

Managing The Boom

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MINE'06 WEST

ANNUAL EXHIBITION AND CONFERENCE

8-9 NOVEMBER 2006

COLORADO CONVENTION CENTER

DENVER CO USA

Two Day Conference Includes:

MineWest

Drilling & Blasting

US Western Aggregates

Latin American Mining

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Big R Manufacturing

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Chemistry & Industrial Hygiene

Coal Age Magazine

Colorado Mining Association

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Environmental Products & Applications

Equipo Minero Magazine

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Novariant

Philippi-Hagenbuch

Pit & Quarry Magazine

Patton Boggs

Power Equipment Co.

Richwood

Superior Industries

Telsmith Inc.

TEREX

And more!



Now is the Time to Register

Call for more information:

- 10% Association Discounts
- Special Group Rates
- Student Discounts

Western US and Canada contain some of the safest and most productive mine operations in the world. As production and prices hit record levels, operators face even greater challenges managing the boom. During MineWest'06, Mining Media will bring together all levels of mining employees to address the challenges associated with this ever-expanding market.

Presented by

MINING *media*

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MINING JOURNAL

Coal Age

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DODGE

MINE'06 WEST

ANNUAL EXHIBITION AND CONFERENCE



MineWest'06 is *the* gathering place for western mine owners, operators, producers and engineers to meet with manufacturers, suppliers and other industry leaders to identify the latest developments in products, services and operating practices. Two full days of cutting-edge presentations and networking will give attendees the latest tools to manage and sustain the western mining boom.

Register today. Don't wait another minute!

**Wednesday
8 November 2006
8:30 a.m. – 11:30 a.m.**

Welcome & Keynote Session All Attendees Invited

The Policy Challenges of Global Warming

Stuart Sanderson, President, Colorado Mining Association

When Congress passed the Energy Policy Act of 2005, it put into place programs to encourage the development of technologies for the voluntary reduction of greenhouse gas emissions (GHG) from coal power plants and other sources. EPACK's emphasis on developing technologies was a victory for the nation's energy security but a defeat for those advocating command and control solutions that will increase our reliance on energy sources in short supply or on unstable foreign energy sources. As a result, the effort to force mandatory reductions in carbon dioxide and other GHGs has shifted the focus to the states, where regional efforts are underway to force upon the states a regulatory program that could involve carbon taxes and other mandatory restrictions. This session will analyze policy options and solutions.

The Mine Improvement and New Emergency Response (MINER) Act of 2006 and Its Impact on Western Mining

Mark Savit, Partner, Patton Boggs LLP

The Miner Act of 2006 is a significant piece of legislation that reflects MSHA's new emphasis on enforcement. The Act imposes additional liabilities and duties on mine operators, calls for new MSHA regulations that change prior practices, and greatly increases penalties. Now is the time to learn about the new requirements, how they will affect your operations, and how to implement strategies to minimize risk. Mr. Savit's keynote presentation has been specifically designed to familiarize you with the new MSHA and offer strategies for reducing risk.

The Power of an Hour

Kay Sever, President, Optimiz Consulting LLC

Mining Companies spend millions of dollars annually to increase production through the purchase of larger and/or newer equipment that will deliver higher availabilities and production rates. Productivity does go up as a result of these investments, but how much "hidden" availability and utilization is still out there to tap into?

Proactive management of controllable delays are often overlooked as a "free" source of higher productivity. Converting a controllable delay hour to a productive hour requires a change in focus and behavior modification for management, operators and technicians. Kay will share real life examples on hidden delays and barriers that prevent or minimize your ability to convert hidden delays to productive time.

11:30 a.m. – 1:00 p.m.

Lunch & Exhibits

Conference attendees enjoy a complimentary lunch in the exhibit hall.

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MineWest Equipment & Technology Track

Wednesday
8 November 2006
1 p.m – 4 p.m.
Concurrent Sessions

Issues Affecting Demand and Delivery of Large Hauling & Loading Equipment during the Current Boom

J.D. Wientjes, *Manager, Application Engineering, Komatsu America Corp.*

This presentation will address the challenges faced by manufacturers of haulage and loading equipment used by the major mining companies during the current boom. Included will be a brief review of manufacturing adjustments to the industry surge and new product developments for the growing mining business.

