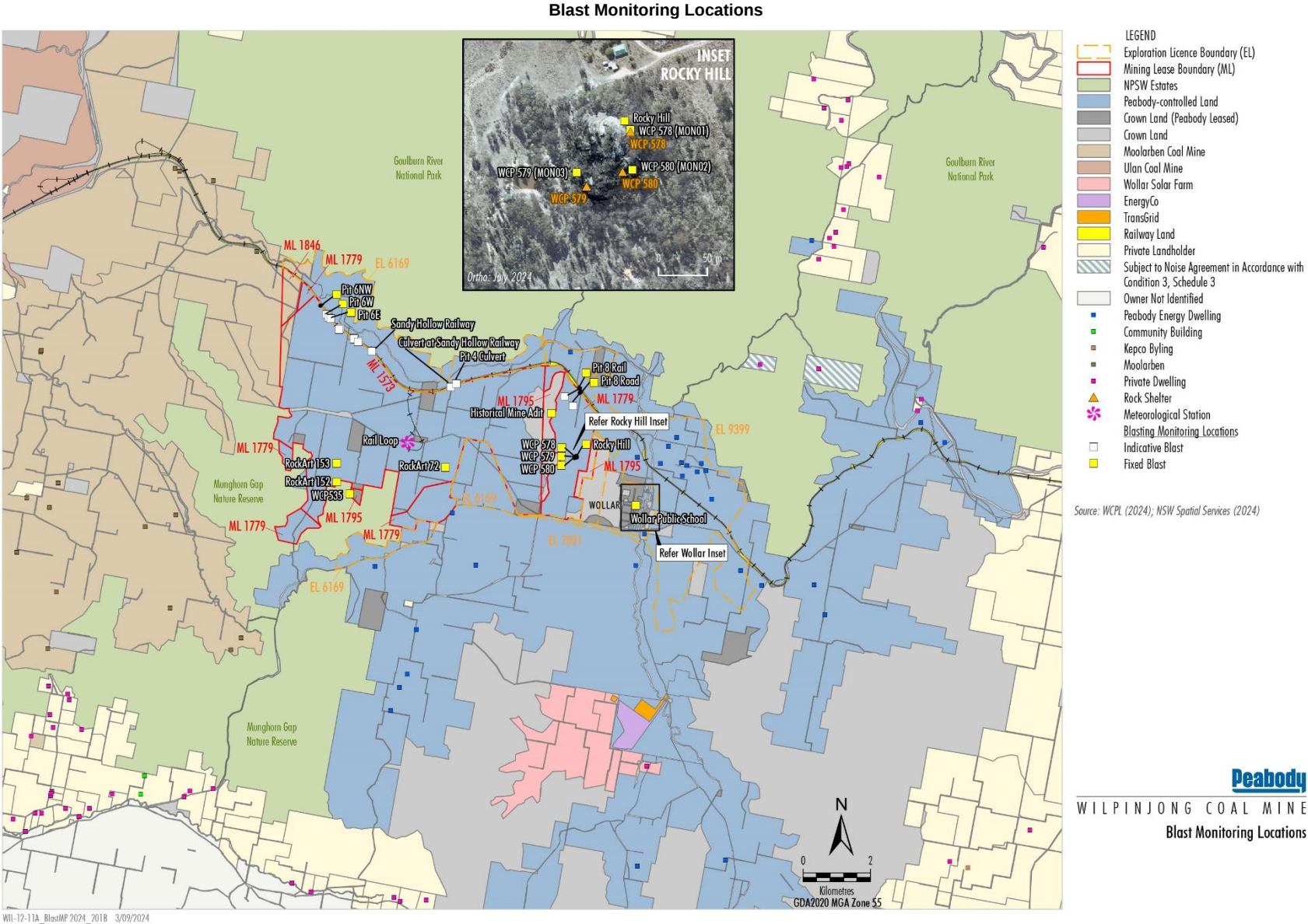


APPENDIX 3E
BLAST MONITORING DATA



Blast Monitoring Locations (Wollar)



Special Lease/Licence Holder

Blasting Monitoring Data 2024

Date	Time	Location			Type	Wollar Public School		Rock Art (Site 152) Pit 5 South (Southern Site)	Rock Art (Site 53) Pit 5 South (Northern Site)	Castle Rock (Site 72)	Rock Shelter WE7	Pit 8 Rail (Nearest Rail Culvert & Rail Line)	Pit 8 Road (Nearest Road & Culvert)	Slate Gully/Bat Cave	Pit 6 Culvert W3 (Nearest Rail & Road Culvert)	Pit 6 Culvert W4 (Nearest Rail & Road Culvert)	Pit 6 Culvert WW (Nearest Rail & Road Culvert)	Rocky Hill	Pit 7E (Nearest Road Culvert)	Pit 7N (Nearest Road Culvert)
		Pit	Strip	Block		Overpressure (dB)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)
2/01/2024	3:31pm	6	63	03-09	Multi	94.2	0.1	0.64	1.66	0.15	1.26	0.08	0.07	0.09	0.83	New monitoring commenced on the 2 nd August 2024	1.16	New monitoring commenced on the 5 th February 2024	New monitoring commenced on the 21 st September 2024	New monitoring commenced on the 1 st October 2024
9/01/2024	2:52pm	6	64	03-05	PS	84.7	0.08	0.48	0.9	0.3	0.61	0.05	0.07	0.1	0.22		0.45			
10/01/2024	10:41am	6	33	15-18	M4	93.7	0.08	0.32	0.34	0.12	0.71	0.08	0.08	0.07	1.87		3.55			
13/01/2024	3:45pm	6	53	19-23	GLB	80.1	0.02	0.05	0.1	0.03	0.16	0.03	0.15	0.03	30.05		33.63			
13/01/2024	3:17pm	6	28	25-26	M4	85.4	0.03	0.22	0.33	0.07	0.8	0.03	0.09	0.05	0.26		0.33			
16/01/2024	2:22pm	8	2	30-34	Ramp	96	0.26	0.1	0.08	0.13	0.16	6.26	7.07	2.34	0.1		0.21			
18/01/2024	3:18pm	6	54	15-17	M4	92	0.07	0.36	0.59	0.28	0.72	0.1	0.11	0.16	0.72		1.38			
20/01/2024	2:33pm	6	26	18-26	PS	84.1	0.04	0.09	0.14	0.12	0.11	0.04	0.07	0.06	8.62		17.8			
24/01/2024	2:50pm	8	8	09-15	DP	99.4	0.77	0.12	0.2	0.36	0.2	4.87	5.01	8.23	0.14		0.21			
27/01/2024	3:27pm	6	64	03-08	A12	100.8	0.1	0.72	1.54	0.4	1.32	0.09	0.15	0.2	0.51		0.62			
29/01/2024	3:40pm	8	9	10-11	M4	96	0.66	0.49	0.69	0.5	0.83	10.53	10.68	9.61	0.29		0.84			
29/01/2024	3:40pm	8	2	02-04	M4															
31/01/2024	12:35pm	6	55	18-21	GLB	86	0.03	0.19	0.36	0.05	0.72	0.07	0.53	0.04	0.25		0.45			
