



July 2016

## RICHARDS BAY CLEAN AIR ASSOCIATION

# Annual Air Quality Report - 2015

**Submitted to:**  
Richards Bay Clean Air Association

Attention: Sandy Camminga



REPORT

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## 1.0 INTRODUCTION

This 18<sup>th</sup> annual air quality report summarises the meteorology, sulphur dioxide (SO<sub>2</sub>), total reduced sulphur (TRS) and fine particulate (PM<sub>10</sub>) monitoring conducted by the Richards Bay Clean Air Association (RBCAA) during 2015. The monitoring network consists of 11 stations, as seen in Figure 1.



Figure 1: Locality map

In addition, measured SO<sub>2</sub> concentrations over various time scales are compared to concentrations predicted by the CALPUFF air pollution dispersion model. Simulated SO<sub>2</sub> concentrations are based on ambient meteorological conditions and the regional emission inventory. The objective of this report is to highlight certain incidents and exceedances of the applicable PM<sub>10</sub>, SO<sub>2</sub> and TRS ambient air quality standards.



## 2.0 METEOROLOGY

Station	Height (m)	Station Availability (%)	Wind Direction & Speed (%)	Temperature (%)	Relative Humidity (%)	Pressure (%)	Solar Radiation (%)	Rain (%)
Airport	2	91	-	91	69	69	91	-
Airport	10	91	89	50	-	-	-	-
Arboretum	3	99	-	99	-	-	-	-
Arboretum	18	99	89	-	-	-	-	-
CBD	2	97	-	97	97	-	-	97
CBD	10	97	97	-	-	-	-	-
eSikhaleni	2	97	-	97	97	-	-	-
eSikhaleni	9	97	97	-	-	-	-	-
Mtunzini	2	99	-	99	99	-	-	-
Mtunzini	9	99	99	-	-	-	-	-
Brackenham	3	99	-	99	-	-	-	-
Brackenham	10	99	99	-	-	-	-	-
Harbour West	2	99	-	99	-	-	-	-
Harbour West	10	99	95	-	-	-	-	-
Bayside	<i>Decommissioned 28 December 2015, station availability during 2015 was 91 %</i>							
RBM	<i>Decommissioned 03 February 2016, station availability during 2015 was 86 %</i>							
St Lucia	<i>Decommissioned in 2014.</i>							

*Red - Not acceptable for statistical purposes (< 80%),*

*Yellow – Acceptable for statistical purposes but does not meet SANAS data capture requirements (< 90%)*

Annual wind roses for 2014 and 2015 at Arboretum are presented in Figure 2. They indicate that wind blew predominantly along the NE and SW axis. NE wind is generally associated with fair weather, while SW wind is usually associated with the passage of coastal lows, cold fronts and inclement weather.

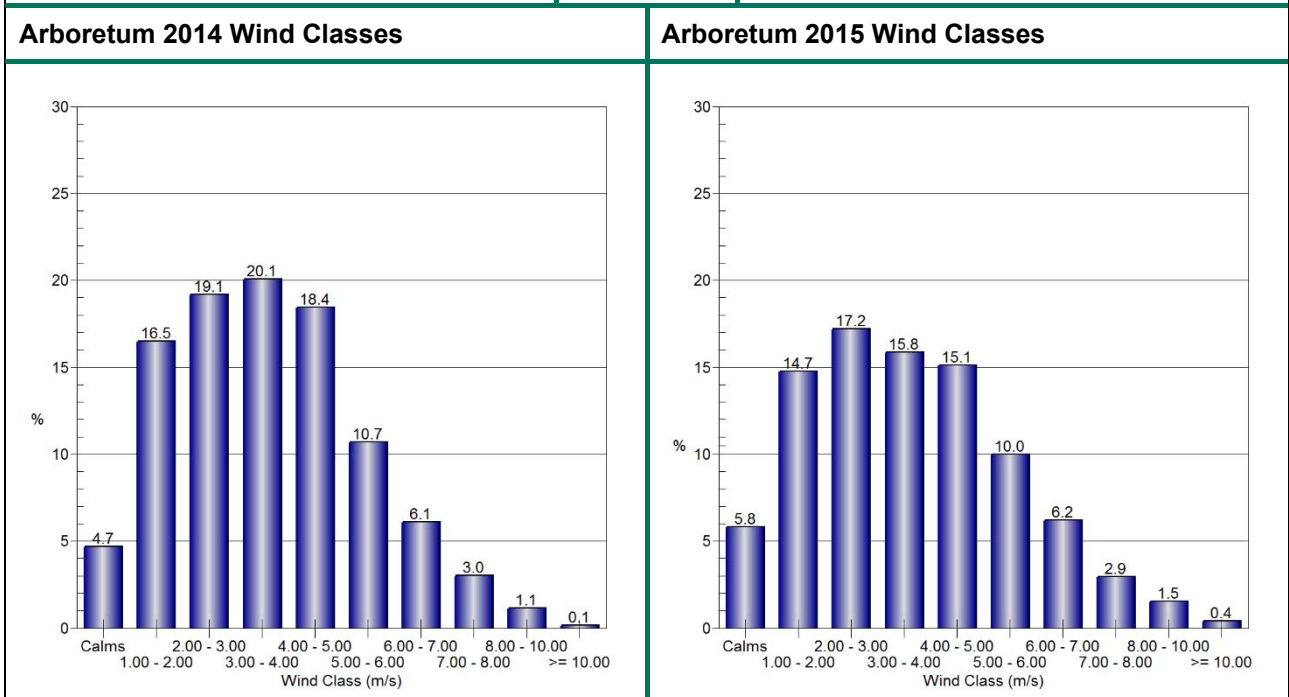
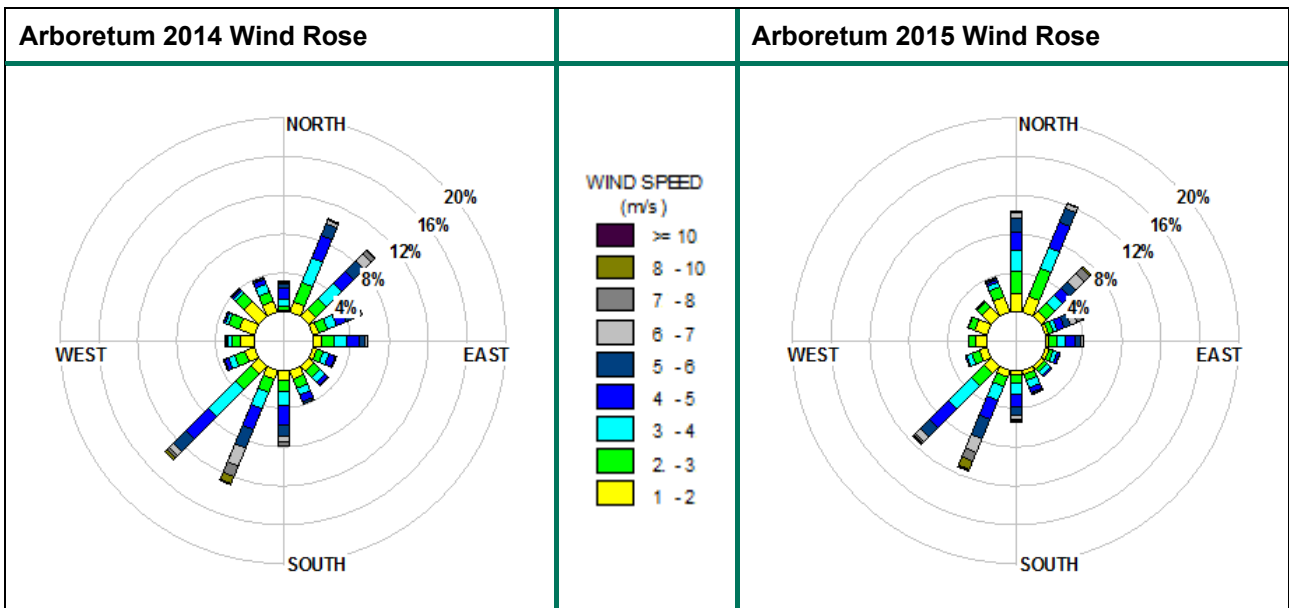


Figure 2: General meteorology

Month	Average Wind Speed	Calms	Dominant Wind Sector	Dominant Wind Sector	Dominant Wind Sector
2014	3.5 m/s	4.7%	S-SW (36%)	NNE-NE (21%)	-
2015	3.6 m/s	5.8%	N- NE (35%)	SSW-SW (27%)	-



## 2.1 Seasonal Wind Roses

Seasonal wind roses for 2015 are shown in Figure 3. Note the increase in light (1 to 3 m/s) to moderate (3 m/s to 6 m/s) wind from the NNW during winter (and the seasonal increase in fresh (6 m/s to 8 m/s) to strong (> 8 m/s) N to NE wind during periods that include spring and early summer. Strong southerly to SSW wind occurs throughout the year, typically associated with the arrival of coastal lows and cold fronts. Coastal lows tend to be more frequent during the summer months; hence the slightly higher proportion of these winds.

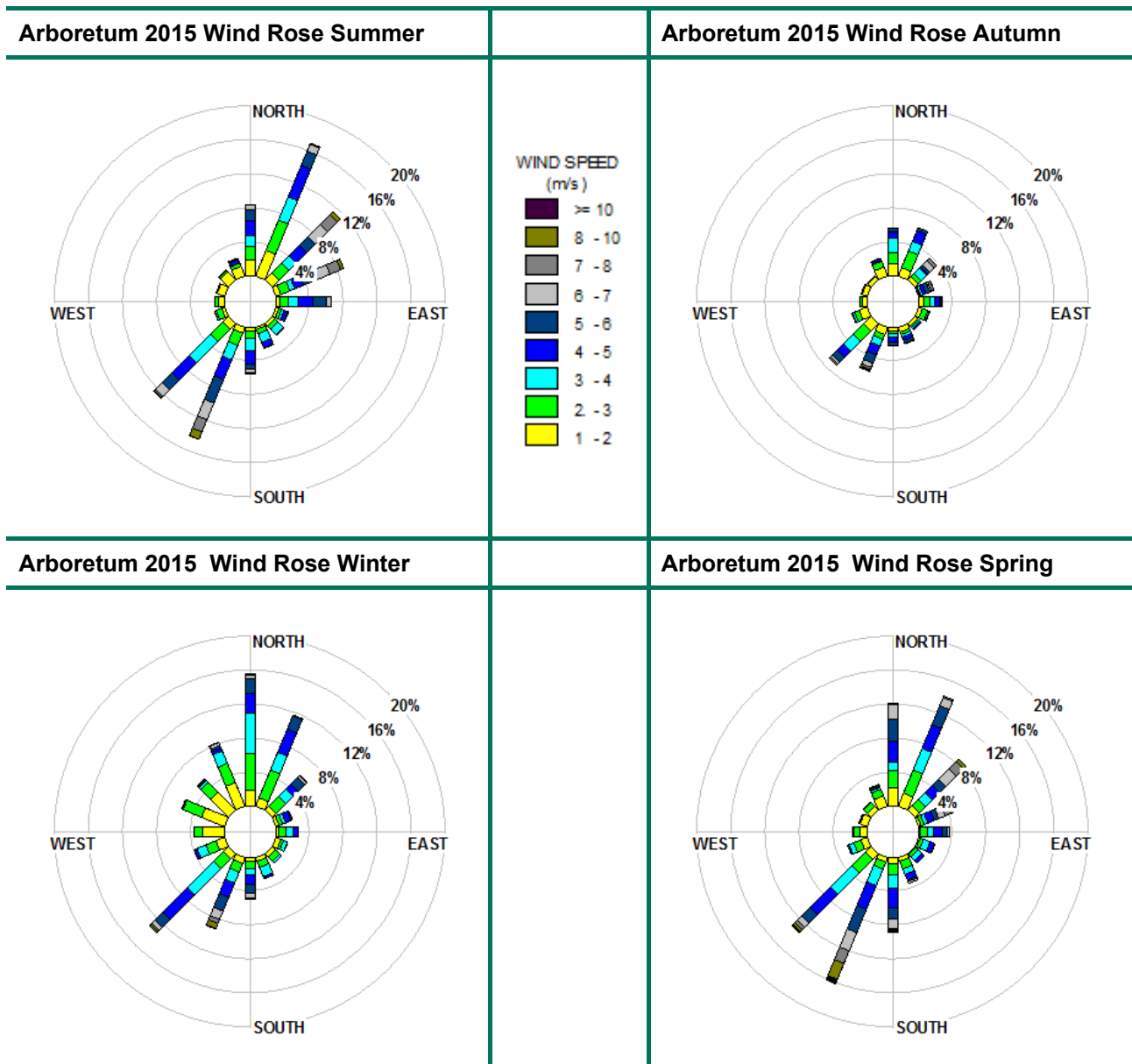


Figure 3: Seasonal wind roses

Period	Average Wind Speed	Calms	Period	Average Wind Speed	Calms
Summer	3.9 m/s	3.1%	Autumn	2.5 m/s	15.3%
Winter	3.3 m/s	1.8%	Spring	4.1 m/s	3.0%



## 2.2 Diurnal Wind Roses

Diurnal wind roses for 2015 can be seen in Figure 4; NNW to WNW wind is largely in the form of land breezes at night and early morning, particularly during the cooler and more stable autumn and winter months.

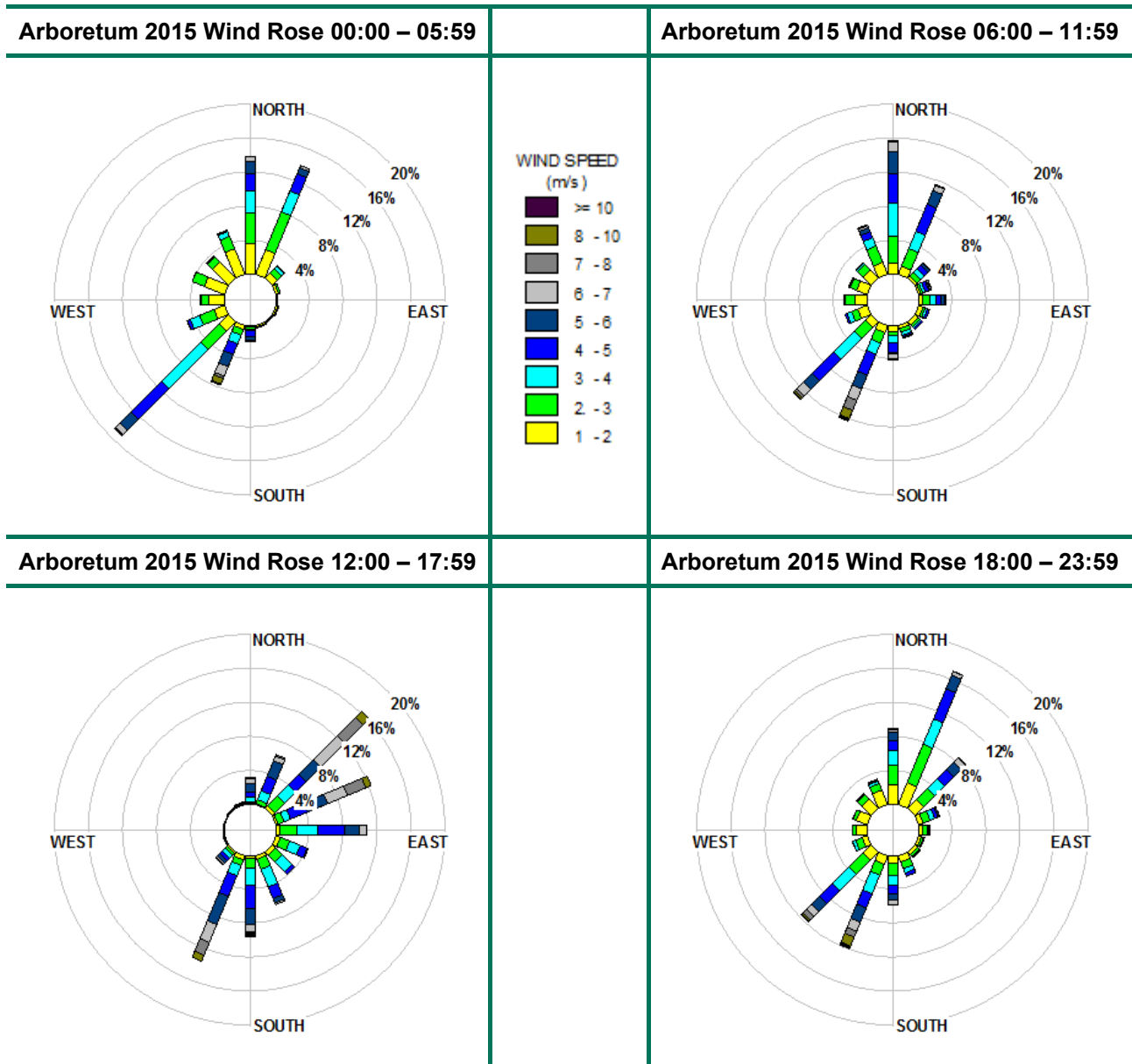


Figure 4: Diurnal wind roses

Period	Average Wind Speed	Calms	Period	Average Wind Speed	Calms
00:00 – 05:59	2.8 m/s	9.3%	00:60 – 11:59	3.5 m/s	5.8%
12:00 – 17:59	4.7 m/s	1.6%	18:00 – 23:59	3.2 m/s	6.5%



## 2.3 Rainfall

Rainfall measured at various locations is summarized in Table 1.

**Table 1: Rainfall**

Month	CBD (mm)	RBM (mm)	South32 (mm)	Mpact (mm)
January	335	277	81	127
February	147	143	27	52
March	96	36	57	48
April	19	32	48	79
May	4	10	6	6
June	19	27	6	10
July	184	215	126	185
August	20	14	7	18
September	108	116	43	60
October	60	41	131	19
November	98		46	87
December	144	118	51	128
<b>Minimum</b>	4	10	6	6
<b>Maximum</b>	335	277	131	185
<b>Total</b>	1 234	1 029	628	820

## 3.0 AIR QUALITY COMPLAINTS

Detailed complaint records are maintained, updated and distributed to the RBCAA’s complaints mailing list on a weekly basis. The following sections summarise and analyse the complaints received during 2015. Please see APPENDIX D for the Complaints Log.

### 3.1 Field Observations

The historical count of complaints for the last 15 years is reflected in Figure 5. There were 198 complaints during 2015 (in comparison to 188 complaints during 2014), the maximum number of complaints received in a single year was 397 in 2004, this decreased to 162 in 2009, and seems to have with the exception of 2011 stabilised between 180 and 200 complaints per year since then.

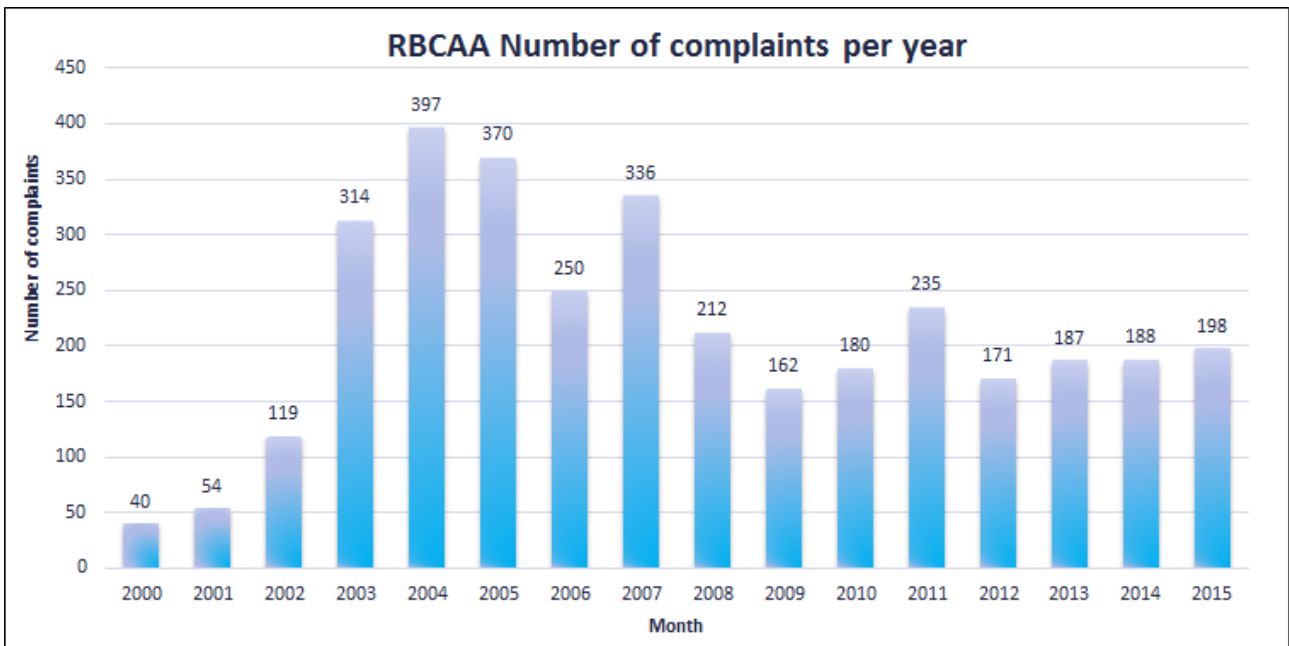


Figure 5: Complaints – historical annual comparison

The historical count of complaints per month is shown in Figure 6. Peaks in the number of complaints received (> 20 per month) in 2015 occurred during April and June. In April 60% of the complaints were of fire, smoke and smuts, these were as a result of peat fires and controlled burns. In June 77% of the complaints were of fire, smoke and smuts, all these complaints were allocated to peat fires.

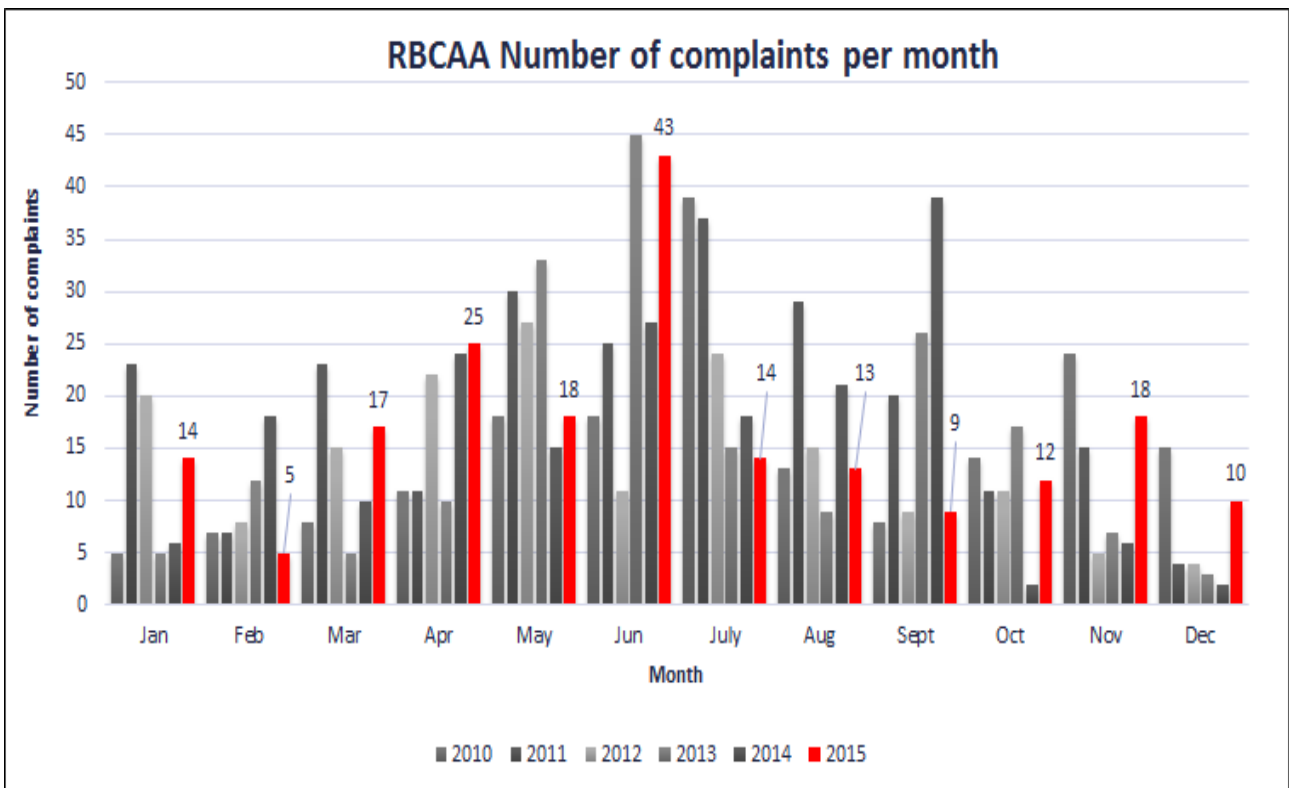


Figure 6: Complaints - historical monthly comparison

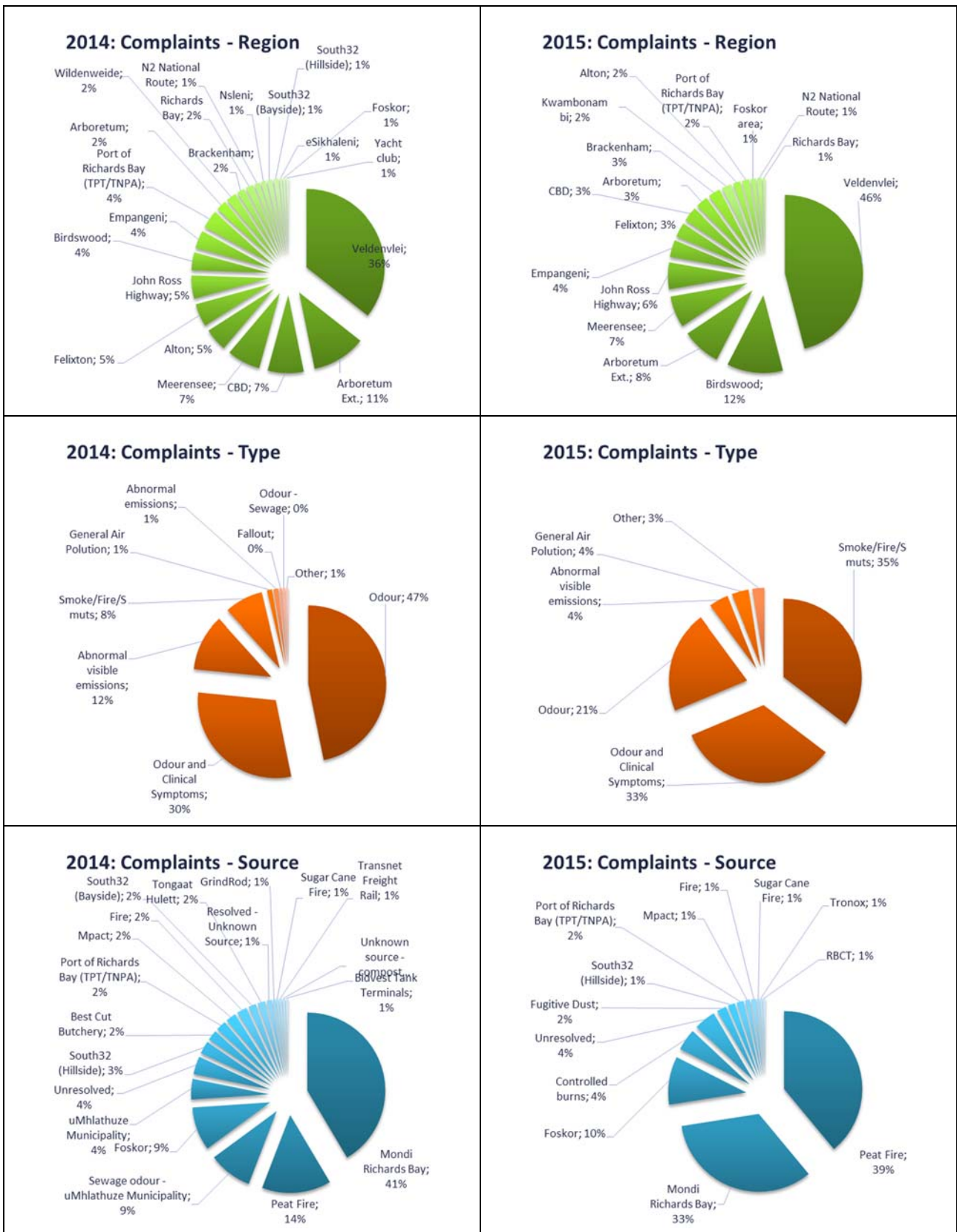


Figure 7: Complaints - region, type and source



### 3.2 Complaints distribution

The distribution of complaints in 2015 by region, source and type are presented in Figure 7. Most complaints (81%) were related to fires, smoke and smut, and odour and often associated with clinical symptoms. The complaints of fire, smoke and smuts were due to peat fires and controlled burns, and the complaints of odour associated with clinical symptoms, to Mondi Richards Bay and Foskor. Distributions for 2014 are included for comparison.

### 4.0 FINE PARTICULATE MONITORING

The term "particulate matter" (PM) refers to both solid particles and liquid droplets found in the atmosphere. Many manmade and natural sources emit PM directly or emit other pollutants that react in the atmosphere to form PM. These solid and liquid particles can vary in size. Particles less than 10 micrometres (µm) in diameter are classified as PM<sub>10</sub>.

PM<sub>10</sub> can be inhaled and accumulate in deep within the respiratory system. Exposure to sustained high concentrations may result in:

- Reduced lung development in children;
- Allergy related inflammatory reactions of the airway;
- Asthma, nasal congestion and sinus problems;
- Increase in symptoms associated with the lower respiratory tract; and
- In severe cases, reduction in life expectancy.

TEOM's (particulate analysers) at Brackenham, CBD, Mtunzini and eSikhaleni stations measure PM<sub>10</sub> data continuously. PM<sub>10</sub> monitoring undertaken at Felixton is done so with the use of an E-Sampler; an alternative sampling methodology to that used at the other stations.

#### 4.1 PM<sub>10</sub> Data Capture

The percentage of valid data received from the PM<sub>10</sub> analysers for 2015 is shown in Table 2, reasons for low data capture include:

- CBD (February) – load shedding;
- CBD (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the data logger (PC) was also damaged;
- Mtunzini (May to November) – analyser failure due to power instability and delays in shipments of spares for repairs; and
- ESikhaleni (April to September) - analyser failure due to power instability and delays in shipments of spares for repairs.

Table 2: PM<sub>10</sub> data capture

Month	Brackenham (%)	CBD (%)	Mtunzini (%)	Felixton (%)	eSikhaleni (%)
January	99	97	100	100	99
February	96	88	100	98	96
March	100	99	91	96	96
April	99	99	93	99	67
May	99	99	26	98	0



Month	Brackenham (%)	CBD (%)	Mtunzini (%)	Felixton (%)	eSikhaleni (%)
June	99	99	0	99	0
July	98	100	0	99	0
August	100	99	0	99	0
September	100	100	0	100	22
October	98	100	59	100	99
November	99	98	53	99	98
December	98	74	100	100	96
<b>Average</b>	<b>99</b>	<b>96</b>	<b>52</b>	<b>99</b>	<b>56</b>

Notes:

Red - Not acceptable for statistical purposes (< 80%),

Yellow – Acceptable for statistical purposes but does not meet SANAS data capture requirements (< 90%).

## 4.2 PM<sub>10</sub> Ambient Air Quality Standards

Ambient air quality standards for PM<sub>10</sub> are listed below (Table 3).

**Table 3: PM<sub>10</sub> ambient air quality standards**

Organisation	Variable	Daily average	Annual average
NEM: AQA [a]	PM <sub>10</sub>	75 µg/m <sup>3</sup> [b]	40 µg/m <sup>3</sup> [c]
WHO/IFC [d]	PM <sub>10</sub>	50 µg/m <sup>3</sup> [b]	20 µg/m <sup>3</sup> [c]

Notes:

a) SA Government Gazette 32816 (24<sup>th</sup> December 2009) in terms of the National Environmental Management: Air Quality Act No. 39 of 2004, effective from 2015.

b) Not to be exceeded more than 4 times in one year.

c) Not to be exceeded.

d) World health Organisation/International Finance Corporation.

## 4.3 PM<sub>10</sub> Exceedances and Compliance

A summary of PM<sub>10</sub> exceedances are presented below (Table 4).

**Table 4: PM<sub>10</sub> exceedances summary**

Standard/Guideline/Target	Count
NEM: AQA Annual Standard (75 µg/m <sup>3</sup> )	0
NEM: AQA Daily Standard (40 µg/m <sup>3</sup> )	14
WHO Annual Guideline (20 µg/m <sup>3</sup> )	4
WHO Daily Guideline (50 µg/m <sup>3</sup> )	69



Details of the National Environmental Management: Air Quality Act (Act No. 39 of 2004) (NEM: AQA) daily limit exceedances are provided in Table 5, exceedances of the NEM: AQA Daily PM<sub>10</sub> Standard limit were linked to smoke from fires, and re-suspension of particulates by wind.

**Table 5: PM<sub>10</sub> exceedances of the NEM: AQA daily standard (75 µg/m<sup>3</sup>)**

Station	Date	Value (µg/m <sup>3</sup> )	Comment/Allocation
Brackenheim	2015/06/04	99	Suspension of particulates by high wind speed and smoke from peat fires.
	2015/06/05	96	Suspension of particulates by high wind speed and smoke from peat fires.
	2015/06/15	78	Smoke from peat fires.
	2015/09/03	86	Suspension of particulates by high wind speed.
	2015/11/02	244	Suspension of particulates by high wind speed.
CBD	2015/06/04	141	Suspension of particulates by high wind speed and smoke from peat fires.
	2015/06/05	89	Suspension of particulates by high wind speed and smoke from peat fires.
	2015/06/15	85	Smoke from peat fires.
	2015/06/16	88	Smoke from peat fires.
	2015/09/03	78	Suspension of particulates by high wind speed.
	2015/11/02	229	Suspension of particulates by high wind speed.
eSikhaleni	2015/10/10	94	Suspension of particulates by high wind speed.
	2015/11/02	131	Suspension of particulates by high wind speed.
Mtunzini	2015/11/02	98	Suspension of particulates by high wind speed.

The number of NEM: AQA PM<sub>10</sub> limit exceedances measured at the various stations is indicated in Table 6, during 2015 Brackenheim and CBD did not comply with the National Environmental Management: Air Quality Act (Act No. 39 of 2004) (NEM: AQA) PM<sub>10</sub> Daily Standard.

**Table 6: PM<sub>10</sub> compliance with NEM: AQA ambient air quality standards**

Standard	Permissible Exceedances	Station	Exceedances
<b>NEM: AQA Daily Standard (75 µg/m<sup>3</sup>)</b>	4	Brackenheim	5
		CBD	6
		eSikhaleni	2
		Felixton	0
		Mtunzini	1



Standard	Permissible Exceedances	Station	Exceedances
<b>NEM: AQA Annual Standard (40 µg/m³)</b>	0	Brackenham	0
		CBD	0
		eSikhaleni	0
		Felixton	0
		Mtunzini	0

**Table 7: PM<sub>10</sub> compliance with WHO/IFC ambient air quality guidelines**

Standard	Station	Exceedances
<b>WHO/IFC Daily Guideline (50 µg/m³)</b>	Brackenham	<b>33</b>
	CBD	<b>23</b>
	eSikhaleni	<b>11</b>
	Felixton	0
	Mtunzini	<b>1</b>
<b>WHO/IFC Annual Guideline (20 µg/m³)</b>	Brackenham	<b>1</b>
	CBD	<b>1</b>
	eSikhaleni	<b>1</b>
	Felixton	0
	Mtunzini	<b>1</b>

Maximum and annual average concentrations for PM<sub>10</sub> are provided in Table 8.

**Table 8: PM<sub>10</sub> maximum and annual average concentrations**

Station		South Africa NEM: AQA Daily Standard (75 µg/m³)	International WHO Daily Guideline (50 µg/m³)	South Africa NEM: AQA Annual Standard (40 µg/m³)	International WHO Annual Guideline (20 µg/m³)
<b>Brackenham</b>	% of guideline	<b>325%</b>	<b>488%</b>	80%	<b>160%</b>
	µg/m³ TEOM	244	244	32	32
	Date & Time	2015/11/02	2015/11/02	2015/11	2015/11
<b>CBD</b>	% of guideline	<b>305%</b>	<b>458%</b>	75%	<b>150%</b>
	µg/m³ TEOM	229	229	30	30



Station		South Africa NEM: AQA Daily Standard (75 µg/m <sup>3</sup> )	International WHO Daily Guideline (50 µg/m <sup>3</sup> )	South Africa NEM: AQA Annual Standard (40 µg/m <sup>3</sup> )	International WHO Annual Guideline (20 µg/m <sup>3</sup> )
	Date & Time	2015/11/02	2015/11/02	2015/11	2015/11
eSikhaleni	% of guideline	175%	262%	83%	165%
	µg/m <sup>3</sup> TEOM	131	131	33	33
	Date & Time	2015/11/02	2015/11/02	2015/11	2015/11
Mtunzini	% of guideline	131%	196%	53%	105%
	µg/m <sup>3</sup> TEOM	98	98	21	21
	Date & Time	2015/11/02	2015/11/02	2015/11	2015/11
Felixton	% of guideline	56%	84%	23%	45%
	µg/m <sup>3</sup> E-Sampler	42	42	9	9
	Date & Time	2015/06/24	2015/06/24	2015/06	2015/06

Note: The table is colour coded according to the level of concentration recorded. The colour scale ranges from blue (indicating a low concentration relative to the standard), to red (indicating an exceedance of the standard).

