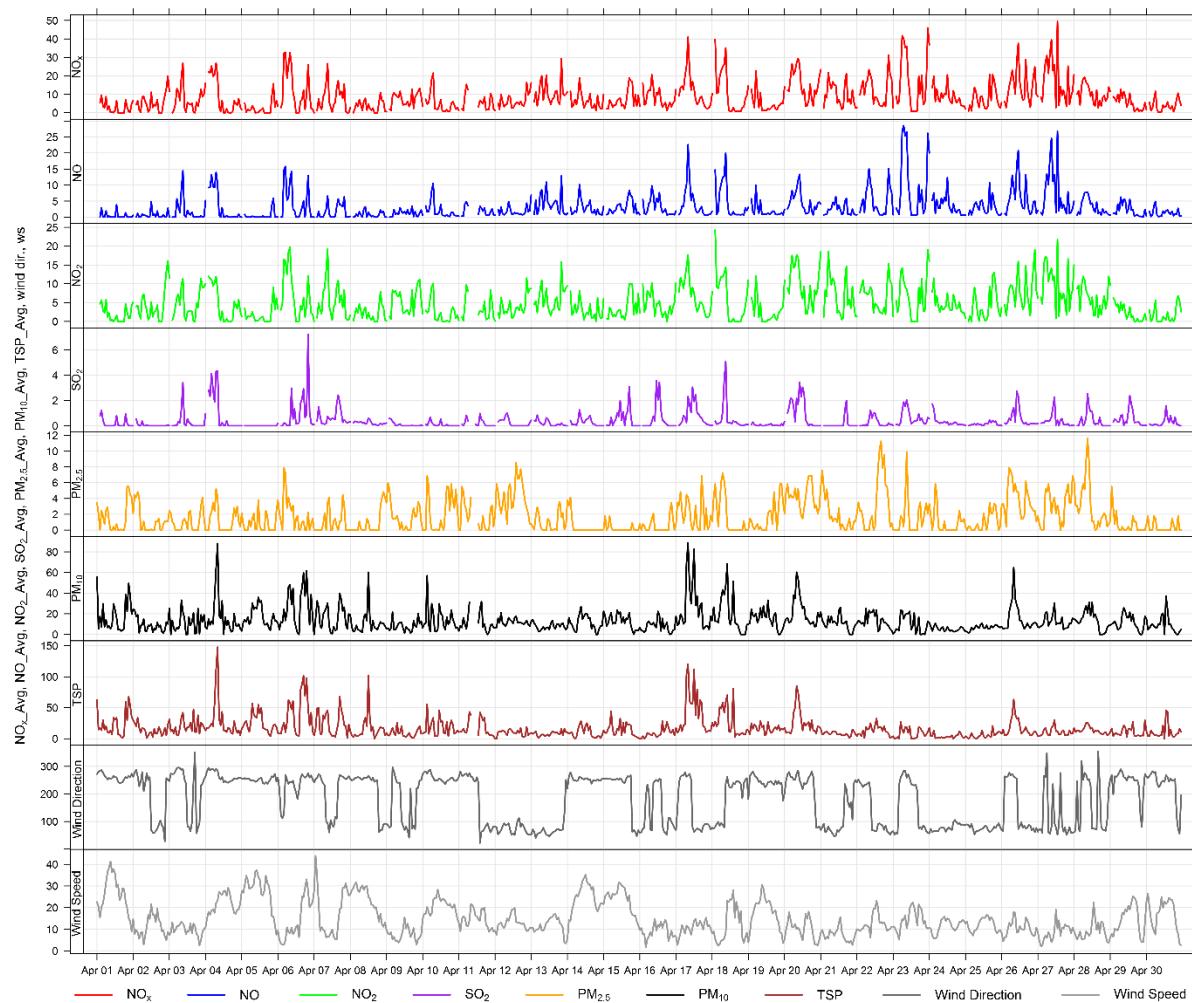


Figure 3-4 1-hour concentrations of NO_x, SO₂, particulate matter, wind direction and wind speed at the Lagoon monitor

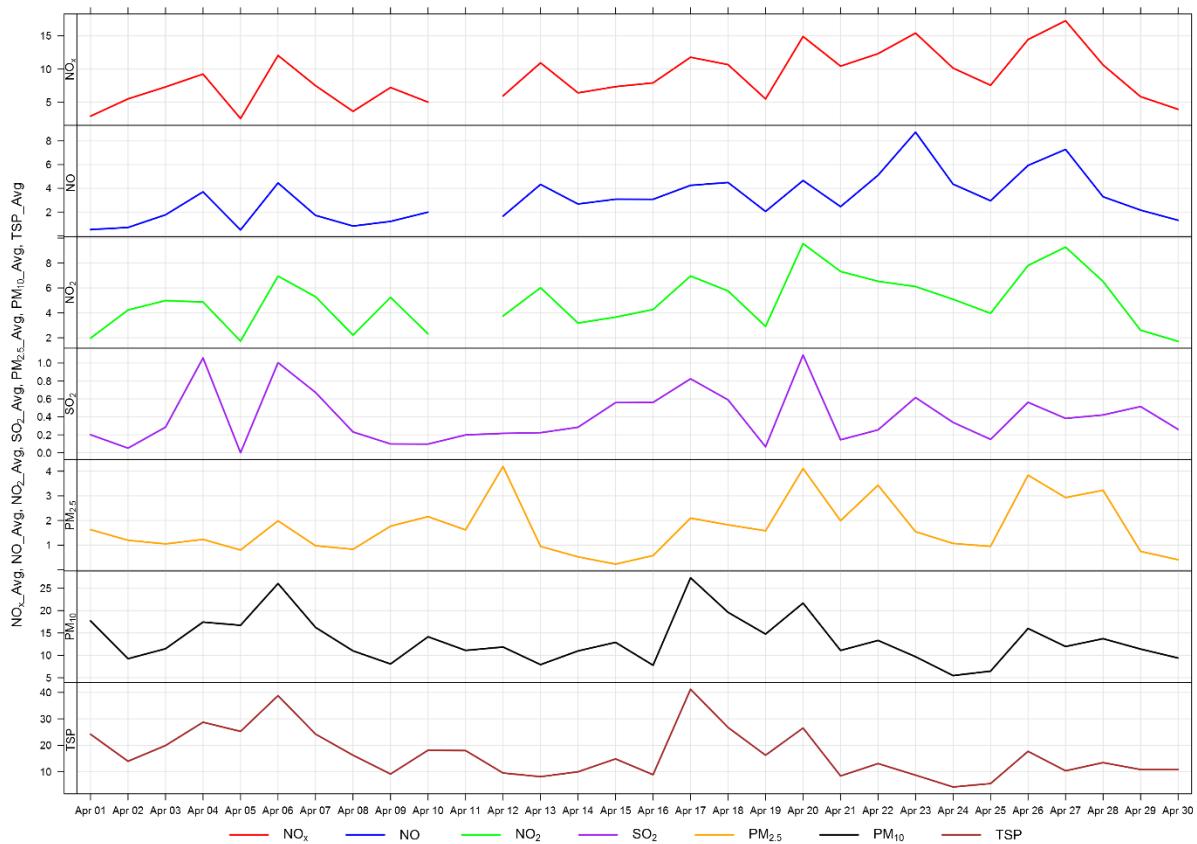


Figure 3-5 24-hour concentrations of NO_x, SO₂, and particulate matter at the Lagoon monitor

Figure 3-6 through Figure 3-8 show the variation in concentrations over various time averaging periods for PM, SO₂ and NO_x. The particulate matter plot in Figure 3-6 shows that PM₁₀ and TSP concentrations tended to rise through the morning before peaking mid-morning and decreasing during the afternoon and evening. PM₁₀ and TSP are generally associated with dust from fugitive sources.

Figure 3-7 shows the variation of SO₂ over various time periods. SO₂ concentrations were extremely low in April. Figure 3-8 shows the variation of NO_x, NO and NO₂, 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.

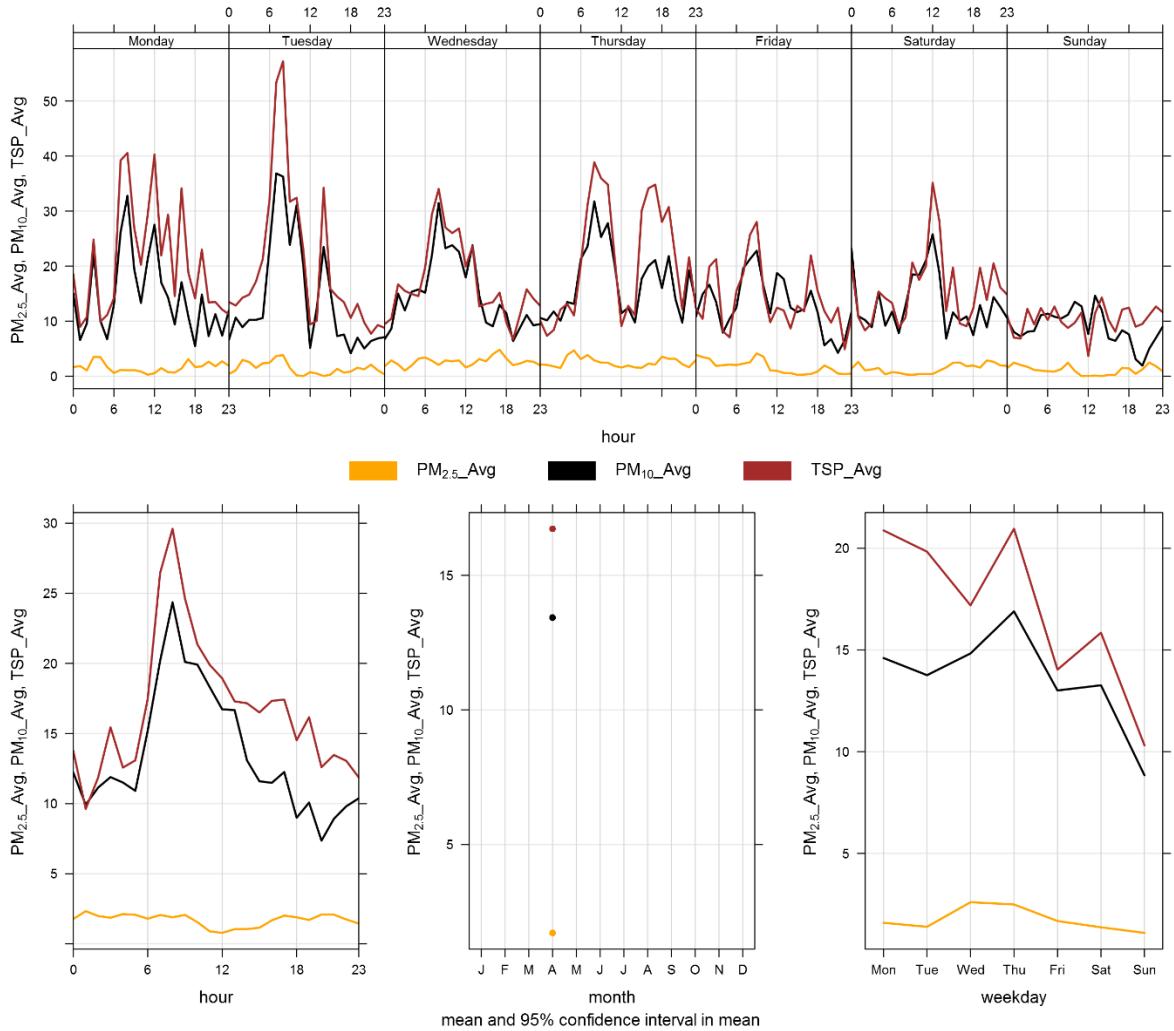


Figure 3-6 Lagoon Monitor particulate matter time variation

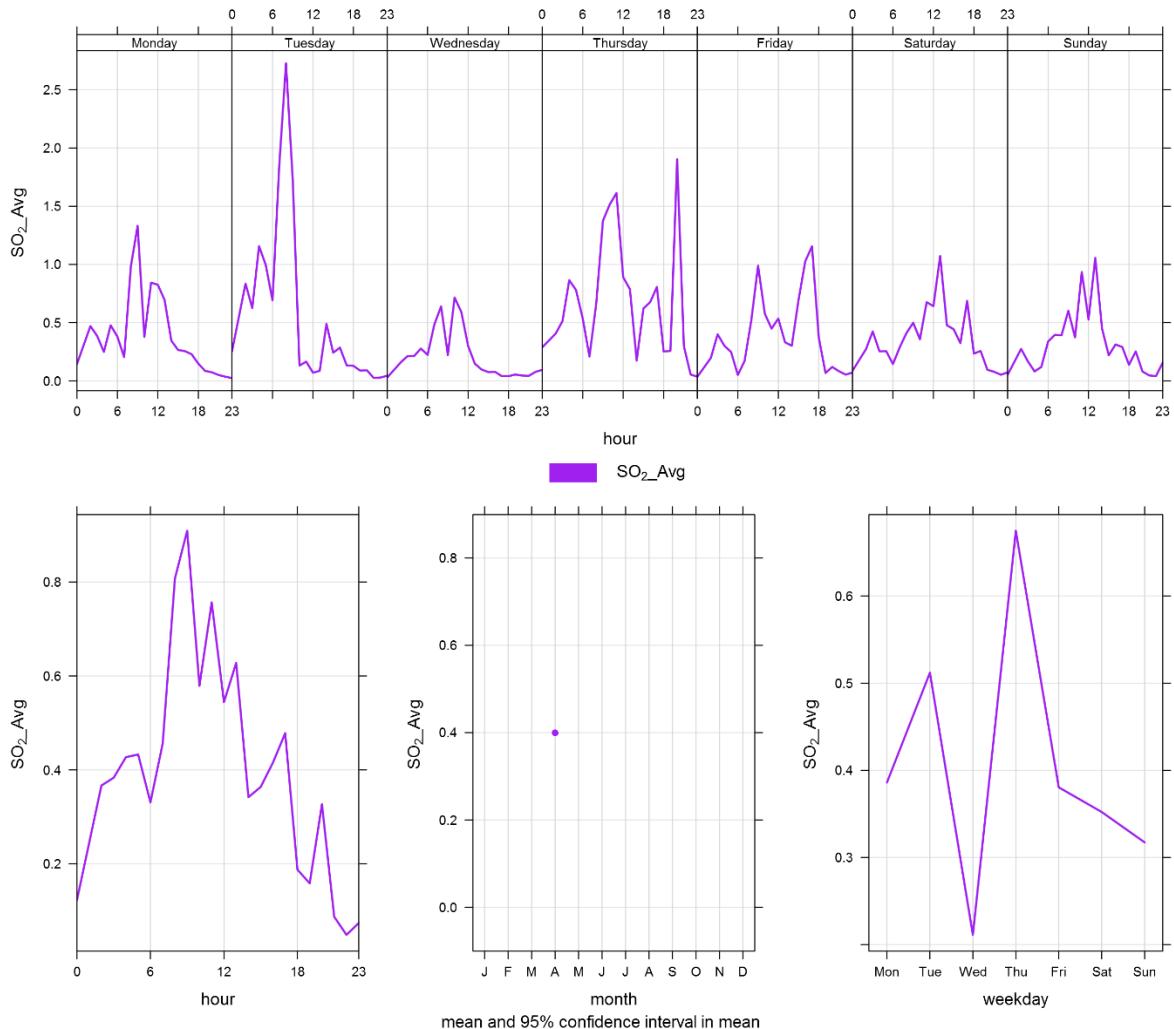


Figure 3-7 Lagoon Monitor SO_2 time variation

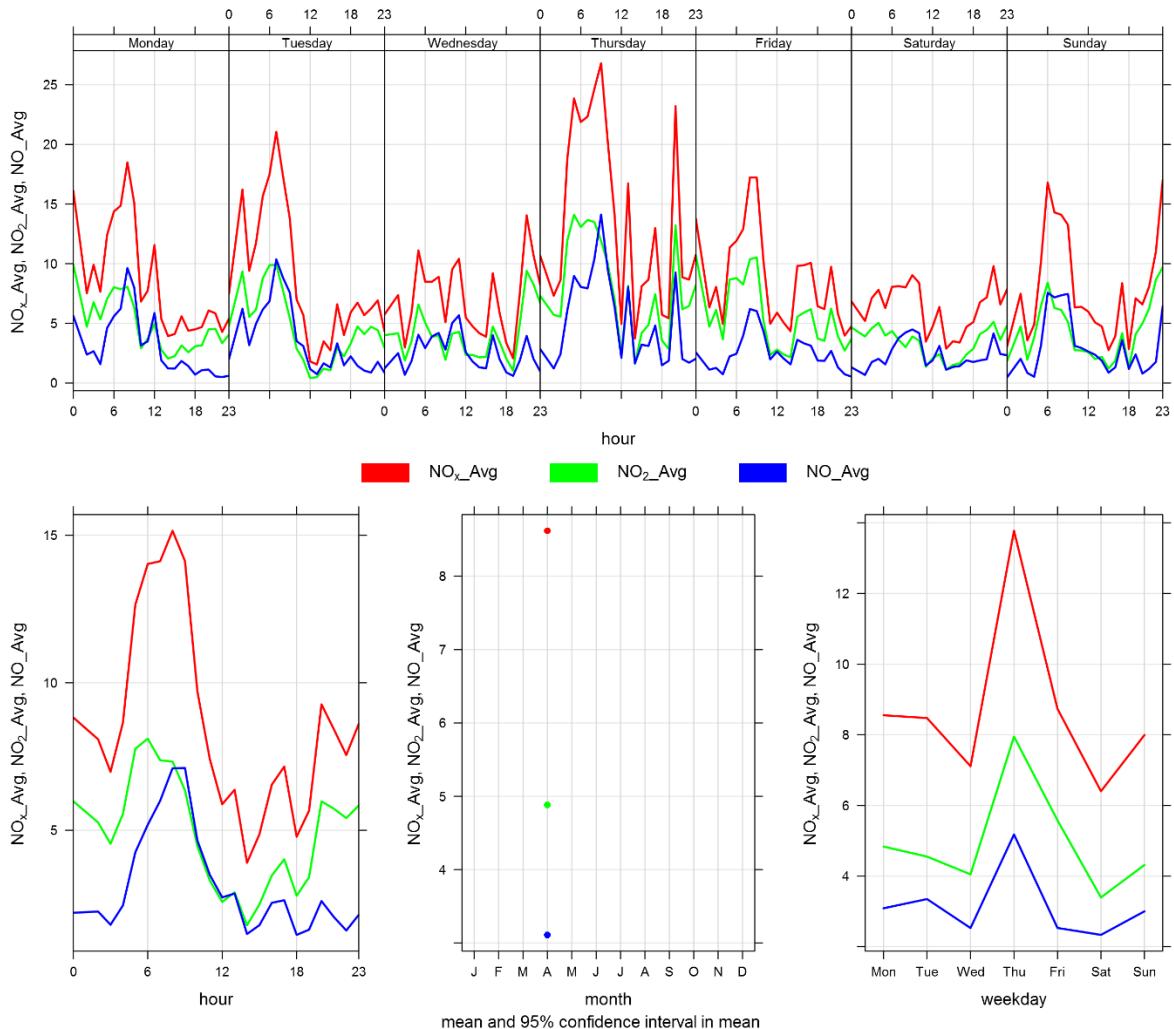


Figure 3-8 Lagoon Monitor NO_x time variation

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 April, 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 April. 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}, PM₁₀ and TSP concentrations recorded over the month. There was 1 exceedance of the 24-hour TSP guideline (100 µg/m³) and no recorded exceedances of the 24-hour PM_{2.5} guideline (30 µg/m³). The exceedance of the TSP guideline were recorded when winds were from the east (Table 4-3). Exceedances of the TSP guideline at the West monitor do not typically occur in April; however, the maximum number of exceedances occurred in 2010, when 3 exceedances of the guideline were recorded.

Table 4-2 Summary of April 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} ($\mu\text{g}/\text{m}^3$)	-	30	West	-	0	5.1	35.6	17	7	11.7	262.6	12.4	12	100.0
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	-	-	West	-	-	12.7	296.7	17	7	11.7	262.6	57.2	17	100.0
TSP ($\mu\text{g}/\text{m}^3$)	-	100	West	-	1	21.8	495.4	17	15	12.1	71.5	102.9	17	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						
4/17/2017	102.9	-	70	11	54.3	
Total # of Exceedances	1	0				
Maximum # of Exceedances (April)	3 (2010)	0 (2011 ~ 2016)				
Average # of Exceedances (April)	0	0				
Minimum # of Exceedances (April)	0 (2011 ~ 2016)	0 (2011 ~ 2016)				

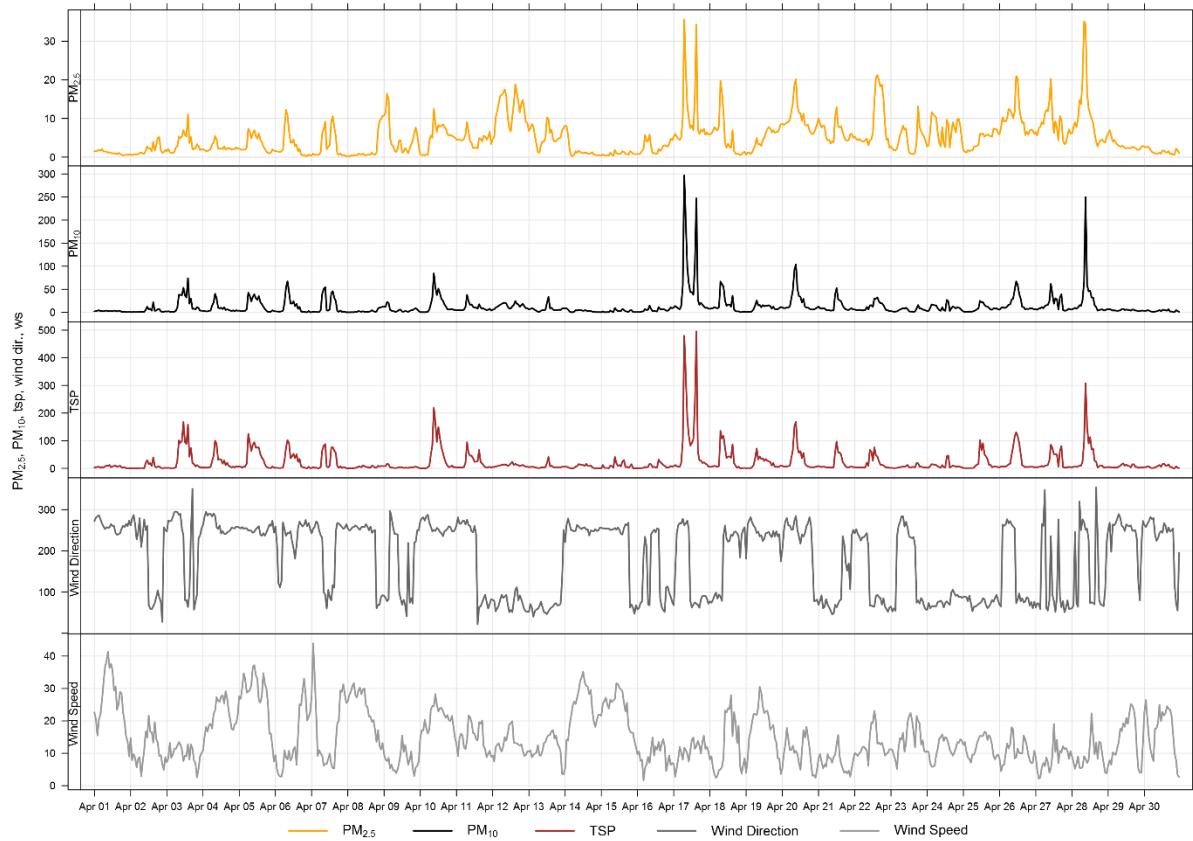


Figure 4-1 1-hour particulate matter concentrations at the West monitor

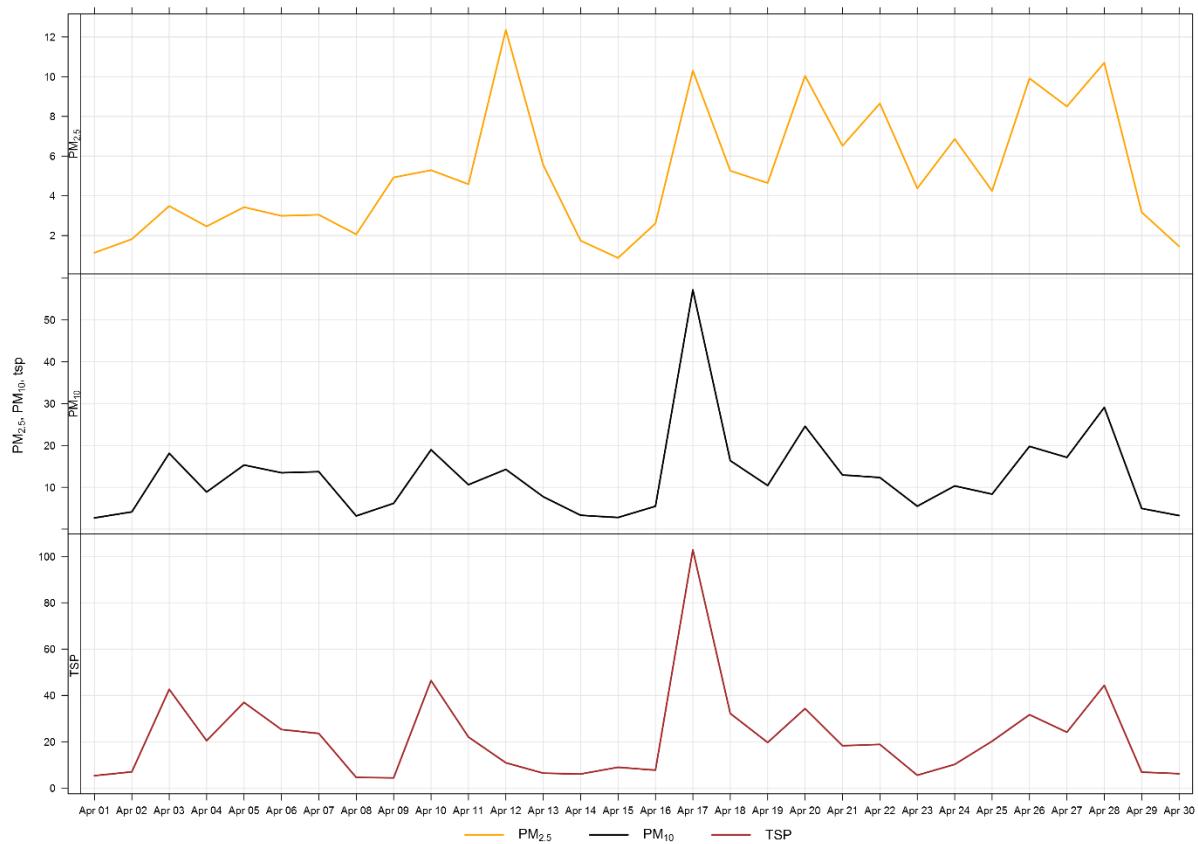


Figure 4-2 24-hour particulate matter concentrations at the West monitor

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 April 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.

