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: 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 (BCM01)	pH	pH	Quarterly	Next sample in March 2024					
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	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
12 (Mine Void)	TSS	mg/L	Every 2 months	1	15/01/2024				<5
	Conductivity	µs/cm		1	15/01/2024				1250
	Oil & Grease	mg/L		1	15/01/2024				<5
	pH	pH		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
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge occurred at these locations in January 2024						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
	Conductivity	µs/cm								

WHITEHAVEN COAL

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
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	No discharge occurred at these locations in January 2024						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
	Conductivity	µs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
	Conductivity	µs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								

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

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

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

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 Blasts	Overpressure	Db (Lin Peak)	All	12	93.7	109.1	120	No
	Vibration	mm/s		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

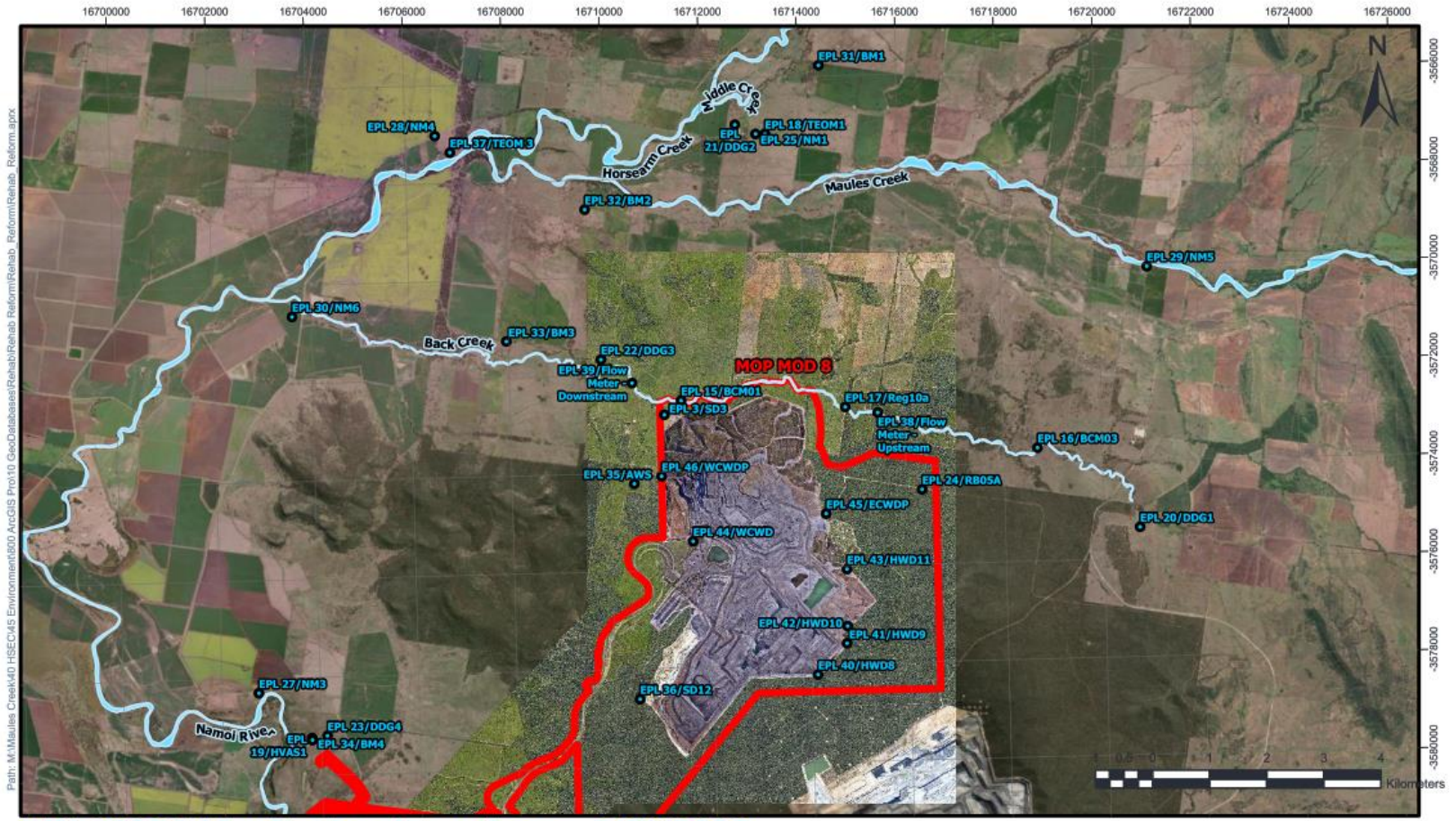
Table 9 – PM_{10} (Limits Apply)

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

Maules Creek Coal

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

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: 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 (BCM01)	pH	pH	Quarterly	Next sample in March 2024					
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly						
	Conductivity	µs/cm							
	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
12 (Mine Void)	TSS	mg/L	Every 2 months	1	13/02/2024				<5
	Conductivity	µs/cm							1180
	Oil & Grease	mg/L							<5
	pH	pH							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
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge occurred at these locations in February 2024						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	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
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	No discharge occurred at these locations in February 2024						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
	Conductivity	µs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
	Conductivity	µs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								

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

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

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

Noise Monitoring

Table 6 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP $L_{Aeq\ 15min}$ dB	Limit $L_{Aeq\ 15min}$ (dB) Operations Criteria	MCCP $L_{Aeq\ 1min}$ 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 Blasts	Overpressure	Db (Lin Peak)	All	7	96.43	112.70	120	No
	Vibration	mm/s		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

