Title: STUDY OF DIFFERENT HYPOTHETICAL PROCEDURES ON A

WASTEWATER SAMPLE FROM THE TEXTILE INDUSTRY

Student: Ana Serra Bachs

Date: Febrer 2020

Supervisor/s: Professor Krzysztof Piotrowski

Departament of Inorganic Chemistry

Dr. Janusz Wojcik Chemistry coordinator

Industrial wastewater is defined as an effluent discharged from the areas where any trade or industry is carried on. Its composition can be very different depending on the type of the industries activity; consequently, a whole cycle of its treatment can be different, as well. The objective of this project is to assume the presence of several impurity ions in a wastewater sample taken from a textile effluent and then, make some simulation calculations using the Visual Minteq software to study what precipitates and under which conditions while making some variations onto the sample. Three technological approaches were tested during numerical tests: dilution, concentration and adsorption. According to the obtained results, dilution was the more effective method to reduce the amount of precipitate.

Keywords: Wastewater, Simulation, Visual Minteq software, Dilution, Concentration, Adsorption and Precipitate.