Impact of Tire Shortage on Western Mining

Dallas Grubbs, *Manager, Michelin North American, Inc.*

Tires have recently received a tremendous amount of press time due to the lack of adequate supply. Never before has the availability of tires placed this much pressure on mining operations to immediately improve tire life and mining processes. Tires may very well be the major limiting factor to development of current operations and future operations. This presentation intends to break down some of the reasons for the imbalance between supply and demand of mining tires and the future capacity increases that the industry will see.

Implementation of MineStar at Newmont's Nevada Operations

Rohit Diesh, *Senior Director Operational Excellence, Newmont*

This presentation covers the implementation of MineStar at Newmont's Nevada Operations discussing some of the problems that occurred in the implementation and how these problems could have been avoided.

A New GPS Augmentation Solution: Terralite™ XPS System for Open-Pit Mining Applications and Field Experience

Dave Goddard, *Senior Applications Engineer, Novariant*

The objective of this work was to create a practical radio location system that can provide 100% availability and continuity, together with instantaneous decimeter level accuracy in deep open-pit mines. Novariant has developed a tri-frequency system called Terralite XPS to meet these requirements and to overcome several limitations of an earlier system that was based on L1 pseudolites. Using signals generated by portable, ground-based Terralites and a new category of tri-frequency mobile receivers, mines can benefit from continuous, centimeter-level positioning, day or night.



Latin American Mining: Business Opportunities in the Latin Mining Industry

Organized specifically for companies interested in exploring Latin American mining opportunities, a panel of US Department of Commerce advisors will provide an overview of the robust mining markets in their respective countries.

Carlos F. Capurro, *Senior Commercial Advisor, US Department of Commerce, Santiago, Chile*

This presentation will provide a snapshot of the Chilean mining industry, its market structure, market potential, best prospects, future trends, new technologies demanded, key actors and vital contacts, among other useful information. Learn how to do business in Chile and increase your likelihood of being successful by using marketing tools administered by the US Department of Commerce in Santiago and around the world.

Cesar Jochamowitz, *Commercial Advisor, US Department of Commerce, Lima, Peru*

This presentation will identify the potential in the Peruvian mining market and how companies can take advantage of these opportunities

Mauricio Vasconcelos, *Commercial Advisor, US Department of Commerce, Brazil*

The subject of this presentation will be business opportunities available in the Brazilian Mining Industry covering the most recent information available in succeeding in this lucrative market.

BONUS INDIVIDUAL SESSIONS WITH US DEPARTMENT OF COMMERCE OFFICIALS

The US Department of Commerce officials will conduct one-on-one meetings on Thursday, 9 November with US companies interested in developing a customized plan for expanding into Latin American mining markets. Indicate appointment preference on registration form. Appointments will be confirmed prior to show dates.

Appointments must be scheduled in advance.

4:00 p.m. – 5:00 p.m.

Cocktail Reception in Exhibit Hall

Everyone welcome.

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Thursday
9 November 2006
9:00 a.m – 11:30 a.m.
Concurrent Sessions

Drilling & Blasting Conference, I

Hidden Opportunities to Increase D&B Productivity

Kay Sever, President, Optimiz Consulting LLC

Feet drilled, bit life, operating hours—all are examples of typical data collected for production drills. These statistics provide valuable information about drill performance, but are lagging indicators that are not tied directly to opportunities to improve drill productivity.

Drilling delays are often accepted as “part of the process” or are a low priority compared to truck/shovel productivity. As a result, blasted inventory may reach critical levels, the mine plan creates a false expectation of what is achievable and engineers justify the purchase of new drills before proactively “managing” planned delays.

The Application of Multi-Parametric Block Models for Blast Optimization

Alan Bye, Geotechnical Engineer, Anglo Platinum–South Africa

The development of 3D multi-parametric models facilitate the provision of resource information well in advance of the mining face. Using the model, mining areas can be evaluated not only for grade and tonnage predictions but also for predictions of rock mass quality. Blast design and milling requirements can be derived from the rock mass quality predictions. This information can be used for overall mine planning and evaluation, costing, production optimization and slope design. This allows the full range of mining activities and costs to be inter-connected, thereby lowering costs and improving efficiencies through the application of the multi-parametric model.

