Chloride

Function: Differential Pulse Voltammetry (DPV/a)

Start Potential (mV)	0
End Potential (mV)	400
Current range	20,048
Scan Speed (mV/s)	20
Number of cycles	3
Delay before sweep (s)	5
Purge and stir time (s)	300
Stirring speed (rpm)	300
Drop Size (a.u.)	60

Chloride concentrated standard solution (1 g/l)
Dissolve 1.6485 g of pure NaCl (dried for 2 hours at 150°C) in 1 l of distilled water, in a volumetric flask. (MM_{NaCl} = 58.443 MM_{Cl} = 35.453)

Supporting electrolyte
0.1 M KNO_3 solution
Dissolve 10.1 g of KNO_3 in 1 l of distilled water.

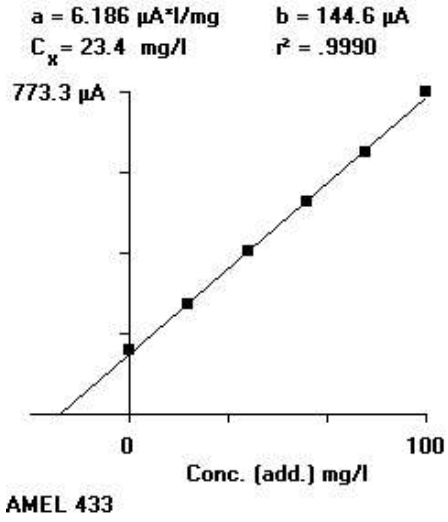
Procedure
Add to 10 ml of supporting electrolyte a volume of sample in way to obtain a concentration of 0.5 – 1 mg/l of Cl^- in the solution.

Working standard solution (100 mg/l)
Dilute 1+9 the concentrated standard solution at the moment of the analysis.

Warnings
It is not mandatory to change the internal solution of the reference electrode using the above procedure.
It is necessary to subtract the blank curve before the calculation of the peak height (point to point blank subtraction function).

Interference
Bromide and iodide have to be absent.

Analytical Report
Analysis: Tap water
Sample Concentration = 23.4 mg/l
Method: 5 additions
Blank: point to point subtraction



Volumes Table

Solvent Volume	0 (ml)
Supporting Sol.	10 (ml)
Sample Volume	0.5 (ml)
Standard Conc.	100 (mg/l)

Height Table

#	Peak Pot.	Height
0	326.1	7.205 µA
1	319.5	12.43 µA
2	314.1	18.37 µA
3	309	23.66 µA
4	304.5	28.94 µA
5	300.6	35.15 µA

Regression Data

#	Add Conc.	Height x dilution
0	0 mg/l	151.3 µA
1	20.0 "	263.7 µA
2	40.0 "	393.1 µA
3	60.0 "	511.1 µA
4	80.0 "	631.0 µA
5	100 "	773.3 µA

$y = ax + b$
$a = 6.186$ µA*l/mg
$b = 144.6$ µA
$r^2 = .9990$