



Rocglen Coal Mine- Monthly Monitoring Summary

Site Information

EPL No: 12870

EPA Website Link: <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

Licensee: Whitehaven Coal Mining Pty Ltd

Licensee Address: Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: January 2019

Obtained Date: 6 February 2019

Publication Date: 6 February 2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m ² /month	Continuous	1	14/01/19	6/02/19	-	-	-	4.4
6	Particulates-Deposited Matter	g/m ² /month	Continuous	1	14/01/19	6/02/18	-	-	-	2.7
10	PM ₁₀	µg/m ³	Every 6 days	5	Various	4/02/19	18.6	29.2	28.2	37.4
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
14	TSS	mg/L		-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Oil & Grease	mg/L	Special Frequency 2**				-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	1	-	-	-	-	-	-
	Conductivity	µS /cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

¹result caused by a regional dust event, not mine related.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	

* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

** Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	TOC	mg/L					-	-	-	-
	TSS	mg/L					-	-	-	-



Rocglen Coal Mine- Monthly Monitoring Summary

Table 4 – Monitoring (Noise – Limits Apply)

EPL ID	Date	Start Time	Period (mins)	Rocglen Measured Levels – dB(A) Leq 15min Day	Rocglen Measured Levels – dB(A) Leq 15min Evening	Rocglen Measured Levels – dB(A) Leq 15min Night	Rocglen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments
N1	-	-	90	-				35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) L _A (1 min) Night	-	-	
		-	30		-				-	-	
		-	60			-			-	-	
		-	60				-		-	-	
	-	-	90	-					-	-	
		-	30		-				-	-	
		-	60			-			-	-	
		-	60				-		-	-	
	-	-	90	-					-	-	
		-	30		-				-	-	
		-	60			-			-	-	
		-	60				-		-	-	
N2	-	-	90	-				35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) L _A (1 min) Night	-	-	
		-	30		-				-	-	
		-	60			-			-	-	
		-	60				-		-	-	
	-	-	90	-					-	-	
		-	30		-				-	-	
		-	60			-			-	-	
		-	60				-		-	-	
	-	-	90	-					-	-	
		-	30		-				-	-	
		-	60			-			-	-	
		-	60				-		-	-	

Note: Measured noise levels are not necessarily the result of activity at Rocglen Coal Mine



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

Table 5 – Monitoring (Blasts – Limits Apply)

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	1	-	95.8	120	No
	Blast Vibration	mm/s	Every Blast		-	0.16	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	1	-	87.4	120	No
	Blast Vibration	mm/s	Every Blast		-	0.39	10	No



Rocgen Coal Mine- Monthly Monitoring Summary

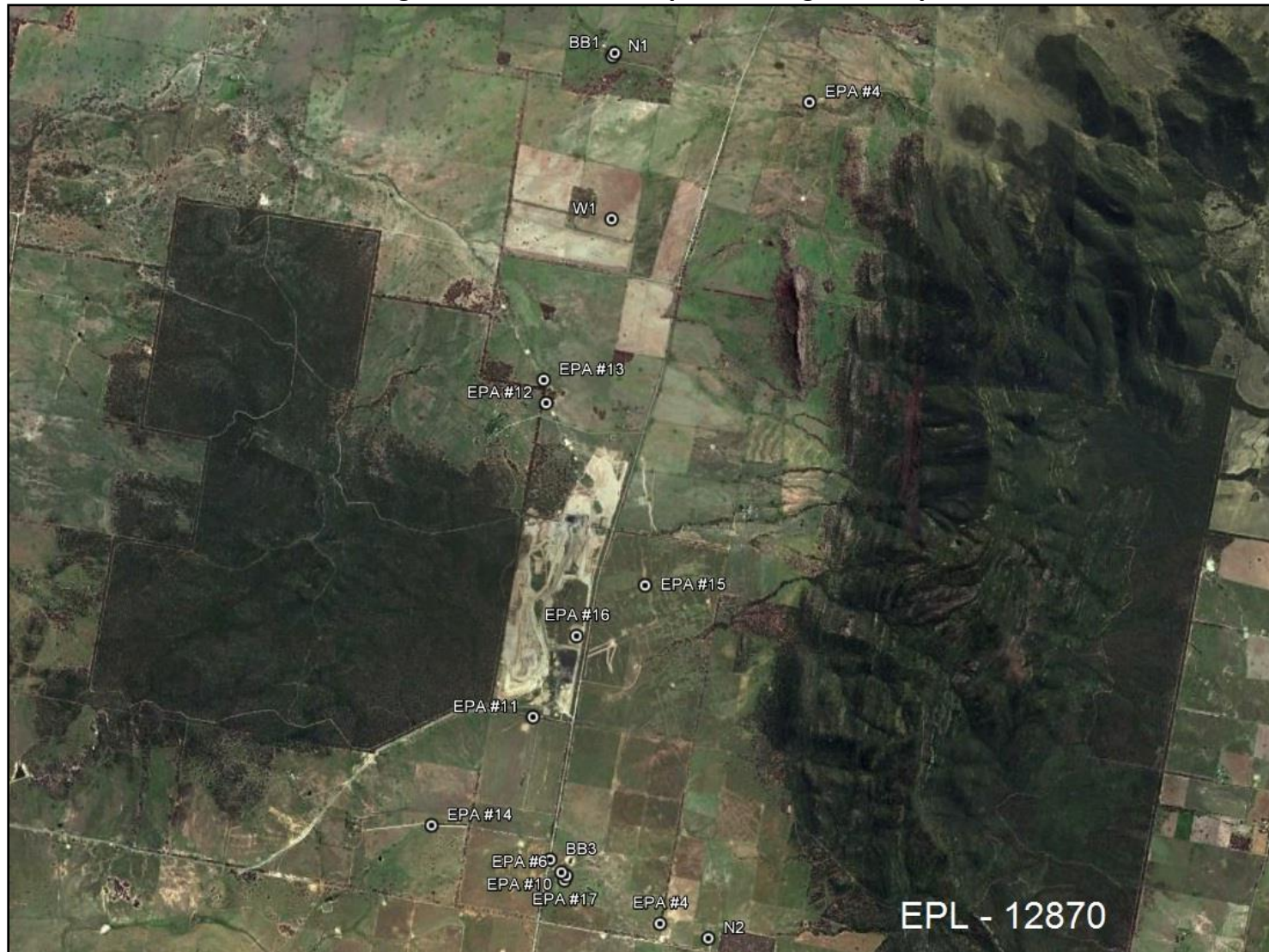


Figure 1 – EPL 12870 Monitoring Locations



Rocglen Coal Mine- Monthly Monitoring Summary

Site Information

EPL No: 12870

EPA Website Link: <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

Licensee: Whitehaven Coal Mining Pty Ltd

Licensee Address: Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: February 2019

