

Site Information

EPL No: 3637

EPA Website Link: http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: January 2022 Obtained Date: 15 February 2022 Publication Date: 21 February 2022

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m²/month	Continuous	1	17/01/22	27/01/22	-	-	•	1.63
11	PM ₁₀	μg/m³	Every 6 days	5	Various	15/02/22	4.9	6.7	7	9.7
12	PM ₁₀	μg/m³	Every 6 days	5	Various	15/02/22	4	6.5	7.1	9.4
	Conductivity	μs/cm		0	-	-	-	-	-	-
	Oil and Grease	mg/L		0	-	-	-	-	-	-
6	Total Organic Carbon	mg/L	Each overflow	0	-	-	-	-	-	-
8	Total Suspended Solids	mg/L	event	0	1	-	-	-	-	-
	рН	рН		0	-	-	-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Oil and Grease	mg/L					-	-	1	-
7	Total Organic Carbon	mg/L	Quarterly				-	-	-	-
,	Total Suspended Solids	mg/L	Quarterry	-	-	-	-	-	ı	-
	рН	рН					-	_	-	-



Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Ammonia	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					1	-	-	-
	Chloride	mg/L					1	-	-	-
	Conductivity	μs/cm					1	-	-	-
	Lead	mg/L					-	-	-	-
8	Magnesium	mg/L	Quarterly	0		_	-	-	-	-
•	Nitrate	mg/L	Quarterly	U	-	-	-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					1	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pН	рН					-	-	-	-
	Ammonia	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L	Overstant	0			-	-	-	-
9	Conductivity	μs/cm	Quarterly	U	-	-	-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					1	1	-	-
	Sulphate	mg/L					ı	ı	-	-
	рН	рН					ı	1	-	-
	Ammonia	mg/L					ı	1	-	-
	Bicarbonate	mg/L					ı	1	-	-
	Calcium	mg/L					ı	1	-	-
	Chloride	mg/L					1	ı	-	-
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
10	Magnesium	mg/L	Quartorly	0	_		-	-	-	-
10	Nitrate	mg/L	Quarterly	U	-	-	-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pН	рН					-	-	-	-



Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Measurement Period		ed levels – – dB(A) L _{Aeq} , 15 minute	Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non- compliance /breach
		15 mins day	-	1	-	-	-	
N1	-	15 mins evening	-	Ī	-	-	-	
INT		15 mins night	-	i	-	-	-	-
	-	1 min night	-	1	-	-	-	

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an "A-weighting" filter. This is an electronic filter having a frequency response

corresponding approximately to that of human hearing.

L_{Aeq}, **15 minute**: The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

LA1, 1 minute: The noise level exceeded for 1% of the 15 minute interval.

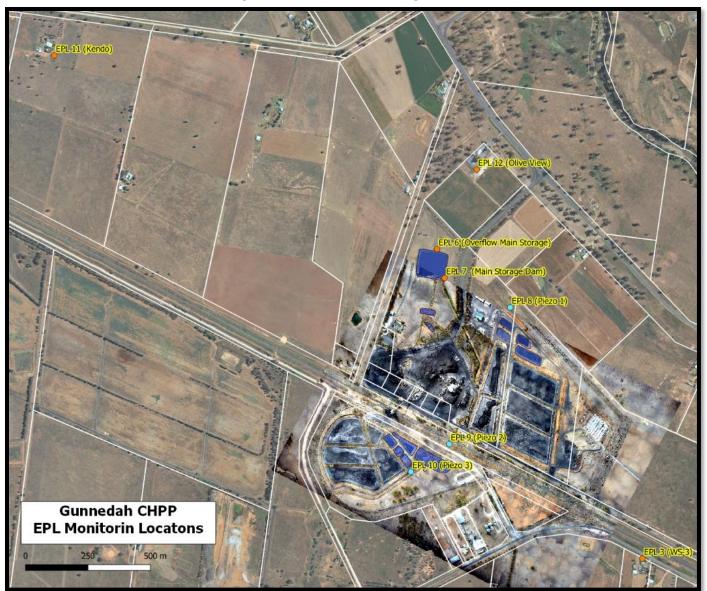
I/A: When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location.

Not Measurable (NM): indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.



Figure 1 – EPL 3637 Monitoring Locations





Site Information

EPL No: 3637

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Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: February 2022 Obtained Date: 16 March 2022 Publication Date: 17 March 2022

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m²/month	Continuous	1	16/02/22	24/02/22	-	-	-	0.97
11	PM ₁₀	μg/m³	Every 6 days	6	Various	16/03/22	3.6	11.9	7.2	29.6
12	PM ₁₀	μg/m³	Every 6 days	6	Various	16/03/22	3.2	6.8	7.5	10.6
	Conductivity	μs/cm		0	-	ı	-	-	-	-
	Oil and Grease	mg/L		0	-	ı	-	-	-	-
6	Total Organic Carbon	mg/L	Each overflow	0	-	ı	-	-	-	-
	Total Suspended Solids	mg/L	event	0	ı	1	-	-	-	-
	рН	рН		0	-	-	-	-	-	-
	Conductivity	μs/cm					-	-	-	1350
	Oil and Grease	mg/L					-	-	-	5
7	Total Organic Carbon	mg/L	Quartarly				-	-	-	3
'	Total Suspended Solids	mg/L	Quarterly	-	-	-	-	-	-	15
	рН	рН					-	-	-	7.71



Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Ammonia	mg/L					-	-	-	3.79
	Bicarbonate	mg/L					-	-	-	1330
	Calcium	mg/L					-	1	-	71
	Chloride	mg/L					-	1	-	2210
	Conductivity	μs/cm					1	ı	-	9830
	Lead	mg/L					-	-	-	0.002
8	Magnesium	mg/L	Quarterly	1	24/02/22	7/03/22	-	-	-	184
0	Nitrate	mg/L	Quarterly	1		7703722	-	-	-	0.09
	Potassium	mg/L					-	1	-	27
	Sodium	mg/L					1	ı	-	2090
	Standing Water Level	m					-	-	-	6.79
	Sulphate	mg/L					-	-	-	1310
	рН	рН					-	-	-	8.04
	Ammonia	mg/L					-	-	-	1.23
	Bicarbonate	mg/L					-	-	-	839
	Calcium	mg/L					-	-	-	264
9	Chloride	mg/L	Overstant	1	24/02/22	7/02/22	-	-	-	1160
9	Conductivity	μs/cm	Quarterly	1	24/02/22	7/03/22	-	-	-	5790
	Lead	mg/L					-	-	-	<0.001
	Magnesium	mg/L					-	-	-	227
	Nitrate	mg/L					-	-	-	0.20



