



KIS Quarries Blast Monitoring Results

Petersons / Coraki Quarry

Petersons Quarry Road, Coraki NSW 2471

EPL no. 3397 <http://www.epa.nsw.gov.au/prpoeoapp>

Sept 2016 to December 2021

Monthly Blasting M1/M4 (Petersons Quarry South)

Sample Point	Monitoring Date	Airblast Overpressure dB (Lin peak) <120 or <115 for 95% blasts or no more than 1 blast in annual reporting period	Ground Vibration (mm/sec) <10 or <5 for 95% blasts or no more than 1 blast in annual reporting period	Exceedance (Y/N)	Monitoring Frequency
M1/M4	02/11/2015	109.9	0.524	N	All Blasts
M1/M4	11/11/2015	109.9	2.282	N	All Blasts
M1/M4	09/12/2015	114.8	3.947	N	All Blasts
M1/M4	23/12/2015	113.3	1.356	N	All Blasts
M1/M4	11/01/2016	113.8	3.445	N	All Blasts
M1/M4	24/06/2016	ND	4.016	N	All Blasts
M1/M4	20/07/2016	NT	NT	N	All Blasts
M1/M4	10/08/2016	113.3	1.171	N	All Blasts
M1/M4	05/09/2016	106	2.541	N	All Blasts
M1/M4	06/09/2016	104.9	2.004	N	All Blasts
M1/M4	12/09/2016	112.3	3.657	N	All Blasts
M1/M4	10/10/2016	114.2	1.656	N	All Blasts
M1/M4	09/12/2016	115	2.3	N	All Blasts
M1/M4	10/05/2017	107.5	1.276	N	All Blasts
M1/M4	29/05/2017	NT	NT	N	All Blasts
M1/M4	22/06/2017	NT	NT	N	All Blasts
M1/M4	14/07/2017	NT	NT	N	All Blasts
M1/M4	28/07/2017	109	3.184	N	All Blasts
M1/M4	04/08/2017	NT	NT	N	All Blasts
M1/M4	28/08/2017	113.5	0.813	N	All Blasts
M1/M4	10/11/2017	107.1	0.609	N	All Blasts

<i>M1/M4</i>	<i>12/02/2018</i>	<i>113.2</i>	<i>1.824</i>	<i>N</i>	<i>All Blasts</i>
<i>M1/M4</i>	<i>09/03/2018</i>	<i>112.6</i>	<i>1.311</i>	<i>N</i>	<i>All Blasts</i>
<i>M1/M4</i>	<i>21/03/2018</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
<i>M1/M4</i>	<i>06/04/2018</i>	<i>101</i>	<i>1.092</i>	<i>N</i>	<i>All Blasts</i>
<i>M1/M4</i>	<i>18/04/2018</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
<i>M1/M4</i>	<i>21/05/2018</i>	<i>94.94</i>	<i>1.518</i>	<i>N</i>	<i>All Blasts</i>
<i>M1/M4</i>	<i>18/07/2018</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>

Note:
indicates months the site was operated by Quarry Solutions

Italic

Annual Blast Summary – M1/M4 (Petersons Quarry South)

Year	Pollutant	Unit of Measure	Monitoring Frequency required by License	No. of times measured during year	Min Value	Max Value	100 Percentile Limit	100 Percentile Value	95 Percentile value	95 Percentile limit	Exceedance
2015	Overpressure	dB (Lin peak)	All Blasts	4	109.9	114.8	<120	114.8	114.575	<115	N
	Ground Vibration	mm/sec	All Blasts	4	0.524	3.947	<10	3.947	3.69725	<5	N
2016	Overpressure	dB (Lin peak)	All Blasts	9	NT	115	<120	111.4	114.8	<115	N
	Ground Vibration	mm/sec	All Blasts	9	NT	4.016	<10	2.599	3.89	<5	N
2017	Overpressure	dB (Lin peak)	All Blasts	8	NT	113.5	<120	113.5	112.8	<115	N
	Ground Vibration	mm/sec	All Blasts	8	NT	3.184	<10	3.184	2.898	<5	N
2018	Overpressure	dB (Lin peak)	All Blasts	7	NT	113.2	<120	113.2	113.11	<115	N
	Ground Vibration	mm/sec	All Blasts	7	1.092	1.824	<10	1.824	1.778	<5	N

