

Reporting of Emission to Groundwater for the period from 1st January 2022 to 30th June 2022.

Operator : RWE Generation UK plc

Form: Groundwater1

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]
BH3	Aluminium, Dissolved		<35 µg/l		23/02/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<13 µg/l				
	Arsenic Dissolved	310	170.0 µg/l				
	Boron, Dissolved	60000	20700 µg/l				
	Cadmium, Dissolved	15	<0.20 µg/l				
	Calcium, Dissolved		389 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<40 µg/l				
	Magnesium, Dissolved		196 mg/l				
	Manganese, Dissolved		141 µg/l				
	Molybdenum, Dissolved	9000	1720 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved	350	n/t µg/l				
	Vanadium, Dissolved		47 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		310 mg/l				
	Conductivity at 20C		4220 uS/cm				
	Potassium, Dissolved		93 mg/l				
	Sodium, Dissolved		440 mg/l				
	Sulphate, Dissolved as SO4		1410 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		666 mg/l				
	Fluoride		<0.1 mg/l				
	Ammoniacal Nitrogen as N	6.6	<0.06 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<0.7 mg/l				
	pH		7.7 pH Units				
Ionic Balance		2.40 %					
Electrical Conductivity		4624 µS/cm	Field Measurements				
Temperature		12.4 deg C					
Dissolved Oxygen		4.6 mg/l					
pH		7.5 pH Units					
Groundwater Level		5.13 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH3	Aluminium, Dissolved		6.0 µg/l		28/04/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		9.0 µg/l				
	Arsenic Dissolved	310	159.0 µg/l				
	Boron, Dissolved	60000	24700 µg/l				
	Cadmium, Dissolved	15	<0.20 µg/l				
	Calcium, Dissolved		530 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<4.0 µg/l				
	Magnesium, Dissolved		246 mg/l				
	Manganese, Dissolved		398 µg/l				
	Molybdenum, Dissolved	9000	2800 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved	350	n/t µg/l				
	Vanadium, Dissolved		38 µg/l				
	Mercury, Dissolved	20	0.020 µg/l				
	Alkalinity to pH 4.5 as CaCO3		249 mg/l				
	Conductivity at 20C		8530 uS/cm				
	Potassium, Dissolved		160 mg/l				
	Sodium, Dissolved		1300 mg/l				
	Sulphate, Dissolved as SO4		1680 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		2330 mg/l				
	Fluoride		0.20 mg/l				
	Ammoniacal Nitrogen as N	6.6	0.43 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.0 mg/l				
pH		7.7 pH Units					
Ionic Balance		0.74 %	Field Measurements				
Electrical Conductivity		4773 µS/cm					
Temperature		12.5 deg C					
Dissolved Oxygen		4.9 mg/l					
pH		7.3 pH Units					
Groundwater Level		4.18 mAOD					

