



## MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

### Site Information

**EPL No:** 20221

**EPA Website Link:** [Hyperlink to Maules Creek Coal, Environment Protection Licence](#)

**Licensee:** Maules Creek Coal Mine Pty Ltd

**Licensee Address:** Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

**EPL Monitoring Points:** See Figure 1 below

**Sampling Period:** January 2024

**Obtained Date:** 15<sup>th</sup> March 2024

**Publication Date:** 16<sup>th</sup> March 2024

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2<sup>nd</sup> August 2022 by the NSW Environment Protection Authority (EPA).



## Monthly Monitoring Summary

### Ground Water Monitoring

**Table 1 - Groundwater Quality Monitoring**

| ID<br>EPL (Bore) | Parameters   | Units | Frequency | Samples | Date | Laboratory Results<br>Received | Min | Mean | Max / Only<br>Value |
|------------------|--------------|-------|-----------|---------|------|--------------------------------|-----|------|---------------------|
| 15<br>(BCM01)    | pH           | pH    | Quarterly |         |      |                                |     |      |                     |
|                  | Conductivity | µs/cm |           |         |      |                                |     |      |                     |
|                  | TDS          | mg/L  |           |         |      |                                |     |      |                     |
| 16<br>(BCM03)    | pH           | pH    | Quarterly |         |      |                                |     |      |                     |
|                  | Conductivity | µs/cm |           |         |      |                                |     |      |                     |
|                  | TDS          | mg/L  |           |         |      |                                |     |      |                     |
| 17<br>(REG10A)   | pH           | pH    | Quarterly |         |      |                                |     |      |                     |
|                  | Conductivity | µs/cm |           |         |      |                                |     |      |                     |
|                  | TDS          | mg/L  |           |         |      |                                |     |      |                     |
| 24<br>(RB05A)    | pH           | pH    | Quarterly |         |      |                                |     |      |                     |
|                  | Conductivity | µs/cm |           |         |      |                                |     |      |                     |
|                  | TDS          | mg/L  |           |         |      |                                |     |      |                     |

Next sample in March 2024



## Surface Water Monitoring

**Table 2 – Surface Water Monitoring – Mine Void**

| ID<br>EPL (Site)          | Parameter    | Units | Frequency         | Samples | Date | Laboratory Results<br>Received | Min | Mean | Max / Only<br>Value |
|---------------------------|--------------|-------|-------------------|---------|------|--------------------------------|-----|------|---------------------|
| 12<br>(Mine Void)         | TSS          | mg/L  | Every 2<br>months |         |      |                                |     |      |                     |
|                           | Conductivity | µs/cm |                   |         |      |                                |     |      |                     |
|                           | Oil & Grease | mg/L  |                   |         |      |                                |     |      |                     |
|                           | pH           | pH    |                   |         |      |                                |     |      |                     |
| Next sample in March 2024 |              |       |                   |         |      |                                |     |      |                     |

**Table 3 – Wet Weather Discharge - Surface Water Monitoring**

| ID<br>EPL (Site)  | Parameter               | Units | Frequency   | Samples | Date | Laboratory<br>Results<br>Received | Min<br>Value | Mean<br>Value | Median<br>Value | Max / Only<br>Value |
|---|-------------------------|-------|---|---------|------|-----------------------------------|--------------|---------------|-----------------|---------------------|
| 3<br>(SD3)  | Conductivity            | µs/cm | Special<br>Frequency 1 -<br>within 12<br>hours of<br>discharge from<br>EPL 3 or 36. |         |      |                                   |              |               |                 |                     |
|   | Nitrate                 | mg/L  |   |         |      |                                   |              |               |                 |                     |
|   | Nitrogen (total)        | mg/L  |   |         |      |                                   |              |               |                 |                     |
|   | Oil & Grease            | mg/L  |   |         |      |                                   |              |               |                 |                     |
|   | pH                      | pH    |   |         |      |                                   |              |               |                 |                     |
|   | Phosphorous             | mg/L  |   |         |      |                                   |              |               |                 |                     |
|   | Reactive<br>Phosphorous | mg/L  |   |         |      |                                   |              |               |                 |                     |
|   | TSS                     | mg/L  |   |         |      |                                   |              |               |                 |                     |
| 36<br>(SD12)  | Conductivity            | µs/cm | Special<br>Frequency 1 -<br>within 12<br>hours of<br>discharge from<br>EPL 3 or 36. |         |      |                                   |              |               |                 |                     |
|   | Nitrate                 | mg/L  |   |         |      |                                   |              |               |                 |                     |
|   | Nitrogen (total)        | mg/L  |   |         |      |                                   |              |               |                 |                     |
|   | Oil & Grease            | mg/L  |   |         |      |                                   |              |               |                 |                     |
|   | pH                      | pH    |   |         |      |                                   |              |               |                 |                     |
|   | Phosphorous             | mg/L  |   |         |      |                                   |              |               |                 |                     |
|   | Reactive<br>Phosphorous | mg/L  |   |         |      |                                   |              |               |                 |                     |
|   | TSS                     | mg/L  |   |         |      |                                   |              |               |                 |                     |
|   | Conductivity            | µs/cm |   |         |      |                                   |              |               |                 |                     |
| No discharge occurred at these locations in February 2024 |                         |       |   |         |      |                                   |              |               |                 |                     |