Monthly Blast Summary – M2 Petersons Quarry

Sample Point	Monitoring Date	Airblast Overpressure dB (Lin peak) <120 or <115 for 95% blasts or no more than 1 blast in annual reporting period	Ground Vibration (mm/sec) <10 or <5 for 95% blasts or no more than 1 blast in annual reporting period	Exceedance (Y/N)	Monitoring Frequency
<i>M2</i>	<i>10/08/2016</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>5/09/2016</i>	<i>108.4</i>	<i>1.332</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>6/09/2016</i>	<i>113.5</i>	<i>1.15</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>12/09/2016</i>	<i>105</i>	<i>1.833</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>10/10/2016</i>	<i>111.5</i>	<i>1.308</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>9/12/2016</i>	<i>114</i>	<i>1.024</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>10/05/2017</i>	<i>108.4</i>	<i>1.092</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>29/05/2017</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>22/06/2017</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>14/07/2017</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>28/07/2017</i>	<i>104.2</i>	<i>1.988</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>4/08/2017</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>28/08/2017</i>	<i><88</i>	<i>0.769</i>	<i>N</i>	<i>All Blasts</i>
<i>M2</i>	<i>17/11/2017</i>	<i><88</i>	<i>0.634</i>	<i>N</i>	<i>All Blasts</i>

Note: *Italic* indicates months the site was operated by Quarry Solutions

Annual Blast Summary – M2 Petersons Quarry

Year	Pollutant	Unit of Measure	Monitoring Frequency required by License	No. of times measured during year	Min Value	Max Value	100 Percentile Limit	100 Percentile Value	95 Percentile value	95 Percentile limit	Exceedance
2016	Overpressure	dB (Lin peak)	All Blasts	6	NT	114	<120	110.5	113.9	<115	N
	Ground Vibration	mm/sec	All Blasts	6	NT	1.833	<10	1.329	1.733	<5	N
2017	Overpressure	dB (Lin peak)	All Blasts	8	NT	108.4	<120	108.4	106.9	<115	N
	Ground Vibration	mm/sec	All Blasts	8	NT	1.988	<10	1.988	1.854	<5	N

Monthly Blast Summary M3 – Petersons Quarry

Sample Point	Monitoring Date	Airblast Overpressure dB (Lin peak) <120 or <115 for 95% blasts or no more than 1 blast in annual reporting period	Ground Vibration (mm/sec) <10 or <5 for 95% blasts or no more than 1 blast in annual reporting period	Exceedance (Y/N)	Monitoring Frequency
<i>M3</i>	<i>5/09/2016</i>	<i>98.54</i>	<i>1.544</i>	<i>N</i>	<i>All Blasts</i>
<i>M3</i>	<i>6/09/2016</i>	<i>91.95</i>	<i>0.859</i>	<i>N</i>	<i>All Blasts</i>
<i>M3</i>	<i>12/09/2016</i>	<i>92.91</i>	<i>1.655</i>	<i>N</i>	<i>All Blasts</i>
<i>M3</i>	<i>10/10/2016</i>	<i><88</i>	<i>0.524</i>	<i>N</i>	<i>All Blasts</i>
<i>M3</i>	<i>9/12/2016</i>	<i>97.5</i>	<i>0.813</i>	<i>N</i>	<i>All Blasts</i>
<i>M3</i>	<i>30/10/2019</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
<i>M3</i>	<i>7/11/2019</i>	<i>105.5</i>	<i>1.550</i>	<i>N</i>	<i>All Blasts</i>

Note: *Italic* indicates months the site was operated by Quarry Solutions

Annual Blast Summary M3 – Petersons Quarry

Year	Pollutant	Unit of Measure	Monitoring Frequency required by License	No. of times measured during year	Min Value	Max Value	100 Percentile Limit	100 Percentile Value	95 Percentile value	95 Percentile limit	Exceedance
2016	Overpressure	dB (Lin peak)	All Blasts	6	NT	105.5	<120	92.33	104.1	<115	N
	Ground Vibration	mm/sec	All Blasts	6	0.524	1.655	<10	0.668	1.629	<5	N

