



# Monthly Environmental Monitoring Report

Yancoal Mount Thorley Warkworth

January 2019

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## Revision History

Version No.	Version Details	Document Status	Date
1.0	Environmental Advisor	Final	03/04/2019

## 1.0 INTRODUCTION

This report has been compiled to provide a monthly summary of environmental monitoring results for Mount Thorley Warkworth (MTW). This report includes all monitoring data collected for the period 1 January to 31 January 2019.

## 2.0 AIR QUALITY

### 2.1 Meteorological Monitoring

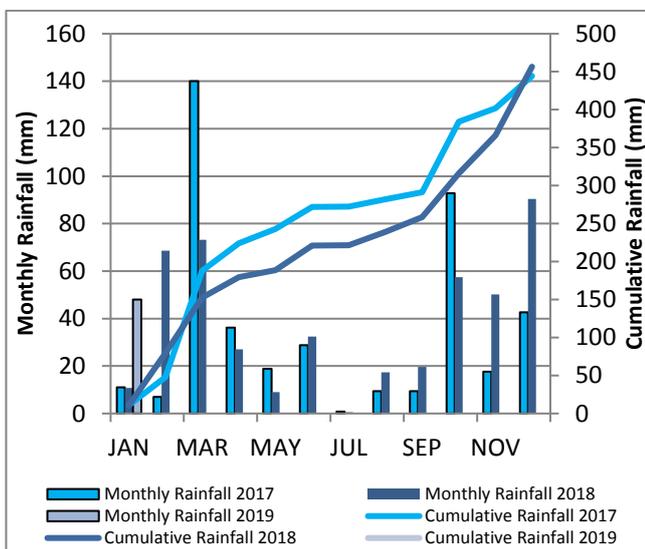
Meteorological data is collected at MTW's 'Charlton Ridge' meteorological station (refer to **Figure 3: Air Quality Monitoring Locations**).

#### 2.1.1 Rainfall

Rainfall for the reporting period is summarised in **Table 1**, the year-to-date trend and historical trend are shown in **Figure 1**.

**Table 1: Monthly Rainfall MTW**

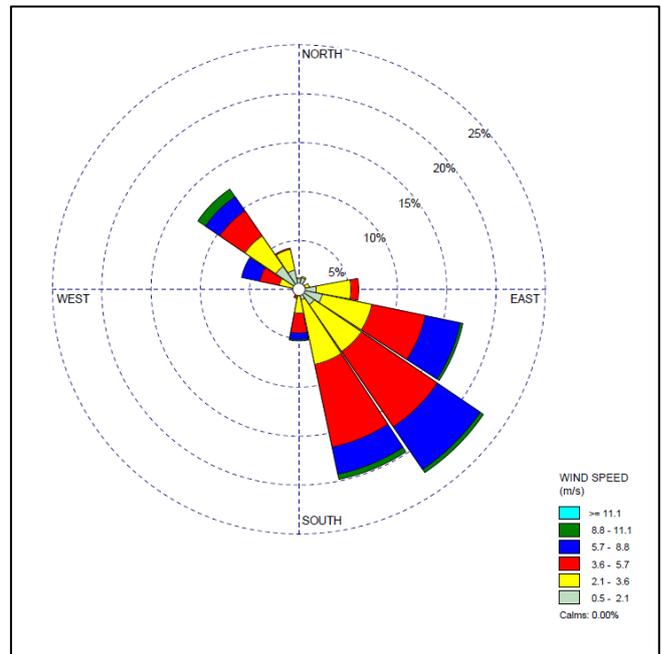
2019	Monthly Rainfall (mm)	Cumulative Rainfall (mm)
January	48.0	48.0



**Figure 1: Rainfall Trend YTD**

### 2.1.2 Wind Speed and Direction

Winds from the southeast were dominant throughout the reporting period as shown in **Figure 2**.



**Figure 2: Charlton Ridge Wind Rose – January 2019**

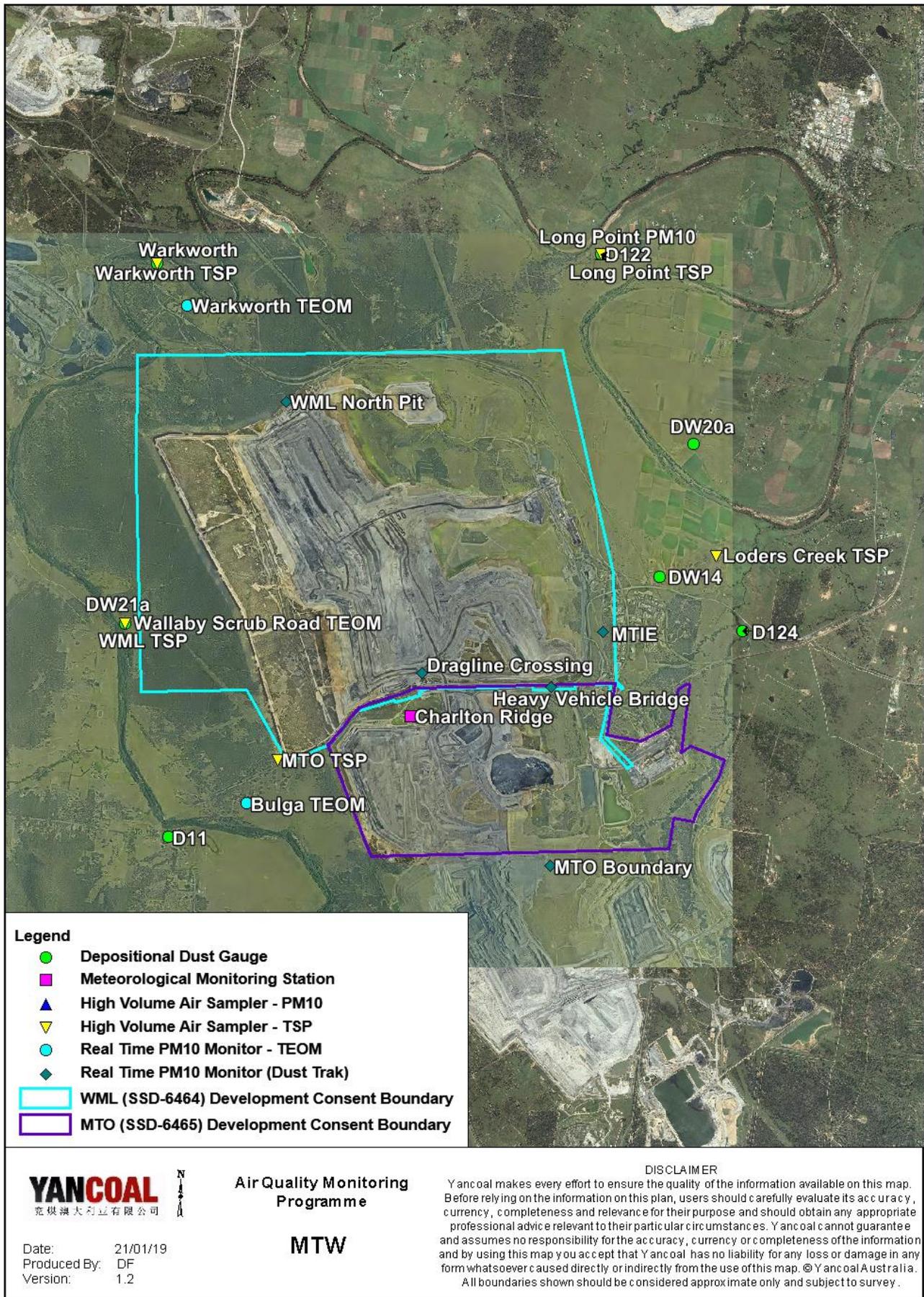


Figure 3: Air Quality Monitoring Locations

## 2.2 Depositional Dust

To monitor air quality, MTW operates and maintains a network of seven depositional dust gauges, situated on private and mine owned land surrounding MTW.

