

PEAK MONTHLY ENVIRONMENTAL MONITORING  
SUMMARY MAY 2022

TECHNICAL  
REPORT



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## 1. Intent

This monthly environmental summary report is a requirement under section 66(6) of the NSW Protection of the Environment Operations Act 1997 (POEO Act), in which holders of an environment protection licence make their pollution monitoring data publicly available. This report is intended to keep the community, stakeholders, and regulators informed of Peak Gold Mine's (PGM's) environmental performance and to maintain a transparent and accountable reporting system.

## 2. Scope

This report covers all PGMs environmental monitoring conditions covered for May 2022. These conditions, where applicable, are measured against PGMs Environment Protection Licence (EPL 3596), development consent conditions and Australian Standard to determine PGMs compliance.

These conditions include;

- Weather Conditions
- Surface Water Monitoring results
- Noise Monitoring results
- Air Quality Monitoring results
- Blasting monitoring results
- Haulage Movements

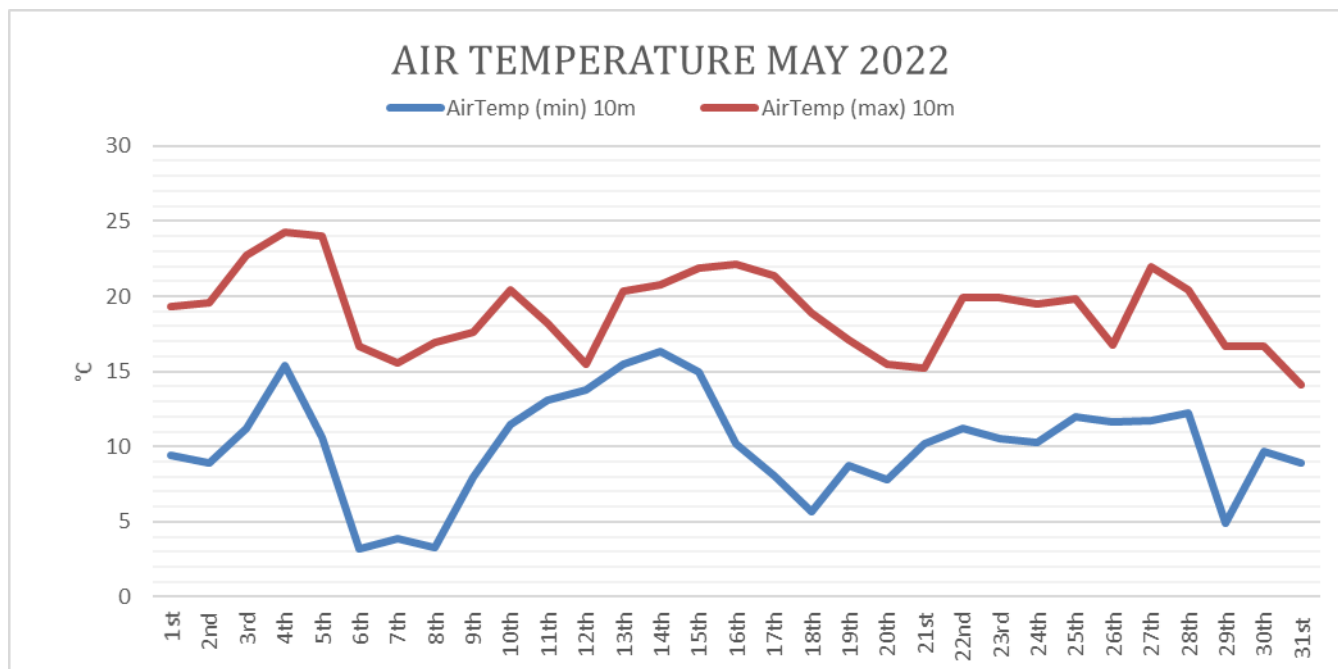
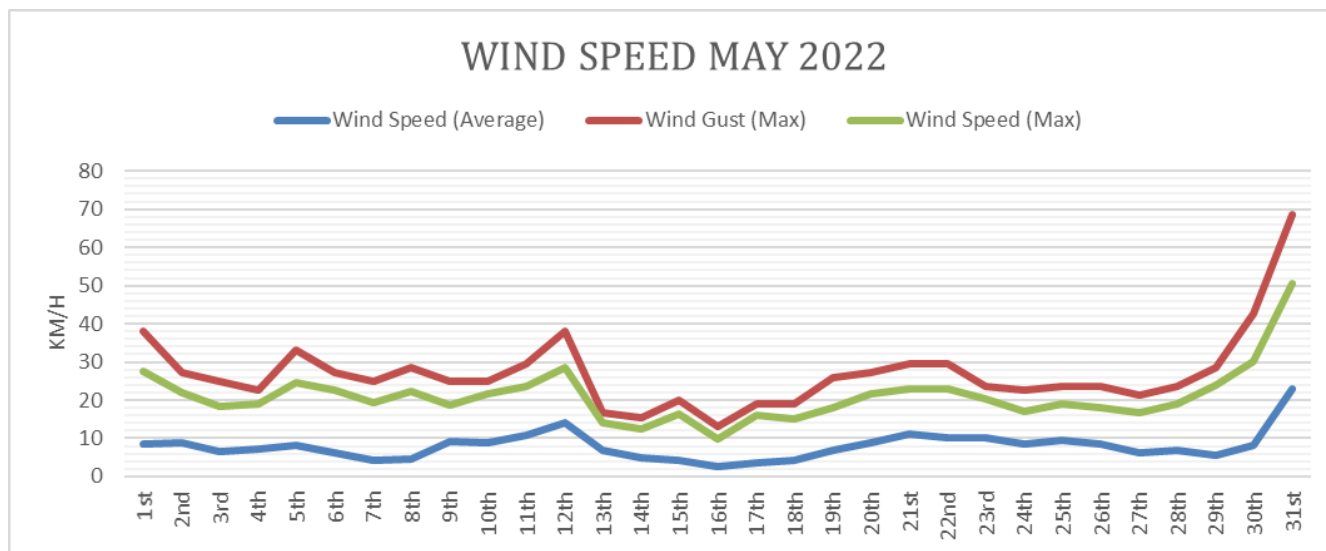
## 3. Definitions