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Potassium	mg/L					-	-	-	96
	Sodium	mg/L					-	-	-	708
	Standing Water Level	m					-	-	-	0.81
	Sulphate	mg/L					-	-	-	747
	рН	рН					-	-	-	7.66
	Ammonia	mg/L					1	-	-	0.38
	Bicarbonate	mg/L					1	-	-	746
	Calcium	mg/L					-	-	-	228
	Chloride	mg/L					-	-	-	1420
	Conductivity	μs/cm					-	-	-	5620
	Lead	mg/L					ı	-	-	0.002
10	Magnesium	mg/L	Quarterly	1	24/02/22	7/03/22	1	-	-	216
10	Nitrate	mg/L	Quarterly	1	24/02/22	7/03/22	-	-	-	0.32
	Potassium	mg/L					-	-	-	51
	Sodium	mg/L					1	-	-	717
	Standing Water Level	m					-	-	-	0.94
	Sulphate	mg/L					-	-	-	262
	рН	рН					-	-	-	7.93



Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Measurement Period	Measured levels – CHPP – dB(A) La1, 1 Laeq, 15 minute minute		Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non- compliance /breach
		15 mins day	-	-	-	-	-	
N1	-	15 mins evening	•	-	-	-	-	
INT		15 mins night	-	-	1	-	-	-
	ı	1 min night	1	-	-	-	-	

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an "A-weighting" filter. This is an electronic filter having a frequency response

corresponding approximately to that of human hearing.

L_{Aeq}, **15 minute:** The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

LA1, 1 minute: The noise level exceeded for 1% of the 15 minute interval.

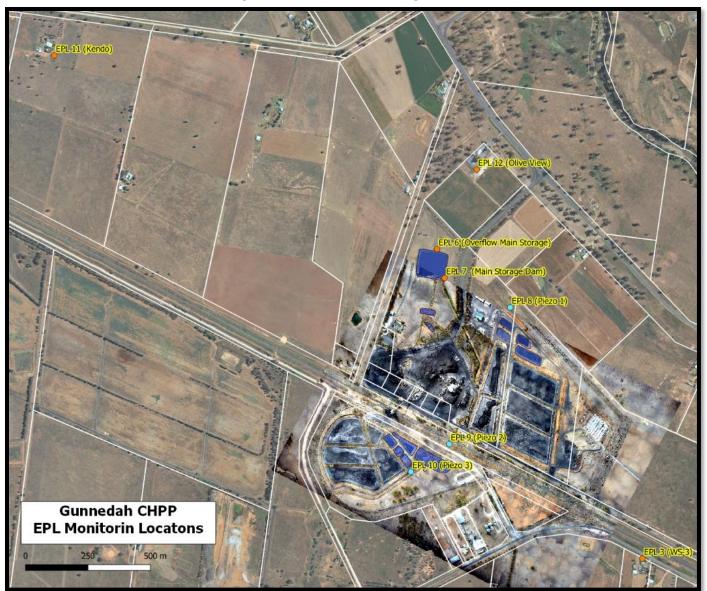
I/A: When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location.

Not Measurable (NM): indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.



Figure 1 – EPL 3637 Monitoring Locations





Site Information

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Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: March 2022 Obtained Date: 14 April 2022 Publication Date: 14 April 2022

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m²/month	Continuous	1	18/03/2022	8/04/2022	-	-	-	1.83
11	PM ₁₀	μg/m³	Every 6 days	6	Various	(Last sample) 14/04/2022	4.8	12.7	14.1	20.4
12	PM ₁₀	μg/m³	Every 6 days	6	Various	(Last sample) 14/04/2022	4.3	9.7	7.7	20.4
	Conductivity	μs/cm		0	-	1	-	-	1	1
	Oil and Grease	mg/L		0	-	1	-	-	1	1
6	Total Organic Carbon	mg/L	Each overflow	0	-	-	-	-	1	-
6	Total Suspended Solids	mg/L	event	0	-	-	-	-	1	1
	рН	рН		0	-	-	-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Oil and Grease	mg/L					-	-	-	-
7	Total Organic Carbon	mg/L	Quarterly	-	-	-	-	-	-	-
	Total Suspended Solids	mg/L					-	-	-	-



EF	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	рН	рН					-	-	-	-

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Ammonia	mg/L		-	-	-	-	-	-	-
	Bicarbonate	mg/L					1	ı	-	ı
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
8	Magnesium	mg/L	Quartorly				-	-	-	-
0	Nitrate	mg/L	Quarterly				1	ı	-	ı
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	-
	Ammonia	mg/L		-	-	-	-	-	-	-
9	Bicarbonate	mg/L	Quartorly				-	-	-	-
9	Calcium	mg/L	Quarterly				-	1	-	-
	Chloride	mg/L					-	1	-	-



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pН	рН					-	-	-	-
	Ammonia	mg/L		-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
10	Magnesium	mg/L	Oversteelv				-	-	-	-
10	Nitrate	mg/L	Quarterly				-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	-



Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL		Measurement		ed levels – – dB(A)	Limit(s)-	Wind speed	-1	(Potential) Non-
ID	Date	Period	L _{A1} , 1 minute	L _{Aeq} , 15 minute	dB(A)	(m/s)	Observations	compliance /breach
		15 mins day	-	I/A	35	1.9	Site related noise inaudible	
	-	15 mins evening	-	30	35	1.5	Onsite engine revs and dozer operations slightly audible	
N1		15 mins night	-	34	35	0.6	Onsite engine revs and dozer operations slightly audible	No
	-	1 min night	44	-	45	0.6	Onsite engine revs and dozer operations slightly audible	

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an "A-weighting" filter. This is an electronic filter having a frequency response

corresponding approximately to that of human hearing.

L_{Aeq}, **15 minute:** The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

L_{A1}, **1 minute:** The noise level exceeded for 1% of the 15 minute interval.

I/A: When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location.