Substance/ Emission point	Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH5	Aluminium, Dissolved		<3.5 µg/l		24/02/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<1.3 µg/l				
	Arsenic Dissolved		0.2 µg/l				
	Boron, Dissolved		714 µg/l				
	Cadmium, Dissolved		<0.02 µg/l				
	Calcium, Dissolved		233 mg/l				
	Chromium, Dissolved		<0.20 µg/l				
	Copper, Dissolved		<4.0 µg/l				
	Magnesium, Dissolved		16 mg/l				
	Manganese, Dissolved		456 µg/l				
	Molybdenum, Dissolved		<2.50 µg/l				
	Nickel, Dissolved		1.9 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		<0.15 µg/l				
	Mercury, Dissolved		0.020 µg/l				
	Alkalinity to pH 4.5 as CaCO3		349 mg/l				
	Conductivity at 20C		1210 uS/cm				
	Potassium, Dissolved		2 mg/l				
	Sodium, Dissolved		42 mg/l				
	Sulphate, Dissolved as SO4		300 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		61 mg/l				
	Fluoride		0.10 mg/l				
	Ammoniacal Nitrogen as N		0.10 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.8 mg/l				
	pH		7.2 pH Units				
Ionic Balance		0.42 %					
Electrical Conductivity		1310 µS/cm	Field Measurements				
Temperature		10.8 deg C					
Dissolved Oxygen		2.5 mg/l					
pH		6.9 pH Units					
Groundwater Level		10.47 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH5	Aluminium, Dissolved		<3.5 µg/l		28/04/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<1.3 µg/l				
	Arsenic Dissolved		<0.20 µg/l				
	Boron, Dissolved		1450 µg/l				
	Cadmium, Dissolved		0.02 µg/l				
	Calcium, Dissolved		269 mg/l				
	Chromium, Dissolved		<0.20 µg/l				
	Copper, Dissolved		<4.0 µg/l				
	Magnesium, Dissolved		21 mg/l				
	Manganese, Dissolved		4 µg/l				
	Molybdenum, Dissolved		13 µg/l				
	Nickel, Dissolved		1.9 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		0.2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		362 mg/l				
	Conductivity at 20C		1250 uS/cm				
	Potassium, Dissolved		1 mg/l				
	Sodium, Dissolved		41 mg/l				
	Sulphate, Dissolved as SO4		395 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		45 mg/l				
	Fluoride		0.10 mg/l				
	Ammoniacal Nitrogen as N		<0.06 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.5 mg/l				
	pH		7.3 pH Units				
Ionic Balance		0.72 %	Field Measurements				
Electrical Conductivity		1366 µS/cm					
Temperature		9.9 deg C					
Dissolved Oxygen		4.0 mg/l					
pH		7.1 pH Units					
Groundwater Level		8.54 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH6	Aluminium, Dissolved		<35 µg/l		23/02/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<13 µg/l				
	Arsenic Dissolved		6.9 µg/l				
	Boron, Dissolved		17600 µg/l				
	Cadmium, Dissolved		0.35 µg/l				
	Calcium, Dissolved		954 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<40 µg/l				
	Magnesium, Dissolved		169 mg/l				
	Manganese, Dissolved		717 µg/l				
	Molybdenum, Dissolved		4520 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		8.2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		264 mg/l				
	Conductivity at 20C		13700 uS/cm				
	Potassium, Dissolved		130 mg/l				
	Sodium, Dissolved		2200 mg/l				
	Sulphate, Dissolved as SO4		1770 mg/l				
	Nitrogen : Total Oxidised as N		19.40 mg/l				
	Chloride		4220 mg/l				
	Fluoride		0.10 mg/l				
	Ammoniacal Nitrogen as N		0.68 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.2 mg/l				
	pH		7.4 pH Units				
Ionic Balance		0.22 %					
Electrical Conductivity		14579 µS/cm	Field Measurements				
Temperature		12.5 deg C					
Dissolved Oxygen		3.4 mg/l					
pH		7.1 pH Units					
Groundwater Level		9.61 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH6	Aluminium, Dissolved		<3.5 µg/l		28/04/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		13.0 µg/l				
	Arsenic Dissolved		66.0 µg/l				
	Boron, Dissolved		24400 µg/l				
	Cadmium, Dissolved		<0.20 µg/l				
	Calcium, Dissolved		562 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<4.0 µg/l				
	Magnesium, Dissolved		238 mg/l				
	Manganese, Dissolved		1160 µg/l				
	Molybdenum, Dissolved		3440 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		67 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		395 mg/l				
	Conductivity at 20C		5210 uS/cm				
	Potassium, Dissolved		66 mg/l				
	Sodium, Dissolved		480 mg/l				
	Sulphate, Dissolved as SO4		1980 mg/l				
	Nitrogen : Total Oxidised as N		0.80 mg/l				
	Chloride		785 mg/l				
	Fluoride		0.20 mg/l				
	Ammoniacal Nitrogen as N		0.53 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.3 mg/l				
pH		7.8 pH Units					
Ionic Balance		0.79 %	Field Measurements				
Electrical Conductivity		5761 µS/cm					
Temperature		12.6 deg C					
Dissolved Oxygen		0.2 mg/l					
pH		7.1 pH Units					
Groundwater Level		8.20 mAOD					