#### 4.4 PM<sub>10</sub> Annual Average Information

Annual average concentrations dating back to 2004 are illustrated in Figure 8. A decreasing trend is noticeable from 2007 to 2010; this has reversed and stabilised since then, it is particularly noticeable at Brackenhams and CBD. During 2015 NEM: AQA PM<sub>10</sub> Annual Limit (40 µg/m<sup>3</sup>) was not exceeded, but the WHO/IFC PM<sub>10</sub> Annual Guideline (20 µg/m<sup>3</sup>) was exceeded at Brackenhams, CBD, eSikhaleni and Mtunzini.

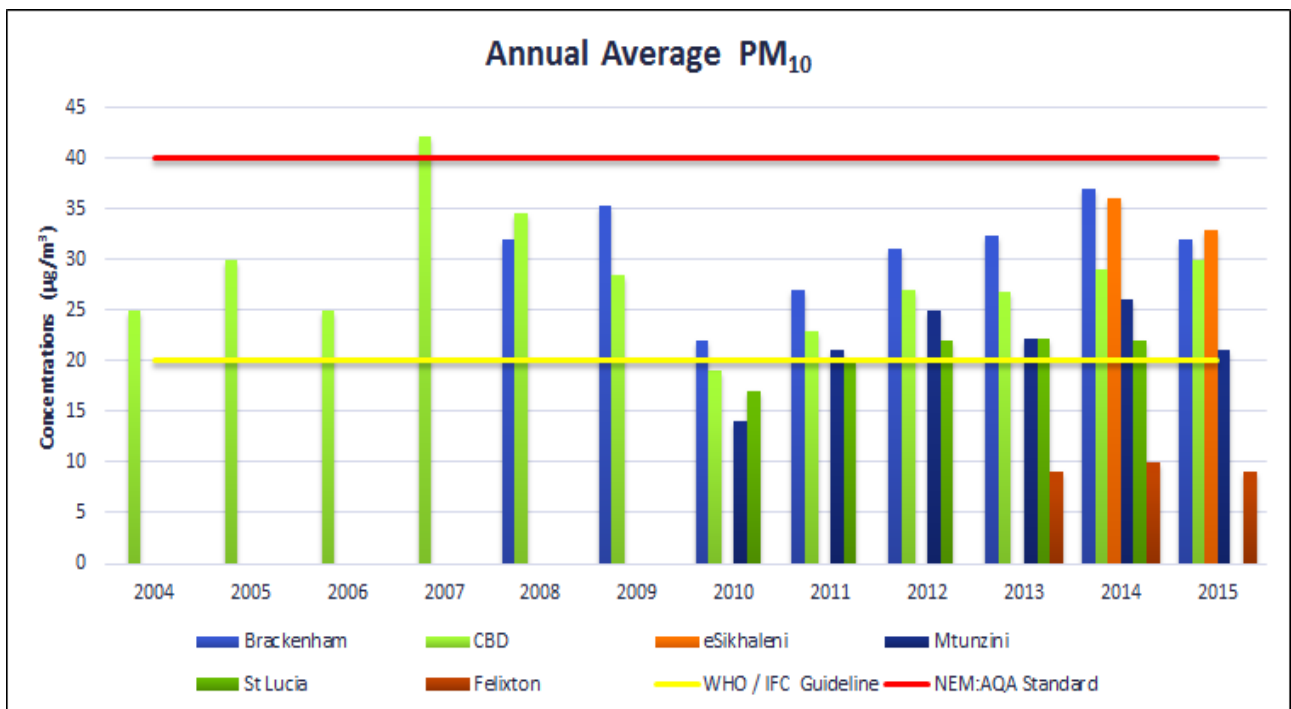


Figure 8: PM<sub>10</sub> annual average concentrations



Notes:

- Mtunzini and St Lucia stations were baseline stations; and
- The St Lucia monitoring station was decommissioned and eSikhaleni monitoring station commissioned in 2014.

### 4.5 PM<sub>10</sub> Seasonal Concentrations

Seasonal PM<sub>10</sub> concentrations for 2015 are provided in Figure 9. The NEM: AQA annual standard is used for comparative purposes. TATA Steel ceased operations in May, this most likely resulted in a decrease in particulate concentrations measured at Brackenhams since then.

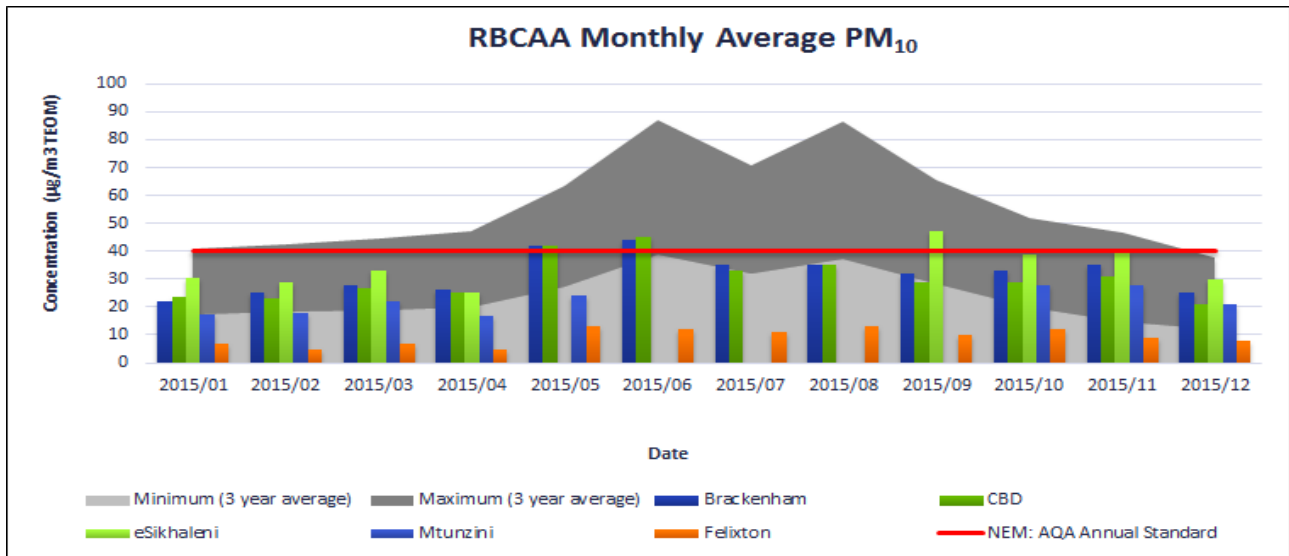


Figure 9: PM<sub>10</sub> seasonal concentrations

Notes:

- TATA Steel ceased operations in May 2015.

Missing Data:

- CBD (February) – load shedding;
- CBD (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the data logger (PC) was also damaged;
- Mtunzini (May to November) – analyser failure due to power instability plus delays in shipments of spares for repairs; and
- eSikhaleni (April to September) - analyser failure due to power instability plus delays in shipments of spares for repairs.

### 4.6 PM<sub>10</sub> Diurnal Average

Diurnal PM<sub>10</sub> concentrations are shown below (Figure 10).

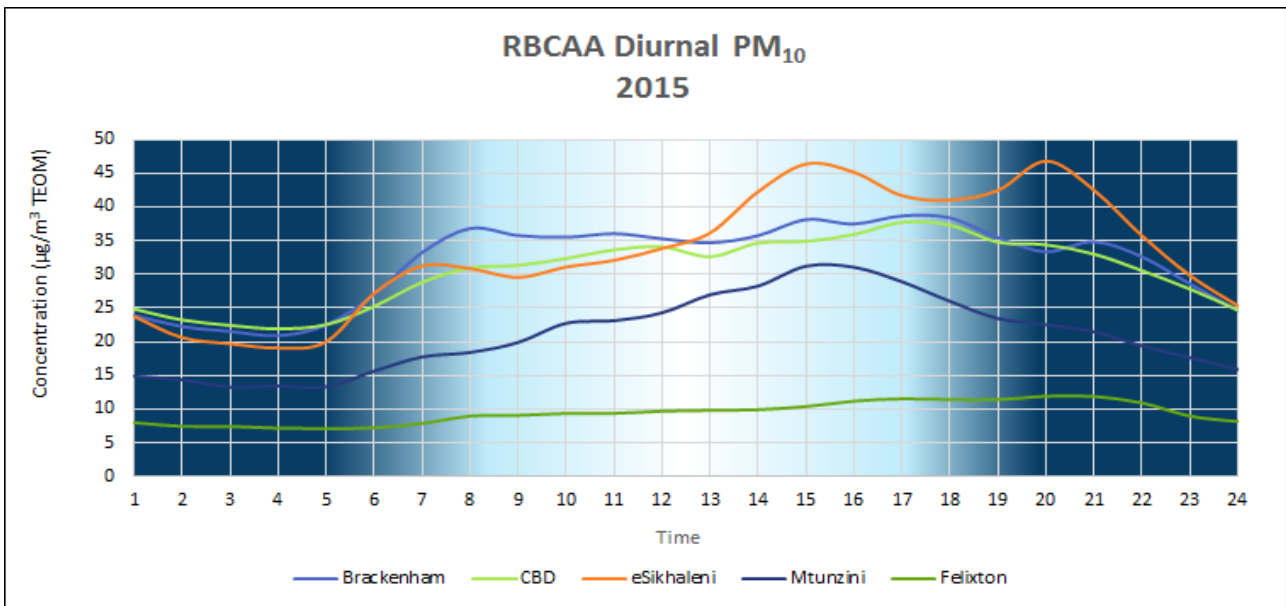


Figure 10: PM<sub>10</sub> diurnal concentrations

### 4.7 PM<sub>10</sub> Daily Average Information

The daily average PM<sub>10</sub> concentrations are shown below (Figure 11). There were 14 exceedances of the NEM: AQA PM<sub>10</sub> Daily Limit (75 µg/m<sup>3</sup>) and 69 exceedances of the WHO/IFC PM<sub>10</sub> Daily Guideline (50 µg/m<sup>3</sup>). The exceedances in June were attributed to contributions from peat fires and resuspension of particulates by wind, the exceedances in November were associated with particularly high wind speeds.

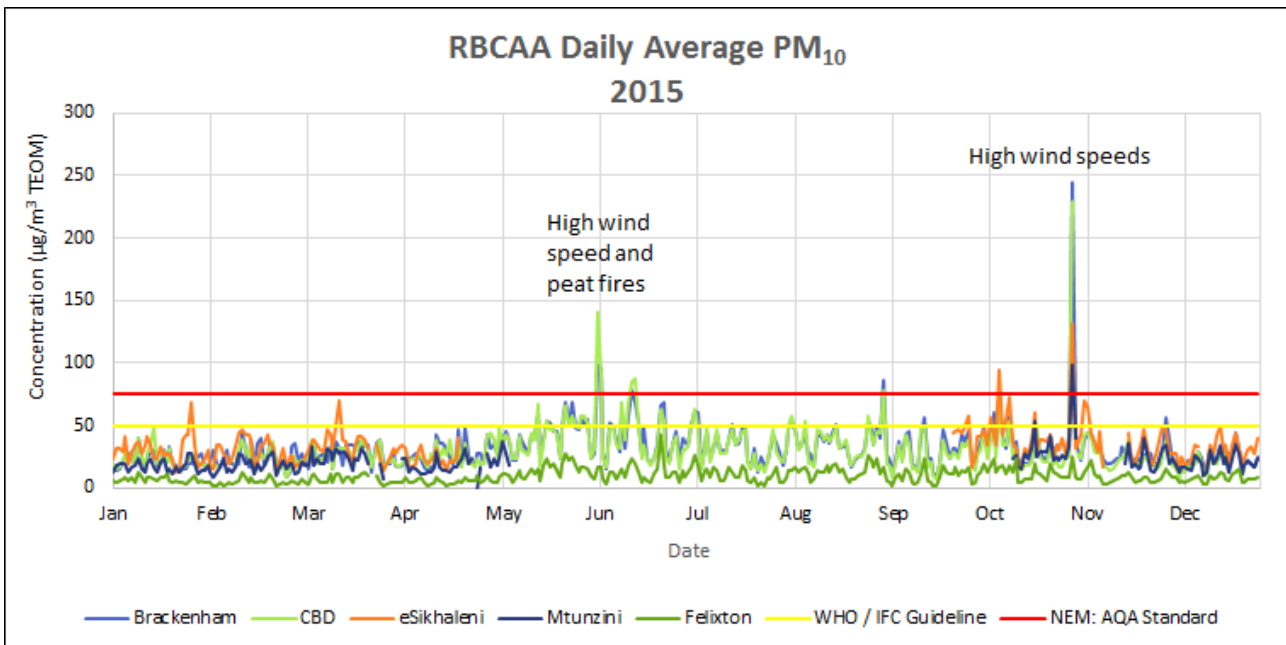


Figure 11: PM<sub>10</sub> daily average concentrations

Notes/Missing Data:

- CBD (February) – load shedding;
- CBD (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the data logger (PC) was also damaged;



- Mtunzini (May to November) – analyser failure due to power instability plus delays in shipments of spares for repairs; and
- eSikhaleni (April to September) - analyser failure due to power instability plus delays in shipments of spares for repairs.

## 5.0 SULPHUR DIOXIDE MONITORING AND MODELLED RESULTS

Sulphur dioxide (SO<sub>2</sub>) is one of a group of highly reactive gasses known as “oxides of sulphur.” Anthropogenic sources include; fossil fuel combustion (particularly coal burning power plants) industrial processes such as wood pulping, paper manufacture, petroleum and metal refining, metal smelting (particularly from sulphide containing ores, e.g. lead, silver and zinc ores) and vehicle tailpipe emissions. Natural sources of SO<sub>2</sub> emissions include; geothermal activity (including hot springs and volcanic activity), and the natural decay of vegetation on land, in wetlands and in oceans.

SO<sub>2</sub> is linked with a number of adverse effects on the respiratory system as it is highly soluble and thus readily absorbed by the mucous membranes of the nose and upper respiratory tract. Exposure to high concentrations may result in:

- Reduction in lung function (especially in asthmatics and children);
- Wheezing and coughing; and
- In severe cases, reduction in life expectancy.

In this section of the report, SO<sub>2</sub> concentrations measured at the fixed monitoring stations are compared to those predicted by the CALPUFF dispersion model. The CALPUFF dispersion model uses meteorological and topographical data, and a regional emission inventory to simulate the prevailing conditions in order to estimate the concentration of SO<sub>2</sub> at any given point within the area of interest. This requires the use of certain assumptions, resulting in a variation between the modelled and measured SO<sub>2</sub> concentrations presented.

The concentration maps generated using the CALPUFF model represent the cumulative concentrations predicted at receptor grid points by means of concentration isopleths, averaged over the required time period. The predicted concentrations in these dose maps may vary from actual concentrations.

Limitations of dispersion models are their inability to account for highly complex, rapidly varying spatial and temporal meteorological systems such as calms, coastal fumigation, sea/land breeze recirculation, and mountain and valley winds, particularly in complex terrain or near coastal boundaries. The US EPA considers the range of uncertainty to be -50% to 200% for models applied to gently rolling terrain. The accuracy improves with fairly strong wind speeds and during neutral atmospheric conditions. Dispersion modelling results can be compared with monitored values in order to improve the accuracy or “calibrate” models using percentiles.

### 5.1 SO<sub>2</sub> Data Capture

The percentage of valid data received from the SO<sub>2</sub> analysers for 2015 is shown in Table 9.

Table 9: SO<sub>2</sub> data capture

Month	Arboretum (%)	Brackenhams (%)	CBD (%)	Harbour West (%)	Scorpio (%)	Felixton (%)	eSikhaleni (%)
January	100	99	93	100	100	100	99
February	96	95	88	99	100	99	97
March	99	100	99	98	100	96	96
April	99	99	97	100	99	97	96
May	96	99	98	100	100	99	88



Month	Arboretum (%)	Brackenham (%)	CBD (%)	Harbour West (%)	Scorpio (%)	Felixton (%)	eSikhaleni (%)
June	97	99	99	100	100	100	65
July	97	99	99	98	89	69	92
August	99	100	99	100	100	81	100
September	100	100	100	100	99	100	97
October	100	97	100	99	99	100	99
November	97	99	97	99	99	99	91
December	100	98	74	79	95	89	96
<b>Average</b>	<b>98</b>	<b>99</b>	<b>95</b>	<b>98</b>	<b>98</b>	<b>94</b>	<b>93</b>

*Notes:*

*Red - Not acceptable for statistical purposes (< 80%),*

*Yellow – Acceptable for statistical purposes but does not meet SANAS data capture requirements (< 90%)*

Reasons for low data capture include:

- CBD (February) – load shedding;
- CBD (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the data logger (PC) was also damaged;
- Harbour West (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down; during this process the analyser was damaged (kept resetting);
- Scorpio (July) – analyser faulty, keeps resetting;
- Felixton (July to August) – analyser failure (internal pump failure) and power outages (swimming pool maintenance);
- Felixton (December) – analyser failure (internal pump failure); and
- eSikhaleni (June) – analyser failure (internal pump failure).

## 5.2 SO<sub>2</sub> Ambient Air Quality Standards

South African ambient air quality standards for SO<sub>2</sub> are listed below (Table 10).

**Table 10: SO<sub>2</sub> ambient air quality standards**

Organisation	Variable	10-min average	Hourly average	Daily average	Annual average
NEM: AQA [a]	SO <sub>2</sub>	500 µg/m <sup>3</sup> [b]	350 µg/m <sup>3</sup> [c]	125 µg/m <sup>3</sup> [d]	50 µg/m <sup>3</sup> [e]
		191 ppb [b]	134 ppb [c]	48 ppb [d]	19 ppb [e]
WHO/IFC	SO <sub>2</sub>	500 µg/m <sup>3</sup>	-	20 µg/m <sup>3</sup>	-
		191 ppb	-	8 ppb	-



Organisation	Variable	10-min average	Hourly average	Daily average	Annual average
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Notes:

- a) SA Government Gazette 32816 (published 24th December 2009) in terms of the National Environmental Management: Air Quality Act 39 of 2004.
- b) Not to be exceeded more than 526 times in one year.
- c) Not to be exceeded more than 88 times in one year.
- d) Not to be exceeded more than 4 times in one year.
- e) Not to be exceeded.
- f) World health Organisation/International Finance Corporation.

### 5.3 SO<sub>2</sub> Exceedances and Compliance

A summary of SO<sub>2</sub> exceedances presented below (Table 11).

**Table 11: SO<sub>2</sub> exceedances summary**

Standard/Guideline/Target	Count
NEM: AQA 10-minute Standard (191 ppb)	4
NEM: AQA Hourly Standard (134 ppb)	0
NEM: AQA Daily Standard (48 ppb)	0
NEM: AQA Annual Standard (19 ppb)	0
WHO 10-minute Guideline (191 ppb)	4
WHO Daily Standard (8 ppb)	245

Details of NEM: AQA limit exceedances are provided in Table 12. SO<sub>2</sub> limit exceedances can be associated with emissions as a result of process upsets (i.e. planned maintenance, plant shutdowns or start-up), leaks in equipment, pipe lines, seals, valves (fugitive emissions) or a particular events (e.g. fires or emergency shutdowns).

**Table 12: SO<sub>2</sub> exceedances of the NEM: AQA daily standard (191 ppb)**

Station	Date	Value (ppb)	Allocation	Type
Harbour West	2015/01/13	351	Foskor	Incident - Fire
	2015/01/13	205	Foskor	Incident - Fire
Scorpio	2015/03/13	228	BHP	Fugitive Emission
	2015/03/31	200	Foskor	Fugitive Emission

The number of NEM: AQA SO<sub>2</sub> limit exceedances measured at the various stations is indicated in Table 13, during 2015 NEM: AQA standards were not exceeded at any of the stations.



**Table 13: SO<sub>2</sub> compliance with ambient NEM: AQA air quality standards**

Standard	Permissible Exceedances	Station	Exceedances
<b>NEM: AQA 10-minute Standard (191 ppb)</b>	526	Arboretum	0
		Brackenheim	0
		CBD	0
		eSikhaleni	0
		Felixton	0
		Harbour West	2
		Scorpio	2
<b>NEM: AQA Hourly Standard (134 ppb)</b>	88	Arboretum	0
		Brackenheim	0
		CBD	0
		eSikhaleni	0
		Felixton	0
		Harbour West	0
		Scorpio	0
<b>NEM: AQA Daily Standard (48 ppb)</b>	4	Arboretum	0
		Brackenheim	0
		CBD	0
		eSikhaleni	0
		Felixton	0
		Harbour West	0
		Scorpio	0
<b>NEM: AQA Annual standard (19 ppb)</b>	0	Arboretum	0
		Brackenheim	0
		CBD	0
		eSikhaleni	0
		Felixton	0
		Harbour West	0
		Scorpio	0



Table 14: SO<sub>2</sub> compliance with WHO/IFC ambient air quality guidelines

Standard	Station	Exceedances
WHO/IFC 10-minute Standard (191 ppb)	Arboretum	0
	Brackenham	0
	CBD	0
	eSikhaleni	0
	Felixton	0
	Harbour West	2
	Scorpio	2
WHO/IFC Daily Standard (8 ppb)	Arboretum	1
	Brackenham	5
	CBD	43
	eSikhaleni	5
	Felixton	8
	Harbour West	82
	Scorpio	101

Maximum and annual average concentrations for SO<sub>2</sub> are provided in Table 15.

Table 15: SO<sub>2</sub> maximum and annual average concentrations

Station		National & International NEM: AQA & WHO 10-minute Standard 500 µg/m <sup>3</sup> 191 ppb	National NEM: AQA 1-hour Standard 350 µg/m <sup>3</sup> 134 ppb	National NEM: AQA 24-hour Standard 125 µg/m <sup>3</sup> 48 ppb	International WHO 24-hour Guideline 20 µg/m <sup>3</sup> 8 ppb	National NEM: AQA Annual Standard 50 µg/m <sup>3</sup> 19 ppb
Arboretum	% of guideline	41%	27%	17%	101%	7%
	(ppb)	79	36	8	8	1
	Date & time	2015/04/17 08:10	2015/04/17 08:00	2015/09/18	2015/09/18	2015/04
Brackenham	% of guideline	29%	31%	26%	155%	14%
	(ppb)	55	41	12	12	3
	Date & time	2015/04/17 08:10	2015/04/17 08:00	2015/09/18	2015/09/18	2015/04
CBD	% of guideline	42%	41%	41%	249%	23%
	(ppb)	80	55	20	20	4



Station		National & International NEM: AQA & WHO 10-minute Standard 500 µg/m <sup>3</sup> 191 ppb	National NEM: AQA 1-hour Standard 350 µg/m <sup>3</sup> 134 ppb	National NEM: AQA 24-hour Standard 125 µg/m <sup>3</sup> 48 ppb	International WHO 24-hour Guideline 20 µg/m <sup>3</sup> 8 ppb	National NEM: AQA Annual Standard 50 µg/m <sup>3</sup> 19 ppb
	Date & time	2015/03/31 08:10	2015/02/22 06:00	2015/02/01	2015/02/01	2015/03
Harbour West	% of guideline	184%	82%	52%	310%	30%
	(ppb)	351	110	25	25	6
	Date & time	2015/01/13 03:50	2015/01/13 03:00	2015/08/04	2015/08/04	2015/01
Scorpio	% of guideline	119%	99%	72%	431%	38%
	(ppb)	228	132	35	35	7
	Date & time	2015/03/13 11:10	2015/03/30 19:00	2015/07/18	2015/07/18	2015/03
Felixton	% of guideline	65%	75%	58%	346%	15%
	(ppb)	123	101	28	28	3
	Date & time	2015/11/15 22:30	2015/11/15 22:00	2015/11/15	2015/11/15	2015/11
eSikhaleni	% of guideline	40%	33%	23%	140%	12%
	(ppb)	77	45	11	11	2
	Date & time	2015/04/25 18:10	2015/04/25 18:00	2015/05/14	2015/05/14	2015/04

Notes: The table is colour coded according to the level of concentration recorded. The colour scale ranges from blue (indicating a low concentration relative to the standard), to red (indicating an exceedance of the standard).

## 5.4 SO<sub>2</sub> Annual Average Concentrations

Annual average SO<sub>2</sub> concentrations are illustrated in Figure 12. There was a decrease in average annual SO<sub>2</sub> concentrations from 2005 to 2008, this trend has since then reversed from 2008 to 2013, but seems to be decreasing again (from 2013 to 2015). During 2015 NEM: AQA SO<sub>2</sub> Annual limit (19 ppb) was not exceeded.

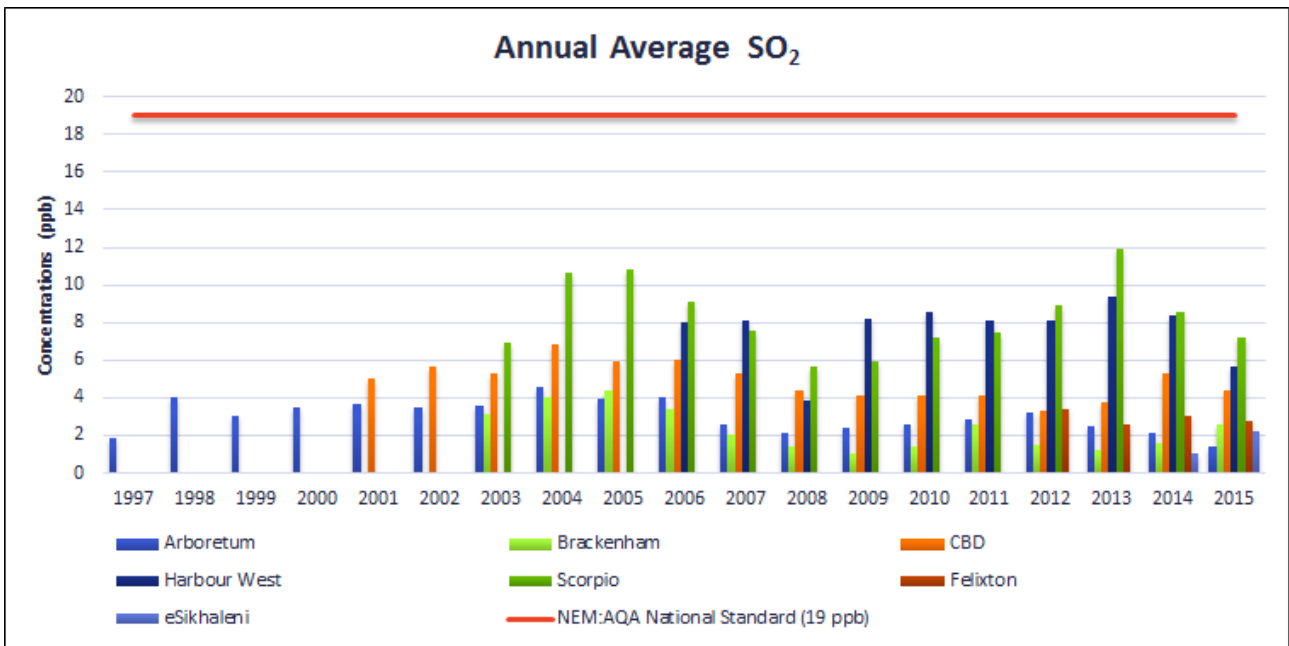


Figure 12: SO<sub>2</sub> annual average concentrations

### 5.5 SO<sub>2</sub> Seasonal Concentrations

The seasonal SO<sub>2</sub> concentrations for 2015 are provided in Figure 13.

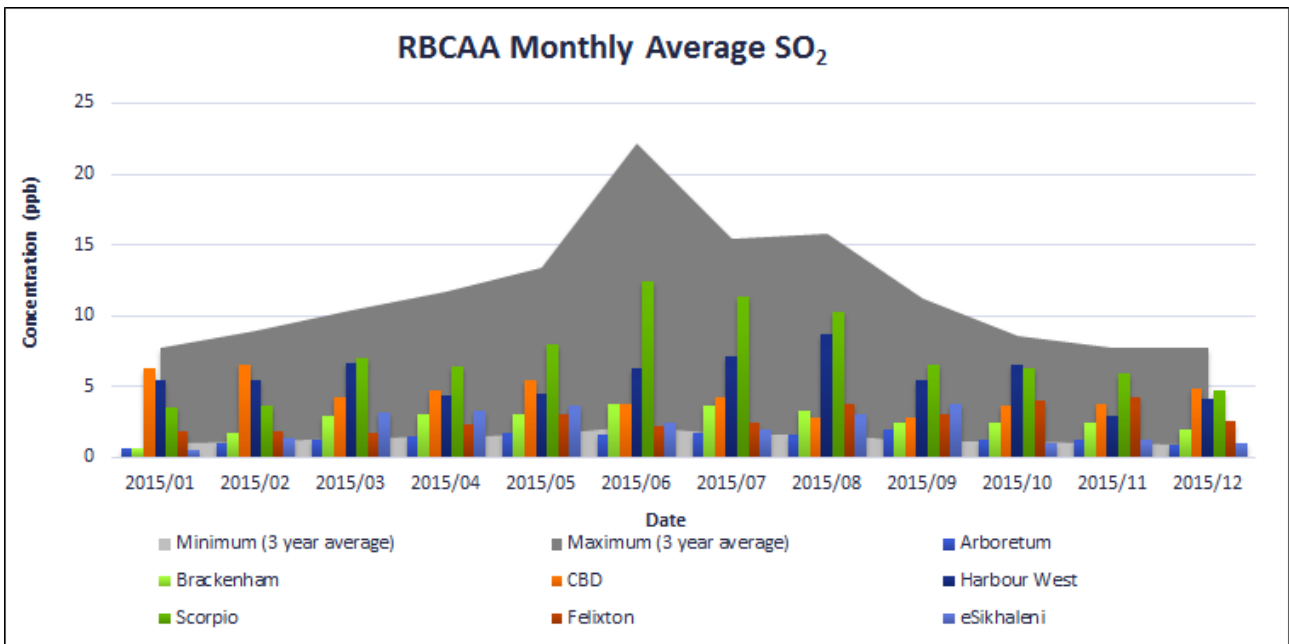


Figure 13: SO<sub>2</sub> seasonal concentrations

Notes/Missing Data:

- CBD (February) – load shedding;
- CBD (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the data logger (PC) was also damaged;
- Harbour West (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down; during this process the analyser was damaged (kept resetting);



- *Scorpio (July) – Analyser faulty, keeps resetting;*
- *Felixton (July to August) – Analyser failure (internal pump failure) and power outages (swimming pool maintenance);*
- *Felixton (December) – Analyser failure (internal pump failure); and*
- *eSikhaleni (June) – Analyser failure (internal pump failure).*

## 5.6 SO<sub>2</sub> Diurnal Average

Diurnal SO<sub>2</sub> concentrations are shown below (Figure 14).

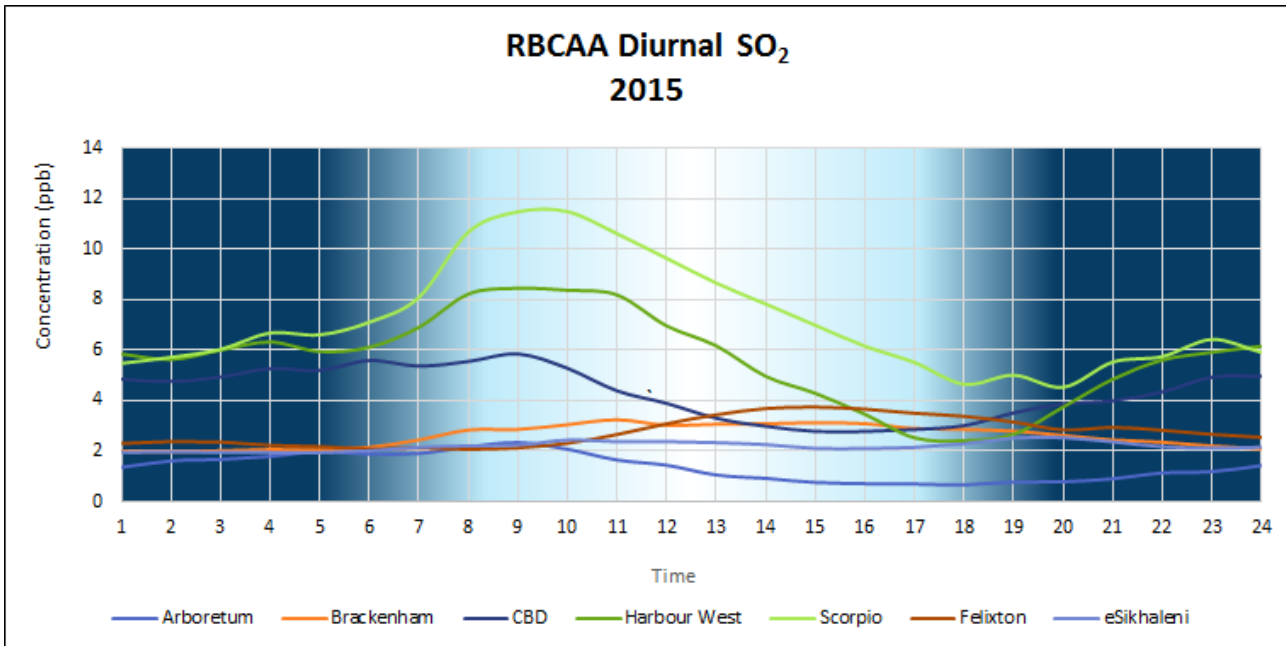


Figure 14: SO<sub>2</sub> diurnal concentrations

## 5.7 SO<sub>2</sub> Annual Average Concentration and Prediction

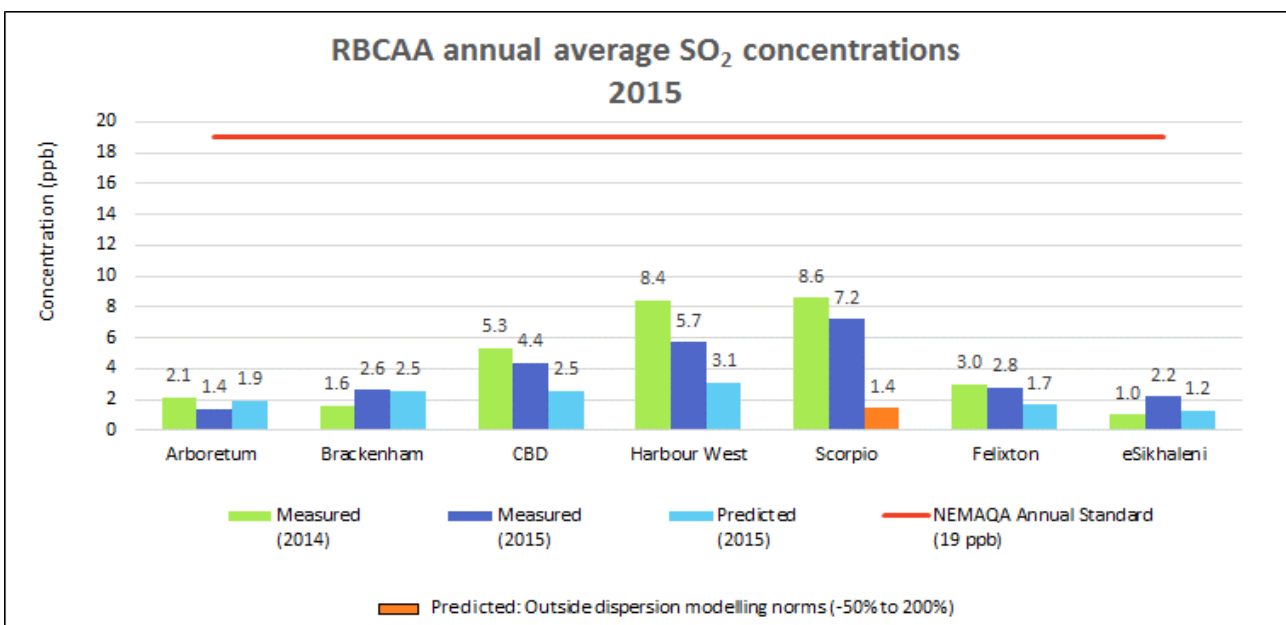


Figure 15: SO<sub>2</sub> annual average concentration and prediction



Annual average SO<sub>2</sub> concentration measured at each of the RBCAA stations, and the CALPUFF predicted average for the month are shown in Figure 15. The Annual average for the same period the previous year is also provided. Compared to the previous year Annual average SO<sub>2</sub> concentrations values at all stations with the exception of Harbour West were similar (within 10% of the standard).

Annual average predicted values at most stations were within accepted dispersion modelling norms (-50% to 200%), Scorpio were under-predicted, the cause of the under prediction at this station is most likely as a result of local fugitive emissions unaccounted for in the model. Compared to the measurements predicted values at Harbour West and Scorpio were lower, and at Arboretum, Brackenheim, CBD, Felixton and eSikhaleni were similar (within 10% of the standard).

### 5.8 SO<sub>2</sub> Predicted Annual Average Concentration

The following plots of the Annual average SO<sub>2</sub> concentrations are provided:

- Regional (Figure 16);
- Richards Bay (Figure 17);
- Felixton (Figure 18); and
- RBM (Figure 19).

The plots are colour coded according to the RBCAA’s Air Quality Index (AQI) (Table 16). The colour scale ranges from blue (indicating a low concentration relative to the standard), to red (indicating an exceedance of the standard).