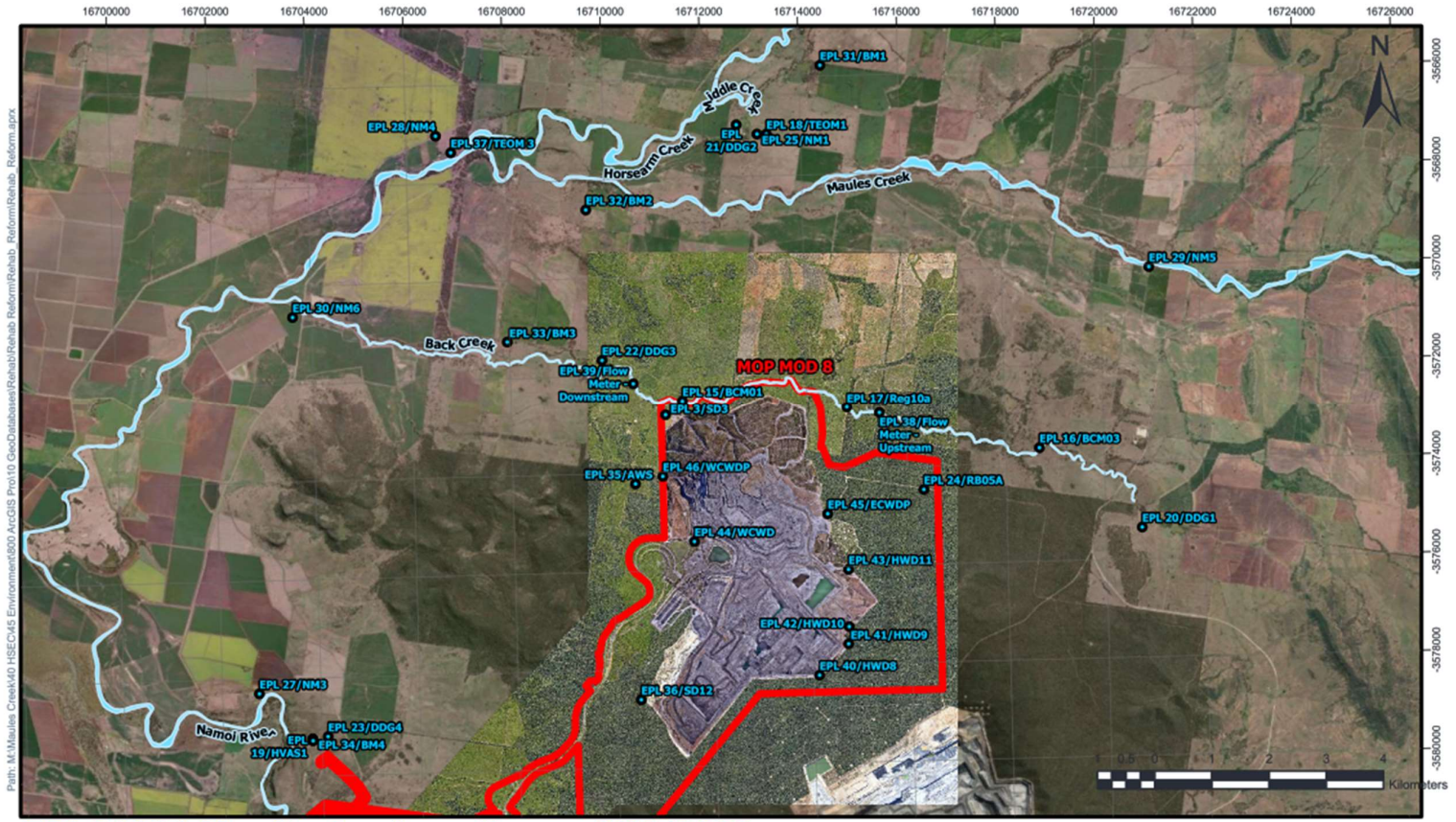
Table 9 – PM_{10} (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m³ month	PM_{10}	11.7	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



EPL20221 Monitoring Locations - 2/08/2022

Maules Creek Coal

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

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: March 2024
Obtained Date: 16th April 2024
Publication Date: 17th April 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 (BCM01)	pH	pH	Quarterly	0	Dry – Next sample in June 2024				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Dry – Next sample in June 2024				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Dry – Next sample in June 2024				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	1	01/03/2024	Yes			7.54
	Conductivity	µs/cm							1970
	TDS	mg/L							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
12 (Mine Void)	TSS	mg/L	Every 2 months	Next Sample April 2024					
	Conductivity	µs/cm							
	Oil & Grease	mg/L							
	pH	pH							

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
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge occurred from this monitoring location during March 2024						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	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
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	No flow was recorded at these sites.						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
	Conductivity	µs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
	Conductivity	µs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								

	TSS	mg/L	
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period
	Conductivity	µs/cm	
	Oil & Grease	mg/L	
	pH	pH	
41 (HWD9)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period
	Conductivity	µs/cm	
	Oil & Grease	mg/L	
	pH	pH	
	TSS	mg/L	
	Conductivity	µs/cm	
	Oil & Grease	mg/L	
	pH	pH	
42 (HWD10)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or
	Conductivity	µs/cm	
	Oil & Grease	mg/L	

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

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

Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP $L_{Aeq\ 15min}$ dB	Limit $L_{Aeq\ 15min}$ (dB) Operations Criteria	MCCP $L_{Aeq\ 1min}$ 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 Blasts	Overpressure	Db (Lin Peak)	All	11	93.43	108.80	120	No
	Vibration	mm/s		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