Figure 4 displays insoluble solids results from depositional dust gauges during the reporting period compared against the year-to-date average and the annual impact assessment criteria.

During the reporting period the DW20a, DW21a and Warkworth monitors recorded monthly results above the long-term impact assessment criteria of 4.0 g/m<sup>2</sup> per month. Field notes associated with Warkworth confirm the presence of vegetation. As such the results are considered contaminated and will be excluded from calculation of the annual average. Field notes associated with DW20a and DW21a confirm the presence of insects and/or vegetation, although there is not enough evidence to suggest that the results are contaminated. Accordingly, the results will be included in the annual average calculation.

An annual assessment of MTW's compliance with the Long-Term Impact Assessment Criteria will be provided in the 2019 Annual Review Report.

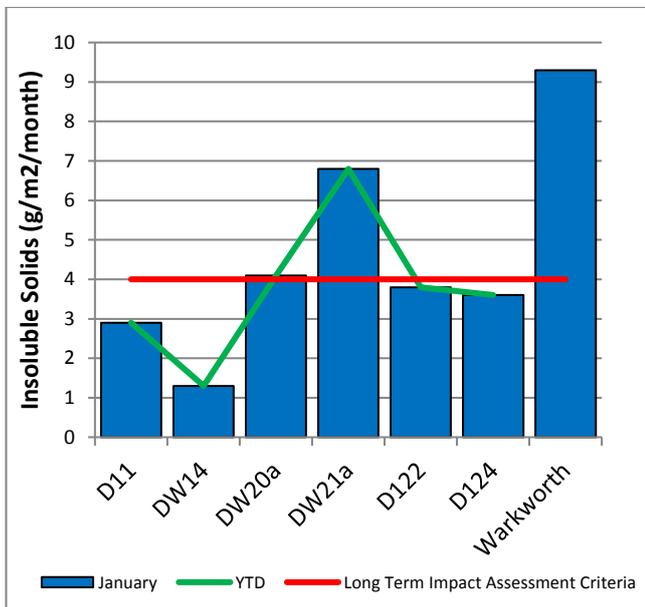


Figure 4: Depositional Dust – January 2019

## 2.3 Suspended Particulates

Suspended particulates are measured by a network of High Volume Air Samplers (HVAS) measuring Total Suspended Particulates (TSP) and Particulate Matter <10µm (PM<sub>10</sub>). The

location of these monitors can be found in Figure 3. Each HVAS was run for 24 hours on a six-day cycle in accordance with EPA requirements.

### 2.3.1 HVAS PM<sub>10</sub> Results

Figure 5 shows the individual PM<sub>10</sub> results at each monitoring station against the short-term impact assessment criteria of 50µg/m<sup>3</sup>.

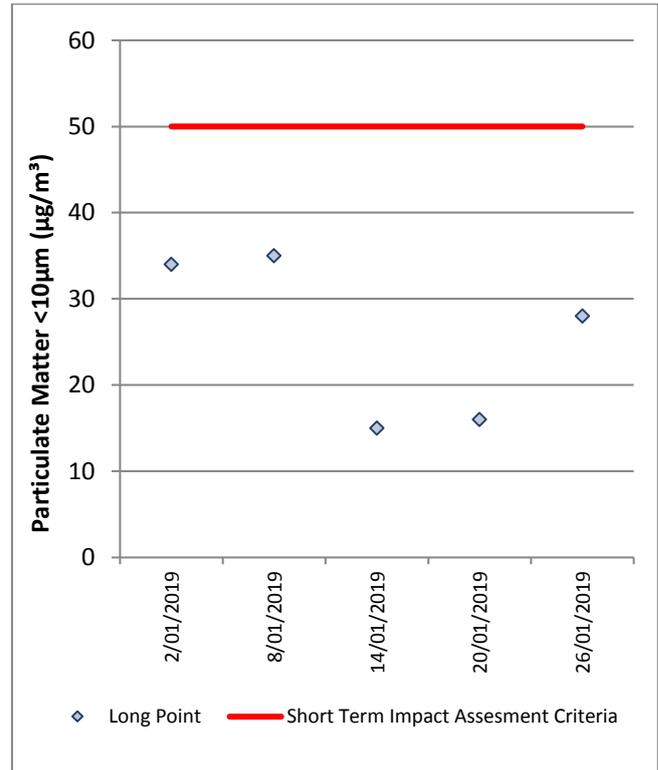


Figure 5: Individual PM<sub>10</sub> Results – January 2019

Figure 6 shows the annual average PM<sub>10</sub> results against the long term impact assessment criteria.

An assessment of MTW's contribution to the long term assessment criteria will be reported in the 2019 Annual Review Report.

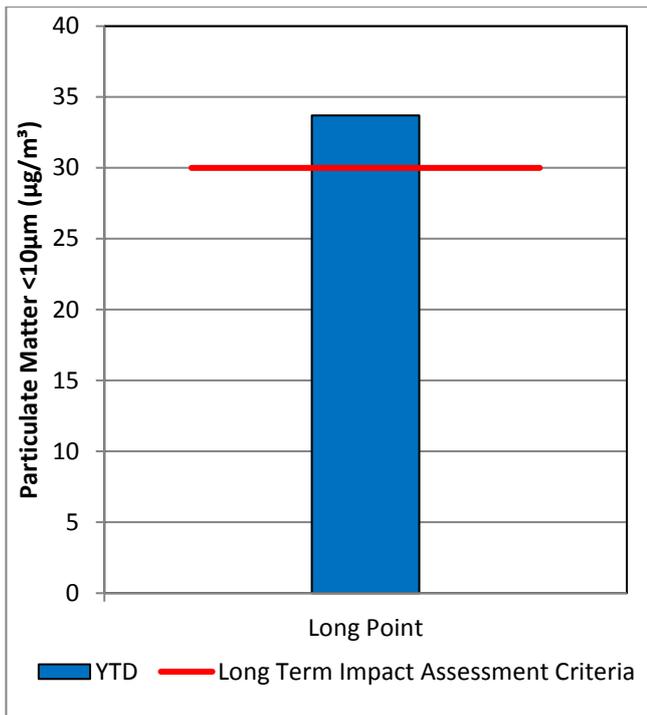


Figure 6: Annual Average PM<sub>10</sub> – January 2019

### 2.3.2 TSP Results

Figure 7 shows the annual average TSP results compared against the long-term impact assessment criteria of 90µg/m<sup>3</sup>.

An assessment of MTW’s contribution to the long-term assessment criteria will be reported in the 2019 Annual Review Report.

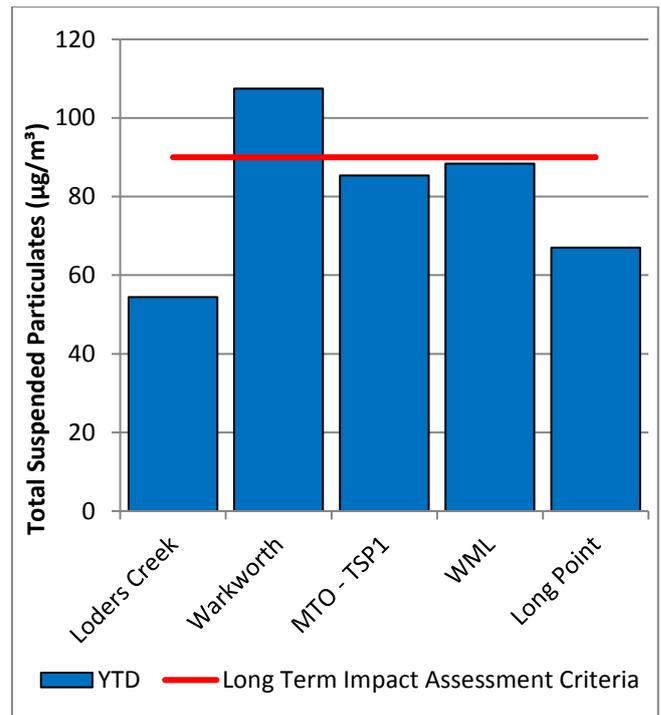


Figure 7: Annual Average Total Suspended Particulates – January 2019

### 2.3.3 Real Time PM<sub>10</sub> Results

MTW maintains a network of real time PM<sub>10</sub> monitors. The real time air quality monitoring stations continuously log information and transmit data to a central database, generating internal alerts when particulate matter levels exceed internal trigger limits.