**Table 16: SO<sub>2</sub> annual air quality index**

Air Quality Rating	Air Quality Index	Effects
Good	0% - 25%	No known harmful effects to soil, water, vegetation, animals, visibility or human health.
Fair	26% - 50%	Adequate protection against harmful effects to soil, water, vegetation, animals, visibility or human health.
Poor	51% - 100%	Not all aspects of the environment are adequately protected from adverse effects. Long-term control action may be necessary, depending on the frequency, duration and circumstances of the readings.
Very Poor	> 100%	In this range, further deterioration of air quality and continued high readings could pose a risk to public health.

Notes: \* Percentage of NEM: AQA Annual SO<sub>2</sub> Standard.

The model did not predict any annual average SO<sub>2</sub> concentrations greater than the NEM: AQA SO<sub>2</sub> Annual Average Standard (19 ppb). The half-guideline was also not predicted to be exceeded.

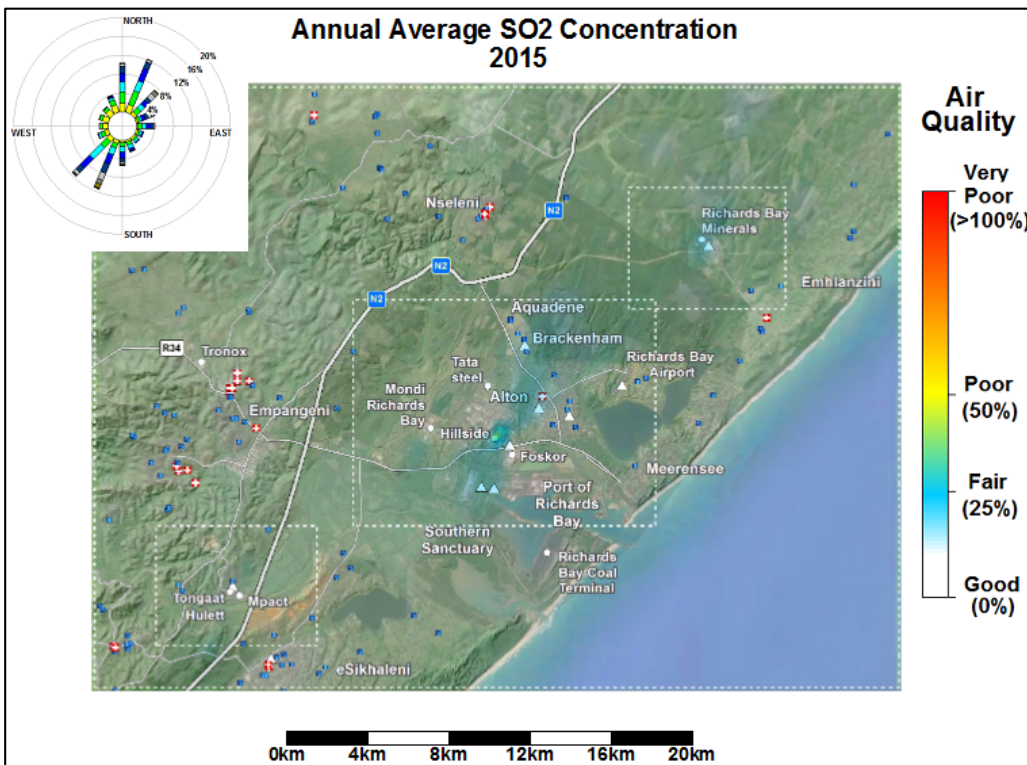


Figure 16: SO<sub>2</sub> annual average prediction (regional map)

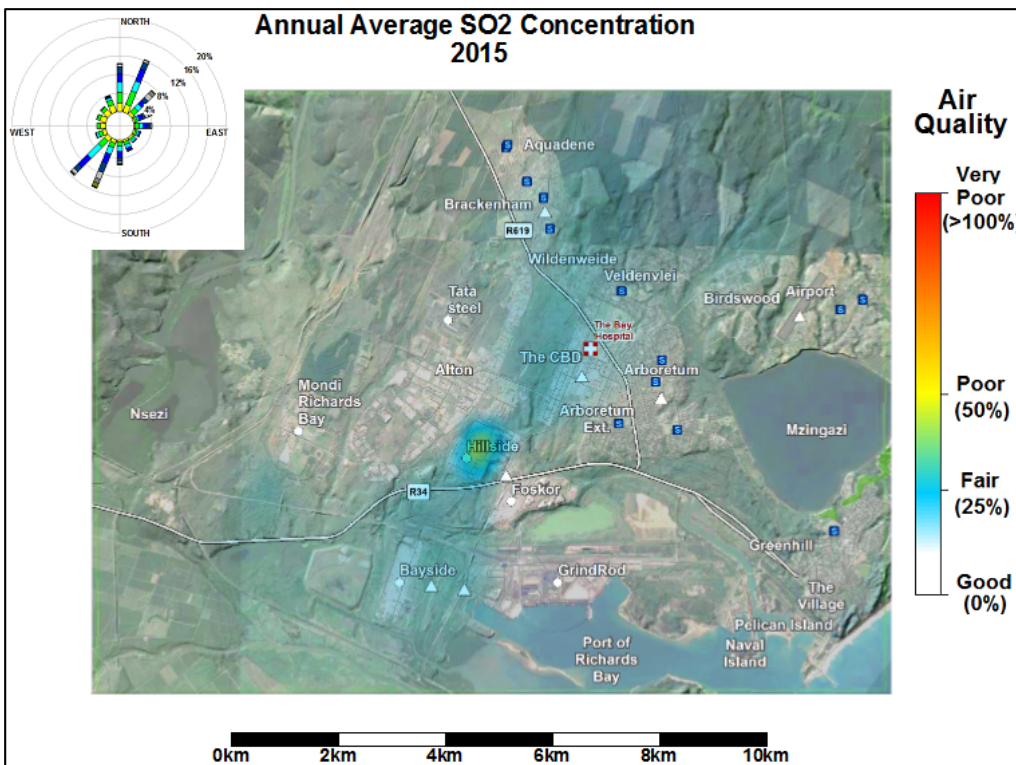


Figure 17: SO<sub>2</sub> annual average prediction (Richards Bay map)

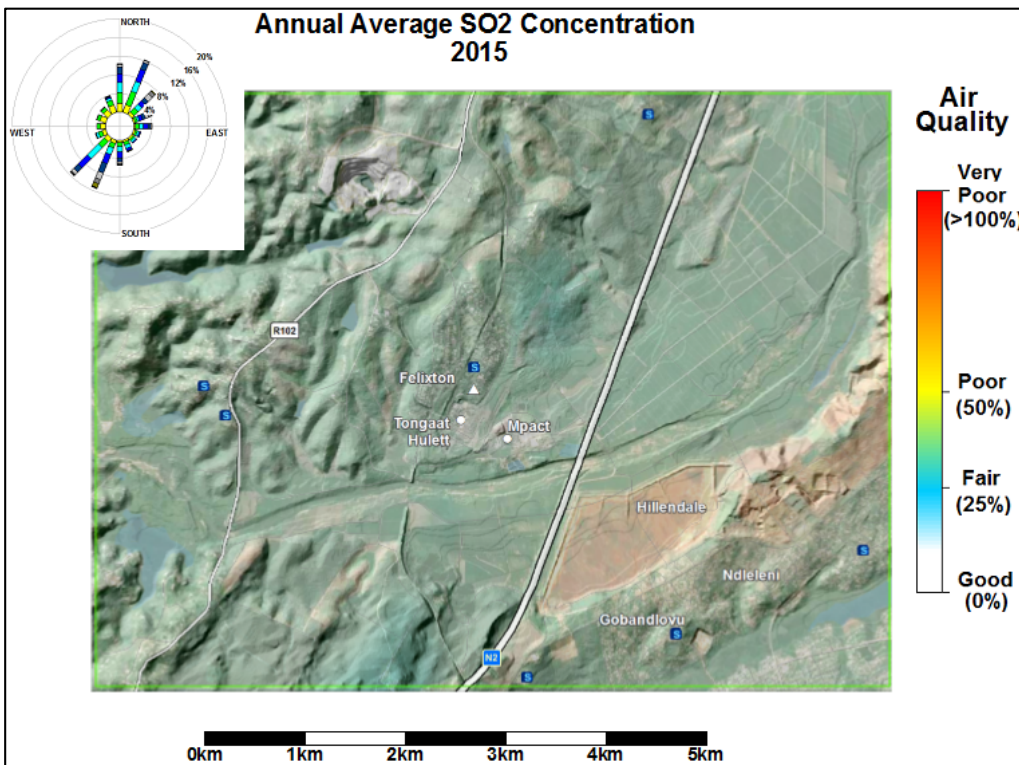


Figure 18: SO<sub>2</sub> annual average prediction (Felixton map)

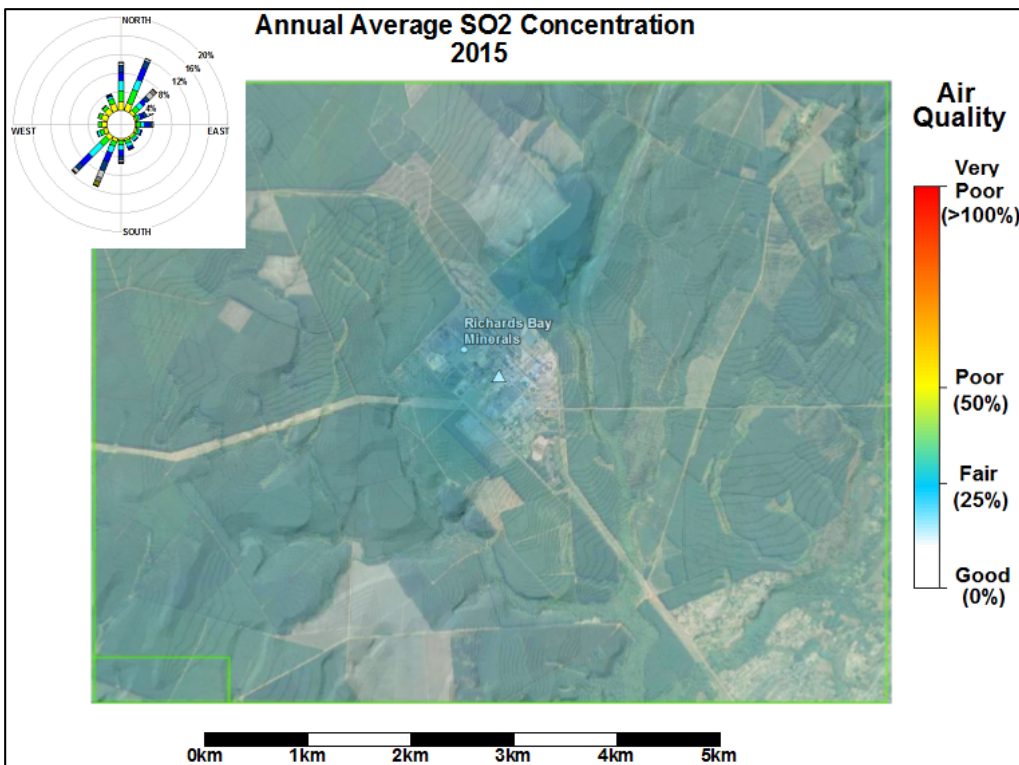


Figure 19: SO<sub>2</sub> annual average prediction (RBM map)



### 5.9 SO<sub>2</sub> Daily Average Concentrations

The daily average SO<sub>2</sub> concentrations are shown below (Figure 20). There were no exceedances of the NEM: AQA SO<sub>2</sub> Daily Limit (48 ppb), the WHO/IFC Daily Guideline (8 ppb) was exceeded 245 times.

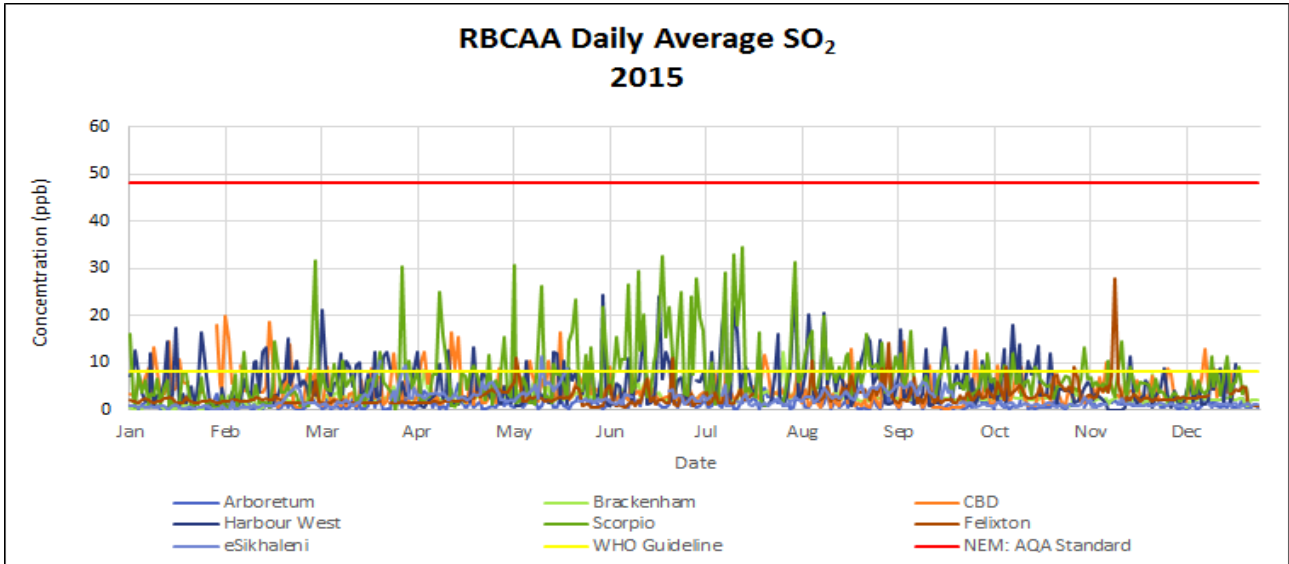


Figure 20: SO<sub>2</sub> daily average concentrations

Notes/Missing Data:

- CBD (February) – load shedding;
- CBD (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the data logger (PC) was also damaged;
- Harbour West (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down; during this process the analyser was damaged (kept resetting);
- Scorpio (July) – Analyser faulty, keeps resetting;
- Felixton (July to August) – Analyser failure (internal pump failure) and power outages (swimming pool maintenance);
- Felixton (December) – Analyser failure (internal pump failure); and
- eSikhaleni (June) – Analyser failure (internal pump failure).

### 5.10 SO<sub>2</sub> Daily Average Concentration and Prediction

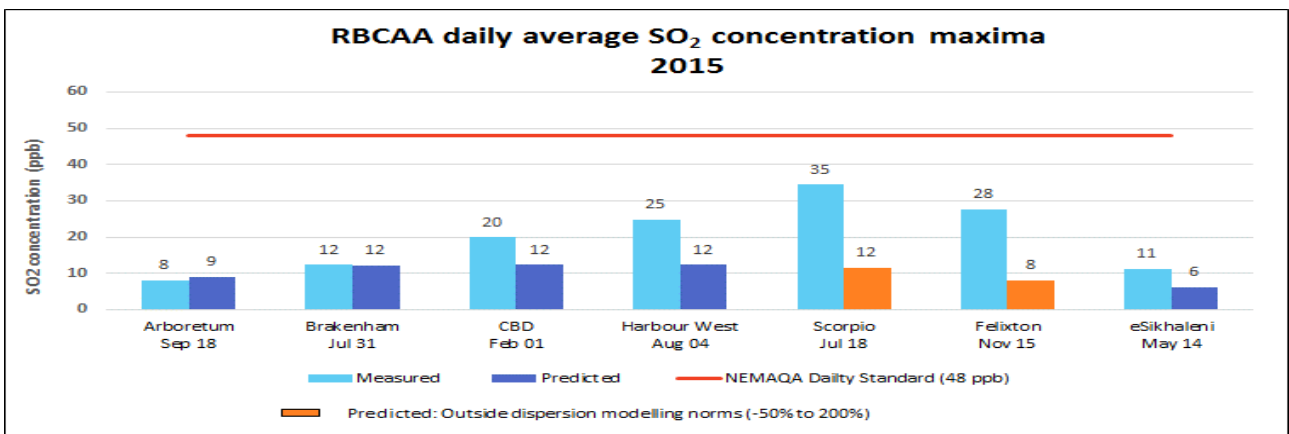


Figure 21: SO<sub>2</sub> maximum daily average concentration and prediction



Daily average predicted values at most stations were within accepted dispersion modelling norms (-50% to 200%). Scorpio and Felixton were under-predicted; these under predictions are most likely as a result of local emissions unaccounted for in the model. Compared to the measurements predicted values at CBD, Harbour West, Scorpio, Felixton and eSikhaleni were lower, and at Arboretum and Brackenheim similar (within 10% of the standard) (Figure 21).

### 5.11 SO2 Maximum Predicted Daily Average Concentration

The following plots of the maximum daily average SO2 concentrations are provided:

- Regional (Figure 22);
- Richards Bay (Figure 23);
- Felixton (Figure 24); and
- RBM (Figure 25).

The plots are colour coded according to the RBCAA’s Air Quality Index (AQI) (Table 17). The colour scale ranges from blue (indicating a low concentration relative to the standard), to red (indicating an exceedance of the standard).

Table 17: SO2 daily air quality index

Air Quality Rating	Air Quality Index *	Effects
Good	0% - 25%	No known harmful effects to soil, water, vegetation, animals, visibility or human health.
Fair	26% - 50%	Adequate protection against harmful effects to soil, water, vegetation, animals, visibility or human health.
Poor	51% - 100%	Not all aspects of the environment are adequately protected from adverse effects. Long-term control action may be necessary, depending on the frequency, duration and circumstances of the readings.
Very Poor	> 100%	In this range, further deterioration of air quality and continued high readings could pose a risk to public health.

Notes: \* Percentage of NEM: AQA Daily SO2 Standard.

The model did not predict maximum daily average SO2 concentrations greater than the NEM: AQA SO2 Daily Average Standard (48 ppb). The half-guideline includes parts of the Birdswood, Meerensee and Mzingazi Agri-Village.

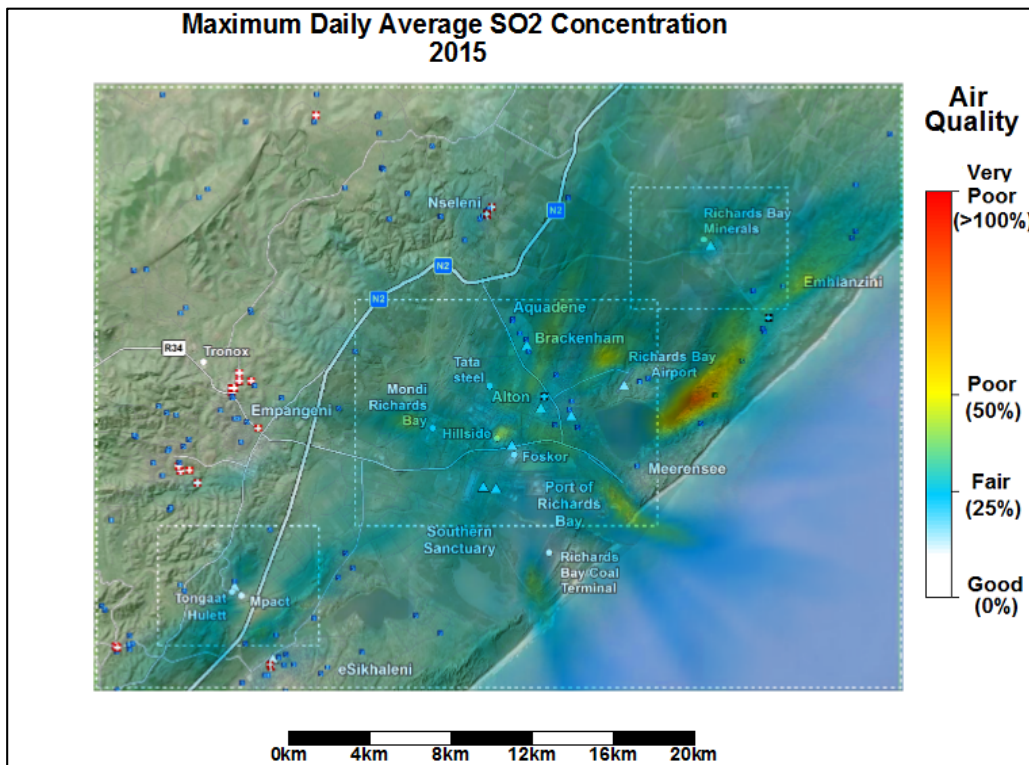


Figure 22: SO<sub>2</sub> maximum daily annual average prediction (regional map)

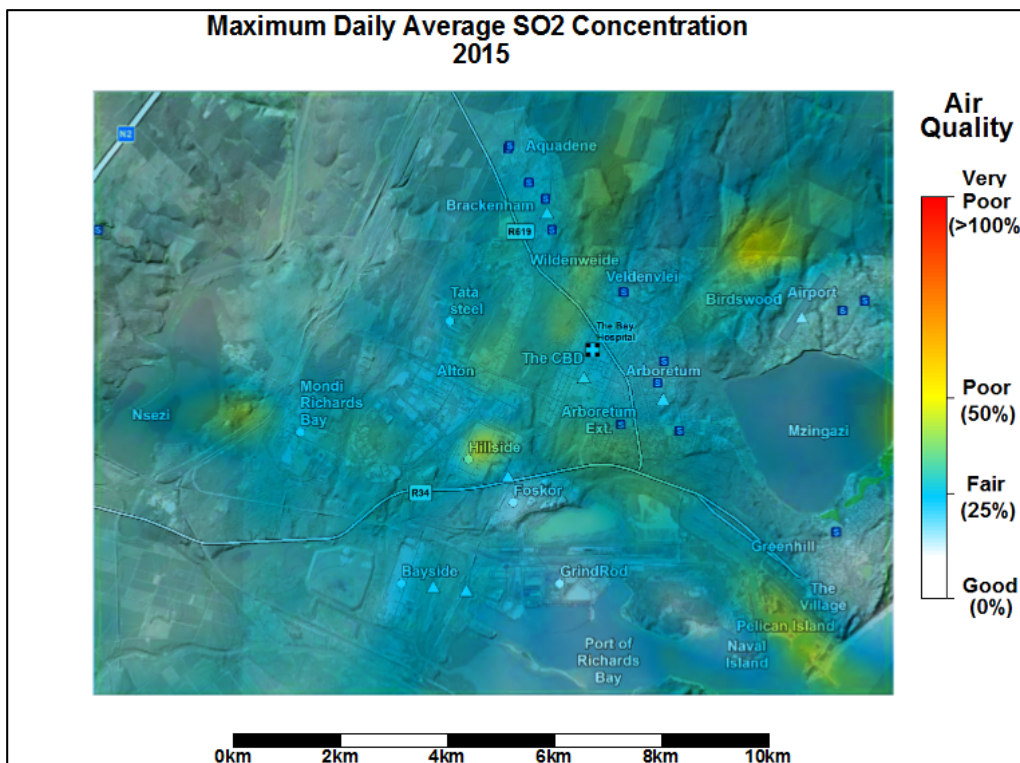


Figure 23: SO<sub>2</sub> maximum daily annual average prediction (Richards Bay map)

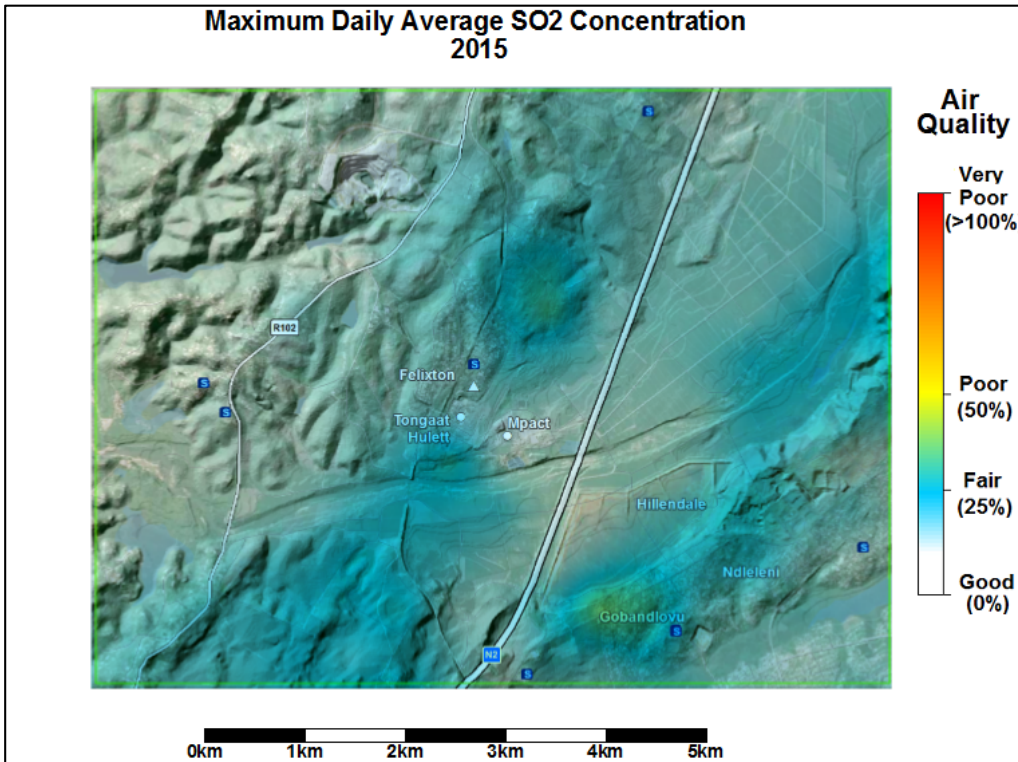


Figure 24: SO<sub>2</sub> maximum daily annual average prediction (Felixton map)

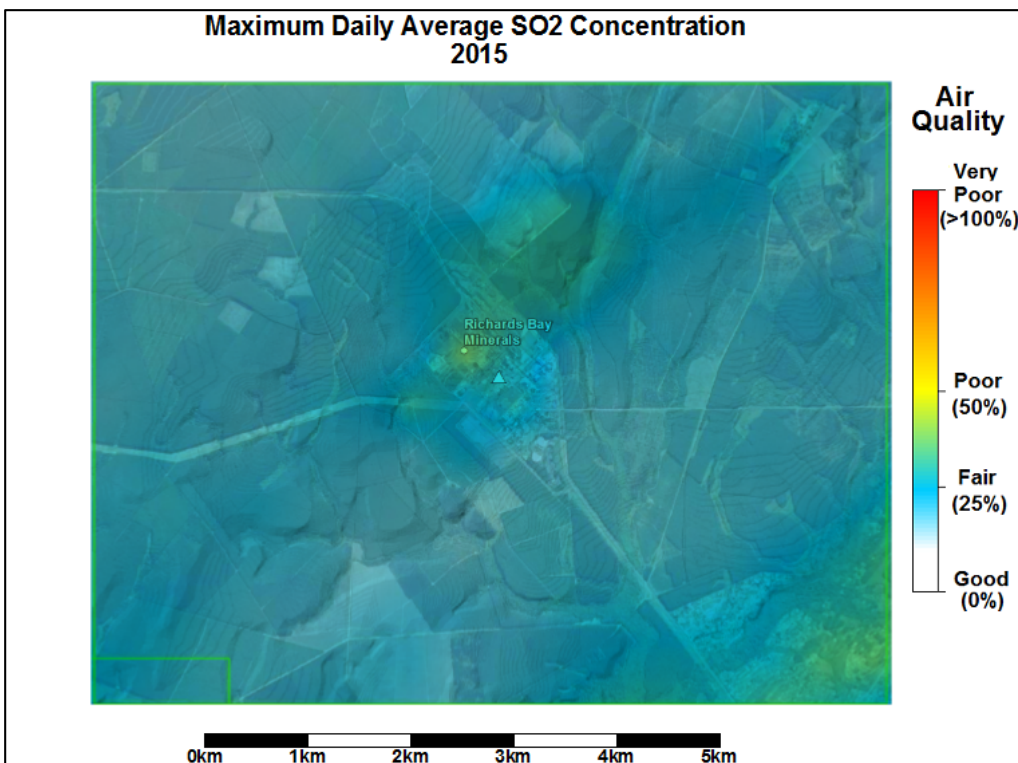


Figure 25: SO<sub>2</sub> maximum daily annual average prediction (RBM map)

### 5.12 SO<sub>2</sub> Hourly Average Concentrations

Hourly average SO<sub>2</sub> concentrations are shown below (Figure 26). There were no exceedances of the NEM: AQA Hourly Standard (134 ppb).

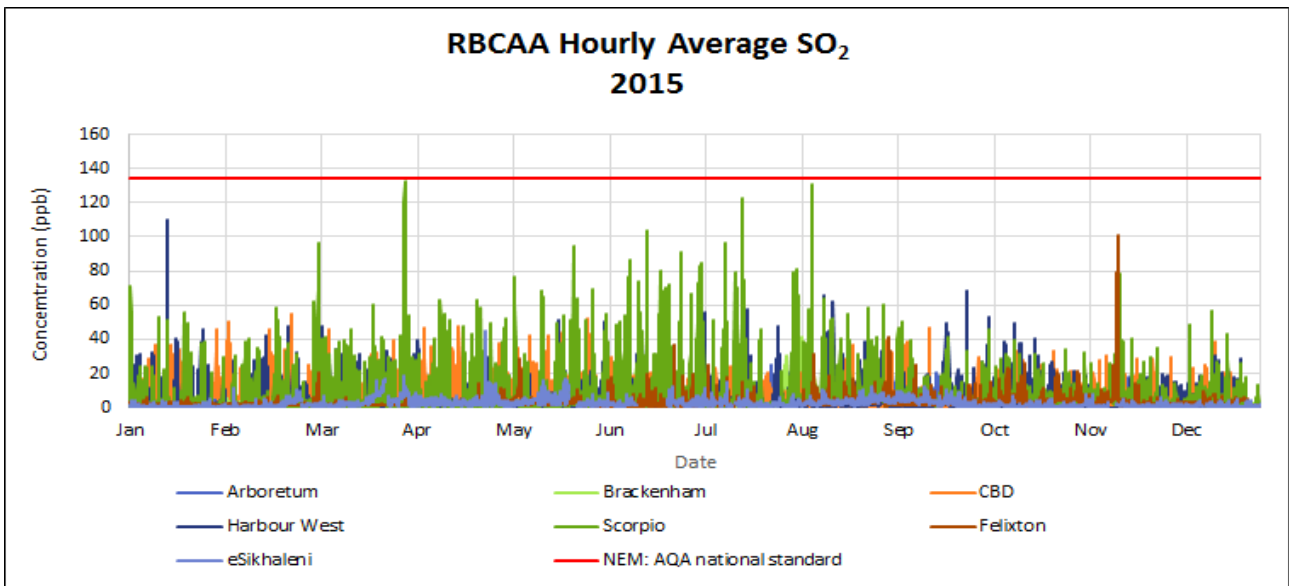


Figure 26: SO<sub>2</sub> maximum hourly average concentrations

Notes/Missing Data:

- CBD (February) – load shedding;
- CBD (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the data logger (PC) was also damaged;
- Harbour West (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down; during this process the analyser was damaged (kept resetting);
- Scorpio (July) – Analyser faulty, keeps resetting;
- Felixton (July to August) – Analyser failure (internal pump failure) and power outages (swimming pool maintenance);
- Felixton (December) – Analyser failure (internal pump failure); and
- eSikhaleni (June) – Analyser failure (internal pump failure).

### 5.13 SO<sub>2</sub> Hourly Average Concentration and Prediction

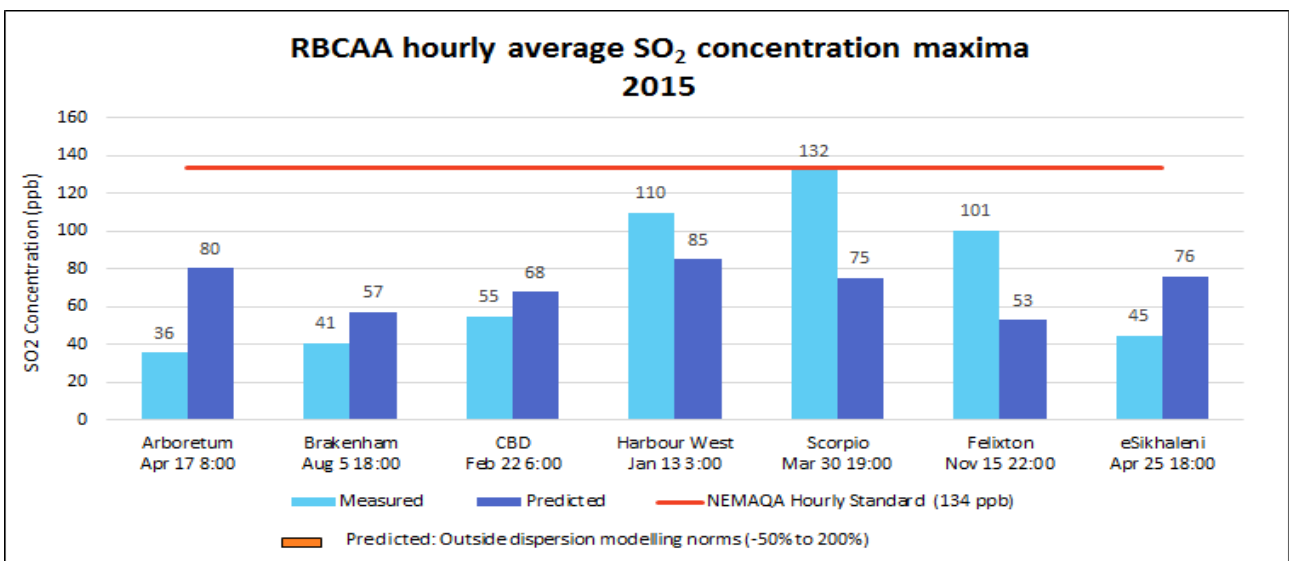


Figure 27: SO<sub>2</sub> hourly average concentration and prediction



Hourly average predicted values all stations were within accepted dispersion modelling norms (-50% to 200%). Compared to the measurements predicted values at Harbour West, Scorpio and Felixton were lower, and at CBD similar (within 10% of the standard), and at Arboretum, Brackenham and eSikhaleni higher (Figure 27).

### 5.14 SO2 Maximum Predicted Hourly Average Concentration

The following plots of the maximum hourly average SO2 concentrations are provided:

- Regional (Figure 28);
- Richards Bay (Figure 29);
- Felixton (Figure 30); and
- RBM (Figure 31).

The plots are colour coded according to the RBCAA’s Air Quality Index (AQI) (Table 18). The colour scale ranges from blue (indicating a low concentration relative to the standard), to red (indicating an exceedance of the standard).

Table 18: SO2 hourly air quality index

Air Quality Rating	Air Quality Index *	Effects
Good	0% - 25%	No known harmful effects to soil, water, vegetation, animals, visibility or human health.
Fair	26% - 50%	Adequate protection against harmful effects to soil, water, vegetation, animals, visibility or human health.
Poor	51% - 100%	Not all aspects of the environment are adequately protected from adverse effects. Long-term control action may be necessary, depending on the frequency, duration and circumstances of the readings.
Very Poor	> 100%	In this range, further deterioration of air quality and continued high readings could pose a risk to public health.

Notes: \* Percentage of NEM: AQA Hourly SO2 Standard.

The model predicted maximum hourly average SO2 concentrations greater than the NEM; AQA SO2 Hourly Average Standard (134 ppb) over Arboretum Extension, Birdswood, the CBD, Emhlazini, Hillendale, Greenhill, Meerensee, Mzingazi Agri-Village, Pelican Island, Richards Bay Coal terminal, Richards Bay Minerals. The half-guideline includes parts of Alton, Arboretum, Bayside Aluminium, Empangeni, Foskor, Hillside Aluminium, Naval Island, Mondl Richards Bay, the Port of Richards Bay, the Southern Sanctuary, Tata Steel, Veldenvlei and Wildenweide.