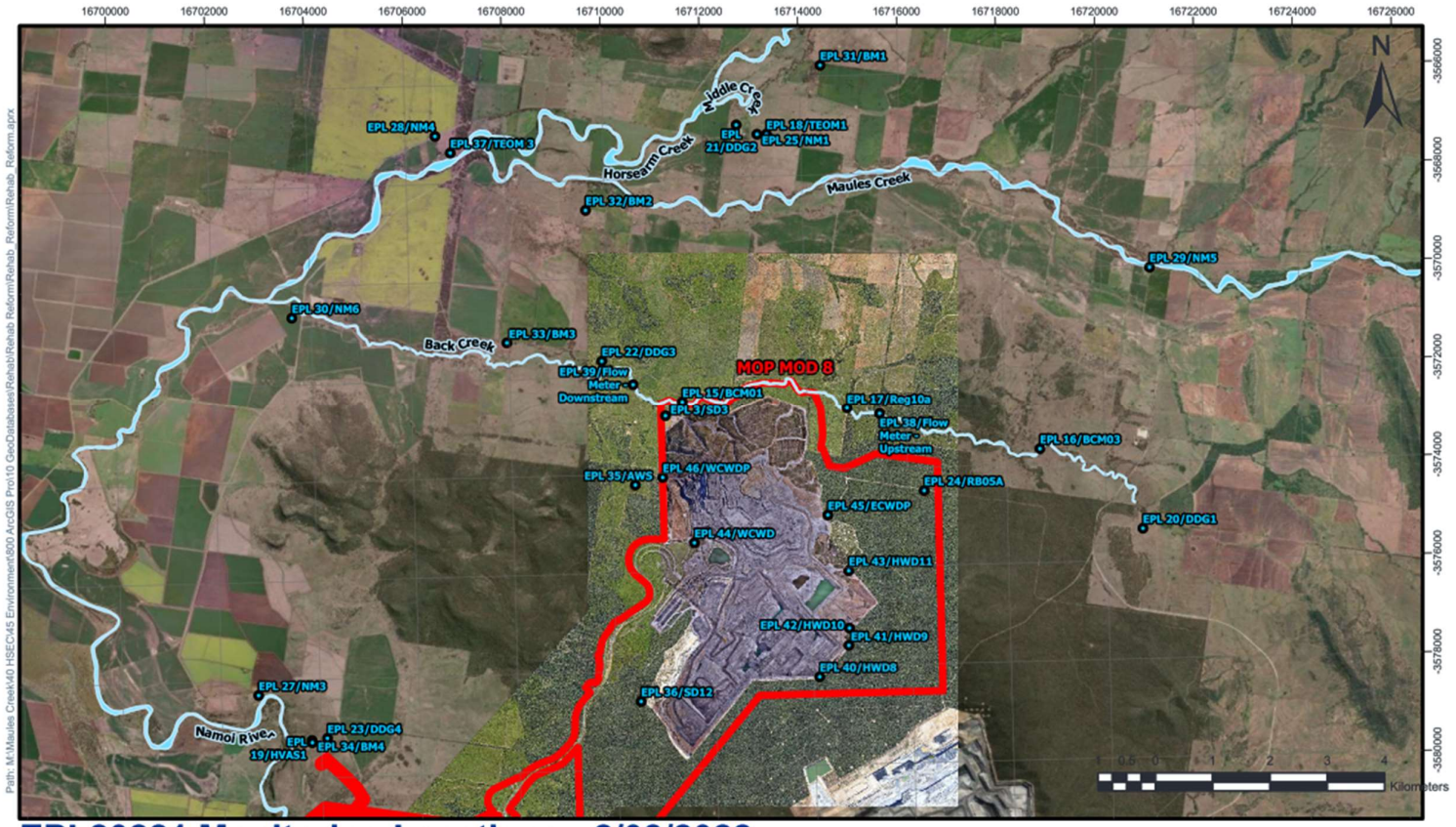
Table 8 – PM_{10} (Limits Apply)

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}	14.1	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

Maules Creek Coal

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

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: 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 (BCM01)	pH	pH	Quarterly	Next sample in June 2024					
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	Next sample in June 2024					
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	Next sample in June 2024					
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	Next sample in June 2024					
	Conductivity	µs/cm							
	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
12 (Mine Void)	TSS	mg/L	Every 2 months	1	11/04/2024				<5
	Conductivity	µs/cm							1240
	Oil & Grease	mg/L							<5
	pH	pH							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
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge occurred from these monitoring locations						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
	Conductivity	µs/cm								

WHITEHAVEN COAL

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
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	No flow was recorded at these sites.						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
	Conductivity	µs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
	Conductivity	µs/cm								
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								

	TSS	mg/L		
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	
	Conductivity	µs/cm		
	Oil & Grease	mg/L		
	pH	pH		
41 (HWD9)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	
	Conductivity	µs/cm		
	Oil & Grease	mg/L		
	pH	pH		
42 (HWD10)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day	
	Conductivity	µs/cm		
	Oil & Grease	mg/L		
	pH	pH		

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

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

Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

Location	Start date and Time	Wind		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 Blasts	Overpressure	Db (Lin Peak)	All	7	94.3	109.9	120	No
	Vibration	mm/s		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