Results for real time dust sampling are shown in Figure 8, including the daily 24-hour average PM<sub>10</sub> result and the annual PM<sub>10</sub> average.

On 2 January 2019, the Warkworth OEH TEOM (61.4 µg/m<sup>3</sup>) exceeded the short term (24hr) criteria. This measurement was assessed for MTW’s potential contribution based on meteorological conditions and background PM<sub>10</sub> levels on this day resulting in a maximum estimated contribution of 32.5 µg/m<sup>3</sup>, less than a 75% contribution to the result. Accordingly, no further action is required (as per approved Air Quality Monitoring Programme).

On 3 January 2019, the Warkworth OEH TEOM (64.5 µg/m<sup>3</sup>) exceeded the short term (24hr) criteria. This measurement was assessed for MTW’s potential contribution based on meteorological conditions and background PM<sub>10</sub> levels on this day resulting in a maximum estimated contribution of 33.3 µg/m<sup>3</sup>, less than a 75% contribution to the result. Accordingly,

no further action is required (as per approved Air Quality Monitoring Programme).

On 17 January 2019, the Wallaby Scrub Road TEOM (51.2  $\mu\text{g}/\text{m}^3$ ) and the Bulga OEH TEOM (50.3  $\mu\text{g}/\text{m}^3$ ) exceeded the short term (24hr) criteria. These measurements were assessed for MTW's potential contribution based on meteorological conditions on this day resulting in maximum estimated contributions of 33.5  $\mu\text{g}/\text{m}^3$  and 21.0  $\mu\text{g}/\text{m}^3$  respectively, less than a 75% contribution to the results. Accordingly, no further action is required (as per approved Air Quality Monitoring Programme).

On 19 January 2019, the Warkworth OEH TEOM (53.9  $\mu\text{g}/\text{m}^3$ ) exceeded the short term (24hr) criteria. This measurement was assessed for MTW's potential contribution based on meteorological conditions and background  $\text{PM}_{10}$  levels on this day resulting in a maximum estimated contribution of 27.1  $\mu\text{g}/\text{m}^3$ , less than a 75% contribution to the result. Accordingly, no further action is required (as per approved Air Quality Monitoring Programme).

Data was not available on 10 January 2019 from the Wallaby Scrub Road monitor due to equipment issues. Data was also not available on 23 or 24 January 2019 from the Bulga OEH monitor due to equipment issues.

### **2.3.4 Real Time Alarms for Air Quality**

During January, the real time monitoring system generated 223 automated air quality related alerts, including 9 alerts for adverse meteorological conditions and 214 alerts for elevated  $\text{PM}_{10}$  levels.

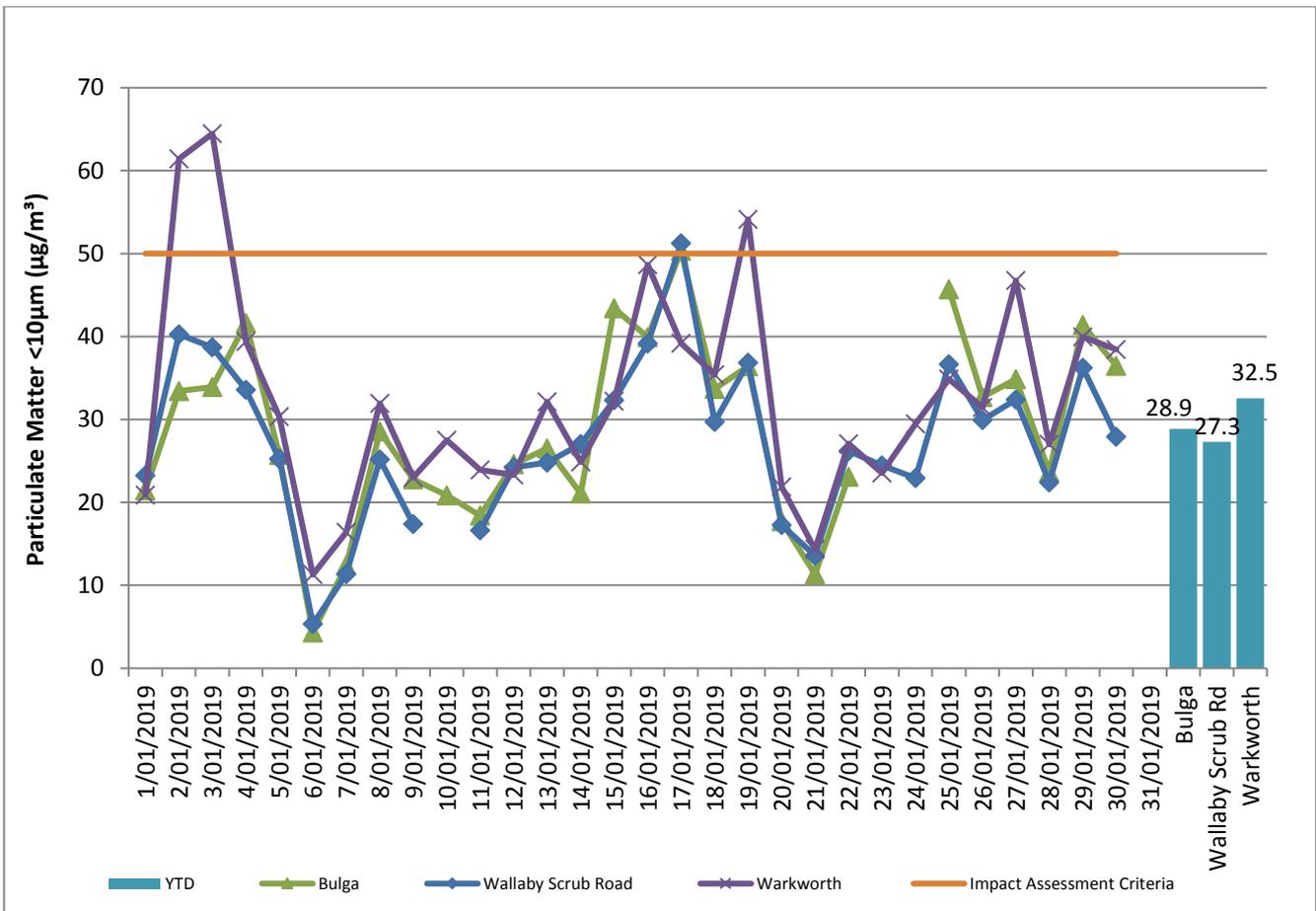


Figure 8: Real Time PM<sub>10</sub> daily 24hr average (line graphs) and YTD annual average (column graphs) – January 2019

### 3.0 WATER QUALITY

MTW maintains a network of surface water and groundwater monitoring sites.

#### 3.1 Surface Water

Monitoring is conducted at mine site dams and surrounding natural watercourses.