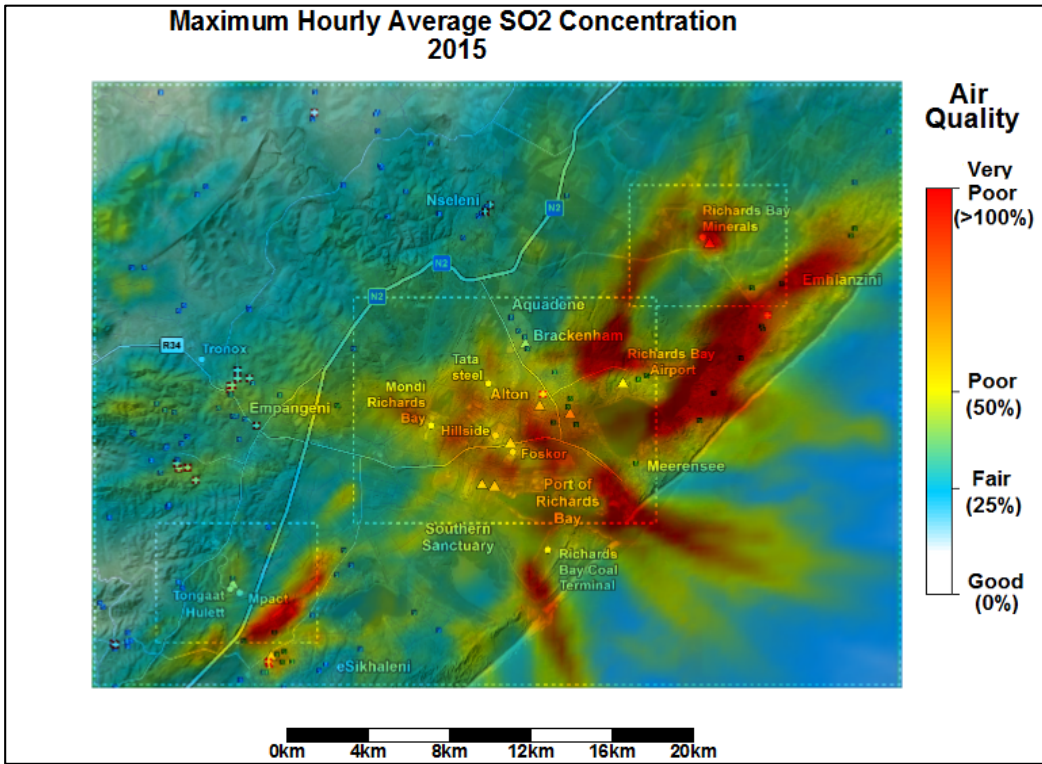


Figure 28: SO<sub>2</sub> maximum hourly annual average prediction (regional map)

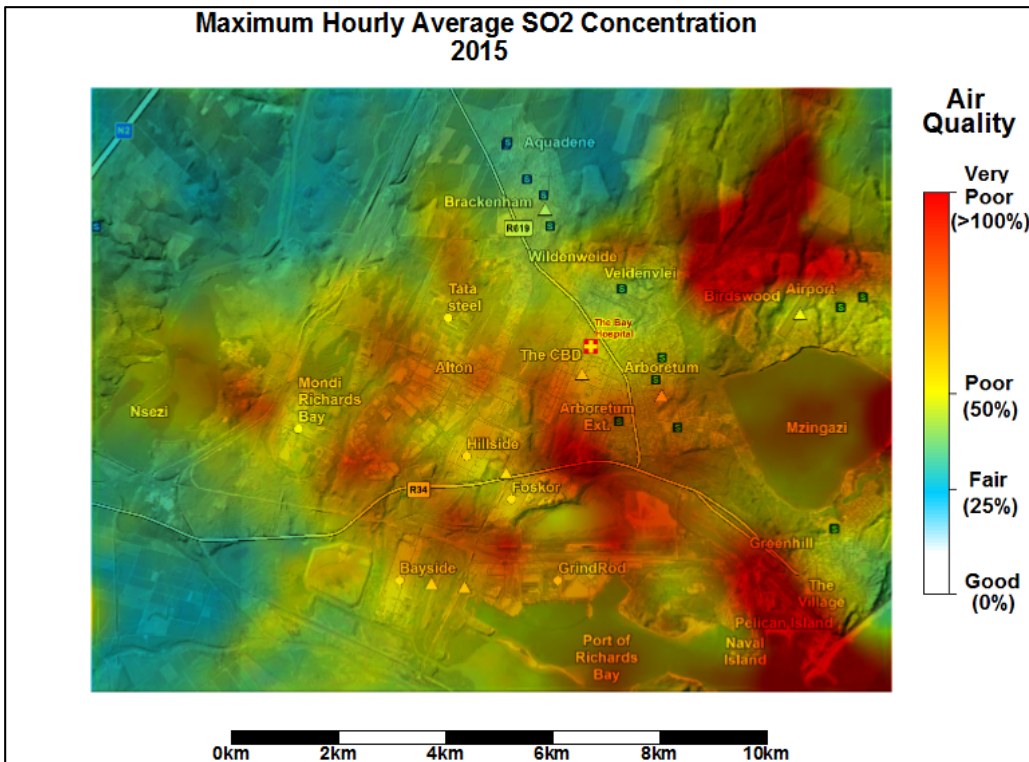


Figure 29: SO<sub>2</sub> maximum daily annual average prediction (Richards Bay map)

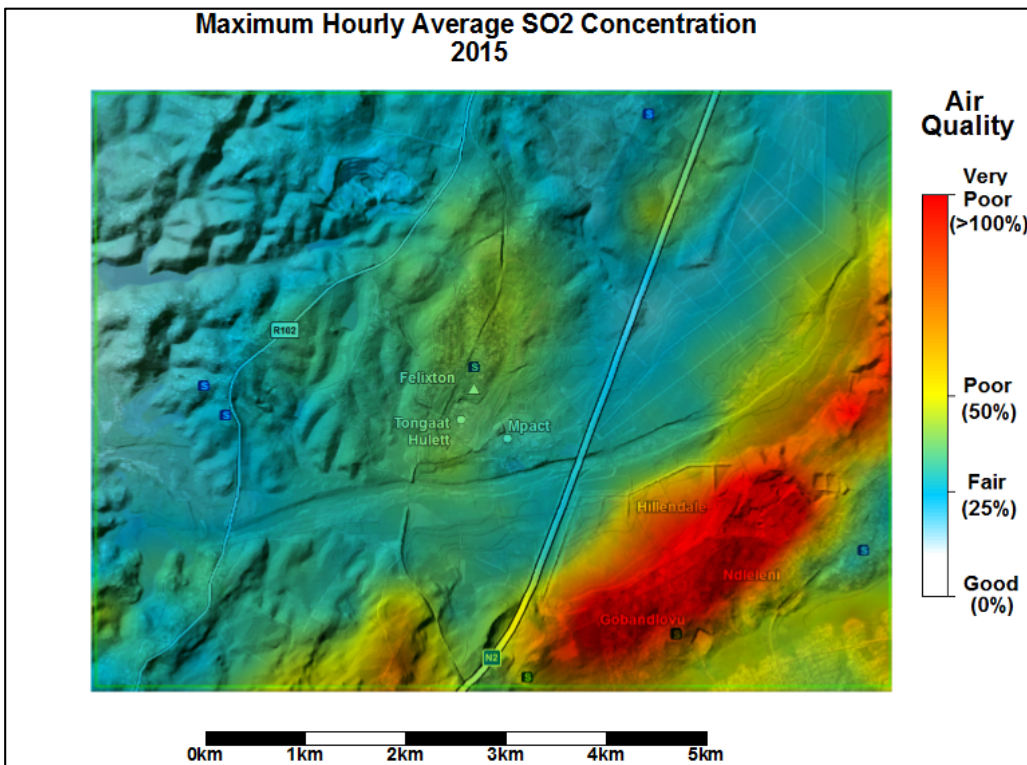


Figure 30: SO<sub>2</sub> maximum daily annual average prediction (Felixton map)

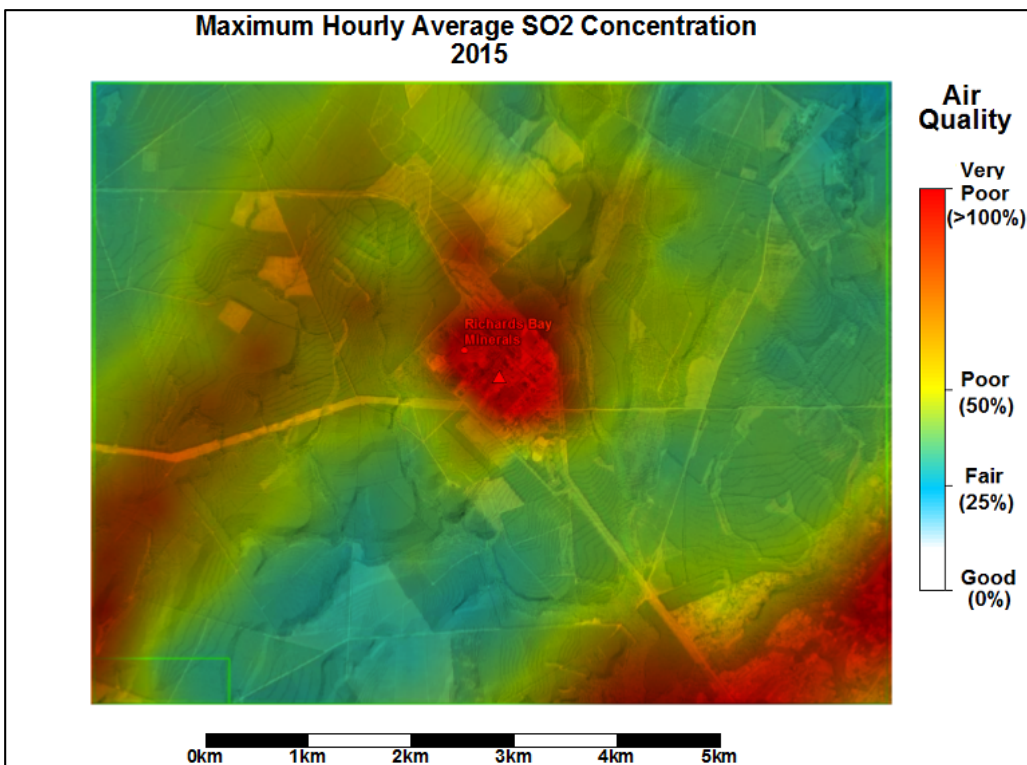


Figure 31: SO<sub>2</sub> maximum daily annual average prediction (RBM map)



### 5.15 SO<sub>2</sub> 10-minute Average Concentrations

The 10-minute average SO<sub>2</sub> concentrations are shown below (Figure 32). There were 4 exceedances of the NEM: AQA Hourly Standard (134 ppb). The two exceedances in January were allocated to Foskor and the two exceedances in March, one to Foskor the other to South32.

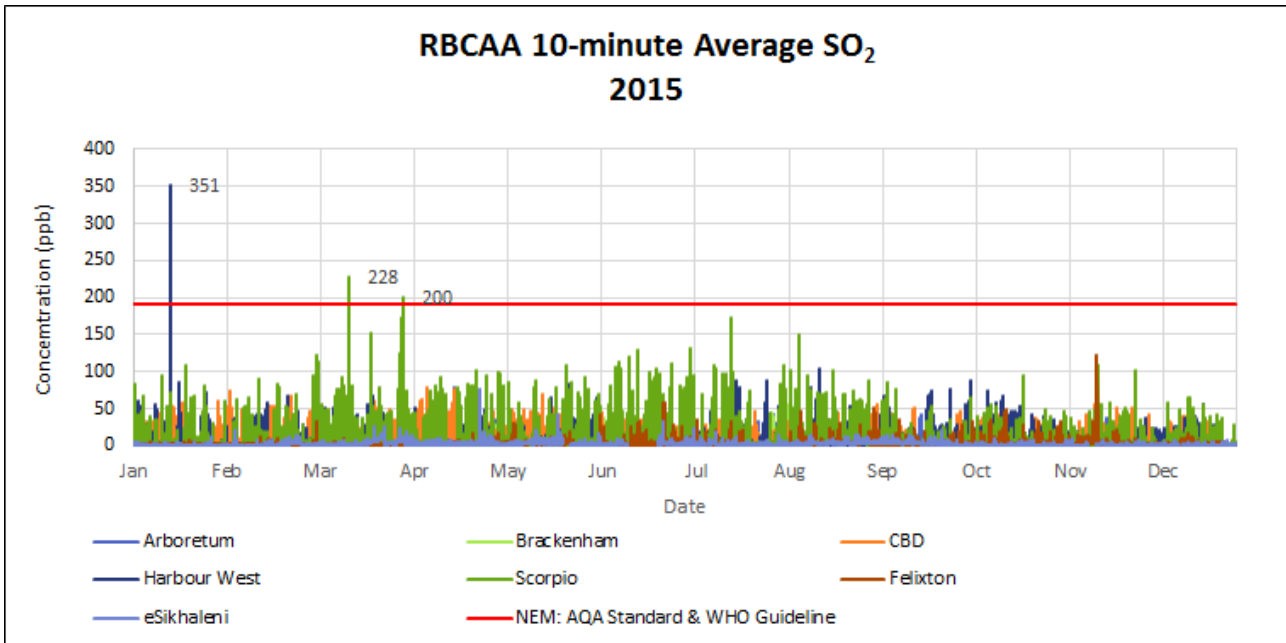


Figure 32: SO<sub>2</sub> 10 minute average concentrations

Notes/Missing Data:

- CBD (February) – load shedding;
- CBD (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the data logger (PC) was also damaged;
- Harbour West (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down; during this process the analyser was damaged (kept resetting);
- Scorpio (July) – Analyser faulty, keeps resetting;
- Felixton (July to August) – Analyser failure (internal pump failure) and power outages (swimming pool maintenance);
- Felixton (December) – Analyser failure (internal pump failure); and
- eSikhaleni (June) – Analyser failure (internal pump failure).

### 6.0 TOTAL REDUCED SULPHUR MONITORING (TRS)

Total Reduced Sulphur (TRS) is measured at CBD. Total reduced sulphur compounds, often associated with rotten egg or cooked cabbage odour, refer to a gaseous mixture of compounds consisting mainly of hydrogen sulphide (H<sub>2</sub>S), methyl mercaptan (CH<sub>3</sub>S-H), dimethyl sulphide (CH<sub>3</sub>-S-CH<sub>3</sub>) and dimethyl disulphide (CH<sub>3</sub>-S-S-CH<sub>3</sub>). While there are other ambient TRS compounds, these four are the most common, abundant and the ones generally referred to in discussions about TRS. Once released into the atmosphere, oxidation products of TRS compounds, such as sulphuric acid, contribute to the acidity of the environment. The most commonly reported health concerns related to TRS substances are nausea and headaches, although each component has its own characteristics and effects.



## 6.1 TRS Data Capture

The percentage of valid data received from the TRS analysers for 2015 is shown in Table 9. Reasons for low data capture include:

- CBD (February) – load shedding;
- CBD (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the data logger (PC) was also damaged;
- eSikhaleni (July) – load shedding; and
- eSikhaleni (November) – station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the TRS analyser was also damaged.

**Table 19: TRS data capture**

Month	CBD (%)	eSikhaleni (%)
January	92	99
February	<b>89</b>	96
March	99	96
April	99	96
May	97	94
June	98	97
July	99	<b>90</b>
August	98	100
September	100	96
October	100	95
November	96	<b>85</b>
December	<b>74</b>	96
<b>Average</b>	<b>95</b>	<b>95</b>

## 6.2 TRS Ambient Air Quality Standards

There are no South African standards for TRS.

The World Health Organization (WHO) recommends that in order to avoid substantial complaints about odour annoyance among the exposed population, hydrogen sulphide concentrations should not be allowed to exceed 7 µg/m<sup>3</sup> (5 ppb), with a 30-minute averaging period.

The Ontario Ministry for the Environment (OME) has derived the following standards for TRS for the Pulp and Paper sector:

- A 24-hour average Ambient Air Quality Criterion (AAQC) of 14 µg/m<sup>3</sup> (10.1 ppb) for TRS, based on the adverse effects on the respiratory system (nasal lesions) of this mixture;
- A 10-minute average AAQC of 13 µg/m<sup>3</sup> (9.3 ppb) for TRS, based on odour effects; and



- A 30-minute standard of 10 µg/m<sup>3</sup> (7.2 ppb) for TRS; based on both odour and health effects of this mixture.

For all other sectors (including sectors such as Iron & Steel; Petroleum Refineries, Municipal Sewage Treatment Plants):

- A 24-hour average AAQC of 7 µg/m<sup>3</sup> (5.0 ppb) for TRS based on the adverse effects on the respiratory system of this mixture;
- A 10-minute average AAQC of 13 µg/m<sup>3</sup> (9.3 ppb) for TRS based on odour effects; and
- A 30-minute standard of 10 µg/m<sup>3</sup> (7.2 ppb) for TRS; based on both odour and health effects of this mixture.

The RBCAA has decided to implement the WHO 30-minute H<sub>2</sub>S nuisance guideline 7 µg/m<sup>3</sup> (5 ppb), the OME 10-minute TRS health standard 13 µg/m<sup>3</sup> (9.3 ppb). In addition, the RBCAA established a correlation between TRS concentrations exceeding 4.5 ppb and the number of complaints received. Thus the RBCAA has set its own 10-minute target of 5.9 µg/m<sup>3</sup> (4.5 ppb).

### 6.3 TRS Exceedances and Compliance

A summary of TRS exceedances is presented below (Table 20).

**Table 20: TRS exceedances summary**

Standard/Guideline/Target	Count
WHO 30-minute H <sub>2</sub> S Guideline (5.0 ppb)	242
OME 10-minute TRS health standard (9.3 ppb)	168
RBCAA 10-minute Target (4.5 ppb)	1033

TRS exceedances can be associated with emissions as a result of process upsets (i.e. planned maintenance, plant shutdowns or start-up), leaks in equipment, pipe lines, seals, valves (fugitive emissions) or a particular events (e.g. fires or emergency shutdowns).

Most of the TRS exceedances recoded during 2015 were as a result of emissions from Mondri. The number of TRS exceedances measured at the various stations is indicated in Table 21.

**Table 21: TRS compliance with ambient air quality standards and guidelines**

Standard	Station	Exceedances
<b>RBCAA 10-minute Target (4.5 ppb)</b>	CBD	543
	eSikhaleni	490
<b>OME 10-minute Standard (9.3 ppb)</b>	CBD	109
	eSikhaleni	59
<b>WHO / IFC 30-minute H<sub>2</sub>S Guideline (5.0 ppb)</b>	CBD	133
	eSikhaleni	109

Maximum and Annual average concentrations for TRS are provided in Table 22.



Table 22: TRS maximum and annual concentrations

Station		Local RBCAA 10-minute Guideline 5.9 µg/m <sup>3</sup> 4.5 ppb	Local OME 10-minute Guideline 13 µg/m <sup>3</sup> 9.3 ppb	Local WHO 30-minute Guideline 7 µg/m <sup>3</sup> 5.0 ppb	Local OME Daily Guideline 14 µg/m <sup>3</sup> 10.1 ppb	Annual Average
CBD	% of guideline	684%	331%	304%	31%	-
	(ppb)	30.8	30.8	15.2	3.1	1.1
	Date & time	2015/05/29 06:40	2015/05/29 06:40	2015/12/05 05:00	2015/10/02	2015/05
eSikhaleni	% of guideline	729%	353%	354%	32%	-
	(ppb)	32.8	32.8	17.7	3.2	1.2
	Date & time	2015/05/25 06:20	2015/05/25 06:20	2015/07/18 05:00	2015/07/14	2015/05

Note: The table is colour coded according to the level of concentration recorded. The colour scale ranges from blue (indicating a low concentration relative to the standard), to red (indicating an exceedance of the standard).

## 6.4 TRS Annual Average Concentration

Annual average TRS concentrations are illustrated in Figure 33. There was a decrease in annual average TRS concentrations from 2006 to 2010, concentrations seem to have stabilised since then though.

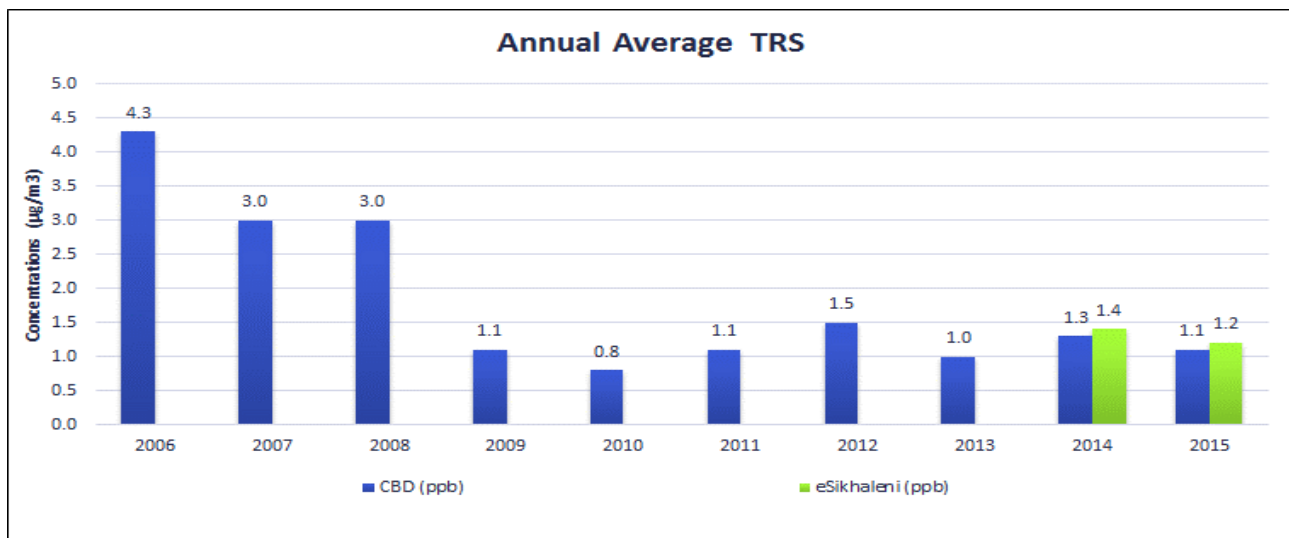


Figure 33: TRS annual average concentrations.

In 2010 Mondi Richards Bay commissioned Phase 1 of their Odour Abatement Project, this involved installing carbon filters on all their odorous venting points. This would have resulted in a decrease in ambient TRS, and does not explain the increase between 2010 and 2012 as Mondi continued with various smaller odour abatement projects during this time which should have resulted in a further decrease in TRS. It is possible that weather conditions may have played a role. In 2012 Mondi Richards Bay commissioned Phase 2 of the Odour Abatement Project which successfully reduced TRS emissions from their Chip Bin. However during the winter of 2012 they experienced a problem of fugitive odour from their effluent plant due to a turpentine tube condenser that was taken out of service for repairs, the odour impact was unknown at the time. This was addressed in 2012 and as a result 2013 TRS decreased. Ambient TRS increased again in 2014 due to mill power instability, 2015 also proved to be a difficult year with an increase in fugitive emissions from the effluent plant as a result of decreased water consumption.



### 6.5 TRS Seasonal Concentrations

The seasonal TRS concentrations in 2015 are provided in Figure 34.

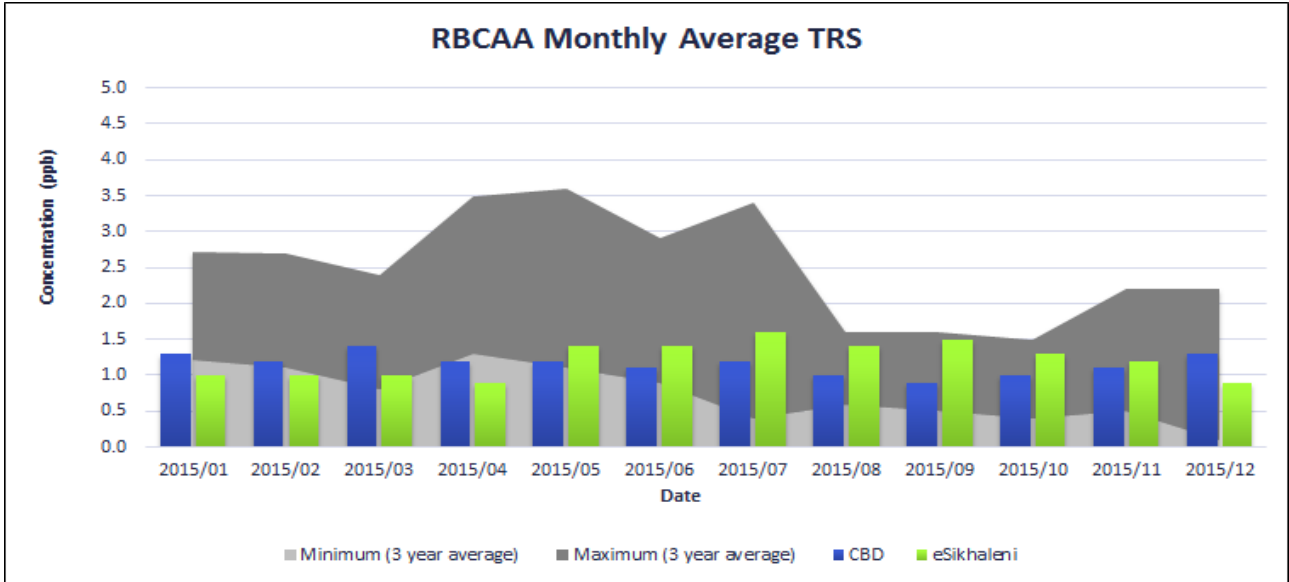


Figure 34: TRS seasonal concentrations

Notes/Missing Data:

- CBD (February) – load shedding;
- CBD (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the data logger (PC) was also damaged;
- eSikhaleni (July) – load shedding; and
- eSikhaleni (November) – station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the TRS analyser was also damaged.

### 6.6 TRS Diurnal Concentrations

The diurnal TRS concentrations are shown below (Figure 35).

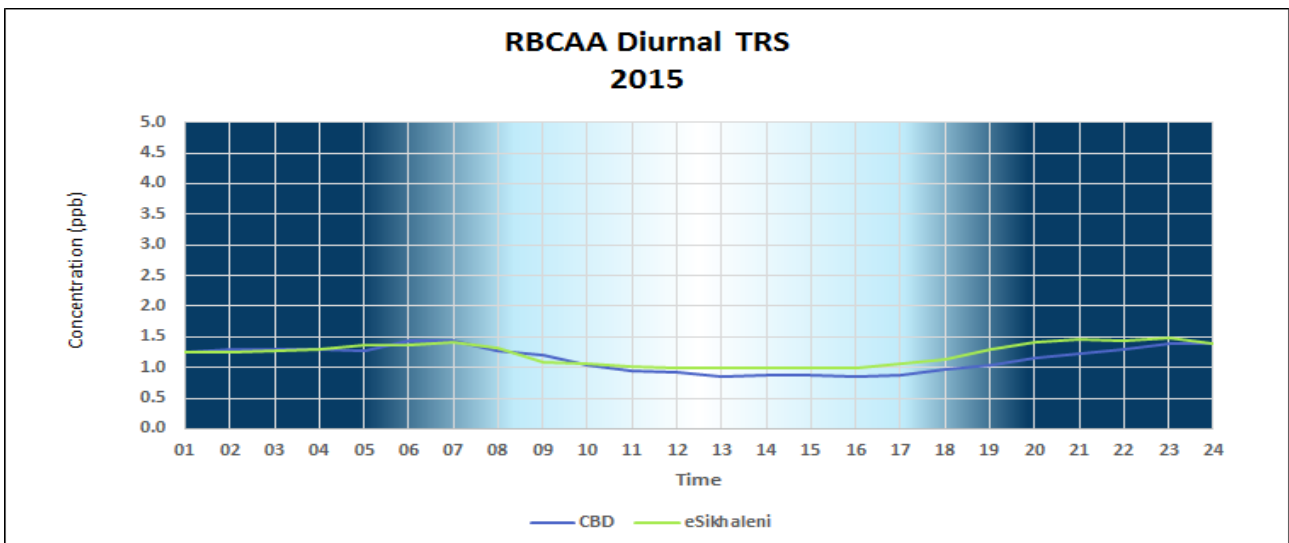


Figure 35: TRS diurnal concentrations



### 6.7 TRS 30-minute Average Information

The 30-minute average TRS concentrations at CBD are shown below (Figure 36).

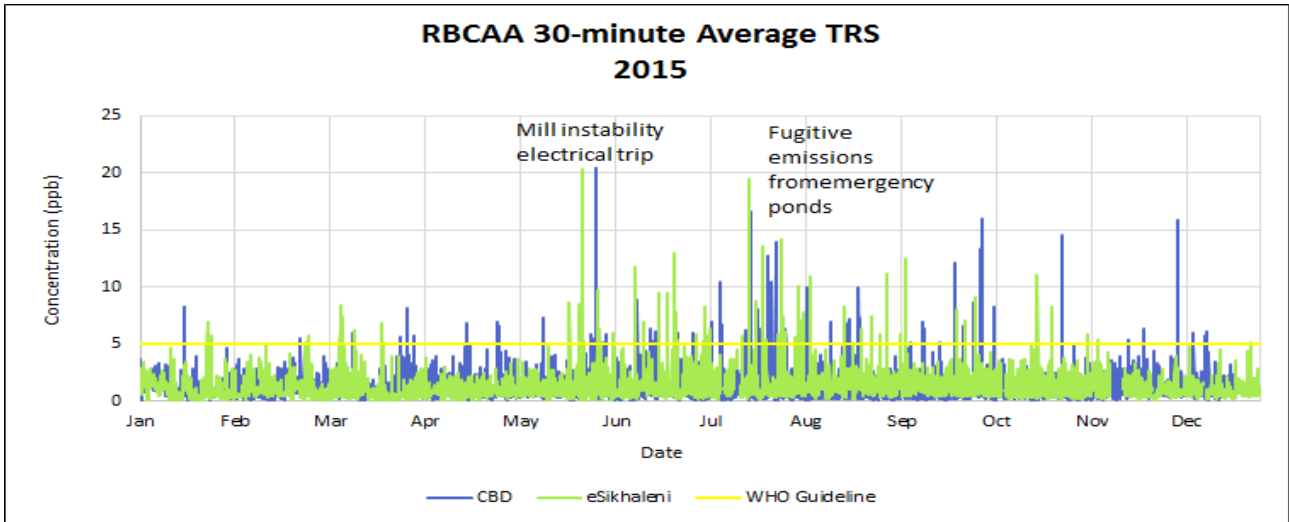


Figure 36: TRS 30-minute average concentration

Notes/Missing Data:

- CBD (February) – load shedding;
- CBD (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the data logger (PC) was also damaged;
- eSikhaleni (July) – load shedding; and
- eSikhaleni (November) – station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the TRS analyser was also damaged.

### 6.8 TRS 10-minute Average Information

The 10-minute average TRS concentrations are shown below (Figure 37).

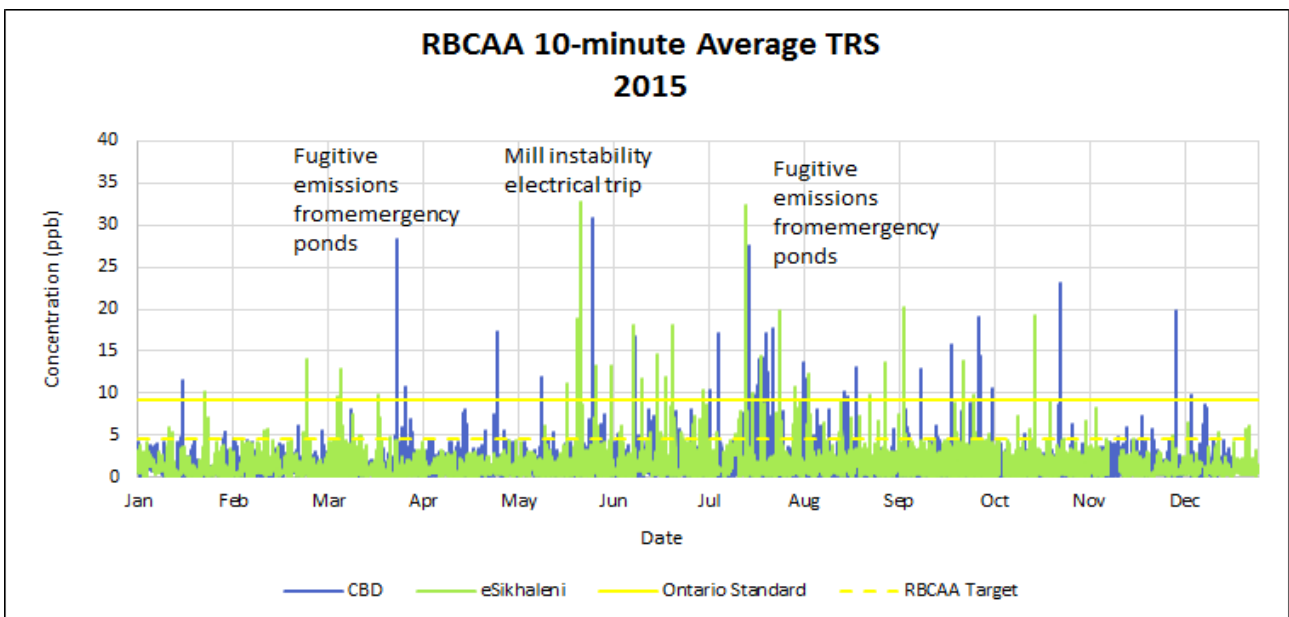


Figure 37: TRS 10-minute average concentrations



Notes/Missing Data:

- CBD (February) – load shedding;
- CBD (December) - station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the data logger (PC) was also damaged;
- eSikhaleni (July) – load shedding; and
- eSikhaleni (November) – station air conditioner failure due to power instability resulted in the station overheating and automatically shutting down, during this process the TRS analyser was also damaged.

This report was compiled by Golder Associates Africa for the Richards Bay Clean Air Association, contributors included:

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# **APPENDIX A**

## **Document Limitations**



## DOCUMENT LIMITATIONS

### DOCUMENT LIMITATIONS

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# **APPENDIX B**

## **Quality Assurance**



## QUALITY ASSURANCE

The SO<sub>2</sub> concentrations reported are determined by a United States Environmental Protection Agency (US EPA) equivalent method EQSA-0193-092. SO<sub>2</sub> and TRS measurements allow for a maximum precision error of 10% of the reported value. A tolerance around the zero point of plus or minus 5 ppb is allowed. All effort is made to reduce the error to a minimum. In terms of quality assurance standards, data collection must be above 80% to be valid for statistical analysis.

**Table B1: Quality assurance**

Test	Range	Action
Zero	Zero 0 to 2 ppb	Leave as is.
	-2 to 0 ppb	Set to zero.
	-5 to -2 ppb and 2 to 5 ppb	Adjust data set to re-zero all data
	Outside above limits invalidate and recalibrate.	If specific reason can be identified for deviation, data can be adjusted.
Span	Span Plus or minus 3% deviation.	Leave as is.
	-10 to -3% and 3 to 10% deviation.	Scale data set by opposite corresponding percentage.
	Outside above limits invalidate and recalibrate.	If specific reason can be identified for deviation, data can be adjusted.



# **APPENDIX C**

## **Dispersion Simulation Inputs**



## DISPERSION SIMULATION INPUTS

### SOURCE EMISSION DATA 2015

**Table C1: Source emission data 2015.**

Industry	SO <sub>2</sub> Emission 2015 (t)	Contribution (%)
Foskor	2 401.0	13.4%
Tongaat Hulett	184.7	1.0%
Mondi	3 080.3	17.2%
Mpact	816.0	4.6%
RBM	541.8	3.0%
South32	10 561.2	59.1%
TATA	31.8	0.2%
Tronox	251.3	1.4%
<b>Total</b>	<b>17 868.0</b>	<b>100%</b>

Notes:

1) Tongaat Hulett shuts down during the 1st quarter and last month of the year.

2) TATA stopped operations in May 2015

**Table C2: Source emission data 2015**

Industry	Description	SO <sub>2</sub> Emission Rate (g/s)	SO <sub>2</sub> Emission 2015 (t)	Contribution (%)
<b>Foskor</b>	Acid Plant	75.79	2390.2	13.4%
	Boiler	0.34	10.7	
<b>Tongaat Hulett</b>	Boiler	9.99	184.7	1.0%
<b>Mondi</b>	Flume 1	44.94	1417.3	17.2%
	Flume 2	26.51	835.9	
	Power Boiler	25.21	794.9	
	Incinerator	0.27	8.4	
	Bleach Plant	0.75	23.8	
<b>Mpact</b>	Babcock	8.91	281.1	4.6%
	JT Boiler	16.62	524.0	
	Oil Burner	0.35	11.0	
<b>RBM</b>	Char Plant	14.85	468.3	3.0%
	Miscellaneous	1.08	34.1	
	MSP (Drier)	1.22	38.5	
	Smokers	0.03	0.9	



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

Industry	Description	SO <sub>2</sub> Emission Rate (g/s)	SO <sub>2</sub> Emission 2015 (t)	Contribution (%)
South32	FTC	59.78	1885.2	59.1%
	GTC 1	61.99	1954.8	
	GTC 2	53.28	1680.3	
	GTC 3	50.06	1578.8	
	GTC 4	50.06	1578.8	
	GTC 5	51.67	1629.5	
	Potrooms	8.05	253.8	
TATA	F1CG 1&2	0.36	4.7	0.2%
	F2CG 1&2	0.60	7.8	
	F3CG 1&2	0.58	7.5	
	F4CG 1&2	0.78	10.1	
	Baghouse	0.13	1.7	
Tronox	Tank 1	7.97	251.3	1.4%
<b>Total</b>		<b>572.15</b>	<b>17868.0</b>	<b>100%</b>

*Notes:*

- 1) Tongaat Hulett shuts down during the 1st quarter and last month of the year.
- 2) TATA stopped operations in May 2015.



