Experiment 2A

Jar Test using method from Hazardous Waste Management

Start Time=	5:20	pm Nov. 11 2013		End Time=	5:20 pm No. 14 2013
Sample Volume=	500	mL			
Concentration in=	26.0	mg/L NO3-N			
Resin Capacity=	2.8	meq/g	or	0.612	g resin/L raw water
				0.30612245	g resin

Concentration Data for Experiment 2A

Flask #	Resin (g)	C_f (mg/L)	C_i (mg/L)	X (ug)	q (ug/mg)	Log(q)	Log(C_f)	m(mg/L)
1	0.01	26.5	28.1	800	40.000	1.6021	1.4232	20
2	0.05	27.575	28.1	262.5	2.625	0.4191	1.4405	100
3	0.10	28.025	28.1	37.5	0.188	-0.7270	1.4475	200
4	0.15	21.275	28.1	3412.5	11.375	1.0560	1.3279	300
5	0.20	22.075	28.1	3012.5	7.531	0.8769	1.3439	400
6	0.30	19.2	28.1	4450	7.417	0.8702	1.2833	600
7	0.40	16.475	28.1	5812.5	7.266	0.8613	1.2168	800

Experiment 2B

Jar Test using method from Hazardous Waste Management

Start Time=	5:20	pm Nov. 13 2013		End Time=	
Sample Volume=	300	mL			
Analyte=	26.0	mg/L NO3-N			
Resin Capacity=	2.8	meq/g	or	0.612	g resin/L raw water
				0.30612245	g resin

Concentration Data for Experiment 2B

Beaker #	Resin (g)	C_f (mg/L)	C_i (mg/L)	X (mg)	q (mg/mg)	Log(q)	Log(C_f)
1	0.05		24				
2	0.15		24				
3	0.25		24				
4	0.40		24				
5	0.60		24				

Table of Equivilent Mass

Name	Ion	g/mole	g/eq
Calcium	Ca^{2+}	40	20
Magnesium	Mg^{2+}	24	12
Sodium	Na^{+}	23	23
Potassium	K^{+}	39	39
Ammonium	NH_4^{+}	18	18
Chloride	Cl^{-}	35.5	35.5
Sulphate	SO_4^{2-}	96	48
Nitrate	NO_3^{-}	62	62
Bicarbonat	HCO_3^{-}	61	61
Carbonate	CO_3^{2-}	60	30