MALABAR

Maxwell Underground Coal Mine

Environmental Monitoring Data as required by EPL 1323

and

Noise Monitoring Data for Development Consents for SSD 9526 and DA 106-04-00

December 2025

1 INTRODUCTION

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

This report also provides the noise monitoring requirements of Development Consent 9526 for the Maxwell Underground Coal Mine Project and Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur.

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 Thomas Mitchell Drive Muswellbrook NSW 2333
Link to the EPA Register	http://app.epa.nsw.gov.au/prpoeoapp/
Reporting Month	December 2025
Date of Publication	12 February 2026
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** to **Table 9**.

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

Table 2. Air quality monitoring results for the reporting period

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	01/12/2025	31/12/2025	micrograms per cubic metre	5 minutes	Continuous	0	34	33	169
9	ES-02	01/12/2025	31/12/2025	micrograms per cubic metre	1 minute	Continuous	1	26	22	181
10	ES-03	01/12/2025	31/12/2025	micrograms per cubic metre	1 minute	Continuous	1	13	10	168
11	ES-04	01/12/2025	31/12/2025	micrograms per cubic metre	5 minutes	Continuous	0	14	11	121

Sites ES-02 and ES-03 have a Palas AQ-Guard Smart device; sites ES-01 and ES-04 have a Met One E-Sampler device. Significant downtime or issues during the reporting period are as follows:

1. ES-03. no issues, 100% data capture.
2. ES-04. no issues, 100% data capture.

Table 3. Blast monitoring results for the reporting period

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 (dB(A)) for 8 December 2025 compared to the noise criteria in EPL1323 and Development Consent SSD 9526

8 December 2025 – Noise Monitoring Results															
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, Total	Noise Level, MU[1]	Criteria	Noise Level, Total	Noise Level, MU[1]	Criteria	Noise Level, Total	Noise Level, MU[1]	Criteria	Noise Level, Total	Noise Level, MU[1]		
16	NM1	45	60	NA	41	63	NA	41	62	NA	52	80	NA	No	Project inaudible
17	NM2	44	56	NA	40	37	NA	40	34	NA	52	47	NA	No	Project inaudible
18	NM3	40	55	NA	35	46	NA	35	57	NA	52	71	NA	No	Project inaudible
-	NM4	40	61	NA	35	68	NA	35	74	NA	52	88	NA	No	Project inaudible
Additional Information															
Date of Final Report	9 January 2026														
Weather Conditions	Wind speed 0.7 – 5.3 m/s. No rain during monitoring.														
Notes	Measured noise sources included traffic, birds, and insects. The Maxwell Underground Coal Mine Project was inaudible at all locations and times. 1. NA - MU was inaudible or not quantifiable (i.e <20dB(A))														

Table 5. Noise monitoring results (dB(A)) for 9 December 2025 compared to the noise criteria in EPL1323 and Development Consent SSD 9526

9 December 2025 – Noise Monitoring Results														
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, Total	Noise Level, MU[1]	Criteria	Noise Level, Total	Noise Level, MU[1]	Criteria	Noise Level, Total	Noise Level, MU[1]	Criteria	Noise Level, Total	Noise Level, MU[1]		
16	NM1	45	61	NA	41	64	NA	41	59	NA	52	77	NA	No	Project inaudible
17	NM2	44	47	NA	40	49	NA	40	38	NA	52	48	NA	No	Project inaudible
18	NM3	40	59	NA	35	56	NA	35	50	NA	52	68	NA	No	Project inaudible
-	NM4	40	60	NA	35	64	NA	35	70	NA	52	89	NA	No	Project inaudible

Additional Information	
Date of Final Report	9 January 2026
Weather Conditions	Wind speed 1.4 – 8.9 m/s. No rain during monitoring.
Notes	Measured noise sources included traffic, birds, and insects. The Maxwell Underground Coal Mine Project was inaudible at all locations and times. 1. NA - MU was inaudible or not quantifiable (i.e <20dB(A))

Table 6. Noise monitoring results (dB(A)) for 10 December 2025 compared to the noise criteria in EPL1323 and Development Consent SSD 9526

13 November 2025 – Noise Monitoring Results															
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, Total	Noise Level, MU[1]	Criteria	Noise Level, Total	Noise Level, MU[1]	Criteria	Noise Level, Total	Noise Level, MU[1]	Criteria	Noise Level, Total	Noise Level, MU[1]		
16	NM1	45	60	NA	41	61	NA	41	60	NA	52	75	NA	No	Project inaudible
17	NM2	44	49	NA	40	47	NA	40	41	NA	52	51	NA	No	Project inaudible
18	NM3	40	58	NA	35	59	NA	35	54	NA	52	69	NA	No	Project inaudible
-	NM4	40	64	NA	35	66	NA	35	68	NA	52	85	NA	No	Project inaudible
Additional Information															
Date of Final Report	9 January 2026														
Weather Conditions	Wind speed 0.7 – 5.9 m/s. No rain during monitoring.														
Notes	Measured noise sources included traffic, birds, and insects. The Maxwell Underground Coal Mine Project was inaudible at all locations and times. 1. NA - MU was inaudible or not quantifiable (i.e <20dB(A))														

Table 7. Noise monitoring results (dB(A)) for 8 December 2025 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

8 December – Noise Monitoring Results (Rail Loop & Spur)								
EPA identification no.	Sampling point	Day ($L_{A\ eq\ (15\ minute)}$)		Evening ($L_{A\ eq\ (15\ minute)}$)		Night ($L_{A\ eq\ (15\ minute)}$)		Exceedance (yes/no)
		Criteria	Noise Level[1,2]	Criteria	Noise Level[1,2]	Criteria	Noise Level[1,2]	
16	NM1	40	NA	40	NA	40	NA	No
17	NM2	40	NA	40	NA	40	NA	No
NOTES:								
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 (dB(A)) for 9 December 2025 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

9 December 2025 – Noise Monitoring Results (Rail Loop & Spur)								
EPA identification no.	Sampling point	Day ($L_{A\ eq\ (15\ minute)}$)		Evening ($L_{A\ eq\ (15\ minute)}$)		Night ($L_{A\ eq\ (15\ minute)}$)		Exceedance (yes/no)
		Criteria	Noise Level[1,2]	Criteria	Noise Level[1,2]	Criteria	Noise Level[1,2]	
16	NM1	40	NA	40	NA	40	27	No
17	NM2	40	NA	40	NA	40	NA	No
NOTES:								
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 (dB(A)) for 10 December 2025 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

10 December 2025 – Noise Monitoring Results (Rail Loop & Spur)								
EPA identification no.	Sampling point	Day ($L_{A\ eq\ (15\ minute)}$)		Evening ($L_{A\ eq\ (15\ minute)}$)		Night ($L_{A\ eq\ (15\ minute)}$)		Exceedance (yes/no)
		Criteria	Noise Level[1,2]	Criteria	Noise Level[1,2]	Criteria	Noise Level[1,2]	
16	NM1	40	NA	40	NA	40	NA	No
17	NM2	40	NA	40	NA	40	NA	No
NOTES:								
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