

TAILINGS AND MINE WASTE '10 VAIL, COLORADO

<http://www.tailingsandminewaste.org>



At left: Vail Clock Tower. Photo courtesy of Jack Affleck. Above left: Vail Cascade Resort pools. Photo courtesy of Karl Newman. Above right: Vail Cascade Resort sanctuary. Spa photos courtesy of Ron Coppock.

Objectives

The objective of Tailings and Mine Waste '10 is to provide a forum for presenting the state-of-the-art with respect to mill tailings and mine waste current practice, and to discuss current and future issues facing the mining and environmental communities.

Background

Tailings and Mine Waste '10 is a continuum of a series of symposia on mill tailings management that originally started at Colorado State University in 1978 and subsequently progressed as the annual Tailings and Mine Waste Conferences 1994 through 2004. The conference resumed in 2008. The primary purpose of the conference is to provide a forum and meeting place for members of the mining community, engineers and scientists serving the mining industry, regulatory groups and other interest groups concerned with environmental issues related to tailings and mine waste management. Topics related to the engineering and management of tailings and mine waste will be covered, including case histories, design, operation, and disposal for mine waste management, geotechnical considerations, liners, covers and barriers for waste control, reclamation and remediation of mine impacted sites, oil sands issues, surface water and groundwater management and geochemistry, and policies, procedures and public safety.

Who Should Attend

Mine and mill managers, engineers involved with tailings management and reclamation, environmental and geotechnical engineers, geoenvironmental engineers, regulatory personnel, consulting engineers, researchers, and other interested groups have found the Tailings and Mine Waste Conference to be an exciting place to present ideas, learn of new developments, make contacts in their professional fields, and discuss issues of mutual interest.

Organizing Committee

Daniel D. Overton, Conference Chair, Engineering Analytics, Fort Collins, CO
Peter Mundy, Alfa Laval, Inc., Calgary, A.B.
Michael Smith, AMEC, Englewood, CO
Loel Renshaw, Ausenco PSI, Concord, CA
Antonio Carraro, Colorado State University, Fort Collins, CO
Shawn Steiner, ConeTec, Inc., Salt Lake City, UT
Bill Thompson, Golder Associates, Inc., Lakewood, CO
Bryan Ulrich, Knight Piesold Consulting, Elko, NV
Clint Strachan, MWH, Fort Collins, CO
Robert Cooke, Paterson & Cooke, Denver, CO
Andrew Robertson, Robertson GeoConsultants, Inc., Vancouver, B.C.
Larry Cope, SRK Consulting, Inc., Fort Collins, CO
Mike Henderson, Tetra Tech, Inc., Golden, CO
Kirk Palicki, URS Corporation, Denver, CO

Exhibitor Space

The Organizing Committee invites your participation in presenting an exhibit. Exhibition of services, equipment, and technologies meets one of the Conference goals, which is to exchange ideas about issues facing the mining and environmental communities. If you would like to display an exhibit, please contact Linda L. Hinshaw.

Venue

The Conference will be held at the Vail Cascade Resort in Vail, Colorado <http://www.vailcascade.com>. The Resort sits at the base of Vail Mountain at an altitude of 8150 feet. Vail is an internationally acclaimed ski resort, located 90 miles west of Denver. The major airport to use is Denver International Airport. Vail enjoys a clear, dry climate year-round. While sunny skies are the norm at this time of year, please keep in mind that in October, a sudden snowstorm may occur, so plan your dress and travel time accordingly. We encourage you to use your time in Colorado for recreation as well as technical learning.

Transportation

Travel from Denver International Airport (DIA) to Vail can be by rental car, bus or private car. Vail is about a two-hour drive from Denver via Interstate I-70. **Colorado Mountain Express** offers a shuttle service from DIA to Vail. When making a reservation mention "TMW" to get a discounted rate of \$78.30 one-way. They have a regular scheduled route to and from Vail and DIA. You may call them at 1-800-525-6363 or use their Web site: www.ridecme.com.

