

MAULES CREEK COAL MINE - MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: <u>Hyperlink to Maules Creek Coal, Environment Protection Licence</u>

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: January 2024

Obtained Date: 15th February 2024

Publication Date: 16th February 2024

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2nd August 2022 by the

NSW Environment Protection Authority (EPA).



Monthly Monitoring Summary

Ground Water Monitoring

Table 1 - Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value			
15	рН	рН										
(BCM01)	Conductivity	μs/cm	Quarterly									
(BCIVIOI)	TDS	mg/L										
16	рН	рН										
16 (BCM03)	Conductivity	μs/cm	Quarterly									
(BCM03)	TDS	mg/L			Next sample in March 2024							
17	рН	рН				ivext sample in	March 2024					
17 (DEC10A)	Conductivity	μs/cm	Quarterly									
(REG10A)	TDS	mg/L										
2.4	рН	рН										
24 (DDOEA)	Conductivity	μs/cm	Quarterly	ly								
(RB05A)	TDS	mg/L										



Surface Water Monitoring

Table 2 - Surface Water Monitoring - Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
	TSS	mg/L		1	15/01/2024				<5
12	Conductivity	μs/cm	Every 2	1	15/01/2024				1250
(Mine Void)	Oil & Grease	mg/L	months	1	15/01/2024				<5
	рН	рН		1	15/01/2024				8.17

Table 3 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L	Constal							
	Nitrogen (total)	mg/L	Special							
3	Oil & Grease	mg/L	Frequency 1 - within 12							
(SD3)	рН	рН	hours of							
(303)	Phosphorous	mg/L	discharge from							
	Reactive Phosphorous	mg/L	EPL 3 or 36.							
	TSS	mg/L								
	Conductivity	μs/cm				No discharge occu	urred at these loc	ations in January	2024	
	Nitrate	mg/L								
	Nitrogen (total)	mg/L	Special							
	Oil & Grease	mg/L	Frequency 1 -							
36	рН	рН	within 12							
(SD12)	Phosphorous	mg/L	hours of							
	Reactive	mg/L	discharge from							
	Phosphorous		EPL 3 or 36							
	TSS	mg/L								
	Conductivity	μs/cm								



Table 4 - Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	рН	рН								
	Phosphorous	mg/L	Special							
38	Reactive Phosphorous	mg/L	Frequency 3 - within 12							
(Flow Meter	TSS	mg/L	hours of							
Upstream)	Conductivity	μs/cm	discharge							
	Nitrate	mg/L	from any							
	Nitrogen (total)	mg/L	discharge							
	Oil & Grease	mg/L	location.							
	рН	рН								
	Phosphorous	mg/L								
	Reactive	mg/L								
	Phosphorous			No discharge occurred at these locations in January 2024						
	TSS	mg/L				Ü		,		
	Conductivity	μs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH	Special							
	Phosphorous	mg/L	Frequency 3 -							
39	Reactive Phosphorous	mg/L	within 12 hours of							
(Flow Meter	TSS	mg/L	discharge							
downstream)	Conductivity	μs/cm	from any							
	Nitrate	mg/L	discharge							
	Nitrogen (total)	mg/L	location.							
	Oil & Grease	mg/L								
	рН	рН								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								



	TSS	mg/L		
	TSS	mg/L	Special Frequency 2	
	Conductivity	μs/cm	prior to discharging	
40	Oil & Grease	mg/L	from EPL 45 and/or 46 or within	
(HWD8)	рН	рН	12hours of discharge caused by 38.4mm in a 5 Day consecutive period	
	TSS	mg/L		
	Conductivity	μs/cm	Special Frequency 2 - prior to discharging from EPL 45 and/or 46 or within	
	Oil & Grease	mg/L		
41	рН	рН		
(HWD9)	TSS	mg/L	12hours of discharge	
	Conductivity	μs/cm	caused by 38.4mm in a 5 Day	No discharge occurred at these locations in January 2024
	Oil & Grease	mg/L	consecutive period	
	рН	рН	·	
	TSS	mg/L	Special Frequency 2	
42 (HWD10)	Conductivity	μs/cm	prior to discharging	
	Oil & Grease		from EPL 45 and/or 46 or	



	рН	рН	within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	
	TSS	mg/L		
	Conductivity	μs/cm	Special Frequency 2 – prior to	
	Oil & Grease	mg/L	discharging from EPL 45	
43	рН	рН	and/or 46 or within	
(HWD11)	TSS	mg/L	12hours of discharge	
	Conductivity	μs/cm	caused by 38.4mm in a 5 Day	
	Oil & Grease	mg/L	consecutive period	No discharge occurred at these locations in January 2024
	рН	рН	·	No discharge occurred at these locations in January 2024
	TSS	mg/L	Special Frequency 2	
	Conductivity	μs/cm	– prior to– discharging	
44	Oil & Grease	mg/L	from EPL 45 and/or 46 or	
(WCWD)	рН	рН	within 12hours of	
	TSS	mg/L	discharge caused by 38.4mm in a	
	Conductivity	μs/cm	5 Day	



Oil & Grease	mg/L	consecutive period
рН	рН	
рН	рН	
TSS	mg/L	
Oil & Grease	mg/L	
рН	mg/L	
TSS	рН	



Noise Monitoring

Table 6 - Noise Monitoring (Attended - Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq _{15min} dB	Limit L _{Aeq} _{15min} (dB) Operations Criteria	MCCP LAeq _{1min} dB	Limit L _{A1 (1 min)} (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	16/01/2024	22:30	2.9	IA	35	IA	45	0.0	No
NM2	16/01/2024	23:30	4.0	IA	39	IA	45	0.0	No
NM3	16/01/2024	23:30	4.0	IA	35	IA	45	0.0	No
NM4	16/01/2024	23:00	3.3	IA	35	IA	45	0.0	No
NM5	16/01/2024	22:00	3.8	IA	35	IA	45	0.0	No
NM6	16/01/2024	23:55	3.0	IA	35	IA	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

Table 7 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



Blast Monitoring

Table 8 - Blast Monitoring (Blasts - Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations	Overpressure	Db (Lin Peak)	ΔII	12	93.7	109.1	120	No
Blasts	Vibration	mm/s	All	12	0.09	0.25	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).



Air Quality Monitoring

Table 9 – PM_{10} (Limits Apply)

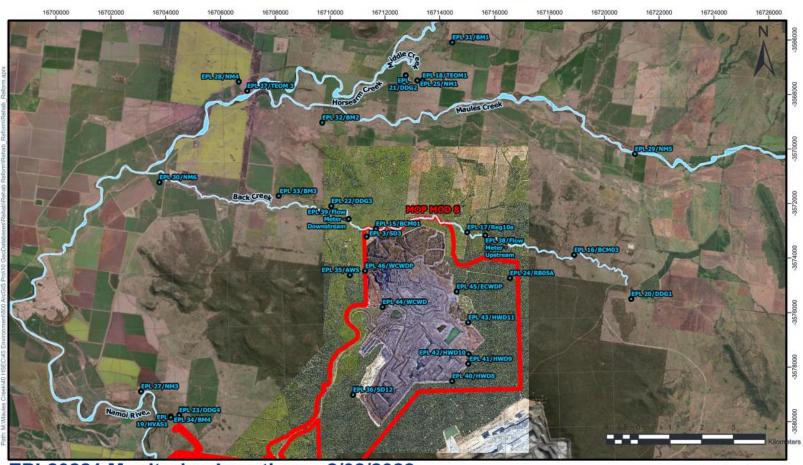
ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	μg/m³ month	PM ₁₀	11.8	30	No
37 (TEOM3)	Continuous	μg/m³ month	PM ₁₀	14.1	30	No
19 (HVAS)	5 days	μg/m³	PM ₁₀	15.6	30	No

Table 10 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	2.2	4	No
21 (DDG2/MC2)	Monthly	g/m² month	1.8	4	No
22 (DDG3/MC3)	Monthly	g/m² month	1.9	4	No
23 (DDG4/MC4)	Monthly	g/m² month	1.2	4	No



Figure 1 – EPL 20221 Monitoring Locations



EPL20221 Monitoring Locations - 2/08/2022

Legend

EPL Monitoring locations

05 Project Boundary_Boundaries

MCCM Project Boundary (Mod 8)

Maules Creek Coal

Scale: 1:88,442 Author: shenanewman Date Exported: 16/09/2022 11:51 AM

Spatial Reference Name: GDA2020 MGA Zone 56



Disclaimer, Map for reference only and subject to survey. MCC makes no guarantee of the accuracy of this map and data within. MCC shall have no liability for any decisions made or actions taken based upon this map.





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EPL Monitoring Points: See Figure 1 below

Sampling Period: February 2024 Obtained Date: 15th March 2024 Publication Date: 16th March 2024

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2nd August 2022 by the NSW Environment Protection Authority (EPA).



Monthly Monitoring Summary

Ground Water Monitoring

Table 1 - Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value		
15	pН	рН									
(BCM01)	Conductivity	μs/cm	Quarterly								
(BCIVIOI)	TDS	mg/L									
4.5	pН	pН									
16	Conductivity	μs/cm	Quarterly								
(BCM03)	TDS	mg/L									
47	pН	pН				Next sample in	IVIAICH 2024				
17	Conductivity	μs/cm	Quarterly								
(REG10A)	TDS	mg/L									
24	pН	pH									
24	Conductivity	μs/cm	Quarterly	terly							
(RB05A)	TDS	mg/L									



Surface Water Monitoring

Table 2 - Surface Water Monitoring - Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
	TSS	mg/L							<5
12	Conductivity	μs/cm	Every 2	4	42/02/2024				1180
(Mine Void)	Oil & Grease	mg/L	months	1	13/02/2024				<5
	рН	рН							8.28

^{*}report amended on 17/04/2024 to include mine void monitoring results

Table 3 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value	
	Conductivity	μs/cm									
	Nitrate	mg/L									
	Nitrogen (total)	mg/L	Special Frequency 1 - within 12								
3	Oil & Grease	mg/L									
(SD3)	pН	pН	hours of								
(303)	Phosphorous	mg/L	discharge from								
	Reactive Phosphorous	mg/L	EPL 3 or 36.								
	TSS	mg/L	1								
	Conductivity	μs/cm		No discharge occurred at these locations in February 2024							
	Nitrate	mg/L									
	Nitrogen (total)	mg/L	Special								
	Oil & Grease	mg/L	Frequency 1 -								
36	pH	pН	within 12								
(SD12)	Phosphorous	mg/L	hours of								
	Reactive	mg/L	discharge from								
	Phosphorous		EPL 3 or 36								
	TSS	mg/L	1								
	Conductivity	μs/cm									



Table 4 - Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value		
	Conductivity	μs/cm			1			1	1	-1		
	Nitrate	mg/L	_									
	Nitrogen (total)	mg/L]									
	Oil & Grease	mg/L	_									
	pH	pН										
	Phosphorous	mg/L	Special									
38	Reactive Phosphorous	mg/L	Frequency 3 - within 12									
(Flow Meter	TSS	mg/L	hours of									
Upstream)	Conductivity	μs/cm	discharge									
	Nitrate	mg/L	from any									
	Nitrogen (total)	mg/L	discharge									
	Oil & Grease	mg/L	location.									
	рН	рН	_									
	Phosphorous	mg/L										
	Reactive Phosphorous	mg/L										
	TSS	mg/L		No discharge occurred at these locations in February 2024								
	Conductivity	μs/cm										
	Nitrate	mg/L										
	Nitrogen (total)	mg/L	_									
	Oil & Grease	mg/L]									
	рН	рН	Special									
	Phosphorous	mg/L	Frequency 3 -									
39	Reactive Phosphorous	mg/L	within 12									
(Flow Meter	TSS	mg/L	hours of discharge									
downstream)	Conductivity	μs/cm	from any									
	Nitrate	mg/L	discharge									
	Nitrogen (total)	mg/L	location.									
	Oil & Grease	mg/L										
	рН	рН	_									
	Phosphorous	mg/L										
	Reactive Phosphorous	mg/L										



