

40th Symposium on Engineering Geology and Geotechnical Engineering 2006

**Logan, Utah, USA
24-26 May 2006**

ISBN: 978-1-61839-761-4

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2006) by Engineering Geology and Geotechnical Engineering Symposium (EGGES)
All rights reserved.

Printed by Curran Associates, Inc. (2012)

For permission requests, please contact
Engineering Geology and Geotechnical Engineering Symposium (EGGES)
at the address below.

Engineering Geology and Geotechnical Engineering Symposium (EGGES)
c/o Paul Link Department of Geosciences
MS 8072 Idaho State University
Pocatello Idaho 83209

Phone: (208) 282-3365

Fax: (208) 282-4414

linkpaul@isu.edu

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

PLENARY SESSIONS

Assessing the Stability of Landslides - Overview of Lessons Learned from Historical Landslides in Utah	1
<i>Gary E. Christenson, Francis X. Ashland</i>	
Determination of Soil Strength Parameters for Slope Stability Analysis	18
<i>James A. Bay</i>	
Slope-Stability Implications of Ground-Water-Level Fluctuations in Wasatch Front Landslides and Adjacent Slopes, Northern Utah	33
<i>Francis X. Ashland, Richard E. Giraud, Greg N. McDonald</i>	
Landslide Mitigation: Engineering Geology and Geotechnical Engineering Symposium, Logan UT May 2006	45
<i>George Machan</i>	

LANDSLIDE SESSION

The 1983 Thistle Landslide: A Retrospective	50
<i>Blaine D. Leonard</i>	
Provo Canyon Construction – Geotechnical Field Engineer’s Perspective	65
<i>Clifton B. Farnsworth</i>	
Locke Island Landslide Study, White Bluffs Area Columbia Basin Project, Washington	76
<i>Douglas J. Bennett</i>	
Analysis of Lidar for Characterizing and Differentiating Landslide Morphology and Activity in Southern Idaho	87
<i>Nancy Glenn, David Streutker, Glenn Thackray, John Chadwick</i>	
Variations in Simplified Procedures for Assessing Earthquake Induced Landslide Deformation	88
<i>Ryan Thomas Cole</i>	
Discontinuity Shear Strength and the Influence of Wastewater on Fatal Rock Falls at Glacier Point, Yosemite National Park, California	98
<i>Chester F. Watts</i>	
The June 3, 2005, Black Mountain Debris Flow, Iron County, Utah	107
<i>Richard E. Giraud, William R. Lund</i>	
Case Study: Compacted Embankment Landslide in Grady County, Oklahoma	125
<i>A.B. Cerato, R.C. Oleski, C.C. Puklin</i>	
A Geomorphic Model for Coastal Cliff Recession Near Crescent City, California	135
<i>Steven C. Devin</i>	
Case History of Two Landslides in Lithostratigraphic Equivalent Formations	148
<i>Eileen M. Dornfest, John D. Nelson, Daniel D. Overton</i>	
Failure Modes Analysis of Three Roadside Rockpiles from Mining Operations Near Questa, New Mexico	157
<i>Loren R. Anderson</i>	

GENERAL SESSION

Investigation of Coarse Aggregate Durability Using the Micro-Deval Abrasion Testing Apparatus	165
<i>Keely Obert, Eli Cuelho, Robert L. Mokwa</i>	
A Distinct Element Parametric Study of Collapse and Support of an Underground Opening in Rock Masses of Varying Quality	176
<i>Mary M. MacLaughlin, Thomas M. Brady, Rimas Pakalnis</i>	
Filtration using the Bubblepoint Method	188
<i>David Hayes, David Elton</i>	
Permeability Characteristics of RAP/Aggregate Blends for use in Highway Construction	200
<i>Robert L. Mokwa, Nicholas R. Trimble</i>	
Laboratory Characterization of the Effects of Macroporosity Size and Shape on Elastic Modulus	209
<i>Cindy A. Wright, Bethany Erfourth, Nick Hudyma, Mary MacLaughlin</i>	
3D Numerical Models of Plaster-Styrofoam Specimens: Substantiating the Variation of Elastic Modulus	222
<i>Bethany S. Erfourth, Cindy A. Wright, Nick Hudyma, Mary MacLaughlin</i>	

Educational Modules in Geotechnical and Geological Engineering	235
<i>Sherif A. Elfass, Gary Norris , Reka Aczel, Ellen Jacobson</i>	
Site Classification for Seismic Risk Assessment of Essential Structures in Clark County, Nevada.....	242
<i>Qiuhong Su, Thomas Higgins, Barbara Luke</i>	
Research and Development of Las Vegas Valley VS(30) Map	248
<i>Helena Murvosh, Barbara Luke, Brett T. McLaurin, Thomas Higgins, Wilonda Quinn</i>	
Lateral Response of Isolated Piles in Liquefied Soil with Lateral Soil Spreading.....	255
<i>Mohamed Ashour, Gary Norris, J.P. Singh</i>	
Feasibility of Using a Gyrotory Compactor to Determine Compaction Characteristics of Soil.....	268
<i>Michael J. Browne, Robert L. Mokwa, Eli Cuelho</i>	
Permeability Investigation of a Silty Sub-Surface as it Relates to Chromium Contamination	
Transport: A Case Study	278
<i>Nicholas R. Trimble, Robert L. Mokwa</i>	
Strain Wedge Model Analysis as a Means of Overcoming Limitations of the Traditional p-y Curve	
Approach	288
<i>Mohamed Ashour, Gary Norris, Sherif Elfass</i>	
Dispersibility of Clay and Cement Mixed Clay using the Pinhole Test.....	297
<i>Susit Chaiprakaikeow</i>	
Author Index	