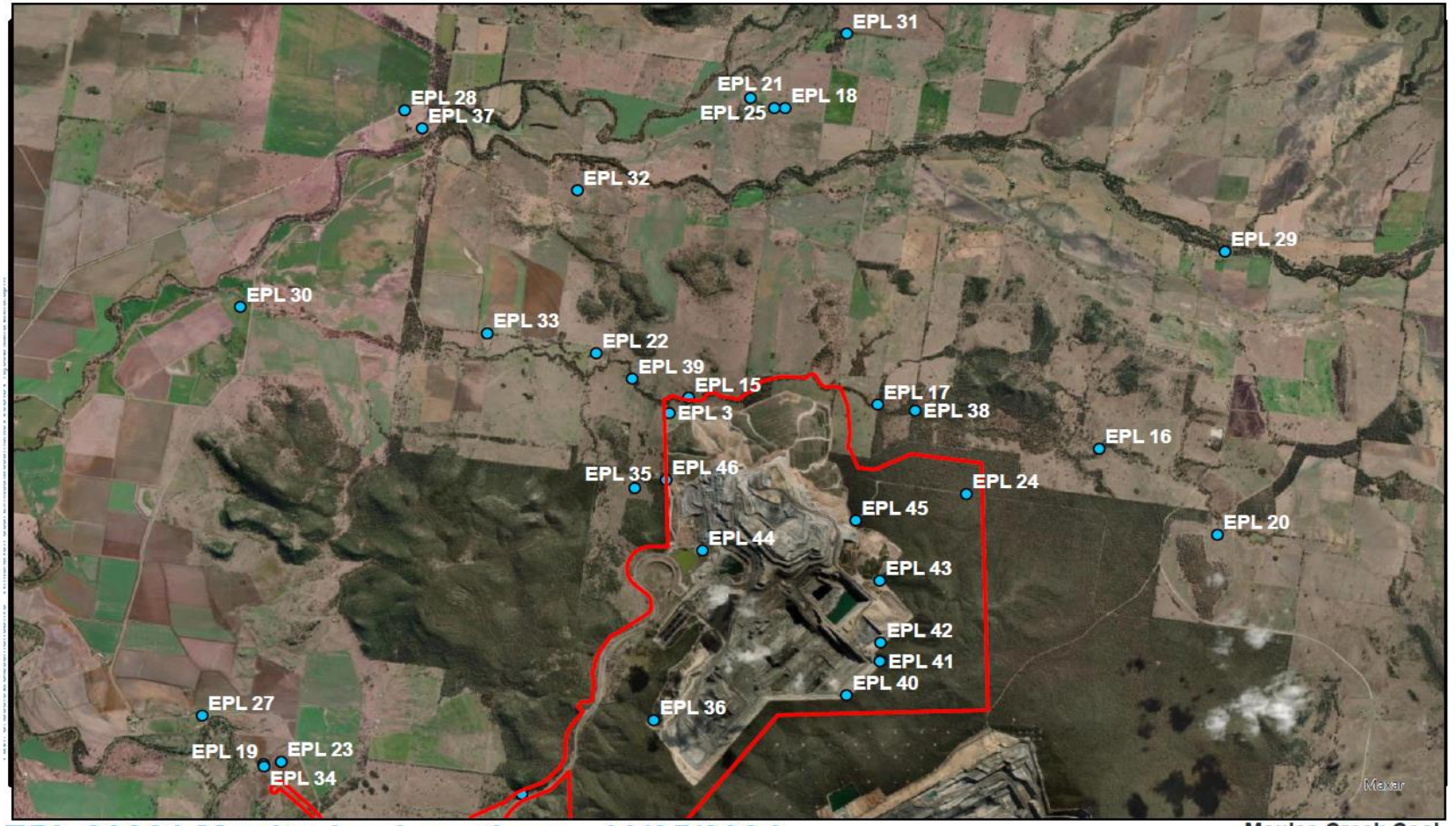
Table 8 – PM_{10} (Limits Apply)

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

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: **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: 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 (BCM01)	pH	pH	Quarterly	Next sample in June 2024					
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	Next sample in June 2024					
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	Next sample in June 2024					
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	Next sample in June 2024					
	Conductivity	µs/cm							
	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
12 (Mine Void)	TSS	mg/L	Every 2 months	1	13/05/2024	14/06/2024	NA	NA	14
	Conductivity	µs/cm							1270
	Oil & Grease	mg/L							<5
	pH	pH							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
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge occurred from this monitoring location						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	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
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	No flow was recorded at these sites.						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from these monitoring locations						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

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

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 5 Day consecutive period							
	pH	pH								
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from this monitoring location						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
45 (ECWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								
46 (WCWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								

Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP $L_{Aeq\ 15min}$ dB	Limit $L_{Aeq\ 15min}$ (dB) Operations Criteria	MCCP $L_{Aeq\ 1min}$ 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 Blasts	Overpressure	Db (Lin Peak)	All	9	93.39	103.3	120	No
	Vibration	mm/s		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