Obtained Date: 22 March 2019

Publication Date: 22 March 2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m ² /month	Continuous	1	14/02/19	6/03/19	-	-	-	1.4
6	Particulates-Deposited Matter	g/m ² /month	Continuous	1	14/02/19	6/03/18	-	-	-	1.1
10	PM ₁₀	µg/m ³	Every 6 days	3	Various	4/03/19	23.7	101	80.9	201
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
14	TSS	mg/L		-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Oil & Grease	mg/L	Special Frequency 2**				-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	1	-	-	-	-	-	-
	Conductivity	µS /cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

¹result caused by a regional dust event, not mine related.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	

* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

** Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.



Rocgen Coal Mine- Monthly Monitoring Summary

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	1	21/02/2019	-	-	-	-	5040
	Oil & Grease	mg/L					-	-	-	<5
	pH	pH					-	-	-	8.95
	TOC	mg/L					-	-	-	12
	TSS	mg/L					-	-	-	62



Rocglen Coal Mine- Monthly Monitoring Summary

Table 4 – Monitoring (Noise – Limits Apply)

EPL ID	Date	Start Time	Period (mins)	Rocglen Measured Levels – dB(A) Leq 15min Day	Rocglen Measured Levels – dB(A) Leq 15min Evening	Rocglen Measured Levels – dB(A) Leq 15min Night	Rocglen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments
N1	19/02/19	15:03	90	I/A				35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) L _A (1 min) Night	3 m/s NW	Y	Inaudible
		20:38	30		I/A				1.5 m/s NE	Y	Inaudible
		23:24	60			24			5 m/s S	Y	Barely audible Engine noise 24-26
		23:24	60				24		5 m/s S	Y	
	20/02/19	11:37	90	I/A					3 m/s SW	Y	Inaudible
		20:24	30		<25				6 m/s S	Y	Intermittently audible
		00:10	60			I/A			4.5 m/s S	Y	Truck noise 28-31
		00:10	60				I/A		4.5 m/s S	Y	Inaudible
	21/02/19	11:00	90	I/A					4 m/s SE	Y	Inaudible
		20:53	30		I/A				8 m/s SE	Y	Inaudible
		23: 35	60			I/A			3.5 m/s SE	Y	
		23: 35	60				I/A		3.5 m/s SE	Y	Inaudible Inaudible
N2	19/02/19	13:07	90	I/A				2.5 m/s NW	Y	Not Measureable	
		19:46	30		I/A			1.5 m/s NW	Y	Audible Engine noise 22-28	
		22:01	60			28		2 m/s SE	Y		
		22:01	60				24	2 m/s SE	Y	Barely audible Engine noise 24 Not Measureable	
	20/02/19	09:39	90	N/M				2.2 m/s SW	Y	Audible Engine noise 22-28	
		20:01	30		I/A			6 m/s SE	Y	Inaudible	
		22:53	60			I/A		2 m/s SE	Y		
		22:53	60				I/A	2 m/s SE	Y	Barely audible Engine noise 24	
	21/02/19	09:39	90	N/M				2.2 m/s SW	Y	Not Measureable	
		20:01	30		I/A			6 m/s SE	Y	Inaudible	
		22:53	60			I/A		2 m/s SE	Y		
		- 22:53	60				I/A	2 m/s SE	Y	Inaudible Inaudible	

Note: Measured noise levels are not necessarily the result of activity at Rocglen Coal Mine



WHITEHAVEN COAL

Roclen Coal Mine- Monthly Monitoring Summary

Table 5 – Monitoring (Blasts – Limits Apply)

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	2	93	95.6	120	No
	Blast Vibration	mm/s	Every Blast		0.2	0.27	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	2	96.2	103.3	120	No
	Blast Vibration	mm/s	Every Blast		0.57	0.67	10	No

