Reporting of Emission to Surface Water for the period from .....1st July 2015.....to....31st December 2015.....

Operator : RWE Generation UK plc **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		<40 µg/l		01/09/2015	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		7.55 µg/l				
	Boron, Dissolved		9080 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		757 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.190 µg/l				
	Magnesium, Dissolved		59.4 mg/l				
	Manganese, Dissolved		468.0 µg/l				
	Molybdenum, Dissolved		3090 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved		6.73 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Conductivity at 20C		13400 µS/cm				
	Potassium, Dissolved		184 mg/l				
	Sodium, Dissolved		2360 mg/l				
	Sulphate, Dissolved as SO4		1170 mg/l				
	Nitrogen : Total Oxidised as N		3.72 mg/l				
	Chloride		4160 mg/l				
	Fluoride		0.098 mg/l				
	Ammoniacal Nitrogen as N		0.966 mg/l				
	Carbon, Organic : Total as C :- {TOC}		5.60 mg/l				
	pH		7.06 pH Units				

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		<40 µg/l		16/11/2015	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		17.30 µg/l				
	Boron, Dissolved		11600 µg/l				
	Cadmium, Dissolved		0.19 µg/l				
	Calcium, Dissolved		1010 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		15.200 µg/l				
	Magnesium, Dissolved		79 mg/l				
	Manganese, Dissolved		705.0 µg/l				
	Molybdenum, Dissolved		4480 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved		7.8 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Conductivity at 20C		15800 uS/cm				
	Potassium, Dissolved		226 mg/l				
	Sodium, Dissolved		3000 mg/l				
	Sulphate, Dissolved as SO4		1520 mg/l				
	Nitrogen : Total Oxidised as N		9.54 mg/l				
	Chloride		5130 mg/l				
	Fluoride		0.08 mg/l				
	Ammoniacal Nitrogen as N		10.6 mg/l				
	Carbon, Organic : Total as C :- {TOC}		4.10 mg/l				
	pH		7.22 pH Units				

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		<40 µg/l		01/09/2015	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		2.33 µg/l				
	Boron, Dissolved		1880 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		163 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.427 µg/l				
	Magnesium, Dissolved		20.2 mg/l				
	Manganese, Dissolved		80.8 µg/l				
	Molybdenum, Dissolved		251 µg/l				
	Nickel, Dissolved		0.31 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Conductivity at 20C		1470 uS/cm				
	Potassium, Dissolved		15 mg/l				
	Sodium, Dissolved		144 mg/l				
	Sulphate, Dissolved as SO4		228 mg/l				
	Nitrogen : Total Oxidised as N		2.69 mg/l				
	Chloride		235 mg/l				
	Fluoride		0.118 mg/l				
	Ammoniacal Nitrogen as N		<0.0100 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.60 mg/l				
	pH		8.20 pH Units				

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		<40 µg/l		16/11/2015	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		2.30 µg/l				
	Boron, Dissolved		2190 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		197 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		7.750 µg/l				
	Magnesium, Dissolved		21 mg/l				
	Manganese, Dissolved		152.0 µg/l				
	Molybdenum, Dissolved		355 µg/l				
	Nickel, Dissolved		0.55 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		0 µg/l				
	Conductivity at 20C		1520 uS/cm				
	Potassium, Dissolved		23 mg/l				
	Sodium, Dissolved		167 mg/l				
	Sulphate, Dissolved as SO4		282 mg/l				
	Nitrogen : Total Oxidised as N		2.59 mg/l				
	Chloride		223 mg/l				
	Fluoride		0.12 mg/l				
	Ammoniacal Nitrogen as N		0 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.60 mg/l				
	pH		8.11 pH Units				

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		132 µg/l		01/09/2015	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		1.69 µg/l				
	Boron, Dissolved		3480 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		346 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.282 µg/l				
	Magnesium, Dissolved		1050.0 mg/l				
	Manganese, Dissolved		25.1 µg/l				
	Molybdenum, Dissolved		<30 µg/l				
	Nickel, Dissolved		0.33 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Conductivity at 20C		39200 uS/cm				
	Potassium, Dissolved		318 mg/l				
	Sodium, Dissolved		8410 mg/l				
	Sulphate, Dissolved as SO4		2150 mg/l				
	Nitrogen : Total Oxidised as N		0.72 mg/l				
	Chloride		14300 mg/l				
	Fluoride		1.090 mg/l				
	Ammoniacal Nitrogen as N		<0.0100 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1.70 mg/l				
	pH		8.00 pH Units				

