

Reporting of Emission to Groundwater for the period from ...1st January 2018..to...30th June 2018...

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		<40 µg/l		27/02/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		14 µg/l				
	Arsenic Dissolved	310	178 µg/l				
	Boron, Dissolved	60000	22200 µg/l				
	Cadmium, Dissolved	15	0.21 µg/l				
	Calcium, Dissolved		357 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		191 mg/l				
	Manganese, Dissolved		168 µg/l				
	Molybdenum, Dissolved	9000	1990 µg/l				
	Nickel, Dissolved		0.3 µg/l				
	Selenium Dissolved	350	8.70 µg/l				
	Vanadium, Dissolved		65 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		255 mg/l				
	Conductivity at 20C		4440 uS/cm				
	Potassium, Dissolved		83 mg/l				
	Sodium, Dissolved		500 mg/l				
	Sulphate, Dissolved as SO4		1490 mg/l				
	Nitrogen : Total Oxidised as N		0.68 mg/l				
	Chloride		714 mg/l				
	Fluoride		<0.05 mg/l				
	Ammoniacal Nitrogen as N	6.6	0.05 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<0.7 mg/l				
	pH		7.84 pH Units				
	Ionic Balance		0.97 %				
Electrical Conductivity		5339 µS/cm					
Temperature		11.3 deg C					
Dissolved Oxygen		3.90 mg/l		Field Measurements			
pH		7.57 pH Units					
Groundwater Level		7.44 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		48 µg/l		15/05/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved	310	167 µg/l				
	Boron, Dissolved	60000	18300 µg/l				
	Cadmium, Dissolved	15	0.16 µg/l				
	Calcium, Dissolved		332 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		185 mg/l				
	Manganese, Dissolved		179 µg/l				
	Molybdenum, Dissolved	9000	1840 µg/l				
	Nickel, Dissolved		0.4 µg/l				
	Selenium Dissolved	350	8.38 µg/l				
	Vanadium, Dissolved		54 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		295 mg/l				
	Conductivity at 20C		4610 uS/cm				
	Potassium, Dissolved		78 mg/l				
	Sodium, Dissolved		524 mg/l				
	Sulphate, Dissolved as SO4		1330 mg/l				
	Nitrogen : Total Oxidised as N		0.73 mg/l				
	Chloride		838 mg/l				
	Fluoride		<0.05 mg/l				
	Ammoniacal Nitrogen as N	6.6	<0.01 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<0.7 mg/l				
	pH		7.81 pH Units				
	Ionic Balance		0.61 %				
Electrical Conductivity		4762 µS/cm					
Temperature		11.7 deg C	Field Measurements				
Dissolved Oxygen		3.31 mg/l					
pH		7.72 pH Units					
Groundwater Level		6.80 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		<10 µg/l		01/03/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		751 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		248 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.23 µg/l				
	Magnesium, Dissolved		18 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		<3 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		366 mg/l				
	Conductivity at 20C		1250 uS/cm				
	Potassium, Dissolved		2 mg/l				
	Sodium, Dissolved		48 mg/l				
	Sulphate, Dissolved as SO4		294 mg/l				
	Nitrogen : Total Oxidised as N		1.22 mg/l				
	Chloride		72 mg/l				
	Fluoride		0.05 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2 mg/l				
	pH		7.09 pH Units				
	Ionic Balance		1.42 %				
Electrical Conductivity		1342 µS/cm					
Temperature		8.4 deg C					
Dissolved Oxygen		5.95 mg/l	Field Measurements				
pH		7.07 pH Units					
Groundwater Level		9.12 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		48 µg/l		16/05/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		167 µg/l				
	Boron, Dissolved		18300 µg/l				
	Cadmium, Dissolved		0.16 µg/l				
	Calcium, Dissolved		332 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		185 mg/l				
	Manganese, Dissolved		179 µg/l				
	Molybdenum, Dissolved		1840 µg/l				
	Nickel, Dissolved		0.4 µg/l				
	Selenium Dissolved		8.38 µg/l				
	Vanadium, Dissolved		54 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		295 mg/l				
	Conductivity at 20C		4610 uS/cm				
	Potassium, Dissolved		78 mg/l				
	Sodium, Dissolved		524 mg/l				
	Sulphate, Dissolved as SO4		1330 mg/l				
	Nitrogen : Total Oxidised as N		0.73 mg/l				
	Chloride		838 mg/l				
	Fluoride		<0.05 mg/l				
	Ammoniacal Nitrogen as N		<0.01 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<0.7 mg/l				
	pH		7.81 pH Units				
	Ionic Balance		0.61 %				
Electrical Conductivity		4762 µS/cm					
Temperature		11.7 deg C					
Dissolved Oxygen		3.31 mg/l	Field Measurements				
