Reporting of Emission to Surface Water for the period of November 2024

Operator: CCR Energy Ltd **Form: Water1**

Location: Aberthaw Ash Disposal Site

Permit/Variation Number: DP3432SW

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
S1 (Group Five Spring)	Aluminium, Dissolved		<10 µg/L		27/11/2024	Sampling WSP / Testing ALS	
	Antimony, Dissolved		4.51 µg/L				
	Arsenic, Dissolved		13.6 µg/L				
	Boron, Dissolved		8930 µg/L				
	Cadmium, Dissolved		<0.08 µg/L				
	Calcium, Dissolved		822000 µg/L				
	Chromium, Dissolved		<1 µg/L				
	Copper, Dissolved		<0.3 µg/L				
	Manganese. Dissolved		634 µg/L				
	Molybdenum, Dissolved		3370 µg/L				
	Nickel, Dissolved		0.539 µg/L				
	Selenium Dissolved		29.5 µg/L				
	Vanadium, Dissolved		17.4 µg/L				
	Mercury, Dissolved		<0.01 µg/L				
	Alkalinity to pH 4.5 as $CaCO_3$		144000 µg/L				
	Potassium, Dissolved		184000 µg/L				
	Sodium, Dissolved		2630000 µg/L				
	Sulphate, Dissolved as SO_4		1.34 g/L				
	Nitrogen: Total Oxidised as N		8380 µg/L				
	Chloride		4720000 µg/L				
	Fluoride		<500 µg/L				
	Ammoniacal Nitrogen as NH_3		16100 µg/L				
	Carbon, Organic: Total as C		4630 µg/L				
	Electrical conductivity		26182 µS/cm	Field measurements			
	Temperature		11.6 °C				
	Dissolved oxygen		4.28 mg/L				

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
	pH		6.34				
	Oxidation reduction potential		167 mV				

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
Eastern Perimeter Drain	Aluminium, Dissolved		<10 µg/L		27/11/2024	Sampling WSP / Testing ALS	
	Antimony, Dissolved		<1 µg/L				
	Arsenic, Dissolved		1.72 µg/L				
	Boron, Dissolved		1870 µg/L				
	Cadmium, Dissolved		<0.08 µg/L				
	Calcium, Dissolved		145000 µg/L				
	Chromium, Dissolved		<1 µg/L				
	Copper, Dissolved		0.755 µg/L				
	Manganese. Dissolved		81.1 µg/L				
	Molybdenum, Dissolved		310 µg/L				
	Nickel, Dissolved		0.776 µg/L				
	Selenium Dissolved		3.47 µg/L				
	Vanadium, Dissolved		1.27 µg/L				
	Mercury, Dissolved		<0.01 µg/L				
	Alkalinity to pH 4.5 as $CaCO_3$		297000 µg/L				
	Potassium, Dissolved		15700 µg/L				
	Sodium, Dissolved		79400 µg/L				
	Sulphate, Dissolved as SO_4		0.209 g/L				
	Nitrogen: Total Oxidised as N		2130 µg/L				
	Chloride		114000 µg/L				
	Fluoride		<500 µg/L				
	Ammoniacal Nitrogen as NH_3		<200 µg/L				
	Carbon, Organic: Total as C		<3000 µg/L				
	Electrical conductivity		1285 µS/cm	Field measurements			
	Temperature		9.4 °C				
	Dissolved oxygen		6.44 mg/L				

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
	pH		7.65				
	Oxidation reduction potential		156 mV				

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
S3 (River Thaw)	Aluminium, Dissolved		<10 µg/L		28/11/2024	Sampling WSP / Testing ALS	
	Antimony, Dissolved		<1 µg/L				
	Arsenic, Dissolved		<0.5 µg/L				
	Boron, Dissolved		35.8 µg/L				
	Cadmium, Dissolved		<0.08 µg/L				
	Calcium, Dissolved		105000 µg/L				
	Chromium, Dissolved		<1 µg/L				
	Copper, Dissolved		1.04 µg/L				
	Manganese. Dissolved		6.82 µg/L				
	Molybdenum, Dissolved		10.7 µg/L				
	Nickel, Dissolved		0.77 µg/L				
	Selenium Dissolved		<1 µg/L				
	Vanadium, Dissolved		<1 µg/L				
	Mercury, Dissolved		<0.01 µg/L				
	Alkalinity to pH 4.5 as $CaCO_3$		282000 µg/L				
	Potassium, Dissolved		3180 µg/L				
	Sodium, Dissolved		24500 µg/L				
	Sulphate, Dissolved as SO_4		0.0262 g/L				
	Nitrogen: Total Oxidised as N		3500 µg/L				
	Chloride		41600 µg/L				
	Fluoride		<500 µg/L				
	Ammoniacal Nitrogen as NH_3		<200 µg/L				
	Carbon, Organic: Total as C		3450 µg/L				
	Electrical conductivity		720 µS/cm	Field measurements			
	Temperature		8.3 °C				
	Dissolved oxygen		10.82 mg/L				
	pH		7.86				
	Oxidation reduction potential		47 mV				

Emission Point	Substance / Parameter	Emission Limit Value	Result [1]	Test Method [2]	Sample Date and Times [3]	Accreditation/ Certification [4]	Uncertainty [5]
Brackish Lagoon	Aluminium, Dissolved		<10 µg/L		27/11/2024	Sampling WSP / Testing ALS	
	Antimony, Dissolved		<1 µg/L				
	Arsenic, Dissolved		1.98 µg/L				
	Boron, Dissolved		3360 µg/L				
	Cadmium, Dissolved		<0.08 µg/L				
	Calcium, Dissolved		215000 µg/L				
	Chromium, Dissolved		<1 µg/L				
	Copper, Dissolved		0.574 µg/L				
	Manganese. Dissolved		33.8 µg/L				
	Molybdenum, Dissolved		486 µg/L				
	Nickel, Dissolved		0.671 µg/L				
	Selenium Dissolved		3.88 µg/L				
	Vanadium, Dissolved		1.15 µg/L				
	Mercury, Dissolved		<0.01 µg/L				
	Alkalinity to pH 4.5 as $CaCO_3$		238000 µg/L				
	Potassium, Dissolved		87500 µg/L				
	Sodium, Dissolved		1830000 µg/L				
	Sulphate, Dissolved as SO_4		0.67 g/L				
	Nitrogen: Total Oxidised as N		587 µg/L				
	Chloride		3080000 µg/L				
	Fluoride		<500 µg/L				
	Ammoniacal Nitrogen as NH_3		<200 µg/L				
	Carbon, Organic: Total as C		3150 µg/L				
	Electrical conductivity		27333 µS/cm	Field measurements			
	Temperature		12.1 °C				
	Dissolved oxygen		1.4 mg/L				
	pH		7.52				
	Oxidation reduction potential		-92 mV				

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. colorimetry.
[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements, or flow/time proportional samples, the percentage of the process operating time covered by the monitoring is given.
[4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.
[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed … [redacted] …… Date……12/12/2024……..
(authorised to sign as representative of the Operator)