

Web-Based Equipment Performance Benchmarking for Surface Mining Association for Research & Technology (SMART)

Marston, in conjunction with SMART, provides participating companies with an interactive website to compare their equipment performance against other participants. Since 1995 the member companies of SMART have directed research and influenced manufacturers and suppliers to improve surface mining technology and services with a variety of programs.

The benchmarking website is an example of a SMART program that supports information sharing between mines, locally and internationally, that can be used to benchmark operational and maintenance performance and to identify the best mining and maintenance practices to increase productivity. Participants provide equipment performance data on a quarterly basis. These data are normalized based on common definitions, summarized and reported anonymously through a website. Participants use the site to understand their relative standings and opportunities to achieve world-class performance.

BENCHMARKING PARTICIPANTS

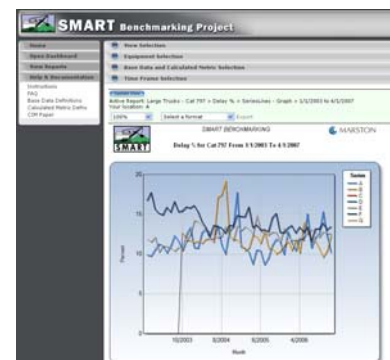
- Albion Sands Energy Ltd.
- Barrick Gold Corporation
- BHP Billiton Diamonds Inc.
- Quebec Cartier Mining Company
- Suncor Energy
- Syncrude Canada Ltd.
- TransAlta Corporation

REPORTING WEBSITE

- Access via the Internet
- Secure login
- Anonymous data
- 13 calculated performance metrics
- 6 graphs and charts
- More than 30 equipment types
- Export data and charts to Excel or PDF formats

BENEFITS

- Analyze internal performance
- Compare performance against industry
- Identify underlying Best Practices
- Identify star performers (companies, equipment)
- Exchange knowledge about common issues
- Increased management confidence
- Aid with equipment selection
- Establish clarity around data definitions
- Exchange new ideas around measurement techniques



Marston facilitates the benchmarking project, develops the data normalization and reporting procedures and works to expand the initiative to other participants. For a demonstration or to join this equipment performance benchmarking effort, visit the site benchmarking.smartmines.com or contact Marston.

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Corporate Profile

Marston is a full-service mining consulting organization comprising Marston & Marston, Inc., Marston North Carolina P.C., Marston Environmental, Inc., Marston Canada, Ltd. and Marston International Pty. Ltd. Since 1977, Marston has provided its wide range of services to mining companies, financial institutions, private investors, electric utilities and government agencies worldwide. Marston furnishes full-service mine management consultation, mining engineering, geological services and environmental services. These services enhance the security, profitability and competitive position of developing projects and existing mines throughout the world.



EXPERIENCE. Marston's permanent staff consists of more than 100 mining, civil and geological engineers, geologists, minerals economists, environmental specialists, GIS/CADD specialists and support staff. In addition to these employees, Marston draws on the expertise of its senior consultants whose backgrounds range from geology and detailed mine design and engineering to large project development, mine and maintenance operations and executive-level management.

INSIGHT. Marston's consultants are supported by complete technical and engineering capabilities sufficient to complete the largest and most complex assignments related to mining project planning and economic analyses. Additionally, Marston has developed the Resource Asset Management System (RAMS) and is involved with the Surface Mining Association for Research Technology (SMART) as part of Marston's goal to be a mining industry leader in the use of technology.

RESULTS. With on-going and extensive mine operational experience, Marston is strongly positioned to provide cost-effective, field-proven solutions for resource and reserve estimation, pre-feasibility and feasibility studies, mine planning and design, mine facility planning and design, capital and operating cost analysis, equipment and systems specifications, and project and construction management. With its progressive management philosophies, Marston is committed to providing excellence in sustainable resources development planning and environmental protection.

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