



Rick Howes

Rick Howes, CEO at Dundee Precious Metals, has made a transformational contribution to the mining industry. His vision is that mining requires new and innovative thinking on how the entire mining asset lifecycle is managed to regain credibility in delivering the business

results stakeholders expect. Mining companies should focus on operational performance and project delivery through attention to detail. Rick put the first steps in using technology that creates transparency on underground mining activities and enables short interval controls overlying good planning and scheduling.

Rick brings expertise in mining with management operating systems experience and at DPM introduced an operational performance project called *Taking the Lid Off* that brought together a number of communication and location technologies, married to strategic alliances with equipment and services providers. This intelligent mine management system provides real time production management and tracking in a broader concept for production monitoring and control. In that way the mining operational management changes fundamentally. The success of *Taking the Lid Off* was covered in articles in *International Mining* in 2011 in the October and November issues.

Howes visionary and practical implementation of the *Taking the Lid Off* project included the following key elements:

- A Management Operating Model that incorporates the setting of sustainable production and asset performance targets. A master schedule of activities is developed (minimum three months) which forms the basis for a detailed breakdown and schedule of the production, maintenance and services tasks. The measurement of the process performances and the analysis and improvement are then used to feed new targets to close the loop and create a continuous improvement cycle.

- A Central Monitoring and Control System ensures the shift schedule is executed as planned. Any deviations being identified and corrected with decision making from a central surface control room. The concept of Short Interval Control (SIC) has been introduced for the underground mining to support the key front-line decision making and resource allocation to achieve the maximum results for the shift.
- Application in the mining industry of the advanced concepts for production management and control used in the manufacturing industry (such as ISA 95)



- Bringing together a number of recent technologies and software systems as part of an intelligent mine management system to provide real time production management and tracking in a broader concept for production monitoring and control. These include:
 - Low cost off-the-shelf wireless networks (Wi-Fi) for underground, as a backbone for voice, data and video communications
 - Inexpensive wireless RFID (Radio Frequency Identification) tagging for vehicle and personnel location tracking

- Voice-over-IP (VoIP) phones for communications, wireless tablets, on-board mobile equipment monitoring and wireless PLC controllers and cameras
- Incorporating the technologies into the DPM concept along with specialised software application tools to support the new production management processes.
- Joins the efforts of a significant internal team working very closely in partnership with several key vendors of the technology pieces and integrating those pieces into one integrated system to deliver the DPM concept.



A key theme of Rick's career is pushing to innovate in the mining business.

At MINExpo International 2012, Rick presented *Short Interval Control in Today's Underground Mine: A Case Study*, where he shared his vision on transforming the mining industry through innovation, technology development and new management operating model.

Rick's view is that the mining industry needs a better set of tools and processes to evaluate and put together mining projects. Such tools minimise mistakes or miscalculations, reduce the time to control window and hence impact projects results. For example, a 20% overestimation of grades might result in more than a 20% drop in net return on investment. It takes strong partnerships with technology providers to develop software and get the pieces integrated to deliver results. With his vision and practical approach, Rick is innovating and transforming DPM into a leading mining company.

Rick Howes is a Professional Engineer and holds a Bachelor of Science in Mining Engineering from Queen's University in Kingston, Ontario. He has over 35 years

experience in the mining industry in Canada, Europe, Asia and Africa in various capacities including Engineering and Design, Operations and Maintenance supervision, Site and Plant management, Business Unit Management and Executive Global Management.

Throughout his career, Rick Howes has been closely associated with the practices that make for worldclass mining operations including Inco's North mine which won the 2006 Ryan Award as the safest mine in Canada.

Rick joined DPM in early 2009 as General Manager and Executive Director of Chelovech Mining EAD. Since then he has led the Chelovech operations and project teams to deliver consistently strong results while embarking on an ambitious expansion program.

Rick Howes served as the Chief Operating Officer and Executive Vice President at Dundee Precious Metals from November 9, 2010 to March 31, 2013.

Rick has been the Chief Executive Officer and President at Dundee Precious Metals Inc since April 1, 2013. Dundee Precious Metals was recognised with the 2013 Ingenious Award, presented by the Information Technology Association of Canada. The Ingenious Awards program celebrates enterprises that demonstrate measurable evidence of productivity improvement, efficiency gains, revenue growth, overall business transformation or other organisational outcomes through the use of technology.

