**For Worldwide Release: August 2014**

**Release Number: 13113**

**TERRATECTBMSDOUBLE BREAKTHROUGH IN INDIA**

TERRATEC is proud to announce the first two TBM breakthroughs in New Delhi, India. The breakthroughs are on the CC-07 and CC-24 Projects for Delhi Metro Phase-III. Sixteen additional breakthroughs by TERRATECTBMsare scheduled to occur in the course of the next few months.



On July 31st, TERRATEC’sS23 Tunnel Boring Machine working in Contract CC-07 completed excavation on the down line from the Jama Masjid Station to the LalQuila Station. The breakthrough ceremony was held in the presence of Contractor representatives from the joint venture between MetrostroyO.S. of Russia and ERA Infra Ltd. of India and Client DMRC.

On August 2nd, the S25 tunnel boring machine working in Contract CC-24 accomplished another breakthrough from the HazaratNizamuddin Station to the Ashram Station. The TBM has advanced a total of 1,665m inconspicuously and without causing any disturbance to the city's activities. The CC-24 Contractoris a joint venture between J.KumarInfraprojects Ltd. of India and China Railway Third Group (CRTG) of China.

The next drive for TBM S25 is scheduled to complete the line between the VinobaPuriStation and the Ashram Station.

The TERRATEC S23 and S25 EPBMTBMs are 6.61m in diameter and include state-of-the-art features such as the 900kw VFD electric driven CutterHead. They have a versatile design for either excavating soft ground with cutting tools or mixed ground and rock using up to 33 number 17’’ roller disc cutters. Both TBMs have active type articulation and 2-component grout backfilling systems.

The geology encountered to date at Project CC-07 included large quantities of fresh, very hard (up to 200MPA) and very abrasive quartzite. In addition to sections with a full face of rock, there were sections with very variable mixed ground conditions with numerous large diameter boulders. TERRATECTBMs handled the challenginggeological conditions and completed the drive succesfully.

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| Project CC-07: Picture from inside of the TBMCutterHead  showing the very hard quartzite. | Project CC-07: Boulders of sizes up to 450mm were found  passing through the TBMScrew Conveyor. |

TERRATEChas eight Tunnel Boring Machines currently excavating metro tunnels for Delhi Metro Phase III. Work will continue through 2014 with completion in 2015.

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