



# Maxwell Underground Coal Mine Project

## Environmental Monitoring Data

### January 2024

## 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**

<b>Environment Protection Licence Number</b>	1323
<b>Licensee Details</b>	Maxwell Ventures (Management) Pty Limited Private Mail Bag 9 Muswellbrook NSW 2333
<b>Premises</b>	Maxwell Underground Coal Mine Project Thomas Mitchell Drive Muswellbrook NSW 2333
<b>Link to the EPA Register</b>	<a href="http://app.epa.nsw.gov.au/prpoeoapp/">http://app.epa.nsw.gov.au/prpoeoapp/</a>
<b>Reporting Month</b>	January 2024
<b>Date of Publication</b>	8 March 2024
<b>Version</b>	1
<b>Correction Log</b>	-

## 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** to **Table 9**.

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

**Table 2. Air quality monitoring results for January 2024**

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	01/01/2024	31/01/2024	micrograms per cubic metre	5 minutes	Continuous	0	18	15	106
9	ES-02	01/01/2024	31/01/2024	micrograms per cubic metre	5 minutes	Continuous	0	16	14	66
10	ES-03	01/01/2024	31/01/2024	micrograms per cubic metre	1 minute	Continuous	0	12	9.8	695
11	ES-04	01/01/2024	31/01/2024	micrograms per cubic metre	5 minutes	Continuous	0	17	16	64

Palas AQ-Guard Smart devices were 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. On 18/10/23 the AQ-Guard at site ES-02 failed; it was replaced on 20/10/23 by a hire E-Sampler. Diagnosis of the failed AQ-Guard was that the SSD card failed due to a faulty batch received by the equipment manufacturer. Replacement SSD card was received from Palas; AQ-Guard was hardwired for power supply in office to enable SSD installation and configuration; 240v power supply caused device to short circuit and burn out. Unit returned to equipment supplier (Alpha) in Melbourne 13/11/23 awaiting instruction from Palas; unit shipped (air freight) from Alpha to Palas 24/11/23; received by Palas 12/12/23; quote for repair received from Palas 23/1/24, instruction to proceed by Malabar issued same date; advice received 8/3/24 that repaired device had been received by Alpha and would be shipped to Malabar as a priority.

**Table 3. Blast monitoring results for January 2024**

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)	No blast during the reporting period	-	Airblast overpressure	dB (Lin Peak)	Instantaneous	-	120	115	-	-
14	Monitoring location BM2 (Plashett)						-			-	
15	Monitoring location BM3 (Bowfield)						-			-	
13	Monitoring location BM1 (Antiene)			Ground vibration peak particle velocity	mm/second	Instantaneous	-	10	5	-	-
14	Monitoring location BM2 (Plashett)						-			-	
15	Monitoring location BM3 (Bowfield)						-			-	

\* 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 23 January 2024 compared to the noise criteria in Development Consent SSD 9526**

EPA identification no.	Sampling point	Day (L <sub>A</sub> eq (15 minute))		Evening (L <sub>A</sub> eq (15 minute))		Night (L <sub>A</sub> eq (15 minute))		Night (L <sub>A1</sub> (1 minute))		Exceedance (yes/no)	Observations
		Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level		
16	NM1	45	58	41	61	41	59	52	86	No	Project inaudible
17	NM2	44	50	40	37	40	37	52	51	No	Project inaudible
18	NM3	40	55	35	51	35	51	52	73	No	Project inaudible
-	NM4	40	72	35	66	35	57	52	82	No	Project inaudible
Additional Information											
Date of Final Report	29 February 2024										
Weather Conditions	Wind speed 1.7–10.5 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, insects, nearby mine noise, and a train. The Maxwell Underground Coal Mine was inaudible at all locations and times										

**Table 5. Noise monitoring results for 24 January 2024 compared to the noise criteria in Development Consent SSD 9526**

EPA identification no.	Sampling point	Day (L <sub>A</sub> eq (15 minute))		Evening (L <sub>A</sub> eq (15 minute))		Night (L <sub>A</sub> eq (15 minute))		Night (L <sub>A1</sub> (1 minute))		Exceedance (yes/no)	Observations
		Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level		
16	NM1	45	57	41	65	41	63	52	88	No	Project inaudible
17	NM2	44	62	40	61	40	34	52	62	No	Project inaudible
18	NM3	40	53	35	52	35	50	52	71	No	Project inaudible
-	NM4	40	69	35	59	35	59	52	85	No	Project inaudible
Additional Information											
Date of Final Report	29 February 2024										
Weather Conditions	Wind speed 0.6–2.7 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, insects, and a train. The Maxwell Underground Coal Mine was inaudible at all locations and times.										