| Term                    | Definition   |
|-------------------------|--|
| mm/s                    | The peak of the vibration in millimetres per second  |
| Insoluble Solids        | The insoluble portion of the dust deposited in dust deposition gauge   |
| Total Lead              | Including dissolved lead in the liquid portion and the lead particulates in the filter paper following laboratory analysis |
| g/m <sup>2</sup> /month | Grams per square metre per month   |
| dB (L)                  | Decibel (linear maximum)   |
| dB LAeq (15 minute)     | Decibel (linear weighted average over 15 minutes)  |
| CN Free                 | Free Cyanide (Hydrogen Cyanide and Cyanide ions in solution)   |
| CN WAD                  | Weak Acid Dissociable Cyanide (includes Cyanide species liberated at moderate pH of 4.5)                                   |
| TSS                     | Total Suspended Solids   |

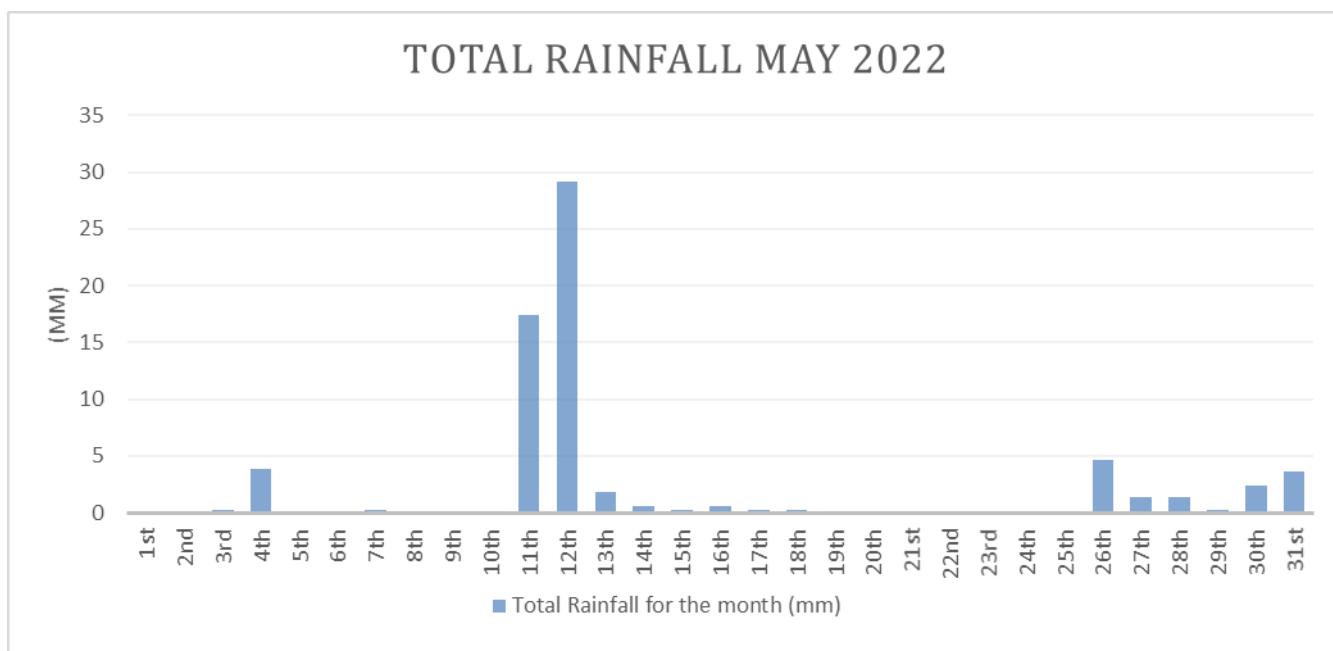
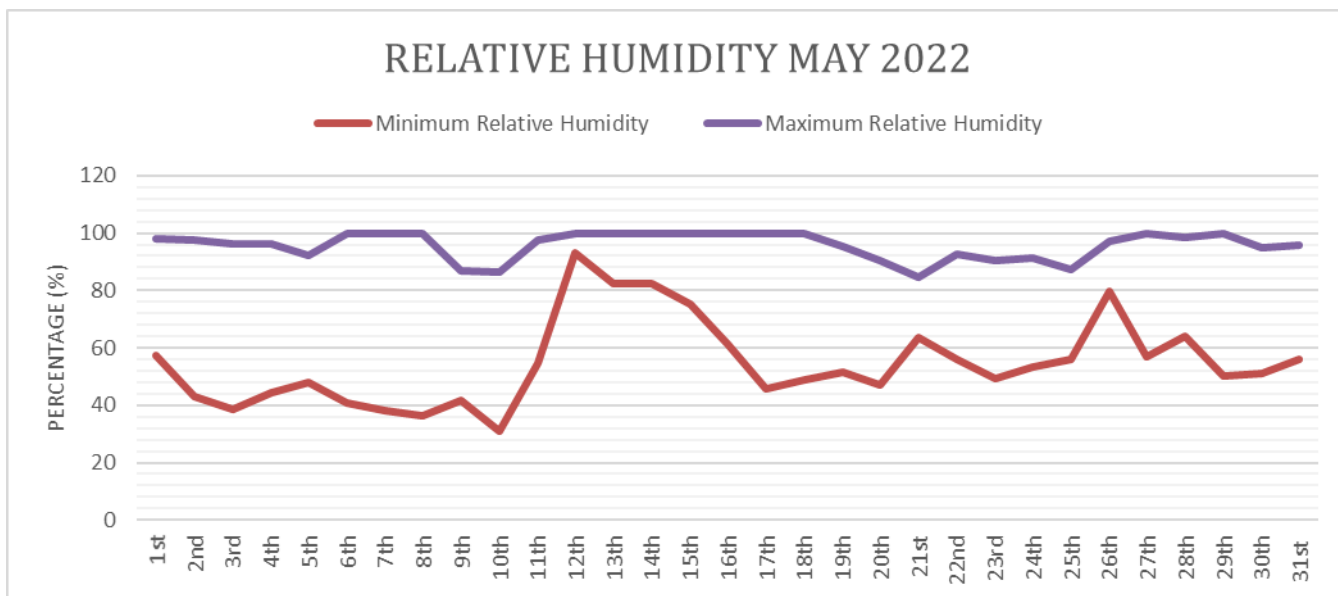
## 4. Monitoring Results

### 4.1 Weather

The meteorology monitoring data is acquired through PGM’s weather station located 2km South of Cobar. The BOM website can also be used as an alternate source for this monitoring data.