Surface water courses are sampled on a monthly or quarterly sampling regime. Water quality is evaluated through the parameters of pH, Electrical Conductivity (EC) and Total Suspended Solids (TSS). The Hunter River and the Wollombi Brook are sampled both upstream and downstream of mining operations, to monitor the potential impact of mining on the river system. Other Hunter River tributaries are also monitored.

Results of monitoring are reported quarterly, next available in the March 2019 report.

### 3.2 Groundwater Monitoring

Groundwater monitoring is undertaken on a quarterly basis in accordance with the MTW Groundwater Monitoring Programme.

Groundwater results are reported quarterly, next available in the March 2019 report.

### 3.3 HRSTS Discharge

MTW participates in the Hunter River Salinity Trading Scheme (HRSTS), allowing discharge from licensed discharge points located at Dam 1N and Dam 9S. Discharges can only take place subject to HRSTS regulations.

During the reporting period no water was discharged under the HRSTS.

## 4.0 BLAST MONITORING

MTW have a network of six blast monitoring units. These are located at nearby privately owned residences and function as regulatory compliance monitors.

The location of these monitors can be found in **Figure 15**.

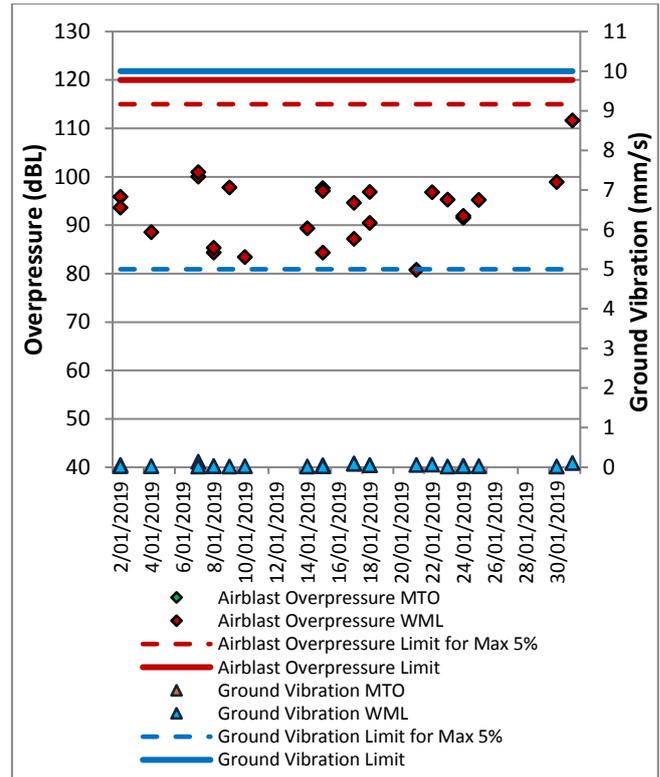
### 4.1 Blast Monitoring Results

During January 2019, 25 blasts were initiated at MTW. **Figure 9** to **Figure 14** show the blast monitoring results for the reporting period against the impact assessment criteria. The criteria are summarised in **Table 2**.

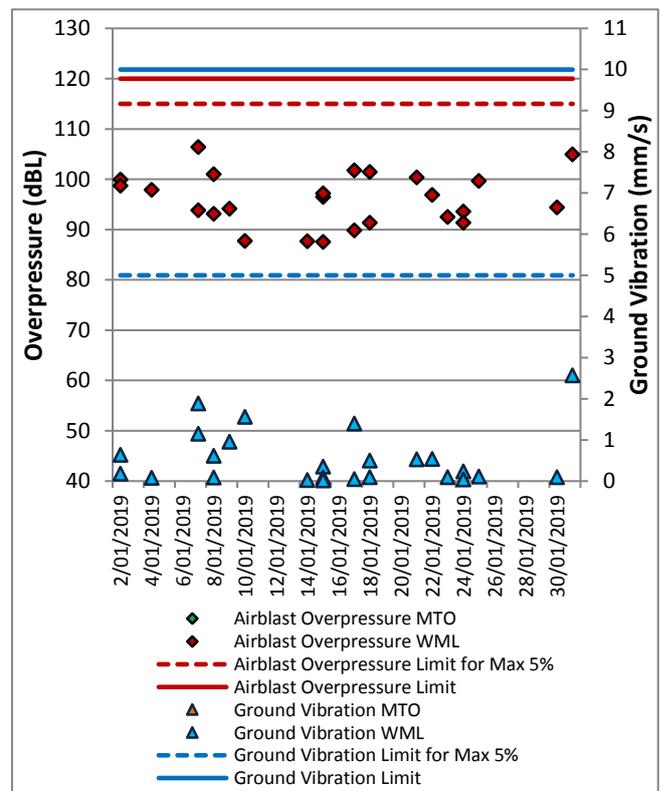
**Table 2: Blasting Limits**

Airblast Overpressure (dB(L))	Comments
115	5% of the total number of blasts in a 12 month period
120	0%
Ground Vibration (mm/s)	Comments
5	5% of the total number of blasts in a 12 month period
10	0%

During the reporting period no blasts exceeded the 115 dB(L) 5% threshold for airblast overpressure or 5mm/s 5% threshold for ground vibration.