Not Measurable (NM): indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
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Figure 1 – EPL 3637 Monitoring Locations



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Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: April 2022 Obtained Date: 18th May 2022 Publication Date: 18th May 2022

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m²/month	Continuous	1	19/04/2022	11/05/2022	1	-	1	1.79
11	PM ₁₀	μg/m³	Every 6 days	5	28/04/2022	18/05/2022	2.8	6.2	6.9	9
12	PM ₁₀	μg/m³	Every 6 days	5	28/04/2022	18/05/2022	3	4.2	4.4	5.7
	Conductivity	μs/cm			ı	-	1	-	1	-
	Oil and Grease	mg/L	Fach averflow	No overflow	ı	-	1	-	1	-
6	Total Organic Carbon	mg/L	Each overflow	occurred during reporting period.	-	-	-	-	-	-
	Total Suspended Solids	mg/L	event		-	-	-	-	-	-
	рН	рН			-	-	-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Oil and Grease	mg/L					-	-	-	-
7	Total Organic Carbon	mg/L	Quarterly	-	-	-	-	-	-	-
	Total Suspended Solids	mg/L	'				-	-	-	-
	рН	рН					-	-	-	-



Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Ammonia	mg/L		-	-	-	•	ı	-	1
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
8	Magnesium	mg/L	Quarterly				-	-	-	-
0	Nitrate	mg/L	Quarterly				-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	рН					-	-	-	-
	Ammonia	mg/L		-	-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm	O a ut a ul				-	-	-	-
9	Lead	mg/L	Quarterly				-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	•
	Ammonia	mg/L		-	-	-	ı	-	-	1
	Bicarbonate	mg/L					ı	-	-	1
	Calcium	mg/L					ı	-	-	1
	Chloride	mg/L					1	-	-	1
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
10	Magnesium	mg/L	Quarterly				-	-	-	-
10	Nitrate	mg/L	Quarterly				ı	-	-	1
	Potassium	mg/L					ı	-	-	1
	Sodium	mg/L					ı	-	-	1
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	рН					-	-	-	-



Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Measurement Period		ed levels – – dB(A) L _{Aeq} , 15 minute	Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non- compliance /breach
		15 mins day	-		35			
N1	-	15 mins evening	1		35			
INT		15 mins night	-		35			
	-	1 min night		-	45			

Notes:

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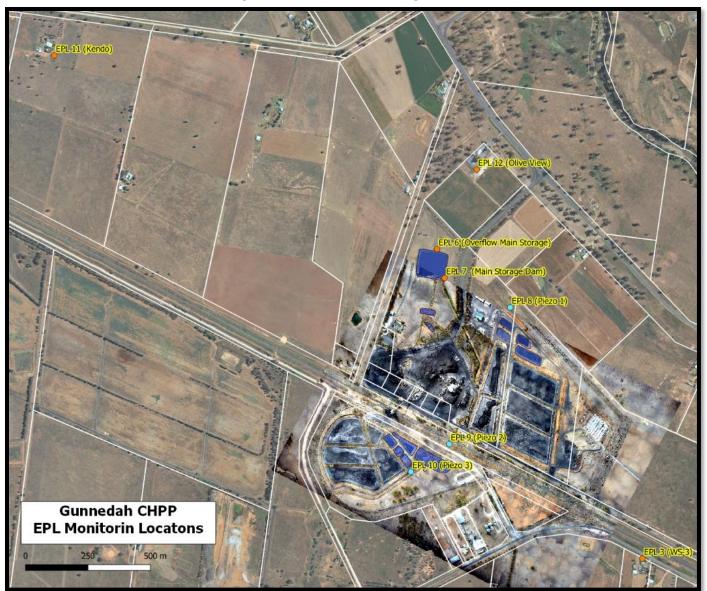
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Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: May 2022 Obtained Date: 14th June 2022 Publication Date: 20th June 2022

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m²/month	Continuous	1	17/05/2022	1/06/2022				1.17
11	PM ₁₀	μg/m³	Every 6 days	5	4/05/2022 10/05/2022 16/05/2022 22/05/2022 28/05/2022	14/06/2022 (Last sampled received)	2.5	10.3	5.5	32.8
12	PM ₁₀	μg/m³	Every 6 days	5	4/05/2022 10/05/2022 16/05/2022 22/05/2022 28/05/2022	14/06/2022 (Last sampled received)	2.1	5.6	6.6	7.7
	Conductivity	μs/cm			-	-	-	-	1	-
	Oil and Grease	mg/L	Fack arrantlari	No overflow	-	-	-	-	-	-
6	Total Organic Carbon	mg/L	Each overflow	occurred during	-	-	-	-	-	-
	Total Suspended Solids	mg/L	event	reporting period.	-	-	-	-	-	-
	рН	рН			-	-	-	-	-	-
	Conductivity	μs/cm					-	-	-	1220
7	Oil and Grease	mg/L	Quarterly	1	24/05/2022	2/06/2022	-	-	-	<5
	Total Organic Carbon	mg/L					-	-	-	5



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total Suspended Solids	mg/L					ı	-	1	22
	рН	рН					1	-	-	7.6

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Ammonia	mg/L			-	-	-	-	-	-
	Bicarbonate	mg/L		0			-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
8	Magnesium	mg/L	Quarterly				ı	ı	-	-
•	Nitrate	mg/L	Quarterly				-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	1	-	-
	Ammonia	mg/L			-	-	-	-	-	-
9	Bicarbonate	mg/L	Quarterly	0			-	-	-	-
	Calcium	mg/L					-	-	-	-



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Chloride	mg/L					1	-	-	ı
	Conductivity	μs/cm					1	-	-	ı
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	-
	Ammonia	mg/L			-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L		0			-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm					ı	-	-	•
	Lead	mg/L					ı	-	-	•
10	Magnesium	mg/L	Quarterly				-	-	-	-
10	Nitrate	mg/L	Quarterly				1	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					ı	-	-	1
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	рН]				-	-	-	-



Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Measurement Period		ed levels – – dB(A) L _{Aeq} , 15 minute	Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non- compliance /breach
		15 mins day	-		35			
N1	-	15 mins evening	1		35			
INT		15 mins night	-		35			
	-	1 min night		1	45			

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an "A-weighting" filter. This is an electronic filter having a frequency response

corresponding approximately to that of human hearing.

L_{Aeq}, **15 minute**: The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

LA1, 1 minute: The noise level exceeded for 1% of the 15 minute interval.