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Graphs 1-4: Summary of meteorological data for May 2022

## 4.2 Surface Water

Surface water monitoring involves collecting water samples from several locations around site. The water samples are submitted to a NATA accredited laboratory for physical and chemical analysis. Analysis of pH and electrical conductivity are obtained in the field using a handheld monitor. Table 1 gives the results as per the PGM EPL requirements.

Table 1: Surface Water monitoring results (\*No monitoring required)

| Location                 | Sampled   | Received   | Published  | Limit       | WAD<br>CN<br>(mg/L) | CN<br>Free<br>(mg/L) | TSS<br>(mg/L) | Oil &<br>Grease |
|--------------------------|-----------|------------|------------|-------------|---------------------|----------------------|---------------|-----------------|
| Recycled<br>Water<br>Dam | 4/05/2022 | 16/05/2022 | 20/05/2022 | No<br>Limit | 0.016               | 0.014                | 26            | *               |
| Raw<br>Water<br>Tank     | 4/05/2022 | 16/05/2022 | 20/05/2022 | No<br>Limit | <0.004              | <0.004               | 6             | *               |
| Spain's<br>Dam           | 4/05/2022 | 16/05/2022 | 20/05/2022 | No<br>Limit | *                   | *                    | <5            | <5              |
| Decant<br>Dam            | 4/05/2022 | 16/05/2022 | 20/05/2022 | No<br>Limit | 3.18                | 3.99                 | 10            | *               |

### 4.3 Noise Monitoring

A hand-held monitor is used by PGM employees to monitor noise levels at times set out by the EPL and development consent conditions. Noise monitoring is conducted at the closest resident (Figure 1) and sporadically depending on operational requirements. PGMs closest monitoring point is located at the Dellavale boundary, approximately 400m closer to the mine noise than the residence. To determine the noise level (dB) experienced at the residence, sound intensity I and the inverse square law  $1/r^2$  is calculated based on the residences distance from mine noise source.

Noise monitoring results are below in Table 3. Licenced noise limits set by the EPL and development consent conditions are given in Table 2.

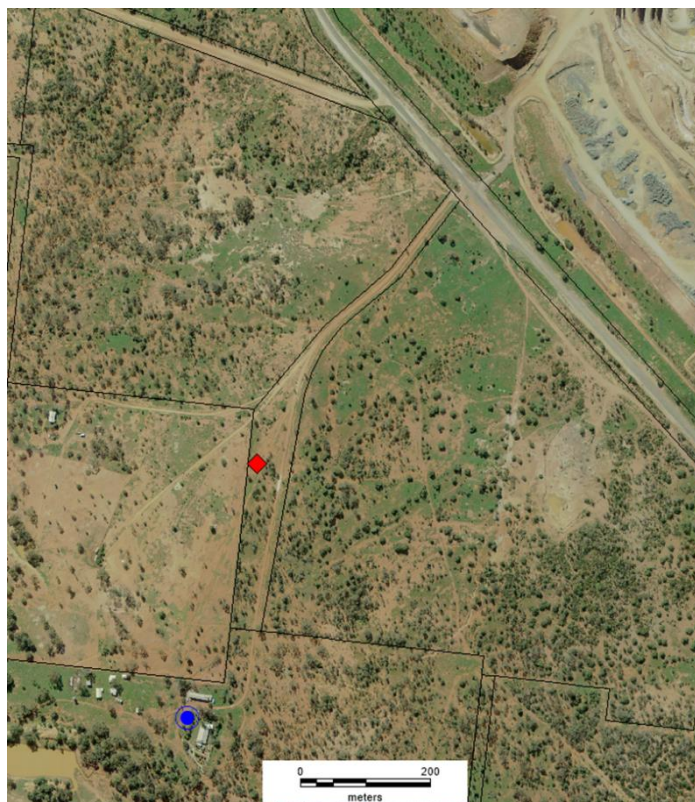


Figure 1: Location of the "Dellavale" properties house (blue circle) and noise monitoring location (red diamond).