	Substance/ Emission point Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH7	Aluminium, Dissolved		<35 ug/l		23/02/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<13 µg/l				
	Arsenic Dissolved	310	5.4 µg/l				
	Boron, Dissolved	60000	21400 µg/l				
	Cadmium, Dissolved	15	<0.20 µg/l				
	Calcium, Dissolved		774 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<40 µg/l				
	Magnesium, Dissolved		117 mg/l				
	Manganese, Dissolved		1030 µg/l				
	Molybdenum, Dissolved	9000	3170 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved	350	n/t µg/l				
	Vanadium, Dissolved		<1.5 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		320 mg/l				
	Conductivity at 20C		11500 uS/cm				
	Potassium, Dissolved		250 mg/l				
	Sodium, Dissolved		2000 mg/l				
	Sulphate, Dissolved as SO4		1730 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		3310 mg/l				
	Fluoride		0.40 mg/l				
	Ammoniacal Nitrogen as N	6.6	2.58 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.1 mg/l				
	pH		7.4 pH Units				
Ionic Balance		2.08 %					
Electrical Conductivity		12407 µS/cm	Field Measurements				
Temperature		13.0 deg C					
Dissolved Oxygen		4.5 mg/l					
pH		7.3 pH Units					
Groundwater Level		3.92 mAOD					

	Substance/ Emission point Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH7	Aluminium, Dissolved		<35 µg/l		28/04/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<13 µg/l				
	Arsenic Dissolved	310	2.6 µg/l				
	Boron, Dissolved	60000	21600 µg/l				
	Cadmium, Dissolved	15	<0.20 µg/l				
	Calcium, Dissolved		747 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<40 µg/l				
	Magnesium, Dissolved		107 mg/l				
	Manganese, Dissolved		1000 µg/l				
	Molybdenum, Dissolved	9000	3350 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved	350	n/t µg/l				
	Vanadium, Dissolved		<1.5 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		274 mg/l				
	Conductivity at 20C		11900 uS/cm				
	Potassium, Dissolved		240 mg/l				
	Sodium, Dissolved		1900 mg/l				
	Sulphate, Dissolved as SO4		1760 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		3540 mg/l				
	Fluoride		0.40 mg/l				
	Ammoniacal Nitrogen as N	6.6	2.83 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.2 mg/l				
	pH		7.4 pH Units				
Ionic Balance		2.60 %	Field Measurements				
Electrical Conductivity		13029 µS/cm					
Temperature		13.3 deg C					
Dissolved Oxygen		0.2 mg/l					
pH		6.7 pH Units					
Groundwater Level		2.24 mAOD					