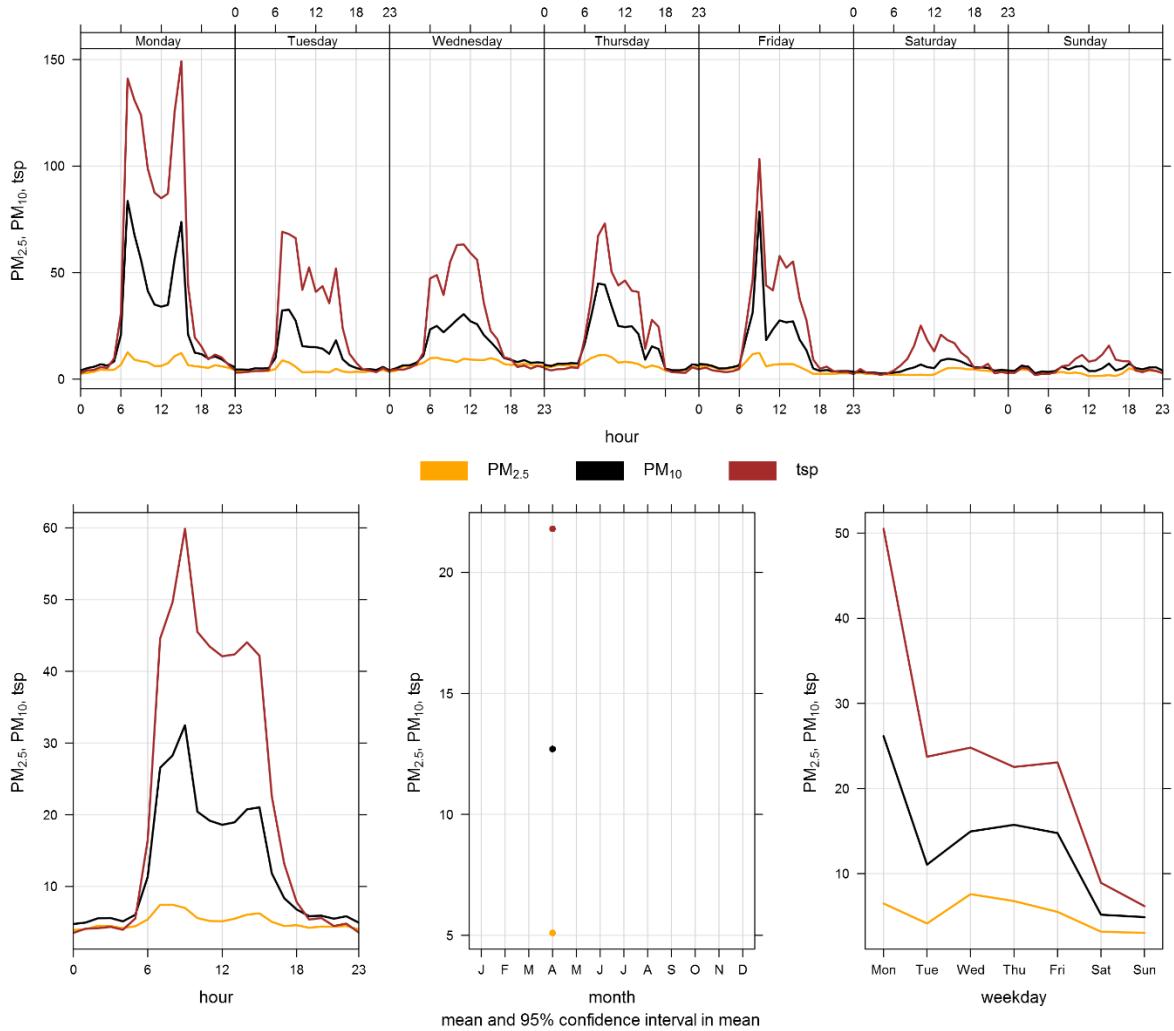


Figure 4-3 West particulate matter time variation

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 April, the Berm GRIMM had 99.9% 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 for the facility in 2009. Table 5-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month. The monitor had 99.9% uptime during the month of April due to one hour of maintenance work on April 11th.

Figure 5-1 and Figure 5-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month. Table 5-3 summarizes the recorded exceedances.

During April, there were 8 exceedances of the 24-hour TSP Guideline (100 µg/m³). Historically, the Berm monitor records an average of 10 and 0 exceedances of the 24-hour TSP and PM_{2.5} Guidelines respectively, during the month of April. The largest number of TSP exceedances recorded during April occurred in 2010, which had 22 days that exceeded the Guideline. The fewest number of TSP exceedances was recorded during April 2011, which had 6 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. The highest TSP concentrations in the month correspond to the high wind speed events recorded in April.

Table 5-2 Summary of April 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} ($\mu\text{g}/\text{m}^3$)	-	30	Berm	-	0	4.1	23.1	4	10	26.3	253.1	7.1	4	99.9
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	-	-	Berm	-	-	18.5	203.1	4	10	26.3	253.1	59.1	4	99.9
TSP ($\mu\text{g}/\text{m}^3$)	-	100	Berm	-	8	57.1	716.1	6	16	25.1	270.9	224.8	5	99.9

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						
4/1/2017	103.3	-	259.6	26.3	47.6	high wind event
4/4/2017	196.4	-	261.7	21.5	36.0	high wind event
4/5/2017	224.8	-	250.6	27.7	37.5	high wind event
4/6/2017	138.3	-	252.8	13.9	51.6	
4/8/2017	112.9	-	255.5	23.5	53.6	high wind event
4/15/2017	171.5	-	255.7	23.9	43.2	high wind event
4/18/2017	107.2	-	232.2	12.1	60.4	
4/19/2017	108.7	-	244.8	17.9	43.1	
Total # of Exceedances	8	0				
Maximum # of Exceedances (April)	22 (2010)	0 (2010 ~ 2016)				
Average # of Exceedances (April)	10	0				
Minimum # of Exceedances (April)	6 (2011)	0 (2010 ~ 2016)				

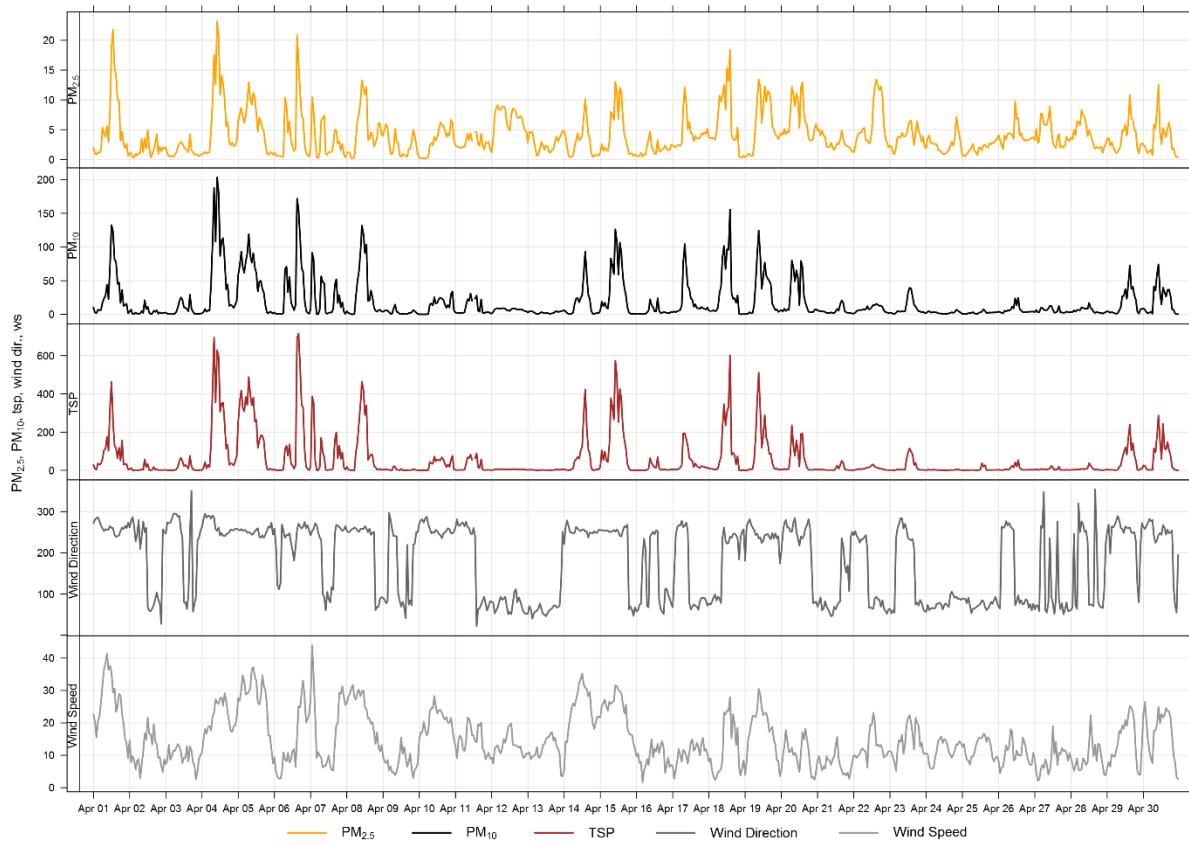


Figure 5-1 1-hour particulate matter concentrations recorded at the Berm monitor

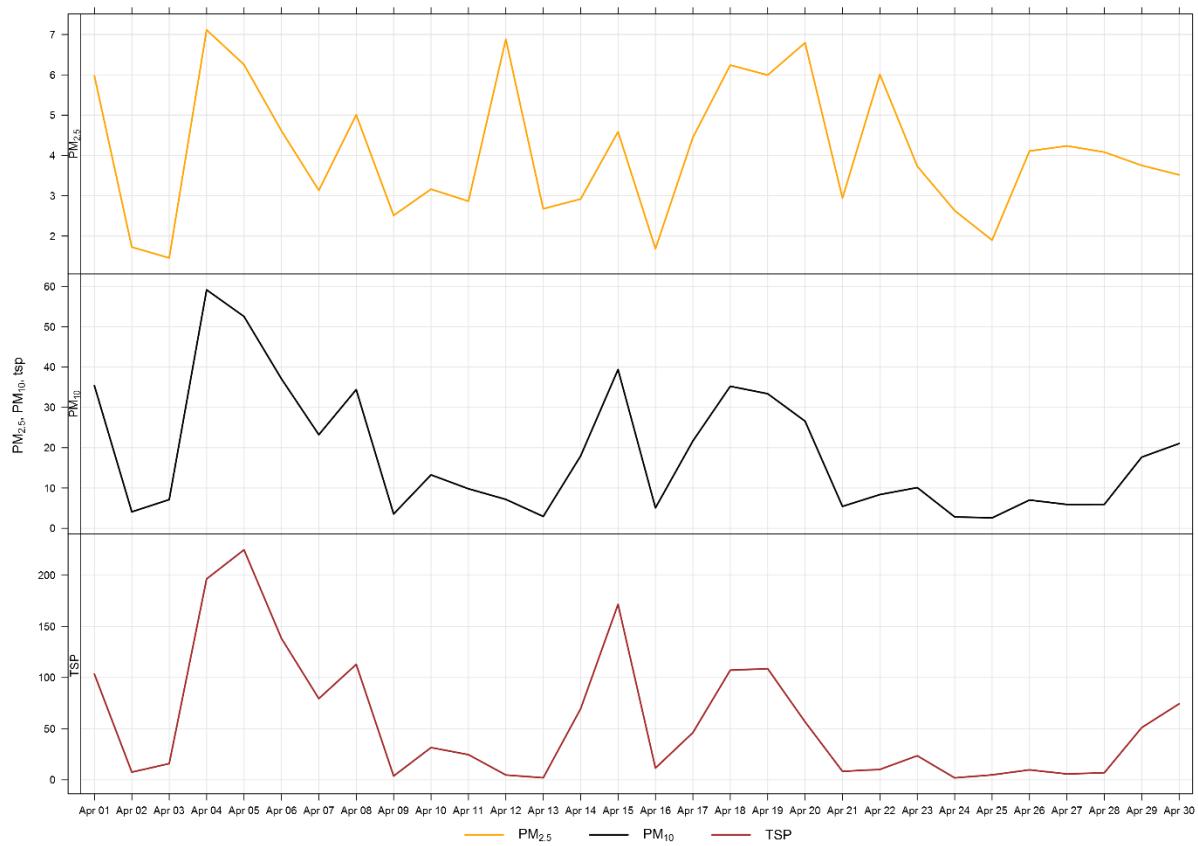


Figure 5-2 24-hour particulate matter concentrations recorded at the Berm monitor

Figure 5-3 shows the wind rose for the 8 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.

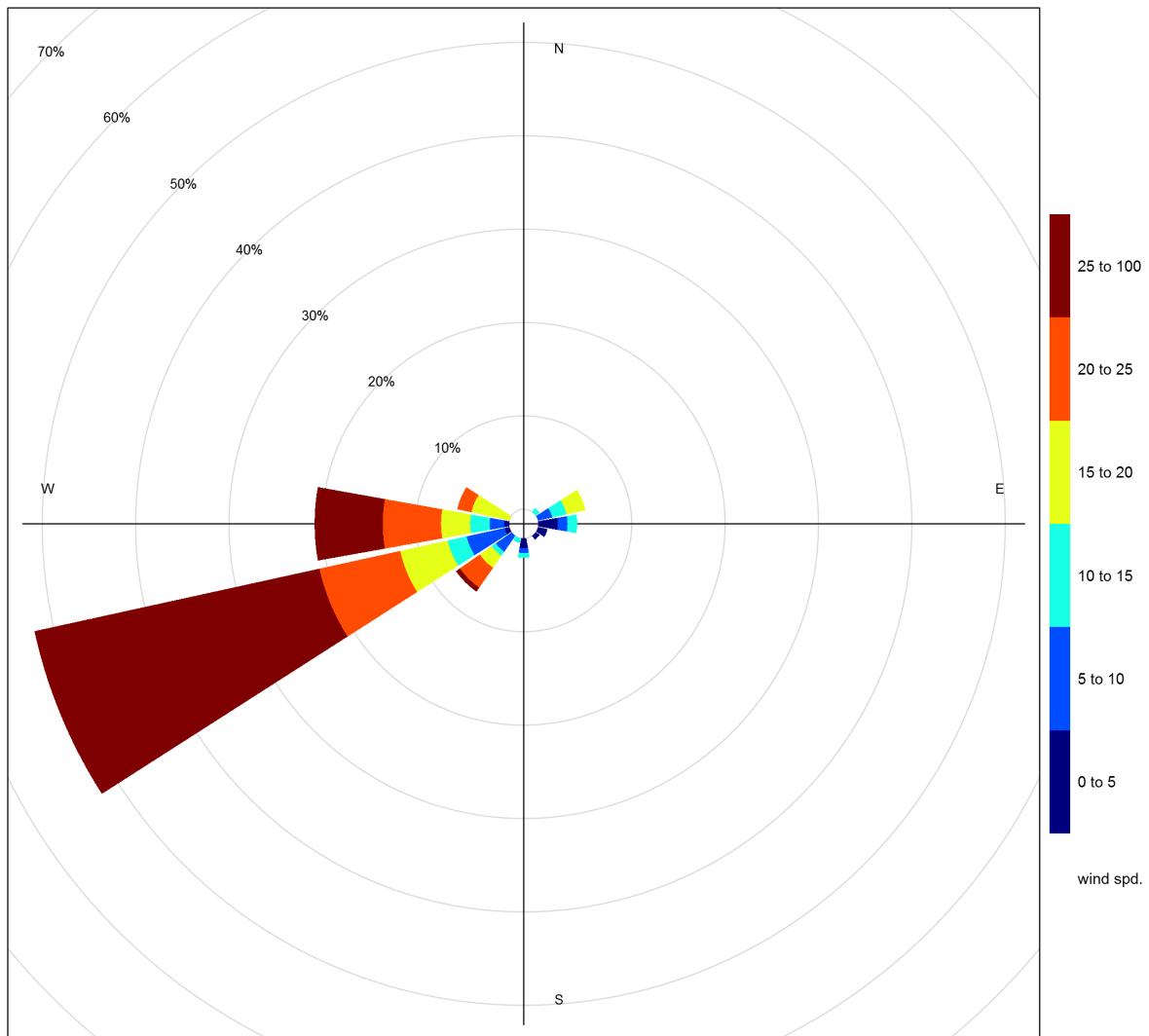


Figure 5-3 Wind rose for TSP exceedance days recorded at the Berm GRIMM

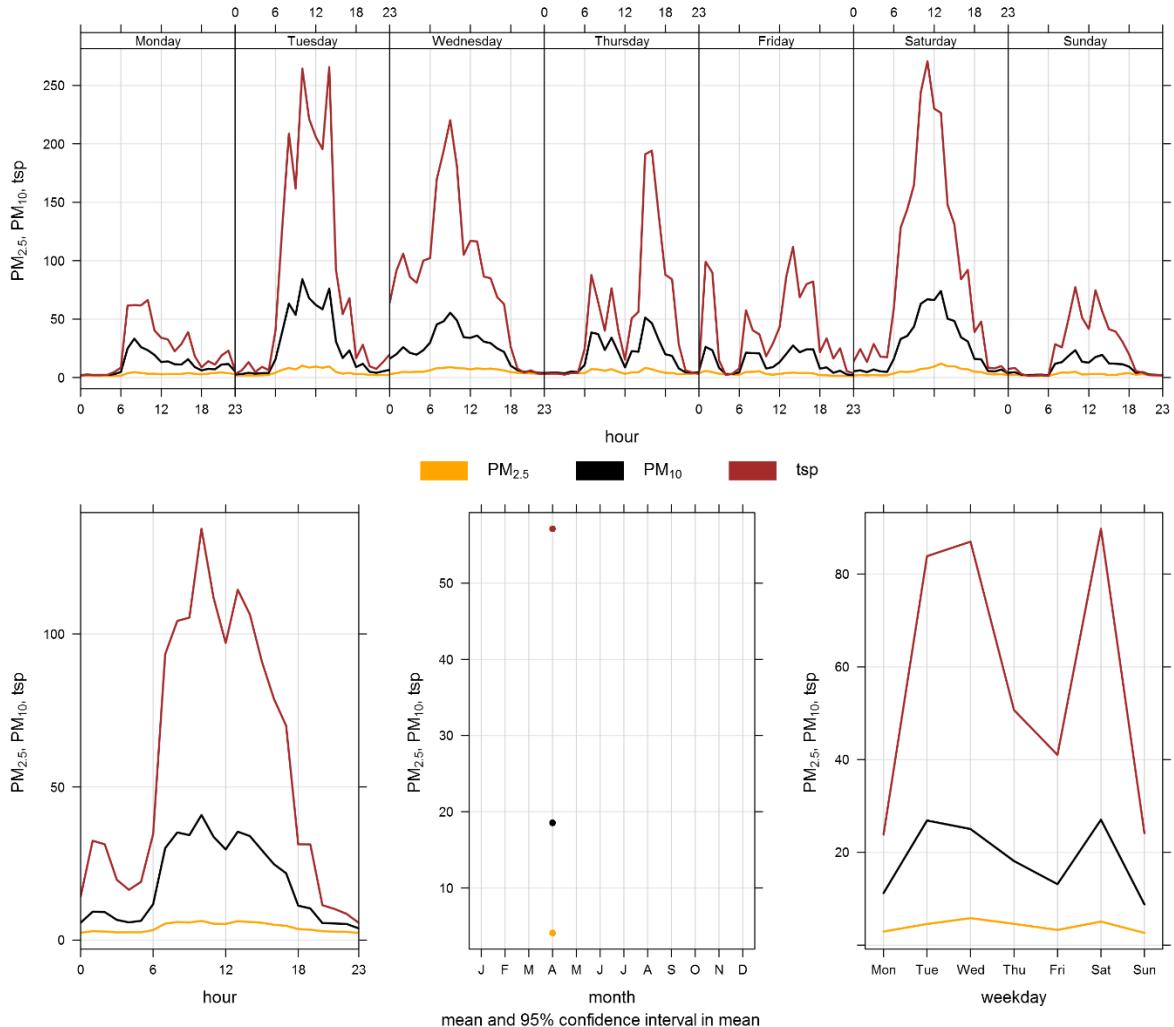


Figure 5-4 Berm particulate matter time variation

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 April, the Entrance GRIMM had 96.5% 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 96.5% uptime during the month of April due to instrument error from April 9th to 10th and maintenance work on April 11th.

Figure 6-1 and Figure 6-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month. Table 6-3 summarizes the recorded exceedances.

During April, there was 1 exceedance of the 24-hour TSP Guideline (100 µg/m³), marking the lowest number of exceedances recorded in the month since monitoring began in 2010. Historically, the Entrance monitor records an average of 13 and 0 exceedances of the 24-hour TSP and PM_{2.5} Guidelines respectively, during the month of April. The largest number of TSP exceedances recorded during April occurred in 2010, which had 20 days that exceeded the Guideline. The previous fewest number of TSP exceedances recorded during April occurred in 2011, which had 7 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 the exceedance day, winds were predominantly from the west and above 25 km/hr.

Table 6-2 Summary of April 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} ($\mu\text{g}/\text{m}^3$)	-	30	Entrance	-	0	6.6	37.8	26	13	10.1	96.5	14.2	20	96.5
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	-	-	Entrance	-	-	22.9	225.1	26	13	10.1	96.5	52.0	20	96.5
TSP ($\mu\text{g}/\text{m}^3$)	-	100	Entrance	-	1	49.6	563.0	26	13	10.1	96.5	132.9	4	96.5

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						
4/4/2017	132.9		261.7	21.5	36.0	high wind event
Total # of Exceedances	1	0				
Maximum # of Exceedances (April)	20 (2010)	0 (2010 ~ 2016)				
Average # of Exceedances (April)	13	0				
Minimum # of Exceedances (April)	7 (2011)	0 (2010 ~ 2016)				

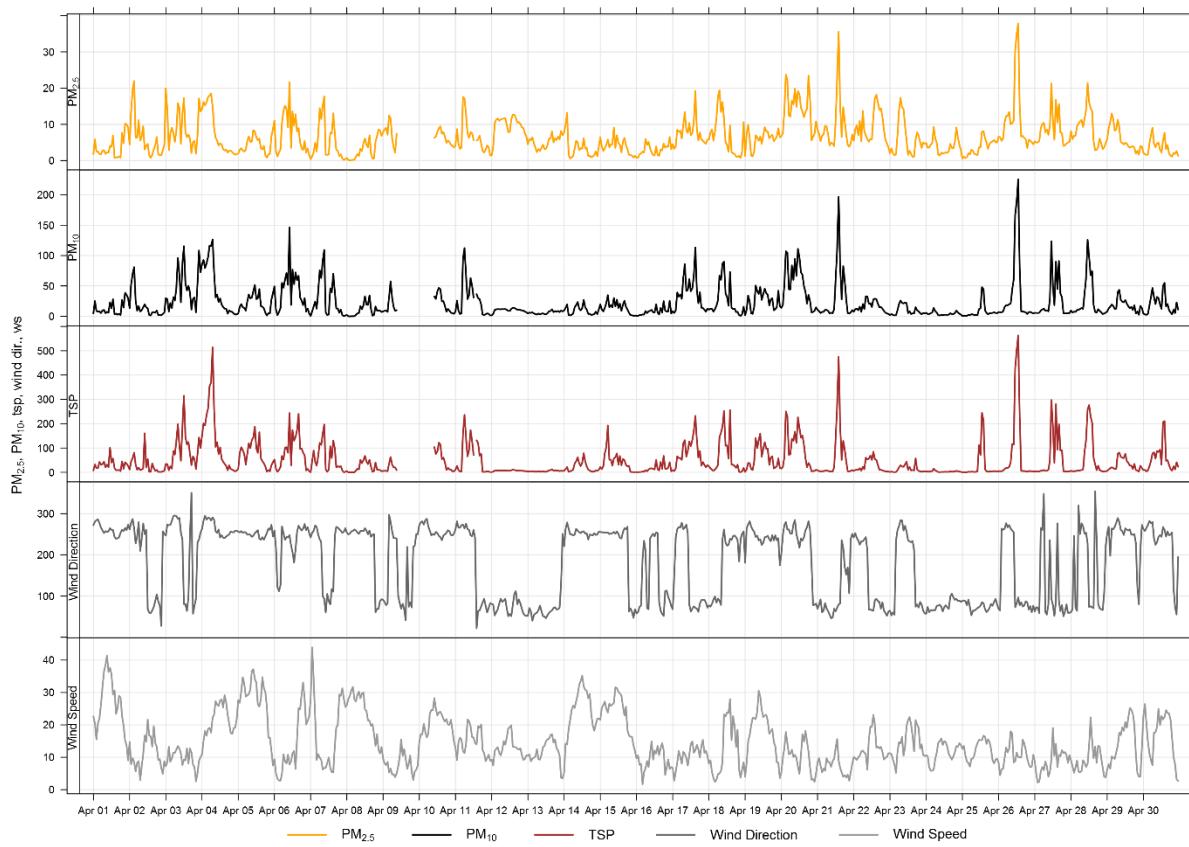


Figure 6-1 1-hour particulate matter concentrations recorded at the Entrance monitor



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

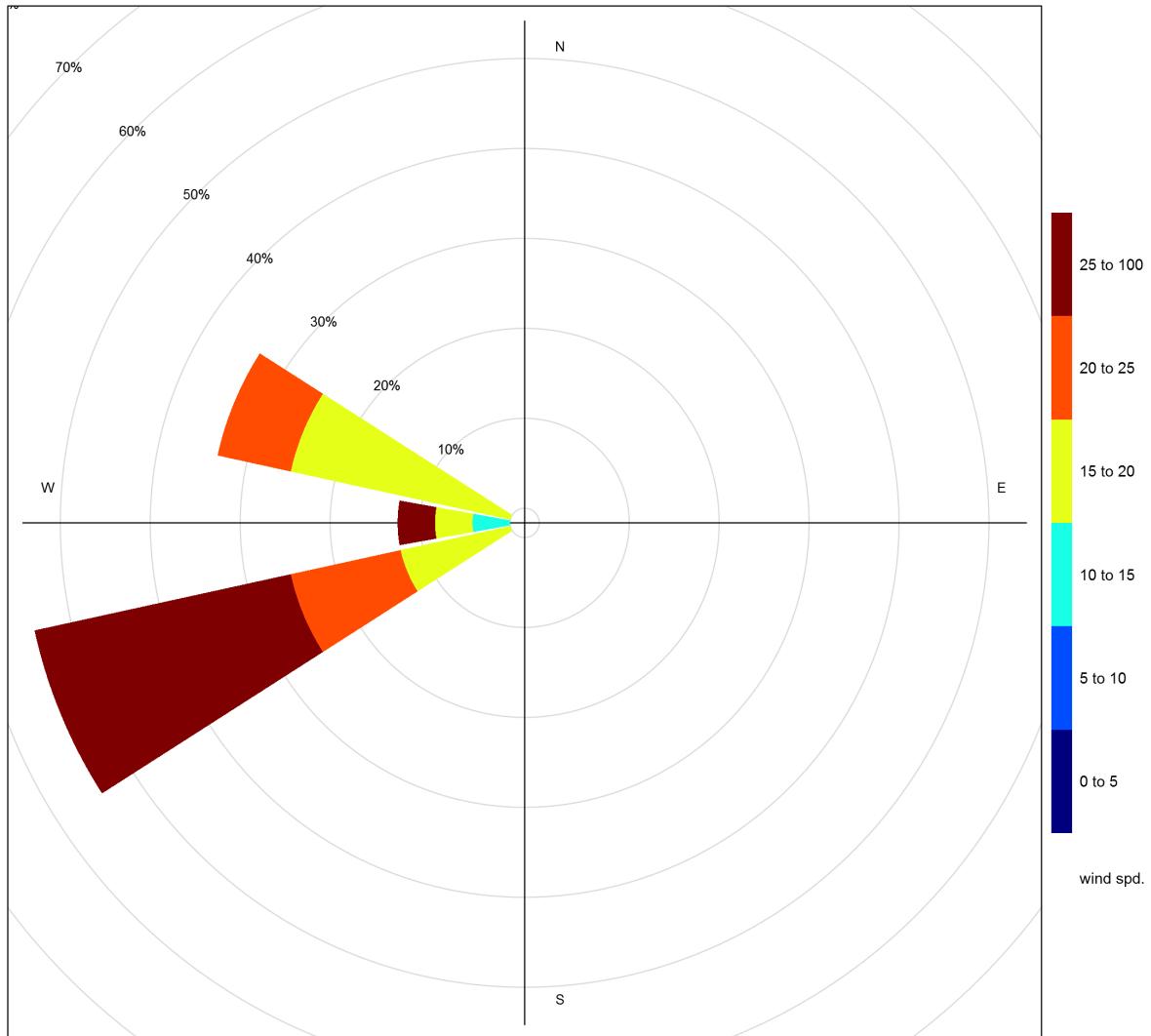


Figure 6-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM

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 April 2017 and indicates a strong weekday (Monday – Friday) diurnal pattern that is typical at this station.

