

Reporting of Emission to Groundwater for the period from 1st January 2020 to 30th June 2020.

Operator : RWE Generation UK plc

Form: Groundwater1

Location: Aberthaw Quarry Ash Disposal Site

Permit/Variation Number: BP3339BH

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_01A	Aluminium, Dissolved		<10 ug/l		04/03/2020	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<1 ug/l				
	Boron, Dissolved		<100 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		140 mg/l				
	Chromium, Dissolved		<0.5 ug/l				
	Copper, Dissolved		1 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		4.9 mg/l				
	Manganese, Dissolved		<10 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		<1 ug/l				
	Selenium Dissolved		0 ug/l				
	Vanadium, Dissolved		<2 ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		290 mg/l				
	Electrical Conductivity at 20C		700 uS/cm				
	Potassium, Dissolved		1.1 mg/l				
	Sodium, Dissolved		20 mg/l				
	Sulphate, Dissolved		32 mg/l				
	Total Oxidised Nitrogen		6.5 mg/l				
	Chloride		48 mg/l				
	Fluoride		0.08 mg/l				
	Ammoniacal Nitrogen		<0.030 mg/l				
	Total Organic Carbon		1.5 mg/l				
	pH		7.2 pH Units				
	Nitrate		<6.5 mg/l				
	Ionic Balance		0 %				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
	Electrical Conductivity		805 μS/cm	Field Measurements			
	Temperature		11.60 deg C				
	Dissolved Oxygen		6.93 mg/l				
	pH		7.12 pH Units				
	Groundwater Level		27.01 mAOD				

	Substance/ Emission point	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]	
E09_01A	Aluminium, Dissolved		Unable to collect samples or send off for analysis due to Covid-19	ug/l	Unable to collect samples or send off for analysis due to Covid-19	Sampling Amec/Testing EA NLS		
	Antimony, Dissolved			ug/l				
	Arsenic Dissolved			ug/l				
	Boron, Dissolved			ug/l				
	Cadmium, Dissolved			ug/l				
	Calcium, Dissolved			mg/l				
	Chromium, Dissolved			ug/l				
	Copper, Dissolved			ug/l				
	Iron, Dissolved			ug/l				
	Magnesium, Dissolved			mg/l				
	Manganese, Dissolved			ug/l				
	Molybdenum, Dissolved			ug/l				
	Nickel, Dissolved			ug/l				
	Selenium Dissolved			ug/l				
	Vanadium, Dissolved			ug/l				
	Mercury, Dissolved			ug/l				
	Total Alkalinity as CaCO3			mg/l				
	Electrical Conductivity at 25C			uS/cm				
	Potassium, Dissolved			mg/l				
	Sodium, Dissolved			mg/l				
	Sulphate, Dissolved			mg/l				
	Total Oxidised Nitrogen			mg/l				
	Chloride			mg/l				
	Fluoride			mg/l				
	Ammoniacal Nitrogen			mg/l				
	Total Organic Carbon			mg/l				
	pH			pH Units				
	Nitrate			mg/l				
	Ionic Balance			%				
	Electrical Conductivity			µS/cm			Field Measurements	
	Temperature			deg C				
	Dissolved Oxygen			mg/l				
	pH			pH Units				
	Groundwater Level			mAOD				

