	Results	WHO Drinking Water limits	Limits Exceeded (Y/N)
Sample_ID	S5_2019		
Sampling date	14.03.2019		
Location ID	Birtley WWTP		
Sample description	River Team downstream of reed bed outlet		
Sample Source	Surface water (river)		
Label	SW		
Latitude	54.90726		
Longitude	-1.59904		
Sea Level (mAOD)			
Depth below ground (m)	0		
pH	7.69		
Temp (degC)	11.4		
Salinity (ppm)	1003		
TDS (mg/l)	1395		
Conductivity (uS)	2000		
Alkalinity (mg/L CaCO3)	370		
Faecal Coliforms (count/100ml)	1650	*0*	Y
Aluminium (mg/l)	0.005	*0.2*	N

Ammonium (mg/l)	0.018	*Not of health concerns at levels found in drinking water*	N
Antimony (mg/l)	0.005	*0.02*	N
Arsenic (mg/l)	0.005	*0.01*	N
Barium (mg/l)	0.039	*1.3*	N
Bromide (mg/l)		*6*	N
Cadmium (mg/l)	0.000	*0.003*	N
Calcium (mg/l)	139.260	*100-300*	Y
Chloride (mg/l)	91.905	*250*	N
Chromium (mg/l)	0.001	*0.05*	N
Copper (mg/l)	0.001	*2*	N
Fluoride (mg/l)	0.100	*1.5*	N
Iron (mg/l)	0.068	*2*	N
Lead (mg/l)	0.001	*0.01*	N
Magnesium (mg/l)	48.731	*Not of health concerns at levels found in drinking water*	N
Manganese (mg/l)	0.272	*0.4*	N
Nickel (mg/l)	0.006	*0.07*	N
Nitrate (mg/l) *(HACH)*	30.072	*50*	N
Nitrate.1 (mg/l) *(Ion Chrom)*	28.895	*50*	N
Nitrite (mg/l) *(HACH)*	0.233	*3*	N
Nitrite.1 (mg/l) *(Ion Chrom)*		*3*	N
Phosphate (mg/l)	0.888	*Not of health concerns at levels found in drinking water*	N
Potassium (mg/l)	22.522	*Not of health concerns at levels found in drinking water*	N
Silicon (mg/l)	4.403	*Not of health concerns at levels found in drinking water*	N
Sodium (mg/l)	192.657	*200*	N
Strontium (mg/l)	1.576	*4*	N

Sulphate (mg/l)	58.689	*500*	N
Zinc (mg/l)	0.025	*Not of health concerns at levels found in drinking water*	N
TOC (mg/l)	13.270		
TIC (mg/l)	58.725		
UV abs 200 (cm-1)	2.971		
UV abs 210 (cm-1)	3.047		
UV abs 220 (cm-1)	1.697		
UV abs 230 (cm-1)	0.455		
UV abs 254 (cm-1)	0.073		
UV abs 260 (cm-1)	0.069		
UV abs 280 (cm-1)	0.055		
UV abs 300 (cm-1)	0.041		
Total Coliforms (total count)	2170		
Putative Pathogens - Human E.coli (total count)			
Putative Pathogens - Total E.coli (total count)			
Putative Pathogens - Total Coliform (total count)			
Total Bacteria (total count)			
Enterococci (count/100ml)			
Contaminants	High faecal coliform count; High calcium level;		
Health Effects	Faecal contamination can lead to vomiting and diarrhoea. Pathogens such as E coli, hepatitis and salmonella can cause severe health effects ; High Calcium levels may cause taste to be affected;		

Treatments	Faecal treatment - Heat water to a rolling boil and then allow to cool naturally, chemical disinfection, coagulation, distillation, reverse osmosis, slow sand filtration or solar disinfection; Calcium can be reduced using a water softener or point of use reverse osmosis;		