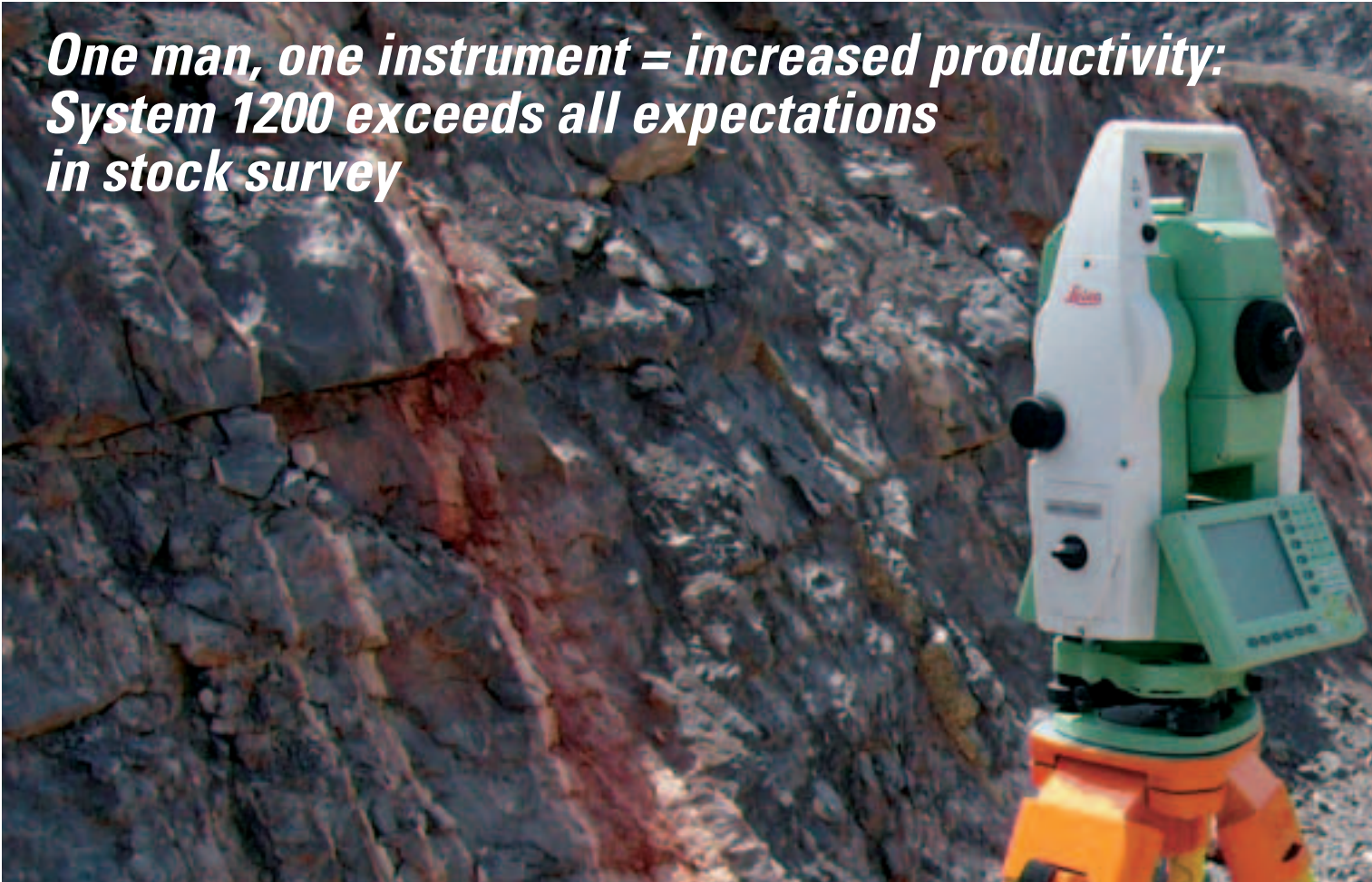


One man, one instrument = increased productivity: System 1200 exceeds all expectations in stock survey



(Above): The TPS1200 allowed remote measurement, particularly of quarry faces.

Following the purchase of Leica's new TPS1200 system, surveyor Simon Briggs from South Downs Surveys used the system to undertake a stock survey in Gloucestershire. The Leica instrument not only enabled the survey to be undertaken by one person, it was also completed within half the expected time, providing excellent productivity gains.

Established in early 2004, South Downs Surveys offers a full consultative service that includes land and measured building surveys at all scales, volumetric analysis, 3D visualisations and inshore hydrographic surveys. The focus is on the use of robotic (laser equipped) total stations and GPS to deliver accurate results quickly and safely.

Flexible, one-person mode

South Downs Surveys required a system which included one-person operation and with a reflectorless laser with a range of 250m or more. This would enable the flexibility of working in one person mode (where appropriate and safe), and

also allow the remote measurement, particularly of quarry faces. Productivity was important, with a requirement for high speed data capture and rapid set-ups and traversing. The equipment also had to be robust and rugged to withstand the harsh conditions in quarries.

"A careful evaluation was carried out prior to purchase, based on the critical need (for a newly emerging practice) to deliver high productivity, backed up with a strong support network," Proprietor Simon Briggs said. "Health and Safety concerns were also paramount in our decision and the inclusion of the long range laser into the TPS1200 series, facilitating

reflectorless measurement to potentially hazardous areas, is critical to a lot of the work that South Downs Surveys is commissioned to undertake."

A TCRP1203 R300, one-person system was supplied and following a couple of hours of training, the instrument was ready to use.

Productivity improved from day one

"Even though I hadn't used a Leica total station for five years, I was able to effectively use the instrument on the day after it was delivered," Simon Briggs said. "The instrument has exceeded all of my expectations - I anticipated a steep



learning curve, which simply did not happen and so productivity was up from day one - not only in the field, but also office where the data dropped easily into the processing software."

The survey work involved the measurement of 112,000 tonnes of stock in 14 piles and required a six station traverse due to the difficult layout of the stocking areas. 1200 detail points were taken with approximately 5% of these in reflectorless mode.

The instrument allowed the work to be completed within a day whereas the estimate, based on previous experience, allowed for two.

Enormous savings

"This provides South Downs Surveys with enormous savings," Simon Briggs said. "The job was undertaken in one day with

one man. Once on site, quick setups and traversing were required and the Leica TPS1200 enabled this with no compensator calibration necessary and the use of flexible types of targets for traversing."

Simon Briggs was also impressed with the extended laser range, which is ideal in a quarrying environment where range is crucial to reduce the number of set-ups and enable the surveyors to keep the instrument high up and back away from danger. "Allied to GPS, it becomes a very powerful tool," Simon Briggs said. "And of course, we are benefiting from the use of the red dot in building surveys."

"What I was most impressed with was the productivity gains resulting from use of the equipment - to be able to use the instrument effectively the day after it was delivered and

efficiently import the data into our processing software seamlessly. In addition, Leica Geosystems has provided excellent after sales service - they are extremely responsive to requests, and have provided excellent technical support."

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(Left): The equipment also had to be robust and rugged to withstand the harsh conditions in quarries.