Rocgen Coal Mine- Monthly Monitoring Summary

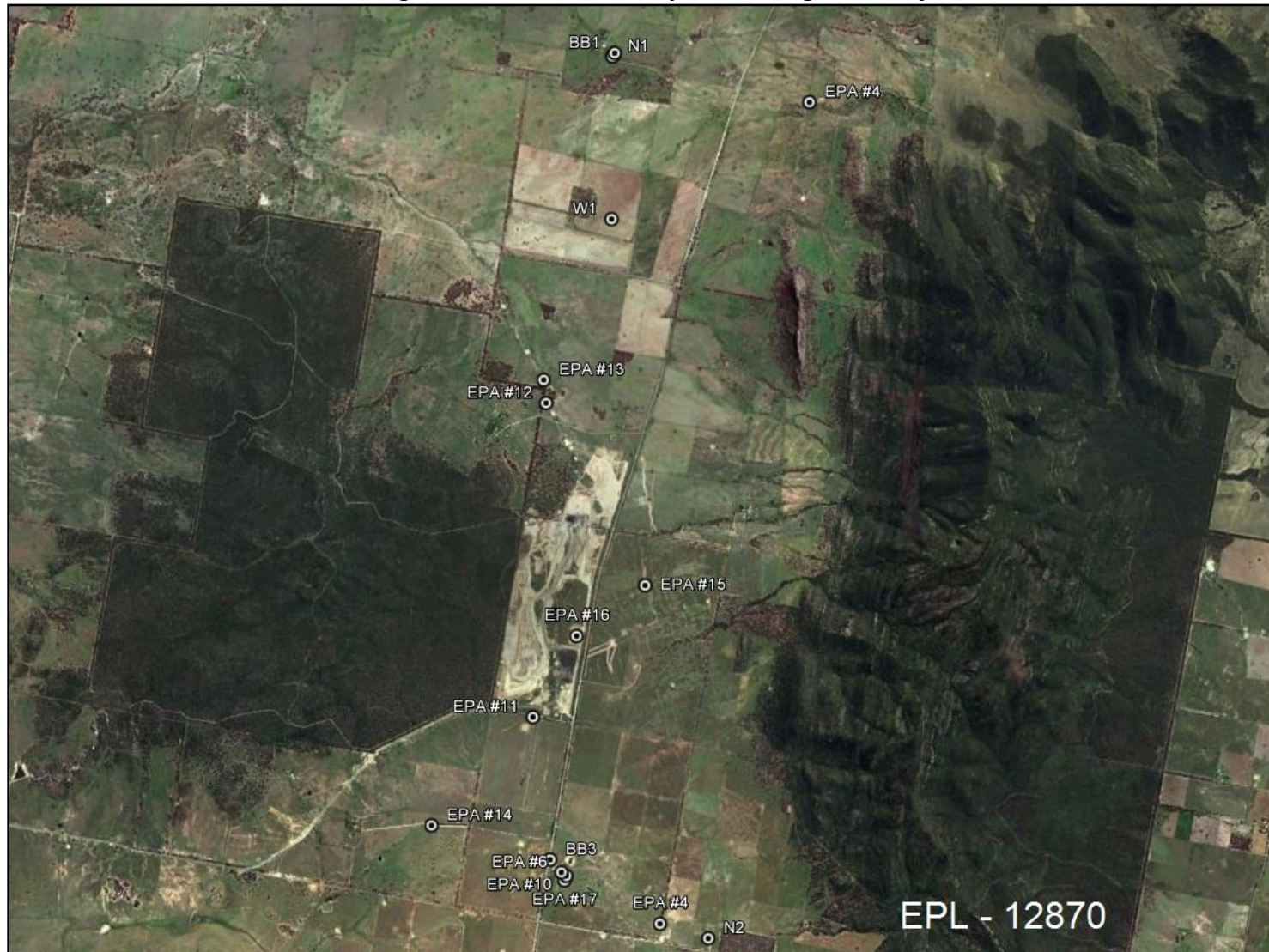


Figure 1 – EPL 12870 Monitoring Locations

Rocglen Coal Mine- Monthly Monitoring Summary

Site Information

EPL No: 12870

EPA Website Link: <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

Licensee: Whitehaven Coal Mining Pty Ltd

Licensee Address: Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: March 2019

Obtained Date: 09 April 2019

Publication Date: 16 April 2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m ² /month	Continuous	1	6/03/19	19/03/19	-	-	-	2.9
6	Particulates-Deposited Matter	g/m ² /month	Continuous	1	6/03/19	19/03/19	-	-	-	2.4
10	PM ₁₀	µg/m ³	Every 6 days	5	Various	4/02/19	9.7	16.56	16.4	22.9
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS /cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total organic carbon	mg/L					-	-	-	-
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	1	-	-	-	-	-	-
	Conductivity	µS /cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

¹result caused by a regional dust event, not mine related.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	

Rocgen Coal Mine- Monthly Monitoring Summary

* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

** Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	TOC	mg/L					-	-	-	-
	TSS	mg/L					-	-	-	-



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

Table 4 – Monitoring (Noise – Limits Apply)

EPL ID	Date	Start Time	Period (mins)	Rocgen Measured Levels – dB(A) Leq 15min Day	Rocgen Measured Levels – dB(A) Leq 15min Evening	Rocgen Measured Levels – dB(A) Leq 15min Night	Rocgen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments
N1			90					35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) LA (1 min) Night		Y	
			30				Y				
			60				Y				
			60				Y				
				90						Y	
				30						Y	
				60						Y	
				60						Y	
				90						Y	
				30						Y	
				60						Y	
				60						Y	
N2			90				35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) LA (1 min) Night		Y		
			30						Y		
			60						Y		
			60						Y		
				90							Y
				30							Y



Rocglen Coal Mine- Monthly Monitoring Summary

EPL ID	Date	Start Time	Period (mins)	Rocglen Measured Levels – dB(A) Leq 15min Day	Rocglen Measured Levels – dB(A) Leq 15min Evening	Rocglen Measured Levels – dB(A) Leq 15min Night	Rocglen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments
			60								
			60								
			90								
			30								
			60								
			60								

Note: Measured noise levels are not necessarily the result of activity at Rocglen Coal Mine

Table 5 – Monitoring (Blasts – Limits Apply)

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	2	102.5	105.6	120	No
	Blast Vibration	mm/s	Every Blast		0.55	0.79	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	2	103.1	105.5	120	No
	Blast Vibration	mm/s	Every Blast		0.45	0.76	10	No



Rocgen Coal Mine- Monthly Monitoring Summary



Figure 1 – EPL 12870 Monitoring Locations

Rocglen Coal Mine- Monthly Monitoring Summary

Site Information

EPL No: 12870

EPA Website Link: <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

Licensee: Whitehaven Coal Mining Pty Ltd

Licensee Address: Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: April 2019

Obtained Date: 06 May 2019

Publication Date: 20 May 2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m ² /month	Continuous	1	16/04/19	03/04/19	-	-	-	4.7
6	Particulates-Deposited Matter	g/m ² /month	Continuous	1	16/04/19	03/04/19	-	-	-	1.5
10	PM ₁₀	µg/m ³	Every 6 days	5	Various	6/04/19	3.1	12.76	15.3	19.9
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS /cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total organic carbon	mg/L					-	-	-	-
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS /cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

¹result caused by a regional dust event, not mine related.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	

Rocgen Coal Mine- Monthly Monitoring Summary

* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

** Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	-
	Arsenic	mg/L					-	-	-	-
	Bicarbonate	mg/L					-	-	-	-
	Chloride	mg/L					-	-	-	-
	Iron	mg/L					-	-	-	-
	Manganese	mg/L					-	-	-	-
	Sodium	mg/L					-	-	-	-
16	Conductivity	µS/cm	Quarterly	-	-	-	-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	TOC	mg/L					-	-	-	-
	TSS	mg/L					-	-	-	-

Rocglen Coal Mine- Monthly Monitoring Summary

Table 4 – Monitoring (Noise – Limits Apply)

EPL ID	Date	Start Time	Period (mins)	Rocglen Measured Levels – dB(A) <small>Leq 15min Day</small>	Rocglen Measured Levels – dB(A) <small>Leq 15min Evening</small>	Rocglen Measured Levels – dB(A) <small>Leq 15min Night</small>	Rocglen Measured Levels – dB(A) <small>LA 1min Night</small>	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments
N1			90					35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) LA (1 min) Night		Y	
			30							Y	
			60							Y	
			60							Y	
			90							Y	
			30							Y	
			60							Y	
			60							Y	
			90							Y	
			30							Y	
			60							Y	
			60							Y	
N2			90					35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) LA (1 min) Night		Y	
			30							Y	
			60							Y	
			60							Y	
			90							Y	
			30							Y	



Rocglen Coal Mine- Monthly Monitoring Summary

EPL ID	Date	Start Time	Period (mins)	Rocglen Measured Levels – dB(A) Leq 15min Day	Rocglen Measured Levels – dB(A) Leq 15min Evening	Rocglen Measured Levels – dB(A) Leq 15min Night	Rocglen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments
			60								
			60								
			90								
			30								
			60								
			60								

Note: Measured noise levels are not necessarily the result of activity at Rocglen Coal Mine

Table 5 – Monitoring (Blasts – Limits Apply)