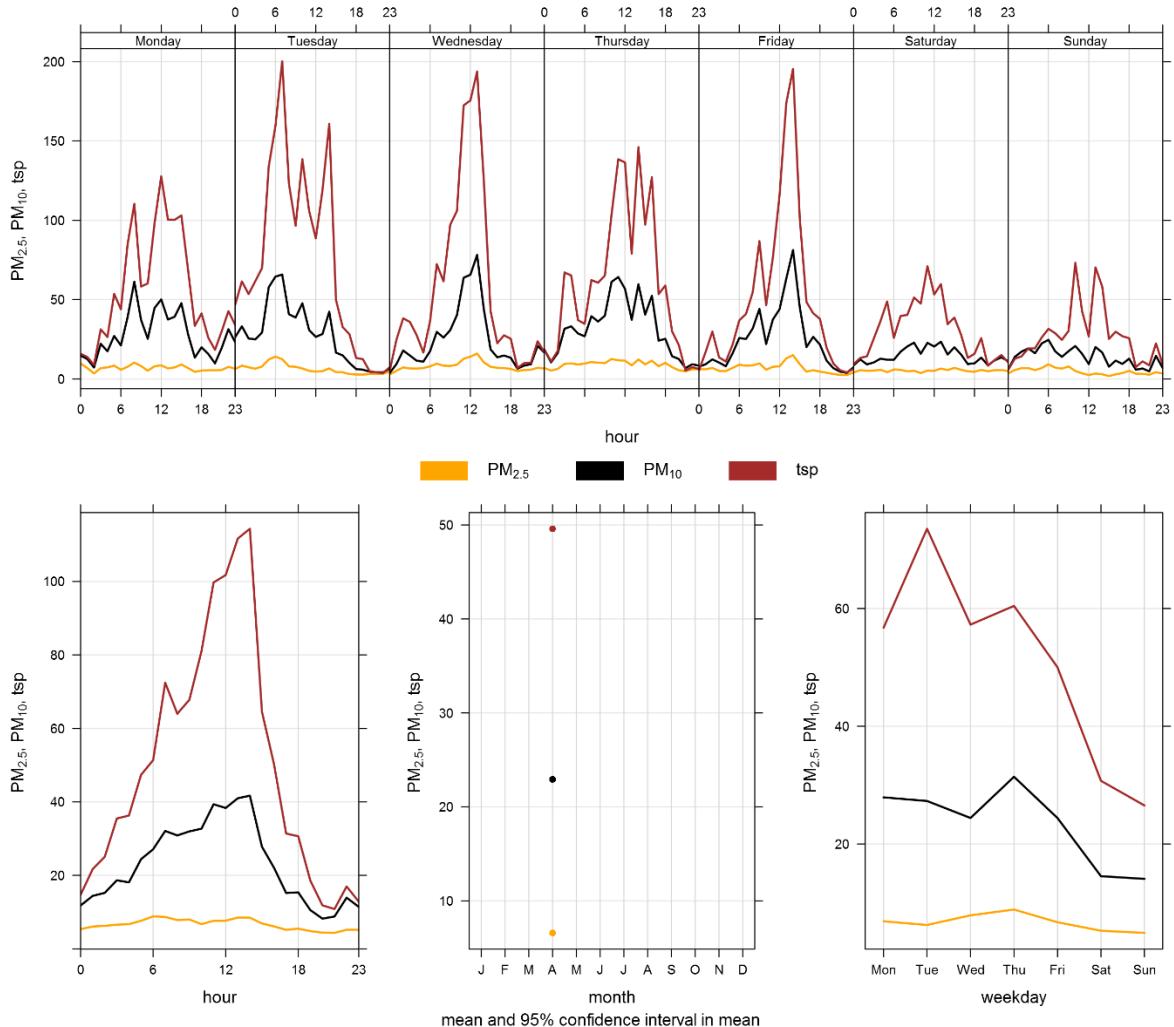


Figure 6-4 Entrance particulate matter time variation

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Appendix A

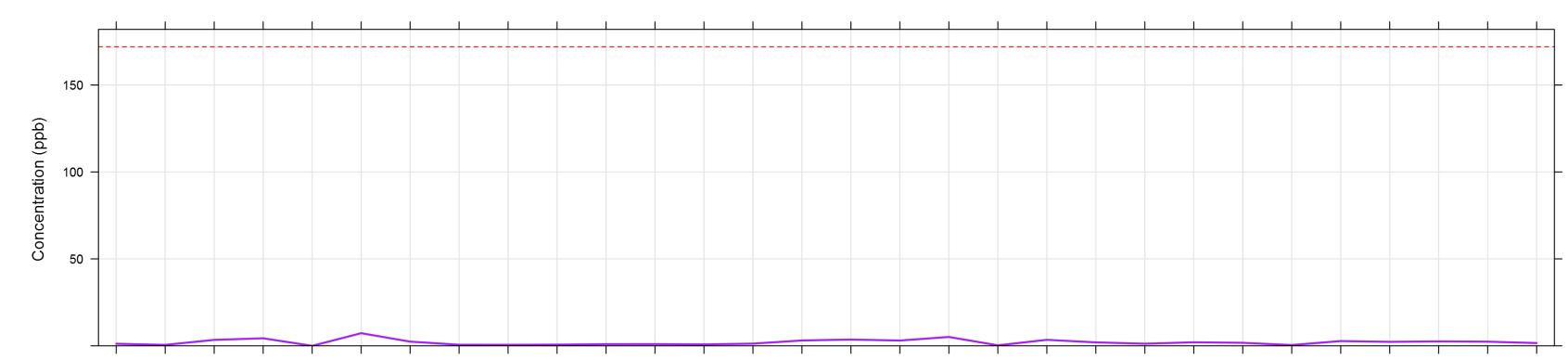
DATA & CALIBRATION REPORTS

Lagoon SO₂ (ppb) – April 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	0.1	S	0.8	1.2	0.4	0.1	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	0.9	0.2	0.0	0.0	0.0	1.2	0.2
2	0.0	S	0.5	0.1	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	
3	0.0	S	0.0	0.0	0.0	0.0	0.3	0.2	1.4	3.4	0.1	0.0	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.3
4	1.0	S	2.8	2.3	4.1	2.8	1.9	4.3	4.3	0.0	0.0	0.3	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	1.1
5	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
6	0.2	S	0.0	0.0	0.2	0.2	0.0	0.0	0.0	3.0	0.5	1.3	0.2	0.2	0.2	1.8	2.1	2.9	0.7	0.9	7.2	1.1	0.2	0.1	7.2	1.0
7	0.1	S	0.4	1.5	0.8	0.2	0.2	0.1	0.2	0.7	0.5	0.5	0.6	0.6	0.5	1.8	2.4	1.8	1.1	0.3	0.5	0.3	0.2	0.3	2.4	0.7
8	0.3	S	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.6	0.5	0.3	0.1	0.1	0.0	0.1	0.0	0.1	0.2	0.1	0.2	0.2	0.6	0.2
9	0.2	S	0.6	0.5	0.4	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1
10	0.0	S	0.1	0.0	0.3	0.7	0.3	0.1	0.0	0.0	0.0	0.1	0.5	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1
11	0.0	S	0.1	0.0	0.2	0.8	0.4	C	C	C	C	0.1	0.0	0.0	1.0	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.2
12	0.0	S	0.3	0.4	0.5	0.5	0.5	0.8	1.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.2
13	0.5	S	0.4	0.4	0.8	0.4	0.2	0.1	0.1	0.1	0.6	0.5	0.3	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.8	0.2
14	0.0	S	0.4	0.1	0.1	0.0	0.4	1.3	0.7	0.3	0.2	0.4	0.5	0.6	0.8	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.3
15	0.0	S	0.1	0.0	0.0	0.7	0.0	0.3	0.5	1.0	0.7	2.0	0.4	1.1	0.0	0.9	1.2	3.1	0.8	0.0	0.0	0.0	0.0	0.0	3.1	0.6
16	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	0.4	3.6	2.0	3.4	1.3	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	3.6	0.6
17	0.0	S	0.0	0.2	0.3	0.8	0.7	0.3	2.3	1.7	1.0	3.1	1.9	2.4	1.0	0.9	0.7	0.6	0.4	0.3	0.2	0.1	0.1	0.0	3.1	0.8
18	0.0	S	0.4	0.1	0.2	0.2	0.3	1.1	3.7	5.1	0.3	0.3	0.2	0.2	0.4	0.3	0.3	0.2	0.1	0.0	0.0	0.1	0.1	0.1	5.1	0.6
19	0.1	S	0.1	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.2	0.0	0.3	0.1	
20	0.3	S	1.0	1.5	2.2	2.1	1.5	0.3	2.2	1.7	3.5	2.3	3.0	2.5	0.5	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	3.5	1.1
21	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	1.2	2.0	0.1	0.0	0.0	0.0	0.0	2.0	0.1
22	0.0	S	0.0	0.0	0.0	0.0	0.1	0.0	0.5	1.2	0.6	1.0	1.0	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	1.2	0.3
23	0.0	S	0.1	0.1	0.0	0.3	1.2	1.9	1.5	2.0	1.4	0.8	0.2	0.2	0.4	0.4	0.4	0.9	0.4	0.6	0.3	0.1	0.2	0.6	2.0	0.6
24	0.6	S	1.7	1.4	0.4	0.4	0.3	0.2	0.2	0.2	0.4	0.2	0.3	0.1	0.2	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	1.7	0.3
25	0.0	S	0.0	0.0	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.0	0.0	0.2	0.2	0.2	0.2	0.5	0.2	0.4	0.3	0.4	0.1	0.1	0.5	0.1
26	0.0	S	0.2	0.1	0.3	0.6	0.4	1.1	1.4	0.3	2.7	2.4	1.1	0.5	0.3	0.1	0.3	0.1	0.2	0.2	0.2	0.2	0.1	0.1	2.7	0.6
27	0.2	S	0.2	0.2	0.2	0.4	0.4	0.3	0.4	0.7	1.4	2.3	0.0	0.4	0.0	0.5	0.6	0.1	0.1	0.1	0.2	0.0	0.0	0.0	2.3	0.4
28	0.0	S	0.0	0.0	0.4	0.7	0.0	0.2	0.7	2.5	1.5	1.1	1.1	0.2	0.1	0.2	0.1	0.7	0.2	0.0	0.0	0.0	0.0	0.0	2.5	0.4
29	0.0	S	0.3	0.5	0.4	0.3	0.3	0.8	0.9	0.0	0.3	0.2	1.1	2.4	1.7	1.2	0.3	0.3	0.3	0.1	0.1	0.0	0.1	0.1	2.4	0.5
30	0.0	S	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.4	1.6	0.6	0.3	0.8	0.3	0.2	0.7	0.1	0.1	0.0	0.0	1.6	0.3
Hourly Max	1.0	-	2.8	2.3	4.1	2.8	1.9	4.3	4.3	5.1	3.5	3.6	3.0	3.4	1.7	1.8	2.4	3.1	1.1	0.9	7.2	1.1	0.2	0.6		
Hourly Average	0.1	-	0.4	0.4	0.4	0.3	0.5	0.8	0.9	0.6	0.8	0.5	0.6	0.3	0.4	0.4	0.5	0.2	0.2	0.3	0.1	0.0	0.1	0.1		

S = SPAN C = CALIBRATION

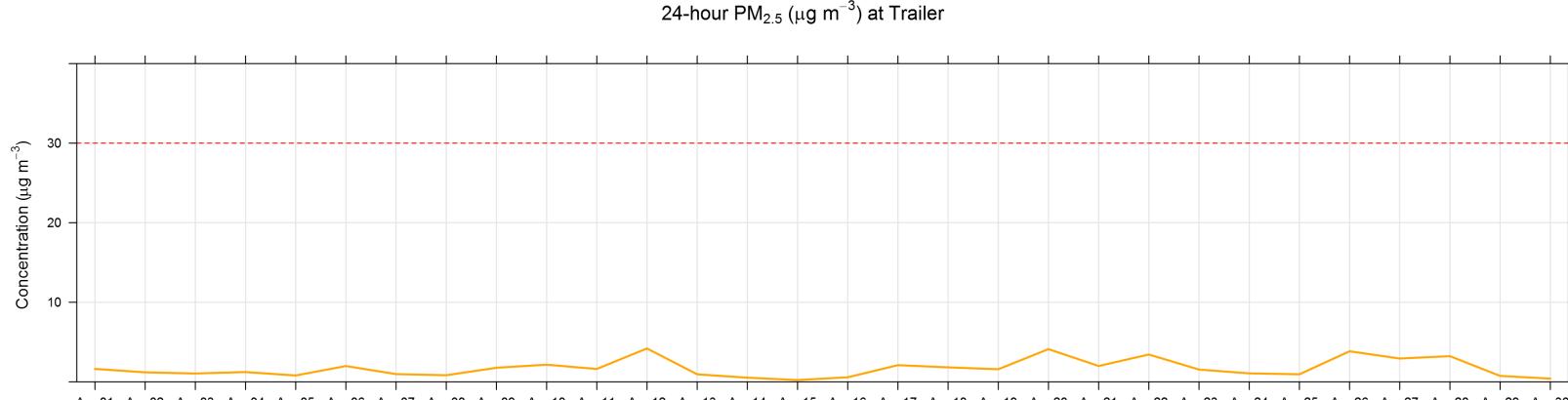
Daily 1-hour SO₂ Maximums (ppb) at Trailer



Lagoon PM_{2.5} ($\mu\text{g}/\text{m}^3$) – April 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	3.5	2.1	0.0	2.5	1.8	0.8	2.5	2.9	1.1	0.0	0.0	0.4	0.0	0.8	0.0	0.0	0.1	0.0	0.0	1.1	5.5	5.5	4.5	4.1	5.5	1.6	
2	2.1	4.5	4.1	4.8	4.1	0.0	0.1	1.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.1	1.1	1.4	0.0	0.0	0.8	1.1	1.1	1.1	4.8	1.2	
3	2.5	2.1	1.1	0.8	0.0	0.0	0.0	0.0	0.1	1.2	1.4	1.0	0.1	2.3	2.5	0.1	0.0	0.0	0.0	0.0	1.4	3.1	4.1	1.4	4.1	1.0	
4	0.0	0.0	0.0	1.8	2.3	3.4	2.4	5.2	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	2.8	1.8	3.0	1.1	0.4	5.2	1.2
5	2.1	0.8	0.0	0.0	0.0	1.2	0.4	1.4	2.1	0.1	0.1	3.8	0.4	0.0	0.0	0.0	2.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.8	
6	3.8	2.1	1.1	0.0	7.9	7.2	2.8	4.1	3.1	2.5	3.1	0.0	1.4	1.8	0.0	0.1	1.0	1.1	0.0	0.0	2.3	0.0	0.0	0.8	7.9	2.0	
7	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.1	0.0	3.5	4.1	0.0	0.0	1.1	1.4	0.4	0.0	1.1	1.2	4.5	3.1	0.0	0.0	0.0	0.0	4.5	1.0
8	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.0	0.0	1.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	4.1	4.8	4.1	4.8	0.8	
9	3.5	6.0	5.2	3.1	1.4	1.4	1.4	1.8	1.1	0.1	1.0	0.0	0.1	0.5	0.0	0.0	0.0	1.8	2.8	1.7	1.8	3.6	3.1	1.1	6.0	1.8	
10	0.0	0.0	0.0	6.9	5.5	1.2	0.1	0.0	0.0	0.1	0.0	0.0	1.2	0.4	0.0	2.5	5.5	5.5	2.5	5.8	3.8	2.8	5.2	2.8	6.9	2.2	
11	0.0	0.0	5.5	4.9	3.1	2.5	1.1	1.8	4.1	C	C	C	C	0.8	0.0	0.0	1.8	0.4	0.0	0.0	0.0	2.8	3.1	0.4	5.5	1.6	
12	1.8	5.8	4.9	3.1	2.1	3.1	4.8	2.8	0.8	5.5	5.8	2.8	3.0	4.8	8.6	6.5	6.5	7.7	6.2	4.8	3.5	2.8	2.1	0.8	8.6	4.2	
13	0.8	0.4	0.1	1.8	2.9	2.1	0.6	0.1	0.0	0.0	0.0	1.4	1.2	0.0	0.0	0.1	0.1	0.0	3.1	3.6	1.7	2.1	0.1	0.5	3.6	0.9	
14	3.8	3.1	4.1	1.4	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	4.1	0.5	
15	0.1	1.8	0.0	0.3	1.8	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	0.9	0.1	0.0	0.0	0.0	0.0	1.8	0.2
16	0.8	0.0	0.8	0.5	0.0	0.0	0.0	0.8	1.4	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.5	1.4	0.0	3.5	0.6
17	0.8	3.5	3.1	4.8	2.5	0.9	1.8	4.5	4.1	3.1	0.8	0.0	0.8	3.1	0.4	0.0	0.0	6.9	4.1	0.1	2.8	0.1	0.4	1.8	6.9	2.1	
18	1.1	4.1	5.8	3.1	0.5	3.5	6.2	7.2	6.2	4.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	7.2	1.8	
19	0.1	1.4	1.2	0.4	0.1	0.4	0.8	0.1	0.4	0.0	0.0	0.0	0.0	2.1	2.5	2.5	0.8	4.8	2.5	0.0	2.8	5.8	5.9	3.5	5.9	1.6	
20	2.1	4.8	5.8	4.1	4.5	4.1	4.1	5.3	3.8	5.2	3.1	1.8	1.4	2.8	4.1	5.8	6.9	6.9	4.1	2.8	3.1	2.1	2.8	6.9	4.1	2.0	
21	5.5	7.5	5.5	3.8	5.2	3.5	1.4	1.8	1.1	1.4	1.4	1.0	2.8	0.1	0.8	0.4	0.0	0.0	0.8	1.4	0.1	0.1	1.1	1.1	7.5	2.0	
22	2.1	3.5	2.5	2.5	1.5	0.0	0.0	0.0	1.2	1.8	0.0	0.4	4.1	7.9	10.3	11.3	7.9	9.6	5.7	5.5	3.5	0.4	0.9	11.3	3.4	9.9	
23	0.1	0.0	0.0	0.0	0.0	1.8	1.4	0.4	3.8	9.9	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	3.5	0.4	1.1	2.5	3.4	2.1	9.9	1.5
24	3.3	1.8	0.0	1.5	5.8	4.5	0.4	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.5	1.1	1.1	1.4	5.8	1.1	
25	0.4	0.0	0.4	0.4	0.0	0.0	0.0	0.4	0.8	0.0	0.0	2.1	1.1	0.0	1.1	3.5	2.1	2.1	3.3	3.1	1.4	0.0	0.4	3.5	0.9		
26	3.1	3.4	2.5	0.4	5.5	7.9	7.5	6.9	4.8	5.8	4.8	2.9	1.4	1.4	1.8	6.2	4.8	4.1	3.1	2.8	2.5	2.5	1.1	7.9	3.8		
27	1.8	0.8	0.1	0.0	0.1	5.2	4.8	5.8	4.5	2.1	3.5	4.1	2.1	3.1	2.1	0.0	1.1	0.4	4.1	4.8	5.8	3.5	6.8	6.8	2.9		
28	6.2	3.1	3.1	2.1	2.8	4.8	5.8	5.2	8.9	11.6	8.6	3.1	1.1	1.1	0.0	0.1	1.1	0.4	1.4	1.8	2.1	1.8	0.4	0.8	11.6	3.2	
29	1.1	5.5	2.8	0.8	2.5	0.4	0.0	0.0	0.4	0.0	0.0	0.1	0.4	0.0	0.0	1.8	1.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.7	
30	0.8	1.8	0.0	0.0	0.0	1.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.8	0.0	0.0	1.8	0.0	0.0	1.8	0.4	
Hourly Max	6.2	7.5	5.8	6.9	7.9	7.5	7.2	8.9	11.6	8.6	4.8	3.0	4.8	8.6	10.3	11.3	7.9	9.6	5.8	5.8	5.9	6.8					
Hourly Average	1.8	2.3	2.0	1.9	2.1	2.1	1.8	2.1	1.9	2.1	1.5	0.9	0.8	1.0	1.1	1.2	1.7	2.0	1.9	1.7	2.1	2.1	1.7	1.5			

C = CALIBRATION



Lagoon PM₁₀ ($\mu\text{g}/\text{m}^3$) – April 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	55.4	5.3	17.5	7.4	29.7	7.4	14.1	6.7	8.0	5.3	8.7	29.7	23.6	16.2	4.7	4.7	3.3	4.0	5.3	38.5	22.3	49.4	37.9	19.6	55.4	17.7
2	24.3	23.6	17.5	18.9	1.4	8.0	9.7	14.8	3.3	3.3	8.7	8.0	10.1	1.9	6.0	4.7	11.4	7.4	8.7	2.8	1.4	4.0	11.9	10.1	24.3	9.2
3	25.0	0.0	13.5	5.5	3.3	6.7	5.3	9.4	33.1	21.6	16.2	0.0	0.0	16.9	8.7	12.1	20.9	0.6	1.2	25.0	0.6	18.9	12.1	18.9	33.1	11.5
4	6.7	5.3	14.8	9.3	12.8	10.1	36.5	64.3	88.0	18.2	15.5	32.4	0.0	16.9	8.7	13.5	6.7	2.5	3.3	20.2	8.7	8.1	10.1	5.5	88.0	17.4
5	3.3	11.4	14.1	12.1	16.9	10.1	11.4	30.4	24.3	26.2	25.0	35.8	31.1	32.4	16.2	9.4	9.4	10.8	6.0	4.0	14.1	20.2	13.5	13.0	35.8	16.7
6	10.8	4.7	12.1	11.4	24.3	13.5	22.3	46.0	48.0	29.0	44.6	13.5	6.7	1.3	0.0	37.2	45.3	59.6	37.2	61.6	31.8	9.4	38.5	16.2	61.6	26.0
7	0.0	15.5	32.4	26.3	8.0	6.0	19.6	22.3	25.7	30.4	8.0	1.3	0.6	7.4	4.0	4.7	20.2	39.9	33.8	22.4	26.3	9.7	5.3	19.9	39.9	16.2
8	18.9	7.4	2.6	3.4	8.7	4.8	4.0	2.8	1.9	16.9	19.6	13.3	60.2	15.5	3.3	13.5	6.7	5.8	4.7	8.7	12.1	10.6	10.5	8.0	60.2	11.0
9	5.3	6.0	4.0	6.0	21.6	4.7	4.7	7.4	10.8	11.4	11.4	6.0	1.2	7.1	5.3	4.7	1.3	2.6	13.2	8.0	7.4	20.2	10.8	12.8	21.6	8.1
10	6.2	10.1	10.8	56.8	9.4	2.6	29.7	21.9	3.3	2.6	4.7	29.7	20.3	18.2	8.0	4.7	16.9	9.8	12.1	23.6	14.8	10.8	6.0	6.7	56.8	14.2
11	3.3	8.3	6.7	16.2	10.1	5.2	15.5	31.1	R	R	R	C	C	11.0	25.0	31.8	6.9	10.0	2.6	0.0	1.9	8.7	10.0	6.7	31.8	11.1
12	6.0	6.7	15.5	11.4	20.9	10.8	9.4	8.0	11.1	16.2	14.1	12.8	10.8	16.2	17.5	11.4	11.4	11.4	10.8	9.9	11.4	13.5	9.4	8.0	20.9	11.9
13	12.8	14.1	10.8	8.7	6.0	2.6	3.3	5.3	7.4	4.6	6.7	6.8	4.7	10.7	13.5	7.4	5.3	10.1	10.1	7.4	10.1	10.8	6.7	4.7	14.1	7.9
14	6.7	16.2	11.1	9.4	5.4	2.6	1.9	14.8	20.2	27.0	14.9	17.5	20.2	20.2	15.5	16.2	5.3	9.4	7.4	0.0	0.0	5.3	8.0	8.3	27.0	11.0
15	22.3	18.2	8.0	10.8	16.9	20.9	10.1	11.4	10.8	23.6	19.8	21.6	11.4	16.9	10.8	15.5	14.8	20.9	9.3	4.0	0.0	3.8	3.9	4.0	23.6	12.9
16	6.6	3.9	3.3	2.0	4.0	11.4	12.8	10.1	9.4	11.4	8.3	6.7	22.3	18.9	3.3	15.5	5.3	8.8	11.4	2.6	0.0	0.6	4.0	4.7	22.3	7.8
17	17.5	8.7	10.8	19.6	16.9	10.1	12.1	69.7	88.7	46.7	29.7	51.4	82.5	28.4	37.2	16.8	27.9	30.4	5.2	6.7	8.3	8.0	4.7	17.5	88.7	27.3
18	13.5	26.3	12.8	12.8	11.4	22.3	35.8	43.3	38.5	47.3	68.3	16.8	9.4	16.2	51.4	11.4	10.1	9.4	4.0	0.0	0.0	0.0	0.0	0.0	68.3	19.6
19	10.1	10.8	24.3	18.2	17.5	20.2	11.4	14.8	25.7	16.2	27.7	17.5	16.4	33.1	15.5	12.8	8.0	18.9	20.9	5.5	0.0	0.0	2.6	6.1	33.1	14.8
20	11.4	15.1	16.1	11.4	12.1	15.5	37.9	34.7	60.2	54.1	39.6	30.4	25.0	27.0	14.8	15.5	12.8	10.1	10.8	12.3	7.4	8.0	20.9	16.9	60.2	21.7
21	21.6	13.6	10.8	7.4	6.7	17.5	11.4	17.5	11.4	12.8	11.4	8.8	23.1	26.1	10.8	10.3	11.6	12.8	5.3	0.0	0.0	6.0	9.4	26.1	11.1	
22	10.8	13.5	12.1	10.1	11.4	8.0	25.0	10.8	23.1	20.9	21.6	24.0	17.5	23.6	2.6	4.7	14.8	15.5	11.4	9.9	8.0	5.3	3.8	25.0	13.3	
23	0.6	1.9	5.2	4.7	4.0	23.3	23.0	15.1	18.9	20.2	20.2	22.3	4.7	8.0	20.9	0.0	4.0	16.9	0.0	0.0	0.8	0.0	5.3	12.8	23.3	9.7
24	11.4	7.4	3.3	7.4	10.8	7.4	4.7	3.9	6.0	7.1	2.6	4.0	7.4	4.6	3.3	4.0	2.6	2.6	3.3	4.0	5.3	7.4	6.7	11.4	5.5	
25	2.8	2.6	1.3	2.6	6.6	4.7	6.0	8.7	7.4	6.0	9.4	10.8	6.0	6.0	8.8	5.3	5.3	8.3	6.7	7.7	9.4	8.7	7.4	6.7	10.8	6.5
26	7.4	5.5	6.0	6.0	6.0	21.9	28.4	34.6	64.9	34.5	28.4	24.3	13.5	13.4	9.3	5.3	7.4	10.8	8.0	6.0	9.4	10.8	11.4	64.9	16.0	
27	7.4	6.7	8.0	8.7	11.4	20.9	21.6	8.3	11.4	13.5	20.2	30.4	9.4	10.8	10.8	16.6	4.7	6.0	6.0	6.7	10.8	10.8	15.6	30.4	12.0	
28	14.8	14.1	12.1	10.8	11.4	15.5	16.9	23.6	27.7	20.9	31.1	18.1	31.1	16.8	19.6	15.5	11.4	0.0	0.0	0.6	1.9	6.7	8.7	31.1	13.7	
29	8.7	10.1	10.8	12.8	9.4	4.7	5.3	7.4	20.4	25.7	22.3	16.4	16.1	21.6	12.8	19.6	10.7	8.0	6.5	1.9	0.0	0.0	5.3	17.5	25.7	11.4
30	15.1	4.7	6.0	8.7	10.1	8.0	6.7	6.7	10.1	9.4	18.9	20.4	0.0	37.2	24.3	9.4	10.1	6.0	4.6	1.9	0.0	0.0	2.8	4.7	37.2	9.4
Hourly Max	55.4	26.3	32.4	56.8	29.7	23.3	37.9	69.7	88.7	54.1	68.3	51.4	82.5	37.2	51.4											