Feasibility studies for new projects require an expected budget expenditure estimate to within 5% of actual costs. This level of accuracy is expected by mining companies and investors but cannot be achieved without a sound knowledge of the rock mass variability. By developing a 3D multi-parametric model as part of the feasibility study and using the same geological model exploration boreholes, a significantly better understanding of the rock mass conditions can be obtained. This rock mass information can be used for equipment selection, economic pit layouts, processing plant design, underground mining layouts and support requirements, to name but a few design parameters which are dependant on rock mass conditions. The initiative at Anglo Platinum’s, Potgietersrust Platinum’s (PPRust) operation, has delivered significant results showing improvements across the mine-to-mill value chain. These include increased loading rates, reduced electricity and crushing consumables, as well as higher plant throughput.

The ore reserve model has gained widespread acceptance as an invaluable tool for a mining operation. Certainly most financial organizations will not invest in a mining project that does not have an ore reserve model. There is the potential for multi-parametric models to be recognized as vital tools to the mining process, as is the case with ore reserve models.

“Deep Enough” – Getting Maximum Results from a V-Cut Round in Room and Pillar Limestone Applications

William D. Hissem, Sandvik Mining and Construction LLC and Thomas Barkley, Detnet

In the early days of Western mining in North America when hand-steeling was the principal means of drilling out a round, the men who did this work had to make sure that the round they wanted to pull was drilled deep enough to give good effect and economy for their effort. Beyond being an actual metric for their drilling results, they used the term “deep enough” as a short hand way of telling each other that any aspect of their work had been done to the degree necessary obtain the desired result.

For underground room and pillar aggregate operations, the margin for production and economic success is thin. Getting the most out of each round without compromising safety, regulatory, and cost factors is the foundation of success.

This presentation will look at what can be done with drilling and blasting practice to ensure that each round will yield maximum results.

Autonomous Blast Hole Drill Automation

Steve Williamson, Manager of Drilling, Blasting and Loading, Phelps Dodge Mine Technology Group, Safford, Arizona and Jarrid Cima, Technical Project Manager, Mining, Flanders Electric Engineering Division, Evansville, Indiana.

Successfully operating on drills at a Phelps Dodge mine in Arizona, Phelps Dodge and Flanders have developed a drill automation technology leap with their ARDVARC system which includes: GPS Location and “One-Touch” drilling; new DC drives for Torque Regulation; wireless central server Data Collection system; semi-autonomous control for automatic propel between drill holes.



Fleet Optimization – Maximizing Integration Value in the Total Cost of Ownership

Peter Larsen, Director, Strategic Projects and Offering Development,
Sandvik Mining and Construction

Mobile fleet optimization has long been known to be directly related to return on investment and assets. As performance here is at the core of the entire mining process, the impact of optimization has a widespread impact, far more than the fleet itself. The past 25 years or so have seen a growing, almost logarithmic change in focus to this critical measure of performance. Many operations are now looking towards a more comprehensive approach or a "Total Cost of Ownership" program aimed at optimizing all of the performance influencing processes on a fleet's rate of return.

It has become widely recognized that a very real opportunity for optimum rate of return lies in the costs associated in life cycle management with reliability and maintenance processes being the main drivers.

However, a number of other factors complicate a typical mining operation's ability to achieve optimum performance on a complete fleet. This paper will deal with the challenges associated with maintenance today and the value of OEM integration in optimizing performance and total cost of ownership for primary production equipment.

Western US Aggregates Conference, I

Screening Efficiency

Brian Barlow and **Jean Leblond**, Major Wire
Industries Inc.

When production numbers fail to meet expectations, many producers will focus on their crushing operations. But it's the efficiency of the screening operation that is often a culprit in production problems. By maximizing their screening efficiency, producers make far more spec product, often resulting in a serious revenue increase, depending on how severe the prior screening problems were. Learn how to eliminate screening problems and improve profits by running your screening operation better.

Economic Gains Achieved Through Cone Crusher Automation

Ken Lloyd and **Joe Weaver**, **Telsmith, Inc.**

This presentation will review the types of functions and monitoring that typical cone automation systems provide. The ups and downs of automation will be discussed including the skills needed to properly operate and maintain the systems. Through the presentation of examples, how effective the automation can be at delivering economic gain will be evaluated.

