



Maxwell Underground Coal Mine Project

Environmental Monitoring Data

June 2023

1 INTRODUCTION

The Maxwell Underground Coal Mine Project is owned by Maxwell Ventures (Management) Pty Limited. This report has been compiled to present environmental monitoring data for the Maxwell Underground Coal Mine Project Environment Protection Licence 1323. This report complies with Section 66(6) of the *Protection of the Environment Operations Act 1997*.

A summary of the Licence details is provided in **Table 1**.

Table 1. A summary of licence and report details

| | |
|---------------------------------------|--|
| Environment Protection Licence Number | 1323 |
| Licensee Details | Maxwell Ventures (Management) Pty Limited Private Mail Bag 9 Muswellbrook NSW 2333 |
| Premises | Maxwell Underground Coal Mine Project Thomas Mitchell Drive Muswellbrook NSW 2333 |
| Link to the EPA Register | http://app.epa.nsw.gov.au/prpoeoapp/ |
| Reporting Month | June 2023 |
| Date of Publication | 25 August 2023 |
| Version | 1 |
| Correction Log | - |

2 MONITORING RESULTS

Air quality monitoring results are provided in **Table 2**.

Blast monitoring results are provided in **Table 3**

Noise monitoring results are provided in **Table 4**.

A map of the monitoring locations is provided in **Appendix 1**.

Table 2. Air quality monitoring results for June 2023

| EPA identification no. | Sampling point | Sampling period start date | Sampling period finished date | Unit of measure | Averaging period | Monitoring frequency | Minimum value | Mean value | Median value | Maximum value |
|------------------------|----------------|----------------------------|-------------------------------|----------------------------|------------------|----------------------|---------------|------------|--------------|---------------|
| 8 | ES-01 | 01/06/2023 | 30/06/2023 | micrograms per cubic metre | 5 minutes | Continuous | 0 | 25 | 7 | 3795 |
| 9 | ES-02 | 01/06/2023 | 30/06/2023 | micrograms per cubic metre | 5 minutes | Continuous | 2 | 12 | 11 | 69 |
| 10 | ES-03 | 01/06/2023 | 30/06/2023 | micrograms per cubic metre | 5 minutes | Continuous | 0 | 10 | 9 | 99 |
| 11 | ES-04 | 01/06/2023 | 30/06/2023 | micrograms per cubic metre | 5 minutes | Continuous | 0 | 12 | 11 | 116 |

A Palas AQ-Guard Smart device was installed at site ES-02 on 27/1/23 and 30/1/23 at ES-03. Sites ES-01 and ES-04 continue to have the Met One E-Sampler device. The solar power system at the Palas AQ-Guard at ES-02 failed on 8 June 2023, and following acquisition of replacement parts, was returned to service on 29 June 2023. The AQ-Guard at site ES-03 failed in April, and on 26 April was replaced with the old E-Sampler from site ES-02.

Table 3. Blast monitoring results for June 2023

| EPA identification no. | Sampling point | Time and Date of blast | Date data obtained | Monitored variable | Unit of measure | Averaging period | Measured value* | 100 percentile limit for all blasts during each reporting period | 95 percentile limit for all blasts during reporting period | Exceedance (yes/no) | Observations |
|------------------------|------------------------------------|------------------------|--------------------|---|-----------------|------------------|-----------------|--|--|---------------------|--------------|
| 13 | Monitoring location BM1 (Antiene) | 15:30 hrs 7/6/23 | 8/6/23 | Airblast overpressure | dB (Lin Peak) | Instantaneous | 101.7 | 120 | 115 | No | None |
| 14 | Monitoring location BM2 (Plashett) | | | | | | 98.5 | | | No | None |
| 15 | Monitoring location BM3 (Bowfield) | | | | | | 97.9 | | | No | None |
| 13 | Monitoring location BM1 (Antiene) | | | Ground vibration peak particle velocity | mm/second | Instantaneous | 0.096 | 10 | 5 | No | None |
| 14 | Monitoring location BM2 (Plashett) | | | | | | 0.068 | | | No | None |
| 15 | Monitoring location BM3 (Bowfield) | | | | | | 0.17 | | | No | None |

* The measured value presented is the maximum measured value 15 minutes prior to and 15 minutes after the blast. Whilst the blast monitor measures continuously, measured levels were either very low or did not exceed background levels, and hence no specific measurements can be attributed to the blast. The reporting period for the EPL is 1 May to 30 April each year.