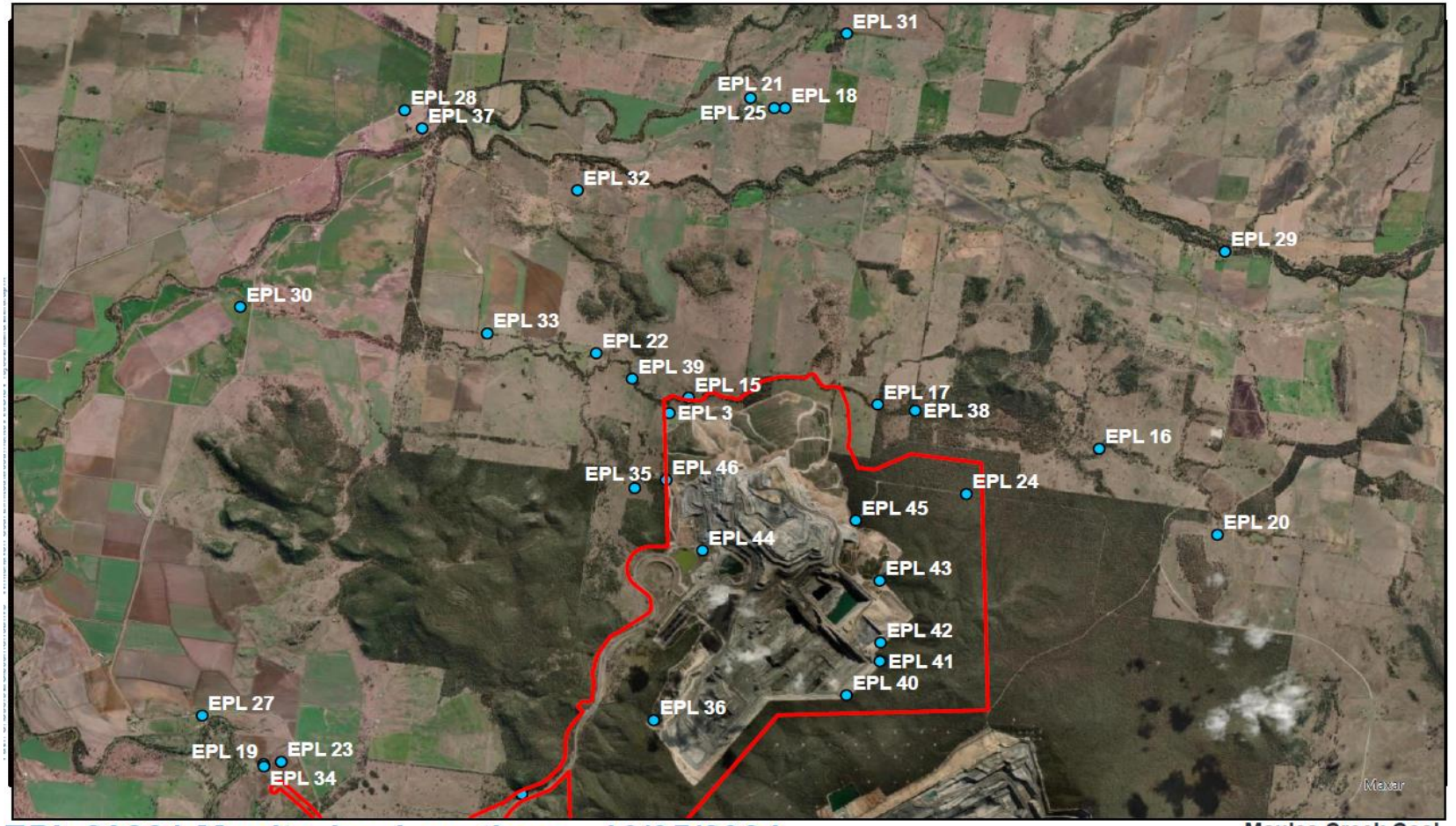
Table 7 – PM_{10} (Limits Apply)

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 Sphere

Maules Creek Coal

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: **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: 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 (BCM01)	pH	pH	Quarterly	0	Dry				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Dry				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Dry				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	1	05/06/2024	15/07/2024			7.54
	Conductivity	µs/cm							1950
	TDS	mg/L							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
12 (Mine Void)	TSS	mg/L	Every 2 months	1	06/06/2024	15/07/2024	NA	NA	5
	Conductivity	µs/cm							1340
	Oil & Grease	mg/L							<5
	pH	pH							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
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge occurred from this monitoring location						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	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
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	No discharge occurred during the reporting month						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from these monitoring locations						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

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

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 5 Day consecutive period							
	pH	pH								
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from this monitoring location						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
45 (ECWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								
46 (WCWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								

Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP $L_{Aeq\ 15min}$ dB	Limit $L_{Aeq\ 15min}$ (dB) Operations Criteria	MCCP $L_{Aeq\ 1min}$ 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 Blasts	Overpressure	Db (Lin Peak)	All	9	89.94	107.60	120	No
	Vibration	mm/s		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

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: 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 (BCM01)	pH	pH	Quarterly	0	Next Sample September 2024				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	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
12 (Mine Void)	TSS	mg/L	Every 2 months	1	11/07/2024	15/08/2024	NA	NA	<5
	Conductivity	µs/cm							1410
	Oil & Grease	mg/L							<5
	pH	pH							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
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge occurred from this monitoring location						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	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
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	No discharge occurred during the reporting month						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from these monitoring locations						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

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

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 5 Day consecutive period							
	pH	pH								
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from this monitoring location						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
45 (ECWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								
46 (WCWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								

Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP $L_{Aeq\ 15min}$ dB	Limit $L_{Aeq\ 15min}$ (dB) Operations Criteria	MCCP $L_{Aeq\ 1min}$ 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 Blasts	Overpressure	Db (Lin Peak)	All	9	94.29	109.4	120	No
	Vibration	mm/s		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