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		250 µg/l		16/11/2015	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		<700 µg/l				
	Cadmium, Dissolved		0.05 µg/l				
	Calcium, Dissolved		124 mg/l				
	Chromium, Dissolved		0.61 µg/l				
	Copper, Dissolved		4.790 µg/l				
	Magnesium, Dissolved		14.3 mg/l				
	Manganese, Dissolved		21.9 µg/l				
	Molybdenum, Dissolved		<30 µg/l				
	Nickel, Dissolved		0.66 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Conductivity at 20C		702 uS/cm				
	Potassium, Dissolved		3.22 mg/l				
	Sodium, Dissolved		47.6 mg/l				
	Sulphate, Dissolved as SO4		26.6 mg/l				
	Nitrogen : Total Oxidised as N		3.44 mg/l				
	Chloride		62.0 mg/l				
	Fluoride		0.087 mg/l				
	Ammoniacal Nitrogen as N		0.024 mg/l				
	Carbon, Organic : Total as C :- {TOC}		3.70 mg/l				
	pH		8.03 pH Units				

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		<40 µg/l		01/09/2015	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		4280 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		265 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.040 µg/l				
	Magnesium, Dissolved		268.0 mg/l				
	Manganese, Dissolved		118.0 µg/l				
	Molybdenum, Dissolved		773 µg/l				
	Nickel, Dissolved		0.34 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Conductivity at 20C		13200 uS/cm				
	Potassium, Dissolved		130 mg/l				
	Sodium, Dissolved		2490 mg/l				
	Sulphate, Dissolved as SO4		897 mg/l				
	Nitrogen : Total Oxidised as N		0.33 mg/l				
	Chloride		4170 mg/l				
	Fluoride		0.320 mg/l				
	Ammoniacal Nitrogen as N		<0.0100 mg/l				
	Carbon, Organic : Total as C :- {TOC}		3.80 mg/l				
	pH		8.83 pH Units				

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		<40 µg/l		16/11/2015	Sampling Station/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		3400 µg/l				
	Cadmium, Dissolved		0.034 µg/l				
	Calcium, Dissolved		261 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		6.690 µg/l				
	Magnesium, Dissolved		244 mg/l				
	Manganese, Dissolved		99.9 µg/l				
	Molybdenum, Dissolved		563 µg/l				
	Nickel, Dissolved		<0.3 µg/l				
	Selenium Dissolved		<1 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Conductivity at 20C		10900 uS/cm				
	Potassium, Dissolved		109 mg/l				
	Sodium, Dissolved		2090 mg/l				
	Sulphate, Dissolved as SO4		770 mg/l				
	Nitrogen : Total Oxidised as N		0.97 mg/l				
	Chloride		22 mg/l				
	Fluoride		0.28 mg/l				
	Ammoniacal Nitrogen as N		0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		3.10 mg/l				
	pH		8.06 pH Units				

[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 A Lawsher Date 18/01/16 (authorised to sign as representative of the Operator)

Reporting of Emission to Groundwater for the period from ...1st July 2015..to...31st December 2015...