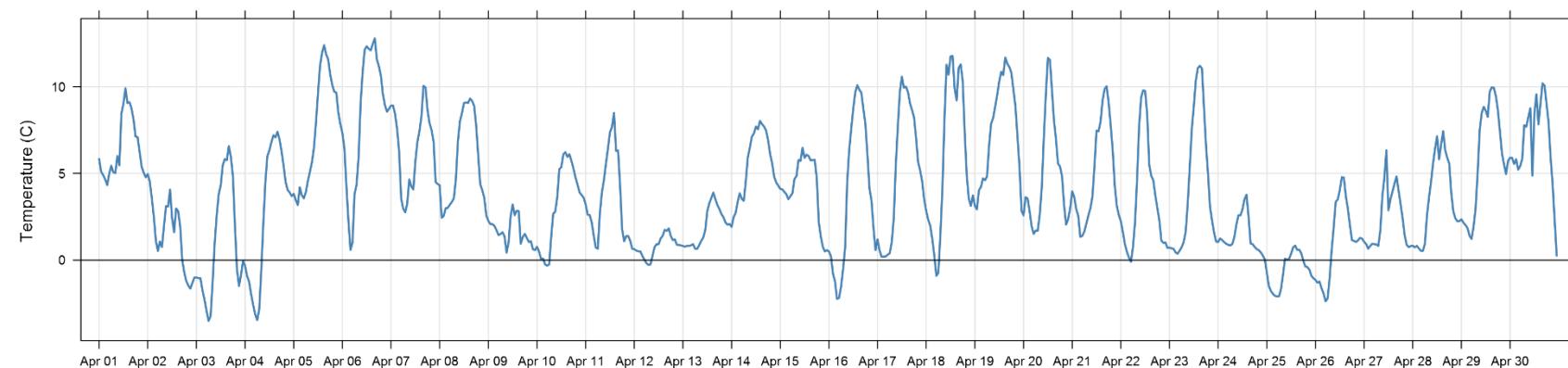
Lagoon TSP ($\mu\text{g}/\text{m}^3$) – April 2017

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	62.3	14.8	17.5	13.5	29.7	14.8	20.2	10.6	9.4	13.5	6.7	33.8	31.1	33.8	6.7	6.7	2.6	1.3	5.0	59.6	29.7	67.7	54.1	35.2	67.7	24.2	
2	29.7	25.7	20.2	33.8	17.5	9.4	17.5	16.2	13.5	1.3	5.3	9.4	10.8	2.6	16.2	8.0	8.2	18.9	13.5	4.0	8.0	17.5	5.3	23.0	33.8	14.0	
3	31.0	12.1	14.8	8.0	18.9	5.3	5.3	17.5	35.2	41.9	18.9	12.1	18.9	18.9	25.7	12.1	47.4	10.8	10.8	37.9	8.0	25.7	23.0	18.1	47.4	19.9	
4	13.5	17.5	17.5	20.2	24.3	20.2	58.0	112.2	147.8	31.6	21.6	43.3	13.5	13.5	10.8	17.5	16.2	9.3	7.9	28.4	16.2	9.4	13.5	5.5	147.8	28.7	
5	16.2	20.2	25.7	28.4	17.5	11.0	25.7	56.8	39.2	35.2	33.8	54.9	40.6	50.1	17.5	16.2	14.8	14.8	6.7	4.0	13.5	21.6	23.0	18.9	56.8	25.3	
6	9.4	8.0	8.0	18.9	25.7	10.5	25.7	62.3	58.2	47.4	60.9	18.9	6.7	5.3	4.0	78.5	88.0	101.6	69.0	97.5	50.3	21.6	41.9	12.1	101.6	38.8	
7	5.3	16.2	48.7	50.1	8.0	6.7	37.9	32.4	42.0	46.0	12.1	8.0	4.0	5.3	2.6	13.5	24.3	67.7	47.2	37.9	21.6	20.2	1.3	23.0	67.7	24.2	
8	12.1	5.3	2.6	6.7	4.0	4.0	5.8	7.9	6.7	27.0	33.7	20.2	101.6	32.6	12.1	19.1	0.0	5.1	9.4	14.8	18.9	17.5	17.5	5.3	101.6	16.3	
9	9.4	5.3	5.1	11.3	17.5	9.4	5.3	25.7	8.0	9.4	20.2	4.0	4.0	2.6	5.3	9.4	4.0	1.4	1.3	5.1	11.3	16.5	20.2	8.0	25.7	9.2	
10	8.0	10.3	10.8	55.6	7.8	16.2	27.0	33.8	4.0	4.0	4.0	46.0	27.3	28.4	9.4	8.4	27.0	4.0	20.2	29.5	23.0	8.0	9.4	13.5	55.6	18.1	
11	10.8	11.0	12.1	16.2	10.8	9.4	20.2	43.3	38.0	C	C	C	5.3	42.4	36.5	29.7	33.8	8.4	10.8	6.7	5.3	5.7	4.0	43.3	18.0		
12	0.0	0.0	10.8	12.1	11.2	13.5	12.1	9.4	5.3	14.8	16.2	13.5	9.4	9.4	8.0	13.5	9.3	17.6	4.0	2.6	4.0	19.0	5.3	8.0	19.0	9.5	
13	9.4	7.9	9.4	12.1	4.0	1.3	4.0	6.7	6.7	4.1	5.3	6.7	4.1	8.0	12.1	10.8	9.4	10.8	8.0	6.7	16.2	5.3	16.2	10.8	16.2	8.2	
14	10.4	8.0	9.4	10.8	2.6	0.0	2.6	14.8	23.0	28.4	17.5	8.4	21.6	25.0	13.2	20.2	4.0	2.6	1.4	1.4	4.0	4.0	0.9	5.8	28.4	10.0	
15	13.5	9.4	9.4	15.9	20.2	44.1	14.8	5.3	6.7	16.2	13.5	32.6	5.3	25.7	9.4	27.0	23.0	23.0	21.6	6.7	5.7	4.0	2.6	1.3	44.1	14.9	
16	0.0	0.0	4.0	0.0	2.6	9.4	8.0	6.7	5.3	9.4	7.8	2.6	3.6	5.9	6.7	28.4	10.7	16.0	27.3	18.9	10.8	9.4	14.8	5.3	28.4	8.9	
17	17.5	9.4	13.5	22.2	12.1	21.6	23.0	104.3	120.5	60.9	56.8	56.8	112.3	37.8	79.7	32.4	62.2	58.0	20.2	18.9	10.5	12.1	13.4	12.1	120.5	41.2	
18	25.7	20.2	27.4	20.2	24.3	51.4	48.7	58.2	42.0	59.5	70.3	12.1	10.7	20.2	81.2	2.6	7.9	8.0	5.3	8.0	9.4	6.7	6.7	14.8	81.2	26.7	
19	13.5	6.7	25.0	16.2	23.0	20.2	12.9	13.5	28.4	18.9	21.6	5.2	8.0	27.0	14.8	9.4	10.7	16.2	18.9	14.8	21.6	13.2	16.0	14.8	28.4	16.3	
20	17.5	9.4	10.8	10.8	8.0	14.8	42.2	50.1	85.3	74.9	52.8	31.1	13.5	25.6	21.6	24.3	27.0	13.5	29.7	13.5	13.5	8.0	20.2	18.9	85.3	26.5	
21	16.2	6.7	8.0	10.8	11.2	9.4	6.7	8.1	12.1	12.1	10.8	6.7	6.7	8.0	5.3	5.3	5.3	8.0	5.3	1.3	4.0	14.8	12.1	7.6	16.2	8.4	
22	4.0	7.9	8.0	4.0	13.5	1.3	18.9	14.8	15.8	25.0	14.9	10.4	21.6	32.4	17.5	18.9	18.3	12.1	20.2	12.1	10.8	8.0	1.3	2.6	32.4	13.1	
23	4.0	0.0	0.9	2.6	0.0	27.0	14.8	9.4	18.4	18.4	9.4	20.2	0.0	0.0	0.0	1.3	2.6	18.9	17.5	13.0	9.4	4.0	6.7	11.0	27.0	8.7	
24	17.5	4.0	4.0	13.5	0.9	1.3	1.3	1.3	2.6	1.3	1.3	2.6	2.6	2.6	2.6	5.3	0.0	2.6	5.3	5.7	12.1	8.0	2.6	1.3	17.5	4.3	
25	4.0	2.5	0.0	2.6	9.4	4.0	1.3	0.0	1.3	4.0	5.3	13.5	4.0	1.3	2.6	6.7	4.0	2.6	20.7	5.3	6.7	9.4	11.3	10.8	20.7	5.5	
26	8.0	14.8	5.3	5.3	8.0	13.5	28.4	37.9	63.2	39.1	32.4	33.9	21.6	8.0	10.4	13.5	18.9	12.1	9.4	5.3	5.3	9.4	12.1	9.4	63.2	17.7	
27	4.0	4.0	5.3	6.7	14.8	17.5	9.4	5.3	5.3	17.5	20.2	29.7	12.1	12.1	6.7	6.7	12.1	13.5	5.3	5.3	5.6	13.5	8.0	29.7	10.4		
28	17.5	10.8	13.5	13.5	10.8	12.1	14.8	18.9	25.7	25.7	21.6	16.2	17.5	9.4	13.5	12.1	13.5	9.4	8.0	6.7	9.4	10.8	5.3	6.7	25.7	13.5	
29	10.7	16.5	4.0	8.0	9.4	6.7	6.7	5.3	14.8	21.6	18.7	2.6	16.2	16.2	13.5	27.0	4.0	4.0	5.3	5.3	4.0	5.3	5.0	29.7	10.8		
30	12.1	4.0	4.0	13.5	9.4	6.7	5.3	5.3	4.0	5.3	5.7	21.6	0.0	46.0	43.3	4.0	14.8	5.3	2.6	4.0	8.0	8.0	8.0	16.2	10.8	46.0	10.8
Hourly Max	62.3	25.7	48.7	55.6	29.7	51.4	58.0	112.2																			

Lagoon Temperature (°C) – April 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	5.8	5.1	4.9	4.7	4.3	5.0	5.4	5.1	5.0	6.0	5.5	8.4	9.0	9.9	9.1	9.1	8.7	8.1	7.1	7.1	6.2	5.4	5.0	4.8	9.9	6.5
2	5.0	4.5	3.6	2.5	1.1	0.5	1.1	0.8	1.9	3.1	3.1	4.1	2.4	1.6	3.0	2.8	1.9	0.0	-0.7	-1.2	-1.5	-1.6	-1.3	-1.0	5.0	1.5
3	-1.0	-1.0	-1.0	-1.7	-2.3	-2.9	-3.5	-3.2	-1.3	0.9	2.6	3.8	4.3	5.5	5.8	5.8	6.6	6.0	4.8	2.0	-0.5	-1.5	-0.9	0.0	6.6	1.1
4	-0.3	-0.9	-1.2	-2.0	-2.6	-3.1	-3.5	-2.8	-0.6	2.1	4.5	6.0	6.3	6.8	7.2	7.1	7.4	7.0	6.3	5.4	4.5	4.0	3.9	3.7	7.4	2.7
5	3.8	3.5	3.2	4.2	3.7	3.6	3.9	4.6	5.1	5.7	6.5	8.0	9.7	11.2	12.0	12.4	11.9	11.6	10.7	10.1	9.7	9.7	8.5	7.8	12.4	7.5
6	7.3	6.4	4.2	2.2	0.6	1.0	3.8	4.3	5.9	9.1	10.8	12.1	12.3	12.2	12.1	12.5	12.8	11.6	11.2	10.6	9.6	8.9	8.6	8.7	12.8	8.3
7	8.9	8.9	8.4	7.6	6.2	3.6	3.0	2.8	3.3	4.7	4.3	4.1	5.7	6.8	7.4	8.3	10.0	10.0	8.7	7.9	7.5	6.8	4.5	4.4	10.0	6.4
8	4.3	2.4	2.6	3.0	3.0	3.2	3.4	3.6	4.7	6.8	8.0	8.5	9.1	9.1	9.3	9.2	8.9	7.8	6.1	4.4	4.0	3.6	2.6	9.3	5.7	
9	2.3	2.1	2.0	1.7	1.4	1.5	1.6	1.4	0.4	1.0	2.5	3.2	2.6	2.9	2.8	0.9	1.3	1.5	1.3	1.0	1.1	0.6	0.6	3.2	1.7	
10	0.8	0.5	0.1	0.1	-0.2	-0.3	-0.2	1.3	2.7	2.8	3.6	5.2	5.4	6.1	6.2	6.0	6.1	5.7	5.3	4.8	4.4	3.9	3.8	3.6	6.2	3.2
11	3.2	2.6	2.2	1.4	0.7	0.7	2.7	3.9	4.6	5.5	6.4	7.4	7.7	8.5	6.3	6.3	4.3	1.8	1.1	1.4	1.1	0.7	8.5	3.5		
12	0.6	0.6	0.5	0.2	0.0	-0.2	-0.3	-0.2	0.3	0.8	0.9	0.9	1.2	1.4	1.7	1.7	1.8	1.4	1.2	1.2	0.9	0.9	0.9	0.9	1.8	0.8
13	0.8	0.8	0.8	0.9	0.9	0.7	0.6	0.9	1.1	1.3	1.7	2.8	3.3	3.6	3.9	3.5	3.2	2.9	2.7	2.5	2.2	2.0	2.1	3.9	1.9	
14	1.9	2.5	2.7	3.4	3.9	3.5	3.4	4.6	5.9	6.5	7.1	7.3	7.7	7.5	8.0	7.8	7.7	7.5	6.9	6.1	5.6	4.8	4.5	4.3	8.0	5.5
15	4.1	4.1	3.9	3.8	3.5	3.7	3.9	4.7	4.8	5.8	5.7	6.5	5.9	6.1	6.0	5.8	5.8	5.8	4.7	2.2	1.4	0.8	0.5	0.6	6.5	4.2
16	0.5	0.2	-0.8	-1.2	-2.2	-2.2	-1.5	-0.5	0.7	4.5	6.3	7.6	8.7	9.7	10.1	9.8	9.7	8.7	7.9	6.1	4.1	3.4	1.9	0.6	10.1	3.8
17	1.2	0.6	0.2	0.2	0.3	0.4	1.0	2.4	5.5	7.7	9.7	10.6	9.9	10.0	9.7	9.0	8.7	8.2	7.1	5.7	5.2	4.5	3.5	10.6	5.1	
18	2.8	2.3	2.0	1.2	0.2	-0.9	-0.7	1.5	4.1	8.1	11.3	10.7	11.7	11.8	9.9	9.2	11.1	11.3	10.3	7.3	4.9	3.5	3.1	3.7	11.8	5.9
19	3.1	2.9	4.0	4.2	4.7	4.6	4.8	6.6	7.9	8.2	8.8	9.5	10.3	10.9	10.7	11.7	11.3	11.1	10.8	9.8	8.9	7.2	5.4	2.8	11.7	7.5
20	2.6	3.6	3.6	2.8	2.0	1.5	1.7	1.7	2.6	4.2	7.0	9.5	11.7	11.5	9.9	8.1	7.0	5.6	5.4	4.8	3.2	2.0	2.4	3.0	11.7	4.9
21	4.0	3.6	2.9	2.6	1.3	1.4	1.7	2.1	2.6	3.0	3.7	5.4	7.5	7.4	8.0	9.2	9.9	10.0	9.1	7.8	6.3	4.3	3.2	2.6	10.0	5.0
22	2.2	1.6	0.9	0.5	0.2	-0.1	0.8	2.2	4.7	7.7	9.4	9.8	9.8	8.4	5.5	4.9	4.6	3.7	3.0	2.3	1.1	1.0	1.0	0.7	9.8	3.6
23	0.7	0.7	0.7	0.4	0.4	0.6	0.7	1.0	1.6	3.3	5.4	7.6	8.9	10.4	11.1	11.2	11.1	8.8	6.6	5.0	3.1	2.3	1.6	1.1	11.2	4.3
24	1.1	1.3	1.1	1.0	0.9	0.9	0.8	0.9	1.3	2.0	2.6	2.6	2.9	3.5	3.8	2.5	1.0	0.9	0.8	0.6	0.6	0.5	0.3	0.1	3.8	1.4
25	-0.7	-1.5	-1.8	-1.9	-2.1	-2.1	-2.1	-1.7	-0.8	0.1	0.0	0.1	0.4	0.7	0.8	0.6	0.6	0.4	0.0	-0.4	-0.4	-0.5	-0.9	-1.0	0.8	-0.6
26	-1.1	-1.3	-1.2	-1.6	-1.9	-2.4	-2.2	-1.0	0.6	1.9	3.4	3.5	4.0	4.8	4.8	4.8	3.7	3.0	2.0	1.2	1.1	1.1	1.3	1.2	4.8	1.1
27	1.1	0.9	0.7	0.8	0.9	0.9	0.9	0.8	1.7	3.7	4.8	6.3	2.9	3.5	4.0	4.4	4.8	4.0	3.2	2.4	1.4	0.9	0.7	0.8	6.3	2.4
28	0.8	0.7	0.8	0.7	0.5	0.5	0.9	2.6	3.6	4.5	5.6	6.4	7.1	5.8	6.7	7.4	6.3	5.9	5.6	3.9	2.8	2.4	2.2	2.3	7.4	3.6
29	2.4	2.2	2.0	1.8	1.4	1.2	1.9	3.0	5.0	7.5	8.5	8.8	8.6	8.3	9.7	10.0	9.9	9.5	8.6	7.4	6.2	5.5	5.0	5.7	10.0	5.8
30	5.9	5.9	5.5	5.8	5.2	5.4	5.8	7.8	7.7	8.2	8.8	4.9	8.5	9.6	7.8	9.0	10.2	10.1	9.0	7.9	5.9	4.4	2.3	0.3	10.2	6.7
Hourly Max	8.9	8.9	8.4	7.6	6.2	5.4	5.8	7.8	7.9	9.1	11.3	12.1	12.3	12.2	12.1	12.5	12.8	11.6	11.2	10.6	9.7	9.7	8.6	8.7		
Hourly Average	2.5	2.2	1.9	1.7	1.2	1.0	1.2	1.9	3.0	4.4	5.4	6.3	6.9	7.1	7.2	7.1	7.0	6.4	5.7	4.7	3.7	3.1	2.6	2.4		

1-hour Temperature (C) at Trailer



Lagoon Wind Speed (km/hr) – April 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	22.6	20.5	15.5	20.5	22.0	26.3	31.6	36.5	38.5	41.4	36.4	37.7	35.7	29.4	30.7	23.4	25.2	29.0	28.5	22.7	19.7	15.2	13.7	9.0	41.4	26.3
2	14.7	7.9	9.7	8.5	5.6	8.3	8.8	2.9	7.1	11.0	16.7	14.8	21.6	16.7	16.5	13.3	19.6	14.4	13.2	9.1	9.4	6.7	4.9	8.8	21.6	11.3
3	7.2	8.5	13.2	8.6	9.7	11.4	11.4	12.4	13.5	12.7	11.2	7.6	9.3	9.0	12.8	8.1	12.7	11.4	7.8	6.9	2.5	5.1	8.9	10.1	13.5	9.7
4	10.9	15.0	18.1	16.7	18.7	19.1	17.6	22.2	23.2	27.3	26.3	25.9	27.6	27.8	25.4	29.2	27.0	23.1	20.4	17.5	17.2	19.0	19.2	21.8	29.2	21.5
5	27.6	26.8	30.4	34.7	32.8	28.7	29.1	29.5	30.9	36.6	37.2	34.2	33.0	26.3	25.7	27.9	34.7	31.4	30.1	25.6	16.1	16.1	12.0	7.5	37.2	27.7
6	9.4	5.1	3.4	2.9	2.8	4.9	10.9	8.8	8.1	10.8	7.7	8.8	11.3	11.9	6.4	15.8	25.1	24.8	29.4	33.1	28.0	20.1	21.2	22.6	33.1	13.9
7	27.7	43.9	34.0	22.2	9.2	10.9	9.9	9.2	6.3	6.7	6.7	8.2	9.9	6.7	5.4	5.4	13.4	19.3	20.0	29.4	29.0	31.3	28.1	25.5	43.9	17.4
8	26.1	28.0	29.0	30.8	31.7	27.9	27.3	29.4	30.3	28.3	29.7	30.0	24.8	24.3	21.4	21.3	19.8	20.2	17.3	13.5	17.2	12.3	11.2	13.1	31.7	23.5
9	9.7	8.1	7.6	8.6	5.3	6.5	4.7	4.8	3.9	5.0	7.1	10.0	15.5	10.4	12.6	9.6	6.4	8.0	10.5	5.5	3.0	5.6	6.1	7.5	15.5	7.6
10	14.7	17.1	17.1	20.3	17.8	16.1	17.3	23.5	24.6	24.5	28.3	25.1	22.9	23.9	24.0	23.1	21.8	21.0	21.8	20.2	20.0	21.6	18.2	14.9	28.3	20.8
11	12.9	9.1	14.7	16.1	15.4	11.8	11.3	14.1	21.7	21.1	19.6	16.3	16.1	14.4	14.0	19.6	19.2	20.1	12.2	11.3	8.8	9.8	10.8	9.0	21.7	14.5
12	9.3	7.5	11.9	12.6	13.1	11.4	10.6	12.3	15.0	13.9	16.1	19.0	19.2	19.9	13.3	13.2	13.1	12.7	12.4	12.8	10.7	9.2	9.5	10.5	19.9	12.9
13	10.5	10.9	8.8	9.6	9.9	10.2	12.5	9.4	9.3	10.8	13.1	13.5	15.0	15.5	15.7	16.8	17.1	14.5	15.5	12.8	12.1	10.6	3.7	3.5	17.1	11.7
14	5.3	14.2	14.0	18.7	21.5	24.6	25.9	25.2	27.3	29.3	32.3	33.6	35.2	31.9	30.8	30.6	28.2	29.6	23.4	19.8	18.2	20.1	21.9	22.0	35.2	24.3
15	21.6	25.3	26.1	27.2	25.0	23.8	26.6	25.9	26.3	26.8	31.6	31.3	30.2	29.7	29.1	25.7	22.9	25.6	18.3	16.7	16.4	16.3	13.7	11.9	31.6	23.9
16	9.7	10.6	7.7	8.0	1.7	5.4	6.6	8.8	7.0	11.4	14.9	9.3	12.1	11.2	13.5	10.7	12.9	14.3	12.2	4.5	6.8	9.3	6.4	7.0	14.9	9.2
17	6.7	2.8	5.5	8.4	11.9	10.1	8.0	11.7	11.0	9.9	7.5	10.8	14.1	14.9	11.4	12.1	13.8	12.4	9.9	13.5	15.4	11.4	12.0	10.4	15.4	10.6
18	8.1	9.1	5.5	3.6	2.4	3.1	4.8	5.0	5.8	8.5	23.2	22.6	23.8	23.7	27.9	15.3	22.7	19.6	13.1	18.5	6.1	3.7	6.3	8.4	27.9	12.1
19	4.0	8.3	14.9	16.8	19.8	22.1	22.1	21.8	24.0	30.5	28.8	24.6	22.4	22.9	23.1	21.2	17.3	18.0	18.8	14.8	13.3	8.5	8.3	3.6	30.5	17.9
20	5.3	9.9	12.8	17.8	14.4	11.0	11.1	12.3	10.1	10.7	9.8	7.0	4.9	10.7	17.1	14.8	18.1	15.0	11.7	7.0	3.1	3.2	2.4	5.0	18.1	10.2
21	8.4	9.7	7.4	5.4	6.5	5.8	9.7	8.6	8.4	7.1	8.8	9.6	13.0	15.6	9.0	6.7	5.3	4.0	4.5	3.8	4.6	2.8	5.4	8.0	15.6	7.4
22	10.1	9.7	9.2	10.0	10.4	11.8	12.1	11.4	11.0	6.2	15.6	19.4	19.3	23.1	20.1	13.0	13.3	12.7	13.2	11.7	9.3	9.8	10.1	11.2	23.1	12.7
23	11.3	11.0	9.3	7.8	5.2	11.7	14.7	14.3	16.3	10.5	13.3	19.6	21.5	22.4	20.1	16.6	11.8	21.5	20.1	19.1	12.7	14.0	10.8	10.4	22.4	14.4
24	10.6	10.4	7.0	5.8	5.8	6.2	9.5	11.4	14.5	15.0	15.8	13.8	15.0	14.6	13.2	11.0	10.2	9.3	10.2	11.5	13.4	13.3	14.3	15.8	11.5	
25	12.6	13.5	10.5	8.7	8.2	7.1	9.6	9.6	10.8	13.1	14.4	15.4	15.3	15.3	16.7	16.4	14.1	15.6	14.7	12.6	9.1	8.1	9.3	9.6	16.7	12.1
26	8.4	4.4	6.3	6.4	9.8	13.0	11.5	12.7	18.0	17.3	8.4	8.8	11.4	10.1	10.0	9.9	15.4	14.3	12.3	9.6	7.9	6.9	7.1	10.8	18.0	10.4
27	8.7	4.7	2.2	2.5	5.7	7.0	6.0	8.7	7.2	4.0	5.3	9.3	19.0	10.4	14.1	7.0	10.7	10.3	12.2	11.3	11.6	10.7	8.3	10.7	19.0	8.7
28	9.1	7.2	5.2	6.8	9.0	5.5	5.4	5.7	9.1	8.3	7.0	7.9	13.7	22.3	15.2	9.7	13.3	8.3	13.6	13.2	9.9	6.9	4.0	3.8	22.3	9.2
29	6.2	7.8	6.5	10.3	9.9	9.5	11.6	13.6	17.6	16.8	19.3	18.2	20.9	19.1	22.2	25.2	24.6	23.5	20.0	10.7	5.1	4.0	4.1	13.1	25.2	14.2
30	22.8	26.4	20.3	14.7	11.2	9.1	7.6	17.6	17.7	19.3	25.0	19.9	22.7	21.7	22.4	24.5	23.7	23.5	21.5	16.0	10.1	7.8	3.3	2.7	26.4	17.2
Hourly Max</td																										