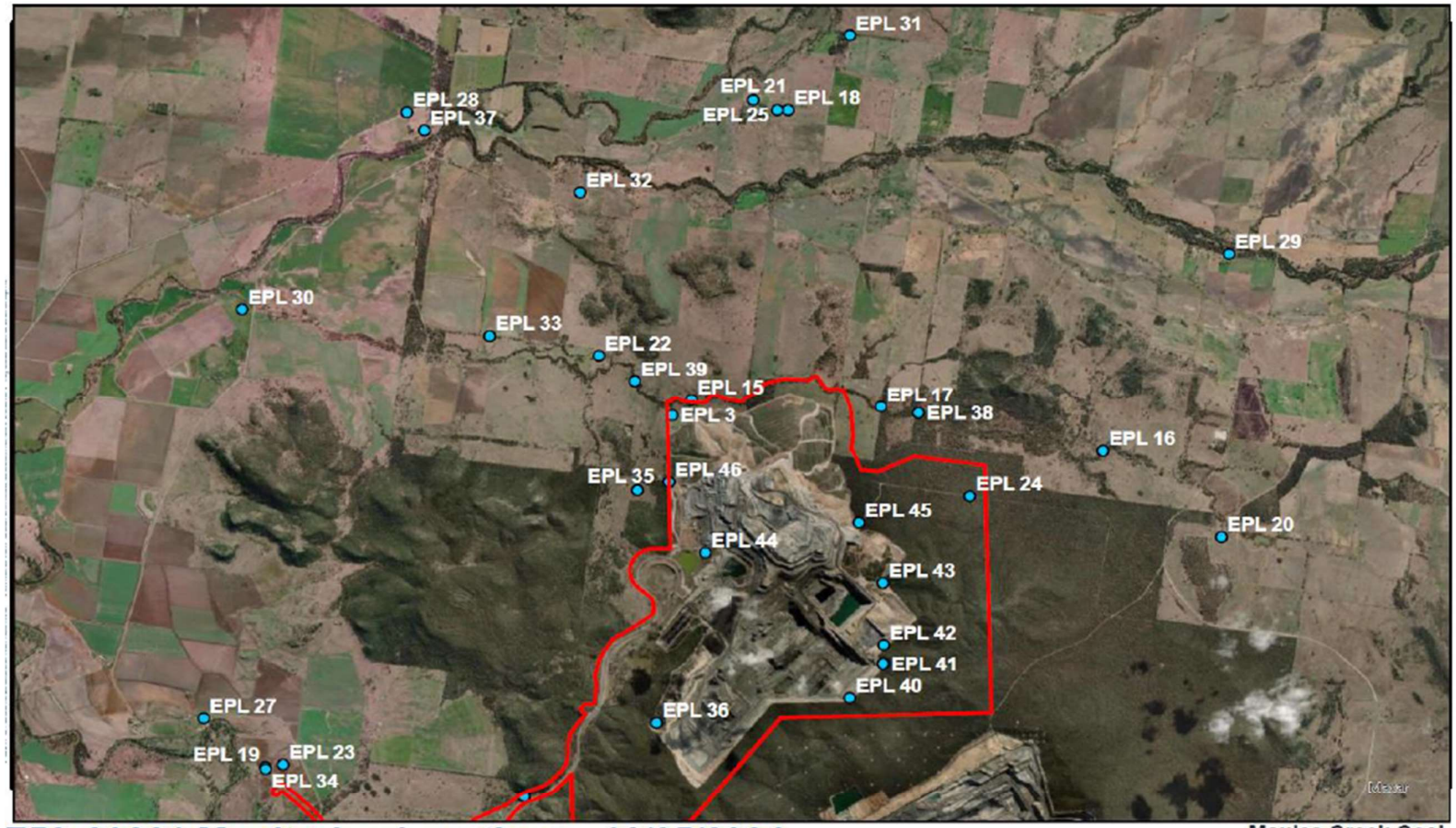
Table 7 – PM_{10} (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m³ month	PM_{10}	10.5	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



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: 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 (BCM01)	pH	pH	Quarterly	0	Next Sample September 2024				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	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
12 (Mine Void)	TSS	mg/L	Every 2 months	1	14/08/2024	13/09/2024	NA	NA	<5
	Conductivity	µs/cm							1310
	Oil & Grease	mg/L							<5
	pH	pH							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
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge occurred from this monitoring location						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	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
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	No discharge occurred during the reporting month						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from these monitoring locations						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

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

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 5 Day consecutive period							
	pH	pH								
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from this monitoring location						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
45 (ECWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								
46 (WCWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								

Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP $L_{Aeq\ 15min}$ dB	Limit $L_{Aeq\ 15min}$ (dB) Operations Criteria	MCCP $L_{Aeq\ 1min}$ 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 Blasts	Overpressure	Db (Lin Peak)	All	7	95.03	113.3	120	No
	Vibration	mm/s		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

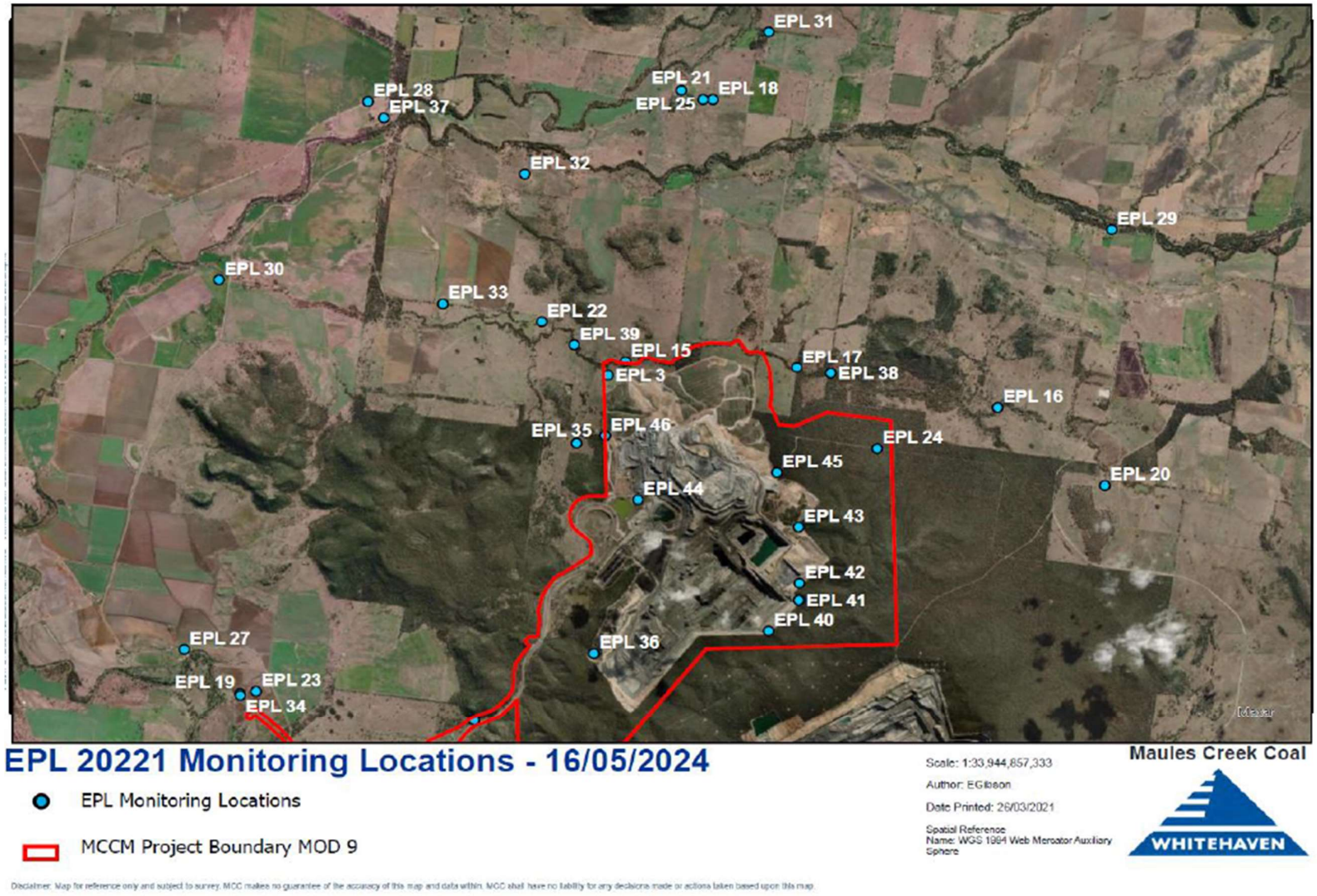
Table 7 – PM_{10} (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m³ month	PM_{10}	10.5	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