	Substance/ Emission point	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_01B	Aluminium, Dissolved		<10 ug/l		04/03/2020	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<1 ug/l				
	Boron, Dissolved		<100 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		130 mg/l				
	Chromium, Dissolved		<0.5 ug/l				
	Copper, Dissolved		<1 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		5.6 mg/l				
	Manganese, Dissolved		<10 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		<1 ug/l				
	Selenium Dissolved		0 ug/l				
	Vanadium, Dissolved		<2 ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		290 mg/l				
	Electrical Conductivity at 25C		690 uS/cm				
	Potassium, Dissolved		1.2 mg/l				
	Sodium, Dissolved		17 mg/l				
	Sulphate, Dissolved		33 mg/l				
	Total Oxidised Nitrogen		6.7 mg/l				
	Chloride		44 mg/l				
	Fluoride		0.1 mg/l				
	Ammoniacal Nitrogen		<0.030 mg/l				
	Total Organic Carbon		1.6 mg/l				
	pH		7.3 pH Units				
	Nitrate		<6.7 mg/l				
	Ionic Balance		-3.1 %				
	Electrical Conductivity		799 μS/cm	Field Measurements			
	Temperature		11.20 deg C				
	Dissolved Oxygen		7.42 mg/l				
	pH		7.29 pH Units				
	Groundwater Level		24.93 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_01B	Aluminium, Dissolved		Unable to collect samples or send off for analysis due to Covid-19		Unable to collect samples or send off for analysis due to Covid-19	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved						
	Arsenic Dissolved						
	Boron, Dissolved						
	Cadmium, Dissolved						
	Calcium, Dissolved						
	Chromium, Dissolved						
	Copper, Dissolved						
	Iron, Dissolved						
	Magnesium, Dissolved						
	Manganese, Dissolved						
	Molybdenum, Dissolved						
	Nickel, Dissolved						
	Selenium Dissolved						
	Vanadium, Dissolved						
	Mercury, Dissolved						
	Total Alkalinity as CaCO3						
	Electrical Conductivity at 25C						
	Potassium, Dissolved						
	Sodium, Dissolved						
	Sulphate, Dissolved						
	Total Oxidised Nitrogen						
	Chloride						
	Fluoride						
	Ammoniacal Nitrogen						
	Total Organic Carbon						
	pH						
	Nitrate						
	Ionic Balance						
	Electrical Conductivity						Field Measurements
Temperature							
Dissolved Oxygen							
pH							
Groundwater Level							

Substance/ Emission point	Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_02A	Aluminium, Dissolved		<10 ug/l		04-MAR-20 16:05	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<1 ug/l				
	Boron, Dissolved		<100 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		250 mg/l				
	Chromium, Dissolved		<0.5 ug/l				
	Copper, Dissolved		2.8 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		<10 mg/l				
	Manganese, Dissolved		<3 ug/l				
	Molybdenum, Dissolved		3.1 ug/l				
	Nickel, Dissolved		0 ug/l				
	Selenium Dissolved		<2 ug/l				
	Vanadium, Dissolved		0 ug/l				
	Mercury, Dissolved		490 ug/l				
	Total Alkalinity as CaCO3		1200 mg/l				
	Electrical Conductivity at 25C		0.81 uS/cm				
	Potassium, Dissolved		25 mg/l				
	Sodium, Dissolved		68 mg/l				
	Sulphate, Dissolved		31 mg/l				
	Total Oxidised Nitrogen		40 mg/l				
	Chloride		0.072 mg/l				
	Fluoride		<31 mg/l				
	Ammoniacal Nitrogen		6.9 mg/l				
	Total Organic Carbon		6.9 mg/l				
	pH		6.8 pH Units				
	Nitrate		<31 mg/l				
	Ionic Balance		0 %				
	Electrical Conductivity		1391 μS/cm	Field Measurements			
	Temperature		11.50 deg C				
	Dissolved Oxygen		6.09 mg/l				
	pH		6.82 pH Units				
	Groundwater Level		27.93 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_02A	Aluminium, Dissolved		Unable to collect samples or send off for analysis due to Covid-19		Unable to collect samples or send off for analysis due to Covid-19	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved						
	Arsenic Dissolved						
	Boron, Dissolved						
	Cadmium, Dissolved						
	Calcium, Dissolved						
	Chromium, Dissolved						
	Copper, Dissolved						
	Iron, Dissolved						
	Magnesium, Dissolved						
	Manganese, Dissolved						
	Molybdenum, Dissolved						
	Nickel, Dissolved						
	Selenium Dissolved						
	Vanadium, Dissolved						
	Mercury, Dissolved						
	Total Alkalinity as CaCO3						
	Electrical Conductivity at 25C						
	Potassium, Dissolved						
	Sodium, Dissolved						
	Sulphate, Dissolved						
	Total Oxidised Nitrogen						
	Chloride						
	Fluoride						
	Ammoniacal Nitrogen						
	Total Organic Carbon						
	pH						
	Nitrate						
	Ionic Balance						
	Electrical Conductivity						Field Measurements
Temperature							
Dissolved Oxygen							
pH							
Groundwater Level							

