



## 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 2019

**Obtained Date:** 15 February 2019

**Publication Date:** 25 January 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 - Wet Weather Discharge - Surface Water Monitoring**

| ID EPL (Site) | Parameter    | Units | Frequency                        | Samples | Date                                      | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---------------|--------------|-------|----------------------------------|---------|---|-----------------------------|-----------|------------|--------------|------------------|
| 2 (SD2)       | TSS          | mg/L  | Special Frequency Discharge only | 0       | No discharge at this location this month. |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 3 (SD3)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 5 (SD5)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 7 (SD7)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 9 (SD9)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |

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

| ID EPL (Site)  | Parameter    | Units | Frequency      | Samples | Date       | Laboratory Results Received | Min | Mean | Max / Only Value |
|----------------|--------------|-------|----------------|---------|------------|-----------------------------|-----|------|------------------|
| 12 (Mine Void) | TSS          | mg/L  | Every 2 months | 1       | 17/01/2019 | Yes                         |     |      | <5               |
|                | Conductivity | µs/cm |                | 1       | 17/01/2019 | Yes                         |     |      | 1060             |
|                | Oil & Grease | mg/L  |                | 1       | 17/01/2019 | Yes                         |     |      | <5               |
|                | pH           | pH    |                | 1       | 17/01/2019 | Yes                         |     |      | 7.65             |

**Table 3 – Groundwater Quality Monitoring**

| ID<br>EPL (Bore) | Parameters   | Units | Frequency | Samples | Date | Laboratory<br>Results<br>Received | Min | Mean | Max / Only<br>Value         |
|------------------|--------------|-------|-----------|---------|------|-----------------------------------|-----|------|-----------------------------|
| 15<br>(BCM01)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 16<br>(BCM03)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 17<br>(REG10A)   | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 24<br>(RB05A)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Next sample March 2019      |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |

**Table 4 – 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    | 14/01/2019 | 23:00      | 0.5              | <25                | 35  | <25               | 45   | 0                 | Nil                   |
| NM2    | 15/01/2019 | 00:00      | 0.4              | <20                | 39  | <20               | 45   | 0                 | Nil                   |
| NM3    | 15/01/2019 | 01:00      | 0.6              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM4    | 14/01/2019 | 23:25      | 0.8              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM5    | 14/01/2019 | 22:30      | 0.5              | 25                 | 35  | 30                | 45   | 0                 | Nil                   |
| NM6    | 15/01/2019 | 00:28      | 0.5              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |

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.

**Table 5 - 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.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

| Location          | Parameter | Units         | Frequency | Number | Average | Max   | 100% Limit | Exceedance (Yes / No) |
|-------------------|-----------|---------------|-----------|--------|---------|-------|------------|-----------------------|
| Operations Blasts | Noise     | Db (Lin Peak) | All       | 8      | 93.1    | 105.8 | 120        | No                    |
|                   | Vibration | mm/s          |           | 8      | 0.20    | 0.83  | 10         | No                    |

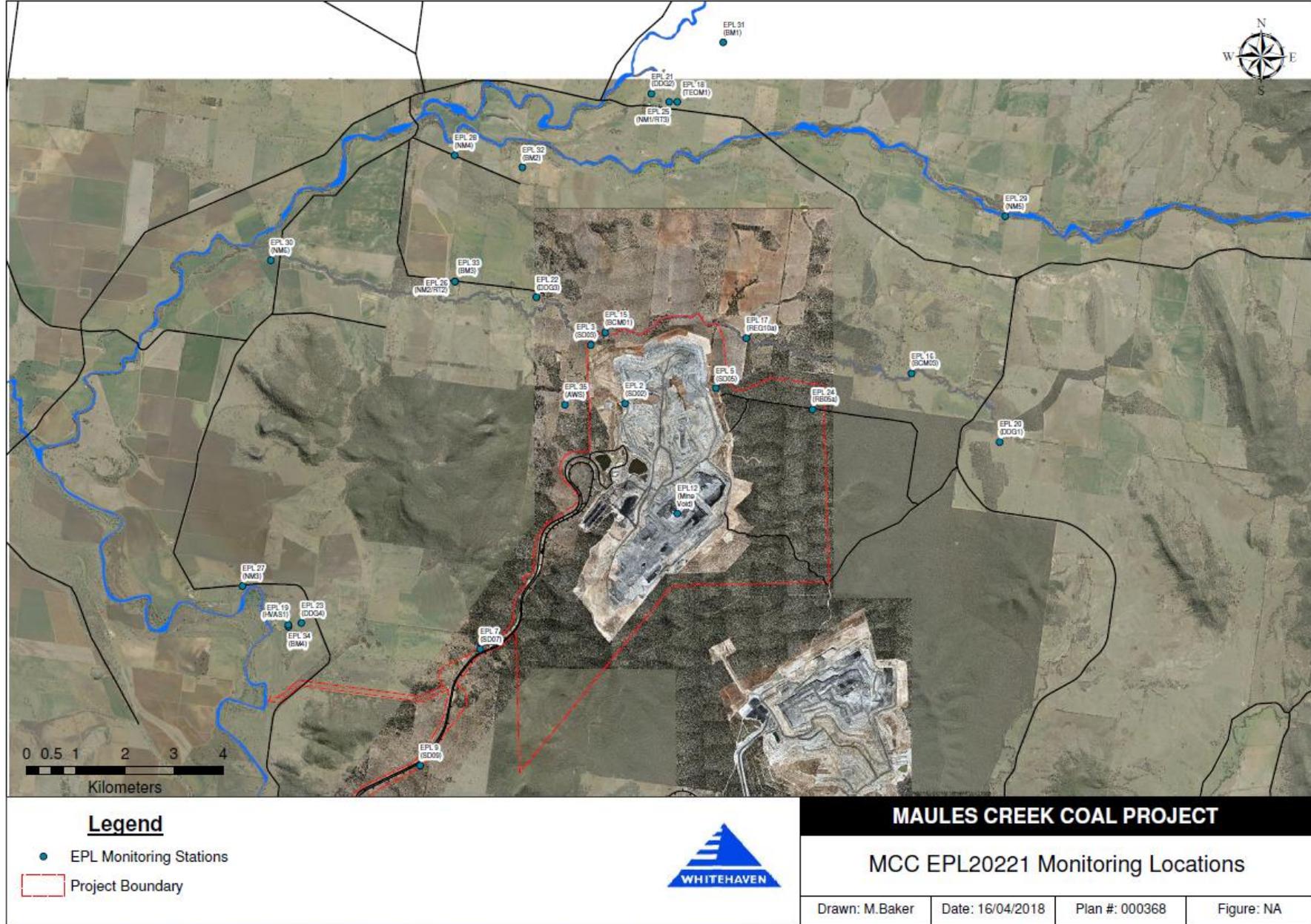
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

| ID EPL (Site) | Sample period | Unit                    | Parameter        | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------|------------------|------------------------|----------------------|-----------------------|
| 18 (TEOM1)    | Continuous    | µg/m <sup>3</sup> month | PM <sub>10</sub> | 17.1                   | 30                   | No                    |
| 19 (HVAS)     | 6 days        | µg/m <sup>3</sup>       | PM <sub>10</sub> | 23.6                   | 30                   | No                    |

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------------|---|----------|-----------------------|
| 20 (DDG1/MC1) | Monthly       | g/m <sup>2</sup> month        | 1.6                                     | 4        | No                    |
| 21 (DDG2/MC2) | Monthly       | g/m <sup>2</sup> month        | 2.5                                     | 4        | No                    |
| 22 (DDG3/MC3) | Monthly       | g/m <sup>2</sup> month        | 3.0                                     | 4        | No                    |
| 23 (DDG4/MC4) | Monthly       | g/m <sup>2</sup> month        | 2.4                                     | 4        | No                    |

**Figure 1 - EPL 20221 Monitoring Locations**





## 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:** February 2019

**Obtained Date:** 15 February 2019

**Publication Date:** 22 March 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 - Wet Weather Discharge - Surface Water Monitoring**

| ID EPL (Site) | Parameter    | Units | Frequency                        | Samples | Date                                      | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---------------|--------------|-------|----------------------------------|---------|---|-----------------------------|-----------|------------|--------------|------------------|
| 2 (SD2)       | TSS          | mg/L  | Special Frequency Discharge only | 0       | No discharge at this location this month. |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 3 (SD3)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 5 (SD5)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 7 (SD7)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 9 (SD9)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |

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

| ID EPL (Site)  | Parameter    | Units | Frequency      | Samples | Date       | Laboratory Results Received | Min | Mean | Max / Only Value |
|----------------|--------------|-------|----------------|---------|------------|-----------------------------|-----|------|------------------|
| 12 (Mine Void) | TSS          | mg/L  | Every 2 months | 1       | 17/01/2019 | Yes                         |     |      | <5               |
|                | Conductivity | µs/cm |                | 1       | 17/01/2019 | Yes                         |     |      | 1430             |
|                | Oil & Grease | mg/L  |                | 1       | 17/01/2019 | Yes                         |     |      | <5               |
|                | pH           | pH    |                | 1       | 17/01/2019 | Yes                         |     |      | 7.98             |

**Table 3 – Groundwater Quality Monitoring**

| ID<br>EPL (Bore) | Parameters   | Units | Frequency | Samples | Date | Laboratory<br>Results<br>Received | Min | Mean | Max / Only<br>Value         |
|------------------|--------------|-------|-----------|---------|------|-----------------------------------|-----|------|-----------------------------|
| 15<br>(BCM01)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 16<br>(BCM03)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 17<br>(REG10A)   | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 24<br>(RB05A)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Next sample March 2019      |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |

**Table 4 – 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    | 06/02/2019 | 22:30      | 4.0              | IA                 | 35  | <25               | 45   | 0                 | Nil                   |
| NM2    | 06/02/2019 | 23:00      | 4.3              | <30                | 39  | <30               | 45   | 0                 | Nil                   |
| NM3    | 07/02/2019 | 00:00      | 5.2              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM4    | 06/02/2019 | 23:30      | 4.6              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM5    | 06/02/2019 | 22:00      | 5.0              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM6    | 07/02/2019 | 00:00      | 5.2              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |

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.

**Table 5 - 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.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

| Location          | Parameter | Units         | Frequency | Number | Average | Max   | 100% Limit | Exceedance (Yes / No) |
|-------------------|-----------|---------------|-----------|--------|---------|-------|------------|-----------------------|
| Operations Blasts | Noise     | Db (Lin Peak) | All       | 6      | 97.9    | 106.3 | 120        | No                    |
|                   | Vibration | mm/s          |           | 6      | 0.23    | 1.09  | 10         | No                    |

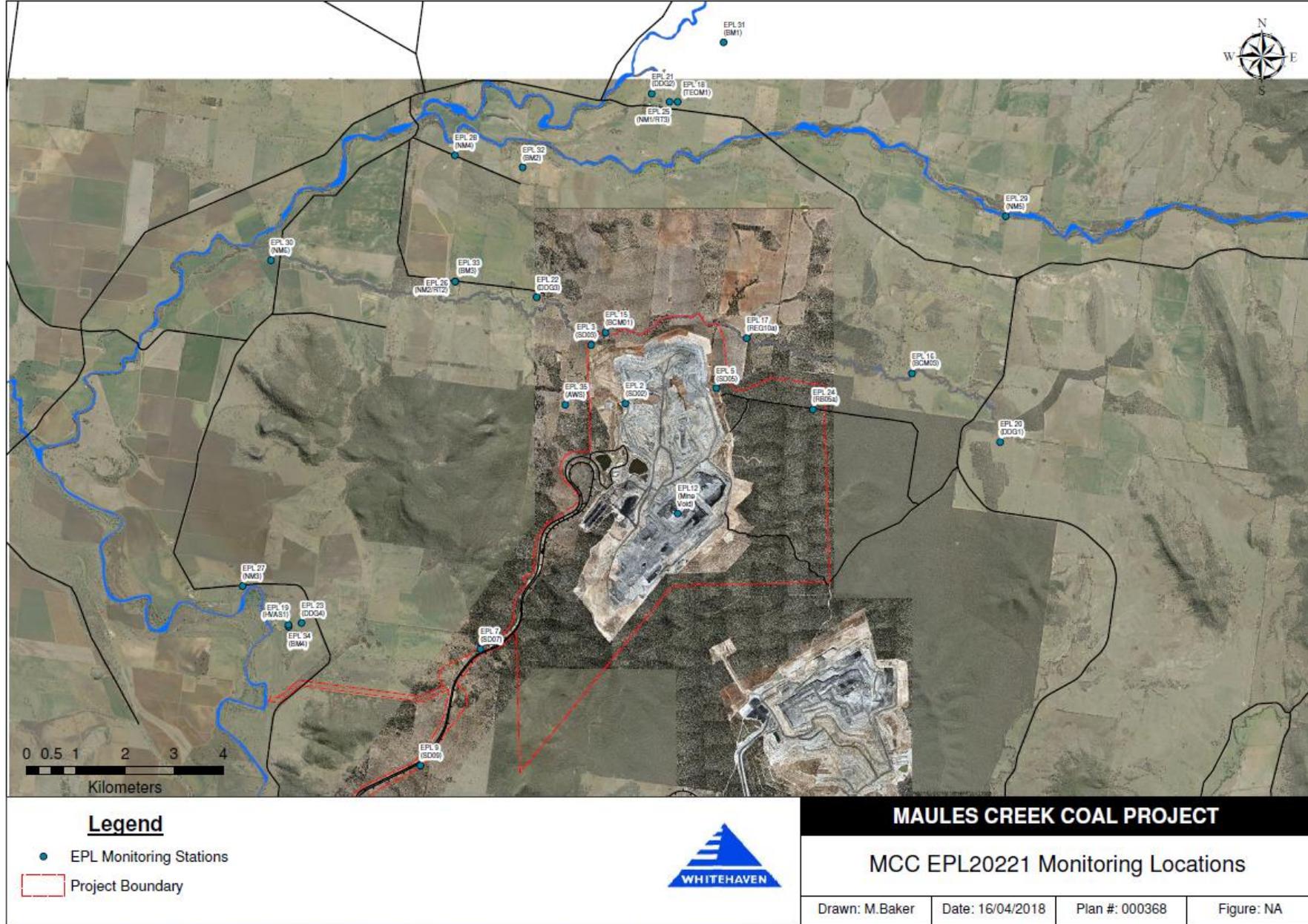
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