**Table 4 – Clean Water Discharge - Surface Water Monitoring**

| ID EPL (Site)                 | Parameter            | Units | Frequency   | Samples | Date | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|-------------------------------|----------------------|-------|---|---------|------|-----------------------------|-----------|------------|--------------|------------------|
| 38<br>(Flow Meter Upstream)   | Conductivity         | µs/cm | Special Frequency 3 - within 12 hours of discharge from any discharge location. |         |      |                             |           |            |              |                  |
|                               | Nitrate              | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | Nitrogen (total)     | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | Oil & Grease         | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | pH                   | pH    |   |         |      |                             |           |            |              |                  |
|                               | Phosphorous          | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | Reactive Phosphorous | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | TSS                  | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | Conductivity         | µs/cm |   |         |      |                             |           |            |              |                  |
|                               | Nitrate              | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | Nitrogen (total)     | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | Oil & Grease         | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | pH                   | pH    |   |         |      |                             |           |            |              |                  |
|                               | Phosphorous          | mg/L  |   |         |      |                             |           |            |              |                  |
| Reactive Phosphorous          | mg/L                 |       |   |         |      |                             |           |            |              |                  |
| TSS                           | mg/L                 |       |   |         |      |                             |           |            |              |                  |
| 39<br>(Flow Meter downstream) | Conductivity         | µs/cm | Special Frequency 3 - within 12 hours of discharge from any discharge location. |         |      |                             |           |            |              |                  |
|                               | Nitrate              | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | Nitrogen (total)     | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | Oil & Grease         | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | pH                   | pH    |   |         |      |                             |           |            |              |                  |
|                               | Phosphorous          | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | Reactive Phosphorous | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | TSS                  | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | Conductivity         | µs/cm |   |         |      |                             |           |            |              |                  |
|                               | Nitrate              | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | Nitrogen (total)     | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | Oil & Grease         | mg/L  |   |         |      |                             |           |            |              |                  |
|                               | pH                   | pH    |   |         |      |                             |           |            |              |                  |
|                               | Phosphorous          | mg/L  |   |         |      |                             |           |            |              |                  |
| Reactive Phosphorous          | mg/L                 |       |   |         |      |                             |           |            |              |                  |

No discharge occurred at these locations in February 2024



|               | TSS          | mg/L  |   |
|---------------|--------------|-------|---|
| 40<br>(HWD8)  | TSS          | mg/L  | Special<br>Frequency 2<br>– prior to<br>discharging<br>from EPL 45<br>and/or 46 or<br>within<br>12hours of<br>discharge<br>caused by<br>38.4mm in a<br>5 Day<br>consecutive<br>period |
|               | Conductivity | µs/cm |   |
|               | Oil & Grease | mg/L  |   |
|               | pH           | pH    |   |
| 41<br>(HWD9)  | TSS          | mg/L  | Special<br>Frequency 2<br>– prior to<br>discharging<br>from EPL 45<br>and/or 46 or<br>within<br>12hours of<br>discharge<br>caused by<br>38.4mm in a<br>5 Day<br>consecutive<br>period |
|               | Conductivity | µs/cm |   |
|               | Oil & Grease | mg/L  |   |
|               | pH           | pH    |   |
|               | TSS          | mg/L  |   |
|               | Conductivity | µs/cm |   |
|               | Oil & Grease | mg/L  |   |
|               | pH           | pH    |   |
| 42<br>(HWD10) | TSS          | mg/L  | Special<br>Frequency 2<br>– prior to<br>discharging<br>from EPL 45<br>and/or 46 or  |
|               | Conductivity | µs/cm |   |
|               | Oil & Grease | mg/L  |   |