Lagoon Wind Direction (°) – April 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	272.0	280.7	284.2	286.3	277.2	266.4	259.6	253.0	257.6	256.1	257.0	265.0	260.8	260.1	243.7	239.2	240.5	242.8	253.7	261.1	257.6	265.3	260.2	273.3	286.3	261.4
2	261.9	277.9	287.1	264.5	228.0	244.1	279.5	209.7	238.1	276.1	250.5	260.6	68.7	59.9	58.7	65.3	73.8	88.0	104.1	86.9	77.1	27.8	257.2	251.7	287.1	179.0
3	246.7	273.6	272.2	272.7	282.8	294.3	295.6	294.1	287.7	289.8	254.2	237.5	80.6	80.3	63.9	96.9	247.3	350.5	57.1	76.8	94.3	230.3	237.3	254.2	350.5	215.4
4	263.3	282.7	294.9	285.6	290.0	289.3	283.4	290.9	285.1	257.5	253.1	261.6	242.2	247.8	241.7	240.9	244.7	247.1	250.1	256.6	255.4	254.7	258.8	258.7	294.9	264.0
5	256.4	254.8	257.7	253.9	255.2	254.5	249.2	249.8	248.8	244.1	246.5	252.9	256.2	259.8	239.4	236.7	242.9	236.9	244.8	253.3	263.9	260.8	273.0	244.6	273.0	251.5
6	259.2	217.3	121.8	111.7	126.5	269.2	252.6	236.4	243.2	242.6	247.7	223.3	206.3	181.3	213.9	256.3	270.9	264.2	259.2	263.3	274.8	260.0	267.3	253.3	274.8	230.1
7	242.3	253.6	258.5	271.4	267.8	249.5	237.8	231.6	99.7	93.6	60.2	105.1	87.9	79.9	117.1	110.8	246.3	268.1	266.1	262.3	258.5	253.4	256.3	264.6	271.4	201.8
8	254.3	249.7	251.8	257.2	258.1	261.8	259.2	254.6	251.1	257.8	258.7	257.7	264.8	258.5	250.2	258.8	243.9	248.8	250.4	60.6	68.7	69.3	88.4	92.4	264.8	217.8
9	91.2	85.7	78.1	82.1	297.1	280.3	257.3	241.0	240.9	239.6	101.0	83.8	69.5	81.2	68.1	41.4	219.4	74.1	85.0	72.4	220.2	221.9	250.2	250.3	297.1	155.5
10	272.0	279.4	281.2	273.6	284.3	287.7	268.8	258.8	247.3	250.9	248.6	255.8	252.8	246.1	243.0	235.7	247.1	249.9	253.7	259.8	257.5	248.2	247.1	251.7	287.7	258.4
11	262.0	281.3	266.1	266.1	272.4	273.3	264.4	275.7	262.6	260.6	247.5	245.5	260.3	240.3	21.9	63.5	65.4	74.7	84.5	93.6	76.2	60.3	71.3	82.8	281.3	182.2
12	80.9	79.2	53.2	60.5	67.9	81.9	93.5	86.1	88.8	93.3	69.9	51.1	56.8	51.2	78.4	105.0	112.0	80.3	91.8	82.3	69.3	57.8	53.3	52.0	112.0	74.9
13	51.8	71.0	62.2	40.4	54.0	57.6	59.7	66.0	76.9	63.7	51.5	50.3	46.4	53.6	59.3	62.7	65.5	71.2	73.0	67.6	68.3	71.5	128.5	251.0	251.0	71.8
14	221.0	262.9	278.8	264.0	250.1	250.2	246.9	249.3	263.3	258.9	255.2	252.8	256.5	257.2	251.9	252.3	237.4	249.4	248.4	247.5	252.8	248.4	249.6	256.2	278.8	252.5
15	255.9	254.6	254.7	254.1	254.4	254.0	250.5	252.0	252.6	255.7	251.5	256.8	251.3	241.3	240.0	255.1	264.4	262.6	268.4	62.6	70.0	61.9	47.2	68.2	268.4	214.2
16	57.9	61.4	73.5	76.9	190.4	234.2	209.0	70.7	68.0	240.0	246.4	251.2	245.3	254.8	252.6	84.9	64.7	56.6	51.7	112.1	113.4	98.1	88.9	75.9	254.8	136.6
17	68.1	148.7	241.9	262.5	267.2	266.3	278.0	262.6	266.6	273.3	252.7	79.3	62.6	69.3	74.9	71.5	69.4	61.9	81.8	90.3	90.8	90.8	84.6	71.9	278.0	149.5
18	77.3	74.5	80.9	91.5	98.8	84.4	94.0	88.8	78.4	237.6	261.5	229.6	222.5	224.6	239.1	236.1	245.5	247.1	243.0	235.7	184.1	239.0	251.3	257.2	261.5	180.1
19	181.0	264.5	274.1	281.6	268.7	261.2	255.9	243.5	246.7	235.3	238.0	224.4	229.3	242.8	243.5	246.4	238.0	233.2	247.8	235.4	247.4	235.6	240.5	174.8	281.6	241.2
20	202.7	248.3	272.0	279.7	261.7	261.6	251.4	251.4	273.8	284.8	250.4	235.1	217.5	239.9	235.0	243.2	259.9	267.1	281.6	262.9	184.2	78.2	78.7	81.8	284.8	229.3
21	69.2	79.0	92.0	60.8	64.5	83.1	69.9	63.3	54.9	46.2	48.1	69.2	63.1	72.2	79.6	82.4	235.6	217.9	171.8	152.2	169.3	106.8	238.3	251.0	251.0	110.0
22	242.4	252.9	241.0	235.2	224.9	232.6	233.3	237.7	243.0	211.2	67.2	67.7	65.5	64.5	90.1	93.3	88.0	85.6	69.5	84.9	64.8	59.1	52.3	62.4	252.9	140.4
23	64.6	53.1	60.2	55.0	234.3	260.2	270.1	284.0	283.6	259.2	270.6	256.7	235.7	232.7	231.0	233.7	211.6	74.3	79.7	72.3	85.6	79.5	65.1	58.1	284.0	167.1
24	57.0	73.4	61.2	65.7	65.7	66.1	65.8	76.4	76.9	79.2	74.4	62.8	73.4	77.6	72.9	68.9	98.9	105.7	97.2	91.1	93.5	87.9	89.2	86.1	105.7	77.8
25	88.4	89.4	87.8	78.0	91.2	73.0	53.5	64.5	64.8	67.6	71.1	73.1	76.6	85.0	82.7	68.3	61.3	65.1	71.3	80.8	76.7	86.0	93.3	79.8	93.3	76.2
26	69.0	65.2	263.8	261.0	263.7	277.0	267.2	272.3	264.0	259.3	255.1	72.7	82.5	96.5	77.7	85.0	74.9	77.2	87.3	85.0	67.3	75.6	60.9	76.7	277.0	147.4
27	62.9	73.0	71.7	58.6	264.5	260.6	348.4	61.4	55.2	79.7	235.9	94.1	78.3	51.9	88.4	276.3	87.3	63.5	78.0	50.9	62.1	79.7	59.4	59.5	348.4	112.6
28	60.9	67.9	246.0	72.3	64.3</																					

Lagoon Pressure (mmHg) – April 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	651.7	651.0	650.3	649.7	649.3	649.2	648.9	648.5	647.7	647.0	647.4	646.5	646.4	646.4	646.6	646.9	647.0	647.0	647.3	647.8	648.2	648.4	648.4	648.4	651.7	648.2
2	648.4	648.4	648.4	648.3	648.2	648.2	648.5	648.6	648.4	648.1	648.2	648.1	648.3	648.4	648.1	648.2	648.6	649.3	649.8	650.4	650.8	650.9	650.8	650.8	650.9	648.9
3	651.0	651.1	651.2	651.3	651.7	651.9	652.4	652.7	652.8	652.7	652.6	652.3	652.0	651.8	651.7	651.4	651.1	651.1	651.1	651.3	651.8	651.9	651.9	651.9	652.8	651.8
4	652.0	652.2	652.3	652.4	652.5	652.5	652.8	652.7	652.5	652.1	651.8	651.5	651.0	650.7	650.5	650.3	650.1	650.1	650.1	650.1	650.1	650.1	650.1	650.1	652.8	651.2
5	649.3	649.3	649.0	648.8	648.8	648.9	648.8	648.8	648.6	648.3	648.2	648.2	648.3	648.0	647.7	647.9	648.1	648.2	647.9	647.6	647.5	647.4	647.5	647.4	649.3	648.3
6	647.0	646.6	646.4	646.4	646.4	646.5	646.5	646.3	646.0	645.6	645.1	644.6	644.1	643.8	643.2	642.6	642.2	642.0	641.6	641.4	641.9	642.2	641.9	641.9	647.0	644.3
7	641.6	640.8	640.3	640.4	640.6	640.5	640.0	639.7	639.3	639.4	639.4	638.9	638.2	637.7	637.4	636.9	636.7	636.9	637.2	637.0	637.5	637.7	638.1	638.3	641.6	638.8
8	638.8	639.1	639.3	639.6	639.8	640.0	640.4	640.9	641.3	641.7	642.2	642.5	642.7	642.9	643.0	643.2	643.4	643.8	644.4	645.1	645.9	646.6	647.2	647.2	647.2	642.5
9	647.3	647.6	647.8	648.1	648.5	648.8	649.1	649.6	649.8	650.0	650.2	650.2	650.3	650.2	650.4	650.7	650.6	650.6	650.6	650.6	650.6	650.4	650.1	650.1	650.7	649.7
10	650.1	649.8	649.5	649.3	649.3	649.3	649.3	649.3	649.2	649.3	648.8	648.7	648.4	648.3	648.2	648.4	648.6	648.8	648.8	648.9	649.4	649.7	649.9	650.1	649.1	
11	650.5	650.8	651.0	651.0	651.3	651.6	651.9	652.0	652.1	652.1	652.1	651.9	651.7	651.6	651.5	651.7	651.9	652.5	652.8	653.2	653.7	653.7	653.7	653.7	653.8	652.1
12	653.7	653.6	653.5	653.7	653.8	653.9	654.1	654.1	654.0	653.8	653.7	653.4	653.2	653.0	652.8	652.6	652.5	652.3	652.2	652.2	651.9	651.6	651.0	654.1	653.1	
13	650.4	650.0	649.4	648.7	648.1	647.6	647.4	647.2	646.7	646.5	646.2	645.7	645.3	645.0	644.9	644.7	644.9	644.9	645.0	645.4	645.5	645.0	645.0	644.8	650.4	646.4
14	644.7	644.5	644.4	644.5	644.5	644.5	644.6	644.7	644.6	644.7	644.8	645.0	644.9	645.0	645.0	645.3	645.5	645.8	646.0	646.2	646.5	646.7	646.9	646.9	645.2	
15	647.0	646.8	646.6	646.6	646.7	647.0	647.1	647.4	647.5	647.5	647.5	647.7	648.0	648.1	648.4	649.0	649.4	649.8	650.5	651.3	651.9	652.3	652.7	653.0	653.0	648.7
16	653.2	653.5	653.7	653.8	654.0	654.1	654.2	654.5	654.4	654.0	653.7	653.5	653.2	652.9	652.4	652.0	651.8	651.6	651.3	650.9	650.9	650.7	650.4	650.0	654.5	652.7
17	649.7	649.2	648.8	648.4	647.8	647.4	647.2	647.0	646.8	646.3	645.9	645.6	645.4	645.7	646.0	646.4	646.5	646.7	647.1	647.4	648.1	648.4	648.4	648.2	649.7	647.3
18	647.9	647.7	647.4	647.2	647.0	647.2	647.2	647.1	647.0	646.6	646.5	646.4	646.2	646.3	647.1	647.6	647.2	647.4	648.4	648.8	648.8	648.8	649.1	647.4	647.4	
19	649.3	649.4	649.7	649.8	650.2	650.7	651.0	651.3	651.5	651.7	652.0	652.3	652.3	652.4	652.4	652.3	652.1	652.2	652.2	652.2	652.4	652.4	652.5	652.5	651.5	
20	652.6	652.4	652.4	652.1	652.1	652.4	652.4	652.4	652.0	651.6	651.2	650.9	650.6	651.1	651.6	651.8	652.1	652.3	652.6	653.1	653.6	654.0	654.3	652.2	659.4	
21	654.7	655.1	655.7	656.3	656.9	657.4	657.8	658.1	658.5	658.9	659.3	659.4	659.3	659.3	659.0	658.6	658.3	658.0	657.7	657.4	657.3	657.3	657.4	657.4	657.7	
22	657.4	657.1	656.8	656.5	656.3	655.9	655.5	654.8	654.2	653.6	653.2	652.9	652.5	652.3	652.1	652.0	652.0	651.9	651.6	651.7	651.8	651.4	650.9	650.5	657.4	
23	650.0	649.5	649.1	648.5	648.0	647.5	647.4	647.2	646.8	646.4	645.9	645.7	645.3	645.0	644.7	644.4	644.3	644.5	644.7	645.0	645.3	645.4	645.3	645.0	650.0	646.3
24	644.8	644.5	644.3	644.0	643.9	643.9	643.9	643.0	644.0	644.0	643.9	644.0	644.1	644.1	644.3	644.6	644.8	645.1	645.3	645.8	646.4	646.7	647.3	644.8	648.7	
25	647.5	647.8	647.9	647.9	648.0	648.2	648.4	648.6	648.7	648.6	648.6	648.7	648.6	648.4	648.4	648.4	648.4	648.4	648.4	648.4	648.4	648.2	647.9	647.5		
26	647.1	646.6	646.1	645.7	645.5	645.2	645.0	644.8	644.5	644.1	643.9	643.6	643.3	643.0	643.0	643.0	643.1	643.5	643.7	643.8	644.0	643.9	643.9	647.1	644.3	
27	643.9	643.8	643.9	644.1	644.2	644.4	644.7	645.0	645.3	645.3	645.2	645.2	645.7	645.7	646.1	646.4	646.5									

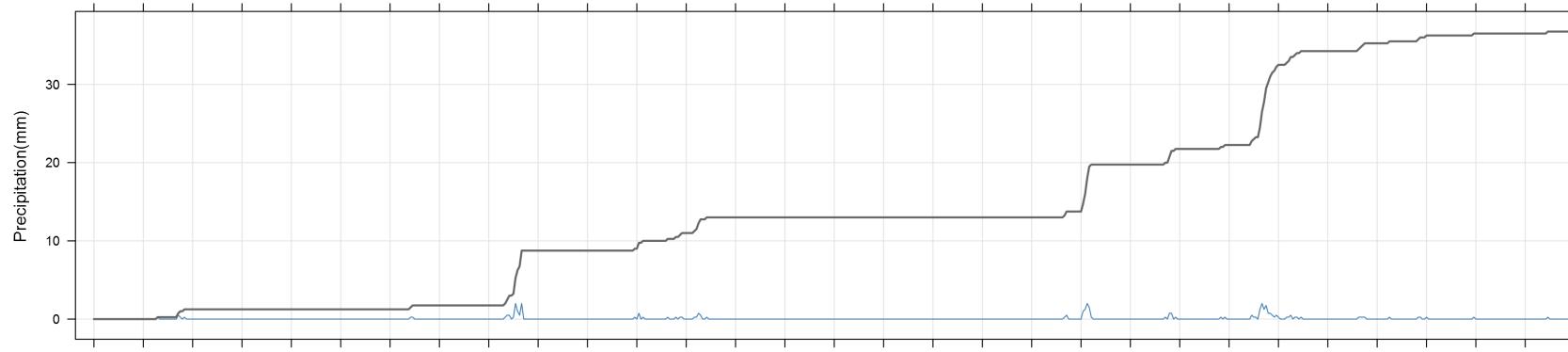
Lagoon Relative Humidity (%) – April 2017

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	41.6	42.4	44.2	46.4	46.7	53.6	60.6	63.3	60.6	67.2	51.3	48.4	42.9	42.9	41.8	38.5	42.0	47.1	41.4	42.4	47.0	45.4	44.9	67.2	47.6
2	47.1	50.5	59.6	68.5	73.0	77.2	81.2	88.8	86.2	77.1	68.2	57.4	76.8	83.6	72.5	72.9	79.1	86.0	85.2	86.1	86.0	88.4	86.3	82.9	88.8	75.9
3	81.1	75.8	70.3	76.0	77.4	70.9	66.3	61.2	53.3	43.3	35.0	32.7	35.4	32.3	32.2	31.5	25.6	27.2	32.8	52.8	65.8	70.6	60.7	50.2	81.1	52.5
4	48.8	49.7	49.8	52.8	54.4	56.0	56.8	53.6	45.2	35.1	26.0	22.1	21.8	22.6	22.7	23.2	23.0	23.4	25.0	26.9	29.3	30.5	31.4	32.8	56.8	36.0
5	32.7	34.7	36.4	33.5	35.8	37.0	37.0	36.5	36.6	37.0	37.1	36.7	34.9	32.8	32.7	32.7	34.7	35.8	39.1	41.4	43.5	43.4	48.0	50.6	50.6	37.5
6	51.9	55.7	65.0	72.9	78.1	77.6	67.5	67.3	61.1	49.8	44.9	40.1	39.4	43.2	44.3	39.0	36.9	39.0	38.6	40.6	46.9	47.1	47.8	43.8	78.1	51.6
7	40.2	39.5	38.6	41.3	45.8	55.1	60.1	64.2	62.0	55.2	75.1	80.4	71.1	63.1	62.4	58.3	45.1	36.1	41.2	42.9	43.9	47.8	69.6	66.9	80.4	54.4
8	66.8	84.7	81.8	75.7	74.1	69.1	64.5	62.2	56.2	40.3	31.7	28.1	26.5	26.3	26.1	26.6	25.9	27.9	34.1	56.1	70.8	72.1	75.6	82.2	84.7	53.6
9	84.3	85.5	85.1	85.6	79.5	72.6	71.0	69.7	75.6	88.8	91.4	85.2	77.2	83.4	83.5	84.1	91.6	92.4	91.7	92.1	92.6	92.9	93.2	91.1	93.2	85.0
10	81.4	79.7	81.8	77.5	78.6	75.2	72.9	62.1	50.8	45.0	38.4	33.9	34.6	32.5	32.4	31.4	31.1	32.7	33.2	36.6	40.0	44.0	45.9	47.0	81.8	50.8
11	49.1	52.1	53.3	56.2	60.5	65.2	66.9	58.7	52.4	47.5	40.8	35.6	33.6	29.5	31.9	53.6	54.2	68.5	88.4	91.9	89.9	90.3	91.4	93.1	93.1	60.6
12	93.2	93.8	93.7	92.5	92.1	92.4	93.1	93.1	93.1	92.3	90.6	87.1	85.9	84.2	85.9	87.2	89.2	88.3	91.4	92.9	92.3	93.1	93.4	93.4	93.8	91.0
13	93.5	93.6	94.0	94.0	93.8	94.0	94.5	94.3	92.6	92.6	90.7	85.5	83.7	82.7	81.0	83.1	84.9	86.0	87.1	88.1	90.0	90.3	90.7	94.5	89.8	
14	90.9	87.0	83.2	70.9	60.5	59.0	55.7	43.9	33.7	31.4	30.0	29.3	27.9	27.7	27.7	28.2	29.6	28.6	29.2	30.9	31.4	35.0	35.8	34.8	90.9	43.4
15	35.2	34.2	35.1	35.6	37.0	36.7	36.7	35.0	34.3	31.6	32.1	29.5	33.1	33.1	34.8	35.6	34.3	32.4	43.8	72.5	75.7	75.8	76.4	75.4	76.4	43.2
16	73.9	74.3	79.8	83.2	86.4	86.6	82.0	80.2	74.1	45.9	31.3	27.3	23.9	21.0	18.7	26.3	31.1	36.3	40.0	47.4	53.9	54.0	59.6	68.0	86.6	54.4
17	64.2	69.6	72.9	67.0	65.7	63.9	61.5	58.4	53.3	41.2	33.9	31.4	31.4	35.4	37.8	42.3	48.0	51.1	54.5	59.8	63.2	61.4	64.9	70.3	72.9	54.3
18	73.5	76.1	77.8	81.5	84.2	87.2	86.1	71.2	59.9	53.0	34.9	35.8	29.6	28.8	42.7	47.3	33.0	31.6	35.8	60.0	77.6	82.8	80.6	79.9	87.2	60.4
19	82.4	80.8	74.2	69.4	62.3	60.6	57.4	45.8	34.6	33.2	31.2	28.6	26.2	25.1	24.8	22.7	23.8	24.7	26.0	28.2	32.4	39.0	44.3	56.8	82.4	43.1
20	56.1	49.9	49.2	51.0	56.0	58.6	59.9	61.4	56.2	50.8	42.6	34.6	29.4	31.0	43.1	60.7	69.4	81.1	80.8	82.0	88.0	91.1	91.7	91.4	91.7	61.1
21	87.0	88.9	89.8	90.4	92.1	93.1	93.1	92.2	89.8	88.4	85.9	76.5	66.8	68.4	63.4	54.1	48.9	48.0	62.6	69.9	74.0	83.7	85.0	82.4	93.1	78.1
22	83.3	86.5	90.5	91.2	91.8	91.6	87.7	81.0	68.4	55.1	48.0	46.7	48.8	58.1	68.0	69.9	72.7	78.0	84.2	87.5	91.5	93.2	93.0	93.6	93.6	77.5
23	92.7	92.4	90.9	90.3	91.4	91.5	89.2	87.5	86.1	80.8	75.4	62.5	45.5	36.0	31.1	29.1	30.7	58.5	71.1	76.9	87.2	89.9	92.1	93.3	93.3	73.8
24	93.7	93.4	93.3	93.4	93.9	94.5	94.9	95.1	93.9	90.0	86.2	86.2	88.4	85.4	84.0	86.9	92.9	93.7	94.0	94.5	94.8	95.1	95.4	95.7	92.1	
25	95.9	95.5	95.2	95.0	94.9	94.9	94.9	95.0	95.1	94.4	91.1	87.3	86.7	85.3	83.5	82.0	83.5	83.7	85.0	86.0	84.2	85.0	87.2	87.5	95.9	89.5
26	87.4	87.5	84.2	83.6	83.8	85.1	85.1	81.4	74.0	68.5	62.7	67.6	70.4	70.1	73.7	81.7	87.5	90.3	92.0	91.1	91.0	90.9	90.3	92.0	82.1	
27	91.8	92.0	92.6	93.2	93.2	93.5	93.4	93.3	91.2	80.1	71.7	58.9	80.8	80.7	72.7	71.3	66.9	70.4	77.6	84.6	91.3	93.0	93.3	93.5	84.2	
28	93.5	93.9	94.1	93.8	94.2	94.3	93.2	86.8	75.3	64.2	60.5	54.0	51.9	67.4	59.9	55.5	59.7	64.1	66.8	77.2	82.5	85.0	87.7	89.7	94.3	76.9
29	90.5	89.2	89.0	88.4	88.4	87.1	81.6	75.9	64.6	42.0	33.4	31.4	35.1	41.0	32.1	33.3	33.3	35.3	39.2	49.0	56.6	60.3	65.6	58.5	90.5	58.4
30	57.4	58.1	60.0	57																						

Lagoon Precipitation (mm) – April 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	0.0	
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.0	0.3	0.0	0.0	0.0	0.5	
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	0.0	
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
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	0.0	0.0	0.0	0.0	0.0	
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	0.0	
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
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	0.0	
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.5	0.0	0.3	2.0	1.0	0.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	
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	0.0	
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	0.3	
12	0.0	0.8	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.8	2.0	
13	0.0	0.0	0.0	0.0	0.3	0.3	0.8	0.5	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	
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	0.0	
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	0.0	
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	
21	0.0	1.0	1.3	2.0	1.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	
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	0.3	0.0	0.8	0.0	0.3	0.0	0.8	
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	0.3	0.0	0.3	0.0	0.5	
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.3	0.0	1.3	2.0	1.3	1.8	0.8	0.8	0.5	0.3	0.5	10.0	
25	0.3	0.0	0.0	0.0	0.3	0.3	0.5	0.0	0.3	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	
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	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
27	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.8	
28	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	
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	0.0	
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	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
Hourly Max	0.3	1.0	1.3	2.0	1.5	0.3	0.8	0.5	0.3	0.5	0.5	0.3	2.0	1.0	1.3	2.0	1.3	1.8	0.8	0.8	0.5	0.3	0.5			
Hourly Average	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.3	