	TSS	mg/L		
	TSS	mg/L	Special Frequency 2	
	Conductivity	μs/cm	– prior todischargingfrom EPL 45	
40	Oil & Grease	mg/L	and/or 46 or within	
(HWD8)	рН	рН	12hours of discharge caused by 38.4mm in a 5 Day consecutive period	
	TSS	mg/L		
	Conductivity	μs/cm	Special Frequency 2 – prior to	
	Oil & Grease	mg/L	discharging from EPL 45	
41	рН	рН	and/or 46 or within	
(HWD9)	TSS	mg/L	12hours of discharge	
	Conductivity	μs/cm	caused by 38.4mm in a 5 Day	No discharge occurred at these locations in February 2024
	Oil & Grease	mg/L	consecutive period	
	рН	рН	·	
	TSS	mg/L	Special Frequency 2	
42 (HWD10)	Conductivity	μs/cm	– prior to discharging	
	Oil & Grease	mg/L	from EPL 45 and/or 46 or	



	рН	рН	within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	
	TSS	mg/L		
	Conductivity	μs/cm	Special Frequency 2 – prior to	
	Oil & Grease	mg/L	discharging from EPL 45	
43	рН	рН	and/or 46 or within	
(HWD11)	(HWD11) TSS	mg/L	12hours of discharge	
	Conductivity	μs/cm	caused by 38.4mm in a 5 Day	
	Oil & Grease	mg/L	consecutive period	No discharge occurred at these locations in February 2024
	рН	рН		No discharge occurred at these locations in restrainty 2024
	TSS	mg/L	Special Frequency 2	
	Conductivity	μs/cm	– prior todischarging	
44	Oil & Grease	mg/L	from EPL 45 and/or 46 or	
(WCWD)	рН	рН	within 12hours of	
	TSS	mg/L	discharge caused by 38.4mm in a	
	Conductivity	μs/cm	5 Day	



Oil & Grease	mg/L	consecutive period
рН	рН	
рН	рН	
TSS	mg/L	
Oil & Grease	mg/L	
рН	mg/L	
TSS	рН	



Noise Monitoring

Table 6 - Noise Monitoring (Attended - Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq _{15min} dB	Limit L _{Aeq} _{15min} (dB) Operations Criteria	MCCP LAeq _{1min} dB	Limit L _{A1 (1 min)} (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	27/02/2024	22:30	4.3	IA	35	IA	45	0.0	No
NM2	27/02/2024	23:38	4.2	IA	39	IA	45	0.0	No
NM3	27/02/2024	23:21	3.8	IA	35	IA	45	0.0	No
NM4	27/02/2024	23:00	4.3	IA	35	IA	45	0.0	No
NM5	27/02/2024	22:00	3.1	IA	35	IA	45	0.0	No
NM6	28/02/2024	00:04	3.7	IA	35	IA	45	0.0	No

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

Table 7 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



Blast Monitoring

Table 8 - Blast Monitoring (Blasts - Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations	Overpressure	Db (Lin Peak)	All	7	96.43	112.70	120	No
Blasts	Vibration	mm/s	All	7	0.11	0.36	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).



Air Quality Monitoring

Table 9 – PM₁₀ (Limits Apply)

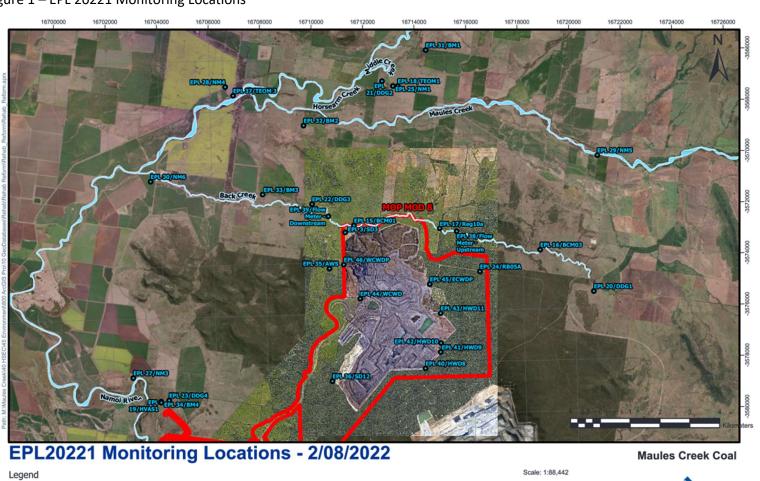
ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	μg/m³ month	PM ₁₀	11.7	30	No
37 (TEOM3)	Continuous	μg/m³ month	PM ₁₀	14.3	30	No
19 (HVAS)	5 days	μg/m³	PM ₁₀	15.3	30	No

Table 10 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	2.2	4	No
21 (DDG2/MC2)	Monthly	g/m² month	2.1	4	No
22 (DDG3/MC3)	Monthly	g/m² month	2.0	4	No
23 (DDG4/MC4)	Monthly	g/m² month	1.2	4	No



Figure 1 – EPL 20221 Monitoring Locations



EPL Monitoring locations

05 Project Boundary_Boundaries

MCCM Project Boundary (Mod 8)

Author: shenanewman

Date Exported: 16/09/2022 11:51 AM

Spatial Reference Name: GDA2020 MGA Zone 56





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EPL Monitoring Points: See Figure 1 below

Sampling Period: March 2024 Obtained Date: 16th April 2024 Publication Date: 17th April 2024

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Ground Water Monitoring

Table 1 - Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value		
15	рН	pН									
15 (BCM01)	Conductivity	μs/cm	Quarterly	0		Dr	y – Next sample in Jur	ne 2024			
(PCIVIOT)	TDS	mg/L									
4.6	pН	pН									
16 (DCN403)	Conductivity	μs/cm	Quarterly	0	Dry – Next sample in June 2024						
(BCM03)	TDS	mg/L									
47	рН	pН									
17	Conductivity	μs/cm	Quarterly	0		Dr	ry – Next sample in Jur	ne 2024			
(REG10A)	TDS	mg/L			,						
24	рН	pH							7.54		
24	Conductivity	μs/cm	Quarterly	1	01/03/2024	Yes			1970		
(RB05A)	TDS	mg/L	1						1450		



Surface Water Monitoring

Table 2 – Surface Water Monitoring – Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value			
	TSS	mg/L										
12	Conductivity	μs/cm	Every 2		Next Sample April 2024							
(Mine Void)	Oil & Grease	mg/L	months									
	рН	рН										

Table 3 – Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value		
	Conductivity	μs/cm										
	Nitrate	mg/L	Consist									
	Nitrogen (total)	mg/L	Special Frequency 1 -									
3	Oil & Grease	mg/L	within 12									
(SD3)	рН	рН	hours of									
(303)	Phosphorous	mg/L	discharge from									
	Reactive Phosphorous	mg/L	EPL 3 or 36.									
	TSS	mg/L	-									
	Conductivity	μs/cm			No discharge occurred from this monitoring location during March 2024							
	Nitrate	mg/L	7									
	Nitrogen (total)	mg/L	Special									
	Oil & Grease	mg/L	Frequency 1 -									
36	рН	рН	within 12									
(SD12)	Phosphorous	mg/L	hours of									
	Reactive	mg/L	discharge from									
	Phosphorous		EPL 3 or 36									
	TSS	mg/L										
	Conductivity	μs/cm										



Table 4 – Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm			1	1			•	
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pН	pН								
	Phosphorous	mg/L	Special							
38	Reactive Phosphorous	mg/L	Frequency 3 - within 12							
(Flow Meter	TSS	mg/L	hours of							
Upstream)	Conductivity	μs/cm	discharge							
	Nitrate	mg/L	from any							
	Nitrogen (total)	mg/L	discharge							
	Oil & Grease	mg/L	location.							
	pН	рН								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L				No flow v	was recorded at th	ese sites.		
	Conductivity	μs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pН	Special							
	Phosphorous	mg/L	Frequency 3 -							
39	Reactive Phosphorous	mg/L	within 12 hours of							
(Flow Meter	TSS	mg/L	discharge							
downstream)	Conductivity	μs/cm	from any							
	Nitrate	mg/L	discharge							
	Nitrogen (total)	mg/L	location.							
	Oil & Grease	mg/L								
	pH	pН	_							
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								

	TSS	mg/L	
	TSS	mg/L	Special
	133	IIIg/L	Frequency 2
	Conductivity	μs/cm	– prior to
	Conductivity	με/τιτι	discharging from EPL 45
	Oil & Grease	mg/L	and/or 46 or
40	Oil & dicase	1116/ L	within
(HWD8)			12hours of
			discharge
	pН	pH	caused by
	рп	рн	38.4mm in a 5 Day
			consecutive
			period
	TCC	/1	
	TSS	mg/L	
	Conductivity	μs/cm	Special
	Conductivity	μз/спі	Frequency 2 – prior to
	Oil & Grease	mg/L	discharging
		8/ =	from EPL 45
	рН	рН	and/or 46 or
41			within
(HWD9)	TSS	mg/L	12hours of discharge
			caused by
	Conductivity	μs/cm	38.4mm in a
			5 Day
	Oil & Grease	mg/L	consecutive
			period
	рH	рH	
		,	Special
	TSS	mg/L	Frequency 2
42	Conductivity	us/sm	– prior to
(HWD10)	Conductivity	μs/cm	discharging
	Oil & Grease	mg/L	from EPL 45
	Oii & Grease	IIIB/L	and/or 46 or

	рН	рН	within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period
	TSS Conductivity	mg/L μs/cm	Special Frequency 2 - prior to
43	Oil & Grease	mg/L pH	discharging from EPL 45 and/or 46 or within
(HWD11)	TSS	mg/L μs/cm	12hours of discharge caused by 38.4mm in a
	Oil & Grease	mg/L	5 Day consecutive period
	pH	pН	
	TSS	mg/L μs/cm	Special Frequency 2 prior to discharging
44	Oil & Grease	mg/L	from EPL 45 and/or 46 or
(WCWD)	рН	рН	within 12hours of
	TSS	mg/L	discharge caused by 38.4mm in a
	Conductivity	μs/cm	5 Day



	Oil & Grease	mg/L	consecutive period
	рН	рН	
	Oil & Grease	mg/L	
	рН	рН	not more
45	TSS	mg/L	than 12 hours after
(ECWDP)	Oil & Grease	mg/L	discharge commences
	рН	рН	Commences
	TSS	mg/L	
	Oil & Grease	mg/L	
	рН	рН	not more
46	TSS	mg/L	than 12 hours after
(WCWDP)	Oil & Grease	mg/L	discharge
	рН	mg/L	commences
	TSS	рН	



Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq _{15min} dB	Limit L _{Aeq} _{15min} (dB) Operations Criteria	MCCP LAeq _{1min} dB	Limit L _{A1 (1 min)} (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	18/03/2024	22:30	2.3	IA	35	IA	45	0.0	NA
NM2	18/03/2024	23:30	0.6	<20	39	25	45	0.0	NA
NM3	19/03/2024	00:22	1.0	<20	35	<25	45	0.0	NA
NM4	18/03/2024	23:00	2.0	IA	35	IA	45	0.0	NA
NM5	18/03/2024	22:00	3.0	IA	35	IA	45	0.0	NA
NM6	18/03/2024	23:55	1.2	IA	35	IA	45	0.0	NA

MCC ID = Locations as per the EPL No.20221.

ND = No data due to high prevailing winds during the attended noise monitoring event.

Italicised text indicates wind speed exceeds the 3.0m/s maximum for noise monitoring.

NM = Not Measurable. If site noise is noted as NM, <20 dB or <30 dB, this means some noise was audible but could not be quantified.

IA = Site noise was inaudible at the monitoring location.

N/A in exceedance column means criterion was not applicable due to atmospheric conditions outside those specified in the project approval.

Table 6 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



Blast Monitoring

Table 7 - Blast Monitoring (Blasts - Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations	Overpressure	Db (Lin Peak)		11	93.43	108.80	120	No
Blasts	Vibration	mm/s	All	11	0.09	0.37	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).