| ID EPL (Site) | Sample period | Unit                    | Parameter        | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------|------------------|------------------------|----------------------|-----------------------|
| 18 (TEOM1)    | Continuous    | µg/m <sup>3</sup> month | PM <sub>10</sub> | 18.0                   | 30                   | No                    |
| 19 (HVAS)     | 6 days        | µg/m <sup>3</sup>       | PM <sub>10</sub> | 26.1                   | 30                   | No                    |

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------------|---|----------|-----------------------|
| 20 (DDG1/MC1) | Monthly       | g/m <sup>2</sup> month        | 1.9                                     | 4        | No                    |
| 21 (DDG2/MC2) | Monthly       | g/m <sup>2</sup> month        | 2.4                                     | 4        | No                    |
| 22 (DDG3/MC3) | Monthly       | g/m <sup>2</sup> month        | 2.9                                     | 4        | No                    |
| 23 (DDG4/MC4) | Monthly       | g/m <sup>2</sup> month        | 2.4                                     | 4        | No                    |

**Figure 1 - EPL 20221 Monitoring Locations**





## 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:** March 2019

**Obtained Date:** 15 April 2019

**Publication Date:** 17 April 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 – 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 |
|------------------|--------------|-------|--|---------|------|-----------------------------------|--------------|---------------|-----------------|---------------------|
| 2<br>(SD2)       | TSS          | mg/L  | Special<br>Frequency<br>Discharge only | 0       |      |                                   |              |               |                 |                     |
|                  | Conductivity | µs/cm |  | 0       |      |                                   |              |               |                 |                     |
|                  | Oil & Grease | mg/L  |  | 0       |      |                                   |              |               |                 |                     |
|                  | pH           | pH    |  | 0       |      |                                   |              |               |                 |                     |
| 3<br>(SD3)       | TSS          | mg/L  | Special<br>Frequency<br>Discharge only | 0       |      |                                   |              |               |                 |                     |
|                  | Conductivity | µs/cm |  | 0       |      |                                   |              |               |                 |                     |
|                  | Oil & Grease | mg/L  |  | 0       |      |                                   |              |               |                 |                     |
|                  | pH           | pH    |  | 0       |      |                                   |              |               |                 |                     |
| 5<br>(SD5)       | TSS          | mg/L  | Special<br>Frequency<br>Discharge only | 0       |      |                                   |              |               |                 |                     |
|                  | Conductivity | µs/cm |  | 0       |      |                                   |              |               |                 |                     |
|                  | Oil & Grease | mg/L  |  | 0       |      |                                   |              |               |                 |                     |
|                  | pH           | pH    |  | 0       |      |                                   |              |               |                 |                     |
| 7<br>(SD7)       | TSS          | mg/L  | Special<br>Frequency<br>Discharge only | 0       |      |                                   |              |               |                 |                     |
|                  | Conductivity | µs/cm |  | 0       |      |                                   |              |               |                 |                     |
|                  | Oil & Grease | mg/L  |  | 0       |      |                                   |              |               |                 |                     |
|                  | pH           | pH    |  | 0       |      |                                   |              |               |                 |                     |
| 9<br>(SD9)       | TSS          | mg/L  | Special<br>Frequency<br>Discharge only | 0       |      |                                   |              |               |                 |                     |
|                  | Conductivity | µs/cm |  | 0       |      |                                   |              |               |                 |                     |
|                  | Oil & Grease | mg/L  |  | 0       |      |                                   |              |               |                 |                     |
|                  | pH           | pH    |  | 0       |      |                                   |              |               |                 |                     |

No discharge at this location this month.

**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 | 0       |      |                                |     |      |                     |
|                   | Conductivity | µs/cm |                   | 0       |      |                                |     |      |                     |
|                   | Oil & Grease | mg/L  |                   | 0       |      |                                |     |      |                     |
|                   | pH           | pH    |                   | 0       |      |                                |     |      |                     |

Next Sample April

**Table 3 – Groundwater Quality Monitoring**

| ID<br>EPL (Bore) | Parameters   | Units | Frequency | Samples | Date                        | Laboratory<br>Results<br>Received | Min | Mean | Max / Only<br>Value |
|------------------|--------------|-------|-----------|---------|-----------------------------|-----------------------------------|-----|------|---------------------|
| 15<br>(BCM01)    | pH           | pH    | Quarterly | 0       | Bore dry since installation |                                   |     |      |                     |
|                  | Conductivity | µs/cm |           |         |                             |                                   |     |      |                     |
|                  | TDS          | mg/L  |           |         |                             |                                   |     |      |                     |
| 16<br>(BCM03)    | pH           | pH    | Quarterly | 0       | Bore dry since installation |                                   |     |      |                     |
|                  | Conductivity | µs/cm |           |         |                             |                                   |     |      |                     |
|                  | TDS          | mg/L  |           |         |                             |                                   |     |      |                     |
| 17<br>(REG10A)   | pH           | pH    | Quarterly | 0       | Bore dry since installation |                                   |     |      |                     |
|                  | Conductivity | µs/cm |           |         |                             |                                   |     |      |                     |
|                  | TDS          | mg/L  |           |         |                             |                                   |     |      |                     |
| 24<br>(RB05A)    | pH           | pH    | Quarterly | 0       | 13/03/2019                  | Yes                               |     |      | 7.82                |
|                  | Conductivity | µs/cm |           |         |                             |                                   |     |      | 1830                |
|                  | TDS          | mg/L  |           |         |                             |                                   |     |      | 1070                |

**Table 4 - 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    | 27/03/2019 | 22:32      | 0.5              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM2    | 27/03/2019 | 23:01      | 2.5              | <25                | 39  | <30               | 45   | 0                 | Nil                   |
| NM3    | 27/03/2019 | 23:29      | 4.4              | <20                | 35  | <25               | 45   | 0                 | Nil                   |
| NM4    | 27/03/2019 | 23:25      | 3.9              | <20                | 35  | <20               | 45   | 0                 | Nil                   |
| NM5    | 27/03/2019 | 22:01      | 1.9              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM6    | 27/03/2019 | 23:51      | 2.5              | <20                | 35  | <20               | 45   | 0                 | Nil                   |

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.

**Table 5 - 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.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

| Location          | Parameter | Units         | Frequency | Number | Average | Max   | 100% Limit | Exceedance (Yes / No) |
|-------------------|-----------|---------------|-----------|--------|---------|-------|------------|-----------------------|
| Operations Blasts | Noise     | Db (Lin Peak) | All       | 10     | 93.8    | 103.3 | 120        | No                    |
|                   | Vibration | mm/s          |           | 10     | 0.18    | 0.32  | 10         | No                    |

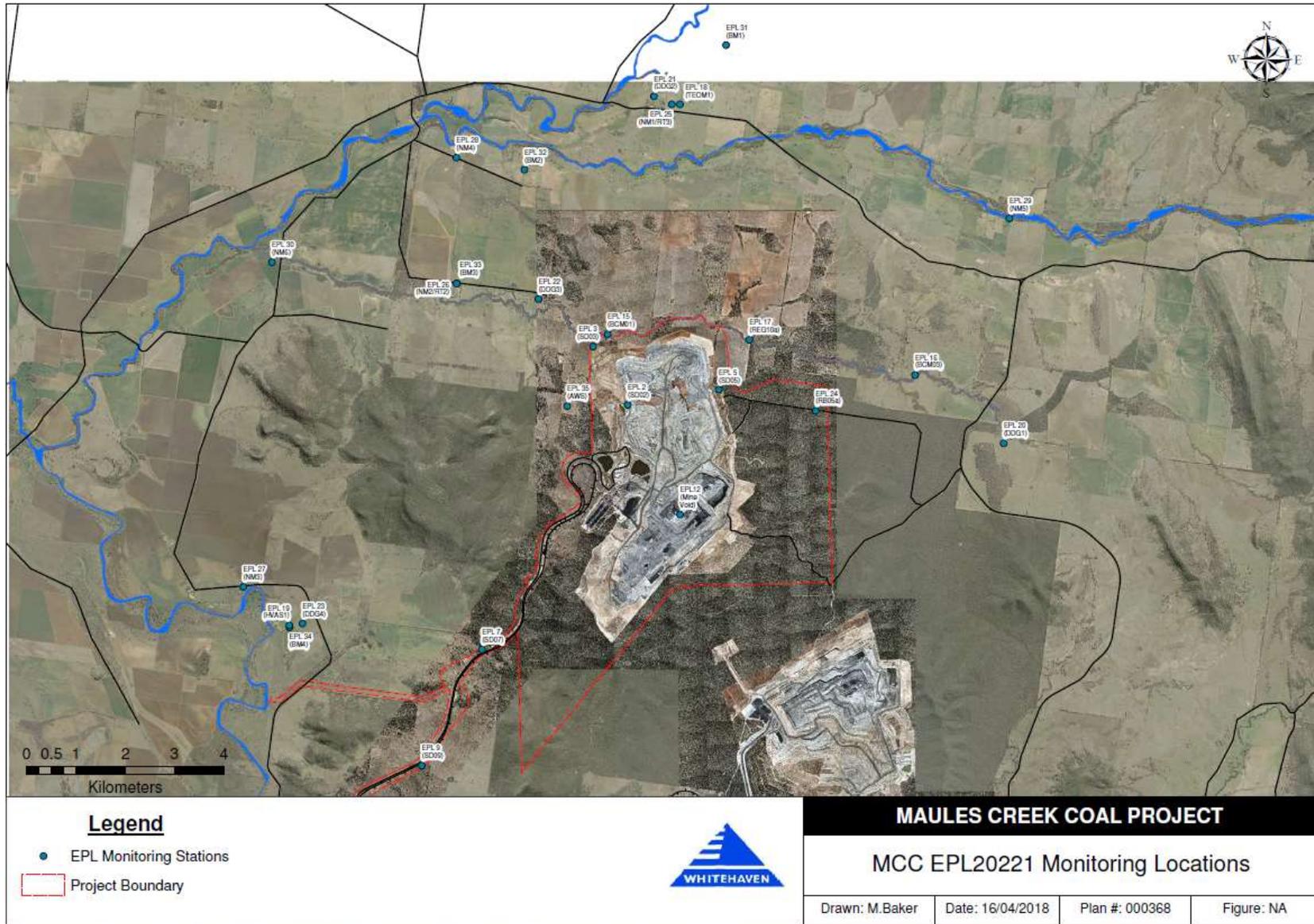
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

| ID EPL (Site) | Sample period | Unit                    | Parameter        | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------|------------------|------------------------|----------------------|-----------------------|
| 18 (TEOM1)    | Continuous    | µg/m <sup>3</sup> month | PM <sub>10</sub> | 18.6                   | 30                   | No                    |
| 19 (HVAS)     | 6 days        | µg/m <sup>3</sup>       | PM <sub>10</sub> | 26.6                   | 30                   | No                    |

