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Maxwell Underground Coal Mine Project

Environmental Monitoring Data

May 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	May 2023
Date of Publication	17 July 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 May 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	01/05/2023	31/05/2023	micrograms per cubic metre	5 minutes	Continuous	0	15	8	649
9	ES-02	01/05/2023	31/05/2023	micrograms per cubic metre	5 minutes	Continuous	0	14	12	102
10	ES-03	01/05/2023	31/05/2023	micrograms per cubic metre	5 minutes	Continuous	0	11	10	47
11	ES-04	01/05/2023	31/05/2023	micrograms per cubic metre	5 minutes	Continuous	0	12	11	105

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. The Palas AQ-Guard at ES-03 failed in April and on 26/4/23 was replaced with the old E-Sampler from site ES-02.

Table 3. Blast monitoring results for May 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)	15:31 hrs 24/5/23	25/5/23	Airblast overpressure	dB (Lin Peak)	Instantaneous	94.0	120	115	No	None
14	Monitoring location BM2 (Plashett)						104.9			No	None
15	Monitoring location BM3 (Bowfield)						95.8			No	None
13	Monitoring location BM1 (Antiene)			Ground vibration peak particle velocity	mm/second	Instantaneous	0.101	10	5	No	None
14	Monitoring location BM2 (Plashett)						0.167			No	None
15	Monitoring location BM3 (Bowfield)						0.070			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 9 May 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	67	41	63	41	58	52	81	No	Project inaudible
17	NM2	44	43	40	36	40	33	52	57	No	Project inaudible
18	NM3	40	69	35	53	35	43	52	66	No	Project inaudible
-	NM4	40	60	35	68	35	65	52	88	No	Project inaudible
Additional Information											
Date of Final Report	19 May 2023										
Weather Conditions	Wind speed 0.9 – 4.0 m/s. No rain during monitoring.										
Notes	Measured noise sources included traffic, birds, frogs, insects, and dogs. The Maxwell Underground Coal Mine Project was inaudible at all locations and times.										

Table 5. Noise monitoring results for 10 May 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	67	41	63	41	56	52	82	No	Project inaudible
17	NM2	44	46	40	36	40	32	52	59	No	Project inaudible
18	NM3	40	57	35	55	35	52	52	72	No	Project inaudible
-	NM4	40	68	35	68	35	61	52	86	No	Project inaudible
Additional Information											
Date of Final Report	19 May 2023										
Weather Conditions	Wind speed 0.9 – 4.0 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 11 May 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	65	41	66	41	64	52	87	No	Project inaudible
17	NM2	44	43	40	38	40	34	52	58	No	Project inaudible
18	NM3	40	56	35	55	35	50	52	69	No	Project inaudible
-	NM4	40	69	35	67	35	61	52	86	No	Project inaudible
Additional Information											
Date of Final Report	19 May 2023										
Weather Conditions	Wind speed 0.9 – 4.0 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