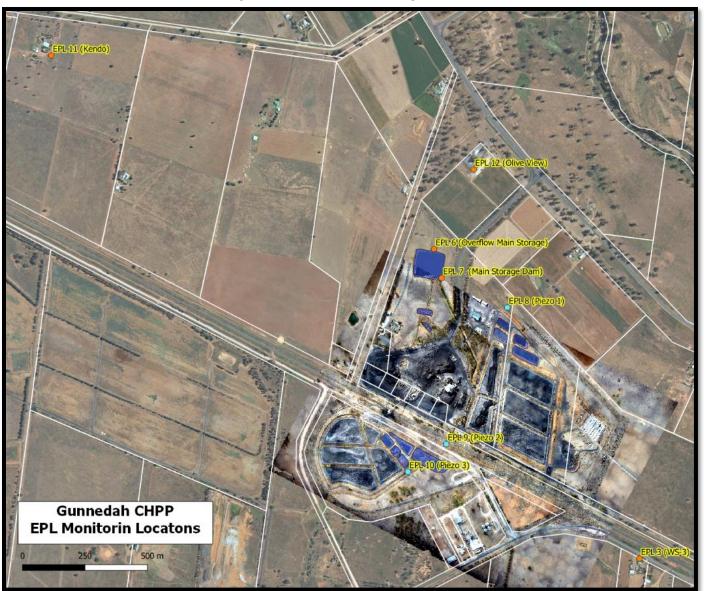
I/A: When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location.

Not Measurable (NM): indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.



Figure 1 – EPL 3637 Monitoring Locations





Site Information

EPL No: 3637

EPA Website Link: http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: June 2022 Obtained Date: 13th July 2022 Publication Date: 19th July 2022

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m²/month	Continuous	1	16/06/2022	29/06/2022				0.6
11	PM ₁₀	μg/m³	Every 6 days	5	3/06/2022 9/06/2022 15/06/2022 21/06/2022 27/06/2022	8/07/2022 (Last sampled received)	1.3	18.1	9.7	43.9
12	PM ₁₀	μg/m³	Every 6 days	5	3/06/2022 9/06/2022 15/06/2022 21/06/2022 27/06/2022	8/07/2022 (Last sampled received)	1.7	6.2	6	11.2
	Conductivity	μs/cm			-	-	-	-	1	1
	Oil and Grease	mg/L	Fach acceptions	No overflow	-	-	-	-	-	-
6	Total Organic Carbon	mg/L	Each overflow	occurred during	-	-	-	-	1	ı
	Total Suspended Solids	mg/L	event	reporting period.	-	-	-	-	-	-
	рН	рН			-	-	-	-	-	-
	Conductivity	μs/cm			-	-	-	-	1	1
7	Oil and Grease	mg/L	Quarterly	0			-	-	1	-
	Total Organic Carbon	mg/L					-	-	-	-



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total Suspended Solids	mg/L					1	-	1	-
	рН	рН					1	-	1	-

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Ammonia	mg/L					-	-	-	1.54
	Bicarbonate	mg/L		1	3/06/2022	15/06/2022	-	-	-	1120
	Calcium	mg/L					-	-	-	58
	Chloride	mg/L	Quarterly				-	-	-	1990
	Conductivity	μs/cm					-	-	-	10700
	Lead	mg/L					-	-	-	<0.001
8	Magnesium	mg/L					-	ı	-	171
0	Nitrate	mg/L					-	-	-	<0.01
	Potassium	mg/L					-	-	-	25
	Sodium	mg/L					-	-	-	1920
	Standing Water Level	m					-	-	-	5.79
	Sulphate	mg/L					-	-	-	1290
	рН	рН					-	-	-	7.50
	Ammonia	mg/L	Quarterly				-	-	-	0.01
9	Bicarbonate	mg/L		1	3/06/2022	15/06/2022	-	-	-	786
	Calcium	mg/L					-	1	-	230



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Chloride	mg/L					-	ı	-	1180
	Conductivity	μs/cm					-	1	-	6070
	Lead	mg/L					-	-	-	< 0.001
	Magnesium	mg/L					-	ı	-	218
	Nitrate	mg/L					-	-	-	2.69
	Potassium	mg/L					-	-	-	109
	Sodium	mg/L					-	-	-	666
	Standing Water Level	m					-	-	-	5.79
	Sulphate	mg/L					-	-	-	680
	рН	рН					-	-	-	7.4
	Ammonia	mg/L		1	3/06/2022		-	-	-	0.1
	Bicarbonate	mg/L				15/06/2022	-	-	-	744
	Calcium	mg/L					-	-	-	199
	Chloride	mg/L					-	-	-	1430
	Conductivity	μs/cm					-	-	-	6040
	Lead	mg/L					-	-	-	0.001
10	Magnesium	mg/L	O. combouls				-	-	-	207
10	Nitrate	mg/L	Quarterly				-	-	-	5.28
	Potassium	mg/L					-	-	-	67
	Sodium	mg/L					-	-	-	666
	Standing Water Level	m					-	-	-	0.54
	Sulphate	mg/L					-	-	-	256
	pH	pН					-	-	-	7.7



Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Measurement Period		ed levels – – dB(A) L _{Aeq} , 15 minute	Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non- compliance /breach
		15 mins day	-	31	35	2.0	General site activity and dozer operations audible. Other noises included birds, traffic, residence and aircraft.	
N/4	-	15 mins evening - 33		33	35	2.1	General site activity and dozer operations audible. Other noises included birds and traffic.	
N1		15 mins night	-	31	35	1.7	General site activity and dozer operations audible. Other noises include traffic.	-
	-	1 min night	35	-	45	1.7	General site activity and dozer operations audible. Other noises include traffic.	

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an "A-weighting" filter. This is an electronic filter having a frequency response

corresponding approximately to that of human hearing.

L_{Aeq}, **15 minute:** The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

L_{A1}, **1 minute**: The noise level exceeded for 1% of the 15 minute interval.

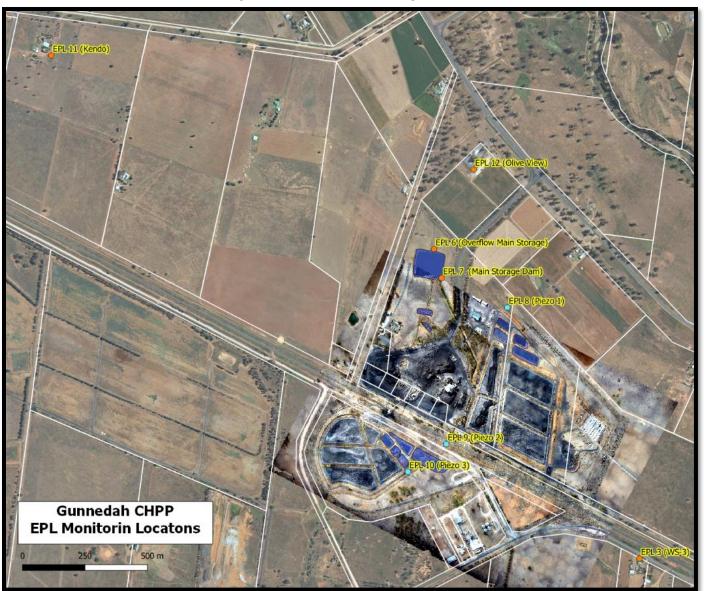
I/A: When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location.