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------------|---|----------|-----------------------|
| 20 (DDG1/MC1) | Monthly       | g/m <sup>2</sup> month        | 2.0                                     | 4        | No                    |
| 21 (DDG2/MC2) | Monthly       | g/m <sup>2</sup> month        | 2.2                                     | 4        | No                    |
| 22 (DDG3/MC3) | Monthly       | g/m <sup>2</sup> month        | 3.0                                     | 4        | No                    |
| 23 (DDG4/MC4) | Monthly       | g/m <sup>2</sup> month        | 2.3                                     | 4        | No                    |

**Figure 1 - EPL 20221 Monitoring Locations**





## 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:** April 2019

**Obtained Date:** 15 May 2019

**Publication Date:** 17 May 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 - Wet Weather Discharge - Surface Water Monitoring**

| ID EPL (Site) | Parameter    | Units | Frequency                        | Samples | Date                                      | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---------------|--------------|-------|----------------------------------|---------|---|-----------------------------|-----------|------------|--------------|------------------|
| 2 (SD2)       | TSS          | mg/L  | Special Frequency Discharge only | 0       | No discharge at this location this month. |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 3 (SD3)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 5 (SD5)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 7 (SD7)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 9 (SD9)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |

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

| ID EPL (Site)  | Parameter    | Units | Frequency      | Samples | Date       | Laboratory Results Received | Min | Mean | Max / Only Value |
|----------------|--------------|-------|----------------|---------|------------|-----------------------------|-----|------|------------------|
| 12 (Mine Void) | TSS          | mg/L  | Every 2 months | 1       | 16/04/2019 | Yes                         |     |      | 8                |
|                | Conductivity | µs/cm |                | 1       | 16/04/2019 | Yes                         |     |      | 658              |
|                | Oil & Grease | mg/L  |                | 1       | 16/04/2019 | Yes                         |     |      | <5               |
|                | pH           | pH    |                | 1       | 16/04/2019 | Yes                         |     |      | 8.25             |

**Table 3 – Groundwater Quality Monitoring**

| ID<br>EPL (Bore) | Parameters   | Units | Frequency | Samples | Date | Laboratory<br>Results<br>Received | Min | Mean | Max / Only<br>Value         |
|------------------|--------------|-------|-----------|---------|------|-----------------------------------|-----|------|-----------------------------|
| 15<br>(BCM01)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 16<br>(BCM03)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 17<br>(REG10A)   | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 24<br>(RB05A)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Next sample June            |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |

**Table 4 – 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    | 16/04/2019 | 22:26      | 2.6              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM2    | 16/04/2019 | 23:15      | 1.8              | <30                | 39  | 37                | 45   | 0                 | Nil                   |
| NM3    | 16/04/2019 | 23:48      | 2.4              | <20                | 35  | <20               | 45   | 0                 | Nil                   |
| NM4    | 16/04/2019 | 22:51      | 2.3              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM5    | 16/04/2019 | 22:00      | 2.8              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM6    | 16/04/2019 | 23:33      | 1.8              | <20                | 35  | <20               | 45   | 0                 | Nil                   |

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.

**Table 5 - 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.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

| Location          | Parameter | Units         | Frequency | Number | Average | Max    | 100% Limit | Exceedance (Yes / No) |
|-------------------|-----------|---------------|-----------|--------|---------|--------|------------|-----------------------|
| Operations Blasts | Noise     | Db (Lin Peak) | All       | 9      | 93.64   | 104.60 | 120        | No                    |
|                   | Vibration | mm/s          |           | 9      | 0.21    | 0.51   | 10         | No                    |

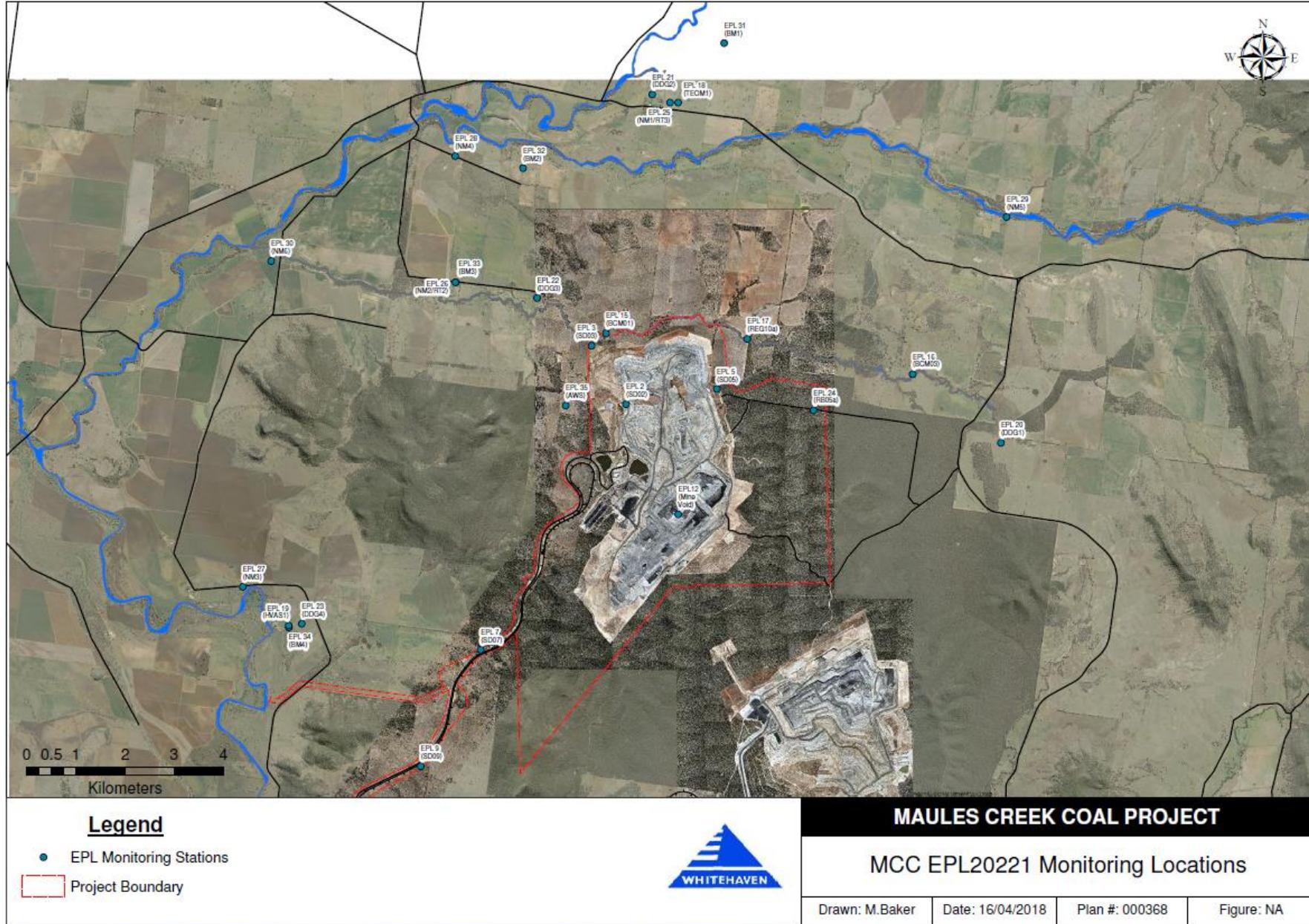
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

| ID EPL (Site) | Sample period | Unit                    | Parameter        | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------|------------------|------------------------|----------------------|-----------------------|
| 18 (TEOM1)    | Continuous    | µg/m <sup>3</sup> month | PM <sub>10</sub> | 18.6                   | 30                   | No                    |
| 19 (HVAS)     | 6 days        | µg/m <sup>3</sup>       | PM <sub>10</sub> | 27.4                   | 30                   | No                    |

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------------|---|----------|-----------------------|
| 20 (DDG1/MC1) | Monthly       | g/m <sup>2</sup> month        | 1.9                                     | 4        | No                    |
| 21 (DDG2/MC2) | Monthly       | g/m <sup>2</sup> month        | 2.4                                     | 4        | No                    |
| 22 (DDG3/MC3) | Monthly       | g/m <sup>2</sup> month        | 3.1                                     | 4        | No                    |
| 23 (DDG4/MC4) | Monthly       | g/m <sup>2</sup> month        | 2.3                                     | 4        | No                    |

**Figure 1 - EPL 20221 Monitoring Locations**





## 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:** May 2019

**Obtained Date:** 14 June 2019

**Publication Date:** 17 June 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 – Wet Weather Discharge - Surface Water Monitoring**

| ID EPL (Site) | Parameter    | Units | Frequency                        | Samples | Date                                      | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---------------|--------------|-------|----------------------------------|---------|---|-----------------------------|-----------|------------|--------------|------------------|
| 2 (SD2)       | TSS          | mg/L  | Special Frequency Discharge only | 0       | No discharge at this location this month. |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 3 (SD3)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 5 (SD5)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 7 (SD7)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 9 (SD9)       | TSS          | mg/L  | Special Frequency Discharge only | 0       | 6/05/2019                                 |                             |           |            |              | 372              |
|               | Conductivity | µs/cm |                                  | 0       | 6/05/2019                                 |                             |           |            |              | 357              |
|               | Oil & Grease | mg/L  |                                  | 0       | 6/05/2019                                 |                             |           |            |              | <5               |
|               | pH           | pH    |                                  | 0       | 6/05/2019                                 |                             |           |            |              | 7.87             |

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

| ID EPL (Site)  | Parameter    | Units | Frequency      | Samples | Date       | Laboratory Results Received | Min | Mean | Max / Only Value |
|----------------|--------------|-------|----------------|---------|------------|-----------------------------|-----|------|------------------|
| 12 (Mine Void) | TSS          | mg/L  | Every 2 months | 1       | 16/04/2019 | Yes                         |     |      | 48               |
|                | Conductivity | µs/cm |                | 1       | 16/04/2019 | Yes                         |     |      | 774              |
|                | Oil & Grease | mg/L  |                | 1       | 16/04/2019 | Yes                         |     |      | <5               |
|                | pH           | pH    |                | 1       | 16/04/2019 | Yes                         |     |      | 7.85             |

**Table 3 – Groundwater Quality Monitoring**

| ID<br>EPL (Bore) | Parameters   | Units | Frequency | Samples | Date | Laboratory<br>Results<br>Received | Min | Mean | Max / Only<br>Value         |
|------------------|--------------|-------|-----------|---------|------|-----------------------------------|-----|------|-----------------------------|
| 15<br>(BCM01)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 16<br>(BCM03)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 17<br>(REG10A)   | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 24<br>(RB05A)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Next sample June            |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |

**Table 4 – 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    | 02/05/2019 | 22:30      | 0.6              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM2    | 02/05/2019 | 23:20      | 0.7              | NM                 | 39  | NM                | 45   | 0                 | Nil                   |
| NM3    | 02/05/2019 | 23:39      | 0.6              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM4    | 02/05/2019 | 22:56      | 0.5              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM5    | 02/05/2019 | 22:00      | 0.7              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM6    | 02/05/2019 | 23:48      | 0.6              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |

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.

