ITASCA Consultants AB
An Itasca International Company

Ott Oisalu

Geomechanical Engineer

Expertise Rock Mechanics

Education M.Sc. Civil Engineering (Rock Mechanics), 2017
Luleå University of Technology, Luleå, Sweden

Professional Experience

2021 – Present *Itasca Consultants AB, Luleå, Sweden*
Geomechanical Engineer

2018 – 2021 *WSP Sverige AB, Geoteknik och Berg, Luleå, Sweden*
Geotechnical Engineer

2017 – 2018 *Reaalprojekt Ltd, Tallinn, Estonia*
Geotechnical Engineer/Site Engineer

Project Experience

Soil Engineering: Establishing a survey program for the geotechnical drilling within the scope of the project area and directing laboratory tests based on the results. Analyzing field and laboratory results and documenting it in geotechnical reports (MUR) and drawings. Making suggestions and constructing a basic plan for earthworks and foundation (pros and cons of different foundation methods) suited for project specific conditions based on the evaluation of soil properties.

Field work: Conducting subsurface investigations, collecting soil samples from the projects' intended site. Assisting in geotechnical investigations to determine the soil properties and soil depth. Experience with the following techniques used in the field: Soil-/Rock probing, Cone Penetration Test, Ram sounding, Percussion sounding, Weight sounding, Stick sounding, Soil sampling, Peat sampling, and Sampling in test pit, as well as assessment of groundwater level in groundwater pipes.

Numerical Analysis: Completion of Master Thesis project that involved using a two-dimensional numerical modelling software to study stresses and deformations in the highwall slope, during the excavation process, to determine optimal and safe barrier pillar dimensions. Simulation of a 10-stage model was carried out with each stage advancing in 5 m increments to imitate the punch longwall mining method. Modelling was conducted using *FLAC* and *Rocscience software RS2*.