	Substance/ Emission point	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E09_02B	Aluminium, Dissolved		<10 ug/l		04/03/2020	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<1 ug/l				
	Boron, Dissolved		<100 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		230 mg/l				
	Chromium, Dissolved		<0.5 ug/l				
	Copper, Dissolved		2 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		12 mg/l				
	Manganese, Dissolved		<10 ug/l				
	Molybdenum, Dissolved		<3 ug/l				
	Nickel, Dissolved		1.9 ug/l				
	Selenium Dissolved		0 ug/l				
	Vanadium, Dissolved		<2 ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		420 mg/l				
	Electrical Conductivity at 25C		1200 uS/cm				
	Potassium, Dissolved		0.81 mg/l				
	Sodium, Dissolved		27 mg/l				
	Sulphate, Dissolved		76 mg/l				
	Total Oxidised Nitrogen		40 mg/l				
	Chloride		41 mg/l				
	Fluoride		0.082 mg/l				
	Ammoniacal Nitrogen		<0.030 mg/l				
	Total Organic Carbon		6.2 mg/l				
	pH		6.9 pH Units				
	Nitrate		40 mg/l				
	Ionic Balance		-1.2 %				
	Electrical Conductivity		1348 μS/cm	Field Measurements			
	Temperature		11.70 deg C				
	Dissolved Oxygen		6.31 mg/l				
	pH		6.85 pH Units				
	Groundwater Level		32.41 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]	
E09_02B	Aluminium, Dissolved		Unable to collect samples or send off for analysis due to Covid-19		Unable to collect samples or send off for analysis due to Covid-19	Sampling Amec/Testing EA NLS		
	Antimony, Dissolved							
	Arsenic Dissolved							
	Boron, Dissolved							
	Cadmium, Dissolved							
	Calcium, Dissolved							
	Chromium, Dissolved							
	Copper, Dissolved							
	Iron, Dissolved							
	Magnesium, Dissolved							
	Manganese, Dissolved							
	Molybdenum, Dissolved							
	Nickel, Dissolved							
	Selenium Dissolved							
	Vanadium, Dissolved							
	Mercury, Dissolved							
	Total Alkalinity as CaCO3							
	Electrical Conductivity at 25C							
	Potassium, Dissolved							
	Sodium, Dissolved							
	Sulphate, Dissolved							
	Total Oxidised Nitrogen							
	Chloride							
	Fluoride							
	Ammoniacal Nitrogen							
	Total Organic Carbon							
	pH							
	Nitrate							
	Ionic Balance							
	Electrical Conductivity						Field Measurements	
	Temperature							
	Dissolved Oxygen							
	pH							
	Groundwater Level							