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		11/08/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved	310	149 µg/l				
	Boron, Dissolved	60000	23400 µg/l				
	Cadmium, Dissolved	15	0.15 µg/l				
	Calcium, Dissolved		635 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.29 µg/l				
	Magnesium, Dissolved		249 mg/l				
	Manganese, Dissolved		460 µg/l				
	Molybdenum, Dissolved	9000	3620 µg/l				
	Nickel, Dissolved		1.1 µg/l				
	Selenium Dissolved	350	7.43 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		205 mg/l				
	Conductivity at 20C		14200 uS/cm				
	Potassium, Dissolved		205 mg/l				
	Sodium, Dissolved		2190 mg/l				
	Sulphate, Dissolved as SO4		1990 mg/l				
	Nitrogen : Total Oxidised as N		0.51 mg/l				
	Chloride		4280 mg/l				
	Fluoride		0.22 mg/l				
	Ammoniacal Nitrogen as N	6.6	1.35 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<1 mg/l				
	pH		7.53 pH Units				
	Ionic Balance		4.29 %				
	Electrical Conductivity		12260 µS/cm	Field Measurements			
	Temperature		13.2 deg C				
	Dissolved Oxygen		2.89 mg/l				
	pH		7.77 pH Units				
	Groundwater Level		6.31 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		<40 µg/l		02/12/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		15 µg/l				
	Arsenic Dissolved	310	181 µg/l				
	Boron, Dissolved	60000	21300 µg/l				
	Cadmium, Dissolved	15	0.09 µg/l				
	Calcium, Dissolved		417 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.56 µg/l				
	Magnesium, Dissolved		213 mg/l				
	Manganese, Dissolved		222 µg/l				
	Molybdenum, Dissolved	9000	2410 µg/l				
	Nickel, Dissolved		0.5 µg/l				
	Selenium Dissolved	350	12.50 µg/l				
	Vanadium, Dissolved		46 µg/l				
	Mercury, Dissolved	20	<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		180 mg/l				
	Conductivity at 20C		5310 uS/cm				
	Potassium, Dissolved		103 mg/l				
	Sodium, Dissolved		672 mg/l				
	Sulphate, Dissolved as SO4		1750 mg/l				
	Nitrogen : Total Oxidised as N		0.70 mg/l				
	Chloride		983 mg/l				
	Fluoride		0.06 mg/l				
	Ammoniacal Nitrogen as N	6.6	0.41 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<1 mg/l				
	pH		7.83 pH Units				
	Ionic Balance		1.73 %				
	Electrical Conductivity		5400 µS/cm	Field Measurements			
	Temperature		12.9 deg C				
	Dissolved Oxygen		1.79 mg/l				
	pH		7.75 pH Units				
	Groundwater Level		7.43 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		11/08/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		831 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		320 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.36 µg/l				
	Magnesium, Dissolved		19 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		21 µg/l				
	Nickel, Dissolved		1.4 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		267 mg/l				
	Conductivity at 20C		1540 uS/cm				
	Potassium, Dissolved		2 mg/l				
	Sodium, Dissolved		66 mg/l				
	Sulphate, Dissolved as SO4		546 mg/l				
	Nitrogen : Total Oxidised as N		1.10 mg/l				
	Chloride		102 mg/l				
	Fluoride		0.06 mg/l				
	Ammoniacal Nitrogen as N		0.04 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1 mg/l				
	pH		6.98 pH Units				
	Ionic Balance		2.05 %				
	Electrical Conductivity		1730 µS/cm	Field Measurements			
	Temperature		11.7 deg C				
	Dissolved Oxygen		1.59 mg/l				
	pH		7.07 pH Units				
	Groundwater Level		8.22 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		02/12/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		292 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		210 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		1.98 µg/l				
	Magnesium, Dissolved		14 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		4 µg/l				
	Nickel, Dissolved		1.1 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		270 mg/l				
	Conductivity at 20C		1210 uS/cm				
	Potassium, Dissolved		5 mg/l				
	Sodium, Dissolved		54 mg/l				
	Sulphate, Dissolved as SO4		228 mg/l				
	Nitrogen : Total Oxidised as N		3.02 mg/l				
	Chloride		142 mg/l				
	Fluoride		0.11 mg/l				
	Ammoniacal Nitrogen as N		0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2 mg/l				
	pH		7.16 pH Units				
	Ionic Balance		-0.78 %				