pH		7.72 pH Units					
Groundwater Level		8.74 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		<40 µg/l		27/02/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		15 µg/l				
	Boron, Dissolved		19800 µg/l				
	Cadmium, Dissolved		0.46 µg/l				
	Calcium, Dissolved		688 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.36 µg/l				
	Magnesium, Dissolved		190 mg/l				
	Manganese, Dissolved		2290 µg/l				
	Molybdenum, Dissolved		3080 µg/l				
	Nickel, Dissolved		6.6 µg/l				
	Selenium Dissolved		14.90 µg/l				
	Vanadium, Dissolved		24 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		435 mg/l				
	Conductivity at 20C		8180 uS/cm				
	Potassium, Dissolved		94 mg/l				
	Sodium, Dissolved		1160 mg/l				
	Sulphate, Dissolved as SO4		1690 mg/l				
	Nitrogen : Total Oxidised as N		12.20 mg/l				
	Chloride		2060 mg/l				
	Fluoride		0.12 mg/l				
	Ammoniacal Nitrogen as N		1.00 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1 mg/l				
	pH		7.41 pH Units				
Ionic Balance		0.38 %					
Electrical Conductivity		9772 µS/cm					
Temperature		10.7 deg C					
Dissolved Oxygen		6.34 mg/l	Field Measurements				
pH		7.23 pH Units					
Groundwater Level		8.65 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		<40 µg/l		07/11/2017	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		31 µg/l				
	Boron, Dissolved		23000 µg/l				
	Cadmium, Dissolved		0.40 µg/l				
	Calcium, Dissolved		624 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.31 µg/l				
	Magnesium, Dissolved		207 mg/l				
	Manganese, Dissolved		2020 µg/l				
	Molybdenum, Dissolved		3380 µg/l				
	Nickel, Dissolved		5.3 µg/l				
	Selenium Dissolved		17.50 µg/l				
	Vanadium, Dissolved		39 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		445 mg/l				
	Conductivity at 20C		6310 uS/cm				
	Potassium, Dissolved		78 mg/l				
	Sodium, Dissolved		784 mg/l				
	Sulphate, Dissolved as SO4		1850 mg/l				
	Nitrogen : Total Oxidised as N		12.00 mg/l				
	Chloride		1200 mg/l				
	Fluoride		0.14 mg/l				
	Ammoniacal Nitrogen as N		0.62 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1 mg/l				
	pH		7.51 pH Units				
Ionic Balance		1.78 %					
Electrical Conductivity		6922 µS/cm					
Temperature		13.5 deg C					
Dissolved Oxygen		6.28 mg/l	Field Measurements				
pH		8.01 pH Units					
Groundwater Level		8.58 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH7	Aluminium, Dissolved		<40 ug/l		27/02/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved	310	4 µg/l				
	Boron, Dissolved	60000	24500 µg/l				
	Cadmium, Dissolved	15	0.42 µg/l				
	Calcium, Dissolved		783 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		154 mg/l				
	Manganese, Dissolved		1450 µg/l				
	Molybdenum, Dissolved	9000	3830 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved	350	<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		310 mg/l				
	Conductivity at 20C		12700 uS/cm				
	Potassium, Dissolved		258 mg/l				
	Sodium, Dissolved		2210 mg/l				
	Sulphate, Dissolved as SO4		2080 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		3740 mg/l				
	Fluoride		0.37 mg/l				
	Ammoniacal Nitrogen as N	6.6	3.51 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1 mg/l				
	pH		7.20 pH Units				
	Ionic Balance		0.20 %				
Electrical Conductivity		14556 µS/cm					
Temperature		9.1 deg C					
Dissolved Oxygen		1.07 mg/l	Field Measurements				
pH		6.98 pH Units					
Groundwater Level		2.26 mAOD					

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
BH7	Aluminium, Dissolved		<40 µg/l		15/05/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved	310	4 µg/l				
	Boron, Dissolved	60000	22400 µg/l				
	Cadmium, Dissolved	15	0.33 µg/l				
	Calcium, Dissolved		790 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		134 mg/l				
	Manganese, Dissolved		1340 µg/l				
	Molybdenum, Dissolved	9000	3950 µg/l				
	Nickel, Dissolved		0.4 µg/l				
	Selenium Dissolved	350	<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		345 mg/l				
	Conductivity at 20C		12400 uS/cm				
	Potassium, Dissolved		276 mg/l				
	Sodium, Dissolved		2100 mg/l				
	Sulphate, Dissolved as SO4		1890 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		3450 mg/l				
	Fluoride		0.39 mg/l				
	Ammoniacal Nitrogen as N	6.6	3.29 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1 mg/l				
	pH		7.32 pH Units				