5/02/2024	2:48pm	6	26	18-25	A12	88.3	0.06	0.14	0.3	0.13	0.28	0.06	0.09	0.09	19.93		60.4	0.15		
8/02/2024	12.01pm	6	50	03-08	PS	96.5	0.04	0.24	0.63	0.11	1.51	0.05	0.08	0.06	0.65		0.76	0.22		
9/02/2024	3.43pm	8	4	14-25	BP	85.6	0.27	0.03	0.05	0.03	0.06	6.17	4.38	1.08	0.02		0.09	0.28		
13/02/2024	3.29pm	6	30	13-17	M	91.2	0.04	0.13	0.3	0.15	0.6	0.05	0.06	0.07	2.36		5.41	0.16		
16/02/2024	12.34pm	6	51	18-23	OB	81.7	0.06	0.28	0.72	0.18	0.96	0.06	0.08	0.1	0.65		0.95	0.14		
21/02/2024	2:32pm	6	27	25-26	A12	83	0.03	0.08	0.26	0.08	0.22	0.07	0.07	0.09	17.4		50.16	0.07		
23/02/2024	2:32pm	6	29	19-21	M4	100.3	0.02	0.03	0.06	0.03	0.1	0.02		0.02	21.03		7.33			
23/02/2024	2:32pm	6	30	30-27	EW PS															
27/02/2024	3:20pm	6	64	03-08	MULTI	95	0.04	0.45	1.1	0.11	1.01	0.04	0.05	0.07	0.57		0.79	0.09		
1/03/2024	3:40pm	6	6	02-05	OB	101.5	0.06	0.03	0.03	0.02	0.05	0.75	0.54	1.68	0.01		0.08	0.16		
2/03/2024	3:30pm	6	50	14-23	OB	93.9	0.09	0.76	1.14	0.34	1.84	0.09	0.12	0.16	1.11		1.07	0		
6/03/2024	3.04pm	6	8	09-15	Ptg	97.9	0.69	0.14	0.21	0.46	0.21	2.71	3.63	26.53	0.11		0.35	4.11		
6/03/2024	3.04pm	8	9	09-15	OB															
11/03/2024	2:58pm	6	4	03-08	Ptg	99.7	0.8	0.11	0.11	0.14	0.23	13.01	9.52	4.29	0.07		0.28	1.59		
13/03/2024	12:32pm	6	6	02-05	OB	93.1	0.52	0.24	0.34	0.33	0.36	3.68	3.39	13.51	0.11		0.3	1.79		
13/03/2024	12:32pm	6	52-55	14	OB															
22/03/2024	3:40pm	6	9	09-15	OB	99.5	1.17	0.01	0.45	0.98	0.66	3.91	4.32	24.04	0.16		0.39	10.54		
28/03/2024	3:03pm	6	26	18-26	OBpm	87.3	0.04	0.01	0.41	0.1	0.36	0.05	0.06	0.08	17.56		44.93	0.13		
28/03/2024	3:06pm	6	51-57	14-17	OB	80.8	0.06	0.01	0.64	0.26	0.68	0.08	0.1	0.13	0.8		1.11	0.13		
2/04/2024	3:38pm	6	26	18-20	MULTI	101.2	0.05	0.01	0.33	0.14	0.22	0.08	0.11	0.09	4.17		5.53	0.16		
2/04/2024	3:38pm	6	31	14-17	PS															
3/04/2024	3:23pm	8	11	11-13	PS	92.9	0.53	0.01	0.12	0.17	0.08	0.56	0.82	2.79	0.05		0.13	7.12		
4/04/2024	3:09pm	6	30	27	PS	92.3	0.01	0	0.01	0.01	0.01	0.01	0.13	0.01	0.45		0.4	0		
9/04/2024	15.43pm	6	28	25-26	SWL	86.6	0.04	0.01	0.26	0.05	0.21	0.05	0.07	0.05	28.49		54.84	0		