Best Practices for Off-Road Tires

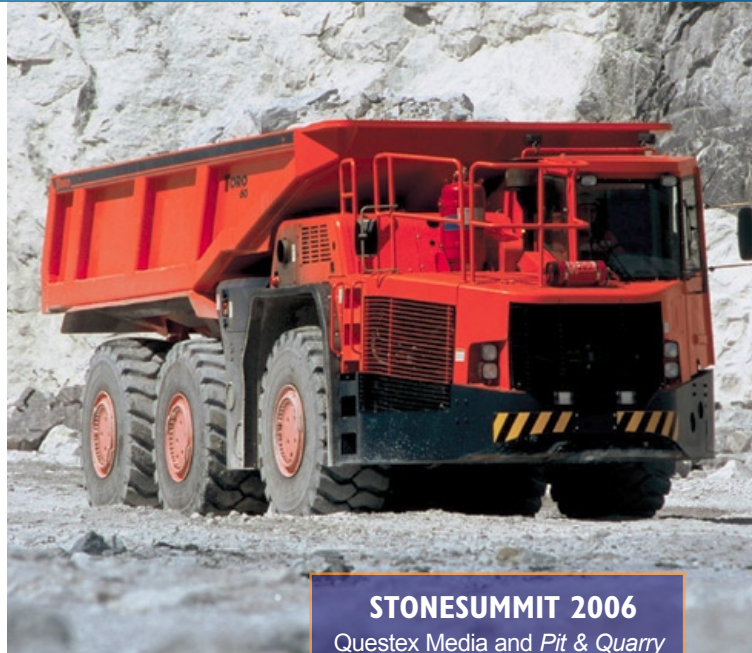
Thomas Bennett, **Michelin Earthmover**

Making Truck Bodies Work for You and Safe Water Tanks

LeRoy Hagenbuch, **Philippi-Hagenbuch, Inc.**

All trucks are rated according to the SAE standards. How do you go about achieving the SAE rated load on your trucks? In the REAL world, it is not only difficult, it is impossible to achieve the SAE load without taking some unique steps. The SAE Volumetric Rating of bodies without taking these steps is bogus. Find out what you're getting for your money—learn how to ask the right questions and take control of what your trucks are able to haul.

With today's environmental issues haul road dust control is no longer an option. When you consider water tanks, are you considering just water tanks or safe water tanks?



STONESUMMIT 2006

Questex Media and *Pit & Quarry* magazine will kick off the Western U.S. Aggregates Conference with **StoneSummit 2006**: the magazine's 10th equipment and technology roundtable discussion, with participation from manufacturers, distributors and producers.

Invitation Only

11:30 a.m. – 1:00 p.m.

Lunch & Exhibits

Conference attendees enjoy a complimentary lunch in the exhibit hall.

www.minewestshow.com

Thursday
9 November 2006
1:00 p.m – 4:30 p.m.
Concurrent Sessions



Photo Courtesy of Nevada Mining Association

Drilling & Blasting Conference, II

Optimizing Cast Blasting Efficiency Using ANFO with Borehole Liners

Art Madsen, Layfield Poly Films Ltd.

This paper relates to three experimental cast blasts conducted at the Peabody NARM site on July 24, 28, and 31, 2005 as part of a five year research project funded by the National Science Foundation. This presentation will focus on two new discoveries resulting from this research project: Velocity of Detonation and the Pressure of Detonation. No published literature has stated that ANFO in a lined borehole becomes a more efficient blasting agent when compressed by the pressure of the blast. Further to the velocity of detonation and pressure of detonation discoveries, the paper also discusses the relationship between Surface Swell Velocity and Face Velocity.

Drill Monitoring and Navigation Systems at BHP's Navajo Mine

Ken Augustine, FMS Administrator, BHP's Navajo Mine and John Vynne, President, Thunderbird Mining Systems

BHP's Navajo Mine has installed drill monitoring and GPS navigation systems on all of their blasthole drills, which are used for both overburden as well as coal drilling. This presentation will discuss the system features, how Navajo uses the systems and data from the systems, benefits that have been achieved, and future plans for the systems.

Wall Control Blasting and Slope Stability Risk Management

Alan Bye, Geotechnical Engineer, Anglo Platinum – South Africa

Detailed geological knowledge is often a major unknown factor in open pit mining and design, and therefore poses a significant risk in the mining venture. The final pit angle and slope configuration has a significant impact on the revenue profile for the life of the mine at Anglo Platinum's open pit operations. In order to optimize the pit design and achieve acceptable safety standards a comprehensive risk management strategy was implemented. The most important driver of the risk management approach was successful wall control blasting. The impacts of blasting were analyzed in detail to determine the depth of blast damage. Understanding the interaction of the day-lighting fault planes, their joint strength and impact of blasting enables the location of critical stability zones or hazardous areas. The paper represents a case study on the successful application of slope stability risk management at PPRust. Extensive fieldwork combined with probability fault tree assessments, enabled the appropriate selection of monitoring methods and wall control blast design. The approach has enabled the continuation of safe mining under challenging geotechnical conditions.