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	1		104.3	120	No
	Blast Vibration	mm/s	Every Blast			0.22	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	1		97.8	120	No
	Blast Vibration	mm/s	Every Blast			0.4	10	No



Rocgen Coal Mine- Monthly Monitoring Summary



Figure 1 – EPL 12870 Monitoring Locations

Rocglen Coal Mine- Monthly Monitoring Summary

Site Information

EPL No: 12870

EPA Website Link: <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

Licensee: Whitehaven Coal Mining Pty Ltd

Licensee Address: Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: May 2019

Obtained Date: 07 June 2019

Publication Date: 14 June 2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m ² /month	Continuous	1	17/05/19	31/05/19	-	-	-	7.4
6	Particulates-Deposited Matter	g/m ² /month	Continuous	1	17/05/19	31/05/19	-	-	-	2.0
10	PM ₁₀	µg/m ³	Every 6 days	5	Various	6/05/19	9.0	12.18	12.7	15.4
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS /cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total organic carbon	mg/L					-	-	-	-
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS /cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

¹result caused by a regional dust event, not mine related.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	

Rocgen Coal Mine- Monthly Monitoring Summary

* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

** Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	1	-	07/06/2019	-	-	-	0.19
	Arsenic	mg/L					-	-	-	0.013
	Bicarbonate	mg/L					-	-	-	187
	Chloride	mg/L					Not available at time of publication			
	Iron	mg/L					-	-	-	0.11
	Manganese	mg/L					-	-	-	0.003
	Sodium	mg/L					-	-	-	355
16	Conductivity	µS/cm	Quarterly	-	-	-	-	-	-	1640
	Oil & Grease	mg/L					-	-	-	<5
	pH	pH					-	-	-	8.9
	TOC	mg/L					-	-	-	4
	TSS	mg/L					-	-	-	20



Rocgen Coal Mine- Monthly Monitoring Summary

Table 4 – Monitoring (Noise – Limits Apply)

EPL ID	Date	Start Time	Period (mins)	Rocgen Measured Levels – dB(A) Leq 15min Day	Rocgen Measured Levels – dB(A) Leq 15min Evening	Rocgen Measured Levels – dB(A) Leq 15min Night	Rocgen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments
N1			90					35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) LA (1 min) Night		Y	Noise results not available at time of publication, will be included in the June report.
			30				Y				
			60				Y				
			60				Y				
				90						Y	
				30						Y	
				60						Y	
				60						Y	
				90						Y	
				30						Y	
				60						Y	
				60						Y	
N2			90				35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) LA (1 min) Night		Y		
			30						Y		
			60						Y		
			60						Y		
				90							Y
				30							Y



Rocglen Coal Mine- Monthly Monitoring Summary

EPL ID	Date	Start Time	Period (mins)	Rocglen Measured Levels – dB(A) Leq 15min Day	Rocglen Measured Levels – dB(A) Leq 15min Evening	Rocglen Measured Levels – dB(A) Leq 15min Night	Rocglen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments
			60								
			60								
			90								
			30								
			60								
			60								

Note: Measured noise levels are not necessarily the result of activity at Rocglen Coal Mine

Table 5 – Monitoring (Blasts – Limits Apply)

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	1		103.7	120	No
	Blast Vibration	mm/s	Every Blast			0.25	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	1		102.3	120	No
	Blast Vibration	mm/s	Every Blast			1.03	10	No



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary



Figure 1 – EPL 12870 Monitoring Locations

Rocglen Coal Mine- Monthly Monitoring Summary

Site Information

EPL No: 12870

EPA Website Link: <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

Licensee: Whitehaven Coal Mining Pty Ltd

Licensee Address: Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: June 2019

Obtained Date: 07 July 2019

Publication Date: 14 July 2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m ² /month	Continuous	1	17/06/19	7/07/19	-	-	-	5.3
6	Particulates-Deposited Matter	g/m ² /month	Continuous	1	77/06/19	7/07/19	-	-	-	1.5
10	PM ₁₀	µg/m ³	Every 6 days	4	Various	08/07/19	17.7	23.78	21.3	35.2
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS /cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total organic carbon	mg/L					-	-	-	-
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS /cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

¹result caused by a regional dust event, not mine related.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	



Rocgen Coal Mine- Monthly Monitoring Summary

* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

** Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	1	-	24/06/2019	-	-	-	0.001
	Arsenic	mg/L					-	-	-	0.001
	Bicarbonate	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	
	Iron	mg/L					-	-	-	
	Manganese	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
16	Conductivity	µS/cm	Quarterly	-	-	-	-	-	-	60
	Oil & Grease	mg/L					-	-	-	<5
	pH	pH					-	-	-	7.34
	TOC	mg/L					-	-	-	8
	TSS	mg/L					-	-	-	13



Rocglen Coal Mine- Monthly Monitoring Summary

Table 4 – Monitoring (Noise – Limits Apply)

EPL ID	Date	Start Time	Period (mins)	Rocglen Measured Levels – dB(A) Leq 15min Day	Rocglen Measured Levels – dB(A) Leq 15min Evening	Rocglen Measured Levels – dB(A) Leq 15min Night	Rocglen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments
N1	15/05/2019	13:40	90	I/A				35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) L _A (1 min) Night	2.6 m/s SE	Y	Noise results not available at time of publication, will be included in the June report.
		21:04	30		N/M				4.7 m/s	Y	
		23:16	60			I/A			0.8 m/s ENE	Y	
		23:16	60				I/A		0.8 m/s ENE	Y	
	15/05/2019	12:48	90	I/A					0.9 m/s SE	Y	
		21:18	30		I/A				2 m/s NE	Y	
		22:01	60			I/A			1.6 m/s NE	Y	
		22:01	60				I/A		1.6 m/s NE	Y	
	15/05/2019	11:17	90	28					1.4 m/s SE	Y	
		20:54	30		N/M				1.9 m/s SE	Y	
		00:01	60			N/M			0.5 m/s NE	Y	
		00:01	60				I/A		0.5 m/s NE	Y	
N2	15/05/2019	11:45	90	I/A				35 dB(A) Leq (15 min) Day, Evening, Night	1.9 m/s SE	Y	
		20:17	30		I/A			2.6 m./s ESE	Y		
		22:00	60			I/A		45dB(A) L _A (1 min) Night	3.2 m/s E	Y	
		22:00	60				I/A	3.2 m/s E	Y		
	15/05/2019	11:01	90	I/A				1.4 m/s SE	Y		
		20:30	30		N/M			2.4 m/s NE	Y		