Contact

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Registration Information Contact

Conference Services
Colorado State University
8037 Campus Delivery
Fort Collins, CO 80523-8037
(970) 491-7501
FAX (970) 491-7747
E-mail: ocsreg@lamar.colostate.edu

SHORT COURSES

In conjunction with this conference, we are pleased to be able to offer the following four short courses to be held on **Sunday, October 17, 2010**. These courses will be held at the Vail Cascade Resort, Centennial Rooms.

Improved Water Recovery through Implementation of Alternative Tailing Disposal (ATD) Methods

Presented/Moderated by:

Andrew Watson, MWH Peru Country Manager, Lima
Clint Strachan, Principal Engineer at MWH Ft. Collins, CO

8:30 a.m. Registration – Main Centennial Foyer
9:00 a.m. - 4:30 p.m. Course – Centennial C-B

OVERVIEW

Given the need to use water more efficiently, mining industry practitioners are increasingly asking "Can changes in tailing disposal methods and management deliver water savings?" This short course will explore the intricacies of implementing ATD methods and will help participants to understand each ATD method's (filtered, thickened, paste) value in water efficiency and conservation. A panel of experts will explain limitations of ATD technologies as well as industry best practices. Experts in the areas of tailing disposal design and engineering services (MWH), rheology and slurry transport (Paterson & Cooke), tailing thickening and water recovery (Outotec) and pipelines and tailing transport (PSI) will be present. The course

agenda includes the following topics: a) conventional vs. ATD; b) slurry transport; c) thickeners for optimal water recovery; d) pumps and pipelines; e) filtered tailing disposal. Participants are encouraged to bring their tailing disposal issues and challenges for discussion during the final panel presentation.

FEE

The course fee is \$650 per person; \$325 for students (scholarship opportunities available). On-site registration will be on a space available basis. Minimum number of registrants is 10. The registration fee includes continental breakfast, lunch and course notes.

GARD Guide: Putting Concepts into Action

Presented/Moderated by:

Tom Wildeman, Professor Emeritus, Colorado School of Mines
Dirk Van Zyl, Professor, University of British Columbia
Terry Chatwin, INAP
Rens Verburg, Golder Associates

8:30 a.m. Registration – Main Centennial Foyer
9:00 a.m. - 4:30 p.m. Course – Centennial D

OVERVIEW

The GARD Guide has been developed by the International Network for Acid Prevention (INAP) over the past three years and was released in Wiki format (www.gardguide.com) in June 2009. The Guide is a comprehensive, state-of-practice summary of the best practices and technology to assist mine and metallurgical plant operators and regulators to address issues related to sulfide oxidation and metals leaching. Using a "model mine", this course puts into action GARD guidelines for the intended users: mining and metallurgical processing professionals, regulators, consultants, students, NGOs, and other interested parties. Short summaries of Guide chapters will be followed by relevant information on the model mine, and then participants will develop key features of the mine that are consistent with the guide. The instructors are experts in mine planning and closure and are members of organizations closely associated with GARD Guide development. Registrants are expected to have a general technical background in science and engineering related to mining and mineral processing, and will need a laptop computer for the course.

FEE

The course fee is \$500 per person; \$250 for students. On-site registration will be on a space available basis. Minimum number of registrants is 10. The registration fee includes continental breakfast, lunch and course notes.

Landform Design for Mine Closure

Presented/Moderated by:

Gord McKenna, PhD, PEng, PGeol, BGC Engineering, Vancouver
Mike O'Kane, MSc, PEng, O'Kane Consultants, Calgary

8:30 a.m. Registration – Main Centennial Foyer
9:00 a.m. - 4:30 p.m. Course – Centennial E

OVERVIEW

Expectations for landscape performance for reclaimed mining landscapes are high. Traditional reclamation methods for kick-starting safe-functioning ecosystems on drastically disturbed lands that can be as large as prairie cities are no longer sufficient to provide reasonable assurance of meeting stated goals and objectives. Landscape design offers a more holistic approach to mine closure that encompasses many disciplines (including geotechnical, surface water, groundwater, soils, vegetation, and wildlife) in a more structured approach. It starts with clearly defining landscape performance objectives in the closure planning phase, and carrying these through design, construction, reclamation, monitoring and maintenance, and certification of individual landforms as part of an integrated landscape set within a larger region.