	Electrical Conductivity		1780 µS/cm	Field Measurements			
	Temperature		11.7 deg C				
	Dissolved Oxygen		4.50 mg/l				
	pH		7.20 pH Units				
	Groundwater Level		9.86 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		11/08/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		31 µg/l				
	Boron, Dissolved		25200 µg/l				
	Cadmium, Dissolved		0.21 µg/l				
	Calcium, Dissolved		654 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		196 mg/l				
	Manganese, Dissolved		1280 µg/l				
	Molybdenum, Dissolved		4040 µg/l				
	Nickel, Dissolved		5.3 µg/l				
	Selenium Dissolved		16.60 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		290 mg/l				
	Conductivity at 20C		5790 uS/cm				
	Potassium, Dissolved		83 mg/l				
	Sodium, Dissolved		594 mg/l				
	Sulphate, Dissolved as SO4		2040 mg/l				
	Nitrogen : Total Oxidised as N		13.20 mg/l				
	Chloride		998 mg/l				
	Fluoride		0.59 mg/l				
	Ammoniacal Nitrogen as N		0.24 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<1 mg/l				
	pH		7.36 pH Units				
	Ionic Balance		0.16 %				
	Electrical Conductivity		6010 µS/cm	Field Measurements			
	Temperature		13.6 deg C				
	Dissolved Oxygen		1.73 mg/l				
	pH		7.50 pH Units				
	Groundwater Level		8.22 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		02/12/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		6 µg/l				
	Boron, Dissolved		19000 µg/l				
	Cadmium, Dissolved		0.53 µg/l				
	Calcium, Dissolved		1460 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.33 µg/l				
	Magnesium, Dissolved		256 mg/l				
	Manganese, Dissolved		1450 µg/l				
	Molybdenum, Dissolved		3910 µg/l				
	Nickel, Dissolved		9.5 µg/l				
	Selenium Dissolved		7.38 µg/l				
	Vanadium, Dissolved		<20 µg/l				
	Mercury, Dissolved		<0.01 µg/l				
	Alkalinity to pH 4.5 as CaCO3		205 mg/l				
	Conductivity at 20C		18500 uS/cm				
	Potassium, Dissolved		193 mg/l				
	Sodium, Dissolved		3030 mg/l				
	Sulphate, Dissolved as SO4		1780 mg/l				
	Nitrogen : Total Oxidised as N		39.70 mg/l				
	Chloride		6040 mg/l				
	Fluoride		0.07 mg/l				
	Ammoniacal Nitrogen as N		1.01 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<1 mg/l				
	pH		7.28 pH Units				
	Ionic Balance		4.30 %				
	Electrical Conductivity		16770 µS/cm	Field Measurements			
	Temperature		12.4 deg C				
	Dissolved Oxygen		3.49 mg/l				
	pH		7.16 pH Units				
	Groundwater Level		9.68 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		11/08/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved	310	5 µg/l				
	Boron, Dissolved	60000	22500 µg/l				
	Cadmium, Dissolved	15	0.15 µg/l				
	Calcium, Dissolved		827 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		126 mg/l				
	Manganese, Dissolved		1280 µg/l				
	Molybdenum, Dissolved	9000	3670 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		475 mg/l				
	Conductivity at 20C		13800 uS/cm				
	Potassium, Dissolved		290 mg/l				
	Sodium, Dissolved		2360 mg/l				
	Sulphate, Dissolved as SO4		1910 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		3330 mg/l				
	Fluoride		0.45 mg/l				
	Ammoniacal Nitrogen as N	6.6	3.45 mg/l				
	Carbon, Organic : Total as C :- {TOC}		1 mg/l				
	pH		7.17 pH Units				
	Ionic Balance		6.04 %				
	Electrical Conductivity		14000 µS/cm	Field Measurements			
	Temperature		13.2 deg C				
	Dissolved Oxygen		0.30 mg/l				
	pH		7.29 pH Units				
	Groundwater Level		2.24 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		02/12/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved	310	4 µg/l				
	Boron, Dissolved	60000	17800 µg/l				
	Cadmium, Dissolved	15	0.12 µg/l				
	Calcium, Dissolved		871 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		0.79 µg/l				
	Magnesium, Dissolved		126 mg/l				
	Manganese, Dissolved		1380 µg/l				
	Molybdenum, Dissolved	9000	3650 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		270 mg/l				
	Conductivity at 20C		14000 uS/cm				
	Potassium, Dissolved		264 mg/l				
	Sodium, Dissolved		2380 mg/l				
	Sulphate, Dissolved as SO4		1890 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		4120 mg/l				
	Fluoride		0.42 mg/l				
