

January 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 2 – Hunter River Salinity Trading Scheme (HRSTS) discharge point Point 3 – Groundwater monitoring Point 4 – HRSTS discharge monitoring point Point 5 – Effluent irrigation area

EPL 4885 identifies three 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 Monitoring Points

Point ID	Description	Monitoring Frequency	Monitoring Parameter	Limit
3	Groundwater monitoring	Quarterly	Depth	N/A
			pH	N/A
			Salinity	N/A
4	Hunter River Salinity Trading Scheme (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	25-Jan-19		7.36	7.13	2685
Athlone	29-Jan-19		8.14	6.91	11040
BEL1	25-Jan-19	Egg odour	5	7.62	9090
Belgrave	29-Jan-19	Egg odour	9.11	7.81	8800
BIR2	01-Feb-19		7.1	8.43	1306
BRA2	30-Jan-19		10.39	6.92	3100
BRO3	01-Feb-19	Dry - Mud	5.73		
CAD2	30-Jan-19		13.04	6.26	5610
CAS1	29-Jan-19		7.8	7.38	8780
CAS2	29-Jan-19		42.62	6.86	12610
CAS3		Dry			
CAS4	01-Feb-19		28.82	6.91	10980
Casey	16-Jan-19		10.34	7.03	1210
COR2	30-Jan-19		10.28	7.02	1677
COR3	30-Jan-19		7.8	7.63	1981
DAN2	30-Jan-19		7.24	6.91	1944
DAY1	01-Feb-19		10.74	7.58	1608
DDH124	25-Jan-19	Dry - Moist	14.69		
DDH183	29-Jan-19	Egg odour	29.05	6.89	7240
DDH186a	29-Jan-19	Dry	6.34		
DDH186b	29-Jan-19	Bailed dry	44.47	7.16	1019
DDH186c	29-Jan-19	No bore			
DDH193	01-Feb-19	Orange plume	42.21	6.97	6740
DDH212a	01-Feb-19		27.55	8.3	3820
DDH212b	01-Feb-19		27.46	8.28	3840
DDH212c	01-Feb-19		27.37	8.25	3840
DDH242	10-Jan-19	Dry - Mud	20.44		
DDH243	10-Jan-19	Dry - Mud	17.22		
DDH244R	10-Jan-19	Dry - Mud	22.51		
DDH245	10-Jan-19	Dry - Mud	22.63		
DDH306a	01-Feb-19		19.14	8.38	1700
DDH306b	01-Feb-19	Egg odour	25.04	7.74	14320
DDH306c	01-Feb-19	Egg odour	23	7.32	7530
DDH74	30-Jan-19	Egg odour	12.62	7.66	5190
DUC1		No access			
DUCN	01-Feb-19		11.77	7.31	3300
DUCW		No access			
ESP2	10-Jan-19	Too low to sample	13.08		
FRA1	16-Jan-19		10.8	7.12	523
GAR2	10-Jan-19		9.38	6.89	500
GAR3	10-Jan-19		10.45	6.79	704
GAR4	15-Jan-19		8.96	7.23	1630
GOO1	01-Feb-19		41.64	7.37	1694
GOO2	30-Jan-19	Slight odour	16.88	7.13	3900
GWO38412	29-Jan-19		6.42	6.88	3960
GWO38582	29-Jan-19		7.73	7.87	6340
HAL1	30-Jan-19		8.6	7.2	794
JLON1	25-Jan-19		12.74	9.09	2628
JOR1	16-Jan-19		10.15	7.06	1936
JS & NM Lonergan	16-Jan-19		11.54	6.96	1909
KAI1	15-Jan-19		11.39	7.06	395
KAI2	10-Jan-19		10.58	7	387
KAI3	15-Jan-19		8.88	7.21	421

Kayuga 1	25-Jan-19		13.19	6.99	7410
OBR1	15-Jan-19		9.54	8.31	317
RDH266	25-Jan-19	Dry	33.62		
RDH271	25-Jan-19		82.73	7.67	5890
RDH208	25-Jan-19	Dry	70.38		
RDH289	25-Jan-19	Bailer getting stuck	42.72		
RDH421	01-Feb-19	Blocked	134.35		
RDH505	16-Jan-19		6.65	7.12	9770
RDH506		Discontinued			
RDH507		Discontinued			
RDH508	10-Jan-19		12.6	7.15	6750
RDH508a	10-Jan-19		18.14	7	6550
RDH509	10-Jan-19		10.7	7.19	4480
RDH509a	10-Jan-19	Too low to sample	15.04		
RDH510	10-Jan-19		11.26	7.05	7650
RDH510a	10-Jan-19		11.16	7.12	7930
RDH511	10-Jan-19		8.54	7.88	4920
RDH511a	10-Jan-19		8.51	7.38	5800
RDH534a	16-Jan-19	Dry - Mud	2.28		
RDH534b	16-Jan-19		37.96	7.19	5340
RDH534c	16-Jan-19		15.97	7.02	5420
RDH535a	25-Jan-19	Egg odour	61.05	6.83	11420
RDH535b	25-Jan-19	Lab to filter	45.16	6.91	13230
RDH535c	25-Jan-19		18.31	6.96	13800
RDH536a	01-Feb-19		17.76	6.95	6640
RDH536b	01-Feb-19		18.01	7.25	6600
RDH536c	01-Feb-19		22.88	7.77	11990
RDH537a	01-Feb-19	Egg odour	15.2	7.46	10140
RDH537b	01-Feb-19	Slight odour	11.21	7.48	3990
RDH537c	01-Feb-19		32.09	7.34	11770
RDH538a	01-Feb-19	Egg odour	18.4	6.93	11630
RDH538b	01-Feb-19	Dry	41.26		
RDH538c	01-Feb-19	Egg odour	47.11	7.2	17110
RDH539a	16-Jan-19		13.84	7.28	2405
RDH539b	16-Jan-19		14.25	7.26	4590
RDH539c	16-Jan-19		23.88	7.88	2830
RDH564					
RDH76A	29-Jan-19		1.96	7.8	5410
RIV1	15-Jan-19		11.13	7.1	870
Smith	10-Jan-19		10.64	7.09	2470
TEE4	30-Jan-19		9.57	7.04	1419
TLON1	01-Feb-19	Too low to sample	11.46		
WAL2	16-Jan-19		9.8	7.14	1818
WM1a	25-Jan-19		8.24	7.23	2146
WM1P		Access denied			
WM1Pa		Access denied			
WM3	30-Jan-19	Tree roots	8.18	6.77	2619
WPWatt	29-Jan-19	Bore collapsed			