Not Measurable (NM): indicates that some site noise was audible, but indeterminate due to one of the following reasons:

- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.



Figure 1 – EPL 3637 Monitoring Locations





Site Information

EPL No: 3637

EPA Website Link: http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: July 2022
Obtained Date: 9th August 2022
Publication Date: 19th August 2022

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m²/month	Continuous	1	18/07/2022	3/08/2022				0.62
11	PM_{10}	μg/m³	Every 6 days	5	3/07/2022 9/07/2022 15/07/2022 21/07/2022 27/07/2022	9/08/2022 (Last sampled received)	1.7	5.6	2.4	16.6
12	PM_{10}	μg/m³	Every 6 days	5	3/07/2022 9/07/2022 15/07/2022 21/07/2022 27/07/2022	9/08/2022 (Last sampled received)	1	4.9	5	9.9
	Conductivity	μs/cm			-	-	-	-	1	-
	Oil and Grease	mg/L	Fach averflow	No overflow	-	-	-	-	-	-
6	Total Organic Carbon	mg/L	Each overflow event	occurred during	-	-	-	-	-	-
	Total Suspended Solids	mg/L	event	reporting period.	-	-	-	-	-	-
	рН	рН			-	-	-	-	-	-
	Conductivity	μs/cm			-	-	-	-	-	-
7	Oil and Grease	mg/L	Quarterly	0			-	-	-	-
	Total Organic Carbon	mg/L					-	-	-	-



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total Suspended Solids	mg/L					1	-	1	-
	рН	рН					-	-	-	-

Table 2 – Groundwater Monitoring (Quarterly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Ammonia	mg/L			-	-	-	ı	-	-
8 -	Bicarbonate	mg/L		0			-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	ı	-	-
	Conductivity	μs/cm					-	ı	-	-
	Lead	mg/L					1	ı	-	-
0	Magnesium	mg/L	Quartorly				1	ı	-	-
•	Nitrate	mg/L	Quarterly				ı	ı	-	-
	Potassium	mg/L					ı	ı	-	-
	Sodium	mg/L					ı	ı	-	-
	Standing Water Level	m					-	•	-	-
	Sulphate	mg/L					ı	ı	-	-
	рН	рН					-	ı	-	-
	Ammonia	mg/L			-	-	-	ı	-	-
9	Bicarbonate	mg/L	Quarterly	0			-	ı	-	-
	Calcium	mg/L					-	-	-	-



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	-
	Ammonia	mg/L			-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L		0			-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					1	-	-	ı
10	Magnesium	mg/L	Quarterly				-	-	-	-
10	Nitrate	mg/L	Quarterly				-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	рН					-	-	-	-



Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Measurement Period		ed levels – – dB(A) L _{Aeq} , 15 minute	Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non- compliance /breach
	-	15 mins day	-	-	35	-	-	
N1		15 mins evening		-	35	-	-	
INT		15 mins night	-	1	35	-	-	-
	-	1 min night		45	-	-		

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an "A-weighting" filter. This is an electronic filter having a frequency response

corresponding approximately to that of human hearing.

L_{Aeq}, **15 minute:** The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

LA1, 1 minute: The noise level exceeded for 1% of the 15 minute interval.

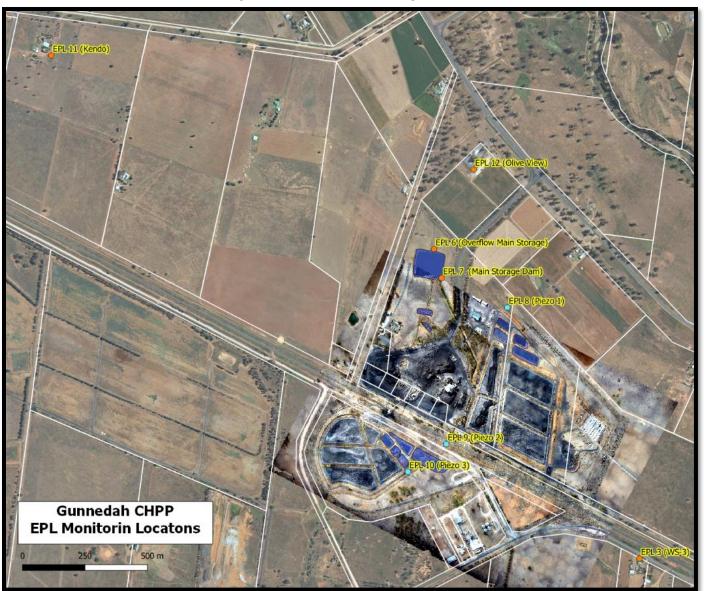
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Figure 1 – EPL 3637 Monitoring Locations





Site Information

EPL No: 3637

EPA Website Link: http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: August 2022

Obtained Date: 7th September 2022

Publication Date: 19th September 2022

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m²/month	Continuous	1	17/08/2022	25/08/2022				1.07
11	PM_{10}	μg/m³	Every 6 days	5	2/08/2022 8/08/2022 14/08/2022 20/08/2022 26/08/2022	6/09/2022 (Last sampled received)	0.4	2.5	2.9	3.5
12	PM_{10}	μg/m³	Every 6 days	5	2/08/2022 8/08/2022 14/08/2022 20/08/2022 26/08/2022	6/09/2022 (Last sampled received)	0.5	3.4	3.3	6.8
	Conductivity	μs/cm		No overflow	1	-	1	-	-	-
	Oil and Grease	mg/L	Fach averflow		ı	-	ı	1	1	-
6	Total Organic Carbon	mg/L	Each overflow event	occurred during	ı	-	1	-	•	-
	Total Suspended Solids	mg/L	event	reporting period.	1	-	1	1	1	-
	рН	рН			-	-	-	-	-	-
	Conductivity	μs/cm					-	-	-	1260
7	Oil and Grease	mg/L	Quarterly	1	8/08/2022	16/08/2022	1	1	-	<5
	Total Organic Carbon	mg/L					-	-	-	4



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total Suspended Solids	mg/L					-	-	-	10
	рН	рН					1	-	1	7.20