Rocglen Coal Mine- Monthly Monitoring Summary

EPL ID	Date	Start Time	Period (mins)	Rocglen Measured Levels – dB(A) Leq 15min Day	Rocglen Measured Levels – dB(A) Leq 15min Evening	Rocglen Measured Levels – dB(A) Leq 15min Night	Rocglen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments
	15/05/2019	23:28	60			30		35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) L _A (1 min) Night	1.6 m/s E	Y	
		23:28	60				N/M		1.6 m/s E	Y	
		09:27	90	I/A					1.4 m/s SE	Y	
		20:07	30		I/A				1.2 m/s NE	Y	
		22:41	60			I/A			1.8 m/s SE	Y	
		22:41	60				I/A		1.8 m/s SE	Y	

Note: Measured noise levels are not necessarily the result of activity at Rocglen Coal Mine

Table 5 – Monitoring (Blasts – Limits Apply)

EPL ID	Parameter	Units of Measure	Frequency	No. of Blasts for the Month	Average Value	Max or Only Value	100%ile Limit	(Potential) Non-compliance /breach
BB1	Blast Noise	dB (Lin Peak)	Every Blast	1		95.6	120	No
	Blast Vibration	mm/s	Every Blast			0.2	10	No
BB3	Blast Noise	dB (Lin Peak)	Every Blast	1		100.8	120	No
	Blast Vibration	mm/s	Every Blast			0.04	10	No

Rocgen Coal Mine- Monthly Monitoring Summary

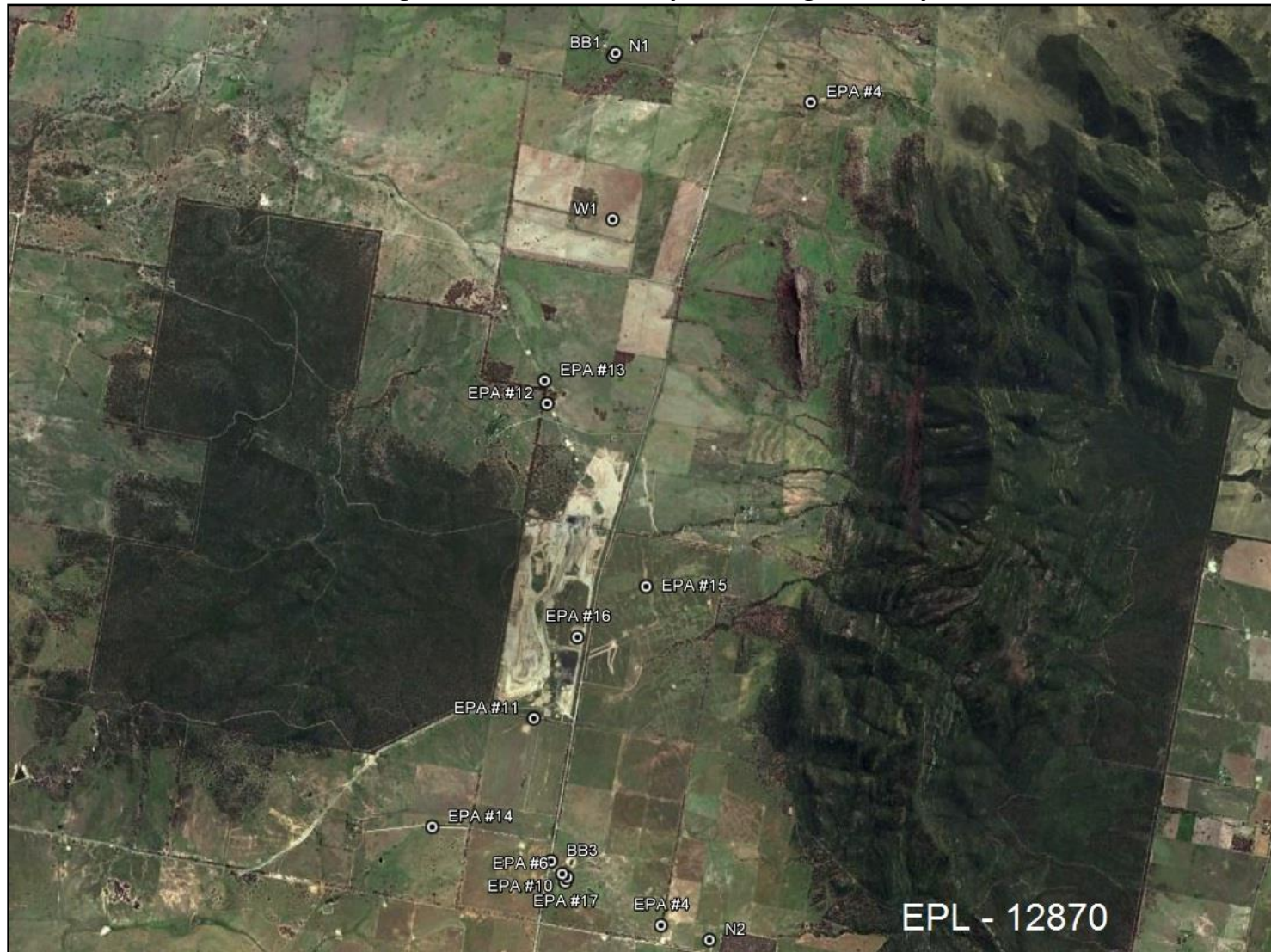


Figure 1 – EPL 12870 Monitoring Locations



Rocglen Coal Mine- Monthly Monitoring Summary

Site Information

EPL No: 12870

EPA Website Link: <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

Licensee: Whitehaven Coal Mining Pty Ltd

Licensee Address: Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: July 2019

Obtained Date: 13 August 2019

Publication Date: 13 August 2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m ² /month	Continuous	1	17/07/19	29/07/19	-	-	-	5.5
6	Particulates-Deposited Matter	g/m ² /month	Continuous	1	17/07/19	29/07/19	-	-	-	1.3
10	PM ₁₀	µg/m ³	Every 6 days	4	Various	13/08/19	9.0	13.5	12.25	20.1
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total organic carbon	mg/L					-	-	-	-
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS /cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

¹result caused by a regional dust event, not mine related.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	



Rocgen Coal Mine- Monthly Monitoring Summary

* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

** Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	
	Arsenic	mg/L					-	-	-	
	Bicarbonate	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	
	Iron	mg/L					-	-	-	
	Manganese	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
16	Conductivity	µS/cm	Quarterly	-	-	-	-	-	-	
	Oil & Grease	mg/L					-	-	-	
	pH	pH					-	-	-	
	TOC	mg/L					-	-	-	
	TSS	mg/L					-	-	-	

Rocgen Coal Mine- Monthly Monitoring Summary

Table 4 – Monitoring (Noise – Limits Apply)