Air Quality Monitoring

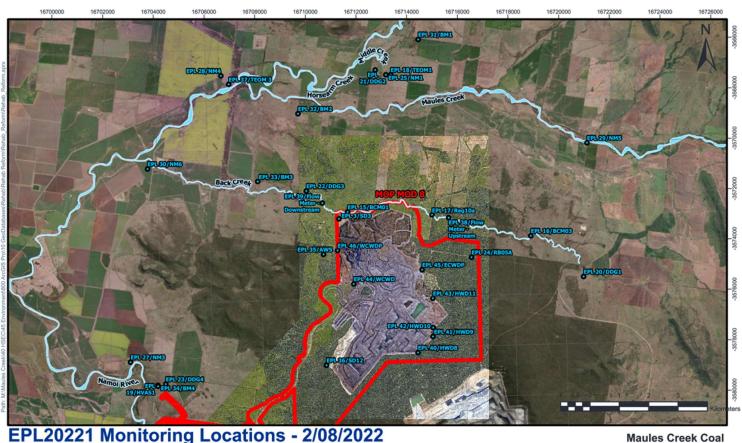
Table 8 – PM₁₀ (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	μg/m³ month	PM ₁₀	11.4	30	No
37 (TEOM3)	Continuous	μg/m³ month	PM ₁₀	14.1	30	No
19 (HVAS)	5 days	μg/m³	PM ₁₀	15.3	30	No

Table 9 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	2.2	4	No
21 (DDG2/MC2)	Monthly	g/m² month	2.1	4	No
22 (DDG3/MC3)	Monthly	g/m² month	2.1	4	No
23 (DDG4/MC4)	Monthly	g/m² month	1.1	4	No

Figure 1 – EPL 20221 Monitoring Locations



EPL20221 Monitoring Locations - 2/08/2022

Legend

EPL Monitoring locations

05 Project Boundary_Boundaries

MCCM Project Boundary (Mod 8)

Scale: 1:88,442

Author: shenanewman

Date Exported: 16/09/2022 11:51 AM

Spatial Reference Name: GDA2020 MGA Zone 56



Disclaimer: Map for reference only and subject to survey. MCC makes no guarantee of the accuracy of this map and data within, MCC shall have no liability for any decisions made or actions taken based upon this map.



MAULES CREEK COAL MINE - MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: <u>Hyperlink to Maules Creek Coal, Environment Protection Licence</u>

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: April 2024 Obtained Date: 15th May 2024 Publication Date: 16th May 2024

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2nd August 2022 by the

NSW Environment Protection Authority (EPA).



Monthly Monitoring Summary

Ground Water Monitoring

Table 1 - Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value	
15	рН	рН								
15 (BCM01)	Conductivity	μs/cm	Quarterly			Next san	nple in June 2024			
(BCM01)	TDS	mg/L								
4.6	рН	рН								
16 (BCM03)	Conductivity	μs/cm	Quarterly	Next sample in June 2024						
(BCM03)	TDS	mg/L								
17	рН	рН								
17	Conductivity	μs/cm	Quarterly			Next san	nple in June 2024			
(REG10A)	TDS	mg/L								
2.4	pН	рН								
24	Conductivity	μs/cm	Quarterly	narterly Next sample in June 2024						
(RB05A)	TDS	mg/L		·						



Surface Water Monitoring

Table 2 - Surface Water Monitoring - Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
	TSS	mg/L							<5
12	Conductivity	μs/cm	Every 2	4	11/04/2024				1240
(Mine Void)	Oil & Grease	mg/L	months	1	11/04/2024				<5
	рН	рН							8.02

Table 3 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L	Chasial							
	Nitrogen (total)	mg/L	Special Frequency 1 -							
3	Oil & Grease	mg/L	within 12							
(SD3)	рН	рН	hours of							
(3D3)	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L	discharge from EPL 3 or 36.							
	TSS	mg/L								
	Conductivity	μs/cm				No discharge occ	curred from these	monitoring locati	ons	
	Nitrate	mg/L								
	Nitrogen (total)	mg/L	Special							
	Oil & Grease	mg/L	Frequency 1 -							
36	pН	рН	within 12							
(SD12)	Phosphorous	mg/L	hours of							
	Reactive	mg/L	discharge from							
	Phosphorous		EPL 3 or 36							
	TSS	mg/L								
	Conductivity	μs/cm								



Table 4 - Clean Water Discharge - Surface Water Monitoring

D EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value		
	Conductivity	μs/cm										
	Nitrate	mg/L										
	Nitrogen (total)	mg/L										
	Oil & Grease	mg/L										
	рН	рН										
	Phosphorous	mg/L	Special									
38	Reactive Phosphorous	mg/L	Frequency 3 - within 12									
(Flow Meter	TSS	mg/L	hours of									
Upstream)	Conductivity	μs/cm	discharge									
	Nitrate	mg/L	from any									
	Nitrogen (total)	mg/L	discharge									
	Oil & Grease	mg/L	location.									
	рН	рН										
	Phosphorous	mg/L										
	Reactive	mg/L										
	Phosphorous		_	No flow was recorded at these sites.								
	TSS	mg/L			NO flow was recorded at these sites.							
	Conductivity	μs/cm										
	Nitrate	mg/L										
	Nitrogen (total)	mg/L	_									
	Oil & Grease	mg/L										
	pН	рН	Special									
	Phosphorous	mg/L	Frequency 3 -									
39	Reactive Phosphorous	mg/L	within 12 hours of									
(Flow Meter	TSS	mg/L	discharge									
downstream)	Conductivity	μs/cm	from any									
	Nitrate	mg/L	discharge									
	Nitrogen (total)	mg/L	location.									
	Oil & Grease	mg/L										
	рН	рН										
	Phosphorous	mg/L										
	Reactive Phosphorous	mg/L										

	TSS	mg/L		
			Special	
	TSS	mg/L	Frequency 2	
			– prior to	
			discharging	
	Conductivity	μs/cm	from EPL 45	
40			and/or 46 or	
40			within	
(HWD8)	Oil & Grease	mg/L	12hours of	
	On & Grease	1116/ L	discharge	
			caused by	
			38.4mm in a	
			5 Day	
	рН	рН	consecutive	
			period	
	TSS	mg/L	Special	
	133	IIIg/L	Frequency 2	
			– prior to	
			discharging	
	Conductivity	μs/cm	from EPL 45	
	,	•	and/or 46 or	
41			within	
(HWD9)			12hours of	
	0:1.0.0		discharge	
	Oil & Grease	mg/L	caused by	
			38.4mm in a	
			5 Day	
	рН	рН	consecutive	
			period	
			Special	
	TSS	mg/L	Frequency 2	
			– prior to	
	Conductivity	μs/cm	discharging	
	,		from EPL 45	
42	Oil & Grease	mg/L	and/or 46 or	
(HWD10)	Oii & di ease	1118/ L	within	
(510)			12hours of	
			discharge	
	рН	рН	caused by	
	·	•	38.4mm in a	
			5 Day	
			J Day	



			consecutive
			period
	T.C.	4	
	TSS	mg/L	Special
			Frequency 2
			– prior to
			discharging
	Conductivity	μs/cm	from EPL 45
			and/or 46 or
43			within
(HWD11)			12hours of
			discharge
	Oil & Grease	mg/L	caused by
	5.1. C. 5. 5.655	8/ =	38.4mm in a
			5 Day
			consecutive
	-11	11	period
	рН	рН	
			Consist
			Special
			Frequency 2
	TSS	mg/L	- prior to
			discharging from EPL 45
			and/or 46 or
44			within
(WCWD)			12hours of
(VVCVVD)			discharge
	Conductivity	μs/cm	caused by
	Conductivity	μο/ τιτι	38.4mm in a
			5 Day
			consecutive
	Oil & Croose	m a /I	period
	Oil & Grease	mg/L	ρετίσα

	рН	рН	
	TSS	mg/L	
45	Conductivity	μs/cm	not more than 12
(ECWDP)	Oil & Grease	mg/L	hours after discharge commences
	рН	рН	
	TSS	mg/L	not more
46	Conductivity	μs/cm	not more than 12 hours after
(WCWDP)	Oil & Grease	mg/L	discharge commences
	рН	рН	Commences



Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

Location	Start date and Time	Wi	nd	Stability class	Very enhancing? 1	Limits, dB ¹		Site levels	, dB ²	Exceedances, dB	
		Speed m/s	Direction ³			L _{Aeq,15minute}	L _{Amax}	L _{Aeq,15minute}	L _{Amax}	L _{Aeq,15minute}	L _{Amax}
NM1	1/04/2024 22:30	0.5	216	F	No	35	45	IA	IA	Nil	Nil
NM2	1/04/2024 23:30	0.3	0	F	No	39	45	IA	IA	Nil	Nil
NM3	2/04/2024 0:20	0.5	186	F	No	35	45	IA	IA	Nil	Nil
NM4	1/04/2024 23:00	0.5	140	F	No	35	45	IA	IA	Nil	Nil
NM5	1/04/2024 22:00	1.1	209	F	No	35	45	<25	30	Nil	Nil
NM6	1/04/2024 23:55	0.3	0	F	No	35	45	IA	IA	Nil	Nil

Table 6 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



Blast Monitoring

Table 7 – Blast Monitoring (Blasts – Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations	Overpressure	Db (Lin Peak)		7	94.3	109.9	120	No
Blasts	Vibration	mm/s	All	7	0.1	0.26	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).



Air Quality Monitoring

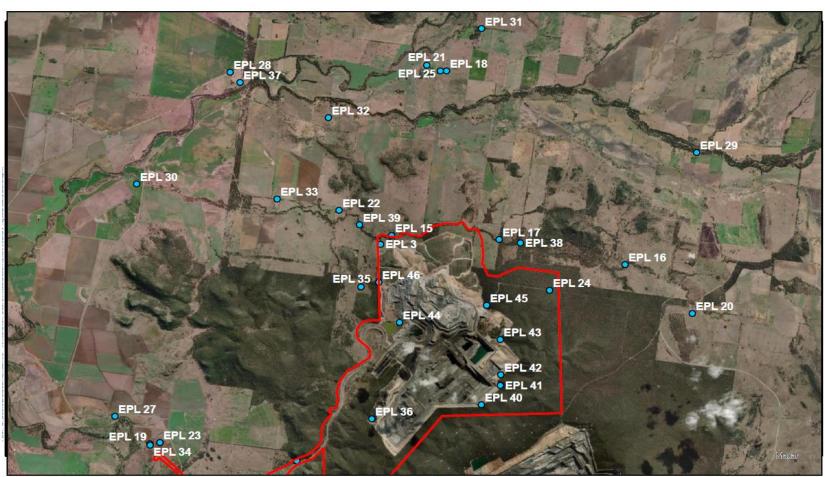
Table 8 – PM_{10} (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	μg/m³ month	PM ₁₀	11.4	30	No
37 (TEOM3)	Continuous	μg/m³ month	PM ₁₀	14.3	30	No
19 (HVAS)	5 days	μg/m³	PM ₁₀	15.7	30	No

Table 9 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	2.2	4	No
21 (DDG2/MC2)	Monthly	g/m² month	2.2	4	No
22 (DDG3/MC3)	Monthly	g/m² month	2.0	4	No
23 (DDG4/MC4)	Monthly	g/m² month	1.1	4	No

Figure 1 – EPL 20221 Monitoring Locations



EPL 20221 Monitoring Locations - 16/05/2024

EPL Monitoring Locations

MCCM Project Boundary MOD 9

Scale: 1:33,944,857,333 Author: EGibson

Date Printed: 26/03/2021

Spatial Reference Name: WGS 1984 Web Mercator Auxiliary Sphere





MAULES CREEK COAL MINE - MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: <u>Hyperlink to Maules Creek Coal, Environment Protection Licence</u>

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: May 2024 Obtained Date: 14th June 2024 Publication Date: 17th June 2024

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2nd August 2022 by the

NSW Environment Protection Authority (EPA).