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 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	pH	Quarterly	0	Dry				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Dry				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Dry				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	1	13/09/2024	16/10/2024			7.61
	Conductivity	µs/cm							1860
	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
12 (Mine Void)	TSS	mg/L	Every 2 months	1	11/09/2024	16/10/2024	NA	NA	<5
	Conductivity	µs/cm							1290
	Oil & Grease	mg/L							<5
	pH	pH							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
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge occurred from this monitoring location						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	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
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	No discharge occurred during the reporting month						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from these monitoring locations						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

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

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 5 Day consecutive period							
	pH	pH								
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from this monitoring location						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
45 (ECWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								
46 (WCWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								

Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP $L_{Aeq\ 15min}$ dB	Limit $L_{Aeq\ 15min}$ (dB) Operations Criteria	MCCP $L_{Aeq\ 1min}$ 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 Blasts	Overpressure	Db (Lin Peak)	All	9	96.20	110.2	120	No
	Vibration	mm/s		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

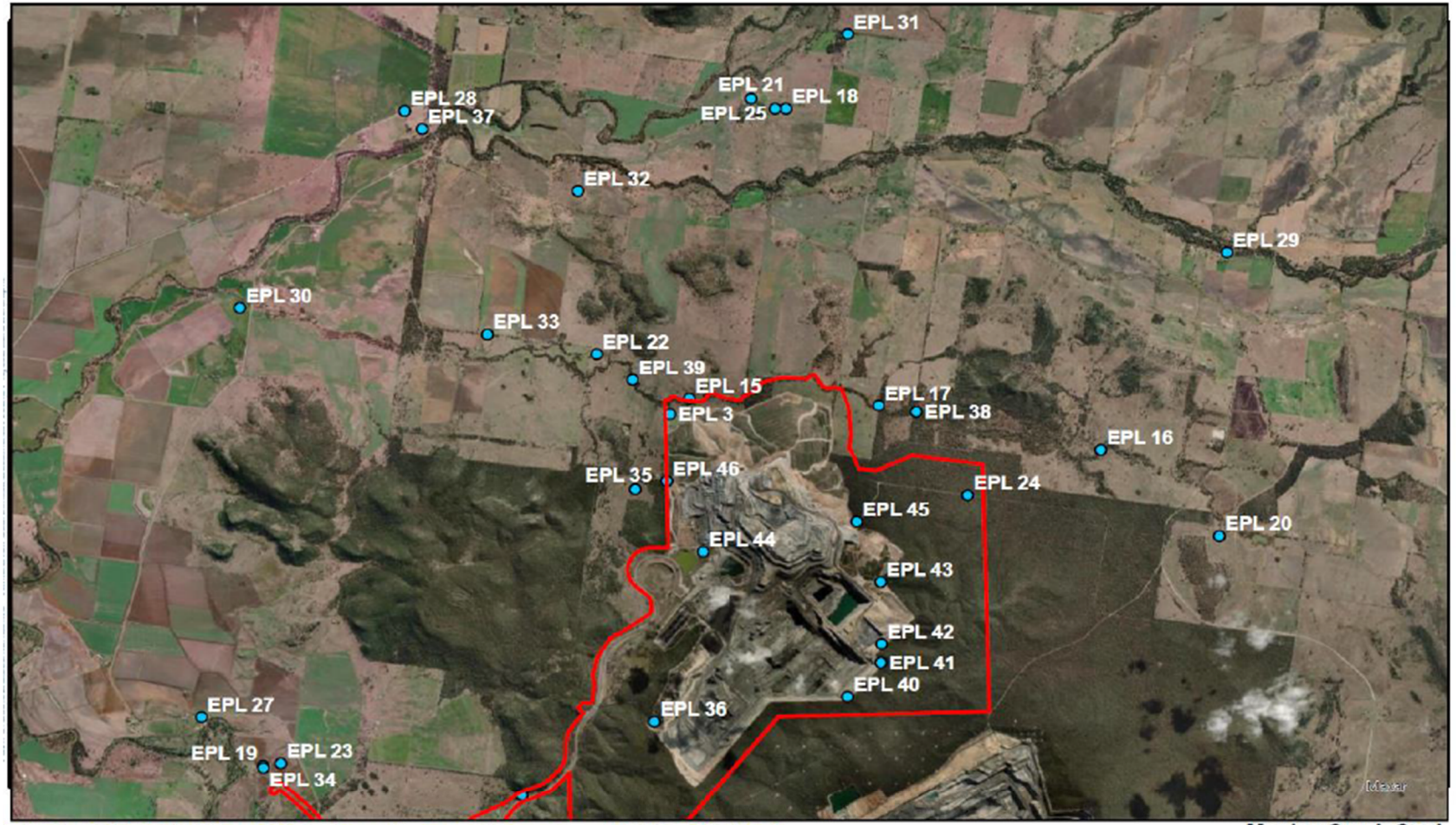
Table 7 – PM_{10} (Limits Apply)