# **APPENDIX D**

## **Complaints Log**



## COMPLAINTS LOG

Table D1: Complaints Log – January 2015

No.	Complainant	Date	Location	Description	Results	Resolution
1	S Camminga (0357860076)	6/01/2015 08:15	John Ross Highway	Cloud of black dust emanating from somewhere within the Port of Richards Bay, being carried towards Arboretum.	<b>TPT 12/01/2015:</b> Nokutulu Mthembu responded: After receiving the complaint, operations department was requested to immediately stop the vessel loading. Further, investigation measures have been put in place in this regard to ensure reduction of any risks related to dust generation on-board vessel. We will continue engagements with the client and the Ports Authority regarding the vessel recommendations to minimise the dust generated during loading.	Resolved - Port of Richards Bay
2	Anonymous	7/01/2015 09:20	John Ross Highway	“Plumes of black dust coming from the Port”.	<b>TPT 07/01/2015:</b> Nokutulu Mthembu responded: Whilst TPT Richards Bay was loading Titanium Slag in one of our berths the dust was noticed emanating from the hatches in the vessel. This is a dusty cargo which is different from the chloride that is normally exported in the terminal. Operations department was requested to immediately reduce the flow rate so as to reduce the dust generation and its impact on environment. Further, investigation measures have been put in place in this regard to ensure reduction of any risks related to dust generation on-board vessel.	Resolved - Port of Richards Bay
3	S Camminga (0357860076)	8/01/2015 10:40	John Ross Highway	Clouds of white dust emanating from Hillside Aluminium (The area where the dust appeared to be coming from is indicated on the attached Google image). Hillside’s HSEC Department was notified at the time, but appeared to be unaware of the incident, and undertook to provide feedback.	<b>BHP Hillside 12/01/2015:</b> Shaloshini Naidoo responded: Nature of Complaint: S Camminga, John Ross Highway, 8 Jan, 10h40, Clouds of white dust emanating from Hillside Aluminium. Source and nature of emissions: Hillside Bath Plant. Root Cause identified: The main fan that extracts fine bath material to the bag filters tripped, resulting in dust being emitted into the surrounding area. The fan tripped as a result of the winding temperature being activated due to the high ambient temperature.	Resolved - BHP Billiton (Hillside)



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					The fan winding trip is a failsafe to protect the fan motor from damage and functioned in this case. Corrective Action: The fan was reset and re-started.	
4	S Camminga (0357860076)	15/01/2015 05:00	33 Heideheuvel - Veldenvlei	We have woken up to a nauseating Mondi odour permeating throughout our home despite all doors and windows being closed. The stench outside is even worse.	<b>Mondi RB 15/01/2015:</b> Candice Webb responded: Source and Nature of Emissions: Mondi has identified an internal power outage as the source of the odour causing incident. Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: There was a flashover on the Mondi incoming 132 Kv electrical supply line within the mill boundaries. When the power supply is interrupted suddenly, mill equipment is forced to shut down, resulting in the venting of malodorous gases. Improved insulation for the 132 Kv line were planned to be installed in the March 2015 annual shut to address root cause. A detailed incident report will be submitted to the RBCAA.	Resolved - Mondi Richards Bay
5	R Camminga (0357860076)	15/01/2015 05:00	33 Heideheuvel - Veldenvlei	We have woken up to a nauseating Mondi odour permeating throughout our home despite all doors and windows being closed. The stench outside is even worse.	<b>Mondi RB 15/01/2015:</b> Candice Webb responded: Source and Nature of Emissions: Mondi has identified an internal power outage as the source of the odour causing incident. Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: There was a flashover on the Mondi incoming 132 Kv electrical supply line within the mill boundaries. When the power supply is interrupted suddenly, mill equipment is forced to shut down, resulting in the venting of malodorous gases. Improved insulation for the 132 Kv line were planned to be installed in the March 2015 annual shut to address root cause. A detailed incident report will be submitted to the RBCAA.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
6	Mr Savides (072 392 0511)	15/01/2015 05:30	15/01/2015 05:30	"We woke around 5.30 today with worst ever Mondi smell. We all have sinus headaches."	<p><b>Mondi RB 15/01/2015:</b> Candice Webb responded: Source and Nature of Emissions: Mondi has identified an internal power outage as the source of the odour causing incident. Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: There was a flashover on the Mondi incoming 132 Kv electrical supply line within the mill boundaries. When the power supply is interrupted suddenly, mill equipment is forced to shut down, resulting in the venting of malodorous gases. Improved insulation for the 132 Kv line were planned to be installed in the March 2015 annual shut to address root cause. A detailed incident report will be submitted to the RBCAA.</p>	Resolved - Mondi Richards Bay
7	Mrs Savides (072 392 0511)	15/01/2015 05:30	15/01/2015 05:30	"We woke around 5.30 today with worst ever Mondi smell. We all have sinus headaches."	<p><b>Mondi RB 15/01/2015:</b> Candice Webb responded: Source and Nature of Emissions: Mondi has identified an internal power outage as the source of the odour causing incident. Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: There was a flashover on the Mondi incoming 132 Kv electrical supply line within the mill boundaries. When the power supply is interrupted suddenly, mill equipment is forced to shut down, resulting in the venting of malodorous gases. Improved insulation for the 132 Kv line were planned to be installed in the March 2015 annual shut to address root cause. A detailed incident report will be submitted to the RBCAA.</p>	Resolved - Mondi Richards Bay
8	Debbie (083 417 0866)	15/01/2015 07:00	Knorhaanbaai – Meerensee,	"Air here in Meerensee is toxic. Came out after 6am into my garden to enjoy it after the lovely rain only to go back	<p><b>Mondi RB 15/01/2015:</b> Candice Webb responded: Source and Nature of Emissions: Mondi has identified an internal power outage as the source of the odour causing incident.</p>	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
				inside cause to breathe the air is toxic. Smell also trapped in the house.”	Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: There was a flashover on the Mondi incoming 132 Kv electrical supply line within the mill boundaries. When the power supply is interrupted suddenly, mill equipment is forced to shut down, resulting in the venting of malodorous gases. Improved insulation for the 132 Kv line were planned to be installed in the March 2015 annual shut to address root cause. A detailed incident report will be submitted to the RBCAA.	
9	Aline Saraiva	15/01/2015 07:00	Pelserplaat – Meerensee	Nauseating Mondi odour.	<b>Mondi RB 15/01/2015:</b> Candice Webb responded: Source and Nature of Emissions: Mondi has identified an internal power outage as the source of the odour causing incident. Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: There was a flashover on the Mondi incoming 132 Kv electrical supply line within the mill boundaries. When the power supply is interrupted suddenly, mill equipment is forced to shut down, resulting in the venting of malodorous gases. Improved insulation for the 132 Kv line were planned to be installed in the March 2015 annual shut to address root cause. A detailed incident report will be submitted to the RBCAA.	Resolved - Mondi Richards Bay
10	RBM	15/01/2015 07:30	RBM Area	A nauseating Mondi odour has been reported by persons working at RBM.	<b>Mondi RB 15/01/2015:</b> Candice Webb responded: Source and Nature of Emissions: Mondi has identified an internal power outage as the source of the odour causing incident. Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: There was a flashover on the Mondi incoming 132 Kv electrical supply line within the mill boundaries.	Resolved - Mondi Richards Bay



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No.	Complainant	Date	Location	Description	Results	Resolution
					<p>When the power supply is interrupted suddenly, mill equipment is forced to shut down, resulting in the venting of malodorous gases. Improved insulation for the 132 Kv line were planned to be installed in the March 2015 annual shut to address root cause.</p> <p>A detailed incident report will be submitted to the RBCAA.</p>	
11	S Camminga (0357860076)	15/01/2015 08:15	33 Heideheuvel - Veldenvlei	Mondi odour causing nausea and headache. What is going on at Mondi that we have to suffer this intolerable situation!?	<p><b>Mondi RB 15/01/2015:</b> Candice Webb responded: Source and Nature of Emissions: Mondi has identified an internal power outage as the source of the odour causing incident. Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: There was a flashover on the Mondi incoming 132 Kv electrical supply line within the mill boundaries. When the power supply is interrupted suddenly, mill equipment is forced to shut down, resulting in the venting of malodorous gases. Improved insulation for the 132 Kv line were planned to be installed in the March 2015 annual shut to address root cause.</p> <p>A detailed incident report will be submitted to the RBCAA.</p>	Resolved - Mondi Richards Bay
12	S Camminga (0357860076)	19/01/2015 05:00	33 Heideheuvel - Veldenvlei	Nauseating Mondi odour.	<p><b>Mondi RB 22/01/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction and TRS levels at the CBD stations, Mondi is the probable source of the odour. Compliance with Permit's: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi suspects that the odour originated from the effluent plant. Measures are in place to ensure odour is managed from all known sources across the mill.</p>	Resolved - Mondi Richards Bay



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No.	Complainant	Date	Location	Description	Results	Resolution
13	Mr Louw (082 963 5287)	28/01/2015 11:00	Vicinity of Municipal Building CBD	"Raw sulphur smell"	<b>Foskor 02/02/2015:</b> Mannana Ntoampe responded: Raw Sulphur Smell: The wind was blowing in the South Easterly direction towards Hillside and the sulphur smell possibly originated from the Sulphur section. On the day the complaint was logged, one of the filters was opened for routine cleaning and this could have resulted in the smell.	Resolved - Foskor
14	Mr Louw (082 963 5287)	29/01/2015 11:00	Next to Foskor on John Ross	"Strong Ammonia Smell"	<b>Foskor 02/02/2015:</b> Mannana Ntoampe responded: Strong Ammonia Smell: The Granulation Plant had been off-line since 27 January 2015 to 31 January 2015 due to low acid stocks, the smell therefore could not have been from the plant. There was no ammonia off-loading on the day. There were no reported ammonia leaks. The smell could have been a chemical smell other than ammonia smell.	Resolved - Foskor



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**Table D2: Complaints Log – February 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
1	Mr Savides (072 392 0511)	03/02/2015 06:00	Cassia Close – Arboretum Extension	Noise from Foskor plant followed by an acidic smell causing itching eyes. Complainant had to close doors and windows.	<p><b>Foskor 02/02/2015:</b> Mannana Ntoampe responded: Peak Concentrations of SO<sub>2</sub> Emissions: The highest SO<sub>2</sub> emissions of 304 ppm were recorded for the C plant; nonetheless these emissions were still within permit limits.</p> <p>Compliance with Permits: There was no contravention in existing permits. Root Cause and Corrective Action: Noise: All plant operations were normal, the noise could have been a result of steam release valves, this however forms part of Foskor's normal operation. The complainant was contacted by Foskor for clarity and he said he hears the noise often and on this particular day there was nothing out of the ordinary but he felt he should report it so that Foskor is aware</p> <p>Odour: All Plant operations were normal. There was no gas leaks reported on the day. No root cause identified. Looking at the weather conditions on the day (cooler than usual and cloudy), the smell could have been a result of temperature inversions: Based on wind direction, Foskor could have impacted the area at the time.</p> <p><b>THS 13/03/2015:</b> Zama Nkosi responded: From the combined investigation conducted by THS and Mpact, THS is unlikely the source of the odour. Based on the type of processes currently running the root cause was not clearly established as we could not associate anything with the "cabbage" smell. Please see Impact's response below.</p>	Resolved - Foskor
2	Mrs Savides (072 392 0511)	03/02/2015 06:00	Cassia Close – Arboretum Extension	Noise from Foskor plant followed by an acidic smell causing itching eyes. Complainant had to close doors and windows.	<p><b>Foskor 02/02/2015:</b> Mannana Ntoampe responded: Peak Concentrations of SO<sub>2</sub> emissions: The highest SO<sub>2</sub> emissions of 304 ppm were recorded for the C plant; nonetheless these emissions were still within permit limits.</p> <p>Compliance with Permits: There was no contravention in existing permits. Root Cause and Corrective Action: Noise: All plant operations were normal, the noise could have been a result of steam release valves, this however forms part of Foskor's normal operation.</p>	Resolved - Foskor



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No.	Complainant	Date	Location	Description	Results	Resolution
					<p>The complainant was contacted by Foskor for clarity and he said he hears the noise often and on this particular day there was nothing out of the ordinary but he felt he should report it so that Foskor is aware.</p> <p>Odour: All Plant operations were normal. There was no gas leaks reported on the day. No root cause identified. Looking at the weather conditions on the day (cooler than usual and cloudy), the smell could have been a result of temperature inversions: Based on wind direction, Foskor could have impacted the area at the time.</p>	
3	S Camminga (0357860076)	03/02/2015 11:25	Civic Centre - Richards Bay CBD	Clouds of dust emanating from within the Port of Richards Bay (photograph attached).	<p><b>TPT 05/02/2015:</b> Nokhutula Mthembu responded: The complaint below is noted. Kindly note that TPT is busy investigating the source of the dust as reported in the complaint. We have checked our camera surveillance since the photo we receive is not clear as to where the dust is coming from. In addition we have checked the wind speed from our weather station and everything seems to be normal.</p> <p>We are however continuing with investigation to ascertain where the dust could have emanated from and will provide feedback as soon as we have something.</p>	Unresolved
4	Anonymous	04/02/2015 13:18	Traveling towards the Port on the road between Foskor and Grindrod Terminals	"Very strong gas smells" The RBCAA has telephonically notified Foskor.	<p><b>Foskor 06/02/2015:</b> Mannana Ntoampe responded: Below is the outcome of the investigation: There was a minor gas leak at the B Plant converter. The smell is likely to have been a result of the leak. The leak was repaired immediately.</p>	Resolved - Foskor



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No.	Complainant	Date	Location	Description	Results	Resolution
5	Natasha Dhaver	28/02/2015 23:30	White Pear - Arboretum Extension	<p>For over two weeks we have noticed that after 11pm there is a strong sulphur smell in the air. It happens for an hour then goes away and at 01:30 it starts again.</p> <p>This is happening in Birdswood and Arboretum. As a resident I am very concerned as to what we are inhaling in our sleep. The chemicals in the air are very strong, our eyes started to burn our skin got red and itchy and our lungs started to feel tight like we were wheezing. I am scared to leave my windows open at night, it is our right by the constitution of this country to have clean air and I am certain that at night the industries are dumping whilst the residents are. Asleep. I am pleading with you to please address this concern if not I will take it to the department of environmental affairs and the media.</p>		Unresolved



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

**Table D3: Complaints Log – March 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
1	R Camminga (0357860076)	02/03/2015 05:30	N2 Vicinity of Felixton	Pungent “Cabbage” odour.	<p><b>Mpact &amp; THS 10/03/2015:</b> Siyabonga Buthelezi responded: Nature of Complaint: Complaint relayed by RBCAA: R Camminga, N2 Vicinity of Felixton, 2 March, 05h30, Pungent “Cabbage” odour. Source and Nature of Emissions: During the time of the complaint Mpact had no upset conditions in the processes that could not be associated with the pungent “cabbage smell”. However there is distinct odour in the vicinity of our bagasse stock pile which may be carrier to surrounding areas on strong southerly winds. Based on prevailing wind direction, Mpact is possibly the source of the complaint. Compliance with Permits: There were no exceedances with the ambient air quality standards measurements from both Felixton &amp; UVS monitoring stations. Additionally the TRS measurements from the UVS station also indicated low levels of TRS during the period of the complaint. Root Cause of Incident and Corrective Action: There is little that can be done in the short-term to eliminate the bagasse odour in the vicinity of the plant which may be carrier to surrounding areas on strong southerly winds. We are however in the process of modifying the plant which will result in the bagasse storage pile being obsolete by 2018. <b>THS 13/03/2015:</b> Zama Nkosi responded: From the combined investigation conducted by THS and Mpact, THS is unlikely the source of the odour. Based on the type of processes currently running the root cause was not clearly established as we could not associate anything with the “cabbage” smell. Please see Mpact’s response below.</p>	Resolved - MPact
2	Natasha Dhaver	07/03/2015 23:30	White Pear - Arboretum Extension	For over two weeks we have noticed that after 11pm there is a strong sulphur smell in the air. It happens for an hour then goes away and at 01:30 it starts again.	<p><b>Foskor 17/03/2015:</b> Mannana Ntoampe responded: Foskor conducted an investigation dating as far back as 21 February 2015 to establish what could have caused the odour from 23h30 to 05h30. The complaint states that the investigation should start from 28 February but since the complainant mentioned that the odour had been recurring for the last two weeks (up to 07 March 2015), Foskor investigated from 21 February 2015.</p>	Resolved - Foskor



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No.	Complainant	Date	Location	Description	Results	Resolution
				<p>This is happening in Birdswood and Arboretum. As a resident I am very concerned as to what we are inhaling in our sleep. The chemicals in the air are very strong, our eyes started to burn our skin got red and itchy and our lungs started to feel tight like we were wheezing. I am scared to leave my windows open at night, it is our right by the constitution of this country to have clean air and I am certain that at night the industries are dumping whilst the residents are asleep. I am pleading with you to please address this concern if not I will take it to the department of environmental affairs and the media.</p>	<p>Summary of findings: From 21 February – 27 February 2015. Based on wind direction, Foskor could have impacted Arboretum Extension on: 21 February 2015 - 22 February 2015- 23 February 2015 - 27 February 2015 only from 22h30 - 23h55. However the wind direction excludes Foskor as a source on - 24 February 2015 - 25 February 2015v- 26 February 2015 - 28 February 2015 only from 00h00 - 05h30 From 28 February – 7 March 2015 Based on wind direction, Foskor could have affected Arboretum Extension on the following days. - 28 February 2015 - 01 March 2015 - 02 March 2015 only from 23h55 – 05H30 - 05 March 2015 - The wind direction excludes Foskor as a possible source on - 02 March 2015 only from 22h30 – 23h50 - 03 March 2015 - 04 March 2015 - 07 March 2015 Ø Saturday 28th February, 23h30 until 05h30 As mentioned above, Foskor could have impacted Arboretum Extension on 28 February 2015 however the following should be noted - We are a 24 hour operation operating under the same conditions day and night as a result emissions cannot only be elevated during certain time periods - There has not been any process change that could result in odour only at the specified time (23h30 – 05h30) - There has not been any change in the composition of the raw material used on site that could result in elevated levels of SO<sub>2</sub> - There were no reported gas leaks during this period Consequently no root cause was identified. Saturday 7th March 23h30 until 05h30. As indicated earlier, the wind direction excludes Foskor as a possible source of odour on 07 March 2015. Also to be considered are fluctuating winds from 23h30 – 01h30 and again from 03h40 -04h45 - The highest SO<sub>2</sub> emissions of 371 ppm were recorded for the C plant, nonetheless these emissions were still within permit limits. Compliance with Permits: There was no contravention in existing permits. Root Cause and Corrective Action N/A.</p>	



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No.	Complainant	Date	Location	Description	Results	Resolution
					<p>Since a root-cause could not be identified and there is possibly another source for 07 March 2015, Foskor requests that other industries also investigate and give feedback failing which a case study may need to be conducted. <b>BHP Hillside 30/03/2015:</b> Shaloshini Naidoo responded: Nature of Complaint: The complaint below from Natasha Dhaver refers.</p> <p>Source and nature of emissions: Hillside has investigated by using met data from the RBCAA's CBD station for 28 February and 7 March. Sulphur and/ acid odours are not odours that would be associated with an aluminium smelting facility. Peak and Average concentrations (Met. data extracted from CBD monitoring station) For the purpose of investigating, Hillside has considered wind direction within the 230 degree – 250 degree vector: Compliance with Permit/s: No SO<sub>2</sub> exceedances of the ambient National Air Quality Standards were noted. Root Cause identified: None as sulphur and/ acid odours are not odours that are associated with aluminium smelting. Hillside requests that other industries investigate and provide feedback. If no conclusion can be reached, then a case study should be conducted to determine the contributor of the odour. Corrective Action: None.</p>	
3	D Savides (072 392 0511)	13/03/2015 10:50	Beachfront Pier	"Huge brown water from Pipeline. Smells like I am at Mondi."	<p><b>Mondi RB 17/03/2015:</b> Candice Webb responded: Source and Nature of Emissions: Mondi has been identified as the source of the odour. Peak and Average Ambient Concentrations of Emissions and Met Conditions: Root Cause of Incident and Corrective Action: During the mills annual shut down, effluent was largely contained in the Mondi Emergency Ponds, the effluent which was not contained was from the draining and cleaning of the pulp chests. Mondi is in the process of investigating the incident and identifying preventative measures.</p> <p><b>uMhlathuze Water 18/03/2015:</b> Mokete Mphasane responded: I have discussed telephonically with the complainant.MR D Savides Tel 072 392 0511.</p>	Resolved - Mondi Richards Bay



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No.	Complainant	Date	Location	Description	Results	Resolution
					He told me that, this incident happened while sitting on his normal favourite preferred spot outside/near pump station. On this particular day he smelled the odour coming from pump station side and smell was like Mondi effluent. During last week when this incident happen we were already aware of over limits Mondi was pumping to effluent pipe line and in discussion with them, because of this phenomenon we have experience excessive odours. The pier which we refer as tower have brown colour on their pipes on top which complainant think it was them that were leaking. The pier/tower only overflow when we have power outage more than 2 hours and we never had power outage last week. Only small air release tower overflow at macerator overflow with small amount of effluent of about 5 litres and was contained and this was caused by high solids from Mondi causing blockages.	
4	Mr Khan 083 786 7612	19/03/2015 20:30	59 Airfern Angle, Brackenheim	“Tata is constantly emitting a heavy metal smell, that's effecting the respiratory of my family especially at night. This is not acceptable, please investigate”. A panicked Mrs Khan called me at 20h53. Mrs Kahn informed me that they had experienced the smell before but that tonight it was asphyxiating “catching in the throat” and caused	<b>TATA Steel 30/03/2015:</b> Franz Schmidt responded: Nature of Complaint: The complaints below from Mr & Mrs Khan (confirmed by Ms Sandy Camminga) refers. Source and nature of emissions: Tata Steel investigated by using data from the RBCAA's Brackenheim station for 19 March 2015, interviewing neighbours and telephonic contact with the complainant and Ms Camminga. Production and engineering personnel were interviewed and furnace production logs were scrutinised. Peak and Average concentrations: Wind direction during the time of the complaint is reflected in Google Earth Image attached (209 – 229 degrees). No exceedances with respect to particulate or SO <sub>2</sub> emissions were recorded at the Brackenheim station. Odorous compounds are not monitored at the Brackenheim station. Compliance with Permit/s: Furnaces and scrubbing equipment were operating at normal capacity/efficiency (as is evidenced from the observation by Ms Camminga of the flares at the time of the complaint). No downtime on furnaces or scrubbing equipment (or other abnormality) was logged on 19 March. Tata Steel operates no differently at night than during the day.	Unresolved



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
				<p>her baby to start coughing. Sandy Camminga drove out to Brackenhams at approximately 21h00, and on the way observed 4 stacks flaring at Tata Steel. I then proceeded to Airfern Angle in Brackenhams where I can confirm the presence of a choking metal type smell. Based on wind direction and my experience and observations, I am certain that the choking metal type smell originated from Tata Steel. Attached please find a map depicting the location of the complainant, and wind direction which varied between 209 degree – 229 degrees. The RBCAA informed Tata Steel of the complaint at 21h31 via WhatsApp.</p>	<p>Root Cause identified: No root cause originating from Tata Steel was identified. The odours described as “heavy metal” / “grinding or welding” are not associated with ferroalloy production in closed furnaces. The wind direction indicated passes over several other industries in Alton, some of which are metal fabricating concerns or known sources of odour. Corrective Action: None. RBCAA has requested that a case study be done.</p>	



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
5	Mrs Khan 083 786 7612	19/03/2015 20:30	59 Airfern Angle, Brackenhams	<p>"Tata is constantly emitting a heavy metal smell, that's effecting the respiratory of my family especially at night. This is not acceptable, please investigate". A panicked Mrs Khan called me at 20h53. Mrs Kahn informed me that they had experienced the smell before but that tonight it was asphyxiating "catching in the throat" and caused her baby to start coughing. Sandy Camminga drove out to Brackenhams at approximately 21h00, and on the way observed 4 stacks flaring at Tata Steel. I then proceeded to Airfern Angle in Brackenhams where I can confirm the presence of a choking metal type</p>	<p><b>TATA Steel 30/03/2015:</b> Franz Schmidt responded: Nature of Complaint: The complaints below from Mr &amp; Mrs Khan (confirmed by Ms Sandy Camminga) refers. Source and nature of emissions: Tata Steel investigated by using data from the RBCAA's Brackenhams station for 19 March 2015, interviewing neighbours and telephonic contact with the complainant and Ms Camminga. Production and engineering personnel were interviewed and furnace production logs were scrutinised. Peak and Average concentrations: Wind direction during the time of the complaint is reflected in Google Earth Image attached (209 degrees – 229 degrees). No exceedances with respect to particulate or SO<sub>2</sub> emissions were recorded at the Brackenhams station. Odorous compounds are not monitored at the Brackenhams station. Compliance with Permit/s: Furnaces and scrubbing equipment were operating at normal capacity/efficiency (as is evidenced from the observation by Ms Camminga of the flares at the time of the complaint). No downtime on furnaces or scrubbing equipment (or other abnormality) was logged on 19 March. Tata Steel operates no differently at night than during the day. Root Cause identified: No root cause originating from Tata Steel was identified. The odours described as "heavy metal" / "grinding or welding" are not associated with ferroalloy production in closed furnaces. The wind direction indicated passes over several other industries in Alton, some of which are metal fabricating concerns or known sources of odour. Corrective Action: None. RBCAA has requested that a case study be done.</p>	Unresolved



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
				smell. Based on wind direction and my experience and observations, I am certain that the choking metal type smell originated from Tata Steel. Attached please find a map depicting the location of the complainant, and wind direction which varied between 209 – 229 degrees. The RBCAA informed Tata Steel of the complaint at 21h31 via WhatsApp.		
6	Brynn Gericke 035 789 8722	27/03/2015 11:00	8 Dollar Drive – Richards Bay	Abnormal Sulphur Smell. "I noticed it at about 11h00 in my office at 8 Dollar Drive. I then went out to the shops and upon returning to my office my nose started burning when parking my vehicle outside. The smell was quite intense."	<b>Foskor 31/03/2015:</b> Mannana Ntoampe responded: Background: Foskor uses the buoyant effluent to slurry the Gypsum prior to disposal into the Dense Line, if the pH of buoyant effluent is above 7, Hydrogen sulphide (H <sub>2</sub> S) is produced. H <sub>2</sub> S produces a distinct foul odour of "rotten egg" type. There is an online pH meter to continually monitor the effluent pH on site. Findings: On 27 March at 10:45, the effluent pH went up to 8.2 favouring production of H <sub>2</sub> S. Corrective/Preventative Actions: As soon as the high pH was picked up, water was used to dilute the effluent to the required pH levels and the pH was stabilized by 11:30. Sulphuric Acid Plant operations were normal and as such the smell could not have been Sulphur smell but rather hydrogen sulphide.	Resolved - Foskor



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No.	Complainant	Date	Location	Description	Results	Resolution
				Foskor has been telephonically notified.		
7	Dinesh Maharaj 0834406675	28/03/2015 01:37	Coral Coppice -Arboretum	Very strong smell of industrial air pollution last night.	<p><b>Foskor 07/04/2015:</b> Danie Visagie responded: Source and Nature of Emissions: Based on wind direction taken from Harbour West station, CBD and Arboretum stations (approximately an hour before and after) Foskor could have been the source. Peak Concentrations of SO<sub>2</sub> Emissions: Highest SO<sub>2</sub> emissions of 424 ppm were recorded for B plant against the limit of 600 ppm. Compliance with Permits: There was no contravention in existing permits. Root Cause and Corrective Action: None Identified All plant operations were normal, however based on wind direction Foskor could have contributed to the smell. <b>Mondi RB 1/04/2015:</b> Candice Webb responded: Source and Nature of Emissions Based on wind direction and TRS levels at the stations, Mondi is the most probable source of the odour. Compliance with Permits There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi suspects that the odour originated from the effluent plant as a result of an effluent pH dip. Mondi is still in the process of investigating and identifying root cause. Feedback will be provided to the RBCAA at the next MANCO meeting.</p>	Resolved - Foskor
8	Natasha Dhaver 0836994239	28/03/2015 23:00	White Pear - Arboretum Extension	“On Saturday night at 23h00 there was a very strong cabbage smell in the air in arboretum. Our eyes did burn with the chemicals and became itchy.	<p><b>Foskor 08/04/2015:</b> Danie Visagie responded: Background Foskor uses the buoyant effluent to slurry the Gypsum prior to disposal into the Dense Line, if the pH of buoyant effluent is above 7 a foul odour of “rotten egg” type could be emitted. There is an online pH meter to continually monitor the effluent pH on site. Findings: On 28 March at 23:00, the effluent pH went up to 8.4 favouring the production of foul odour. Corrective/Preventative Actions: As soon as the high pH was picked up, fresh water was used to dilute the A-line effluent water to the required pH levels and the pH was stabilized. Thus, based on wind direction and elevated levels of pH Foskor could have contributed to the unpleasant smell.</p>	Resolved - Mondi Richards Bay and Foskor. Each allocated a complaint.



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No.	Complainant	Date	Location	Description	Results	Resolution
				We had to close all the windows as the stink was unbearable.”	<p><b>Mondi RB 1/04/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction and the description of the odour as a strong cabbage smell, it is likely that Mondi could be the source. However, we have checked our emissions sources and there were no non-condensable gas vents etc. which could have attributed to the clinical symptoms of the complainant. Please could other industry also investigate the complaint? Compliance with Permit\’s: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi suspects that the cabbage type odour originated from the Mondi emergency ponds.</p>	
9	Natasha Dhaver 0836994239	29/03/2015 11:00	White Pear - Arboretum Extension	Nauseating burning wood or plastic smell.	<p><b>Mondi RB 1/04/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction and low TRS levels at the Mondi and CBD stations, Mondi is unlikely source of the odour. Compliance with Permit\’s There was no contravention in existing permits for point source emissions. <b>RBCAA 29/03/2015:</b> Sandy Camminga responded: I have spoken with Tony Roberts at Zululand Fire Protection, and he has confirmed Peat Fires about 1 km North West of Richards Bay.</p>	Resolved - Peat Fire
10	Anonymous	29/03/2015 21:00	13 Boston Bend Brackenham	“There is a strange odour in the air. Smells like burnt plastic or an electrical fire.”	<p><b>RBCAA 29/03/2015:</b> Sandy Camminga responded: I have spoken with Tony Roberts at Zululand Fire Protection, and he has confirmed Peat Fires about 1 km North West of Richards Bay.</p>	Resolved - Peat Fire
11	R. Britz 035-907 5763	29/03/2015	34 Cassia Road Empangeni	“Mondi coming through about 3 - 4 times smelling very strong.”	<p><b>RBCAA 29/03/2015:</b> Sandy Camminga responded: I have spoken with Tony Roberts at Zululand Fire Protection, and he has confirmed Peat Fires about 1 km North West of Richards Bay.</p>	Resolved - Peat Fire



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No.	Complainant	Date	Location	Description	Results	Resolution
12	R. Britz 035-907 5763	29/03/2015 19:00	34 Cassia Road Empangeni	<p>“Last night at about 18:30 to 19:30 we started getting a gas smell, we reside at 34 Cassia Road, Empangeni. The smell started getting stronger and stronger. Here at 20:30 my youngest son's nose was so badly blocked. My nose burned like fire nothing wanted to help to take it away. I spoke to a resident in Steenbok and she stated that she had a strong smell of gas but rubber in between and also had a severe sinus attack due to the smell. The wind direction was a gentle south Westerly but the smell seemed to come from a North Easterly direction.</p>	<p><b>Mondi RB 1/04/2015:</b> Candice Webb responded: Source and Nature of Emissions Wind direction indicates that Mondi may have been the source of the odour, however, we have checked our emissions sources and there were no non-condensable gas vents etc. which could have attributed to the clinical symptoms of the complainant. It is in Mondi's opinion that the description of the complaint is more in line with odour which originates from peat fires. Compliance with Permit's There was no contravention in existing permits for point source emissions. <b>RBCAA 29/03/2015</b> Sandy Camminga responded: Zululand Fire Protection has confirmed the existence of Peat Fires about 1 km North West of Richards Bay.</p>	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
13	R Britz 035 907 5763	30/03/2015 10:55	Empangeni Fire Station - 12 Weightman Avenue Empangeni	"Currently we are experiencing strong smells of odour at the Empangeni Fire Station, causing irritation in my nose and throat, not sure if it's Mondi or the Peat Fire but smells like it could be Mondi."	<b>Mondi RB 1/04/2015:</b> Candice Webb responded: Source and Nature of Emissions: Source and Nature of Emissions Based on wind direction data from RBCAA stations and mill upset conditions as a result of the annual shut, Mondi is likely source of the odour. Compliance with Permit/s There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi is still in the process of investigating and identifying root cause. Feedback will be provided to the RBCAA at the next MANCO meeting.	Resolved - Mondi Richards Bay
14	Anonymous	30/03/2015 16:25	Harbour Arterial Road (between Foskor and Grindrod Terminals)	Pungent Foskor acid odour. Foskor has been telephonically notified.	<b>Foskor 07/04/2015:</b> Danie Visagie responded: 1. Nature of Complaint: Anonymous, Harbour Arterial Road (between Foskor and Grindrod Terminals), 30 March, 16h25, Pungent Foskor acid odour. Source and nature of emission: We believe that based on the close proximity of the complainant to the plant that the odour could be related to a sulphur smell from our sulphur melter area. Peak and Average concentrations: Prevailing easterly wind was blowing that could have impacted on Harbour Arterial Road area The stack emission status is as follows: Hour before complaint: C Plant-323 ppm, A&B Plant- 24 8 ppm. During the complaint: C Plant -319 ppm A&B Plant-201 ppm Both these were within the limits including slurry pH at Phosphoric Acid Plant. Compliance with Permit/s: No exceedances of Standards or Permits were recorded. Root Cause identified: Based on the wind direction and the vicinity at which the smell was detected, it is possible that a smell of Sulphur may have been smelled from Foskor. Corrective Action: Re-confirm process efficiency of the sulphur melter process.	Resolved - Foskor
15	S Camminga (0357860076)	31/03/2015 03:00	33 Heideheuvel - Veldenvlei	Pungent Mondi odour permeating throughout our home causing nausea,	<b>Mondi RB 1/04/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction and TRS levels at the CBD station, Mondi is the probable source of the odour. Compliance with Permit/s	Resolved - Mondi Richards Bay



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No.	Complainant	Date	Location	Description	Results	Resolution
				headache and sinus symptoms.	There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi suspects that the odour originated from a non-condensable gas vent which occurred at 00:12 during the mills annual shut start up process.	
16	R Camminga (0357860076)	31/03/2015 03:00	33 Heideheuvel - Veldenvlei	Pungent Mondi odour permeating throughout our home causing nausea, headache and sinus symptoms.	<b>Mondi RB 1/04/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction and TRS levels at the CBD station, Mondi is the probable source of the odour. Compliance with Permits There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi suspects that the odour originated from a non-condensable gas vent which occurred at 00:12 during the mills annual shut start up process.	Resolved - Mondi Richards Bay
17	Natasha Dhaver 0836994239	31/03/2015 21:00	White Pear - Arboretum Extension	"There is a strong SO <sub>2</sub> smell. It is chokingly strong."	<b>Foskor 02/04/2015:</b> Danie Visagie responded: 1. Nature complaints: Source and Nature of Emissions: Based on wind direction taken from Harbour West station and CBD station (hour before and after) Foskor would not be the likely source. Wind direction mostly East to North Easterly. Peak Concentrations of SO <sub>2</sub> Emissions: Highest SO <sub>2</sub> emissions of 343 ppm were recorded for C plant against the limit of 450 ppm. Compliance with Permits: There was no contravention in existing permits: Root Cause and Corrective Action: None Identified All plant operations were normal and based on wind direction Foskor could not have contributed to the smell. <b>Foskor:</b> Thank you for pointing that out, and you are correct we did not take that into account. Research has shown when the wind speed drops below about 0.5 m/s, the wind direction becomes undefined and unresolvable, and the plume can end up going anywhere, or simply pooling. Thus, we agree that there could have been a slight possibility that Foskor could have contributed, however, taking into deration the general wind direction at the time, this was unlikely.	Resolved - Peat Fire



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No.	Complainant	Date	Location	Description	Results	Resolution
					<p><b>BHP Hillside 02/04/2015:</b> Shaloshini Naidoo responded: Nature of Complaint: Source and nature of emissions: Hillside has investigated by using met data from the RBCAA's CBD station for 31 March 2015. Peak and Average concentrations (Met. data extracted from CBD monitoring station)</p> <p>For the purpose of the investigation, Hillside has considered wind direction within the 230 degree – 270 degree vector.</p> <p>Wind conditions: calms were recorded at the time of the complaint, 2 hours prior and 30 minutes after the time of the complaint.</p> <p>Compliance with Permit/s:</p> <p>No SO<sub>2</sub> exceedances of the ambient National Air Quality Standards were noted for the investigation period. Root Cause identified: Hillside could not be identified as the source of the odour. Ambient SO<sub>2</sub> measured at CBD station at the time of the complaint was at 2% of the national ambient air quality standards for 10-min average SO<sub>2</sub>. Average SO<sub>2</sub> for the period investigated (19h00 - 22H00) was at 1.6% of the national ambient air quality standards for 10-min average. No exceedances of the national ambient air quality standards for SO<sub>2</sub> was noted for 31 March 2015. Corrective Action: None.</p> <p><b>Mondi RB 1/04/2015:</b> Candice Webb responded: Source and Nature of Emissions:</p> <p>Based on wind direction and low TRS levels at the Mondi and CBD stations, Mondi is unlikely source of the odour. Compliance with Permit/s.</p> <p>There was no contravention in existing permits for point source emissions.</p> <p><b>ZFPA 31/03/2015</b> Tony Roberts responded: Confirmed a peat fire North East of Richards Bay.</p>	



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**Table D4: Complaints Log – April 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
1	R Camminga (0357860076)	01/04/2015 17:45	33 Heideheuvel - Veldenvlei	Pungent nauseating tar odour.	<b>RBCAA 1/04/2015:</b> Sandy Camminga responded: I have contacted Tony Roberts at Zululand Fire Protection, who has confirmed the existence of a new peat fire to the north east.	Resolved - Peat Fire
2	S Camminga (0357860076)	01/04/2015 17:45	33 Heideheuvel - Veldenvlei	Pungent nauseating tar odour.	<b>RBCAA 1/04/2015:</b> Sandy Camminga responded: I have contacted Tony Roberts at Zululand Fire Protection, who has confirmed the existence of a new peat fire to the north east.	Resolved - Peat Fire
3	R Camminga (0357860076)	02/04/2015 17:30	33 Heideheuvel - Veldenvlei	Pungent nauseating peat fire "tar" odour.	<b>RBCAA 1/04/2015:</b> Sandy Camminga responded: I have contacted Tony Roberts at Zululand Fire Protection, who has confirmed the existence of a new peat fire to the north east.	Resolved - Peat Fire
4	S Camminga (0357860076)	02/04/2015 17:30	33 Heideheuvel - Veldenvlei	Pungent nauseating peat fire "tar" odour.	<b>RBCAA 1/04/2015:</b> Sandy Camminga responded: I have contacted Tony Roberts at Zululand Fire Protection, who has confirmed the existence of a new peat fire to the north east.	Resolved - Peat Fire
5	Natasha Dhaver 0836994239	02/04/2015 18:45	White Pear - Arboretum Extension	Odour – same odour as previously experienced.	<b>RBCAA 7/04/2015:</b> Sandy Camminga responded: The RBCAA has investigated these complaints, and based on wind direction and information received from Zululand Fire Protection, the odours are attributed to a Peat Fire north east of Richards Bay. Please see attached google image depicting location of complainant, and prevailing wind directions at the time. No further investigation is required.	Resolved - Peat Fire
6	Natasha Dhaver 0836994239	02/04/2015 18:45	Chat Crescent – Birdswood	Odour – "I was in chat crescent in Birdswood and there was the same strong smell that we experienced before in Birdswood and arboretum before. It gave me an instant headache."	<b>RBCAA 7/04/2015:</b> Sandy Camminga responded: The RBCAA has investigated these complaints, and based on wind direction and information received from Zululand Fire Protection, the odours are attributed to a Peat Fire north east of Richards Bay. Please see attached google image depicting location of complainant, and prevailing wind directions at the time. No further investigation is required.	Resolved - Peat Fire



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No.	Complainant	Date	Location	Description	Results	Resolution
7	R Camminga (0357860076)	08/04/2015 19:00 to 07:00	33 Heideheuvel - Veldenvlei	Dense smoke causing severe irritation of the respiratory system.	<b>RBCAA 7/04/2015:</b> Sandy Camminga responded: The Fire Department confirms that there are no currently no fires. Zululand Fire Protection confirms that there were controlled burns yesterday by Mondi and Sappi, and an arson fire in Sikhulu. Currently no burning. What we are experiencing are the after effects of yesterday's burns.	Resolved - Controlled forest brush burns Mondi and Sappi controlled burns plus a wild fire.
8	S Camminga (0357860076)	08/04/2015 19:00 to 07:00	33 Heideheuvel - Veldenvlei	Dense smoke causing severe irritation of the respiratory system.	<b>RBCAA 7/04/2015:</b> Sandy Camminga responded: The Fire Department confirms that there are no currently no fires. Zululand Fire Protection confirms that there were controlled burns yesterday by Mondi and Sappi, and an arson fire in Sikhulu. Currently no burning. What we are experiencing are the after effects of yesterday's burns.	Resolved - Controlled forest brush burns Mondi and Sappi controlled burns plus a wild fire.
9	R Camminga (0357860076)	09/04/2015 19:00 to 07:00	33 Heideheuvel - Veldenvlei	Dense smoke causing severe irritation of the respiratory system.	<b>RBCAA 7/04/2015:</b> Sandy Camminga responded: The Fire Department confirms that there are no currently no fires. Zululand Fire Protection confirms that there were controlled burns yesterday by Mondi and Sappi, and an arson fire in Sikhulu. Currently no burning. What we are experiencing are the after effects of yesterday's burns.	Resolved - Controlled forest brush burns Mondi and Sappi controlled burns plus a wild fire.