1-hour Precipitation (mm) at Trailer



West PM_{2.5} ($\mu\text{g}/\text{m}^3$) – April 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	1.5	1.6	1.6	1.9	1.7	2.1	1.4	1.5	1.4	1.2	1.3	1.1	0.9	1.0	0.9	0.7	1.1	0.8	0.5	0.5	0.5	0.6	0.5	0.7	2.1	1.1	
2	0.7	0.5	0.7	0.6	0.7	0.8	1.1	1.2	1.0	0.8	1.7	2.8	2.2	2.3	1.5	4.0	1.7	3.0	5.0	5.2	1.8	1.1	1.3	1.9	5.2	1.8	
3	1.5	2.1	1.3	1.1	1.1	1.3	2.5	2.8	5.3	5.0	5.3	7.0	5.8	5.3	11.1	3.7	5.2	2.0	2.1	2.3	3.3	2.9	1.9	2.0	11.1	3.5	
4	2.0	1.9	1.6	1.6	1.8	2.0	3.4	3.7	5.5	4.6	2.2	2.1	2.3	2.1	2.8	2.0	2.3	2.3	2.3	1.9	2.1	2.1	2.5	2.2	5.5	2.5	
5	2.2	2.0	1.9	1.9	1.9	2.5	7.4	6.6	4.8	6.1	7.0	5.5	4.8	6.1	4.5	3.9	2.8	2.1	1.5	1.0	1.0	1.2	2.0	1.7	7.4	3.4	
6	1.6	1.5	1.4	1.3	1.5	2.0	7.6	12.2	10.9	6.8	3.8	3.8	4.6	2.8	3.2	1.5	2.1	0.6	0.5	0.5	0.3	0.3	0.7	0.4	12.2	3.0	
7	0.4	0.9	0.6	0.6	0.6	0.7	1.3	6.3	7.3	9.2	2.0	2.7	3.1	9.2	10.6	7.8	5.4	1.0	0.6	0.9	0.5	0.5	0.5	0.3	10.6	3.0	
8	0.3	0.2	0.4	0.4	0.5	0.5	0.5	0.9	0.7	0.7	1.0	0.5	0.5	0.6	0.6	0.7	1.1	0.8	0.6	1.1	6.9	9.4	9.8	10.7	10.7	2.1	
9	10.8	11.4	16.4	14.9	4.9	3.2	2.9	1.7	1.4	2.1	4.3	4.3	1.2	1.4	2.3	1.8	1.0	2.3	3.4	4.2	6.2	7.6	5.9	2.8	16.4	4.9	
10	0.7	0.5	0.6	0.5	0.7	0.5	4.0	5.6	5.0	12.5	8.7	6.5	8.3	7.9	8.1	8.5	7.8	7.3	6.0	5.6	5.8	5.5	5.3	5.0	12.5	5.3	
11	4.5	4.6	4.5	4.3	4.4	4.8	5.8	9.1	6.6	4.1	3.7	2.3	2.4	2.6	2.2	4.9	4.8	4.1	5.5	5.3	4.5	5.1	6.6	3.4	9.1	4.6	
12	4.7	5.1	10.3	11.9	13.9	15.8	16.1	16.6	17.5	15.9	10.2	7.4	6.6	10.4	13.6	18.9	16.7	14.5	11.6	13.9	14.8	12.0	9.1	8.8	18.9	12.4	
13	6.8	7.4	8.6	7.8	5.4	3.3	1.2	1.2	3.1	4.0	4.0	5.0	10.3	9.9	6.3	7.1	4.7	4.0	4.1	4.6	4.9	5.0	7.0	7.5	10.3	5.6	
14	8.2	8.0	5.8	1.8	0.4	0.3	0.6	1.5	1.1	1.7	1.3	1.2	1.0	1.1	1.2	0.8	0.9	1.0	1.3	0.7	0.6	0.5	0.5	0.5	8.2	1.7	
15	0.5	0.7	0.5	0.4	0.5	0.4	1.1	0.6	0.4	1.9	1.1	0.9	0.8	0.9	1.5	1.3	0.9	0.8	0.6	1.5	1.4	0.9	0.8	0.8	1.9	0.9	
16	0.8	0.8	1.0	1.6	2.3	5.8	4.1	4.2	5.8	2.7	1.0	1.1	0.9	0.9	2.1	1.6	2.0	3.0	3.1	2.9	2.7	3.5	4.7	4.4	5.8	2.6	
17	5.3	6.0	5.3	4.8	4.4	5.1	10.2	35.6	22.6	13.3	10.1	7.5	8.2	7.0	15.6	34.3	7.2	6.0	7.1	6.6	7.3	5.8	6.4	5.8	35.6	10.3	
18	6.0	6.1	6.8	7.8	7.2	6.9	8.1	19.7	16.5	11.5	3.7	2.4	3.5	2.7	2.4	7.0	1.6	0.9	0.9	0.8	0.5	0.7	1.2	1.4	19.7	5.3	
19	0.7	1.2	1.2	0.8	1.3	2.2	3.1	4.9	3.3	3.4	2.9	4.4	5.0	6.3	7.2	7.8	7.4	6.4	7.0	6.3	6.5	6.5	7.5	8.6	8.6	4.6	
20	8.6	8.3	8.7	9.0	9.0	9.6	11.9	14.1	18.7	20.2	13.3	11.5	11.3	9.4	11.2	8.4	8.2	8.4	7.0	6.2	5.9	6.4	7.3	8.5	20.2	10.0	
21	10.0	8.6	7.7	8.2	8.0	5.1	4.3	4.4	3.5	4.1	3.9	10.3	12.9	8.0	7.7	8.0	6.5	5.2	4.5	4.3	4.4	5.9	6.1	5.0	12.9	6.5	
22	5.3	4.7	4.4	4.7	4.3	4.0	4.0	4.4	4.8	3.0	4.4	4.5	6.3	14.2	20.4	21.3	19.8	18.2	18.8	15.3	9.0	4.5	4.8	2.5	21.3	8.7	
23	2.8	2.1	1.8	1.8	2.2	3.8	5.7	6.8	8.1	7.1	7.4	3.9	1.2	0.9	0.9	0.8	1.2	4.1	13.1	7.8	6.6	5.9	5.2	4.1	13.1	4.4	
24	2.8	3.0	6.8	11.6	11.1	10.6	10.2	6.4	3.7	2.8	7.7	3.5	2.6	9.7	8.5	2.5	6.2	9.0	7.8	6.4	9.7	9.9	7.9	4.4	11.6	6.9	
25	1.8	1.4	1.2	1.8	1.5	1.7	1.7	2.7	2.8	2.9	3.2	6.0	5.9	6.1	5.3	5.7	5.8	5.6	5.4	5.3	7.4	7.2	6.2	7.4	4.2	21.0	9.9
26	5.9	7.8	10.3	9.2	9.2	10.0	12.5	12.1	11.3	10.0	11.9	21.0	20.4	13.0	10.5	8.8	9.0	5.7	6.6	5.8	6.9	7.2	6.9	6.0	20.3	8.5	
27	6.5	5.6	7.5	7.8	9.0	8.5	11.3	12.2	11.9	14.6	20.3	10.8	6.3	9.3	7.6	4.4	10.6	9.6	4.3	3.4	3.7	5.6	7.1	6.2	35.1	10.7	
28	6.2	7.7	9.0	7.8	9.9	14.8	13.7	20.3	35.1	34.3	16.7	12.7	11.2	10.0	8.8	6.1	4.1	2.7	3.8	4.4	4.5	4.0	3.8	5.4	7.0	3.2	
29	6.1	7.0	5.5	4.0	4.5	3.8	3.3	2.9	2.7	2.9	2.8	2.3	2.3	2.3	2.4	2.3	2.7	2.5	2.4	2.0	1.9	2.0	2.7	2.8	2.7	2.7	1.5
30	2.7	2.5	2.7	2.5	1.9	1.4	1.1	1.0	0.8	0.9	1.2	0.9	1.7	1.6	1.2	1.2	1.5	0.8	1.0	0.6	0.7	2.2	1.8	1.0	2.7	1.5	
Hourly Max	10.8	11.4	16.4	14.9	13.9	15.8	16.1	35.6	35.1	34.3	20.3	21.0	20.4	14.2	20.4	34.3	19.8	18.2	18.8	15.3	14.8	12.0	9.8	10.7			
Hourly Average	3.9	4.0	4.5	4.5	4.2	4.5	5.4	7.4	7.5	7.0	5.6	5.2	5.1	5.5	6.1	6.3	5.1</td										

West PM₁₀ (μg/m³) – April 2017

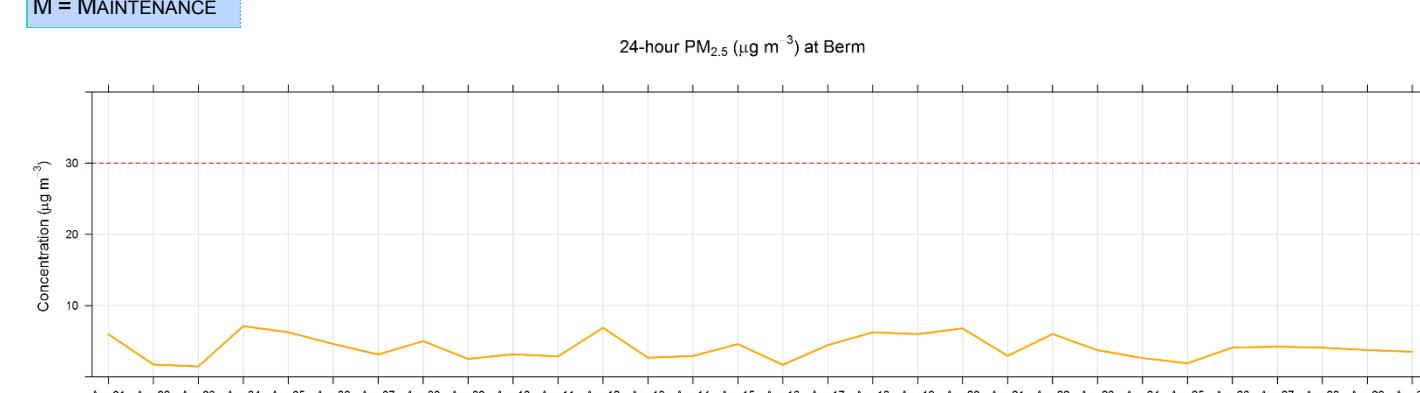
Day/Hour	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Daily Max	24-hour Average
1	2.3	2.7	3.7	4.8	2.6	3.6	2.3	3.4	4.0	2.6	3.5	2.6	2.9	3.9	3.2	2.2	3.7	3.2	1.5	1.6	1.2	1.0	0.8	1.0	4.8	2.7
2	0.9	0.7	1.2	0.9	0.9	0.9	1.3	1.5	1.2	1.0	5.4	12.3	6.6	8.1	3.9	21.9	3.4	4.2	7.2	7.6	2.3	1.3	1.5	2.5	21.9	4.1
3	1.8	2.6	1.5	1.2	1.3	1.6	3.6	10.7	38.3	38.0	37.2	53.4	36.9	32.4	74.2	19.1	29.6	7.6	8.1	6.9	11.4	9.7	3.9	3.7	74.2	18.1
4	3.4	3.0	2.2	2.3	3.5	4.0	14.9	21.1	40.5	30.2	10.4	8.8	10.2	7.4	11.0	5.5	6.7	5.5	4.0	3.0	4.4	2.6	4.5	3.6	40.5	8.9
5	3.9	2.9	2.6	3.3	3.5	7.4	42.8	36.1	23.9	33.7	39.2	30.6	27.2	35.3	22.3	17.7	12.4	7.6	3.6	1.4	1.3	1.7	4.6	3.0	42.8	15.3
6	2.4	2.1	2.0	1.7	2.4	3.6	20.0	54.1	67.3	44.1	19.3	19.2	24.0	13.6	18.4	7.8	11.9	2.1	1.2	1.5	0.7	0.3	3.0	0.5	67.3	13.5
7	0.6	1.6	1.0	1.2	0.6	1.0	5.1	40.1	50.8	54.8	4.2	4.0	6.9	41.7	45.9	31.7	24.5	3.1	1.5	4.2	1.4	1.8	1.4	0.3	54.8	13.7
8	0.5	0.2	0.5	0.5	0.6	1.1	1.0	3.1	2.2	1.6	2.5	1.5	1.3	1.5	1.7	2.4	4.7	2.6	1.6	2.0	8.5	10.5	11.3	12.2	12.2	3.1
9	12.0	12.5	22.8	20.6	5.6	3.6	3.1	1.9	1.6	2.8	5.7	5.9	1.9	1.8	3.0	2.3	1.4	3.2	4.7	5.2	7.6	9.0	6.5	2.9	22.8	6.2
10	0.8	0.6	0.6	0.5	0.8	1.4	6.1	18.2	32.5	84.7	54.3	37.7	51.5	41.7	29.2	25.6	17.5	12.6	7.0	6.1	7.1	7.5	5.8	5.5	84.7	19.0
11	4.8	5.0	4.8	4.8	6.2	12.1	38.0	24.3	16.6	17.4	12.2	10.6	10.5	8.0	17.8	11.1	8.0	8.5	6.5	5.1	5.7	8.1	4.1	38.0	10.6	
12	6.0	6.6	10.5	12.2	14.3	16.7	18.5	20.4	21.0	19.7	12.0	8.4	8.5	13.1	16.4	24.6	18.7	17.3	12.2	15.9	18.6	13.1	9.2	8.9	24.6	14.3
13	6.8	7.6	8.9	7.9	5.5	3.4	1.5	1.4	3.7	4.8	4.8	6.0	21.0	33.7	8.9	10.2	6.1	4.9	5.0	5.2	5.8	5.3	8.3	8.8	33.7	7.7
14	9.1	8.8	6.0	1.9	0.4	0.3	1.6	5.0	4.1	5.6	4.8	4.5	3.4	4.5	4.3	2.5	3.2	3.0	1.9	1.2	1.1	0.6	0.9	0.6	9.1	3.3
15	0.5	2.3	0.7	0.5	0.9	0.6	4.1	1.8	0.8	9.6	5.3	3.0	3.2	2.8	7.8	5.2	2.5	2.0	1.1	4.3	4.9	1.1	0.9	0.8	9.6	2.8
16	0.9	0.8	1.0	2.0	2.6	7.5	5.0	6.1	14.8	7.4	2.6	3.4	2.6	2.0	11.7	7.4	6.5	7.1	6.3	3.9	3.5	6.1	11.1	9.1	14.8	5.5
17	10.6	13.9	11.2	8.8	6.9	14.8	58.2	296.7	196.1	97.2	62.8	44.0	44.1	38.2	99.0	247.2	27.6	16.6	20.7	16.8	12.9	9.7	10.5	8.2	296.7	57.2
18	7.8	8.4	9.3	11.4	10.0	8.9	11.2	66.9	61.2	55.8	25.6	14.2	17.3	17.0	12.4	36.3	6.8	2.9	2.2	2.4	0.6	0.8	1.6	1.9	66.9	16.4
19	0.8	1.4	1.4	0.9	2.9	7.5	15.2	25.8	15.3	16.1	11.3	15.8	13.3	14.5	14.5	15.4	13.9	8.2	12.5	7.4	7.3	7.0	9.8	11.8	25.8	10.4
20	10.9	9.1	9.6	10.4	10.5	13.3	31.0	49.0	92.3	104.0	51.2	35.4	33.7	21.3	29.2	12.3	10.5	10.3	7.9	6.6	6.2	6.7	8.2	10.4	104.0	24.6
21	12.5	9.1	8.1	8.8	8.7	5.6	4.8	5.0	3.7	4.3	4.6	39.4	52.8	28.1	26.2	23.8	14.6	10.0	6.7	5.7	5.3	7.9	8.4	6.5	52.8	12.9
22	6.3	5.3	4.8	5.6	4.7	4.5	4.5	5.4	11.9	6.4	15.2	15.7	12.2	30.0	30.0	32.4	24.1	20.2	19.8	15.9	9.3	4.5	4.8	2.5	32.4	12.3
23	2.8	2.2	1.8	1.8	2.3	4.2	6.4	7.5	9.4	8.1	10.1	7.1	2.4	1.8	2.1	1.2	2.3	8.6	16.0	8.5	8.8	6.2	5.6	4.3	16.0	5.5
24	3.0	3.5	9.8	17.4	16.3	15.5	14.9	8.9	5.1	3.5	11.3	4.9	3.5	27.1	23.8	3.3	8.7	12.9	11.0	8.9	11.3	10.3	8.1	4.6	27.1	10.3
25	2.0	1.5	1.2	1.9	1.6	1.8	1.8	3.0	4.3	7.1	8.6	25.2	22.1	22.2	16.2	13.3	12.7	9.7	6.3	5.9	8.7	8.1	8.8	6.6	25.2	8.4
26	6.0	9.8	11.5	9.8	10.4	12.5	16.8	17.6	27.8	29.9	48.9	67.2	59.7	40.2	29.6	12.2	11.4	6.6	8.0	7.3	8.5	8.7	8.2	6.5	67.2	19.8
27	7.0	5.9	8.3	8.7	11.7	9.0	13.8	15.6	16.1	24.3	61.9	39.4	18.9	30.7	28.1	6.5	32.9	39.2	5.6	3.6	4.0	5.9	8.1	6.3	61.9	17.1
28	6.3	8.3	9.8	8.1	10.6	15.7	14.4	26.7	66.8	249.7	59.7	45.5	47.2	32.3	32.0	15.7	11.8	3.9	5.4	6.1	6.6	4.7	4.5	6.6	249.7	29.1
29	6.8	7.2	5.7	4.1	4.5	3.9	3.3	3.8	4.5	7.2	7.8	5.3	6.3	5.6	5.1	3.9	6.4	5.8	4.1	3.8	2.5	2.8	4.1	3.7	7.8	4.9
30	3.5	3.4	4.7	4.2	2.3	1.7	1.4	1.9	2.3	3.5	5.1	2.4	5.8	5.3	4.5	3.8	6.9	1.9	2.2	0.8	0.9	4.7	3.0	1.3	6.9	3.2
Hourly Max	12.5	13.9	22.8	20.6	16.3	16.7	58.2	296.7	196.1	249.7	62.8	67.2	59.7	41.7	99.0	247.2	32.9	39.2	20.7	16.8	18.6	13.1	11.3	12.2		

West TSP ($\mu\text{g}/\text{m}^3$) – April 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	3.5	5.3	5.7	2.1	4.8	3.1	6.8	9.7	9.0	11.9	4.2	6.9	8.7	9.9	5.9	7.5	9.4	3.0	2.6	3.9	0.6	0.9	0.7	11.9	5.4
2	0.6	0.5	1.1	0.6	0.6	0.6	0.9	1.1	0.9	0.7	19.4	29.3	15.1	19.0	8.4	39.4	8.0	3.7	5.8	6.6	1.7	0.9	1.1	1.9	39.4	7.0
3	1.2	1.9	1.0	0.8	0.9	1.3	3.5	28.6	101.1	92.6	98.7	167.4	95.3	88.6	158.3	42.1	73.3	19.1	15.3	7.1	11.5	7.4	3.1	2.5	167.4	42.6
4	2.3	2.3	2.9	1.7	4.2	4.8	25.4	44.8	100.1	88.1	30.8	33.5	32.4	16.8	28.5	11.8	20.2	8.5	6.7	3.4	6.2	2.9	7.9	5.4	100.1	20.5
5	7.0	5.7	2.3	6.5	6.8	17.7	125.0	93.9	62.8	85.1	94.3	74.7	75.1	51.4	38.1	31.7	15.0	5.5	2.2	1.3	1.1	6.7	2.2	1.3	125.0	37.0
6	2.0	1.6	1.3	1.1	1.6	2.9	27.5	74.3	102.3	91.8	36.4	43.0	52.4	36.9	50.6	23.6	33.9	7.1	4.5	2.9	1.4	0.2	5.7	1.3	102.3	25.3
7	0.5	4.6	1.2	2.6	0.4	0.8	5.2	64.6	81.4	87.6	5.7	4.0	9.6	74.6	76.6	64.3	55.1	7.9	2.1	7.7	1.4	3.9	3.6	0.2	87.6	23.6
8	0.3	0.2	0.3	0.3	0.6	2.0	2.2	6.8	6.0	3.8	10.8	7.8	5.6	3.9	2.4	2.6	9.7	7.1	2.3	2.4	9.0	7.1	8.4	8.2	10.8	4.6
9	7.9	8.3	16.7	14.6	3.7	2.3	2.0	1.2	1.2	2.1	4.1	4.3	3.1	1.4	2.3	1.9	1.3	2.8	3.9	3.5	5.0	5.8	4.3	1.9	16.7	4.4
10	0.5	0.4	0.4	0.4	0.7	3.4	8.4	49.0	83.0	219.1	166.2	95.9	149.9	110.2	76.6	56.7	35.2	19.7	9.6	4.4	5.3	9.9	4.1	4.7	219.1	46.4
11	3.1	3.3	3.2	3.2	3.1	4.8	20.7	94.4	55.9	45.9	45.8	36.6	23.6	24.1	24.9	66.2	23.0	17.6	9.9	4.4	3.3	3.7	5.6	2.8	94.4	22.0
12	4.8	4.9	6.8	7.9	9.2	10.9	12.1	13.4	13.9	13.2	8.3	11.8	18.1	23.7	11.9	16.5	12.2	11.4	7.9	10.3	12.1	8.5	5.9	5.7	23.7	10.9
13	4.4	4.9	5.7	5.1	3.5	2.3	1.1	1.0	2.6	3.2	3.2	4.4	19.6	41.0	7.6	9.5	5.0	3.7	3.7	3.5	4.3	3.5	5.6	5.8	41.0	6.4
14	5.9	5.7	3.9	1.2	0.3	0.2	1.3	6.5	8.0	15.2	13.9	12.5	11.6	8.5	16.3	8.9	8.1	10.2	3.7	1.1	0.9	0.5	0.8	0.5	16.3	6.1
15	0.4	11.9	2.0	1.3	1.4	0.6	9.9	7.9	2.2	41.3	18.8	8.8	11.8	7.2	24.3	29.9	4.5	5.7	2.0	6.5	15.1	0.7	0.6	0.5	41.3	9.0
16	0.6	0.5	0.7	1.4	1.7	5.2	3.3	5.5	16.4	14.6	3.9	5.9	3.4	3.3	31.8	22.7	18.3	12.0	9.3	3.4	2.4	4.4	8.4	6.5	31.8	7.7
17	7.9	11.8	8.1	6.1	5.2	21.2	98.8	479.8	335.8	181.2	118.5	82.5	91.4	105.7	221.5	495.4	60.9	29.7	28.1	19.4	22.0	16.8	14.4	6.4	495.4	102.9
18	5.5	5.9	7.0	9.1	7.2	5.9	8.4	135.4	107.5	117.5	74.9	37.5	42.6	42.9	38.4	86.7	19.0	8.9	2.1	6.2	0.5	0.6	1.3	1.5	135.4	32.2
19	0.6	1.0	1.0	0.6	4.7	12.3	37.3	71.7	32.1	42.8	34.2	35.9	26.9	33.6	27.4	25.5	23.0	10.1	19.0	5.3	6.4	4.6	6.9	9.5	71.7	19.7
20	9.0	6.1	6.3	7.2	8.1	9.7	39.1	67.4	152.2	168.2	76.4	55.6	61.8	36.7	55.8	17.3	9.7	6.8	5.2	4.3	4.0	4.3	5.4	7.0	168.2	34.3
21	8.4	5.9	5.2	5.7	5.6	3.6	3.1	3.3	2.4	2.8	3.5	60.2	96.9	57.5	56.9	49.2	22.8	15.4	6.2	4.0	3.6	5.7	6.3	4.5	96.9	18.3
22	4.2	3.5	3.2	3.7	3.1	3.0	3.0	3.9	20.3	8.8	66.4	60.0	27.5	75.7	46.9	42.6	26.1	13.2	12.9	10.3	6.0	2.9	3.1	1.6	75.7	18.8
23	1.8	1.4	1.1	1.2	1.5	2.7	4.3	5.0	6.3	5.7	8.2	12.0	4.1	3.5	4.9	5.0	3.9	19.0	18.2	6.1	6.7	4.1	3.6	2.8	19.0	5.5
24	1.9	2.3	7.9	15.2	14.2	13.4	11.7	7.1	4.4	2.7	11.6	4.4	3.1	43.9	46.1	2.6	6.3	9.7	8.1	6.3	7.3	6.7	5.2	3.0	46.1	10.2
25	1.4	1.0	0.8	1.2	1.0	1.2	1.2	2.1	8.9	13.2	16.0	102.3	65.2	90.7	50.7	43.1	33.5	12.7	12.2	4.2	6.4	6.0	6.1	4.3	102.3	20.2
26	3.9	6.8	7.6	6.3	6.9	9.0	14.7	16.2	49.1	79.3	114.9	130.6	116.7	91.5	52.3	10.6	8.1	4.4	5.3	5.0	5.6	5.7	5.3	4.2	130.6	31.7
27	4.5	3.8	5.4	5.7	8.8	5.9	9.2	10.6	12.0	29.0	85.5	73.0	51.3	51.5	49.4	6.4	62.6	80.8	5.0	2.4	2.6	3.8	5.3	4.1	85.5	24.1
28	4.1	5.3	6.3	5.2	6.9	10.2	9.4	25.0	96.0	307.6	152.8	90.0	112.9	68.5	71.1	27.5	24.5	3.3	7.5	10.7	9.3	3.0	4.2	307.6	44.3	
29	4.4	4.7	3.7	2.6	2.9	2.5	2.2	6.6	9.1	14.9	17.8	9.7	13.4	8.7	7.9	3.7	14.4	14.8	5.0	5.2	1.7	2.3	3.9	2.7	17.8	6.9
30	4.2	4.2	7.2	6.8	2.0	1.1	1.4	3.1	5.4	9.1	11.9	5.4	15.4	17.3	10.2	9.7	14.2	4.9	4.7	0.5	0.6	7.0	2.1	0.9	17.3	6.2
Hourly Max	9.0	11.9	16.7	15.2	14.2	21.2	125.0	479.8	335.8	307.6	166.2	167.4	149.9	110.2	221.5	495.4	73.3	80.8</								

Berm PM_{2.5} (µg/m³) – April 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	2.0	1.0	0.8	1.2	1.1	1.5	5.4	4.4	3.8	5.6	3.0	8.4	18.7	21.8	15.3	14.0	10.0	9.8	3.1	4.6	2.5	1.9	2.6	0.6	21.8	6.0	
2	0.9	1.1	0.3	0.3	1.0	0.6	1.0	1.0	3.5	1.2	3.6	1.8	4.9	1.9	0.3	0.8	1.7	2.7	4.3	0.9	2.1	1.4	2.0	1.8	4.9	1.7	
3	2.0	1.0	0.5	0.6	0.5	0.5	0.7	1.2	2.2	2.6	2.9	2.7	2.1	1.8	1.6	1.2	4.3	1.5	1.2	0.8	0.9	0.8	0.5	0.8	4.3	1.5	
4	0.9	1.1	1.3	1.0	1.1	1.3	5.0	9.8	17.6	12.7	23.1	20.5	10.9	14.1	12.6	10.1	5.6	6.3	2.9	2.4	2.9	2.3	2.4	3.1	23.1	7.1	
5	6.5	7.5	8.6	7.2	6.1	7.4	9.8	12.9	10.0	9.2	11.2	10.5	7.6	4.7	7.0	6.3	5.3	4.6	2.5	1.1	0.7	1.2	1.2	0.8	12.9	6.3	
6	1.1	0.6	0.6	0.6	0.5	0.5	0.6	10.3	8.9	4.5	6.4	3.1	2.2	1.4	1.8	20.9	16.4	11.3	7.3	6.8	2.6	1.2	0.7	0.5	20.9	4.6	
7	1.8	10.4	7.9	3.6	0.4	0.2	1.2	6.5	6.9	7.4	0.9	0.8	1.2	1.3	1.3	2.4	5.0	4.9	2.6	3.0	1.5	2.6	0.9	0.4	10.4	3.1	
8	1.0	1.3	1.0	0.2	0.2	0.5	3.5	6.6	7.6	9.6	13.3	11.9	10.9	12.1	3.3	3.5	4.6	4.0	2.2	2.7	3.7	6.1	6.0	4.2	13.3	5.0	
9	3.9	5.1	5.9	5.2	2.9	0.9	0.9	1.8	5.1	2.9	2.9	0.8	0.4	0.9	0.8	0.6	0.5	1.8	1.8	2.9	5.0	4.0	2.5	0.8	5.9	2.5	
10	0.3	0.3	0.2	0.2	0.3	0.5	2.4	2.7	2.4	3.8	3.2	3.8	5.0	6.2	5.8	5.6	4.8	3.8	4.5	4.0	6.6	6.2	3.2	6.6	3.2	6.6	
11	2.3	2.2	2.1	2.0	1.9	2.2	2.1	3.2	4.3	3.3	4.4	3.2	M	4.7	4.6	2.6	2.3	4.3	2.4	1.7	2.8	2.8	3.0	1.7	4.7	2.9	
12	1.2	3.5	7.4	8.7	9.1	8.3	8.4	8.8	8.9	8.5	6.0	5.3	4.9	7.5	8.5	8.4	8.0	7.0	7.0	7.3	7.0	5.8	5.0	4.7	9.1	6.9	
13	2.8	4.6	4.5	4.6	3.1	1.8	0.6	0.8	1.9	2.9	2.3	1.6	2.3	2.2	1.3	1.1	1.6	1.8	3.1	3.9	3.0	3.6	4.2	4.8	4.8	2.7	
14	4.7	4.0	2.1	0.6	0.3	0.5	0.7	2.3	3.2	4.4	3.2	3.5	4.1	7.1	10.1	7.3	4.2	3.5	1.1	0.4	0.5	0.8	0.7	0.7	10.1	2.9	
15	1.2	2.6	1.5	2.0	1.5	1.5	2.9	8.0	7.4	6.6	13.0	11.2	6.7	12.0	11.3	6.7	4.0	3.3	2.2	0.9	1.0	1.0	0.6	0.8	13.0	4.6	
16	0.6	0.5	0.7	1.1	0.5	0.8	0.8	2.3	3.5	4.7	2.1	1.7	0.9	1.0	3.2	1.4	1.4	1.7	1.8	2.3	1.7	1.6	1.6	2.5	4.7	1.7	
17	2.4	2.1	2.4	2.4	2.3	2.8	8.7	12.1	9.3	5.1	6.3	4.4	4.2	3.1	4.0	3.5	3.5	3.6	4.4	4.2	4.6	4.3	5.2	12.1	4.4		
18	3.6	3.6	3.6	3.5	3.3	4.4	7.3	10.7	9.7	10.7	12.5	8.4	15.4	13.2	18.4	4.2	3.5	3.2	3.5	5.4	0.5	0.3	0.3	0.6	18.4	6.2	
19	0.4	0.6	0.9	0.9	0.6	0.6	2.6	6.1	10.0	13.4	12.2	6.1	8.9	12.3	9.7	11.5	11.2	9.7	5.5	5.2	4.2	3.8	3.4	4.1	13.4	6.0	
20	4.5	4.1	5.1	4.3	4.7	4.5	8.0	12.2	10.9	9.0	11.1	10.1	5.3	12.0	12.9	7.6	6.2	5.8	3.6	3.1	3.3	5.3	5.9	12.9	6.8		
21	4.9	5.0	4.0	4.8	4.1	3.7	2.1	2.0	2.1	2.8	1.9	1.6	2.2	2.7	2.5	3.3	4.9	3.6	2.5	2.4	2.2	2.1	1.7	1.4	5.0	2.9	
22	1.2	2.1	3.6	4.3	4.5	4.5	5.1	5.3	3.2	3.2	2.7	2.9	4.7	9.7	12.4	13.4	12.4	11.7	12.2	10.8	5.9	3.5	2.9	2.0	13.4	6.0	
23	2.4	2.1	1.1	0.9	1.9	3.8	3.7	3.7	4.5	3.9	3.8	4.2	5.5	6.3	6.5	4.2	2.4	4.5	6.4	4.8	4.1	3.0	3.8	2.1	6.5	3.7	
24	1.9	3.5	4.0	2.8	2.7	2.6	2.6	2.6	1.5	1.5	1.3	1.0	0.9	1.0	1.3	1.5	2.3	3.0	2.3	3.7	7.1	5.5	4.0	2.5	7.1	2.6	
25	0.6	0.7	0.5	0.9	1.4	1.5	2.1	2.6	1.3	1.2	0.7	2.0	2.0	1.5	2.4	2.4	2.1	2.0	2.7	2.5	2.8	2.8	3.2	3.3	1.9	4.1	
26	4.1	3.3	2.4	1.7	4.1	3.4	4.3	4.4	4.3	4.2	3.5	9.7	6.8	6.9	4.0	4.4	3.5	3.2	3.4	3.1	3.3	3.4	3.6	9.7	4.1		
27	3.3	5.1	2.8	3.1	7.7	7.6	6.0	5.7	5.9	6.9	8.8	5.2	2.8	2.3	1.9	3.5	4.2	2.0	2.3	2.0	2.4	3.8	3.3	8.8	4.2		
28	3.7	3.4	5.0	4.1	6.5	6.2	5.8	8.3	7.5	7.1	6.0	3.9	4.9	4.3	3.3	2.4	1.8	2.1	2.0	1.9	2.1	1.1	2.6	8.3	4.1		
29	3.6	3.6	2.3	2.9	2.1	1.4	1.1	1.3	1.7	2.4	4.9	4.8	5.9	4.0	6.2	10.8	6.8	6.6	5.1	4.6	1.8	1.0	2.5	2.7	10.8	3.8	
30	2.5	2.1	1.5	1.1	1.4	1.6	0.7	5.9	5.2	8.3	12.5	4.5	2.6	5.3	4.5	3.8	5.2	6.2	4.5	1.7	1.9	0.7	0.4	0.4	12.5	3.5	
Hourly Max	6.5	10.4	8.6	8.7	9.1	8.3	9.8	12.9	17.6	13.4	23.1	20.5	18.7	21.8	18.4	20.9	16.4	11.7	12.2	10.8	7.1	6.6	6.2	5.9			
Hourly Average	2.4	2.9	2.8	2.6	2.6	3.3	5.4	5.9	5.7	6.3	5.4	5.3	6.2	5.9	5.7	5.0	4.7	3.6	3.4	2.9	2.8	2.7	2.4				