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Table 2: Noise Monitoring levels

| Time Band         | Day       | Noise Level (dB) |
|-------------------|-----------|------------------|
| 8:00am – 6:00pm   | Mon – Fri | 45               |
| 6:00pm – 10:00pm  | Mon – Fri | 40               |
| 10:00pm – 8:00am  | Mon – Fri | 35               |
| 8:00am – 1:00pm   | Sat       | 45               |
| 1.00pm – 8:00am   | Sat       | 35               |
| 12:00am – 12:00pm | Sun       | 35               |

Table 3: Attended Noise Monitoring Results

| Location  | Sampled & Obtained | Published | Time     | LA 10 (dB) Limit | LA 10 (dB) Monitoring Result at Monitor Location | LA 10 (dB) Calculated Monitoring Result at Residence | Key Noise Source       | Complies |
|-----------|--------------------|-----------|----------|------------------|--|--|------------------------|----------|
| Dellavale | 7/05/2022          | 9/05/2022 | 11:17 AM | 45               | 33.8   | 29.8   | Fly and Birds chirping | Yes      |

#### 4.4 Air Quality

Fall out dust deposition bottles are currently used to monitor air quality. The bottles are positioned in the field (Figure 2) for a period of  $30 \pm 2$  days. Monitoring is required to be undertaken quarterly however, we conduct monthly monitoring. The bottles are then sent to Australian Laboratory Services (ALS) for external analysis.

PGM has no set limits for air quality monitoring levels. However, PGM takes on board the EPA's best practice limit of  $4\text{g}/\text{m}^2/\text{time}$  (limit is applicable to a 12-month averaging period). If the 12-month rolling average of a result is greater than  $4\text{g}/\text{m}^2/\text{time}$ , the cause will be investigated and reported in the AEMR.



Figure 2: Location of dust gauges on PGM Mining Leases

Table 4: Air Quality Results

| Site             | Location                  | Sampled   | Received   | Published  | Australian Standard Limit (g/m2/month) | Insoluble Solids (g/m2/month) | Total Lead (g/m2/month) | Complies |
|------------------|---------------------------|-----------|------------|------------|--|-------------------------------|-------------------------|----------|
| <b>DM1</b>       | NW corner of tailings dam | 3/06/2022 | 05/07/2022 | 07/07/2022 | 4                                      | 0.4                           | 0.000258                | Yes      |
| <b>DM2</b>       | SW corner of tailings dam | 3/06/2022 | 05/07/2022 | 07/07/2022 | 4                                      | 2.6                           | 0.00102                 | Yes      |
| <b>DM3</b>       | Carpark                   | 3/06/2022 | 05/07/2022 | 07/07/2022 | 4                                      | 3.2                           | 0.0382                  | Yes      |
| <b>DM4</b>       | NE corner of PGM magazine | 3/06/2022 | 05/07/2022 | 07/07/2022 | 4                                      | 0.4                           | 0.0109                  | Yes      |
| <b>Dellavale</b> | 1.3km ESE of New Cobar    | 3/06/2022 | 05/07/2022 | 07/07/2022 | 4                                      | 0.2                           | 0.000108                | Yes      |
| <b>Bimbimbie</b> | 1.2km SW of New Cobar     | 3/06/2022 | 05/07/2022 | 07/07/2022 | 4                                      | 0.7                           | 0.000381                | Yes      |

## 4.5 Blast Monitoring

The vibration monitoring results displayed in Table 6 represents all blast vibration events that were triggered at the New Occidental, Fort Bourke and/or Dellavale monitors (Figure 3).

