

Dartbrook Mine Environmental Protection Licence Monitoring Data

Dartbrook Operations Pty Limited is the operator of Dartbrook Mine.

Environmental Protection Licence (EPL) 4885 outlines the environmental management and monitoring requirements for Dartbrook Mine. The key licence details for EPL 4885 are presented in **Table 1**. Further information regarding EPL 4885 can be obtained from the public register for the *Protection of the Environment Operations Act 1997*: <https://app.epa.nsw.gov.au/prpoeoapp/>

Table 1 Licence Details

Licence Number	EPL 4885
Licence Holder	Dartbrook Operations Pty Ltd
Premises	Dartbrook Mine Stair Street Muswellbrook NSW 2333
Discharge / Monitoring Point	Point 5 – Effluent irrigation area Point 6 – Hunter River Salinity Trading Scheme discharge point Point 7 – Groundwater monitoring

EPL 4885 identifies three discharge/monitoring points, as detailed in **Table 2**. Monitoring of soil quality at the effluent irrigation area (EPL Point 5) is not required until the recommencement of effluent application at the premises. Groundwater monitoring data is included in **Appendix A**.

Table 2 Discharge / Monitoring Points

Point ID	Description	Monitoring Frequency	Monitoring Parameter	Limit
5 *	Effluent irrigation area	Yearly	Available phosphorus	N/A
			Total Phosphorus	N/A
			Conductivity	N/A
			Exchangeable sodium	N/A
			Nitrate	N/A
			Total Nitrogen	N/A
			pH	N/A
6	Hunter River Salinity Trading Scheme discharge point	During discharge	Conductivity	N/A
			pH	6.5 – 9.5
			Total suspended solids	120 mg/L
7	Groundwater monitoring	Quarterly	Depth	N/A
			pH	N/A
			Salinity	N/A

* Not required to be monitored until the recommencement of effluent application at the premises.

Under EPL 4885, no monitoring was required for the effluent irrigation area or Hunter River Salinity Trading Scheme discharge point this reporting period.

EPL 4885 identifies five air quality monitoring points, as detailed in **Table 3**. Air quality monitoring data is included in **Appendix B**.

Table 3 Air Quality Monitoring Points

Point ID	Description	Monitoring Frequency	Monitoring Parameter	Limit
21, 22, 23, 24 and 25	Air Quality Monitoring	Every 6 days	Particulate matter below 10 micrograms per cubic metre ($\mu\text{g}/\text{m}^3$)	50 $\mu\text{g}/\text{m}^3$ (24-hour Averaging Period)

EPL 4885 identifies ten noise monitoring points, as detailed in **Table 4**. Noise monitoring data is included in **Appendix C**.

Table 4 Noise Monitoring Points

Point ID	Description	Monitoring Frequency	Time Period	Monitoring Parameter	Limit
10, 11, 12, 13, 14 and 19	Noise Monitoring	Monthly	Evening	LAeq (15 minute)	40
			Night	LAeq (15 minute)	35
			Night	LAmx	52
			Day	LAeq (15 minute)	40
15, 16 and 20	Noise Monitoring	Monthly	Evening	LAeq (15 minute)	42
			Night	LAeq (15 minute)	41
			Night	LAmx	52
			Day	LAeq (15 minute)	49
17	Noise Monitoring	Monthly	Evening	LAeq (15 minute)	50
			Night	LAeq (15 minute)	41
			Night	LAmx	52
			Day	LAeq (15 minute)	50
18	Noise Monitoring	Monthly	Evening	LAeq (15 minute)	50
			Night	LAeq (15 minute)	42
			Night	LAmx	52
			Day	LAeq (15 minute)	50