**Figure 9: Abbey Green Blast Monitoring Results – January 2019**



**Figure 10: Bulga Village Blast Monitoring Results – January 2019**

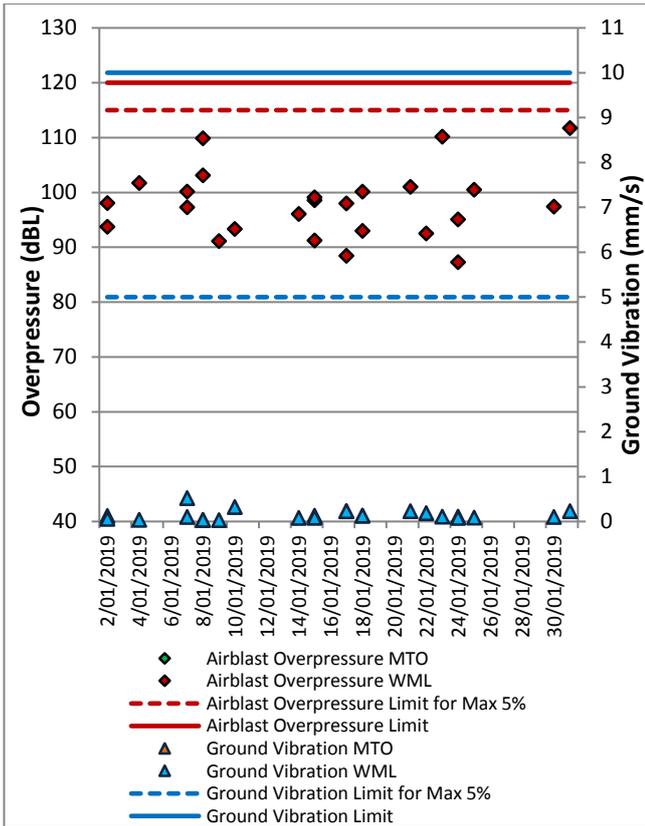


Figure 11: MTIE Blast Monitoring Results – January 2019

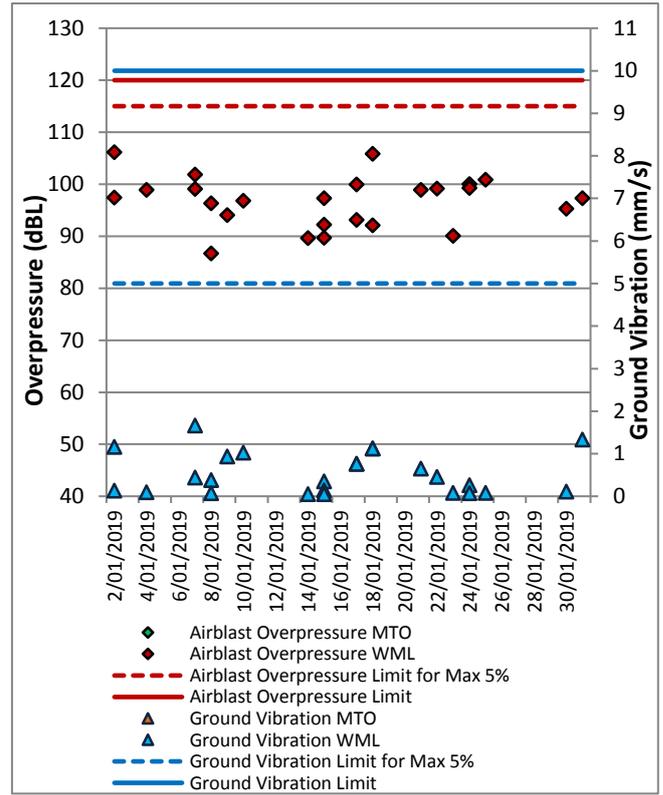


Figure 13: Wambo Road Blast Monitoring Results – January 2019

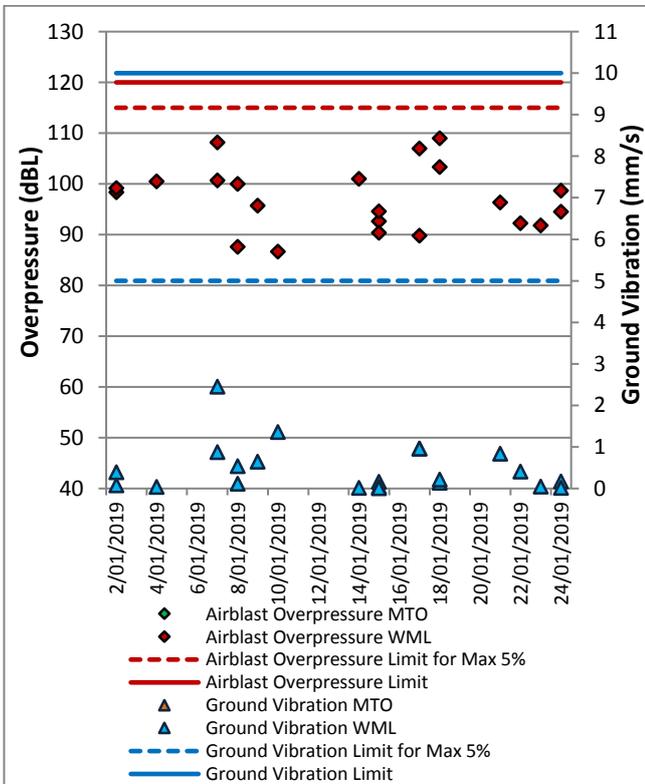


Figure 12: Wollemi Peak Road Blast Monitoring Results – January 2019

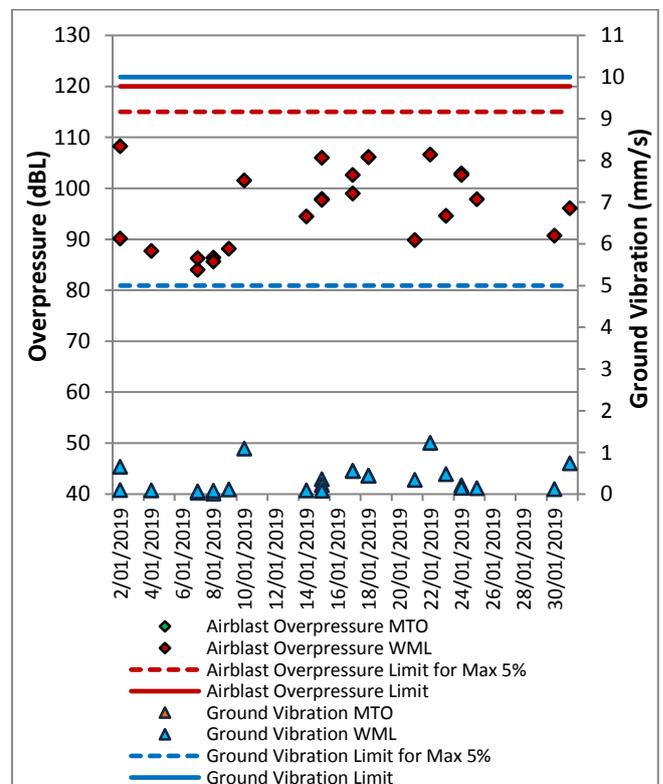


Figure 14: Warkworth Blast Monitoring Results – January 2019

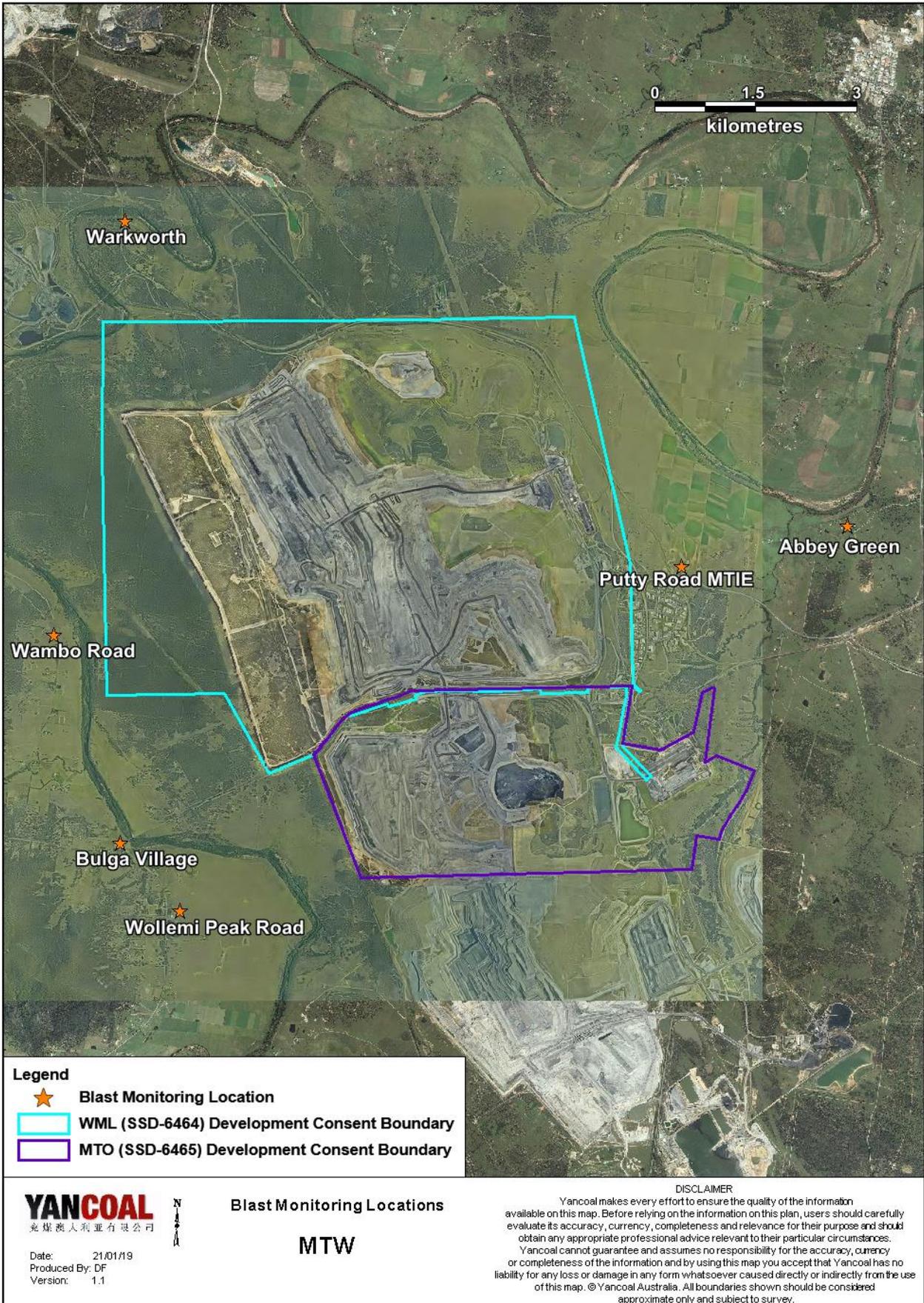


Figure 15: MTW Blast Monitoring Location Plan

## 5.0 NOISE

Routine attended noise monitoring is carried out in accordance with the MTW Noise Management Plan. A review against EIS predictions will be reported in the Annual Review. The purpose of the noise surveys is to quantify and describe the acoustic environment around the site and compare results with specified limits. Real time noise monitoring also occurs at five sites surrounding MTW. Noise monitoring locations are displayed in Figure 16.

