

Certification of Project Completion of Queen Elizabeth Scholars-Advanced Scholarship (QES-AS)

This is to certify that YULY ANDREA SANCHEZ LONDOÑO, identified with Passport No. AX040299 and ID 35.427.688 issued in Zipaquirá - Colombia, completed a project under QES-AS under my supervision as described as follows:

Project Name	Strengthening Coastal Aquifer Resilience and Groundwater Use Against Climate Change Effects in the Caribbean (the “Program”).
Objectives:	The main research task, during her visit to Canada, was: The study consists in determining the quality of the hot springs both at the source and in the pool by means of physical, chemical, microbiological and some metal tests and determining contaminants that represent a risk to human health and proposing control measures through treatment of the hot spring. According to the WHO, natural spas require non-oxidative methods of water treatment. A very high water exchange rate is needed (even if it is not completely effective), which can be detrimental to aquifers if there is not enough resource available. To evaluate non-oxidative hot springs treatment systems, laboratory tests are required to identify possible treatments for this type of water and look at the effect of its salinity and temperature.
Contract Value:	Twenty thousand dollars (\$20.000). \$2305 Per Month, Paid bi-monthly, first amount paid upon arrival at the Host Institution. \$775 Per Month, Paid bi-monthly, less \$500 holdback paid upon completion of QES Scholar reporting requirements.
Start Date:	February 1, 2020.
End Date	September 15, 2020.
In the course of that Research Project the QES Scholar undertakes a research placement that lasts at minimum 30% of the total duration of the Research Project as follows:	

Placement Partner	Establecimiento Público Ambiental – EPA Cartagena (Colombia).
Project Name	Environmental Evaluation Hydraulic Round Recovery Matute.
Placement Partner Supervisor	Dr Javier Mouthon, Dr Mehrab Mehrvar.
Start Date at Placement Partner	September 16, 2020.
End Date at Placement Partner	December 30, 2020.
Actual state:	Completed.

This certificate is issued in Toronto, Canada, at the request of the Yuly Sanchez, on October 28, 2021.

Please do not hesitate to contact me if you need any additional information or should you have any questions regarding the contents of this certificate.

Yours sincerely,



Mehrab Mehrvar, Ph.D., P.Eng.

Professor and Associate Chair, Graduate Studies

Department of Chemical Engineering

Ryerson University, 350 Victoria Street

Toronto, Ontario, Canada M5B 2K3

E-mail: mmehrvar@ryerson.ca