	Ammoniacal Nitrogen as N	6.6	3.38 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<1 mg/l				
	pH		7.28 pH Units				
	Ionic Balance		0.94 %				
	Electrical Conductivity		13360 µS/cm	Field Measurements			
	Temperature		12.7 deg C				
	Dissolved Oxygen		0.40 mg/l				
	pH		6.97 pH Units				
	Groundwater Level		5.82 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		<40 µg/l		11/08/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		1760 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		194 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		374 mg/l				
	Manganese, Dissolved		59 µg/l				
	Molybdenum, Dissolved		<30 µg/l				
	Nickel, Dissolved		<0.3 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		720 mg/l				
	Conductivity at 20C		18300 uS/cm				
	Potassium, Dissolved		110 mg/l				
	Sodium, Dissolved		3750 mg/l				
	Sulphate, Dissolved as SO4		410 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		5580 mg/l				
	Fluoride		0.97 mg/l				
	Ammoniacal Nitrogen as N		6.74 mg/l				
	Carbon, Organic : Total as C :- {TOC}		4.0 mg/l				
	pH		7.07 pH Units				
	Ionic Balance		6.71 %				
	Electrical Conductivity		17910 µS/cm	Field Measurements			
	Temperature		12.3 deg C				
	Dissolved Oxygen		0.29 mg/l				
	pH		7.08 pH Units				
	Groundwater Level		5.02 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		<40 µg/l		02/12/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		1540 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		202 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		409 mg/l				
	Manganese, Dissolved		78 µg/l				
	Molybdenum, Dissolved		<30 µg/l				
	Nickel, Dissolved		<0.3 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		720 mg/l				
	Conductivity at 20C		19400 uS/cm				
	Potassium, Dissolved		117 mg/l				
	Sodium, Dissolved		3940 mg/l				
	Sulphate, Dissolved as SO4		374 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		6690 mg/l				
	Fluoride		0.27 mg/l				
	Ammoniacal Nitrogen as N		6.49 mg/l				
	Carbon, Organic : Total as C :- {TOC}		3.7 mg/l				
	pH		7.25 pH Units				
	Ionic Balance		<0.01 %				
	Electrical Conductivity		18670 µS/cm	Field Measurements			
	Temperature		12.0 deg C				
	Dissolved Oxygen		0.39 mg/l				
	pH		6.90 pH Units				
	Groundwater Level		6.26 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		11/08/2015	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		83.5 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<1 µg/l				
	Magnesium, Dissolved		17.5 mg/l				
	Manganese, Dissolved		<10 µg/l				
	Molybdenum, Dissolved		<3 µg/l				
	Nickel, Dissolved		1.1 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		231 mg/l				
	Conductivity at 20C		541 uS/cm				
	Potassium, Dissolved		2.54 mg/l				
	Sodium, Dissolved		19.3 mg/l				
	Sulphate, Dissolved as SO4		30.7 mg/l				
	Nitrogen : Total Oxidised as N		2.92 mg/l				
	Chloride		28.1 mg/l				
	Fluoride		0.17 mg/l				
	Ammoniacal Nitrogen as N		0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<1 mg/l				
	pH		7.45 pH Units				
	Ionic Balance		1.97 %				
	Electrical Conductivity		700 µS/cm	Field Measurements			
	Temperature		12.9 deg C				
	Dissolved Oxygen		6.81 mg/l				
	pH		6.81 pH Units				
	Groundwater Level		4.21 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		02/12/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<1 µg/l				
	Arsenic Dissolved		<1 µg/l				
	Boron, Dissolved		142 µg/l				
	Cadmium, Dissolved		<0.1 µg/l				
	Calcium, Dissolved		82 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		261 mg/l				
	Conductivity at 20C		614 uS/cm				
	Potassium, Dissolved		2.25 mg/l				
	Sodium, Dissolved		19.8 mg/l				
	Sulphate, Dissolved as SO4		27.1 mg/l				
	Nitrogen : Total Oxidised as N		2.47 mg/l				
	Chloride		28.4 mg/l				
	Fluoride		0.20 mg/l				
	Ammoniacal Nitrogen as N		0.03 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<1 mg/l				
	pH		7.50 pH Units				
	Ionic Balance		-1.21 %				
	Electrical Conductivity		840 µS/cm	Field Measurements			
	Temperature		11.7 deg C				
	Dissolved Oxygen		5.87 mg/l				
	pH		7.16 pH Units				
	Groundwater Level		5.30 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		11/08/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		33 µg/l				