Monthly Monitoring Summary

Ground Water Monitoring

Table 1 - Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value			
15	рН	рН										
15 (BCM01)	Conductivity	Conductivity µs/cm Quarterly Next sample in June 2										
(BCM01)	TDS	mg/L										
4.6	рН	рН										
16 (BCM03)	Conductivity	μs/cm	Quarterly	Next sample in June 2024								
(BCM03)	TDS	mg/L										
17	рН	рН										
17	Conductivity	μs/cm	Quarterly			Next san	nple in June 2024					
(REG10A)	TDS	mg/L		, montosimple mostre 252								
Hq Hq												
24	Conductivity	μs/cm	Quarterly			Next san	nple in June 2024					
(RB05A)	TDS	mg/L										



Surface Water Monitoring

Table 2 - Surface Water Monitoring - Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
	TSS	mg/L							14
12	Conductivity	μs/cm	Every 2	1	12/05/2024	14/06/2024	NΙΔ	NA	1270
(Mine Void)	Oil & Grease	mg/L	months	1	13/05/2024	14/06/2024	NA	INA	<5
	рН	рН							8.26

Table 3 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L	Chasial							
	Nitrogen (total)	mg/L	Special							
3	Oil & Grease	mg/L	Frequency 1 - within 12							
(SD3)	рН	рН	hours of							
(303)	Phosphorous	mg/L	discharge from							
	Reactive Phosphorous	mg/L	EPL 3 or 36.							
	TSS	mg/L								
	Conductivity	μs/cm				No discharge o	ccurred from this	monitoring location	on	
	Nitrate	mg/L								
	Nitrogen (total)	mg/L	Special							
	Oil & Grease	mg/L	Frequency 1 -							
36	рН	рН	within 12							
(SD12)	Phosphorous	mg/L	hours of							
	Reactive Phosphorous	mg/L	discharge from EPL 3 or 36							
	TSS	mg/L								
	Conductivity	μs/cm								



Table 4 - Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm	6							
	Nitrate	mg/L	Special							
38	Nitrogen (total)	mg/L	Frequency 3 - within 12							
(Flow Meter	Oil & Grease	mg/L	hours of							
Upstream)	рН	рН	discharge							
Opstream,	Phosphorous	mg/L	from any							
	Reactive Phosphorous	mg/L	discharge location.							
	TSS	mg/L	location.			No flows	was recorded at th	aca citas		
	Conductivity	μs/cm	6			NO HOW V	was recorded at th	ese sites.		
	Nitrate	mg/L	Special							
	Nitrogen (total)	mg/L	Frequency 3 - within 12							
39	Oil & Grease	mg/L	hours of							
(Flow Meter	рН	pН	discharge							
downstream)	Phosphorous	mg/L	from any							
	Reactive	mg/L	discharge							
	Phosphorous		location.							
	TSS	mg/L								
	TSS	mg/L	Special Frequency 2 – prior to							
40	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			No disabaysa a saw	aread from those an	onitoring locations	_	
(HWD8)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a			No discharge occur	rreu from these m	onitoring locations		
	рН	рН	5 Day consecutive period							



						WHITEHAV				
ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	TSS	mg/L	Special Frequency 2 – prior to discharging							
41	Conductivity	μs/cm	from EPL 45 and/or 46 or within							
(HWD9)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a							
	рН	рН	5 Day consecutive period							
	TSS	mg/L	Special Frequency 2 – prior to discharging							
42	Conductivity	μs/cm	from EPL 45 and/or 46 or within							
(HWD10)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a							
	рН	рН	5 Day consecutive period							
43	TSS	mg/L	Special Frequency 2 – prior to			No diad	was different to	and the section of th		
(HWD11)	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			NO discharge occ	curred from this mo	onitoring location		



ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value	
	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a								
	рН	рН	5 Day consecutive period								
	TSS	mg/L	Special Frequency 2 - prior to								
44	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			No discharge occ	urred from this mo	onitoring location			
(WCWD)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a			No discharge occ	urrea from this me	onitoring location			
	рН	рН	5 Day consecutive period								
	Oil & Grease	mg/L	Not more than 12								
45 (ECWDP)	рН	рН	hours after			No discharge occ	urred from this mo	onitoring location			
	TSS	mg/L	discharge commences								
	Oil & Grease	mg/L	Not more								
46 (WCWDP)	рН	рН	than 12 hours after			No discharge occ	urred from this mo	onitoring location			
	TSS	mg/L	discharge commences								



Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq _{15min} dB	Limit L _{Aeq} _{15min} (dB) Operations Criteria	MCCP LAeq _{1min} dB	Limit L _{A1 (1 min)} (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	1/05/2024	22:30	3.3	IA	40	IA	50	0.0	NA
NM2	1/05/2024	23:30	2.3	<30	39	<30	45	0.0	NA
NM3	2/05/2024	0:21	1.0	33	35	36	45	0.0	NA
NM4	1/05/2024	23:00	2.8	IA	35	IA	45	0.0	NA
NM5	1/05/2024	22:00	3.2	IA	40	IA	50	0.0	NA
NM6	1/05/2024	23:55	1.6	IA	35	IA	45	0.0	NA

Table 6 - Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



Blast Monitoring

Table 6 - Blast Monitoring (Blasts - Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations	Overpressure	Db (Lin Peak)		9	93.39	103.3	120	No
Blasts	Vibration	mm/s	All	9	0.11	0.25	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).



Air Quality Monitoring

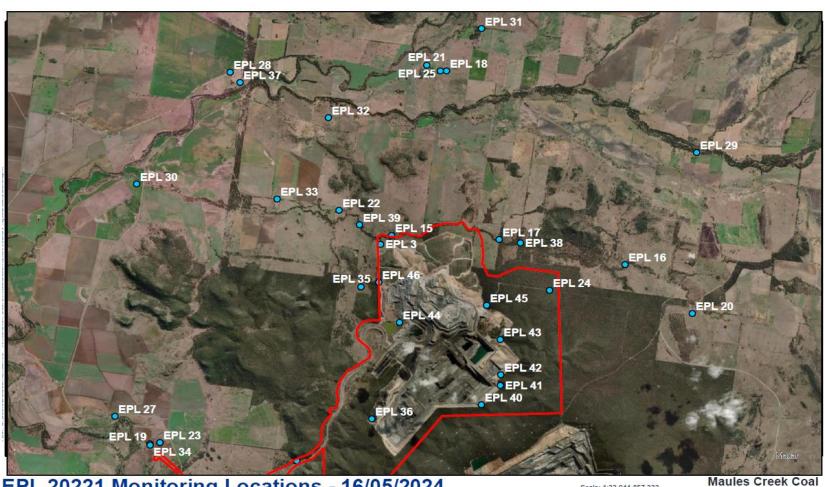
Table 7 – PM_{10} (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	μg/m³ month	PM ₁₀	11.2	30	No
37 (TEOM3)	Continuous	μg/m³ month	PM ₁₀	13.8	30	No
19 (HVAS)	5 days	μg/m³	PM ₁₀	14.4	30	No

Table 8 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	2.2	4	No
21 (DDG2/MC2)	Monthly	g/m² month	1.8	4	No
22 (DDG3/MC3)	Monthly	g/m² month	1.8	4	No
23 (DDG4/MC4)	Monthly	g/m² month	1.1	4	No

Figure 1 – EPL 20221 Monitoring Locations



EPL 20221 Monitoring Locations - 16/05/2024

EPL Monitoring Locations

MCCM Project Boundary MOD 9

Scale: 1:33,944,857,333 Author: EGibson

Date Printed: 26/03/2021

Spatial Reference Name: WGS 1984 Web Mercator Auxiliary





MAULES CREEK COAL MINE - MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: <u>Hyperlink to Maules Creek Coal, Environment Protection Licence</u>

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: June 2024 Obtained Date: 15th July 2024 Publication Date: 16th July 2024

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2nd August 2022 by the

NSW Environment Protection Authority (EPA).



Monthly Monitoring Summary

Ground Water Monitoring

Table 1 - Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15	рН	рН							
(BCM01)	Conductivity	μs/cm	Quarterly	0			Dry		
(BCIVIOI)	TDS	mg/L							
16	рН	рН							
16 (PCM03)	Conductivity	μs/cm	Quarterly	0			Dry		
(BCM03)	TDS	mg/L							
17	рН	рН							
17	Conductivity	μs/cm	Quarterly	0			Dry		
(REG10A)	TDS	mg/L							
24	pН	рН							7.54
24	Conductivity	μs/cm	Quarterly	1	05/06/2024	15/07/2024			1950
(RB05A)	TDS	mg/L	1						1140



Surface Water Monitoring

Table 2 - Surface Water Monitoring - Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
	TSS	mg/L							5
12	Conductivity	μs/cm	Every 2	1	06/06/2024	15/07/2024	NΙΔ	NIA	1340
(Mine Void)	Oil & Grease	mg/L	months	′ 1 1 1		15/07/2024	NA	NA	<5
	рН	рН							8.35

Table 3 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L	Conside							
	Nitrogen (total)	mg/L	Special							
3	Oil & Grease	mg/L	Frequency 1 -							
(SD3)	рН	рН	within 12 hours of							
(303)	Phosphorous	mg/L	discharge from							
	Reactive Phosphorous	mg/L	EPL 3 or 36.							
	TSS	mg/L								
	Conductivity	μs/cm				No discharge od	ccurred from this	monitoring locati	on	
	Nitrate	mg/L								
	Nitrogen (total)	mg/L	Special							
	Oil & Grease	mg/L	Frequency 1 -							
36	рН	рН	within 12							
(SD12)	Phosphorous	mg/L	hours of							
	Reactive Phosphorous	mg/L	discharge from EPL 3 or 36							
	TSS	mg/L								
	Conductivity	μs/cm								



Table 4 - Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L	Special							
20	Nitrogen (total)	mg/L	Frequency 3 -							
38 (Flow Meter	Oil & Grease	mg/L	within 12 hours of							
Upstream)	рН	рН	discharge							
Opstream)	Phosphorous	mg/L	from any							
	Reactive Phosphorous	mg/L	discharge location.							
	TSS	mg/L	location.			No discharge	and the second s			
	Conductivity	μs/cm				No discharge oc	curred during the	reporting month		
	Nitrate	mg/L	Special							
	Nitrogen (total)	mg/L	Frequency 3 -							
39	Oil & Grease	mg/L	within 12 hours of							
(Flow Meter	рН	рН	discharge							
downstream)	Phosphorous	mg/L	from any							
	Reactive	mg/L	discharge							
	Phosphorous		location.							
	TSS	mg/L								
	TSS	mg/L	Special Frequency 2 - prior to							
40	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			No disebargo o com	aread from those m	onitoring locations	_	
(HWD8)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a			No discharge occur	rrea from these m	onitoring locations		
	рН	рН	5 Day consecutive period							



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ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	TSS	mg/L	Special Frequency 2 - prior to discharging							
41	Conductivity	μs/cm	from EPL 45 and/or 46 or within							
(HWD9)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a							
	рН	рН	5 Day consecutive period							
	TSS	mg/L	Special Frequency 2 - prior to discharging							
42	Conductivity	μs/cm	from EPL 45 and/or 46 or within							
(HWD10)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a							
	рН	рН	5 Day consecutive period							
43	TSS	mg/L	Special Frequency 2 - prior to			N. 15. 1	16 11:			
(HWD11)	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			No discharge occ	curred from this mo	onitoring location		



ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a							
	рН	рН	5 Day consecutive period							
	TSS	mg/L	Special Frequency 2 - prior to							
44	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			No disabassa sasa				
(WCWD)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a			no discharge occ	urred from this mo	onitoring location		
	рН	рН	5 Day consecutive period							
	Oil & Grease	mg/L	Not more							
45 (ECWDP)	рН	рН	than 12 hours after			No discharge occ	urred from this mo	onitoring location		
	TSS	mg/L	discharge commences							
	Oil & Grease	mg/L	Not more							
46 (WCWDP)	рН	рН	than 12 hours after			No discharge occ	urred from this mo	onitoring location		
	TSS	mg/L	discharge commences							



Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq _{15min} dB	Limit L _{Aeq} _{15min} (dB) Operations Criteria	MCCP LAeq _{1min} dB	Limit L _{A1 (1 min)} (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	10/06/2024	22:30	0.6	<25	35	<25	45	0.0	NA
NM2	10/06/2024	23:30	1.1	34	39	36	45	0.0	NA
NM3	11/06/2024	00:20	0.5	24	35	29	45	0.0	NA
NM4	10/06/2024	23:00	0.3	<25	35	<25	45	0.0	NA
NM5	10/06/2024	22:00	0.5	30	35	33	45	0.0	NA
NM6	10/06/2024	23:55	0.3	<20	35	23	45	0.0	NA

Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



Blast Monitoring

Table 6 - Blast Monitoring (Blasts - Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations	Overpressure	Db (Lin Peak)		9	89.94	107.60	120	No
Blasts	Vibration	mm/s	All	9	0.08	0.17	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).