Minimizing Quarrying Costs by Inpit Crushing and Right Shotrock Fragmentation

Jarmo Eloranta, Metso Minerals

The quarry process can be divided into sub-processes such as drilling, blasting, hammering, loading, hauling and crushing. The objective of this presentation is to try to enlighten the impact of each of these and give ideas as to how to reach cost minimum in quarry operations.

In this presentation there are different crushing methods compared in connection with different drilling and blasting configurations. Impact of drilling and blasting on crushing will be reviewed. Cases to be shown, indicate clearly the advantages of in-pit crushing. In order to be able to fully benefit from these advantages, it is important that drilling and blasting are being done in an optimal manner. Proper drilling and blasting have considerable impact on cost effectiveness of loading operations.

Remarkable savings are possible by having modern in-pit crushing systems together with the right drilling and blasting configuration.

Reducing the Costs, Risks and Liabilities of Fatigue in Mining Operations

William G. Sirois, Vice President and COO, Circadian Technologies Inc.

There are inherent necessities and considerable business advantages to running your operations non-stop, 24 hours per day. There are also significant downsides and hidden costs due to increased sleep deprivation and fatigue, higher operating risks, and the adverse health, safety and quality of life effects on your people.

Fatigue, or more precisely impaired alertness, is a fundamental problem for all round-the-clock industries. Human physiology is not well equipped to sustain alertness levels and optimal performance during long, irregular work periods, night shifts, and/or rotation schedules. Yet many quality-critical and safety-sensitive jobs rely on people being at their best regardless of the hours worked or the time of day or night. These assumptions and expectations have serious safety and performance implications to the detriment of overall operating efficiency, customer service and profitability.

These risks, costs and liabilities no longer have to be accepted or financed as part of doing business. New scheduling techniques, optimized staffing and overtime management, shiftwork lifestyle training programs

and workplace design improvements now offer a proven approach for managing fatigue and maximizing human performance at any time of the day or night. This session will cover how to address these human factors issues, and achieve breakthrough operating cost reductions and health and safety improvements through a cooperative, win-win initiative between the company and its employees.

Designing for Timing – A Process Critical Approach!

Larry Mirabelli, Senior Technical Consultant, DynoConsult

With any new technology introduction, controlling the multiple variables in a production environment and developing a process that can lead to quantification of the technology's true value to an operation is a critical challenge. Without a fundamental understanding of the experimental design process, new blast design tools and development of a plan to control operational variables can result in an under or over estimation of the technology's full value to an operation. In either case, missed opportunities can occur for these emerging technologies if process controls and/or blasting fundamentals are fully utilized.

Users of electronic detonator technologies must develop an appreciation for the key product features and capabilities of each system to ensure effective and safe use in the field. Several case studies will be reviewed to highlight the opportunities associated with these technologies as well as the challenge of managing the process.

Western US Aggregates Conference, II

Drill and Shoot V-Cut Round Optimization for Underground Operations

William D. Hissem, Sandvik Mining and Construction LLC

Synthetic Screen Solutions

Perry Miller, New Business Manager, Polydeck Screen Corp.

The principle behind screen rock has changed very little since the invention of the vibrating screen. Within the last 30 years, however, changes in the way screen media is made and the materials that are used have produced some dramatic improvements in the areas of product specification consistency, simplified screen change-out, and vastly improved wear life. This discussion will focus on those improvements and how they can impact your bottom line.

Portable Plants: From Pit to Road, what is portable?

Ron Griess, Product Application Specialist, Kolberg-Pioneer, Inc.

The discussion will include portable jaws, screens and cone plants. Does a portable plant have the same flexibility as a stationary plant? What are the advantages of going portable and what are some of the drawbacks? This will include all aspects of processing from the charge point to stockpiling. Is life on the road the life for you?

Synthetic Aggregates

Barry Hudson, Aggregate Research Industries

MineWest'06 Special Rates

10% Association Courtesy Discount

Members of professional mining associations are offered a 10% courtesy discount on one or two-day conference registrations.