**Table 5 - 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.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

| Location          | Parameter | Units         | Frequency | Number | Average | Max   | 100% Limit | Exceedance (Yes / No) |
|-------------------|-----------|---------------|-----------|--------|---------|-------|------------|-----------------------|
| Operations Blasts | Noise     | Db (Lin Peak) | All       | 15     | 91.26   | 108.4 | 120        | No                    |
|                   | Vibration | mm/s          |           | 15     | 0.17    | 0.49  | 10         | No                    |

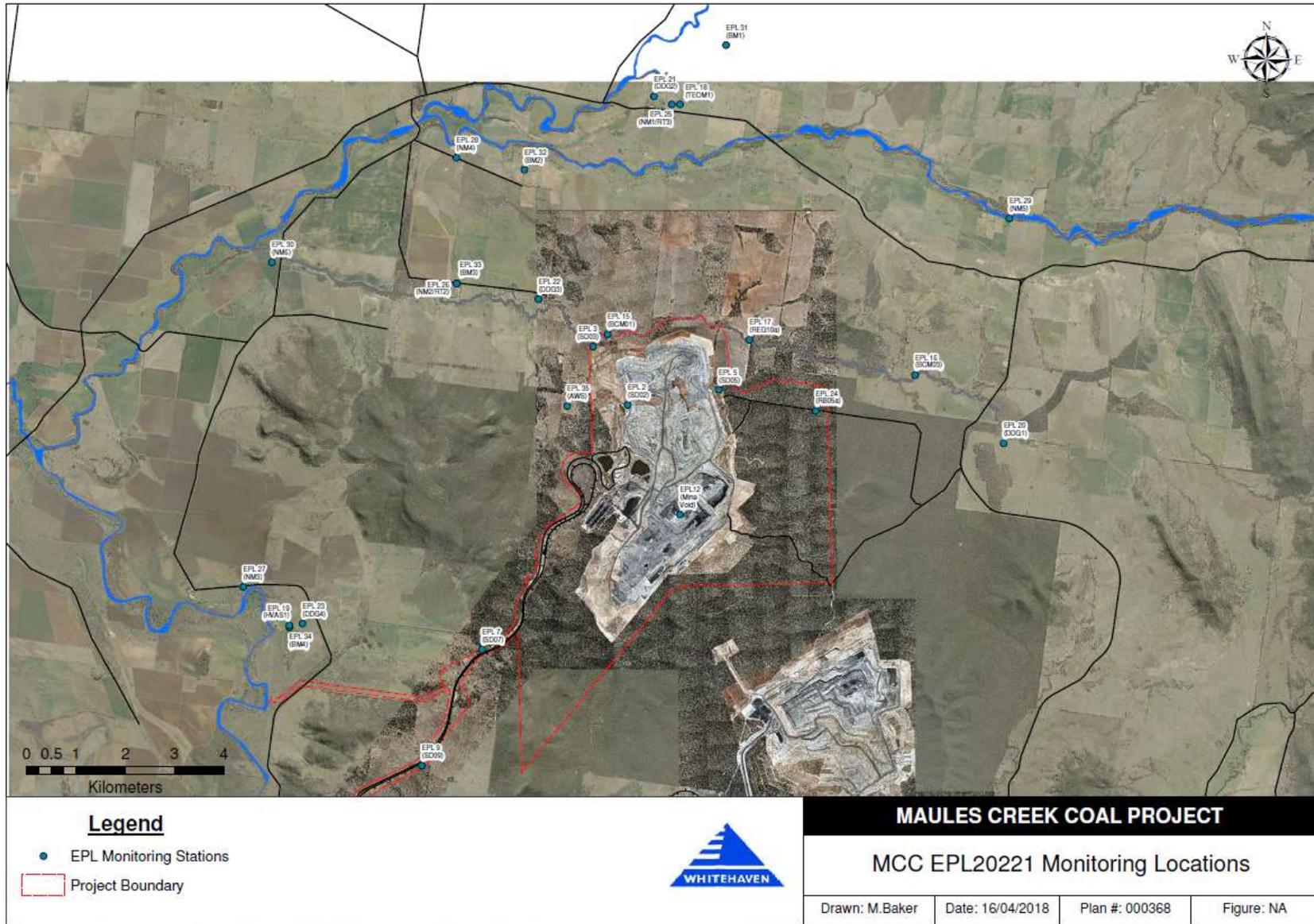
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

| ID EPL (Site) | Sample period | Unit                    | Parameter        | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------|------------------|------------------------|----------------------|-----------------------|
| 18 (TEOM1)    | Continuous    | µg/m <sup>3</sup> month | PM <sub>10</sub> | 18.5                   | 30                   | No                    |
| 19 (HVAS)     | 6 days        | µg/m <sup>3</sup>       | PM <sub>10</sub> | 27.8                   | 30                   | No                    |

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------------|---|----------|-----------------------|
| 20 (DDG1/MC1) | Monthly       | g/m <sup>2</sup> month        | 1.9                                     | 4        | No                    |
| 21 (DDG2/MC2) | Monthly       | g/m <sup>2</sup> month        | 2.5                                     | 4        | No                    |
| 22 (DDG3/MC3) | Monthly       | g/m <sup>2</sup> month        | 3.2                                     | 4        | No                    |
| 23 (DDG4/MC4) | Monthly       | g/m <sup>2</sup> month        | 2.3                                     | 4        | No                    |

**Figure 1 - EPL 20221 Monitoring Locations**





## 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:** June 2019

**Obtained Date:** 15 July 2019

**Publication Date:** 22 July 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 - Wet Weather Discharge - Surface Water Monitoring**

| ID EPL (Site) | Parameter    | Units | Frequency                        | Samples | Date                                      | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---------------|--------------|-------|----------------------------------|---------|---|-----------------------------|-----------|------------|--------------|------------------|
| 2 (SD2)       | TSS          | mg/L  | Special Frequency Discharge only | 0       | No discharge at this location this month. |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 3 (SD3)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 5 (SD5)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 7 (SD7)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 9 (SD9)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |

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

| ID EPL (Site)  | Parameter    | Units | Frequency      | Samples | Date       | Laboratory Results Received | Min | Mean | Max / Only Value |
|----------------|--------------|-------|----------------|---------|------------|-----------------------------|-----|------|------------------|
| 12 (Mine Void) | TSS          | mg/L  | Every 2 months | 1       | 13/06/2019 | Yes                         |     |      | <5               |
|                | Conductivity | µs/cm |                | 1       | 13/06/2019 | Yes                         |     |      | 814              |
|                | Oil & Grease | mg/L  |                | 1       | 13/06/2019 | Yes                         |     |      | <5               |
|                | pH           | pH    |                | 1       | 13/06/2019 | Yes                         |     |      | 8.11             |

**Table 3 – Groundwater Quality Monitoring**

| ID<br>EPL (Bore) | Parameters   | Units | Frequency | Samples | Date                        | Laboratory<br>Results<br>Received | Min | Mean | Max / Only<br>Value |
|------------------|--------------|-------|-----------|---------|-----------------------------|-----------------------------------|-----|------|---------------------|
| 15<br>(BCM01)    | pH           | pH    | Quarterly | 0       | Bore dry since installation |                                   |     |      |                     |
|                  | Conductivity | µs/cm |           |         |                             |                                   |     |      |                     |
|                  | TDS          | mg/L  |           |         |                             |                                   |     |      |                     |
| 16<br>(BCM03)    | pH           | pH    | Quarterly | 0       | Bore dry since installation |                                   |     |      |                     |
|                  | Conductivity | µs/cm |           |         |                             |                                   |     |      |                     |
|                  | TDS          | mg/L  |           |         |                             |                                   |     |      |                     |
| 17<br>(REG10A)   | pH           | pH    | Quarterly | 0       | Bore dry since installation |                                   |     |      |                     |
|                  | Conductivity | µs/cm |           |         |                             |                                   |     |      |                     |
|                  | TDS          | mg/L  |           |         |                             |                                   |     |      |                     |
| 24<br>(RB05A)    | pH           | pH    | Quarterly | 0       | 7/06/2019                   | Yes                               |     |      | 7.93                |
|                  | Conductivity | µs/cm |           |         | 7/06/2019                   | Yes                               |     |      | 1920                |
|                  | TDS          | mg/L  |           |         | 7/06/2019                   | Yes                               |     |      | 960                 |

**Table 4 – Noise Monitoring (Attended – Measured)**

| MCC ID | Date       | Start Time | Wind Speed (m/s) | MCCP LAeq 15min dB | Limit LAeq 15min (dB) Operations Criteria | MCCP LA1(1min) dB | Limit LA1 (1 min) (dB) Operations Criteria | Weather Rain (mm) | Exceedance (Yes / No) |
|--------|------------|------------|------------------|--------------------|---|-------------------|--|-------------------|-----------------------|
| NM1    | 05/06/2019 | 22:30      | 0.5              | 30                 | 35  | 35                | 45   | 0                 | Nil                   |
| NM2    | 05/06/2019 | 23:30      | 0.4              | 34                 | 39  | 40                | 45   | 0                 | Nil                   |
| NM3    | 05/06/2019 | 23:42      | 0.5              | 29                 | 35  | 35                | 45   | 0                 | Nil                   |
| NM4    | 05/06/2019 | 23:00      | 0.3              | 33                 | 35  | 40                | 45   | 0                 | Nil                   |
| NM5    | 05/06/2019 | 22:00      | 0.7              | <25                | 35  | <25               | 45   | 0                 | Nil                   |
| NM6    | 06/06/2019 | 00:00      | 0.6              | <25                | 35  | <25               | 45   | 0                 | Nil                   |

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.

**Table 5 - 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.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

| Location          | Parameter | Units         | Frequency | Number | Average | Max    | 100% Limit | Exceedance (Yes / No) |
|-------------------|-----------|---------------|-----------|--------|---------|--------|------------|-----------------------|
| Operations Blasts | Noise     | Db (Lin Peak) | All       | 7      | 91.03   | 105.10 | 120        | No                    |
|                   | Vibration | mm/s          |           | 7      | 0.3     | 1.39   | 10         | No                    |

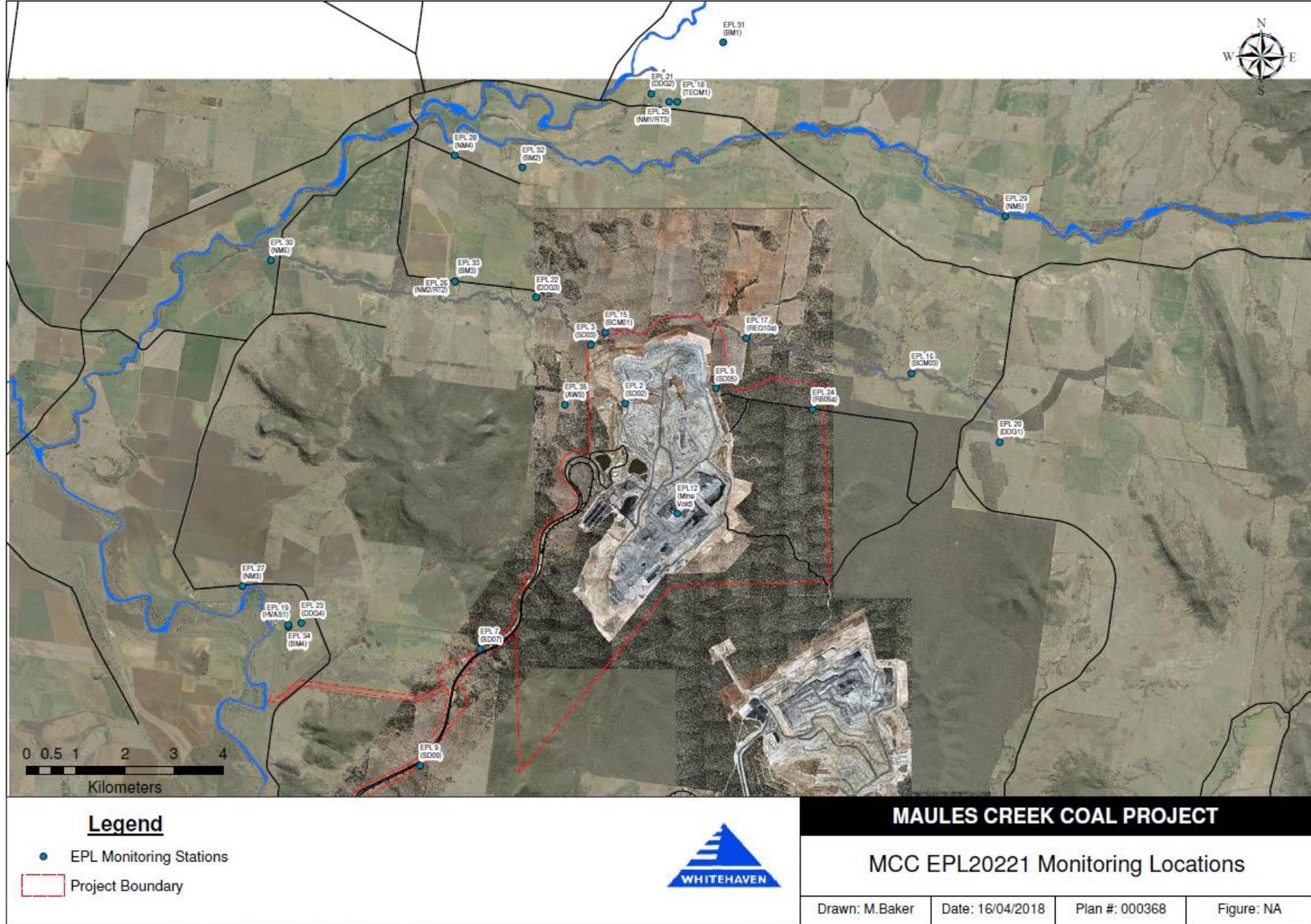
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

| ID EPL (Site) | Sample period | Unit                    | Parameter        | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------|------------------|------------------------|----------------------|-----------------------|
| 18 (TEOM1)    | Continuous    | µg/m <sup>3</sup> month | PM <sub>10</sub> | 18.5                   | 30                   | No                    |
| 19 (HVAS)     | 6 days        | µg/m <sup>3</sup>       | PM <sub>10</sub> | 28.0                   | 30                   | No                    |