11/04/2024	15.39pm	6	31	11-15	A12	88.4	0.1	0.01	0.48	0.24	0.54	0.11	0.14	0.2	4.66		8.29	0.21		
15/04/2024	15.29pm	8	4	03-08	EG	90	0.31	0.01	0.06	0.05	0.06	4.22	5.85	1.44	0.02		0.08	0		
16/04/2024	16:01pm	8	11	10-15	M4	97.3	0.31	0.01	0.09	0.11	0.09	1.22	1.4	3.59	0.05		1.12	4.31		
20/04/2024	2:20pm	6	30	24-26	385RL	69	0.05	0.15	0.32	0.13	0.31	0.06	0.09	0.08	43.04		21.34	0		
20/04/2024	2:20pm	6	29	21-26	M4															
20/04/2024	2:20pm	6	27	18-24	PS															
23/04/2024	3:42pm	6	34	12-17	GLB	84.6	0.04	0.08	0.25	0.05	0.2	0.03	0.06	0.04	1.42		1.72	0.12		
26/04/2024	2.51pm	8	6-8	2	PS	94.8	2.92	0.35	0.58	0.49	0.48	2.31	3.9	22.3	0.13		0.39	10.55		
26/04/2024	2.51pm	8	11	14-16	M4															
4/05/2024	2:59pm	6	31	11-15	MULTI	87.4	0.06	0.17	0.45	0.12	0.37	0.08	0.11	0.1	2.12		5.5	0.29		
4/05/2024	2:59pm	6	32	11-15	PS															
8/05/2024	2:39pm	8	5	02-06	PS	81.5	0.53	0.34	0.33	0.44	0.29	10.23	7.87	11.75	0.09		1	3.76		
11/05/2024	3:30pm	6	53	17-22	M4	77.6	0.08	0.47	0.78	0.19	1.2	0.07	0.09	0.12	0.55		0.84	0.19		
13/05/2024	2:59pm	6	28	25-26	A12	82.1	0.03	0.07	0.19	0.07	0.2	0.05	0.06	0.04	17.95		44.93	0.07		
13/05/2024	2:59pm	6	27	SUMP	SUMP															
14/05/2024	3:27pm	6	36-39	01	PS	88	0.05	0.14	0.22	0.11	0.29	0.04	0.09	0.09	1.05		1.83	0.1		
15/05/2024	2:32pm	6	29-31	16-17	PS	78.5	0.01	0	0.01	0.01	0.01	0.03	0.32	0	0.07		1.01	0.01		
20/05/2024	1:39pm	8	5	02-06	A12	100.8	1.13	0.52	0.42	0.96	0.47	8.76	8.52	14.08	0.21		1.07	4.63		
20/05/2024	1:39pm	8	9	15-20	BP															
24/05/2024	3:36pm	6	29	25-26	M4	83	0.03	0.09	0.19	0.08	0.19	0.05	0.07	0.06	43.04		23.77	0.08		
27/05/2024	3:28pm	6	51-57	14-22	MULTI	84.8	0.1	0.36	0.93	0.2	0.82	0.08	0.09	0.1	0.88		1.25	0.31		
31/05/2024	3:30pm	6	29-31	16-17	BOXCUT	98.9	0.09	0.31	0.6	0.16	0.45	0.1	0.13	0.16	6.28		10.99	0.24		
1/06/2024	2:56pm	8	7-8	1-2	GLB	95	0.17	0.07	0.07	0.08	0.07	1.12	1.17	7.25	0.03		0.1	0.78		
4/06/2024	3:03pm	6	28	18-24	PS	79.9	0.04	0.18	0.23	0.09	0.16	0.06	0.15	0.08	5.57		6.89	0.16		