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No.	Complainant	Date	Location	Description	Results	Resolution
10	S Camminga (0357860076)	09/04/2015 19:00 to 07:00	33 Heideheuvel - Veldenvlei	Dense smoke causing severe irritation of the respiratory system.	<b>RBCAA 7/04/2015:</b> Sandy Camminga responded: The Fire Department confirms that there are no currently no fires. Zululand Fire Protection confirms that there were controlled burns yesterday by Mondi and Sappi, and an arson fire in Sikhulu. Currently no burning. What we are experiencing are the after effects of yesterday's burns.	Resolved - Controlled forest brush burns Mondi and Sappi controlled burns plus a wild fire.
11	Pieter Mans	09/04/2015 05:30	Meerensee	"I cycle 05h30 from Meerensee to Mondi every morning and observed a negative change this morning. This morning there was a dense sulphurous smoke very strong and smelly in Loodsvislyn, quite noticeable in Krewelkring and no longer present out of Meerensee when you cross the Mzingazi Canal. Can the Clean Air Association identify if the source is industrial (coal fired	<b>RBCAA 9/04/2015:</b> Sandy Camminga responded: Based on feedback received by the BCAA from the Fire Department and Zululand Fire Protection the smoke can be attributed to yesterday's fire at Sikhulu, and the controlled Sappi and Mondi burns.	Resolved - Controlled forest brush burns Mondi and Sappi controlled burns plus a wild fire.



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No.	Complainant	Date	Location	Description	Results	Resolution
				boilers etc.), natural (bush fires) or domestic (informal settlement cooking and heating), and if something can possibly be done about it.”		
12	Rowan Vincent (082 337 4474)	09/04/2015 19:20	Kapokbos – Veldenvlei	“Smoke outside. Burning eyes. Smoke inside the house. Visibility outside the house is about 30 m.”	<b>RBCAA 9/04/2015:</b> Sandy Camminga responded: The RBCAA contacted the uMhlathuze Fire Department and was informed that there was nothing they could do. The source of the above complaints is a controlled burn by Mondi Forests, adjacent to the residential areas (see attached).	Resolved - Controlled forest brush burns Mondi forests controlled burns
13	R Camminga (0357860076)	09/04/2015 19:00	33 Heideheuvel - Veldenvlei	From 19h00 into early hours of this morning, Smoke accompanied by PUNGENT smouldering odour. This is the second night in a row that our health has been affected following controlled burning.	<b>RBCAA 9/04/2015:</b> Sandy Camminga responded: The RBCAA contacted the uMhlathuze Fire Department and was informed that there was nothing they could do. The source of the above complaints is a controlled burn by Mondi Forests, adjacent to the residential areas (see attached).	Resolved - Controlled forest brush burns Mondi forests controlled burns



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No.	Complainant	Date	Location	Description	Results	Resolution
14	S Camminga (0357860076)	09/04/2015 19:00	33 Heideheuvel - Veldenvlei	From 19h00 into early hours of this morning, Smoke accompanied by PUNGENT smouldering odour. This is the second night in a row that our health has been affected following controlled burning.	<b>RBCAA 9/04/2015:</b> Sandy Camminga responded: The RBCAA contacted the uMhlathuze Fire Department and was informed that there was nothing they could do. The source of the above complaints is a controlled burn by Mondi Forests, adjacent to the residential areas (see attached).	Resolved - Controlled forest brush burns Mondi forests controlled burns
15	Conrad	10/04/2015 22:00	35 Marlyn Hoek	"Sadly our tranquil evening ended with clear evidence of air pollution. Not sure of origin, but definitely not the guava smell."	<b>RBCAA 10/04/2015:</b> Sandy Camminga responded: The RBCAA has e-mailed the complainant to establish exact location. Reply awaited.	Resolved - Controlled forest brush burns
16	R Camminga (0357860076)	12/04/2015 18:30	33 Heideheuvel - Veldenvlei	Smoke and nauseating peat fire odour causing severe irritation of the nose and chest. The emissions from these fires are making us ill. Attached is an image depicting prevailing winds at the time.	<b>MONDI Forests 16/04/2015:</b> Jacqui Shuttleworth responded: Herewith update of fires which could be contributing within the wind trajectory shown on the complaint: MonMananzi F015_01: Adjacent to complainant: Status: Under control. Fire crews have been busy since weekend and Forester reports that it is under control and minimal to no smoking. MonMontigny Z002_01: Approx. 20 km away. Smoking and spreading with yesterday's winds. Fire crews will be busy there. SQFKwambo Z047_01: 4.8 km away. Smoking, Fire crews are busy. <b>RBCAA 16/04/2015:</b> Sandy Camminga responded: It should be noted that the RBCAA is aware that there were other fires in the area, not on Mondi forests property.	Resolved - Peat Fire



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No.	Complainant	Date	Location	Description	Results	Resolution
17	S Camminga (0357860076)	12/04/2015 18:30	33 Heideheuvel - Veldenvlei	Smoke and nauseating peat fire odour causing severe irritation of the nose and chest. The emissions from these fires are making us ill. Attached is an image depicting prevailing winds at the time.	<b>MONDI Forests 16/04/2015:</b> Jacqui Shuttleworth responded: Herewith update of fires which could be contributing within the wind trajectory shown on the complaint. MonMananzi F015_01: Adjacent to complainant: Status: Under control. Fire crews have been busy since weekend and Forester reports that it is under control and minimal to no smoking. MonMontignyz 002_01: Approx. 20 km away. Smoking and spreading with yesterday's winds. Fire crews will be busy there. SQFKwambo Z047_01: 4.8 km away. Smoking, Fire crews are busy. <b>RBCAA 16/04/2015:</b> Sandy Camminga responded: It should be noted that the RBCAA is aware that there were other fires in the area, not on Mondi forests property.	Resolved - Peat Fire
18	W Vickers	12/04/2015 18:30	33 Heideheuvel - Veldenvlei	Smoke and nauseating peat fire odour causing severe irritation of the nose and chest. The emissions from these fires are making us ill. Attached is an image depicting prevailing winds at the time.	Fire crews have been busy since weekend and Forester reports that it is under control and minimal to no smoking. MonMontignyz 002_01: Approx. 20 km away. Smoking and spreading with yesterday's winds. Fire crews will be busy there. SQFKwambo Z047_01: 4.8 km away. Smoking, Fire crews are busy. <b>RBCAA 16/04/2015:</b> Sandy Camminga responded: It should be noted that the RBCAA is aware that there were other fires in the area, not on Mondi forests property.	Resolved - Peat Fire
19	Pieter Mans	13/04/2015 03:00 to 05:00	Loodsvislyn / AGS area in Meerensee	Strong smoke.	<b>MONDI Forests 16/04/2015:</b> Jacqui Shuttleworth responded: Herewith update of fires which could be contributing within the wind trajectory shown on the complaint. MonMananzi F015_01: Adjacent to complainant: Status: Under control. Fire crews have been busy since weekend and Forester reports that it is under control and minimal to no smoking. MonMontignyz 002_01: Approx. 20 km away. Smoking and spreading with yesterday's winds. Fire crews will be busy there.	Resolved - Peat Fire



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No.	Complainant	Date	Location	Description	Results	Resolution
					SQFKwambo Z047_01: 4.8 km away. Smoking, Fire crews are busy. <b>RBCAA 16/04/2015:</b> Sandy Camminga responded: It should be noted that the RBCAA is aware that there were other fires in the area, not on Mondi forests property.	
20	Anonymous	17/04/2015 Past 3 to 4 Months	Kwambonambi	Emissions from "Kwambo Pellets": The complainant states that the plant has been operational for the past 3-4 months, and operates 24 hours a day. The resident is complaining that the constant emissions and odour are affecting their health. Attempts to telephonically contact Ms Khathi, uThungulu Air Quality Manager, have been unsuccessful. The RBCAA will inform Ms Khathi via e-mail.	<b>Consultant for Kwambo pellets: 27/04/2015:</b> Rebecca Bowd responded: The plant has been undergoing maintenance over the past few weeks, thus they have not been operating as usual. Thus it is unlikely that the odours and emissions which the lady was referring to are from the plant. However, I would like you to ask the lady to note the date and time of any further odours and emissions, as the plant has a PLC system which records all activities (including emission activities) so that we shall be able to correlate any disturbances with the operations at the plant. The maximum amount of time stockpiles are kept on site is 48 hours under normal working conditions. If there is a power outage it might be longer. The plant does not burn any 'nasties'. The emissions from the stack is steam and only steam. No chemicals are added to the process, and the facility cannot take contaminated wood – as the clients will not accept contaminated product. I have spent quite a lot of time at the plant over the past few months, and I have not noticed any offensive odours. There is a composting / nursery site located next to the plant, which I understand has closed down. This could be the source of the odour. There is also a creosote plant in the near vicinity – this type of operation is renowned for its emissions. I reiterate that the lady should note the time, date and nature of any offence odours, so that I can compare it to the PLC system. Do contact me should you require any further information.	Unresolved



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No.	Complainant	Date	Location	Description	Results	Resolution
				The RBCAA is in the process of trying to make contact with "Kwambo Pellets".		
20	D Savides (072 392 0511)	20/04/2015 05:30	Cassia Close – Arboretum Extension	Complainant states that a Foskor odour was present at various times during the course of the weekend	<b>Foskor 21/04/2015:</b> Mannana Ntoampe responded: Peak Concentrations of SO <sub>2</sub> Emissions: The highest SO <sub>2</sub> emissions of 403 ppm were recorded for the C plant, these were however still within permit limits. Compliance with Permits: There was no contravention in existing permits. Root Cause and Corrective Action: All Plant operations were normal, There were no gas leaks reported on the day, Considering current changes in weather conditions, the smell could have been a result of temperature inversions. Based on wind direction, Foskor could have impacted Arboretum Extension at the time.	Resolved - Foskor
21	L Savides (072 392 0511)	20/04/2015 05:30	Cassia Close – Arboretum Extension	Complainant states that a Foskor odour was present at various times during the course of the weekend	<b>Foskor 21/04/2015:</b> Mannana Ntoampe responded: Peak Concentrations of SO <sub>2</sub> Emissions: The highest SO <sub>2</sub> emissions of 403 ppm were recorded for the C plant, these were however still within permit limits. Compliance with Permits: There was no contravention in existing permits. Root Cause and Corrective Action: All Plant operations were normal, There were no gas leaks reported on the day, Considering current changes in weather conditions, the smell could have been a result of temperature inversions. Based on wind direction, Foskor could have impacted Arboretum Extension at the time.	Resolved - Foskor
22	Colin 074 126 6891	24/04/2015 23:00	126 Krewelkring-Meerensee	"Really bad Peat fire smell"	<b>MONDI Forests 28/04/2015:</b> Jacqui Shuttleworth responded: I have asked for feedback from operations on the smoke situation with the fires in the vicinities indicated by the Wind vectors from your email. Both Mondi and SQF managers have sent responses to say that the fires we are aware of are emitting very low smoke levels.	Resolved - Peat Fire



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No.	Complainant	Date	Location	Description	Results	Resolution
					Only Montigny Z002_01 is smoking and proving difficult to get under control, however this is approx. 20 km away so I would disregard this fire as contributing to the smell in Meerensee and Veldenvlei. We are aware of a few SAPPI fires on neighbouring properties which could also be contributing - Tony Roberts has an updated coverage of the regional ground fires - possibly he could provide further info and the status of the fires off Mondi and SQF properties.	
23	Colin 074 126 6891	25/04/2015 07:50	126 Krewelkring-Meerensee	Peat fire smell. "A little less than last night but still quite noticeable."	<b>MONDI Forests 28/04/2015:</b> Jacqui Shuttleworth responded: I have asked for feedback from operations on the smoke situation with the fires in the vicinities indicated by the Wind vectors from your email. Both Mondi and SQF managers have sent responses to say that the fires we are aware of are emitting very low smoke levels. Only Montigny Z002_01 is smoking and proving difficult to get under control, however this is approx. 20 km away so I would disregard this fire as contributing to the smell in Meerensee and Veldenvlei. We are aware of a few SAPPI fires on neighbouring properties which could also be contributing - Tony Roberts has an updated coverage of the regional ground fires - possibly he could provide further info and the status of the fires off Mondi and SQF properties.	Resolved - Peat Fire
24	S Camminga (0357860076)	25/04/2015 16:45	33 Heideheuvel - Veldenvlei	Pungent, nauseating Peat fire odour.	<b>MONDI Forests 28/04/2015:</b> Jacqui Shuttleworth responded: I have asked for feedback from operations on the smoke situation with the fires in the vicinities indicated by the Wind vectors from your email. Both Mondi and SQF managers have sent responses to say that the fires we are aware of are emitting very low smoke levels. Only Montigny Z002_01 is smoking and proving difficult to get under control, however this is approx. 20 km away so I would disregard this fire as contributing to the smell in Meerensee and Veldenvlei. We are aware of a few SAPPI fires on neighbouring properties which could also be contributing - Tony Roberts has an updated coverage of the regional ground fires - possibly he could provide further info and the status of the fires off Mondi and SQF properties.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

**Table D5: Complaints Log – May 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
1	S Camminga (0357860076)	02/05/2015 17:00	33 Heideheuvel - Veldenvlei	Foskor odour causing burning sensation of the nose. The attached image depicts the wind direction prior to and at the time of the complaint, based on RBCAA CBD Met data. Foskor has been notified.	<b>Foskor 04/05/2015:</b> Mannana Ntoampe responded: Findings: Root Cause and Corrective Action: On 02 May 2015, a small fire was noticed around the melter area. The fire was reported at 16h00 (Root cause to be determined). There was a call –out for Foskor Emergency Team immediately and the fire was distinguished by 16h30. The odour could have been a result of the fire that occurred at the melter area.	Resolved - Foskor
2	Mrs Kahn (084 774 0074)	06/05/2015 20:30	Airfern – Brackenham	Choking metallic type odour – same as previously reported. Tata Steel were notified and they immediately investigated, and reported back to the RBCAA. A formal response from Tata Steel to follow.	<b>TATA Steel 11/04/2015:</b> Franz Schmidt responded: The complaint was followed up within 15 minutes of receiving it by traversing Alumina Allee and side roads. No smell of the description given could be detected downwind of Tata Steel KZN. Operations were found to be stable and scrubbers operating at full capacity in the 2 hour period leading up to the complaint (upon investigation the next morning).	Unresolved
3	Anonymous	11/05/2015 08:25	Port of Richards Bay	Excessive emissions emanating from Richards Bay Coal Terminal (RBCT) – see attached photograph.	<b>RBCT 11/05/2015:</b> Zanele Mthiyane responded: We received the complaint and we are currently investigating the incident. We immediately stopped loading operations, and will feedback as soon as the investigation is complete. <b>RBCT 11/05/2015:</b> Sihle Shezi responded: Source and Nature of Emissions: Compliance with Permits: There was no contravention of Atmospheric Emission License. Root Cause of Incident and Corrective Action RBCT received batches of dusty coal last year, this is the coal that	Resolved - Richards Bay Coal Terminal



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No.	Complainant	Date	Location	Description	Results	Resolution
					<p>was being reclaimed. The dusty coal dump will be sprayed with water rain guns “water sprays” using a “double cycle system” during the reclaiming process to reduce dust.</p> <p>Shift managers and Operations Manager will get SMS notification when there high dust readings from dust monitoring and will they will initiate rain guns to mitigate the dust.</p> <p>RBCT has been identified as the source of the dust emission</p>	
4	R Camminga (0357860076)	13/05/2015 05:00	33 Heideheuvel - Veldenvlei	Pungent nauseating Peat Fire smell. (Wind direction from 16h30 – 18h30 depicted in attached image)	<p><b>MONDI Forests 14/05/2015:</b> Jacqui Shuttleworth responded: We have a ground fire at our plantation Mananzi adjacent to Veldenvlei in the direction of the wind vectors shown with the complaint. The fire started on 7 May from honey collectors. Our fire crews have been busy there since 7 May but their efforts are not paying off and the fire has proved difficult to put out, Yesterday we had to resort to putting trenches in to contain the spread.</p> <p>The fire crews will continue to deal with the burning fire once the spread of the fire contained by the trenches.</p>	Resolved - Peat Fire
5	S Camminga (0357860076)	13/05/2015 05:00	33 Heideheuvel - Veldenvlei	Pungent nauseating Peat Fire smell. (Wind direction from 16h30 – 18h30 depicted in attached image)	<p><b>MONDI Forests 14/05/2015:</b> Jacqui Shuttleworth responded: We have a ground fire at our plantation Mananzi adjacent to Veldenvlei in the direction of the wind vectors shown with the complaint. The fire started on 7 May from honey collectors. Our fire crews have been busy there since 7 May but their efforts are not paying off and the fire has proved difficult to put out, Yesterday we had to resort to putting trenches in to contain the spread.</p> <p>The fire crews will continue to deal with the burning fire once the spread of the fire contained by the trenches.</p>	Resolved - Peat Fire
6	S Camminga (0357860076)	15/05/2015 14:15	33 Heideheuvel - Veldenvlei	Pungent fire smell (not a peat fire) accompanied by smoke which is causing respiratory irritation.		Resolved – Fire



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No.	Complainant	Date	Location	Description	Results	Resolution
				I have been forced to close up my home.		
7	R Camminga (0357860076)	17/05/2015 20:30	33 Heideheuvel - Veldenvlei	Pungent nauseating peat fire smell, from 20h30 on Sunday 17 May	<p><b>MONDI Forests 20/05/2015:</b> Jacqui Shuttleworth responded: Mondri has 2 active and 1 dormant underground fires at Mananzi, all suspected arson cases, caused by Honey hunters. (for location, see screen dump below)</p> <p>MonMananzi_F015_01 - (Ignition Date: 8 April). Fire dormant, no smoke emissions so not contributing to complaint.</p> <p>MonMananzi_F015_02 - (Ignition Date: 7 May). Medium smoke emissions, have trenched, fire proving difficult to extinguish. Contribution to this complaint and previous complaint on 13 May.</p> <p>MonMananzi_Z001_03 - (Ignition Date: Sat 16 May). Most recent fire, would have contributed to this complaint for the weekend. Fire crews have been busy and Smoke emissions have been brought under control and were minimal as of Tues 19 May.</p> <p>Security patrols have been increased in the area to try and detect any trespassers looking for honey. 2 people were arrested an investigation is underway to determine whether they were the honey collectors which have been active in the area.</p>	Resolved - Peat Fire
8	S Camminga (0357860076)	17/05/2015 20:30	33 Heideheuvel - Veldenvlei	Pungent nauseating peat fire smell, from 20h30 on Sunday 17 May	<p><b>MONDI Forests 20/05/2015:</b> Jacqui Shuttleworth responded: Mondri has 2 active and 1 dormant underground fires at Mananzi, all suspected arson cases, caused by Honey hunters. (for location, see screen dump below)</p> <p>MonMananzi_F015_01 - (Ignition Date: 8 April). Fire dormant, no smoke emissions so not contributing to complaint.</p> <p>MonMananzi_F015_02 - (Ignition Date: 7 May). Medium smoke emissions, have trenched, fire proving difficult to extinguish. Contribution to this complaint and previous complaint on 13 May.</p> <p>MonMananzi_Z001_03 - (Ignition Date: Sat 16 May). Most recent fire, would have contributed to this complaint for the weekend. Fire crews have been busy and Smoke emissions have been brought under control and were minimal as of Tues 19 May.</p>	Resolved - Peat Fire



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No.	Complainant	Date	Location	Description	Results	Resolution
					Security patrols have been increased in the area to try and detect any trespassers looking for honey. 2 people were arrested an investigation is underway to determine whether they were the honey collectors which have been active in the area.	
9	R Camminga (0357860076)	18/05/2015 06:30	33 Heideheuvel - Veldenvlei	Pungent nauseating peat fire smell, from 20h30 on Sunday 17 May, and awoke to the same smell at 06h30 on Monday 18th which has continued throughout the day.	<p><b>MONDI Forests 20/05/2015:</b> Jacqui Shuttleworth responded: Mondri has 2 active and 1 dormant underground fires at Mananzi, all suspected arson cases, caused by Honey hunters. (for location, see screen dump below)</p> <p>MonMananzi_F015_01 - (Ignition Date: 8 April). Fire dormant, no smoke emissions so not contributing to complaint.</p> <p>MonMananzi_F015_02 - (Ignition Date: 7 May). Medium smoke emissions, have trenched, fire proving difficult to extinguish. Contribution to this complaint and previous complaint on 13 May.</p> <p>MonMananzi_Z001_03 - (Ignition Date: Sat 16 May). Most recent fire, would have contributed to this complaint for the weekend. Fire crews have been busy and Smoke emissions have been brought under control and were minimal as of Tues 19 May.</p> <p>Security patrols have been increased in the area to try and detect any trespassers looking for honey. 2 people were arrested an investigation is underway to determine whether they were the honey collectors which have been active in the area.</p>	Resolved - Peat Fire
10	S Camminga (0357860076)	18/05/2015 06:30	33 Heideheuvel - Veldenvlei	Pungent nauseating peat fire smell, from 20h30 on Sunday 17 May, and awoke to the same smell at 06h30 on Monday 18th which has continued throughout the day.	<p><b>MONDI Forests 20/05/2015:</b> Jacqui Shuttleworth responded: Mondri has 2 active and 1 dormant underground fires at Mananzi, all suspected arson cases, caused by Honey hunters. (for location, see screen dump below)</p> <p>MonMananzi_F015_01 - (Ignition Date: 8 April). Fire dormant, no smoke emissions so not contributing to complaint.</p> <p>MonMananzi_F015_02 - (Ignition Date: 7 May). Medium smoke emissions, have trenched, fire proving difficult to extinguish. Contribution to this complaint and previous complaint on 13 May.</p> <p>MonMananzi_Z001_03 - (Ignition Date: Sat 16 May). Most recent fire, would have contributed to this complaint for the weekend. Fire crews have been busy and Smoke emissions have been brought</p>	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					under control and were minimal as of Tues 19 May. Security patrols have been increased in the area to try and detect any trespassers looking for honey. 2 people were arrested an investigation is underway to determine whether they were the honey collectors which have been active in the area.	
11	Elize Cronje 083 227 5616	28/05/2015 20:00	18 Krusebessie – Veldenvlei	As I mentioned, the smell started last night, I think around 20h00 (give or take) and lasted basically the whole night until this morning. At some stage during the morning hours the smell was absolutely unbearable. I had to sleep with a cloth over my face in order to breathe. Last night was one of the very bad nights. The last couple of weeks there have been days where the smell was also unacceptable. I don't know what is going on at Mondi. It was going well for a while but now all of a sudden we	<b>Mondi RB 4/06/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction and mill instability, it is likely that Mondi is the source of odour. There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: A fault on the 132 kV supply line resulted in an electrical trip and subsequent outage of the Chemical Plant. Consequently, the mill vented odours gases to atmosphere. We are currently scoping a solution to this particular incident, and will report back on progress at the next RBCAA MANCO meeting.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
				have to put up with foul air again. It is totally unacceptable that we have to suffer and Mondi makes money at our expense. Someone is responsible for this and action should be taken.		
12	Michael	28/05/2015 23:00	Brackenham	I'm concerned about this odour smell. What is it?? And where it's released from. This smell is very irritating and strong. I hope it's not harmful	<b>Mondi RB 4/06/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction and mill instability, it is likely that Mondi is the source of odour. There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: A fault on the 132 kV supply line resulted in an electrical trip and subsequent outage of the Chemical Plant. Consequently, the mill vented odours gases to atmosphere. We are currently scoping a solution to this particular incident, and will report back on progress at the next RBCAA MANCO meeting.	Resolved - Mondi Richards Bay
13	J vd Walt 0834003035	28/05/2015 19:00	Disa Dives – Veldenvlei	"Tonight is the third night this week that there is a strong gas smell in the air. Burning chest, headache, burning eyes and sore throat is some symptoms experienced.	<b>Mondi RB 4/06/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction and mill instability, it is likely that Mondi is the source of odour. There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: A fault on the 132 kV supply line resulted in an electrical trip and subsequent outage of the Chemical Plant. Consequently, the mill vented odours gases to atmosphere. We are currently scoping a solution to this particular incident, and will report back on progress at the next RBCAA MANCO meeting.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
				It affected all in the house as well as neighbours whom I discussed it with.”		
14	D Savides 072 392 0511	29/05/2015 06:30	Cassia Close – Arboretum	Mondi Odour	<b>Mondi RB 4/06/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction and mill instability, it is likely that Mondi is the source of odour. There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: A fault on the 132 kV supply line resulted in an electrical trip and subsequent outage of the Chemical Plant. Consequently, the mill vented odours gases to atmosphere. We are currently scoping a solution to this particular incident, and will report back on progress at the next RBCAA MANCO meeting.	Resolved - Mondi Richards Bay
15	L Savides 072 392 0511	29/05/2015 06:30	Cassia Close – Arboretum	Mondi Odour	<b>Mondi RB 4/06/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction and mill instability, it is likely that Mondi is the source of odour. There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: A fault on the 132 kV supply line resulted in an electrical trip and subsequent outage of the Chemical Plant. Consequently, the mill vented odours gases to atmosphere. We are currently scoping a solution to this particular incident, and will report back on progress at the next RBCAA MANCO meeting.	Resolved - Mondi Richards Bay
16	D Savides 072 392 0511	29/05/2015 06:30	Zululand Observer Office – Richards Bay CBD	Mondi Odour	<b>Mondi RB 4/06/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction and mill instability, it is likely that Mondi is the source of odour. There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: A fault on the 132 kV supply line resulted in an electrical trip and subsequent outage of the Chemical Plant. Consequently, the mill vented odours gases to atmosphere.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					We are currently scoping a solution to this particular incident, and will report back on progress at the next RBCAA MANCO meeting.	
17	F. Nel (072 321 5061)	29/05/2015 07:30	Smart Plan Office – Dollar Drive Richards Bay	“Bad Mondi Smell.”	<p><b>Mondi RB 4/06/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction and mill instability, it is likely that Mondi is the source of odour. There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: A fault on the 132 kV supply line resulted in an electrical trip and subsequent outage of the Chemical Plant. Consequently, the mill vented odours gases to atmosphere. We are currently scoping a solution to this particular incident, and will report back on progress at the next RBCAA MANCO meeting.</p>	Resolved - Mondi Richards Bay
18	Rowan Vincent 083 805 8753	29/05/2015 to 1/6/2015	Kapokbos – Veldenvlei	Fire smell & smoke; “this smell & smoke is STILL going on. Every morning it is like mist. The streets where the smoke & disgusting smell is Kapokbos, Kruisbessie, Kannakronkel and Protea Prag. It has been over a month now. Is there not something we can do to get a reaction out of somebody? This is ridiculous.”	<p><b>MONDI Forests 02/06/2015:</b> Jacqui Shuttleworth responded: I've attached the latest google earth file on our underground fire status. We have 1 active fire on Mananzi adjacent to Veldenvlei Fire number: MonMananzi F015_02.</p> <p>The smoke emissions are medium to low. This fire has been active for a few weeks now. We have had to trench to contain this fire. The trenching has contained the fire from spreading and the crews have been working in the contained area to try and extinguish, but the peat appears particularly deep in this area and the firefighting efforts will continue.</p> <p>Two suspects were arrested last week who had made a makeshift shelter in some derelict housing. It is suspected that they were the honey hunters in the area which have caused the problems. We have had no other fire incidences in the area since their arrest.</p>	Resolved - Peat Fire



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**Table D6: Complaints Log – June 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
1	Marge 035 7911770	01/06/2015 06:30	Felixton Village	Awoke to severe smuts fallout. "Roof is covered in smuts."		Resolved - Fire/Smuts
2	S Camminga (0357860076)	02/06/2015 15:00	33 Heideheuvel - Veldenvlei	Peat Fire odour.	<b>RBCAA 03/06/2015:</b> Sandy Camminga responded: ZFPA Tony Roberts confirmed 3 active underground fires. SAPPI, Mondi Forests and Siya Quebekha Forests (SQF) are each dealing with a peat fire.	Resolved - Peat Fire
3	Elize Cronje 083 227 5616	02/06/2015 16:45	18 Krusebessie – Veldenvlei	Heavy Peat Fire Odour.	<b>RBCAA 03/06/2015:</b> Sandy Camminga responded: ZFPA Tony Roberts confirmed 3 active underground fires. SAPPI, Mondi Forests and Siya Quebekha Forests (SQF) are each dealing with a peat fire.	Resolved - Peat Fire
4	Marie Joubert (072 671 7838)	08/06/2015 17:00	33 Pelican Hide, Pelican Parade, Birdswood	"I have noticed an unpleasant, irritating \"oily\" smell for a number of days in Birdswood where I stay, it is noticeable early morning and this time in the evening i.e. 17:00 till much later and have been wondering what it could be attributed to."	<b>RBCAA 10/06/2015:</b> Sandy Camminga responded: Based on the description, and times of occurrence, the odour can be attributed to PEAT Fires. The RBCAA has been in contact with the complainant. Industry is not required to investigate.	Resolved - Peat Fire



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No.	Complainant	Date	Location	Description	Results	Resolution
5	Natasha Dhaver 0836994239	09/06/2015 05:00	White Pear - Arboretum Extension	"Acidic Smell" The attached Google image shows prevailing winds before, and at time of the complaint.	<p><b>Foskor 12/06/2015:</b> Mannana Ntoampe responded: Peak Concentrations of SO<sub>2</sub> Emissions: The highest SO<sub>2</sub> emissions of 281 ppm were recorded for the C plant, these were however still within permit limits.</p> <p>Compliance with Permit/s: There was no contravention in existing permits.</p> <p>Root Cause and Corrective Action: All Plant operations were normal. There were no gas leaks reported during that period. Considering current weather conditions and the time period of the complaint (Morning hours when its cooler), the smell could have been a result of temperature inversions.</p> <p>Note: A-plant is still on annual shut as a result the plant (Main Stack) is running at minimum rates Based on wind direction, Foskor could have impacted Arboretum Extension at the time.</p>	Resolved - Foskor
6	Pieter Mans	09/06/2015 05:30	Meerensee	"Dense smoke in Meerensee, especially on the John Ross between Greenhill and Mzingazi canal bridge." No accompanying odour reported.		Resolved - Peat Fire
7	Desiré Calitz 072 3629006	09/06/2015 09:37	Arboretum	I'd like to formally log a complaint regarding the terrible smells and smoke in the Arboretum area every evening and morning, specifically in the Richtek college		Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
				<p>area. We found another spot when entering Alton just past Nashua on the left hand side in the bushes. Same smell and lots of smoke. All the people working in the area affected as well as at homes. Unfortunately I do suffer from lung problems and find that I struggle to breathe, lungs burning, nausea headaches and coughing. My concern is also for my 2 small children whom must inhale this on a daily basis and am fearful of the long term consequences on their health. I truly hope that something can be done about this and appreciate the effort of everyone involved helping the general public</p>		



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No.	Complainant	Date	Location	Description	Results	Resolution
				without us even knowing.		
8	Mrs Calitz 072 362 9006	09/06/2015 17:46	Mallow Place – Arboretum (near Richtech)	Every evening there is a Tar odour which causes nausea and affects chest. This complaint can be attributed to the ongoing Peat fires.		Resolved - Peat Fire
9	R Camminga (0357860076)	10/06/2015 08:00	33 Heideheuvel - Veldenvlei	Dense smoke from early hours of this morning causing eye and respiratory irritation.		Resolved - Peat Fire
10	S Camminga (0357860076)	10/06/2015 08:00	33 Heideheuvel - Veldenvlei	Dense smoke from early hours of this morning causing eye and respiratory irritation.		Resolved - Peat Fire
11	Shaun Jordaan (083 635 0864)	10/06/2015 17:00	Chat Crescent\ Dorongo Domain, - Birdswood	Smoke and odour from Peat Fire. Odour described as “tar-like”.		Resolved - Peat Fire
12	Shaun Jordaan 083 635 0864	11/06/2015 08:01	Chat Cress/Dorongo Domain - Birdswood	We are been smoked out in Birdswood by the peat moss fire in the forest area behind Chat Cress/Dorongo		Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
				Domain. The fire brigade says it is not their area of responsibility. Who can we contact to have the fire extinguished? Any info would be appreciated.		
13	S Camminga (0357860076)	11/06/2015 15:00	33 Heideheuvel - Veldenvlei	Pungent nauseating Peat Fire smell (burning rubber\tar).		Resolved - Peat Fire
14	Shaun Jordaan (083 635 0864)	11/06/2015 17:00	Chat Crescent \ Dorongo Domain, - Birdswood	Smoke and odour from Peat Fire. Odour described as "tar-like".		Resolved - Peat Fire
15	Richard 082 901 2406,	11/06/2015 17:30	13 Suurvy – Veldenvlei Extension	Pungent Tar odour. Complainant reported "battling to breathe"		Resolved - Peat Fire
16	Jackie Veitch 035-902 2638,	11/06/2015 17:45	Pelican Pride - Birdswood	"Birdswood was shrouded in a haze of smoke. The smoke smelt like burnt rubber/metal."		Resolved - Peat Fire



**RBCAA: ANNUAL AIR QUALITY REPORT - 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
17	R Camminga (0357860076)	12/06/2015 02:30	33 Heideheuvel - Veldenvlei	We were woken at 02h30 this morning by a Pungent Mondi odour permeating throughout our home, despite all windows being closed. We actually woke up gagging, nauseas and suffering with a headache. This is an unacceptable situation!! As the complainant, I informed Mondi's General Manager and Environmental Section via SMS at 03h00 this morning, and have sent an e-mail to Mondi's CEO.	<p><b>Mondi RB 1/07/2015:</b> Candice Webb responded: As per previous discussions, in the early hours of 12th of June 2015, Mondi experienced a vent of Non-Condensable Gases (NCG) from the Evaps A/B/C Carbon Filters which lasted beyond the absorption capacity of the filters. This event resulted in the venting of malodours gases to atmosphere and a negative impact on the community. Root Cause: The venting was the result of a build-up of NCG during a period that the Kiln and Flare was offline and all the NCG diverted to the Diesel Incinerator could not be burnt. The Kiln was offline due to a water wash. The Flare tripped when Sasol gas flow was lost and could not be immediately re-started because of a fault on the ignitor / flame scanner unit.</p> <p>Short term actions taken: Following the incident the following action have been taken: 1. The Flare was returned back to service once the ignitor was replaced 2. The mill commenced with early replenishment of all Carbon Filters 3. Reviewed of the ignitor and nozzle specification with OEM 4. Formal investigation into root cause undertaken. Preventative measures: The following preventative measures will be completed by 31 July 2015: 1. Investigate why Sasol gas flow is periodically lost – valve positions, gas pressure, flow measurement, line blockages 2. Determine source of black residue on the ignitor 3. Review the Burner Management System (BMS) to optimise switching protocols and hierarchy of NCG between Kiln, Flare, Incinerator, and Carbon Filters 4. Investigate engineering controls for redundancy on Flare/Incinerator and Carbon Filters 5. Improve control of and buffering of NCG from Softwood blows 6. Review call-out processes for response time, troubleshooting, reporting and escalation for support 7. Update the mill Trigger Action Response Plan (TARP) for odour management</p>	Resolved - Mondi Richards Bay



