

12 152.1-152.4 ft.



PROJECT BRIEF

Safe Harbor Dam GeoTesting

PROJECT PROFILE

CLIENT:

Brookfield Renewable Energy Group

Parsons Brinckerhoff

LOCATION:

Brogue, PA

VALUE:

- Provided safe transportation of fragile 90 year old rock core from job site to lab
- Worked closely with client and dam engineer to produce the best quality data with limited rock cores

SERVICES PROVIDED:

- Testing program design
- Rock testing



GEOTESTING

GeoTesting Express (GTX) worked with the client and the dam consultant from Parsons Brinckerhoff to design a testing program that would produce the most appropriate results with the limited amount of core available. To ensure the limited amount of core made it safely, we arranged for GTX to pick up the rock core at the site and hand deliver it to our lab. All the core was of a non-standard diameter and we had to re-tool our equipment to perform testing on specimens of this size. The tests were completed on these fragile samples within the project specifications.

Rock tests performed:

- ASTM D2936 Direct Tensile Strength of Rock
- ASTM D7012C Uniaxial Compressive Strength of Rock
- ASTM D5084 Flexible Wall Permeability



BACKGROUND

The client needed to evaluate the condition of a dam built across the Susquehanna River in 1930. The only option for determining the properties of the rock under the dam was to test the rock core drilled in 1928 from the original dam design report.