

July 2019

Dartbrook Mine Environmental Protection Licence Monitoring Data

AQC Dartbrook Management Pty Limited (AQC) is the owner of the Dartbrook Mine, located in the Upper Hunter Valley of New South Wales. AQC is a wholly owned subsidiary of Australian Pacific Coal Limited.

AQC is the holder of Environmental Protection Licence (EPL) 4885, which outlines 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	AQC Dartbrook Management Pty Ltd
Premises	Dartbrook Mine Stair Street Muswellbrook NSW 2333
Discharge/monitoring point	Point 3 – Groundwater monitoring Point 4 – Hunter River Salinity Trading Scheme (HRSTS) discharge point Point 5 – Effluent irrigation area

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 during care and maintenance.

Table 2 Discharge/monitoring Points

Point ID	Description	Monitoring Frequency	Monitoring Parameter	Limit
3	Groundwater monitoring	Quarterly	Depth	N/A
			pH	N/A
			Salinity	N/A
4	HRSTS Discharge Point	During discharge	Conductivity	N/A
			pH	6.5 – 9.5
			Total suspended solids	120 mg/L

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

** Not required to be monitored during care and maintenance.*

Appendix A presents the monitoring data collected in accordance with EPL 4885. There were no water discharges during the reporting period and as such, no monitoring was required at EPL Point 4.

Appendix A
Monitoring Data

Sample Location	Sample Date	NO SAMPLE / Comment	Depth to Water - metres	pH - field	Electrical Conductivity µS/cm - field
ADN1	19-Jul-19		7.44	7.11	3290
Athlone	18-Jul-19		8.22	6.99	10720
BEL1	18-Jul-19	Egg odour	5.51	7.65	5850
Belgrave	31-Jul-19	No access			
BIR2	31-Jul-19		7.21	8.64	616
BRA2	31-Jul-19		10.78	7.19	3240
BRO3	31-Jul-19	Too low to sample	5.8		
CAD2	19-Jul-19		13.5	6.28	6340
CAS1	18-Jul-19		12.98	7.4	8950
CAS2	29-Jul-19		42.89	6.75	12120
CAS3		Dry			
CAS4	26-Jul-19	Bicarbonate odour	27.4	6.93	12630
Casey	11-Jul-19		10.41	7.43	1444
COR2	19-Jul-19	Lock put back on gate	5.36	7.8	1726
COR3	19-Jul-19	Rotten egg odour	6.39	7.84	2191
DAN2	29-Jul-19		7.34	7.28	1821
DAY1	31-Jul-19		9.74	7.45	1557
DDH124	29-Jul-19	Too low to sample	14.67		
DDH183	18-Jul-19	Egg odour	29.26	6.74	7240
DDH186a	31-Jul-19	No access			
DDH186b	31-Jul-19	No access			
DDH186c	31-Jul-19	No access			
DDH193	26-Jul-19	Orange plume	42.19	7.08	7760
DDH212a	26-Jul-19		27.55	8.43	4570
DDH212b	26-Jul-19		27.47	8.49	4570
DDH212c	26-Jul-19		27.35	8.47	4390
DDH242	10-Jul-19	Dry @ 20.42 - Moist			
DDH243	10-Jul-19	Dry @ 17.2 - Moist			
DDH244R	10-Jul-19	Dry @ 21.92 - Moist			
DDH245	10-Jul-19	Dry @ 22.35 - Moist			
DDH306a	31-Jul-19	Egg odour	19.78	8.33	1915
DDH306b	31-Jul-19	Egg odour	24.6	7.54	7950
DDH306c	31-Jul-19	Egg odour	25.2	7.68	15680
DDH74	31-Jul-19	Egg odour	12.92	7.49	5650
DUC1		No access			
DUCN	29-Jul-19		10.79	7.27	2900
DUCW		No access			
ESP2	11-Jul-19	Moist @ 13.25			
FRA1	11-Jul-19		10.86	7.17	476
GAR2	10-Jul-19		9.25	7.25	683
GAR3	10-Jul-19		10.51	7.44	1123
GAR4	10-Jul-19		8.9	7.48	2212
GOO1	19-Jul-19		35.77	7.39	1872
GOO2	31-Jul-19		17.07	7.17	3970
GWO32889		Old windmill- Blocked			
GWO38412	26-Jul-19		4.58	6.98	1937
GWO38582	18-Jul-19	Diesel odour	7.89	8.18	6390
HAL1	31-Jul-19		8.8	7.69	978
JLON1	18-Jul-19	Dead animal smell	12.98	8.87	1907

