

progression, inc.

New Analysis Alternatives for the Mining Industry

Increasingly, the mining and manufacturing industries are facing strategic challenges, rising energy costs, the need for staff resource optimization, and the demand for real-time, on-line efficiency improvements. Today, more is required of supporting and enabling technologies. Engineers at **progression, inc.** (Haverhill, MA) are addressing that need.

Emerging Technology

iPulse®, the latest process control technology from **progression**, is a compact, versatile tool that provides remote on-line, real-time elemental analysis of minerals, ores, slurries, and aerosols. Due to Laser Induced Breakdown Spectroscopy (LIBS), a simple, rapid, and highly advanced optical (spectral) technique that measures the elemental (atomic) composition of a laser induced plasma plume sample, iPulse requires no nuclear source, minimal operator training, and is effectively non-destructive.

iPulse can also be configured with a Laser Induced Fluorescence (LIF) analyzer that selectively excites metal atoms in the plasma plume.

Globally Used

Nuclear Magnetic Resonance (NMR) is a powerful real-time analytical tool used in chemistry and the biological sciences and is a preferred medical imaging technique. For phosphate rock and chemical manufacturers, NMR

also increasingly plays an important, cost-effective role as a routine, reliable measurement technique for critical on-line process, product, and quality control information.

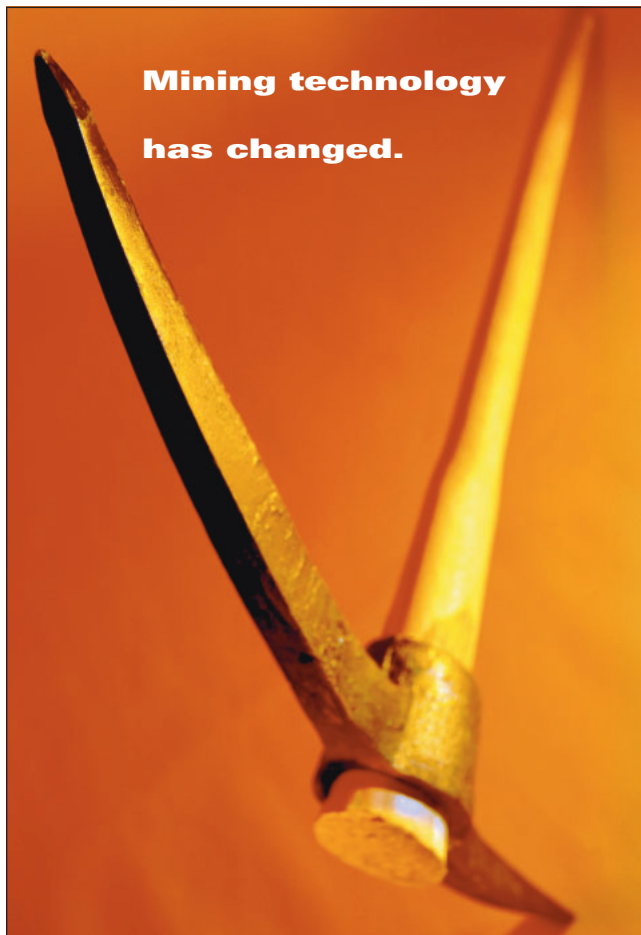
Magneflow®, **progression's** fully automated, robust, and proven non-destructive process NMR technology, allows for efficient, real-time direct analysis of multiple key rock and fertilizer properties, reducing the need for lab testing and optimizing valuable personnel time.

progression (www.progression-systems.com) is a world leader in the development and implementation of process NMR technologies, LIBS techniques, and LIF analyzers for use in the mining, petrochemicals, and polymer/polyolefin industries.

FOR MORE INFORMATION

progression, inc.
15 Foundation Avenue
Haverhill, MA 01835 USA
(978) 556-9555

www.progression-systems.com
mininginfo@progression-systems.com



**Mining technology
has changed.**

**Now you can get
real-time analysis.**

The cutting-edge technologies from **progression** provide real-time elemental analysis of minerals, ores, slurries, and aerosols. Using analytical techniques such as LIBS and NMR, we can provide solutions to a variety of mining and mineral processing industries including: coal, phosphate, zinc, lead, copper, and precious metals.

With an extensive background in the design and integration of on-line analytical techniques, we bring unparalleled expertise. Our entire staff is committed to meeting the goals of the customer, and our global service team provides coverage to nearly every corner of the globe.



Analyze with integrity.™

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