	Substance/ Emission point Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH8	Aluminium, Dissolved		<35 µg/l		23/02/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<13 µg/l				
	Arsenic Dissolved		<2.0 µg/l				
	Boron, Dissolved		2640 µg/l				
	Cadmium, Dissolved		<0.20 µg/l				
	Calcium, Dissolved		544 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<40 µg/l				
	Magnesium, Dissolved		460 mg/l				
	Manganese, Dissolved		227 µg/l				
	Molybdenum, Dissolved		43 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		<1.5 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		479 mg/l				
	Conductivity at 20C		20300 uS/cm				
	Potassium, Dissolved		110 mg/l				
	Sodium, Dissolved		3700 mg/l				
	Sulphate, Dissolved as SO4		751 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		7370 mg/l				
	Fluoride		0.50 mg/l				
	Ammoniacal Nitrogen as N		7.23 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2.9 mg/l				
	pH		7.2 pH Units				
Ionic Balance		0.97 %					
Electrical Conductivity		21771 µS/cm	Field Measurements				
Temperature		12.0 deg C					
Dissolved Oxygen		3.9 mg/l					
pH		7.0 pH Units					
Groundwater Level		8.42 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH8	Aluminium, Dissolved		<35 µg/l		28/04/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<13 µg/l				
	Arsenic Dissolved		<2.0 µg/l				
	Boron, Dissolved		2360 µg/l				
	Cadmium, Dissolved		<0.20 µg/l				
	Calcium, Dissolved		359 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<40 µg/l				
	Magnesium, Dissolved		448 mg/l				
	Manganese, Dissolved		163 µg/l				
	Molybdenum, Dissolved		28.5 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		<1.5 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		514 mg/l				
	Conductivity at 20C		20000 uS/cm				
	Potassium, Dissolved		110 mg/l				
	Sodium, Dissolved		3700 mg/l				
	Sulphate, Dissolved as SO4		656 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		7120 mg/l				
	Fluoride		0.60 mg/l				
	Ammoniacal Nitrogen as N		6.83 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2.9 mg/l				
	pH		7.4 pH Units				
Ionic Balance		1.4 %					
Electrical Conductivity		21886 µS/cm	Field Measurements				
Temperature		12.0 deg C					
Dissolved Oxygen		0.1 mg/l					
pH		7.2 pH Units					
Groundwater Level		6.81 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH9	Aluminium, Dissolved		<35 µg/l		23/02/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<13 µg/l				
	Arsenic Dissolved		<2.0 µg/l				
	Boron, Dissolved		629 µg/l				
	Cadmium, Dissolved		<0.20 µg/l				
	Calcium, Dissolved		130 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<40 µg/l				
	Magnesium, Dissolved		22 mg/l				
	Manganese, Dissolved		3 µg/l				
	Molybdenum, Dissolved		<25.0 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		<1.5 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		314 mg/l				
	Conductivity at 20C		745 uS/cm				
	Potassium, Dissolved		3 mg/l				
	Sodium, Dissolved		34 mg/l				
	Sulphate, Dissolved as SO4		39 mg/l				
	Nitrogen : Total Oxidised as N		2.80 mg/l				
	Chloride		53 mg/l				
	Fluoride		0.20 mg/l				
	Ammoniacal Nitrogen as N		<0.06 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.4 mg/l				
	pH		7.5 pH Units				
Ionic Balance		6.87 %					
Electrical Conductivity		844 µS/cm	Field Measurements				
Temperature		11.8 deg C					
Dissolved Oxygen		6.0 mg/l					
pH		7.7 pH Units					
Groundwater Level		5.10 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH9	Aluminium, Dissolved		<3.5 µg/l		28/04/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<1.3 µg/l				
	Arsenic Dissolved		0.2 µg/l				
	Boron, Dissolved		559 µg/l				
	Cadmium, Dissolved		<0.02 µg/l				
	Calcium, Dissolved		164 mg/l				
	Chromium, Dissolved		<0.20 µg/l				
	Copper, Dissolved		<4.0 µg/l				
	Magnesium, Dissolved		28 mg/l				
	Manganese, Dissolved		157.0 µg/l				
	Molybdenum, Dissolved		18 µg/l				
	Nickel, Dissolved		5.8 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		<0.15 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		321 mg/l				
	Conductivity at 20C		1050 uS/cm				
	Potassium, Dissolved		3 mg/l				
	Sodium, Dissolved		49 mg/l				
	Sulphate, Dissolved as SO4		124 mg/l				
	Nitrogen : Total Oxidised as N		2.10 mg/l				
	Chloride		122 mg/l				
	Fluoride		0.20 mg/l				
	Ammoniacal Nitrogen as N		<0.06 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.5 mg/l				
	pH		7.3 pH Units				
Ionic Balance		0.94 %					
Electrical Conductivity		1166 µS/cm	Field Measurements				
Temperature		13.1 deg C					
Dissolved Oxygen		3.7 mg/l					
pH		7.0 pH Units					
Groundwater Level		3.54 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH10	Aluminium, Dissolved		<35 µg/l		23/02/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<13 µg/l				
	Arsenic Dissolved		14.0 µg/l				
	Boron, Dissolved		9530 µg/l				
	Cadmium, Dissolved		<0.20 µg/l				
	Calcium, Dissolved		334 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<40 µg/l				
	Magnesium, Dissolved		445 mg/l				
	Manganese, Dissolved		464 µg/l				
	Molybdenum, Dissolved		432 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		<1.5 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		868 mg/l				
	Conductivity at 20C		18400 uS/cm				
	Potassium, Dissolved		140 mg/l				
	Sodium, Dissolved		3600 mg/l				
	Sulphate, Dissolved as SO4		981 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		6180 mg/l				
	Fluoride		0.20 mg/l				
	Ammoniacal Nitrogen as N		29.20 mg/l				
	Carbon, Organic : Total as C :- {TOC}		6.4 mg/l				
	pH		7.5 pH Units				
Ionic Balance		0.3 %					
Electrical Conductivity		8849 µS/cm	Field Measurements				
Temperature		12.8 deg C					
Dissolved Oxygen		0.0 mg/l					
pH		7.2 pH Units					
Groundwater Level		0.75 mAOD					