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------------|---|----------|-----------------------|
| 20 (DDG1/MC1) | Monthly       | g/m <sup>2</sup> month        | 1.9                                     | 4        | No                    |
| 21 (DDG2/MC2) | Monthly       | g/m <sup>2</sup> month        | 2.5                                     | 4        | No                    |
| 22 (DDG3/MC3) | Monthly       | g/m <sup>2</sup> month        | 3.1                                     | 4        | No                    |
| 23 (DDG4/MC4) | Monthly       | g/m <sup>2</sup> month        | 2.2                                     | 4        | No                    |

**Figure 1 - EPL 20221 Monitoring Locations**





## 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:** July 2019

**Obtained Date:** 15 August 2019

**Publication Date:** 20 August 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 - Wet Weather Discharge - Surface Water Monitoring**

| ID EPL (Site) | Parameter    | Units | Frequency                        | Samples | Date                                      | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---------------|--------------|-------|----------------------------------|---------|---|-----------------------------|-----------|------------|--------------|------------------|
| 2 (SD2)       | TSS          | mg/L  | Special Frequency Discharge only | 0       | No discharge at this location this month. |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 3 (SD3)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 5 (SD5)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 7 (SD7)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 9 (SD9)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |

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

| ID EPL (Site)  | Parameter    | Units | Frequency      | Samples | Date       | Laboratory Results Received | Min | Mean | Max / Only Value |
|----------------|--------------|-------|----------------|---------|------------|-----------------------------|-----|------|------------------|
| 12 (Mine Void) | TSS          | mg/L  | Every 2 months | 1       | 15/07/2019 | Yes                         |     |      | 190              |
|                | Conductivity | µs/cm |                | 1       | 15/07/2019 | Yes                         |     |      | 695              |
|                | Oil & Grease | mg/L  |                | 1       | 15/07/2019 | Yes                         |     |      | <5               |
|                | pH           | pH    |                | 1       | 15/07/2019 | Yes                         |     |      | 8.11             |

**Table 3 – Groundwater Quality Monitoring**

| ID<br>EPL (Bore) | Parameters   | Units | Frequency | Samples | Date | Laboratory<br>Results<br>Received | Min | Mean | Max / Only<br>Value         |
|------------------|--------------|-------|-----------|---------|------|-----------------------------------|-----|------|-----------------------------|
| 15<br>(BCM01)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 16<br>(BCM03)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 17<br>(REG10A)   | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 24<br>(RB05A)    | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Next sample September       |
|                  | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                  | TDS          | mg/L  |           |         |      |                                   |     |      |                             |

**Table 4 – Noise Monitoring (Attended – Measured)**

| MCC ID | Date       | Start Time | Wind Speed (m/s) | MCCP LAeq 15min dB | Limit LAeq 15min (dB) Operations Criteria | MCCP LA1(1min) dB | Limit LA1 (1 min) (dB) Operations Criteria | Weather Rain (mm) | Exceedance (Yes / No) |
|--------|------------|------------|------------------|--------------------|---|-------------------|--|-------------------|-----------------------|
| NM1    | 08/07/2019 | 22:45      | 0.2              | <25                | 35  | 33                | 45   | 0                 | Nil                   |
| NM2    | 08/07/2019 | 23:45      | 1.0              | <25                | 39  | 26                | 45   | 0                 | Nil                   |
| NM3    | 08/07/2019 | 23:40      | 1.1              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM4    | 08/07/2019 | 23:15      | 1.3              | 22                 | 35  | 29                | 45   | 0                 | Nil                   |
| NM5    | 08/07/2019 | 22:15      | 0.8              | <25                | 35  | 28                | 45   | 0                 | Nil                   |
| NM6    | 09/07/2019 | 00:13      | 1.0              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |

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.

**Table 5 - 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.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

| Location          | Parameter | Units         | Frequency | Number | Average | Max  | 100% Limit | Exceedance (Yes / No) |
|-------------------|-----------|---------------|-----------|--------|---------|------|------------|-----------------------|
| Operations Blasts | Noise     | Db (Lin Peak) | All       | 11     | 93.17   | 115  | 120        | No                    |
|                   | Vibration | mm/s          |           | 11     | 0.2     | 0.89 | 10         | No                    |

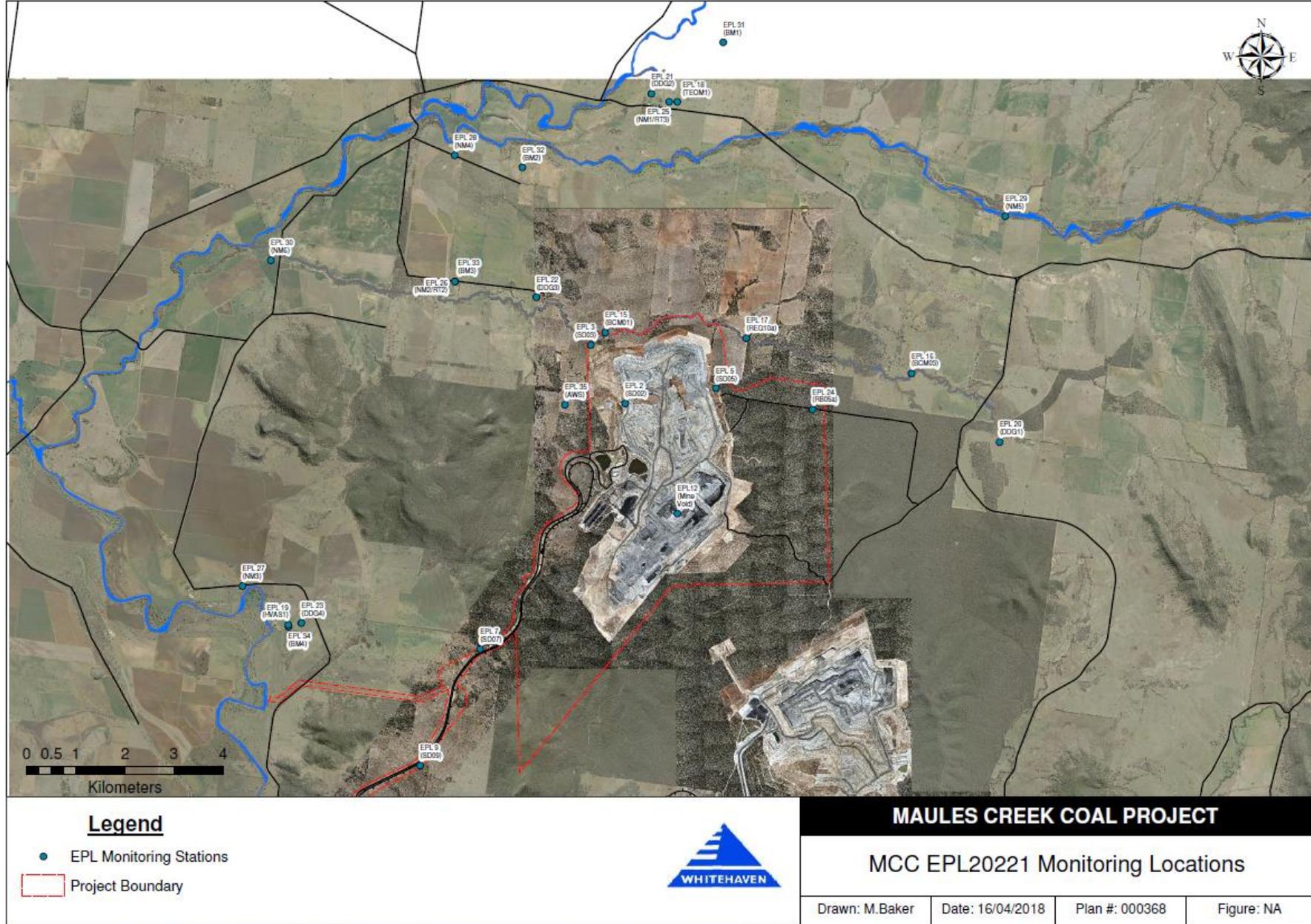
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

| ID EPL (Site) | Sample period | Unit                    | Parameter        | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------|------------------|------------------------|----------------------|-----------------------|
| 18 (TEOM1)    | Continuous    | µg/m <sup>3</sup> month | PM <sub>10</sub> | 18.6                   | 30                   | No                    |
| 19 (HVAS)     | 6 days        | µg/m <sup>3</sup>       | PM <sub>10</sub> | 27.6                   | 30                   | No                    |

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------------|---|----------|-----------------------|
| 20 (DDG1/MC1) | Monthly       | g/m <sup>2</sup> month        | 1.9                                     | 4        | No                    |
| 21 (DDG2/MC2) | Monthly       | g/m <sup>2</sup> month        | 2.4                                     | 4        | No                    |
| 22 (DDG3/MC3) | Monthly       | g/m <sup>2</sup> month        | 3.3                                     | 4        | No                    |
| 23 (DDG4/MC4) | Monthly       | g/m <sup>2</sup> month        | 2.0                                     | 4        | No                    |

**Figure 1 - EPL 20221 Monitoring Locations**





## 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:** August 2019

**Obtained Date:** 15 September 2019

**Publication Date:** 18 September 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 - Wet Weather Discharge - Surface Water Monitoring**

| ID EPL (Site) | Parameter    | Units | Frequency                        | Samples | Date                                      | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---------------|--------------|-------|----------------------------------|---------|---|-----------------------------|-----------|------------|--------------|------------------|
| 2 (SD2)       | TSS          | mg/L  | Special Frequency Discharge only | 0       | No discharge at this location this month. |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 3 (SD3)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 5 (SD5)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 7 (SD7)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 9 (SD9)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |

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

| ID EPL (Site)  | Parameter    | Units | Frequency      | Samples | Date       | Laboratory Results Received | Min | Mean | Max / Only Value |
|----------------|--------------|-------|----------------|---------|------------|-----------------------------|-----|------|------------------|
| 12 (Mine Void) | TSS          | mg/L  | Every 2 months | 1       | 15/08/2019 | Yes                         |     |      | 97               |
|                | Conductivity | µs/cm |                | 1       | 15/08/2019 | Yes                         |     |      | 813              |
|                | Oil & Grease | mg/L  |                | 1       | 15/08/2019 | Yes                         |     |      | <5               |
|                | pH           | pH    |                | 1       | 15/08/2019 | Yes                         |     |      | 8.22             |

**Table 3 – Groundwater Quality Monitoring**

| ID<br>EPL<br>(Bore) | Parameters   | Units | Frequency | Samples | Date | Laboratory<br>Results<br>Received | Min | Mean | Max / Only<br>Value         |
|---------------------|--------------|-------|-----------|---------|------|-----------------------------------|-----|------|-----------------------------|
| 15<br>(BCM01)       | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 16<br>(BCM03)       | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 17<br>(REG10A)      | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                             |
| 24<br>(RB05A)       | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Next Sample September       |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                             |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                             |

**Table 4 – Noise Monitoring (Attended – Measured)**

| MCC ID | Date       | Start Time | Wind Speed (m/s) | MCCP LAeq 15min dB | Limit LAeq 15min (dB) Operations Criteria | MCCP LA1(1min) dB | Limit LA1 (1 min) (dB) Operations Criteria | Weather Rain (mm) | Exceedance (Yes / No) |
|--------|------------|------------|------------------|--------------------|---|-------------------|--|-------------------|-----------------------|
| NM1    | 07/08/2019 | 22:30      | 0.8              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM2    | 07/08/2019 | 23:15      | 0.4              | IA                 | 39  | IA                | 45   | 0                 | Nil                   |
| NM3    | 07/08/2019 | 23:34      | 0.3              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM4    | 07/08/2019 | 22:52      | 0.5              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM5    | 07/08/2019 | 22:00      | 0.5              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |
| NM6    | 07/08/2019 | 23:40      | 0.3              | IA                 | 35  | IA                | 45   | 0                 | Nil                   |

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.