### 5.1 Attended Noise Monitoring Results

Attended monitoring was conducted at receiver locations surrounding MTW on the night of 17-18 January 2019. All measurements complied with the relevant criteria, with the exception of WML levels at Inlet Road. Results are detailed in Table 3 to Table 6.

#### 5.1.1 WML Noise Assessment

Compliance assessments undertaken against the WML noise criteria are presented in Tables 3 and 4.

**Table 3: L<sub>Aeq, 15 minute</sub> Warkworth Impact Assessment Criteria – January 2019**

Location	Date and Time	Wind Speed (m/s)	Stability Class	Criterion dB(A)	Criterion Applies? <sup>1</sup>	WML L <sub>Aeq</sub> dB <sup>2,3</sup>	Exceedance <sup>3,4</sup>
Bulga RFS	17/01/2019 21:00	2.6	F	37	No	NA	NA
Bulga Village	18/01/2019 0:32	1.2	F	38	Yes	35	Nil
Gouldsville	17/01/2019 23:10	2.3	E	38	Yes	NA	Nil
Inlet Rd	17/01/2019 21:41	2.0	F	37	Yes	<b>39<sup>6</sup></b>	2
Inlet Rd <sup>5</sup>	17/01/2019 22:40	1.5	F	37	Yes	37 <sup>6</sup>	Nil
Inlet Rd <sup>6</sup>	24/01/2019 21:10	3.1	e	37	No	NA	NA
Inlet Rd West	17/01/2019 21:04	2.6	F	35	No	NA	NA
Long Point	17/01/2019 22:46	1.5	F	35	Yes	NA	Nil
South Bulga	17/01/2019 21:54	1.6	F	35	Yes	NA	Nil
Wambo Road	18/01/2019 0:09	1.5	F	38	Yes	33	Nil

Notes:

1. Noise emission limits apply during all meteorological conditions except the following: during periods of rain or hail; average wind speed at microphone height exceeds 5 m/s; wind speeds greater than 3 m/s measured at 10 metres above ground level; stability category F temperature inversion conditions and wind speeds greater than 2m/s at 10m above ground level; or stability category G temperature inversion conditions. Criterion may or may not apply due to rounding of meteorological data values;

2. Estimated or measured L<sub>Aeq,15minute</sub> attributed to WML;

3. Bold results in red are possible exceedances of relevant criteria; and

4. NA in exceedance column means atmospheric conditions outside conditions specified in development consent and so criterion is not applicable.

5. Re-measure; and

6. Follow-up monitoring.

**Table 4: L<sub>A1, 1 minute</sub> Warkworth - Impact Assessment Criteria – January 2019**

Location	Date and Time	Wind Speed (m/s)	Stability Class	Criterion dB(A)	Criterion Applies? <sup>1</sup>	WML L <sub>A1, 1min</sub> dB <sup>2,3</sup>	Exceedance <sup>3,4</sup>
Bulga RFS	17/01/2019 21:00	2.6	F	47	No	38	NA
Bulga Village	18/01/2019 0:32	1.2	F	48	Yes	46	Nil
Gouldsville	17/01/2019 23:10	2.3	E	48	Yes	IA	Nil
Inlet Rd	17/01/2019 21:41	2.0	F	47	Yes	41	Nil
Inlet Rd <sup>5</sup>	17/01/2019 22:40	1.5	F	47	Yes	39	Nil
Inlet Rd <sup>6</sup>	24/01/2019 21:10	3.1	e	47	No	<30	NA
Inlet Rd West	17/01/2019 21:04	2.6	F	45	No	34	NA
Long Point	17/01/2019 22:46	1.5	F	45	Yes	IA	Nil
South Bulga	17/01/2019 21:54	1.6	F	45	Yes	38	Nil
Wambo Road	18/01/2019 0:09	1.5	F	48	Yes	37	Nil

Notes:

1. Noise emission limits apply during all meteorological conditions except the following: during periods of rain or hail; average wind speed at microphone height exceeds 5 m/s; wind speeds greater than 3 m/s measured at 10 metres above ground level; stability category F temperature inversion conditions and wind speeds greater than 2m/s at 10m above ground level; or stability category G temperature inversion conditions. Criterion may or may not apply due to rounding of meteorological data values;
2. Estimated or measured LA1,1minute attributed to WML;
3. Bold results in red are possible exceedances of relevant criteria; and
4. NA in exceedance column means atmospheric conditions outside conditions specified in development consent and so criterion is not applicable.
5. Re-measure; and
6. Follow-up monitoring.

### 5.1.3 MTO Noise Assessment

Compliance assessments undertaken against the MTO noise criteria are presented in **Table 5** and **6**.

**Table 5: LAeq, 15minute Mount Thorley - Impact Assessment Criteria – January 2019**

Location	Date and Time	Wind Speed (m/s)	Stability Class	Criterion dB	Criterion Applies? <sup>1</sup>	MTO LAeq dB <sup>2,3</sup>	Exceedance <sup>3,4</sup>
Bulga RFS	17/01/2019 21:00	2.6	F	37	No	IA	NA
Bulga Village	18/01/2019 0:32	1.2	F	38	Yes	IA	Nil
Gouldsville	17/01/2019 23:10	2.3	E	35	Yes	IA	Nil
Inlet Rd	17/01/2019 21:41	2	F	37	Yes	IA	Nil
Inlet Rd <sup>5</sup>	17/01/2019 22:40	1.5	F	37	Yes	IA	Nil
Inlet Rd <sup>6</sup>	24/01/2019 21:10	3.1	E	37	No	IA	NA
Inlet Rd West	17/01/2019 21:04	2.6	F	35	No	IA	NA
Long Point	17/01/2019 22:46	1.5	F	35	Yes	IA	Nil
South Bulga	17/01/2019 21:54	1.6	F	36	Yes	30	Nil
Wambo Road	18/01/2019 0:09	1.5	F	38	Yes	IA	Nil

Notes:

1. Noise emission limits apply during all meteorological conditions except the following: during periods of rain or hail; average wind speed at microphone height exceeds 5 m/s; wind speeds greater than 3 m/s measured at 10 metres above ground level; stability category F temperature inversion conditions and wind speeds greater than 2m/s at 10m above ground level; or stability category G temperature inversion conditions. Criterion may or may not apply due to rounding of meteorological data values;
2. Estimated or measured LAeq,15minute attributed to MTO;
3. Bold results in red are possible exceedances of relevant criteria; and
4. NA in exceedance column means atmospheric conditions outside conditions specified in project approval and so criterion is not applicable.
5. Re-measure; and
6. Follow-up monitoring.

