CECB Laboratory Services.....

CECB Laboratory, located in Jawatta, Colombo 05, is a major sub unit of CECB, an institution under the Ministry of Mahaweli Development and Environment.

At CECB Laboratory Services we are equipped to perform traditional laboratory testing for projects in different geographical areas across Sri Lanka. Our highly trained Engineers are more than capable of conducting a range of tests, whether it be soil testing, aggregate testing, concrete testing, cement testing, asphalt testing or testing of clay bricks. Now laboratories are located throughout the country to provide quality laboratory testing in Colombo, Badulla and Ampara.

Contact Us....

Main Laboratory - Colombo
CECB Laboratory Services
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+94 112 081 324
+94 714 222 444
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South East
Sri Rathana Mawatha,
Ampara,Sri Lanka.
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Our Project Laboratories.....

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E-mail : cecblab@gmail.com



Hand Auguring Work at Karadiyana



Subsurface Exploration Drilling Works



Inspection of Borehole Logs



Tunnel Design Works at Mpanga Hydro Power project, Uganda

Geology & Geotechnical Investigation Reports

Geology plays an important role in providing input into solving geotechnical challenges. Through understanding the origin, deposition history and fundamental characteristics of the surface and sub-surface materials, we are able to arrive at robust technical solutions far sooner and more economically than using a purely engineered approach. Engineering geological advice is relevant at all phases of project delivery from site study and project planning, through civil engineering design and into forensic works.

Projects

Geotechnical Investigation of Moragahakanda / Kaluganga Development Project.

Pre-Feasibility Study for Designing Major Roads in Landslide Area.

Geotechnical Investigation & Soil Testing Dambulla-Bakamuna, Kalagahawela Road.

Geotechnical Investigation & Design of IT Park Road, Malabe

Geotechnical Investigation for the Proposed Matara-Kataragama Rail road Extension Project.

Geological & Geotechnical Investigation Works at Mpanga Small Hydropower Project, Uganda -2009.

Geological & Geotechnical Investigation Works at Nyamwamba Small Hydropower Project, Uganda-2010.

Geotechnical Investigation Works at Colombo South Container Terminal Extension Project - 2012.

Head Office

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CECB Laboratory Services

Geotechnical Laboratory (Soil / Rock / Aggregates)







CECB Laboratory Services
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Soil & Aggregate Testing

The soil/earth that we stand on is the one source that holds everything together, from the tiniest plant to the large trees, from the houses we live in, to the skyscrapers and mega structures that we take great pride in creating. Hence the importance of understanding the soil we live on is an essential part in any sort of construction work that is to be carried out.

Physical Parameters (Soil)





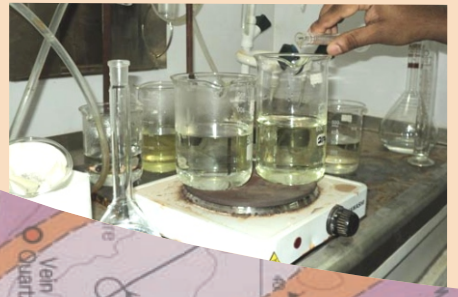


Atterberg Limits (LL,PL) - ASTM D 4318
Bulk Density - BS 1377 Part2 : 1990
California Bearing Ratio (CBR) - ASTM D 1883-87, BS 1377 Part 4 : 1990-2007, AASHTO T 193- 2007
Crumb Test - ASTM D 6572-06
Hydrometer Analysis - ASTM D 421 / D 422
Moisture Content - ASTM D2216-19
Sieve Analysis (Washed) - ASTM D 421 / D 422
Shrinkage Limit Test - BS 1377 Part 2 : 1990
Soil Permeability - constant head & falling head Method ASTM D 2434, BS 1377 Part 5 : 1990
Triaxial Permeability - BS 1377 Part 6 : 1990
Specific Gravity of Soil - ASTM D 854
Standard/ Modified Proctor Compaction Test - ASTM D 698-78,1990
Swelling Test - BS 1377 Part 2 : 1990
Pinhole Test - BS 1377 Part 5 : 1990, ASTM D 4647-06