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E05_03	Aluminium, Dissolved	50	0 ug/l		04/03/2020	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved	10	<1 ug/l				
	Boron, Dissolved	2800	1600 ug/l				
	Cadmium, Dissolved	0.4	Awaiting result/Not tested?	ug/l			
	Calcium, Dissolved		400 mg/l				
	Chromium, Dissolved	50	Awaiting result/Not tested?	ug/l			
	Copper, Dissolved		Missing ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		32 mg/l				
	Manganese, Dissolved		1300 ug/l				
	Molybdenum, Dissolved	50	Awaiting result/Not tested?	ug/l			
	Nickel, Dissolved		0 ug/l				
	Selenium Dissolved		0 ug/l				
	Vanadium, Dissolved	20	<2 ug/l				
	Mercury, Dissolved	0.03	<0.01 ug/l				
	Total Alkalinity as CaCO3		190 mg/l				
	Electrical Conductivity at 25C		6100 uS/cm				
	Potassium, Dissolved		13 mg/l				
	Sodium, Dissolved		670 mg/l				
	Sulphate, Dissolved	400	510 mg/l				
	Total Oxidised Nitrogen		<0.20 mg/l				
	Chloride		1900 mg/l				
	Fluoride		0.78 mg/l				
	Ammoniacal Nitrogen	1.6	0.78 mg/l				
	Total Organic Carbon		0.7 mg/l				
	pH		0 pH Units				
	Nitrate		<0.17 mg/l				
	Ionic Balance		1.5 %				
	Electrical Conductivity		6949 µS/cm				
	Temperature		11.10 deg C				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
	Dissolved Oxygen		1.86 mg/l	Field Measurements			
	pH		7.31 pH Units				
	Groundwater Level		18.82 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E05_03	Aluminium, Dissolved	50	Unable to collect samples or send off for analysis due to Covid-19		Unable to collect samples or send off for analysis due to Covid-19	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved						
	Arsenic Dissolved	10					
	Boron, Dissolved	2800					
	Cadmium, Dissolved	0.4					
	Calcium, Dissolved						
	Chromium, Dissolved	50					
	Copper, Dissolved						
	Iron, Dissolved						
	Magnesium, Dissolved						
	Manganese, Dissolved						
	Molybdenum, Dissolved	50					
	Nickel, Dissolved						
	Selenium Dissolved						
	Vanadium, Dissolved	20					
	Mercury, Dissolved	0.03					
	Total Alkalinity as CaCO3						
	Electrical Conductivity at 25C						
	Potassium, Dissolved						
	Sodium, Dissolved						
	Sulphate, Dissolved	400					
	Total Oxidised Nitrogen						
	Chloride						
	Fluoride						
	Ammoniacal Nitrogen	1.6					
	Total Organic Carbon						
	pH						
	Nitrate						
	Ionic Balance						
	Electrical Conductivity						
	Temperature						
	Dissolved Oxygen			Field Measurements			
	pH						
	Groundwater Level						

	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E05_04	Aluminium, Dissolved	50	<10 ug/l		04/03/2020	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved	10	1.00 ug/l				
	Boron, Dissolved	2800	2100 ug/l				
	Cadmium, Dissolved	0.4	<0.1 ug/l				
	Calcium, Dissolved		12.00 mg/l				
	Chromium, Dissolved	50	<0.5 ug/l				
	Copper, Dissolved		<1 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		9.60 mg/l				
	Manganese, Dissolved		<10 ug/l				
	Molybdenum, Dissolved	50	61.00 ug/l				
	Nickel, Dissolved		<1 ug/l				
	Selenium Dissolved		0.00 ug/l				
	Vanadium, Dissolved	20	<2 ug/l				
	Mercury, Dissolved	0.03	<0.01 ug/l				
	Total Alkalinity as CaCO3		350 mg/l				
	Electrical Conductivity at 25C		1300 uS/cm				
	Potassium, Dissolved		3.70 mg/l				
	Sodium, Dissolved		280 mg/l				
	Sulphate, Dissolved	400	110.00 mg/l				
	Total Oxidised Nitrogen		<0.20 mg/l				
	Chloride		160.00 mg/l				
	Fluoride		Awaiting result mg/l				
	Ammoniacal Nitrogen	1.6	<0.18 mg/l				
	Total Organic Carbon		0.58 mg/l				
	pH		1.30 pH Units				
	Nitrate		<0.18 mg/l				
	Ionic Balance		-0.50 %				
	Electrical Conductivity		1493 µS/cm	Field Measurements			
	Temperature		11.80 deg C				
	Dissolved Oxygen		1.62 mg/l				
	pH		8.30 pH Units				
	Groundwater Level		18.78 mAOD				