Air Quality Monitoring

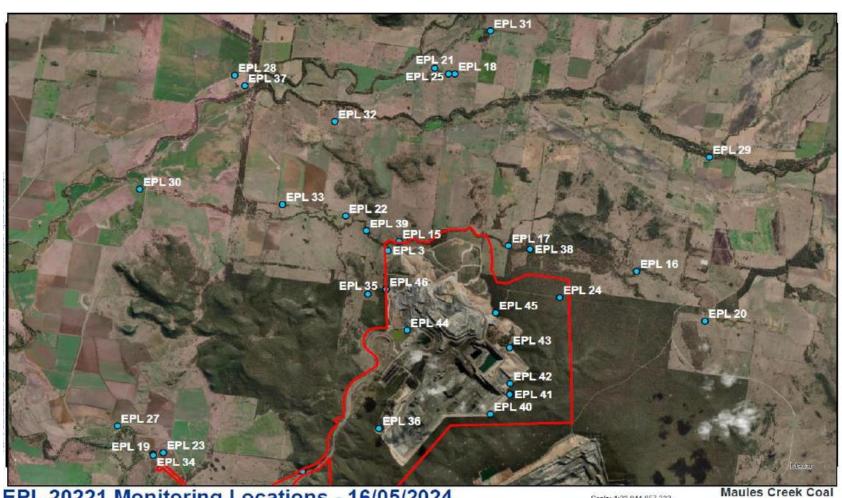
Table 7 – PM_{10} (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	μg/m³ month	PM ₁₀	10.9	30	No
37 (TEOM3)	Continuous	μg/m³ month	PM ₁₀	13.6	30	No
19 (HVAS)	5 days	μg/m³	PM ₁₀	14.2	30	No

Table 8 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	2.0	4	No
21 (DDG2/MC2)	Monthly	g/m² month	1.8	4	No
22 (DDG3/MC3)	Monthly	g/m² month	1.7	4	No
23 (DDG4/MC4)	Monthly	g/m² month	1.0	4	No

Figure 1 – EPL 20221 Monitoring Locations



EPL 20221 Monitoring Locations - 16/05/2024

EPL Monitoring Locations

MCCM Project Boundary MOD 9

Scale: 1:33,944,857,333 Author: EGibson Date Printed: 26/03/2021 Spatial Reference Name: WGS 1994 Web Mercator Auxiliary

WHITEHAVEN



MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: <u>Hyperlink to Maules Creek Coal, Environment Protection Licence</u>

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: July 2024 Obtained Date: 15th July 2024 Publication Date: 19th August 2024

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2nd August 2022 by the

NSW Environment Protection Authority (EPA).



Monthly Monitoring Summary

Ground Water Monitoring

Table 1 - Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15	pН	рН							
(BCM01)	Conductivity	μs/cm	Quarterly	0					
(PCIVIOT)	TDS	mg/L							
4.5	pН	рН							
16	Conductivity	μs/cm	Quarterly	0					
(BCM03)	TDS	mg/L				N	aut Camanla Camtanaha	- 202 <i>4</i>	
4.7	pH	pН				IN	ext Sample Septembe	1 2024	
17 (DEC104)	Conductivity	μs/cm	Quarterly	0					
(REG10A)	TDS	mg/L							
24	pH	pН							
24 (DDOEA)	Conductivity	μs/cm	Quarterly	0					
(RB05A)	TDS	mg/L							



Surface Water Monitoring

Table 2 - Surface Water Monitoring - Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
	TSS	mg/L							<5
12	Conductivity	μs/cm	Every 2	1	11/07/2024	15 (09 (2024	NIA	N.A	1410
(Mine Void)	Oil & Grease	mg/L	months	1	11/07/2024	15/08/2024	NA	NA	<5
	pН	рН							8.4

Table 3 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L	Special							
2	Oil & Grease	mg/L	Frequency 1 -							
3	pH	рН	within 12 hours of							
(SD3)	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L	discharge from EPL 3 or 36.							
	TSS	mg/L								
	Conductivity	μs/cm				No discharge od	ccurred from this	monitoring locati	on	
	Nitrate	mg/L]							
	Nitrogen (total)	mg/L	Special							
	Oil & Grease	mg/L	Frequency 1 -							
36	pН	рН	within 12							
(SD12)	Phosphorous	mg/L	hours of							
	Reactive	mg/L	discharge from							
	Phosphorous		EPL 3 or 36							
	TSS	mg/L								
	Conductivity	μs/cm								



Table 4 - Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L	Special							
	Nitrogen (total)	mg/L	Frequency 3 -							
38	Oil & Grease	mg/L	within 12							
(Flow Meter	рН	pН	hours of							
Upstream)	Phosphorous	mg/L	discharge from any							
	Reactive Phosphorous	mg/L	discharge							
	TSS	mg/L	location.							
	Conductivity	μs/cm				No discharge occ	curred during the	reporting month		
	Nitrate	mg/L	Special							
	Nitrogen (total)	mg/L	Frequency 3 -							
39	Oil & Grease	mg/L	within 12							
(Flow Meter	рН	pH	hours of							
downstream)	Phosphorous	mg/L	discharge from any							
	Reactive	ma/l	discharge							
	Phosphorous	mg/L	location.							
	TSS	mg/L	1000010111							
	TSS	mg/L	Special Frequency 2 – prior to							
40	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			A. 1: 1				
(HWD8)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a			No discharge occui	rrea from tnese m	onitoring locations		
	рН	рН	5 Day consecutive period							



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ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	TSS	mg/L	Special Frequency 2 - prior to discharging							
41	Conductivity	μs/cm	from EPL 45 and/or 46 or within							
(HWD9)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a							
	рН	рН	5 Day consecutive period							
	TSS	mg/L	Special Frequency 2 - prior to discharging							
42	Conductivity	μs/cm	from EPL 45 and/or 46 or within							
(HWD10)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a							
	рН	рН	5 Day consecutive period							
43	TSS	mg/L	Special Frequency 2 - prior to			No diseberas		unite auto a la cast		
(HWD11)	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			NO discharge occ	urred from this mo	onitoring location		



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ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a							
	рН	рН	5 Day consecutive period							
	TSS	mg/L	Special Frequency 2 - prior to							
44	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			N. P. I	16			
(WCWD)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a			No discharge occ	urred from this m	onitoring location		
	рН	рН	5 Day consecutive period							
	Oil & Grease	mg/L	Not more							
45 (ECWDP)	рН	pH	than 12 hours after			No discharge occ	urred from this m	onitoring location		
. ,	TSS	mg/L	discharge commences							
	Oil & Grease	mg/L	Not more							
46 (WCWDP)	рН	pH	than 12 hours after			No discharge occ	urred from this m	onitoring location		
, , , , , , , , , , , , , , , , , , ,	TSS	mg/L	discharge commences							



Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq _{15min} dB	Limit L _{Aeq} _{15min} (dB) Operations Criteria	MCCP LAeq _{1min} dB	Limit L _{A1 (1 min)} (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	24/07/2024	22:30	0.3	<20	35	25	45	0.0	No
NM2	24/07/2024	23:30	0.3	<20	39	<20	45	0.0	No
NM3	25/07/2024	00:21	0.5	IA	35	IA	45	0.0	No
NM4	24/07/2024	23:00	0.1	IA	35	IA	45	0.0	No
NM5	24/07/2024	22:01	0.5	25	35	30	45	0.0	No
NM6	24/07/2024	23:56	0.4	IA	35	IA	45	0.0	No

Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



Blast Monitoring

Table 6 - Blast Monitoring (Blasts - Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations	Overpressure	Db (Lin Peak)		9	94.29	109.4	120	No
Blasts	Vibration	mm/s	All	9	0.10	0.19	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).



Air Quality Monitoring

Table 7 – PM₁₀ (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	μg/m³ month	PM ₁₀	10.5	30	No
37 (TEOM3)	Continuous	μg/m³ month	PM ₁₀	13.3	30	No
19 (HVAS)	5 days	μg/m³	PM ₁₀	14.1	30	No

Table 8 - Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	2.0	4	No
21 (DDG2/MC2)	Monthly	g/m² month	1.8	4	No
22 (DDG3/MC3)	Monthly	g/m² month	1.8	4	No
23 (DDG4/MC4)	Monthly	g/m² month	0.8	4	No

Figure 1 – EPL 20221 Monitoring Locations



EPL Monitoring Locations

MCCM Project Boundary MOD 9

Scale: 1:33,944,857,333 Author: EGibson Date Printed: 26/03/2021

WHITEHAVEN



MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: <u>Hyperlink to Maules Creek Coal, Environment Protection Licence</u>

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: August 2024

Obtained Date: 13th September 2024 **Publication Date:** 16th September 2024

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2nd August 2022 by the NSW Environment Protection Authority (EPA).



Monthly Monitoring Summary

Ground Water Monitoring

Table 1 - Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15	рН	pН							
15 (DCN401)	Conductivity	μs/cm	Quarterly	0					
(BCM01)	TDS	mg/L							
4.0	рН	pН							
(BCMO3) ⊢	Conductivity	μs/cm	Quarterly	0					
	TDS	mg/L				NI.		- 2024	
47	рН	pH				IN 6	ext Sample Septembe	r 2024	
17 (DEC10A)	Conductivity	μs/cm	Quarterly	0					
(REG10A)	TDS	mg/L							
2.4	рН	pH							
24	Conductivity	μs/cm	Quarterly	0					
(RB05A)	TDS	mg/L	Ī ,						



Surface Water Monitoring

Table 2 - Surface Water Monitoring - Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
	TSS	mg/L							<5
12	Conductivity	μs/cm	Every 2	1	14/08/2024	13/09/2024	NIA	l	1310
(Mine Void)	Oil & Grease	mg/L	months	1	14/08/2024	13/09/2024	NA	NA	<5
	рН	pН							8.37

Table 3 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L	Special							
2	Oil & Grease	mg/L	Frequency 1 -							
3	pH	рН	within 12 hours of							
(SD3)	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L	discharge from EPL 3 or 36.							
	TSS	mg/L								
	Conductivity	μs/cm				No discharge od	ccurred from this	monitoring locati	on	
	Nitrate	mg/L]							
	Nitrogen (total)	mg/L	Special							
	Oil & Grease	mg/L	Frequency 1 -							
36	pH	рН	within 12							
(SD12)	Phosphorous	mg/L	hours of							
	Reactive	mg/L	discharge from							
	Phosphorous		EPL 3 or 36							
	TSS	mg/L								
	Conductivity	μs/cm								



Table 4 - Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value	
	Conductivity	μs/cm				'					
	Nitrate	mg/L	Special								
	Nitrogen (total)	mg/L	Frequency 3 -								
38	Oil & Grease	mg/L	within 12								
(Flow Meter	рН	pН	hours of discharge								
Upstream)	Phosphorous	mg/L	from any								
	Reactive Phosphorous	mg/L	discharge location.								
	TSS	mg/L				No diselesses se					
	Conductivity	μs/cm				No discharge occ	curred during the	reporting month			
	Nitrate	mg/L	Special								
	Nitrogen (total)	mg/L	Frequency 3 -								
39	Oil & Grease	mg/L	within 12 hours of								
(Flow Meter	рН	pН	discharge								
downstream)	Phosphorous	mg/L	from any								
	Reactive	mg/L	discharge								
	Phosphorous		location.								
	TSS	mg/L									
	TSS	mg/L	Special Frequency 2 - prior to								
40	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			No diadama					
(HWD8)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a			No discharge occur	rrea from these m	onitoring locations			
	рН	рН	5 Day consecutive period								