This one-day workshop introduces landform design to a broad audience, providing specific design techniques applicable to typical mining landforms in coal, oil sands, and hardrock mines. It begins with a review of the state of practice in mine reclamation and landform design from over 100 mines. It goes on to describe some of the expectations for landscape performance for waste rock dumps and tailings landforms, and provides design tools for practitioners. There are a few key focus areas that will receive greater attention: surface water hydrology, soft tailings reclamation, and design and monitoring of covers for tailings and waste rock. This training will allow participants to better influence, manage, regulate or participate in the landform design process. An informal learning environment will allow sharing of concerns and solutions, and a chance to network with other professionals.

FEE

The course fee is \$495 per person; \$100 for students. On-site registration will be on a space available basis. Minimum number of registrants is 10. The registration fee includes continental breakfast, lunch and course notes.

Perception and Reality in Tailings and Mine Waste Permitting

Presented/Moderated by:

Larry Cerrillo, Ingenuity Enterprises Int'l, Inc.,

Carol O'Dowd, MPA, M.Div. Prajna Partnerships Inc.

2:30 p.m. Registration – Main Centennial Foyer

3:00 - 5:00 p.m. Course – Centennial F

OVERVIEW

Given the challenges of working with the public on any project, this short course offers industry representatives some how-to's for using the public involvement process to facilitate permitting while building community awareness. Larry Cerrillo is a hydrogeologist/mediator with experience in the details of the permitting process and guiding project scheduling. Carol O'Dowd is nationally recognized for her public involvement processes. She uses listening techniques that engage community voices and involves stakeholders in ways that heartfelt concerns are heard and understood. Course participants will gain techniques for creating dialogue and hosting public meetings where community members will leave with understanding and enthusiasm. Explore how awareness of perceptions and reality

facilitates partnering among corporations and neighborhoods while keeping project interruptions to a minimum.

FEE

The course fee is \$175 per person; \$100 for students. On-site registration will be on a space available basis. Minimum number of registrants is 15. The registration fee includes handouts and booklet, *The Art of Forming A Great Partnership*.

TAILINGS AND MINE WASTE '10 CONFERENCE PROGRAM

Preregistration and Reception (Cash Bar)

Vail Cascade Resort – Main Centennial Foyer

Sunday, October 17, 2010

6:30 p.m. - 8:30 p.m.

Day One - Monday, October 18, 2010

7:00 - 10:30 a.m. Registration – Main Centennial Foyer

7:30 - 8:30 a.m. Authors' Breakfast – Creekside Room

Introductions

8:30- 9:00 a.m. Cascade Ballroom

Keynote Speaker Norbert R. Morgenstern, Professor Emeritus, University of Alberta

Topic: Improving the safety of mine waste impoundments

9:00 - 10:00 a.m. Cascade Ballroom

10:00 - 10:30 a.m. Break – Exhibit Hall
Centennial Ballroom D and Rocky Mountain Ballroom

Session 1 Opening Session

10:30 a.m. - Noon Cascade Ballroom

- Peak and critical-state shear strength of mine waste rock
Z. Fox and J.A.H. Carraro
- Single process arsenic and antimony removal using coagulation and microfiltration
J. Tamburini, H. C. Liang, and S.J. Billin
- Disposal of coal mine slurry waste using geotextile containers at the North River Mine, Chevron Mining Inc.
M. Watts and E. Trainer

