



	Results	WHO Drinking Water limits	Limits Exceeded (Y/N)
Sample_ID	S4_2019		
Sampling date	14.03.2019		
Location ID	Birtley WWTP		
Sample description	River Team upstream of reed bed outlet		
Sample Source	Surface water (river)		
Label	SW		
Latitude	54.9028		
Longitude	-1.59422		
Sea Level (mAOD)			
Depth below ground (m)	0		
pH	8.16		
Temp (degC)	11.2		
Salinity (ppm)	409		
TDS (mg/l)	590		
Conductivity (uS)	844		
Alkalinity (mg/L CaCO3)	130		
Faecal Coliforms (count/100ml)	1940	0	Y
Aluminium (mg/l)	0.011	0.2	N

Ammonium (mg/l)	0.490	<i>Not of health concerns at levels found in drinking water</i>	N
Antimony (mg/l)	0.005	0.02	N
Arsenic (mg/l)	0.005	0.01	N
Barium (mg/l)	0.059	1.3	N
Bromide (mg/l)		6	N
Cadmium (mg/l)	0.000	0.003	N
Calcium (mg/l)	68.310	100-300	N
Chloride (mg/l)	90.160	250	N
Chromium (mg/l)	0.001	0.05	N
Copper (mg/l)	0.002	2	N
Fluoride (mg/l)	0.211	1.5	N
Iron (mg/l)	0.109	2	N
Lead (mg/l)	0.001	0.01	N
Magnesium (mg/l)	16.550	<i>Not of health concerns at levels found in drinking water</i>	N
Manganese (mg/l)	0.113	0.4	N
Nickel (mg/l)	0.003	0.07	N
Nitrate (mg/l) (HACH)	41.321	50	N
Nitrate.1 (mg/l) (Ion Chrom)	28.197	50	N
Nitrite (mg/l) (HACH)	0.444	3	N
Nitrite.1 (mg/l) (Ion Chrom)		3	N
Phosphate (mg/l)	0.723	<i>Not of health concerns at levels found in drinking water</i>	N
Potassium (mg/l)	10.251	<i>Not of health concerns at levels found in drinking water</i>	N
Silicon (mg/l)	3.485	<i>Not of health concerns at levels found in drinking water</i>	N
Sodium (mg/l)	55.383	200	N
Strontium (mg/l)	0.236	4	N

Sulphate (mg/l)	127.707	500	N
Zinc (mg/l)	0.049	<i>Not of health concerns at levels found in drinking water</i>	N
TOC (mg/l)	15.080		
TIC (mg/l)	38.610		
UV abs 200 (cm-1)	3.026		
UV abs 210 (cm-1)	3.168		
UV abs 220 (cm-1)	2.260		
UV abs 230 (cm-1)	0.639		
UV abs 254 (cm-1)	0.108		
UV abs 260 (cm-1)	0.102		
UV abs 280 (cm-1)	0.080		
UV abs 300 (cm-1)	0.060		
Total Coliforms (total count)	2340		
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;		
Health Effects	Faecal contamination can lead to vomiting and diarrhoea. Pathogens such as E coli, hepatitis and salmonella can cause severe health effects ;		

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;		
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