JOR1	18-Jul-19		8.64	7.36	2396
JS & NM Lonergan	11-Jul-19		11.59	7.34	2154
KAI1	11-Jul-19		11.4	7.17	458
KAI2	10-Jul-19	Orange plume	10.48	7.27	458
KAI3	10-Jul-19		8.77	7.36	696
Kayuga 1	18-Jul-19	Orange plume	13.37	6.61	7730
OBR1	10-Jul-19		9.52	8.45	376
RDH266	29-Jul-19	Dry @ 33.62			
RDH271	29-Jul-19	Lab to filter	82.84	7.34	5460
RDH280	29-Jul-19	Dry @ 70.38			
RDH289	29-Jul-19	Small bailer gets stuck at approx. 20m - Unable to sample	42.67		
RDH421	29-Jul-19	Blocked @ 134.35			
RDH505	18-Jul-19		6.73	7.1	10320
RDH506		Discontinued			
RDH507		Discontinued			
RDH508	11-Jul-19		10.56	7.24	8560
RDH508a	11-Jul-19		17.42	7.23	7980
RDH509	10-Jul-19		10.48	7.22	1669
RDH509a	10-Jul-19	Too low to sample	14.88		
RDH510	10-Jul-19		10.8	6.99	10000
RDH510a	10-Jul-19		10.7	7.3	10600
RDH511	10-Jul-19		8.3	7.54	1835
RDH511a	10-Jul-19		10.99	7.67	616
RDH534a	31-Jul-19	Dry @ 2.27 - Mud			
RDH534b	31-Jul-19	Egg odour	37.85	7.05	6150
RDH534c	31-Jul-19		15.4	6.82	6910
RDH535a	19-Jul-19		61.11	6.91	13310
RDH535b	19-Jul-19	Lab to filter	45.1	7.05	15980
RDH535c	19-Jul-19		18.52	7.06	16830
RDH536a	31-Jul-19	Slight odour	18.16	6.78	7430
RDH536b	31-Jul-19	Egg odour	18.34	7.19	7390
RDH536c	31-Jul-19	Egg odour	22.91	7.75	12750
RDH537a	19-Jul-19	Rotten egg odour	16.9	7.52	11860
RDH537b	19-Jul-19	Gease odour. Lab to filter	11.12	7.53	4650
RDH537c	19-Jul-19		33.33	7.45	13980
RDH538a	19-Jul-19		18.38	7.09	13760
RDH538b	19-Jul-19	Dry @ 41.26			
RDH538c	19-Jul-19	Dry			
RDH539a	18-Jul-19	Egg odour	13.88	7.12	2700
RDH539b	18-Jul-19	Lab to filter. Low water level.	14.25	7.03	5590
RDH539c	18-Jul-19	Slight odour	23.78	8.32	3100
RDH564		No access			
RDH76A	29-Jul-19		3.53	8	5190
RIV1	11-Jul-19		11.28	7.71	1020
Smith	31-Jul-19		10.6	7.07	3040
TEE4	31-Jul-19		9.84	7.83	1553
TLON1	26-Jul-19	Too low to sample	11.45		
WAL2	11-Jul-19		10.05	7.2	2212
WM1a	31-Jul-19		8.17	7.56	2336
WM1P		Access denied			
WM1Pa		Access denied			
WM3	19-Jul-19		7.56	6.9	6070
WPWatt	29-Jul-19	Bore collapsed			