**RBCAA: ANNUAL AIR QUALITY REPORT - 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
18	S Camminga (0357860076)	12/06/2015 02:30	33 Heideheuvel - Veldenvlei	We were woken at 02h30 this morning by a Pungent Mondi odour permeating throughout our home, despite all windows being closed. We actually woke up gagging, nauseas and suffering with a headache. This is an unacceptable situation!! As the complainant, I informed Mondi's General Manager and Environmental Section via sums at 03h00 this morning, and have sent an e-mail to Mondi's CEO.	<p><b>Mondi RB 1/07/2015:</b> Candice Webb responded: As per previous discussions, in the early hours of 12th of June 2015, Mondi experienced a vent of Non-Condensable Gases (NCG) from the Evaps A/B/C Carbon Filters which lasted beyond the absorption capacity of the filters. This event resulted in the venting of malodours gases to atmosphere and a negative impact on the community. Root Cause:</p> <p>The venting was the result of a build-up of NCG during a period that the Kiln and Flare was offline and all the NCG diverted to the Diesel Incinerator could not be burnt. The Kiln was offline due to a water wash. The Flare tripped when Sasol gas flow was lost and could not be immediately re-started because of a fault on the ignitor / flame scanner unit.</p> <p>Short term actions taken: Following the incident the following action have been taken: 1. The Flare was returned back to service once the ignitor was replaced 2. The mill commenced with early replenishment of all Carbon Filters 3. Reviewed of the ignitor and nozzle specification with OEM 4. Formal investigation into root cause undertaken. Preventative measures: The following preventative measures will be completed by 31 July 2015: 1. Investigate why Sasol gas flow is periodically lost – valve positions, gas pressure, flow measurement, line blockages 2. Determine source of black residue on the ignitor 3. Review the Burner Management System (BMS) to optimise switching protocols and hierarchy of NCG between Kiln, Flare, Incinerator, and Carbon Filters 4. Investigate engineering controls for redundancy on Flare/Incinerator and Carbon Filters 5. Improve control of and buffering of NCG from Softwood blows 6. Review call-out processes for response time, troubleshooting, reporting and escalation for support 7. Update the mill Trigger Action Response Plan (TARP) for odour management</p>	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
19	Mr Schofield 035-786 0631	12/06/2015	Disa Dives - Veldenvlei	Early hours of the morning, Terrible Mondi Smell causing sinus symptoms and nausea.	<p><b>Mondi RB 1/07/2015:</b> Candice Webb responded: As per previous discussions, in the early hours of 12th of June 2015, Mondi experienced a vent of Non-Condensable Gases (NCG) from the Evaps A/B/C Carbon Filters which lasted beyond the absorption capacity of the filters. This event resulted in the venting of malodours gases to atmosphere and a negative impact on the community. Root Cause:</p> <p>The venting was the result of a build-up of NCG during a period that the Kiln and Flare was offline and all the NCG diverted to the Diesel Incinerator could not be burnt. The Kiln was offline due to a water wash. The Flare tripped when Sasol gas flow was lost and could not be immediately re-started because of a fault on the ignitor / flame scanner unit.</p> <p>Short term actions taken: Following the incident the following action have been taken: 1. The Flare was returned back to service once the ignitor was replaced 2. The mill commenced with early replenishment of all Carbon Filters 3. Reviewed of the ignitor and nozzle specification with OEM 4. Formal investigation into root cause undertaken. Preventative measures: The following preventative measures will be completed by 31 July 2015: 1. Investigate why Sasol gas flow is periodically lost – valve positions, gas pressure, flow measurement, line blockages 2. Determine source of black residue on the ignitor 3. Review the Burner Management System (BMS) to optimise switching protocols and hierarchy of NCG between Kiln, Flare, Incinerator, and Carbon Filters 4. Investigate engineering controls for redundancy on Flare/Incinerator and Carbon Filters 5. Improve control of and buffering of NCG from Softwood blows 6. Review call-out processes for response time, troubleshooting, reporting and escalation for support 7. Update the mill Trigger Action Response Plan (TARP) for odour management</p>	Resolved - Mondi Richards Bay



**RBCAA: ANNUAL AIR QUALITY REPORT - 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
20	Mrs Schofield 035-786 0631	12/06/2015	Disa Dives - Veldenvlei	Early hours of the morning, Terrible Mondi Smell causing sinus symptoms and nausea.	<p><b>Mondi RB 1/07/2015:</b> Candice Webb responded: As per previous discussions, in the early hours of 12th of June 2015, Mondi experienced a vent of Non-Condensable Gases (NCG) from the Evaps A/B/C Carbon Filters which lasted beyond the absorption capacity of the filters. This event resulted in the venting of malodours gases to atmosphere and a negative impact on the community. Root Cause:</p> <p>The venting was the result of a build-up of NCG during a period that the Kiln and Flare was offline and all the NCG diverted to the Diesel Incinerator could not be burnt. The Kiln was offline due to a water wash. The Flare tripped when Sasol gas flow was lost and could not be immediately re-started because of a fault on the ignitor / flame scanner unit.</p> <p>Short term actions taken: Following the incident the following action have been taken: 1. The Flare was returned back to service once the ignitor was replaced 2. The mill commenced with early replenishment of all Carbon Filters 3. Reviewed of the ignitor and nozzle specification with OEM 4. Formal investigation into root cause undertaken. Preventative measures: The following preventative measures will be completed by 31 July 2015: 1. Investigate why Sasol gas flow is periodically lost – valve positions, gas pressure, flow measurement, line blockages 2. Determine source of black residue on the ignitor 3. Review the Burner Management System (BMS) to optimise switching protocols and hierarchy of NCG between Kiln, Flare, Incinerator, and Carbon Filters 4. Investigate engineering controls for redundancy on Flare/Incinerator and Carbon Filters 5. Improve control of and buffering of NCG from Softwood blows 6. Review call-out processes for response time, troubleshooting, reporting and escalation for support 7. Update the mill Trigger Action Response Plan (TARP) for odour management</p>	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
21	R Camminga (0357860076)	13/06/2015 15:00	33 Heideheuvel - Veldenvlei	Pungent Peat Fire smell causing nausea, headache and sinus irritation.	<p><b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property.</p> <p>I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue. There are currently 4 active ground fires on SQF which would contribute to the complaints in the Birdwood area. I have put the status of the SQF Kwambo fires below - the google earth file attached will show their location and number reference.</p> <p>Kambo_Z002_01 (most likely contributor to recent complaints) Ignition date 5 June 2015, started by honey collectors. 4.9 ha of open area has burnt. Heavy smoke, strong odour. Fire difficult to extinguish due to size of area burnt. Trenching will be ineffective in this case as the entire area has burnt out already. Firefighting also dangerous as there are numerous peat "holes" which fire fighters can step into. Fire truck is in attendance and is attempting to work from the sides, but efforts will not reduce the smoke emissions significantly. Odour and smoke emissions likely to continue to a while.</p> <p>SQFKwambo_Z008_01: Ignition date 29 May, started by honey collectors. Significant area burnt. Light smoke emissions, but detectable smell, would contribute to smell in evenings with inversion layer. Trenching will be considered here to contain the fire and prevent spread further down the valley. Access difficult for fire truck due to thick vegetation and steep slopes. SQFKwambo_Z005_01: ignition date: 14 April 2015 Low smoke emissions. QFKwambo_D059_01: Ignition date: 23 March 2015 Low smoke emissions, Significant area burnt, and residual odour would contribute to odour in the evenings with inversion layer.</p>	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
22	S Camminga (0357860076)	13/06/2015 15:00	33 Heideheuvel - Veldenvlei	Pungent Peat Fire smell causing nausea, headache and sinus irritation.	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
23	Saun Coetsee 035 - 786 0794	13/06/2015 18:00	23A Whydah Wing - Birdswood	Smoke & Odour causing burning of eyes & sinuses, and leaves taste in the mouth.	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
24	Babitha Sewparsad 083 656 4530	14/06/2015 18:25	12 Gallinule Gait - Birdswood	"Very bad pollution affecting our health"	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
25	Chantelle Naude 073 239 2196	14/06/2015 18:45	Birdswood	"Please, please, please! Can you put an end to this unhealthy living? My whole family is complaining about their noses burning and completely blocked up.	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
				My daughter and I get bad allergies and this is making it worse. I go to bed every night with headache tablets.”		
26	Charl 083 645 5772	14/06/2015	Birdswood	“We cannot breathe here in Birdswood with all this poisonous smoke. There is a cloud of smoke inside our house.”	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
27	Sifiso Ndimande 0833248328	14/06/2015 21:25	Gallinule Gait – Birdswood	“Irritating smoke in Birdswood I live in Gallinule Gait in Birdswood. There is a thick smell of smoke that suffocates us every night. My child is now experiencing respiratory problems. Could somebody explain what is going on?”	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
28	Tina 083 324 0454 14	14/06/2015 19:15	Hoopoe Hideaway Birdswood	“This air in Birdswood is really bad. The smoke is burning my eyes and is affecting our sinuses every evening.”	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
29	Vicki Smit 072 706 8215	14/06/2015 20:15	Hoopoe Hideaway Birdswood	"The smoke was so bad tonight that I could not even see my gate from my house. I have been using a new asthma pump every week due to the smoke coming into my home. This is unbearable. My kids been suffering – coughing and wheezing from all the smoke. Our eyes are constantly burning. Please can something be done about this in our area?"	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
30	Babitha Sewparsad 083 656 4530	16/06/2015 18:29	12 Gallinule Gait – Birdswood	I don't know how much more of this horrible pollution we can handle. We really need it to come to a stop."	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
31	Francois 073 151 0337	16/06/2015 20:14	Birdswood	"kan asb ondersoek instel waar en wie verantwoordelik is vir die lug besoedeling in Birdswood.	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
				Dit is nou vir die laaste week wat dit erg rook. My kinders het sinus en hoofpyn elke dag.”	I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	
32	Aziza Mc Kenzie,	16/06/2015	21 Gallinule Gait – Birdswood	“I would like to reinforce the complaint of bad pungent smell that hovers over our houses almost every night and penetrates into the house whether our windows are closed or not. My kids have blocked noses every night and I have sinus headaches. The smell is detrimental to our health. And something must be done to assist us in breathing clean air.”	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
33	Tina 083 324 0454	16/06/2015 14:25	Hoopoe Hideaway Birdswood	“Very bad smell of smoke in Birdswood, burning eyes.”	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
34	Tina 083 324 0454	16/06/2015 17:10	Hoopoe Hideaway Birdswood	"The smoke is so bad we can't breathe outside our house. Even my eyes are burning."	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
35	Chantelle Naude 073 239 2196	16/06/2015 13:40	Birdswood	It's terrible out here again today. It burns eyes and throat."	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
36	Debbie Oberholtzer 071 6111760	16/06/2015 13:40	25 Mackerel - Meerensee	Smoke & Odour affecting our health. "My son has had allergic bronchitis 3 times in 2 months, his eyes are blood red and painful. We suffer from nausea and headaches."	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
37	Clinton 071 6111 760	16/06/2015 20:04	Jacana Jaunt – Birdswood	"Ek en my vrou staan elke oggend op met n hewige kop seer. DIT IS NIE GESOND NIE. DAAR MOET DRINGEND IETS HIERAAN GEDOEN WORD."	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
38	Natasha 071 6111 760	16/06/2015 20:04	Jacana Jaunt – Birdswood	“Ek en my vrou staan elke oggend op met n hewige kop seer. DIT IS NIE GESOND NIE DAAR MOET DRINGEND IETS HIERAAN GEDOEN WORD.”	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
39	Wilma 071 6111 760	16/06/2015 20:04	Jacana Jaunt – Birdswood	“Ek en my vrou staan elke oggend op met n hewige kop seer. DIT IS NIE GESOND NIE DAAR MOET DRINGEND IETS HIERAAN GEDOEN WORD.”	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire
40	Shaun Jordaan 083 635 0864	17/06/2015 07:46	Chat Crescent\ Dorongo Domain, - Birdswood	We had the smell again on Saturday and Sunday afternoon/early evening. Monday evening was fine, no smell. Yesterday we were at home the whole day and the smell started again in the late afternoon.	<b>MONDI Forests 17/06/2015:</b> Jacqui Shuttleworth responded: I have attached the latest Mondi/SQF ground fire point coverage to show location of fires on our property. I have investigated our fires and can report as follows: Mondi Mananzi fires have all been reduced to minimal smoke levels and are unlikely to be contributing to the most recent complaints. Monitoring will continue.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
41	Anonymous	22/06/2015 11:25	R34 in the vicinity of Tronox	Excessive emissions emanating from TRONOX. (Photographs attached)	<b>Tronox 22/06/2015:</b> Fikile Ngidi responded: A metal tap was conducted on Furnace 1 at the time when the pictures were taken from TRONOX showing excessive emissions emanating from the Smelter building. The metal tap was opened at 10:48 and was closed at 11:32. The metal flow from the tap hole was erratic and together with abnormal high metal temperature of 1 666°C (normally ± 1 500°C) resulted in excessive fumes generated during the tap. The fume extraction system was not able to capture all the excess fumes resulting in fugitive fumes to escape the Smelter building. Changes to furnace and process set points have been made to address the high temperature of the metal and should decrease within the next day or two.	Resolved - Tronox
42	S Camminga (0357860076)	23/06/2015 15:00	33 Heideheuvel - Veldenvlei	PUNGENT nauseating Peat fire odour.	<b>MONDI Forests 23/06/2015:</b> Jacqui Shuttleworth responded: The ground fires most likely contributing to this odour complaint was SQFKwambo_Z005_01 fire. Tony Roberts noticed smoke from the area during a flight from the airport today and informed SQF forester who attended the fire. It appears an unknown person had made a fire close to the existing underground fire which may have increased the smoke emissions. Our fire crews have been in attendance and have been attempting to reduce the smoke. An update on SQF & Mondri fires is provided below: SQFKwambo_Z005_01 (most likely contributor to recent complaint) Ignition date: 14 April 2015 Smoke emissions: medium to low. Fire continues to flare up. Trenching has been undertaken, but fire proving difficult to put out. SQFKwambo_Z002_01 Revised Ignition date: 26 May, started by honey collectors. Small fire which escalated on 4 & 5 June during high winds and high fire danger ratings. 4.9 ha of open area has burnt. Heavy smoke, strong odour from 4 - 18 June. As at 23 June smoke levels are medium to low as most peat has now burnt out. (See previous email highlighting problems with extinguishing this fire).	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					<p>SQFKwambo_Z008_01 Ignition date 29 May, started by honey collectors. Significant area burnt. Heavy smoke emissions in the beginning but currently no distinguishable smoke. On 23 June reports are little to no smoke emissions.</p> <p>Trenching has been undertaken to prevent any further potential spread on high fire risk days. FKwambo_D059_01 Trenching done, low to no smoke emissions.</p> <p>SQFKwambo_Z047_01 Fire proving difficult to extinguish. Continual flare ups. Trenching undertaken on 20 June. Fire crews will continue to attend. All Mondi Mananzi fires are now regarded as dormant and no smoke emissions or odours have been noticed for the past few weeks.</p>	
43	Skhumbuzo Mpungose 082 719 9866	24/06/2015 15:00	John Ross Highway	Mondi Odour	<p><b>Mondi RB 24/06/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour</p> <p>Compliance with Permit's: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi has identified fugitive emissions from the effluent plant as the source of the odour. Mondi will continue to investigate and determine any unknown sources which may be contributing to the odour.</p>	Resolved - Mondi Richards Bay



Table D7: Complaints Log – July 2015

No.	Complainant	Date and Time	Location	Description	Results	Resolution
1	R Camminga (0357860076)	06/07/2015 08:45	33 Heideheuvel - Veldenvlei	Pungent nauseating Mondi odour.	<b>Mondi RB 8/07/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi has identified a decrease in the quality of condensate which is sent to the Mondi effluent plant for treatment as the cause of the odour. Mondi is in the process of identify preventative measures.	Resolved - Mondi Richards Bay
2	S Camminga (0357860076)	06/07/2015 08:45	33 Heideheuvel - Veldenvlei	Pungent nauseating Mondi odour.	<b>Mondi RB 8/07/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi has identified a decrease in the quality of condensate which is sent to the Mondi effluent plant for treatment as the cause of the odour. Mondi is in the process of identify preventative measures.	Resolved - Mondi Richards Bay
3	K Camminga (0357860076)	06/07/2015 08:45	33 Heideheuvel - Veldenvlei	Pungent nauseating Mondi odour.	<b>Mondi RB 8/07/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi has identified a decrease in the quality of condensate which is sent to the Mondi effluent plant for treatment as the cause of the odour. Mondi is in the process of identify preventative measures.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date and Time	Location	Description	Results	Resolution
4	B Camminga (0357860076)	06/07/2015 08:45	33 Heideheuvel - Veldenvlei	Pungent nauseating Mondi odour. Source and Nature of Emissions Based on wind direction, it is likely that Mondi is the source of odour.	<b>Mondi RB 8/07/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi has identified a decrease in the quality of condensate which is sent to the Mondi effluent plant for treatment as the cause of the odour. Mondi is in the process of identify preventative measures.	Resolved - Mondi Richards Bay
5	S Dewey (0357860076)	06/07/2015 08:45	33 Heideheuvel - Veldenvlei	Pungent nauseating Mondi odour.	<b>Mondi RB 8/07/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi has identified a decrease in the quality of condensate which is sent to the Mondi effluent plant for treatment as the cause of the odour. Mondi is in the process of identify preventative measures.	Resolved - Mondi Richards Bay
6	Mary (078 040 1480)	09/07/2015 14:45	Felixton Village in the vicinity of Felixton College	Very strong chemical type odour causing nausea. Mpaact and Tongaat Hulett have been telephonically notified.	<b>Tongaat Hulett 10/07/2015:</b> Sagraan Govindasamy responded: Source and Nature of Emissions: The incident was investigated as soon as the complaint was received. To determine the source and nature of the emission the SHEQ Manager, Production Engineer and SHE Officer immediately proceeded to the area around Felixton College. During this time there were no chemical type odours evident in the area. The only smell in the area was a slight sweet sugar smell, which is the normal smell associated with sugar mills. During the time of our incident the factory did not experience any upset conditions.	Unresolved



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date and Time	Location	Description	Results	Resolution
					<p>Peak and Average Concentrations of Emissions and Met Conditions (if relevant): During the time of the complaint (between 14h00 and 16h00) our boilers were running well with the particulate matter for Boiler 2 at an average of 39.69 mg/m<sup>3</sup> and Boiler 3 with an average of 49.62 mg/m<sup>3</sup>. These readings are well below the NEM: AQA permissible allowable limit of 100 mg/m<sup>3</sup>. It must also be noted that our fuel ratio is currently 12 % coal and 88 % combination of bagasse and woodchips. The amount of coal as a fuel source in our boilers is well below the design limit of 20%. Compliance with Permits: There was no contravention of our permit requirement. Root Cause of Incident and Corrective Action: From the investigation conducted the root cause of the chemical type odour could not be established. Tongaat Hulett Sugar will continue to operate its sugar mill in a responsible manner.</p> <p><b>Mpact 14/08/2015:</b> Siyabonga Buthelezi responded: Nature of Complaint/Incident: Mary (078 040 1480), Felixton Village in the vicinity of Felixton College, 9 July, 14h45, Very strong chemical type odour causing nausea. The complaint was relayed by RBCAA to Mpact &amp; THS to investigate. • Source and Nature of Emissions: The incident was investigated as soon as the complaint was received. The Technical Manager (MPACT) went to the village personally to investigate the complaint and there was no strong chemical smell. She stopped to speak to one of the Felixton Village residents, Ms. Nkosi and she confirmed that she can smell something but it was a sweet sugar smell not chemical. During the time of the complaint the Mpact plant was running steady at the time with no odours being generated from processes.</p>	



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date and Time	Location	Description	Results	Resolution
					<p>There were no upset conditions at the boiler house and bagasse stockpiling operations during the time of the complaint and/or SO<sub>2</sub> peaks recorded @ Felixton station.</p> <ul style="list-style-type: none"> <li>• Peak and Average Concentrations of Emissions and Met Conditions No exceedances were recorded against %RSA Standard (125 µg/m<sup>3</sup> / 48 ppb) ambient SO<sub>2</sub> guidelines. However; SO<sub>2</sub> peaks recorded during the period 14: 22 -14:32 and 15:11 -15:20 were above % the WHO Guideline (20 µg/m<sup>3</sup> / 8 ppb). Compliance with Permit/s:</li> </ul> <p>There was no contravention of any permit requirements identified during this period • Root Cause of Incident and Corrective Action/s: The root cause and corrective action/s for this complaint could not be identified by Mpac Felixton as there were no upset conditions in the industrial processes.</p> <p>Findings: Based on the prevailing wind direction MPACT is unlikely the source of a “very strong chemical type odour causing nausea” complaint logged on the 9th July 2015.</p>	
7	Ansie 084 974 6379	21/07/2015 08:00	TWK adjacent to Foskor	Very bad acid smell emanating from Foskor. The complainant states that she contacted Foskor directly yesterday morning. Foskor is reminded that they are obliged to forward complaints to the RBCAA.	<p><b>Foskor 23/07/2015:</b> Mannana Ntoampe responded: Peak Concentrations of SO<sub>2</sub> emissions: The highest SO<sub>2</sub> emissions of 490 ppm were recorded for the Main Stack, these were however still within permit limits. Compliance with Permit/s: There was no contravention in existing permits. Root Cause and Corrective Action: All Plant operations were normal and stable. There were no gas leaks reported during that period The strong acid smell could have been a result of temperature inversions due to current weather conditions: Note: A-plant is still on annual shut</p>	Resolved - Foskor



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date and Time	Location	Description	Results	Resolution
					Foskor eventually got hold of the complainant to confirm who at Foskor was initially informed of the complaint since we didn't get any prior notice internally. The complainant will give Foskor more information tomorrow.	
8	Elize Cronje 083 227 5616	22/07/2015	18 Kruisbessie - Veldenvlei	Early hours of the morning, Mondi odour. "Again last night the stench from Mondi was so bad I had to try and sleep with a cloth over my face."	<b>Mondi RB 27/07/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Root cause is being investigated. Mondi is committed to addressing the issues that are contributing to the odour emissions. Mondi recognises the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.	Resolved - Mondi Richards Bay
9	S Camminga (0357860076)	22/07/2015 05:00	33 Heideheuvel - Veldenvlei	Nauseating Mondi odour.	<b>Mondi RB 27/07/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Root cause is being investigated. Mondi is committed to addressing the issues that are contributing to the odour emissions. Mondi recognises the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.	Resolved - Mondi Richards Bay
10	S Camminga (0357860076)	24/07/2015 05:00	33 Heideheuvel - Veldenvlei	Very strong Mondi "Methanol" odour causing headache. The odour leaves a taste in the mouth, and is something we use to experience regularly some years ago.	<b>Mondi RB 27/07/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permit's There was no contravention in existing permits for point source emissions.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date and Time	Location	Description	Results	Resolution
					Root Cause of Incident and Corrective Action: Root cause is being investigated. Mondi is committed to addressing the issues that are contributing to the odour emissions. Mondi recognises the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.	
11	S Camminga (0357860076)	24/07/2015 20:15		Pungent Mondi "Methanol" odour – causing nausea & headache.	<b>Mondi RB 27/07/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permit/s There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Root cause is being investigated. Mondi is committed to addressing the issues that are contributing to the odour emissions. Mondi recognises the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.	Resolved - Mondi Richards Bay
12	K Camminga (0357860076)	24/07/2015 20:15	33 Heideheuvel - Veldenvlei	Pungent Mondi "Methanol" odour – causing nausea & headache.	<b>Mondi RB 27/07/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permit/s There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Root cause is being investigated. Mondi is committed to addressing the issues that are contributing to the odour emissions. Mondi recognises the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.	Resolved - Mondi Richards Bay
13	S Camminga (0357860076)	25/07/2015 08:30	33 Heideheuvel - Veldenvlei	Pungent Mondi "Methanol" odour – causing nausea & headache.	<b>Mondi RB 27/07/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date and Time	Location	Description	Results	Resolution
					Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Root cause is being investigated. Mondi is committed to addressing the issues that are contributing to the odour emissions. Mondi recognises the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.	
14	K Camminga (0357860076)	25/07/2015 08:30	33 Heideheuvel - Veldenvlei	Pungent Mondi "Methanol" odour – causing nausea & headache.	<b>Mondi RB 27/07/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Root cause is being investigated. Mondi is committed to addressing the issues that are contributing to the odour emissions. Mondi recognises the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

**Table D8: Complaints Log – August 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
1	Marge 035 7911770	03/08/2015 17:05	Felixton Village	Smuts Fallout		Resolved - Sugar Cane Fire
2	D Savides 072 392 4946	04/08/2015 07:30	Vicinity of Hillside	<p>“Thick Smoke coming from Hillside FTC”. The RBCAA received the following notification from South32 on 31st July 2015; “In order to limit unplanned bypasses, cleaning and maintenance on the FTC 1 is a pre-requisite. This maintenance session is required to conduct cleaning and critical maintenance. The FTC 1 and Bake Furnaces will be on shut during the maintenance session. During start-up of the FTC 1, visible emissions will be noticed.” The notice states that emissions will be visible during start-up, however, it is understood that the FTC was not under start-up conditions at the time of the complaints.</p>	<p><b>South 32 RB 12/08/2015:</b> Shaloshini Naidoo responded: 2) Source and nature of emissions – As per the planned schedule, the Bake Furnace Fume Treatment Centres are placed into Emergency Bypass to allow for essential maintenance on the fans, filters and ducting. During this period the fires in the Bake Furnace are placed on hold by stopping the gas fired heating ramps. This process results in residual heat in the furnace continuing to partially bake the anodes. During this process some fumes are released from the Furnaces and FTC stack. Root cause identified – Emissions released during an Emergency Bypass for planned maintenance. Corrective action – Planned maintenance is a critical activity to ensure that the FTC functions optimally. Hillside will continue to communicate planned outages accordingly.</p>	Resolved - South 32 (Hillside)
3	S Camminga	04/08/2015 10:10	Dollar Drive - Alton	<p>“Thick Smoke coming from Hillside FTC”. The RBCAA received the following notification from South32 on 31st July 2015; “In order to limit unplanned bypasses, cleaning and maintenance on the FTC 1 is a pre-requisite.</p>	<p><b>South 32 RB 12/08/2015:</b> Shaloshini Naidoo responded: 2) Source and nature of emissions – As per the planned schedule, the Bake Furnace Fume Treatment Centres are placed into Emergency Bypass to allow for essential maintenance on the fans, filters and ducting. During this period the fires in the Bake Furnace are placed on hold by stopping the gas fired heating ramps.</p>	Resolved - South 32 (Hillside)



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
				This maintenance session is required to conduct cleaning and critical maintenance. The FTC 1 and Bake Furnaces will be on shut during the maintenance session. During start-up of the FTC 1, visible emissions will be noticed." The notice states that emissions will be visible during start-up, however, it is understood that the FTC was not under start-up conditions at the time of the complaints.	This process results in residual heat in the furnace continuing to partially bake the anodes. During this process some fumes are released from the Furnaces and FTC stack. Root cause identified – Emissions released during an Emergency Bypass for planned maintenance. Corrective action – Planned maintenance is a critical activity to ensure that the FTC functions optimally. Hillside will continue to communicate planned outages accordingly.	
4	S Camminga (0357860076)	05/08/2015 07:20	33 Heideheuvel - Veldenvlei	Pungent Mondi "Methanol" odour – causing nausea & headache.	<b>Mondi RB 7/08/2015:</b> Candice Webb responded: Source and Nature of Emissions: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permit\s There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Root cause is being investigated. Mondi is committed to addressing the issues that are contributing to the odour emissions. Mondi recognises the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.	Resolved - Mondi Richards Bay
5	K Camminga (0357860076)	05/08/2015 07:20	33 Heideheuvel - Veldenvlei	Pungent Mondi "Methanol" odour – causing nausea & headache.	<b>Mondi RB 7/08/2015:</b> Candice Webb responded: Source and Nature of Emissions: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permit\s There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Root cause is being investigated.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					Mondi is committed to addressing the issues that are contributing to the odour emissions. Mondi recognises the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.	
6	S Camminga (0357860076)	09/08/2015 09:00	33 Heideheuvel - Veldenvlei	Nauseating Mondi "Methanol" odour.	<b>Mondi RB 17/08/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Root cause is being investigated. Mondi is committed to addressing the issues that are contributing to the odour emissions. Mondi recognises the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.	Resolved - Mondi Richards Bay
7	Elize Cronje 083 227 5616	09/08/2015 22:30	18 Kruisbessie – Veldenvlei	Mondi odour – "Horrible smell."	<b>Mondi RB 17/08/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Root cause is being investigated. Mondi is committed to addressing the issues that are contributing to the odour emissions. Mondi recognises the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.	Resolved - Mondi Richards Bay
8	Elize Cronje 083 227 5616	10/08/2015 08:50	18 Kruisbessie – Veldenvlei	Mondi Odour - "The stench is terrible on this beautiful rainy morning."	<b>Mondi RB 17/08/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					Root Cause of Incident and Corrective Action: Root cause is being investigated. Mondi is committed to addressing the issues that are contributing to the odour emissions. Mondi recognises the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.	
9	S Camminga (0357860076)	20/08/2015 07:15	33 Heideheuvel - Veldenvlei	Nauseating background Mondi "Methanol" odour.	<p><b>Mondi RB 28/08/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi's Odour Abatement Task Team has thoroughly investigated the recent increase in ambient TRS and while we are not certain that we have identified all contributing sources, we have identified the following as the most likely contributors to increase odour: In response to the drought Mondi has reduced daily average water consumption by 10 000 m<sup>3</sup> per day. This has resulted in an increase in both effluent concentration and temperature, which may be contributing to increased odour emissions from the effluent plant. In order to reduce the effluent temperature Mondi is working on bringing heat exchangers into operation which will cool the effluent by no later than end of October 2015. In addition, the task team has started benchmarking effluent quality with our sister mills in Europe and are working on improving the quality of our effluent streams either by improving existing management control systems or identifying and implementing plant modifications. Mondi recognizes the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.</p>	Resolved - Mondi Richards Bay



**RBCAA: ANNUAL AIR QUALITY REPORT - 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
10	K Camminga (0357860076)	20/08/2015 07:15	33 Heideheuwel - Veldenvlei	Nauseating background Mondi "Methanol" odour.	<p><b>Mondi RB 28/08/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi's Odour Abatement Task Team has thoroughly investigated the recent increase in ambient TRS and while we are not certain that we have identified all contributing sources, we have identified the following as the most likely contributors to increase odour: In response to the drought Mondi has reduced daily average water consumption by 10 000 m<sup>3</sup> per day. This has resulted in an increase in both effluent concentration and temperature, which may be contributing to increased odour emissions from the effluent plant. In order to reduce the effluent temperature Mondi is working on bringing heat exchangers into operation which will cool the effluent by no later than end of October 2015. In addition, the task team has started benchmarking effluent quality with our sister mills in Europe and are working on improving the quality of our effluent streams either by improving existing management control systems or identifying and implementing plant modifications. Mondi recognizes the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.</p>	Resolved - Mondi Richards Bay
11	R Camminga (0357860076)	20/08/2015 07:15	33 Heideheuwel - Veldenvlei	Nauseating background Mondi "Methanol" odour.	<p><b>Mondi RB 28/08/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions.</p>	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					<p>Root Cause of Incident and Corrective Action: Mondi's Odour Abatement Task Team has thoroughly investigated the recent increase in ambient TRS and while we are not certain that we have identified all contributing sources, we have identified the following as the most likely contributors to increase odour: In response to the drought Mondi has reduced daily average water consumption by 10 000 m<sup>3</sup> per day. This has resulted in an increase in both effluent concentration and temperature, which may be contributing to increased odour emissions from the effluent plant. In order to reduce the effluent temperature Mondi is working on bringing heat exchangers into operation which will cool the effluent by no later than end of October 2015. In addition, the task team has started benchmarking effluent quality with our sister mills in Europe and are working on improving the quality of our effluent streams either by improving existing management control systems or identifying and implementing plant modifications. Mondi recognizes the urgency of resolving this and will continue to communicate any findings from our investigation to the RBCAA.</p>	
12	S Camminga (0357860076)	24/08/2015 15:35	33 Heideheuvel - Veldenvlei	Pungent Peat Fire odour (burning rubber smell). The attached Google image shows prevailing wind direction prior to, and at the time of the complaint.	<p><b>MONDI Forests 31/08/2015:</b> Jacqui Shuttleworth responded: Siya Qhubeka Kwambo had an active underground fire in the vicinity of the vectors shown and would have contributed to this odour complaint. The fire started on 11 August and remedial action was taken. Fire trucks were in attendance, however on a high FDI day, the fire jumped the trench and burnt a large area which has been smouldering and is difficult to attend to with fire trucks.</p>	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
13	K Camminga (0357860076)	24/08/2015 15:35	33 Heideheuvel - Veldenvlei	Pungent Peat Fire odour (burning rubber smell). The attached Google image shows prevailing wind direction prior to, and at the time of the complaint.	<b>MONDI Forests 31/08/2015:</b> Jacqui Shuttleworth responded: Siya Qhubeka Kwambo had an active underground fire in the vicinity of the vectors shown and would have contributed to this odour complaint. The fire started on 11 August and remedial action was taken. Fire trucks were in attendance, however on a high FDI day, the fire jumped the trench and burnt a large area which has been smouldering and is difficult to attend to with fire trucks.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