Ionic Balance		1.78 %					
Electrical Conductivity		13843 µS/cm					
Temperature		13.3 deg C					
Dissolved Oxygen		0.54 mg/l	Field Measurements				
pH		7.02 pH Units					
Groundwater Level		3.14 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		µg/l		Borehole not sampled due to damage	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		µg/l				
	Arsenic Dissolved		µg/l				
	Boron, Dissolved		µg/l				
	Cadmium, Dissolved		µg/l				
	Calcium, Dissolved		mg/l				
	Chromium, Dissolved		µg/l				
	Copper, Dissolved		µg/l				
	Magnesium, Dissolved		mg/l				
	Manganese, Dissolved		µg/l				
	Molybdenum, Dissolved		µg/l				
	Nickel, Dissolved		µg/l				
	Selenium Dissolved		µg/l				
	Vanadium, Dissolved		µg/l				
	Mercury, Dissolved		µg/l				
	Alkalinity to pH 4.5 as CaCO3		mg/l				
	Conductivity at 20C		µS/cm				
	Potassium, Dissolved		mg/l				
	Sodium, Dissolved		mg/l				
	Sulphate, Dissolved as SO4		mg/l				
	Nitrogen : Total Oxidised as N		mg/l				
	Chloride		mg/l				
	Fluoride		mg/l				
	Ammoniacal Nitrogen as N		mg/l				
	Carbon, Organic : Total as C :- {TOC}		mg/l				
	pH		pH Units				
	Ionic Balance		%				
Electrical Conductivity		µS/cm					
Temperature		deg C					
Dissolved Oxygen		mg/l	Field Measurements				
pH		pH Units					
Groundwater Level		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		µg/l		Borehole not sampled due to damage	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		µg/l				
	Arsenic Dissolved		µg/l				
	Boron, Dissolved		µg/l				
	Cadmium, Dissolved		µg/l				
	Calcium, Dissolved		mg/l				
	Chromium, Dissolved		µg/l				
	Copper, Dissolved		µg/l				
	Magnesium, Dissolved		mg/l				
	Manganese, Dissolved		µg/l				
	Molybdenum, Dissolved		µg/l				
	Nickel, Dissolved		µg/l				
	Selenium Dissolved		µg/l				
	Vanadium, Dissolved		µg/l				
	Mercury, Dissolved		µg/l				
	Alkalinity to pH 4.5 as CaCO3		mg/l				
	Conductivity at 20C		µS/cm				
	Potassium, Dissolved		mg/l				
	Sodium, Dissolved		mg/l				
	Sulphate, Dissolved as SO4		mg/l				
	Nitrogen : Total Oxidised as N		mg/l				
	Chloride		mg/l				
	Fluoride		mg/l				
	Ammoniacal Nitrogen as N		mg/l				
	Carbon, Organic : Total as C :- {TOC}		mg/l				
	pH		pH Units				
	Ionic Balance		%				
Electrical Conductivity		µS/cm					
Temperature		deg C					
Dissolved Oxygen		mg/l	Field Measurements				
pH		pH Units					
Groundwater Level		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		<10 µg/l		27/02/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		102 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		92 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		19 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		<3 µg/l				
	Nickel, Dissolved		<1 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		272 mg/l				
	Conductivity at 20C		606 µS/cm				
	Potassium, Dissolved		2 mg/l				
	Sodium, Dissolved		22 mg/l				
	Sulphate, Dissolved as SO4		31 mg/l				
	Nitrogen : Total Oxidised as N		3 mg/l				
	Chloride		32 mg/l				
	Fluoride		0.15 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<0.7 mg/l				
	pH		8 pH Units				
	Ionic Balance		0 %				
Electrical Conductivity		637 µS/cm					
Temperature		10 deg C	Field Measurements				
Dissolved Oxygen		6 mg/l					
pH		8 pH Units					
Groundwater Level		4.63 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		13 µg/l		15/05/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		<100 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		94 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		20 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		<3 µg/l				
	Nickel, Dissolved		1.2 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<2 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		268 mg/l				
	Conductivity at 20C		671 uS/cm				
	Potassium, Dissolved		2.17 mg/l				
	Sodium, Dissolved		24.2 mg/l				
	Sulphate, Dissolved as SO4		32.8 mg/l				
	Nitrogen : Total Oxidised as N		3.56 mg/l				
	Chloride		39.1 mg/l				
	Fluoride		0.15 mg/l				
	Ammoniacal Nitrogen as N		<0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1 mg/l				
	pH		7.53 pH Units				
Ionic Balance		0.13 %					
Electrical Conductivity		666 µS/cm					
Temperature		11.8 deg C					
Dissolved Oxygen		8.26 mg/l	Field Measurements				
pH		7.01 pH Units					
Groundwater Level		4.66 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		<40 µg/l		27/02/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		9 µg/l				