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ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	TSS	mg/L	Special Frequency 2 – prior to discharging							
41	Conductivity	μs/cm	from EPL 45 and/or 46 or							
(HWD9)	Oil & Grease	mg/L	within 12hours of discharge caused by							
	рН	рН	38.4mm in a 5 Day consecutive period							
	TSS	mg/L	Special Frequency 2 - prior to discharging							
42 (HWD10)	Conductivity	μs/cm	from EPL 45 and/or 46 or within 12hours of							
(HWD10)	Oil & Grease	mg/L	discharge caused by 38.4mm in a							
	рН	рН	5 Day consecutive period							
43	TSS	mg/L	Special Frequency 2 – prior to discharging			No discharge occ	urred from this mo	onitoring location		
(HWD11)	Conductivity	μs/cm	from EPL 45 and/or 46 or within			ivo discharge occ	unea nom uns me	onitoring location		



ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value		
	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a									
	рΗ	рН	5 Day consecutive period									
	TSS	mg/L	Special Frequency 2 – prior to									
44	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within	PL 45 46 or								
(WCWD)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a	No discharge occurred from this monitoring location								
	рН	рН	5 Day consecutive period									
	Oil & Grease	mg/L	Not more									
45 (ECWDP)	рН	рН	than 12 hours after			No discharge occ	urred from this m	onitoring location				
, ,	TSS	mg/L	discharge commences									
	Oil & Grease	mg/L	Not more									
46 (WCWDP)	рН	pH	than 12 hours after			No discharge occ	urred from this m	onitoring location				
,	TSS	mg/L	discharge commences									



Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq _{15min} dB	Limit L _{Aeq} _{15min} (dB) Operations Criteria	MCCP LAeq _{1min} dB	Limit L _{A1 (1 min)} (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	21/08/2024	22:30	0.3	<30	35	32	45	0.0	No
NM2	21/08/2024	23:00	0.6	<25	39	<25	45	0.0	No
NM3	21/08/2024	23:20	0.7	IA	35	IA	45	0.0	No
NM4	21/08/2024	23:47	0.6	IA	35	IA	45	0.0	No
NM5	21/08/2024	22:00	0.3	<25	35	37	45	0.0	No
NM6	21/08/2024	23:25	0.7	IA	35	IA	45	0.0	No

Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



Blast Monitoring

Table 6 - Blast Monitoring (Blasts - Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations	Overpressure	Db (Lin Peak)		7	95.03	113.3	120	No
Blasts	Vibration	mm/s	All	7	0.25	1.86	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).



Air Quality Monitoring

Table 7 – PM₁₀ (Limits Apply)

	•	11 27				
ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	μg/m³ month	PM ₁₀	10.5	30	No
37 (TEOM3)	Continuous	μg/m³ month	PM ₁₀	13.4	30	No
19 (HVAS)	5 days	μg/m³	PM ₁₀	14.2	30	No

Table 8 - Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	2.0	4	No
21 (DDG2/MC2)	Monthly	g/m² month	2.0	4	No
22 (DDG3/MC3)	Monthly	g/m² month	1.8	4	No
23 (DDG4/MC4)	Monthly	g/m² month	1.0	4	No

Figure 1 – EPL 20221 Monitoring Locations



EPL Monitoring Locations

MCCM Project Boundary MOD 9

Author: EGibson Date Printed: 26/03/2021

WHITEHAVEN



MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: Hyperlink to Maules Creek Coal, Environment Protection Licence

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: September 2024 Obtained Date: 16th October 2024 Publication Date: 16th October 2024

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2_{nd} August 2022 by the NSW Environment Protection Authority (EPA).



Monthly Monitoring Summary

Ground Water Monitoring

Table 1 - Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value		
15	рН	рН									
(BCM01)	Conductivity	μs/cm	Quarterly	0			Dry				
(BCIVIOI)	IDS mg										
16	рН	рН									
16	Conductivity	μs/cm	Quarterly	0	Dry						
(BCM03)	TDS	mg/L]								
17	рН	рН									
	Conductivity	μs/cm	Quarterly	0			Dry				
(REG10A)	TDS	mg/L									
24	рН	рН							7.61		
(0000 4)	Conductivity	μs/cm	Quarterly	1	13/09/2024	16/10/2024			1860		
(RB05A) —	TDS	mg/L							1160		



Surface Water Monitoring

Table 2 - Surface Water Monitoring - Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
	TSS	mg/L							<5
12	Conductivity	μs/cm	Every 2	Every 2 1 1	11/09/2024	16/10/2024	NA	NA	1290
(Mine Void)	Oil & Grease	mg/L	months						<5
	рН	рН							8.41

Table 3 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L	Constal							
	Nitrogen (total)	mg/L	Special							
3	Oil & Grease	mg/L	Frequency 1 - within 12							
(SD3)	рН	рН	hours of							
(303)	Phosphorous	mg/L	discharge from							
	Reactive Phosphorous	mg/L	EPL 3 or 36.							
	TSS	mg/L								
	Conductivity	μs/cm				No discharge o	ccurred from this	monitoring locati	on	
	Nitrate	mg/L								
	Nitrogen (total)	mg/L	Special							
	Oil & Grease	mg/L	Frequency 1 -							
36	рН	рН	within 12							
(SD12)	Phosphorous	mg/L	hours of							
	Reactive	mg/L	discharge from							
	Phosphorous		EPL 3 or 36							
	TSS	mg/L								
	Conductivity	μs/cm								



Table 4 - Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value			
	Conductivity	μs/cm											
	Nitrate	mg/L	Special										
38	Nitrogen (total)	mg/L	Frequency 3 - within 12	2									
(Flow Meter	Oil & Grease	mg/L	hours of										
Upstream)	рН	рН	discharge	ge by ge									
Opstreamij	Phosphorous	mg/L	from any										
	Reactive Phosphorous	mg/L	discharge location.										
	TSS	mg/L	location.	No discharge occurred during the reporting month									
	Conductivity	μs/cm											
	Nitrate	mg/L	Special										
	Nitrogen (total)	mg/L	Frequency 3 -										
39	Oil & Grease	mg/L		within 12 hours of discharge									
(Flow Meter	рН	рН											
downstream)	Phosphorous	mg/L	from any										
	Reactive	mg/L	discharge										
	Phosphorous		location.										
	TSS	mg/L											
	TSS	mg/L	Special Frequency 2 – prior to										
40	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within	ing - 45 6 or									
(HWD8)	Oil & Grease	mg/L	12hours of discharge caused by			ivo discriarge occul	rrea from these m	ionitoring locations					
	рН	рН	5 Day consecutive period	nsecutive									



				MILLE AND THE STATE OF THE STAT							
ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value	
	TSS	mg/L	Special Frequency 2 - prior to discharging								
41	Conductivity	μs/cm	from EPL 45 and/or 46 or within								
(HWD9)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a								
	рН	рН	5 Day consecutive period								
	TSS mg/L Conductivity μs/cm	Special Frequency 2 - prior to discharging									
		μs/cm	from EPL 45 and/or 46 or within								
(HWD10)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a								
	рН	рН	5 Day consecutive period								
43	TSS	mg/L	Special Frequency 2 - prior to			No diselegans	used from this w	onitoring leastice			
(HWD11)	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			NO discharge occ	urred from this mo	omitoring location			



ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value	
	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a								
	рН	рН	5 Day consecutive period								
	TSS	mg/L	Special Frequency 2 - prior to								
44	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within	EPL 45 or 46 or thin No discharge assurred from this monitoring location							
(WCWD)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a	discharge occurred from this monitoring location discharge caused by							
	рН	рН	5 Day consecutive period								
	Oil & Grease	mg/L	Not more								
45 (ECWDP)	рН	рН	than 12 hours after			No discharge occ	urred from this mo	onitoring location			
,	TSS	mg/L	discharge commences								
	Oil & Grease	mg/L	Not more								
46 (WCWDP)	рН	рН	than 12 hours after	ours after No discharge occurred from this monitoring location							
,	TSS	mg/L	discharge commences								



Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq _{15min} dB	Limit L _{Aeq} _{15min} (dB) Operations Criteria	MCCP LAeq _{1min} dB	Limit L _{A1 (1 min)} (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	23/09/2024	22:30	0.3	<20	35	<20	45	0.0	No
NM2	23/09/2024	23:30	0.3	<20	39	<20	45	0.0	No
NM3	23/09/2024	23:45	0.3	IA	35	IA	45	0.0	No
NM4	23/09/2024	23:00	0.5	IA	35	IA	45	0.0	No
NM5	23/09/2024	22:00	0.2	<20	35	<20	45	0.0	No
NM6	23/09/2024	23:57	0.3	IA	35	IA	45	0.0	No

Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



Blast Monitoring

Table 6 - Blast Monitoring (Blasts - Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations	Overpressure	Db (Lin Peak)		9	96.20	110.2	120	No
Blasts	Vibration	mm/s	All	9	0.10	0.52	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).



Air Quality Monitoring

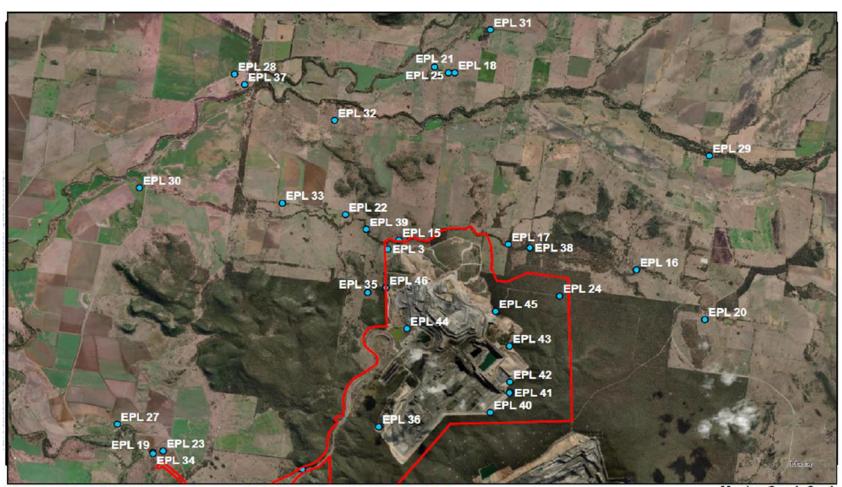
Table 7 – PM_{10} (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	μg/m³ month	PM ₁₀	10.0	30	No
37 (TEOM3)	Continuous	μg/m³ month	PM ₁₀	13.8	30	No
19 (HVAS)	5 days	μg/m³	PM ₁₀	12.5	30	No

Table 8 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	1.7	4	No
21 (DDG2/MC2)	Monthly	g/m² month	2.1	4	No
22 (DDG3/MC3)	Monthly	g/m² month	1.9	4	No
23 (DDG4/MC4)	Monthly	g/m² month	1.0	4	No

Figure 1 – EPL 20221 Monitoring Locations



EPL 20221 Monitoring Locations - 16/05/2024

EPL Monitoring Locations

MCCM Project Boundary MOD 9

Scale: 1:33,944,857,333
Author: EGitison
Date Printed: 26/03/2021
Spatial Reference
Name: WGS 1991 Web Mercator Auxiliary
Sphere





MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: Hyperlink to Maules Creek Coal, Environment Protection Licence

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: October 2024

Obtained Date: 15th November 2024

Publication Date: 18th November 2024

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2nd August 2022 by the NSW Environment Protection Authority (EPA).