Berm TSP ($\mu\text{g}/\text{m}^3$) – April 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	28.1	8.4	4.3	36.3	30.0	34.8	59.5	105.7	112.2	175.3	103.0	334.1	462.3	255.6	130.3	114.0	62.7	117.8	51.1	155.3	30.2	31.3	32.9	4.4	462.3	103.3
2	5.9	12.1	0.5	0.7	1.9	0.9	1.2	1.2	5.7	2.5	57.4	17.3	32.5	2.2	0.3	2.5	17.7	3.9	6.1	0.8	2.5	1.2	1.9	2.0	57.4	7.5
3	2.5	0.9	0.4	0.6	0.4	0.4	1.7	6.2	17.8	49.4	65.7	48.0	22.6	27.4	19.8	9.6	75.7	21.1	5.4	1.1	1.0	0.8	0.6	1.6	75.7	15.9
4	1.5	13.8	42.7	10.3	28.5	16.9	144.1	433.6	695.3	355.2	629.2	593.6	307.1	350.0	353.3	245.0	112.8	133.5	28.9	35.9	33.5	25.3	47.8	75.4	695.3	196.4
5	252.6	361.1	416.6	329.7	307.9	383.2	341.3	487.9	393.6	340.4	381.2	256.0	264.4	117.6	156.0	182.6	181.3	155.5	59.5	9.3	2.6	8.4	5.2	2.0	487.9	224.8
6	4.5	0.6	0.5	0.5	0.4	0.7	6.8	111.1	128.1	75.9	136.4	34.4	25.6	9.3	28.0	691.9	716.1	544.0	343.7	328.3	107.0	16.7	7.5	1.1	716.1	138.3
7	18.1	387.2	350.7	51.9	1.0	0.2	15.5	170.5	95.1	69.4	1.9	0.9	2.5	2.7	2.9	12.8	155.4	198.4	64.4	128.2	61.0	93.8	15.7	4.8	387.2	79.4
8	17.1	3.9	1.3	0.2	0.2	0.7	95.8	145.1	244.9	343.1	463.6	417.5	289.1	338.9	54.9	70.9	83.4	80.5	23.1	15.8	4.3	4.4	6.8	2.9	463.6	112.9
9	2.8	3.5	4.1	3.7	2.5	0.7	1.0	21.7	17.8	3.8	2.3	0.5	7.6	0.7	0.6	0.5	0.3	1.4	1.2	2.2	4.8	3.4	1.8	0.6	21.7	3.7
10	0.2	0.2	0.2	0.2	0.1	0.2	2.1	44.4	36.1	33.8	72.3	47.2	56.5	53.5	52.2	67.8	56.4	33.8	16.5	30.6	18.3	53.8	75.7	5.0	75.7	31.5
11	1.9	1.7	1.7	2.1	2.0	2.4	3.4	32.6	68.1	64.0	82.0	54.9	M	62.4	88.4	16.6	11.2	57.6	4.2	1.1	2.1	2.1	2.5	1.3	88.4	24.6
12	0.8	2.4	4.8	5.7	6.1	5.5	5.7	6.1	6.0	5.7	4.3	4.6	3.6	5.6	6.3	5.8	5.5	4.7	4.7	5.0	4.9	3.8	3.2	3.0	6.3	4.8
13	1.8	3.0	2.9	3.0	2.0	1.1	0.4	0.6	1.4	2.5	1.6	1.1	1.5	1.4	0.9	0.8	1.1	1.4	3.1	3.9	2.6	3.0	3.2	3.8	3.9	2.0
14	4.4	3.2	1.4	0.5	0.5	6.4	10.5	49.9	58.2	69.8	61.2	103.6	123.6	294.0	422.6	231.2	111.1	88.1	12.9	1.0	0.7	3.9	3.4	5.5	422.6	69.5
15	18.2	104.3	54.3	97.9	50.5	43.7	133.7	377.7	334.1	265.5	573.1	490.4	252.1	425.6	366.5	216.9	156.4	110.9	32.3	9.8	1.0	0.9	0.5	0.6	573.1	171.5
16	0.5	0.5	0.6	0.8	0.3	0.7	0.6	2.3	8.7	63.4	37.4	24.5	14.9	13.9	68.8	12.5	2.6	2.8	4.2	3.5	2.8	1.7	2.9	5.9	68.8	11.5
17	3.2	5.1	4.3	5.4	6.6	14.7	27.7	193.8	193.1	162.9	126.6	65.3	56.5	48.9	17.1	36.4	21.9	16.2	22.0	20.4	17.9	13.1	16.0	193.8	46.1	
18	8.8	8.9	7.9	6.0	4.9	4.3	11.0	43.8	70.8	226.6	346.0	235.2	306.2	332.2	601.6	80.6	91.3	79.4	30.7	73.4	1.1	0.4	0.3	0.6	601.6	107.2
19	0.4	0.7	1.0	8.0	5.2	7.9	56.5	180.3	360.9	510.9	321.9	118.2	179.9	289.0	171.4	145.7	85.7	89.2	38.5	14.2	6.4	9.7	2.7	3.9	510.9	108.7
20	4.3	3.5	8.2	4.1	6.3	7.4	87.1	235.3	125.2	75.7	157.0	103.0	19.8	190.4	192.0	67.4	40.3	12.9	2.8	2.4	2.3	4.6	5.8	235.3	56.7	
21	3.7	3.6	2.8	3.3	2.7	2.6	1.4	1.5	1.4	2.0	1.3	1.2	9.4	24.5	8.4	25.8	49.3	39.5	6.0	3.2	1.6	1.3	1.0	49.3	8.3	
22	0.9	2.6	4.8	6.1	6.6	6.6	7.6	8.0	11.7	14.9	15.4	19.1	27.5	30.7	18.2	15.3	13.8	8.5	8.5	7.2	3.9	2.3	1.9	1.4	30.7	10.1
23	1.7	1.5	0.7	0.6	2.2	4.6	3.2	2.7	3.3	2.9	3.5	59.2	94.7	114.5	97.8	82.5	28.0	39.3	9.5	3.5	3.0	1.9	2.6	1.4	114.5	23.5
24	1.3	2.8	3.2	2.0	2.2	3.4	2.6	2.1	1.0	1.1	0.9	0.6	0.6	0.7	0.9	1.0	1.6	2.1	1.5	2.4	4.6	3.6	2.6	1.7	4.6	1.9
25	0.5	0.6	0.4	0.6	1.4	1.6	1.7	2.2	1.0	0.9	0.5	2.0	4.7	37.2	19.3	26.6	1.8	1.3	2.1	1.7	1.9	1.9	2.2	2.2	37.2	4.8
26	2.7	2.3	1.6	1.2	5.1	3.8	5.3	4.5	14.0	24.0	15.4	41.2	20.1	53.6	12.1	5.9	2.4	2.3	2.5	2.5	2.8	2.7	2.8	53.6	9.7	
27	2.3	6.4	2.2	2.4	6.8	7.3	4.7	4.2	4.3	6.3	10.7	22.7	14.3	1.7	4.0	4.2	19.2	2.1	2.5	1.7	1.8	2.8	2.2	2.0	22.7	5.8
28	2.5	2.3	4.0	2.7	4.4	4.3	4.1	8.6	7.1	6.4	8.2	10.8	37.3	24.6	13.5	5.1	3.8	2.9	3.6	1.8	1.9	0.8	1.7	3.0	37.3	6.9
29	3.4	2.7	1.8	2.9	2.0	1.2	0.9	3.7	17.7	25.9	64.1	92.4	119.7	82.1	168.3	239.4	104.3	142.9	80.0	51.5	2.8	0.8	7.0	7.4	239.4	51.0
30	25.8	23.7	9.1	1.6	2.0	2.9	1.6	115.0	93.7	180.1	286.7	155.0	58.3	242.2	115.0	109.1	147.9	106.5	77.9	18.1	8.6	2.0	0.4	0.3	286.7	74.3
Hourly Max	252.6	387.2	416.6	329.7																						

Entrance PM_{2.5} ($\mu\text{g}/\text{m}^3$) – April 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	1.8	5.9	2.5	2.5	1.9	1.7	2.7	2.9	1.9	2.3	2.2	4.0	3.8	6.9	0.8	1.0	0.9	1.2	0.8	7.7	4.8	10.2	10.0	9.1	10.2	3.7
2	4.5	13.7	19.6	21.9	6.3	6.3	11.1	5.5	6.7	9.5	3.1	4.0	4.6	1.5	0.8	1.6	3.1	4.2	6.5	1.7	1.6	1.5	2.8	4.3	21.9	6.1
3	20.0	13.8	2.9	7.5	9.1	7.7	5.2	8.3	15.9	14.5	4.7	13.0	17.3	7.8	6.5	7.2	6.1	2.1	5.1	5.4	1.9	7.0	17.2	13.6	20.0	9.1
4	14.2	16.2	15.3	16.1	17.6	17.9	18.5	15.1	9.0	6.3	5.6	4.2	4.7	4.5	3.1	2.8	3.0	2.2	2.7	2.7	2.4	1.9	1.6	1.8	18.5	7.9
5	1.9	3.0	3.4	2.8	2.5	3.0	5.4	6.7	5.2	5.3	8.4	8.0	6.5	5.6	6.1	3.4	3.1	4.1	1.5	0.8	1.7	1.9	6.7	8.7	8.7	4.4
6	11.0	2.6	1.1	2.2	3.1	10.4	13.7	15.2	14.2	9.2	21.6	3.5	13.6	9.6	12.8	8.0	9.0	5.0	3.4	2.9	5.4	2.2	3.4	1.6	21.6	7.7
7	0.4	1.2	2.3	4.9	2.5	6.9	14.5	11.5	15.1	17.7	1.6	1.6	1.7	7.7	7.4	13.1	7.5	3.0	2.7	1.3	1.7	0.6	0.2	0.4	17.7	5.3
8	0.7	0.2	0.1	0.2	0.2	0.3	1.0	1.8	1.3	3.3	2.6	4.8	6.1	4.5	3.6	7.0	2.0	0.6	0.7	5.2	6.7	8.5	8.3	6.8	8.5	3.2
9	7.8	8.6	9.0	7.2	12.5	11.6	6.1	3.7	2.2	7.4	E	E	E	E	E	E	E	E	E	E	E	E	E	-	-	-
10	E	E	E	E	E	E	E	E	E	6.4	6.6	8.0	9.0	9.4	7.4	7.9	6.6	4.9	5.5	5.2	4.3	4.2	3.6	-	-	-
11	4.2	8.7	4.6	3.3	3.6	17.6	17.1	12.7	7.4	6.3	7.8	7.6	5.6	M	5.5	5.8	6.9	4.7	2.7	2.2	3.1	4.2	3.7	1.4	17.6	6.4
12	1.5	3.8	10.3	11.3	11.6	11.0	11.4	11.5	11.6	11.7	9.9	7.9	8.0	11.4	12.8	12.7	11.9	10.5	10.6	10.1	9.2	9.0	7.5	6.7	12.8	9.7
13	4.5	6.0	5.6	6.4	4.8	3.5	2.3	3.2	2.7	3.6	4.4	3.2	3.3	4.3	6.0	6.1	8.0	5.0	6.1	5.7	6.6	5.9	8.2	7.0	8.2	5.1
14	7.7	9.9	13.2	1.6	0.6	0.9	1.2	3.3	5.5	5.1	2.9	3.5	3.2	6.2	3.3	3.6	1.3	1.4	0.9	1.2	1.5	2.5	1.2	3.8	13.2	3.6
15	6.4	3.9	2.7	3.5	4.4	5.8	3.7	4.5	4.5	9.1	3.5	7.0	4.9	4.3	2.3	5.2	6.3	4.3	3.1	1.6	1.6	1.4	0.9	1.3	9.1	4.0
16	0.8	0.8	1.8	2.0	2.5	2.3	6.0	4.3	5.1	3.4	2.3	1.5	1.4	3.9	1.6	1.3	3.1	2.8	4.7	3.6	3.9	3.8	6.5	3.1	6.5	3.0
17	4.5	3.3	3.9	8.5	7.9	8.3	6.1	9.8	13.4	8.4	7.7	10.4	7.0	7.6	10.9	19.3	8.7	5.6	7.8	5.8	5.5	5.0	4.7	5.8	19.3	7.7
18	5.8	7.7	8.6	5.5	8.1	11.7	17.7	19.4	13.4	16.1	11.5	5.1	4.3	2.4	9.7	2.4	2.0	1.9	1.2	1.0	1.4	0.7	2.5	10.6	19.4	7.1
19	1.3	7.4	9.8	6.2	1.4	1.2	2.6	7.0	6.4	5.5	6.7	4.7	6.7	9.2	8.2	8.0	6.2	6.7	7.1	5.4	5.9	6.6	8.9	6.4	9.8	6.1
20	6.8	7.5	13.6	23.8	22.2	12.4	12.2	16.6	15.5	19.9	14.9	19.2	18.3	14.6	13.5	12.0	13.5	14.2	23.5	17.2	5.6	6.5	7.5	10.8	23.8	14.2
21	8.5	7.4	5.4	6.9	7.2	9.6	9.4	7.2	4.2	5.0	4.7	4.0	10.8	23.5	35.6	15.1	6.5	14.7	11.1	7.3	4.3	3.9	4.8	7.2	35.6	9.3
22	5.4	8.6	9.7	7.0	11.0	5.3	13.7	8.1	7.0	5.9	5.2	6.0	5.9	12.3	17.2	18.2	16.1	14.0	14.4	12.1	8.5	5.7	4.8	3.7	18.2	9.4
23	2.0	3.3	2.1	1.5	1.8	7.1	13.9	17.3	14.8	14.2	9.6	5.6	1.6	2.7	1.8	1.1	1.1	5.8	7.8	6.9	5.1	3.5	5.0	4.7	17.3	5.9
24	4.9	3.6	3.6	4.4	4.8	9.2	6.1	4.9	1.7	1.4	2.2	1.9	2.1	2.2	2.2	2.6	4.6	3.5	3.4	5.0	9.2	6.4	4.4	2.9	9.2	4.1
25	0.6	1.1	0.8	1.0	2.0	1.7	3.0	2.7	1.8	1.7	1.5	3.6	3.7	7.9	8.1	6.2	5.0	3.3	4.6	5.1	5.3	5.7	5.1	5.0	8.1	3.6
26	6.6	6.5	5.5	6.1	10.6	12.3	12.3	13.4	10.1	10.3	11.0	30.4	35.0	37.8	14.8	6.6	6.8	6.3	5.9	3.5	5.7	5.6	5.1	4.5	37.8	11.4
27	5.3	5.0	5.0	5.4	9.0	10.1	10.4	7.8	8.6	7.1	9.4	21.3	10.9	5.8	16.8	10.6	15.6	7.7	7.6	4.1	4.2	4.7	5.0	21.3	8.4	
28	8.1	6.0	6.8	6.9	9.5	10.3	10.8	11.2	9.3	11.5	14.1	21.4	16.1	14.5	13.7	5.4	2.9	3.0	3.8	6.1	4.8	3.2	3.7	4.8	21.4	8.7
29	6.0	8.9	10.7	13.0	11.5	8.3	8.6	11.3	9.3	5.1	4.9	4.5	4.9	4.7	3.9	3.6	3.8	4.0	3.6	2.0	2.7	1.6	4.0	3.8	13.0	6.0
30	2.1	1.8	1.6	1.7	4.8	7.0	9.1	4.7	3.7	4.8	4.9	3.0	2.2	5.6	7.7	3.1	4.3	1.9	1.4	1.1	2.1	1.9	2.6	1.3	9.1	3.5
Hourly Max	20.0	16.2	19.6	23.8	22.2	17.9	18.5	19.4	15.9	19.9	21.6	30.4	35.0	37.8	35.6	19.3	16.1	14.7	23.5	17.2	9.2	10.2	17.2	13.6		
Hourly Average	5.4	6.1	6.3	6.6	6.7	7.6	8.8	8.7	7.8	8.0	6.7	7.6	7.7	8.5	8.5	6.9	6.1	5.2	5.5	4.8	4.4	4.3	5.2	5.2		</td

Entrance PM₁₀ (µg/m³) – April 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	5.0	25.2	8.7	8.0	8.2	5.4	9.7	10.5	5.3	7.4	6.1	23.2	13.2	28.1	3.5	4.6	2.8	4.2	2.2	27.3	14.4	38.8	35.3	29.9	38.8	13.6	
2	13.6	52.6	69.9	81.0	25.5	9.4	16.7	8.2	10.1	14.8	19.8	14.8	13.0	2.2	1.4	6.7	6.9	6.2	9.5	2.0	2.1	1.9	4.0	6.3	81.0	16.6	
3	29.9	28.0	8.0	21.9	13.5	31.5	26.0	47.4	96.1	68.3	23.1	86.6	115.4	54.1	42.7	50.2	39.4	11.2	28.6	31.0	6.6	54.6	108.3	72.8	115.4	45.6	
4	85.8	92.8	79.5	87.1	97.5	116.3	115.7	126.4	72.6	31.3	23.3	29.5	19.5	15.4	12.7	12.8	4.5	9.7	8.1	7.3	4.7	3.0	3.4	126.4	45.6		
5	4.7	15.7	20.2	15.0	13.8	9.5	24.5	36.0	29.8	30.7	41.4	51.6	28.4	29.9	44.9	16.9	15.9	13.3	5.8	1.4	5.0	5.1	27.5	38.2	51.6	21.9	
6	49.3	11.1	1.9	7.0	13.5	55.2	47.2	60.4	71.4	51.9	146.3	18.8	76.9	53.0	72.2	59.2	66.6	31.0	26.1	18.6	30.0	8.0	12.9	5.0	146.3	41.4	
7	0.5	8.2	16.4	24.4	12.7	40.3	75.7	63.0	91.3	109.3	6.2	2.2	3.1	46.1	39.3	70.4	40.8	12.9	12.9	5.8	11.2	2.1	0.4	1.5	109.3	29.0	
8	2.2	0.2	0.1	0.2	0.3	0.4	2.4	4.8	5.6	16.8	11.7	18.4	32.9	19.5	18.9	34.6	12.2	1.2	2.4	16.3	9.6	9.4	9.5	7.2	34.6	9.9	
9	8.2	9.0	9.4	7.4	32.6	57.5	30.7	15.6	9.0	10.2	E	E	E	E	E	E	E	E	E	E	E	E	E	E	-	-	
10	E	E	E	E	E	E	E	E	32.4	28.8	41.3	46.9	44.7	24.6	25.0	17.2	7.7	12.3	9.5	6.0	5.0	4.3	-	-	-	-	
11	7.8	25.8	9.3	3.9	5.2	95.3	112.3	66.9	28.4	34.8	63.1	50.7	31.0	M	36.6	29.8	28.4	19.7	2.9	2.3	3.4	4.9	4.2	1.6	112.3	29.1	
12	1.6	4.0	10.5	11.6	11.9	11.8	11.7	11.9	11.9	12.0	10.8	9.0	8.8	12.3	14.1	13.9	12.5	11.0	11.1	10.4	9.8	9.4	7.7	6.9	14.1	10.3	
13	4.7	6.2	5.7	6.6	4.8	3.7	3.0	4.6	3.3	4.5	4.9	3.6	3.3	5.1	8.4	8.8	11.5	7.1	8.6	7.7	8.9	7.1	9.5	8.3	11.5	6.2	
14	9.5	14.0	19.7	2.2	1.5	2.6	4.6	15.0	18.6	23.5	12.7	9.9	13.4	27.1	14.8	11.1	4.2	4.2	2.3	2.9	7.6	3.8	11.4	27.1	10.0		
15	19.8	11.2	8.3	14.1	22.1	34.9	15.0	18.4	15.1	30.3	16.5	27.5	13.8	20.8	9.1	19.1	25.7	15.8	11.2	6.0	2.0	1.8	1.0	1.5	34.9	15.0	
16	1.0	0.9	2.1	2.1	3.1	2.9	8.8	5.5	8.2	9.3	10.6	6.9	6.5	19.9	6.2	3.1	13.9	6.3	25.1	9.5	7.9	8.2	25.6	4.7	25.6	8.3	
17	8.5	5.7	9.9	39.3	32.6	35.9	28.9	62.9	86.0	41.8	43.4	61.2	41.4	46.3	67.1	113.4	42.7	21.7	39.8	14.2	13.8	11.0	7.8	12.6	113.4	37.0	
18	11.0	12.7	12.3	7.7	11.8	17.6	26.5	66.9	60.0	86.8	89.8	37.7	32.0	17.6	73.0	14.0	12.2	12.9	7.1	7.5	2.0	0.9	3.6	15.9	89.8	26.6	
19	1.8	11.1	34.3	24.3	5.0	4.2	15.5	50.7	41.7	37.0	48.4	27.0	36.6	45.5	38.2	35.5	18.1	27.5	29.8	10.1	11.9	15.0	42.1	16.7	50.7	26.2	
20	14.0	18.7	52.3	107.0	104.6	44.5	44.4	83.8	60.1	94.6	66.6	111.0	97.1	72.6	68.1	49.5	40.4	20.9	35.1	25.7	6.6	7.3	9.1	14.8	111.0	52.0	
21	10.9	8.5	5.5	7.2	7.5	10.5	10.6	9.0	4.9	6.1	5.2	11.7	60.7	112.2	196.8	81.0	28.1	82.8	59.5	28.2	5.4	4.7	6.5	10.3	196.8	32.2	
22	7.6	11.8	12.8	10.1	16.0	7.5	20.3	11.9	32.8	32.7	21.0	21.4	15.6	27.9	29.0	28.2	20.8	15.1	15.4	12.7	8.9	6.0	4.9	3.9	32.8	16.4	
23	2.2	3.9	2.2	1.6	1.9	10.1	20.4	26.0	22.2	21.3	22.8	21.8	5.4	8.3	4.0	4.9	5.0	15.1	10.0	8.3	5.3	3.6	5.6	5.2	26.0	9.9	
24	5.9	3.9	3.7	5.3	6.2	13.8	8.6	6.4	1.9	1.5	2.4	2.1	2.6	2.5	2.9	5.1	3.7	3.7	5.5	9.4	6.5	4.4	2.9	13.8	4.7	48.0	8.0
25	0.6	1.3	0.8	1.0	2.5	2.1	3.4	3.1	2.1	2.0	2.1	11.7	13.6	48.0	44.5	9.8	5.8	3.5	5.1	5.4	5.7	6.5	5.7	5.2	225.1	39.3	
26	7.1	6.8	6.7	8.1	15.3	18.2	18.3	20.1	20.7	43.3	60.5	167.6	188.9	225.1	78.0	8.2	8.1	7.4	6.7	4.0	7.0	7.2	6.1	4.8	123.7	26.0	
27	6.0	5.7	5.6	6.0	9.7	11.2	12.9	9.3	10.0	8.3	26.9	123.7	49.7	18.4	90.0	44.7	91.2	37.5	31.3	5.3	4.8	4.9	5.5	5.4	125.9	26.4	
28	9.7	6.4	7.7	7.4	10.4	10.7	12.3	13.7	12.3	37.6	63.8	125.9	98.6	67.6	74.1	18.5	7.2	6.3	11.8	9.1	6.8	4.0	4.7	6.1	43.5	17.7	
29	8.1	13.0	16.0	19.5	17.2	12.4	12.9	40.1	43.5	27.1	24.1	23.1	26.7	21.0	16.6	13.4	15.6	10.4	18.1	4.7	8.2	2.6	17.3	13.6	55.0	19.6	
30	4.5	3.3	2.5	4.2	17.8	31.8	46.6	31.9	20.2	31.9	29.9	19.9	12.4	50.1	55.0	16.2	20.4	10.2	6.4	3.6	10.9	5.5	23.0	11.3			
Hourly Max	85.8	92.8	79.5	107.0	104.6	116.3	115.7	126.4	96.1	109.3	146.3	167.6	188.9	225.													