**Table D9: Complaints Log – September 2015**

No.	Complainant	Date and time	Location	Description	Results	Resolution
1	Elize Cronje 083 227 5616	04/09/2015 06:00	18 Kruisbessie – Veldenvlei	Mondi Odour - “Again, we have this wonderful rain where we should be able to smell clean air. Instead it is this overwhelming stench from Mondi coming through.”	<b>Mondi RB 11/09/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permit's: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: The odour was caused by low effluent pH. The Mondi Odour Abatement Task team is working on a project to improve the effluent pH swings. Progress on this project will be reported at the next RBCAA Manco meeting.	Resolved - Mondi Richards Bay
2	Elize Cronje 083 227 5616	12/09/2015 01:00	18 Kruisbessie – Veldenvlei	Mondi Odour – This morning again at about 01h00 the stench was unbearable. As I am typing the smell is still prevalent. As far as I am concerned this should be a criminal offense. People of Richards Bay have to put up with their incompetence to run a business without polluting the air we breathe and then they make money at our expense. If it wasn't for the fact that people rely on Mondi for their livelihoods (which is obviously something they bargain on) I would lobby for it to be closed down.	<b>Mondi RB 23/09/2015:</b> Candice Webb responded: Source and Nature of Emissions: Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi's Odour Abatement Task Team have thoroughly investigated this increase in odour. The Task Team have identified the following as the most likely contributors: A reduction in water consumption has resulted in an increase in both effluent concentration and temperature, which may be contributing to increased odour emissions from our effluent plant. In order to reduce the effluent temperature Mondi is working on bringing heat exchangers into operation which will cool the effluent by no later than end of October 2015. Mondi's effluent plant emergency ponds require draining and cleaning.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date and time	Location	Description	Results	Resolution
					An order has been placed and the service provider will commence with site establishment on 23rd September 2015. Mondi expects the draining and cleaning of the ponds to be complete by mid October 2015.	
3	S Camminga (0357860076)	12/09/2015 01:30	33 Heideheuvel - Veldenvlei	Pungent Mondi odour causing nausea and headache.	<b>Mondi RB 23/09/2015:</b> Candice Webb responded: Source and Nature of Emissions: Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi's Odour Abatement Task Team have thoroughly investigated this increase in odour. The Task Team have identified the following as the most likely contributors: A reduction in water consumption has resulted in an increase in both effluent concentration and temperature, which may be contributing to increased odour emissions from our effluent plant. In order to reduce the effluent temperature Mondi is working on bringing heat exchangers into operation which will cool the effluent by no later than end of October 2015. Mondi's effluent plant emergency ponds require draining and cleaning. An order has been placed and the service provider will commence with site establishment on 23rd September 2015. Mondi expects the draining and cleaning of the ponds to be complete by mid October 2015.	Resolved - Mondi Richards Bay
4	R Camminga (0357860076)	12/09/2015 01:30	33 Heideheuvel - Veldenvlei	Pungent Mondi odour causing nausea and headache.	<b>Mondi RB 23/09/2015:</b> Candice Webb responded: Source and Nature of Emissions: Compliance with Permit's There was no contravention in existing permits for point source emissions.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date and time	Location	Description	Results	Resolution
					<p>Root Cause of Incident and Corrective Action: Mondi's Odour Abatement Task Team have thoroughly investigated this increase in odour. The Task Team have identified the following as the most likely contributors: A reduction in water consumption has resulted in an increase in both effluent concentration and temperature, which may be contributing to increased odour emissions from our effluent plant. In order to reduce the effluent temperature Mondi is working on bringing heat exchangers into operation which will cool the effluent by no later than end of October 2015. Mondi's effluent plant emergency ponds require draining and cleaning. An order has been placed and the service provider will commence with site establishment on 23rd September 2015. Mondi expects the draining and cleaning of the ponds to be complete by mid October 2015.</p>	
5	S Camminga (0357860076)	13/09/2015 06:15	33 Heideheuvel - Veldenvlei	Mondi "methanol" odour causing headache and sinus irritation.	<p><b>Mondi RB 23/09/2015:</b> Candice Webb responded: Source and Nature of Emissions: Compliance with Permit's There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi's Odour Abatement Task Team have thoroughly investigated this increase in odour. The Task Team have identified the following as the most likely contributors: A reduction in water consumption has resulted in an increase in both effluent concentration and temperature, which may be contributing to increased odour emissions from our effluent plant.</p>	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date and time	Location	Description	Results	Resolution
					<p>In order to reduce the effluent temperature Mondi is working on bringing heat exchangers into operation which will cool the effluent by no later than end of October 2015.</p> <p>Mondi's effluent plant emergency ponds require draining and cleaning. An order has been placed and the service provider will commence with site establishment on 23rd September 2015. Mondi expects the draining and cleaning of the ponds to be complete by mid October 2015.</p>	
6	R Camminga (0357860076)	13/09/2015 06:15	33 Heideheuwel - Veldenvlei	Mondi "methanol" odour causing headache and sinus irritation.	<p><b>Mondi RB 23/09/2015:</b> Candice Webb responded: Source and Nature of Emissions: Compliance with Permits</p> <p>There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi's Odour Abatement Task Team have thoroughly investigated this increase in odour. The Task Team have identified the following as the most likely contributors: A reduction in water consumption has resulted in an increase in both effluent concentration and temperature, which may be contributing to increased odour emissions from our effluent plant. In order to reduce the effluent temperature Mondi is working on bringing heat exchangers into operation which will cool the effluent by no later than end of October 2015.</p> <p>Mondi's effluent plant emergency ponds require draining and cleaning. An order has been placed and the service provider will commence with site establishment on 23rd September 2015.</p>	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date and time	Location	Description	Results	Resolution
					Mondi expects the draining and cleaning of the ponds to be complete by mid October 2015.	
7	Christa Vd Walt ( 035 – 797 1822)	23/09/2015 07:15	John Ross Alton Intersection	Odour causing tightening of the chest, burning throat and headache. Complaint described odour as a “sulphur” smell.	<p><b>Mondi RB 07/10/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits. There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action. Mondi’s Odour Abatement Task Team have thoroughly investigated this increase in odour. The Task Team have identified the following as the most likely contributors: A reduction in water consumption has resulted in an increase in both effluent concentration and temperature, which may be contributing to increased odour emissions from our effluent plant. In order to reduce the effluent temperature Mondi is working on bringing heat exchangers into operation which will cool the effluent by no later than end of October 2015. Mondi’s effluent plant emergency ponds require draining and cleaning. An order has been placed and the service provider will commence with the cleaning this week. Mondi expects the draining and cleaning of the ponds to be complete by mid October 2015.</p>	Resolved - Mondi Richards Bay
8	S Camminga (0357860076)	23/09/2015 08:05	33 Heideheuvel - Veldenvlei	Pungent MONDI “Methanol” smell.	<p><b>Mondi RB 07/10/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits. There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action.</p>	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date and time	Location	Description	Results	Resolution
					<p>Mondi's Odour Abatement Task Team have thoroughly investigated this increase in odour. The Task Team have identified the following as the most likely contributors:</p> <p>A reduction in water consumption has resulted in an increase in both effluent concentration and temperature, which may be contributing to increased odour emissions from our effluent plant. In order to reduce the effluent temperature Mondi is working on bringing heat exchangers into operation which will cool the effluent by no later than end of October 2015.</p> <p>Mondi's effluent plant emergency ponds require draining and cleaning. An order has been placed and the service provider will commence with the cleaning this week. Mondi expects the draining and cleaning of the ponds to be complete by mid October 2015.</p>	
9	S Camminga (0357860076)	29/09/2015 06:15	33 Heideheuvel - Veldenvlei	PUNGENT Mondi Methanol Smell causing nausea and severe irritation of the respiratory system. The complaint has been telephonically communicated to Mondi.	<p><b>Mondi RB 07/10/2015:</b> Candice Webb responded:</p> <p>Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour.</p> <p>Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: The odour was caused by low effluent pH. The Mondi Odour Abatement Task team is working on a project to improve the effluent pH swings. Progress on this project will be reported at the next RBCAA Manco meeting and Mondi Environmental Liaison Forum.</p>	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

**Table D10: Complaints Log – October 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
1	S Camminga (0357860076)	01/10/2015 22:50	33 Heideheuvel - Veldenvlei	Pungent Mondi odour causing severe irritation of the respiratory system, headache & nausea. Mondi has been telephonically informed.	<b>Mondi RB 07/10/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: The odour was caused by low effluent pH due to a faulty pH probe which in turn led to poor control. The probe has been repaired; we are investigating the option of a dual probe.	Resolved - Mondi Richards Bay
2	A Breed	01/10/2015 22:50	33 Heideheuvel - Veldenvlei	Pungent Mondi odour causing severe irritation of the respiratory system, headache & nausea. Mondi has been telephonically informed.	<b>Mondi RB 07/10/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: The odour was caused by low effluent pH due to a faulty pH probe which in turn led to poor control. The probe has been repaired; we are investigating the option of a dual probe.	Resolved - Mondi Richards Bay
3	S Camminga (0357860076)	02/10/2015 07:00	33 Heideheuvel - Veldenvlei	Pungent Mondi odour causing severe irritation of the respiratory system, headache & nausea. Mondi has been telephonically informed.	<b>Mondi RB 07/10/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: The odour was caused by low effluent pH due to a faulty pH probe which in turn led to poor control. The probe has been repaired; we are investigating the option of a dual probe.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
4	A Breed	02/10/2015 07:00	33 Heideheuvel - Veldenvlei	Pungent Mondi odour causing severe irritation of the respiratory system, headache & nausea. Mondi has been telephonically informed.	<b>Mondi RB 07/10/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: The odour was caused by low effluent pH due to a faulty pH probe which in turn led to poor control. The probe has been repaired; we are investigating the option of a dual probe.	Resolved - Mondi Richards Bay
5	S Camminga (0357860076)	03/10/2015 17:00	33 Heideheuvel - Veldenvlei	Pungent Peat Fire Odour. Attached image depicts wind direction recorded at the RBCAA Brackenham station prior to and at the time of the complaint.	<b>MONDI Forests 06/10/2015:</b> Jacqui Shuttleworth responded: The SQFKwambo_z002 ground Fire which started in May/June has flared up again with the recent hot and dry days, also fanned by the strong winds. The fire trucks are in attendance and are attempting to reduce the active smoke in areas.	Resolved - Peat Fire
6	Rene VD Merwe (084 549 6431)	03/10/2015 21:00	Butter Cup Cord – Veldenvlei	“Such bad air can’t breathe”. In a follow-up the complainant described the odour as “chemical”. Based on my interaction with the complainant I would not use the description of the odour as a basis for investigation.	<b>MONDI Forests 06/10/2015:</b> Jacqui Shuttleworth responded: The SQFKwambo_z002 ground Fire which started in May/June has flared up again with the recent hot and dry days, also fanned by the strong winds. The fire trucks are in attendance and are attempting to reduce the active smoke in areas.	Resolved - Peat Fire
7	S Camminga (0357860076)	05/10/2015 07:20	33 Heideheuvel - Veldenvlei	Pungent Foskor Odour causing burning sensation of the nose. Foskor has been telephonically informed.	<b>Foskor 06/10/2015: Muhammad Ali</b> responded: As discussed telephonically this morning, the heat up of the plant has been stopped and will resume when the wind speed slows down. With the heavy gale winds this morning it is forcing emissions to ground. Stack emissions are within permit limits.	Resolved - Foskor



**RBCAA: ANNUAL AIR QUALITY REPORT - 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
8	Ms R Britz 035 - 907 5763	06/10/2015 15:15	12 Weightman Avenue Empangeni	Mondi Odour - "There is a very strong smell of Mondi / gas hanging over the entire Empangeni. I 1st noticed it at my residence (34 Cassia Road) and now that I'm at the office (12 Weightman Avenue) the smell is stronger. It's been in town for +/- half an hour now. All of the guys here at the fire station were complaining this afternoon as the smell was very strong. It was awful and lasted for about 35 - 45 minutes."	<b>Mondi RB 07/10/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: During this time, Mondi was in a maintenance shut down. The EMP for the shutdown was followed and no venting of gasses to atmosphere occurred prior to this complaint. However, based on wind direction and shut down conditions, fugitive odour from Mondi could have impacted on Empangeni.	Resolved - Mondi Richards Bay
9	N Mpinga 073 199 3489	08/10/2015 12:05	15 Eagle Drive, Empangeni	Unbearable Mondi smell	<b>Mondi RB 08/10/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is unlikely that Mondi is the source of odour. Compliance with Permits: There was no contravention of existing permits for point source emissions. Root Cause of Incident and Corrective Action: Not applicable <b>Mpact RB 24/11/2015</b> Siyabonga Buthelezi responded: During the time of the complaint Mpact had no upset conditions in the processes. The distinct bagasse odour (yeast) in the vicinity of our bagasse stock pile could not be associated with "Mondi smell". Furthermore, it is unlikely for bagasse odours to be carried by the prevailing winds and impact ambient air quality at Empangeni, which located about 10 km from the Felixton mill. Compliance with Permits: - There were no exceedances with the ambient air quality standards measurements	Unresolved



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
10	D Savides (072 392 0511)	14/10/2015 18:00	Zululand Observer Office – Baines Street Empangeni	“Mondi Smell”. Please find attached image depicting location of complainant. Also depicted are the prevailing wind directions prior to, and at the time of the complaint (based on RBCAA Brackenham data)	<p><b>Mpact RB 24/11/2015</b> Siyabonga Buthelezi responded: During the time of the complaint Mpact had no upset conditions in the processes. The distinct bagasse odour (yeast) in the vicinity of our bagasse stock pile could not be associated with "Mondi smell". Furthermore, it is unlikely for bagasse odours to be carried by the prevailing winds and impact ambient air quality at Empangeni, which located about 10 km from the Felixton mill.</p> <p><b>Compliance with Permits:</b> - There were no exceedances with the ambient air quality standards measurements</p>	Unresolved
11	S Camminga (0357860076)	17/10/2015 04:40	Richards Bay CBD	Pungent Mondi Odour.	<p><b>Mondi RB 27/10/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour.</p> <p>Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi's Odour Abatement Task Team has thoroughly investigated this increase in odour. The Task Team have identified the following as the most likely contributors: A reduction in water consumption has resulted in an increase in both effluent concentration and temperature, which may be contributing to increased odour emissions from our effluent plant. In order to reduce the effluent temperature Mondi is working on bringing heat exchangers into operation which will cool the effluent. Mondi's effluent plant emergency ponds require draining and cleaning. An order has been placed and the service provider will commence with site establishment on 23rd September 2015.</p>	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					Mondi expects the draining and cleaning of the ponds to be complete by mid November 2015.	
12	S Camminga (0357860076)	17/10/2015 04:40	N2 in the vicinity of Mpact Felixton	Nauseating Odour- similar to a Mondi odour. Based on wind direction odour emanating from Mpact.	<p><b>Mpact RB 24/11/2015</b> Siyabonga Buthelezi responded:</p> <p>1. Nature of Complaint: Complaint relayed by RBCAA: S Camminga, N2 Vicinity of Felixton, 17/10/2015, 04h40, "Nauseating Odour- similar to a Mondi odour" Source and Nature of Emissions: During the time of the complaint Mpact had no upset conditions in the processes. However there is distinct odour (yeast) in the vicinity of our bagasse stock pile which may be carrier to surrounding areas on strong winds. Based on prevailing wind direction, Mpact is possibly the source of the complaint. Compliance with Permit's: There were no exceedances with the ambient air quality standards measurements. Root Cause of Incident and Corrective Action</p> <p>There is little that can be done in the short-term to eliminate the bagasse odour in the vicinity of the plant which may be carried to surrounding areas by strong winds. We are however in the process of modifying the plant which will result in the bagasse storage pile being obsolete by 2018</p>	Resolved - Mpact



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

Table D11: Complaints Log – November 2015

No.	Complainant	Date	Location	Description	Results	Resolution
1	Anonymous	02/11/2015 08:00	Port of Richards Bay	Significant dust emanating from Magnetite stockpile. The RBCAA has reported this complaint telephonically the City of uMhlathuze Air Quality Management Unit who informed the RBCAA that they “do not investigate Anonymous complaints” as they need to be able to follow-up with the complainants, and that “the public must trust them” not to divulge their names. The RBCAA has relayed this information to the complainant and they still do not wish to be named or provide contact details to the Municipality for fear of victimisation by the Port Authorities.	<b>TPT 02/11/2015:</b> Nokuthula Mthembu responded: Kindly note that as the Port of Richards Bay we would like to acknowledge the complaint received by anonymous. We are experiencing a lot of dust from our stockpiles due to high winds today but we have implemented control measures which included activating sprinklers in our Magnetite Stockpile and we have further procured an emergency water tanker to augment the sprinkler system. The Port of Richards Bay will continue monitoring dust in all its operation.	Resolved - Port of Richards Bay
2	Anonymous	02/11/2015 08:00	Property to the North of Felixton Village	Significant dust emanating from a neighbouring property where Mylo has been stockpiled and applied. According to the complainant this has been an issue for the past couple of months, but has today with the high winds become intolerable.	<b>Mpact RB 24/11/2015 Siyabonga Buthelezi responded:</b> Subsequent to the complaints received this week, a meeting was held with the concerned farmer. He explained that he keeps a stockpile of organic material that he intends to use to plant the area with (macadamia trees). The stockpile is made up of mixture of organic material like, pruning cut offs, riddling’s with top soil, tree barks, “smuts” etc.	Resolved - Fugitive Dust



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
				The RBCAA has reported this complaint telephonically to the City of uMhlathuze Air Quality Management Unit who informed the RBCAA that they “do not investigate Anonymous complaints” as they need to be able to follow-up with the complainants, and that “the public must trust them” not to divulge their names. The RBCAA has relayed this information to the complainant and they still do not wish to be named or provide contact details to the Municipality, because in their opinion the Municipality can’t be trusted. This individual claims that some years ago they logged a similar complaint and their name was divulged.		
3	Tony Cipriano	02/11/2015 08:00	Bay Storage – 88 Ceramic Curve Alton	Significant Dust emanating from neighbouring property for some time which has escalated with today’s winds. All 113 storage units are full of sand and tenants are complaining. The RBCAA has referred the complainant to the Municipality, and provided the complainant with the contact details for the City of uMhlathuze Air Quality Management Unit.	<b>Mpact RB 24/11/2015 Siyabonga Buthelezi responded:</b> Subsequent to the complaints received this week, a meeting was held with the concerned farmer. He explained that he keeps a stockpile of organic material that he intends to use to plant the area with (macadamia trees). The stockpile is made up of mixture of organic material like, pruning cut offs, riddling’s with top soil, tree barks, “smuts” etc.	Resolved - Fugitive Dust



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
4	Len 076 806 9029	03/11/2015 00:00	Solid Ground Church Property - North of Felixton Village	Orphanage located on the Solid Ground Church Property - North of Felixton Village, 3 November, Significant black dust emanating from a farm where Mylo has been spread on agricultural land. The inside of the orphanage is reported to be covered in black dust. Complainant is concerned for the health of the babies and young children housed at the orphanage.	<b>Mpact RB 24/11/2015 Siyabonga Buthelezi responded:</b> Subsequent to the complaints received this week, a meeting was held with the concerned farmer. He explained that he keeps a stockpile of organic material that he intends to use to plant the area with (macadamia trees). The stockpile is made up of mixture of organic material like, pruning cut offs, riddling's with top soil, tree barks, "smuts" etc.	Resolved - Fugitive Dust
5	Anonymous	04/11/2015 00:00	Felixton Village	Significant black dust emanating from a farm where Mylo has been spread on agricultural land. Complainant states that there is a thick layer of black dust in the house. The dust is described as an extremely fine powder, and the complainant is concerned about the effects on their health as they have been coughing and suffering with allergy type symptoms for the past 2 weeks. The RBCAA has brought this matter to the attention of Tongaat Hulett, as it is understood that the Mylo originates from Tongaat Hulett.	<b>Mpact RB 24/11/2015 Siyabonga Buthelezi responded:</b> Subsequent to the complaints received this week, a meeting was held with the concerned farmer. He explained that he keeps a stockpile of organic material that he intends to use to plant the area with (macadamia trees). The stockpile is made up of mixture of organic material like, pruning cut offs, riddling's with top soil, tree barks, "smuts" etc.	Resolved - Fugitive Dust



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
6	S Camminga (0357860076)	04/11/2015 21:00	33 Heideheuwel - Veldenvlei	Pungent Peat Fire odour – we are forced to close windows. The attached Google image depicts prevailing wind directions prior to and at the time of the complaint, (Based on RBCAA data recorded at Brackenham and Arboretum stations).	<b>MONDI Forests 09/11/2015:</b> Jacqui Shuttleworth responded: On Monday 2 November during the extreme winds experienced, numerous fires were initiated. These fires, fanned by extreme winds, spread uncontrollably. All firefighting resources in the area were working around the clock to contain the fires. The fires continued through the week affecting commercial timber companies and community areas around Sokulu. They were finally brought under control on Friday 6th November. Approximately 1200ha of both commercial timber and indigenous vegetation have been affected. Although the surface fires are under control and their spread contained, numerous peat areas remain burning and smouldering. Resources are being spent on getting these remaining peat fires under control.	Resolved - Peat Fire
7	R Camminga (0357860076)	04/11/2015 21:00	33 Heideheuwel - Veldenvlei	Pungent Peat Fire odour – we are forced to close windows. The attached Google image depicts prevailing wind directions prior to and at the time of the complaint, (Based on RBCAA data recorded at Brackenham and Arboretum stations).	<b>MONDI Forests 09/11/2015:</b> Jacqui Shuttleworth responded: On Monday 2 November during the extreme winds experienced, numerous fires were initiated. These fires, fanned by extreme winds, spread uncontrollably. All firefighting resources in the area were working around the clock to contain the fires. The fires continued through the week affecting commercial timber companies and community areas around Sokulu. They were finally brought under control on Friday 6th November.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					Approximately 1 200 ha of both commercial timber and indigenous vegetation have been affected. Although the surface fires are under control and their spread contained, numerous peat areas remain burning and smouldering. Resources are being spent on getting these remaining peat fires under control.	
8	Collin Geel 074 126 6891	04/11/2015 06:45	126 Krewelkring - Meerensee	Experiencing heavy smoke from the early hours of the morning	<b>MONDI Forests 09/11/2015:</b> Jacqui Shuttleworth responded: On Monday 2 November during the extreme winds experienced, numerous fires were initiated. These fires, fanned by extreme winds, spread uncontrollably. All firefighting resources in the area were working around the clock to contain the fires. The fires continued through the week affecting commercial timber companies and community areas around Sokulu. They were finally brought under control on Friday 6th November. Approximately 1200ha of both commercial timber and indigenous vegetation have been affected. Although the surface fires are under control and their spread contained, numerous peat areas remain burning and smouldering. Resources are being spent on getting these remaining peat fires under control.	Resolved - Peat Fire
9	Tim Ellis 072 223 1655	04/11/2015 23:00	9 Pompano Place – Meerensee	From about 23h00 into the morning, heavy smoke with a Tar like odour. Family very congested this morning.	<b>MONDI Forests 09/11/2015:</b> Jacqui Shuttleworth responded: On Monday 2 November during the extreme winds experienced, numerous fires were initiated. These fires, fanned by extreme winds, spread uncontrollably. All firefighting resources in the area were working around the clock to contain the fires.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					The fires continued through the week affecting commercial timber companies and community areas around Sokulu. They were finally brought under control on Friday 6th November. Approximately 1200ha of both commercial timber and indigenous vegetation have been affected. Although the surface fires are under control and their spread contained, numerous peat areas remain burning and smouldering. Resources are being spent on getting these remaining peat fires under control.	
10	Mark Pieterse	04/11/2015 23:00	Mkhulu Crescent - Arboretum	The air is painful to breathe and our animals became frightened. This has been happening all month long. Please help us to understand the cause and effect of this smoke?	<b>MONDI Forests 09/11/2015:</b> Jacqui Shuttleworth responded: On Monday 2 November during the extreme winds experienced, numerous fires were initiated. These fires, fanned by extreme winds, spread uncontrollably. All firefighting resources in the area were working around the clock to contain the fires. The fires continued through the week affecting commercial timber companies and community areas around Sokulu. They were finally brought under control on Friday 6th November. Approximately 1200ha of both commercial timber and indigenous vegetation have been affected. Although the surface fires are under control and their spread contained, numerous peat areas remain burning and smouldering. Resources are being spent on getting these remaining peat fires under control.	Resolved - Peat Fire



**RBCAA: ANNUAL AIR QUALITY REPORT - 2015**

No.	Complainant	Date	Location	Description	Results	Resolution
11	Tim Ellis 072 223 1655	05/11/2015 00:00	9 Pompano Place – Meerensee	From about 23h00 into the morning, heavy smoke with a Tar like odour. Family very congested this morning.	<b>MONDI Forests 09/11/2015:</b> Jacqui Shuttleworth responded: On Monday 2 November during the extreme winds experienced, numerous fires were initiated. These fires, fanned by extreme winds, spread uncontrollably. All firefighting resources in the area were working around the clock to contain the fires. The fires continued through the week affecting commercial timber companies and community areas around Sokulu. They were finally brought under control on Friday 6th November. Approximately 1200ha of both commercial timber and indigenous vegetation have been affected. Although the surface fires are under control and their spread contained, numerous peat areas remain burning and smouldering. Resources are being spent on getting these remaining peat fires under control.	Resolved - Peat Fire
12	Antionett Havenga 082 950 3219	09/11/2015 08:34	36 Geelhoutkruin Arboretum	Are you aware of any plastic burning activities in or near Arboretum, we've been having these horrible smells/smoke for more than 2 weeks now? It is so bad like for instance yesterday afternoon again, that it actually burns all the way down into your lungs? The house smells, one cannot dare and leave a window or door open....	<b>MONDI Forests 09/11/2015:</b> Jacqui Shuttleworth responded: On Monday 2 November during the extreme winds experienced, numerous fires were initiated. These fires, fanned by extreme winds, spread uncontrollably. All firefighting resources in the area were working around the clock to contain the fires. The fires continued through the week affecting commercial timber companies and community areas around Sokulu. They were finally brought under control on Friday 6th November. Approximately 1200ha of both commercial timber and indigenous vegetation have been affected.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					Although the surface fires are under control and their spread contained, numerous peat areas remain burning and smouldering. Resources are being spent on getting these remaining peat fires under control. The RBCAA's investigations indicate that the odour can be attributed to ongoing Peat Fires.	
13	Caroline Van der Walt 082 594 4144	13/11/2015 11:30	9 Glendower Crescent – Kwambonambi	Very bad "burning plastic" smell. Complainant states that odour has been prevalent on & off, depending on wind direction for quite some time. Based on the description of the odour the RBCAA attributes the odour to peat fires in the area. This has been communicated to the complainant.	<b>MONDI Forests 09/11/2015:</b> Jacqui Shuttleworth responded: On Monday 2 November during the extreme winds experienced, numerous fires were initiated. These fires, fanned by extreme winds, spread uncontrollably. All firefighting resources in the area were working around the clock to contain the fires. The fires continued through the week affecting commercial timber companies and community areas around Sokulu. They were finally brought under control on Friday 6th November. Approximately 1200ha of both commercial timber and indigenous vegetation have been affected. Although the surface fires are under control and their spread contained, numerous peat areas remain burning and smouldering. Resources are being spent on getting these remaining peat fires under control. The RBCAA's investigations indicate that the odour can be attributed to ongoing Peat Fires.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
14	Caroline 082 594 414	15/11/2015 11:45	Glendower Crescent – Kwambonambi	“Burning Plastic” smell	<b>MONDI Forests 09/11/2015: Jacqui Shuttleworth responded:</b> The Kwambo complaints are mostly likely to be attributable to a peat fire on municipal property on East side of the N2 close to the Kwambo interchange. Tony Roberts would have more information on that one. The Veldenvlei complaint is unlikely to be attributable to Mondi or SQF, as we do not have any heavily smoking fires in that vicinity.	Resolved - Peat Fire
15	S Camminga (0357860076)	16/11/2015 08:15	33 Heideheuvel - Veldenvlei	Mondi “methanol” odour.	<b>Mondi RB 17/11/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permit's: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi has identified a decrease in the quality of condensate which was sent to the Mondi effluent plant for treatment as the cause of the odour. Mondi is in the process of identifying preventative measures.	Resolved - Mondi Richards Bay
16	Caroline 082 594 414	16/11/2015 13:00	Glendower Crescent – Kwambonambi	“Burning Plastic” smell	<b>MONDI Forests 09/11/2015: Jacqui Shuttleworth responded:</b> The Kwambo complaints are mostly likely to be attributable to a peat fire on municipal property on East side of the N2 close to the Kwambo interchange. Tony Roberts would have more information on that one. The Veldenvlei complaint is unlikely to be attributable to Mondi or SQF, as we do not have any heavily smoking fires in that vicinity.	Resolved - Peat Fire



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
17	S Camminga (0357860076)	16/11/2015 18:30	33 Heideheuvel - Veldenvlei	Pungent nauseating Peat Fire odour. The attached Google image depicts prevailing wind directions (Brackenham station), prior to and at the time of the complaints.	<b>MONDI Forests 09/11/2015: Jacqui Shuttleworth responded:</b> The Kwambo complaints are mostly likely to be attributable to a peat fire on municipal property on East side of the N2 close to the Kwambo interchange. Tony Roberts would have more information on that one. The Veldenvlei complaint is unlikely to be attributable to Mondi or SQF, as we do not have any heavily smoking fires in that vicinity.	Resolved - Peat Fire
18	R Camminga (0357860076)	16/11/2015 18:30	33 Heideheuvel - Veldenvlei	Pungent nauseating Peat Fire odour. The attached Google image depicts prevailing wind directions (Brackenham station), prior to and at the time of the complaints.	<b>MONDI Forests 09/11/2015: Jacqui Shuttleworth responded:</b> The Kwambo complaints are mostly likely to be attributable to a peat fire on municipal property on East side of the N2 close to the Kwambo interchange. Tony Roberts would have more information on that one. The Veldenvlei complaint is unlikely to be attributable to Mondi or SQF, as we do not have any heavily smoking fires in that vicinity.	Resolved - Peat Fire



Table D12: Complaints Log – December 2015

No.	Complainant	Date	Location	Description	Results	Resolution
1	D Savides 072 392 051	09/12/2015 11:00	Cassia Close – Arboretum Extension	Foskor odour.	<b>Foskor 10/12/2015:</b> Carel du Plessis responded: A-plant on Foskor is still down as result of the recent industrial action. The heat up of the plant has started in preparation for start-up early next week. Whilst heating up the plant the moisture in the system caused water vapour to be released through the vents on the burner side of the plant. The plant is not operational and hence no gas was released. We suspect that the heat up was done too quickly resulting in an unusual reaction of water vapour to be released. The vapour dispersed very quickly thereafter and the heat –up process was stopped for now. We fully understand and apologize for the concern caused to our surrounding neighbours and community. Whilst the water vapour would not pose any danger the matter is still taken very seriously by Foskor and detailed investigation will follow.	Resolved - Foskor
2	D Savides 072 392 051	09/12/2015 17:45	John Ross Highway	“Thick white smoke coming from Foskor. Irritating acidic smell causing coughing”	<b>Foskor 10/12/2015:</b> Carel du Plessis responded: A-plant on Foskor is still down as result of the recent industrial action. The heat up of the plant has started in preparation for start-up early next week. Whilst heating up the plant the moisture in the system caused water vapour to be released through the vents on the burner side of the plant. The plant is not operational and hence no gas was released. We suspect that the heat up was done too quickly resulting in an unusual reaction of water vapour to be released. The vapour dispersed very quickly thereafter and the heat –up process was stopped for now. We fully understand and apologize for the concern caused to our surrounding neighbours and community.	Resolved - Foskor



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					Whilst the water vapour would not pose any danger the matter is still taken very seriously by Foskor and detailed investigation will follow.	
3	D Barton-Hobbs 082 895 2009	10/12/2015 10:20	John Ross Highway	Thick White smoke emanating from Foskor (Photo attached).	<b>Foskor 10/12/2015:</b> Carel du Plessis responded: A-plant on Foskor is still down as result of the recent industrial action. The heat up of the plant has started in preparation for start-up early next week. Whilst heating up the plant the moisture in the system caused water vapour to be released through the vents on the burner side of the plant. The plant is not operational and hence no gas was released. We suspect that the heat up was done too quickly resulting in an unusual reaction of water vapour to be released. The vapour dispersed very quickly thereafter and the heat –up process was stopped for now. We fully understand and apologize for the concern caused to our surrounding neighbours and community. Whilst the water vapour would not pose any danger the matter is still taken very seriously by Foskor and detailed investigation will follow.	Resolved - Foskor
4	M Patterson 082 442 9440	10/12/2015 10:50	John Ross Highway	Thick smoke emanating from Foskor.	<b>Foskor 10/12/2015:</b> Carel du Plessis responded: A-plant on Foskor is still down as result of the recent industrial action. The heat up of the plant has started in preparation for start-up early next week. Whilst heating up the plant the moisture in the system caused water vapour to be released through the vents on the burner side of the plant. The plant is not operational and hence no gas was released. We suspect that the heat up was done too quickly resulting in an unusual reaction of water vapour to be released. The vapour dispersed very quickly thereafter and the heat –up process was stopped for now. We fully understand and apologize for the concern caused to our surrounding neighbours and community.	Resolved - Foskor



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					Whilst the water vapour would not pose any danger the matter is still taken very seriously by Foskor and detailed investigation will follow.	
5	S Camminga (0357860076)	11/12/2015 05:00	33 Heideheuvel - Veldenvlei	Pungent peat fire smell. Attached Google image shows prevailing winds prior to and at time of complaint.		Resolved - Peat Fire
6	R Camminga (0357860076)	11/12/2015 05:00	33 Heideheuvel - Veldenvlei	Pungent peat fire smell. Attached Google image shows prevailing winds prior to and at time of complaint.		Resolved - Peat Fire
7	S Camminga (0357860076)	14/12/2015 16:30	33 Heideheuvel - Veldenvlei	Mondi "methanol" odour.	<b>Mondi RB 18/12/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mondi has identified fugitive emissions from the Mondi Effluent Plant as the source of the odour. The Mondi Odour Abatement Task Team continues to investigate preventative measures for this particular source of odour emissions and will keep the RBCAA updated on any progress that is made.	Resolved - Mondi Richards Bay
8	S Camminga (0357860076)	15/12/2015 05:00	33 Heideheuvel - Veldenvlei	Lingering Mondi "methanol" odour causing headache and irritation of nose and throat.	<b>Mondi RB 18/12/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
					Root Cause of Incident and Corrective Action: Mondi has identified fugitive emissions from the Mondi Effluent Plant as the source of the odour. The Mondi Odour Abatement Task Team continues to investigate preventative measures for this particular source of odour emissions and will keep the RBCAA updated on any progress that is made.	
9	S Camminga (0357860076)	16/12/2015 07:40	John Ross Highway	Pungent Mondi "guava" odour causing nausea and burning of the eyes. The odour was reported to Mondi at the time of occurrence.	<b>Mondi RB 18/12/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permit/s: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mill instability together with a Kiln trip resulted in contamination of condensate which was discharge to drain; subsequently odour was released to atmosphere from the Effluent Plant. A full investigation into root cause and preventative measures is currently under way.	Resolved - Mondi Richards Bay
10	R Camminga (0357860076)	16/12/2015 07:40	John Ross Highway	Pungent Mondi "guava" odour causing nausea and burning of the eyes. The odour was reported to Mondi at the time of occurrence.	<b>Mondi RB 18/12/2015:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permit/s: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mill instability together with a Kiln trip resulted in contamination of condensate which was discharge to drain; subsequently odour was released to atmosphere from the Effluent Plant. A full investigation into root cause and preventative measures is currently under way.	Resolved - Mondi Richards Bay



## RBCAA: ANNUAL AIR QUALITY REPORT - 2015

No.	Complainant	Date	Location	Description	Results	Resolution
11	Natasha Dhaver (083 699 4239)	25/12/2015 23:36	Central Sports Complex Intersection- CBD	Bad odour. "Please check the air monitor at the Veldenvlei grounds. We were driving towards our house from Wildenweide and as soon as we reached the Veldenvlei robots there was a bad odour. It didn't smell good and made my chest tight and eyes water." The attached Google image shows prevailing winds prior to and at the time of the complaint, based on wind data from the Brackenham station. (CBD station was down).	<b>Mondi RB 26/01/2016:</b> Candice Webb responded: Source and Nature of Emissions: Based on wind direction, it is likely that Mondi is the source of odour. Compliance with Permits: There was no contravention in existing permits for point source emissions. Root Cause of Incident and Corrective Action: Mill instability prior to the time of the complaint resulted in the diversion of poor quality effluent into the Mondi Emergency Ponds in order to assist in maintaining effluent to sea compliance. Consequently, Mondi suspects that the odour originated from the Mondi Effluent Plant and Emergency Ponds. Mondi is confident that Phase 4 of the Mondi Odour Abatement Project which is scheduled for commissioning in early Feb 2016 will assist in reducing odour during similar incidents in the future.	Resolved - Mondi Richards Bay



# **APPENDIX E**

## **Operational Report**



## OPERATIONAL REPORT

### General

- In order to close out findings from an internal audit conducted according to SANAS requirements during 2014:
  - Safety platforms, railings and access ladders were fitted to all stations (to allow safe access to the roof for inlet cleaning); and the
  - Data logging interval was changed from 5 to 1 minutes.
- Power instability was linked to air conditioning, analyser and data logger, damage and failure. In order to mitigate against this all stations have will have the following installed:
  - Temperature cut outs (this prevent overheating in case of air conditioner failure); and
  - Power on delays (this prevents damage from power fluctuations and allows the air conditioner to cool the shelter before sensitive equipment starts up).

### Calibrations

The following calibrations were performed:

Analyser	Type	Company	SANAS Accredited	Month
Particulate Analysers (PM <sub>10</sub> )	TEOM flow & mass transducer	Calspec cc	No	February
Traces Gas Analysers (SO <sub>2</sub> & TRS)	Multi-point calibrations	C&M Consulting Engineers	Yes	February
				May
				August
				November
Meteorological Calibrations		Inteltronics	Yes	March



## Analyser Status

Table E1: Particulate analyser status

Make	Model	Serial	Purchased	Age	Type	Location	Status
FS	TEOM 1405A	206850912	Jan 2010	06 years	PM <sub>10</sub>	Brackenham	OK
RP	TEOM 140AB	248970311	Jan 2004	12 years	PM <sub>10</sub>	eSikhaleni	OK
FS	TEOM 140AB	273580810	Feb 2009	06 years	PM <sub>10</sub>	CBD	OK
FS	TEOM 140AB	274100812	Dec 2008	07 years	PM <sub>10</sub>	Mtunzini	OK
MO	E-sampler		Mar 2012	03 years	PM <sub>10</sub>	Felixton	OK

Table E2: Trace gas analyser status

Make	Model	Serial	Purchased	Age	Type	Location	Status
API	100 E	1980	Jul 2008	07 years	SO <sub>2</sub>	Removed from the field on the 18th of January 2016 and sent to C&M for repair.	Faulty, the analyser is indicating dark calibration warning, current value 185 mV; limit 200 mV.
API	100E	3055	May 2011	04 years	TRS	CBD	OK
API	100T	253	Mar 2012	03 years	SO <sub>2</sub>	Removed from the field on the 22nd of January 2016 and sent to C&M for repair.	Faulty, analyser not responding to span or measurement checks.
API	100T	593	Apr 2013	02 years	SO <sub>2</sub>	CBD	Working, the permeation tube for the checking the span response is depleted, a replacement has been ordered.
API	100T	1049	Feb 2014	01 years	TRS	eSikhaleni	The analyser has a faulty internal span and zero solenoid valves. It will be sent to the suppliers for repair as soon as it can be replaced.



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Make	Model	Serial	Purchased	Age	Type	Location	Status
API	100T	1540	Mar 2015	00 years	SO <sub>2</sub>	eSikhaleni	OK
ME	9850	M2812	Sep 2006	09 years	SO <sub>2</sub>	Removed from the field on the 26th of December 2015 and sent to C&M for repair.	Faulty, the analyser automatically restarts and doesn't complete its start-up sequence.
ML	9850	85B	Jan 1997	19 years	SO <sub>2</sub>	Removed from the field on the 18th of November 2015 and sent to C&M for repair.	Faulty, analyser not responding to span or measurement checks.
ML	9850	92B	Mar 1997	18 years	SO <sub>2</sub>	Brackenham	OK
ML	9850	M2015 - M736	Mar 1997	18 years	SO <sub>2</sub>	Removed from the field on the 14th of December 2015 and sent to C&M for repair.	Faulty, analyser not responding to span or measurement checks. The permeation tube for the checking the span response is depleted, a replacement has been ordered.
ML	9850	M714	Oct 2005	10 years	SO <sub>2</sub>	Scorpio	This analyser has stability issues, it will be sent to the suppliers to check as soon as it can be replaced.

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