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Ammonia	mg/L					-	-	-	0.74
	Bicarbonate	mg/L					-	-	-	1300
	Calcium	mg/L		1	30/08/2022	7/09/2022	-	•	-	66
	Chloride	mg/L			33,33,232	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	•	-	2110
	Conductivity	μs/cm					-	-	-	10100
	Lead	mg/L					•	ı	-	0.003
8	Magnesium	mg/L	Quarterly				-	-	-	187
	Nitrate	mg/L	,				-	-	-	0.01
	Potassium	mg/L					-	•	-	27
	Sodium	mg/L					-	•	-	2090
	Standing Water Level	m					-	-	-	5.80
	Sulphate	mg/L					-	-	-	1330
	рН	рН					-	-	-	8.01
	Ammonia	mg/L					-	-	-	0.02
9	Bicarbonate	mg/L	Quarterly	1	30/08/2022	7/09/2022	-	•	-	920
9	Calcium	mg/L	Quarterly				-	-	-	280
	Chloride	mg/L					-	-	-	1150



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	μs/cm					-	-	-	5900
	Lead	mg/L					-	-	-	0.003
	Magnesium	mg/L					-	-	-	230
	Nitrate	mg/L					-	-	-	0.38
	Potassium	mg/L					-	-	-	113
	Sodium	mg/L					-	-	-	700
	Standing Water Level	m					-	-	-	0.73
	Sulphate	mg/L					-	-	-	776
	рН	рН					-	-	-	7.69
	Ammonia	mg/L					-	-	-	<0.01
	Bicarbonate	mg/L			20/08/2022	7/00/2022	-	-	-	760
	Calcium	mg/L		1	30/08/2022	7/09/2022	-	-	-	228
	Chloride	mg/L					-	-	-	1370
	Conductivity	μs/cm					-	-	-	5980
	Lead	mg/L					-	-	-	<0.001
10	Magnesium	mg/L	O a mt a mb .				-	-	-	216
10	Nitrate	mg/L	Quarterly				-	-	-	7.51
	Potassium	mg/L					-	-	-	59
	Sodium	mg/L					-	-	-	711
	Standing Water Level	m					-	-	-	0.71
	Sulphate	mg/L					-	-	-	283
	pH	рН					-	-	-	7.91



Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Measurement Period		ed levels – – dB(A) L _{Aeq} , 15 minute	Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non- compliance /breach
		15 mins day	-	1	35	-	-	
N1	-	15 mins evening	1	1	35	-	-	
INT		15 mins night	-	1	35	-	-	-
	-	1 min night	1	1	45	-	-	

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an "A-weighting" filter. This is an electronic filter having a frequency response

corresponding approximately to that of human hearing.

L_{Aeq}, **15 minute:** The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

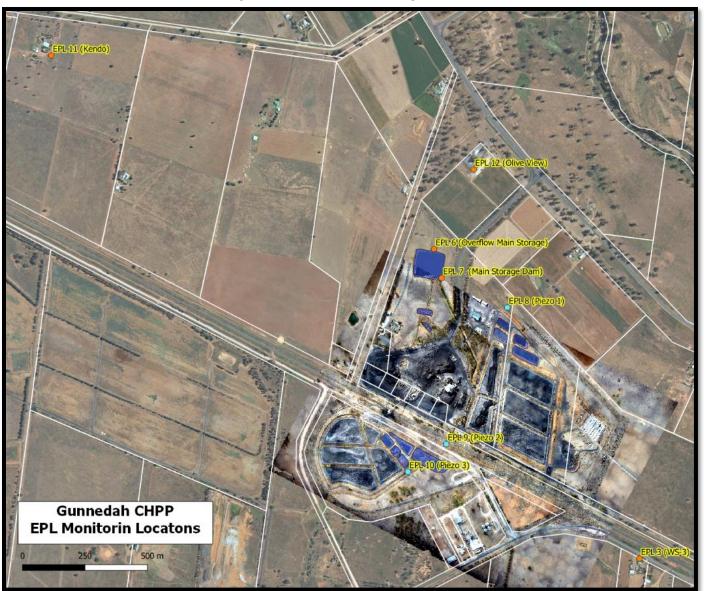
LA1, 1 minute: The noise level exceeded for 1% of the 15 minute interval.

I/A: When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location.

- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.



Figure 1 – EPL 3637 Monitoring Locations





Site Information

EPL No: 3637

EPA Website Link: http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: September 2022 Obtained Date: 12th October 2022 Publication Date: 19th October 2022

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m²/month	Continuous	1	22/09/2022	30/09/2022				0.38
11	PM ₁₀	μg/m³	Every 6 days	5	1/09/2022 7/09/2022 13/09/2022 19/09/2022 25/09/2022	10/10/2022 (Last sampled received)	8.2	18.5	13	41.1
12	PM_{10}	μg/m³	Every 6 days	5	1/09/2022 7/09/2022 13/09/2022 19/09/2022 25/09/2022	10/10/2022 (Last sampled received)	4.2	6.7	6.4	10.7
	Conductivity	μs/cm					793	855	854.5	916
	Oil and Grease	mg/L	Fach averflow		4.6./00./2022	20/00/2022	<5	<5	<5	<5
6	Total Organic Carbon	mg/L	Each overflow event	2	16/09/2022 22/09/2022	28/09/2022 12/10/2022	6	15	15	24
	Total Suspended Solids	mg/L	event		22/03/2022	12/10/2022	20	35	34.5	49
	рН	рН					6.84	7.2	7.2	7.56
	Conductivity	μs/cm					-	-	-	-
7	Oil and Grease	mg/L	Quarterly	-	-	-	1	-	-	1
	Total Organic Carbon	mg/L					-	-	-	-



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total Suspended Solids	mg/L					-	-	-	-
	рН	рН					1	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Ammonia	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-		-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm		-	-	-	-	-	-	-
	Lead	mg/L					-	-	-	-
8	Magnesium	mg/L	Quarterly				-	-	-	-
	Nitrate	mg/L	,				-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	-
	Ammonia	mg/L					-	-	-	-
9	Bicarbonate	mg/L	Quartorly	-	-	-	-	-	-	-
כ	Calcium	mg/L	Quarterly				-	-	-	-
	Chloride	mg/L					-	-	-	-



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	-
	Ammonia	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L		-	-	-	-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
10	Magnesium	mg/L	O. contonly				-	-	-	-
10	Nitrate	mg/L	Quarterly				-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	-



Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Measurement Period		ed levels – – dB(A) L _{Aeq} , 15 minute	Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non- compliance /breach
		15 mins day	-	I/A	35	2.1	Inaudible	
N1	12/09/2022	15 mins evening	-	34	35	1.5	Dozer operations, insects and birds	N.
INT		15 mins night	-	27	35	1.2	Dozer operations, traffic, Insects, dogs	N
	12/09/2022	1 min night	33	-	45	1.2	Dozer operations, traffic, Insects, dogs	

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an "A-weighting" filter. This is an electronic filter having a frequency response

corresponding approximately to that of human hearing.