	Substance/ Emission point	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]	
E05_04	Aluminium, Dissolved	50	Unable to collect samples or send off for analysis due to Covid-19		Unable to collect samples or send off for analysis due to Covid-19	Sampling Amec/Testing EA NLS		
	Antimony, Dissolved							
	Arsenic Dissolved	10						
	Boron, Dissolved	2800						
	Cadmium, Dissolved	0.4						
	Calcium, Dissolved							
	Chromium, Dissolved	50						
	Copper, Dissolved							
	Iron, Dissolved							
	Magnesium, Dissolved							
	Manganese, Dissolved							
	Molybdenum, Dissolved	50						
	Nickel, Dissolved							
	Selenium Dissolved							
	Vanadium, Dissolved	20						
	Mercury, Dissolved	0.03						
	Total Alkalinity as CaCO3							
	Electrical Conductivity at 25C							
	Potassium, Dissolved							
	Sodium, Dissolved							
	Sulphate, Dissolved	400						
	Total Oxidised Nitrogen							
	Chloride							
	Fluoride							
	Ammoniacal Nitrogen	1.6						
	Total Organic Carbon							
	pH							
	Nitrate							
	Ionic Balance							
	Electrical Conductivity						Field Measurements	
	Temperature							
	Dissolved Oxygen							
	pH							
	Groundwater Level							

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_01	Aluminium, Dissolved	50	Awaiting result/Not tested?	ug/l	04/03/2020	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1	ug/l			
	Arsenic Dissolved	10	<1	ug/l			
	Boron, Dissolved	2800	1700	ug/l			
	Cadmium, Dissolved	0.4	Awaiting	ug/l			
	Calcium, Dissolved		22.00	mg/l			
	Chromium, Dissolved	50	Awaiting	ug/l			
	Copper, Dissolved		Awaiting	ug/l			
	Iron, Dissolved		<30	ug/l			
	Magnesium, Dissolved		14.00	mg/l			
	Manganese, Dissolved		19.00	ug/l			
	Molybdenum, Dissolved	50	160.00	ug/l			
	Nickel, Dissolved		Awaiting	ug/l			
	Selenium Dissolved		0.00	ug/l			
	Vanadium, Dissolved	20	4.00	ug/l			
	Mercury, Dissolved	0.03	<0.01	ug/l			
	Total Alkalinity as CaCO3		340	mg/l			
	Electrical Conductivity at 25C		1300	uS/cm			
	Potassium, Dissolved		4.10	mg/l			
	Sodium, Dissolved		270	mg/l			
	Sulphate, Dissolved	400	180.00	mg/l			
	Total Oxidised Nitrogen		1.50	mg/l			
	Chloride		130.00	mg/l			
	Fluoride		Awaiting	mg/l			
	Ammoniacal Nitrogen	1.6	0.61	mg/l			
	Total Organic Carbon		1.10	mg/l			
	pH		8.70	pH Units			
	Nitrate		1.40	mg/l			
	Ionic Balance		-0.76	%			
	Electrical Conductivity		1453	µS/cm			
	Temperature		11.30	deg C			
	Dissolved Oxygen		4.81	mg/l			
	pH		8.70	pH Units			
	Groundwater Level		18.89	mAOD			

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_01	Aluminium, Dissolved	50	Unable to collect samples or send off for analysis due to Covid-19		Unable to collect samples or send off for analysis due to Covid-19	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved						
	Arsenic Dissolved	10					
	Boron, Dissolved	2800					
	Cadmium, Dissolved	0.4					
	Calcium, Dissolved						
	Chromium, Dissolved	50					
	Copper, Dissolved						
	Iron, Dissolved						
	Magnesium, Dissolved						
	Manganese, Dissolved						
	Molybdenum, Dissolved	50					
	Nickel, Dissolved						
	Selenium Dissolved						
	Vanadium, Dissolved	20					
	Mercury, Dissolved	0.03					
	Total Alkalinity as CaCO3						
	Electrical Conductivity at 25C						
	Potassium, Dissolved						
	Sodium, Dissolved						
	Sulphate, Dissolved	400					
	Total Oxidised Nitrogen						
	Chloride						
	Fluoride						
	Ammoniacal Nitrogen	1.6					
	Total Organic Carbon						
	pH						
	Nitrate						
	Ionic Balance						
	Electrical Conductivity						
	Temperature						
	Dissolved Oxygen			Field Measurements			
	pH						
	Groundwater Level						