**Table 6: LA1, 1Minute Mount Thorley - Impact Assessment Criteria – January 2019**

Location	Date and Time	Wind Speed (m/s)	Stability Class	Criterion dB	Criterion Applies? <sup>1</sup>	MTO LA1, 1min dB <sup>2,3</sup>	Exceedance <sup>3,4</sup>
Bulga RFS	17/01/2019 21:00	2.6	F	47	No	IA	NA
Bulga Village	18/01/2019 0:32	1.2	F	48	Yes	IA	Nil
Gouldsville	17/01/2019 23:10	2.3	E	45	Yes	IA	Nil
Inlet Rd	17/01/2019 21:41	2	F	47	Yes	IA	Nil
Inlet Rd <sup>5</sup>	17/01/2019 22:40	1.5	F	47	Yes	IA	Nil
Inlet Rd <sup>6</sup>	24/01/2019 21:10	3.1	e	47	No	IA	NA
Inlet Rd West	17/01/2019 21:04	2.6	F	45	No	IA	NA
Long Point	17/01/2019 22:46	1.5	F	45	Yes	IA	Nil
South Bulga	17/01/2019 21:54	1.6	F	46	Yes	<35	Nil
Wambo Road	18/01/2019 0:09	1.5	F	48	Yes	IA	Nil

Notes

1. Noise emission limits apply during all meteorological conditions except the following: during periods of rain or hail; average wind speed at microphone height exceeds 5 m/s; wind speeds greater than 3 m/s measured at 10 metres above ground level; stability category F temperature inversion conditions and wind speeds greater than 2m/s at 10m above ground level; or stability category G temperature inversion conditions. Criterion may or may not apply due to rounding of meteorological data values;
2. Estimated or measured LA1,1minute attributed to MTO;
3. Bold results in red are possible exceedances of relevant criteria; and
4. NA in exceedance column means atmospheric conditions outside conditions specified in project approval and so criterion is not applicable.
5. Re-measure; and
6. Follow-up monitoring.

### 5.1.4 NPfl Low Frequency Assessment

In accordance with the requirements of the EPA’s Noise Policy for Industry (NPfl), the applicability of the low frequency modification penalty has been assessed. This resulted in the application of a 2dB penalty to the site only LAeq for the measurements taken at Inlet Road and Bulga Village on 17/18 January 2019.

Resulting LAeq noise levels exceed the WML impact assessment criteria at Inlet Road by 2 dB.

As described in **Section 5.1**, the Inlet Road result and MTW’s response was reported to the Department of Planning and Environment.

The assessment for low frequency noise is shown in **Table 7**.

**Table 7: Low Frequency Noise Modifying Factor Assessment – January 2019**

Location	Date and Time	Measured Site Only LAeq dB (WML/MTO)	Site Only L <sub>Ceq</sub> dB <sup>1</sup> (WML/MTO)	Site Only LCeq – LAeq dB <sup>1,2</sup> (WML/MTO)	Result Max exceedance of ref spectrum dB (WML/MTO) <sup>1,3</sup>	Penalty dB(A) <sup>1</sup>	Exceedance
Bulga RFS	17/01/2019 21:00	35/IA	NA/NA	NA/NA	NA/NA	NA/NA	NA
Bulga Village	18/01/2019 0:32	33/IA	55/NA	22/NA	0.5 @ 50 Hz/NA	2/NA	No
Gouldsville	17/01/2019 23:10	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA	NA
Inlet Rd	17/01/2019 21:41	37/IA	57/NA	20/NA	2.8 @ 80 Hz/NA	2/NA	Yes
Inlet Rd <sup>4</sup>	17/01/2019 22:40	35/IA	55/NA	20/NA	0.8 @ 80 Hz/NA	2/NA	No
Inlet Rd <sup>5</sup>	24/01/2019 21:10	<30/IA	NA/NA	NA/NA	NA/NA	NA/NA	NA
Inlet Rd West	17/01/2019 21:04	31/IA	NA/NA	NA/NA	NA/NA	NA/NA	NA
Long Point	17/01/2019 22:46	IA/IA	NA/NA	NA/NA	NA/NA	NA/NA	NA
South Bulga	17/01/2019 21:54	35/30	NA/NA	NA/NA	NA/NA	NA/NA	NA
Wambo Road	18/01/2019 0:09	33/IA	53/NA	20/NA	Nil/NA	0/NA	NA

**Notes:**

1. Where it is not possible to determine the site-only result due to the presence of other low-frequency noise sources occurring during the measurement, or where criteria were not applicable due to meteorological conditions, this is noted as NA (not available) and no further assessment has been undertaken;
2. As per NPfl, if LCeq – LAeq ≥ 15 dB further assessment of low-frequency noise required; and
3. As per NPfl, compare measured spectrum against reference spectrum to determine if the low-frequency modifying factor is triggered and application of penalty is required.
5. Re-measure; and
6. Follow-up monitoring.