Chemical Parameters (Soil)

pH - BS1377 :Part-3 :1990
Chloride Content W/A - BS1377 :Part-3 :1990
Sulphate Content W/A - BS1377 :Part-3 :1990
Mass Loss on Ignition - BS1377 :Part-3 :1990
Organic Matter Content - BS1377 :Part-3 :1990
Carbonate Content - BS1377 :Part-3 :1990





Advanced Soil/Rock Testing Facility

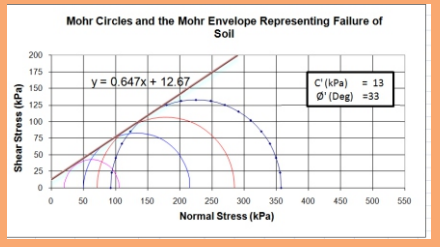
Projects with great sensitivity to soil / rock behavior increasingly rely on sophisticated testing programs. To address the unique geotechnical design needs of such projects, CECB operates an advanced soil testing Laboratory in Jawatta, Colombo 05. Led by experienced Engineers, this facility is one of the leading geotechnical laboratories in the country. Soil samples from shore and offshore projects around the country are sent to the facility for intricate analysis. High-volume capacity and automated, around-the-clock capabilities promote efficient processing of test data.

Shear Strength & Consolidation Parameters of Soil





Consolidation Test - BS 1377 Part 5 : 1990
C U Triaxial Compression Test (with PWP-50mm,70mm,100mmØ samples) - BS 1377 Part 7 : 1990
Direct Shear Test - BS 1377 Part 7 : 1990
Unconfined Compression Test - ASTM D7012-07
U U Triaxial Compression Test(Soil) (50mm,70mm,100mm) - BS 1377 Part 7 : 1990

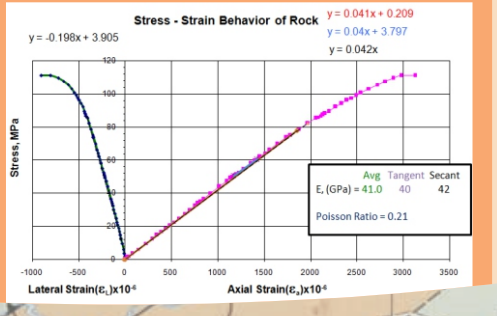




Shear Strength, Elastic Modules & Poisson's Ratio in Rocks

Rock Triaxial Test -ASTM D 7012-07
Unconfined Compressive Strength, with poisson's ratio & young's modules- ASTM D 7012-07 & ASTM D 2938-79
Uniaxial Compressive Strengths- ASTM D 2938 (50mm,70mm,100mm)





Aggregate Testing







Aggregate Crushing Value - BS 812-110 :Part 1:1975
Aggregate Impact Value - BS 812-112 : 1990
Aggregate Soundness Test - ASTM C 88,BS 812:121,AASHTO T-104
Alkali-Silica Reactivity of Aggregates - ASTM C 289
Brazilian Test (Soaked/Unsoaked) - ASTM D 3967-08
Bulk Density of Aggregates
Clay Lumps & Friable Particle - ASTM C 142-97
Clay Silt & Dust Content - BS 812 : Part 1 : 1975
Chloride Content (Water/Acid Soluble)- BS 812 :117
Sulphate Content (Water/Acid Soluble) - BS 812 :11
Elongation Index - BS 812 : Part 105
Flakiness Index - BS 812-105.2 : 1990
Los Angeles Abrasion Value Test - ASTM C 131-06
Point Load Index - ASTM D 5731-08
Organic Impurities of Aggregates - ASTM C 40
Rock fill Max./Min. Density - ASTM C 29 - 29M
Sand Vibration Proctor (Single Point) - BS 1377 : part 4 : 1990
Sieve Analysis(Unwashed) - BS 882 : 1992
Slake Durability Test - ASTM D 4644
Specific Gravity & Water Absorption- ASTM C 127-07

Insitu Soil Testing & Sampling



Disturbed Sampling
Undisturbed Sampling
Augur Boring up to 5m
Field Density - ASTM D 1556-82
Plate Bearing Test - ASTM D 1194-94
Dynamic Cone Penetration - ASTM D 6951 / D 6951 M
Field CBR - ASTM D 4429
Insitu Density Test
Standard Penetration Test



