



PROJECT BRIEF

# Access to Regions Core GeoTesting

## PROJECT PROFILE

**CLIENT:**

New Jersey Transit System

**LOCATION:**

New York/New Jersey

**VALUE:**

- Ability to receive, process, and store a large quantity of samples
- Provided photographs of all samples before and after testing
- Conducted in-house testing in accordance with the requirements of ASTM D4543 for strength testing
- Dramatically reduced costs through automation and process efficiencies

**SERVICES PROVIDED:**

- Full suite of rock tests



## GEOTESTING

GeoTesting Express, Inc.'s (GTX) challenge was to perform rock testing for borehole geophysical logging of a proposed tunnel as part of the ARC project. GTX performed the following tests on 13 different borings under a tight timeframe:

- Punch penetration
- Unconfined compressive strength
- Indirect Brazilian tensile strength
- Cerchar abrasivity
- Thin section petrography
- Point load index
- Pulse velocities and ultrasonic constants
- Elastic moduli in unconfined compression



## BACKGROUND

The Access to Region's Core (ARC) project was a study to assess several options for improving access for passengers and freight between Manhattan, the west shore of the Hudson, Queens and the areas beyond. Key goals of the project were to improve trans-Hudson River mobility, improve upon the existing infrastructure, enhance economic viability of the region, and protect the environment. Testing for this portion of the project was for the FEIS and Advanced Conceptual Engineering Phase, which involved design and construction of several miles of tunnel connecting Secaucus Junction with Penn Station in Manhattan. This section included several miles of bored tunnel beneath the Palisades, soft-ground tunnel beneath the Hudson River and bored tunnel and station caverns in midtown Manhattan.