	Boron, Dissolved		8450 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		371 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		575 mg/l				
	Manganese, Dissolved		440 µg/l				
	Molybdenum, Dissolved		250 µg/l				
	Nickel, Dissolved		<0.3 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		1130 mg/l				
	Conductivity at 20C		23900 uS/cm				
	Potassium, Dissolved		188 mg/l				
	Sodium, Dissolved		4740 mg/l				
	Sulphate, Dissolved as SO4		927 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		8100 mg/l				
	Fluoride		0.25 mg/l				
	Ammoniacal Nitrogen as N		54.90 mg/l				
	Carbon, Organic : Total as C :- {TOC}		11 mg/l				
	pH		7.24 pH Units				
	Ionic Balance		1.15 %				
	Electrical Conductivity		>20000 µS/cm	Field Measurements			
	Temperature		14.1 deg C				
	Dissolved Oxygen		0.17 mg/l				
	pH		7.27 pH Units				
	Groundwater Level		1.37 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		02/12/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		14 µg/l				
	Boron, Dissolved		16700 µg/l				
	Cadmium, Dissolved		0.05 µg/l				
	Calcium, Dissolved		568 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		277 mg/l				
	Manganese, Dissolved		1140 µg/l				
	Molybdenum, Dissolved		1860 µg/l				
	Nickel, Dissolved		<0.3 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		10500 uS/cm				
	Potassium, Dissolved		142 mg/l				
	Sodium, Dissolved		1730 mg/l				
	Sulphate, Dissolved as SO4		1410 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		2760 mg/l				
	Fluoride		0.24 mg/l				
	Ammoniacal Nitrogen as N		5.39 mg/l				
	Carbon, Organic : Total as C :- {TOC}		<1 mg/l				
	pH		7.36 pH Units				
	Ionic Balance		4.69 %				
	Electrical Conductivity		10380 µS/cm	Field Measurements			
	Temperature		12.8 deg C				
	Dissolved Oxygen		0.51 mg/l				
	pH		8.13 pH Units				
	Groundwater Level		2.66 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		11/08/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		13.9 µg/l				
	Boron, Dissolved		11100 µg/l				
	Cadmium, Dissolved		0.05 µg/l				
	Calcium, Dissolved		349 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		175 mg/l				
	Manganese, Dissolved		929 µg/l				
	Molybdenum, Dissolved		739 µg/l				
	Nickel, Dissolved		<0.3 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		710 mg/l				
	Conductivity at 20C		7840 uS/cm				
	Potassium, Dissolved		132 mg/l				
	Sodium, Dissolved		1290 mg/l				
	Sulphate, Dissolved as SO4		933 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		2060 mg/l				
	Fluoride		0.53 mg/l				
	Ammoniacal Nitrogen as N		7.30 mg/l				
	Carbon, Organic : Total as C :- {TOC}		5.3 mg/l				
	pH		7.30 pH Units				
	Ionic Balance		0.26 %				
	Electrical Conductivity		8090 µS/cm	Field Measurements			
	Temperature		13.2 deg C				
	Dissolved Oxygen		0.18 mg/l				
	pH		7.43 pH Units				
	Groundwater Level		4.12 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		02/12/2015	Sampling Amec/Testing EA NLS	
	Antimony, Dissolved		<10 µg/l				
	Arsenic Dissolved		25 µg/l				
	Boron, Dissolved		5940 µg/l				
	Cadmium, Dissolved		<0.03 µg/l				
	Calcium, Dissolved		212 mg/l				
	Chromium, Dissolved		<0.5 µg/l				
	Copper, Dissolved		<0.2 µg/l				
	Magnesium, Dissolved		100 mg/l				
	Manganese, Dissolved		601 µg/l				
	Molybdenum, Dissolved		238 µg/l				
	Nickel, Dissolved		<0.3 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		665 mg/l				
	Conductivity at 20C		2900 uS/cm				
	Potassium, Dissolved		54.9 mg/l				
	Sodium, Dissolved		351 mg/l				
	Sulphate, Dissolved as SO4		346 mg/l				
	Nitrogen : Total Oxidised as N		<0.2 mg/l				
	Chloride		504 mg/l				
	Fluoride		0.13 mg/l				
	Ammoniacal Nitrogen as N		2.74 mg/l				
	Carbon, Organic : Total as C :- {TOC}		2.6 mg/l				
	pH		7.52 pH Units				
	Ionic Balance		1.02 %				
	Electrical Conductivity		3170 µS/cm	Field Measurements			
	Temperature		13.1 deg C				
	Dissolved Oxygen		0.42 mg/l				
	pH		7.21 pH Units				
	Groundwater Level		3.52 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 A Saunsher Date 14/01/16

(authorised to sign as representative of the Operator)