

Date: 04/09/2014

Location: Stoney Creek

Team: BB & LG (Barry Booth and Leticia Gaspar)

Number of samples: 5

Field procedure and details

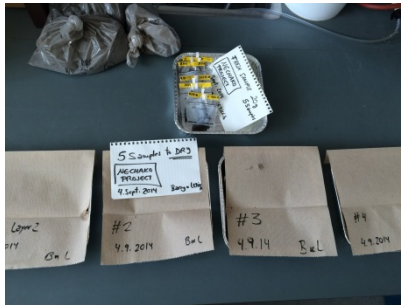
See 'Stoney Creek Upstream_DataBase.xlsx'



Lab procedure

- Step 1: Take 20 g approx. for each sample and keep fresh in the fridge
- Step 2: Weight the wet samples
- Step 3: Air-dried the samples
- Step 4: Weight the dry samples
- Step 5: Estimate water of the sample by mass
- Step 5: Grounded, homogenized and quartered to pass through a 2 mm sieve
- Step 6: Weight the stones and the fines
- Step 7: Sieve under 63 microns

Lab procedure



Location 1 sample #1 layer 1



Location 1 sample #1 layer 2



Location 2 sample #2



Location 3 sample #3



Location 4 sample #4



Site	sample	date	team	location	location bridge	depth	colour	Brown's layer thickness cm aprox.	sampler	FRIDGE sample g	WET mass of sample to dry g	DRY mass of sample to dry g	Water by mass %
1	#1.1	14-09-04	BB & LG	Stoney Creek	upstream	surface (0-3 cm)	brown	3	Blade/Trowel	21.03	444.48		#DIV/0!
1	#1.2	14-09-04	BB & LG	Stoney Creek	upstream	below 5 cm	grey	-	Blade/Trowel	20.61	444.52		#DIV/0!
2	#2	14-09-04	BB & LG	Stoney Creek	upstream	surface (0-3 cm)	brown	5	Blade/Trowel	21.37	323.95		#DIV/0!
3	#3	14-09-04	BB & LG	Stoney Creek	upstream	surface (0-3 cm)	brown	more than 14	Blade/Trowel	19.56	463.58		#DIV/0!
4	#4	14-09-04	BB & LG	Stoney Creek	dowstream	surface (0-3 cm)	brown	-	Blade/Trowel	22.52	304.92		#DIV/0!

	Arsenic ppm	Cadmium ppm	Chromium ppm	Copper ppm	Iron ppm	Phosphorus ppm	Lead ppm	Manganese ppm	Mercury ppm	Nickel ppm	Selenium ppm	Silver ppm	Zinc ppm
ISQG¹	5.9	0.6	37.3	35.7	21200	1000	35.0	460.0	0.2	16.0	2.0	0.5	123.0
PEL²	17.0	3.5	90.0	197.0	43766	2000	91.0	1100.0	0.5	75.0	-	-	315.0
Sample 1	2.9	0.13	25.0	22.5	26800 *	1340 *	6.7	1010.00 *	0.05	16.1 *	0.4	0.08	69.0
Sample 2	3.2	0.13	28.0	23.9	29400 *	1250 *	9.3	658.00 *	0.02	18.4 *	0.3	0.09	66.0
Sample 3	3.0	0.14	25.0	23.5	27800 *	1390 *	7.7	1040.00 *	0.02	16.7 *	0.6	0.08	69.0
Sample 4	2.7	0.11	25.0	21.8	26700 *	1350 *	6.7	858.00 *	0.01	15.5	0.6	0.08	67.0
Sample 5	2.2	0.13	27.0	27.3	23200 *	1070 *	6.7	562.00 *	0.02	13.9	0.2	0.07	69.0

* = exceeds ISQG levels

** = exceeds PEL levels

¹ISQG = Interim Sediment Quality Guidelines

<http://www.env.gov.bc.ca/wat/wq/BCguidelines/working.html>

ISQG guidelines are generally stated in two ways:

- Safe levels of substances that will protect aquatic life from adverse effects of toxic substance
- Levels which, if exceeded, will cause severe effects on aquatic life.

²PEL = Probable Effect Level

= defines the level above which adverse effects are expected to occur frequently

<https://ceqg-rcqe.ccme.ca/download/en/317>

= value above which adverse biological effects are usually or always observed

<https://ceqg-rcqe.ccme.ca/download/en/226>