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Maxwell Underground Coal Mine Project

Environmental Monitoring Data

April 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

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	April 2024
Date of Publication	24 May 2024
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 April 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	01/04/2024	30/04/2024	micrograms per cubic metre	5 minutes	Continuous	0	20	11	1546
9	ES-02	01/04/2024	30/04/2024	micrograms per cubic metre	5 minutes	Continuous	0	11	9.1	297
10	ES-03	01/04/2024	30/04/2024	micrograms per cubic metre	1 minute	Continuous	0	11	9.2	326
11	ES-04	01/04/2024	30/04/2024	micrograms per cubic metre	5 minutes	Continuous	0	11	11	53

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. Refer to previous monthly reports for further details of the history of any downtime for each device. Following commissioning and testing, the repaired AQ-Guard device was installed at location ES-02 on 9 April 2024, replacing a hired E-Sampler.

Table 3. Blast monitoring results for April 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 10 April 2024 compared to the noise criteria in Development Consent SSD 9526

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	65	41	53	41	58	52	81	No	Project inaudible
17	NM2	44	40	40	42	40	40	52	55	No	Project inaudible
18	NM3	40	55	35	48	35	50	52	83	No	Project inaudible
-	NM4	40	68	35	55	35	55	52	82	No	Project inaudible
Additional Information											
Date of Final Report	1 May 2024										
Weather Conditions	Wind speed 0.7 – 3.8 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, insects, dogs, and a nearby coal mine. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 5. Noise monitoring results for 11 April 2024 compared to the noise criteria in Development Consent SSD 9526

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	63	41	54	52	74	No	Project inaudible
17	NM2	44	43	40	44	40	41	52	53	No	Project inaudible
18	NM3	40	58	35	54	35	49	52	75	No	Project inaudible
-	NM4	40	54	35	52	35	53	52	75	No	Project inaudible
Additional Information											
Date of Final Report	1 May 2024										
Weather Conditions	Wind speed 0.7 – 3.7 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, insects, dogs, and a nearby coal mine. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 6. Noise monitoring results for 12 April 2024 compared to the noise criteria in Development Consent SSD 9526

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	63	41	61	41	57	52	81	No	Project inaudible
17	NM2	44	41	40	38	40	69	52	60	No	Project inaudible
18	NM3	40	56	35	56	35	69	52	65	No	Project inaudible
-	NM4	40	63	35	67	35	47	52	73	No	Project inaudible
Additional Information											
Date of Final Report	1 May 2024										
Weather Conditions	Wind speed 0.7 – 4.5 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, insects, dogs, and a nearby coal mine. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 7. Noise monitoring results for 10 April 2024 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

10 April 2024 – 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 for 11 April 2024 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

11 April 2024 – 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))

Table 9. Noise monitoring results for 12 April 2024 compared to the noise criteria in Development Consent DA 106-04-00 for the Maxwell Rail Loop and Antiene Rail Spur

12 April 2024 – 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