Table 4. Noise monitoring results for 25 June 2023

| EPA identification no. | Sampling point | Day (L _A eq (15 minute)) | | Evening (L _A eq (15 minute)) | | Night (L _A eq (15 minute)) | | Night (L _{A1} (1 minute)) | | Exceedance (yes/no) | Observations |
|-------------------------------|--|-------------------------------------|-------------|---|-------------|---------------------------------------|-------------|------------------------------------|-------------|---------------------|-------------------|
| | | Criteria | Noise Level | Criteria | Noise Level | Criteria | Noise Level | Criteria | Noise Level | | |
| 16 | NM1 | 45 | 64 | 41 | 68 | 41 | 59 | 52 | 83 | No | Project inaudible |
| 17 | NM2 | 44 | 45 | 40 | 47 | 40 | 36 | 52 | 63 | No | Project inaudible |
| 18 | NM3 | 40 | 53 | 35 | 54 | 35 | 42 | 52 | 65 | No | Project inaudible |
| - | NM4 | 40 | 71 | 35 | 63 | 35 | 54 | 52 | 78 | No | Project inaudible |
| Additional Information | | | | | | | | | | | |
| Date of Final Report | 18 July 2023 | | | | | | | | | | |
| Weather Conditions | Wind speed 2.8 – 9.8 m/s. No rain during monitoring. | | | | | | | | | | |
| Notes | Measured noise sources included traffic, birds, frogs, wind, mine, and dogs. The Maxwell Underground Coal Mine Project was inaudible at all locations and times. | | | | | | | | | | |

Table 5. Noise monitoring results for 26 June 2023

| EPA identification no. | Sampling point | Day (L _A eq (15 minute)) | | Evening (L _A eq (15 minute)) | | Night (L _A eq (15 minute)) | | Night (L _{A1} (1 minute)) | | Exceedance (yes/no) | Observations |
|-------------------------------|--|-------------------------------------|-------------|---|-------------|---------------------------------------|-------------|------------------------------------|-------------|---------------------|-------------------|
| | | Criteria | Noise Level | Criteria | Noise Level | Criteria | Noise Level | Criteria | Noise Level | | |
| 16 | NM1 | 45 | 72 | 41 | 66 | 41 | 62 | 52 | 85 | No | Project inaudible |
| 17 | NM2 | 44 | 52 | 40 | 40 | 40 | 37 | 52 | 63 | No | Project inaudible |
| 18 | NM3 | 40 | 56 | 35 | 54 | 35 | 45 | 52 | 72 | No | Project inaudible |
| - | NM4 | 40 | 69 | 35 | 68 | 35 | 61 | 52 | 89 | No | Project inaudible |
| Additional Information | | | | | | | | | | | |
| Date of Final Report | 18 July 2023 | | | | | | | | | | |
| Weather Conditions | Wind speed 3.0 – 12.7 m/s. No rain during monitoring. | | | | | | | | | | |
| Notes | Measured noise sources included traffic, birds, frogs, wind, and mine. The Maxwell Underground Coal Mine Project was inaudible at all locations and times. | | | | | | | | | | |

Table 6. Noise monitoring results for 27 June 2023

| EPA identification no. | Sampling point | Day (L _A eq (15 minute)) | | Evening (L _A eq (15 minute)) | | Night (L _A eq (15 minute)) | | Night (L _{A1} (1 minute)) | | Exceedance (yes/no) | Observations |
|------------------------|--|-------------------------------------|-------------|---|-------------|---------------------------------------|-------------|------------------------------------|-------------|---------------------|-------------------|
| | | Criteria | Noise Level | Criteria | Noise Level | Criteria | Noise Level | Criteria | Noise Level | | |
| 16 | NM1 | 45 | 69 | 41 | 68 | 41 | 52 | 52 | 74 | No | Project inaudible |
| 17 | NM2 | 44 | 41 | 40 | 37 | 40 | 39 | 52 | 68 | No | Project inaudible |
| 18 | NM3 | 40 | 56 | 35 | 51 | 35 | 46 | 52 | 72 | No | Project inaudible |
| - | NM4 | 40 | 71 | 35 | 66 | 35 | 60 | 52 | 87 | No | Project inaudible |
| Additional Information | | | | | | | | | | | |
| Date of Final Report | 18 July 2023 | | | | | | | | | | |
| Weather Conditions | Wind speed 2.3 – 5.6 m/s. No rain during monitoring. | | | | | | | | | | |
| Notes | Measured noise sources included traffic, birds, frogs, wind, mine, and dogs. The Maxwell Underground Coal Mine Project was inaudible at all locations and times. | | | | | | | | | | |

APPENDIX 1 – MAP OF MONITORING LOCATIONS