EPL ID	Date	Start Time	Period (mins)	Rocgen Measured Levels – dB(A) <small>Leq 15min Day</small>	Rocgen Measured Levels – dB(A) <small>Leq 15min Evening</small>	Rocgen Measured Levels – dB(A) <small>Leq 15min Night</small>	Rocgen Measured Levels – dB(A) <small>LA 1min Night</small>	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments			
N1								35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) L _A (1 min) Night			Noise results not available at time of publication, will be included in the June report.			
	N2									35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) L _A (1 min) Night				



WHITEHAVEN COAL

Rocglen Coal Mine- Monthly Monitoring Summary

EPL ID	Date	Start Time	Period (mins)	Rocglen Measured Levels – dB(A) Leq 15min Day	Rocglen Measured Levels – dB(A) Leq 15min Evening	Rocglen Measured Levels – dB(A) Leq 15min Night	Rocglen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments
								35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) L _A (1 min) Night			

Note: Measured noise levels are not necessarily the result of activity at Rocglen Coal Mine

Rocgen Coal Mine- Monthly Monitoring Summary

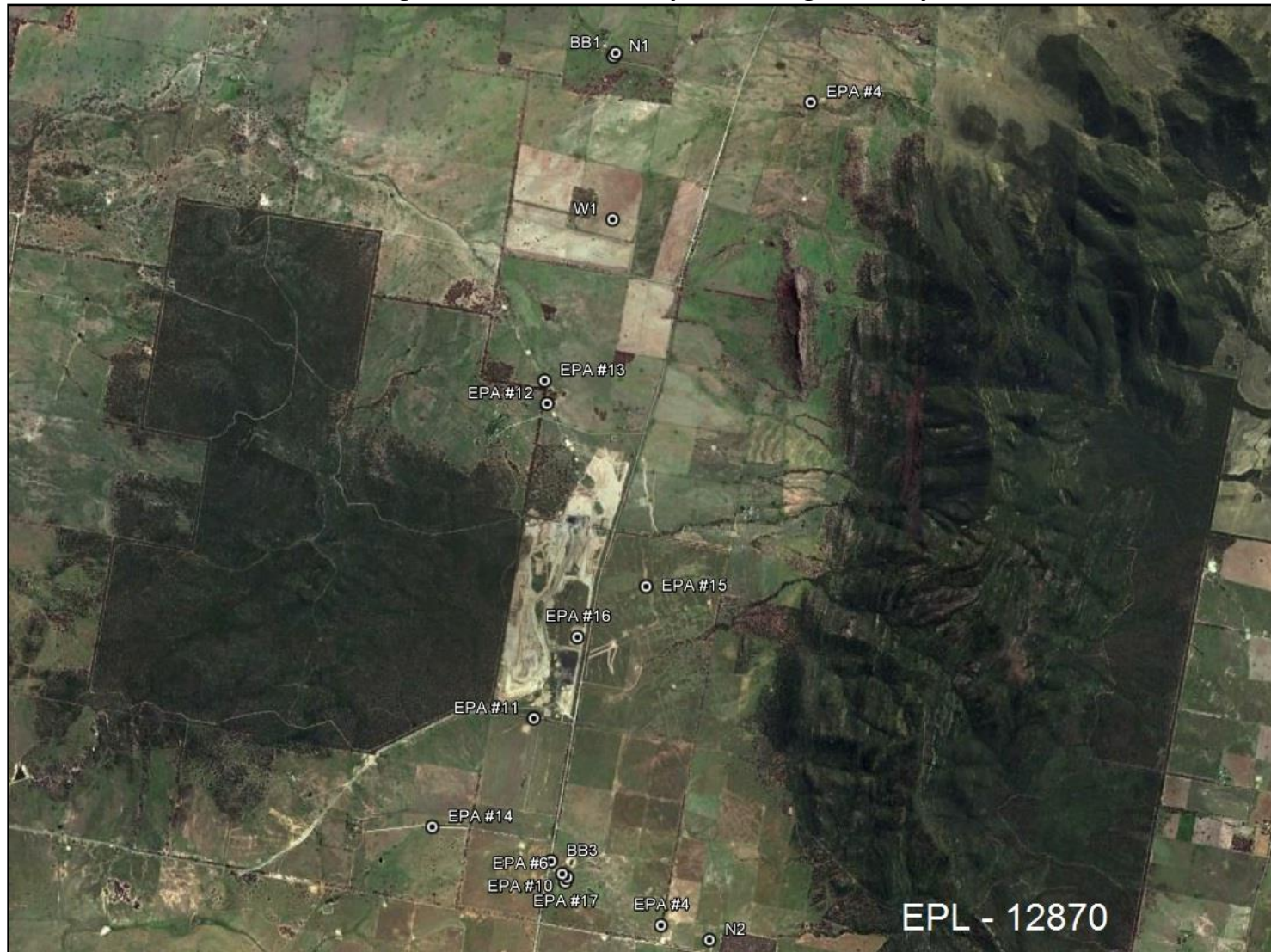


Figure 1 – EPL 12870 Monitoring Locations

Rocglen Coal Mine- Monthly Monitoring Summary

Site Information

EPL No: 12870

EPA Website Link: <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

Licensee: Whitehaven Coal Mining Pty Ltd

Licensee Address: Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: August 2019

Obtained Date: 17 September 2019

Publication Date: 19 September 2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m ² /month	Continuous	1	15/08/19	16/09/19	-	-	-	2.2
6	Particulates-Deposited Matter	g/m ² /month	Continuous	1	15/08/19	16/09/19	-	-	-	1.4
10	PM ₁₀	µg/m ³	Every 6 days	5	Various	13/09/19	4	20.8	25.3	37.2
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total organic carbon	mg/L					-	-	-	-
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS /cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

¹result caused by a regional dust event, not mine related.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	



Rocgen Coal Mine- Monthly Monitoring Summary

* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

** Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	
	Arsenic	mg/L					-	-	-	
	Bicarbonate	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	
	Iron	mg/L					-	-	-	
	Manganese	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
16	Conductivity	µS/cm	Quarterly	1	20/08/2019	28/08/2019	-	-	-	1540
	Oil & Grease	mg/L					-	-	-	<5
	pH	pH					-	-	-	8.61
	TOC	mg/L					-	-	-	4
	TSS	mg/L					-	-	-	7

Rocgen Coal Mine- Monthly Monitoring Summary

Table 4 – Monitoring (Noise – Limits Apply)