Entrance TSP ($\mu\text{g}/\text{m}^3$) – April 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	7.8	32.1	17.6	16.8	42.7	30.9	34.1	43.5	20.8	31.7	21.6	101.2	40.3	56.2	16.8	8.8	8.5	10.1	4.9	44.5	14.7	41.2	35.1	26.7	101.2	29.5
2	11.4	44.4	58.4	80.7	31.5	10.7	18.9	8.9	11.3	16.4	160.6	19.7	54.4	1.9	2.3	36.0	18.8	5.9	9.8	1.4	1.9	1.4	3.8	6.3	160.6	25.7
3	34.3	33.6	8.3	24.4	15.5	87.5	72.9	130.6	197.9	109.3	47.5	187.8	315.2	145.2	114.7	124.0	76.6	29.6	65.5	54.2	13.5	75.0	143.3	100.1	315.2	91.9
4	151.2	201.9	193.1	236.5	262.3	353.8	369.9	513.9	261.7	104.7	124.3	74.3	102.3	55.6	43.2	34.7	26.6	8.3	28.6	13.4	11.3	7.4	4.1	7.2	513.9	132.9
5	13.7	79.7	103.0	91.4	75.0	31.6	75.5	118.9	99.6	132.6	143.0	187.3	98.1	80.1	164.6	58.0	45.6	37.3	23.8	2.5	9.3	4.3	29.2	42.0	187.3	72.7
6	52.2	14.8	2.0	9.7	21.7	67.3	52.3	100.5	103.4	80.4	243.7	28.2	173.9	129.9	145.2	174.0	240.3	96.4	97.7	80.8	70.3	7.9	13.6	5.6	243.7	83.8
7	0.4	45.5	89.6	43.0	27.4	66.3	121.2	112.3	158.3	196.6	12.3	2.0	10.5	107.1	58.9	130.6	98.7	20.1	25.1	21.8	25.4	7.6	0.4	1.8	196.6	57.6
8	4.9	0.1	0.1	0.1	0.2	0.4	6.9	14.8	12.1	51.2	37.6	49.7	67.5	44.4	33.7	51.4	23.6	1.9	5.6	40.3	11.3	10.2	9.2	4.8	67.5	20.1
9	5.4	6.2	6.1	4.8	36.3	63.0	31.7	20.2	19.9	8.8	E	E	E	E	E	E	E	E	E	E	E	E	E	-	-	
10	E	E	E	E	E	E	E	E	E	103.7	75.3	85.8	121.7	113.9	54.0	60.7	41.2	9.5	18.7	11.9	10.5	4.1	4.2	-	-	
11	10.7	26.2	9.7	3.2	3.9	161.7	236.1	140.5	65.7	91.3	173.7	128.9	70.7	M	131.6	120.5	68.9	75.6	2.0	1.5	2.2	3.3	2.8	1.1	236.1	66.6
12	1.0	2.6	6.8	7.5	7.8	7.7	7.8	7.9	7.9	7.5	7.0	6.5	8.7	10.4	9.5	8.2	7.1	7.2	6.7	6.4	6.1	5.0	4.5	10.4	6.9	
13	3.0	4.0	3.7	4.2	3.1	2.4	2.5	4.4	2.3	3.1	3.2	2.4	2.2	4.2	8.4	8.9	12.3	6.8	8.4	6.6	7.5	5.0	6.4	5.6	12.3	5.0
14	6.6	13.0	21.3	1.9	4.8	6.1	11.4	35.7	45.6	61.6	37.2	25.8	38.8	78.5	44.8	24.2	11.1	7.5	3.4	2.4	3.1	7.7	6.5	10.0	78.5	21.2
15	21.5	13.2	25.5	79.0	103.9	192.4	51.8	52.1	27.3	57.2	62.0	77.4	31.4	67.0	29.1	55.0	49.6	30.7	24.2	26.6	1.6	1.4	0.7	1.0	192.4	45.1
16	1.1	0.6	1.4	1.4	2.8	2.2	9.1	4.4	11.5	16.1	16.4	14.6	11.7	50.7	11.9	7.9	42.3	14.5	67.7	15.0	14.1	18.9	41.1	4.5	67.7	15.9
17	9.4	5.3	15.8	65.9	58.8	58.4	51.3	118.7	132.1	64.4	88.1	126.9	108.0	132.9	170.9	232.3	133.3	60.6	87.8	27.5	41.9	30.6	20.8	29.9	232.3	78.0
18	24.6	16.9	10.6	6.2	11.1	19.1	29.9	144.6	163.5	188.4	251.9	109.3	110.4	57.0	255.9	31.5	30.8	26.6	18.6	31.3	2.0	0.8	3.7	17.9	255.9	65.1
19	1.5	12.3	38.3	37.6	13.7	9.2	44.5	140.6	99.2	131.9	159.2	64.5	95.4	123.6	97.4	97.5	30.6	60.6	66.0	16.0	19.5	24.9	56.8	18.0	159.2	60.8
20	15.3	21.6	61.8	250.6	229.7	71.5	74.7	138.0	130.0	167.0	121.1	226.1	182.9	143.2	150.8	112.8	58.1	21.0	38.4	28.1	4.7	5.0	6.0	10.3	250.6	94.5
21	7.7	5.6	3.6	4.7	4.8	6.8	7.0	6.2	3.4	4.1	3.4	19.9	137.9	280.5	475.8	190.9	51.1	129.3	95.8	45.0	4.2	3.5	6.0	9.0	475.8	62.8
22	6.1	9.2	11.5	9.9	16.9	7.1	22.3	12.6	60.3	52.6	56.3	68.5	51.1	84.6	54.0	50.9	29.8	10.1	10.1	8.2	5.7	3.9	2.6	84.6	27.0	
23	1.4	2.5	1.5	1.0	1.3	8.4	20.6	28.6	23.9	22.8	32.2	43.7	9.4	22.1	8.1	9.6	7.9	57.2	12.0	6.3	3.5	2.3	3.6	3.4	57.2	13.9
24	3.9	2.6	2.4	3.5	4.9	15.0	7.6	5.2	1.2	1.0	1.6	1.5	1.9	1.8	1.9	3.3	2.4	2.4	3.6	6.1	4.2	2.9	1.9	15.0	3.5	
25	0.4	0.9	0.5	0.7	2.3	1.5	2.4	2.1	1.5	1.8	4.3	111.6	70.8	244.7	212.7	12.6	4.3	2.3	3.7	3.6	4.0	5.0	4.3	244.7	29.2	
26	5.0	4.4	4.7	7.1	14.1	18.1	18.0	22.0	39.4	116.4	114.1	431.1	502.2	563.0	227.0	6.1	5.6	4.9	4.4	2.7	4.8	5.2	4.0	563.0	88.6	
27	3.9	3.7	3.7	3.9	6.3	7.3	9.3	6.3	7.0	10.0	46.6	297.4	187.0	38.5	280.2	93.4	198.3	89.6	91.2	4.7	3.2	3.6	3.5	297.4	58.4	
28	6.3	4.2	5.0	4.8	6.9	6.9	8.1	9.5	11.1	85.1	133.1	258.5	276.7	230.1	202.4	59.2	33.1	8.7	27.1	9.0	6.4	3.1	3.7	4.3	276.7	58.5
29	5.9	11.5	16.7	20.5	18.0	13.4	14.4	75.6	81.2	64.0	60.0	58.4	75.7	46.6	38.8	27.2	27.7	13.5	34.5	9.0	8.1	3.0	27.2	17.2	81.2	32.0
30	9.0	10.0	3.9	7.8	24.8	46.5	77.5	81.9	56.4	87.6	83.5	93.1	31.6	206.5	47.4	49.9	30.0	13.2	7.2	24.8	11.8	41.2	23.1	210.5	53.3	
Hourly Max	151.2	201.9	193.1	250.6</																						



AIR QUALITY MONITORING

MetOne BAM PM₁₀ Calibration

STATION: Lafarge
LOCATION: Exshaw - Lagoon
START TIME (MST): 10:50

OPERATOR: Lenin Flores / Darrin Pike
DATE: April 11, 2017
END TIME (MST): 12:00

MONITOR INFO / PARAMETER VALUES:

Make/Model	<u>MetOne BAM</u>	Audit Device Model	<u>Delta Cal</u>
Configuration	<u>PM2.5</u>	Audit Device S/N	<u>624</u>
Serial Number	<u>T19087</u>	Certification Date	<u>16-Sep-16</u>

AUDIT / CALIBRATION RESULTS:

	Ambient Temp. (° C)	Ambient Pres. (mmHg)	Leak Check (L/min)	Flow Rate (lpm)	Time settings (hh:mm)
As Found Data	Audit values (I)	4.5	650	0.00	16.7
	MEASURED (AF)	4.1	650	0.40	16.76
Adjusted Data	AF Difference (AF-I)	0.5	0	0.40	0.06
	MEASURED (M)	4.0	650	0.40	16.70
	Adj Difference (M-I)	-0.5	0	0.40	0.00
	LIMITS	± 4.0 °C	5 mm Hg	1.0 L/min	± 1.0 L/min
					±2 min

Sample Head Inspect/Cleaning: Cleaned.

Status of sampling tape: New tape installed

Nozzle Inspection / cleanliness: Inspected and cleaned.

COMMENTS:

Performed self-test, all passed.



AIR QUALITY MONITORING

MetOne BAM PM₁₀ Calibration

STATION: Lafarge
LOCATION: Exshaw - Lagoon
START TIME (MST): 11:00

OPERATOR: Lenin Flores / Darrin Pike
DATE: April 11, 2017
END TIME (MST): 13:00

MONITOR INFO / PARAMETER VALUES:

Make/Model	<u>MetOne BAM</u>	Audit Device Model	<u>Delta Cal</u>
Configuration	<u>PM10</u>	Audit Device S/N	<u>624</u>
Serial Number	<u>A3315</u>	Certification Date	<u>16-Sep-16</u>

AUDIT / CALIBRATION RESULTS:

	Ambient Temp. (° C)	Ambient Pres. (mmHg)	Leak Check (L/min)	Flow Rate (lpm)	Time settings (hh:mm)
As Found Data	Audit values (I)	3.8	650	0.00	16.7
	MEASURED (AF)	4.4	651	0.30	16.50
Adjusted Data	AF Difference (AF-I)	0.5	1	0.30	-0.20
	MEASURED (M)	3.9	650	0.30	16.70
	Adj Difference (M-I)	0.1	0	0.30	0.00
	LIMITS	± 4.0 °C	5 mm Hg	1.0 L/min	± 1.0 L/min
					±2 min

Sample Head Inspect/Cleaning: Cleaned

Status of sampling tape: New tape installed

Nozzle Inspection / cleanliness: Brand-new nozzle installed. Nozzle is clean.

COMMENTS:

New nozzle was installed in Calgary, unit tested OK. Performed leak check and full flow calibration as well as self-test, all passed.



MetOne BAM PM₁₀ Calibration

AIR QUALITY MONITORING

STATION: Lafarge
LOCATION: Exshaw - Lagoon
START TIME (MST): 8:00

OPERATOR: Lenin Flores / Darrin Pike
DATE: April 11, 2017
END TIME (MST): 10:30

MONITOR INFO / PARAMETER VALUES:

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

AUDIT / CALIBRATION RESULTS:

	Ambient Temp. (° C)	Ambient Pres. (mmHg)	Leak Check (L/min)	Flow Rate (lpm)	Time settings (hh:mm)
As Found Data	Audit values (I)	2.5	650	0.60	17.5
	MEASURED (AF)	3.2	651	0.60	16.70
Adjusted Data	AF Difference (AF-I)	0.5	1	0.00	-0.80
	MEASURED (M)	2.5	650	0.60	16.70
	Adj Difference (M-I)	0.0	0	0.00	-0.80
	LIMITS	± 4.0 °C	5 mm Hg	1.0 L/min	± 1.0 L/min
					±2 min

Sample Head Inspect/Cleaning: Cleaned

Status of sampling tape: N/A

Nozzle Inspection / cleanliness: N/A

COMMENTS:

Temporary BAM removed from service.



AIR QUALITY MONITORING

MetOne BAM PM₁₀ Calibration

STATION: Lafarge
LOCATION: Exshaw - Lagoon
START TIME (MST): 11:15

OPERATOR: Lenin Flores / Darrin Pike
DATE: April 11, 2017
END TIME (MST): 13:00

MONITOR INFO / PARAMETER VALUES:

Make/Model	<u>MetOne BAM</u>	Audit Device Model	<u>Delta Cal</u>
Configuration	<u>TSP</u>	Audit Device S/N	<u>624</u>
Serial Number	<u>A3589</u>	Certification Date	<u>16-Sep-16</u>

AUDIT / CALIBRATION RESULTS:

	Ambient Temp. (° C)	Ambient Pres. (mmHg)	Leak Check (L/min)	Flow Rate (lpm)	Time settings (hh:mm)
As Found Data	Audit values (I)	<u>4.4</u>	<u>650</u>	<u>0.00</u>	<u>16.7</u>
	MEASURED (AF)	<u>4.3</u>	<u>649</u>	<u>0.60</u>	<u>16.60</u>
Adjusted Data	AF Difference (AF-I)	<u>0.5</u>	<u>-1</u>	<u>0.60</u>	<u>-0.10</u>
	MEASURED (M)	<u>3.6</u>	<u>650</u>	<u>0.60</u>	<u>16.70</u>
	Adj Difference (M-I)	<u>-0.8</u>	<u>0</u>	<u>0.60</u>	<u>0.00</u>
	LIMITS	<u>± 4.0 °C</u>	<u>5 mm Hg</u>	<u>1.0 L/min</u>	<u>± 1.0 L/min</u>
					<u>±2 min</u>

Sample Head Inspect/Cleaning: Cleaned

Status of sampling tape: New tape installed

Nozzle Inspection / cleanliness: Inspected and cleaned.

COMMENTS:

Performed self test, all passed.

Calibration Report



Parameter **NO_x-NO-NO₂**
 Air Monitoring Network **Lafarge - Exshaw**

AIR QUALITY MONITORING

Station Information

Calibration Date	April 11, 2017	Previous Calibration	March 22, 2017
Station Number	N/A	Station Location	Exshaw - Lagoon
Reason:	Routine	Installation	Removal
Start Time (MST)	7:45	End Time (MST)	12:20
Barometric Pressure	652 mmHg	Station Temperature	20.0 Deg C
Calibrator	SABIO 2010	Serial Number	07201211
NO Cal Gas Conc	51.4 ppm	Cal Gas Expiry Date	February 14, 2020
NOx Cal Gas Conc	51.5 ppm	Cal Gas Serial #	CC27839

DACS Information

DACS make	Campbell Scientific CR1000	DACS serial No.	67802
Parameter	NO2	NOx	NO
Before	1.004401	1.000648	0.995144
Data Offset	0.596090	1.833510	2.729709
After	0.992386	0.998137	1.001383
Data Offset	-0.495702	0.580012	0.214291
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	0.942		0.991	
NO Offset	-3.1 mV		-3.1 mV	
NOX Slope	0.927		0.993	
NOX Offset	-2.0 mV		-2.0 mV	
HVPS	771 V		771 V	
Moly Temp	316.0 degC		315.9 degC	
O3 Flow	81 ccm		81 ccm	
RxCell Press	5.3 inHg		5.3 inHg	
Sample press	24.0 inHg		24.0 inHg	
Sample flow	451 ccm		450 ccm	

Notes: Span adjustment made.

Calibration Report



Parameter **NOx-NO-NO₂**
 Air Monitoring Network **Lafarge - Exshaw**

Station Information

Calibration Date: April 11, 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 NO ₂ conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NOx Correction factor	NO Correction factor
zero	5000	0.00	0.0	0.0	0.0	0.1	0.4	-1.0	N/A	N/A
1	5000	40.00	408.7	407.9	0.8	409.6	408.1	0.9	0.9980	0.9996
2	5000	25.00	256.2	255.7	0.5	255.3	253.6	1.6	1.0038	1.0082
3	7000	14.00	102.8	102.6	0.2	102.0	102.3	-0.7	1.0079	1.0034
AFZ	5000	0.00	0.0	0.0	0.0	0.1	0.4	-1.0	0.0000	0.0000
AFS	5000	40.00	408.7	407.9	0.8	377.3	381.0	-4.0	1.0833	1.0706
								Average Correction Factor	1.0032	1.0037

As Found Concentrations: NO_x= 379.1 NO= 383.4 As Found Percent Change NO_x= -7.3% NO= -6.0%

GPT Calibration Data

Dilution Flow	5000	ccm	Source Gas Flow	40.00	ccm							
O ₃ Setpoint (V)	Indicated NO high point (ppb)	Indicated NO drop conc (ppb)	Calculated NO ₂ conc (ppb)	Indicated NOx conc (ppb)	Indicated NO conc (ppb)	Indicated NO ₂ conc (ppb)	NOx Correction factor	NO Correction factor	NO ₂ Correction factor	Converter Efficiency		
0	0.4	0.4	0.0	0.1	0.4	-1.0	N/A	N/A	N/A	N/A		
NO point	410.0	410.0	0.0	410.3	410.0	0.1	0.9992	1.0000	N/A	N/A		
0.76V	410.0	72.4	337.6	411.9	72.4	339.3	0.9954	1.0000	0.9949	100.5%		
0.58V	410.0	168.0	242.0	413.2	168.0	244.9	0.9922	1.0000	0.9882	101.2%		
0.39V	410.0	270.8	139.2	414.0	270.8	143.0	0.9903	1.0000	0.9729	102.8%		
								Average Correction Factor	0.9926	1.0000	0.9853	101.5%

AIC Data

Parameter	Previous calibration				Current calibration			
	NOx	NO ₂	NO	ppb	NOx	NO ₂	NO	ppb
Auto zero	-0.5	1.5	0.0	ppb	1.0	-1.3	0.8	ppb
Auto span	393.8	0.0	392.6	ppb	383.5	0.6	383.0	ppb

Calibration Performed By: Lenin Flores / Darrin Pike

Calibration Summary



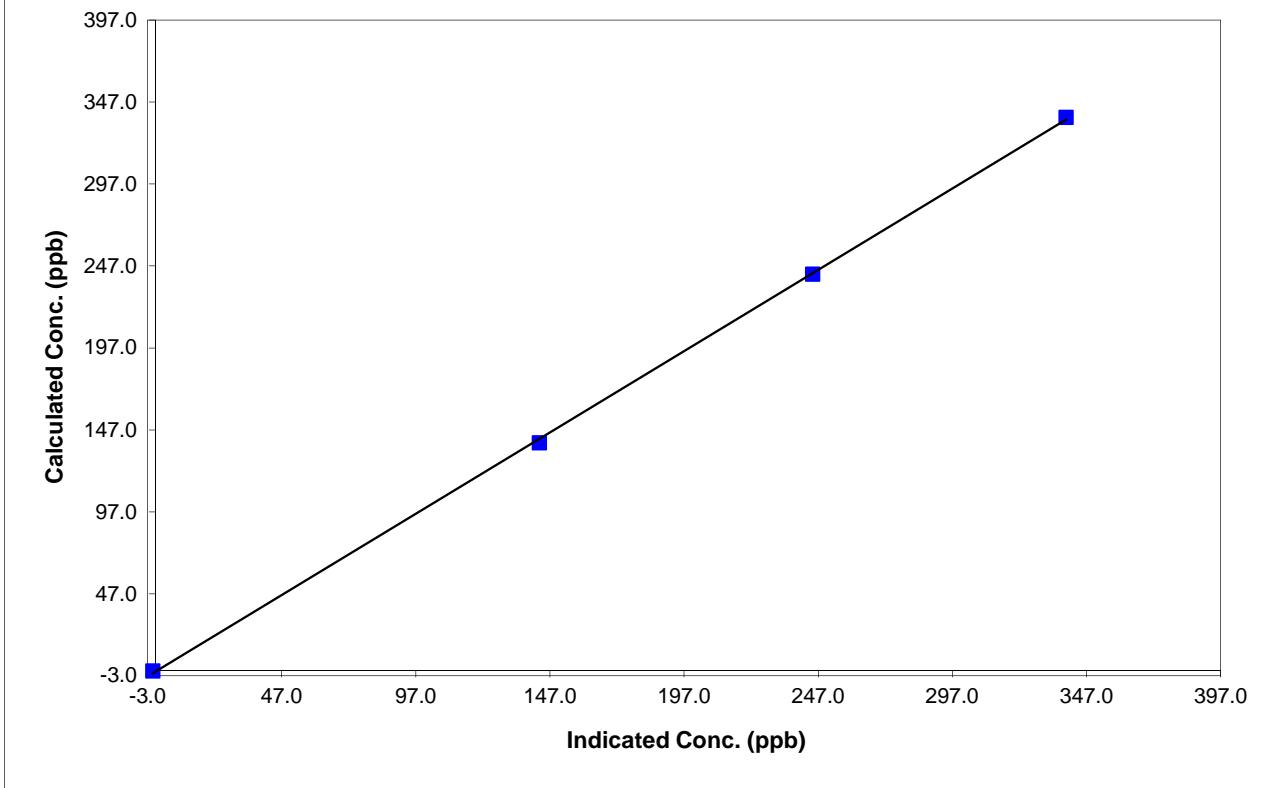
Parameter **NO₂**
 Air Monitoring Network **Lafarge - Exshaw**

Station Information			
Calibration Date	April 11, 2017	Previous Calibration	March 22, 2017
Station Number	N/A	Station Location	Exshaw - Lagoon
Start Time (MST)	7:45	End Time (MST)	12:20
Analyzer make	T200	Analyzer serial #	642

Calibration Data

Calculated conc (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-1.0	N/A		
337.6	339.3	0.9949	Correlation Coefficient	0.999849
242.0	244.9	0.9882	Slope	0.992386
139.2	143.0	0.9729	Intercept	-0.495702

NO₂ Calibration Curve



Calibration Report



Parameter SO₂
Air Monitoring Network Lafarge - Exshaw

AIR QUALITY MONITORING

Station Information

Calibration Date	April 11, 2017	Previous Calibration	March 22, 2017
Station Number	N/A	Station Location	Exshaw - Lagoon
Reason:	Routine	Install	Removal
			Other:
Start Time (MST)	7:45	End Time (MST)	10:45
Barometric Pressure	643 mmHg	Station Temperature	20.0 Deg C
Calibrator	SABIO 2010	Serial Number	07201211
Cal Gas Concentration	50.8 ppm	Cal Gas Expiry Date	February 14, 2020
Gas Cert Reference	CC27839		
DACS make	Campbell Scientific CR1000	DACS serial No.	67802
DACS voltage range	0 - 5 VDC	DACS channel #	4
DACS Scale High	500	DACS slope	500
DACS Scale Low	0	DACS intercept	0
Calculated slope	0.967878	Calculated slope	0.977601
Calculated intercept	-0.069969	Calculated intercept	2.737886

Analyzer make	API Model 102A	Analyzer serial #	393
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Concentration range	before		after	
	0-500	ppb	0-500	ppb
Slope	0.967		0.94	
Offset	44.8	mV	44.8	mV
Pressure	23.4	in Hg	23.7	in Hg
Sample Flow	490	ccm	496	ccm
UV Lamp	3008	mV	2957.8	mV
HVPS	691	V	691	V
PMT Temp	7.6	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	403.2	413.2	0.9757
5000	25.00	252.7	250.0	1.0110
7000	14.00	101.4	100.4	1.0103
5000	0.00	0.0	-0.1	As found zero
5000	40.00	403.2	413.2	As found span
Average Correction Factor				0.9990

Calculated value of As Found Response: 400.0 ppm Percent Change of As Found: 0.8%

Auto zero	before calibration		after calibration	
	0.0	ppm	0.3	ppm
	394.7	ppm	384.2	ppm

Notes: Span adjustment made.

Calibration Performed By: Lenin Flores / Darrin Pike

Calibration Summary

Parameter SO₂
 Air Monitoring Network Lafarge - Exshaw

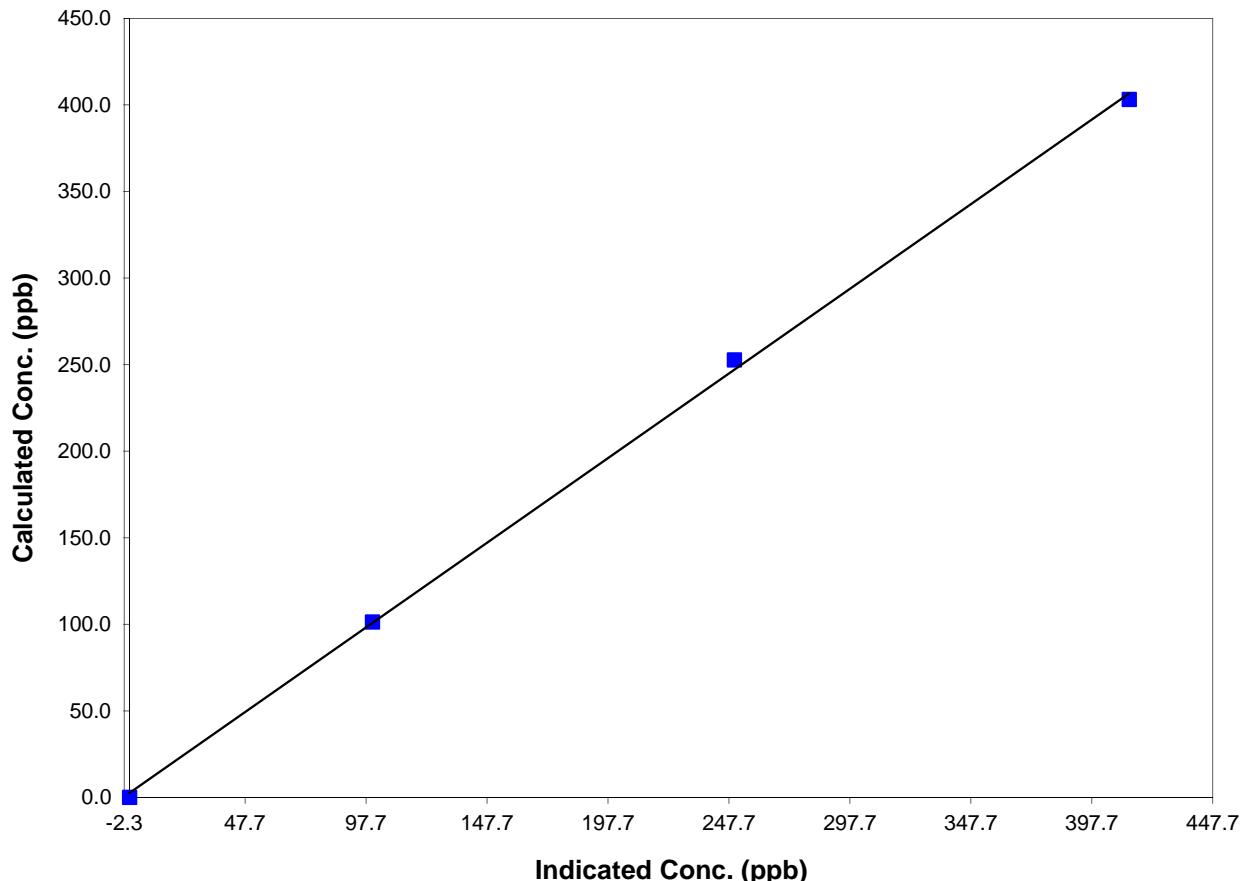


Station Information			
Calibration Date	April 11, 2017	Previous Calibration	March 22, 2017
Station Number	N/A	Station Location	Exshaw - Lagoon
Start Time (MST)	7:45	End Time (MST)	10:45
Analyzer make/model	API Model 102A	Analyzer serial #	393

Calibration Data

Calculated concentration (ppb) (Cc)	Indicated concentration (ppb) (Ic)	Correction factor (Cc/Ic)	Statistical Evaluation	
0.0	-0.1	N/A		
403.2	413.2	0.9757	Correlation Coefficient	0.999453
252.7	250.0	1.0110	Slope	0.977601
101.4	100.4	1.0103	Intercept	2.737886

SO₂ Calibration Curve



SO2 Calibration