Noon - 1:30 p.m. Lunch – Exhibit Hall

Centennial Ballroom D and Rocky Mountain Ballroom

Session 2A Geotechnical Considerations

1:30 - 3:00 p.m. Centennial A-B-C

- Ore geotechnical testing for heap leach pad design
J. Lupo and A. Dolezal
- Critical state liquefaction assessment of an upstream constructed tailings sand dam
C.D. Anderson and T.L. Eldridge
- Heap leach pad cover design analyses Salmon, Idaho
I. Hutchison, A. Whitman, J. Juliani, and T. Hadj-Hamou
- The effect of tailings characteristics on cover system success
J. Keller, M. Milczarek, T.M. Yao, and M. Buchanan

Session 2B Water Management

1:30 - 3:00 p.m. Centennial E-F

- Dewatered tailings practice – trends and observations
M. Davies, J. Lupo, T. Martin, E. McRoberts, M. Musse, and D. Ritchie
- Groundwater modeling at the Panna Maria Uranium Facility in support of an ACL application
M. Gard, J. Warner, L. Cope, and K. Raabe
- *A priori and posterior* probabilities in operational water balances for tailing storage facilities
S.F. Truby, V. Lishnevsky, and J.R. Kunkel

3:00 - 3:30 p.m. Break – Exhibit Hall

Centennial Ballroom D and Rocky Mountain Ballroom

Session 3A Geochemistry I

3:30 - 5:00 p.m. Centennial A-B-C

- The impact of short-term variations of weather conditions on the chemism of rain water runoff from flotation wastes of Mississippi Valley-type Zn-Pb ores (southern Poland)
A. Bauerek
- The effect of weathering on the acid-producing potential of the Goathill North Rock Pile, Questa Mine, NM
V.T. McLemore, N. Dunbar, S. Tachie-Menson, and K. Donahue

Session 3B Mill Tailings I

3:30 - 5:00 p.m. Centennial E-F

- Tailings impoundment failures, black swans, incident avoidance, and checklists
J. Caldwell and L. Charlebois
- New directions in tailings management
C. Strachan and J. Caldwell
- Overview: Tailings disposal and dam construction practices in the 21st Century
A.J. Breitenbach

Day Two - Tuesday, October 19, 2010

7:00 - 10:00 a.m. Registration

7:30 - 8:30 a.m. Authors' Breakfast – Creekside Room

Keynote Speaker John Sobkowicz, Thurber Engineering

Topic: History and developments in the treatment of oil sands fine tailings

9:00 - 10:00 a.m. Cascade Ballroom

10:00 - 10:30 a.m. Break – Exhibit Hall

Centennial Ballroom D and Rocky Mountain Ballroom

Session 4A Oil Sands I

10:30 a.m. - Noon Centennial A-B-C

- Suncor Pond 5 Coke Cap – The story of its conception, testing, and advance to full-scale construction
P.S. Wells, J. Caldwell, and J. Fournier
- Treatment of fluid fine tailings with silica
R.H. Moffett

- Filtration tests on PVD filter jackets in fine oil sands tailings
Y. Yao, A.F. van Tol, B. Everts, and A. Mulder

- Suncor oil sands tailings pond capping project
G. Pollock, E. McRoberts, K. Williams, X. Liu, S. Wells, and J. Fournier

Session 4B Environmental Issues

10:30 a.m. - Noon Centennial E-F

- A landscape design approach for the sustainable reclamation activities of a post-mining area in Cartagena, SE Spain
S. Kabas, A. Faz, D.M. Carmona, S. Martinez-Martinez, R. Zornoza, and J.A. Acosta
- Priority setting in Idaho's Coeur d'Alene Basin
B. Adams and D.R. Pitzler
- Acid mine drainage as a sustainable solution to eliminate risk and reduce costs
J. Cormier
- Chemical compound forms of cadmium in uranium tailings of Schneckenstein
T. Naamoun and B. Merkel
- Uranium residue impacts on ground and surface water resources at the Schneckenstein site in East Germany
T. Naamoun and B. Merkel