	Substance/ Emission point	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_02	Aluminium, Dissolved		<10 ug/l		04/03/2020	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<1 ug/l				
	Boron, Dissolved		550 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		76.00 mg/l				
	Chromium, Dissolved		<0.5 ug/l				
	Copper, Dissolved		<1 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		30.00 mg/l				
	Manganese, Dissolved		<10 ug/l				
	Molybdenum, Dissolved		49.00 ug/l				
	Nickel, Dissolved		<1 ug/l				
	Selenium Dissolved		0.00 ug/l				
	Vanadium, Dissolved		<2 ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		180 mg/l				
	Electrical Conductivity at 25C		850 uS/cm				
	Potassium, Dissolved		6.60 mg/l				
	Sodium, Dissolved		80 mg/l				
	Sulphate, Dissolved		220.00 mg/l				
	Total Oxidised Nitrogen		1.70 mg/l				
	Chloride		58.00 mg/l				
	Fluoride		0.35 mg/l				
	Ammoniacal Nitrogen		0.20 mg/l				
	Total Organic Carbon		1.70 mg/l				
	pH		7.80 pH Units				
	Nitrate		1.70 mg/l				
	Ionic Balance		-0.11 %				
	Electrical Conductivity		919 μS/cm	Field Measurements			
	Temperature		9.30 deg C				
	Dissolved Oxygen		8.23 mg/l				
	pH		7.93 pH Units				
	Groundwater Level		20.82 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]	
E06_02	Aluminium, Dissolved		Unable to collect samples or send off for analysis due to Covid-19		Unable to collect samples or send off for analysis due to Covid-19	Sampling Amec/Testing EA NLS		
	Antimony, Dissolved							
	Arsenic Dissolved							
	Boron, Dissolved							
	Cadmium, Dissolved							
	Calcium, Dissolved							
	Chromium, Dissolved							
	Copper, Dissolved							
	Iron, Dissolved							
	Magnesium, Dissolved							
	Manganese, Dissolved							
	Molybdenum, Dissolved							
	Nickel, Dissolved							
	Selenium Dissolved							
	Vanadium, Dissolved							
	Mercury, Dissolved							
	Total Alkalinity as CaCO3							
	Electrical Conductivity at 25C							
	Potassium, Dissolved							
	Sodium, Dissolved							
	Sulphate, Dissolved							
	Total Oxidised Nitrogen							
	Chloride							
	Fluoride							
	Ammoniacal Nitrogen							
	Total Organic Carbon							
	pH							
	Nitrate							
	Ionic Balance							
	Electrical Conductivity						Field Measurements	
	Temperature							
	Dissolved Oxygen							
	pH							
	Groundwater Level							

