

**CARLETON UNIVERSITY**

**Department of Mechanical and Aerospace Engineering**

**MASTER'S THESIS EXAMINATION**

**CANDIDATE:** *Niall McCallum*  
*Bachelor of Engineering, Carleton University, 2015*

**DATE:** *Thursday May 03, 2018, 9:30 3124 Mackenzie Building*

**THESIS TITLE:** *Shear Stability of Vegetable Oil-Based Lubricants with Ethyl Cellulose Viscosity Index Improvers*

**EXAMINATION BOARD:**

**Internal Examiner** Peter Buist, Department of Chemistry (In Person)

**Member of Department** John Gaydos, Mechanical & Aerospace Engineering (In Person)

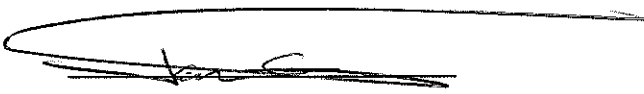
**Member of Joint Institute** Michel Nganbe, Univeristy of Ottawa - Mechanical Engineering (In Person)

**Chair of Defence** Jason Etele, Mechanical & Aerospace Engineering (In Person)

**Chair/Director of Department or Designate** Ronald Miller (Ex-officio)

**Dean of Faculty** Fred Afagh (Ex-officio)

**Dean, Faculty of Graduate and Postdoctoral Affairs** Matthias Neufang (Ex-officio)



**Ronald Miller, Chair/Director of Department or Designate**  
**Department of Mechanical and Aerospace Engineering**