Noon - 1:30 p.m. Lunch – Exhibit Hall

Centennial Ballroom D and Rocky Mountain Ballroom

Session 5A Oil Sands II

1:30 - 3:00 p.m. Centennial A-B-C

- Review of oil sands tailings technology options
C.B. Powter, K.W. Biggar, M.J. Silva, G.T. McKenna, and E.B. Scordo
- Case study: sand capping of weak tailings at Suncor's Pond 1
E. Olason, R. Dawson, and P.S. Wells
- The use of geosynthetics in the reclamation of an oil sands tailings pond
C. Athanassopoulos, P.S. Wells, S. Trinca, and W. Urchik
- A new approach to oil sand tailings management
L. Lawrence and Z. Ali

Session 5B Containment Systems

1:30 - 3:00 p.m. Centennial E-F

- Identification, management and disposal of PCB-containing equipment used in mines
D.W. Bench
- Waste management practices at Alaska's large mines
J. DiMarchi and J. Vohden
- East Mission Flats Repository design-challenges and case history
D. K. Vernon, Jr. and A. Mork
- Physical properties of mill tailings as foundation material for waste repositories, Bunker Hill Superfund Site
J. S. Woolston and A. Mork

3:00 - 3:30 p.m. Break – Exhibit Hall

Centennial Ballroom and Rocky Mountain Ballroom

TAILINGS AND MINE WASTE '10

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Vail Cascade Resort

Session 6A Geochemistry II

3:30 - 5:00 p.m. Centennial A-B-C

- Effect of reservoir pool changes on metals release from mining-contaminated sediment
T. Moyer, B. Striggow, J. Eldridge, and C. Zeller
- Neutral mine drainage water-quality impacts from a former taconite mine
B. Hanna
- Benefits of timely and valid geochemical characterization of mine waste for life of mine and closure planning: A case study of Newmont Boddington Gold Mine in Western Australia
N. Amoah, R. Haymont, and G. Campbell

Session 6B Mill Tailings II

3:30 - 5:00 p.m. Centennial Ballroom E-F

- A history of South African slimes dams engineers
J. Caldwell and G. McPhail
- Unique geosynthetic liner system for uranium mill tailings disposal
G.T. Corcoran and H.R. Roberts
- Optimizing tailings deposition concentration at Minera Yanacocha, Peru
M. Keevy and R. Cooke

Hosted Dinner

6:00 - 9:00 p.m. Cascade Ballroom

Day Three - Wednesday, October 20, 2010

7:00 - 10:00 a.m. Registration

7:30 - 8:30 a.m. Authors' Breakfast – Blue Spruce Room

Keynote Speaker **Patty McGrath**, Environmental Protection Agency
Topic: EPA's emerging new regulations and initiatives that are important to the mining industry

9:00 - 10:00 a.m. Centennial E-F

10:00 - 10:30 a.m. Break – Exhibit Hall
Centennial Ballroom D and Rocky Mountain Ballroom

Session 7A Water Treatment

10:30 a.m. - Noon Centennial A-B-C

- Mitigating impacts from acid producing rock in Tennessee road construction projects
J.J. Gusek, V. Bateman, J. Ozment, P.G., L. Oliver, P.E., D. Kathman, J. Waples, T. Rutkowski, H. Moore, W. Bowden, and A. Reither
- 20-Day design build to save \$50 million worth of equipment
S.J. Tamburini and S.J. Billin
- The simultaneous removal of arsenic and manganese at a gold mine in Nevada
H. C. Liang, S. J. Billin, and J. R. Tamburini

Session 7B Dry Stack/Paste

10:30 - Noon Centennial E-F

- Dry stack tailings design for the Rosemont copper project
L. Newman, K. Arnold, and D. Wittwer
- Dry stack tailings – design considerations
J. Lupo and J. Hall
- Reprocessing of tailings of Chador-Malu iron ore, Iran
H. Nematollahi

CONFERENCE ACCOMMODATIONS

Block reservations have been made at the Vail Cascade Resort, 1300 Westhaven Drive, Vail CO 81657 www.vailcascade.com. Participants may make their reservations by calling (800) 420-2424, or by E-mail: vcr-grouppres@destinationhotels.com. The rates are \$109.00 (U.S.) for single or double occupancy. Mention the "Conference on Tailings and Mine Waste '10" to obtain these special rates. The block reservations expire September 17, 2010.