Substance/ Emission point	Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH10	Aluminium, Dissolved		<35 µg/l		28/04/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<13 µg/l				
	Arsenic Dissolved		11.0 µg/l				
	Boron, Dissolved		9760 µg/l				
	Cadmium, Dissolved		<0.20 µg/l				
	Calcium, Dissolved		341 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<40 µg/l				
	Magnesium, Dissolved		526 mg/l				
	Manganese, Dissolved		445 µg/l				
	Molybdenum, Dissolved		338 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		2.9 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		999 mg/l				
	Conductivity at 20C		22000 uS/cm				
	Potassium, Dissolved		170 mg/l				
	Sodium, Dissolved		4300 mg/l				
	Sulphate, Dissolved as SO4		943 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		7670 mg/l				
	Fluoride		0.20 mg/l				
	Ammoniacal Nitrogen as N		40.00 mg/l				
	Carbon, Organic : Total as C :- (TOC)		7.4 mg/l				
pH		7.8 pH Units					
Ionic Balance		0.9 %					
Electrical Conductivity		23531 µS/cm	Field Measurements				
Temperature		13.0 deg C					
Dissolved Oxygen		0.1 mg/l					
pH		6.9 pH Units					
Groundwater Level		1.53 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH11	Aluminium, Dissolved		<35 µg/l		23/02/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<13 µg/l				
	Arsenic Dissolved		20.0 µg/l				
	Boron, Dissolved		8040 µg/l				
	Cadmium, Dissolved		<0.20 µg/l				
	Calcium, Dissolved		274 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<40 µg/l				
	Magnesium, Dissolved		114 mg/l				
	Manganese, Dissolved		1020 µg/l				
	Molybdenum, Dissolved		231 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		<1.5 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		691 mg/l				
	Conductivity at 20C		4250 uS/cm				
	Potassium, Dissolved		62 mg/l				
	Sodium, Dissolved		620 mg/l				
	Sulphate, Dissolved as SO4		486 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		913 mg/l				
	Fluoride		0.4 mg/l				
	Ammoniacal Nitrogen as N		3.4 mg/l				
	Carbon, Organic : Total as C :- {TOC}		4.0 mg/l				
	pH		7.4 pH Units				
Ionic Balance		1.87 %	Field Measurements				
Electrical Conductivity		3995 µS/cm					
Temperature		13.3 deg C					
Dissolved Oxygen		0.0 mg/l					
pH		7.3 pH Units					
Groundwater Level		4.99 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH11	Aluminium, Dissolved		<3.5 µg/l		28/04/2022	Sampling Amec / Testing ALS	
	Antimony, Dissolved		<1.3 µg/l				
	Arsenic Dissolved		14.0 µg/l				
	Boron, Dissolved		11500 µg/l				
	Cadmium, Dissolved		<0.20 µg/l				
	Calcium, Dissolved		384 mg/l				
	Chromium, Dissolved		<2.0 µg/l				
	Copper, Dissolved		<4.0 µg/l				
	Magnesium, Dissolved		154 mg/l				
	Manganese, Dissolved		1080 µg/l				
	Molybdenum, Dissolved		646 µg/l				
	Nickel, Dissolved		<10.0 µg/l				
	Selenium Dissolved		n/t µg/l				
	Vanadium, Dissolved		<1.5 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		702 mg/l				
	Conductivity at 20C		6830 uS/cm				
	Potassium, Dissolved		110 mg/l				
	Sodium, Dissolved		1000 mg/l				
	Sulphate, Dissolved as SO4		772 mg/l				
	Nitrogen : Total Oxidised as N		<0.7 mg/l				
	Chloride		1790 mg/l				
	Fluoride		0.5 mg/l				
	Ammoniacal Nitrogen as N		6.0 mg/l				
	Carbon, Organic : Total as C :- {TOC}		4.5 mg/l				
pH		7.6 pH Units					
Ionic Balance		1.57 %					
Electrical Conductivity		7410 µS/cm	Field Measurements				
Temperature		13.1 deg C					
Dissolved Oxygen		0.2 mg/l					
pH		7.1 pH Units					
Groundwater Level		4.12 mAOD					

[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.

[6] The emission limit values for all substances is expressed as a maximum individual value, unless otherwise stated.

Signed  Date 07/09/2022
(authorised to sign as representative of the Operator)