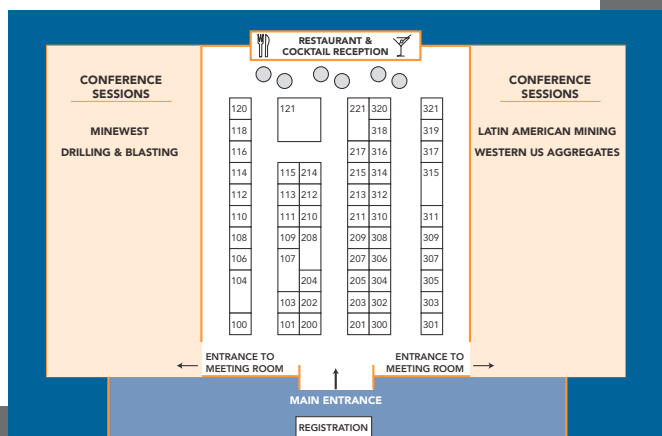
Special Group Rates

Any organization registering more than one one or two-day conference registration is qualified for the MineWest'06 group rate. After the first fully paid registration, a 50% discount is applied to all subsequent registrations of equal or lesser value.

Student Discount

All students attending accredited colleges and universities qualify for our special student rate. Contact for pricing.

Please contact Susie Hare at +1 303.368.0060 or share@mining-media.com to learn more about MineWest'06 special rates.



Four Ways to Register

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Email Information to:

Susie Hare, Events Manager
share@mining-media.com

I. ATTENDEE INFORMATION

Please write name as you wish it to appear on the delegate badge. Only one registrant per page. Please photocopy for additional registrants.

Last/Family name _____ First Name _____

Job Title _____ Company _____

Address _____

City _____ State/Province _____

Country _____ Postal Code _____

*Email (Required) _____

Phone _____ Fax _____

(Include country & city codes)

(Include country & city codes)

HOTEL INFORMATION

**Must reserve rooms before
16 October for special rates.**

Special rates are available at the Hyatt Regency Denver at Colorado Convention Center and the Holiday Inn Denver Downtown.

Visit <http://minewestshow.com> for more information.

Registration and Conference Tracks

Cost

10% Assn. Discount

Select	Wednesday Tracks	Thursday Tracks	Before/After 16 Oct 06	Before/After 16 Oct 06
<input type="checkbox"/> Exhibit Only Admission			<input type="checkbox"/> FREE <input type="checkbox"/> \$99	<input type="checkbox"/> FREE <input type="checkbox"/> \$89
<input type="checkbox"/> Single Day (Select One Track)	<input type="checkbox"/> MineWest <input type="checkbox"/> Latin American Mining	<input type="checkbox"/> Drilling & Blasting <input type="checkbox"/> Western US Aggregates	<input type="checkbox"/> \$175 <input type="checkbox"/> \$225	<input type="checkbox"/> \$157 <input type="checkbox"/> 202
<input type="checkbox"/> Two Day (Select One Track per Day)	<input type="checkbox"/> MineWest <input type="checkbox"/> Latin American Mining	<input type="checkbox"/> Drilling & Blasting <input type="checkbox"/> Western US Aggregates	<input type="checkbox"/> \$299 <input type="checkbox"/> \$349	<input type="checkbox"/> \$269 <input type="checkbox"/> \$314

For group discounts, please contact Susie Hare at share@mining-media.com or telephone +1 303.368.0060

• **CANCELLATIONS** - Conference cancellations received in writing before 16 October 2006 will qualify for a refund, less 20% administrative fee. No refund will be given on cancellations after this date. Substitutions are accepted in lieu of cancellations.

II. US DEPARTMENT OF COMMERCE INDIVIDUAL MEETING REQUESTS

Individuals wishing to meet with representatives from the US Department of Commerce must indicate their preferred country contact and meeting time. There are a limited number of meeting times available and reservations will be held on a first come, first serve basis. Reservations will be confirmed by email.

Carlos F. Capurro, Senior Commercial Advisor, Santiago, Chile Morning Afternoon

Cesar Jochamowitz, Commercial Advisor, Lima, Peru Morning Afternoon

Mauricio Vasconcelos, Commercial Advisor, Brazil Morning Afternoon

III. PAYMENT INFORMATION

METHOD OF PAYMENT: Check # _____ enclosed. Payable to Mining Media Inc. US \$ _____

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MINE'06 WEST

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