Check-in

Check-in starts at 4:00 p.m. and checkout time is 12:00 noon on Wednesday, October 20.

Parking

Valet parking is \$25.00 (U.S.) per vehicle, per night. Self-parking is at a discounted rate of \$10.00 (U.S.) per night for Tailings and Mine Waste hotel registered guests. Day parking rates are charged for conference attendees that are staying off-site - \$5.00 (U.S.) per hour with a maximum of \$25.00 (U.S.)

Aria Spa and Club

The Aria Spa and Club are adjacent to the resort and include a 10,000 square-foot luxury spa and a 68,000 square-foot fitness center. Access to the fitness club is complimentary to guests of the resort and provides them with a variety of recreational facilities including indoor/outdoor tennis, racquetball, squash, basketball, aerobics, fitness and cardio equipment, steam rooms, whirlpools and an outdoor pool. Use of the spa facilities is NOT complimentary to our registrants. Due to the demand for use of the spa facilities, those wishing to make appointments should do so in advance. You may call 1-888-824-5772 to make reservations. Please know that an 18 percent gratuity is added to the retail price of all spa services, and all charges/cancellations will be handled on an individual basis. Individuals will also be responsible for the 6% resort fee.

Authors' Breakfast

Authors who are presenting should come to the authors' breakfast on the day they are presenting to meet with their session chairman to discuss the format of their session and introduction of their papers.

CONFERENCE REGISTRATION INFORMATION

Authors' Registration: Authors' registration discounts pertain only to the author(s) presenting the paper at the conference. Registration fees for authors presenting papers will be discounted \$50.00 (U.S.) from the participant registration, which is \$825.00 and must be paid by 5:00 p.m. MDT September 17, 2010. The registration fee after September 17, 2010, or on site for an author presenting a paper is \$925.00

Participant Registration: There is an advance registration fee of \$875.00 (U.S.) if paid by 5 p.m. MDT, September 17, 2010. The

registration fee after September 17, 2010 or on site is \$975.00 (U.S.). The author and participant registration package includes attendance at all sessions, one copy each of the Proceedings – available at the time of the Conference - refreshment breaks, lunches, and gala reception.

One-Day Registration: There is a one-day registration fee of \$675.00 (U.S.) per day for Monday (10/18/10), or Tuesday (10/29/10) if paid by 5 p.m. MDT, September 17, 2010. The one-day registration fee after September 17, 2010 or on site is \$775.00 (U.S.). There is no author discount for one-day registrations. The one-day registration package includes attendance at all sessions, refreshment breaks, lunches and gala reception.

Student Registration: Students fully enrolled at a university, college, or high-school may register for a fee of \$75.00 (U.S.) if paid by 5 p.m. MDT, September 17, 2010. The registration fee after September 17, 2010, or on site is \$95.00 (U.S.). Please provide an adviser letter or other verification of student status along with submission of registration form. The student registration package for the conference includes all items under the general package above **except for the Proceedings which may be purchased separately on site.** For those students who are also the presenting authors, please see Linda Hinshaw during the conference regarding the purchase of Proceedings.

All Registrations: Refunds, less a handling fee of \$25.00 (U.S.) will be made in the event of cancellation, provided the Office of Conference Services is notified by 5:00 p.m. MDT, October 1, 2010. Substitution of participants is permitted. There is a \$17.00 (U.S.) return check charge. Registration questions may be directed to the Office of Conference Services, Telephone (970) 491-7501 or Fax (970) 491-3568, or E-mail: ocsreg@lamar.colostate.edu.

CE Units: Colorado State University Division of Continuing Education will grant Continuing Education Units (CEUs) after successful completion of the conference. A recording fee of \$50.00 is required for those desiring to receive CEUs.