Substance/ Emission point	Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_03	Aluminium, Dissolved		<10 ug/l		04/03/2020	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		1.70 ug/l				
	Arsenic Dissolved		1.40 ug/l				
	Boron, Dissolved		230 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		67 mg/l				
	Chromium, Dissolved		<0.5 ug/l				
	Copper, Dissolved		<1 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		37.00 mg/l				
	Manganese, Dissolved		<10 ug/l				
	Molybdenum, Dissolved		16.00 ug/l				
	Nickel, Dissolved		3.80 ug/l				
	Selenium Dissolved		0.00 ug/l				
	Vanadium, Dissolved		<2 ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		160 mg/l				
	Electrical Conductivity at 25C		700 uS/cm				
	Potassium, Dissolved		6.20 mg/l				
	Sodium, Dissolved		19 mg/l				
	Sulphate, Dissolved		180 mg/l				
	Total Oxidised Nitrogen		<0.20 mg/l				
	Chloride		31.00 mg/l				
	Fluoride		0.47 mg/l				
	Ammoniacal Nitrogen		0.63 mg/l				
	Total Organic Carbon		1.50 mg/l				
	pH		7.70 pH Units				
	Nitrate		0.00 mg/l				
	Ionic Balance		-2.90 %				
	Electrical Conductivity		708 µS/cm	Field Measurements			
	Temperature		9.90 deg C				
	Dissolved Oxygen		5.32 mg/l				
	pH		7.79 pH Units				
	Groundwater Level		20.52 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]	
E06_03	Aluminium, Dissolved		Unable to collect samples or send off for analysis due to Covid-19		Unable to collect samples or send off for analysis due to Covid-19	Sampling Amec/Testing EA NLS		
	Antimony, Dissolved							
	Arsenic Dissolved							
	Boron, Dissolved							
	Cadmium, Dissolved							
	Calcium, Dissolved							
	Chromium, Dissolved							
	Copper, Dissolved							
	Iron, Dissolved							
	Magnesium, Dissolved							
	Manganese, Dissolved							
	Molybdenum, Dissolved							
	Nickel, Dissolved							
	Selenium Dissolved							
	Vanadium, Dissolved							
	Mercury, Dissolved							
	Total Alkalinity as CaCO3							
	Electrical Conductivity at 25C							
	Potassium, Dissolved							
	Sodium, Dissolved							
	Sulphate, Dissolved							
	Total Oxidised Nitrogen							
	Chloride							
	Fluoride							
	Ammoniacal Nitrogen							
	Total Organic Carbon							
	pH							
	Nitrate							
	Ionic Balance							
	Electrical Conductivity						Field Measurements	
	Temperature							
	Dissolved Oxygen							
	pH							
	Groundwater Level							

	Substance/ Emission point	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_04	Aluminium, Dissolved		<10 ug/l		05/03/2020	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<1 ug/l				
	Boron, Dissolved		140 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		190 mg/l				
	Chromium, Dissolved		3.50 ug/l				
	Copper, Dissolved		1.70 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		33.00 mg/l				
	Manganese, Dissolved		16.00 ug/l				
	Molybdenum, Dissolved		18.00 ug/l				
	Nickel, Dissolved		3.10 ug/l				
	Selenium Dissolved		0.00 ug/l				
	Vanadium, Dissolved		<2 ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		120 mg/l				
	Electrical Conductivity at 25C		1300 uS/cm				
	Potassium, Dissolved		62.00 mg/l				
	Sodium, Dissolved		41 mg/l				
	Sulphate, Dissolved		550 mg/l				
	Total Oxidised Nitrogen		2.80 mg/l				
	Chloride		59.00 mg/l				
	Fluoride		0.53 mg/l				
	Ammoniacal Nitrogen		<0.030 mg/l				
	Total Organic Carbon		2.10 mg/l				
	pH		7.60 pH Units				
	Nitrate		<2.8 mg/l				
	Ionic Balance		-0.44 %				
	Electrical Conductivity		1471 μS/cm	Field Measurements			
	Temperature		10.50 deg C				
	Dissolved Oxygen		7.65 mg/l				
	pH		8.14 pH Units				
	Groundwater Level		22.37 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]	
E06_04	Aluminium, Dissolved		Unable to collect samples or send off for analysis due to Covid-19		Unable to collect samples or send off for analysis due to Covid-19	Sampling Amec/Testing EA NLS		
	Antimony, Dissolved							
	Arsenic Dissolved							
	Boron, Dissolved							
	Cadmium, Dissolved							
	Calcium, Dissolved							
	Chromium, Dissolved							
	Copper, Dissolved							
	Iron, Dissolved							
	Magnesium, Dissolved							
	Manganese, Dissolved							
	Molybdenum, Dissolved							
	Nickel, Dissolved							
	Selenium Dissolved							
	Vanadium, Dissolved							
	Mercury, Dissolved							
	Total Alkalinity as CaCO3							
	Electrical Conductivity at 25C							
	Potassium, Dissolved							
	Sodium, Dissolved							
	Sulphate, Dissolved							
	Total Oxidised Nitrogen							
	Chloride							
	Fluoride							
	Ammoniacal Nitrogen							
	Total Organic Carbon							
	pH							
	Nitrate							
	Ionic Balance							
	Electrical Conductivity						Field Measurements	
	Temperature							
	Dissolved Oxygen							
	pH							
	Groundwater Level							