**Table 5 - 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.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

| Location          | Parameter | Units         | Frequency | Number | Average | Max   | 100% Limit | Exceedance (Yes / No) |
|-------------------|-----------|---------------|-----------|--------|---------|-------|------------|-----------------------|
| Operations Blasts | Noise     | Db (Lin Peak) | All       | 12     | 91.79   | 110.2 | 120        | No                    |
|                   | Vibration | mm/s          |           | 12     | 0.20    | 0.74  | 10         | No                    |

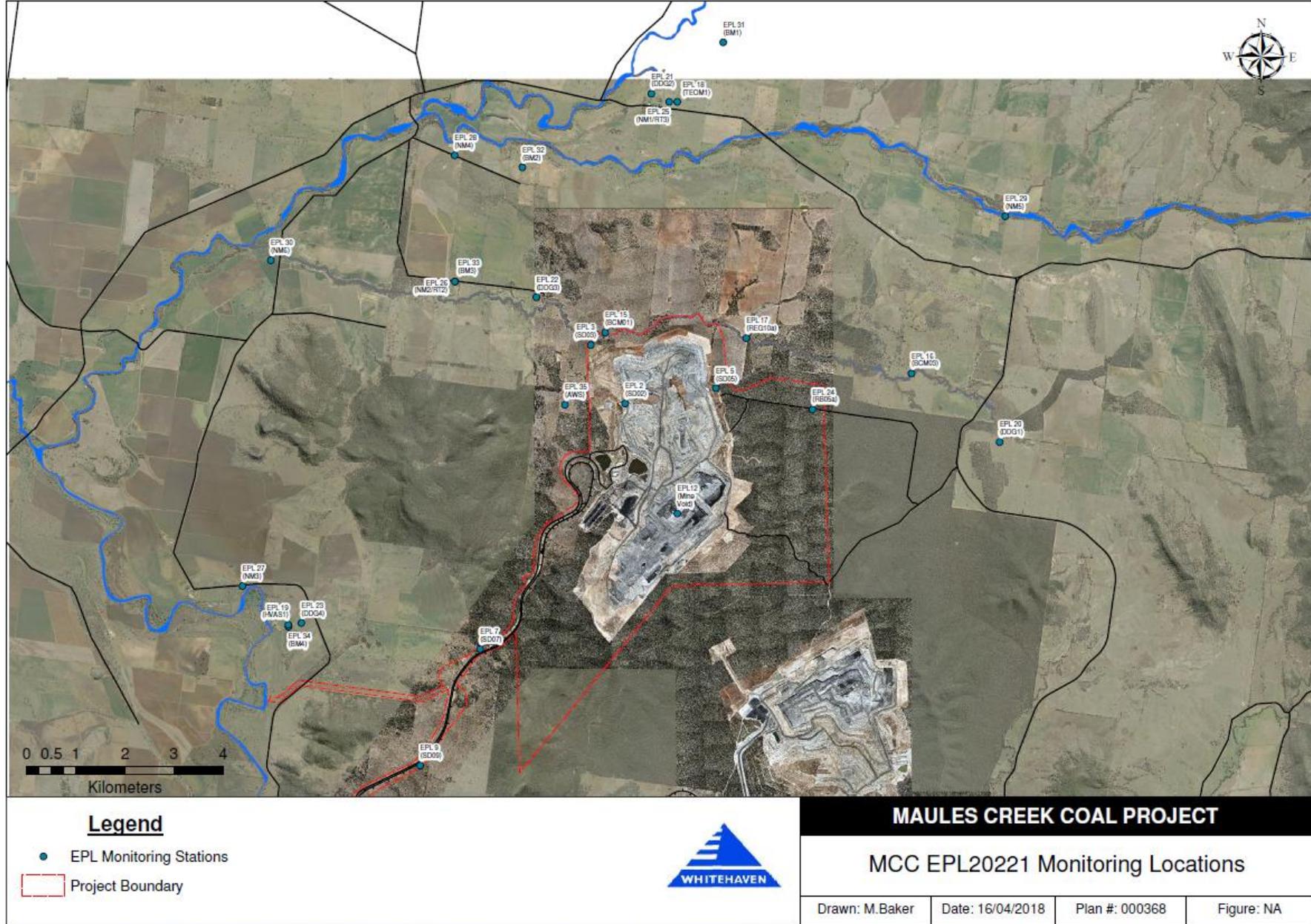
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

| ID EPL (Site) | Sample period | Unit                    | Parameter        | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------|------------------|------------------------|----------------------|-----------------------|
| 18 (TEOM1)    | Continuous    | µg/m <sup>3</sup> month | PM <sub>10</sub> | 18.6                   | 30                   | No                    |
| 19 (HVAS)     | 6 days        | µg/m <sup>3</sup>       | PM <sub>10</sub> | 27.5                   | 30                   | No                    |

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------------|---|----------|-----------------------|
| 20 (DDG1/MC1) | Monthly       | g/m <sup>2</sup> month        | 1.9                                     | 4        | No                    |
| 21 (DDG2/MC2) | Monthly       | g/m <sup>2</sup> month        | 2.4                                     | 4        | No                    |
| 22 (DDG3/MC3) | Monthly       | g/m <sup>2</sup> month        | 3.3                                     | 4        | No                    |
| 23 (DDG4/MC4) | Monthly       | g/m <sup>2</sup> month        | 2.0                                     | 4        | No                    |

**Figure 1 - EPL 20221 Monitoring Locations**





## 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:** September 2019

**Obtained Date:** 15 October 2019

**Publication Date:** 23 October 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 - Wet Weather Discharge - Surface Water Monitoring**

| ID EPL (Site) | Parameter    | Units | Frequency                        | Samples | Date                                      | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---------------|--------------|-------|----------------------------------|---------|---|-----------------------------|-----------|------------|--------------|------------------|
| 2 (SD2)       | TSS          | mg/L  | Special Frequency Discharge only | 0       | No discharge at this location this month. |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 3 (SD3)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 5 (SD5)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 7 (SD7)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 9 (SD9)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |

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

| ID EPL (Site)  | Parameter    | Units | Frequency      | Samples | Date       | Laboratory Results Received | Min | Mean | Max / Only Value |
|----------------|--------------|-------|----------------|---------|------------|-----------------------------|-----|------|------------------|
| 12 (Mine Void) | TSS          | mg/L  | Every 2 months | 1       | 12/09/2019 | Yes                         |     |      | 10               |
|                | Conductivity | µs/cm |                | 1       | 12/09/2019 | Yes                         |     |      | 928              |
|                | Oil & Grease | mg/L  |                | 1       | 12/09/2019 | Yes                         |     |      | <5               |
|                | pH           | pH    |                | 1       | 12/09/2019 | Yes                         |     |      | 8.42             |

**Table 3 – Groundwater Quality Monitoring**

| ID<br>EPL<br>(Bore) | Parameters   | Units | Frequency | Samples | Date                        | Laboratory<br>Results<br>Received | Min | Mean | Max / Only<br>Value |
|---------------------|--------------|-------|-----------|---------|-----------------------------|-----------------------------------|-----|------|---------------------|
| 15<br>(BCM01)       | pH           | pH    | Quarterly | 0       | Bore dry since installation |                                   |     |      |                     |
|                     | Conductivity | µs/cm |           |         |                             |                                   |     |      |                     |
|                     | TDS          | mg/L  |           |         |                             |                                   |     |      |                     |
| 16<br>(BCM03)       | pH           | pH    | Quarterly | 0       | Bore dry since installation |                                   |     |      |                     |
|                     | Conductivity | µs/cm |           |         |                             |                                   |     |      |                     |
|                     | TDS          | mg/L  |           |         |                             |                                   |     |      |                     |
| 17<br>(REG10A)      | pH           | pH    | Quarterly | 0       | Bore dry since installation |                                   |     |      |                     |
|                     | Conductivity | µs/cm |           |         |                             |                                   |     |      |                     |
|                     | TDS          | mg/L  |           |         |                             |                                   |     |      |                     |
| 24<br>(RB05A)       | pH           | pH    | Quarterly | 1       | 10/09/2019                  | Yes                               |     |      | 7.63                |
|                     | Conductivity | µs/cm |           |         | 10/09/2019                  | Yes                               |     |      | 1990                |
|                     | TDS          | mg/L  |           |         | 10/09/2019                  | Yes                               |     |      | 1020                |

**Table 4 – Noise Monitoring (Attended – Measured)**

| MCC ID | Date       | Start Time | Wind Speed (m/s) | MCCP LAeq 15min dB | Limit LAeq 15min (dB) Operations Criteria | MCCP LA1(1min) dB | Limit LA1 (1 min) (dB) Operations Criteria | Rain (mm) | Exceedance (Yes / No) |
|--------|------------|------------|------------------|--------------------|---|-------------------|--|-----------|-----------------------|
| NM1    | 23/09/2019 | 22:45      | 1.1              | 29                 | 35  | 46                | 45   | 0         | 1                     |
| NM1    | 23/09/2019 | 23:06      | 1.7              | 31                 | 35  | 39                | 45   | 0         | Nil                   |
| NM2    | 24/09/2019 | 00:15      | 1.4              | 31                 | 39  | 37                | 45   | 0         | Nil                   |
| NM3    | 23/09/2019 | 23:37      | 1.3              | IA                 | 35  | IA                | 45   | 0         | Nil                   |
| NM4    | 23/09/2019 | 23:45      | 1.2              | 28                 | 35  | 40                | 45   | 0         | Nil                   |
| NM5    | 23/09/2019 | 22:15      | 1.8              | <25                | 35  | 29                | 45   | 0         | Nil                   |
| NM6    | 24/09/2019 | 00:40      | 0.4              | <20                | 35  | <20               | 45   | 0         | Nil                   |

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.

**Table 5 - 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.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

| Location          | Parameter    | Units         | Frequency | Number | Average | Max  | 100% Limit | Exceedance (Yes / No) |
|-------------------|--------------|---------------|-----------|--------|---------|------|------------|-----------------------|
| Operations Blasts | Overpressure | Db (Lin Peak) | All       | 11     | 88.51   | 110  | 120        | No                    |
|                   | Vibration    | mm/s          |           | 11     | 0.23    | 0.98 | 10         | No                    |

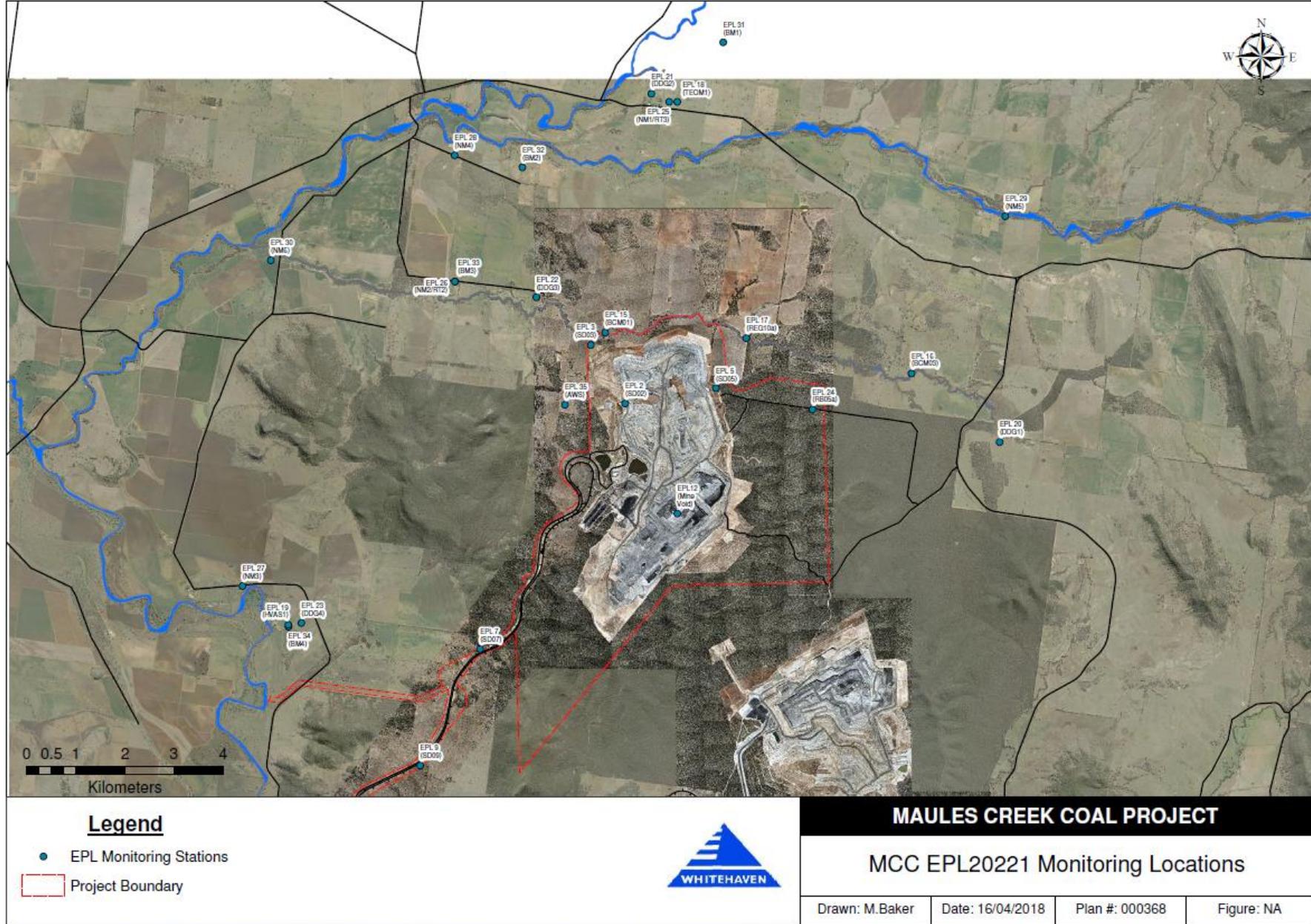
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

| ID EPL (Site) | Sample period | Unit                    | Parameter        | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------|------------------|------------------------|----------------------|-----------------------|
| 18 (TEOM1)    | Continuous    | µg/m <sup>3</sup> month | PM <sub>10</sub> | 20                     | 30                   | No                    |
| 19 (HVAS)     | 6 days        | µg/m <sup>3</sup>       | PM <sub>10</sub> | 29.1                   | 30                   | No                    |