As seen in Table 6 all but one blasting events for the month were below PGMs EPL limits. The one which went over was still within the range of allowable exceedence limit. Vibration limits set by the NSW Environmental Protection Authority (EPA) can be viewed in Table 5.

The compliance against the overall 12-month period will be reported in the EPL Annual Return and Annual Environmental Management Report (AEMR)



Figure 3: Location of Vibration Monitors on PGM's Mining Lease

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Table 5: PGM EPL Limits

| Peak Particle Velocity (mm/s) | Allowable Exceedance   |
|-------------------------------|--|
| 5.00                          | <5% of the total number of blasts in a 12-month period are to be above 5mm/s |
| 10.00                         | NIL  |

Table 6: Vibration Results

| Location  | Sampled & Received | ID                  | New Occidental (mm/s) | Fort Bourke (mm/s) | Dellavale (mm/s) | Complies |
|-----------|--------------------|---------------------|-----------------------|--------------------|------------------|----------|
| Peak      | 2/05/22            | HIN_9250_790_620    | No Trigger            | No Trigger         | No Trigger       | Yes      |
| New Cobar | 3/05/22            | NCB_25_NTH          | No Trigger            | 4.481              | 0.934            | Yes      |
| Peak      | 5/05/22            | S4U_9131_705_470    | No Trigger            | No Trigger         | No Trigger       | Yes      |
| New Cobar | 8/05/22            | NCB_25_NTH          | No Trigger            | 5.416              | 1.171            | Yes      |
| New Cobar | 12/05/22           | NCB_25_NTH          | No Trigger            | 3.647              | No Trigger       | Yes      |
| Peak      | 13/05/22           | S4U_9131_705_470    | No Trigger            | No Trigger         | No Trigger       | Yes      |
| Peak      | 14/05/22           | PVD_8720_NTH_855    | No Trigger            | No Trigger         | No Trigger       | Yes      |
| Peak      | 15/05/22           | S4U_9131_705_470    | No Trigger            | No Trigger         | No Trigger       | Yes      |
| New Cobar | 16/05/22           | NCB_25_NTH          | No Trigger            | No Trigger         | No Trigger       | Yes      |
| New Cobar | 18/05/22           | N C B _ 1 6 _ O D S | No Trigger            | 2.910              | No Trigger       | Yes      |
| New Cobar | 27/05/22           | JUB_37_NTH_460      | No Trigger            | 1.376              | No Trigger       | Yes      |
| New Cobar | 30/05/22           | N C B _ 1 6 _ O D S | No Trigger            | 1.248              | No Trigger       | Yes      |

## 4.6 Haulage Movements

PGM is required to monitor the number of truck loads undertaken from New Cobar to the Peak site as per current consent conditions. In the month of May, 775 truck loads were permitted to be delivered to Peak Gold Mine. In total, 263 truck loads were completed. Table 7 shows a summary of the trucking for the month.

Table 7: Haulage Summary

| Date     | Truck Loads |
|----------|-------------|
| 01-05-22 | 0           |
| 02-05-22 | 21          |
| 03-05-22 | 13          |
| 04-05-22 | 8           |
| 05-05-22 | 0           |
| 06-05-22 | 0           |

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| Date                 | Truck Loads |
|----------------------|-------------|
| 07-05-22             | 0           |
| 08-05-22             | 0           |
| 09-05-22             | 0           |
| 10-05-22             | 24          |
| 11-05-22             | 0           |
| 12-05-22             | 0           |
| 13-05-22             | 0           |
| 14-05-22             | 0           |
| 15-05-22             | 0           |
| 16-05-22             | 22          |
| 17-05-22             | 23          |
| 18-05-22             | 22          |
| 19-05-22             | 24          |
| 20-05-22             | 21          |
| 21-05-22             | 0           |
| 22-05-22             | 0           |
| 23-05-22             | 25          |
| 24-05-22             | 20          |
| 25-05-22             | 19          |
| 26-05-22             | 0           |
| 27-05-22             | 0           |
| 28-05-22             | 0           |
| 29-05-22             | 0           |
| 30-05-22             | 0           |
| 31-05-22             | 21          |
| <b>Daily Average</b> | <b>8.48</b> |