	Boron, Dissolved		14200 µg/l				
	Cadmium, Dissolved		0.19 µg/l				
	Calcium, Dissolved		448 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		18.80 µg/l				
	Magnesium, Dissolved		188 mg/l				
	Manganese, Dissolved		809 µg/l				
	Molybdenum, Dissolved		1960 µg/l				
	Nickel, Dissolved		0.4 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		555 mg/l				
	Conductivity at 20C		7560 uS/cm				
	Potassium, Dissolved		100 mg/l				
	Sodium, Dissolved		1080 mg/l				
	Sulphate, Dissolved as SO4		1160 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		1900 mg/l				
	Fluoride		0.21 mg/l				
	Ammoniacal Nitrogen as N		4.99 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1 mg/l				
	pH		7.37 pH Units				
	Ionic Balance		0.87 %				
Electrical Conductivity		8259 µS/cm					
Temperature		14.0 deg C					
Dissolved Oxygen		0.77 mg/l	Field Measurements				
pH		7.51 pH Units					
Groundwater Level		1.31 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		<40 µg/l		15/05/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		9 µg/l				
	Boron, Dissolved		14200 µg/l				
	Cadmium, Dissolved		0.19 µg/l				
	Calcium, Dissolved		448 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		18.80 µg/l				
	Magnesium, Dissolved		188 mg/l				
	Manganese, Dissolved		809 µg/l				
	Molybdenum, Dissolved		1960 µg/l				
	Nickel, Dissolved		0.4 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		555 mg/l				
	Conductivity at 20C		7560 uS/cm				
	Potassium, Dissolved		100 mg/l				
	Sodium, Dissolved		1080 mg/l				
	Sulphate, Dissolved as SO4		1160 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		1900 mg/l				
	Fluoride		0.21 mg/l				
	Ammoniacal Nitrogen as N		4.99 mg/l				
	Carbon, Organic : Total as C :- (TOC)		1 mg/l				
	pH		7.37 pH Units				
Ionic Balance		0.87 %					
Electrical Conductivity		8259 µS/cm					
Temperature		14.0 deg C	Field Measurements				
Dissolved Oxygen		0.77 mg/l					
pH		7.51 pH Units					
Groundwater Level		2.02 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		<40 µg/l		27/02/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		15.7 µg/l				
	Boron, Dissolved		6680 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		258 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		102 mg/l				
	Manganese, Dissolved		751 µg/l				
	Molybdenum, Dissolved		303 µg/l				
	Nickel, Dissolved		1.6 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		655 mg/l				
	Conductivity at 20C		2870 µS/cm				
	Potassium, Dissolved		48 mg/l				
	Sodium, Dissolved		350 mg/l				
	Sulphate, Dissolved as SO4		440 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		498 mg/l				
	Fluoride		0.15 mg/l				
	Ammoniacal Nitrogen as N		2.28 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2.3 mg/l				
	pH		7.36 pH Units				
Ionic Balance		1.87 %					
Electrical Conductivity		3622 µS/cm					
Temperature		11.7 deg C					
Dissolved Oxygen		0.84 mg/l	Field Measurements				
pH		7.35 pH Units					
Groundwater Level		3.99 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		41 µg/l		15/05/2018	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		25 µg/l				
	Boron, Dissolved		9020 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		270 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		147.00 µg/l				
	Magnesium, Dissolved		175 mg/l				
	Manganese, Dissolved		1170 µg/l				
	Molybdenum, Dissolved		113 µg/l				
	Nickel, Dissolved		0.8 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		750 mg/l				
	Conductivity at 20C		5890 uS/cm				
	Potassium, Dissolved		67.1 mg/l				
	Sodium, Dissolved		873 mg/l				
	Sulphate, Dissolved as SO4		652 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		1390 mg/l				
	Fluoride		0.27 mg/l				
	Ammoniacal Nitrogen as N		6.95 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<0.7 mg/l				
	pH		7.46 pH Units				
Ionic Balance		0.19 %					
Electrical Conductivity		6224 µS/cm					
Temperature		15.0 deg C					
Dissolved Oxygen		0.60 mg/l	Field Measurements				
pH		7.86 pH Units					
Groundwater Level		4.10 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 25/02/2018
(authorised to sign as representative of the Operator)

Emission point	Substance/ Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
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