L_{Aeq}, **15 minute:** The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

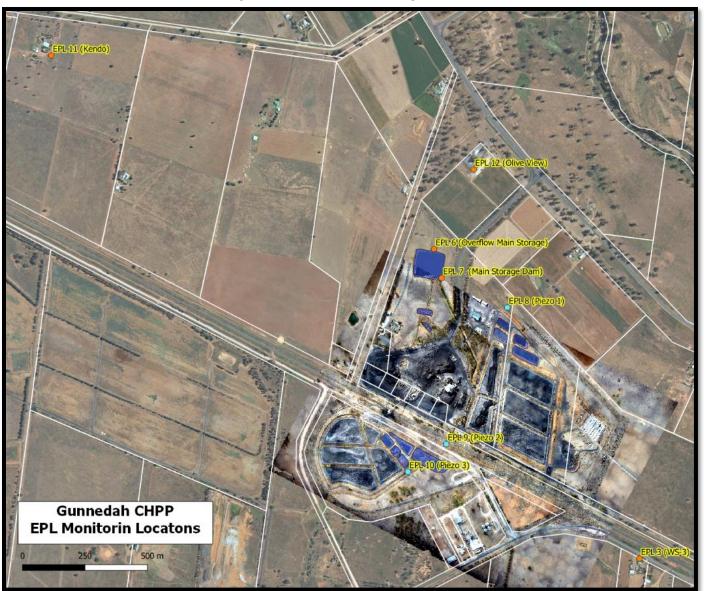
LA1, 1 minute: The noise level exceeded for 1% of the 15 minute interval.

I/A: When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location.

- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.



Figure 1 – EPL 3637 Monitoring Locations





Site Information

EPL No: 3637

EPA Website Link: http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: October 2022
Obtained Date: 17th November 2022
Publication Date: 17th November 2022

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m²/month	Continuous	1	17/10/2022	06/11/2022				1.14
11	PM ₁₀ Kendo	μg/m³	Every 6 days	6	1/10/2022 7/10/2022 13/10/2022 19/10/2022 25/10/2022 31/10/2022	17/11/2022 (Last sampled received)	4.1	12	7.05	32.5
12	PM ₁₀ Olive View	μg/m³	Every 6 days	6	1/10/2022 7/10/2022 13/10/2022 19/10/2022 25/10/2022 31/10/2022	17/11/2022 (Last sampled received)	0.8	6	6.3	9.5
	Conductivity	μs/cm					865	917	916.5	698
	Oil and Grease	mg/L	Each avarflow		0/10/2022	20/10/2022	<5	<5	<5	<5
6	Total Organic Carbon	mg/L	Each overflow event	2	9/10/2022 21/10/2022	28/10/2022 3/11/2022	11	21	21	31
	Total Suspended Solids	mg/L	event		21/10/2022	3/11/2022	50	50	50	50
	рН	рН					7.37	7.57	7.57	7.77
7	Conductivity	μs/cm	Quarterly	-			-	-	-	-



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Oil and Grease	mg/L			-	-	-	1	1	-
	Total Organic Carbon	mg/L					-	-	-	-
	Total Suspended Solids	mg/L					-	-	-	-
	рН	рН					-	-	-	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Ammonia	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm		-	-	-	-	1	-	1
	Lead	mg/L					-	-	-	-
8	Magnesium	mg/L	Quarterly				-	-	-	-
	Nitrate	mg/L	,				-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	-
9	Ammonia	mg/L	Quarterly				-	1	-	-
9	Bicarbonate	mg/L	Quarterly	-	-	-	-	ı	-	1



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Calcium	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	-
	Ammonia	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L		-	-	-	-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
10	Magnesium	mg/L	Quartarly				-	-	-	-
10	Nitrate	mg/L	Quarterly				-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	pH	рН					-	-	-	-



Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Measurement Period		ed levels – – dB(A) L _{Aeq} , 15 minute	Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non- compliance /breach
		15 mins day	-		35			
N1		15 mins evening	-		35			
INT		15 mins night	-		35			
		1 min night		-	45			

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an "A-weighting" filter. This is an electronic filter having a frequency response

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L_{Aeq}, **15 minute:** The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

L_{A1}, **1 minute:** The noise level exceeded for 1% of the 15 minute interval.

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Gunnedah CHPP EPL Monitorin Locatons

Figure 1 – EPL 3637 Monitoring Locations



Site Information

EPL No: 3637

EPA Website Link: http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: November 2022 Obtained Date: 16th December 2022 Publication Date: 20th December 2022

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m²/month	Continuous	1	17/11/2022	12/12/2022				
11	PM ₁₀ Kendo	μg/m³	Every 6 days	5	6/11/2022 12/11/2022 18/11/2022 24/11/2022 30/11/2022	16/12/2022 (Last sampled received)	4.5	6.4	7.1	7.9
12	PM ₁₀ Olive View	μg/m³	Every 6 days	5	6/11/2022 12/11/2022 18/11/2022 24/11/2022 30/11/2022	16/12/2022 (Last sampled received)	0.2	5.5	7.8	8.1
	Conductivity	μs/cm					817	841	841	865
	Oil and Grease	mg/L	Each overflow		0/11/2022	17/11/2022	< 5	<5	<5	<5
6	Total Organic Carbon	mg/L	event	2	9/11/2022 14/11/2022	17/11/2022 22/11/2022	10	11	11	12
	Total Suspended Solids	mg/L	event		14/11/2022	22/11/2022	47	72	72	97
	рН	рН					6.94	7.16	7.16	7.37
	Conductivity	μs/cm								1130
7	Oil and Grease	mg/L	Quarterly	1	17/11/2022	25/11/2022				<5
	Total Organic Carbon	mg/L								10



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total Suspended Solids	mg/L								51
	рН	рН								7.2