Monthly Blast Summary – M1 South of Coraki Quarry

Sample Point	Monitoring Date	Airblast Overpressure dB (Lin peak) <120 or <115 for 95% blasts or no more than 1 blast in annual reporting period	Ground Vibration (mm/sec) <10 or <5 for 95% blasts or no more than 1 blast in annual reporting period	Exceedance (Y/N)	Monitoring Frequency
M1	21/11/2016	<88	2.189	N	All Blasts
M1	9/12/2016	115	2.3	N	All Blasts
M1	15/12/2016	109.3	0.999	N	All Blasts
M1	3/01/2017	107	1.055	N	All Blasts
M1	25/01/2017	NT	NT	N	All Blasts
M1	13/02/2017	112	0.933	N	All Blasts
M1	7/03/2017	109.9	3.167	N	All Blasts
M1	26/04/2017	111.8	1.27	N	All Blasts
M1	6/06/2017	<88	1.198	N	All Blasts
M1	7/07/2017	101.3	0.675	N	All Blasts
M1	21/07/2017	114	1.35	N	All Blasts
M1	13/09/2017	ND	ND	N	All Blasts
M1	14/09/2017	NT	NT	N	All Blasts
M1	31/10/2017	97.16	1.071	N	All Blasts
M1	28/11/2017	110.7	3.799	N	All Blasts
M1	30/11/2017	101.9	1.988	N	All Blasts
M1	21/03/2018	NT	NT	N	All Blasts
M1	7/05/2018	113.1	0.861	N	All Blasts
M1	21/05/2018	94.94	0.625	N	All Blasts
M1	6/06/2018	95.3	0.783	N	All Blasts
M1	20/06/2018	88	0.77	N	All Blasts
M1	2/07/2018	88	0.77	N	All Blasts
M1	18/07/2018	NT	NT	N	All Blasts

M1	20/07/2018	88	1.04	N	All Blasts
M1	7/08/2018	88	0.891	N	All Blasts
M1	22/08/2018	NT	NT	N	All Blasts
M1	12/09/2018	105.5	0.582	N	All Blasts
M1	9/10/2018	101.9	1.042	N	All Blasts
M1	13/11/2018	107.2	0.732	N	All Blasts
M1	07/12/2018	104.6	2.08	N	All Blasts
M1	16/01/2019	105.5	0.648	N	All Blasts
M1	06/02/2019	97.79	1.066	N	All Blasts
M1	22/02/2019	110.6	2.06	N	All Blasts
M1	19/03/2019	<88	0.89	N	All Blasts
M1	03/04/2019	105.9	0.804	N	All Blasts
M1	26/04/2019	91.42	1.41	N	All Blasts
M1	07/05/2019	<88	1.074	N	All Blasts
M1	20/05/2019	<88	0.916	N	All Blasts
M1	29/05/2019	NT	NT	N	All Blasts
M1	13/06/2019	<88	0.78	N	All Blasts
M1	10/07/2019	<88	1.58	N	All Blasts
M1	02/08/2019	<88	0.749	N	All Blasts
M1	26/08/2019	<88	0.876	N	All Blasts
M1	30/10/2019	NT	NT	N	All Blasts
M1	13/12/2019	102.0	1.750	N	All Blasts
M1	30/01/2020	99.5	2.206	N	All Blasts
M1	21/02/2020	NT	NT	N	All Blasts
M1	18/03/2020	NT	NT	N	All Blasts
M1	22/04/2020	104.6	1.466	N	All Blasts
M1	22/05/2020	96.0	2.912	N	All Blasts
M1	13/08/2020	102.1	2.852	N	All Blasts
M1	02/10/2020	91.6	0.89	N	All Blasts
M1	25/11/2020	115.0	2.225	N	All Blasts
M1	04/02/2021	102.4	0.707	N	All Blasts
M1	04/02/2021	103.0	1.115	N	All Blasts
M1	26/04/2021	90.3	3.761	N	All Blasts
M1	03/06/2021	90.5	1.871	N	All Blasts

