



	Results	WHO Drinking Water limits	Limits Exceeded (Y/N)
Sample_ID	S8		
Sampling date	19.06.2019		
Location ID	Birtley WWTP		
Sample description	Mine water		
Sample Source	Groundwater		
Label	GW		
Latitude	54.90472		
Longitude	-1.6021		
Sea Level (mAOD)			
Depth below ground (m)			
pH	7.06		
Temp (degC)			
Salinity (ppm)	1910		
TDS (mg/l)	2490		
Conductivity (uS)	3600		
Alkalinity (mg/L CaCO3)	550		
Faecal Coliforms (count/100ml)	0	0	N

Aluminium (mg/l)	0.007	0.2	N
Ammonium (mg/l)	0.412	<i>Not of health concerns at levels found in drinking water</i>	N
Antimony (mg/l)	0.001	0.02	N
Arsenic (mg/l)	0.000	0.01	N
Barium (mg/l)	0.030	1.3	N
Bromide (mg/l)		6	N
Cadmium (mg/l)	0.000	0.003	N
Calcium (mg/l)	197.280	100-300	Y
Chloride (mg/l)	418.068	250	Y
Chromium (mg/l)	0.000	0.05	N
Copper (mg/l)	0.000	2	N
Fluoride (mg/l)	0.575	1.5	N
Iron (mg/l)	0.656	2	N
Lead (mg/l)	0.000	0.01	N
Magnesium (mg/l)	88.502	<i>Not of health concerns at levels found in drinking water</i>	N
Manganese (mg/l)	1.174	0.4	Y
Nickel (mg/l)	0.026	0.07	N
Nitrate (mg/l) (HACH)	1.000	50	N
Nitrate.1 (mg/l) (Ion Chrom)		50	N
Nitrite (mg/l) (HACH)	0.105	3	N
Nitrite.1 (mg/l) (Ion Chrom)	0.522	3	N
Phosphate (mg/l)	1.281	<i>Not of health concerns at levels found in drinking water</i>	N
Potassium (mg/l)	43.116	<i>Not of health concerns at levels found in drinking water</i>	N
Silicon (mg/l)		<i>Not of health concerns at levels found in drinking water</i>	N
Sodium (mg/l)	444.587	200	Y

Strontium (mg/l)	2.693	4	N
Sulphate (mg/l)	0.001	500	N
Zinc (mg/l)	0.007	<i>Not of health concerns at levels found in drinking water</i>	N
TOC (mg/l)	11.300		
TIC (mg/l)	133.800		
UV abs 200 (cm-1)	0.806		
UV abs 210 (cm-1)	0.170		
UV abs 220 (cm-1)	0.097		
UV abs 230 (cm-1)	0.091		
UV abs 254 (cm-1)	0.088		
UV abs 260 (cm-1)	0.089		
UV abs 280 (cm-1)	0.087		
UV abs 300 (cm-1)	0.085		
Total Coliforms (total count)	280		
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)	0		
Contaminants	High calcium level; High chloride level; High manganese level; High sodium level;		
Health Effects	High Calcium levels may cause taste to be affected; High Chloride levels may cause taste to be affected; High manganese levels may cause taste to be affected; High Sodium levels may cause taste to be affected;		

Treatments	Calcium can be reduced using a water softener or point of use reverse osmosis; Chloride can be reduced using reverse osmosis, distillation or ion exchange; Manganese levels can be reduced using aeration or ion exchange; Sodium can be reduced through distillation, ion exchange and reverse osmosis;		
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