



Maxwell Underground Coal Mine Project

Environmental Monitoring Data

March 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	March 2023
Date of Publication	4 May 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 March 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	01/03/2023	31/03/2023	micrograms per cubic metre	5 minutes	Continuous	0	16	11	149
9	ES-02	01/03/2023	31/03/2023	micrograms per cubic metre	5 minutes	Continuous	2	16	13	95
10	ES-03	01/03/2023	31/03/2023	micrograms per cubic metre	5 minutes	Continuous	0	14	11	78
11	ES-04	01/03/2023	31/03/2023	micrograms per cubic metre	5 minutes	Continuous	0	15	13	96

Results for sites ES-02 and ES-03 now include the new Palas AQ-Guard Smart devices, installed 27/1/23 for ES-02 and 30/1/23 for ES-03. Sites ES-01 and ES-04 continue to have the Met One E-Sampler device.

ES-01 flatlined at zero from 12:10hrs on 17/03/2023 to 11:45hrs on 27/03/2023. These zero values have been removed from the dataset. An alert has been set up which is triggered when consecutive zeros occur; previously the alert would only trigger if no data is received.

Table 3. Blast monitoring results for March 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)	13:59hrs 16/3/23	17/3/23	Airblast overpressure	dB (Lin Peak)	Instantaneous	100.9	120	115	No	None
14	Monitoring location BM2 (Plashett)						112.8			No	None
15	Monitoring location BM3 (Bowfield)						107.9			No	None
13	Monitoring location BM1 (Antiene)			Ground vibration peak particle velocity	mm/second	Instantaneous	0.105	10	5	No	None
14	Monitoring location BM2 (Plashett)						0.049			No	None
15	Monitoring location BM3 (Bowfield)						0.040			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 29 March 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	70	41	64	41	61	52	87	No	Project inaudible
17	NM2	44	48	40	43	40	39	52	66	No	Project inaudible
18	NM3	40	52	35	48	35	51	52	73	No	Project inaudible
-	NM4	40	69	35	66	35	60	52	88	No	Project inaudible
Additional Information											
Date of Final Report	24 April 2023										
Weather Conditions	Wind speed 1.0–6.2 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, insects, a train, and a dog. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 5. Noise monitoring results for 30 March 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	68	41	62	41	58	52	84	No	Project inaudible
17	NM2	44	50	40	39	40	32	52	52	No	Project inaudible
18	NM3	40	56	35	53	35	44	52	63	No	Project inaudible
-	NM4	40	67	35	66	35	64	52	85	No	Project inaudible
Additional Information											
Date of Final Report	24 April 2023										
Weather Conditions	Wind speed 1.0–9.3 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, and insects. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 6. Noise monitoring results for 31 March 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	65	41	60	52	83	No	Project inaudible
17	NM2	44	39	40	40	40	37	52	72	No	Project inaudible
18	NM3	40	52	35	54	35	50	52	77	No	Project inaudible
-	NM4	40	68	35	67	35	60	52	87	No	Project inaudible
Additional Information											
Date of Final Report	24 April 2023										
Weather Conditions	Wind speed 1.0 – 7.3 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, insects, and a dog. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

APPENDIX 1 – MAP OF MONITORING LOCATIONS