M1	03/08/2021	92.6	2.193	N	All Blasts
M1	22/10/2021	94.7	1.754	N	All Blasts

Note: *Italic* indicates months the site was operated by Quarry Solutions

Annual Blast Summary M1 – South of Coraki Quarry

Year	Pollutant	Unit of Measure	Monitoring Frequency required by License	No. of times measured during year	Min Value	Max Value	100 Percentile Limit	100 Percentile Value	95 Percentile value	95 Percentile limit	Exceedance
2016	Overpressure	dB (Lin peak)	All Blasts	3	<88	115	<120	115	114.4	<115	N
	Ground Vibration	mm/sec	All Blasts	3	0.999	2.3	<10	1.829	2.289	<5	N
2017	Overpressure	dB (Lin peak)	All Blasts	13	NT	114	<120	114	112.7	<115	N
	Ground Vibration	mm/sec	All Blasts	13	NT	3.799	<10	3.799	3.515	<5	N
2018	Overpressure	dB (Lin peak)	All Blasts	14	88	113.1	<120	113.1	110.15	<115	N
	Ground Vibration	mm/sec	All Blasts	14	0.582	1.04	<10	1.04	1.561	<5	N
2019	Overpressure	dB (Lin peak)	All Blasts	15	NT	110.6	<120	110.6	109.4	<115	N
	Ground Vibration	mm/sec	All Blasts	15	NT	2.06	<10	2.06	1.874	<5	N
2020	Overpressure	dB (Lin peak)	All Blasts	8	NT	115	<120	115	112.4	<115	N
	Ground Vibration	mm/sec	All Blasts	8	NT	2.91	<10	2.91	2.90	<5	N

Monthly Blast Summary M2 – East of Coraki Quarry

Sample Point	Monitoring Date	Airblast Overpressure dB (Lin peak) <120 or <115 for 95% blasts or no more than 1 blast in annual reporting period	Ground Vibration (mm/sec) <10 or <5 for 95% blasts or no more than 1 blast in annual reporting period	Exceedance (Y/N)	Monitoring Frequency
M2	21/11/2016	NT	NT	N	All Blasts
M2	9/12/2016	114	1.024	N	All Blasts
M2	15/12/2016	109.9	0.839	N	All Blasts
M2	3/01/2017	88	0.622	N	All Blasts
M2	25/01/2017	NT	NT	N	All Blasts
M2	13/02/2017	108	0.803	N	All Blasts
M2	7/03/2017	103.5	2.331	N	All Blasts
M2	26/04/2017	113.1	0.76	N	All Blasts
M2	6/06/2017	112.4	0.867	N	All Blasts
M2	7/07/2017	NT	NT	N	All Blasts
M2	20/07/2017	112.8	1.049	N	All Blasts
M2	13/09/2017	ND	ND	N	All Blasts
M2	14/09/2017	NT	NT	N	All Blasts
M2	31/10/2017	104.9	0.95	N	All Blasts
M2	12/09/2018	110.2	0.66	N	All Blasts
M2	06/02/2019	102.9	0.825	N	All Blasts
M2	22/02/2019	114.6	1.024	N	All Blasts
M2	19/03/2019	113.7	0.93	N	All Blasts
M2	03/04/2019	107.5	0.739	N	All Blasts
M2	26/4/2019	108.4	2.30	N	All Blasts
M2	07/05/2019	NT	NT	N	All Blasts
M2	20/05/2019	114.6	0.793	N	All Blasts
M2	29/05/2019	NT	NT	N	All Blasts
M2	13/06/2019	97.5	0.56	N	All Blasts

M2	<i>10/07/2019</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
M2	<i>02/08/2019</i>	<i><88</i>	<i>0.810</i>	<i>N</i>	<i>All Blasts</i>
M2	<i>26/08/2019</i>	<i>114.5</i>	<i>0.684</i>	<i>N</i>	<i>All Blasts</i>
M2	<i>30/09/2019</i>	<i>100.6</i>	<i>0.574</i>	<i>N</i>	<i>All Blasts</i>
M2	<i>30/10/2019</i>	<i>110.1</i>	<i>0.701</i>	<i>N</i>	<i>All Blasts</i>
M2	<i>30/01/2020</i>	<i>112.6</i>	<i>0.741</i>	<i>N</i>	<i>All Blasts</i>
M2	<i>21/02/2020</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
M2	<i>18/03/2020</i>	<i>107.1</i>	<i>1.717</i>	<i>N</i>	<i>All Blasts</i>
M2	<i>02/10/2020</i>	<i>96.2</i>	<i>0.648</i>	<i>N</i>	<i>All Blasts</i>
M2	<i>25/11/2020</i>	<i>105.5</i>	<i>0.730</i>	<i>N</i>	<i>All Blasts</i>
M2	<i>26/04/2021</i>	<i>98.8</i>	<i>1.286</i>	<i>N</i>	<i>All Blasts</i>