Group Rates: Company and governmental agency group rates for **four** people or more are available. Please contact Linda Hinshaw for information.

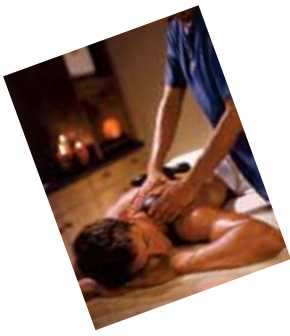
TAILINGS AND MINE WASTE '10



October 17-20, 2010

Colorado State University is an equal opportunity/affirmative action institution and complies with all Federal and Colorado State laws, regulations, and executive orders regarding affirmative action requirements in all programs. The Office of Equal Opportunity is located in 101 Student Services. In order to assist Colorado State University in meeting its affirmative action responsibilities, ethnic minorities, women, and other protected class members are encouraged to apply and to so identify themselves.

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TAILINGS AND MINE WASTE '10

October 17-20, 2010, Vail, Colorado



REGISTRATION FORM



Name(s) as you want on name tag(s) _____
 Organization _____
 Address _____
 City _____ State _____ Zip/Postal Code _____
 Telephone(_____) _____ Fax(_____) _____
 Country _____ E-mail _____
 Special ADA Needs _____

Registration Fee for Conference

Author Postmarked by September 17, 2010.....# _____ @ \$825 = \$ _____
 Author Postmarked after September 17, 2010# _____ @ \$925 = \$ _____
 Participant Postmarked by September 17, 2010# _____ @ \$875 = \$ _____
 Participant Postmarked after September 17, 2010.....# _____ @ \$975 = \$ _____
 One-Day Registration Postmarked by September 17, 2010
 Mon.____ Tues.____# _____ @ \$675 = \$ _____
 One-Day Registration Postmarked after September 17, 2010
 Mon.____ Tues.____# _____ @ \$775 = \$ _____
 Student Postmarked by September 17, 2010.....# _____ @ \$75 = \$ _____
 Student Postmarked after September 17, 2010# _____ @ \$95 = \$ _____
 (Please include student status verification.)

Registration Fee for Short Course

Improved Water Recovery through Implementation of Alternative Tailing Disposal (ATD) Methods
 Regular.....# _____ @ \$650 = \$ _____
 Student (Scholarship Opportunities Available)# _____ @ \$325 = \$ _____
GARD Guide: Putting Concepts into Action
 Regular.....# _____ @ \$500 = \$ _____
 Student.....# _____ @ \$250 = \$ _____
Landform Design for Mine Closure
 Regular.....# _____ @ \$495 = \$ _____
 Student.....# _____ @ \$100 = \$ _____
Perception and Reality in Tailings and Mine Waste Permitting
 Regular.....# _____ @ \$175 = \$ _____
 Student.....# _____ @ \$100 = \$ _____

Continuing Education Units @ \$50 = \$ _____

Total Registration Fees = \$ _____

Method of Payment

_____ Check [payable to Colorado State University in U.S. funds] _____ Purchase Order/Training Form [attached]
 _____ MasterCard Card# _____ Exp. Date _____ Ver. Code _____
 _____ Visa Card# _____ Exp. Date _____ Ver. Code _____
 _____ American Express Card# _____ Exp. Date _____ Ver. Code _____
 _____ Discover Card# _____ Exp. Date _____ Ver. Code _____

Cardholder Name (Please Print) _____

Mail completed form [with payment] to Tailings and Mine Waste '10, Conference Services, Colorado State University, 8037 Campus Delivery, Fort Collins, CO 80523-8037, or Fax to (970) 491-7747.

You may register on-line. Go to <https://www.tailingsandminewaste.org> for link.

The Department of Civil and Environmental Engineering at Colorado State University in conjunction with the University of Alberta and the University of British Columbia Announce

10 TAILINGS AND MINE WASTE

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October 17-20, 2010
Vail Cascade Resort Hotel
Vail, Colorado