APPENDIX A
GROUNDWATER
MONITORING DATA

Sample Location	Sample Date	NO SAMPLE / Comment	Depth to Water - Metres	pH - Field	Electrical Conductivity $\mu\text{S/cm}$ - Field
ADN1	22-Jan-25		5.30	7.13	3,290
Athlone		No access			
BEL1	16-Jan-25		3.66	7.81	4,480
Belgrave	29-Jan-25		6.56	7.47	7,500
CAD2	22-Jan-25	Bore dry	11.60		
CAS2	16-Jan-25		30.25	7.16	12,700
CAS4	29-Jan-25		24.38	7.26	9,450
COR3	22-Jan-25		3.15	7.79	2,112
DAN2	22-Jan-25		4.53	7.06	2,157
DDH124	29-Jan-25	Bore dry	14.81		
DDH183	29-Jan-25		26.15	7.01	6,380
DDH193		No access			
DDH212a	22-Jan-25		26.74	8.03	3,980
DDH212b	22-Jan-25		26.64	8.11	4,000
DDH212c	22-Jan-25		26.58	8.09	3,940
FRA1	16-Jan-25		10.32	7.17	1,367
GWO38412	04-Feb-25		4.31	6.98	1,547
GWO38582		No access			
JLON1	29-Jan-25	Bore dry	6.05		
KAl1	29-Jan-25		10.97	7.10	604.9
Kayuga 1	16-Jan-25		5.20	7.39	3,620
RDH271	29-Jan-25		84.59	7.36	5,850
RDH505	16-Jan-25		3.05	7.36	10,300
RDH508	16-Jan-25	Bore damaged – unable to be sampled			
RDH508a	16-Jan-25	Bore damaged – unable to be sampled			
RDH509	16-Jan-25		10.14	7.29	4,790
RDH510	16-Jan-25		10.20	7.55	6,010
RDH510a	16-Jan-25	Bore dry	8.04		
RDH511	16-Jan-25		8.04	8.09	3,630
RDH511a	22-Jan-25	Bore dry	8.07		
TLON1	16-Jan-25		6.88	7.63	9,080
WAL2	22-Jan-25		9.52	7.25	1,878
WM1a	22-Jan-25		5.96	7.54	833.5
WM3	22-Jan-25		6.69	7.04	1,756

APPENDIX B
AIR QUALITY
MONITORING DATA

Sample Location	EPA ID No.	Sample Date	NO SAMPLE / Comment	Averaging Period	PM ₁₀ (µg/m ³)
ESMS	21	06-Jan-25		24 hour	19.6
		12-Jan-25		24 hour	7.2
		18-Jan-25		24 hour	11.6
		24-Jan-25		24 hour	22.8
		30-Jan-25		24 hour	15.7
Fan Site 1	22	06-Jan-25		24 hour	36.0
		12-Jan-25		24 hour	13.4
		18-Jan-25		24 hour	21.8
		24-Jan-25		24 hour	27.4
		30-Jan-25		24 hour	14.7
Hulbert	23	06-Jan-25	No power (ongoing fault).	24 hour	
		12-Jan-25	No power (ongoing fault).	24 hour	
		18-Jan-25	No power (ongoing fault).	24 hour	
		24-Jan-25	No power (ongoing fault).	24 hour	
		30-Jan-25	No power (ongoing fault).	24 hour	
Macairstrip	24	06-Jan-25		24 hour	37.0
		12-Jan-25		24 hour	16.5
		18-Jan-25	No power	24 hour	
		24-Jan-25	No power	24 hour	
		30-Jan-25	No power	24 hour	
Standings	25	06-Jan-25		24 hour	30.1
		12-Jan-25		24 hour	10.1
		18-Jan-25		24 hour	11.5
		24-Jan-25		24 hour	20.5
		30-Jan-25		24 hour	10.4

APPENDIX C
NOISE
MONITORING DATA

Sample Location	Sample Date	Sample Time	LAeq (15 minute)		LA1 (1 minute)		Temperature (°C)	Wind Speed m/s	Wind Direction	Dartbrook Noise Sources
			Total	Dartbrook	Total	Dartbrook				
15	28/01/25	07:49	50	Inaudible	71	N/A	29	3.5	N	Dartbrook Mine was inaudible during the survey period. Other audible sources included insects, birds and a dog.
16	28/01/25	08:09	74	Inaudible	63	N/A	30	4.1	N	Dartbrook Mine was inaudible during the survey period. Other audible sources included insects, birds, vehicle traffic on the New England Highway and local roads.
18	28/01/25	08:32	70	Inaudible	80	N/A	31	6.3	NNW	Dartbrook Mine was inaudible during the survey period. Other audible sources included vehicle traffic on the New England Highway.
20	28/01/25	07:26	48	Inaudible	67	N/A	29	3.4	N	Dartbrook Mine was inaudible during the survey period. Other audible sources included vehicle traffic on the New England Highway and local roads, birds and insects. An excavator operating at a nearby construction site was audible for part of the survey period.