EPL ID	Date	Start Time	Period (mins)	Rocgen Measured Levels – dB(A) <small>Leq 15min Day</small>	Rocgen Measured Levels – dB(A) <small>Leq 15min Evening</small>	Rocgen Measured Levels – dB(A) <small>Leq 15min Night</small>	Rocgen Measured Levels – dB(A) <small>LA 1min Night</small>	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments			
N1								35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) LA (1 min) Night			Noise results not available at time of publication, will be included in the June report.			
	N2									35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) LA (1 min) Night				



WHITEHAVEN COAL

Roclen Coal Mine- Monthly Monitoring Summary

EPL ID	Date	Start Time	Period (mins)	Roclen Measured Levels – dB(A) Leq 15min Day	Roclen Measured Levels – dB(A) Leq 15min Evening	Roclen Measured Levels – dB(A) Leq 15min Night	Roclen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments
								35 dB(A) Leq (15 min) Day, Evening, Night			
								45dB(A) L _A (1 min) Night			

Note: Measured noise levels are not necessarily the result of activity at Roclen Coal Mine



Rocgen Coal Mine- Monthly Monitoring Summary



Figure 1 – EPL 12870 Monitoring Locations



Rocglen Coal Mine- Monthly Monitoring Summary

Site Information

EPL No: 12870

EPA Website Link: <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

Licensee: Whitehaven Coal Mining Pty Ltd

Licensee Address: Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: September 2019

Obtained Date: 17 October 2019

Publication Date: 21 October 2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m ² /month	Continuous	1	16/09/19	4/10/19	-	-	-	1.7
6	Particulates-Deposited Matter	g/m ² /month	Continuous	1	16/09/19	4/10/19	-	-	-	0.9
10	PM ₁₀	µg/m ³	Every 6 days	5	Various	14/10/19	43.2	131.4	34.9	377.4
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS /cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total organic carbon	mg/L					-	-	-	-
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS /cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

¹result caused by a regional dust event, not mine related.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	



Rocgen Coal Mine- Monthly Monitoring Summary

* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

** Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	
	Arsenic	mg/L					-	-	-	
	Bicarbonate	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	
	Iron	mg/L					-	-	-	
	Manganese	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
16	Conductivity	µS/cm	Quarterly	1	-	-	-	-	-	
	Oil & Grease	mg/L					-	-	-	
	pH	pH					-	-	-	
	TOC	mg/L					-	-	-	
	TSS	mg/L					-	-	-	



Rocglen Coal Mine- Monthly Monitoring Summary Table 4 – Monitoring (Noise – Limits Apply)

Note: Measured noise levels are not necessarily the result of activity at Rocglen Coal Mine

EPL ID	Date	Start Time	Period (mins)	Rocglen Measured Levels – dB(A) Leq 15min Day	Rocglen Measured Levels – dB(A) Leq 15min Evening	Rocglen Measured Levels – dB(A) Leq 15min Night	Rocglen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments		
N1	16/09/2019	20:37	15	IA				35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) LA (1 min) Night		Y	Noise results not available at time of publication, will be included in the June report.		
		23:30	15		IA				Y				
		00:02	15			IA			Y				
		00:02	15				IA		Y				
	17/09/2019	20:20	15	IA					Y				
		23:27	15		IA				Y				
		00:00	15			IA			Y				
		00:00	15				IA		Y				
	18/09/2019	11:41	15	<20					Y				
		21:01	15		<24				Y				
		23:48	15			IA			Y				
		23:48	15				IA		Y				
N2	16/09/2019	16:30	15	<23				35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) LA (1 min) Night		Y	Noise results not available at time of publication, will be included in the June report.		
		17:05	15		<14				Y				
		21:50	15			IA			Y				
		22:43	15				IA		Y				
	17/09/2019	10:33	15	<28					Y				
		21:06	15		<11				Y				
		22:06	15			IA			Y				
		22:06	15				IA		Y				
	18/09/2019	21:31	15	<11					35 dB(A) Leq (15 min) Day, Evening, Night 45dB(A) LA (1 min) Night			Y	Noise results not available at time of publication, will be included in the June report.
		22:18	15		<13					Y			
		22:35	15			IA				Y			
		22:50	15				IA			Y			



WHITEHAVEN COAL

Rocglan Coal Mine- Monthly Monitoring Summary
Figure 1 – EPL 12870 Monitoring Locations



Rocglen Coal Mine- Monthly Monitoring Summary

Site Information

EPL No: 12870

EPA Website Link: <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

Licensee: Whitehaven Coal Mining Pty Ltd

Licensee Address: Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: October 2019

Obtained Date: 04 November 2019

Publication Date: 21 November 2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m ² /month	Continuous	1	16/10/19	28/10/19	-	-	-	3.6
6	Particulates-Deposited Matter	g/m ² /month	Continuous	1	16/10/19	28/10/19	-	-	-	1.8
10	PM ₁₀	µg/m ³	Every 6 days	5	Various	04/11/19	33.1	74.56	92.5	114
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS /cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
	Total organic carbon	mg/L					-	-	-	-
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS /cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

¹result caused by a regional dust event, not mine related.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	

Rocgen Coal Mine- Monthly Monitoring Summary

* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.

** Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	
	Arsenic	mg/L					-	-	-	
	Bicarbonate	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	
	Iron	mg/L					-	-	-	
	Manganese	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
16	Conductivity	µS/cm	Quarterly		19/11/2019	-	-	-	-	2170
	Oil & Grease	mg/L					-	-	-	<5
	pH	pH					-	-	-	8.55
	TOC	mg/L					-	-	-	2
	TSS	mg/L					-	-	-	31



WHITEHAVEN COAL

Rocglen Coal Mine- Monthly Monitoring Summary Table 4 – Monitoring (Noise – Limits Apply)

Note: Measured noise levels are not necessarily the result of activity at Rocglen Coal Mine

EPL ID	Date	Start Time	Period (mins)	Rocglen Measured Levels – dB(A) Leq 15min Day	Rocglen Measured Levels – dB(A) Leq 15min Evening	Rocglen Measured Levels – dB(A) Leq 15min Night	Rocglen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments			
N1														
	N2													



WHITEHAVEN COAL

Rocglen Coal Mine- Monthly Monitoring Summary
Figure 1 – EPL 12870 Monitoring Locations





Rocglen Coal Mine- Monthly Monitoring Summary

Site Information

EPL No: 12870

EPA Website Link: <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

Licensee: Whitehaven Coal Mining Pty Ltd

Licensee Address: Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: November 2019

Obtained Date: 12 December 2019

Publication Date: 18 December 2019

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m ² /month	Continuous	1	20/11/19	28/10/19	-	-	-	2.8
6	Particulates-Deposited Matter	g/m ² /month	Continuous	1	20/11/19	28/10/19	-	-	-	1.5
10	PM ₁₀	µg/m ³	Every 6 days	5	Various	04/12/19	4	68.6	41.35	187
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-



Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS /cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

¹result caused by a regional dust event, not mine related.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	

* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.