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------------|---|----------|-----------------------|
| 20 (DDG1/MC1) | Monthly       | g/m <sup>2</sup> month        | 1.8                                     | 4        | No                    |
| 21 (DDG2/MC2) | Monthly       | g/m <sup>2</sup> month        | 2.2                                     | 4        | No                    |
| 22 (DDG3/MC3) | Monthly       | g/m <sup>2</sup> month        | 3.1                                     | 4        | No                    |
| 23 (DDG4/MC4) | Monthly       | g/m <sup>2</sup> month        | 1.8                                     | 4        | No                    |

**Figure 1 - EPL 20221 Monitoring Locations**





## 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:** October 2019

**Obtained Date:** 15 November 2019

**Publication Date:** 20 November 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 - Wet Weather Discharge - Surface Water Monitoring**

| ID EPL (Site) | Parameter    | Units | Frequency                        | Samples | Date                                      | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---------------|--------------|-------|----------------------------------|---------|---|-----------------------------|-----------|------------|--------------|------------------|
| 2 (SD2)       | TSS          | mg/L  | Special Frequency Discharge only | 0       | No discharge at this location this month. |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 3 (SD3)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 5 (SD5)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 7 (SD7)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |
| 9 (SD9)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |   |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |   |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |   |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |   |                             |           |            |              |                  |

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

| ID EPL (Site)  | Parameter    | Units | Frequency      | Samples | Date       | Laboratory Results Received | Min | Mean | Max / Only Value |
|----------------|--------------|-------|----------------|---------|------------|-----------------------------|-----|------|------------------|
| 12 (Mine Void) | TSS          | mg/L  | Every 2 months | 1       | 14/10/2019 | Yes                         |     |      | 49               |
|                | Conductivity | µs/cm |                | 1       | 14/10/2019 | Yes                         |     |      | 957              |
|                | Oil & Grease | mg/L  |                | 1       | 14/10/2019 | Yes                         |     |      | <5               |
|                | pH           | pH    |                | 1       | 14/10/2019 | Yes                         |     |      | 6.93             |

**Table 3 – Groundwater Quality Monitoring**

| ID<br>EPL<br>(Bore) | Parameters   | Units | Frequency | Samples | Date | Laboratory<br>Results<br>Received | Min | Mean | Max / Only<br>Value                 |
|---------------------|--------------|-------|-----------|---------|------|-----------------------------------|-----|------|-------------------------------------|
| 15<br>(BCM01)       | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation         |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                                     |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                                     |
| 16<br>(BCM03)       | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation         |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                                     |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                                     |
| 17<br>(REG10A)      | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation         |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                                     |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                                     |
| 24<br>(RB05A)       | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Next sample to be taken in December |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                                     |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                                     |

**Table 4 – Noise Monitoring (Attended – Measured)**

| MCC ID | Date       | Start Time | Wind Speed (m/s) | MCCP LAeq 15min dB | Limit LAeq 15min (dB) Operations Criteria | MCCP LA1(1min) dB | Limit LA1 (1 min) (dB) Operations Criteria | Rain (mm) | Exceedance (Yes / No) |
|--------|------------|------------|------------------|--------------------|---|-------------------|--|-----------|-----------------------|
| NM1    | 10/10/2019 | 22:30      | 2.8              | <25                | 35  | 32                | 45   | 0         | Nil                   |
| NM2    | 10/10/2019 | 23:00      | 2.6              | 32                 | 39  | 38                | 45   | 0         | Nil                   |
| NM3    | 10/10/2019 | 23:24      | 2.4              | <25                | 35  | 30                | 45   | 0         | Nil                   |
| NM4    | 10/10/2019 | 23:30      | 2.7              | <25                | 35  | <25               | 45   | 0         | Nil                   |
| NM5    | 10/10/2019 | 22:00      | 2.1              | IA                 | 35  | IA                | 45   | 0         | Nil                   |
| NM6    | 10/10/2019 | 23:54      | 2.9              | IA                 | 35  | IA                | 45   | 0         | Nil                   |

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.

**Table 5 - 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.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

| Location          | Parameter    | Units         | Frequency | Number | Average | Max    | 100% Limit | Exceedance (Yes / No) |
|-------------------|--------------|---------------|-----------|--------|---------|--------|------------|-----------------------|
| Operations Blasts | Overpressure | Db (Lin Peak) | All       | 10     | 92.3    | 113.20 | 120        | No                    |
|                   | Vibration    | mm/s          |           | 10     | 0.23    | 1.12   | 10         | No                    |

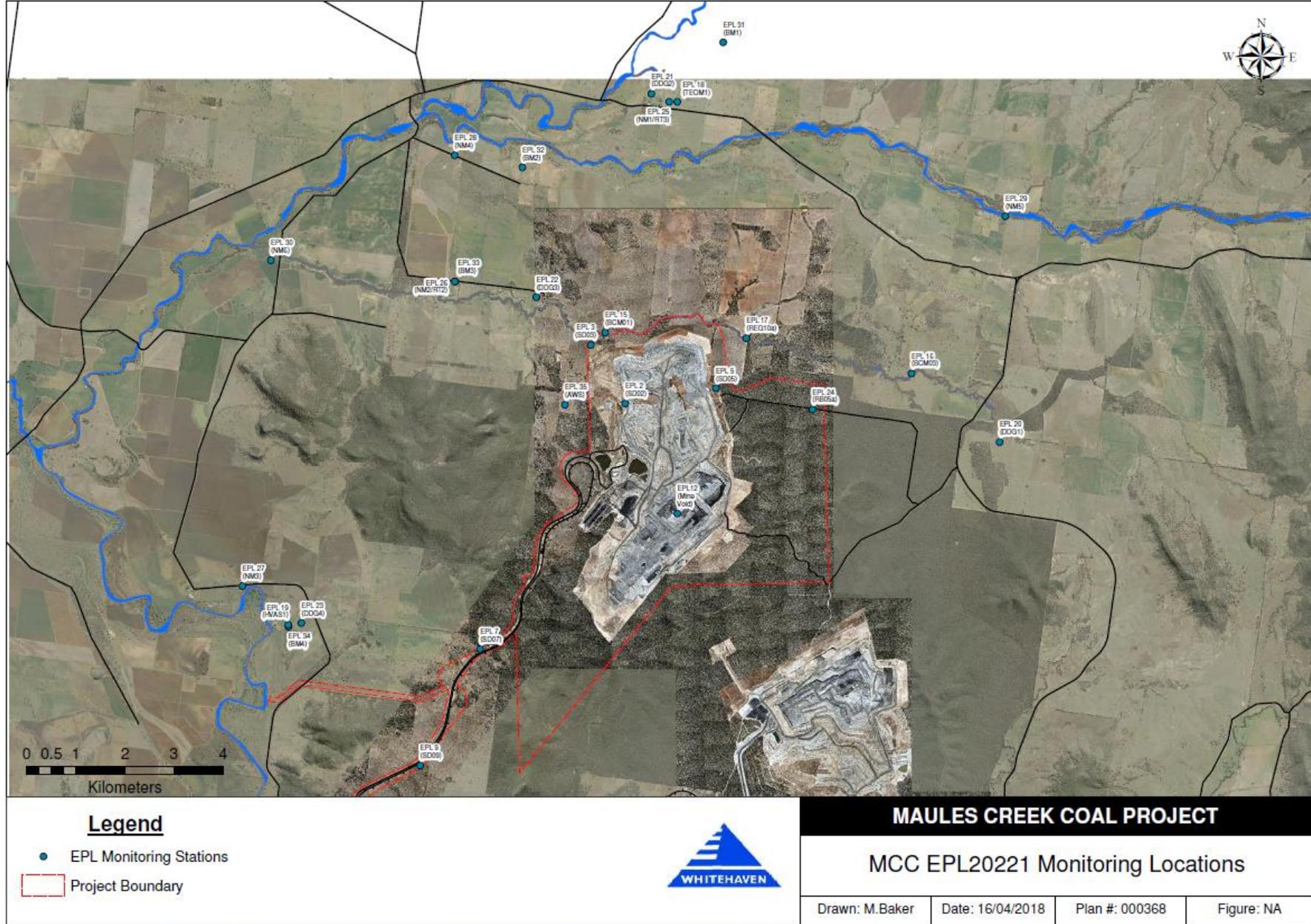
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

| ID EPL (Site) | Sample period | Unit                    | Parameter        | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------|------------------|------------------------|----------------------|-----------------------|
| 18 (TEOM1)    | Continuous    | µg/m <sup>3</sup> month | PM <sub>10</sub> | 23                     | 30                   | No                    |
| 19 (HVAS)     | 6 days        | µg/m <sup>3</sup>       | PM <sub>10</sub> | 32.6                   | 30                   | Yes                   |

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------------|---|----------|-----------------------|
| 20 (DDG1/MC1) | Monthly       | g/m <sup>2</sup> month        | 2.0                                     | 4        | No                    |
| 21 (DDG2/MC2) | Monthly       | g/m <sup>2</sup> month        | 2.5                                     | 4        | No                    |
| 22 (DDG3/MC3) | Monthly       | g/m <sup>2</sup> month        | 3.0                                     | 4        | No                    |
| 23 (DDG4/MC4) | Monthly       | g/m <sup>2</sup> month        | 6.9                                     | 4        | Yes                   |

**Figure 1 - EPL 20221 Monitoring Locations**





## 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:** November 2019

**Obtained Date:** 15 December 2019

**Publication Date:** 20 December 2019

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 - Wet Weather Discharge - Surface Water Monitoring**

| ID EPL (Site) | Parameter    | Units | Frequency                        | Samples | Date | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---------------|--------------|-------|----------------------------------|---------|------|-----------------------------|-----------|------------|--------------|------------------|
| 2 (SD2)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |      |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |      |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |      |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |      |                             |           |            |              |                  |
| 3 (SD3)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |      |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |      |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |      |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |      |                             |           |            |              |                  |
| 5 (SD5)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |      |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |      |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |      |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |      |                             |           |            |              |                  |
| 7 (SD7)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |      |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |      |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |      |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |      |                             |           |            |              |                  |
| 9 (SD9)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |      |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |      |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |      |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |      |                             |           |            |              |                  |

No discharge at this location this month.

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

| ID EPL (Site)  | Parameter    | Units | Frequency      | Samples | Date       | Laboratory Results Received | Min | Mean | Max / Only Value |
|----------------|--------------|-------|----------------|---------|------------|-----------------------------|-----|------|------------------|
| 12 (Mine Void) | TSS          | mg/L  | Every 2 months | 1       | 15/11/2019 | Yes                         |     |      | <5               |
|                | Conductivity | µs/cm |                | 1       | 15/11/2019 | Yes                         |     |      | 1110             |
|                | Oil & Grease | mg/L  |                | 1       | 15/11/2019 | Yes                         |     |      | <5               |
|                | pH           | pH    |                | 1       | 15/11/2019 | Yes                         |     |      | 8.65             |

**Table 3 – Groundwater Quality Monitoring**

| ID<br>EPL<br>(Bore) | Parameters   | Units | Frequency | Samples | Date | Laboratory<br>Results<br>Received | Min | Mean | Max / Only<br>Value                 |
|---------------------|--------------|-------|-----------|---------|------|-----------------------------------|-----|------|-------------------------------------|
| 15<br>(BCM01)       | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation         |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                                     |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                                     |
| 16<br>(BCM03)       | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation         |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                                     |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                                     |
| 17<br>(REG10A)      | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation         |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                                     |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                                     |
| 24<br>(RB05A)       | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Next sample to be taken in December |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                                     |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                                     |

**Table 4 – Noise Monitoring (Attended – Measured)**

| MCC ID | Date       | Start Time | Wind Speed (m/s) | MCCP LAeq 15min dB | Limit LAeq 15min (dB) Operations Criteria | MCCP LA1(1min) dB | Limit LA1 (1 min) (dB) Operations Criteria | Rain (mm) | Exceedance (Yes / No) |
|--------|------------|------------|------------------|--------------------|---|-------------------|--|-----------|-----------------------|
| NM1    | 14/11/2019 | 22:30      | 0.2              | 25                 | 35  | 33                | 45   | 0         | Nil                   |
| NM2    | 14/11/2019 | 23:30      | 0.2              | <25                | 39  | 35                | 45   | 0         | Nil                   |
| NM3    | 14/11/2019 | 23:45      | 0.6              | IA                 | 35  | IA                | 45   | 0         | Nil                   |
| NM4    | 14/11/2019 | 23:00      | 0.3              | <25                | 35  | 29                | 45   | 0         | Nil                   |
| NM5    | 14/11/2019 | 22:00      | 0.6              | <25                | 35  | 28                | 45   | 0         | Nil                   |
| NM6    | 14/11/2019 | 23:56      | 0.2              | IA                 | 35  | IA                | 45   | 0         | Nil                   |

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.