Monthly Monitoring Summary

Ground Water Monitoring

Table 1 - Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value	
15	рН	рН								
(BCM01)	Conductivity	μs/cm	Quarterly	0						
(BCIVIOI)	TDS	mg/L								
16	pН	рН								
16	Conductivity	μs/cm	Quarterly	0						
(BCM03)	TDS	mg/L								
17	рН	рН				ľ	Next sample December	2024		
17	Conductivity	μs/cm	Quarterly	0						
(REG10A)	TDS	mg/L								
24	рН	рН			0					
24 (DDOE A)	Conductivity	μs/cm	Quarterly	0						
(RB05A)	TDS	mg/L								



Surface Water Monitoring

Table 2 - Surface Water Monitoring - Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
	TSS	mg/L							21
12	Conductivity	μs/cm	Every 2	1	11/10/2024	15/11/2024	NΙΔ	NIA	1330
(Mine Void)	Oil & Grease	mg/L	months	1	11/10/2024	15/11/2024	NA	NA	<5
	рН	рН							8.3

Table 3 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L	Chasial							
	Nitrogen (total)	mg/L	Special							
3	Oil & Grease	mg/L	Frequency 1 - within 12							
(SD3)	рН	рН	hours of							
(303)	Phosphorous	mg/L	discharge from							
	Reactive Phosphorous	mg/L	EPL 3 or 36.							
	TSS	mg/L								
	Conductivity	μs/cm				No discharge o	ccurred from this	monitoring location	on	
	Nitrate	mg/L								
	Nitrogen (total)	mg/L	Special							
	Oil & Grease	mg/L	Frequency 1 -							
36	рН	рН	within 12							
(SD12)	Phosphorous	mg/L	hours of							
	Reactive Phosphorous	mg/L	discharge from EPL 3 or 36							
	TSS	mg/L								
	Conductivity	μs/cm								



Table 4 - Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value		
	Conductivity	μs/cm										
	Nitrate	mg/L	Special									
20	Nitrogen (total)	mg/L	Frequency 3 -									
38 (Flow Meter	Oil & Grease	mg/L	within 12 hours of									
Upstream)	рН	рН	discharge									
Opstream)	Phosphorous	mg/L	from any									
	Reactive Phosphorous	mg/L	discharge	No discharge occurred during the reporting month								
	TSS	mg/L	location.									
	Conductivity	μs/cm		No discharge occurred during the reporting month								
	Nitrate	mg/L	Special									
	Nitrogen (total)	mg/L	Frequency 3 -									
39	Oil & Grease	mg/L	within 12									
(Flow Meter	рН	рН	hours of									
downstream)	Phosphorous	mg/L	discharge from any									
	Reactive	mg/L	discharge									
	Phosphorous	IIIg/L	location.									
	TSS	mg/L										
	TSS	mg/L	Special Frequency 2 - prior to									
40	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within									
(HWD8)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a	No discharge occurred from these monitoring locations								
	рН	рН	5 Day consecutive period									



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ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value	
	TSS	mg/L	Special Frequency 2 – prior to discharging								
41	Conductivity	μs/cm	from EPL 45 and/or 46 or								
(HWD9)	Oil & Grease	mg/L	within 12hours of discharge caused by								
	рН	рН	38.4mm in a 5 Day consecutive period								
	TSS	mg/L	Special Frequency 2 - prior to discharging								
42	Conductivity	μs/cm	from EPL 45 and/or 46 or within								
(HWD10)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a								
	рН	рН	5 Day consecutive period								
43	TSS	mg/L	Special Frequency 2 - prior to			No disebous cons	unana di funa na Alaira				
(HWD11)	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			NO discharge occ	urred from this mo	onitoring location			



ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value		
	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a									
	рН	рН	5 Day consecutive period									
	TSS	mg/L	Special Frequency 2 - prior to									
44	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within	No discharge occurred from this monitoring location								
(WCWD)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a	of see by								
	рН	рН	5 Day consecutive period									
	Oil & Grease	mg/L	Not more than 12									
45 (ECWDP)	рН	рН	hours after			No discharge occ	urred from this mo	onitoring location				
	TSS	mg/L	discharge commences									
	Oil & Grease	mg/L	Not more									
46 (WCWDP)	рН	рН	than 12 hours after discharge			No discharge occ	urred from this mo	onitoring location				
	TSS	mg/L										



Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq _{15min} dB	Limit L _{Aeq} _{15min} (dB) Operations Criteria	MCCP LAeq _{1min} dB	Limit L _{A1 (1 min)} (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	22/10/2024	22:30	0.3	<25	35	25	45	0.0	No
NM2	22/10/2024	23:30	0.4	28	39	<30	45	0.0	No
NM3	22/10/2024	23:29	0.4	<20	35	<20	45	0.0	No
NM4	22/10/2024	23:00	0.5	<20	35	<20	45	0.0	No
NM5	22/10/2024	22:00	0.2	<25	35	29	45	0.0	No
NM6	23/10/2024	00:02	0.4	<25	35	<25	45	0.0	No

Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



Blast Monitoring

Table 6 - Blast Monitoring (Blasts - Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations	Overpressure	Db (Lin Peak)	A 11	8	95.14	106.8	120	No
Blasts	Vibration	mm/s	All	8	0.09	0.36	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).



Air Quality Monitoring

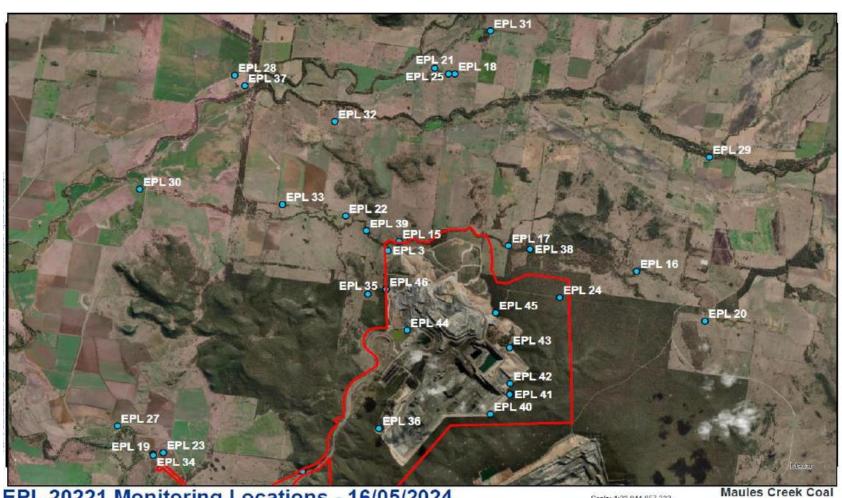
Table 7 – PM_{10} (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	μg/m³ month	PM ₁₀	9.8	30	No
37 (TEOM3)	Continuous	μg/m³ month	PM ₁₀	12.3	30	No
19 (HVAS)	5 days	μg/m³	PM ₁₀	12.8	30	No

Table 8 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	2.0	4	No
21 (DDG2/MC2)	Monthly	g/m² month	2.2	4	No
22 (DDG3/MC3)	Monthly	g/m² month	1.8	4	No
23 (DDG4/MC4)	Monthly	g/m² month	1.0	4	No

Figure 1 – EPL 20221 Monitoring Locations



EPL 20221 Monitoring Locations - 16/05/2024

EPL Monitoring Locations

MCCM Project Boundary MOD 9

Scale: 1:33,944,857,333 Author: EGibson Date Printed: 26/03/2021 Spatial Reference Name: WGS 1994 Web Mercator Auxiliary

WHITEHAVEN



MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: <u>Hyperlink to Maules Creek Coal, Environment Protection Licence</u>

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: November 2024
Obtained Date: 12th December 2024
Publication Date: 16th December 2024

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2nd August 2022 by the

NSW Environment Protection Authority (EPA).



Monthly Monitoring Summary

Ground Water Monitoring

Table 1 - Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value		
15	рН	рН									
(BCM01)	Conductivity	μs/cm	Quarterly	0							
(BCIVIOI)	TDS	mg/L									
16	pН	рН									
16	Conductivity	μs/cm	Quarterly	0							
(BCM03)	TDS	mg/L					Nout comple December	2024			
17	рН	рН				ľ	Next sample December	2024			
17	Conductivity	μs/cm	Quarterly	0							
(REG10A)	TDS	mg/L									
24	рН	рН			0						
24 (DDOE A)	Conductivity	μs/cm	Quarterly	0							
(RB05A)	TDS	mg/L	- Quarterly	J							



Surface Water Monitoring

Table 2 - Surface Water Monitoring - Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
	TSS	mg/L							<5
12	Conductivity	μs/cm	Every 2	1	44 /44 /2024	12/12/2024	NA	NA	1320
(Mine Void)	Oil & Grease	mg/L	months	, I 1 I	11/11/2024				<5
	рН	рН							8.16

Table 3 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L	Constal							
	Nitrogen (total)	mg/L	Special							
3	Oil & Grease	mg/L	Frequency 1 - within 12							
(SD3)	рH	рН	hours of							
(3D3)	Phosphorous	mg/L	discharge from							
	Reactive Phosphorous	mg/L	EPL 3 or 36.							
	TSS	mg/L								
	Conductivity	μs/cm				No discharge o	ccurred from this	monitoring locati	on	
	Nitrate	mg/L								
	Nitrogen (total)	mg/L	Special							
	Oil & Grease	mg/L	Frequency 1 -							
36	pН	рН	within 12							
(SD12)	Phosphorous	mg/L	hours of							
	Reactive Phosphorous	mg/L	discharge from EPL 3 or 36							
	TSS	mg/L								
	Conductivity	μs/cm								



Table 4 - Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L	Special							
20	Nitrogen (total)	mg/L	Frequency 3 -							
38 (Flow Meter	Oil & Grease	mg/L	within 12 hours of							
Upstream)	рН	рН	discharge							
Opstream)	Phosphorous	mg/L	from any							
	Reactive Phosphorous	mg/L	discharge							
	TSS	mg/L	location.			A. 1. 1				
	Conductivity	μs/cm				No discharge oc	curred during the	reporting month		
	Nitrate	mg/L	Special							
	Nitrogen (total)	mg/L	Frequency 3 -							
39	Oil & Grease	mg/L	within 12							
(Flow Meter	рН	pН	hours of							
downstream)	Phosphorous	mg/L	discharge from any							
	Reactive	mg/L	discharge							
	Phosphorous	IIIg/L	location.							
	TSS	mg/L								
	TSS	mg/L	Special Frequency 2 - prior to							
40	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			No discharge occur	rrad from those m	onitoring locations		
(HWD8)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a			No discharge occur	rrea from these m	ornitoring locations	5	
	рН	рН	5 Day consecutive period							



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ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	TSS	mg/L	Special Frequency 2 – prior to discharging							
41	Conductivity	μs/cm	from EPL 45 and/or 46 or							
(HWD9)	Oil & Grease	mg/L	within 12hours of discharge caused by							
	рН	рН	38.4mm in a 5 Day consecutive period							
	TSS	mg/L	Special Frequency 2 - prior to discharging							
42	Conductivity	μs/cm	from EPL 45 and/or 46 or within							
(HWD10)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a							
	рН	рН	5 Day consecutive period							
43	TSS	mg/L	Special Frequency 2 - prior to			No disebours	uuun d fun un blo's			
(HWD11)	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			NO discharge occ	urred from this mo	onitoring location		



ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a							
	рН	рН	5 Day consecutive period							
	TSS	mg/L	Special Frequency 2 - prior to							
44	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			No discharge occ	urred from this mo	onitoring location		
(WCWD)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a			No discharge occ	urrea from this me	onitoring location		
	рН	рН	5 Day consecutive period							
	Oil & Grease	mg/L	Not more than 12							
45 (ECWDP)	рН	рН	hours after			No discharge occ	urred from this mo	onitoring location		
	TSS	mg/L	discharge commences							
	Oil & Grease	mg/L	Not more							
46 (WCWDP)	рН	рН	than 12 hours after			No discharge occ	urred from this mo	onitoring location		
	TSS	mg/L	discharge commences							



Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq _{15min} dB	Limit L _{Aeq} _{15min} (dB) Operations Criteria	MCCP LAeq _{1min} dB	Limit L _{A1 (1 min)} (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	05/11/2024	22:30	2.6	IA	35	IA	45	0.0	No
NM2	05/11/2024	23:30	2.8	<20	39	<25	45	0.0	No
NM3	05/11/2024	23:17	2.2	IA	35	IA	45	0.0	No
NM4	05/11/2024	23:00	2.3	IA	35	IA	45	0.0	No
NM5	05/11/2024	22:00	2.9	<20	35	<20	45	0.0	No
NM6	06/11/2024	00:00	2.2	IA	35	IA	45	0.0	No

Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



Blast Monitoring

Table 6 - Blast Monitoring (Blasts - Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations	Overpressure	Db (Lin Peak)		8	94.9	109.2	120	No
Blasts	Vibration	mm/s	All	8	0.11	0.43	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).