Date	Time	Location			Type	Wollar Public School		Rock Art (Site 152) Pit 5 South (Southern Site)	Rock Art (Site 53) Pit 5 South (Northern Site)	Castle Rock (Site 72)	Rock Shelter WE7	Pit 8 Rail (Nearest Rail Culvert & Rail Line)	Pit 8 Road (Nearest Road & Culvert)	Slate Gully/Bat Cave	Pit 6 Culvert W3 (Nearest Rail & Road Culvert)	Pit 6 Culvert W4 (Nearest Rail & Road Culvert)	Pit 6 Culvert WW (Nearest Rail & Road Culvert)	Rocky Hill	Pit 7E (Nearest Road Culvert)	Pit 7N (Nearest Road Culvert)
		Pit	Strip	Block		IB/OB	Overpressure (dB)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)
7/06/2024	3:37pm	8	02-05	1	PS	96.1	0.09	0.19	0.19	0.27	0.17	10.53	7.45	14.66	0.1		0.18	3.73		
8/06/2024	3:36pm	6	27	18-22	Multi	97.2	0.11	0.16	0.6	0.14	0.24	0.08	0.09	0.08	4.14		10.65	0.14		
8/06/2024	3:36pm	6	28	24	RL															
12/06/2024	2:32pm	8	2-5	2	A12	119.1	0.73	0.36	0.35	0.63	0.38	16.95	14.08	10.63	0.27		0.58	2.45		
18/06/2024	3:17pm	8	7-8	1-6	M4	100.3	1.09	0.52	0.42	0.69	0.39	12.68	9.62	22.53	0.32		0.74	2.48		
18/06/2024	3:17pm	8	2-5	2	A12															
25/06/2024	3:17pm	8	9	15-20	DP	101.5	1.15	0.14	0.19	0.21	0.2	3.48	4.02	6.93	0.08		0.17	3.02		
29/06/2024	3:20pm	6	51	15-24	PS	89	0.07	0.34	0.59	0.26	0.49	0.06	0.09	0.15	0.24		0.54	0.19		
5/07/2024	11:53am	6	54	17-21	OB	95.4	0.06	0.29	1.04	0.22	0.64	0.06	0.1	0.09	0.48		0.74	0.2		
12/07/2024	11:29am	6	51	15-23	OB	88.4	0.1	0.91	1.33	0.34	1.88	0.1		0	0.61		0.77	0.29		
22/07/2024	11:39am	6	28	18-25	OB	106.6	0.09	0.19	0.34	0.26	0.24	0.1	0.17	0.31	16.2		12.82	0.12		
24/07/2024	3:22pm	6	9	3-5	OB	100.9	1.47	0.73	1.07	0.83	0.73	7.59	12.12	0	0.95		2.4	4.12		
25/07/2024	3:06pm	6	33	30	PS	105.2	0.02	0.02	0.05	0.02	0.05	0.06	0.04	0.02	10.51		4.07	0.03		
31/07/2024	3:32pm	6	27-31	17	OB	90.2	0.01	0	0.01	0	0.01	0.01		0	0.1		0.51	0.01		
2/08/2024	3:20pm	8	10	15-20	PS	89.2	0.59	0.21	0.3	0.42	0.24	2.12	3.2	18.04	0.1	0.41	0.27	6.13		
10/08/2024	1:01pm	6	30	25-30	M4	87.6	0.05	0.13	0.41	0.07	0.27	0.08	0.09	0.05	42.71	19.98	19.17	0.21		
14/08/2024	3:22pm	8	9	16-20	E-G	89	0.39	0.04	0.07	0.07	0.06	0.86	1.42	0.88	0.03	0.1	0.09	1.89		
