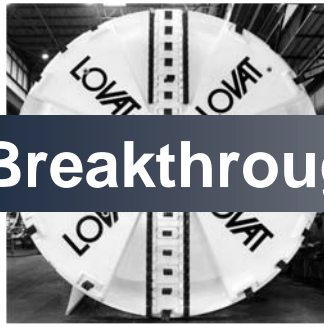
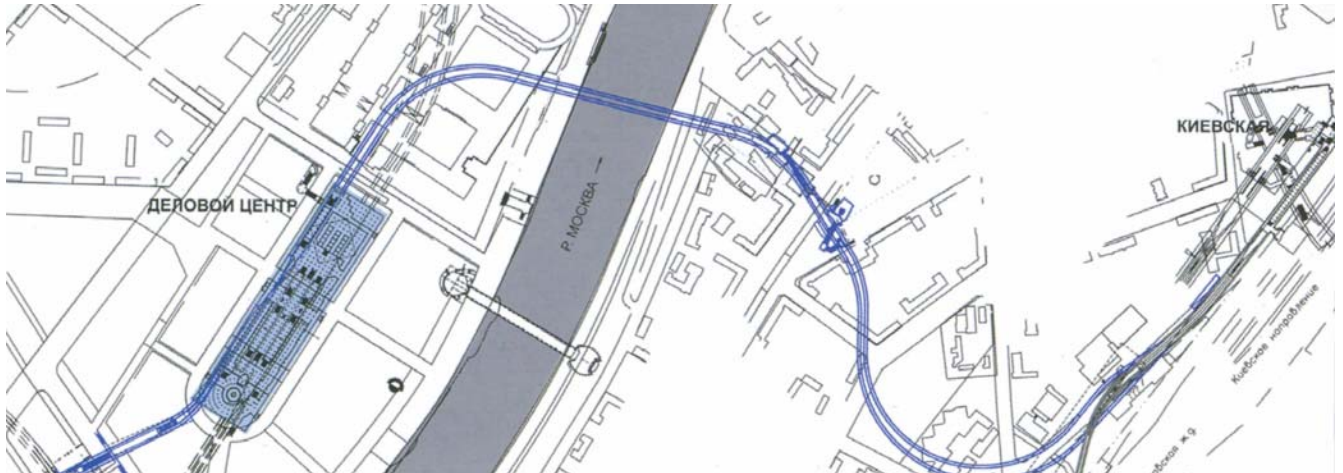


September 16, 2005



Breakthrough News

Mosmetrostroy, Filevskaya Line, Moscow, Russia



The City of Moscow opened its new 171st metro station “Business Centre” on a new transit line connecting the historical and business capitals of Moscow.

2 No. LOVAT TBMs were used to bore four tunnels as part of two parallel, 2.1km lines. The parallel tunnels were driven through a constantly changing face of plastic clays and 80mpa limestone while snaking through curves of 200m radius combined with inclines and declines under the Moscow River of 5%. One of the LOVAT machines used was repurchased from the Toronto Transit Commission (TTC), a 5.9 metre-diameter Earth Pressure Balance EPB-TBM, and supplied to Engeocom of Moscow, who drove three of the four tunnels. A second LOVAT 5.6 metre-diameter Mixed-Face TBM coming from the Protonvino Collider was also utilized on the project and drove the fourth tunnel.

The ultra-modern-style line starts from “Alexandrovsky Sad” metro station, near Red Square and is 6 km long, 4 km of which is an old section of Filevskaya line.

At the launch the Mayor of Moscow said, “The new section of metro line (2 km) was built in difficult ground conditions, under the Moscow River, under the foundations of apartment houses, and no one living in these houses even noticed it.”