Air Quality Monitoring

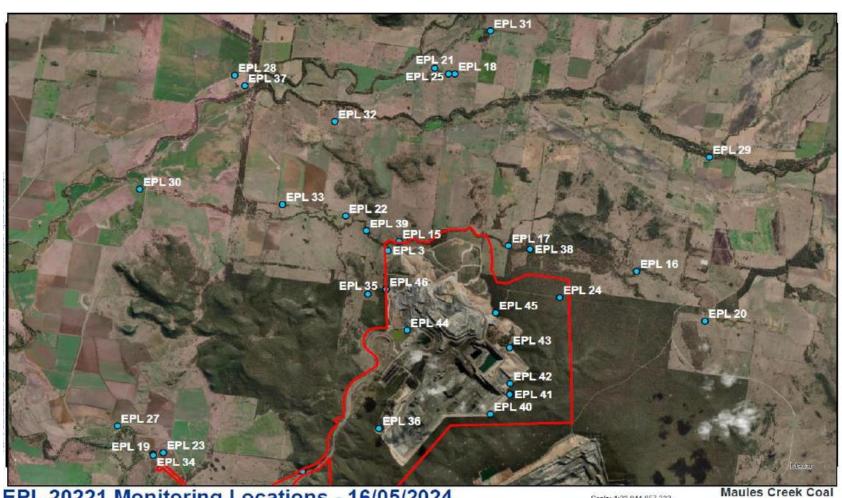
Table 7 – PM_{10} (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	μg/m³ month	PM ₁₀	9.9	30	No
37 (TEOM3)	Continuous	μg/m³ month	PM ₁₀	13.5	30	No
19 (HVAS)	5 days	μg/m³	PM ₁₀	12.9	30	No

Table 8 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	2.0	4	No
21 (DDG2/MC2)	Monthly	g/m² month	2.2	4	No
22 (DDG3/MC3)	Monthly	g/m² month	1.9	4	No
23 (DDG4/MC4)	Monthly	g/m² month	1.0	4	No

Figure 1 – EPL 20221 Monitoring Locations



EPL 20221 Monitoring Locations - 16/05/2024

EPL Monitoring Locations

MCCM Project Boundary MOD 9

Scale: 1:33,944,857,333 Author: EGibson Date Printed: 26/03/2021 Spatial Reference Name: WGS 1994 Web Mercator Auxiliary

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MAULES CREEK COAL MINE – MONTHLY MONITORING SUMMARY

Site Information

EPL No: 20221

EPA Website Link: Hyperlink to Maules Creek Coal, Environment Protection Licence

Licensee: Maules Creek Coal Mine Pty Ltd

Licensee Address: Maules Creek Coal Mine, Therribri Road, BOGGABRI NSW 2382

EPL Monitoring Points: See Figure 1 below

Sampling Period: December 2024 Obtained Date: 17th January 2025 Publication Date: 20th January 2025

Context: This Monthly Monitoring Summary aligns with the Environment Protection Licence (EPL) No. 20221 – Maules Creek Coal Mine issued 2nd August 2022 by the

NSW Environment Protection Authority (EPA).



Monthly Monitoring Summary

Ground Water Monitoring

Table 1 - Groundwater Quality Monitoring

ID EPL (Bore)	Parameters	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
15 (BCM01)	pH Conductivity TDS	pH μs/cm mg/L	Quarterly	0		Dı	ry – Next Sample Marc	h 2025	
16 (BCM03)	pH Conductivity TDS	pH μs/cm mg/L	Quarterly	0		Di	ry – Next Sample Marc	h 2025	
17 (REG10A)	pH Conductivity TDS	pH μs/cm mg/L	Quarterly	0		D	ry - Next Sample Marc	h 2025	
24 (RB05A)	pH Conductivity TDS	pH μs/cm mg/L	Quarterly	1	10/12/2024	17/01/2025	NA	NA	7.5 1890 1050



Surface Water Monitoring

Table 2 - Surface Water Monitoring - Mine Void

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min	Mean	Max / Only Value
	TSS	mg/L							<5
12	Conductivity	μs/cm	Every 2	1	00/12/2024	17/01/2025	NΙΔ	NA	1360
(Mine Void)	Oil & Grease	mg/L	months	1	09/12/2024	17/01/2025	NA	INA	<5
	рН	рН							8.16

Table 3 - Wet Weather Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L	Conside							
	Nitrogen (total)	mg/L	Special							
3	Oil & Grease	mg/L	Frequency 1 -							
(SD3)	рН	рН	within 12 hours of							
(303)	Phosphorous	mg/L	discharge from							
	Reactive Phosphorous	mg/L	EPL 3 or 36.							
	TSS	mg/L								
	Conductivity	μs/cm				No discharge od	ccurred from this	monitoring locati	on	
	Nitrate	mg/L								
	Nitrogen (total)	mg/L	Special							
	Oil & Grease	mg/L	Frequency 1 -							
36	рН	рН	within 12							
(SD12)	Phosphorous	mg/L	hours of							
	Reactive Phosphorous	mg/L	discharge from EPL 3 or 36							
	TSS	mg/L								
	Conductivity	μs/cm								



Table 4 - Clean Water Discharge - Surface Water Monitoring

ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	Conductivity	μs/cm								
	Nitrate	mg/L	Special							
20	Nitrogen (total)	mg/L	Frequency 3 -							
38 (Flow Meter	Oil & Grease	mg/L	within 12 hours of							
Upstream)	рН	рН	discharge							
Opstream)	Phosphorous	mg/L	from any							
	Reactive Phosphorous	mg/L	discharge							
	TSS	mg/L	location.			A. 1. 1				
	Conductivity	μs/cm				No discharge oc	curred during the	reporting month		
	Nitrate	mg/L	Special							
	Nitrogen (total)	mg/L	Frequency 3 -							
39	Oil & Grease	mg/L	within 12							
(Flow Meter	рН	pН	hours of							
downstream)	Phosphorous	mg/L	discharge from any							
	Reactive	mg/L	discharge							
	Phosphorous	IIIg/L	location.							
	TSS	mg/L								
	TSS	mg/L	Special Frequency 2 - prior to							
40	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			No discharge occur	rrad from those m	onitoring locations		
(HWD8)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a			No discharge occur	rrea from these m	ornitoring locations	5	
	рН	рН	5 Day consecutive period							



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ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value
	TSS	mg/L	Special Frequency 2 – prior to discharging							
41	Conductivity	μs/cm	from EPL 45 and/or 46 or							
(HWD9)	Oil & Grease	mg/L	within 12hours of discharge caused by							
	рН	рН	38.4mm in a 5 Day consecutive period							
	TSS	mg/L	Special Frequency 2 - prior to discharging							
42	Conductivity	μs/cm	from EPL 45 and/or 46 or within							
(HWD10)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a							
	рН	рН	5 Day consecutive period							
43	TSS	mg/L	Special Frequency 2 - prior to			No disebours	uuun d fun un blo's			
(HWD11)	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within			NO discharge occ	urred from this mo	onitoring location		



ID EPL (Site)	Parameter	Units	Frequency	Samples	Date	Laboratory Results Received	Min Value	Mean Value	Median Value	Max / Only Value	
	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a								
	рН	рН	5 Day consecutive period								
	TSS	mg/L	Special Frequency 2 - prior to								
44	Conductivity	μs/cm	discharging from EPL 45 and/or 46 or within	No discharge occurred from this monitoring location							
(WCWD)	Oil & Grease	mg/L	12hours of discharge caused by 38.4mm in a			No discharge occ	urrea from this me	onitoring location			
	рН	рН	5 Day consecutive period								
	Oil & Grease	mg/L	Not more than 12								
45 (ECWDP)	рН	рН	hours after	No discharge occurred from this monitoring location							
	TSS	mg/L	discharge commences								
	Oil & Grease	mg/L	Not more								
46 (WCWDP)	рН	рН	than 12 hours after	No discharge occurred from this monitoring location							
	TSS	mg/L	discharge commences								



Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP LAeq _{15min} dB	Limit L _{Aeq} _{15min} (dB) Operations Criteria	MCCP LAeq _{1min} dB	Limit L _{A1 (1 min)} (dB) Operations Criteria	Weather Rain (mm)	Exceedance (Yes / No)
NM1	19/12/2024	22:32	3.5	<25	40	<25	50	0.0	No
NM2	19/12/2024	23:30	4.6	<25	44	27	50	0.0	No
NM3	19/12/2024	23:19	4.4	<25	40	30	50	0.0	No
NM4	19/12/2024	23:00	2.9	<25	35	<25	45	0.0	No
NM5	19/12/2024	22:00	3.4	IA	40	IA	50	0.0	No
NM6	19/12/2024	23:50	4.2	<25	40	<25	50	0.0	No

Note: Noise limits are adjusted by +5 dB during 'very enhancing meteorological conditions' in accordance with the NPfl.

Noise Monitoring (Attended - Low Frequency Assessment)

None of the measurements satisfied the conditions for further assessment when assessed for the applicability of low frequency modification factors in accordance with the EPA's Noise Policy for Industry. Therefore, no further assessment of low frequency noise was required to be undertaken.



Blast Monitoring

Table 6 - Blast Monitoring (Blasts - Limits Apply)

Location	Parameter	Units	Frequency	Number	Average	Max	100% Limit	Exceedance (Yes / No)
Operations	Overpressure	Db (Lin Peak)		10	94.2	111.5	120	No
Blasts	Vibration	mm/s	All	10	0.10	0.24	10	No

Note: As of March 2018, in accordance with the requirements of the approved variation of EPL 20221; M7.1 blast monitoring results are for four blast monitoring points 31 (BM1), 32 (BM2), 33 (BM3) and 34 (BM4).



Air Quality Monitoring

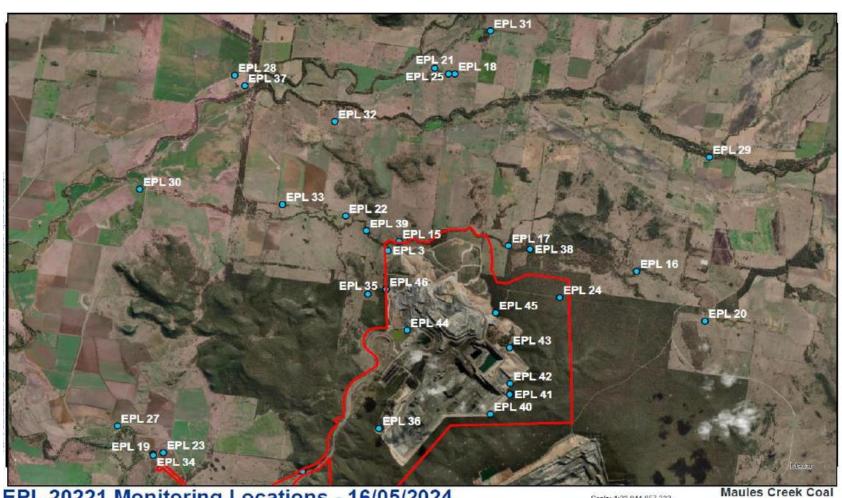
Table 7 – PM_{10} (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	μg/m³ month	PM ₁₀	9.3	30	No
37 (TEOM3)	Continuous	μg/m³ month	PM ₁₀	12.5	30	No
19 (HVAS)	5 days	μg/m³	PM ₁₀	12.6	30	No

Table 8 – Depositional Dust (Limits Apply)

ID EPL (Site)	Sample period	Particulates Deposited Matter	Rolling Annual Average Insoluble Solids	Criteria	Exceedance (Yes / No)
20 (DDG1/MC1)	Monthly	g/m² month	1.8	4	No
21 (DDG2/MC2)	Monthly	g/m² month	2.5	4	No
22 (DDG3/MC3)	Monthly	g/m² month	2.0	4	No
23 (DDG4/MC4)	Monthly	g/m² month	1.1	4	No

Figure 1 – EPL 20221 Monitoring Locations



EPL 20221 Monitoring Locations - 16/05/2024

EPL Monitoring Locations

MCCM Project Boundary MOD 9

Scale: 1:33,944,857,333 Author: EGibson Date Printed: 26/03/2021 Spatial Reference Name: WGS 1994 Web Mercator Auxiliary

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