15/08/2024	3:34pm	6	32	01-17	A12	87.2	0.1	0.28	0.48	0.31	0.39	0.12	0.18	0.24	4.49	8.19	7.77	0.23		
17/08/2024	3:17pm	6	51	15-23	Multi	98.9	0.06	0.31	1.08	0.13	0.93	0.15	0.1	0.07	0.8	0.66	0.95	0.41		
23/08/2024	12:37pm	6	30	20-24	M4	88.1	0.05	0.17	0.39	0.1	0.36	0.06	0.09	0.06	8.86	14.64	9.52	0.14		
28/08/2024	3:32pm	8	10	15-20	A12	103.8	1.5	0.68	0.81	1.26	0.86	3.22	4.84	20.66	0.2	0.3	0.39	14.1		
31/08/2024	4:17pm	6	28	18-26	Multi	109.1	0.06	0.14	0.36	0.15	0.24	0.06	0.08	0.08	5	3.58	15.88	0.41		
3/09/2024	12:41pm	6	33	25-30	M4	82.1	0.03	0.09	0.23	0.06	0.2	0.05	0.07	0.04	30.29	14.66	17.74	0.1		
4/09/2024	3:18pm	6	52	15-23	PS	83.3	0.05	0.26	0.61	0.15	0.77	0.04	0.06	0.07	0.3	0.6	0.57	0.22		
7/09/2024	12:30pm	6	29	16-26	PS	99.4	0.08	0.18	0.69	0.21	0.45	0.08	0.18	0.16	26.25	9.9	28.05	0.3		
7/09/2024	2:32pm	6	32	01-17	Multi	102.8	0.01	0.01	0.01	0	0.01	0.24	0.32	0.01	0.05	0.09	0.15			
13/09/2024	3:39pm	8	02-05	01-06	BP	93.2	0.95	0.29	0.35	0.55	0.37	7.75	8.24	34.37	0.18	0.23	0.57	1.96		
13/09/2024	3:39pm	8	9	02-06	M4															
16/09/2024	3:28pm	8	14	20-30	M4	97.8	2.71	0.48	0.56	0.63	0.43	3.72	4.78	12.32	0.13	0.29	0.45	14.62		
16/09/2024	3:28pm	8	6	01-06	PS															
16/09/2024	3:28pm	8	14	30	PS															
21/09/2024	10:52am	8	53	01-30	PS	105.3	0.96	0.1	0.1	0.4	0.1	0.28	0.48	1.27	0.05	0.2	0.21	2.29	31.12	
23/09/2024	3:12pm	8	50	01-07	PS	86.8	0.16	0.05	0.06	0.19	0.05	0.06	0.12	0.16	0.01	0.14	0.11	0.37	110.33*	
24/09/2024	3:41pm	6	52	15-23	A12	98.8	0.11	0.69	1.29	0.53	1.1	0.12	0.17	0.18	0.63	1.81	1.09	0.3	0.23	
27/09/2024	2:00pm	6	33	21-25	RL391	91.7	0.04	0.07	0.19	0.08	0.14	0.04	0.08	0.07	4.9	17.29	5.38	0.06	0.07	
1/10/2024	2:32pm	8	13	02-06	M4	94.8	0.95	1.01	0.7	0.61	0.83	6.75	7.08	30.26	0.17	0.27	0.45	3.62	3.34	4.87
4/10/2024	3:20pm	8	50	01-30	M4	99.3	0.29	0.06	0.07	0.13	0.08	0.19	0.19	0.25	0.03	0.51	0.16	1.91	32.19	7.79
5/10/2024	3:43pm	8	02-05	01	DP	104	0.32	0.09	0.08	0.12	0.09	6.65	6.11	2.29	0.04	0.16	0.14	0.54	0.32	0.39
8/10/2024	11:28am	6	33	01-17	PS	84.6	0.05	0.14	0.28	0.13	0.26	0.04	0.07	0.07	0.86	2.24	2.9	0.12	0.12	0.15