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Ammonia	mg/L					-	-	-	0.14
	Bicarbonate	mg/L					-	-	-	1310
	Calcium	mg/L					-	-	-	62
	Chloride	mg/L					-	-	-	2220
	Conductivity	μs/cm					-	-	-	10,200
	Lead	mg/L					-	-	-	<0.001
8	Magnesium	mg/L	Quarterly	1	30/11/2022	8/12/2022	-	-	-	191
	Nitrate	mg/L	,				-	ı	-	0.48
	Potassium	mg/L					-	ı	-	26
	Sodium	mg/L					-	-	-	2150
	Standing Water Level	m					-	-	-	4.14
	Sulphate	mg/L					-	-	-	1320
	рН	рН					-	-	-	7.7
	Ammonia	mg/L					-	-	-	3.1
9	Bicarbonate	mg/L	Quarterly	1	30/11/2022	8/12/2022	-	-	-	955
9	Calcium	mg/L	Quarterry				-	-	-	278
	Chloride	mg/L					-	-	-	1170



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	μs/cm					-	-	-	6180
	Lead	mg/L					-	-	-	<0.001
	Magnesium	mg/L					-	-	-	230
	Nitrate	mg/L					-	-	-	0.16
	Potassium	mg/L					-	-	-	123
	Sodium	mg/L					-	-	-	727
	Standing Water Level	m					-	-	-	0.42
	Sulphate	mg/L					-	-	-	264
	рН	рН					-	-	-	7.1
	Ammonia	mg/L					-	-	-	0.07
	Bicarbonate	mg/L					-	-	-	759
	Calcium	mg/L					-	-	-	240
	Chloride	mg/L					-	-	-	1440
	Conductivity	μs/cm					-	-	-	6100
	Lead	mg/L					-	-	-	<0.001
10	Magnesium	mg/L	O a ut a ul	1	30/11/2022	8/12/2022	-	-	-	226
10	Nitrate	mg/L	Quarterly				-	-	-	10.3
	Potassium	mg/L					-	-	-	66
	Sodium	mg/L					-	-	-	739
	Standing Water Level	m					-	-	-	0.13
	Sulphate	mg/L					-	-	-	264
	pН	рН					-	-	-	7.1



Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL	_	Measurement		ed levels – – dB(A)	Limit(s)-	Wind speed		(Potential) Non-
ID	Date	Period	L _{A1} , 1 minute	L _{Aeq} , 15 minute	dB(A)	(m/s)	Observations	compliance /breach
		15 mins day	-	28	35	0.7	general site activity, traffic, birds and animals	
	24/11/2022 –	15 mins evening	-	29	35	0.8	General site activity, dozer operations, birds, insects, mechanical plant, animals	
N1	25/11/2022	15 mins night	-	30	35	0.5	General site activity, dozer operations, insects dog	No
		1 min night	34	-	45	0.5	General site activity, dozer operations, insects dog	

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an "A-weighting" filter. This is an electronic filter having a frequency response

corresponding approximately to that of human hearing.

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Figure 1 – EPL 3637 Monitoring Locations



Site Information

EPL No: 3637

EPA Website Link: http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33514&SYSUID=1&LICID=3637

Licensee: Whitehaven Coal Mining Limited

Licensee Address: Boggabri Road, Gunnedah NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: December 2022 Obtained Date: 16th January 2023 Publication Date: 17th January 2023

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
3	Solid Particles	g/m²/month	Continuous	1	16/12/2022	16/01/2023	-	-	-	1.22
11	PM ₁₀ Kendo	μg/m³	Every 6 days	5	6/12/2022 12/12/2022 18/12/2022 24/12/2022 30/12/2022	16/01/2023 (Last sampled received)	2.1	7.8	6	19.5
12	PM ₁₀ Olive View	μg/m³	Every 6 days	5	6/12/2022 12/12/2022 18/12/2022 24/12/2022 30/12/2022	16/01/2023 (Last sampled received)	2.3	6.68	4.2	18
	Conductivity	μs/cm			-	-	1	-	-	1
	Oil and Grease	mg/L	Fach avantlaw				1	-	•	1
6	Total Organic Carbon	mg/L	Each overflow event	0			ı	-	•	1
	Total Suspended Solids	mg/L	event				-	-	-	-
	рН	рН					-	-	-	-
	Conductivity	μs/cm			-	-	ı	-	-	1
7	Oil and Grease	mg/L	Quarterly	0			ı	-	-	ı
	Total Organic Carbon	mg/L					-	-	-	-



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Measurements for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total Suspended Solids	mg/L					1	-	1	-
	рН	рН					1	-	1	-

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Ammonia	mg/L			-	-	1	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L		0			-	-	-	1
	Chloride	mg/L					1	-	-	-
	Conductivity	μs/cm					1	-	-	1
	Lead	mg/L					1	-	-	1
8	Magnesium	mg/L	Quarterly				-	-	-	-
	Nitrate	mg/L	,				-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	-
	Ammonia	mg/L			-	-	-	-	-	-
9	Bicarbonate	mg/L	Quarterly				-	-	-	-
9	Calcium	mg/L	Quarterly	0			-	-	-	-
	Chloride	mg/L					-	-	-	-



EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Period	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
	Magnesium	mg/L					-	-	-	-
	Nitrate	mg/L					-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	-
	Ammonia	mg/L			-	-	-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Calcium	mg/L		0			-	-	-	-
	Chloride	mg/L					-	-	-	-
	Conductivity	μs/cm					-	-	-	-
	Lead	mg/L					-	-	-	-
10	Magnesium	mg/L	O a mt a ml				-	-	-	-
10	Nitrate	mg/L	Quarterly				-	-	-	-
	Potassium	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
	Standing Water Level	m					-	-	-	-
	Sulphate	mg/L					-	-	-	-
	рН	рН					-	-	-	-



Table 3 – Monitoring (Quarterly Noise – Limits Apply)

EPL ID	Date	Measurement Period		ed levels – – dB(A) L _{Aeq} , 15 minute	Limit(s)- dB(A)	Wind speed (m/s)	Observations	(Potential) Non- compliance /breach
		15 mins day	-	-	-	-	-	
N1	-	15 mins evening	-	-	-	-	-	
INT		15 mins night	-	-	-	-	-	-
		1 min night	-	-	-	-	-	

Notes:

dB(A): The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an "A-weighting" filter. This is an electronic filter having a frequency response

corresponding approximately to that of human hearing.

L_{Aeq}, **15 minute:** The A-weighted equivalent noise level (basically the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound, in this instance over a period of 15 minutes.

LA1, 1 minute: The noise level exceeded for 1% of the 15 minute interval.

I/A: When site noise is noted as inaudible (I/A), no site noise was audible at the monitoring location.

- site noise levels were insignificant and unlikely, in many cases, to be even noticed; or
- site noise levels were masked by another relatively loud noise source, but were estimated to be less than LAeq 30 dB, which is insignificant in terms of any applicable criterion.



Figure 1 – EPL 3637 Monitoring Locations

