

TABLE OF CONTENTS

EXECUTIVE SUMMARY	ERROR! BOOKMARK NOT DEFINED.
ACKNOWLEDGEMENTS.....	ERROR! BOOKMARK NOT DEFINED.
TABLE OF CONTENTS.....	1
LIST OF FIGURES.....	ERROR! BOOKMARK NOT DEFINED.
LIST OF TABLES.....	ERROR! BOOKMARK NOT DEFINED.
LIST OF ABBREVIATIONS	ERROR! BOOKMARK NOT DEFINED.
1 INTRODUCTION AND OBJECTIVES.....	ERROR! BOOKMARK NOT DEFINED.
2 PHASE 1: LITERATURE SURVEY	ERROR! BOOKMARK NOT DEFINED.
2.1 Membrane treatment options.....	Error! Bookmark not defined.
2.2 Brine produced in mine-water treatment	Error! Bookmark not defined.
2.2.1 Volume of brine	Error! Bookmark not defined.
2.2.2 Composition of brine.....	Error! Bookmark not defined.
2.3 Brine management.....	Error! Bookmark not defined.
2.3.1 Evaporation ponds.....	Error! Bookmark not defined.
2.4 Factors affecting evaporation	Error! Bookmark not defined.
2.4.1 Climatic effects	Error! Bookmark not defined.
2.4.2 Properties of liquid being disposed of	Error! Bookmark not defined.
2.4.2.1 Salinity	Error! Bookmark not defined.
2.4.2.2 The Oasis Effect.....	Error! Bookmark not defined.
2.5 Methods of determining evaporation rates	Error! Bookmark not defined.
2.5.1 Penman equation	Error! Bookmark not defined.
2.5.2 Turk and Byonton	Error! Bookmark not defined.
2.6 Reported salinity factors	Error! Bookmark not defined.
2.7 Conclusions.....	Error! Bookmark not defined.
3 FIELD TRIALS	ERROR! BOOKMARK NOT DEFINED.
3.1 Methodology.....	Error! Bookmark not defined.
3.1.1 Climatic conditions.....	Error! Bookmark not defined.
3.1.2 Evaporation pans.....	Error! Bookmark not defined.
3.1.3 Synthetic brine solutions	Error! Bookmark not defined.
3.1.3.1 EWRP brine	Error! Bookmark not defined.
3.1.3.2 Optimum Mine-water.....	Error! Bookmark not defined.
3.1.3.3 Kilbarchan Mine-water	Error! Bookmark not defined.
3.1.3.4 Brine solutions used in this study	Error! Bookmark not defined.
3.2 Experimental set-up	Error! Bookmark not defined.
3.3 Experimental procedure.....	Error! Bookmark not defined.
3.4 Phase 3	Error! Bookmark not defined.
3.4.1 eMalahleni Water Reclamation Plant	Error! Bookmark not defined.
3.4.2 Modified experimental procedure.....	Error! Bookmark not defined.
4 PHASE 2 RESULTS.....	ERROR! BOOKMARK NOT DEFINED.
4.1 Calculations.....	Error! Bookmark not defined.
4.2 Daily evaporation	Error! Bookmark not defined.
4.3 Salinity factors.....	Error! Bookmark not defined.
5 PHASE 3 RESULTS.....	ERROR! BOOKMARK NOT DEFINED.
5.1 Daily evaporation	Error! Bookmark not defined.
5.2 Salinity factors.....	Error! Bookmark not defined.
6 CONCLUSIONS.....	ERROR! BOOKMARK NOT DEFINED.
7 REFERENCE LIST	ERROR! BOOKMARK NOT DEFINED.
APPENDIX A: DATA.....	ERROR! BOOKMARK NOT DEFINED.

APPENDIX B: TRENDS WITH CLIMATE DATA..... **ERROR! BOOKMARK NOT DEFINED.**