PROCEEDINGS OF THE TWENTIETH ANNUAL
BRITISH COLUMBIA MINE RECLAMATION SYMPOSIUM

MINE RECLAMATION

"TWENTY YEARS OF PROGRESS"

Convened at the Best Western Kamloops Towne Lodge, Kamloops, British Columbia,
June 17 to 20, 1996

Organized by the British Columbia Technical and Research Committee on Reclamation in
cooperation with the B.C. Ministry of Employment and Investment - Energy and Minerals
Division, B.C. Ministry of Environment, Lands and Parks, Environment Canada, Mining
Association of British Columbia, Coal Association of Canada, University of British Columbia,
University of Northern British Columbia and Camosun College.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>THE BRITISH COLUMBIA TECHNICAL AND RESEARCH COMMITTEE ON RECLAMATION</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>REPORT OF THE TRCR AWARDS SUBCOMMITTEE</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>xi</td>
</tr>
</tbody>
</table>

## TECHNICAL PAPERS:

1. Reclamation Research at Highland Valley Copper 1
   Carol E. Jones and Mary Anne Bloodgood
   C.E. Jones and Associates Ltd.

2. Computerized Mine Reclamation Planning at Highland Valley Copper 11
   R.W. Graden
   Highland Valley Copper

3. Animal Response to Grazing on Reclaimed Mine Tailings 23
   W.C. Gardner, J.D. Popp, D.A. Quinton, Z. Mir,
   P.S. Mir and W.T. Buckley
   Agriculture and Agri-Food Canada Research Station

4. Design of a Rainfall Simulator to Measure Erosion of Reclaimed Surfaces 32
   Les Sawatsky, Wes Dick and Dave Cooper, AGRA Earth & Environmental Limited
   Marie Keys, Syncrude Canada Ltd.
   Steve Tuttle, Suncor Inc.

5. Restoring a Salmon Stream: A Balance of Habitat Diversity, Flood Control and Community Needs 43
   J.G. Scouras, J.L. Jackson and K. Hennebury
   B.C. Hydro
6. In-Pit Disposal Program for Acid Generating Waste Rock
   J.L. Quesnel and S.W. Stogran
   Lakefield Research Limited

7. Development of a Wetland Treatment System at United Keno Hill Mines,
   Elsa, Yukon Territory
   André Sobolewski
   Microbial Technologies

8. Ecological Risk Assessment for a Mine Pit Lake, Nevada, USA
   Jennifer R. Sampson, Ron S. Mellott, and Robert A. Pastorok
   PTI Environmental Services

9. Life in the Wake of a 200 Year Flood Event at the Fording River Operations,
   June 1995
   Roger J. Berdusco
   Fording Coal Limited

10. Dust Control Option for Williston Reservoir: Preliminary Recommendation
    J.M. Arocena, J.P. Young and D. Baker
    University of Northern British Columbia

11. Cleaning Up Metal and Hydrocarbon Contaminated Soils Using the Chemtech
    Soil Treatment Process
    Rob Stephenson and Vita Yan
    Klohn-Crippen Consultants Ltd.

12. An Ecological Audit of the Regulatory Requirements for Surface Coal Mine
    Reclamation in Nine Western North American Jurisdictions
    C.R. Smyth, Environmental Insight
    P. Dearden, University of Victoria

13. Eskay Creek Access Road. A Case Study
    F. Marlin Murphy and William A. Napier
    Homestake Canada Inc.

    John C. Ellsworth
    Ellsworth and Associates

15. Corporate Environmentalism and the Reclamation of Dormant Properties
    Giant Nickel: A Case Study
    Sharon Meyer, Homestake Canada Inc.
    Edward Gregr, Bion Research Inc.
16. Tell BC Environment, Lands and Parks Where to Go. You Can Improve the Land Reclamation Component of the Compost and Biosolids Recycling Regulation

J.A. Bryden
B.C. Environment, Lands, & Parks

17. Temporal Influence of Fly Ash on Soil Bulk Density and Aggregate Size Distribution

Loretta Y. Salé, Ministry of Employment and Investment, Energy and Minerals Division
David S. Chanasyk and M. Anne Naeth
University of Alberta

18. Organic Cover Materials for Tailings: Do They Meet the Requirements of an Effective Long Term Cover?

Linda C.M. Elliott, Liangxue Liu and S. Wade Stogran
Lakefield Research Limited