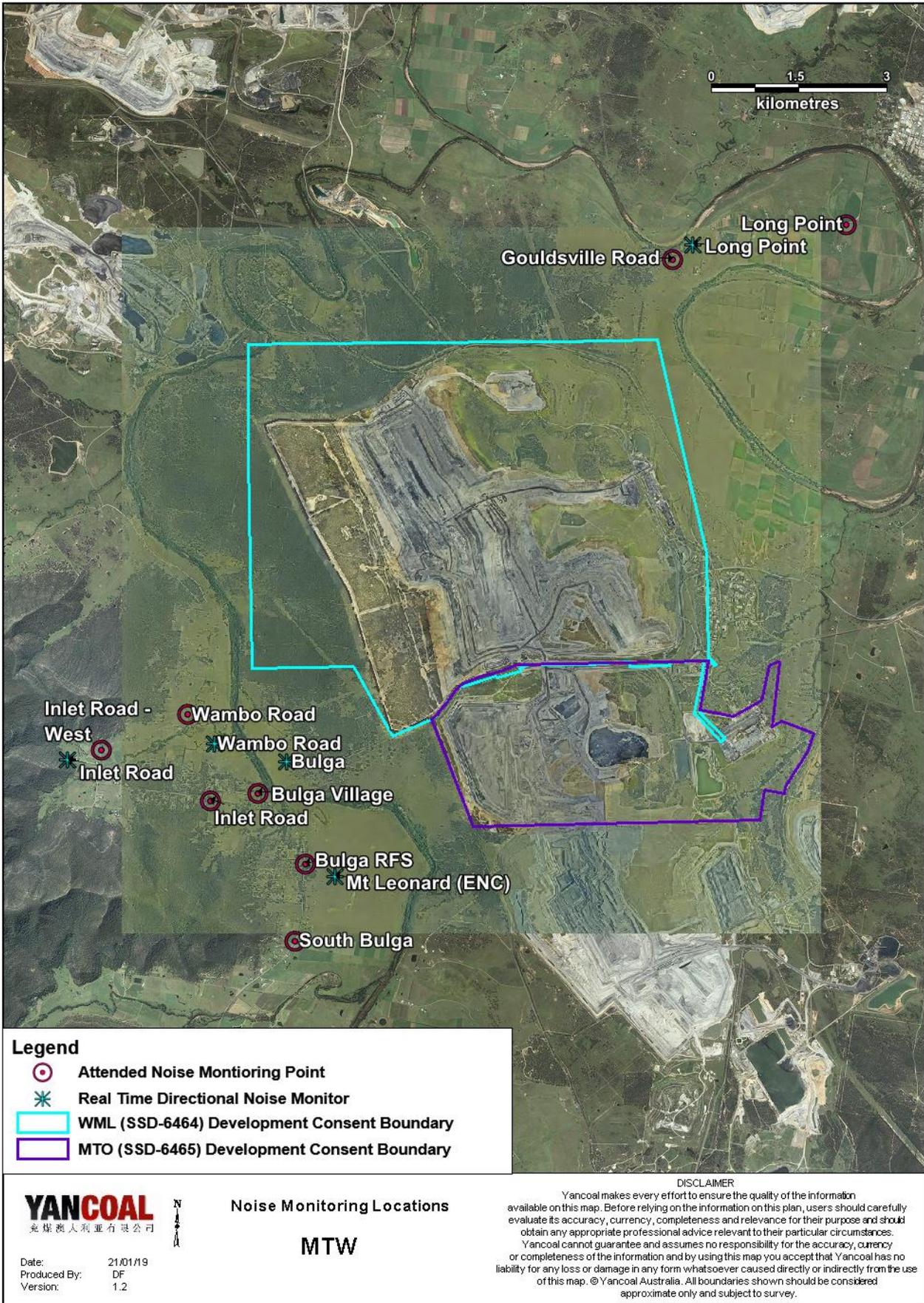


Figure 16: Noise Monitoring Location Plan

## 5.2 Noise Management Measures

A program of targeted supplementary attended noise monitoring is in place at MTW, supported by the real-time directional monitoring network and ensuring the highest level of noise management is maintained. The supplementary program is undertaken by MTW personnel and involves:

- Routine inspections from both inside and outside the mine boundary;
- Routine and as-required handheld noise assessments (undertaken in response to noise alarm and/or community complaint), comparing measured levels against consent noise limits; and
- Validation monitoring following operational modifications to assess the adequacy of the modifications.

Where a noise assessment identifies noise emissions which are exceeding the relevant noise limit(s) for any particular residence, modifications will be made so as to ensure that the noise event is resolved within 75 minutes of identification. The actions taken are commensurate with the nature and severity of the noise event, but can include:

- Changing the haul route to a less noise sensitive haul;
- Changing dump locations (in-pit or less exposed dump option);
- Reducing equipment numbers;
- Shut down of task; or
- Site shut down.
- A summary of these assessments undertaken during January are provided in **Table 8**.

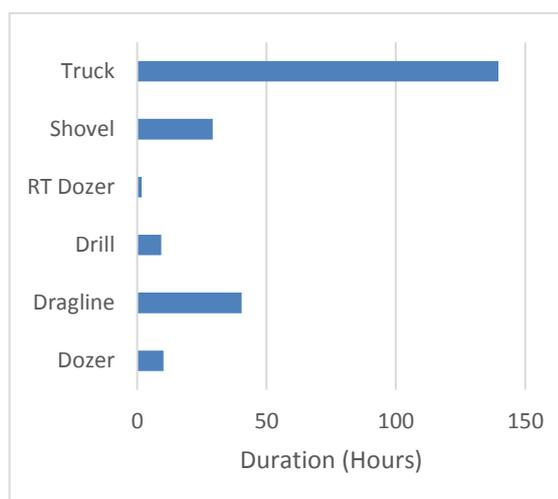
**Table 8: Supplementary Attended Noise Monitoring Data – January 2019**

No. of assessments	No. of assessments > trigger	No. of nights where assessments > trigger	% greater than trigger
646	13	5	2

Note: Measurements are taken under all meteorological conditions, including conditions under which the consent noise criteria do not apply.

## 6.0 OPERATIONAL DOWNTIME

During January, a total of 230 hours of equipment downtime was logged in response to environmental events such as dust, noise and adverse meteorological conditions. Operational downtime by equipment type is shown in **Figure 17**.



**Figure 17: Operational Downtime by Equipment Type – January 2019**

## 7.0 REHABILITATION

During January 2019, 2.4 Ha of land was released, 3.7 Ha of land was bulk shaped and 2.9 Ha of land was topsoiled.

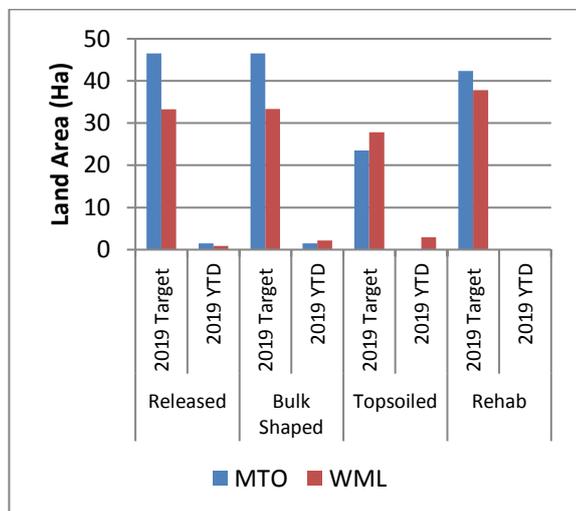


Figure 18: Rehabilitation YTD – January 2019

Table 9: Complaints Summary YTD

	Noise	Dust	Blast	Lighting	Other	Total
January	7	6	9	3	0	25
February						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
<b>Total</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>3</b>	<b>0</b>	<b>25</b>

## 8.0 ENVIRONMENTAL INCIDENTS

There were no reportable environmental incidents recorded during the reporting period.

## 9.0 COMPLAINTS

During the reporting period 25 complaints were received. Details of these complaints are shown in **Table 9** below.

## **Appendix A: Meteorological Data**

**Table 10: Meteorological Data – Charlton Ridge Meteorological Station – January 2019**

Date	Air Temperature Maximum (°C)	Air Temperature Minimum (°C)	Relative Humidity Maximum (%)	Relative Humidity Minimum (%)	Solar Radiation Maximum (W/Sq. M)	Wind Direction Average (°)	Wind Speed Average (m/sec)	Rainfall(mm)
1/01/2019	36	19	90	22	1205	159	2.1	1.2
2/01/2019	37	20	74	21	1101	140	2.2	0.0
3/01/2019	34	20	77	22	1142	139	2.9	0.0
4/01/2019	39	18	85	18	1090	148	2.0	0.0
5/01/2019	40	19	89	17	1234	252	5.1	1.2
6/01/2019	22	17	91	66	419	167	3.4	0.2
7/01/2019	26	15	94	61	1602	160	3.5	0.2
8/01/2019	36	18	90	26	1152	147	2.8	0.0
9/01/2019	36	19	92	24	1256	177	2.9	10.4
10/01/2019	30	19	93	52	1427	156	2.9	4.0
11/01/2019	33	18	96	40	1548	139	2.6	8.2
12/01/2019	37	18	96	29	1109	159	2.1	0.2
13/01/2019	33	19	81	38	1341	152	3.6	0.0
14/01/2019	35	19	85	28	1190	124	2.2	0.0
15/01/2019	41	20	76	14	1075	126	2.1	2.8
16/01/2019	42	21	91	18	1062	142	1.9	0.0
17/01/2019	41	22	77	14	1073	130	2.2	0.0
18/01/2019	42	21	72	10	1085	189	3.0	0.0
19/01/2019	40	19	83	14	1220	173	3.2	0.0
20/01/2019	29	19	86	56	1091	151	3.2	0.0
21/01/2019	29	19	95	53	1148	156	1.7	14.0
22/01/2019	36	19	89	27	1292	165	1.8	0.0
23/01/2019	37	21	83	24	1410	229	3.0	0.0
24/01/2019	34	20	82	37	1479	152	3.1	0.0
25/01/2019	38	28	59	22	171	118	1.9	0.0
26/01/2019	43	22	76	12	1066	214	2.5	0.0
27/01/2019	42	22	83	14	1342	200	3.9	5.6
28/01/2019	33	21	84	44	1410	155	3.3	0.0
29/01/2019	39	20	86	23	1052	121	2.4	0.0
30/01/2019	37	22	72	23	1398	165	2.0	0.0
31/01/2019	36	20	71	23	1048	247	3.3	0.0

“-“ Indicates that data was not available due to technical issues.