**Table 6. Noise monitoring results for 25 January 2024 compared to the noise criteria in Development Consent SSD 9526**

EPA identification no.	Sampling point	Day (L <sub>A</sub> eq (15 minute))		Evening (L <sub>A</sub> eq (15 minute))		Night (L <sub>A</sub> eq (15 minute))		Night (L <sub>A1</sub> (1 minute))		Exceedance (yes/no)	Observations
		Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level	Criteria	Noise Level		
16	NM1	45	62	41	64	41	63	52	88	No	Project inaudible
17	NM2	44	54	40	35	40	38	52	49	No	Project inaudible
18	NM3	40	56	35	54	35	56	52	77	No	Project inaudible
-	NM4	40	73	35	62	35	54	52	85	No	Project inaudible
Additional Information											
Date of Final Report	29 February 2024										
Weather Conditions	Wind speed 1.7–6.9 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, and insects. The Maxwell Underground Coal Mine was inaudible at all locations and times.										

**Table 7. Noise monitoring results for 23 January 2024 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur**

23 January 2024 – Noise Monitoring Results (Rail Loop & Spur)								
EPA identification no.	Sampling point	Day (L <sub>A</sub> eq (15 minute))		Evening (L <sub>A</sub> eq (15 minute))		Night (L <sub>A</sub> eq (15 minute))		Exceedance (yes/no)
		Criteria	Noise Level <sup>1,2</sup>	Criteria	Noise Level <sup>1,2</sup>	Criteria	Noise Level <sup>1,2</sup>	
16	NM1	40	NA	40	NA	40	21	No
17	NM2	40	NA	40	NA	40	NA	No
<b>NOTES:</b>								
1. Maxwell Rail Loop and Antiene Rail Spur noise contribution only 2. NA - Maxwell Rail Loop and Antiene Rail spur was inaudible or not quantifiable (i.e <20dB(A))								



**Table 8. Noise monitoring results for 24 January 2024 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur**

24 January 2024 – Noise Monitoring Results (Rail Loop & Spur)								
EPA identification no.	Sampling point	Day (L <sub>A</sub> eq (15 minute))		Evening (L <sub>A</sub> eq (15 minute))		Night (L <sub>A</sub> eq (15 minute))		Exceedance (yes/no)
		Criteria	Noise Level <sup>1,2</sup>	Criteria	Noise Level <sup>1,2</sup>	Criteria	Noise Level <sup>1,2</sup>	
16	NM1	40	NA	40	NA	40	23	No
17	NM2	40	NA	40	NA	40	NA	No
<b>NOTES:</b>								
1. Noise level = Maxwell Rail Loop and Antiene Rail Spur noise contribution only 2. NA - Maxwell Rail Loop and Antiene Rail spur was inaudible or not quantifiable (i.e <20dB(A))								

**Table 9. Noise monitoring results for 25 January 2024 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur**

25 January 2024 – Noise Monitoring Results (Rail Loop & Spur)								
EPA identification no.	Sampling point	Day (L <sub>A</sub> eq (15 minute))		Evening (L <sub>A</sub> eq (15 minute))		Night (L <sub>A</sub> eq (15 minute))		Exceedance (yes/no)
		Criteria	Noise Level <sup>1,2</sup>	Criteria	Noise Level <sup>1,2</sup>	Criteria	Noise Level <sup>1,2</sup>	
16	NM1	40	NA	40	NA	40	NA	No
17	NM2	40	NA	40	NA	40	NA	No
<b>NOTES:</b>								
1. Noise level = Maxwell Rail Loop and Antiene Rail Spur noise contribution only 2. NA - Maxwell Rail Loop and Antiene Rail spur was inaudible or not quantifiable (i.e <20dB(A))								

# APPENDIX 1 – MAP OF MONITORING LOCATIONS