Rocgen Coal Mine- Monthly Monitoring Summary

** Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	-	-	-	-	-	-	
	Arsenic	mg/L					-	-	-	
	Bicarbonate	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	
	Iron	mg/L					-	-	-	
	Manganese	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
16	Conductivity	µS/cm	Quarterly			-	-	-	-	
	Oil & Grease	mg/L					-	-	-	
	pH	pH					-	-	-	
	TOC	mg/L					-	-	-	
	TSS	mg/L					-	-	-	



WHITEHAVEN COAL

Rocglen Coal Mine- Monthly Monitoring Summary Table 4 – Monitoring (Noise – Limits Apply)

Note: Measured noise levels are not necessarily the result of activity at Rocglen Coal Mine

EPL ID	Date	Start Time	Period (mins)	Rocglen Measured Levels – dB(A) Leq 15min Day	Rocglen Measured Levels – dB(A) Leq 15min Evening	Rocglen Measured Levels – dB(A) Leq 15min Night	Rocglen Measured Levels – dB(A) LA 1min Night	Limits	Wind speed (m/s)	Compliant (Y/N)	Comments	
N1												
N2												



WHITEHAVEN COAL

Rocglan Coal Mine- Monthly Monitoring Summary
Figure 1 – EPL 12870 Monitoring Locations





Rocglen Coal Mine- Monthly Monitoring Summary

Site Information

EPL No: 12870

EPA Website Link: <http://epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=40278&SYSUID=1&LICID=12870>

Licensee: Whitehaven Coal Mining Pty Ltd

Licensee Address: Rocglen Coal Mine, Wean Road, GUNNEDAH NSW 2380

EPL Monitoring Points: See Figure 1 below

Sampling Period: December 2019

Obtained Date: 15 January 2019

Publication Date: 16 January 2020

Table 1 - No Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
4	Particulates-Deposited Matter	g/m ² /month	Continuous	1	17/12/2019	31/12/2019	-	-	-	5.3
6	Particulates-Deposited Matter	g/m ² /month	Continuous	1	17/12/2019	31/12/2019	-	-	-	3.4
10	PM ₁₀	µg/m ³	Every 6 days	5	Various	10/01/2020	4	83.5	94.7	155
11	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
12	Conductivity	µS/cm	Special Frequency 1*	-	-	-	-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
13	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-



WHITEHAVEN COAL

Rocgen Coal Mine- Monthly Monitoring Summary

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Mean Value	Median Value	Max or Only Value
14	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS/cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-
15	TSS	mg/L	Special Frequency 2**	-	-	-	-	-	-	-
	Conductivity	µS /cm					-	-	-	-
	Oil & Grease	mg/L					-	-	-	-
	pH	pH					-	-	-	-
	Total organic carbon	mg/L					-	-	-	-

¹result caused by a regional dust event, not mine related.

Table 2 - Pollutant Limits Apply

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date(s) Sampled	Date(s) Obtained	Min Value	Max or Only Value	100%ile Limit	Exceedance (Yes/No)	Comments
11	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	
12	TSS	mg/L	Special Frequency 1*	-	-	-	-	-	50	-	
	Oil & Grease	mg/L					-	-	10	-	
	pH	pH					-	-	6.5-8.5	-	

* Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.



Rocgen Coal Mine- Monthly Monitoring Summary

** Special Frequency 2 means collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11 and 12 commences and in any case not more than 12 hours after each discharge commences.

Table 3 – Monitoring (Quarterly & Yearly – No Limits apply)

EPL ID	Pollutant	Units of Measure	Monitoring Frequency	No. of Samples for the Month	Date Sampled	Date Obtained	Min Value	Mean Value	Median Value	Max Value/Only Value
16	Aluminium	mg/L	Yearly	0	-	-	-	-	-	
	Arsenic	mg/L					-	-	-	
	Bicarbonate	mg/L					-	-	-	
	Chloride	mg/L					-	-	-	
	Iron	mg/L					-	-	-	
	Manganese	mg/L					-	-	-	
	Sodium	mg/L					-	-	-	
16	Conductivity	µS/cm	Quarterly	0	-	-	-	-	-	
	Oil & Grease	mg/L					-	-	-	
	pH	pH					-	-	-	
	TOC	mg/L					-	-	-	
	TSS	mg/L					-	-	-	



Rocglen Coal Mine- Monthly Monitoring Summary

Tables 4-1 and 4-3 – Monitoring (Noise – Limits Apply)

Note: Measured noise levels are not necessarily the result of activity at Rocglen Coal Mine

Table 4-1 Summary of noise assessment at N1

Date	Time	Noise Limits	TN1		
		$L_{Aeq,15\ min}$	Measured Mine Contribution	Mine L_{Aeq} Noise Level (dB)	Additional LF Penalty
2/12/2019	20:15	35	<25 (IA) ¹	-	0
	12:08	35	<15 (IA) ¹	-	0
	12:23	35	<13 (IA) ¹	-	0
3/12/2019	23:26	35	0 ²	-	0
	23:41	35	0 ²	-	0
	23:56	35	0 ²	-	0
4/12/2019	00:10	35	0 ²	-	0
	12:10	35	<15 (IA) ¹	-	0
	12:40	35	<12 (IA) ¹	-	0
	21:30	35	<14 (IA) ¹	-	0

¹ Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less than 10dB below the measured L_{A90} .

² The mine was not operating during the night period.



Rocgen Coal Mine- Monthly Monitoring Summary

Table 4-3 Summary of noise assessment at N2

Date	Time	Noise Limits $L_{Aeq,15\ min}$	N2 Mine L_{Aeq} Noise Level (dB)		
			Measured Mine Contribution	Additional LF Penalty	Exceedance
2/12/2019	21:24	35	<28 (IA) ¹	-	0
	13:29	35	29	-	0
3/12/2019	13:59	35	30	-	0
	14:14	35	30	-	0
	14:29	35	30	-	0
4/12/2019	13:44	35	<19 (IA) ¹	-	0
	14:44	35	28	-	0
	14:59	35	30	-	0
	20:45	35	<8 (IA) ¹	-	0

¹ Where mine noise was inaudible throughout the entire measurement, it is assumed that the contribution is less than 10dB below the measured L_{A90} .

² The mine was not operating during the night period.



WHITEHAVEN COAL

Roglen Coal Mine- Monthly Monitoring Summary

Figure 1 – EPL 12870 Monitoring Locations