**Table 5 - 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.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

| Location          | Parameter    | Units         | Frequency | Number | Average | Max   | 100% Limit | Exceedance (Yes / No) |
|-------------------|--------------|---------------|-----------|--------|---------|-------|------------|-----------------------|
| Operations Blasts | Overpressure | Db (Lin Peak) | All       | 7      | 93.9    | 100.2 | 120        | No                    |
|                   | Vibration    | mm/s          |           | 7      | 0.16    | 0.35  | 10         | No                    |

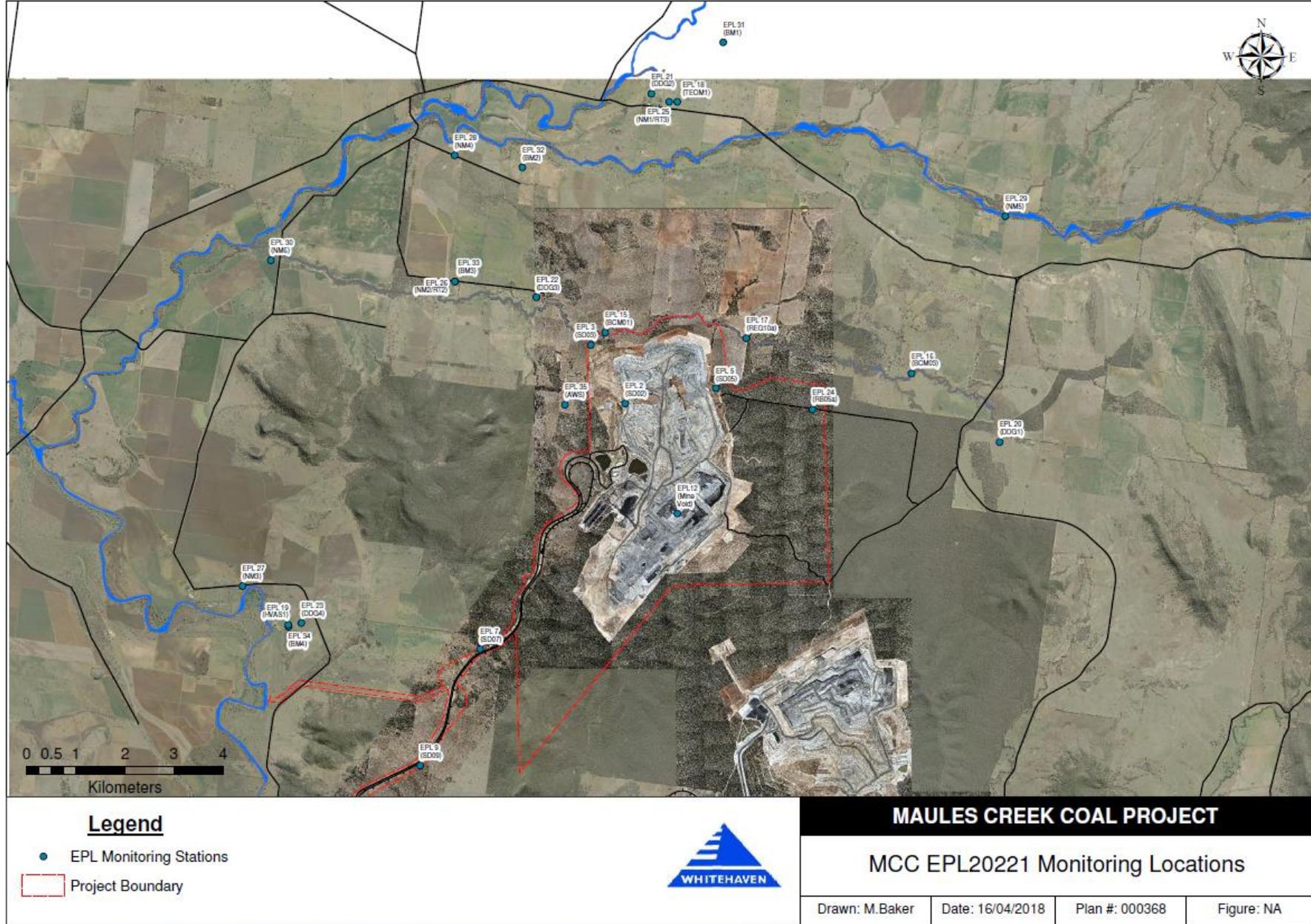
Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).

**Table 7 – Dust Monitoring (Limits Apply)**

| ID EPL (Site) | Sample period | Unit                    | Parameter        | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------|------------------|------------------------|----------------------|-----------------------|
| 18 (TEOM1)    | Continuous    | µg/m <sup>3</sup> month | PM <sub>10</sub> | 25.5                   | 30                   | No                    |
| 19 (HVAS)     | 6 days        | µg/m <sup>3</sup>       | PM <sub>10</sub> | 34.1                   | 30                   | Yes                   |

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------------|---|----------|-----------------------|
| 20 (DDG1/MC1) | Monthly       | g/m <sup>2</sup> month        | 2.1                                     | 4        | No                    |
| 21 (DDG2/MC2) | Monthly       | g/m <sup>2</sup> month        | 2.4                                     | 4        | No                    |
| 22 (DDG3/MC3) | Monthly       | g/m <sup>2</sup> month        | 2.8                                     | 4        | No                    |
| 23 (DDG4/MC4) | Monthly       | g/m <sup>2</sup> month        | 6.6                                     | 4        | Yes                   |

**Figure 1 - EPL 20221 Monitoring Locations**





## 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:** December 2019

**Obtained Date:** 15 January 2020

**Publication Date:** 16 January 2020

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 7<sup>th</sup> March 2018 by the NSW Environment Protection Authority (EPA).

## Monthly Monitoring Summary

**Table 1 - Wet Weather Discharge - Surface Water Monitoring**

| ID EPL (Site) | Parameter    | Units | Frequency                        | Samples | Date | Laboratory Results Received | Min Value | Mean Value | Median Value | Max / Only Value |
|---------------|--------------|-------|----------------------------------|---------|------|-----------------------------|-----------|------------|--------------|------------------|
| 2 (SD2)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |      |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |      |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |      |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |      |                             |           |            |              |                  |
| 3 (SD3)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |      |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |      |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |      |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |      |                             |           |            |              |                  |
| 5 (SD5)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |      |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |      |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |      |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |      |                             |           |            |              |                  |
| 7 (SD7)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |      |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |      |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |      |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |      |                             |           |            |              |                  |
| 9 (SD9)       | TSS          | mg/L  | Special Frequency Discharge only | 0       |      |                             |           |            |              |                  |
|               | Conductivity | µs/cm |                                  | 0       |      |                             |           |            |              |                  |
|               | Oil & Grease | mg/L  |                                  | 0       |      |                             |           |            |              |                  |
|               | pH           | pH    |                                  | 0       |      |                             |           |            |              |                  |

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

| ID EPL (Site)  | Parameter    | Units | Frequency      | Samples | Date       | Laboratory Results Received | Min | Mean | Max / Only Value |
|----------------|--------------|-------|----------------|---------|------------|-----------------------------|-----|------|------------------|
| 12 (Mine Void) | TSS          | mg/L  | Every 2 months | 1       | 16/12/2019 | Yes                         |     |      | 8                |
|                | Conductivity | µs/cm |                | 1       | 16/12/2019 | Yes                         |     |      | 1070             |
|                | Oil & Grease | mg/L  |                | 1       | 16/12/2019 | Yes                         |     |      | <5               |
|                | pH           | pH    |                | 1       | 16/12/2019 | Yes                         |     |      | 8.8              |

**Table 3 – Groundwater Quality Monitoring**

| ID<br>EPL<br>(Bore) | Parameters   | Units | Frequency | Samples | Date | Laboratory<br>Results<br>Received | Min | Mean | Max / Only<br>Value                   |
|---------------------|--------------|-------|-----------|---------|------|-----------------------------------|-----|------|---------------------------------------|
| 15<br>(BCM01)       | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation           |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                                       |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                                       |
| 16<br>(BCM03)       | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation           |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                                       |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                                       |
| 17<br>(REG10A)      | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Bore dry since installation           |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                                       |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                                       |
| 24<br>(RB05A)       | pH           | pH    | Quarterly | 0       |      |                                   |     |      | Next sample to be taken next quarter. |
|                     | Conductivity | µs/cm |           |         |      |                                   |     |      |                                       |
|                     | TDS          | mg/L  |           |         |      |                                   |     |      |                                       |

**Table 4 – Noise Monitoring (Attended – Measured)**

| MCC ID | Date       | Start Time | Wind Speed (m/s) | MCCP LAeq 15min dB | Limit LAeq 15min (dB) Operations Criteria | MCCP LA1(1min) dB | Limit LA1 (1 min) (dB) Operations Criteria | Rain (mm) | Exceedance (Yes / No) |
|--------|------------|------------|------------------|--------------------|---|-------------------|--|-----------|-----------------------|
| NM1    | 02/12/2019 | 22:51      | 1.1              | <30                | 35  | 31                | 45   | 0         | Nil                   |
| NM2    | 02/12/2019 | 23:46      | 1.4              | IA                 | 39  | IA                | 45   | 0         | Nil                   |
| NM3    | 02/12/2019 | 23:25      | 1.4              | IA                 | 35  | IA                | 45   | 0         | Nil                   |
| NM4    | 02/12/2019 | 23:22      | 1.4              | <25                | 35  | <25               | 45   | 0         | Nil                   |
| NM5    | 02/12/2019 | 22:21      | 2.7              | IA                 | 35  | IA                | 45   | 0         | Nil                   |
| NM6    | 03/12/2019 | 00:12      | 1.5              | IA                 | 35  | IA                | 45   | 0         | Nil                   |

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.

**Table 5 - 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.

**Table 6 – Blast Monitoring (Blasts – Limits Apply)**

| Location          | Parameter    | Units         | Frequency | Number | Average | Max   | 100% Limit | Exceedance (Yes / No) |
|-------------------|--------------|---------------|-----------|--------|---------|-------|------------|-----------------------|
| Operations Blasts | Overpressure | Db (Lin Peak) | All       | 7      | 95.1    | 106.7 | 120        | No                    |
|                   | Vibration    | mm/s          |           | 7      | 0.15    | 0.59  | 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).

**Table 7 – Dust Monitoring (Limits Apply)**

| ID EPL (Site) | Sample period | Unit                    | Parameter        | Rolling Annual Average | NEPM Annual Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------|------------------|------------------------|----------------------|-----------------------|
| 18 (TEOM1)    | Continuous    | µg/m <sup>3</sup> month | PM <sub>10</sub> | 28.2                   | 30                   | No                    |
| 19 (HVAS)     | 6 days        | µg/m <sup>3</sup>       | PM <sub>10</sub> | 33.7                   | 30                   | Yes                   |

| ID EPL (Site) | Sample period | Particulates Deposited Matter | Rolling Annual Average Insoluble Solids | Criteria | Exceedance (Yes / No) |
|---------------|---------------|-------------------------------|---|----------|-----------------------|
| 20 (DDG1/MC1) | Monthly       | g/m <sup>2</sup> month        | 2.1                                     | 4        | No                    |
| 21 (DDG2/MC2) | Monthly       | g/m <sup>2</sup> month        | 2.4                                     | 4        | No                    |
| 22 (DDG3/MC3) | Monthly       | g/m <sup>2</sup> month        | 2.8                                     | 4        | No                    |
| 23 (DDG4/MC4) | Monthly       | g/m <sup>2</sup> month        | 6.7                                     | 4        | Yes                   |

**Figure 1 - EPL 20221 Monitoring Locations**