ID EPL (Site)	Sample period	Unit	Parameter	Rolling Annual Average	NEPM Annual Criteria	Exceedance (Yes / No)
18 (TEOM1)	Continuous	µg/m^3 month	PM_{10}	10.0	30	No
37 (TEOM3)	Continuous	µg/m^3 month	PM_{10}	13.8	30	No
19 (HVAS)	5 days	µg/m^3	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/m^2 month	1.7	4	No
21 (DDG2/MC2)	Monthly	g/m^2 month	2.1	4	No
22 (DDG3/MC3)	Monthly	g/m^2 month	1.9	4	No
23 (DDG4/MC4)	Monthly	g/m^2 month	1.0	4	No

Figure 1 – EPL 20221 Monitoring Locations



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 (BCM01)	pH	pH	Quarterly	0	Next sample December 2024				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	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
12 (Mine Void)	TSS	mg/L	Every 2 months	1	11/10/2024	15/11/2024	NA	NA	21
	Conductivity	µs/cm							1330
	Oil & Grease	mg/L							<5
	pH	pH							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
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge occurred from this monitoring location						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	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
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	No discharge occurred during the reporting month						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from these monitoring locations						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

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

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 5 Day consecutive period							
	pH	pH								
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from this monitoring location						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
45 (ECWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								
46 (WCWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								

Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP $L_{Aeq\ 15min}$ dB	Limit $L_{Aeq\ 15min}$ (dB) Operations Criteria	MCCP $L_{Aeq\ 1min}$ 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 Blasts	Overpressure	Db (Lin Peak)	All	8	95.14	106.8	120	No
	Vibration	mm/s		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

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: 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 (BCM01)	pH	pH	Quarterly	0	Next sample December 2024				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	0					
	Conductivity	µs/cm							
	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
12 (Mine Void)	TSS	mg/L	Every 2 months	1	11/11/2024	12/12/2024	NA	NA	<5
	Conductivity	µs/cm							1320
	Oil & Grease	mg/L							<5
	pH	pH							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
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge occurred from this monitoring location						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	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
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	No discharge occurred during the reporting month						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from these monitoring locations						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

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

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 5 Day consecutive period							
	pH	pH								
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from this monitoring location						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
45 (ECWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								
46 (WCWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								

Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP $L_{Aeq\ 15min}$ dB	Limit $L_{Aeq\ 15min}$ (dB) Operations Criteria	MCCP $L_{Aeq\ 1min}$ 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 Blasts	Overpressure	Db (Lin Peak)	All	8	94.9	109.2	120	No
	Vibration	mm/s		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

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	pH	Quarterly	0	Dry – Next Sample March 2025				
	Conductivity	µs/cm							
	TDS	mg/L							
16 (BCM03)	pH	pH	Quarterly	0	Dry – Next Sample March 2025				
	Conductivity	µs/cm							
	TDS	mg/L							
17 (REG10A)	pH	pH	Quarterly	0	Dry - Next Sample March 2025				
	Conductivity	µs/cm							
	TDS	mg/L							
24 (RB05A)	pH	pH	Quarterly	1	10/12/2024	17/01/2025	NA	NA	7.5
	Conductivity	µs/cm							1890
	TDS	mg/L							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
12 (Mine Void)	TSS	mg/L	Every 2 months	1	09/12/2024	17/01/2025	NA	NA	<5
	Conductivity	µs/cm							1360
	Oil & Grease	mg/L							<5
	pH	pH							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
3 (SD3)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36.	No discharge occurred from this monitoring location						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
36 (SD12)	Conductivity	µs/cm	Special Frequency 1 - within 12 hours of discharge from EPL 3 or 36							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	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
38 (Flow Meter Upstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.	No discharge occurred during the reporting month						
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
39 (Flow Meter downstream)	Conductivity	µs/cm	Special Frequency 3 - within 12 hours of discharge from any discharge location.							
	Nitrate	mg/L								
	Nitrogen (total)	mg/L								
	Oil & Grease	mg/L								
	pH	pH								
	Phosphorous	mg/L								
	Reactive Phosphorous	mg/L								
	TSS	mg/L								
40 (HWD8)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from these monitoring locations						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								

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

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 5 Day consecutive period							
	pH	pH								
44 (WCWD)	TSS	mg/L	Special Frequency 2 – prior to discharging from EPL 45 and/or 46 or within 12hours of discharge caused by 38.4mm in a 5 Day consecutive period	No discharge occurred from this monitoring location						
	Conductivity	µs/cm								
	Oil & Grease	mg/L								
	pH	pH								
45 (ECWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								
46 (WCWDP)	Oil & Grease	mg/L	Not more than 12 hours after discharge commences	No discharge occurred from this monitoring location						
	pH	pH								
	TSS	mg/L								

Noise Monitoring

Table 5 – Noise Monitoring (Attended – Measured)

MCC ID	Date	Start Time	Wind Speed (m/s)	MCCP $L_{Aeq\ 15min}$ dB	Limit $L_{Aeq\ 15min}$ (dB) Operations Criteria	MCCP $L_{Aeq\ 1min}$ 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 NPfI.

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 Blasts	Overpressure	Db (Lin Peak)	All	10	94.2	111.5	120	No
	Vibration	mm/s		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