

Yellowknife Community Garden Collective
 Site 2 New Soil Fall 2012

Overall Physical and Chemical Properties

Date	Parameter	Value	Optimal Value	Notes
Fall 2012	pH	4.5	6 - 7	conventional pH measurement (soil solution acidity)
	pH	4.6		pH measured with 1:4 CaCl solution (exchange site pH)
	Texture			
	% Organic Matter	17.5		

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Parameter	Value	CCME Contaminant Guideline - Agriculture (mg/kg)	Nutrient Recommended Value (mg/kg)	Notes
Antimony (Sb)	0.8	20		
Arsenic (As) -inorganic	83.8	12		
Barium (Ba)	257	750		
Beryllium (Be)	0.3	4		
Boron (B)	10.2	2	>3.5	
Cadmium (Cd)	1.13	1.4		
Chromium (Cr)	30.6	64		
Cobalt (Co)	30.3	40		
Copper (Cu)	198	63	>1.0	
Lead (Pb)	5.7	70		
Mercury (Hg) - inorganic	0.02	6.6		
Molybdenum (Mo)	3	5		
Nickel	41.3	50		
Selenium (Se)	2.5	1		
Silver (Ag)	0.1	20		
Thallium (Th)	0.08	1		
Tin (Sn)	4	5		
Vanadium (V)	26.7	130		
Zinc (Zn)	345	200		

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Nutrient	Soil Test Result (ppm)	Soil Test Result (kg/ha)*	Depth (cm)	Nutrient Deficient (kg/ha)			Nutrient Marginal (kg/ha)			Nutrient Adequate (kg/ha)		
				<24	24-45	46-67	68-90	91-112	113-134	136-157	158-179	>179
N-Nitrate	5	20	0-60 cm	<24	24-45	46-67	68-90	91-112	113-134	136-157	158-179	>179
N-NH ₄ ⁺	62.9	251.6										
Phosphorus (P)	23	92	0-15 cm	<12	12-22	24-28	29-34	35-45	46-56	57-78	79-101	>101
Potassium (K)	670	2680	0-15 cm	<57	57-112	113-168	169-224	225-280	281-336	337-448	449-672	>672
Sulphur (S)			0-60 cm	<7	7-11	12-17	18-22	24-28	29-34	35-45	46-56	>56
Sulphate (SO ₄ ²⁻)	2570	10280										
Calcium	8260	33040										
Magnesium	858	3432										
Sodium	500	2000										

* We have assumed a soil depth of 30 cm (12") to convert soil test values from ppm to kg/ha. Calculation: kg/ha = ppm x 2 x sample depth (30cm) / 15 cm, as suggested by XX (ref).