Note: *Italic* indicates months the site was operated by Quarry Solutions

Annual Blast Summary M2 – East of Coraki Quarry

Year	Pollutant	Unit of Measure	Monitoring Frequency required by License	No. of times measured during year	Min Value	Max Value	100 Percentile Limit	100 Percentile Value	95 Percentile value	95 Percentile limit	Exceedance
2016	Overpressure	dB (Lin peak)	All Blasts	3	NT	114	<120	112	113.8	<115	N
	Ground Vibration	mm/sec	All Blasts	3	NT	1.024	<10	0.932	1.015	<5	N
2017	Overpressure	dB (Lin peak)	All Blasts	11	NT	113.1	<120	113.1	112.9	<115	N
	Ground Vibration	mm/sec	All Blasts	11	NT	2.331	<10	2.331	1.946	<5	N
2018	Overpressure	dB (Lin peak)	All Blasts	1	110.2	110.2	<120	110.2	110.2	<115	N
	Ground Vibration	mm/sec	All Blasts	1	0.66	0.66	<10	0.66	0.66	<5	N
2019	Overpressure	dB (Lin peak)	All Blasts	14	NT	114.6	<120	114.6	114.6	<115	N
	Ground Vibration	mm/sec	All Blasts	14	NT	2.3	<10	2.3	1.662	<5	N
2020	Overpressure	dB (Lin peak)	All Blasts	5	NT	112.6	<120	112.6	111.8	<115	N
	Ground Vibration	mm/sec	All Blasts	5	NT	1.717	<10	1.717	1.571	<5	N

Monthly Blast Summary M3 (East of Coraki Quarry)

Sample Point	Monitoring Date	Airblast Overpressure dB (Lin peak) <120 or <115 for 95% blasts or no more than 1 blast in annual reporting period	Ground Vibration (mm/sec) <10 or <5 for 95% blasts or no more than 1 blast in annual reporting period	Exceedance (Y/N)	Monitoring Frequency
M3	21/11/2016	NT	NT	N	All Blasts
M3	9/12/2016	97.5	0.813	N	All Blasts
M3	15/12/2016	96.88	0.762	N	All Blasts
M3	3/01/2017	NT	NT	N	All Blasts
M3	7/03/2017	112.6	0.852	N	All Blasts
M3	26/04/2017	112.6	0.76	N	All Blasts
M3	6/06/2017	NT	NT	N	All Blasts
M3	7/07/2017	NT	NT	N	All Blasts
M3	21/07/2017	106.5	0.914	N	All Blasts
M3	06/02/2019	98.84	1.032	N	All Blasts
M3	22/02/2019	NT	NT	N	All Blasts
M3	19/03/2019	114.6	0.69	N	All Blasts
M3	03/04/2019	113.1	0.539	N	All Blasts
M3	26/04/2019	NT	NT	N	All Blasts
M3	07/05/2019	NT	NT	N	All Blasts
M3	20/05/2019	110.9	0.539	N	All Blasts
M3	29/05/2019	NT	NT	N	All Blasts
M3	13/06/2019	NT	NT	N	All Blasts
M3	10/07/2019	94.0	0.56	N	All Blasts
M3	2/08/2019	91.5	2.38	N	All Blasts
M3	26/08/2019	106.5	2.265	N	All Blasts
M3	11/09/2019	<88	2.09	N	All Blasts
M3	30/09/2019	112.3	0.635	N	All Blasts

M3	<i>18/10/2019</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
M3	<i>30/10/2019</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
M3	<i>7/11/2019</i>	<i>105.5</i>	<i>1.550</i>	<i>N</i>	<i>All Blasts</i>
M3	<i>2/12/2019</i>	<i>113.9</i>	<i>0.524</i>	<i>N</i>	<i>All Blasts</i>
M3	<i>13/12/2019</i>	<i>111.8</i>	<i>1.448</i>	<i>N</i>	<i>All Blasts</i>
M3	<i>30/01/2020</i>	<i>114.4</i>	<i>0.622</i>	<i>N</i>	<i>All Blasts</i>
M3	<i>21/02/2020</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
M3	<i>18/03/2020</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
M3	<i>22/05/2020</i>	<i>104.9</i>	<i>2.469</i>	<i>N</i>	<i>All Blasts</i>
M3	<i>13/08/2020</i>	<i>101.9</i>	<i>0.041</i>	<i>N</i>	<i>All Blasts</i>
M3	<i>02/10/2020</i>	<i>104.2</i>	<i>1.55</i>	<i>N</i>	<i>All Blasts</i>
M3	<i>25/11/2020</i>	<i>112.3</i>	<i>0.568</i>	<i>N</i>	<i>All Blasts</i>