Substance/ Emission point	Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
E06_05	Aluminium, Dissolved		<10 ug/l		05/12/2019	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 ug/l				
	Arsenic Dissolved		<1 ug/l				
	Boron, Dissolved		140 ug/l				
	Cadmium, Dissolved		<0.1 ug/l				
	Calcium, Dissolved		170 mg/l				
	Chromium, Dissolved		<0.5 ug/l				
	Copper, Dissolved		<1 ug/l				
	Iron, Dissolved		<30 ug/l				
	Magnesium, Dissolved		57.00 mg/l				
	Manganese, Dissolved		<10 ug/l				
	Molybdenum, Dissolved		6.50 ug/l				
	Nickel, Dissolved		<1 ug/l				
	Selenium Dissolved		0.00 ug/l				
	Vanadium, Dissolved		<2 ug/l				
	Mercury, Dissolved		<0.01 ug/l				
	Total Alkalinity as CaCO3		150 mg/l				
	Electrical Conductivity at 25C		1100 uS/cm				
	Potassium, Dissolved		3.80 mg/l				
	Sodium, Dissolved		17 mg/l				
	Sulphate, Dissolved		510 mg/l				
	Total Oxidised Nitrogen		<0.20 mg/l				
	Chloride		24.00 mg/l				
	Fluoride		0.39 mg/l				
	Ammoniacal Nitrogen		0.07 mg/l				
	Total Organic Carbon		<0.7 mg/l				
	pH		7.60 pH Units				
	Nitrate		<0.20 mg/l				
	Ionic Balance		-0.97 %				
	Electrical Conductivity		1176 µS/cm	Field Measurements			
	Temperature		10.50 deg C				
	Dissolved Oxygen		7.65 mg/l				
	pH		8.14 pH Units				
	Groundwater Level		25.74 mAOD				

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]	
E06_05	Aluminium, Dissolved		Unable to collect samples or send off for analysis due to Covid-19		Unable to collect samples or send off for analysis due to Covid-19	Sampling Amec/Testing EA NLS		
	Antimony, Dissolved							
	Arsenic Dissolved							
	Boron, Dissolved							
	Cadmium, Dissolved							
	Calcium, Dissolved							
	Chromium, Dissolved							
	Copper, Dissolved							
	Iron, Dissolved							
	Magnesium, Dissolved							
	Manganese, Dissolved							
	Molybdenum, Dissolved							
	Nickel, Dissolved							
	Selenium Dissolved							
	Vanadium, Dissolved							
	Mercury, Dissolved							
	Total Alkalinity as CaCO3							
	Electrical Conductivity at 25C							
	Potassium, Dissolved							
	Sodium, Dissolved							
	Sulphate, Dissolved							
	Total Oxidised Nitrogen							
	Chloride							
	Fluoride							
	Ammoniacal Nitrogen							
	Total Organic Carbon							
	pH							
	Nitrate							
	Ionic Balance							
	Electrical Conductivity						Field Measurements	
	Temperature							
	Dissolved Oxygen							
	pH							
	Groundwater Level							

[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.

Substance/ Emission point	Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
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[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 
(authorised to sign as representative of the Operator)

Date 16/07/2020