No discharge occurred at these locations in February 2024



|               |              |       |  |   |
|---------------|--------------|-------|--|---|
|               | pH           | pH    | within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period   |   |
| 43<br>(HWD11) | TSS          | mg/L  | Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period | No discharge occurred at these locations in February 2024 |
|               | Conductivity | µs/cm |  |   |
|               | Oil & Grease | mg/L  |  |   |
|               | pH           | pH    |  |   |
|               | TSS          | mg/L  |  |   |
|               | Conductivity | µs/cm |  |   |
|               | Oil & Grease | mg/L  |  |   |
|               | pH           | pH    |  |   |
| 44<br>(WCWD)  | TSS          | mg/L  | Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day                    | No discharge occurred at these locations in February 2024 |
|               | Conductivity | µs/cm |  |   |
|               | Oil & Grease | mg/L  |  |   |
|               | pH           | pH    |  |   |
|               | TSS          | mg/L  |  |   |
|               | Conductivity | µs/cm |  |   |



|  |              |      |                       |  |
|--|--------------|------|-----------------------|--|
|  | Oil & Grease | mg/L | consecutive<br>period |  |
|  | pH           | pH   |                       |  |
|  | pH           | pH   |                       |  |
|  | TSS          | mg/L |                       |  |
|  | Oil & Grease | mg/L |                       |  |
|  | pH           | mg/L |                       |  |
|  | TSS          | pH   |                       |  |



## Noise Monitoring

Table 6 – Noise Monitoring (Attended – Measured)

| MCC ID | Date       | Start Time | Wind Speed (m/s) | MCCP LAeq 15min dB | Limit LAeq 15min (dB) Operations Criteria | MCCP LAeq 1min dB | Limit LA1 (1 min) (dB) Operations Criteria | Weather Rain (mm) | Exceedance (Yes / No) |
|--------|------------|------------|------------------|--------------------|---|-------------------|--|-------------------|-----------------------|
| NM1    | 27/02/2024 | 22:30      | 4.3              | IA                 | 35  | IA                | 45   | 0.0               | No                    |
| NM2    | 27/02/2024 | 23:38      | 4.2              | IA                 | 39  | IA                | 45   | 0.0               | No                    |
| NM3    | 27/02/2024 | 23:21      | 3.8              | IA                 | 35  | IA                | 45   | 0.0               | No                    |
| NM4    | 27/02/2024 | 23:00      | 4.3              | IA                 | 35  | IA                | 45   | 0.0               | No                    |
| NM5    | 27/02/2024 | 22:00      | 3.1              | IA                 | 35  | IA                | 45   | 0.0               | No                    |
| NM6    | 28/02/2024 | 00:04      | 3.7              | IA                 | 35  | IA                | 45   | 0.0               | No                    |

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

*Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.*

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

## Table 7 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.





## Blast Monitoring

Table 8 – Blast Monitoring (Blasts – Limits Apply)

| Location             | Parameter    | Units         | Frequency | Number | Average | Max    | 100% Limit | Exceedance (Yes / No) |
|----------------------|--------------|---------------|-----------|--------|---------|--------|------------|-----------------------|
| Operations<br>Blasts | Overpressure | Db (Lin Peak) | All       | 7      | 96.43   | 112.70 | 120        | No                    |
|                      | Vibration    | mm/s          |           | 7      | 0.11    | 0.36   | 10         | No                    |

*Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).*



## Air Quality Monitoring

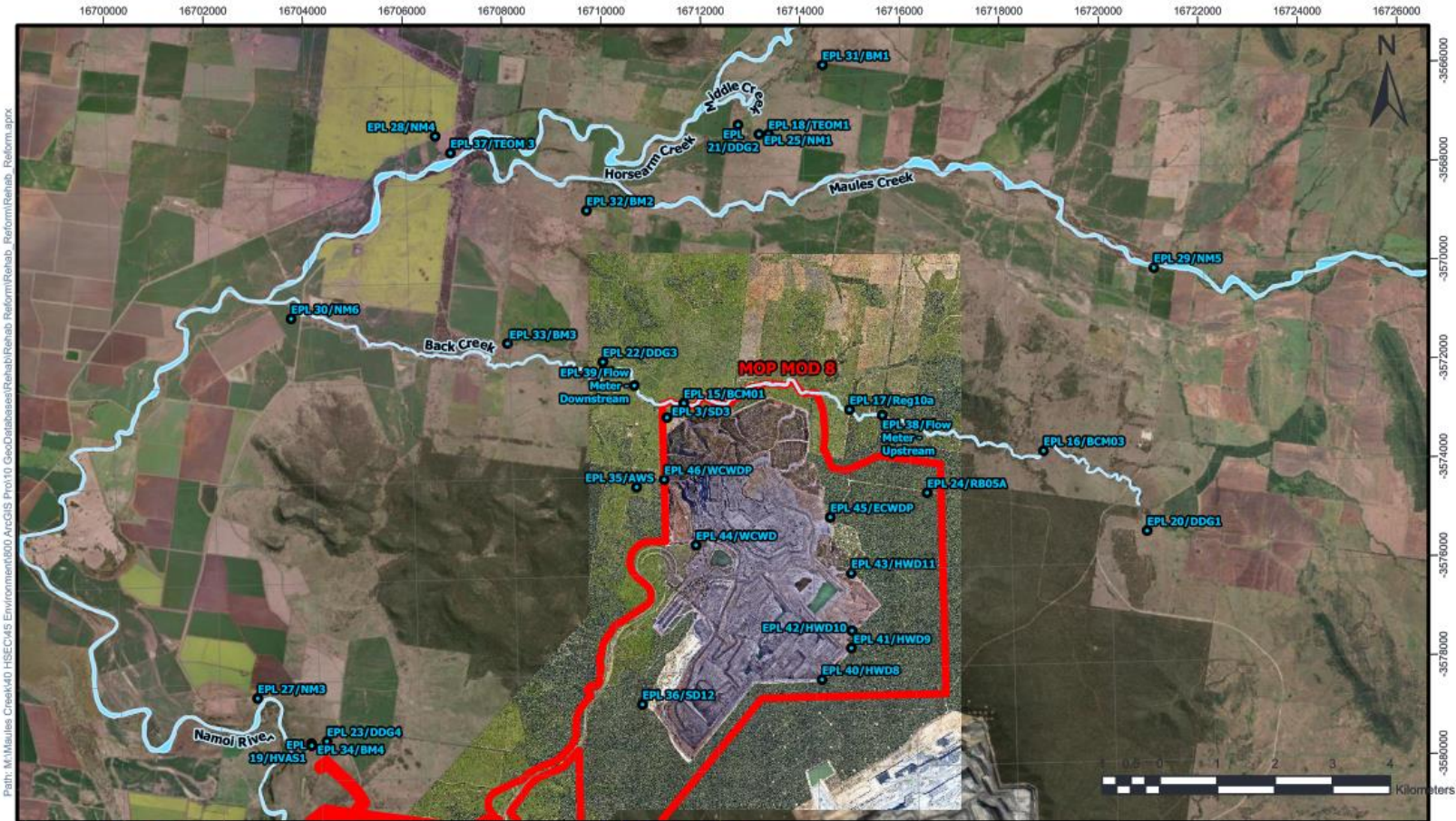
Table 9 – PM<sub>10</sub> (Limits Apply)

| ID<br>EPL (Site) | Sample<br>period | Unit                    | Parameter        | Rolling<br>Annual<br>Average | NEPM<br>Annual<br>Criteria | Exceedance<br>(Yes / No) |
|------------------|------------------|-------------------------|------------------|------------------------------|----------------------------|--------------------------|
| 18<br>(TEOM1)    | Continuous       | µg/m <sup>3</sup> month | PM <sub>10</sub> | 11.7                         | 30                         | No                       |
| 37<br>(TEOM3)    | Continuous       | µg/m <sup>3</sup> month | PM <sub>10</sub> | 14.3                         | 30                         | No                       |
| 19<br>(HVAS)     | 5 days           | µg/m <sup>3</sup>       | PM <sub>10</sub> | 15.3                         | 30                         | No                       |

Table 10 – Depositional Dust (Limits Apply)

| ID<br>EPL (Site) | Sample<br>period | Particulates<br>Deposited<br>Matter | Rolling<br>Annual<br>Average<br>Insoluble<br>Solids | Criteria | Exceedance<br>(Yes / No) |
|------------------|------------------|-------------------------------------|---|----------|--------------------------|
| 20<br>(DDG1/MC1) | Monthly          | g/m <sup>2</sup> month              | 2.2   | 4        | No                       |
| 21<br>(DDG2/MC2) | Monthly          | g/m <sup>2</sup> month              | 2.1   | 4        | No                       |
| 22<br>(DDG3/MC3) | Monthly          | g/m <sup>2</sup> month              | 2.0   | 4        | No                       |
| 23<br>(DDG4/MC4) | Monthly          | g/m <sup>2</sup> month              | 1.2   | 4        | No                       |

Figure 1 – EPL 20221 Monitoring Locations



**EPL20221 Monitoring Locations - 2/08/2022**

- Legend
- EPL Monitoring locations
  - 05 Project Boundary\_Boundaries
  - ▭ MCCM Project Boundary (Mod 8)

Scale: 1:88,442  
 Author: shenanewman  
 Date Exported: 16/09/2022 11:51 AM  
 Spatial Reference Name: GDA2020 MGA Zone 56

Maules Creek Coal



Disclaimer: Map for reference only and subject to survey. MCC makes no guarantee of the accuracy of this map and data within. MCC shall have no liability for any decisions made or actions taken based upon this map.

