

## TABLE OF CONTENTS

Executive summary
Acknowledgments
List of abbreviations
List of Tables
List of Figures

	Page
<b>CHAPTER 1 : INTRODUCTION .....</b>	<b>1</b>
<b>CHAPTER 2: LITERATURE REVIEW .....</b>	<b>3</b>
2.1 Adenosine triphosphate .....	3
2.2 The luciferin-luciferase reaction .....	4
2.3 The application of ATP for monitoring microbial biomass in WTPs .....	6
2.4 Other applications of ATP .....	9
2.4.1 ATP as an indicator of cell physiological status: Oxygen transfer applications .....	9
2.4.2 Detection of response to toxic substances .....	9
2.4.3 Early detection of poor settling conditions .....	9
<b>CHAPTER 3: MATERIALS AND METHODS .....</b>	<b>11</b>
<b>CHAPTER 4: RESULTS AND DISCUSSION .....</b>	<b>15</b>
<b>CHAPTER 5: GENERAL DISCUSSION AND CONCLUSION .....</b>	<b>27</b>
<b>REFERENCES: .....</b>	<b>30</b>