Note: *Italic* indicates months the site was operated by Quarry Solutions

Annual Blast Summary M3 (East of Coraki Quarry)

Year	Pollutant	Unit of Measure	Monitoring Frequency required by License	No. of times measured during year	Min Value	Max Value	100 Percentile Limit	100 Percentile Value	95 Percentile value	95 Percentile limit	Exceedance
2016	Overpressure	dB (Lin peak)	All Blasts	3	NT	96.88	<120	97.5	97.5	<115	N
	Ground Vibration	mm/sec	All Blasts	3	NT	0.762	<10	0.813	0.81	<5	N
2017	Overpressure	dB (Lin peak)	All Blasts	6	NT	112.6	<120	112.6	112.6	<115	N
	Ground Vibration	mm/sec	All Blasts	6	NT	0.914	<10	0.914	0.908	<5	N
2019	Overpressure	dB (Lin peak)	All Blasts	19	NT	114.6	<120	114.6	114.3	<115	N
	Ground Vibration	mm/sec	All Blasts	19	NT	2.38	<10	2.38	2.316	<5	N
2020	Overpressure	dB (Lin peak)	All Blasts	7	NT	114.4	<120	114.4	113.9	<115	N
	Ground Vibration	mm/sec	All Blasts	7	NT	2.47	<10	2.47	2.29	<5	N

Monthly Blast Summary M4

Sample Point	Monitoring Date	Airblast Overpressure dB (Lin peak) <120 or <115 for 95% blasts or no more than 1 blast in annual reporting period	Ground Vibration (mm/sec) <10 or <5 for 95% blasts or no more than 1 blast in annual reporting period	Exceedance (Y/N)	Monitoring Frequency
<i>M4</i>	<i>11/09/2019</i>	<i>110.6</i>	<i>0.28</i>	<i>N</i>	<i>All Blasts</i>
<i>M4</i>	<i>18/10/2019</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>

Note: *Italic* indicates months the site was operated by Quarry Solutions

Annual Blast Summary M4

Year	Pollutant	Unit of Measure	Monitoring Frequency required by License	No. of times measured during year	Min Value	Max Value	100 Percentile Limit	100 Percentile Value	95 Percentile value	95 Percentile limit	Exceedance
2019	Overpressure	dB (Lin peak)	All Blasts	2	NT	110.6	<120	110.6	110.6	<115	N
	Ground Vibration	mm/sec	All Blasts	2	NT	0.28	<10	0.28	0.28	<5	N

Monthly Blast Summary M5

Sample Point	Monitoring Date	Airblast Overpressure dB (Lin peak) <120 or <115 for 95% blasts or no more than 1 blast in annual reporting period	Ground Vibration (mm/sec) <10 or <5 for 95% blasts or no more than 1 blast in annual reporting period	Exceedance (Y/N)	Monitoring Frequency
<i>M5</i>	<i>11/09/2019</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>
<i>M5</i>	<i>30/09/2019</i>	<i>111.5</i>	<i>0.220</i>	<i>N</i>	<i>All Blasts</i>
<i>M5</i>	<i>18/10/2019</i>	<i>NT</i>	<i>NT</i>	<i>N</i>	<i>All Blasts</i>

Note: *Italic* indicates months the site was operated by Quarry Solutions

Annual Blast Summary M5

Year	Pollutant	Unit of Measure	Monitoring Frequency required by License	No. of times measured during year	Min Value	Max Value	100 Percentile Limit	100 Percentile Value	95 Percentile value	95 Percentile limit	Exceedance
2019	Overpressure	dB (Lin peak)	All Blasts	3	NT	111.5	<120	111.5	111.5	<115	N
	Ground Vibration	mm/sec	All Blasts	3	NT	0.220	<10	0.220	0.220	<5	N

Notes

NT = Not triggered

For statistical analysis, 105dB has been assumed for NT

Where no data has been published, it indicates no monitoring was undertaken at that point