11/10/2024	12:06pm	8	5	20-06	DP	96.4	0.35	0.11	0.1	0.09	0.1	4.11	3.74	2.81	0.06	0.16	0.2	1.02	0.31	0.52
15/10/2024	3:28pm	8	10	15-30	BP	91.5	0.28	0.08	0.07	0.09	0.1	0.82	1.05	1.58	0.03	0.1	0.2	1.33	0.2	0.29
21/10/2024	3:51pm	6	29	18-26	A12	86.5	0.12	0.26	0.47	0.22	0.47	0.14	0.14	0.16	35.73	12.24	38.69	0.18	0.12	0.3
22/10/2024	3:47pm	6	33	01-17	A12	87.9	0.08	0.21	0.43	0.28	0.52	0.12	0.15	0.13	2.93	7.8	7.06	0.31	0.13	0.22
26/10/2024	12:24pm	8	11	15-30	PS	86	0.73	0.19	0.32	0.55	0.22	1.37	1.81	12.18	0.09	0.3	0.29	6.64	0.92	0.82
28/10/2024	3:04pm	8	52	30	PS															
28/10/2024	3:04pm	8	50	01-30	M4	105	0.45	0.11	0.11	0.16	0.1	0.28	0.31	0.5	0.11	0.23	0.22	1.34	37.05	7.57
30/10/2024	3:27pm	6	53	15-23	PS															
30/10/2024	3:27pm	6	52	15-22	Multi	97.9	0.08	0.37	0.86	0.21	0.79	0.09	0.11	0.15	0.7	0.96	1.04	0.32	0.14	2.36
4/11/2024	3:13pm	6	36-37	01-21	GLB	88.9	0.03	0.1	No Data 3G	0.07	No Data 3G	0.03	0.06	0.04	1.45	6.96	1.38	No Data 3G	0.07	0.43
5/11/2024	12:19pm	6	54	15-21	PS	79.9	0.01	0.01	No Data 3G	No Data 3G	0.01	0.44	0.22	0.02	0.51	No Data 3G	0.26	0.01	0.06	0.15
12/11/2024	3:18pm	8	02-05	1	E-G	88.8	0.18	0.05	No Data 3G	0.07	No Data 3G</									

Date	Time	Location			Type	Wollar Public School		Rock Art (Site 152) Pit 5 South (Southern Site)	Rock Art (Site 53) Pit 5 South (Northern Site)	Castle Rock (Site 72)	Rock Shelter WE7	Pit 8 Rail (Nearest Rail Culvert & Rail Line)	Pit 8 Road (Nearest Road & Culvert)	Slate Gully/Bat Cave	Pit 6 Culvert W3 (Nearest Rail & Road Culvert)	Pit 6 Culvert W4 (Nearest Rail & Road Culvert)	Pit 6 Culvert WW (Nearest Rail & Road Culvert)	Rocky Hill	Pit 7E (Nearest Road Culvert)	Pit 7N (Nearest Road Culvert)
		Pit	Strip	Block	IB/OB	Overpressure (dbL)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)	Vibration (mm/s)
24/12/2024	1:16pm	6	30	18-26	A12	92.2	0.82	0.2	0.39	0.15	0.42	0.13	0.1	0.24	37.19	14.04	31.46	0.2	0.12	0.21
31/12/2024	11:43am	8	11	15-30	A12	98.4	1.67	0.78	0.75	2.06	0.15	2.71	3.43	20.76	0.21	0.3	0.44	15.98	1.73	1.6

Notes: * agreement in place with MWRC for one off maximum limit of 150mm/s